



MEETING NOTICE AND AGENDA

Notice is hereby given that the Kaysville City Council will hold a regular council meeting on Thursday, July 2, 2020, starting at 7:00 P.M. in the **Business Resource Center of the Davis Technical College, 450 South Simmons Way, Kaysville, UT.**

In consideration of the COVID-19 pandemic, attendance will be monitored by the Kaysville City Police Department and will be limited to less than 50 individuals, including Council, Staff and Applicants. Because of the room occupancy limitation, it is encouraged that those wishing to watch the meeting do so by viewing the meeting online. The meeting will be streamed on YouTube, and the link to the meeting will be posted on www.KaysvilleLive.com.

Masks are recommended, and all of those in attendance will be required to participate in a socially distant manner.

For those wishing to direct comments to the City Council regarding items on the agenda can do so in-person, or email comments to publiccomment@kaysvillecity.com. Due to coronavirus concerns and in order to minimize multiple individuals physically touching sign-up sheets and other materials, **members wishing to speak during an Action Item or during Call to the Public MUST sign-up to speak Before 4:00 P.M. on the day of the Council meeting by going to www.kaysvillelive.com**. No participation using Zoom will be available.

The agenda shall be as follows:

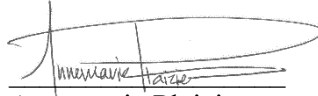
1. OPENING
 - a. Provided by Council Member Blackham.
2. RECOGNITIONS AND PRESENTATIONS
 - a. Community Emergency Response Team (CERT) Update – Loretta Cole.
3. DECLARATION OF ANY CONFLICTS OF INTEREST
4. CONSENT ITEMS
 - a. Approval of the Minutes of May 21, 2020.
 - b. Approval of North Angel Street Curb and Sidewalk Design and Coordination Services.
5. ACTION ITEMS
 - a. Discussion on Electric Vehicle Charging Rates.
 - b. Rezone of 1.1 acres of property at 1599 West Galbraith Lane from the R-A (Residential Agriculture) district to the R-1-20 (Single Family Residential) district to include the PRUD (Planned Residential Unit Development) overlay zone – Nathan Alvey.
 - c. Preliminary Plat approval for Galbraith Kaysville Subdivision at 1599 West Galbraith Lane - Nathan Alvey.
 - d. Consideration of a development agreement and request to rezone approximately 14.0 acres of property located at 1773 West 200 North from the A-5 (Heavy Agriculture) district to the R-1-10 (Single Family Residential), R-1-14 (Single Family Residential), R-1-6 (Single Family Residential), and R-2 (One to Two Family Residential) zones, to include the PRUD (Planned Residential Unit Development) overlay zone to be included over each district – Nephi and Malcolm Harvey.
 - e. Preliminary plat approval for the Salt Grass Subdivision at 1773 West 200 North – Nephi and Malcolm Harvey.
 - f. Consideration of Updated Construction Standard and Specifications, and Evacuation Permits, and approval of an Ordinance enacting 19-5-7, Technical Specifications and Drawings, of Chapter 19-5, Subdivision Standards, of Title 19, Subdivisions, of the Revised Ordinances of Kaysville City.

6. WORK ITEMS
 - a. Water Quality Discussion.
7. CALL TO THE PUBLIC (3 MINUTE LIMIT, MUST SIGN UP IN ADVANCE)
8. COUNCIL MEMBER REPORTS
9. CLOSED SESSION
 - a. Discussion on pending or imminent litigation.
10. ADJOURNMENT

Kaysville City is dedicated to a policy of non-discrimination in admission to, access to, or operations of its programs, services or activities. If you need special assistance due to a disability, please contact the Kaysville City Offices at (801) 546-1235 at least 24 hours in advance of the meeting to be held.

A Closed Session may be called to order pursuant to Utah State Code §52- 4-204 & §52- 4-205. The order of agenda items may change to accommodate the needs of the City Council, the staff, and the public. Supporting documentation for this agenda is posted on the city's website at www.kaysvillecity.com. A recording of this meeting will be posted on the city's website at the following link: <https://www.kaysvillecity.com/AgendaCenter>.

I hereby certify that I posted a copy of the foregoing Notice and Agenda and emailed copies to media representatives on June 26, 2020.



Annemarie Plaizier
City Recorder

KAYSVILLE CITY COUNCIL
May 21, 2020

Minutes of a regular Kaysville City Council meeting held on May 21, 2020 at 7:00 p.m. with a Special Comment session held at 6:00 p.m. The meeting was held electronically due to Governor Herbert's "Stay Safe, Stay Home" directive, and in line with the City's response to the COVID-19 pandemic. Council Members and City Staff participated live from remote locations, and the meeting was streamed live online.

Council Members present: Mayor Katie Witt, Council Member John Swan Adams, Council Member Michelle Barber, Council Member Andre Lortz, Council Member Tamara Tran, and Council Member Mike Blackham

Others Present: City Manager Shayne Scott, City Attorney Nic Mills, Recorder Annemarie Plaizier, Information Systems Manager Ryan Judd, Information Technology Assistant Jordan Hansen, Power Resource and Service Manager Bruce Rigby, Parks and Recreation Director Cole Stephens, Sylvia Haro, Brandon Barnedt, Camille Price, Sherri Jamieson, Mindy Smith, Amy Stevens, Nephi Harvey, Kimberly Morrison, Mike Flood, Brecken Cook, Shelly Van Noy, David Bowman, Jessica Rawson, Carson Robb, Sarah Johnson, Jason Sanders, James Salter, Jason Galloway, Blake Landrum, Chad Smith, David Brown, Kara Mullaley, Tom Nyman, Greg Lentz, Dave Adams, Alan Last, Angie Archibald, Becky Ginos, Benjamin Pace, Brandon Mitchell, Gil Miller, Cameron Garner, Debbie Jordan, Eric Jessen, Gary Hoffman, Hazel Parrish, Gary Uresk, Greg Hill, Jackie Petersen, Shelley Van Noy, Randi Von Bose

SPECIAL PUBLIC COMMENT – 6:00-6:55 P.M.

Brandon Barnedt commented that he had submitted earlier to the Council the results of a petition he conducted online to have the May 30th event at Barnes Park cancelled. He created the petition because there are many people concerned about bringing it to the city during the pandemic. Although it was announced this morning that the event would no longer be taking place in Kaysville, he still wanted to submit the petition to show that it wasn't just a fringe group trying to get the event cancelled, but that there was a good majority of citizens from all over the city who were opposed to the event. Mr. Barnedt encouraged the Council to read the comments made in the petition to see all of the reasons people were opposed.

Camille Price said that recently there was a car crash on Crestwood Road and she is the grandmother of one of the victims involved in the crash. Many families are mourning with the family that lost their loved one in this crash. She wanted to speak tonight about the worry that residents have for those who live along or travel on Crestwood Road. There needs to be more traffic engineering done on the road. Ms. Price added that she was in support of the proclamation on the agenda renouncing support of the May 30th event during this COVID emergency. Our city leaders need to have their priorities realigned to focus on the safety of the community.

Sherri Jamieson commented that she appreciated the Council allowing time for residents to make comments tonight, and wanted to thank those Council members who are concerned with the event and for the citizens. The event was for more than just a concert but was a political stunt, and the

citizens were made to be pawns in a game. Mrs. Jamieson said that she would like to see the economy reopen because she owns her own business in Kaysville. But there were many who have expressed concern with the event and is grateful for those who have stood behind the citizens of Kaysville.

Mindy Smith thanked the Council for taking the time to listen to the citizens of the city. There are many residents with immune compromised systems and are at risk if safety guidelines are ignored. This global pandemic has changed everyone's lives. Ms. Smith said she is a local elementary teacher and is looking forward to the day when all businesses can operate at full capacity. People's lives must take precedent over personal gain. If this type of event could be planned in a way to provide a safe shopping venue where social distancing measures could be maintained than it would be a good thing for the city. However, during this time our frontline workers would be greatly affected by an event with 1,000 attendees or more. We need to continue to send the message to our children and others that every life needs to be protected and has meaning. Ms. Smith thanked those who came forward and stood for the city.

Amy Stevens said that her husband is a frontline worker, and it's been hard on their family. As a representative of Kaysville our officials should be concerned that this event, which was a way to bring more publicity to a campaign, has hurt Kaysville. Kaysville has been trashed by many comments and much has been said to hurt our city and our residents. The proposed event was presented full of lies. It doesn't hurt to be overly cautious in this time of the pandemic. Permits are required for a reason; to protect the city and those who attend these events. It seems that permission was granted before all of the impacts resulting from the event could be considered. Our officials were elected to protect the citizens. The Utah Business Revival group is now planning to hold a protest against Kaysville on May 30th, and they continue to trash Kaysville.

Nephi Harvey said that he wanted to commend the City Council for being against this despite the Mayor publically demeaning them in the process. Discussion on this event has brought people together within the city, and they would like to see the Mayor step down. If the Mayor would like to run for Congress then she should do it, but if you want to continue to be the Mayor then the focus needs to be on our city and nothing else.

Kimberly Morrison thanked the Council for standing up against the Utah Business Revival organization. Many individuals and businesses are making sacrifices and following the social distancing guidelines. Utah has done well in being prepared against the coronavirus and we shouldn't risk all our work and how far we've gotten. People should have the ability to have the freedom of speech, but this pandemic is real and people are still dying from it. There was concern that having this event would create a spike in our coronavirus numbers and will put a risk to individuals within our community. The UBR organization never planned to do this event legally by obtaining permits. Having the event would take away from other needs of the city and would cost the city money. It doesn't solve the concerns of having the event by just telling people that if you're concerned about the coronavirus to just not attend. City staff and police officers would need to be there and will be exposed to the masses. This exceeds the advised number allowed for a mass gathering. Allowing for a concert will just bring more people to our city. It would create a danger for everyone.

Mike Flood commented that these digital city meetings are more difficult for the older generation of the city and now that we have been allowed to have larger gatherings we should be holding City

Council meetings in person. These are large important issues that are being considered. The city should not be proposing fiber when the world is in dire straits and could potentially get worse for our residents financially. Yesterday he hand-delivered a letter signed by several residents calling for the censure and resignation of the Mayor. They feel that the Mayor has violated the code of conduct and that the concert was to benefit Mayor Witt and her congressional race. It was to subvert any kind of city process or policy. Elected officials need to be working for the common good of the citizens of Kaysville and not for any private or personal interest.

Brecken Cook said that there needs to be a trust between the public and government, and we need to have the voice of the people represented for the city. When faced with these types of situations citizens lose confidence in our government and our constitution is used inappropriately. Mr. Cook said that he was glad to see that citizens can make a difference by speaking up to help keep our community safe.

Shelley Van Noy commented that she agrees with previous statements made and the Council needs to listen to the citizens of the city that they represent. This is not a fight that needed to be brought to the city.

David Bowman asked about emailed comments being read at tonight's meeting.

Mayor Witt responded that the Council had received a very large amount of emails before the meeting and there would be no way to read every email sent to them. Each has been read by the Council before the meeting and taken into consideration. However if a council member wishes to read a comment received out loud if they chose to.

Jessica Rawson commented that she first wanted to voice her support for all the Council and fiber committee has done towards considering bringing fiber to the city. She is excited to bring it to our community and is impressed by how citizens' concerns were responded to by the fiber committee. Ms. Rawson said that she wanted to echo the comments that have been heard tonight about the event. She has had the same concerns about safety, not only because of the COVID risks, but because of the police force and first responders that would have to be present at the event and would thereby possibly be exposed. This event was not something citizens felt comfortable with, and does not appear to be well-planned out ahead of time. Our citizens deserve to have events held in a safe and appropriate manner. There are concerns with how the permitting process was handled by the city. Our businesses have gone to great extent to try to comply with the guidelines of the state by creating social distancing within buildings, and having extra PPE and sanitation. They've gone to great expense and have made sacrifices to accommodate those restrictions. This event would not meet those restrictions and they should be held to the same standard. It seems the Mayor abused her power by using her position for personal or political gain, and allowing an event to not have to go through the proper permitting process.

Council Member Barber read Sylvia Haro's written comment to the Council.

Council Member Lortz read Keith Larsen's written comment to the Council.

Council Member Adams read Richard and Julie Bell's written comment to the Council.

Carson Robb commented that previously he had been part of the filming event for Mayor Witt's campaign videos and saw her love of the constitution through working with her. However, because of her involvement with this event the Mayor has used Kaysville and given us an example of what an unethical local leader looks like. He has been embarrassed to live in Kaysville and this whole issue has shown that our Mayor is a fake conservative. She was willing to risk the lives of our police officers. When he spoke with the Police Chief he said that this was thrown in his lap. If one claims to be a conservative and a lover of the constitution, does that not also make you a lover of the rule of law? Mr. Robb added that he supports the City Council and the proclamation they have on the agenda tonight.

Sarah Johnson thanked Council Member Barber for speaking with her before the meeting. This is a difficult position for our entire leadership to be in. Residents have been horribly mean to each other over this. Mistakes have been made, but that doesn't give citizens the right to attack our leadership. Our leadership seems to be willing to listen to others ideals and we don't know what goes on behind the scenes. We need to band together as a city and not be so cruel to each other.

Jason Sanders said that it is disturbing, as a Kaysville resident, to see this kind of behavior and see our city mocked and laughed at across the state and county. Mr. Sanders thanked those citizens who came together against this event. He has found that through this those who used to be on opposite sides previously have found themselves working together against this.

Council Member Barber read Brian Black's written comment to the Council.

Council Member Barber read Sarah Nicolson's written comment to the Council.

Council Member Tran read John Laskar's written comment to the Council.

Mayor Witt thanked those who have made comment tonight.

OPENING – 7:00 P.M.

Council Member Tamara Tran opened the meeting.

RECOGNITIONS AND PRESENTATIONS

RECOGNITION OF GRADUATING SENIORS FROM YOUTH CITY COUNCIL

Council Member Barber announced that the Council wanted to recognize our graduating Youth City Council seniors and give them a big thank you. They will be presented plaques as a way to show the city's appreciation for them. There will also be information published soon about how students can apply for this upcoming year to be part of the Youth City Council and get involved in our community.

FIBER PRESENTATION

Council Member Barber explained that the fiber project has been worked on for over two years and there has been a lot of learning and growth that has gone along with that. The Technical Advisory Committee committed at the end of 2019 that they would work towards a new plan that

would meet the needs of our residents. Residents will be able to vote on this project, and if it passes only residents that want to have fiber will have it and pay for it. One of the most heard comments from residents is they wanted to be part of this fiber project process and therefore the TAC committee has strived to be as transparent through this process as possible. As part of this, they have requested RFP and published those for residents to be able to view on the website. There is a scoring process for each of the RFP and it will be part of how a decision will be made. Tonight they are providing an opportunity for the two top bidders to come and make a presentation to the City Council. There will be no action taken tonight.

James Salter, AEG (Atlantic Engineering Group) President, said that he appreciates the Council taking their time to listen to their presentation and hopes that citizens can see that the city is leading the effort to do what is best for the city. Their company was founded in 1996 from a municipal utility background. Over the past 20 years they have exclusively focused on designing and building Fiber-To-The-Home (FTTH) networks. They provide full “turn-key” services, such as engineering and design, construction, project management, customer installations and operations. It is typical for them to engage with cities that have never been in the telecom business. They have completed 130 fiber projects, 60 of which were city-wide FTTH networks. AEG is family-owned, and self-funded. Decisions can be made quickly with clients and they are fierce advocates for their municipal clients. They don’t work for incumbents against municipals. They built the Provo network for Google fiber and were able to work with the city to meet the limitations the Utah Legislation placed on them to get the network built on time and on budget. Many of the cities they have worked with have gone with the retail service provider option because the legislation will allow it and they felt that option will be the best choice for their citizens. But they understand the challenges that come with an open-access model. They are not on any material vendors’ team and feel that the engineering decision points in a FTTH build should be about the city’s network efficiency. Over the last few months they have come to know more about what Kaysville is about and what the city is looking for and feel confident that they will be the lowest cost, least headache, fastest rollout, partner for designing and building Kaysville’s fiber network. They have studied the layout of Kaysville and feel they have a strong sense of the geology. They believe that the construction will easily take less than 24 months. Mr. Salter reviewed their proposed construction proposal for Kaysville with the Council.

Greg Lentz, the Market Development Manager with Corning said that their company has global experience with FTTH, and are industry leading innovators of optical components. They have several employees with varying groups of experience in fiber and telecommunications. Together this variety helps to make sure these projects are well managed and move smoothly. Their role in this proposed construction project is engineering and construction.

Chad Smith said that he is a local resident of the city and has been involved with Kaysville and the installation of fiber ring for several years. They have been working with Corning and Connex with the project, and has worked with several Fiber-To-The Home projects in Utah and has worked with telephone companies throughout Utah. Their company, Graybar, has stocking locations in Salt Lake and Orem, with 290 national warehouses. Their role in the project is materials and logistics.

Greg Lentz said that they wanted to make sure their components would be the best for Kaysville’s needs. Their company has a long history of innovation and they deliver industry-leading optical cable and components. They utilize a network of contractors, and build robust long-lasting

networks. It helps them to identify the best products for your needs now and for years to come. Building a high quality network will help to support your public by allowing them to do things like telework, and students to take online classes. It will help to provide stability and innovative technology which will allow your network to grow with the changing times. Our company prides themselves with coming in on their projects on time and on budget. They feel that the cost they are proposing will be just above what it will cost as a buffer in case they run into a problem later on. They anticipate the project will take 18 to 24 months, depending on the weather and any risks they run into.

Council Member Lortz asked about what kind of risks they might face.

Greg Lentz said that the areas that are most impactful are finding different soil conditions than what is expected. There are also risk with business connections and finding a lot of hardscape they would have to work around. That would escalate the costs.

Council Member Adams about costs for residents.

Council Member Lortz responded that they are still calculating those numbers, but should have those and the bonding rates for the next Council meeting to review.

Kara Mullaley said that one advantage is their cost is subscriber-based, meaning there is no annual fixed cost. They aim to drive as many consumer signups as possible.

Greg Lentz added that they are committed to this fiber build as a team and want to make it a valuable use of money for the city.

David Brown said he agreed that it was a great idea to bring these three companies together to bring the best of what they all have to offer. This assures that they will have the highest quality of materials, have a great network operation, great engineering and design, etc. It would be hard for one company to be able to provide the best in all of those fields.

Kara Mullaley added that the city will want to think about what they want their network to be in 10 or 15 years from now. If you want to bring in a wireless service provider to provide a 5g network, or implement smart city ideas, you will need to plan for that now and make sure it's being built into the network so you don't have to come back and rebuild it years from now.

Andre Lortz asked about a workmanship guarantee.

Kara Mullaley responded that they would offer a ten year at cost extended warranty for both workmanship and products.

Council Member Barber said that all of the information about this fiber project will be on the website.

DECLARATION OF ANY CONFLICTS OF INTEREST

Mayor Witt commented that she would be sitting out of Item "5a", Discussion and possible action on a Proclamation renouncing support of the May 30, 2020 Event at Barnes Park.

CONSENT ITEMS

Council Member Blackham made a motion to accept the following consent items:

- a. Approval of the Minutes of April 16, 2020.
- b. Purchase request for Parks and Recreation Fall Soccer Jerseys.
- c. An Ordinance amending Chapter 7-1, Fire Department, of Title 7, Fire Protection, of the Revised Ordinances of Kaysville City.

The motion was seconded by Council Member Lortz.

The vote on the motion was as follows:

Council Member Adams, yea
Council Member Barber, yea
Council Member Lortz, yea
Council Member Tran, yea
Council Member Blackham, yea

The motion passed unanimously.

ACTION ITEMS

DISCUSSION AND POSSIBLE ACTION ON A PROCLAMATION RENOUNCING SUPPORT OF THE MAY 30, 2020 EVENT AT BARNES PARK

Mayor Witt excused herself from the meeting for this item. Mayor Pro Tem Michelle Barber took over conducting the meeting.

Mayor Pro Tem Barber explained that this proclamation is to articulate the City's official position on the Utah Business Revival (UBR) Concert. It expresses respect for the efforts taken by the State of Utah and the Davis County Health Department. This proclamation also recognizes the difficult position that local businesses find themselves in. It attempts to clarify the City's position due to some potential confusion based on recent media reports. Mayor Pro Tem Barber read the proclamation.

Mayor Pro Tem Barber asked for public comment on this item.

Eric Jessen said that he is in strong support of what the UBR is trying to do and feels that this proclamation is being driven by fear. Shutting down our businesses and production across the board will hurt the economy and the public. This event could have had tremendous potential and was executed and planned poorly. It makes the city look bad and scares everyone. A proclamation against the UBR group is unnecessary. We need to think of options to help rejuvenate our economic activity.

Brandon Barnedt said that he spoke earlier about the petition that he had created. Unlike the previous speaker, he questions the motives of the UBR group and does not support them. We do need to get people back to work to support their families, but this is not the way to do it. Mr. Barnedt said he feels that the Mayor thought that this group intended to follow some rules, but the

UBR used the Mayor's position. Mr. Barnedt said that he had tried to reach out to Eric Moutsos with the UBR with the idea that they would get both sides together to try to find some common ground. The city and citizens have been called all kinds of derogative things because of this.

Camille Price said that she supports the Council in not allowing large public events in Kaysville during the pandemic. This event has divided us and pulled our attention away from the important things that the city needs to focus on right now. We need to put our citizens first and think about their safety. The city needs to spend their time and energy elsewhere rather than try to work with people only trying to take advantage of the city for their own purposes.

David Bowman read a statement that he had prepared. Mr. Bowman stated that this event should have never been approved and doing so had violated state and county regulations. The timing of the event seemed rushed. The Mayor has every right to engage in a protest, but she doesn't have the right to circumvent city permits and laws that are in place. Patriotism and constitutionalism is being used to divide the people. This pandemic has been a challenge for our times and there has been a lot a whining about individuals' rights. Mr. Bowman encouraged the passage of the proclamation to document the stance of the city.

Nephi Harvey deferred his time to Dave Adams.

Dave Adams played an audio recording.

Randi Von Bose commented that the Council should not have allowed the recording as part of public comment as it was inappropriate for this meeting. Mrs. Von Bose said that as a result of the proposed event she had seen an outpouring of comments from residents. A group of five residents, including herself, has put together a citizen's censure for the Mayor because they feel it important that their grievance be documented. They had about 475 people who agreed with the censure and that what Mayor Witt has done in allowing this event was a violation. Mrs. Von Bose said that she wanted to formally submit the resolution for public record and request that action be pursued. She would also like to see that Mayor Witt state that she would be willing to withdraw her authorization of the event. This will help show that she is willing to help to protect Kaysville and its citizens. Many members of the Council have given countless hours over this. Mrs. Von Bose read their citizen resolution.

Mayor Pro Tem Barber thanked those who made comments.

Council Member Tran made a motion to approve a Proclamation disavowing support of the Utah Business Revival Concert at Barnes Park, seconded by Council Member Blackham.

Council Member Blackham said that the information he had initially received about the event changed significantly the more he found out about it. He appreciates all those who spoke with him about this event and helped him to see what was really going to happen. From serving in the fire service for over 35 years, it has always been his intent to keep people from harms way. It has been the recommendation from the County Health Department that the event not happen during this time. This pandemic is serious and there are hundreds of more cases every day. Allowing for an event such as this would have brought harm to our community.

Council Member Lortz said that scientists have said that one of the biggest causes of the COVID

virus spreading is because of mass gatherings. They are still learning about this virus and how it is spreading. Fear can do terrible harm to vulnerable people, and fear during a pandemic can cause more damage. The most disappointing part of everything leading up to this point for this event was that councilmembers were trying to find a way to have the event, as long as it was done properly and went through the due process. But none of the event plans were ever brought forward or discussed with the Council. The UBR only said that they would be encouraging social distancing and letting people wear masks if they wanted to. Council Member Lortz said that he would have liked to see the event happen, but pushing it through like they were trying to was not appropriate. There should be an apology to the citizens. Council Member Lortz said he would like residents to know that the Council wanted to do the right thing for the city.

Council Member Adams said that he is appreciative to see that the UBR has changed venues, but is discouraged by how things were handled by them. Council members have gone through a lot the last few days and have their names dragged through the mud. They work hard for the city and spend many hours working for the people of the city. Council Member Adams said he hopes there will be an apology from our Mayor because of the way she has treated our citizens through this, our city in general, and our City Council. One of his biggest frustrations is that the Mayor has not represented the city or its people. Council Member Adams hopes that the Council's intent for this proclamation is clear to the residents.

Mayor Pro Tem Barber said that everything that happened as a result of this event and the Mayor's actions has been hurtful and not something that our city needed. Council Member Barber said that she fears that the repercussions as a result of how this has turned out will continue long past May 30th. She hopes to show residents that the Council is committed to move forward and show that they have the citizen's best interest at heart. We don't support the way this happened or the way it was communicated. The Mayor used her position for this event. Council Member Barber said she has learned through this to appreciate the due processes that are in place. Had the UBR gone through the correct process and got the community involved things likely would have turned out differently.

Council Member Tran said that it's good to look back to our ancestors and what sacrifices they had to make to put us where we are now. They helped to create this great community where we support each other. We can be civilly behaved and come together as a community and a Council. Council Member Tran said she feels that the Mayor got excited about the event and got ahead of herself. We have a process in place and we need to adhere to it. The Council didn't have a chance to meet and discuss this event until tonight. Things like this need to have an open discussion and we can't commit to anything until we are given an opportunity to meet. This has united us as a community and hope it will continue to unite us against COVID. COVID has put us all in different situations and we need to take what we have learned and commit to work together for the community, as well as provide a way to support our businesses through this.

The vote on the motion was as follows:

Mayor Pro Tem Barber, yea
Council Member Lortz, yea
Council Member Tran, yea
Council Member Blackham, yea
Council Member Adams, yea

The motion passed unanimously.

Mayor Witt rejoined the meeting and resumed conducting the meeting.

Mayor Witt said that she made the mistake of not including the Council on the event plans sooner as well as waiting for information from the organizers. When she spoke to the organizers originally it was the intent that the event would meet regulations because they wanted this event to be a model that could be implemented across the state. That fell apart with the exit of one of the members of their team. Their intent was to always look towards defending the constitution, and feel that we need to look after the rights that are afforded us at this time. Mayor Witt said that she regrets that she did not lean more on the Council, which we to help gather wisdom from multiple people. She is grateful for this community because we can see that our constitutional rights are alive and well because of the citizens speaking out and coming forward. Just because we disagree on how to reopen our country and restore our freedoms does not mean that this is a political issue. Mayor Witt said that she wanted to emphasize that she did this for the reasons she had stated, and appreciates the opportunity to serve. She added that she didn't take money from anywhere, she didn't do anything illegal and apologizes that feelings were hurt as part of this.

DISCUSSION AND POSSIBLE ACTION ON A RESOLUTION PLACING A MORATORIUM ON SPECIAL EVENT PERMITS UNTIL SUCH TIME AS THE GOVERNOR OR COUNTY HEALTH DEPARTMENT HAVE APPROVED MASS GATHERINGS

Nic Mills stated that the proposed resolution places a moratorium on the City's issuance of special event permits. Due to the COVID-19 pandemic, the Parks Department has not hired seasonal staff in the way they normally do. Further, the State and County have issued directives and orders limiting mass gatherings. This resolution would suspend issuance of special event permits in the City until the Council takes further action. The resolution also adopts a sunset provision so that the Council is not required to take further action to terminate this resolution. This resolution shall expire when the governor of Utah declares a "green" level health risk, the Davis County Health Department has rescinded its orders related to COVID, or on September 30, 2020, whichever is sooner.

Mayor Witt asked for public comment on this item.

Eric Jessen commented that the Council should not approve this proclamation. It is not clear on the city's website what the process for a special event permit is, and who has approval authority for them. The process needs to be refined to be clearer. It's not a good idea to place a blanket moratorium when there's already a process in place the city which can decide to turn permits down.

Debbie Jordan said that it's important to have our city processes in place. The city states that a permit application needs to be submitted at least 30 days before the event. If the UBR submitted a permit application in a timely manner there would have had time for the Council to review the permit and possibly approve the permit under certain provisions in place. There are a lot of things we are not doing during this pandemic. There are gatherings we are not holding and places we don't go. We need to be reasonable, but we also need to keep to the processes that are in place for our protection, even outside of the pandemic. There is a proper course of action with these things. Ms. Jordan said she appreciates the Council for their service and hopes that Mayor Witt is being

truthful.

David Bowman said that it's sad that the city has to create a resolution of this nature because of one member who decided to act under their own authority. Mr. Bowman said that he supports the resolution because we need assurance that this won't be repeated in our city. The Mayor should be censured for her behavior and how she's treated other members, both current and formal, of the Council.

Mayor Witt thanked those members of the public who commented.

Council Member Adams asked if this resolution could be reversed in the future, if approved.

Nic Mills responded that it could be reversed at any time.

Council Member Blackham made a motion to approve a Resolution placing a moratorium on the issuance of special event permits, seconded by Council Member Adams.

Council Member Adams said that this proclamation will help to protect Staff and give them direction regarding special event permits during this time.

Council Member Barber commented that she doesn't like creating ordinances in response to one person's actions or on an individual event. It's not a good process. However, if this resolution will help Staff short-term and there won't be any long lasting consequences then this seems to be a good option.

Council Member Lortz said that if there was an event planned to support our businesses, but was done with the proper process, then he would like to see that event happen.

Council Member Tran asked if there was a way to add some flexibility to the resolution.

Nic Mills said that we want to be careful so as to not raise claims for discrimination against specific groups. The Council could chose to alter the September 30th date, but the resolution is intended to be in place as a way to give direction from Council to Staff.

Council Member Adams asked if a permit had ever been submitted prior to 30 days and been approved.

Nic Mills responded that if it was for an event that the Parks Department felt would have very minimal impact it could potentially be approved faster than the 30 days. That is up to the discretion of whomever is approving the special event permit.

Council Member Blackham commented that this resolution makes it clear to everyone. If we are still not in the "green" level by September 30th then the Council will review this again.

Council Member Barber asked what the city is doing for city-sponsored events.

Cole Stephens responded that they are following the County regulations and recommendations.

The vote on the motion was as follows:

Council Member Lortz, yea
Council Member Tran, yea
Council Member Blackham, yea
Council Member Adams, yea
Council Member Barber, yea

The motion passed unanimously.

2020 EVENTS PLAN

Shayne Scott commented that the City Administration, in conjunction with the Parks Committee, Mayor Witt and Council Member Barber as Parks liaison, determined to severely limit and cancel Memorial Day and Independence Day events in light of concerns over the COVID-19 pandemic. City officials also coordinated with other cities in the County in making determination to cancel events where large groups of individuals may be tempted to gather and could potentially spread the coronavirus from one person to another. Mayor Witt has requested a review of the cancellations and changes that were made.

Mayor Witt commented that one reason she wanted to bring this up was because she had heard from other mayors in the County who felt that their cities could be more creative, more specifically in regards to their fireworks shows. One city has thought of having several fireworks displays throughout the city rather than their one big show. There is another city considering doing a drive-in fireworks show. It is a concern of our Police Department that if our city were to put on our fireworks show that we would be receiving thousands of other people from neighboring cities that cancelled their own fireworks shows.

Council Member Barber said that as the liaison for the Parks and Recreation Department she has been a part of the committee meetings to plan these city events. Our Youth Council will be putting flags out in the Kaysville and Farmington cemeteries for Memorial Day. They will also be there to welcome people and we are excited to have them there this year. It was hard to make the decision to cancel the city's Independence Day events, but their committee is planning other activities for that week in consideration of the pandemic and social distancing regulations. She is proud of the volunteers and Staff that are working on these activities and we are trying to be as accommodating as we can. We will not be bringing back any of our typical celebration events because we don't want to have to put any Staff or volunteers in a harmful situation during these times. Some of the activities they have planned include a live broadcast stream celebrating our hometown heroes, a "parade" through the city with our city fire and police department, as well as other activities to be announced later.

Mayor Witt asked for public comment on this item.

David Bowman encouraged the city to put in stronger ordinances or laws so city Staff has a better direction on how to respond to potential events. The Staff shouldn't have to worry about potential ramifications, but rather should be working with Council on events within the city.

Mayor Witt thanked those who commented on this item and for Council Member Barber's update

on the upcoming events.

WORK ITEMS

DISCUSSION OF A PROPOSED ORDINANCE AMENDING TITLE 2, CHAPTER 2, SECTION 12 REGARDING TERMINATION OF ELECTRICAL SERVICE

Nic Mills explained that under currently, Staff spends a significant amount of time personally informing power customers prior to the termination of their power service. Under the current code, employees will place a red tag on the door of homes before termination of power service to notify residents of their delinquent utility account. There have been some months where employees must go to hundreds of homes to deliver a red tag notice. This amendment to the code does several things; first, it updates the methods that the Power Department can use to effectuate notification prior to termination. Second, it allows, during summer months, for less restrictive notification procedures. Staff has surveyed other power suppliers and feels that these proposed amendments generally reflect the current policy regarding shut-off procedures in the market.

Council Member Blackham commented that in 10-2-12(4) it is proposed that "...a limiter should be installed", and said that he would like that changed to state that a limiter "would be" installed. Turning off the power completely in the colder temperatures could potentially create damage to the home.

Council Member Lortz asked about noticing.

Nic Mills responded that they anticipate on giving notice to residents when they sign-up for utilities notifying them that the city would be contacting them via the given email and phone number, and also having them affirm that they will keep their email and phone number updated with the city. Delinquent accounts are notified with their power bill, and then receive a separate notice ten days later. They receive another notice 48 hours before their power is limited.

Council Member Tran suggested after a second notice on the resident's bill, possibly having the city allow a partial power loss on the house.

Council Member Barber said that there are a lot within our community that are in hard situations. We have generous people who will donate money to others who aren't able to pay their bills. It's a great thing that these people do for others.

Council Member Lortz asked about repeat offenders and if the notification process is the same.

Nic Mills responded that at the moment the process is still the same, but it is something that the city can look into if the Council feels it is needed.

Council Member Adams said that maybe with those repeat offenders that the city can somehow reach out and try to help give them other avenues that might be able to utilize to help with their bill.

DISCUSSION OF PROPOSED ANNEXATION PLAN CHANGES

Shayne Scott explained that the City had recently gone through an annexation process, and in doing so Staff recognized some ways in which our policy could be clearer. The primary way is a requirement in our policy document which states that annexed property be served by all utilities provided by Kaysville City. While the City Council may make an exception to this policy at the time of annexation, having this requirement in a policy plan will give both Staff and any proposed annexation landowner an expectation of what it means to be in Kaysville. If acceptable, this document will need to go through a public process, and also be reviewed by the Planning Commission.

Council Member Blackham asked that the word “possible” be removed from item #2 under Statement of Specific Criteria. It seems to leave some ambiguity otherwise.

CALL TO THE PUBLIC

Eric Jessen said that he is relatively new to Kaysville and is retired from the Marine Corps where he was a fighter pilot. There are a lot of people who are taking advantage of the current crisis in order to pass a lot of bad laws. While he doesn't feel this has happened here, the resolution for the moratorium that was passed tonight was unnecessary when there is already a permitting process in place which would be sufficient to regulate event applications. The city needs to be cautious and not allow one individual event to cause the city to make a blanket regulation.

David Bowman said that there are still questions to consider with the fiber RFP. The RFP stated that the city would like to own the fiber utility and the Council never voted to approve that policy or limitation. As a result of that, some internet companies weren't able to respond to the RFP. This has created a very limiting situation. How were the fiber committee members selected? Why were none of the members behind the referendum allowed on the committee? They would have been able to represent many residents in the city. It will be hard for any company to come in and be able to get a fifty-percent response rate for subscriptions. Also, power limiters should also be used in the summer because we live in the desert. The city should be working with residents with their power utilities during this pandemic.

Gil Miller thanked the Council for their service and the many hours they put in. There has also been several hours spent by city employees dealing with this issue. Our police officers could have been put in harms way by granting this event. Our employees need to be considered because they will be the ones who will be put on the frontlines.

COUNCIL MEMBER REPORTS

Council Member Blackham commented that there is a lot of development going on, and Public Works is working on several road projects. Council Member Blackham added his thanks to the city staff and their hard work.

Council Member Tran said that the Planning Commission has been working with the Community Development department in finalizing a website for the General Plan review where the community can interact and give input. Council Member Tran also added her thanks to the Staff who have been taking phone calls day and night, and have been working with the Council to make sure that

what is decided is what is best for the community and everyone is kept safe.

Council Member Barber said that she is proud of our Parks and Recreation staff who has been working hard to put a plan together for the city's recreational sports. They are planning to bring things back carefully, and the information for those sports will be on the city's website. The splash pad will also be opening next week. The fiber website addresses how the fiber panel was formed, and has contact information if there are any questions about the project.

CITY MANAGER REPORT

Shayne Scott thanked the Mayor and Council for their support of Staff. Recently evaluations were held for the department heads and we have a great group of employees.

