ALPINE CITY COUNCIL ELECTRONIC MEETING AGENDA

NOTICE is hereby given that the **CITY COUNCIL** of Alpine City, Utah will hold an **Electronic Public Meeting on Tuesday, November 24, 2020 at 7:00 pm** *in accordance with Utah Code Ann. §§ 52-4-210 et. seq., Open and Public Meetings Act. Pursuant to a written determination by Mayor Troy Stout finding that conducting the meeting with an anchor location presents a substantial risk to the health and safety of those who may be present due to infectious and potentially dangerous nature of COVID-19 virus, public meetings with be held electronically on and through December 10, 2020,* and can be viewed on the **Alpine City YouTube Channel**. A direct link to the channel can be found on the home page of the Alpine City website: **alpinecity.org** Public Comments may be submitted to **admin@alpinecity.org** by 5:00 pm the day of the meeting.

I. CALL MEETING TO ORDER

- **A. Roll Call** — **Mayor Troy Stout**
- **B. Prayer:** — **Greg Gordon**
- **C. Pledge:** — **By Invitation**

II. CONSENT CALENDAR

- **A. Approve City Council minutes of November 10, 2020**
- **B. Bond Release No. 13- The Ridge at Alpine Phase 1: $5,315.00**

III. PUBLIC COMMENT

IV. REPORTS AND PRESENTATIONS

- **A. FEMA: Free Help for COVID-19 related stress, Cindy Wilmshurst**

V. ACTION/DISCUSSION ITEMS

- **A. Koroem Court Subdivision – Concept Review**
- **B. The Ridge at Alpine Phase 4 – Final Approval**
- **C. Olde Moyle Mound Plat C – Revised Preliminary Review**
- **D. Alpine Fitness Center – Final Approval**
- **E. Approval of Healey Park Improvements – Pickle Ball, Pavilion and Playground**
  - **a. Playground Purchase for Healey Park**
- **F. Lambert Park East Building**
- **G. City Council Annual Meeting Schedule for 2021**

VI. STAFF REPORTS

VII. COUNCIL COMMUNICATION

VIII. EXECUTIVE SESSION: Discuss litigation, property acquisition, or the professional character, conduct or competency of personnel.

Mayor Troy Stout
November 20, 2020

THE PUBLIC IS INVITED TO PARTICIPATE IN ALL CITY COUNCIL MEETINGS. If you need a special accommodation to participate, please call the City Recorder's Office at (801) 756-6347 x 4.
CERTIFICATE OF POSTING. The undersigned duly appointed recorder does hereby certify that the above agenda notice was on the bulletin board located inside City Hall at 20 North Main and sent by e-mail to The Daily Herald located in Provo, UT, a local newspaper circulated in Alpine, UT. This agenda is also available on our web site at, and on the Utah Public Meeting Notices website at www.utah.gov/pmn/index.html

PUBLIC MEETING AND PUBLIC HEARING ETIQUETTE

Please remember all public meetings and public hearings are now recorded.

- All comments **must** be recognized by the Chairperson and addressed through the microphone.
- When speaking to the Planning Commission/City Council, please stand, speak slowly and clearly into the microphone, and state your name and address for the recorded record.
- Be respectful to others and refrain from disruptions during the meeting. Please refrain from conversation with others in the audience as the microphones are very sensitive and can pick up whispers in the back of the room.
- Keep comments constructive and not disruptive.
- Avoid verbal approval or dissatisfaction of the ongoing discussion (i.e., booing or applauding).
- Exhibits (photos, petitions, etc.) given to the City become the property of the City.
- Please silence all cellular phones, beepers, pagers, or other noise making devices.
- Be considerate of others who wish to speak by limiting your comments to a reasonable length and avoiding repetition of what has already been said. Individuals may be limited to two minutes and group representatives may be limited to five minutes.
- Refrain from congregating near the doors or in the lobby area outside the council room to talk as it can be very noisy and disruptive. If you must carry on conversation in this area, please be as quiet as possible. (The doors must remain open during a public meeting/hearing.)

Public Hearing vs. Public Meeting

If the meeting is a **public hearing**, the public may participate during that time and may present opinions and evidence for the issue for which the hearing is being held. In a public hearing there may be some restrictions on participation such as time limits.

Anyone can observe a **public meeting**, but there is no right to speak or be heard there - the public participates in presenting opinions and evidence at the pleasure of the body conducting the meeting.

ALPINE CITY COUNCIL ELECTRONIC MEETING
on Tuesday, November 10, 2020 at 7:00 pm

I. CALL MEETING TO ORDER

The meeting was called to order at 7:00 pm by Mayor Troy Stout

Mayor Troy Stout read the following statement:

Due to the seriousness of the current worldwide COVID-19 pandemic, the rapid spread of the infection throughout Utah, and its potentially deadly and life-altering effects, I Troy Stout, as Mayor of Alpine and chair of the Alpine City Council, have determined that conducting an electronic meeting with an anchor location presents a substantial risk to the health and safety of those who may be present at the anchor location at this time. This determination will expire thirty days from today. (December 10, 2020) He said he is hoping by next year January 2021 the city will be able to meet together again and the number of COVID-19 cases will have subsided by then. He said he is hopeful not only for Alpine but for the entire country.

Roll Call: The following were present and constituted a quorum.
Council members, Carla Merrill, Greg Gordon, Jessica Smuin, Lon Lott, excused Jason Thelin

Staff: Shane Sorensen, Austin Roy, Craig Hall, Chief Brian Gwilliam, Chief Reed Thompson, Bonnie Cooper

Others: Will Jones, Breezy Anson, Frazer Bullock

A. Prayer: Lon Lott

II. CONSENT CALENDAR

A. Approve City Council minutes of October 27, 2020
B. Final Bond Release No. 3 - Brookside Meadows: $65,751.35
C. Bond Release No. 12 – The Ridge at Alpine Phase 2: $2,000.00

Motion: Lon Lott moved to approve the Consent Calendar with the changes of the October 27, 2020 minutes he had made with Bonnie Cooper, City Recorder prior to the meeting. Greg Gordon seconded the motion. There were 4 Ayes and 0 Nays, as recorded below. The motion passed unanimously.

Ayes	Nays
Carla Merrill	
Jessica Smuin	
Greg Gordon	
Lon Lott	

III. PUBLIC COMMENT

No public Comment

IV. REPORTS AND PRESENTATIONS

A. Financial Report

Shane Sorensen, City Administrator said the numbers in the financial report were a little skewed because of COVID-19 related items. He said at some point the city will have a budget adjustment and move some funds around towards the end of the year, the city will have some more projects in the future. He reported the sales tax revenue for the month of August was up 6.33%. He said for the budget year the city's tax revenue is up 11.69% from last year. He said things look good for the budget year.

Mayor Troy Stout asked Shane Sorensen to give an update on City Hall. Shane Sorensen said because the CARES Act Funds recommendations have been changing, Utah County recommended that the city spend the bulk of the city's funds on public safety equipment and salaries. He said Utah County said that is a very safe way to use the funds. CARES Act Funds needed to be used by November 2nd and the city's report was due November 9th . He said the city took the remainder of the funds and put it towards public safety. He said the city will now take the money that was allocated for public safety and put it towards projects that the council had previously approved. He said City Hall's entrance is coming along. He said it is a little noisy, smells from welders' torches, and a lot of dust. He

said people could start seeing the framing outside soon. He said the original budget for the entrance was $175,000. He said now because of some unforeseen special things that needed to be done the total looks more like $200,000. He said the restroom at the cemetery will be here the first week in December, but will not be install until spring, the staff is deciding on the layout first. He said the Planning Commission will be having a public hearing on Tuesday November 17, 2020 regarding the pickleball courts and making changes to Healey Park. He said Healy Park will also be a spring project. Mayor Troy Stout said when tearing into an old building like City Hall there will always be surprises and there could be more. Shane Sorensen said the upgrades on audio/visual part of City Council room and should be complete by the end of the year. He said doing thing this way will be very beneficial to the city because it gives the city until June 30, 2021 to complete the projects the council had approved.

B. 2020 Pressurized Irrigation Usage

Shane Sorensen said in 2020 the PI (Pressurized Irrigation) water use compared to the city's last ten-year averages has increased 34.19%. He said this year was extremely dry and hot. He said now that the city has the costs, the city is going ahead with a rate study. He said the city would like to get that completed and have a rate structure by February or March to have the City Council review, in order to have it done before the water is turned on in 2021. Greg Gordon, City Council member said he was struck by how similar 2020 was to 2012. Mayor Troy Stout said that was the big fire year. Shane Sorensen last year was a wet spring, residents went well into June before having to run their sprinklers. Greg Gordon asked on years like this does it run down the wells faster, could the city expect more failures of the wells next year. He said is this a risk the city needs to budget for in the future. Shane Sorensen said it is something that the city is dealing with. He said the city has issues with a couple of wells this year. He said the city needs to plan on the short term, but in the long term with a lot of well use and water levels drop it cost more to pump and the wells pump less, and the city has issues. He said due to warmer and dryer winter forecasted this could be a problem this spring.

V. ACTION/DISCUSSION ITEMS

A. Resolution R2020-14: Transportation Element of the General Plan

Austin Roy, City Planner, said this item is returning after it was tabled at the September 22, 2020 City Council meeting. The new City Attorney has reviewed the proposed Transportation Element and drafted a resolution to implement it. Item is ready for City Council review. He said on July 14, 2020, the City Council adopted Resolution 2020-09, which began the process of amending the City's General Plan and land use ordinances as they pertain to streets and roads going in and out of the City. On August 4, 2020, the Planning Commission discussed new language for the Transportation Element of the General Plan. The City Attorney has reviewed the proposed language and provided feedback. He said based on that feedback the Planning Commission has drafted a new Transportation Element of the General Plan. The Planning Commission has held a public hearing on the proposed Transportation Element of the General Plan and made the following recommendation to City Council:

> ***MOTION:*** *Sylvia Christiansen moved to recommend that the Transportation Element of the General Plan be approved as proposed. Ed Bush seconded the motion. There were 6 Ayes and 0 Nays. The motion passed unanimously.* ***Ayes:*** *Ethan Allen, Sylvia Christiansen, Ed Bush, Troy Slade, Jane Griener, John MacKay* ***Nays:*** *None.*

Austin Roy said Craig Hall, the new city attorney, has added a history to the beginning of the resolutions so the council and public can see when a hearing took place and when and why the Resolution was updated. He said he believe it will help us in the future having the history listed right there in the Resolution. He said the city's Transportation Element has Goals and Policies and they are also listed with the Resolution.

Lon Lott, City Council member said he had received a revised version of the Resolution from Austin Roy and wanted to be sure that was the one the council would be discussing and adopting. He said he wanted Craig Hall to give his thought on the wording in line (1.6). Craig Hall said understanding what the goal was and make sure that the intent and the policies of the City Council to limit the existing interconnections between and limiting any interconnections between municipalities and unincorporated county or areas outside the city boundaries (1.6) in the last sentence we added a process to make any amendments to the General Plan. He said he is very comfortable with the history and wording and the process and that it was not done in a rushed fashion. He said he believes Hyrum Bosserman, City Attorney team member and Austin Roy worked very hard on this Resolution together. He said he want to write a history with each resolution so that no one questions the process. Mayor Troy Stout said he believes layering the process is a gateway into the next process and get approval to the next General Plan. Carla Merrill, City Council member, said she likes the wording and the process of this Resolution she feels like it is more succinct for us as a City Council and for any one reading it will know the process and what they need to do.

Motion: Lon Lott moved to adopt Resolution No. R2020-14 the Transportation Element of the General Plan as proposed. Carla Merrill seconded the motion. There were 4 Ayes and 0 Nays, as recorded below. The motion passed unanimously.

Ayes	Nays
Carla Merrill	
Jessica Smuin	
Greg Gordon	
Lon Lott	

Lon Lott said he want to clarify that the City Council was adopting the Resolution No. R2020-14 with following verbiage in line 1.6 that was sent to the City Council on Monday outside of the published packet:
"Limit intermunicipal and unincorporated county street connections to existing planned connections only. Ensure that street connections to other municipalities, unincorporated county, or other areas outside the city boundaries are compatible with the goals and policies of the General Plan, Any additional street connection to such areas would require City Council approval and appropriate amendments to the General Plan, Street Master Plan, and applicable City ordinances."

Craig Hall said he would prefer that the City Council do an individual voice vote when the meetings are held virtually. Mayor Troy Stout said in the past the council had only done that on financial decision, but they will do it from now on. Lon Lott brought up that at the last meeting the city had an anchor location with part of the City Council in attendance there and part attending via zoom. He suggested it reflect that in the minutes here forward. Mayor Troy Stout asked Craig Hall for clarification. Craig Hall agreed with Lon Lott.

B. Resolution R2020-15: Trail Master Plan

Austin Roy said this item was tabled at the October 27, 2020 City Council meeting so that some of the trails could be updated and other changes made to the map. Staff have implemented changes based on feedback from the City Council and the Trail Advisory Committee and the Trail Master Plan is ready for City Council review. He said staff and the Trail Committee have been working together to update the Trail Master Plan. He said the most recent version of the Trail Master Plan was adopted in 2018. He said the update also includes some new "planned" trails. A public hearing was held for the Trail Master Plan on October 6, 2020. He said with some feedback from the Planning Commission, the Trail Master Plan was brought back October 20, 2020 and was recommended for approval.

> ***MOTION:*** *Alan MacDonald moved to recommend that Res. No. 2020-15 Trail Master Plan be approved as proposed. Ed Bush seconded the motion. There were 6 Ayes and 0 Nays (recorded below). The motion passed unanimously.*
> ***Aye:*** *Alan MacDonald, Jane Griener, Ed Bush, Troy Slade, John MacKay, and Sylvia Christiansen.*
>
> ***Nay :*** *None*

Mayor Troy Stout asked if the Trail Committee was still creating two more trails off Three Falls, he did not see that reflected on the map. Breezy Anson, Trail Committee member said there are three of them on the map, one being in Lambert Park. He said he may have to get permission to have people drive motorcycles up on the trail this spring to create a little bit more of a trail because it just gets overgrown, so the committee can get these trails connected. He said at this point the trail is about halfway done. Carla Merrill asked Breezy Anson about a trail coming in on Fango and Will Jones said that it's coming into Three Falls it is off of Hog Hollow, and if he knew where that comes out into Three Falls. Breezy Anson said no that is what is called a hoof and boot, which is a pedestrian and horse only trail. He said he knew Draper was trying to get a connection Bonneville shoreline but without seeing their Master Plan he could not sure where it is going to be connecting to Three Falls. Mayor Troy Stout asked Breezy Anson if he had seen the new trail Longview. He said that is the trail Carla Merrill was talking about and is an all traffic trail.

Carla Merrill said walking only trail in Lambert Park in memory of Ed Bush's late wife Judy Bush. Austin Roy said the City Council had already decided on the upper trail. Carla Merrill said because the trail in Lamber Park is a dedicated walking trail and that is mainly what they did and enjoyed together that would be a tribute to her. She said she still would like to name some of the trails after some of the people on the Trail Committee such as Breezy, Will and Trent.

Breezy Anson said he got an email from Carla Merrill regarding a pump track. He said he loves the idea of a pump track; he said the committee would need to identify a location. The Committee has some ideas that I can email to the council. He said some ideas are to have a movable track and be able to have it at Alpine Days and things like that.

He said and any other special events, the cost is approximately $25-30,000. Mayor Troy Stout said his brother has pump track in Coeur d'Alene, Idaho and he could have him send Breezy Anson some information and feedback. Greg Gordon said he thinks having the landmarks removed simplifies the map. He said the dotted lines have come out solid when he printed it, he suggested spreading out the dotted line to be able to differentiate the trails. Austin Roy said to keep in mind that the trails will not be as straight as they appear on the map. Austin Roy pointed out the legend on the map pointed out the county trails. Jessica Smuin, City Council member, asked Austin Roy about putting directional arrows on all the trails or was that only for Lambert Park. Austin Roy said because this map is so small, we did not include the arrows, but will include them at the trail head kiosk maps.

Motion: Carla Merrill moved to approved Resolution R2020-15 the Trail Master Plan as outlined. Jessica Smuin Seconded the motion. There were 4 Ayes and 0 Nays, as recorded below. The motion passed unanimously.

Ayes	Nays
Carla Merrill	
Jessica Smuin	
Greg Gordon	
Lon Lott	

C. Ordinance 2020-21: Trail Committee Ordinance

Austin Roy said Hyrum Bosserman, worked with Greg Gordon to list duties of the Trail Committee and outline when the Trail Committee must meet according to the Public Meetings Act. He said the city is seeking to formalize the Trail Committee and make it an official body. He said the City Council tabled this item on October 27, 2020 so that the language could be revised. He said the city attorneys have since drafted new language and it is ready for City Council review.

October 20, 2020 Planning Commission recommendation of approval:

MOTION: *Ed Bush moved to recommend that Res. No. 2020-21 Trail Committee be approved with changes.*

1. *Modify item 3 ii*
2. *Section 5*

Alan MacDonald seconded the motion. There were 6 Ayes and 0 Nays (recorded below). The motion passed unanimously.

Ayes:	***Nays:***
Alan MacDonald	*None*
Jane Griener	
Ed Bush	
Troy Slade	
John MacKay	
Sylvia Christiansen	

Austin Roy said Greg Hall will write his opinion on the Trail Committee will need to announce their meetings, document them, and share what has occurred at the meetings, to comply with this ordinance. Lon Lott questioned item A, that the Committee shall be comprised of five members who shall be appointed by the mayor with advice and consent of the City Council that is very appropriate. He said he had a question for item H with removal that the Mayor may remove any member of the committee for cause, do we need to also provide that it with advice and consent from the council with that as well or does it matter. Craig Hall said it is the Mayors prerogative to remove someone when it comes to an official committee of the city. He said "cause" is a very specific legal term He said all committees will be subject to the same, he said the council should allow the body to have more flexibility to change the dates of their meetings.

Motion: Greg Gordon moved to approve the Trail Committee Ordinance 2020-21 as proposed. Carla Merrill seconded the motion. There were 4 Ayes and 0 Nays, as recorded below. The motion passed unanimously.

Ayes	Nays
Carla Merrill	
Jessica Smuin	
Greg Gordon	
Lon Lott	

D. Proposal to Address Timberline Parking Issues

Greg Gordon shared his findings on solutions to the Timberline Middle School Parking Issue during sporting events. He said the proposal here is to have no parking on the westside on Long Drive. He said the road go five feet narrower and keep it open on the east side for people to drop off and pick up their children safely. He said the parking is more convenient and to have no parking signs with times in morning on weekends 8am-4pm and weekdays 4pm-8pm will help with this issue. He said the residential area was not meant for high traffic and parking areas. He said these are the parking restrictions on the northeast side of Timberline Middle School. He said the principal agreed and encouraged the city to enforce the parking that are causing problems in the area.

Chief Brian Gwilliam said he appreciates Greg Gordon and all the work he has done on this matter and Ted Stillman, Code Enforcement Officer, for his help. He said the police force are completely in favor of these restrictions mentioned by Greg Gordon. He said this gives our officers more power and it will only take a couple of weeks to get the message across to those using the fields. He said he thinks the neighbors in the area will be happy. Chief Reed Thompson said the fire department needs at least 20 feet of distance for the fire truck and EMS to travel.

Shane said the city has a lot of red curbing already and wondered if the people in the area ok with the restrictions. Greg Gordon said it is a little inconvenient, but the residents said they will work around it. Carla Merrill suggested putting a "NO EVENT" parking sign instead of having specific times. She said residents will have visitors come to their homes during a game and how will an officer know the purpose of someone parking there. She suggested a couple of other options "No soccer, no football, no event activity, or event," because they also had issues with teams' practices in the mornings. Chief Brian Gwilliam said if the city puts up no parking signs, this could affect school activity and other school events and it makes it more difficult to give a citation, but it is workable. Greg Gordon said concerts and really any events are usually in the evening, a balance needs to be met. He said he preferred "NO SPORTS EVENT PARKING". Carla Merrill said Alpine streets are not just for driving but are also used for parking. She said the school needs overflow parking for events. She said of lease two fields instead of four fields.

Carla Merrill said the council needs to come up with the right time on the signs, because she thinks the council is overlooking the 7pm school activities. She said parking could be an issue during school activities. Greg Gordon said he went to 8pm because practices usually go until then and for auditorium events people tend go to the church or on the south part on Long Drive. Greg Gordon said the parking that is spilling into neighborhood is also from frisbee tournaments as well as tennis. Mayor Troy Stout said the council has talked about the number of games it is really the football games on Saturdays that are the biggest issue. Along long Carla Merrill said work with the school with no sport event parking. Greg Gordon said if that is reasonable an effective and is a good idea. Mayor Troy Stout said if the school did a reduction of games an overflow parking area would not be necessary. He asked if Timberline Middle School has enough parking for games, that overlap. Greg Gordon said he thinks for soccer there should be enough, and football should be manageable with a 90-minute blocks and 30-60 minute in between in the future, but he thinks the parking does have some limitations. Lon Lott said perhaps at the breakfast meeting with the Alpine School District on December 5, 2020, the council could discuss this with the board members. Shane Sorensen said parking in the rear of the building administration we can come prepared to have additional parking at Timberline Middle School. Carla Merrill said planning is up to the principle when it comes to how many fields are being used at one time and the district just sets the fees. Mayor Troy Stout said Greg Gordon can be the front man dealing with principal of Timberline Middle School.

Carla Merrill said if people are getting citations, word will spread quickly at the beginning of the season with parents. Mayor Troy Stout said the city will have law enforcement out there the first day soccer starts in the spring. Shane Sorensen said someone needs to contact their leadership of these sports organizations to make them aware of what will be happening. Chief Brian Gwilliam said he can send it from the police department, so the organizations know the city is serious. Lon Lott thanked Greg Gordon for all his work and agrees with Carla Merrill said on the wording of signage. Chief Gwilliam said there is parking and staying in your parked car in front of these signs, these people sitting in their cars will also get a citation. He recommended Alpine City adopt a code that his officer can enforce. He said we have similar issues with people sitting in their cars when schools get out on Main Street or at Burgess Park in areas that have no parking posted or are red curbed areas. Greg Gordon said there are only 25 spots at the tennis courts behind the Timberline Middle School, and it could make it a little safer for drop off and pick up for the future. Mayor Troy Stout thanked Greg Gordon for his efforts and time on this issue.

Public Comment:

Benton Collins
564 W Sycamore Lane
To the Alpine City Council:

Thank you for the time and effort you have taken on our behalf to address the concerns with parking in our neighborhood. We understand the need for sporting activities and gatherings at the Timberline Middle School field; however, we feel as though the school has overbooked the fields without sufficient parking to support the number of attendees. We also feel as though the school infrastructure is not designed in a way to encourage utilizing its lots for parking.
We strongly encourage and approve of measures the city council can take to help reduce the utilization of the fields and promote parking in the appropriate parking lot.
Thanks again!

Linley Hutchinson
Please help. It's no longer about inconvenience, it is about safety. When we moved to this neighborhood, we were so Excited about the idea of living next to a school and the activity it would bring. We loved driving by and seeing the Various activities happening at the school, knowing one day our own kids would be participating as well. These feelings no longer exist because it has gotten completely out of control. I don't even let my kids walk out the door When there is football happening. The drivers are crazy, the parking on both sides of the street take away any and all visibility, making it very unsafe. My daughter was almost hit by a car speeding through our cul-de-sac and I no longer let them out.
When a business is built, the city and building officials make sure that there is adequate parking for its patrons before a CofO is even given, Timberline Middle School needs to have adequate parking for their events that are allowed at the school. There are thousands of people that attend these football games. That is not ok.
My proposal is to paint the west side of Long Drive red and have signs all along Long Drive encouraging people to park in school parking and not in the neighborhoods. Something needs to happen. Someone will get hurt. And that is why I am writing today. Not because I don't like the traffic. Not because I don't want any events at the school but because someone is going to get hurt. I have had trash thrown in our yard. Urine bottles disposed of in our cul-de-sac, a woman urinate in front of our home and constant speeding traffic through our street.
We have had people even park in our driveway and empty lots that we personally own. These parents are late for games and they want to get to the fields as fast as they can without any regard to those around them, the people driving around them, or the neighborhood itself. I have been yelled at and treated poorly because I've asked cars to not block our driveway. It makes me so sad because we were so excited to live in proximity to these awesome Alpine schools, but it has become too much. In the last city council meeting that this was brought up, it was argued that if we make changes and rules around Timberline, that then changes will have to be given to those around Westfield and Alpine Elementary. These
are totally different animals. At each elementary, a maximum of two games can be played which brings maybe 50-100 people. Timberline and it's 6 fields at times brings thousands. Please help. Let's keep this neighborhood safe and still welcome the activities and recreation that goes on at Timberline.
Thank you!

Korey Nelson
521 W Dally Dr.
Dear Alpine City Council,
My family lives in the neighborhood along Long Dr in Alpine, north of Westfield Elementary and West of Timberline Middle.
During spring/summer/fall of this year, our neighborhood faced a high degree of seemingly constant traffic congestion associated with sporting events at Timberline Middle School. I have personally witnessed trash and event attendees in my yard. I am also aware of neighbors' anecdotes that include event attendees urinating and changing clothes (fully nude) near our homes. Unfortunately, our neighbors have also faced trash thrown in their yard intentionally by belligerent event attendees as a result of parking conflicts.
The quantity of events scheduled at Timberline apparently exceeds the school's infrastructural capacity. I thank the council for their ongoing efforts to address this problem. I express my support for any measures that reduce traffic congestion in our neighborhood, including limiting the number of Timberline events to match the available infrastructure, and incentivizing event attendees to park in the school parking lot instead of on the street.
Thank you for your consideration.

Motion: Greg Gordon moved to approve the proposed plan to address the Timberline Middle School parking near the sports field with the amendment to the timed parking sign from hours to no sports events parking signage and violators will be subject to enforcement action. Jessica Smuin seconded the motion. There were 4 Ayes and 0 Nays, as recorded below. The motion passed unanimously.

Ayes	Nays
Carla Merrill	
Jessica Smuin	

Greg Gordon
Lon Lott

E. Ordinance 2020-19: Outdoor Lighting

Austin Roy said the City Council decided to table this item at the October 27th meeting, it was discussed that a unit of measure was needed to enforce the lighting ordinance. He said the City Attorneys have since drafted new revised language based on the discussion at City Council modifying the unit of measurement. He said staff had looked at other cities and this was the best way of measurement with a devise that the city can purchase. He said in the ordinance amendment 3 a. sports court the wording has stayed the same. He said in the ordinance amendment 3 b. the wording regarding holiday lighting and porch curfews have been taken out unless they reach that point where they are infringing on a neighbor's property. He said the proposed ordinance is ready for review by the City Council.

October 20, 2020 recommendation of approval from the Planning Commission:

> ***MOTION:*** *Alan MacDonald moved to recommend that Res. No. 2020-19 Outdoor Lighting be approved as proposed.*
>
> *Troy Slade seconded the motion. There were 5 Ayes and 1 Nays (recorded below). The motion passed.*
>
> | ***Ayes:*** | ***Nays:*** |
> |---|---|
> | *Alan MacDonald* | *Ed Bush* |
> | *Jane Griener* | |
> | *Troy Slade* | |
> | *John MacKay* | |
> | *Sylvia Christiansen* | |

Carla Merrill said the city needs to have a point of reference to go by. Mayor Troy Stout asked how someone would know they were being compliant. Austin Roy said new homes should have to photometric plan. Steve Doxey, City Attorney team member, said the best unit of measurement for light was foot candles. Lon Lott said he looked up the meaning of a foot candle and the description says: 1,000 foot-candles is equal to full daylight, while an overcast day would have only 100 foot-candles. Twilight produces just 1-foot candle, while a night with a full moon has 0.01 foot-candle and an overcast night has only 0.00001-foot candle. Greg Gordon said is this use of measurement used by other cities. Mayor Troy Stout said it seem very complex. He said a resident can think they are compliant, but they really are not. Greg Gordon had concerns with the terms all lighting turned downward, has the city considered pathway lights and garage lights. Austin Roy said most of the cities that have over technical measurements are going for the "Dark Skies" concept. Mayor Troy Stout said with the unit of measurement and/or a time for lights to be turned off, in his mind this way the city has control over both.

Greg Gordon said he believes somethings were left out of the Resolution such as lights shining up at flags and motion sensor lights. He said the city has people of different faiths, such as Hindus that have religious observance where they will want to put up lights that will not match the dates the city has allotted for. Mayor Troy Stout said November 15th seems late for holiday lighting to start. Lon Lott said he is ok with a but opposed to b. and he does not see how you can control on it and be enforceable. He said the city cannot retro fit everyone. He said restricting carriage type lamps on homes would be too restrictive and cannot enforce. He said he believes sports courts is acceptable. Mayor Troy Stout said people have become excessive with outdoor lights and does not want to give up on item b. Carla asked in someone would have to purchase an apparatus to test their lights. Shane replied yes. Mayor Troy Stout said he did not think it is too much to ask people to. Greg said

Craig Hall said sports court should maybe be called something different because residents have tennis court or other types of court used for a sport. Mayor Troy Stout said everyone is ok with the language in (a) but not (b). He said the language needs to be more user friendly to have a better understanding of what this will mean. Jessica Smuin asked what the negative impact on our city is. She said the city needs to state the goal in item (b). Mayor Troy Stout said it would say, creating something attractive to neighbors and non-intrusive. Carla said she think the attorney has found the measure of light, but the council just does not understand it. Jessica Smuin said holiday lighting should be stricken from the ordinance. Greg Gordon said if holiday lighting is not very bright and left on late into the night or rapid flashing, he thinks it is fine. Carla Merrill said holiday should be exempt from restriction. Craig Hall said his HOA has a restriction of November 15th but his lights are on right now and it is set to music. He said fortunately for him his neighbors like what he does.

Fraser Bullock said a tennis court measures ten lumens, like a parking lot. Carla Merrill said make sure the language is clear in the Ordinance. She said residents should be able to use as much light as they want.

Public Comment:

Jane Griener
481 E Eastview Dr.
People also do Halloween light.

Motion: Lon Lott moved to approve Ordinance 2020-19 Outdoor Lighting sports following exceptions on #3 outdoor lighting section as related sports related courts and item b be tabled for further discussion. Carla Merrill Seconded the motion. There were 4 Ayes and 0 Nays, as recorded below. The motion passed unanimously.

Ayes	Nays
Carla Merrill	
Jessica Smuin	
Greg Gordon	
Lon Lott	

F. Approval for Non-Manned Information Booth at Three Falls

Carla Merrill said she has had residents that are being told they cannot go up Three Falls. She said how many more people is this happening to and just in a couple of hours, she had gotten several emails just between the months of June – October. She said the citizens are being told the street is private property. She said people are stopped and could not walk on the road even if it was to just get back on the trail. She said this is from her personal experiences not just hearsay. She said those are city streets and that is a public street. She asked why the city is allowing this. She said her daughter had an unpleasant experience with the men at the information booth. She said her daughter is a new driver and she told her to go practice there because it is less traveled, and it would be safer. She said she had forwarded many responses from citizens with the same experiences that she and her family have had to Austin Roy. She said Councilmembers Jason Thelin, Jessica Smuin, Greg Gordon have all had a story to share. She said she does not think these incidents are a one of thing, even Mayor Stout had an experience of being stopped. She asked why as a city are, we are allowing a manned booth on a public street and why is it not manned by city employees. Jessica Smuin said after Shane Sorensen sent a letter to the Three Falls HOA, she said she was still followed and asked what she was doing there. She said she did not even leave her vehicle. She said if they were to ask the wrong person things could escalate, especially in the evening. Greg Gordon said he heard from residents the young men made them feel like they were trespassing on private property. He said there is private property and private open space, but what was the motivation to have the shack verses anywhere else in the city. Mayor Troy Stout said he was on council along with Lon Lott, but he does not really remember. He said he thinks the council needs to find a solution to this issue. He said the people do not have the authority to do this. Lon Lott said he has not had any experience like that. He said he it was called an information booth.

Frazer Bullock said if there are any incidence that have offended anyone, he is truly sorry. He said he did receive a letter from Shane Sorensen regarding problems with the information booth. We have instructed the young men to be courteous. He said the young men do keep track of cars going up and going into our back yard fortunately we feel a lot safer this is. He said after 20 minutes the young men check and see if someone has left their vehicles and make sure the construction area is safe. He said if the young men are over zealot right now it may be because only three families live there, and everyday people are trespassing.

Will Jones said the first thing to address is why is there a booth. He said the booth is there to take the liability of Sliding Rock away from the city and property owner. He said it is a huge liability, one Fourth of July there were 450 people that showed up. He said who is going to take liability and give information, the booth is there only to prevent calls to the police. He said just this summer one of the residents had 20 people enjoying his backyard and when the property owner asked the people to leave, they told him no. He said trespassing happens all the time. He said this past Sunday night it was snowing and some people went driving up in the area and went down an undeveloped road and got stuck and they knew him and called him and asked if he could come with his equipment and get them out. He said he replied that he would call the police because they are trespassing. He said so many people feel its fine even with signs to trespass, all we are trying to do as developer and property owners are trying to protect people. He said and we cannot do that efficiently when a skating group have built a fire at the end of a cul-de-sac to have a hot dog roast. He said he as the developer and the property owners would love to sit down with the City Council and to go over with us. He said even tonight was a circus up in Three Falls. Frazer Bullock, property owner in Three Falls said the information booth will not be manning until March, so this is what the young men will say and keep our community safe. He said he tells the young men the bottom line be is to always be friendly.

Carla Merrill said that the council and the HOA could have a meeting to go over the training for the people who man the information booth. Mayor Troy Stout said we need to go out of our way to let people know that this is a public road and if we need to set up a meeting and set up a public notice and have minutes taken. Shane Sorensen said to meet with Will Jones and Frazer Bullock. Will Jones said he would start working on that tomorrow.

Public Comment:

Queston Wallace
173 S 400 E
I feel that the guard shack helps with the prevention of equipment, homes and property being vandalized.

Ed Bush
1463 Box Elder
Come on – The shack in Three Galls is for intimidation purposes. Let's admit that it's there to limit people form driving up the road. It is supposed to look like a manned guard shack.
Can other communities in Alpine put up "information" booths in the middle of a public road? Private security firms can be hired without a booth.

Jennie Wallace
173 S 400 E
I would like to say that the young men who have been at the information booth have been kind and courteous anytime I have been up in Three Falls.

Angie Copeland
681 S High Ridge Cir.
I have had two insistences at Three Falls with security guards this summer of 2020. One time we were hiking on the trails and my niece was getting a blister from her shoes, so we decided to walk down the street to get to our car faster. We were stopped and told it was private property and we needed to stay on the trails. The other time was we were going for a drive and were stopped at the booth and told it was private property and were not allowed to drive through the neighborhood. They were very kind both times.

Vanessa Thelin
525 N Alpine Blvd
I was headed up to 3 falls on a beautiful summer Friday night in a convertible around 9:00 pm with our friends. As we approached the gate post at 3 falls a guy came out and held up his hand and told us to stop. We stopped to see what he wanted. He asked us not to go up there and we told him this is a public street, and we CAN drive up. He then said do not get out of the vehicle. We drove up 3 falls and pulled in a cul-de-sac in three falls to enjoy the stars and just to talk for a bit. After about five minutes we saw this guy come to us in the cul-de-sac in some sort of golf cart. We felt pressured to leave as he pulled up. We continued to drive through three falls where he followed us for a bit.
This was so annoying and rude as these are public streets and I felt harassed. This post needs to be taken down. Thanks

Melody Hillam and Erica
My husband and I hiked there (Three Falls) a few months ago and decided to take the road back to the parking lot. We were stopped by a construction worker saying it was private property and we shouldn't be (and weren't allowed) using the roads. He let us pass and was nice about it...just passing on the information from the people "above him". Just thought it was so odd that we were prohibited from using a road. And there are signs all over warning "no walking allowed". We only saw the signs after we hiked through to the road.

Lisa Marion
417 N Pfeifferhorn Dr.
I was in 3 Falls subdivision twice in the summer of 2020 and was asked to leave if I wasn't a homeowner or with an owner. One time I drove in the neighborhood and was showing out of town visitors the beautiful area. The other time I parked on the side of the road and was walking with a niece and nephew. Both times I was asked to leave by polite teenage boys on golf carts.
My son was told the same thing while he was in town during his intermission in May 2020.

Kevin Vick
My wife and married kids were stopped about early mid September, then when we went past the teenager in the booth, he called the police on us. We spent 15 minutes an hour later with an officer calling someone to see if they wanted to press trespassing charges against us. We did park in the parking lot and were told after that we could

park on the road. With the trails and the access, it's an issue. The officer was caught between a rock and hard place, he was very good deal with.

Callie Steuer
274 E Heritage Hills Dr
I'm an Alpine resident and would like to enjoy the trails above the 3 Falls development. I'm confused as to how to access the Three Falls trails after being told on two occasions that I cannot trespass in Three Falls, as it is private property.
The first time I was hiking on the trails over Memorial Day weekend, and was crossing the road to go from one set of trails over to the other side, and was stopped by what seemed to be a security guard riding on a ranger, and told it was private property and I should be there.
The second occasion my husband and I were hiking on Monday, July 6th from our side of Alpine (from The Ridge development) over the mountain and ended up on the Three Falls street. As soon as we got to that side and in their development, we were stopped by the security guard on the ranger and told we were on private property, were trespassing and can't be there. We had our son come get us.
My daughter has also been stopped and warned by the security patrol that if she and her friends (who were accessing the area by car to locate a scenic place to take pictures) were to stop and get out of their car and touch the curb, then they would be trespassing and forced to leave.
Shortly after these experiences I read in the Alpine newsletter that the Three Falls area and trails were open to Alpine residents and we were encouraged to explore the trails. I'm curious as to how we should properly access them when there's also a huge effort by Three Falls to discourage Alpine residents from approaching the area, creating a very intimidating atmosphere leading people to believe we cannot access Three Falls at all.
Thank you,

Jensen Bergquist
256 E 350 N
End of September:
Went up on a Sunday drive with my family and saw the guards. I wondered why there was security on Sunday. The security guard stopped us and told us that we couldn't drive around Three Falls. We asked why and they told us that it was private property. He wasn't rude about it, he just informed us that we couldn't be up there. We then asked to go through to turn around. I didn't know at the time that this would be the problem every time we tried to go up there.
Mid October: My friends and I like to go on motorcycle and scooter rides around Alpine. One of the places we usually ride is Three Falls. When we passed the security station up there the security guard immediate got in his razor and followed us till, we stopped. I politely asked what was wrong and he told us that we needed to leave immediately because it was private property. I was confused because we weren't bothering anybody's property. We were just on the street in the cul-de-sac. We weren't even close to being off the streets. We asked if we could just stay for a couple minutes at least and reassured him that we weren't doing anything other than look at the view. He told us that we had 5 minutes to leave.
We complied and left.

Late October:
Went up Three Falls on a motorcycle ride around 11:30 at night. The guard didn't originally stop us so we thought they had changed that people couldn't go past. We were parked in the cul-de-sac and were just talking on our bikes. The guard came up the hill and told us that we couldn't be up there, specifically stating that it was private property. We were all really confused because city streets are not usually private property. It was a different guard that time. We haven't driven up there since that day.
Thanks,

Daniel Hertig
388 E Eastview Dr
On July 4th,2020 my family and I wanted to go on a hike. We have hiked and biked on the 3 Falls trail before and thought it would be fun to do it again. As we were driving up to 3 falls my wife and I decided to park above towards where the trail crosses the road by sliding rock. We did this because the first part of the trail has little shade, and we were hiking mid-day. We wanted to hike in the second half of the trail because our kids like the bridges and water and there is way more shade for our younger kids.
When we almost reached our destination there was a massive loader with big "Road Closed", " No Trespassing" signs from one curb to the other. My wife informed me that we could not park by the pavilion because it was private property. I decided to park on the road as there was no indication that I could not park there i.e. no parking signs or red curb. We walked around the signs and started to hike up the road. We were then confronted by a man that was riding around on an ATV that said we had to leave. I responded with sir we are just walking to the trailhead to hike. He responded with a "this is private property and you can't be here". I retorted the same as did

he. I informed him that it was our right to walk up the road to the path and he just followed my family and me until we hit the trailhead and started our hike. As we continued up the trail, we could see him driving up and down the road harassing bikers and hikers alike many of who turned around and left.
After we finished our hike we turned around and hiked back to our car. He was still there turning people away and was now accompanied by Fraser Bullock's daughter who had just kicked everyone off of Sliding Rock. They then began to tell me that I could not be up there. They continued to say that we were trespassing. I told them that they were city streets, and we had every right to partake in the trails of Alpine City and drive on the Roads. They proceeded to tell me that I could not park on the road because it was a fire hazard. I laughed and pointed to the loader and signs blocking the street-this is the real fire hazard-the fire trucks can actually get around my car but not your blockade. Then Frazer Bullocks daughters said if you paid over 6 million dollars to live up here then you wouldn't want people parking on your streets either...
At that point, it was getting really confrontational and I put our kids in the car and left.
About a month earlier, I wanted to meet my brother up there for a bike ride. My wife was dropping me off again at the same cross street. We were met even earlier by a different guard that would not let us pass and said I could not ride my bike up the paved street. He said I had to start at the bottom of the trial and then ride all the way up, because he said the road was private property. At this point I began to get frustrated due to the fact that all I wanted to do was get onto the trail at the road crossing, because I had made plans to meet my brother, and if I did have to start all the way at the bottom of the trial, it would take an additional 45 minutes, and I had no way of communicating that to my brother. The security guard continued to tell me that I was not able to pass, and that I needed a "code" to be able to get up. At this point I asked him if I called Will Jones and asked him for the code-if that would help this situation. He said "yes", so I called Will and as I was calling him the security guard proceeded to tell me the "code" and let me be dropped off at the top of the trail. And then my wife quickly drove back down the "private road" he was protecting.

Carla Nichols
168 W Meadow Ln

Dear Alpine City,
I am a black Portuguese American resident of Alpine for 20 1/2 years. I fell in love with Alpine from the first time I stumbled on it in 1999. At the time, my husband and I were put in touch with an older gentleman named something Jones. He was very kind and showed us lots of properties around Alpine. We ended up buying one off Westfield Road, we built our home and we have lived in it for 20+ years.
Throughout all the years I have always gone up Three Falls to hike, take pictures, on a drive etc. without a problem. Until of course this year when I started being stopped by the guards and made to turn around. The last time I went up there I had hired a photographer to take pictures of my daughter who was a high school senior. The guards (teenage kids) told me I couldn't go through. I told them that I was there for pictures for my daughter. I wanted to watch and help my daughter through cloths changing. They told me I had a few minutes. After 15 minutes or so a lady by the name of Candi/Sandi or Bambi drove up in her black SVU and told me to leave because of vandalism that was happening up there by trespassers. I told her why I was there, I mentioned that I have lived in Alpine for 20 years, that I am a good citizen, I even mentioned being friends with the Renchers who happen to own property up there and who belong to my LDS Ward. She (the Candi/Bambi/ or something that sounds like that lady) responded that she lives at the bottom of the hill and that her father is one of old Alpiners and one the original owners of the properties. I continued to tell her that I was not there to vandalize anything, I even showed her my white photographer in the distance, but I was still told to leave. It saddens me that the town that I have loved and where I have lived, pay taxes, and have raised all 5 of my children allows for this to happen. But of course, I am black so I must look like a thug or a gangster vandal who would drive up to Three Falls to set fires, steal and probably rape people. I do not wish to make this about race, but it does make me wonder.
Regards,

VI. STAFF REPORTS

Chief Brian Gwilliam reported meeting with the Alpine Youth Council, he said previously it has been a dinner for the public safety employees but with COVID-19 and social distancing it looked a little different discuss traffics stopped and school lock down in the high school. It was a pleasure to meet with them and the Youth Council are a great group of kids.

Chief Thompson said he had several requests for burning permits and because it has been so dry, we have held off on allowing people to burn. He said there may be a window before the end of the year where we will allow it. He said Utah County is offering free flu shot clinic. He said residents can drive by with appointments but no appointments we necessary on Monday November 16, 2020 in Spanish Fork. He said as soon as any information comes out on the COVID-19 vaccine he will get the city. He said the number of COVID-19 positive cases are increasing and one employee from their workforce tested positive, with that its likely staffing levels will be able to

be maintained. He said the fire department is testing once a week for COVID-10 and are also doing 15-minute tests that are 97% accurate. He reported the fire department has checked all fire hydrants flow in Highland City and have completed about 20% in Alpine City. He said the wells and water usage did not get checked, but we will try in the spring.

Austin Roy suggested have one planning session a month with the City Council to move forward with the General Plan. He said the work sessions would be one hour prior to the City Council meetings and one item would be discussed. He said the city would announce which item the council would be working on for that month. Lon Lott and Mayor Troy Stout like that idea. Jessica Smuin said the council should have a work session before the next meeting on Tuesday November 24, 2020. She said or wait until the first of the year. Shane asked for clarification on what the council wanted to do with the Bangerter property after the fieldtrip, create a plan and zoning for the property. Carla Merrill said anytime a property owner such as the Bangerter family are willing to work with the city that is great.

Shane Sorensen reminded the City Council about the Appeal Hearing on Thursday November 12, 2020 with Blue Bison/Summit Pointe at 5pm. He said the hearing will not in person but virtual. He said anyone will be able to watch, the hearing will be broadcast on the city's YouTube channel. He said the Lone Peak Safety meeting will be next week at 7:30am.

Shane Sorensen said Will Jones mentioned because of road construction in Three Falls the trail needs to be closed. Mayor Troy Stout said could the city come up with a schedule and not close it down for months at a time. Will Jones, Trail Committee member, said it is always safety first, the city does not want any accidents on the trails. He said with the construction you never know when it is going to break apart. He said when it the construction is complete; the trail committee intend to make some great improvements. He said this is not just because someone might only hurt, someone could get killed. He said the liability would be on the contractor and the city need to work with the trail committee and get it ready for next year's riding season.

Shane Sorensen said the City Council needs to have a meeting on December 8, 2020, but it will be a light agenda. And let people go. He said the City Council will be having a Breakfast meeting with the Alpine School District on December 4th at City Hall 7:30 am. He said he wanted to thank Craig Hall for making it such an easy transition to have a new city attorney.

Craig Hall said he is very grateful to be working with Alpine City.

VII. COUNCIL COMMUNICATION

Mayor Troy Stout suggested a new start time to the City Council meeting starting in January 2021 to be at 6pm to get an earlier start. Lon Lott suggested the meetings end at 9:00 pm unless the council votes unanimously to continue the meeting past 9:00 pm. He said that any item does not discuss would be tabled until the next City Council meeting. All the City Council members present agreed with the time change.

Carla Merrill asked if the blockade that is at Three Fall can it be move it back 20 feet. Mayor Troy Stout suggested moving it to the other side of the trail it causes confusion. Shane Sorensen said the city would work on that. Carla Merrill asked do we do any grooming for fat bike. Shane Sorensen said no but mayor said up the canyon do. There is enough foot traffic that the trails.

Jessica Smuin wanted an update on updating the Alpine City website. Shane Sorensen said Carolyn Riley, City Treasure has three companies who will be submitting proposals that had good communication platforms.

Greg Gordon asked for clarification on a Newline article regarding Santa was coming to town. He asked if the date could be incorrect. Bonnie Cooper, City Recorder, said she would check and give an update.

VIII. EXECUTIVE SESSION:

None held

Motion: Lon Lott moved to adjourn the meeting Jessica Smuin seconded the motion. There were 4 Ayes and 0 Nays, as recorded below. The motion passed unanimously.

Ayes	Nays
Carla Merrill	
Jessica Smuin	

Greg Gordon
Lon Lott

Meeting adjourned at 10:14pm

ALPINE CITY
ESCROW BOND RELEASE FORM
Release No. 13

Thru Period Ending: October 31, 2020

The Ridge At Alpine Phase 1
Location: North Elk Ridge Lane

BOND HOLDER

Description	Quantity	Units	Unit Price	Total Cost	% Completed This Period**	% Completed To Date**	Total This Period
SWPPP							
Construction Entrance	1	EACH	@ $ 2,500.00	$ 2,500.00	0.0%	95.0%	$ -
Silt Fence	2925	LF	@ $ 2.00	$ 5,850.00	0.0%	95.0%	$ -
Inlet Protection	9	EACH	@ $ 150.00	$ 1,350.00	0.0%	95.0%	$ -
Toilet Rental	60	EACH	@ $ 100.00	$ 6,000.00	24.2%	74.2%	$ 1,452.50
Toilet Pad Install	1	EACH	@ $ 250.00	$ 250.00	45.0%	95.0%	$ 112.50
Street Sweeping	1	LS	@ $ 5,000.00	$ 5,000.00	30.0%	80.0%	$ 1,500.00
Slope Stabilization (Reseeding disturbed areas)	10	AC	@ $ 200.00	$ 2,000.00	0.0%	0.0%	$ -
Concrete Washout	1	LS	@ $ 2,500.00	$ 2,500.00	0.0%	75.0%	$ -
MOBILIZATION & EARTH WORK							
Mobilization	1	LS	@ $ 7,500.00	$7,500.00	0.0%	95.0%	$ -
Clearing and Grubbing	13	ACRE	@ $ 1,300.00	$16,900.00	0.0%	95.0%	$ -
Site Cut/Fill	44500	CY	@ $ 3.50	$155,750.00	0.0%	95.0%	$ -
SANITARY SEWER							
Connect to Existing Sewer Manhole	1	EACH	@ $ 2,500.00	$2,500.00	0.0%	95.0%	$ -
8" SDR 35 Sewer Main	1220	LF	@ $ 35.00	$42,700.00	0.0%	95.0%	$ -
60" Sanitary Sewer Manhole	2	EACH	@ $ 3,250.00	$6,500.00	0.0%	95.0%	$ -
48" Sanitary Sewer Manhole	5	EACH	@ $ 2,950.00	$14,750.00	0.0%	95.0%	$ -
4" Sewer Lateral	11	EACH	@ $ 980.00	$10,780.00	0.0%	95.0%	$ -
STORM DRAIN							
Connect to Existing Storm Drain Manhole	1	EACH	@ $ 2,500.00	$2,500.00	0.0%	95.0%	$ -
15" ADS Storm Drain Pipe	820	LF	@ $ 38.00	$31,160.00	0.0%	95.0%	$ -
18" ADS Storm Drain Pipe	62	LF	@ $ 48.00	$2,976.00	0.0%	95.0%	$ -
60" Storm Drain Manhole	6	EACH	@ $ 3,800.00	$22,800.00	0.0%	95.0%	$ -
Curb inlet Box	7	EACH	@ $ 2,850.00	$19,950.00	0.0%	95.0%	$ -
4' x 4' Cleanout Box	4	EACH	@ $ 3,500.00	$14,000.00	0.0%	95.0%	$ -
60" Storm Drain Sump	1	EACH	@ $ 3,850.00	$3,850.00	0.0%	95.0%	$ -
Debris Flow Nets	1	LS	@ $ 271,692.00	$271,692.00	0.0%	95.0%	$ -
Temporary Storm Drain Pond	8650	CY	@ $ 3.50	$30,275.00	0.0%	64.4%	$ -
Storm Drain Pond B	8453	CY	@ $ 3.50	$29,585.50	0.0%	95.0%	$ -
Storm Drain Pond A - Stormtech	1	LS	@ $ 65,000.00	$65,000.00	0.0%	95.0%	$ -
CULINARY WATER							
Connect to Existing Culinary Waterline	1	EACH	@ $ 5,600.00	$5,600.00	0.0%	95.0%	$ -
8" PVC C900 Water Main	995	LF	@ $ 28.00	$27,860.00	0.0%	95.0%	$ -
12" PVC C900 Water Main	425	LF	@ $ 39.50	$16,787.50	0.0%	95.0%	$ -
8" CW Tee	1	EACH	@ $ 800.00	$800.00	0.0%	95.0%	$ -
8" CW Bend	4	EACH	@ $ 800.00	$3,200.00	0.0%	95.0%	$ -
12" CW Tee	1	EACH	@ $ 1,200.00	$1,200.00	0.0%	95.0%	$ -
12" CW Bend	4	EACH	@ $ 1,200.00	$4,800.00	0.0%	95.0%	$ -
12" CW Cross	1	EACH	@ $ 2,500.00	$2,500.00	0.0%	95.0%	$ -
Temp Blowoff	4	EACH	@ $ 1,550.00	$6,200.00	0.0%	95.0%	$ -
8" Gate Valve	7	EACH	@ $ 1,950.00	$13,650.00	0.0%	95.0%	$ -
12" Gate Valve	1	EACH	@ $ 3,265.00	$3,265.00	0.0%	95.0%	$ -
1" Water Services	11	EACH	@ $ 1,250.00	$13,750.00	0.0%	95.0%	$ -
Fire Hydrant Assembly with Valve	3	EACH	@ $ 5,500.00	$16,500.00	0.0%	95.0%	$ -
PRESSURIZED IRRIGATION SYSTEM							
Remove Existing 8" Pressurized Irrigaiton Line	200	LF	@ $ 12.00	$2,400.00	0.0%	95.0%	$ -
Connect to Existing Irrigation Waterline	1	EACH	@ $ 4,850.00	$4,850.00	0.0%	95.0%	$ -
4" PVC C900 Irrigation Main	650	LF	@ $ 24.00	$15,600.00	0.0%	95.0%	$ -
6" PVC C900 Irrigation Main	65	LF	@ $ 26.00	$1,690.00	0.0%	95.0%	$ -
12" PVC C900 Irrigation Main	885	LF	@ $ 38.00	$33,630.00	0.0%	95.0%	$ -
4" PI Bend	6	EACH	@ $ 725.00	$4,350.00	0.0%	95.0%	$ -
12" PI Tee	1	EACH	@ $ 1,200.00	$1,200.00	0.0%	95.0%	$ -
12" PI Bend	3	EACH	@ $ 1,200.00	$3,600.00	0.0%	95.0%	$ -
12" PI Cross	1	EACH	@ $ 2,500.00	$2,500.00	0.0%	95.0%	$ -
Temp Blowoff	3	EACH	@ $ 1,550.00	$4,650.00	0.0%	95.0%	$ -
4" Gate Valve	2	EACH	@ $ 1,750.00	$3,500.00	0.0%	95.0%	$ -
6" Gate Valve	1	EACH	@ $ 1,850.00	$1,850.00	0.0%	95.0%	$ -
12" Gate Valve	5	EACH	@ $ 3,265.00	$16,325.00	0.0%	95.0%	$ -
1" Pressurized Irrigation Services	11	EACH	@ $ 1,300.00	$14,300.00	0.0%	95.0%	$ -
1" PI Service - Trailhead Landscaping	1	EACH	@ $ 1,300.00	$1,300.00	0.0%	95.0%	$ -
Air Vac Assemblies	2	EACH	@ $ 5,600.00	$11,200.00	0.0%	95.0%	$ -
ROADWAY IMPROVEMENTS							
Sawcut And Remove Asphalt	6000	SF	@ $ 0.85	$5,100.00	0.0%	95.0%	$ -
Asphalt Trench Patching (4" HMA AC20)	6000	SF	@ $ 4.60	$27,600.00	0.0%	95.0%	$ -
Rough Grade and Proof Roll Native Subgrade	89200	SF	@ $ 0.10	$8,920.00	0.0%	95.0%	$ -
24" Curb Prep (6" Road Base)	2640	LF	@ $ 4.00	$10,560.00	0.0%	95.0%	$ -
24" Curb & Gutter	2640	LF	@ $ 14.00	$36,960.00	0.0%	95.0%	$ -
9" Untreated Base Course	49600	SF	@ $ 0.95	$47,120.00	0.0%	95.0%	$ -
3" Hot Mix Asphalt (PG58-28, 1/2", 15% RAP)	49600	SF	@ $ 1.30	$64,480.00	0.0%	95.0%	$ -
Sidewalk Prep (6" Road Base)	12630	SF	@ $ 0.80	$10,104.00	0.0%	95.0%	$ -
Concrete Sidewalk (4' Wide x 6" Thick)	12630	SF	@ $ 3.50	$44,205.00	0.0%	95.0%	$ -
ADA Ramp	6	EACH	@ $ 1,250.00	$7,500.00	0.0%	95.0%	$ -

Trailhead Drive Approach w/ 6" UTBC	180	SF	@	$	4.30	$774.00	0.0%	95.0%	$	-
Trailhead Parking Lot Asphalt Millings (4" Thick)	4000	SF	@	$	0.95	$3,800.00	0.0%	95.0%	$	-
Concrete Valve Collars	22	EACH	@	$	350.00	$7,700.00	0.0%	95.0%	$	-
Concrete Manhole Collars	13	EACH	@	$	450.00	$5,850.00	0.0%	95.0%	$	-
Parking Lot Landscaping & Screening	1	LS	@	$	2,500.00	$2,500.00	0.0%	0.0%	$	-
OTHER										
Street Lights	3	EACH	@	$	2,750.00	$8,250.00	0.0%	95.0%	$	-
Mail Box and Pad	1	EACH	@	$	2,500.00	$2,500.00	0.0%	0.0%	$	-
Compaction Testing	1	LS	@	$	7,000.00	$7,000.00	0.0%	95.0%	$	-
Clean, Camera, Air Testing (SD and Sewer)	1	LS	@	$	5,000.00	$5,000.00	45.0%	95.0%	$	2,250.00
Waterline Testing, Bacteria, and Flushing	1	LS	@	$	3,500.00	$3,500.00	0.0%	95.0%	$	-
Street Signs	3	EACH	@	$	1,500.00	$4,500.00	0.0%	0.0%	$	-
Trails	1	LS	@	$	47,147.50	$47,147.50	0.0%	95.0%	$	-
Survey	1	LS	@	$	25,000.00	$25,000.00	0.0%	90.0%	$	-
Fort Creek Variable Speed Pump Project	1	LS	@	$	342,205.50	$342,205.50	0.0%	82.1%	$	-

BASE BID TOTAL	$	1,743,952.00	Previously Released:	$	1,583,530.23
10% Warranty Amount	$	174,395.20			
TOTAL BOND AMOUNT	**$**	**1,918,347.20**	**This Release:**	**$**	**5,315.00**
Total Released to Date	**$**	**1,588,845.23**			
TOTAL BOND REMAINING	**$**	**329,501.98**			

At the discrection of the city, up to 95% of the Base Bid Total may be released as partial payments and 100% of the Base Bid Total will be released at final inspection. The 10% Warranty Amount will be held for the one year warranty period.

Paul Kroff
Developer

Date

Troy Stout
Mayor

Date

11/18/2020

Jed Muhlestein, P.E.
City Engineer

Date

City Council
(by Bonnie Cooper - City Recorder)

Date

FREE HELP for COVID-19 related stress

THE UTAH STRONG RECOVERY PROJECT

If you or someone you know is experiencing stress, anxiety or depression because of COVID-19, talk to a crisis counselor seven days a week, 7a-7p. All information is confidential and free of charge.

Services include:

- emotional support
- crisis counseling
- coping strategies
- mental health education
- referrals if more help is needed

Call/Text: 385-386-2289

Email (first name and phone number only):
UtahStrong@utah.gov

For immediate response after hours:
1-800-273-TALK (8255)

Counseling in Spanish and other languages available.

Operated by the Utah Department of Human Services, Division of Substance Abuse and Mental Health through a FEMA grant, facilitated by the Substance Abuse and Mental Health Services Administration

FEMA

utah department of human services
SUBSTANCE ABUSE AND MENTAL HEALTH

SAMHSA
Substance Abuse and Mental Health Services Administration

ALPINE CITY COUNCIL AGENDA

SUBJECT: Concept – Koroem Court Subdivision

FOR CONSIDERATION ON: 24 November 2020

PETITIONER: Brian Hansen with Heritage Custom Homes

ACTION REQUESTED BY PETITIONER: Review the approved concept plan and grant exception for number of sides to a lot.

BACKGROUND INFORMATION:

The proposed development, Koroem Court Subdivision, consists of 3 lots on 8.44 aces. The development is in the CR-20,000 zone and located at approximately 662 North Whitby Woodlands Drive. Applicant needs an exception to be granted by the City Council for the concept to work. Exception is needed for 2 of the 3 lots to have more than 5 sides (per Article 3.01.110 no lot shall have more than 5 sides without an exception being granted by the City Council). Property is surrounded by existing odd boundary lines which results in the concept lots having more than 5 sides.

Planning Commission approved the concept plan:

MOTION: John MacKay moved to recommend the Koroem Court Subdivision Concept Plan be approved with the following conditions/changes:

- *Exception to the Flag Lot Ordinance on the number of sides on lots 77 and 78 with City Council approval.*
- *Fire Safety and Engineering measures be met when they return to Preliminary.*

Sylvia Christiansen seconded the motion. There were 7 Ayes and 0 Nays (recorded below). The motion passed unanimously.

Ayes: Alan MacDonald, Jane Griener, Ed Bush, Ethan Allen, Troy Slade, John MacKay and Sylvia Christiansen.

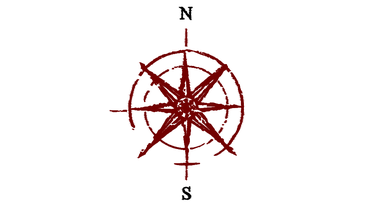
Nays: None.

STAFF RECOMMENDATION:
Review approved concept plan and grant exception to have more than 5 sides to a lot.

SAMPLE MOTION TO APPROVE:
I motion to grant an exception to allow more than 5 sides per lot as shown on the approved Koroem Court Subdivision Concept Plan.

SAMPLE MOTION TO TABLE/DENY:
I motion to deny an exception to allow more than 5 sides per lot as shown on the approved Koroem Court Subdivision Concept Plan based on the following:

- ***Insert Finding***

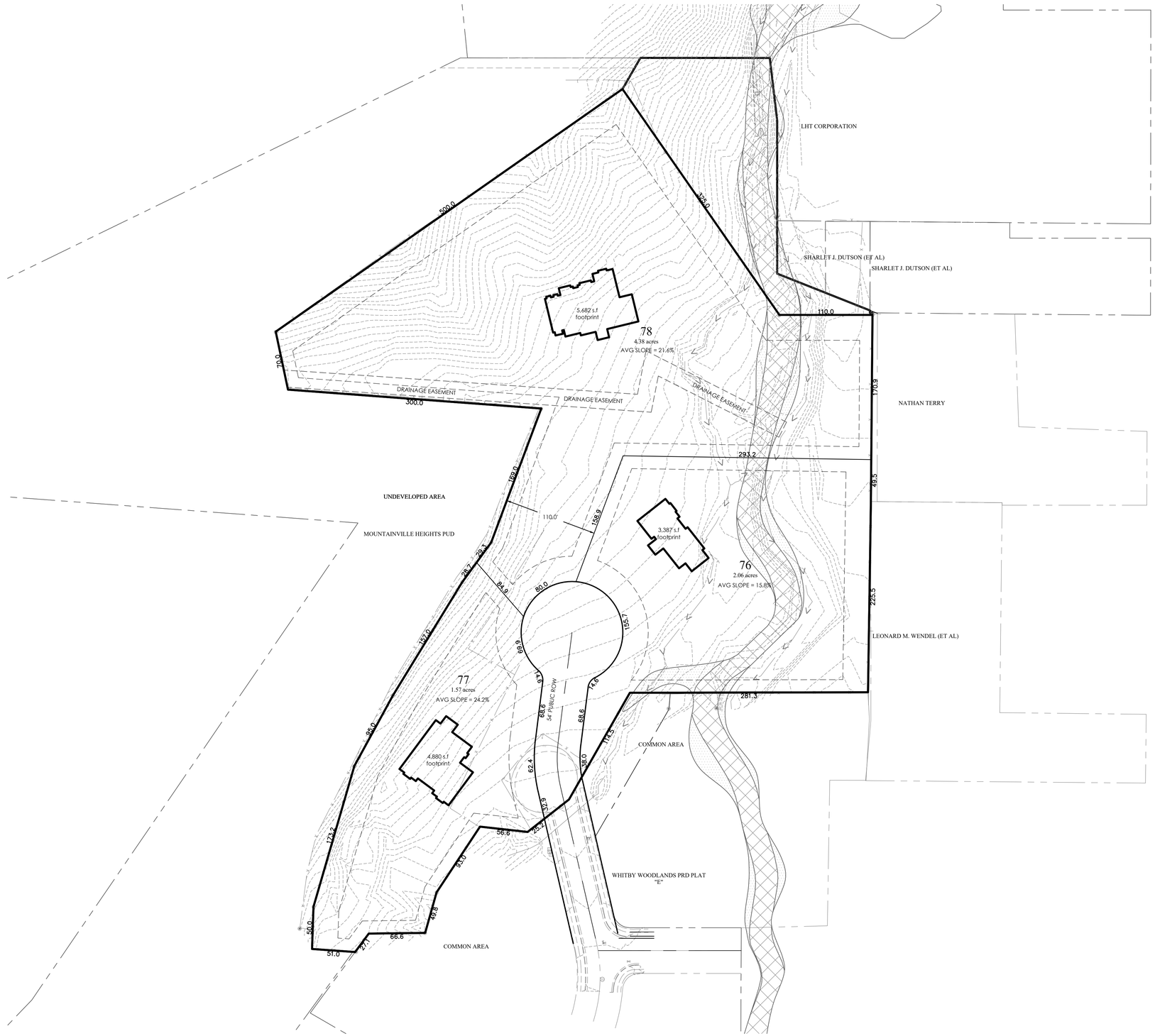


CONCEPT TABULATIONS

TOTAL ACREAGE	8.45 ACRES
SINGLE FAMILY LOTS	3
TOTAL DENSITY	2.8 UNITS/ACRE

ZONE REQUIREMENTS

ZONE:	CR-20,000
MIN. LOT SIZE:	20,000 SQFT
MIN. LOT WIDTH:	110'
MIN. FRONTAGE, CUL-DE-SACS	80'
CUL-DE-SAC RADIUS:	60'
ROW WIDTH:	54'



KOROEM COURT 3-LOT CONCEPT

662 NORTH WHITBY WOODLANDS DR. ALPINE CITY, UTAH
9/3/2020
19-0487

Note: This plan is for illustrative purposes only. Boundaries may be based on parcels obtained through public GIS data. It is recommended that a survey be performed to determine actual boundary size and dimensions as well as other potential boundary conflicts.

FOCUS©
ENGINEERING AND SURVEYING, LLC

Z:_2019\19-0487 koroem Court\design 19-0487\dwg\Concepts\3 Lot Concept.dwg

ALPINE CITY
STAFF REPORT
November 12, 2020

To: Alpine City Planning Commission

From: Staff

Prepared By: Austin Roy, City Planner
Planning & Zoning Department

Jed Muhlestein, City Engineer
Engineering & Public Works Department

Re: **Koroem Court - CONCEPT**

Applicant:	Brian Hansen with Heritage Custom Homes
Project Location:	662 North Whitby Woodlands Drive
Zoning:	CR-20,000 Zone
Acreage:	Approximately 8.44 Acres
Lot Number & Size:	3 lots range from 1.57 acres to 4.38 acres
Request:	Recommend approval of the concept plan

SUMMARY

The proposed development, Koroem Court Subdivision, consists of 3 lots on 8.44 aces. The development is in the CR-20,000 zone and located at approximately 662 North Whitby Woodlands Drive. Applicant is seeking approval of the concept plan.

BACKGROUND

Proposed development is located on previously undeveloped land. Staff has been working with the developer to make sure plans will meet ordinance. Developer has been working with Horrocks Engineering to resolve potential issues with the culinary water.

ANALYSIS

Lot Width and Area

Per the requirements of the CR-20,000 zone lots with greater amounts of slope have increased area requirements. See table below:

3.03.040 Density, Lot Area And Width Requirements - Single Family Dwellings

1. The minimum area and width requirements of a zoning lot shall be determined upon the average slope of the lot and the following schedule:

Average Slope of Lot*	Minimum Area (in square feet)	Minimum Width (at min. front setback)
0-9.9%	20,000 (.46 ac)	110 ft.
10-14.9%	30,000 (.68 ac)	110 ft.
15-19.9%	40,000 (.92 ac)	110 ft.
20-24.9%	60,000 (1.37 ac)	110 ft.
25%+	Not Buildable	Not Buildable

Lot 76, middle lot on southeast side, has a large portion of the lot being unbuildable due to the floodplain located along Fort Creek which runs through the lot. However, the lot shows more than 40,000 square feet outside the flood plain, and thus meets the area requirements. All lots, appear to meet area requirements.

Lot width requirements for the CR-20,000 zone are 110 feet for a standard lot as measured at the 30 foot front setback line, and 80 feet for a cul-de-sac lot located on a curve as measured at the right of way line, and 110 feet as measured at the 30 foot front setback line. All proposed lots appear to meet the width requirement.

Two of the lots do not meet the definition of a lot, which is: "Lots shall be generally rectangular in nature, and shall have **no more than five sides without an exception** being recommended by the Planning Commission and approved by the City Council; the front of a property, located at the front right of way, does not count against this requirement." (DC 3.01.110 Lots)

Buildable Area

The proposed concept shows the footprints for the homes on spots that have natural slopes of 20% or greater. **The concept plan does not meet the buildable are requirements, plan will need to be adjusted for preliminary and final.**

Use

The developer is proposing that the lots be used for single-unit detached dwellings, which is consistent with the permitted uses of the CR-20,000 zone.

Sensitive Lands (Wildland Urban Interface)

The property is in areas identified on the City hazard maps. Applicant has submitted a Geotechnical report which is covered in the engineering review below. See Lone Peak Fire Department review for Wildland Urban Interface requirements.

Trails

The City has no planned trails through this area.

General Plan

Proposed subdivision is compatible with the City's General Plan.

REVIEWS

PLANNING AND ZONING DEPARTMENT REVIEW
The analysis section in the body of this report serves as the Planning and Zoning Department review.

ENGINEERING AND PUBLIC WORKS DEPARTMENT REVIEW
Streets
The application shows the appropriate right of way dedication for the new cul-de-sac street. Frontage improvements will be built off the extension of Whitby Woodlands Drive.

Utilities
Utilities exist at the end of Whitby Woodlands Drive and are available to be extended to serve the development. Having said that, Horrocks Engineers maintains the water and sewer models for the city. Horrocks reviews concept plans to make sure a proposed development fits within the master plans. The review found the sewer and pressurized irrigation system points of connection adequate to serve the development. The culinary system would require offsite improvements to meet the minimum fire flows for the development. The preferred option is to "loop" the water system. This would be accomplished by constructing a new 8" main through the north side of the Stevens property (553 N Main) and connecting the Main St. lines to the Whitby Woodlands lines. The other option is to install a new 10" main line from the end of Whitby Woodlands drive to the intersection of Whitby Woodlands Drive and Glacier Lilly Drive. Preliminary construction drawings will have to show which option of offsite waterline they intend to build.

Westfield ditch runs along the easterly side of the proposed development and would be required to be piped though the development per DC 4.07.190. A 20-foot wide easement for said ditch/pipe would be required on the final plat.

A more detailed review of utilities will come at preliminary submittal.

Geologic Hazards
The site is situated within areas of potential geologic hazards as identified on Alpine City hazard maps and as thus, was required to investigate earthquake, rockfall, debris flow, flooding, and slide hazards for the site. Gordon Geotechnical Engineering, Inc. (G^2) performed the study and no issues of concern on any of the studied items were brought forward.

Alpine City Construction Standard Specifications require a California Bearing Ratio (CBR) value to be obtained and reported in the geotechnical report for roadway design**. The submitted report does not have CBR information and will be required to submit this with the preliminary submittal.**

Other
Existing Easement. An existing drainage easement resides on the property. Building a roadway through this easement will alter the way water flows overland. It appears the easement is for flood waters from a channel on the west side of lot 78. Staff will need more information on this easement to evaluate what, if any, infrastructure may need put in place to ensure flood waters can

freely flow to Fort Creek via this easement. **As part of the Preliminary application, the Developer should provide detailed information on this drainage easement for evaluation.**

Developer is requesting cash in leu of water rights. This can be approved now (at the City Council level) or later when they have a final plat ready for approval. For properties historically irrigated with Alpine Company Irrigation shares (which this property was), the city typically requires Alpine Irrigation Company shares be turned in to serve the development. Accepting cash in leu of water rights requires the developer to pay 125% of the current market value of the water rights. (DC 4.07.230.3.e)

LONE PEAK FIRE DEPARTMENT REVIEW
See the attached review from the Lone Peak Fire Department.

HORROCKS ENGINEERING REVIEW
See the attached review from Horrocks Engineers.

NOTICING
Notice has been properly issued in the manner outlined in City and State Code

STAFF RECOMMENDATION

Review staff report and findings and make a recommendation to City Council to either approve or deny the proposed subdivision. Findings are outlined below.

Findings for a Positive Motion:

A. Frontage and size requirements align with code for the zone;
B. The culdesac length meets code;
C. There are no geologic hazard issues mentioned in the geologic hazard report for the area.

Findings for Negative Motion:

A. Two of the lots do not meet the definition of a lot;
B. The buildable area on Lot 78 is shown within areas of slope greater than 20%.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE

I motion to recommend approval of the proposed plans with the following conditions:

- An exception be granted to the number of sides a lot can have for lots 77 and 78;
- At Preliminary Submittal, the Developer:
    - submit plans for a piped ditch system and show a corresponding 20-foot wide easement on the plat for the alignment of said pipe;
    - address redlines on the concept plat and plans;
    - update the geotechnical report to provide onsite CBR value;
    - provide details on the drainage easement through lot 78;
    - address issues with buildable area requirements prior to preliminary and final.

SAMPLE MOTION TO DENY

I motion to recommend that the proposed plans be denied based on the following:

- Lots 77 and 78 do not meet code, each having more than five sides;
- Buildable areas need adjusted to meet code.

Koroem Court
CONCEPT

Property Boundaries and Utilities are shown for reference only. Though shown generally close, a survey and Blue Stake should be done to locate both accurately.

ALPINE CITY
ESTABLISHED 1850

Legend

- Koroem Concept
- Fire Hydrant
- Lehi Culinary
- Culinary Line
- Main PI Line
- Ditch
- Storm Manhole
- Storm Sump
- Storm junction box
- Curb Inlet
- Storm Drain Basin
- sd outlet box
- Storm Line
- Sewer Manholes
- Sewer Main Line
- Stream Centerline
- FLOODWAY
- 1 PCT ANNUAL CHANCE FLOOD HAZARD (100 yr)
- 0.2 PCT ANNUAL CHANCE FLOOD HAZARD (500 yr)
- 10' Contours

N

0 40 80 160 240 320 Feet

LONE PEAK FIRE DISTRICT
5582 PARKWAY WEST DRIVE
HIGHLAND, UTAH 84003
(801) 763-5365
WWW.LONEPEAKFIRE.COM

REED M. THOMPSON, FIRE CHIEF

MEMORANDUM

DATE: 27 October 2020

TO: Jed Muhlestein, City Engineer, Alpine City
CC: Austin Roy, City Planner, Alpine City

FROM: Reed M. Thompson, Fire Chief

SUBJECT: KOROEM COURT SUBDIVISION 3-LOT CONCEPT PLAN

In review of the proposed site development concept plan for "Koroem Court 3-Lot Concept", dated 3 September 2020, and located at 662 North Whitby Woodlands Drive, please note:

- The distance of the proposed building footprint on Lot 78 exceeds the distance allowed for fire access, when coming off of the cul-de-sac. All portions of the building are to be within 150 feet of the access road. An exception can be met if one or both of the following conditions are met:
  - Residential fire sprinklers are installed. (Note: This may be required as a result of the location in the WUI.)
  - A 20-foot-wide fire access road is constructed within 150 feet of the furthest point of the structure. The said access road needs to meet structural standards established in the currently approved International Fire Code. Access roads in excess of 150 feet require an approved turnaround.
- A fire hydrant is required within 250 feet of all structures.
- Fire flows need to be in accordance with the currently approved International Fire Code.

If you have further questions regarding this information, please contact me directly.

HORROCKS ENGINEERS

To: **Jed Muhlestein**
Alpine City

From: **John E. Schiess, P.E.**

Date: Oct 20, 2020 **Memorandum**

Subject: **Koroem Court Hydraulic Modeling Results and Recommendations Update 2**

The proposed Korem Court development consist of 4 single family homes located at 662 North Whitby Woodlands Dr. Development is right at the upper edge of the lower culinary and PI pressure zones.

The development proposes 4 culinary ERC's, 5.21 irrigated acres, and 4 sanitary sewer ERU's. The current master plan anticipated 16.11 culinary ERC's, 4.66 irrigated acres, and 16.11 sanitary sewer ERU's. Proposed connections fall well within the current master plans for culinary and sewer but are slightly more than anticipated for PI in this area. It is estimated that 66 percent of the total lot area will be irrigated although this may not be the case given the topography.

The proposed culinary water improvements have been modeled in both the current and buildout models. The proposed improvements do not fit well within the City's culinary water master plan and modeling does not show them to be adequate. The plan as it stands will not provide the City standard 1,750 gpm fire flow. The following comments and recommendations are noted for the proposed culinary water system. If the culinary water system were looped from Whitby Woodlands Dr to Main Street at 600 north with an 8-inch line, it would meet the 1,750 gpm fire flow standard and there would be adequate pressures and fire flows for homes under 4,800 sf without fire sprinklers. Alternately, if the existing waterline in N Whitby Woodland Dr were upsized to 10 inch all the way from Glacier Lily Dr to the end of the cul-de-sac then the standard 1,750 gpm fire flow would be achieved. If fire sprinklers were installed, then homes up to 18,000 sf could be constructed. This analysis assumes the highest home elevation was 5040 feet in elevation. Anything higher would require a re-analysis. A note similar to the following should be considered on this plat. "Culinary water pressures as designed meet the State of Utah Division of Drinking Water minimum standards at the water main. Individual homes within this plat may need to adjust their internal plumbing to account for minimal pressures. Individual home booster pumps are not allowed unless approved by the City and the Division of Drinking Water."

The proposed pressurized irrigation improvements have been modeled in both the current and buildout models under both wet and dry year supply conditions. The proposed improvements fit within the City's pressurized irrigation master plan and modeling shows them to be adequate in the current system. The following comments and recommendations are noted for the proposed pressurized irrigation system. A future 6-inch connection from Whitby Woodlands Dr to Main Street at 600 north is necessary for buildout. A note similar to the proposed culinary note is recommended for the PI system as well.

The proposed sanitary sewer improvements have been modeled in both the current and buildout models. The proposed improvements fit well within the City's sanitary sewer master plan and modeling shows them to be adequate.

GORDON GEOTECHNICAL ENGINEERING, INC.

REPORT
GEOLOGICAL HAZARD RECONNAISSANCE AND GEOTECHNICAL STUDY PROPOSED KOROEM COURT SUBDIVISION NORTH OF 662 NORTH WHITBY WOODLANDS DRIVE ALPINE, UTAH

July 15, 2020

Job No. 660-003-20

Prepared for:
Brian Hansen
623 North Patterson Lane
Alpine, Utah 84004

Prepared by:
Gordon Geotechnical Engineering, Inc.
4426 South Century Drive, Suite 100
Salt Lake City, Utah 84123
Tel: 801-327-9600
Fax: 801-327-9601
www.gordongeotech.com

July 15, 2020
Job No. 660-003-20

Brian Hansen
623 North Patterson Lane
Alpine, Utah 84004

Attention: Mr. Brian Hansen

Ladies and Gentlemen:

Re: Report
Geological Hazard Reconnaissance and Geotechnical Study
Proposed Koroem Court Subdivision
North of 662 North Whitby Woodlands Drive
Alpine, Utah

1. INTRODUCTION

1.1 GENERAL

This report presents the results of our geological hazard reconnaissance and geotechnical study performed at the site of the proposed Koroem Court Subdivision which is located north of 662 North Whitby Woodlands Drive in Alpine City, Utah. A four-lot single family residential subdivision is planned for the approximately 8.4-acre site. The subject parcel is located as shown on attached Figure 1, Vicinity Map, and Figure 2, Site Plan, provides aerial coverage of the site and detail of the current (2018) layout of the site vicinity. As shown on Figure 2, the property parcel consists of an area that is currently vacant and undeveloped. The layout of the four lots proposed for the subdivision are also shown on Figure 2.

1.2 OBJECTIVES AND SCOPE

The objectives and scope of our studies were planned in discussions between Mr. Brian Hansen and Mr. Ryan Little of Gordon Geotechnical Engineering, Inc. (G^2).

The objectives and scope of our studies are two-fold, being a geological hazard reconnaissance study and a geotechnical engineering study, and the results of both studies are combined herein with this reporting.

In general, the **objectives** of this study were to:

1. To perform a Geologic Hazard Reconnaissance Study in accordance to Alpine City Development Code 3.12.060. The purpose of the reconnaissance studies is to evaluate if the proposed development is outside or within areas identified as Geologic Hazards Overlay areas, and if within a hazard area, to recommend appropriate additional studies that comply with the purpose and intent of the Alpine City Development Code. These hazards include, but are not limited to: Surface Fault Rupture, Debris Flows, Landslide, Rock Fall, Liquefaction Areas, Flood, or other Hazardous Areas.

2. To perform a geotechnical study to define and evaluate the subsurface soils and provide slope stability, earthwork, foundation, floor slab, geoseismic, and pavement parameters and recommendations to be used in the design and construction of the proposed structures.

The Geologic Hazard Reconnaissance Study **scope** included:

1. Perform a site reconnaissance to study and/or identify any potential geologic hazards.

2. Perform a desk study involving the review of geologic maps, topographic maps, Lidar, and previous geologic hazard reports.

3. Preparation of a geologic letter identifying any found geologic hazards and recommend any appropriate additional studies that comply with the purpose and intent of the Alpine City Development Code.

It should be noted the site is mapped within the Geologic Slope Hazards of “debris”, “rock”, “slide”, and “flood zone” on the Alpine City Hazard maps (Alpine City, 2006).

