Millcreek City Planning and Community Development
3330 South 1300 East
Millcreek, Utah 84106
Phone: (801) 214-2700
www.milcreek.us

STAFF MEMORANDUM

From: **Blaine Gehring, AICP, Planner**
To: **Millcreek Planning Commission**
Meeting Date: **December 18, 2019**

RE: **Rezone property located at 1315 E. Magda Lane from R-1-8 to R-2-6.5 to Allow for a Twin-home PUD**

Applicant: **Salem Holdings**

File No.: **ZM-19-012**

Request

Salem Holdings LLC has requested a continuance of this item. The Millcreek Community Council was concerned about the trees on the property and how many could be saved. The engineer/surveyor for the project said he would do a survey of the property including the trees and which ones could be saved. Staff has asked for that and some additional information which could not be put together in time to get a final staff report together.

The Millcreek Community Council did send a favorable recommendation to approve the rezone by a vote of 7 in favor and 1 abstaining.

Attached is the Staff Memorandum sent to the Millcreek Community Council to provide you information on this application.

Staff also received on email in opposition to the rezone which is attached as well.

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STAFF MEMORANDUM

From: **Blaine Gehring, AICP, Planner**
To: **Millcreek Community Council**
Meeting Date: **December 3, 2019**

RE: **Rezone property located at 1315 E. Magda Lane from R-1-8 to R-2-6.5 to Allow for a Twin-home PUD**

Applicant: **Salem Holdings**

File No.: **ZM-19-012**

Request

Millcreek Planning and Community Development is seeking your input on a request by Salem Holdings to rezone property located at 1315 E. Magda Lane from R-1-8 to R-2-6.5 to facilitate the development of a twin-home PUD on the property. The subject properties total a 1.26-acres with a single-family home and three duplexes on them. They are adjacent to R-1-8, R-1-10 and R-2-8 zoning with access off of 1300 East. The Planning Commission will discuss this matter at their meeting on **Wednesday, December 18, 2019 at 5:00 pm.**

Existing Land Use and Proposed Change

The property consists of 5 separate parcels adjacent to R-1-8 and R-1-10 zoning with R-2-8 zoning along 1300 East to the north. The properties have three duplexes and a single-family home on them now. There is a large vacant area on the southeast corner of the property. The applicant would like to renovate the existing duplexes, demolish the single-family home and build 5 new twin-homes with a community garden. Twin-homes are an allowed use in the R-2-6.5 Zone but they would like to do this as a planned unit development which would require a conditional use approval. Specific design details would be part of that PUD approval process. While the existing duplexes are legally non-conforming, to create the PUD with new twin homes, the R-2-6.5 zone is required.

Neighborhood Response

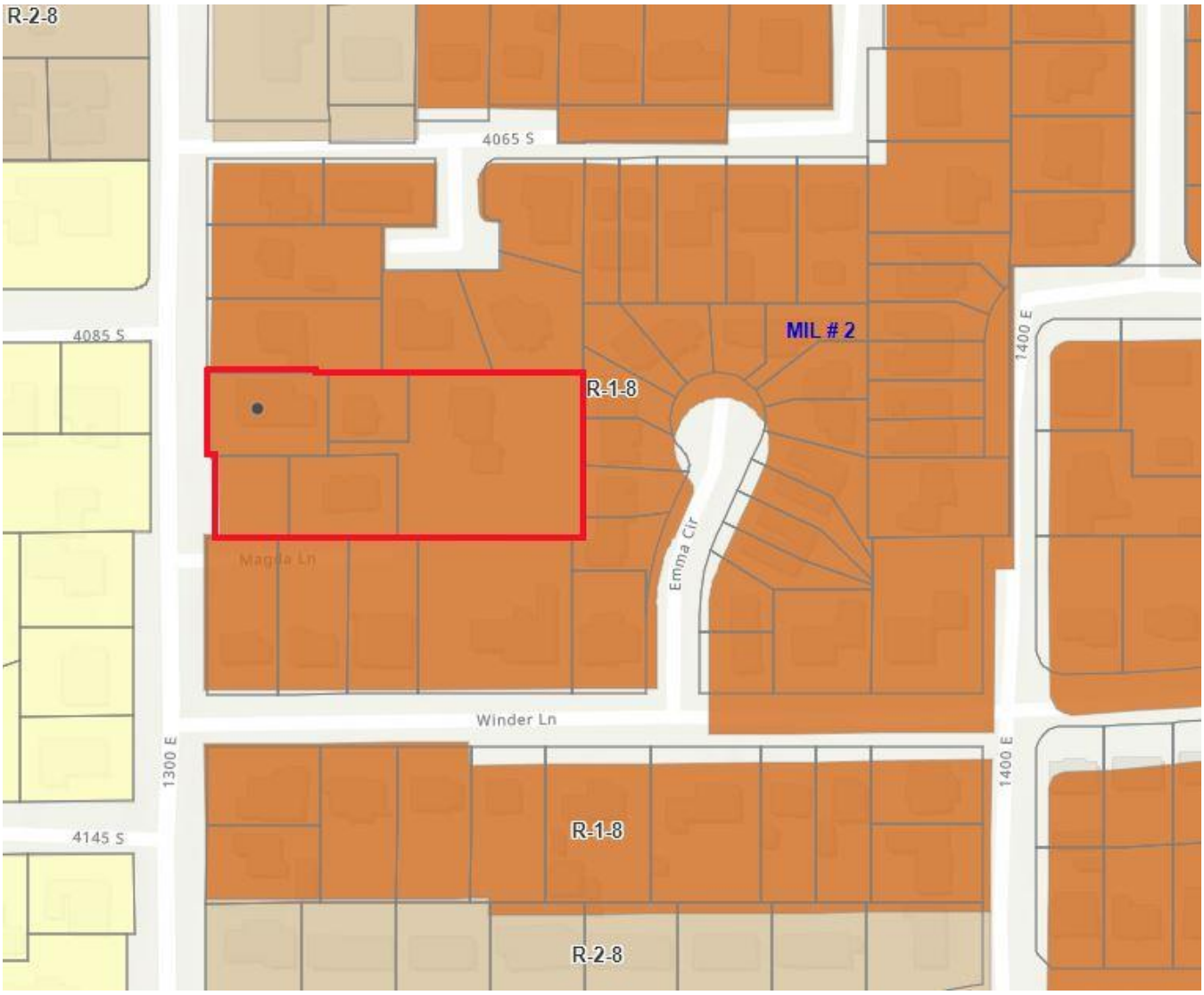
Notice of the required neighborhood meeting for a zone change was sent to all property owners with 600 feet of the property and was held May 17, 2019. Property owners east of the property expressed concerns over density. One owner on 1300 East expressed concern over additional traffic on 1300 East. A property owner adjacent to the south was concerned about the screening of their adjacent swimming pool. Property owners directly adjacent on Winder Lane were in favor of the rezone to allow for overall clean-up of the property.

Community Council Action

As per Chapter 2.56.100 of the Millcreek City Code, staff is seeking Millcreek Community Council's input on the proposed zone change. Specifically, if the proposed zone change will provide an appropriate addition to the existing area. The council is encouraged to make recommendations concerning the application to the city planning commission.

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ZONING MAP



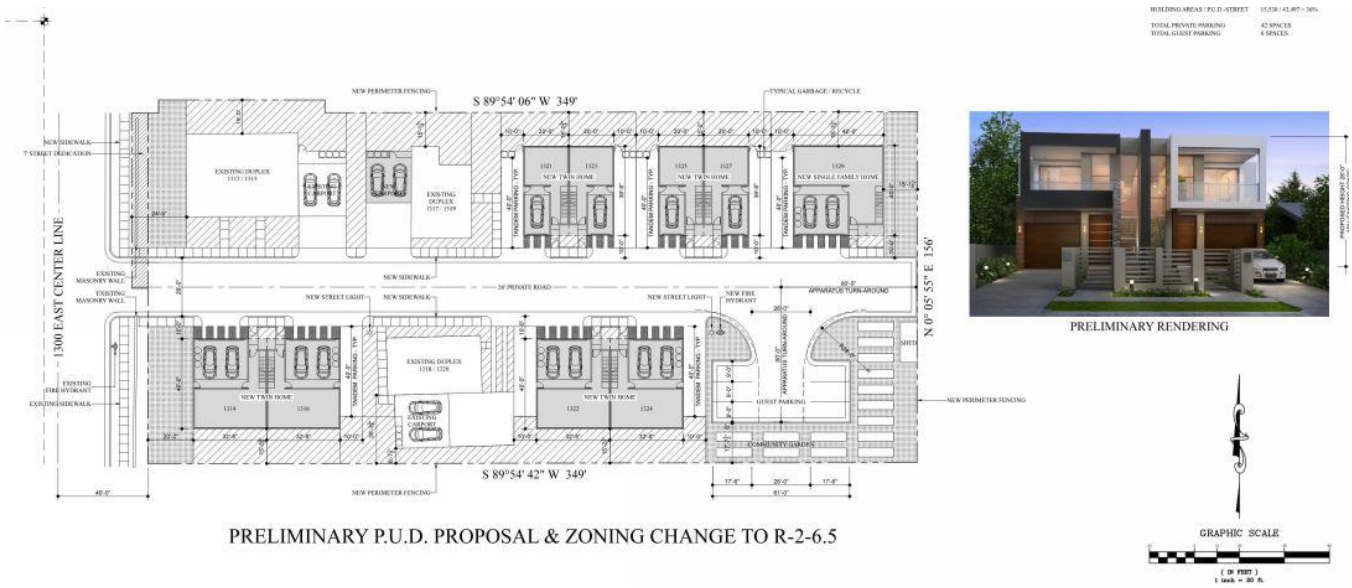
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Aerial Map



Millcreek City Planning and Community Development
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Proposed PUD Site Plan
(not part of this application for zone change)



PRELIMINARY P.U.D. PROPOSAL & ZONING CHANGE TO R-2-6.5

Attachments
Application
Affidavit
Neighborhood Meeting Summary

Planning Services
3330 South 1300 East • Millcreek, Utah 84106
Phone: (801) 214-2750
Millcreek.us

File # ZM-19-012

Land Use & Development Application

Zone: R-1-8 Community Council: MILL CREEK Planner: GEHRING

Parent File #: ZM-19-012 Date: 5/16/2019

Property Address: 1315 Magda Lane Parcel #: 16-32-485-004, 16-32-485-006, 16-32-485-007, 16-32-485-008, 16-33-358-005

Name of Project _____ Property Acreage: 1.26 Acres

Please describe your request: Change from R18 to R2.5

New Development:

- ☐ Conditional Use
- ☐ Permitted Use
- ☐ Subdivision # lots: _____
- ☐ PUD #lots: _____

Modify an Existing Development:

- ☐ Change Conditions of Approval
- ☐ Change the Site Plan
- ☐ Condo Conversion
- ☐ Lot Consolidation
- ☐ Lot Line Adjustment
- ☐ Mobile Store
- ☐ Signs
- ☐ Billboards

Other:

- ☐ Exception Request
- ☐ General Plan Amendment
- ☐ GRAMA (Records Request)
- ☐ Land Use Hearing
- ☐ Non-Conforming
- ☐ RCOZ Appeal (Option C)
- ☐ Research Request
- ☒ Re-zone
- ☐ Right-of-Way Improvement Permit
- ☐ Vacate a Street

Is a key or gate code required to access the property? ☐ Yes ☒ No If yes, code: _____
(or provide driving directions to property):

APPLICANT'S NAME:

First: Rola Last: Hajeb Initial: _____

Address: 48 W. Broadway #2301 City: SLC State: UT Zip: 84101

Phone: (801) 580-6222 Cell: 949-266-7131 Email: rola@spectrumfinancial.net

Property Owner(s):

First: Salem Holdings Last: _____ Initial: _____

Address: 253 W. 3300 S. City: SLC State: UT Zip: 84115

Phone: _____ Cell: (801) 580-6222 Email: raedsalem@aol.com

Professional(s): ☐ Engineer ☐ Architect ☐ Other

Company: _____ Contact: _____

Address: _____ City: _____ State: _____ Zip: _____

Phone: _____ Cell: _____ Email: _____

**NOTE: all correspondence will be sent to the applicant's address:*

To facilitate the land use notice and review process, the undersigned hereby authorize the City to reproduce this application and all documents attached to the application for staff, officials, and the interested public:

Applicant's Signature: _____ Date 11/26/19

Planning Services
3330 South 1300 East, Millcreek, Utah 84106
Phone: (801) 214-2750
Millcreek.us

File # ZM-19-012

AFFIDAVIT - Property Owner

STATE OF UTAH }
} ss
COUNTY OF SALT LAKE }

I (we) SALEM HOLDINGS being duly sworn, depose and say that

I (we) am (are) the owner(s) of the property(s) located at:

MAGDA LANE, MILLCREEK, UT 84124.

My (our) signature below attests that I (we) have reviewed the proposal by _____

requesting review and approval of _____

and that I (we) consent to the statements and information provided in the attached plans and exhibits

and that all information presented is true and correct to the best of my (our) knowledge.

Property Owner RAED SALEM

Property Owner _____

Subscribed and sworn to me this 16TH day of May, 2019.

Rebecca Caroline Hansen
Notary Public State of Utah
My Commission Expires on:
March 13, 2023
Comm. Number: 705160

Notary: _____
Residing in Salt Lake County, Utah

Magda Lane Neighborhood Meeting Summary

Held 5/17/2019 Millcreek City Hall

One owner to the east was concerned about the density

Traffic in the neighborhood and on 1300 East was mentioned by one gentleman

Owners adjacent to the south were concerned about their pool being screened

Tax values on the new property would not affect adjacent properties

2 owners on Emma Circle were most concerned with new density

Owners adjacent to the property on Winder Lane were in favor of the project

Project ZM-19-012 1315 East Magda Lane, Millcreek UT

TH
Tina Hodson <codesso1982@yahoo.com>
To Blaine Gehring

Brick and Mortar ~ when does it end.

Cities continue to build then complain about the increase it puts on our systems

Each time this is done we add vehicles to the roads. Traffic on 1300 East is so heavy at times you can't even get on or off it. There have been little to no improvements on the road. Patching doesn't fix the problem.

Green space is disappearing,~ Natural habitats are lost, air quality only get's worse. We hear it on the news nearly every day, but cities continue to over build.

We also hear about school systems taxed by over crowded school rooms. Next is there is no affordable housing. I doubt these units will be affordable.

If you think about it, it all comes down to someone making money.

Why not stop and think about what over growth will do.

I think this needs to stop and I'm not for this for this zone change,

Tina Hodgson

3330 South 1300 East
Millcreek, UT 84106
801-214-2700
millcreek.us

File # ZM-19-018

Planning Commission Staff Report

Meeting Date: December 18, 2019
Applicant: Peter Tolman
Property Address: 967 E Garden Dr
Parcel IDs: 22051790150000

Request: Rezone from R-1-10 to R-1-6 subject to a development agreement for a 2 lot subdivision with one single-family home on each lot, located at 967 Garden

Zone: R-1-10

Community Council: **Millcreek**

Prepared By: **Erin O'Kelley, Planner 1**

SYNOPSIS AND SCOPE OF DECISION

The applicant would like to demolish the existing house on the property and do a two-lot subdivision for two new single-family homes to be built. In order to qualify for a flag lot subdivision under the Millcreek code the applicant must apply for the subdivision under the R-1-6 zone to meet setback and area requirements.

Existing Zoning	Existing Land Use	Surrounding Uses and Zones	Site Improvements	Parcel ID	Size of Property
R-1-10	1 Single-family home	R-1-10, R-1-8, R-2-10,	Demolish existing house, build two new single-family homes on separate lots.	**22051790150000**	.48 Acres 20,908.8 Square Feet

Per **§19.90.010** of the Millcreek Code, the Millcreek City Council may amend the number, shape, boundaries, or area of any zone or any regulation within any zone. Zone changes shall not be made or become effective unless the same shall have been proposed by or be first submitted for the recommendation of the planning commission. Staff is recommending that this rezone be subject to a development agreement.

SITE & VICINITY DESCRIPTION

Figure 1: Street View



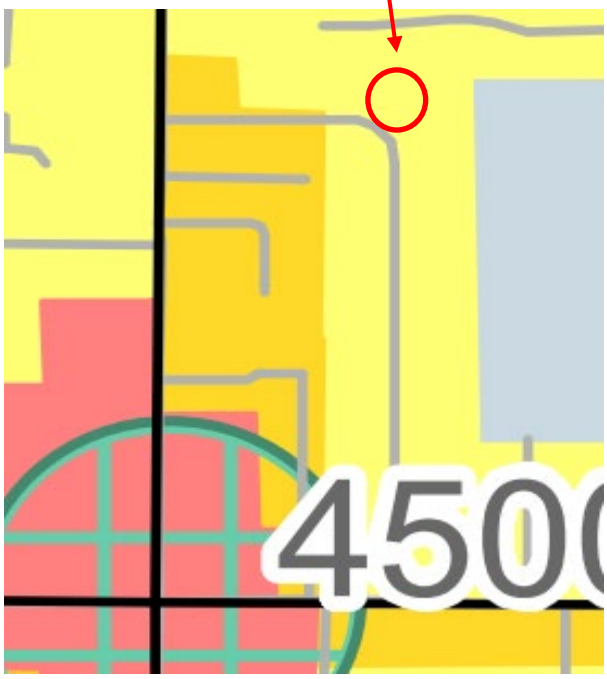
Figure 2: Zoning map



The existing lot is located on an interior local neighborhood street surrounded by single-family housing. The lot currently does not have any public improvements along the street. The existing road width is approximately 26 feet wide. The existing house was built in 1949 with a remodel in 1996. There are a lot of mature trees on the property in the back yard. Both driveways on the property are dirt.

GENERAL PLAN CONSIDERATIONS

Area of Subject Property Circled in Red



Subject property is designated neighborhood 1. This designation is specifically for single-family neighborhoods.
The density recommendation is 1-6 dwellings per acre.
The existing single-family house on 20,908 square feet is a density ratio of 2 units per acre.
The rezone to R-1-6 would create a density ratio of 4 units per acre.

General Plan	R-1-10	Existing	Proposed
1-6 units per	4.356 units/acre	2.08 units per Acre	4 units per acre

The recommended neighborhood characteristics for this area is predominantly single family, detached homes on individual lots.
Characteristics also state a "well defined pattern of blocks", access to pedestrian and bicycle connections, and access to nearby amenities.

The General Plan also encourages increase in density near amenities such as commercial development and transportation. This proposal is located less than half a mile walking distance to commercial shops including one grocery store.

Figure 3. Future Land Use Map

NEIGHBORHOOD 1	***Primary:*** Single-family detached homes. ***Secondary:*** Parks, greenways, recreation, community gardens, schools, places of worship, and other complementary uses.	Typically 1 – 6 dwelling units per acre.	• Includes neighborhoods (of all ages) that are comprised of predominantly of single-family detached homes. • A well-defined pattern of blocks and direct pedestrian and bicycle connections provide residents with direct access to nearby services and amenities.

Questions to consider when rezoning a neighborhood property per the General Plan:

3.3.7 ESSENTIAL QUESTIONS FOR ZONING, DEVELOPMENT AGREEMENTS, AND CITY INITIATIVES

Realizing that not all these questions will be applicable to every decision, these questions should be considered as a tool to focus on and promote implementation of our Unique Neighborhoods theme. Does the application or initiative:

1. ***Support adopted and relevant small area and neighborhood plans?***
2. ***Encourage additional investment or reinvestment in neighborhoods?***
3. ***Positively contribute to a diversity of affordable housing choices?***
4. ***Stay within the existing mass, scale, and height of the immediate neighborhood?***
5. ***Create options for new gathering areas or centers where possible?***
6. ***Support the redevelopment of blighted and/or underperforming properties?***
7. ***Enhance the connection of neighborhoods to trails, parks, recreation, and open spaces?***
8. ***Enhance cultural, historical, educational, and/or human service opportunities to support neighborhoods?***

Staff recommends a finding that the proposal is compatible with the Millcreek General Plan and future land use map under the following considerations:

- The proposal is catered to single-family development.
- The proposal does not exceed the maximum density ratio allowed in neighborhood 1 (6 units per acre).
- The proposal located near amenities, such as grocery stores.
- The proposal supports the redevelopment of an underperforming property.
- The proposal encourages additional invest in the neighborhood.
- The proposal stays within the existing mass, scale, and height of the immediate neighborhood.

PROJECT INFORMATION

After rezoning the property from R-1-10 to R-1-6 the applicant will apply for a Flag Lot Subdivision to build two separate single-family homes on individual lots.

Proposed Uses. Single-Family

Density. 2 single-family homes on 20,908.8 square feet. (4 units per acre)

Site Layout. Not yet determined by applicant. (Recommendations by staff on page 9)

Fencing: Not yet determined by applicant. (Recommendations by staff on page 9)

Lighting: Not yet determined by applicant. (Recommendations by staff on page 9)

Landscaping: Not yet determined by applicant. (Recommendations by staff on page 9)

Access. Access for both lots is from Garden Dr. There will be one driveway for each lot.

Dedication. Road dedication has not yet been evaluated by the Public Works department. This will be required for the subdivision application.

Parking. Single-family parking regulations apply. Two spaces per dwelling with at least one covered.

Open Space. Lot coverage requirements in the R-1-6 zone are a maximum of 35% coverage for residential lots. Resulting in 65% open space.

Building Design. Not yet determined by applicant.

Height: Maximum height limit of 28 Feet.

Setbacks: R-1-6 and RCOZ setbacks apply. 25 foot front yard setback, 8 foot minimum side yard, 15 foot rear (with attached garage), 30 foot rear (with detached garage). (Recommendations by staff on page 9)

Materials: Not yet determined by applicant. (Recommendations by staff on page 9)

Massing: Not yet determined by applicant. (Recommendations by staff on page 9)

Unit Characteristics. Not yet determined by applicant.

Amenities. None required for single-family development.

Utilities and Waste Removal. Individual garbage collection.

Exceptions. No exceptions are being requested.

Project Information Summary Table

Requirement	From _____ Code	R-1-10 Standard	R-1-6 Standard
Base Lot Area	R-1	10,000 Square Feet	6,000 Square Feet
Base Lot Width	R-1	80 Feet	60 Feet
Base Lot Setbacks			
Front	R-1	30 Feet	25 Feet
Side	RCOZ	10 feet (Per R-1 Zone)	8 Feet
Rear	R-1	15 feet (With Attached Garage)	15 Feet (With Attached Garage)
Base Lot Coverage	RCOZ	31%	35%
Flag Lot Area	Flag Lot Policy	15,000 Square Feet	9,000 Square Feet
Flag Lot Width	Flag Lot Policy	80 Feet	60 Feet
Flag Lot Setbacks			
Front	Flag Lot Policy	20 Feet	20 Feet
Side	Flag Lot Policy	20 Feet	20 Feet
Rear	Flag Lot Policy	20 Feet	20 Feet
Flag Lot Coverage	RCOZ	31%	35%
Flag Width (Driveway)	Flag Lot Policy & Landscaping ordinance 19.77	20 Feet with 5 foot landscape buffer	20 Feet with 5 foot landscape buffer
	All ordinances that apply to flag lots, single-family development, or subdivisions, would be applied to this project.		

COMMUNITY COUNCIL RESPONSE

At their meeting on December 3rd, 2019 the Millcreek Community Council recommended that:

The Community Council recommended the project be continued to January to the allow the applicant time to address the following concerns:

- Applicant's proposal was too vague.
- Worried increase in density is incompatible with the neighborhood.
- Height transitions and privacy issues not mitigated.

NEIGHBORHOOD RESPONSE

Neighborhood Comments to Applicant:

Applicant held their own neighborhood meeting and sent flyers out to all nearby residents. Please see exhibits for summary of results and flyer.

Neighborhood Comments to Staff:

First Comment Received (on next page)

Millcreek
3330 South 1300 East
Millcreek, UT 84106

Attention: Erin O'Kelly

Date: Saturday, November 30, 2019

Comments Regarding Project Number ZM-19-018 Rezoning 967 E Garden Dr

Comment #1: We are questioning the rezoning of the property to increase from one to two homes.

Comment #2: The lot in question appears to have very little frontage onto E Garden Dr. Worst yet, the frontage is on a 90 degree turn. Access to the lot could interfere with traffic on the turn on Garden Dr.

Comment #3: Two houses on the property means two families would live on the property. Two families would have at least 2 or 3 vehicles each which means there would be up to 6 parked on the street. These parked vehicles would intrude into neighboring parking spaces. There is no limit on the number of vehicles a family can own.

Comment #4: With two homes, there would be very limited access to the house built on the back half of the property. There is no alley access for the back end of lots in this area. A narrow driveway might provide limited access, only if the driveway were not used for parking.

Comment #5: In the event of a fire in the house on the back half of the lot, would a fire engine have quick and adequate access?

In conclusion, we think a better idea for the lot is to have a one family dwelling with a large off-street parking area that has adequate access from the street.

Thank you for considering our comments!

Sincerely yours,
Frank and Patricia Rosswog
4226 S Sage St
Millcreek, UT 84124-2435
Cell Phone: 385-775-6124

Second Comment Received

From: Susan Janet Sharp (CENSUS/DCMD CTR)
To: Erin O"kelley
Subject: Project Number ZM-19-018, Peter Tolman
Date: Tuesday, December 3, 2019 8:55:24 AM

Hi Erin,

Unfortunately, I will not be able to be at the Community Council meeting tonight - but wanted to express our opinions.

My husband and I live at 4340 S Garden Drive. We drive past the house in question each and every day.

We are **fully in support of rezoning the property to subdivide this large, deep lot into two smaller parcels - with the intent of building (2) new single family homes**.

Thanks for the opportunity to give input.

Susan Sharp

DEVELOPMENT AGREEMENT CONSIDERATIONS

Staff is recommending that this rezone be subject to a development agreement. These agreements are in response to concerns from neighbors and concerns gathered by the Millcreek Community Council.

Staff is recommending that a proposed development agreement address the following:

1. Demolition of the existing house must take place within one year of rezone approval.
2. Enhanced landscaping is required to reduce impact of additional unit of the property and to promote privacy between properties. Enhanced landscaping must have a minimum of:
    - Minimum of 5 trees on each lot are required to create screening and promote privacy. More trees may be added if privacy is not adequate.
    - Trees used for privacy must be a columnar style.
    - For each lot, ground landscaping may be up of 50% grass and 50% water efficient landscaping. May be done in the form of xeriscaping.
    - For each lot, two different types of ornamental grasses must be used.
3. Fencing is required along the entire perimeter of both properties except in the front yard of the base lot and 20 feet along the driveway to the flag lot beginning the Garden Dr. To promote privacy fencing must be opaque, and a minimum of 7 feet tall. All fences on property must still meet all other applicable zoning codes.

4. No exterior lighting shall be installed that projects onto neighboring lots. All exterior lighting must be directed downward.
5. All materials for both houses must be good quality. A maximum of 50% stucco is allowed on each exterior wall. On the base lot the wall facing Garden Dr. is restricted to 25% stucco.
6. The flag lot is restricted to a building footprint of 2,000 square feet.
7. To be compatible with recent development in the neighborhood, houses on each lot are restricted to one story with a pitched roof.

PLANNING STAFF ANALYSIS AND FINDINGS

Staff Concerns

Rezoning to Increase Density

The applicant is proposing to increase the density and the density ratio of the lot. Many residents in Millcreek are concerned about rezoning for higher density because of the impact on traffic, infrastructure, space issues this causes for immediate neighbors. There are some properties, mainly the most recently developed ones, in the neighborhood that are currently utilizing a density ratio between 3-4 units per acre. The older houses in the neighborhood are between 2-3 units per acre. The applicant's proposal would not be increasing the existing density ratio in the neighborhood.

Staff recommends that the finding the density ratio proposed by the applicant is compatible with the existing neighborhood.

Compatibility of a Flag Lot configuration in the Neighborhood

Staff is concerned about allowing the use of a flag in this neighborhood that currently does not utilize them. Flag lots have the potential to change the character of the neighborhood. Millcreek has not taken any official policy on what do with a lot of the narrow deep, lots that residents are dealing with in the City. However, there are generally areas of the City that have more flag lots than others. Canyon Rim and East Millcreek have many more flag lots than the Millcreek District. In fact, there is only one flag lot in the neighborhood vicinity and that flag has so far proven to be unbuildable because of the existing structures around it. Current fire codes make if very difficult for development of any dwellings to be located off a long narrow road that resembles a driveway. The Garden Dr. neighborhood has multiple properties that are in disrepair and need to be torn down and rebuilt. If this re-zone is approved staff is concerned that there will be similar proposals in the future to R-1-5, or R-1-4 to qualify for the flag lot policy.

The recent re-zones to create flag lots that staff has recommend for approval had the intent to fix existing issues on properties that made lots undevelopable but not necessarily to increase density.

PLANNING STAFF RECOMMENDATION AND MODEL MOTION

Staff Recommendation is to Continue
Continuance, to give applicant time to address concerns raised during the Planning Commission meeting and by the Community Council.

Other Motions:
Approval

Motion to Approve Rezone Request ZM-19-018 to rezone property located at 967 E Garden Dr from R-1-10 to R-1-6, for a flag lot subdivision with one single family home on each new lot subject to a development agreement that addresses, at a minimum, the following:

1. Demolition of the existing house must take place within one year of rezone approval.
2. Enhanced landscaping is required to reduce impact of additional unit of the property and to promote privacy between properties. Enhanced landscaping must have a minimum of:
    - Minimum of 5 trees on each lot are required to create screening and promote privacy. More trees may be added if privacy is not adequate
    - Trees must be a columnar style.
    - For each lot, ground landscaping may be up of 50% grass and 50% water efficient landscaping. May be done in the form of xeriscaping.
    - For each lot, two different types of ornamental grasses must be used.
3. Fencing is required along the entire perimeter of both properties except in the front yard of the base lot and 20 feet along the driveway to the flag lot beginning from the Garden Dr. To promote privacy fencing must be opaque, and a minimum of 7 feet tall. All fences on property must still meet all other applicable zoning codes.
4. No exterior lighting shall be installed that projects onto neighboring lots. All exterior lighting must be directed downward.
5. All materials for both houses must be good quality. A maximum of 50% stucco is allowed on each exterior wall. Stucco on the base lot may not be visible from Garden Dr.
6. The flag lot is restricted to a building footprint of 2,000 square feet.
7. To be compatible with recent development in the neighborhood, houses on each lot are restricted to one story with a pitched roof.

Denial

Motion to Deny Rezone Request ZM-19-018 to rezone property located at 967 E Garden Dr from R-1-10 to R-1-6, for a flag lot subdivision with one single family home on each new lot subject to a development agreement with the following findings:

- Applicant has not addressed all concerns and questions from the public process.
- Density increase is incompatible with the surrounding neighborhood.
- Flag lot is not suitable for this neighborhood.
- Concerns cannot be mitigated.

SUPPORTING DOCUMENTS

1. Applicant Letter
2. Site Plan
3. Neighborhood Meeting Summary
4. Public Comments

Letter of Intent - 967 Garden Drive

We are proposing a rezone of 967 Garden Drive from an R-1-10 to an R-1-6 in order to subdivide using a flag lot. I have lived in Millcreek for my entire adult life. I work in Millcreek City as a school teacher. I want you to know that while I am an investor/developer in the context of this project, I am very much a man of Millcreek. I have purchased 6 homes/properties in Millcreek as an investor/developer and improved them. As a resident of Millcreek, this is not simply a business decision, but an investment in what I want to see in my city. I feel this is the best option for the neighborhood and the best use of this property. There is also much evidence of a precedent being set even on this very street of properties being rezoned and subdivided in order to be put to better use and stay within the fit of the neighborhood.

NEIGHBORHOOD FIT (and some fun facts)

Garden Drive is a wonderful piece of a great Millcreek Neighborhood. It is slightly unique in that it is completely isolated from the rest of the neighborhood. The only way onto the street is either through 4500 South or 900 East. Although relevant neighbors are considered any within 600 feet, we are much more interested in those who actually live on the street.

The street represents a transition and turnover happening in the neighborhood that is slightly more extreme than what is happening in much of Millcreek City. As original homeowners from the 1960's move on, younger families are buying, and remodeling the older homes. As you drive north up Garden Drive from 4500 South, you see a peculiar assortment of stages and solutions. There are homes that look as if they haven't been touched since the builder last walked away 60 years ago. There are some that have been well-cared for. There are townhomes. There are building lots where homes have been torn down and await something new. There are duplexes. There is even a home with boarded-up windows that belongs in a ghost town somewhere. And then, throughout all of these different solutions is a healthy sampling of beautiful brand-new homes.

There are six homes that look to have been built in the last ten years. There are two more under construction. These homes represent the best future of Garden Drive. In ten years, I fully expect to drive down Garden Drive and have it look almost as if it were a new subdivision. Because of the larger lot sizes on the street, nicer and newer homes are being built in place of the old ones. Building two new homes would be a far better option in the long run than remodeling. I lived about a mile north of here for 3 years in a similar neighborhood. We, as a neighborhood, were always so excited about the prospect of improved or new homes because it brought new families.

One of the only pieces of feedback in opposition to the rezone was that all of the lots on Garden Drive are large and homogenous. This just isn't the case. Because I am a nerd of analysis, here are some facts I've discovered about the variation in zoning. There are currently seven properties on Garden Drive that are zoned R-1-10 but that are smaller than 10,000 square feet

making them incompliant. There is one flag lot. One original property has been rezoned to three R-1-5 lots. There are two R-2-10 lots. There is an R-4-8.5. Our property is the largest single-family property on the street, 84% larger than the average size of 11,300 square feet. If we were to subdivide, our two lots would be within 14% of the average lot size on the street at over 10,400 feet. Fun fact: these hypothetical new R-1-6's would be big enough to be R-1-10's unlike 7 of the existing R-1-10's on the street.

FEEDBACK FROM THE NEIGHBORHOOD

We originally purchased this property with the intent of remodeling the home. The deeper we looked at it, the more we realized that the home was not worth saving. Between a collapsing roof, lots of mold, and issues with the foundation, we felt like we weren't doing any future potential owners any favors by putting lipstick on this pig. We were left with 4 financially and stylistically viable options. 1) Remodel the home anyway knowing there may be problems with it down the road. 2) Subdivide the property and build two brand new homes that fit the look and feel of the neighborhood. 3) Tear down the home and build a huge home in the $1 million range. 4) Rezone and build multi-family rental units.

In the course of our due diligence, we scratched option 3. I am not a builder and have no core competency around that. It wouldn't fit the feel of the street, and especially of the neighborhood as a whole. At the end of the day, it was too risky for my partners and me. That left us with three other options to present and gather feedback on from all of the neighbors. We focused more heavily on the neighbors living on Garden Drive.

We canvassed the neighborhood and spoke with every homeowner we could. We ended up getting a hold of half of them on Garden Drive for a face-to-face, one-on-one discussion. For those we didn't speak with, we invited them to call or email us or to come to a meeting held on October 9. We also passed out fliers to households within 600 feet but not on Garden Drive. Only two neighbors attended that meeting, and two other neighbors emailed their thoughts as they were unable to attend the meeting.

The overwhelming majority of those we spoke with preferred the option of subdividing and building two new homes. Many of them had been the previous owner's neighbor for a long time and had been inside the home. They felt it would be best to tear down the old house. Several others commented that it was ugly and they would rather see anything else there. If you would like to validate this subjective evaluation, please see for yourself. It is indeed an unsightly structure.

The idea of rezoning for a multi-family structure was also heavily opposed. We support that feedback. Of all of the people we spoke with, only two neighbors voiced any opposition to the rezone. One of them is the next-door neighbor to the south, Allen and Kristie Sowards. We have been working very closely with them to try to accommodate their desires in our plans as much as possible. They are very nice people. The major concern for them is that they have a very private backyard that they've enjoyed for the better part of a decade. If we subdivide, there will

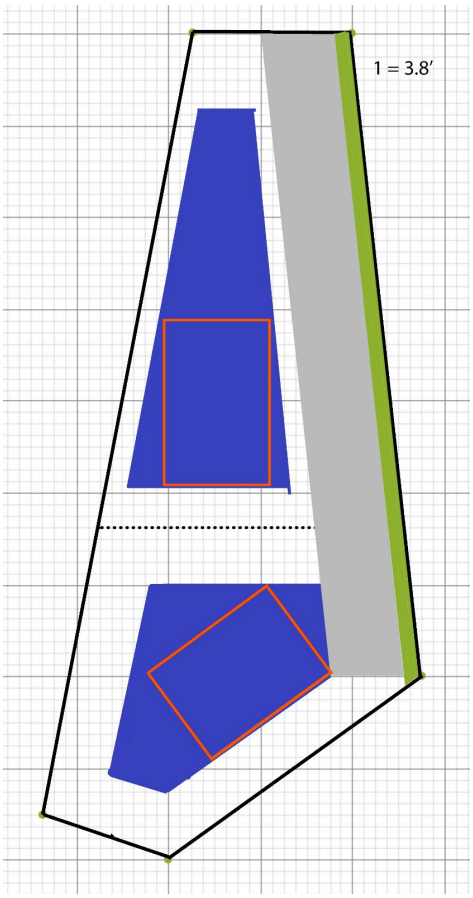
then be a neighbor back there. The previous homeowner was an older woman who didn't spend much time in her giant backyard which made for a very private setting that the Sowards grew to love. I asked Allen if there were things we could do to make it more palatable for them. He confirmed that there were, but before we go down that road, he would oppose the rezone. If we do succeed with the rezone application, we have every intention of involving the Sowards in our planning to come up with an optimal solution for them as well.

It's worth noting that Allen was under contract on purchasing the property before we did. He was going to remodel the home and keep a piece of the land in the back for himself. During his due diligence, he recognized that the home was unsalvageable, at least to remain financially viable. As we've talked to him about our plans, he recognizes that our best option is to tear it down. That recognition doesn't change his wife's desire for a more private backyard.

The other person that was opposed was a backdoor neighbor, Tony Webb, who lives on Sagehill Drive. He didn't really care much about our specific property, but expressed a dislike for ever making zoning higher density. It was opposition in principle rather than in specific practice.

OUR PROPOSAL

Once the subdivision is complete, we intend to turn the project over to a capable general contractor to create the details of the finished project. The concept to the right shows our proposed subdivision. The blue area represents buildable space within the context of Millcreek's building and zoning codes. The red outlines show two actual craftsman style home footprints that fit the style and feel of the neighborhood. Both homes are between 3,200 and 4,000 square feet. I have not included a visual representation of those homes because I don't want you to misunderstand them as plans, when in reality, they are simply placeholders.



The two styles on the street that are represented in the newer homes are craftsman (a high majority) and industrial/modern. The homes will fit those styles. The size of the newer homes on the street range from about 3,600 square feet to about 6,800 square feet. The homes on these properties would most likely end up being between somewhere around 3,200 square feet and 4,500 square feet.

After several months of research and analysis, we submit that a rezone is best for the city, neighborhood, and us as the owners. The end result would leave the neighborhood better off than any of the other proposed solutions. The new homes

would help the revitalization of Garden Drive. It would create additional tax revenue for decades to come. Instead of taxing one $400,000 property, there would be two $600,000 properties. It would fit the look and feel of Garden Drive, especially the homes closest to the property.

Cheers!
Genesis Ventures
Peter Tolman, Clark Featherstone, and Tanner Crandall

Encourage additional investment or reinvestment in neighborhoods?

Yes, demolishing the older home that currently exists will encourage others to invest in the neighborhood. We are requesting to rezone the lot to an R-1-6 to be able to subdivide and build 2 new homes. After speaking with multiple neighbors they want invested homeowners to come to the neighborhood. This particular street, Garden Drive, has begun to transition from older homes to beautiful new homes over the past decade, and the neighbors want to see this trend continue. Each new home built on this street makes the neighborhood more attractive to potential new families looking to move into the area.

Support the redevelopment of blighted and/or underperforming properties?

The home that is on the lot is run down and has many structural issues. By subdividing we would be able to take a lot that has been neglected for many years and build two brand new homes which will transform the overall allure of both the property and the neighborhood. Several of the neighbors expressed concern about the status of the current home, as it is both run down and ugly.

Neighborhood Meeting Notes

In preparation for hosting a neighborhood meeting, we created a flyer (see below) to describe the project and disclose the date of the scheduled meeting. We went and knocked on every door within 600 feet of the property. We talked with those who were there and left a flyer for those who were not inviting them to a meeting. We offered 3 zoning proposals to each person:

1. Remodel existing house
2. Rezone to an R-1-6 and subdivide and build 2 new homes
3. Rezone to an R-2-10 and build multi-family housing

Option 2 was by far the most desired. Option 3 was by far the most contested. There were 2 neighbors that opposed option 1. We have summarized all comments from the neighbors here.



Comments from neighbors while knocking doors

1. Carol McClain - 4384 Garden Dr. - Doesn't care what the solution is but recognizes that the best thing to do is to tear down the old house and put something new there. In favor of the rezone.
2. (Didn't catch name) - 4372 Garden Dr. - Prefers that we subdivide and build two new homes.
3. Emily Buie - 4348 Garden Dr. - I don't care what you do as long as you don't use it as a rental. We want invested homeowner neighbors.
4. Tony Hodges & Susan Sharp - 4340 Garden Dr. - Any option besides remodeling the existing home. It's ugly and we want the neighborhood to look nice.
5. Elizabeth Ranes & Linda Nelson - 4334 Garden Dr. - Build something new. No rentals.
6. Christine & Blair Allred - 965 Garden Dr. - I don't care what you do as long as you don't use it as a rental. We want invested homeowner neighbors
7. Calleen Lester - 937 Garden Dr. - Build something new.
8. Tony Webb - 980 Sagehill Dr. - Opposed by principle to the idea of higher density.
9. Mary & Robert Gaitin - 994 Sagehill Dr. - Subdivide and put new homes up.
10. Debra Daniels - 4324 S. Garden Dr. - In support of building two new houses. Wants to see people who move in becoming invested in the neighborhood and new homes is the best option for that.
11. Talked to Vera at 4372 Garden drive she supports building 2 houses. Wants to see the neighborhood continue to improve.

Comments from neighbors during the neighborhood meeting held on Oct 9th

Only two neighbors attended the meeting. Most felt that they gave their opinion while we were knocking doors, and a few emailed because they couldn't make it to the meeting.

1. Allen and Kristie Sowards - 4315 Garden Drive - (Next door neighbors to the South) "We do not support a rezone because it damages the privacy we've enjoyed in our backyard." They have lived there for 10 years or so with no one ever in the backyard of our property so they have a completely private backyard. They want it to remain private so they would rather we don't subdivide. The husband tried to purchase the property before we did but saw that it wasn't going to be easy to remodel the existing house so he backed out. He completely understands that our best option is to subdivide but he said because his wife is opposed, he is opposed. However, they have been very reasonable and kind in all of our interactions. We have negotiated back and forth several times. We asked him if there are things we can do to make it work for him and he said yes but that before we go down that road, they would rather oppose the rezoning first. Then, if we do rezone, we can chat about how to make it better for his family.
2. Arnold Wilcox - 4371 Garden Dr. - Build new homes. He started to remodel his and realized that it was built poorly with almost no foundation. He doesn't think the homes built in this neighborhood are high enough quality to remodel. He would like to see it torn down with new homes in its place.

Comments from neighbors by email in response to flyer

1. "We are sorry we missed your meeting yesterday but thank you for including the neighborhood. When I talked to you on the weekend I know I said we didn't care as long as it wasn't apartments, but thought I should clarify and say that in your options we would prefer that you invest in homes rather than rentals. We live at 965 East Garden Drive, next door. Just FYI we are thinking about taking down those two trees on the side nearest to your property since they are so close to the edge and hang over. It looks like you have a lot of work ahead of you. Best of luck and feel free to stop by if you have any questions. -Christine and Blair Allred"
2. "I live on Garden Drive and didn't see your flier until late last night. Sorry to have missed it but what a nice gesture to ask your neighbors. So, I'm guessing you are not planning on living on this property? I would like to suggest new homes if you can do lot plat, but definitely not a duplex. :) Thanks for asking! -Yvonne Park" (4260 S Garden Dr.)

Millcreek
3330 South 1300 East
Millcreek, UT 84106

Attention: Erin O'Kelly

Date: Saturday, November 30, 2019

Comments Regarding Project Number ZM-19-018 Rezoning 967 E Garden Dr

Comment #1: We are questioning the rezoning of the property to increase from one to two homes.

Comment #2: The lot in question appears to have very little frontage onto E Garden Dr. Worst yet, the frontage is on a 90 degree turn. Access to the lot could interfere with traffic on the turn on Garden Dr.

Comment #3: Two houses on the property means two families would live on the property. Two families would have at least 2 or 3 vehicles each which means there would be up to 6 parked on the street. These parked vehicles would intrude into neighboring parking spaces. There is no limit on the number of vehicles a family can own.

Comment #4: With two homes, there would be very limited access to the house built on the back half of the property. There is no alley access for the back end of lots in this area. A narrow driveway might provide limited access, only if the driveway were not used for parking.

Comment #5: In the event of a fire in the house on the back half of the lot, would a fire engine have quick and adequate access?

In conclusion, we think a better idea for the lot is to have a one family dwelling with a large off-street parking area that has adequate access from the street.

Thank you for considering our comments!

Sincerely yours,
Frank and Patricia Rosswog
4226 S Sage St
Millcreek, UT 84124-2435
Cell Phone: 385-775-6124

From: Susan Janet Sharp (CENSUS/DCMD CTR)
To: Erin O"kelley
Subject: Project Number ZM-19-018, Peter Tolman
Date: Tuesday, December 3, 2019 8:55:24 AM

Hi Erin,

Unfortunately, I will not be able to be at the Community Council meeting tonight - but wanted to express our opinions.

My husband and I live at 4340 S Garden Drive. We drive past the house in question each and every day.

We are **fully in support of rezoning the property to subdivide this large, deep lot into two smaller parcels - with the intent of building (2) new single family homes**.

Thanks for the opportunity to give input.

Susan Sharp

3330 South 1300 East
Millcreek, UT 84106
801-214-2700
millcreek.us

File # SD-19-014

Planning Commission Staff Report

Meeting Date: 18 December 2019

Applicant: Tony Tippetts

Property Address: 3675 South Craig Circle

Parcels: 16-35-153-018 (1.21 ac), 16-35-153-008 (.15 ac), 16-35-153-006 (.53 ac) 16-35-153-017 (.01 ac)

Total acreage = Approximately 1.9 acres

Request: A 5-Lot subdivision located at 3675 South Craig Circle

Zone: R-1-8

Prepared By: Robert May, Planner

SYNOPSIS AND SCOPE OF DECISION

The applicant, Tony Tippets is requesting preliminary subdivision approval for a 5-Lot subdivision located at 3675 South Craig Circle. The subject property consists of four (4) parcels that have a combined acreage of approximately 1.9 acres has an existing dwelling located on the property. The subject area is zoned R-1-8 which requires each lot to be a minimum of sixty-five (65) feet wide and have a minimum of eight thousand (8,000) square feet of area.

A large portion of the proposed subdivision contains of a large gully which runs from east to west and comprises of slopes greater than 30% and is a critical part of a stormwater and irrigation drainage system.

The property is not located in a dedicated floodplain area or protected wetlands and is not located in the Foothill and Canyons Overlay (FCOZ) Zone. In areas where slopes are in excess of thirty percent (30%); and areas where topography, geology, soil conditions, slope instability, slope angle or aspect, whether on-site or off-site, indicate a potential for geologic hazards, the regulations under the Geologic Hazards Ordinance Chapter 19.75 must be met.

Request: A 5- Lot Subdivision by Tony Tippetts **File #**: SD-19-014

The proposed subdivision application for preliminary and final approval is subject to the Millcreek Zoning Ordinances and adopted goals and objectives from the Millcreek General Plan, but more specifically careful consideration of the following ordinances.

Chapter 19.14 Single Family Residential Zones
https://millcreek.municipalcodeonline.com/book?type=planzone#name=Chapter_19.14_R-1-3,_R-1-4,_R-1-5,_R-1-6,_R-1-7,_R-1-8,_R-1-10,_R-1-15,_R-1-21,_R-1-_43_SINGLE-FAMILY_RESIDENTIAL_ZONES

Chapter 19.71 Residential Compatibility Overlay Zone
https://millcreek.municipalcodeonline.com/book?type=planzone#name=Chapter_19.71_RESIDENTIAL_COMPATIBILITY_OVERLAY_ZONE

Chapter 19.75 Geologic Hazards Ordinance
https://millcreek.municipalcodeonline.com/book?type=planzone#name=Chapter_19.75_GEOLOGICAL_HAZARDS_ORDINANCE_(Formerly_%22Natural_Hazard_Areas%22)

Title 18 Subdivisions
https://millcreek.municipalcodeonline.com/book?type=ordinances#name=TITLE_18_SUBDIVISIONS

Chapter 19.77 Water Efficient Landscape and Development Standards
https://millcreek.municipalcodeonline.com/book?type=planzone#name=Chapter_19.77_WATER_EFFICIENT_LANDSCAPE_DESIGN_AND_DEVELOPMENT_STANDARDS

As per Chapter 18.08.010 of the Millcreek Subdivision code, the Millcreek Planning Commission shall be the land use authority for subdivisions.

*As per Chapter 18.08.040 of the Millcreek Subdivision Code, the applicant or any person adversely affected by a final decision on a subdivision shall have the right to appeal the decision to the land use hearing officer by filing a letter to the hearing officer stating the reasons for appeal within ten days after the decision. The hearing officer shall review the record and the decision to determine whether the decision was arbitrary, capricious, or illegal. After hearing the appeal, the land use hearing officer may affirm, reverse, alter or remand the decision for further consideration.

