



NIBLEY CITY COUNCIL MEETING AGENDA

Thursday, July 30, 2020 – 6:30 p.m.

DUE TO SOCIAL DISTANCING REQUIREMENTS, THERE WILL BE VERY LIMITED SEATING AVAILABLE FOR THIS MEETING. THE PUBLIC IS STRONGLY ENCOURAGED TO PARTICIPATE USING THE ZOOM MEETING LINK AVAILABLE AT WWW.NIBLEYCITY.COM

1. 6:30 p.m. – **JOINT MEETING WITH THE NIBLEY CITY PLANNING COMMISSION**
 - a. Call to Order and Roll Call
 - b. Approval of the Agenda
 - c. **Workshop** – Residential Planned Unit Development (R-PUD)
 - d. Adjourn Meeting
2. **REGULAR NIBLEY CITY COUNCIL MEETING**
3. Opening Ceremonies (Councilmember Laursen)
4. Call to Order and Roll Call (Chair)
5. Approval of the Previous Meeting Minutes and Current Agenda (Chair)
6. Public Comment Period¹ (Chair)
7. Planning Commission Report
8. **Public Hearing** – Ridgeline Park Phases 1-3 Preliminary Plat, located at approximately 340 West 3200 South. Proposing 128 units on 28.11 acres. (Applicant: Visionary Homes)
9. **Discussion & Consideration** – Discussion and Consideration of a recommendation of approval for Ridgeline Park Phases 1-3 Preliminary Plat, located at approximately 340 West 3200 South. Proposing 128 units on 28.11 acres. (Applicant: Visionary Homes)
10. **Discussion & Consideration** – Firefly Estates, Phase 1 Final Plat, located at approximately 1200 W. and 2200 S. (Applicant: Return Development LLC)
11. **Public Hearing** – Ordinance 20-13: Accessory Dwelling Unit Standards
12. **Discussion & Consideration** – Ordinance 20-13: Accessory Dwelling Unit Standards (First Reading)
13. **Public Hearing** – Ordinance 20-14: Update to Nibley City Code 21.10.020 Amending the Rural Preservation Subdivision
14. **Discussion & Consideration** – Ordinance 20-14: Update to Nibley City Code 21.10.020 Amending the Rural Preservation Subdivision (First Reading)
15. **Discussion & Consideration** – Acceptance of an Annexation Petition for Real Property into the Municipal Boundaries of Nibley City for parcel 03-014-0025, located at approximately 1525 West 3200 South. (Applicant: Malouf)
16. **Discussion & Consideration** – Resolution 20-09: Adding a Name to a Portion of 2400 South to 2350 South in Nibley: Firefly Circle (First Reading)
17. **Council and Staff Reports**
18. **Adjourn to Closed Session**–To Discuss REAL ESTATE and PENDING LITIGATION, PURSUANT to Utah Code 52-4-205

In compliance with the Americans With Disabilities Act, reasonable accommodations for individuals with disabilities will be provided upon request. For assistance, please call (435) 752-0431.

¹ Public input is welcomed at all City Council Meetings. 15 minutes have been allotted to receive verbal public comment. Verbal comments shall be limited to 3 minutes per person. A sign-up sheet is available at the entrance to the Council Chambers starting 15 minutes prior to each council meeting and at the rostrum for the duration of the public comment period. Commenters shall identify themselves by name and address on the comment form and verbally for inclusion in the record. Comment will be taken in the order shown on the sign-up sheet. Written comment will also be accepted and entered into the record for the meeting if received prior to the conclusion of the meeting. Comments determined by the presiding officer to be in violation of Council meeting rules shall be ruled out of order.



**Nibley City Council
Agenda Report for
July 30, 2020**

Agenda Item #1-c.

Description	Workshop – Residential Planned Unit Development (R-PUD)
Department	Planning
Presenter	Levi Roberts, City Planner
Recommendation	Discuss changes to Nibley City code 19.32: Residential Planned Unit Development
Reviewed By	City Manager, City Planner, Planning Commission

Background

The Planning Commission has discussed the Update of the R-PUD Ordinance during 3 workshop sessions. In addition to these workshops, Staff has met with individual Council members to discuss the deficiencies of the ordinance with a summary noted below. Also included below is information compiled previously in regard to this update. During the workshop sessions, the Planning Commission requested a financial analysis to support the provision of R-PUDs and potential adjustment. Staff is still working on developing this analysis. The Planning Commission also determined that it would be most productive to provide direction in conjunction with the City Council and recommended holding a joint work session with the Council. The purpose of this work session is to:

1. Clarify the goals of the R-PUD Ordinance
2. Determine what amendments are needed to support these goals

Specifically, the Planning Commission would like to discuss the following potential amendments to the Ordinance:

- Adjust maximum ratios for dwelling unit types
- Create a provision for greater lot size and unit type diversity
- Adjust minimum R-PUD Project Size
- Change amenity requirements
- Add Transfer of Development Rights (TDR) or Fee-lieu of required Open Space provision

City Council- Staff interview summary

Staff has conducted interviews with individual City Council members and the Mayor. Based upon these discussions, the following ideas with regards to the R-PUD update were expressed:

- Desire to lower density and adjust unit split toward single-family homes (60/40 or 50/50 vs. the current 80/20 split).
- Add provision for more integration of unit types throughout development (less segregation of land uses)
- Only 'count' meaningful open space, not park strips and areas within right of way. Identify and prioritize the use of open space within proposed development.
- Consider adjusting minimum unit count for subdivision.
- Consider requiring more coordination/outreach with affected stakeholders (i.e. school district).
- Coordinate R-PUD with moderate-income housing needs identified in plan and annual report.
- Be cognizant of retaining flexibility within code.

R-PUD update background information

Nibley City has received three applications for the new Residential Planned Unit Development (R-PUD). There has been a desire to make some changes to the ordinance to clarify open space calculation, the application process, zoning, etc.

At the City Council meeting held on March 26, 2020, the City Council passed *Ordinance 20- 08: Residential Planned Unit Development Moratorium*. This ordinance puts a six-month hold on all new R-PUD applications.

You can review the full code here:

[Nibley City Code 19.32 Residential Planned Unit Developments](#)

Open Space and Amenities

There has been general concern and agreement on updating the definition of open space within the development. Currently, the R-PUD code allows for open space to count any public landscaping contained within setbacks and within the right-of-way. Staff has eliminated the clause within the definition that would allow for open space within the right-of-way.

Proposed Open Space Definition

Open Space: Any space in an R-PUD that does not contain any amenities, except for park amenities, as defined herein, buildings, parking lots or private yards. All Open Space must be completely landscaped with sod, trees, xeriscape, gardens or agricultural use. Natural features such as wetlands, meadows, tree stands and Constrained and Sensitive Lands may also be considered Open Space. Landscaping within building setbacks and right-of-ways shall not be counted towards the percentage of required landscaping.

Landscaping within the ROWs and setbacks shall still be required.

Open Space for the Public

One of the concerns voiced in public hearings and by some City Council and Planning Commission members is the lack of public amenities and the perceived benefit to surrounding neighborhoods. There has been a request for the City to require some amenities within the project to be given to the City.

Staff is requesting that the Planning Commission consider what these amenities would be like and how they could bring benefit to the general public. Some of these benefits could be public park amenities, trail spaces, open space next to adjacent homes, etc. The City Recreation Director is also reviewing this item and will provide a recommendation of adjustments to this provision of the code.

Density and Housing Mix

Another concern that has been expressed by the citizens, planning commissioners, and members of the city council is they would like to see a greater variety of housing types. This could reflect a change in the split of housing type, which right now allows for 80% of the units as townhomes and a minimum of 20% need to be single-family lots. Staff has provided some preliminary options below:

Single Family/Townhome	Open Space
20/80	40%
30/70	35%

40/60	30%
50/50	25%
All Single-Family	20%

*The townhome numbers would represent the max

Single Family/Townhome/Condos	Open Space
20/40/40	40%
30/30/35	35%
40/30/30	30%
50/25/25	25%

*The condos and townhomes numbers would represent the max

Min of 10% need to be .25 Acres in size	
Average Lot Size 6,000 sq. ft.	

Smallest Lot 4,500 sq. ft.

These tables above are loose recommendations, but more analysis is needed to determine feasibility and implications.

Agenda Item #8 & 9

Description	Public Hearing – Ridgeline Park Phases 1-3 Preliminary Plat, located at approximately 340 West 3200 South. Proposing 128 units on 28.11 acres. and Discussion & Consideration – Discussion and Consideration of a recommendation of approval for Ridgeline Park Phases 1-3 Preliminary Plat, located at approximately 340 West 3200 South. Proposing 128 units on 28.11 acres. (Applicant: Visionary Homes)
Department	Planning
Presenter	Levi Roberts, City Planner
Recommendation	Make a motion to approve Firefly Estates, Phase 1 Final Plat, Located at approximately 1200 W and 2200 S. (Applicant: Return Development LLC)
Reviewed By	Mayor, City Manager, City Planner, Public Works Director, City Engineer

Background

Visionary Homes has applied for Preliminary Plat approval for Ridgeline Park Phases 1-3. Ridgeline Park is located near within an R-PUD overlay zone, approved by the City Council on April 9. Below is a summary of the development and requirements for the R-PUD:

	R-PUD Requirements	Ridgeline Park Phase 1-3
Listed on R-PUD Application Map	Parcels need to be listed on the map	Yes
Total Gross Acres	N/A	28.75
Net Developable Acres	N/A	19.97
Total Open Space Land	35%	44.5%
Units Per Net Developable Acre	12 Max Units	6.45
Total Number of Single Family Lots	20% min	55%
Min Lot Size for Single Family Lots	4,500 sq. ft.	5,000 sq. ft.
Total Lots	N/A	129
Total Park Space Required	2.5 Acres with one swing set and one playground	3.33 acres, one playground, one swing set, pickleball court, pergola, pavilion

Parking

2 spaces for each unit (58), and one guest parking for every 3 units (20)

2 car garages with driveways and 19 off-street parking spaces in parking courts

Utility Lines, Easements, and Storm Water

The applicant has shown a preliminary plan for connecting utilities to Nibley City's utility system, including locations of sewer and water lines. A diagram of standard public utility easements is also provided. Storm water management is primarily planned to be provided with swales and a small detention pond in the HOA maintained park area. Nibley City engineer and public works director have reviewed the preliminary plans and given approval. During final plat, more detailed construction drawings will need to be reviewed.

Canals

NCC 21.08.010 states:

Except as outlined in NCC 21.10.040, prior to approval of the preliminary plat, the subdivider shall provide the City with signed documentation that any affected canal company has had the chance to review plans related to the alteration of affected canals, and further, that the canal company understands they have thirty (30) days from the date of notification to bring any concerns to the City.

The applicant has provided the needed documentation from the College Irrigation Company, which will be affected during these phases of the development.

Transportation

Nibley City's Transportation Master Plan shows a local roadway extension of 2965 South. This roadway is planned to connect to 2900 south at Hwy 165 during a later phase of the development. The alignment of the proposed roadway on the preliminary plat appears to match that of the approved concept plan. The concept plan also includes an entrance road at approximately 340 West, connecting to the 2965 S extension (Ropelato Dr). The remaining public streets provide further connectivity within the development. The applicant also proposes a private street to provide access to

several of the proposed townhomes (lots 27-55). Upon completion of phase 2, there will be two access points for this stage of the development: 340 West and 2965 South.

The Applicant has submitted a Traffic Impact Study for the development “to determine the traffic impacts of the development on adjacent roadways, the adequacy of the proposed roadway cross-sections and any traffic improvements necessitated by project impacts.” The study concludes “that all intersections adjacent to the project together with their individual movements continue to operate at LOS C or better through the 2026 study horizon” and proposes a handful of improvements to handle the increase in traffic. Regarding this phase of the development, the Study recommends a left turn bay on 340 West, which is detailed on the proposed preliminary plat.

Nibley City’s Parks, Trails, Recreation and Open Space Master Plan shows a north/south oriented major trail (10’ wide) through the proposed Ridgeline Park Development (City Center Trail). This trail will generally follow the alignment in the Parks, Trails, Open Space and Recreation Master Plan. However, there is a proposed deviation from this alignment with a more direct north/south alignment that is more central to the development, rather than on the perimeter. The applicant proposes to build a portion of the trail on the edge of Nibley City’s property, connecting to 3200 South in accordance with the Parks, Trails, Open Space and Recreation Master Plan. The applicant proposes to build and maintain the 10 foot trail and proposes an easement for this trail on the preliminary plat. The applicant has indicated crosswalks for all street crossings of proposed trail (Ropelato Dr, 400 W, 3085 S).

Parking

NCC 19.32.080-B-5 states:

Parking: Each R-PUD shall provide 2 primary parking spaces for each unit. Primary parking must be contained in a garage, carports, driveway, or parking court. An R-PUD shall provide one guest parking spot for every three units. Guesting parking may be located in parking courts or on street parking maintained by the owner association.

The applicant proposes 2 car garages for the townhome units with 19 off-street parking spaces, contained within a parking court that is central to the location of the townhomes. This configuration meets the parking requirements of the R-PUD ordinance.

In regards to on-street parking, the Planning Commission had a concern with potential on-street parking on the streets in the development, which only provide 25 feet of pavement and no space for on-street parking. The Planning Commission recommended that on-street parking should not be allowed on these streets.

Open Space and Maintenance Plan

The applicant has submitted a preliminary landscape and maintenance plan for the open space area surrounding the townhomes and the common area for the active adult homes. In total, the applicant proposes approximately 4 acres of open space over the course of developing the 3 phases. Proposed amenities include a pickle ball court, pergola, pavilion, playground, dog station, and a portion of the City Center Trail. The open space and amenities are proposed to be managed and maintained by the HOA.

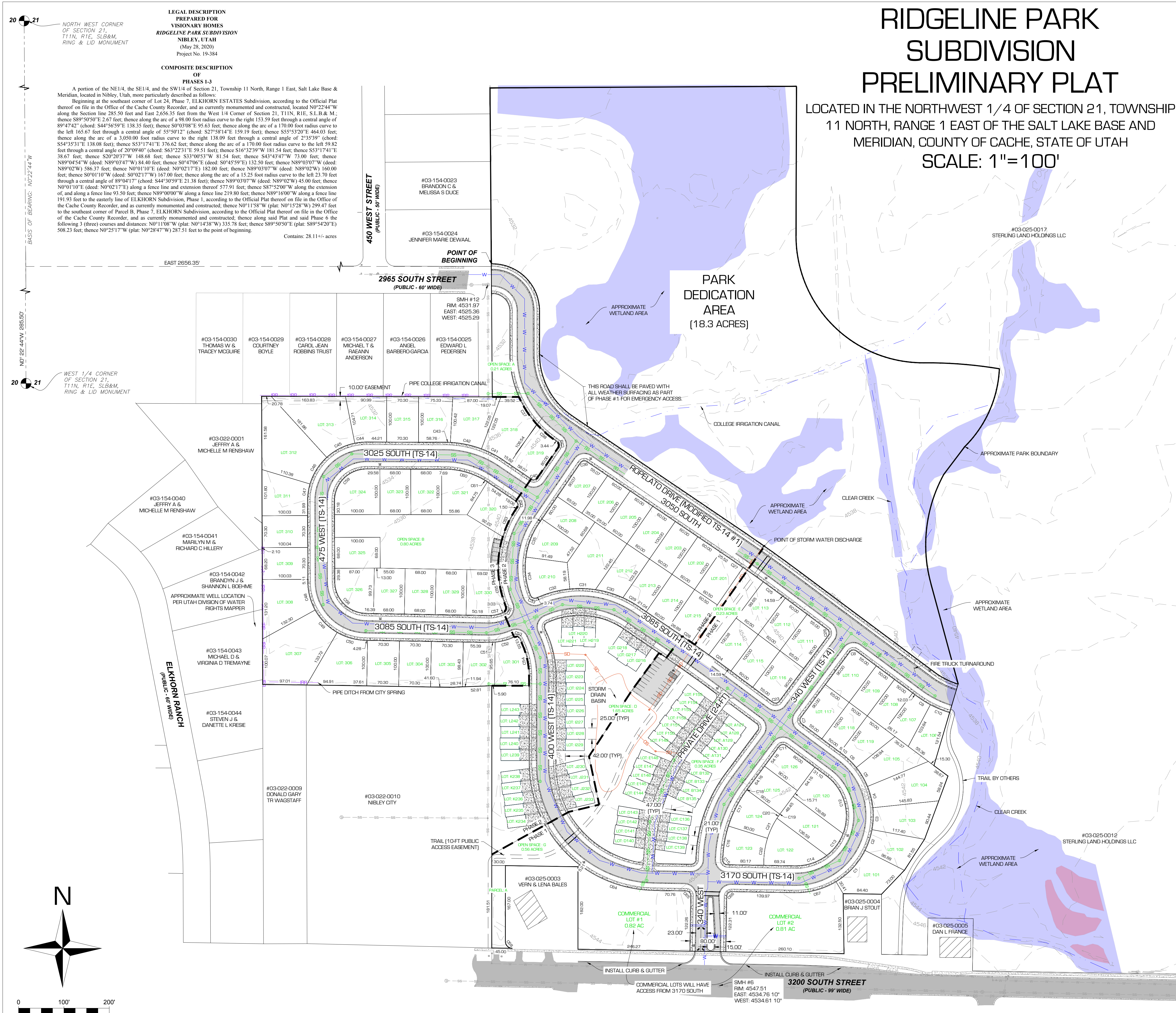
In addition to the open space described above, a portion of the 18.3 acre City Park Space, located on the north side of Ropelato Dr, will be developed in proportional phases as required by NCC 19.32.050-A. City Staff is currently working with the developer for a Park Development Agreement that will detail the amenities, infrastructure, landscaping and development of the City Park. This agreement will need to be approved by the City Council prior to approval of Final Plat for Phase 1.

It is important to note in final plat approval there are more landscaping details needed as listed in NCC 19.32.080-B.

Planning Commission Recommendation

Approval of Ridgeline Park Phases 1-3 Preliminary Plat with the following conditions:

1. That parking is restricted on all interior roads of the proposed development
2. There would be no City funds used to pay for any portion of the cross-section of the proposed Ropelato Drive.



RIDGELINE PARK SUBDIVISION PRELIMINARY PLAT

LOCATED IN THE NORTHWEST 1/4 OF SECTION 21, TOWNSHIP 11 NORTH, RANGE 1 EAST OF THE SALT LAKE BASE AND MERIDIAN, COUNTY OF CACHE, STATE OF UTAH

SCALE: 1"=100'

- ### PROJECT CONTACTS & GENERAL NOTES:
- ALL LOTS HAVE ADEQUATE BUILDABLE ENVELOPE WITH REGARDS TO HAZARDOUS SLOPE, BUILDING, WATER, ZONING SETBACKS, ETC.
 - TYPE OF DEVELOPMENT: RESIDENTIAL PLANNED UNIT DEVELOPMENT (R-PUD)
 - THERE ARE 19 OFF-STREET GUEST PARKING STALLS.
 - CURRENT ZONE: R-2
 - MIN FRONTAGE @ SETBACK (SINGLE FAMILY HOME)= 50 FT
 - FRONT SETBACK = 20 FT
 - REAR SETBACK = 15 FT
 - SIDE SETBACK = 5 FT
 - SIDE SETBACK TOWNHOME: 10 FT
 - SIDE SETBACK (ADJACENT ROW) = 20 FT
 - LOT TABULATION
 - RESIDENTIAL LOTS: 71
 - TOWNHOME LOTS: 57
 - ALL OPEN SPACE AND PRIVATE DRIVE TO BE RETAINED UNDER HOA OWNERSHIP
 - APPROXIMATE WETLAND LOCATIONS ARE SHOWN. FINAL WETLAND DELINEATION PENDING.
 - OPEN SPACE CALCULATIONS:
 - PHASE 1 PROVIDED: 173,935 SF (31.9%)
 - PHASE 1 REQUIRED: 133,203 SF
 - PHASE 2 PROVIDED: 140,785 SF (71.4%)
 - PHASE 2 REQUIRED: 74,026 SF
 - PHASE 3 PROVIDED: 72,568 SF (24.8%)
 - PHASE 3 REQUIRED: 97,376 SF
 - TOTAL OPEN SPACE PROVIDED: 387,338 SF (44.5%)
 - TOTAL OPEN SPACE REQUIRED: 304,430 SF
 - DENSITY DETAILS:
 - TOTAL ACREAGE = 28.30 ACRES
 - NET DEVELOPABLE = 19.97 ACRES
 - UNITS/ACRE = 6.49
 - PROPERTY OWNER:
 - PARCEL: 03-025-0012
 - VISIONARY HOMES 2020, LLC
 - 50 E 2500 N STE 101
 - NORTH LOGAN, UT 84341
 - DEVELOPER:
 - VISIONARY HOMES
 - PROJECT MANAGER: BENJAMIN STEELE
 - 50 E 2500 N STE 101
 - NORTH LOGAN, UT 84341
 - CIVIL ENGINEER:
 - CIVIL SOLUTIONS GROUP, INC.
 - MICHAEL TAYLOR, PE
 - 540 WEST GOLF COURSE ROAD SUITE B1
 - PROVIDENCE, UT 84332
 - P: 435.213.3762
 - E: MTAYLOR@CSG.WORK
 - LAND SURVEYOR:
 - CIVIL SOLUTIONS GROUP, INC.
 - DENNIS CARLISLE, PLS
 - 669 NORTH 1890 WEST SUITE 47B
 - PROVO, UT 84601
 - P: 801.874.1432 EXTENSION 712
 - E: DCARLISLE@CSG.WORK
- ### STORM WATER NARRATIVE
- METHOD: TR-55 DETENTION
 - RELEASE RATE: 0.05 CFS/ACRE
 - PERCOLATION RATE ASSUMED TO BE GREATER THAN 0.05 CFS/ACRE. PERCOLATION TEST PENDING.
 - SWALES CONTAIN 59,093 CUBIC FEET OF STORAGE. (MINUS DRIVEWAYS & ON-STREET PARKING)
 - AN ADDITIONAL 18,983 CUBIC FEET OF STORAGE WILL BE PROVIDED IN THE STORM DRAIN BASIN.
 - A TOTAL OF 78,076 CUBIC FEET OF STORM WATER STORAGE IS REQUIRED.
 - SEE SHEET 2 FOR STORM DRAIN CALCULATIONS.

LEGEND

- PHASE LINE
- PROPERTY BOUNDARY
- BUILDING SETBACK
- EASEMENT - CONSERVATION & CANAL
- EX. SEWER LINE
- EX. WATER LINE
- PROPOSED SEWER SERVICE
- PROPOSED WATER LINE
- EXISTING EASEMENT LINE
- 5440
- CONTOUR EXISTING
- EXISTING BUILDING
- PROPOSED PIT RUN SECONDARY ACCESS
- PROPOSED HYDRANT
- PROPOSED SEWER MANHOLE

PUE & SETBACK DETAIL

(TYPICAL SEE DRAWING FOR EXCEPTIONS)

NTS

5' PUE 15' MIN REAR SETBACK 5' MIN SIDE SETBACK 5' MIN STREET FRONT SETBACK 10' PUE

5' PUE 20' MIN STREET SIDE SETBACK 10' PUE

PUBLIC STREET

civilsolutionsgroup inc.

540 W GOLF COURSE RD SUITE B1
PROVIDENCE, UT 84332
P: 435.213.3762
F: 435.213.3762
www.civilsolutionsgroup.net

**RIDGELINE PARK SUBDIVISION
PRELIMINARY PLAT**

350 WEST 3200 SOUTH
NIBLEY, UTAH 84321

MARK: DATE: DESCRIPTION:

PROJECT #:	19-384
DRAWN BY:	A. OCHSENBEIN
REVIEWED BY:	M. TAYLOR
ISSUED:	7.15.2020

PROFESSIONAL ENGINEER
07.15.20
No. 8243188-2202
MICHAEL TAYLOR
STATE OF UTAH

SITE PLAN

1 OF 3

PARCEL AREA TABLE			
PARCEL #	AREA	SEGMENT LENGTHS	SEGMENT BEARINGS
101	8383.10	73.00	S43° 43' 46.91"W
		84.40	N89° 04' 54.20"W
		30.41	N31° 03' 28.45"W
		95.40	N42° 51' 54.19"E
		96.88	S63° 12' 43.17"E
102	6685.56	81.55	S33° 00' 52.56"W
		96.88	N63° 12' 43.17"W
		48.61	N18° 35' 46.39"E
		117.40	S79° 35' 44.05"E
103	8669.63	90.44	S20° 20' 37.44"W
		117.40	N79° 35' 44.05"W
		48.61	N2° 12' 45.51"E
		145.63	N84° 01' 15.07"E
104	11396.51	58.24	S20° 20' 37.44"W
		145.63	S94° 01' 15.07"W
		48.61	N14° 10' 15.37"W
		144.77	N67° 38' 14.19"E
		15.30	S53° 17' 41.22"E
		38.67	S53° 17' 41.22"E
105	8251.12	48.61	N30° 33' 16.24"W
		108.94	N51° 15' 13.32"E
		36.37	S53° 17' 41.22"E
		56.36	S53° 17' 41.22"E
		144.77	S67° 38' 14.19"W
106	6367.81	121.54	S16° 32' 39.26"W
		15.30	N53° 17' 41.22"W
		55.36	N53° 17' 41.22"W
		103.84	N28° 00' 12.22"E
		46.00	S67° 43' 34.26"E
107	5519.80	36.37	N53° 17' 41.22"W
		26.17	N53° 17' 41.22"W
		100.00	N36° 42' 18.78"E
		12.03	S53° 17' 41.22"E
		34.93	S67° 38' 44.50"E
		103.84	S28° 00' 12.22"W

PARCEL AREA TABLE			
PARCEL #	AREA	SEGMENT LENGTHS	SEGMENT BEARINGS
302	6801.26	52.81	S87° 52' 00.00"W
		11.94	S87° 52' 00.00"W
		98.43	N11° 00' 00.00"E
		55.39	S89° 00' 00.00"E
		14.94	N87° 42' 25.15"E
		95.85	S0° 50' 46.89"W
303	7007.30	28.74	S87° 52' 00.00"W
		41.60	N89° 00' 00.00"W
		100.00	N1° 00' 00.00"E
		70.30	S89° 00' 00.00"E
		98.43	S1° 00' 00.00"W
304	7029.85	100.00	S1° 00' 00.00"W
		70.30	N89° 00' 00.00"W
		100.00	N1° 00' 00.00"E
		70.30	S89° 00' 00.00"E
305	7029.85	100.00	S1° 00' 00.00"W
		70.30	N89° 00' 00.00"W
		100.00	N1° 00' 00.00"E
		70.30	S89° 00' 00.00"E
306	10877.15	100.00	S1° 00' 00.00"W
		37.61	N89° 00' 00.00"W
		94.91	N89° 16' 00.00"W
		133.72	N30° 09' 40.82"E
		66.01	S74° 27' 09.59"E
		4.28	S89° 00' 00.00"E
307	18089.03	133.72	S30° 05' 40.82"W
		97.01	N89° 16' 00.00"W
		100.07	N0° 11' 58.00"W
		132.30	N61° 04' 40.06"E
		70.30	S44° 24' 49.56"E
308	10775.87	65.19	S14° 33' 25.76"E
		132.30	S61° 04' 40.06"W
		131.20	N0° 11' 58.00"W
		100.03	N89° 48' 28.43"E
		5.11	S0° 11' 31.57"E

CURVE TABLE				
CURVE #	RADIUS	DELTA	ARC	CHORD
C1	170.00	32°09'15"	95.40	S42°51'54"W 94.16
C2	170.00	16°23'01"	48.61	S18°35'46"W 48.45
C3	170.00	16°23'01"	48.61	S2°12'46"W 48.45
C4	170.00	16°23'01"	48.61	S14°10'15"E 48.45
C5	170.00	16°23'01"	48.61	S30°33'16"E 48.45
C6	170.00	14°32'55"	43.17	S48°01'14"E 43.05
C7	10.00	90°00'00"	15.71	S8°17'41"E 14.14
C8	10.00	90°00'00"	15.71	S81°42'19"W 14.14
C9	230.00	8°42'07"	34.93	N57°38'45"W 34.90
C10	230.00	11°27'33"	46.00	N67°43'34"W 45.92
C11	10.00	90°00'00"	15.71	S81°42'19"W 14.14
C12	110.00	74°06'08"	142.27	N16°14'37"W 132.56
C13	110.00	31°39'12"	60.77	N36°38'03"E 60.00
C14	110.00	38°27'27"	73.83	N71°41'22"E 72.45

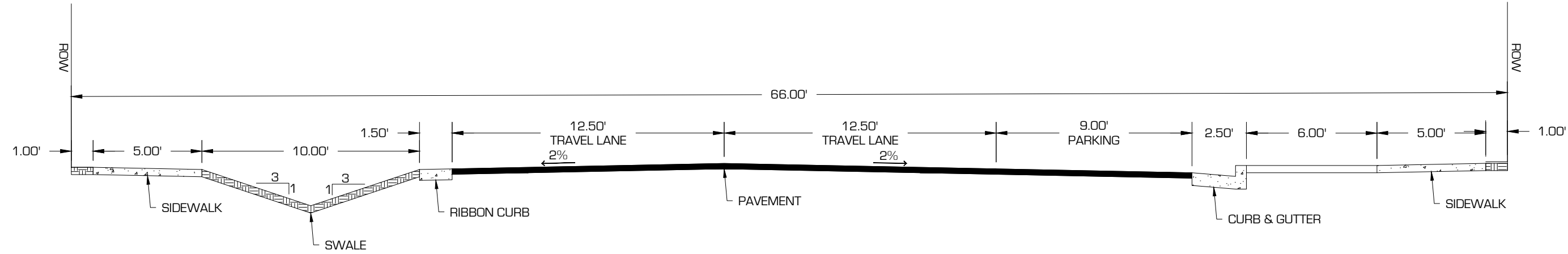
PARCEL AREA TABLE			
PARCEL #	AREA	SEGMENT LENGTHS	SEGMENT BEARINGS
108	5000.00	50.00	N53° 17' 41.22"W
		100.00	N36° 42' 18.78"E
		50.00	S53° 17' 41.22"E
		100.00	S36° 42' 18.78"W
109	5000.00	100.00	N36° 42' 18.78"E
		50.00	S53° 17' 41.22"E
		100.00	N36° 42' 18.78"W
		50.00	N53° 17' 41.22"W
110	6478.54	90.00	N36° 42' 18.78"E
		15.71	N81° 12' 48.78"E
		55.00	S53° 17' 41.22"E
		100.00	S36° 42' 18.78"W
111	6478.54	90.00	N36° 42' 18.78"E
		65.00	N53° 17' 41.22"W
		100.00	N36° 42' 18.78"E
		65.00	S53° 17' 41.22"E
112	6000.00	60.00	N53° 17' 41.22"W
		100.00	N36° 42' 18.78"E
		60.00	S53° 17' 41.22"E
		100.00	S36° 42' 18.78"W
113	6044.61	45.91	S53° 44' 04.89"E
		14.59	S53° 17' 41.22"E
		100.00	S36° 42' 18.78"W
		60.50	N53° 17' 41.22"W
114	6055.78	100.38	N36° 42' 18.78"E
		60.50	S53° 17' 41.22"E
		100.00	N36° 42' 18.78"W
		14.59	N53° 17' 41.22"W

PARCEL AREA TABLE			
PARCEL #	AREA	SEGMENT LENGTHS	SEGMENT BEARINGS
309	7032.25	70.30	S0° 11' 31.57"E
		100.03	S89° 48' 28.43"W
		68.20	N0° 11' 08.00"W
		2.10	N89° 48' 28.43"E
310	7032.25	70.30	S0° 11' 31.57"E
		100.04	S89° 48' 28.43"W
		70.30	N0° 11' 08.00"W
		100.03	N89° 48' 28.43"E
311	8739.21	38.30	S8° 14' 56.14"W
		31.99	S0° 11' 31.57"E
		100.03	S89° 48' 28.43"W
		101.80	N0° 11' 08.00"W
312	16404.67	110.38	S73° 18' 36.16"E
313	14270.66	70.30	S32° 10' 53.46"W
		110.38	N73° 18' 36.16"W
		161.58	N0° 11' 08.00"W
		20.78	S89° 50' 50.00"E
314	8105.51	44.21	N89° 50' 50.00"W
		26.08	S84° 24' 16.16"W
		104.71	N11° 20' 37.68"W
		90.99	S89° 50' 50.00"E
315	7029.85	70.30	N89° 50' 50.00"W
		100.00	N0° 09' 10.00"E
		70.30	S89° 50' 50.00"E
		100.00	S0° 09' 10.00"W

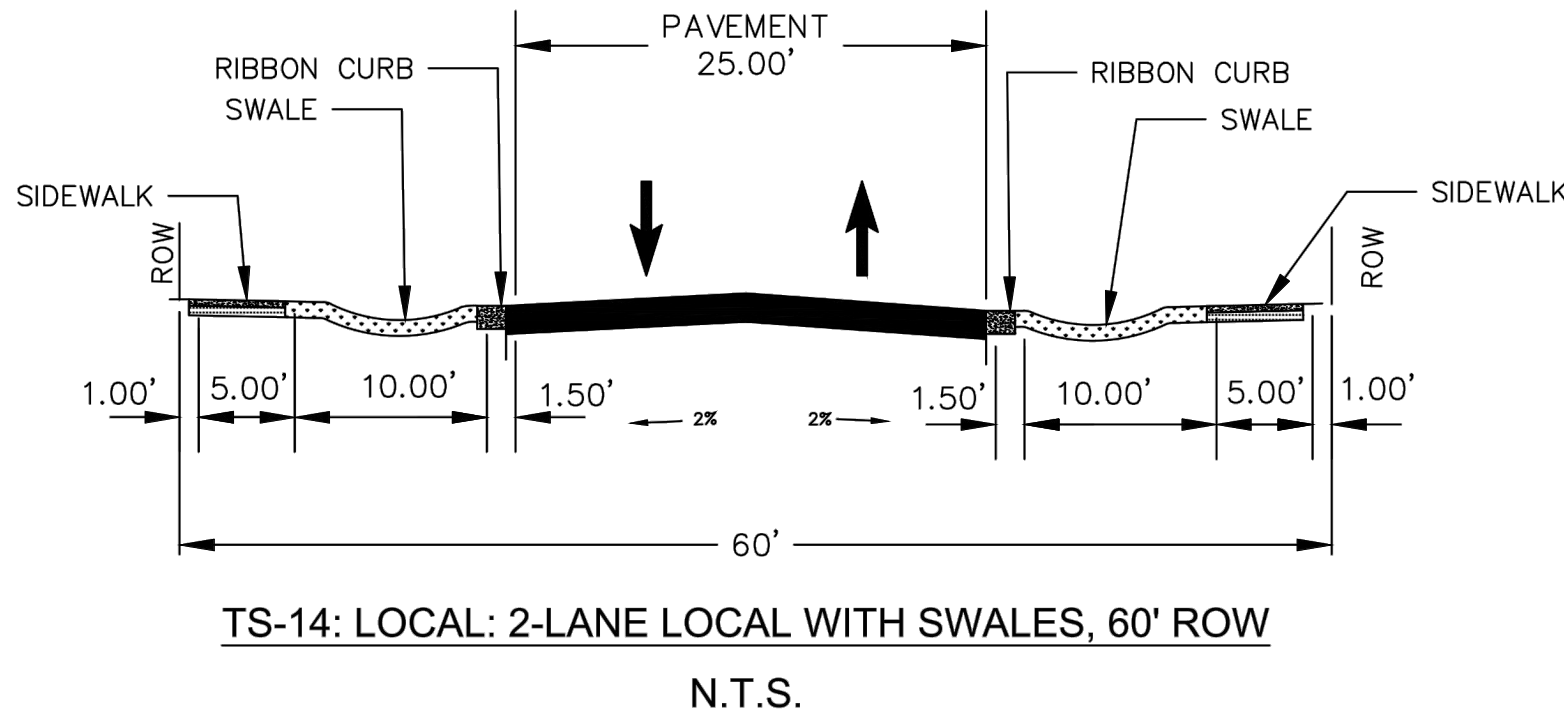
CURVE TABLE				
CURVE #	RADIUS	DELTA	ARC	CHORD
C15	10.00	90°25'36"	15.78	S43°52'06"E 14.19
C16	270.00	16°06'15"	75.89	S9°23'50"W 75.64
C17	270.00	19°03'11"	89.79	S26°58'33"W 89.37
C18	270.00	0°12'10"	0.96	S36°36'14"W 0.96
C19	180.00	0°12'10"	0.64	S36°36'14"W 0.64
C20	180.00	3°28'31"	10.92	N34°45'53"E 10.92
C21	180.00	15°34'40"	48.94	N25°14'18"E 48.79
C22	180.00	19°05'55"	60.00	N7°54'00"E 59.72
C23	10.00	90°00'00"	15.71	N81°42'19"E 14.14
C24	2790.00	0°56'34"	45.91	S53°45'58"E 45.91
C25	2990.00	0°52'47"	45.91	N53°44'05"W 45.91
C26	10.00	90°00'00"	15.71	N8°17'41"W 14.14
C27	2990.00	0°40'13"	34.98	N55°33'13"W 34.98
C28	2790.00	0°41'25"	33.61	S55°32'38"E 33.61

PARCEL AREA TABLE			
PARCEL #	AREA	SEGMENT LENGTHS	SEGMENT BEARINGS
115	6000.00	60.00	N53° 17' 41.22"W
		100.00	N36° 42' 18.78"E
		60.00	S53° 17' 41.22"E
		100.00	S36° 42' 18.78"W
116	6478.54	90.00	S36° 42' 18.78"E
		15.71	S81° 42' 18.78"W
		55.00	N53° 17' 41.22"W
		100.00	N36° 42' 18.78"E
117	6478.54	55.00	N53° 17' 41.22"W
		15.71	N8° 17' 41.22"W
		90.00	N36° 42' 18.78"E
		65.00	S53° 17' 41.22"E
118	5000.00	100.00	S36° 42' 18.78"W
		100.00	N36° 42' 18.78"E
		50.00	S53° 17' 41.22"E
		50.00	S53° 17' 41.22"E
119	6400.18	43.17	N46° 01' 13.95"W
		6.10	N53° 17' 41.22"W
		50.00	N36° 42' 18.78"E
		100.00	S53° 17' 41.22"E
120	8714.56	142.27	S16° 14' 37.02"E
		136.89	N53° 17' 41.22"W
		15.71	N36° 42' 18.78"E
		64.16	N36° 42' 18.78"E
121	8381.68	60.77	S36° 38' 03.05"W
		136.59	N53° 17' 41.22"W
		10.92	N34° 45' 53.03"E
		0.64	N36° 36' 13.60"E

PARCEL AREA TABLE			
PARCEL #	AREA	SEGMENT LENGTHS	SEGMENT BEARINGS
316	7283.03	11.54	N88° 24' 35.11"W
		58.76	N89° 50' 50.00"W
		100.00	N0° 11' 31.57"W
		75.33	S89° 50' 50.00"E
317	9417.10	70.30	N78° 12' 58.27"W
		100.42	N3° 01' 39.77"E
		87.00	S89° 50' 50.00"E
		19.07	S89° 50' 50.00"E
318	10458.81	72.25	S33° 11' 43.04"E
		106.54	S34° 30' 12.36"W
		15.82	N55° 53' 20.10"W
		54.48	N62° 40' 28.20"W
319	6875.38	122.05	N20° 32' 23.69"W
		39.52	S89° 50' 50.00"E
320	7159.65	80.00	S34° 30' 12.36"W
		15.64	S79° 18' 26.13"W
		58.07	N55° 53' 20.10"W
		106.54	N34° 30' 12.36"E
321	7615.38	54.97	S49° 02' 29.70"E
		3.44	S55° 53' 20.10"E
		15.78	S10°



MODIFIED TS-14 #1
NOT TO SCALE



TS-14: LOCAL: 2-LANE LOCAL WITH SWALES, 60' ROW
N.T.S.

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF CIVIL SOLUTIONS GROUP, INC. AND SHALL NOT BE PHOTOCOPIED, REDRAWN, OR USED ON ANY OTHER PROJECT OTHER THAN THE PROJECT SPECIFICALLY DESIGNED FOR. WITHOUT WRITTEN PERMISSION. THE OWNERS AND ENGINEERS OF CIVIL SOLUTIONS GROUP, INC. DISCLAIM ANY LIABILITY FOR ANY CHANGES OR MODIFICATIONS MADE TO THESE PLANS OR THE DESIGN THEREON WITHOUT THEIR CONSENT. THESE PLANS ARE DRAWN TO SCALE WHEN PLOTTED ON A 24" X 36" SHEET OF PAPER.

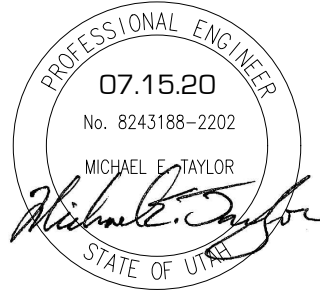
civilsolutionsgroup inc.

540 W GOLF COURSE RD SUITE B1
PROVIDENCE, UT 84332
P: 435.213.3762
F: 435.213.3762
www.civilsolutionsgroup.net

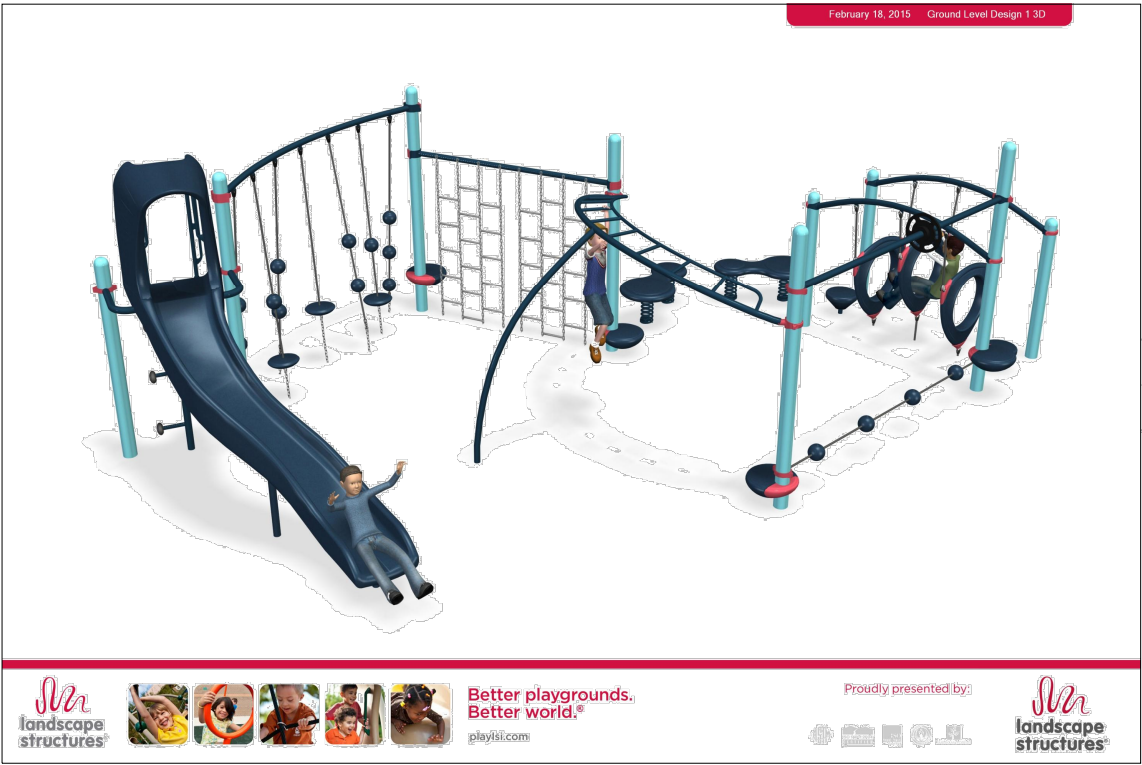
RIDGELINE PARK SUBDIVISION
PRELIMINARY PLAT
350 WEST 3200 SOUTH
NIBLEY, UTAH 84321

MARK	DATE	DESCRIPTION

PROJECT #: 19-384
DRAWN BY: A. OCHSENBEIN
REVIEWED BY: M. TAYLOR
ISSUED: 7.15.2020



ROAD
SECTIONS



PLAY EQUIPMENT



SWINGS



PICNIC SHELTER



DOG STATION



Plant List: OPEN SPACES . Ridgeline Park, Nibley, Utah . Visionary Homes					
KEY	PLANT TYPE	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
A	Street Trees	Acer platanoides	Norway Maple	2" cal.	
B		Acer x 'Freemani'	Autumn Blaze Maple	2" cal.	
C		Fraxinus p.l. 'Summit'	Summit Seedless Ash	2" cal.	
D		Pyrus calleryana 'Aristocrat'	Aristocrat Flowering Pear	2" cal.	
E		Tilia cordata 'Greenspire'	Little Leaf Linden	2" cal.	
F	Shade Trees	Acer t. x a.p. 'Warrenred'	Pacific Sunset Maple	2" cal.	
G	Accent Trees	Ulmus x 'Frontier'	Frontier Elm	2" cal.	
H		Malus 'Prairie Fire'	Prairie Fire Crabapple	2" cal.	
21	Roses	Rosa Knockout	Knockout Rose	1 gal.	Pink

Open Space Equipment . Ridgeline Park . Visionary Homes

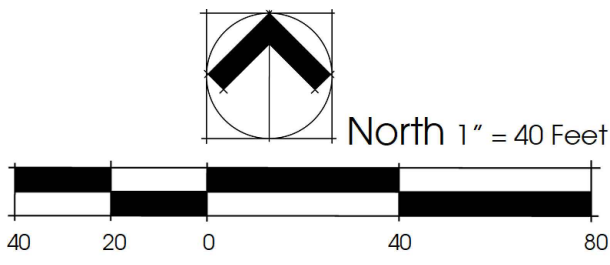
Play Equipment: U-Turn play structure, including the following elements:

- 183176 Rush Slide
- 193171 Swiggle Knots
- 166809 E-pod Seats
- 158678 Climbing Wall
- 184489 Overhead Trekker
- 193173 Tight Rope
- 158997 Pod Climber
- 184605 O-zone 3-ring Climber
- 158105 Ind Wobble Pods

and Single Post Swing Frame (2 swings), both as manufactured by Landscape Structures and available from Sonntag Recreation, 801.278.9797.