The Geotechnical Engineering Study **scope** included:

1. A field program consisting of the excavating, logging, and sampling of four test pits.

2. A laboratory testing program.

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

1.3 AUTHORIZATION

Authorization was provided by Mr. Brian Hansen by returning a signed copy of our Professional Services Agreement No. 20-0609 dated and executed on June 11, 2020.

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 test pits, projected groundwater conditions, and the layout and design data discussed in Section 2., Proposed Construction, of this report. If subsurface conditions other than those described in this report are encountered and/or if design and layout changes are implemented, G^2 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

A single-family residential subdivision is planned for the approximately 8.4-acre site. It is our understanding that the site will be subdivided into four lots. It is anticipated that the structures will be up to three levels above grade with a partial- to full-depth basement level.

Maximum column and wall loads are anticipated to be on the order of 40 to 60 kips and 2 to 3 kips per lineal foot, respectively. Real loads are defined as the total of all dead plus frequently applied (reduced) live loads. Floor slab loads will be relatively light, on the order of 200 pounds per square foot or less.

Site development will require a minor amount of earthwork in the form of site grading. Maximum cuts and fills on the order of five to eight feet are projected.

Paved access roadways will also be a part of the overall development. Traffic over the pavements will consist of a light to moderately light volume of automobiles and light trucks, and some medium-weight trucks.

3. GEOLOGIC HAZARD RECONNAISSANCE INVESTIGATION

As part of the Alpine City Sensitive Land Ordinance - Geologic Hazards Overlay 3.12.060, studies are required to *minimize the adverse effects of geologic hazards* (Alpine City, 2006). *The geologic hazard overlay includes surface fault rupture, landslide, debris flow, rockfall, and soil liquefaction.* Because parts of the proposed subdivision site are located within identified as

potentially hazardous area as shown on the Alpine City Hazard maps as geologic hazards, this reconnaissance investigation is required prior to development.

3.1 LITERATURE REVIEW AND ANALYSIS

Our review of existing information and mapping for the subject site has included aforementioned previous reports and documentation and previous Utah Geological Survey (UGS) maps, reports, and data (Biek, 2005; Christenson and Shaw, 2008; FEMA, 2020; Utah County GIS, 2020). The geologic mapping of the site vicinity by Biek (2005) is presented on Figure 3, Geologic Mapping. In addition to the previewed reports, maps, and literature, our review has included an analysis of vertical and stereoscopic aerial photography for the site including a historical 1946 1:20,000 stereoscopic sequence (frames AAL-1B-73 and AAL-1B-74), a contemporary 2012 5.0-inch digital color HRO orthoimagery coverage, and 2018 0.6-meter digital color NAIP orthoimagery coverage of the site, as shown on Figure 2.

A GIS analysis and data integration for the site evaluation was conducted using the QGIS® GIS platform to geoprocess and analyze 2014 0.5-meter LiDAR digital elevation data made available for the site by the Utah Automated Geographic Reference Center (AGRC), and presented on Figure 4, LiDAR Analysis. The GIS analysis includes using the QGIS® platform Geospatial Data Abstraction Library (GDAL) Contour, and the GRASS® (Geographic Resources Analysis Support System) r.slope and r.shaded.relief modules. The GIS platform was used to integrate terrain layers, geologic mapping, photogrametric details, available digital vector and raster data, and field GPS details collected during our field program, and for graphical presentation of our study findings herein.

3.2 SITE GEOLOGY

The geology of the site was interpreted through an integrated compilation of data analyses, including a review of literature and mapping from our previous studies conducted in the area; geologic mapping by (Biek, 2005) as shown on Figure 3; photogeologic analyses of the historical and contemporary imagery as shown on Figure 2; GIS analyses of elevation and geoprocessed 2014 LiDAR terrain data as shown on Figure 4, and available GIS hazards information provided by the Utah Automated Geographic Reference Center (AGRC at: http://gis.utah.gov/) and Utah County GIS (2020); and field reconnaissance of the general site area, and the interpretation of the test pit exposures excavated at the site as part of our field program, which are discussed in Section 5.2, Subsurface Soil, of this report. Seismic hazards information was developed from United States Geologic Survey (USGS) databases (Peterson and others, 2008).

The site is located on the south side of the Traverse Mountain Salient on the north end of Utah Valley, which is within the Basin and Range Physiographic Province. This province is characterized by approximately north-south trending valleys and mountain ranges that have been formed by extensional tectonics and displacement along normal faults. The province

extends from the Wasatch Range on the east to the Sierra Nevada Range on the west (Hunt, 1967). Conversely, the Traverse Mountain Salient is an east-to-west structural ridge comprised largely of Tertiary volcanics and Paleozoic sedimentary rocks (Biek, 2005), that is flanked by the Wasatch Range on the east and the Utah Valley on the west. The salient extends approximately 7.0 miles east-to-west and 3.5 miles north-to-south.

The surface of the site consists of foothill margin ground, with the west side of the site consisting of moderately steep to steep slopes extending beyond the west boundary of the site, and near level floodplain surfaces comprising the center and east side of the site adjacent to Fort Creek which flows from north-to-south along the east side of the site.

Figure 3 shows the location of the site relative to GIS overlays and geological mapping drawn by Biek (2005). A paraphrased summary of the geological mapping of the site vicinity by Biek (2005) is provided as follows:

> **Qaly-** Young alluvial deposits (Holocene to Upper Pleistocene) − Moderately sorted sand, silt, clay, and pebble to boulder gravel deposited in river channels and flood plains; incised by active stream channels, and locally include small alluvial-fan and colluvial deposits…
>
> **Qaf_1 -** Modern alluvial-fan deposits (Holocene) − Poorly to moderately sorted, non-stratified, clay- to boulder-size sediment deposited principally by debris flows at the mouths of active drainages; upper parts typically characterized by abundant boulders and debris-flow levees…
>
> **Qafy-** Younger undifferentiated alluvial-fan deposits (Holocene to Upper Pleistocene) − Poorly to moderately sorted, clay- to boulder-size sediment deposited principally by debris flows…
>
> **Qafp-** Alluvial-fan deposits related to the Provo phase of the Bonneville lake cycle (Upper Pleistocene) − Poorly to moderately sorted, clay- to cobble-size sediment…deposited by streams associated with the Bonneville (transgressive) phase...
>
> **Qafo-** Older alluvial-fan deposits (Upper Pleistocene) − Similar to younger undifferentiated alluvial-fan deposits (Qafy)…predating, the Bonneville shoreline...
>
> **Qalp-** Alluvial deposits related to the Provo phase of the Bonneville lake cycle (Upper Pleistocene) − Moderately to well-sorted sand, silt, and pebble gravel deposited principally in river channels; coarsens upgradient and includes boulder-size clasts…
>
> **Qalpo-** Older alluvial deposits related to the Provo phase of the Bonneville lake cycle (Upper Pleistocene) − Moderately to well-sorted sand, silt, and pebble to boulder gravel…that is about 30 feet (9 m) above adjacent Qalp deposits…

> **Qlgb -** Lacustrine gravel and sand (Upper Pleistocene) − Moderately to well-sorted, moderately to well-rounded clast-supported, pebble to cobble gravel and pebbly sand; thin to thick bedded…Qlgb deposited at and below highest Bonneville shoreline…
>
> **Qlsb -** Lacustrine sand and silt (Upper Pleistocene) − Fine- to coarse-grained lacustrine sand and silt with minor gravel; typically thick bedded and well sorted; gastropods locally common…Qlsb deposited at and below highest Bonneville shoreline but above the Provo shoreline...
>
> **Qlag -** Lacustrine and alluvial coarse-grained deposits (Pleistocene) − Poorly to moderately sorted, clay- to boulder-size sediment...

The near-surface geology of the subject site consists of upper Pleistocene age lacustrine and alluvial deposits, and Holocene alluvial deposits (Beik, 2005). The moderately steep to steep slopes extending beyond the west boundary are mapped as ***Qlsb -*** *Lacustrine sand and silt (Upper Pleistocene) − Fine- to coarse-grained lacustrine sand and silt with minor gravel*, with a foot-slope buttress comprised of ***Qafy-*** *Younger undifferentiated alluvial-fan deposits (Holocene to Upper Pleistocene) − Poorly to moderately sorted, clay- to boulder-size sediment* deposits. The near level floodplain surfaces comprising the center and east side of the site adjacent to Fort Creek are mapped as ancient ***Qafp-*** *Alluvial-fan deposits related to the Provo phase of the Bonneville lake cycle (Upper Pleistocene) − Poorly to moderately sorted, clay- to cobble-size sediment*, and more recently deposited ***Qaly-*** *Young alluvial deposits (Holocene to Upper Pleistocene) − Moderately sorted sand, silt, clay, and pebble to boulder gravel deposited in river channels and flood plains.*

3.3 GEOLOGIC/NATURAL HAZARDS

The Alpine City geologic hazard overlay requires an assessment of *surface fault rupture, landslide, debris flow, rockfall, and soil liquefaction*. Included with these geologic hazards we also assess exposure to flood hazards, and steep slope limitations for site development. Figure 5, Geologic Hazards Site Evaluation, shows the proposed subdivision layout relative to geologic hazards study areas layers, FEMA flood risk zone layers, and steep slope limitations layers. Our site-specific review of the geologic and natural hazards and recommendations pertaining to the hazards are summarized in the following sections:

3.3.1 Seismic Hazards: Surface Fault Rupture Hazards, Strong Earthquake Ground Motion and Liquefaction:

3.3.1.1 Surface Fault Rupture Hazards

The nearest active (Holocene) earthquake fault to the site is the Provo segment of the Wasatch fault zone (UT2351G) which is located 1.45 miles east of the site (Black and others, 2004).

Accordingly, fault rupture hazards are not considered present on the site. The site is located well outside the surface fault rupture hazard special studies zone, which includes a zone of 500 feet on both sides of the mapped fault trace; thus, a surface fault rupture hazard study and trenching is not required for the proposed subdivision site.

3.3.1.2 Strong Earthquake Ground Motion

Regional strong ground motion originating from the Wasatch fault or other near-by seismic sources is capable of impacting the site and surrounding areas. The Wasatch fault zone is considered active and capable of generating earthquakes as large as magnitude 7.3 (Arabasz and others, 1992). Based on probabilistic estimates (Peterson, and others, 2008) queried for the site, the expected peak horizontal ground acceleration on rock from a large earthquake with a 10-percent probability of exceedance in 50 years is as high as 0.17*g,* and for a two-percent probability of exceedance in 50 years is as high as 0.53*g* for the site.

The 10-percent probability of exceedance in 50 years event has a return period of 475 years, and the 0.17*g* acceleration for this event corresponds “strong” perceived shaking with “light” potential damage based on instrument intensity correlations. The 2-percent probability of exceedance in 50 years event has a return period of 2475 years, and the 0.53*g* acceleration for this event corresponds “severe” perceived shaking with “moderate to heavy” potential damage based on instrument intensity correlations (Wald and others, 1999).

Future ground accelerations greater than these are possible but will have a lower probability of occurrence. For IBC motions see Section 6.9.3, Site Seismic Response.

3.3.1.3 Liquefaction Potential Hazards

In conjunction with strong earthquake ground motion potential of large magnitude seismic events as discussed previously, certain soil units may also possess a potential for liquefaction during a large magnitude event. Liquefaction is a phenomenon whereby loose, saturated, granular soil units lose a significant portion of their shear strength due to excess pore water pressure buildup resulting from dynamic loading, such as that caused by an earthquake. Among other effects, liquefaction can result in densification of such deposits causing settlements of overlying layers after an earthquake as excess pore water pressures are dissipated. Horizontally continuous liquefied layers may also have a potential to spread laterally where sufficient slope or free-face conditions exist. The primary factors affecting liquefaction potential of a soil deposit are: (1) magnitude and duration of seismic ground motions; (2) soil type and consistency; and (3) occurrence and depth to groundwater.

Liquefaction potential hazard mapping for Utah County by Anderson and others (1994) classifies the site location as within a “Very Low” Liquefaction Potential area, and an area where liquefaction potential hazard studies are not required.

3.3.2 Landsliding

On the basis of mapping by Biek (2005), the nearest potentially active landslide units are mapped as **Qmsy** (younger landslide deposits) that are located approximately 1.5 miles north of the site (not shown on Figure 3). Figure 5 shows the sloping areas on the west side of the site as within the landslide study area as delimited by Alpine City (2006) and Utah County GIS (2020)[1]. On the basis of our analysis of the aerial photography, the LiDAR imagery, and our site reconnaissance, no landslide features or morphology (Varnes, 1978) was observed on the site or on properties adjacent to the site. It is our opinion no active landsliding is present on the site.

3.3.3 Alluvial Fan - Debris Flow Processes

Alluvial fans are landforms that form where upland drainages exit onto unconfined valley or basin surfaces, whereupon stream flow energy is reduced and sediment is deposited. With successive flood events over time, the fan-shaped morphology will develop as distributary channels work and rework the sediments originating at the fan head (apex) and moving the sediments down-fan and distributing the sediments to the distal margins of the landform. Sediments introduced to the fan head may arrive in the form of stream flood to debris flow process events (Bull, 1977).

The nearest alluvial fan and potential debris flow process deposits to the site, are mapped as **Qafy,** and occur sloping areas on the west side of the site as shown on Figure 3. On the basis of our analysis of the aerial photography, the LiDAR imagery, our site reconnaissance and our interpretation of the test pit exposures excavated at the site as part of our field program (see Section 5.2, Subsurface Soil, of this report); we have determined that the **Qafy** deposits mapped on the site are not comprised of coarse alluvium deposited by debris flow processes, but are of finer-grained sediments of silt (ML) and sand (SM and SP), with some gravel particles, likely deposited by sheet-flow and slope-wash processes originating from **Qlsb** deposits (fine- to coarse-grained lacustrine sand and silt with minor gravel) that are located on the slopes on and above the west side of the site.

Alluvial fan deposits and potential debris flow hazards associated with Fort Creek, are mapped as **Qaf_1** (modern alluvial-fan deposits - poorly to moderately sorted, non-stratified, clay- to boulder-size sediment). These deposits occur approximately 1700 feet upstream and north from the site.

On the basis of our on-site analysis and observations, we do not believe debris flow hazards are present on the site.

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1 The Alpine City (2006) and Utah County GIS (2020) delimited Landslide Study Area, Debris Flow Study Area, and Rockfall Study Area overlays shown on Figure 5 occupy the same areas on the site and site vicinity for the three hazard study areas.

3.3.4 Rockfall Hazards

Lund and Knudsen (2016) have found that *rockfalls occur where a source of rock exists above a slope steep enough to allow rapid downslope movement of dislodged rocks by falling, rolling, bouncing, and sliding…Rockfall sources include bedrock outcrops or boulders on steep mountainsides or near the edges of escarpments such as cliffs, bluffs, and terraces*. Although the slopes on the west side of the site are moderately steep to steep slopes that extend beyond the west boundary of the site, no bedrock outcrops or latent boulders were observed on these slopes. Because source outcrops or boulders are not expected on the **Qlgb** (lacustrine gravel and sand) and **Qlsb** (lacustrine sand and silt) deposits mapped to the west of the site, we believe that rockfall hazards are not present on the site.

3.3.5 Flooding

The Alpine City Flood Damage Prevention Overlay ordinance Section 3.12.080, defines the Area of Special Flood Hazard - *is the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map…Zone A usually is refined into Zones A, AE*… These flood risk zones that are affiliated with Fort Creek are shown on Figure 5 as FEMA Flood Risk Zones A and AE and are based upon mapping by FEMA prepared June of 2020 (FEMA, 2020). The flood risk A – AE Zone is shown to cross parts of the proposed Lots #2, #3, and #4.

Because of the implied flood hazards *on the Zones A, AE* shown on Figure 5, we recommend that these areas as shown on Figure 5 be avoided for general site development and structure placement, unless the site development plans are approved through a *Development Permit* approved by the *Floodplain Administrator* (City Engineer) as outlined in the Alpine City ordinance section Flood Damage Prevention Overlay: 3.12.080.7.c. Permit Procedures (Alpine City, 2006).

3.3.6 Sloping Surfaces

The site vicinity slopes developed from our LiDAR analysis range from level to well over 50-percent as shown on Figure 4. As shown on Figure 4, the site slopes on west side of the site consist of moderately steep to steep slopes extending beyond the west boundary, and slope downward to the southeast, becoming near level near Fort Creek. Elevations on the site range from 4994 feet on the southeast side of the site, to 5090 feet on the northwest side of the site.

The average slopes for the subdivision parcel and the four proposed development lots are summarized on the following page.

Parcel	Area Acres	Slope Percent
Lot #1	1.7	24.22
Lot #2	3.42	22.35
Lot #3	1.39	18.97
Lot #4	1.39	20.47
Subdivision Parcel	8.45	21.45

The threshold gradient for slope development considerations and "Buildable Area" definition according to the Alpine City Geologic Hazards Overlay 3.12.060 includes slopes greater than 20-percent (Alpine City, 2006). The steep slope areas, in excess of 20-percent, for the site are shown on Figure 5.

3.3.7 Site Reconnaissance

The site was reconnoitered on June 16, 2020, and the geotechnical engineering field program and tests pits were excavated on June 17, 2020. The site is an irregular-shaped property occupying area approximately 1120 feet north-south, and 720 feet east-west in maximum plan dimensions. From the south property frontage on the end of Whitby Woodlands Drive, the site surface slopes gently upward to the north, with steeper slopes rising to the northwest. On the east side of the parcel, the Fort Creek stream channel was observed to be entrenched roughly 6 to 8 feet below the surface. A lesser channel that appears to be an irrigation conveyance was observed approximately 50 to 100 feet west of the Fort Creek channel. The lesser channel was also entrenched roughly 5 to 6 feet below the surface. Cover on the east side of the site in the vicinity of Fort Creek and the lesser channel consisted of densely wooded cover with cottonwood, box elder, and alder trees, with an understory of grasses and weeds. The center of the property was open with a cover of tall bunch grasses, weeds, and sagebrush. The sloping areas on the west side of the site were covered with a dense oak and maple brush, with open areas of sagebrush and grass.

The surficial soils on the site appeared to consist of sandy silts with sub-rounded cobble and boulder sized particles exposed along the Fork Creek channel.

Recently constructed and established single-family homesites were observed on near-by and adjacent properties.

During the reconnaissance, no conditions of imminent geologic hazards were observed at the subject parcel.

4. GEOTECHNICAL ENGINEERING INVESTIGATIONS

4.1 FIELD PROGRAM

In order to define and evaluate the subsurface soil and groundwater conditions across the site, 4 test pits were excavated to depths of 12 to 15 feet. It should be noted that refusal was encountered on boulders during excavating operations at Test Pit TP-3 at a depth of 12 feet. The approximate locations of the test pits from this study are presented on Figure 5.

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 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 have been supplemented by subsequent inspection and testing in our laboratory. Detailed graphical representation of the subsurface conditions encountered is presented on Figures 6A through 6D, Log of Test Pits. Soils were classified in accordance with the nomenclature described on Figure 7, Unified Soil Classification System.

Disturbed bag samples were collected from the soils brought up by the backhoe bucket.

Following completion of excavating and logging, each test pit was backfilled. Although an effort was made to compact the backfill with the backhoe, backfill was not placed in uniform lifts and compacted to a specific density. Consequently, settlement of the backfill with time is likely to occur. Additionally, some caving of the test pit sidewalls was observed during excavating operations.

4.2 LABORATORY TESTING

4.2.1 General

In order to provide data necessary for our engineering analyses, a laboratory testing program was completed. The program included moisture, density, partial gradation, and consolidation tests. The following paragraphs describe the tests and summarize the test data.

4.2.2 Moisture and Density Tests

To aid in classifying the soils and to help correlate other test data, moisture and density tests were performed on selected samples. The results of these tests are presented on the test pit logs, Figures 6A through 6D.

4.2.3 Partial Gradation Tests

To aid in classifying the soils and to provide general index parameters, a partial gradation test was performed upon six representative samples of the soils encountered in the exploration test pits. The results of the tests are tabulated below:

Test Pits No.	Depth (feet)	Percent Passing No. 4 Sieve	Percent Passing No. 200 Sieve	Soil Classification
TP-1	2.5	90.4	32.2	SM
TP-1	10.0	83.6	15.3	SM
TP-2	3.0	88.1	36.8	SM
TP-2	9.0	-	77.8	ML
TP-3	4.0	70.7	13.6	SM
TP-4	3.0	83.4	15.5	SM

4.2.4 Consolidation Tests

To provide data necessary for our settlement analyses, a consolidation test was performed on one representative sample of the fine-grained soils encountered in the exploration test pits. The data available indicates that the soils are moderately over-consolidated and when loaded below the preconsolidation pressure the soils will exhibit moderate compressibility characteristics. Detailed results of the tests are maintained within our files and can be transmitted to you, at your request.

5. SITE CONDITIONS

5.1 SURFACE

The site consists of an 8.4-acre, irregular-shaped parcel containing undeveloped land covered by grasses, shrubs, and large trees.

The site is bordered by similar undeveloped land to the north, and residential structures to the east, south and west.

The topography of the site slopes gently to the southeast with an overall relief on the order of 50 to 100 feet. The average slope of the four lots varied from 18.97 to 24.22 percent.

5.2 SUBSURFACE SOIL

The soil conditions encountered in each of the test pits, to the depths excavated, were relatively similar. In general, from the ground surface at Test Pits TP-1 through TP-4 and extending to the depths explored of 12 to 15 feet, natural sand with varying amounts of silt and gravel was encountered. The sands are medium dense, slightly moist, brown, and will exhibit relatively high strength and low compressibility characteristics. Additionally, the upper three to six inches contain major roots and are loose. It should be noted that some layers of clayey silt were encountered in Test Pits TP-1 and TP-2. As stated previously, refusal was encountered on boulders during excavating operations at Test Pit TP-3 at a depth of 12 feet.

The lines designating the interface between soil types on the test pit logs generally represent approximate boundaries. In-situ, the transition between soil types may be gradual.

5.3 GROUNDWATER

Groundwater was not encountered in the test pits to the depths explored, 12 to 15 feet, during excavation operations. Groundwater is anticipated to be at a depth greater than 20 feet at the site.

Seasonal and longer-term groundwater fluctuations of one to two feet should be anticipated. The highest seasonal levels will generally occur during the late spring and summer months.

6. DISCUSSIONS AND RECOMMENDATIONS

6.1 SUMMARY OF FINDINGS

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.

The most significant geotechnical aspects of the site are:

1. The loose, surficial soils in the upper three to six inches of the natural granular soils encountered. Loose, surficial soils must be completely removed from below the building footprint.

2. Excavation refusal due to boulders at a dept of 12 feet in Test Pit TP-3. Basement excavations may be difficult due to boulders.

Due to the variable nature of the loose, surficial soils, a qualified geotechnical engineer from our staff must aid in verifying that all loose, surficial soils have been completely removed prior to the placement of structural site grading fills, footings, or foundations.

Due to possible "perched" groundwater conditions and to minimize variations in the moisture content of the supporting soils, subdrains will be required around subgrade levels and behind retaining structures.

The natural sands and gravels may be suitable for re-use provided they meet the requirements of structural fill specified in Section 5.2.3, Structural Fill.

Detailed discussions pertaining to earthwork, foundations, floor slabs, lateral resistance, pavement, and the geoseismic setting of the site are discussed in the following sections.

6.2 EARTHWORK

6.2.1 Site Preparation

Preparation of the site must consist of the removal of all loose surficial soils, non-engineered fills (if encountered), topsoil, debris, and other deleterious materials from beneath an area extending at least three feet beyond the perimeter of the proposed building, rigid pavement, and exterior flatwork areas.

The loose, surficial soils may remain in flexible pavement areas as long as they are properly prepared. Proper preparation will consist of scarifying and moisture conditioning the upper eight inches and recompacting to the requirements of structural fill. However, it should be noted that compaction of fine-grained soils (if encountered) as structural site grading fill will be very difficult, if not impossible, during wet and cold periods of the year. As an option for proper preparation and recompaction, the upper eight inches of the loose, surficial soils may be removed and replaced with granular subbase over proofrolled subgrade. Even with proper preparation, flexible pavements established on loose, surficial soils may experience some long-term movements. If the possibility of these movements is not acceptable, these loose, surficial soils must be completely removed.

Subsequent to the above operations and prior to the placement of footings, structural site grading fill or floor slabs, the exposed natural subgrade must be proofrolled by passing moderate-weight rubber tire-mounted construction equipment over the surface at least twice. If any loose, soft, or disturbed zones are encountered, they must be completely removed in footing and floor slab areas and replaced with granular structural fill. If removal depth required is greater than two feet, G^2 must be notified to provide further recommendations. In pavement areas, unsuitable soils encountered during recompaction and proofrolling must be removed to a maximum depth of two feet and replaced with compacted granular structural fill.

6.2.2 Temporary Excavations

Temporary construction excavations in cohesive soil, not exceeding four feet in depth, may be constructed with near-vertical sideslopes. Temporary excavations up to 12 feet deep in

granular soils (sands) may be constructed with sideslopes no steeper than one horizontal to one vertical (1.0H:1.0V). Temporary excavations up to 12 feet deep in fine-grained cohesive soils (not anticipated) may be constructed with sideslopes no steeper than one half horizontal to one vertical (0.5H:1.0V).

Utility trench excavations must conform within Occupational Safety and Health (OSHA) guidelines for trench safety.

As stated previously, refusal was encountered on boulders during excavating operations at Test Pit TP-3 at a depth of 12 feet. Deeper excavations may be difficult in areas.

Excavations encountering loose and/or saturated cohesionless soils will be very difficult and will require very flat sideslopes and/or shoring, bracing, and dewatering as these soils will tend to flow into the excavation.

Excavations deeper than 12 feet are not anticipated at the site.

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.

6.2.3 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 possibly as replacement fill below footings. All structural fill must be free of sod, 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 four inches; although, occasional larger particles not exceeding six 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 two inches.

The non-engineered fills (if encountered), natural fine-grained and underlying granular soils may be utilized as structural site grading fill. It should be noted that unless moisture control is maintained, utilization of fine-grained soils as structural site grading fill will be very difficult, if not impossible, during wet and cold periods of the year. Only granular soils are recommended as structural fill in confined areas, such as around foundations and within utility trenches.

All imported granular structural fills should consist of a fairly well-graded mixture of sand and gravel containing less than 18 percent fines (percent by weight of material passing the No. 200 sieve).

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

Non-structural site grading fill is defined as all fill material not designated as structural fill and may consist of any cohesive or granular soils not containing excessive amounts of degradable material.

6.2.4 Fill Placement and Compaction

Structural fill shall be placed in lifts not exceeding eight inches in loose thickness. Structural fills shall be compacted in accordance with the percent of the maximum dry density as determined by the AASHTO[2] T-180 (ASTM[3] D-1557) 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 3 feet beyond the perimeter of the structure	0 to 8	95
Outside area defined above	0 to 5	90
Outside area defined above	5 to 8	92
Road base	-	96

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

Subsequent to stripping and prior to the placement of structural site grading fill, the subgrade must be prepared as discussed in Section 6.2.1, Site Preparation, of this report. In confined areas, subgrade preparation should consist of the removal of all loose or disturbed soils.

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.

Coarse 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 fill may be compacted by passing

[2] American Association of State Highway and Transportation Officials
[3] American Society for Testing and Materials

moderately heavy construction equipment or large self-propelled compaction equipment over the area at least twice. Subsequent fill material placed over the coarse gravels and cobbles shall be adequately placed so that the "fines" are "worked into" the voids in the underlying coarser gravels and cobbles.

6.2.5 Utility Trenches

All utility trench backfill material below structurally loaded facilities (flatwork, floor slabs, roads, 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 proofrolled and/or properly compacted prior to the construction of any exterior flatwork over a backfilled trench. Proofrolling 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 proofrolling, they shall be removed to a maximum depth of two feet below design finish grade and replaced with structural fill.

Most utility companies and City-County governments are now requiring that Type A-1a or A-1b (AASHTO Designation – basically 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 T-180 (ASTM D-1557) method of compaction. We recommend that as the major utilities continue onto the site that these compaction specifications are followed.

The natural sands may be suitable for re-use as trench backfill provided they meet the requirements of A-1a or A-1b material.

6.3 SPREAD AND CONTINUOUS WALL FOUNDATIONS

6.3.1 Design Data

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 footings be placed overlying loose, surficial soils.

For design, the following parameters are provided with respect to the projected loading discussed in Section 2., Proposed Construction, of this report:

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 Pressure for Real Load Conditions	
For footings on suitable natural soils and/or structural fill extending to suitable natural soils	- 2,500 pounds per square foot
Bearing Pressure Increase for Seismic Loading	- 50 percent*

* Not applicable for edge bearing pressure when the footings are established upon granular soil.

The term “net bearing pressure” refers to the pressure imposed by the portion of the structure located above lowest adjacent final grade. Therefore, the weight of the footing and backfill to the 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.

6.3.2 Installation

Under no circumstances shall the footings be established upon loose or disturbed soils, non-engineered fills (if encountered), rubbish, construction debris, other deleterious materials, frozen soils, or within ponded water. If unsuitable soils are encountered, they must be completely removed and replaced with compacted structural fill.

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.

6.3.3 Settlements

Settlements of foundations designed and installed in accordance with above recommendations and supporting maximum projected structural loads are anticipated to be on the order of one-half to five-eighths of an inch. Settlements are expected to occur rapidly with approximately 60 to 70 percent of the settlements occurring during construction.

6.4 SUBDRAINS

A permanent foundation/chimney subdrain system will be required around the outside of all subgrade walls.

The perimeter subdrain pipe should consist of a minimum of four-inch diameter, slotted or perforated pipe with the invert established at least 18 inches below the top of the lowest adjacent slab. The pipe should be encased in a one-half- to one-inch minus clean gap-graded crushed gravel extending two inches below, laterally, and up continuously at least 12 inches above the top of the lowest adjacent slab. The same granular material could be utilized as the chimney drain against the subgrade walls. The gravel chimney drain must be continuous and at least six inches wide. In all cases, the gravels must be separated from natural soils or backfill with a geotextile fabric, such as Mirafi 140N or equivalent. As an alternate, a synthetic drain board, such as Miradrain or equivalent, can be used for the chimney subdrain. The slope of the pipe should be at least 0.25 percent to a suitable point of gravity discharge, such as a sump within or outside the perimeter of the below-grade portion of the structure or by gravity down-gradient. Prior to installing the gravels, we recommend that the outside walls adjacent to habitable areas be appropriately waterproofed. If the areas are mechanical areas, dampproofing should be adequate.

6.5 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 0.45 should be utilized for the natural granular soils. In determining frictional resistance, a coefficient of 0.40 should be utilized for the natural fine-grained soils. 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.

6.6 LATERAL PRESSURES

The lateral pressure parameters, as presented within this section, assume that the backfill extending at least five feet from the back of the wall be properly placed and compacted granular soil. 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), granular backfill may be considered equivalent to a fluid with a density of 35 pounds per cubic foot in computing lateral pressures. For more rigid basement walls, granular backfill may be considered equivalent to a fluid with a density of 45 pounds per cubic foot. For very rigid non-yielding walls, granular backfill should be considered equivalent to a fluid with a density with at least 55 pounds per cubic foot. The above values assume that the surface of the soils slope behind the wall is horizontal, that the granular fill has been placed and lightly compacted, not as structural fill. If the fill is placed as a structural fill the values should be increased to 45 pounds per cubic foot, 60 pounds per cubic foot, and 120 pounds per cubic foot, respectively.

Recommended average lateral uniform pressure for various height walls are tabulated below and assume a granular wall backfill with a horizontal grade above the wall. It should be noted that the lateral pressures as quoted assume that the backfill materials will not become saturated. If the backfill becomes saturated, the above values may be decreased by one-half; however, full hydrostatic water pressures will have to be included.

Wall Height (feet)	Uniform Seismic Lateral Pressure*, ** (psf)
4	88
8	176
12	265

* Maximum short-term pressures, they are not sustained loads.
** For intermediate height wall, the lateral pressure will be developed based upon a straightline interpolated between the pressures at the specific height.

Note that the pressures presented in this section do not include surcharge loadings, such as floor slabs, adjacent footings, etc.

6.7 FLOOR SLABS

Floor slabs may be established directly upon suitable natural soils and/or structural fill extending to suitable natural soils. Loose, surficial soils are not considered suitable. To provide a “working mat”, it is recommended that floor slabs are directly underlain by a minimum of four

inches of aggregate base material. Settlements of lightly to moderately loaded floor slabs are anticipated to be minor.

6.8 PAVEMENTS

The properly prepared loose, surficial soils will exhibit poor engineering characteristics when saturated or nearly saturated. Loose, surficial soils may remain in flexible pavement areas if properly prepared, as stated previously in this report. Rigid pavements shall not be placed overlying loose, surficial soils, even if properly prepared. Considering the existing loose, surficial soils as the subgrade soils and the projected traffic, the following pavement sections are recommended:

Subdivision Roadways

(Moderate Volume of Automobiles and Light Trucks,
Light Volume of Medium-Weight Trucks,
and Occasional Heavy-Weight Trucks)
[5 equivalent 18-kip axle loads per day]

Flexible:

3.0 inches	Asphalt concrete
8.0 inches	Aggregate base
Over	Properly prepared natural soils, properly prepared existing loose, surficial soils, and/or structural site grading fill extending to suitable stabilized natural soils.

Rigid:

5.5 inches	Portland cement concrete (non-reinforced)
5.0 inches	Aggregate base
Over	Properly prepared natural soils, and/or structural site grading fill extending to suitable stabilized natural soils.*

* Rigid pavements shall not be placed over loose, surficial soils, even if properly prepared.

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.

6.9 GEOSEISMIC SETTING

6.9.1 General

In July 2019, the State of Utah adopted the 2018 International Building Code (IBC) and the 2015 International Residential Code (IRC). The IRC determines the seismic hazard for a site based upon 2008 mapping of bedrock accelerations prepared by the United States Geologic Survey (USGS) and the soil being Site Class D. The USGS values are presented on maps incorporated into the building code and are available based on latitude and longitude coordinates (grid points).

The single-family residential structures should be designed in accordance with the procedures presented in Section R301.2.2, Seismic Provisions of the 2015 IRC.

6.9.2 Soil Class

For dynamic structural analysis, the Site Class D - Stiff Soil Profile as defined in Table 20.3-1, Site Classification, of ASCE 7-10 can be utilized.

6.9.3 Site Seismic Response

The IRC 2015 code is based on 2008 USGS mapping, which provides peak values of short and long period accelerations (S_S, S_1) for the Site Class B-C boundary for the Maximum Considered Earthquake (MCE). This Site Class B-C boundary represents a hypothetical bedrock surface and must be corrected for local soil conditions. The following table summarizes the peak ground and short and long period accelerations for this site for a MCE event and incorporates a soil amplification factor for a Site Class D soil profile in the second column. Based on the site latitude and longitude (40.4622 degrees north and -111.7803 degrees west, respectively), the values for this site are tabulated on the following page.

Spectral Acceleration Value, T Seconds	Site Class B Boundary [mapped values] (% g)	Site Class D [adjusted for site class effects] (% g)
Peak Ground Acceleration	49.4	49.7
0.2 Seconds (Short Period Acceleration)	S_S = 123.4	S_{MS} = 124.2
1.0 Seconds (Long Period Acceleration)	S_1 = 45.7	S_{M1} = 70.5

The IBC design accelerations (S_{DS} and S_{D1}) are based on multiplying the above accelerations (adjusted for site class effects) for the MCE event by two-thirds.

6.10 SITE OBSERVATIONS

As stated previously, due to the potential for encountering loose, surficial soils at foundation depth, a qualified geotechnical engineer from our staff must aid in verifying that all loose, surficial soils have been completely removed prior to the placement of structural site grading fills, footings, or foundations.

GORDON GEOTECHNICAL ENGINEERING, INC.

We appreciate the opportunity of providing this service for you. If you have any questions or require additional information, please do not hesitate to contact us.

Respectfully submitted,

Gordon Geotechnical Engineering, Inc. **And**

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Encl. Figure 1, Vicinity Map
Figure 2, Site Plan
Figure 3, Geologic Mapping
Figure 4, LiDAR Analysis
Figure 5, Geologic Hazards Site Evaluation
Figures 6A through 6D, Log of Test Pits
Figure 7, Unified Soil Classification

Addressee (3 + email)

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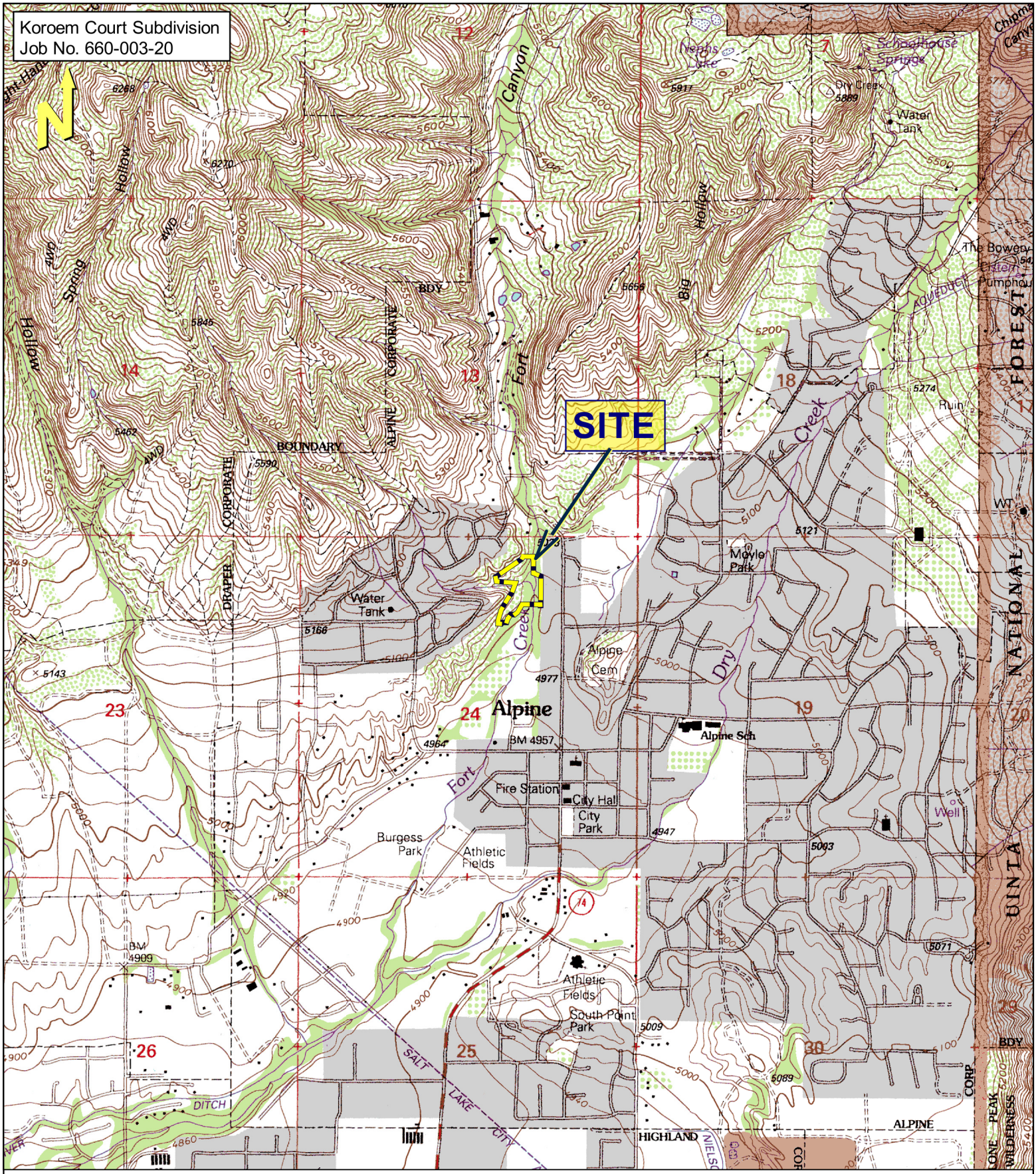


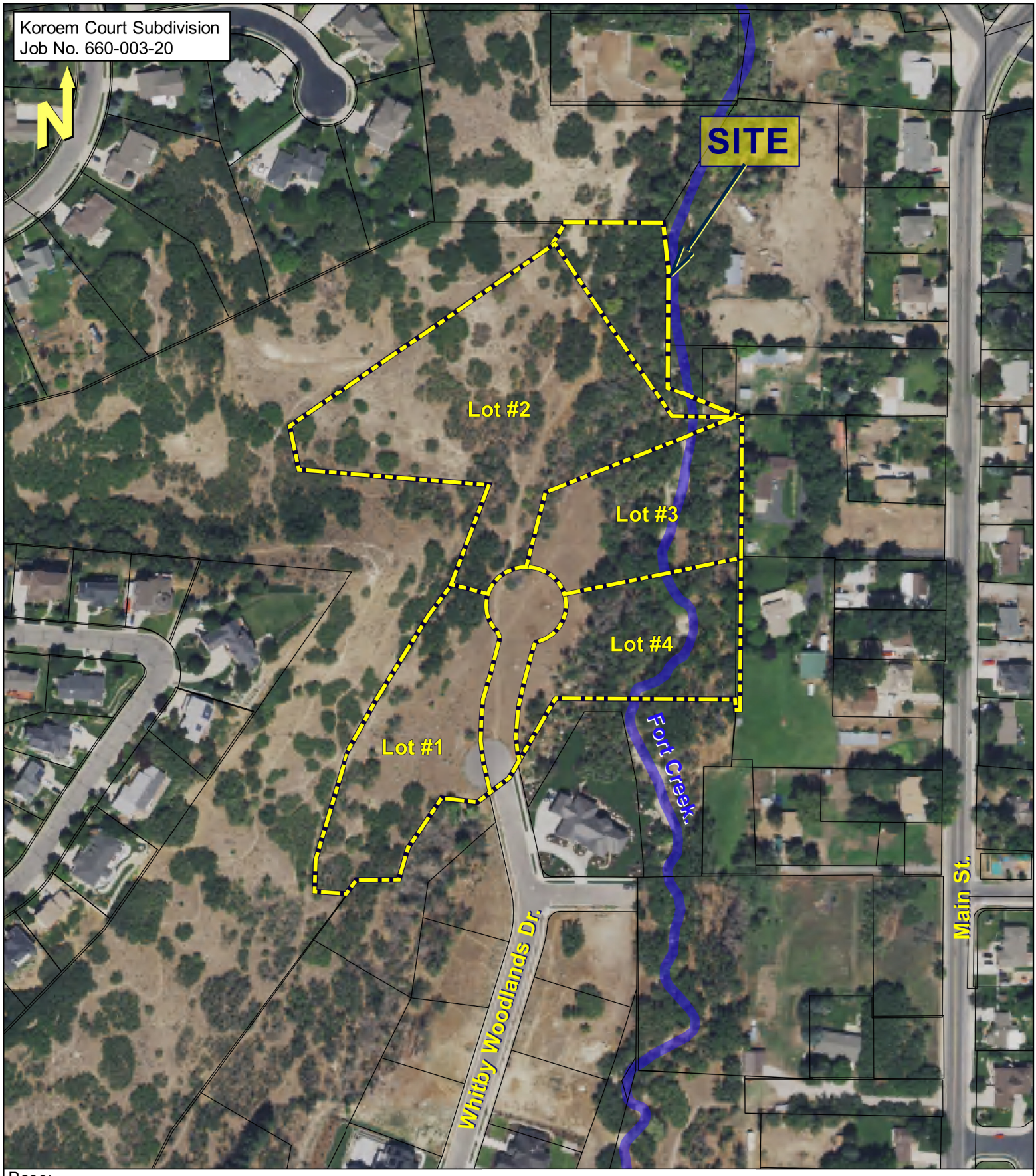
Base:
1998 USGS 7.5 Minute topographic map titled "Lehi, Utah" from Utah AGRC; http://gis.utah.gov/

0 200 400 ft

1:24,000

FIGURE 1
VICINITY MAP

GORDON GEOTECHNICAL ENGINEERING, INC.



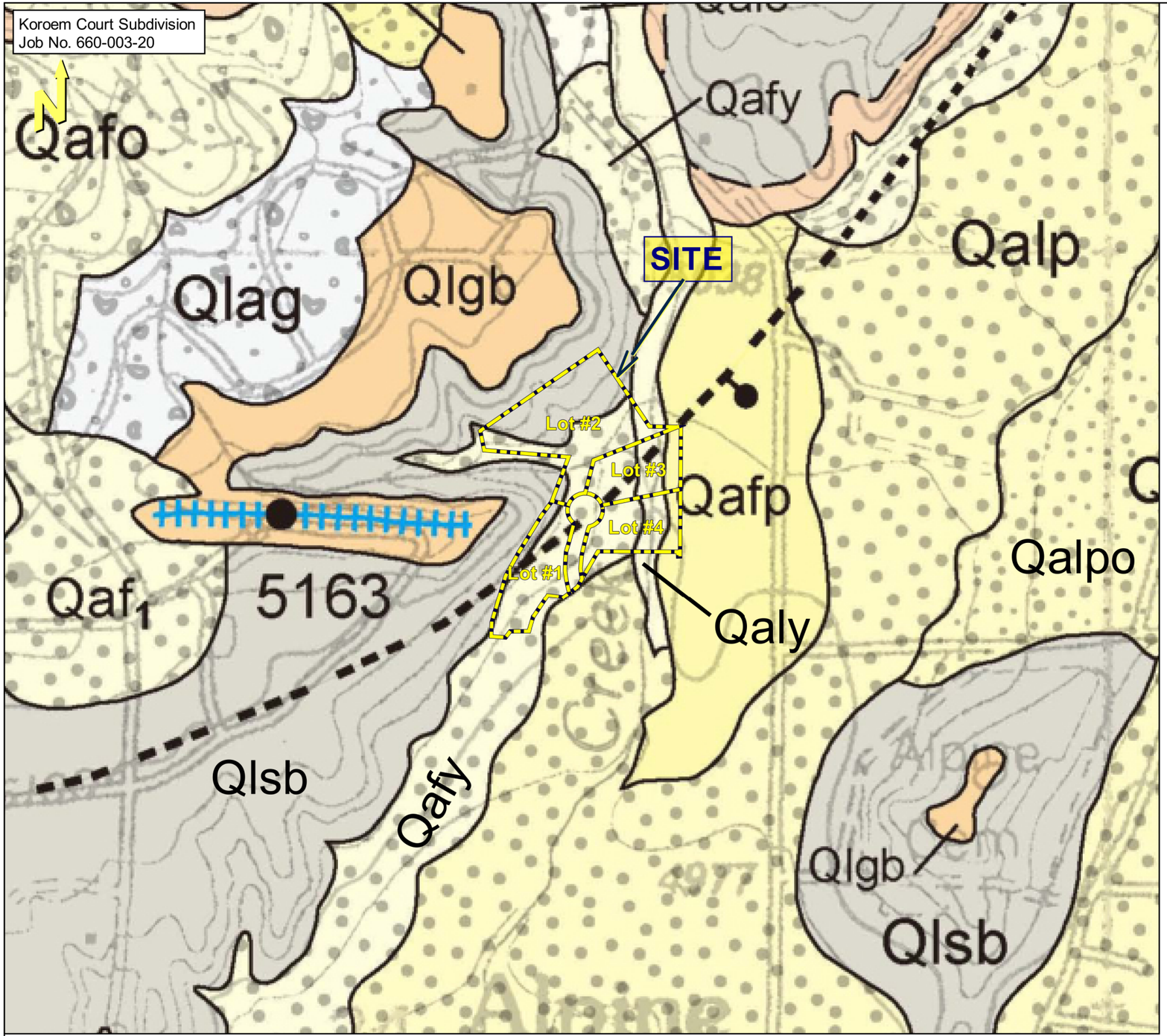
Base:
2018 0.6m NAIP Color Orthoimagery,
from Utah AGRC; http://gis.utah.gov/

0 200 400 ft

1:2,400

FIGURE 2
SITE PLAN

GORDON GEOTECHNICAL ENGINEERING, INC.



Explanation

(Geology after Beik, 2005)

Qaly — **Qaly** - Young alluvial deposits (Holocene to Upper Pleistocene) − Moderately sorted sand, silt, clay, and pebble to boulder gravel deposited in river channels and flood plains; incised by active stream channels, and locally include small alluvial-fan and colluvial deposits…

Qaf_1 — **Qaf_1** - Modern alluvial-fan deposits (Holocene) − Poorly to moderately sorted, non-stratified, clay- to boulder-size sediment deposited principally by debris flows at the mouths of active drainages; upper parts typically characterized by abundant boulders and debris-flow levees…

Qafy — **Qafy** - Younger undifferentiated alluvial-fan deposits (Holocene to Upper Pleistocene) − Poorly to moderately sorted, clay- to boulder-size sediment deposited principally by debris flows…

Qafp — **Qafp** - Alluvial-fan deposits related to the Provo phase of the Bonneville lake cycle (Upper Pleistocene) − Poorly to moderately sorted, clay- to cobble-size sediment… deposited by streams associated with the Bonneville (transgressive) phase...

Qafo — **Qafo** - Older alluvial-fan deposits (Upper Pleistocene) − Similar to younger undifferentiated alluvial-fan deposits (Qafy)…predating, the Bonneville shoreline...

Qalp — **Qalp** - Alluvial deposits related to the Provo phase of the Bonneville lake cycle (Upper Pleistocene) − Moderately to well-sorted sand, silt, and pebble gravel deposited principally in river channels; coarsens upgradient and includes boulder-size clasts…

Qalpo — **Qalpo** - Older alluvial deposits related to the Provo phase of the Bonneville lake cycle (Upper Pleistocene) − Moderately to well-sorted sand, silt, and pebble to boulder gravel…that is about 30 feet (9 m) above adjacent Qalp deposits…

Qlgb — **Qlgb** - Lacustrine gravel and sand (Upper Pleistocene) − Moderately to well-sorted, moderately to well-rounded ,clast-supported, pebble to cobble gravel and pebbly sand; thin to thick bedded…Qlgb deposited at and below highest Bonneville shoreline…

Qlsb — **Qlsb** - Lacustrine sand and silt (Upper Pleistocene) − Fine- to coarse-grained lacustrine sand and silt with minor gravel; typically thick bedded and well sorted; gastropods locally common…Qlsb deposited at and below highest Bonneville shoreline but above the Provo shoreline...

Qlag — **Qlag** - Lacustrine and alluvial coarse-grained deposits (Pleistocene) − Poorly to moderately sorted, clay- to boulder-size sediment...

Normal fault, dashed where approximately located, dotted where concealed and approximately located...

B — **Lake Bonneville Shoreline**

Crest of Lake Bonneville offshore bar or spit

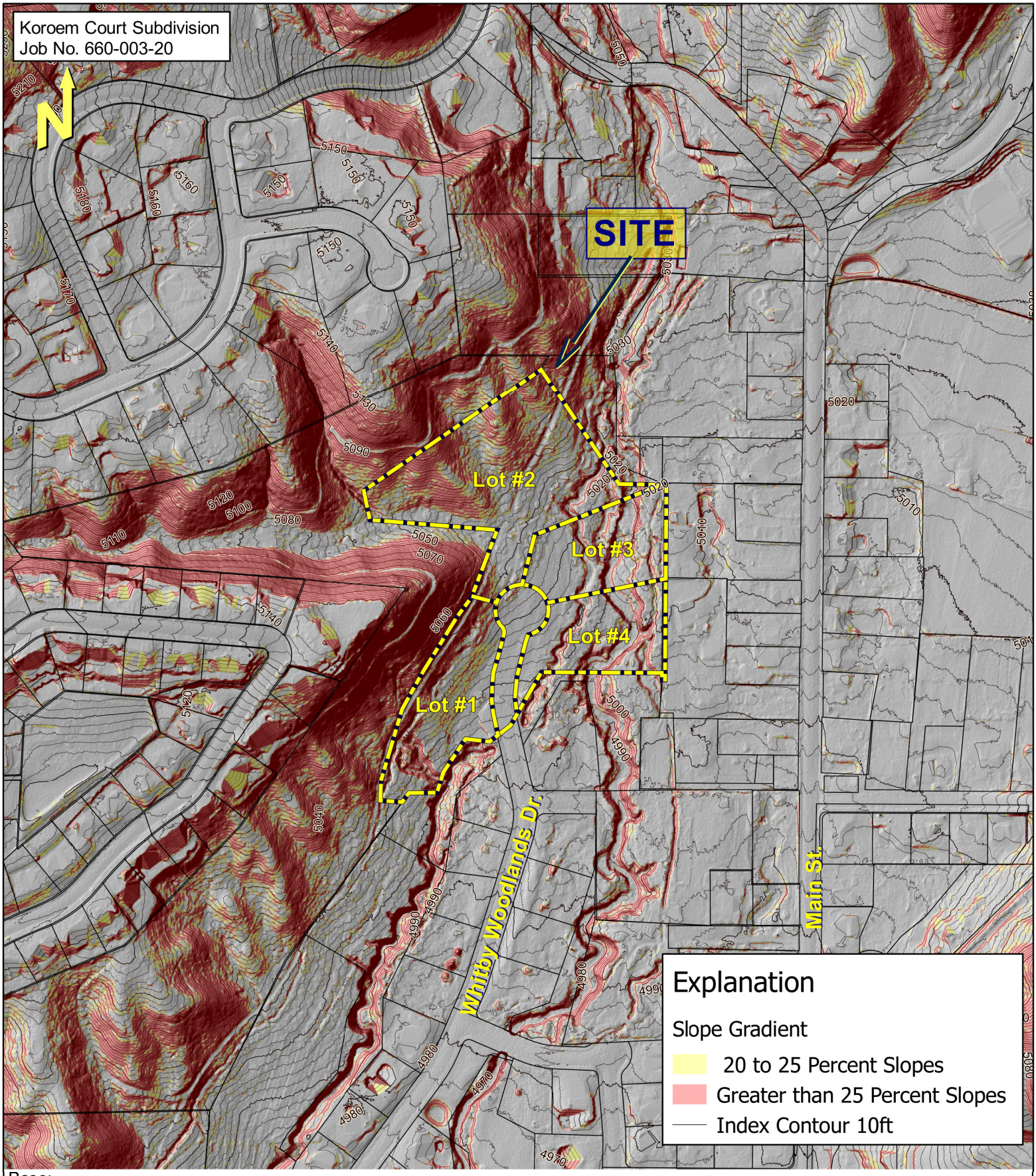
Base:
Biek, R.F., 2005, Geologic map of the Lehi quadrangle and part of the Timpanogos Cave quadrangle, Salt Lake and Utah Counties, Utah: 2 pl. 2005 Utah Geological Survey, scale 1:24,000

0 200 400 ft

1:4,800

FIGURE 3
GEOLOGIC MAPPING

GORDON GEOTECHNICAL ENGINEERING, INC.



Base:
2014 0.5m LiDAR Imagery,
from Utah AGRC; http://gis.utah.gov/

0 300 600 ft

1:3,600

FIGURE 4
LiDAR ANALYSYS

GORDON GEOTECHNICAL ENGINEERING, INC.

Koroem Court Subdivision
Job No. 660-003-20

N

SITE

TP-1

TP-2

TP-3

TP-4

Lot #1

Lot #2

Lot #3

Lot #4

5140 5110 5100 5090 5080 5070 5060 5050 5040 5030 5020 5010 5000 4990 5120 5130

Base:
2018 0.6m NAIP Color Orthoimagery,
from Utah AGRC; http://gis.utah.gov/

0 120 240 ft

1:1,440

Explanation

Geologic Hazard Study Areas (Alpine City, 2006; Utah County, 2020)*

- Landslide Study Area
- Debris Flow Study Area
- Rock Fall Study Area

*The Alpine City (2006) and Utah County GIS (2020) delimited Landslide Study Area, Debris Flow Study Area, and Rockfall Study Area overlays occupy the same areas on the site and site vicinity for the three hazard study areas.

FEMA (2020) - Alpine City (2006) Flood Risk Zones

- Zone A and AE: Areas subject to inundation by the 1-percent -annual-chance flood event generally determined using approximate methodologies...Mandatory flood insurance purchase requirements and floodplain management standards apply.

Slope Limitation Areas

- Greater than 20 Percent Slopes
- Index Contour 10ft

- Test Pit Locations

FIGURE 5
GEOLOGIC HAZARDS
SITE EVALUATION

GORDON GEOTECHNICAL ENGINEERING, INC.

Gordon Geotechnical Engineering, Inc.
4426 South Century Drive, Suite 100
Salt Lake City, Utah 84123

TEST PIT TP-1

Project Name: Proposed Koroem Court Subdivision
Project No.: 660-003-20
Location: North of 662 North Whitby Woodlands Dr, Alpine, Utah
Client: Brian Hansen
Excavating Method: JCB 4CX Backhoe
Date Excavated: 06-17-20
Elevation: ---
Water Level: No groundwater encountered.
Remarks:

DESCRIPTION	GRAPHIC LOG	WATER LEVEL	DEPTH (FT.)	SAMPLE SYMBOL	SAMPLE TYPE	BLOWS/FT.	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	REMARKS
SILTY FINE SAND with trace fine gravel; numerous undecomposed roots and root casts; major roots (topsoil) to 2"; brown grading light brown (SM)					TW		6.6		32.2			slightly moist "medium dense"
CLAYEY SILT with some fine sand; occasional undecomposed roots and root casts; light brown (ML) gradesz with zones containing medium to coarse sand			5		TW		16.6	85				slightly moist "stiff"
FINE SAND with some silt; light brown (SP-SM) grades with medium to coare sand and fine gravel			10		B		2.5		15.3			slightly moist "medium dense"
			15		B							
Stopped excavating at 15.0'. Stopped sampling at 15.0'. No signficant sidewall caving.			20									
			25									

The discussion in the text under the section titled, SUBSURFACE CONDITIONS, is necessary for a proper understanding of the nature of the subsurface material.

FIGURE 6A

Gordon Geotechnical Engineering, Inc.
4426 South Century Drive, Suite 100
Salt Lake City, Utah 84123

TEST PIT TP-2

Project Name: Proposed Koroem Court Subdivision
Project No.: 660-003-20
Location: North of 662 North Whitby Woodlands Dr, Alpine, Utah
Client: Brian Hansen
Excavating Method: JCB 4CX Backhoe
Date Excavated: 06-17-20
Elevation: ---
Water Level: No groundwater encountered.
Remarks:

DESCRIPTION	GRAPHIC LOG	WATER LEVEL	DEPTH (FT.)	SAMPLE SYMBOL	SAMPLE TYPE	BLOWS/FT.	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	REMARKS
SILTY FINE SAND with fine and coarse gravel; occasional large cobbes; numerous undecomposed roots and root casts; major roots (topsoil) to 2"; brown (SM)					B		6.8		36.8			slightly moist "medium dense"
FINE TO COARSE SAND with some silt; with fine and coarse gravel and occasional cobbles; light brown (SP-SM)			5									slightly moist "medium dense"
CLAYEY SILT with some fine sand; occasional root casts; brown (ML)					B		13.4		77.8			slightly moist "stiff"
FINE SAND with some silt; some fine and coarse gravel; undecomposed roots; brown (SP-SM)			10									slightly moist "medium dense"
					B							
Stopped excavating at 15.0'. Stopped sampling at 14.5'. No signficant sidewall caving.			15 20 25									

The discussion in the text under the section titled, SUBSURFACE CONDITIONS, is necessary for a proper understanding of the nature of the subsurface material.

FIGURE 6B

Gordon Geotechnical Engineering, Inc.
4426 South Century Drive, Suite 100
Salt Lake City, Utah 84123

TEST PIT TP-3

Project Name: Proposed Koroem Court Subdivision
Project No.: 660-003-20
Location: North of 662 North Whitby Woodlands Dr, Alpine, Utah
Client: Brian Hansen
Excavating Method: JCB 4CX Backhoe
Date Excavated: 06-17-20
Elevation: ---
Water Level: No groundwater encountered.
Remarks:

DESCRIPTION	GRAPHIC LOG	WATER LEVEL	DEPTH (FT.)	SAMPLE SYMBOL	SAMPLE TYPE	BLOWS/FT.	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	REMARKS
SILTY FINE TO COARSE SAND with fine and coarse gravel; numerous undecomposed and decomposed roots and root casts; major roots (topsoil) to 2"; brown (SM)												slightly moist "medium dense"
					B		5.1		13.6			
grades with zones of cleaner sand and fine gravel			5									
3.0' boulder at 11.0'			10									
Excavating refusal at 12.0' on boulders. Stopped sampling at 4.5'. No signficant sidewall caving.			15 20 25									

The discussion in the text under the section titled, SUBSURFACE CONDITIONS, is necessary for a proper understanding of the nature of the subsurface material.

FIGURE 6C

Gordon Geotechnical Engineering, Inc.
4426 South Century Drive, Suite 100
Salt Lake City, Utah 84123

TEST PIT TP-4

Project Name: Proposed Koroem Court Subdivision
Project No.: 660-003-20
Location: North of 662 North Whitby Woodlands Dr, Alpine, Utah
Client: Brian Hansen
Excavating Method: JCB 4CX Backhoe
Date Excavated: 06-17-20
Elevation: ---
Water Level: No groundwater encountered.
Remarks:

DESCRIPTION	GRAPHIC LOG	WATER LEVEL	DEPTH (FT.)	SAMPLE SYMBOL	SAMPLE TYPE	BLOWS/FT.	MOISTURE (%)	DRY DENSITY (PCF)	% PASSING 200	LIQUID LIMIT (%)	PLASTIC LIMIT (%)	REMARKS
SILTY FINE SAND with trace fine gravel; major roots (topsoil) to 2"; brown (SM)					B		4.7		15.5			slightly moist "medium dense"
grades with increasing fine gravel content and occasional coarse gravel			5		B							
Stopped excavating at 15.0'. Stopped sampling at 8.5'. No signficant sidewall caving.			10 15 20 25									

The discussion in the text under the section titled, SUBSURFACE CONDITIONS, is necessary for a proper understanding of the nature of the subsurface material.

FIGURE 6D

GORDON GEOTECHNICAL ENGINEERING, INC.

UNIFIED SOIL CLASSIFICATION SYSTEM

FIELD IDENTIFICATION PROCEDURES				GRAPH SYMBOL	LETTER SYMBOL [1]	TYPICAL DESCRIPTIONS
COARSE GRAINED SOILS More than half of material is larger than No. 200 sieve size. [2] (The No. 200 sieve size is about the smallest particle visible to the naked eye)	GRAVELS More than half of coarse fraction is larger than No. 4 sieve size. (For visual classifications, the 1/4" size may be used as equivalent to the No. 4 sieve size.)	CLEAN GRAVELS (Little or no fines)	Wide range in grain size and substantial amounts of all intermediate particle sizes.		GW	Well graded gravels, gravel-sand mixtures, little or no fines.
			Predominantly one size or a range of sizes with some intermediate sizes missing.		GP	Poorly graded gravels, gravel-sand mixtures, little or no fines.
		GRAVELS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).		GM	Silty gravels, poorly graded gravel-sand-silt mixtures.
			Plastic fines (for identification procedures see CL below).		GC	Clayey gravels, poorly graded gravel-sand-clay mixtures.
	SANDS More than half of coarse fraction is smaller than No. 4 sieve size. (For visual classifications, the 1/4" size may be used as equivalent to the No. 4 sieve size.)	CLEAN SANDS (Little or no fines)	Wide range in grain sizes and substantial amounts of all intermediate particle sizes.		SW	Well graded sands, gravelly sands, little or no fines.
			Predominantly one size or a range of sizes with some intermediate sizes missing.		SP	Poorly graded sands, gravelly sands, little or no fines.
		SANDS WITH FINES (Appreciable amount of fines)	Non-plastic fines (for identification procedures see ML below).		SM	Silty sands, poorly graded sand-silt mixtures.
			Plastic fines (for identification procedures see CL below).		SC	Clayey sands, poorly graded sand-clay mixtures.
	IDENTIFICATION PROCEDURES ON FRACTION SMALLER THAN No. 40 SIEVE SIZE					
		DRY STRENGTH (CRUSHING CHARACTERISTICS)	DILATANCY (REACTION TO SHAKING)	TOUGHNESS (CONSISTENCY NEAR PLASTIC LIMIT)		
FINE GRAINED SOILS More than half of material is smaller than No. 200 sieve size. (The No. 200 sieve size is about the smallest particle visible to the naked eye)	SILTS AND CLAYS Liquid limit less than 50	None to slight	Quick to slow	None	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sand with slight plasticity.
		Medium to high	None to very slow	Medium	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		Slight to medium	Slow	Slight	OL	Organic silts and organic silt-clays of low plasticity.
	SILTS AND CLAYS Liquid limit greater than 50	Slight to medium	Slow to none	Slight to medium	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		High to very high	None	High	CH	Inorganic clays of high plasticity, fat clays.
		Medium to high	None to very slow	Slight to medium	OH	Organic clays of medium to high plasticity.
HIGHLY ORGANIC SOILS		Readily identified by color, odor, spongy feel and frequently by fibrous texture.			Pt	Peat and other highly organic soils.

[1] Boundary classifications: —Soils possessing characteristics of two groups are designated by combinations of group symbols. For example GW—GC, well graded gravel—sand mixture with clay binder.
[2] All sieve sizes on this chart are U.S. standard.

GENERAL NOTES

1. In general, Unified Soil Classification Designations presented on the logs were evaluated by visual methods only. There rore, actual designations (based on laboratory testing) may differ.
2. Lines seperating strata on the logs represent approximate boundaries only Actual transitions may be gradual.
3. Logs represent general soil conditions observed at teh point of exploration onthe date indicated.
4. No warranty is provided as to the continuity of soil conditions between individual sample locations.

FINE - GRAINED SOIL

CONSISTENCY	SPT (blows/ft)	TORVANE UNDRAINED SHEAR STRENGTH (tsf)	POCKET PENETROMETER UNCONFINED COMPRESSIVE STRENGTH (tsf)	FIELD TEST
Very Soft	<2	<0.125	<0.25	Easily penetrated several inches by Thumb. Squeezes through fingers.
Soft	2 - 4	0.125 - 0.25	0.25 - 0.5	Easily penetrated 1 " by Thumb . Molded by light finger pressure.
Medium Stiff	4 - 8	0.25 - 0.5	0.5 - 1.0	Penetrated over 1/2 " by Thumb with moerate effort. Molded by strong finger pressure.
Stiff	8 - 15	0.5 - 1.0	1.0 - 2.0	Indented about 1/2 " by Thumb but penetrated only with great effort
Very Stiff	15 - 30	1.0 - 2.0	2.0 - 4.0	Readily indented by Thumbnail
Hard	>30	>2.0	>4.0	Indented with difficulty by Thumbnail

LOG KEY SYMBOLS

- Bulk / Bag Sample
- Standard Penetration Split Spoon Sampler
- Rock Core
- Water Level
- Thin Wall
- No Recovery
- 3-3/4" ID D&M Sampler
- 3" ID D&M Sampler
- California Sampler

COARSE -GRAINDE SOIL

APPERENT DENSITY	SPT (blows/ft)	RELATIVE DENSITY (%)	FIELD TEST
Very Loose	<4	0 - 15	Easily penetrated with 1/2 " reinforcing rod pushed by hand
Loose	4 - 10	15 - 35	Difficult to penetrated with 1/2 " reinforcing rod pushed by hand
Medium Dense	10 - 30	35 - 65	Easily penetrated a foot with 1/2 " reinforcing rod driven with 5-lb hammer
Dense	30 - 50	65 - 85	Difficult to penetrated a foot with 1/2 " reinforcing rod driven with 5-lb hammer
Very Dense	>50	85 - 100	Penetrated only a few inches with 1/2 " reinforcing rod driven with 5-lb hammer

STRATIFICATION

DESCRIPTION	THICKNESS
SEAM	1/16 - 1/2 "
LAYER	1/2 - 12 "

DESCRIPTION	THICKNESS
Occasional	One or less per foot of thickness
Frequent	More than on per foot of thichness

CEMENTATION

DESCRIPTION	DESCRIPTION
Weakely	Crumbles or breaks with handling of slight finger pressure
Moderately	Crumbles or breaks with considerable finger pressure
Strongly	Will not crumbles or breaks with finger pressure

MODIFIERS

DESCRIPTION	%
Trace	<5
Some	5 - 12
With	>12

MOISTURE CONTENT

DESCRIPTION	FIELD TEST
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible water, usually soil below Water Table

FIGURE 7

ALPINE CITY COUNCIL AGENDA

SUBJECT: Final Plat – The Ridge at Alpine Phase 4

FOR CONSIDERATION ON: 24 November 2020

PETITIONER: Paul Kroff representing Steve Zolman

ACTION REQUESTED BY PETITIONER: Review and approve the final plat.

BACKGROUND INFORMATION:

The Ridge at Alpine development consists of 72 lots on 189.5 acres, with this Phase 4 being 13 lots on 11.19 acres. The development is located in the CR 40,000 zone, west of the Alpine Cove subdivision and north east of Heritage Hills Plat A. A map is attached showing Phase 4 and how it correlates to the rest of the development. The Ridge at Alpine has been approved as a Planned Residential Development (PRD).

MOTION: *Sylvia Christiansen moved to recommend that The Ridge at Alpine Phase 4 be approved with the first model shown with the following conditions/changes:*

1. *Phase 4 cannot be recorded until all offsite improvements of Phase 1 are complete unless otherwise approved by City Council;*
2. *The Developer provide a maintenance agreement for the pressurized sewer system (to be recorded with the plat);*
3. *The Developer provide a slope easement for the portions of pond bank which are not situated on City property (to be recorded with the plat);*
4. *The Developer either remove existing buildings which do not meet setbacks, or provide a bond for the removal of them prior to recording the plat;*
5. *The Developer address redlines on the plat and plans which includes showing curb, gutter and asphalt patch be done now for lots 53 and 54 to be expanded to Grove Drive;*
6. *The Developer provide funds for the future improvement not built at this time per the Development agreement;*
7. *The Developer submit a cost estimate;*
8. *The Developer meet the water policy with Alpine Irrigation Co. shares.*
9. *The Developer address tree issues on landscape plan.*

John MacKay seconded the motion. There were 7 Ayes and 0 Nays (recorded below). The motion passed.

Ayes:	***Nays:***
Alan MacDonald	
Jane Griener	
Ed Bush	
Ethan Allen	
Troy Slade	
John MacKay	
Sylvia Christiansen	

STAFF RECOMMENDATION:
Review and approve the final plat.

SAMPLE MOTION TO APPROVE WITH CONDITIONS (WITH POND BANK MOVED):
I motion that The Ridge at Alpine Phase 4 be approved with the following conditions/changes:

- Phase 4 cannot be recorded until all offsite improvements of Phase 1 are complete unless otherwise approved by City Council;
- The Developer provide a maintenance agreement for the pressurized sewer system (to be recorded with the plat);
- The Developer provide a slope easement for the portions of pond bank which are not situated on City property (to be recorded with the plat);
- The Developer either remove existing buildings which do not meet setbacks, or provide a bond for the removal of them prior to recording the plat;
- The Developer address redlines on the plat and plans which includes showing curb, gutter and asphalt patch be done now for lots 53 and 54 to be expanded to Grove Drive;
- The Developer provide funds for the future improvement not built at this time per the Development agreement;
- The Developer submit a cost estimate;
- The Developer meet the water policy with Alpine Irrigation Co. shares.
- The Developer address tree issues on landscape plan.
- ***Insert Finding***

SAMPLE MOTION TO APPROVE WITH CONDITIONS (WITHOUT POND BANK MOVED):
I motion that The Ridge at Alpine Phase 4 be approved with the following conditions/changes:

- Phase 4 cannot be recorded until all offsite improvements of Phase 1 are complete unless otherwise approved by City Council;
- The Developer provide a maintenance agreement for the pressurized sewer system (to be recorded with the plat);
- The Developer either remove existing buildings which do not meet setbacks, or provide a bond for the removal of them prior to recording the plat;
- The Developer address redlines on the plat and plans which includes showing curb, gutter and asphalt patch be done now for lots 53 and 54 to be expanded to Grove Drive;
- The Developer provide funds for the future improvement not built at this time per the Development agreement;
- The Developer submit a cost estimate;
- The Developer meet the water policy with Alpine Irrigation Co. shares.
- The Developer address tree issues on landscape plan.
- ***Insert Finding***

SAMPLE MOTION TO TABLE/DENY:
I motion that The Ridge at Alpine Phase 4 be tabled/denied based on the following:

- ***Insert Finding***

ALPINE CITY
STAFF REPORT
November 12, 2020

To: Alpine City Planning Commission

From: Staff

Prepared By: Austin Roy, City Planner
Planning & Zoning Department

Jed Muhlestein, City Engineer
Engineering & Public Works Department

Re: **The Ridge at Alpine Phase 4 – Final**

Applicant:	Paul Kroff, representing Steve Zolman
Project Location:	North of Elk Ridge Lane and west of Alpine Cove
Zoning:	CR-40,000 Zone
Acreage:	11.19 Acres
Lot Number & Size:	13 lots ranging from 0.46 acres to 0.76 acres
Request:	Recommend approval of the plat

SUMMARY

The Ridge at Alpine development consists of 72 lots on 189.5 acres, with this Phase 4 being 13 lots on 11.19 acres. The development is located in the CR 40,000 zone, west of the Alpine Cove subdivision and north east of Heritage Hills Plat A. A map is attached showing Phase 4 and how it correlates to the rest of the development. The Ridge at Alpine has been approved as a Planned Residential Development (PRD).

BACKGROUND

Phase 1 of The Ridge at Alpine was approved by the City Council on October 23, 2019. Trails, open space, and conservation easement were approved with the Phase 1 Plat. Phase 2 was approved on August 13, 2019 and Phase 3 on May 12, 2020. Applicant is now seeking approval of Phase 4 of The Ridge at Alpine Subdivision.

ANALYSIS

Lot Width and Area

Lot width requirements for the CR-40,000 zone are 110 feet for a standard lot as measured at the 30 foot front setback line, and 80 feet for a cul-de-sac lot located on a curve as measured at the

right of way line, and 110 feet as measured at the 30 foot front setback line. All proposed lots appear to meet the width requirement.

Lots in the CR-40,000 zone are required to be a minimum of 40,000 square feet in size. However, the Ridge at Alpine was approved as a PRD at concept and preliminary and thus is permitted to have smaller lots, with the smallest lot proposed on the plat being 0.46 acres or 20,050 square feet. This matches what was presented and approved at preliminary.

Use
The developer is proposing that the lots be used for single-unit detached dwellings, which is consistent with the permitted uses of the CR-40,000 zone. Parcel A is to be dedicated as public open space, which will include parking, restrooms, and large open park space. Open space was originally proposed as a soccer field, however Planning Commission and City Council decided that a family park would be a better fit for the neighborhood.

Sensitive Lands (Wildland Urban Interface)
See Engineering and Public Works Review below, and Lone Peak Fire Department review/comments.

Trails
There are no trails in Phase 4. All trails were recorded with Phase 1 of the development.

General Plan
The proposed final plat meets criteria of the City General Plan.

Existing Buildings
The property has existing buildings onsite (Lot 53). Prior to the recordation of any phase of development that contains existing buildings, the existing building(s) must be removed (if setbacks are not in compliance), existing services either re-used or cut/capped/removed or a bond provided to ensure those things will happen prior to a building permit being issued on the affected lot(s).

Other

The landscaping plan for the public open space located in Parcel A does not comply with the City Tree Guide. Class II trees are shown in the areas near parking and restrooms. According to tree guide this type of tree should be planted with at least a 5' radius to hardscape. Landscape plan also shows a tree not approved in the Tree Guide to be planted in park strips. **Staff recommends that landscape plan be updated with trees that are compatible with the Alpine City Tree Guide.**

REVIEWS

PLANNING AND ZONING DEPARTMENT REVIEW
The analysis section in the body of this report serves as the Planning and Zoning Department review.

LONE PEAK FIRE DEPARTMENT REVIEW
See the attached review from the Lone Peak Fire Department.

NOTICING
Notice has been properly issued in the manner outlined in City and State Code

ENGINEERING AND PUBLIC WORKS DEPARTMENT REVIEW

At preliminary submittal the details of infrastructure design are reviewed in depth. The information is included herewith but only changes to the design (if any) or specific utility issues will be discussed at the meeting.

Streets
Phase 4 of The Ridge at Alpine will connect Zachary Way to Grove Drive. A new cul-de-sac (Annie Circle) will also be constructed. Road design appears to be in compliance with city ordinances and nothing has changed in that regard from what has been previously reviewed and approved.

The Development Agreement requires funds for roadway improvements along the frontage of Grove Drive. The improvements extend to half the width of the future improved road. The future road is designed to be 30 feet wide, so this means the developer would be responsible for the costs of constructing 15 feet of that improved road. The way the agreement is written, it implies that these improvements would come at a future time. Staff does not see any reason why most of these improvements (curb/gutter, sidewalk, storm drain), if not all (15' of asphalt), could not be built now. If not built now, when lots 53 and 54 develop with landscaping, it will cost more in the future to both the City and landowner to rearrange existing landscaping and install the infrastructure improvements. There are also stormwater issues that aren't being addressed on the plans. A portion of Zachary Way slopes towards Grove Drive. Meaning water will flow towards Grove Drive. There are no stormwater improvements shown to address this water. Stormwater improvements will be required as Grove Drive is completed. This portion of frontage improvements should be required now to 1) take care of the stormwater issues being caused by development and 2) to create fully improved lots for homeowners to more easily manage. **Horrocks Engineers has a preliminary design for Grove Drive. The Developer should work with Horrocks Engineers and show full frontage improvements for lots 53 and 54 that coincides with that design.** At a minimum, Staff recommends curb, gutter, sidewalk, and storm drain with an asphalt patch to match the existing roadway. It may be better to install all the asphalt at once later, in which case, the Developer would be required to provide funds for just the future asphalt improvements. This can be decided upon after reviewing revised plans and the future design of Grove Drive.

Utilities – Culinary Water
The culinary system was discussed at length during Preliminary approval meetings, the details are included below for information only. There has been no change in the culinary design from

Preliminary submittal. There is one existing water meter service to remove and cap at the main near lot 54.

The subdivision is very close to the 5,350-foot elevation, which is the highest elevation the existing water system can serve and still provide the minimum 40 psi required by ordinance. The culinary water master plan calls for a new 10-inch main to be installed from the Grove tank to the 90-degree bend in Grove Drive that would provide minimum fire flows to the area. The development agreement specifies it is the responsibility of the developer to bring offsite utilities to the development (section 4.2.1). Discussions have indicated that the size of homes desired in the upper portion of the development may require a larger line to meet the fire protection demands. The developer has elected to install a 16-inch line instead of the 10-inch, which increases fire flows to 2,750 gpm. With 2,750 gpm available fire flow, the maximum sized home to be built without the need for fire sprinklers or alternate construction materials would be 11,300 square feet based on the International Fire Code. Because the homes are located within the Urban/Wildland Interface, the Fire Chief may still require fire sprinklers by law.

The fire flow for this development was dependent upon the completion of the water system improvements in Three Falls and Fort Canyon Road. These improvements are complete and in operation.

1-inch laterals with ¾-inch meters are required, and shown, for each new lot.

The Fire Chief has reviewed and approved the culinary system design.

Utilities – Pressurized Irrigation

The pressurized irrigation system was discussed at length during Preliminary approval meetings. There has been no change in the pressurized irrigation design from Preliminary submittal. There is one existing 2-inch irrigation service near lot 53 to be removed and capped at the main. There is another existing 1-inch irrigation service on lot 53 that can remain and be used.

New 1-inch laterals are shown to be installed for each new lot. Horrocks Engineers has modeled the site and recommends a 6-inch line on Zachary Way. Connection to the lines in Grove Drive and Elk Ridge is shown on the plans.

Utilities – Sewer

Several lots within Phase 4 will be placed on a pressurized sewer system due to the inability to connect them to a gravity system. Lots 49-51 and 57-61, as well as the bathroom in the developed open space, will all be on this pressurized system. **The HOA will be responsible for maintaining the pressurized sewer system. A maintenance agreement between the HOA and City shall be required and in place prior to recording.** The remaining lots in the phase are shown to connect to a gravity fed system, which connects to and is served by the existing system in Grove Drive.

Utilities – Storm Drain

The storm drain design for Phase 4 includes the completion of the regional detention basin for the entire development which will also be a developed public park. Landscaping plans for the park have been submitted, reviewed, and approved with redlines to correct.

Since Preliminary approval, the south property owner, Kevin Towle, has approached the landowner, developer, and city to request to be able to landscape the south facing slope of the detention pond. He also requested to place a fence on the top of the berm. The way the pond was designed, the top of the berm and south facing slope of the pond is all on City property. Staff did not recommend them proposing a private landowner's fence or landscaping on City property. Between Staff and the applicant, another solution was discussed and is proposed which pushes the top of the berm to the property line. Doing so allows Mr. Towle to place his fence on top of the berm, on the property line, and also allows him to landscape the south facing side of the berm; which is now on his side of the property line. The City would require a "slope easement" for the south side of the berm. A slope easement would give the City access to maintain the berm if needed. The easement gives the City control over any grading or landscaping that would be proposed in that area. There are several locations in the City where slope easements currently exist. These easements are typically for roadway cut/fill situations. As an example, there are several lots within the Three Falls area that have slope easements for roadway cuts (i.e. – lot 37, 38, etc.). **A slope easement for areas of the pond bank, which are not situated on City property, would be required to be recorded along with the plat, if approved.** If not approved, plans are included in the packet that were approved at preliminary. One bonus for the City with this proposal is that pushing the berm to the property line gives the City a bigger and more usable park area.

Discussions on the size and type of park at this location have taken place at previous meetings. The size and type of park directly impact the detention basin design. June 19, 2019 the Planning Commission reviewed and approved the overall Preliminary Plan for the development. Part of the approval recommended a smaller "family" park. The City Council approved this recommendation April 28, 2020. The plans reflect a "family" park with the storm drain grading plan.

It was discussed at previous meetings the requirement to pipe the overflow waters of School House Springs through the development with a 30-inch pipe. This 30-inch pipe exists in areas of Phase 4. It was built in Phase 3.