Request: A 5- Lot Subdivision by Tony Tippetts

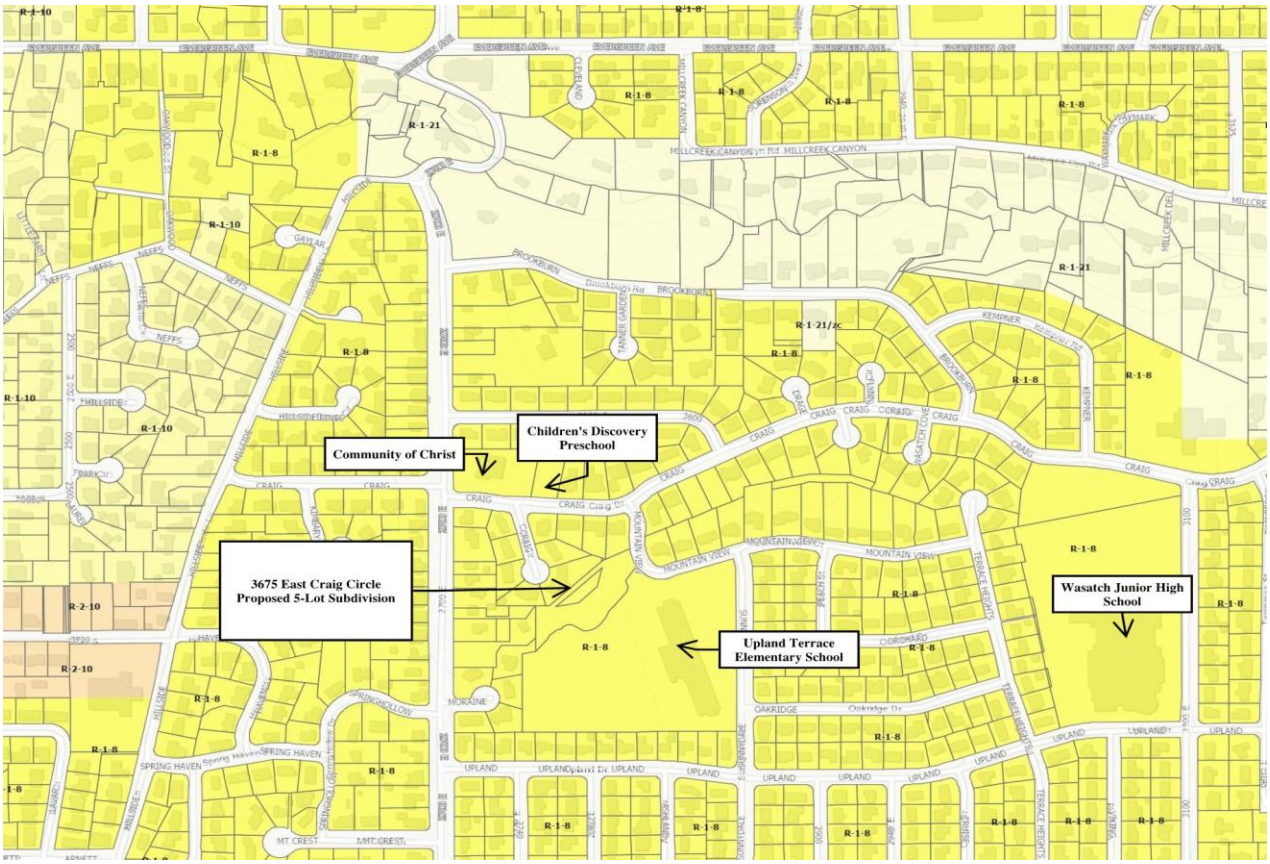
File #: SD-19-014

SITE & VICINITY DESCRIPTION

Figure 1: Aerial View



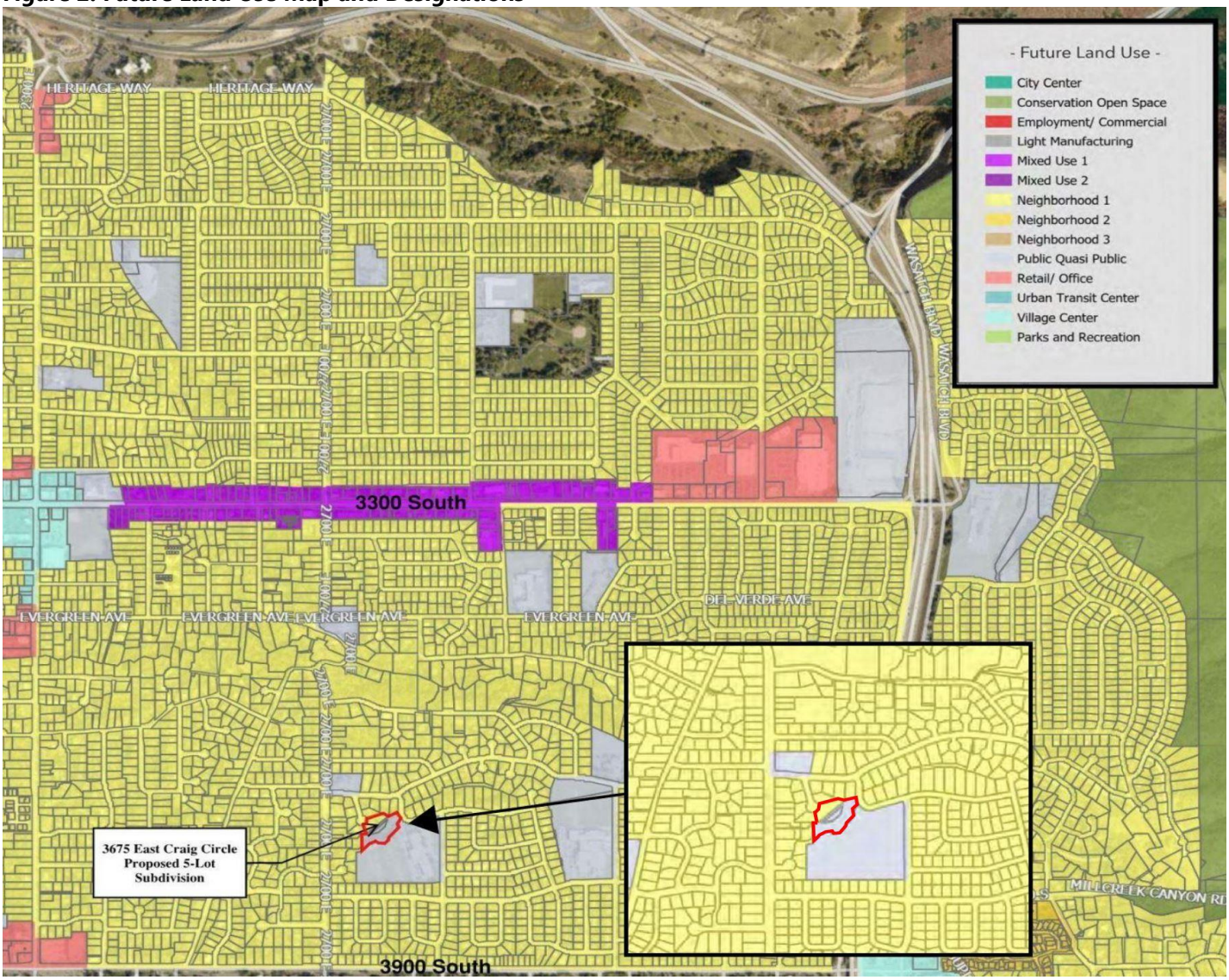
Figure 2: Zoning map



Request: A 5- Lot Subdivision by Tony Tippetts

File #: SD-19-014

Figure 2: Future Land Use Map and Designations



NEIGHBORHOOD 1	***Primary:*** Single-family detached homes. ***Secondary:*** Parks, greenways, recreation, community gardens, schools, places of worship, and other complementary uses.	Typically 1 – 6 dwelling units per acre.	• Includes neighborhoods (of all ages) that are comprised of predominantly of single-family detached homes. • A well-defined pattern of blocks and direct pedestrian and bicycle connections provide residents with direct access to nearby services and amenities.

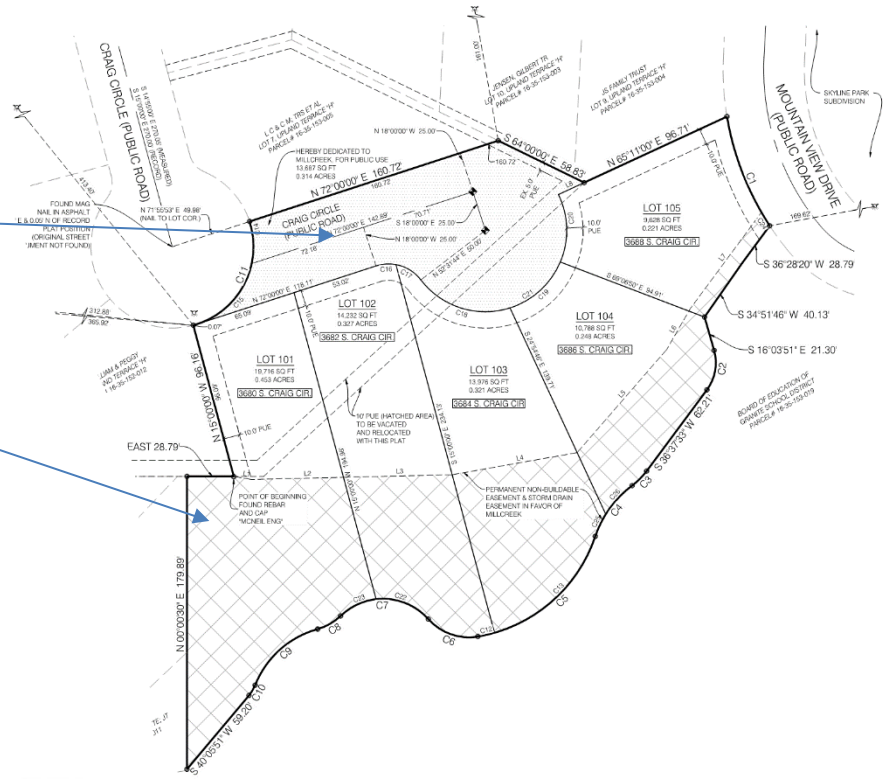
PUBLIC/QUASI PUBLIC	***Primary:*** Schools, government offices, community centers, libraries, and cemeteries. Also includes facilities needed for essential public services such as water and wastewater facilities, and other similar uses.	Varies	• Typically owned by public entities such as the City, counties, or special districts, but can also include quasi-public or private entities, such as St. Mark's Hospital.

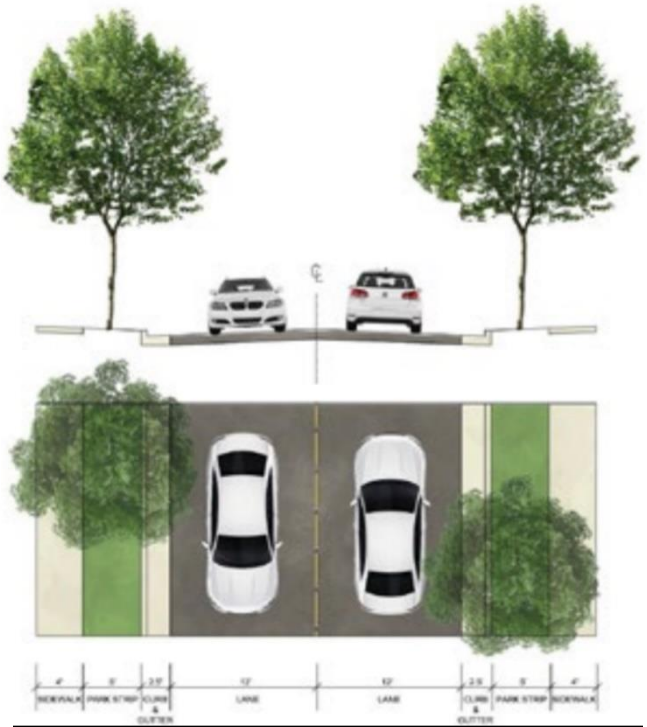
Request: A 5- Lot Subdivision by Tony Tippetts

File #: SD-19-014

PROJECT INFORMATION

- **The subject area contains approximately 1.9 acres / roughly 82,027 square feet.**
- **Approximately 13,665 square feet will be dedicated to Millcreek City for a 50' Public Road ROW.**
- **Approximately 30,256 square feet will be preserved and located in a protective easement for irrigation lines, storm water and tree preservation. (hatched area)**
- **The remaining area equaling approximately .88 acres / 38,105 square feet will be designated buildable area.**





STANDARD 50' LOCAL ROAD RIGHT-OF-WAY (ROW) WIDTH

- **The remaining buildable area will be subject to the design standards and setbacks of the Residential Compatibility Overlay (RCOZ) Zone. Such standards at minimum will:**

✓ **Reduce the building height to a max of 28 feet from natural grade.**

✓ **Reduce maximum lot coverage of all buildings and structures to a maximum of 33%.**

✓ **Reduce massing and scale of buildings**

✓ **Require the side yard setbacks to be at least twenty-five percent of the lot width with no side setback less than eight feet.**

✓ **The height of all structures is further limited by the RCOZ building envelope.**

Request: A 5- Lot Subdivision by Tony Tippetts **File #**: SD-19-014











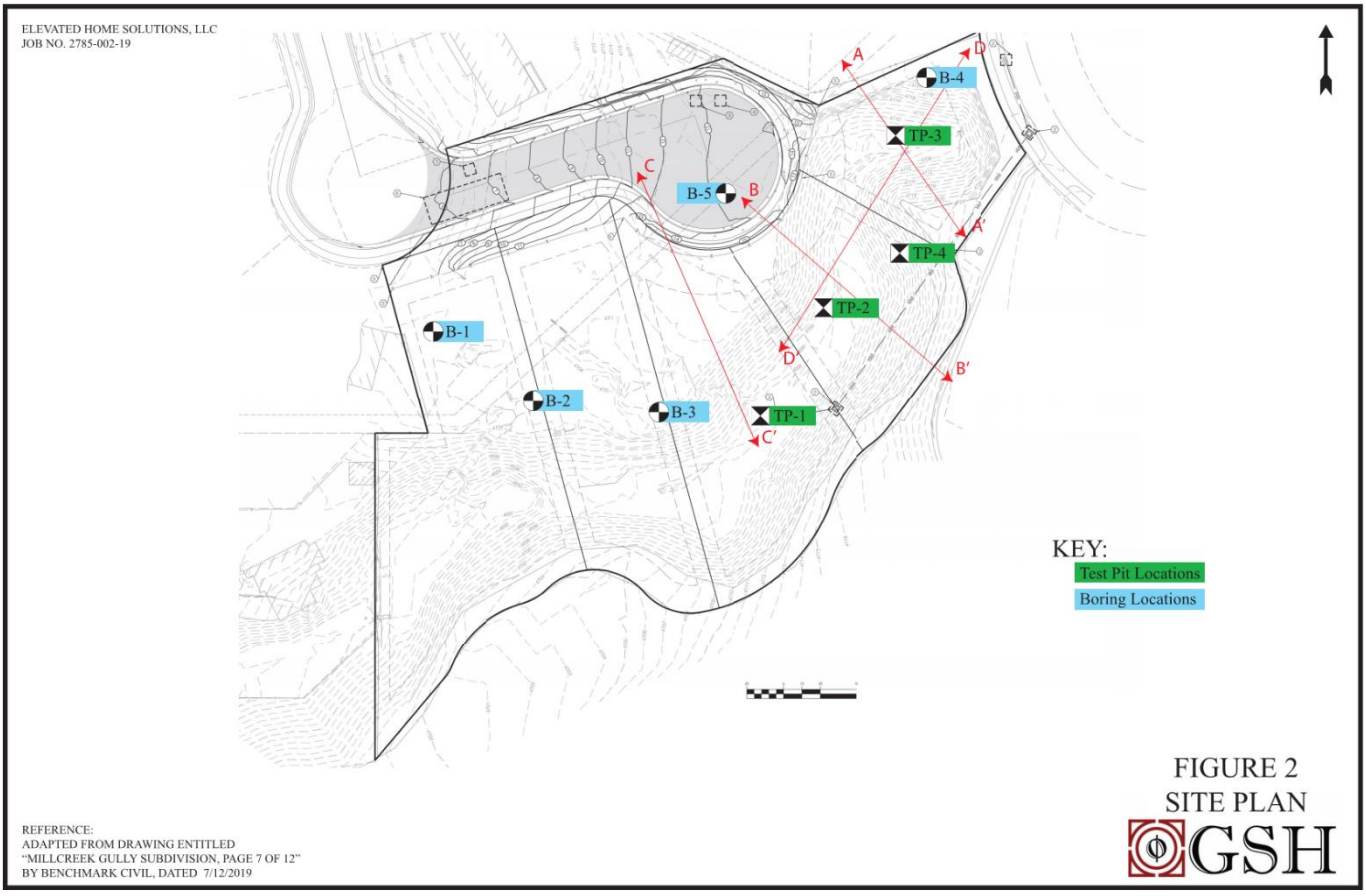
The applicant has provided renderings giving a glimpse of the style of homes to be built. Proposed homes will be modern and contemporary in style and use materials such as brick, stone and concrete. The proposed dwellings have flat roofs and consist of an irregular facade with a strong emphasis on geometric shapes and large windows. The layout of the topography will force the homes into the slope creating a tiered levels and walk out basements.

In addition to each home being strictly evaluated for RCOZ compliance, each dwelling will be required as per building code to have a geotechnical report outlining the structures ability to be built safely on the property. Due to the RCOZ drastically reducing height, mass and lot coverage, many of the renderings above will have to be scaled down.

Many of the homes in the adjacent area consist of a more traditional style home that encompasses a family style layout. Many are the original homes from the 1960's still exist when much of this area was platted. Most have low-pitched roofs with gables that are often hipped. Although there are homes scattered throughout the neighborhood that are large, bulky and stand-out, most homes have been built in keeping with the character and form of the houses in the area.

Request: A 5- Lot Subdivision by Tony Tippetts **File #**: SD-19-014

Prior to the applicant making preliminary subdivision application, Millcreek staff based on a site visit and aerial topography, required the applicant to prepare a geologic hazard and engineering geology report. The Geologic Hazards Ordinance requires such where slopes are in excess of thirty percent; and where topography, geology, soil conditions, slope instability, slope angle or aspect, whether on-site or off-site, indicate a potential for geologic hazards.

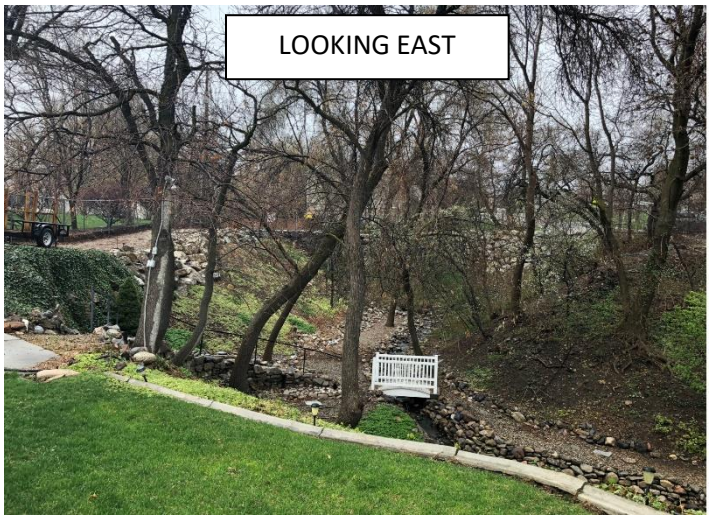


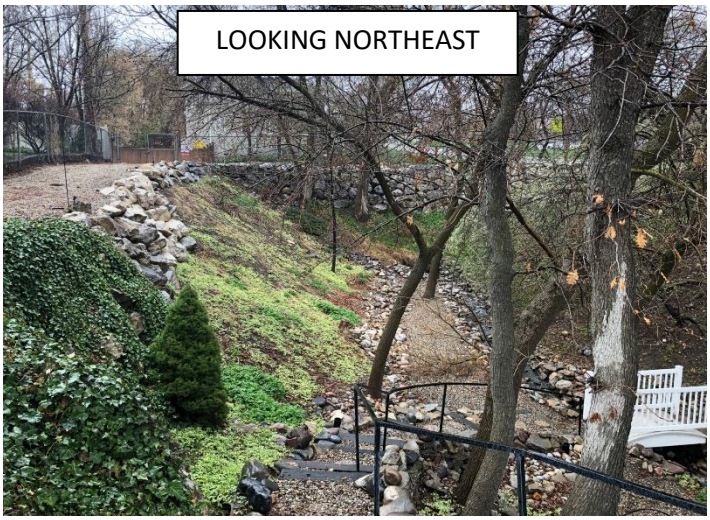
- A total of 5 borings were drilled and 4 test pits were excavated at the site.
- Groundwater was measured at depths of 15.2 feet in B-1 and 6.9, 1.5 and 1.0 feet in TP-1, TP-2 and TP-3
- Laboratory testing was performed on samples of the soils obtained from the explorations, including a direct shear test on a sample of the silty clay soils.
- The geo-seismicity of the site was presented based on the 2015 IBC
- Recommendations for earthwork, foundations/frost depth, lateral earth pressures and pavements were provided, which appeared appropriate based on the field explorations and laboratory testing.
- The site is located within an area mapped as "Very Low" in liquefaction potential, thus that potential was not (and does not need to be) addressed.

***The full Geotechnical Study performed by GSH is included in the supporting documents**

Request: A 5- Lot Subdivision by Tony Tippetts

File #: SD-19-014













It is clear that the ravine is a natural drainage area mostly fed from an upstream spring named Smart Hollow Springs. The spring is approximately 435 feet upstream from Mountain View Drive. Much of the standing water has been man-made by damning to create a pond like effect.

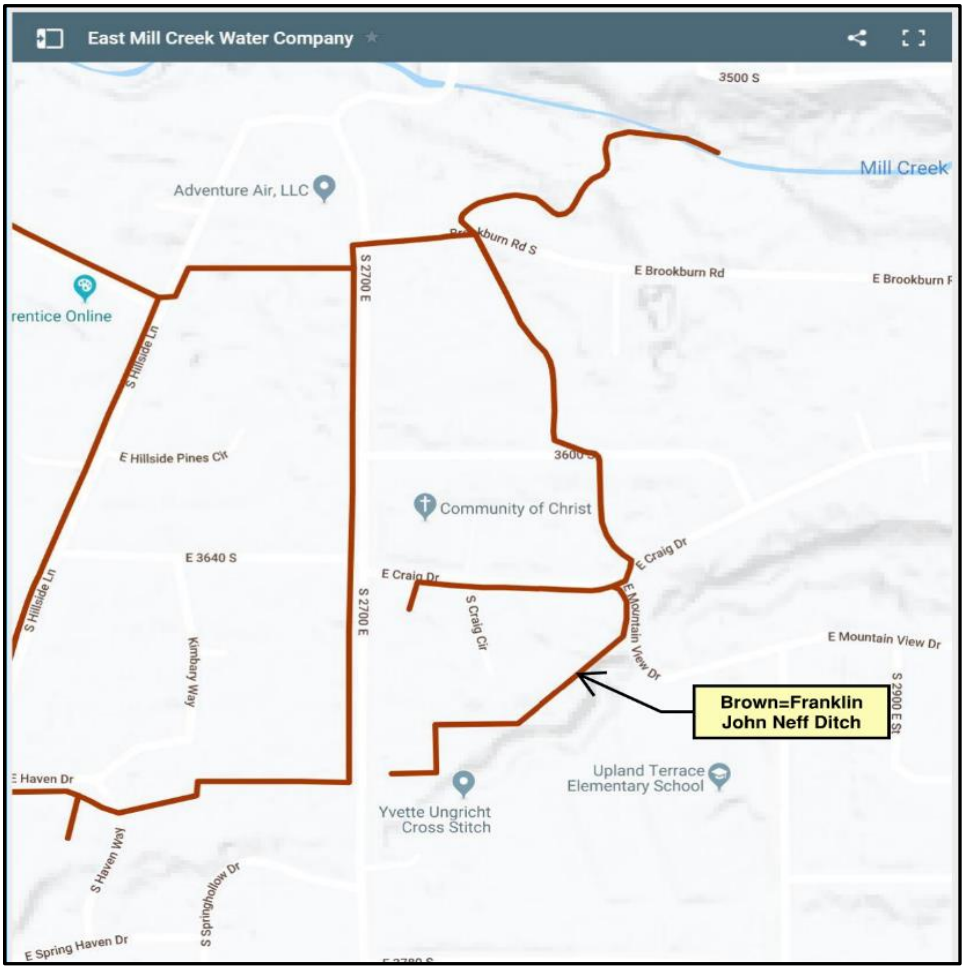
Request: A 5- Lot Subdivision by Tony Tippetts

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A water right search on the Utah Division of Water Rights did not show a claim on the subject property proposed for development. However, two claims were found for the Smart Hollow Springs and were adjudicated as early as last year. Each owner claimed they used their water right for irrigation.

The watercourse created from the spring crosses the subject lot through the gully and enters into Millcreek's storm Drain system.



The East Millcreek Water Company has irrigation lines serving neighboring and downstream homes within the area and is required to be noticed and involved in the platting and development per State Code.

Per State Code the developer cannot obstruct or change the water flow of any established type or title for any canal or other watercourse.
The developer may be required to obtain a Stream Alteration Permit from the Utah State Water Rights Division.

See http://www.eastmillcreekwater.org/water/map-full-system/ for more information.

Request: A 5- Lot Subdivision by Tony Tippetts **File #**: SD-19-014

PLANNING STAFF ANALYSIS AND FINDINGS

Staff and the applicant have been discussing the proposed 5-lot subdivision for nearly a year to date and find that the subject property consists of slopes greater than 30% and has areas where topography and slope instability indicate a potential for geologic hazards. Although the property is not located in the Foothills and Canyons Overlay Zone (FCOZ) and does not lie in the areas of Floodplain or Wetlands, the Geologic Hazards Ordinance identifies criteria that must be met in the form of a Geologic and Hazards Report that outlines specific studies showing the proposed development can safely be built and makes recommendations to mitigate foundation concerns. Geotechnical reports have been submitted to Millcreek Engineering and have been found to be acceptable for preliminary approval. Incurred traffic did not create a concern as the impact of up to four new dwellings would generate very few trips per day.

The developer has shown through grading and drainage civil plans, that irrigation, storm water and other water courses can safely be mitigated and piped. Conditions of approval will require the applicant to obtain approvals from the East Millcreek Water Company and the Utah Division of Water Rights. Furthermore, the applicant has placed a large portion of the gully, more than 30,000 square feet into a storm drainage easement that will prohibit any development. This easement will also serve as a natural preservation overlay and preserve the trees within it. The applicant has agreed to replace any trees removed because of development in the form of a tree preservation plan, as required by Millcreek Code.

Staff finds that the developer has designed an arrangement of lots that can meet the minimum standards for the R-1-8 Zone and development requirements of the Residential Compatibility Overlay Zone (RCOZ). While the minimum standards of the underlying R-1-8 Zone and RCOZ have been met, interpreting and applying the provisions and requirements contained in the code are declared to be the minimum requirements for the purposes set forth. The standards of the R-1-8 Zone are *minimum* standards and do not necessarily define the character of the surrounding development. Furthermore, the home renderings provided by the applicant do not share the same character and architecture of that of the surrounding neighborhood.

Given the entire topography within a mile, the lot arrangements have historically been placed as such to preserve the ravines, gullies and natural water channels. These natural drainages and gullies are a significant characteristic that defines this neighborhood in Millcreek. Development has been built right up to the edge in cases, but none of the dense tree filled ravines have dwellings spanning across or have been filled in to accommodate a dwelling. As per Millcreek subdivision code:

18.20.040 Lots

The lot arrangement and design shall be such that lots will provide satisfactory and desirable sites for buildings and be properly designed according to topography, the character of surrounding development, and to existing requirements.

Staff finds that the following concerns effect the character of the surrounding development and would advise Planning Commission to consider these concerns into their decision.

1. Millcreek General Plan. Chapter 3.1, Unique Neighborhoods. CHARACTER. GOAL N-1: Preserve and enhance the physical elements that define each neighborhood's character. *Strategy 1.5: Ensure that new infill development is compatible with existing neighborhoods by regulating structure sizes and heights; building forms and materials; yard setbacks; streetscape character; height and bulk transitions; buffering; and other factors.*
2. The lot width arrangement does not conform to the neighborhood as most lots in the immediate area are on average 80-90 feet wide making the placement of the home not only more desirable but wide enough that a traditional home can be placed as to not impact the neighbors, respect view sheds, and still meet lot coverages and setbacks. While homes in the area can be big and bulky but their widths are wider accommodating the size.
3. Historically, the lot arrangements, according to the area's topography, have been placed as such to preserve the ravines, gullies and natural water channels. Development has been built right up to the edge is some cases, but

the majority of the dense tree filled ravines and gullies have been preserved, which is a feature of the area that makes it unique.

PLANNING COMMISSION RECOMMENDATION

Planning Staff recommends to the Millcreek Planning Commission to continue subdivision application SD-19-014 until a more suitable and compatible development can be proposed based on staff findings located in the staff report. If approved, the minimum following conditions must be met prior to the city approving the plat.

1. The applicant is required to obtain the approval from the East Millcreek Water Company and signature on the recorded plat.

2. The applicant is required to obtain any approvals and permits required by the Utah State Water Rights Division and Army Corps of Engineers.

3. The applicant is required to conduct a tree preservation plan that inventories all significant trees and their replacement, caliper for caliper, prior to any excavation or demo permits being issued in addition to meeting all the requirements found in Chapter 19.77 Water Efficient Landscape Design and Development Standards of the Millcreek Code.

4. The applicant is required to plat buildable areas that meet the requirements of the Residential Compatibility Overlay Zone.

5. No light source (light bulb, fluorescent tube, or other direct source of light used to illuminate a parking area) shall be visible beyond the property line of any off-street parking area as required by Section 19.80.030 of the zoning ordinance.

6. The applicant will comply with all requirements established through the subdivision technical review process prior to receiving final plat approval.

7. All requirements found in Title 18 (Millcreek Subdivision Code) shall be met, including all applicable fees and bonding, including addressing and surveying fees.

8. The applicant will comply with all requirements of the Unified Fire Code, subject to approval by the Fire Marshal.

9. The applicant shall obtain a complete review for an approved building permit and shall continually comply with the requirements of Millcreek City, Salt Lake City Department of Public Utilities, and the S. L. City Suburban Sewer District.

10. Any modifications to these approved plans must be approved by the Planning Director.

11. All items of the staff report.

Request: A 5- Lot Subdivision by Tony Tippetts

File #: SD-19-014

MODEL MOTION

"Motion to continue subdivision application SD-19-014 until a more suitable and compatible development can be proposed based on staff findings located in the staff report."

SUPPORTING DOCUMENTS

1. Application and Affidavit
2. Preliminary plat and civil plans
3. Geotechnical Study
4. Millcreek Gully Lot Frontage Comparison

Planning Services
3330 South 1300 East • Millcreek, Utah 84106
Phone: (801) 214-2750
Millcreek.us

File #

Land Use & Development Application

Zone: _____ Community Council: _____ Planner: _____

Parent File #: _____ Date: _____

Property Address: 3675 S. Craig Cir, Millcreek, UT. 84109 Parcel #: 16-35-153-006

Name of Project Millcreek Gully Subdividion Property Acreage: 1.88

Please describe your request:
1.88 acres subdivided into 5 lots.

New Development:

- ☐ Conditional Use
- ☐ Permitted Use
- ☑ Subdivision # lots: 5
- ☐ PUD #lots: _____

Modify an Existing Development:

- ☐ Change Conditions of Approval
- ☐ Change the Site Plan
- ☐ Condo Conversion
- ☐ Lot Consolidation
- ☐ Lot Line Adjustment
- ☐ Mobile Store
- ☐ Signs
- ☐ Billboards

Other:

- ☐ Exception Request
- ☐ General Plan Amendment
- ☐ GRAMA (Records Request)
- ☐ Land Use Hearing
- ☐ Non-Conforming
- ☐ RCOZ Appeal (Option C)
- ☐ Research Request
- ☐ Re-zone
- ☐ Right-of-Way Improvement Permit
- ☐ Vacate a Street

Is a key or gate code required to access the property? ☐ Yes ☑ No If yes, code: _____
(or provide driving directions to property):

APPLICANT'S NAME:

First: Tony Last: Tippetts Initial: A

Address: 4052 W. 5900 S. City: SLC State: UT Zip: 84118

Phone: 801 835 8444 Cell: 801 835 8444 Email: tonytippetts@msn.com

Property Owner(s):

First: Bill & June Last: Boyd Initial: _____

Address: 1469 W. Homecoming Ave City: South Jordan State: UT Zip: 84095

Phone: 8015586330 Cell: 8015586330 Email: billboyd.consultant@gmail.com

Professional(s): ☑ Engineer ☐ Architect ☐ Other

Company: Benchmark Civil Engineeering Contact: Dale Bennett

Address: 9138 S. State St City: Sandy State: UT Zip: 84070

Phone: 8015427192 Cell: 8018847192 Email: dale@benchmarkcivil.com

**NOTE: all correspondence will be sent to the applicant's address:*

To facilitate the land use notice and review process, the undersigned hereby authorize the City to reproduce this application and all documents attached to the application for staff, officials, and the interested public:

Applicant's Signature: _____ Date 10/18/19

Planning Services
3330 South 1300 East, Millcreek, Utah 84106
Phone: (801) 214-2750
Millcreek.us

File #

AFFIDAVIT – Property Owner

STATE OF UTAH }
} ss
COUNTY OF SALT LAKE }

I/(we) William Alfred Boyd & June H. Boyd being duly sworn, depose and say that I/(we) am/(are) the owner(s) of the property(s) located at:

3675 S Craig Circle, Salt Lake City, UT 84109.

My/(our) signature below attests that I/(we) have reviewed the proposal by Elevated Home Solutions requesting review and approval of 5 lot Subdivison and that I/(we) consent to the statements and information provided in the attached plans and exhibits and that all information presented is true and correct to the best of my/(our) knowledge.

Property Owner William Alfred Boyd

Property Owner June H. Boyd

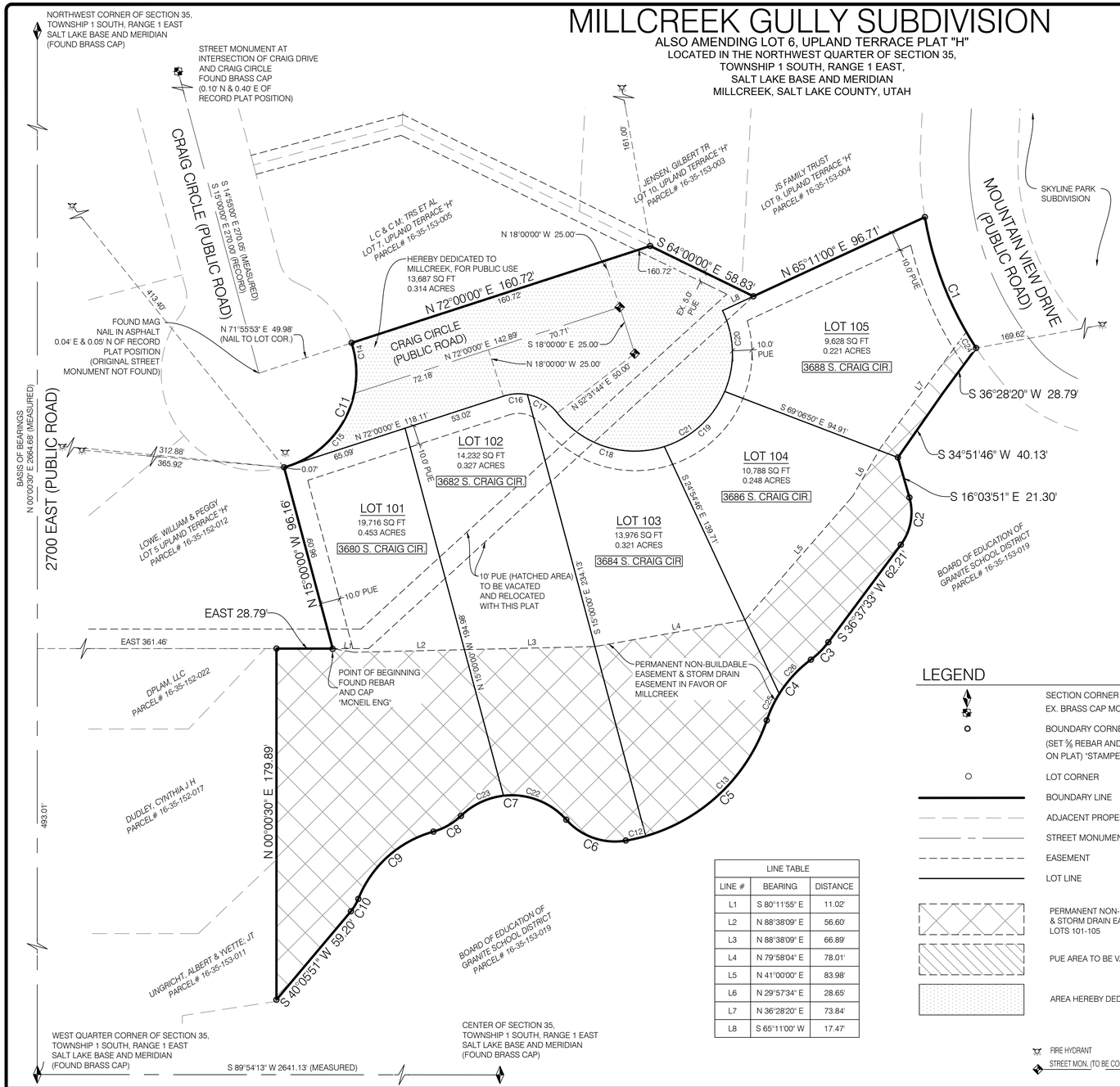
Subscribed and sworn to me this 15th day of October, 2019.

NOTARY PUBLIC
JANET RAMIREZ
COMM. # 700298
COMMISSION EXPIRES
MAY 4, 2022
STATE OF UTAH

Notary: _____
Residing in Salt Lake County, Utah

MILLCREEK GULLY SUBDIVISION

ALSO AMENDING LOT 6, UPLAND TERRACE PLAT "H"
LOCATED IN THE NORTHWEST QUARTER OF SECTION 35,
TOWNSHIP 1 SOUTH, RANGE 1 EAST,
SALT LAKE BASE AND MERIDIAN
MILLCREEK, SALT LAKE COUNTY, UTAH



NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft.

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE
C1	72.58'	175.02'	23°45'42"	S 21°22'49" E	72.07'
C2	25.51'	27.74'	52°41'19"	S 10°16'51" W	24.62'
C3	12.72'	43.49'	16°45'06"	S 45°00'17" W	12.67'
C4	39.07'	64.38'	34°46'04"	S 35°59'54" W	38.47'
C5	99.63'	92.31'	61°50'10"	S 49°31'57" W	94.86'
C6	33.68'	33.40'	57°46'26"	N 70°39'36" W	32.27'
C7	60.32'	37.45'	92°17'24"	N 87°55'19" W	54.01'
C8	16.43'	32.88'	28°37'52"	S 60°14'34" W	16.26'
C9	53.50'	57.99'	52°51'23"	S 48°07'42" W	51.62'
C10	7.45'	23.20'	18°24'14"	S 30°53'53" W	7.42'
C11	81.16'	50.00'	93°00'01"	N 28°30'06" E	72.54'
C12	10.48'	92.31'	6°30'12"	N 77°11'56" E	10.47'
C13	89.15'	92.31'	55°19'59"	N 46°16'51" E	85.72'
C14	21.21'	50.00'	24°18'07"	N 05°50'51" W	21.05'
C15	59.95'	50.00'	68°41'54"	N 40°39'09" E	56.42'
C16	12.42'	25.00'	28°27'33"	S 86°13'47" W	12.29'
C17	18.36'	25.00'	42°04'10"	N 58°30'22" W	17.95'
C18	61.22'	50.00'	70°09'28"	S 72°33'00" E	57.47'
C19	43.22'	50.00'	49°31'21"	N 47°36'35" E	41.88'
C20	42.73'	50.00'	48°57'43"	N 01°37'58" W	41.44'
C21	147.17'	50.00'	168°38'33"	N 58°12'27" E	99.51'
C22	35.76'	37.45'	54°42'37"	N 69°07'56" W	34.42'
C23	24.56'	37.45'	37°34'47"	S 64°43'23" W	24.13'
C24	9.70'	175.02'	3°10'29"	S 31°40'25" E	9.70'
C25	15.07'	64.38'	13°24'27"	S 25°19'06" W	15.03'
C26	24.00'	64.38'	21°21'37"	S 42°42'08" W	23.86'

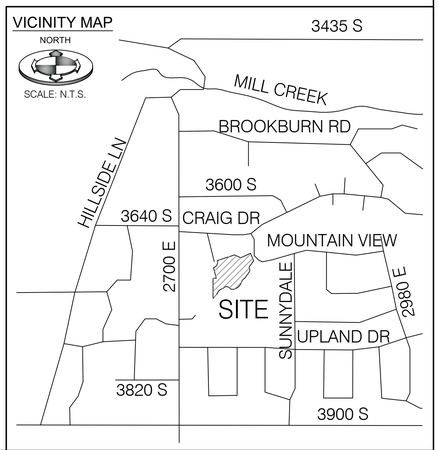
LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S 80°11'55" E	11.02'
L2	N 88°38'09" E	56.60'
L3	N 88°38'09" E	66.89'
L4	N 79°58'04" E	78.01'
L5	N 41°00'00" E	83.98'
L6	N 29°57'34" E	28.65'
L7	N 36°28'20" E	73.84'
L8	S 65°11'00" W	17.47'

LEGEND

- SECTION CORNER (BRASS CAP MONUMENT)
- EX. BRASS CAP MONUMENT (RING & LID)
- BOUNDARY CORNER (SET ⅝ REBAR AND CAP OR AS NOTED ON PLAT) "STAMPED BENCHMARK ENG."
- LOT CORNER
- BOUNDARY LINE
- ADJACENT PROPERTY
- STREET MONUMENT LINE EXISTING
- EASEMENT
- LOT LINE
- PERMANENT NON-BUILDABLE EASEMENT & STORM DRAIN EASEMENT IN FAVOR OF LOTS 101-105
- PUE AREA TO BE VACATED
- AREA HEREBY DEDICATED TO MILLCREEK
- FIRE HYDRANT
- STREET MON. (TO BE CONST.)

VICINITY MAP

NORTH
SCALE: N.T.S.



SURVEYOR'S CERTIFICATE

I, BRIAN A. LINAM, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR, AND THAT I HOLD CERTIFICATE NO. 7240531 AS PRESCRIBED UNDER THE LAWS OF THE STATE OF UTAH. I FURTHER CERTIFY THAT BY AUTHORITY OF THE OWNERS, I HAVE MADE A SURVEY OF THE TRACT OF LAND SHOWN ON THIS PLAT AND DESCRIBED BELOW, A RECORD OF SURVEY PREPARED BY BENCHMARK ENGINEERING AND LAND SURVEYING, LLC. HAS BEEN FILED AT THE SALT LAKE COUNTY SURVEYOR'S OFFICE, AND HAVE COMBINED SAID TRACT OF LAND INTO ONE LOT HEREAFTER TO BE KNOWN AS:

MILLCREEK GULLY SUBDIVISION

DESCRIPTION

A TRACT OF LAND, SITUATED IN THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST, SALT LAKE BASE AND MERIDIAN, COMPRISING THE LAND DESCRIBED IN THAT WARRANTY DEED RECORDED MAY 18, 2016, AS ENTRY NO. 12281974, IN BOOK 10432, AT PAGE 4819, AND ALSO DESCRIBED IN THAT CORRECTIVE QUIT CLAIM DEED RECORDED MAY 1, 2018, AS ENTRY NO. 12764553, IN BOOK 10670, AT PAGE 6306, AT THE OFFICE OF THE SALT LAKE COUNTY RECORDER, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 6, UPLAND TERRACE PLAT 'H' RECORDED NOVEMBER 23, 1962, AS ENTRY NO. 1883447, IN BOOK Z, AT PAGE 25, AT THE SALT LAKE COUNTY RECORDER'S OFFICE, SAID POINT BEING NORTH 00°00'30" EAST 493.01 FEET ALONG THE SECTION LINE AND EAST 361.46 FEET FROM THE WEST QUARTER CORNER OF SAID SECTION 35, AND RUNNING THENCE ALONG SAID LOT 6 THE FOLLOWING FOUR (4) COURSES: 1) NORTH 15°00'00" WEST 96.16 FEET; 2) NORTHEASTERLY 81.16 FEET ALONG THE ARC OF A 50.00 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT, CHORD BEARS NORTH 28°30'06" EAST 72.54 FEET (CENTRAL ANGLE: 23°45'42"); 3) NORTH 72°00'00" EAST 160.72 FEET; 4) SOUTH 64°00'00" EAST 58.83 FEET; THENCE NORTH 65°11'00" EAST 96.71 FEET TO THE WESTERLY RIGHT OF WAY LINE OF MOUNTAIN VIEW DRIVE, A 50 FOOT PUBLIC STREET, AS SHOWN ON SKYLINE PARK SUBDIVISION RECORDED OCTOBER 1, 1965, AS ENTRY NO. 2114836, IN BOOK DD, AT PAGE 37, AT THE OFFICE OF THE SALT LAKE COUNTY RECORDER; THENCE ALONG SAID RIGHT OF WAY SOUTHEASTERLY 72.58 FEET ALONG THE ARC OF A 175.02 FOOT RADIUS NON-TANGENT CURVE TO THE LEFT, CHORD BEARS SOUTH 21°22'49" EAST 72.07 FEET (CENTRAL ANGLE: 93°00'00"); THENCE ALONG THE NORTHERLY LINE OF THE BOARD OF EDUCATION OF GRANITE SCHOOL DISTRICT PROPERTY THE FOLLOWING FOURTEEN (14) COURSES: 1) SOUTH 36°28'20" WEST 28.79 FEET; 2) SOUTH 34°51'46" WEST 40.13 FEET; 3) SOUTH 16°03'51" EAST 21.30 FEET; 4) THENCE SOUTHWESTERLY 25.51 FEET ALONG THE ARC OF A 27.74 FOOT RADIUS TANGENT CURVE TO THE RIGHT, CHORD BEARS SOUTH 10°16'51" WEST 24.62 FEET (CENTRAL ANGLE: 52°41'19"); 5) SOUTH 36°37'33" WEST 62.21 FEET; 6) SOUTHWESTERLY 12.72 FEET ALONG THE ARC OF A 43.49 FOOT RADIUS TANGENT CURVE TO THE RIGHT, CHORD BEARS SOUTH 45°00'17" WEST 12.67 FEET (CENTRAL ANGLE: 16°45'06"); 7) SOUTHWESTERLY 39.07 FEET ALONG THE ARC OF A 64.38 FOOT TANGENT CURVE TO THE LEFT, CHORD BEARS SOUTH 35°59'54" WEST 38.47 FEET (CENTRAL ANGLE: 34°46'04"); 8) SOUTHWESTERLY 99.63 FEET ALONG THE ARC OF A 92.31 FOOT RADIUS TANGENT CURVE TO THE RIGHT, CHORD BEARS SOUTH 49°31'57" WEST 94.86 FEET (CENTRAL ANGLE: 61°50'10"); 9) NORTHWESTERLY 33.68 FEET ALONG THE ARC OF A 33.40 FOOT RADIUS TANGENT CURVE TO THE RIGHT, CHORD BEARS NORTH 70°39'36" WEST 32.27 FEET (CENTRAL ANGLE: 57°46'26"); 10) NORTHWESTERLY 60.32 FEET ALONG THE ARC OF A 37.45 FOOT RADIUS TANGENT CURVE TO THE LEFT, CHORD BEARS NORTH 87°55'19" WEST 54.01 FEET (CENTRAL ANGLE: 92°17'24"); 11) SOUTHWESTERLY 16.43 FEET ALONG THE ARC OF A 32.88 FOOT TANGENT CURVE TO THE RIGHT, CHORD BEARS SOUTH 60°14'34" WEST 16.26 FEET (CENTRAL ANGLE: 28°37'52"); 12) SOUTHWESTERLY 53.50 FEET ALONG THE ARC OF A 57.99 FOOT RADIUS TANGENT CURVE TO THE LEFT, CHORD BEARS SOUTH 48°07'42" WEST 51.62 FEET (CENTRAL ANGLE: 52°51'23"); 13) SOUTHWESTERLY 7.45 FEET ALONG THE ARC OF A 23.20 FOOT RADIUS TANGENT CURVE TO THE RIGHT, CHORD BEARS SOUTH 30°53'53" WEST 7.42 FEET (CENTRAL ANGLE: 18°24'14"); 14) SOUTH 40°05'51" WEST 59.20 FEET; THENCE NORTH 00°00'30" EAST 179.89 FEET TO THE SOUTH LINE OF LOT 5 OF SAID UPLAND TERRACE SUBDIVISION; THENCE EAST 28.79 FEET ALONG SAID SOUTH LINE TO THE POINT OF BEGINNING.

CONTAINS 82,027 SQUARE FEET OR 1.883 ACRES, MORE OR LESS
5 LOTS

PROFESSIONAL LAND SURVEYOR 12-4-19 7240531 BRIAN A. LINAM STATE OF UTAH

DATE OF PREPARATION: DECEMBER, 2019

OWNER'S DEDICATION

WILLIAM A. BOYD, TRUSTEE, THE OWNER OF THE DESCRIBED TRACT OF LAND TO BE HEREAFTER KNOWN AS MILLCREEK GULLY SUBDIVISION, DOES HEREBY DEDICATE FOR THE PERPETUAL USE OF THE PUBLIC, ALL STREETS AND OTHER PROPERTY AS REFLECTED AND SHOWN ON THIS PLAT TO BE DEDICATED FOR PUBLIC USE. OWNER(S) HEREBY CONSENT(S) AND GIVE(S) APPROVAL TO THE RECORDING OF THIS PLAT FOR ALL PURPOSES SHOWN HEREIN._____THIS _____DAY OF_____, 20___.

WILLIAM A. BOYD, TRUSTEE, THE BOYD FAMILY TRUST U/D/T 11/17/15

_____
SIGNATURE

PRINT NAME:_____

TRUSTEE ACKNOWLEDGMENT

STATE OF UTAH
County of Salt Lake } S.S.

ON THE _____ DAY OF _____, 20___, PERSONALLY APPEARED BEFORE ME WILLIAM A. BOYD, WHOSE IDENTITY IS PERSONALLY KNOWN TO ME (OR PROVEN ON THE BASIS OF SATISFACTORY EVIDENCE) AND WHO, BY ME DULY SWORN/AFFIRMED, DID SAY THAT HE/SHE IS THE TRUSTEE OF THE BOYD FAMILY TRUST, AND THAT THE OWNER'S DEDICATION WAS SIGNED BY HIM/HER ON BEHALF OF SAID TRUSTEE, AND SAID WILLIAM A. BOYD ACKNOWLEDGED TO ME THAT SAID TRUST EXECUTED THE SAME.

MY COMMISSION EXPIRES: _____ (DATE)

COMMISSION NUMBER:_____

_____
PRINT NAME

_____
NOTARY PUBLIC COMMISSIONED IN THE STATE OF UTAH

PUBLIC UTILITY APPROVAL

CABLE:_____ DATE:_____
COMCAST:_____ DATE:_____
ROCKY MTN POWER:_____ DATE:_____
DOMINION ENERGY:_____ DATE:_____
EAST MILLCREEK WATER COMPANY:_____ DATE:_____

SALT LAKE COUNTY HEALTH DEPARTMENT

APPROVED AS TO FORM THIS_____DAY OF _____ A.D. 20___.

SIGNED DATE

UNIFIED FIRE AUTHORITY APPROVAL

SIGNED DATE

SALT LAKE COUNTY ADDRESSING APPROVAL

SIGNED DATE

MILLCREEK ENGINEER

SIGNED DATE

RECORD OF SURVEY

R.O.S. NO.: S2018-04-0314

SALT LAKE COUNTY SURVEYOR DATE

MILLCREEK GULLY SUBDIVISION

LOCATED IN THE NORTHWEST QUARTER OF SECTION 35,
TOWNSHIP 1 SOUTH, RANGE 1 EAST,
SALT LAKE BASE AND MERIDIAN
MILLCREEK, SALT LAKE COUNTY, UTAH

SHEET 1 OF 1

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE # 100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com
OCTOBER 2019

CHECK FOR ZONING COMPLIANCE

ZONE:_____ LOT AREA:_____
LOT WIDTH:_____ FRONT YARD:_____
SIDE YARD:_____ REAR YARD:_____

SIGNATURE DATE

MILLCREEK PLANNING COMMISSION

APPROVED THIS_____DAY OF_____, 20____, BY THE MILLCREEK PLANNING COMMISSION.