ADJOURNMENT

Council Member Blackham made a motion to adjourn the City Council meeting at 9:57 p.m., seconded by Council Member Adams and passed unanimously.

STAFF REPORT



COUNCIL MEETING DATE: July 2, 2020

TYPE OF ITEM: Consent

PRESENTED BY: Josh Belnap

SUBJECT/AGENDA TITLE: North Angel St Curb/Sidewalk Design and Coordination Services

EXECUTIVE SUMMARY:

Public Works is looking to install curb and sidewalk along the west side of Angel St between Phillips St and 600 N. The City already has a general services agreement with CRS, but the amount estimated to complete the design and manage the coordination/communication with residents requires Council approval. CRS estimated a total of \$26,218 for all survey work, design work, resident coordination, landscaping and irrigation coordination and utility coordination. Some of the items on their estimate will likely be lower, such as construction support, as the City will likely handle this.

Council Options: Move to Action/Table/Recommend Changes

Recommended Options: Move to Action

Fiscal Impact & Fund Source for Recommended Action: Road Utility Funds and Storm Water Funds

Attachments: CRS Proposal



Josh Belnap
Kaysville City
721 West Old Mill Lane
Kaysville, Utah 84037

May 18, 2020

Re: North Angel Street, west side improvements

Dear Josh,

Thank you for allowing CRS to help you with the design and construction of the referenced project. Outlined below is our outline of tasks and associated costs.

Project description:

The west side of Angel street from about Phillips Street to about 500 N. (approximately 860 feet) does not have curb gutter and sidewalk. With the construction of new schools in the area, Angel street has become an important walking route. This project will design and construct the curb, gutter and sidewalk, with roadway widening and other needed facilities along this stretch of roadway.

While it appears that all of the needed right-of-way has been acquired, over the years the adjacent properties have encroached into this right-of-way with fences, mailboxes and landscaping. Kaysville City also has improvement agreements with these property owners that obligates the property owners to participate in the cost of the improvements.

Scope of work

Survey

CRS will survey the project area to obtain the location of features that will need to be considered in the design of the improvements. Elevations will also be obtained so that the design can consider storm water runoff and collection.

Estimated Cost \$2,271

Design

A preliminary alignment using Kaysville City standard locations for the improvements will be created and compared to the existing features so that conflicts may be addressed. Upon resolution of conflicts a final alignment will be set. A vertical alignment will also be created to accommodate the drainage. We anticipate a review meeting at about 30 percent design and at final design.

Estimated Cost \$9,186

Andy Thompson, P.E.
Project Manager

Public Relations

CRS will contact each property owner and make them aware of the project. As the design progresses, impacts to the property will be explained and discussed as needed with each owner. As directed by Kaysville City, discussions with the owners regarding the improvement agreements can also be conducted by CRS.

CRS will maintain contact with the property owners throughout construction of the project to keep them updated and informed of impacts such as driveway closures and utility shutdowns.

Estimated Cost \$2,346

Utility Coordination

Identification and relocation of utilities that may be in conflict with the proposed improvements will be coordinated by CRS including; contacting the utility agency, verifying conflicts, and proposing alternative locations.

Estimated Cost \$1,611

Construction Documents

A complete project design package, including plans, cost estimates, and specifications, will be prepared. CRS will assist the City with advertising the project for bid and administering the bidding process through award of the project including completing the contract process with the selected bidder.

Estimated Cost \$2,538

Construction

CRS will support the City during construction by processing pay requests, reviewing change orders, answering questions, and general monitoring of the project. We have assumed a total construction time of two weeks.

Estimated Cost \$8,266

Right-of-way

If there is a need to locate and describe property lines, create legal descriptions, and begin negotiations for needed construction easements in preparation for acquisition of additional right-of-way, or permanent easements, this work can be accomplished at an additional cost. CRS can also lead the acquisition process if fee acquisition is required as additional scope.

The total cost for all described tasks is **\$26,218**. We would be happy to meet to further discuss this project. Please feel free to contact me should you have other questions.

Sincerely,
CRS Engineers



Andy Thompson, P.E. Project Manager

STAFF REPORT



COUNCIL MEETING DATE: July 2, 2020

TYPE OF ITEM: Action

PRESENTED BY: Shayne Scott/Council Member Andre Lortz

SUBJECT/AGENDA TITLE: Electric Vehicle Charging Rates

EXECUTIVE SUMMARY:

At this time, we have four dual EV charging stations installed. Three more stations will be placed at City Hall when the driveway and curb is complete. An additional two more stations will be installed behind the fence at the operations Center for future city fleet use.

The Power Commission recommends that there be no charge to use the charging stations for the first 6 months to gather usage data. After this initial 6 months, a rate structure should be implemented. If the City Council would like to charge enough to cover the costs to Kaysville City, a rate structure that is simple and accomplishes that goal can be created at this time. Charging station costs include:

- Power used by the consumer to charge a vehicle
- Cloud storage costs of \$15,470 for 5 years
- Warranty and Service Plan costs of \$14,812 for 5 years.

The grant we received will pay the cloud and service plan costs for the first 5 years.

Most cities do not charge for use of their EV stations. This is probably because they are a small part of their overall load and to encourage the use of Electric Vehicles which are “clean” and can help with the bad air and inversion concerns we have along the Wasatch Front here in Utah.

Council Options: Follow Power Board Recommendation to wait 6 months
Recommend another course of action

Recommended Options: Follow Power Board Recommendation to reevaluate after 6 months

Fiscal Impact & Fund Source for Recommended Action: All charging costs will be borne by Kaysville City for 6 months.

Attachments: NA

CITY COUNCIL STAFF REPORT



MEETING DATE: July 2, 2020

TYPE OF ITEM: Action

PRESENTED BY: Community Development

SUBJECT/AGENDA TITLE: Rezone of 1.1 acres of property at 1599 West Galbraith Lane from the R-A (Residential Agriculture) district to the R-1-20 (Single Family Residential) district to include the PRUD (Planned Residential Unit Development) overlay zone – Nathan Alvey.

Preliminary Plat approval for Galbraith Kaysville Subdivision at 1599 West Galbraith Lane - Nathan Alvey.

EXECUTIVE SUMMARY:

The property includes an existing home fronting Galbraith Lane which is proposed to remain with some modifications while the primary purpose of the request for the PRUD overlay is to accommodate a new lot behind the home to the south.

The proposed preliminary plat indicates 2 lots that each meet the minimum frontage or width requirement as well as the minimum acreage for the R-1-20 zone. The flag lot provisions of the PRUD ordinance require that the standard lot fronting the street keep its typical standards for width and setbacks and the access to the new lot be provided at 30 feet in width to a single lot. Each lot must be at least 10,000 sq. ft. in size or meet the minimum for the zone which in this case is 20,000 sq. ft. The property contains enough acreage and is wide enough to accommodate 2 lots which comply with the provisions of the applicable ordinances, but in order to meet the required side yard setback from a property line it is necessary to remove portions of the home as proposed on the preliminary plat.

There are multiple flag lots in the immediate area. There have also been concerns expressed to staff in recent years and in consideration of this request regarding water which collects in this section of town in the rear yards of properties along Leola St. To address this, the applicant has prepared some options for dealing with the storm water. The plans indicate a sump or on site solution as well as an option that would take water into a yard drain out to the city's storm drain system in Galbraith Lane. Kaysville City is willing to consider either option, complete engineering and details will be required to be reviewed to verify that the proposals function prior to approval of final plat.

As part of the consideration is the R-1-20 and PRUD overlay, the council has broad discretion as to whether or not they would like to approve the request.

Council Options:

- 1) Approve as proposed.
- 2) Request changes prior to giving approval.
- 3) Deny the proposed carports.

Recommended Option:

The Planning Commission voted 5-2 to recommend approval of the PRUD overlay zone to allow for the creation of a flag lot as well as the R-1-20 zoning district. The recommendation for the rezone included the

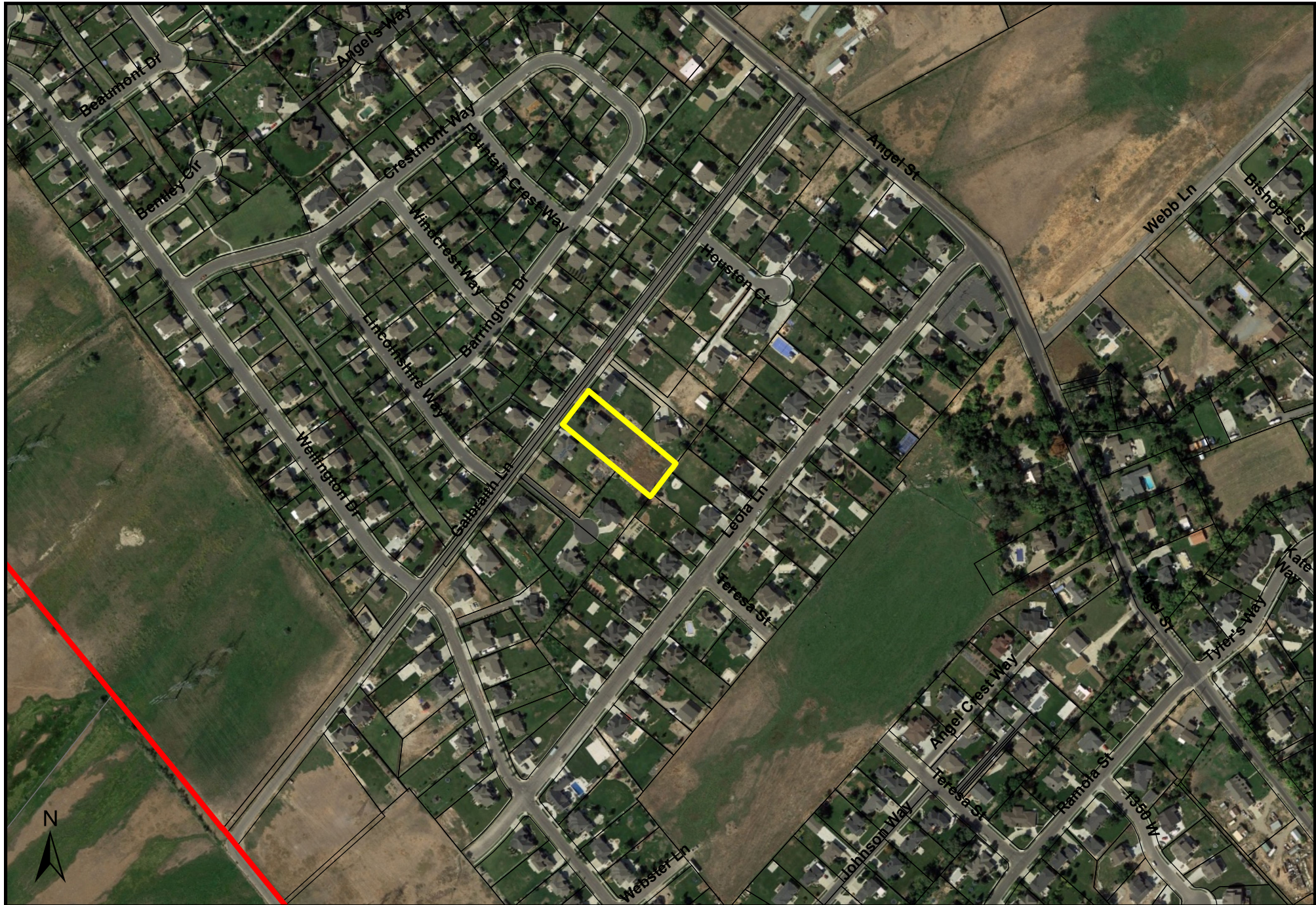
requirement that the applicant install a 6 foot vinyl fence along the west property line adjacent to lot 1 of Dancing Horse Estates up to the 30' front yard setback line. The decending votes agreed with the flag lot and zoning district but didn't feel the fencing was necessary to impose on the applicant.

The Planning Commission also voted unanimously to recommend approval of the preliminary plat with the condition that the existing home be modified before a final plat is recorded and that together with typical reviews, and particular attention to the design of a sytem that will address the surface water issues at this property in a manner that meets the city's ordinance and satisfaction of the city engineer. This approved design of this system is to be demonstrated to the Planning Commission for their approval of the final plat.

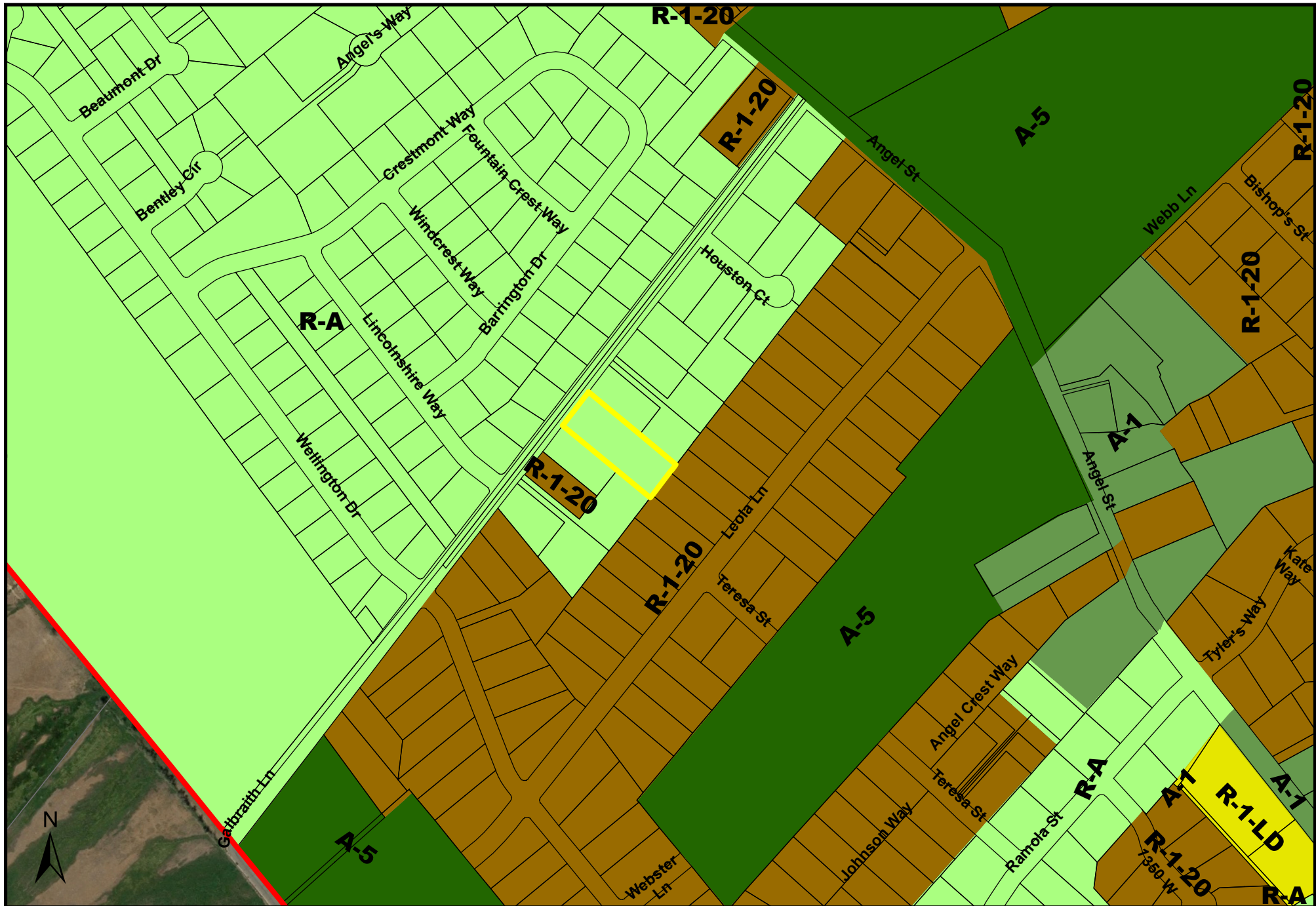
Fiscal Impact: N/A

Attachments: Location Map, Zoning Map, Preliminary Plat, Storm Water Option A, Storm Water Option B, Rezone Ordinance.

1599 West Galbraith Lane - Rezone to R-1-20 with the PRUD overlay zone to create a flag lot.



1599 West Galbraith Lane - Rezone to the R-1-20 district and PRUD for a flag lot subdivision.

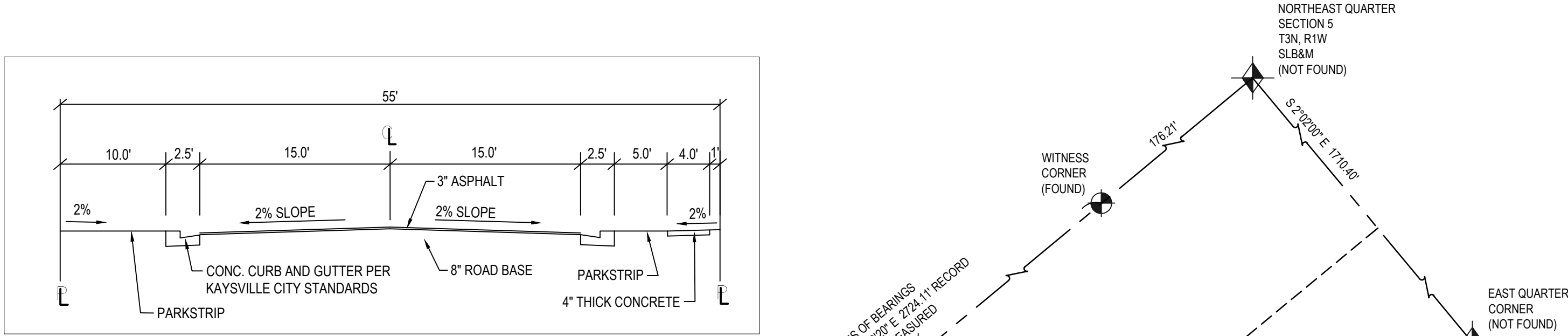


811

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Know what's below.
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BENCHMARK

WITNESS CORNER, NORTHEAST CORNER OF
SECTION 5, TOWNSHIP 3 SOUTH, RANGE 1
WEST
SALT LAKE BASE AND MERIDIAN
ELEV = 4252.02



NOTES

1. PROPERTY IS TO BE ZONED R-1-20.

DESCRIPTION

A parcel of land, situate in the Northeast Quarter of Section 5, Township 3 North, Range 1 West, Salt Lake Base and Meridian, said parcel also located in Kaysville City, Davis County, Utah. Being more particularly described as follows:

Beginning at a point on the southerly right-of-way of Galbraith Lane, said point also being the westerly corner of Pettingill Estates - Amended. Said point being South 00°02'00" East 1,710.40 feet along the section line and South 89°58'00" West 647.20 feet from the Northeast Corner of said Section 5 and running thence:

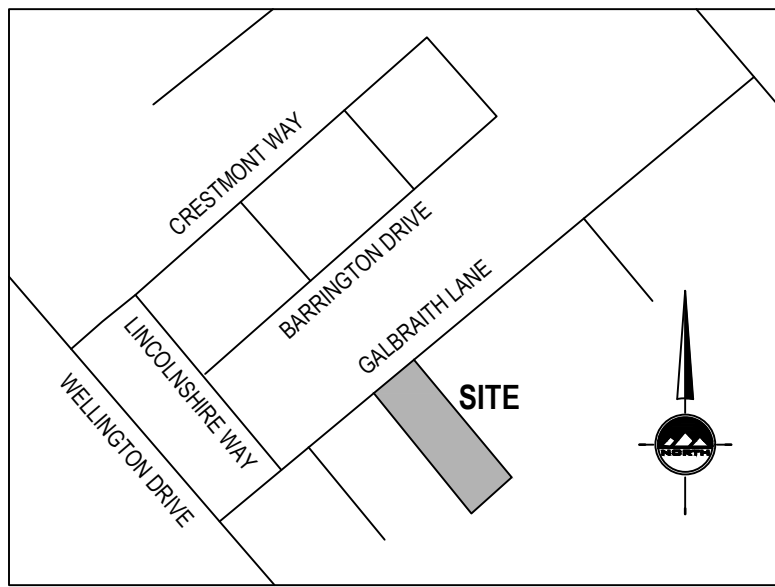
South 50°32'08" East 353.08 feet along the southerly line of Pettingill Estates - Amended to the westerly line of Webster Farms No. 2;

thence South 37°27'58" West 128.46 feet along said westerly line to the East corner of Dancing Horse Estates Subdivision and the beginning of a Boundary Line Agreement (Entry No. 2557444 in Book 5122, Page 951);

thence North 50°58'59" West 352.85 feet along the northerly line of Dancing Horse Estates Subdivision and said Boundary Line Agreement to the southerly right-of-way-line of Galbraith Lane;

thence North 37°24'08" East 131.22 feet along said southerly right-of-way line to the Point of Beginning.

Contains: 45,807 square feet or 1.052 acres.



VICINITY MAP
NO SCALE
KAYSVILLE, DAVIS COUNTY, UTAH



LAYTON

919 North 400 West
Layton, UT 84041
Phone: 801.547.1100

SALT LAKE CITY

Phone: 801.255.0529

TOOELE

Phone: 435.843.3590

CEDAR CITY

Phone: 435.866.1453

RICHFIELD

Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:

NATHAN ALVEY
2116 GRASSY PLAIN DRIVE
KAYSVILLE, UTAH 84037

CONTACT:

NATHAN ALVEY
PHONE: 801-750-5996

GALBRAITH KAYSVILLE

1599 WEST GALBRAITH LANE
KAYSVILLE, UTAH

PRELIMINARY PLAT

PROJECT NUMBER

9878

PRINT DATE

6/9/20

DRAWN BY

J.MOSS

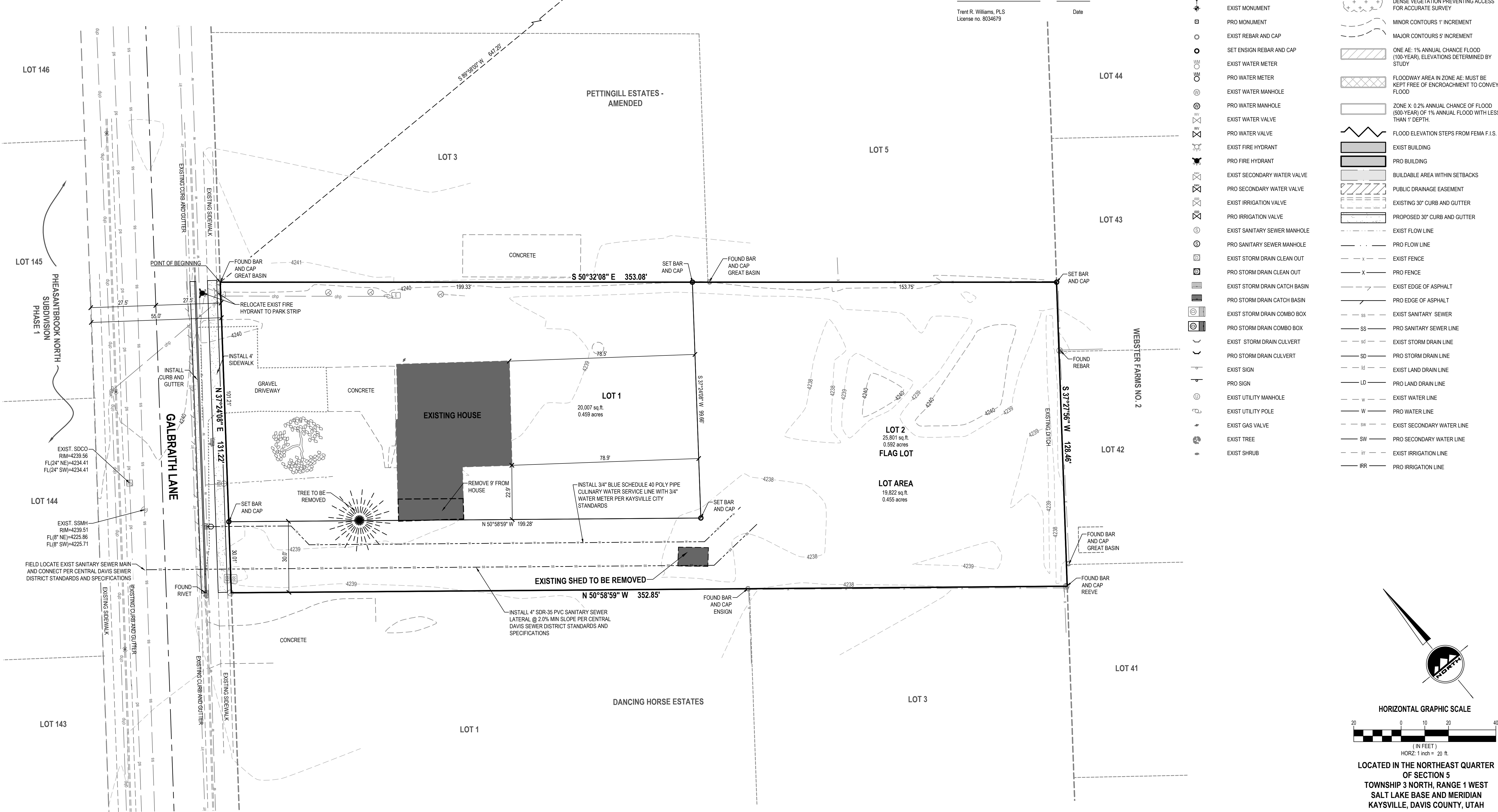
CHECKED BY

T.WILLIAMS

PROJECT MANAGER

T.WILLIAMS

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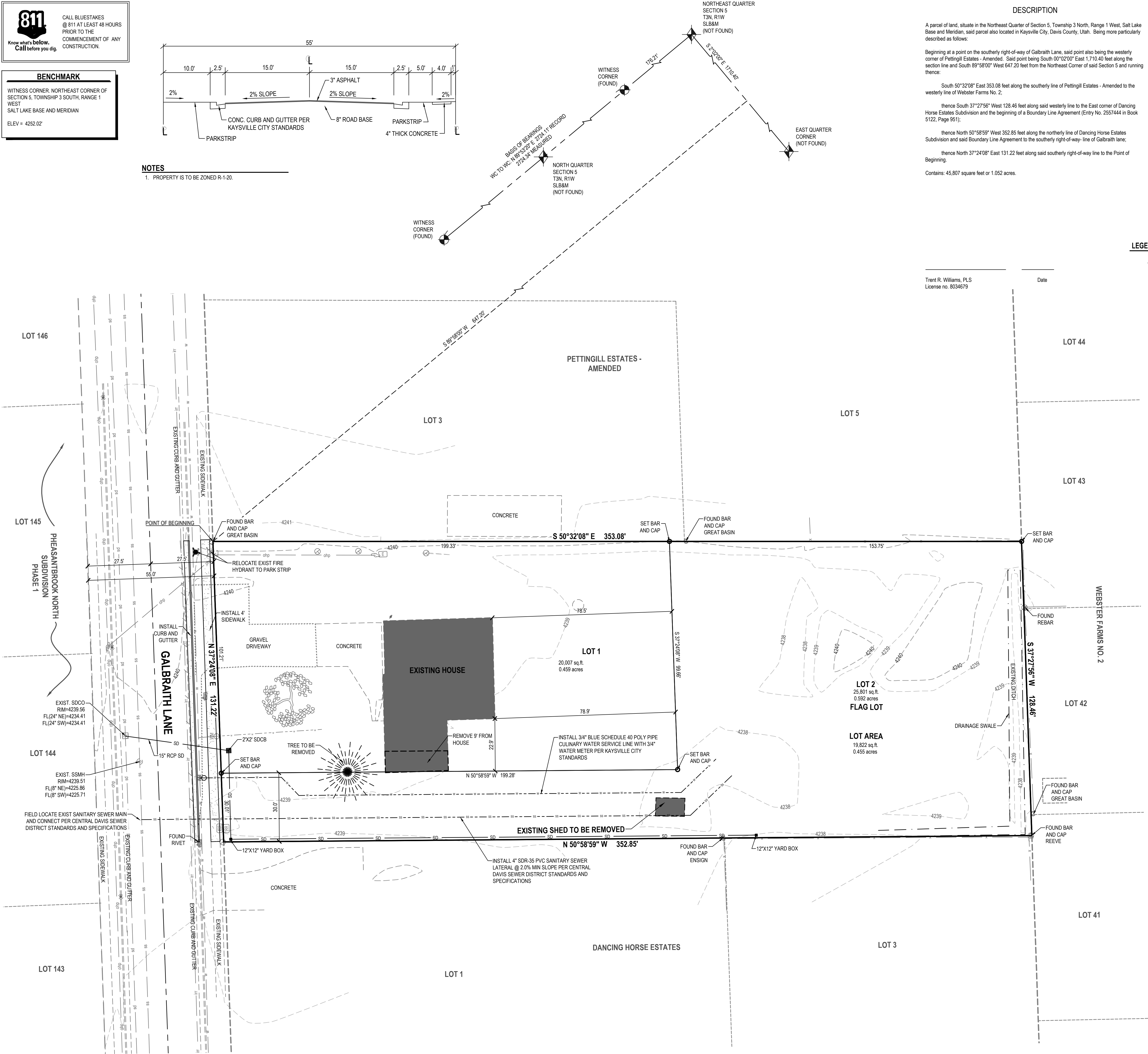
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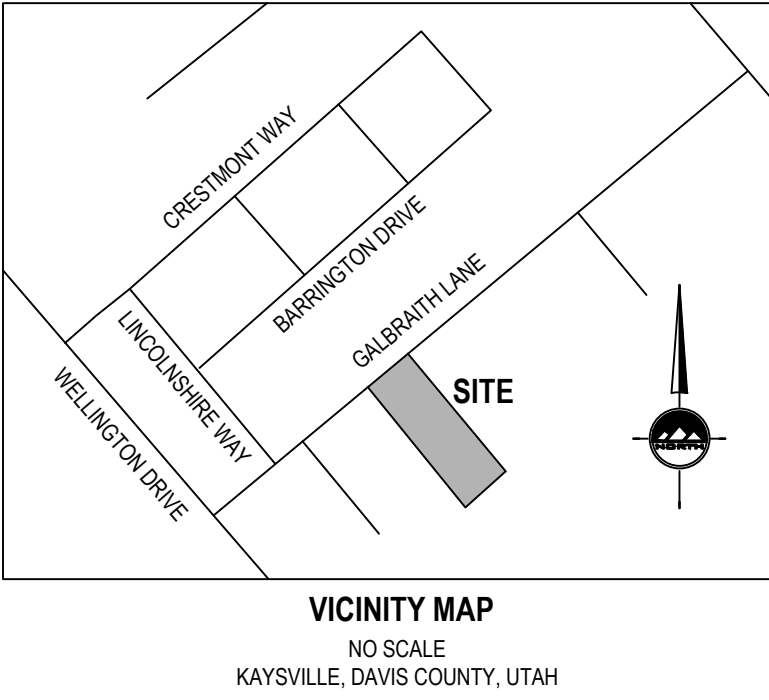
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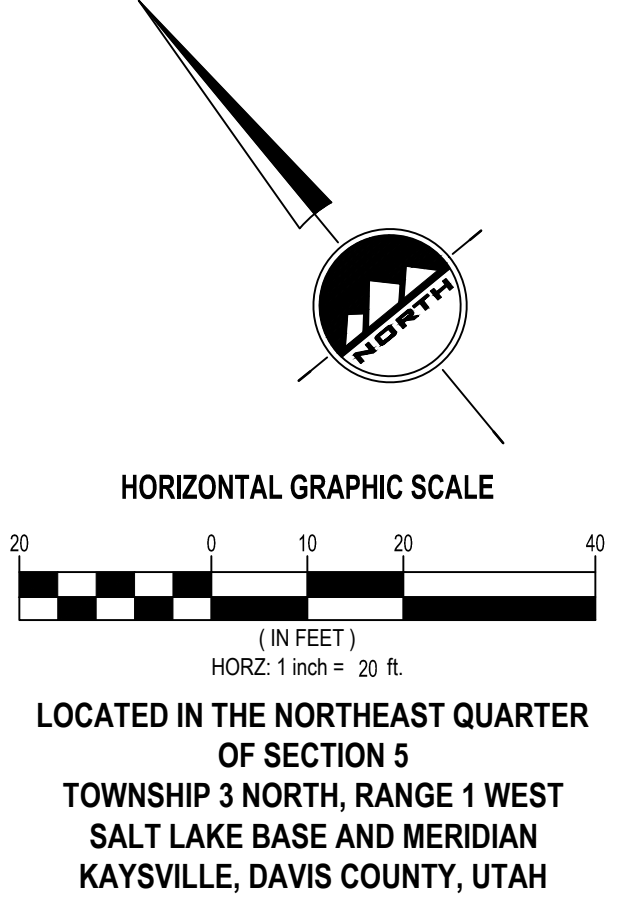
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LEGEND	
	SECTION CORNER
	EXIST MONUMENT
	PRO MONUMENT
	EXIST REBAR AND CAP
	SET ENSIGN REBAR AND CAP
	EXIST WATER METER
	PRO WATER METER
	EXIST WATER MANHOLE
	PRO WATER MANHOLE
	EXIST WATER VALVE
	PRO WATER VALVE
	EXIST FIRE HYDRANT
	PRO FIRE HYDRANT
	EXIST SECONDARY WATER VALVE
	PRO SECONDARY WATER VALVE
	EXIST IRRIGATION VALVE
	PRO IRRIGATION VALVE
	EXIST SANITARY SEWER MANHOLE
	PRO SANITARY SEWER MANHOLE
	EXIST STORM DRAIN CLEAN OUT
	PRO STORM DRAIN CLEAN OUT
	EXIST STORM DRAIN CATCH BASIN
	PRO STORM DRAIN CATCH BASIN
	EXIST STORM DRAIN COMBO BOX
	PRO STORM DRAIN COMBO BOX
	EXIST STORM DRAIN CULVERT
	PRO STORM DRAIN CULVERT
	EXIST SIGN
	PRO SIGN
	EXIST UTILITY MANHOLE
	EXIST UTILITY POLE
	EXIST GAS VALVE
	EXIST TREE
	EXIST SHRUB
	DENSE VEGETATION PREVENTING ACCESS FOR ACCURATE SURVEY
	MINOR CONTOURS 1' INCREMENT
	MAJOR CONTOURS 5' INCREMENT
	ONE AE: 1% ANNUAL CHANCE FLOOD (100-YEAR), ELEVATIONS DETERMINED BY STUDY
	FLOODWAY AREA IN ZONE AE: MUST BE KEPT FREE OF ENCROACHMENT TO CONVEY FLOOD
	ZONE X: 0.2% ANNUAL CHANCE OF FLOOD (500-YEAR) OF 1% ANNUAL FLOOD WITH LESS THAN 1' DEPTH.
	FLOOD ELEVATION STEPS FROM FEMA F.I.S.
	EXIST BUILDING
	PRO BUILDING
	BUILDABLE AREA WITHIN SETBACKS
	PUBLIC DRAINAGE EASEMENT
	EXISTING 30" CURB AND GUTTER
	PROPOSED 30" CURB AND GUTTER
	EXIST FLOW LINE
	PRO FLOW LINE
	EXIST FENCE
	PRO FENCE
	EXIST EDGE OF ASPHALT
	PRO EDGE OF ASPHALT
	EXIST SANITARY SEWER
	PRO SANITARY SEWER LINE
	EXIST STORM DRAIN LINE
	PRO STORM DRAIN LINE
	EXIST LAND DRAIN LINE
	PRO LAND DRAIN LINE
	EXIST WATER LINE
	PRO WATER LINE
	EXIST SECONDARY WATER LINE
	PRO SECONDARY WATER LINE
	EXIST IRRIGATION LINE
	PRO IRRIGATION LINE



THE STANDARD IN ENGINEERING

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PHONE: 801-750-5996

GALBRAITH KAYSVILLE

1599 WEST GALBRAITH LANE
KAYSVILLE, UTAH

PROFESSIONAL LAND SURVEYOR

Electronic Seal
No. 8034679
TRENT P. WILLIAMS
June 17, 2020
STATE OF UTAH

PRELIMINARY PLAT

PROJECT NUMBER
9878
PRINT DATE
6/17/20
DRAWN BY
J.MOSS
CHECKED BY
T.WILLIAMS
PROJECT MANAGER
T.WILLIAMS

1 OF 1

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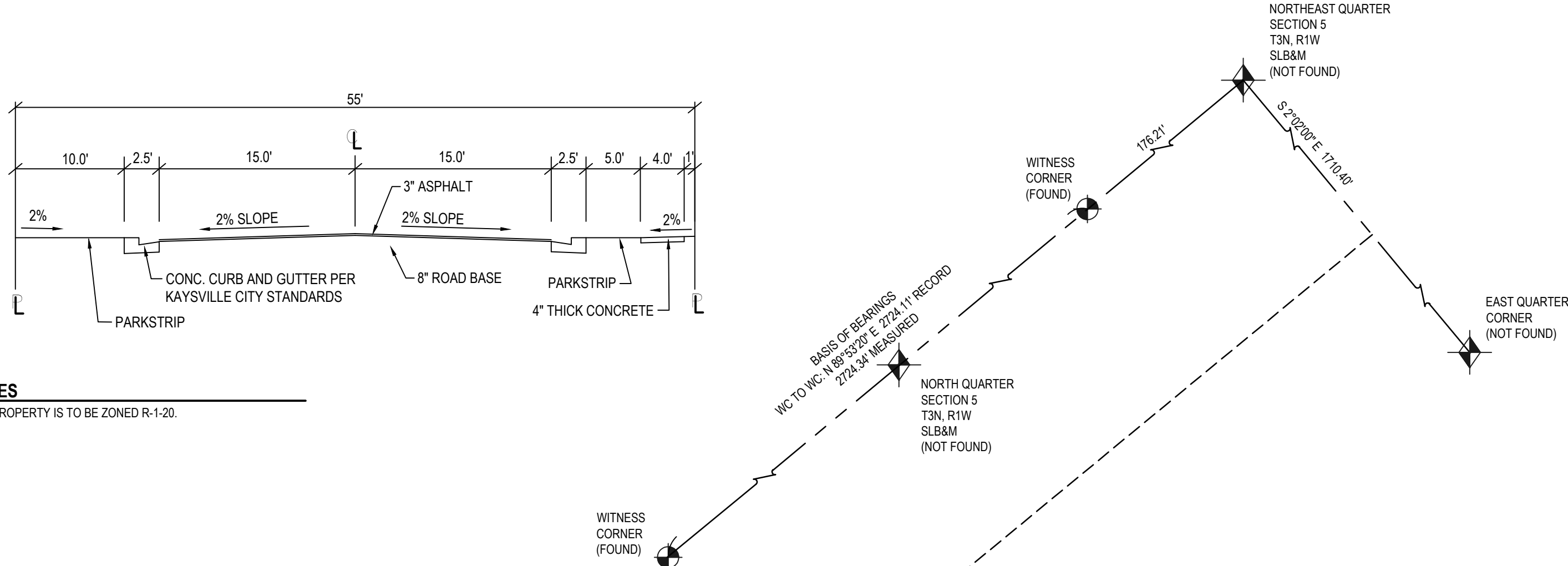
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WEST
SALT LAKE BASE AND MERIDIAN
ELEV = 4252.02

NOTES

1. PROPERTY IS TO BE ZONED R-1-20.



DESCRIPTION

A parcel of land, situate in the Northeast Quarter of Section 5, Township 3 North, Range 1 West, Salt Lake Base and Meridian, said parcel also located in Kaysville City, Davis County, Utah. Being more particularly described as follows:

Beginning at a point on the southerly right-of-way of Galbraith Lane, said point also being the westerly corner of Pettingill Estates - Amended. Said point being South 00°02'00" East 1,710.40 feet along the section line and South 89°58'00" West 647.20 feet from the Northeast Corner of said Section 5 and running thence:

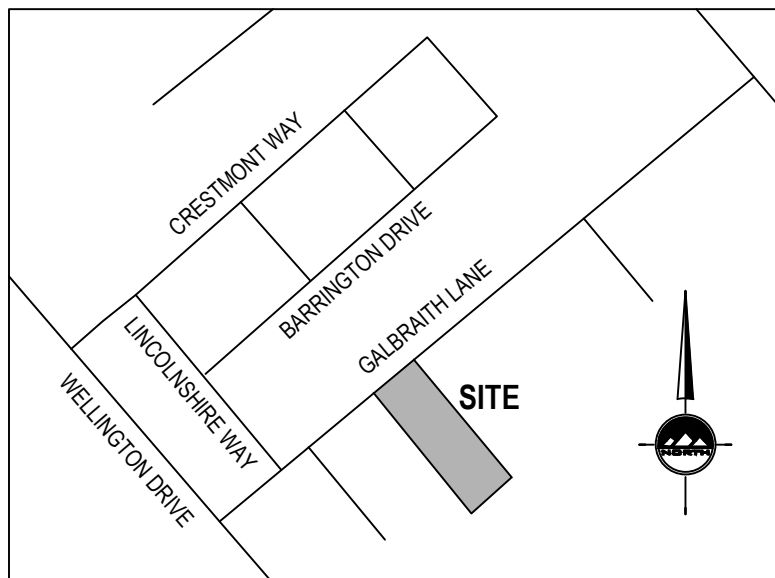
South 50°32'08" East 353.08 feet along the southerly line of Pettingill Estates - Amended to the westerly line of Webster Farms No. 2;

thence South 37°27'56" West 128.46 feet along said westerly line to the East corner of Dancing Horse Estates Subdivision and the beginning of a Boundary Line Agreement (Entry No. 2557444 in Book 5122, Page 951);

thence North 50°58'59" West 352.85 feet along the northerly line of Dancing Horse Estates Subdivision and said Boundary Line Agreement to the southerly right-of-way-line of Galbraith Lane;

thence North 37°24'08" East 131.22 feet along said southerly right-of-way line to the Point of Beginning.