Bench: Cityview model number CB1-1060 6 ft. bench with steel loop ends as manufactured and provided by Sitescapes, PO Box 22326, Lincoln, NE 68542, Toll Free: 888.331.9464

Preliminary Plant List: TOWN HOMES . Ridgeline Park, Nibley, Utah . Visionary Homes					
KEY	PLANT TYPE	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
A	Street Trees	Acer platanoides	Norway Maple	2" cal.	
B		Acer x 'Freemani'	Autumn Blaze Maple	2" cal.	
C		Fraxinus p.l. 'Summit'	Summit Seedless Ash	2" cal.	
D		Pyrus calleryana 'Aristocrat'	Aristocrat Flowering Pear	2" cal.	
E		Tilia cordata 'Greenspire'	Little Leaf Linden	2" cal.	
F	Shade Trees	Acer t. x a.p. 'Warrenred'	Pacific Sunset Maple	2" cal.	
G	Accent Trees	Ulmus x 'Frontier'	Frontier Elm	2" cal.	
H		Cercis canadensis	Eastern Redbud	2" cal.	
		Crataegus phoenopyrum	Washington Thorn	2" cal.	
		Malus 'Prairie Fire'	Prairie Fire Crabapple	2" cal.	
		Malus 'Spring Snow'	Spring Snow Crabapple	2" cal.	
1	Tall Shrubs	Cotoneaster acutifolia	Peking Cotoneaster	5 gal.	
		Ribes alpinum	Alpine Currant	5 gal.	
		Spiraea vanhouttei	Bridal Wreath	5 gal.	
		Viburnum burkwoodi	Burkwood Viburnum	5 gal.	
11	Medium Shrubs	Cotoneaster apiculata	Cranberry Cotoneaster	1 gal.	
		Ligustrum v. 'Lodense'	Lodense Privet	1 gal.	
		Spiraea b. 'Anthony Waterer'	Dwarf Red Spiraea	1 gal.	
		Symphoricarpos oreophilus	Mountain Snowberry	1 gal.	
		Taxus baccata repandens	Spreading English Yew	1 gal.	
21	Roses	Rosa Knockout	Knockout Rose	1 gal.	Pink
31	Groundcovers	Gallium odorata	Sweet Woodruff	4" pots	Plant 12" o.c.
		Mahonia repens	Creeping Oregon Grape	1 gal.	Plant 24" o.c.
41	Perennial Flowers	Echinacea purpurea	Purple Coneflower	1 gal.	Plant 24" o.c.
		Hemerocallis spp.	Daylily	1 gal.	Plant 24" o.c.
		Rudbeckia hirta	Black-eyed Susan	1 gal.	Plant 24" oc.



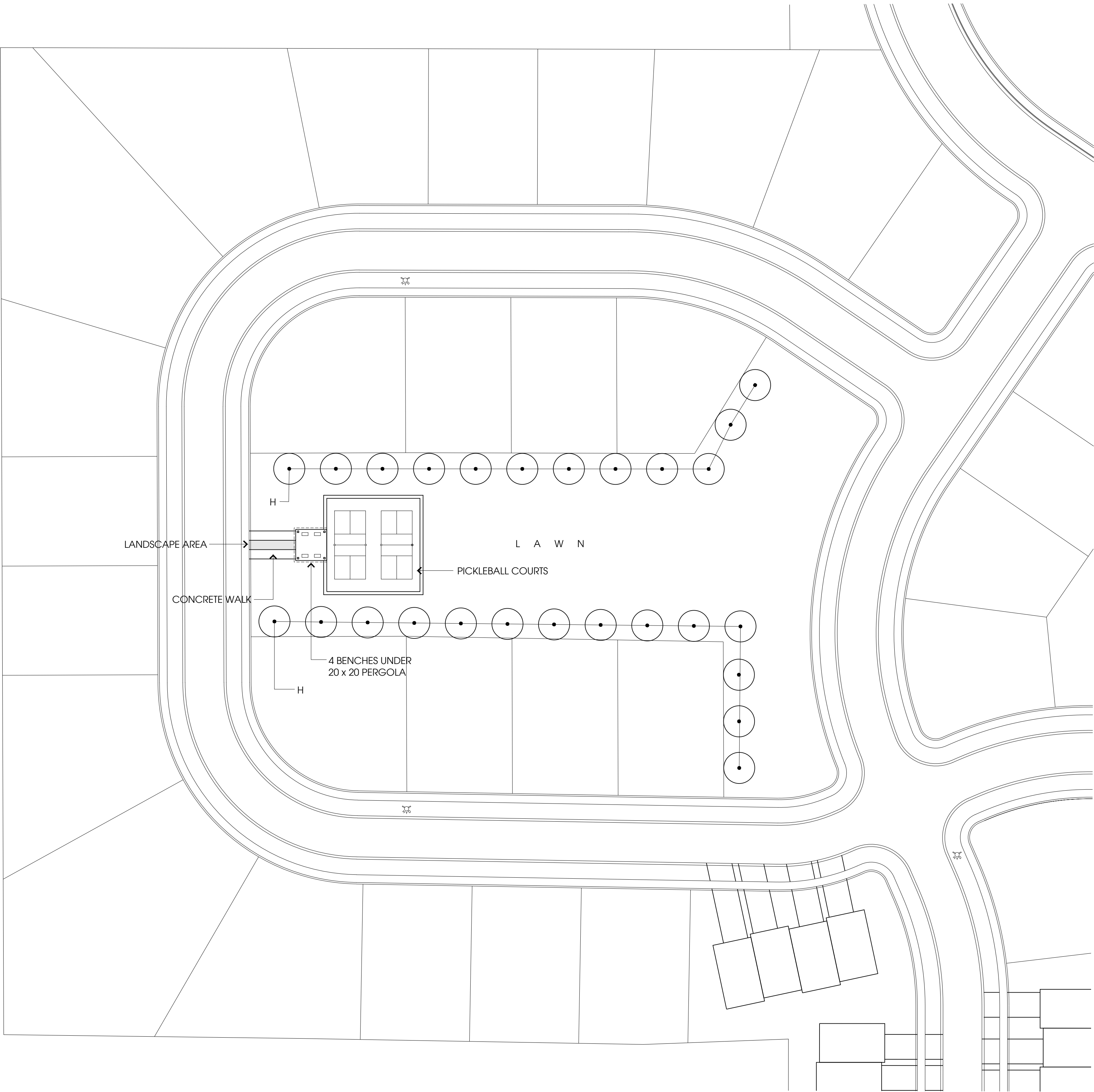
4 JUNE 2020
Open Space Amenities
RIDGELINE PARK
A PLANNED COMMUNITY . Nibley, Utah
Visionary Homes . 50 East 2500 North . North Logan, Utah



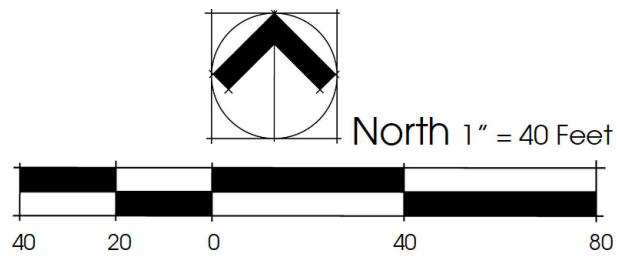
PICKLEBALL COURT



PERGOLA



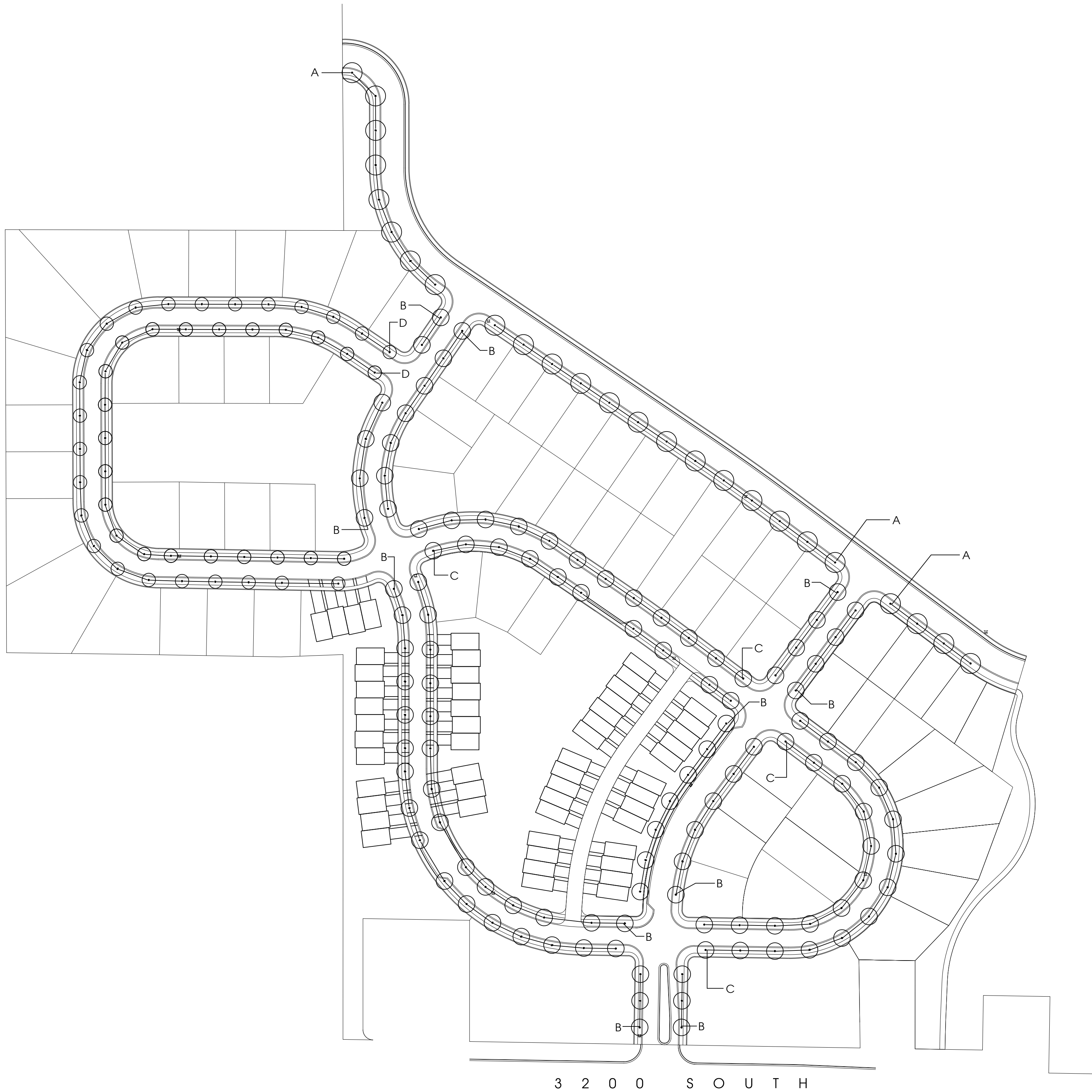
Plant List: OPEN SPACES . Ridgeline Park, Nibley, Utah . Visionary Homes					
KEY	PLANT TYPE	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
A	Street Trees	Acer platanoides	Norway Maple	2" cal.	
B		Acer x 'Freemani'	Autumn Blaze Maple	2" cal.	
C		Fraxinus p.l. 'Summit'	Summit Seedless Ash	2" cal.	
D		Pyrus calleryana 'Aristocrat'	Aristocrat Flowering Pear	2" cal.	
E		Tilia cordata 'Greenspire'	Little Leaf Linden	2" cal.	
F	Shade Trees	Acer t. x a.p. 'Warrenred'	Pacific Sunset Maple	2" cal.	
G		Ulmus x 'Frontier'	Frontier Elm	2" cal.	
H	Accent Trees	Malus 'Prairie Fire'	Prairie Fire Crabapple	2" cal.	
21	Roses	Rosa Knockout	Knockout Rose	1 gal.	Pink



4 JUNE 2020
Active Adult Open Space Amenities

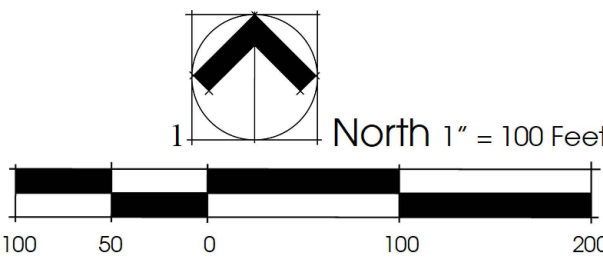
RIDGELINE PARK

A PLANNED COMMUNITY. Nibley, Utah
Visionary Homes . 50 East 2500 North . North Logan, Utah



Plant List: STREET TREES . Ridgeline Park, Nibley, Utah . Visionary Homes

KEY	PLANT TYPE	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
A	Street Trees	Acer platanoides	Norway Maple	2" cal.	
B		Acer x 'Freemani'	Autumn Blaze Maple	2" cal.	
C		Fraxinus p.l. 'Summit'	Summit Seedless Ash	2" cal.	
D		Pyrus calleryana 'Aristocrat'	Aristocrat Flowering Pear	2" cal.	
E		Tilia cordata 'Greenspire'	Little Leaf Linden	2" cal.	



4 JUNE 2020
Street Tree Plan: PHASE ONE

RIDGELINE PARK

A PLANNED COMMUNITY . Nibley, Utah

Visionary Homes . 50 East 2500 North . North Logan, Utah



R. MICHAEL KELLY
CONSULTANTS

LAND PLANNING • LANDSCAPE ARCHITECTURE
P.O. Box 469, Millville, UT 84326 435.753.2955

ENTRY MONUMENT
PLAN

1" = 20 FEET



3200 SOUTH

STREET TREES
SHRUBS
ACCENT TREES
BATTERED STONE COLUMN: 6 ft. TALL
STONE WALL: 4 ft. TALL w/PRE-CAST CONCRETE SIGN
FLOWERS

ENTRY MONUMENT
ELEVATION

1/2" = 1 FOOT

RIDGELINE PARK

RIDGELINE PARK

A PLANNED COMMUNITY . Nibley, Utah

Visionary Homes . 50 East 2500 North . North Logan, Utah

4 JUNE 2020
Concept Plan: ENTRY MONUMENT

R. MICHAEL KELLY
CONSULTANTS

LAND PLANNING • LANDSCAPE ARCHITECTURE
P.O. Box 469, Millville, UT 84326 435.753.2955

Introduction

The following preliminary maintenance plan was prepared in accordance with § 19.32.050(B)(3) of the Nibley City Municipal Code (NCC). The purpose of this document is to 1) outline the ownership and responsibility for maintenance of the amenities, 2) show the proposed use of each amenity and how each parcel of amenities meets the standards listed in Chapter 32 of Title 19 of the NCC, 3) outline the type and size of each amenity, and 4) the proposed concept plan for landscaping the amenities. A copy of the preliminary concept landscape plan is attached as exhibit 'A' at the conclusion of this document. Where there are inconsistencies with this preliminary maintenance plan and the preliminary plat, the plat will control.

Open Space Ownership

Each parcel of open space contained within this subdivision will be common area and owned by the Ridgeline Park Homeowners Association. There is planned at present nearly 4 acres of open space in phase 1, 3 acres in phase 2 and just over 1.5 acres in phase 3. The total open space across the entirety of the preliminary plat is 35.9% which meet the requirement found within the NCC. To ensure the open space and amenity requirements will be met, we have allocated more than 35% in phases 1 and 2 so that the overall requirement is benefited by residents early on in the development. Private drives will be considered common area and will be owned and maintained by the Ridgeline Park Homeowners Association. All common area parcels inside the ROW's that will be dedicated to the city will be owned and perpetually maintained by the HOA.

Guest Parking

The Ridgeline Park Homeowners Association will also maintain those parking stalls located within the ROW where the street cross-section calls for a modified TS-14 that is not adjacent to the City Park. These stalls help to comply with the guest parking requirement of 1/3 stall per unit. There are guest parking stalls found along 340 West, 400 West and 475 West and additional stalls along 3085 South.

Maintenance Responsibility

The Common Area located within Ridgeline Park will be owned by the Ridgeline Park Homeowners Association. All maintenance will be the responsibility of this entity directly, or its assigns as directed by Board and Officers of the HOA. Presently, Visionary Homes contracts through a professional management company, Advantage Management, that specializes in helping developer/owners work through and create potential budgets, determination and allocation of HOA/unit owner responsibilities, and the continued smooth operation of the HOA organization during the construction phase. This organization will also help after the HOA is turned over completely to the residents of Ridgeline Park and their Board. They will be responsible for establishing the necessary HOA dues and collecting said dues in order to pay those hired by the HOA to maintain the property. All maintenance of the common area parcels will be done by a private maintenance company that is contracted through Advantage Management. The HOA for this subdivision is not planned to require any employees.

All long-term maintenance and improvement projects will be funded by HOA fees as well as a reinvestment fee that will be collected from each homeowner at the time of closing. The monthly HOA fee is still to be determined, and the reinvestment fee is intended to be 0.25% of the home purchase price. The fee schedule will be robust sufficiently for the HOA to have the financial ability to manage the proposed facilities without concern and to keep the common area maintained in a prompt and professional manner.

Insurance Requirements

The Ridgeline Park Homeowners Association will maintain liability insurance on the common areas that are privately owned and will be paid for out of the HOA's monthly budget from membership dues.

Amenities

Section 19.32.050 of the Nibley City Municipal Code describes the minimum open space amenities that should be provided in each development. The amount and type of amenity required under the NCC is determined by the total number of units. As Ridgeline Park proper with its dozen or so phases is approved for 498 units in total, it falls between the 401 – 500 category for minimum amenities. Thusly, 7.5 acres of park area is required with 2 pavilions, 2 swing sets, and 3 playgrounds, a clubhouse and pool and finally 2 sports court/fields. See Figure 1 on the next page for the anticipated future development amenity pattern for all phases of Ridgeline Park Subdivision.

We have planned a substantial portion of the overall minimum amenity for Ridgeline Park proper to be installed within the first 3 phases of development. The clubhouse and pool will be in future stages as well as additional playgrounds and swing set. A dog station is also planned as a requirement of the City Council in phase 1, with a future dog station and minipark planned in future phases.



Figure 1. Anticipated Future Amenity

Pavilion

A traditional roofed pavilion is planned in phase 1 as shown in Exhibit A attached. This pavilion will offer 2 picnic benches for picnics and offer respite from the elements and shade from the sun. The location of this pavilion is conveniently located along the main trail.

Pickle Ball Courts

Pickle Ball is a paddle sport created for all ages and skill levels. The rules are simple and the game is easy for beginners to learn, but can develop into a quick, fast-paced, competitive game for experienced players. It combines many elements of tennis, badminton and ping-pong. With the popularity of pickle ball on the rise, two tandem courts are planned for Ridgeline Park, see Exhibit A. These courts will be regulation size of 20' X 44' each with sufficient buffer boundaries and fence surrounding and dividing both courts. Although the location shows the pickle ball courts to front 475 West, it might be better off of 400 West to give a more central

location for all residents. Regardless, they will be located on this common area parcel with a Pergola and benches for spectators and players.

Pickle Ball Area Pergola

Adjacent to the Pickle Ball courts will be build a 20' X 20' pergola that will provide shade and respite to those preparing for pickle ball play or to spectate games. There will be 4 benches provides under the pergola or a picnic table and 3 benches.

Playground/Tot Lot & Swing Set

Located in the trail corridor is planned a playground/tot lot that is designed for the under 12 age group. The NCC requires at a minimum of 8 features which this playground will provide. Conceptual designs of the playground equipment and swing set are provided in Exhibit A together with the landscape plan. The playground equipment including the associated swing set are conveniently located along the City Center Trail and found in the heart of the first 3 phases of Ridgeline Park.

City Center Trail

A City Center Trail will be built that connects from the Nibley City's office building through Ridgeline Park to the City's Park. Many of the Amenities planned for phase 1-3 are found along this trail such as the pavilion, dog station, swing set and playground.

Dog Station

A dog station is also planned as a requirement of the City Council in phase 1, with a future dog station and minipark planned in future phases. It is located where the City Trail intersects with 3170 South. It provides a convenient and sanitary system for properly disposing of pet's waste while walking the sidewalk or the City Center Trail. These stations will help to improve the overall cleanliness of the common area and park sites.

Traffic Calming Island & Monument

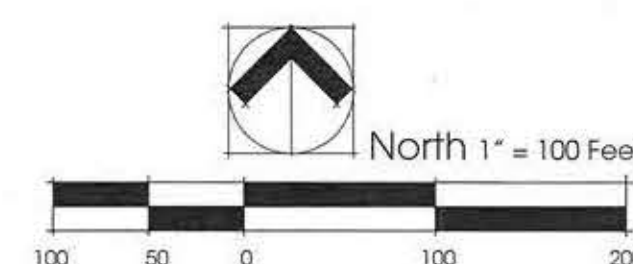
A traffic island at the entrance into the Ridgeline Park at 3200 South and 340 West is anticipated to beautify the entrance and to calm traffic. A lighted monument sign is planned within the island with greenscape surrounding the sign. Although the monument sign is not fully designed, a concept is found in the following Exhibits.

Exhibit ‘A’
Landscape Plan



Site Summary

Site	94.6 Acres
City Park	18.3 Acres
Public ROW per plan	9.8 Acres
ROW dedication at 3200 South	0.5 Acres
ROW dedication at 2900 South	0.3 Acres
Net Developable Area	65.7 Acres
Net Developable Area less Commercial	59.7 Acres
Residential Units	498 Units
SFD: 8,000 S.F.	± 4.9 Acres
SFD: 6,000 S.F.	± 16.1 Acres
SFD: 4,500 S.F.	± 3.0 Acres
SFD: Active Adult	± 7.5 Acres
Total SFD	194 Lots
Town Homes	± 15.7 Acres
Condominium	± 5.1 Acres
Commercial	± 5.7 Acres
Density	8.6 Units / Acre
Open Space:	25.61 Acres
Clubhouse Park	1.1 Acres
Wetlands corridor	5.7 Acres
Buffer at 3200 South	0.3 Acres
Active Adult	1.0 Acres
Town Homes	6.6 Acres
Condominium	1.7 Acres
Within ROWs	5.3 Acres
Anticipated ROWs	5.0 Acres



3 APRIL 2020
Concept Plan: ALTERNATIVE

RIDGELINE PARK

Ropelatto Property . Nibley, Utah
Visionary Homes . 50 East 2500 North . North Logan, Utah



Traffic Impact Study

Ropelato Subdivision

3200 South 250 West, Nibley, UT

Prepared For:

Dallas Nicoll, Development Manager
Visionary Homes
dnicoll@visionaryhomes.com

Prepared By:

Civil Solutions Group, Inc.
Michael E. Taylor, P.E.
540 West Golf Course Road Suite B1
Providence, Utah 84332

Original Submittal: February 4, 2020



Contents

1.0 INTRODUCTION.....	3
2.0 TRAFFIC COUNTS	4
3.0 TRIP GENERATION	4
4.0 TRIP DISTRIBUTION.....	6
5.0 INTERSECTION TRAFFIC ANALYSIS	6
6.0 ROADWAY CAPACITY THRESHOLDS & CROSS-SECTION RECOMMENDATIONS	14
7.0 TURNING LANE WARRANTS, QUEUING LENGTHS & RECOMMENDATIONS.....	14
8.0 SUMMARY.....	15
APPENDIX A: TRAFFIC COUNTS.....	16
APPENDIX B: INTERSECTION LOS CALCULATIONS	17

List of Figures and Tables

FIGURE 1. OVERALL PROJECT MAP	3
FIGURE 2. TRIP GENERATION ZONES	5
FIGURE 3. 2020 EXISTING LEVEL OF SERVICE	9
FIGURE 4. BACKGROUND 2021 LOS	10
FIGURE 5. 2021 BACKGROUND +PROJECT LOS	11
FIGURE 6. BACKGROUND 2026 LOS	12
FIGURE 7. 2026 BACKGROUND +PROJECT LOS	13
TABLE 1. SITE SUMMARY AND UNIT BREAKDOWN.....	4
TABLE 2. TRIP GENERATION FOR WEST ZONE	5
TABLE 3. TRIP GENERATION FOR EAST ZONE.....	5
TABLE 4. TRIP GENERATION FOR ENTIRE PROJECT	5
TABLE 5. LEVEL OF SERVICE DESCRIPTIONS	7
TABLE 6. LEVEL OF SERVICE ANALYSIS FOR ALL SCENARIOS	8

1.0 INTRODUCTION

Visionary Homes is proposing the construction of a mixed-residential development with up to 631 units to be located near 3200 South and SR-165. The project will include adult-living detached housing, single-family detached housing, townhome units, and three-story condo buildings. Two major project access points are proposed onto 3200 South at 250 West and 340 West. Minor secondary accesses are proposed at 2965 South and 2900 South. The major regional access point is anticipated to be the signal at SR-165 and 3200 South. A layout of the proposed development is provided in Figure 1. An anticipated unit breakdown is provided in Table 1. For the purposes of this study, the future 4.9-acre commercial area on the east has not been included in any calculations as its nature, use and timing are still unknown.

Visionary Homes hired Civil Solutions Group, Inc. to prepare this report to determine the traffic impacts of the development on adjacent roadways, the adequacy of the proposed roadway cross-sections and any traffic improvements necessitated by project impacts.



FIGURE 1. OVERALL PROJECT MAP

TABLE 1. SITE SUMMARY AND UNIT BREAKDOWN

Site Summary . Ropelatto Property . Nibley, Utah . Ironwood Construction					
Site				94.6 Acres	
City Park				18.6 Acres	
Public ROW per plan				9.1 Acres	
Net Developable Area				66.9 Acres	
Residential Units				631 Units	
SFD: 8,000 S.F.	5.1 Acres	19 lots			
SFD: 6,000 S.F.	9.7 Acres	49 lots			
SFD: 4,000 S.F.	3.7 Acres	27 lots			
SFD: Active Adult	6.8 Acres	41 lots			
Total SFD				136 Lots	21.6%
Town Homes	22.0 Acres	313 units			
Condominium	7.6 Acres	182 units			28.8%
Commercial	4.9 Acres				
Density				9.4 Units / Acre	34.5%
Open Space:				23.05 Acres	
Wetlands corridor	7.0 Acres				
Buffer at 3200 South	0.64 Acres				
Active Adult	1.00 Acres				
Town Homes	5.7 Acres				
Condominium	1.4 Acres				
Within ROWs	5.3 Acres				
Anticipated ROWs	2.0 Acres				

2.0 TRAFFIC COUNTS

Traffic counts were collected for both AM and PM peak hour periods at both the 250 West 3200 South intersection and the SR-165 3200 South intersection. PM counts for the 250 West intersection were collected on Thursday, January 2, 2020 from 4 PM to 6 PM, while morning counts were collected on Monday, January 6, 2020 from 7 AM to 9AM. Morning and Evening counts for the intersection at SR-165 were collected on Monday, January 6, 2020 from 7 AM to 9 AM and from 4 PM to 6 PM respectively. The peak hour at both intersections was identified as the period between 5 PM and 6 PM. Traffic count tabulations have been included in Appendix A.

3.0 TRIP GENERATION

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition, 2012). Any potential internal capture reductions were not included. Values corresponding to the “weekday PM peak hour of adjacent street” scenario were utilized. The proposed project includes a mix of single-family detached housing, senior adult detached housing, and residential condos and townhouses. Accordingly, the following land-use codes were selected:

- 210: Single Family Detached Housing
- 230: Residential Condominium/Townhouse
- 251: Senior Adult Housing – Detached

Trip Generation was calculated separately for the east side and west sides of the project which each have their own separate primary access point onto 3200 South. These trip generation zones are illustrated in Figure 2.



FIGURE 2. TRIP GENERATION ZONES

Trip Generation for the West Zone is provided in Table 2. Trip Generation for the East Zone is provided in Table 3. Trip Generation for the Development as a whole is provided in Table 4.

TABLE 2. TRIP GENERATION FOR WEST ZONE

ITE Land Use Code	Independent Variable	Value	Method	Trips	In %	In	Out	IC In	IC Out	Reduction %	Driveway In	Driveway Out	Total
251 - Senior Adult Housing - Detached	Dwelling Units	40	*Average Rate	11	61	7	4	0	0	0	7	4	11
230 - Residential Condominium/Townhouse	Dwelling Units	61	Average Rate	32	67	21	11	0	0	0	21	11	32
210 - Single Family Detached Housing	Dwelling Units	50	Average Rate	50	63	32	18	0	0	0	32	18	50

TABLE 3. TRIP GENERATION FOR EAST ZONE

ITE Land Use Code	Independent Variable	Value	Method	Trips	In %	In	Out	IC In	IC Out	Reduction %	Driveway In	Driveway Out	Total
230 - Residential Condominium/Townhouse	Dwelling Units	434	Average Rate	226	67	151	75	0	0	0	151	75	226
210 - Single Family Detached Housing	Dwelling Units	45	Average Rate	45	63	28	17	0	0	0	28	17	45

TABLE 4. TRIP GENERATION FOR ENTIRE PROJECT

ITE Land Use Code	Independent Variable	Value	Method	Trips	In %	In	Out	IC In	IC Out	Reduction %	Driveway In	Driveway Out	Total
251 - Senior Adult Housing	Dwelling Units	41	*Average Rate	11	61	7	4	0	0	0	7	4	11
230 - Residential Condomir	Dwelling Units	495	Average Rate	257	67	172	85	0	0	0	172	85	257
210 - Single Family Detache	Dwelling Units	95	Average Rate	95	63	60	35	0	0	0	60	35	95

Trip generation for the development is further summarized as follows:

- East Zone:
 - In: 179 trips
 - Out: 92 trips
- West Zone:
 - In: 60 trips
 - Out: 33 trips
- Total:
 - In: 239 trips
 - Out: 124 trips

4.0 TRIP DISTRIBUTION

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially those in close proximity to the site.

It was observed that at the 250 West 3200 South intersection the Eastbound (EB) and Westbound (WB) traffic was split almost exactly in half: 49.7% WB and 50.3% EB. Observing the relative location of regional trip attractors to the study area, it is assumed the majority of this traffic is likely coming to and from residences located within the travelshed of the 3200 South and SR-165 intersection. This means that the majority of these observed trips end up passing the SR-165 node to the east of the project rather than some other regional access point (such as 2600 South and SR-165, 3200 South and US-89/91, or 800 West and US-89/91). Accordingly, in distributing traffic for the proposed development it is estimated that approximately 80% of the trips will utilize the 3200 South SR-165 intersection as their means of regional ingress and egress. The other 20% is assumed to be coming to or from the West. In order to assess worst-case conditions at 3200 South and SR-165, no traffic has been distributed in this analysis to the minor local connections at 2965 South and 2900 South. Furthermore, given that the project does not provide significant through routes, no NB or SB through traffic has been assumed at the 250 West intersection.

5.0 INTERSECTION TRAFFIC ANALYSIS

This section of the report examines the traffic impacts of the proposed project at the study intersections, including those at 340 West and 3200 South, 250 West and 3200 South, and SR-165 and 3200 South. For purposes of this study, the project opening day is assumed to occur a year from now 2021. Five scenarios have been examined:

- 2020 Existing Conditions

- 2021 Background Traffic
- 2021 Background Traffic + Project Conditions
- 2026 Background Traffic
- 2026 Background Traffic + Project Conditions

An annual growth rate of 3% was applied to the background traffic representing the developing nature of the surrounding vicinity. Using TransModeler SE software (produced by the Caliper Corporation), which follows the Highway Capacity Manual (HCM) 2010 methodology, the PM peak hour Level of Service (LOS) was computed for each study intersection under each scenario.

LOS is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 5 provides a brief description of each LOS letter designation, as outlined in the 2010 Highway Capacity Manual, and lists an accompanying average delay per vehicle for both signalized and unsignalized intersections.

TABLE 5. LEVEL OF SERVICE DESCRIPTIONS

Level of Service	Description of Traffic Conditions	Average Delay (Seconds/Vehicle)
	Signalized Intersections	Overall Intersection
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	$0 \leq 10.0$
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	> 10.0 and ≤ 20.0
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	> 20.0 and ≤ 35.0
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	> 35.0 and ≤ 55.0
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	> 55.0 and ≤ 80.0
F	Unacceptable progression with forced or breakdown operating conditions	> 80.0
	Unsignalized Intersections	Worst Approach
A	Free Flow / Insignificant Delay	$0 \leq 10.0$
B	Stable Operations / Minimum Delays	> 10.0 and ≤ 15.0
C	Stable Operations / Acceptable Delays	> 15.0 and ≤ 25.0
D	Approaching Unstable Flows / Tolerable Delays	> 25.0 and ≤ 35.0
E	Unstable Operations / Significant Delays Can Occur	> 35.0 and ≤ 50.0
F	Forced Flows / Unpredictable Flows / Excessive Delays Occur	> 50.0

For the purposes of this study, a minimum overall intersection performance for each of the study intersections was set at LOS D. However, if LOS E or F conditions exist, an explanation and/or mitigation measures will be presented. According to the Traffic Engineering Handbook, 5th Edition, “[f]or most design or planning purposes...service flow rates D or C are usually used because they ensure a more acceptable quality of service to facility users” (pg. 95). The LOS D threshold is also consistent with UDOT’s standard for state roads in urbanized areas (see UDOT Roadway Design Manual of Instruction, May 2007 – updated August 2011, Section 7 – Page 4).

The results of this analysis are reported in Table 6 (see Appendix B for the detailed LOS reports). An optimized signal cycle of 60-seconds generated using the Webster Equation was utilized for the intersection of SR-165 and 3200 South. As shown in Table 6, all study intersections, in all scenarios continue to operate at LOS C or better.

TABLE 6. LEVEL OF SERVICE ANALYSIS FOR ALL SCENARIOS

		2020 Existing		2021 Background		2021 Back + Project		2026 Background		2026 Back + Project	
Intersection	Control	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
340 W.	Minor Leg Stop Control	0.0	A	0.0	A	12.4	B	0.0	A	13.1	B
250 W.	Minor Leg Stop Control	12.0	B	12.2	B	19.1	C	13.2	B	21.9	C
SR-165	Signalized	12.0	B	12.2	B	13.2	B	13.3	B	14.3	B
¹ Average delay as measured in seconds per vehicle. These values represent the overall intersection average for roundabout, signalized, all-way stop controlled intersections and the worst approach for all other unsignalized intersections.											

All intersections continue to operate at LOS C or better through the 2026 background plus project scenario. The same is true of all movements within the study intersections and is mapped graphically in Figures 3 through 7. The most congested movement in any scenario is the EB left turn and NB left turn movements at SR-165 in the 2026 scenario, which also continue to operate at LOS C through the study’s time horizon. This analysis also suggests that the proposed traffic control methods are sufficient.



FIGURE 3

2020 BACKGROUND TRAFFIC



FIGURE 4

2021 BACKGROUND TRAFFIC



FIGURE 5

2026 BACKGROUND TRAFFIC



FIGURE 6

2021 TOTAL TRAFFIC & LOS



FIGURE 7

2026 TOTAL TRAFFIC & LOS

6.0 ROADWAY CAPACITY THRESHOLDS & CROSS-SECTION RECOMMENDATIONS

The current Nibley City Transportation Master Plan proposes that 250 West be built to typical cross-section TS-8: *Collector, 2-Lane Street, Bicycle Blvd, 66' ROW*. The same master plan designates 3200 South in its existing condition as a *3-lane Minor Arterial*. Lastly, the developer's proposal for the Ropelato Subdivision assigns 340 West to TS-13: *Local, 2-Lane Local, 60' ROW*. According to Table 1 of the City Master Plan, a 2-lane roadway can carry up to 8,000 vehicles per day and operate at a LOS C, while a 3-lane minor arterial can carry up to 11,000 vehicles per day.

Peak hour volumes typically represent 8-12% of average vehicles per day, 8% being more representative of rural areas, 12% of highly-urbanized areas. Given that Nibley City is increasingly becoming suburban, 10% has been utilized. Peak hour volumes on 340 West, 250 East and 3200 South in the 2026 background + project AADT have thus been estimated as follows:

- 340 West (Local, 2 Lanes): 930 AADT
- 250 East (Collector, 2 Lanes): 2,710 AADT
- 3200 South (Minor Arterial, 3 Lanes): 7,770 AADT

According to the standards set forth in the City Transportation Master Plan, the proposed cross-sections have sufficient roadway capacity to handle the projected vehicles per day and still provide an adequate LOS.

7.0 TURNING LANE WARRANTS, QUEUING LENGTHS & RECOMMENDATIONS

Per the request of the City Engineer this study includes an analysis of potential necessary turning lane improvements necessitated by the project. In the absence of City standard for the same, recommendations from the Utah Administrative Code will be utilized. Per UDOT's current mapping, the portion of SR-165 in the Study Area is a Category 3 roadway. Per Section R930-6-7.5.e.i.D.i & R930-6-7.5.e.i.D.ii, left-turn lanes and right-turn lanes are required to be installed at a Category 3 intersection when the following criteria are met:

- (I) "A left turn deceleration lane with taper and storage length is required for any access with a projected peak hour left ingress **turning volume greater than 5 vehicles per hour...**"
- (II) "A right turn deceleration lane and taper length is required for any access with a projected peak hour right ingress **turning volume greater than 10 vehicles per hour...**"

3200 South appears to meet the same code's definition of a Category 7 roadway (R930-6-6.2.b.vii): "Category 7 is appropriate for use on highways that have the capacity for moderate to low speeds and moderate volumes. This category provides a balance between through traffic movements and direct access. These facilities move both regional and local rural traffic but with emphasis on local movements such as those common on small city Main Streets."

Per Section R930-6-7.5.e.i.E.i & R930-6-7.5.e.i.E.ii, left-turn lanes and right-turn lanes are required to be installed at a Category 7 intersection when the following criteria are met:

- (I) *A left turn lane with storage length plus taper is required for any access with a projected peak hour left ingress turning volume greater than 25 vehicles per hour...*
- (II) *A right turn lane with storage length plus taper is required for any access with a projected peak hour right ingress turning volume greater than 50 vehicles per hour...*

Based on predicted turning movement volumes and the calculated 95th-percentile queueing lengths in the 2026 Proposed Condition (see Appendix B; LOS calculations, line item “Back of Queue (Q), veh/ln”), the following deficiencies have been identified:

- 340 West:
 - SB Left-turn bay needed, additional pavement may be required
- 250 West:
 - SB Left-turn bay needed, additional pavement may be required
 - WB right-turn bay should be added, additional pavement may be required
 - WB two-way left-turn bay should be re-stripped to a dedicated left-turn bay
 - EB two-way left-turn bay should be re-stripped to a dedicated left-turn bay
- SR-165:
 - No improvements needed. 95th-percentile queueing length for left-turn requires 100-ft for 4.7 vehicles; 100-ft already provided. Likewise, sufficient storage length exists for all other turning movements.

8.0 SUMMARY

The analysis contained in this study has determined that all intersections adjacent to the project together with their individual movements continue to operate at LOS C or better through the 2026 study horizon. Also, it has been determined that cross-sections proposed for project by the developer and the City Transportation Master Plan are sufficient to handle the projected daily traffic loading. Recommended improvements are limited to turning-lane additions/modifications as outlined in the Section 7.0 of this report.

APPENDIX A: TRAFFIC COUNTS

		250 WEST & 3200 SOUTH														
		EBR		EBT		WBL		WBT		NBL		NBR		15 Min	1-HR	PED
		Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Totals	TOTALS	
7:00 AM	7:15 AM	0	1	19	0	3	0	31	3	2	0	6	0	65		0
7:15 AM	7:30 AM	1	0	32	0	2	0	13	1	4	0	7	0	60		0
7:30 AM	7:45 AM	2	0	55	1	2	0	25	0	7	0	19	0	111		0
7:45 AM	8:00 AM	3	0	48	1	2	0	52	0	9	1	10	0	126	362	0
8:00 AM	8:15 AM	4	0	44	0	3	0	34	0	5	0	5	0	95	392	0
8:15 AM	8:30 AM	1	0	13	0	0	0	26	0	3	0	6	0	49	381	0
8:30 AM	8:45 AM	2	1	32	1	5	0	23	1	2	0	6	0	73	343	0
8:45 AM	9:00 AM	3	0	44	3	2	0	34	1	11	3	4	0	105	322	1
4:00 PM	4:15 PM	4	0	54	1	12	0	36	1	2	0	10	0	120		0
4:15 PM	4:30 PM	3	0	43	0	7	0	42	1	2	0	7	1	106		0
4:30 PM	4:45 PM	2	0	38	1	6	0	44	0	2	0	7	0	100		0
4:45 PM	5:00 PM	5	0	42	2	7	1	34	0	6	0	5	0	102	428	0
5:00 PM	5:15 PM	9	0	57	0	12	0	41	1	4	0	4	0	128	436	0
5:15 PM	5:30 PM	7	0	44	0	11	0	45	0	5	1	3	0	116	446	0
5:30 PM	5:45 PM	12	0	46	1	9	0	33	0	7	0	3	0	111	457	0
5:45 PM	6:00 PM	12	0	37	0	15	0	43	0	8	0	3	0	118	473	0

		SR-165 & 3200 SOUTH														
		NBL		NBT		EBR		EBL		SBR		SBT		15 Min	1-HR	PED
		Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Cars	Trucks	Totals	TOTALS	
7:00 AM	7:15 AM	5	1	123	5	3	0	21	0	27	2	56	1	244		0
7:15 AM	7:30 AM	3	0	184	0	12	0	32	0	12	0	79	3	325		0
7:30 AM	7:45 AM	6	0	250	3	7	0	64	1	19	0	88	4	442		0
7:45 AM	8:00 AM	13	0	310	6	12	0	57	2	38	0	93	3	534	1545	0
8:00 AM	8:15 AM	6	1	200	7	9	0	34	0	27	0	90	2	376	1677	0
8:15 AM	8:30 AM	5	0	172	4	2	0	18	0	19	0	56	3	279	1631	0
8:30 AM	8:45 AM	3	1	146	8	5	1	26	0	28	0	95	9	322	1511	0
8:45 AM	9:00 AM	2	1	182	8	13	1	39	2	28	0	78	2	356	1333	0
4:00 PM	4:15 PM	5	1	133	1	11	0	41	0	49	0	188	6	435		0
4:15 PM	4:30 PM	9	0	141	4	13	1	42	1	30	0	209	6	456		0
4:30 PM	4:45 PM	9	0	150	4	16	1	32	0	49	1	235	7	504		0
4:45 PM	5:00 PM	3	1	158	3	9	1	39	0	41	1	209	1	466	1861	2
5:00 PM	5:15 PM	2	0	187	3	12	0	51	0	42	0	225	2	524	1950	2
5:15 PM	5:30 PM	7	0	156	2	12	0	48	0	42	0	264	1	532	2026	0
5:30 PM	5:45 PM	8	0	157	0	9	0	34	0	52	0	263	0	523	2045	0
5:45 PM	6:00 PM	10	0	144	0	9	0	33	0	49	0	251	1	497	2076	1

APPENDIX B: INTERSECTION LOS CALCULATIONS

250 West & 3200 South Background Traffic – 2020

Control

Stop or Yield

General

Turns

Stop/Yield Signs

LOS

HCM Adjustments

Node

25

MOEs

Flow Field

Flow

Flow Interval (min.)

60

Base Saturation Flow Rate (pc/h/ln)

1900

Movement	WBR	WBT	WBL	SBR	SBT	SBL	EBL	EBR	EBT	NBT	NBL	NBR
Approach	2 (W)	2 (W)	2 (W)	5 (S)	5 (S)	5 (S)	6 (E)	6 (E)	6 (E)	4 (N)	4 (N)	4 (N)
Number of Lanes	0.5	0.5	1.0	0.3	0.3	0.3	1.0	0.5	0.5	0.3	0.3	0.3
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh	0.000	0.000	7.751	11.547	11.547	11.547	7.521	0.000	0.000	11.995	11.995	11.995
Level Of Service	A	A	A	B	B	B	A	A	A	B	B	B
Stream Code	3	2	1	9	8	7	4	6	5	11	10	12
Stream Rank	1	1	2	2	3	4	2	1	1	3	4	2
Critical Gap (tc)	--	--	4.100	6.500	6.500	7.500	4.100	--	--	6.500	7.500	6.900
Follow-Up Time (tf), s	--	--	2.200	3.300	4.000	3.500	2.200	--	--	4.000	3.500	3.300
Conflicting Flows (Vc), veh/h	--	--	225	163	482	469	163	--	--	462	462	205
Potential Capacity (Cp), veh/h	--	--	1356	859	487	482	1428	--	--	500	488	808
Capacity (Cm), veh/h	--	--	1356	859	470	462	1428	--	--	482	475	808
Shared-lane Capacity (Csh), veh/h	--	--	1356	550	550	550	1428	--	--	553	553	553
Shared-lane Flow, veh/h	--	--	47	0	0	0	0	--	--	38	38	38
Queue, veh/ln	--	--	0.1	0.0	0.0	0.0	0.0	--	--	0.2	0.2	0.2
v/c Ratio	--	--	0.035	0.000	0.000	0.000	0.000	--	--	0.069	0.069	0.069
Movement Flow, veh/h	0	163	47	0	0	0	0	40	185	0	25	13
Movement Adjusted Flow, veh/h	0	163	47	0	0	0	0	40	185	0	25	13

Save Adjusted Sat. Flow

Control Delay (s/veh)

1.7

Level of Service

A

250 West & 3200 South Background Traffic – 2021

Control

Stop or Yield

General

Turns

Stop/Yield Signs

LOS

HCM Adjustments

MOEs

Flow Interval (min.)

30

Node

25

Flow Field	Flow	WBR	WBT	WBL	SBR	SBT	SBL	EBL	EBR	EBT	NBT	NBL	NBR
		2 (W)	2 (W)	2 (W)	5 (S)	5 (S)	5 (S)	6 (E)	6 (E)	6 (E)	4 (N)	4 (N)	4 (N)
Movement													
Approach		2 (W)	2 (W)	2 (W)	5 (S)	5 (S)	5 (S)	6 (E)	6 (E)	6 (E)	4 (N)	4 (N)	4 (N)
Number of Lanes		0.5	0.5	1.0	0.3	0.3	0.3	1.0	0.5	0.5	0.3	0.3	0.3
Lane Width, ft		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh		0.000	0.000	7.770	11.667	11.667	11.667	7.532	0.000	0.000	12.192	12.192	12.192
Level Of Service		A	A	A	B	B	B	A	A	A	B	B	B
Stream Code		3	2	1	9	8	7	4	6	5	11	10	12
Stream Rank		1	1	2	2	3	4	2	1	1	3	4	2
Critical Gap (tc)		--	--	4.100	6.900	6.500	7.500	4.100	--	--	6.500	7.500	6.900
Follow-Up Time (tf), s		--	--	2.200	3.300	4.000	3.500	2.200	--	--	4.000	3.500	3.300
Conflicting Flows (Vc), veh/h		--	--	232	168	496	482	168	--	--	476	476	212
Potential Capacity (Cp), veh/h		--	--	1348	853	478	472	1422	--	--	491	477	800
Capacity (Cm), veh/h		--	--	1348	853	461	452	1422	--	--	473	464	800
Shared-lane Capacity (Csh), veh/h		--	--	1348	540	540	540	1422	--	--	540	540	540
Shared-lane Flow, veh/h		--	--	48	0	0	0	0	--	--	39	39	39
Queue, veh/ln		--	--	0.1	0.0	0.0	0.0	0.0	--	--	0.2	0.2	0.2
v/c Ratio		--	--	0.036	0.000	0.000	0.000	0.000	--	--	0.072	0.072	0.072
Movement Flow, veh/h		0	168	48	0	0	0	0	41	191	0	26	13
Movement Adjusted Flow, veh/h		0	168	48	0	0	0	0	41	191	0	26	13

Save Adjusted Sat. Flow

Control Delay (s/veh)

1.7

Level of Service

A

250 West & 3200 South Total Traffic – 2021

Control

Stop or Yield

Node

25

General

Turns

Stop/Yield Signs

LOS

HCM Adjustments

MOEs

Flow Field

Flow

Flow Interval (min.)