PLANNING COMMISSION CHAIR DATE

MILLCREEK COMMUNITY DEVELOPMENT

I HEREBY CERTIFY THAT THIS OFFICE HAS EXAMINED THIS PLAT AND IT IS CORRECT IN ACCORDANCE WITH INFORMATION ON FILE IN THIS OFFICE.

COMMUNITY DEVELOPMENT DIRECTOR DATE

APPROVAL AS TO FORM

APPROVED AS TO FORM THIS_____DAY OF _____, 20___.

MILLCREEK ATTORNEY DATE

MILLCREEK MAYOR

PRESENTED TO THE MAYOR AND MILLCREEK COUNCIL THIS_____DAY OF _____, 20___, AT WHICH TIME THIS SUBDIVISION WAS APPROVED AND ACCEPTED.

MAYOR ATTEST: CITY RECORDER

SEAL

SALT LAKE COUNTY RECORDER

RECORDED #_____

STATE OF UTAH, COUNTY OF SALT LAKE, RECORDED AND FILED AT THE REQUEST OF_____
DATE_____TIME_____BOOK_____PAGE_____

FEE $ DEPUTY, SALT LAKE COUNTY RECORDER

1902037sp.dwg

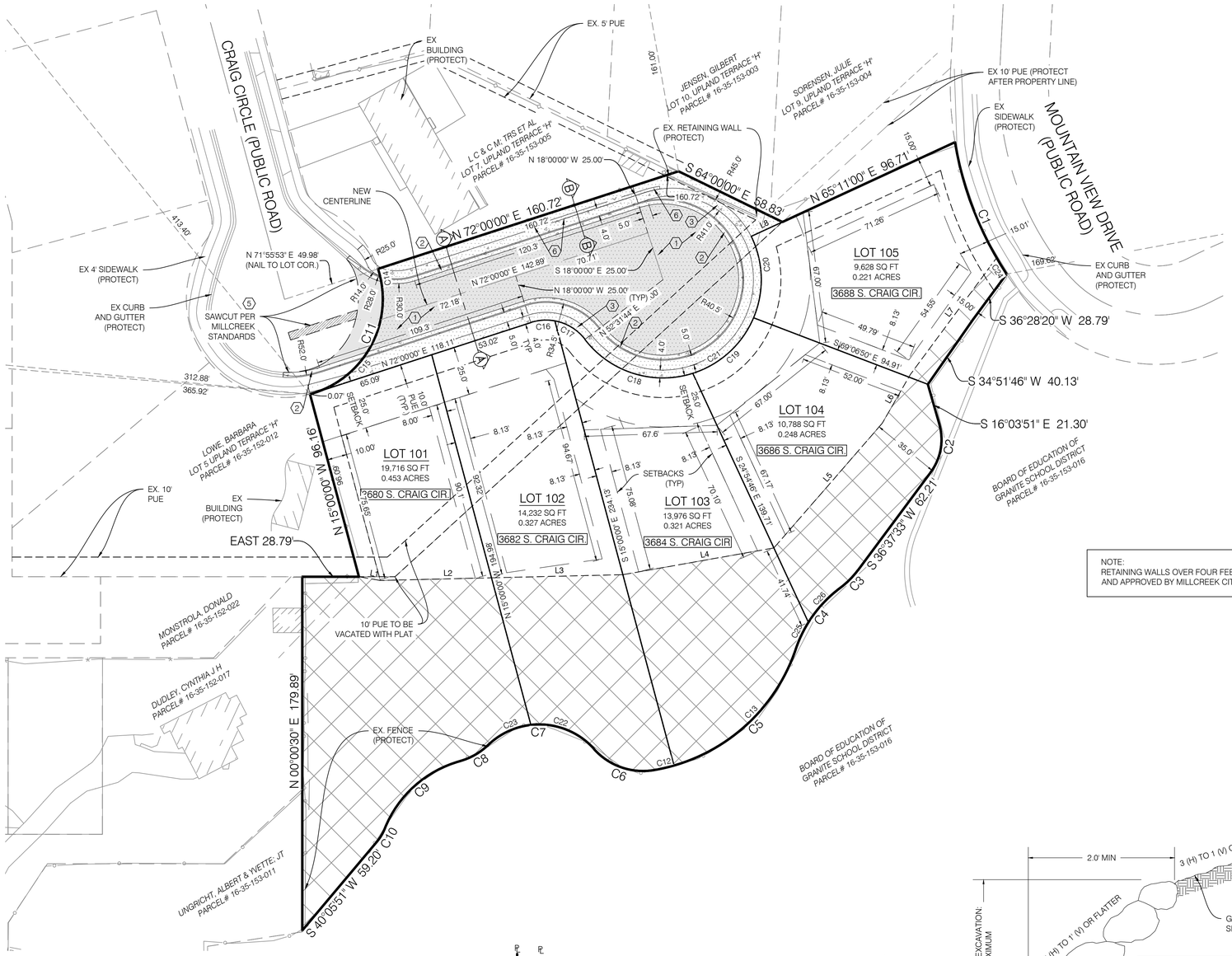
LOT 3 AREA TABLE		
PARTICULARS	S.F.	%
BUILDING	2,354	15.9
HARDSCAPE	723	4.9
LANDSCAPE	11,748	79.2
TOTAL	14,825	100

LOT 4 AREA TABLE		
PARTICULARS	S.F.	%
BUILDING	2,736	25.9
HARDSCAPE	2,739	25.9
LANDSCAPE	5,109	48.2
TOTAL	10,584	100

LOT 5 AREA TABLE		
PARTICULARS	S.F.	%
BUILDING	3,159	33.8
HARDSCAPE	1,080	11.5
LANDSCAPE	5,537	54.7
TOTAL	9,358	100

AREA TABLE		
PARTICULARS	S.F.	%
BUILDING	12,249	17.8
HARDSCAPE	5,342	7.8
LANDSCAPE	51,124	74.4
TOTAL	68,715	100

*ASSUMED 2,000 S.F. OF BUILDING AND 800 S.F. OF HARDSCAPE ON LOT 101 & 102.



NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft.

CONSTRUCTION KEY NOTES REFERENCE		
NO.	DESCRIPTION	DETAIL
1	ASPHALT PAVEMENT WITH GRANULAR BASE	4/CDT.01
2	CONCRETE CURB AND GUTTER PER MILLCREEK CITY STD. #140, NO.1	2/CDT.01
3	SIDEWALK PER MILLCREEK CITY STD. #145	3/CDT.01
4	DRIVE APPROACH PER MILLCREEK CITY STD. #125	1/CDT.01
5	SAWCUT PER MILLCREEK STANDARDS #240	2/CDT.02
6	3' ROCK PROTECTED SLOPE	C/CSP.01
7	CONCRETE PAVEMENT WITH GRANULAR BASE	4/CDT.01
8	DRIVEWAY PER MILLCREEK CITY STD #125	1/CDT.01
9	RETAINING WALL (TO BE DESIGNED BY OTHERS)	

KEY

PERMANENT NON-BUILDABLE EASEMENT & STORM DRAIN EASEMENT IN FAVOR OF LOTS 101-105

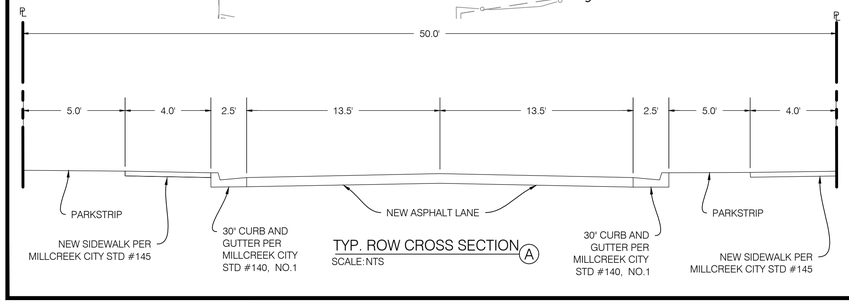
DEDICATION TO MILLCREEK CITY

NOTE: (4)
DRIVE APPROACH LOCATIONS MUST BE DETERMINED FOR LOTS 103 TO 105 BEFORE CONSTRUCTION. REFER TO MILLCREEK CITY STANDARD #125 FLARED DRIVE APPROACH DETAIL, FOR CONSTRUCTION INFORMATION.

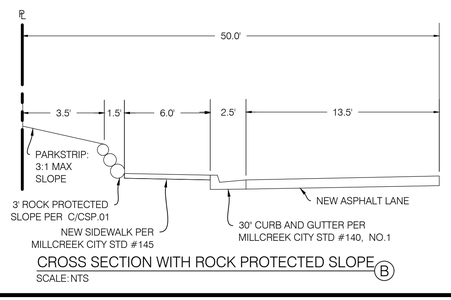
NOTE:
ALL WORK WITHIN PUBLIC ROADS TO BE DONE IN STRICT ACCORDANCE WITH MILLCREEK STANDARDS AND SPECIFICATIONS.

NOTE:
RETAINING WALLS OVER FOUR FEET MUST BE DESIGNED, SUBMITTED AND APPROVED BY MILLCREEK CITY

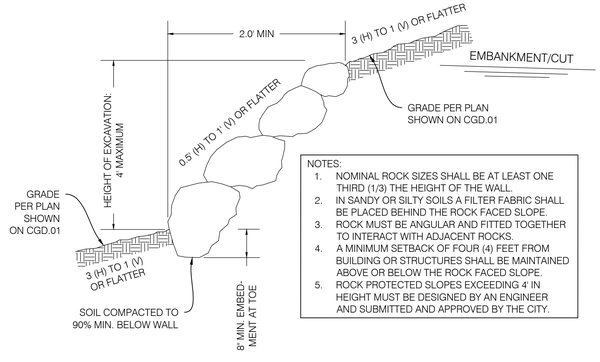
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C3	12.72'	43.49'	16°45'06"	S 45°00'17" W	12.67'
C4	39.07'	64.38'	34°46'04"	S 35°59'54" W	38.47'
C5	99.63'	92.31'	61°50'10"	S 49°31'57" W	94.86'
C6	33.68'	33.40'	57°46'26"	N 70°39'36" W	32.27'
C7	60.32'	37.45'	92°17'24"	N 87°55'19" W	54.01'
C8	16.43'	32.88'	28°37'52"	S 60°14'34" W	16.26'
C9	53.50'	57.99'	52°51'23"	S 48°07'42" W	51.62'
C10	7.45'	23.20'	18°24'14"	S 30°53'53" W	7.42'
C11	81.16'	50.00'	93°00'01"	N 28°30'06" E	72.54'
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C18	61.22'	50.00'	70°09'28"	S 72°33'00" E	57.47'
C19	43.22'	50.00'	49°31'21"	N 47°36'35" E	41.88'
C20	42.73'	50.00'	48°57'43"	N 01°37'58" W	41.44'
C21	147.17'	50.00'	168°38'33"	N 58°12'27" E	99.51'
C22	35.76'	37.45'	54°42'37"	N 69°07'56" W	34.42'
C23	24.56'	37.45'	37°34'47"	S 64°43'23" W	24.13'
C24	9.70'	175.02'	3°10'29"	S 31°40'25" E	9.70'



TYP. ROW CROSS SECTION (A)
SCALE: NTS



CROSS SECTION WITH ROCK PROTECTED SLOPE (B)
SCALE: NTS



NOTES:
1. NOMINAL ROCK SIZES SHALL BE AT LEAST ONE THIRD (1/3) THE HEIGHT OF THE WALL.
2. IN SANDY OR SILTY SOILS A FILTER FABRIC SHALL BE PLACED BEHIND THE ROCK FACED SLOPE.
3. ROCK MUST BE ANGULAR AND FITTED TOGETHER TO INTERACT WITH ADJACENT ROCKS.
4. A MINIMUM SETBACK OF FOUR (4) FEET FROM BUILDING OR STRUCTURES SHALL BE MAINTAINED ABOVE OR BELOW THE ROCK FACED SLOPE.
5. ROCK PROTECTED SLOPES EXCEEDING 4' IN HEIGHT MUST BE DESIGNED BY AN ENGINEER AND SUBMITTED AND APPROVED BY THE CITY.

TYPICAL ROCK PROTECTED SLOPE (C)
SCALE: NTS

CALL BEFORE YOU DIG. IT'S FREE & IT'S THE LAW.
BLUE STAKES OF UTAH UTILITY NOTIFICATION CENTER
1-800-662-4111
www.bluestakes.org
811 BLUE STAKES

No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: MNJ/AGB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 7/12/2019
DWG. FILE: 1902037_SITE

PRELIMINARY PLAN NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

MILLCREEK GULLY SUBDIVISION
3675 S CRAIG CIRCLE
MILLCREEK, UT

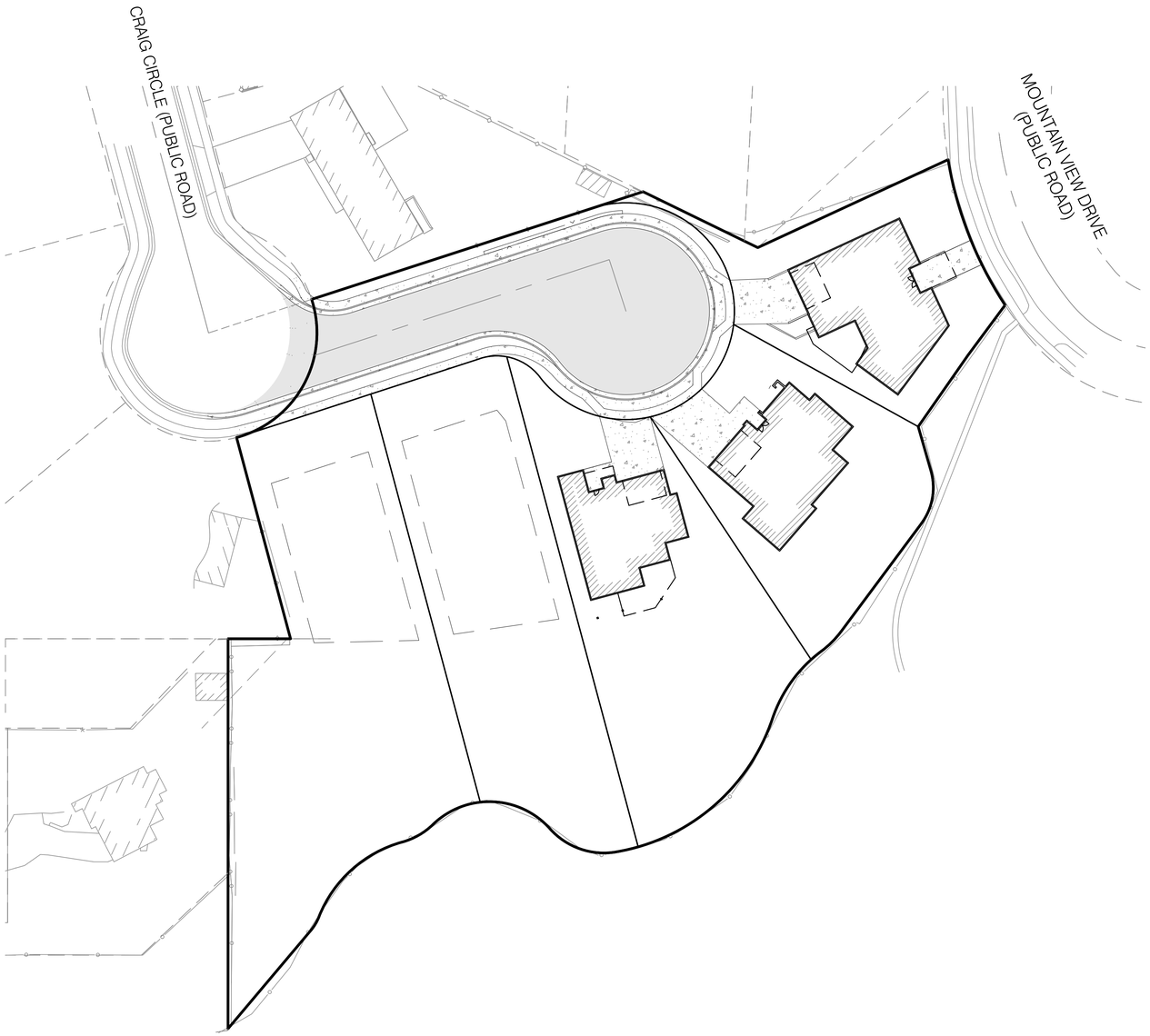
PROJECT NO. 1902037

SITE PLAN

CSP.01
4 OF 14

MILLCREEK GULLY SUBDIVISION

LOCATED IN THE NORTHWEST QUARTER OF SECTION 35,
TOWNSHIP 1 SOUTH, RANGE 1 EAST,
SALT LAKE BASE AND MERIDIAN
MILLCREEK CITY, SALT LAKE COUNTY, UTAH

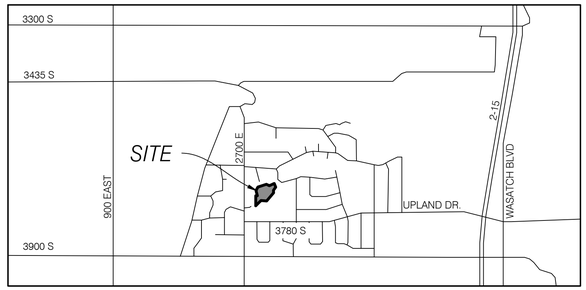


GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft.

NORTH



VICINITY MAP
N.T.S

BRET ALFORD
ELEVATED HOME SOLUTIONS, LLC
822 E. NEW ENGLAND DRIVE
SANDY, UT 84094
EVERETT.PENA.CB@GMAIL.COM

DRAWING INDEX

COVER	COVER SHEET
CGN.01	GENERAL NOTES, LEGEND & ABBREVIATION
CGN.02	SALT LAKE CITY PUBLIC UTILITIES NOTES
CSP.01	SITE PLAN
CDP.01	DEMO PLAN
CUP.01	UTILITY PLAN
CGD.01	GRADING & DRAINAGE PLAN
CPP.01	PLAN AND PROFILE
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CEP.01	EROSION CONTROL PLAN
CEP.02	EROSION CONTROL DETAILS
CDT.01	DETAILS & NOTES
CDT.02	DETAILS & NOTES

CIVIL CONSTRUCTION PLANS

BENCHMARK CIVIL

PROFESSIONAL ENGINEER
10/18/19
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE # 100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

MILLCREEK GULLY SUBDIVISION
3675 S CRAIG CIRCLE
MILLCREEK, UT

DRAFT: MNJ	DESIGN: AGB	CHECK: MOP
DATE: 3/4/2019	DATE: 7/08/2019	DATE: 7/12/2019

No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

PROJECT NO. 1902037

COVER

BENCHMARK ENGINEERING CONTACT: M. CHRIS POULSEN, PE

LINETYPES:

NEW	EXISTING	
		SECTION LINE
		PROPERTY LINE
		ADJACENT PL or LOT LINES
		RIGHT-OF-WAY LINE
		CENTERLINE of ROAD
		EASEMENT LINE
		CURB & GUTTER
		EDGE OF ASPHALT
		FENCE / WALL, STONE
		FENCE, BLOCK
		FENCE, BRICK
		FENCE, CHAIN
		FENCE, IRON
		FENCE, VINYL
X	X	FENCE, WIRE
		FENCE, WOOD
4475	4475	INDEX CONTOUR LINE
		INTERMEDIATE CONTOUR LINE
XX.XX TOC		SPOT ELEVATION
SS	SS	SANITARY SEWER LINE
SD	SD	STORM DRAIN LINE
W	W	WATER LINE
IRR	IRR	IRRIGATION LINE
OHP	OHP	OVERHEAD POWER LINE
UG	UG	UNDERGROUND POWER LINE
GAS	GAS	GAS LINE
T	T	TELEPHONE LINE
CATV	CATV	CABLE TELEVISION LINE
		DRAINAGE / DITCH CENTERLINE
		TREE LINE EDGE
FO	FO	FIBER OPTIC LINE
		PROPOSED ASPHALT
		PROPOSED CONCRETE

SYMBOLS:

NEW	EXISTING	
		SECTION CORNER (FOUND)
		SECTION CORNER (NOT FOUND)
		STREET MONUMENT (FOUND)
		STREET MONUMENT (NOT FOUND)
		BRASS CAP MONUMENT
		POWER POLE & OVERHEAD POWER
		LIGHT POLE
		GUY WIRE
T		TELEPHONE MANHOLE
S		SANITARY SEWER MANHOLE
D		STORM DRAIN MANHOLE
		CATCH BASIN
		DIRECTION OF DRAINAGE
W		WATER MANHOLE
		WATER VALVE
W		WATER METER
		FIRE HYDRANT
		IRRIGATION VALVE
G		GAS MANHOLE
		TREE

ABBREVIATIONS

BC	BAR & CAP
BOW	BOTTOM OF VISIBLE WALL
COR.	SECTION CORNER
CB	CATCH BASIN
CF	CUBIC FEET
D	DELTA ANGLE
EG	EXISTING GROUND
EOA	EDGE OF ASPHALT
EOC	EDGE OF CONCRETE
EX	EXISTING
FFE	FINISH FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
GB	GRADE BREAK
GW	GUY WIRE
HW	HEAD WALL
I.E.	INVERT ELEVATION
LIP	LENGTH OF CURVE
L	LIP OF CURB
LF	LINEAR FEET
LP	LOW POINT
M-M	MONUMENT TO MONUMENT
MH	MANHOLE
MON.	SURVEY MONUMENT
OHP	OVERHEAD POWER
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PP	POWER POLE
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
R	RADIUS OF CURVE
RR	RAILROAD
ROW	RIGHT-OF-WAY
R/W	RIGHT-OF-WAY
SMH	SEWER MANHOLE
SD	STORM DRAIN
SF	SQUARE FEET
TBC	TOP BACK OF CURB
TMH	TELEPHONE MANHOLE
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOE	TOE OF SLOPE
TOG	TOP OF GRATE
TOP	TOP OF SLOPE
TOW	TOP OF WALL
TR	TELEPHONE RISER
UGP	UNDERGROUND POWER
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
WM	WATER METER
WV	WATER VALVE



NOTE:

IN THE EVENT THAT THE CONSTRUCTION NOTES CONFLICT WITH RESPONSIBLE DISTRICT OR AGENCY STANDARDS NOTES AND SPECIFICATIONS, THE DISTRICT OR AGENCY STANDARD NOTES AND SPECIFICATIONS GOVERN.

CAUTION NOTICE TO CONTRACTORS

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY: THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO THE NORMAL WORKING HOURS; AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AN HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

CONSTRUCTION NOTES

RESPONSIBLE DISTRICTS OR AGENCIES AND APPLICABLE STANDARDS
CITY OR COUNTY- MILLCREEK CITY
WATER UTILITY COMPANY- SALT LAKE CITY PUBLIC UTILITIES
SEWER- MOUNT OLYMPUS SEWER DISTRICT
STORM DRAIN/GROUNDWATER- MILLCREEK PUBLIC UTILITIES
ELECTRICAL- ROCKY MOUNTAIN POWER
TELEPHONE- CENTURY LINK/COMCAST
NATURAL GAS- DOMINION ENERGY

APPLICABLE STANDARDS: APWA 2017 STANDARDS AND MILLCREEK CITY STANDARDS

GENERAL

1. ALL MATERIALS AND CONSTRUCTION IN THE PUBLIC RIGHT OF WAY SHALL BE IN ACCORDANCE WITH RESPONSIBLE DISTRICT OR AGENCY.

2. CONTRACTOR AND APPLICABLE SUBCONTRACTORS SHALL ATTEND ALL PRE-CONSTRUCTION CONFERENCES AND PERIODIC PROGRESS MEETINGS. PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL CONTACT RESPONSIBLE DISTRICT OR AGENCY FOR A PRE-CONSTRUCTION CONFERENCE. CONTRACTOR SHALL ALSO NOTIFY THE APPROPRIATE PROJECT CONTACTS (48) HOURS IN ADVANCE OF SAID MEETING.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC SAFETY AND OSHA STANDARDS.

4. THE CONTRACTOR SHALL FAMILIARIZE HIM/HER SELF WITH THE PLANS, THE GEOLOGY REPORTS AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL INSPECT THE SITE OF WORK PRIOR TO BIDDING TO SATISFY THEMSELVES BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS THEY MAY PREFER, OF THE LOCATION OF THE PROPOSED WORK, AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK.

CONDITIONS WHICH APPEAR TO THEM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, THEY SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING THEIR BID.

SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, THEY HAVE RELIED AND ARE RELYING ON THEIR OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON THEIR OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT.

THE INFORMATION PROVIDED BY THE OWNER OR THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT THEY HAVE NOT RELIED SOLELY UPON OWNER OR ENGINEER FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING THEIR BID.

5. ALL WORK SHALL COMPLY WITH THE AMERICAN PUBLIC WORKS ASSOCIATION UTAH CHAPTER (APWA) MANUAL OF STANDARD SPECIFICATIONS 2017 EDITION AND THE MANUAL OF STANDARD PLANS 2017 EDITION. SAID STANDARD SPECIFICATIONS AND PLANS SHALL BE SUBSIDIARY TO MORE STRINGENT REQUIREMENTS BY APPLICABLE LOCAL JURISDICTION.

6. THE CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR, IT SHALL BE EXPECTED THAT THE PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE.

THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS ON THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN REGULAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR PECULIAR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS AND CONDITIONS OF ALL PERMITS AND APPROVALS APPLICABLE TO THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT THE NECESSARY RIGHT-OF-WAY, EASEMENTS, AND/OR PERMITS ARE SECURED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN APPROPRIATE PERMITS WHERE APPLICABLE FOR ANY WORK DONE WITHIN RIGHT-OF-WAY OR EASEMENTS FROM THE CITY AND/OR UDOT. CONTRACTOR SHALL NOTIFY CITY, COUNTY, AND/OR STATE, 24 HOURS IN ADVANCE OF COMMUNICATING THE WORK, OR AS REQUIRED BY SAID PERMITS.

8. CONSTRUCTION STAKING FOR GRADING, CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAIN, WATER, AND ELECTROLIERS SHALL BE DONE BY THE OWNER'S SURVEYOR. THE CONTRACTOR SHALL NOTIFY THE SURVEYOR FORTY-EIGHT (48) HOURS IN ADVANCE OF THE NEED FOR STAKING. ANY STAKING REQUESTED BY THE CONTRACTOR OR THEIR SUBCONTRACTORS THAT IS ABOVE AND BEYOND STANDARD STAKING NEEDS, WILL BE SUBJECT TO AN EXTRA WORK BACK CHARGE TO THE CONTRACTOR. THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.

9. IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. THE ENGINEER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER AND/OR ENGINEER.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR REINSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.

11. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT OF EXISTING IMPROVEMENTS AND ANYTHING THAT HAS ALREADY BEEN CONSTRUCTED. THERE WILL BE NO EXTRA COST DUE THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, AFTER PROPER BACKFILLING AND/OR CONSTRUCTION, WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.

12. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL MECHANICAL; ELECTRICAL AND INSTRUMENTATION EQUIPMENT; PIPING AND CONDUITS; STRUCTURES AND OTHER FACILITIES. THE AS-BUILTS OF THE ELECTRICAL SYSTEM SHALL INCLUDE THE STREET LIGHT LAYOUT PLAN SHOWING LOCATION OF LIGHTS, CONDUITS, CONDUCTORS, POINTS OF CONNECTIONS TO SERVICES, PULLBOXES, AND WIRE SIZES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR.

13. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO ENGINEER. ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATION REDLINES AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

UTILITIES

14. CONTRACTOR TO SPACE UTILITIES TO PROVIDE MINIMUM DISTANCES AS REQUIRED BY LOCAL, COUNTY, STATE, AND INDIVIDUAL UTILITY CODES.

15. ALL UTILITES INSTALLED IN ACCORDANCE WITH THE RESPONSIBLE DISTRICTS OR AGENCIES STANDARDS AND SPECIFICATIONS.

16. COORDINATE ALL SERVICE LATERAL AND BUILDING CONNECTIONS WITH CORRESPONDING ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWING FOR LOCATION AND ELEVATION. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE ENCOUNTERED.

17. ALL STORM DRAIN MANHOLES AND CATCH BASINS ARE TO BE PRECAST CONCRETE FROM APPROVED LOCAL MANUFACTURER UNLESS OTHERWISE NOTED. AND COMPLY WITH CITY/COUNTY STANDARD

18. ALL STORM WATER CONVEYANCE PIPING TO BE RCP - CLASS 3 OR ADS HDPE PIPE OR EQUAL UNLESS OTHERWISE NOTED.

19. ALL ELECTRICAL CONDUITS/LINES TO BE PVC SCH 40 OR BETTER.

20. ALL GAS LINES TO BE HDPE WITH COPPER TRACER WIRE AND DETECTA TAPE. TERMINATE TRACER WIRE AT APPROVED LOCATIONS.

21. ALL GAS LINE TAPS, VALVES AND CAPS TO BE FUSED USING ELECTRO - FUSION TECHNOLOGY.

22. ALL PHONE AND TV CONDUITS TO BE PVC SCH 40 OR BETTER.

23. NO GROUNDWATER OR DEBRIS TO BE ALLOWED TO ENTER THE NEW PIPE DURING CONSTRUCTION. THE OPEN END OF ALL PIPES IS TO BE COVERED AND EFFECTIVELY SEALED AT THE END OF EACH DAYS WORK.

24. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4' OR MORE AND SHALL COMPLY WITH INDUSTRIAL COMMISSION OF UTAH SAFETY ORDERS SECTION 68 - EXCAVATIONS, AND SECTION 69 - TRENCHES, ALONG WITH ANY LOCAL CODES OR ORDINANCES.

25. PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS; I.E. SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION.

26. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS FOR H-20 LOAD REQUIREMENTS.

27. ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE COMPLETION OF STERILIZATION AND TESTING OF NEW WATER MAINS. ALL EXISTING WATER VALVES TO BE OPERATED UNDER THE DIRECTION OF THE CITY/COUNTY PUBLIC WORKS DEPARTMENT PERSONNEL ONLY.

28. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE INSPECTED, TESTED, AND APPROVED BY AUTHORITIES HAVING JURISDICTION PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK, AND STREET PAVING.

SEWER

29. ALL SEWER LINE TO BE FLUSHED, PRESSURE TESTED TO 5 PSI VIDEO INSPECTED AND OTHERWISE TESTED IN ACCORDANCE WITH DISTRICT STANDARDS PRIOR TO PLACING IN SERVICE.

30. ALL SEWER PIPES ARE TO BE SDR-35 PVC PIPE.

31. SEWER MANHOLES, LATERALS AND CLEANOUTS TO BE INSTALLED PER RESPONSIBLE DISTRICT OR AGENCY STANDARDS. THE UNIT COST OF THE SEWER LATERAL INCLUDES CONNECTION TO THE SEWER MAIN. THE CLEANOUT RISER FOR EACH SERVICE SHALL BE INSTALLED BY THE CONTRACTOR.

32. DURING CONSTRUCTION OF THE SEWERLINE, WYES NEED TO BE INSTALLED FOR THE LATERALS. LATERALS ARE 4" AND NEED TO COME IN AT THE TOP OF THE PIPE WITH A WYE. (SEE RESPONSIBLE DISTRICT OR AGENCY STANDARDS)

WATER

33. WATERLINES TO BE PVC C-900. WATER LINES SHALL BE A MINIMUM OF 10' HORIZONTALLY FROM SEWER MAINS. CROSSINGS SHALL MEET STATE HEALTH STANDARDS. (MECHANICAL JOINTS REQUIRED WHEN LESS THAN 18" VERTICAL OR TEN FEET HORIZONTAL SEPARATION FROM SEWERLINE)

34. ALL WATERLINES SHALL BE 8" MINIMUM SIZE AND SERVICE LATERALS SHALL BE 1-1/2" MINIMUM UNLESS OTHERWISE NOTED.

35. WATER SERVICE LATERALS TO INCLUDE ALL BRASS SADDLE; CORP. STOP LATERAL, DOUBLE CHECK VALVE AND BACKFLOW PREVENTION DEVICE, AND SHUTOFF VALVE IN BOX NEAR BUILDING EDGE.

36. ALL WATERLINES SHALL BE 48" BELOW FINISH GROUND TO TOP OF PIPE. ALL VALVE BOXES AND MANHOLES SHALL BE RAISED OR LOWERED TO FINISH GRADE AND SHALL INCLUDE A CONCRETE COLLAR IN PAVED AREAS. ALL WATER LINES SHALL BE LOOPED AROUND GRAVITY LINES OR ROPED PER RESPONSIBLE DISTRICT OR AGENCY INSPECTOR.

37. CONTRACTOR TO NOTIFY RESPONSIBLE DISTRICT OR AGENCY FOR CHLORINE TEST PRIOR TO FLUSHING LINES, CHLORINE LEFT IN PIPE 24 HRS. MINIMUM WITH 25 PPM RESIDUAL. ALL TURNING OF MAINLINE VALVES, CHLORINATION, FLUSHING, PRESSURE TESTING, BACTERIA TESTING, ETC. TO BE COORDINATED WITH RESPONSIBLE DISTRICT OR AGENCY. ALL TESTS TO BE IN ACCORDANCE WITH RESPONSIBLE DISTRICT OR AGENCY.

38. BOTTOM FLANGE OF FIRE HYDRANTS TO BE SET TO APPROXIMATELY 4 INCHES ABOVE BACK OF CURB ELEVATION. HYDRANTS TO INCLUDE TEE, 6" LINE VALVE, AND HYDRANT COMPLETE TO MEET RESPONSIBLE DISTRICT OR AGENCY STANDARDS, UNLESS OTHERWISE NOTED ON PLANS.

EXISTING UTILITIES

39. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES SHOWN OR NOT SHOWN. THE INFORMATION SHOWN ON THE PLANS WITH REGARDS TO THE EXISTING UTILITIES AND/OR IMPROVEMENTS WAS DERIVED FROM FIELD INVESTIGATION AND/OR RECORD INFORMATION. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE FACILITIES SHOWN AND ANY OTHER FACILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO VERIFY ALL EXISTING IMPROVEMENTS AND TO EXPOSE ALL EXISTING UNDERGROUND UTILITIES RELATED TO THE PROJECT, INCLUDING BUT NOT LIMITED TO, SEWER, STORM DRAIN, WATER IRRIGATION, GAS, ELECTRICAL, ETC. AND SHALL NOTIFY THE ENGINEER IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE OF EXPOSING THE UTILITIES SO, THAT THE EXACT LOCATION AND ELEVATION CAN BE VERIFIED AND DOCUMENTED. THE COST ASSOCIATED TO PERFORM THIS WORK SHALL BE INCLUDED IN EITHER THE LUMP SUMP CLEARING COST OR IN THE VARIOUS ITEMS OF WORK. IF LOCATION AND/OR ELEVATION DIFFERS FROM THAT SHOWN ON THE DESIGN PLANS, PROVISIONS TO ACCOMMODATE NEW LOCATION BE MADE PRIOR TO CONSTRUCTION.

40. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY BLUE STAKES 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTORS SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.

41. ALL MANHOLE RIMS, LAMPHOLES, VALVE BOX COVERS, MONUMENT BOXES AND CATCH BASIN GRATES ARE TO BE ADJUSTED TO FIT THE FINISHED GRADE AFTER PAVING, UNLESS OTHERWISE NOTED. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR SAID FACILITIES.

42. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT ALL PIPES, WALLS, ETC. ARE ADEQUATELY BRACED DURING CONSTRUCTION.

CLEARING AND GRADING

43. CONTRACTOR SHALL PERFORM EARTHWORK IN ACCORDANCE WITH APWA 2017 STANDARD DRAWINGS AND STANDARD SPECIFICATIONS AND THE RECOMMENDED EARTHWORK SPECIFICATION FOUND IN THE PROFESSIONALLY PREPARED REPORT OF GEOTECHNICAL INVESTIGATION.

44. THE CONTRACTOR SHALL REMOVE ALL VEGETATION AND DELETERIOUS MATERIALS FROM THE SITE UNLESS NOTED OTHERWISE; ALL EXISTING WELLS AND SEPTIC TANKS SHALL BE REMOVED AND/OR ABANDONED PER THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL REGULATIONS. THE COST TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CLEARING COST.

45. SUBSOIL INVESTIGATIONS HAVE BEEN CONDUCTED AT THE SITE OF THE WORK. BEFORE FOOTING, FOUNDATION OR STRUCTURAL WALL CONSTRUCTION CAN COMMENCE, A REVIEW OF THE PROFESSIONAL REPORT OF THESE INVESTIGATIONS, MUST BE REVIEWED BY GEOTECHNICAL STUDY PROPOSED CRAIG SUBDIVISION, 3/11/19, MUST BE REVIEWED.

SOIL INVESTIGATIONS WERE CONDUCTED BY GEOTECHNICAL STUDY PROPOSED CRAIG SUBDIVISION, 3/11/19 FOR DESIGN PURPOSES ONLY, AND THE DATA SHOWN IN THE REPORTS ARE FOR SUBSURFACE CONDITIONS FOUND AT THE TIME OF THE INVESTIGATION. THE OWNER AND ENGINEER DISCLAIM RESPONSIBILITY FOR THE INTERPRETATION BY THE CONTRACTOR OF DATA, SUCH PROJECTION OR EXTRAPOLATION, FROM THE TEST HOLES TO OTHER LOCATIONS ON THE SITE OF THE WORK, SOIL BEARING VALUES AND PROFILES, SOIL STABILITY AND THE PRESENCE, LEVEL AND EXTENT OF UNDERGROUND WATER FOR SUBSURFACE CONDITIONS DURING CONSTRUCTION OPERATIONS.

46. ALL PROPOSED ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO FINISHED SURFACE, THE CONTRACTOR IS RESPONSIBLE TO DEDUCT THE THICKNESS OF THE PAVEMENT STRUCTURAL SECTION FOR TOP OF SUB GRADE ELEVATIONS.

47. IF AT ANY TIME DURING CONSTRUCTION ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, WORK IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED FROM THE ENGINEER.

48. UNSUITABLE MATERIAL, SUCH AS TOP SOIL, WEATHERED BED ROCK, ETC., SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER (AND/OR ENGINEERING GEOLOGIST, WHERE EMPLOYED) FROM ALL AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES.

49. NO TREES SHALL BE REMOVED OR DAMAGED WITHOUT SPECIFIC WRITTEN AUTHORIZATION FROM PROPERTY OWNER.

THE EXISTING TOPOGRAPHY ON THESE PLANS IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY BENCHMARK ENGINEERING AND LAND SURVEYING ON 5/24/19 AND MAY HAVE BEEN MODIFIED SINCE THIS SURVEY WAS PERFORMED.

50. FILLS IN EXCESS OF 4 FEET IN THICKNESS AND BENEATH ALL FOUNDATIONS OR PAVEMENT SECTIONS SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D-1557 COMPACTION CRITERIA. ALL OTHER STRUCTURAL FILL LESS THAN 4 FEET IN THICKNESS SHOULD BE COMPACTED TO AT LEAST 90 PERCENT OF THE ABOVE CRITERIA. REFERENCE GEOTECHNICAL STUDY PROPOSED CRAIG SUBDIVISION, 3/11/19.

51. COMPACTION TESTING WILL BE ACCOMPLISHED BY THE CONTRACTOR, OR THE CONTRACTOR WILL HAVE SUCH TESTING ACCOMPLISHED BY A SEPARATE CONTRACTOR. TEST RESULTS WILL BE SUBMITTED FOR REVIEW WITHIN 24 HOURS AFTER TEST.

52. CONTRACTOR TO SUBMIT PROCTOR AND/OR MARSHALL TEST DATA 24 HOURS PRIOR TO COMPACTION TESTS.

53. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON PLANS.

54. ALL SLOPES IN ADJOINING STREETS, DRAINAGE CHANNELS, OR OTHER FACILITIES SHALL BE GRADED NO STEEPER THAN 2 TO 1 FOR CUT AND FILL.

55. GRADES WITHIN ASPHALT PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF THE DESIGN GRADE. HOWEVER, THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN ALL PAVEMENT AREAS AND ALONG ALL CURBS. ALL CURBS SHALL BE BUILT IN ACCORDANCE TO THE PLAN. CURBS AND PAVEMENT AREAS WHICH ARE NOT INSTALLED PER PLAN MUST BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

56. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN ESTIMATE OF EARTHWORK QUANTITIES.

57. WHERE NEW CURB AND GUTTER IS BEING CONSTRUCTED ADJACENT TO EXISTING ASPHALT OR CONCRETE PAVEMENT, THE FOLLOWING SHALL APPLY; PRIOR TO PLACEMENT OF ANY CONCRETE THE CONTRACTOR SHALL HAVE A LICENSE SURVEYOR VERIFY THE GRADE AND CROSS SLOPE OF THE CURB AND GUTTER FORMS, THE CONTRACTOR SHALL SUBMIT THE SLOPE AND GRADES TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SECTION WHICH DOES NOT CONFORM TO THE DESIGN OR TYPICAL CROSS SECTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CURB AND GUTTER POURS WITHOUT THE APPROVAL OF THE ENGINEER.

58. SITE WORK SHALL MEET OR EXCEED OWNER'S SITE SPECIFICATIONS.

59. ALL SITE CONCRETE OR CONCRETE ELEMENT NOT SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS TO HAVE A MINIMUM OF 28 DAY COMPRESSION STRENGTH OF 4000 PSI.

60. CUT SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL

61. FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL

62. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT.

DEWATERING

63. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE AND MAINTAIN ALL MACHINERY, APPLIANCES AND EQUIPMENT TO MAINTAIN ALL EXCAVATIONS FREE FROM WATER DURING CONSTRUCTION. THE CONTRACTOR SHALL DISPOSE OF THE WATER SO AS NOT TO CAUSE DAMAGE TO PUBLIC OR PRIVATE PROPERTY, OR TO CAUSE A NUISANCE OR MENACE TO THE PUBLIC OR VIOLATE THE LAW. THE DEWATERING SYSTEM SHALL BE INSTALLED AND OPERATED SO THAT THE GROUND LEVEL OUTSIDE THE EXCAVATION IS NOT REDUCED TO THE EXTENT WHICH WOULD CAUSE DAMAGE OR ENDANGER ADJACENT STRUCTURES OR PROPERTY. ALL COST FOR DEWATERING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ALL PIPE CONSTRUCTION. THE STATIC WATER LEVEL SHALL BE DRAWN DOWN A MINIMUM OF 1 FOOT BELOW THE BOTTOM OF EXCAVATIONS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL SOILS AND ALLOW THE PLACEMENT OF ANY FILL TO THE SPECIFIED DENSITY. THE CONTRACTOR SHALL HAVE ON HAND, PUMPING EQUIPMENT AND MACHINERY IN GOOD CONDITION FOR EMERGENCIES AND SHALL HAVE WORKMEN AVAILABLE FOR ITS OPERATION: DEWATERING SYSTEM SHALL OPERATE CONTINUOUSLY UNTIL BACKFILL HAS BEEN COMPLETED TO 1 FOOT ABOVE THE NORMAL STATIC GROUNDWATER LEVEL.

64. THE CONTRACTOR SHALL CONTROL SURFACE WATER TO PREVENT ENTRY INTO EXCAVATIONS. AT EACH EXCAVATION, A SUFFICIENT NUMBER OF TEMPORARY OBSERVATION WELLS TO CONTINUOUSLY CHECK THE GROUNDWATER LEVEL SHALL BE PROVIDED.

65. SUMPS SHALL BE NO DEEPER THAN 5 FEET AND SHALL BE AT THE LOW POINT OF EXCAVATION. EXCAVATION SHALL BE GRADED TO DRAIN TO THE SUMPS.

66. THE CONTROL OF GROUNDWATER SHALL BE SUCH THAT SOFTENING OF THE BOTTOM OF EXCAVATIONS, OR FORMATION OF "QUICK" CONDITIONS OR "BOILS", DOES NOT OCCUR. DEWATERING SYSTEMS SHALL BE DESIGNED AND OPERATED SO AS TO PREVENT REMOVAL OF NATURAL SOILS. THE RELEASE OF GROUNDWATER AT ITS STATIC LEVEL SHALL BE PERFORMED IN SUCH A MANNER AS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL FOUNDATION SOILS, PREVENT DISTURBANCE OF COMPACTED BACKFILL, AND PREVENT FLOTATION OR MOVEMENT OF STRUCTURES, PIPELINES AND SEWERS. IF A UPDES (UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR DISPOSAL OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES, IT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY DEWATERING ACTIVITIES.

67. ONE HUNDRED PERCENT STANDBY PUMPING CAPACITY SHALL BE AVAILABLE ON SITE AT ALL TIMES AND SHALL BE CONNECTED TO THE DEWATERING SYSTEM PIPING AS TO PERMIT IMMEDIATE USE. IN ADDITION STANDBY EQUIPMENT AND APPLIANCES FOR ALL ORDINARY EMERGENCIES, AND COMPETENT WORKMEN FOR OPERATION AND MAINTENANCE OF ALL DEWATERING EQUIPMENT SHALL BE ON SITE AT ALL TIMES. STANDBY EQUIPMENT SHALL INCLUDE EMERGENCY POWER GENERATION AND AUTOMATIC SWITCH OVER TO THE EMERGENCY GENERATOR WHEN NORMAL POWER FAILS. DEWATERING SYSTEMS SHALL NOT BE SHUT DOWN BETWEEN SHIFTS, ON HOLIDAYS, ON WEEKENDS, OR DURING WORK STOPPAGES.

SITE SAFETY AND MAINTENANCE

68. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.

69. THE CONTRACTOR AGREES THAT:

A. THEY SHALL BE RESPONSIBLE TO CLEAN THE JOB SITE AT THE END OF EACH PHASE OF WORK.

B. THEY SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL TRASH, SCRAP AND UNUSED MATERIAL AT THEIR OWN EXPENSE IN A TIMELY MANNER.

C. THEY SHALL BE RESPONSIBLE TO MAINTAIN THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.

D. THEY SHALL BE RESPONSIBLE TO KEEP MATERIALS, EQUIPMENT, AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS NOT TO DELAY THE JOB. FAILURE TO DO SO WILL RESULT IN A DEDUCTION FOR THE COST OF CLEAN UP FROM THE FINAL PAYMENT.

E. THEY SHALL BE RESPONSIBLE FOR THEIR OWN SAFETY, TRAFFIC CONTROL, PERMITS, RETESTING AND REINSPECTIONS AT THEIR OWN EXPENSE.

F. UNLESS OTHERWISE NOTED ALL EXCESS SOILS AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LAWFULLY DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.

G. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.

H. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTORS USE DURING CONSTRUCTION.

I. ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.

72. FOR ALL WORK WITHIN PUBLIC RIGHTS-OF-WAY OR EASEMENTS, THE CONTRACTOR SHALL PRESERVE THE INTEGRITY AND LOCATION OF ANY AND ALL PUBLIC UTILITIES AND PROVIDE THE NECESSARY CONSTRUCTION TRAFFIC CONTROL. CONTRACTOR SHALL, THROUGH THE ENCROACHMENT PERMIT PROCESS, VERIFY WITH THE NECESSARY REGULATORY AGENCIES, THE NEED FOR ANY TRAFFIC ROUTING PLAN. IF PLAN IS REQUIRED, CONTRACTOR SHALL PROVIDE PLAN AND RECEIVED PROPER APPROVALS PRIOR TO BEGINNING CONSTRUCTION. WORK IN EASEMENT AND/OR RIGHTS-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE REGULATORY AGENCY RESPONSIBLE FOR OPERATION AND/OR MAINTENANCE OF SAID AND/OR RIGHT-OF-WAY. ALL CONSTRUCTION WORK IN UDOT RIGHT- OF -WAY SHALL BE SUBJECT TO INSPECTION BY THE STATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT INSPECTIONS TAKE PLACE WHERE AND WHEN REQUIRED AND TO INSURE THAT ALL WORK IS COMPLETED TO UDOT STANDARDS.

SURFACE IMPROVEMENTS:

73. SUBGRADE PREPARATION: SUBGRADE SHALL BE COMPACTED TO A 95% RELATIVE C0MPACTION TO A MINIMUM DEPTH OF 6" FOR ALL ON-SITE DEVELOPMENT. ALL OFF-SITE IMPROVEMENTS ARE TO BE DONE PER APWA STANDARDS.

74. AGGREGATE SUB-BASE: AGGREGATE SUB-BASE SHALL BE GRANULAR BACKFILL BORROW. AGGREGATE SUB-BASE MATERIAL SHALL BE CLEAN AND FREE FROM VEGETABLE MATTER AND OTHER DELETERIOUS SUBSTANCE. AGGREGATE SHALL COMPLY WITH THE GUIDELINE REQUIREMENTS FOR PAVEMENTS FOUND IN THE PROFESSIONALLY PREPARED OF THE SOILS INVESTIGATIONS COMPLETED ON THIS SITE.

75. AGGREGATE BASE: AGGREGATE BASE SHALL BE GRADE 3/4 UNTREATED BASE COURSE, AND COMPLY PREPARED REPORT OF THE SOILS INVESTIGATION PREPARED ON THIS SITE.

76. ALL SIDEWALKS AND CROSSINGS TO MEET CURRENT ADA STANDARDS/ APWA STANDARDS.

77. PAYMENT FOR PAVEMENT WILL BE MADE ONLY FOR AREAS SHOWN ON PLANS. REPLACEMENT OF PAVEMENT WHICH IS BROKEN OR CUT DURING THE INSTALLATION OF THE WORK COVERED BY THESE GENERAL NOTES, AND WHICH LIES OUTSIDE OF SAID AREAS, SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE FOR PAVEMENT, AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH WORK.

78. INSTALLATION OF STREET LIGHTS SHALL BE IN ACCORDANCE WITH CITY STANDARDS.

79. PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS BUILT BY THESE PLANS AND SPECIFICATIONS THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE OWNER, CITY, AND POWER COMPANY TO HAVE THE ELECTRICAL SYSTEM AND ALL STREET LIGHTS ENERGIZED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO THE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING.

80. STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH MUTCD & APWA 32 17 23.

81. DURING THE BIDDING PROCESS, CONTRACTOR TO REVIEW DESIGN SLOPES SHOWN FOR PAVEMENT AND WARRANTY THE PAVEMENT TO THE OWNER BASED UPON THE DESIGN SLOPES SHOWN HEREON. CONCERNS WITH SLOPES MUST BE BROUGHT DURING THE BIDDING PROCESS.

82. IT IS THE INTENT ON THESE PLANS THAT ALL PAVEMENT SLOPE TO A CATCH BASIN, INLET BOX OR OUT INTO A STREET.CONTRACTOR TO VERIFY FINISH SPOT ELEVATIONS AND NOTIFY ENGINEER IF THERE ARE DISCREPANCIES THAT WOULD CAUSE PUDDLING ON THE SITE.

No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY MNJ/AGB
CHECKED BY MCP
FIELD CREW ZS/CL
DATE 7/12/2019
DWG. FILE 1902037_SITE

PROFESSIONAL ENGINEER
10/18/19
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

MILLCREEK GULLY SUBDIVISION
3675 S CRAIG CIRCLE
MILLCREEK, UT

PROJECT NO. 1902037

GEN. NOTES LEGEND & ABBREV.