Contains: 45,807 square feet or 1.052 acres.



VICINITY MAP
NO SCALE
KAYSVILLE, DAVIS COUNTY, UTAH



LAYTON

919 North 400 West
Layton, UT 84041
Phone: 801.547.1100

SALT LAKE CITY

Phone: 801.255.0529

TOOELE

Phone: 435.843.3590

CEDAR CITY

Phone: 435.866.1453

RICHFIELD

Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:

NATHAN ALVEY
2116 GRASSY PLAIN DRIVE
KAYSVILLE, UTAH 84037

CONTACT:

NATHAN ALVEY
PHONE: 801-750-5996

GALBRAITH KAYSVILLE

1599 WEST GALBRAITH LANE

KAYSVILLE, UTAH



PRELIMINARY PLAT

PROJECT NUMBER

9878

PRINT DATE

6/17/20

DRAWN BY

J.MOSS

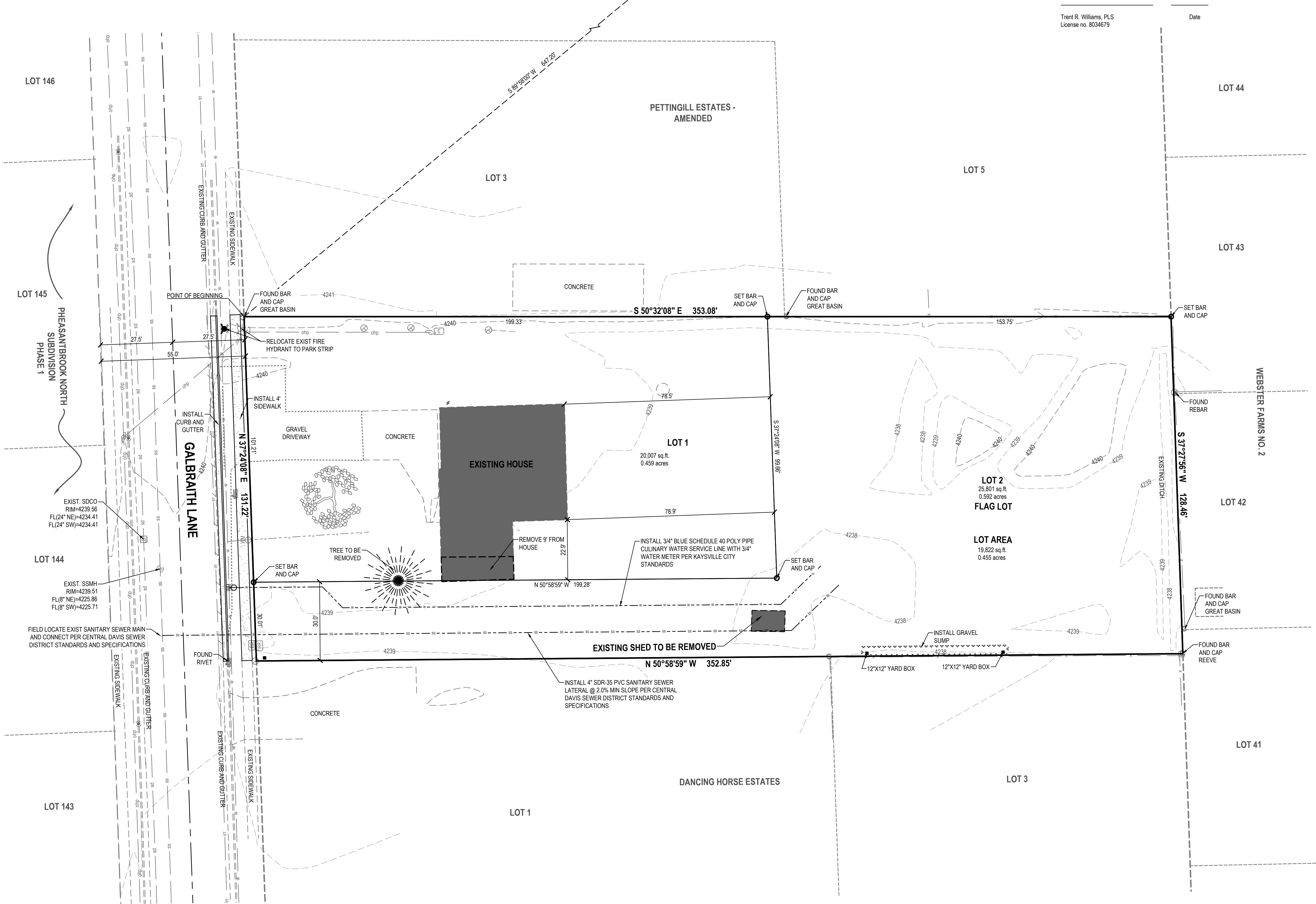
CHECKED BY

T.WILLIAMS

PROJECT MANAGER

T.WILLIAMS

1 OF 1



LEGEND



SECTION CORNER



EXIST MONUMENT



PRO MONUMENT



EXIST REBAR AND CAP



SET ENSIGN REBAR AND CAP



EXIST WATER METER



PRO WATER METER



EXIST WATER MANHOLE



PRO WATER MANHOLE



EXIST WATER VALVE



PRO WATER VALVE



EXIST FIRE HYDRANT



PRO FIRE HYDRANT



EXIST SECONDARY WATER VALVE



PRO SECONDARY WATER VALVE



EXIST IRRIGATION VALVE



PRO IRRIGATION VALVE



EXIST SANITARY SEWER MANHOLE



PRO SANITARY SEWER MANHOLE



EXIST STORM DRAIN CLEAN OUT



PRO STORM DRAIN CLEAN OUT



EXIST STORM DRAIN CATCH BASIN



PRO STORM DRAIN CATCH BASIN



EXIST STORM DRAIN COMBO BOX



PRO STORM DRAIN COMBO BOX



EXIST STORM DRAIN CULVERT



PRO STORM DRAIN CULVERT



EXIST SIGN



PRO SIGN



EXIST UTILITY MANHOLE



PRO UTILITY MANHOLE



EXIST UTILITY POLE



EXIST GAS VALVE



EXIST TREE



EXIST SHRUB



DENSE VEGETATION PREVENTING ACCESS
FOR ACCURATE SURVEY



MINOR CONTOURS 1' INCREMENT



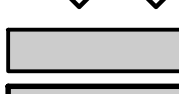
MAJOR CONTOURS 5' INCREMENT



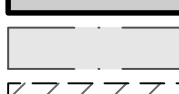
ONE AE: 1% ANNUAL CHANCE FLOOD
(100-YEAR), ELEVATIONS DETERMINED BY
STUDY



FLOODWAY AREA IN ZONE AE: MUST BE
KEPT FREE OF ENCROACHMENT TO CONVEY
FLOOD



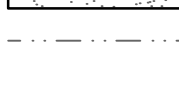
ZONE X: 0.2% ANNUAL CHANCE OF FLOOD
(500-YEAR), OF 1% ANNUAL FLOOD WITH LESS
THAN 1' DEPTH.



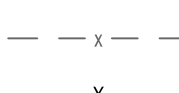
FLOOD ELEVATION STEPS FROM FEMA F.I.S.



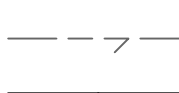
EXIST BUILDING



PRO BUILDING



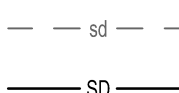
BUILDABLE AREA WITHIN SETBACKS



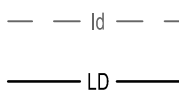
PUBLIC DRAINAGE EASEMENT



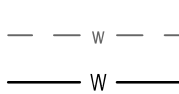
EXISTING 30" CURB AND GUTTER



PROPOSED 30" CURB AND GUTTER



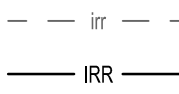
EXIST FLOW LINE



PRO FLOW LINE



EXIST FENCE



PRO FENCE



EXIST EDGE OF ASPHALT



PRO EDGE OF ASPHALT



EXIST SANITARY SEWER



PRO SANITARY SEWER



EXIST STORM DRAIN LINE



PRO STORM DRAIN LINE



EXIST LAND DRAIN LINE



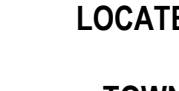
PRO LAND DRAIN LINE



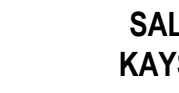
EXIST WATER LINE



PRO WATER LINE



EXIST SECONDARY WATER LINE

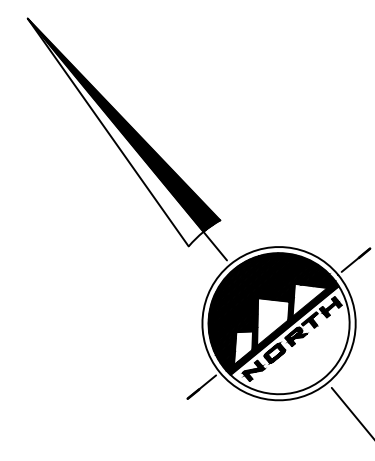


PRO SECONDARY WATER LINE

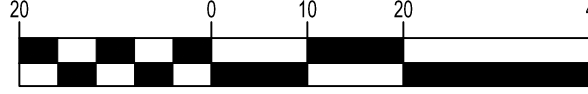


EXIST IRRIGATION LINE

PRO IRRIGATION LINE



HORIZONTAL GRAPHIC SCALE



(IN FEET)

HORZ: 1 inch = 20 ft.

LOCATED IN THE NORTHEAST QUARTER
OF SECTION 5
TOWNSHIP 3 NORTH, RANGE 1 WEST
SALT LAKE BASE AND MERIDIAN
KAYSVILLE, DAVIS COUNTY, UTAH

ORDINANCE NO. 20-_____

AN ORDINANCE REZONING A CERTAIN PORTION OF KAYSVILLE CITY TO THE R-1-20 (SINGLE FAMILY RESIDENTIAL) TO INCLUDE THE PRUD (PLANNED RESIDENTIAL UNIT DEVELOPMENT) OVERLAY ZONE, HEREINAFTER FULLY DESCRIBED; PROVIDING FOR REPEALER; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, the City Council of Kaysville City, State of Utah, has determined in an open meeting to rezone the subject property to the R-1-20 district to include the PRUD overlay zone for the purpose of accommodating a new flag lot subdivision; and

WHEREAS, said meeting was duly and regularly held and the interested parties were given an opportunity to be heard; and

WHEREAS, the Kaysville City Planning Commission has made a recommendation to the City Council on said zoning action; and

WHEREAS, the City Council after due consideration of said overlay zone has concluded that it is in the best interest of the City and the inhabitants thereof that said zone be implemented;

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

SECTION I: Repealer. If any provisions of the City's Code previously adopted are inconsistent herewith they are hereby repealed.

SECTION II:

The real property as shown on the attached map, which is made a part hereof, containing approximately 1.1 acres, shall be and the same is hereby rezoned and the Zoning Map amended by removing it from the Kaysville City R-A district and rezoning it to the R-1-20 (Single Family Residential) district and adding the Kaysville City PRUD (Planned Residential Unit Development) overlay zone.

SECTION III: Severability. If any section, subsection, sentence, clause or phrase of this ordinance is declared invalid or unconstitutional by a court of competent jurisdiction, said portion shall be severed and such declaration shall not affect the validity of the remainder of this ordinance.

SECTION VI:

This Ordinance shall take effect upon approval of a final subdivision plat found to be consistent with the provisions of the approved development agreement for the subject property.

PASSED AND ADOPTED by the City Council of Kaysville City, Utah, this __th day of _____, 2020

Katie Witt
Mayor

ATTEST:

Annemarie Plaizier
City Recorder

APPROVED AS TO FORM:

Nicholas C. Mills, City Attorney

CITY COUNCIL STAFF REPORT



MEETING DATE: July 2, 2020

TYPE OF ITEM: Action

PRESENTED BY: Community Development Staff

SUBJECT/AGENDA TITLE: Consideration of a development agreement and request to rezone approximately 14.0 acres of property located at 1773 West 200 North from the A-5 (Heavy Agriculture) district to the R-1-10 (Single Family Residential), R-1-14 (Single Family Residential), R-1-6 (Single Family Residential), and R-2 (One to Two Family Residential) zones, to include the PRUD (Planned Residential Unit Development) overlay zone to be included over each district – Nephi and Malcolm Harvey.

Preliminary plat approval for the Salt Grass Subdivision at 1773 West 200 North – Nephi and Malcolm Harvey.

EXECUTIVE SUMMARY:

The applicants are requesting a rezone to multiple different zoning districts to accommodate their desire for a future residential development with a variety of lot sizes and housing types at the subject property. The applicant has submitted a preliminary plat to demonstrate their desired use of the property which includes an anticipated 3 phases of development along public streets which are designed to create connections from existing stubbed dead ends to 200 North street. There are some private streets and common areas and varied lot sizes. The plans included with this report have been modified from the version presented to the Planning Commission based on input received from that body and comments from the public during the public hearing. Specifically the number of total lots has been reduced from 78 to 54 with the change occurring along the eastern edge of the project where a number of small single family lots have replaced some townhomes to create a transition with neighboring properties to the east. At the request of staff to better predict and administer the type of development to occur each phase has been proposed to be regulated by a separate zoning district.

Phase 1 which would be regulated by the R-1-10 district contains 10 lots on 4.4 acres ranging in size from 11,274 sq. ft. to 21,841 sq. ft. in size all along a standard public right of way. This phase does not require the PRUD overlay.

Phase 2 is proposed to be included in the R-2 and R-1-6 zoning districts includes 13 small single family home lots and 24 lots in a townhome style configuration with common open space. With 37 dwellings spread over 6.2 acres this phase has a density of 6 units an acre.

Phase 3 is proposed to be in the R-1-14 district includes 7 lots ranging in size from 15,600 sq. ft. to 18,947 sq. ft. in size. Most of the lots are accessed from a private cul-de-sac street.

The total density of 54 units over nearly 14.4 acres equates to about 3.75 units per acre.

A development agreement has been provided which holds whoever develops the property to what is being presented to the council. The agreement speaks to timing of construction in that it may take several years to fully develop, but the applicant desires to master plan the full property now and set expectations for the city and future development.

All phases of the proposed preliminary plat are dependent upon approval of a rezone as the property currently requires that all divisions be to lots of at least 210,000 sq. ft. in size. The specifics of the requested zoning

districts are found as follows: R-1 districts: [KCC 17-12 \(Single Family Residential District\)](#)
R-2 district: [KCC 17-14 \(One and Two Family Residential District\)](#)

PRUD Overlay Zone: [KCC 17-34 \(Planned Residential Unit Development\)](#)

In considering the rezone the City Council should refer to the General Plan and look at the specifics of the proposed location to determine if the request is appropriate for the area.

The City's [General Plan](#) states, among other things:

Identity and Character:

Kaysville should be primarily a residential community with a vision to promote business, industry and public use.

A. Housing:

Housing should be located throughout the City and restricted only where it is incompatible with other necessary uses.

1. West of I-15, allow for similar housing densities in existing neighborhoods while considering medium density housing along the major streets and higher density housing near transit stops and arterial streets (200 North, Interstate 15, and the West Davis Corridor).

- B. The majority of the housing should be single unit attached or detached. The City will seek to provide a variety of housing choices throughout the community including a means for allowing homes of a variety of sizes. Multiple unit housing should consist mostly of duplexes (two unit structures) and some three to six unit structures dispersed throughout the City.

- C. Housing development should have a minimum of through vehicular traffic and a maximum of open space.

- D. Housing developments should essentially pay for themselves.

Consideration to Plan for Additional Moderate Income Housing which is a portion of the General Plan found through the link above may be appropriate for consideration as well.

Council Options:

The preliminary plat component of the request is contingent upon approval of the development agreement and rezone request. The agreement and rezone should be considered first.

The Council may:

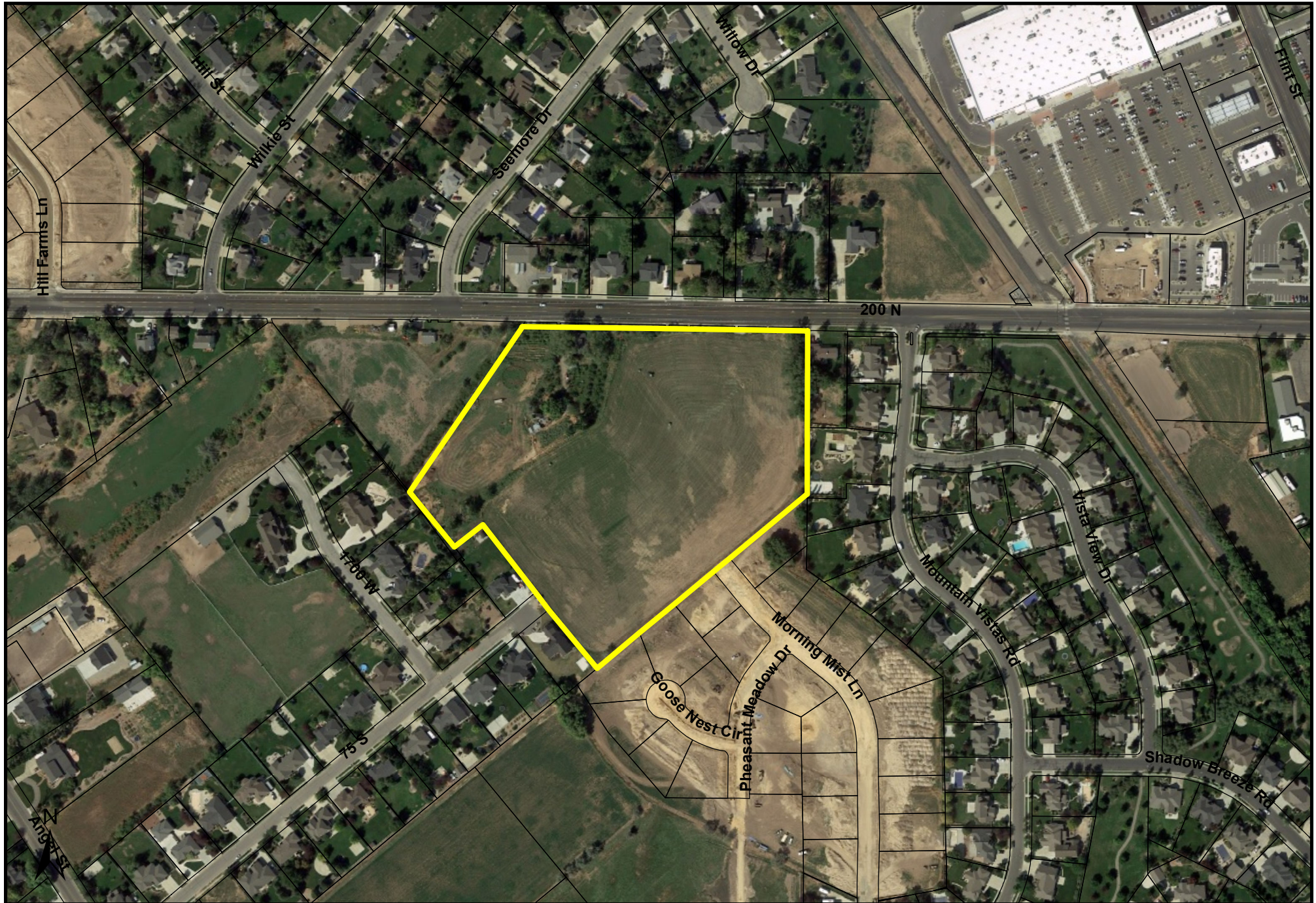
- 1) Approve the agreement and rezone ordinance as proposed.
- 2) Request changes prior to giving approval.
- 3) Deny the proposed rezone and development agreement.

Recommended Option: The Planning Commission voted unanimously to recommend denial of the proposed rezone, agreement, and preliminary plat. The Commission Expressed with the motion that was approved that they are in full support of the type of development being proposed, but rather than tabling this request as there was at least 1 item (connectivity) that the commission and applicants didn't think they would agree on, they opted to forward the proposal for the council.

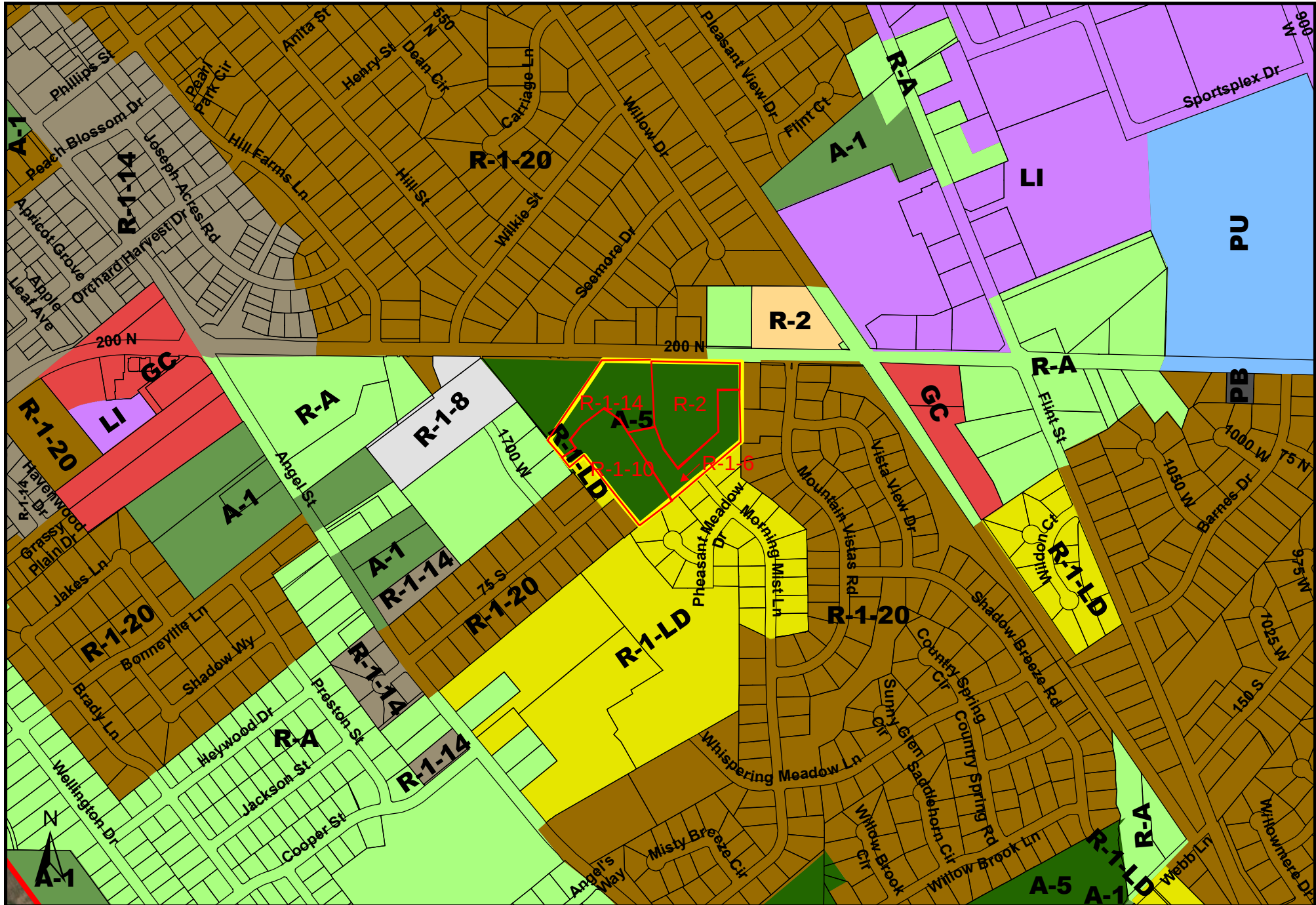
Fiscal Impact: N/A

Attachments: Location Map, Zoning Map, Preliminary Plat, Development Agreement, Zoning Ordinance.

1773 West 200 North



**1773 West 200 North - Rezone from A-5 to R-1-10, R-1-14, R-1-6, and R-2
to include the PRUD overlay zone**



811

Know what's below.
Call before you dig.

CALL BLUESTAKES
@ 811 AT LEAST 48 HOURS
PRIOR TO THE
COMMENCEMENT OF ANY
CONSTRUCTION.

BENCHMARK

EAST CORNER OF SECTION 32
TOWNSHIP 4 SOUTH, RANGE 1 WEST
SALT LAKE BASE AND MERIDIAN
ELEV = 4286.01'

LINE TABLE			LINE TABLE		
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
PL1	N39°27'33"W	30.54'	PL21	S89°34'26"E	8.00'
PL2	S49°59'55"W	16.85'	PL22	N0°25'34"E	5.00'
PL3	N36°29'56"W	226.90'	PL23	S1°59'58"E	5.00'
PL4	N34°29'23"E	11.81'	PL24	S89°34'26"E	8.00'
PL5	S0°25'34"W	5.00'	PL25	N0°25'34"E	5.00'
PL6	S89°34'26"E	8.00'	PL26	S89°34'26"E	72.02'
PL7	N0°25'34"E	5.00'	PL27	S0°25'34"W	5.00'
PL8	S89°34'26"E	38.76'	PL28	S89°34'26"E	8.00'
PL9	S0°25'34"W	5.00'	PL29	N0°25'34"E	5.00'
PL10	S89°34'26"E	8.00'	PL30	S0°25'34"W	2.50'
PL11	N0°25'34"E	5.00'	PL31	S89°34'26"E	8.00'
PL12	S89°34'26"E	28.42'	PL32	N0°25'34"E	2.50'
PL13	S0°25'34"W	5.00'	PL33	S89°34'26"E	5.51'
PL14	S89°34'26"E	25.13'			
PL15	N0°25'34"E	5.00'			
PL16	S0°25'34"W	7.00'			
PL17	S89°34'26"E	10.00'			
PL18	N0°25'34"E	7.00'			
PL19	S89°34'26"E	45.99'			
PL20	S0°25'34"W	5.00'			

SURVEY NARRATIVE

The purpose of this survey is to define the perimeter boundary of the parcel in preparation for possible development. The parcel is bounded on the North by 200 North Street and one the East, South and West by recorded subdivisions. These subdivisions were recreated based in found street monuments in each. Additionally, there were found boundary line agreements and deeds that establish the lines common to The Preserve Phase 1, Bingham Subdivision, Waldron Farms, Pleasant Cove Subdivision, the frontage along 200 North and that parcel currently owned by Carolyn M. Andersen (11-094-0100). See documents:

- Boundary Line Agreement – Entry No. 2823497, Book 6102, Page 144-140 (also being the North line of The Preserve Phase 1)
- Quit Claim Deed – Entry No. 3002352, Book 5703, Page 77-78
- Quit Claim Deed – Entry No. 3042807, Book 6841, Page 906-909
- Boundary Line Agreement – TO BE RECORDED

PROPERTY DESCRIPTION

A parcel of land, situate in the Southeast Quarter of Section 32, Township 4 North, Range 1 West, Salt Lake Base and Meridian, said parcel also located in Kaysville City, Davis County, Utah. Being more particularly described as follows:

Beginning at a point on the southerly line of 200 North Street and East line of said Section 32, said point being South 00°03'30" West 30.83 feet along the section line from the East Quarter Corner of said Section 32 and running thence:

South 00°03'30" West 429.76 feet along the East line of said Section 32 to the northerly line of The Preserve Phase 1;

thence South 50°00'00" West 695.90 feet along said northerly line of The Preserve Phase 1 to the easterly line of Lot 1, Bingham Subdivision;

thence North 39°49'25" West 194.69 feet along said easterly line of Lot 1, Bingham Subdivision to the northerly corner of Lot 1, point also being on the southerly line of 75 South Street;

thence North 38°11'06" West 55.03 feet to the northerly line of 75 South Street and the westerly corner of Lot 1, Bingham Subdivision;

thence along the boundary of said Lot 1, Bingham Subdivision the following (3) courses and distances:

- North 38°10'09" West 218.70 feet;
- South 51°47'49" West 91.12 feet;
- South 39°27'33" East 30.54 feet;

thence South 49°59'55" West 16.85 feet to the Southeast corner of Lot 101, Pleasant Cove Subdivision;

thence North 36°29'56" West 227.76 feet along the northerly lines of said Lot 101 and Lot 102, Pleasant Cove Subdivision to that BOUNDARY LINE AGREEMENT TO BE RECORDED;

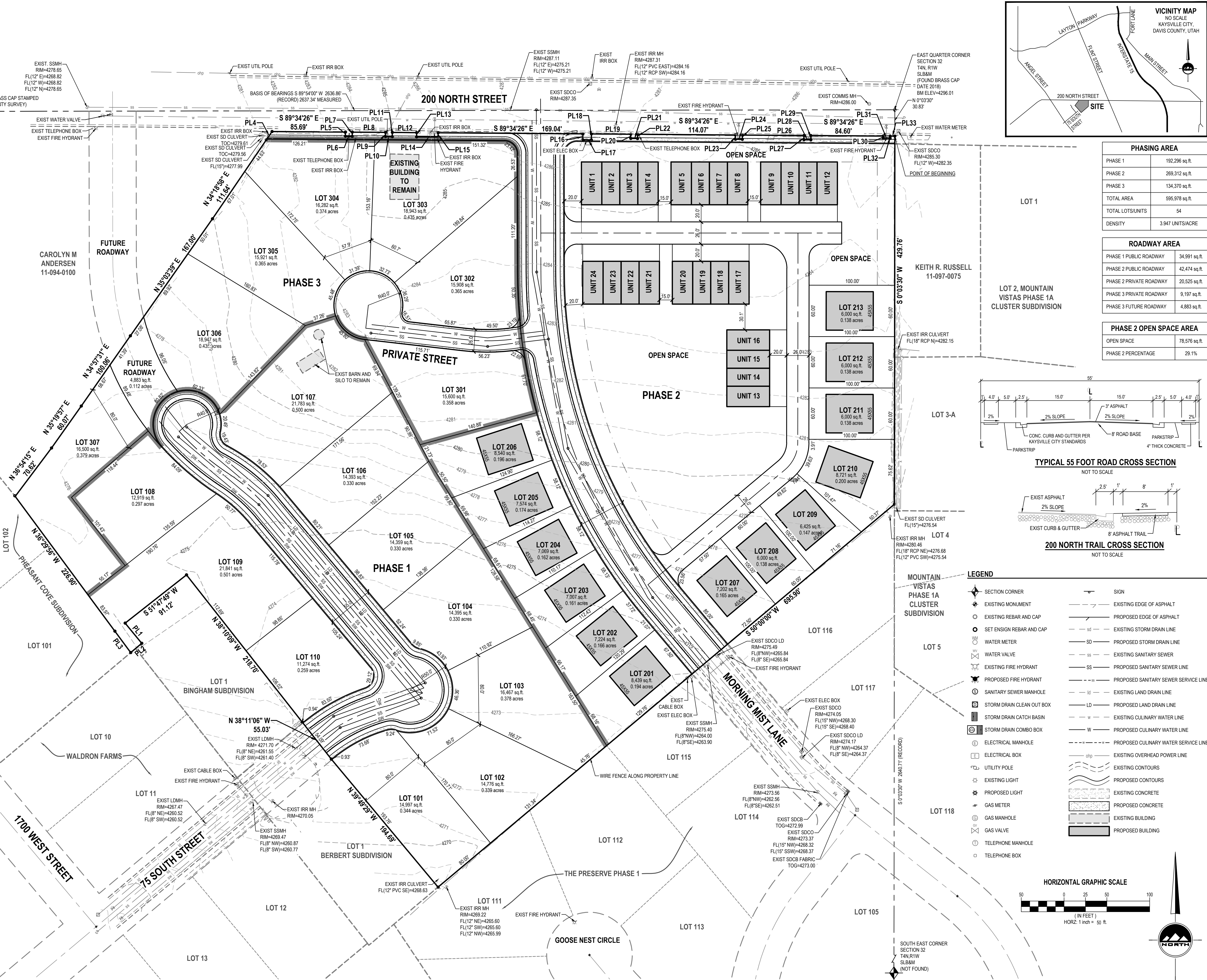
thence along said BOUNDARY LINE TO BE RECORDED the following six (6) courses and distances:

- North 36°54'15" East 71.75 feet;
- North 35°19'57" East 60.07 feet;
- North 34°57'31" East 100.06 feet;
- North 35°03'39" East 167.00 feet;
- North 34°18'58" East 111.64 feet;
- North 34°29'23" East 14.80 feet to the southerly line of 200 North Street and that property conveyed in Entry No. 3042807, Book 6841, Page 906-909;

thence along the northerly line that property conveyed in Entry No. 3042807 the following:

- South 89°34'26" East 85.69 feet;
- South 00°25'34" West 5.00 feet;
- South 89°34'26" East 8.00 feet;
- North 00°25'34" East 5.00 feet;
- South 89°34'26" East 38.76 feet;
- South 00°25'34" West 5.00 feet;
- South 89°34'26" East 5.00 feet;
- North 00°25'34" East 5.00 feet;
- South 89°34'26" East 28.42 feet;
- South 00°25'34" West 5.00 feet;
- South 89°34'26" East 25.13 feet;
- North 00°25'34" East 5.00 feet;
- South 89°34'26" East 10.00 feet;
- North 00°25'34" West 7.00 feet;
- South 89°34'26" East 45.99 feet;
- South 00°25'34" West 5.00 feet;
- South 89°34'26" East 8.00 feet;
- North 00°25'34" East 5.00 feet;
- South 89°34'26" East 72.02 feet;
- South 00°25'34" West 5.00 feet;
- South 89°34'26" East 8.00 feet;
- North 00°25'34" East 5.00 feet;
- South 89°34'26" East 84.60 feet;
- South 00°25'34" West 2.50 feet;
- South 89°34'26" East 8.00 feet;
- North 00°25'34" East 2.50 feet;
- South 89°34'26" East 5.51 feet to the point of beginning.