60

Base Saturation Flow Rate (pc/h/ln)

1900

Movement	WBR	WBT	WBL	SBR	SBT	SBL	EBL	EBR	EBT	NBT	NBL	NBR
Approach	2 (W)	2 (W)	2 (W)	5 (S)	5 (S)	5 (S)	6 (E)	6 (E)	6 (E)	4 (N)	4 (N)	4 (N)
Number of Lanes	0.5	0.5	1.0	0.3	0.3	0.3	1.0	0.5	0.5	0.3	0.3	0.3
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh	0.000	0.000	7.836	19.121	19.121	19.121	8.067	0.000	0.000	15.540	15.540	15.540
Level Of Service	A	A	A	C	C	C	A	A	A	C	C	C
Stream Code	3	2	1	9	8	7	4	6	5	11	10	12
Stream Rank	1	1	2	2	3	4	2	1	1	3	4	2
Critical Gap (tc)	--	--	4.100	6.900	6.500	7.500	4.100	--	--	6.500	7.500	6.900
Follow-Up Time (tf), s	--	--	2.200	3.300	4.000	3.500	2.200	--	--	4.000	3.500	3.300
Conflicting Flows (Vc), veh/h	--	--	259	288	715	701	360	--	--	767	704	239
Potential Capacity (Cp), veh/h	--	--	1317	715	359	329	1210	--	--	335	328	769
Capacity (Cm), veh/h	--	--	1317	715	335	308	1210	--	--	313	304	769
Shared-lane Capacity (Csh), veh/h	--	--	1317	346	346	346	1210	--	--	380	380	380
Shared-lane Flow, veh/h	--	--	48	92	92	92	36	--	--	39	39	39
Queue, veh/ln	--	--	0.1	1.1	1.1	1.1	0.1	--	--	0.3	0.3	0.3
v/c Ratio	--	--	0.036	0.266	0.266	0.266	0.030	--	--	0.103	0.103	0.103
Movement Flow, veh/h	144	216	48	18	0	74	36	41	218	0	26	13
Movement Adjusted Flow, veh/h	144	216	48	18	0	74	36	41	218	0	26	13

Control Delay (s/veh)

3.6

Level of Service

A

250 West & 3200 South Background Traffic – 2026

Control

Stop or Yield

General

Turns

Stop/Yield Signs

HCM Adjustments

LOS

Node

25

MOEs

Flow Field

Flow

Flow Interval (min.)

60

Base Saturation Flow Rate (pc/h/ln)

1900

Flow Field	Flow	WBR	WBT	WBL	SBR	SBT	SBL	EBL	EBR	EBT	NBT	NBL	NBR
Movement		2 (W)	2 (W)	2 (W)	5 (S)	5 (S)	5 (S)	6 (E)	6 (E)	6 (E)	4 (N)	4 (N)	4 (N)
Approach		0.5	0.5	1.0	0.3	0.3	0.3	1.0	0.5	0.5	0.3	0.3	0.3
Number of Lanes		12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Lane Width, ft		0.000	0.000	7.879	12.427	12.427	12.427	7.590	0.000	0.000	13.187	13.187	13.187
Control Delay (d), s/veh		A	A	A	B	B	B	A	A	A	B	B	B
Level Of Service		3	2	1	9	8	7	4	6	5	11	10	12
Stream Code		1	1	2	2	3	4	2	1	1	3	4	2
Critical Gap (tc)		--	--	4.100	6.900	6.500	7.500	4.100	--	--	6.500	7.500	6.900
Follow-Up Time (tf), s		--	--	2.200	3.300	4.000	3.500	2.200	--	--	4.000	3.500	3.300
Conflicting Flows (Vc), veh/h		--	--	269	195	576	560	195	--	--	552	552	245
Potential Capacity (Cp), veh/h		--	--	1306	820	431	415	1390	--	--	444	421	762
Capacity (Cm), veh/h		--	--	1306	820	412	393	1390	--	--	425	407	762
Shared-lane Capacity (Csh), veh/h		--	--	1306	485	485	485	1390	--	--	486	486	486
Shared-lane Flow, veh/h		--	--	56	0	0	0	0	--	--	46	46	46
Queue, veh/ln		--	--	0.1	0.0	0.0	0.0	0.0	--	--	0.3	0.3	0.3
v/c Ratio		--	--	0.043	0.000	0.000	0.000	0.000	--	--	0.095	0.095	0.095
Movement Flow, veh/h		0	195	56	0	0	0	0	48	221	0	30	16
Movement Adjusted Flow, veh/h		0	195	56	0	0	0	0	48	221	0	30	16

Control Delay (s/veh)

1.9

Level of Service

A

Control

Stop or Yield

Node

25

General

Turns

Stop/Yield Signs

LOS

HCM Adjustments

MOEs

Flow Field

Flow

Flow Interval (min.)

60

Base Saturation Flow Rate (pc/h/ln)

1900

Movement	WBR	WBT	WBL	SBR	SBT	SBL	EBL	EBR	EBT	NBT	NBL	NBR
Approach	2 (W)	2 (W)	2 (W)	5 (S)	5 (S)	5 (S)	6 (E)	6 (E)	6 (E)	4 (N)	4 (N)	4 (N)
Number of Lanes	0.5	0.5	1.0	0.3	0.3	0.3	1.0	0.5	0.5	0.3	0.3	0.3
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh	0.000	0.000	7.949	21.934	21.934	21.934	8.140	0.000	0.000	17.186	17.186	17.186
Level Of Service	A	A	A	C	C	C	A	A	A	C	C	C
Stream Code	3	2	1	9	8	7	4	6	5	11	10	12
Stream Rank	1	1	2	2	3	4	2	1	1	3	4	2
Critical Gap (tc)	--	--	4.100	6.900	6.500	7.500	4.100	--	--	6.500	7.500	6.900
Follow-Up Time (tf), s	--	--	2.200	3.300	4.000	3.500	2.200	--	--	4.000	3.500	3.300
Conflicting Flows (Vc), veh/h	--	--	296	315	795	779	387	--	--	843	780	272
Potential Capacity (Cp), veh/h	--	--	1277	687	323	289	1183	--	--	303	289	732
Capacity (Cm), veh/h	--	--	1277	687	299	267	1183	--	--	281	266	732
Shared-lane Capacity (Csh), veh/h	--	--	1277	304	304	304	1183	--	--	341	341	341
Shared-lane Flow, veh/h	--	--	56	92	92	92	36	--	--	46	46	46
Queue, veh/ln	--	--	0.1	1.2	1.2	1.2	0.1	--	--	0.5	0.5	0.5
v/c Ratio	--	--	0.044	0.303	0.303	0.303	0.030	--	--	0.135	0.135	0.135
Movement Flow, veh/h	144	243	56	18	0	74	36	48	248	0	30	16
Movement Adjusted Flow, veh/h	144	243	56	18	0	74	36	48	248	0	30	16

Save Adjusted Sat. Flow

Control Delay (s/veh)

3.9

Level of Service

A

340 West & 3200 South Background Traffic – 2020

MOEs

Flow Field Flow
Flow Interval (min.) 60
Base Saturation Flow Rate (pc/h/ln) 1900

Movement	SBR	SBL	EBL	EBT	WBR	WBT
Approach	7 (S)	7 (S)	8 (E)	8 (E)	6 (W)	6 (W)
Number of Lanes	0.5	0.5	1.0	1.0	0.5	0.5
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh	10.318	10.318	7.575	0.000	0.000	0.000
Level Of Service	B	B	A	A	A	A
Stream Code	9	7	4	5	3	2
Stream Rank	2	3	2	1	1	1
Critical Gap (tc)	6.900	6.800	4.100	--	--	--
Follow-Up Time (tf), s	3.300	3.500	2.200	--	--	--
Conflicting Flows (Vc), veh/h	188	413	188	--	--	--
Potential Capacity (Cp), veh/h	828	572	1398	--	--	--
Capacity (Cm), veh/h	828	572	1398	--	--	--
Shared-lane Capacity (Csh), veh/h	677	677	1398	--	--	--
Shared-lane Flow, veh/h	0	0	0	--	--	--
Queue, veh/ln	0.0	0.0	0.0	--	--	--
v/c Ratio	0.000	0.000	0.000	--	--	--
Movement Flow, veh/h	0	0	0	225	0	188
Movement Adjusted Flow, veh/h	0	0	0	225	0	188

Control Delay (s/veh) 0
Level of Service A

340 West & 3200 South Background Traffic – 2021

MOEs

Flow Field

Flow

Flow Interval (min.)

60

Base Saturation Flow Rate (pc/h/ln)

1900

?

Movement	↖ SBR	↘ SBL	↗ EBL	↔ EBT	↖ WBR	↘ WBT
Approach	7 (S)	7 (S)	8 (E)	8 (E)	6 (W)	6 (W)
Number of Lanes	0.5	0.5	1.0	1.0	0.5	0.5
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh	10.397	10.397	7.588	0.000	0.000	0.000
Level Of Service	B	B	A	A	A	A
Stream Code	9	7	4	5	3	2
Stream Rank	2	3	2	1	1	1
Critical Gap (tc)	6.900	6.800	4.100	--	--	--
Follow-Up Time (tf), s	3.300	3.500	2.200	--	--	--
Conflicting Flows (Vc), veh/h	194	426	194	--	--	--
Potential Capacity (Cp), veh/h	821	562	1391	--	--	--
Capacity (Cm), veh/h	821	562	1391	--	--	--
Shared-lane Capacity (Csh), veh/h	667	667	1391	--	--	--
Shared-lane Flow, veh/h	0	0	0	--	--	--
Queue, veh/ln	0.0	0.0	0.0	--	--	--
v/c Ratio	0.000	0.000	0.000	--	--	--
Movement Flow, veh/h	0	0	0	232	0	194
Movement Adjusted Flow, veh/h	0	0	0	232	0	194

Control Delay (s/veh)

0

Level of Service

A

340 West & 3200 South Total Traffic – 2021

Control
Stop or Yield
Node
28

General
Tums
Stop/Yield Signs
LOS
HCM Adjustments

MOEs

Flow Field
Flow
Flow Interval (min.)
60
Base Saturation Flow Rate (pc/h/ln)
1900

Movement	SBR	SBL	EBL	EBT	WBR	WBT
Approach	7 (S)	7 (S)	8 (E)	8 (E)	6 (W)	6 (W)
Number of Lanes	0.5	0.5	1.0	1.0	0.5	0.5
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh	12.390	12.390	7.760	0.000	0.000	0.000
Level Of Service	B	B	A	A	A	A
Stream Code	9	7	4	5	3	2
Stream Rank	2	3	2	1	1	1
Critical Gap (tc)	6.900	6.800	4.100	--	--	--
Follow-Up Time (tf), s	3.300	3.500	2.200	--	--	--
Conflicting Flows (Vc), veh/h	236	528	260	--	--	--
Potential Capacity (Cp), veh/h	772	485	1316	--	--	--
Capacity (Cm), veh/h	772	481	1316	--	--	--
Shared-lane Capacity (Csh), veh/h	521	521	1316	--	--	--
Shared-lane Flow, veh/h	34	34	12	--	--	--
Queue, veh/ln	0.2	0.2	0.0	--	--	--
v/c Ratio	0.065	0.065	0.009	--	--	--
Movement Flow, veh/h	7	27	12	268	48	212
Movement Adjusted Flow, veh/h	7	27	12	268	48	212

Control Delay (s/veh)
0.9
Level of Service
A

340 West & 3200 South Background Traffic – 2026

MOEs

Flow Field Flow
Flow Interval (min.) 60
Base Saturation Flow Rate (pc/h/ln) 1900

Movement	 SBR	 SBL	 EBL	 EBT	 WBR	 WBT
Approach	7 (S)	7 (S)	8 (E)	8 (E)	6 (W)	6 (W)
Number of Lanes	0.5	0.5	1.0	1.0	0.5	0.5
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh	10.820	10.820	7.654	0.000	0.000	0.000
Level Of Service	B	B	A	A	A	A
Stream Code	9	7	4	5	3	2
Stream Rank	2	3	2	1	1	1
Critical Gap (tc)	6.900	6.800	4.100	--	--	--
Follow-Up Time (tf), s	3.300	3.500	2.200	--	--	--
Conflicting Flows (Vc), veh/h	224	493	224	--	--	--
Potential Capacity (Cp), veh/h	786	510	1357	--	--	--
Capacity (Cm), veh/h	786	510	1357	--	--	--
Shared-lane Capacity (Csh), veh/h	619	619	1357	--	--	--
Shared-lane Flow, veh/h	0	0	0	--	--	--
Queue, veh/ln	0.0	0.0	0.0	--	--	--
v/c Ratio	0.000	0.000	0.000	--	--	--
Movement Flow, veh/h	0	0	0	269	0	224
Movement Adjusted Flow, veh/h	0	0	0	269	0	224

Control Delay (s/veh) 0
Level of Service A

340 West & 3200 South Total Traffic – 2026

Control
Stop or Yield
Node 28

General
Turns
Stop/Yield Signs
LOS
HCM Adjustments

MOEs

Flow Field Flow
Flow Interval (min.) 60
Base Saturation Flow Rate (pc/h/ln) 1900

Movement	SBR	SBL	EBL	EBT	WBR	WBT
Approach	7 (S)	7 (S)	8 (E)	8 (E)	6 (W)	6 (W)
Number of Lanes	0.5	0.5	1.0	1.0	0.5	0.5
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
Control Delay (d), s/veh	13.139	13.139	7.832	0.000	0.000	0.000
Level Of Service	B	B	A	A	A	A
Stream Code	9	7	4	5	3	2
Stream Rank	2	3	2	1	1	1
Critical Gap (tc)	6.900	6.800	4.100	--	--	--
Follow-Up Time (tf), s	3.300	3.500	2.200	--	--	--
Conflicting Flows (Vc), veh/h	266	595	290	--	--	--
Potential Capacity (Cp), veh/h	738	440	1283	--	--	--
Capacity (Cm), veh/h	738	436	1283	--	--	--
Shared-lane Capacity (Csh), veh/h	476	476	1283	--	--	--
Shared-lane Flow, veh/h	34	34	12	--	--	--
Queue, veh/ln	0.2	0.2	0.0	--	--	--
v/c Ratio	0.071	0.071	0.009	--	--	--
Movement Flow, veh/h	7	27	12	305	48	242
Movement Adjusted Flow, veh/h	7	27	12	305	48	242

Save Adjusted Sat. Flow
Control Delay (s/veh) 0.8
Level of Service A

SR-165 & 3200 South Background Traffic – 2020

Control
Pretimed (Sequential Phasing)
Start Time 05:00:00
Change...
Remove
☐ Based on
Choose base plan...
Node 21

General
Tums
Timing
LOS
HCM Adjustments

MOEs

Flow Field Flow
Flow Interval (min.) 60
Base Saturation Flow Rate (pc/h/ln) 1900

Lane Group	↓ T	↘ R	↗ L	↘ R	↗ L	↑ T
Approach	1 (S)	1 (S)	2 (E)	2 (E)	3 (N)	3 (N)
Number of Lanes	2	1	1	1	1	2
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
QAP	QAP	QAP	QAP	QAP	QAP	QAP
Adjusted Flow, veh/h	1007	185	166	42	27	649
Capacity (c), veh/h	1678	1207	377	1207	181	2058
Volume-to-Capacity Ratio (X)	0.600	0.153	0.441	0.035	0.149	0.315
Green to Cycle Ratio	0.442	0.750	0.208	0.750	0.100	0.542
Assigned Phase	1	2	3	3	2	2
Uniform Delay (d1), s/veh	12.735	2.126	20.708	1.931	24.671	7.610
Incremental Delay Calibration (K)	0.500	0.500	0.500	0.500	0.500	0.500
Incremental Delay (d2), s/veh	1.595	0.270	3.706	0.054	1.738	0.402
Initial Queue Delay (d3), s/veh	0.000	0.000	0.000	0.000	0.000	0.000
Progression Adjustment Factor (PF)	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay (d), s/veh	14.330	2.395	24.414	1.985	26.409	8.013
Level Of Service	B	A	C	A	C	A
Total Delay, veh-hr	4.008	0.123	1.126	0.023	0.198	1.444
Fully Stopped (Nf), veh/ln	9.3	0.3	2.0	0.1	0.3	4.0
Back of Queue (Q), veh/ln	9.6	0.4	2.3	0.1	0.4	4.1
Y Ratio	0.265	0.115	0.092	0.026	0.015	0.171
Effective Green Time, s	26.5	45.0	12.5	45.0	6.0	32.5
Approach Delay, s/veh	--	12.478	--	19.885	--	8.747
Flow (v), veh/h	1007	185	166	42	27	649
Saturation Flow, veh/h	3800	1900	1900	1900	1900	3800
Adjusted Saturation Flow, veh/h	3800	1609	1809	1609	1809	3800
Available Capacity (ca), veh/h	1678	161	377	335	181	380

Control Delay (s/veh) 12
Level of Service B

SR-165 & 3200 South Background Traffic – 2021

Control
Pretimed (Sequential Phasing)
Start Time 05:00:00
Change...
Remove
☐ Based on
Choose base plan...
Node 21

General
TURNS
Timing
LOS
HCM Adjustments

MOEs

Flow Field Flow
Flow Interval (min.) 60
Base Saturation Flow Rate (pc/h/ln) 1900

Lane Group	↓ T	↓ R	↖ L	↗ R	↖ L	↑ T
Approach	1 (S)	1 (S)	2 (E)	2 (E)	3 (N)	3 (N)
Number of Lanes	2	1	1	1	1	2
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
QAP	QAP	QAP	QAP	QAP	QAP	QAP
Adjusted Flow, veh/h	1037	191	171	43	28	668
Capacity (c), veh/h	1678	1207	377	1207	181	2058
Volume-to-Capacity Ratio (X)	0.618	0.158	0.454	0.036	0.155	0.325
Green to Cycle Ratio	0.442	0.750	0.208	0.750	0.100	0.542
Assigned Phase	1	2	3	3	2	2
Uniform Delay (d1), s/veh	12.874	2.135	20.771	1.932	24.685	7.657
Incremental Delay Calibration (K)	0.500	0.500	0.500	0.500	0.500	0.500
Incremental Delay (d2), s/veh	1.717	0.280	3.906	0.055	1.814	0.420
Initial Queue Delay (d3), s/veh	0.000	0.000	0.000	0.000	0.000	0.000
Progression Adjustment Factor (PF)	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay (d), s/veh	14.591	2.415	24.677	1.987	26.499	8.076
Level Of Service	B	A	C	A	C	A
Total Delay, veh-hr	4.203	0.128	1.172	0.024	0.206	1.499
Fully Stopped (Nf), veh/ln	9.7	0.3	2.0	0.1	0.4	4.1
Back of Queue (Q), veh/ln	10.1	0.4	2.4	0.1	0.4	4.3
Y Ratio	0.273	0.119	0.095	0.027	0.015	0.176
Effective Green Time, s	26.5	45.0	12.5	45.0	6.0	32.5
Approach Delay, s/veh	--	12.697	--	20.118	--	8.817
Flow (v), veh/h	1037	191	171	43	28	668
Saturation Flow, veh/h	3800	1900	1900	1900	1900	3800
Adjusted Saturation Flow, veh/h	3800	1609	1809	1609	1809	3800
Available Capacity (ca), veh/h	1678	161	377	335	181	380

Save Adjusted Sat. Flow
Control Delay (s/veh) 12.2
Level of Service B

SR-165 & 3200 South Total Traffic – 2021

Control
Pretimed (Sequential Phasing)
Start Time 05:00:00
Change...
Remove
☐ Based on
Choose base plan...
Node 21

General
Turns
Timing
LOS
HCM Adjustments

MOEs

Flow Field Flow
Flow Interval (min.) 60
Base Saturation Flow Rate (pc/h/ln) 1900

Lane Group	↓ T	↓ R	← L	→ R	← L	↑ T
Approach	1 (S)	1 (S)	2 (E)	2 (E)	3 (N)	3 (N)
Number of Lanes	2	1	1	1	1	2
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
QAP	QAP	QAP	QAP	QAP	QAP	QAP
Adjusted Flow, veh/h	1037	345	252	63	66	668
Capacity (c), veh/h	1634	1207	398	1207	181	2014
Volume-to-Capacity Ratio (X)	0.635	0.286	0.633	0.052	0.365	0.332
Green to Cycle Ratio	0.430	0.750	0.220	0.750	0.100	0.530
Assigned Phase	1	1	3	3	2	1
Uniform Delay (d1), s/veh	13.417	2.395	21.213	1.957	25.223	8.051
Incremental Delay Calibration (K)	0.500	0.500	0.500	0.500	0.500	0.500
Incremental Delay (d2), s/veh	1.892	0.596	7.472	0.082	5.607	0.443
Initial Queue Delay (d3), s/veh	0.000	0.000	0.000	0.000	0.000	0.000
Progression Adjustment Factor (PF)	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay (d), s/veh	15.308	2.991	28.685	2.040	30.830	8.494
Level Of Service	B	A	C	A	C	A
Total Delay, veh-hr	4.410	0.287	2.008	0.036	0.565	1.576
Fully Stopped (Nf), veh/ln	9.9	0.7	3.1	0.1	0.9	4.3
Back of Queue (Q), veh/ln	10.4	0.9	3.9	0.1	1.1	4.4
Y Ratio	0.273	0.214	0.139	0.039	0.036	0.176
Effective Green Time, s	25.8	45.0	13.2	45.0	6.0	31.8
Approach Delay, s/veh	--	12.234	--	23.356	--	10.502
Flow (v), veh/h	1037	345	252	63	66	668
Saturation Flow, veh/h	3800	1900	1900	1900	1900	3800
Adjusted Saturation Flow, veh/h	3800	1609	1809	1609	1809	3800
Available Capacity (ca), veh/h	1634	692	398	354	181	1634

Save Adjusted Sat. Flow
Control Delay (s/veh) 13.2
Level of Service B

SR-165 & 3200 South Background Traffic – 2026

Control
Pretimed (Sequential Phasing)
Start Time
05:00:00
Change...
Remove
☐ Based on
Choose base plan...
Node
21

General
Turns
Timing
LOS
HCM Adjustments

MOEs

Flow Field
Flow
Flow Interval (min.)
60
Base Saturation Flow Rate (pc/h/ln)
1900

Lane Group	↓ T	↓ R	← L	→ R	← L	↑ T
Approach	1 (S)	1 (S)	2 (E)	2 (E)	3 (N)	3 (N)
Number of Lanes	2	1	1	1	1	2
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
QAP	QAP	QAP	QAP	QAP	QAP	QAP
Adjusted Flow, veh/h	1202	221	198	50	32	775
Capacity (c), veh/h	1678	1207	377	1207	181	2058
Volume-to-Capacity Ratio (X)	0.716	0.183	0.525	0.041	0.177	0.377
Green to Cycle Ratio	0.442	0.750	0.208	0.750	0.100	0.542
Assigned Phase	1	2	3	3	2	2
Uniform Delay (d1), s/veh	13.691	2.181	21.119	1.941	24.740	7.928
Incremental Delay Calibration (K)	0.500	0.500	0.500	0.500	0.500	0.500
Incremental Delay (d2), s/veh	2.651	0.334	5.164	0.064	2.127	0.527
Initial Queue Delay (d3), s/veh	0.000	0.000	0.000	0.000	0.000	0.000
Progression Adjustment Factor (PF)	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay (d), s/veh	16.343	2.515	26.283	2.006	26.867	8.455
Level Of Service	B	A	C	A	C	A
Total Delay, veh-hr	5.457	0.154	1.446	0.028	0.239	1.820
Fully Stopped (Nf), veh/ln	11.9	0.4	2.4	0.1	0.4	5.0
Back of Queue (Q), veh/ln	12.5	0.5	2.9	0.1	0.5	5.1
Y Ratio	0.316	0.137	0.109	0.031	0.018	0.204
Effective Green Time, s	26.5	45.0	12.5	45.0	6.0	32.5
Approach Delay, s/veh	--	14.195	--	21.388	--	9.185
Flow (v), veh/h	1202	221	198	50	32	775
Saturation Flow, veh/h	3800	1900	1900	1900	1900	3800
Adjusted Saturation Flow, veh/h	3800	1609	1809	1609	1809	3800
Available Capacity (ca), veh/h	1678	161	377	335	181	380

Control Delay (s/veh)
13.3
Level of Service
B

SR-165 & 3200 South Total Traffic – 2026

Control
Pretimed (Sequential Phasing)
Start Time 05:00:00
Change...
Remove
☐ Based on
Choose base plan...
Node 21

General
Tums
Timing
HCM Adjustments
LOS

MOEs

Flow Field Flow
Flow Interval (min.) 60
Base Saturation Flow Rate (pc/h/ln) 1900

Lane Group	↓ T	↘ R	↗ L	↖ R	↗ L	↑ T
Approach	1 (S)	1 (S)	2 (E)	2 (E)	3 (N)	3 (N)
Number of Lanes	2	1	1	1	1	2
Lane Width, ft	12.0	12.0	12.0	12.0	12.0	12.0
QAP	QAP	QAP	QAP	QAP	QAP	QAP
Adjusted Flow, veh/h	1202	375	279	70	70	775
Capacity (c), veh/h	1659	1207	386	1207	181	2039
Volume-to-Capacity Ratio (X)	0.724	0.311	0.723	0.058	0.387	0.380
Green to Cycle Ratio	0.437	0.750	0.213	0.750	0.100	0.537
Assigned Phase	1	1	3	3	2	1
Uniform Delay (d1), s/veh	13.937	2.454	21.957	1.966	25.281	8.101
Incremental Delay Calibration (K)	0.500	0.500	0.500	0.500	0.500	0.500
Incremental Delay (d2), s/veh	2.788	0.671	11.175	0.092	6.146	0.540
Initial Queue Delay (d3), s/veh	0.000	0.000	0.000	0.000	0.000	0.000
Progression Adjustment Factor (PF)	1.000	1.000	1.000	1.000	1.000	1.000
Control Delay (d), s/veh	16.726	3.124	33.133	2.058	31.427	8.641
Level Of Service	B	A	C	A	C	A
Total Delay, veh-hr	5.584	0.325	2.568	0.040	0.611	1.860
Fully Stopped (Nf), veh/ln	12.0	0.8	3.5	0.1	0.9	5.0
Back of Queue (Q), veh/ln	12.7	1.0	4.7	0.2	1.2	5.2
Y Ratio	0.316	0.233	0.154	0.043	0.039	0.204
Effective Green Time, s	26.2	45.0	12.8	45.0	6.0	32.2
Approach Delay, s/veh	--	13.491	--	26.900	--	10.529
Flow (v), veh/h	1202	375	279	70	70	775
Saturation Flow, veh/h	3800	1900	1900	1900	1900	3800
Adjusted Saturation Flow, veh/h	3800	1609	1809	1609	1809	3800
Available Capacity (ca), veh/h	1659	703	386	343	181	1659

Control Delay (s/veh) 14.3
Level of Service B



civilsolutionsgroup inc.

GEOTECHNICAL ENGINEERING INVESTIGATION

Ropelato Subdivision Geotechnical Investigation

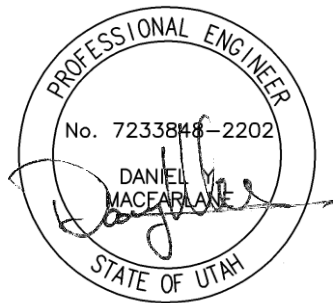
Prepared For:

Visionary Homes
Attn: Dallas Nicoll
50 E 2500 N
North Logan, UT 84341

Prepared By:

Civil Solutions Group, Inc.
Danny Macfarlane, P.E.
John Powell, Field Engineer
540 West Golf Course Rd, Suite B1
Providence, Utah 84332

Original Submittal: February 5, 2020
Job Number: 19-384



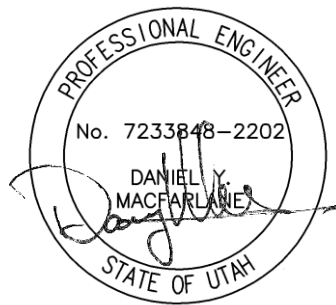
RE: Ropelato Subdivision Geotechnical Investigation

Dear Mr. Nicolls,

Per your request this geotechnical engineering investigation is submitted for the subject property located approximately at 3200 S 250 W in Nibley, UT. This report contains the findings of the field investigation and the analysis conducted by Civil Solutions Group. This report also contains recommendations pertaining to construction and design of earth related portions of this project.

Civil Solutions Group completed the field investigation on January 3, 2020 and January 8-9, 2020 at which time one bore hole and fifteen test pits were drilled/excavated, examined, and recorded in detail. The bore and excavation locations were selected based upon the proposed location of the building footprint and other site features. Civil Solutions Group recommends the site is suitable for proposed construction within the parameters defined within this report. Thank you for the opportunity to provide these services to you.

Sincerely,



Danny Macfarlane, P.E.
Civil Solutions Group, Inc.

Table of Contents

Executive Summary	1
Introduction.....	2
General.....	2
Objectives and Scope.....	2
Authorization	2
Professional Statements.....	2
Proposed Construction	2
Existing Site Conditions.....	3
General.....	3
Site Soils	3
Subsurface Exploration and Testing Programs	3
General.....	3
Field Program	4
Laboratory Program.....	4
Sieve Analysis	4
Atterberg Limits	5
Chemical.....	5
Discussions & Recommendations.....	5
Summary of Findings.....	5
Earthwork.....	5
Site Preparation	5
Temporary Excavations.....	6
Structural Fill	6
Fill Placement and Compaction.....	7
Utility Trenches.....	8
Drainage	8
Infiltration.....	9
Structural Considerations	9
Spread and Continuous Wall Foundations	9
Lateral Resistance.....	9
Floor slabs.....	10
Pavements	10
Pavement Maintenance	11

Soil Corrosiveness.....	11
Cement Use	11
Construction Considerations	12
Geoseismic Setting.....	12
Faulting.....	12
Soil Class	12
Liquefaction.....	12
Estimated Historic High Water Table.....	12
Groundwater.....	13
Closure.....	14
Glossary/Explanation of Terms or Procedures.....	15
Appendix.....	17

Table of Figures

Figure 1 - Vicinity Map	17
Figure 2 - Site Map	18
Figure 3 - Looking North.....	19
Figure 4 – Looking South.....	19
Figure 5 – Key to Soil Logs.....	20

Table of Tables

Table 1 - Gradation & Soil Classifications	4
Table 2 - Atterberg Limits	5
Table 3 - Chemical Properties of Soil	5
Table 4 – Structural Fill Gradation Requirements	7
Table 5 - Fill Compaction Requirements	8
Table 6 - Structural Design Parameters	9
Table 7 - Pavement Recommendations.....	10
Table 8 - Estimated Historic High Water Table	13
Table 9 - Groundwater Depth	13

Executive Summary

A geotechnical study was performed for the subject property at 3200 S 250 W in Nibley, UT. Our scope of services included drilling one bore hole designated B-1, and excavating fifteen test pits designated TP-1 to TP-15. The boreholes were drilled with hollow stem augers, or excavated with a backhoe, and advanced to a maximum depth of 16-feet below existing site grade. All field work was contained in the proposed development area and was completed on January 3, 2020 and January 8-9, 2020.

The findings and recommendations generated from this exploration are summarized below:

- Onsite Soil – The site is composed mostly of silty sand in gravels and cobbles, and silty clay. Thick layers of gravels/cobbles were encountered throughout most of the site. Groundwater was encountered between 4.0 and 9.0-feet below existing grade.
- Foundations - The planned structure should be supported entirely on continuous spread footings or spot footings. The recommended bearing capacity of in-situ soil is 1,500 pounds per square foot.
- Seismic Considerations - The 2018 International Building Code Seismic Design Category for this site is Category D (Risk Category II), with a soil site class of D. The site is located in an area with high to moderate liquefaction potential according to the Utah Geological Survey. Sandy soils and groundwater were encountered during the field investigation. A full liquefaction analysis was not performed for this site.
- Pavement - Minimum pavement sections are as follows:

Section	Recommended Pavement Sections (Inches)				
	Asphalt Concrete	Portland Cement Concrete	Untreated Base Course	Granular Borrow	Total
Local Street	3.0	-	6.0	6.0	15.0
Collector Street	3.0	-	6.0	10.0	19.0
Parking Area	3.0	-	8.0	-	11.0
Private Road	3.0	-	8.0	-	11.0
	-	5.0	6.0	-	11.0
Dumpster Pads	-	6.0	6.0	-	12.0

This summary should be used in conjunction with the entire report for design purposes. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The entire report should be read for an understanding of the report limitations.

Introduction

General

Civil Solutions Group, Inc. (CSG) was contacted by Mr. Nicolls and was asked to conduct a geotechnical engineering investigation on the subject property located at 3200 S 250 W in Nibley, UT. The general location of the site may be seen in Figure 1, Vicinity Map. A more detailed location of the site showing the proposed development and surrounding improvements is shown in Figure 2, Site Map. It was described that the proposed construction for the Ropelato Subdivision is anticipated to be one to two stories in height and of wood frame construction.

Objectives and Scope

The objectives and scope of our study were defined between Mr. Nicolls and Mr. Michael Taylor of Civil Solutions Group. In general, the objectives of this study were to:

- Define and evaluate subsurface soil and groundwater conditions across the site
- Provide foundation, earthwork, drainage, and geo-seismic recommendations

To accomplish these objectives, our scope has included the following:

- A field program consisting of the drilling/excavating, logging, and sampling of the boring and test pits
- A laboratory testing program
- An office program consisting of correlating available data, engineering analyses, and report preparation

Authorization

Civil Solutions Group, Inc. (CSG) was authorized to proceed with this scope of work through an executed contract returned to our office by Mr. Nicolls of Visionary Homes. The executed contract was dated November 27, 2019.

Professional Statements

We at CSG certify that our professional services have been performed, our findings developed, and our recommendations prepared in accordance with generally accepted engineering principles and practices in this area at this time. Supporting data upon which our recommendations are based is presented in the subsequent sections of this report. Recommendation made herein are governed by the physical properties of the soils encountered in the exploration borings, observed and projected groundwater conditions, and the layout and design data as summarized in the Proposed Construction section of this report. If subsurface conditions other than those described in this report are encountered and/or if design and layout changes are implemented, CSG must be informed so that our recommendations can be reviewed and amended, if necessary.

Proposed Construction

The proposed construction is as follows: a mixture of singly family and multi-family residential and roadways. It is anticipated that the structures will be one to two stories of height of typical wood frame construction. If structural engineering plans are different than assumed, they should be provided to our office for review.

The site development will likely require moderate earthwork. It is estimated that in certain areas 5 to 6-foot cuts and/or fills will be required to achieve site grades and tie in-to the adjacent properties.

Traffic is assumed to consist of automobiles and occasionally medium to heavy weight trucks.

Column and wall loadings are anticipated to be on the order of 10-24 kips and 1-2.25 kips per lineal foot respectively.

Existing Site Conditions

General

The site lies approximately at 3200 S 250 W in Nibley, UT. The existing property contains several old barns and storage sheds for livestock feed. The site is divided by fences and waterways. The properties to the west are used for residential, while the north properties and some along the east are used for agriculture. More residential homes are along the east side of the site. Several areas within the site are currently (or very recently) have been used for agricultural farming. The majority of the site is relatively flat, with a few spots within the property, and along the south, that slope steeply before leveling off again. On-site there were streams, canals, and standing water observed at the time of the site visit. There are large areas of wetland located throughout the site.

Site Soils

The soil conditions encountered in each of the test pits and the boring, to the depths explored, had two general soil profiles. In bore hole number 1 (B-1), there was approximately 1.5-feet of topsoil with roots extending from vegetation. From approximately 1.5-feet beneath existing grade to 7-feet we encountered brown gravels and small cobbles with silty sand. From 7-feet to 12-feet, we encountered a coarse sandy gravel with some cobbles. From 12-feet to 15-feet coarse to medium grain sand was encountered. From 15-feet to the full depth explored, 16-feet, silty sand was encountered. In test pit number 11 (TP-11), there was approximately 1.5-feet of topsoil with roots extending from vegetation. From 1.5-feet to 10-feet silty clay was encountered. From 10-feet to the full depth explored, 11.5-feet, silty sand in gravels and cobbles was encountered. TP-12 had similar characteristics as TP-11, and the remaining test pits throughout the site had similar characteristics as B-1. Groundwater was encountered between 4.0 and 9.0-feet. Soil encountered during the investigation can be referenced in the Soil Logs in the Appendix of this report. Materials encountered in the bore holes will exhibit required strength and compressibility characteristics under the anticipated loading range.

Subsurface Exploration and Testing Programs

General

To define and evaluate the subsurface soil and groundwater conditions across the site, one boring and fifteen test pits were drilled or excavated to depths of up to 16-feet below existing grade. The test pits were excavated with a back hoe, while the boring was drilled using a truck mounted drilling rig equipped with 3.25-inch inside diameter hollow stem augers. Soil sampling equipment was advanced through the hollow stem to retrieve disturbed samples of the in-situ soil. Locations of the boring and test pits are presented in Figure 2.

Field Program

The field portion of our study was conducted on January 3, 2020 and January 8-9, 2020. Continuous logs of the subsurface findings were created and maintained as part of the field program. The field portion of our study was under the direct control and continual supervision of an experienced member of our geotechnical staff. Field classifications were logged, and any adjustments made once the laboratory data and analyses were received.

The CSG geotechnical team collected both disturbed samples of typical soils that were found in the bore holes. The disturbed samples were taken using bagged grab samples and a SPT split spoon sampler. The SPT split spoon sampler had an outside diameter of 2-inches and an inside diameter of 1.38-inches. The sampler was driven into the undisturbed soil a total of 18-inches utilizing a 140-pound auto hammer falling a vertical distance of 30-inches. The blow counts recorded on the Soil Logs represent the total number of blows from the safety hammer that were required to drive the sampler a vertical distance of 6-inches.

Graphical depictions of the subsurface findings are shown in the Soil Logs contained within the Appendix of this report.

Laboratory Program

CSG partnered with RB&G Engineering to conduct a laboratory testing program on the samples retrieved from the sites. This laboratory testing program was conducted to provide data necessary for our engineering analyses. The program included partial gradation (sieve) analysis, Atterberg limits (if applicable), and chemical tests. The following describes the tests and summarize the test data. Samples from the field will be maintained in our office for a period of 90 days at which time they will be disposed of unless a written request is received from Visionary Homes that they should be retained.

Sieve Analysis

Gradation tests (sieve analysis) were conducted on disturbed samples which were collected from the site. The gradation test aids in classifying the soils and can provide general index parameters. Gradation tests aid the design team in determining the overall composition of the soil and behaviors that the soil may exhibit under certain situations. The results of the tests are shown in Table 1 below:

Table 1 - Gradation & Soil Classifications

Boring/Excavation Number	Depth (feet)	Percent Passing #200 Sieve	Soil Classification
B-1	9-11	7	SP-SM
TP-4	7-7.5	65	ML
TP-8	9-9.5	96	MH
TP-11	4-4.5	83	CL
TP-12	6-7	98	CL

Atterberg Limits

Atterberg Limits were performed on relatively undisturbed samples to understand the plastic and liquid limits of the cohesive soil. Atterberg limits allow the design team to understand the potential for the soil to shrink and expand based on water content. The results are presented in Table 2 below:

Table 2 - Atterberg Limits

Boring Sample No.	Depth (feet)	Classification	Liquid Limit (LL)	Plastic Limit (PL)	Plasticity Index (PI)
B-1	9-11	SP-SM	--	--	NP
TP-4	7-7.5	ML	--	--	NP
TP-8	9-9.5	MH	67	33	34
TP-11	4-4.5	CL	30	20	10
TP-12	6-7	CL	37	23	14

Chemical

To determine if the site soils will react detrimentally with concrete, chemical Sulfate tests were performed on a representative sample of the natural soils at approximately the depth of the soil that will come into direct contact with concrete improvements for the proposed development. The results of the chemical tests are shown in Table 3 below:

Table 3 - Chemical Properties of Soil

Boring Sample No.	Depth (feet)	Sulfate (mg/kg)
TP-8	2.5-3	15.3
TP-12	3-4	<6.05

Discussions & Recommendations

Summary of Findings

It is recommended that the owner have a CSG field engineer or a qualified assistant oversee the site work, especially the footing excavation and preparation. Also, the building code requires inspection and reports on all structural site work.

Detailed discussions pertaining to earthwork, structural considerations, geoseismic setting, and groundwater are included in the following sections:

Earthwork

Site Preparation

Initial site preparation will consist of the removal of surface vegetation, topsoil, root balls, sod or any other deleterious materials extending at least three feet beyond the perimeter of all areas to be developed. Non-engineered fills will be completely removed three feet beyond the extents of all spread and continuous footings, rigid pavement areas, floor slabs and other areas that require a

stabilized foundation. Stripped materials consisting of vegetation and organic materials should be wasted from the site or used to revegetate landscape areas.

Non-engineered fills may remain in areas where flexible pavements are to be placed if they are properly prepared. Proper preparation will consist of scarifying and moisture conditioning the upper nine inches and recompacting to the requirements of structural fill. It should be noted that compaction of fine-grained soils (silts and clays) as structural site fill will be very difficult, if not impossible, during wet and cold periods of the year.

The exposed natural subgrade should be proof-rolled prior to the placement of structural site grading fill, footings, floor slabs, or any other structural improvement made to the site. The proof-roll should be completed by driving a loaded piece of construction equipment, mounted with rubber tires, over the exposed natural subgrade surface at least twice. A CSG field engineer should oversee the proof roll and provide recommendations as needed. Soft spots should be completely excavated and removed if they are discovered. The soft spots should be replaced with granular structural fill. It is not anticipated that removal depth would be more than 2 vertical feet. If an excavation of more than 2 vertical feet is required, CSG should be notified to provide further recommendation.

In flexible pavement areas, unsuitable materials encountered during compaction and proof-rolling operations must be removed to a maximum depth of two feet and replaced with compacted granular structural fill.

Although evidence of underground facilities such as utilities, septic tanks, cesspools, basements, etc. was not observed during the field investigation, such features could be encountered during construction. If unexpected fills, debris or underground facilities are encountered, such features should be removed, and the excavation thoroughly cleaned prior to backfill placement and/or construction.

Temporary Excavations

All temporary excavations should follow OSHA Sloping and Benching – 1926 Subpart P App B requirements, which take precedence over any recommendations presented in this report.

Temporary excavations in cohesive soil, above or below the water table, not exceeding four feet in depth, may be excavated with nearly vertical sideslopes. Excavations within loose and/or cohesionless soils will be very difficult as they tend to flow into the excavation. They will require very flat sideslopes and/or shoring, bracing and dewatering.

All excavations must be inspected periodically by qualified personnel. If any signs of instability, excessive sloughing or other signs of potential failure are noted, immediate remedial action shall be initiated.

Structural Fill

The on-site native soils were either finer by nature, or very rocky and cannot be used as structural fill. However, the on-site soils can be used as fill in landscape areas that are not expected to carry a load. The use of fine-grained soils (silts and clays) as landscape fill will be very difficult, if not impossible, during wet and cold periods of the year. Proper moisture control and conditioning will be required.

Fine-grained soils (silts and clays) are not recommended as structural fill in confined areas, such as around foundations and within utility trenches. This fill material should be composed of granular material.

All imported granular structural fill should consist of a fairly well-graded mixture of sand and gravel containing less than 15 percent fines (percent by weight of material passing the No. 200 sieve).

To stabilize soft subgrade conditions (if required), a mixture of coarse gravels and cobbles (stabilizing fill) should be utilized. A layer of 12 to 18 inches thick of stabilizing fill is typically sufficient to stabilize most soft/disturbed areas.

Table 4 shown below is indicative of the material that should be used as structural fill and road base throughout the site:

Table 4 – Structural Fill Gradation Requirements

Fill Type *	Application	Requirements		
		Gradation		Plasticity
		Size	% Finer by Weight	
Structural Fill	Required for all fill under foundations and floor slabs	3-inch No. 4 Sieve No. 200 Sieve	100 25 - 60 15-max	Liquid Limit 30-max Plasticity Index 6-max
Site Grading Fill	Fill in pavement and non-structural areas	4-inch No. 200 Sieve	100 35-max	Liquid Limit 36-max Plasticity Index 10-max
Stabilization Fill	Fill used to stabilize soft, potentially pumping subgrade	5-inch No. 200 Sieve	100 5-max	NA
Free Draining Granular Backfill	Retaining Walls	1½-inch 1-inch ½-inch No. 4	100 95 – 100 25 – 60 5-max	NA
Road Base	Fill used under the pavement sections	¾" ⅜" No. 10 No. 40 No. 200	100 78-92 55-67 28-38 7-11	Non-Plastic

*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.

Fill Placement and Compaction

All fill should be placed in lifts not exceeding 8 inches in loose thickness. Moisture should be adjusted to within $\pm 2\%$ of optimum moisture content. Lifts will need to be compacted in thinner lifts if smaller compaction equipment is used. Structural fills should be compacted in accordance

with the percent of maximum dry density as determined by the AASHTO T-180 (ASTM D-1557) compaction criteria and according to Table 5 below:

Table 5 - Fill Compaction Requirements

Location	Total Fill Thickness (feet)	Minimum Percentage of Maximum Dry Density
Beneath an area extending at least 3 feet beyond the footprint of a structure	0 to 8	95
Beneath pavements and travelled ways	0 to 8	95
Landscaped areas or areas not expected to carry a load	0 to 5	85
Landscaped areas or areas not expected to carry a load	5 to 8	92
Road Base	-	96

Prior to placement of fills, the subgrade must be prepared as discussed in the Site Preparation section of this report. In confined areas, subgrade preparation should consist of the removal of all loose and disturbed soils. Fill should be tested frequently for moisture content and compaction during placement. Should the results of the in-situ density tests indicate the specified moisture or compaction limits have not been met, the area represented by the test should be reworked and retested as required until the specified compaction is achieved. This may require adjustment of the moisture content.

Utility Trenches

We recommend that all utility trenches on-site or as a part of this site, should utilize a Type A-1a or A-1b (AASHTO Designation) soil as backfill material. The on-site materials can be used for trench backfill if they meet these classifications and are properly moisture conditioned. This should be verified by the materials testing agency. All utility trenches which will ultimately bear structural loads should be compacted at the structural density requirements established in Table 5.

Drainage

Positive drainage should be provided during construction and maintained throughout the life of the development. Infiltration of water into utility trenches or foundation excavations should be prevented. Planters and other surface features which might retain water in areas adjacent to the buildings or pavements should be sealed, mechanically drained, or eliminated. In areas where sidewalks or paving do not immediately adjoin the structure, we recommend that protective slopes be provided with a minimum grade of approximately five percent for at least 10 feet from perimeter walls. Backfill against footings, exterior walls, and in utility and sprinkler line trenches should be well compacted and free of all construction debris to reduce the possibility of moisture infiltration. Roof runoff should be collected in rain gutters and downspouts. Downspouts, roof drains or scuppers should discharge into extensions when the ground surface beneath such features is not protected by exterior slabs or paving to divert collected water a minimum of 10 feet away from structures. Sprinkler systems should not be installed within five feet of foundation walls. Landscaped irrigation adjacent to the foundation systems should be minimized.