A Land Disturbance Permit would be required prior to construction which ensures a Storm Water Pollution Prevention Plan (SWPPP) is followed. All disturbed areas of the site are required to be revegetated after construction.

The storm drain system was discussed at length at Preliminary. For information purposes the details of that are included below.

The storm water system design and drainage report has been submitted, reviewed, and approved with some redline comments. There are four main topics to cover concerning storm water.

1. School House Springs Drainage and Existing Irrigation Ditches.
   The school house springs drainage enters Alpine City on the top west side of Alpine Cove. From there it travels southward until it enters the Zolman property. Section 4.7.19 of the development code requires existing ditches to be piped. A 30-inch pipe is proposed to capture this drainage and route it through the property.

The Northfield Ditch also runs through the property. This ditch has been abandoned and therefore will not be required to be piped through the property. The plans require welding a metal plate at the upstream head gates to ensure water will not enter the abandoned ditch.

2. Onsite Drainage.

   Onsite drainage consists of a piped system to capture and route water to three different detention basins. Each basin is designed for the 100-yr storm event which releases water to the existing drainages in the area. On Catherine Way there is a low point in the road which would cause flooding problems for events greater than a 10-year storm. Because of this a drainage swale is proposed between lots 44, 45 and 49, 50. The swale would adequately route larger storm event flows to the pond south of Annie Circle without causing a flooding risk for the nearby homes. This swale should remain open, no fences allowed. Notes to be placed on Final Plat for that phase.

3. Hillside/Offsite Drainage.

   The geotechnical report highlighted the issue of debris flows that would enter the development from the west side in the event of post fire flows or heavy rainfall events. The Developer contracted with IGES to design debris flow nets to capture these flows and mitigate the potential problem. The nets are designed to capture the debris, water would be allowed to pass through the nets and continue down the drainage. The water that passes the nets would follow Savannah Cir, Elk Ridge Lane, Zachary Way, and Annie Circle to make its was to the detention pond. Calculations have been done to show that the homes along this route would not be flooded in the event of a post fire situation if they were required to build at least 1.75 feet above the curb. A note will be placed on the final plat for the appropriate phases and checked prior to Final Approval for this requirement. The Drainage Reports and IGES design for debris flow nets were attached to the Preliminary report and can be found there.

4. Low Impact Development.

   March 1, 2016, the State of Utah implemented into the General MS4 Permit (Small Municipal Separate Storm Sewer Systems) the requirement of all developments to evaluate Low Impact Development (aka - LID) for their site. LID is a measure of handling storm water and improving water quality. LID emphasizes conservation and the use of on-site natural features to protect water quality. There are many ways to meet the LID requirement. LID can be met by the use of drainage swales, rainwater harvesting, curb cuts to direct water to smaller local basins, and so on. The developer shows in the storm water calculations that LID will be implemented at the building permit level with each new lot retaining the 90th percentile storm, which equates to about a 2-year, 1-hr rainfall event for Alpine City. This is something Alpine is doing for all new homes within the city as required by the State. This is not done just as a measure of protecting water quality, but also protecting against runoff from one property to another.

Geotechnical Report

The proposed development falls within the Geologic Hazards Overlay Zone as well as the Urban/Wildland Interface. The developer provided a Geotechnical Report, it was included at Preliminary and discussed in depth there. There are no significant items of the reports as they

pertain to Phase 4. In other areas of the development, the report mentions an area of mass grading and fill of an existing ravine that ran through the property along the westerly borders. The City has no records of compaction or what type of material was used to fill the ravine. The report did pay specific attention to this area and has provided recommendations for building there; mainly over excavation and import of engineered fill to remedy any potential settlement. The report is listed on the Phase 4 plat.

Hazard Reports
The Developer contracted with IGES to provide further information regarding certain hazards. The report covers rock fall and debris flow in more depth. It was determined that there is a low to moderate rock fall hazard for most the lots along the westerly side of the development. Phase 4 does not include any of these lots.

Other
Phase 1 offsite improvements are not completed yet. DC 4.06.030.4 states, "*When the off-site improvements have been one hundred percent (100%) completed for the recorded plat and approved by the City Engineer, and on-site improvements are seventy percent (70%) completed, the subdivider may submit the next phase of the proposed development in accordance with the rules and regulations of this Subdivision Ordinance*." **Phase 4 cannot be recorded until all Phase 1 offsites are completed unless otherwise approved by City Council.**

The City water policy needs to be met prior to recordation of the plat. The Development Agreement specifically requires Alpine Irrigation Company shares be used to meet the water policy.

There are redlines on plat and plans that would need corrected prior to recordation and construction.

A construction cost estimate for Phase 4 shall be turned in to the City Engineer for bonding purposes.

Alpine City specifications require escrow funds for a roadway preservation coat (See Alpine City Construction Standard Specifications 300.030 & 600.020). The amount for this requirement will be calculated based on current preservation coat costs at the time of recording. The funds for this roadway preservation coat will be required of the Developer prior to recording.

STAFF RECOMMENDATION

Review staff report and findings and make a recommendation to City Council to either approve or deny the proposed subdivision. Findings are outlined below.

Findings for a Positive Motion:

A. The plan aligns with previous approvals for The Ridge at Alpine;
B. Proposed roadway construction appears to meet Alpine City design standards and makes an important connection to Grove Drive with the Completion of Zachary Way;
C. Frontage improvements are shown throughout the development.

Findings for Negative Motion:

A. Frontage improvements are shown throughout the development, except for Lot 53 and 54. Applicant is aware of this issue and is working to correct it at the time this report is being written.
B. Landscape plan does not meet Tree Guide standards.

MODEL MOTIONS

SAMPLE MOTIONS TO APPROVE

Motion to Approve allowing the pond bank to be moved to property line:
I motion to recommend approval of the proposed The Ridge at Alpine Phase 4 plans, which show the pond bank on the property line, with the following conditions:

- Phase 4 cannot be recorded until all offsite improvements of Phase 1 are complete unless otherwise approved by City Council;
- The Developer provide a maintenance agreement for the pressurized sewer system (to be recorded with the plat);
- The Developer provide a slope easement for the portions of pond bank which are not situated on City property (to be recorded with the plat);
- The Developer either remove existing buildings which do not meet setbacks, or provide a bond for the removal of them prior to recording the plat;
- The Developer address redlines on the plat and plans which includes showing full frontage improvements for lots 53 and 54;
- The Developer provide funds for the future improvement of Grove Drive, per the Development agreement;
- The Developer submit a cost estimate;
- The Developer meet the water policy with Alpine Irrigation Co. shares.
- The Developer address tree issues on landscape plan.

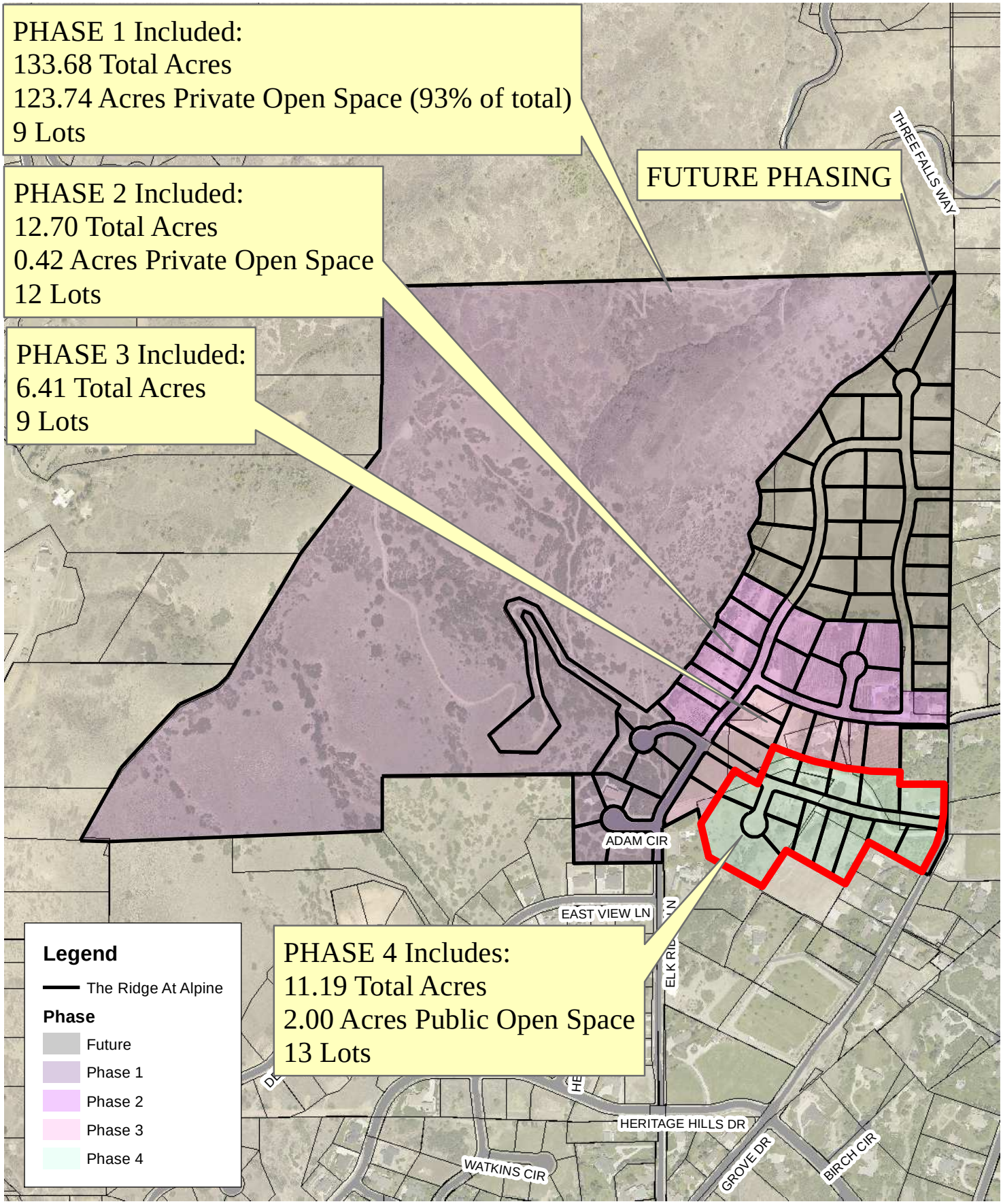
Motion to Approve NOT allowing the pond bank to be moved to property line:
I motion to recommend approval of the proposed The Ridge at Alpine Phase 4 plans, which show the entire pond structure on City property, with the following conditions:

- Phase 4 cannot be recorded until all offsite improvements of Phase 1 are complete unless otherwise approved by City Council;
- The Developer provide a maintenance agreement for the pressurized sewer system (to be recorded with the plat);
- The Developer either remove existing buildings which do not meet setbacks, or provide a bond for the removal of them prior to recording the plat;
- The Developer address redlines on the plat and plans which includes showing full frontage improvements for lots 53 and 54;
- The Developer provide funds for the future improvement of Grove Drive, per the Development agreement;
- The Developer submit a cost estimate;
- The Developer meet the water policy with Alpine Irrigation Co. shares.
- The Developer address tree issues on landscape plan.

SAMPLE MOTION TO TABLE or DENY

I motion to table (or recommend denial) of the proposed The Ridge at Alpine Phase 4 with the following conditions:

- **Insert finding**



The Ridge At Alpine
PHASE 4

ALPINE CITY
ESTABLISHED 1850

N

PARK GRADING OPTIONS – THE RIDGE AT ALPINE PHASE 4

Grading plan approved at Preliminary

- Entire structure is on City property
- Narrowest park bottom width is 60’ wide

Grading plan being proposed at Final

- Top of berm is on south property line (40’ south from Preliminary Approval)
- Easement required from Towle’s
- Narrowest park bottom width is 100’ wide.

THE RIDGE AT ALPINE PHASE 4

NOVEMBER 2020

A RESIDENTIAL DEVELOPMENT

ALPINE, UTAH

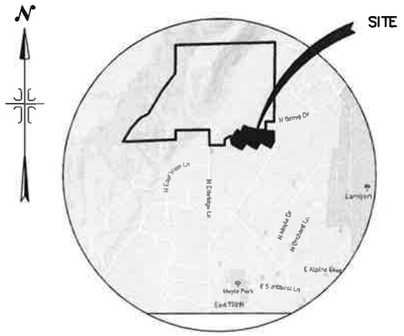
GENERAL

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR REQUIREMENTS OF THE ALPINE CITY PUBLIC WORKS DEPARTMENT.
2. A PRE CONSTRUCTION CONFERENCE WILL BE HELD A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO START OF WORK. ALL CONTRACTORS, SUBCONTRACTORS AND/OR UTILITY CONTRACTORS, ALPINE CITY PUBLIC WORKS AND CITY'S ENGINEER SHOULD BE PRESENT.
3. ALL LOT DIMENSIONS, EASEMENTS AND CERTAIN OFF SITE EASEMENTS ARE TO BE TAKEN FROM THE PLAT OF ALPINE VIEW ESTATES SUBDIVISION.
4. ALL CONSTRUCTION STAKES MUST BE REQUESTED A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO PLANNED USE.
5. CERTAIN CONTROL POINTS WILL BE SET BY THE ENGINEER, OR HIS REPRESENTATIVE, WHICH ARE CRITICAL TO THE CONSTRUCTION STAKING OF THE PROJECT. THESE POINTS WILL BE DESIGNATED AT THE TIME THEY ARE SET AND THE CONTRACTOR SHALL BE NOTIFIED. DESTRUCTION OF THESE POINTS BY THE CONTRACTOR OR HIS SUBCONTRACTORS SHALL BE GROUNDS FOR CHARGING THE CONTRACTOR FOR REESTABLISHING SAID POINTS.
6. ALL CUT & FILL SLOPES SOT INCLUDED IN LOTS TO BE REVEGITATED WITH BROADCAST SEEDS TO MEET CITY STANDARDS UNLESS NOTED OTHERWISE.

ROADWAY/STORM DRAIN

1. ALL ROADWAY CONSTRUCTION SHALL MEET THE MINIMUM REQUIREMENTS OF ALPINE CITY'S TECHNICAL SPECIFICATIONS OR AS APPROVED IN THE PLANS HEREIN.
2. WHEN DISCREPANCIES OCCUR BETWEEN PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. UNTIMELY NOTIFICATION SHALL NEGATE ANY CONTRACTORS CLAIM FOR ADDITIONAL COMPENSATION.
3. ALL STORM DRAIN PIPES TO BE RCP CLASS V OR APPROVED EQUAL UNLESS OTHERWISE NOTED.

CONDITIONS OF APPROVAL



VICINITY MAP
-NTS-

-INDEX OF PLAN SHEETS-

SEWER

1. ALL WORK SHALL BE DONE INACCORDANCE WITH THE LATEST ALPINE CITY DESIGN STANDARDS & PUBLIC IMPROVEMENT SPECIFICATIONS DRAWINGS OF ALPINE CITY.
2. FINAL APPROVAL AND ACCEPTANCE OF ALL SEWER CONSTRUCTION WILL BE BY ALPINE CITY.
3. UPON THE COMPLETION OF WORK, THE CONTRACTOR SHALL SUBMIT 3 SETS OF AS-BUILT PLANS TO ALPINE CITY & (1) SET TO NORTHERN ENGINEERING, INC.
4. HORIZONTAL AND VERTICAL SEPARATION OF CULINARY WATER AND SEWER SHALL BE IN COMPLIANCE WITH ALPINE CITY STANDARDS

WATER

1. THE WATER SYSTEM SHALL BE CONSTRUCTED TO CONFORM WITH THE STANDARDS SET FORTH IN THE "UTAH REGULATIONS FOR PUBLIC DRINKING WATER SYSTEMS", AND THE ALPINE CITY PUBLIC WORKS DEPARTMENT STANDARD SPECIFICATIONS AND DRAWINGS.
2. CONTRACTOR SHALL NOTIFY NORTHERN ENGINEERING, INC. THREE (3) WORKING DAYS BEFORE INITIAL CONSTRUCTION BEGINS AND SHALL ALSO REQUEST ALPINE CITY WATER DEPARTMENT INSPECTION OF WATER LINES AND APPURTENANCES TWENTY-FOUR (24) HOURS IN ADVANCE OF BACKFILLING.
3. CONTRACTOR TO FIELD VERIFY ALL VALVE BOX LID ELEVATIONS TO ASSURE THAT SAID LID ELEVATIONS MATCH FINAL STREET GRADE, AND ALL METER LID ELEVATIONS TO MATCH AN EXTENSION OF THE SIDEWALK GRADE.
4. UPON THE COMPLETION OF WORK, THE CONTRACTOR SHALL SUBMIT 3 SETS OF AS-BUILT PLANS TO ALPINE CITY & (1) SET TO NORTHERN ENGINEERING, INC.
5. WATER VALVE LIDS ARE TO BE LABELED "WATER" FOR CULINARY VALVES
6. HORIZONTAL AND VERTICAL SEPARATION OF CULINARY WATER AND SEWER SHALL BE IN COMPLIANCE WITH WITH ALPINE CITY STANDARDS
7. WATERLINES TO BE BEDDED IN GRANULAR MATERIAL. A MIN. OF 8" COVER OVER TOPS OF PIPE IS REQUIRED TO AVOID PENETRATION OF SUB BASE FROM ABOVE.

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
11-02-20
STATE OF UTAH

Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT

1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
11-02-20
STATE OF UTAH

NO.	REVISIONS	BY	DATE
5			
4			
3			
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1			

DESIGNED BY:	DATE:
DRAWN BY:	DATE:
CHECKED BY:	DATE:
APPROVED:	DATE:
COGO FILE:	DATE:
REV. COGO FILE:	DATE:

K:\3-20-030-00 Alpine Ridge\CAD\Preliminary\PHASING PLAN.dwg 10/30/2020 2:08 PM

Northern ENGINEERING INC
ENGINEERING–LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

THE RIDGE AT ALPINE PHASE 4

OVERALL PHASING PLAN

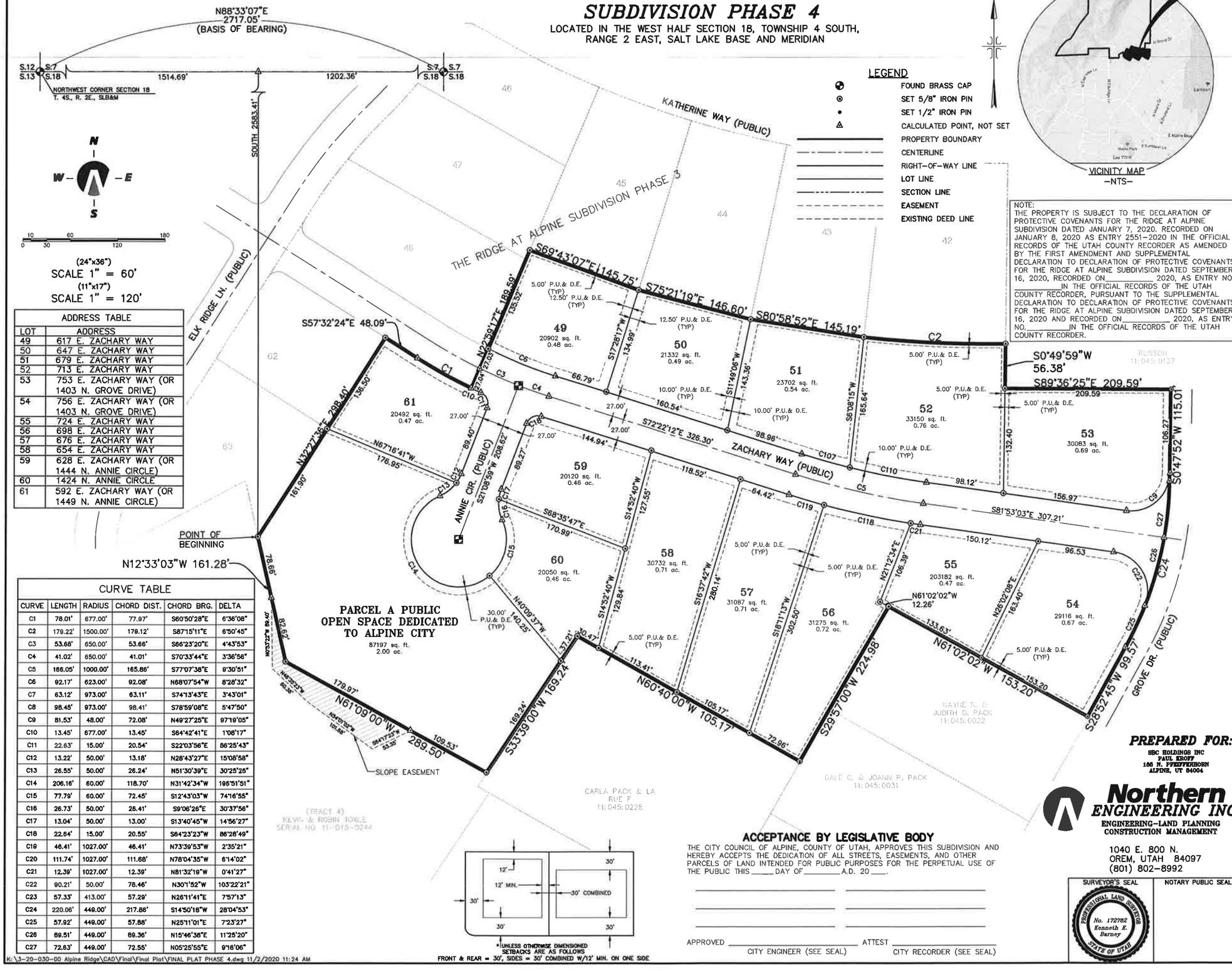
ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. 2

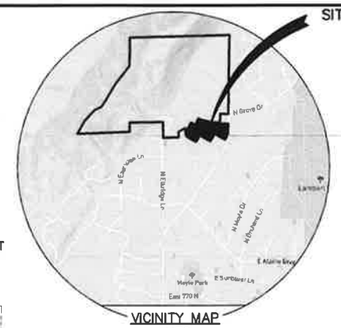
THE RIDGE AT ALPINE SUBDIVISION PHASE 4

LOCATED IN THE WEST HALF SECTION 18, TOWNSHIP 4 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN



LEGEND

- FOUND BRASS CAP
- SET 5/8" IRON PIN
- SET 1/2" IRON PIN
- CALCULATED POINT, NOT SET
- PROPERTY BOUNDARY
- CENTERLINE
- RIGHT-OF-WAY LINE
- LOT LINE
- SECTION LINE
- EASEMENT
- EXISTING DEED LINE



NOTE:
THE PROPERTY IS SUBJECT TO THE DECLARATION OF PROTECTIVE COVENANTS FOR THE RIDGE AT ALPINE SUBDIVISION DATED JANUARY 7, 2020. RECORDED ON JANUARY 8, 2020 AS ENTRY 2551-2020 IN THE OFFICIAL RECORDS OF THE UTAH COUNTY RECORDER AS AMENDED BY THE FIRST AMENDMENT AND SUPPLEMENTAL DECLARATION TO DECLARATION OF PROTECTIVE COVENANTS FOR THE RIDGE AT ALPINE SUBDIVISION DATED SEPTEMBER 16, 2020, RECORDED ON _____ 2020, AS ENTRY NO. _____IN THE OFFICIAL RECORDS OF THE UTAH COUNTY RECORDER, PURSUANT TO THE SUPPLEMENTAL DECLARATION TO DECLARATION OF PROTECTIVE COVENANTS FOR THE RIDGE AT ALPINE SUBDIVISION DATED SEPTEMBER 16, 2020 AND RECORDED ON_____ 2020, AS ENTRY NO._____IN THE OFFICIAL RECORDS OF THE UTAH COUNTY RECORDER.

ADDRESS TABLE	
LOT	ADDRESS
49	617 E. ZACHARY WAY
50	647 E. ZACHARY WAY
51	679 E. ZACHARY WAY
52	713 E. ZACHARY WAY
53	753 E. ZACHARY WAY (OR 1403 N. GROVE DRIVE)
54	756 E. ZACHARY WAY (OR 1403 N. GROVE DRIVE)
55	724 E. ZACHARY WAY
56	698 E. ZACHARY WAY
57	676 E. ZACHARY WAY
58	654 E. ZACHARY WAY
59	628 E. ZACHARY WAY (OR 1444 N. ANNIE CIRCLE)
60	1424 N. ANNIE CIRCLE
61	592 E. ZACHARY WAY (OR 1449 N. ANNIE CIRCLE)

CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD DIST.	CHORD BRG.	DELTA
C1	78.01'	677.00'	77.97'	S60°50'28"E	6°36'08"
C2	179.22'	1500.00'	179.12'	S87°15'11"E	6°50'45"
C3	53.68'	650.00'	53.66'	S66°23'20"E	4°43'53"
C4	41.02'	650.00'	41.01'	S70°33'44"E	3°36'56"
C5	166.05'	1000.00'	165.86'	S77°07'38"E	9°30'51"
C6	92.17'	623.00'	92.08'	N68°07'54"W	8°28'32"
C7	63.12'	973.00'	63.11'	S74°13'43"E	3°43'01"
C8	98.45'	973.00'	98.41'	S78°59'08"E	5°47'50"
C9	81.53'	48.00'	72.08'	N49°27'25"E	97°19'05"
C10	13.45'	677.00'	13.45'	S64°42'41"E	1°08'17"
C11	22.63'	15.00'	20.54'	S22°03'56"E	86°25'43"
C12	13.22'	50.00'	13.18'	N28°43'27"E	15°08'58"
C13	26.55'	50.00'	26.24'	N51°30'39"E	30°25'25"
C14	206.16'	60.00'	118.70'	N31°42'34"W	196°51'51"
C15	77.79'	60.00'	72.45'	S12°43'03"W	74°16'55"
C16	26.73'	50.00'	26.41'	S9°06'26"E	30°37'56"
C17	13.04'	50.00'	13.00'	S13°40'45"W	14°56'27"
C18	22.64'	15.00'	20.55'	S84°23'23"W	86°28'49"
C19	46.41'	1027.00'	46.41'	N73°39'53"W	2°35'21"
C20	111.74'	1027.00'	111.68'	N78°04'35"W	6°14'02"
C21	12.39'	1027.00'	12.39'	N81°32'19"W	0°41'27"
C22	90.21'	50.00'	78.46'	N30°1'52"W	103°22'21"
C23	57.33'	413.00'	57.29'	N26°11'41"E	7°57'13"
C24	220.06'	449.00'	217.86'	S14°50'18"W	28°04'53"
C25	57.92'	449.00'	57.88'	N25°11'01"E	7°23'27"
C26	89.51'	449.00'	89.36'	N15°46'38"E	11°25'20"
C27	72.63'	449.00'	72.55'	N05°25'55"E	9°16'06"

*UNLESS OTHERWISE DIMENSIONED SETBACKS ARE AS FOLLOWS
FRONT & REAR = 30', SIDES = 30' COMBINED W/12' MIN. ON ONE SIDE

ACCEPTANCE BY LEGISLATIVE BODY

THE CITY COUNCIL OF ALPINE, COUNTY OF UTAH, APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC THIS _____ DAY OF _____ A.D. 20____.

APPROVED _____ ATTEST _____
CITY ENGINEER (SEE SEAL) CITY RECORDER (SEE SEAL)

SURVEYOR'S CERTIFICATE

I, KENNETH E. BARNEY, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND THAT I HOLD A LICENSE IN ACCORDANCE WITH TITLE 58, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSING ACT, UTAH CODE ANNOTATED, 1953 AS AMENDED, CERTIFICATE NO. 172762. 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, HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS, AND EASEMENTS, HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH SECTION 17-23-17, UTAH CODE ANNOTATED, 1953 AS AMENDED, HAVE VERIFIED ALL MEASUREMENTS, AND HAVE PLACED MONUMENTS AS REPRESENTED ON THE PLAT. I FURTHER CERTIFY THAT EVERY EXISTING RIGHT-OF-WAY AND EASEMENT GRANT OF RECORD FOR UNDERGROUND FACILITIES, AS DEFINED IN SECTION 54-8a-2, UTAH CODE ANNOTATED,1953 AS AMENDED, AND FOR OTHER UTILITY FACILITIES, IS ACCURATELY DESCRIBED ON THIS PLAT, AND THAT THIS PLAT IS TRUE AND CORRECT.

DATE KENNETH E. BARNEY, P.L.S.

BOUNDARY DESCRIPTION

A PARCEL OF LAND LOCATED IN THE WEST HALF OF SECTION 18, TOWNSHIP 4 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT A BRASS MONUMENT MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE N.88°33'07"E. ALONG THE SECTION LINE A DISTANCE OF 1514.69 FEET AND SOUTH A DISTANCE OF 2583.41 FEET TO THE POINT OF BEGINNING, SAID POINT OF BEGINNING ALSO BEING THE SOUTHEAST CORNER OF LOT 63 OF THE RIDGE AT ALPINE SUBDIVISION PHASE 3 SUBDIVISION AS RECORDED AT THE UTAH COUNTY RECORDERS OFFICE:

AND RUNNING THENCE ALONG THE BOUNDARY OF THE RIDGE AT ALPINE SUBDIVISION PHASE 3 THE FOLLOWING EIGHT (8) COURSES 1) N.32°27'36"E. A DISTANCE OF 298.40 FEET, 2) THENCE S.57°32'24"E. A DISTANCE OF 48.09 FEET TO A POINT OF CURVATURE OF A 677.00-FOOT RADIUS TANGENT CURVE TO THE LEFT; 3) THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, 78.01 FEET, HAVING A CENTRAL ANGLE OF 06°36'08" AND A CHORD THAT BEARS S.60°50'28"E. A DISTANCE OF 77.97 FEET; 4) THENCE N.22°59'17"E. A DISTANCE OF 189.59 FEET; 5) THENCE S.69°43'07"E. A DISTANCE OF 145.75 FEET; 6) THENCE S.75°21'19"E. A DISTANCE OF 146.60 FEET; 7) THENCE S.80°58'52"E. A DISTANCE OF 145.19 FEET TO A POINT OF CURVATURE OF A 1500.00-FOOT RADIUS TANGENT CURVE TO THE LEFT; 8) THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, 179.22 FEET, HAVING A CENTRAL ANGLE OF 06°50'45" AND A CHORD THAT BEARS S.87°15'11"E. A DISTANCE OF 179.12 FEET MORE OR LESS TO AN EXISTING FENCELINE; THENCE S.00°49'59"W. ALONG SAID EXISTING FENCELINE A DISTANCE OF 56.38 FEET; THENCE S.89°36'57"E. A DISTANCE OF 209.59 FEET MORE OR LESS TO THE WESTERLY RIGHT-OF-WAY LINE OF GROVE DRIVE; THENCE ALONG THE WESTERLY RIGHT-OF-WAY LINE OF GROVE DRIVE THE FOLLOWING THREE COURSES: 1) S.00°47'52"W. A DISTANCE OF 115.01 FEET TO A POINT OF CURVATURE OF A 449.00-FOOT RADIUS TANGENT CURVE TO THE RIGHT; 2) THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE 220.06 FEET, HAVING A CENTRAL ANGLE OF 28°04'53" AND A CHORD THAT BEARS S.14°50'18"W. A DISTANCE OF 217.86 FEET; 3) THENCE S.28°52'45"W. A DISTANCE OF 99.57 FEET; THENCE N.61°02'02"W. A DISTANCE OF 288.82 FEET; THENCE S.29°57'00"W. A DISTANCE OF 224.98 FEET; THENCE N.60°40'00"W. A DISTANCE OF 322.01 FEET; THENCE S.33°39'00"W. A DISTANCE OF 206.45 FEET; THENCE N.61°09'00"W. A DISTANCE OF 289.50 FEET; THENCE N.12°33'03"W. A DISTANCE OF 161.28 FEET TO THE POINT OF BEGINNING.

CONTAINING 11.19 ACRES OR 487,447 SQ FEET OF LAND MORE OR LESS.

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, ALL OF THE UNDERSIGNED OWNERS OF ALL THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, STREETS, AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC.

IN WITNESS HEREOF WE HAVE HEREUNTO SET OUR HANDS THIS _____ DAY OF _____, A.D. 20____.

BY: _____

ACKNOWLEDGMENT

STATE OF UTAH } S.S.
COUNTY OF SALT LAKE }

ON THIS _____ DAY OF _____, IN THE YEAR 20____ BEFORE ME, _____, PERSONALLY APPEARED _____, PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED THAT HE OR SHE EXECUTED THE SAME.

NOTARY PUBLIC _____

NOTARY FULL NAME _____ A NOTARY COMMISSIONED IN UTAH

COMMISSION NUMBER _____ MY COMMISSION EXPIRES _____

ACKNOWLEDGMENT

STATE OF UTAH } S.S.
COUNTY OF SALT LAKE }

ON THIS _____ DAY OF _____, IN THE YEAR 20____ BEFORE ME, _____, PERSONALLY APPEARED _____, WHO DULY ACKNOWLEDGED TO ME THAT (S)HE IS A _____, [MEMBER WITH MANAGEMENT AUTHORITY] [MANAGER] OF _____, A UTAH LIMITED LIABILITY COMPANY, AND IS AUTHORIZED TO EXECUTE THE FOREGOING AGREEMENT IN ITS BEHALF AND THAT HE OR SHE EXECUTED IT IN SUCH CAPACITY.

NOTARY PUBLIC _____

NOTARY FULL NAME _____ A NOTARY COMMISSIONED IN UTAH

COMMISSION NUMBER _____ MY COMMISSION EXPIRES _____

PREPARED FOR:
SBC HOLDINGS INC
PAUL KROFF
166 N. PFEIFFERHORN
ALPINE, UT 84004

Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

THE RIDGE AT ALPINE SUBDIVISION PHASE 4

LOCATED IN THE WEST HALF SECTION 18, TOWNSHIP 4 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN

ALPINE _____ UTAH COUNTY, UTAH
SCALE: 1" = 60 FEET

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CITY-COUNTY ENGINEER SEAL	CLERK-RECORDER SEAL	
PROFESSIONAL LAND SURVEYOR No. 172762 Kenneth E. Barney STATE OF UTAH				

THE RIDGE AT ALPINE SUBDIVISION PHASE 4

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N
W – – E
S

5 20 80
0 10 40 120

(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

ELK RIDGE LN
BP: 0+00.00
EXISTING CURB & GUTTER SIDEWALK
PC 2+40.77
TIE ON TO EXISTING ASPHALT AND CURB & GUTTER CONTRACT TO MATCH EXISTING.
PHASE 3
PHASE 4
PT 4+09.01
BP: 4+00.00
ZACHARY WAY
CONST. STOP & STREET SIGN
PC 7+38.31
PT 9+01.37
ANNIE CIR
OPEN SPACE
EP: 5+00.00
CORINNE HAMILTON & MICHAEL P RUSSON
DOCUMENT ENTRY NO. 20603–2013
11:045:0137
COCOLALLA LLC
11:045:0041
EP: 12+43.00
GROVE DR
(TRACT 4)
KEVIN & ROBIN TOWLE
11:045:0244
CARLA PACK & LA RUE F
11:045:0228
WAYNE R. & JUDITH O. PACK
11:045:0022
DALE C. & JOANN P.. PACK
11:045:0031

47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 44 45 46

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
11-02-20
STATE OF UTAH

NO.	REVISIONS	BY	DATE
5			
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DESIGNED BY: DATE:
DRAWN BY: DATE:
CHECKED BY: DATE:
APPROVED: DATE:
COGO FILE: DATE:
REV. COGO FILE: DATE:

Northern ENGINEERING INC
ENGINEERING–LAND PLANNING
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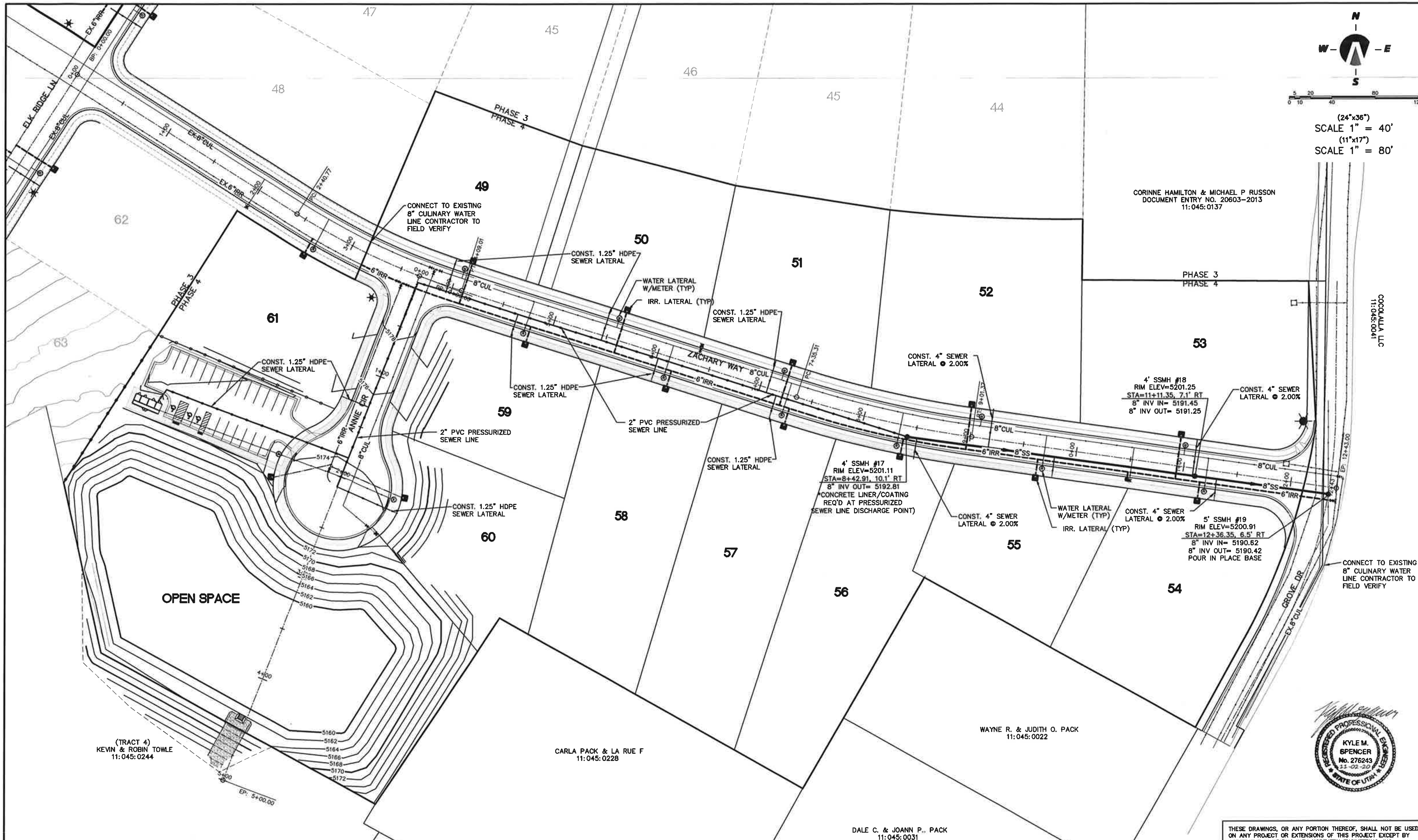
THE RIDGE AT ALPINE PHASE 4

SITE PLAN

ALPINE CITY, UTAH

JOB NO. 3–20–030

SHEET NO. 4



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Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

THE RIDGE AT ALPINE PHASE 4

UTILITY PLAN

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. 5

N
W – E
S
0 5 10 20 40 80 120

(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

ELK RIDGE LN
BP: 0+00.00
PHASE 3
PHASE 4
15"SD
EX.15"SD
EX.30"
EX.15"
ANNIE CIR
ZACHARY WAY
GROVE DR
EP: 12+43.60

EX.5' SDMH #25
RIM ELEV=5180.14
STA=3+32.98, -2.3' LT
15" INV IN= 5174.32
15" INV OUT= 5174.32

EX.5' SDMH #16
RIM ELEV=5179.66
STA=3+66.11, -4.9' LT
15" INV IN= 5172.30
15" INV OUT= 5172.30

5' SDMH #15
RIM ELEV=5179.54
STA=4+03.30, -5.3' LT
15" INV IN= 5175.55
15" INV OUT= 5175.55

5' SDMH #14
RIM ELEV=5180.69
STA=4+88.46, -4.4' LT
15" INV IN= 5173.67
15" INV OUT= 5173.67

EX.EX. 4'X4' SDCB #8
GRATE ELEV=5187.79
STA=6+41.30, 1.8' RT
30" INV IN= 5177.95
30" INV OUT= 5177.95

EX.4'x4' SDBOX #30
W/5' MH LID
RIM ELEV=5179.69
STA=3+75.26, 0.3' RT
30" INV IN= 5174.84
30" INV OUT= 5174.84

EX.4'x4' SDBOX #29
W/5' MH LID
RIM ELEV=5180.62
STA=4+81.96, 0.4' RT
30" INV IN= 5175.62
30" INV OUT= 5175.62

5' SDMH #13
RIM ELEV=5188.53
STA=6+53.77, -2.5' LT
15" INV IN= 5182.55
15" INV OUT= 5182.55

SD INLET BOX #35
GRATE ELEV=5174.09
15" INV OUT= 5168.04

5' SDMH #34
RIM ELEV=5173.75
STA=2+09.09, 7.2' RT
15" INV IN= 5167.06
15" INV OUT= 5167.06

SD INLET BOX #34
GRATE ELEV=5172.78
15" INV IN= 5165.90
15" INV OUT= 5165.90

4'x4' SDBOX #17
GRATE ELEV=5163.00
15" INV IN= 5157.00
15" INV OUT= 5157.00
15" INV OUT= 5158.38

OPEN SPACE

END SECTION #2
15" INV IN= 5158.50

EX.4'x4' SDBOX #31
W/5' MH LID
RIM ELEV=5173.34
30" INV IN= 5164.80
30" INV OUT= 5164.80

EX.4'x4' SDBOX #32
W/5' MH LID
RIM ELEV=5163.00
30" INV IN= 5152.45
45" INV IN= 5156.91
30" INV OUT= 5152.45

OVER FLOW BOX #1
GRATE= 5163.00
STA=4+39.79, 5.5' RT
30" INV= 5151.29

END SECTION #1
STA=4+89.77, 7.2' RT
30" INV= 5151.00

(TRACT 4)
KEVIN & ROBIN TOWLE
11:045:0244

CARLA PACK & LA RUE F
11:045:0228

DALE C. & JOANN P., PACK
11:045:0031

WAYNE R. & JUDITH O. PACK
11:045:0022

CORINNE HAMILTON & MICHAEL P RUSSON
DOCUMENT ENTRY NO. 20603-2013
11:045:0137

COCOA ALLA LLC
11:045:0041

47 48 45 46 45 44 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
11-02-20
STATE OF UTAH

NO.	REVISIONS	BY	DATE
5			
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DESIGNED BY: DATE:
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APPROVED: DATE:
COGO FILE: DATE:
REV. COGO FILE: DATE:

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Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

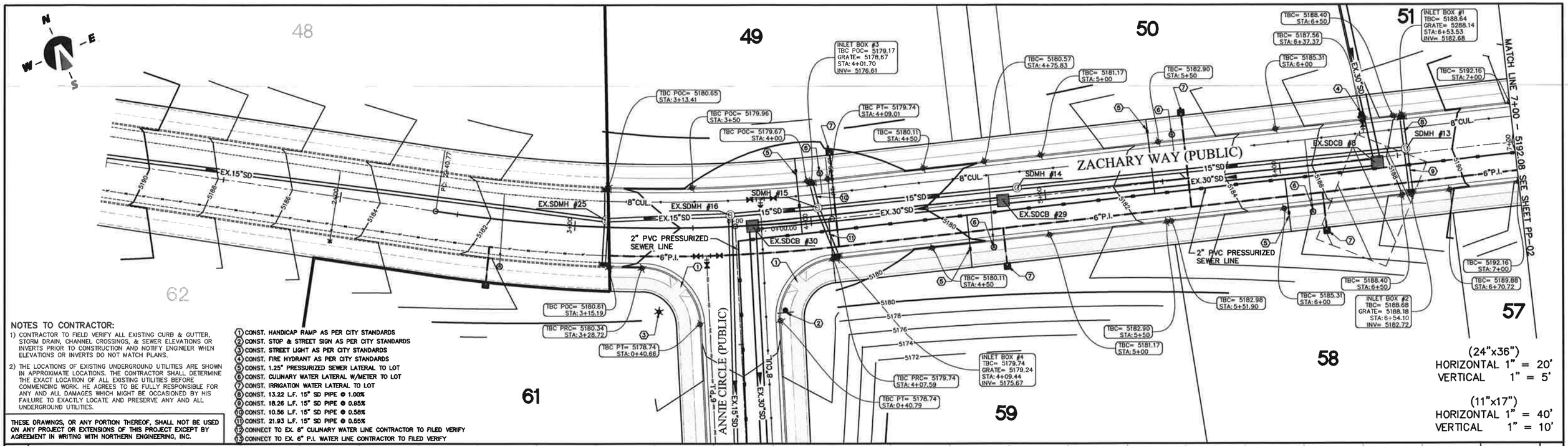
THE RIDGE AT ALPINE PHASE 4

GRADING & DRAINAGE PLAN

ALPINE CITY, UTAH

JOB NO. 3-20-030

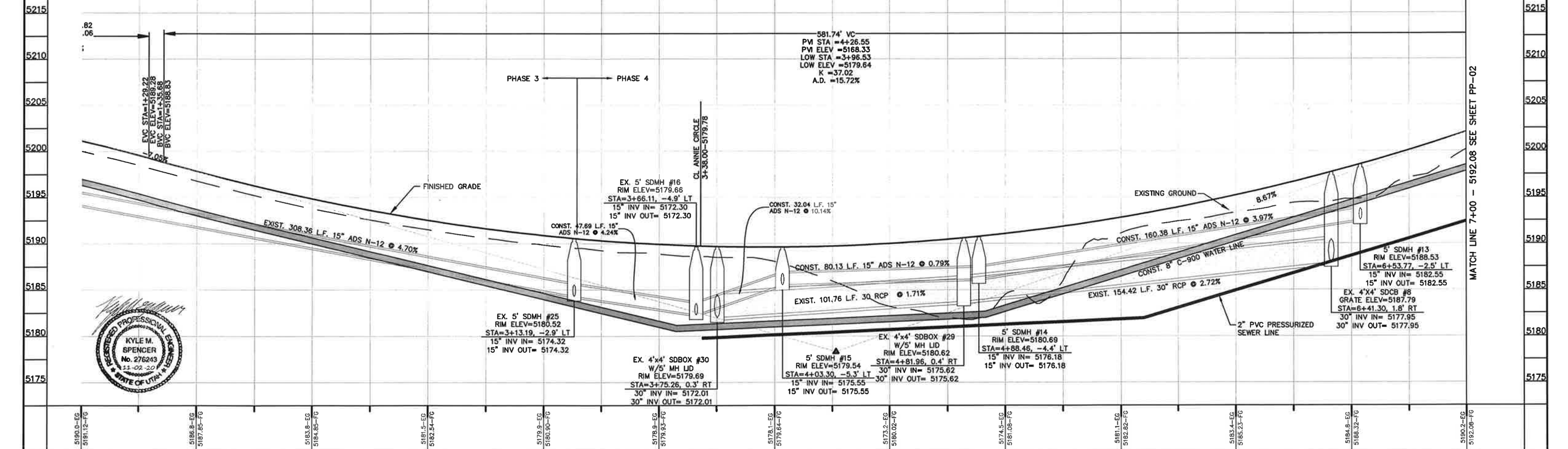
SHEET NO. 6



NOTES TO CONTRACTOR:

1) CONTRACTOR TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, CHANNEL CROSSINGS, & SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PLANS.
2) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

1. CONST. HANDICAP RAMP AS PER CITY STANDARDS
2. CONST. STOP & STREET SIGN AS PER CITY STANDARDS
3. CONST. STREET LIGHT AS PER CITY STANDARDS
4. CONST. FIRE HYDRANT AS PER CITY STANDARDS
5. CONST. 1.25" PRESSURIZED SEWER LATERAL TO LOT
6. CONST. CULINARY WATER LATERAL W/METER TO LOT
7. CONST. IRRIGATION WATER LATERAL TO LOT
8. CONST. 13.22 L.F. 15" SD PIPE @ 1.00%
9. CONST. 18.26 L.F. 15" SD PIPE @ 0.95%
10. CONST. 10.56 L.F. 15" SD PIPE @ 0.58%
11. CONST. 21.93 L.F. 15" SD PIPE @ 0.55%
12. CONNECT TO EX. 6" CULINARY WATER LINE CONTRACTOR TO FILED VERIFY
13. CONNECT TO EX. 6" P.I. WATER LINE CONTRACTOR TO FILED VERIFY



KYLE M. SPENCER No. 276243 11-02-20 REGISTERED PROFESSIONAL ENGINEER STATE OF UTAH

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Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

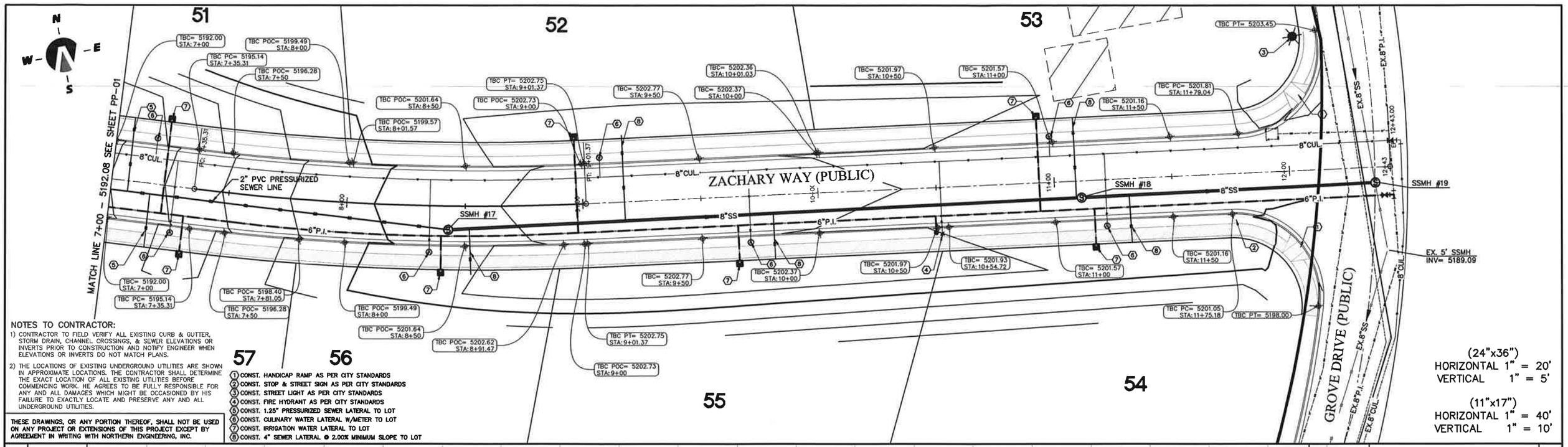
THE RIDGE AT ALPINE PHASE 4

ZACHARY WAY STA. 1+00 - 7+00

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. PP-01



NOTES TO CONTRACTOR:

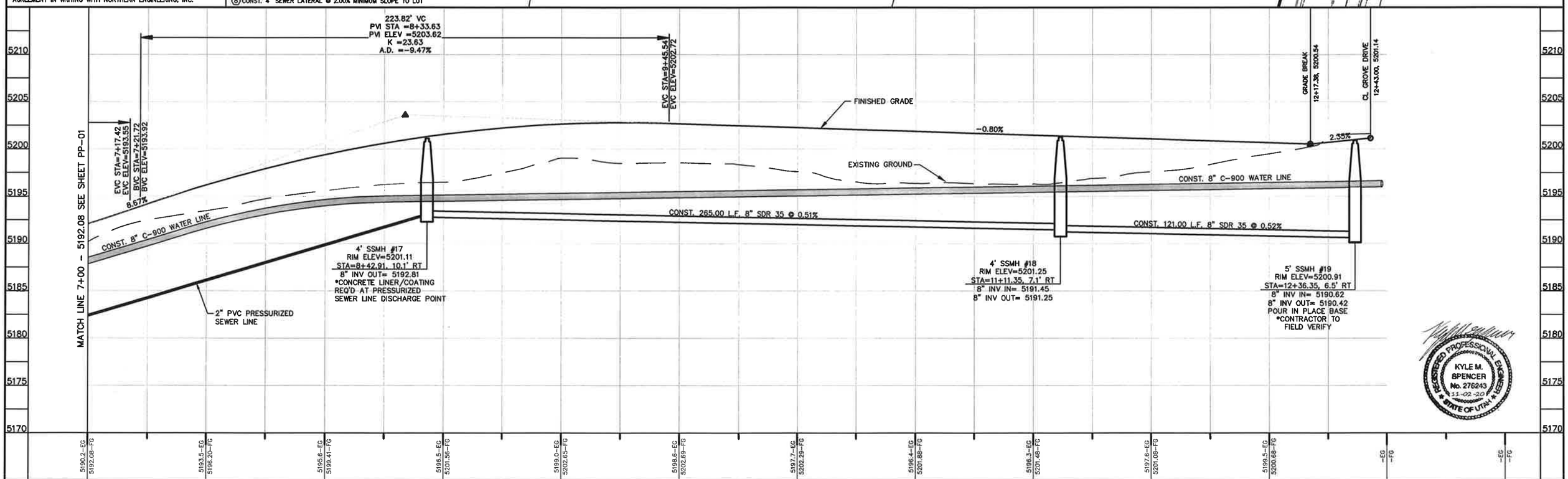
1) CONTRACTOR TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, CHANNEL CROSSINGS, & SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PLANS.

2) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

(1) CONST. HANDICAP RAMP AS PER CITY STANDARDS
(2) CONST. STOP & STREET SIGN AS PER CITY STANDARDS
(3) CONST. STREET LIGHT AS PER CITY STANDARDS
(4) CONST. FIRE HYDRANT AS PER CITY STANDARDS
(5) CONST. 1.25" PRESSURIZED SEWER LATERAL TO LOT
(6) CONST. CULINARY WATER LATERAL W/METER TO LOT
(7) CONST. IRRIGATION WATER LATERAL TO LOT
(8) CONST. 4" SEWER LATERAL @ 2.00% MINIMUM SLOPE TO LOT

(24"x36")
HORIZONTAL 1" = 20'
VERTICAL 1" = 5'

(11"x17")
HORIZONTAL 1" = 40'
VERTICAL 1" = 10'



REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
11-02-20
STATE OF UTAH

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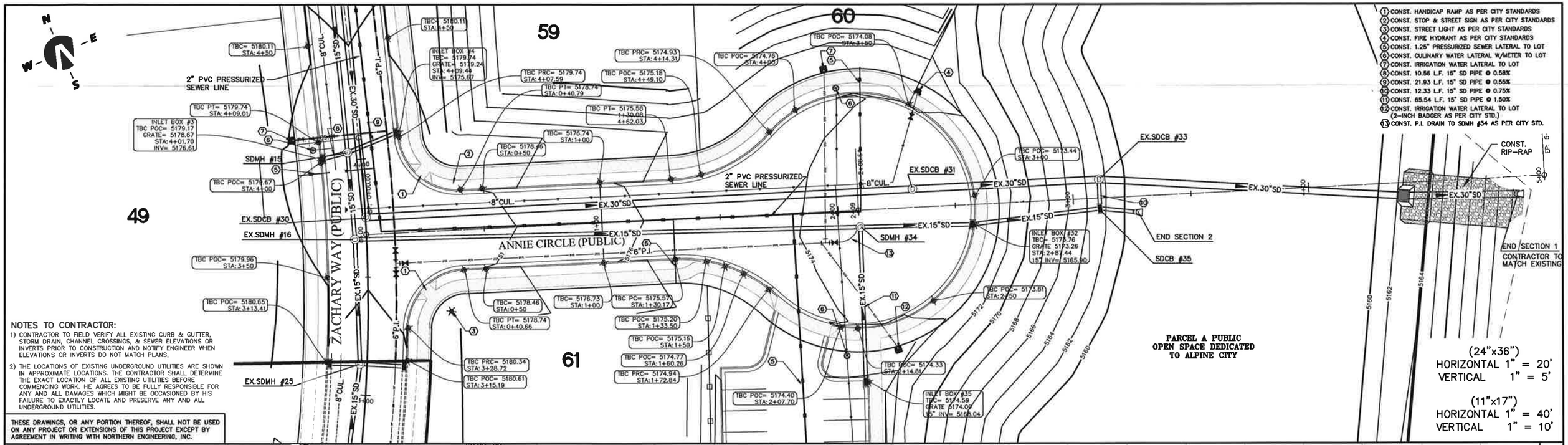
THE RIDGE AT ALPINE PHASE 4

ZACHARY WAY STA. 7+00 - 12+43

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. PP-02

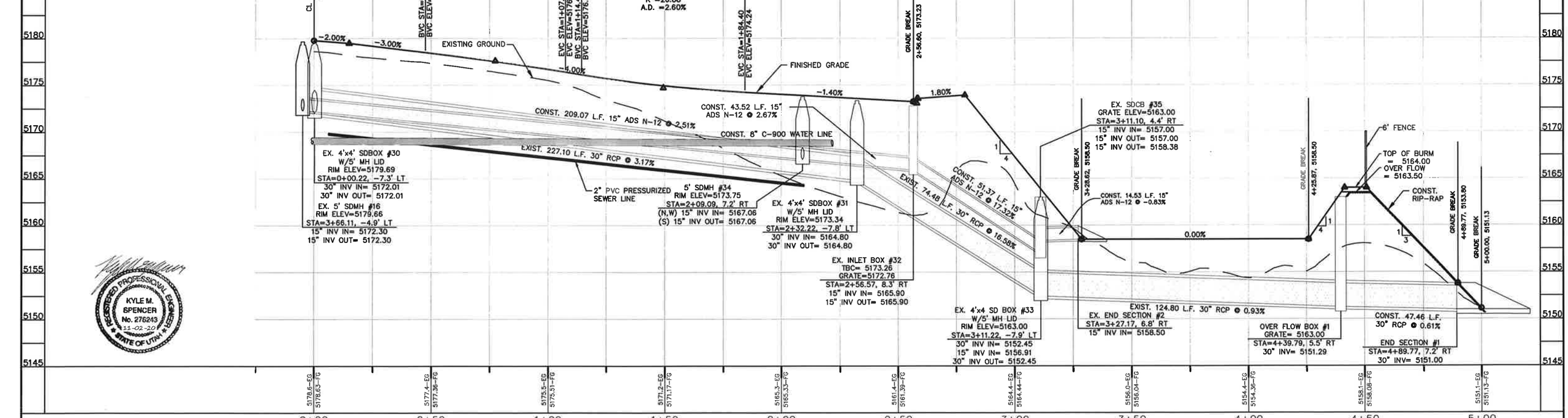


1. CONST. HANDICAP RAMP AS PER CITY STANDARDS
2. CONST. STOP & STREET SIGN AS PER CITY STANDARDS
3. CONST. STREET LIGHT AS PER CITY STANDARDS
4. CONST. FIRE HYDRANT AS PER CITY STANDARDS
5. CONST. 1.25" PRESSURIZED SEWER LATERAL TO LOT
6. CONST. CULINARY WATER LATERAL W/METER TO LOT
7. CONST. IRRIGATION WATER LATERAL TO LOT
8. CONST. 10.56 L.F. 15" SD PIPE @ 0.58%
9. CONST. 21.93 L.F. 15" SD PIPE @ 0.55%
10. CONST. 12.33 L.F. 15" SD PIPE @ 0.75%
11. CONST. 65.54 L.F. 15" SD PIPE @ 1.50%
12. CONST. IRRIGATION WATER LATERAL TO LOT (2-INCH BADGER AS PER CITY STD.)
13. CONST. P.I. DRAIN TO SDMH #34 AS PER CITY STD.

NOTES TO CONTRACTOR:

1) CONTRACTOR TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, CHANNEL CROSSINGS, & SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PLANS.

2) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.



KYLE M. SPENCER No. 276243 11-02-20 REGISTERED PROFESSIONAL ENGINEER STATE OF UTAH

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(801) 802-8992

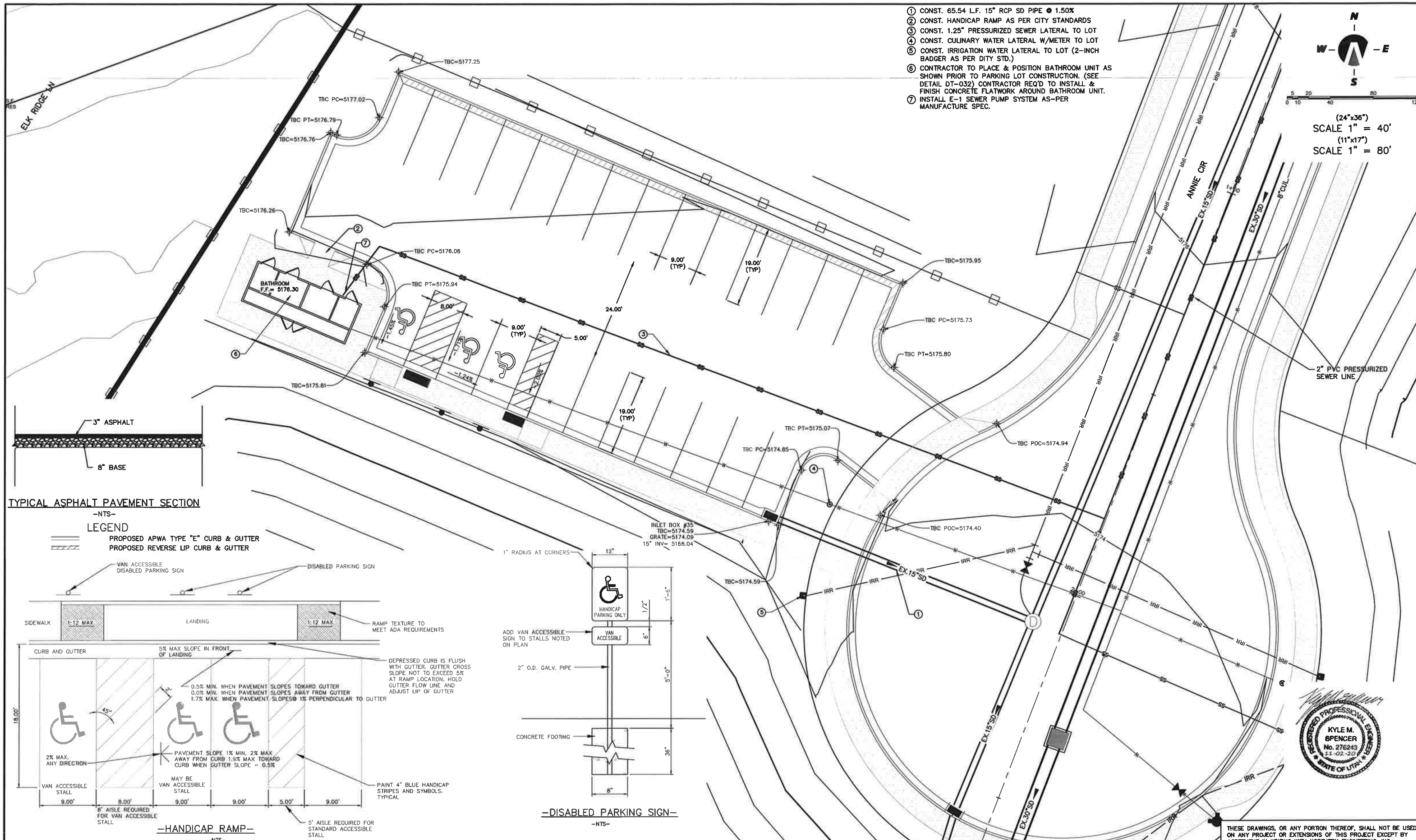
THE RIDGE AT ALPINE PHASE 4

ANNIE CIRCLE
ALPINE CITY, UTAH

JOB NO. 3-20-030
SHEET NO. PP-03

1. CONST. 65.54 L.F. 15" RCP SD PIPE @ 1.50%
2. CONST. HANDICAP RAMP AS PER CITY STANDARDS
3. CONST. 1.25" PRESSURIZED SEWER LATERAL TO LOT
4. CONST. CULINARY WATER LATERAL W/METER TO LOT
5. CONST. IRRIGATION WATER LATERAL TO LOT (2-INCH BADGER AS PER DITY STD.)
6. CONTRACTOR TO PLACE & POSITION BATHROOM UNIT AS SHOWN PRIOR TO PARKING LOT CONSTRUCTION. (SEE DETAIL DT-032) CONTRACTOR REQ'D TO INSTALL & FINISH CONCRETE FLATWORK AROUND BATHROOM UNIT.
7. INSTALL E-1 SEWER PUMP SYSTEM AS-PER MANUFACTURE SPEC.

(24"x36") SCALE 1" = 40'
(11"x17") SCALE 1" = 80'



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THE RIDGE AT ALPINE PHASE 4

PARK PARKING LOT

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. PK-01

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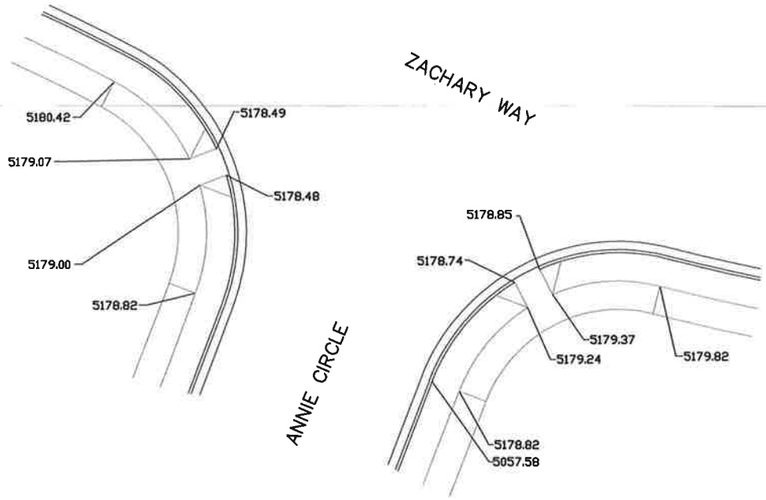
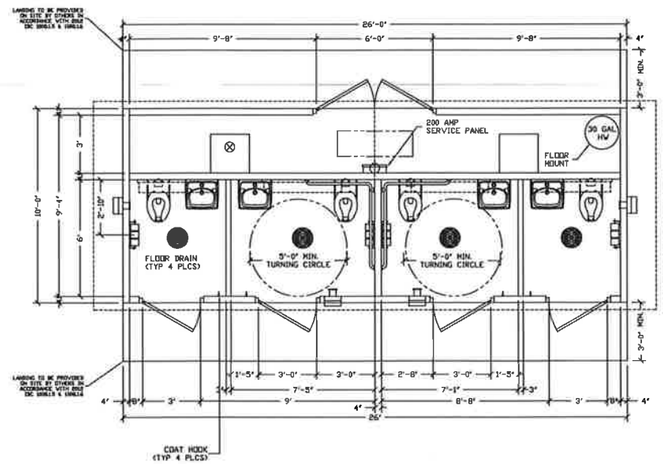
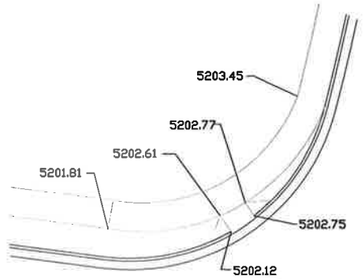


ADA RAMP AT ZACHARY WAY & ANNIE CIRCLE

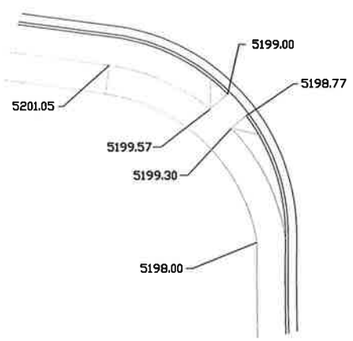


FLOOR PLAN

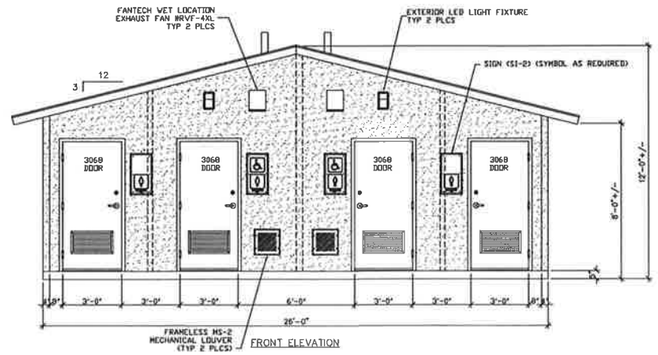


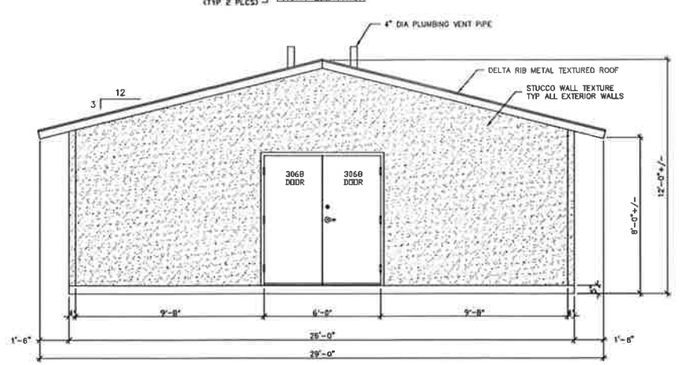
ZACHARY WAY

GROVE DR.



ADA RAMP AT GROVE DR. & ZACHARY WAY





4 DOOR DAKOTA SANTIAGO RESTROOM

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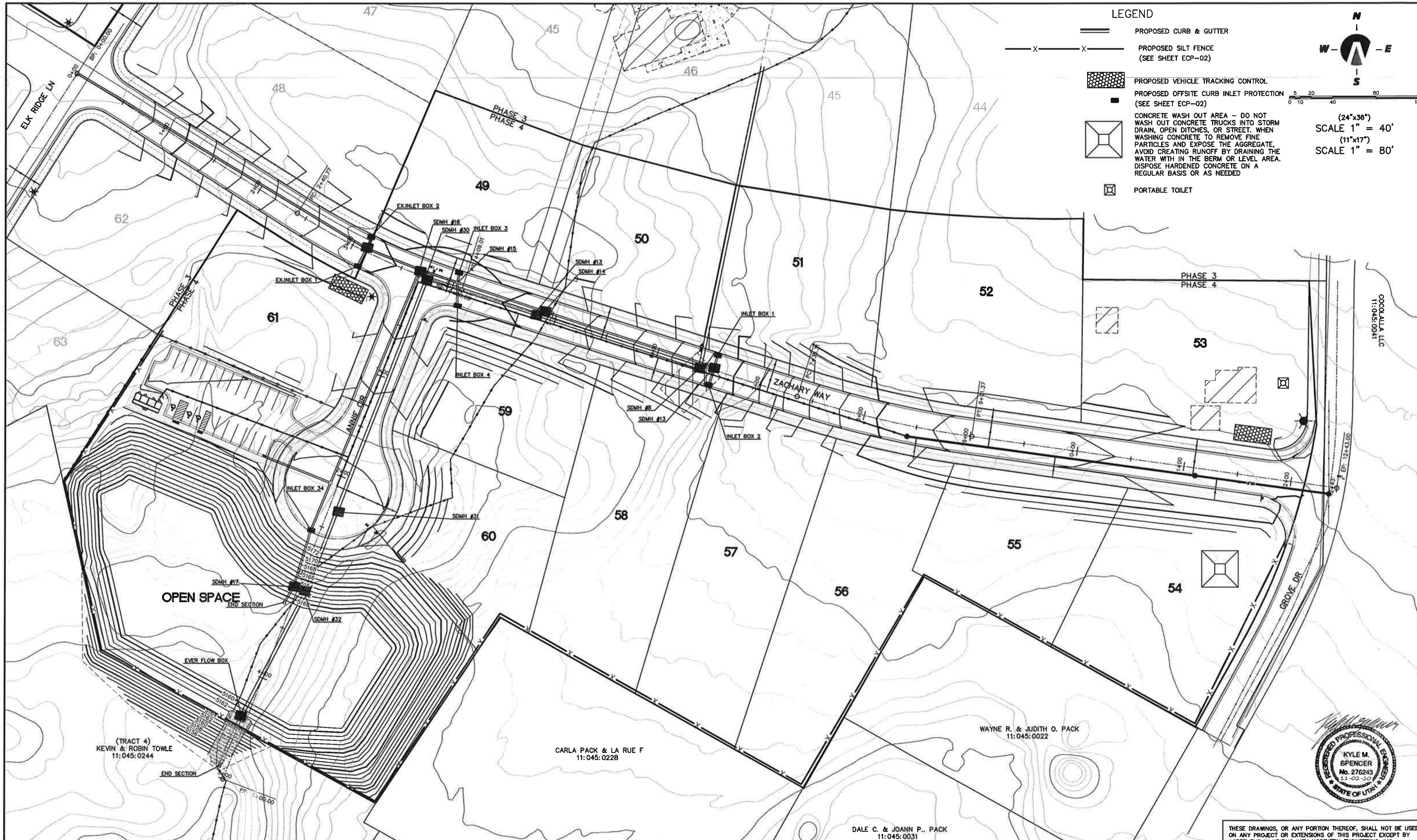
ALPINE VIEW ESTATES

ADA RAMP DETAILS

ALPINE, UTAH

JOB NO. 3-17-055

SHEET NO. DT-02


LEGEND
PROPOSED CURB & GUTTER
PROPOSED SILT FENCE (SEE SHEET ECP-02)
PROPOSED VEHICLE TRACKING CONTROL
PROPOSED OFFSITE CURB INLET PROTECTION (SEE SHEET ECP-02)
CONCRETE WASH OUT AREA - DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAIN, OPEN DITCHES, OR STREET. WHEN WASHING CONCRETE TO REMOVE FINE PARTICLES AND EXPOSE THE AGGREGATE, AVOID CREATING RUNOFF BY DRAINING THE WATER WITH IN THE BERM OR LEVEL AREA. DISPOSE HARDENED CONCRETE ON A REGULAR BASIS OR AS NEEDED
PORTABLE TOILET
N
W
E
S
0 5 10 20 40 80 120
(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'
ELK RIDGE LN
ZACHARY WAY
ANNIE CIR
GROVE DR
PHASE 3
PHASE 4
OPEN SPACE
EX.INLET BOX 1
EX.INLET BOX 2
INLET BOX 1
INLET BOX 2
INLET BOX 3
INLET BOX 4
INLET BOX 34
SDMH #8
SDMH #13
SDMH #14
SDMH #15
SDMH #16
SDMH #17
SDMH #30
SDMH #31
SDMH #32
END SECTION
EVER FLOW BOX
(TRACT 4)
KEVIN & ROBIN TOWLE
11:045:0244
CARLA PACK & LA RUE F
11:045:0228
WAYNE R. & JUDITH O. PACK
11:045:0022
DALE C. & JOANN P.. PACK
11:045:0031
COCOLALLA LLC
11:045:0041
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KYLE M. SPENCER
No. 276243
11-02-20
REGISTERED PROFESSIONAL ENGINEER
STATE OF UTAH

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THE RIDGE AT ALPINE PHASE 4

EROSION CONTROL PLAN

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. ECP-1

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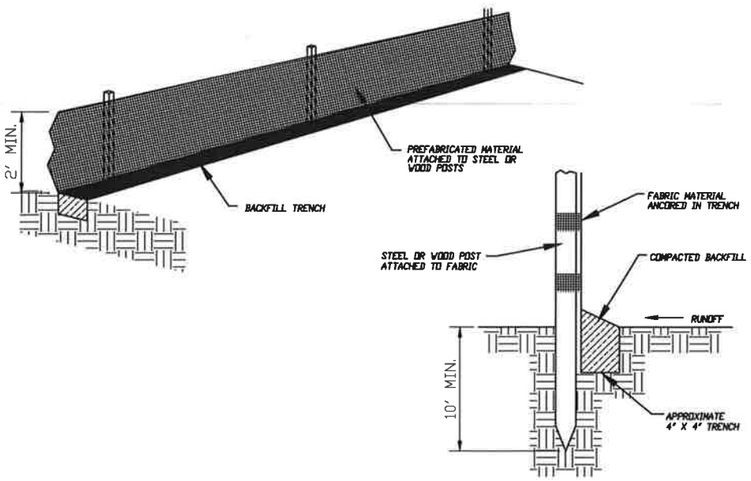
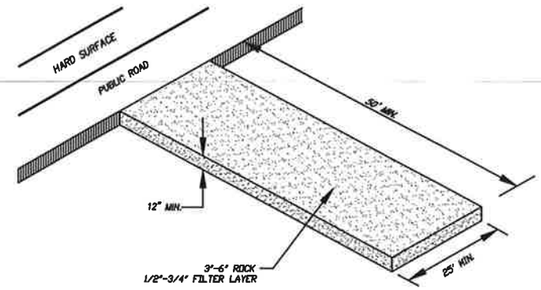
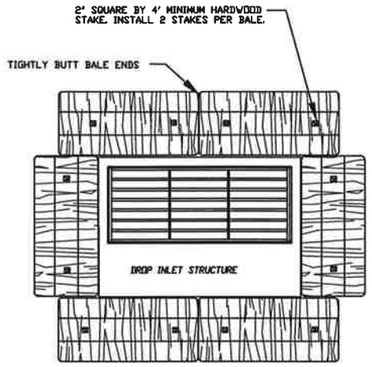


SILT FENCE DETAIL
-NTS-

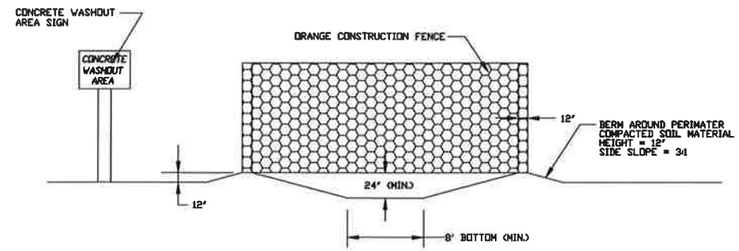


VEHICLE TRACKING DETAIL
NOT TO SCALE

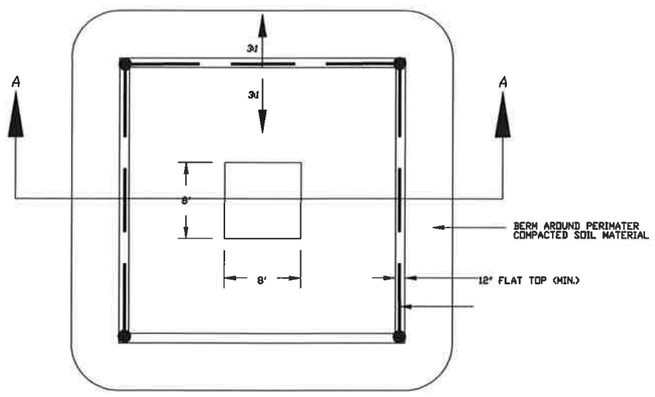


PLAN VIEW

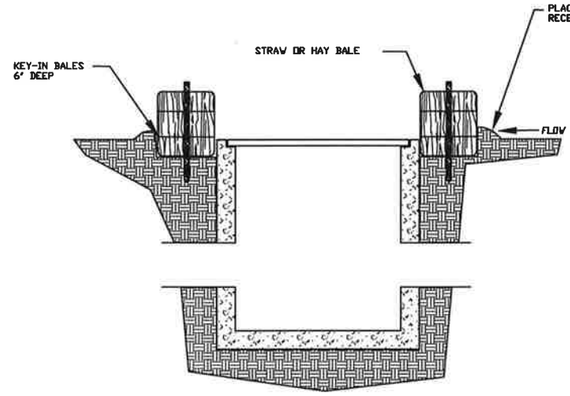
NOTES:
1. KEY-IN BALES IN AN EXCAVATED TRENCH AROUND THE PERIMETER OF THE DROP INLET STRUCTURE THAT IS 6' DEEP BY A BALES WIDTH WIDE.
2. OVERLAP ON CORNERS MUST BE AT LEAST HALF A BALE WIDE.
3. DEPENDING ON THE SIZE OF THE INLET STRUCTURE, MORE BALES THAN SHOWN MAY BE REQUIRED.
4. IN MEDIAN AREAS, CONSTRUCT SO THAT THE TOPS OF THE BALES ARE NOT HIGHER THAN THE ADJACENT ROADWAY.
5. MAINTAIN A PROPERLY FUNCTIONING SEDIMENT BARRIER THROUGHOUT CONSTRUCTION OR UNTIL DISTURBED AREAS CONTRIBUTING TO THE INLET HAVE BEEN PAVED OR VEGETATED.
6. REMOVE SEDIMENT AS IT ACCUMULATES AND PLACE IT IN A STABLE AREA APPROVED BY THE ENGINEER.