Contains: 596054 square feet or 13.684 acres.



When Recorded, Return to:
Kaysville City
Community Development Office
23 East Center Street
Kaysville, UT 84037

Affecting Tax Parcel No.: 11-098-0074

**DEVELOPMENT AGREEMENT
FOR A COMMON OPEN SPACE AND PRIVATE STREET SUBDIVISION**

THIS AGREEMENT is made and entered into this ____ day of _____, 2020 by and between Kaysville City, a municipal corporation organized and existing under the laws of the State of Utah (hereinafter the “City”), and Salt Grass Land and Cattle LLC (hereinafter the “Developer;”) (“Developer” includes successors and/or assigns of DEVELOPER), as follows:

RECITALS

WHEREAS, Developer is desirous of developing a residential subdivision (the “Subdivision”) on certain real property located in the City of Kaysville, County of Davis, State of Utah and more particularly described on the Property Location Map attached hereto as Exhibit A and the Area Description of Section 1 A.; and

WHEREAS, the purpose of this Agreement is to define the development standards, conditions and improvements, schedule for development of the Subdivision and other terms and conditions pursuant to which the Subdivision proposed by Developer is to be developed within the City; and

WHEREAS, the City is willing to grant a rezone of the property to include the R-1-10 with no PRUD (Planned Residential Unit Development) as the houses within that zone meet the underlying R-1-10 zone, and the R-1-14, R-1-6, and R-2 districts to include the PRUD (Planned Residential Unit Development) overlay upon approval of a final plat and to authorize the development of the subdivision proposed by Developer in conformance with this Agreement, City Ordinances, and applicable Utah law;

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth herein, and other good and valuable consideration, the sufficiency of which is hereby acknowledged, the parties agree as follows:

AGREEMENT

1. GENERAL DESCRIPTION.

A. Area Description. The property upon which the Subdivision shall be developed (the “Property”) is located as shown on the Property Location Map, a copy of which is attached as Exhibit A hereto and incorporated by reference herein. The property is further described as parcels # 110940096, 110940054, and 110940097.

B. Project Description. The project proposed by Developer is a common open space subdivision with private streets, which will consist of no more than 54 residential dwellings arranged in a manner similar to that included in the exhibit of this agreement.

At a yet unknown future date when Phase 2 and Phase 3 are developed, independent of each other, Developer will install an asphalt walking path in lieu of a concrete sidewalk along 200 N Street as indicated in the city’s active transportation plan. This walking path will be deeded to the city upon completion. Along 200 N Street, the deedline between the Development property and certain utility access points (phone, fire hydrant, power pole) is already deeded to the City. City agrees to allow Developer to pave over these city owned cutouts where not obstructed above ground to provide a straight access of the paved walkway along 200 N Street parallel to 200 N Street when constructed.

Phase 1 is intended to be developed immediately upon execution of this contract. The beginning time of Phase 2 is unknown, but currently is anticipated to be at least 2 years future from execution of this contract. All or part Phase 3 is also likely 2 years or more in the future, but exact timing for either Phase 2 or 3 cannot be determined or committed to at this time. Furthermore, Phases 2 and 3 are independent of each other and will likely be governed by separate HOA agreements with the occupants therein.

2. DEVELOPMENT STANDARDS AND GUIDELINES

A. Adoption of Development Standards. The City hereby adopts, as the development standards and guidelines for the Facility (the “Development Standards”), the following in addition to all other applicable City Ordinances, standards and guidelines:

- a. The Subdivision shall comply with the development standards set forth in Kaysville City Code 17-34-7 for required open space, setbacks from street improvements and other standards outlined therein.

Findings of Compatibility. In adopting the Development Standards identified in Section 2.A, the City hereby expressly finds that the development of the Subdivision , in conformance with the Development Standards and this Agreement, promotes the creation of a desirable residential development in an appropriate location. The City further finds that the development of the Subdivision, in conformance with the Development Standards and this Agreement, will not violate the general purpose, goals and objectives of the City Ordinances and any plans adopted by the Planning Commission and City Council of the City.

Subject to the Developer’s performance and compliance with the terms of this Agreement and City Ordinances in effect on the date of this Agreement, Developer’s rights to develop the Subdivision in accordance with the exhibits herein is vested.

Developer shall have the vested right to develop the property in accordance with the applicable land use ordinances and regulations of Kaysville City as established on the date of this agreement, as well as per the terms of this agreement and the exhibits attached hereto. The city’s future changes to laws and regulations regarding development are not applicable to this project and if zoning regulations change Developer is entitled to non-conforming use status and shall be grandfathered in on current rules and regulations as of the time of this agreement.

3. ON-SITE PROJECT IMPROVEMENTS

Developer shall construct and install all site improvements, including utilities, required for the Subdivision, at Developer's sole cost and expense, in compliance with approvals, and all applicable ordinances, regulations, standards and status of the City, the secondary water provider as applicable, The Central Davis Sewer District, other providers and the State of Utah.

4. OFF-SITE PROJECT IMPROVEMENTS

In accordance with applicable standards and subject to the design approval of the City Engineer, Developer shall construct and install street improvements, sidewalks, utilities, and drainage improvements, on 200 North Street, Morning Mist Lane, and 75 South Street with the construction of the on-site improvements.

As noted 1.B above, "sidewalk" along 200 North Street will be an asphalt walking path and will be installed when each of Phase 2 and 3 are constructed, independent of each other.

Developer intends to keep several lots in Phase 1 in agricultural production for an unknown time period. Developer agrees to place standard sidewalk on these lots when permits are approved to place homes on these lots after construction has completed on the homes without bond. Until homes are permitted on these lots, no sidewalk will be installed behind curb for these lots.

5. REPRESENTATIONS OF DEVELOPER

A. Authority. Developer hereby represents that is has authority to proceed with the Subdivision.

B. Ability. Developer represents that it has the ability to timely proceed with the development and construction of the Subdivision.

6. ASSIGNMENT

Developer may assign this Agreement to any other third party provided that the City consents to such assignment, which consent shall not be unreasonably withheld, upon a showing to the satisfaction of the City that such third party has the financial ability to perform Developer's obligations hereunder.

The City may withhold approval of assignment, without consequence, if the city reasonably believes that the anticipated assignee will be unable to meet the requirements of this agreement or any City ordinances.

Developer has the unrestricted right to assign the rights and obligations of the agreement to another entity as long as the ownership and owners are substantially similar.

Developer has the unrestricted right to sell or partner with any third party the rights or obligations of this agreement to another entity as long as the agreement remains substantially similar.

7. BINDING EFFECT

This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

8. ATTORNEY'S FEES

In the event that this Agreement or any provision hereof shall be enforced by an attorney retained by a party hereto, whether by suit or otherwise, the fees and costs of such attorney shall be paid by the party who breaches or defaults hereunder, including fees and costs incurred upon appeal or in bankruptcy court.

9. SEVERABILITY

If any term or provision of this Agreement shall, to any extent, be determined by a court of competent jurisdiction to be void, voidable, or unenforceable, such void, voidable or unenforceable term or provision shall not affect the enforceability of any other term or provision of this Agreement.

10. CAPTIONS

The section and paragraph headings contained in this Agreement are for the purposes of reference only and shall not limit, expand or otherwise affect the construction of any provisions hereof.

11. GOVERNING LAW

This Agreement and all matters relating hereto, shall be governed by, construed and interpreted in accordance with the laws of the State of Utah.

12. ENTIRE AGREEMENT

This Agreement, together with the exhibits attached hereto, constitutes the entire understanding and agreement by and among the parties hereto, and supersedes all prior agreements, representations or understandings by and among them, whether written or oral, pertaining to the subject matter hereof.

13. BREACH OF AGREEMENT

If either party is in breach of this agreement, the party in breach is to be given written notice of the breach by the non-offending party, and given 120 days, to cure or contest the fault, before this agreement can be terminated. Independent third-party arbitration is agreed to be the first path of mutual remedy to any breach. If third party mediation cannot remedy the fault then normal legal proceedings can proceed if needed to remedy the fault. Each party is responsible for the costs of their own legal fees.

14. AMENDMENT OR CANCELLATION

This agreement, or the terms thereof can be amended or cancelled upon the written agreement of both the Developer and the city.

15. GOOD FAITH

Developer and City will act in good faith and fair dealing in carrying out the intention of the agreement.

16. CERTIFICATE OF SATISFACTION

The City will issue a certificate of satisfaction to Developer upon completion of various phases of the development. As soon as one phase is completed the city issues a certificate indicating that everything in that phase is in compliance.

17. TIME IS OF THE ESSENCE

The City will diligently process and approve any additional discretionary approvals which are consistent with the terms of the agreement and exhibits. Developer will, likewise, diligently provide all legally required documentation to City as needed consistent with normal development guidelines and practices.

18. CANCELLATION

If at any point that Developer determines that for any reason it is not in the best interest of Developer or its owners to proceed with the development, Developer will not be required to move forward with the actual development of the property.

19. CONSTRUCTION

As used herein, all words in any gender shall be deemed to include the masculine, feminine, or neuter gender, all singular words shall include the plural, and all plural words shall include the singular, as the context may require.

20. AUTHORIZATION OF EXECUTION

A. City. The execution of this Agreement by the City has been authorized by the City Council of Kaysville City at a regularly scheduled meeting of that body, pursuant to the notice.

B. Developer. The execution of this Agreement has been duly authorized by the Developer.

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

DEVELOPER

ATTEST:

By: _____

TITLE

TITLE

KAYSVILLE CITY

ATTEST:

By:

Katie Witt
Mayor

Annemarie Plaizier
City Recorder

On the ____ day of _____, 2019, personally appeared before me KATIE WITT, and ANNEMARIE PLAIZIER, who being by me duly sworn did say, each for himself and herself that he, the said KATIE WITT, is the Mayor of Kaysville City, Davis County, State of Utah and that she, the said ANNEMARIE PLAIZIER, is the City Recorder of Kaysville City, and that the within and foregoing instrument was signed on behalf of the said Kaysville City by authority of the City Council of Kaysville City and said KATIE WITT and ANNEMARIE PLAIZIER, each duly acknowledged to me that the said Kaysville City executed the same and that the seal affixed is the seal of the said Kaysville City.

(SEAL)

STATE OF UTAH)

: SS.

COUNTY OF DAVIS)

On the ____ day of _____, 2020, personally appeared before me, _____, the signer of the foregoing Development Agreement for DEVELOPER, who duly acknowledged to me that he executed the same for and on behalf of DEVELOPER.

(SEAL)

STATE OF UTAH)

: SS.

COUNTY OF DAVIS)

Exhibit A

1773 West 200 North

Parcel ID 11-094-0096

Legal Description: BEG 0.62 CHAINS S FR THE NE COR OF THE SE 1/4 OF SEC 32-T4N-R1W, SLM; & RUN TH W 11.12 CHAINS; TH S 34^00' W 7.65 CHAINS; TH S 39^30' E 181.68 FT, M/L, TO THE NW'LY LINE OF FIRST PPTY DESC IN QC DEED RECORDED 10/28/2013 AS E# 2773940 BK 5883 PG 65; TH ALG SD PPTY THE FOLLOWING TWO COURSES: N 51^47'49" E 92.30 FT & S 38^12'11" E 219.64 FT TO THE NE COR OF BERBERT SUB; TH ALG SD SUB THE FOLLOWING 2 COURSES: S 38^11'52" E 55.03 FT & S 39^49'29" E 194.68 FT TO A BNDRY LINE AGMT RECORDED 09/15/2014 AS E# 2823497; SD PT IS ALSO AN OLD WIRE FENCE LINE; TH ALG SD FENCE N 50^00'00" E 695.89 FT; TH N 419.67 FT TO THE POB. CONT. 14.413 ACRES.

Parcel ID 11-094-0054

Legal Description: BEG AT A PT THAT LIES S 40.92 FT & W 733.92 FT & S 34^00'00" W 504.90 FT FR THE E 1/4 COR OF SEC 32-T4N-R1W, SLM; & RUN TH N 39^30'00" W 264.98 FT; TH S 52^00' W 1.0 FT, M/L, TO NE COR OF LOT 103, PHEASANT COVE SUB; TH ALG SD SUB S 38^50'51" E 251.91 FT; TH S 36^33'29" E 14.91 FT; TH S 36^33'29" E 212.92 FT; TH N 49^56'25" E 16.85 FT, M/L; TH N 39^30'00" W 214.22 FT TO THE POB. CONT. 0.077 ACRES

Parcel ID 11-094-0097

Legal Description: COM AT THE CENTER OF SEC 32-T4N-R1W, SLB&M, & S 89^43'14" E 1910.97 FT ALG THE 1/4 SEC LINE OF SD SEC 32 & DUE S 21.69 FT TO THE POB; SD PT BEING AT ENGINEER STATION 41+22.42, OFFSET 33.50 FT RIGHT FR THE 200 NORTH CENTERLINE; TH S 88^47'14" E 84.63 FT; TH S 01^12'46" W 5.00 FT; TH S 88^47'14" E 8.00 FT; TH N 01^12'46" E 5.00 FT; TH S 88^47'14" E 38.76 FT; TH S 01^12'46" W 5.00 FT; TH S 88^47'14" E 8.00 FT; TH N 01^12'46" E 5.00 FT; TH S 88^47'14" E 28.42 FT; TH S 01^12'46" W 5.00 FT; TH S 88^47'14" E 25.13 FT; TH N 01^12'46" E 5.00 FT; TH S 88^47'14" E 169.04 FT; TH S 01^12'46" W 7.00 FT; TH S 88^47'14" E 10.00 FT; TH N 01^12'46" E 7.00 FT; TH S 88^47'14" E 45.99 FT; TH S 01^12'46" W 5.00 FT; TH S 88^47'14" E 8.00 FT; TH N 01^12'46" E 5.00 FT; TH S 88^47'14" E 114.07 FT; TH S 01^12'46" W 5.00 FT; TH S 88^47'14" E 8.00 FT; TH N 01^12'46" E 5.00 FT; TH S 88^47'14" E 72.02 FT; TH S 01^12'46" W 5.00 FT; TH S 88^47'14" E 8.00 FT; TH N 01^12'46" E 5.00 FT; TH S 88^47'14" E 84.60 FT; TH S 01^12'46" W 2.50 FT; TH S 88^47'14" E 8.00 FT; TH N 01^12'46" E 2.50 FT; TH S 88^47'14" E 5.50 FT TO A PT, SD PT BEING AT ENGINEER STATION 48+48.59, OFFSET 33.50 FT RIGHT FR THE 200 NORTH CENTERLINE; TH S 00^21'17" W 7.41 FT; TH N 89^10'13" W 734.49 FT; TH N 34^49'47" E 14.79 FT TO THE POB. CONT. 0.16 ACRES

Image on following page.

1773 West 200 North



Exhibit B

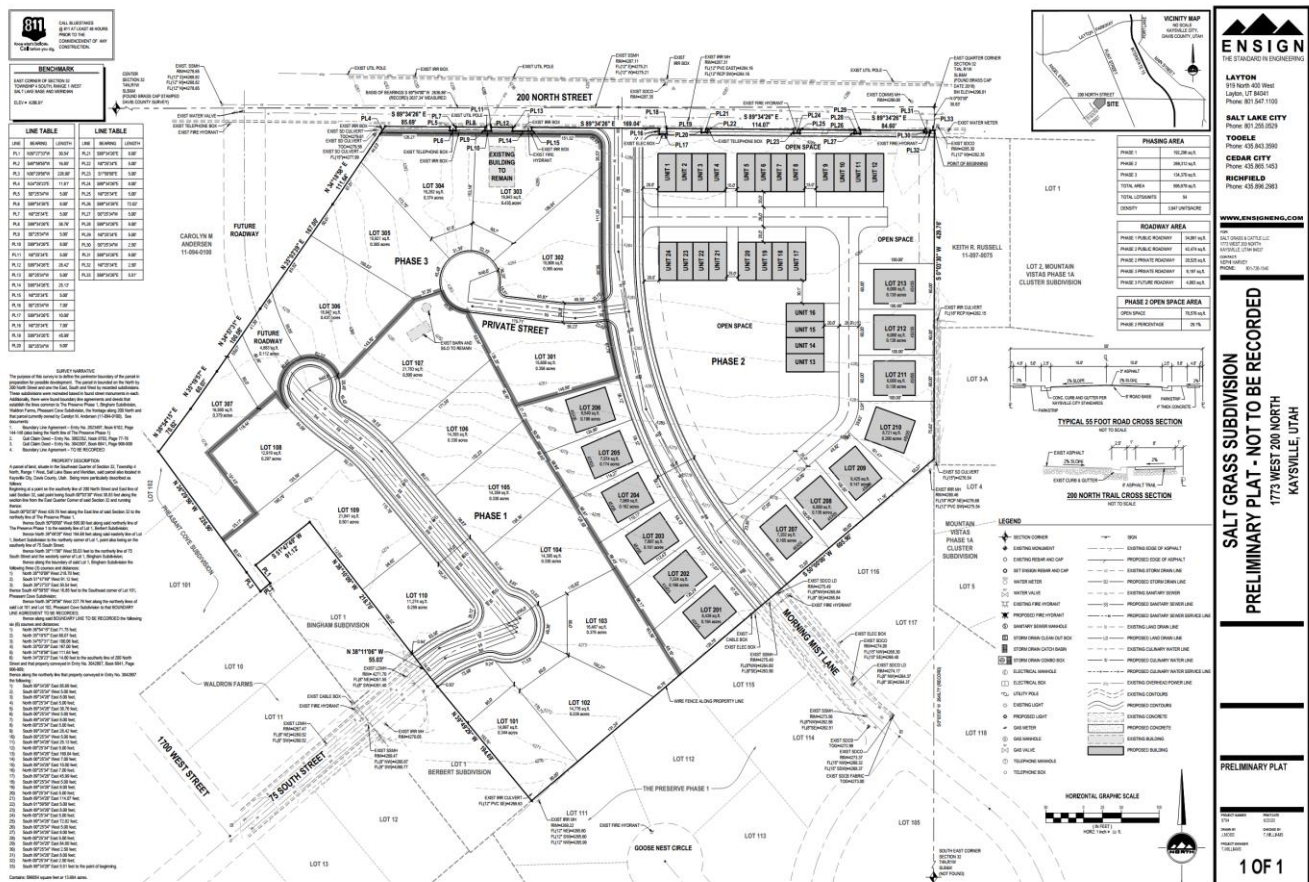
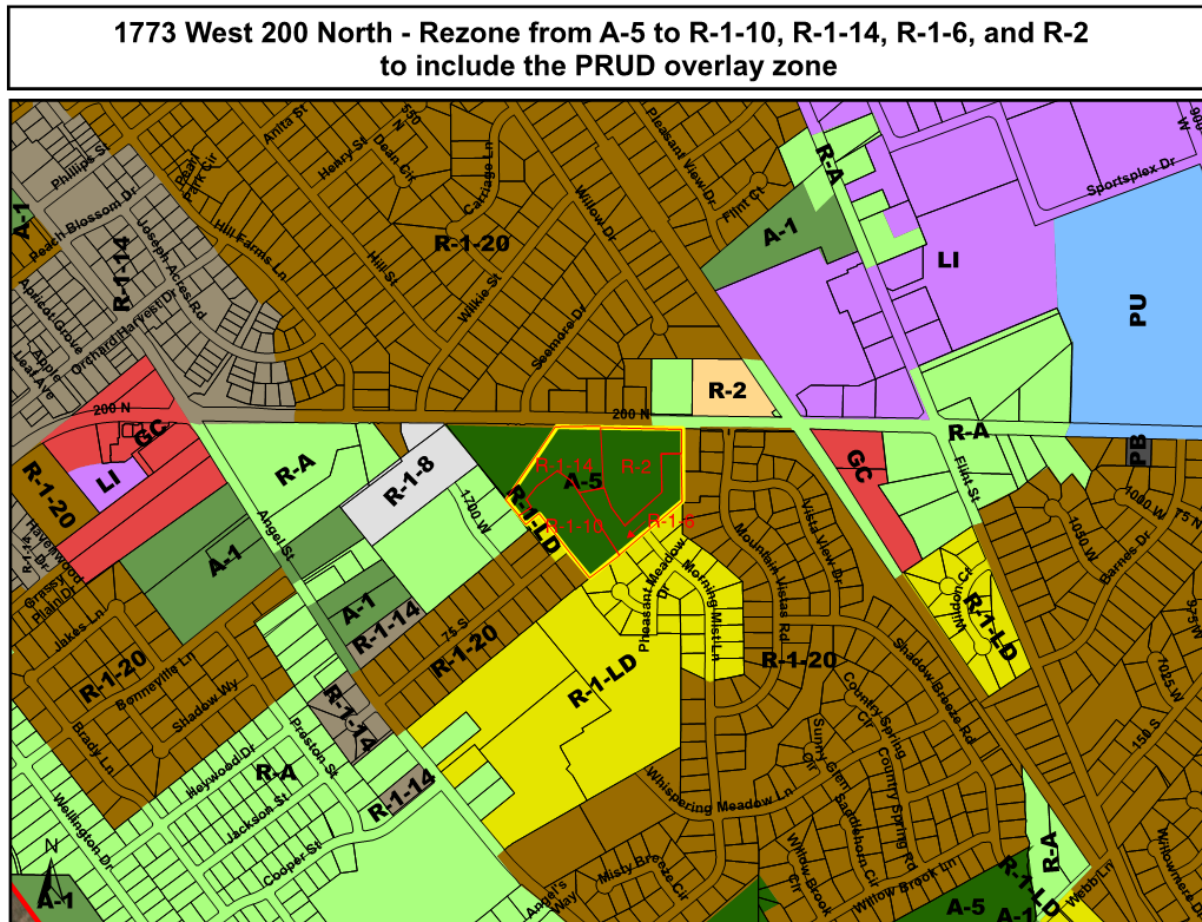


Exhibit C



ORDINANCE NO. 20-_____

AN ORDINANCE REZONING A CERTAIN PORTION OF KAYSVILLE CITY FROM THE KAYSVILLE CITY A-5 (HEAVY AGRICULTURE) ZONE TO THE KAYSVILLE CITY R-1-10, R-1-14, R-1-6 (SINGLE FAMILY) ZONES AND THE R-2 (ONE AND TWO FAMILY RESIDENTIAL) ZONE WITH THE PRUD (PLANNED RESIDENTIAL UNIT DEVELOPMENT) OVERLAY ZONE TO BE INCLUDED OVER EACH DISTRICT EXCEPT FOR THE R-1-10, HEREINAFTER FULLY DESCRIBED; PROVIDING FOR REPEALER; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, the City Council of Kaysville City, State of Utah, has determined in an open meeting to rezone certain real property by removing it from Kaysville City A-5 and placing it in Kaysville City R-1-10 and the R-1-14, R-1-6, R-2 zoning districts to include the PRUD overlay as outlined herein; and

WHEREAS, said meeting was duly and regularly held and the interested parties were given an opportunity to be heard; and

WHEREAS, the Kaysville City Planning Commission has made a recommendation to the City Council on said rezoning; and

WHEREAS, the City Council after due consideration of said rezoning has concluded that it is in the best interest of the City and the inhabitants thereof that said rezoning be accomplished;

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

SECTION I: Repealer. If any provisions of the City's Code previously adopted are inconsistent herewith they are hereby repealed.

SECTION II:

The real property as shown on the attached map, which is made a part hereof, containing approximately 14 acres, shall be and the same is hereby rezoned and the Zoning Map amended by removing the same from Kaysville City A-5 zone and placing the same in Kaysville R-1-10 and the R-1-14, R-1-6, R-2 zoning districts to include the PRUD overlay zoning district.

SECTION III: Severability. If any section, subsection, sentence, clause or phrase of this ordinance is declared invalid or unconstitutional by a court of competent jurisdiction, said

portion shall be severed and such declaration shall not affect the validity of the remainder of this ordinance.

SECTION VI:

This Ordinance shall take effect 30 days after final passage by the Kaysville City Council.

PASSED AND ADOPTED by the City Council of Kaysville City, Utah, this __th day of _____, 2020.

Katie Witt
Mayor

ATTEST:

Annemarie Plaizier
City Recorder

APPROVED AS TO FORM:

Nicholas C. Mills, City Attorney

CITY COUNCIL STAFF REPORT



COUNCIL MEETING DATE: July 2, 2020

TYPE OF ITEM: Action

PRESENTED BY: Josh Belnap

SUBJECT/AGENDA TITLE: Updated Construction Standards and Specifications and Excavation Permit

EXECUTIVE SUMMARY:

In 2016 Public Works started work on updating the Standards and Specifications of the Kaysville City Development Code. Prior to the start of this work, the City's standards were last updated in 1994 and were only available on paper copies. Since 2016, we have met with other Cities, consultants, UDOT officials, contractors and other City staff to help identify deficiencies and needed changes.

The standards include several sheets of drawings and details that have not gone through final review yet, but we would like to finalize the text portion while we work to finish the detail pages.

In addition, we have spent the last 9 months updating the current excavation permit after following a similar process and have included it as well, as the two support and work with each other.

Council Options: Approve/Recommend Changes

Recommended Options: Approve

Fiscal Impact & Fund Source for Recommended Action: NA

Attachments: Standards and Specifications, Excavation Permit

KAYSVILLE CITY DEVELOPMENT CODE



TECHNICAL SPECIFICATIONS
AND STANDARD DRAWINGS
FOR ALL DEVELOPMENT AND
CONSTRUCTION

SECONDARY WATER SPECIFICATION REFERENCES

DIVISION 1

GENERAL IMPROVEMENT REQUIREMENTS

1.01 SCOPE OF WORK:

This Division defines the general requirements for improvements to be built by the Developer or Subdivider or Contractor (“Developer”).

The improvements shall include all street improvements in front of all lots and along all dedicated streets to a connection with existing improvements of the same kind. Layout must provide for future extension to adjacent development and to be compatible with the contour of the ground for proper drainage. All water lines, sewer lines, power lines, secondary water lines, and any other buried conduit shall be installed to the boundary lines of the development.

1.02 CONSTRUCTION DRAWINGS:

Complete and detailed construction plans and drawings of all improvements shall be submitted to the City for review and approval prior to receiving final plat approval from the City. No construction shall be started until plans have been checked and approved by all responsible parties.

1.03 STANDARDS FOR CONSTRUCTION DRAWINGS:

The following instructions are for the purpose of standardizing the preparation of drawings to obtain uniformity in appearance, clarity, size, and style.

These plans and designs shall meet the standards defined in the specifications and drawings hereinafter outlined. The minimum information required on drawings for improvements are as follows:

All drawings and/or prints shall be clear and legible and conform to accepted engineering and drafting practices on a computer aided drafting program. Size of drawings shall be 22” x 34” with a 1-inch border on all sides.

A. In general, the following shall be included on drawings:

- (1) North Arrow (plan)
- (2) Scale and elevations referenced to State Plane datum
- (3) Stationing and elevations for profiles
- (4) Title block, located in lower right corner of sheet to include:
 - i. Name of City
 - ii. Project Title (subdivision, etc.)
 - iii. Specific type and location of work
 - iv. Space for approval signature of City Engineer and date
 - v. Name of engineer or firm preparing drawings with license number, stamp and signature

- B. Curb and gutter, drains and drainage structures, sidewalks and street surfacing drawings shall show:
- (1) Scale: No smaller than 1" = 50' horizontal and 1" = 5' vertical
 - (2) Both plan view and profiles must be shown for each side of the street; street centerline profile must be shown
 - (3) Stationing and top of curb elevations with curve data must be shown
 - (4) Flow direction and type of cross drainage structures at intersections with adequate flow line elevations
 - (5) Bench Mark (B.M.) location and elevation (use State Plane datum)
 - (6) Typical cross section for all street sizes and variations including pavement structure detail (thickness of granular subbase, base course, and asphalt surface course)
- C. Where applicable, Storm Water Pollution Prevention Plans (SWPPP) shall be required. The plan shall meet State criteria and show Best Management Practices (BMPs) that will be used for the construction project. The SWPPP shall be reviewed and approved by the Storm Water Official prior to work commencing.
- D. Sewer drawings shall conform to the applicable Sewer District Standards and show:
- (1) Scale: No smaller than 1" = 50' horizontal and 1" = 5' vertical (may be shown on street or utility drawings)
 - (2) Location, size, and slope of mains
 - (3) Manhole size, location, and flow line elevation
 - (4) Type of pipe
 - (5) Bench Mark (B.M.) location and elevation (use State Plane datum)
 - (6) An overall development plan view of the sewer (horizontal scale 1" = 100')
- E. Culinary water drawings shall show:
- (1) Scale: 1" = 100' horizontal; an overall development plan view
 - (2) Size and location of water mains, valves, hydrants, and any other culinary water structure
 - (3) Type of pipe
- F. Each set of plans shall be accompanied by a separate sheet of details for structures which are to be constructed. All structures shall be designed in accordance with minimum requirements established by Kaysville City Development Standards.
- (1) Drawing size: 22" x 34" (trim line)
 - (2) Scale of each detail

- (3) Title block, lower right hand corner (same format on all sheets) including the name of the development
- (4) Completely dimensioned and described

Six copies of the construction plans shall be submitted to the City. One copy will be stamped as “Approved” and returned to the Developer. This approved set shall be kept available at the construction site at all times. A reproducible and electronic copy of all drawings shall be submitted to the City at the time of the Preconstruction Conference. A reproducible and electronic copy of all drawings containing all “as constructed” information and a list detailing the location of all service laterals shall also be submitted to the City prior to the issuance of building permits.

1.04 PRECONSTRUCTION CONFERENCE:

A preconstruction conference shall be held before any excavation or other work is begun in the development. The meeting will be held at a time and location to be set by Kaysville City and will include: (a) City Engineer; (b) Developer; (c) development engineer; (d) all contractors and subcontractors involved with installing the development improvements; (e) a representative of Kaysville City Public Works and Power Departments; (f) a representative from Central Davis Sewer District; (g) a representative from Davis County Flood Control, where applicable; (h) representatives of utility companies including pressure irrigation, natural gas, telephone, and cable TV; and (i) a SWPPP Inspector.

The Developer shall give 5-days notice of when they will be ready for a Preconstruction Conference. Items pertaining to the construction and inspection of the development improvements will be discussed. Once work starts, an approved set of plans must be on site at all times.

1.05 PERMISSIBLE MATERIALS:

Permissible materials for use in constructing required improvements and related sections in the Technical Specifications are as follows:

- A. Water Lines
 - (1) C-900 PVC Pipe (Division 4a)
 - (2) High Density Polyethylene Pipe (Division 4b), when specifically approved by the City Engineer.
- B. Water Laterals/Services
 - (1) Copper Pipe (Division 4d)
 - (2) Poly Pipe Schedule 40
 - (3) Service Saddles (Division 4d)
- C. Sanitary Sewer Line – As required by the applicable Sewer District (either Central Davis Sewer District “CDSD” or North Davis Sewer District “NDSD”).

- D. Sanitary Sewer Laterals – As required by CDSO or NDSO.
- E. Storm Drain – Minimum 15-inch diameter, unless otherwise approved by the City Engineer
 - (1) Reinforced Concrete Pipe (RCP) (Division 3a)
 - (2) Double Wall Polyethylene Pipe (Division 3c), when specifically approved by the City Engineer.
 - (3) High Density Polyethylene Pipe (Division 4b), when specifically approved by the City Engineer.
- F. Gravity Flow Irrigation Lines
 - (1) Concrete Pipe (Division 3a)
 - (2) Double Wall Polyethylene Pipe (Division 3c), when specifically approved by the City Engineer.
 - (3) High Density Polyethylene Pipe (Division 4b), when specifically approved by the City Engineer.
- G. Subsurface Drain Lines – are generally tight joint pipe and shall be open jointed and/or perforated only when specifically approved by the City Engineer.
 - (1) Concrete Pipe (Division 3a)
 - (2) Perforated PVC (Division 3b)
 - (3) Perforated Polyethylene (Division 3c)
- H. Culinary Water Appurtenances–
 - (1) Water Meter Boxes and Lids
 - i. Concrete Boxes (Division 4d), when specifically approved by the City Engineer.
 - ii. Double Wall Polyethylene (Division 4d)
 - iii. Cast Iron Lids (Division 4d)
 - (2) Water Valves (Division 4c)
 - (3) Fire Hydrants (Division 4c)
- I. Secondary Water – As required by the applicable service provider.

1.06 INSPECTION:

All construction work involving the installation of improvements in development shall be subject to inspection by the City. It shall be the responsibility of the person responsible for construction to insure that inspections take place where and when required. Certain types of construction shall have continuous inspection, while others may have only periodic inspections.

- A. Continuous inspection shall be required on the following types of work:
 - (1) Laying of street asphalt surfacing
 - (2) Placing of concrete for curb and gutter, sidewalks, and other structures

- (3) Laying of sewer pipe, drainage pipe, water pipe, valves, hydrants and testing

B. Periodic inspections shall be required on the following:

- (1) Street grading and gravel base
- (2) Excavations for curb and gutter and sidewalks
- (3) Trenches for laying pipe
- (4) Forms for curb and gutter, sidewalks, and structures

On construction requiring continuous inspection, no work shall be done except in the presence or by permission of the City Public Works (PW) Inspector, or the applicable utilities inspector.

1.07 REQUESTS FOR INSPECTION:

Requests for inspections shall be made to the City by the person responsible for the construction. Requests for inspection on work requiring continuous inspection shall be made 3-working days prior to the start of work needing inspection. Notice shall also be given 24-hours in advance of the starting of work requiring periodic inspection.

1.08 CONSTRUCTION COMPLETION INSPECTIONS:

A written inspection request shall be made by email or letter to the PW Inspector, after the necessary construction work is completed before building permits can be issued. Any defective work or work that does not comply with the applicable standards shall be corrected by the Developer within a period of 35-days from the date on punch list. If items are found to still be incomplete, there will be a \$50.00 inspection fee charged to the Developer for the 2nd inspection and for every inspection thereafter.

Requests for inspection shall be made 3-working days prior to the needed inspection. Inspections shall require that all snow, ice or other visual obstructions be removed by the Developer from inspected items and surfaces before the inspection.

1.09 GUARANTEE OF WORK:

The Developer shall warrant and guarantee (and post bond in the amount of 10% of the estimated cost of improvements as approved by Kaysville City at the time of final approval) that the improvements provided for in the Subdivision Ordinance, and every part thereof, will remain in good condition during the warranty period. The Developer shall also make all repairs to and maintain the improvements and every part thereof in good condition during that time with no cost to the City. The guarantee hereby stipulated shall extend to and include, but shall not be limited to, the entire street base and all pipes, joints, valves, backfill and compaction, as well as the working surface, curbs, gutters, sidewalks, and other accessories that are or may be affected by the construction operations.

No more than 30 days before the conclusion of the warranty period, a written inspection request shall be made by email or letter to the PW Inspector. A punch list shall be generated and

delivered to the Developer listing any defective work or work that does not comply with the applicable standards. These items shall be corrected by the Developer, and a request for verification of punch list completion shall be made, via email or writing, to the PW Inspector. If items are found to still be incomplete, there will be a \$50.00 inspection fee charged to the Developer for the 2nd inspection and for every inspection thereafter.

If the Developer fails to do so within 15-days from the date of the service of such notice, the City Engineer may have such repairs made, and the cost of such repairs shall be paid by the Developer, together with 25% in addition thereto, as and for stipulated damages for such failure on the part of the Developer to make the repairs.