SALT LAKE CITY PUBLIC UTILITIES GENERAL NOTES (WATER ONLY)

1. COMPLIANCE:
ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THESE CONTRACT DOCUMENTS AND THE MOST RECENT EDITIONS OF THE FOLLOWING: THE INTERNATIONAL PLUMBING CODE, UTAH DRINKING WATER REGULATIONS, APWA MANUAL OF STANDARD PLANS AND SPECIFICATIONS, AND SLC PUBLIC UTILITIES MODIFICATIONS TO APWA STANDARD PLANS AND APPROVED MATERIALS AND SLC PUBLIC UTILITIES APWA SPECIFICATIONS MODIFICATIONS. THE CONTRACTOR IS REQUIRED TO ADHERE TO ALL OF THE ABOVE-MENTIONED DOCUMENTS UNLESS OTHERWISE NOTED AND APPROVED IN WRITING BY THE SALT LAKE CITY DIRECTOR OF PUBLIC UTILITIES.

2. COORDINATION:
THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL APPROPRIATE GOVERNMENT AND PRIVATE ENTITIES ASSOCIATED WITH THE PROJECT. THE FOLLOWING MUST BE CONTACTED 48-HOURS PRIOR TO CONSTRUCTION AS APPLICABLE TO THE PROJECT:

PUBLIC UTILITIES:
BACKFLOW PREVENTION - 483-6795
DEVELOPMENT REVIEW ENGINEERING - 483-6781
INSPECTIONS, PERMITS, CONTRACTS & AGREEMENTS - 483-6727
PRETREATMENT - 799-4002
STORM WATER - 483-6721

SLC DEPARTMENTS:
ENGINEERING - PUBLIC WAY PERMITS AND ISSUES - 535-6248
ENGINEERING - SUBDIVISIONS - 535-6159
FIRE DEPARTMENT - 535-6636
PERMITS AND LICENSING (BLDG SERVICES) - 535-7752
PLANNING AND ZONING - 535-7700
TRANSPORTATION - 535-6630

- ALL OTHER POTENTIALLY IMPACTED GOVERNING AGENCIES OR ENTITIES
- ALL WATER USERS INVOLVED IN WATER MAIN SHUTDOWNS
- APPLICABLE SEWER, WATER AND DRAINAGE DISTRICTS
- BLUESTAKES LOCATING SERVICES - 532-5000
- COUNTY FIRE DEPARTMENT - 743-7231
- COUNTY FLOOD CONTROL - 468-2779
- COUNTY HEALTH DEPARTMENT - 385-468-3913
- COUNTY PUBLIC WAY PERMITS - 468-2241
- HOLLADAY CITY - 272-9450
- SALT LAKE COUNTY HIGHWAY DEPARTMENT - 468-3705 OR 468-2156
- THE UTAH TRANSIT AUTHORITY FOR RE-ROUTING SERVICE - 262-5626
- UNION PACIFIC RAILROAD CO., SUPERINTENDENTS OFFICE - 595-3405
- UTAH DEPARTMENT OF TRANSPORTATION, REGION #2 - 975-4800
- UTAH STATE ENGINEER - 538-7240

3. SCHEDULE
PRIOR TO CONSTRUCTION THE CONTRACTOR WILL PROVIDE, AND WILL UPDATE AS CHANGES OCCUR, A CONSTRUCTION SCHEDULE IN ACCORDANCE WITH THE SPECIFICATIONS AND SALT LAKE CITY ENGINEERING OR SALT LAKE COUNTY REGULATIONS AS APPLICABLE FOR WORKING WITHIN THE PUBLIC WAY.

4. PERMITS, FEES AND AGREEMENTS
CONTRACTOR MUST OBTAIN ALL THE NECESSARY PERMITS AND AGREEMENTS AND PAY ALL APPLICABLE FEES PRIOR TO ANY CONSTRUCTION ACTIVITIES. CONTACT SALT LAKE CITY ENGINEERING (535-6248) FOR PERMITS AND INSPECTIONS REQUIRED FOR ANY WORK CONDUCTED WITHIN SALT LAKE CITY'S PUBLIC RIGHT-OF-WAY. APPLICABLE UTILITY PERMITS MAY INCLUDE MAINLINE EXTENSION AGREEMENTS AND SERVICE CONNECTION PERMITS. ALL UTILITY WORK MUST BE BONDED. ALL CONTRACTORS MUST BE LICENSED TO WORK ON CITY UTILITY MAINS.

CONSTRUCTION SITES MUST BE IN COMPLIANCE WITH THE UTAH POLLUTION DISCHARGE ELIMINATION SYSTEM (UPDES) STORM WATER PERMIT FOR CONSTRUCTION ACTIVITIES (538-6923). A COPY OF THE PERMIT'S STORM WATER POLLUTION PREVENTION PLAN MUST BE SUBMITTED TO PUBLIC UTILITIES FOR REVIEW AND APPROVAL. ADDITIONAL WATER QUALITY AND EROSION CONTROL MEASURES MAY BE REQUIRED. THE CONTRACTOR MUST ALSO COMPLY WITH SALT LAKE CITY'S CLEAN WHEEL ORDINANCE.

5. ASPHALT AND SOIL TESTING
THE CONTRACTOR IS TO PROVIDE MARSHALL AND PROCTOR TEST DATA 24-HOURS PRIOR TO USE. CONTRACTOR IS TO PROVIDE COMPACTION AND DENSITY TESTING AS REQUIRED BY SALT LAKE CITY ENGINEERING, UDOT, SALT LAKE COUNTY OR OTHER GOVERNING ENTITY. TRENCH BACKFILL MATERIAL AND COMPACTION TESTS ARE TO BE TAKEN PER APWA STANDARD SPECIFICATIONS, SECTION 330520 - BACKFILLING TRENCHES, OR AS REQUIRED BY THE SLC PROJECT ENGINEER IF NATIVE MATERIALS ARE USED. **NO NATIVE MATERIALS ARE ALLOWED WITHIN THE PIPE ZONE.** THE MAXIMUM LIFTS FOR BACKFILLING EXCAVATIONS IS 8-INCHES. ALL MATERIALS AND COMPACTION TESTING IS TO BE PERFORMED BY A LAB RECOGNIZED AND ACCEPTED BY SALT LAKE COUNTY PUBLIC WORKS AND/OR SALT LAKE CITY ENGINEERING.

6. TRAFFIC CONTROL AND HAUL ROUTES
TRAFFIC CONTROL MUST CONFORM TO THE MOST CURRENT EDITION OF SALT LAKE CITY TRAFFIC CONTROL MANUAL - PART 6 OF "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' FOR SALT LAKE COUNTY AND STATE ROADS. SLC TRANSPORTATION MUST APPROVE ALL PROJECT HAUL ROUTES (535-7129). THE CONTRACTOR MUST ALSO CONFORM TO UDOT, SALT LAKE COUNTY OR OTHER APPLICABLE GOVERNING ENTITIES REQUIREMENTS FOR TRAFFIC CONTROL.

7. SURVEY CONTROL
CONTRACTOR MUST PROVDE A REGISTERED LAND SURVEYOR OR PERSONS UNDER SUPERVISION OF A REGISTERED LAND SURVEYOR TO SET STAKES FOR ALIGNMENT AND GRADE OF EACH MAIN AND/OR FACILITY AS APPROVED. THE STAKES SHALL BE MARKED WITH THE HORIZONTAL LOCATION (STATION) AND VERTICAL LOCATION (GRADE) WITH CUTS AND/OR FILLS TO THE GRADE OF THE MAIN AND/OR FACILITY AS APPROVED. IN ADDITION, THE CONTRACTOR AND/OR SURVEYOR SHALL PROVIDE TO SALT LAKE CITY PUBLIC UTILITIES CUT SHEETS FILLED OUT COMPLETELY AND CLEARLY SHOWING THE PERTINENT GRADES, ELEVATIONS AND CUT/FILLS ASSOCIATED WITH THE FIELD STAKING OF THE MAIN AND/OR FACILITY. THE CUT SHEET FORM IS AVAILABLE AT THE CONTRACTS AND AGREEMENTS OFFICE AT PUBLIC UTILITIES. ALL MAINS AND LATERALS NOT MEETING MINIMUM GRADE REQUIREMENTS AS SPECIFIED BY ORDINANCE OR AS REQUIRED TO MEET THE MINIMUM REQUIRED FLOWS OR AS APPROVED MUST BE REMOVED AND RECONSTRUCTED TO MEET DESIGN GRADE. THE CONTRACTOR SHALL PROTECT ALL STAKES AND MARKERS UNTIL PUBLIC UTILITY SURVEYORS COMPLETE FINAL MEASUREMENTS. THE CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING, MAINTAINING, OR RESTORING ALL MONUMENTS AND REFERENCE MARKS WITHIN THE PROJECT SITE. DEPENDING ON THE LOCATION OF THE PROJECT; CONTACT THE COUNTY SURVEYOR FOR SECTION CORNER MONUMENTS (801-468-2028) AND/OR THE SALT LAKE CITY SURVEYOR (801-535-7973) FOR SALT LAKE CITY MONUMENTS AND CONSTRUCTION REQUIREMENTS. ALL ELEVATIONS SHALL BE REFERENCED TO SALT LAKE CITY DATUM UNLESS NOTED OTHERWISE ON THE PLANS.

8. ASPHALT GUARANTEE
THE CONTRACTOR SHALL REMOVE, DISPOSE OF, FURNISH AND PLACE PERMANENT ASPHALT PER SALT LAKE CITY ENGINEERING, UDOT, COUNTY, OR OTHER GOVERNMENT STANDARDS AS APPLICABLE TO THE PROJECT. THE CONTRACTOR SHALL GUARANTEE THE ASPHALT RESTORATION FOR A PERIOD AS REQUIRED BY THE GOVERNING ENTITY.

9. TEMPORARY ASPHALT
IF THE CONTRACTOR CHOOSES TO WORK WITHIN THE PUBLIC WAY WHEN HOT MIX ASPHALT IS NOT AVAILABLE, THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE APPROPRIATE GOVERNING ENTITY PRIOR TO INSTALLING TEMPORARY ASPHALT SURFACING MATERIAL. WITHIN SALT LAKE CITY, WHEN PERMANENT ASPHALT BECOMES AVAILABLE, THE CONTRACTOR SHALL REMOVE THE TEMPORARY ASPHALT, FURNISH AND INSTALL THE PERMANENT ASPHALT. THE CONTRACTOR SHALL GUARANTEE THE ASPHALT RESTORATION FOR A PERIOD AS REQUIRED BY THE GOVERNING ENTITY FROM THE DATE OF COMPLETION.

10. SAFETY
THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF SAFETY OF THE PROJECT AND SHALL MEET ALL OSHA, STATE, COUNTY AND OTHER GOVERNING ENTITY REQUIREMENTS.

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFORMING TO LOCAL AND FEDERAL CODES GOVERNING SHORING AND BRACING OF EXCAVATIONS AND TRENCHES, AND FOR THE PROTECTION OF WORKERS.

11. DUST CONTROL
THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL ACCORDING TO THE GOVERNING ENTITY STANDARDS. USE OF HYDRANT WATER OR PUMPING FROM CITY-OWNED CANALS OR STORM DRAINAGE FACILITIES IS NOT ALLOWED FOR DUST CONTROL ACTIVITIES WITHOUT WRITTEN APPROVAL OF THE PUBLIC UTILITIES DIRECTOR.

12. DEWATERING
ALL ON-SITE DEWATERING ACTIVITIES MUST BE APPROVED IN WRITING BY PUBLIC UTILITIES. PROPOSED OUTFALL LOCATIONS AND ESTIMATED FLOW VOLUME CALCULATIONS MUST BE SUBMITTED TO PUBLIC UTILITIES FOR REVIEW AND APPROVAL. ADEQUATE MEASURES MUST BE TAKEN TO REMOVE ALL SEDIMENT PRIOR TO DISCHARGE. PUBLIC UTILITIES MAY REQUIRE ADDITIONAL MEASURES FOR SEDIMENT CONTROL AND REMOVAL.

13. PROJECT LIMITS
THE CONTRACTOR IS REQUIRED TO KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE APPROVED PROJECT LIMITS. THIS INCLUDES, BUT IS NOT LIMITED TO, VEHICLE AND EQUIPMENT STAGING, MATERIAL STORAGE AND LIMITS OF TRENCH EXCAVATION. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN PERMISSION AND/OR EASEMENTS FROM THE APPROPRIATE GOVERNING ENTITY AND/OR INDIVIDUAL PROPERTY OWNER(S) FOR WORK OR STAGING OUTSIDE OF THE PROJECT LIMITS.

14. WATER, FIRE, SANITARY SEWER AND STORM DRAINAGE UTILITIES

A. INSPECTIONS -
IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE ANY WATER, SEWER, BACKFLOW AND DRAINAGE INSPECTION 48-HOURS IN ADVANCE TO WHEN NEEDED. CONTACT 483-6727 TO SCHEDULE INSPECTIONS.

B. DAMAGE TO EXISTING UTILITIES -
THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE, CAUSED BY ANY CONDITION INCLUDING SETTLEMENT, TO EXISTING UTILITIES FROM WORK PERFORMED AT OR NEAR EXISTING UTILITIES. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT ALL EXISTING PUBLIC AND PRIVATE ROADWAY AND UTILITY FACILITIES. DAMAGE TO EXISTING FACILITIES CAUSED BY THE CONTRACTOR, MUST BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE, TO THE SATISFACTION OF THE OWNER OF SAID FACILITIES.

C. UTILITY LOCATIONS -
CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND AVOIDING ALL UTILITIES AND SERVICE LATERALS, AND FOR REPAIRING ALL DAMAGE THAT OCCURS TO THE UTILTIES DUE TO THE CONTRACTOR'S ACTIVITIES. CONTRACTOR IS TO VERIFY LOCATION, DEPTH, SIZE, MATERIAL AND OUTSIDE DIAMETERS OF UTILITIES IN THE FIELD BY POTHOLING A MINIMUM OF 300-FEET AHEAD OF SCHEDULED CONSTRUCTION IN ORDER TO IDENTIFY POTENTIAL CONFLICTS AND PROBLEMS WITH FUTURE CONSTRUCTION ACTIVITIES. EXISTING UTILITY INFORMATION OBTAINED FROM SLC PUBLIC UTILITIES' MAPS MUST BE ASSUMED AS APPROXIMATE AND REQUIRING FIELD VERIFICATION. CONTACT BLUE STAKES OR APPROPRIATE OWNER FOR COMMUNICATION LINE LOCATIONS.

D. UTILITY RELOCATIONS -
FOR UTILITY CONFLICTS REQUIRING MAINLINE RELOCATIONS, THE CONTRACTOR MUST NOTIFY THE APPLICABLE UTILITY COMPANY OR USER A MINIMUM OF 2-WEEKS IN ADVANCE. A ONE-WEEK MINIMUM NOTIFICATION IS REQUIRED FOR CONFLICTS REQUIRING THE RELOCATION OF SERVICE LATERALS. ALL RELOCATIONS ARE SUBJECT TO APPROVAL FROM THE APPLICABLE UTILITY COMPANY AND/OR USER.

E. FIELD CHANGES -
NO ROADWAY, UTILITY ALIGNMENT OR GRADE CHANGES ARE ALLOWED FROM THE APPROVED CONSTRUCTION PLANS/DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE SLC PUBLIC UTILITIES DIRECTOR. CHANGES TO HYDRANT LOCATIONS AND/OR FIRE LINES MUST BE REVIEWED AND APPROVED BY THE SALT LAKE CITY OR SALT LAKE COUNTY FIRE DEPARTMENT (AS APPLICABLE TO THE PROJECT) AND PUBLIC UTILITIES.

F. PUBLIC NOTICE TO PROJECTS IN THE PUBLIC WAY -
FOR APPROVED PROJECTS THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AND DISTRIBUTE WRITTEN NOTICE TO ALL RESIDENTS LOCATED WITHIN THE PROJECT AREA AT LEAST 72-HOURS PRIOR TO CONSTRUCTION. WORK TO BE CONDUCTED WITHIN COMMERCIAL OR INDUSTRIAL AREAS MAY REQUIRE A LONGER NOTIFICATION PERIOD AND ADDITIONAL CONTRACTOR COORDINATION WITH PROPERTY OWNERS. THE WRITTEN NOTICE IS TO BE APPROVED BY THE SLC PUBLIC UTILITIES PROJECT ENGINEER.

G. PUBLIC NOTICE FOR WATER MAIN SHUT DOWNS -
THROUGH THE SLC PUBLIC UTILITIES INSPECTOR AND WITH THE PUBLIC UTILITIES PROJECT ENGINEER APPROVAL, SLC PUBLIC UTILITIES MUST BE CONTACTED AND APPROVE ALL WATER MAIN SHUTDOWNS. ONCE APPROVED THE CONTRACTOR MUST NOTIFY ALL EFFECTED USERS BY WRITTEN NOTICE A MINIMUM OF 48-HOURS (RESIDENTIAL) AND 72-HOURS (COMMERCIAL/INDUSTRIAL) PRIOR TO THE WATER MAIN SHUT DOWN. PUBLIC UTILITIES MAY REQUIRE LONGER NOTICE PERIODS.

H. WATER AND SEWER SEPARATION -
IN ACCORDANCE WITH UTAH'S DEPARTMENT OF HEALTH REGULATIONS, A MINIMUM TEN-FOOT HORIZONTAL AND 1.5-FOOT VERTICAL (WITH WATER ON TOP) SEPARATION IS REQUIRED. IF THESE CONDITIONS CANNOT BE MET, STATE AND SLC PUBLIC UTILITIES APPROVAL IS REQUIRED. ADDITIONAL CONSTRUCTION MEASURES WILL BE REQUIRED FOR THESE CONDITIONS.

I. SALVAGE -
ALL METERS MUST BE RETURNED TO PUBLIC UTILITIES, AND AT PUBLIC UTILITIES REQUEST ALL SALVAGED PIPE AND/OR FITTINGS MUST BE RETURNED TO SLC PUBLIC UTILTIES (483-6727) LOCATED AT 1530 SOUTH WEST TEMPLE.

J. SEWER MAIN AND LATERAL CONSTRUCTION REQUIREMENTS -
SLC PUBLIC UTILITIES MUST APPROVE ALL SEWER CONNECTIONS. ALL SEWER LATERALS 6-INCHES AND SMALLER MUST WYE INTO THE MAINS PER SLC PUBLIC UTILITIES REQUIREMENTS. ALL 8-INCH AND LARGER SEWER CONNECTIONS MUST BE PETITIONED FOR AT PUBLIC UTILTIES (483-6762) AND CONNECTED AT A MANHOLE. **INSIDE DROPS IN MANHOLES ARE NOT ALLOWED.** A MINIMUM 4-FOOT BURY DEPTH IS REQUIRED ON ALL SEWER MAINS AND LATERALS. CONTRACTOR SHALL INSTALL INVERT COVERS IN ALL SEWER MANHOLES WITHIN THE PROJECT AREA.

CONTRACTOR TO PROVIDE AIR PRESSURE TESTING OF SEWER MAINS IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS AND SALT LAKE CITY PUBLIC UTILITIES REQUIREMENTS. ALL PVC SEWER MAIN AND LATERAL TESTING SHALL BE IN ACCORDANCE WITH UNI-BELL UN-B-6-98 RECOMMENDED PRACTICE FOR LOW PRESSURE AIR TESTING OF INSTALLED SEWER PIPE. CONTRACTOR SHALL PROVIDE SEWER LATERAL WATER TESTING AS REQUIRED BY THE SALT LAKE CITY PUBLIC UTILITIES PROJECT ENGINEER OR INSPECTOR. A MINIMUM OF 9-FEET OF HEAD PRESSURE IS REQUIRED AS MEASURED VERTICALLY FROM THE HIGH POINT OF THE PIPELINE AND AT OTHER LOCATIONS ALONG THE PIPELINE AS DETERMINED BY THE SLC PUBLIC UTILITIES PROJECT ENGINEER OR INSPECTOR. TESTING TIME WILL BE NO LESS THAN AS SPECIFIED FOR THE AIR TEST DURATION IN TABLE I ON PAGE 12 OF UNI-B-6-98. ALL PIPES SUBJECT TO WATER TESTING SHALL BE FULLY VISIBLE TO THE INSPECTOR DURING TESTING. TESTING MUST BE PERFORMED IN THE PRESENCE OF A SLC PUBLIC UTILITIES REPRESENTATIVE. ALL VISIBLE LEAKAGE MUST BE REPAIRED TO THE SATISFACTION OF THE SLC PUBLIC UTILITIES ENGINEER OR INSPECTOR.

K. WATER AND FIRE MAIN AND SERVICE CONSTRUCTION REQUIREMENTS -
SLC PUBLIC UTILITIES MUST APPROVE ALL FIRE AND WATER SERVICE CONNECTIONS. A MINIMUM 3-FOOT SEPARATION IS REQUIRED BETWEEN ALL WATER AND FIRE SERVICE TAPS INTO THE MAIN. ALL CONNECTIONS MUST BE MADE MEETING SLC PUBLIC UTILITIES REQUIREMENTS. A 5-FOOT MINIMUM BURY DEPTH (FINAL GRADE TO TOP OF PIPE) IS REQUIRED ON ALL WATER/FIRE LINES UNLESS OTHERWISE APPROVED BY PUBLIC UTILITIES. WATER LINE THRUST BLOCK AND RESTRAINTS ARE AS PER SLC APPROVED DETAIL DRAWINGS AND SPECIFICATIONS. ALL EXPOSED NUTS AND BOLTS WILL BE COATED WITH CHEVRON FM1 GREASE PLUS MINIMUM 8 MIL THICKNESS PLASTIC. PROVIDE STAINLESS STEEL NUTS, BOLTS AND WASHERS FOR HIGH GROUNDWATER/ SATURATED CONDITIONS AT FLANGE FITTINGS, ETC.

ALL WATERLINES INSTALLATIONS AND TESTING TO BE IN ACCORDANCE WITH AWWA SECTIONS C600, C601, C651, C206, C200, C900, C303 AWWA MANUAL M11 AND ALL OTHER APPLICABLE AWWA, UPWS, ASTM AND ANSI SPECIFICATIONS RELEVANT TO THE INSTALLATION AND COMPLETION OF THE PROJECT. AMENDMENT TO SECTION C600 SECTION 4.1.1; DOCUMENT TO READ MINIMUM TEST PRESSURE SHALL NOT BE LESS THAN 200 P.S.I. GAUGED TO A HIGH POINT OF THE PIPELINE BEING TESTED. ALL MATERIALS USED FOR WATERWORKS PROJECTS TO BE RATED FOR 150 P.S.I. MINIMUM OPERATING PRESSURE.

CONTRACTOR IS TO INSTALL WATER SERVICE LINES, METER YOKES AND/OR ASSEMBLIES AND METER BOXS WITH LIDS LOCATED AS APPROVED ON THE PLANS PER APPLICABLE PUBLIC UTILITIES DETAIL DRAWINGS. METER BOXES ARE TO BE PLACED IN THE PARK STRIPS PERPENDICULAR TO THE WATERMAIN SERVICE TAP CONNECTION. ALL WATER METERS, CATCH BASINS, CLEANOUT BOXES, MANHOLES, DOUBLE CHECK VALVE DETECTOR ASSEMBLIES, REDUCED PRESSURE DETECTOR ASSEMBLIES AND BACKFLOW PREVENTION DEVICES MUST BE LOCATED OUTSIDE OF ALL APPROACHES, DRIVEWAYS, PEDESTRIAN WALKWAYS AND OTHER TRAVELED WAYS UNLESS OTHERWISE APPROVED ON PLANS.

BACKFLOW PREVENTORS ARE REQUIRED ON ALL IRRIGATION AND FIRE SPRINKLING TAPS PER PUBLIC UTILITIES AND SLC FIRE DEPARTMENT REQUIREMENTS. CONTRACTORS SHALL INSTALL BACKFLOW PREVENTION DEVICES ON FIRE SPRINKLER CONNECTIONS. DOUBLE CHECK VALVE ASSEMBLIES SHALL BE INSTALLED ON CLASS 1, 2 AND 3 SYSTEMS. REDUCED PRESSURE PRINCIPLE VALVES SHALL BE INSTALLED ON CLASS 4 SYSTEMS. ALL FIRE SPRINKLING BACKFLOW ASSEMBLIES SHALL CONFORM TO ASSE STANDARD 1048, 1013, 1047 AND 1015. THE CONTRACTOR SHALL BE RESPONSIBLE TO PERFORM BACKFLOW PREVENTION TESTS PER SALT LAKE CITY STANDARDS AND SUBMIT RESULTS TO PUBLIC UTILITIES. ALL TESTS MUST BE PERFORMED AND SUBMITTED TO PUBLIC UTILITIES WITHIN 10 DAYS OF INSTALLATION OR WATER TURN-ON. BACKFLOW TEST FORMS ARE AVAILABLE AT PUBLIC UTILITIES' CONTRACTS AND AGREEMENTS OFFICE.

L. GENERAL WATER, SEWER AND STORM DRAIN REQUIREMENTS -
ALL WATER, FIRE AND SEWER SERVICES STUBBED TO A PROPERTY MUST BE USED OR WATER AND FIRE SERVICES MUST BE KILLED AT THE MAIN AND SEWER LATERALS CAPPED AT THE SEWER MAIN PER PUBLIC UTILITIES REQUIREMENTS. ALLOWABLE SERVICES TO BE KEPT WILL BE AS DETERMINED BY THE PUBLIC UTILITIES PROJECT ENGINEER. ALL WATER AND FIRE SERVICE KILLS AND SEWER LATERAL CAPS ARE TO BE KILLED AND CAPPED AS DETERMINED AND VISUALLY VERIFIED BY THE ON-SITE PUBLIC UTILITIES INSPECTOR.

ALL MANHOLES, HYDRANTS, VALVES, CLEAN-OUT BOXES, CATCH BASINS, METERS, ETC. MUST BE RAISED OR LOWERED TO FINAL GRADE PER PUBLIC UTILITIES STANDARDS AND INSPECTOR REQUIREMENTS. CONCRETE COLLARS MUST BE CONSTRUCTED ON ALL MANHOLES, CLEANOUT BOXES, CATCH BASINS AND VALVES PER PUBLIC UTILITIES STANDARDS. ALL MANHOLE, CATCH BASIN, OR CLEANOUT BOX CONNECTIONS MUST BE MADE WITH THE PIPE CUT FLUSH WITH THE INSIDE OF THE BOX AND GROUTED OR SEALED AS REQUIRED BY THE PUBLIC UTILITIES INSPECTOR. ALL MANHOLE, CLEANOUT BOX OR CATCH BASIN DISCONNECTIONS MUST BE REPAIRED AND GROUTED AS REQUIRED BY THE ON-SITE PUBLIC UTILITIES INSPECTOR.

CONTRACTOR SHALL NOT ALLOW ANY GROUNDWATER OR DEBRIS TO ENTER THE NEW OR EXISTING PIPE DURING CONSTRUCTION. UTILITY TRENCHING, BACKFILL, AND PIPE ZONE AS PER SLC PUBLIC UTILITIES, "UTILITY INSTALLATION DETAIL."

M. STREETLIGHTS
ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE MOST CURRENT SALT LAKE CITY STANDARDS AND N.E.C. (NATIONAL ELCTRICAL CODE. A STREET LIGHTING PLAN SHOWING WIRING LOCATION, WIRING TYPE, VOLTAGE, POWER SOURCE LOCATION, CONDUIT SIZE AND LOCATION SHALL BE SUBMITTED TO SALT LAKE CITY AND BE APPROVED PRIOR TO CONSTRUCTION. NO DEVIATION OF STREETLIGHT, PULL BOXES, CONDUITS, AND ETC. LOCATIONS SHALL BE PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM THE STREEGHT LIGHTING PROGRAM MANGER OR HIS/HER REPRESENTATIVE.

STREETLIGHT POLES SHALL NOT BE INSTALLED WITHIN 5 FEET OF A FIRE HYDRANT. THE LOCATION SHALL BE SUCH THAT IT DOES NOT HINDER THE OPERATION OF THE FIRE HYDRANT AND WATER LINE OPERATION VALVES.

STREETLIGHTS AND STREETLIGHT POLES SHALL NOT BE INSTALLED WITHIN 5 FEET FROM ANY TREE, UNLESS WRITTEN APPROVAL IS RECEIVED FROM THE STREET LIGHTING PROGRAM MANAGER. BRANCHES MAY NEED TO BE PRUNED AS DETERMINED BY THI INSPECTOR IN THE FIELD AT THE TIME OF INSTALLATION.

STREETLIGHTS SHALL NOT BE INSTALLED WITHIN 5 FEET FROM THE EDGE OF ANY DRIVEWAY

ANTI-SEIZE LUBRICANT SHALL BE USED ON ALL COVER BOLTS AND GROUND BOX BOLTS.

ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION UNLESS APPROVED IN WRITING BY THE STREET LIGHTIN PROGRAM MANAGER.

IF APPROVED PLANS REQUIRE REMOVAL OF STREETLIGHT POLES DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE POLES WHILE THEY ARE DOWN. THE POLES SHALL BE STORED IN A SECURE

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SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
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0 0.5 1

PROFESSIONAL ENGINEER
10/18/19
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
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MILLCREEK, UT

PROJECT NO. 1902037

SALT LAKE CITY GENERAL NOTES

CGN.02
3 OF 14

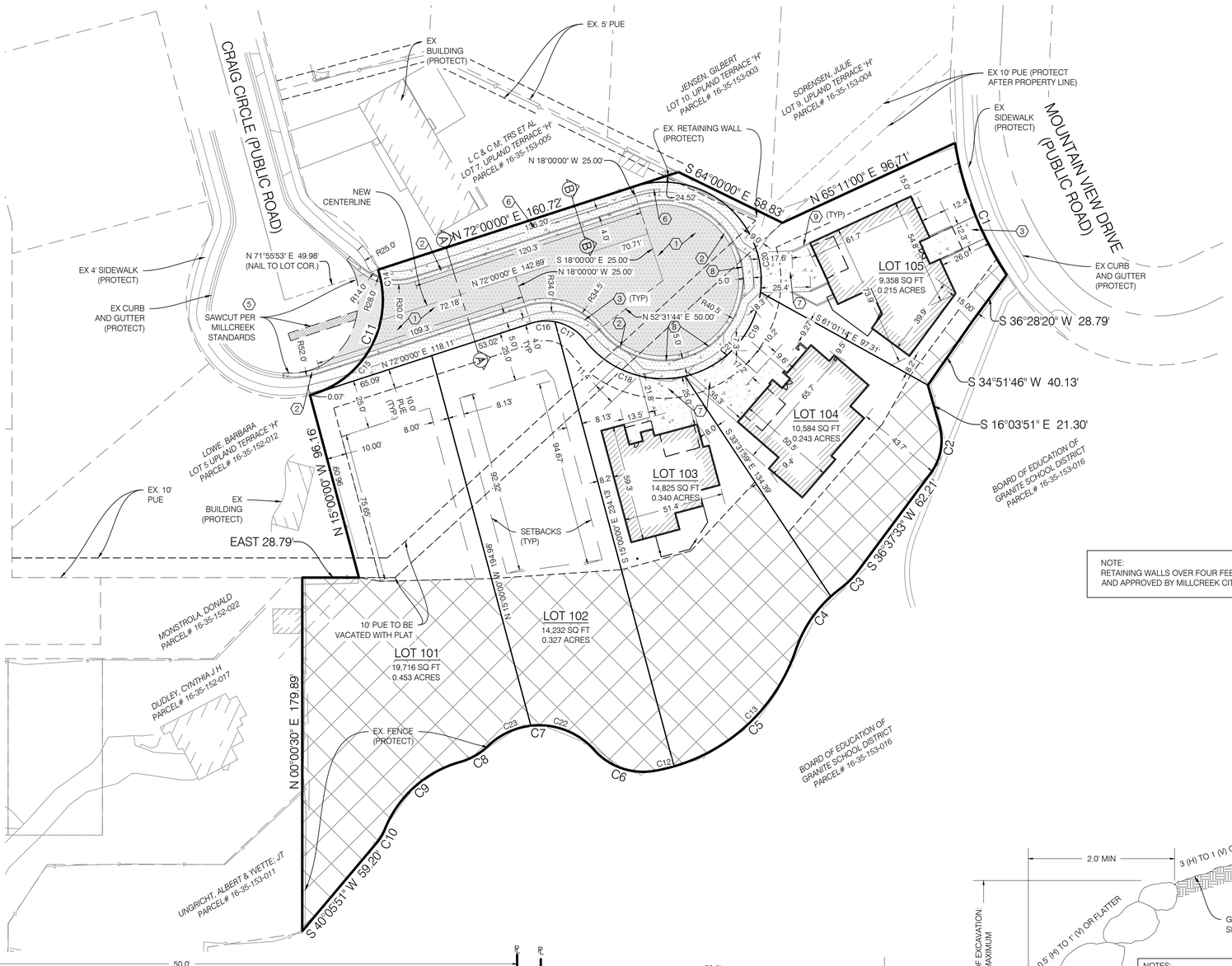
LOT 3 AREA TABLE		
PARTICULARS	S.F.	%
BUILDING	2,354	15.9
HARDSCAPE	723	4.9
LANDSCAPE	11,748	79.2
TOTAL	14,825	100

LOT 4 AREA TABLE		
PARTICULARS	S.F.	%
BUILDING	2,736	25.9
HARDSCAPE	2,739	25.9
LANDSCAPE	5,109	48.2
TOTAL	10,584	100

LOT 5 AREA TABLE		
PARTICULARS	S.F.	%
BUILDING	3,159	33.8
HARDSCAPE	1,080	11.5
LANDSCAPE	5,537	54.7
TOTAL	9,358	100

AREA TABLE		
PARTICULARS	S.F.	%
BUILDING	12,249	17.8
HARDSCAPE	5,342	7.8
LANDSCAPE	51,124	74.4
TOTAL	68,715	100

*ASSUMED 2,000 S.F. OF BUILDING AND 800 S.F. OF HARDSCAPE ON LOT 101 & 102.



NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft.

CONSTRUCTION KEY NOTES REFERENCE		
NO.	DESCRIPTION	DETAIL
1	ASPHALT PAVEMENT WITH GRANULAR BASE	4/CDT.01
2	CONCRETE CURB AND GUTTER PER MILLCREEK CITY STD. #140, NO.1	2/CDT.01
3	SIDEWALK PER MILLCREEK CITY STD. #145	3/CDT.01
4	DRIVE APPROACH PER MILLCREEK CITY STD. #125	1/CDT.01
5	SAWCUT PER MILLCREEK STANDARDS #240	2/CDT.02
6	3' ROCK PROTECTED SLOPE	C/CSP.01
7	CONCRETE PAVEMENT WITH GRANULAR BASE	4/CDT.01
8	DRIVEWAY PER MILLCREEK CITY STD #125	1/CDT.01
9	RETAINING WALL (TO BE DESIGNED BY OTHERS)	

KEY

PERMANENT NON-BUILDABLE EASEMENT & STORM DRAIN EASEMENT IN FAVOR OF LOTS 101-105

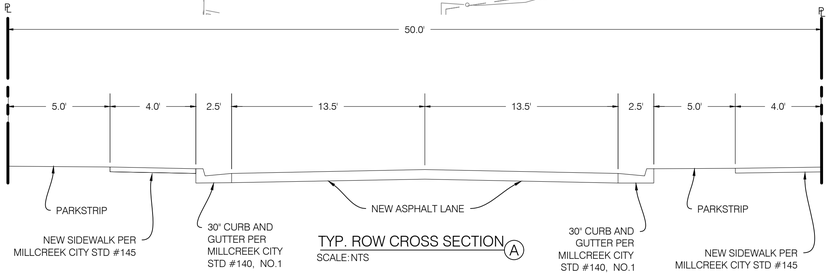
DEDICATION TO MILLCREEK CITY

NOTE: (4)
DRIVE APPROACH LOCATIONS MUST BE DETERMINED FOR LOTS 103 TO 105 BEFORE CONSTRUCTION. REFER TO MILLCREEK CITY STANDARD #125 FLARED DRIVE APPROACH DETAIL, FOR CONSTRUCTION INFORMATION.

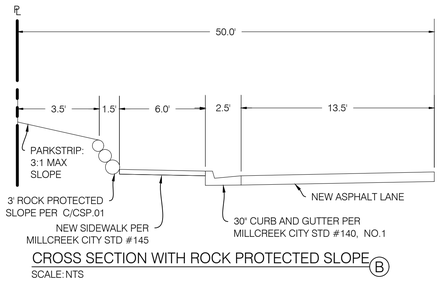
NOTE:
ALL WORK WITHIN PUBLIC ROADS TO BE DONE IN STRICT ACCORDANCE WITH MILLCREEK STANDARDS AND SPECIFICATIONS.

NOTE:
RETAINING WALLS OVER FOUR FEET MUST BE DESIGNED, SUBMITTED AND APPROVED BY MILLCREEK CITY

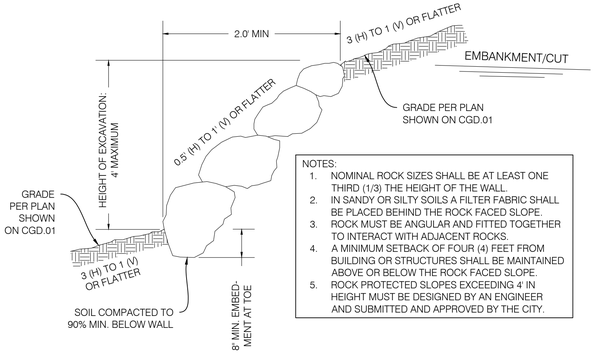
CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE
C1	72.58'	175.02'	23°45'42"	S 21°22'49" E	72.07'
C2	25.51'	27.74'	52°41'19"	S 10°16'51" W	24.62'
C3	12.72'	43.49'	16°45'06"	S 45°00'17" W	12.67'
C4	39.07'	64.38'	34°46'04"	S 35°59'54" W	38.47'
C5	99.63'	92.31'	61°50'10"	S 49°31'57" W	94.86'
C6	33.68'	33.40'	57°46'26"	N 70°39'36" W	32.27'
C7	60.32'	37.45'	92°17'24"	N 87°55'19" W	54.01'
C8	16.43'	32.88'	28°37'52"	S 60°14'34" W	16.26'
C9	53.50'	57.99'	52°51'23"	S 48°07'42" W	51.62'
C10	7.45'	23.20'	18°24'14"	S 30°53'53" W	7.42'
C11	81.16'	50.00'	93°00'01"	N 28°30'06" E	72.54'
C12	10.48'	92.31'	6°30'12"	N 77°11'56" E	10.47'
C13	89.15'	92.31'	55°19'59"	N 46°16'51" E	85.72'
C14	21.21'	50.00'	24°18'07"	N 05°50'51" W	21.05'
C15	59.95'	50.00'	68°41'54"	N 40°39'09" E	56.42'
C16	12.42'	25.00'	28°27'33"	S 86°13'47" W	12.29'
C17	18.36'	25.00'	42°04'10"	N 58°30'22" W	17.95'
C18	57.07'	50.00'	65°23'56"	S 70°10'14" E	54.02'
C19	61.19'	50.00'	70°06'57"	N 42°04'19" E	57.44'
C20	100.37'	50.00'	115°00'51"	N 50°29'35" W	84.35'
C21	218.63'	50.00'	250°31'44"	N 17°15'52" E	81.65'
C22	35.76'	37.45'	54°42'37"	N 69°07'56" W	34.42'
C23	24.56'	37.45'	37°34'47"	S 64°43'23" W	24.13'



TYP. ROW CROSS SECTION (A)
SCALE:NTS



CROSS SECTION WITH ROCK PROTECTED SLOPE (B)
SCALE:NTS



NOTES:
1. NOMINAL ROCK SIZES SHALL BE AT LEAST ONE THIRD (1/3) THE HEIGHT OF THE WALL.
2. IN SANDY OR SILTY SOILS A FILTER FABRIC SHALL BE PLACED BEHIND THE ROCK FACED SLOPE.
3. ROCK MUST BE ANGULAR AND FITTED TOGETHER TO INTERACT WITH ADJACENT ROCKS.
4. A MINIMUM SETBACK OF FOUR (4) FEET FROM BUILDING OR STRUCTURES SHALL BE MAINTAINED ABOVE OR BELOW THE ROCK FACED SLOPE.
5. ROCK PROTECTED SLOPES EXCEEDING 4' IN HEIGHT MUST BE DESIGNED BY AN ENGINEER AND SUBMITTED AND APPROVED BY THE CITY.

TYPICAL ROCK PROTECTED SLOPE (C)
SCALE:NTS

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SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
1" 0.5" 0"

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STATE OF UTAH

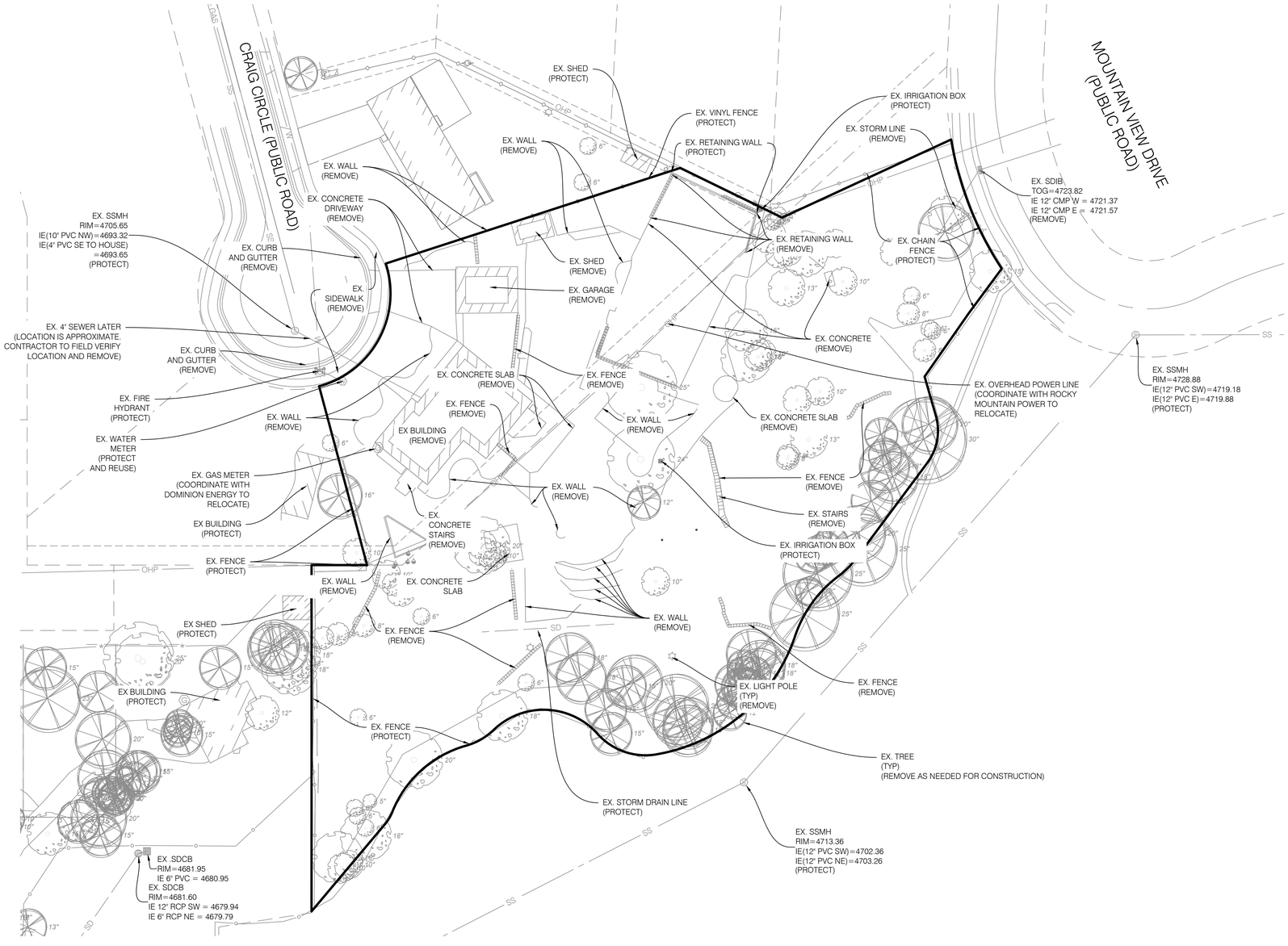
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MILLCREEK, UT

PROJECT NO. 1902037

SITE PLAN

CSP.01
4 OF 14



NORTH

GRAPHIC SCALE

30 0 15 30 60

(IN FEET)
1 inch = 30ft.

No.	DATE	DESCRIPTION
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SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
0 0.5 1

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10/18/19
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ALLISON G. ALBERTO
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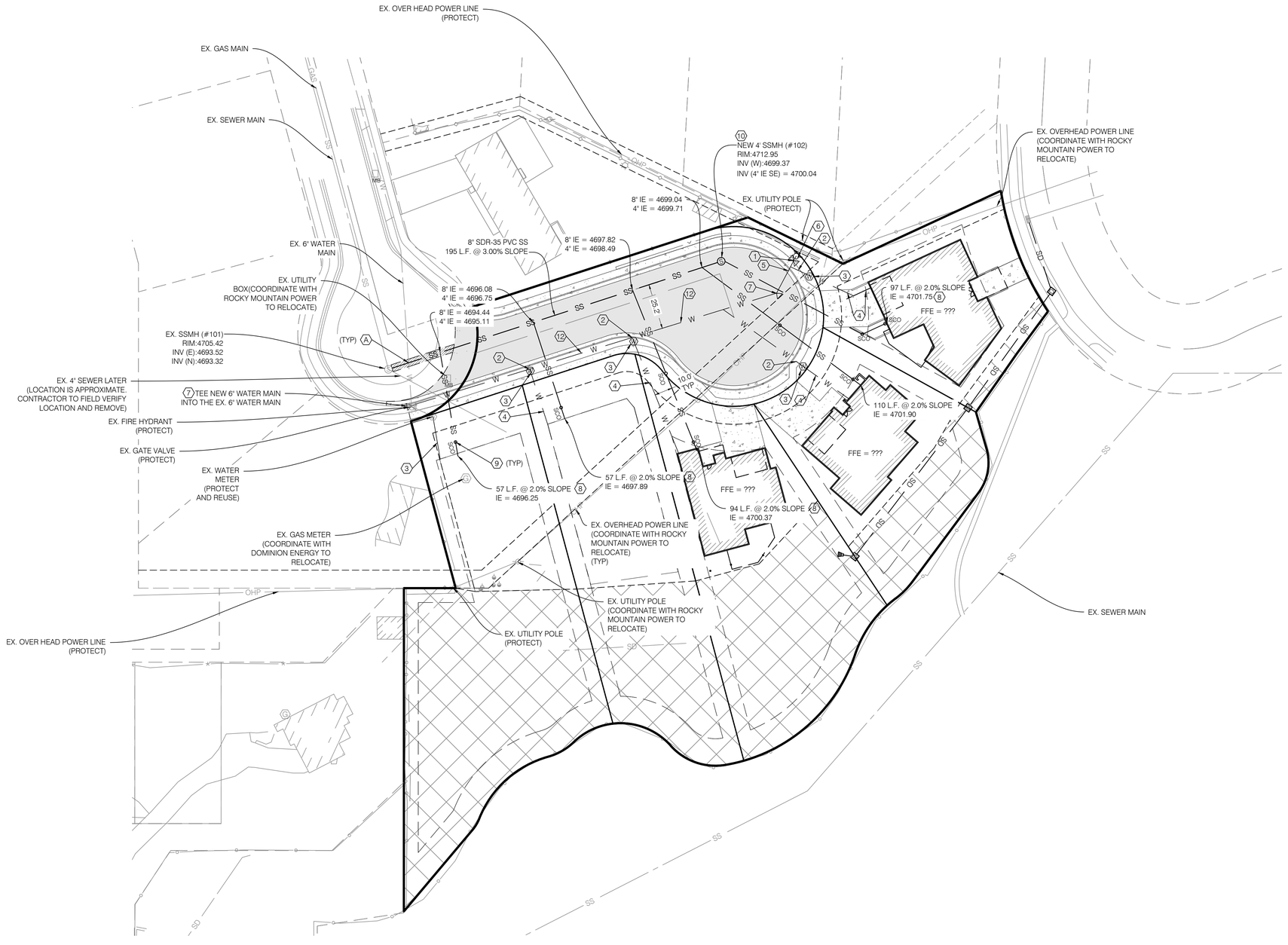
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DEMO PLAN

CDP.01
5 OF 14

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NORTH

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30 0 15 30 60

(IN FEET)
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CONSTRUCTION KEY NOTES REFERENCE		
NO.	DESCRIPTION	DETAIL
1	GATE VALVE APWA #511	
2	3/4" TYPE K COPPER WATER SERVICE LINE	
3	3/4 WATER METER & VAULT PER APWA #522	
4	3/4" POLY WATER SERVICE LINE	
5	6" PVC C-900 FIRELINE	
6	FIRE HYDRANT PER APWA #511	
7	THRUST BLOCK PER APWA #561	
8	4" PVC SDR-35 SEWER LATERAL (SLOPE @ MIN. 2.00%)	
9	SEWER CLEAN OUT PER APWA #431	
10	4' SSMH PER MOUNT OLYMPUS STDS	3/CDT.02
11	8" SDR-35 PVC SEWER MAIN	
12	6" PVC C-900 WATER MAIN	

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION AND NOTIFY ENGINEER IF THIS POINT IS HIGHER THAN SHOWN ON THE PLANS FOR A REDESIGN.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE: A
18" OF VERTICAL SEPARATION BETWEEN WATER AND SEWER PIPES IS REQUIRED.

SEWER CLEAN OUT NOTE: 9
SEWER CLEAN OUTS ARE REQUIRED EVERY 50' (MIN.) AND AT ALL BENDS.

KEY

PERMANENT NON-BUILDABLE EASEMENT & STORM DRAIN EASEMENT IN FAVOR OF LOTS 101-105

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DWG. FILE: 1902037_SITE

PROFESSIONAL ENGINEER
10/18/19
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

MILLCREEK GULLY SUBDIVISION

3675 S CRAIG CIRCLE
MILLCREEK, UT

PROJECT NO. 1902037

UTILITY PLAN

CUP.01
6 OF 14

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION AND NOTIFY ENGINEER IF THIS POINT IS HIGHER THAN SHOWN ON THE PLANS FOR A REDESIGN.

SURVEY CONTROL NOTE:
THE CONTRACTOR OR SURVEYOR PERFORMING THE CONSTRUCTION SURVEYING SHALL BE RESPONSIBLE TO PROVIDE CONSTRUCTION LAYOUT PER THE APPROVED PLANS ONLY. THE SURVEYOR SHALL ALSO BE RESPONSIBLE FOR VERIFYING HORIZONTAL CONTROL FROM THE SURVEY MONUMENTS AND FOR VERIFYING ANY ADDITIONAL CONTROL POINTS SHOWN ON THE SURVEY OR IMPROVEMENTS PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. THE SURVEYOR SHALL ALSO USE THE BENCHMARKS AS SHOWN ON THE PLAN, AND VERIFY THEM AGAINST NO LESS THAN THREE EXISTING HARD IMPROVEMENT ELEVATIONS INCLUDED ON THESE PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. IF ANY DISCREPANCIES ARE ENCOUNTERED, THE SURVEYOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND RESOLVE THE DISCREPANCIES BEFORE PROCEEDING WITH ANY CONSTRUCTION SURVEYING. IT IS ALSO THE RESPONSIBILITY OF THE SURVEYOR TO VERIFY ANY ELECTRONIC DATA WITH THE APPROVED STAMPED AND SIGNED PLANS AND NOTIFY THE ENGINEER WITH ANY DISCREPANCIES.