SECTION A-A



CONCRETE WASHOUT PIT
-NTS-



SECTION

STRAW BALE DROP INLET PROTECTION DETAIL
-NTS-

GENERAL NOTES:

1. AT ALL TIMES DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING AND CONTROLLING ONSITE EROSION DUE TO WIND AND RUNOFF. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL FACILITIES SHOWN.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING DRAINAGE AND EROSION CONTROL FACILITIES AS REQUIRED. STREETS SHALL BE KEPT CLEAN OF DEBRIS FROM SITE TRAFFIC.
3. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DUE TO UNFORESEEN PROBLEMS OR IF THE PLAN DOES NOT FUNCTION AS INTENDED. A REPRESENTATIVE OF THE CITY OR COUNTY PUBLIC WORKS DEPARTMENT MAY REQUIRE ADDITIONAL CONTROL DEVICES UPON INSPECTION OF PROPOSED FACILITIES.
4. CONTRACTOR SHALL USE VEHICLE TRACKING CONTROL AT ALL LOCATIONS WHERE VEHICLES WILL ENTER OR EXIT THE SITE. CONTROL FACILITIES WILL BE MAINTAINED WHILE CONSTRUCTION IS IN PROGRESS, MOVED WHEN NECESSARY, AND REMOVED WHEN THE SITE IS PAVED.
5. ALL SWPPP DRAINAGE SYSTEMS USING A GEOTECHNICAL FABRIC FOR INLET GRATE PROTECTION MUST HAVE FABRIC REGULARLY CLEANED (14 DAY INTERVAL MAX, MORE FREQUENTLY IF NEEDED) TO INSURE THAT SILT DOES NOT FORM IMPERMEABLE BARRIER OVER INLET.

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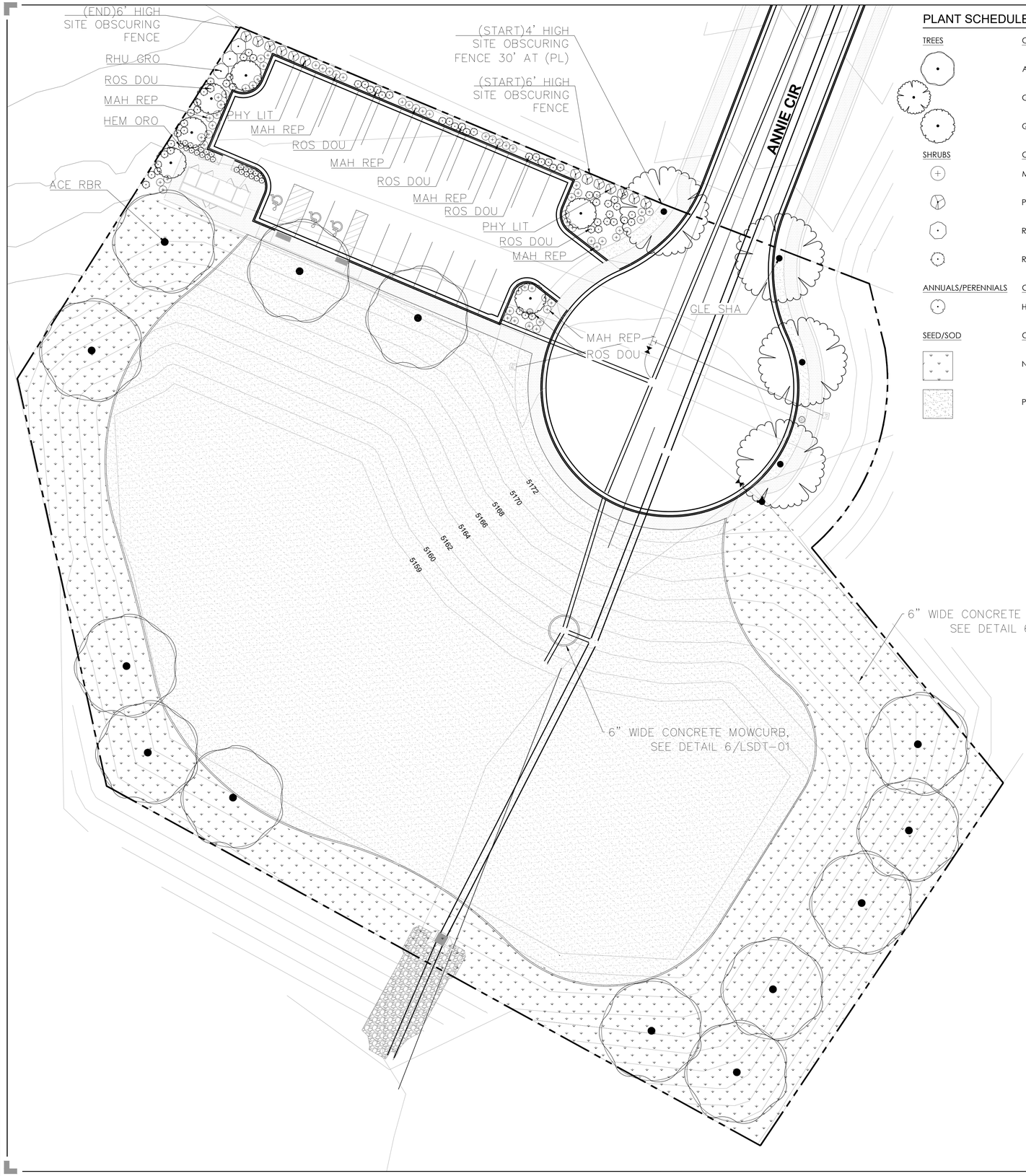
THE RIDGE AT ALPINE PHASE 4

EROSION CONTROL DETAILS

ALPINE, UTAH

JOB NO. 3-20-030

SHEET NO. ECP-02



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE
	ACE RBR	13	ACER RUBRUM / RED MAPLE	B&B	15 GAL
	GLE SHA	4	GLEDITSIA TRIACANTHOS INERMIS `SHADEMASTER` TM / SHADEMASTER LOCUST	B & B	2" CAL
	QUE SKY	6	QUERCUS ROBUR `SKYROCKET` / ENGLISH OAK	B & B	2" CAL

SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	MAH REP	60	MAHONIA REPENS / CREEPING MAHONIA	3 GAL
	PHY LIT	13	PHYSOCARPUS OPULIFOLIUS `LITTLE DEVIL` TM / DWARF NINEBARK	3 GAL
	RHU GRO	3	RHUS AROMATICA `GRO-LOW` / GRO-LOW FRAGRANT SUMAC	5 GAL
	ROS DOU	58	ROSA X `DOUBLE KNOCKOUT` / DOUBLE KNOCKOUT ROSE	3 GAL

ANNUALS/PERENNIALS	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	HEM ORO	24	HEMEROCALLIS X `STELLA DE ORO` / STELLA DE ORO DAYLILY	1 GAL

SEED/SOD	CODE	QTY	BOTANICAL / COMMON NAME	CONT
	NAT SEE	27,753 SF	NATIVE SEED MIX	SEED
	POA PRA	47,746 SF	POA PRATENSIS / KENTUCKY BLUEGRASS BLEND	SEED

NATIVE SEED MIX:

SOURCE: GRANITE SEED:

MIX: ROCKY MOUNTAIN WILDFLOWER SEED

LEWIS BLUE FLAX, PURPLE CONEFLOWER, ROCKY MT. IRIS, LANCE-LEAVED COREOPSIS, LUPINE SPECIES, BLANKET FLOWER, SWEET ANISE, PENSTEMON SPECIES, BLACK-EYED SUSAN, MEXICAN HAT, PRAIRIE CONEFLOWER, COLORADO COLUMBINE, ASPEN DAISY, SHOWY GOLDENEYE, ICELAND POPPY, PAINTBRUSH SPECIES, ASTER SPECIES.

RATE: 1 (BULK) POUND PER 2,000 SQUARE FEET

PLANTING NOTES:

1. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN THE QUANTITIES AND SIZES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON ALL DRAWINGS. ALL QUANTITIES SHOWN ON THE DRAWINGS ARE FOR CONVENIENCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE QUANTITIES.
2. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA).
3. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN FINISHED AND APPROVED BY PROJECT MANAGER OR LANDSCAPE ARCHITECT.
4. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE IN ITS CONTAINER (i.e. DO NOT SET ROOT FLAIR OF PLANT BELOW TOP OF FINISHED GRADE).
5. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT TIME OF PLANTING AND WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE CONTAINER BALL SHALL BE CUT THROUGH THE SURFACE IN TWO VERTICAL LOCATIONS.
6. ALL PLANTS SHALL BE INSTALLED AS PER DETAILS AND THE CONTRACT SPECIFICATIONS.
7. ALL PLANTS AND STAKES SHALL BE SET PLUMB UNLESS OTHERWISE SPECIFIED.
8. ALL PLANTS SHALL BE INSTALLED AT LEAST 24" FROM BACK OF CURB OR SIDEWALK EXCEPT FOR 1 GALLON PLANTS THAT MAY BE INSTALLED AT LEAST 18" FROM BACK OF CURB OR SIDEWALK.
9. THE CONTRACTOR SHALL PROVIDE BACKFILL MIX AS PER THE CONTRACT SPECIFICATIONS.
10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED ON A REGULAR SCHEDULE DURING THE FIRST GROWING SEASON.
11. THE CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR ONE-YEAR AFTER DATE OF FINAL ACCEPTANCE.
12. CONTRACTOR SHALL PRUNE ANY NEWLY PLANTED TREES IF DIRECTED BY THE LANDSCAPE ARCHITECT OR CITY REPRESENTATIVE.
13. REMOVE ENTIRE WIRE CAGE FROM ALL ROOT BALLS.
14. CUT AND REMOVE BURLAP FROM TOP $\frac{1}{3}$ OF ROOT BALL.
15. ALL EXCESS BURLAP, WIRE CAGES, PLASTIC PLANTING POTS, OR OTHER LITTER FROM PLANTING INSTALLATION SHALL BE CLEANED UP AND REMOVED FROM THE SITE BY THE CONTRACTOR.
16. CONTRACTOR SHALL SUBMIT PHOTOS OF OR REVIEW THE PLANT MATERIAL AT THE SOURCE WITH THE LANDSCAPE ARCHITECT OR CITY REPRESENTATIVE PRIOR TO SHIPPING OR DIGGING.
17. PLANT TREES, SHRUBS, AND PERENNIALS PER DETAILS ON SHEET LSDT-01.

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PEC
PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
EMAIL: INFO@PEC.US.COM

PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT
LARS DONALD ANDERSON
No. 334919-5301
11-02-2020
ELECTRONIC SEAL
STATE OF UTAH

PI:	LA
PM:	LA
DRAWN BY:	JW/ST
CHECKED BY:	BT
PLOT DATE:	11-002-2020

SUBMISSION DATE 11-02-2020 **PROJECT #** UT 20-062

NO.	REVISION	DATE
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PLAN INFORMATION

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N

0 10' 20' 40' 80'

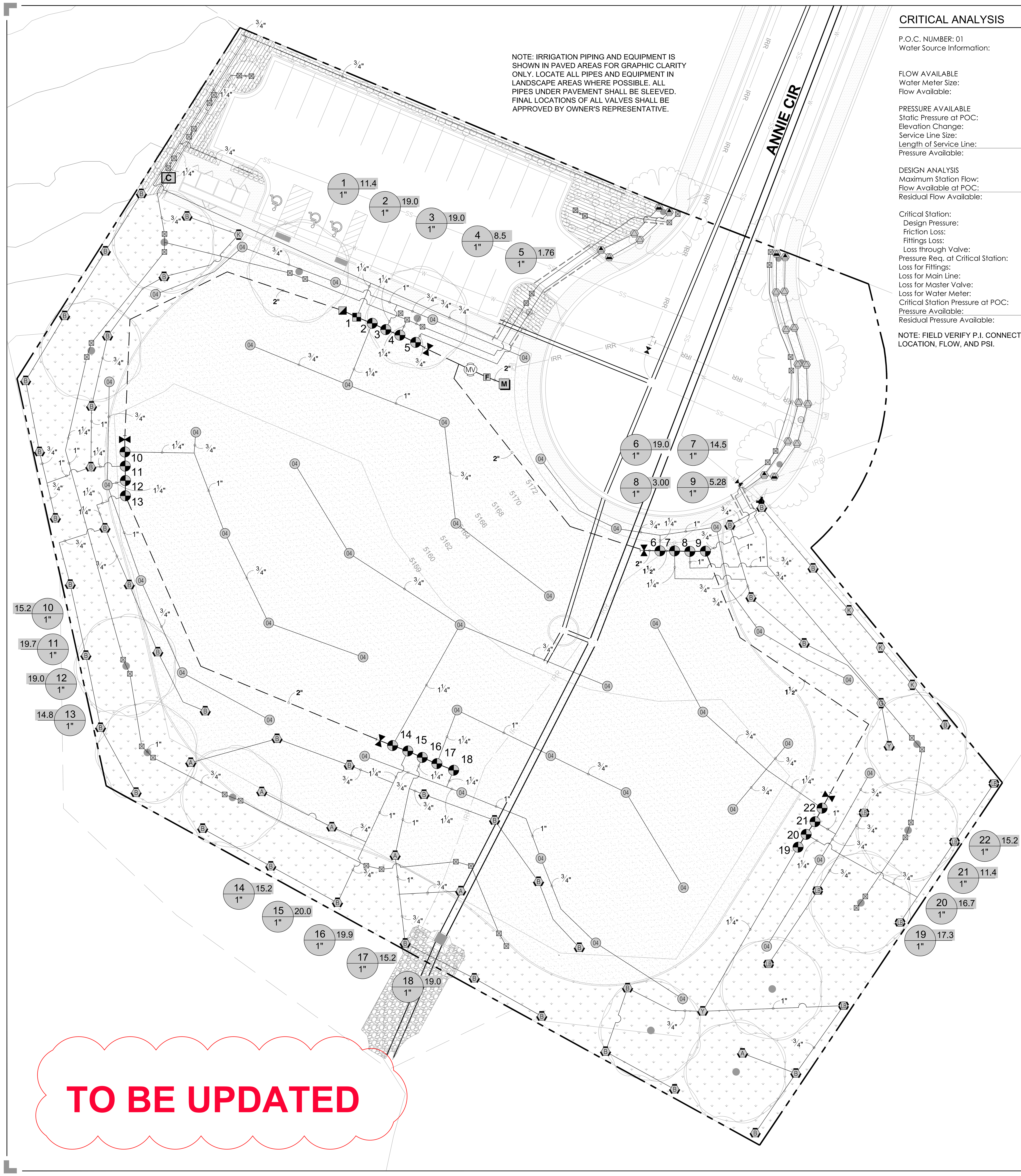
GRAPHIC SCALE: 1" = 20'
(24"x36" SHEET)

SHEET NAME

PLANTING PLAN

SHEET NUMBER

LS-01



CRITICAL ANALYSIS

P.O.C. NUMBER: 01	
Water Source Information:	CONNECT TO P.I. LINE.
FLOW AVAILABLE	
Water Meter Size:	3/4"
Flow Available:	20.23 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	65.00 psi
Elevation Change:	5.00 ft
Service Line Size:	1"
Length of Service Line:	20.00 ft
Pressure Available:	61.00 psi
DESIGN ANALYSIS	
Maximum Station Flow:	20.04 gpm
Flow Available at POC:	20.23 gpm
Residual Flow Available:	0.19 gpm
Critical Station:	18
Design Pressure:	40.00 psi
Friction Loss:	4.30 psi
Fittings Loss:	0.43 psi
Loss through Valve:	3.00 psi
Pressure Req. at Critical Station:	47.73 psi
Loss for Fittings:	0.12 psi
Loss for Main Line:	1.23 psi
Loss for Master Valve:	3.00 psi
Loss for Water Meter:	5.90 psi
Critical Station Pressure at POC:	57.98 psi
Pressure Available:	61.00 psi
Residual Pressure Available:	3.02 psi

NOTE: FIELD VERIFY P.I. CONNECTION LOCATION, FLOW, AND PSI.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
LST RST SST	HUNTER MP STRIP PROS-06-PRS40-CV TURF ROTATOR, 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. LST=IVORY LEFT STRIP, SST=BROWN SIDE STRIP, RST=COPPER RIGHT STRIP.	20	40
K G R	HUNTER MP2000 PROS-06-PRS40-CV TURF ROTATOR, 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	5	40
B Y A	HUNTER MP3000 PROS-06-PRS40-CV TURF ROTATOR, 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC.	50	40
LB	HUNTER MP3500 PROS-06-PRS40-CV TURF ROTATOR, 6.0" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY. LB=LIGHT BROWN ADJUSTABLE ARC, 90-210.	7	40
0.25 0.50	HUNTER RZWS-SLEEVE-18-CV 25 18" LONG RZWS WITH FILTER FABRIC SLEEVE, .25GPM OR .50GPM BUBBLER OPTIONS, CHECK VALVE, 1/2" SWING JOINT FOR CONNECTION TO 1/2" PIPE	90	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
04	HUNTER I-25-06-SS TURF ROTOR, 6.0" POP-UP. ADJUSTABLE AND FULL CIRCLE. STAINLESS STEEL RISER. DRAIN CHECK VALVE. STANDARD NOZZLE.	44	40	3.80	40'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	HUNTER ICZ-101-25 DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM. PRESSURE REGULATION: 25PSI. FLOW RANGE: 2 GPM TO 20 GPM. 150 MESH STAINLESS STEEL SCREEN.	1
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-06-18 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. 17MM.	2,563 S.F.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	HUNTER ICV-G-FS 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH FILTER SENTRY.	21
	HUNTER HQ-44LRC QUICK COUPLER VALVE, YELLOW RUBBER LOCKING COVER, RED BRASS AND STAINLESS STEEL, WITH 1" NPT INLET, 2-PIECE BODY.	1
	NIBCO T-113-K CLASS 125 BRONZE GATE SHUT OFF VALVE WITH CROSS HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4" - 3"	5
MV	HUNTER IBV-FS 1" 1", 1-1/2", 2", AND 3" BRASS ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH FILTER SENTRY FACTORY INSTALLED OPTION.	1
C	HUNTER ACC-2400-PED-SS 24 STATION OUTDOOR MODULAR CONTROLLER. WITH TWO ACM-600 MODULE. HIGH-END COMMERCIAL USE. STAINLESS STEEL PEDESTAL.	1
F	AMIAD 1-TS-STEEL SCREEN AMIAD 1" T-SUPER PLASTIC FILTER, NPT THREAD, STEEL SCREEN ELEMENT. ENGINEERED-PLASTIC MATERIAL, MAXIMUM WORKING PRESSURE 150PSI.	1
M	WATER METER 3/4" CONNECT TO P.I. LINE.	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	5,620 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40	688.7 L.F.
	PIPE SLEEVE: PVC CLASS 200 SDR 21	52.1 L.F.

Valve Callout
Valve Number
Valve Flow
Valve Size

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PEC
PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
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PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT LARS DONALD ANDERSON No. 319519-5301 STATE OF UTAH

PI: LA
PM: LA
DRAWN BY: JW/ST
CHECKED BY: BT
PLOT DATE: 11-002-2020

SUBMISSION DATE 11-02-2020
PROJECT # UT 20-062

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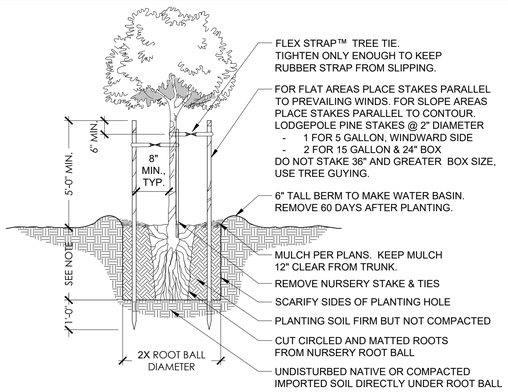
0 10' 20' 40' 80'
GRAPHIC SCALE: 1" = 20'
(24"x36" SHEET)

SHEET NAME

IRRIGATION PLAN

SHEET NUMBER

IR-01

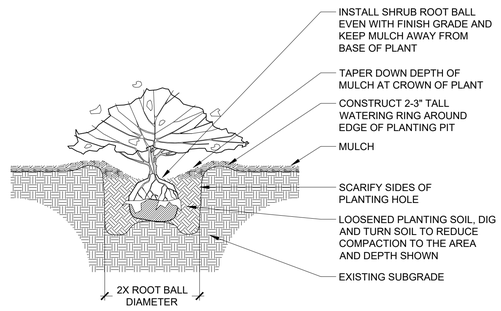


NOTES:

1. PLANT PIT DEPTH TO BE 1" LESS THAN ROOT BALL DEPTH. CROWN BOTTOM OF PIT SO THAT TREE WILL SIT AT 3" ABOVE GRADE.

1 TREE PLANTING

1/2" = 1'-0" P-UT19064-11

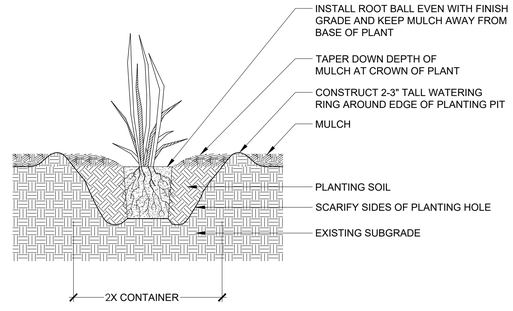


NOTES:

1. EXCAVATE SHRUB PITS AS ROUND PLANTING HOLES.

2 SHRUB PLANTING

1/2" = 1'-0" P-UT19064-09

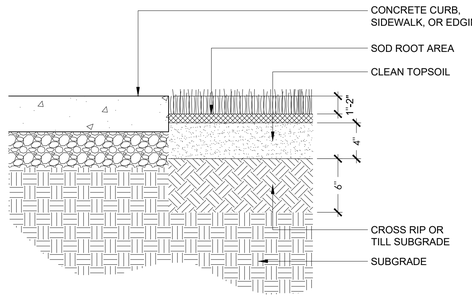


NOTES:

1. EXCAVATE ORNAMENTAL GRASS/PERENNIAL PITS AS ROUND HOLES.

3 PERENNIAL/ORNAMENTAL GRASS PLANTING

3/4" = 1'-0" P-UT19064-08

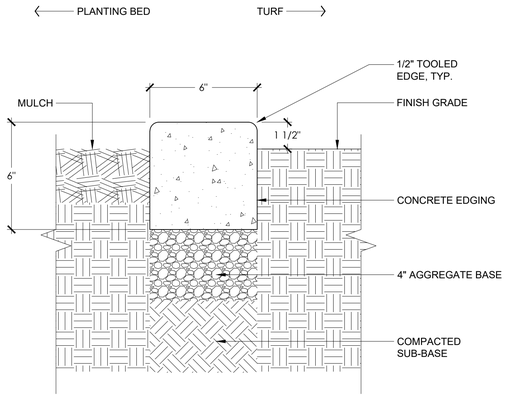


NOTES:

1. ENSURE FINISH GRADE IS 1"- 2" BELOW TOP OF CURB, WALK, OR EDGING.
2. SOD SHALL BE 100% KENTUCKY BLUEGRASS OR CITY APPROVED EQUAL.

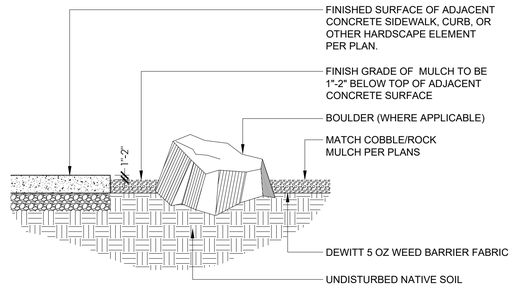
4 SOD AND SEED PLANTING

1 1/2" = 1'-0" P-UT19064-10



5 CONCRETE EDGING

3" = 1'-0" P-UT19064-12



NOTES:

1. KEEP TOP OF MULCH 1"-2" BELOW ADJACENT WALKS AND CURBS. DO NOT ALLOW MULCH TO TOUCH THE TRUNK OF ANY PLANT. INSTALL MULCH AFTER INSTALLATION OF WEED BARRIER FABRIC AND PLANT MATERIAL.
2. CONTRACTOR TO ENSURE THAT TOP OF WEED BARRIER FABRIC IS FREE OF SOILS AND DEBRIS PRIOR TO PLACING MULCH.

6 COBBLE MULCH

3/4" = 1'-0" P-UT19064-07

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
EMAIL: INFO@PEC.US.COM

PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT
LARS DONALD ANDERSON
No. 339019-5301
11-02-2020
ELECTRONIC SEAL
STATE OF UTAH

PI:	LA
PM:	LA
DRAWN BY:	JW/ST
CHECKED BY:	BT
PLOT DATE:	11-002-2020

SUBMISSION DATE 11-02-2020 *PROJECT #* UT 20-062

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N

0 10' 20' 40' 80'

GRAPHIC SCALE: 1" = 20'
(24"x36" SHEET)

SHEET NAME

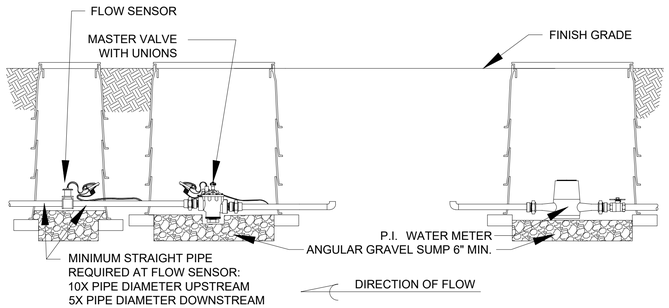
LANDSCAPE DETAILS

SHEET NUMBER

LSDT-01

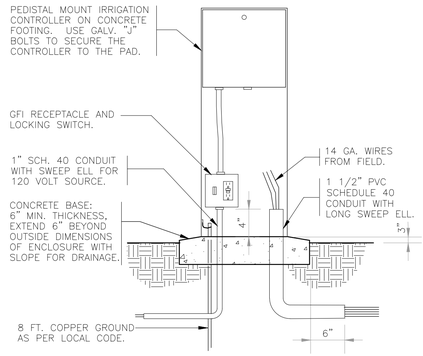
NOTES:

1. INSTALL COVER TO MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO SIZE.
2. ALL FITTINGS TO BE BRASS UNLESS OTHERWISE NOTED.



1 POINT OF CONNECTION

N.T.S. DETAIL-FILE

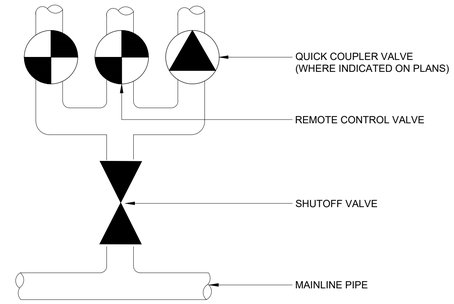


2 PEDESTAL MOUNT CONTROLLER

1" = 1'-0" P-UT19064-IRRI-16

NOTES:

1. GROUP VALVES TOGETHER & PROVIDE ONE (1) SHUTOFF VALVE, LINE SIZE PER GROUP

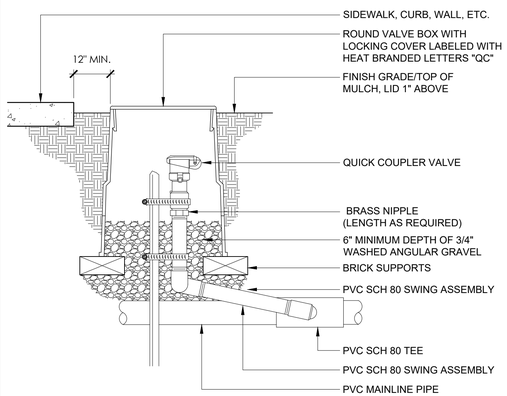


3 VALVE MANIFOLD

3" = 1'-0" P-UT19064-IRRI-09

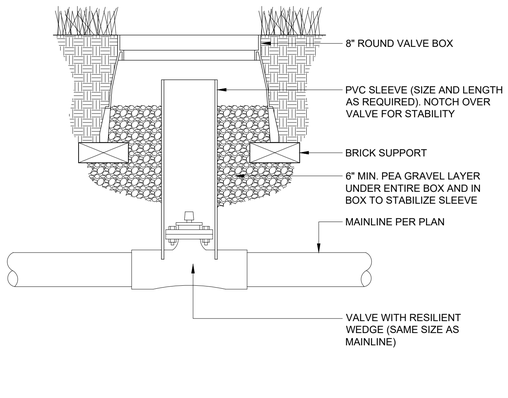
NOTES:

1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.



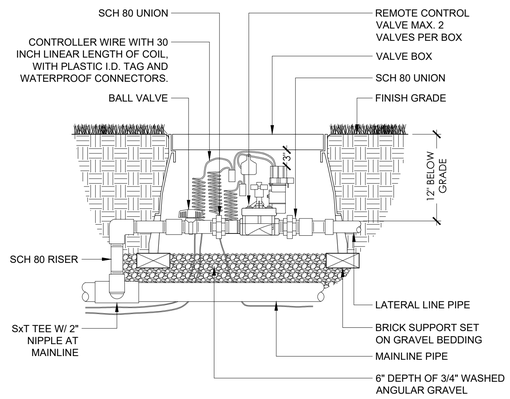
4 QUICK COUPLER VALVE

1 1/2" = 1'-0" P-UT19064-IRRI-07



5 GATE VALVE

3" = 1'-0" P-UT19064-IRRI-06

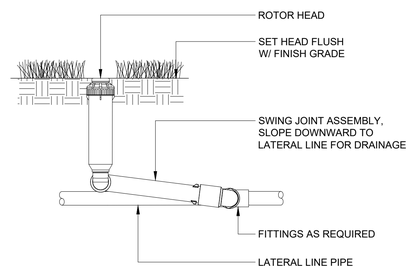


6 REMOTE CONTROL VALVE

1 1/2" = 1'-0" P-UT19064-IRRI-08

NOTES:

1. INSTALL 2" AWAY FROM HARDSCAPES.

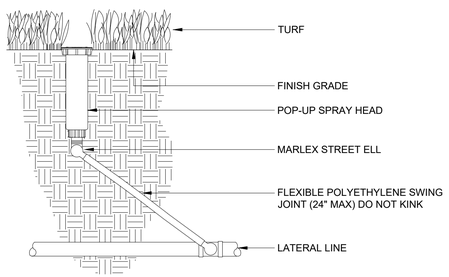


7 ROTOR HEAD

3" = 1'-0" P-UT19064-IRRI-05

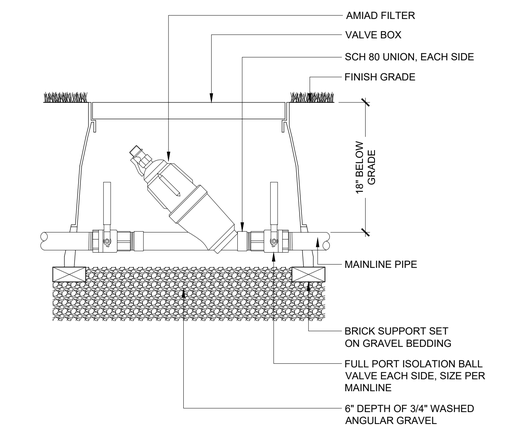
NOTES:

1. INSTALL 2" AWAY FROM HARDSCAPES.



8 TURF POP-UP SPRAY HEAD

3" = 1'-0" P-UT19064-IRRI-04

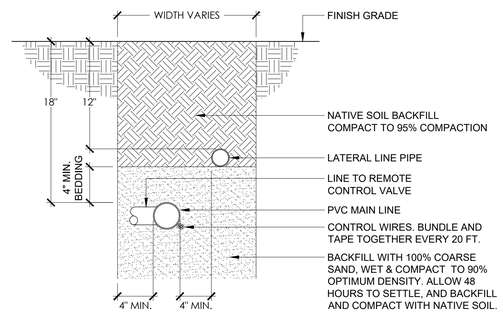


9 IRRIGATION FILTER

1 1/2" = 1'-0" P-UT19064-IRRI-02

NOTES:

1. MAIN LINE SHALL BE PLACED AT A DEPTH OF 24" BELOW ANY PAVED SURFACE.
2. MAINLINE AND LATERAL PIPE UNDER ANY PAVED SURFACE SHALL BE SLEEVED WITH A PIPE THAT IS TWO PIPE SIZES LARGER THAN THE IRRIGATION LINE.
3. ALL CONTROL WIRES UNDER ANY PAVED SURFACE SHALL BE PLACED IN CONDUIT.



10 PIPE TRENCH SECTION

1 1/2" = 1'-0" P-UT19064-IRRI-10

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PEC
PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
EMAIL: INFO@PEC.US.COM

PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT — LARS DONALD ANDERSON — No. 334919-5301 — 08-02-2016 — ELECTRONIC SEAL — STATE OF UTAH

PI:	LA
PM:	LA
DRAWN BY:	JW/ST
CHECKED BY:	BT
PLOT DATE:	11-002-2020

SUBMISSION DATE: 11-02-2020 PROJECT #: UT 20-062

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0 10' 20' 40' 80'

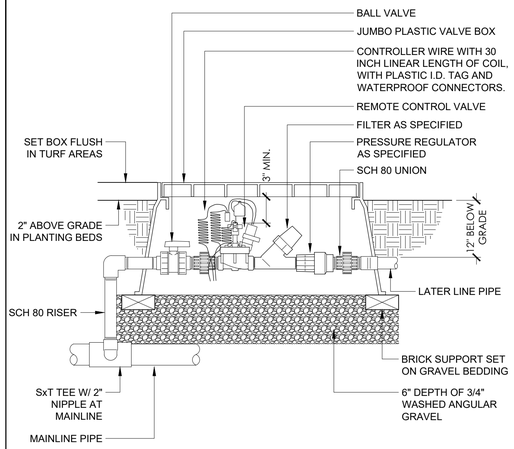
GRAPHIC SCALE: 1" = 20'
(24"x36" SHEET)

SHEET NAME

IRRIGATION DETAILS

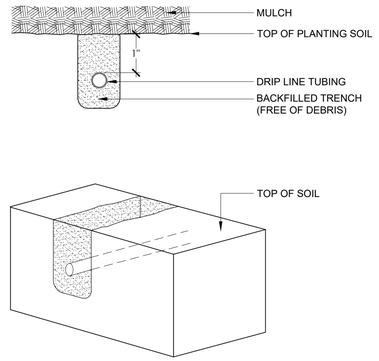
SHEET NUMBER

IRDT-01



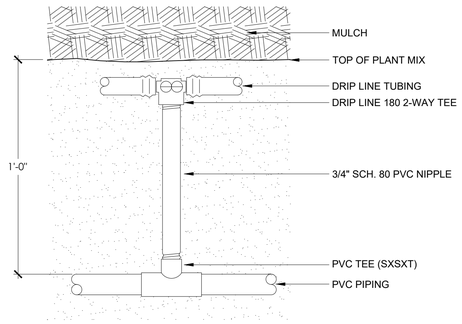
1 DRIP CONTROL VALVE

1 1/2" = 1'-0" P-UT20062-IRRI-02



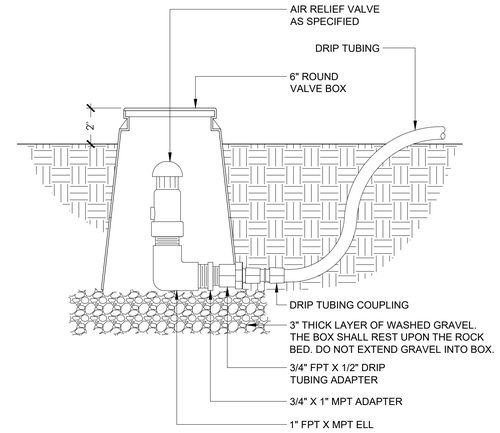
2 DRIP LINE TRENCH

1 1/2" = 1'-0" P-UT20062-IRRI-05



3 DRIP LINE CONNECTION

3" = 1'-0" P-UT20062-IRRI-04



4 DRIP AIR RELIEF VALVE

3" = 1'-0" P-UT20062-IRRI-01

NOTES:

1. INSTALL AT END OF DRIP LINE RUNS FOR WINTERIZATION IN THE FALL.

5 DRIP FLUSH VALVE

1 1/2" = 1'-0" P-UT20062-IRRI-03

6 DRIP LINE END FEED

1 1/2" = 1'-0" P-UT20062-IRRI-06

7 DRIP LINE CENTER FEED

1 1/2" = 1'-0" P-UT20062-IRRI-08

8 DRIP LINE TRIANGULAR AREA

1 1/2" = 1'-0" P-UT20062-IRRI-07

IRRIGATION NOTES:

1. ALL PIPE TO BE SCHEDULE 40 PVC PIPE. NO POLY PIPE SHALL BE INCLUDED. FITTINGS UP TO 1 1/2" MUST BE SCHEDULE 40 OR BETTER. FITTINGS LARGER THAN 1 1/2" MUST BE SCHEDULE 80 OR BETTER.
2. CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
3. PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
4. MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. LOCATE AUTOMATIC VALVE BOXES IN LAWN AREA.
5. LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM

6. INSTALL DRIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
7. CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES.
8. WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3' OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAIN LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 5 VALVES. ALL GROUND AND CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOME RUN" TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
9. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
10. IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
11. SPACE ALL SPRAY HEADS 2" AWAY FROM ANY HARDSCAPE.
12. CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
13. IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
14. MAIN LINES SHALL BE 24" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
15. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
16. IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
17. ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS. PLANS ARE DIAGRAMATIC IN SOME AREAS AND MAY SHOW ELEMENTS OUTSIDE OF PROPERTY LIMITS. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL ELEMENTS ON THE PROPERTY OF THE OWNER.
18. CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS WHILE AVOIDING OVERSPRAY ONTO BUILDINGS AND HARDSCAPES.
19. IRRIGATION CONTRACTOR SHALL PROVIDE AN AS-BUILT IRRIGATION PLAN UPON COMPLETION OF INSTALLATION AND PRIOR TO FINAL PAYMENT.
20. INSTALL A FLUSH CAP AT THE END OF EACH DRIP LINE FOR MAINTENANCE.
21. INSTALLATION SHALL COMPLY WITH ALL NATIONAL, STATE AND LOCAL LAWS AND ORDINANCES.

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PEC
PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
EMAIL: INFO@PEC.US.COM

PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT — LARS DONALD ANDERSON — No. 339519-5301 — 08-02-2016 — ELECTRONIC SEAL — STATE OF UTAH

PI:	LA
PM:	LA
DRAWN BY:	JW/ST
CHECKED BY:	BT
PLOT DATE:	11-002-2020

SUBMISSION DATE 11-02-2020 **PROJECT #** UT 20-062

NO.	REVISION	DATE
1	----	----
2	----	----
3	----	----
4	----	----
5	----	----
6	----	----
7	----	----
8	----	----
9	----	----
10	----	----

PLAN INFORMATION

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

N

0 10' 20' 40' 80'

GRAPHIC SCALE: 1" = 20'
(24"x36" SHEET)

SHEET NAME

IRRIGATION DETAILS

SHEET NUMBER

IRDT-02

When Recorded, Mail To:

Alpine City
20 North Main
Alpine, Utah 84004

Slope Easement

Utah County

_____, Grantor, of _____, County of _____, State of _____, hereby GRANT AND CONVEY to Alpine City, of Alpine, Utah 84004, Grantee, for the sum of _____dollars,

A perpetual easement upon part of a parcel of land with serial number 11-045-0250, as recorded at the office of the Utah County Recorder, for the purpose of constructing, maintaining, and repairing any slopes occasioned by or resulting from the improvement and maintenance of a storm detention basin facility as part of Parcel A Public Open Space Dedicated to Alpine City as shown on the Ridge at Alpine Subdivision Phase 4. Said easement is described as follows:

A PARCEL OF LAND LOCATED IN THE WEST HALF OF SECTION 18, TOWNSHIP 4 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT A BRASS MONUMENT MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE N.88°33'07"E. ALONG THE SECTION LINE A DISTANCE OF 1514.69 FEET; THENCE SOUTH A DISTANCE OF 2583.41 FEET; THENCE S. 12°33’03” E. A DISTANCE OF 78.66 FEET TO THE POINT OF BEGINNING:

AND RUNNING THENCE ALONG THE BOUNDARY OF THE RIDGE AT ALPINE SUBDIVISION PHASE 4 THE FOLLOWING TWO (2) COURSES 1) S.12°33'03"E. A DISTANCE OF 82.62 FEET, 2) THENCE S.61°09'00"E. A DISTANCE OF 179.97 FEET; THENCE S.64°17'23"W. A DISTANCE OF 53.35 FEET; THENCE N.54°01'02"W. A DISTANCE OF 101.68 FEET; THENCE N.46°35'23"W. A DISTANCE OF 60.36 FEET; THENCE N.00°53'22"W. A DISTANCE OF 89.40 FEET TO THE POINT OF BEGINNING.

CONTAINING 6445 SQ. FT.

GRANTOR, ITS HEIRS, AND ASSIGNS SHALL RETAIN FULL USE AND DOMAIN OVER THE ABOVE-DESCRIBED REAL PROPERTY EXCEPT THAT GRANTOR, ITS AGENTS, OR ASSIGNS SHALL NOT BE PERMITTED TO EXCAVATE OR STEEPEN THE FINISHED GRADE OF THE RETAINING SLOPE.

IN WITNESS WHEREOF, the hand of said Grantors has been set this _____day of _____, A.D. 20_____.

_____

STATE OF UTAH)
) SS.
COUNTY OF UTAH)

_____
Kevin & Robin Towle
_____(DATE)

On the date first above written personally appeared before me, _____&_____, the signers of the within and foregoing instrument, who duly acknowledged to me that they executed the same.

WITNESSMY HAND AND OFFICIAL STAMP THE DATE IN THIS CERTIFICATE FIRST ABOVE WRITTEN:

_____
Notary Public

THE RIDGE AT ALPINE PHASE 4

AUGUST 2020

A RESIDENTIAL DEVELOPMENT

ALPINE, UTAH

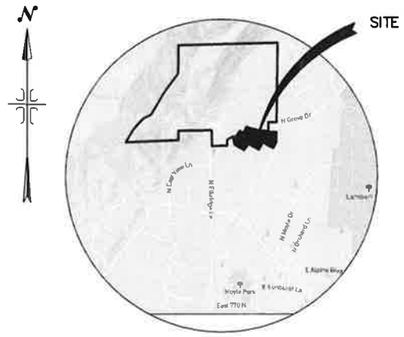
GENERAL

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS AND/OR REQUIREMENTS OF THE ALPINE CITY PUBLIC WORKS DEPARTMENT.
2. A PRE CONSTRUCTION CONFERENCE WILL BE HELD A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO START OF WORK. ALL CONTRACTORS, SUBCONTRACTORS AND/OR UTILITY CONTRACTORS, ALPINE CITY PUBLIC WORKS AND CITY'S ENGINEER SHOULD BE PRESENT.
3. ALL LOT DIMENSIONS, EASEMENTS AND CERTAIN OFF SITE EASEMENTS ARE TO BE TAKEN FROM THE PLAT OF ALPINE VIEW ESTATES SUBDIVISION.
4. ALL CONSTRUCTION STAKES MUST BE REQUESTED A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO PLANNED USE.
5. CERTAIN CONTROL POINTS WILL BE SET BY THE ENGINEER, OR HIS REPRESENTATIVE, WHICH ARE CRITICAL TO THE CONSTRUCTION STAKING OF THE PROJECT. THESE POINTS WILL BE DESIGNATED AT THE TIME THEY ARE SET AND THE CONTRACTOR SHALL BE NOTIFIED. DESTRUCTION OF THESE POINTS BY THE CONTRACTOR OR HIS SUBCONTRACTORS SHALL BE GROUNDS FOR CHARGING THE CONTRACTOR FOR REESTABLISHING SAID POINTS.
6. ALL CUT & FILL SLOPES SOT INCLUDED IN LOTS TO BE REVEGITATED WITH BROADCAST SEEDS TO MEET CITY STANDARDS UNLESS NOTED OTHERWISE.

ROADWAY/STORM DRAIN

1. ALL ROADWAY CONSTRUCTION SHALL MEET THE MINIMUM REQUIREMENTS OF ALPINE CITY'S TECHNICAL SPECIFICATIONS OR AS APPROVED IN THE PLANS HEREIN.
2. WHEN DISCREPANCIES OCCUR BETWEEN PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER. UNTIMELY NOTIFICATION SHALL NEGATE ANY CONTRACTORS CLAIM FOR ADDITIONAL COMPENSATION.
3. ALL STORM DRAIN PIPES TO BE RCP CLASS V OR APPROVED EQUAL UNLESS OTHERWISE NOTED.

CONDITIONS OF APPROVAL



VICINITY MAP
-NTS-

-INDEX OF PLAN SHEETS-

SEWER

1. ALL WORK SHALL BE DONE INACCORDANCE WITH THE LATEST ALPINE CITY DESIGN STANDARDS & PUBLIC IMPROVEMENT SPECIFICATIONS DRAWINGS OF ALPINE CITY.
2. FINAL APPROVAL AND ACCEPTANCE OF ALL SEWER CONSTRUCTION WILL BE BY ALPINE CITY.
3. UPON THE COMPLETION OF WORK, THE CONTRACTOR SHALL SUBMIT 3 SETS OF AS-BUILT PLANS TO ALPINE CITY & (1) SET TO NORTHERN ENGINEERING, INC.
4. HORIZONTAL AND VERTICAL SEPARATION OF CULINARY WATER AND SEWER SHALL BE IN COMPLIANCE WITH ALPINE CITY STANDARDS

WATER

1. THE WATER SYSTEM SHALL BE CONSTRUCTED TO CONFORM WITH THE STANDARDS SET FORTH IN THE "UTAH REGULATIONS FOR PUBLIC DRINKING WATER SYSTEMS", AND THE ALPINE CITY PUBLIC WORKS DEPARTMENT STANDARD SPECIFICATIONS AND DRAWINGS.
2. CONTRACTOR SHALL NOTIFY NORTHERN ENGINEERING, INC. THREE (3) WORKING DAYS BEFORE INITIAL CONSTRUCTION BEGINS AND SHALL ALSO REQUEST ALPINE CITY WATER DEPARTMENT INSPECTION OF WATER LINES AND APPURTENANCES TWENTY-FOUR (24) HOURS IN ADVANCE OF BACKFILLING.
3. CONTRACTOR TO FIELD VERIFY ALL VALVE BOX LID ELEVATIONS TO ASSURE THAT SAID LID ELEVATIONS MATCH FINAL STREET GRADE, AND ALL METER LID ELEVATIONS TO MATCH AN EXTENSION OF THE SIDEWALK GRADE.
4. UPON THE COMPLETION OF WORK, THE CONTRACTOR SHALL SUBMIT 3 SETS OF AS-BUILT PLANS TO ALPINE CITY & (1) SET TO NORTHERN ENGINEERING, INC.
5. WATER VALVE LIDS ARE TO BE LABELED "WATER" FOR CULINARY VALVES
6. HORIZONTAL AND VERTICAL SEPARATION OF CULINARY WATER AND SEWER SHALL BE IN COMPLIANCE WITH WITH ALPINE CITY STANDARDS
7. WATERLINES TO BE BEDDED IN GRANULAR MATERIAL. A MIN. OF 8" COVER OVER TOPS OF PIPE IS REQUIRED TO AVOID PENETRATION OF SUB BASE FROM ABOVE.

Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT

1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
07-30-20
STATE OF UTAH

NO.	REVISIONS	BY	DATE
5			
4			
3			
2			
1			

DESIGNED BY:	DATE:
DRAWN BY:	DATE:
CHECKED BY:	DATE:
APPROVED:	DATE:
COGO FILE:	DATE:
REV. COGO FILE:	DATE:

K:\3-20-030-00 Alpine Ridge\CAD\Preliminary\PHASING PLAN.dwg 7/30/2020 10:57 AM

Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT

1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

THE RIDGE AT ALPINE PHASE 4

OVERALL PHASING PLAN

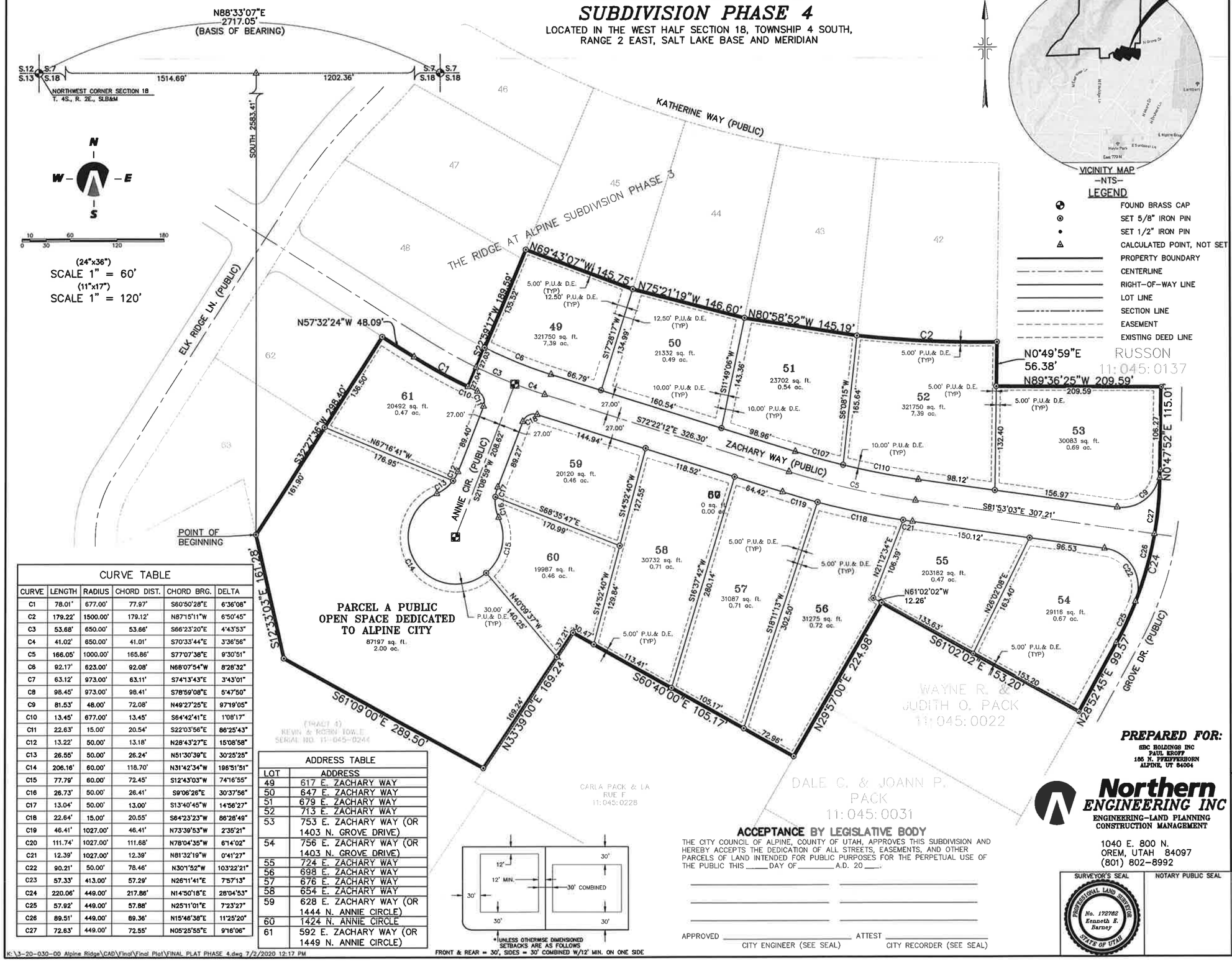
ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. 2

THE RIDGE AT ALPINE SUBDIVISION PHASE 4

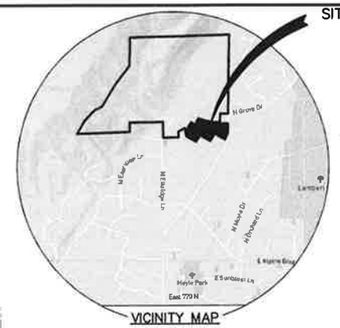
LOCATED IN THE WEST HALF SECTION 18, TOWNSHIP 4 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN



CURVE TABLE					
CURVE	LENGTH	RADIUS	CHORD DIST.	CHORD BRG.	DELTA
C1	78.01'	677.00'	77.97'	S60°50'28"E	6°36'08"
C2	179.22'	1500.00'	179.12'	N87°15'11"W	6°50'45"
C3	53.68'	650.00'	53.66'	S66°23'20"E	4°43'53"
C4	41.02'	650.00'	41.01'	S70°33'44"E	3°36'56"
C5	166.05'	1000.00'	165.86'	S77°07'38"E	9°30'51"
C6	92.17'	623.00'	92.08'	N68°07'54"W	8°28'32"
C7	63.12'	973.00'	63.11'	S74°13'43"E	3°43'01"
C8	98.45'	973.00'	98.41'	S78°59'08"E	5°47'50"
C9	81.53'	48.00'	72.08'	N49°27'25"E	97°19'05"
C10	13.45'	677.00'	13.45'	S64°42'41"E	1°08'17"
C11	22.63'	15.00'	20.54'	S22°03'56"E	86°25'43"
C12	13.22'	50.00'	13.18'	N28°43'27"E	15°08'58"
C13	26.55'	50.00'	26.24'	N51°30'39"E	30°25'25"
C14	206.16'	60.00'	116.70'	N31°42'34"W	196°51'51"
C15	77.79'	60.00'	72.45'	S12°43'03"W	74°16'55"
C16	26.73'	50.00'	26.41'	S9°06'26"E	30°37'56"
C17	13.04'	50.00'	13.00'	S13°40'45"W	14°56'27"
C18	22.64'	15.00'	20.55'	S64°23'23"W	86°28'49"
C19	46.41'	1027.00'	46.41'	N73°39'53"W	2°35'21"
C20	111.74'	1027.00'	111.68'	N78°04'35"W	6°14'02"
C21	12.39'	1027.00'	12.39'	N81°32'19"W	0°41'27"
C22	90.21'	50.00'	78.46'	N30°1'52"W	103°22'21"
C23	57.33'	413.00'	57.29'	N26°11'41"E	7°57'13"
C24	220.06'	449.00'	217.86'	N14°50'18"E	28°04'53"
C25	57.92'	449.00'	57.88'	N25°11'01"E	7°23'27"
C26	89.51'	449.00'	89.36'	N15°46'38"E	11°25'20"
C27	72.63'	449.00'	72.55'	N05°25'55"E	9°16'06"

ADDRESS TABLE	
LOT	ADDRESS
49	617 E. ZACHARY WAY
50	647 E. ZACHARY WAY
51	679 E. ZACHARY WAY
52	713 E. ZACHARY WAY
53	753 E. ZACHARY WAY (OR 1403 N. GROVE DRIVE)
54	756 E. ZACHARY WAY (OR 1403 N. GROVE DRIVE)
55	724 E. ZACHARY WAY
56	698 E. ZACHARY WAY
57	676 E. ZACHARY WAY
58	654 E. ZACHARY WAY
59	628 E. ZACHARY WAY (OR 1444 N. ANNIE CIRCLE)
60	1424 N. ANNIE CIRCLE
61	592 E. ZACHARY WAY (OR 1449 N. ANNIE CIRCLE)

*UNLESS OTHERWISE DIMENSIONED SETBACKS ARE AS FOLLOWS
FRONT & REAR = 30', SIDES = 30' COMBINED W/12' MIN. ON ONE SIDE



VICINITY MAP
-NTS-

LEGEND

- FOUND BRASS CAP
- SET 5/8" IRON PIN
- SET 1/2" IRON PIN
- CALCULATED POINT, NOT SET
- PROPERTY BOUNDARY
- CENTERLINE
- RIGHT-OF-WAY LINE
- LOT LINE
- SECTION LINE
- EASEMENT
- EXISTING DEED LINE

ACCEPTANCE BY LEGISLATIVE BODY

THE CITY COUNCIL OF ALPINE, COUNTY OF UTAH, APPROVES THIS SUBDIVISION AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS, AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC THIS _____ DAY OF _____ A.D. 20____.

APPROVED _____ ATTEST _____

CITY ENGINEER (SEE SEAL) CITY RECORDER (SEE SEAL)

SURVEYOR'S CERTIFICATE

I, KENNETH E. BARNEY, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR, AND THAT I HOLD A LICENSE IN ACCORDANCE WITH TITLE 58, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSING ACT, UTAH CODE ANNOTATED, 1953 AS AMENDED, CERTIFICATE NO. 172762. 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, HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS, AND EASEMENTS, HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH SECTION 17-23-17, UTAH CODE ANNOTATED, 1953 AS AMENDED, HAVE VERIFIED ALL MEASUREMENTS, AND HAVE PLACED MONUMENTS AS REPRESENTED ON THE PLAT. I FURTHER CERTIFY THAT EVERY EXISTING RIGHT-OF-WAY AND EASEMENT GRANT OF RECORD FOR UNDERGROUND FACILITIES, AS DEFINED IN SECTION 54-8a-2, UTAH CODE ANNOTATED,1953 AS AMENDED, AND FOR OTHER UTILITY FACILITIES, IS ACCURATELY DESCRIBED ON THIS PLAT, AND THAT THIS PLAT IS TRUE AND CORRECT.

DATE KENNETH E. BARNEY, P.L.S.

BOUNDARY DESCRIPTION

A PARCEL OF LAND LOCATED IN THE WEST HALF OF SECTION 18, TOWNSHIP 4 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT A BRASS MONUMENT MARKING THE NORTHWEST CORNER OF SAID SECTION 18; THENCE N.88°33'07"E. ALONG THE SECTION LINE A DISTANCE OF 1514.69 FEET AND SOUTH A DISTANCE OF 2583.41 FEET TO THE POINT OF BEGINNING, SAID POINT OF BEGINNING ALSO BEING THE SOUTHEAST CORNER OF LOT 63 OF THE RIDGE AT ALPINE SUBDIVISION PHASE 3 SUBDIVISION AS RECORDED AT THE UTAH COUNTY RECORDERS OFFICE:

AND RUNNING THENCE ALONG THE BOUNDARY OF THE RIDGE AT ALPINE SUBDIVISION PHASE 3 THE FOLLOWING EIGHT (8) COURSES 1) N.32°27'36"E. A DISTANCE OF 298.40 FEET, 2) THENCE S.57°32'24"E. A DISTANCE OF 48.09 FEET TO A POINT OF CURVATURE OF A 677.00-FOOT RADIUS TANGENT CURVE TO THE LEFT; 3) THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, 78.01 FEET, HAVING A CENTRAL ANGLE OF 06°36'08" AND A CHORD THAT BEARS S.60°50'28"E. A DISTANCE OF 77.97 FEET; 4) THENCE N.22°59'17"E. A DISTANCE OF 189.59 FEET; 5) THENCE S.69°43'07"E. A DISTANCE OF 145.75 FEET; 6) THENCE S.75°21'19"E. A DISTANCE OF 146.60 FEET; 7) THENCE S.80°58'52"E. A DISTANCE OF 145.19 FEET TO A POINT OF CURVATURE OF A 1500.00-FOOT RADIUS TANGENT CURVE TO THE LEFT; 8) THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE, 179.22 FEET, HAVING A CENTRAL ANGLE OF 06°50'45" AND A CHORD THAT BEARS S.87°15'11"E. A DISTANCE OF 179.12 FEET MORE OR LESS TO AN EXISTING FENCELINE; THENCE S.00°49'59"W. ALONG SAID EXISTING FENCELINE A DISTANCE OF 56.38 FEET; THENCE S.89°36'57"E. A DISTANCE OF 209.59 FEET MORE OR LESS TO THE WESTERLY RIGHT-OF-WAY LINE OF GROVE DRIVE; THENCE ALONG THE WESTERLY RIGHT-OF-WAY LINE OF GROVE DRIVE THE FOLLOWING THREE COURSES: 1) S.00°47'52"W. A DISTANCE OF 115.01 FEET TO A POINT OF CURVATURE OF A 449.00-FOOT RADIUS TANGENT CURVE TO THE RIGHT; 2) THENCE SOUTHWESTERLY ALONG THE ARC OF SAID CURVE 220.06 FEET, HAVING A CENTRAL ANGLE OF 28°04'53" AND A CHORD THAT BEARS S.14°50'18"W. A DISTANCE OF 217.86 FEET; 3) THENCE S.28°52'45"W. A DISTANCE OF 99.57 FEET; THENCE N.61°02'02"W. A DISTANCE OF 286.82 FEET; THENCE S.29°57'00"W. A DISTANCE OF 224.98 FEET; THENCE N.60°40'00"W. A DISTANCE OF 322.01 FEET; THENCE S.33°39'00"W. A DISTANCE OF 206.45 FEET; THENCE N.61°09'00"W. A DISTANCE OF 289.50 FEET; THENCE N.12°33'03"W. A DISTANCE OF 161.28 FEET TO THE POINT OF BEGINNING.

CONTAINING 11.19 ACRES OR 487,447 SQ FEET OF LAND MORE OR LESS.

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT WE, ALL OF THE UNDERSIGNED OWNERS OF ALL THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HEREON AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, STREETS, AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR PERPETUAL USE OF THE PUBLIC.

IN WITNESS HEREOF WE HAVE HEREUNTO SET OUR HANDS THIS _____ DAY OF _____, A.D. 20____.

BY: _____

ACKNOWLEDGMENT

STATE OF UTAH } S.S.
COUNTY OF SALT LAKE }

ON THIS _____ DAY OF _____, IN THE YEAR 20____ BEFORE ME, _____, PERSONALLY APPEARED _____, PROVED ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME IS SUBSCRIBED TO IN THIS DOCUMENT, AND ACKNOWLEDGED THAT HE OR SHE EXECUTED THE SAME.

NOTARY PUBLIC _____

NOTARY FULL NAME _____ A NOTARY COMMISSIONED IN UTAH

COMMISSION NUMBER _____ MY COMMISSION EXPIRES _____

ACKNOWLEDGMENT

STATE OF UTAH } S.S.
COUNTY OF SALT LAKE }

ON THIS _____ DAY OF _____, IN THE YEAR 20____ BEFORE ME, _____, PERSONALLY APPEARED _____, WHO DULY ACKNOWLEDGED TO ME THAT (S)HE IS A _____, [MEMBER WITH MANAGEMENT AUTHORITY] [MANAGER] OF _____, A UTAH LIMITED LIABILITY COMPANY, AND IS AUTHORIZED TO EXECUTE THE FOREGOING AGREEMENT IN ITS BEHALF AND THAT HE OR SHE EXECUTED IT IN SUCH CAPACITY.

NOTARY PUBLIC _____

NOTARY FULL NAME _____ A NOTARY COMMISSIONED IN UTAH

COMMISSION NUMBER _____ MY COMMISSION EXPIRES _____

PREPARED FOR:
SBC HOLDINGS INC
PAUL KROFF
165 N. PFEIFFERHORN
ALPINE, UT 84004

Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

THE RIDGE AT ALPINE SUBDIVISION PHASE 4

LOCATED IN THE WEST HALF SECTION 18, TOWNSHIP 4 SOUTH, RANGE 2 EAST, SALT LAKE BASE AND MERIDIAN

ALPINE _____ UTAH COUNTY, UTAH

SCALE: 1" = 60 FEET

SURVEYOR'S SEAL	NOTARY PUBLIC SEAL	CITY-COUNTY ENGINEER SEAL	CLERK-RECORDER SEAL
PROFESSIONAL LAND SURVEYOR No. 172762 Kenneth E. Barney STATE OF UTAH			

THE RIDGE AT ALPINE SUBDIVISION PHASE 4

N
W – E
S

0 10 40 120

(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

ELK RIDGE LN

EXISTING CURB & GUTTER SIDEWALK

TIE ON TO EXISTING ASPHALT AND CURB & GUTTER CONTRACT TO MATCH EXISTING.

PHASE 3
PHASE 4

ZACHARY WAY

ANNIE CIR

CONST. STOP & STREET SIGN

CONST. STOP & STREET SIGN

GROVE DR

OPEN SPACE

CORINNE HAMILTON & MICHAEL P RUSSON
DOCUMENT ENTRY NO. 20603–2013
11:045:0137

COCOLALLA LLC
11:045:0041

(TRACT 4)
KEVIN & ROBIN TOWLE
11:045:0244

CARLA PACK & LA RUE F
11:045:0228

WAYNE R. & JUDITH O. PACK
11:045:0022

DALE C. & JOANN P.. PACK
11:045:0031

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
07-30-20
STATE OF UTAH

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Northern ENGINEERING INC
ENGINEERING–LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802–8992

THE RIDGE AT ALPINE PHASE 4

SITE PLAN

ALPINE CITY, UTAH

JOB NO. 3–20–030

SHEET NO. 4

N
W – E
S

5 20 80
0 10 40 120

(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

ELK RIDGE LN
EX.6"IRR
EX.8"CUL
EX.6"IRR
PHASE 3
PHASE 4
PHASE 3
PHASE 4
ZACHARY WAY
ANNIE CIR
GROVE DR
EX.8"CUL

47 45 48 46 45 44 62 63 61 49 50 51 52 53 59 58 57 56 55 54 60

CONNECT TO EXISTING 8" CULINARY WATER LINE CONTRACTOR TO FIELD VERIFY

CONST. 1.25" HDPE SEWER LATERAL

WATER LATERAL W/METER (TYP)

IRR. LATERAL (TYP)

2" PVC PRESSURIZED SEWER LINE

CONST. 4" SEWER LATERAL @ 2.00%

4' SSMH #18
RIM ELEV=5201.25
STA=11+11.35, 7.1' RT
8" INV IN= 5191.45
8" INV OUT= 5191.25

4' SSMH #17
RIM ELEV=5201.11
STA=8+42.91, 10.1' RT
8" INV OUT= 5192.81

5' SSMH #19
RIM ELEV=5200.91
STA=12+36.35, 6.5' RT
8" INV IN= 5190.62
8" INV OUT= 5190.42
POUR IN PLACE BASE

CONNECT TO EXISTING 8" CULINARY WATER LINE CONTRACTOR TO FIELD VERIFY

OPEN SPACE

CORINNE HAMILTON & MICHAEL P RUSSON
DOCUMENT ENTRY NO. 20603-2013
11:045:0137

COCOLALLA LLC
11:045:0041

(TRACT 4)
KEVIN & ROBIN TOWLE
11:045:0244

CARLA PACK & LA RUE F
11:045:0228

WAYNE R. & JUDITH O. PACK
11:045:0022

DALE C. & JOANN P.. PACK
11:045:0031

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
07-30-20
STATE OF UTAH

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CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

THE RIDGE AT ALPINE PHASE 4

UTILITY PLAN

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. 5

N
W – E
S

0 5 10 20 40 80 120

(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

ELK RIDGE LN

PHASE 3
PHASE 4

15"SD

EX.15"SD

EX.30"

EX.15"

ANNIE CIR

ZACHARY WAY

GROVE DR

49
EX.5' SDMH #16
RIM ELEV=5179.66
STA=3+66.11, -4.9' LT
15" INV IN= 5172.30
15" INV OUT= 5172.30

5' SDMH #15
RIM ELEV=5179.54
STA=4+03.30, -5.3' LT
15" INV IN= 5175.55
15" INV OUT= 5175.55

50
5' SDMH #14
RIM ELEV=5180.69
STA=4+88.46, -4.4' LT
15" INV IN= 5173.67
15" INV OUT= 5173.67

51

EX.EX. 4'X4' SDCB #8
GRATE ELEV=5187.79
STA=6+41.30, 1.8' RT
30" INV IN= 5177.95
30" INV OUT= 5177.95

52

53

EX.5' SDMH #25
RIM ELEV=5180.14
STA=3+32.98, -2.3' LT
15" INV IN= 5174.32
15" INV OUT= 5174.32

61

EX.4'x4' SDBOX #30
W/5' MH LID
RIM ELEV=5179.69
STA=3+75.26, 0.3' RT
30" INV IN= 5174.84
30" INV OUT= 5174.84

59

EX.4'x4' SDBOX #29
W/5' MH LID
RIM ELEV=5180.62
STA=4+81.96, 0.4' RT
30" INV IN= 5175.62
30" INV OUT= 5175.62

5' SDMH #13
RIM ELEV=5188.53
STA=6+53.77, -2.5' LT
15" INV IN= 5182.55
15" INV OUT= 5182.55

SD INLET BOX #35
GRATE ELEV=5174.09
15" INV OUT= 5168.04

5' SDMH #34
RIM ELEV=5173.75
STA=2+09.09, 7.2' RT
15" INV IN= 5167.06
15" INV OUT= 5167.06

SD INLET BOX #34
GRATE ELEV=5172.78
15" INV IN= 5165.90
15" INV OUT= 5165.90

4'x4' SDBOX #17
GRATE ELEV=5163.00
15" INV IN= 5157.00
15" INV OUT= 5157.00
15" INV OUT= 5158.38

OPEN SPACE

END SECTION #2
15" INV IN= 5158.50

EX.4'x4' SDBOX #31
W/5' MH LID
RIM ELEV=5173.34
30" INV IN= 5164.80
30" INV OUT= 5164.80

60
EX.4'x4' SDBOX #32
W/5' MH LID
RIM ELEV=5163.08
30" INV IN= 5152.45
15" INV IN= 5156.91
30" INV OUT= 5152.45

END SECTION #1
30" INV IN= 5151.77

47 48 45 46 44 62 63 58 57 56 55 54

PHASE 3
PHASE 4

CORINNE HAMILTON & MICHAEL P RUSSON
DOCUMENT ENTRY NO. 20603-2013
11:045:0137

COCOLALLA LLC
11:045:0041

(TRACT 4)
KEVIN & ROBIN TOWLE
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11:045:0228

WAYNE R. & JUDITH O. PACK
11:045:0022

DALE C. & JOANN P.. PACK
11:045:0031

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
07-30-20
STATE OF UTAH

NO.	REVISIONS	BY	DATE
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Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

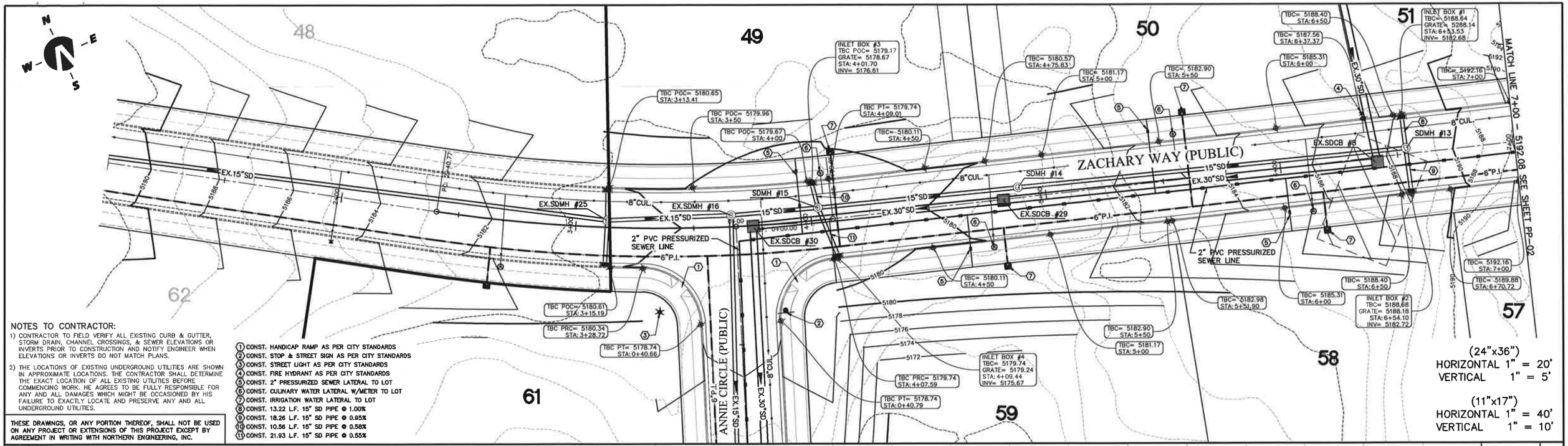
THE RIDGE AT ALPINE PHASE 4

GRADING & DRAINAGE PLAN

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. 6



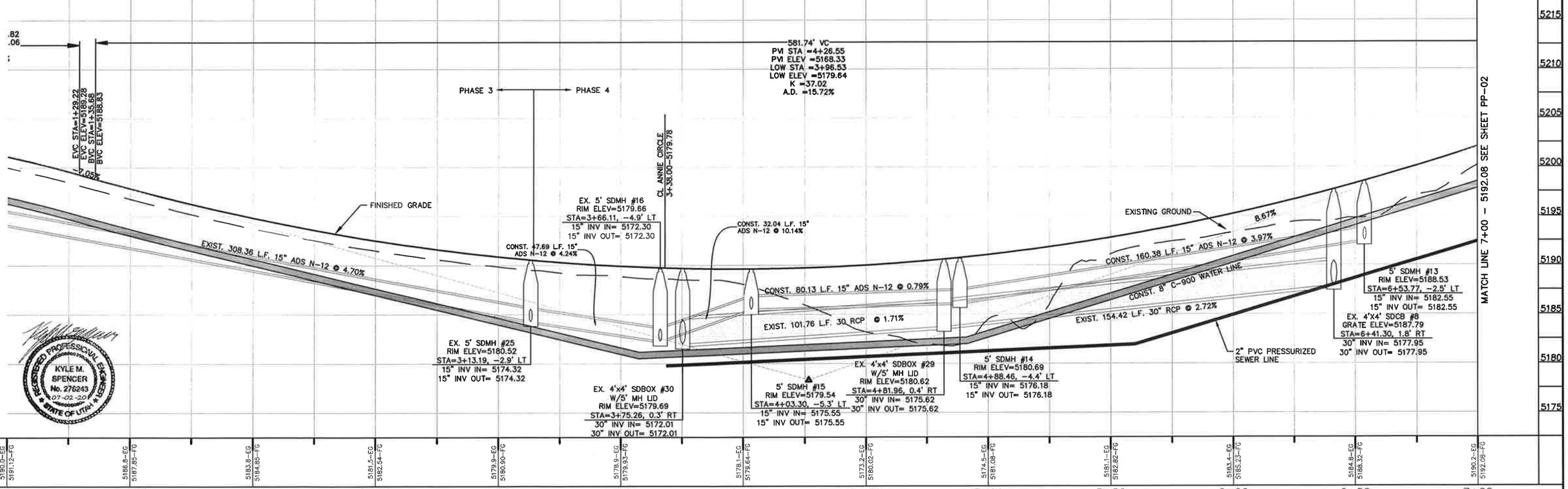
NOTES TO CONTRACTOR:

1) CONTRACTOR TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, CHANNEL CROSSINGS, & SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PLANS.
2) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

(1) CONST. HANDICAP RAMP AS PER CITY STANDARDS
(2) CONST. STOP & STREET SIGN AS PER CITY STANDARDS
(3) CONST. STREET LIGHT AS PER CITY STANDARDS
(4) CONST. FIRE HYDRANT AS PER CITY STANDARDS
(5) CONST. 2" PRESSURIZED SEWER LATERAL TO LOT
(6) CONST. CULINARY WATER LATERAL W/METER TO LOT
(7) CONST. IRRIGATION WATER LATERAL TO LOT
(8) CONST. 13.22 L.F. 15" SD PIPE @ 1.00%
(9) CONST. 18.26 L.F. 15" SD PIPE @ 0.85%
(10) CONST. 10.56 L.F. 15" SD PIPE @ 0.58%
(11) CONST. 21.93 L.F. 15" SD PIPE @ 0.55%

(24"x36")
HORIZONTAL 1" = 20'
VERTICAL 1" = 5'

(11"x17")
HORIZONTAL 1" = 40'
VERTICAL 1" = 10'



KYLE M. SPENCER No. 276243 07-02-20 REGISTERED PROFESSIONAL ENGINEER STATE OF UTAH

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Northern ENGINEERING INC
ENGINEERING–LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802–8992

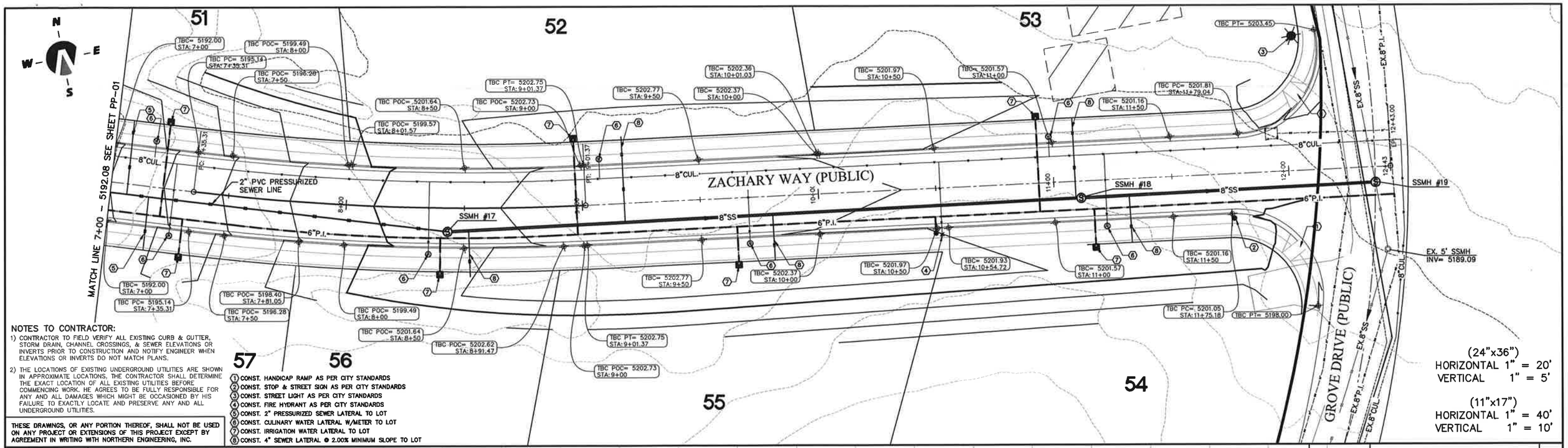
THE RIDGE AT ALPINE PHASE 4

ZACHARY WAY STA. 1+00 – 7+00

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. PP–01



NOTES TO CONTRACTOR:

1) CONTRACTOR TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, CHANNEL CROSSINGS, & SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PLANS.
2) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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(3) CONST. STREET LIGHT AS PER CITY STANDARDS
(4) CONST. FIRE HYDRANT AS PER CITY STANDARDS
(5) CONST. 2" PRESSURIZED SEWER LATERAL TO LOT
(6) CONST. CULINARY WATER LATERAL W/METER TO LOT
(7) CONST. IRRIGATION WATER LATERAL TO LOT
(8) CONST. 4" SEWER LATERAL @ 2.00% MINIMUM SLOPE TO LOT

(24"x36")
HORIZONTAL 1" = 20'
VERTICAL 1" = 5'

(11"x17")
HORIZONTAL 1" = 40'
VERTICAL 1" = 10'

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1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
07-02-20
STATE OF UTAH

THE RIDGE AT ALPINE PHASE 4

ZACHARY WAY STA. 7+00 - 12+43

ALPINE CITY, UTAH

JOB NO. 3-20-030

SHEET NO. PP-02

(1) CONST. HANDICAP RAMP AS PER CITY STANDARDS
(2) CONST. STOP & STREET SIGN AS PER CITY STANDARDS
(3) CONST. STREET LIGHT AS PER CITY STANDARDS
(4) CONST. FIRE HYDRANT AS PER CITY STANDARDS
(5) CONST. 2" PRESSURIZED SEWER LATERAL TO LOT
(6) CONST. CULINARY WATER LATERAL W/METER TO LOT
(7) CONST. IRRIGATION WATER LATERAL TO LOT
(8) CONST. 10.56 L.F. 15" SD PIPE @ 0.58%
(9) CONST. 21.93 L.F. 15" SD PIPE @ 0.55%
(10) CONST. 12.33 L.F. 15" SD PIPE @ 0.75%
(11) CONST. 65.54 L.F. 15" SD PIPE @ 1.50%

NOTES TO CONTRACTOR:

1) CONTRACTOR TO FIELD VERIFY ALL EXISTING CURB & GUTTER, STORM DRAIN, CHANNEL CROSSINGS, & SEWER ELEVATIONS OR INVERTS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER WHEN ELEVATIONS OR INVERTS DO NOT MATCH PLANS.
2) THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. HE AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

(24"x36")
HORIZONTAL 1" = 20'
VERTICAL 1" = 5'

(11"x17")
HORIZONTAL 1" = 40'
VERTICAL 1" = 10'

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
07-30-20
STATE OF UTAH

NO.	REVISIONS	BY	DATE
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ENGINEERING–LAND PLANNING
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1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

THE RIDGE AT ALPINE PHASE 4

ANNIE CIRCLE
ALPINE CITY, UTAH

JOB NO. 3-20-030
SHEET NO. PP-03

① CONST. 65.54 L.F. 15" RCP SD PIPE @ 1.50%
② CONST. HANDICAP RAMP AS PER CITY STANDARDS
③ CONST. 2" PRESSURIZED SEWER LATERAL TO LOT
④ CONST. CULINARY WATER LATERAL W/METER TO LOT
⑤ CONST. IRRIGATION WATER LATERAL TO LOT
⑥ CONTRACTOR TO PLACE & POSITION BATHROOM UNIT AS SHOWN PRIOR TO PARKING LOT CONSTRUCTION. (SEE DETAIL DT-032) CONTRACTOR REQ'D TO INSTALL & FINISH CONCRETE FLATWORK AROUND BATHROOM UNIT.
⑦ INSTALL SANITARY SEWER CLEAN OUT (ALPINE STD. DWG # 17a) WITH CONCRETE COLLAR (ALPINE STD. DWG # 27a) AND TRAFFIC RATED CLEAN OUT CAP (D&L SUPPLY H-8030) AS REQUIRED BY ALPINE CITY.