In order to receive final acceptance of improvements, the following criteria must be met:

- A. Completion of end of warranty period punch list items.
- B. PW inspector or their designee shall get signed approval from utility companies. This includes, but not limited to, Public Works, Power, CDSO or NDSO, the secondary water provider, and Davis County Flood Control.
- C. Notice of Termination (NOT) for Storm Water Pollution Prevention Plan (SWPPP) at the end of the warranty period.
- D. Conclusion of the one (1) year warranty period.

1.10 DEVELOPMENT SAFETY:

It shall be the responsibility of the Developer and/or his development representative to maintain and enforce all Federal, State, and Local safety codes involved with the development.

DIVISION 2a

TRENCH EXCAVATION AND BACKFILL

2a.01 GENERAL:

This Division covers the requirements for trenching and backfilling for underground utilities. Unless otherwise directed by the City Engineer, pipe shall be laid in an open trench. All incidental clearing, preliminary grading, structure removal, and benching shall be considered a part of the trenching operation.

2a.02 BARRICADES:

It is the Developer's responsibility to submit a traffic control plan to the City for approval at least 48-hours prior to digging, and shall not commence until City approval is received. Barriers shall be placed at each end of all excavations and at such places as may be necessary along excavations to warn all pedestrians and vehicular traffic of such excavations. Warning signs shall also be installed placed on both sides of overhead lines to warn workers, operators, truck drivers etc. of potential dangers. Lights or reflective barricades shall also be placed along excavations from one hour before sunset each day to one hour after sunrise of the next day until such excavations are entirely refilled, compacted, and surfaced or final graded. All excavations shall be barricaded in such a manner as to prevent persons from falling, walking, or otherwise entering any excavation in any street, roadway, parking lot, or any other area, public or private. Impacted residents, businesses or other parties shall be contacted no less than 24-hours prior to excavations that will impact utilities at or access to those properties.

2a.03 BLASTING:

Blasting will not be allowed except by permission from the City Engineer. The Developer shall comply with all laws, ordinances, and applicable safety code requirements and regulations relative to the handling, storage, and use of explosives and protection of life and property, and it shall be fully responsible for all damage attributable to its blasting operations. Excessive blasting or overshooting will not be permitted, and any material outside the authorized cross section which may be shattered or loosened by blasting shall be removed by the Developer.

2a.04 SHEETING, BRACING AND SHORING OF EXCAVATIONS:

Excavations shall be sheeted, braced, and shored as required to support the walls of the excavations, to eliminate sliding and settling and as may be required to protect the workmen, the work in progress, and existing utilities, structures and improvements. All such sheeting, bracing, and shoring shall comply with the requirements of the Utah Labor Commission, Occupational Safety and Health Act (OSHA), and accident prevention and safety provisions of the contract.

The Developer shall be fully responsible for the adequacy of methods and materials used in trench sheeting, bracing, shoring, and/or other systems provided to protect workmen. Injury to or

death of workmen resulting from inadequate trench safety measures shall be the full and complete responsibility of the Developer.

All damages resulting from lack of adequate sheeting, bracing, and shoring shall be the responsibility of the Developer, and the Developer shall affect all necessary repairs or reconstruction at its own expense resulting from such damage.

Sheeting or shoring that does not extend below the centerline of the pipe may be removed at the discretion and responsibility of the Developer after the trench backfill has been placed and compacted to a level 12-inches above the top of the pipe. Following removal of the sheeting or bracing, the trench shall be immediately backfilled and compacted or consolidated.

2a.05 CONTROL OF GROUNDWATER:

All trenches shall be kept free from water during excavation, fine grading, pipe laying and jointing, and pipe embedment operations. Where the trench bottom is mucky or otherwise unstable because of the presence of groundwater, and in all cases where the static groundwater is above the bottom of any trench or bell hole excavation, such groundwater shall be lowered to the extent necessary to keep the trench free from water and the trench bottom stable when the work within the trench is in progress. The discharge from excavation dewatering shall be conducted to natural drainage channels, gutters, or storm drains, in accordance with applicable water quality regulations and requirements. No sanitary sewer shall be used for disposal of trench water. If any evidence of contamination in the water based on olfactory or visual indication, cease excavation work until potential risks are evaluated. During evaluation, handle water as a contaminated material. Surface water shall be prevented from entering trenches.

2a.06 TRENCH EXCAVATION

Excavation for pipelines shall follow the line and grade shown on the approved plans. Trenches shall be excavated to the depths and widths required to accommodate construction of the pipelines, as follows:

A. Authorized Over-Excavation:

Excavation for trenches in ledge rock, cobble rock, stones, or other material unsatisfactory for pipe foundation shall extend to a depth of at least 6-inches below the bottom of the pipe. Where unstable earth or muck is encountered in the excavation at the grade of the pipe, a minimum of 12-inches below grade will be removed. Such over-excavation and placing imported special foundation material shall not be made except as directed by the City Engineer or their designee. Over-excavations not ordered, specified, or shown shall be handled the same as unauthorized over-excavation.

B. Unauthorized Over-Excavation:

Where any unauthorized excavation is carried below the elevation required to install the pipe to the grade shown on the plans, specified in these specifications or directed by the City Engineer, the excavation shall be backfilled in accordance with these specifications for “Imported Granular Material” and “Gravel Foundation for Pipelines and Pipeline Structures,” all at the Developer’s expense.

C. Trench Width:

The trench shall be excavated such that the pipe is always centered in the trench. The clear trench width at the horizontal diameter of the pipe must be equal to 18-inches on either side. If a trench is excavated to a greater width, the Developer will be required to restore the trench to an acceptable condition by following the steps outlined in these specifications for “Trenches in Embankments.”

Trench width for pipeline structures, valves, or other accessories shall be sufficient to leave at least 12-inches clear between their outer surfaces and the trench. Backfill with native soil or excavated spoils under structures, pipes or valves will not be permitted. Any unauthorized excess excavation below the elevation indicated for foundation of any structures shall be backfilled in accordance with these specifications for “Imported Granular Materials,” and “Gravel Foundation Pipelines and Pipeline Structures,” all at the Developer’s expense.

D. Trenches in Embankments:

Before laying pipes that are to be in fill or embankment areas, the embankment shall first be placed and compacted to the specified density to a depth of not less than 2-feet above the top of the proposed pipe. After placing and compacting the embankment, the trench for the pipe or conduit shall be excavated through the fill and fine graded and the pipe installed as specified.

E. Placement of Excavated Material:

All excess excavated material not fit for use in construction shall be hauled away from the construction site and disposed of in an area obtained by the Developer. The Developer shall be responsible for all rights-of-way, easements, and access associated with the disposal of excess excavated material. It shall further be responsible to obtain permission from the property owner or person(s) controlling the property where the Developer plans to dispose of excavated material.

Otherwise, excavated material shall be piled in a manner that will not endanger the work, will avoid obstructing sidewalks, driveways and streets and will comply with all applicable water quality rules and regulations. Gutters and irrigation ditches shall allow for street drainage and continuity of irrigation.

Grading of the area surrounding the trenches, including excavated materials, shall be performed as necessary to prevent surface water from flowing into trenches, or other excavations. Control of groundwater shall be as specified herein.

F. Fine Grading the Trench Bottom:

The bottom of the Trench shall be accurately graded and prepared to provide uniform bearing and support on undisturbed soil or compacted gravel foundation at every point along the entire length of the pipe. Bell holes shall be hand excavated after the trench bottom has been fine graded. Bell holes shall be only large enough to permit making the joints and to assure that the pipe is not supported by any portion of the joint or bell.

2a.07 TRENCH BACKFILL

A. Imported Granular Material:

(1) General. When the excavated materials are not satisfactory for pipe foundation, pipe bedding or backfill, as determined by the Engineer, the Developer shall provide imported granular material. Imported granular material for foundation, bedding and backfill shall be cleaned, crushed rock or gravel free from sod, vegetation and other organic or deleterious material. Slag will not be allowed in the pipe zone.

(2) Gradation. Imported granular material shall conform to the following gradation specifications:

- i. Gravel Foundation Material:
100% passing a 1-inch screen and 5% passing a ½-inch screen.
- ii. Gravel Bedding Material:
Ductile Iron or concrete pipe – 100% percent passing a 1-inch screen and 5% passing a No. 4 sieve.

- iii. PVC or polyethylene pipe:
100% passing a ¾-inch screen and 5% passing a No. 4 sieve.
- iv. Copper tubing:
100% passing a ¾-inch screen and 5% passing a No. 4 sieve.
- v. Gravel Backfill Material:
100% passing a 3-inch square sieve and 15% passing a 200 mesh sieve.

B. Gravel Foundation for Pipe and Pipeline Structures:

The Gravel foundation is defined as fill material below the bottom of the pipe, pipeline structure or accessory. Wherever the trench is excavated below the subgrade for the pipe, pipeline structure, or accessory the subgrade shall be replaced with crushed rock or gravel to an elevation sufficiently above the bottom of the pipe so that the trench can be properly fine graded as specified and the pipe will be true to line and grade. The gravel material shall be deposited over the entire trench width in layers. The layers shall have a maximum un-compacted thickness of 6-inches. The gravel material is to be compacted using vibratory equipment to 96% of the maximum index density of the material as determined by ASTM D4253 (Relative Density Test).

The material shall then be fine graded in accordance with the specification for Fine Grading herein.

C. Pipe Bedding:

Pipe bedding is fill material in the pipe zone. The pipe zone is defined as the area from the bottom of the pipe to 12-inches above the top of the pipe, or any area within 12-inches of any pipe, pipeline structure or accessory.

Excavated materials consisting of loose earth, sand or gravel having no material larger than 2-inches in any dimension, no greater than 1-inch in any dimension for PVC pipe or no greater than ½-inch for copper tubing may be considered for use as pipe bedding material. The City Engineer, or their designee, shall qualify excavated material for use as bedding.

If the excavated materials are not satisfactory, imported granular material as specified herein shall be used for pipe bedding. When gravel is used around pipe bedding, the Developer must place a fabric over gravel layer to keep fines from washing into gravel, creating a void. Fabric must be at least a 200-pound tensile strength woven ground stabilization fabric (in

accordance with AASHTO M 288) and shall be installed on top of gravel prior to sand or road base placement.

After the pipe is in place, bedding material shall be placed at any point below the mid-point of the pipe simultaneously and uniformly on both sides of the pipe in uncompacted layers not to exceed 10-inches or 1/2 the diameter of the pipe, whichever is less. Bedding material shall be placed with care to prevent displacement of or damage to the pipe during the bedding process, with each 10-inch lift then compacted. Material shall be scattered alongside the pipe and not dropped into the trench in compact masses.

That section of the pipe zone from the mid-point of the pipe to 12-inches above the top of the pipe shall then be filled with bedding materials and compacted to the density required in these specifications for backfill in this section of the trench.

D. Trench Backfill:

The trench shall be backfilled from 12-inches above the top of the pipe to the natural surface level or the finished grade specified on the approved drawings. Excavated materials consisting of good sound earth, sand, and gravel may be used for backfill. No oil cake, asphalt, concrete, rocky, clay or other lumpy material may be used in the backfill. Perishable or spongy material shall not be used in backfilling. The City Engineer, or their designee, shall qualify excavated material for use as backfill.

Under pavements, shoulders or other surface improvements, the in-place density shall be a minimum of 96% of laboratory standard maximum dry density as determined by AASHTO T-180 (ASTM D1557). In shoulders and other areas the in-place density shall be a minimum of 90% of the maximum dry density as determined by AASHTO T-180 (ASTM D1557). The backfill in the trenches shall be either compacted or consolidated according to the requirements of the materials being placed.

Density and compaction testing shall be done at a frequency of one test per 200-feet of trench length.

E. Compaction of Backfill:

Backfill shall be compacted by means of sheepfoot rollers, pneumatic tire rollers, vibrating rollers, or mechanical tampers. Where compaction methods are used, the material shall be placed at a moisture content and un-compacted lift thickness such that after compaction the required relative densities will be produced. In no event will the material be placed in lifts which, prior to compaction, exceed 12-inches.

Prior to compaction each layer shall be evenly spread, moistened, and worked by disk harrowing or other equivalent means.

If the required relative density is not attained, test sections will be required to determine any adjustments in compaction equipment, thickness of layers, moisture content, and compactive effort necessary to attain the specified minimum relative density.

Approval of equipment, thickness of layers, moisture content, and compactive effort shall not be deemed to relieve the Developer of the responsibility for attaining the specified minimum relative densities. The Developer, in planning its work, shall allow sufficient time to perform the work connected with test sections and to permit the City Engineer or their designee to make tests for relative densities.

F. Consolidation of Backfill:

Consolidation of backfill, when authorized by the City Engineer, shall be accomplished by those methods in which water is used as the essential agent to produce the desired condition of density and stability. Water shall be applied by jetting unless flooding is specifically authorized by the City Engineer. Authorization by the City Engineer to use any consolidation method does not relieve the Developer of their responsibility to meet the specified density requirements. Water for consolidation shall be furnished by the Developer at their expense.

In the jetting procedure the jets shall be inserted at not more than 4-foot intervals (staggered throughout the length of the backfilled area) and shall be slowly forced down to the bottom of the trench or to of the previously jetted lift and held until the trench backfill is completely saturated with water. Depth of a jetted lift shall not exceed 5-feet.

The minimum size of hose equipment shall be such as to provide a minimum pressure of 35-psi at the discharge. The jet shall be rigid iron pipe with a minimum diameter of 1-inch.

After the water-settled trench has set for several days, any depression in the trench shall be filled, mounded over and wheel rolled to compact the material thus placed.

All precautions necessary shall be taken by the Developer to prevent damage and movement (including floating) of the pipeline, structures, and existing adjacent improvements and utilities. The allowance of the use of consolidation methods shall not be construed as guaranteeing or implying that the use of such methods will not result in damage to the adjacent

ground. The Developer shall make their own determination in this regard and shall assume all risks and liability for settlement or lateral movement of adjacent ground, or improvements, or utilities, either on the surface of the ground or underground.

2a.08 TRENCH CROSSINGS AND EASEMENTS:

At road crossings or where existing driveways occur on a road, the Developer shall make provisions for trench crossings either by means of backfills, tunnels, or temporary bridges.

When excavating within easements, the Developer shall carefully remove all shrubs, fences, and other above ground items, carefully cut and remove any lawn sod and remove the topsoil for a depth of at least 12-inches (or the depth of the actual topsoil if less than 12-inches with the width of the lawn sod and/or topsoil removal being at least 2-feet wider (1-foot each side) than the excavated trench width and excavated material pile). The lawn sod and topsoil material shall be piled separately from and shall not be mixed with the remainder of the excavated material.

When working in already developed areas on private property the City Engineer may require that following completion of the backfilling and the compaction of the trench, the Developer shall replace topsoil, lawn sod, shrubs, fences, and other items that may have been removed from within the easement area and clean up and remove any rocks, dirt or any other debris that remain from the construction work. When required, the Developer shall obtain a release from the property owner stating that the repairs have been made to the satisfaction of the Owner. A copy of said release shall be delivered to the City Engineer.

2a.09 RESTORATION OF CONSTRUCTION SITE:

During the progress of the work, the Developer shall clean up all construction debris, excess excavation and construction materials, and shall restore all fences, irrigation structures, ditches, culverts, and similar items. The Developer shall stockpile the excavated trench material so as to do the least damage to adjacent grassed areas, or fences, regardless of whether these are on private property or public rights of way. All excavated materials shall be removed from grassed and planted areas and these surfaces shall be left in a condition equivalent to their original surface and free from all rocks, gravel, boulders, or other foreign materials.

2a.10 DEVELOPER'S RESPONSIBILITY:

The Developer will be responsible to see that the backfilling, consolidation and compaction are properly and adequately done. Settlement of trenches within a period of 1-year after final acceptance of the project, shall be considered incontrovertible evidence of inadequate compaction, and the Developer shall be responsible for correcting the condition in accordance with the provisions of these Specifications, including the replacement of the surface materials. The Developer is responsible to maintain and repair any problems caused by them to adjoining properties.

2a.11 KAYSVILLE CITY POWER AND LIGHT UNDERGROUND CONDUIT REQUIREMENTS:

The Developer is responsible for installing conduit for road crossings. The properties should be marked and radius for corners marked and staked. A representative from Kaysville City Power and Light (Power) will mark crossing for the Developer. The Developer is required to dig a trench 4-feet deep and stub 8-feet from the back of curb for future tie-in of conduit. The Developer will seal both ends of conduit crossing with conduit seal.

Prior to the digging of the trench for the conduit system, the Developer will have curb and gutter in with property marks on curb and property stakes in back of properties. The Developer shall excavate a serviceable trench 4-feet deep and 13-feet from the center of trench to the back of curb, exposing the road crossing conduit for Power (offsets may vary depending on type of subdivision). A serviceable trench is one that is level, does not have sidewalls that are collapsing, and does not having ponding water. A representative from Power shall determine if a trench is serviceable or not, and shall require issues to be remedied before being accepted as serviceable.

Once the trench is deemed serviceable, Power will install the conduit, according to their availability. Power shall be the only utility allowed in this trench, and will be notified prior to any changes or if problems arise, and will be responsible to approve any changes prior to them being incorporated and/or made.

Backfilled trenches should have the center of the conduit, or conduit bundles, located 13-feet behind the curb. Material used for backfill of the trench must not pose a risk of damaging the conduit during placement, compaction or loading. If backfill material is not suitable, as determined by Power, sand may be required to “shade” the conduit to help protect it from damage before backfilling the trench. Any broken, damaged or defective conduit shall be excavated by the Developer and repaired by Power. Once any necessary repairs are made, the Developer will be responsible to then backfill and make any other necessary repairs to complete the work.

DIVISION 2b

EARTHWORK

2b.01 GENERAL:

This Division defines the requirements for excavation and backfill for structures, construction requirements for embankments and fills, and subgrade preparation for pavements and other surface improvements.

2b.02 EXCAVATION FOR STRUCTURES:

Where suitable subgrade soils exist structures shall be founded on undisturbed original subsoil. All unauthorized excavation below the specified subgrade shall be replaced with concrete, monolithic with that of the slab above or with coarse gravel thoroughly compacted into place.

Subgrade soils for structures not suitable for proper support shall be replaced with firm, dense, thoroughly compacted and consolidated material free from mud and muck. Coarse gravel or crushed stone may be used for subsoil reinforcement if satisfactory results can be obtained thereby. Such material shall be applied in thin layers, each layer being embedded in the subsoil by thorough tamping. All excess soil shall be removed to compensate for the displacement of the gravel or crushed stone and the finished elevation of any subsoil reinforced in this manner shall not be above the specified subgrade elevation.

2b.03 BACKFILL AROUND STRUCTURES:

Backfill around structures shall be placed to the lines shown on the drawings, or as directed. After completion of foundation footings and walls and other construction below the elevation of the final grades, and prior to backfilling, all forms shall be removed and the excavation shall be cleaned of all trash and debris. Material for backfilling shall consist of suitable excavated material or imported sand, gravel, or other suitable material, and shall be placed in lifts which will allow the densities to be achieved and which in any event shall not exceed 8-inches in uncompacted thickness. Each layer shall be compacted by hand or machine tampers or by other suitable equipment to a density equal to 96% of maximum dry density as measured by AASHTO T-180 (ASTM D1557).

2b.04 CONSTRUCTION OF EMBANKMENTS AND FILLS:

Unsuitable materials, such as roots, vegetation, or other organic material that occur in the foundations for embankments and fills shall be removed by clearing, stripping, and/or grubbing. Where suitable materials occur after stripping, the foundation shall be scarified to a depth of not less than 6-inches, and the loosened material shall be moistened and compacted as hereinafter specified for each layer. All materials in embankments and fills shall be placed, moistened, and compacted as provided in the following paragraphs.

When the embankment or fill exceeds the amount of excavation, sufficient additional material shall be obtained from borrow pits provided by the Developer. All material proposed to be imported shall be subject to the review and approval of the Engineer or their designee prior to starting of hauling operations.

The materials used for embankment and fill construction shall be free from sod, grass, trash, clods, rocks larger than 8-inches in diameter, and all other material unsuitable for construction of compacted fills.

Grading of completed embankments and fills shall bring the surfaces to a smooth, uniform condition with final grades being within 0.1-foot of the design grade.

2b.05 COMPACTING EARTH MATERIALS:

The material shall be deposited in horizontal layers having a thickness of not more than 10-inches prior to being compacted as hereinafter specified; provided that when mechanical equipment is used for placing and compacting the material on a sloping foundation, the layers may be placed parallel to the foundations. The distribution of materials shall be such that the compacted material will be homogeneous and free from lenses, pockets, or other imperfections.

Prior to and during compaction operations, the material shall have the optimum moisture content required for the purpose of compaction, and the moisture content shall be uniform throughout the layers, insofar as practicable. The moisture shall be controlled at two percent plus or minus of the optimum moisture as determined by AASHTO T-180 (ASTM D1557). Moistening of the material shall be performed at the site of excavation, but such material shall be supplemented as required by sprinkling at the site of construction. If the moisture content is more than optimum for compaction, the compaction operations shall be delayed until such time as the material has dried to the optimum moisture content. When the material has been conditioned as hereinbefore specified, the backfill or embankment shall be compacted as follows:

- A. All trenches in the City Right of Way (typically under roadways and extending one foot beyond the proposed back of walk and under sidewalks and drive approaches to at least one foot each side of the edge of the slab), the fill or embankment material shall be compacted to a density equal to not less than 96% of maximum dry density as measured by AASHTO T-180 (ASTM D1557).
- B. Other fills and embankments not listed above shall be compacted to a density equal to not less than 90% of maximum dry density, as measured by AASHTO T-180 (ASTM D1557).

DIVISION 3a

CONCRETE PIPE

3a.01 GENERAL:

This Division covers the requirements for concrete pipe materials and installation in sanitary sewer, storm drain, and other gravity line construction. For information regarding requirements for sanitary sewer, refer to the standard drawings and specifications of either the Central Davis Sewer District or North Davis Sewer District, depending on the location.

3a.02 PIPE:

Concrete pipe used in sewer line, storm drain line and other gravity line construction shall be reinforced concrete pipe for 15-inch and larger. The minimum size for storm drain pipes is a 15-inch inside diameter pipe, unless otherwise instructed by the City Engineer. (See Sewer District standards for minimum pipe sizes for sanitary sewer lines.):

A. Reinforced Concrete Pipe:

All reinforced concrete pipe used in the construction shall be of the rubber gasket type, bell and spigot joint design, conforming to the requirements of the latest revision of ASTM C76. Pipe class shall be as shown on the approved set of plans. The minimum joint length of all pipe provided shall be 90-inches.

B. Bell and Spigot Joints:

Bell and spigot joints, including rubber gaskets, shall conform to the requirements of the latest revision of ASTM C443. The pipe joint shall be so designed as to provide for self centering, and when assembled, to compress the gasket to form a watertight seal. The gasket shall be confined in a groove on the spigot, so that pipe movement or hydrostatic pressure cannot displace the gasket.

C. Tracer Wire:

All non-conductive pipes require a tracer wire (12 gauge) for locating purposes placed on top of pipe from manhole to manhole. Where splices are to be made, a water tight splice kit must be used. See Drawings for tracer wire installation. Tracer wire tail length must not exceed 2-feet.

3a.03 PIPE LAYING:

All concrete pipe installation shall proceed upgrade on a stable foundation, with joints closely and accurately fitted. Rubber gaskets shall be fitted properly in place, and care shall be taken in

joining the pipe units to avoid twisting of gaskets. Joints shall be clean and dry, and a joint lubricant as recommended by the pipe supplier shall be applied uniformly to the mating joint surfaces to facilitate easy positive joint closure.

Pipe shall be installed with uniform bearing under the full length of the barrel, with suitable excavations being made to receive pipe bells.

Select material shall be compacted around the pipe to firmly bed the pipe in position. If adjustment of position of a pipe length is required after being laid, it shall be removed and re-jointed as for a new pipe. When laying is not in progress, the ends of the pipe shall be closed with a tight-fitting stopper to prevent the entrance of foreign material.

In addition to the above requirements, all pipe installation shall comply with the specific requirements of the pipe manufacturer.

3a.04 GRAVEL FOUNDATION FOR PIPE:

Wherever the subgrade material does not afford a sufficiently solid foundation to support the pipe and superimposed load, or where groundwater must be drained, the subgrade shall be excavated to such depth as may be necessary and replaced with crushed rock or gravel compacted into place.

Gravel for concrete pipe foundation shall be clean crushed rock or gravel with 100% passing a 1-inch screen and 5% passing a No. 4 sieve.

3a.05 INSTALLATION REQUIREMENTS FOR LINE AND GRADE:

All concrete pipes shall be installed accurately to the defined line and grade with the following limits:

Variance from established line and grade shall not be greater than 1/16-inch per inch of pipe diameter in 10-feet, and not to exceed 1/2-inch in 10-feet, provided that such variation does not result in a level or reverse sloping invert; provided also that variation in the invert elevation between adjoining ends of pipe, due to non concentricity of joining surface and pipe interior surfaces, does not exceed 1/64-inch per inch of pipe diameter, or 1/2-inch maximum.

3a.06 PIPE BEDDING:

All pipe shall be protected from lateral displacement and possible damage resulting from impact or unbalanced loading during backfilling operations by being adequately bedded. Bell holes shall be excavated so that only the barrel of the pipe receives bearing from the trench bottom.

Pipe bedding materials placed at any point below the mid-point of the pipe shall be deposited and compacted in layers not to exceed 10-inches in uncompacted depth. Deposition and compaction of bedding materials shall be done simultaneously and uniformly on both sides of the pipe. Compaction shall be accomplished with hand or mechanical compactors. All bedding materials

shall be placed in the trench in such a manner that they will be scattered alongside the pipe and not dropped into the trench in compact masses. Bedding materials shall be loose earth, free from lumps; sand or gravel, free from rocks larger than 2-inch diameter. All materials shall be free from roots, sod, or other deleterious material.

In the event trench materials are not satisfactory for pipe bedding, modified bedding will be required. Modified bedding shall consist of placing compacted granular material on each side of and to the level of 12-inches above the top of the pipe.

Modified bedding material shall be graded as follows: 100% passing a 1-1/2-inch screen and 5% passing a No. 4 sieve. If gravel is used to bed pipe, then at least a 200-pound tensile strength woven ground stabilization fabric (in accordance with AASHTO M 288) should be installed on top of gravel prior to sand or road base placement.

3a.07 TESTS:

The Developer will be required to conduct an air test and displacement test in the presence of the City Engineer or representative. If these tests prove to be inconclusive, any or all of the other required tests shall be conducted in the presence of the City Engineer or representative. Tests shall be performed as follows:

A. Displacement Test:

In conducting the displacement test a light will be flashed between manholes or, if the manholes have not as yet been constructed, between the locations of the manholes, by means of a flashlight or by reflecting sunlight with a mirror. If the illuminated interior of the pipe shows broken, misaligned, or displaced pipe or other defects, the defects designated by the City Engineer shall be remedied at the Developer's expense.

B. Infiltration Test:

The Developer shall furnish labor, equipment, and materials, including pumps, and shall assist the City Engineer in making infiltration tests of the completed line before it can be placed into service. The Developer shall furnish and install the measuring weirs or other measuring devices. The length of line to be tested at any time shall be subject to the approval of the City Engineer. The maximum allowable infiltration shall not exceed 150-gallons per inch diameter per mile per 24-hours for all installed pipe. If the quantity of infiltration is in excess of the maximum allowable, the leaking joints shall be repaired to the satisfaction of the City Engineer at the expense of the Developer.

C. Exfiltration Test:

The Developer shall furnish labor, equipment, and materials, including pumps, and shall assist the City Engineer in making exfiltration tests of the completed

line before it can be placed into service. The length of line to be tested at one time shall be limited to the length between adjacent manholes. The maximum allowable exfiltration shall not exceed 150-gallons per inch diameter per mile per 24-hours for all installed pipe. The end of the line which projects into the manhole shall be plugged. The pipe shall then be filled with water from the upper manhole, and the line maintained under a light pressure of 4-feet of head. The inflow of water necessary to maintain this head shall be recorded as the leakage of the system. If the quantity of exfiltration is in excess of the maximum allowable, the leaking joints shall be repaired to the satisfaction of the City Engineer at the expense of the Developer.

D. Air Testing:

The Developer or their representative (a qualified firm or individual agreed upon by the City Engineer and the Developer) shall furnish labor, equipment, and materials, including pumps and compressors, and shall perform, in the presence of the City Engineer, air tests of the completed pipe before it can be placed in service. Each section of sanitary sewer pipeline between manholes shall be tested after all the 4-inch service laterals (and plugs) have been installed. Each test section shall be pressurized to 4.0-psi. For the purpose of stabilizing the air pressure in each test section, the 4.0-psi pressure shall be maintained for a 2-minute period. Each test section shall then be re-pressurized to 4.0-psi for a period of 4-minutes. The test section shall be accepted if, after 4-minutes, the pressure gauge indicates 3.5-psi or greater. Failure of the Developer's testing equipment to properly function shall render the test unacceptable. All faulty sections of pipeline shall be repaired and retested until the minimum air testing requirements have been met.

E. Camera Inspection Test:

The Developer or their representative shall hire a qualified firm or individual to clean and then inspect, via camera, the entire length of the piping, and provide a digital copy of the video recording of that inspection on a thumb drive to the PW Inspector for review. At the City's discretion, any defects found with the pipe, its function or installation will be fixed at the Developer's expense. Pipes shall be left clean and free of debris.

DIVISION 3b

PVC PLASTIC PIPE FOR GRAVITY LINES

3b.01 GENERAL:

This Division covers the requirements for PVC plastic pipe materials and installation of main line storm drain, land drain, and other gravity line construction. For information regarding requirements for sanitary sewer, refer to the standard drawings and specifications of either the Central Davis Sewer District or North Davis Sewer District, depending on the location.

3b.02 PIPE:

PVC gravity pipe and fittings shall conform to ASTM D3034, for diameters from 4-inch to 15-inch and ASTM F679 for 18-inch to 27-inch, with integral bell gasket joints. Rubber gaskets shall be factory installed and conform to ASTM F477. Pipe shall be made of PVC plastic having a cell classification of 12454A or 13364B (with minimum tensile modulus of 500,000-psi) as defined in ASTM D1784 and shall have a SDR of 35, and minimum pipe stiffness of 46-psi according to ASTM D2412.

Pipe shall be installed in compliance with ASTM D2321 and the manufacturer's requirements. Land drain pipes will be white or green in color, and shall include locating tape labeled "LAND DRAIN" placed 2-feet above the top of the pipe, including laterals within the right of way.

3b.03 FITTINGS:

Fittings shall be made of PVC plastic conforming to ASTM D1784, have a cell classification as outlined in ASTM D3034.

3b.04 PIPE LAYING:

All pipe installation shall proceed upgrade on a stable foundation, with joints closely and accurately fitted. Joints shall be clean and dry, and a joint lubricant as recommended by the pipe supplier shall be applied uniformly to the mating joint surfaces to facilitate easy positive joint closure.

Pipe shall be installed with uniform bearing under the full length of the barrel, with suitable excavations being made to receive pipe bells.

Select material shall be compacted around the pipe to firmly bed the pipe in position. Haunching material (bed to springline) should be carefully worked under the haunches of the pipe and compacted from the pipe to the trench wall or 2-1/2-pipe diameters on each side of the pipe to ensure support. If adjustment of position of a pipe length is required after being laid, it shall be removed and re-jointed as for a new pipe. When laying is not in progress, the ends of the pipe shall be closed with a tight-fitting stopper to prevent the entrance of foreign material.

All non-conductive pipes require a 12 gauge tracer wire for locating purposes placed on top of pipe from manhole to manhole. Where splices are to be made, a water tight splice kit must be used. Tail length on tracer wire shall not exceed 2-feet. See the Standard Drawings for details on tracer wire installation.

In addition to the above requirements, all pipe installation shall rigidly adhere to the specific requirements of the pipe manufacturer.

3b.05 GRAVEL FOUNDATION FOR PIPE:

Wherever the subgrade material does not afford a sufficiently solid foundation to support the pipe and superimposed load, or where groundwater must be drained, the subgrade shall be excavated to such depth as may be necessary and replaced with crushed rock or gravel compacted into place.

Gravel for PVC pipe foundation shall be clean crushed rock or gravel with 100% passing a 1-inch screen and 5% passing a No. 4 sieve.

3b.06 INSTALLATION REQUIREMENTS FOR LINE AND GRADE:

All PVC pipe shall be installed accurately to the defined line and grade with the following limits:

Variance from established line and grade shall not be greater than 1/16-inch per inch of pipe diameter in 10-feet, and not to exceed 1/2-inch in 10-feet, provided that such variation does not result in a level or reverse sloping invert; provided also that variation in the invert elevation between adjoining ends of pipe, due to non concentricity of joining surface and pipe interior surfaces, does not exceed 1/64-inch per inch of pipe diameter, or 1/2-inch maximum. Ponding of 1/4-inch or more of water in a belly in the pipe, shall be dug up and fixed.

3b.07 PIPE BEDDING:

All pipe shall be protected from lateral displacement and possible damage resulting from impact or unbalanced loading during backfilling operations by being adequately bedded.

A groove shall be excavated in the bottom of the trench to receive the bottom quadrant of the pipe. Before preparing the groove, the trench bottom shall be excavated or filled and compacted to an elevation sufficiently above the grade of the pipe so that, when completed, the pipe will be true to line and grade. Bell holes shall be excavated so that only the barrel of the pipe receives bearing from the trench bottom.

Pipe bedding materials placed at any point below the mid-point of the pipe shall be deposited and compacted in layers not to exceed 10-inches in uncompacted depth. Deposition and compaction of bedding materials shall be done simultaneously and uniformly on both sides of the pipe. Compaction shall be accomplished with hand or mechanical compactors. All bedding materials shall be placed in the trench in such a manner that they will be scattered alongside the pipe and not dropped into the trench in compact masses. Bedding materials shall be gravel, free from

rocks larger than 1-inch diameter. All materials shall be free from debris, roots, sod, or other deleterious material.

In the event trench materials are not satisfactory for pipe bedding, modified bedding will be required. Modified bedding shall consist of placing compacted granular material on each side of and to the level of 12-inches above the top of the pipe.

Modified bedding material shall be graded as follows: 100% passing a 1-1/2-inch screen and 5% passing a No. 4 sieve. Gravel shall be used to bed pipe, then at least a 200-pound tensile strength woven ground stabilization fabric (in accordance with AASHTO M 288) shall be installed on top of gravel prior to sand or road base placement.

3b.08 TESTS:

The Developer shall be required to conduct a camera investigation. The Developer or their representative shall hire a qualified firm or individual to clean and then inspect, via camera, the entire length of the piping, and provide a digital copy of the video recording of that inspection on a thumb drive to the PW Inspector for review. At the City's discretion, any defects found with the pipe, its function or installation will be fixed at the Developer's expense. Pipes shall be left clean and free of debris.

3b.09 MANHOLE CONNECTIONS:

PVC pipe connections to manholes shall be achieved by use of manhole coupling adapters, rubber ring waterstops, or rubber boots with 300-series nonmagnetic corrosion-resistant steel bands. PVC may not be grouted directly to concrete.

DIVISION 3c

CORRUGATED POLYETHYLENE PIPE

3c.01 GENERAL:

This Division covers the requirements for corrugated polyethylene pipe with integrally formed smooth interior for use in ditch piping, storm drain, and other gravity line construction with water tight joints. All pipe shall be smooth bore double wall unless an alternate is specifically authorized in writing by the City Engineer.

3c.02 PIPE:

Corrugated polyethylene (PE) pipe and fittings shall conform to ASTM F667, for diameters from 3-inch to 6-inch and ASTM F667 for 8-inch to 24-inch, with gasketed PVC thermo-molded joints and fittings manufactured in accordance with ASTM D3034. Rubber gaskets shall be factory installed and conform to ASTM F477. Other applicable documents include:

ASTM Standards

D618	Methods of Conditioning Plastics and Electrical Insulating Materials for Testing
D1248	Specifications for Polyethylene Plastics Molding and Extrusion Materials
D2412	Test Method for External Loading of Plastic Pipe by Parallel-Plate Loading
D2444	Test Method for Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)
F412	Definitions of Terms Relating to Plastic Piping Systems
F449	Recommended Practice for Subsurface Installation of Corrugated Thermoplastic Tubing for Agricultural Drainage or Water Table Control

AASHTO Standards

M252	Corrugated Polyethylene Drainage Tubing
M294	Corrugated Polyethylene Pipe, 12-inch to 36-inch Diameter

Pipe shall be installed in compliance with the manufacturer's requirements.

3c.03 FITTINGS:

Fittings shall be water tight rubber gasket fittings made of PVC plastic conforming to ASTM D1784, have a cell classification as outlined in ASTM D3034.

3c.04 PIPE LAYING:

All pipe installation shall proceed upgrade on a stable foundation, with joints closely and accurately fitted. Joints shall be clean and dry, and a joint lubricant as recommended by the pipe supplier shall be applied uniformly to the mating joint surfaces to facilitate easy positive joint closure.