BENCHMARK:
WEST QUARTER CORNER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN (FOUND BRASS CAP AT INTERSECTION OF 2700 E AND MORAINE CIR.)
ELEVATION = 4675.66

NORTH

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20ft.



DRAINAGE MAP

EX. SDIB (#201)
TG: 4724.01
IE (S):4721.37
EX.IE (E):4721.57

12" Ø HDPE SD PIPE (2)
42 L.F. @ 0.50% SLOPE

NEW SDCO (#202)
TG: 4725.42 (4)
IE (N):4721.16
IE (SW):4720.96

12" Ø HDPE SD PIPE (2)
80 L.F. @ 11.01% SLOPE

NEW SDCO (#203)
TG: 4722.98 (4)
IE (NE):4712.18
IE (SW):4711.98

12" Ø HDPE SD PIPE (2)
105 L.F. @ 13.16% SLOPE

NOTE:
SAWCUT WIDTH, LOCATIONS AND TIE-IN ELEVATIONS IN EXISTING HARDSCAPE ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY LOCATION AND EXTENT OF SAWCUTTING PRIOR TO CONSTRUCTION. NOTIFY CIVIL ENGINEER IF REVISIONS ARE REQUIRED. SEE NOTE 58 ON CGN.01 FOR FURTHER DETAIL.

NEW ENERGY DISSIPATION BOX (#204)
TG: 4703.26 (4)
IE (NE):4698.29
IE (W):4698.09

12" Ø FLARED END SECTION (#205)
(3) IE (E):4698.02

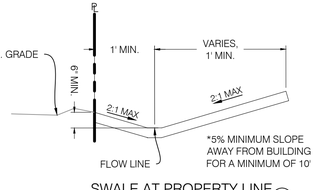
12" Ø HDPE SD PIPE (2)
7 L.F. @ 1.00% SLOPE

EX. STORM DRAIN LINE (PROTECT)

GRADING AND DRAINAGE KEY NOTES REFERENCE

NO	DESCRIPTION	DETAIL
(1)	GRADE SITE TO ELEVATIONS SHOWN ON PLAN	
(2)	15" HDPE STORM DRAIN PIPE	
(3)	15" FLARED END SECTION PER APWA #323	
(4)	NEW STORM DRAIN CLEAN OUT	1/CDT.02

DRAINAGE NARRATIVE:
EACH LOT WILL RETAIN THE STROMWATER PRODUCED FROM THEIR SITE. THE PUBLIC RIGHT-OF-WAY WILL FLOW UNRESTRICTED FROM THE NEW CURB & GUTTER TO THE EXISTING CURB & GUTTER ON CRAIG CIRCLE.



SWALE AT PROPERTY LINE (C)
SCALE:NTS

WEST QUARTER CORNER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN (FOUND BRASS CAP AT INTERSECTION OF 2700 E AND MORAINE CIR.)

SAMPLE STORM DRAINAGE CALCULATIONS
SCS CURVE NUMBER METHOD

Area Identification (A) (Drainage Area # 1)		CN	CN*A
Roof =	2,000	98	196000 S.F.
Pavement =	800	98	78400 S.F.
Landscaping =	16,916	49	828884 S.F.
Sum:	19716 S.F.	Sum:	1103284 S.F.

NOAA ATLAS 14 (100 YEAR STORM)				Allowable Discharge =	0.00 cfs
Storm Duration	Intensity	Rainfall	Rainfall Excess	Allowed Discharge	Volume to Retain
(min)	*(in/hr)*	*(inches)*	*(cu.ft.)*	*(cu.ft)*	*(cu.ft)*
1440	0.12	2.928	327	160	**167**

Req. Storage for Drainage Area #1 = **167 cf**

Drainage Area #1	167.00 cf
Drainage Area #2	59.00 cf
Drainage Area #3	23.00 cf
Drainage Area #4	44.00 cf
Drainage Area #5	97.00 cf
Drainage Area #6	34.00 cf
Drainage Area #7	151.00 cf
Drainage Area #8	0.00 cf
Drainage Area #9	0.00 cf
Drainage Area #10	114.00 cf

Discharge
Percolation rate (P) 15.00 min/in
Percolation surface area (S) 20.00 sf *
Allowed Discharge, cfs (Q) 0.002 cfs
*Assuming a 20sf percolation area per drainage area. Contact engineer for redesign if different.

No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: MNJ/AGB
DESIGNED BY: MCP
FIELD CREW: ZS/CL
DATE: 7/12/2019
DWG. FILE: 1902037_SITE

0 0.5 1

PROFESSIONAL ENGINEER
10/18/19
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

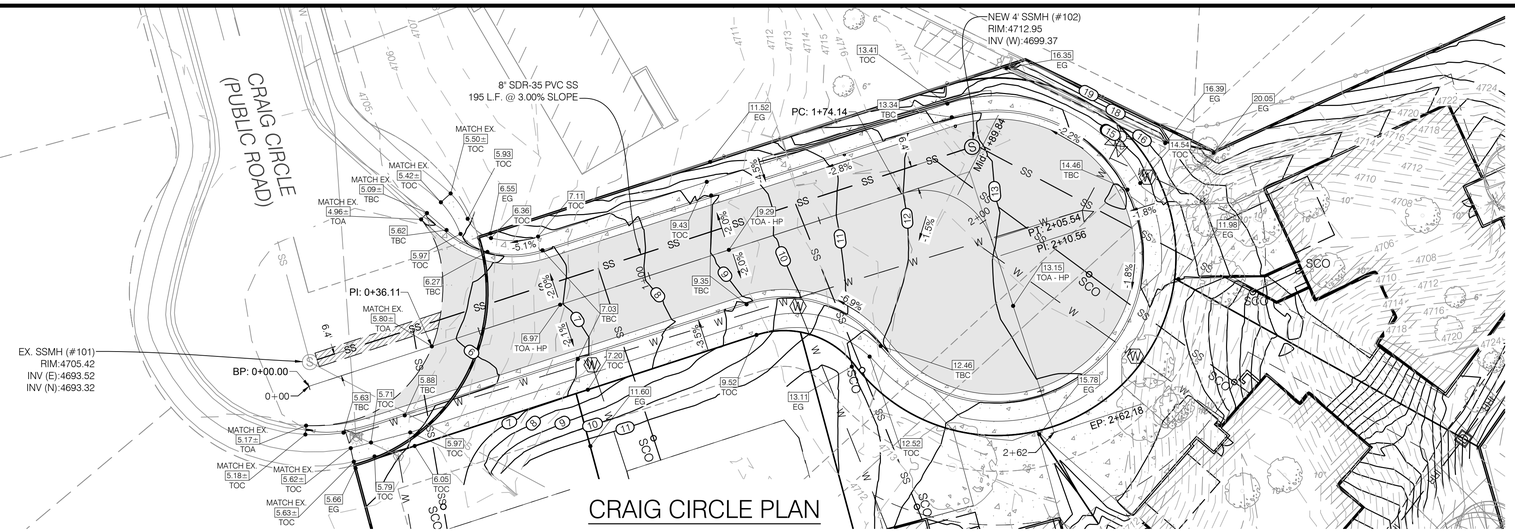
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3675 S CRAIG CIRCLE
MILLCREEK, UT

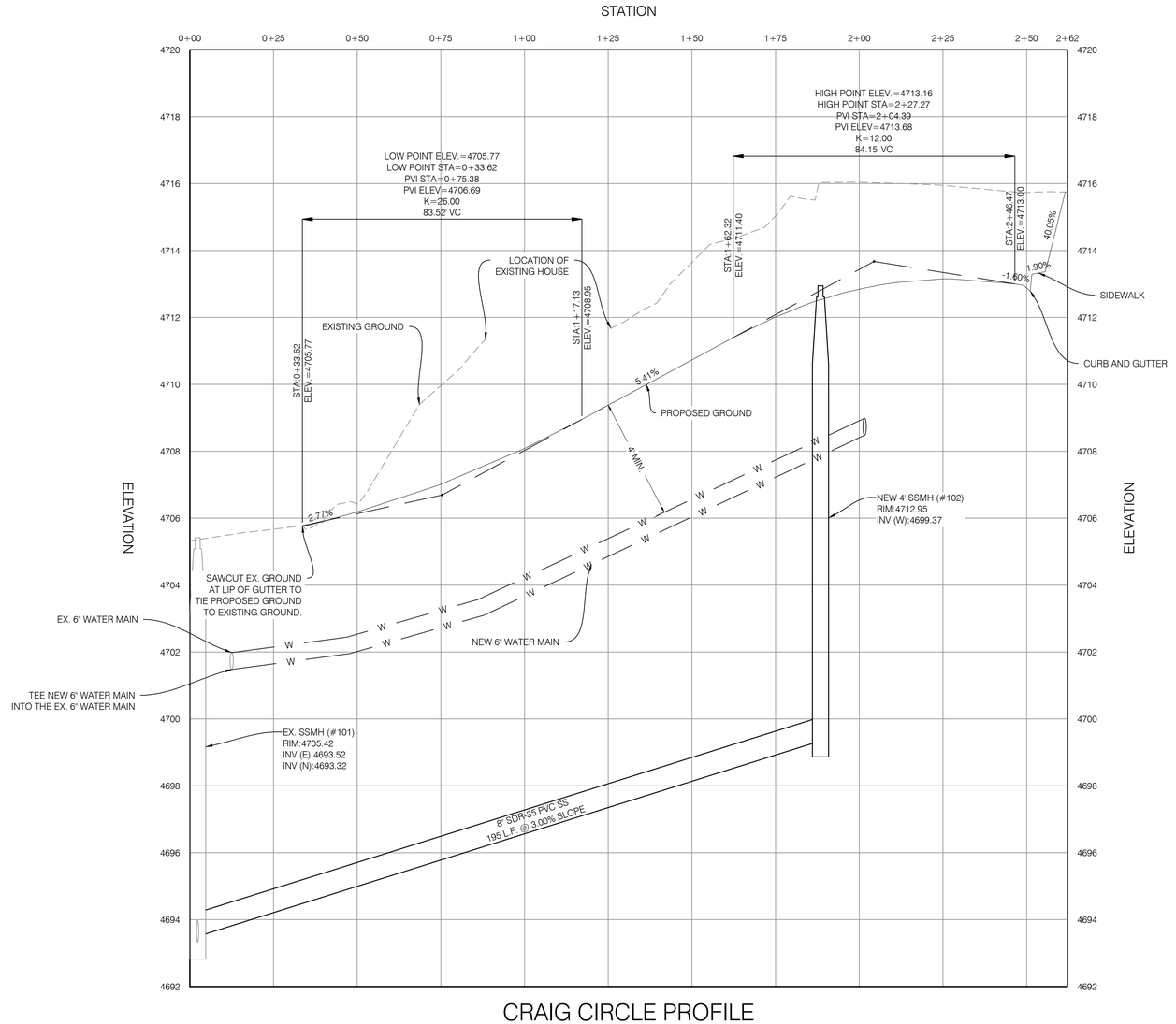
PROJECT NO. 1902037

GRADING & DRAINAGE PLAN

CGD.01
7 OF 14



CRAIG CIRCLE PLAN



CRAIG CIRCLE PROFILE

NORTH

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20ft.

No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

0 0.5 1

DRAWN BY: MNJ/AGB
DESIGNED BY: MCP
FIELD CREW: ZS/CL
DATE: 7/12/2019
DWG. FILE: 1902037_CPP.dwg

PROFESSIONAL ENGINEER
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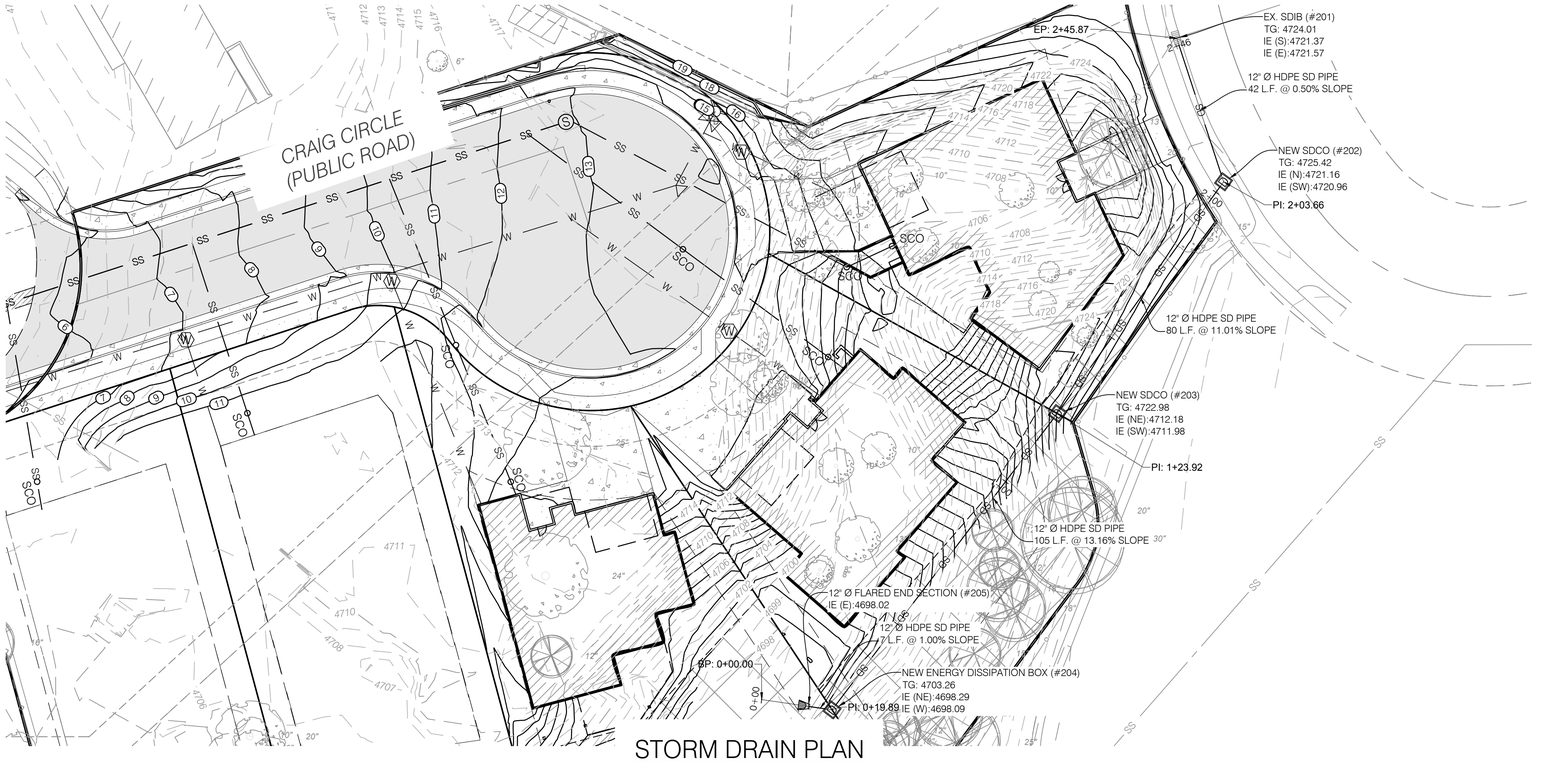
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3675 S CRAIG CIRCLE
MILLCREEK, UT

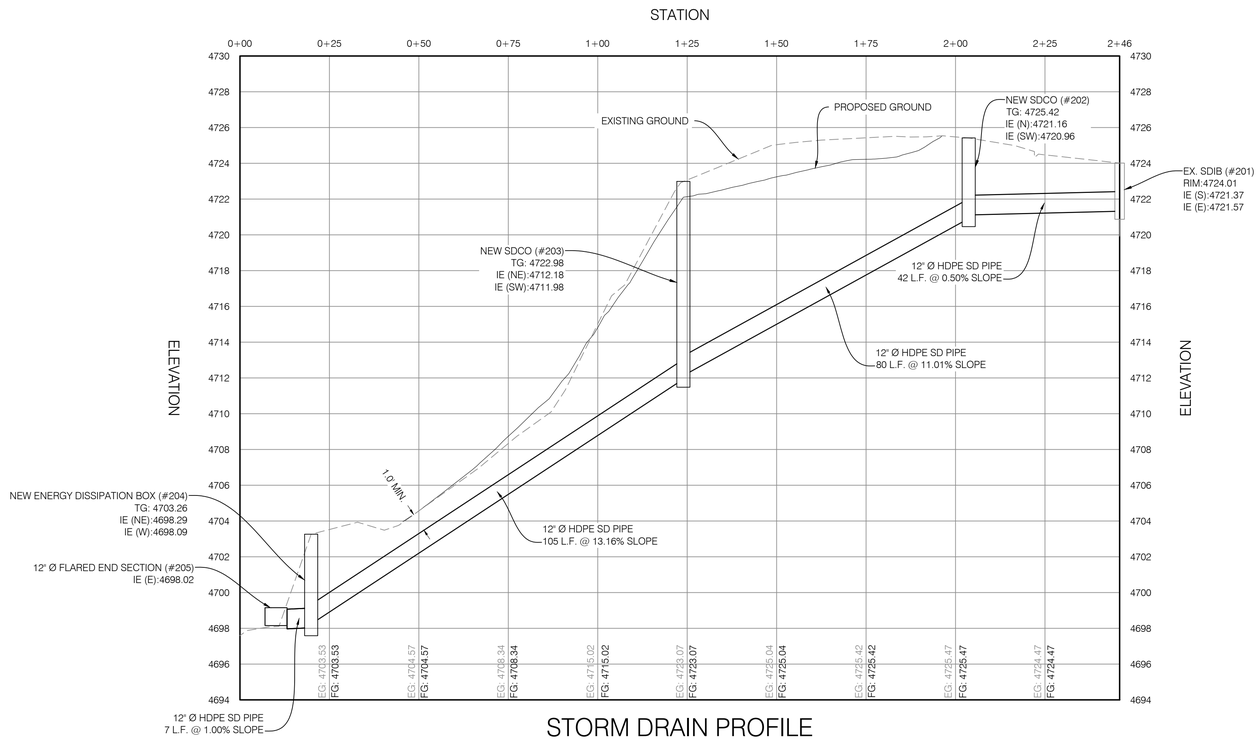
PROJECT NO. 1902037

PLAN & PROFILE

CPP.01
8 OF 14



STORM DRAIN PLAN



STORM DRAIN PROFILE

NORTH

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20ft.

No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
0 0.5 1

DRAWN BY: MNJ/AGB
DESIGNED BY: MCP
FIELD CREW: ZS/CL
DATE: 7/12/2019
DWG. FILE: 1902037_CPP.dwg

PROFESSIONAL ENGINEER
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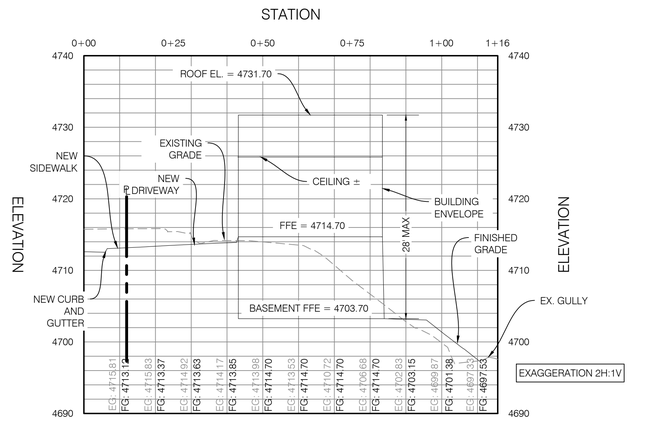
3675 S CRAIG CIRCLE
MILLCREEK, UT

PROJECT NO. 1902037

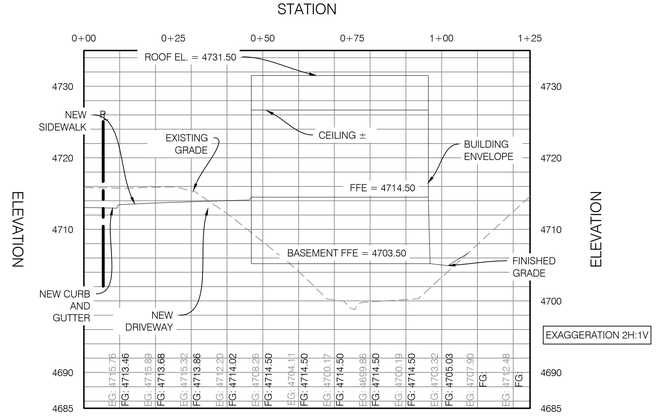
PLAN & PROFILE

CPP.02
9 OF 14

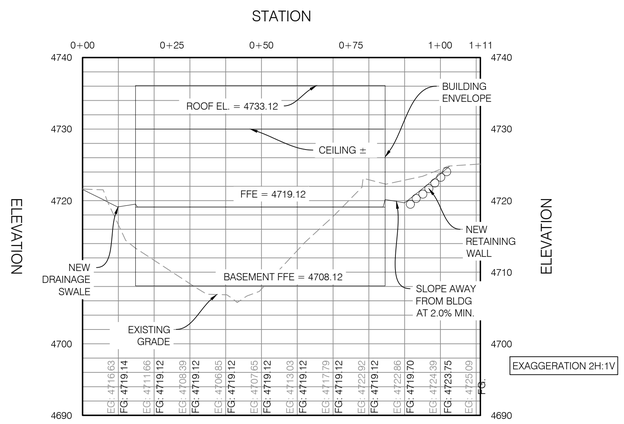




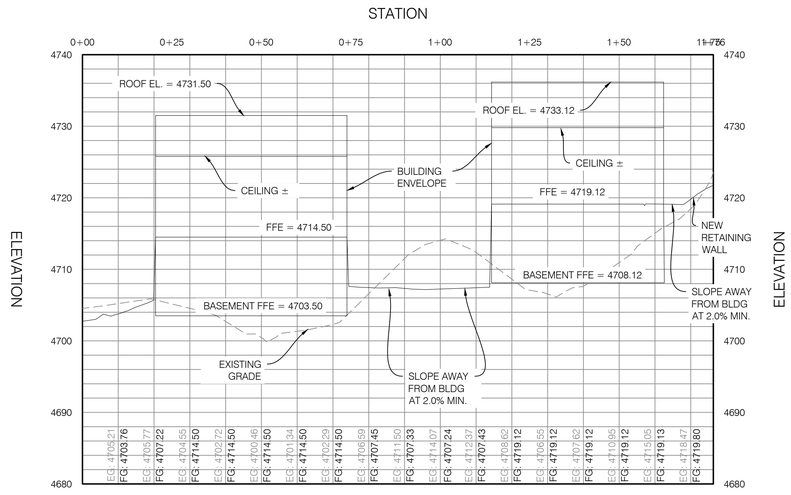
CROSS SECTION A PROFILE



CROSS SECTION B PROFILE



CROSS SECTION C PROFILE



CROSS SECTION D PROFILE

No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
0 0.5 1

DRAWN BY: MNJ/AGB
DESIGNED BY: MCP
FIELD CREW: ZS/CL
DATE: 7/12/2019
DWG. FILE: 1902037_CPP.03

10/18/19
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MILLCREEK GULLY SUBDIVISION

3675 S CRAIG CIRCLE
MILLCREEK, UT

PROJECT NO. 1902037

PLAN & PROFILE

CPP.03
10OF 14



NORTH

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20ft.

SWPPP KEY NOTES REFERENCE

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS.

NO.	DESCRIPTION	DETAIL
1	CONCRETE WASTE MANAGEMENT	1/CEP.02
2	SEDIMENT BARRIER	2/CEP.02
3	MATERIALS STORAGE	3/CEP.02
4	PORTABLE TOILETS	4/CEP.02
5	SILT FENCE	6/CEP.02
6	TEMPORARY CONSTRUCTION ENTRANCE	7/CEP.02

NOTE: CONTRACTOR SHALL INSTALL EROSION CONTROLS (SILT FENCES, STRAW BALES, ETC) AS REQUIRED BY REGULATORY AGENCIES. SAID CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH AGENCY STANDARDS AND FOLLOWING BEST MANAGEMENT PRACTICES FOR ACTUAL PLACEMENT ON SITE. STRAW BALES SHOWN ON THESE DRAWINGS ARE INTENDED AS A MINIMUM REQUIREMENT. ADDITIONAL CONTROLS REQUESTED BY AGENCY INSPECTORS SHALL BE REQUIRED. DUST CONTROL SHALL BE PROVIDED AT ALL TIMES, AT THE CONTRACTOR'S EXPENSE, TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.

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1-800-662-4111
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No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

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CHECKED BY	MCP
FIELD CREW	ZS/CL
DATE	7/12/2019
DWG. FILE	1902037_SITE

0 0.5 1

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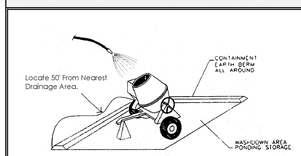
3675 S CRAIG CIRCLE
MILLCREEK, UT

PROJECT NO. 1902037

EROSION
CONTROL
PLAN

CEP.01
11OF 14

BMP: Concrete Waste Management



DESCRIPTION:
Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout off-site, performing on-site washout in a designated area, and training employees and subcontractors.

APPLICATIONS:
This technique is applicable to all types of sites.

INSTALLATION/APPLICATION CRITERIA:
- Store dry and wet materials under cover, away from drainage areas.
- Avoid mixing excess amounts of fresh concrete or cement on-site.
- Perform washout of concrete trucks off-site or in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped on-site, except in designated areas.
- When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water within a bermed or level area. (See Earth Berm Barrier information sheet.)
- Train employees and subcontractors in proper concrete waste management.

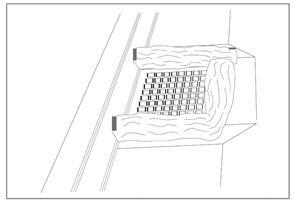
LIMITATIONS:
- Off-site washout of concrete wastes may not always be possible.

MAINTENANCE:
- Inspect subcontractors to ensure that concrete wastes are being properly managed.
- If using a temporary pit, dispose hardened concrete on a regular basis.

CONCRETE WASTE MANAGEMENT 1
SCALE: NTS

BMP: Inlet Protection – Wattle

IP-W
CONSTRUCTION



DESCRIPTION:
Sediment barrier erected around storm drain inlet.

APPLICATION:
Construct at storm drainage inlets located down-gradient of areas to be disturbed by construction.

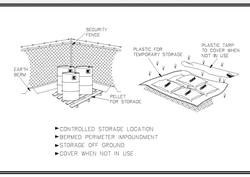
INSTALLATION/APPLICATION CRITERIA:
- Provide up-gradient sediment controls, such as silt fence during construction of inlet
- When construction of curb and gutter and roadways is complete, install gravel filled wattles around perimeter of inlet

LIMITATIONS:
- Recommended maximum contributing drainage area of one acre
- Requires shallow slopes adjacent to inlet

MAINTENANCE:
- Inspect inlet protection following storm event and at a minimum of once every 14 days.
- Remove accumulated sediment when it reaches 4 inches in depth.
- Look for bypassing or undercutting and repair or realign as needed.

INLET PROTECTION WATTLE 2
SCALE: NTS

BMP: Materials Storage



DESCRIPTION:
Controlled storage of on-site materials.

APPLICATION:
- Storage of hazardous, toxic, and all chemical substances.
- Any construction site with outside storage of materials.

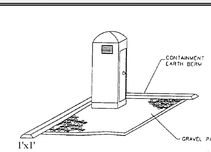
INSTALLATION/APPLICATION CRITERIA:
- Designate a secured area with limited access as the storage location. Ensure no waterways or drainage paths are nearby.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around storage location for impoundment in the case of spills.
- Ensure all on-site personnel utilize designated storage area. Do not store excessive amounts of material that will not be utilized on site.
- For active use of materials away from the storage area ensure materials are not set directly on the ground and are covered when not in use. Protect storm drainage during use.

LIMITATIONS:
- Does not prevent contamination due to mishandling of products.
- Spill Prevention and Response Plan still required.
- Only effective if materials are actively stored in controlled location.

MAINTENANCE:
- Inspect daily and repair any damage to perimeter impoundment or security fencing.
- Check materials are being correctly stored (i.e. standing upright, in labeled containers, tightly capped) and that no materials are being stored away from the designated location.

MATERIALS STORAGE 3
SCALE: NTS

BMP: Portable Toilets



DESCRIPTION:
Temporary on-site sanitary facilities for construction personnel.

APPLICATION:
All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:
- Locate portable toilets in convenient locations throughout the site.
- Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.

LIMITATIONS:
No limitations.

MAINTENANCE:
- Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- Regular waste collection should be arranged with licensed service.
- All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

PORTABLE TOILETS 4
SCALE: NTS

BMP: Spill Clean-Up



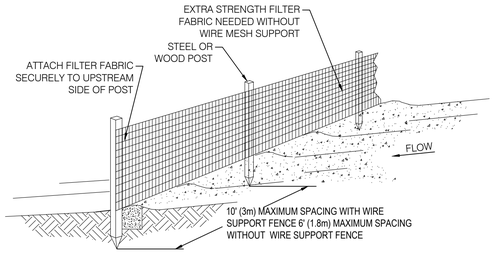
DESCRIPTION:
Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

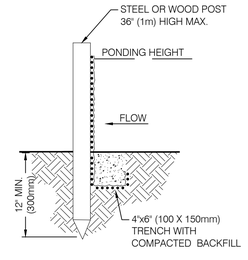
APPLICATION:
All sites

GENERAL:
- Store controlled materials within a storage area.
- Educate personnel on prevention and clean-up techniques.
- Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

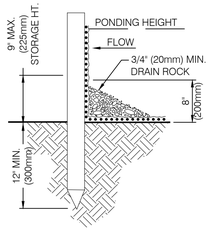
METHODS:
- Clean-up spills/leaks immediately and remediate cause.
- Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

SPILL CLEAN UP 5
SCALE: NTS





TRENCH DETAIL



INSTALLATION WITHOUT TRENCHING

NOT TO SCALE

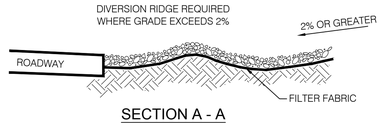
NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.

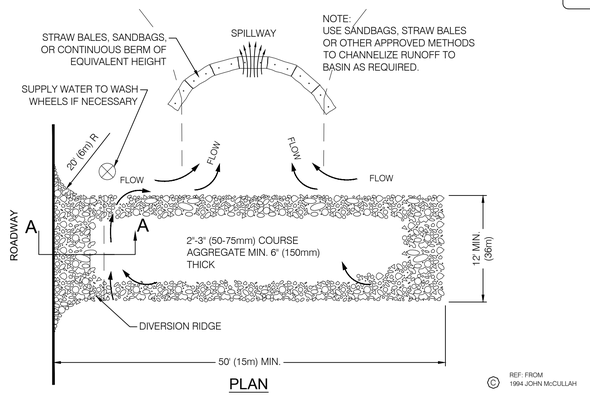
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

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SILT FENCE 6
SCALE: NTS



SECTION A - A



PLAN

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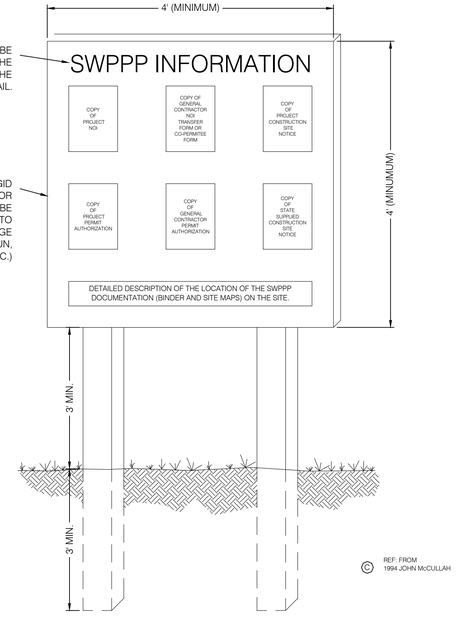
NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT 7
SCALE: NTS

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811



NOTES:
1) THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.

2) ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-TO TERMINATION (NOT) IS FILED FOR THE PERMIT.

3) CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.

4) SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.

5) CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY IF THE SWPPP INFORMATION SIGN.

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SWPPP INFORMATION SIGN 8
SCALE: NTS

No.	DATE	DESCRIPTION
1	10/19/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: MNJ/AGB
CHECKED BY: MCP
FIELD CREW: ZS/CL
DATE: 7/12/2019
DWG. FILE: 1902037 SITE

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PROFESSIONAL ENGINEER
10/9/19
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

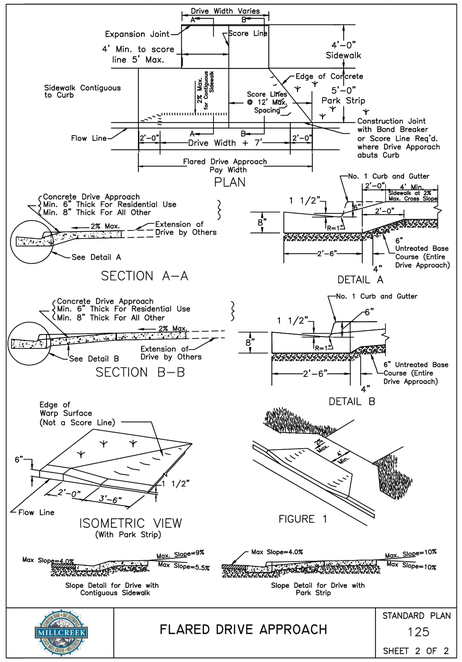
BENCHMARK CIVIL

MILLCREEK GULLY SUBDIVISION
3675 S CRAIG CIRCLE
MILLCREEK, UT

PROJECT NO. 1902037

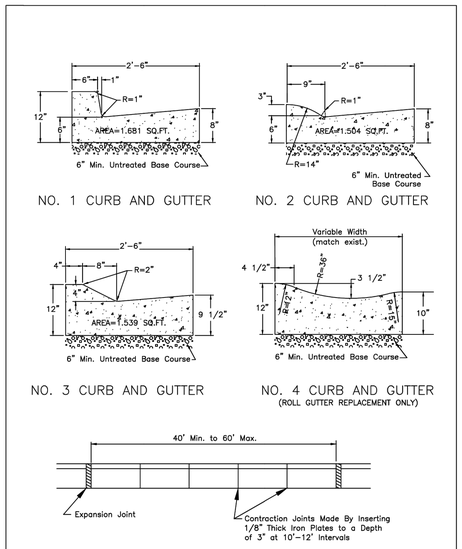
EROSION CONTROL DETAILS

CEP.02
12OF 14



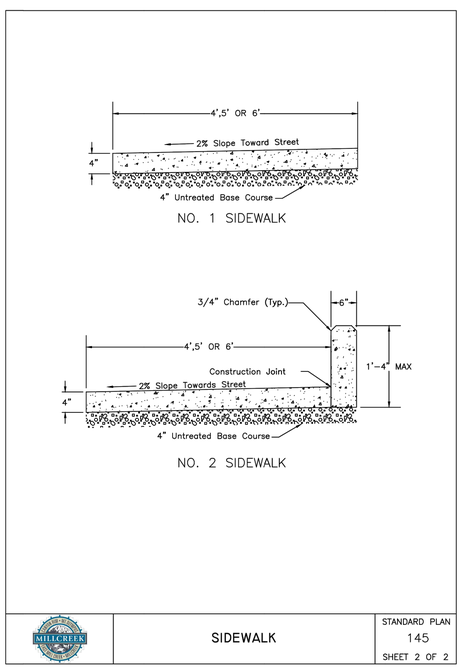
MILLCREEK	FLARED DRIVE APPROACH	STANDARD PLAN 125 SHEET 2 OF 2

FLARED DRIVE APPROACH (1)
SCALE: NTS



MILLCREEK	CURB AND GUTTER	STANDARD PLAN 140 SHEET 2 OF 2

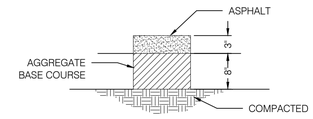
CURB AND GUTTER (2)
SCALE: NTS



MILLCREEK	SIDEWALK	STANDARD PLAN 145 SHEET 2 OF 2

SIDEWALK (3)
SCALE: NTS

ALTERNATE: STANDARD
CONCRETE 5"
GRAVEL BASE 4"



STANDARD DUTY PAVEMENT

NOTE:
1. FOR REINFORCEMENT DESIGN OF PCC PAVEMENT SECTIONS SEE STRUCTURAL ENGINEER
2. FOR DOWEL DESIGN OF PCC PAVEMENT SECTIONS SEE GEOTECHNICAL ENGINEER.

PAVEMENT SECTIONS (4)
SCALE: NTS

No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY	MNJ/AGB	DATE	7/12/2019
DESIGNED BY	MCP	FIELD CREW	ZS/CL
		DWG. FILE	1902037_STE

PROFESSIONAL ENGINEER
10/18/19
No. 11366633
ALLISON G. ALBERTY
STATE OF UTAH

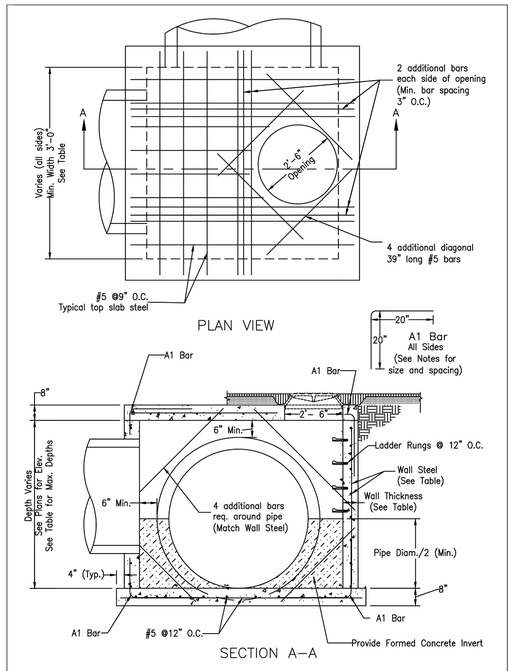
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3675 S CRAIG CIRCLE
MILLCREEK, UT

PROJECT NO. 1902037

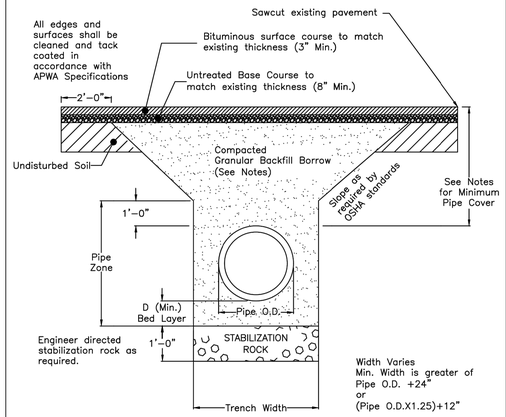
DETAIL SHEET

CDT.01
13OF 14



MILLCREEK	CLEANOUT	STANDARD PLAN 220 SHEET 2 OF 2

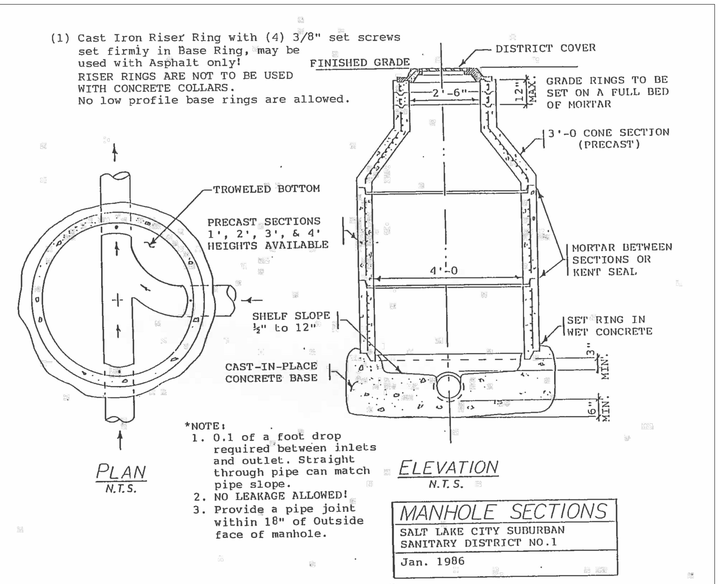
STORM DRAIN CLEAN OUT (1)
SCALE: NTS



DEPTH OF BEDDING MATERIAL BELOW PIPE	
INSIDE DIA. OF PIPE	D (MIN.)
60" OR SMALLER	4"
66" AND LARGER	6"

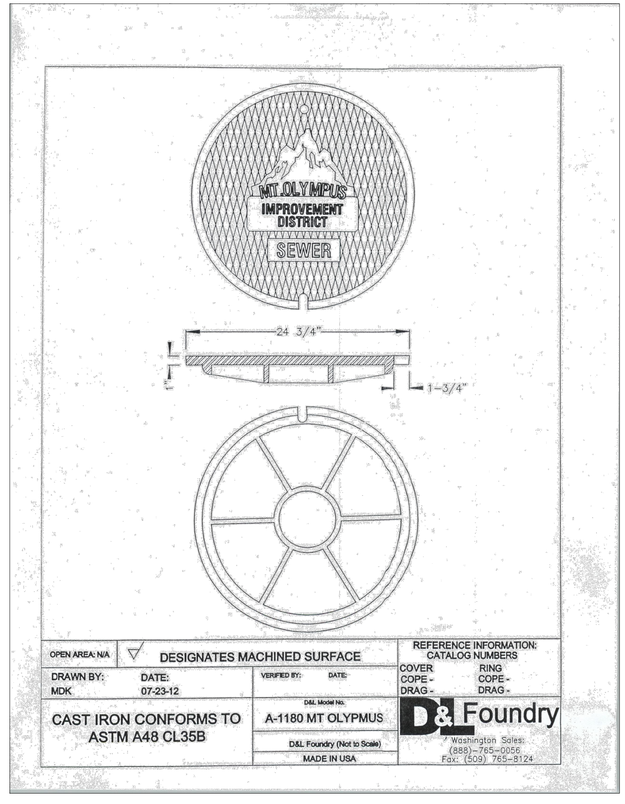
MILLCREEK	TRENCH SECTION	STANDARD PLAN 240 SHEET 2 OF 2

TRENCH SECTION (2)
SCALE: NTS



MANHOLE SECTIONS
SALT LAKE CITY SUBURBAN SANITARY DISTRICT NO.1
Jan. 1986

4' SEWER MANHOLE (3)
SCALE: NTS



No.	DATE	DESCRIPTION
1	10/18/19	REVISED PER CITY COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

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FIELD CREW: ZS/CL
DATE: 7/12/2019
DWG. FILE: 1902037.STE

PROFESSIONAL ENGINEER 10/18/19 No. 11366633 ALLISON G. ALBERT STATE OF UTAH

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MILLCREEK GULLY SUBDIVISION
3675 S CRAIG CIRCLE
MILLCREEK, UT

PROJECT NO. 1902037

DETAIL SHEET
CDT.02
14OF 14

REPORT - UPDATED #2
GEOTECHNICAL STUDY
PROPOSED CRAIG SUBDIVISION
3675 SOUTH CRAIG CIRCLE
MILLCREEK, UTAH

Submitted To:

Elevated Home Solutions, LLC
822 East New England Drive
Sandy, Utah 84005

Submitted By:

GSH Geotechnical, Inc.
473 West 4800 South
Salt Lake City, Utah 84123

October 8, 2019

Job No. 2785-001-19

October 8, 2019
Job No. 2785-001-19

Mr. Tony Tippetts
Elevated Home Solutions, LLC
822 East New England Drive
Sandy, Utah 84005

Mr. Tippetts:

Re: Report - Updated #2
Geotechnical Study
Proposed Craig Subdivision
3675 South Craig Circle
Millcreek, Utah

1. INTRODUCTION

1.1 GENERAL

This report presents the results of our updated geotechnical study performed at the site of the proposed Craig subdivision to be located at 3675 South Craig Circle in Millcreek, Utah. The general location of the site with respect to existing roadways, as of 2019, is presented on Figure 1, Vicinity Map. A more detailed layout of the site showing proposed facilities, existing roadways, and borings drilled in conjunction with this study is presented on Figure 2, Site Plan. GSH returned to the site on September 16, 2019 to excavate and sample 4 additional test pits for further analysis. This updated report contains the results of our slope stability analysis (Section 5.4, Slope Stability) along 4 cross sections which were provided as part of a 3rd party review process with Millcreek City.

1.2 OBJECTIVES AND SCOPE

The objectives and scope of the study were planned in discussions between Mr. Tony Tippetts of Elevated Home Solutions, LLC and Mr. Robert Gifford of GSH Geotechnical, Inc. (GSH).

In general, the objectives of this study were to:

1. Define and evaluate the subsurface soil and groundwater conditions across the site.

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www.gshgeo.com

2. Provide appropriate foundation, earthwork, slope stability, pavement, and geoseismic recommendations to be utilized in the design and construction of the proposed facilities.

In accomplishing these objectives, our scope has included the following:

1. A field program consisting of the drilling, logging, and sampling of 5 exploration borings and 4 test pits.

2. A laboratory testing program.

3. An office program consisting of the correlation of available data, engineering analysis, and the preparation of this summary report.

1.3 AUTHORIZATION

Authorization was provided by returning a signed copy of the Professional Services Agreement No. 19-0906 dated September 5, 2019.

1.4 PROFESSIONAL STATEMENTS

Supporting data upon which our recommendations are based are presented in subsequent sections of this report. Recommendations presented herein are governed by the physical properties of the soils encountered in the exploration borings, projected groundwater conditions, and the layout and design data discussed in Section 2, Proposed Construction. If subsurface conditions other than those described in this report are encountered and/or if design and layout changes are implemented, GSH must be informed so that our recommendations can be reviewed and amended, if necessary.

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.

2. PROPOSED CONSTRUCTION

The 0.88-acre parcel is proposed to be subdivided into 5 lots with single-family residential structures and associated pavements. The structures are anticipated to be 2 to 3 stories above grade with full- or partial-depth basements and supported over conventional spread and continuous wall footings.

Maximum real column and wall loads are anticipated to be on the order of 60 kips and 3 to 5 kips per lineal foot, respectively. Real loads are defined as the total of all dead plus frequently applied (reduced) live loads.

Paved residential roadways are planned to service the subdivision. Projected traffic for the roadways is anticipated to consist of a light volume of automobiles and light trucks and occasional medium-weight trucks and heavyweight trucks (delivery and garbage trucks).

3. SITE INVESTIGATIONS

3.1 GENERAL

Subsurface conditions in unexplored locations or at other times may vary from those encountered at specific boring and test pit locations. If such variations are noted during construction or if project development plans are changed, GSH must review the changes and amend our recommendations, if necessary.

Boring and test pit locations were established by estimating distances and angles from site landmarks. If increased accuracy is desired by the client, we recommend that the boring and test pit locations and elevations be surveyed.

3.2 FIELD PROGRAM

To define and evaluate the subsurface soil and groundwater conditions across the site, 5 borings were drilled within the accessible areas. These borings were completed to depths ranging from 2 to 16 feet with a truck-mounted drill rig equipped with hollow-stem augers and hand augering equipment (Boring B-5). Auger refusal within very dense granular soils terminated Borings B-2 through B-5. The approximate locations of the borings are presented on Figure 2. Additionally, 4 test pits were completed to depths ranging from 5 to 7 feet. Excavation refusal within the dense granular soils terminated Test Pits TP-1 through TP-3.

The field portion of our study was under the direct control and continual supervision of an experienced member of our geotechnical staff. During the course of the drilling and excavating operations, a continuous log of the subsurface conditions encountered was maintained. In addition, samples of the typical soils encountered were obtained for subsequent laboratory testing and examination. The soils were classified in the field based upon visual and textural examination. These classifications were supplemented by subsequent inspection and testing in our laboratory. Graphical representation of the subsurface conditions encountered is presented on Figures 3A through 3E, Boring Logs and Figures 5A through 5D, Test Pit Logs. Soils were classified in accordance with the nomenclature described on Figure 4, Key to Boring Log (USCS) and Figure 6, Key to Test Pit Log (USCS).

A 3.0-inch outside diameter, 2.42-inch inside diameter drive sampler (Dames & Moore) and a 2.0-inch outside diameter, 1.38-inch inside diameter drive sampler (SPT) were utilized at select locations and depths. The blow counts recorded on the boring logs were those required to drive the sampler 12 inches with a 140-pound hammer dropping 30 inches.

Following completion of excavation operations, 1.25-inch diameter slotted PVC pipe was installed in Borings B-1 through B-3 and TP-1 through TP-3 to provide a means of monitoring the groundwater fluctuations. The borings were backfilled with auger cuttings.

3.3 LABORATORY TESTING

3.3.1 General

To provide data necessary for our engineering analysis, a laboratory testing program was performed. This program included moisture, density, partial gradation, consolidation, Atterberg limits, direct shear and chemical tests. The following paragraphs describe the tests and summarize the test data.

3.3.2 Moisture and Density Tests

To provide index parameters and to correlate other test data, moisture and density tests were performed on selected samples. The results of these tests are presented on the boring logs, Figures 3A through 3E.

3.3.3 Partial Gradation Tests

To aid in classifying the granular soils, partial gradation tests were performed. Results of the tests are tabulated below and presented on the boring logs, Figures 3A through 3E, and on the test pit logs, Figured 5A through 5D.

Boring/Test Pit No.	Depth (feet)	Percent Passing No. 200 Sieve	Moisture Content Percent	Soil Classification
B-1	5.0	6.5	8.4	GP/GC
B-4	2.5	4.6	10.3	GP
TP-1	2.5	4.3	4.2	GP
TP-2	6.0	54.9	20.6	GP*
TP-3	6.0	6.6	17.7	GP/GM

*Sample contained layers of silty clay

3.3.4 Consolidation Tests

To provide data necessary for our settlement analysis, consolidation testing was performed on 2 representative samples of the natural fine-grained clay soils encountered at the site. The results of these tests indicate that the samples tested were moderately over-consolidated and will exhibit moderate strength and compressibility characteristics under the anticipated loading. Detailed results of the tests are maintained within our files and can be transmitted to you, upon your request.