N
W — E
S

5 20 80
0 10 40 120

(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

ELK RIDGE LN

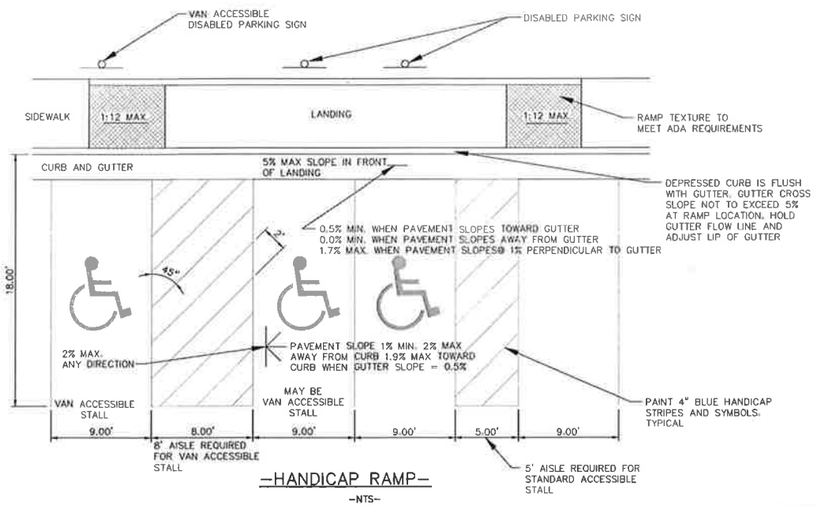
ANNIE CIR

TBC=5177.25
TBC PC=5177.02
TBC PT=5176.79
TBC=5176.76
TBC=5176.26
CLEAN OUT #2
TBC PC=5176.06
TBC PT=5175.94
BATHROOM F.F.= 5176.30
8.00'
9.00' (TYP)
5.00'
24.00'
19.00' (TYP)
TBC=5175.95
TBC PC=5175.73
TBC PT=5175.80
TBC=5175.81
CLEAN OUT #1
TBC PT=5175.07
TBC PC=5174.85
TBC POC=5174.94
TBC POC=5174.40
INLET BOX #35
TBC=5174.59
GRATE=5174.09
15" INV= 5168.04
TBC=5174.59
EX.15"SD
EX.30"SD
8"C/L
2" PVC PRESSURIZED SEWER LINE
IRR

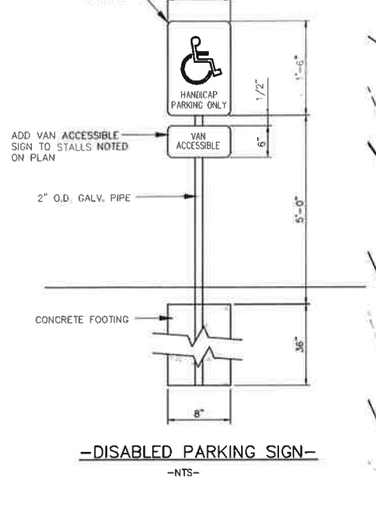
3" ASPHALT
8" BASE

TYPICAL ASPHALT PAVEMENT SECTION
-NTS-

LEGEND
PROPOSED APWA TYPE "E" CURB & GUTTER
PROPOSED REVERSE LIP CURB & GUTTER



-HANDICAP RAMP-
-NTS-



-DISABLED PARKING SIGN-
-NTS-

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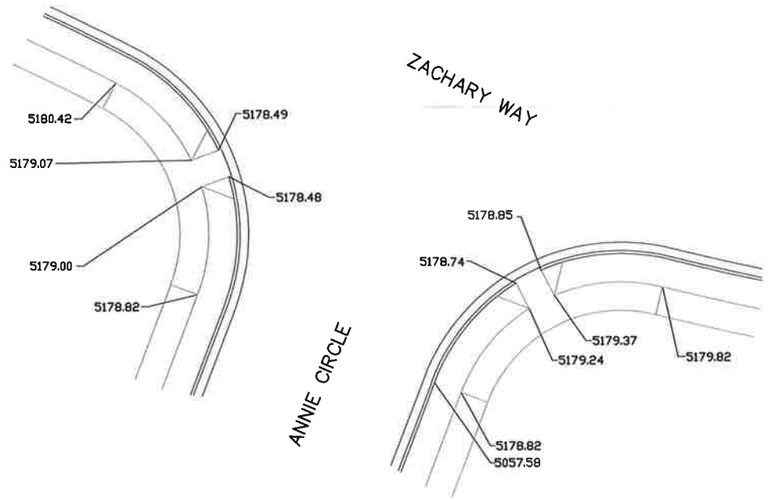
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

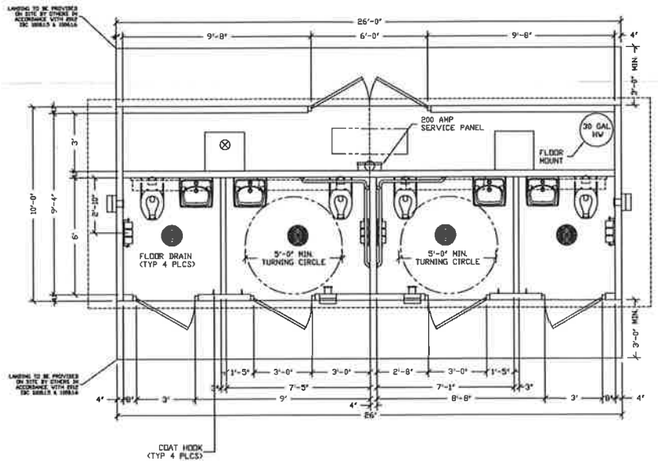
THE RIDGE AT ALPINE PHASE 4

PARK PARKING LOT
ALPINE CITY, UTAH

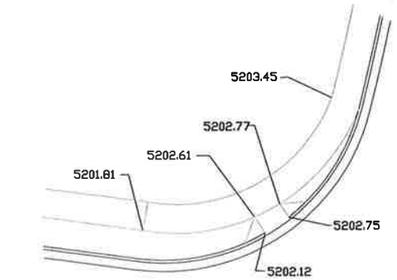
JOB NO. 3-20-030
SHEET NO. PK-01



ADA RAMP AT ZACHARY WAY & ANNIE CIRCLE

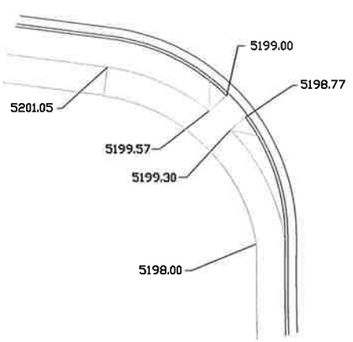


FLOOR PLAN

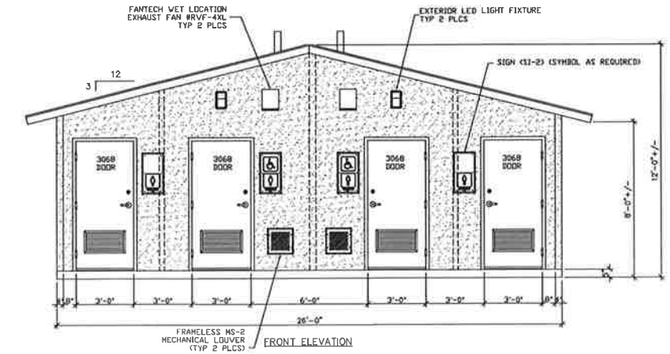


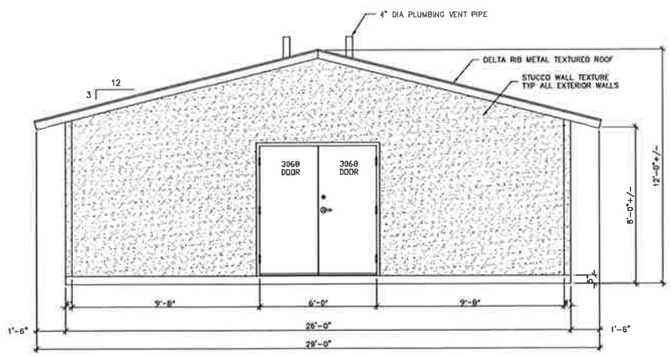
ZACHARY WAY

GROVE DR.



ADA RAMP AT GROVE DR. & ZACHARY WAY





4 DOOR DAKOTA SANTIAGO RESTROOM

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Northern ENGINEERING INC
ENGINEERING–LAND PLANNING
CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802–8992

ALPINE VIEW ESTATES

ADA RAMP DETAILS

ALPINE, UTAH

JOB NO. 3-17-055

SHEET NO. DT-02

LEGEND

PROPOSED CURB & GUTTER

PROPOSED SILT FENCE (SEE SHEET ECP-02)

PROPOSED VEHICLE TRACKING CONTROL

PROPOSED OFFSITE CURB INLET PROTECTION (SEE SHEET ECP-02)

CONCRETE WASH OUT AREA - DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAIN, OPEN DITCHES, OR STREET. WHEN WASHING CONCRETE TO REMOVE FINE PARTICLES AND EXPOSE THE AGGREGATE, AVOID CREATING RUNOFF BY DRAINING THE WATER WITH IN THE BERM OR LEVEL AREA. DISPOSE HARDENED CONCRETE ON A REGULAR BASIS OR AS NEEDED

PORTABLE TOILET

N W E S

0 5 10 20 40 80 120

(24"x36")
SCALE 1" = 40'
(11"x17")
SCALE 1" = 80'

ELK RIDGE LN
PHASE 3
PHASE 4
EX.INLET BOX 2
SDMH #16
SDMH #30
INLET BOX 3
SDMH #15
SDMH #13
SDMH #14
EX.INLET BOX 1
INLET BOX 4
INLET BOX 1
INLET BOX 2
SDMH #8
SDMH #13
ZACHARY WAY
JANNIE DR
INLET BOX 34
SDMH #31
SDMH #17
SDMH #32
OPEN SPACE
END SECTION
END SECTION
END SECTION
GROVE DR
COCOLALLA LLC
11:045:0041
(TRACT 4)
KEVIN & ROBIN TOWLE
11:045:0244
CARLA PACK & LA RUE F
11:045:0228
WAYNE R. & JUDITH O. PACK
11:045:0022
DALE C. & JOANN P.. PACK
11:045:0031

REGISTERED PROFESSIONAL ENGINEER
KYLE M. SPENCER
No. 276243
07-02-20
STATE OF UTAH

NO.	REVISIONS	BY	DATE
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Northern ENGINEERING INC
ENGINEERING-LAND PLANNING
CONSTRUCTION MANAGEMENT

1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

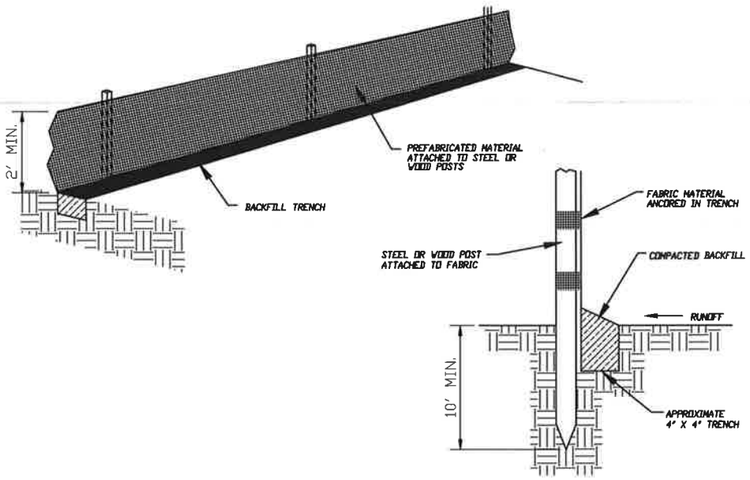
THE RIDGE AT ALPINE PHASE 4

EROSION CONTROL PLAN

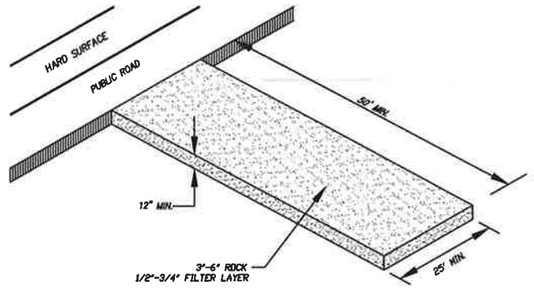
ALPINE CITY, UTAH

JOB NO. 3-20-030

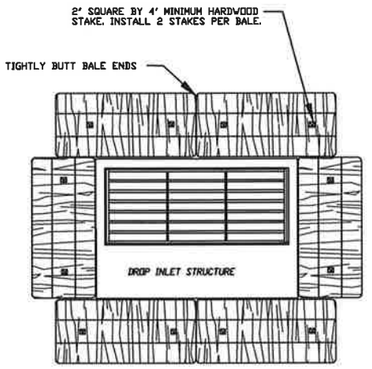
SHEET NO. ECP-1



SILT FENCE DETAIL
-NTS-

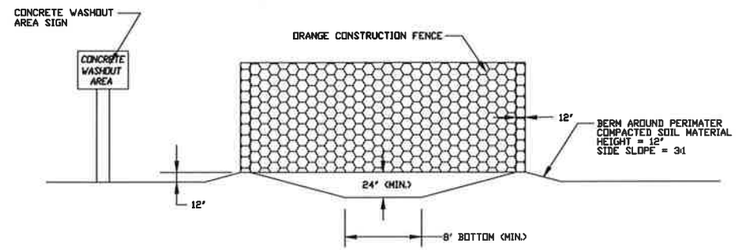


VEHICLE TRACKING DETAIL
NOT TO SCALE

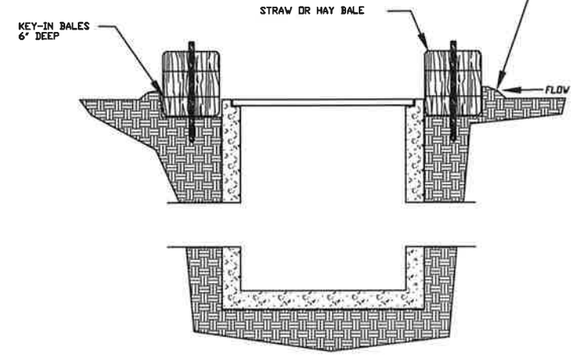


PLAN VIEW

NOTES:
1. KEY-IN BALES IN AN EXCAVATED TRENCH AROUND THE PERIMETER OF THE DROP INLET STRUCTURE THAT IS 6' DEEP BY A BALES WIDTH WIDE.
2. OVERLAP ON CORNERS MUST BE AT LEAST HALF A BALE WIDE.
3. DEPENDING ON THE SIZE OF THE INLET STRUCTURE, MORE BALES THAN SHOWN MAY BE REQUIRED.
4. IN MEDIAN AREAS, CONSTRUCT SO THAT THE TOPS OF THE BALES ARE NOT HIGHER THAN THE ADJACENT ROADWAY.
5. MAINTAIN A PROPERLY FUNCTIONING SEDIMENT BARRIER THROUGHOUT CONSTRUCTION OR UNTIL DISTURBED AREAS CONTRIBUTING TO THE INLET HAVE BEEN PAVED OR VEGETATED.
6. REMOVE SEDIMENT AS IT ACCUMULATES AND PLACE IT IN A STABLE AREA APPROVED BY THE ENGINEER.

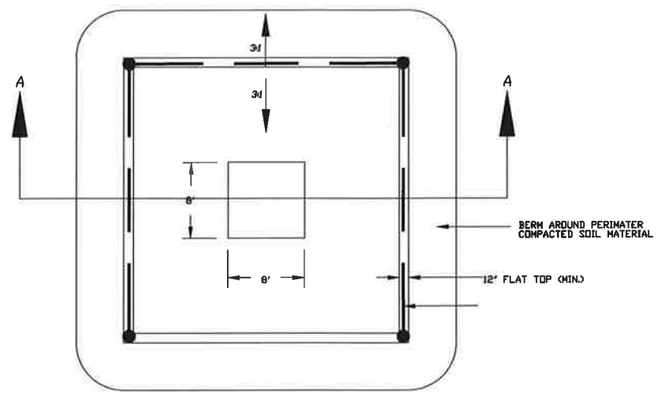


SECTION A-A



SECTION

STRAW BALE DROP INLET PROTECTION DETAIL
-NTS-



CONCRETE WASHOUT PIT
-NTS-

GENERAL NOTES:

1. AT ALL TIMES DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREVENTING AND CONTROLLING ONSITE EROSION DUE TO WIND AND RUNOFF. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL FACILITIES SHOWN.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING DRAINAGE AND EROSION CONTROL FACILITIES AS REQUIRED. STREETS SHALL BE KEPT CLEAN OF DEBRIS FROM SITE TRAFFIC.
3. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DUE TO UNFORESEEN PROBLEMS OR IF THE PLAN DOES NOT FUNCTION AS INTENDED. A REPRESENTATIVE OF THE CITY OR COUNTY PUBLIC WORKS DEPARTMENT MAY REQUIRE ADDITIONAL CONTROL DEVICES UPON INSPECTION OF PROPOSED FACILITIES.
4. CONTRACTOR SHALL USE VEHICLE TRACKING CONTROL AT ALL LOCATIONS WHERE VEHICLES WILL ENTER OR EXIT THE SITE. CONTROL FACILITIES WILL BE MAINTAINED WHILE CONSTRUCTION IS IN PROGRESS, MOVED WHEN NECESSARY, AND REMOVED WHEN THE SITE IS PAVED.
5. ALL SWPPP DRAINAGE SYSTEMS USING A GEOTECHNICAL FABRIC FOR INLET GRATE PROTECTION MUST HAVE FABRIC REGULARLY CLEANED (14 DAY INTERVAL MAX, MORE FREQUENTLY IF NEEDED) TO INSURE THAT SILT DOES NOT FORM IMPERMEABLE BARRIER OVER INLET.

NO.	REVISIONS	BY	DATE
5			
4			
3			
2			
1			

DESIGNED BY: DATE:
DRAWN BY: DATE:
CHECKED BY: DATE:
APPROVED: DATE:
COGO FILE: DATE:
REV. COGO FILE: DATE:

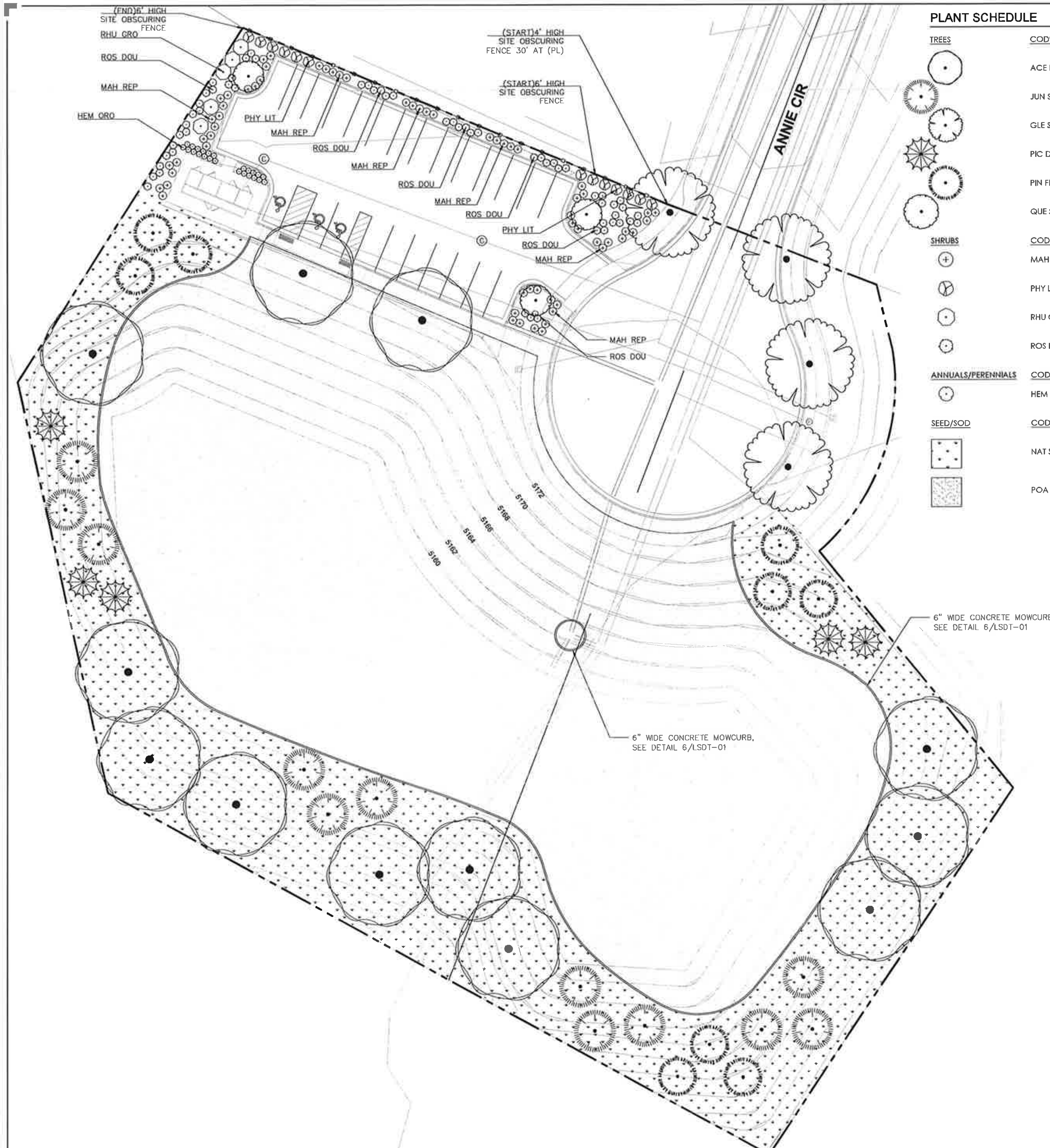
KN3-20-030-00 Alpine Ridge\CAD\Preliminary\ECP-02.dwg 6/29/2020 3:11 PM

Northern ENGINEERING INC
ENGINEERING-LAND PLANNING CONSTRUCTION MANAGEMENT
1040 E. 800 N.
OREM, UTAH 84097
(801) 802-8992

THE RIDGE AT ALPINE PHASE 4

EROSION CONTROL DETAILS
ALPINE, UTAH

JOB NO. 3-20-030
SHEET NO. ECP-02



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	CONT	SIZE
	ACE RBR	12	ACER RUBRUM / RED MAPLE	B&B	2" CAL
	JUN SKY	12	CUPRESSOS SEMPERVTRENS `GLAUCA` / DEODORA CEDAR	B & B	6`-8` HT.
	GLE SHA	4	GLEDITSIA TRIACANTHOS INERMIS `SHADEMASTER` TM / SHADEMASTER LOCUST	B & B	2" CAL
	PIC DEN	5	PICEA GLAUCA `DENSATA` / BLACK HILLS SPRUCE	B & B	6`-8` HT.
	PIN FLE	9	PINUS FLEXILIS `VANDERWOLF`S PYRAMID` / VANDERWOLF`S PYRAMID PINE	B & B	6`-8` HT.
	QUE SKY	3	QUERCUS ROBUR `SKYROCKET` / ENGLISH OAK	B & B	2" CAL
SHRUBS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	
	MAH REP	63	MAHONIA REPENS / CREEPING MAHONIA	5 GAL	
	PHY LIT	13	PHYSOCARPUS OPULIFOLIUS `LITTLE DEVIL` TM / DWARF NINEBARK	5 GAL	
	RHU GRO	5	RHUS AROMATICA `GRO-LOW` / GRO-LOW FRAGRANT SUMAC	5 GAL	
	ROS DOU	58	ROSA X `DOUBLE KNOCKOUT` / DOUBLE KNOCKOUT ROSE	5 GAL	
ANNUALS/PERENNIALS	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	
	HEM ORO	24	HEMEROCALLIS X `STELLA DE ORO` / STELLA DE ORO DAYLILY	1 GAL	
SEED/SOD	**CODE**	**QTY**	**BOTANICAL / COMMON NAME**	**CONT**	
	NAT SEE	27,753 SF	NATIVE SEED MIX	SEED	
	POA PRA	47,746 SF	POA PRATENSIS / KENTUCKY BLUEGRASS BLEND	SEED	

NATIVE SEED MIX:

SOURCE: GRANITE SEED:

MIX: ROCKY MOUNTAIN WILDFLOWER SEED

LEWIS BLUE FLAX, PURPLE CONEFLOWER, ROCKY MT. IRIS, LANCE-LEAVED COREOPSIS, LUPINE SPECIES, BLANKET FLOWER, SWEET ANISE, PENSTEMON SPECIES, BLACK-EYED SUSAN, MEXICAN HAT, PRAIRIE CONEFLOWER, COLORADO COLUMBINE, ASPEN DAISY, SHOWY GOLDENEYE, ICELAND POPPY, PAINTBRUSH SPECIES, ASTER SPECIES.

RATE: 1 (BULK) POUND PER 2,000 SQUARE FEET

PLANTING NOTES:

1. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN THE QUANTITIES AND SIZES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON ALL DRAWINGS. ALL QUANTITIES SHOWN ON THE DRAWINGS ARE FOR CONVENIENCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE QUANTITIES.
2. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA).
3. NO PLANT SHALL BE PUT INTO THE GROUND BEFORE ROUGH GRADING HAS BEEN FINISHED AND APPROVED BY PROJECT MANAGER OR LANDSCAPE ARCHITECT.
4. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS THE PLANT'S ORIGINAL GRADE IN ITS CONTAINER (i.e. DO NOT SET ROOT FLAIR OF PLANT BELOW TOP OF FINISHED GRADE).
5. ALL PLANTS SHALL BE BALLED AND WRAPPED OR CONTAINER GROWN AS SPECIFIED. NO CONTAINER GROWN STOCK WILL BE ACCEPTED IF IT IS ROOT BOUND. ALL ROOT WRAPPING MATERIAL MADE OF SYNTHETICS OR PLASTICS SHALL BE REMOVED AT TIME OF PLANTING AND WITH CONTAINER GROWN STOCK, THE CONTAINER SHALL BE REMOVED AND THE CONTAINER BALL SHALL BE CUT THROUGH THE SURFACE IN TWO VERTICAL LOCATIONS.
6. ALL PLANTS SHALL BE INSTALLED AS PER DETAILS AND THE CONTRACT SPECIFICATIONS.
7. ALL PLANTS AND STAKES SHALL BE SET PLUMB UNLESS OTHERWISE SPECIFIED.
8. ALL PLANTS SHALL BE INSTALLED AT LEAST 24" FROM BACK OF CURB OR SIDEWALK EXCEPT FOR 1 GALLON PLANTS THAT MAY BE INSTALLED AT LEAST 18" FROM BACK OF CURB OR SIDEWALK.
9. THE CONTRACTOR SHALL PROVIDE BACKFILL MIX AS PER THE CONTRACT SPECIFICATIONS.
10. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL THEN BE WATERED ON A REGULAR SCHEDULE DURING THE FIRST GROWING SEASON.
11. THE CONTRACTOR SHALL WARRANTY ALL PLANT MATERIAL FOR ONE-YEAR AFTER DATE OF FINAL ACCEPTANCE.
12. CONTRACTOR SHALL PRUNE ANY NEWLY PLANTED TREES IF DIRECTED BY THE LANDSCAPE ARCHITECT OR CITY REPRESENTATIVE.
13. REMOVE ENTIRE WIRE CAGE FROM ALL ROOT BALLS.
14. CUT AND REMOVE BURLAP FROM TOP $\frac{1}{3}$ OF ROOT BALL.
15. ALL EXCESS BURLAP, WIRE CAGES, PLASTIC PLANTING POTS, OR OTHER LITTER FROM PLANTING INSTALLATION SHALL BE CLEANED UP AND REMOVED FROM THE SITE BY THE CONTRACTOR.
16. CONTRACTOR SHALL SUBMIT PHOTOS OF OR REVIEW THE PLANT MATERIAL AT THE SOURCE WITH THE LANDSCAPE ARCHITECT OR CITY REPRESENTATIVE PRIOR TO SHIPPING OR DIGGING.
17. PLANT TREES, SHRUBS, AND PERENNIALS PER DETAILS ON SHEET LSDT-01.

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PEC
PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
EMAIL: INFO@PEC.US.COM

PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT LARS DONALD ANDERSON No. 319519-5301 STATE OF UTAH

PI: LA
PM: LA
DRAWN BY: JW/ST
CHECKED BY: BT
PLOT DATE: 08-27-2020

SUBMISSION DATE	PROJECT #
08-31-2020	UT 20-062

NO.	REVISION	DATE
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N

0 10' 20' 40' 80'

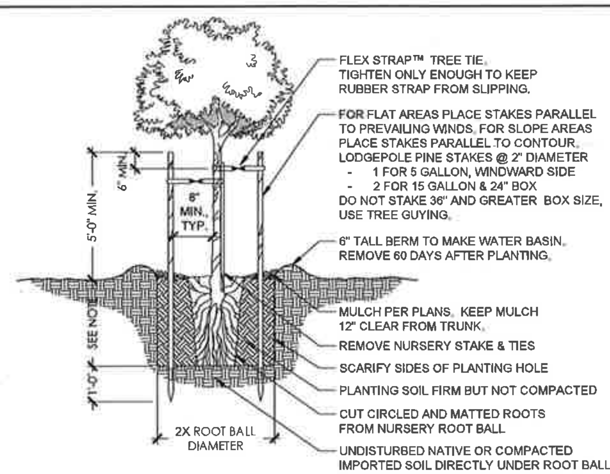
GRAPHIC SCALE: 1" = 20'
(24"x36" SHEET)

SHEET NAME

PLANTING PLAN

SHEET NUMBER

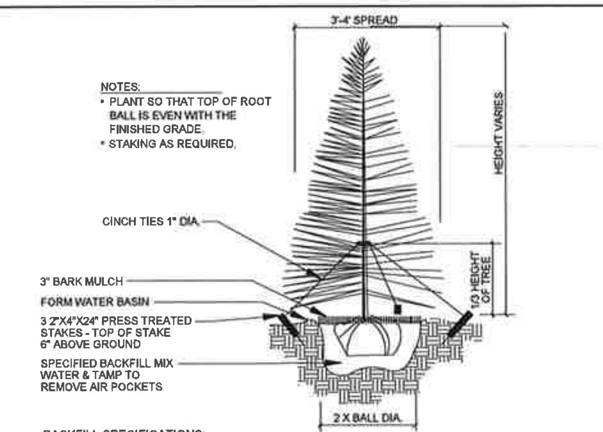
LS-01



NOTES:

1. PLANT PIT DEPTH TO BE 1" LESS THAN ROOT BALL DEPTH. CROWN BOTTOM OF PIT SO THAT TREE WILL SIT AT 3" ABOVE GRADE.

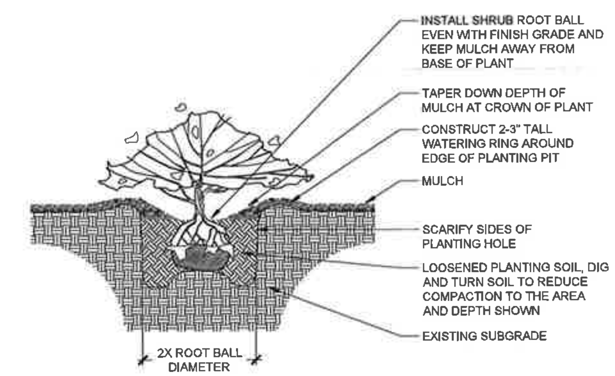
1 TREE PLANTING
1/2" = 1'-0" P-UT19064-11



NOTES:
- PLANT SO THAT TOP OF ROOT BALL IS EVEN WITH THE FINISHED GRADE.
- STAKING AS REQUIRED.

BACKFILL SPECIFICATIONS:
1. BACKFILL MIX: 1/3 SANDY LOAM TOPSOIL + 2/3 NATIVE SOILS IF NATIVE SOILS ARE SUITABLE.
2. DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKES.
3. WATER THOROUGHLY AFTER INSTALLATION.
4. LOOSEN TREE STAKES AFTER FIRST GROWING SEASON AND REMOVE TREE STAKES AFTER SECOND GROWING SEASON.
5. OVER EXCAVATE PITS TO 3' DEPTH AND INSTALL ADDITIONAL COMPACTED TOPSOIL UNDER TREE.

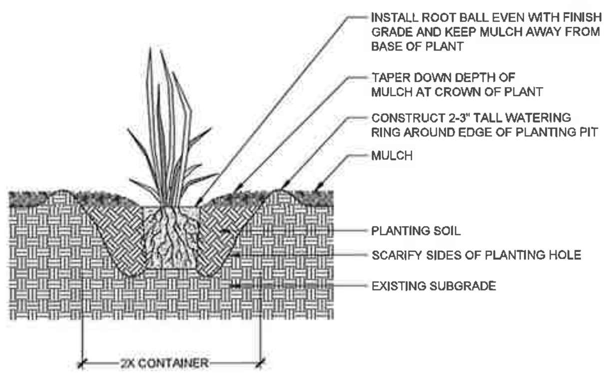
2 EVERGREEN TREE PLANTING
N.T.S. DETAIL-FILE



NOTES:

1. EXCAVATE SHRUB PITS AS ROUND PLANTING HOLES.

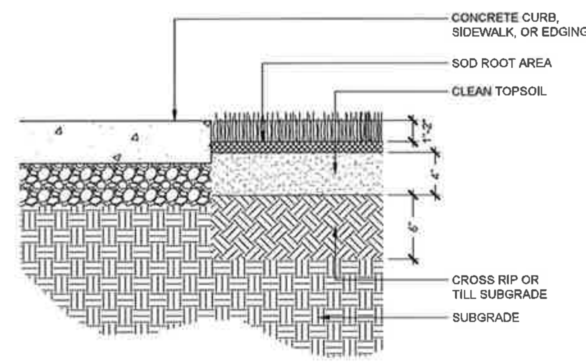
3 SHRUB PLANTING
1/2" = 1'-0" P-UT19064-09



NOTES:

1. EXCAVATE ORNAMENTAL GRASS/PERENNIAL PITS AS ROUND HOLES.

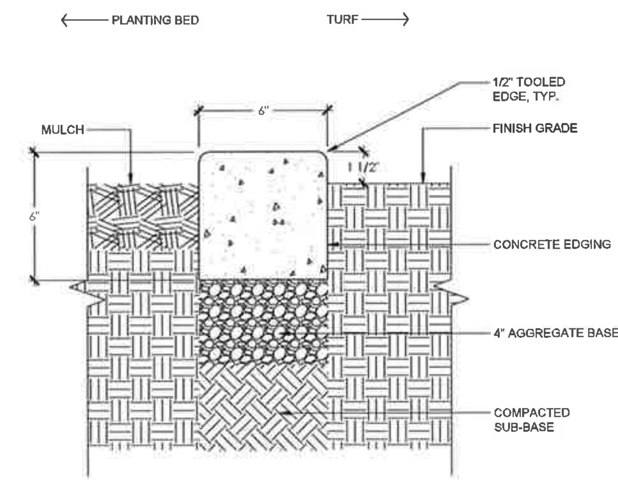
4 PERENNIAL/ORNAMENTAL GRASS PLANTING
3/4" = 1'-0" P-UT19064-08



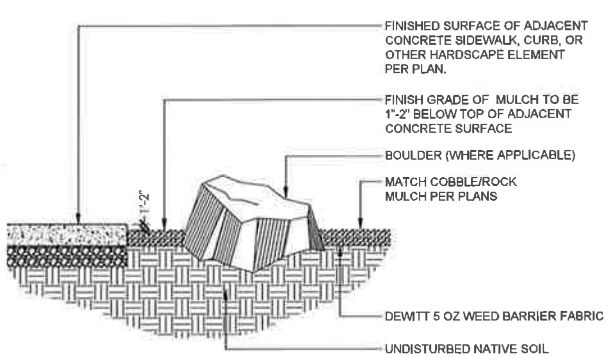
NOTES:

1. ENSURE FINISH GRADE IS 1"- 2" BELOW TOP OF CURB, WALK, OR EDGING.
2. SOD SHALL BE 100% KENTUCKY BLUEGRASS OR CITY APPROVED EQUAL.

5 SOD AND SEED PLANTING
1 1/2" = 1'-0" P-UT19064-10



6 CONCRETE EDGING
3" = 1'-0" P-UT19064-12



NOTES:

1. KEEP TOP OF MULCH 1"-2" BELOW ADJACENT WALKS AND CURBS. DO NOT ALLOW MULCH TO TOUCH THE TRUNK OF ANY PLANT. INSTALL MULCH AFTER INSTALLATION OF WEED BARRIER FABRIC AND PLANT MATERIAL.
2. CONTRACTOR TO ENSURE THAT TOP OF WEED BARRIER FABRIC IS FREE OF SOILS AND DEBRIS PRIOR TO PLACING MULCH.

7 COBBLE MULCH
3/4" = 1'-0" P-UT19064-07

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1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT — LARS DONALD ANDERSON — No. 359519-5301 — STATE OF UTAH

PI: LA
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DRAWN BY: JW/ST
CHECKED BY: BT
PLOT DATE: 08-27-2020

SUBMISSION DATE	PROJECT #
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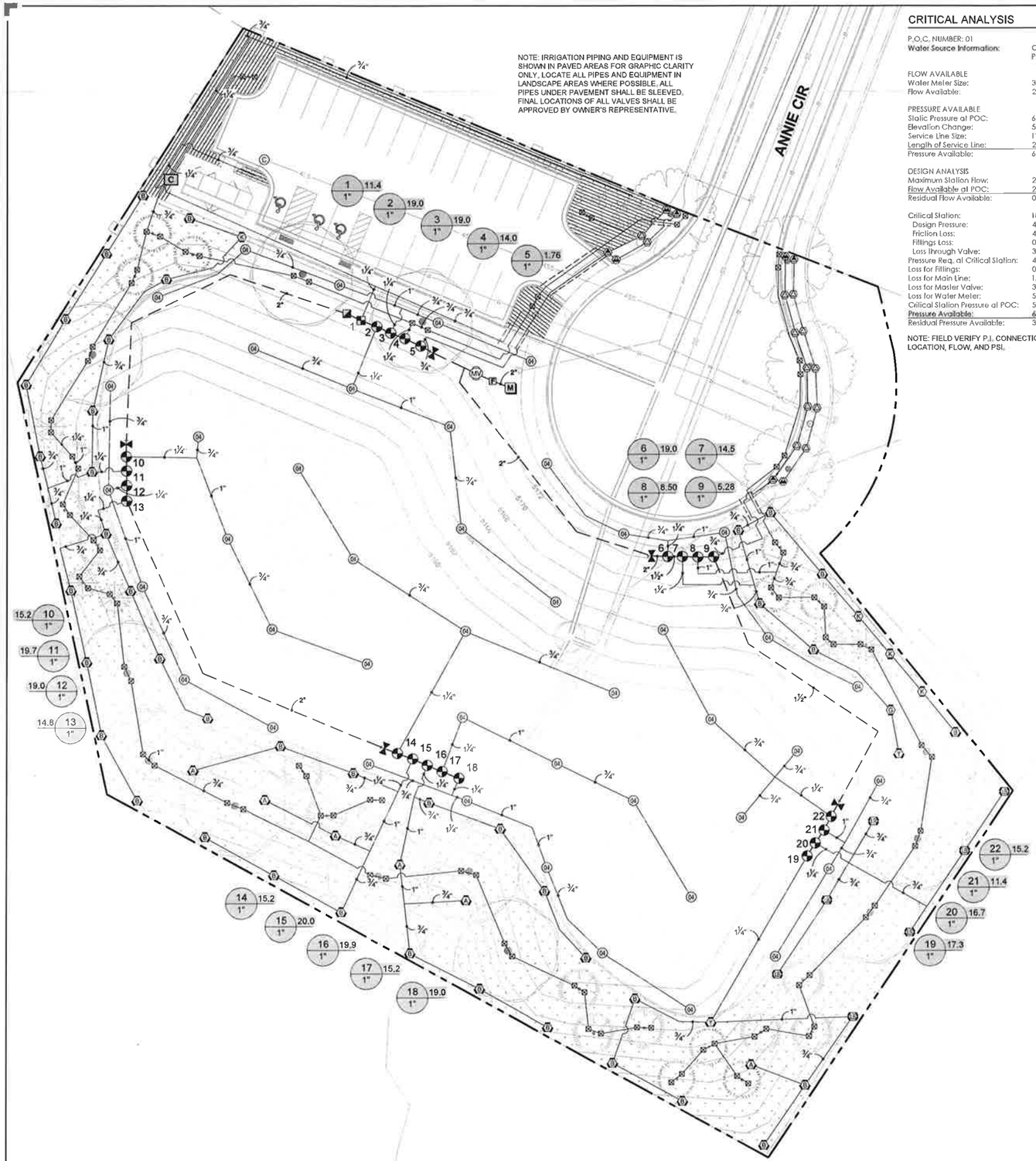
0 10' 20' 40' 80'
GRAPHIC SCALE: 1" = 20'
(24"x36" SHEET)

SHEET NAME

LANDSCAPE DETAILS

SHEET NUMBER

LSDT-01



CRITICAL ANALYSIS

P.O.C. NUMBER: 01	
Water Source Information:	CONNECT TO P.I. LINE.
FLOW AVAILABLE	
Water Meter Size:	3/4"
Flow Available:	20.23 gpm
PRESSURE AVAILABLE	
Static Pressure at POC:	65.00 psi
Elevation Change:	5.00 ft
Service Line Size:	1"
Length of Service Line:	20.00 ft
Pressure Available:	61.00 psi
DESIGN ANALYSIS	
Maximum Station Flow:	20.04 gpm
Flow Available at POC:	20.23 gpm
Residual Flow Available:	0.19 gpm
Critical Station:	18
Design Pressure:	40.00 psi
Friction Loss:	4.30 psi
Fittings Loss:	0.43 psi
Loss through Valve:	3.00 psi
Pressure Req. at Critical Station:	47.73 psi
Loss for Fittings:	0.12 psi
Loss for Main Line:	1.23 psi
Loss for Master Valve:	3.00 psi
Loss for Water Meter:	5.90 psi
Critical Station Pressure at POC:	57.98 psi
Pressure Available:	61.00 psi
Residual Pressure Available:	3.02 psi

NOTE: FIELD VERIFY P.I. CONNECTION LOCATION, FLOW, AND PSI.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
LST RST SST	HUNTER MP STRIP PROS-06-PRS40-CV TURF ROTATOR, 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY, LST=IVORY LEFT STRIP, SST=BROWN SIDE STRIP, RST=COPPER RIGHT STRIP.	20	40
K B I	HUNTER MP2000 PROS-06-PRS40-CV TURF ROTATOR, 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY, K=BLACK ADJ ARC 90-210, G=GREEN ADJ ARC 210-270, R=RED 360 ARC.	5	40
B Y A	HUNTER MP3000 PROS-06-PRS40-CV TURF ROTATOR, 6" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY, B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC.	50	40
LB	HUNTER MP3500 PROS-06-PRS40-CV TURF ROTATOR, 6.0" POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI, MP ROTATOR NOZZLE ON PRS40 BODY, LB=LIGHT BROWN ADJUSTABLE ARC, 90-210.	7	40
.25 .50	HUNTER RZWS-SLEEVE-18-CV 25 18" LONG RZWS WITH FILTER FABRIC SLEEVE, .25GPM OR .50GPM BUBBLER OPTIONS, CHECK VALVE, 1/2" SWING JOINT FOR CONNECTION TO 1/2" PIPE	90	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	GPM	RADIUS
04	HUNTER I-25-06-SS TURF ROTOR, 6.0" POP-UP, ADJUSTABLE AND FULL CIRCLE, STAINLESS STEEL RISER, DRAIN CHECK VALVE, STANDARD NOZZLE.	44	40	3.80	40'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	HUNTER ICZ-101-25 DRIP CONTROL ZONE KIT, 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM, PRESSURE REGULATION: 25PSI, FLOW RANGE: 2 GPM TO 20 GPM, 150 MESH STAINLESS STEEL SCREEN.	1
	AREA TO RECEIVE DRIPLINE NETAFIM TLCV-06-18 TECHLINE PRESSURE COMPENSATING LANDSCAPE DRIPLINE WITH CHECK VALVE, 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN, 17MM.	2,563 S.F.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	HUNTER ICV-G-FS 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH FILTER SENTRY.	21
	HUNTER HQ-44LRC QUICK COUPLER VALVE, YELLOW RUBBER LOCKING COVER, RED BRASS AND STAINLESS STEEL, WITH 1" NPT INLET, 2-PIECE BODY.	8
	NIBCO T-113-K CLASS 125 BRONZE GATE SHUT OFF VALVE WITH CROSS HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION, SIZE RANGE - 1/4" - 3"	5
MV	HUNTER IBV-FS 1" 1", 1-1/2", 2", AND 3" BRASS ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH FILTER SENTRY FACTORY INSTALLED OPTION.	1
C	HUNTER ACC-2400-PED-SS 24 STATION OUTDOOR MODULAR CONTROLLER, WITH TWO ACM-600 MODULE, HIGH-END COMMERCIAL USE, STAINLESS STEEL PEDESTAL.	1
F	AMIAD 1-SS-STEEL SCREEN AMIAD 1" T-SUPER PLASTIC FILTER, NPT THREAD, STEEL SCREEN ELEMENT, ENGINEERED-PLASTIC MATERIAL, MAXIMUM WORKING PRESSURE 150PSI.	1
M	WATER METER 3/4" CONNECT TO P.I. LINE.	1
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	5,620 L.F.
	IRRIGATION MAINLINE: PVC SCHEDULE 40	688.7 L.F.
	PIPE SLEEVE: PVC CLASS 200 SDR 21	52.1 L.F.

Valve Callout
Valve Number
Valve Flow
Valve Size

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PEC
PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
EMAIL: INFO@PEC.US.COM

PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT · LARS EDVALD ANDERSON · No. 339519-5301 · 08-07-2020 · STATE OF UTAH

PI:	LA
PM:	LA
DRAWN BY:	JW/ST
CHECKED BY:	BT
PLOT DATE:	08-27-2020

SUBMISSION DATE: 08-31-2020 PROJECT #: UT 20-062

NO.	REVISION	DATE
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0 10' 20' 40' 80'

GRAPHIC SCALE: 1" = 20'
(24"X36" SHEET)

SHEET NAME

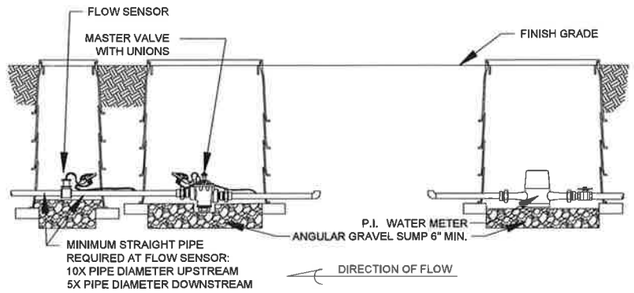
IRRIGATION PLAN

SHEET NUMBER

IR-01

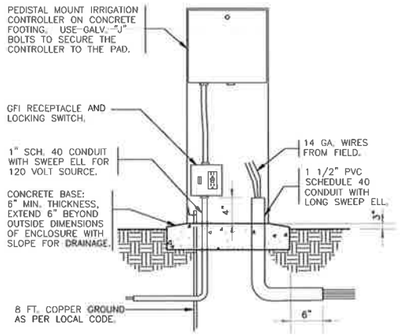
NOTES:

1. INSTALL COVER TO MANUFACTURER'S SPECIFICATIONS. CONTRACTOR TO SIZE.
2. ALL FITTINGS TO BE BRASS UNLESS OTHERWISE NOTED.



1 POINT OF CONNECTION

N.T.S. DETAIL-FILE

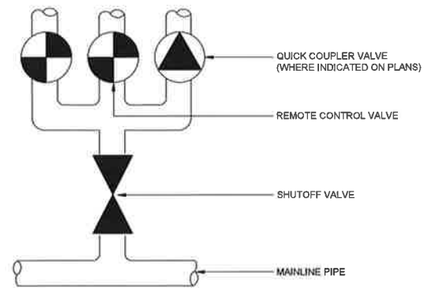


2 PEDESTAL MOUNT CONTROLLER

1" = 1'-0" P-UT19064-IRRI-16

NOTES:

1. GROUP VALVES TOGETHER & PROVIDE ONE (1) SHUTOFF VALVE, LINE SIZE PER GROUP

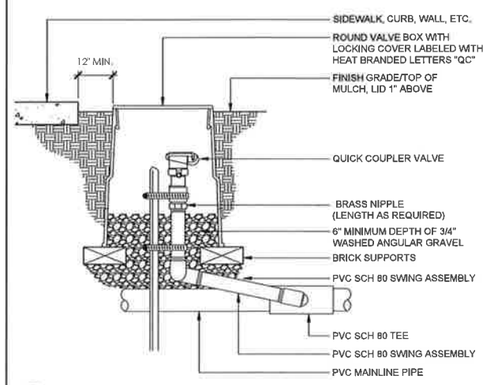


3 VALVE MANIFOLD

3" = 1'-0" P-UT19064-IRRI-09

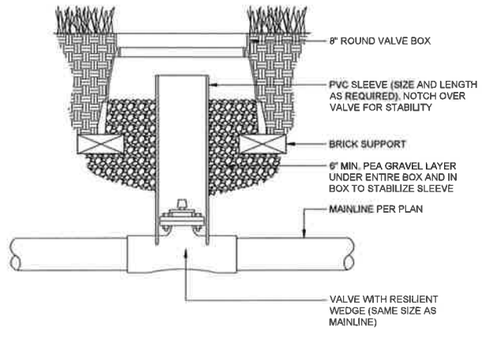
NOTES:

1. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.



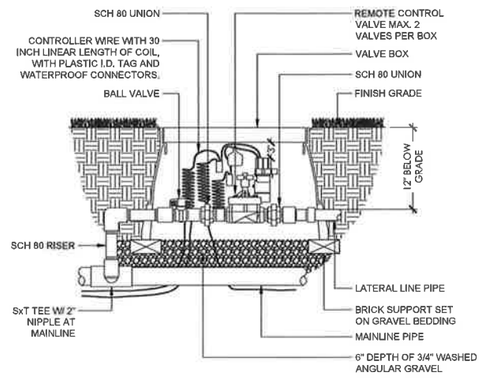
4 QUICK COUPLER VALVE

1 1/2" = 1'-0" P-UT19064-IRRI-07



5 GATE VALVE

3" = 1'-0" P-UT19064-IRRI-06

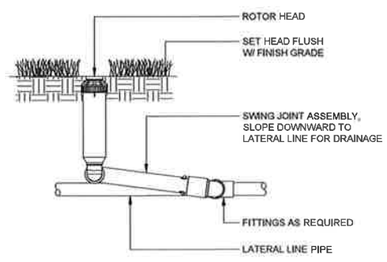


6 REMOTE CONTROL VALVE

1 1/2" = 1'-0" P-UT19064-IRRI-08

NOTES:

1. INSTALL 2" AWAY FROM HARDSCAPES.

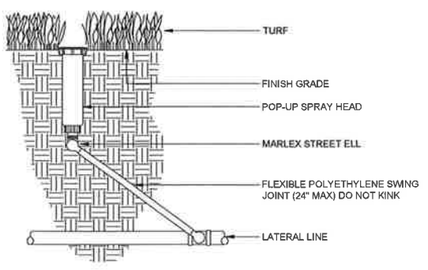


7 ROTOR HEAD

3" = 1'-0" P-UT19064-IRRI-05

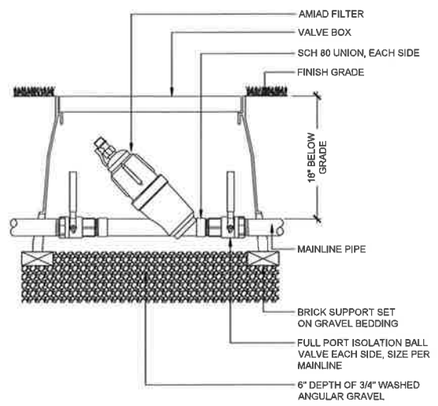
NOTES:

1. INSTALL 2" AWAY FROM HARDSCAPES.



8 TURF POP-UP SPRAY HEAD

3" = 1'-0" P-UT19064-IRRI-04

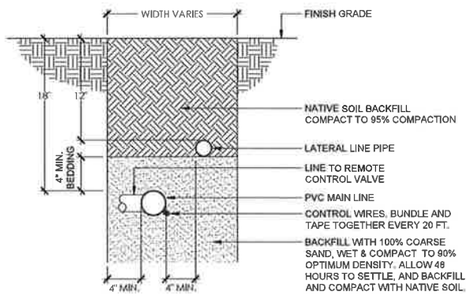


9 IRRIGATION FILTER

1 1/2" = 1'-0" P-UT19064-IRRI-02

NOTES:

1. MAIN LINE SHALL BE PLACED AT A DEPTH OF 24" BELOW ANY PAVED SURFACE.
2. MAINLINE AND LATERAL PIPE UNDER ANY PAVED SURFACE SHALL BE SLEEVED WITH A PIPE THAT IS TWO PIPE SIZES LARGER THAN THE IRRIGATION LINE.
3. ALL CONTROL WIRES UNDER ANY PAVED SURFACE SHALL BE PLACED IN CONDUIT.



10 PIPE TRENCH SECTION

1 1/2" = 1'-0" P-UT19064-IRRI-10

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PEC
PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
EMAIL: INFO@PEC.US.COM

PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT — CARL DONALD ANDERSON — No. 339519-5301 — STATE OF UTAH

PI:	LA
PM:	LA
DRAWN BY:	JWST
CHECKED BY:	BT
PLOT DATE:	08-27-2020

SUBMISSION DATE: 08-31-2020 PROJECT #: UT 20-062

NO.	REVISION	DATE
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PLAN INFORMATION

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0 10' 20' 40' 80'

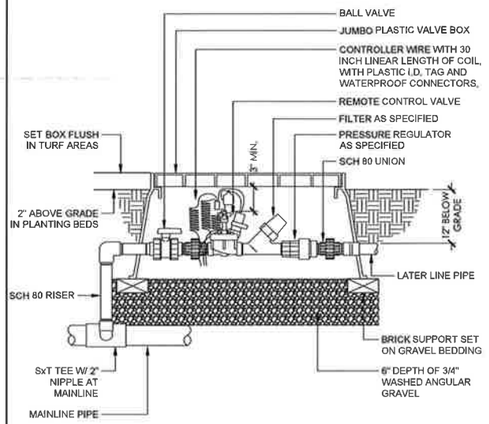
GRAPHIC SCALE: 1" = 20'
(24"x36" SHEET)

SHEET NAME

IRRIGATION DETAILS

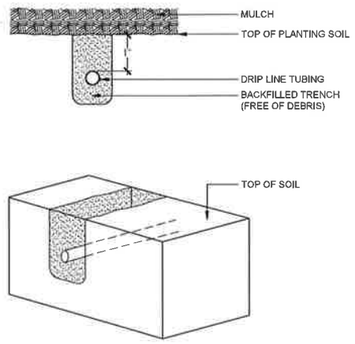
SHEET NUMBER

IRDT-01



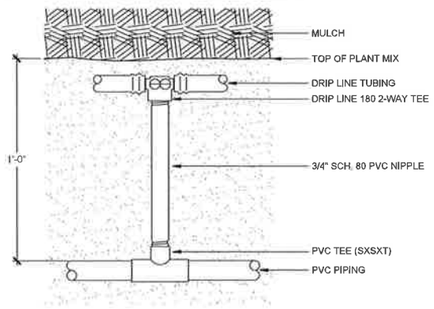
1 DRIP CONTROL VALVE

1 1/2" = 1'-0" P-UT20062-IRRI-02



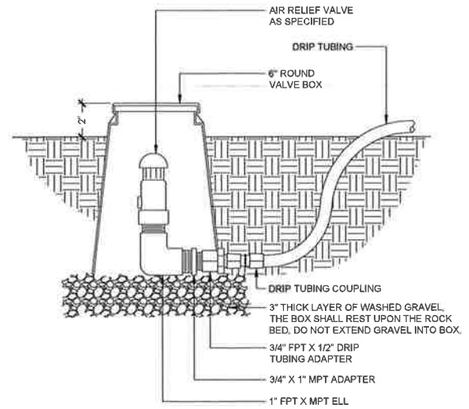
2 DRIP LINE TRENCH

1 1/2" = 1'-0" P-UT20062-IRRI-05



3 DRIP LINE CONNECTION

3" = 1'-0" P-UT20062-IRRI-04

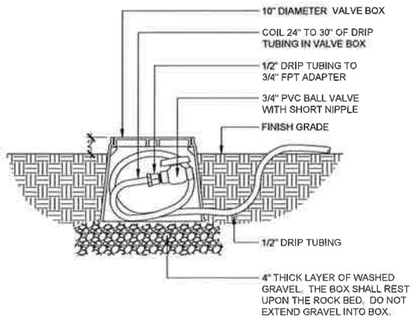


4 DRIP AIR RELIEF VALVE

3" = 1'-0" P-UT20062-IRRI-01

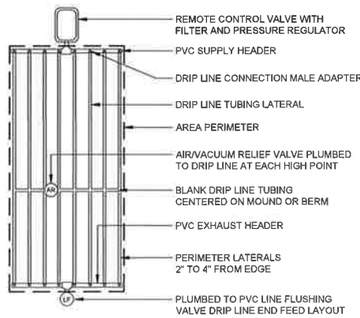
NOTES:

1. INSTALL AT END OF DRIP LINE RUNS FOR WINTERIZATION IN THE FALL.



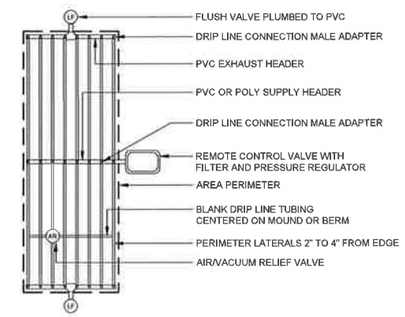
5 DRIP FLUSH VALVE

1 1/2" = 1'-0" P-UT20062-IRRI-03



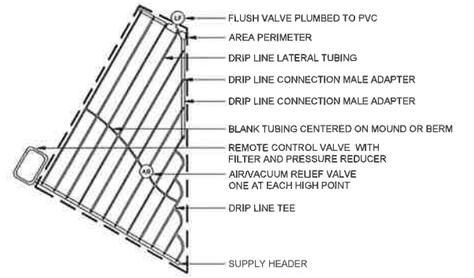
6 DRIP LINE END FEED

1 1/2" = 1'-0" P-UT20062-IRRI-06



7 DRIP LINE CENTER FEED

1 1/2" = 1'-0" P-UT20062-IRRI-08



8 DRIP LINE TRIANGULAR AREA

1 1/2" = 1'-0" P-UT20062-IRRI-07

IRRIGATION NOTES:

1. ALL PIPE TO BE SCHEDULE 40 PVC PIPE. NO POLY PIPE SHALL BE INCLUDED. FITTINGS UP TO 1 1/2" MUST BE SCHEDULE 40 OR BETTER; FITTINGS LARGER THAN 1 1/2" MUST BE SCHEDULE 80 OR BETTER.
2. CONTRACTOR SHALL HAVE ALL UTILITIES BLUE STAKED PRIOR TO DIGGING. ANY DAMAGE TO THE UTILITIES SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.
3. PLACE ALL IRRIGATION IN LANDSCAPE AREAS AND ON THE PROPERTY OF THE OWNER.
4. MODIFY LOCATION OF IRRIGATION COMPONENTS TO AVOID PLACING TREES, SHRUBS AND OTHER SITE ELEMENTS DIRECTLY OVER PIPE, PER PLANS. LOCATE AUTOMATIC VALVE BOXES IN LAWN AREA.
5. LATERAL LINES SHALL BE NO SMALLER THAN 3/4". LANDSCAPE CONTRACTOR TO ENSURE THE FOLLOWING PIPE SIZES DO NOT EXCEED THE SUGGESTED GPM LISTED BELOW:

3/4"	8 GPM
1"	12 GPM
1-1/2"	30 GPM
2"	53 GPM
2-1/2"	75 GPM
3"	110 GPM

6. INSTALL DRIP IRRIGATION PER DETAILS. CONTRACTOR SHALL MAKE ADJUSTMENTS AS NECESSARY.
7. CONTRACTOR SHALL PROVIDE AND INSTALL SLEEVES FOR ALL PIPES AND WIRES UNDER PAVEMENT AND SIDEWALKS. SLEEVES SHALL BE 2 SIZES LARGER THAN PIPE INSIDE. ALL WIRE SHALL BE IN SEPARATE SLEEVES (NOT SHOWN). ALL CONTROL WIRE SHALL BE INSTALLED IN CLASS 200 PIPE. PLACE JUNCTION BOXES WHERE NECESSARY TO MINIMIZE LONG RUNS OR AT DIRECTIONAL CHANGES.
8. WATER LINES AND ELECTRICAL LINES MUST NOT SHARE CONDUITS. ALL WIRE CONNECTIONS MUST BE CONTAINED IN VALVE BOX WITH 3' OF EXTRA WIRE. WIRE TO BE CONNECTED TO MAIN LINE PIPE WHERE POSSIBLE WITH TAPE AT 25' INTERVALS. SLACK IN CONTROL WIRES REQUIRED AT EVERY CHANGE OF DIRECTION. WIRES MUST HAVE SEPARATE COLORS FOR COMMON, CONTROL AND SPARE. MINIMUM 1 SPARE WIRE FOR EVERY 5 VALVES. ALL GROUND AND CONTROL WIRES TO BE INSULATED 14 GAUGE COPPER. ALL SPARE WIRES MUST "HOME RUN" TO CONTROLLER AND SPARE WIRES AVAILABLE AT ALL VALVE MANIFOLDS AND CLUSTERS.
9. ALL SLEEVES INSTALLED SHALL BE DUCT TAPED TO PREVENT DIRT OR OTHER DEBRIS ENTERING PIPE. ALL SLEEVES SHALL BE IDENTIFIED BY WOOD OR PVC STAKES AND BE SPRAY PAINTED WITH MARKING PAINT. REMOVE STAKES ONCE IRRIGATION SYSTEM IS COMPLETE.
10. IRRIGATION SYSTEM MUST CONTAIN CHECK VALVES TO PREVENT LOW POINT DRAINAGE.
11. SPACE ALL SPRAY HEADS 2" AWAY FROM ANY HARDSCAPE.
12. CONTRACTOR SHALL MATCH PRECIPITATION RATES AS MUCH AS POSSIBLE FOR ALL LANDSCAPED AREAS. OVERHEAD IRRIGATION MUST HAVE A MINIMUM DU (DISTRIBUTION UNIFORMITY) OF 60%.
13. IRRIGATION CONTRACTOR SHALL PRESSURE TEST MAINLINE FOR LEAKS PRIOR TO BACKFILLING.
14. MAIN LINES SHALL BE 24" DEEP MIN. AND LATERAL LINES 12" DEEP MIN. NO ROCK GREATER THAN 1/2" DIAMETER SHALL BE ALLOWED IN TRENCHES. TRENCHING BACKFILL MATERIAL SHALL BE COMPACTED TO PROPER FINISHED GRADE.
15. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND/OR COUNTY CODES. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY PERMITS.
16. IRRIGATION INSTALLATION TO COMPLY WITH APPLICABLE CITY SPECIFICATIONS AND DRAWINGS.
17. ACTUAL INSTALLATION OF IRRIGATION SYSTEM MAY VARY SOMEWHAT FROM PLANS. THE CONTRACTOR IS RESPONSIBLE TO MAKE ADJUSTMENTS AS NEEDED TO ENSURE PROPER COVERAGE OF ALL LANDSCAPED AREAS. PLANS ARE DIAGRAMATIC IN SOME AREAS AND MAY SHOW ELEMENTS OUTSIDE OF PROPERTY LIMITS. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL ELEMENTS ON THE PROPERTY OF THE OWNER.
18. CONTRACTOR SHALL INSTALL IRRIGATION SYSTEM WITH HEAD TO HEAD COVERAGE IN ALL TURF AREAS WHILE AVOIDING OVERSPRAY ONTO BUILDINGS AND HARDSCAPES.
19. IRRIGATION CONTRACTOR SHALL PROVIDE AN AS-BUILT IRRIGATION PLAN UPON COMPLETION OF INSTALLATION AND PRIOR TO FINAL PAYMENT.
20. INSTALL A FLUSH CAP AT THE END OF EACH DRIP LINE FOR MAINTENANCE.
21. INSTALLATION SHALL COMPLY WITH ALL NATIONAL, STATE AND LOCAL LAWS AND ORDINANCES.

OWNER/CLIENT

THE RIDGE AT ALPINE

ENGINEER/LANDSCAPE ARCHITECT

PEC
PROJECT ENGINEERING CONSULTANTS
986 WEST 9000 SOUTH
WEST JORDAN, UTAH, 84088
OFFICE: 801-495-4240
EMAIL: INFO@PEC.US.COM

PROJECT INFORMATION

ALPINE RIDGE PARK

1425 E. Elkridge Lane
Alpine, UT

SEAL/STAMP OF APPROVAL

LICENSED LANDSCAPE ARCHITECT LARS DONALD ANDERSON No. 339519-5301 08-27-2020 STATE OF UTAH

PI:	LA
PM:	LA
DRAWN BY:	JW/ST
CHECKED BY:	BT
PLOT DATE:	08-27-2020

SUBMISSION DATE	PROJECT #
08-31-2020	UT 20-062

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0 10' 20' 40' 80'

GRAPHIC SCALE: 1" = 20'
(24"X36" SHEET)

SHEET NAME

IRRIGATION DETAILS

SHEET NUMBER

IRDT-02

ALPINE CITY COUNCIL AGENDA

SUBJECT: Revised Concept/Preliminary – Old Moyle Mound PRD

FOR CONSIDERATION ON: 24 November 2020

PETITIONER: Ed Gifford representing Lon Nield

ACTION REQUESTED BY PETITIONER: Review the approved revised concept/preliminary plans for Old Moyle Mound PRD.

BACKGROUND INFORMATION:

The Old Moyle Mound PRD concept and preliminary plats were approved in 2013 with 10 lots. Applicant has asked to revise the Concept/Preliminary plat to reduce the overall number of lots from 10 to 9 and reduce the amount of open space to 25% of the original project area (minimum required for a PRD). Base density, based on the City's slope calculations, is 8.89 lots or 9 lots.

The Planning Commission held a public hearing, reviewed the plans, and approved revised concept/preliminary plat as proposed:

MOTION: *Ed Bush moved to approve the proposed revised concept/preliminary plat for Old Moyle Mound PRD as proposed. Alan MacDonald seconded the motion. There were 7 Ayes and 0 Nays (recorded below). The motion passed unanimously.*

Ayes:	***Nays:***
Alan MacDonald	*None*
Jane Griener	
Ed Bush	
Ethan Allen	
Troy Slade	
John MacKay	
Sylvia Christiansen	

STAFF RECOMMENDATION:
Review the approved revised concept/preliminary plat for Old Moyle Mound PRD.

ALPINE CITY
STAFF REPORT
November 12, 2020

To: Alpine City Planning Commission

From: Staff

Prepared By: Austin Roy, City Planner
Planning & Zoning Department

Jed Muhlestein, City Engineer
Engineering & Public Works Department

Re: **Old Moyle Mound PRD – Revised Concept/Preliminary Plat**

Applicant:	Ed Gifford, representing Lon Nield
Project Location:	750 North Quail Hollow Road
Zoning:	CR-20,000/CR-40,000 Zone
Acreage:	Approximately 8.78 Acres
Lot Number & Size:	9 lots ranging from 0.46 acres to 1.83 acres
Request:	Approve the revised Concept/Preliminary Plat

SUMMARY

The Old Moyle Mound PRD consists of 9 lots on 8.78 acres. The development is located in the partially in the CR-20,000 zone and partially in the CR 40,000 zone. Old Moyle Mound has been approved as a Planned Residential Development (PRD).

BACKGROUND

The Old Moyle Mound PRD Concept and Preliminary plats were approved in 2013 with 10 lots. Applicant would like to revise the Concept/Preliminary plats to reduce the overall number of lots from 10 to 9 and reduce the amount of open space to 25% of the original project area (minimum required for a PRD). Base density based on the City's slope calculations is 8.89 lots or 9 lots.

ANALYSIS

Lot Width and Area

Lot width requirements for the CR20,000/CR-40,000 zone are 110 feet for a standard lot, and 80 feet for a cul-de-sac lot located on a curve. All proposed lots meet the width requirement.

Lots area requirements for a PRD are based on Alpine City slope calculations found in the PRD Ordinance. See attached proposed summary for calculations. Calculations meet City code.

Use
The developer is proposing that the lots be used for single-unit detached dwellings, which is consistent with the permitted uses for the CR-40,000 zone. Private open space would be slightly reduced but would not have a negative impact to the existing improved open space.

Sensitive Lands (Wildland Urban Interface)
These items were addressed with the original plat in 2013.

Trails
There are no planned trails in the area.

General Plan
The proposed plat meets criteria of the City General Plan.

Other
None.

REVIEWS

PLANNING AND ZONING DEPARTMENT REVIEW
The analysis section in the body of this report serves as the Planning and Zoning Department review.

LONE PEAK FIRE DEPARTMENT REVIEW
See the attached review from the Lone Peak Fire Department.

NOTICING
Notice has been properly issued in the manner outlined in City and State Code

ENGINEERING AND PUBLIC WORKS DEPARTMENT REVIEW
All required infrastructure for the final phase of Olde Moyle Mound was installed during the construction of Olde Moyle Mound Plats A & B. Streets have been constructed with curb/gutter and sidewalk as well as the appropriate service laterals for each lot have already been installed.

The only thing that remains is the water policy for the proposed lots or lot changes will be required prior to recordation of the plat.

No bond would be required because, as stated earlier, all infrastructure already exists.

STAFF RECOMMENDATION
Approve the revised concept/preliminary plat as proposed.

Findings for a Positive Motion:
A. The plan PRD ordinance;
B. Plan is compatible with the existing lots;

Findings for Negative Motion:

A. None.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE

I motion to approve the proposed revised concept/preliminary plat for Old Moyle Mound PRD as proposed.

SAMPLE MOTION TO TABLE or DENY

I motion to table (or deny) the proposed revised concept/preliminary plat for Old Moyle Mound PRD based on the following:

- **Insert finding**

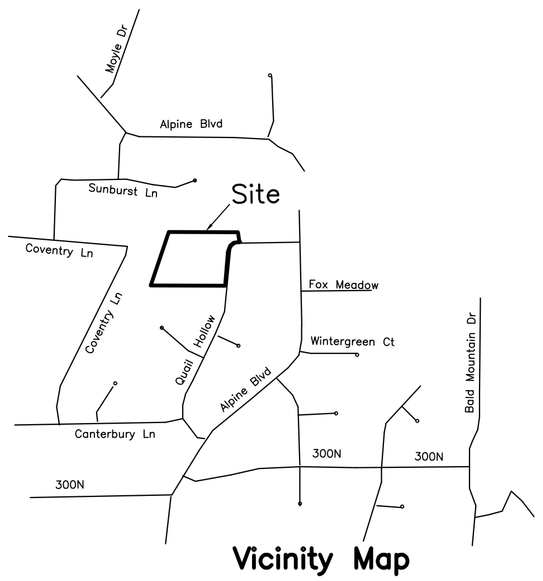
Proposed Revision of Olde Moyle Mound PRD to 9 Lots and Reduced Open Space

NORTH

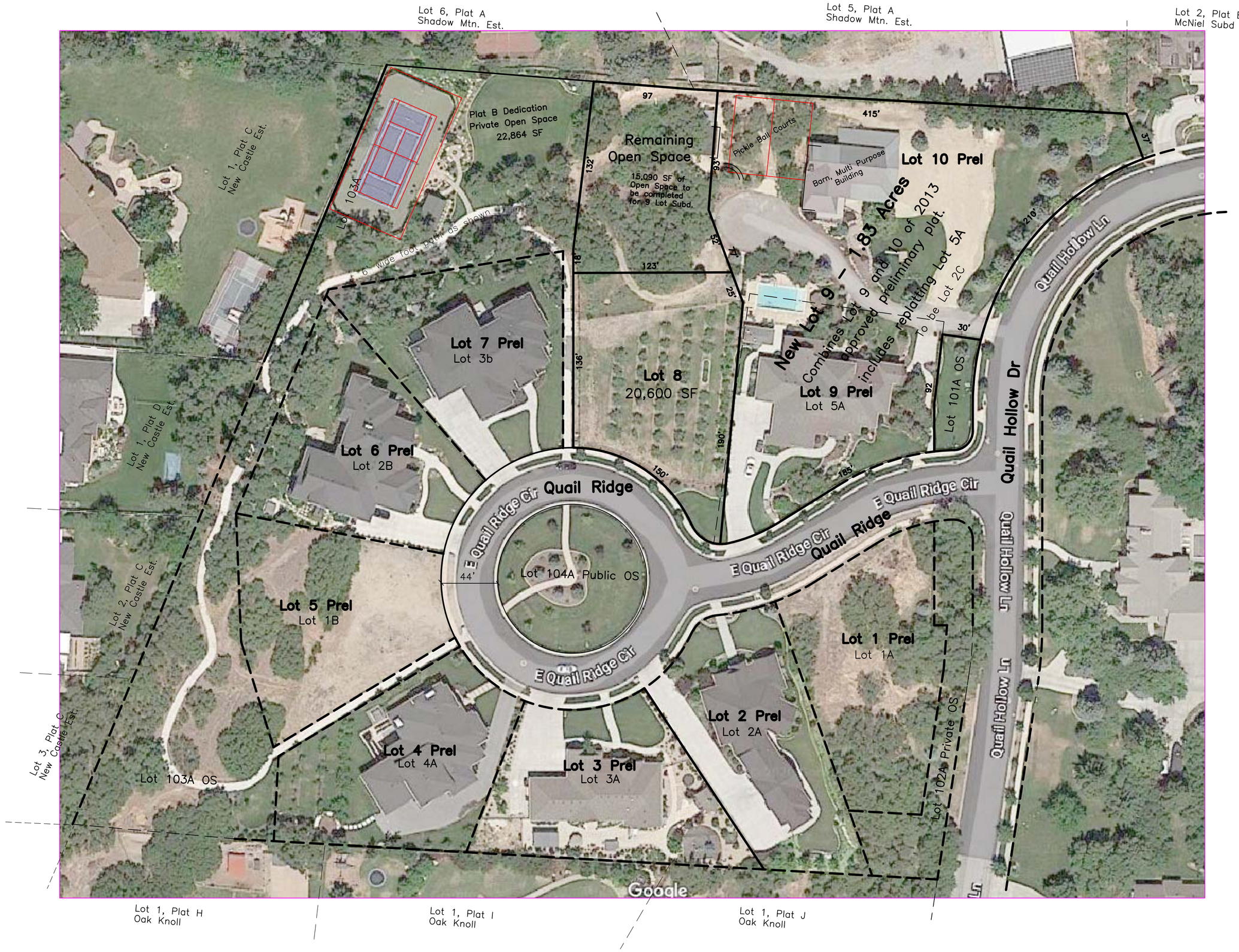
0 20 40 60 80 100 150 200 250

2013 Boundary Description of the Project Area

Commencing at the southwest corner of Lot 2, Plat E, McNiel Subdivision (said point being located S 0°15'16" E 575.503' along the section line and West 1573.058' from the Northeast Corner of Section 19, T4S, R2E SLB&M); thence S 20°27'52" E 91.475'
thence along the east boundary of Quail Hollow Drive as follows:
along the arc of a 150.00' radius curve to the left 182.044' (chord bears S 34°46'04" W 171.076'), South 171.78', along the arc of a 300.00' radius curve to the right 45.821' (chord bears S 4°22'32" W 45.776'), S 8°45'04" W 15.134' to the boundary of Moyle Estates Subdivision;
thence along said Moyle Estates Subdivsion as follows: West 54.636', S 8°54'04" W 138.75' along the west boundary of Quail Hollow Drive; thence along Oak Knoll Subdivsion boundaries as follows:
N 86°41'35" W 547.486', N 84°51'09" W 126.622', N 22°28'22" W 639.40' to the subdivision boundary of Plat A, Shadow Mountain Estates; thence along said Shadow Mountain Estates subdivsion as follows: S 85°25'38" E 238.036', S 86°46'15" E 338.66' to the point of beginning.
Area = 8.8145 acres



Vicinity Map



Proposed Change to Old Moyle Mound Preliminary

Summary for the Proposed 9 Lots and Reduced Open Space Request

1. The owner/deveolper of Old Moyle Mound PRD desires to reduce the overall number of Lots of the 2013 approved plan of 10 Lots to 9 Lots and reduce the amount of Open Sapce to 25% of the orginal project area or 95,990 Square Feet. The base density for the project area is 8.89 lots or 9 lots. This was based on the slope calculations by the City.

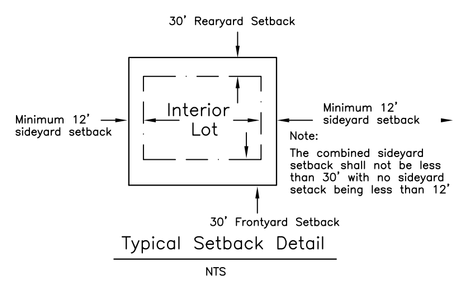
2. The owner desires to maintain Lot 9 and 10 of the 2013 approved plan as one lot. All the infrastructure (utilties and street improvements to the development were completed in 2014. All the lots of the original plan have been platted except Lots 8 and 10. Lot 9 of 2013 apporoved plat was final platted as Lot 5, PLat A. The owner's home is built upon this lot. When Lot 8 of the preliminary plat is final platted, the owner will dedicate the remining open space of the approved revised preliminary plat and plat the remaining property into a lot which includes Lot 5, Plat A.

3. The homeowners of the assoication are not damaged by this change and are in agreement for the change. The Open Sapce that has been dedicated and improved beyond that of the preliminary. For Example the 3 pathways of the approved original plan have been constructed of 6 foot wide concrete sidewalks. The Public Open Sapce dedication of the turn around area has been improved with qulatity landscaping and been well maintained. The are lock code gates to restrict access to the private Open Sapce. There is a nice grassed landscape area next to the tennis courts. The remining open space will be contigous to this area.

4. Open Sapce Calulcations

Property dedicated with Plat A (Lot 101, 102, 103, 104)	58,036 SF	Note: Lot 104 is Public Open Space
Property dedicated with Plat B (Lot 101)	22,864 SF	
Total	80,900 SF	
Minimum required total open space for 9 Lots	95,990 SF	
Remaining Open Space dedication (95,990–80,901) =	15,090 SF	

The drawing shows the location and area of the open space.