Infiltration

An infiltration test was not performed on site. However, it was observed that in all areas with gravels and cobbles near the surface, the groundwater flowed into the test pits so quickly that the excavator could not remove the water faster than it was entering the test pit. In areas where silty clayey soils were encountered, the infiltration was very slow. These areas were encountered at TP-11 and TP-12, and would not be good for storm water storage or infiltration unless over excavated and replaced with free draining material to the existing gravel layer.

Structural Considerations

Spread and Continuous Wall Foundations

It is understood that the proposed structure will be supported on conventional spread and continuous wall foundations. These foundations should be established on undisturbed native soils. Under no circumstances shall footings be placed overlying non-engineered fills, loose soils, frozen soils, soil containing foreign debris, and any other deleterious material. Unsuitable material must be removed and replaced with an adequate structural fill as discussed in this report. For structural fill replacement beneath footings, the width of the structural fill shall be equal to width of the footing plus one foot on each side for each foot of fill thickness. For example, if the depth of structural fill is three feet then three feet of structural fill needs to extend past the edge of the footing on each side.

The footing should be placed such that there is a minimum of 4 feet of separation between groundwater and the bottom of footing.

For design, the following parameters are provided:

Table 6 - Structural Design Parameters

Design Element	Standard
Recommended minimum depth of embedment for frost conditions	30 inches
Recommended minimum depth of embedment for non-frost conditions	15 inches
Recommended maximum bearing capacity of in-situ soil	1,500 pounds per square foot
Recommended width for continuous wall footings	18 inches
Recommended width for isolated spread footings	36 to 48 inches
Recommended bearing pressure increase for seismic loading	33%
Coefficient of friction between footing and native gravelly soils	0.55
Coefficient of friction between footing and native clayey soils	0.35

Settlement of foundation elements are expected to be on the order of 1" or less with approximately 50% occurring during construction. This settlement can be expected if the project is constructed in accordance with recommendations found within this report.

Lateral Resistance

Passive resistance provided by properly placed and compacted structural fill above the water table may be considered to a fluid with a pressure of 442 pounds per cubic foot ($K_p = 3.69$). Active resistance may be considered equivalent to a fluid with a pressure of 33 pounds per cubic foot ($K_a = 0.27$). Lateral earth pressure can be assumed to be much higher if material behind structural walls is

not free draining. Passive and active resistance pressures will vary if groundwater is encountered. At this site, structures should be constructed such that the groundwater is below the depth of foundations, and therefore should not affect lateral resistance.

Floor slabs

Due to the intended use and anticipated loading, floor slabs should be constructed with a minimum of 4" of concrete (4,000 psi, air-entrained – 6% $\pm$ 1%) over 4" of clean gravel material. The subgrade material shall be properly prepared as discussed previously in this report. Under no circumstances should floor slabs be established over non-engineered fill, loose or disturbed soils, sod, rubbish, construction debris, other deleterious materials, frozen soils, or soils with ponded water. If constructed in accordance with this section, settlements of at-grade floor slabs supporting loads of 200 pounds per square foot should be on the order of 1/4" or less.

Where appropriate, saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or any cracks that develop should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

The use of a vapor barrier should be considered beneath concrete slabs on grade that will be covered with wood, tile, carpet or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor barrier, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor barrier.

Pavements

Pavement sections were designed using AASHTO 93 design methodologies and assumed traffic volumes from the traffic study completed by our office. Based on laboratory test results, N-values obtained from the SPT tests during the field exploration, and the in-situ soils, a CBR value of 6% was used for the underlying subgrade soils. This resulted in a subgrade resilient modulus (M_{RSG}) of 8,000 pounds per square inch. The anticipated traffic loading consists of mostly automobiles with the occasional medium to heavy weight truck. The following design traffic (18-k Equivalent Single Axle Loads) were assumed.

Section	Total Design ESALs*	Reliability Level	Design Life
Local Street	240,000	90%	20 years
Collector Street	700,000	90%	20 years
Parking Area	60,000	90%	20 years
Private Road	60,000	90%	20 years

*If the traffic anticipated on site is different from that assumed, Civil Solutions Group should be notified.

Considering the underlying subgrade material and anticipated traffic and loading, the following pavement sections are recommended as shown in Table 7:

Table 7 - Pavement Recommendations

Section	Recommended Pavement Sections (Inches)				
	Asphalt Concrete	Portland Cement Concrete	Untreated Base Course	Granular Borrow	Total
Local Street	3.0	-	6.0	6.0	15.0
Collector Street	3.0	-	6.0	10.0	19.0
Parking Area	3.0	-	8.0	-	11.0
Private Road	3.0	-	8.0	-	11.0
	-	5.0	6.0	-	11.0
Dumpster Pads	-	6.0	6.0	-	12.0

The rigid pavement section is for non-reinforced Portland cement concrete. Concrete should be designed in accordance with the American Concrete Institute (ACI). The concrete should have a minimum 28-day unconfined compressive strength of 4,000 pounds per square inch and contain 6 percent $\pm$ 1 percent air entrainment.

Public pavement areas are to follow minimum design standards set by the reviewing authority, or the recommendations found in this report if they are greater than the minimum design standards.

Pavement Maintenance

All paved areas should have adequate crown and slope to provide positive drainage and prevent ponding of surface water and infiltration below the pavement section. Water collection devices such as gutters and ditches should be incorporated into the parking lot design to prevent percolation of surface water below the pavement section.

Pavement sections have not been designed to support construction equipment. As such, the contractor should protect pavement areas from damage that may result from construction traffic.

The pavement sections provided in this report are minimums for the given design criteria. Periodic maintenance is critical to the long-term performance of the pavement sections. A maintenance program that includes surface sealing, joint cleaning and sealing, joint grinding, repair and replacement of cracked slabs and timely repair of cracks and deteriorated areas will be critical to the pavement meeting its design life.

Soil Corrosiveness

The soil was sampled for Sulfate levels at soil depths that will come into direct contact with the footings and foundations. These chemical levels are shown in Table 3 for reference.

Cement Use

Type I or IA mixes may be used in the design of these improvements. The soil tested contained a negligible amount of water soluble sulfates. Based on our test results, concrete in contact with the in-situ soils will have a low potential for sulfate reaction and therefore the mix types of I or IA are acceptable. Other types of mixtures may be used by the design team if other strength/functionality parameters are desired.

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 or footing subgrade may not be suitable for placement of crushed gravel and concrete and corrective action will be required. We recommend areas underlying floor slabs and footings be rough graded and then thoroughly proof-rolled with a loaded tandem axle water or dump truck prior to final grading and placement of crushed gravel or concrete. Attention should be given to high traffic areas that were rutted and previously disturbed 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 structural fill. All structural subgrade areas should be moisture conditioned and properly compacted to the recommendations in this report immediately prior to placement of the gravel and concrete.

Geoseismic Setting

Faulting

Based on a review of Utah Geological Survey fault maps, the site is approximately 1.7 miles east of the East Cache fault zone central section.

Soil Class

The soil site class is D ($S_1 = 0.32 \text{ g}$ & $S_s = 0.999 \text{ g}$), with a Seismic Design Category D (Risk Category II) in accordance with Chapter 20 of ASCE 7 and IBC 2018.

Liquefaction

The site is in an area that has been classified as high to moderate liquefaction potential by the Utah Geological Survey. Liquefaction requires water, seismic activity, and loose sandy soils. Water and sandy soils were encountered during the site investigation. Due to the nature of the project, a full liquefaction analysis was not completed for the site.

Estimated Historic High Water Table

In order to determine the Estimated Historic High Water Table (EHHWT) elevation for the site, test pits were excavated with a back hoe excavator to a depth of 12-feet, or until the EHHWT was encountered. The EHHWT was observed in the soil pit based upon the soil characteristics of reduction/oxidation cycles that occur in soil over many years, possibly even centuries. The accepted methodology for determining the EHHWT is observing the soil layer where mottling occurs. Mottling can be described as contrasting or blotchy color patterns within a dominant soil horizon. Mottling is formed when the seasonal water table rises into soil with aerobic conditions changing the conditions in the soil from aerobic (oxygen rich) to anoxic (lacking oxygen).

Another indicator of anoxic soil conditions is the presence of ferrous iron in the soil. The prolonged soil-saturation results in anaerobiosis leading to the formation of ferrous iron. As the groundwater migrates from the historic high water mark and below the ferrous iron is distributed throughout the soil profile. This type of occurrence is referred to as redoximorphic features. The EHHWT measurements (as measured down from existing grade) are tabulated in Table 9 below:

Table 8 - Estimated Historic High Water Table

Bore Hole Number	EHHWT Depth (feet)
TP-1	3.5
TP-2	4.5
TP-3	4.5
TP-4	3.0
TP-5	4.0
TP-6	3.5
TP-7	*
TP-8	*
TP-9	*
TP-10	*
TP-11	6.0
TP-12	3.5
TP-13	4.5
TP-14	2.8
TP-15	*

*Due to in-situ soil conditions, typical EHHWT indicators were difficult to determine. Due to seasonal changes, we recommend using an EHHWT level of 1.0 feet above the encountered groundwater depth shown in Table 9.

Groundwater

Immediately following drilling operations, the groundwater was measured in each boring. Seasonal and longer-term groundwater fluctuations on the order of one and one-half to three feet are projected, with the highest seasonal levels generally occurring during the late spring and early summer months. The groundwater measurements (as measured down from existing grade) are tabulated in Table 9 below:

Table 9 - Groundwater Depth

Bore Hole Number	Time of Drilling (feet)
B-1	4.5
TP-1	4.5
TP-2	5.5
TP-3	8.5
TP-4	4.5
TP-5	4.7
TP-6	4.6
TP-7	4.0
TP-8	5.5
TP-9	4.5
TP-10	6.5
TP-11	9.0
TP-12	6.0
TP-13	5.5

TP-14	3.2
TP-15	4.5

Closure

Civil Solutions Group should be retained to provide observations during grading, excavation, foundation construction, and other earth-related construction activities related to this project. The conclusions and recommendations presented in this report are based on the results of the field and laboratory tests which, in our opinion, define the characteristics of the soils at this site in a satisfactory manner. However, this report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If during or after construction, conditions are encountered which appear to be different than those presented in this report, it is requested that our office be advised, in order that appropriate action be taken.

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. Any persons using this report for bidding or construction purposes should perform independent investigations as they deem necessary to determine subsurface conditions. The scope of services for this project 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.

This report has been prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either express or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. If changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Civil Solutions Group reviews the changes and either verifies or modifies the conclusions of this report in writing.

Glossary/Explanation of Terms or Procedures

Throughout this report, we have used a number of words or phrases which may be unfamiliar in nature. Also, several procedural concepts have been mentioned repeatedly. For this reason, we have decided to define or discuss these items to better communicate with the reader(s).

Compaction and Lift Size - Contractors should be aware that there is direct relationship between lift size and size of the compacting equipment. The smaller the compactor, the smaller the maximum lift height. With “wacker” compactors, the maximum lift should be held at about 3-4-inches. With walk-behind trench compactors (2-tons or so), the lifts should be no more than 6-inches thick. Eight-inch lifts can be used with large ride-on devices (7-10-tons or greater) that roll and vibrate/pound. Hoe pack devices on track hoes or backhoes can compact 6-8-inch lifts depending on size. However, the maximum lift size should not exceed 8-inches for most compactors. Note: a lift is defined as the loose or un-compacted thickness of the soil layer being compacted

Groundwater level - The groundwater level is a “rough guess” of where the uppermost water level is in a soil. We look for the first sign of free water coming in from the trench walls or appearing on the soil. In the soil logs, the groundwater level is identified by a solid or darkened triangle with a wavy line below it.

Liquefaction - Loss of bearing strength of saturated and very fine-grained silts and sands during severe earthquakes. This strength-loss is due to the slow dissipation of pore pressure (due to low permeability) and the subsequent reduction of particle-to-particle contact induced by the shaking motion of the earthquake.

Piezowater or Piezometer - To measure the groundwater level after a soil test pit is excavated, a pipe (a piezometer) is placed in the pit and left for at least 48-hours. The bottom 12-inches of the piezometer is slotted and capped to keep soil from entering and plugging up the pipe. The piezometer is then backfilled. After 48-hours, the water level in the piezometer is recorded. This level is the piezowater level. It is often higher than the point where water is first seen in a test pit during excavation. The importance is that the piezometer level is the potential depth of the groundwater for a site location should a ‘dig’ be done at the site. However, this level may change over time depending on weather conditions (wet or dry years and periods); rust or mottling of the soils may indicate an historical level of the water. In the soil logs, the piezowater level is a line with an “open” triangle above it and a wavy line below the triangle. The “open” triangle signifies the fact that the overlying soil “cap” has been removed.

Topsoil - It is generally defined as surface soils (silts or clays) with greater than 2-percent organics; this soil is often dark brown to black in color. It generally has visible roots or organic matter and is highly compressible. Topsoil should never be used under a footing or load bearing structure; it is generally, too compressible and with loading, settles over time. It should be stockpiled for use in landscaped areas, used for wetland mitigation/re-seeding, as a pond liner, or exported from the site.

Undisturbed soil - This is soil in its natural state, undisturbed by past excavation, farming, construction, or perturbation of any type. It is a most important feature. Areas that have been filled are always considered disturbed. On the other hand, “cut” areas can be considered undisturbed if the soil was cut with a straight bladed bucket edge, and not tines. If soils are disturbed, and footings or walls will be bear on these soils, they must be re-compacted.

Non-Engineered Fill – Non-engineered fill material is non-native (imported) material that has not been tested in the lab for engineering properties nor has a record of proper placement and compaction. Therefore, it should not be used for structural fill. This material can be used if properly prepared, but Civil Solutions Group recommends any non-engineered material in which loads will bear on be tested prior to placement. Once placed, this material should be tested to ensure structural properties are met. Recommendations in this report are based upon the materials encountered during the field investigation.

Visionary Homes
Ropelato Subdivision Geotechnical Investigation



Figure 2 - Site Map



Figure 3 - Looking North



Figure 4 – Looking North

WATER LEVEL		U S C S		DESCRIPTION										DEPTH (FT.)		BLOW COUNT		SAMPLE SYMBOL		MOISTURE (%)		DRY DENSITY (PCF)		% PASSING 200		LIQUID LIMIT (%)		PLASTICITY INDEX		REMARKS											
1	2	3		4	5	6	7	8	9	10	11	12																													
COLUMN DESCRIPTIONS																																									
1 Water Level: Depth to measure groundwater table. See symbol below. 2 USCS: Graphic depiction of subsurface material encountered; typical symbols are explained below. 3 Description: Description of material encountered; may include color, moisture, grain size, and density/consistency. 4 Depth (ft.): Depth in feet below the ground surface. 5 Blow Count: Number of blows required to advance SPT sampler (12") beyond first 6" using a 140-lb hammer with a 30 inch drop. 6 Sample Symbol: Type of soil sample collected at depth interval shown; sampler symbols are explained below. 7 Moisture (%): Water content of soil sample measured in laboratory; expressed as percentage of dry weight of specimen. 8 Dry Density (pcf): The density of a soil measured in laboratory; expressed as pounds per cubic foot. 9 % Passing 200: Fines content of soil sample passing a No. 200 sieve measured in laboratory, expressed as a percentage. 10 Liquid Limit (%): Water content at which a soil changes from plastic to liquid behavior. 11 Plasticity Index (%): Range of water content at which a soil exhibits plastic properties. 12 Remarks: Comments and observations regarding drilling or sampling made by driller or field personnel. Other field and laboratory test results; using the following abbreviations: <table><tr><th>CEMENTATION</th><th>MODIFIERS</th><th>MOISTURE CONTENT (FIELD TEST)</th></tr><tr><td>Weakly: Crumbles or breaks with handling of slight finger pressure.</td><td>Trace <5 %</td><td>Dry: Absence of moisture, dusty, dry to the touch.</td></tr><tr><td>Moderately: Crumbles or breaks with considerable finger pressure.</td><td>Some 5 - 12%</td><td>Moist: Damp but no visible water.</td></tr><tr><td>Strongly: Will not crumble or break with finger pressure.</td><td>With >12%</td><td>Saturated: Visible water, usually soil below water table.</td></tr></table> Descriptions and stratum lines are interpretive; field descriptions may have been modified to reflect lab test results. Descriptions on the logs apply only at the specific boring locations and at the time the borings were advanced; they are not warranted to be representative of subsurface conditions at other locations or times.																														CEMENTATION	MODIFIERS	MOISTURE CONTENT (FIELD TEST)	Weakly: Crumbles or breaks with handling of slight finger pressure.	Trace <5 %	Dry: Absence of moisture, dusty, dry to the touch.	Moderately: Crumbles or breaks with considerable finger pressure.	Some 5 - 12%	Moist: Damp but no visible water.	Strongly: Will not crumble or break with finger pressure.	With >12%	Saturated: Visible water, usually soil below water table.
CEMENTATION	MODIFIERS	MOISTURE CONTENT (FIELD TEST)																																							
Weakly: Crumbles or breaks with handling of slight finger pressure.	Trace <5 %	Dry: Absence of moisture, dusty, dry to the touch.																																							
Moderately: Crumbles or breaks with considerable finger pressure.	Some 5 - 12%	Moist: Damp but no visible water.																																							
Strongly: Will not crumble or break with finger pressure.	With >12%	Saturated: Visible water, usually soil below water table.																																							
UNIFIED SOIL CLASSIFICATION SYSTEM																																									
MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS																																				
			Graph	Letter																																					
COARSE-GRAINED SOILS	GRAVELS More than 50% of coarse fraction retained in No. 4 sieve.	CLEAN GRAVELS (little or no fines)		GW	Well-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines																																				
				GP	Poorly Graded Gravel, Gravel-Sand Mixtures, Little or No Fines																																				
	SANDS More than 50% of coarse fraction passing through No. 4 sieve.	GRAVELS WITH FINES (appreciable amount of fines)		GM	Silty Gravels, Gravel-Sand-Silt Mixtures																																				
				GC	Clayey Gravels, Gravel-Sand-Clay Mixtures																																				
		CLEAN SANDS (little or no fines)		SW	Well-Graded Sands, Gravelly Sands, Little or No Fines																																				
				SP	Poorly Graded Sands, Gravelly Sands, Little or No Fines																																				
FINE-GRAINED SOILS	SILTS AND CLAYS Liquid limit less than 50%	SANDS WITH FINES (appreciable amount of fines)		SM	Silty Sands, Sand-Silt Mixtures																																				
				SC	Clayey Sands, Sand-Clay Mixtures																																				
				ML	Inorganic Silts and Very Fine Sands, Rock Flour, Silty or Clayey Fine Sands or Clayey Silts with Slight Plasticity																																				
				CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays																																				
				OL	Organic Silts and Organic Silty Clays of Low Plasticity																																				
More than 50% of material is smaller than No. 200 sieve size.	SILTS AND CLAYS Liquid limit greater than 50%		MH	Inorganic Silts, Micaceous or Diatomaceous Fine Sand or Silty Soils																																					
			CH	Inorganic Clays of High Plasticity, Fat Clays																																					
			OH	Organic Clays of Medium to High Plasticity, Organic Silts																																					
HIGHLY ORGANIC SOILS				PT	Peat, Humus, Swamp Soils with High Organic Contents																																				

STRATIFICATION

DESCRIPTION	THICKNESS
Seam	up to 1/8"
Layer	1/8" - 12"

STRATIFICATION

Occasional:
One or less per 6" of thickness

Numerous:
More than one per 6" of thickness

TYPICAL SAMPLER GRAPHIC SYMBOLS

Bulk/Bag Sample

Standard Penetration Split Spoon Sampler

Rock Core

No Recovery

3.25" OD 2.42" ID D&M Sampler

3.0" OD 2.42" ID D&M Sampler

California Sampler

Thin Wall

LOG KEY SYMBOLS

Water Level

Note: Dual Symbols are used to indicate borderline soil classifications

Figure 5 – Key to Soil Logs

GEOTECHNICAL INVESTIGATION BORE LOG

civilsolutionsgroup inc.

PROJECT NAME: ROPELATO SUBDIVISION

LOCATION:

3200 S 250 W
NIBLEY UT, 84321

PROJECT NUMBER: 19-384

CLIENT:

VISIONARY HOMES

DATE DRILLED: 1/3/2020

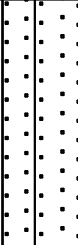
LOGGED BY:

JP

METHOD OF DRILLING: CME 45C

BORE NUMBER:

B-1

DEPTH (FT)	DESCRIPTION	GRAPHIC LOG	SAMPLE TYPE	SAMPLE NUMBER	FIELD VALUES			LAB RESULTS				
					COMPRESSIVE STRENGTH (TSF)	SHEAR STRENGTH (TSF)	N-VALUE	N'	DRY DENSITY (PCF)	MOISTURE (%)	LIQUID LIMIT (%)	PLASTIC LIMIT (%)
	TOPSOIL DARK BROWN											
	GRAVELS AND COBBLES WITH SOME FINES (GP), BROWN, MEDIUM DENSE											
5				1.1			5 6 9	15				
	COURSE SAND WITH GRAVELS AND COBBLES (SP-SM), BROWN, MEDIUM DENSE											
10				1.2			2 6 12	18		7.8	--	NP
	COURSE TO MEDIUM GRAIN SAND (SP-SM), BROWN, MEDIUM DENSE											
15				1.3			2 3 5	8				

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: B-1

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-1

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-2

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-3

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-4

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-5

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-6

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-7

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

BORE NUMBER: TP-8

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

LOGGED BY: JP

BORE NUMBER: TP-9

[illegible]

civilsolutionsgroup inc.

BORE NUMBER: TP-10

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

BORE NUMBER: TP-11

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

BORE NUMBER: TP-12

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-13

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-14

[illegible]

civilsolutionsgroup inc.

LOCATION: 3200 S 250 W
NIBLEY UT, 84321

CLIENT: VISIONARY HOMES

LOGGED BY: JP

BORE NUMBER: TP-15

[illegible]



June 18, 2020

Gordon Zilles
1835 West 3200 South
Logan, Utah 84324
m. 435.881.9298

RE: College Irrigation and Ridgeline Park phases 1-3 development

Dear Gordon:

Thank you for your time on the phone yesterday. Glad we finally made contact. Please see below the paragraph Nibley City is desiring you sign off on and the enclosed pre-liminary plat of phase 1-3 of Ridgeline Park. After you have reviewed and signed, I will pick up like we discussed.

The canal must be piped with A 36" pipe

"The Developer of Ridgeline Park subdivision has contacted us regarding the proposed development. We understand that we have thirty (30) days from the date of this letter to contact Nibley City regarding the canals on this property. Failure to do so constitutes the canal company's acceptance of improvements to said canals."

Signed,

A handwritten signature in black ink, appearing to read "Gordon Zilles", written over a horizontal line.

Gordon Zilles
President
College Irrigation Company

June 28 2020

Don't hesitate to reach out to me on anything. And I look forward to working with you on this development.

Warmest Regards,

Benjamin Steele
m. 208.559.4016



Agenda Item #10

Description	Discussion & Consideration – Firefly Estates, Phase 1 Final Plat, Located at approximately 1200 W and 2200 S. (Applicant: Return Development LLC)
Department	Planning
Presenter	Levi Roberts, City Planner
Recommendation	Make a motion to approve Firefly Estates, Phase 1 Final Plat, Located at approximately 1200 W and 2200 S. (Applicant: Return Development LLC)
Reviewed By	Mayor, City Manager, City Planner, Public Works Director, City Engineer

Background:

Return Development has applied for final plat approval for Firefly Estates, Phase 1. Firefly Estates is a Residential- Planned Unit Development, approved by the City Council on February 27, 2020. Phase 1 contains a total of 63 lots, including 11 single family homes, 52 town homes and 0.84 acres of open space. The developer will also dedicate 1.91 acres of park space adjacent to Firefly Park as part of Phase 1, with the park being developed in proportion to the ratio of completed homes.

The plat has the same general lot layout, roadways and open space as the preliminary plat that was approved by the City Council on February 27, 2020 and meets the space and density requirements for the R-PUD zone, in which the subdivision is located. The City Planner, City Engineer and Public Works Director have reviewed the most recently submitted plat and supporting documentation and have determined that it meets City standards and is ready for approval.

Maintenance and Ownership Plan

NCC 19.32.050 provides that a maintenance and ownership plan is needed, which describes the operations and maintenance of proposed amenities and open space. The applicant has provided a copy of the proposed Covenants, Code and Restrictions for the area. This document includes a maintenance plan, which describes that the homeowners association will maintain, repair and replace the common areas and the improvements included and describes the areas in which individual homeowners are responsible. Information about insurance and costs have also been provided within the document. Insurance is described to cover 100% of replacement costs. Estimated staffing for maintenance is estimated to be 2 persons at a cost of \$1,200 per month.

Landscaping and Open Space Plan

NCC 19.32.080 provides that landscaping with suitable plants, trees, shrubs, grasses and similar materials are required. The applicant has provided a landscape plan, which mirrors the landscape plan approved with the preliminary plat and includes a range of trees and shrubs set among grass in the common areas. The applicant proposes a small 0.84 HOA-managed park space that includes a playground with swingset. Staff has determined that the proposed playground meets the standards of NCC 19.32.050.

Planning Commission Recommendation

During the May 21, 2020 meeting, the Planning Commission recommended approval on Firefly Estates, Phase 1 Final Plat, located at approximately 1200 W and 2200 S with the conditions needed by city staff and City Engineer, including:

1. The Plat needs the following updates:
 - a. All setbacks need to be drawn on the Plat, including for the townhomes, to ensure compliance with NCC 19.32.060.
 - b. Update all TBC radius to 12'
2. The Construction drawings need the following updates:
 - a. 2260 South needs a 1 ft buffer.
 - b. Improvements on Meadow Lane need to comply with TS-3 Cross-section with the 10 ft. trail on the west side.
 - c. East Park Space should be dedicated to the City in first phase.
 - d. Fencing along parcel 03-174-0001 needs to be installed
 - e. Need to show and build 1/2 section TS-7 on 1200 W.
 - f. Update all TBC radius to 12'. This will affect the plat as well.
 - g. Bottom of ponds need to be at least 2' above ground water. Need to show ground water elevation on pond plans.

- h. Minimum pavement structural section is 3/6/12. Update needed to meet this minimum requirement.
 - i. Ensure stormwater calculations account for 1 ft of free board in the volume provided.
 - j. "Pit Run" reference throughout plan needs to be changed to Granular Back Fill Borrow as indicated in APWA.
 - k. A 2" meter can serve up to 25 units. There are 2 options the City is considering for metering the town homes. One is to install a single 2" meter for each 25 units and individual shut off valves to each unit. A bill would be sent to the homeowners association for each 2" meter. It would be the HOA responsibility to collect and make payment. Option 2 is to run a 2" service line for each set of 25 units to a manifold system and run each unit off its own 1" meter. Update plans to reflect City's decision on metering.
 - l. Sewer and water service lines to the lots on the south need to be flipped. Water 5' from property line and then sewer 10' from water. Water meters need to be in standard location, 5' behind walk.
 - m. Ensure there is 10 ft spacing between water line and sewer. Label spacing width
 - n. Provide directional ADA ramps at 1200 west.
 - o. Need to show complete ROW width on 1200 West and 2200 South, both through and beyond development
 - p. Need to show detailed designs of 1200 West and 2200 South, including widths of asphalt tie in, slopes of existing asphalt.
 - q. Provide proof that outlet and existing ditch to west at NW corner provides adequate drainage for the site.
3. The Landscape Plan needs the following updates:
- a. More detail is needed about the design of the playground to ensure compliance with NCC 19.32.050.
4. The following additional information is needed prior to approval:
- a. Provide proof of infiltration/percolation test. Pond needs to drain within 72 hours.
 - b. Provide geotechnical pavement design to verify the minimum structural requirement.
 - c. Provide signed storm water pond agreement.
 - d. Ensure building requirements for the townhomes meet Nibley City standards
 - e. Approval needed from Logan City for waste collection plan prior to City Council approval. Nibley City prefers dumpsters for townhome units.

- f. Construction Drawings must be signed by and approved by the City Engineer.

Since the Planning Commission meeting, the applicant has provided the updated information, as recommended. Staff has determined that the applicant has met all the conditions and recommend approval of the Final Plat application, with the following condition:

- This approval is contingent on the City's rejection of the referendum on this project not being successfully challenged in court. Developer accepts all risks of moving forward with the plat while litigation regarding the referendum is ongoing.

PRELIMINARY PLAT

REGISTERED PROFESSIONAL ENGINEER
NO. 368550
ADAM MACKELPRANG
STATE OF UTAH
3-5-2020



OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

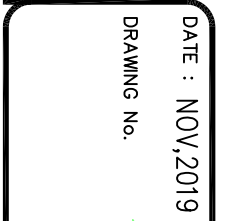
AE

PROJECT NO. :

No.	REVISIONS/ SUBMISSIONS
REVIEWED :	
CAD FILE :	

MINARY PLAT

RELIMINARY PLAT



LOCATED IN THE SE QUARTER OF SECTION 17,
TOWNSHIP 11 NORTH, RANGE 1 EAST, SLB&M
1050 WEST 2200 SOUTH
NIBLEY, UTAH

A vicinity map showing the project site location. The map includes the following features:

- Streets:** US Highway 89/91 (diagonal), 1200 W (horizontal), 2200 S (vertical), 3200 S (vertical), 800 W (horizontal), and Sunset Cir (curved).
- Project Site:** A red-outlined rectangular area located at the intersection of 1200 W and 2200 S.
- Landmarks:**
 - OPUSX LAB (3045 S):** Located near the intersection of 1200 W and 3200 S.
 - OPEN SPACE:** A triangular area bounded by 1200 W, 3200 S, and Sunset Cir.
 - CLASH:** A small area near the intersection of 1200 W and 3200 S.
- Other Features:** A pink-outlined area is visible on the left side of the map, and a line points to the project site with the label "PROJECT SITE".

OWNER/DEVELOPER
RETURN DEVELOPMENT
CHRISTOPHER HUEFMAN
(801)557-3170
ETHAN POPPLETON
(435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

GENERAL CONTRACTOR SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NIBBY CITY STANDARDS, STATE OF UTAH AND ANY OTHER APPLICABLE STANDARDS ISSUED BY THE CONTROLLING AGENCY.

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NIBBY CITY STANDARDS, STATE OF UTAH AND ANY OTHER APPLICABLE STANDARDS ISSUED BY THE CONTROLLING AGENCY.

2. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER.

3. CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY AREAS AND/OR MATERIALS DAMAGED DURING CONSTRUCTION.

4. CONTRACTOR SHALL MAINTAIN ALL ADJACENT PROPERTY (PUBLIC & PRIVATE) FROM ALL CONSTRUCTION DEBRIS.

5. CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION FROM ALL NEW CONSTRUCTION TO EXISTING CONDITIONS.

6. CONTRACTOR SHALL PROVIDE ALL NECESSARY AUTOMOBILE AND PEDESTRIAN TRAFFIC CONTROL DEVICES REQUIRED BY LOCAL, STATE, AND FEDERAL CODES AND ORDINANCES.

7. CONTRACTOR SHALL REPLACE SURVEY MONUMENTS DAMAGED DURING CONSTRUCTION. SURVEY MONUMENTS TO BE REPLACED BY A REGISTERED, LICENSED LAND SURVEYOR.

8. CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, INCLUDING FIBER OPTIC. ANY DAMAGES TO EXISTING UTILITIES WILL BE REPAIRED AT CONTRACTORS EXPENSE.

9. DIMENSIONS SHOWN ARE TO THE CENTER OF THE PIPELINE UNLESS OTHERWISE NOTED.

10. DISTANCES SHOWN ALONG PEELINES ARE HORIZONTAL DISTANCES AND NOT ACTUAL PIPE LENGTHS. MORE PIPE MAY BE REQUIRED TO COMPLETE CONSTRUCTION THAN IS DIMENSIONED IN THE PLANS.

11. THURST BLOCKS SHALL BE PLACED ON WATERLINES AT ALL DIRECTION CHANGES, FITTINGS, BENDS, ELBOWS, FIRE HYDRANTS AND GATES VALVES AS SHOWN IN THE PROJECT PLANS.

12. CONTRACTOR IS REQUIRED TO HAVE A SET OF PLANS ON THE SITE AT ALL TIMES. ANY WORK COMPLETED WITHOUT A SET PRESENT IS DONE SO AT THE CONTRACTORS RISK AND EXPENSE IF ERRORS OCCUR.

13. CONTRACTOR IS RESPONSIBLE FOR PROVIDING WATER NECESSARY FOR DUST ABATEMENT, COMPACTION, ETC.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SOURCES FOR GRANULAR MATERIALS, WATER, WASTE SITES, AND ANY OTHER MATERIALS SOURCES AS REQUIRED FOR PROJECT COMPLETION.

15. ANY WORK DONE WITHIN A PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE TRANSPORTATION AGENCY AND SHALL MEET THE REQUIREMENTS OF THAT AGENCY AND THE REQUIREMENTS OF ANY RIGHT-OF-WAY OR SPECIAL USE PERMITS.

16. THE CONTRACTOR SHALL COORDINATE ALL LIVE PAPS AND ANY OTHER WORK OR MANIPULATION OF THE EXISTING WATER SYSTEM WITH THE CITY.

17. ON SLOPING AREAS THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MINIMIZE ANY POSSIBLE EROSION PROBLEMS IN THE TRENCHES DUE TO STORM WATER THAT MIGHT OCCUR DURING OR AFTER CONSTRUCTION AS DIRECTED OR APPROVED BY ENGINEER.

18. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS DETAILED IN THE PROJECT PLANS UNTIL FINAL ACCEPTANCE OF THIS PROJECT.

19. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONS NECESSARY TO INSURE THAT NO STORM WATER/SEDIMENT AND/OR CONSTRUCTION DEBRIS ARE RELEASED FROM THE SITE. ANY RELEASES SHALL BE CLEANED AND MITIGATED AT THE CONTRACTOR'S EXPENSE.

20. CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACCESS AND RELATED TRAFFIC CONTROL WITH THE COUNTY, CITY, AND STATE ROADWAY DEPARTMENTS. THE ENGINEER SHALL REVIEW ALL TRAFFIC CONTROL PLANS.

21. ALL GATE VALVES SHALL BE LOCATED NEAR TO TEES OR CROSSES AND THEIR ASSOCIATED REDUCERS AS SHOWN ON THE PROJECT PLANS.

22. CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, HARDWARE, LABOR, ETC. TO REQUIRED GRADES, ALIGNMENTS AND COVER REQUIREMENTS.

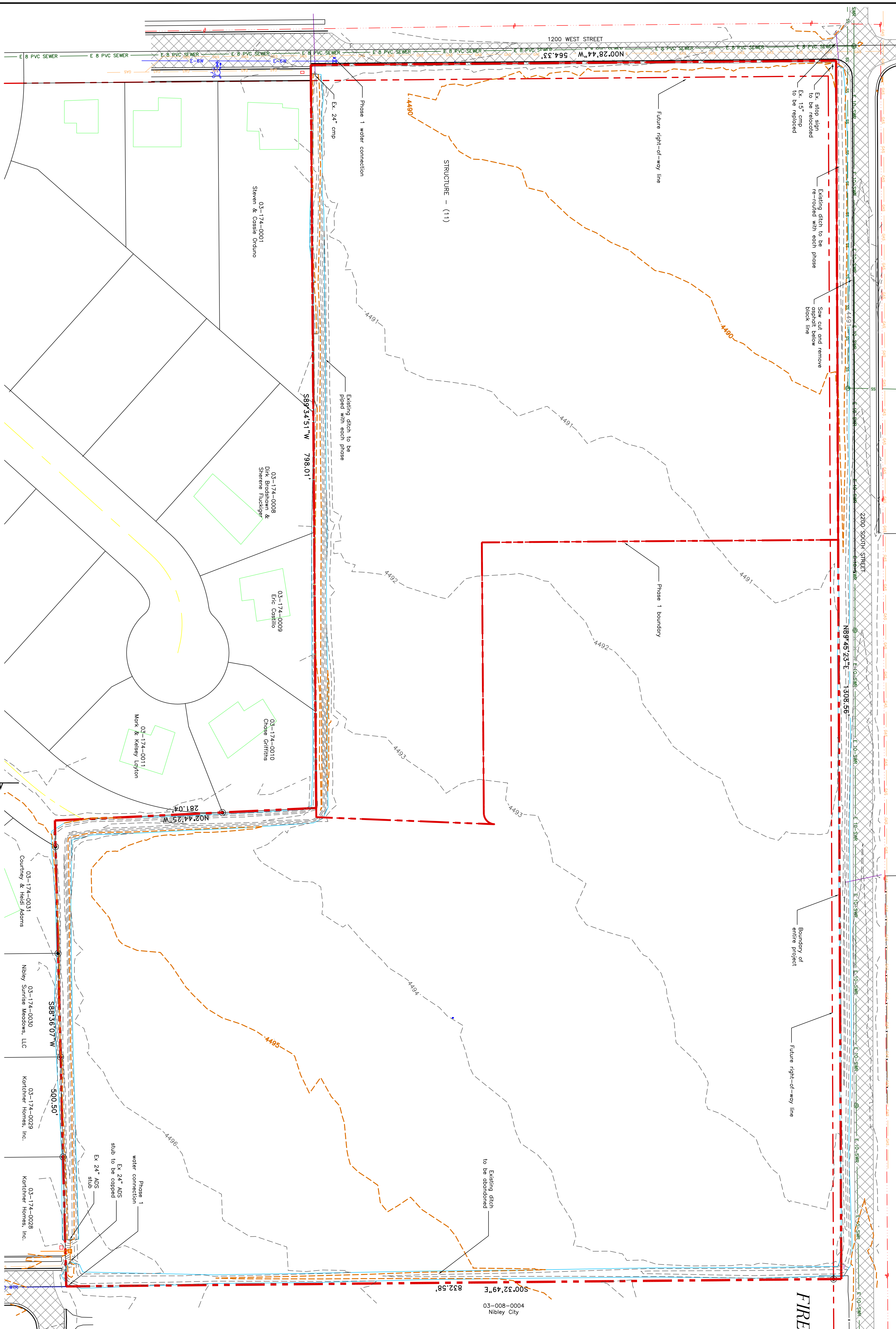
23. ALL AIR RELEASE VALVES SHALL BE INSTALLED AT THE CREST OF THE VERTICAL CURVATURE OF THE WATER LINE. CONTRACTOR SHALL RECORD ACTUAL LOCATION OF VALVES ON FIELD RECORD DRAWINGS.

24. THE CONTRACTOR SHALL COORDINATE WITH NIBBY CITY FOR ALL UTILITY INSPECTIONS PRIOR TO BACKFILLING.

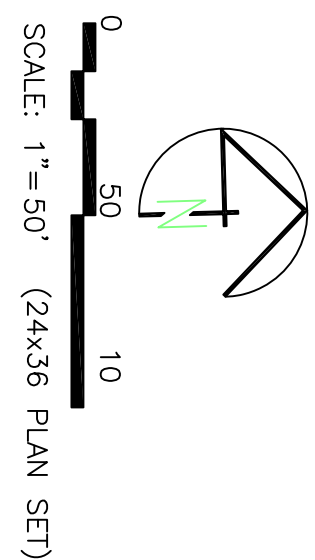
25. ALL WATER SYSTEM COMPONENTS SHALL BE INSTALLED, PRESSURE TESTED, AND CHLORINATED PRIOR TO COMPLETING ANY ROADWAY CONSTRUCTION.

26. OWNERS, ENGINEER, AND CONTRACTOR SHALL COORDINATE VERTICAL, ELEVATIONS AND HORIZONTAL DISTANCES TO MATCH FOXBOROUGH PLANS. ANY DISCREPANCIES TO BE BROUGHT TO THE ATTENTION OF NIBBY CITY.