3.3.5 Atterberg Limits Test

To aid in classifying the soils, an Atterberg limits test was performed on a sample of the fine-grained cohesive soils. Results of the test are tabulated below and presented on the test pit logs, Figures 5A through 3D:

Test Pit No.	Depth (feet)	Liquid Limit (percent)	Plastic Limit (percent)	Plasticity Index (percent)	Soil Classification
TP-4	6.0	29	21	8	CL

3.3.6 Direct Shear Test

A direct shear test was performed on a recompacted sample of the natural clay soil encountered in Test Pit TP-4. During the direct shear test, the sample was compacted to 90 percent of the maximum dry density, loaded, and saturated within 30 seconds after the load was applied. The results of the direct shear test are tabulated below:

Test Pit No.	Sample Depth (ft)	Unified Soils Classification	Moisture Content (percent)	Dry Density (pcf)	Apparent Cohesion (psf)	Internal Friction Angle (degrees)
TP-4	6.0	CL	26.3	90.9	115	19

3.3.7 Chemical Tests

To determine if the site soils will react detrimentally with concrete, chemical tests were performed on a representative sample of the near-surface soil encountered at the site. The results of the chemical tests are tabulated below:

Boring No.	Depth (feet)	Soil Classification	pH	Total Water Soluble Sulfate (mg/kg-dry)
B-1	2.5	CL (Fill)	7.92	73.5

4. SITE CONDITIONS

4.1 SURFACE

The 0.88-acre, irregular-shaped site is located at 3675 South Craig Circle in Millcreek, Utah. The site is currently developed with a single-family residential structure and garage, driveway, and associated landscaping. The northwest portion of the site is relatively flat with minor undulations

and slope to the east with a total relief of 6 to 8 feet. The southwest portion of the site contains a large ravine that runs from the northeast corner of the site and drains down to the southwest corner. The overall relief of the ravine is approximately 20 feet. The slopes of the ravine do not appear to exceed two-horizontal to one-vertical (2H:1V). Vegetation consists of lawn grass and landscaping areas within the vicinity of the structure that also extends into portions of the ravine, with large trees and bushes on the remaining areas of the site. A tennis court is located to the east of the existing structure.

The site is bound to the north by Craig Circle and single-family residential structures, to the east by Mountain View Drive and Upland Terrance Elementary School, to the south by athletic fields as part of the elementary school, and to the west by single-family residential structures.

4.2 SUBSURFACE SOIL

The following paragraphs provide generalized descriptions of the subsurface profiles and soil conditions encountered within the borings conducted during this study. As previously noted, soil conditions may vary in unexplored locations.

The test pits and borings were excavated/drilled to depths ranging from 2 to 16 feet. The soil conditions encountered in each of the borings and test pits, to the depths penetrated, were generally similar across the boring locations.

- Although not encountered in any of the borings, a concrete driveway and tennis court was observed on the ground surface to the east (parking) and west (tennis court) sides of the existing structure.

- Crushed gravel was encountered in Boring B-4 and Test Pits TP-1 and TP-2 to a depth of 1 foot below ground surface.

- Approximately 6 to 12 inches of topsoil was encountered in Borings B-1 through B-3 and B-5 and Test Pits TP-3 and TP-4. Topsoil thickness is frequently erratic and thicker zones of topsoil should be anticipated.

- Non-engineered fill soils were encountered in Borings B-1, B-2, and B-4 to depths ranging from 0.5 to 3 feet beneath the existing ground surface. The non-engineered fill soils consisted of clay with varying sand and gravel content and clean gravel.

- Natural soils were encountered below the non-engineered fill or the ground surface in all of the borings. The natural soils consisted primarily of gravel with varying silt, clay, sand, cobble, and boulder content, clay with varying silt and sand content, and sand with varying clay, silt, and gravel content.

- Materials causing auger refusal were encountered at all of the borings and test pits, with the exception of Boring B-1 and Test Pit TP-4, at depths ranging from 2 feet to 7 feet

below the existing ground surface. The refusal was caused by increasing density and particle size of the granular soils. The very shallow refusal depth at Boring B-5 was due to the hand-augering.

The natural clay soils were stiff, moist to saturated, light brown in color, and moderately over-consolidated. The natural clay soils are anticipated to exhibit moderate strength and compressibility characteristics under the anticipated loading.

The natural granular soils were medium dense to very dense, slightly moist to moist, and brown in color. The natural sand soils are anticipated to exhibit moderately high strength and moderately low compressibility characteristics under the anticipated load range.

For a more descriptive interpretation of subsurface conditions, please refer to Figures 3A through 3E, Boring Logs. The lines designating the interface between soil types on the boring logs generally represent approximate boundaries. In situ, the transition between soil types may be gradual.

4.3 GROUNDWATER

On March 11 and September 24, 2019, groundwater was measured within the PVC pipes installed as tabulated below:

Boring/Test Pit No.	Groundwater Depth (feet)	
	March 11, 2019	September 24, 2019
B-1	13.7	15.2
B-2	NGWE	NM
B-3	NGWE	NM
TP-1	NA	6.9
TP-2	NA	1.5
TP-3	NA	1.0

* NGWE = No Groundwater Encountered

The groundwater encountered in Boring B-1 may be a “perched” groundwater condition. “Perched” groundwater conditions can typically occur during the spring and summer months. Recommendations for groundwater will be presented in Section 5.3.1, Foundation Subdrains.

Groundwater levels vary with changes in season and rainfall, construction activity, irrigation, snow melt, surface water run-off, and other site-specific factors.

5. DISCUSSIONS AND RECOMMENDATIONS

5.1 SUMMARY OF FINDINGS

The proposed structures may be supported upon conventional spread and continuous wall foundations supported upon suitable natural soils and/or structural fill extending to suitable natural soils.

The most significant geotechnical aspects at the site are:

1. The existing structures and utilities on the site that are to be demolished/relocated.

2. The existing non-engineered fills across some areas of the site.

3. The shallow depth to groundwater in Test Pits TP-2 and TP-3 and the potential for "perched" groundwater.

4. The shallow depth to auger/excavator refusal in Borings B-2 through B-5 and Test Pits TP-1 through TP-3.

Prior to proceeding with construction, demolition and removal of the existing structures, slabs, foundations, pavements, associated debris, surface vegetation, root systems, topsoil, non-engineered fills, and any deleterious materials from beneath an area extending out at least 5 feet from the perimeter of the proposed structure footprint and 3 feet beyond pavements and exterior flatwork areas will be required. All existing utility locations should be reviewed to assess their impact on the proposed construction and abandoned and/or relocated as appropriate.

Due to the developed nature of this site and the surrounding area, additional non-engineered fills may exist in unexplored areas of the site. Based on our experience, non-engineered fills are frequently erratic in composition and consistency. All surficial loose/disturbed soils and non-engineered fills must be removed below all footings, floor slabs, and pavements. The in situ, non-engineered fills may remain below flexible pavements if free of any deleterious materials, of limited thickness, and if properly prepared, as discussed later in this report.

Some of the on-site non-engineered fill soils encountered were granular. On-site granular soils, including existing non-engineered fills, may be re-utilized as structural site grading fill if they meet the criteria for such, as stated later in this report.

Groundwater was measured as shallow at 1 foot within the test pits. Additionally, potentially "perched" groundwater was measured as shallow as 13.7 feet below the ground surface in Boring B-1. Due to the varying topography of the site and the potential cuts for basement excavations extending to similar levels, GSH recommends placing floor slabs no closer than 1.5 feet from the highest groundwater elevation and installing a foundation subdrain system for any habitable subgrade levels. Foundation subdrain recommendations are discussed in Section 5.3.1, Subdrains.

The dense natural soils at the refusal depths may require significant effort to excavate and should be considered in the design and bidding process.

Detailed discussions pertaining to earthwork, foundations, pavements, and the geoseismic setting of the site are presented in the following sections.

5.2 EARTHWORK

5.2.1 Site Preparation

Initial site preparation will consist of the demolition and removal of the existing structures, slabs, foundations, pavements, associated debris, non-engineered fills, surface vegetation, root systems, topsoil, and any deleterious materials from beneath an area extending out at least 5 feet from the perimeter of the proposed structure footprint and 3 feet beyond pavements and exterior flatwork areas. All existing utility locations should be reviewed to assess their impact on the proposed construction and abandoned and/or relocated as appropriate.

Subsequent to stripping and prior to the placement of floor slabs, foundations, structural site grading fills, exterior flatwork, and pavements, the exposed subgrade must be proof rolled by passing moderate-weight rubber tire-mounted construction equipment over the surface at least twice. If excessively soft or otherwise unsuitable soils are encountered beneath footings, they must be completely removed. If removal depth required is greater than 2 feet below footings, GSH must be notified to provide further recommendations. In pavement, floor slab, and outside flatwork areas, unsuitable natural soils should be removed to a maximum depth of 2 feet and replaced with compacted granular structural fill.

Subgrade preparation, as described, must be completed prior to placing overlying structural site grading fills.

GSH must be notified prior to the placement of structural site grading fills, floor slabs, footings, and pavements to verify that all loose/disturbed soils and non-engineered fills have been completely removed and/or properly prepared.

5.2.2 Temporary Excavations

Temporary excavations up to 8 feet deep in fine-grained cohesive soils, above or below the water table, may be constructed with sideslopes no steeper than one-half horizontal to one vertical (0.5H:1.0V). Excavations deeper than 8 feet are not anticipated at the site.

For granular (cohesionless) soils, construction excavations above the water table, not exceeding 4 feet, should be no steeper than one-half horizontal to one vertical (0.5H:1.0V). For excavations up to 8 feet, in granular soils and above the water table, the slopes should be no steeper than one horizontal to one vertical (1H:1V). Static groundwater was encountered as shallow as 1 foot below

the ground surface and potentially "perched" groundwater was encountered as shallow as 13.7 feet below the existing surface and may be shallower with seasonal fluctuations. Excavations encountering saturated cohesionless soils will be very difficult and will require very flat sideslopes and/or shoring, bracing, and dewatering.

Due to the relatively shallow excavation refusal depths, difficult excavation and large boulders should be anticipated within deeper excavations, such as those for construction of utilities basements.

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

5.2.3 Structural Fill

Structural fill is defined as all fill which will ultimately be subjected to structural loadings, such as imposed by footings, floor slabs, pavements, etc. Structural fill will be required as backfill over foundations and utilities, as site grading fill, and as replacement fill below footings. All structural fill must be free of surface vegetation, root systems, rubbish, topsoil, frozen soil, and other deleterious materials.

Structural site grading fill is defined as structural fill placed over relatively large open areas to raise the overall grade. For structural site grading fill, the maximum particle size shall not exceed 4 inches; although, occasional larger particles, not exceeding 8 inches in diameter, may be incorporated if placed randomly in a manner such that "honeycombing" does not occur and the desired degree of compaction can be achieved. The maximum particle size within structural fill placed within confined areas shall be restricted to 2 inches.

On-site granular soils, including existing non-engineered fills, may be re-utilized as structural site grading fill if they do not contain construction debris or deleterious material and meet the requirements of structural fill. Fine-grained soils will require very close moisture control and may be very difficult, if not impossible, to properly place and compact during wet and cold periods of the year.

Imported structural fill below foundations and floor slabs shall consist of a well graded sand and gravel mixture with less than 30 percent retained on the three-quarter-inch sieve and less than 20 percent passing the No. 200 Sieve (clays and silts).

To stabilize soft subgrade conditions (if encountered) or where structural fill is required to be placed closer than 2.0 feet above the water table at the time of construction, a mixture of coarse angular gravels and cobbles and/or 1.5- to 2.0-inch gravel (stabilizing fill) should be utilized. It may also help to utilize a stabilization fabric, such as Mirafi 600X or equivalent, placed on the natural ground if 1.5- to 2.0-inch gravel is used as stabilizing fill.

5.2.4 Fill Placement and Compaction

All structural fill shall be placed in lifts not exceeding 8 inches in loose thickness. Structural fills shall be compacted in accordance with the percent of the maximum dry density as determined by the AASHTO[1] T180 (ASTM[2] D1557) compaction criteria in accordance with the following table:

Location	Total Fill Thickness (feet)	Minimum Percentage of Maximum Dry Density
Beneath an area extending at least 5 feet beyond the perimeter of the structures	0 to 10	95
	10 to 20	98
Site grading fills outside area defined above	0 to 5	90
Site grading fills outside area defined above	5 to 10	95
Utility trenches within structural areas	--	96
Road base	--	96

Structural fills greater than 20 feet thick are not anticipated at the site.

Subsequent to stripping and prior to the placement of structural site grading fill, the subgrade shall be prepared as discussed in Section 5.2.1, Site Preparation, of this report. In confined areas, subgrade preparation should consist of the removal of all loose or disturbed soils.

Coarse angular gravel and cobble mixtures (stabilizing fill), if utilized, shall be end dumped, spread to a maximum loose lift thickness of 15 inches, and compacted by dropping a backhoe bucket onto the surface continuously at least twice. As an alternative, the stabilizing fill may be compacted by passing moderately heavy construction equipment or large self-propelled compaction equipment at least twice. Subsequent fill material placed over the coarse gravels and cobbles shall be adequately compacted so that the "fines" are "worked into" the voids in the underlying coarser gravels and cobbles. Where soil fill materials are to be placed directly over more than about 18 inches of clean gravel, a separation geofabric, such as Mirafi 140N or equivalent, is recommended to be placed between the gravel and subsequent soil fills.

Non-structural fill may be placed in lifts not exceeding 12 inches in loose thickness and compacted by passing construction, spreading, or hauling equipment over the surface at least twice.

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1 American Association of State Highway and Transportation Officials
2 American Society for Testing and Materials

5.2.5 Utility Trenches

All utility trench backfill material below structurally loaded facilities (footings, floor slabs, flatwork, pavements, etc.) shall be placed at the same density requirements established for structural fill. If the surface of the backfill becomes disturbed during the course of construction, the backfill shall be proof rolled and/or properly compacted prior to the construction of any exterior flatwork over a backfilled trench. Proof rolling shall be performed by passing moderately loaded rubber tire-mounted construction equipment uniformly over the surface at least twice. If excessively loose or soft areas are encountered during proof rolling, they shall be removed to a maximum depth of 2 feet below design finish grade and replaced with structural fill.

Many utility companies and City-County governments are now requiring that Type A-1a or A-1b (AASHTO Designation – granular soils with limited fines) soils be used as backfill over utilities. These organizations are also requiring that in public roadways, the backfill over major utilities be compacted over the full depth of fill to at least 96 percent of the maximum dry density as determined by the AASHTO T180 (ASTM D1557) method of compaction. GSH recommends that as the major utilities continue onto the site that these compaction specifications are followed.

Fine-grained soils, such as silts and clays, are not recommended for utility trench backfill in structural areas.

Static groundwater was encountered as shallow as 1 foot below the ground surface and potentially "perched" groundwater table was encountered as shallow as 13.7 feet below the existing surface and may be shallower with seasonal fluctuations. Dewatering of utility trenches and other excavations below this level should be anticipated.

Due to the relatively shallow excavation refusal depths, difficult excavation should be anticipated within deeper excavations such as those for construction of utilities.

5.3 GROUNDWATER

On March 11 and September 24, 2019, groundwater was measured within the PVC pipes installed as tabulated on the following page.

Boring/Test Pit No.	Groundwater Depth (feet)	
	March 11, 2019	September 24, 2019
B-1	13.7	15.2
B-2	NGWE	NM
B-3	NGWE	NM
TP-1	NA	6.9
TP-2	NA	1.5
TP-3	NA	1.0

* NGWE = No Groundwater Encountered

Groundwater was encountered as shallow as 1 foot below the ground surface and potentially "perched" groundwater was encountered at a depth of 13.7 feet in Boring B-1. "Perched" groundwater conditions typically occur in this area during the spring and summer months. GSH recommends placing floor slabs no closer than 4 feet from the groundwater elevation, or 1.5 feet if a foundation subdrain system is implemented. Recommendations for groundwater is be presented in Section 5.3.1, Foundation Subdrains.

The groundwater measurements presented are conditions at the time of the field exploration and may not be representative of other times or locations. Groundwater levels may vary seasonally and with precipitation, as well as other factors including irrigation. Evaluation of these factors is beyond the scope of this study. Groundwater levels may, therefore, be at shallower or deeper depths than those measured during this study, including during construction and over the life of the structure.

The extent and nature of any dewatering required during construction will be dependent on the actual groundwater conditions prevalent at the time of construction and the effectiveness of construction drainage to prevent run-off into open excavations.

5.3.1 Foundation Subdrains

Due to the shallow groundwater within the test pits and the potential for "perched" groundwater levels, especially during the spring and early summer months, we recommend the installation of foundation subdrains around all habitable subgrade levels.

Foundation subdrains should consist of a 4-inch diameter perforated or slotted plastic or PVC pipe enclosed in clean gravel comprised of three-quarter to 1-inch minus gap-graded gravel and/or "pea" gravel. The invert of a subdrain should be at least 18 inches below the top of the lowest adjacent habitable floor slab. The gravel portion of the drain should extend 2 inches laterally and below the perforated pipe and at least 1 foot above the top of the lowest adjacent floor slab. The

gravel zone must be installed immediately adjacent to the perimeter footings and the foundation walls. To reduce the possibility of plugging, the gravel must be wrapped with a geotextile, such as Mirafi 140N or equivalent.

Above the foundation subdrain, a minimum 4-inch-wide zone of "free-draining" sand or gravel (chimney) should be placed adjacent to the foundation walls and extend to within 2 feet of final grade. The sand/gravel fill must be separated from adjacent native or backfill soils with geotextile fabric (Mirafi 140N or equivalent). The upper 2 feet of soils should consist of a compacted clayey soil cap to reduce surface water infiltration into the drain. As an alternative to the zone of permeable sand and gravel, a prefabricated "drainage board," such as Miradrain or equivalent, may be placed against the exterior below-grade walls. Prior to the installation of the footing subdrain, the below-grade walls should be waterproofed if adjacent to habitable areas and dampproofed if adjacent to parking or mechanical room areas. The slope of the subdrain should be at least 0.3 percent. The foundation subdrains shall be discharged into area subdrains, storm drains, or other suitable down-gradient location (see attached Figure 7, Typical Foundation/Chimney Subdrain Detail 18").

5.4 SLOPE STABILITY

Figure 2, Site Plan depicts the locations of the cross sections (*A-A'*, *B-B'*, *C-C'*, and *D-D'*) utilized in the slope stability analysis. The cross sections are presented as Figures 8 through 15. The cross sections illustrate slope gradients and projected soil, and groundwater conditions to be used in our slope global slope stability analysis calculations and are presented in Section 5.4.2, Stability Analyses of this report.

5.4.1 Parameters

The shear strength values for the soils at this site were determined using the results of the direct shear test discussed above and our experience with similar soils. The results of our direct shear testing indicate the silty clay soil at the site has an internal friction angle of 19 degrees and an apparent cohesion of 250 pounds per square foot (psf). For short term (pseudostatic) analysis, GSH used a cohesion of 1,500 psf for the silty clay soils. Additionally, we estimated the parameters below for use in the stability analyses.

Material	Internal Friction Angle (degrees)	Apparent Cohesion (psf)	Saturated Unit Weight (pcf)
Sandy Gravel	36	40	140
Silty Clay	19	250	120
Boulder Wall	0	4,000	150
Concrete Foundations	0	10,000	150

GSH used a peak horizontal ground acceleration of 0.564*g* which was obtained for site (grid) locations of 40.6910 degrees latitude (north) and -111.8131 degrees longitude (west). Two-thirds of this value, 0.376, was used as the pseudostatic coefficient in the seismic analyses.

5.4.2 Stability Analyses

Using these input parameters, we performed our stability analyses using the computer program *SLIDE*. This program uses a limit equilibrium (Simplified Bishop) method for calculating factors of safety against sliding on an assumed failure surface and evaluates numerous potential failure surfaces, with the most critical failure surface identified as the one yielding the lowest factor of safety of those evaluated.

GSH completed static long term and pseudostatic (seismic) short term evaluations at each of the 4 locations. The cross sections are attached in the appendix. The results of the stability analysis are tabulated below:

Location	Model	Factor of Safety	Required Factor of Safety
A-A'	Long-Term Static Slope Stability with Groundwater	2.3	1.5
A-A'	Short-Term Static Slope Stability with Groundwater and Seismic Component	3.1	1.0
B-B'	Long-Term Static Slope Stability	2.5	1.5
B-B'	Short-Term Static Slope Stability with Groundwater and Seismic Component	2.9	1.0
C-C'	Long-Term Static Slope Stability with Groundwater	2.3	1.5
C-C'	Short-Term Static Slope Stability with Groundwater and Seismic Component	1.05	1.0
D-D'	Long-Term Static Slope Stability with Groundwater	2.3	1.5
D-D'	Short-Term Static Slope Stability with Groundwater and Seismic Component	1.3	1.0

Municipalities typically require minimum factors of safety of 1.5 for static conditions and 1.0 for seismic (pseudostatic) conditions. The results of our analyses indicate that the existing slope and proposed residence will be stable as proposed. The stability results and input/output data are included as Figures 8 through 15.

5.5 SPREAD AND CONTINUOUS WALL FOUNDATIONS

5.5.1 Design Data

The results of our analysis indicate that the proposed structures may be supported upon conventional spread and continuous wall foundations established upon suitable natural soils and/or structural fill extending to suitable natural soils. Under no circumstances shall foundations be established over non-engineered fills, loose or disturbed soils, topsoil, surface vegetation, root systems, rubbish, construction debris, other deleterious materials, frozen soils, or within ponded water. For design, the following parameters are provided:

Minimum Recommended Depth of Embedment for Frost Protection	- 30 inches
Minimum Recommended Depth of Embedment for Non-frost Conditions	- 15 inches
Recommended Minimum Width for Continuous Wall Footings	- 18 inches
Minimum Recommended Width for Isolated Spread Footings	- 24 inches
Recommended Net Bearing Capacity for Real Load Conditions	- 1,500 pounds per square foot
Bearing Capacity Increase for Seismic Loading	- 50 percent

The term “net bearing capacity” refers to the allowable pressure imposed by the portion of the structure located above lowest adjacent final grade. Therefore, the weight of the footing and backfill to lowest adjacent final grade need not be considered. Real loads are defined as the total of all dead plus frequently applied live loads. Total load includes all dead and live loads, including seismic and wind.

5.5.2 Installation

Under no circumstances shall the footings be installed upon non-engineered fills, loose or disturbed soils, topsoil, surface vegetation, root systems, rubbish, construction debris, or other deleterious materials. If unsuitable soils are encountered, they must be removed and replaced with compacted granular fill. If granular soils become loose or disturbed, they must be recompacted prior to pouring the concrete.

The width of structural replacement fill below footings should be equal to the width of the footing plus one foot for each foot of fill thickness.

5.5.3 Settlements

Based on column loadings, soil bearing capacities, and the foundation recommendations as discussed above, we expect primary total settlement beneath individual foundations to be less than one inch.

The amount of differential settlement is difficult to predict because the subsurface and foundation loading conditions can vary considerably across the site. However, we anticipate differential settlement between adjacent foundations could vary from 0.5 to 0.75 inch. The final deflected shape of the structure will be dependent on actual foundation locations and loading.

5.6 LATERAL RESISTANCE

Lateral loads imposed upon foundations due to wind or seismic forces may be resisted by the development of passive earth pressures and friction between the base of the footings and the supporting soils. In determining frictional resistance, a coefficient of friction of 0.30 may be utilized for the footing interface with in situ natural clay soils and 0.40 for footing interface with natural granular soils or granular structural fill. Passive resistance provided by properly placed and compacted granular structural fill above the water table may be considered equivalent to a fluid with a density of 300 pounds per cubic foot. Below the water table, this granular soil should be considered equivalent to a fluid with a density of 150 pounds per cubic foot.

A combination of passive earth resistance and friction may be utilized provided that the friction component of the total is divided by 1.5.

5.7 LATERAL PRESSURES

Parameters, as presented within this section, are for backfills which will consist of drained soil placed and compacted in accordance with the recommendations presented herein.

The lateral pressures imposed upon subgrade facilities will, therefore, be basically dependent upon the relative rigidity and movement of the backfilled structure. For active walls, such as retaining walls which can move outward (away from the backfill), drained backfill may be considered equivalent to a fluid with a density of 40 pounds per cubic foot in computing lateral pressures. For

more rigid subgrade walls that are not more than 10 inches thick, granular backfill may be considered equivalent to a fluid with a density of 50 pounds per cubic foot. For very rigid non-yielding walls, granular backfill should be considered equivalent to a fluid with a density of at least 60 pounds per cubic foot. The above values assume that the surface of the soils slope behind the wall is horizontal and that the granular fill within 3 feet of the wall will be compacted with hand-operated compacting equipment.

For seismic loading of below-grade walls, the uniform lateral pressures below, in pounds per square foot (psf), should be added based on wall depth and wall case:

Uniform Lateral Pressures			
Wall Height (Feet)	**Active Pressure Case (psf)**	**Moderately Yielding Case (psf)**	**At Rest/Non-Yielding Case (psf)**
4	25	55	85
6	40	80	125
8	55	110	165
10	65	135	210

5.8 FLOOR SLABS

Floor slabs may be established upon suitable natural subgrade soils or structural fill extending to suitable natural soils. Under no circumstances shall floor slabs be established directly over non-engineered fills, loose or disturbed soils, sod, rubbish, construction debris, other deleterious materials, frozen soils, or within ponded water.

Additionally, GSH recommends that floor slabs be constructed a minimum of 4.0 feet from the stabilized groundwater elevation or 1.5 feet if a foundation subdrain system is utilized. Foundation subdrain recommendations are discussed in Section 5.3.1, Subdrains.

To facilitate curing of the concrete and to provide a capillary moisture break, it is recommended that floor slabs be directly underlain by at least 4 inches of "free-draining" fill, such as "pea" gravel or three-quarters to one inch minus clean gap-graded gravel.

Settlement of lightly loaded floor slabs designed according to previous recommendations (average uniform pressure of 200 pounds per square foot or less) is anticipated to be less than one-quarter of an inch.

5.9 PAVEMENTS

The natural clay soils will exhibit poor pavement support characteristics when saturated. All pavement areas must be prepared as previously discussed (see Section 5.2.1, Site Preparation).

Under no circumstances shall pavements be established over, loose or disturbed soils, topsoil, surface vegetation, root systems, rubbish, construction debris, other deleterious materials, frozen soils, or within ponded water. With the subgrade soils and the projected traffic as discussed in Section 2, Proposed Construction, the pavement sections below are recommended:

Residential Roadways

(Light Volume of Automobiles and Light Trucks,
Occasional Medium-Weight Trucks,
and Heavyweight Trucks)
[1-3 equivalent 18-kip axle loads per day]

Flexible Pavements:
(Asphalt Concrete)

3.0 inches	Asphalt concrete
9.0 inches	Aggregate base
Over	Properly prepared natural subgrade soils and/or structural site grading fill extending to properly prepared natural subgrade soils

Rigid Pavements:
(Non-reinforced Concrete)

6.0 inches	Portland cement concrete (non-reinforced)
5.0 inches	Aggregate base
Over	Properly prepared natural subgrade soils and/or structural site grading fill extending to properly prepared natural subgrade soils

These above rigid pavement sections are for non-reinforced Portland cement concrete. Concrete should be designed in accordance with the American Concrete Institute (ACI) and joint details should conform to the Portland Cement Association (PCA) guidelines. The concrete should have a minimum 28-day unconfined compressive strength of 4,000 pounds per square inch and contain 6 percent ±1 percent air-entrainment.

The crushed stone should conform to applicable sections of the current Utah Department of Transportation (UDOT) Standard Specifications. All asphalt material and paving operations should

meet applicable specifications of the Asphalt Institute and UDOT. A GSH technician shall observe placement and perform density testing of the base course material and asphalt.

Please note that the recommended pavement section is based on estimated post-construction traffic loading. If the pavement is to be constructed and utilized by construction traffic, the above pavement section may prove insufficient for heavy truck traffic, such as concrete trucks or tractor-trailers used for construction delivery. Unexpected distress, reduced pavement life, and/or premature failure of the pavement section could result if subjected to heavy construction traffic and the owner should be made aware of this risk. If the estimated traffic loading stated herein is not correct, GSH must review actual pavement loading conditions to determine if revisions to these recommendations are warranted.

5.10 CEMENT TYPES

The laboratory tests indicate that the natural soils tested contain a negligible amount of water soluble sulfates. Based on our test results, concrete in contact with the on-site soil will have a low potential for sulfate reaction (ACI 318, Table 4.3.1). Therefore, all concrete which will be in contact with the site soils may be prepared using Type I or IA cement.

5.11 GEOSEISMIC SETTING

5.11.1 General

Utah municipalities have adopted the International Building Code (IBC) 2018. The IBC 2018 code refers to ASCE 7-16 Minimum Design Loads and Associated Criteria for Buildings and Other Structures (ASCE 7-16) determines the seismic hazard for a site based upon mapping of bedrock accelerations prepared by the United States Geologic Survey (USGS) and the soil site class. The USGS values are presented on maps incorporated into the IBC code and are also available based on latitude and longitude coordinates (grid points).

5.11.2 Faulting

Based on our review of available literature, no active faults pass through or immediately adjacent to the site. The nearest active mapped fault consists of the Salt Lake City Section of the Wasatch Fault, located about 1.6 miles to the west-southwest of the site.

5.11.3 Soil Class

For dynamic structural analysis, the Site Class D - Stiff Soil Profile as defined in Chapter 20 of ASCE 7-16 (per Section 1613.3.2, Site Class Definitions, of IBC 2018) can be utilized.

5.11.4 Ground Motions

The IBC 2018 code is based on USGS mapping, which provides values of short and long period accelerations for average bedrock values for the Western United States and must be corrected for local soil conditions. The table on the following page summarizes the peak ground and short and long period accelerations for the MCE event and incorporates the appropriate soil amplification factor for a Site Class D soil profile. Based on the site latitude and longitude (40.6910 degrees north and 111.8131 degrees west, respectively), the values for this site are tabulated on the following page.

Spectral Acceleration Value, T	Bedrock Boundary [mapped values] (% g)	Site Coefficient	Site Class D [adjusted for site class effects] (% g)	Design Values* (% g)
Peak Ground Acceleration	56.3	F_a = 1.002	56.4	37.6
0.2 Seconds (Short Period Acceleration)	S_S = 124.5	F_a = 1.002	S_{MS} = 124.7	S_{DS} = 83.2
1.0 Second (Long Period Acceleration)	S_1 = 45.9	F_v = 1.851	S_{M1} = 84.9	S_{D1} = 56.6

*IBC 2018/ASCE 7-16 may require a site-specific study based on the project structural engineer's evaluation and recommendations. If needed, GSH can provide additional information and analysis including a complete site-specific study.

5.11.5 Liquefaction

The site is located in an area that has been identified by the Utah Geological Survey (UGS) as being a "low" liquefaction potential zone. Liquefaction is defined as the condition when saturated, loose, granular soils lose their support capabilities because of excessive pore water pressure, which develops during a seismic event. Clayey soils, even if saturated, will generally not liquefy during a major seismic event.

Liquefaction was not included in the scope of this study and would require a deeper (45+ foot) boring for engineering analysis.

5.12 SITE VISITS

GSH must verify that all topsoil/disturbed soils and any other unsuitable soils have been removed, that non-engineered fills have been removed and/or properly prepared, and that suitable soils have been encountered prior to placing site grading fills, footings, slabs, and pavements. Additionally,

GSH must observe fill placement and verify in-place moisture content and density of fill materials placed at the site.

5.13 CLOSURE

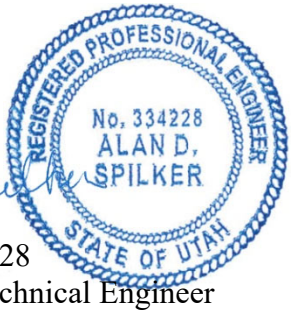
If you have any questions or would like to discuss these items further, please feel free to contact us at (801) 685-9190.

Respectfully submitted,

GSH Geotechnical, Inc.

Robert A. Gifford
Project Engineer/Geologist

Reviewed by:



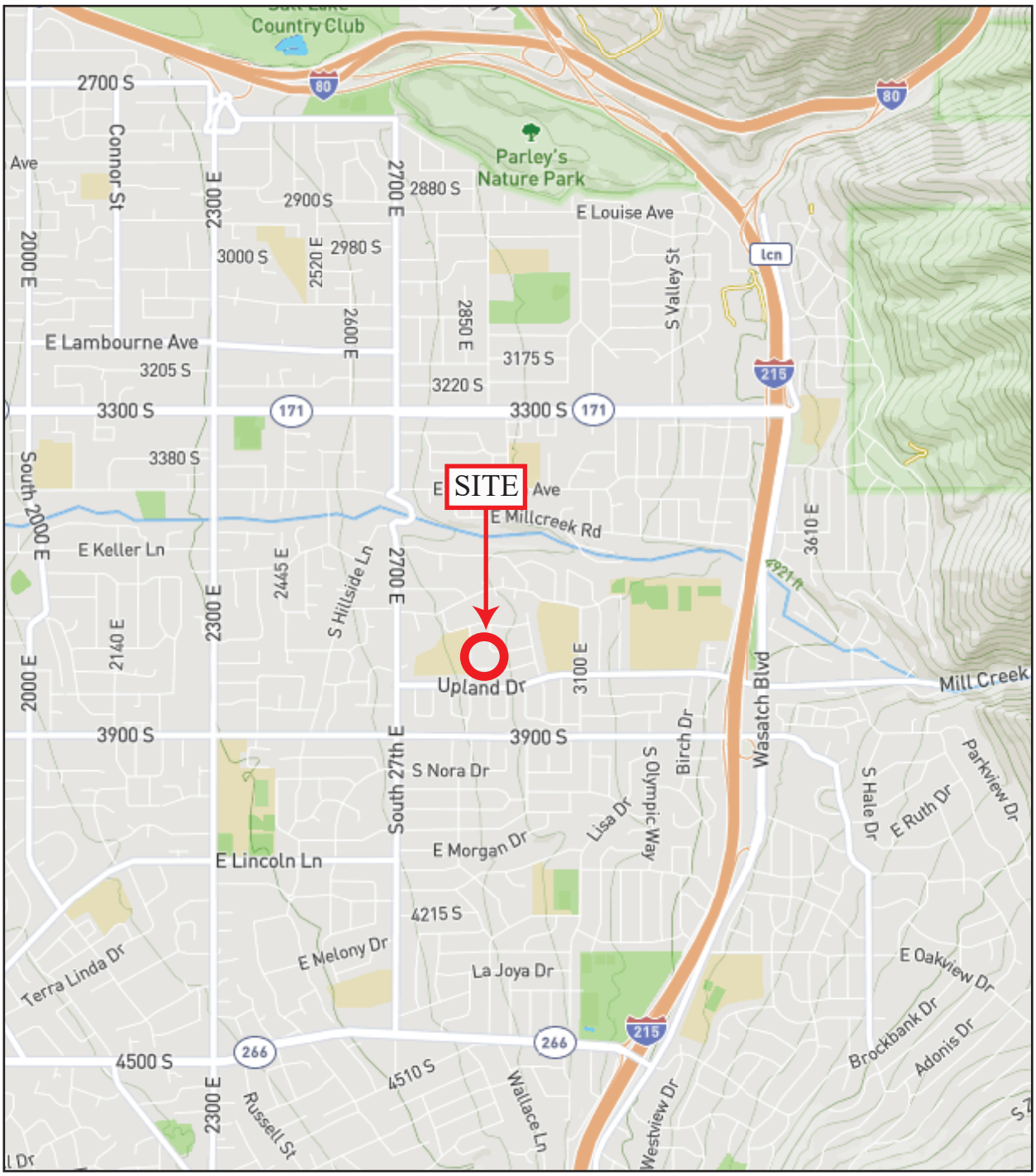
Alan D. Spilker, P.E.
State of Utah No. 334228
President/Senior Geotechnical Engineer

RAG/ADS:jlh

Encl. Figure 1, Vicinity Map
Figure 2, Site Plan
Figures 3A through 3E, Log of Borings
Figure 4, Key to Boring Log (USCS)
Figures 5A Through 5D, Log of Test Pits
Figure 6 Key to Test Pit Log (USCS)
Figure 7, Typical Foundation Chimney Subdrain Detail 18”
Figures 8–14 Slope Figures

Addressee (email)

ELEVATED HOMES SOLUTIONS, LLC
JOB NO. 2785-001-19



0.5 0 0.5 1 1.5 2 KM 2

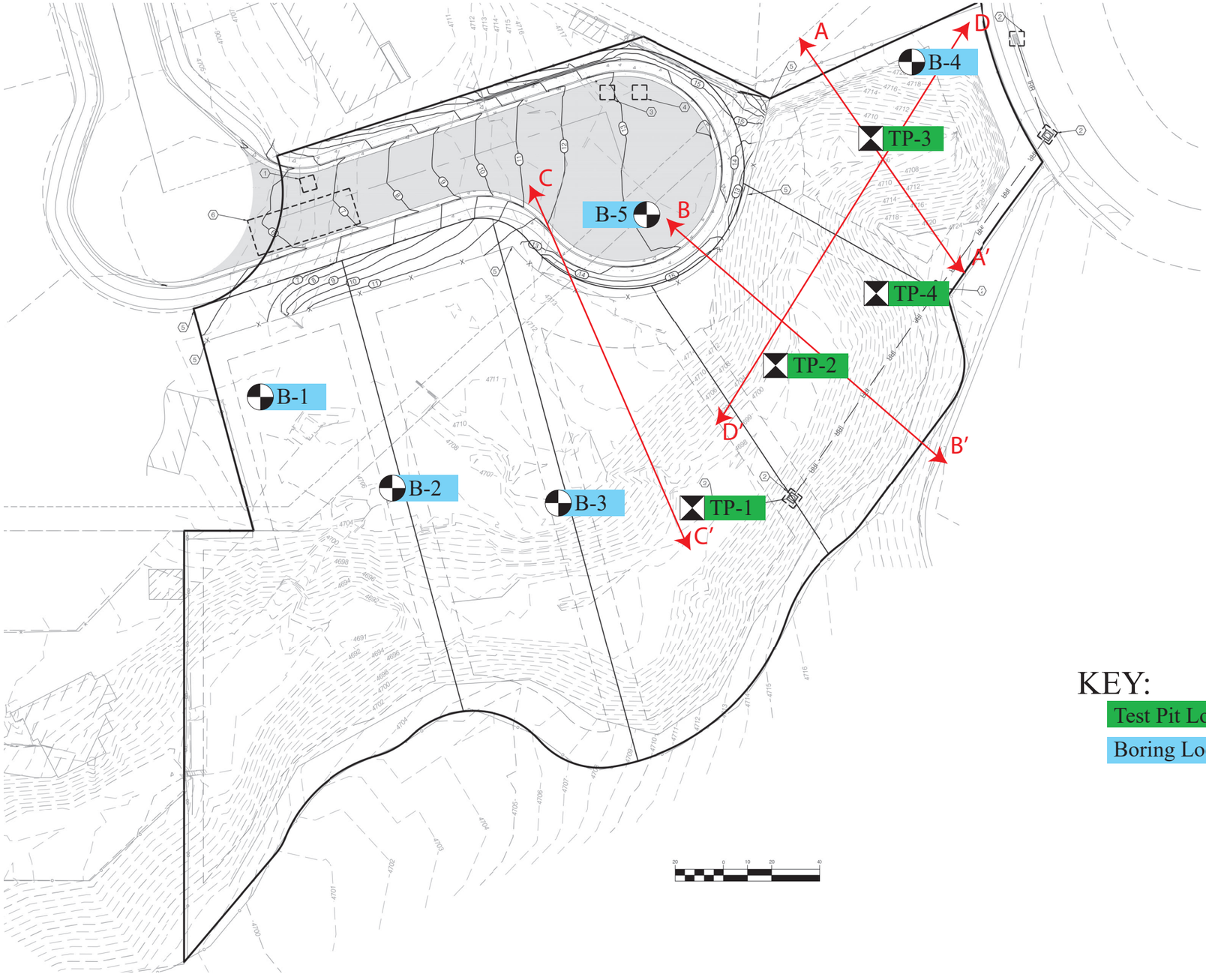
0.5 0 0.5 MI 1

FIGURE 1
VICINITY MAP

REFERENCE:
ALL TRAILS - NATIONAL GEOGRAPHIC TERRAIN
DATED 2019

GSH

ELEVATED HOME SOLUTIONS, LLC
JOB NO. 2785-002-19



KEY:

Test Pit Locations

Boring Locations

REFERENCE:
ADAPTED FROM DRAWING ENTITLED
"MILLCREEK GULLY SUBDIVISION, PAGE 7 OF 12"
BY BENCHMARK CIVIL, DATED 7/12/2019

FIGURE 2
SITE PLAN

GSH

BORING LOG

Page: 1 of 1

BORING: B-1

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Proposed Craig Subdivision | DATE STARTED: 3/1/19 | DATE FINISHED: 3/1/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: AV

DRILLING METHOD/EQUIPMENT: 3-3/4" ID Hollow-Stem Auger | HAMMER: Automatic | WEIGHT: 140 lbs | DROP: 30"

GROUNDWATER DEPTH: 13.7' (3/11/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	BLOW COUNT	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0								
	CL FILL	SILTY CLAY, FILL with some fine and coarse gravel and trace cobbles; major roots (topsoil) to 10"; brown									slightly moist very stiff
				21		14.2	101				
	GP/ GC	FINE TO COARSE SANDY FINE AND COARSE GRAVEL with some clay and some cobbles; brown									moist very dense
			5	50/2"		8.4		6.5			
	CL	SILTY CLAY with trace fine sand and occasional layers of fine to medium sand up to 1/4" thick; light brown with oxidation									moist stiff
			10	15							
▼											saturated
			15	11							
		End of Exploration at 16.0'. No groundwater encountered at time of drilling. Installed 1.25" diameter slotted PVC pipe to 16.0'.									
			20								
			25								

See Subsurface Conditions section in the report for additional information.

FIGURE 3A

BORING LOG

Page: 1 of 1

BORING: B-2

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Proposed Craig Subdivision | DATE STARTED: 3/1/19 | DATE FINISHED: 3/1/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: AV

DRILLING METHOD/EQUIPMENT: 3-3/4" ID Hollow-Stem Auger | HAMMER: Automatic | WEIGHT: 140 lbs | DROP: 30"

GROUNDWATER DEPTH: Not Encountered (3/1/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	BLOW COUNT	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0								
	CL FILL	SILTY CLAY, FILL with some fine and coarse gravel and trace cobbles; major roots (topsoil) to 10"; brown									slightly moist loose
	GP/ GC	FINE TO COARSE SANDY FINE AND COARSE GRAVEL with some clay and some cobbles; brown with oxidation		18		9.7	128				slightly moist medium dense
											moist
			5	50/1"							very dense
		Refusal at 6.0' on cobbles. No groundwater encountered at time of drilling. Installed 1.25" diameter slotted PVC pipe to 6.0'.									
			10								
			15								
			20								
			25								

See Subsurface Conditions section in the report for additional information.

FIGURE 3B

BORING LOG

Page: 1 of 1

BORING: B-3

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Proposed Craig Subdivision | DATE STARTED: 3/1/19 | DATE FINISHED: 3/1/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: AV

DRILLING METHOD/EQUIPMENT: 3-3/4" ID Hollow-Stem Auger | HAMMER: Automatic | WEIGHT: 140 lbs | DROP: 30"

GROUNDWATER DEPTH: Not Encountered (3/1/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	BLOW COUNT	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0								
	GP/ GC	FINE TO COARSE SANDY FINE AND COARSE GRAVEL with some clay, cobbles, and occasional boulders; major roots (topsoil) to 10"; brown									slightly moist dense
				70		7.6	125				moist
			5								very dense
		Refusal at 4.5' on boulders. No groundwater encountered at time of drilling. Installed 1.25" diameter slotted PVC pipe to 4.5'.									
			10								
			15								
			20								
			25								

See Subsurface Conditions section in the report for additional information.

FIGURE 3C

BORING LOG

Page: 1 of 1

BORING: B-4

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Proposed Craig Subdivision | DATE STARTED: 3/1/19 | DATE FINISHED: 3/1/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: AV

DRILLING METHOD/EQUIPMENT: 3-3/4" ID Hollow-Stem Auger | HAMMER: Automatic | WEIGHT: 140 lbs | DROP: 30"

GROUNDWATER DEPTH: Not Encountered (3/1/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	BLOW COUNT	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0								
	GP FILL	FINE TO COARSE SANDY FINE AND COARSE GRAVEL, FILL brown									slightly moist dense
	GP	FINE TO COARSE SANDY FINE AND COARSE GRAVEL with cobbles and occasional boulders; brown									slightly moist medium dense
				19		10.3		4.6			moist very dense
		Refusal at 4.5' on boulders. No groundwater encountered at time of drilling.	5								
			10								
			15								
			20								
			25								

See Subsurface Conditions section in the report for additional information.

FIGURE 3D

BORING LOG

Page: 1 of 1

BORING: B-5

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Proposed Craig Subdivision | DATE STARTED: 3/1/19 | DATE FINISHED: 3/1/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: AV

DRILLING METHOD/EQUIPMENT: Hand Auger | HAMMER: NA | WEIGHT: NA | DROP: NA

GROUNDWATER DEPTH: Not Encountered (3/1/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	BLOW COUNT	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0								
	SC	CLAYEY FINE TO COARSE SAND with some fine and coarse gravel and trace cobbles; major roots (topsoil) to 10"; brown									slightly moist medium dense
											dense
		Refusal at 2.0' on gravel. No groundwater encountered at time of drilling.	5								
			10								
			15								
			20								
			25								

See Subsurface Conditions section in the report for additional information.

FIGURE 3E

CLIENT: Elevated Home Solutions, LLC
PROJECT: Proposed Craig Subdivision
PROJECT NUMBER: 2785-001-19

KEY TO BORING LOG

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	BLOW COUNT	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSSING 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 measured groundwater table. See symbol below.

② **USCS:** (Unified Soil Classification System) Description of soils encountered; typical symbols are explained below.

③ **Description:** Description of material encountered; may include color, moisture, grain size, density/consistency,

④ **Depth (ft.):** Depth in feet below the ground surface.

⑤ **Blow Count:** Number of blows to advance sampler 12" beyond first 6", using a 140-lb hammer with 30" 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 dryweight of

⑧ **Dry Density (pcf):** The density of a soil measured in laboratory; expressed in pounds per cubic foot.

⑨ **% Passing 200:** Fines content of soils sample passing a No. 200 sieve; 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. May include other field and laboratory test results using the following abbreviations:

CEMENTATION:

Weakly: Crumbles or breaks with handling or slight finger pressure.

Moderately: Crumbles or breaks with considerable finger pressure.

Strongly: Will not crumble or break with finger pressure.

MODIFIERS:

Trace <5%

Some 5-12%

With > 12%

MOISTURE CONTENT (FIELD TEST):

Dry: Absence of moisture, dusty, dry to the touch.

Moist: Damp but no visible water.

Saturated: Visible water, usually soil below water 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.

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

MAJOR DIVISIONS			USCS SYMBOLS	TYPICAL DESCRIPTIONS
COARSE-GRAINED SOILS More than 50% of material is larger than No. 200 sieve size.	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve.	CLEAN GRAVELS (little or no fines)	GW	Well-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines
			GP	Poorly-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines
		GRAVELS WITH FINES (appreciable amount of fines)	GM	Silty Gravels, Gravel-Sand-Silt Mixtures
			GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	SANDS More than 50% of coarse fraction passing through No. 4 sieve.	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
		SANDS WITH FINES (appreciable amount of fines)	SM	Silty Sands, Sand-Silt Mixtures
			SC	Clayey Sands, Sand-Clay Mixtures
FINE-GRAINED SOILS More than 50% of material is smaller than No. 200 sieve size.	SILTS AND CLAYS Liquid Limit less than 50%		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 o f Low Plasticity
	SILTS AND CLAYS Liquid Limit greater than 50%		MH	Inorganic Silts, Micacious or Diatomacious Fine Sand or Silty Soils
			CH	Inorganic Clays of High Plasticity, Fat Clays
			OH	Organic Silts and Organic Clays of Medium to High Plasticity
HIGHLY ORGANIC SOILS			PT	Peat, Humus, Swamp Soils with High Organic Contents

Note: Dual Symbols are used to indicate borderline soil classifications.

STRATIFICATION:

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

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

WATER SYMBOL

Water Level

FIGURE 4

GSH

TEST PIT LOG

Page: 1 of 1

TEST PIT: TP-1

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Craig Subdivision | DATE STARTED: 9/16/19 | DATE FINISHED: 9/16/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: JM

EXCAVATING METHOD/EQUIPMENT: Kubota KX 040 Rubber Trackhoe

GROUNDWATER DEPTH: 6.9' (9/24/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0							
	GP/ GM FILL	FINE GRAVEL,FILL with fine to coarse sand and silt; brown								slightly moist loose
	GP	FINE TO COARSE SANDY FINE AND COARSE GRAVEL with cobbles and some boulders; brown								slightly moist very dense
					4.2		4.3			
			5							
▼										saturated
		Refusal at 7.0' No significant sidewall caving. Installed 1.25" diameter slotted PVC pipe to 7.0'.								
			10							
			15							
			20							
			25							

See Subsurface Conditions section in the report for additional information.

FIGURE 5A

TEST PIT LOG

Page: 1 of 1

TEST PIT: TP-2

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Craig Subdivision | DATE STARTED: 9/16/19 | DATE FINISHED: 9/16/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: JM

EXCAVATING METHOD/EQUIPMENT: Kubota KX 040 Rubber Trackhoe

GROUNDWATER DEPTH: 1.5' (9/24/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0							
	GP/ GM FILL	FINE GRAVEL,FILL with fine to coarse sand and silt; brown								slightly moist loose moist saturated stiff
	GP	FINE TO COARSE SANDY FINE AND COARSE GRAVEL with some cobbles and boulders and occasional layers of fine to coarse sandy clay up to 2" thick; brown								saturated
			5		20.6		54.9			
		Refusal at 6.0' No significant sidewall caving. Installed 1.25” diameter slotted PVC pipe to 16.0’.								
			10							
			15							
			20							
			25							

See Subsurface Conditions section in the report for additional information.

FIGURE 5B

TEST PIT LOG

Page: 1 of 1

TEST PIT: TP-3

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Craig Subdivision | DATE STARTED: 9/16/19 | DATE FINISHED: 9/16/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: JM

EXCAVATING METHOD/EQUIPMENT: Kubota KX 040 Rubber Trackhoe

GROUNDWATER DEPTH: 1.0' (9/24/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0							
▼	CL	FINE TO COARSE SANDY CLAY with some fine gravel and cobbles; major roots (topsoil) to 6"; brown								moist stiff saturated
	GP/GM	FINE TO COARSE SANDY FINE AND COARSE GRAVEL with cobbles and silt; brown								saturated very dense
			5		17.7		6.6			
		Refusal at 5.0'. No significant sidewall caving. Installed 1.25" diameter slotted PVC pipe to 16.0'.	10							
			15							
			20							
			25							

See Subsurface Conditions section in the report for additional information.

FIGURE 5C

TEST PIT LOG

Page: 1 of 1

TEST PIT: TP-4

CLIENT: Elevated Home Solutions, LLC | PROJECT NUMBER: 2785-001-19

PROJECT: Craig Subdivision | DATE STARTED: 9/16/19 | DATE FINISHED: 9/16/19

LOCATION: 3675 South Craig Circle, Millcreek, Utah | GSH FIELD REP.: JM

EXCAVATING METHOD/EQUIPMENT: Kubota KX 040 Rubber Trackhoe

GROUNDWATER DEPTH: Not Encountered (9/16/19) (9/24/19) | ELEVATION: ---

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
		Ground Surface	0							
	SM/ SC	SILTY/CLAYEY FINE TO COARSE SAND with fine and coarse gravel; major roots (topsoil) to 12"; brown								slightly moist medium dense
	CL	SILTY CLAY with fine sand; brown	5							moist stiff
								29	8	
		End of exploration at 6.0'. No significant sidewall caving. No groundwater encountered at time of excavation.	10							
			15							
			20							
			25							

See Subsurface Conditions section in the report for additional information.