Pipe shall be installed with uniform bearing under the full length of the barrel, with suitable excavations being made to receive pipe bells.

Select material shall be compacted around the pipe to firmly bed the pipe in position. Haunching material (bed to springline) should be carefully worked under the haunches of the pipe and compacted from the pipe to the trench wall or 2-1/2-pipe diameters on each side of the pipe to ensure support. If adjustment of position of a pipe length is required after being laid, it shall be removed and re-jointed as for a new pipe. When laying is not in progress, the ends of the pipe shall be closed with a tight-fitting stopper to prevent the entrance of foreign material.

All non-conductive pipes require a tracer wire (12 gauge) for locating purposes placed on top of pipe from manhole to manhole. Where splices are to be made, a water tight splice kit must be used. Tail length on tracer wire shall not exceed 2-feet. See Standard Drawings for details on tracer wire installation.

In addition to the above requirements, all pipe installation shall rigidly adhere to the specific requirements of the pipe manufacturer.

3c.05 GRAVEL FOUNDATION FOR PIPE:

Wherever the subgrade material does not afford a sufficiently solid foundation to support the pipe and superimposed load, or where groundwater must be drained, the subgrade shall be excavated to such depth as may be necessary and replaced with crushed rock or gravel compacted into place.

Gravel for corrugated PE pipe foundation shall be clean crushed rock or gravel with 100% passing a 1-inch screen and 5% passing a No. 4 sieve.

3c.06 INSTALLATION REQUIREMENTS FOR LINE AND GRADE:

All corrugated PE pipe shall be installed accurately to the defined line and grade with the following limits:

Variance from established line and grade shall not be greater than 1/16-inch per inch of pipe diameter in 10-feet, and not to exceed 1/2-inch in 10-feet, provided that such variation does not result in a level or reverse sloping invert; provided also that variation in the invert elevation between adjoining ends of pipe, due to non concentricity of joining surface and pipe interior surfaces, does not exceed 1/64-inch per inch of pipe diameter, or 1/2-inch maximum.

3c.07 PIPE BEDDING:

All pipe shall be protected from lateral displacement and possible damage resulting from impact or unbalanced loading during backfilling operations by being adequately bedded.

Bell holes shall be excavated so that only the barrel of the pipe receives bearing from the trench bottom.

Pipe bedding materials placed at any point below the mid-point of the pipe shall be deposited and compacted in layers not to exceed 10-inches in uncompacted depth. Deposition and compaction of bedding materials shall be done simultaneously and uniformly on both sides of the pipe. Compaction shall be accomplished with hand or mechanical compactors. All bedding materials shall be placed in the trench in such a manner that they will be scattered alongside the pipe and not dropped into the trench in compact masses. Bedding materials shall be loose earth, free from lumps; sand or gravel, free from rocks larger than 1-inch diameter. All materials shall be free from roots, sod, or other deleterious material.

In the event trench materials are not satisfactory for pipe bedding, modified bedding will be required. Modified bedding shall consist of placing compacted granular material on each side of and to the level of 12-inches above the top of the pipe.

Modified bedding material shall be graded as follows: 100% passing a 1-1/2-inch screen and 5% passing a No. 4 sieve. If gravel is used to bed pipe, then at least a 200-pound tensile strength woven ground stabilization fabric (in accordance with AASHTO M 288) shall be installed on top of gravel prior to sand or road base placement.

3c.08 TESTS:

The Developer will be required to conduct an air test and displacement test in the presence of the City Engineer or representative. If these tests prove to be inconclusive, any or all of the other required tests shall be conducted in the presence of the City Engineer or representative. Tests shall be performed as follows:

F. Displacement Test:

In conducting the displacement test a light will be flashed between manholes or, if the manholes have not as yet been constructed, between the locations of the manholes, by means of a flashlight or by reflecting sunlight with a mirror. If the illuminated interior of the pipe shows broken, misaligned, or displaced pipe or other defects, the defects designated by the City Engineer shall be remedied at the Developer's expense.

G. Infiltration Test:

The Developer shall furnish labor, equipment, and materials, including pumps, and shall assist the City Engineer in making infiltration tests of the completed line

before it can be placed into service. The Developer shall furnish and install the measuring weirs or other measuring devices. The length of line to be tested at any time shall be subject to the approval of the City Engineer. The maximum allowable infiltration shall not exceed 150-gallons per inch diameter per mile per 24-hours for all installed pipe. If the quantity of infiltration is in excess of the maximum allowable, the leaking joints shall be repaired to the satisfaction of the City Engineer at the expense of the Developer.

H. Exfiltration Test:

The Developer shall furnish labor, equipment, and materials, including pumps, and shall assist the City Engineer in making exfiltration tests of the completed line before it can be placed into service. The length of line to be tested at one tie shall be limited to the length between adjacent manholes. The maximum allowable exfiltration shall not exceed 150-gallons per inch diameter per mile per 24-hours for all installed sewer pipe. The end of the line which projects into the manhole shall be plugged. The pipe shall then be filled with water from the upper manhole, and the line maintained under a light pressure of 4-feet of head. The inflow of water necessary to maintain this head shall be recorded as the leakage of the system. If the quantity of exfiltration is in excess of the maximum allowable, the leaking joints shall be repaired to the satisfaction of the City Engineer at the expense of the Developer.

I. Air Testing:

The Developer or their representative (a qualified firm or individual agreed upon by the City Engineer and the Developer) shall furnish labor, equipment, and materials, including pumps and compressors, and shall perform, in the presence of the City Engineer, air tests of the completed pipe before it can be placed in service. Each section of sanitary sewer pipeline between manholes shall be tested after all the 4-inch service laterals (and plugs) have been installed. Each test section shall be pressurized to 4.0-psi. For the purpose of stabilizing the air pressure in each test section, the 4.0 psi pressure shall be maintained for a two-minute period. Each test section shall then be repressurized to 4.0 psi for a period of 4-minutes. The test section shall be accepted if, after 4-minutes, the pressure gauge indicates 3.5-psi or greater. Failure of the Developer's testing equipment to properly function shall render the test unacceptable. All faulty sections of pipeline shall be repaired and retested until the minimum air testing requirements have been met.

J. Camera Test:

The Developer or their representative shall hire a qualified firm or individual to clean and then inspect, via camera, the entire length of the piping, and provide a digital copy of the video recording of that inspection on a thumb drive to the PW Inspector for review. At the City's discretion, any defects found with the pipe, its

function or installation will be fixed at the Developer's expense. Pipes shall be left clean and free of debris.

3c.09 MANHOLE CONNECTIONS:

Corrugated PE pipe connections to manholes shall be achieved by use of manhole coupling adapters, rubber ring waterstops, or rubber boots with 300-series nonmagnetic corrosion-resistant steel bands or concrete collars on the exterior and grouted on the interior.

DIVISION 3d

MANHOLES

3d.01 GENERAL:

This Division covers the requirements for manhole materials and installation. Manholes shall be installed at the locations and at the depth shown on the Drawings. Manholes shall be furnished complete with new cast iron rings and covers. Recycled rings and covers will not be accepted.

3d.02 CONCRETE BASES:

The manholes shall be furnished without bases.

3d.03 WALL AND CONE SECTIONS:

All manholes shall be precast, sectional, reinforced concrete pipe of either 48-inch or 60-inch inside diameter, as specified. Both cylindrical and taper sections shall conform to all requirements of ASTM C478 for Precast Reinforced Concrete Manhole Sections with the following exceptions:

- A. The throat section of the manhole shall be adjustable, by use of manhole sections, up to 48-inches in height.
- B. The taper section shall be a maximum of 3-feet in height, shall be of concentric conical design, and shall taper uniformly to 30-inches inside diameter.
- C. The pipe used in the base section shall be furnished in section lengths of 1, 2, 3, and 4-feet as required. The base section shall be notched to fit over the pipe as shown on the Standard Drawings without bearing directly on the pipe. A 6-inch gravel base shall be furnished under the base section.

All joint surfaces of precast sections and the face of the manhole base shall be thoroughly cleaned and wet prior to setting precast sections. All joints, including grade rings shall be set in mortar consisting of 1-part cement and 1-1/2-parts sand with sufficient water added to bring the mixture to workable consistency, or the joints shall be sealed with a butyl rubber gasket that is permanently flexible and non shrinking. All joints shall be water tight and free from appreciable irregularities in the interior wall surface.

3d.04 CIRCULAR FLAT COVERS:

Where the line does not have sufficient depth to permit using a taper section a circular flat cover reinforced to meet H-20 Highway Loading shall be used. The cover shall have a 30-inch concentric opening for a standard ring and cover.

3d.05 IRON CASTING:

All iron casting shall conform to the requirements of ASTM A48 (Class 30) for grey iron castings.

Rings and covers shall be equal to the 24-inch standard with machined bearing surfaces and with cover weight of 150-pounds and ring weight of 233-pounds. Each cover shall contain one pick hole but shall not contain air vent holes. In addition to the foundry name and year of manufacture, the cover shall be marked for the type of line. All rings and covers shall be new; recycled or reused rings and covers shall not be allowed. Rings must be 6-inches tall; no flat rings will be permitted.

All manhole rings shall be carefully set to the grade shown on the Standard Drawings or as directed by the City Engineer. Manholes placed in asphalt surfacing shall require a concrete ring around the cast iron ring and cover to be 1/4-inch below the existing pavement. There must be a round concrete collar, 18-inches from edge of ring, or 12-inches if fiber mesh is used. The depth of the concrete collar shall be at least 12-inches.

3d.06 PRECAST MANHOLE BOXES:

Precast manhole boxes shall be constructed to the dimensions and requirements shown on the plans. Shop drawings shall be submitted for approval of the City Engineer, prior to construction of the precast manhole boxes.

Concrete and reinforcing steel shall comply to all requirements outlined in Division 5c and Division 5d, respectively.

All pressurized manholes as shown on the drawings shall have the manhole ring cast into the concrete lid.

3d.07 BACKFILL:

Backfill around manholes shall be per Division 2b. Compaction should be tested around all manholes.

3d.08 Sewer Manholes

All sanitary sewer improvements should be per CSDS or NDS standards. The manholes should be concentric without any steps. The manhole lids should be stamped "Sewer" and not be vented. There must be no infiltration of groundwater or no exfiltration of water or sewer from the manholes. The manhole should be clean of debris. There should be only 12-inches or less of grade rings. The pan of the sewer manhole, where pipe comes in, must be grouted.

DIVISION 3e

LAND DRAIN SERVICE LATERALS

3e.01 GENERAL:

This Division covers the requirements for land drain and footing drain service laterals. They shall be constructed with the materials specified and at the locations shown on the Drawings or at the actual location established during construction by the City Engineer or their representative.

3e.02 SPECIFIC REQUIREMENTS:

Service laterals shall be constructed with materials and procedures stated in Division 3b. All laterals shall be 4-inches in diameter unless shown otherwise.

A. EXTENT OF LATERALS:

Service laterals shall extend from the land drain main to a point 10-feet beyond the street right of way line. A 2-inch by 4-inch by 6-foot marker, with the top 12-inches painted orange for footing drains, shall be installed to clearly mark the end of each lateral line. Laterals shall be capped with a cap suitable to withstand the test pressure. An identifying tape that says "Land Drain" must go the length of the lateral and wrap around the very end of the pipe.

Unless otherwise specified and approved in writing by the City Engineer, land drain main lines are maintained by the City, and service laterals are maintained by the property owner.

B. EXCAVATION AND BACKFILL:

Trench excavation, bedding and backfill shall conform to the applicable paragraphs of Division 2a. Gravel shall be used to bed the pipe, then at least a 200-pound tensile strength woven ground stabilization fabric (in accordance with AASHTO M 288) shall be installed on top of gravel prior to sand or road base placement. Fabric shall extend from the main to the edge of the City right of way.

C. PIPE:

Pipe used for service laterals shall be white PVC Plastic Pipe (unless shown otherwise) conforming to ASTM D3034 SDR 35.

D. CONNECTION TO MAIN:

Connections to the main shall be made with preformed wye's for new mains. Connections to existing mains shall be by means of a stainless steel saddle for concrete pipe or a gasketed tee for PVC pipe. The recommendations of the manufacturer of the materials used shall be carefully followed. All lateral connections into new land drain mains shall be through preformed wye fittings installed in the main line or with field installed service saddles (gasketed and clamped). All connections by field installed service saddles on new or existing sewer mains shall be done with a tapping machine and all required fittings and materials. Connections shall be at the locations shown in the approved set of plans or as staked in the field. Lateral connections shall be made at the 10 o'clock or 2 o'clock positions on the main. New laterals shall be located within 10-feet.

E. TESTING:

The service laterals shall be tested as a part of the footing drain main to which they are connected.

F. DAMAGE AND REPAIR OF MAINS AND APPURTENANCES

The Developer shall be responsible for the protection of existing improvements, and any damage resulting from their operations shall be their sole responsibility.

Damage to the mains and/or appurtenances shall be repaired by acceptable and approved methods.

DIVISION 3f

HIGH DENSITY POLYETHYLENE PRESSURE PIPE (for non-pressure applications)

3f.01 GENERAL:

This Division covers furnishing and installing High Density Polyethylene (HDPE) pressure pipe and fittings to the lines and grades shown on the Drawings and/or established in the field for non-pressure applications. See Division 4b for pipe specifications.

DIVISION 4a

PVC PRESSURE PIPE

4a.01 GENERAL:

This Division covers furnishing and installing PVC pressure pipe (as part of the City drinking water distribution system) to the lines and grades shown on the approved drawings and/or established in the field, and all flushing, testing, and repairing required to ensure adequate and safe operation of the water system. Minimum pipe size for culinary water main line is 8-inch diameter, and 6-inch diameter for fire lines, unless otherwise shown and approved by City Engineer. For information regarding furnishing and installing irrigation PVC pressure pipe, please see the standard drawings and specifications of Hights Creek Irrigation, Davis and Weber Canal Company or Benchland Water, depending on the location.

4a.02 MATERIALS:

Pipe for the transmission and distribution of water shall be manufactured in accordance with ANSI/AWWA C900, "AWWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch, for Water". The PVC pipe shall have a cast-iron-pipe-equivalent outside diameter. PVC pipe 14-inches and larger shall be manufactured in accordance with ANSI/AWWA C905, "AWWA Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14-inch through 36-inch." All PVC pipe 4-inch and larger shall be SDR 18 with a working pressure of 150-psi. Pipe smaller than 4-inch shall be Schedule 40 PVC. Culinary water pipe must be blue in color and secondary water pipe must be purple.

4a.03 JOINTS:

Joints shall be push on rubber gasket type. Lubrication shall be water soluble, non-toxic, non-objectionable in taste and odor imparted to the water, non-supporting of bacteria growth, and have no deteriorating effect on the PVC pipe or rubber gaskets. It shall conform in every way to the National Sanitation Foundation NSF/ANSI Standard 61.

4a.04 FITTINGS:

All fittings to be used with the PVC pipe shall be the same as fittings for Ductile Iron Pipe and shall conform to the provisions of ANSI/AWWA C110/A21.10 or C153/A21.53. Mechanical joints should be restrained. Megalug by EBAA Iron is the preferred mechanical joint restraint.

4a.05 POLYETHYLENE WRAPPING:

All fittings for PVC pipe shall be wrapped as specified herein. All materials placed shall be wrapped with a polyethylene plastic wrap, including all fittings and valves, in accordance with the manufacturer's specifications.

All compression couplings, mechanical joints, flanged joints, and valves exposed to soil shall be wrapped with 8-mil thick polyethylene film adhesive tape equal to Polyken No. 900 or Scotchrap No. 50. The tape shall be installed to adhere securely to both the pipe and polyethylene. Enough film shall be used to overlap the adjoining pipe a minimum of 1 foot.

Valves shall be wrapped by bringing the wrap on the adjacent pipe over the bells of flanges of the valve and sealing with the adhesive tape. The valve bodies are then wrapped with a flat sheet of the film passed under the valve bottom and brought up around the body to the stem and fastened in place with the adhesive tape.

All fittings that require concrete blocking should be completely wrapped prior to pouring the concrete backing block.

Polyethylene wrap shall be protected from the sun and weathering prior to use. Care shall be exercised during backfilling of the protected areas to prevent puncturing the film.

4a.06 PIPE INSTALLATION:

A. Cutting:

Cutting of pipe for closure pieces or for other reasons shall be done in a neat and workmanlike manner by a method recommended by the manufacturer. After cutting, the pipe shall be beveled and filed to prevent gasket damage in joint assembly.

B. Dewatering of Trench:

Where water is encountered in the trench, it shall be removed during pipe laying operations and the trench so maintained until the ends of the pipe are sealed. See "Control of Groundwater" in Division 2 Trench - Excavation and Backfill.

C. Laying of Pipe:

The pipe and pipe coating (where applicable) shall be inspected for defects before installation. Any defects shall be repaired or the pipe shall be replaced, whichever is deemed necessary by the City Engineer or Representative.

All pipes shall be laid and maintained to the required lines and grades with fittings and valves at the required locations. The pipes shall be installed with 48 inches to the top of the pipe minimum cover from finished road surface for culinary water. The Developer shall be responsible to install the pipe line to the alignment set by the City Engineer or Representative or as shown on the Drawings.

All pipes, fittings and valves shall be carefully lowered from the truck when unloading or when installing into the trench. This should be done one piece at a time in order to prevent damage to pipe materials and protective coatings and

linings. Under no circumstances shall materials be dropped or dumped from the truck or into the trench.

The Developer shall take the necessary precautions such that foreign materials do not enter into the pipe. No debris, tools, or other materials shall be placed in the pipe during laying operations. When laying of pipe is not in progress, the pipe shall be closed by a water-tight plug.

Deflections in PVC pipe shall be made by longitudinal bending of the pipe barrel of the pipe rather than deflecting the pipe joints. Longitudinal bending shall be limited to eighty percent (80%) of that allowed by the manufacturer. This is accomplished by dividing the minimum recommended bending radius by 0.8.

All non-conductive drinking water pipes require a tracer wire (12 gauge) for locating purposes placed on top of the pipe and connected to the nearest fire hydrant, unless otherwise directed. Where splices are to be made, a water tight splice kit must be used. The wire should be run from the mainline, to the nearest fire hydrant, and connected to an above ground access station (a blue Snakepit RB14-TP, or approved equal). See standard drawings for additional detail.

D. Pipe Bedding:

All pipes shall be protected from lateral displacement and possible damage resulting from impact or unbalanced loading during backfilling operations by being adequately bedded.

In the event trench materials are not, in the judgment of the City Engineer or Representative, satisfactory for pipe bedding, imported granular bedding will be required. See Division 2a of these specifications.

E. Thrust Blocking:

Thrust blocking shall be applied at all tees, valves, plugs, caps and at bends deflecting 11 1/4 degrees or more. The fitting shall be encased in a 12 mil protective plastic wrap before the thrust block is poured. Reaction blocking shall be concrete, having a compressive strength of not less than 3000 pounds per square inch at 28 days. Blocking shall be placed between undisturbed soil and the fitting to be anchored. The area of bearing on the pipe and on the ground shall be as shown in the Drawings. Restraint sizing is based upon a maximum operating pressure of 150 psi and a test pressure of 200 psi, and a minimum soil bearing stress of 2,000 psf.

The blocking shall be so placed that the pipe and the fittings will be accessible for repair. Prior to backfilling around thrust block, secure inspection of installation by City Engineer or Representative. Concrete must be allowed to cure in thrust

restraints for 5 days prior to pressurizing water lines or have additional approved thrust restraints installed prior to pressurizing the water line.

F. Connections to Existing Water Lines:

Information on the drawings regarding existing water lines is taken from "record" drawings from the city or utility company files and may or may not be accurate as to size, type of material or location. The Developer will be responsible to determine the proper fittings and materials required, obtain the City Engineer's approval of the planned connection, and perform the construction in a suitable fashion.

G. Magnetic Locator Tape:

All pipe shall include a three inch (3") magnetic locator tape installed in the pipeline trench approximately twenty four inches (24") above the top of pipe. This tape shall be prepared for culinary water with white or black printing on a blue field having the words: POTABLE WATER.

This tape shall be prepared for secondary water with white or black printing on a purple field, color Panatone 512C, having the words: CAUTION: NONPOTABLE WATER - DO NOT DRINK.

4a.07 FLUSHING AND TESTING:

A. Pressure Test:

A leakage test shall be conducted concurrently with the pressure test. After the pipe has been laid, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic pressure of at least 1.5 times the working pressure at the point of testing.

(1) Test Pressure Restrictions:

Test pressures shall:

- i. Not be less than 1.25 times working pressure at the highest point along the test section or a minimum of 200psi.
- ii. Not exceed pipe or thrust restraint design pressures.
- iii. Be of at least 2-hour duration.
- iv. Not vary by more than plus or minus five (± 5) psi for the duration of the test.
- v. Not exceed twice the rated pressure of the valves or hydrants when the pressure boundary of the test section includes closed gate valves or hydrants.
- vi. Not exceed the rated pressure of the valves when the test boundary of the test section includes closed, resilient-seated gate valves or butterfly valves.

(2) Pressurization:

Each valved section of pipe shall be slowly filled with water and the specified test pressure, based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gage, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the City Engineer.

(3) Air Removal:

Before applying the specified test pressure, air shall be expelled completely from the pipe, valves, and hydrants. If permanent air vents are not located at all high points, the Developer shall install corporation cocks at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied. At the conclusion of the pressure test, the corporation cocks shall be removed and plugged.

(4) Examination:

All exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damaged or defective pipe, fittings, valves, or hydrants that are discovered following the pressure test shall be repaired or replaced with sound materials and the test shall be repeated until it is satisfactory to the Owner.

B. Leakage Test:

A leakage test shall be conducted concurrently with the pressure test.

(1) Leakage Defined:

Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.

(2) Allowable Leakage:

No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{SD(P)^{0.5}}{133,200}$$

in which L is the allowable leakage, in gallons per hour; S is the length of pipeline tested in feet; D is the nominal diameter of the pipe, in inches; and P is the average test pressure during the leakage test, in pounds per square inch gage.

- i. Allowable leakage at various pressures is shown in Table 1.
- ii. When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gal/hr/in. of nominal valve size shall be allowed.
- iii. When hydrants are in the test section, the test shall be made against the closed hydrant.

TABLE 1

Allowable Leakage per 1000 ft of Pipeline - gph

Average Test Pressure psi (Bar)	Nominal Pipe Diameter—in.															
	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48	54
450 (31)	0.48	0.64	0.95	1.27	1.59	1.91	2.23	2.55	2.87	3.18	3.82	4.78	5.73	6.69	7.64	8.60
400 (28)	0.45	0.60	0.90	1.20	1.50	1.80	2.10	2.40	2.70	3.00	3.60	4.50	5.41	6.31	7.21	8.11
350 (24)	0.42	0.56	0.84	1.12	1.40	1.69	1.97	2.25	2.53	2.81	3.37	4.21	5.06	5.90	6.74	7.58
300 (21)	0.39	0.52	0.78	1.04	1.30	1.56	1.82	2.08	2.34	2.60	3.12	3.90	4.68	5.46	6.24	7.02
275 (19)	0.37	0.50	0.75	1.00	1.24	1.49	1.74	1.99	2.24	2.49	2.99	3.73	4.48	5.23	5.98	6.72
250 (17)	0.36	0.47	0.71	0.95	1.19	1.42	1.66	1.90	2.14	2.37	2.85	3.56	4.27	4.99	5.70	6.41
225 (16)	0.34	0.45	0.68	0.90	1.13	1.35	1.58	1.80	2.03	2.25	2.70	3.38	4.05	4.73	5.41	6.03
200 (14)	0.32	0.43	0.64	0.85	1.06	1.28	1.48	1.70	1.91	2.12	2.55	3.19	3.82	4.46	5.09	5.73
175 (12)	0.30	0.40	0.59	0.80	0.99	1.19	1.39	1.59	1.79	1.98	2.38	2.98	3.58	4.17	4.77	5.36
150 (10)	0.28	0.37	0.55	0.74	0.92	1.10	1.29	1.47	1.66	1.84	2.21	2.76	3.31	3.86	4.41	4.97
125 (9)	0.25	0.34	0.50	0.67	0.84	1.01	1.18	1.34	1.51	1.68	2.01	2.52	3.02	3.53	4.03	4.53
100 (7)	0.23	0.30	0.45	0.60	0.75	0.90	1.05	1.20	1.35	1.50	1.80	2.25	2.70	3.15	3.60	4.05

*If the pipeline under test contains sections of various diameters, the allowable leakage will be the sum of the computed leakage for each size.

**To obtain leakage in liters/hour, multiply the values in the table by 3.785.

(3) Acceptance of Installation:

Acceptance shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than specified, the Developer shall, at its own expense, locate and repair the defective material until the leakage is within the specified allowance. All visible leaks are to be repaired regardless of the amount of leakage.

C. Flushing:

All new water systems or extensions to existing systems shall be thoroughly flushed before being placed in service. Flushing shall be accomplished through hydrants, or end of line blow-off assemblies at a minimum flushing velocity of 2.5-feet per second.

FLOW RATE AND OPENINGS TO FLUSH PIPELINES
(40-psi Residual Pressure)

Pipe Size (inches)	Flow Required to Produce 2.5 fps velocity (gpm)
2	26
4	100
6	220
8	390
10	610
12	880
14	1,200
16	1,565
18	1,980
20	2,450
24	3,525
30	5,507

D. Disinfection:

After flushing, all culinary water lines shall be disinfected by chlorination. Chlorination shall provide a minimum of 25-ppm residual after 24-hours contact in the pipeline. This may be expected with an application of 50-ppm, although some conditions may require more. Chlorine in the form of a 1% slurry of high-test calcium hypochlorite (T-Chlor, HTH, Perchloron, Pittchlor, etc. which are 70% available chlorine by weight) shall be fed into the pipeline in such a manner as to mix with the water flowing in the pipeline. (A 1% slurry – 10,000 ppm – results from mixing one pound of calcium hypochlorite with 8.40 gallons of water.)

The following table provides information as to the required quantity of slurry to be used per 100 feet of pipe to provide a chlorine concentration of 50 ppm:

Pipe Size (in.)	Vol. of 100 ft. Length (gal)	Required Amount of 1% Chlorine Slurry (gal)
1 1/2	9.18	0.07
2	16.32	0.12
2 1/2	25.50	0.18
3	36.73	0.26
4	65.28	0.47
6	146.90	1.05
8	261.10	1.87
10	408.10	2.92
12	587.60	4.20

During the process of chlorinating the pipeline, all valves and other pipeline appurtenances shall be operated several times to provide sufficient contact with the chlorinating agent. Following chlorination, the water line shall be drained and thoroughly flushed according to Section A above and, if necessary, rechlorinated until a satisfactory bacteriological test is obtained. After passing a bacteriological test, water must be flushed from the pipe and discharged in accordance with all local, state and federal water quality requirements.

Disinfection shall conform to the requirements of AWWA C651 (or latest edition). Main lines must pass bacteriological test. Number of samples to be determined by inspector and will be based on the size of the development. If a new main is connected to an existing main, a bacteria test must be completed and passed prior to any pressure testing being conducted.

DIVISION 4b

HIGH DENSITY POLYETHYLENE PRESSURE PIPE

4b.01 GENERAL:

This Division covers furnishing and installing High Density Polyethylene (HDPE) pressure pipe and fittings to the lines and grades shown on the Drawings and/or established in the field, and all flushing, testing, and repairing required to ensure adequate and safe operation of the water system. Use of HDPE pipe in pressurized applications is restricted, unless otherwise approved by the City Engineer. The minimum size for culinary water mains is 10-inch SDR 11 IPS (Iron Pipe Size).

If approved by the City Engineer, use of HDPE in the culinary distribution system shall only be allowed for transmission lines, meaning no service connections or saddles. In addition, the standards in this division shall be considered a minimum and the City shall reserve the right to make additional requirements to ensure proper safeguarding of the distribution system, as well as other infrastructure.

4b.02 MATERIALS:

High density polyethylene pipe shall be manufactured from resins exhibiting a cell classification of PE 345434C as defined in ASTM D3350 with an established hydrostatic design basis of 1600-psi for water at 73° F. HDPE pipe shall conform to ASTM F714. HDPE pipe shall also conform in every way to ANSI/AWWA C-906, "AWWA Standard for Polyethylene (PE) Pressure Pipe and Fittings, 4-inch through 63-inch for Water Distribution." The HDPE pipe shall be Iron Pipe Size (IPS). Coloring or marking is to be submitted to and approved by City Engineer.

4b.03 JOINTS:

HDPE pipe shall be joined by thermal butt fusion or flange assemblies. If flange assemblies are used, stainless steel bolts will be required with full-faced rubber gaskets and torqued to manufacturer's specifications.

Only formally trained and certified technicians may conduct fusions, whether thermal butt fusions, electro fusions or otherwise. Qualification of the fusion technician shall be demonstrated for the type of fusion, the size of the pipe, and the equipment to be used on a project.

HDPE pipe shall not be joined by solvent cements, adhesives (such as epoxies) or threaded connections. All joining methods shall be capable of conveying water at a minimum of 2.0-times the working pressure rating of the pipe.

4b.04 PIPE INSTALLATION:

A. Cutting:

Cutting of pipe for shall be done in a neat and workmanlike manner by a method recommended by the manufacturer. Pipe should be cut with a chainsaw, with no bar oil. Use liquid dish soap as a lubricant. After cutting, the pipe shall be cleaned and prepared per the manufacturer's recommendations.

B. Dewatering of Trench:

Where water is encountered in the trench, it shall be removed during pipe laying operations and the trench so maintained until the ends of the pipe are sealed. See "Control of Groundwater" in Division 2a.

C. Laying of Pipe:

The pipe shall be inspected for defects before installation. Any defects shall be repaired or the pipe shall be replaced, whichever is deemed necessary by the City Engineer or Representative.

All pipes shall be laid and maintained to the required lines and grades with fittings and valves at the required locations. The pipes shall be installed with 48-inches to the top of the pipe minimum cover from finished road surface for culinary water. The Developer shall be responsible to install the pipe line to the alignment set by the City Engineer or Representative or as shown on the Drawings.

All pipes, fittings and valves shall be carefully lowered from the truck when unloading or when installing into the trench. This should be done one piece at a time in order to prevent damage to pipe materials and protective coatings and linings. Under no circumstances shall materials be dropped or dumped from the truck or into the trench.

The Developer shall take the necessary precautions such that foreign materials do not enter into the pipe. No debris, tools, or other materials shall be placed in the pipe during laying operations. When laying of pipe is not in progress, the pipe shall be closed by a water-tight plug.

Deflections in HDPE pipe shall be limited to 80% of that allowed by the manufacturer. This is accomplished by multiplying the minimum recommended bending radius by 0.8.

All non-conductive pipes require a tracer wire (12 gauge) for locating purposes placed on top of pipe and be connected to all valves and fire

hydrants. Where splices are to be made, a water tight splice kit must be used. The wire should be looped up valve boxes and fire hydrants. See Standard Drawings for tracer wire installation.

D. Pipe Bedding:

All pipes shall be protected from lateral displacement and during backfilling operations by being adequately bedded.

In the event trench materials are not, in the judgment of the City Engineer or Representative, satisfactory for pipe bedding, imported granular bedding will be required. See Division 2a of these specifications.

E. Thrust Blocking:

Thrust blocking shall be applied at all tees, bends, plugs, caps and any non HDPE bends deflecting 11.25° or more. The fitting shall be encased in a 12-mil protective plastic wrap before the thrust block is poured. Reaction blocking shall be concrete having a compressive strength of not less than 3000-pounds per square inch at 28-days. Blocking shall be placed between undisturbed soil and the fitting to be anchored. The area of bearing on the pipe and on the ground shall be as shown in the Drawings. Restraint sizing is based upon a maximum operating pressure of 150-psi and a test pressure of 200-psi, and a minimum soil bearing stress of 2000-psf.

The blocking shall be so placed that the pipe and the fittings will be accessible for repair. Prior to backfilling around thrust block, secure inspection of installation by City Engineer or Representative. Concrete must be allowed to cure in thrust restraints for 5-days prior to pressurizing water lines or have additional approved thrust restraints installed prior to pressurizing the water line.

F. Connections to Existing Water Lines:

Information on the drawings regarding existing water lines is taken from "record" drawings from the city or utility company files and may or may not be accurate as to size, type of material or location. The Developer will be responsible to determine the proper fittings and materials required, obtain the City Engineer's approval of the planned connection, and perform the construction in a suitable fashion. Connection to the existing PVC or Ductile Iron main shall be made using a mechanical joint Ductile Iron sleeve (long) or reducer or equivalent fitting which complies with the recommendations of the pipe manufacturer for transitioning from HDPE to PVC or ductile iron pipe.

G. Magnetic Locator Tape:

All pipe shall include a 3-inch magnetic locator tape installed in the pipeline trench approximately 24-inches above the top of the pipe. This tape shall be prepared for culinary water with white or black printing on a blue field having the words: POTABLE WATER.

H. Valving:

All valves 10- inches and smaller shall be gate valves (resilient seated gate valve), and all valves larger than 10- inches shall be butterfly valves made by Christy (no spacer needed) or approved equal (spacer required), in accordance with Division 4c.

4b.05 FLUSHING AND TESTING:

A. Pressure Test:

A leakage test described in ASTM F2164, "Standard Practice for Field Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure", shall be conducted concurrently with the pressure test.

The maximum permissible test pressure is measured at the lowest elevation in the test section. The maximum permissible test pressure is the lower of (a) 150% of the system design operating pressure provided that all components in the test section are rated for the test pressure, or (b) the pressure rating of the lowest pressure rated component in the test section.

(1) Pressurization:

Each valved section of pipe shall be slowly filled with water and the specified test pressure, based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gage, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the City Engineer. The maximum test duration is 8-hours including time to pressurize, time for initial expansion, time at test pressure, and time to depressurize the test section. Damage to the system may occur if testing at excessive pressure or for an excessive time period.

(2) Air Removal:

Before applying the specified test pressure, air shall be expelled completely from the pipe, valves, and hydrants. If permanent air vents are not located at all high points, the Developer shall install

corporation cocks at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied. At the conclusion of the pressure test, the corporation cocks shall be removed and plugged.

(3) Examination:

All exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damaged or defective pipe, fittings, valves, or hydrants that are discovered following the pressure test shall be repaired or replaced with sound materials and the test shall be repeated until it is satisfactory to the City Engineer.

B. Leakage Test:

A leakage test described in ASTM F2164, "Standard Practice for Field Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure", shall be conducted concurrently with the pressure test.

Gradually pressurize the test section to test pressure, and maintain test pressure for three (3) hours. During the initial expansion phase, polyethylene pipe will expand slightly. Additional test liquid (typically water) will be required to maintain pressure. Immediately after the initial expansion phase, there are two alternatives to determine if there is leakage.

- (1) Reduce test pressure by 10 psi, and stop adding test liquid. If test pressure remains steady (within 5% of the target value) for one (1) hour, then no leakage is indicated.
- (2) (This alternative is applicable when the test pressure is 150% of the system design pressure.) Monitor the amount of make-up water required to maintain test pressure for 1, or 2, or 3-hours. If the amount of make-up water needed to maintain test pressure does not exceed the amount in the manufacturer's literature, then no leakage is indicated.

Acceptance of Installation:

Acceptance shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than specified, the Developer/Developer shall, at its own expense, locate and repair the defective material until the leakage is within the specified allowance. All visible leaks are to be repaired regardless of the amount of leakage.

C. Flushing:

All new water systems or extensions to existing systems shall be thoroughly flushed before being placed in service. Flushing shall be accomplished through hydrants, or end of line blow-off assemblies at a minimum flushing velocity of 2.5-feet per second.

FLOW RATE AND OPENINGS TO FLUSH PIPELINES

(40-psi Residual Pressure, assumed DR 11)

Pipe Size (inches)	Flow Required to Produce 2.5-fps velocity (gpm)
2	23
4	81
6	175
8	297
10	461
12	648
14	782
16	1,021
18	1,292
20	1,595
24	2,296
30	3,588

D. Disinfection:

After flushing, all culinary water lines shall be disinfected by chlorination. Chlorination shall provide a minimum of 25-ppm residual after 24-hours contact in the pipeline. This may be expected with an application of 50-ppm, although some conditions may require more. Chlorine in the form of a 1% slurry of high-test calcium hypochlorite (T-Chlor, HTH, Perchloron, Pittchlor, etc. which are 70% available chlorine by weight) shall be fed into the pipeline in such a manner as to mix with the water flowing in the pipeline. (A 1% slurry – 10000-ppm – results from mixing one pound of calcium hypochlorite with 8.40-gallons of water.)

The following table provides information as to the required quantity of slurry to be used per 100-feet of pipe to provide a chlorine concentration of 50-ppm:

Pipe Size (in.)	Vol. of 100-ft. Length (gal)	Required Amount of 1% Chlorine Slurry (gal)
2	14.98	0.11
4	53.82	0.40
6	116.63	0.88
8	197.70	1.48

10	307.08	2.30
12	432.01	3.24

During the process of chlorinating the pipeline, all valves and other pipeline appurtenances shall be operated several times to provide sufficient contact with the chlorinating agent. Following chlorination, the water line shall be drained and thoroughly flushed according to Section A above and, if necessary, rechlorinated until a satisfactory bacteriological test is obtained.