Typical Setback Detail

NTS

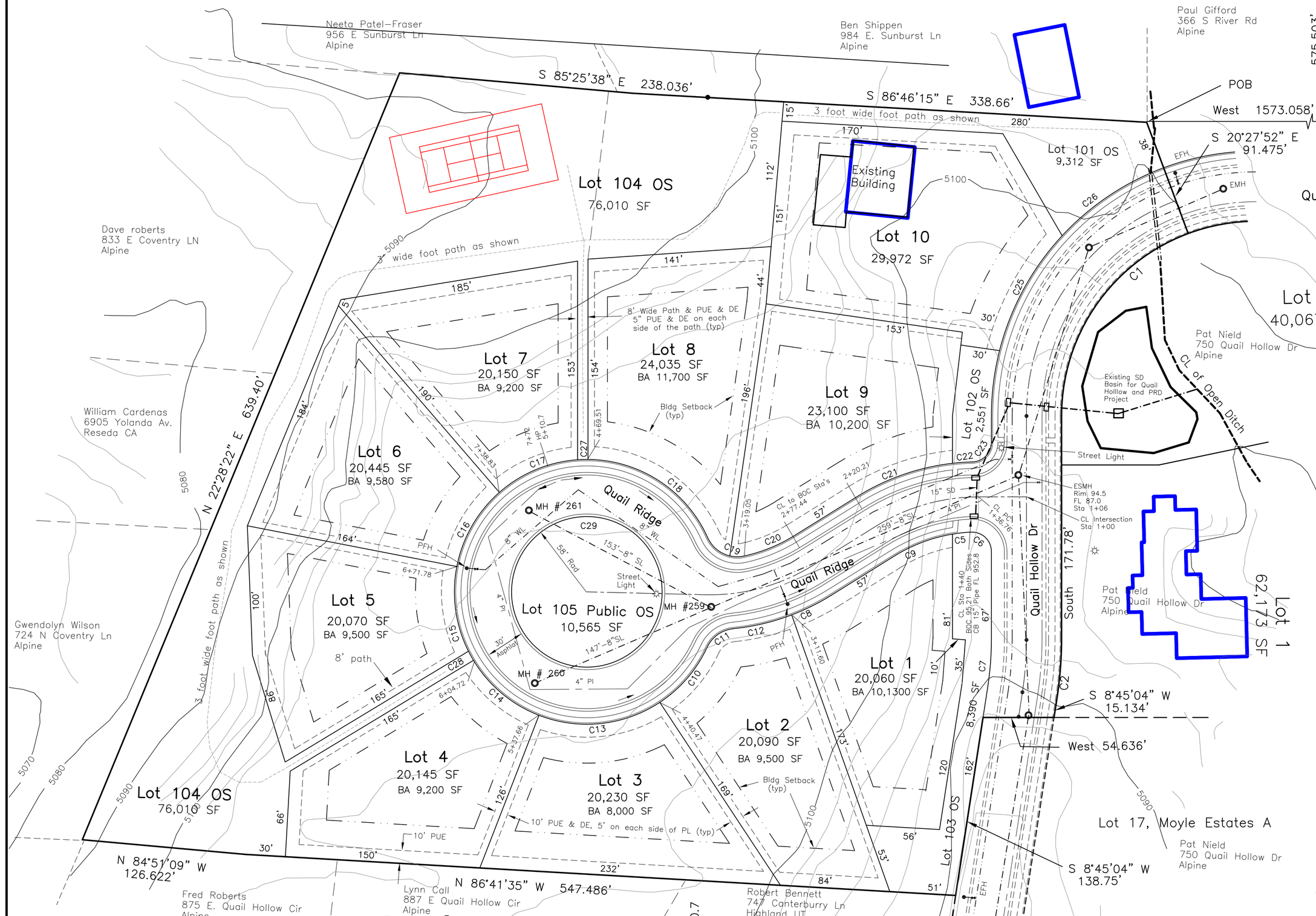
Preliminay Plat

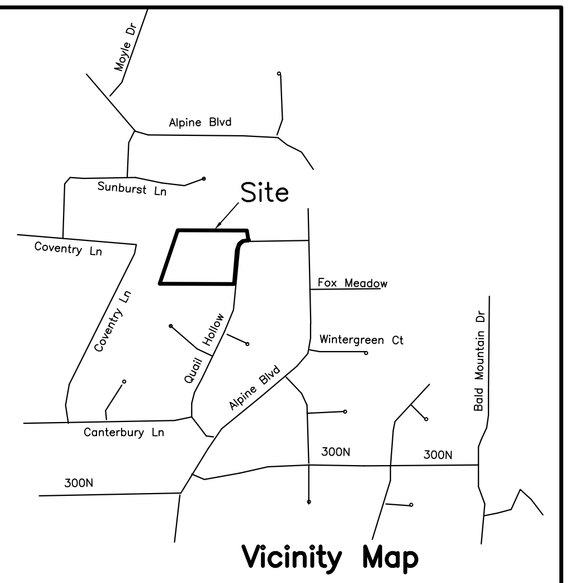
Olde Moyle Mound PRD

Alpine, Utah

Engineer:	Owner:	
K. Edward Gifford 6163 W. 9600 N. Highland, Utah 84003 Phone 772–0255	Lon Nield 750N Quail Hollow Dr. Alpine, Utah 84004 Phone 801–367–8046	Date: 30 Oct 2020 Scale: 1"= 50'

2013 Approved 10 Lot Preliminary for Olde Moyle Mound PRD





Vicinity Map

Description of the Project Area

Commencing at the southwest corner of Lot 2, Plat E, McNiel Subdivision (said point being located S 0°15'16" E 575.503' along the section line and West 1573.058' from the Northeast Corner of Section 19, T4S, R2E SLB&M); thence S 20°27'52" E 91.475' thence along the east boundary of Quail Hollow Drive as follows: along the arc of a 150.00' radius curve to the left 182.044' (chord bears S 34°46'04" W 171.076'), South 171.78', along the arc of a 300.00' radius curve to the right 45.821' (chord bears S 4°22'32" W 45.776'), S 8°45'04" W 15.134' to the boundary of Moyle Estates Subdivision; thence along said Moyle Estates Subdivision as follows: West 54.636', S 8°54'04" W 138.75' along the west boundary of Quail Hollow Drive; thence along Oak Knoll Subdivsion boundaries as follows: N 86°41'35" W 547.486', N 84°51'09" W 126.622', N 22°28'22" W 639.40' to the subdivision boundary of Plat A, Shadow Mountain Estates; thence along said Shadow Mountain Estates subdivsion as follows: S 85°25'38" E 238.036', S 86°46'15" E 338.66' to the point of beginning.
Area = 8.8145 acres

Curve Data Table

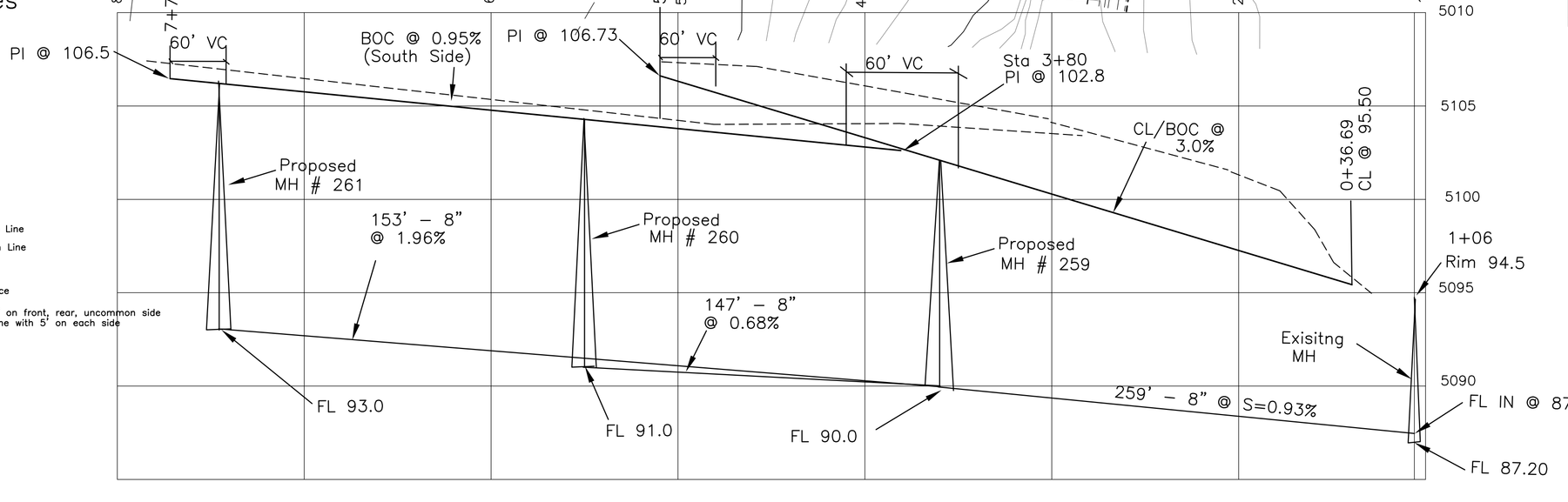
#	Arc	Chord Bears		Delta	Radius	Tan
C1	182.044'	S 35°46'04" W	182.044'	69°32'08"	150.00'	104.128'
C2	45.821'	S 4°7'32" W	45.766'	8°45'04"	300.00'	22.955'
C3	83.452'	S 74°03'43" W	83.38'	31°52'35"	150.00'	42.837'
C4	87.161'	S 74°46'13" W	85.94'	33°17'36"	150.00'	44.85'
C5	14.363'	N 83°52'32" E	14.355'	6°41'26"	123.00'	7.19'
C6	24.29'	S 46°23'23" E	21.721'	92°46'45"	15.00'	15.746'
C7	37.573'	S 4°22'32" W	37.536'	8°45'04"	246.00'	18.823'
C8	34.154'	N 63°39'06" E	34.101'	11°03'21"	177.00'	17.13
C9	48.102'	N 69°19'37" E	47.796'	22°24'24"	123.00'	24.362'
C10	56.601'	N 40°41'31" E	55.877'	31°47'38"	102.00'	29.05'
C11	25.914'	N 54°29'26" E	24.77'	59°23'29"	25.00'	14.257'
C12	46.359'	N 76°40'58" E	46.227'	15°00'24"	177.00'	23.313'
C13	97.189'	N 83°53'08" E	93.554'	54°35'36"	102.00'	52.639'
C14	67.056'	S 49°59'04" E	65.855'	37°40'	102.00'	34.79'
C15	67.056'	S 7°49'10" E	65.855'	37°40'	102.00'	34.79'
C16	67.056'	S 29°50'50" W	65.855'	37°40'	102.00'	34.79'
C17	66.434'	S 67°20'22" W	65.266'	37°19'03"	102.00'	34.443'
C18	116.323'	N 56°50'03" W	110.121	65°20'29"	102.00'	65.409'
C19	34.137'	N 63°16'51" W	31.546'	78°14'06"	25.00'	20.33'
C20	41.613'	S 67°51'45" W	41.613'	19°28'40"	123.00'	21.111'
C21	78.192'	S 70°46'45" W	77.558'	25°18'41"	177.00'	39.745'
C22	15.453'	S 85°56'10" W	15.448'	5°00'08"	177.00'	7.731'
C23	23.153'	S 44°13'07" W	20.922'	88°26'13"	15.00'	14.596'
C24	50.791'	S 7°07'57" W	50.66'	14°15'55"	204.00'	25.527'
C25	60.00'	S 22°41'28" W	59.784'	16°51'06"	204.00'	30.218'
C26	136.789'	S 50°19'35" W	134.24'	38°25'07"	204.00'	71.078'
C27	8.006'	S 88°14'48" W	8.004'	4°29'49"	102.00'	4.005'
C28	8.006'	S 28°54'07" E	8.004'	4°29'49"	102.00'	4.005'
C29	364.425'	N 88°35' W	116.00'	360°00'	58.00'	N/A

General Notes:

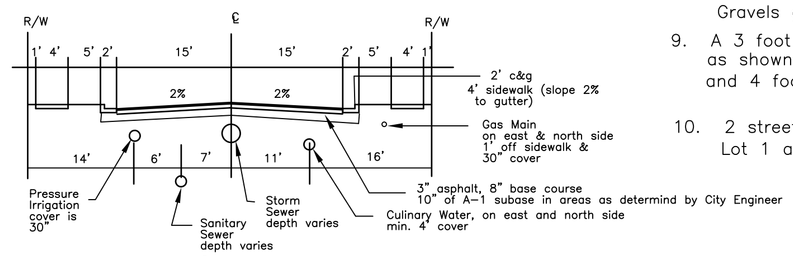
1. Lots 101 – 104 are Private Open Space of 96,182 SF (2.208 Ac) which is 25% of the project area and yeilds 8.89 lots base density. The Private Open Space will be kept mainly as existing vegetation. The tennis court as shown on the plans is a possiblity provided the established home owners association decide to do it.
2. Lots 101–103 & Pathways of Lot 104 are PUE and DE (Drainage Easement). All PUE's are also DE (Driange Easements)
3. Lot 105 is Public Open Space of 10,565 SF. This are will be improved as a grass area with sprinkling system, trees, shrobs, and other. This Open Space will be maintained by the Home Owners Assoc, Other improvements may be added as agreed upon between the Home Onwers and the City. This lot is a PUE area. This improved public open space gives a density of 9.6 lots or 10 lots to the PRD per City ordinance.
4. Street drainage around the Cul–de–sac area will slope from the inside curb to the outer curb adjacent to the lots.
5. The existing utilities have been stubbed out of Quail Hollow Dr but the sewer needs to be realigned as shown. The existing manhole is 6' off lig of gutter.
6. Storm Drainage from the development will be detained on the improved basin by Quail Hollow. The basin was sized to detain storm water from this project.
7. Sidewalk is proposed to be installed on the west side of Quail Hollow Drive as shown.
8. The soils are Parleys silt loam (PaB) and Kidman fine sandy loam (KmB) . The soil is well drained and moderatley permeable. Gravels generally under lay these soil profiles.
9. A 3 foot wide foot path will be constructed in a location as shown on the drawing. The foot path will be bedded with wood chippings and 4 foot wide hard surface (asphalt/concrete) between the lots.
10. 2 street lights are proposed in the project. One at the northeast corner Lot 1 and one at the east edge of Lot 105 by the intersection as shown.

Utility Legend and Notes

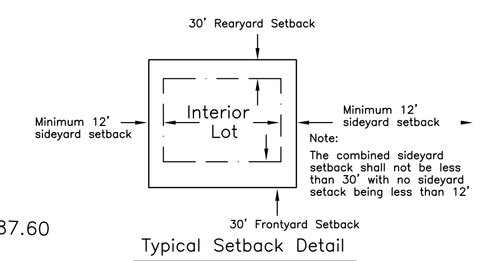
- ESL – Existing Sewer Line
- SL – Proposed Sewer Line
- EMH – Sewer Manhole
- MH – Proposed Sewer Manhole
- EWL – Existing Water Line
- WL – Proposed Water Line
- EFH – Existing Fire Hydrant
- FH – Prpoposed Fire Hydrant
- EPI – Existing Pressure Irrigation Line
- PI – Proposed Pressure Irrigation Line
- SB – Lot Setback per City ordinance
- PUE – Public Utility Easement, 10' on front, rear, uncommon side 10' on common property line with 5' on each side
- EV – Existing Valve
- PV – Proposed Valve
- ESD – Existing Storm Drain
- SD – Proposed Storm Drain
- ECB – Existing Catch Basin
- CB – Proposed Catch Basin
- Direction of Street Drainage



Moyle Mound Court Street Profile



Typical 54' Street Cross Section
NTS



Typical Setback Detail
NTS

Preliminay Plat

Olde Moyle Mound PRD

Alpine, Utah

Engineer:
K. Edward Gifford
6163 W. 9600 N.
Highland, Utah 84003
Phone 772–0255

Owner:
Lon Nield
750N Quail Hollow Dr.
Alpine, Utah 84004
Phone 801–367–8046

Date: 3–16–2013
Updated 4–15–2013
Updated 7–3–2013
Scale: 1"= 50'

Drwg # 02–2013

Exhibit A (1 of 5)

Open Space Summary

Proposed Change to Old Moyle Mound Preliminary

Summary for the Proposed 9 Lots and Reduced Open Space Request

1. The owner/deveolper of Old Moyle Mound PRD desires to reduce the overall number of Lots of the 2013 approved plan of 10 Lots to 9 Lots and reduce the amount of Open Sapce to 25% of the orginal project area or 95,990 Square Feet. The base density for the project area is 8.89 lots or 9 lots. This was based on the slope calculations by the City.

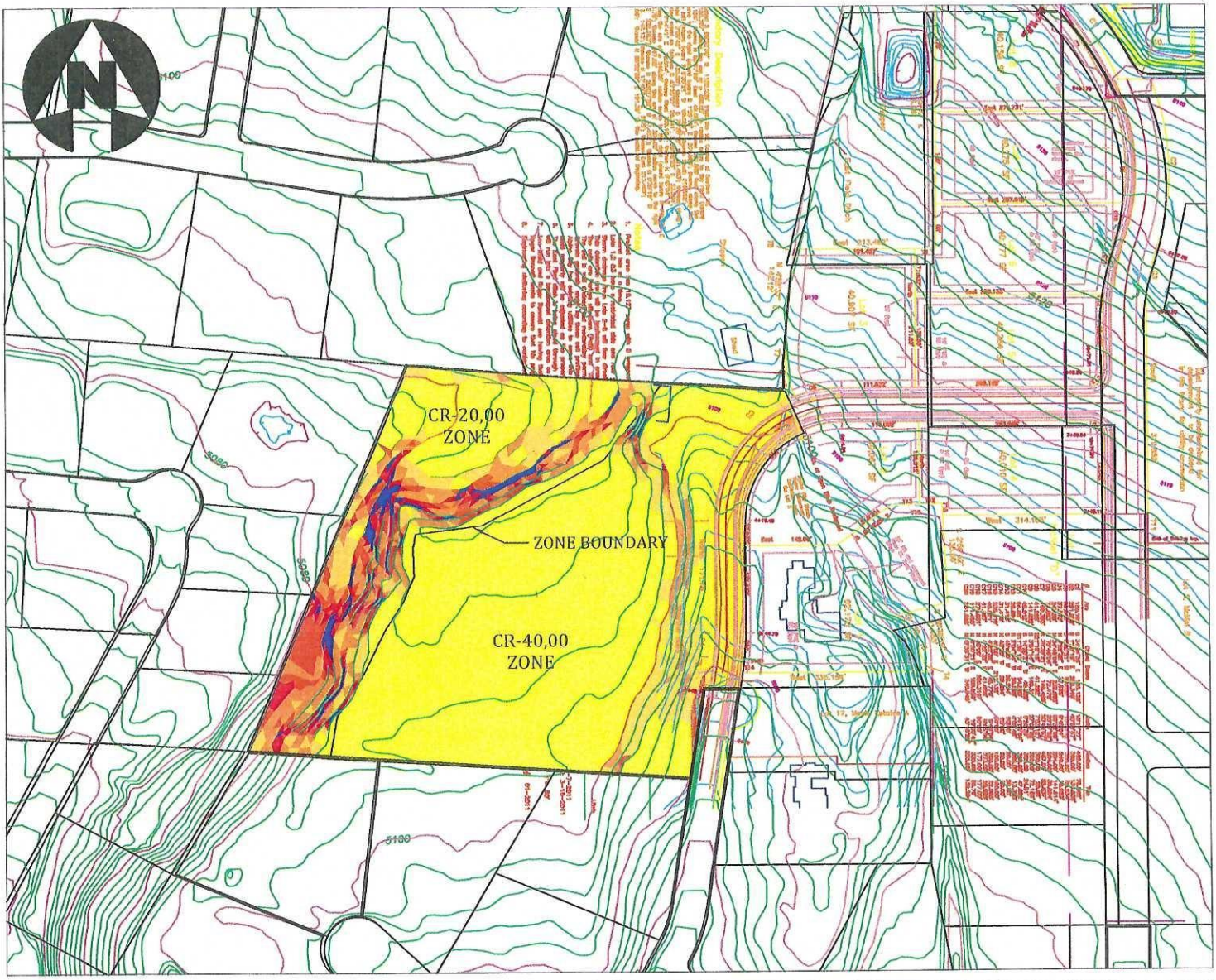
2. The owner desires to maintain Lot 9 and 10 of the 2013 approved plan as one lot. All the infrastructure (utilties and street improvements to the development were completed in 2014. All the lots of the original plan have been platted except Lots 8 and 10. Lot 9 of 2013 apporoved plat was final platted as Lot 5, PLat A. The owner's home is built upon this lot. When Lot 8 of the preliminary plat is final platted, the owner will dedicate the remining open space of the approved revised preliminary plat and plat the remaining property into a lot which includes Lot 5, Plat A.

3. The homeowners of the assoication are not damaged by this change and are in agreement for the change. The Open Sapce that has been dedicated and improved beyond that of the preliminary. For Example the 3 pathways of the approved original plan have been constructed of 6 foot wide concrete sidewalks. The Public Open Sapce dedication of the turn around area has been improved with qulatity landscaping and been well maintained. The are lock code gates to restrict access to the private Open Sapce. There is a nice grassed landscape area next to the tennis courts. The remining open space will be contigous to this area.

4. Open Sapce Calulcations

Property dedicated with Plat A (Lot 101, 102, 103, 104)	58,036 SF	Note: Lot 104 is Public Open Space
Property dedicated with Plat B (Lot 101)	22,864 SF	
Total	80,900 SF	
Minimum required total open space for 9 Lots	95,990 SF	
Remaining Open Space dedication (95,990−80,901) =	15,090 SF	

The drawing shows the location and area of the open space.



Slope West Side

Color	Layer	Range Beg.	Range End	Percent	Area
	SRF-RNG1	0.00	10.00	38.3	47202.30
	SRF-RNG2	10.00	15.00	16.0	19673.88
	SRF-RNG3	15.00	20.00	20.0	24668.80
	SRF-RNG4	20.00	25.00	13.2	16276.33
	SRF-RNG5	25.00	30.00	7.0	8633.33
	SRF-RNG6	30.00	100000.00	5.4	6678.08

Slope East Side

Color	Layer	Range Beg.	Range End	Percent	Area
	SRF-RNG1	0.00	10.00	88.1	228463.10
	SRF-RNG2	10.00	15.00	8.1	21120.13
	SRF-RNG3	15.00	20.00	2.6	6787.97
	SRF-RNG4	20.00	25.00	0.7	1893.89
	SRF-RNG5	25.00	30.00	0.1	300.18
	SRF-RNG6	30.00	100000.00	0.3	701.79

Exhibit A (2 of 5)

Exhibit A (3 of 5)

Nield East Area Slope Analysis ~ CR-40,000 zone

Slope Range						
Beg. Range	End Range	Percent of Total	Area	Area (acres)	CR-40,000 Required Acres/Unit	Base Density Potential Units
0.00%	9.99%	88.12%	228,463	5.24	1	5.24
10.00%	14.99%	8.15%	21,120	0.48	1.5	0.32
15.00%	19.99%	2.62%	6,788	0.16	2	0.08
20.00%	24.99%	0.73%	1,894	0.04	3	0.01
25.00%	29.99%	0.12%	300	0.01	4	0.00
30.00%	100.00%	0.27%	702	0.02	5	0.00
		100.00%	259,267	**5.95**		**5.67**

Total Acreage: 5.95 acres
Min. Open Space Requirement (25%): 1.49 acres

Base Density: 5.67 lots
Potential Density Bonus if Private Open Space (10%): 0.57 lots

Sub-Total Potential Denisty with Private Open Space: 6.23

Nield West Area Slope Analysis ~ CR-20,000 zone

Slope Range						
Beg. Range	End Range	Percent of Total	Area	Area (acres)	CR-20,000 Required Acres/Unit	Base Density Potential Units
0.00%	9.99%	38.33%	47,202	1.08	0.58	1.87
10.00%	14.99%	15.98%	19,674	0.45	0.86	0.53
15.00%	19.99%	20.03%	24,669	0.57	1.15	0.49
20.00%	24.99%	13.22%	16,276	0.37	1.72	0.22
25.00%	29.99%	7.01%	8,633	0.20	2.3	0.09
30.00%	100.00%	5.42%	6,678	0.15	5	0.03
		100.00%	123,133	**2.83**		**3.22**

Total Acreage: 2.83 acres
Min. Open Space Requirement (25%): 0.71 acres

Base Density: 3.22 lots
Potential Density Bonus if Private Open Space (10%): 0.32

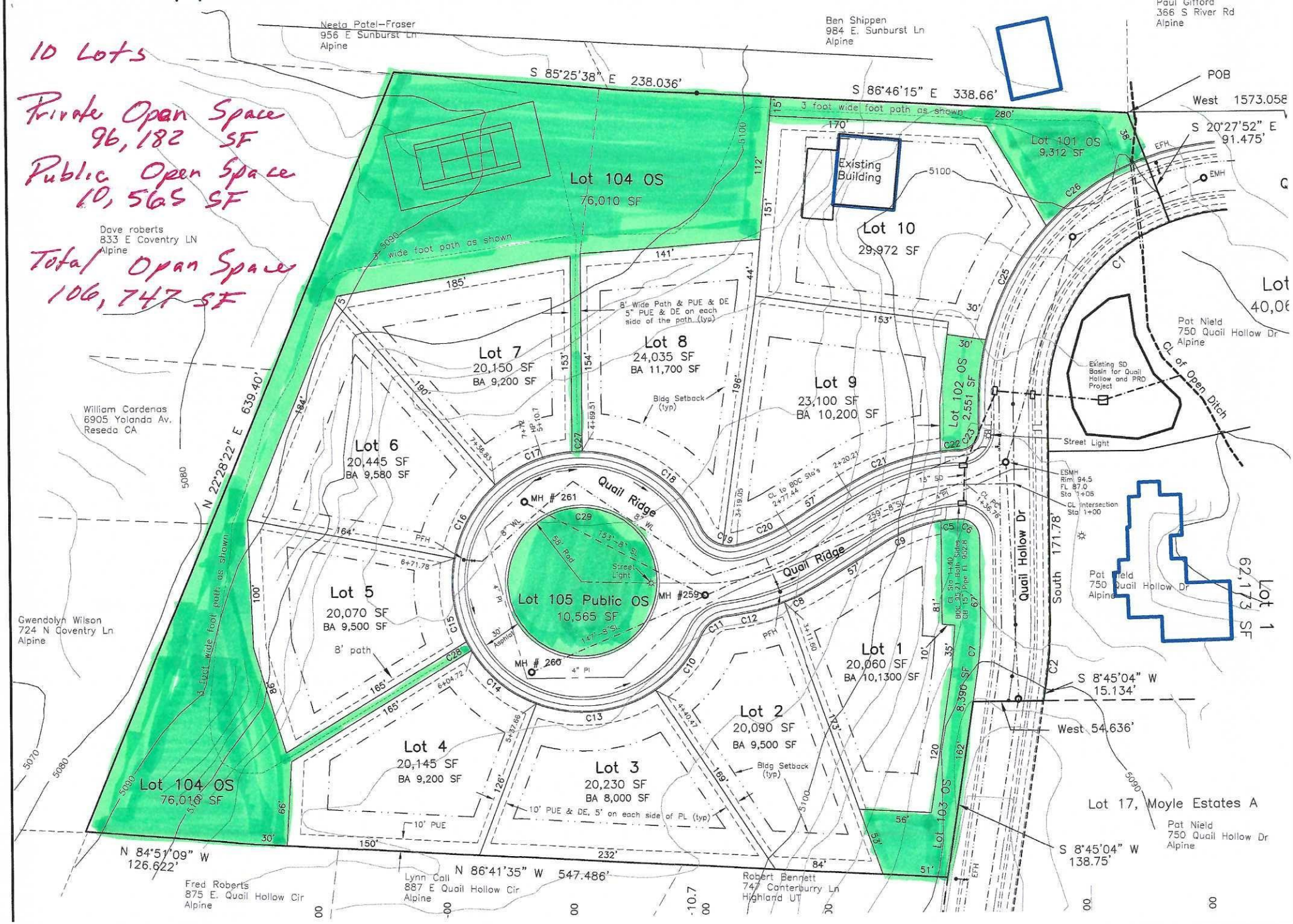
Sub-Total Potential Density with Private Open Space: 3.54

Max. Potential Overall Density (including maximum 10% bonus for private open space): 9.77 lots

Max. Potential Overall Density (rounded): 10 lots

Exhibit A (4 of 5)

2013 Approved 10 Lot Preliminary for Olde Moyle Mound PRD



Proposed Revision of Olde Moyle Mound PRD to 9 Lots and Reduced Open Space

ALPINE CITY COUNCIL AGENDA

SUBJECT: Site Plan – Alpine Fitness

FOR CONSIDERATION ON: 24 November 2020

PETITIONER: Paul Anderson with Alpine Fitness/Alpine Physical Therapy

ACTION REQUESTED BY PETITIONER: Review and approve the site plan as proposed.

BACKGROUND INFORMATION:

Applicant is seeking to relocate Alpine Fitness and Alpine Physical Therapy to a new building on Main Street. The new building would replace an existing garage structure on the site. The existing building would be demolished, and the new building would be located at the same site as the current building. The site is located within the Business Commercial Zone and the Gateway Historic District. Proposed building is approximately 9,380 square feet on a parcel approximately 0.58 acres in size. 40 off-street parking stalls are proposed. The developer is seeking approval of the proposed site plan.

In August of 2019, the City Council approved a 15-foot front setback exception on Main Street and a 2-foot setback exception on the north property line. In September of 2019, the City Council approved a parking exception (parking allowed in front setback) and land swap on the property. The land swap was granted to allow for the power lines on the property to be relocated underground. The proposed building has been designed with these exceptions in mind. Also, the applicant has worked with the gas company to remove a high-pressure gas line from the property and the easement that existed for the gas line has been vacated.

The Planning Commission recommends approval of the proposed site plan:

MOTION: *Ethan Allen moved to recommend approval of the proposed site plan for the Alpine Fitness with the following conditions:*

1. *The developer signs a storm drain maintenance agreement for the property;*
2. *The developer obtains a Demolition Permit prior to construction;*
3. *The developer meets fire code requirements as outlined in the Lone Peak Fire Department Review.*

Alan MacDonald seconded the motion. There were 7 Ayes and 0 Nays (recorded below). The motion passed unanimously.

Ayes:	***Nays:***
Alan MacDonald	*None*
Jane Griener	
Ed Bush	
Ethan Allen	
Troy Slade	
John MacKay	
Sylvia Christiansen	

STAFF RECOMMENDATION:
Approve the site plan with the conditions outlined in the sample motion.

SAMPLE MOTION TO APPROVE
I motion that the proposed site plan for the Alpine Fitness be approved with the following conditions:

- The developer signs a storm drain maintenance agreement for the property;
- The developer obtains a Demolition Permit prior to construction;
- The developer meets fire code requirements as outlined in the Lone Peak Fire Department Review.
- The developer update plans to show an Alpine City standard street light and light be installed with completion of project.

SAMPLE MOTION TO DENY
I motion that the site plan for the Alpine Fitness be denied based on the following:

- ***Add finding***

ALPINE CITY
STAFF REPORT
November 12, 2020

To: Alpine City Planning Commission
Business Date: November 17, 2020

From: Staff

Prepared By: Austin Roy, City Planner
Planning & Zoning Department

Jed Muhlestein, City Engineer
Engineering & Public Works Department

Re: **Site Plan Review – Alpine Fitness**

Applicant:	Paul Anderson of Alpine Fitness/Alpine Physical Therapy
Project Location:	235 S. Main Street
Zoning:	Business Commercial Zone
Acreage:	Approximately 0.58 Acres
Building Area:	9,380 Sq. Ft.
Request:	Approve the site plan

SUMMARY

Applicant is seeking to relocate Alpine Fitness and Alpine Physical Therapy to a new building on Main Street. The new building would replace an existing garage structure on the site. The existing building would be demolished, and the new building would be located at the same site as the current building. The site is located within the Business Commercial Zone and the Gateway Historic District. Proposed building is approximately 9,380 square feet on a parcel approximately 0.58 acres in size. 40 off-street parking stalls are proposed. The developer is seeking approval of the proposed site plan.

BACKGROUND

In August of 2019 the City Council approved a 15-foot front setback exception on Main Street and a 2-foot setback exception on the north property line. In September of 2019 the City Council approved a parking exception (parking allowed in front setback) and land swap on the property. The land swap was granted to allow for the power lines on the property to be relocated underground. The proposed building has been designed with these exceptions in mind.

The applicant has worked with the gas company to remove a high pressure gas line from the property and the easement that existed for the gas line has been vacated.

ANALYSIS

Location

Setbacks (3.07) for the building were approved by the City Council on August 13, 2019, with an exception being granted. The approved setbacks are: 15 feet on Main Street and 2 feet on the north property line. The City Council also approved parking spaces to be allowed in the front setback. The site plan presented honors the exceptions granted by City Council.

Off-Street Parking

City code requires (3.24.030) offices and personal services to have four (4) spaces for every 1,000 sq. ft. based on the square footage of the proposed building (9,380 sq. ft.) 38 off-street parking spaces are required. The proposal exceeds the off-street parking requirements, with plans showing 40 parking stalls, which includes two (2) ADA stalls.

Screening

"The sides and rear of any off-street parking area that adjoins a residence or residential zone shall be required to be screened by a masonry wall or solid visual barrier fence" (3.24.020). There exists a 6-foot concrete privacy fence on the south property line which meet these requirements, and plans show a 4-foot hedge to be planted on the south west side of the property**.**

Landscaping

All areas of a site which are not devoted to buildings or off-street parking are required to be landscaped, with a minimum of twenty (20) percent of the total area to be landscaped (3.07.080). The landscaping plan shows that 5,037 square feet will be landscaped, or just over 20 percent of the total site area. The site plan therefore meets the minimum landscaping area requirements. Landscaping also appears to comply with the City Tree Guide.

Trash Storage

Trash receptacles will be stored inside of the building, no outdoor trash enclosure is required.

Height of Building

The height of the proposed building meets the requirements of the Business Commercial zone, measuring 34 feet to the highest point of the building. Maximum height for the zone is 34 feet.

Design

The proposed building is a combination of stone, stucco and metal. Architectural style appears to be consistent with other buildings in the business district.

REVIEWS

PLANNING AND ZONING DEPARTMENT REVIEW

The analysis section in the body of this report serves as the Planning and Zoning Department review.

ENGINEERING AND PUBLIC WORKS DEPARTMENT REVIEW

Streets

All site plans must adhere to the Off-Street Parking Ordinance (Article 3.24). The applicant has submitted a parking plan which appears to be in compliance with the ordinance. Parking stalls are dimensioned correctly, an all-weather surface of asphalt is proposed and the site is graded to retain all storm water onsite. A lighting plan was submitted and approved with a comment to switch the light fixture to the City's most currently adopted version of the decorative style (dark sky compliant) street light.

Storm drain calculations and plans were submitted and approved for the design of the parking lot. Because this is a private storm drain system, a storm drain maintenance agreement would be required assuring maintenance of the private storm drain system by the owner occurs on an annual basis.

Frontage improvements, namely curb/gutter and sidewalk, currently exist.

Utilities

The parcel is currently served with City services (culinary, pressurized irrigation, and sewer) which the new building can hook to.

Flood Plain

Though close to Dry Creek, none of the subject property is within a "Special Flood Hazard Area…" as shown on the Flood Insurance Rate Map (FIRM) for this area. Adopted FIRM Map Number 49049C0159F, June 19, 2020.

Other

One building currently exists on the site and is shown to be removed. A demolition permit will be required for the removal of the existing building.

There was previously a large high-pressure gas main line that traversed the property on a northwest/southeast angle. Through coordination with the gas company, this gas main, and easement for it, has been removed in preparation for this site plan application.

The owner currently has a Land Disturbance Permit and associated Storm Water Pollution Prevention Plan (SWPPP) which ensures proper protections are in place to prevent storm water pollution. This is particularly important on this site due to its proximity to Dry Creek.

The water policy has been previously met for the site.

LONE PEAK FIRE DEPARTMENT REVIEW

See Exhibit 'A' of this staff report for the Lone Peak Fire Department Review of the proposed Alpine Fitness site plan.

NOTICING

Notice has been properly issued in the manner outlined in City and State Code

STAFF RECOMMENDATION

Approve the site plan as proposed. Findings are outlined below.

Findings for a Positive Motion:

A. All proposed construction appears to meet Alpine City Design standards.

Findings for Negative Motion:

A. None.

MODEL MOTIONS

SAMPLE MOTION TO APPROVE

I motion to recommend approval of the proposed site plan for the Alpine Fitness with the following conditions:

- The developer signs a storm drain maintenance agreement for the property;
- The developer obtains a Demolition Permit prior to construction;
- The developer meets fire code requirements as outlined in the Lone Peak Fire Department Review.

SAMPLE MOTION TO DENY

I motion to recommend that the site plan for the Alpine Fitness be denied based on the following:

- ***Add finding***

LONE PEAK FIRE DISTRICT
5582 PARKWAY WEST DRIVE
HIGHLAND, UTAH 84003
(801) 763-5365
WWW.LONEPEAKFIRE.COM

REED M. THOMPSON, FIRE CHIEF

MEMORANDUM

DATE: 27 October 2020

TO: Jed Muhlestein, City Engineer, Alpine City
CC: Austin Roy, City Planner, Alpine City

FROM: Reed M. Thompson, Fire Chief

SUBJECT: ALPINE FITNESS PROPERTY AND BUILDING PLAN

In review of the proposed drawings labeled "for review not for construction", dated 13 August 2020, and located at 235 South Main Street, please note:

- Fire access to all sides of the occupancy are required within 150 feet of the furthest point of the structure. The proposed drawings provide the appropriate access. Parking lot access used as the fire access need to meet structural standards established in the currently approved International Fire Code. Access roads in excess of 150 feet require an approved turnaround. The project appears to be in compliance.
- Based on size of the occupancy and the intended use, an automatic sprinkler system will be required. Page C-400 references a fire department connection (FDC) and underground plumbing to for purposes of pumping the automatic sprinkler system for the building. The FDC will need to be located within 100' of the nearest fire hydrant. The project appears to be in compliance.
- Based on the occupancy size, the fire riser will need to have an external door, to be labeled FIRE RISER. Knox box key access required to the facility doors and shall be located at/near the fire riser room door.
- A fire hydrant is required within 250 feet of the structure and fire flows for the occupancy need to be in accordance with the currently approved International Fire Code. The project appears to be in compliance.
- Fire sprinkler drawings can be a deferred submittal, require a third party review, with inspections required, prior to occupancy.

If you have further questions regarding this information, please contact me directly.

ALPINE FITNESS

235 S. MAIN STREET
ALPINE, UTAH 84004

FOR REVIEW
NOT FOR CONSTRUCTION

DATE PRINTED
August 13, 2020

INDEX OF DRAWINGS

NOTICE TO CONTRACTOR

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATIONS OF THE U.S. DEPARTMENT OF LABOR AND THE STATE OF UTAH DEPARTMENT OF INDUSTRIAL RELATIONS CONSTRUCTION SAFETY ORDERS." THE CIVIL ENGINEER SHALL NOT BE RESPONSIBLE IN ANY WAY FOR THE CONTRACTORS AND SUBCONTRACTORS COMPLIANCE WITH SAID REGULATIONS AND ORDERS.

CONTRACTOR FURTHER AGREES TO 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 NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE CIVIL 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 THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

VICINITY MAP
NOT TO SCALE

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO ALPINE CITY STANDARDS & SPECIFICATIONS.
2. CALL BLUE STAKES AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.
3. BENCHMARK ELEVATION = NORTHEAST CORNER SECTION 25, T4S, R1E SALT LAKE BASE & MERIDIAN ELEV. = 4946.87 (NGVD 29).
4. ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION IN THIS PLAN SET COME FROM THE SURVEY DRAWINGS *"LAND SURVEY PLAT (DATED NOVEMBER 21, 2019) AND TOPOGRAPHY SURVEY (DATED JANUARY 24, 2020)"* PROVIDED BY VARA 3D AND NOT ENSIGN ENGINEERING. PLEASE REFER TO THESE DRAWINGS FOR SURVEY INFORMATION.

NOTICE TO DEVELOPER/ CONTRACTOR

UNAPPROVED DRAWINGS REPRESENT WORK IN PROGRESS, ARE SUBJECT TO CHANGE, AND DO NOT CONSTITUTE A FINISHED ENGINEERING PRODUCT. ANY WORK UNDERTAKEN BY DEVELOPER OR CONTRACTOR BEFORE PLANS ARE APPROVED IS UNDERTAKEN AT THE SOLE RISK OF THE DEVELOPER, INCLUDING BUT NOT LIMITED TO BIDS, ESTIMATION, FINANCING, BONDING, SITE CLEARING, GRADING, INFRASTRUCTURE CONSTRUCTION, ETC.

UTILITY DISCLAIMER

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND / OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS 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 LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS 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.

BENCHMARK

NORTHEAST CORNER OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 4946.87' (NGVD 29)

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

ENSIGN
THE STANDARD IN ENGINEERING

SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
ALPINE FITNESS
75 W. MAIN STREET CT #100
ALPINE, UTAH 84004
CONTACT:
PAUL ANDERSON
PHONE: (801) 687-0000

ALPINE FITNESS
235 S. MAIN STREET
ALPINE, UTAH 84004

REGISTERED PROFESSIONAL ENGINEER
08/13/2020
#5936
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
2			
3			
4			
5			
6			
7			
8			

COVER SHEET

PROJECT NUMBER 9711
PRINT DATE 8/13/20
DRAWN BY T. MAZEJY
CHECKED BY D. JENKINS
PROJECT MANAGER D. JENKINS

C-000

GENERAL NOTES

1. ALL CONSTRUCTION MUST STRICTLY FOLLOW THE STANDARDS AND SPECIFICATIONS SET FORTH BY: THE DESIGN ENGINEER, LOCAL AGENCY JURISDICTION, APWA (CURRENT EDITION), AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.). THE ORDER LISTED ABOVE IS ARRANGED BY SENIORITY. THE LATEST EDITION OF ALL STANDARDS AND SPECIFICATIONS MUST BE ADHERED TO. IF A CONSTRUCTION PRACTICE IS NOT SPECIFIED BY ANY OF THE LISTED SOURCES, CONTRACTOR MUST CONTACT DESIGN ENGINEER FOR DIRECTION.

2. CONTRACTOR TO STRICTLY FOLLOW THE MOST CURRENT COPY OF THE SOILS REPORT FOR THIS PROJECT. ALL GRADING INCLUDING BUT NOT LIMITED TO CUT, FILL, COMPACTION, ASPHALT SECTION, SUBBASE, TRENCH EXCAVATION/BACKFILL, SITE GRUBBING, AND FOOTINGS MUST BE COORDINATED DIRECTLY WITH SOILS REPORT.

3. CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING, AND BRING UP ANY QUESTIONS BEFORE SUBMITTING BID.

4. CONTRACTOR SHALL PROVIDE A CONSTRUCTION SCHEDULE IN ACCORDANCE WITH THE CITY, STATE, OR COUNTY REGULATIONS FOR WORKING IN THE PUBLIC WAY.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ACCORDING TO GOVERNING AGENCY STANDARDS. WET DOWN DRY MATERIALS AND RUBBISH TO PREVENT BLOWING.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT SURFACE IMPROVEMENTS.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY SETTLEMENT OF OR DAMAGE TO EXISTING UTILITIES.

8. THE CONTRACTOR IS RESPONSIBLE TO FURNISH ALL MATERIALS TO COMPLETE THE PROJECT.

9. ALL EXPOSED SURFACES WILL HAVE A TEXTURED FINISH, RUBBED, OR BROOMED. ANY "PLASTERING" OF NEW CONCRETE WILL BE DONE WHILE IT IS STILL "GREEN".

10. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.

11. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE BASED ON FIELD SURVEYS AND LOCAL UTILITY COMPANY RECORDS. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO PROCEEDING WITH CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE. CONTRACTOR SHALL START INSTALLATION AT LOW POINT OF ALL NEW GRAVITY UTILITY LINES.

12. ALL DIMENSIONS, GRADES, AND UTILITY DESIGN SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES EXIST, PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO THE DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS, IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.

13. NO CHANGE IN DESIGN LOCATION OR GRADE WILL BE MADE BY THE CONTRACTOR WITHOUT THE WRITTEN APPROVAL OF THE PROJECT ENGINEER.

14. NATURAL VEGETATION AND SOIL COVER SHALL NOT BE DISTURBED PRIOR TO ACTUAL CONSTRUCTION OF A REQUIRED FACILITY OR IMPROVEMENT. MASS CLEARING OF THE SITE IN ANTICIPATION OF CONSTRUCTION SHALL BE AVOIDED.

15. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING, MAINTAINING, OR RESTORING ALL MONUMENTS AND MONUMENT REFERENCE MARKS WITHIN THE PROJECT SITE. CONTACT THE CITY OR COUNTY SURVEYOR FOR MONUMENT LOCATIONS AND CONSTRUCTION DETAILS.

16. EXISTING UTILITY INFORMATION SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. IT IS DERIVED FROM ON-SITE SURVEY AND/OR UTILITY MAPPING PROVIDED TO THE ENGINEER, AND THEREFORE UTILITIES MAY NOT BE LOCATED CORRECTLY, EITHER HORIZONTALLY OR VERTICALLY, AND MAY NOT BE ALL INCLUSIVE. CONTRACTOR IS REQUIRED TO FOLLOW THE PROCEDURE OUTLINED BELOW:
    - 16.1. CONTRACTOR IS REQUIRED TO LOCATE AND POTHOLE ALL EXISTING UTILITY LINES (BOTH HORIZONTALLY AND VERTICALLY) THAT AFFECT THE PROJECT CONSTRUCTION, EITHER ON-SITE OR OFF-SITE, AND DETERMINE IF THERE ARE ANY CONFLICTS WITH THE DESIGN OF THE SITE AS SHOWN ON THE APPROVED PLANS PRIOR TO ANY CONSTRUCTION. IF IT IS DETERMINED THAT CONFLICTS EXIST BETWEEN EXISTING UTILITIES AND DESIGN UTILITIES (OR ANOTHER ASPECT OF PROPOSED CONSTRUCTION) THE ENGINEER MUST BE NOTIFIED IMMEDIATELY TO CORRECT THE CONFLICTS BEFORE ANY WORK CAN BEGIN. IF THE CONTRACTOR FAILS TO FOLLOW THIS ABSOLUTE REQUIREMENT AND CONFLICTS ARISE DURING CONSTRUCTION THE CONTRACTOR WILL BEAR THE SOLE RESPONSIBILITY TO FIX THE CONFLICTS.
    - 16.2. CONTRACTOR IS REQUIRED TO VERIFY THAT PROPER COVER AND PROTECTION OF EXISTING UTILITY LINES IS MAINTAINED OR ATTAINED WITHIN THE DESIGN ONCE VERIFICATION OF THE EXISTING UTILITIES IS COMPLETED AS OUTLINED IN 16.1 ABOVE.
    - 16.3. IN ADDITION TO 16.1 AND 16.2 ABOVE THE CONTRACTOR WILL VERIFY DEPTHS OF UTILITIES IN THE FIELD BY "POTHOLING" A MINIMUM OF 300 FEET AHEAD OF PROPOSED PIPELINE CONSTRUCTION TO AVOID POTENTIAL CONFLICTS WITH DESIGNED PIPELINE ALIGNMENT AND GRADE AND EXISTING UTILITIES.
    - 16.4. IF A CONFLICT ARISES BETWEEN EXISTING UTILITIES AND DESIGN UTILITIES (OR ANOTHER ASPECT OF PROPOSED CONSTRUCTION) AS DETERMINED UNDER 16.1, 16.2 OR 16.3 THE CONTRACTOR WILL NOTIFY THE ENGINEER IMMEDIATELY TO RESOLVE THE CONFLICT.
    - 16.5. IF A CONFLICT ARISES BETWEEN EXISTING UTILITIES AND DESIGN UTILITIES (OR ANOTHER ASPECT OF PROPOSED CONSTRUCTION) RESULTING FROM THE CONTRACTOR'S NEGLIGENCE TO IDENTIFY AND/OR "POTHOLE" EXISTING UTILITIES AS REQUIRED IN 16.1, 16.2 AND 16.3 ABOVE, THE CONTRACTOR WILL BE REQUIRED TO RESOLVE THE CONFLICT WITHOUT ADDITIONAL COST OR CLAIM TO THE OWNER OR ENGINEER.

17. ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.

18. CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BEFORE COMMENCING CONSTRUCTION.

19. AT ALL LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING PAVEMENT SHALL BE SAWCUT TO A CLEAN, SMOOTH EDGE.

20. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST RECENT, ADOPTED EDITION OF ADA ACCESSIBILITY GUIDELINES.

21. CONTRACTOR SHALL, AT THE TIME OF BIDDING AND THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE OF UTAH AND SHALL BE BONDABLE FOR AN AMOUNT REQUIRED BY THE OWNER.

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

23. 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 RE-TESTING AND/OR RE-INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.

24. 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. THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.

25. 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 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.

26. CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL STRUCTURES AND OTHER FACILITIES. 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. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER ONE SET OF NEATLY MARKED RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

27. WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.

28. ALL EXISTING GATES AND FENCES TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL GATES AND FENCES FROM DAMAGE.

29. ALL EXISTING TREES ARE TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL TREES FROM DAMAGE.

30. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE GOVERNING AGENCY PRIOR TO THE PLACEMENT.

31. CONTRACTORS ARE RESPONSIBLE FOR ALL OSHA REQUIREMENTS ON THE PROJECT SITE.

32. A UPDES (UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR ALL CONSTRUCTION ACTIVITIES 1 ACRE OR MORE AS WELL AS A STORM WATER POLLUTION PREVENTION PLAN.

UTILITY NOTES

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

2. CONTRACTOR SHALL COORDINATE LOCATION OF NEW "DRY UTILITIES" WITH THE APPROPRIATE UTILITY COMPANY, INCLUDING BUT NOT LIMITED TO: TELEPHONE & INTERNET SERVICE, GAS SERVICE, CABLE, AND POWER.

3. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS BASED ON ON-SITE SURVEY. 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 AT 1-800-662-4111 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 CONTRACTOR'S 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 CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.

4. CARE SHOULD BE TAKEN IN ALL EXCAVATIONS DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES. EXCAVATION REQUIRED WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT CONTRACTOR'S EXPENSE.

5. TRENCH BACKFILL MATERIAL AND COMPACTION TESTS ARE TO BE TAKEN PER APWA STANDARD SPECIFICATIONS (CURRENT EDITION), SECTION 02320 - BACKFILLING TRENCHES, OR AS REQUIRED BY THE GEOTECHNICAL REPORT IF NATIVE MATERIALS ARE USED. NO NATIVE MATERIALS ARE ALLOWED IN THE PIPE ZONE. THE MAXIMUM LIFT FOR BACKFILLING EXCAVATIONS IS DETERMINED BY THE GEOTECHNICAL RECOMMENDATIONS.

6. 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.

7. 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 CONTRACTOR'S 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.

8. 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.

9. ALL WATER LINE AND SEWER LINE INSTALLATION AND TESTING TO BE IN ACCORDANCE WITH LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.

10. ALL MANHOLES, HYDRANTS, VALVES, CLEANOUT BOXES, CATCH BASINS, METERS, ETC. MUST BE RAISED OR LOWERED TO FINAL GRADE PER APWA (CURRENT EDITION) STANDARDS AND INSPECTOR REQUIREMENTS. CONCRETE COLLARS MUST BE CONSTRUCTED ON ALL MANHOLES, CLEANOUT BOXES, CATCH BASINS, AND VALVES PER APWA 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.

11. CONTRACTOR SHALL NOT ALLOW ANY GROUNDWATER OR DEBRIS TO ENTER THE NEW OR EXISTING PIPE DURING CONSTRUCTION.

12. SILT AND DEBRIS ARE TO BE CLEANED OUT OF ALL STORM DRAIN BOXES. CATCH BASINS ARE TO BE MAINTAINED IN A CLEANED CONDITION AS NEEDED UNTIL AFTER THE FINAL BOND RELEASE INSPECTION.

13. CONTRACTOR SHALL CLEAN ASPHALT, TAR OR OTHER ADHESIVES OFF OF ALL MANHOLE LIDS AND INLET GRATES TO ALLOW ACCESS.

14. EACH TRENCH SHALL BE EXCAVATED SO THAT THE PIPE CAN BE LAID TO THE ALIGNMENT AND GRADE AS REQUIRED. THE TRENCH WALL SHALL BE SO BRACED THAT THE WORKMEN MAY WORK SAFELY AND EFFICIENTLY. ALL TRENCHES SHALL BE DRAINED SO THE PIPE LAYING MAY TAKE PLACE IN DEWATERED CONDITIONS.

15. CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES AMPLE MEANS AND DEVICES WITH WHICH TO REMOVE PROMPTLY AND TO PROPERLY DISPOSE OF ALL WATER ENTERING THE TRENCH EXCAVATION.

16. ALL SEWER LINES AND SEWER SERVICES SHALL HAVE A MINIMUM SEPARATION OF 10 FEET, EDGE TO EDGE, FROM THE WATER LINES. IF A 10 FOOT SEPARATION CAN NOT BE MAINTAINED, CONSTRUCT PER GOVERNING AGENCY'S MINIMUM SEPARATION STANDARDS.

17. CONTRACTOR SHALL INSTALL THRUST BLOCKING AT ALL WATERLINE ANGLE POINTS AND TEES.

18. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK AND STREET PAVING.

19. CONTRACTOR SHALL INSTALL MAGNETIC LOCATING TAPE CONTINUOUSLY OVER ALL NONMETALLIC PIPE.

TRAFFIC CONTROL AND SAFETY NOTES

1. TRAFFIC CONTROL AND STRIPING TO CONFORM TO THE CURRENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.).

2. BARRICADING AND DETOURING SHALL BE IN CONFORMANCE WITH THE REQUIREMENTS OF THE CURRENT M.U.T.C.D.

3. NO STREET SHALL BE CLOSED TO TRAFFIC WITHOUT WRITTEN PERMISSION FROM THE APPROPRIATE AGENCY, EXCEPT WHEN DIRECTED BY LAW ENFORCEMENT OR FIRE OFFICIALS.

4. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROVIDE FOR SMOOTH TRAFFIC FLOW AND SAFETY. ACCESS SHALL BE MAINTAINED FOR ALL PROPERTIES ADJACENT TO THE WORK.

5. DETOURING OPERATIONS FOR A PERIOD OF SIX CONSECUTIVE CALENDAR DAYS, OR MORE, REQUIRE THE INSTALLATION OF TEMPORARY STREET STRIPING AND REMOVAL OF INTERFERING STRIPING BY SANDBLASTING. THE DETOURING STRIPING PLAN OR CONSTRUCTION TRAFFIC CONTROL PLAN MUST BE SUBMITTED TO THE GOVERNING AGENCY FOR REVIEW AND APPROVAL.

6. ALL TRAFFIC CONTROL DEVICES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE END OF THE WORK TO THE SATISFACTION OF THE GOVERNING AGENCY.

7. TRAFFIC CONTROL DEVICES (TCDs) SHALL REMAIN VISIBLE AND OPERATIONAL AT ALL TIMES.

8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HEREUNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.

9. THE CONTRACTOR SHALL PROVIDE BARRICADES, SIGNS, FLASHERS, OTHER EQUIPMENT AND FLAG PERSONS NECESSARY TO INSURE THE SAFETY OF WORKERS AND VISITORS.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING UTAH TRANSIT AUTHORITY (UTA) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.

DEMOLITION NOTES

1. EXISTING UTILITY INFORMATION SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. IT IS DERIVED FROM ON-SITE SURVEY AND MAY NOT BE LOCATED CORRECTLY AND IS NOT ALL INCLUSIVE. CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES WITHIN THE PROJECT LIMITS BEFORE BEGINNING DEMOLITION/CONSTRUCTION.

2. THERE MAY BE BURIED UTILITIES WITHIN THE LIMITS OF DISTURBANCE THAT ARE NOT SHOWN ON THE PLANS DUE TO LACK OF MAPPING OR RECORD INFORMATION. CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN UNEXPECTED UTILITIES ARE DISCOVERED.

3. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR LOCATING AND PROTECTING FROM DAMAGE ALL EXISTING UTILITIES AND IMPROVEMENTS WHETHER OR NOT SHOWN ON THESE PLANS. THE FACILITIES AND IMPROVEMENTS ARE BELIEVED TO BE CORRECTLY SHOWN BUT THE CONTRACTOR IS REQUIRED TO SATISFY HIMSELF AS TO THE COMPLETENESS AND ACCURACY OF THE LOCATIONS. ANY CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY, OR INDIRECTLY, FROM HIS OPERATIONS, WHETHER OR NOT SAID FACILITIES ARE SHOWN ON THESE PLANS.

GRADING AND DRAINAGE NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT AND ALL RELATED ADDENDUMS.

2. THE CONTRACTOR SHALL STRIP AND CLEAR THE TOPSOIL, MAJOR ROOTS AND ORGANIC MATERIAL FROM ALL PROPOSED BUILDING AND PAVEMENT AREAS PRIOR TO SITE GRADING. (THE TOPSOIL MAY BE STOCKPILED FOR LATER USE IN LANDSCAPED AREAS.)

3. THE CONTRACTOR SHALL REMOVE ALL ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIALS PRIOR TO PLACING GRADING FILL OR BASE COURSE. THE AREA SHOULD BE PROOF-ROLLED TO IDENTIFY ANY SOFT AREAS. WHERE SOFT AREAS ARE ENCOUNTERED, THE CONTRACTOR SHALL REMOVE THE SOIL AND REPLACE WITH COMPACTED FILL.

4. ALL DEBRIS PILES AND BERMS SHOULD BE REMOVED AND HAULED AWAY FROM SITE OR USED AS GENERAL FILL IN LANDSCAPED AREAS.

5. THE CONTRACTOR SHALL CONSTRUCT THE BUILDING PAD TO THESE DESIGN PLANS AS PART OF THE SITE GRADING CONTRACT, AND STRICTLY ADHERE TO THE SITE PREPARATION AND GRADING REQUIREMENTS OUTLINED IN THE GEOTECHNICAL REPORT.

6. THE CONTRACTOR SHALL GRADE THE PROJECT SITE TO PROVIDE A SMOOTH TRANSITION BETWEEN NEW AND EXISTING ASPHALT, CURB AND GUTTER, AND ADJOINING SITE IMPROVEMENTS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE AND DEBRIS ON ADJACENT STREETS WHEN EQUIPMENT IS TRAVELING THOSE STREETS.

8. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL CONDITIONS AND RECOMMENDATIONS OUTLINED IN THE GEOTECHNICAL REPORT AND TAKE ALL NECESSARY PRECAUTIONS AND RECOMMENDED PROCEDURES TO ASSURE SOUND GRADING PRACTICES.

9. THE CONTRACTOR SHALL TAKE APPROPRIATE GRADING MEASURES TO DIRECT STORM SURFACE RUNOFF TOWARDS CATCH BASINS.

10. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THESE PLANS ARE BASED ON ON-SITE SURVEY. IT SHALL BE THE CONTRACTORS' FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO PROCEEDING WITH CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.

11. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADES, AND SLOPES SHOWN.

12. THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.

13. THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT. ALL CONTRACTOR ACTIVITIES 1 ACRE OR MORE IN SIZE ARE REQUIRED TO PROVIDE A STORM WATER POLLUTION PREVENTION PLAN.

14. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.

15. THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER FROM GOVERNING AGENCY.

16. THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS, AND ALL OTHER PUBLIC RIGHT-OF-WAYS IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY-OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC, SHALL BE MAINTAINED IN A CLEAN, SAFE, AND USABLE CONDITION.

ABBREVIATIONS

APWA	AMERICAN PUBLIC WORKS ASSOCIATION
AR	ACCESSIBLE ROUTE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BOS	BOTTOM OF STEP
BVC	BEGIN VERTICAL CURVE
C	CURVE
CB	CATCH BASIN
CF	CURB FACE OR CUBIC FEET
CL	CENTER LINE
CO	CLEAN OUT
COMM	COMMUNICATION
CONC	CONCRETE
CONT	CONTINUOUS
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
ELEC	ELECTRICAL
ELEV	ELEVATION
EOA	EDGE OF ASPHALT
EVC	END OF VERTICAL CURVE
EW	EACH WAY
EXIST	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE OR FLANGE
GB	GRADE BREAK
GF	GARAGE FLOOR
GV	GATE VALVE
HC	HANDICAP
HP	HIGH POINT
IRR	IRRIGATION
K	RATE OF VERTICAL CURVATURE
LD	LAND DRAIN
LF	LINEAR FEET
LP	LOW POINT
MEX	MATCH EXISTING
MH	MANHOLE
MJ	MECHANICAL JOINT
NG	NATURAL GROUND
NIC	NOT IN CONTRACT
NO	NUMBER
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OHP	OVERHEAD POWER
PC	POINT OF CURVATURE OR PRESSURE CLASS
PCC	POINT OF COMPOUND CURVATURE
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PROPERTY LINE
PRC	POINT OF REVERSE CURVATURE
PRO	PROPOSED
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
R	RADIUS
RD	ROOF DRAIN
ROW	RIGHT OF WAY
S	SLOPE
SAN SWR	SANITARY SEWER
SD	STORM DRAIN
SEC	SECONDARY
SS	SANITARY SEWER
STA	STATION
SW	SECONDARY WATER LINE
TBC	TOP BACK OF CURB
TOG	TOP OF GRATE
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TOF	TOP OF FOUNDATION
TOW	TOP OF WALL
TOS	TOP OF STEP
TYP	TYPICAL
VC	VERTICAL CURVE
WIV	WALL INDICATOR VALVE
W	WATER LINE

NOTE: MAY CONTAIN ABBREVIATIONS THAT ARE NOT USED IN THIS PLAN SET.

LEGEND

SECTION CORNER	EXISTING EDGE OF ASPHALT
EXISTING MONUMENT	PROPOSED EDGE OF ASPHALT
PROPOSED MONUMENT	EXISTING STRIPING
EXISTING REBAR AND CAP	PROPOSED STRIPING
SET ENSIGN REBAR AND CAP	EXISTING FENCE
EXISTING WATER METER	PROPOSED FENCE
PROPOSED WATER METER	EXISTING FLOW LINE
EXISTING WATER MANHOLE	PROPOSED FLOW LINE
PROPOSED WATER MANHOLE	GRADE BREAK
EXISTING WATER BOX	EXISTING STORM DRAIN LINE
EXISTING WATER VALVE	PROPOSED STORM DRAIN LINE
PROPOSED WATER VALVE	ROOF DRAIN LINE
EXISTING FIRE HYDRANT	CATCHMENTS
PROPOSED FIRE HYDRANT	HIGHWATER LINE
PROPOSED FIRE DEPARTMENT CONNECTION	EXISTING SANITARY SEWER
EXISTING SECONDARY WATER VALVE	PROPOSED SANITARY SEWER LINE
PROPOSED SECONDARY WATER VALVE	PROPOSED SAN. SWR. SERVICE LINE
EXISTING IRRIGATION BOX	EXISTING LAND DRAIN LINE
EXISTING IRRIGATION VALVE	PROPOSED LAND DRAIN LINE
PROPOSED IRRIGATION VALVE	PROPOSED LAND DRAIN SERVICE LINE
EXISTING SANITARY SEWER MANHOLE	EXISTING CULINARY WATER LINE
PROPOSED SANITARY SEWER MANHOLE	PROPOSED CULINARY WATER LINE
EXISTING SANITARY CLEAN OUT	PROPOSED CULINARY WATER SERVICE LINE
EXISTING STORM DRAIN CLEAN OUT BOX	EXISTING SECONDARY WATER LINE
PROPOSED STORM DRAIN CLEAN OUT BOX	PROPOSED SECONDARY WATER LINE
EXISTING STORM DRAIN INLET BOX	PROPOSED SEC. WATER SERVICE LINE
EXISTING STORM DRAIN CATCH BASIN	EXISTING IRRIGATION LINE
PROPOSED STORM DRAIN CATCH BASIN	PROPOSED IRRIGATION LINE
EXISTING STORM DRAIN COMBO BOX	EXISTING OVERHEAD POWER LINE
PROPOSED STORM DRAIN COMBO BOX	EXISTING ELECTRICAL LINE
EXISTING STORM DRAIN CLEAN OUT	EXISTING GAS LINE
EXISTING STORM DRAIN CULVERT	EXISTING TELEPHONE LINE
PROPOSED STORM DRAIN CULVERT	ACCESSIBLE ROUTE
TEMPORARY SAG INLET PROTECTION	SAW CUT LINE
TEMPORARY IN-LINE INLET PROTECTION	STRAW WATTLE
ROOF DRAIN	TEMPORARY BERM
EXISTING ELECTRICAL MANHOLE	TEMPORARY SILT FENCE
EXISTING ELECTRICAL BOX	LIMITS OF DISTURBANCE
EXISTING TRANSFORMER	EXISTING WALL
EXISTING UTILITY POLE	PROPOSED WALL
EXISTING LIGHT	EXISTING CONTOURS
PROPOSED LIGHT	PROPOSED CONTOURS
EXISTING GAS METER	BUILDABLE AREA WITHIN SETBACKS
EXISTING GAS MANHOLE	PUBLIC DRAINAGE EASEMENT
EXISTING GAS VALVE	EXISTING ASPHALT TO BE REMOVED
EXISTING TELEPHONE MANHOLE	PROPOSED ASPHALT
EXISTING TELEPHONE BOX	EXISTING CURB AND GUTTER
EXISTING TRAFFIC SIGNAL BOX	PROPOSED CURB AND GUTTER
EXISTING CABLE BOX	PROPOSED REVERSE PAN CURB AND GUTTER
EXISTING BOLLARD	TRANSITION TO REVERSE PAN CURB
PROPOSED BOLLARD	CONCRETE TO BE REMOVED
EXISTING SIGN	EXISTING CONCRETE
PROPOSED SIGN	PROPOSED CONCRETE
EXISTING SPOT ELEVATION	BUILDING TO BE REMOVED
PROPOSED SPOT ELEVATION	EXISTING BUILDING
EXISTING FLOW DIRECTION	PROPOSED BUILDING
EXISTING TREE	
DENSE VEGETATION	

NOTE: MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PLAN SET.

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PAUL ANDERSON
PHONE: (801) 687-0000

ALPINE FITNESS
235 S. MAIN STREET
ALPINE, UTAH 84004

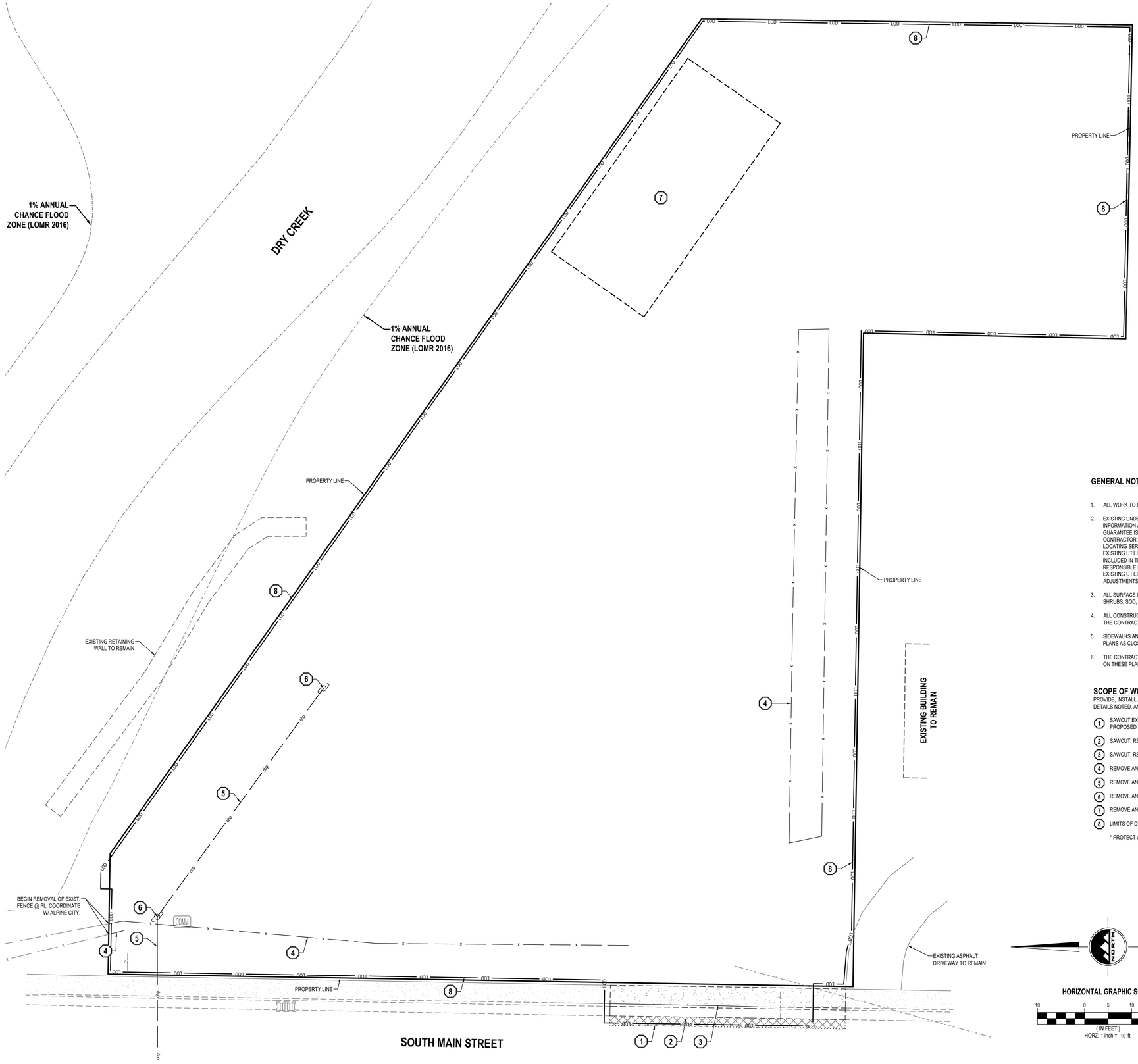
REGISTERED PROFESSIONAL ENGINEER 08/13/2020 #5936 DAVID A. JENKINS STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
2			
3			
4			
5			
6			
7			
8			

GENERAL NOTES

PROJECT NUMBER 9711
PRINT DATE 8/13/20
DRAWN BY T. MAZEJY
CHECKED BY D. JENKINS
PROJECT MANAGER D. JENKINS

C-001



GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
3. ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES AND DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.
4. ALL CONSTRUCTION SIGNAGE, BARRICADES, TRAFFIC CONTROL DEVICES, ETC. SHALL CONFORM TO THE LATEST EDITION OF THE M.U.T.C.D. THE CONTRACTOR WILL MAINTAIN SUCH SO THAT THEY ARE PROPERLY PLACED AND VISIBLE AT ALL TIMES.
5. SIDEWALKS AND CURBS DESIGNATED TO BE DEMOLISHED SHALL BE DEMOLISHED TO THE NEAREST EXPANSION JOINT, MATCHING THESE PLANS AS CLOSELY AS POSSIBLE.
6. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.

SCOPE OF WORK:

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

1. SAWCUT EXISTING ASPHALT PAVEMENT TO PROVIDE A CLEAN EDGE FOR THE TRANSITION BETWEEN EXISTING AND PROPOSED ASPHALT PAVEMENT.
2. SAWCUT, REMOVE, AND PROPERLY DISPOSE OF EXISTING CONCRETE CURB AND GUTTER.
3. SAWCUT, REMOVE, AND PROPERLY DISPOSE OF EXISTING CONCRETE SIDEWALK.
4. REMOVE AND PROPERLY DISPOSE OF EXISTING FENCE. COORDINATE W/ ALPINE CITY.
5. REMOVE AND RELOCATE EXISTING OVERHEAD POWER LINE. COORDINATE W/ ROCKY MOUNTAIN POWER.
6. REMOVE AND PROPERLY DISPOSE OF EXISTING POWER POLE. COORDINATE W/ ALPINE CITY.
7. REMOVE AND PROPERLY DISPOSE OF EXISTING BUILDING.
8. LIMITS OF DISTURBANCE.

* PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, SIGNS, ETC. (TYPICAL UNLESS OTHERWISE NOTED).

NORTH

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)

HORZ: 1 inch = 10 ft.

BENCHMARK

NORTHEAST CORNER OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 4946.87' (NGVD 29)

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

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235 S. MAIN STREET
ALPINE, UTAH 84004

REGISTERED PROFESSIONAL ENGINEER
08/13/2020
#5936
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
2			
3			
4			
5			
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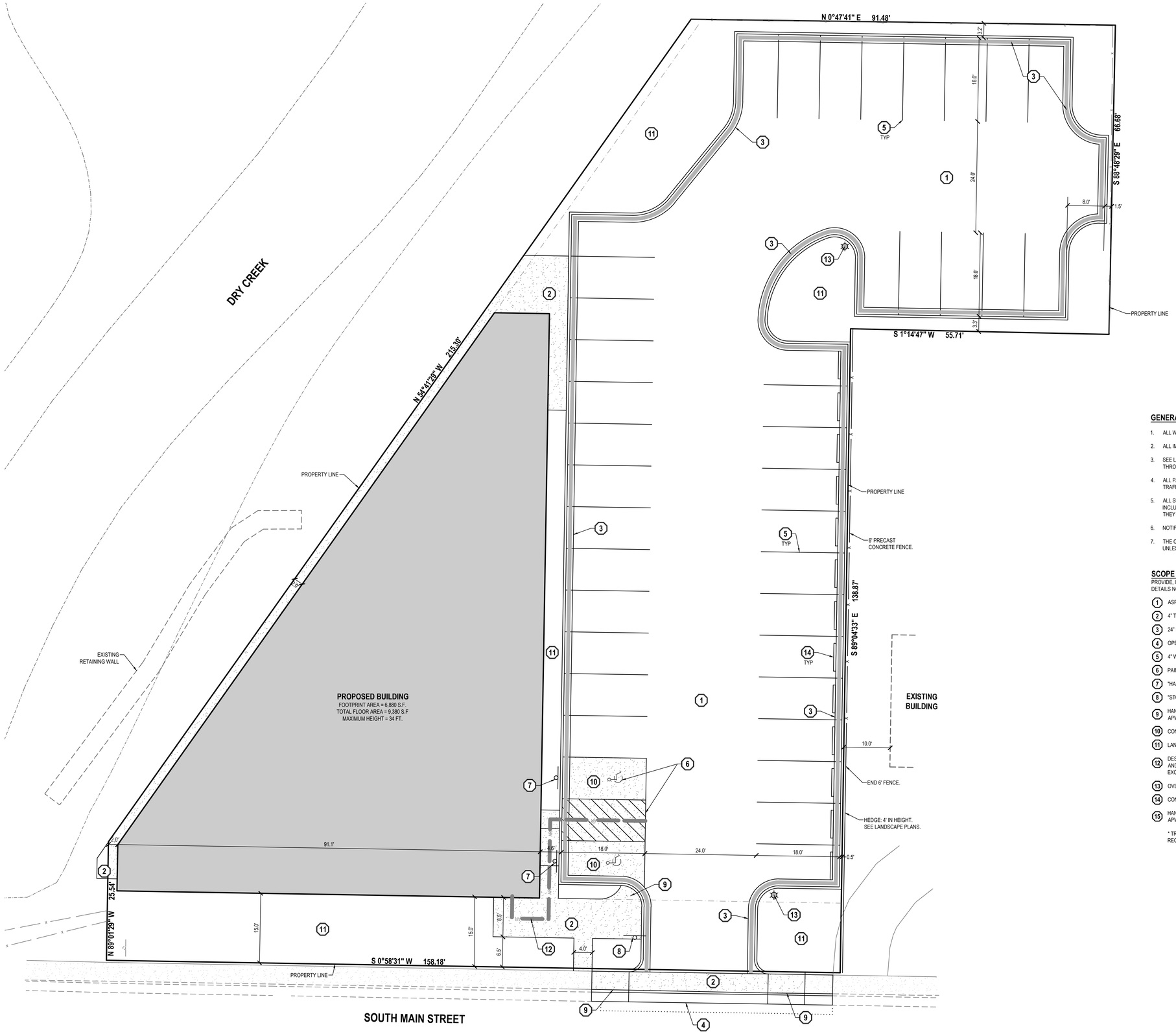
7			
8			

DEMO PLAN

PROJECT NUMBER	PRINT DATE
9711	8/13/20
DRAWN BY	CHECKED BY
T. MAZEJY	D. JENKINS
PROJECT MANAGER	
D. JENKINS	

C-100



SITE SUMMARY TABLE		
DESCRIPTION	AREA (SF)	PERCENTAGE
PAVEMENT	12,980	53%
ROOF	6,880	27%
LANDSCAPING	5,037	20%
TOTAL SITE	25,128 0.58 ACRES	100%

PARKING DATA TABLE	
STANDARD STALLS	38
ADA - ACCESSIBLE STALLS	2
TOTAL STALLS	40
REQUIRED STALLS	38

* 4 PARKING STALLS REQUIRED FOR EACH 1000 SQUARE FEET OF BUILDING FLOOR AREA. TOTAL BUILDING FLOOR AREA = 9,380 S.F.

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. SEE LANDSCAPE/ARCHITECTURAL PLANS FOR CONCRETE MATERIAL, COLOR, FINISH, AND SCORE PATTERNS THROUGHOUT SITE.
4. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE M.U.T.C.D. (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
5. ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES AND DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.
6. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR ASPHALT.
7. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.

SCOPE OF WORK:

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

1. ASPHALT PAVEMENT PER DETAIL 1/C-600.
2. 4" THICK CONCRETE SIDEWALK PER APWA STANDARD PLAN NO. 231.
3. 24" REVERSE PAN CURB AND GUTTER PER DETAIL 2/C-600.
4. OPEN DRIVEWAY APPROACH PER APWA STANDARD PLAN NO. 225.
5. 4" WIDE SOLID WHITE PAVEMENT MARKING PER M.U.T.C.D. STANDARD PLANS.
6. PAINTED ADA SYMBOL AND ASSOCIATED HATCHING PER M.U.T.C.D. STANDARD PLANS.
7. "HANDICAP PARKING" SIGN PER M.U.T.C.D. STANDARD PLANS.
8. "STOP" SIGN PER M.U.T.C.D. STANDARD PLANS.
9. HANDICAP ACCESS RAMP PER APWA STANDARD PLAN NO. 235 WITH DETECTABLE WARNING SURFACE PER APWA STANDARD PLAN NO. 238.
10. CONCRETE PAVEMENT PER DETAIL 8/C-600.
11. LANDSCAPING PER SHEET L-100.
12. DESIGNATED ACCESSIBLE ROUTE. RUNNING SLOPE SHALL NOT EXCEED 5.00% (1:12 OR 8.33% FOR RAMPS) AND CROSS SLOPES SHALL NOT EXCEED 2.00%. CONTRACTOR TO REMOVE AND REPLACE ANY AREAS WHICH EXCEED ALLOWABLE SLOPES. SEE GRADING PLAN FOR ELEVATION INFORMATION.
13. OVERHEAD LIGHT. SEE ARCHITECTURAL PLANS FOR DETAILS.
14. CONCRETE WHEEL STOP PER DETAIL 9/C-600.
15. HANDICAP ACCESS RAMP PER APWA STANDARD PLAN NO. 236.3 WITH DETECTABLE WARNING SURFACE PER APWA STANDARD PLAN NO. 238.

* TRASH RECEPTACLES WILL BE STORED INSIDE OF BUILDING. NO OUTDOOR TRASH ENCLOSURE IS REQUIRED.

NORTH

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
HORZ. 1 inch = 10 ft.

BENCHMARK

NORTHEAST CORNER OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 4946.87' (NGVD 29)

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PHONE: (801) 687-0000

ALPINE FITNESS

235 S. MAIN STREET
ALPINE, UTAH 84004

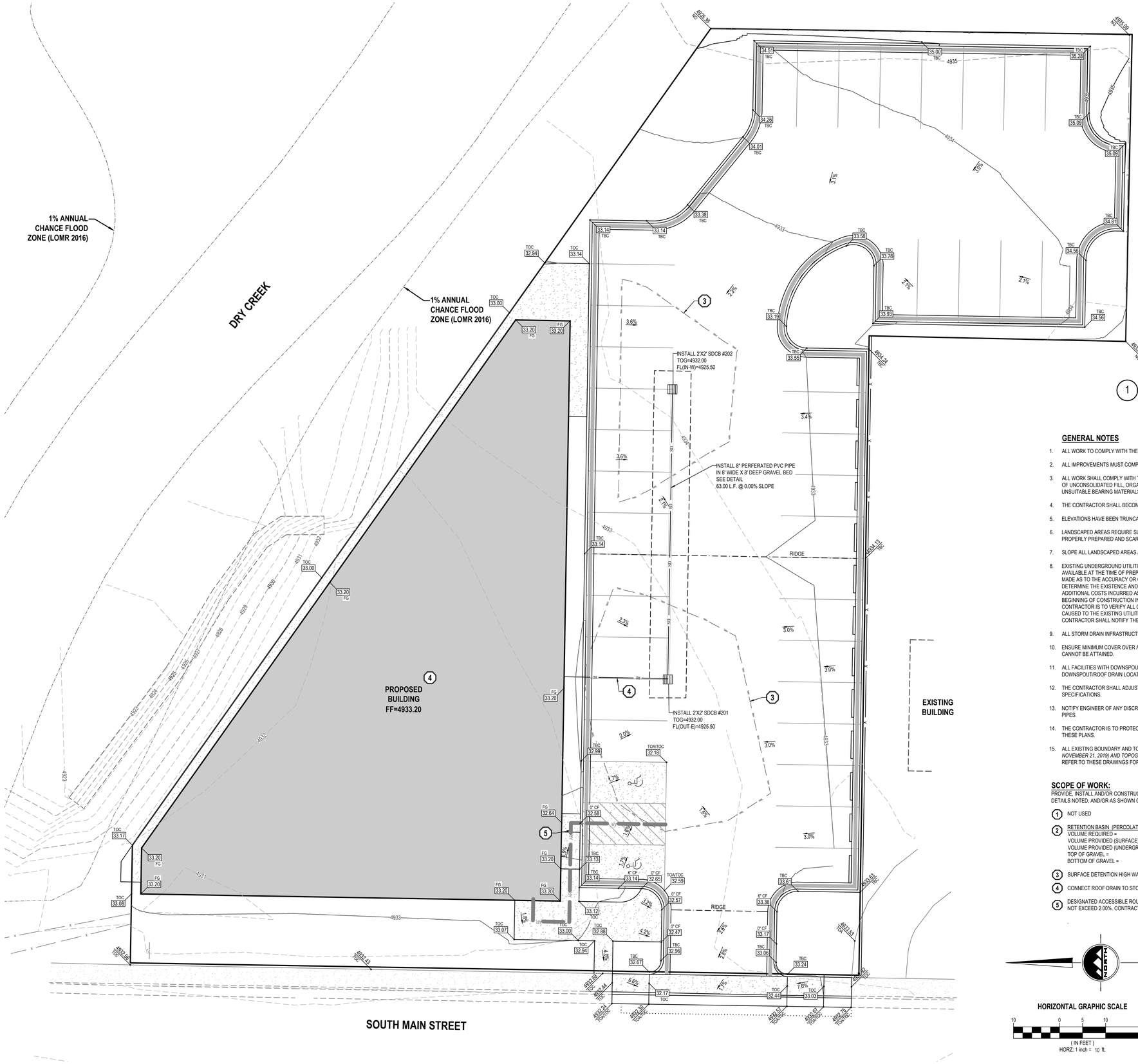
REGISTERED PROFESSIONAL ENGINEER
08/13/2020
#5936
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
2			
3			
4			
5			
6			
7			
8			

SITE PLAN

PROJECT NUMBER 9711
PRINT DATE 8/13/20
DRAWN BY T. MAZEJY
CHECKED BY D. JENKINS
PROJECT MANAGER D. JENKINS

C-200



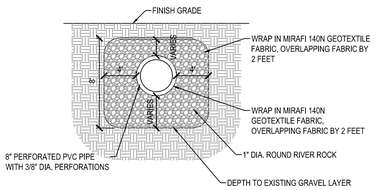
Project :	Alpine Physical Therapy	Project No. :	9711
By :	D. Cowley	Checked By :	D. Jenkins
Date :	12-Aug-2020	Sheet :	

INFILTRAION RETENTION CALCULATION

Area Calculations			Area Runoff Coefficients	
Hardscaped Area (Ac)	0.41	acres	Cp :	0.90
LANDSCAPE AREA (Ai)	0.09	acres	Ci :	0.20
TOTAL AREA (At)	0.50	acres	WEIGHTED C :	0.79

Runoff Calculations		
Percolation Area	500	ft²
Percolation Rate	24.0	in/hr
Total Percolation Rate	0.200	cfs

Time (min)	CA (Acres)	Precipitation Intensity (in/hr)	Time (sec)	Cumulative Runoff (ft³)	Allowed Runoff (ft³)	Storage (ft³)
5	0.46	6.97	300	958	78	880
10	0.46	5.30	600	1,457	156	1,302
15	0.46	4.39	900	1,806	233	1,573
30	0.46	2.95	1,800	2,433	467	1,966
60	0.46	1.82	3,600	3,002	933	2,069
120	0.46	1.02	7,200	3,365	1,867	1,498
180	0.46	0.71	10,800	3,513	2,800	713
360	0.46	0.41	21,600	4,058	5,600	-1,542
720	0.46	0.26	43,200	5,147	11,200	-6,053
1440	0.46	0.14	86,400	5,542	22,400	-16,858
NOTE: 100 Year Storm				Storage Required		2,069
				Underground Storage Provided		1,792
				Surface Storage Provided		360
				Total Storage Provided		**2,152**



1 PERFORATED PIPE DETAIL

SCALE: NONE

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. ALL WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER POSSIBLY INCLUDING, BUT NOT LIMITED TO, REMOVAL OF UNCONSOLIDATED FILL, ORGANICS, AND DEBRIS, PLACEMENT OF SUBSURFACE DRAIN LINES AND GEOTEXTILE, AND OVEREXCAVATION OF UNSUITABLE BEARING MATERIALS AND PLACEMENT OF ACCEPTABLE FILL MATERIAL.
4. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SOIL CONDITIONS.
5. ELEVATIONS HAVE BEEN TRUNCATED FOR CLARITY. 67.25 REPRESENTS AN ELEVATION OF 4967.25 ON THESE PLANS.
6. LANDSCAPED AREAS REQUIRE SUBGRADE TO BE MAINTAINED AT A SPECIFIC ELEVATION BELOW FINISHED GRADE AND REQUIRE SUBGRADE TO BE PROPERLY PREPARED AND SCARIFIED. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
7. SLOPE ALL LANDSCAPED AREAS AWAY FROM BUILDING FOUNDATIONS TOWARD CURB AND GUTTER OR STORM DRAIN INLETS.
8. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
9. ALL STORM DRAIN INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
10. ENSURE MINIMUM COVER OVER ALL STORM DRAIN PIPES PER MANUFACTURER'S RECOMMENDATIONS. NOTIFY ENGINEER IF MINIMUM COVER CANNOT BE ATTAINED.
11. ALL FACILITIES WITH DOWNSPOUTS/ROOF DRAINS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM. SEE PLUMBING PLANS FOR DOWNSPOUT/ROOF DRAIN LOCATIONS AND SIZES. ALL ROOF DRAINS TO HAVE MINIMUM 1% SLOPE.
12. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
13. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE, ASPHALT, OR STORM DRAIN STRUCTURES OR PIPES.
14. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.
15. ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION IN THIS PLAN SET COME FROM THE SURVEY DRAWINGS *"LAND SURVEY PLAT (DATED NOVEMBER 21, 2019) AND TOPOGRAPHY SURVEY (DATED JANUARY 24, 2020)"* PROVIDED BY VARA 3D AND NOT ENSIGN ENGINEERING. PLEASE REFER TO THESE DRAWINGS FOR SURVEY INFORMATION.