27. CONTRACTOR TO COORDINATE WITH CITY, PUBLIC WORKS, DIRECTOR FOR A FIRE-CONSTRUCTION MEETING AND TESTING.



**FIREFLY ESTATES PHASE I
EXISTING SITE**



LEGEND

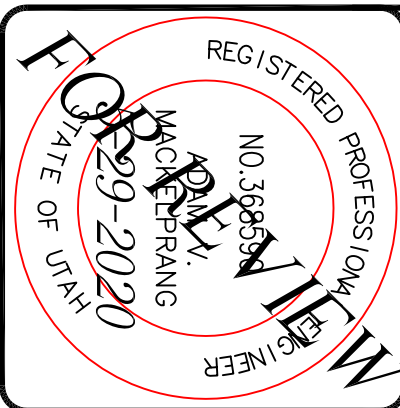
	BOUNDARY LINE
	LOT LINE
	STREET CENTERLINE
	EXISTING GAS
	EXISTING POWER
	EXISTING FENCE
	EXISTING SINKER
	EXISTING PRESSURE SEWER
	EXISTING WATER
	EXISTING DITCH
	EXIST' MAR CONTOUR (1')
	EXIST' MAR CONTOUR (5')
	EXISTING ASPHALT

No.	REVISIONS/ SUBMISSIONS	DATE
REVIEWED :	DRAWN :	
CAD FILE :	PROJECT NO. :	

OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

AE

ALLIANCE CONSULTING
ENGINEERS
150 EAST 200 NORTH SUITE P
LOGAN, UTAH 84321
(435)755-5121
alliancelogan@yahoo.com



PROJECT TITLE

FIREFLY ESTATES PHASE I

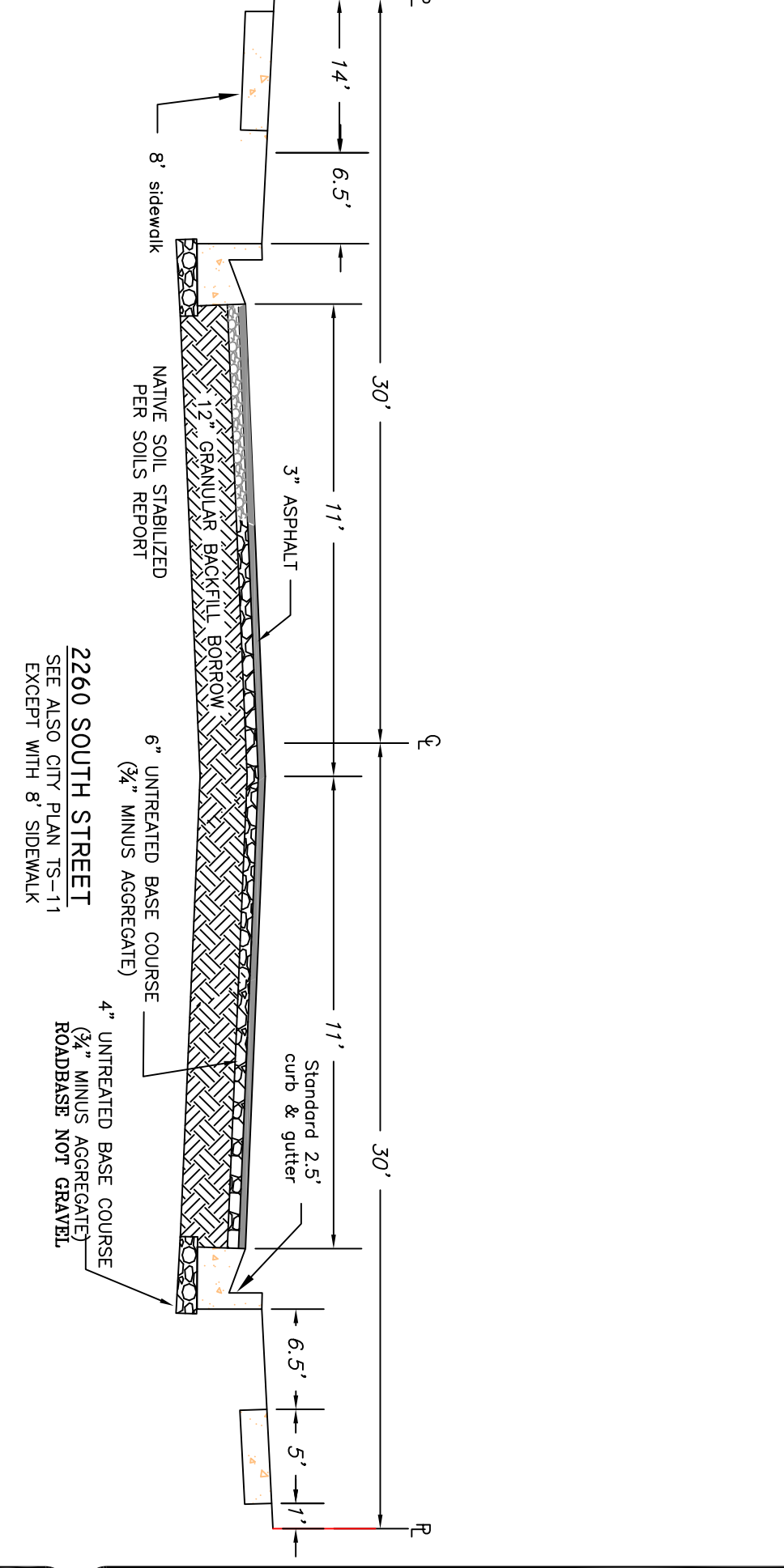
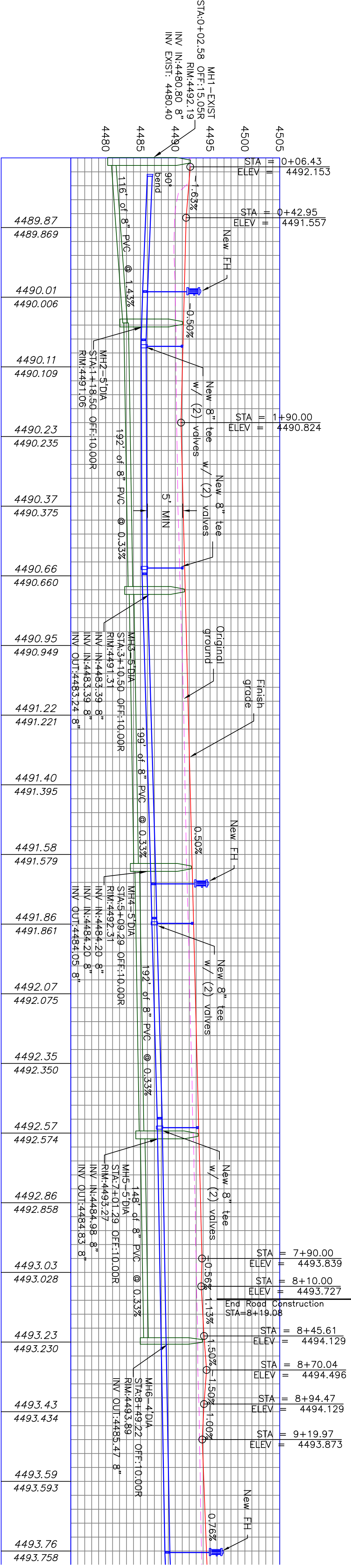
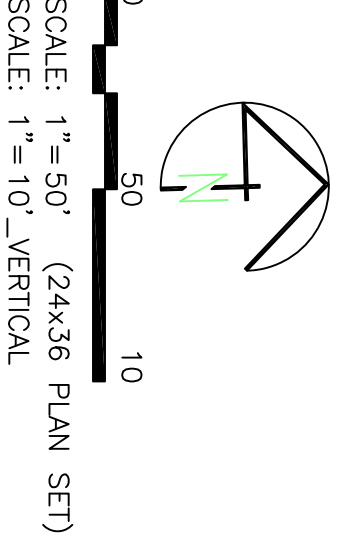
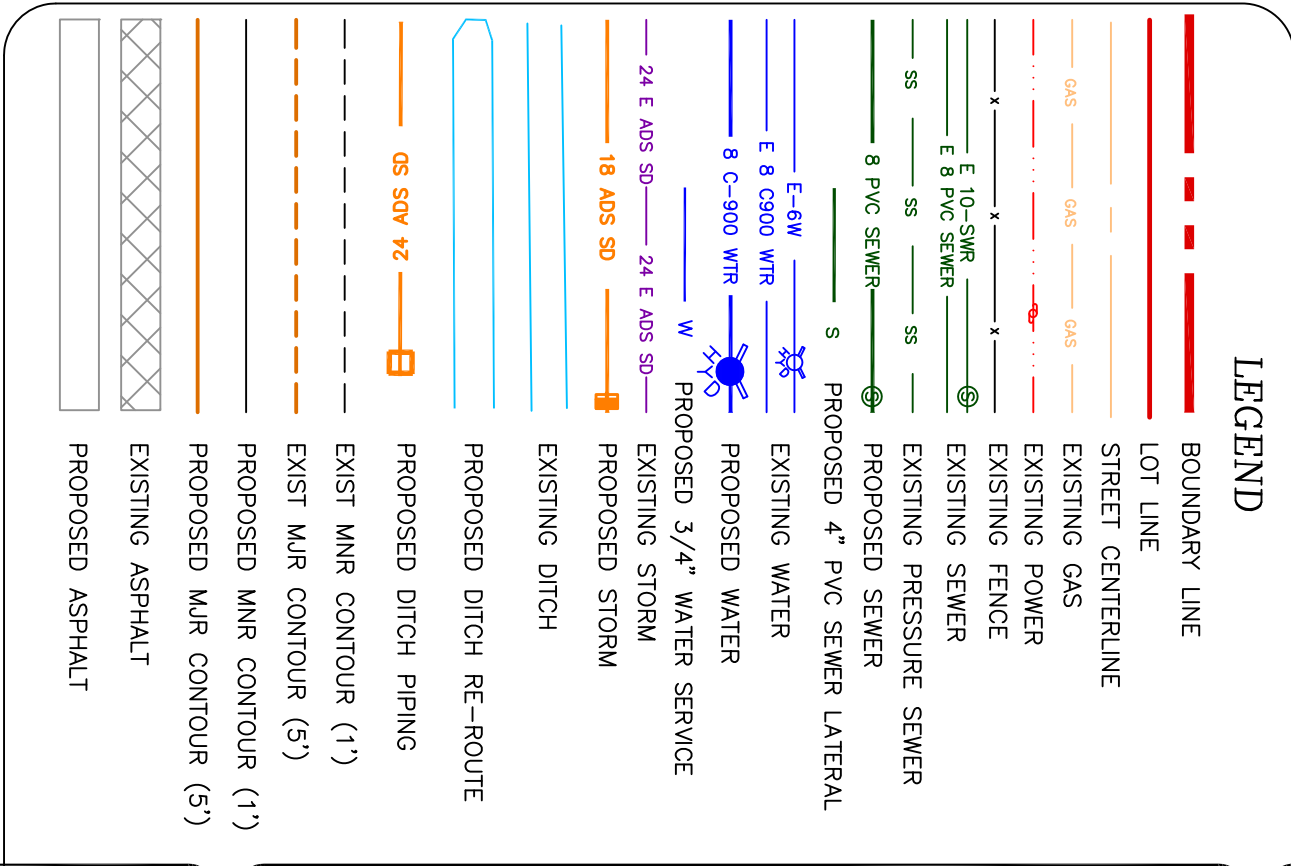
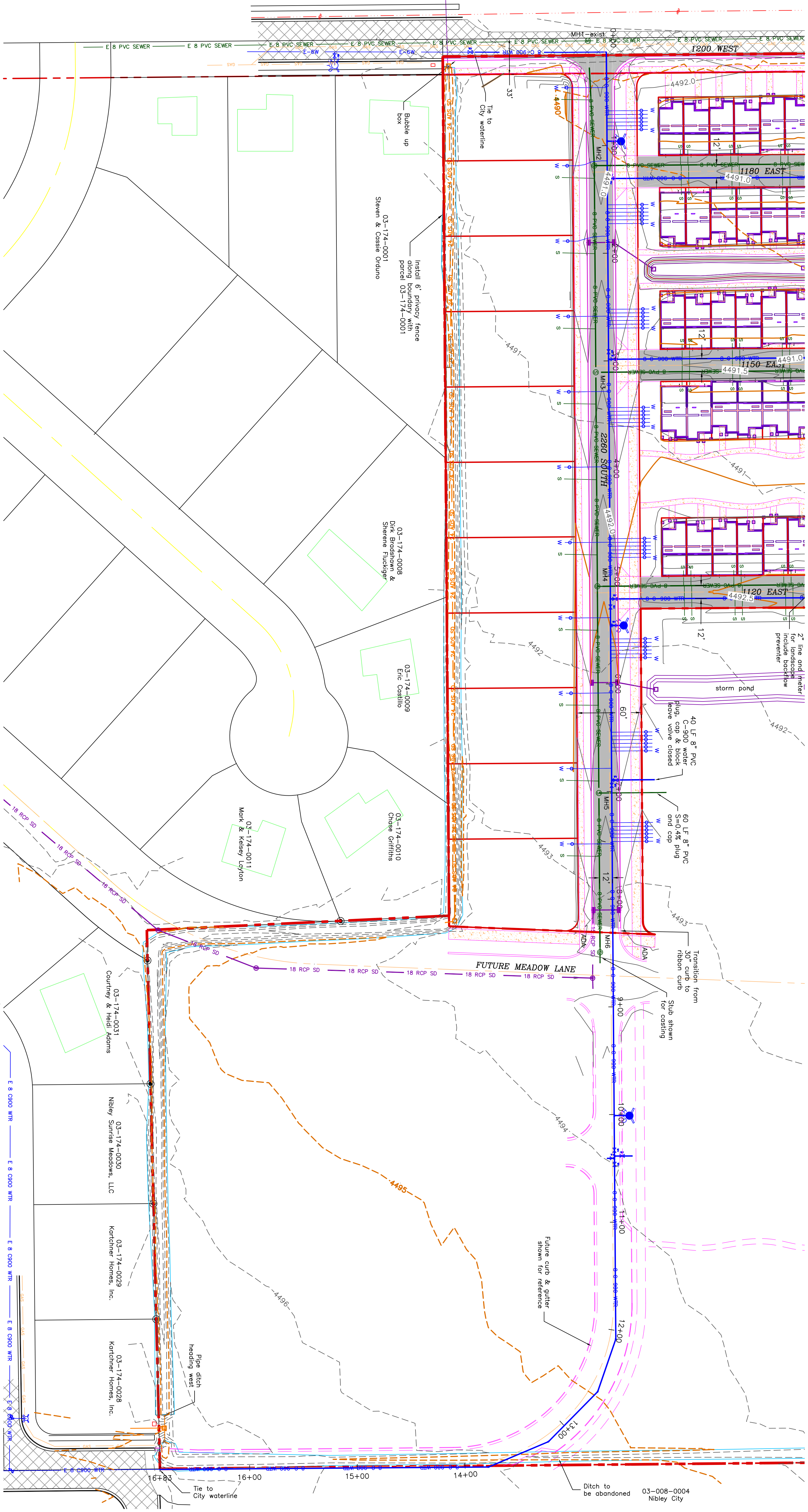
1150 WEST 2260 SOUTH
LOGAN, UTAH 84321

DRAWING TITLE

EXISTING SITE

DATE : APRIL, 2020
DRAWING No. 2

FIREFLY ESTATES PHASE 1
2260 SOUTH STREET PGI



PROJECT TITLE

FIREFLY ESTATES PHASE 1

1150 WEST 2260 SOUTH
LOGAN, UTAH 84321

DRAWING TITLE

2260 SOUTH STREET PGI

DATE : APRIL 2020

DRAWING NO. **3**

No.	REVISIONS/ SUBMISSIONS	DATE

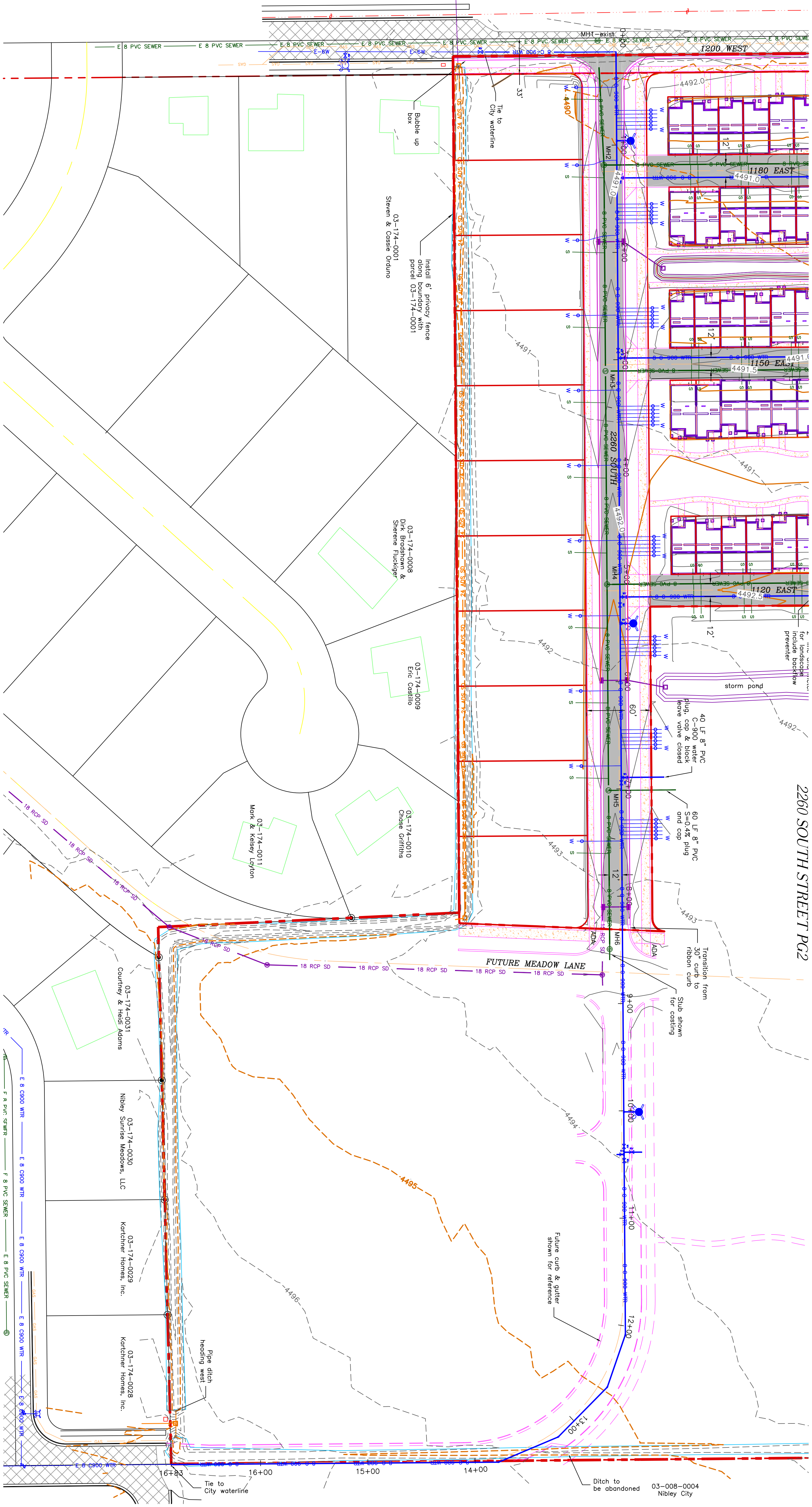
REVIEWED :	DRAWN :
CAD FILE :	PROJECT NO. :

OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

AE ALLIANCE CONSULTING ENGINEERS
150 EAST 200 NORTH SUITE P
LOGAN, UTAH 84321
(435)755-5121
alliancelogan@yahoo.com

REGISTERED PROFESSIONAL ENGINEER
NO. 36864
MADE IN UTAH
DATE OF UTAH EXPIRATION
08/20-2020

2260 SOUTH STREET PG2



Profile view of 2280 South Street showing elevations, stationing, and proposed improvements. The drawing includes a vertical alignment with grades of 0.50%, 1.37%, 1.50%, 1.50%, and 1.00%. It shows a new 8-foot curb and gutter, a new 8-foot cross w/ (4) valves, and a new 8-foot cross. The existing line is shown in blue, and the proposed line is in red. Stationing ranges from 8+00 to 16+50. Elevations range from 4493.03 to 4497.00. Key features include a new 8-foot curb and gutter, a new 8-foot cross w/ (4) valves, and a new 8-foot cross.

Station	Elevation	Notes
8+00	4493.03	
8+00	4493.028	
8+50	4493.23	
8+50	4493.230	
9+00	4493.43	
9+00	4493.434	
9+50	4493.59	
9+50	4493.593	
10+00	4493.76	
10+00	4493.758	
10+50	4494.02	
10+50	4494.023	
11+00	4494.13	
11+00	4494.128	
11+50	4494.36	
11+50	4494.355	
12+00	4494.59	
12+00	4494.585	
12+50	4494.87	
12+50	4494.873	
13+00	4495.15	
13+00	4495.153	
13+50	4495.75	
13+50	4495.753	
14+00	4496.33	
14+00	4496.333	
14+50	4496.56	
14+50	4496.562	
15+00	4496.78	
15+00	4496.785	
15+50	4497.15	
15+50	4497.149	
16+00	4497.19	
16+00	4497.192	
16+50	4497.00	
16+50	4497.001	

LEGEND

	BOUNDARY LINE
	LOT LINE
	STREET CENTERLINE
	EXISTING GAS
	EXISTING POWER
	EXISTING FENCE
	EXISTING SEWER
	EXISTING PRESSURE SEWER
	PROPOSED SEWER
	PROPOSED 4" PVC SEWER LATERAL
	EXISTING WATER
	PROPOSED WATER
	PROPOSED 3/4" WATER SERVICE
	EXISTING STORM
	PROPOSED STORM
	EXISTING DITCH
	PROPOSED DITCH RE-ROUTE
	PROPOSED DITCH PILING
	EXIST MANHOLE (1')
	EXIST MANHOLE (5')
	PROPOSED MANHOLE (1')
	PROPOSED MANHOLE (5')
	EXISTING ASPHALT
	EXISTING ASPHALT

SCALE: 1"=50' (24x36 PLAN SET)
SCALE: 1"=10' _VERTICAL

FIREFLY ESTATES PHASE 1

1150 WEST 2260 SOUTH
LOGAN, UTAH 84321

2260 SOUTH STREET PG2

[illegible]

OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

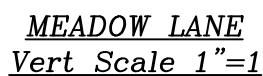
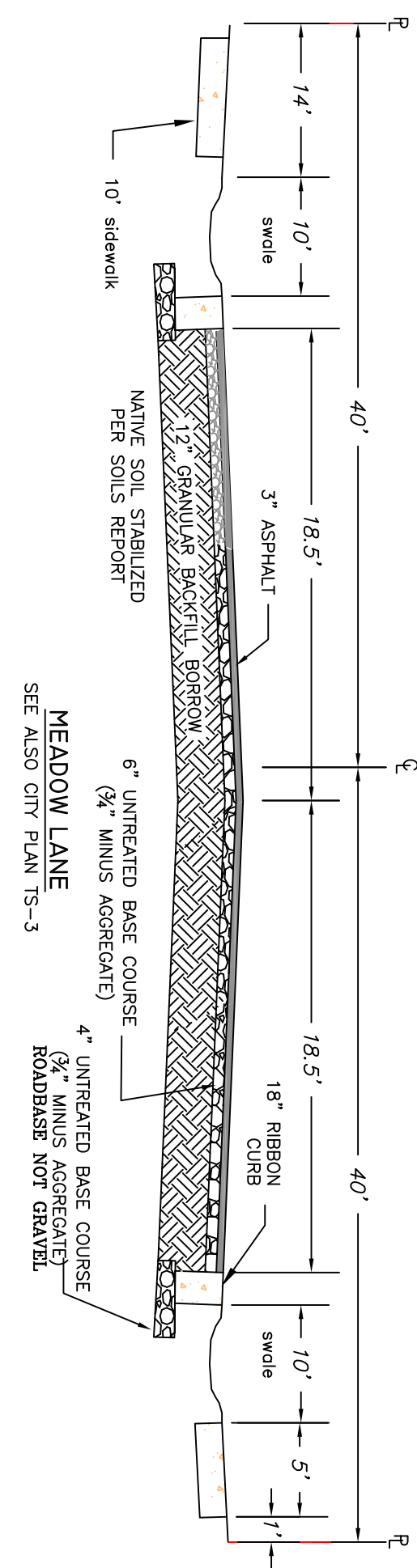
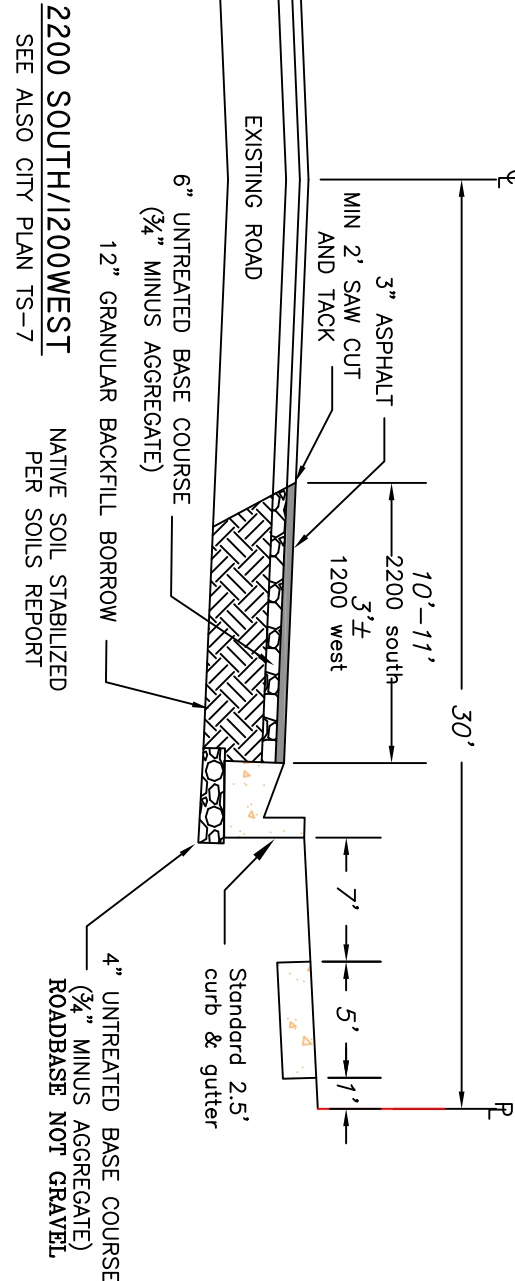
AE

ALLIANCE CONSULTING
ENGINEERS

150 EAST 200 NORTH SUITE P
LOGAN, UTAH 84321
(435)755-5121
alliancelogan@yahoo.com



MEADOW LANE



LEGEND

SCALE: 1"=50' (24x36 PLAN SET
SCALE: 1"=10'_VERTICAL

No.	REVISIONS/ SUBMISSIONS

OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

AE

ALLIANCE CONSULTING
ENGINEERS

150 EAST 200 NORTH SUITE P
LOGAN, UTAH 84321
(435)755-5121
alliancecelogan@yahoo.com

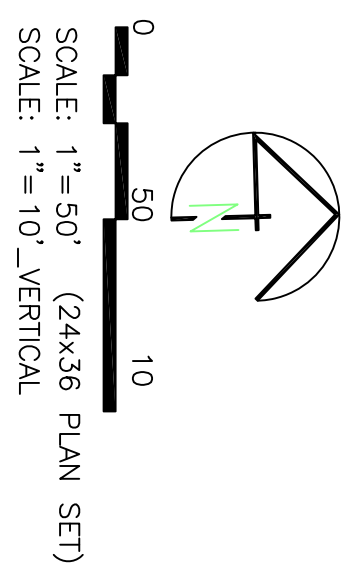
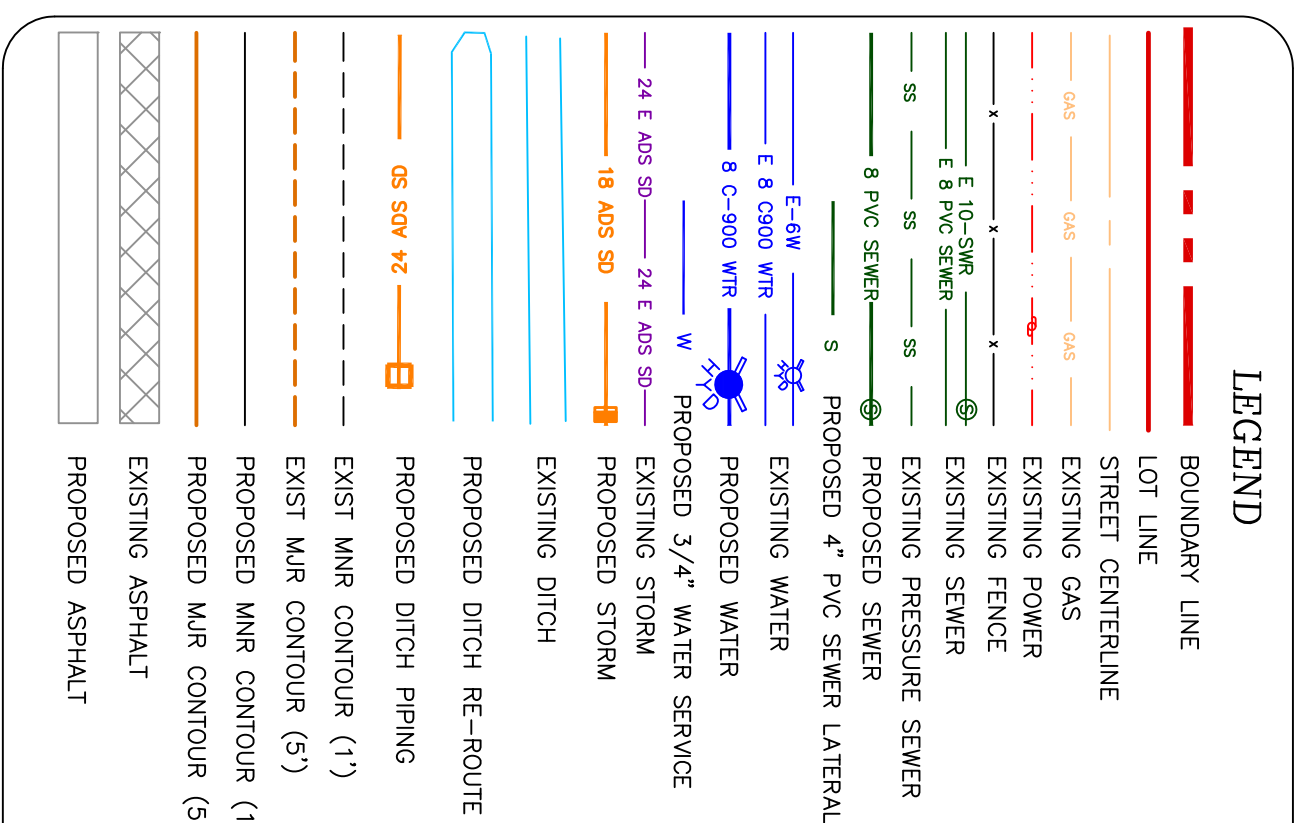
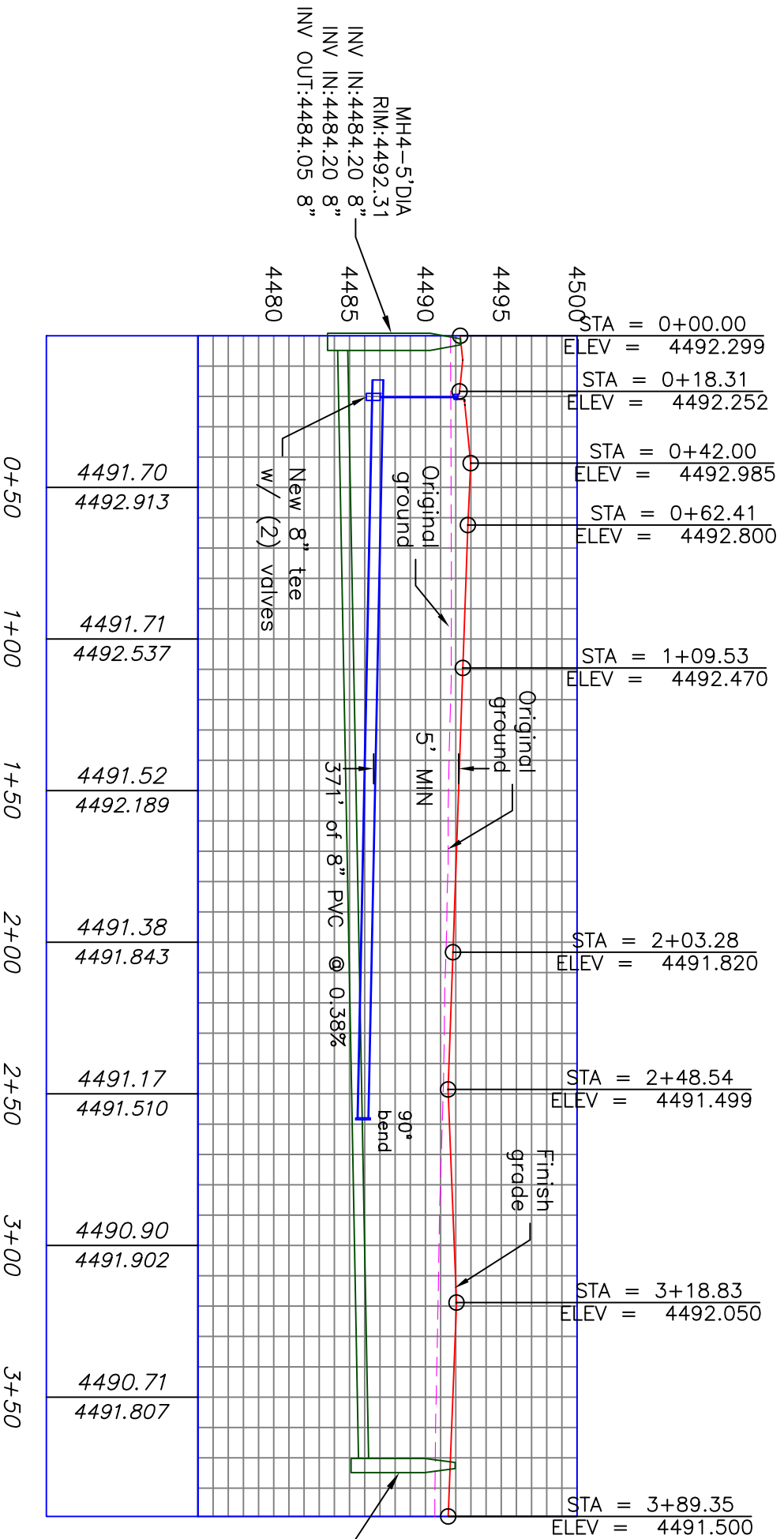
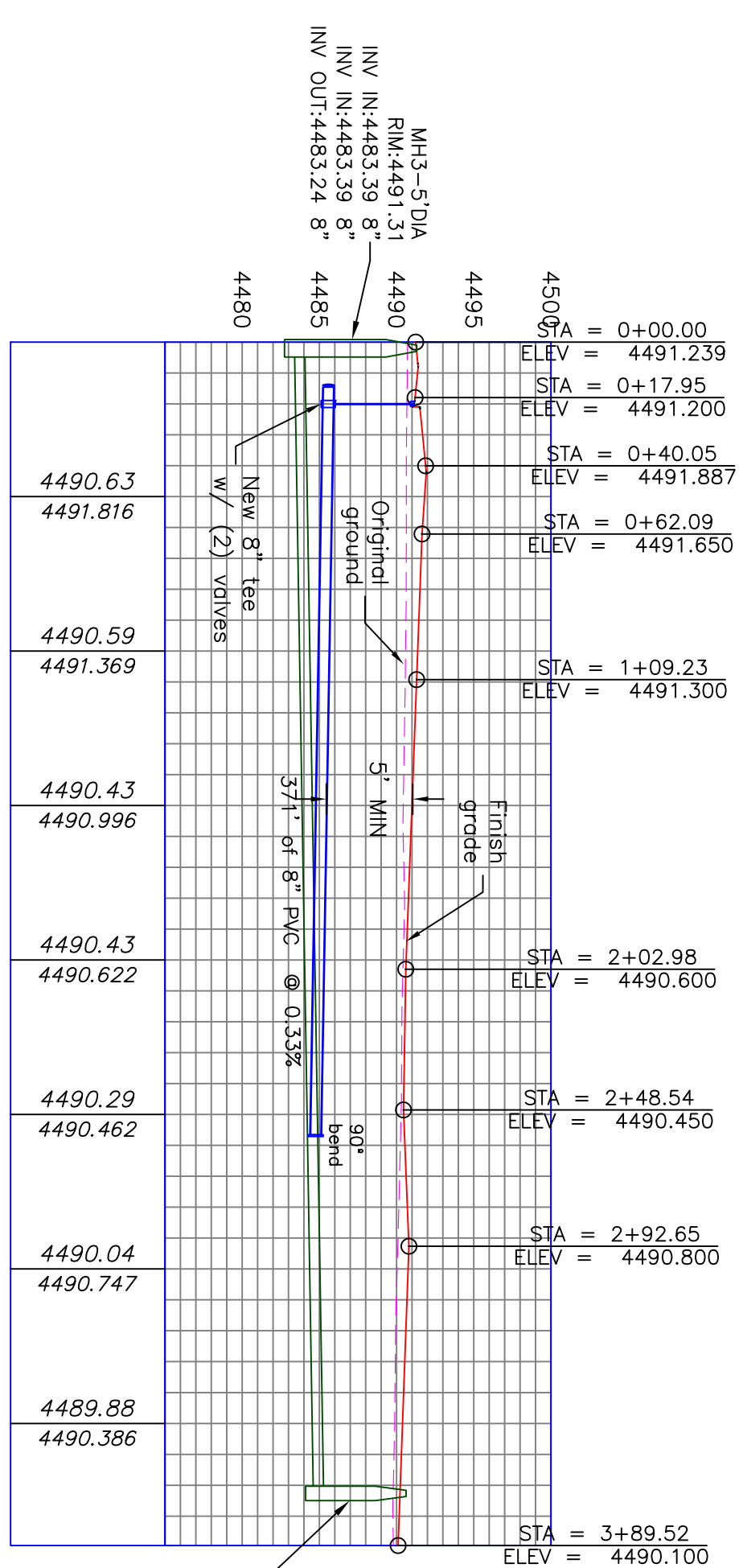
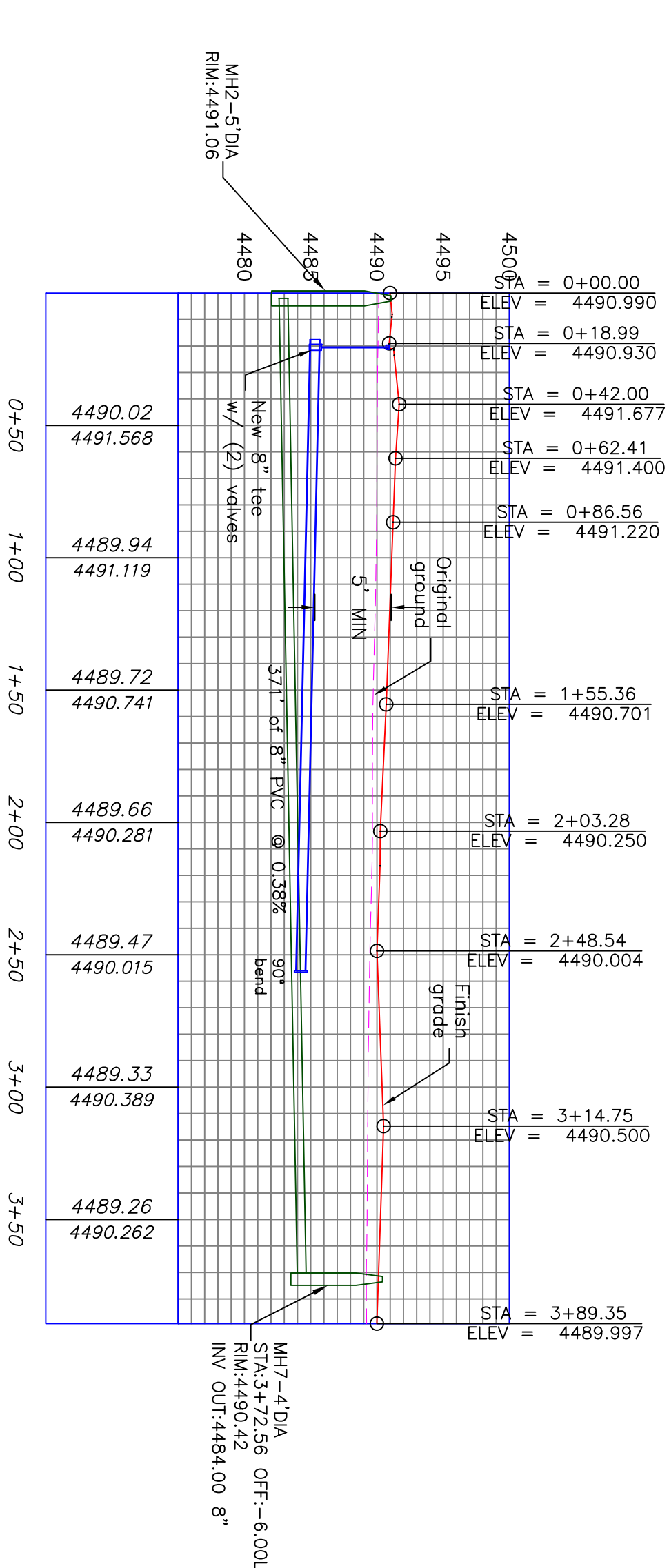
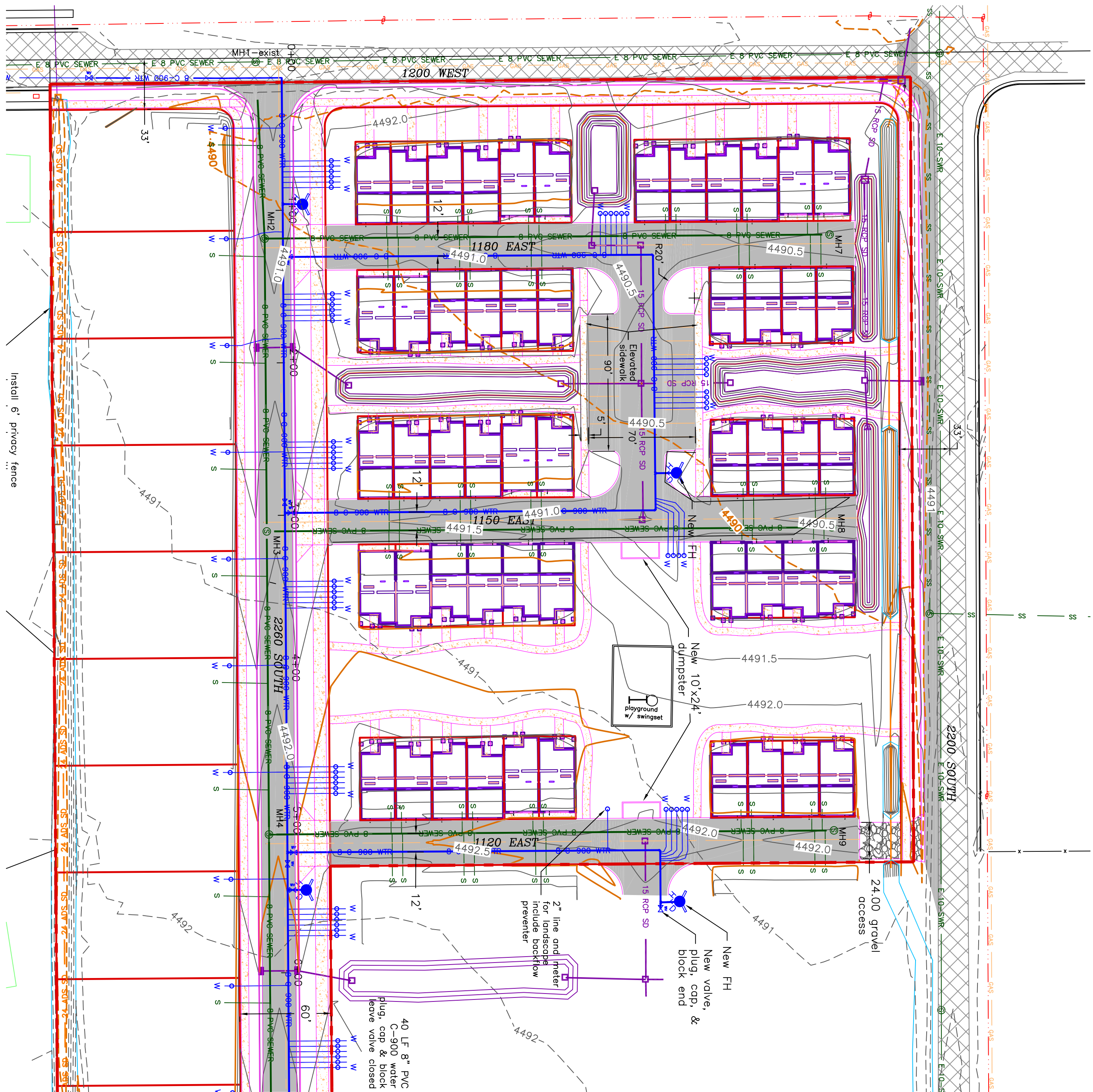


FIREFLY ESTATES PHASE 1

1150 WEST 2260 SOUTH
LOGAN, UTAH 84321

DRAWING TITLE
MEADOW LANE

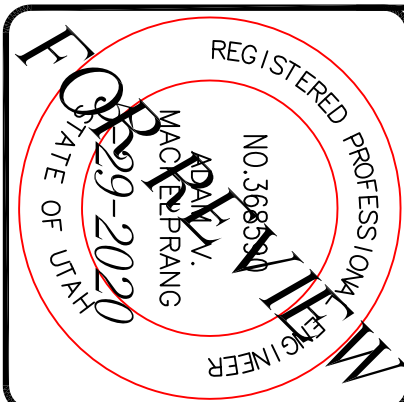
PRIVATE LANE CONSTRUCTION



No.	REVISIONS/ SUBMISSIONS	DATE
REVIEWED :	DRAWN :	
CAD FILE :	PROJECT NO. :	

OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

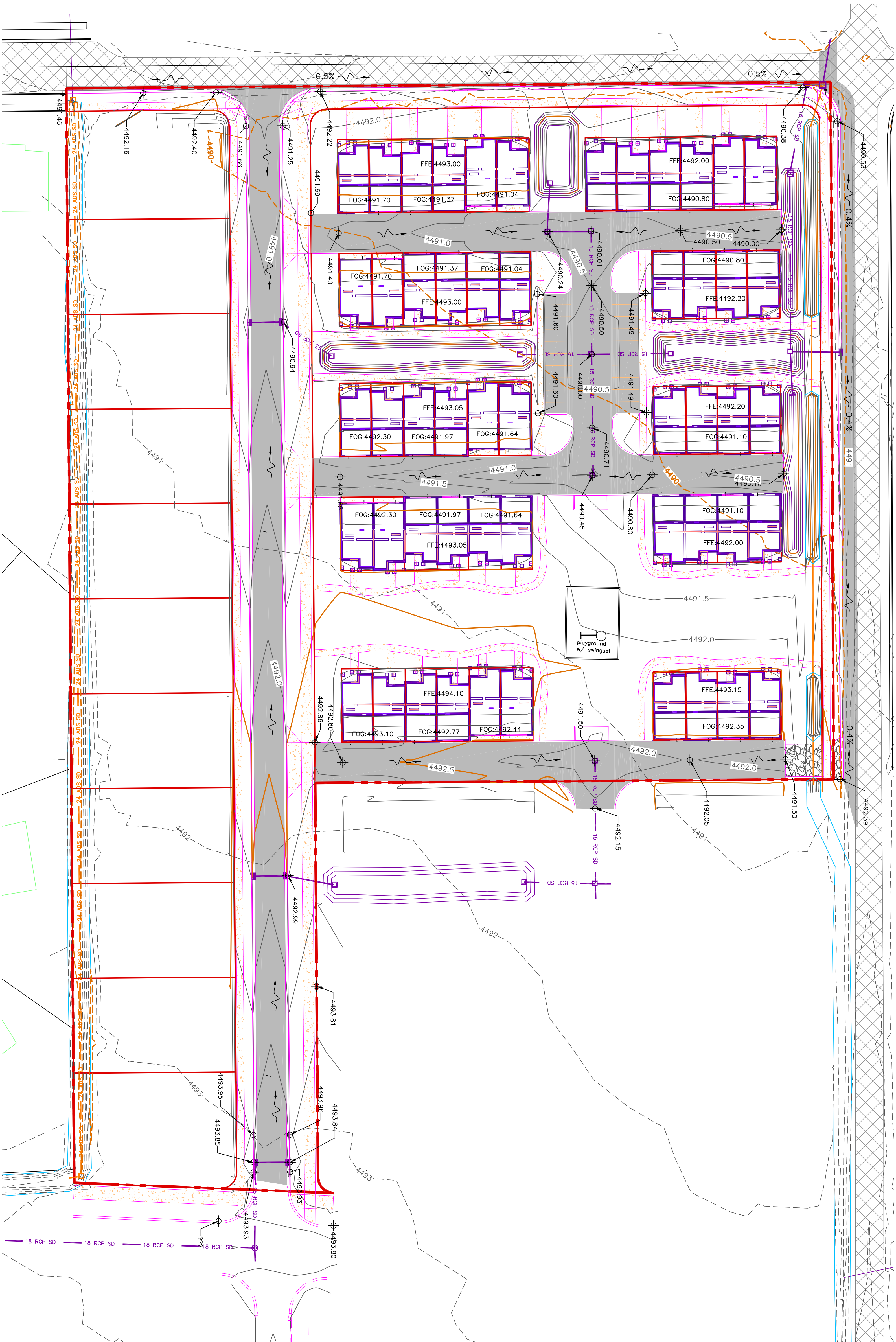
AE ALLIANCE CONSULTING
ENGINEERS
150 EAST 200 NORTH SUITE P
LOGAN, UTAH 84321
(435)755-5121
allianceclogan@yahoo.com



PROJECT TITLE
FIREFLY ESTATES PHASE I
1150 WEST 2260 SOUTH
LOGAN, UTAH 84321
DRAWING TITLE
PRIVATE LANE CONSTRUCTION

DATE : APRIL, 2020
DRAWING No.