Disinfection shall conform to the requirements of AWWA C651, latest edition. Main lines must pass bacteria test. Number of samples to be determined by inspector and will be based on site of development. If a new main is connected to an existing main, a bacteria test must be completed and passed prior to any pressure testing being conducted.

Following chlorination, the water line shall be drained and thoroughly flushed and, if necessary, rechlorinated until a satisfactory bacteriological test is obtained. After passing a bacterial test, water must be flushed from the pipe and discharged in accordance with all local, state and federal water quality requirements.

DIVISION 4c

VALVES, COUPLINGS AND FIRE HYDRANTS

4c.01 GENERAL:

This Division covers distribution valves to be used in the water system, couplings and fire hydrants.

4c.02 RESILIENT SEATED GATE VALVE:

Valves in sizes 4-inch through 12-inch shall be of the iron body, non rising bronze stem, resilient seated type, manufactured to equal or exceed all applicable AWWA C-509 latest revision and all specific requirements outlined in these specifications. Acceptable manufacturers are Mueller Company, American Flow Control and Clow Valve Company, as directed by the City.

- A. Valves shall open left and be provided with 2-inch square operating wrench nuts unless otherwise specified.
- B. When valves are 'Mechanical Joint', they shall be furnished with all necessary glands, gaskets, followers, bolts and nuts to complete installation.
- C. The disc shall have integrally cast ASTM B62 bronze stem nut to prevent twisting, binding or angling of the stem. Designs with loose stem nuts are not acceptable.
- D. Bronze valve stems shall be interchangeable with stems of the double disc valves of the same size, direction of opening and manufacture.
- E. All internal ferrous surfaces shall be coated, holiday free, to a minimum thickness of 4-mil with a two part thermo setting epoxy coating. Said coating shall be non-toxic, impart no taste to the water, formulated from materials deemed acceptable in the Food and Drug Administration Document Title 21 of the Federal Regulations on food additives, Section 121.2514 entitled Resins and Polymeric Coatings. It shall protect all seating and adjacent surfaces from corrosion and prevent build-up of scale or tuberculation.
- F. The sealing element shall be secured to the disc with self-locking stainless steel screws, and it shall be field replaceable, and shall be such that it cannot be installed improperly.
- G. Stem failure from over torquing in either the open or closed position shall occur externally at such a point as to enable the stem to be safely turned

by use of a readily available tool after exposure of the valve through excavation.

- H. Valve design shall incorporate a positive metal to metal stop to prevent over-compression of the sealing element.
- I. A full faced composition gasket placed between machined body and bonnet flanges is required to eliminate cold flow or creep action present with "O" ring gasketed bodies.
- J. Valves shall have a test plug in the bonnet area to vent air and allow line pressure testing.
- K. The exterior of the valves shall be Asphalt Varnish, JAN-P-450. If exterior epoxy is used, all bolts and nuts shall be made of Stainless Steel to prevent galvanic corrosion of said nuts and bolts due to insulation from the ferrous valve and line.

4c.03 BUTTERFLY VALVE:

All butterfly valves (Acceptable manufacturers are Mueller Company, M&H, Avtek and Clow Valve Company) shall conform to the latest revision of ANSI/AWWA Standard C504, Class 150-B, and comply with the following:

- A. Valve bodies shall be cast iron, ASTM A126 Class B. Body ends shall be flanged with facing and drilling in accordance with ANSI B16.1, Class 125; or mechanical joint in accordance with ANSI/AWWA C-111/A21.11. All 'Mechanical Joint' end valves shall be furnished complete with joint accessories (bolts, nuts, gaskets, and glands). All valves shall conform with ANSI/AWWA Standard C-504, Table 3, Laying Lengths for Flanged Valves and Minimum Body Shell Thickness for all Body Types.
- B. Valve disc shall be Ductile Iron ASTM A536, Grade 65-45-12. Valve disc shall be of the offset design providing 360 degree uninterrupted seating.
- C. The resilient seat shall be natural rubber bonded to an 18-8, Type 304 Stainless Steel retaining ring secured to the disc by 18-8, Type 304 Stainless Steel screws. The seat shall be capable of mechanical adjustment in the field and field replaceable without the need for special tools. Valve body seat shall be 18-8, Type 304 Stainless Steel.
- D. Valve shafts shall be 18-8, Type 304 Stainless Steel. Shafts shall be of the two piece stub design and attached to the disc by means of "O" ring sealed taper pins with lock nuts.

- E. The valve assembly shall be furnished with a non-adjustable factory set thrust bearing designed to center the valve disc at all times.
- F. Shaft bearings shall be contained in the integral hubs of the valve body and shall be self-lubricated sleeve type.
- G. Valve shaft seal shall consist of "O" rings. Where the valve shaft projects through the valve body for actuator connection, the "O" ring packing seal shall be field replaceable as a part of a removable bronze cartridge.
- H. When manual actuators are required they shall be of the traveling nut design capable of withstanding 450-foot-pounds of input torque against the open and closed stops. All actuators shall have adjustable mechanical stop limits. The closed position stop shall be externally adjustable. Valves shall be installed with the shaft horizontal unless otherwise directed by the City Engineer and shall be provided with a 2-inch square operating nut for manually operating the valve with a "T" handle wrench.
- I. All valves shall be coated with epoxy in conformance to AWWA Standard C-550, latest revision. Interior wetted ferrous surfaces shall be coated a nominal 10 mils thick for long life; and body exterior shall have a minimum of 3 to 4-mil coating thickness in order to provide superior base for field-applied finish coats.

4c.04 VALVE BOXES:

All buried valves shall be installed complete with two-piece, cast iron, screw type, 5-1/4-inch shaft valve box with locking lid. The lid shall have the word "Water" or "Irrigation", as appropriate, cast in the metal.

Valves and valve boxes shall be installed where shown on the drawings. Valves and valve boxes shall be set within 1/4 to 1/2-inch plumb. Valve boxes shall be vertically centered directly over the valve within a tolerance of +/- 1/2-inch. Valves shall be aligned with property lines where possible. Earth fill shall be carefully tamped around the valve box to a distance of 4-feet on all sides of the box, or to the undisturbed trench face if less than 4-feet. Valve boxes shall have the interiors cleaned of all foreign matter before installation and before and after backfill, being accessible and free of debris.

All valve boxes located in streets shall be installed as nearly to grade as possible. Valve boxes placed in bituminous asphalt concrete surfaces, after the pavement is in place, the valve boxes shall be raised to grade (1/4 – 1/2-inch lower than asphalt), the surrounding asphalt shall be neatly cut to form a circular opening 2.5-feet in diameter with the valve box centered, and a 12-inch thick concrete collar shall be cast around the box. Valve boxes shall be installed as shown on the Drawings. Valve boxes in off-road areas shall extend 6-inches above grade and be collared and marked.

4c.05 COUPLINGS:

Acceptable manufacturers of couplings are HYMAX (grip), Romac (alpha) or Smith-Blair (18-inch long). Cast iron sleeves may be utilized, as approved by the City Engineer. Couplings shall be of the straight, transition, or reducing style as required by the City for the specific installation. All steel fittings and bolts shall be coated with a non-oxide coating and wrapped with 12-mil polyethylene.

4c.06 FIRE HYDRANTS:

Fire hydrants shall be "traffic model" type designed to conform to AWWA C502 and shall be of either the compression or toggle joint type. Hydrants shall be the Mueller Modern Centurion A-442, Clow Medallion or Waterous Pacer (with alpha base).

Hydrant valves shall be a minimum of 6-inch size. Hydrants shall be supplied complete with two 2-1/2-inch hose nozzles and one 4-1/2-inch pumper nozzle. All nozzles shall be provided with National Standard threading. A one cubic yard gravel sump shall be provided at each hydrant. All hydrants shall be mechanical joint end and shall be connected to the main by means of a flanged tee and flanged by mechanical joint auxiliary gate valve (or flange by alpha gate valve) and box as shown on Kaysville Standard Drawings. Each hydrant shall also be supplied with O-ring seals, a National Standard pentagon operating nut which is designed for clockwise rotation closing, and a 6-inch mechanical joint inlet.

All hydrants shall be factory painted red and must function properly. Where a parkstrip exists, hydrants shall be centered in the parkstrip +/- 3-inches. Hydrants must have a 3-foot minimum clear space around the hydrant. Hydrants must be located as shown on approved plans/drawings and be set vertically within +/- 1-inch out of level (plumb).

DIVISION 4d

WATER SERVICE LATERALS

4d.01 GENERAL:

Water service laterals shall be constructed with materials specified and at the locations shown on the Drawings or at the actual location established during construction by the City Engineer or representative. The City shall maintain the service lateral from the main line to the end of the meter setter; the service lateral between the end of the meter setter and the property is to be maintained by the property owner.

4d.02 WATER SERVICE LATERALS:

Pipe for water service laterals shall be 3/4-inch Type K-soft copper tubing or blue HDPE SDR 9 Copper Tube Size (CTS) with a 200-psi rating.

A. Extent of Laterals:

Water service laterals shall extend from the water main to a point 10-feet beyond the street right-of-way line. A curb stop valve shall be installed on the end of the line. Type K-soft copper tubing water services shall not have any joints between the corporation stop and the meter setter. A 2-inch by 4-inch by 6-foot marker, with the top 12-inches painted blue, shall be installed to clearly mark the end of each lateral line. Tracer wire (12 gauge) shall be installed from the main to the end of each lateral line, and come up the outside of each meter box, and come into the meter box in a notch between the meter ring and the box. Meter boxes shall be installed in accordance with the Kaysville City standard drawings.

B. Excavation and Backfill:

Trench excavation and backfill shall conform to the applicable paragraphs of Division 2a. Bedding shall meet the requirement of Division 2a for PVC or polyethylene pipe.

C. Connection to Main:

Connections to the main lines shall be made by means of corporation stops using direct pipe taps for 3/4-inch and 1-inch services on Ductile Iron pipe, tapped tees for 2-inch service or approved service saddles for PVC and any of the above. HDPE fused saddles should be Frialen 10-inch to 20-inch universal service saddle with 2-inch female threaded outlet or equivalent.

D. Service Saddle Specifications:

(For use with AWWA C-900 CI O.D. for PVC plastic pipe.)

All service clamps shall be a “Full encirclement design”, and shall be O.D. controlled, which design will eliminate the possibility of pipe crushing due to the over torquing of the nuts upon installation.

All service clamps shall be manufactured of brass cast in conformance to AWWA C800, General Section – 1, Paragraph 1.2 (ASTM B62).

The two sides of the clamp shall be held together by high quality Silicon Bronze Hex Bolts (in sizes 1-inch and over) or Silicon Bronze Slotted Screws (in sizes under 1-inch), no dissimilar metals shall be allowed at this point thus eliminating the possibility of galvanic corrosion.

All service clamps shall be Mueller Model H-13490 Series, or Ford Model S-91 Series for sizes through 12-inch and Romac 305 Series for 14-inch or larger.

(For use with Ductile Iron Pipe.)

All service clamps shall be of the double strap design with brass body, flattened silicon bronze straps, rolled strap threads and O-ring sealed outlet. Saddles shall meet all applicable parts of ANSI/AWWA C-800.

All service clamps shall be Mueller Model H-16000 Series or approved equal.

E. Sample Stations:

The City may require an above ground sample station for water quality testing (Eclipse 88 type or approved equal). When required, sample stations shall be installed at a depth of 3 to 4-feet, and in accordance with the Kaysville City standard drawings. Sample station locations shall be determined by the City Engineer.

The line from the main to the sample station shall be subject to the same requirements as a service lateral.

F. Corporation Stops:

Connections of services to main lines shall be through a corporation type stop and a 24-inch gooseneck formed with copper tube. Inlet connection shall be a AWWA I.P. thread and the outlet shall be a compression fitting. Ford or Mueller are the approved manufacturers.

All connection made to pressurized water lines shall be done using a “wet-tap” method.

G. Service Tubing:

Water service lines from the main to the meter box shall be 3/4-inch, 1-inch, or 2-inch type K-soft copper tube or blue HDPE SDR 9 Copper Tube Size (CTS) with a 200-psi rating.

When transferring or replacing existing galvanized steel or plastic services, copper replacement tubing or blue HDPE shall be used, as detailed above.

All tubing for service lines shall be cut and installed in a neat and workmanlike manner by use of a wheel cutter.

H. Compression Connections:

- (1) The interior surface of the coupling nut, including threads, shall have a baked on, fluorocarbon coating to reduce assembly friction and prevent the gasket from turning and twisting during tightening. The nut shall bottom on a cast or machined shoulder on the body when properly assembled. This design will provide a visual check to assure connection is properly assembled.
- (2) The sealing gasket shall be of molded synthetic rubber (ASTM D-2000) with molded in place bronze spring (ASTM A-134 Alloy #6) to eliminate the possible cold flow of the gasket between the pipe and fitting.
- (3) A gripper band of hardened Stainless Steel (ANSI Type 401) shall be fitted into the gasket. When the gasket is compressed it will cause the gripper ring to distort the pipe giving the fitting a high resistance to pull out. The gripper band shall overlap itself to prevent cold flow of the gasket into the cavity under the band.
- (4) Compression connections and fittings shall be Mueller 110 or equal.

I. Flushing, Testing, and Disinfection:

Flushing, testing and disinfection shall be done at the time the water main is flushed, tested and disinfected. The end of the trench where the curb valve is located shall be left open to allow for discharging water out of the service line for proper flushing and to insure that the line has been adequately disinfected. Flushing, testing and disinfection shall conform to the applicable paragraphs of Division 4a or 4b.

J. Damage and Repair of Water Mains and Appurtenances:

The Developer shall be responsible for any damage to water mains and water facilities caused by their operations.

Any damage to water gates, hydrants, valve chambers, and other surface appurtenances which result from the Developer's operation shall be their sole responsibility.

DIVISION 4e

SECONDARY WATER

4e.01 GENERAL:

See the requirements of the applicable Secondary Water Provider with jurisdiction.

4e.02 PIPES:

All pipes will have locator tape and a tracer wire for locating. This should meet the City requirements for culinary water pipes (Divisions 4a-b).

4e.03 VALVES:

All valves in roadways will be set and have same requirements as culinary valves (Division 4c). The valve covers/lids must be stamped 'Secondary' or 'Irrigation'.

4e.04 SERVICE BOXES:

All boxes in the park strip will be level with the TBC + 3/8".

4e.05 APPROVALS:

Kaysville City will require a letter of approval from secondary water provider before acceptance/warranty.

DIVISION 5a

ROADWAY CONSTRUCTION

5a.01 GENERAL:

This Division covers roadway construction; earthwork, subgrade preparation, imported granular subgrade, base course, asphalt surface and raising manholes and valve boxes to grade.

All streets shall be built in accordance with the following, unless otherwise specified by the City Engineer:

- A. Local Streets
 - 1) 12-inch minimum crushed 1.25-inch minus (State spec.) gravel untreated base course over prepared subgrade.
 - 2) 3-inch minimum compacted thickness of 1/2-inch aggregate PG 58/28 with 15% max rap hot plant asphalt surfacing on streets.
- B. Significant Local Streets
 - 1) 12-inch minimum crushed 1.25" minus (State spec.) gravel untreated base course over prepared subgrade.
 - 2) 4-inch minimum compacted thickness of 1/2-inch aggregate PG 58/28 with 15% max rap hot plant asphalt surfacing on streets. Lifts must be completed in two 2-inch thick levels.
- C. Minor Collector Streets
 - 1) 12-inch minimum crushed 1.25" minus (State spec.) gravel untreated base course over prepared subgrade.
 - 2) 4-inch minimum compacted thickness of 1/2-inch aggregate PG 58/28 with 15% max rap hot plant asphalt surfacing on streets. Lifts must be completed in two 2-inch thick levels.
- D. Major Collector Streets
 - 1) 12-inch minimum crushed 1.25" gravel untreated base course over prepared subgrade.
 - 2) 4-inch minimum compacted thickness of 1/2-inch aggregate PG 58/28 with 15% max rap hot plant asphalt surfacing on streets. Lifts must be completed in two 2-inch thick levels.

- E. Arterial Streets

Pavement structure will be based on 1/2-inch aggregate PG 58/28 with 15% max rap hot plant mix asphalt surfacing on streets, and a modified or more specific design to meet conditions and traffic loads/volumes may be required.

Note: Alternative designs, materials or cross sections may be proposed, however, the City retains the right to determine the adequacy of such proposal. An approved excavation permit may be required for work or repairs required on new road surfaces and/or rights of way, in which case, the requirements of said permit must be followed.

5a.02 EARTHWORK:

The earthwork needed for roadway construction shall meet the requirements of Division 2b, Earthwork.

5a.03 SUBGRADE PREPARATION:

This work shall consist of the shaping and compacting of the subgrade in accordance with these specifications and in conformity with the lines, grades, and typical cross sections shown on the Drawings or as established by the City Engineer. The granular material shall be placed and compacted to not less than 96% maximum dry density as determined by AASHTO T-180 (ASTM D1557). No less than a 2% crown unless approved by the City Engineer (no more than 7%).

Once the subgrade is properly graded, including a 2% crown, the Developer shall notify Kaysville City to determine if a deflection test is required for the subgrade. Any soft spots found during testing shall be repaired prior to the placement of any granular base course. A deflection test of the base course will be required prior to paving.

5a.04 GRANULAR SUBBASE:

Granular subbase material, if required, shall consist of granular bank run material with a maximum size of 4 inches and less than 15% passing a No. 200 sieve.

The granular subbase material shall be compacted to not less than 96% maximum dry density as determined by AASHTO T-180 (ASTM D1557). Surfaces shall be true to the established grade with thickness being not less than 1/4-inch from the required layer thickness and with the surface elevation varying not more than 3/8-inch in ten feet from the true profile and cross section.

5a.05 BASE COURSE:

Base for all streets shall consist of crushed select material and shall be graded as per the latest edition of Section 02721 of the Utah Department of Transportation Standards and Specifications.

Mixing, placing, compacting, finishing, thickness tolerance, and quality control testing shall be in accordance with the applicable provisions of Section 02721 of the above referenced Standard Specifications.

5a.06 ASPHALT CONCRETE PAVEMENT:

Asphalt Concrete Pavement shall be in accordance with the applicable provisions of Section 02745 Asphalt Material of the latest edition of the Utah Department of Transportation Standards and Specifications, except as noted herein: 1/2-inch aggregate PG-58-28 mix with max 15% RAP.

It is the responsibility of the Developer to control traffic. All traffic shall be kept off the completed surface for a minimum period of 24-hours, unless otherwise approved by the City Engineer. Ambient and base course temperature at time of placement shall be 50° F and rising for 2- hours prior to placement and 2-hours after rolling/compaction. Asphalt temperature should be at least 220° F at the time of initial rolling/compaction and no less than 200° F at the time of final rolling/compaction. If less than 50° F degrees, an additional warranty term shall be required in writing.

5a.07 PRIME COAT:

Prime Coat is NOT required when the granular base material is clean and free from other soils tracked onto the roadway. However, the City Engineer may at their discretion require a prime coat for any areas that have been contaminated or damaged in other ways.

5a.08 ADJUSTING MANHOLES AND VALVE BOXES TO FINAL GRADE:

This section covers the requirements for adjusting manholes and valves to final grade. The adjustment shall be made with cast in place concrete rings/collars. Rings shall be constructed after the asphalt surface has been placed. Rings shall be constructed in a neat, workmanlike manner.

Concrete shall conform to the requirements of Division 5c. Concrete shall be Class AA (AE).

Manholes and valves shall require a concrete ring/collar around the cast iron ring and cover constructed such that the cast iron ring is 1/4-inch lower than the existing pavement. On newly asphalted or overlaid streets, the cast in place concrete collar shall be placed 1/4-inch lower than the surrounding asphalt. This is to allow for some consolidation of the new asphalt due to traffic and other conditions.

Where manholes are to be raised this is to be accomplished by removing the cover and frame and raising the manhole to proper elevation with concrete. Any adjustments over 3-inches require that the ring and cover be removed and a concrete grade ring be added to the top of the cone. Concrete grade rings placed on the cone combined shall be 12-inches or less in height. In the case this is to be exceeded, the cone section shall be removed and a 1-foot manhole section installed with the cone reinstalled on top of the manhole section. "Whirlygig" riser systems, or an approved equal, will be allowed in place of concrete grade rings.

DIVISION 5b

RESTORATION OF SURFACE IMPROVEMENTS

5b.01 GENERAL:

The Developer shall be responsible for the protection and the restoration or replacement of any improvements existing on public or private property at the start of work or placed there during the progress of the work.

Existing improvements shall include but not to be limited to permanent surfacing, curbs, gutters, sidewalks, planted areas, sprinklers, ditches, driveways, culverts, fences, decorative features and walls. All improvements shall be reconstructed to equal or better, in all respects, than the existing improvements removed. Any work being done in the City right of way shall first require an approved excavation permit. There are costs associated with these permits, based on the consolidated fee schedule. All work done in the City right of way shall conform with the requirements of the excavation permit.

5b.02 FIELD VERIFICATION OF IMPROVEMENTS:

The Developer will be deemed to have carefully examined the site of the work and to have acquainted themselves with all conditions relating to the protection and restoration of existing improvements. The Developer shall be responsible to protect or restore existing improvements, whether shown on the drawings or not, unless agreed to in writing by the effected property owner and approved by the City.

5b.03 REMOVAL OF PAVEMENT, SIDEWALKS, CURBS, ETC.:

Prior to any removal of road surface, the surface shall be cut vertically along the lines forming the trench, in such a manner as to not cause damage to adjoining pavement, sidewalk, curb and gutter, driveway, etc. For removal of sidewalk, curb and gutter, vertical cuts shall be made in the concrete only at the next adjacent joint. The portion to be removed shall then be broken up in a manner that will not cause damage to the asphalt or concrete outside the limits of the cuts; however, any surface damaged by the Developer or their work shall be replaced at the Developer's expense. The Public Works inspector shall determine the extents or limits of adjacent damage requiring replacement.

Broken paving materials and debris shall be removed immediately from the site of the work. If 4-feet or less of asphalt is left between the edge of a trench and the lip of the curb (or edge of pavement if there is no curb) after removal, then the asphalt shall be removed to the lip of curb (or edge of road if there is no curb) to safeguard against differential settlement.

5b.04 MATERIALS:

Materials used for repair or replacement of surface improvements shall be equal to or better than the material removed:

- A. Untreated Base Course. Untreated base course shall comply with Utah Department of Transportation Standard Specifications, latest edition. The Developer shall take samples of the untreated base course on a random basis. All materials not meeting the tolerance requirements shall be removed from the project and replaced with specification material.
- B. Asphalt. The asphalt surface shall be hot-rolled plant mix in accordance with the requirements of Division 5a.
- C. Concrete. Concrete shall comply with section 02753 of the Utah Department of Transportation Standard Specifications.

5b.05 RESTORING CONCRETE OR ASPHALT STREET SURFACES:

Where trenches are in or cross asphalt or concrete surfaced roads, traffic lanes, driveways, parking areas, etc., the asphalt or concrete surface must be restored in accordance with the requirements of the excavation permit, including, but not limited to:

- A. Before Excavation. All existing asphalt or concrete surfaces shall be saw cut or roto-milled to a square edge before excavation.
- B. Temporary Graded Surface. Until resurfacing can be done in paved areas a temporary untreated base course surface shall be placed deep enough to provide a minimum of 12-inches below the bottom of the asphalt surface and shall be brought flush with the top of the adjacent paved surface.

The untreated base shall be placed in the trench at the time it is backfilled. Excess material shall be removed from the premises immediately. The temporary untreated base course surface will be maintained as needed by the Developer until the asphalt is placed.

- C. Preparation for Paving. The area over trenches to be resurfaced shall be graded and rolled with a roller weighing not less than 12-tons, until the subgrade is firm and unyielding. Mud or other soft or spongy material shall be removed and the void filled with untreated base course and rolled and tamped thoroughly in layers not exceeding 12-inches in thickness. Sink holes in asphalt shall be cut out, excavated and replaced. Asphalt sinking of any kind will be cut out and replaced once the problem has been fixed. The edges of trenches which deteriorate or crumble prior to paving shall be removed and trimmed neatly before resurfacing.

Before any permanent resurfacing is placed, the Developer shall trim the existing paving to clean, straight lines as nearly parallel to the centerline of the trench as practicable.

Following backfill, the existing adjacent asphalt paving shall be cut back a minimum of an additional 18-inches beyond the previous cuts (T-Cut) for the excavation.

- D. Asphalt Surface. The asphalt surface shall be restored by standard paving practices to a minimum thickness as indicated in Division 5a and on the standard drawings. Pavement over 3-inches shall be placed and rolled in two lifts. The asphalt surface should be 1/4-inch to 1/2-inch above the lip of curb and gutter. If the asphalt is more than 1/2-inch or less than 1/4-inch over the lip of the curb and gutter, an overlay to adjust the grade shall be required, as directed by the City Engineer.

Pavement restoration shall include priming of pavement edges with Type MC-70 bituminous material (tackifier) and placing rolled plant hot mix asphalt material to a level of 1/8-inch to 1/4-inch above the adjacent pavement surfaces. Areas where there is unraveling of asphalt will be replaced.

5b.06 CRACK FILLING/SEALING:

When pavement crack repairs are needed, vegetative growth should be removed from cracks, edges, and joints. Cracks should be prepared by blowing them out and dry prior to being filled by crack sealant. Melting of sealant should be per manufacturer's guidelines. The pavement crack seal should be dry before applying asphalt coatings.

Crack seal material should be per UDOT Standards 02745, Section 2.3 HOT-POUR CRACK SEALANT FOR BITUMINOUS CONCRETE or applicable current APWA standard 32.01.17 PAVEMENT CRACK SEAL. Crack seal shall be done prior to all asphalt coating projects.

5b.07 ASPHALT COATINGS:

Depending on various factors, including, but not limited to the age and condition of adjacent asphalt, project scheduling and traffic conditions, asphalt surfacing may require a preventative maintenance coating, as determined and specified by the City Engineer. Asphalt coatings consist of chip seals with type A chips and a fog coat, type II slurries and seal coats (type specified by the City Engineer). All asphalt coatings (and their application) shall meet the applicable APWA Utah standards.

5b.08 GRAVEL SURFACE:

Where trenches are excavated through gravel-surfaced areas such as roads and shoulders, parking areas, unpaved driveways, etc., the gravel surface shall be restored and maintained as follows:

- A. The gravel shall be placed deep enough to provide a minimum of six inches of material.

- B. The gravel shall be placed in the trench at the time it is backfilled. The surface shall be maintained by blading, sprinkling, rolling, adding gravel, etc., to maintain a safe, uniform surface. Excess material shall be removed from the premises immediately.
- C. Material for use on gravel surfaces shall be obtained from sound, tough, durable gravel or rock meeting the following requirements for grading:

Passing 1-inch sieve	100%
Passing 1/2-inch sieve	79-91%
Passing No. 4 sieve	49-61%
Passing No. 16 sieve	27-35%
Passing No. 200 sieve	7-11%

5b.09 MISCELLANEOUS IMPROVEMENTS:

It shall be the Developer's responsibility to restore to their original condition all irrigation canals, levees, culverts, gates, fences, drainage ditches, and all such improvements which are cut or disturbed during construction. Topsoil in farming areas or along road edges shall be stored separate from subsoil during pipe trench excavation. Topsoil shall be replaced during backfill operations as nearly as possible to its original condition, thereby assuring suitable soil for reseeding.

5b.10 RESTORATION OF SURFACES:

Unless otherwise directed, all street surfacing, curbs, gutters, sidewalks, driveways, or other hard surface that must be removed in the performance of the work shall be restored in kind by the Developer in accordance with the Specifications contained herein. Deviation of more than 1/4-inch between old and new work or within new construction shall be corrected. Such measurement shall be made from a 10-foot minimum length straight edge. Adjoining surfaces between old and new must be flush.

5b.11 CLEANUP:

At the completion of each area of work all equipment, barricades, and similar items shall be removed from the area. All excess material will be removed. Adjacent borrow pits and road shoulders disturbed or used for storage of excavating materials will be smoothed and returned to its original contour.

5b.12 PAVEMENT MARKINGS:

The Developer shall be responsible for restoration of pavement markings on all roadways. Restoration of pavement markings shall be provided for any removed or obliterated markings. The temporary markings shall conform to UDOT standards and specifications. Permanent

pavement markings will then be replaced to conform to the applicable local and state specifications with approval from the City Engineer or their Representative.

DIVISION 5c

PORTLAND CEMENT CONCRETE

5c.01 GENERAL:

The work shall consist of furnishing, forming, placing, finishing, and curing Portland cement concrete as required.

5c.02 MATERIALS:

- A. Portland Cement shall be Type II and shall comply with the Standard Specification for Portland Cement, ASTM C150.

If air-entraining cement is to be used, the Developer shall furnish the manufacturer's written statement giving the source, amount and brand name of the air-entraining addition.

Cement shall be stored in such a manner as to be protected from weather, dampness or other destructive agents. Cement that is partially hydrated or otherwise damaged will be rejected.

- B. Aggregates shall conform to Tentative Specifications for Concrete Aggregates, ASTM C33 for the specified sizes. Aggregates that fail to meet any requirement may be accepted only when: (1) the specified alternate conditions of acceptance can be proved prior to the use of the aggregates on the job and within a period of time such that no work under the contract will be delayed by the requirements of such proof; or, (2) the specification for concrete expressly contains a provision of special mix requirements to compensate for the effects of the deficiencies.

The potential reactivity of aggregates with the alkalis in cement shall be evaluated by petrographic examination and, where applicable, the chemical method of test, ASTM C289, or by the results of previous tests or service records of concrete made from similar aggregates from the same source. The standards for evaluating potential reactivity shall be as described in ASTM Specification C-33, Appendix A1.

Aggregates indicated by any of the above to be potentially reactive shall not be used, except under one of the following conditions:

- (1) Applicable test results of mortar bar tests, made according to ASTM C227, are available which indicate an expansion of less than 0.1% at six months in mortar bars made with cement containing not less than 0.8% alkalis expressed as sodium oxide; or

- (2) Concrete made from similar aggregates from the same source has been demonstrated to be sound after 3-years or more of service under conditions of exposure to moisture and weather similar to those anticipated for the concrete under these specifications.

Aggregates indicated to be potentially reactive, but within acceptable limits as determined by mortar bar test results or service records, shall be used only with "low alkali" cement, containing less than 0.6% alkalis expressed as sodium oxide.

Aggregate of each class and size shall be stored and handled by methods that prevent segregation of particle sizes or contamination by intermixing with other materials.

- C. Water shall be cleaned and free from injurious amounts of oil, salt, acid, alkali, organic matter or other deleterious substances.
- D. Air-entraining agent shall be used in all concrete exposed to the weather. The agent shall conform to ASTM C150 and C260, except that the relative durability factor in the freezing and thawing test shall be not less than 95.
- E. Steel reinforcement shall be free from rust, oil, grease, paint or other deleterious matter.

Steel bars for concrete reinforcement requiring bends shall be deformed billet-steel bars conforming to ASTM A615, Grade 40 or Grade 60.

Straight steel bars shall be deformed bars conforming to one of the following specifications:

Deformed Billet-Steel Bars for Concrete Reinforcement (Grade 40 or Grade 60) - ASTM A615.

Rail-Steel Deformed Bars for Concrete Reinforcement (Grade 50 or Grade 60) - ASTM A616.

Axle-Steel Deformed Bars for Concrete Reinforcement (Grade 40 or Grade 60) - ASTM A617.

Fabricated Steel bar mats shall conform to the requirements of ASTM A184.

Welded steel wire fabric reinforcement shall conform to the requirements of ASTM A185.

Welded deformed steel wire fabric for concrete reinforcement shall conform to the requirements of ASTM A497.

Cold-drawn steel wire reinforcement shall conform to the requirements of ASTM A82.

Deformed steel wire for concrete reinforcement shall conform to the requirements of ASTM A496.

Gages, spacing and arrangement of wires in welded steel wire fabric shall be as defined in ACI Standard 315 of the American Concrete Institute for the specified style designations.

Steel reinforcement stored at the site of the work shall be stored above the ground surface on platforms, skids or other supports and shall be protected from mechanical injury and corrosion.

- F. Water-reducing and set-retarding admixtures shall conform to the requirements of ASTM C494, except that resistance to freezing and thawing shall be determined in all cases, and the minimum relative durability factor shall be 95.

Admixtures shall be Type A, Water-Reducing or Type D, Water-Reducing and Retarding, as defined in ASTM C494.

When added, in the manner and amount recommended by the manufacturer, to the concrete used on the job, with no change in the cement content or proportions of the aggregates, admixtures shall have the following effects:

Type A or Type D: The water content at the required slump shall be at least 5% less with the admixture than without. The air content shall remain within the range specified, but shall not exceed 8% in any case.

Type D: The time of initial setting, determined as prescribed in ASTM C494, shall be from 1 to 3-hours longer with the admixture than without.

- G. Curing compound for concrete shall meet the requirements of ASTM C309.

Unless otherwise specified, the compound shall be Type 2.

All curing compound shall be delivered to the site of the work in the original container bearing the name of the manufacturer and the brand name. The compound shall be stored in a manner to prevent damage to the containers and to protect water-emulsion types from freezing.

5c.03 CLASS OF CONCRETE:

For the purpose of practical identification, concrete has been divided into four classes: Class AA(AE), A(AE), B(AE) and C(AE). The specific use for each Class is identified in the Division in which the concrete is used. The symbol (AE) designates air-entrainment. Basic requirements for each class are as follows:

<u>Class of Concrete</u>	<u>Maximum Net Water Content (gallons/bag)</u>	<u>Minimum Cement Content (bags/cu. yd.)</u>	<u>Minimum 28-day Comp. Strength (psi)</u>
AA(AE)	5	6-1/2	4000
A(AE)	6	6	3500
B(AE)	7	5	2500
C(AE)	8	4	2000

5c.04 COMPOSITION OF CONCRETE:

- A. Aggregates maximum size shall be not larger than 1/5th of the narrowest dimension between forms within which the concrete is to be cast, nor larger than 3/4th of the minimum clear spacing between reinforcing bars or between reinforcing bars and forms. For unreinforced concrete slabs, the maximum size of aggregates shall not be larger than 1/4th the slab thickness.
- B. Water shall be added to the mix to produce concrete with the minimum practicable slump. The slump of mechanically vibrated concrete shall not exceed 4-inches. No concrete shall be placed with a slump in excess of 5-inches.
- C. Air-Content for air-entrained concrete shall comply with the following:

<u>Course Aggregate Size (in.)</u>	<u>Air Content (%)</u>
1-1/2 to 2-1/2	5 +/- 1
3/4 or 1	6 +/- 1
3/8 or 1/2	7 +/- 1

The air-entraining agent shall be added as liquid to the mixing water by means of mechanical equipment capable of accurate measurement and control.

- D. Water reducing, set retarding admixtures shall not be used except with previous approval from the City Engineer and shall in such a case, conform to the standards of materials set forth in the specification.

5c.05 DESIGN OF THE CONCRETE MIX:

The proportions of the aggregates shall be such as to produce a concrete mixture that will work readily into the corners and angles of the forms and around reinforcement when consolidated, but will not segregate or exude free water during consolidation.

Prior to placement of concrete, the Developer shall furnish the City Engineer or Representative, for approval, a statement of the materials and mix proportions (including admixtures, if any) it intends to use. The statement shall include evidence satisfactory to the City Engineer or Representative that the materials and proportions will produce concrete conforming to this specification. The materials and proportions so stated shall constitute the "job mix." After the job mix has been reviewed for conformance to specification by the City Engineer, neither the source, character or grading of the aggregates nor the type or brand of cement or admixture shall be changed without prior notice to the City Engineer. If such changes are necessary, no concrete containing such new or altered materials shall be placed until the City Engineer has approved a revised job mix.

5c.06 OBSERVATION AND TESTING:

The City Engineer shall have free entry to the plant and equipment furnishing concrete under the contract. Proper facilities shall be provided for the City Engineer to observe the materials, equipment and processes and to obtain samples of the concrete. All tests and observations will be conducted so as not to interfere unnecessarily with manufacture and delivery of the concrete.

5c.07 HANDLING AND MEASUREMENT OF MATERIALS:

Materials shall be stockpiled and batched by methods that will prevent segregation or contamination of aggregates and insure accurate proportioning of the ingredients of the mix.

Except as otherwise provided in Division 8, cement and aggregates shall be measured as follows:

Cement shall be measured by weight or in bags of 94-pounds each. When cement is measured in bags, no fraction of a bag shall be used unless weighed.

Aggregates shall be measured by weight. Mix proportions shall be based on saturated, surface-dry weights. The batch weight of each aggregate shall be the required saturated, surface-dry weight plus the weight of surface moisture it contains.