SCOPE OF WORK:

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

1. NOT USED
2. RETENTION BASIN (PERCOLATION RATE = 0.67 INCHES PER MINUTE X FS OF 1/2)
   - VOLUME REQUIRED = 2,069 CU. FT.
   - VOLUME PROVIDED (SURFACE) = 360 CU. FT.
   - VOLUME PROVIDED (UNDERGROUND) = 1,792 CU. FT.
   - TOP OF GRAVEL = 4931.30
   - BOTTOM OF GRAVEL = 4923.30
3. SURFACE DETENTION HIGH WATER LINE. ELEVATION = 4932.70
4. CONNECT ROOF DRAIN TO STORM DRAIN NETWORK. SEE MECHANICAL PLANS FOR ROOF DRAIN LOCATION AND CONNECTION.
5. DESIGNATED ACCESSIBLE ROUTE. RUNNING SLOPE SHALL NOT EXCEED 5.00% (1:12 OR 8.33% FOR RAMPS) AND CROSS SLOPES SHALL NOT EXCEED 2.00%. CONTRACTOR TO REMOVE AND REPLACE ANY AREAS WHICH EXCEED ALLOWABLE SLOPES.

NORTH

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)

HORZ: 1 inch = 10 ft.

BENCHMARK

NORTHEAST CORNER OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 4946.87' (NGVD 29)

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

ENSIGN
THE STANDARD IN ENGINEERING

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FOR:
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ALPINE, UTAH 84004

CONTACT:
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PHONE: (801) 687-0000

ALPINE FITNESS

235 S. MAIN STREET
ALPINE, UTAH 84004

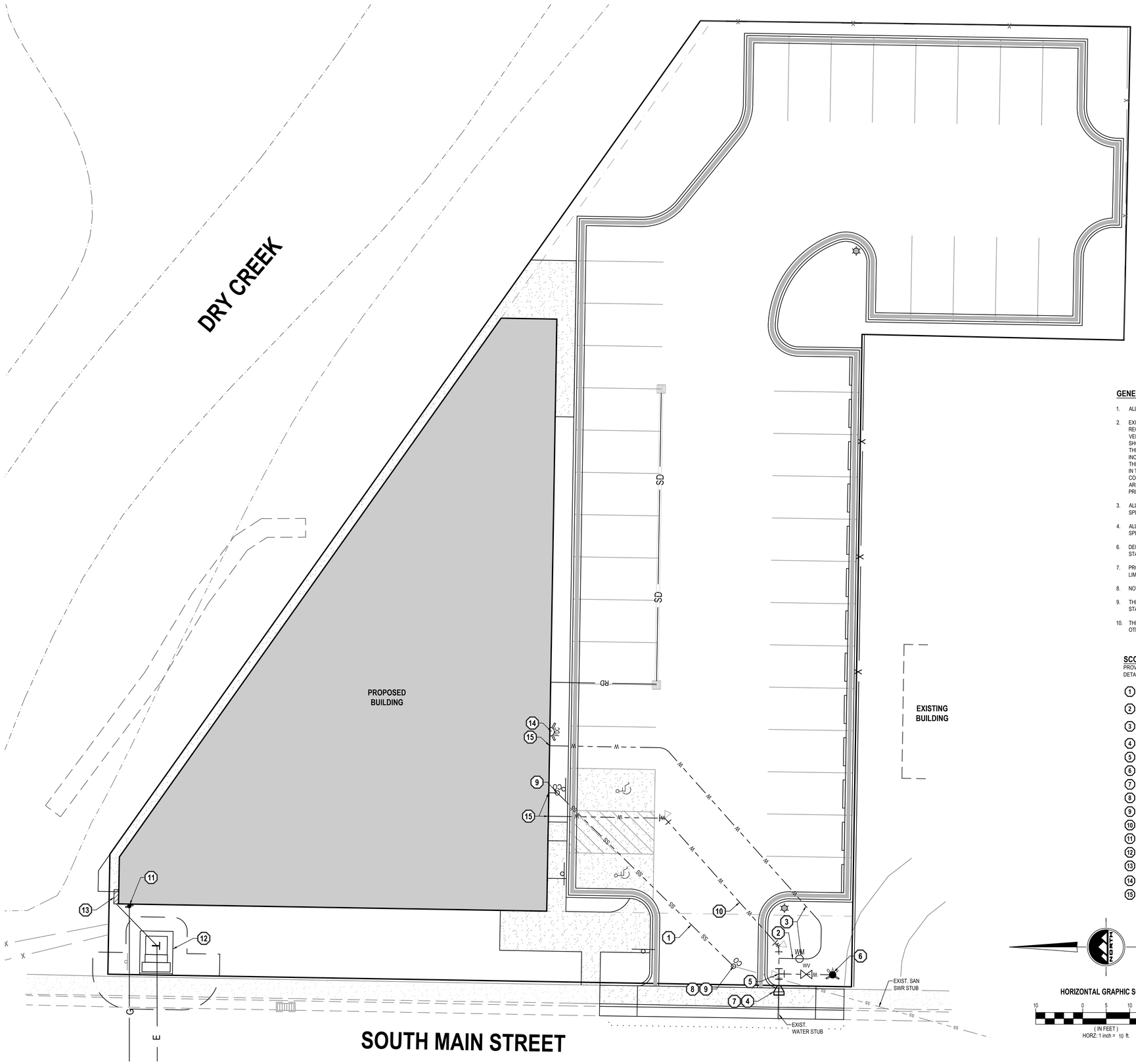
REGISTERED PROFESSIONAL ENGINEER
08/13/2020
#5936
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
2			
3			
4			
5			
6			
7			
8			

GRADING AND DRAINAGE PLAN

PROJECT NUMBER	PRINT DATE
9711	8/13/20
DRAWN BY	CHECKED BY
T. MAZEJY	D. JENKINS
PROJECT MANAGER	
D. JENKINS	

C-300



GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
3. ALL SANITARY SEWER INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY STANDARD PLANS AND SPECIFICATIONS.
4. ALL WATER INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
6. DEFLECT OR LOOP ALL WATERLINES TO AVOID CONFLICTS WITH OTHER UTILITIES PER GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
7. PROJECT SHALL COMPLY WITH ALL UTAH DIVISION OF DRINKING WATER RULES AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, THOSE PERTAINING TO BACKFLOW PROTECTION AND CROSS CONNECTION PREVENTION.
8. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING UTILITY STRUCTURES OR PIPES.
9. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
10. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.

SCOPE OF WORK:

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

1. 6" SDR-35 PVC SANITARY SEWER LATERAL, INCLUDING CLEANOUTS AT MAXIMUM 100-FOOT SPACING, PER ALPINE CITY STANDARDS AND SPECIFICATIONS.
2. 1" COPPER WATER SERVICE FROM MAIN TO METER PER ALPINE CITY STANDARDS AND SPECIFICATIONS.
3. 1" METER AND 1" POLY WATER SERVICE FROM METER TO BUILDING PER ALPINE CITY STANDARDS AND SPECIFICATIONS.
4. 8"X6" REDUCER PER ALPINE CITY STANDARDS AND SPECIFICATIONS.
5. 6" TEE PER ALPINE CITY STANDARDS AND SPECIFICATIONS.
6. FIRE HYDRANT (COMPLETE) PER ALPINE CITY STANDARDS.
7. CONNECT TO EXIST WATER STUB. CONTRACTOR TO VERIFY DEPTH AND LOCATION.
8. CONNECT TO EXIST. SANITARY SEWER STUB. CONTRACTOR TO VERIFY DEPTH AND LOCATION.
9. SANITARY SEWER CLEANOUT PER ALPINE CITY STANDARDS AND SPECIFICATIONS.
10. 6" C-900 PVC FIRE WATER LINE PER ALPINE CITY STANDARDS AND SPECIFICATIONS.
11. GAS METER AND SERVICE. COORDINATE W/ DOMINION ENERGY.
12. PROPOSED TRANSFORMER LOCATION. COORDINATE W/ ROCKY MOUNTAIN POWER.
13. ELECTRICAL SERVICE AND METER. COORDINATE W/ ROCKY MOUNTAIN POWER.
14. FIRE DEPARTMENT CONNECTION PER ALPINE CITY STANDARDS AND SPECIFICATIONS.
15. SEE MECHANICAL PLANS FOR CONTINUATION.

NORTH

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
HORZ: 1 inch = 10 ft.

BENCHMARK

NORTHEAST CORNER OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 4946.87' (NGVD 29)

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REGISTERED PROFESSIONAL ENGINEER
08/13/2020
#5936
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
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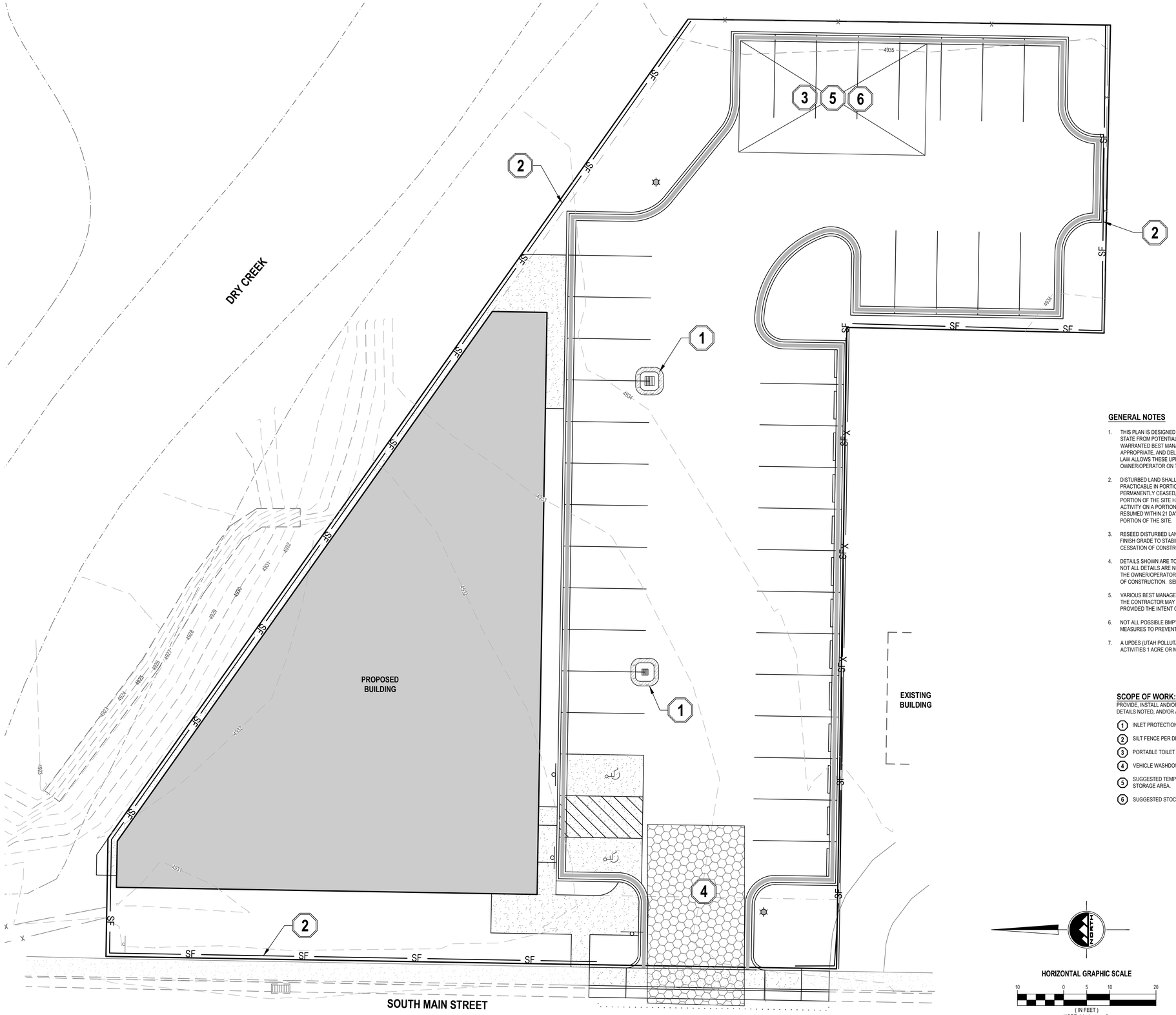
3			
4			
5			
6			
7			
8			

UTILITY PLAN

PROJECT NUMBER 9711
PRINT DATE 8/13/20
DRAWN BY T. MAZEJY
CHECKED BY D. JENKINS
PROJECT MANAGER D. JENKINS

C-400



GENERAL NOTES

1. THIS PLAN IS DESIGNED AS A FIRST APPRAISAL OF NECESSARY MEANS TO PROTECT THE WATERS OF THE STATE FROM POTENTIAL POLLUTION. IT IS THE RESPONSIBILITY OF THE OWNER/OPERATOR TO ADD WARRANTED BEST MANAGEMENT PRACTICES (BMPS) AS NECESSARY, MODIFY THOSE SHOWN AS APPROPRIATE, AND DELETE FROM THE PROJECT THOSE FOUND TO BE UNNECESSARY. FEDERAL AND STATE LAW ALLOWS THESE UPDATES TO BE MADE BY THE OWNER/OPERATOR ONSITE AND RECORDED BY THE OWNER/OPERATOR ON THE COPY OF THE SWPPP KEPT ONSITE.
2. DISTURBED LAND SHALL BE KEPT TO A MINIMUM. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. HOWEVER, WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 21 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
3. RESEED DISTURBED LAND WITH NATIVE GRASS MIXTURE WITHIN 14 CALENDAR DAYS OF ACHIEVEMENT OF FINISH GRADE TO STABILIZE SOILS IF LAND IS NOT TO BE RE-WORKED WITHIN 14 CALENDAR DAYS OF THE CESSATION OF CONSTRUCTION ACTIVITIES AT THAT LOCATION.
4. DETAILS SHOWN ARE TO BE EMPLOYED TO PROTECT RUNOFF AS APPROPRIATE DURING CONSTRUCTION. NOT ALL DETAILS ARE NECESSARY AT ALL PHASES OF THE PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE OWNER/OPERATOR TO USE APPROPRIATE BEST MANAGEMENT PRACTICES AT THE APPROPRIATE PHASE OF CONSTRUCTION. SEE SWPPP FOR BMP IMPLEMENTATION SCHEDULE.
5. VARIOUS BEST MANAGEMENT PRACTICES HAVE BEEN SHOWN ON THE PLANS AT SUGGESTED LOCATIONS. THE CONTRACTOR MAY MOVE AND RECONFIGURE THESE BMP'S TO OTHER LOCATIONS IF PREFERRED, PROVIDED THE INTENT OF THE DESIGN IS PRESERVED.
6. NOT ALL POSSIBLE BMP'S HAVE BEEN SHOWN. THE CONTRACTOR IS RESPONSIBLE TO APPLY CORRECT MEASURES TO PREVENT THE POLLUTION OF STORM WATER PER PROJECT SWPPP.
7. A UPDES (UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR ALL CONSTRUCTION ACTIVITIES 1 ACRE OR MORE.

SCOPE OF WORK:

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

1. INLET PROTECTION PER DETAIL 4/C-600.
2. SILT FENCE PER DETAIL 5/C-600.
3. PORTABLE TOILET PER DETAIL 6/C-600.
4. VEHICLE WASHDOWN AND STABILIZED CONSTRUCTION ENTRANCE PER DETAIL 7/C-600.
5. SUGGESTED TEMPORARY CONSTRUCTION SITE PARKING, STAGING, DUMPSTER, AND MATERIAL STORAGE AREA.
6. SUGGESTED STOCKPILE AREA.

NORTH

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)

HORZ: 1 inch = 10 ft.

BENCHMARK

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ELEV = 4946.87' (NGVD 29)

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ALPINE, UTAH 84004

REGISTERED PROFESSIONAL ENGINEER
08/13/2020
#5936
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
2			
3			
4			
5			
6			
7			
8			

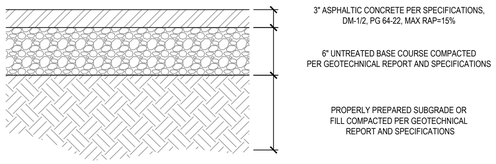
EROSION CONTROL PLAN

PROJECT NUMBER	PRINT DATE
9711	8/13/20
DRAWN BY	CHECKED BY
T. MAZEJY	D. JENKINS
PROJECT MANAGER	
D. JENKINS	

C-500

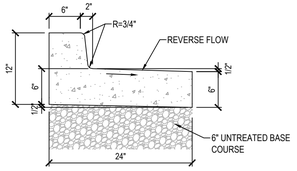
ASPHALT NOTES

1. ALL PAVING TO BE PLACED OVER PROPERLY PREPARED NATURAL SOILS AND/OR PROPERLY PREPARED EXISTING FILL SOILS AND PROPERLY COMPACTED STRUCTURAL FILL WHERE SPECIFIED.
2. ALL STRUCTURAL FILL TO BE PLACED AND COMPACTED PER THE PROJECT GEOTECHNICAL REPORT OR TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE AASHTO T-180 (D-1557) METHOD OF COMPACTION. LIFTS SHOULD BE PLACED PER GEOTECHNICAL RECOMMENDATIONS BUT SHOULD NOT EXCEED 8" IN LOOSE THICKNESS.
3. REMOVE SURFACE VEGETATION AND OTHER DELETERIOUS MATERIALS OVER THE ENTIRE SITE IN PREPARATION OF PROPOSED IMPROVEMENTS.



1 STANDARD ASPHALT SECTION

SCALE: NONE

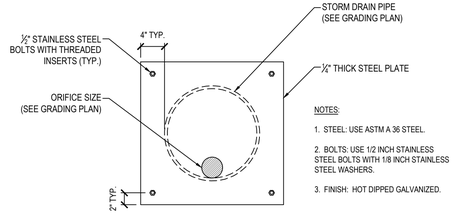


NOTE:

1. CONSTRUCT PER NOTES AND SPECIFICATIONS ASSOCIATED WITH APWA STANDARD PLAN NO. 205.

2 24" REVERSE PAN CURB AND GUTTER

SCALE: NONE

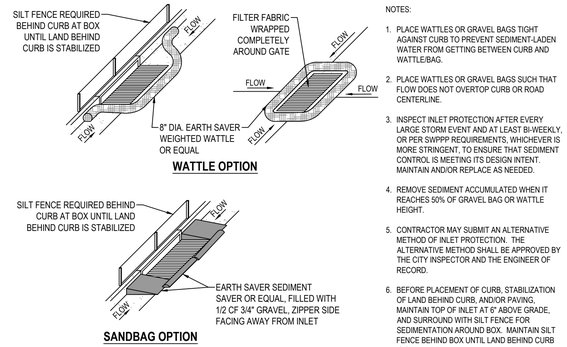


NOTES:

1. STEEL: USE ASTM A 36 STEEL.
2. BOLTS: USE 1/2 INCH STAINLESS STEEL BOLTS WITH 1/8 INCH STAINLESS STEEL WASHERS.
3. FINISH: HOT DIPPED GALVANIZED.

3 ORIFICE PLATE

SCALE: NONE

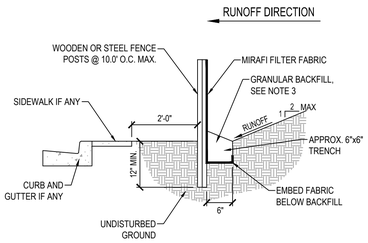


NOTES:

1. PLACE WATTLES OR GRAVEL BAGS TIGHT AGAINST CURB TO PREVENT SEDIMENT-LADEN WATER FROM GETTING BETWEEN CURB AND WATTLE/BAG.
2. PLACE WATTLES OR GRAVEL BAGS SUCH THAT FLOW DOES NOT OVERTOP CURB OR ROAD CENTERLINE.
3. INSPECT INLET PROTECTION AFTER EVERY LARGE STORM EVENT AND AT LEAST BI-WEEKLY, OR PER SWPPP REQUIREMENTS, WHICHEVER IS MORE STRINGENT, TO ENSURE THAT SEDIMENT CONTROL IS MEETING ITS DESIGN INTENT. MAINTAIN AND/OR REPLACE AS NEEDED.
4. REMOVE SEDIMENT ACCUMULATED WHEN IT REACHES 50% OF GRAVEL BAG OR WATTLE HEIGHT.
5. CONTRACTOR MAY SUBMIT AN ALTERNATIVE METHOD OF INLET PROTECTION. THE ALTERNATIVE METHOD SHALL BE APPROVED BY THE CITY INSPECTOR AND THE ENGINEER OF RECORD.
6. BEFORE PLACEMENT OF CURB, STABILIZATION OF LAND BEHIND CURB, AND/OR PAVING, MAINTAIN TOP OF INLET AT 6" ABOVE GRADE, AND SURROUND WITH SILT FENCE FOR SEDIMENTATION AROUND BOX. MAINTAIN SILT FENCE BEHIND BOX UNTIL LAND BEHIND CURB IS STABILIZED.

4 SAG INLET PROTECTION

SCALE: NONE

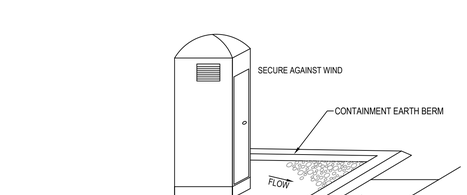


NOTES:

1. EXCAVATE 6"x6" TRENCH ALONG LIMITS OF DISTURBANCE AS SHOWN ON CONSTRUCTION DRAWINGS.
2. POSTS SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE.
3. LAY TOE-IN FABRIC FLAP IN BOTTOM OF TRENCH. BACKFILL TRENCH WITH FREE DRAINING GRANULAR MATERIAL. COMPACT TRENCH TO SATISFACTION OF THE ENGINEER OF RECORD.
4. SILT FENCE GEOTEXTILE SHALL MEET AASHTO M288-92 REQUIREMENTS.
5. REMOVE & DISPOSE OF SEDIMENT WHEN ACCUMULATION IS 50% OF EXPOSED FENCE HEIGHT.
6. 10' MAX. SPACING BETWEEN STAKES.
7. SILT FENCES SHALL BE INSTALLED ALONG CONTOURS, NOT UP AND DOWN SLOPES, WITH 10' OVERLAP AT BREAKS.

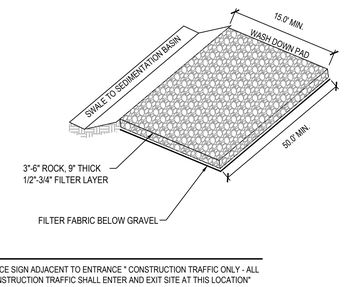
5 TEMPORARY SILT FENCE

SCALE: NONE



6 PORTABLE TOILET

SCALE: NONE

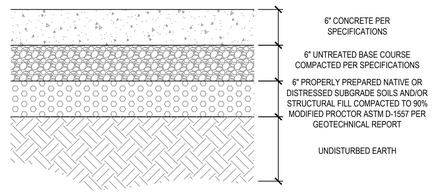


NOTE:

1. PLACE SIGN ADJACENT TO ENTRANCE " CONSTRUCTION TRAFFIC ONLY - ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT SITE AT THIS LOCATION"

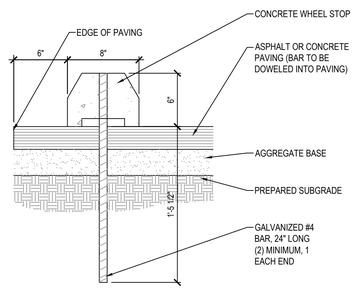
7 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NONE



8 CONCRETE PAVEMENT SECTION

SCALE: NONE



9 CONCRETE WHEEL STOP

SCALE: NONE

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ALPINE, UTAH 84004
CONTACT:
PAUL ANDERSON
PHONE: (801) 687-0000

ALPINE FITNESS
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ALPINE, UTAH 84004

REGISTERED PROFESSIONAL ENGINEER
08/13/2020
#59 36
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
2			
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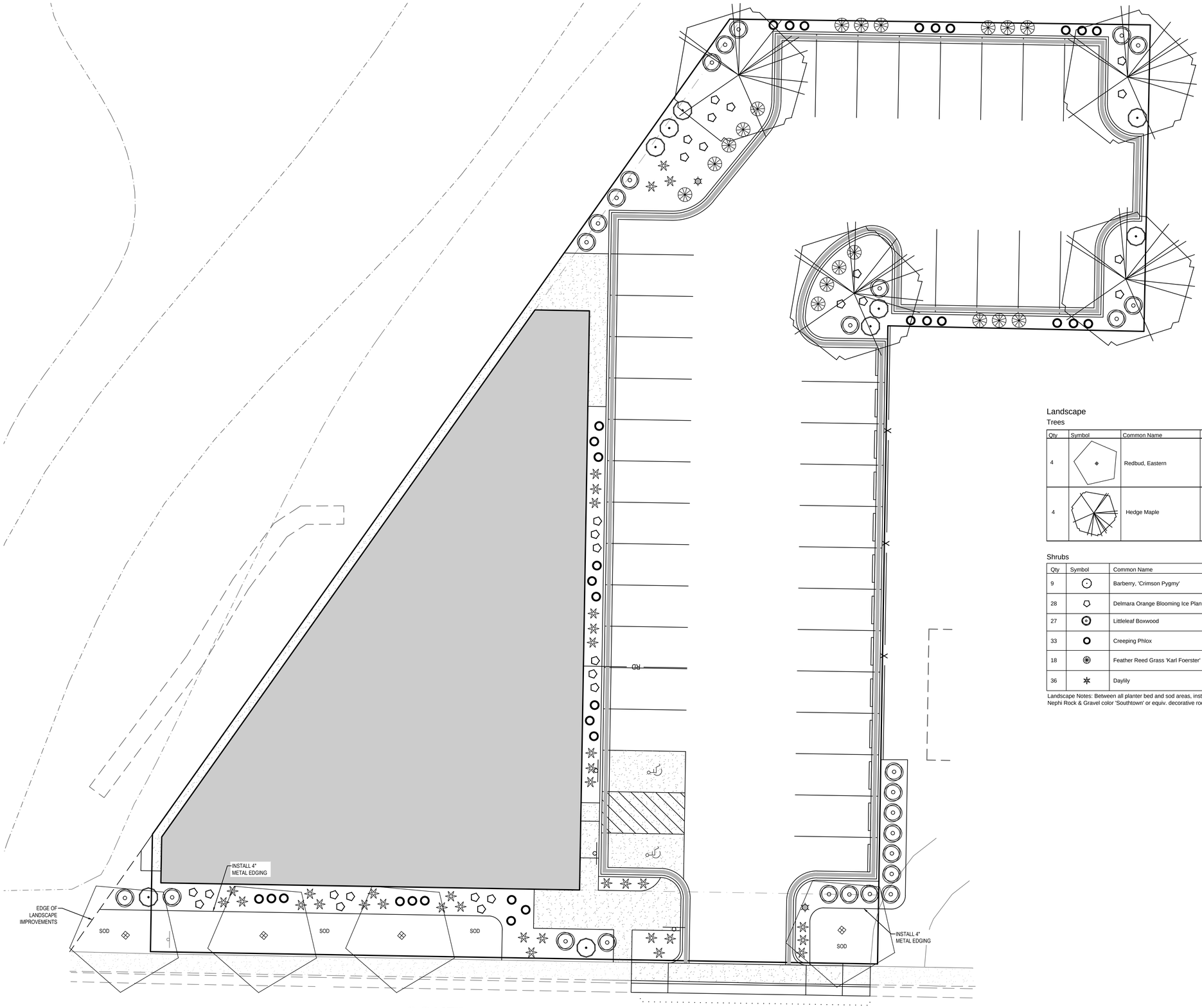
CIVIL DETAILS

PROJECT NUMBER 5711
PRINT DATE 8/13/20
DRAWN BY T. MAZEJY
CHECKED BY D. JENKINS
PROJECT MANAGER D. JENKINS

C-600



Landscape

Trees

Qty	Symbol	Common Name	Botanical Name	Plant Size
4		Redbud, Eastern	Cercis canadensis	2" Cal.
4		Hedge Maple	Acer Campestre	2" Cal.

Shrubs

Qty	Symbol	Common Name	Botanical Name	Plant Size
9		Barberry, 'Crimson Pygmy'	Berberis thunbergii atropurpurea nana	5 Gallon
28		Delmara Orange Blooming Ice Plant	Delosperma 'Delmara Orange'	5 Gallon
27		Littleleaf Boxwood	Buxus microphylla 'Winter Gem'	5 Gallon
33		Creeping Phlox	Phlox subulata 'Crimson Beauty'	1 Gallon
18		Feather Reed Grass 'Karl Foerster'	Calamagrostis acutiflora 'Karl Foerster'	1 Gallon
36		Daylily	Hemerocallis	1 Gallon

Landscape Notes: Between all planter bed and sod areas, install 4" metal edging. In all planter bed areas, install 4" deep, 2"-3" dia. Nephi Rock & Gravel color 'Southtown' or equiv. decorative rock over weed barrier, typ.

NORTH

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
HORZ. 1 inch = 10 ft.

BENCHMARK

NORTHEAST CORNER OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 4946.87' (NGVD 29)

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ALPINE, UTAH 84004

REGISTERED PROFESSIONAL ENGINEER
08/13/2020
#5936
DAVID A. JENKINS
STATE OF UTAH

NO.	DATE	REVISION	BY
1	1	SD CHANGES	
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6			
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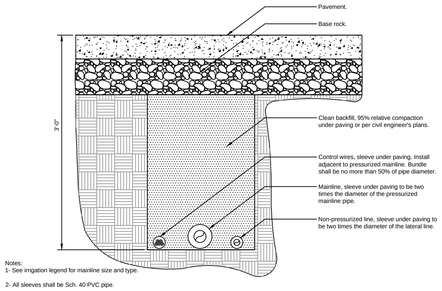
LANDSCAPE PLAN

PROJECT NUMBER 9711
PRINT DATE 8/13/20
DRAWN BY T. MAZEJY
CHECKED BY D. JENKINS
PROJECT MANAGER D. JENKINS

L-100



Notes:
1- See irrigation legend for mainline size and type.

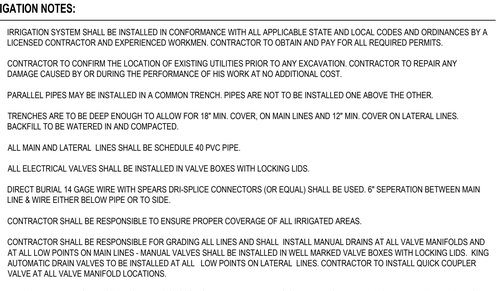
2- All sleeves shall be Sch. 40 PVC pipe.

3- All sleeves shall extend 12" beyond the edge of pavement.

4- End of sleeves shall be located with a wooden stake or PVC pipe. Locators shall run continuously from the end of the sleeve to finished grade.

13 PIPE BENEATH PAVEMENT

SCALE: NONE



Notes:
1- Install backflow cage per manufacturer's specifications and recommendations.

2- See backflow prevention device detail for reference.

2- Lock box shall be located above concrete footing

3- Contractor shall provide a lock as approved by the Owner's Representative.

14 BACKFLOW CAGE

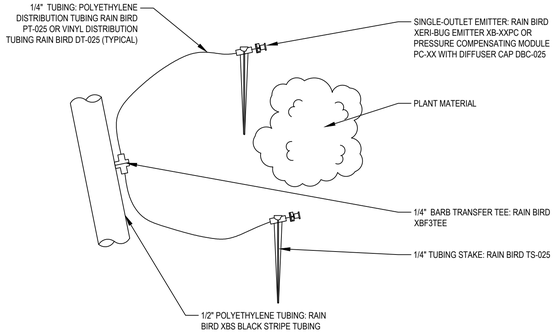
SCALE: NONE

GENERAL LANDSCAPE NOTES:

1. LANDSCAPE CONTRACTOR HAS THE OPTION TO SUBSTITUTE PLANT MATERIAL IF SPECIFIED GENUS, SPECIES, AND/OR VARIETIES ARE NOT LOCALLY OR REGIONALLY AVAILABLE. LANDSCAPE CONTRACTOR SHALL REPLACE SAID PLANTS WITH THOSE OF LIKE HARDINESS ZONE, SIZE, FORM, MOISTURE AND SOLAR REQUIREMENTS, AND MEET THE GENERAL INTENT OF THE ORIGINAL DESIGN. ANY REPLACEMENT PLANTINGS SHALL BE APPROVED BY ENSIGN ENGINEERING AND LAND SURVEYING INC. OR PROJECT REPRESENTATIVE PRIOR TO INSTALLATION. ALL REPLACEMENT PLANT MATERIALS SHALL CONFORM TO CITY APPROVED PLANTS. ALL PLANTING SUBSTITUTION WILL BE APPROVED BY CITY.
2. LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE LANDSCAPE CONSTRUCTION BEGINS.
3. NOTIFY LANDSCAPE REPRESENTATIVE OF ANY LAYOUT DISCREPANCIES PRIOR TO ANY PLANTING.
4. FERTILIZE ALL PLANTS AT THE TIME OF PLANTING WITH TIME RELEASE FERILIZER.
5. MULCH, PER PLAN, SHALL BE USED AS A FOUR INCH (4") TOP DRESSING IN ALL PLANT BEDS AND AROUND ALL TREES. SINGLE TREES OR SHRUBS SHALL BE MULCHED TO THE OUTSIDE EDGE OF THE SAUCER OR LANDSCAPE ISLAND.
6. LANDSCAPE CONTRACTOR SHALL INSTALL AN UNDERGROUND, POP-UP IRRIGATION SYSTEM WHICH PROVIDES COMPLETE COVERAGE OF THE SITE AND MEETS COUNTY/CITY REQUIREMENTS AT OR BEFORE THE INSTALLATION OF LANDSCAPE MATERIALS.
7. ALL LANDSCAPE MATERIALS SHALL BE IN COMPLIANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI-Z60.1-1986)
8. CONTRACTOR SHALL USE AVAILABLE SUITABLE TOPSOIL THAT HAD BEEN STOCKPILED ONSITE. IF QUANTITIES ARE NOT SUFFICIENT TO MEET SITE MINIMUMS CONTRACTOR SHALL PROVIDE ADDITIONAL MATERIALS. ADDITIONAL MATERIAL SHALL BE SUPPLIED BY A COMMERCIAL TOPSOIL SUPPLIER
9. PROVIDE THE FOLLOWING TOP SOIL MINIMUMS:
   A. 4" TOPSOIL IN ALL SOD AREAS
   B. 6" TOP SOIL IN ALL PLANTER BEDS
10. WEED FABRIC SHALL BE A DEWITT SUNBELT WOVEN GROUND COVER INSTALLED W/ GROUND STAPLES ACCORDING TO MANUFACTURER RECCOMMENDATIONS.

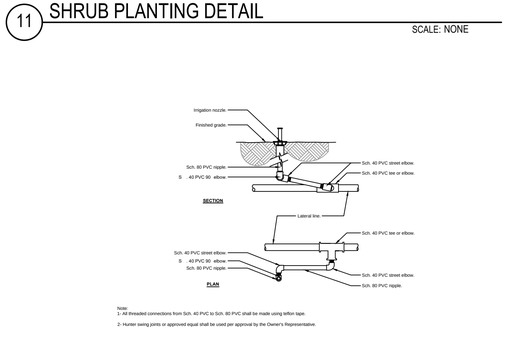
IRRIGATION NOTES:

1. IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY A LICENSED CONTRACTOR AND EXPERIENCED WORKMEN. CONTRACTOR TO OBTAIN AND PAY FOR ALL REQUIRED PERMITS.
2. CONTRACTOR TO CONFIRM THE LOCATION OF EXISTING UTILITIES PRIOR TO ANY EXCAVATION. CONTRACTOR TO REPAIR ANY DAMAGE CAUSED BY OR DURING THE PERFORMANCE OF HIS WORK AT NO ADDITIONAL COST.
3. PARALLEL PIPES MAY BE INSTALLED IN A COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED ONE ABOVE THE OTHER.
4. TRENCHES ARE TO BE DEEP ENOUGH TO ALLOW FOR 18" MIN. COVER, ON MAIN LINES AND 12" MIN. COVER ON LATERAL LINES. BACKFILL TO BE WATERED IN AND COMPACTED.
5. ALL MAIN AND LATERAL LINES SHALL BE SCHEDULE 40 PVC PIPE.
6. ALL ELECTRICAL VALVES SHALL BE INSTALLED IN VALVE BOXES WITH LOCKING LIDS.
7. DIRECT BURIAL 14 GAGE WIRE WITH SPEARS DRI-SPLICE CONNECTORS (OR EQUAL) SHALL BE USED. 6" SEPERATION BETWEEN MAIN LINE & WIRE EITHER BELOW PIPE OR TO SIDE.
8. CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE PROPER COVERAGE OF ALL IRRIGATED AREAS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING ALL LINES AND SHALL INSTALL MANUAL DRAINS AT ALL VALVE MANIFOLDS AND AT ALL LOW POINTS ON MAIN LINES - MANUAL VALVES SHALL BE INSTALLED IN WELL MARKED VALVE BOXES WITH LOCKING LIDS. KING AUTOMATIC DRAIN VALVES TO BE INSTALLED AT ALL LOW POINTS ON LATERAL LINES. CONTRACTOR TO INSTALL QUICK COUPLER VALVE AT ALL VALVE MANIFOLD LOCATIONS.
10. ALL SPRINKLER LINES AND CONTROL WIRES CROSSING UNDER PAVED AREAS SHALL BE INSTALLED IN A SLEEVE TWICE THE SIZE OF THE PIPE.
11. FLUSH MAIN LINES PRIOR TO THE INSTALLATION OF REMOTE CONTROL VALVES. FLUSH LATERAL LINES PRIOR TO THE INSTALLATION OF HEADS. MAIN LINES TO BE INSPECTED FOR LEAKS UNDER FULL PRESSURE PRIOR TO BACKFILLING TRENCHES.
12. CONTRACTOR TO MAINTAIN A SET OF "AS BUILT" DRAWINGS, A REPRODUCABLE COPY OF WHICH WILL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE UPON COMPLETION.
13. THE OWNER RESERVES THE RIGHT TO REJECT MATERIAL OR WORK WHICH DOES NOT CONFORM TO THESE DRAWINGS. REJECTED WORK SHALL BE REMOVED OR CORRECTED AT CONTRACTOR'S EXPENSE.



9 DRIP DETAIL

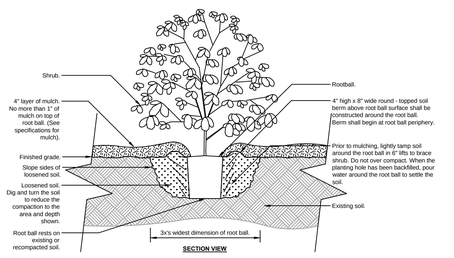
SCALE: NONE



Notes:
1- Trees shall be of quality prescribed in crown observations and root observations details and specifications.

10 TREE PLANTING DETAIL

SCALE: NONE



Notes:
1- Shrubs shall be of quality prescribed in the root observations detail and specifications.

2- See specifications for further requirements related to this detail.

11 SHRUB PLANTING DETAIL

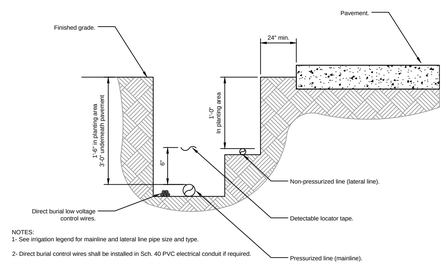
SCALE: NONE

Note:
1- All threaded connections from Sch. 40 PVC to Sch. 80 PVC shall be made using teflon tape.

2- Hunter swing joints or approved equal shall be used per approval by the Owner's Representative.

12 SWING JOINT

SCALE: NONE



NOTES:
1- See irrigation legend for mainline and lateral line pipe size and type.

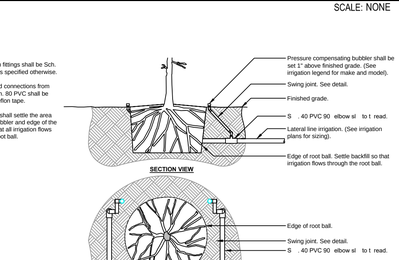
2- Direct burial control wires shall be installed in Sch. 40 PVC electrical conduit if required.

3- 2-wire irrigation wire shall be installed in Sch. 40 PVC electrical conduit.

4- Detectable locator tape shall be located six inches (6") above the entire mainline run.

5 IRRIGATION TRENCHING

SCALE: NONE



Note:
1- 6" pop ups shall be used in turf areas.

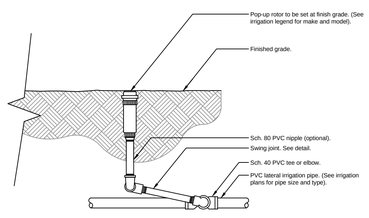
2- Contractor shall settle soil around the pop up after installation.

3- All pop up spray heads shall have check valves.

4- All Sch. 40 PVC to Sch. 80 PVC connections shall be made using teflon tape.

6 POP-UP SPRAY SPRINKLER

SCALE: NONE



Notes:
1- All threaded connection points between Sch. 40 PVC and Sch. 80 PVC fitting shall be installed using teflon tape.

2- Contractor shall compact soil around rotor and riser prior to planting, plugging, seeding, or laying of sod.

7 ROTOR POP-UP HEAD

SCALE: NONE

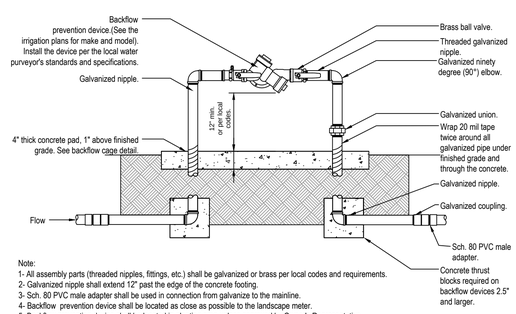
Notes:
1- All irrigation fittings shall be Sch. 40 PVC unless specified otherwise.

2- All threaded connections from Sch. 40 to Sch. 80 PVC shall be made using teflon tape.

3- Contractor shall settle the area around the bubbler and edge of the root ball so that all irrigation flows through the root ball.

8 BUBBLER DETAIL

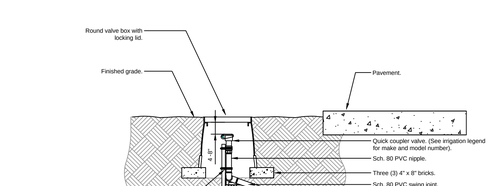
SCALE: NONE



Note:
1- All assembly parts (threaded nipples, fittings, etc.) shall be galvanized or brass per local codes and requirements.
2- Galvanized nipple shall extend 12" past the edge of the concrete footing.
3- Sch. 80 PVC male adapter shall be used in connection from galvanize to the mainline.
4- Backflow prevention device shall be located as close as possible to the landscape meter.
5- Backflow prevention device shall be located in planting area unless approved by Owner's Representative.
6- See detail for backflow cage installation.
7- All backflow prevention devices shall have freeze blanket included upon installation.
8- All galvanized connections shall to be made using pipe thread sealant. All Sch. 80 PVC to galvanized connections to be made using teflon tape.

1 BACKFLOW PREVENTER

SCALE: NONE



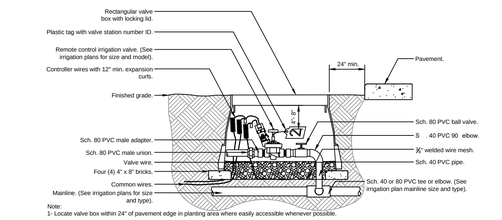
Notes:
1- Common and controller wire to be bundled using electrical tape at 10'-0" on center.

2- Grounding rods shall be located between 8'-0" and 12'-0" away from the controller. Grounding rods shall be ⅝" in diameter x 8' in length. Connect the grounding rod to the controller using 6 gauge bare copper wire or per the manufacturer's specifications.

3- ET Station to be installed no further than 90' away from the controller and a minimum of 15' off of the ground, out from under any overhead obstructions such as, but not limited to building overhangs, trees, or utilities.

2 IRRIGATION CONTROLLER

SCALE: NONE



Note:
1- Locate valve box within 24" of pavement edge in planting area where easily accessible whenever possible.

2- Common wire and controller wire shall be direct burial 14 AWG or larger. Color: Common (white), controller wire for turf (blue), and controller wire for shrubs (red). (See specifications for 2-wire controllers).

3- All wire runs shall be continuous without any splices unless approved by the Owner's Representative. See splice box detail. Wire connections shall be made using DBRY-6 connectors or approved equal.

4-Valve box shall be wrapped with min. 3 mil thick plastic and secure it using duct tape or electrical tape.

5- Mainlines 4" or larger shall use saddles at the connections points to the irrigation valve. (See specifications for irrigations saddles).

6- All Sch. 80 PVC to Sch. 40 PVC threaded connections shall be made using teflon tape.

7- Valve boxes shall be located in planting areas.

3 CONTROL VALVE

SCALE: NONE

Notes:
1- All threaded connections shall be installed using teflon tape.

2- Valve box shall be wrapped with a minimum 3 mil thick plastic and secured to the valve box using duct tape or electrical tape.

3- All quick couplers shall be installed a minimum of 18" off of the mainline.

4- Valve boxes shall be located in planting areas.

4 QUICK-COUPLING VALVE

SCALE: NONE

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NO.	DATE	REVISION	BY
11 - 1		SECOND SUBMISSION	
22			
33			
44			
55			
66			
77			
88			

LANDSCAPE AND IRRIGATION DETAILS

PROJECT NUMBER 5711
PRINT DATE 8/13/20
DRAWN BY T. MAZEJY
CHECKED BY D. JENKINS
PROJECT MANAGER D. JENKINS

L-200

ELECTRICAL SYMBOLS

SYMBOL	EXPLANATION	SYMBOL	EXPLANATION	SYMBOL	EXPLANATION
	BRANCH CIRCUIT CONCEALED IN CEILING OR WALL	F1	FIXTURE TYPE SYMBOL		TAMPER AND FLOW
	BRANCH CIRCUIT CONCEALED IN GROUND OR FLOOR		LINEAR FIXTURE (TYPICAL)	FACP	FIRE ALARM CONTROL PANEL
A-1,3	BRANCH CIRCUIT HOMERUNS TO PANEL		EMERGENCY LIGHTING UNIT	RFAA	REMOTE FIRE ALARM ANNUNCIATOR PANEL
135	ROOM NUMBER		SURFACE OR PENDANT MOUNTED FIXTURE	NAC	FIRE ALARM NAC PANEL
CH	MECHANICAL EQUIPMENT SYMBOL		RECESSED FIXTURE	VOICE	FIRE ALARM VOICE PANEL
1	KEYED NOTE REFERENCE		WALL MOUNTED FIXTURE	D/H	DOOR HOLDER
42X	FEEDER TAG (SEE FEEDER SCHEDULE)		WALL PACK	F/S	FIRE/SMOKE DAMPER
	LIGHTING AND POWER PANELBOARD		STRIP FIXTURE	F	FIRE ALARM PULL STATION
NON-FUSED / FUSED	DISCONNECT SWITCH		TRACK LIGHTING		FIRE ALARM STROBE
NON-FUSED / FUSED	DISCONNECT SWITCH WITH MOTOR STARTER	BUGEYE / EGRESS	EMERGENCY LIGHTING UNIT		FIRE ALARM HORN/STROBE
	MOTOR STARTER		WALL MOUNTED EXIT LIGHT (SINGLE FACE)	LF	FIRE ALARM HORN/STROBE (LF = LOW FREQUENCY)
VFD	VARIABLE FREQUENCY DRIVE		WALL MOUNTED EXIT LIGHT (DOUBLE FACE)		FIRE ALARM HORN/STROBE WITH PROTECTIVE COVER
C	CONDUIT STUB		CEILING MOUNTED EXIT LIGHT		FIRE ALARM SPEAKER/STROBE
J	JUNCTION BOX		CEILING MOUNTED EXIT LIGHT (DOUBLE FACE)	LF	FIRE ALARM SPEAKER/STROBE (LF = LOW FREQUENCY)
	ELECTRIC VEHICLE CHARGING STATION		EXIT LIGHT WITH PROTECTIVE COVER		FIRE ALARM SPEAKER
WP ← MODIFIER A-3 ← PANEL SPACE ASSIGNMENT REF ← EQUIPMENT DESIGNATION		$	SINGLE POLE SWITCH (SUBSCRIPT AS INDICATED BELOW)	LF	FIRE ALARM SPEAKER (LF = LOW FREQUENCY)
		2	TWO POLE SWITCH		FIRE ALARM HORN
		3	3-WAY SWITCH		
WP	WEATHERPROOF COVER & LISTED WEATHER RESISTANT DEVICE	4	4-WAY SWITCH	LF	FIRE ALARM HORN (LF = LOW FREQUENCY)
GFCI	PROTECTED BY FAULT CIRCUIT INTERRUPTER	D	DIMMER SWITCH		
+44	MOUNTING HEIGHT ABOVE FLOOR OR GRADE GIVEN IN INCHES.	K	KEYED SWITCH		FIRE ALARM STROBE CEILING MOUNTED
REF	REFRIGERATOR	T	TIMER SWITCH		
DW	DISHWASHER	M	MANUAL STARTER WITH THERMAL OVERLOAD		FIRE ALARM HORN/STROBE CEILING MOUNTED
DISP	DISPOSAL	F	PADDLE FAN SPEED CONTROL. (CANARM "CN" SERIES)		
WASH	WASHING MACHINE	OC	OCCUPANCY SENSOR SWITCH	LF	FIRE ALARM HORN/STROBE CEILING MOUNTED (LF = LOW FREQUENCY)
EWC	ELECTRIC WATER COOLER	LV	LOW VOLTAGE CONTROL SWITCH		
USB	HUBBELL USB15AC5W OR EQUAL DUPLEX PLUS USB CHARGER	LV/D	LOW VOLTAGE CONTROL SWITCH WITH DIMMER		FIRE ALARM HORN CEILING MOUNTED
TR	TAMPER RESISTANT	OC/D	OCCUPANCY SENSOR CONTROL SWITCH WITH DIMMER		
	DUPLEX RECEPTACLE OUTLET	OC/2	DUAL RELAY OCCUPANCY SENSOR CONTROL SWITCH	LF	FIRE ALARM HORN CEILING MOUNTED (LF = LOW FREQUENCY)
	QUAD RECEPTACLE OUTLET	$$	DOUBLE GANG SWITCH		SMOKE DETECTOR (SUBSCRIPT AS INDICATED BELOW)
	SPLIT WIRED DUPLEX RECEPTACLE OUTLET	$a,b,c LV / a,b S	LOW VOLTAGE MULTI BUTTON CONTROL SWITCH (LETTER INDICATES CONTROL OF CORRESPONDING FIXTURES)	B C	SMOKE ALARM BATTERY-BACKED SMOKE/CARBON MONOXIDE ALARM COMBO BATTERY-BACKED
	220V RECEPTACLE OUTLET	ab	CONTROLLING SWITCH (LETTER INDICATES CONTROL OF CORRESPONDING FIXTURES)	D R	DUCT SMOKE DETECTOR SMOKE DETECTOR WITH ADDRESSABLE RELAY
	ISOLATED GROUND RECEPTACLE	S	OCCUPANCY SENSOR (CEILING MOUNTED)	S	SMOKE DETECTOR WITH SOUNDER BASE
	RECEPTACLE FLOOR DEVICE	DT PIR	DUAL TECHNOLOGY OCCUPANCY SENSOR (CEILING MOUNTED) PASSIVE INFRARED OCCUPANCY SENSOR (CEILING MOUNTED)		HEAT DETECTOR
	CEILING MOUNTED DEVICE	RC	ROOM CONTROLLER		GAS DETECTOR
	SPECIAL RECEPTACLE	LS	DAYLIGHT SENSOR	CO CO/NO2	CARBON MONOXIDE DETECTOR CARBON MONOXIDE/NITROGEN DIOXIDE SENSOR (GARAGE)
	MOTOR OUTLET	P	PHOTOCELL		ADA TWO-WAY COMMUNICATIONS SYSTEM
	EXHAUST FAN	V	VOLUME CONTROL	KP	ACCESS CONTROL KEY PAD
	THERMOSTAT OUTLET		WALL SPEAKER	CR	ACCESS CONTROL CARD READER
S	REMOTE SENSOR OUTLET		CEILING SPEAKER		ACCESS CONTROL DOOR STRIKE
	TELEPHONE OUTLET		SURVEILLANCE CAMERA	ML	ACCESS CONTROL MAG LOCK
▽(#)	COMPUTER DATA OUTLET (#) INDICATES JACK QUANTITIES	DVR	SURVEILLANCE DIGITAL VIDEO RECORDER	DS	ACCESS CONTROL DOOR SENSOR
	NETWORK AND VOICE OUTLET	NURSE	NURSE CALL ANNUNCIATOR PANEL		ACCESS CONTROL REQUEST TO EXIT
	WIRELESS ACCESS POINT CEILING MOUNTED	N	NURSE CALL EMERGENCY CALL DEVICE		PUSHBUTTON
TV	TELEVISION OUTLET	N	NURSE CALL EMERGENCY CALL LIGHT	B	BELL

NOTE: ALL SYMBOLS MAY NOT BE USED.

ABBREVIATIONS INDEX

#	NUMBER	DC	DIRECT CURRENT	KW	KILOWATT	PT	POTENTIAL TRANSFORMER
ϕ	PHASE	DISP	DISPOSAL	LRA	LOCKED ROTOR AMPS	PV	PHOTOVOLTAIC
1ϕ	SINGLE PHASE	DRY	DRYER	LTG	LIGHTING	PVC	POLYVINYL CHLORIDE
2P	TWO-POLE	DW	DISHWASHER	MATV	MASTER ANTENNA TELEVISION	(R)	RELOCATE
3ϕ	THREE PHASE	DWG	DRAWING	MAX	MAXIMUM	RECP	RECEPTACLE
4P	FOUR-POLE	EC	EMPTY CONDUIT	MB	MAIN BUS	REF	REFRIGERATOR
AC	ALTERNATING CURRENT	EM	EMERGENCY	MCB	MAIN CIRCUIT BREAKER	REQ	REQUIRED
AFF	ABOVE FINISHED FLOOR	EMG	EMERGENCY GENERATOR	MCC	MOTOR CONTROL CENTER	RLA	RATED LOAD AMPS
AFG	ABOVE FINISHED GRADE	EMT	ELECTRICAL METALLIC TUBING	MCM	1000 CIRCULAR MILLS	RMS	ROOT MEAN SQUARE
AFP	ARC FAULT PROTECTOR	EPO	EMERGENCY POWER OFF	MH	MANHOLE	SE	SERVICE ENTRANCE
AHJ	AUTHORITY HAVING JURISDICTION	EWC	ELECTRIC WATER COOLER	MIC	MICROPHONE	SPD	SURGE PROTECTION DEVICE
AIC	AMP INTERRUPTING CURRENT (SYMMETRICAL)	EWH	ELECTRIC WATER HEATER	MIN	MINIMUM	SPEC	SPECIFICATION
AL	ALUMINUM	(E)	EXISTING	MLO	MAIN LUGS ONLY	SPK	SPEAKER
AM	AMPS METER	(F)	FUTURE	MNF	MANUFACTURER	SS	SELECTOR SWITCH
AMP	AMPERE	FA	FIRE ALARM	MTG	MOUNTING	SW	SWITCH
ANN	ANNUNCIATOR	FACP	FIRE ALARM CONTROL PANEL	MTR	MOTOR	SWBD	SWITCHBOARD
ATS	AUTOMATIC TRANSFER SWITCH	FC	FOOT CANDLE	MW	MICROWAVE	SWGR	SWITCHGEAR
AUX	AUXILIARY	FLA	FULL LOAD AMPS	(N)	NEW	TTB	TELEPHONE TERMINAL BOARD
AWG	AMERICAN WIRE GAUGE	FT	FOOT	N/A	NOT APPLICABLE	TBC	TELEPHONE TERMINAL CABINET
BC	BARE COPPER	FRZ	FREEZER	NC	NORMALLY CLOSED	TV	TELEVISION
BFG	BELOW FINISH GRADE	FS	FUSED SWITCH	NEC	NATIONAL ELECTRICAL CODE	TYP	TYPICAL
C	CONDUIT	GFAF	DUAL FUNCTION GFCI/AFCI CIRCUIT BREAKER	NEMA	NATIONAL MANUFACTURING ASSOCIATION	UG	UNDERGROUND
CAB	CABINET	GFCI	GROUND FAULT CIRCUIT INTERRUPTER	NFC	NATIONAL FIRE CODE	UNO	UNLESS NOTED OTHERWISE
CATB	COMMUNITY ANTENNA TELEVISION	GFEP	GROUND-FAULT EQUIPMENT PROTECTION	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	UPS	UNINTERRUPTIBLE POWER SUPPLY
CATV	CABLE TELEVISION	GFP	GROUND FAULT PROTECTOR	NFS	NON FUSED SWITCH	V	VOLT (KV-KILOVOLT)
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	GRC	GALVANIZED RIGID CONDUIT	NIC	NOT IN CONTRACT	VA/R	VOLT-AMPS/REACTIVE
CKT	CIRCUIT	GRD	GROUND	NL	NIGHT LIGHT	VM	VOLT METER
CLG	CEILING	HP	HORSE POWER	NO	NORMALLY OPEN	W	WATTS
CNTR	CONTRACTOR	HZ	HERTZ	NTS	NOT TO SCALE	W/	WITH
CO	CONVENIENCE OUTLET	IG	ISOLATED GROUND	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	WASH	WASHER
CRT	COMPUTER TERMINAL	IMC	INTERMEDIATE METALLIC CONDUIT	OFOI	OWNER FURNISHED OWNER INSTALLED	WH	WATTHOUR
CT	CURRENT TRANSFORMER	IN	INCH	OS&Y	OUTSIDE SCREW AND YOKE	W/O	WITHOUT
CU	COPPER	J-BOX	JUNCTION BOX	PB	PUSH BUTTON	WP	WEATHER PROOF
C/W	CONDUIT WITH	KV	KILOVOLT	PF	POWER FACTOR	XFMR	TRANSFORMER
(D)	DEMOLISH/DELETE	KVA	KILOVOLT AMPERES	PFR	PHASE FAILURE RELAY	XFMR-SW	TRANSFORMER SWITCH
DB	DECIBEL	KVAR	KILOVARS	PNL	PANEL	XP	EXPLOSION PROOF

NOTE: THIS IS A TYPICAL ABBREVIATION LIST. NOT ALL ABBREVIATIONS MAY BE USED ON THIS PROJECT.

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ELECTRICAL TEAM LEAD:	MANUEL MASBERNAT
ELECTRICAL DESIGNER:	CHASE CHRISTENSEN

SHEET INDEX

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REGISTERED PROFESSIONAL ENGINEER
11381139
M. RYAN BEAGLES
8/5/20
STATE OF UTAH

REVISIONS:

FITNESS CENTER

ALPINE, UTAH

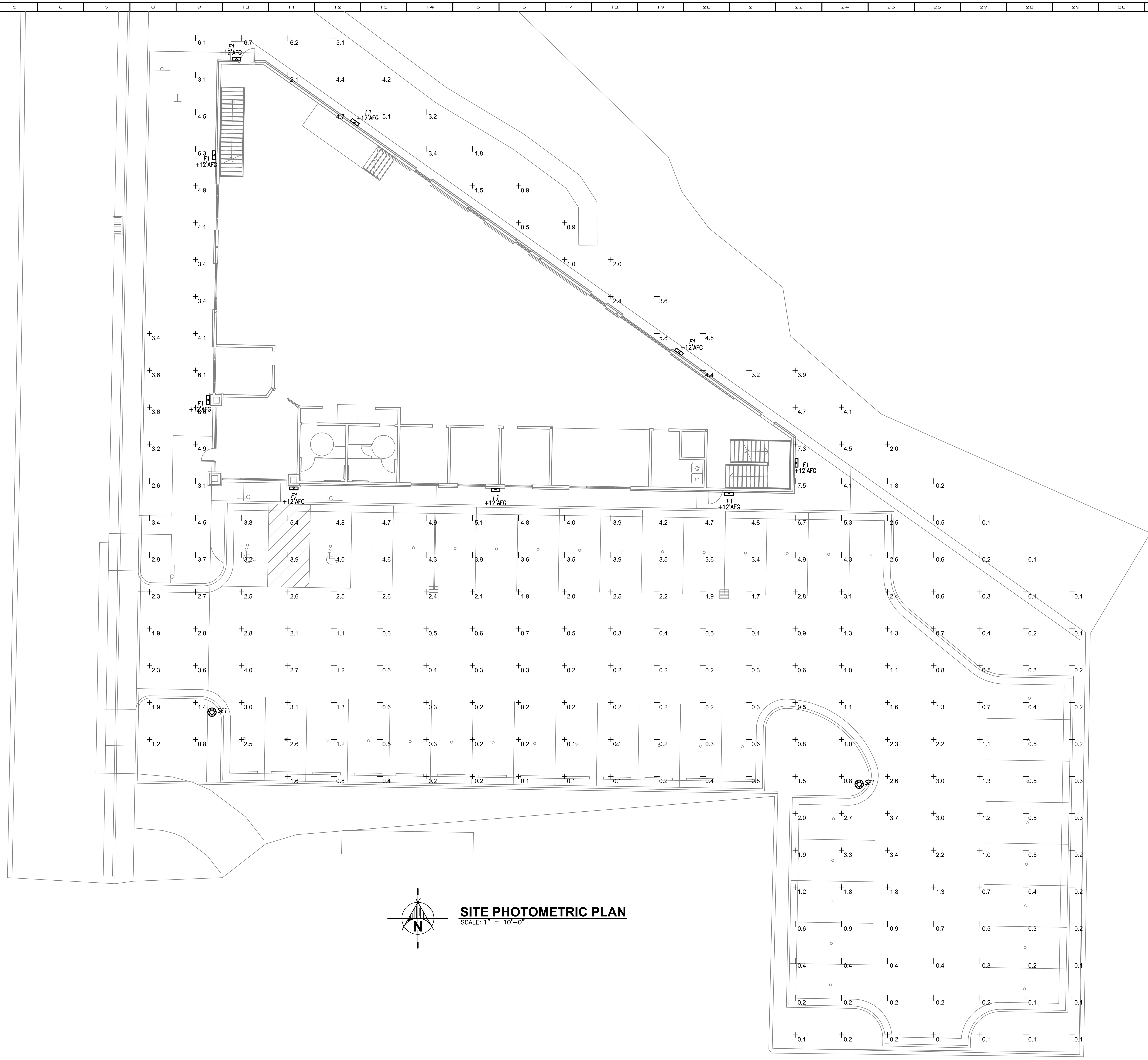
DRAWING TITLE: ELECTRICAL COVERSHEET

DRAWN BY:	CHECKED BY:
CC	RB

DATE PLOTTED: 07/28/2020

PROJECT #: J20230

E0.0



SITE PHOTOMETRIC PLAN

SCALE: 1" = 10'-0"

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8/5/20
STATE OF UTAH

REVISIONS:

FITNESS CENTER

ALPINE, UTAH

DRAWING TITLE: SITE PHOTOMETRIC

DRAWN BY:	CHECKED BY:
CC	RB

DATE PLOTTED: 07/28/2020

PROJECT #: J20230

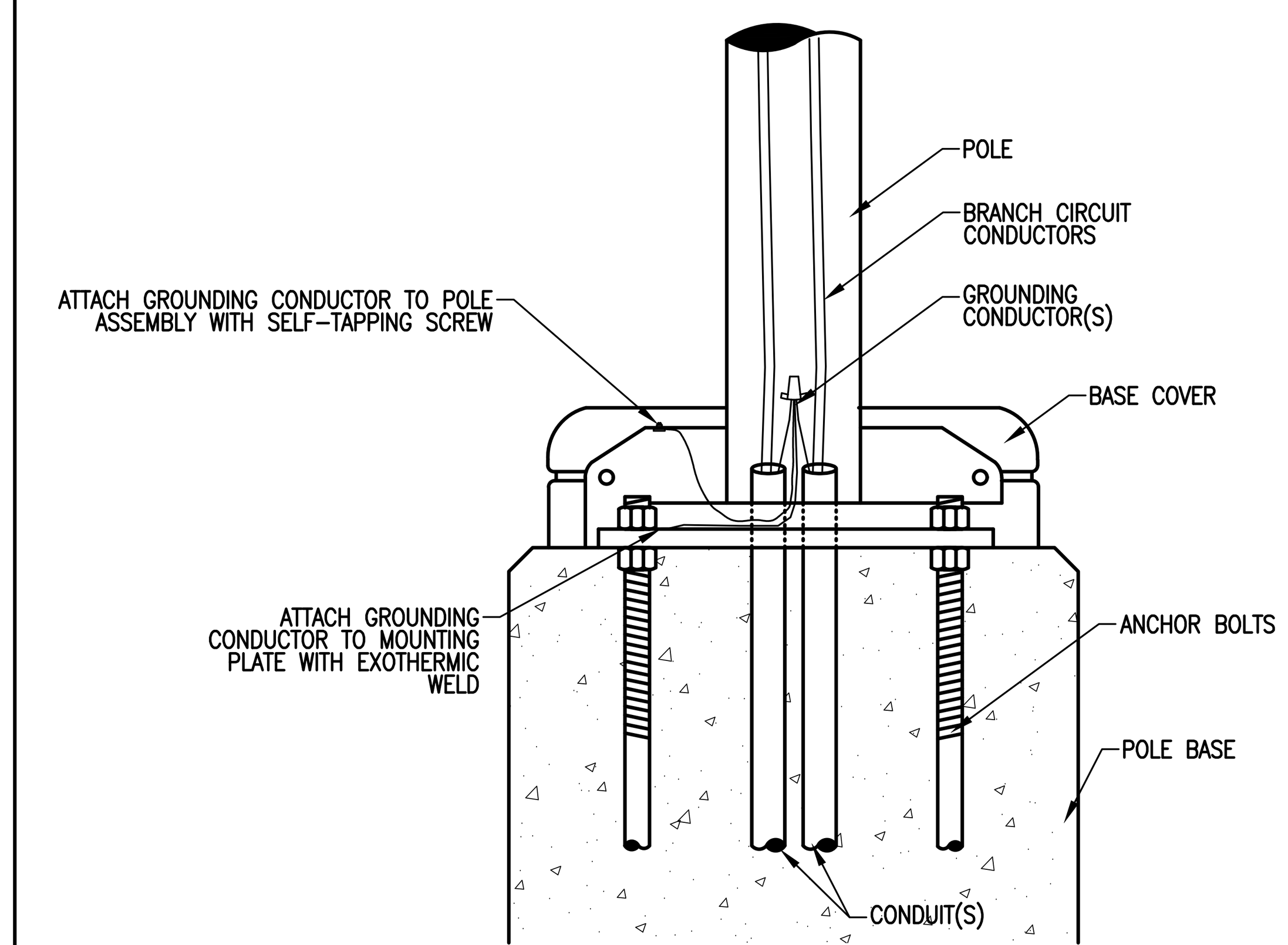
E1.1

SITE LIGHTING FIXTURE SCHEDULE

FIXT	FIXTURE						LAMPS		POLE			REMARKS
#	MANUFACTURER	CATALOG #	VOLTS	#/POLE	WATTS	MOUNTING	TYPE	QTY/FIXT.	MANUFACTURER	HEIGHT	CATALOG #	
SF1	HADCO	C2801E-A3SRNN88A5SNNNA	240	1	88	POLE	LED	-	MOUNTAIN STATES	14'-0"	SMOOTH ALUMINUM	PER ALPIN CITY STANDARD

LIGHT FIXTURE SCHEDULE

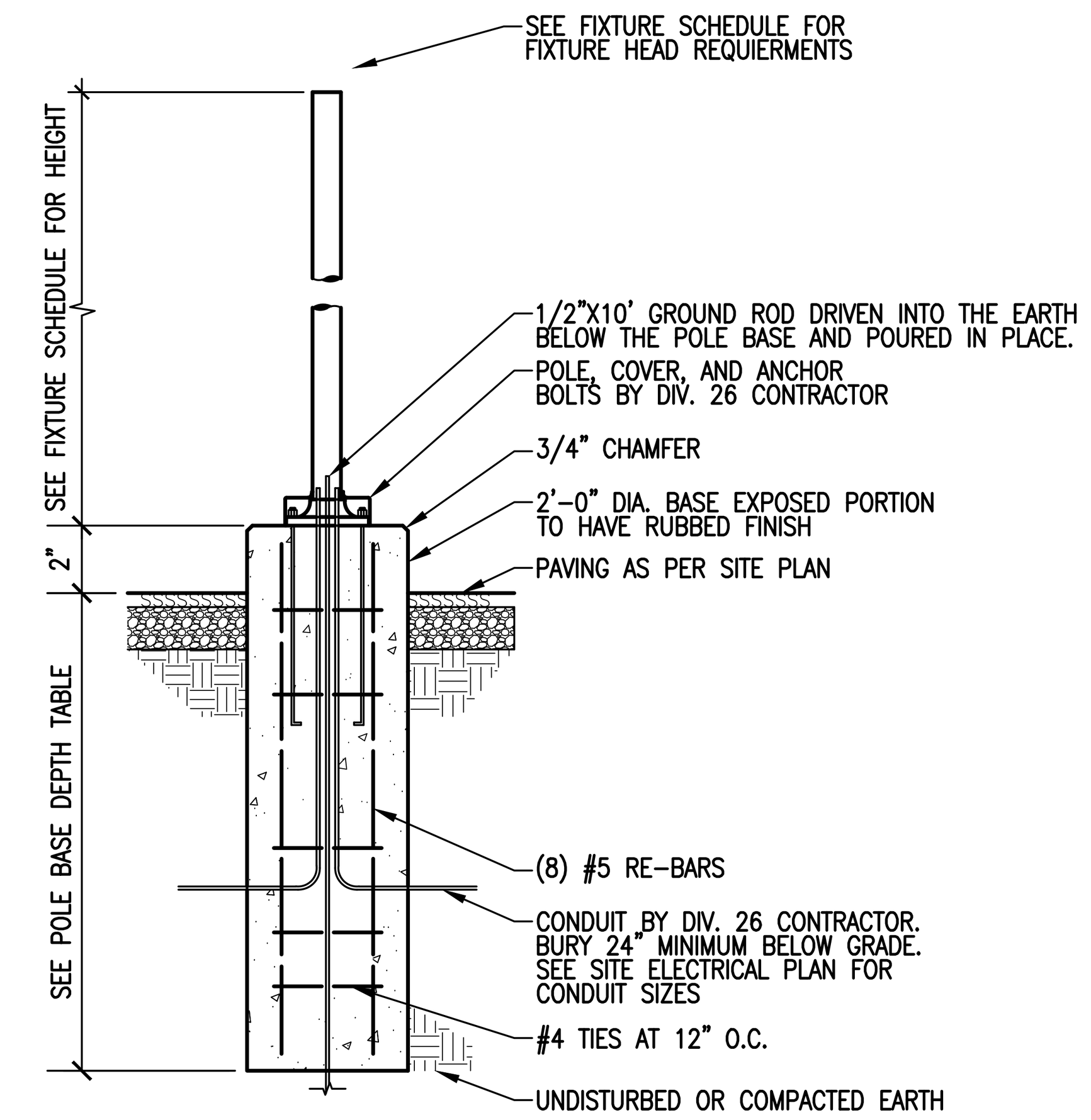
FIXTURE NUMBER	FIXTURE MANUFACTURER	FIXTURE CATALOG #	LAMPS		FIXTURE			DESCRIPTION	REMARKS
			TYPE	QTY.	VOLTS	WATTS	MOUNTING		
F1	MCGRAW-EDISON (OR APPROVED EQUAL)	ISS-AF-1000-LED-E1-SL3	LED	-	120	54	SURFACE WALL	LED EXTERIOR FIXTURE	



1 POLE LIGHT GROUNDING DETAIL
SCALE: NTS

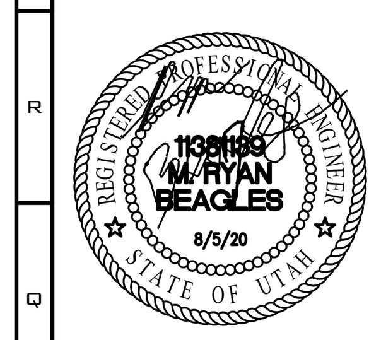
POLE BASE DEPTH TABLE

POLE HEIGHT	FOOTING DEPTH
8'–0"	2'–6"
12'–0"	3'–0"
15'–0"	4'–0"
18'–0"	4'–0"
20'–0"	4'–0"
25'–0"	5'–0"
30'–0"	5'–0"
40'–0"	6'–0"



2 POLE BASE DETAIL
SCALE: NTS

ROYAL ENGINEERING
MECHANICAL
PROVO, UTAH 84606
FAX: 801.375.2676
ELECTRICAL
1837 S. EAST BAY BLVD.
PHONE: 801.375.2228



REVISIONS:

FITNESS CENTER
ALPINE, UTAH

DRAWING TITLE:
ELECTRICAL SCHEDULES AND DETAILS

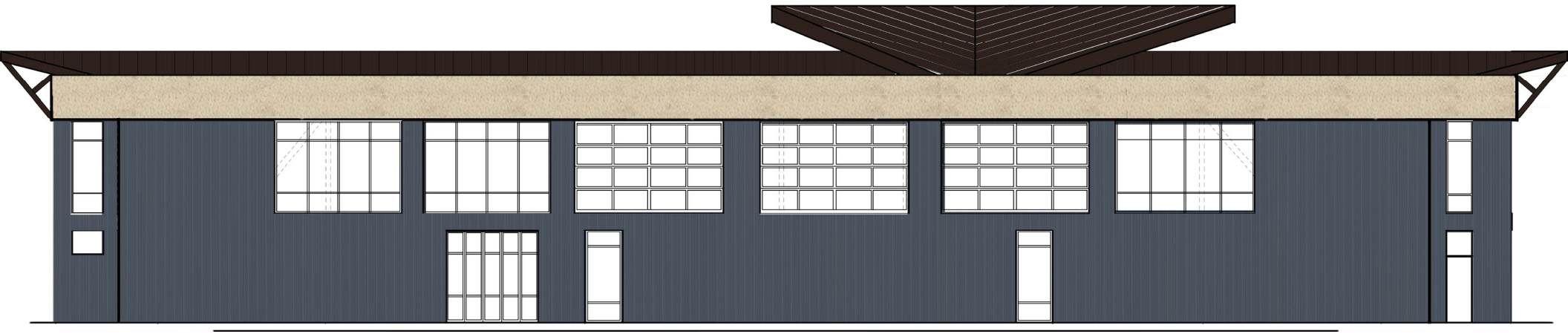
DRAWN BY:	CHECKED BY:
CC	RB

DATE PLOTTED: 07/28/2020

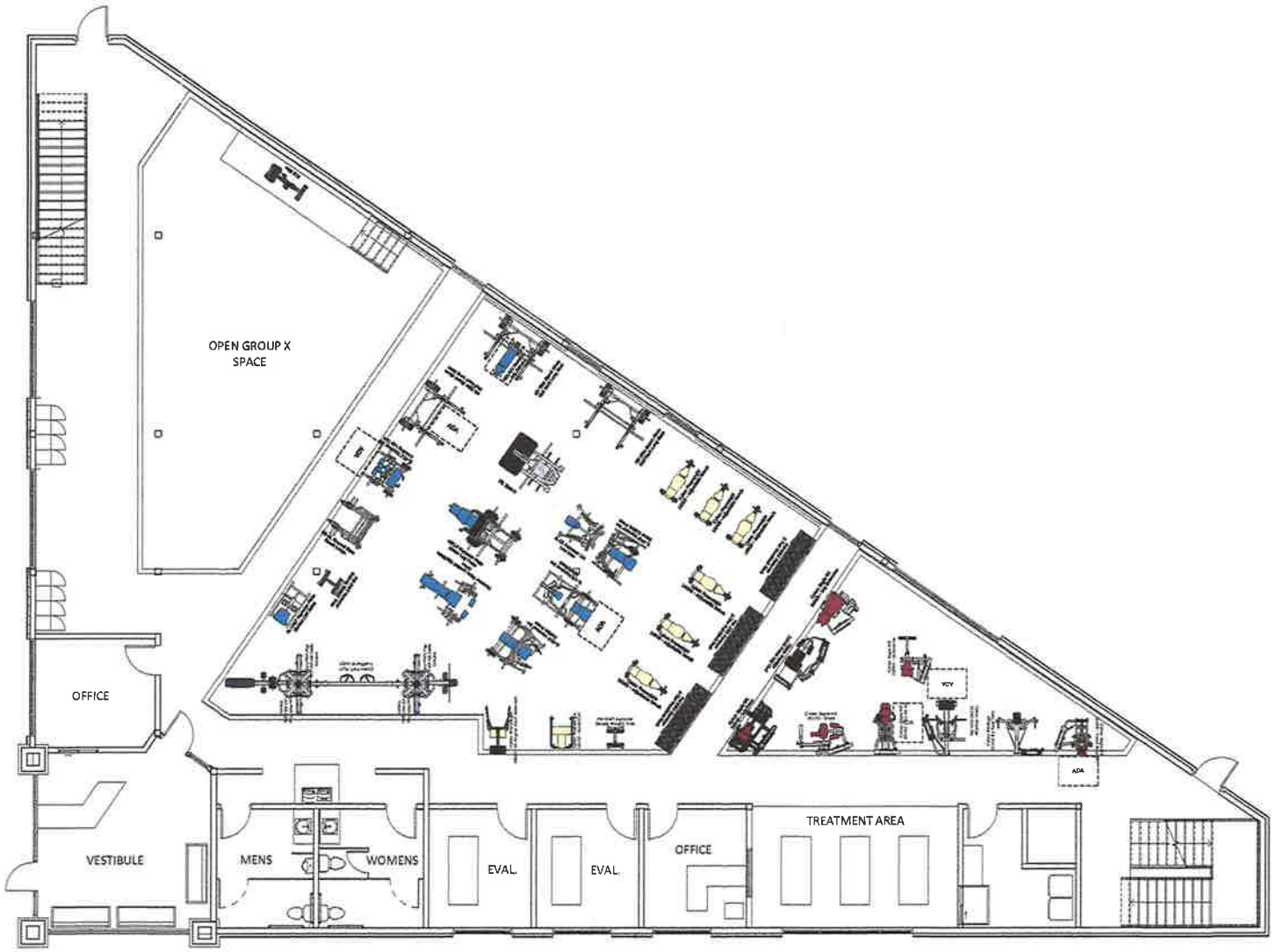
PROJECT #: J20230

E6.1


FITNESS



Alpine Fitness
Alpine, UT



0 3 5 10 ft

Sales Contact:
Chris Simoncini

Date: 10-05-2020
Version: 2.01
Scale: 1/16" = 1'-0"

DISCLAIMER:
THIS FLOORPLAN IS PROVIDED FOR GENERAL VISUAL REFERENCE ONLY. ANY DIMENSIONS USED TO CREATE THESE DRAWINGS SHOULD BE VERIFIED BY THE OWNERS OF THE FACILITY, CONTRACTORS AND/OR THEIR AGENTS. THESE DRAWINGS ARE NOT DESIGNED TO BUILD FROM AND SHALL NOT BE USED AS BUILDING DOCUMENTS BY ANY PARTIES. LIFE FITNESS MAKES NO REPRESENTATION OR WARRANTY THAT THE FLOORPLAN COMPLIES WITH ANY APPLICABLE LAW, CODES, RULE OR REGULATION OR ANY INDUSTRY OR SAFETY STANDARD OR REQUIREMENT, INCLUDING ASTM OR EUROPEAN STANDARD SPACING RECOMMENDATIONS FOR ACCESS, PASSAGE AROUND, OR EMERGENCY DISMOUNT. COMPLIANCE WITH INDUSTRY STANDARDS, APPLICABLE LAW, CODES, RULE OR REGULATION REGARDING PLACEMENT OF AND CLEARANCE OF EQUIPMENT AND ASSOCIATED ITEMS IS BY OWNER AND LIFE FITNESS DISCLAIMS ALL RESPONSIBILITY WITH RESPECT THERETO.