GRADING PLAN



LEGEND

- BOUNDARY LINE
- LOT LINE
- EXISTING FENCE
- EXISTING STORM
- PROPOSED STORM
- EXISTING DITCH
- PROPOSED DITCH RE-ROUTE
- PROPOSED DITCH PINING
- EXIST NAR CONTOUR (1')
- EXIST MAI CONTOUR (5')
- PROPOSED NAR CONTOUR (1')
- PROPOSED NAR CONTOUR (5')
- EXISTING ASPHALT
- PROPOSED ASPHALT

FIREFLY ESTATES PHASE I
1150 WEST 2260 SOUTH
LOGAN, UTAH 84321

DRAWING TITLE

GRADING PLAN

[illegible]

OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

AE

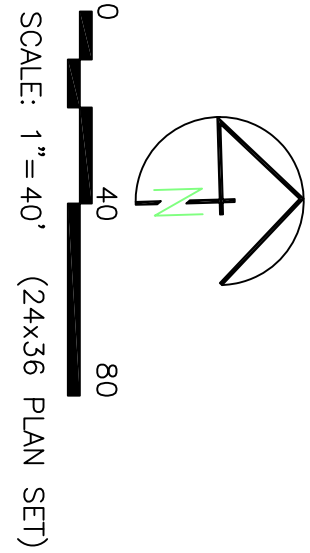
ALLIANCE CONSULTING
ENGINEERS

150 EAST 200 NORTH SUITE P
LOGAN, UTAH 84321
(435)755-5121
alliancelogan@yahoo.com



FIREFLY ESTATES PHASE 1

DRAINAGE PLAN PG1

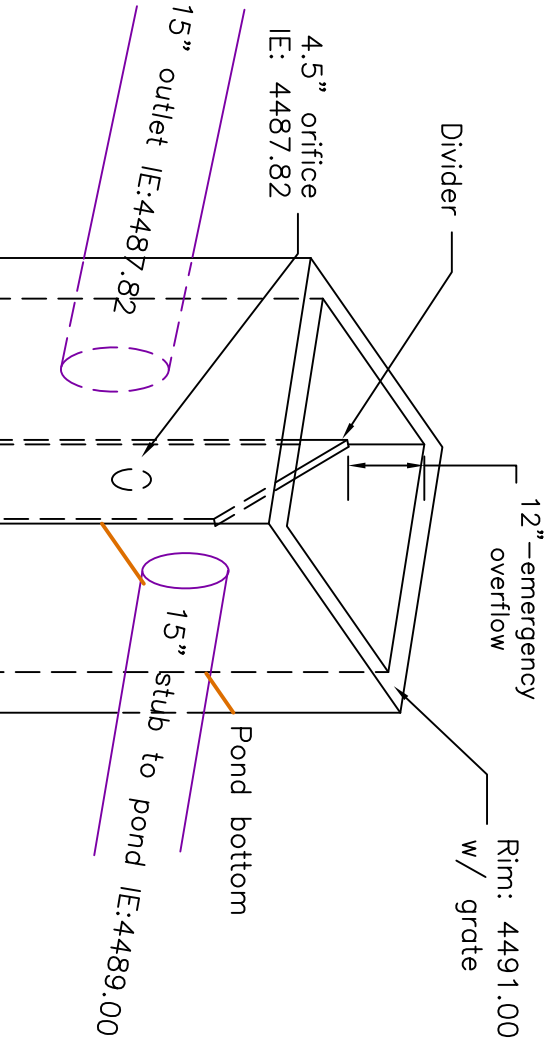


LEGEND

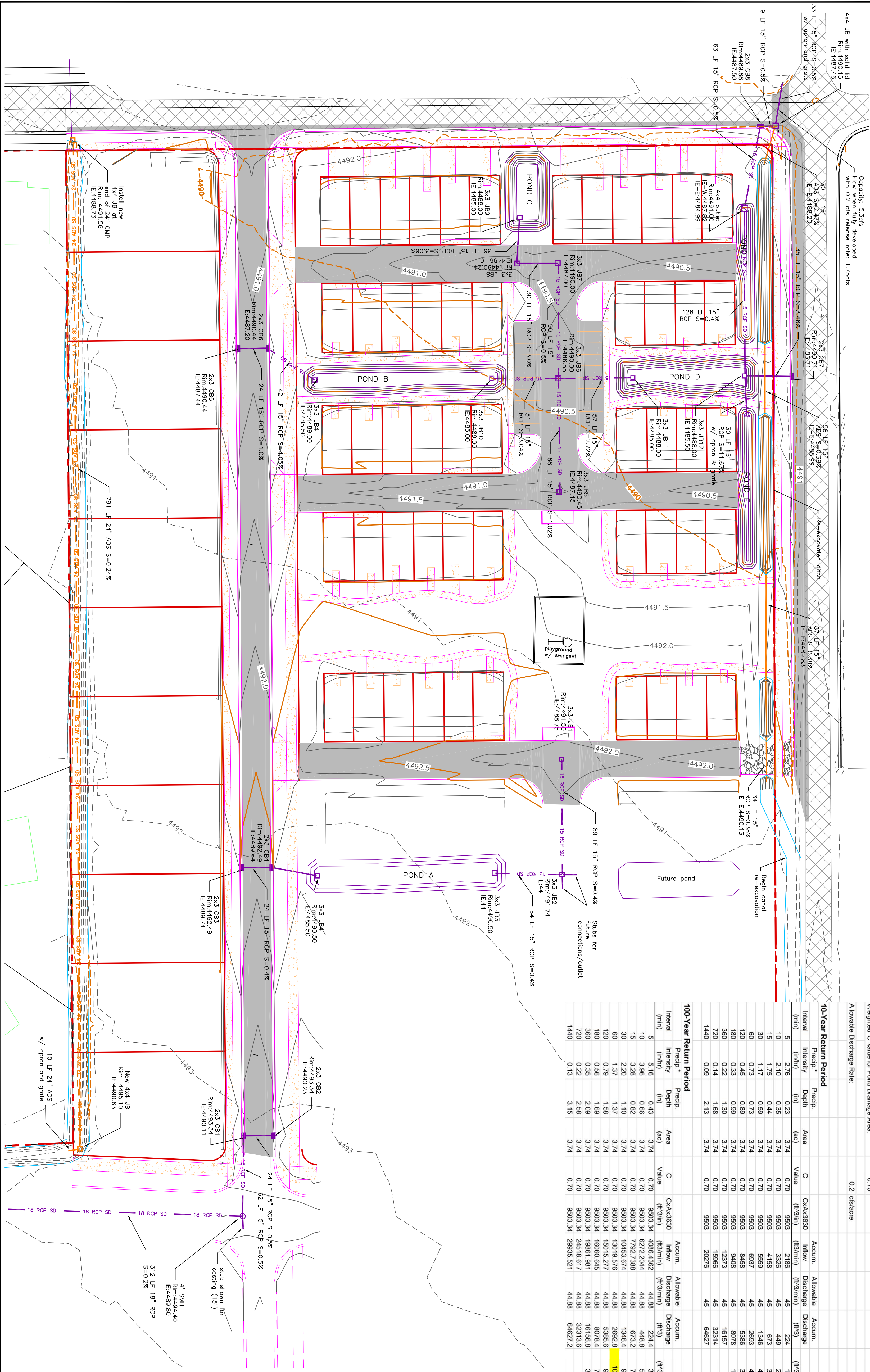
- BOUNDARY LINE
- LOT LINE
- 24" E AOS SD
- 24" E AOS SD
- 18" AOS SD
- 6" SDV 72"
- EXISTING DITCH
- PROPOSED DITCH
- PROPOSED DITCH RE-ROUTE
- EXIST MNR CONTOUR (1")
- EXIST MNR CONTOUR (5")
- PROPOSED MNR CONTOUR (1")
- PROPOSED MNR CONTOUR (5")
- EXISTING ASPHALT
- PROPOSED ASPHALT

POND CONSTRUCTION INFORMATION-ALL PONDS HAVE 1" FREEBOARD									
POND TOP ELEV	TOTAL DEPTH	EX. GROUND SLOPE	VOLUME						
A	4492.50	2	4490.20	3.1	2.609 CF				
B	4491.00	3	4489.40	3.1					
C	4491.00	3	4489.45	3.1					
D	4491.00	2	4489.40	3.1					
F	4491.00	2	4489.90	3.1	COMBINED-9.898CF				
VOLUME CALCULATION FOR AREA FOR POND B,C,D,E & F									
Drainage Area to Pond:			3.74 acres						
Weighted C value for Pond Drainage Area:			0.70						
Allowable Discharge Rate:			0.2 cfs/acre						
10-Year Return Period									
Interval (min)	Precip. Intensity (in/hr)	Precip. Depth (in)	Area (ac)	C	Cx(AxS)30	Accum. Inflow (ft ³ /min)	Allowable Discharge (ft ³ /min)	Accum. Discharge (ft ³)	Required Storage (ac-ft)
5	2.76	0.23	3.74	0.70	9503	2186	45	224	1961
10	2.10	0.35	3.74	0.70	9503	3326	45	449	2877
15	1.75	0.44	3.74	0.70	9503	4188	45	673	3465
30	1.17	0.59	3.74	0.70	9503	5559	45	1346	4213
60	0.73	0.73	3.74	0.70	9503	6937	45	2693	4245
120	0.45	0.89	3.74	0.70	9503	8468	45	5396	3072
180	0.33	0.99	3.74	0.70	9503	9408	45	6078	1330
360	0.22	1.30	3.74	0.70	9503	12373	45	16157	0
720	0.14	1.68	3.74	0.70	9503	15966	45	32314	0
1440	0.09	2.13	3.74	0.70	9503	20276	45	64627	0
100-Year Return Period									
Interval (min)	Precip. Intensity (in/hr)	Precip. Depth (in)	Area (ac)	C	Cx(AxS)30	Accum. Inflow (ft ³ /min)	Allowable Discharge (ft ³ /min)	Accum. Discharge (ft ³)	Required Storage (ac-ft)
5	5.16	0.43	3.74	0.70	9503.34	4086.4362	44.88	224.4	3862
10	3.96	0.66	3.74	0.70	9503.34	6272.2044	44.88	448.8	5623
15	3.28	0.82	3.74	0.70	9503.34	7972.7988	44.88	673.2	7120
30	2.20	1.10	3.74	0.70	9503.34	10453.674	44.88	1346.4	9107
60	1.37	1.37	3.74	0.70	9503.34	13019.576	44.88	2692.8	10327
120	0.79	1.58	3.74	0.70	9503.34	15015.277	44.88	5365.6	9630
180	0.66	1.69	3.74	0.70	9503.34	16060.645	44.88	8076.4	7962
360	0.55	2.09	3.74	0.70	9503.34	18681.981	44.88	16166.8	3705
720	0.32	2.58	3.74	0.70	9503.34	24518.617	44.88	32315.6	0
1440	0.13	3.15	3.74	0.70	9503.34	29935.921	44.88	64627.2	0

DITCH EXCAVATION DETAIL



4x4 OVERFLOW BOX



DATE : APRIL 2020
DRAWING NO. 00

PROJECT TITLE
FIREFLY ESTATES PHASE 1
1150 WEST 2260 SOUTH
LOGAN, UTAH 84321

DRAWING TITLE
DRAINAGE PLAN PG1

No.	REVISIONS/ SUBMISSIONS	DATE

REVIEWED :	DRAWN :
CAD FILE :	PROJECT NO. :

OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

ALLIANCE CONSULTING ENGINEERS
150 EAST 200 NORTH SUITE P
LOGAN, UTAH 84321
(435)755-5121
allianceclogan@yahoo.com

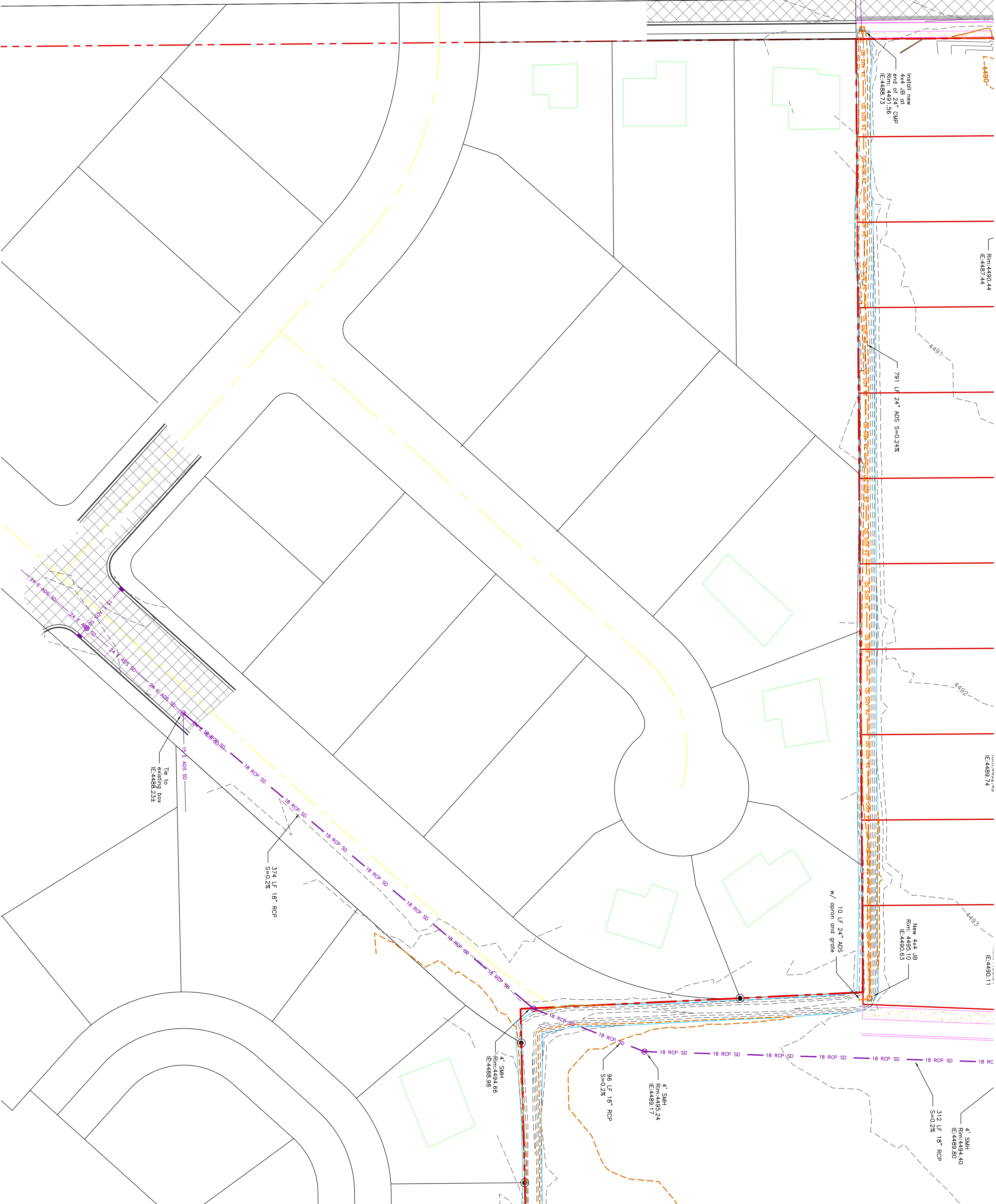
DRAINAGE PLAN PG2



SCALE: 1"=40' (24x36 PLAN SET)

CE

150 EAST 200 NORTH S
LOGAN, UTAH 84321
(435)755-5121
alliancelogan@yahoo.com



No.	REVISIONS / SUBMISSIONS	DATE
REVIEWED :	DRAWN :	
CAD FILE :	PROJECT NO. :	

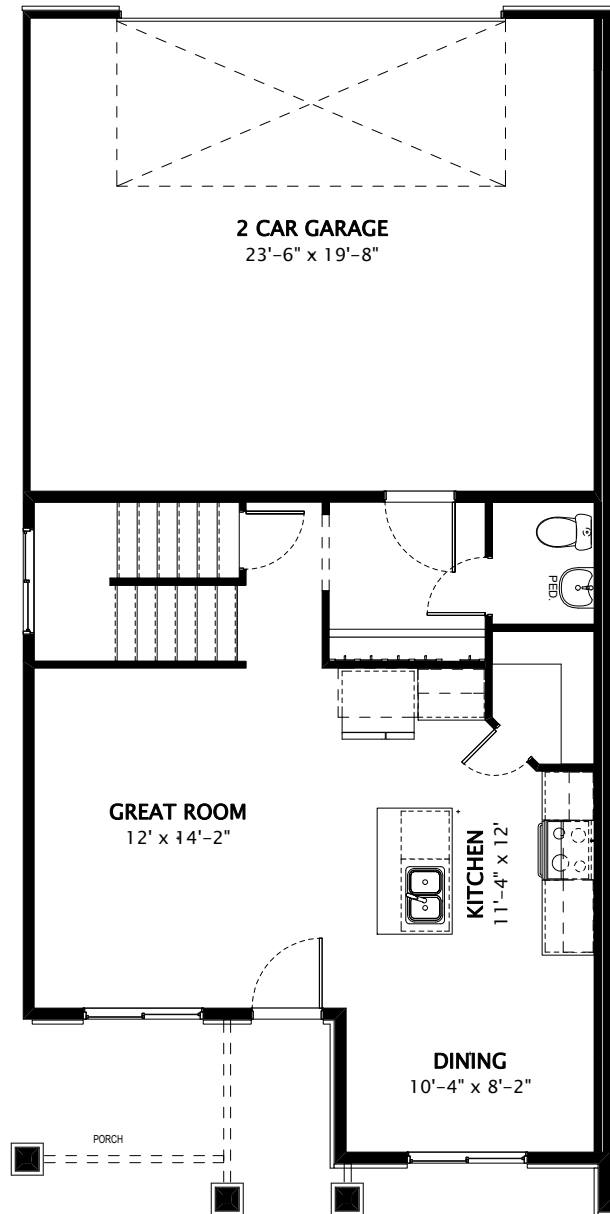
OWNER:
RETURN DEVELOPMENT
CHRISTOPHER HUFFMAN(801)557-3170
ETHAN POPPLETON (435)760-6934
4505 S. WASATCH BLVD, STE 150
HOLLADAY, UTAH 84124

FIREFLY ESTATES PHASE 1

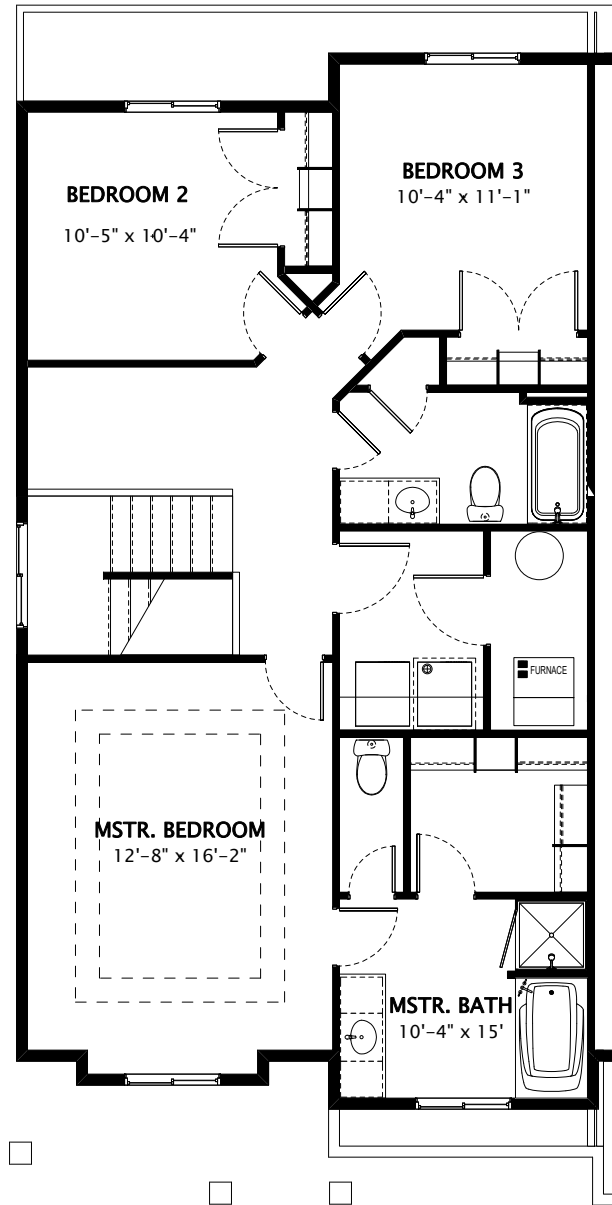
150 WEST 2260 SOUTH
LOGAN, UTAH 84321

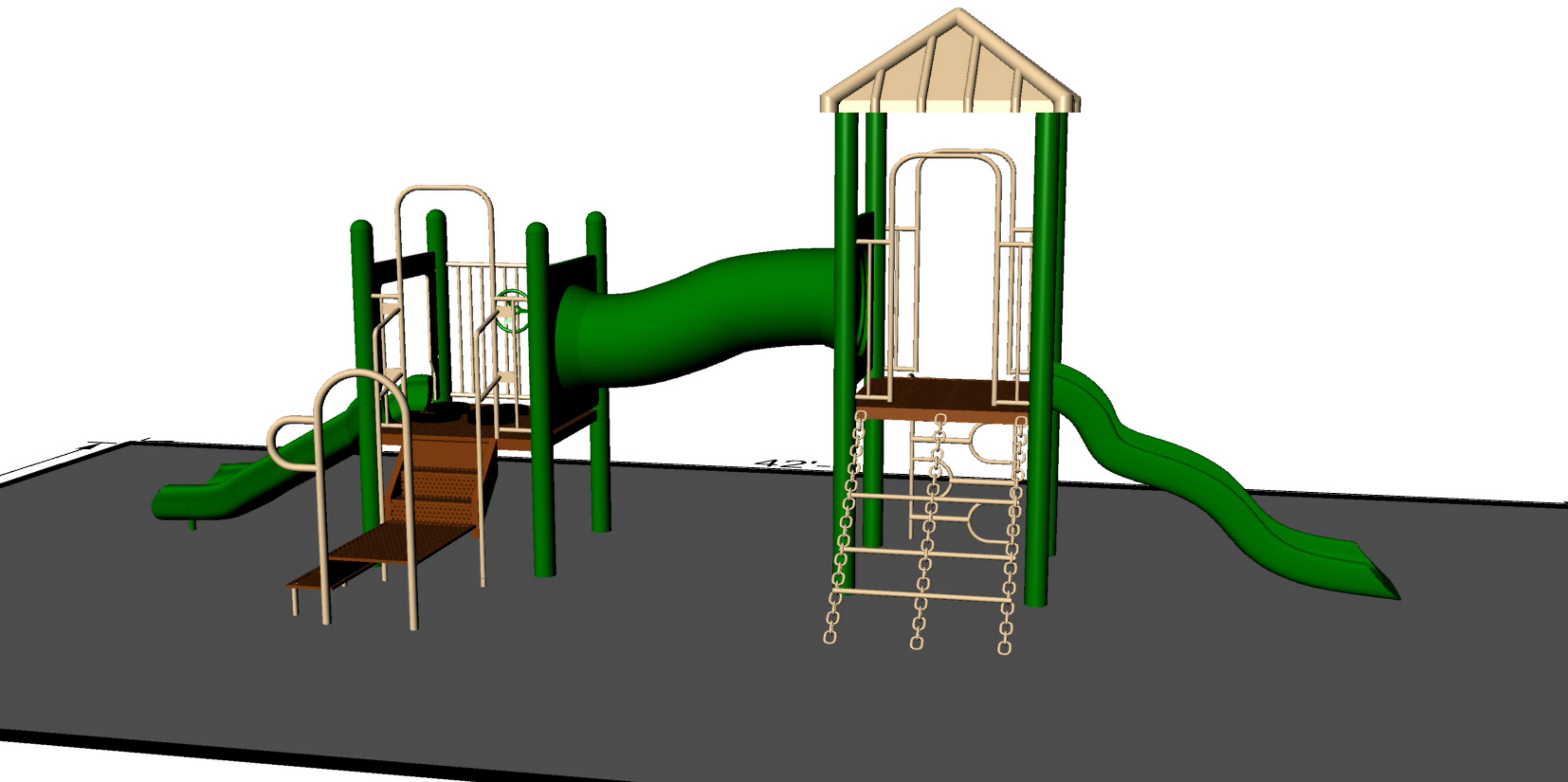
DRAINAGE PLAN PG2





OPTIONAL 2 BEDROOM NOT SHOWN





Part of Section 17, Township 11 North, Range 1 East of the Salt Lake Base and Meridian described as follows:

Commencing East Quarter Corner of said Section 17 monumented with a Brass Cap monument thence S 89°45'23" W 1324.79 feet; thence S00°32'49"E 33.00 feet to the POINT OF BEGINNING and running

thence S 00°32'49" E 446.90 feet;

thence Northwesterly, a distance of 175.42 feet along a non tangent curve to the left of which the radius point lies S 54°30'13" W, with a radius of 183.00 feet, having a central angle of 54°55'22" and a chord that bears N 62°57'28" W 168.78 feet;

thence S 89°34'51" W 40.23 feet;

thence North 369.65 feet;

thence N 89°45'23" E 186.30 feet to the point of beginning, containing 1.67 acres, more or less.

When recorded, mail to:

Insert Address

Affects Parcel No(s): 03-008-0001

LONG-TERM STORMWATER MANAGEMENT AGREEMENT

This Long-Term Stormwater Management Agreement ("Agreement") is made and entered into this 10 day of JUNE, 2020, by and between NIBLEY, a Utah municipal corporation ("City"), and RETURN DEVELOPMENT LLC, a OWNER ("Owner").

RECITALS

WHEREAS, the City is authorized and required to regulate and control the disposition of storm and surface waters within its boundaries as a Municipal Separate Storm Sewer System ("MS4"), as set forth in the Nibley City Stormwater Ordinance, Title 15, Chapter 10 of the Nibley City Code, as amended ("Ordinance"), adopted pursuant to the Utah Water Quality Act, as set forth in *Utah Code Ann. §§ 19-5-101, et seq.*, as amended ("Act"); and

WHEREAS, the Owner hereby represents and acknowledges that it is the owner in fee simple of certain real property more particularly described in Exhibit "A," attached hereto and incorporated herein by this reference ("Property"); and

WHEREAS, the Owner desires to build or develop the Property and/or to conduct certain regulated construction activities on the Property which will alter existing storm and surface water conditions on the Property and/or adjacent lands; and

WHEREAS, in order to accommodate and regulate these anticipated changes in existing storm and surface water flow conditions, the Owner is required to build and maintain at Owner's expense a storm and surface water management facility or improvements ("Stormwater Facilities"); and

WHEREAS, the Stormwater Facilities are more particularly described and shown in the final site plan or subdivision approved for the Property and related engineering drawings, and any amendments thereto, which plans and drawings are on file with the City and are hereby incorporated herein by this reference ("Development Plan"); and

WHEREAS, summary description of all Stormwater Facilities, details and all appurtenance draining to and affecting the Stormwater Facilities and establishing the standard operation and routine maintenance procedures for the Stormwater Facilities, and control measures installed on the Property, ("Long Term Stormwater Management Plan") more particularly shown in Exhibit "B" on file with the City Recorder and,

WHEREAS, a condition of Development Plan approval, and as required as part of the City's Small MS4 UPDES General Permit from the State of Utah, Owner is required to enter into this Agreement establishing a means of documenting the execution of the Long Term Stormwater Management Plan and,

NOW, THEREFORE, in consideration of the benefits received and to be received by the Owner, its successors and assigns, as a result of the City's approval of the Long Term Stormwater Management Plan, and the mutual covenants contained herein, the parties agree as follows:

Section 1

Construction of Stormwater Facilities. The Owner shall, at its sole cost and expense, construct the Stormwater Facilities in accordance with the Development Plans and specifications, and any amendments thereto which have been approved by the City.

Section 2

Maintenance of Stormwater Facilities. The Owner shall, at its sole cost and expense, perform all work necessary to adequately maintain the Stormwater Facilities. Owner's maintenance obligations shall include all system and appurtenances built to convey stormwater, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance, for purposes of this Agreement, is defined as good working condition so that the Stormwater Facilities are performing their design functions at the level of service required by the Act, the Ordinance, and the Long Term Stormwater Management Plan.

Section 3

Annual Maintenance Report of Stormwater Facilities. The Owner shall, at its sole cost and expense, inspect the Stormwater Facilities and submit an inspection report and certification to the City annually. The purpose of the inspection and certification is to assure safe and proper functioning of the Stormwater Facilities. The annual inspection shall cover all aspects of the Stormwater Facilities, including, but not limited to, the parking lots, structural improvements, berms, channels, outlet structure, pond areas, access roads, vegetation, landscaping, etc. Deficiencies shall be noted in the inspection report. The report shall also contain a certification as to whether adequate maintenance has been performed and whether the structural controls are operating as

designed to protect water quality. The annual inspection report and certification shall be due by June 30th of each year and shall be on forms acceptable to the City.

Section 4

City Oversight Inspection Authority. The Owner hereby grants permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the Stormwater Facilities upon reasonable notice not less than three business days to the Owner. Such inspections shall be conducted in a reasonable manner and at reasonable times, as determined appropriate by the City. The purpose of the inspection shall be to determine and ensure that the Stormwater Facilities are being adequately maintained, are continuing to perform in an adequate manner, and are in compliance with the Act, the Ordinance, and the Long Term Stormwater Management Plan.

Section 5

Notice of Deficiencies. If the City finds that the Stormwater Facilities contain any defects or are not being maintained adequately, the City may send Owner written notice of the defects or deficiencies and shall provide Owner with a reasonable time, but not less than sixty (60) days, to cure such defects or deficiencies. Such notice shall be confirmed delivery to the Owner or sent certified mail to the Owner at the address listed on the County Tax Assessor. If the Owner has not cured such defects or deficiencies within the timeframe provided, the City may provide Owner with a final notice requiring Owner to cure the defects or deficiencies within thirty (30) days or be subject to corrective action as provided in Section 7. The City may extend any cure period(s) if the City finds good cause to do so in the City's sole discretion without waiving any of the City's rights under this Agreement.

Section 6

Owner to Make Repairs. The Owner shall, at its sole cost and expense, make such repairs, changes, or modifications to the Stormwater Facilities as may be determined as reasonably necessary by the City within the required cure period(s) to ensure that the Stormwater Facilities are adequately maintained and continue to operate as designed and approved. Such repairs, changes, or modifications shall include all work and damages that result from the City's corrective action(s) described in Section 7. The Owner shall inform the City in writing that it has completed the repairs, changes, or modifications to the Stormwater Facilities required by the City and shall request the City inspect the Stormwater Facilities in order to discharge the notice(s) of deficiencies.

Section 7

City's Corrective Action Authority. In the event the Owner fails to adequately maintain the Stormwater Facilities in good working condition acceptable to the City, after due notice and failure to cure as provided in Sections 5 and 6, , the City may take any or all of the following corrective actions: issue a citation punishable as a misdemeanor in addition to any State or EPA fine; disconnect the facility storm drain connection; withhold or revoke other land use approvals or permits; or undertake to maintain or repair the Stormwater Facilities subject to Owner's reimbursement of the City. It is expressly understood and agreed that the City is under no obligation to maintain or

repair the Stormwater Facilities, and in no event shall this Agreement be construed to impose any such obligation on the City. The actions described in this Section are in addition to and not in lieu of any and all equitable remedies available to the City as provided by law for Owner's failure to remedy deficiencies or any other failure to perform under the terms and conditions of this Agreement.

Section 8

Reimbursement of Costs. In the event the City, pursuant to this Agreement, incurs any costs, or expends any funds resulting from enforcement or cost for labor, use of equipment, supplies, materials, and the like related to storm drain disconnection from the City system or the City's maintenance or repair of the Stormwater Facilities, the Owner shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City. After said thirty (30) days, such amount shall be deemed delinquent and shall be subject to interest at the rate of ten percent (10%) per annum. Owner shall also be liable for any collection costs, including attorneys' fees and court costs, incurred by the City in collection of delinquent payments. Such costs may be imposed as a lien upon the Property.

Section 9

Successor and Assigns. This Agreement shall be recorded in the County Recorder's Office and the covenants and agreements contained herein shall run with the land and whenever the Property shall be held, sold, conveyed or otherwise transferred, it shall be subject to the covenants, stipulations, agreements and provisions of this Agreement which shall apply to, bind and be obligatory upon the Owner hereto, its successors and assigns, and shall bind all present and subsequent owners of the Property described herein.

Section 10

Severability Clause. The provisions of this Agreement shall be severable and if any phrase, clause, sentence or provision is declared unconstitutional, or the applicability thereof to the Owner, its successors and assigns, is held invalid, the remainder of this Covenant shall not be affected thereby.

Section 11

Utah Law and Venue. This Agreement shall be interpreted under the laws of the State of Utah. Any and all suits for any claims or for any and every breach or dispute arising out of this Agreement shall be maintained in the appropriate court of competent jurisdiction in Salt Lake County, Utah.

Section 12

Indemnification. This Agreement imposes no liability of any kind whatsoever on the City, and the Owner agrees to hold the City harmless from any liability in the event the Stormwater Facilities fail to operate properly. The Owner shall indemnify and hold the City harmless for any and all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against the City from failure of Owner to comply with

its obligations under this agreement relating to the Stormwater Facilities and the City's responsive corrective actions.

Section 13

Amendments. This Agreement shall not be modified except by written instrument executed by the City and the Owner of the Property at the time of modification, and no modification shall be effective until recorded in the Salt Lake County Recorder's Office.

Section 14

Subordination Requirement. If there is a lien, trust deed or other property interest recorded against the Property, the trustee, lien holder, etc., shall be required to execute a subordination agreement or other acceptable recorded document agreeing to subordinate their interest to the Agreement.

Section 15

No Waiver of Rights. The rights and obligations set forth herein may not be waived except to the extent specifically waived in writing. No delay or failure by the City to exercise any right under this Agreement or to insist upon strict compliance with the terms of this Agreement, and no partial or single exercise of any right, shall constitute a waiver of any rights or obligations set forth in this Agreement.

Section 16

Attorney Fees. Both Parties agree to pay for their own attorney fees and costs arising out of or connected in any way to the execution of this Agreement. Any Party that prevails in any legal proceeding, including court proceedings, arbitration, and administrative proceedings before the City or another administrative body, to enforce this Agreement or adjudicate any issues under or in connection with this Agreement shall be entitled to recover its reasonable attorney fees, costs, and expenses of such proceedings.

Section 17

Exhibit B. The Long Term Stormwater Management Plan must adapt to change in good judgment when site conditions and operations change and when existing programs are ineffective. Exhibit B will not be filed with the agreement at County Recorder but is included by reference and kept on file with the City Recorder. Revision applications must be filed with the City _____ and amended into the Long Term Stormwater Management Plan on file with the _____ City recorder.

LONG-TERM STORMWATER MANAGEMENT PLAN AGREEMENT

SO AGREED this 10 day of JUNE 20 20.

PROPERTY OWNER

By: [Signature] Title: Co-owner

By: _____ Title: _____

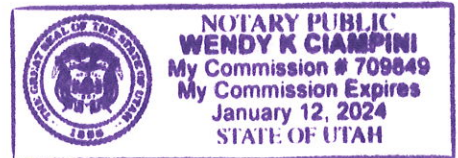
STATE OF UTAH)

:ss.

COUNTY OF Cache)

The above instrument was acknowledged before me by Ethan Popperton, this 10 day of June, 20 20.

Notary Public
Residing in: Wigan, UT
My commission expires: 1/12/2024



CITY

By: _____ Date: _____
Mayor _____

Attest: _____
City Recorder

STATE OF UTAH)

:ss.

COUNTY OF _____)

The above instrument was acknowledged before me by _____, this _____ day of _____, 20____.

Notary Public
Residing in: _____
My commission expires: _____

LTSWMP _____

LONG-TERM STORMWATER MANAGEMENT PLAN AGREEMENT

SO AGREED this 10TH day of JUNE 2020.

PROPERTY OWNER

PROPERTY OWNER
By: CHRISTOPHER HUFFMAN Title: Co-Owner

By: _____ Title: _____

STATE OF UTAH)

:SS.

COUNTY OF)

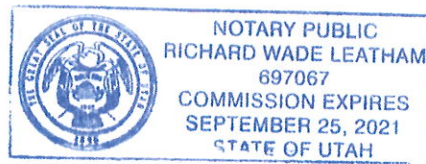
The above instrument was acknowledged before me by Christopher Hoffman, this 10 day of June, 2020.

Richard Leatherman

Notary Public

Residing in: Salt Lake

My commission expires: 09.25.2021



CITY

By: _____ Date: _____
Mayor _____

Attest: _____
City Recorder

STATE OF UTAH)

:SS.

COUNTY OF)

The above instrument was acknowledged before me by _____, this _____ day of _____, 20_____.

Notary Public

Residing in: _____

My commission expires:

LTSWMP

Attachments:

Exhibit A: Legal Description

Exhibit B: Long-Term Stormwater Management Plan; Filed with _____ City
Recorder

Agenda Item #11 & 12

Description	Public Hearing – Ordinance 20-13: Accessory Dwelling Unit Standards and Discussion & Consideration – Ordinance 20-13: Accessory Dwelling Unit Standards (First Reading)
Department	Planning
Presenter	Levi Roberts, City Planner
Recommendation	Make a motion to approve Ordinance 20-13: Accessory Dwelling Unit Standards, for first reading.
Reviewed By	Mayor, City Manager, City Planner, Public Works Director, City Engineer

Background:

Update for July 30

The City Council held a Workshop on June 25 to discuss the Accessory Dwelling Unit Ordinance. The following changes have been added to the draft ordinance based upon the discussion.

- Definition for 'Bona fide temporary absence' added
- Clarification that building permits are required for new or remodeled
- Construction and certificate of occupancy with inspection and certificate of occupancy is required for all ADUs
- Clarification added that impact fees and utility base rates will be charged for ADUs

During the June 18, 2020 meeting, the Planning Commission recommended approval of an ordinance establishing standards for Accessory Dwelling Units. An Accessory Dwelling Unit (ADU) is a secondary dwelling unit that is located on the same property as a primary dwelling unit. These take the form of basement apartments, guest houses, an apartment above the garage, etc. Nibley City's Moderate Income Housing Plan states the following as its first goal to address moderate income housing:

Allow for and reduce regulation related to accessory dwelling units in residential zones.

Nibley City currently allows for attached accessory dwelling units (ADUs). These ADUs mostly take the form of basement apartments. Nibley City should consider expanding allowances for detached ADUs within most residential zones. ADUs can be a great way to expand moderate income housing stock with minimal impacts to neighborhoods. As established above, many of Nibley City lots are larger than half an acre, which could create the opportunity for construction of ADUs throughout the city.

Moderate Income Housing Considerations

- *How large would the City allow an ADU to be in reference to the primary structure*
- *In what zones and lot sizes would a detached ADU be allowed?*
- *Parking requirements? Having no or minimal parking requirements would allow for more homeowners to build ADUs*
- *Property owner habitation*
- *Making ADUs for short-term rentals as a prohibited use*
- *Registration of ADUs so the City could track the number of units.*

Timeframe: Early 2020

(Nibley City Moderate Income Housing Plan, 2019, p 18)

The 2016 Nibley City General Plan estimated that Nibley has anywhere from 20-30 ADUs in the City, all in the form of attached apartments. These apartments can serve as a way to provide affordable housing throughout the community and can allow property owners to more fully realize the value of their property.

Cache County Monthly Planning Newsletter, February 2020 also provides some great information about ADUS: [Cache County Monthly Newsletter: February 2020.](#)

Based upon discussions with the Planning Commission during workshop sessions and research on best practices, the draft ordinance includes the following provisions:

- A. ADUs are permitted in all zones
- B. Permit required for all ADUs to ensure compliance with chapter
- C. Short-term rentals are prohibited in ADUs
- D. Lot owner must live on property
- E. Must comply with all fire, building and health codes
- F. Separate addresses and mailboxes required
- G. Parking required: 2 additional to what is required for primary, that does not obstruct access to primary unit parking
- H. Limited to 1 ADU per lot for residential, 2 for commercial
- I. No ADUs on wetland or floodplain
- J. Minimum size for all ADUs: 300 sq. ft. Maximum for detached: 1,200 sq. ft.
- K. Maximum height of 2 stories or not exceed height of primary dwelling

Planning Commission Recommendation

During the June 18, 2020 meeting, the Planning Commission recommended to approve Ordinance 20-13: Accessory Dwelling Unit Standards with the following change.

- Regarding setbacks, clarify that 10 feet for side and rear yards is the 'minimum setback' for detached accessory dwelling units, not in addition to the already established setbacks for accessory structures.

ORDINANCE 20-13
ACCESSORY DWELLING UNIT STANDARDS

WHEREAS, Nibley City regulates land use within Nibley City boundaries; and

WHEREAS, Nibley City recently adopted a Moderate-income Housing Plan as an appendix to the General Plan with a stated goal to allow for and reduce regulation related to accessory dwelling units in residential zones; and

WHEREAS, Nibley City promotes the provision of a variety of affordable moderate-income housing options; and

WHEREAS, Nibley City promotes the preservation of existing neighborhoods, while providing for population growth within the City.

NOW, THEREFORE, BE IT ORDAINED BY THE NIBLEY CITY COUNCIL OF NIBLEY, UTAH THAT:

1. The attached Nibley City Code 19.24.250 and the proposed amendment to NCC 19.20.020 be adopted.
2. All ordinances, resolutions, and policies of the City, or parts thereof, inconsistent herewith, are hereby repealed, but only to the extent of such inconsistency. This repealer shall not be construed as reviving any law, order, resolution, or ordinance, or part thereof.
3. Should any provision, clause, or paragraph of this ordinance or the application thereof to any person or circumstance be declared by a court of competent jurisdiction to be invalid, in whole or in part, such invalidity shall not affect the other provisions or applications of this ordinance or the Nibley City Municipal Code to which these amendments apply. The valid part of any provision, clause, or paragraph of this ordinance shall be given independence from the invalid provisions or applications, and to this end the parts, sections, and subsections of this ordinance, together with the regulations contained therein, are hereby declared to be severable.
4. This ordinance shall become effective upon posting as required by law.

PASSED BY THE NIBLEY CITY COUNCIL THIS _____ DAY OF _____, 2020.

Shaun Dustin, Mayor

ATTEST: _____
David Zook, City Recorder

Chapter 19.24.250

Accessory Dwelling Units

A. Purpose

1. This chapter establishes approval criteria and outlines processing procedures for accessory dwelling units.
2. The purpose of this chapter is to allow accessory dwelling units in zoning districts specified in this title, to establish the conditions under which accessory dwelling units are regulated under this chapter, and to set forth criteria and standards to be required of accessory dwelling units when this chapter is applicable.

B. Definitions

1. Accessory Dwelling Unit: A residential dwelling unit, but not a Mobile Home as defined by Utah State Code, located on the same lot as a single-family dwelling unit, either within the same building as the single-family dwelling unit or in a detached building. Accessory dwelling units shall be developed in accordance with the standards set forth in this chapter and only in those zoning districts where the use is listed as a permitted use.
2. Bona fide temporary absence: A specified time in which a person is living away from the home for a period of time but intends to return to the home when the reason for the temporary absence is accomplished. Examples include military service, religious mission service or time spent at a vacation or second home.

C. Accessory Dwelling Unit Approval Required

1. All Accessory Dwelling Units shall comply with the standards and provisions of this title. Accessory dwelling units that existed prior to the adoption of this ordinance, that have not received formal approval, shall be considered illegal until approved in compliance with these provisions, and the City may deny any land use or building approval requested by an owner of property that has an illegal accessory dwelling unit.

D. Application

1. Persons shall make application for an accessory dwelling unit on forms prepared by Nibley City. No accessory dwelling unit application shall be processed without the submission of the application, all supporting materials as required by this chapter, and the processing fee. Incomplete applications shall not be processed under any circumstances.
2. Supporting Materials. The accessory dwelling unit application shall be submitted with the materials listed herein.

- a. Notarized letter: a notarized letter of application shall be provided by the property owner stating that such owner will occupy the property except for bona fide temporary absences
 - b. Floor Plan: A floor plan showing the floor in which the accessory dwelling unit will be located shall be provided
 - c. Parking Plans: A parking plan shall be submitted showing the location of dedicated off-street parking for the accessory dwelling unit and the primary residence.
 - d. Fire Extinguisher(s): Evidence of a fire extinguisher in the accessory dwelling unit shall be provided.
 - e. Fee: The processing fee as required by the consolidated fee schedule as approved by the City council shall be paid in full.
3. For new or remodeled construction, a building permit is required for all accessory dwelling units.
4. Prior to approval of all accessory dwelling unit application, a certificate of occupancy will be required to ensure compliance of fire, building and health codes.

Formatted

E. Approval Criteria

1. Proposed accessory dwelling units in compliance with the following criteria to ensure the health and safety of occupants.
2. Owner Occupation: the owner(s) of the residence shall live either in the primary dwelling in which the accessory dwelling unit was created or the accessory dwelling unit, except for bona fide temporary absences.
3. Fire, building, and health codes. The design and size of the accessory dwelling unit shall conform to all applicable standards in the fire, building, and health codes. All necessary permits shall indicate the area to be designated for accessory dwelling unit use.
4. Separate addresses and mailboxes shall be placed on all accessory dwelling units regulated by this chapter as required for public safety purposes.
5. All entrances to attached accessory dwelling units shall be located on the rear or side of the building.
6. Parking: Off-street parking for two vehicles, shall be provided for use by the tenants of the accessory dwelling unit. This parking shall be provided in addition to the required parking for the primary dwelling unit and shall not obstruct access to the parking of the primary dwelling unit. Parking surfaces shall be constructed of a hard surface, such as concrete or asphalt, or gravel.
7. One Accessory Dwelling Unit: Only one accessory dwelling unit shall be allowed for each single-family dwelling lot.

8. Detached Structures: Accessory dwelling units may be permitted in a detached structure.
9. Short Term Rental, as defined within this title, shall be a prohibited use within accessory dwelling units.
- [10. No accessory dwelling unit shall be built on a registered wetland or flood plain](#)
- [11. Installation of separate water and sewer meters for accessory dwelling units shall be prohibited.](#)
- [12. Accessory dwelling units shall be charged the base rate for water and sewer usage in accordance with the Nibley City Fee Schedule.](#)
- [13. Accessory dwelling units shall be subject to impact fees for residential buildings in accordance with the Nibley City Impact Fee Schedule.](#)

F. Size, Height and Zoning

1. Accessory dwelling units shall have the following requirements:
 - a. Shall have the minimum size of 300 sq. ft.
 - b. No detached accessory dwelling units shall be larger than 1,200 sq. ft.
 - c. Detached accessory dwelling units shall follow the sizing and setback requirements for other accessory buildings as listed in NCC 19.24. For new detached accessory dwelling unit structures, a minimum rear and side setback of 10 feet is required.
 - d. Detached accessory dwelling units shall not be permitted on lots smaller than 12,000 sq. ft.
 - e. The total square footage of all detached accessory dwelling units shall not occupy more than twenty five percent (25%) of the rear yard.
 - f. Detached accessory dwelling units shall be limited to two stories and shall not exceed the height of the primary single-family dwelling.
2. Accessory Dwelling Unit Use within Commercial, Neighborhood Commercial, and Industrial Zones
 - a. Commercial buildings within Neighborhood Commercial Zones shall be allowed to have up to two attached accessory dwelling units. Accessory dwelling units shall be attached to the building. Dwelling Units shall be located either on the rear of the building or on the second story.
 - b. Any Commercial Building shall supply two additional off-street parking for each accessory dwelling unit, in addition to parking required by the commercial use.
 - c. Each accessory dwelling unit shall have a separate access apart from the commercial access to the building
 - d. Each accessory dwelling unit must meet all applicable building, zoning, and fire code requirements.

G. Noncompliance

1. Owners of the property where the accessory dwelling unit use has been approved shall be responsible for their property's compliance with the city's ordinances and conditions of approval. Owners who fail to maintain or violate the city's ordinances regulating accessory dwelling unit use or conditions upon which approval was contingent may have the permit revoked. Notice of violation shall be given to the owner of the residence containing the accessory apartment use providing 14 days to correct a violation before the permit is revoked. Persons aggrieved by the revocation of their permit may use the appeal process to have their grievances heard.