FIGURE 5D

CLIENT: Elevated Home Solutions, LLC
PROJECT: Craig Subdivision
PROJECT NUMBER: 2785-001-19

KEY TO TEST PIT LOG

WATER LEVEL	USCS	DESCRIPTION	DEPTH (FT.)	SAMPLE SYMBOL	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTICITY INDEX	REMARKS
①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪

COLUMN DESCRIPTIONS

① **Water Level:** Depth to measured groundwater table. See symbol below.

② **USCS:** (Unified Soil Classification System) Description of soils encountered; typical symbols are explained below.

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Trace <5%

Some 5-12%

With > 12%

MOISTURE CONTENT (FIELD TEST):

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			SP	Poorly-Graded Sands, Gravelly Sands, Little or No Fines
		SANDS WITH FINES (appreciable amount of fines)	SM	Silty Sands, Sand-Silt Mixtures
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			CL	Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
			OL	Organic Silts and Organic Silty Clays o f Low Plasticity
	SILTS AND CLAYS Liquid Limit greater than 50%		MH	Inorganic Silts, Micacious or Diatomacious Fine Sand or Silty Soils
			CH	Inorganic Clays of High Plasticity, Fat Clays
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- California Sampler
- Thin Wall

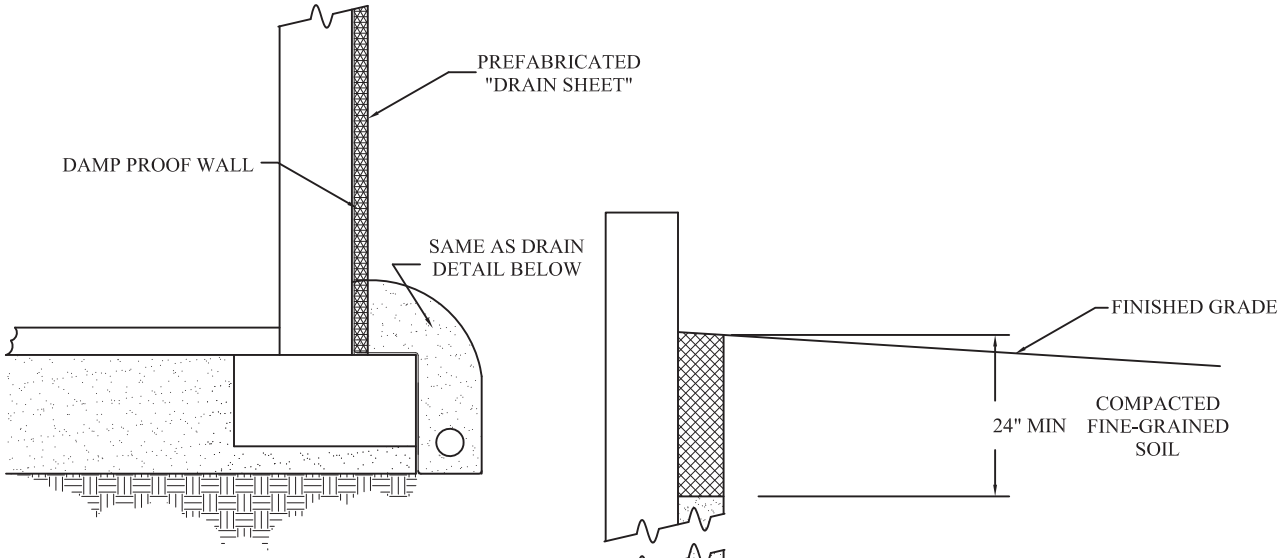
WATER SYMBOL

- Water Level

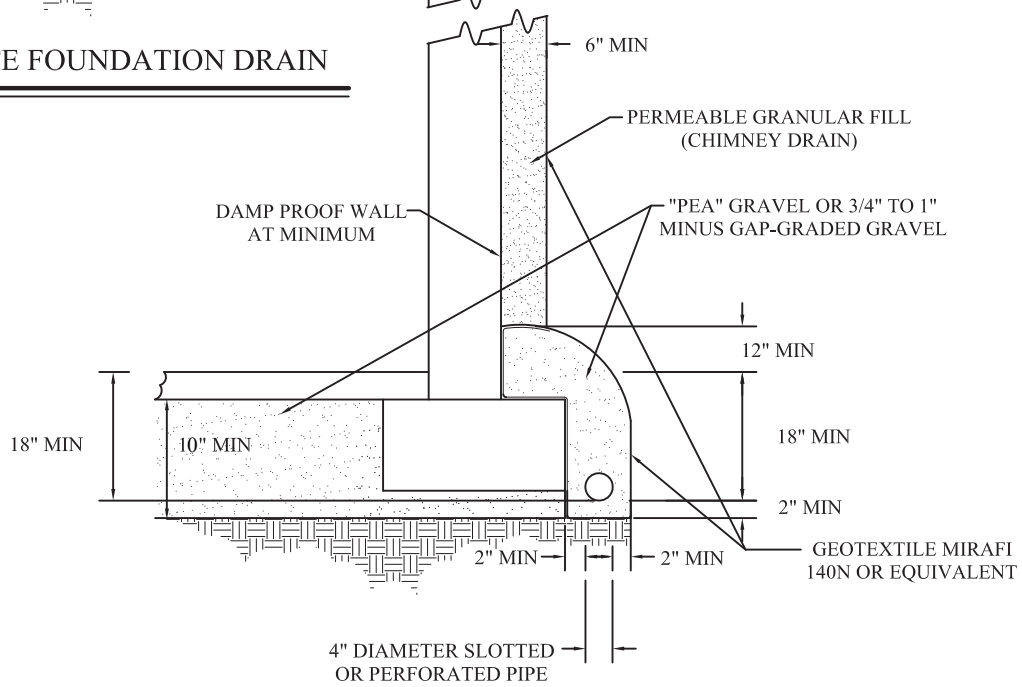
FIGURE 6

GSH

TYPICAL FOUNDATION/CHIMNEY SUBDRAIN DETAIL



ALTERNATE FOUNDATION DRAIN



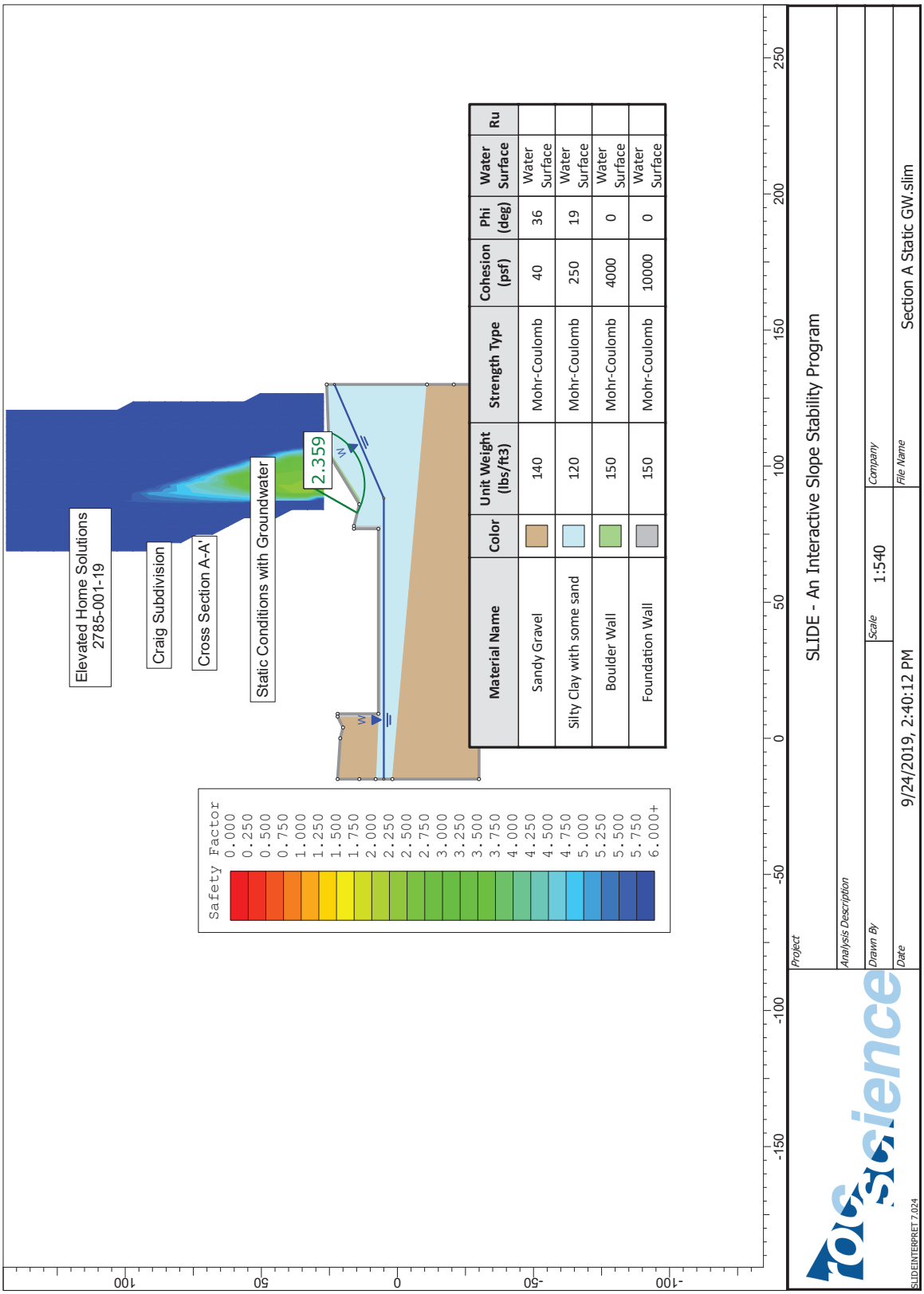
TYPICAL FOUNDATION DRAIN

(NOT TO SCALE)

GSH

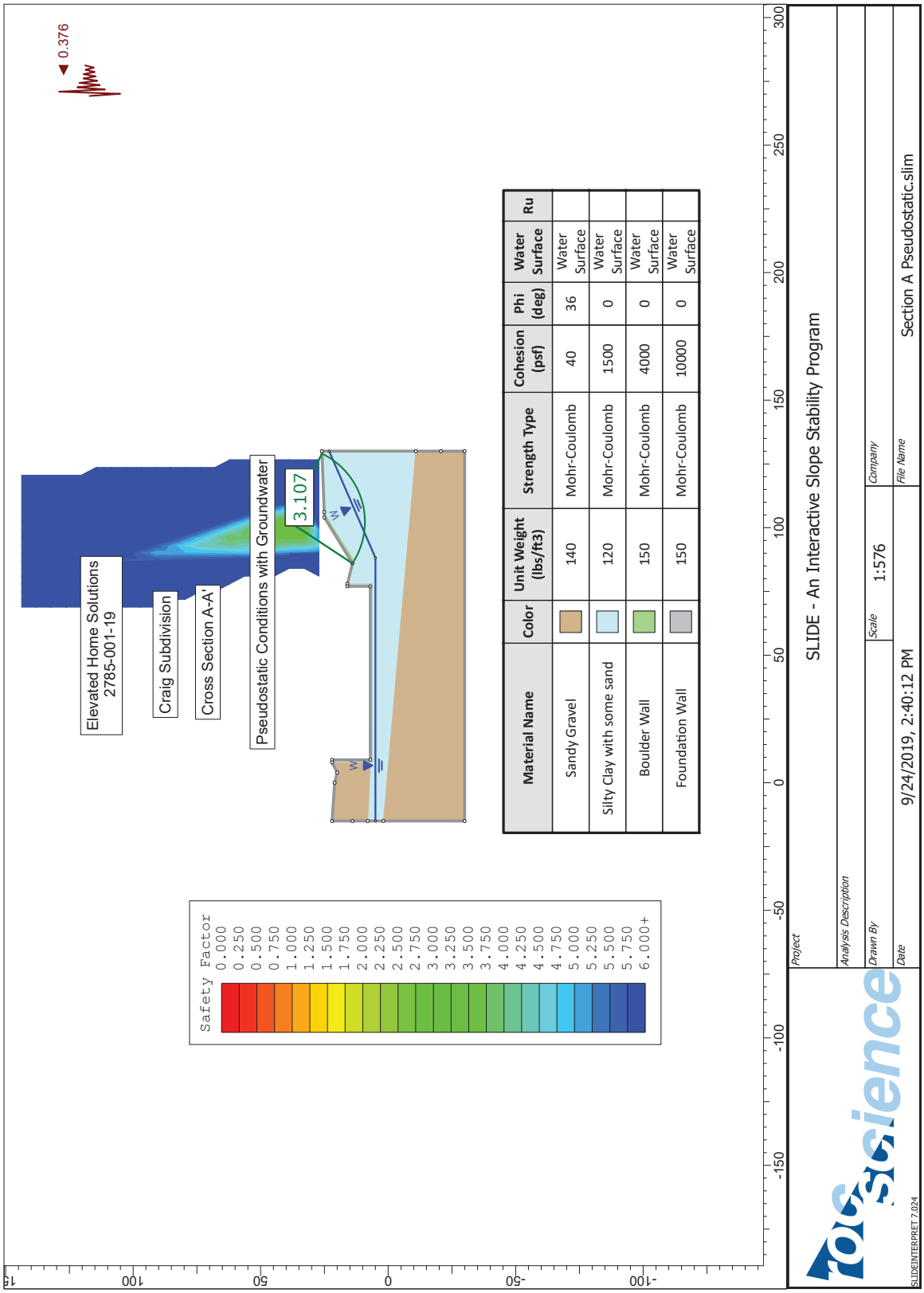
FIGURE 7

STABILITY RESULTS



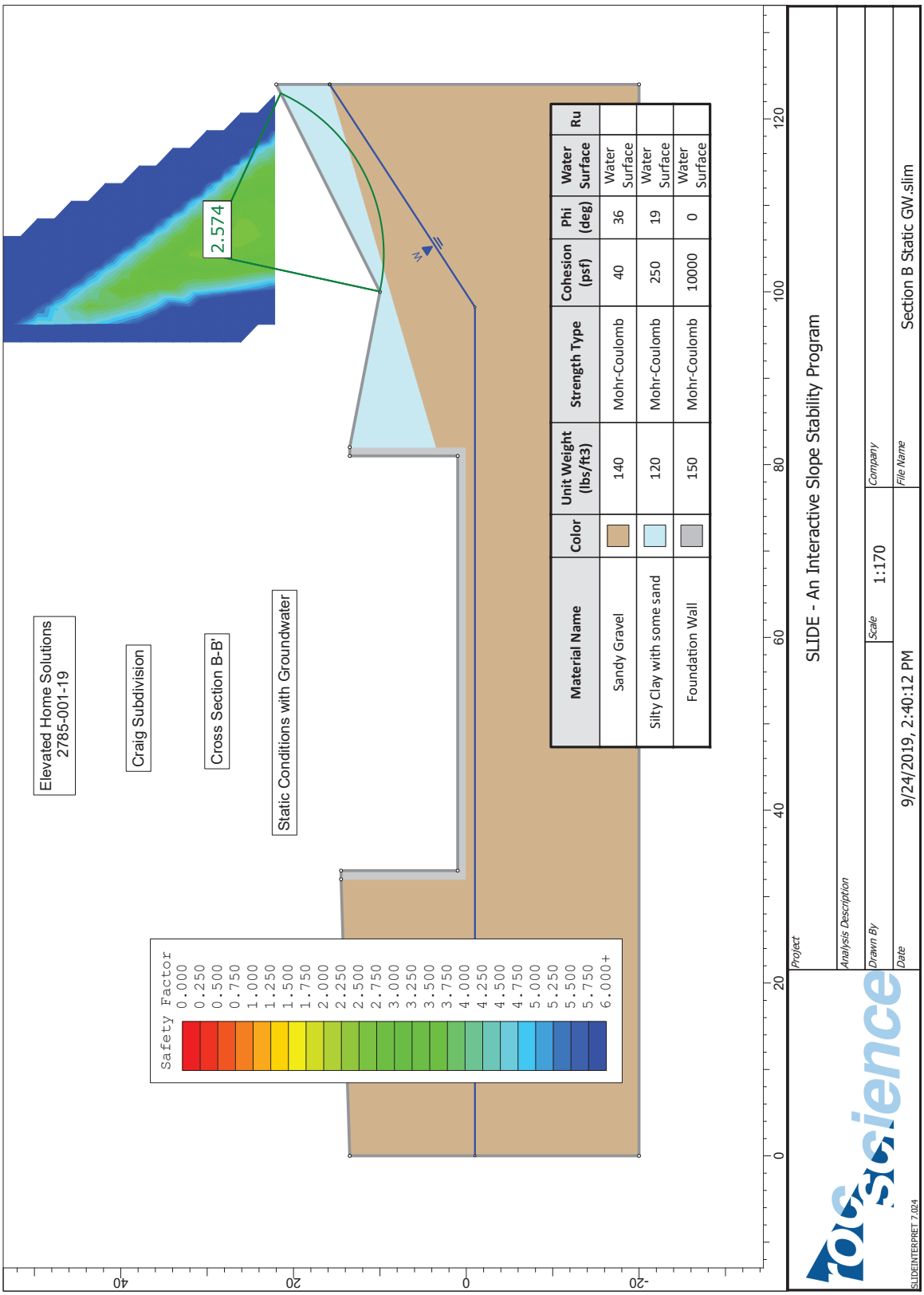
PROJECT NO.: 2785-002-19	GSH	**FIGURE NO.:** 8

STABILITY RESULTS



PROJECT NO.: 2785-002-19	GSH	**FIGURE NO.:** 9

STABILITY RESULTS

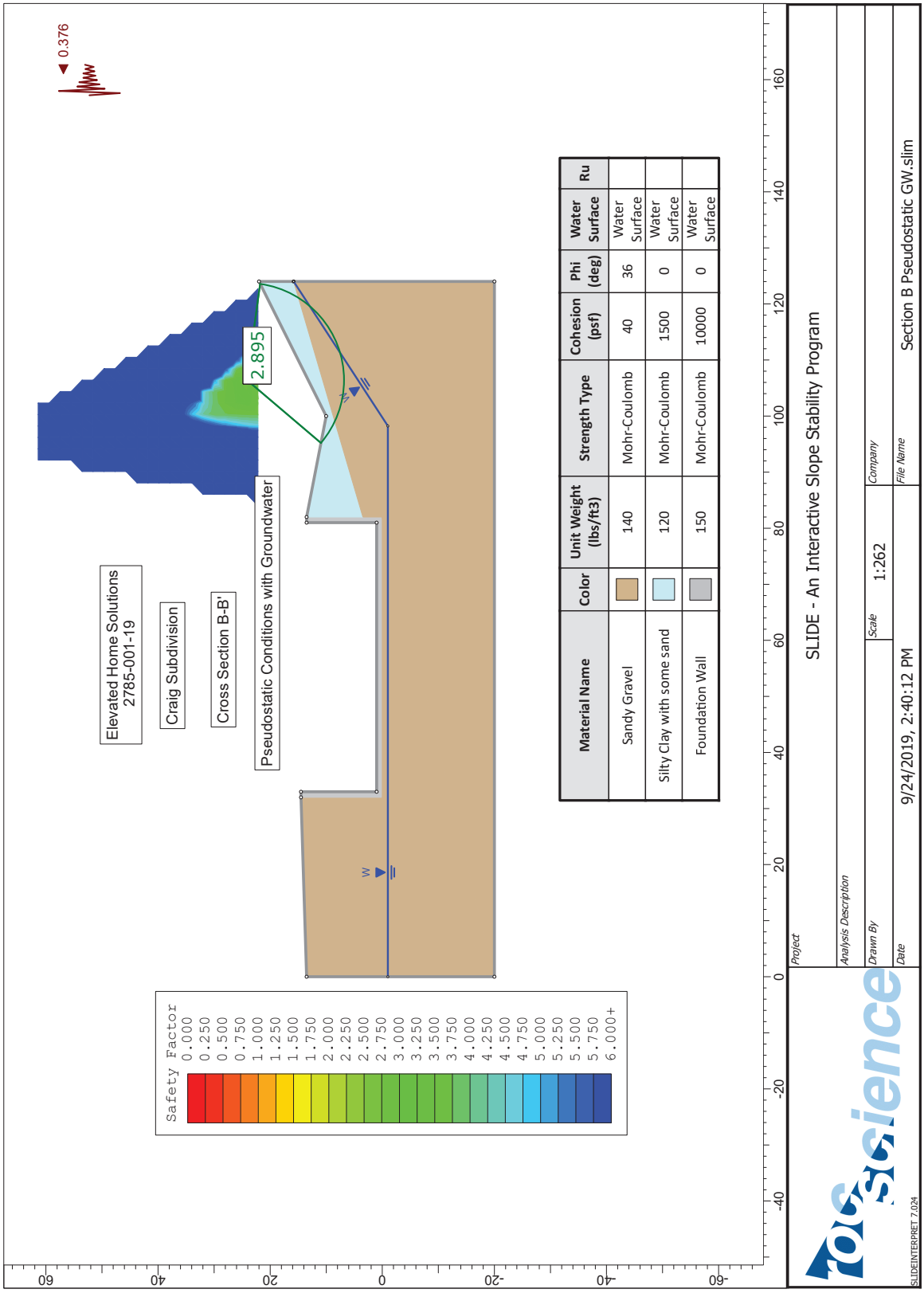


PROJECT NO.: 2785-002-19

GSH

FIGURE NO.: 10

STABILITY RESULTS

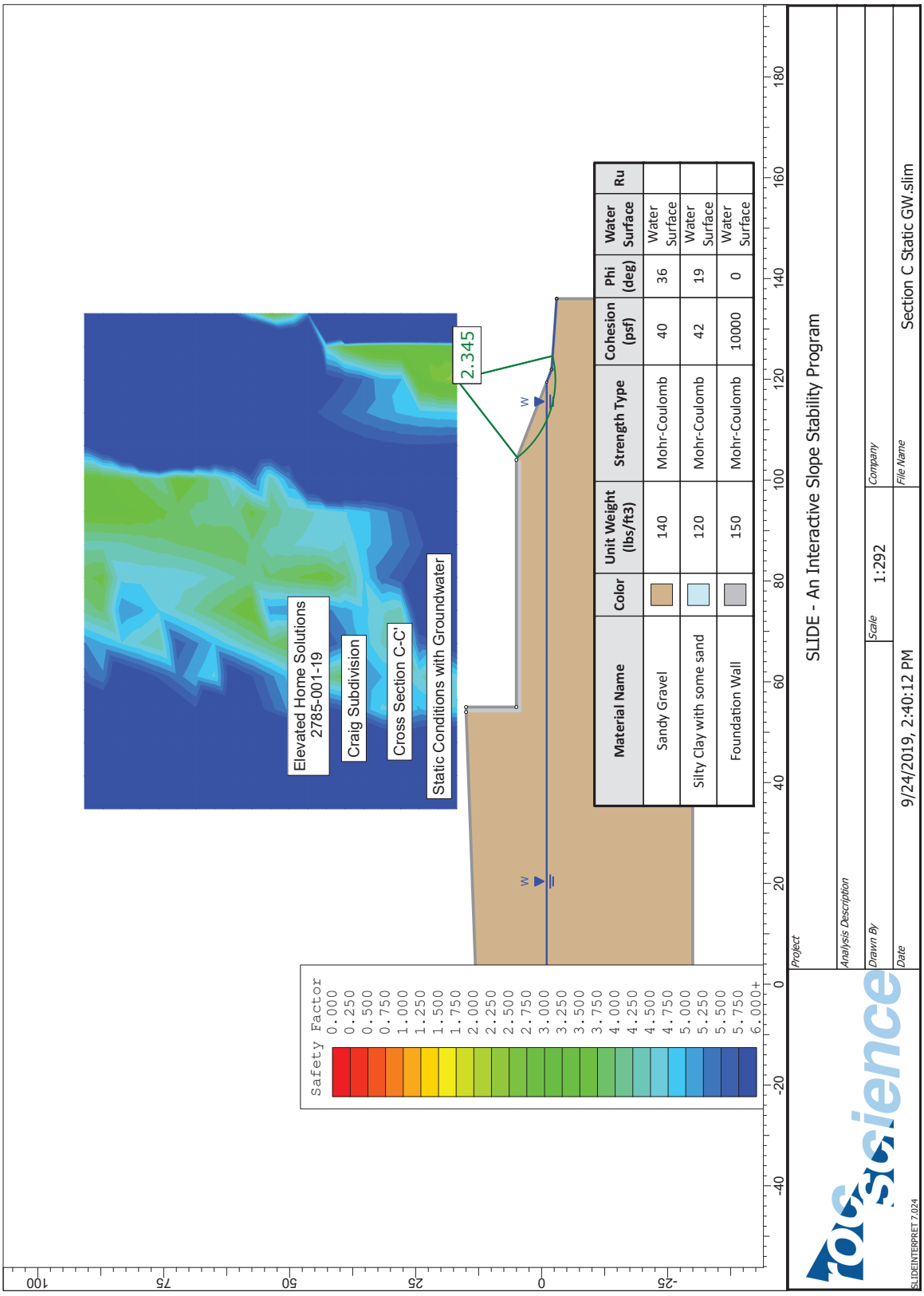


PROJECT NO.: 2785-002-19

GSH

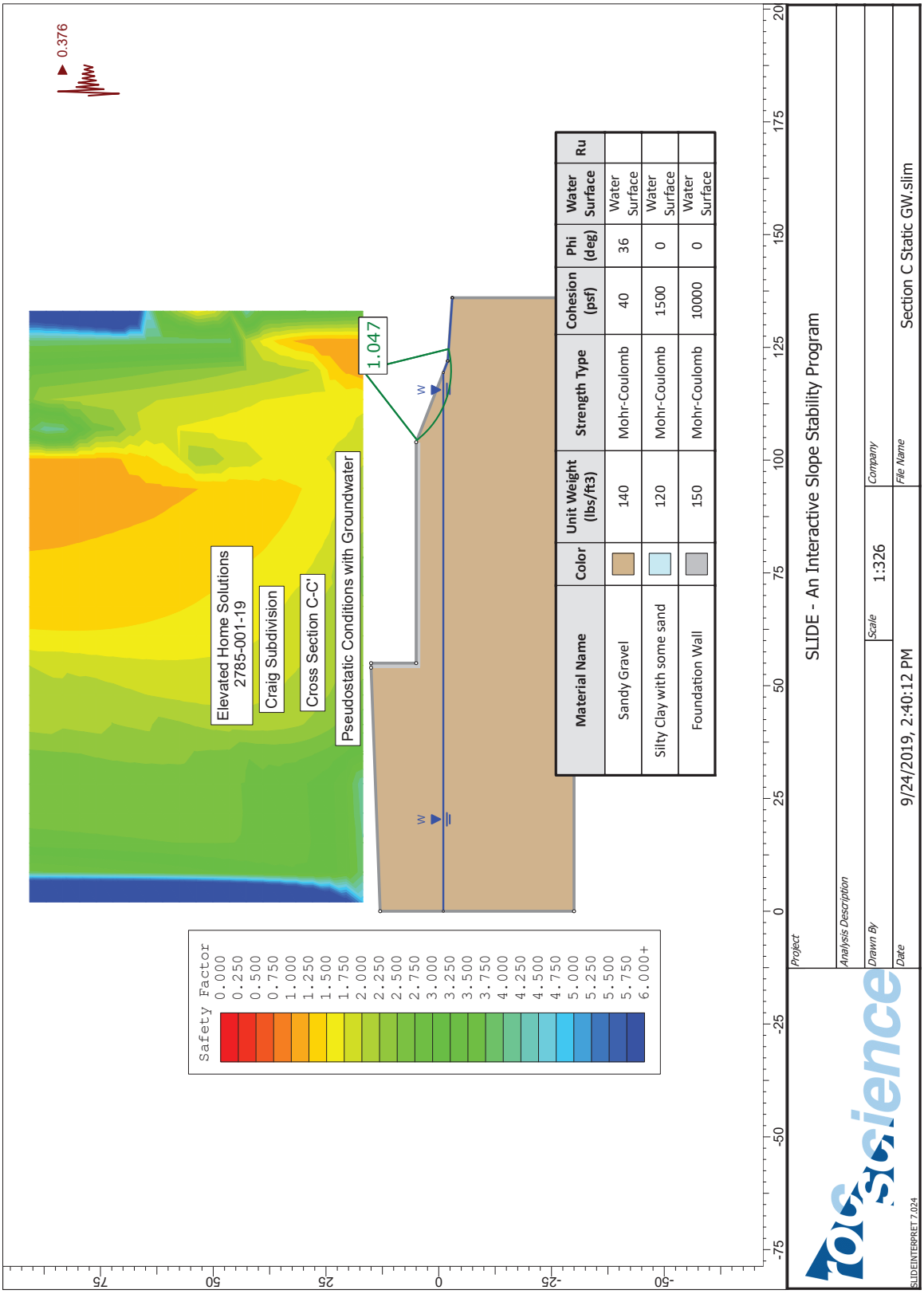
FIGURE NO.: 11

STABILITY RESULTS



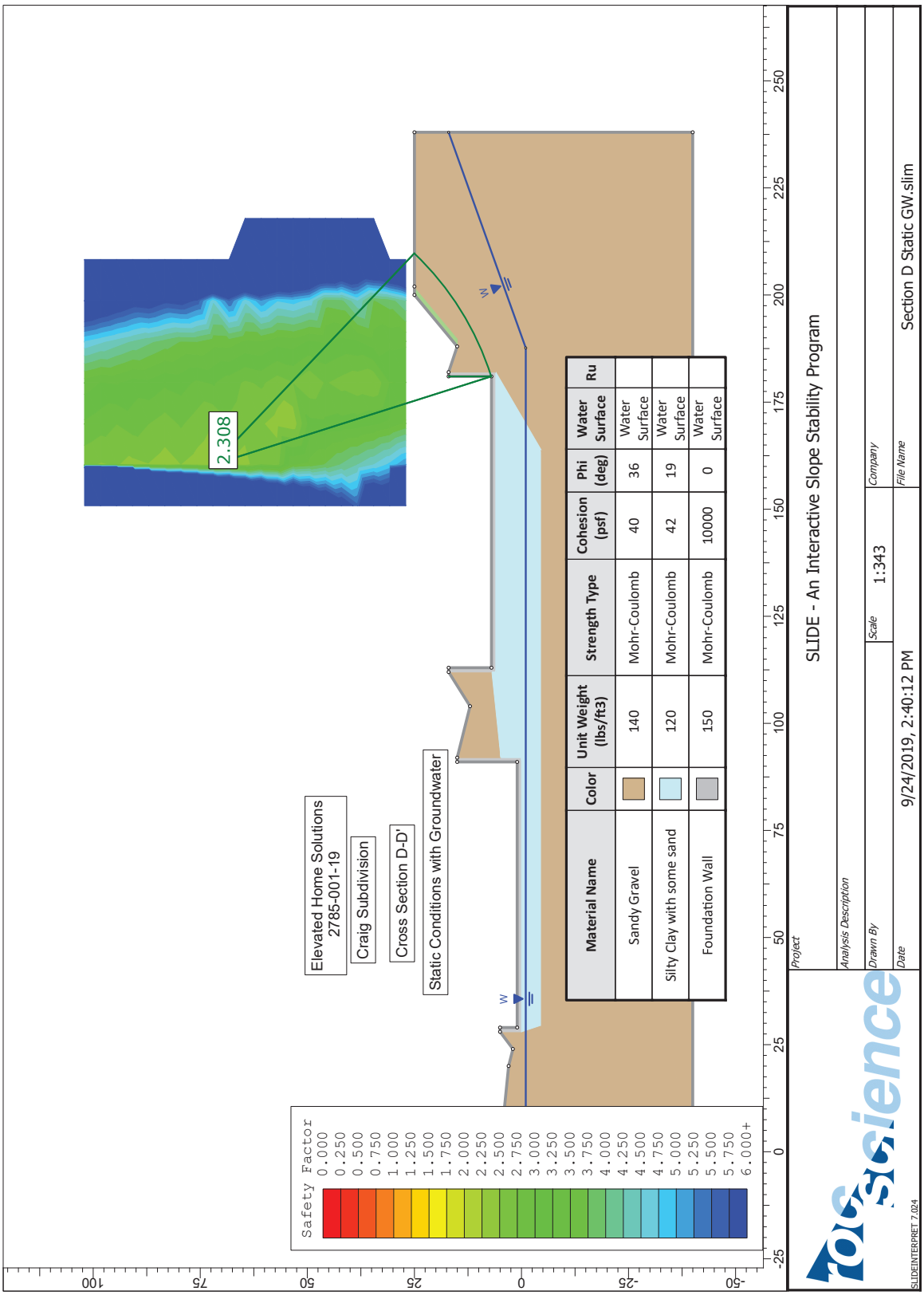
PROJECT NO.: 2785-002-19	GSH	**FIGURE NO.:** 12

STABILITY RESULTS



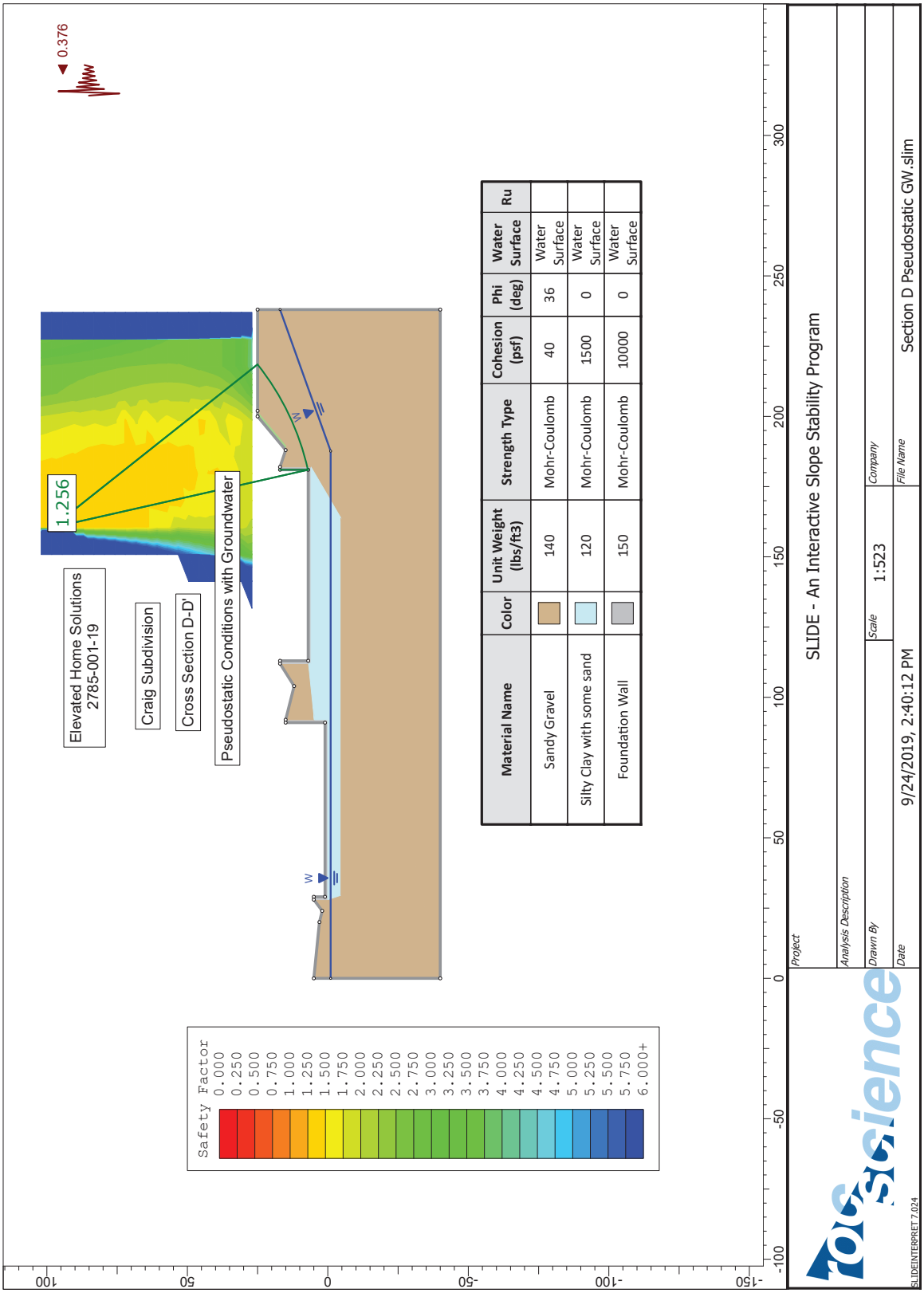
PROJECT NO.: 2785-002-19	GSH	FIGURE NO.: 13

STABILITY RESULTS



PROJECT NO.: 2785-002-19	GSH	**FIGURE NO.:** 14

STABILITY RESULTS



PROJECT NO.: 2785-002-19	GSH	**FIGURE NO.:** 15


R-1-8
89'
91'
90'
103'
77'
74'
83'
93'
85'
80'
118'
96'
100'
102'
90'
82'
86'
86'
77'
136'
50'
55'
75'
42'
91'
100'
90'
134'
87'
R-1-8
93'
125'
105'
78'
82'

Minutes of the
Millcreek Planning Commission
November 20, 2019
5:00 p.m.
Regular Meeting

The Planning Commission of Millcreek, Utah, met in a regular public meeting on Wednesday, November 20, 2019 at City Hall, located at 3330 S. 1300 E., Millcreek, UT 84106.

PRESENT:

Commissioners
Fred Healey, Chair (excused)
Tom Stephens, Vice Chair
David Allen (absent)
Russ Booth
Scott Claerhout
Shawn LaMar
Mark Mumford
Victoria Reid
Skye Sieber

City Staff
Francis Lilly, Planning and Zoning Director
John Brems, City Attorney
Elyse Greiner, City Recorder
Blaine Gehring, Planner
Robert May, Planner
Alexander Wendt, Deputy Recorder

Attendees: Mayor Jeff Silvestrini, Council Member Cheri Jackson, John Janson, David Amot, Dianne Johns, Marv Poulson, Aldo Arnone, Richard Luce, Russ Sorensen, Eric Elieson, Amber Measom, Derek Wilson, Courtney Whelan, Scott Thomas, Ed Fedoroll, Adrianna Karral, Diane Wenzl, Brandon Pehrson, Kyle Domire, John Thomas, Elizabeth L., Daniel Gonzales, Nancy Veit, Tony Tidwell, Jacob Shirley, Todd Gardner, John Shirley, David Croft, Brent Barnett, and Nancy Carlson-Gotts.

REGULAR MEETING – 5:00 p.m.
TIME COMMENCED: 5:04 p.m.

Vice Chair Stephens called the meeting to order and excused Chair Healey from the meeting. He then read a statement explaining the duties of the Planning Commission.

1. Public Hearings

1.1 Consideration of CU-19-011, Conditional Use Permit for a 38-unit Multi-Family Condominium Project Location: 4120 S. Highland Dr. Applicant: Paul Gardner Planner: Blaine Gehring

Blaine Gehring said the property was currently The Old Meeting House reception center operated by the applicant. Adjacent uses included commercial and office uses to the north and east with single family homes to the south and west. The Old Meeting House sat on a fault line and due to its age and original construction materials, it would cost too much to bring it up to current codes. The applicant would like to demolish the building and build the townhomes and condominiums. The 11 townhomes would be 3-bedroom 2-story units and

the 27 condominium would be 2-bedroom units on three levels with podium parking underneath the units meeting required parking including guest spaces. The townhomes would be 30 feet high in compliance with the 100-foot height transition requirement from R-1 zoning and the condominiums would be 45 feet high. The R-M code allows an additional 5 feet in height for projects that include solar panels with a capacity exceeding 50% of the power demand. Gehring showed the Commission illustrations of what the monument would look like to honor the existing building on the property. Gehring said at their meeting on November 5, 2019, the Millcreek Community Council voted to send a favorable recommendation for the conditional use permit to the Planning Commission subject to incorporating traffic mitigation as approved by the City Engineer by a vote of 11 in favor, 1 against, and 1 abstention. Staff recommended the approval of the conditional use permit with the conditions listed in the staff report, which were:

1. The applicant shall provide a project parking as detailed on the site plan.
2. The applicant shall provide the proposed exterior detailing/finishes as provided for in the application drawings.
3. The development will be limited to the eleven three-bedroom townhomes and twenty-seven 2-bedroom condominiums as proposed on the plan.
4. The front yard is 25', the side yards are to be 8', 14.5' and 15' and the rear yard is 25'.
5. The building height is 30 feet for the townhomes and 40 feet for the condominiums with 5 additional feet for solar panels providing more than 50% of the project power as per Section 19.44.050.22 of the zoning ordinance.
6. All service and mechanical equipment must be screened by landscaping or other methods as set forth in section 19.77.070 of the zoning ordinance.
7. Signs will require separate building permits and staff review for zoning/land use compliance.
8. No light source (light bulb, fluorescent tube, or other direct source of light used to illuminate a parking area) shall be visible beyond the property line of any off-street parking area as required by Section 19.80.030 of the zoning ordinance.
9. Any modifications to these approved plans must be approved by the Planning Department, in writing, prior to the changes being implemented in the field.
10. Landscaping shall be installed in compliance with Chapter 19.77 Water Efficient Landscape Design and Development Standards. Any revisions to the landscape plan package shall be reviewed and approved in writing by the director or designee prior to commencement of construction. Re-certification of compliance with the requirements of the landscaping ordinance shall be provided by the qualified professionals who prepared and submitted the landscape plan.
11. Landscaping and fencing shall be installed according to the plans submitted by the applicant for preliminary conditional use approval.
12. The applicant will comply with all requirements established through the technical review process prior to receiving final conditional use approval.
13. The applicant will comply with all requirements of the Unified Fire Code, subject to approval by the Fire Marshal.
14. The applicant shall obtain a complete review for an approved building permit and shall continually comply with the requirements of Millcreek City, Salt Lake City Department of Public Utilities, and the S. L. City Suburban Sewer District.
15. The applicant and its successors shall properly and continually maintain all required landscaping, fencing, buildings, and roads.
16. All signs and outdoor light shall be dark sky compliant.
17. Provide a historic plaque and plaza commemorating the Old Meeting House/Winder Chapel per the drawings submitted by the applicant as part of the preliminary conditional use approval.
18. Comply with all the requirements of the City's Geologic Hazards Ordinance.

DRAFT

Commissioner LaMar asked about the building elevations. Gehring said the townhomes would be 30 feet in height with 5 feet for the solar panels. The condominiums would be 40 feet in height with 5 feet for solar panels. Commissioner Reid asked about the City's rooftop landscape standards. Francis Lilly said the standards were minimal though the Commission could stipulate standards as part of the conditional use. Vice Chair Stephens asked about code for building preservation. Lilly said the historic preservation ordinance only contemplated four buildings, not the Old Meeting House, in the City and the ordinance needed a lot of work. Vice Chair Stephens asked about egress to the north. Gehring said there would be a left turn only lane onto Winder Lane and said there would be no direct access to Highland Drive. Commissioner Booth asked if there would be parking changes to the lot on the north side of the building. Lilly said none of the existing parking would change.

Applicant – Todd Gardner, said The Old Meeting House was built in 1904. The developers were part of the community and The Old Meeting House's past. He said the building was obsolete and it was not able to be saved. The developers have had good meetings with the neighbors to the west and would clean up the property in between them and the subject property. Commissioner Sieber asked about saving and incorporating elements of the old building. Gardner said the bricks would be used for the monument and pieces would be available to others. Commissioner Mumford asked about the new building in respect to the fault line. Gardner said the proposed building would comply with the fault line setback. Commissioner LaMar said the handout provided by the applicant differed in parking from the staff report.

Applicant - Jacob Shirley, 1181 Whitlock Avenue, said there were 88 parking stalls initially proposed and then it had been reduced to 87 stalls. He showed the Commission a drawing and picture of what The Old Meeting House monument would like. He said the 25-foot rear yard presented in the staff report would actually be 30 feet. He said the parking lot was about 8 feet different in topography from Highland Drive. He said the parking structure would be sub grade with the building on top. The roof of the parking structure would be turned into a plaza for the residents. He presented a rendering of the building heights complying with the 35 and 45-feet limits with the exception of the elevator shaft. There are big trees on property, and the developer would leave the existing trees and plant better trees next to them with the hope that they could cut out the junk trees in the future. The ingress/egress of the parking structure will be on the south side. He showed the Commission renderings of different angles of the buildings and of the plaza. Commissioner LaMar asked about the parking lot to the north of the building. Shirley said the proposed parking lot connects to Highland Drive but not the parking structure.

Amber Measom, Millcreek Community Council, said the Council voted in favor of the project. They appreciated the traffic not going onto Highland Drive, the solar panels, and the separated guest parking. She requested the old healthy trees be saved. She said resident concerns were about parking on Winder Lane and people driving through that neighborhood.

Vice Chair Stephens opened the public hearing.

Tony Tidwell, 4110 Highland Drive, said his business was north of the property. He said the parking lot on the north of the property was his business parking. There is a shared parking

agreement with the Old Meeting House for that lot. He expressed concern about construction parking interfering with his business parking.

David Amot, Preservation Utah, encouraged Millcreek to discourage incorporation of monuments into developments that impact historic resources in the City. His reasons were: 1) the monument was a form of preservation without preservation; 2) the monuments age badly and are targets of vandalism; and 3) the monuments are against the spirit of national preservation law as laid out by the National Park Service and international preservation law as laid out by the Venice Charter of 1968. He said historic preservation has been part of city planning for the past 60 years. During that time cities have found ways to balance historic preservation with property rights. He claimed he had reached out to Millcreek staff and leadership four times regarding the City's historic preservation ordinance without response. He said three organizations were ready to help Millcreek with establishing a historic commission and rethink the historic preservation ordinance; Preservation Utah, the State Historic Preservation Office, and the Utah Cultural Alliance. The amount of preservation depends on the priority of the issue. He expressed concern about Millcreek's leadership focusing on future development and not the treasures of the past.

Courtney Whelan, 1635 E. 4150 S., said she lived west of The Old Meeting House. She said cars speed down Winder Lane and adding more traffic to the street would be detrimental to the children that live in the area.

Adrianna Karral, 4115 S. 1615 E., said she lived west of the development and had a 15-year relationship with the Gardners. She cautioned the Commission on not making traffic decisions then and waiting until the complex was built to see what the impact was. She said there were junk trees that had not been maintained behind the property, so she was happy the developer was taking care of the problem.

Nancy Veit, 4419 Ashford Drive, expressed concern with housing within Salt Lake City and tearing down historic buildings. She said monuments give communities flavor.

Brent Barnett, 491 E. Vine Street in Murray, said the Winder Ward Building was rare and it could be renovated and protected. Millcreek citizens should know that no historic experts were consulted with respect to the project. Millcreek outdates every community in the valley save Salt Lake City and has nothing to show for it. He described an old adobe building that was allowed to be destroyed. He said Millcreek has two significant pieces of history left; a chimney in the Brickyard and the Winder Ward building.

Vice Chair Stephens closed the public hearing.

Vice Chair Stephens asked about traffic mitigation on Winder Lane. Lilly said there could be an inverse flare, but the CC&R's would reflect parking on Winder Lane and not vehicle movements. Commissioner Claerhout expressed concern about the removal of the old building. Lilly said if the ordinance does not tell planning staff to do something, all they can do is give a polite suggestion. He does not have the administrative ability to force the building to be saved because it does not fit in the historic list inherited from the County of buildings to preserve. He said the historic preservation ordinance update was on his list of things to do but he was currently occupied with other items. The building was on the fault

line and has unreinforced masonry. He does not have any leverage other than encouragement to save the building. He said keeping the building would take $3 million for a seismic upgrade. Commissioner LaMar said the building had outlived its useful life though he wished it had not. He appreciated Preservation Utah's comments but liked the monument idea. He suggested adding a condition that guest and residential parking be included in the rent and not at an additional charge. Vice Chair Stephens said preserving historic buildings was difficult and outside of the scope of the Planning Commission. He said historic preservation was not a condition that could be mitigated per code. Commissioner Mumford asked about building materials. Gehring said there was a list of materials in the staff report and it all met code. Lilly said a condition could be that the applicants meet the design as presented in the staff report.

Commissioner LaMar, regarding file # CU-19-011, moved to approve the application with the conditions listed in the meeting presentation and adding working with the city engineer to get an appropriate exit onto Winder Lane that forces traffic to go east instead of west and adding that guest and residential parking be part of the amenity that is included with living in the residence and not have an additional charge. Vice Chair Stephens seconded. Commissioner Claerhout asked about the unit density threshold and said the building did not fit with the area. Commissioner Booth asked about the overflow parking to the north of the building. Vice Chair Stephens said the concern for parking was during construction because the applicant had the right to use the parking to the north because of the shared parking agreement.

Dave Croft, 4120 S. Highland Drive, said there would be some effect on businesses and residences as part of construction. There will be other parking options for the business to the north.

Vice Chair Stephens asked about the intensity of the number of units. Gehring said the maximum density was met per code. Commissioner Reid suggested adding an amendment to the motion that parking to the north be worked out before construction begins. **Commissioner LaMar accepted the amendment to the motion that there be adequate parking to the north and an agreeable plan for that to be in place before construction begins. Vice Chair Stephens seconded the amendment.** Commissioner Sieber wondered about having discussions on how to honor the old building differently with the neighbors and the organizations that have expertise. Vice Chair Stephens said the conditional use chapter in code did not include historic structures. Lilly said Gehring crafted the mitigation in the context of detrimental effects arising from issues from neighborhood character. He suggested that the applicant diligently work with the State Historic Preservation Office and other stakeholders on an appropriate means of honoring the legacy of The Old Meeting House. **Commissioner LaMar accepted Lilly's suggestion that the applicant diligently work with the State Historic Preservation Office and other stakeholders on an appropriate means of honoring the legacy of The Old Meeting House as a friendly amendment to the motion. Vice Chair Stephens seconded the amendment.**

Vice Chair Stephens called for the vote. Commissioners LaMar, Stephens, Sieber, Booth, Reid, and Mumford voted yes. Commissioner Claerhout voted no. The motion passed 6-1. Commissioner Reid wondered about putting a hold or moratorium on historic-type buildings being redeveloped until an ordinance was put in place. John Brems said staff could propose a code amendment. Lilly said he could meet with the State Historic Preservation Official and Preservation Utah to craft a list of buildings and neighborhoods that warrant historic

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preservation. The City Council could adopt a pending ordinance that says Millcreek intends to save buildings while an ordinance is crafted or adopt an ordinance without doing the pending ordinance. He said the Council takes to heart what the Planning Commission recommends to them.