ADDITIONAL NOTES:
FLOOR PLAN DIMENSIONS ARE BASED ON INFORMATION PROVIDED BY FACILITY OWNER OR ITS REPRESENTATIVES AND SHOULD BE VERIFIED IN THE FIELD.

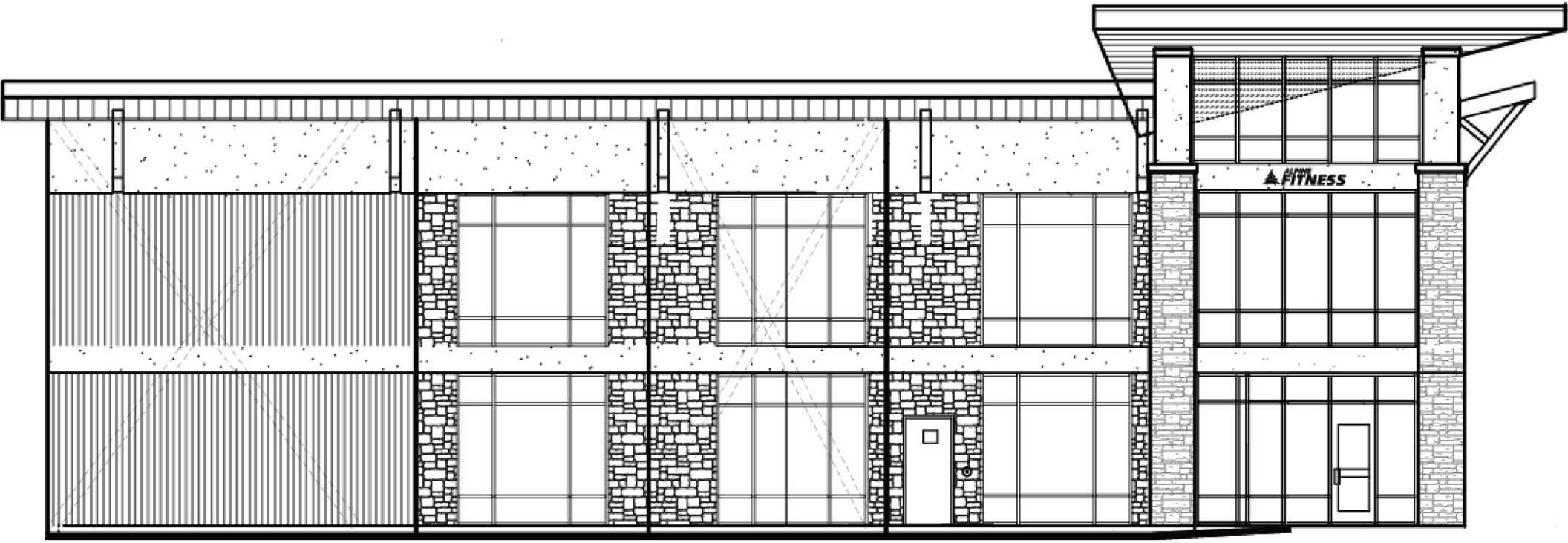
Electrical Legend:

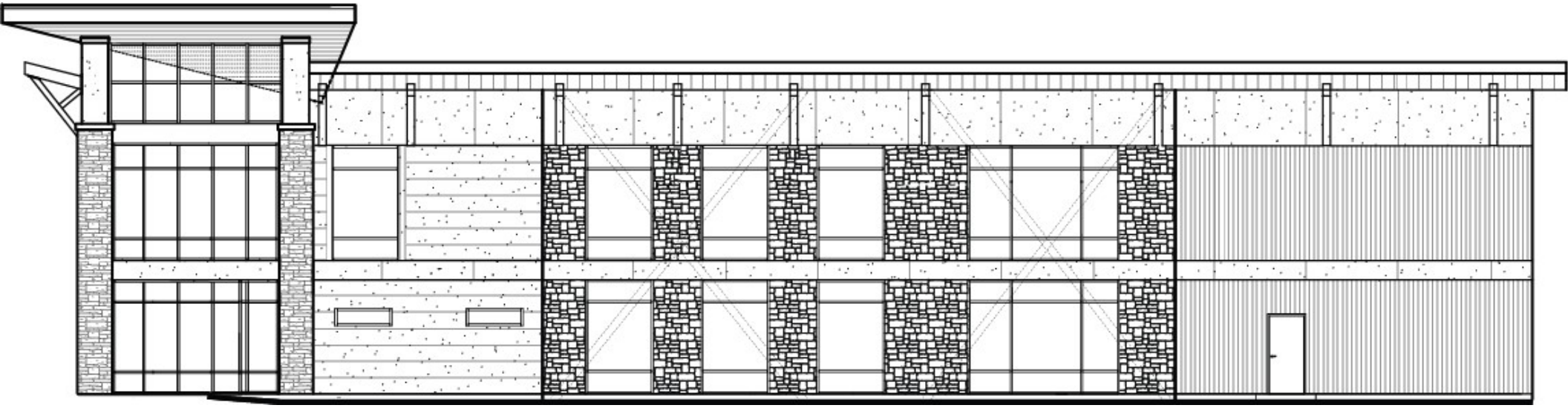
- STANDARD RECEPTACLE
- DEDICATED RECEPTACLE
- WIFI / WIRED INTERNET
- TV CONNECTION

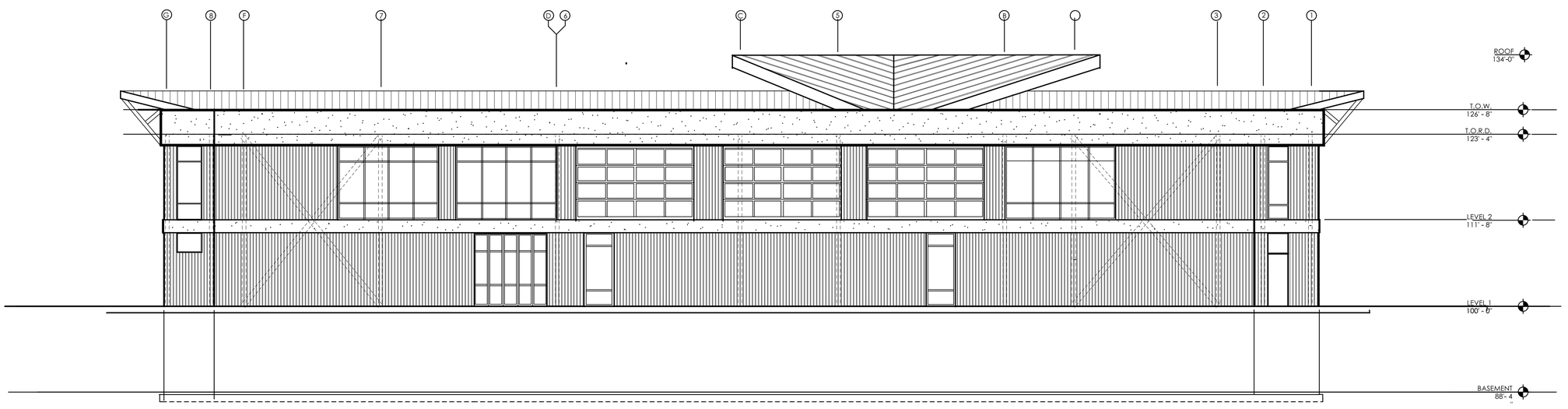
CONSULT A QUALIFIED ELECTRICAL PROFESSIONAL TO DETERMINE POWER REQUIREMENTS AND PLACEMENT.

POWER, DATA, AND TV REQUIREMENTS VARY BASED ON OPTIONS SELECTED.

LIFEFITNESS
FAMILY OF BRANDS


FITNESS




G
B
F
7
D
6
C
5
B
1
3
2
1
ROOF
134'-0"
T.O.W.
126' - 8"
T.O.R.D.
123' - 4"
LEVEL 2
111' - 8"
LEVEL 1
100' - 0"
BASEMENT
88' - 4"

sh type, texture and color to be used on the
Samples shall be prepared using the same
techniques proposed for the actual
on by the applicator/contractor.

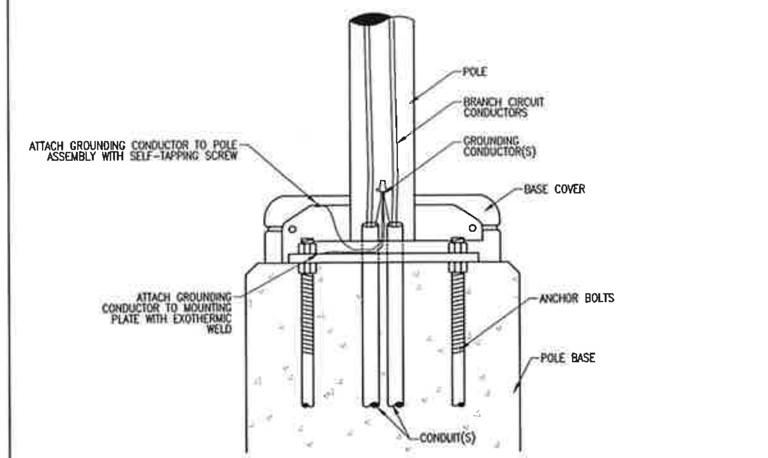
SITE LIGHTING FIXTURE SCHEDULE

FIXT	FIXTURE						LAMPS		POLE			REMARKS
#	MANUFACTURER	CATALOG #	VOLTS	# POLE	WATTS	MOUNTING	TYPE	QTY/FIXT.	MANUFACTURER	HEIGHT	CATALOG #	
SF1	HADCO	C2801E-A3SRNN88A5SNNNA	240	1	88	POLE	LED	-	MOUNTAIN STATES	14'0"	SMOOTH ALUMINUM	PER ALPIN CITY STANDARD

LIGHT FIXTURE SCHEDULE

FIXTURE NUMBER	FIXTURE MANUFACTURER	FIXTURE CATALOG #	LAMPS		FIXTURE			DESCRIPTION	REMARKS
			TYPE	QTY.	VOLTS	WATTS	MOUNTING		
F1	MCGRAW-EDISON (OR APPROVED EQUAL)	ISS-AF-1000-LED-E1-SL3	LED	-	120	54	SURFACE WALL	LED EXTERIOR FIXTURE	

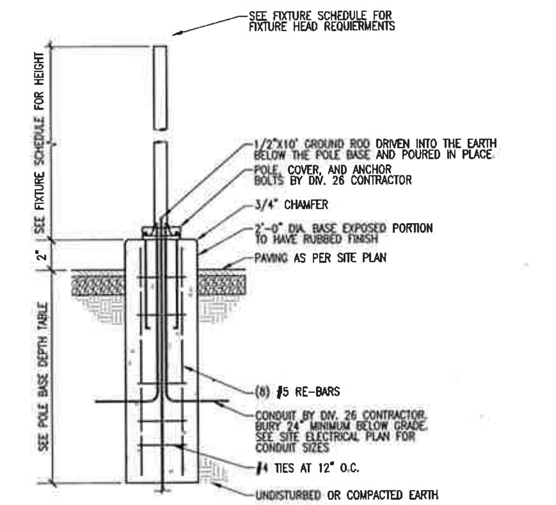
King Luminaire K137 Yarmouth (NO GLOBE) LED
K137-P4NG-III-100(SSL)7030-120V-K26-PR7-3K-TB-BK-1-WS
(See City Detail 31a)



1 POLE LIGHT GROUNDING DETAIL

SCALE: NTS

POLE BASE DEPTH TABLE	
POLE HEIGHT	FOOTING DEPTH
8'-0"	2'-6"
12'-0"	3'-0"
15'-0"	4'-0"
18'-0"	4'-0"
20'-0"	4'-0"
25'-0"	5'-0"
30'-0"	5'-0"
40'-0"	6'-0"



2 POLE BASE DETAIL

SCALE: NTS

ROYAL ENGINEERING
ELECTRICAL
MECHANICAL
1837 S. EAST BAY BLVD.
PROVO, UTAH 84606
PHONE: 801 375 2228
FAX: 801 375 2676

REGISTERED PROFESSIONAL ENGINEER
W. RYAN BEAGLES
STATE OF UTAH

REVISIONS:

FITNESS CENTER

ALPINE, UTAH

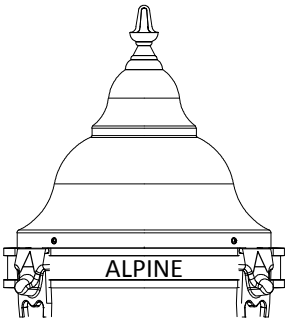
DRAWING TITLE:
ELECTRICAL SCHEDULES AND DETAILS

DRAWN BY:	CHECKED BY:
CC	RB

DATE PLOTTED: 07/28/2020

PROJECT #: J20230

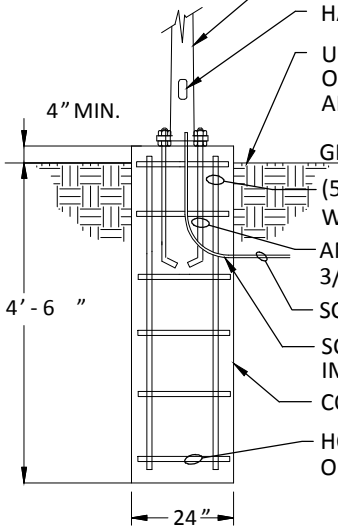
E6.1



ENLARGED FIXTURE TOP

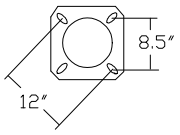
NOTE!!
IF DEPTH CANNOT BE MET MASS MUST BE EQUIVALENT TO MASS SHOWN

FINISH;
BLACK

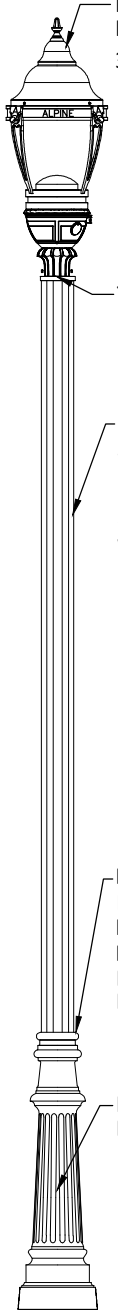


POLE
HANDHOLE
UNDISTURBED EARTH OR 95% COMPACTION AROUND CONCRETE BASE
GRADE
(5) #4 REBAR WITH #2 TIES
ANCHOR BOLTS 3/4 " x 18 "
SCHEDULE 40 PVC
SCHEDULE 40 OR IMC RIGID ELBOW
CONCRETE BASE
HOOPS #4 REBAR ONE PER FOOT

CONCRETE BASE DETAIL



ANCHOR BASE DETAIL
12"BOLT CIRCLE
ANCHOR BOLTS: 3/4"x 18"



KING LUMINAIRE K137 YARMOUTH (NO GLOBE) - LED
K137-P4NG-III-100(SSL)7030-120V-K26-PR7-3K-TB-BK-1-WS

TENON 3"X3" TALL

14' EXTRUDED FLUTED ALUMINUM
5.0" O.D. .250" WALL THICKNESS
EPA MIN 20 IN 80 MPH ZONE (1.3 GUST FACTOR)
PAINTED WITH THE FIRST 16"
OF POLE TO BE COATED
WITH ZINC COLD GALVANIZING COMPOUND

BASE BY MOUNTAIN STATES
PART# HANC-12.75"W x 45"-HDEB-BK
HIGH DENSITY ELASTOMER DECORATIVE BASE, DENSITY OF 71LBS PER CUBIC
DENSITY: 71LBS PER CUBIC FOOT.
BASE TO BE AN AVERAGE OF 5/8" THICK

HANDHOLE LOCATED 12" ABOVE GRADE
BEHIND TWO-PIECE DECORATIVE BASE.

** SEE DETAIL 31 **
FOR REQUIRED
JUNCTION BOX
AT BASE

STATEMENT OF USE

REVISION

NO.		BY	APRL.	DATE

ALPINE CITY
ESTABLISHED 1850

CAD FILE: 31A STREET LIGHT ALPINE CURRENT ARTERIAL POLE ASSEMBLY 9-23-20

DOWNTOWN STREET LIGHT

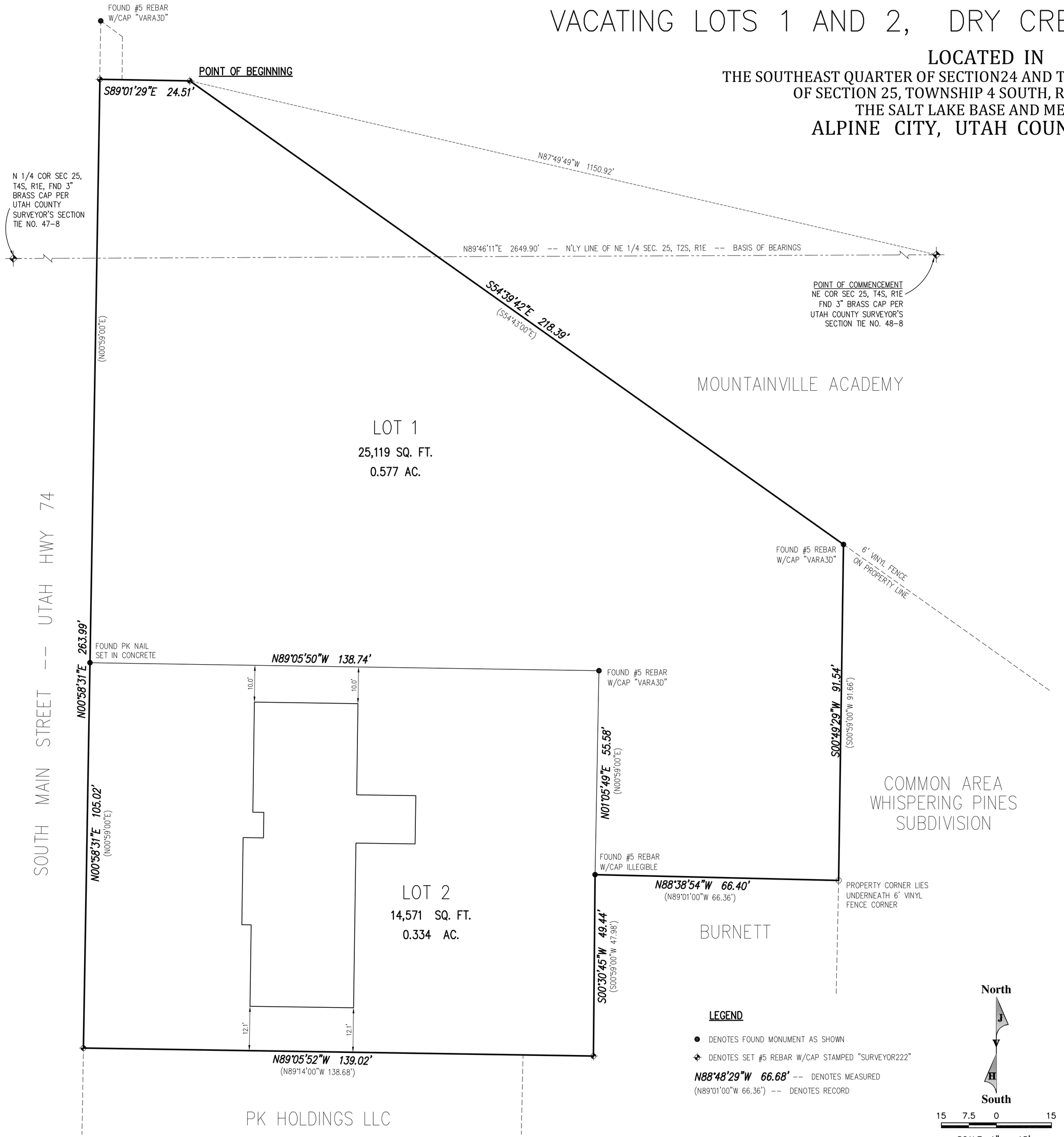
ALPINE CITY
20 NORTH MAIN
ALPINE, UT 84004

STANDARD DRAWING NUMBER: 31a

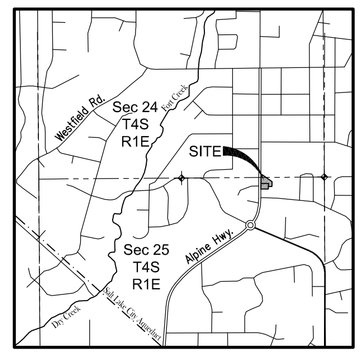
PLOT SCALE:	N.T.S.
DRAWN BY:	WJM
DESIGN BY:	
CHECKED BY:	
ADOPTED DATE:	12/7/18

DRY CREEK SOUTHEAST PLAT "B"
VACATING LOTS 1 AND 2, DRY CREEK SOUTHEAST PLAT "A"

LOCATED IN
THE SOUTHEAST QUARTER OF SECTION24 AND THE NORTHEAST QUARTER
OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST OF
THE SALT LAKE BASE AND MERIDIAN
ALPINE CITY, UTAH COUNTY, UTAH



LEGEND
- ● DENOTES FOUND MONUMENT AS SHOWN
- ❖ DENOTES SET #5 REBAR W/CAP STAMPED "SURVEYOR222"
- *N88°48'29"W 66.68'* -- DENOTES MEASURED
- (N89°01'00"W 66.36') -- DENOTES RECORD



VICINITY MAP
SCALE: 1" = 2000'

BOUNDARY DESCRIPTION

A PORTION OF LOT 1 AND LOT 2, PLAT "A", DRY CREEK SOUTHEAST SUBDIVISION, ALPINE, UTAH, LOCATED IN THE SOUTHEAST QUARTER OF SECTION 24 AND THE NORTHEAST QUARTER OF SECTION 25, BOTH IN TOWNSHIP 4 SOUTH, RANGE 1 EAST OF THE SALT LAKE BASE AND MERIDIAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 25, WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 25 BEARS NORTH 89°46'11" EAST A DISTANCE OF 2649.90 FEET, SAID LINE FORMING THE BASIS OF BEARINGS FOR THIS DESCRIPTION;
THENCE NORTH 87°49'49" WEST A DISTANCE OF 1150.92 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 54°39'42" EAST A DISTANCE OF 218.39 FEET TO THE WESTERLY LINE OF WHISPERING PINES SUBDIVISION;
THENCE SOUTH 00°49'29" WEST ALONG SAID WESTERLY LINE A DISTANCE OF 91.54 FEET;
THENCE NORTH 88°38'54" WEST A DISTANCE OF 66.40 FEET;
THENCE SOUTH 00°30'45" WEST A DISTANCE OF 49.44 FEET;
THENCE NORTH 89°05'52" WEST A DISTANCE OF 139.02 FEET TO THE EASTERLY LINE OF SOUTH MAIN STREET;
THENCE NORTH 00°58'31" EAST ALONG SAID EASTERLY LINE OF SOUTH MAIN STREET A DISTANCE OF 263.99 FEET;
THENCE SOUTH 89°01'29" EAST A DISTANCE OF 24.51 FEET TO THE POINT OF BEGINNING.

CONTAINING 39,690 SQUARE FEET OR 0.911 ACRES.

PLAT VACATION NOTICE

THE CITY OF ALPINE IS SATISFIED THAT NEITHER THE PUBLIC NOR ANY PERSON WILL BE MATERIALLY INJURED BY THE VACATION OF LOTS 1 AND 2 OF DRY CREEK SOUTHEAST PLAT "A" AND THERE IS GOOD CAUSE FOR THE VACATION. LOTS 1 AND 2 OF DRY CREEK SOUTHEAST PLAT "A" ARE HEREBY VACATED.

BASIS OF BEARINGS

THE BASIS OF BEARINGS IS THE LINE BETWEEN THE NORTHEAST CORNER OF SECTION 25 AND THE NORTH QUARTER CORNER OF SECTION 25, T4S, R1E OF THE SLB&M, AS MARKED BY A 3 INCH BRASS CAP AT BOTH CORNERS, SAID LINE BEARS N89°45'53"E A DISTANCE OF 2655.21 FEET.

ADDRESS TABLE

LOT 1 -- 235 SOUTH MAIN STREET
LOT 2 -- 255 SOUTH MAIN STREET

SURVEYOR'S CERTIFICATE

I, JAMES V. HEINRITZ, DO HEREBY CERTIFY THAT I AM A REGISTERED LAND SURVEYOR AND THAT I HOLD A LICENSE, CERTIFICATE NO. 11072412-2201, IN ACCORDANCE WITH THE PROFESSIONAL ENGINEERS AND LAND SURVEYORS LICENSING ACT FOUND IN TIOTLE 58, CHAPTER 22 OF THE UTAH CODE. 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, HAVE SUBDIVIDED SAID TRACT OF LAND INTO LOTS, STREETS, AND EASEMENTS, HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH UTAH CODE SECTION 17-23-17, HAVE VERIFIED ALL MEASUREMENTS, AND HAVE PLACED MONUMENTS AS REPRESENTED ON THE PLAT. I FURTHER CERTIFY THAT EVERY EXIXTING RIGHT-OF-WAY AND EASEMENT GRANT OF RECORD FOR UNDERGROUND FACILITIES, AS DEFINED IN UTAH CODE SECTION 54-8a-2, AND FOR OTHER UTILITY FACILITIES, IS ACCURATELY DESCRIBED ON THIS PLAT, FILED, OR WILL FILE WITHIN 90 DAYS OF THE RECORDATION OF THIS PLAT, A MAP OF THE SURVEY I HAVE COMPLETED WITH THE UTAH COUNTY SURVEYOR.

OWNER'S DEDICATION

KNOW ALL MEN BY THESE PRESENT THAT WE, ALL OF THE UNDERSIGNED OWNER'S OF ALL OF THE PROPERTY DESCRIBED IN THE SURVEYOR'S CERTIFICATE HERE AND SHOWN ON THIS MAP, HAVE CAUSED THE SAME TO BE SUBDIVIDED INTO LOTS, BLOCKS, STREETS AND EASEMENTS AND DO HEREBY DEDICATE THE STREETS AND OTHER PUBLIC AREAS AS INDICATED HEREON FOR THE PERPETUAL USE OF THE PUBLIC, IN WITNESS HEREOF WE HAVE HEREUNTO SET OUR HANDS THIS
_____ DAY OF _____, A.D. 20_____.

_____ _____
_____ _____
_____ _____

ACKNOWLEGEMENT

STATE OF UTAH |
| S.S.
COUNTY OF UTAH |

ON THE ____ DAY OF _____ 20____ PERSONALLY, APPEARED BEFORE ME THE SIGNERS OF THE FOREGOING DEDICATION WHO DULY ACKNOWLEDGE TO ME THAT THEY DID EXECUTE THE SME.

WITNESS MY HAD AND OFFICIAL SEAL.

NOTARY PUBLIC FULL NAME: _____

COMMISSION NUMBER: _____

MY COMMISSION EXPIRES: _____

A NOTARY PUBLIC COMMISSIONED IN UTAH

APPROVAL BY LEGISLATIVE BODY

THE CITY COUNCIL OF THE CITY OF ALPINE, COUNTY OF UTAH, APPROVES THIS SUBDIVISION SUBJECT TO THE CONDITIONS AND RESTRICTIONS STATED HEREON AND HEREBY ACCEPTS THE DEDICATION OF ALL STREETS, EASEMENTS AND OTHER PARCELS OF LAND INTENDED FOR PUBLIC PURPOSES FOR THE PERPETUAL USE OF THE PUBLIC

THIS _____ DAY OF _____ A.D. 20 _____.

_____ _____
_____ _____
_____ ATTEST_____
ENGINEER CITY RECORDER (SEE SEAL BELOW)

PLANNING DIRECTOR

APPROVED BY THE PLANNING DIRECTOR ON THIS
_____ DAY OF _____ . A.D. 20 _____ .

_____
CHAIRMAN, PLANNING COMMISSION

ALPINE CITY ATTORNEY

APPROVED AS TO FORM
_____ DAY OF _____ . A.D. 20 _____ .

_____
ALPINE CITY ATTORNEY

DRY CREEK SOUTHEAST PLAT "B"
VACATING LOTS 1 AND 2,
DRY CREEK SOUTHEAST PLAT "A"
LOCATED IN
THE SOUTHEAST QUARTER OF SECTION24 AND THE NORTHEAST QUARTER OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST OF THE SALT LAKE BASE AND MERIDIAN
ALPINE CITY, UTAH COUNTY, UTAH

SURVEYOR OF RECORD:
SURVEYOR222
417 E Pioneer Ave
Sandy, UT 84070
Phone: 385-254-3397
James V. Heinritz
P.L.S. #11072412-2201

SURVEYOR'S SEAL | *CITY ENGINEER'S SEAL* | *CLERK/RECORDER SEAL* | *NOTARY PUBLIC SEAL*

Kimberly Bryant
Lon Lott

B. Setback Exception Request – 235 S. Main – Paul Anderson

Austin Roy said Paul Anderson had requested an exception to the setback requirements for his property located at 235 S. Main Street in the business commercial zone. The setback back requirements for the BC zone were 30-ft front in the front and 20-feet on the sides unless recommended otherwise. Article 3.11.040.3.e allowed setback exceptions in the BC zone provided the Planning Commission recommended it and the City Council approved it. Mr. Anderson had requested a front setback of 15 feet and a side setback of 0 feet, which the Planning Commission denied based on the trail which was shown along the north side of his property next to Dry Creek. The concern was that there wouldn't be enough room for the trail which would connect to the Montdella Senior Living development on the west end and eventually to Creekside Park on the east end.

Mr. Anderson said he had met with Mountainville Academy who owned the property to the north and a portion of the land on which the trail would run. The school was interested in seeing the property next to them cleaned up and had agreed to expand the trail easement on their property to help accommodate the trail. Mr. Anderson increased his share of the easement by reducing the request for a side-yard setback exception from zero feet to two feet.

Mayor Stout asked how close it would be to the edge of the Dry Creek streambed, and if erosion was going to be a concern. Austin Roy said there were about 20 feet between the edge of the Anderson property and the drop-off into the streambed.

Paul Anderson said he'd done a lot of work on the property to clean it up. He'd taken out about 21 junk trees and removed five dams across Dry Creek caused by fallen trees and debris. Plus, he cleaned up the garbage on the lot. He said the school said they would much prefer to see a nice medical building on that lot. He noted that the State Farm Insurance Building on the other side of Main Street was set back 15 feet from the front property line.

There was a question about a small triangular piece of land next to Main Street that was owned by UDOT. Shane Sorensen said it was to have been transferred to Alpine City when Alpine took over maintenance of Main Street and that needed to be done. It shouldn't be a problem.

Jason Thelin asked if there would need to be a retaining wall on the property line. Shane Sorensen said there would probably not be a need for a wall because it was relatively flat. The parking lot next to residents would need some kind of screening or a fence.

MOTION: Jason Thelin moved to approve a 15-ft setback off Main Street and a 2-ft setback on the north property line for Paul Anderson for the property at 235 S. Main Street. Carla Merrill seconded. Ayes: 4 Nays: 0. Motion passed.

Ayes	Nays
Jason Thelin	none
Carla Merrill	
Kimberly Bryant	
Lon Lott	

C. Commercial Structure – Alpine Animal Hospital, 424 S. Alpine Highway – Dr. Michael Kendig.

Austin Roy said the owners of the animal hospital at 424 S. Alpine Highway were proposing to put up new siding on the existing building and put hardiboard on the gable. Since the business was located in the Gateway zone, the City Council had to approve the architectural changes. Dr. Kendig provided samples of the materials. The roof and the brick were not being changed, just the siding and the gable. The Planning Commission had recommended that the door be painted the same color as the gable, and recommended approval

MOTION: Lon Lott moved to approve the proposed remodel of the Alpine Animal Hospital and require the door to be painted the same color as the gable. Carla Merrill seconded. Ayes: 4 Nays: 0. Motion passed.

Ayes	Nays
Ramon Beck	none
Carla Merrill	
Kimberly Bryant	
Lon Lott	

B. Land Swap and Parking Exception, 235 S. Main – Paul Anderson

Austin Roy said Mr. Anderson had previously asked for front and side-yard setback exceptions at the meeting of August 13, 2019, which were approved. He was now coming to the City with a proposed land swap. Alpine City owned a small triangular piece of ground along Main Street which was left over when the bridge was built. Mr. Anderson would give the City a strip of land along Main Street which would enable the City to access their property without crossing private property. The two pieces of ground were each 234.23 square feet.

Mr. Anderson's second request was to allow parking in the setback. He'd already been granted a front setback exception of 15 feet for his building. He requested the same 15-foot exception to the setback for the parking, which would bring the parking in line with the building.

Carla Merrill said she didn't like always approving exceptions to the setback requirements. A committee had sat down and devised the setback requirements and they had a reason for them. She said she was okay with the land swap but not the parking exception.

After more discussion, a motion was made.

MOTION: Ramon Beck moved to approve the land swap with Paul Anderson at 234 S. Main, and clarify that the setback exception approved for the building also approved a setback of 15 feet for the parking. Lon Lott seconded. Ayes: 3 Nays: 1. Motion passed.

Ayes	Nays
Ramon Beck	Carla Merrill
Kimberly Bryant	
Lon Lott	

C. Appointment of Administrative Law Judge

Shane Sorensen said that several months ago the City had changed some ordinances that provided for code violations to be handled by a City appointed administrative law judge rather than going through the court system. Angela Adams was an attorney who lived in Alpine and said she would be willing to serve as the administrative law judge on a volunteer basis or ad hoc public service.

David Church said this method of handling code violations was friendlier and more effective than hiring attorneys and going to court. In the past, a code violation was deemed a criminal offense and was sent to the court which, became an expensive, drawn-out way of trying to solve the problem. Many cities were going to this system which still gave the offender due process but in friendlier climate. He said there could be more than one judge. Phil Barker had handled appeals for the City in the past.

MOTION: Kimberly Bryant moved to appoint Angela Adams as the Alpine City Administrative Law Judge. Ramon Beck seconded. Ayes: 4 Nays: 0. Motion passed.

Ayes	Nays
Ramon Beck	None
Carla Merrill	
Kimberly Bryant	
Lon Lott	

ALPINE FITNESS

235 S. MAIN STREET
ALPINE, UTAH 84004

PREPARED FOR:
ALPINE FITNESS
75 W. MAIN STREET, CT #100
ALPINE, UT 84004

PREPARED BY:
ENSIGN ENGINEERING
THOMAS MAZEJY, P.E.
45 WEST 10000 SOUTH #500
SANDY, UT 84070
(801) 255-0529

JUNE 4, 2020

TABLE OF CONTENTS

1.0 PROJECT OVERVIEW

The Alpine Physical Therapy project is a proposed commercial development located in Alpine, Utah, in the southeast quarter of Section 24 and the northeast quarter of Section 25, Township 4 south, Range 1 east, Salt Lake Base and Meridian, Utah County, Utah. The site is bounded by Main Street to the West, residential property to the south and east, and Dry Creek to the north. The project storm runoff will be discharged into Dry Creek.

2.0 EXISTING DRAINAGE CONDITIONS

The Alpine Physical Therapy project is located on property containing 0.58 acres of land that is mostly undeveloped except for a garage on the east side of the lot. The existing site is composed primarily of compacted soils and vegetation and generally slopes from southeast to northwest with slopes ranging from about 0.00% to 5.00%. Native soils in the drainage catchment fall into Hydrologic Soil Group C which can be described as follows:

Group C – Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

3.0 DESIGN OBJECTIVES AND METHODOLOGY

The site drainage system will be designed to meet the requirements of Alpine City. This report will address the sizing of the underground piping system to convey runoff from a 10-year storm event as well as safely routing the 100-year storm through the site. Storm and Sanitary Analysis 2019, Autodesk was used to model both hydrology and hydraulics for the project using the SCS TR-55 unit hydrograph method for routing the 24-hour storm distribution. The project has been modeled as two separate drainage catchments with respective design points for analysis. Each catchment was assigned a runoff curve number based on the anticipated hardscape expected to be created by the construction of buildings, parking areas, etc. The coefficients used were analyzed appropriate for the area of this study. Hardscape areas were assigned a curve number of 98 and landscape areas a curve number of 74. See Table 3-1 for weighted curve numbers for each catchment.

TABLE 3-1 DRAINAGE CATCHMENT WEIGHTED CURVE NUMBERS

Basin ID	Landscape Area (sq. ft.)	Curve Number	Hardscape Area (sq. ft.)	Curve Number	Total Area (sq. ft.)	Weighted Curve Number
Sub-01	1982	74	10886	98	12868	94
Sub-02	1863	74	10397	98	12260	94

Sub-01 Weighted Curve Number Calculation Example

$$CN = \frac{(landscape\ area \times landscape\ CN + hardscape\ area \times hardscape\ CN)}{(total\ area)}$$

$$= \frac{(1982 \times 74 + 10886 \times 98)}{12868} = 94$$

Pipes were modeled using a Manning roughness coefficient of 0.011.

Design criteria include the following:

- The 10-year storm event was used to size all underground conveyance systems.
- Surface systems are planned to safely pass the 100-year storm event.
- The 100-year storm event was used to determine required storage capacity of detention system

A 100-year cumulative rainfall of 3.40-inches was used in the model. A 10-year cumulative rainfall of 2.37-inches was used in the model. (Rainfall data obtained from Alpine City Storm Water Drainage Manual).

4.0 PROPOSED DRAINAGE MODEL

The proposed site is designed to direct runoff from paved and landscaped areas into one of two proposed catch basins in the parking area. The water will then be directed through 8" PVC storm drain pipe to an underground detention basin located on-site (Grading plan has been included in Appendix B).

A variety of methods of detention will be employed on this site in order to provide adequate storage. The majority of the storage will take place in an underground detention system consisting of MC-3500 Stormtech chambers. Once the stormtech system has reached capacity, additional storage will be provided within the pipe network and as surface storage above the catch basins. It was determined using the rational method that the 100-year storm event requires a storage volume of **2,748 ft^3**. The underground chambers and fill stone can store **2,567 ft^3** and surface storage areas contribute an additional **360 ft^3**. The total provided storage for the site is **2,927 ft^3**. Model outputs have been included in Appendix A.

The orifice plate was sized to be 0.80" installed on the North side of box #202 resulting in a release rate of 0.04 cfs. The maximum release rate allowed by Alpine City for the project is 0.07 cfs/acre. The total area is 0.58 acres, resulting in an allowable release rate of 0.04 cfs. Once storm runoff passes through the orifice plate, it will be direct to Dry Creek to be discharged.

5.0 CONCLUSIONS

The drainage system as outlined will safely convey storm water to the proposed detention basin. All pipe sizes as shown are adequate to convey runoff from the 10-year storm event and the surface improvements have been designed to pass the 100-year storm event.

Ensign Engineering

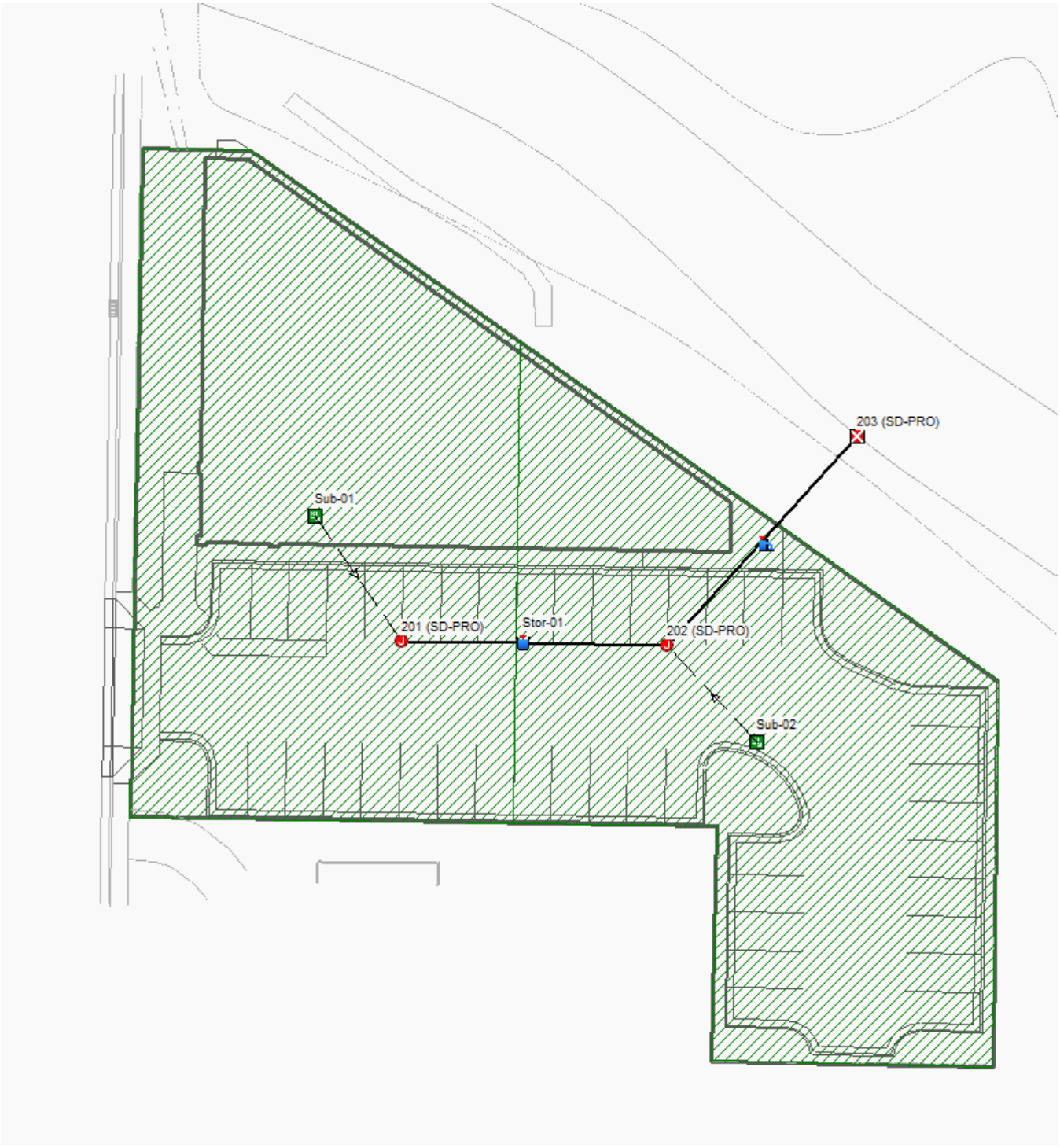
Thomas J. Mazejy, P.E.
Ensign Engineering

Reviewed By

David Jenkins, P.E.
Ensign Engineering

6.0 APPENDIX A – MODEL OUTPUTS

Model Layout



Project Description

File Name ..... 9711 - 10yr3hr.SPF
Description .....
P:\9711 Alpine Physical Therapy\Civil\Source Drawings\Pipe Networks\Z-PIPES.dwg

Project Options

Flow Units ..... CFS
Elevation Type ..... Elevation
Hydrology Method ..... SCS TR-55
Time of Concentration (TOC) Method ..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Enable Overflow Ponding at Nodes ..... YES
Skip Steady State Analysis Time Periods ... NO

Analysis Options

Start Analysis On ..... May 29, 2020 00:00:00
End Analysis On ..... May 30, 2020 00:00:00
Start Reporting On ..... May 29, 2020 00:00:00
Antecedent Dry Days ..... 0 days
Runoff (Dry Weather) Time Step ..... 0 01:00:00 days hh:mm:ss
Runoff (Wet Weather) Time Step ..... 0 00:05:00 days hh:mm:ss
Reporting Time Step ..... 0 00:05:00 days hh:mm:ss
Routing Time Step ..... 1 seconds

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1	100-yr	Time Series	100-year	Cumulative	inches	Utah	Utah	100	3.40	SCS Type II 24-hr
2	10-year	Time Series	10-year	Cumulative	inches	Utah	Utah	10	2.37	SCS Type II 24-hr

Subbasin Summary

Subbasin ID	Area (ac)	Weighted Curve Number	Total Rainfall (in)	Total Runoff (in)	Total Runoff Volume (ft³)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
Sub-01	0.30	94.00	2.37	1.74			
Sub-02	0.28	94.00	2.37	1.74			

Node Summary

Element ID	Element Type	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Peak Inflow (cfs)	Max HGL Elevation Attained (ft)
201 (SD-PRO)	Junction	4925.50	4932.20	0.68	4927.59
202 (SD-PRO)	Junction	4925.50	4932.20	0.65	4927.59
203 (SD-PRO)	Outfall	4925.00		0.04	4925.00
Stor-01	Storage Node	4925.50	4932.20	1.30	4927.59

Link Summary

Element ID	Element Type	From (Inlet) Node	To (Outlet) Node	Length	Inlet Invert Elevation	Outlet Invert Elevation	Average Slope	Diameter or Height	Manning's Roughness	Peak Flow	Design Flow Capacity	Peak Flow/ Design Flow Ratio	Peak Flow Velocity
				(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)		(ft/sec)
{SD-PRO}.Pipe - (1) (SD-PRO)	Pipe	201 (SD-PRO)	Stor-01	28.63	4925.50	4925.50	0.0000			0.68	0.07	9.55	1.95
Link-01	Pipe	Stor-01	202 (SD-PRO)	34.38	4925.50	4925.50	0.0000			0.62	0.07	9.55	1.78
{SD-PRO}.Pipe - (2) (SD-PRO)	Orifice	202 (SD-PRO)	203 (SD-PRO)		4925.50	4925.00				0.04			

Project Description

File Name ..... 9711 - 100yr24hr.SPF
Description .....
P:\9711 Alpine Physical Therapy\Civil\Source Drawings\Pipe Networks\Z-PIPES.dwg

Project Options

Flow Units ..... CFS
Elevation Type ..... Elevation
Hydrology Method ..... SCS TR-55
Time of Concentration (TOC) Method ..... SCS TR-55
Link Routing Method ..... Hydrodynamic
Enable Overflow Ponding at Nodes ..... YES
Skip Steady State Analysis Time Periods ... NO

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Start Analysis On ..... May 29, 2020 00:00:00
End Analysis On ..... May 30, 2020 00:00:00
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Sub-02	0.28	94.00	3.40	2.74			

Node Summary

Element ID	Element Type	Invert Elevation	Ground/Rim (Max) Elevation	Peak Inflow	Max HGL Elevation Attained
		(ft)	(ft)	(cfs)	(ft)
201 (SD-PRO)	Junction	4925.50	4932.20	1.04	4931.78
202 (SD-PRO)	Junction	4925.50	4932.20	1.00	4931.78
203 (SD-PRO)	Outfall	4925.00		0.04	4925.00
Stor-01	Storage Node	4925.50	4932.20	2.01	4931.78

Storage Nodes

Storage Node : Stor-01

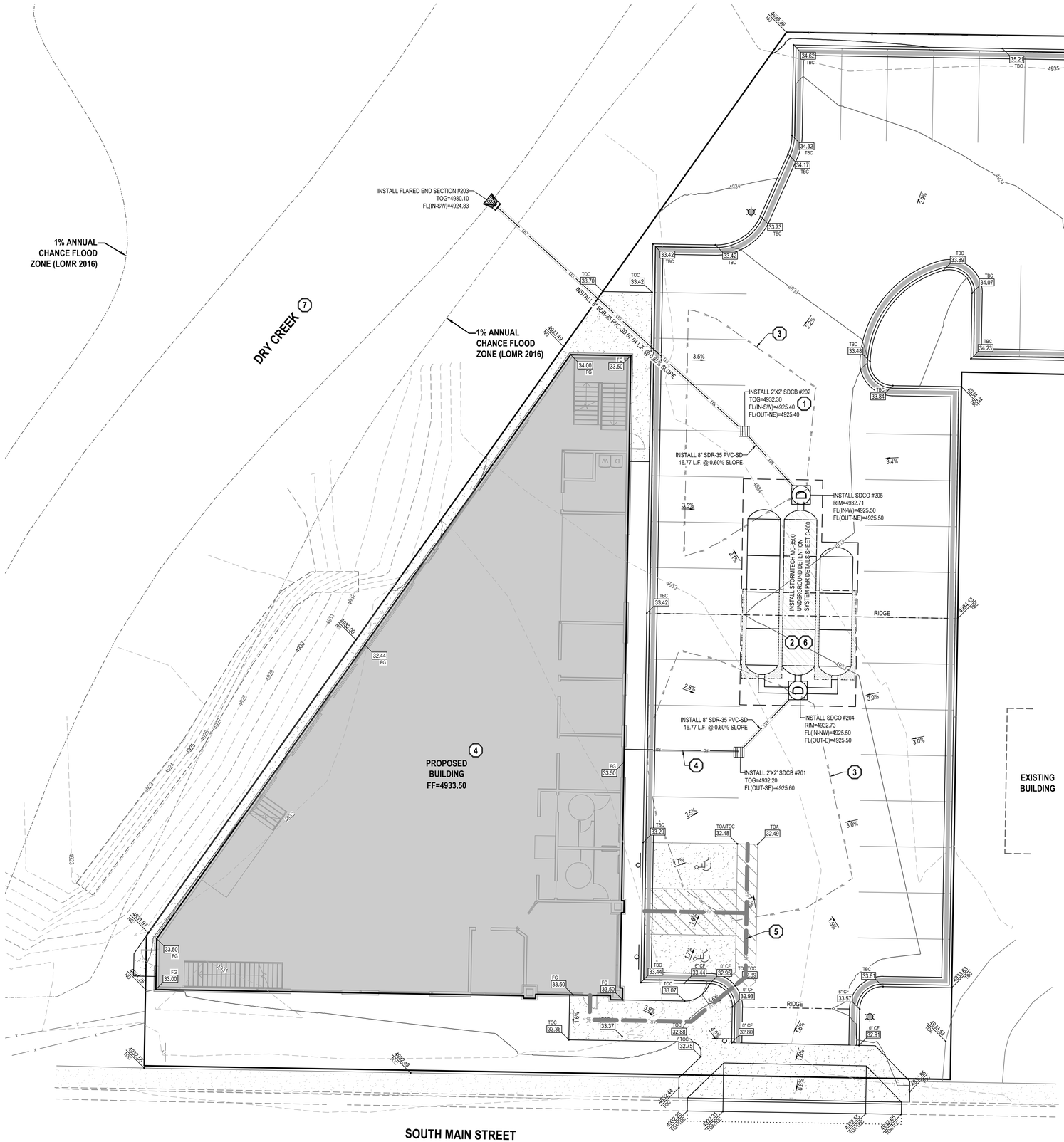
Input Data

Invert Elevation (ft)	4925.50
Max (Rim) Elevation (ft)	4932.20
Max (Rim) Offset (ft)	6.70
Initial Water Elevation (ft)	4925.50
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Output Summary Results

Peak Inflow (cfs)	2.01
Peak Lateral Inflow (cfs)	0.00
Peak Outflow (cfs)	0.03
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	4931.78
Max HGL Depth Attained (ft)	6.28
Average HGL Elevation Attained (ft)	4928.06
Average HGL Depth Attained (ft)	2.56
Time of Max HGL Occurrence (days hh:mm)	0 16:35
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	710
Total Retention Time (sec)	0.00

7.0 APPENDIX B – REFERENCES



GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. ALL WORK SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER POSSIBLY INCLUDING, BUT NOT LIMITED TO, REMOVAL OF UNCONSOLIDATED FILL, ORGANICS, AND DEBRIS, PLACEMENT OF SUBSURFACE DRAIN LINES AND GEOTEXTILE, AND OVEREXCAVATION OF UNSUITABLE BEARING MATERIALS AND PLACEMENT OF ACCEPTABLE FILL MATERIAL.
4. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SOIL CONDITIONS.
5. ELEVATIONS HAVE BEEN TRUNCATED FOR CLARITY. 67.25 REPRESENTS AN ELEVATION OF 4967.25 ON THESE PLANS.
6. LANDSCAPED AREAS REQUIRE SUBGRADE TO BE MAINTAINED AT A SPECIFIC ELEVATION BELOW FINISHED GRADE AND REQUIRE SUBGRADE TO BE PROPERLY PREPARED AND SCARIFIED. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
7. SLOPE ALL LANDSCAPED AREAS AWAY FROM BUILDING FOUNDATIONS TOWARD CURB AND GUTTER OR STORM DRAIN INLETS.
8. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY THE LOCATIONS OF EXISTING UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO VERIFY ALL CONNECTION POINTS WITH THE EXISTING UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING UTILITIES AND UTILITY STRUCTURES THAT ARE TO REMAIN. IF CONFLICTS WITH EXISTING UTILITIES OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION TO DETERMINE IF ANY FIELD ADJUSTMENTS SHOULD BE MADE.
9. ALL STORM DRAIN INFRASTRUCTURE TO BE INSTALLED PER GOVERNING AGENCY OR APWA STANDARD PLANS AND SPECIFICATIONS.
10. ENSURE MINIMUM COVER OVER ALL STORM DRAIN PIPES PER MANUFACTURER'S RECOMMENDATIONS. NOTIFY ENGINEER IF MINIMUM COVER CANNOT BE ATTAINED.
11. ALL FACILITIES WITH DOWNSPOUTS/ROOF DRAINS SHALL BE CONNECTED TO THE STORM DRAIN SYSTEM. SEE PLUMBING PLANS FOR DOWNSPOUT/ROOF DRAIN LOCATIONS AND SIZES. ALL ROOF DRAINS TO HAVE MINIMUM 1% SLOPE.
12. THE CONTRACTOR SHALL ADJUST TO GRADE ALL EXISTING UTILITIES AS NEEDED PER LOCAL GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
13. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE, ASPHALT, OR STORM DRAIN STRUCTURES OR PIPES.
14. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.
15. ALL EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION IN THIS PLAN SET COME FROM THE SURVEY DRAWINGS *"LAND SURVEY PLAT (DATED NOVEMBER 21, 2019) AND TOPOGRAPHY SURVEY (DATED JANUARY 24, 2020)"* PROVIDED BY VARA 3D AND NOT ENSIGN ENGINEERING. PLEASE REFER TO THESE DRAWINGS FOR SURVEY INFORMATION.

SCOPE OF WORK:

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

1. 0.80" Ø ORIFICE PLATE PER DETAIL 3/C-600 INSTALLED ON NORTH SIDE OF STORM DRAIN BOX #202.
2. DETENTION BASIN (STORMTECH MC-3500)

VOLUME REQUIRED =	2,748 CU. FT.
VOLUME PROVIDED (SURFACE) =	360 CU. FT.
VOLUME PROVIDED (UNDERGROUND) =	2,567 CU. FT.
TOP OF GRAVEL =	4930.25
TOP OF CHAMBERS =	4929.25
BOTTOM OF CHAMBERS =	4925.50
BOTTOM OF GRAVEL =	4924.75

3. SURFACE DETENTION HIGH WATER LINE. ELEVATION = 4932.70
4. CONNECT ROOF DRAIN TO STORM DRAIN NETWORK. SEE MECHANICAL PLANS FOR ROOF DRAIN LOCATION AND CONNECTION.
5. DESIGNATED ACCESSIBLE ROUTE. RUNNING SLOPE SHALL NOT EXCEED 5.00% (1:12 OR 8.33% FOR RAMPS) AND CROSS SLOPES SHALL NOT EXCEED 2.00%. CONTRACTOR TO REMOVE AND REPLACE ANY AREAS WHICH EXCEED ALLOWABLE SLOPES.
6. ISOLATOR ROW TO ADDRESS RUNOFF WATER QUALITY PER ADS/STORMTECH SPECIFICATIONS.
7. EXISTING CREEK. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF FLOW LINE PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS.

NORTH

HORIZONTAL GRAPHIC SCALE

10 0 5 10 20

(IN FEET)
HORZ: 1 inch = 10 ft.

BENCHMARK

NORTHEAST CORNER OF SECTION 25, TOWNSHIP 4 SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 4946.87' (NGVD 29)

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

ENSIGN
THE STANDARD IN ENGINEERING

SALT LAKE CITY
45 W. 10000 S., Suite 500
Sandy, UT 84070
Phone: 801.255.0529

LAYTON
Phone: 801.547.1100

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
ALPINE FITNESS
75 W. MAIN STREET CT #100
ALPINE, UTAH 84004
CONTACT:
PAUL ANDERSON
PHONE: (801) 687-0000

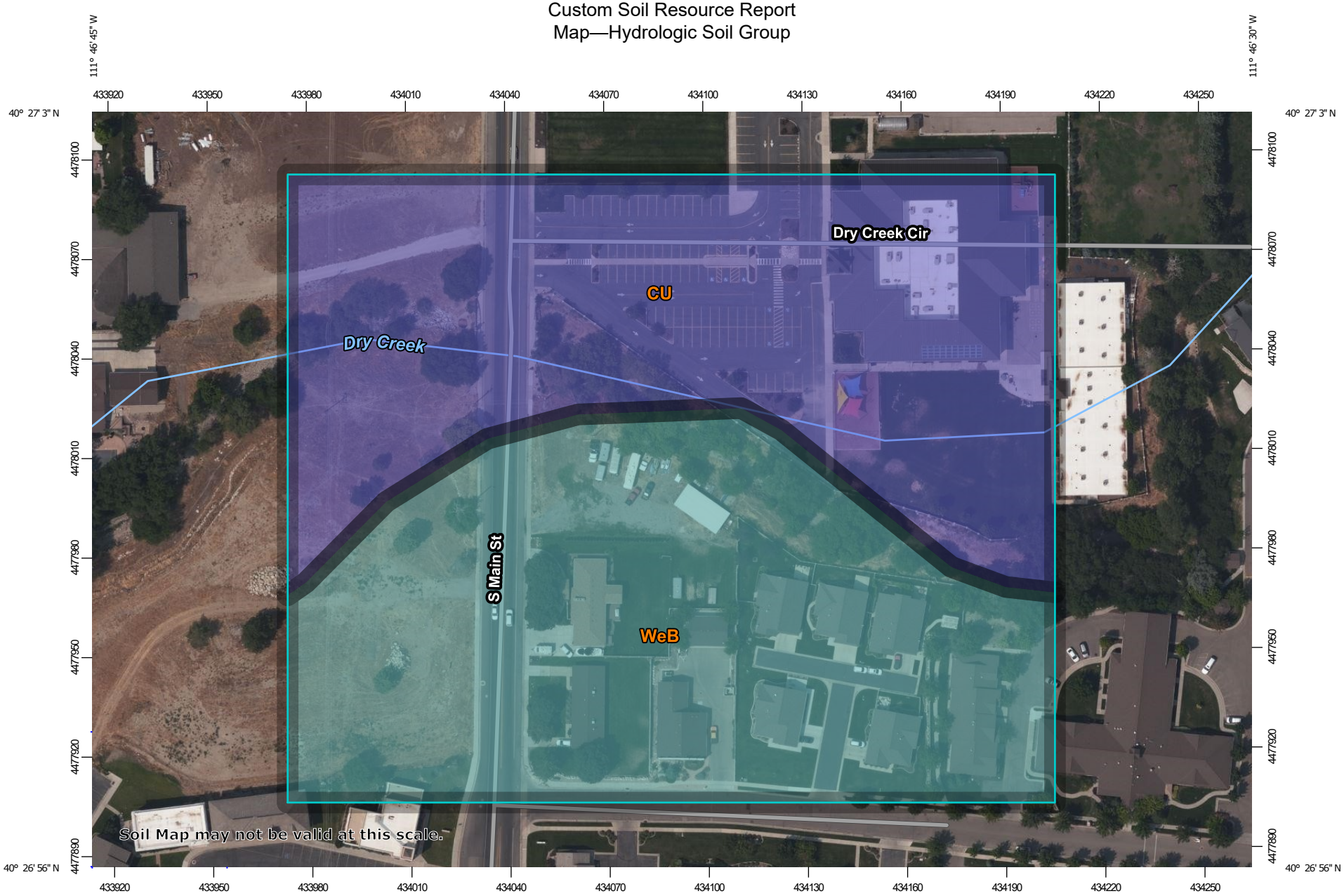
ALPINE FITNESS

235 S. MAIN STREET
ALPINE, UTAH 84004

GRADING AND DRAINAGE PLAN

PROJECT NUMBER	PRINT DATE
9711	6/4/20
DRAWN BY	CHECKED BY
T. MAZEJY	D. JENKINS
PROJECT MANAGER	
D. JENKINS	

C-300



Map Scale: 1:1,600 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Utah County, Utah - Central Part
Survey Area Data: Version 12, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 30, 2018—Aug 29, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CU	Cobbly alluvial land	B	5.3	48.9%
WeB	Welby silt loam, extended season, 1 to 3 percent slopes	C	5.6	51.1%
Totals for Area of Interest			**10.9**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

ALPINE CITY COUNCIL AGENDA

SUBJECT: Healey Park – New Playground, Pavilion and Pickleball Courts

FOR CONSIDERATION ON: 24 November 2020

PETITIONER: City Council

ACTION REQUESTED BY PETITIONER: Review and approve proposed improvements to Healey Park.

BACKGROUND INFORMATION:
The City Council has been discussing the need for additional pickleball courts based on recent public feedback and comments. In addition to pickleball courts, other improvements are recommended for Healey Park, including: a new pavilion and playground.

Included in the packet is a quote for the proposed playground. If the City were to purchase the playground before the end of 2020 the City would get a better price. Staff would recommend the playground be purchased this fall and installed next spring.

The Planning Commission has held a public hearing and recommends approval:

MOTION: *Ethan Allen moved to recommend that the Healey Park updates be approved as proposed. Ed Bush seconded the motion. There were 6 Ayes and 1 Nays (recorded below). The motion passed.*

Ayes:	***Nays:***
Alan MacDonald	*Sylvia Christiansen*
Jane Griener	
Ed Bush	
Ethan Allen	
Troy Slade	
John MacKay	

STAFF RECOMMENDATION:
Approve the improvements to Healey Park as proposed.

SAMPLE MOTION TO APPROVE:
I motion that the Healey Park improvements be approved as proposed.

SAMPLE MOTION TO APPROVE WITH CONDITIONS:
I motion that the Healey Park improvements be approved with the following conditions/changes:

- ***Insert Finding***

SAMPLE MOTION TO TABLE/DENY:
I motion that the Healey Park improvements be tabled/denied based on the following:

- ***Insert Finding***

OVERALL VIEW
(not to scale)

DETAILED VIEW
(not to scale)

Water Resources
Public Services
Storm Water
Engineering
Alpine Public Works

REMARKS

1.

HEALEY PARK IMPROVEMENTS 2020-21

Engineering File Number:
–

Drawing: ##
Sheet: # of ##

Alpine City Park Playground-Project 102182-01-Opt 1
Alpine, UT

A STRONG FOUNDATION IN PLAY FOR OVER 50 YEARS

P: (435) 245-5055 / F: 435 245-5057 Lewis@gwpark.com

GREAT WESTERN RECREATION

Alpine City Park Playground-Project 102182-01-Opt 1
Alpine, UT

A STRONG FOUNDATION IN PLAY FOR OVER 50 YEARS

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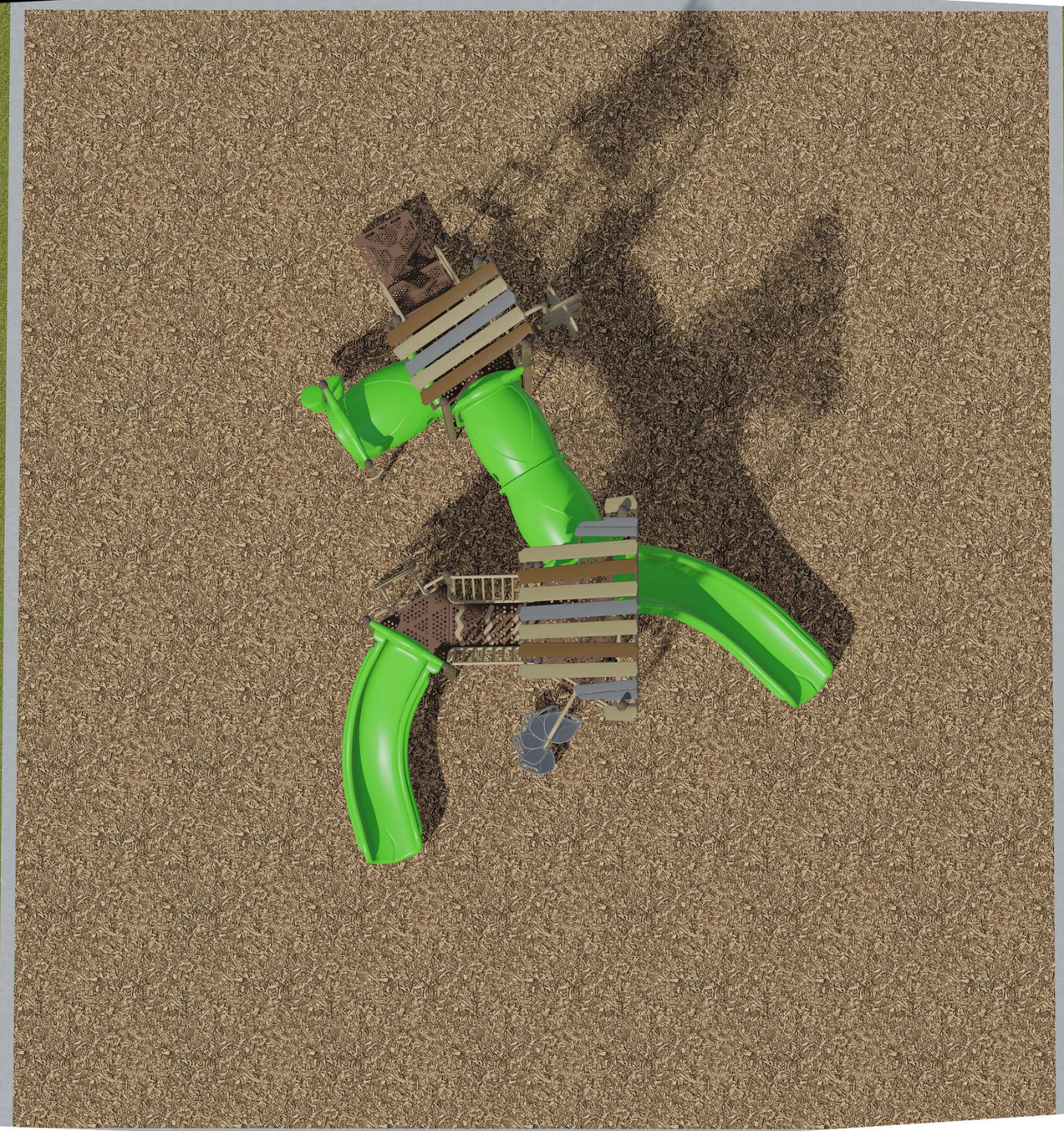
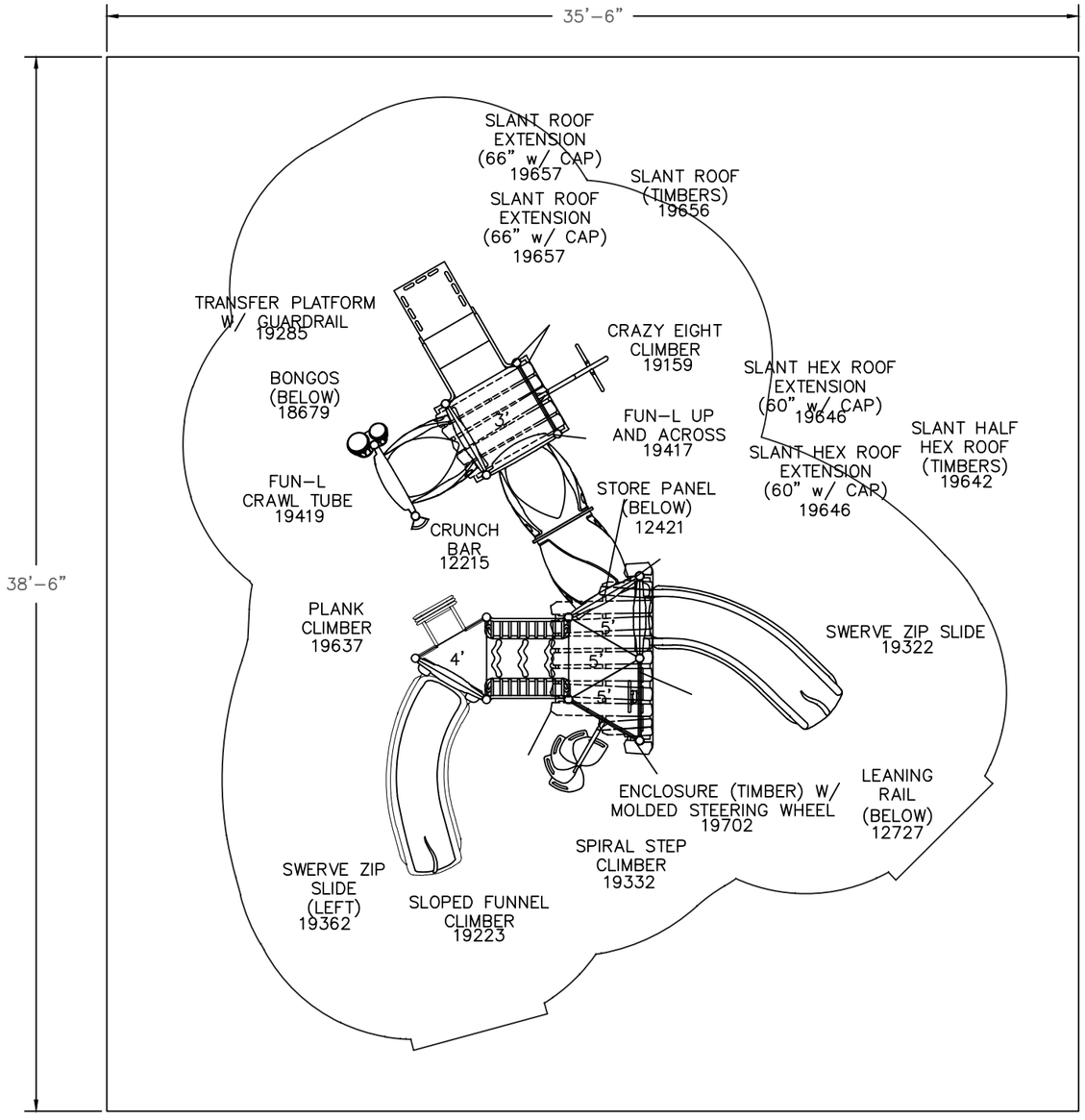


P: (435) 245-5055 / F: 435 245-5057 Lewis@gwpark.com

GREAT WESTERN RECREATION



Area:
SF:1367
LF:148

GREAT WESTERN RECREATION

Sales Representative
Lewis Painter
lewis@gwpark.com
435-760-2416

GameTime
A PLAYCORE Company

150 PlayCore Drive SE
Fort Payne, AL 35967
www.gametime.com

ISO 9001 CERTIFIED

ISO 14001 CERTIFIED

City of Alpine
City Park
Alpine, UT

Representative
Great Western Recreation

This Unit includes play events and routes or travel specifically designed for special needs users. It is the opinion of the manufacturer that these play events and routes of travel conform to the accessibility requirements of the ADA (Americans with Disabilities Act)

Total Elevated Play Components	9		
Total Elevated Play Components Accessible By Ramp	0	Required	0
Total Elevated Components Accessible By Transfer	9	Required	5
Total Accessible Ground Level Components Shown	3	Required	3
Total Different Types Of Ground Level Components	3	Required	3

This play equipment is recommended for children ages
5 - 12

Minimum Area Required:

Scale: 1" = 5'-0"

This drawing can be scaled only when in an 18" x 24" format

IMPORTANT: Soft resilient surfacing should be placed in the use zones of all equipment, as specified for each type of equipment, and at depths to meet the critical fall heights as specified by the U.S. consumer Product Safety Commission, ASTM standard F 1487 and Canadian Standard CAN/CSA-Z-614

Drawn By:
DP

Date:
11/2/20

Drawing Name:
102182-01-OPT 1

Color Selections

Project: 102182-01-Opt 1

Approved by:_____

Surfacing:

Play Palettes:

Allegiance ○

Atlantic ○

Bayou ○

Deep Space ○

Emerald ○

Jelly Bean ○

Jovial ○

Jungle ○

Malibu ◉

Papaya ○

Patriotic ○

Rain Forest ○

Vibrant ○

Shine ○

Wisteria ○

GameTime C/O Great Western Recreation
P.O. Box 680121
Fort Payne, AL 35967
Office: 435-245-5055 Fax: 435-245-5057
www.gwpark.com

11/02/2020
Quote #102182-01-01

City Park Playground Option 1

Alpine City
Attn: Shane Sorensen
20 N Main
Alpine, UT 84004
Phone: 801-763-9862
ssorensen@alpinecity.org

Ship to Zip 84004

Quantity	Part #	Description	Unit Price	Amount
1	RDU	GameTime - 11922 Swoosh- • Reference drawing #102182-01-OPT 1	$31,433.00	$31,433.00
1	EWF	GT-Impax - Engineered Wood Fiber, Delivered- 68 CY, based on 1,367 SF @ 12" compacted depth	$2,300.00	$2,300.00
1	INSTALL	Install - Installation of Playground Equipment and EWF	$6,750.00	$6,750.00
			Sub Total	$40,483.00
			Discount	($11,002.01)
			Freight	$2,682.46
			Total	**$32,163.45**

Comments

Your sales representative is Lewis Painter at 435-760-2416. Please reach out to Lewis if you should have any questions.

Shipping to Site:
20 North Main
Alpine, UT 84004

Freight is based on shipping zip that is listed. Freight is subject to change if shipping zip changes.

GREAT WESTERN RECREATION
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lewis@gwpark.com

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Remit Payment to:
GameTime
P.O. Box 680121
Fort Payne, AL 35967

Taxes:
All applicable taxes will be added at time of invoicing unless otherwise included or a tax-exempt certificate is provided.
If sales tax exempt, you must provide a copy of certificate to be considered exempt.

Prices:
FOB Factory.

Orders:
All orders shall be in writing by purchase order, contract, or similar document made out to PlayCore Wisconsin Inc., dba GameTime.
Standard GameTime equipment orders over $100,000 may require a deposit of 25% at the time of order and an additional 25% at or before order ships
Standard orders with equipment, installation and surfacing are requested to be split billed.
Equipment, Taxes & Freight as noted above
Installation and Surfacing billed as completed and Due Upon Receipt.

Terms:
Cash With Order Discount-(CWO)-Orders for GameTime equipment paid in full at time of order via check, Electronic Funds Transfer (ACH or wire) are eligible for a three percent (3%) cash with order discount.
Credit terms are Net 30 days, subject to approval by the GameTime Credit Manager. A completed credit application must be submitted and approved prior to the order being received. Please allow at minimum 2 days for the credit review process. GameTime may also require:
Completed Project Information Sheet (if applicable)
Copies of Payment and Performance Bonds (if applicable)
A 1.5% per month finance charge will be imposed on all past due invoices.
Retainage not accepted.
Orders under $5,000 require payment with order.

INSTALLATION CONDITIONS:

- **ACCESS:** Site should be clear, level and allow for unrestricted access of trucks and machinery.
- **STORAGE:** Customer is responsible for providing a secure location to off-load and store the equipment during the installation process. Once equipment has delivered to the site, the owner is responsible should theft or vandalism occur unless other arrangements are made and noted on the quotation.
- **FOOTER EXCAVATION:** Installation pricing is based on footer excavation through earth/soil only. Customer shall be responsible for unknown conditions such as buried utilities (public & private), tree stumps, rock, or any concealed materials or conditions that may result in additional labor or materials cost.
- **UTILITIES:** Owner is responsible for locating any private utilities.
- **ADDITIONAL COSTS:** Pricing is based on a single mobilization for installation unless otherwise noted. Price includes ONLY what is stated in this quotation. If additional site work or specialized equipment is required, pricing is subject to change.

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ACCEPTANCE OF QUOTATION:

Acceptance of this proposal indicates your agreement to the terms and conditions stated herein.

Accepted By (printed): _____ Title: _____

Telephone: _____ Fax: _____

P.O. Number:_____ Date: _____

Purchase Amount: **$32,163.45**

SALES TAX EXEMPTION CERTIFICATE #:_____ FEIN#_____

(PLEASE PROVIDE A COPY OF CERTIFICATE)

_____ _____

Salesperson's Signature Customer Signature

Lewis Painter
lewis@gwpark.com

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Quote #102182-01-01

City Park Playground Option 1

Customer Order Info:

BILLING INFORMATION:

Bill to: _____

Contact: _____

Address: _____

Address: _____

City, State: _____ Zip: _____

Tel: _____ Fax: _____

E-mail: _____

SHIPPING INFORMATION (IF DIFFERENT FROM ABOVE):

Ship to: _____

Contact: _____

Address: _____

Address: _____

City, State: _____ Zip: _____

Tel: _____ Fax: _____

E-mail: _____

GREAT WESTERN RECREATION
Lewis Painter
lewis@gwpark.com

ALPINE CITY COUNCIL AGENDA

SUBJECT: Lambert Park East Building

FOR CONSIDERATION ON: 24 November 2020

PETITIONER: City Council

ACTION REQUESTED BY PETITIONER: Review and approve the proposed site for a new building in Lambert Park.

BACKGROUND INFORMATION:
The City Council has been discussing the need for a new structure in Lambert Park. The structure would help deter shooting in the area and provide a new park amenity for residents to enjoy.

The Planning Commission held a public hearing and recommends approval of the new building site:

MOTION: *Ed Bush moved to recommend that the proposed site for a new building in Lambert Park be approved as proposed.*
Troy Slade seconded the motion. There were 7 Ayes and 0 Nays (recorded below). The motion passed unanimously.

Ayes:	***Nays:***
Alan MacDonald	*None*
Jane Griener	
Ed Bush	
Ethan Allen	
Troy Slade	
John MacKay	
Sylvia Christiansen	

STAFF RECOMMENDATION:
Approve the proposed site for a new building in Lambert Park.

SAMPLE MOTION TO APPROVE:
I motion that the proposed site for a new building in Lambert Park be approved as proposed.

SAMPLE MOTION TO APPROVE WITH CONDITIONS:
I motion that the proposed site for a new building in Lambert Park be approved with the following conditions/changes:

- ***Insert Finding***

SAMPLE MOTION TO TABLE/DENY:
I motion that the proposed site for a new building in Lambert Park be tabled/denied based on the following:

- ***Insert Finding***

CONCEPT TRAIL ALIGNMENT

450' FENCE SHOWN

PROPOSED BUILDNIG LOCATION

Map Legend

- East Fence

TRAILS

- Gravel Road
- Alpine (existing)
- Alpine (planned)
- Forest (existing)
- City Boundary
- Bonneville Shoreline Trail
- Property Boundaries
- Open Space - Public
- 10' Contours
- 2' Contours

Lambert Park East Building Location

0 0.005 0.01 0.02 0.03 0.04 Miles

N W E S

ALPINE CITY COUNCIL AGENDA

SUBJECT: Annual Meeting Schedule for 2021

FOR CONSIDERATION ON: 24 November 2020

PETITIONER: Recorder

ACTION REQUESTED BY PETITIONER: Approve the City Council meeting schedule for 2021.

BACKGROUND INFORMATION:

Attached is the proposed schedule for City Council meetings for 2021. Review it as proposed and approve with any necessary changes.

STAFF RECOMMENDATION:

Adopt the Annual City Council meeting schedule for 2021.

2021 ANNUAL MEETING SCHEDULE
FOR
ALPINE CITY, UTAH

PLANNING COMMISSION MEETINGS for the 2021 calendar year are scheduled on the 1st and 3rd Tuesday of each month as follows unless otherwise indicated:

January 5
January 19
February 2
February 16
March 2
March 16
April 20
May 4
May 18
June 1
June 15
July 20
August 3
August17
September 21
October 5
November 16
December 1

CITY COUNCIL MEETINGS for the 2021 calendar year are scheduled on the 2nd and 4th Tuesday of each month as follows unless otherwise indicated:

January 12
January 26
February 9
February 23
March 9
March 23
April 13
April 27
May 11
May 25
June 8
June 22
July 13
July 27
August 24
September 14
September 28
October 12
October 26
November 9
November 23
December 14

All Planning Commission and City Council meetings will begin at 7:00 pm unless otherwise posted. Meetings are held at Alpine City Hall, 20 North Main, Alpine, Utah 84004.

Bonnie Cooper
City Recorder

THE PUBLIC IS INVITED TO ATTEND ALL PUBLIC CITY MEETINGS. If you need a special accommodation to participate in the meeting, please call the City Recorder's Office at 801-756-6347 ext. 4.

CERTIFICATION OF POSTING. The undersigned duly appointed recorder does hereby certify that the above agenda notice was posted in three public places within Alpine City limits. These public places being a bulletin board located inside City Hall at 20 North Main and located in the lobby of the City Works Building, Alpine, UT; and the at The Junction, 400 S. Main, Alpine, UT. The above agenda notice was sent by e-mail to The Daily Herald located in Orem, UT and local newspapers circulated in Alpine, UT. This agenda is also available on the City's web site at www.alpinecity.org and on the Utah Public Meeting Notices website at www.utah.gov/pmn/index.html.