19.20.020 Land Use Chart
Nibley City Land Use Chart

Key

P:	Permitted Use
NP:	Not Permitted Use
C:	Conditional use
A:	
A:	Agriculture Zone
R-E:	Rural Estate Zone
R-1:	Residential Zone R-1
R-1A:	Residential Zone R-1A
R-2:	Residential Zone R-2
R-2A:	Residential Zone R-2A
P/S:	Park/School

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

C:	Commercial Zone
C-N:	Neighborhood Commercial Zone
I:	Industrial Zone

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Use	A	R-E	R-1	R-1A	R-2	R-2A	P/S	C	C-N	I
Residential										
Assisted Living Facility	C	C	NP	NP	NP	NP	NP			
Artisan Shop	C	C	C	C	C	C	NP			
Bed and Breakfast Inn	C	C	C	C	NP	NP	NP			
Building moved from another site	C	C	C	C	C	C	C			
Group Living Facility ¹	C	C	C	C	C	C	NP			
Home Occupation	C	C	C	C	C	C	NP			
Home Office	P	P	P	P	P	P	NP			
Housing, Short-Term Rental	C	C	C	C	C	C	NP			
Housing, Single-Family	P	P	P	P	P	P	NP			
Housing, Two-Family	P	P	P	P	P	P	NP			
Mobile Home Park	NP	NP	NP	NP	NP	NP	NP			
Nursing Home	C	C	C	C	C	C	NP			
Temporary Office/Model Home	C	C	C	C	C	C	NP			
Accessory Dwelling Unit ³	P	P	P	P	P	P	P	P	P	P
Use	A	R-E	R-1	R-1A	R-2	R-2A	P/S	C	C-N	I
Agricultural/Animal										
Ag Implement Sales and Service	C	NP	NP	NP	NP	NP	NP	C	NP	C
Agricultural Production	P	P	P	P	P	P	P	C	C	C

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Formatted: Font: 8 pt

Animal Crematorium	NP	NP	NP	NP	NP	NP	NP	C	NP	C
Arboretum/Nature Center	C	C	C	C	C	C	C	C	C	C
Farmers' Market	C	C	C	NP	NP	NP	C	C	C	C
Florist/Garden Center	C	C	NP	NP	NP	NP	NP	C	P	C
Veterinary Clinic, Large Animal	P	NP	NP	NP	NP	NP	NP	C	NP	C
Veterinary Clinic, Small Animal	P	NP	NP	NP	NP	NP	NP	C	C	C
Use	A	R-E	R-1	R-1A	R-2	R-2A	P/S	C	C-N	I
Public, Institutional, and Civic Uses										
Bus/Transit Terminal	NP	NP	NP	NP	NP	NP	P	C	C	C
Cemetery	C	C	C	C	C	C	P	NP	NP	NP
Church/Places of Worship	C	C	C	C	C	C	C	C	C	C
Club/Service Organization/Lodge	NP	NP	NP	NP	NP	NP	C	C	NP	C
College/University	C	NP	NP	NP	NP	NP	P	C	NP	C
Government Services	P	NP	NP	NP	NP	NP	P	P	NP	P
Hospital	NP	NP	NP	NP	NP	NP	NP	C	NP	C
Public Park	P	P	P	P	P	P	P	P	P	P
Private Park	P	P	P	P	P	P	P	P	P	P
Utility Substation	C	C	C	C	C	C	C	C	C	C
School	C	C	C	C	C	C	P	P	C	P
Use	A	R-E	R-1	R-1A	R-2	R-2A	P/S	C	C-N	I
Commercial										

[illegible]

Sign Shop	NP	NP	NP	NP	NP	NP	NP	NP	NP	C
Sports Facilities	NP	NP	NP	NP	NP	NP	C	C	NP	C
Storage Facility	NP	NP	NP	NP	NP	NP	NP	NP	NP	C
Warehousing	NP	NP	NP	NP	NP	NP	NP	NP	NP	C
Warehousing, Residential Storage	NP	NP	NP	NP	NP	NP	NP	NP	NP	C
Welding/Machine Shop	NP	NP	NP	NP	NP	NP	NP	NP	NP	C

Notes

- 1. Group living facilities are governed by NCC 19.42
- 2. Any land use not listed is not permitted
- 3. [Accessory dwelling units are governed by NCC 19.24.250](#)

Agenda Item #13 & 14

Description	Public Hearing – Ordinance 20-14: Update to Nibley City Code 21.10.020 Amending the Rural Preservation Subdivision and Discussion & Consideration – Ordinance 20-14: Update to Nibley City Code 21.10.020 Amending the Rural Preservation Subdivision (First Reading)
Department	Planning
Presenter	Levi Roberts, City Planner
Recommendation	Make a motion to approve Ordinance 20-14: Update to Nibley City Code 21.10.020 Amending the Rural Preservation Subdivision, for first reading.
Reviewed By	Mayor, City Manager, City Planner, Public Works Director, City Engineer

Background:

Update for July 30

During the June 25 meeting, a workshop was held regarding this ordinance amendment. A concern was expressed about ensuring that significant and sensitive lands were prioritized to be preserved in conjunction with the provision that open space be consolidated. The recommended ordinance amendment has been updated to reflect this provision.

During the June 18, 2020 meeting, the Planning Commission recommended approval of Ordinance 20-14: Update to Nibley Ordinance 20-14: Update to Nibley City Code 21.10.020 Amending the Rural Preservation Subdivision. The proposed code changes, which are reflected in the new ordinance, include:

1. Clarifying language in section H-4 to encourage larger open spaces that can be built upon with future development, while eliminating “islands” of open space
2. Changing the name of the Subdivision type to ‘Open Space Subdivision.’

Planning Commission Recommendation

During the June 18, 2020 meeting, the Planning Commission recommended to approve Ordinance 20-14: Update to Nibley Ordinance 20-14: Update to Nibley City Code 21.10.020 Amending the Rural Preservation Subdivision

ORDINANCE 20-14
UPDATE TO NIBLEY CITY CODE 21.10.020 AMENDING THE RURAL PRESRVATION
SUBDIVISION

WHEREAS, Nibley City regulates the subdivision of land within Nibley City boundaries; and

WHEREAS, Nibley City promotes the preservation of meaningful open space for the enjoyment of its citizens;
and

WHEREAS, Nibley City promotes the efficient use of public resources to maintain open space in a satisfactory condition.

NOW, THEREFORE, BE IT ORDAINED BY THE NIBLEY CITY COUNCIL OF NIBLEY, UTAH THAT:

1. The attached proposed amendment to NCC 21.10.020 be adopted.
2. All ordinances, resolutions, and policies of the City, or parts thereof, inconsistent herewith, are hereby repealed, but only to the extent of such inconsistency. This repealer shall not be construed as reviving any law, order, resolution, or ordinance, or part thereof.
3. Should any provision, clause, or paragraph of this ordinance or the application thereof to any person or circumstance be declared by a court of competent jurisdiction to be invalid, in whole or in part, such invalidity shall not affect the other provisions or applications of this ordinance or the Nibley City Municipal Code to which these amendments apply. The valid part of any provision, clause, or paragraph of this ordinance shall be given independence from the invalid provisions or applications, and to this end the parts, sections, and subsections of this ordinance, together with the regulations contained therein, are hereby declared to be severable.
4. This ordinance shall become effective upon posting as required by law.

PASSED BY THE NIBLEY CITY COUNCIL THIS _____ DAY OF _____, 2020.

Shaun Dustin, Mayor

ATTEST: _____
David Zook, City Recorder

21.10.020 Open Space SubdivisionOpen Space Subdivision**Deleted: Rural Preservation Subdivision**

A. Purpose: The purpose of this section is to provide for subdivision development within Nibley City in a manner that:

1. Helps preserve the rural feeling of Nibley City as outlined in the General Plan;
2. Provides Open Space Land with a specific purpose that provides visual and physical access to the public.
3. Supports adopted City policies to conserve a variety of irreplaceable and environmentally sensitive resources and agricultural lands as set forth in the General Plan;
4. Protects constrained and sensitive lands, including, but not limited to, those areas containing sensitive features such as steep slopes, floodplains, and wetlands, by setting them aside from development;
5. Provides Open Space Land, including those areas containing unique or natural features such as meadows, grasslands, tree stands, streams, stream corridors, berms, waterway, farmland, wildlife corridors and/or habitat, historical buildings and/or sites, archeological sites, and green space, by setting them aside from development;
6. Reduces erosion and sedimentation by the retention of existing vegetation and the minimization of development on steep slopes and other constrained and sensitive lands;
7. Provides for a diversity of lot sizes to accommodate a variety of age and income groups and residential preferences, so that the community's population diversity may be enhanced;
8. Provides incentives for the creation of greenway systems and Open Space Land within the City for the benefit of present and future residents.
9. Creates neighborhoods with direct visual and/or physical access to Open Space Land;
10. Maintains and creates scenic views and elements of the City's rural and scenic character and minimizes perceived density by maintaining views of new development from existing roads.

B. Definitions: For the purpose of this section, the following words shall have the meanings set forth herein:

1. OPEN SPACE LAND: Any parcel or area of land dedicated under this section as indicated on a Open Space Subdivision Plat for the access and/or visual enjoyment of the public. Open Space Land must meet the standards and requirements of this section. Open Space Land may not be contained in the privately-owned parcel except as specifically allowed in this ordinance. Open Space Land must have 25% of its border adjacent to public access right-of-way, easement, or City park or contain a trail open to the public which traverses or runs adjacent to the Open Space Land. Open Space Land area shall not be included in setback areas calculations for principal or accessory uses.
2. CONSTRAINED AND SENSITIVE LAND: Land which is generally unbuildable without engineered ground modifications, or which contains features including, but not limit to Federal, State, or municipally designated wetlands, floodplains, slopes greater than 20%, faults, designated canals per Nibley Ordinance and other geologically or environmentally sensitive features that require mitigation, special insurance or permits from government authorities to allow development. This land may be used as Open Space Land if it complies fully with conditions within this ordinance for qualification of Open Space.

Deleted: Rural Preservation Subdivision

3. **WATERWAY:** Surface water runoff and drainage, drainage ditches and irrigation waterways, whether surface or subsurface and natural waterways including creeks, streams, springs, rivers, ponds, and wetlands.
4. **TREE STAND:** A group or cluster of trees within a geographic location that are occurring naturally or artificially.
5. **MEADOWS:** Land vegetated with native species of grasses, trees, forbs, and flowers, either undisturbed or constructed, that can be sustained without supplemental irrigation. Actively used pasture and agricultural land are not considered Meadows under this definition.
6. **PASTURE:** A fenced enclosure or confined area used for the grazing of livestock or small animals which contains sufficient vegetation to serve as the principle food source for the livestock confined therein.
7. **NET DEVELOPABLE LAND:** Net Developable Land shall include the total area of the proposed development minus land that is required by Nibley City ordinance to be dedicated to the City including, but not limited to:
 8. Public access rights-of-way
 9. Land required to be dedicated along waterways
10. Preservation lands with infrastructure installed to City standards by the developer as part of the development process (parks, trails, etc.)
11. Constrained and Sensitive Land as defined herein
12. Easements, lands dedicated to the City for preservation space but without public rights of access, and other utility or general rights-of-way without access to the public shall be included as Net Developable Land.
13. Net Developable Land may be calculated for the purposes of concept review and preliminary plat approval based on either rule of thumb as outlined in the Lot Standards chart for the underlying zone of the proposed subdivision or based on actual measurements derived from the proposed plat. Calculation of Net Developable Land for final plat approval shall use actual measured Net Developable Land area. The proponent shall demonstrate compliance with this provision by calculation based on values demonstrably derived from the proposed final plat.

C. Applicability:

1. The election to develop the property as a Open Space Subdivision is voluntary and provided to developers as an alternative to the standard subdivision process codified in NCC 19 and NCC 21. The intent of this section and the Open Space Subdivision options is to encourage the creation and development of flexible designed Open Space Land and variety in lot size and conformation. Open Space Subdivisions may be developed within applicable residential zones of the City. Open Space Subdivisions shall be developed in accordance with and subject to the development standards, conditions, procedures and regulations of this section and with all other applicable subdivision ordinances and zoning regulations of the City which are not otherwise in conflict with the provisions of this section.
2. In cases of conflict with other Nibley City ordinances, the terms of this section shall govern.
3. Development Options: In R-1, R-1A, and R-2 zones in Nibley City, developers may elect to develop a Open Space Subdivision. R-2A zones may also be developed under the terms of this ordinance; in such cases, the R-2A zoned property shall be treated as R-

Deleted: Rural Preservation Subdivision

Deleted: rural preservation subdivision

Deleted: Rural Preservation Subdivision

Deleted: Rural Preservation Subdivision

Deleted: Rural Preservation Subdivision

2 for the purposes of calculating underlying base density, number of lots, bonus density, lot sizes, and all other provisions outlined in this ordinance. If the zone is not listed above, it does not qualify for a Open Space Subdivision.

4. Developers desiring to develop the property as Open Space Subdivision are subject to the development standards, conditions procedures and regulations of this section.

Deleted: Rural Preservation Subdivision

Deleted: Rural Preservation Subdivision

D. Application Process:

1. Applications for a Open Space Subdivision shall be submitted and processed in accordance with the requirements and procedures set forth in the City Subdivision Ordinance, including submission and approval of schematic, preliminary and final plans or plats, and any additional procedural requirements set forth in this section, including, but not limited to, submission of a sensitive area designation plan and maintenance plan.

Deleted: Rural Preservation Subdivision

2. Pre-application Meeting: Applicants for a Open Space Subdivision shall have a pre-application meeting with the Development Committee as established in NCC 21.06.030 to review the application and answer questions provided by the applicant. Prior to this meeting, the developer shall submit the draft plan of the proposed subdivision and shall include the following:

Deleted: Rural Preservation Subdivision

- a. Zoning and parcel location
- b. Total gross acres
- c. Estimated right-of-way dedication
- d. Estimated Constrained and Sensitive Land
- e. Estimated Net Developable Land
- f. Estimated Open Space Dedication and proposed uses.
- g. Total number of lots based on density bonus
- h. Estimated lot sizes and subdivision layout.

3. Sensitive Area Designation Plan Map: All applications for a Open Space Subdivision shall include a sensitive area designation plan map prepared in accordance with the provisions set forth herein and submitted with the preliminary plat. The sensitive areas designation plan map shall identify all constrained and sensitive lands within the property boundaries as set forth in this section. The sensitive area designation plan map shall also clearly identify all-natural or cultural resources present on the property, including, but not limited to those defined in this ordinance (geographic features, meadows, tree stands, streams, stream corridors, floodwalls, berms, waterways, canals, irrigation ditches, farmland, pastures, wildlife corridors and/or habitat; historic buildings and/or sites; archeological sites; cultural features and green space). Applicants are solely responsible for the accuracy and designation of constrained and sensitive lands as defined in this ordinance, and natural and cultural resources as defined by the United States, State of Utah, Cache County, and Nibley City on the sensitive area designation plan map for their project and applicable adjacent property. The applicant shall include all sensitive areas within four hundred feet(400') of the developments property boundaries as noted in City, County, State, and Federal records.

Deleted: Rural Preservation Subdivision

4. Maintenance Plan for preserved Open Space Land: The developer must submit a Preliminary Maintenance Plan in accordance with subsection M,2 of this section and with the preliminary plat. For final plat application, the developer must submit a Final Maintenance Plan in accordance with subsection M,3 of this section. The Final

Maintenance Plan shall be attached to the Development Agreement required by NCC 21 and recorded with the Final for the property.

E. Dimensional Standards:

1. The lot standards within a [Open Space Subdivision](#) shall be determined in accordance with the Lot Standards Chart.

Deleted: Rural Preservation Subdivision

Lot Standards Chart					
Zone	Open Space Ratio (OSR) ^{NOTE 1}	Incentive Multiplier	Average Residential Lot Size	Minimum Residential Lot Size	Frontage ^{NOTE 2}
R-1	$0.25 \leq \text{OSR} < 0.30$	1.25	$\geq 18,700 \text{ ft}^2$	$\geq 17,000 \text{ ft}^2$	$\geq 100 \text{ ft}$
	$0.30 \leq \text{OSR} < 0.35$	1.30	$\geq 16,700 \text{ ft}^2$	$\geq 15,000 \text{ ft}^2$	$\geq 100 \text{ ft}$
	$0.35 \leq \text{OSR} < 0.40$	1.35	$\geq 14,700 \text{ ft}^2$	$\geq 13,000 \text{ ft}^2$	$\geq 95 \text{ ft}$
	$0.40 \leq \text{OSR}$	1.40	$\geq 12,700 \text{ ft}^2$	$\geq 11,000 \text{ ft}^2$	$\geq 90 \text{ ft}$
R-1A	$0.25 \leq \text{OSR} < 0.30$	1.25	$\geq 14,000 \text{ ft}^2$	$\geq 12,000 \text{ ft}^2$	$\geq 100 \text{ ft}$
	$0.30 \leq \text{OSR} < 0.35$	1.30	$\geq 13,000 \text{ ft}^2$	$\geq 11,000 \text{ ft}^2$	$\geq 95 \text{ ft}$
	$0.35 \leq \text{OSR} < 0.40$	1.35	$\geq 12,000 \text{ ft}^2$	$\geq 10,000 \text{ ft}^2$	$\geq 90 \text{ ft}$
	$0.40 \leq \text{OSR}$	1.40	$\geq 11,000 \text{ ft}^2$	$\geq 9,000 \text{ ft}^2$	$\geq 85 \text{ ft}$
R-2 and R-2A	$0.25 \leq \text{OSR} < 0.30$	1.20	$\geq 13,200 \text{ ft}^2$	$\geq 11,500 \text{ ft}^2$	$\geq 95 \text{ ft}$
	$0.30 \leq \text{OSR} < 0.35$	1.25	$\geq 12,200 \text{ ft}^2$	$\geq 10,500 \text{ ft}^2$	$\geq 90 \text{ ft}$
	$0.35 \leq \text{OSR} < 0.40$	1.30	$\geq 10,200 \text{ ft}^2$	$\geq 9,000 \text{ ft}^2$	$\geq 85 \text{ ft}$
	$0.40 \leq \text{OSR}$	1.35	$\geq 9,200 \text{ ft}^2$	$\geq 7,800 \text{ ft}^2$	$\geq 80 \text{ ft}$
Notes: 1. The OSR is the ratio of the area of the Open Space Land divided by the area of the Net Developable Land. 2. Frontage is determined at the front setback line.					

2. Procedure for Calculating Allowed Number of Lots: The Allowed Number of Lots including the density bonus for a [Open Space Subdivision](#) shall be determined as follows using the appropriate Incentive Multiplier from the Lot Standards Chart. The developer shall follow the process outlined below to determine allowable properties of the proposed subdivision and use these properties in developing the preliminary and final plats. All calculations and measurements shall be clearly documented in order and following the process outlined below and submitted with the plat applications:

Deleted: Rural Preservation Subdivision

- a. The subdivision must be in one of the approved zones as listed within the [Open Space Subdivision](#) requirements, and all calculation will be based on the parcel's current zone at the time of application and the associated Lot Standards Chart with the exception of R-2A zones: R-2A zones shall be treated as R-2 zones for the purposes of this ordinance.
- b. Provide to the City the total area contained within the subdivision plat.
- c. Provide to the City the total area being dedicated to rights-of-way.
- d. Provide to the City the total acres of Constrained and Sensitive Land.
- e. Provide the City the total Net Developable Land area as defined within this section.
- f. State the area of proposed Open Space Land.
- g. Calculate Open Space Ratio.
- h. Calculate the Base Number of Lots per zone:

Deleted: Rural Preservation Subdivision

$$(1) \text{ Base Number of Lots R-1} = \text{Net Developable Land} / 1 \text{ acre}$$

- (2) Base Number of Lots R-1A = Net Developable Land / .75 acres
- (3) Base Number of Lots R-2 and R-2A = Net Developable Land / 0.5 acres

i. Determine Incentive Multiplier

- (1) Determine Incentive Multiplier based on the Lot Standards Chart, the applicable zone, and the Open Space Ratio.

j. Calculate total allowed

- (1) Total allowed lots = Base number of lots multiplied by the Incentive Multiplier

F. Lot Area, Frontages, and Zoning Regulations:

- 1. The subdivision, along with each lot within the subdivision, shall meet and comply with the minimum lot sizes, average lot sizes, and frontages shown on the Lot Standards Chart. Except for these requirements, the Zoning Regulations (NCC 19) for the underlying zone shall apply to [Open Space Subdivisions](#), unless otherwise noted within this section.

Deleted: Rural Preservation Subdivision

G. Conservancy Lots:

- 1. Open Space Land and Constrained and Sensitive Land may be included within individual residential lots when such areas can be properly protected and preserved in accordance with the intent and purpose of this section. Such lots shall be known and referred to as "conservancy lots". These lots must contain a minimum of 0.5 acres of Open Space Land, except for areas approved by Nibley City as defined Landscape Buffers, and that Open Space Land must meet the design standards and use standards within this section.
- 2. Regulations: Open Space Land and Constrained and Sensitive land within a Conservancy Lot shall remain subject to all regulations and requirements for such land as set forth herein, including, but not limited to, use, design, maintenance, ownership and permanent protection. Open Space Land must be developed and maintained within the first year of the date of issuance of a Notice to Proceed under NCC 21.
- 3. The portion of each Conservancy Lot that is not Open Space Land must meet the minimum lot size on the applicable Lot Standards Chart and shall be the portion of the Conservancy Lot used to calculate the average and minimum lot size within the subdivision.

- H. Use Regulation: Use of the land in a [Open Space Subdivision](#) that is not Open Space Land is subject to any restrictions set forth in NCC 19, unless otherwise specified within this section, for the zone in which the land is located. Use of Open Space Land within a [Open Space Subdivisions](#) is subject to the following:

Deleted: Rural Preservation Subdivision

Deleted: Rural Preservation Subdivision

- 1. Permitted Uses on Open Space Land: The following uses are permitted in Open Space Land areas:
 - a. Street rights-of-way may traverse Open Space Land if permitted under City ordinances; provided, areas encumbered by such facilities and/or rights-of-way shall not be counted as Open Space Land when computing the Open Space Ratio in the Lot Standards Chart.
 - b. Utility rights-of-way or easements, including above ground and underground utilities may traverse Open Space Land if permitted by City ordinance; areas encumbered by such facilities and/or rights-of-way may be counted as Open

Space Land when computing the Open Space Ratio in the Lot Standards Chart so long as the rights-of-way and easements otherwise meet the requirements of this ordinance for Open Space Land.

- c. Agricultural and horticultural uses, including raising crops wholesale nurseries and associated buildings that are specifically needed to support active, viable horticultural operations. Wholesale nurseries must obtain an operating permit and business license from the City and must comply with all fencing and maintenance requirements of this ordinance.
- d. Conservation of open land in its natural state; e.g., meadows, tree stands, wetlands, forestland.
- e. Waterways along with dedicated public access rights-of-way or easements along one or both sides.
- f. Underground utility easements for drainage, access, sewer or water lines, electric lines or other public purposes.
- g. Active noncommercial recreation areas, such as trails, playing fields, playgrounds, courts, and multipurpose trails. These parcels shall be maintained by the City or an owners' association and shall be open to the public if maintained by the City, or residents within the [Open Space Subdivision](#) if maintained by a functional owners association.
- h. Agricultural uses excluding livestock operations involving swine, poultry, and mink. Open Space Land of less than one-half (0.5) acre may be used as landscaped buffers for roadways, landscaped entrances to subdivisions, neighborhood "pocket parks" or similar amenities that meet standards and uses listed herein.
- i. Fencing that is rural in character. All fencing must be transparent, such as rail fences, post fences, or wire fences and architecturally appropriate to the use as determined by the City Planner. Chain link fences are not permitted on Open Space Land. All applicants must receive a fence permit from the City before construction of any proposed fence.
- j. Golf courses, not including commercial miniature golf. A development plan must be turned in as part of the approval process that outlines ownership, development, and building plans.
- k. Neighborhood Open Space Land uses such as village greens, commons, picnic areas, community gardens, trails, and similar low-impact passive recreational uses. Neighborhood Open Space Land must be owned and maintained by an owners' association or the City.
- l. Pasture for sheep, goats, cows, horses or other animals approved by Nibley City code. Pasture and animal density must conform with Nibley City Animal Land Use Regulations and be enclosed with appropriate fencing.
- m. Silviculture, in keeping with established standards for selective harvesting and sustained yield forestry.
- n. Water supply and sewage disposal systems, and stormwater detention areas designed, landscaped, and available for use as an integral part of the Open Space Land. These facilities must be built to Nibley City Design Standards and Specifications, must contain a tree for every 300 square feet and planted around the perimeter, an irrigation system must be installed, and be planted with grass or natural vegetation

Deleted: Rural Preservation Subdivision

2. Prohibited Uses on Open Space Land: The following uses shall be considered prohibited in Open Space Land areas:

- a. Motor vehicles are prohibited except as necessary to maintain and operate the property and/or utility facilities within the property. Recreational motorized off-road vehicle usage including but not limited to motorcycles, dirt bikes, go-carts, OHVs, dune buggies, side-by-sides and their derivatives, and snowmobiles are prohibited.
- b. Firearm ranges, and other uses similar in character and potential impact are prohibited.
- c. Advertising of any kind and any billboards or signs; provided, directory and information signs may be displayed describing the easement and prohibited or authorized the use of the same.
- d. Any cutting of trees or vegetation, except as reasonably necessary for fire protection, thinning, elimination of diseased growth, control of non-native plant species, maintenance of landscaped areas, and similar protective measures or those activities relating to permitted agricultural uses or other uses allowed within this section.
- e. Any development, construction or location of any manmade modification or improvements such as buildings, structures, roads, parking lots, or other improvements, except as may be necessary to support a permitted use.
- f. Any dumping or storing of ashes, trash, garbage, vehicles, trailers, recreational vehicles or other equipment except for equipment needed to maintain the land.
- g. Any filling, dredging, excavating, mining, drilling, or exploration for and extraction of oil, gas, minerals or other resources from the property.
- h. Any residential, commercial or industrial activity except as specifically permitted in this ordinance.
- i. Burning of any materials, except as necessary for agricultural, drainage and fire protection purposes.
- j. Changing the topography of the property by placing on it any soil, dredging spoils, landfill, or other materials, except as necessary to conduct specifically permitted purposes.
- k. Hunting or trapping for any purpose other than predatory or problem animal control.
- l. The change, disturbance, alteration, or impairment of significant natural ecological features and values of the property or destruction of other significant conservation interests on the property.
- m. The division, subdivision or de facto subdivision of the property.
- n. The use of motor vehicles, including snowmobiles, all-terrain vehicles, motorcycles and other recreational vehicles.
- o. All other uses and practices inconsistent with and detrimental to the stated objectives and purpose of this section.

3. Constrained and Sensitive Lands: Except for passive recreational activities, no development or residential uses shall be permitted within Constrained and Sensitive Lands

4. Open Space Land Coordination: Open space land shall be consolidated and located on the border of proposed subdivision and be located adjacent to undeveloped or open space land where possible. In consideration of open space consolidation, design standards described in this chapter shall be maximized, including the preservation of significant areas and natural landscape, and adequate pedestrian access.

Deleted: Open Space Land shall be

Deleted: a

5. Open Space Lands: Standards pertaining to the quantity, quality, configuration, use, permanent protection, ownership, and maintenance of the Open Space Land within a Open Space Subdivision shall be complied with as provided herein.

Deleted: The City may make exceptions for internal trails, constrained and sensitive lands,

Deleted: Open Space Land shall be coordinated and located to maximize the continued use of the space. To create larger areas of Open Space Land and to combine Open Space Land from a variety of developments, Open Space Land shall be coordinated either with existing adjacent Open Space Land or with planned future Open Space Land. If no adjacent parcels of land are planned for development, Open Space Land shall be planned to provide the greatest likelihood of adjoining future developments' Open Space Land....

Deleted: rural preservation Subdivision

Deleted: Rural Preservation Subdivision

Deleted: Rural Preservation Subdivision

- I. Open Space Land Design Standards: Open Space Land shall be located and designed within the Open Space Subdivision to add to the visual amenities of neighborhoods and the surrounding area by maximizing the visibility of Open Space Land. Designated Open Space Land within a Open Space Subdivision shall also comply as defined in this section, permitted uses as listed in this section, and meet three (3) or more of the following standards:

1. Significant Areas and Natural Landscape: Open Space Land shall include the most unique and sensitive resources and locally significant features of the property within the subdivision. Specifically, meadows, waterways and wetlands as defined in this Ordinance, and tree stands and contain a minimum of 0.5 acres. Other uses include berms, wildlife corridors and/or habitat and must extend a minimum of 15' on each side of the feature. This Open Space Land may also contain historic buildings and/or sites, archeological sites, and cultural features. The maintenance plan shall outline how the property will be preserved and maintained. The maintenance plan must specify what type of feature(s) that is being preserved and how the property will be maintained.
2. Contiguous Land: Open Space Land within a Rural Conservation Subdivision shall be contiguous within the subdivision, or to other Open Space Land in adjacent subdivisions or developments to provide for large and integrated Open Space Land areas within the City.
3. Agricultural Land: Privately held Open Space Land that is used for agricultural purposes as defined in this Ordinance and is 0.5 acre or greater in size.
4. Buffering: Open Space Land shall be designed to provide buffers and to protect scenic views as seen from existing public rights-of-way and from public parks or trails. Buffering area along public rights-of-way or street must be at least thirty (30') feet wide. Buffering must be landscaped, at the sole cost of the developer and shall provide for every hundred (100) linear feet of buffer, six (6) trees and fifteen (15) shrubs. Tree and shrub species must be approved by the City's arborist or the City's Park Director. Trees and shrubs shall be planted within thirty (30) feet of the right-of-way or public park. Irrigation shall be provided by the developer and shall be designed and installed to Nibley City Standards for City parks current at the time of approval of Final Plat. Open Space buffer areas shall be under single ownership.
5. Pedestrian Access: Developer shall provide pedestrian access to Open Space Land which is open to public or owners' association member use. Access methods can be a trail, park, recreation space, or neighborhood gathering space.
6. Recreation Space: Open Space Land maybe designated as recreation space or park space, including maintained grass, trails, picnic areas, playgrounds, sports fields or other recreation and park amenities. These recreation spaces are conditional upon the City Council's approval, and amenities must be approved by the City Council before final approval of the maintenance plan can be given. Publicly and owners' association owned open spaces shall be fully developed and operational in conjunction with each phase of

the subdivision as a percentage of the total developed value of the subdivision (for example, if 25% of the dollar value of the development is being constructed, then a minimum of 25% of the dollar value of the built-out Recreation Space must be developed). The determination of value, construction sequencing, and acceptance criteria shall be specified in the development agreement; until improvements are accepted by the City for the attendant phase, no permits shall be issued for subsequent phases.

7. Stormwater Basin: These facilities must be built to Nibley City Design Standards and Specifications, must contain a tree for every 300 square feet and planted and clustered around the perimeter basin area; an irrigation system must be installed, and be planted with grass, natural vegetation and shrubs. The stormwater basin can be a local or regional basin and must be owned and maintained by Nibley City.

J. Permanent Protections of Open Space Land:

1. Conservation Easement: All Open Space Land shall be permanently restricted from future development by a conservation easement or other method of protection and preservation acceptable to the City. Under no circumstances shall any development be permitted in the Open Space Land at any time, except for those permitted or conditional uses listed herein and approved in conjunction with the Open Space Subdivision. All conservation easements, or another acceptable method of protection and preservation of the Open Space Land within a Open Space Subdivision, shall be approved by the City Council and recorded prior to or concurrent with the recording of the final plat for the Open Space Subdivision.
2. Terms and Conditions: All conservation easements, or another acceptable method of protection and preservation of the Open Space Land within a Open Space Subdivision, shall be in substantially the same form as the standard conservation easement form provided by the City and shall include, at a minimum, the following terms and/or conditions:
 - a. Legal description of the easement;
 - b. Description of the current use and condition of the property;
 - c. Permanent duration of easement;
 - d. Permitted and conditional uses;
 - e. Prohibited development and/or uses;
 - f. Maintenance responsibilities and duties; and
 - g. Enforcement rights and procedures.
3. Marking of Open Space Land: Open space land shall be marked at each corner and property line intersection with a minimum 4" diameter x 3' deep concrete monument provided with an aluminum or brass cap cast or epoxied into the monument. Caps shall be stamped "Nibley Conservation Marker, Do Not Remove", and an arrow stamped into the cap perpendicular to the Open Space boundary line and pointing into the Open Space. Monuments shall be placed such that the top 6" of the monument is above finished grade at the monument location.
4. Grantee: Unless otherwise approved by the City Council, the grantee of a conservation easement shall consist of one of the following acceptable entities which entity shall be qualified to maintain and enforce such conservation easement: land trust, conservation organization, or governmental entity. The City may, but shall not be required to, accept, as grantee, a conservation easement encumbering Open Space Lands within a Open Space Subdivision, provided there is no cost of acquisition to the City for the

Deleted: rural preservation subdivision

Deleted: Rural Preservation Subdivision

Deleted: Rural preservation subdivision

Deleted: Rural Preservation Subdivision

Deleted: Rural Preservation Subdivision

easement and sufficient access to and maintenance responsibilities regarding the Open Space Land are provided.

K. Ownership of Open Space Land:

1. Undivided Ownership: Unless otherwise approved by the City Council and subject to the provisions set forth in this section, the underlying fee Ownership of the Open Space Land shall remain in single Ownership and may be owned and maintained by one of the following entities: homeowners' association, land trust, conservation organization, governmental entity, or private individual.
2. Property Not Subject to Subdivision: Property subject to a conservation easement, or another acceptable method of protection and preservation, shall not be subdivided.
3. Nibley City may at its sole discretion opt to take ownership of Open Space Land at the subdivision approval stage. The developer shall landscape the property with sod, grass, trees and an irrigation system or other natural landscape features as appropriate as determined by the City Council.
4. Owners' Association: Open Space Land may be held in common ownership by a Home Owners' or other acceptable Owners' Association, subject to all the provisions for Owners' Associations set forth in state law, the City Code, and the following:
 - a. A description of the organization of the proposed Association, including its bylaws, and all documents governing ownership, maintenance, and use restrictions for Open Space Land, including restrictive covenants for the subdivision, shall be submitted by the developer with the final plat application.
 - b. The proposed association shall be established, funded and operating (with financial subsidization from the Developer, if required in by the City in the development agreement) prior to or concurrent with the recording of the final plat for the subdivision;
 - c. Membership in the association shall be mandatory for all purchasers of property within the subdivision and their successors in title.
 - d. The association shall be the responsible party for maintenance and insurance of its Open Space Land under the Final Maintenance Plan for the subdivision;
 - e. The bylaws of the association and restrictive covenants for the subdivision shall confer legal authority on the association to place a lien on the real property of any member who falls delinquent in dues. Such dues shall be paid with the accrued interest before the lien may be lifted; and
 - f. Written notice of any proposed transfer of Open Space Land by the Association or the assumption of maintenance for the Open Space Land must be given to all members of the Association and to the City no less than thirty (30) days prior to such event.
 - g. The owners' association shall be required to provide a bond or line of credit to the City for the cost of one year of maintenance of property owned by the Association, to be maintained by the Association for as long as the Association owns the Open Space.
 - h. In the event of a failure of the owners' association to maintain the properties in accordance with the requirements of the development agreement, the City shall revoke the owners' association's bond, determine an appropriate assessment for the operation and maintenance of the open space, and assess all properties of the Subdivision on a monthly basis for said maintenance.

5. Private Ownership: A conservation parcel may be owned by a private individual or entity. Such parcels shall have a defined purpose and restrictions recorded in the maintenance plan and comply with this section.

L. Maintenance of Open Space Lands:

1. Costs: Unless otherwise agreed to by the City, the cost and responsibility of maintaining Open Space Land shall be borne by the owner of the underlying fee of the Open Space Land.
2. Preliminary Maintenance Plan: A Preliminary Maintenance Plan shall be turned in with the preliminary plat for proposed maintenance of Open Space Land within the subdivision. This plan shall outline the following:
 - a. The proposed Ownership of the Open Space Land;
 - b. The party that will be responsible for maintenance of the Open Space Land;
 - c. The proposed use of the Open Space Land and how each parcel of Open Space Land meets the standards listed within this section;
 - d. The size of each Open Space Land parcel; and
 - e. The proposed concept plan for landscaping of the Open Space Land.
3. Final Maintenance Plan: The developer shall submit a plan outlining maintenance and operations of the Open Space Land and providing for and addressing the means for the permanent maintenance of the Open Space Land within the proposed Open Space Subdivision application for the subdivision. The developer shall provide a final maintenance plan with the final plat and the plan shall contain the following:
 - a. Ownership agreements for Open Space Land;
 - b. A description of the use of the Open Space Land and how that use complies with this section;
 - c. The establishment of necessary regular and periodic operation and maintenance responsibilities for the various kinds of Open Space Land (e.g., lawns, playing fields, meadow, pasture, wetlands, stream corridors, hillsides, cropland, woodlands, etc.);
 - d. The estimated staffing needs, insurance requirements, and associated costs, and define the means for funding the maintenance of the Open Space Land, and the operation of any common facilities located thereon, on an ongoing basis, including means for funding long-term capital improvements as well as regular yearly operating and maintenance costs; and
 - e. The landscaping plans for parcels that will be owned by an owners association or by the City.
 - f. Approval: The Final Maintenance Plan must be approved by the City Council prior to or concurrent with final plat approval for the subdivision. The Final Maintenance Plan shall be recorded against the property within the subdivision and shall include provisions for the City's corrective action rights as set forth herein. Any changes or amendments to the Final Maintenance Plan must be approved by the City Council.
4. The developer shall offer an approved letter of credit, bond or escrow for all proposed improvements and must complete all proposed open space improvements within the first

Deleted: Rural Preservation Subdivision

three years of approval. If a designated open space parcel is planned to be maintained by a single property owner, the developer shall maintain that property until title is transferred to a new property owner.

5. Failure to Maintain: For all open space designated under the terms of this Ordinance, including privately held Open Space Lands, the responsible party for the maintenance of the Open Space Land in accordance with the terms of this ordinance, the approved maintenance agreement, any conditional use permits, business licenses or any other agreements between the City and the responsible party, or the operation of any common facilities located thereon fails to maintain all or any portion of the Open Space Land or common facilities in accordance with the aforementioned agreements and ordinances, the City may assume responsibility for the maintenance and operation of the Open Space Land. If the City assumes responsibility under this paragraph, any remaining development escrow or bond funds may be forfeited, liens for maintenance costs shall be assessed as described herein, and any permits, licenses or operating agreements may be revoked or suspended by the City in the City's sole discretion. The owner shall not impede the City in their efforts to maintain the open space.
6. Corrective Action: The City may enter the premises and take corrective action, including extended maintenance. The costs of such corrective action may be charged to the property Owner and may include administrative costs and penalties. Such costs shall become a lien on said properties. Notice of such lien shall be filed by the City in the county recorder's office. The maintenance plan and all other documents creating or establishing any Association or conservation organization for the property shall reference the City's corrective action authority set forth herein and shall be recorded against the property.
7. Implementation and Maintenance: The developer of the subdivision shall fund implementation and maintenance of the conservation easement until such time as the control of the easement is transferred to the long-term manager. The developer shall address implementation, development, maintenance and transfer procedures in the sensitive area designation plan map or master development plan, as applicable.
8. Maintenance Access: The developer of the subdivision shall provide sufficient maintenance access from a dedicated right-of-way to all Open Space Land and constrained and sensitive lands within the Open Space Subdivision.

Deleted: Rural preservation subdivision

HISTORY

Adopted by Ord. 18-05 on 7/19/2018

19.32 Residential Planned Unit Developments (PUD)[19.32.010 Purpose And Intent](#) [19.32.020](#)[Definitions And Standards](#) [19.32.030](#)[Use Regulations](#)[19.32.040 Area And Density Regulations](#)[19.32.050 Open Space Amenities](#) [19.32.060](#)[General Requirements](#)[19.32.070 Approval Process](#)[19.32.080 Development Standards](#)**HISTORY***Repealed by Ord. 11-07 on**7/7/2011 Amended by Ord. 18-10**on 5/23/2019***0 Purpose And Intent**

- A. Intent: This section provides enabling authority and standards for the review and approval of applications for Residential Planned Unit Developments (R-PUD's). The intent of this ordinance is to provide an alternative to traditional subdivision design by encouraging innovation and offering some flexibility in the design of residential developments, which may incorporate the permanent preservation of amenities, agricultural lands and other valuable natural and cultural resources, as well as providing a variety of amenities for the enjoyment and benefit of the citizens of Nibley.
- B. Purpose: An R-PUD is an overlay rezone. That is, applicants apply for the overlay to be applied, allowing them to receive the density outlined herein in exchange for public amenities, all while retaining the original zoning of the property. The Planning Commission and City Council may approve, deny or approve the R-PUD with conditions, and no applicant has any entitlement to the approval of an R-PUD.

HISTORY*Adopted by Ord. 18-10 on 5/23/2019***19.32.020 Definitions And Standards**

- A. Amenity: Natural or man-made feature which enhances the development. These include features such as picnic areas, walking paths/trails outside of required sidewalks, playgrounds, sports fields, club houses, swimming pools, splash pads, etc.
- B. Buffer: A landscape and planted area along a public right-of-way, street, or neighboring development, a buffer must be at least thirty (30') feet wide. Buffers must be landscaped, at the sole cost of the developer, and shall provide for every hundred (100) linear feet of buffer six trees and fifteen (15) shrubs. Tree and shrub species must be approved by the City's arborist or the City's Park Director. Trees and shrubs shall be planted within thirty (30) feet of the right-of-way or R-PUD boundary where required. Irrigation system shall be installed by the developer and shall be designed and installed to Nibley City Standards. Buffer areas shall be owned and maintained by an Owners Association.
- C. Condominium: A multiple-unit dwelling containing individually-owned dwelling units and jointly- owned shared areas and facilities, which dwelling, or development is subject to the provisions of state and local laws.

- D. **Constrained and Sensitive Land:** Land which is generally unbuildable without engineered ground modifications, or which contains features including, but not limited to Federal, State, or municipally designated wetlands, water bodies, floodplains, slopes greater than 20%, faults, canals, and other geologically or environmentally sensitive features that require mitigation, special insurance, or permits from government authorities to allow development. This land may be used as amenities if it complies fully with conditions within this chapter for qualification of amenities.
- E. **Dwelling Unit:** Any building or portion thereof which is designed for or occupied by one family for living, sleeping, and/or eating purposes. A dwelling unit may include up to two (2) persons per unit to whom rooms are rented in addition to a family related by blood, marriage or adoption, but if the number of such additional persons exceeds two (2) or if they use or are furnished separate cooking facilities, whether temporary or permanent, such additional persons shall be considered a separate dwelling unit.
- F. **Meadows:** Land vegetated with native species of grasses, trees, forbs, and flowers, either undisturbed or constructed, that can be sustained without supplemental irrigation. Actively used pasture and agricultural land are not considered Meadows under this definition.
- G. **Net Developable Land:** Net Developable land shall include the total area of the proposed development minus land that is required by Nibley City Ordinance to be dedicated to the City, including, but not limited to:
1. Public access rights-of-way, including roadways and sidewalks
 2. Land required to be dedicated along waterways
 3. Preservation lands with infrastructure installed to City standards by the developer as part of the development process (public and private parks, trails, etc.)
 4. Constrained and Sensitive Land, as defined herein
 5. Easements, lands dedicated to the City for preservation space but without public rights of access, and other utility or general rights-of-way without public access.
 6. Constrained and Sensitive Land, land dedicated along waterways, and other natural landscape or open space land may be considered net developable land when calculating for density if such land can be enhanced with trails, public access, picnic areas, park amenities, or other improvements.
- H. **Open Space:** Any space in an R-PUD that does not contain any amenities, except for park amenities, as defined herein, buildings, parking lots or private yards. All Open Space must be completely landscaped with sod, trees, xeriscape, gardens or agricultural use. Natural features such as wetlands, meadows, tree stands and Constrained and Sensitive Lands may also be considered Open Space.
- I. **Patio Home:** A detached, single-family unit situated on a reduced-size lot and with reduced setbacks.
- J. **Private Parks:** A tract of land presently owned or controlled and used by a private entity or group and to which only members of that private entity or group have access or use rights. Private Parks must contain at least one amenity as defined herein. Private Parks must contain one (1) tree for every 1,000 sq. ft. and 60% of the area must be planted with sod. Sod and tree requirement may be altered for approved club houses, sport courts/fields, swimming pools, splash pads, covered pavilions or other approved recreation uses.
- K. **Owners' Association:** A community association which is organized within a development in which individual owners share common interest and responsibilities for open space, landscaping, or

Commented [SN1]: ADUs?

Commented [SN2]: What about parking lots for parks?

Deleted: Landscaping within the rights-of-way including public sidewalks and trails, and private and public parks shall also be counted as Open Space.

Deleted:)

facilities.

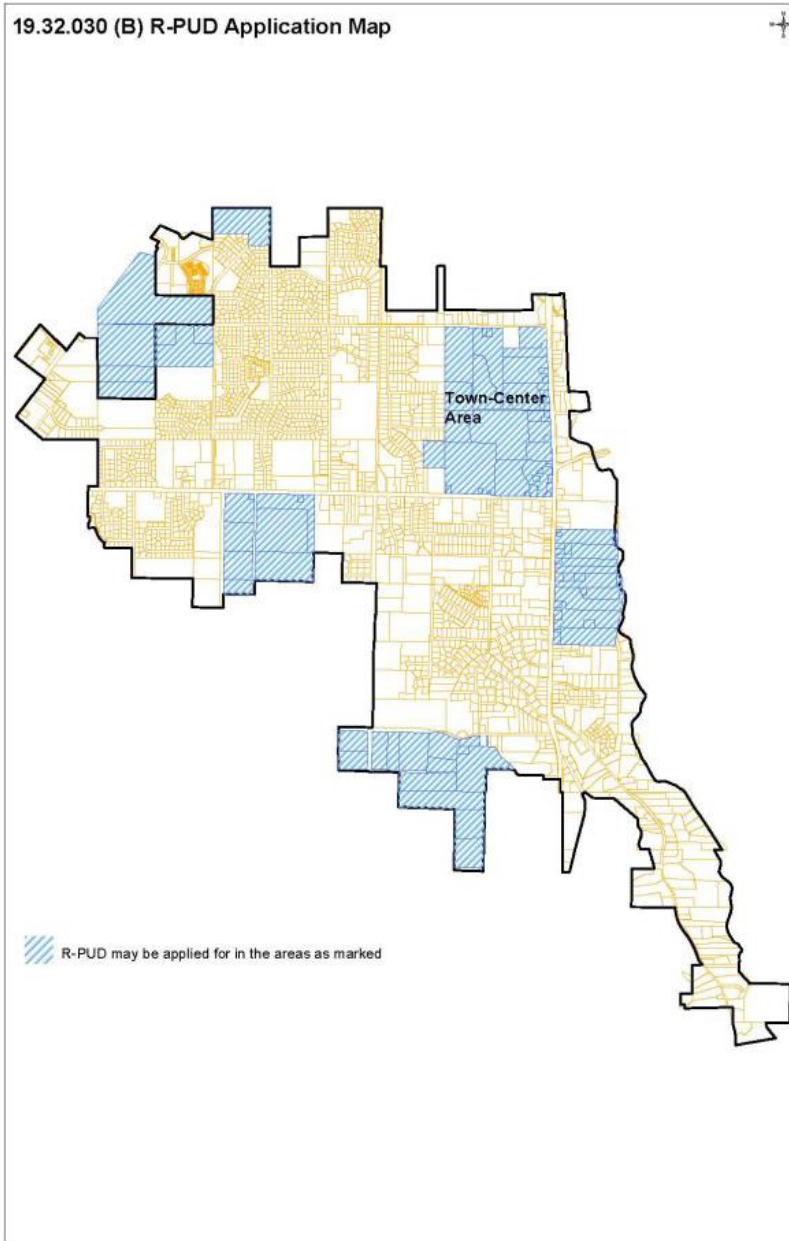
- L. Public Park: A publicly-owned tract of land landscaped and developed for the general public. Public Parks, as defined for R-PUD, must contain at least one amenity as defined herein. Public Parks must contain one (1) tree for every 1,000 sq. ft. and 60% of the area must be planted with sod. All landscaping must meet Nibley City Standards. Sod and tree requirement may be altered for approved, sport courts/fields, swimming pools, splash pads, covered pavilions or other approved recreation uses. Public Parks shall be placed on the border of each development so that it may easily be accessed by the community as a whole. Each public park must contain a public bathroom.
- M. Single Family Dwelling Unit: A dwelling unit owned in fee and located on an individual lot and which is not attached to any other dwelling unit by any means.
- N. Town Center Area: The area as labeled on R-PUD Application Map as "Town Center Area."
- O. Townhome: A dwelling unit, with a private entrance, which is part of a structure whose dwelling units are attached horizontally in a linear arrangement and having a totally exposed front and rear wall to be used for access, light, and ventilation. Each townhome unit must be on its own parcel.
- P. Tree Stand: A group or cluster of trees within a geographic location that are occurring naturally or artificially.
- Q. Waterway: Surface water runoff and drainage, drainage ditches and irrigation waterways, whether surface or subsurface and natural waterways including creeks, streams, springs, rivers, ponds, and wetlands.
- R. Planned Unit Development: For the purpose of this chapter "residential planned unit development" (R-PUD) means an integrated design for the development of residential uses to allow flexibility and initiative in site and building design and location, in accordance with an approved plan and imposed general requirements, as specified by this chapter.