1.2 Consideration of CU-19-013, Conditional Use Permit for a Mixed-Use Project in the Town Center Overlay Zone Location: 3330 S. Highland Dr. Applicant: Russ Sorensen Planner: Francis Lilly

Francis Lilly asked the Commission about their evaluation of the information provided in the staff report and presentation. He said under the Town Center Overlay Zone and base C-2 Zone, the option is provided for additional height up to 74 feet for properties within 500 feet of the intersections of Highland Drive and 3300 S. and 1300 E. and 3300 S. He said that was a policy decision made by the City Council when they revised inherited County ordinances. The allowance was maintained because the General Plan and City Center Master Plan identified those locations as where the highest intensity of uses would be most tolerated in Millcreek's urban fabric. The Planning Commission needed to analyze the building and determine if the project met the requirements in code for the extra height allowance. Lilly went over the main characteristics of the project: 176 dwellings; 40,000 square feet of commercial, including dedicated office and commercial space; arranged in four distinct buildings, including a stand-alone office building; commercial spaces would be condominiums, requiring a second conditional use permit at a later date; commercial spaces were designed with specific Highland Drive businesses in mind; building height along Highland Drive would be 67 feet, additional height to the west was accommodated by a change in grade; and the project was designed to comply with the existing Town Center Overlay Zone and the pending City Center Overlay Zone.

Lilly said the property slopes downhill from Highland Drive at least 13 feet. The existing property housed the closed Linda's Furniture business. The property was surrounded by C-2 zoning, with Home Depot's parking to the west, the old bowling alley to the north, Home Depot to the south, and smaller scale commercial to the east. The nearest residence was over 250 feet away. Lilly showed the Commission renderings and elevations of the four buildings in the project that have stepbacks, roof patios/above grade decks, at-grade parking to the west, and underground parking to the south. He said the project did not include stucco as part of the material to be used. The buildings would follow grade with the greatest height to the south. Commissioner LaMar asked about the solid wall on the north building elevation. Lilly said the Commission could ask the developer about it. Lilly said the applicant was seeking a parking reduction for shared parking. A parking study was conducted and recommended that the applicant incorporate travel demand management practices in the proposal. He said travel demand management was the theory that a developer stipulates to reduced parking demand based on proximity to transit or a mix of uses, that conditions and standards could be crafted to require the developer to do certain things to justify the reductions. The highest shared parking demand would happen on a weekday from 12-7 a.m. and it required 322 parking stalls. The applicant was proposing at least 353 parking stalls.

Lilly went through the suggested conditions:

- The applicant shall restrict left turns out of the north project access or incorporate another means of traffic mitigation subject to the approval of the City Engineer which is what the

traffic study suggested and conforms with the overall Highland Drive traffic impact study for the City Center project.

- Prior to receiving final subdivision plat approval, the applicant shall bond for all required street improvements including curb, gutter, sidewalk, street trees and required irrigation, required setback landscaping, streetlights, and any other improvement required by the City.
- The applicant shall incorporate travel demand management strategies for the project, including but not limited to subsidizing the cost of transit passes for commercial and residential uses, providing safe, secure, and convenient bicycle storage beyond what is required by Millcreek code, and installing showers and locker rooms for use by commercial tenants.
- The applicant shall include a travel demand management plan in recorded covenants, codes, and restrictions to be recorded as part of the condominium plat or in tenant lease agreements.
- The applicant will ensure that every residential unit has at least one dedicated parking space. A requirement as part of the compliance measure is that the applicant give quarterly updates on parking demand and report annually for the first five years.
- The applicant shall provide service availability letters from all utility providers prior to receiving final conditional use approval.
- The applicant shall verify that the building will exceed the current energy code (2015 IECC, ASHRAE 90.1-2013) performance by at least 5 percent, prior to being issued a building permit. Applicant shall verify with engineering staff through appropriate studies as required by the City's Geological Hazards ordinance that the soils are suitable for development prior to receiving final conditional use approval.
- The applicant shall install dark-sky compliant lighting, and submit a lighting plan, including for signage, for review by planning staff prior to receiving final conditional use approval.
- The applicant shall comply with the materials palette presented in the application. No stucco or EIFS will be permitted on any building façade. The development shall consist of four separate buildings, including one standalone office building, and a retail space of at least 17,000 square feet along Highland Drive. The applicant is requesting additional height subject to the TCOZ provision for height above 40 feet for properties within 500 feet of the Highland Drive/3300 South Intersection.
- Within one year of receiving preliminary conditional use approval, applicant shall record a commercial condominium plat consisting of at least two commercial spaces, totaling at least 40,000 square feet of commercial uses. Commercial uses shall not include leasing offices or amenities space for the residential use.
- The applicant shall obtain preliminary plan approval from the Fire Marshal prior to receiving final conditional use approval.
- The applicant shall verify prior to receiving final conditional use approval that the residential uses have at least 12,000 square feet of shared open space, and that commercial uses have sufficient open space in addition to the residential requirement.
- The applicant shall provide to the City daytime and evening peak time parking counts obtained at quarterly intervals at least once annually, from the date of issuance of the final certificate of occupancy, for at least five years. Prior to receiving a certificate of occupancy, applicant shall apply an anti-graffiti material or coating on the north, west, and south building facades, and on any fencing the applicant installs on the project.

Lilly said the Planning Commission had to make findings to approve additional height. The Commission must consider:

Terrain Differences - The Highland Drive frontage has the highest elevation of the site. There's a grade change of at least 13 feet from the Highland Drive frontage to the west side of the property. The City Center Master Plan adopted a concept of greater heights downhill from Highland Drive because height can be built into the grade change.

Views - Staff is primarily concerned about obstruction of views from existing single-family residences. In the case of this application, the nearest single-family residence is 250 feet away, and uphill from the site. Views to the Wasatch Front would be obstructed from the Home Depot Access.
Surrounding Building Heights - The existing Linda's Furniture Building is roughly 40 feet and height, and other buildings are significantly lower than that. Nonetheless, the City Center Master Plan supports heights of up to 5 stories at this property, and the proposed CCOZ will adopt a policy of heights up to 75 as acceptable. The applicant's proposal is 67 feet, with significant stepbacks, along Highland Drive.

The Commission also needed to answer the following questions:

Does the Project include mixed uses or predominantly office uses? Does the Project exceed the building design standards of the ordinance? Does the project include either a 20-foot usable setback between the first and third floors, an additional building setback of 10 feet, or vertical façade setback for at least every 200 feet of frontage? Does the development provide on-site amenities and appropriate buffering to adjacent sites and uses? Is safe access provided within the site and to public streets? Does the project include commercial uses along Highland Drive?

Lilly felt the answers to all the questions were yes and then explained why. He said staff felt the project met all the requirements by code.

The Millcreek Community Council held a public meeting on the application on November 6, 2019 and recommended approval of the project, on a vote of nine in favor to four against. The Community Council requested that the project incorporate dark-sky compliant lighting. The Canyon Rim Citizens Association held a public meeting on the application on November 7, 2019 and recommended that the applicant continue his efforts to get a shared access to the west of the site through the Home Depot parking lot and recommended approval of the application on a vote of five in favor with one abstention. The East Mill Creek Community Council held a public meeting on the application on November 8, 2019 and unanimously recommended approval of the proposed project.

Commissioner LaMar asked about the flow of traffic. Lilly said the City Engineer weighed in on it. Commissioner Reid asked about the applicant working with Home Depot. Lilly said the developer and city staff had tried to have conversations with Home Depot, he would let the applicant speak to that.

Applicant - Russ Sorensen, 3660 E. Covepoint Drive, said he spent a lot of time working with neighbors and city staff on the project. He had tried for 6 months to work with Home Depot. That Home Depot is the highest selling store in the Salt Lake valley, so corporate did not want to touch it. He said existing business on Highland Drive will stay and expand in his new buildings, AquaVie Day Spa and the Fine Art Inn. The existing businesses had input into the proposed parking. No owner or employee would park at the surface level, they have dedicated space underground. He said he was considering adding a third level of parking. He said traffic demand management was based on center city massing, reducing traffic by mass transit. There was a dedicated UTA bus stop in front of the property and they would have a bicycle shop in the proposed garage. Commissioner Booth confirmed three levels of parking. Sorenson said underground parking was expensive and they were trying to maximize parking on site.

Vice Chair Stephens asked for community council input.

Amber Measom, Millcreek Community Council, said the project was big and looked great. She brought up a concern about parking with the City Center and that the City should consider pedestrian access from residences to the City Center.

Nancy Carlson-Gotts, East Mill Creek Community Council, said the council supported the project and requested sequencing of traffic lighting on 3300 S. and Highland Dr.

Vice Chair Stephens opened the public hearing.

Marv Poulson, 3631 Carolyn Street, said the traffic study had a deficiency because it did not include traffic accident rates. The traffic study conclusion referenced U-turns at Luck Lane to go north on Highland Drive. He pointed out an inaccurate map in the traffic study that Luck Lane was light signaled, not a stop sign.

Diane Wenzl, 3240 S. 1000 E., said the staff report was confusing regarding the height of the western most building. The report said the height was 102 feet at the southwest end and she wondered what the above grade height of the building was. Lilly said the height was set from the sidewalk and would be from the original grade below that. He showed the different height lines on the rendering to Wenzl and said the plan must meet code. Wenzl expressed concern about safety with a rooftop amenity on a 70-foot building and no stepback on the building from the west. She asked about floor plans for the condominium units. Lilly said that level of detail was not required at that point of application process.

Vice Chair Stephens closed the public hearing.

Vice Chair Stephens raised concern about no stepbacks from the west side. Commissioner Mumford expressed concern about the parking reduction with 116 stalls lost. Lilly said adding up all the factors as required by code the project required 469 parking stalls and the greatest with the shared parking ratio was 322 parking stalls. Commissioner LaMar said the parking percentages seemed adequate and liked the four-building approach with the open space. He said the transition was not good enough from the existing neighboring residential because there was too much mass. He said there were no traffic mitigations other than requiring right turns though 1,000 more trips would be required with the added residential. He said it was an enormous burden and safety concern for traffic trying to go north through only using U-turns. He said he was firmly opposed to supporting the project because of the traffic concern. He said he did not feel comfortable maximizing the height in transition to the City Center. Commissioner Sieber also had concern about the height, lack of transition, and encouraging U-turns on Highland Drive. She liked the concept of providing building spaces for existing businesses and mixed use. Commissioner Booth liked the project and that established businesses would go in the new buildings. He expressed concern about rear building height and traffic. Commissioner Reid said she like the mixed use and did not have a problem with the height. She advocated for the shared parking. She said people could drive through Home Depot to go north. Commissioner Mumford said safety issues were a prime concern with the U-turn and would like to see other options. Lilly reiterated that the applicant could provide another traffic mitigation subject to the approval of the City Engineer. Commissioner Mumford said he would like to see little bit of height reduction. Commissioner Claerhout said he liked the mass transit commuting options but had concerns

with the volume of traffic generated. Vice Chair Stephens requested a stepback on the west, south, and north sides of the project.

Commissioner Reid moved to support a positive finding in a 74-foot height as proposed. Commissioner Mumford seconded. Commissioner LaMar said the Commission does not have to max out the height allowed by the overlay zone. **Vice Chair Stephens called for the vote. Commissioners Claerhout, Reid, and Booth voted yes. Commissioners Mumford, Stephens, Sieber, and LaMar voted no. The motion failed 4-3.**

Commissioner LaMar asked about the standard for a 5-story building. Lilly said the height was usually driven by a tall ground floor story for retail. Commissioner Stephens said he would support the height with minimum 10-foot stepbacks on all four sides. Commissioner Reid preferred to have a stepback on the north side to preserve flexibility with the building.

Commissioner Reid moved to approve the 74-foot height building with stepbacks on three sides of building, not on the north side. Commissioner Claerhout seconded. Vice Chair Stephens suggested the stepbacks be not less than 10 feet as an amendment to the motion. **Commissioner Reid accepted the amendment that the stepbacks be not less than 10 feet. Commissioner Claerhout seconded the amendment. Commissioners Sieber, Booth, Stephens, Reid, Mumford, and Claerhout voted yes. Commissioner LaMar voted no. The motion passed 6-1.**

Vice Chair Stephens asked for discussion on the 25 conditions for the conditional use permit as listed in the staff report. John Brems suggested taking out the left turn condition and leave the traffic mitigation subject to the City Engineer's approval. Lilly said the condition would read, "The applicant shall incorporate a means of traffic mitigation along Highland Drive subject to approval by the City Engineer." Commissioner LaMar said the intersection was rated as a level F and to add traffic to it was not okay. He wanted to know what the specific mitigation would be. He requested the Unified Police Department's opinion be considered in addition to the City Engineer's. He said he would be in favor of a continuance of the application. Lilly said the application could move forward on a preliminary concept approval and prior to final conditional use approval the Planning Commission could be given an opportunity to review the proposed mitigation.

Commissioner Reid moved approval of the proposal with all of the conditions listed including the one added in the previous motion and the addition that the proposal come back to the Commission prior to issuance of the final conditional use permit. Commissioner Booth seconded. Commissioner Sieber asked for clarification that the stepbacks would be on the west, east, and south side. Vice Chair Stephens added that not less than one stepback would be not less than 10 feet deep. Commissioner LaMar said the Commission was setting precedent for the density though the traffic solution may not accommodate it. Lilly said the likely mitigation would be a street side improvement, not a reduction of units. **Commissioner Reid accepted the clarified amendment for the stepbacks that they would be on the west, east, and south side and no less than 10 feet deep. Commissioners Reid, Booth, Claerhout, Mumford, Stephens, and Sieber voted yes. Commissioner LaMar voted no. The motion passed 6-1.**

The Commission took a break from 7:51 to 8:01 p.m.

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1.3 Consideration of SD-19-013/CU-19-014, Preliminary Plat Approval and Conditional Use Approval for an 8-unit PUD in the R-1-5 Zone Location: 4236-4248 S. 900 E. Applicant: Property Dynamics, LLC Planner: Robert May

Robert May said the Commission previously saw the application with a rezone, now the applicant was applying for a conditional use permit and subdivision. He said there was no public opposition with the rezone or earlier in the planning process. May said the applicant met the open space requirements. He showed the site plan and elevations to the Commission and said the project was subject to the Residential Compatibility Overlay Zone (RCOZ). The Millcreek Community Council recommended approval subject to the development agreement. Staff recommended to the Millcreek Planning Commission to preliminary approve the proposal based on staff findings and conditions located in the staff report and the following two requirements: 1) the applicant and its successors shall properly and continually maintain all required landscaping, fencing, buildings, and roads through CC&R's. Development CC&R's must include: residents under HOA restraints may not have loud or obnoxious event, pets must be leashed at all times, and no guest parking outside of PUD boundaries; and 2) must meet all R-1-5 Residential Compatibility Overlay (RCOZ) Zone requirements. May said garbage and recycling would be individual with each home.

The conditions found in the staff report were:

1. Meet all requirements listed in Exhibit B of the recorded development agreement file # 13035475, recorded on July 23, 2019.
2. Signs will require separate building permits and staff review for zoning/land use compliance.
3. Meet all Development Requirements in Chapter 19.78.030 of the Millcreek Code. Specifically, 19.78.030 (6) a. Garage parking, if used, shall have a minimum unobstructed size of twenty-two feet wide by twenty feet in length, or twenty feet wide by twenty-two feet in length.
4. No light source (light bulb, fluorescent tube, or other direct source of light used to illuminate a parking area) shall be visible beyond the property line of any off-street parking area as required by Section 19.80.030 of the zoning ordinance.
5. Any modifications to these approved plans must be approved by the City Council as an amendment to the development agreement.
6. The applicant will comply with all requirements established through the technical review process prior to receiving final conditional use approval
7. The applicant will comply with all requirements established through the technical review process prior to receiving final subdivision approval.
8. All requirements found in Title 18 (Millcreek Subdivision Code) shall be met, including all applicable fees and bonding.
9. The applicant will comply with all requirements of the Unified Fire Code, subject to approval by the Fire Marshal.
10. The applicant shall obtain a complete review for an approved building permit and shall continually comply with the requirements of Millcreek City, Salt Lake City Department of Public Utilities, and the S. L. City Suburban Sewer District.
11. The applicant and its successors shall properly and continually maintain all required landscaping, fencing, buildings, and roads through CC&R's
12. The applicant shall meet all requirements of Chapter 19.77 Water Efficient Landscape Design and Development Standards.
13. All items of the staff report.

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Applicant – John Thomas, Property Dynamics, said the project would be a beautiful clean community that would improve the area. He said there would only be one access and the curbs would be painted red. Vice Chair Stephens asked if the community would be gated. Thomas said he had talked with staff about doing it and staff was open to a gate but not at the location it had once been proposed at.

Amber Measom, Millcreek Community Council, said the council thought it was a nice project.

Vice Chair Stephens opened the public hearing.

There were no comments.

Vice Chair Stephens closed the public hearing.

May said the previous development agreement would reinforce what had been proposed.

Commissioner LaMar, regarding CU-19-014, moved to approve the conditional use as presented in the staff report and in the meeting with the conditions presented by staff. Commissioner Mumford seconded. Vice Chair Stephens called for the vote. All Commissioners voted yes. The motion passed unanimously.

Commissioner Mumford moved to approve SD-19-013 as proposed by the planning staff and outlined as recommended. Commissioner Sieber seconded. All Commissioners voted yes. The motion passed unanimously.

1.4 Consideration of CU-19-012, Conditional Use Permit for a Drive-Through Beverage Shop Location: 2305 E. 3300 S. Applicant: FourFoods Group Planner: Blaine Gehring
Blaine Gehring said FFG Soda Shop Stores LLC (SWIG) was requesting a conditional use permit for a drive-through soda shop located at 2342 East 3300 South in the C-2 (Commercial) Zone. He said the building would be a metal self-contained unit measured at 417 square feet and showed the Commission pictures of it. The applicant was proposing outside in-line ordering to accelerate the order before the take-out window, similar to Chick-fil-A. The applicant would also put in outdoor landscaping and seating.

At their regularly scheduled meeting on November 6, 2019, the Canyon Rim Citizens Association voted 6 in favor and 1 abstention to send a favorable recommendation for the conditional use permit subject to incorporating trees that are effective at sequestering carbon monoxide and the placement of a pedestrian warning sign in the drive-through lane. At their meeting on November 7, 2019, the East Mill Creek Community Council voted to send a favorable recommendation for the conditional use permit to the Planning Commission by unanimous vote.

Planning staff recommended approval of the conditional use permit with the following conditions:

1. The applicant shall provide a project parking and landscaping as detailed on the site plans.
2. The applicant shall provide the proposed exterior detailing/finishes as provided for in the application drawings. No more than 50% of the street-facing façade, excluding windows, may

be of one material. Windows or doors are required for the façade along 3300 South and shall comprise 50% of the ground story façade as measured from the floor to ceiling.
3. The development will be limited to one self-contained building of 417 square feet.
4. Outside, in-line staff will be present to take orders when a queue of greater than 2 cars are present.
5. All service and mechanical equipment must be screened by landscaping or other methods as set forth in section 19.77.070 of the zoning ordinance.
6. Signs will require separate building permits and staff review for zoning/land use compliance.
7. No light source (light bulb, fluorescent tube, or other direct source of light used to illuminate a parking area) shall be visible beyond the property line of any off-street parking area as required by Section 19.80.030 of the zoning ordinance.
8. Any modifications to these approved plans must be approved by the Planning Department, in writing, prior to the changes being implemented in the field.
9. Landscaping shall be installed in compliance with Chapter 19.77 Water Efficient Landscape Design and Development Standards. Any revisions to the landscape plan package shall be reviewed and approved in writing by the director or designee prior to commencement of construction.
10. The applicant will comply with all requirements established through the technical review process prior to receiving final conditional use approval.
11. The applicant will comply with all requirements of the Unified Fire Code, subject to approval by the Fire Marshal.
12. The applicant shall obtain a complete review for an approved building permit and shall continually comply with the requirements of Millcreek City, Salt Lake City Department of Public Utilities, and the S. L. City Suburban Sewer District.
13. Approval of UDOT for the use and accesses required.
14. Provide CO2 trees and outdoor seating in the landscape area and no-idle signs in the drive-through lane.
15. The applicant and its successors shall properly and continually maintain all required landscaping and buildings.

Commissioner Mumford asked about the determination for the two-car threshold for ordering lines outside. Francis Lilly said it came up in the traffic study and by evaluation from the City Engineer. Vice Chair Stephens asked about the building material. Lilly said he would let the applicant speak to it. Commissioner Reid asked about the pedestrian walk ups.

Applicant – Daniel Gonzales, 1557 W. Innovation Way, said the recycled shipping container had small footprint and the business was an urban infill type project. He said 90% of customers would come through the drive-thru during the in-between mealtimes. He said the building was 30 feet from the sidewalk on 3300 S. with a pedestrian walk up window. The outside staff person, known as a line buster, would help reduce the wait time to two minutes. Commissioner LaMar asked if it was two minutes per car. Gonzales said yes. Gonzales said the property was an underutilized lot. He asked why Millcreek would require a UDOT referral when other cities do not. Lilly said UDOT had the authority to grant an access permit and if they communicated that they were not concerned by the project, then it was okay. The conditional use permit approval was preliminary upon technical review and that needed to happen as part of the site plan review because UDOT owned the road, not Millcreek. Gonzales asked about carbon sequestering trees. Gehring said the business was near a busy intersection so reducing the CO2 was important. He offered that the applicant works with a landscape architect for appropriate trees. Lilly said the Planning Commission could impose conditions based on detrimental effects by the use due to its nature including noise, odors,

environmental impacts, dust, fumes, vibrations, chemicals, toxins, pathogens, gases, heat, light, electromagnetic disturbance, or radiation. Gonzales said there would be three trees on the property. Commissioner Booth offered that trees may block the commercial view to JOANN and DownEast Outfitters from 3300 S. Commissioner Reid asked about pedestrian access. Gonzales said the walkup would be on the west side of the building.

Nancy Carlson-Gotts, East Mill Creek Community Council, said because of the walk-up windows and egress, the council asked for a beware of pedestrians sign.

Vice Chair Stephens opened the public hearing.

There were no comments.

Vice Chair Stephens closed the public hearing.

Commissioner Sieber asked if the pedestrian crossing sign was a listed condition. The Commission agreed to add it. Commissioner LaMar asked about the distance of drive-through window requirements from residential zones. Lilly said it met the requirements.

Commissioner Mumford moved to approve the conditional use permit for CU-19-012 as presented by staff to include a pedestrian crossing sign and make sure there are three trees. Commissioner Reid seconded. Vice Chair Stephens called for the vote. All Commissioners voted yes. The motion passed unanimously.

1.5 Consideration of ZM-19-017, Rezone from R-2-10 to R-1-5 to Facilitate the Development of a Subdivision for Two New Single-Family Residences on Grand Cayman Dr. Location: 828 E. 4125 S. Applicant: Aldo Arnone Planner: Blaine Gehring
Blaine Gehring said the applicant was requesting the rezone of property located at 828 E. 4125 S. from R-2-10 to R-1-5 to facilitate a subdivision of the property to create two new single-family lots at the end of Grand Cayman Drive. The property is currently a narrow, deep parcel fronting on 4125 South and adjacent to Grand Cayman Drive, is .57 acres in size, and is adjacent to R-1-5, R-1-10, and R-2-10 zoning. The proposed 3-lot subdivision would provide a hammerhead turnaround rather than a cul-de-sac to enable a future connection of Grand Cayman Drive to 4170 South to the east when warranted. Staff recommended the Planning Commission send a favorable recommendation to the City Council for this rezone. Gehring said if the rezone was approved, it would come back to the Commission as a 3-lot subdivision. Vice Chair Stephens asked if the existing home would be demolished. Gehring said no.

Applicant – Aldo Arnone, 633 E. Hollywood Avenue, said the intent of the project was to make the connection with 4170 S., getting a turnaround on Grand Cayman Drive, and subdividing the property. The houses would be similar in style to the existing homes on the street. Commissioner LaMar asked if the road would be owned by the City if it was extended. Gehring said the road would be part of the dedication for the plat and other lots would be involved to obtain the dedication. Commissioner LaMar asked if there would be an easement over the proposed road connection to prevent building on it. Gehring said yes.

Vice Chair Stephens opened the public hearing.

There were no comments.

Vice Chair Stephens closed the public hearing.

Commissioner Booth moved to send a favorable recommendation to the City Council to rezone ZM-19-017 at 828 E. 4125 S. from R-2-10 to R-1-5. Commissioner Claerhout seconded. Vice Chair Stephens called for the vote. All Commissioners voted yes. The motion passed unanimously.

Continuing Business

1.6 Consideration of ZT-19-003, Adoption of the City Center Overlay Zone Planner: Francis Lilly

Francis Lilly said the Commission first reviewed the City Center Overlay Zone (CCOZ) draft ordinance in August and it was one part of the policies the City was going to pursue in relation to the City Center. Millcreek first adopted the General Plan and the City Center Master Plan. The components that will come after the ordinance include: Highland Drive corridor improvements, the Mountair streetscape, Villa Vista Avenue development, Millcreek Common design, parking district/parking structures, residential parking restrictions, Millcreek Common construction, initial development around Millcreek Common and along 3300 South and Highland Drive, implementation of a business improvement district, potential code revisions, and pedestrian improvements. He said there had been various aspects of community engagement involved on a whole range of efforts for a city legacy that residents could be proud of. He went through the timeline of engagement for the ordinance; first draft prepared in May 2019, Planning Commission work meeting on July 29, 2019, open houses conducted in the first week of August 2019, first community council review in August 2019, Planning Commission public hearing on August 21, 2019, neighborhood meeting in September 2019, second community council review in November 2019, and the Planning Commission meeting on November 20, 2019.

He said staff has crafted an ordinance that responds to the General Plan and City Center Master Plan uses. He said the plans address building heights in stories but the ordinance addresses building heights in feet and the key characteristics of them are a diverse mix of land use and space for local community events and socialization. The Master Plan had four guiding principles to guide future development municipal investments, public-private partnerships, and land use decision. Those are: 1) The City Center should emphasize walkability and minimize internal traffic and parking demand, 2) The City Center should include municipal property owned by the City and be designated for public use, 3) The design of Millcreek's City Center should represent the City in ways that are distinctive from other cities and unique to Millcreek; and 4) The City Center should emphasize culture, art, ideas, and interaction between citizens. Lilly said his goal as a planner was to harness development into something that the community can like. The City Center has 3 districts, Neighborhood, Millcreek Center, and City Marketplace, and those districts shape the building requirements in code. One of those building requirements is building height. The Building Height Map in the proposed ordinance differs from the one in the City Center Master Plan. Lilly showed the Commission the maps and explained the differences. The ordinance map included a maximum height lower than what the Master Plan contemplates east of Highland Drive, a lower height maximum along the open space, and a greater height

maximum south of 3300 S. in some areas. He said one thing to note about the heights, is that they contemplate a minimum and maximum. He did not want a situation where a developer would not know what height they were going to get when making application for development. Lilly also showed the Commission a sun study of the open space in January (9:30 a.m. – 4:30 p.m.) and August (7:00 a.m. – 7:00 p.m.). Each of the renderings showed partial sunlight in the open space with significantly more in the summertime. The study contemplated 74-foot tall buildings with stepbacks.

John Janson went through the technical amendments made to the draft ordinance since the Commission had last seen it. He said the red text in the proposed ordinance in Francis Lilly's staff report were the amendments, and they came from comments in the Commission's work sessions, comments in community council meetings, input from the open space designers, and input from staff. As Janson reviewed the changes with the Commission, Lilly made real time amendments to the text. The first amendment was a new definition for "commercial recreation" in the definitions chapter of Title 19 (19.04), not in the overlay zone. Vice Chair Stephens added an amendment to the definition, "Temporary events approved by the City pursuant to the City's code shall not be limited by this language."

Janson said in the first draft, every project was a permitted use and some changes were made in regard to height and size of buildings triggering a conditional use due to potential detrimental effects. There were three qualifiers listed for conditional uses. The Commission requested that the three be "or" statements, that any "one" of them would generate a conditional use. Janson said the three overlay zone criteria created the conditional use and superseded the underlying zone conditional uses. Vice Chair Stephens asked if that intent was clear in the ordinance. Lilly said there was a prior ordinance draft that listed permitted and conditional uses, but now any use listed as permitted would be permitted unless it met any of the three criteria for a conditional use. Janson said most of the proposed projects would qualify as a conditional use.

Commissioner LaMar asked about a site plan review process. Janson said the conditional use process would become a site plan review process. Lilly went over the life cycle of a CCOZ application; preapplication meeting, site plan review application, staff analysis of detrimental effects, conditional use permit application and Planning Commission review if required, staff site plan approval/preliminary conditional use permit, final development plan/final conditional use permit, and building permit. Commissioner LaMar asked if the public and Planning Commission would be involved in a site plan approval if a project did not meet any of the three criteria. Janson said no, there were more standards in this ordinance regulating the permitted use than any other he had worked on. Commissioner LaMar said mistakes may get made and applications coming to the Commission helped to minimize those mistakes. Vice Chair Stephens asked if reducing the threshold of the three criteria would help. Commissioner LaMar said he was concerned about the mass of the building itself, not what would take place inside the building. Lilly said applications would get delayed going through the planning process and he pointed out that the Planning Commission only meets once a month. Commissioner LaMar said he wanted protections from medium sized buildings getting automatic approval.

Janson clarified Prohibited Uses and Use Limitations in Table 19.73-2. Mixed use buildings within 300 feet of the northwest corner of Highland Drive and 3300 S. and the northeast

corner on 1300 E. and 3000 S. shall contain no more than 25% of the building floor area as residential uses. Lilly pointed out that the ordinance has received mixed reviews from professionals, and one of those professionals requested the 300-foot measurement be reduced to 250 feet. Three items were added to the bottom of the use list; structured parking, sidewalk dining, and restaurant and retail uses facing Millcreek Common. Vice Chair Stephens brought up a minimum distance from the edge of the roof, setback, for rooftop amenities. Janson said the draft ordinance originally had a setback from the proposed loop road in the open space, so staff had used a right-of-way setback, but they had since defined the plaza edge as the right-of-way in case there was no loop road installed. Commissioner Mumford asked about parameters for encroachments into the park. Lilly said temporary encroachments would be up to the licensing standards the Council adopts. Janson said building stepbacks would be on the façade facing streets. Vice Chair Stephens asked about stepbacks on more sides. Lilly said stepbacks on all sides of buildings would cause the City problems.

Janson said staff added to the list of proposed trees, including flowering trees to Neighborhood Streets. Commissioner Reid said the same tree should be used along the streets. Janson said using the same tree type could mean a loss of all the trees if a disease gets to them. He said Highland, Richmond, and 3300 S. would have the options of two types of sycamore trees. Lilly said an urban forester would handle the planting of trees and the landscape chapter in Title 19 handled the minimum caliper of and the way the tree must be planted. Lilly said the frontage for Millcreek Common Street would only apply if a vehicular access street was between any building and Millcreek Common. He pointed out that there would be a 2-year bond on all landscaping with the Street Tree Planting Plan.

Janson mentioned that east or west facing windows above the third story would not be reflective, and staff added a window diagram to the ordinance. Janson said stucco and EIFS were prohibited building materials. He highlighted the commercial depth of first floors in the mixed use building as 30 feet for a standard, but some would be 20 feet. He said staff was considering going to 20% from 15% for the open space requirement, though there could be in lieu substitutions. Commissioner Reid requested a discussion on signs because she felt there were too many and she wanted greater restrictions on them. Janson said there was a pending sign ordinance draft that had not yet been approved by the Council. Lilly said projecting signs would be limited to 42 inches in width and an 8-foot clearance above the ground. Commissioner Sieber said dark sky lighting compliance meant different things to different people. Janson said staff was leaving that up to the developer to comply with. Commissioner Sieber said there were dark sky light standards by the International Dark-Sky Association (IDA) and recommended using those standards. Lilly said maybe those standards could be incorporated by reference. Commissioner Reid recommended to staff to not pick a streetlamp style as pictured in the ordinance draft until an open space theme had been determined. Janson said staff had chosen that design.

Vice Chair Stephens brought up building stepbacks. Lilly said stepbacks were required for any building over 40 feet in height *and* for development on properties fronting on the Millcreek Common Street, 3300 South, Richmond or Highland Drive. Vice Chair Stephens suggested changing the “and” to “or” for buildings requiring stepbacks (Table 19.73-4: Notes, 2.). Commissioner LaMar asked if restaurants in Millcreek Common could serve alcohol. Janson said yes, since Millcreek Common would be a plaza space, not park. Lilly went over finishing touches of the draft ordinance. He said staff expanded the rooftop garden

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requirement minimum distance from 50 feet to 100 feet from R-1, R-2, or R-4 zones; expanded the open space required for multifamily or mixed-use projects from 15% to 20%; and clarified guest parking requirements.

Vice Chair Stephens opened the public hearing.

Marv Poulson, 3631 Carolyn Street, said he took exception to the tree list. He said sycamores were dirty trees, hated city heat, and could easily catch disease. The Commission asked for his tree recommendations. Poulson said he provided a list to staff months ago.

Diane Wenzl, 3240 S. 1000 E., asked for more time to discuss the rooftop gardens and favored increasing the minimum distance from residential zones from 50 to 100 feet. She asked about the exemption. Lilly said if the rooftop garden was below the highest part of the building and the highest portion of the building was backing the residential, the minimum distance should not matter. He said the line of sight goes away when something was in between the rooftop garden and the residential zone.

Vice Chair Stephens closed the public hearing.

Vice Chair Stephens said he felt rushed to make a decision on the draft ordinance and proposed a special Commission meeting to discuss the topic further. The Commission decided to have a special meeting on Monday, November 25, 2019 at 5:00 p.m.

Commissioner Sieber moved to continue consideration of ZT-19-003 to a special meeting on November 25th at 5:00 p.m. Commissioner Claerhout seconded. Vice Chair Stephens called for the vote. All Commissioners voted yes. The motion passed unanimously.

2. Business Meeting

2.1 Approval of October 16, 2019 Meeting Minutes

Commissioner Booth moved to approve the October 16, 2019 minutes. Commissioner Reid seconded. Vice Chair Stephens called for the vote. All Commissioners voted yes. The motion passed unanimously.

2.2 Updates from the Planning and Zoning Director

There were none.

3. New Items for Subsequent Consideration

There were none.

4. Calendar of Upcoming Meetings

- City Council Mtg., 11/25/19, 5:00 p.m. at City Hall
- Mt. Olympus Community Council Mtg., 12/3/19, 6:00 p.m. at 3450 E. Oakview Dr. (tentative)
- Millcreek Community Council Mtg., 12/3/19, 6:30 p.m. at City Hall
- East Mill Creek Community Council Mtg., 12/5/19, 6:30 p.m. at 2266 E. Evergreen Ave.
- City Council Mtg., 12/9/19, 5:00 p.m. at City Hall
- City Council Work Mtg., 12/16/19, 5:30 p.m. at City Hall

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- Planning Commission Mtg., 12/18/19, 5:00 p.m. at City Hall

ADJOURNED: Commissioner Mumford moved to adjourn the meeting at 10:15 p.m. Commissioner Reid seconded. Vice Chair Stephens called for the vote. All Commissioners voted yes. The motion passed unanimously.

APPROVED: _____ Date
Fred Healey, Chair

_____
Attest: Elyse Greiner, City Recorder

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Minutes of the
Millcreek Planning Commission
November 25, 2019
5:00 p.m.
Special Meeting

The Planning Commission of Millcreek, Utah, met in a special public meeting on Monday, November 25, 2019 at City Hall, located at 3330 S. 1300 E., Millcreek, UT 84106.

PRESENT:

Commissioners
Fred Healey, Chair (absent)
Tom Stephens, Vice Chair
David Allen (absent)
Russ Booth
Scott Claerhout (absent)
Shawn LaMar
Mark Mumford
Victoria Reid
Skye Sieber

City Staff
Francis Lilly, Planning and Zoning Director
Alexander Wendt, Deputy Recorder
Kurt Hansen, Legislative Policy Director

Attendees: Mayor Jeff Silvestrini, Council Member Dwight Marchant, John Janson, Marv Poulson, D. Wenzel, and Jake Christensen.

Minutes by Alexander Wendt.

SPECIAL MEETING – 5:00 p.m.
TIME COMMENCED: 5:02 p.m.

Vice Chair Tom Stephens called the meeting to order.

1. Continuing Business

1.1 Consideration of ZT-19-003, Adoption of the City Center Overlay Zone Planner: Francis Lilly.

Francis Lilly explained that the purpose of the meeting was for reviewing the Planning Commission's draft for the City Center Overlay Zone. He said the City was creating a code compliance checklist for every building type contemplating in the code. In the CCOZ there will be a required site plan review whether the proposed building is part of a conditional use permit or not. The required fee will be $455 and there will be a review process. Staff will review the application item by item from the City Code. This form will be required to be filled out by developers. Mr. Lilly believed this would ensure all obligations and requirements would be met. Then the document would be presented to the Planning Commission.

Mr. Lilly edited the proposed ordinance section on commercial recreation by adding language from City Code that it did not include temporary and seasonal licenses or large scales events as defined in Title 5 of City Code. Vice Chair Stephens stated that if the commercial recreation definition is all risk and all is allowed except for items that are excluded, that perhaps the definition should say commercial recreation does not preclude seasonal and temporary licenses.

Mr. Lilly explained staff would do a 13-item checklist on development plans even if the use was a permitted use. He suggested that a conditional use permit shall be required for any building that meets any of the following criteria, "a total square footage greater than 25,000 square feet, and or, a ground floor footprint greater than 15,000 square feet, and or, a height greater than 36 feet, not including any element described as a height exception in Table 19.73-4."

John Janson asked the Planning Commission if the height requirement should be lowered. Any application that comes in that triggers any one of the criteria would require a conditional use permit. Commissioner Reid asked how developers would react to the conditional use process. Mr. Janson replied that the development community does not usually like the conditional use process, however, development was not as discretionary as it once was. Largely, the decision would be left up to the City. Mr. Lilly stated that the public and stakeholders expect a public process. Mr. Lilly said that a larger building with larger parking demand and multiple uses should have a conditional use. Commissioner Reid said she did not want to make the requirements too stringent.

Commissioner LaMar asked about detrimental effects and the wording of "that may need to be addressed." Commissioner LaMar said the wording was not strong enough since the problem would need to be solved not just addressed. Mr. Lilly stated he would make an addition that if staff notes a detrimental effect then it will need to be mitigated or resolved.

Mr. Lilly asked if the Commission was fine with the conditional use thresholds for height and size. Commissioner LaMar said he would prefer the thresholds be lowered. Vice Chair Stephens asked for the sentiment of the Planning Commissioners and asked why the relevant language was duplicated in the draft. Mr. Janson stated it was there to make the requirements very clear. Mr. Lilly said the section is designed to show how to make an application. Vice Chair Stephens asked to review the categories by district. Vice Chair Stephens then asked if the requirement for a maximum 2,500 square foot limit on building size in the neighborhood district was too small. Mr. Janson replied that it applies to a small office in a building. The intent for a neighborhood district is more residential. Mr. Lilly explained that neighborhood retail has a limit of 5,000 square feet of space. Commissioner LaMar asked about size of offices. Mr. Lilly explained this is by use. Commissioner LaMar clarified asking if an individual had a storefront and a call center then the call center would have to go elsewhere if it was 5,000 square feet. Vice Chair Stephens asked if the 2,500 feet is aggregate or only for ground floor use. Mr. Janson replied that the square footage limits are based on the proposed use. Vice Chair Stephens would prefer to increase the 2,500 square foot limit. Mr. Janson stated the intent is to keep the space small in a neighborhood district. Mr. Lilly responded that in the C-1 zone 5,000 square feet is the limit. Commissioner Booth thought some might slip through. Mr. Lilly said that any office use would have to be limited to 2,500 square feet. Mr. Janson stated the City is trying to encourage the larger offices to Mill Center or

Marketplace. Vice Chair Stephens said he then thought moving back to 2,500 square feet was preferable.

Commissioner Mumford asked for a definition of non-stealth telecommunication facilities. Mr. Lilly explained that those are older style cell towers that are not designed to be styled to look like something else. Commissioner Mumford asked if Millcreek would want to develop their own communication system at a future date. Mr. Lilly said it would need to be behind a parapet or be screened in some way if the City moved to that point.

Mr. Lilly moved to page 6, concerning residential uses. Residential uses are permitted by district and within the building types specified in section 19.73.050 (14) except that mixed use buildings located within 300 feet of the northwest corner of Highland Drive on 3300 South and northeast corner of 1300 East and 3300 South. Property owners would prefer 250 feet. Mr. Lilly explained that if you are 250 feet from a corner then no more than 25% of the building could be used for residential uses. Mr. Lilly explained concerning rooftop gardens that they will not be, "allowed within 100 feet of a R-1 or R-2 zone boundary in the Neighborhood or Market Place districts, unless the rooftop garden, patio or amenity space is not located above the highest occupied floor of a building, or is obstructed from view from the zone boundary by at least 20 feet of occupied floor space." John Janson stated that the surrounding zonings to these areas were not often a R-1 or R-2.

Commissioner Reid asked if there were code requirements for parking structures due to safety concerns and restricted visibility. Mr. Janson stated there were no ordinances in Millcreek about parking structures and lighting or visibility. Commissioner Reid said it was a safety concern, however, if the structures were well lit with clear elevators then they would be safer. Mr. Lilly replied that there was an idea called crime prevention through environmental design. There are four principles within this school of thought; natural surveillance, natural access control through limited and obvious points of entrance and exist, territorial reinforcement by creating safe spaces by eliminating blind corners, and finally maintenance. The City can incorporate these ideas in the conditional use ordinance. Commissioner Sieber stated that parking garages in downtown Salt Lake City were brighter due to brighter colors. Mr. Lilly said the City would have a major parking garage at some point. Commissioner LaMar asked if the parking structure could be underneath the common area. Mr. Lilly replied any parking garage was subject to fault line requirements.

Mr. Lilly said building heights were still a concern. Vice Chair Stephens said the Commission could make a sub-recommendation to the City Council that height should not exceed 50 feet at Tuxedo Junction. Mr. Lilly explained that the challenge was in height transitions and proximity to view corridors in residential areas. Mr. Lilly said that development in the area was the end-goal and leaving the height the same would limit new development. Mr. Janson and Commissioner Mumford agreed that the area would be a gateway to Millcreek. Vice Chair Stephens asked if the Commission would recommend the Tuxedo Junction area to not exceed 50 feet. Commissioner LaMar said that 50 feet was better than 74 feet. Commissioner LaMar asked if the height of a 48-foot minimum could be reduced to a smaller amount for the 48-74 feet area. Commissioner LaMar worried about a canyon feel and a minimum of 40 feet instead of 48 feet could alleviate that. Vice Chair Stephens asked if a 50-foot maximum height was okay for Tuxedo Junction. Commissioner LaMar said making the minimum 40 or 36 feet was better since it did not force a potential

developer to the minimum of 48 feet. Mr. Lilly stated that the street was wide, there was 100 feet of right-of-way. Additionally, the setbacks are also larger. Commissioner Booth stated the setbacks and less than 50 feet of height may deter some development since developers will expect more square footage. Mr. Janson suggested adding another height category for the south side of 3300 S. Commissioner Reid disagreed and preferred to keep the height limits at 48-74 feet. Commissioner Booth said that many people would want the greater heights since it opens more potential for new building. Mr. Lilly said that the minimum height on the south side of 3300 S. would be 40 feet and he would change the map.

Mr. Lilly said that height restrictions would not allow structures except towers and solar panels and these cannot be located closer than 10 feet to the edge of the building. The building and fire code have rigorous standards about putting pools and other things next to the edge of a building. Mr. Lilly said there would have to be a 10-foot setback from the edge of the building. Commissioner LaMar worried about turning a 74-foot building into an 86-foot building. Mr. Lilly said that rooftop gardens, patios, and amenity space are, "not allowed within 100' feet of a R-1 or R-2 zone boundary in the Neighborhood or Market Place districts, unless the rooftop garden, patio or amenity space is not located above the highest occupied floor of a building, or is obstructed from view from the zone boundary by at least 20 feet of occupied floor space." Mr. Lilly explained if it's a 74-foot building that has a pool then there would have to be a wall constructed however, the wall would have to be ten feet away from the edge of the building. Vice Chair Stephens said the pool was not habitable space, it would be for recreation. Commissioner LaMar said that if people are using the space and it was not a mechanical part of the building then the building was too tall for the area. The mass of the building has therefore increased. Mr. Lilly said that if the building was setback 20 feet from the road and the amenities on the roof are set ten feet back you could not see them from ground level. Commissioner LaMar said that if a developer would like to put a pool on top of their building then they need to include the height of the safety wall in their plans and then bring the height of the building down to 74 feet to stay within the required height. Mr. Janson clarified that they wished to emphasize using the roof tops as small park spaces. Mr. Lilly stated that a roof-top garden was designed to give a view and was not perceived from the ground-floor. Vice Chair Stephens stated that these buildings would be subject to the conditional use site plan requirement.

Francis Lilly began a discussion on trees. Mr. Marv Poulson handed out a sheet to the Commission on recommended tree types. Commissioner Booth stated the that Commission could get bogged down discussing trees in depth at that time. Vice Chair Stephens asked if Mr. Poulson had more input on trees. Mr. Poulson replied that he had more to input. Commissioner Lar Mar suggested that the code should be more open regarding trees and experts should pick the trees later. Commissioner Reid said she advocated for a consistent look; however, she was still worried about disease wiping out the trees if they were the same type. Mr. Mr. Lilly stated there was a proposal for urban forestry policy looking at canopy requirements and how trees are maintained, the tree design should be consistent in a block by block basis. Commissioner Booth said that the process for determining trees should be deliberate and open to a public hearing. Mr. Janson stated there was a tree planting plan, however, the choice does not need to be made now. Mr. Lilly stated that the City can use wording saying to stakeholders planting trees must use a tree on the approved list. Commissioner LaMar agreed, this would give the City the opportunity to adopt a tree plan for certain blocks.

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Mr. Lilly said that stepbacks are for street facing facades and not the back of buildings. Vice Chair Stephens noted Russ Sorenson's application and how stepbacks solve issues there. Mr. Janson said they added on page 23 a 2-foot variation for the back of buildings. Mr. Lilly went to page 10 for the wording on stepbacks. Mr. Lilly quoted, "For any building over 40 feet in height or for any development on properties fronting on the Millcreek Common, 33rd South, Richmond and/or with frontage on Highland Drive, a twenty-foot stepback of the building façade, facing the street, is required between bottom of the first story and the top of the third story and upper stories. This stepback shall be segmented, such as, a ten foot initial stepback between the first and second floors and then an additional ten foot stepback between the second and third floors or shall create a stepback of 20 feet between the first and third floors, that should be utilized as a usable space for residents or businesses within the building."

Vice Chair Stephens asked that if a building height over 40 feet would trigger the stepback requirements. Mr. Lilly replied yes. Commissioner Reid said that if two buildings were back-to-back from each other than a stepback was unnecessary. Vice Chair Stephens said the way it was worded then step backs would be required for a building over 40 feet on the street-side. Vice Chair Stephens clarified if the wording should be, "facing the street", or "facing any street." Commissioner LaMar stated that he preferred having more stepbacks than not having them, although being right up against another building did not make sense to trigger a stepback.

Mr. Lilly said that if there was a chance for parking next to the open space, the parking would need to meet the standards in the CCOZ Ordinance. The designers are moving away from a one-way loop road in the open space. Mr. Lilly quoted, "Opposing residential bedroom windows located on building walls in adjacent buildings, where such buildings are closer than 20 feet from each other, shall offset the window a minimum of 5 feet and provide window blinds for each opposing window, or reduce the opacity of the window to prevent one side from viewing the other." Windows on building plans would be offset when they are closer than 20 feet. Buildings balcony's must be ten feet from each other. Mr. Lilly said that stucco was prohibited for use as materials on any façade visible from a right-of-way. Mr. Lilly said on page 25, 10 feet was the minimum rear yard setback except with abutting an R-1, R-2, or R-4-8.5 zone, then the setback was 25 feet. Mr. Janson added that guest parking does not include the driveway.

Francis Lilly stated that if there was a small wireless facility in the right-of-way then there was city code governing the placement. They must be placed on utility poles that are like streetlights. Mr. Janson reminded the Commission that the only poles will be streetlight poles since utilities are underground. Mr. Lilly said small wireless facilities could be required to be placed on existing poles. Commissioner Reid asked if the streetlight language was changed. Mr. Lilly and Mr. Janson replied yes. Commissioner LaMar questioned drive-through's for food or beverage service as opposed to a restaurant. Commissioner LaMar said the terms "food or beverage service" was more absolute.

Vice Chair Stephens opened the floor to public comment.

Diane Wenzl, 3240 S 1000 E., agreed with Commissioner LaMar about building heights creating a canyon feel along 3300 S. She also agreed that roof-top amenities make buildings

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too tall. In past public hearings, she had seen developers using maximized allowed heights not the minimum heights.

Jake Christensen, 3161 Walnut Park Cove., stated in the 48-74-foot zone on 3300 S. if the setback was only 10 feet, then you can build another 70-foot building next to it with another 10-foot setback for a total setback of 20 feet. This would limit sunlight to lower residences when two 70-foot buildings abut only 20 feet apart. He stated that there should be greater setbacks of 35-60 feet of separation. Since the greater setbacks are common in larger cities like Manhattan and Chicago.

Mr. Janson stated there would be buildings with shadows and by increasing setbacks it would reduce what could happen in the intensity of the buildings. On lower buildings, a setback like that was not required. Commissioner LaMar asked what the current minimum setback was. Mr. Lilly said that if two buildings abut, they must be separated by ten feet on each property for a total of 20 feet. Mr. Lilly stated that if the buildings have a balcony then the setback begins from the edge of the balcony and they must be 20 feet apart. Commissioner LaMar said they want to make this a nice, livable area for the residents who will live there. Commissioner LaMar added he would like more space than the 20-foot minimum. Commissioner Booth stated that extra space may be nice, however 20 feet was enough because density was the goal. Density helps decrease building costs and rent costs. Commissioner Sieber asked that there be a graduated scale for the setback based on the height of the building. Commissioner LaMar asked for more separation when buildings are taller. Commissioner Reid said she was fine with 20 feet.

Vice Chair Stephens said that in their recommendation to City Council, the Planning Commission could instruct staff to review increasing setbacks for taller buildings. Mr. Lilly agreed to do so.

Vice Chair Stephens moved to recommend to the City Council that the City Center Overlay Zone Ordinance be adopted subject to the items discussed and enumerated in the meeting on 25 November 2019. Commissioner Reid seconded. Vice Chair Stephens asked for discussion on the motion, of which there was none. **Vice Chair Stephens called for the vote. Commissioners Booth, Sieber, Mumford, Stephens, and Reid voted yes. Commissioner LaMar voted no. The motion passed 5-1.**

2. New Items for Subsequent Consideration

There were none.

3. Calendar of Upcoming Meetings

- Mt. Olympus Community Council Mtg., 12/3/19, 6:00 p.m. at 3450 E. Oakview Dr. (tentative)
- Millcreek Community Council Mtg., 12/3/19, 6:30 p.m. at City Hall
- East Mill Creek Community Council Mtg., 12/5/19, 6:30 p.m. at 2266 E. Evergreen Ave.
- City Council Mtg., 12/9/19, 5:00 p.m. at City Hall
- City Council Mtg., 12/16/19, 5:00 p.m. at City Hall
- Planning Commission Mtg., 12/18/19, 5:00 p.m. at City Hall

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ADJOURNED: Commissioner Mumford moved to adjourn the meeting at 6:44 p.m. Commissioner Booth seconded. Vice Chair Stephens called for the vote. All Commissioners voted yes. The motion passed unanimously.

APPROVED: _____ Date
Fred Healey, Chair

_____
Attest: Elyse Greiner, City Recorder

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