HISTORY

*Adopted by Ord. 18-10 on
5/23/2019 Amended by Ord. 19-16
on 10/10/2019*

0 Use Regulations

- A. An R-PUD may be applied for by following the steps listed in 19.32.070 (A) on properties designated on the R-PUD Application Map in NCC 19.32.030(B). These areas keep their base zoning, with that zoning's standards, conditions, and restrictions, unless the City Council approves the use of the R-PUD through an R-PUD application process. R-PUDs are prohibited in all other areas. The City Council, with a recommendation from the Planning Commission, may make changes to what parcels are labeled on the R-PUD Application Map by following proper ordinance change procedures.
- B. R-PUD Application Map



C. The following are permitted uses in an R-PUD:

1. Single Family and Townhome dwelling units may be permitted uses, as defined within this ordinance.

- Within the Town Center, Single Family, Patio Homes, Townhomes and Condominiums may be permitted uses, as defined within this ordinance.

Formatted: Justified

2. All other uses not defined within this chapter shall comply with the underlying zone, lot size, and the Land Use Chart in NCC 19.20, unless otherwise specified within this ordinance.

D. Any uses not specifically permitted or conditionally permitted are prohibited.

E. Animal Use: All animal uses shall be in accordance with Nibley City Code.

F. Up to 30% of the Net Developable Area may be approved for neighborhood commercial use as part of an R-PUD. These uses shall comply with Nibley's City's Neighborhood Commercial Zone Use Chart and standards as listed in NCC 19.14.050. These parcels shall be labeled on the plat as Neighborhood Commercial.

Deleted: Commercial use must be concentrated in one location.

G. When calculating density for dwelling units, any Neighborhood Commercial area shall be subtracted from the Net Developable Area of the R-PUD.

HISTORY

Adopted by Ord. 18-10 on

5/23/2019 Amended by Ord. 19-16

on 10/10/2019

0 Area And Density Regulations

A. Housing Types: Only single-family homes and town homes are allowed in the R-PUD in residential areas, except as allowed in the Town-Center Area. The density shall be based on Net Developable Acres of the development as follows:

1. Single Family Homes: Equal to or less than 5 units per Net Developable Acre

a. Single Family Home R-PUD must contain a minimum of 50 units.

2. A Mix of Single Family and Townhomes: Equal to or less than 12 units per Net Developable Acre. Up to 60% of dwelling units can be townhomes.

Commented [LR3]: This may need to go down if % of townhomes goes down.

a. A Mix of Single Family and Townhomes R-PUD must contain a minimum of 120 units.

Deleted: 80

B. Town-Center: The area as marked on R-PUD Application Map in NCC 19.32.030 (B) as Town- Center Area shall have the following Housing Requirements.

1. Single Family Home Development and Mix of Single Family and Townhome Development shall be governed by NCC 19.32.040 (A).

2. A Mix of Single Family, Townhomes and Condominiums: Equal to or less than 12 units per Net Developable Acres. Up to 40% of the units can be condominiums, and a minimum of 40% of homes must be single family homes.

Commented [LR4]: This may need to go down if % of townhomes goes down.

Deleted: Q

Deleted: 2

C. A proposed R-PUD adjacent to existing single-family homes must place single family homes adjacent to the established single-family homes unless otherwise buffered by an arterial roadway or 300-foot width of open space including a landscaped Buffer as defined within this chapter.

D. The City may approve single family homes that do not meet the required setbacks and lot size, i.e. patio

homes. These homes shall not be counted toward the single-family home requirements contained in this section and shall be counted toward the number of townhomes.

HISTORY

Adopted by Ord. 18-10 on
5/23/2019 Adopted by Ord. 19-16
on 10/10/2019

■ **0 Open Space Amenities**

A. Each R-PUD shall provide the following types and amounts of open space and amenities:

Min Open Space Requirement	
Dwelling Type	Percentage of Net Developable Acres Required to be used for Amenities and Open Space
Single Family	20%
A Mix of Single Family, Townhomes and Condominiums	35%

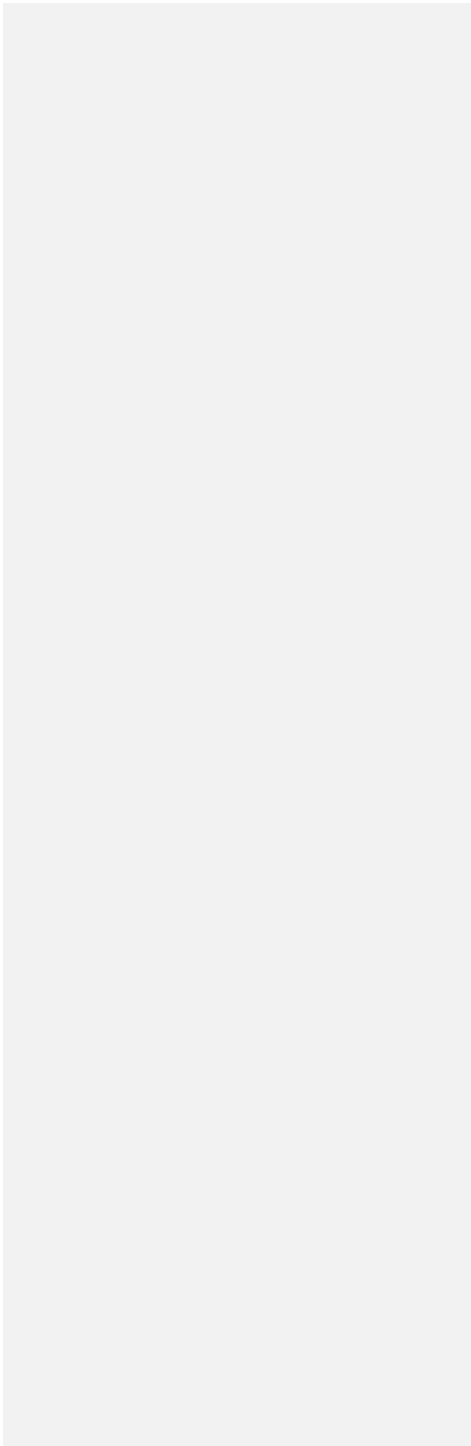
Formatted: Underline

Minimum Amenity						
Number of Units	Park Area	Pavilion	Swing Set	Playground	Clubhouse, Pool, or Splashpad	Sports Court/Fields
Less Than 100	1.5 Acres	—	—	1	—	—
101-150	2.5 Acres	—	1	1	—	—
151-200	3.5 Acres	—	1	2	—	1
201-250	4.5 Acres	1	1	2	—	1
251-300	5.5 Acres	1	1	2	1 of the above options	1
301-400	6.5 Acres	2	2	3	2 of the above options (At least one pool or Splashpad)	2
401-500	7.5 Acres	2	2	3	2 of the above options (At least one pool or Splashpad)	2
501+	*	*	*	*	*	*

1. Development over 500 units must supply adequate and proportional amenities based on the table above.\

2. Development containing under a total of 20 gross acres must provide a minimum open space as

follows:



- a. Single Family: 20% open space as defined within this Chapter or 3 acres of open space, whichever is greater
- b. Mix: 35% Open space as defined within this Chapter or 5.5 acres of open space, whichever is greater

3. Development may be phased according to NCC 21.02.080 and the Development Agreement. The City Council may extend phasing deadlines within the development agreement based on the size of the project and proposed amenities. Public and Owners' Association-owned amenities shall be fully developed and operational in conjunction with each phase of the subdivision as a percentage of the total developed value of the subdivision (for example, if 25% of the dollar value of the development is being constructed, then a minimum of 25% of the dollar value of the built-out amenities must be developed). The determination of value, construction sequencing, and acceptance criteria shall be specified in the Development Agreement. Until improvements are accepted by the City for the attendant phase, no permits shall be issued for subsequent phases.

a. (An applicant may also escrow or bond for future improvements)

- 4. All amenities designed and designated to be transferred to City ownership and maintenance must meet Nibley City Design Standards. The City must review and approve any improvements that will be owned and maintained by the City as part of the construction drawing review.
- 5. This chart does not cover all potential amenities. The applicant may apply for other amenities that would benefit the R-PUD. Any proposed amenities not listed, must be approved by the City Council. The City Council may also allow a substitution of amenities on the table above. These substitutions may only be approved if the cost, value and use of the amenity matches or is greater than the require amenity. An applicant may add additional amenities above and beyond the requirements of this section.
- 6. Public and Private Park space may be combined or spread throughout the development. Each Park shall be a minimum of .25 acres. Each dwelling unit shall be within a quarter mile of a park within the development, unless otherwise approved by the City Council. Parks may be public or private. Each public park development and placement within an R-PUD shall be agreed upon by the applicant and the City Council. Park space may not include alleyways, back yards, gangways, front yards, forecourts, private patios, porches, driveways, etc.; unless proper amenities and access are provided.
- 7. All amenities shall meet any federal, state, city, or other standards that apply.
- 8. Sports Courts/Fields: include a facility/amenity that is built for one of the following: Tennis Court, Pickleball Court, Basketball Courts, Soccer field, Volleyball pit, Baseball field, Softball field, wallball, golf course, disc golf course, or others as approved by the City Council.
- 9. Picnic Area: Two or more picnic tables for use by 10 or more persons.
- 10. Pavilion: A covered picnic area. Each Pavilion must be designed for use of a minimum ten or more people.
- 11. Club House: A building available to community members to house a club or social organization not conducted for private profit. Club Houses shall be owned and maintained by a homeowner's association. A club house shall be at least 1000 sq. ft. in size.
- 12. Playground: an area provided for children to play on. Each Playground must be designed for children twelve and younger. A playground must include features to appeal to children within the above age group including some of the following: slides, monkey bars, ladders, tunnels, climbers, bridges, ramps, platforms, etc. All playground equipment must be of commercial grade. Each playground must include a minimum of 8 features.

Commented [SN5]: Outline that developers may bring in a single phase at a time.

Formatted

Commented [SN6]: List as number one.

13. Pool: A recreation facility designed and intended for water contact activities that serves an R-PUD. No pool shall be less than 800 sq. ft.
14. Splashpad: A recreation facility with sprinklers, fountains, nozzles and other devices or structures that spray water. Splashpads shall contain some above ground features.

B. Maintenance of Amenities

1. All R-PUDs must establish and maintain in perpetuity an Owners Association if there are open space and amenity under common ownership, or as otherwise required by federal, state or Nibley City law. The Developer shall be a member of said Owners Association while the subdivision is being developed.
2. Costs: Unless otherwise agreed to by the City, the cost and responsibility of maintaining amenities shall be borne by the fee owner of the property that is part of the R-PUD or Owners Association.
3. Preliminary Maintenance Plan: A Preliminary Maintenance Plan shall be submitted with the preliminary plat for proposed maintenance of amenities within the development. This plan shall outline the following:
 - a. The proposed ownership and responsibility for maintenance of the amenities;
 - b. The proposed use of the amenities' and how each parcel of amenities meets the standards listed in this Chapter;
 - c. The size of each amenities parcel; and
 - d. The proposed concept plan for landscaping of the amenities.
4. Final Maintenance Plan: The developer shall submit a plan outlining maintenance and operations of the amenities and providing for and addressing the means for the permanent maintenance of the amenities within the proposed R-PUD application for the subdivision. The developer shall provide a final maintenance plan with the final plat and the plan shall contain the following:
 - a. Documents and plans as listed in for the Preliminary Maintenance Plan.
 - b. A description of the use of the amenities and how that use complies with this Chapter;
 - c. The establishment of necessary regular and periodic operation and maintenance responsibilities for the various kinds of amenities (e.g., lawns, playing fields, meadow, pasture, wetlands, stream corridors, hillsides, clubhouse, pool, woodlands, etc.);
 - d. The estimated staffing needs, insurance requirements, and associated costs.
 - e. The landscaping plans for parcels that will be owned by an Owners Association or by the City.
5. Approval: The Final Maintenance Plan must be approved by the City Council prior to or concurrent with final plat approval for the subdivision. The Final Maintenance Plan shall be recorded against the property within the subdivision before any property or lots are sold or transferred and shall include provisions for the City's corrective action rights as set forth herein. Any changes or amendments to the Final Maintenance Plan must be approved by the City Council.
6. The developer shall offer an approved letter of credit, bond or escrow for all proposed

Deleted: The Owners Association for Mix developments shall have office space for the Owners Association constructed a part of the development.

Commented [SN7]: Add in list of items needed for an application

improvements as set forth in NCC 21.14.

7. Failure to Maintain: The City may assume responsibility for the maintenance and operation of any portion of any amenity or common facility within an R-PUD in the event the party responsible for maintaining or operating the amenity fails to do so in accordance with the terms of this Ordinance, the approved Maintenance Agreement, any Conditional Use Permits, Business Licenses or any other agreements between the City and the developer, owners, or other parties responsible for maintaining or operating amenities. If the City assumes responsibility under this paragraph, any remaining development escrow or bond funds may be forfeited, costs, fees, and liens for maintenance costs shall be assessed as described herein, and any permits, licenses or operating agreements may be revoked or suspended by the City in the City's sole discretion. Owners shall not impede the City in its efforts to maintain the amenities.
8. Corrective Action: The City may enter onto any amenity provided as part of an R-PUD and take such corrective action, including extended maintenance, repairs, modifications, or the execution of additional agreements, as the City determines is necessary for the amenity to satisfy the terms of this Ordinance, the approved Maintenance Agreement, any Conditional Use Permits, Business Licenses or any other agreements between the City and the developer, owners, or other parties responsible for maintaining or operating amenities. The costs of such corrective action shall be charged to the owners and may include administrative costs, legal costs, and penalties. Such costs shall become a lien on said properties. Notice of such lien shall be filed by the City in the county recorder's office. The maintenance plan and all other documents creating or establishing any Association or conservation organization for the property shall reference the City's corrective action authority set forth herein and shall be recorded against the property before any property or lots are sold or transferred.
9. Implementation and Maintenance: The developer of the subdivision shall fund implementation and maintenance of the amenities until such time as the control of the amenity is transferred to the owner listed in the maintenance plan. The developer shall address the implementation, development, maintenance and transfer procedures in the sensitive area designation plan map or master development plan, as applicable.
10. Maintenance Access: The developer of the subdivision shall provide sufficient maintenance access from a dedicated right-of-way to all amenities and constrained and sensitive lands within the R-PUD to allow the owner of the property to have sufficient access.

HISTORY

*Adopted by Ord. 18-10 on
5/23/2019 Amended by Ord. 19-16
on 10/10/2019*

0 General Requirements

- A. The R-PUD should be compatible with surrounding land uses, building types and physical features of the site. Specific requirements are included below:
- B. Determination of Net Developable Land:
 1. In calculating what portion of the project is considered developable, areas designated as constrained and sensitive land may not be included in the project size.
 2. If the constrained and sensitive land, property along waterways or other natural landscapes may reasonably be turned into a publicly-accessible amenity, it may be re-

included in the project size.

3. Net Developable Land must comply with the definition within this chapter.

C. Site Development Standards: The following shall serve as the setback/site development standards for each proposed R-PUD.

	Single-Family Home	Townhome	Patio Home	Condo
Minimum Lot Size (sq. ft.)	4,500	—	—	—
Minimum Frontage	50'	—	—	—
Primary-Use Setbacks				
Front Yard	20'	20'	20'	30'
Front Porches	10'	10'	10'	10'
Side Yard	5'	10'	0'	10'
Side Yard Porches, Deck, Overhangs	5'	5'	0'	5'
Side Yard Adjacent to Streets	20'	20'	20'	25'
Rear Yard	15'	15'	15'	15'
Maximum Height	40'	40'	40'	40'

Accessory-Use Setbacks	Single-Family Home	Townhome	Patio Home	Condo
Front Yard	20'	20'	20'	20'
Side Yard	3'	3'	3'	3'
Side Yard Street	20'	20'	20'	20'
Rear Yard	1'	1'	1'	1'
Maximum Height	15'	15'	15'	15'

1. Setback and frontage requirements shall apply to each building, and not each dwelling unit

2. All other setbacks shall comply with Nibley City Code.

3. All buildings and landscaping shall comply with NCC 19.24.110 Clear View of Intersecting Streets as amended.

D. Signs: Any signs proposed for the development, other than traditional street signs, must conform to Nibley City Code.

E. All property developed as Townhomes or Condominiums, must be subject to covenants, conditions and restrictions and must be subject to and governed by an owner's associations in compliance with Utah Code Annotated Title 57.

1. In addition, each owner's association must have a governing board made up of property owners within the R-PUD, but general administration and maintenance of the development may be handled with a property manager. Any R-PUD that contains

townhome must have onsite management, outside professional management or onsite point of contact.

F. Amenities and Open Space: Maintenance and ownership of amenities and Open space may be provided for under one of the following options as approved by the City Council in the City Council's discretion. The City may require any Amenities or Open Space within the R-PUD to be dedicated to Nibley City in order to fulfill goals listed in the Parks, Trails, and Recreation and Open Space Master Plan, or to further public good and advance goals within the General Plan or other Master Plans of the Nibley City:

Deleted: r

1. Dedication of the land to Nibley City as a public park or parkway system; or
2. Granting to the city a permanent amenities easement on and over the said private amenities to guarantee that the amenities remain perpetually in recreation use, with ownership and maintenance being the responsibility of a homeowners' association established with articles of association and bylaws; or
3. Adoption of covenants, conditions, and restrictions and creation of an owners' association that provides for the payment of common expenses for the upkeep of common areas and facilities.

G. Bond: For each phase, the developer shall be required to provide guarantees as set forth in NCC 21.14.

H. Subsequent Subdivision: If the R-PUD is to be subsequently divided either as a subdivision into phase development parcels or separately owned and operated units, such division boundaries shall be indicated on the development plan and preliminary subdivision approval concurrently obtained in the case of a subdivision.

I. Subdivision Regulations: Any part of an R-PUD that is proposed as a subdivision is subject to the provisions of the subdivision title and the standards, conditions, and restrictions of the base zoning, unless superseded by the provisions of this ordinance.

HISTORY

*Adopted by Ord. 18-10 on
5/23/2019 Amended by Ord. 19-16
on 10/10/2019*

0 Approval Process

A. An R-PUD is an overlay zone. That is, developers apply for the overlay to be applied, allowing them to receive the density bonuses outlined herein in exchange for public amenities, all while retaining the original zoning of the property. The City Council, with a recommendation from the Planning Commission, may approve, deny or approve with conditions as a legislative action and no applicant has any entitlement to the approval of an R-PUD.

B. Application Submission: An application for an R-PUD shall be submitted to the City with all required documents, maps, plats and plans as listed below.

C. Procedure:

1. An R-PUD shall go through the following process to gain approval:
 - a. Development Committee: An applicant shall have a preliminary meeting with a development committee composed of applicable City staff, and other elected and appointed official as appointed by the Mayor and approved by the City Council.

Overlay Zone Application: Applicants shall submit an R-PUD Overlay Zone and preliminary plat application with the following:

- (1) A complete development plan application that is duly signed by the property owner or the owner's representative and that includes a legal description of the property and a nonrefundable application fee.
- (2) A vicinity map showing the approximate location of the subject parcel in relation to other major areas of the city.
- (3) A general description of the proposed development, together with a map indicating the general development pattern, land uses, densities, intensities, open spaces, parks and recreation, and how the project is coordinating with existing and planned trails, sidewalks and pedestrian walkways and any other important elements within or adjacent to the project.
- (4) [Preliminary Maintenance Plan as defined within this Chapter](#)
- (5) Sufficient detail to indicate how the proposed development complies with the development standards for residential and nonresidential uses according to Nibley City Code and Design Standards.
- (6) A description of architectural design standards that will apply to all buildings within the development plan.
- (7) A data table showing the total number of lots/units. Existing and proposed infrastructure including proposed roadways, utility locations and capacities and the estimated impacts of the proposed development plan on all public utilities including culinary water, secondary water, wastewater, transportation, storm drainage, fire protection, solid waste, parks and recreation demands of the proposed project.
- (8) Existing physical characteristics of the site including all constrained and sensitive land
- (9) Identify how environmental issues, if any, will be protected or mitigated, i.e., wetlands, historical sites, endangered plants and animals.
- (10) Conceptual information relating to storm drainage including 100-year 24-hour drainage flows, 10-year 24-hour stormwater flows and proposed storm drainage facilities.
- (11) Major street layout that meets Nibley City standards.
- (12) A general description of controlling entities and methods such as the use of CC&Rs, Owners Associations, architectural or design review committees or associations proposed to ensure that internal compatibility related to issues such as site design and architecture will be maintained over the life of the project.
- (13) A list of property owners' names and addresses within three hundred feet (300') of the subject property and stamped and pre-addressed envelopes (return address to be left blank) for all property owners within three hundred feet (300') of the proposed development.
- (14) A list of land adjacent in the same ownership.
- (15) An electronic file of all submitted plans in PDF format or other electronic format determined by city staff. Such other information shall be included as may be necessary to determine that the contemplated arrangement of

uses makes it desirable to apply regulations and requirements differing from those ordinarily applicable under this title.

b. Preliminary Plat: A preliminary plat that complies with Nibley City Subdivision Code and all other applicable code for the subdivision. Preliminary plat approval may be granted at the same time of approval of the overlay zone.

c. Approval with Development Agreement:

(1) Before an R-PUD Overlay Zone can be approved, the City Council and applicant must enter into a development agreement which shall be recorded on title to the real property that is the subject of the development and which shall be binding upon and shall run with that property. The development agreement must include the following provisions:

- (A) That the development must be developed in a way that is substantially similar to the site plan and proposed amenity improvements and open space.
- (B) That the preliminary site plan and all supporting documentation shall be attached to the development agreement.
- (C) That any development of the proposed real property shall not exceed the number of units as listed on the preliminary plat.

(2) The applicant shall provide the necessary documentation to establish that any holders of interests that are superior on title to the development agreement, including, but not limited to, liens, mortgages, deeds of trust, and other similar devices have been made subordinate to the development agreement.

(3) Signing and recording of the development agreement, and the subordination to the development agreement of any superior interests on title, must be accomplished before an R-PUD Overlay Zone may be approved.

d. Final Subdivision Approval: Once the overlay zone and development agreement have been recorded, an applicant may apply for final plat approval. An applicant shall provide the following:

- (1) An applicant shall follow the standards as listed in NCC §21 for Final Plat approval of a subdivision.
- (2) An applicant must submit all construction and civil engineering drawings and detailed plans for all amenities for the proposed phase of the development. These shall include landscape drawings and details. The City Engineer shall review and ensure all plans meet Nibley City standards.
- (3) A maintenance plan and ownership plan for all improvements, amenities, and open space that complies with the terms of this chapter.
- (4) The Planning Commission shall review and make a recommendation for final plat approval, approve with conditions, or denial to the City Council.
- (5) The City Council shall approve, approve with conditions, or deny the final plat application base on the standards listed within Nibley City Code, Design Standards, and the applicant's compliance with the Development Agreement.

Commented [SN8]: Reword so that it is clear that the R-PUD does not get approval until Development agreement is signed a recorded, but can be recorded at the same meeting.

D. R-PUD Considerations: In approving with conditions, denying or approving an R-PUD proposal, the Planning Commission and City Council shall consider the following in addition to all other considerations required by law:

1. Design of Buildings: The architectural design of buildings and their relationship on the site and their relationship to development beyond the boundaries of the development.
2. Streets and Parking: Which streets shall be public, and which shall be private, the entrances and exits to the development, and the provisions for internal and external traffic circulation and off-street parking.
3. Type, Size, and Location of Amenities.
4. Landscaping and Screening: The landscaping and screening as related to the several uses within the development and as a means of its integration into its surroundings.
5. Signs: The size, location, design and nature of signs, if any, and the intensity and direction or area of floodlighting.
6. Ability to Complete Project: The demonstrated ability of the proponents of the R-PUD to financially carry out the proposed project under total or phase development proposals within the time limit established.
7. Criteria for Issuing Conditional Use Permit: Criteria used in NCC 19.28 of this title.

Deleted: a

E. Revisions: In the event an approved preliminary or final site plan requires revision by the developer, the site plan, and its revision shall be approved by the Nibley City Council with the recommendation of the Planning Commission. In the event revision is for a final site plan, all property owners in the development shall be notified in writing by the Planning Commission that a revision has been submitted and will be considered by the Planning Commission.

F. Building Permit Issuance: The building inspector shall not issue any permit for the proposed building or use within the project unless such building or use is in accordance with the approved development plan and any conditions imposed, including completion of amenities. Time Limit: Unless there is substantial action leading toward completion of a R-PUD or an approved phase thereof within three years from the date of approval, such approval shall expire unless after reconsideration of the progress of the project an extension is approved by the City Council.

HISTORY

*Adopted by Ord. 18-10 on
5/23/2019 Amended by Ord. 19-16
on 10/10/2019*

0 Development Standards

These standards are intended to create R-PUD developments that will establish permanent neighborhoods and provide a sense of community. To meet the intent of this section, the following provisions shall be applied to all new multi-family residential and mixed-use developments. For exterior remodels, these standards shall be required. Commercial areas of an R-PUD must comply with Nibley City Commercial design standards for commercial developments.

A. Townhome, Patio Homes, and Condominium Architectural Standards

1. General Design Concepts. New development shall be designed for its specific context within Nibley City. Developments shall possess a similar design theme, and the site shall

be designed such that the overall development is cohesive. Building architecture, exterior materials, and colors shall coordinate.

2. All facades shall include architectural treatments to provide visual interest and to differentiate individual units. These design standards shall be applicable to all sides of a building, with each façade (front, rear, and side) being required to meet the terms of this Section.
3. Building Materials. The majority of each façade (51% or more of the wall area excluding windows and doors) shall be constructed of the following hard surface building materials: brick, stone, stucco, treated or split face decorative block (CMU), fiber cement siding, concrete, composite siding, or other durable building material as approved by the City Council. EIFS or untreated concrete block (CMU) may be allowed as an accent or secondary material only. The Planning Commission may approve metal as an exterior building material and as a primary material on a case-by-case basis if an applicant can show that the type of metal is of a high grade and provides architectural quality to a building.
4. Vertical Separation. Buildings in excess of one (1) story in height shall exhibit architectural detailing that establishes a vertical separation between lower and upper stories. This may be accomplished by a mid-façade cornice or trim, a change in material, style or color, a façade step-back or roof pitch with dormer windows, or other methods
5. Building Entrances. Building entrances shall have porches and shall be oriented toward the street or an open space area and provide connecting pedestrian access between the street, parking or open space areas.
6. Variation. Townhome dwellings units shall be designed with architectural wall variations spaced at intervals of thirty (30) to fifty (50) feet in linear width, depending on the size of the building. The following architectural features shall be incorporated into the design of the building:
 - a. Change in building materials;
 - b. Building projections measuring at least twelve(12) inches in depth based on the scale of the proposed building;
 - c. Awnings and lighting, or another architectural variation as approved on a case-by- case basis that creates visual interest.
7. Garages. Townhomes shall be designed oriented toward exterior public roads with rear loading garages accessed by a paved parking area or alleyway, except along Highway 165 and 89/91 as approved. Rear loading garages are highly encouraged for townhomes located on interior project roads with units oriented toward a road or common courtyard area. Front loading garages may be allowed for townhomes that do not have any portion of the building adjacent to a current or planned public road or street outside of the development. Multiple unit structures shall have garages incorporated into the primary structure. At least fifty percent (50%) of units shall contain a two-car garage. Detached garages are prohibited in R-PUDs

B. Site Design Standards.

1. Natural features. R-PUDs shall respect and maintain natural features such as existing trees, hills, drainages, wetlands, bodies of water, or other natural features.
2. A landscaping plan for the front yards shall be included. The landscaping plan shall include at least one (1) tree for every dwelling unit, and two (2) shrub of five (1) gallon

size for each dwelling units. Coniferous trees shall be at least six (6) feet in height and the deciduous trees shall be at least one and a half (1.5) inches in caliper.

3. Connectivity. R-PUD shall provide connectivity with the surrounding area and throughout the development. All improvements shall consider vehicle, bicycle, and pedestrian access.

- a. Street Design: All street designs shall comply with the General Plan and Transportation Master Plan including Nibley City's street standards and connectivity requirements. Each development shall provide at least two working access points that provide access to an existing street right-of-way. Additional access points may be required in order to facilitate an adequate and convenient circulation system within the City. Such additional access points will be located where they will implement the City's Transportation Master Plan, connect to existing street rights of way, or provide access for the logical development of adjacent, undeveloped properties.
- b. All streets are encouraged to incorporate traffic calming and beautification methods as listed in Nibley City design standards and Transportation Master Plan. This included islands, bulb-outs, roundabouts, etc. Each traffic calming measure shall be approved by the City Engineer.
- c. All Streets shall be dedicated public streets built to Nibley City Code and standards. Private drives shall only be built to access parking courts or garages that are located directly behind each unit.
- d. Private Drives/Alleyways provide vehicular access to parking and dwelling units but do not provide primary pedestrian access to units. Private Drives are intended to be used primarily for vehicular circulation and dwelling access and should be visually distinct from streets.
 - (1) Private drives shall be a minimum width of 20 ft.
 - (2) All private drives shall be perpendicular, within 10 degrees, to the street they connect to.
 - (3) Driveways that access a single dwelling unit are not considered private drives or an alleyway
- e. Developments shall provide a pedestrian access to the development border at intervals at a minimum of 660 feet unless expressly prohibited by conflicting with previously developed subdivisions or land use as determined by the land use authority. These access points shall be aligned with other trail systems, street right-of-way, or amenities and shall match the layout and size of the connection. A connection shall contain a minimum of eight ft (8') sidewalk.
- f. No dwelling units in an R-PUD shall have driveway access to any arterial roadway as listed in Nibley's Transportation Master Plan. Townhome units may face and have frontage along arterial roadways but must have rear loading garages. Public and private parks, open space or Buffering as defined within this chapter may also be along arterial roads.

4. Pedestrian circulation. R-PUD shall provide a circulation map and show the following improvements to for pedestrian circulation and safety:

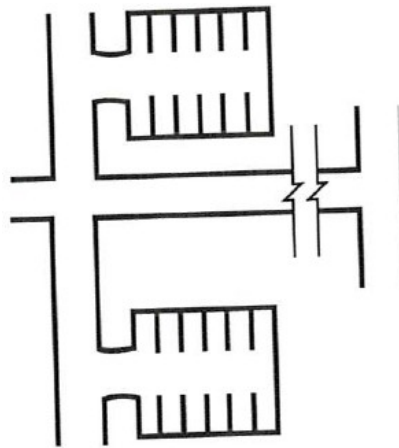
- a. Pedestrian walkways that interconnect the adjacent street(s), amenities, parking areas, building entries, adjacent sites and adjacent master planned trails where

Commented [SN9]: Should this be fore just for Townhomes and Condos? Right now applies to all dwelling Units

Commented [SN10]: Clarify that streets meet this standard.

applicable. Each building located along a public road must provide a sidewalk connection from the building entrance to the public sidewalk.

- b. Walkways shall be hard surfaced with concrete.
 - c. Crosswalks shall be placed where pedestrian walkways cross streets and internal roads and shall be painted or made of concrete.
 - d. The development shall provide connections to the Nibley City trail system. These trails must be dedicated to the City and built to Nibley City standards as listed in the Trails Master Plan and Nibley City Design Standards.
5. Parking: Each R-PUD shall provide 2 primary parking spaces for each unit. Primary parking must be contained in a garage, carports, driveway, or parking court. An R-PUD shall provide one guest parking spot for every three units. Guesting parking may be located in parking courts or on street parking maintained by the owner association.
- a. Individual parking courts shall contain no more than 20 parking spaces and shall be physically and visually separated by a landscape area a minimum of 10 feet in width from any adjacent right-of-way. The separation shall be landscaped with grass, trees, or xeriscape plants.



- b. A parking court of any length shall consist of no more than one double-loaded parking aisle.
- c. Parking courts shall be located in the interior of the development and located between or in the rear of buildings for townhome developments.
- d. On-street parking shall be limited to local roads only. On-street parking shall have dedicated and marked spaces and must be approved by the City Engineer,
- e. Parking Courts shall be paved and built to Nibley City parking lot standards.

6. Landscaping: All portions of the lot not improved with structures or other impervious surfaces shall be maintained with suitable landscaping of plants, trees, shrubs, grasses, or similar landscaping materials.

- a. Landscaping shall also be installed in all park strips to the same standards as other onsite landscaping. Asphalt, concrete, bricks, pavers, railroad ties, and other nonvegetative material are not allowed in the park strip area between the curb and sidewalk. Xeriscaping is permitted. The developer should plant street trees of an approved species and size along all street. Trees should be planted at intervals of every 50 feet and must meet Nibley City Standards.
- b. Buffering: R-PUD developments shall provide buffering along Highway 89/91 or Highway 165, or along the boundary of an R-PUD that is adjacent to commercial, or industrial zones. Buffering landscaping is not required if commercial or industrial zones are separated by a public street from the R-PUD. Buffering shall meet the standards within this ordinance.
- c. Natural Landscape: All open space land dedicated to natural use must maintain its natural landscaping and plant life.

7. Fences:

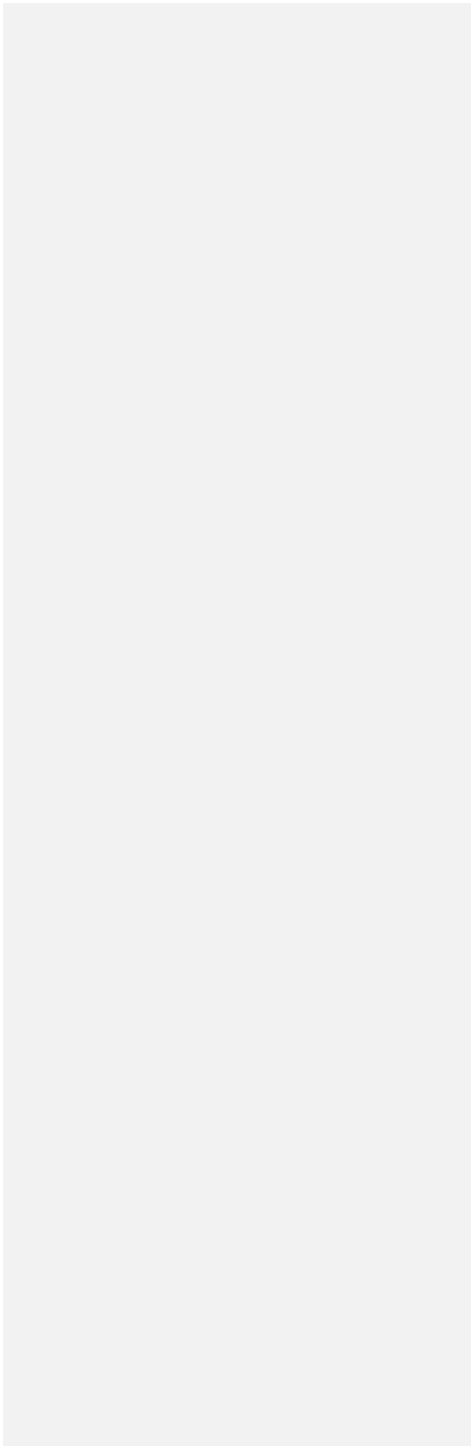
- a. Permitted Fences: Dwelling units are allowed to install and construct fences in compliance with NCC 19.24.090. Vinyl fences are only permitted in an R-PUD for the purpose to mark property lines of individual dwelling units.
- b. Fencing to mark the boundary of the development or amenities must meet the following standards:
 - (1) Opaque fences or walls must only be 4 feet tall. Any fencing above 4 feet must be at a minimum 80% transparent.
 - (2) Fencing and walls must be constructed out of concrete, bricks, rock, or metal bars. Chain link and vinyl fences are prohibited unless used to mark the property boundary of the dwelling unit. Wood may only be used in a rail or agricultural-type fencing. Other materials may be approved by the Planning Commission based on the longevity of the material and if the material will aesthetically enhance the property. Walls and fencing shall also comply with NCC 19.24.090 and other fencing setback requirements as contained within Nibley City Code.

A. 1. a.

2.

HISTORY

*Adopted by Ord. 18-10 on
5/23/2019 Amended by Ord. 19-16
on 10/10/2019*



Agenda Item #15

Description	Discussion & Consideration – Acceptance of an Annexation Petition for Real Property into the Municipal Boundaries of Nibley City for parcel 03-014-0025, located at approximately 1525 West 3200 South. (Applicant: Malouf)
Department	Planning
Presenter	Levi Roberts, City Planner
Recommendation	Make a motion to accept the Annexation Petition for further consideration for Real Property into the Municipal Boundaries of Nibley City for parcel 03-014-0025, located at approximately 1525 West 3200 South. (Applicant: Malouf)
Reviewed By	Mayor, City Manager, City Planner

Background:

Malouf has filed an annexation petition for a property located at approximately 1525 West 3200 South, directed south and adjacent to their existing property. This property is currently in unincorporated Cache County. The annexation would be contiguous with existing City boundaries and would not create any islands or peninsulas. It is within the City's annexation declaration boundary of the annexation policy plan. The applicant has indicated that they intend to connect to utilities from the north, which the public works director has indicated is appropriate for the site. The applicant proposes a commercial use, which is consistent with the Future Land Use of the General Plan.

The first step in the annexation process is for the City Council to accept the annexation petition for further consideration. This happens prior to certifying the annexation, which can occur after a notification period and recommendation from Planning Commission.

At this time, Staff recommends that the City Council accept the annexation petition for further consideration.



**PETITION FOR ANNEXATION OF REAL PROPERTY
INTO THE MUNICIPAL BOUNDARIES OF NIBLEY
CITY, UTAH**

Petition No.: _____
Date: _____
Receipt No.: _____
Filing Fee: _____
(non-refundable)

To the Mayor and City Council
Nibley City
455 W. 3200 S.
Nibley, UT 84321

Mayor and Council Members:

I/We, the undersigned, do hereby petition the Mayor and the City Council of Nibley City, Utah, to annex the stated property as follows:

Legal Description¹: See Attachment

Cache County Tax I.D. Number (if applicable): _____

Address/General Location or Street Network: Parcel ID . 03 - 014 - 0025
about 1525 W. & 3200 S. (please use legal description)

Proposed Land Use(s) and Residential Densities: Commercial

Size of Parcel (in acres): 25.86

Existing Land Use: AGRICULTURAL

Surrounding Land Use: North: Commercial East: Residential
South: agricultural West: agricultural

Utility Extension and Schedule:
Sewer: All utilities will be stubbed in from lots in Nibley city
Water: to the North
Drainage: _____
Other: _____

- If the Petition contains multiple properties, each under separate ownership, include the signature of each separate owner, with a reference to which property belongs to each owner.
- If the property is owned/held by a trust, please include the signatures of all trustees

¹Attach a surveyed legal description of the property proposed for annexation to this application, together with a surveyed plat showing the property and its surrounding area.

Acknowledgement

I understand that this petition/application, if approved, applies only to the land use and is not approval or assurance of compliance with any other City regulation, code, or ordinance. Any information, technical assistance, or review comments by any City official are intended solely as informal guidance, and are neither a determination of compliance nor binding on any agency with code enforcement responsibilities or the City.

Current Owner's Name: Sam Malouf

Signature [Signature]

Date 6-26-2020 Phone _____

Address 91525 W. 2960 S.

City/State/Zip Nibley, UT, 84321

Signature [Signature]

Date _____ Phone _____

Address _____

City/State/Zip _____

Signature _____

Date _____ Phone _____

Address _____

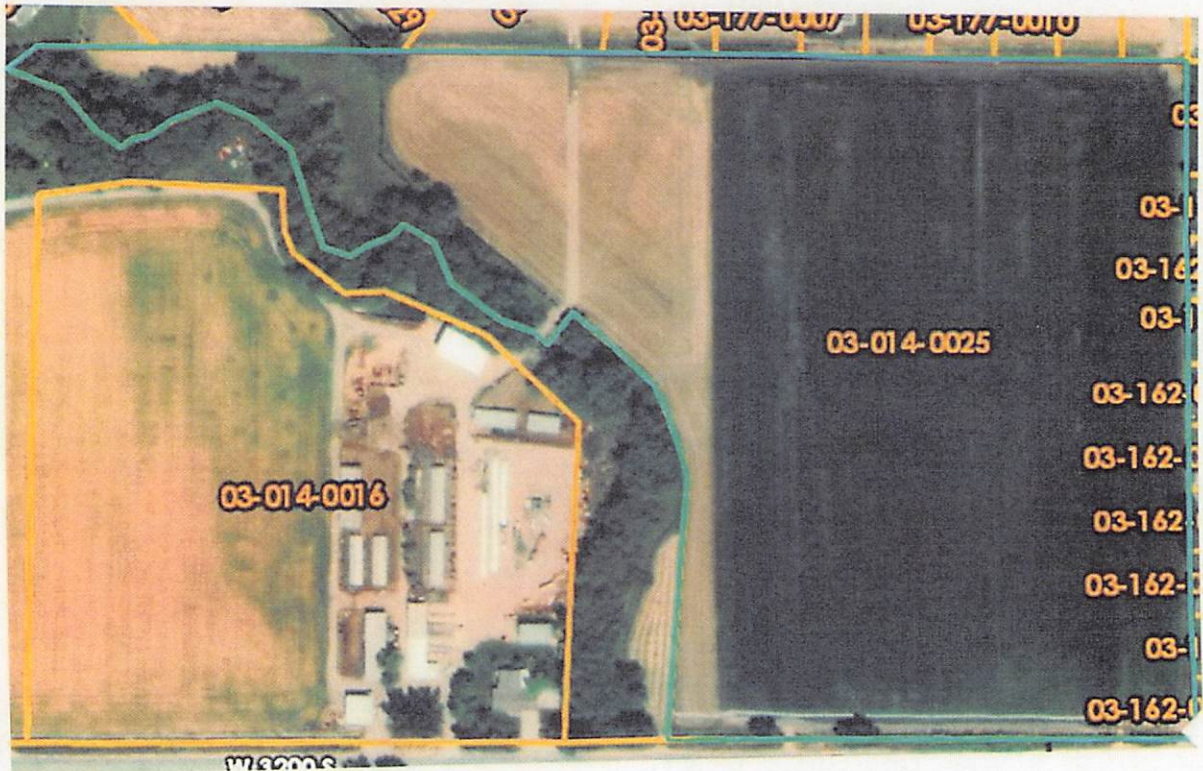
City/State/Zip _____

Legal Description:

BEG AT E/4 COR OF SEC 19 T 11N R 1E & AT SE COR OF HERITAGE BUSINESS PARK PH 1 & NW COR OF MEADOW VIEW PUD & TH S00°29'11"E 1072.50 FT TH N89°31'11"W 228.21 FT TH S00°12'46"E 3.0 FT TO N LN OF 3200 S ST TH N89°14'46"W 593.0 FT TH N04°44'30"E 69.05 FT TH N05°15'00"E 341.30 FT TH N16°51'00"W 30.0 FT TH N20°13'30"W 76.0 FT TH N22°02'00"W 36.5 FT TH N32°09'00"W 14.0 FT TH N48°14'00"W 86.00 FT TH N50°59'00"W 76.15 FT TH S39°21'00"W 61.5 FT TO CL OF SLOUGH TH ALG SLOUGH IN 19 COURSES: N46°07'00"W 26.0 FT TH N72°30'00"W 54.00 FT TH N53°53'00"W 98.0 FT TH N23°57'00"W 70.0 FT TH N59°56'00"W 54.0 FT TH S45°18'00"W 26.00 FT TH S67°39'00"W 43.0 FT TH S57°19'00"W 29.0 FT TH N72°00'00"W 45.0 FT TH N19°00'00"W 158 FT TH N51°41'00"W 78.0 FT TH N66°29'00"W 58 FT TH S67°17'00"W 79.0 FT TH S56°07'00"W 38.0 FT TH S76°58'00"W 29.0 FT TH S53°26'00"W 21.0 FT TH N56°45'00"W 47.0 FT TH N40°33'00"W 82.0 FT TH N69°29'00"W 91.10 FT TO S LN OF RACCOON RIDGE MINOR SUBD TH N52°51'46"E 59.22 FT TH N89°31'32"E 189.42 FT TH S89°39'57"E 330.58 FT TO SW COR TO SD HERITAGE BUSINESS PARK PH 1 TH N89°56'00"E 1269.63 FT TO BEG CONT 25.86 AC M/B

Land Type

LAND
GREENBELT



Agenda Item #16

Description	Discussion & Consideration – Resolution 20-09: Adding a Name to a Portion of 2400 South and 2350 South in Nibley: Firefly Circle (First Reading)
Department	City Council, Public Works
Presenter	David Zook, City Manager
Recommendation	Discuss options for the name and approve the resolution making the change. Move to approve Resolution 20-09, a Resolution Adding a Name to a Portion of 2400 South to 2350 South in Nibley: Firefly Circle. Staff feels it is appropriate to waive the second reading of this agenda item..
Reviewed By	Mayor, City Manager

Background

A Nibley City resident of 2400 South has requested that the street he lives on be renamed Firefly Circle or something to that effect.

Mayor Dustin and Councilmember Bernhardt recall that nobody was opposed to it when Mr. Duke originally brought renaming the street to the Council's attention. Former Nibley City Planner, Stephen Nelson informed Mr. Duke that this process needed to be addressed with a Resolution and taken before the City Council.

The curved road would retain its legal name as 2400/2350 S, but would have an additional name added for the curve of the entire road and connecting to 1000 West. .

There would be a cost for UDOT to prepare and install new signage. Staff have requested a cost estimate from UDOT but have not yet received the estimate.

Mr. Duke has offered to pay for the new street signs at his expense.

RESOLUTION 20-09

A RESOLUTION ADDING A NAME TO A PROTION OF 2600 South Street in Nibley

WHEREAS, Nibley City owns, operates and maintains city streets and other transportation facilities within its corporate boundaries; and

WHEREAS, a City may, by resolution, change the name of its streets; and

WHEREAS, Ridgeline High School was recently constructed in Millville a the eastern terminus of 2600 South Street; and

WEREAS, Adding a name to 2600 South Street to signify its connection to Ridgeline High School may assist drivers with locating the school; and

WHEREAS, Adding a name to 2600 South Street to signify its connection to Ridgeline High School may also boost school pride and build a stronger link between the community and the school; and

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF NIBLEY CITY, STATE OF UTAH, AS FOLLOWS:

2600 South Street, from SR 165 to the eastern Nibley City boundary shall continue to be known as 2600 South Street, but with secondary name of Riverhawk Drive.

Dated this _____ day of _____, 2020

Shaun Dustin, Mayor

ATTEST: _____

David Zook, Recorder