Water shall be measured by weight, to an accuracy within one per cent of the total quantity of water required for the batch.

Admixtures shall be measured within a limit of accuracy of 3%.

5c.08 MIXERS AND MIXING:

Concrete shall be uniform and thoroughly mixed when delivered to the work. Variations in slump of more than 1-inch within a batch will be considered evidence of inadequate mixing and shall be corrected by increasing mixing time or other means. For stationary mixers, the mixing time after all cement and aggregates are in the mixer drum shall be not less than 1-1/2-minutes. When concrete is mixed in a truck mixer, the number of revolutions of the drum or blades at mixing speed shall be not less than 70 or more than 100.

Unless otherwise specified, volumetric batching and continuous mixing at the construction site will be permitted if approved by City Engineer. The batching and mixing equipment shall conform to the requirements of ASTM C685 and shall be demonstrated prior to placement of concrete, by tests with the job mix, to produce concrete meeting the specified proportioning and uniformity requirements. Concrete made by this method shall be produced, inspected, and certified in conformance with Sections 6, 7, 8, 13, and 14 of ASTM C685.

No mixing water in excess of the amount called for by the job mix shall be added to the concrete during mixing or hauling or after arrival at the delivery point.

5c.09 FORMS:

Forms shall be of wood, plywood, steel or other approved material and shall be mortar tight. The forms and associated falsework shall be substantial and unyielding and shall be constructed so that the finished concrete will conform to the specified dimensions and contours. Form surfaces shall be smooth and free from holes, dents, sags or other irregularities. Forms shall be coated with a nonstaining form oil before being set into place.

Metal ties or anchorages within the forms shall be equipped with cones, she-bolts or other devices that permit their removal to a depth of at least 1-inch without injury to the concrete.

All edges that will be exposed to view when the structure is completed shall be chamfered by placing molding in the forms, unless finishing with molding tools.

5c.10 PREPARATION OF FORMS AND SUBGRADE:

Prior to placement of concrete the forms and subgrade shall be free of chips, sawdust, debris, water, ice, snow, extraneous oil, mortar, or other harmful substances or coatings. Any oil on the reinforcing steel or other surfaces required to be bonded to the concrete shall be removed. Rock surfaces shall be cleaned by air-water cutting, wet sandblasting or wire brush scrubbing, as necessary, and shall be wetted immediately prior to placement of concrete. Earth surfaces shall be firm and damp. Placement of concrete on mud, dried earth or uncompacted fill or frozen subgrade will not be permitted.

Unless otherwise specified, when concrete is to be placed over drain fill, the contact surface of the drain fill shall be covered with a layer of asphalt-impregnated building paper or polyvinyl

sheeting prior to placement of the concrete. Forms for weepholes shall extend through this layer into the drain fill.

Items to be embedded in the concrete shall be positioned accurately and anchored firmly.

Weepholes in walls or slabs shall be formed with nonferrous materials.

5c.11 CONVEYING:

Concrete shall be delivered to the site and discharged into the forms within 1.5-hours after the introduction of the cement to the aggregates. In temperatures over 90° F or under conditions contributing to quick stiffening of the concrete, the time between the introduction of the cement to the aggregates and discharge shall not exceed 60-minutes. The City Engineer may allow a longer time, provided the setting time of the concrete is increased a corresponding amount by the addition of an approved set-retarding admixture, in which case, the time increases to 1.5-hours. In any case, concrete shall be conveyed from the mixer to the forms as rapidly as practicable by methods that will prevent segregation of the aggregates or loss of mortar. Concrete shall not be dropped more than five feet vertically unless suitable equipment is used to prevent segregation.

5c.12 PLACING:

Concrete shall not be placed until the subgrade, forms and steel reinforcement have been inspected and approved. No concrete shall be placed except in the presence of the City Engineer or Representative. The Developer shall give 48-hour notice to the City Engineer or Representative each time it intends to place concrete. Such notice will give the City Engineer or Representative adequate time to inspect the subgrade, forms, steel reinforcement and other preparations for compliance with the specifications before concrete is delivered for placing.

The concrete shall be deposited as closely as possible to its final position in the forms and shall be worked into the corners and angles of the forms and around all reinforcements and embedded items in a manner to prevent segregation of aggregates or excessive laitance. Unless otherwise specified, slab concrete shall be placed to design thickness in one continuous layer. Formed concrete shall be placed in horizontal layers not more than 20-inches thick. Hoppers and chutes, pipes or "elephant trunks" shall be used as necessary to prevent splashing of mortar on the forms and reinforcing steel above the layers being placed.

Immediately after the concrete is placed in the forms, it shall be consolidated by spading, hand tramping or vibration as necessary to insure smooth surfaces and dense concrete. Each layer shall be consolidated to insure monolithic bond with the preceding layer. If the surface of a layer of concrete in place sets to the degree that it will not flow and merge with the succeeding layer when spaded or vibrated, the Developer shall discontinue placing concrete and shall make a construction joint according to the procedure specified.

If placing is discontinued when an incomplete horizontal layer is in place, the unfinished end of the layer shall be formed by a vertical bulkhead.

5c.13 CONSTRUCTION JOINTS:

Construction joints shall be made at the locations shown on the Drawings. If construction joints are needed which are not shown on the Drawings, they shall be placed in locations approved by the City Engineer or Representative.

Where a feather edge would be produced at a construction joint, as in the top surface of a sloping wall, an inset form shall be used so that the resulting edge thickness on either side of the joint is not less than 6-inches.

In walls and columns, as each lift is completed, the top surfaces shall be immediately and carefully protected from any condition that might adversely affect the hardening of the concrete.

Steel tying and form construction adjacent to concrete in place shall not be started until the concrete has cured at least 12-hours. Before new concrete is deposited on or against concrete that has hardened, the forms shall be retightened. New concrete shall not be placed until the hardening concrete has cured at least 12-hours.

Surfaces of construction joints shall be cleaned of all unsatisfactory concrete, laitance, coatings or debris by washing and scrubbing with a wire brush or wire broom or by other means approved by the City Engineer. The surfaces shall be kept moist for at least one hour prior to placement of the new concrete.

5c.14 EXPANSION AND CONTRACTION JOINTS:

Expansion and contraction joints shall be made only at locations shown on the drawings, but on flat work, shall be placed at least every 50-feet.

Exposed concrete edges at expansion and contraction joints shall be carefully tooled or chamfered, and the joints shall be free of mortar and concrete. Joint filler shall be left exposed for its full length with clean and true edges.

Preformed expansion joint filler shall be held firmly in the correct position as the concrete is placed.

When open joints are specified, they shall be constructed by the insertion and subsequent removal of a wooden strip, metal plate or other suitable template in such a manner that the corners of the concrete will not be chipped or broken. The edges of open joints shall be finished with an edging tool prior to removal of the joint strips.

5c.15 WATERSTOPS:

Waterstops shall be held firmly in the correct position as the concrete is placed. Joints in metal waterstops shall be soldered, brazed or welded. Joints in rubber or plastic waterstops shall be cemented, welded or vulcanized as recommended by the manufacturer.

5c.16 REMOVAL OF FORMS:

Forms shall not be removed without the approval of the City Engineer or Representative. Forms shall be removed in such a way as to prevent damage to the concrete. Supports shall be removed in a manner that will permit the concrete to take the stresses due to its own weight uniformly and gradually.

5c.17 FINISHING FORMED SURFACES:

Immediately after the removal of the forms:

- A. All fins and irregular projections shall be removed from exposed surfaces.
- B. On all surfaces, the holes produced by the removal of form ties, cone-bolts, and she-bolts shall be cleaned, wetted and filled with a dry-pack mortar consisting of one part Portland cement, three parts sand that will pass a No. 16 sieve, and water just sufficient to produce a consistency such that the filling is at the point of becoming rubbery when the material is solidly packed.

5c.18 FINISHING UNFORMED SURFACES:

All exposed surfaces on the concrete shall be accurately screeded to grade and then float finished, unless specified otherwise.

Excessive floating or troweling of surfaces while the concrete is soft will not be permitted.

The addition of dry cement or water to the surface of the screeded concrete to expedite finishing will not be allowed.

Joints and edges on unformed surfaces that will be exposed to view shall be chamfered or finished with molding tools.

5c.19 CURING AND PROTECTION:

Concrete shall be prevented from drying for a curing period of at least 7-days after it is placed. Exposed surfaces shall be kept continuously moist for the entire period, or until curing compound is applied as specified below. Moisture shall be maintained by sprinkling, flooding or fog spraying or by covering with continuously moistened canvas, cloth mats, straw, sand or other approved material. Wood forms (except plywood) left in place during the curing period shall be kept wet. Formed surfaces shall be thoroughly wetted immediately after forms are removed and shall be kept wet until patching and repairs are completed. Water or covering shall be applied in such a way that the concrete surface is not eroded or otherwise damaged. As soon as the concrete has hardened sufficiently to prevent damage, the finished surface shall be protected for curing in one of the following ways:

- A. Ponding of water on the surface or continuous sprinkling.
- B. Application of absorptive mats such as 3-inches of cured hay, clean straw or fabric kept continuously wet (as approved by the City Engineer).
- C. Application of 2-inches of moist earth or sand uniformly distributed on the surface and kept saturated by spraying with water.
- D. Application of light colored waterproof plastic materials, conforming to "Specifications for Waterproof Sheet Materials for Curing Concrete" ASTM C171, placed and maintained in contact with the surface of the concrete.
- E. Application of a curing compound, conforming to "Specifications for Liquid Membrane - Forming Compounds for Curing Concrete" ASTM C309. The compound shall be light in color and shall be applied in accordance with the manufacturer's recommendations immediately after any water sheen, which may develop after finishing, has disappeared from the concrete surface.

Curing compound shall not be applied to surfaces requiring bond to subsequently placed concrete, such as construction joints, shear plates, reinforcing steel and other embedded items. If the membrane is damaged during the curing period, the damaged area shall be resprayed at the rate of application specified above.

5c.20 REMOVAL OR REPAIR:

When concrete is honey combed, damaged or otherwise defective, the Developer shall remove and replace the structure or structural member containing the defective concrete or, where feasible, correct or repair the defective concrete. Prior to starting repair work the Developer shall obtain the Engineer's approval of its plan for affecting the repair. The Developer shall perform all repair work in the presence of the City Engineer or Representative.

5c.21 CONCRETING IN COLD WEATHER:

Concrete shall not be mixed nor placed when the daily minimum atmospheric temperature is less than 40°F unless facilities are provided to prevent the concrete from freezing. The use of accelerators or antifreeze compounds will not be allowed.

5c.22 CONCRETING IN HOT WEATHER:

The Developer shall apply effective means to maintain the temperature of the concrete below 90°F during mixing, conveying and placing.

5c.23 ACCEPTANCE CRITERIA:

The following criteria will be used to determine if the Developer has met City standards and proper construction of improvements has taken place:

A. Water Ways

Water ways should be five (5) feet wide. Road base depth is six (6) inches and compacted to a minimum of 96% maximum dry density. Reinforcement is typically 5 #4 bars, at 12" centers. If there is ponding of water 1/4" or more, the ponding section, at least, will be replaced. The water way should be replaced if any irregularities are present (spalling, scratches, foot prints, writing, etc.). If cracks are 1/8" or larger, the water way will need to be replaced. If cracks are less than 1/8" wide, then the cracks should be ground and Polyurethane Joint Sealer (Sonoborn or Sika) used to fill, with temperatures between 40° and 100° F at time of placement. For temperatures outside this range, an extended warranty may be accepted for the effected section(s). A water way with more than one crack or spider web cracking will need to be replaced. There will be no lifting of sinking water ways accepted.

B. Curb and Gutter

Curb and gutter width is 30-inches (See Standard Drawings). Road base depth is 6-inches and compacted to a minimum of 96% maximum dry density. If there is ponding of water 1/4-inch or more, the effected curb section(s) will be replaced. The curb will be replaced if any irregularities are present (spalling, scratches, foot prints, writing, etc.). If cracks are 1/8-inch or larger, the curb will need to be replaced. If cracks are less than 1/8-inch wide, the crack should be ground and use Polyurethane Joint Sealer (Sonoborn or Sika) to fill, with temperatures between 40° and 100° F at time of placement. For temperatures outside this range, an extended warranty may be accepted for the effected section(s). Curb with more than one crack or spider web cracking will be replaced. There will be no lifting of sinking curb accepted. Deflection test required before placement of concrete. Backfill curb and gutter no less than 2-inches below Top Back of Curb (TBC).

C. Sidewalk

Standard sidewalk width is 4-feet, unless noted on Drawings and approved by the City Engineer. Road base depth should be 4-inches, and 6-inches under sections located in driveways. Road base compaction should be a minimum of 96% maximum dry density. Sidewalk will be replaced if any irregularities are present (spalling, scratches, foot prints, writing, etc.). If cracks are 1/8-inch or larger, the sidewalk will need to be replaced. If

cracks are less than 1/8-inch wide, they will be ground and Polyurethane Joint Sealer (Sonoborn or Sika) used to fill, with temperatures between 40° and 100° F at time of placement. For temperatures outside this range, an extended warranty may be accepted for the effected section(s). Sidewalk with more than one crack or spider web cracking will be replaced. There will be no lifting of sinking sidewalk accepted. Deflection test required before placement of concrete. Backfill sidewalk no less than 1-inch below top surface.

Sidewalk with horizontal separation of 1/8-inch or more from adjacent concrete will be replaced. If less than 1/8-inch, then it can be sawcut and Polyurethane Joint Sealer (Sonoborn or Sika) used to fill, with temperatures between 40° and 100° F at time of placement. For temperatures outside this range, an extended warranty may be accepted for the effected section(s). Sidewalk with vertical separation of 1/16-inch or more will be replaced. Any sections of sidewalk that have settled more than 1/2-inch from grade will be removed and replaced. Where expansion joints are used, expansion material can not be more than 1/16-inch higher than top of sidewalk or 1/16-inch lower. Standard sidewalks in driveways will need to be removed and replaced with 6-inches of road base and six 6-inches of concrete.

DIVISION 5d

REINFORCING STEEL

5d.01 GENERAL:

All reinforcing bars shall be grade 40. Wire fabric shall conform to ASTM A185.

Before supply of steel, all order lists and bending diagrams shall be provided by the Developer for approval of the City Engineer. The approval of such lists and diagrams shall in no way relieve the Developer of responsibility for the correctness of reinforcing supplied and all expenses incidental to revision of furnished reinforcing steel shall be carried by the Developer.

5d.02 FABRICATION AND PLACING REINFORCEMENT:

- A. Fabrication: Reinforcement shall be cold bent to the shapes shown in accordance with ACI Standard Code, latest edition Chapter 7.
- B. Clearances: All bars shall be of the size specified and shall be placed in the positions shown on the Drawings in such a manner as to be firmly held during the placing of the concrete. Where not otherwise indicated, the following minimum concrete cover shall be provided for reinforcement, as required by the ACI Standard Code, latest edition, Chapter 7.
- C. Support: Bars shall be tied at all intersections except where the spacing is less than 12-inches when alternate intersections shall be tied. Distance from supports shall be by means of ties, hangers, or other approved supports. Metal chairs of approved design shall be used to hold reinforcement from contact with the forms. Metal chairs which are in contact with the exterior surface of the concrete shall be galvanized. Layers of bars or when placing concrete directly on a prepared subgrade, reinforcing shall be separated by precast mortar blocks or by other equally suitable devices. The use of pebbles, pieces of broken stone or brick, metal pipe and wooden blocks shall not be permitted. Reinforcement in any member shall be placed and then inspected and approved by the City Engineer or Representative before the placing of concrete begins. Concrete placed in violation of this provision may be rejected and removal required.

If the fabric reinforcement is shipped in rolls, it shall be straightened into flat sheets before being placed.
- D. Splicing: All splices shall be staggered so that splices in adjacent bars shall be not less than 4-feet apart, and shall conform to ACI Standard Code, latest edition, Chapter 12.

DIVISION 6

FENCING

6.01 GENERAL:

All reinforcing bars shall be grade 40. Wire fabric shall conform to ASTM A185.

Before supply of steel, all order lists and bending diagrams shall be provided by the Developer for approval of the City Engineer. The approval of such lists and diagrams shall in no way relieve the Developer of responsibility for the correctness of reinforcing supplied and all expenses incidental to revision of furnished reinforcing steel shall be carried by the Developer.

Fencing 6-feet in height shall be installed at locations designated by the Planning Commission for the separation of non-compatible uses. Fences shall be chain link, including opaque privacy slats where required by the Planning Commission; solid board; or masonry. Chain link fence and gates shall be constructed as indicated on the Drawings and/or herein specified.

Type "D" Construction fencing may be required where conditions warrant the installation of a temporary fence. Where permanent fencing is required, the temporary fencing may be eliminated if the permanent fencing is installed prior to the start of other construction. The fence shall be protected against damage and, if damaged, it shall be repaired to the satisfaction of the City Engineer or Representative prior to final acceptance.

6.02 CHAIN LINK FENCE:

A. MATERIALS:

The chain link fence and gates shall be USS Cyclone-Type I, Anchor Post Products, Inc., or SS40-Type I, Allied Tube & Conduit, or equivalent. The components shall be as listed and specified below.

Fabric

Height	6' - 0"
Mesh	2-inch
Size Wire	9-gauge
Coating	Zinc coating
Coating specifications	ASTM a-392-Class 1
Tensile strength	80,000 psi minimum

Top Rail

Size galvanized	1-5/8" OD -
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Weight	2.27 pounds per LF
Tension Wire coil spring wire	7-gauge galvanized
Line Posts	4.10 pounds "H" section or 2-3/8" OD - 3.65-pounds per LF - galvanized
Terminal, Corner, and Pull Posts Size Weight	2-7/8" OD round 5.79 pounds per LF

Except where shown differently on the Drawings, gate posts and concrete foundations for gate posts shall be as determined by the following schedule:

Gate Leaf Width (feet)	O.D. Size (inches)	Weight (lb/ft)	Concrete Diameter (inch)	Foundation Depth (ft)
0 to 6	2-7/8	5.79	12	4
6 to 13	4	9.11	18	3
13 to 18	6-5/8	18.97	18	4
Over 18	8-5/8	24.7	18	4.5

All posts, rails, and appurtenances shall be hot-dipped zinc coated steel per ASTM A-120, A-121, or A-153, whichever is applicable. Pipe posts shall have tops which exclude moisture. Fence corner, pull, and gate posts shall be braced with the same material as top rail and trussed to line posts with 3/8-inch rods and tighteners.

The fabric shall be connected to the line posts with 6-gauge hot-dip galvanized wire clips every 14-inches, to terminal, corner, and gate posts by using 1/4-inch x 3/4-inch tension bars tied to posts every 14-inches with 11-gauge, 1-inch wide, hot-dip galvanized steel bands and 3/8-inch diameter bolts and nuts, and to tension wires with 11-gauge hog rings every 24-inches.

A 7-gauge, galvanized, coiled spring tension wire shall be installed along the bottom of the fence fabric.

B. CONSTRUCTION:

The chain link fence shall be located as indicated on the Drawings. Finished fence shall be plumb, taut, true to line and grade, and complete in

all details. End, corner, slope, and gate posts shall be braced to the mid-point of the nearest line post or posts with horizontal braces used as compression members and the said brace posts trussed from the brace back to the bottom of the end, corner, slope, or gate post with 3/8-inch steel truss rods with turnbuckles or other suitable tightening devices used as tension members.

Fence shall be installed with a top rail and a bottom tension wire. Top rail shall provide allowance for expansion and contraction due to temperature differential in the coupling devices.

The fabric shall be placed on the outward facing side of the posts and shall be installed so that the top edge projects over the top rail of the fence. The fabric shall be stretched taut and securely fastened to the posts, the top rail and the bottom tension wire. The tension wire shall be installed parallel to the line of the fabric.

The fence shall follow the general finished grade of the ground and shall have pull posts at all points where required to conform to a change in ground line. The distance between the bottom of the fence and the finished ground line shall not exceed 3-inches. The ground shall be graded before fence posts are located to permit the grade of the fence to remain constant over any local elevation or depressions in the ground line. The surplus dirt, concrete, etc. shall be cleaned up and the grade dressed up upon completion of the work. Fence posts shall be set in concrete foundations at least 3-feet into the ground and shall be spaced not over 10-feet apart. Concrete shall be a minimum of 10-inches in diameter for line posts and 12-inches in diameter for corners and gates. Exposed concrete fence post caps shall be finished off in a workmanlike manner. A minimum of 1-inch of concrete shall be above the finished grade and shall be sloped to drain away from the post.

C. SWING GATES:

Except as shown or specified, all chain link fence gates shall be swing gates. Gate frames shall be made of 1.9-inch galvanized pipe weighing 2.7-pounds per linear foot. Corner fittings shall be heavy pressed steel or malleable castings.

The corners of gate frames shall be fastened together and reinforced with a fitting designed for the purpose or by welding. All welds shall be ground smooth.

Chain link fence fabric shall be attached to the gate frame by the use of tension bars and tie wires as specified for fence construction, and suitable tension connectors spaced at approximately 16-inch intervals.

Gates shall be provided with a combination steel or malleable iron catch and locking attachment submitted to the City Engineer for review. Stops to hold gates open and a center rest with catch shall be provided where required.

6.03 WOOD FENCE:

A. MATERIALS:

- (1) Slats – Redwood, cedar, combed spruce or other wood covering acceptable to the City Engineer.
- (2) Bottom and Top Rail – Minimum 2-inch by 4-inch, 8-foot long cedar stud.
- (3) Corner, Gate, End, or Line Posts – Minimum size 4-inch by 4-inch cedar wood post.

B. CONSTRUCTION:

All corner, gate, end, or line posts shall be set in concrete. The cedar posts shall be set true to line and grade with concrete bases at least 2-feet in depth. A minimum of 6-inches of concrete shall be provided below the bottom of each post. The minimum diameter for the concrete base for any post shall be 12-inches.

Posts shall be sound and free from decay, splits, multiple cracks, or any other defect which would weaken the posts or otherwise cause them to be structurally unsuitable for the purpose intended. The maximum distance between posts in any section shall not exceed 8-inches. The top and bottom railings shall be securely fastened to the posts with galvanized nails or other acceptable means. Changes in line of 30° or more shall be considered as corners.

Fence slats shall be placed on the roadway side of posts unless otherwise approved by City Engineer. The slats shall be placed approximately 1-inch above the ground and on a straight grade between posts by excavating the high points as required. Filling depressions will be permitted only upon approval of the City Engineer.

The slats shall be sound and free from all major decay or defects which would weaken or otherwise cause them to be unsuitable for fence slats. Fastening to top and bottom railings shall be done with two galvanized nails at both the top and bottom rail.

6.04 CONSTRUCTION FENCE SPECIFICATIONS – TYPE “D”:

A. MATERIALS:

- (1) The fabric shall be Class II wire mesh which conforms to ASTM Designation A-116, nominal 0.099-inch Farm Grade with standard 6-inch graduated spacing. The wire mesh shall have a Class 1 zinc coating. Polyethylene mesh fabric may be substituted when approved by the City Engineer.
- (2) Corner, gate, end, or line posts shall be painted metal Tee, U or Y channel, Angular, or other approved shapes 6.5-feet in length.

B. CONSTRUCTION

Metal fence posts shall be spaced at a maximum of 16-feet. Post spacing measurements shall be made parallel to the ground slope. All posts shall be placed vertically. Metal posts may be installed by driving, if this can be done without damage to the post. Otherwise, they shall be installed to the specified depth (2.5-feet) in larger drilled or dug holes and backfilled and compacted.

Corner posts shall be brace in two directions. End and gate posts shall be braced in one direction. Wire mesh fabric shall be drawn tight enough to eliminate all sag without causing the “tension crimps” to fail to function.

Any high points along the ground surface which interfere with the placing of wire mesh shall be excavated to provide at least 2-inches of ground clearance. Every alternate lateral wire in the mesh fabric shall be fastened to each post by means of a clamp.

6.05 MASONRY FENCE:

Because of the variable nature of masonry fences, both with regards to materials desired and also with the condition of the foundation soils, no standard specification is given. The Developer, or others desiring to install the masonry fence, shall be responsible to submit engineered drawings for review. No masonry walls will be allowed until the plans have been reviewed and approved by the City Engineer.

DIVISION 7

COMMUNICATION UTILITY SERVICES

7.01 SCOPE OF WORK:

This division defines and covers the requirements and responsibilities for the installation of City owned communication utility systems. For information regarding requirements for communication utility systems not owned by the City, please refer to the standard drawings and specifications of the applicable utility.

The underground conduit installed to provide communication service shall be furnished and installed by the Developer. In the event of a request for relocation of communication facilities, the associated costs shall be the responsibility of the requestor. All new communication utility systems shall be constructed underground, unless otherwise authorized by the City Engineer. No overhead communication lines will be allowed unless authorized by the Power Department Superintendent.

Developer shall furnish and install all communication facilities except for the following, which shall be completed by the Utility:

- A. Pulling underground or overhead cable;
- B. Installing communication cable terminations;
- C. Setting of large communications pedestals which house Nodes, and Fiber Optic Equipment;
- D. Installing communication connections and terminations;
- E. All overhead facilities, including extension of risers as shown in the standard drawings.

7.02 ATTACHING TO EXISTING CITY FACILITIES PROHIBITED:

There shall be no installation on or connection to poles or other equipment owned by the City unless specifically authorized, in writing, by the City. Unauthorized, or incorrect, connections to or installations on City owned poles or equipment shall either be removed or corrected, as directed by the City Engineer.

7.03 PERMITS AND INSPECTIONS:

Service shall not be established until all necessary permits have been obtained and until the wiring installation has been inspected and approved by the City. The City reserves the right to inspect wiring and to refuse service to any installation that is, in the opinion of the City, unsafe or if the operation of the same may be detrimental to the service furnished to other Customers or the City.

7.04 CONSTRUCTION DRAWINGS:

Communication utility plan drawings must be approved by the City Engineer in order to be considered valid for construction and to be authorized to proceed with construction. Revisions, if needed, must also include the date the revision was approved.

7.05 CONDUIT:

All conduit shall be orange 4-way microduct SDR 11 HDPE pipe meeting ASTM-3035 specifications, unless otherwise directed by the City Engineer or their designee. All bends or sweeps in conduit must be made with manufactured parts and fittings; no deformations or alterations shall be allowed to conduit to make such bends or sweeps. The minimum radius for any bend or sweep in the conduit shall be 24-inches. The total number of bends in any conduit run shall not exceed 360°, unless otherwise authorized by the City Engineer.

All conduit shall be buried at a minimum depth of 24-inches and a maximum depth of 30-inches, unless otherwise approved by the City Engineer, and must have a 3- foot minimum separation from City Power. All conduit must maintain at least a 4- inch separation from all concrete and asphalt surfaces. Trenches may not be shared with City Power, unless otherwise approved by the City Power Superintendent.

7.06 HANDHOLES, PULL BOXES AND OTHER ENCLOSURES:

All handholes or pull boxes shall be polymer concrete or HDPE with lids inscribed with “KAYSVILLE FIBER”, and must be level and installed in accordance with the Kaysville City standard drawings. Ground sleeves, pads, handholes, pull boxes and other enclosures shall be installed in such a manner as to avoid movement or settlement; any movement or settlement beyond 1/2 inch, or that adversely impacts the utility or its surroundings, shall require correction by the Developer.

The ends of conduits in handholes or pull boxes shall have bell ends, and enter the box vertically at +/-30°. Conduit ends shall be at least 2-inches above the bottom of the box, and at least 8-inches below the top of the box.

Ground rods shall be required and installed in boxes as called out in the Kaysville City standard drawings. Ground rods shall be 5/8-inch by 8-foot copper clad.

7.07 LOCATING WIRE, TAPE AND LABELS

All conduits shall have a 6-inch tape buried 12-inches above the conduit, reading: “CAUTION: FIBER OPTIC BURIED.” The end of each stubbed conduit, including service laterals, shall be marked to the surface according to the standard drawings.

All conduit shall require a tracer wire (12 gauge) for locating purposes placed on top of the pipe. Where splices are to be made, a water tight splice kit must be used. See the Kaysville City standard drawings for additional detail. All conduits shall have a pull string in the conduit securely tied off in each pad or enclosure.

An imprinted, plastic label shall be securely taped to the end of each conduit run. The label shall indicate the location of where the run ends.

7.08 SERVICES

Service conduits shall be 1-inch PVC or approved equivalent having no bends greater than 90° shall be run from the site being served to a City handhole or pull box.

The City Engineer or their designee will determine the point of delivery for all developments and will decide if the multiple buildings, business and residential, or portions of buildings will be serviced using single or multiple distribution unit (MDU) enclosures.

Public Works: 801-544-8112

City Utility Locator: 801-430-1822

Public Works Inspector: 801-807-9222

QGC# _____

Faxed _____

Emailed _____

KAYSVILLE CITY PUBLIC WORKS (PW)
EXCAVATION, CROSSING OR ALTERATION (EXCAVATION) PERMIT
WITHIN KAYSVILLE CITY RIGHT OF WAY OR PROPERTY

Bond Amount: _____

Permit No: _____

Maintenance Fee Amount: _____

Issued by: _____

Receipt No: _____

Phone Number: _____

Applicant: _____

Contractor License #: _____

Purpose of excavation, crossing or alteration: _____

Location: _____

Requirements and Provisions:

1. For, and in consideration of, the granting of permission to excavate, cross or alter Kaysville City right of way, the applicant agrees to the following requirements and provisions with respect to the performance of work under this permit:
 - A. All work is limited to what is shown and/or described herein and will be done at no expense to Kaysville City. All work shall at least comply with the requirements established in this permit, the Kaysville City Ordinances and the standards and specifications of the Kaysville City Development Code.
 - B. The applicant shall hold Kaysville City Corporation, its officers, employees, or agents harmless from any and all costs, damages, and liabilities that may arise, or be claimed to arise, and all costs, damages, and liabilities that may arise, or be claimed to accrue, by reason of any work performed under a permit issued pursuant to this application. The applicant shall provide Kaysville City with the necessary bond and fee amounts, for each and every application, in accordance with Ordinance 9-2-9 and the current Kaysville City Consolidated Fee Schedule.
 - C. Cutting into asphalt less than 3 years old is prohibited. Exceptions in the most extreme cases may be approved, but the Special Restoration Standard, as detailed in Ordinance 9-2-9, would apply to the restoration.
 - D. Between October 15th and April 15th, bond amounts for any cuts will be doubled, as determined by the City Engineer. Approval of cuts during this time are subject to factors such as weather, impacts to access, emergency response and the general public etc. Ambient temperatures must remain at or above 50° F for at least 2 hours before placement of Hot Mix Asphalt (HMA) and 2 hours after rolling/compaction. If temperatures are too low, or if HMA is not available, cold mix asphalt shall be used temporarily and properly maintained until it can be replaced at a later date in accordance with this permit.
 - E. Pot-Holing for utilities in asphalt must be done by coring a minimum width of 6-inches. Repairs shall be made with the keyhole method by filling the space with flowable fill up to the bottom of the asphalt and placing the original core with "Utilibond" or equivalent. Alternative pot-holing methods may be proposed to the City Engineer, and if approved, shall require the pot-hole to be filled with flowable fill before repaving in accordance with this permit.
 - F. The applicant shall be responsible for location and protection of all utilities within the work area location, in accordance with Utah Bluestakes laws.
 - G. This permit must be submitted with a plan view of the work showing horizontal dimensions of trenches, and the permit must be approved prior to any work commencing.
 - H. Prior to excavation, traffic control plans must be submitted and approved. 24-hour notice is required for all residents, businesses and emergency personnel impacted by road closures or disruptions to water or other utilities. Road closures or restricting traffic to 1 lane, will require the use of flaggers or hard closure barricades. Excavations shall be properly safeguarded with barricades and/or warning lights, to prevent accidents, and may require steel plates when personnel are not on site. Excavation sites not properly or safely maintained in accordance with this permit and all other applicable laws and regulations shall be assessed a fee of up to \$500 per day, and shall be subject to a stop work order being issued until the issue is resolved. All closures must be approved by PW, and may be subject to a fee of up to \$500 per day.
 - I. The applicant must provide notice to the PW Inspector at the start of excavation and prior to backfilling. Except for utility bedding materials, all backfill shall be road base (untreated base course or UTBC) and be

backfilled in 1 foot lifts and compacted to 96%. UTBC will be installed to a minimum depth of 12-inches within the travel and shoulder area of the road, and backfilled excavations must be maintained free of depressions or hazards. All excavation spoils, debris or other materials generated by the work shall be disposed of by the applicant. To safeguard roadways and utilities, if rare or unusual or unsafe conditions or circumstances exist at an excavation site, or within an excavation, PW may require additional materials or methods to be utilized in backfill, paving or restoration.

- J. **After** backfill, the applicant shall then T-cut an additional 18-inches outside all of the edges of the existing asphalt. The cut edges will have tackifier applied, and the excavation repaved with PG 58-28 HMA, 1/2-inch aggregate, with no more than 15% RAP. All T-cuts must be inspected and approved before paving and asphalt plant tickets shall be provided, if requested.
 - K. Pavement must be replaced within 8 business days (from the date the excavation commences) or the applicant may be assessed a fee of up to \$500 per day. All other remaining work and restoration shall take place within 15 business days (from the date the excavation commences) or the applicant may be assessed a fee of up to \$500 per day, with the exception of the asphalt surface treatment.
 - L. In accordance with Ordinance 9-3c-9, it is unlawful to place or stockpile any dirt, rock, bark, mulch or other material on a public street right of way (including the curb and sidewalk) for more than 48-hours. Any materials stockpiled on a Public Street right of way must not damage the underlying surface, and must not violate any laws or regulations. Asphalt shall never be stockpiled on Public Streets.
 - M. Interfaces between old and new asphalt/concrete shall be crack sealed, and inspected, before an asphalt surface treatment is applied to the repaved surface. Surface treatments shall extend 12-inches beyond asphalt cuts.
 - N. Any improvements, including (but not limited to) paint, landscaping or signage, effected by the work shall be re-established to their original condition.
 - O. Upon completion of the items above, the applicant shall request an inspection in order to receive satisfactory completion. Anything found to be defective, unsafe or non-compliant with this permit shall be removed, replaced or otherwise fixed, as required by the PW Inspector.
 - P. For 1 year after the date of satisfactory completion, the applicant shall be responsible to maintain the excavation site (including utilities, asphalt and concrete etc) and assume sole liability for any injuries or damages caused by defects resulting from the work. Defects may include, but are not limited to, settling, cracking, buckling, spawling, leaking, etc. By the end of the 1 year period, the surface treatment must be applied to the repaved surface.
 - Q. The City will notify the applicant of items requiring repair or attention. In cases of emergency, or where safety of persons or property is otherwise compromised, the applicant must respond to requests for repair within 24-hours, and resolve said issue(s) within 4-business days after receiving the request. If the applicant fails to respond within this timeframe, a fee of up to \$500 per day may be assessed, and PW may cause the necessary repairs to be made at the applicant's expense.
 - R. Bond amounts reflect the potential cost of replacing or repairing the excavation or the impacts arising from the work. The City may, at its discretion, draw on bond amounts to either finish or repair work if issues regarding defects, schedule or compliance with this permit arise.
 - S. 1 year after satisfactory completion, the applicant shall request a final inspection of the excavation site. If the final inspection finds the site to be free of defects or concerns, any remaining bond amounts shall be refunded. Any additional defects found during the final inspection must be remedied prior to refunding of the bond. Bond amounts used by the City to correct defects or concerns are non-refundable. Maintenance fees and other fees are also non-refundable, and may be deducted from the bond amount.
 - T. If the applicant exhibits a repeated pattern of failure or neglect to complete repairs and/or concerns over poor workmanship/compliance persist, in order to help safeguard utilities, infrastructure and the health and well-being of the general public, the City may reject future applications from the applicant.
2. A copy of this permit must remain at the site during construction.

I HEREBY ACKNOWLEDGE THAT I HAVE READ THESE INSTRUCTIONS AND PROVISIONS AND AGREE TO ITS REQUIREMENTS AND ASSUME ALL DUTIES AND OBLIGATIONS PROVIDED HEREIN.

Date: _____ Applicant (print): _____ Sign: _____

PW Inspector Approval: _____ Date: _____

City Locator Approval: _____ Date: _____

Additional instructions: _____

AN ORDINANCE ENACTING 19-5-7, TECHNICAL SPECIFICATIONS AND DRAWINGS, OF CHAPTER 19-5, SUBDIVISION STANDARDS, OF TITLE 19, SUBDIVISIONS, OF THE REVISED ORDINANCES OF KAYSVILLE CITY PROVIDING FOR REPEALER; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Kaysville City has prepared updated details and drawings for development and construction of city infrastructure; and

WHEREAS, Kaysville City has used the same drawings for several years without a comprehensive update; and

WHEREAS, the Kaysville City Council desires to have communications conduit included with new development; and

WHEREAS, the technical specifications and standard drawings should be adopted by ordinance.

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

SECTION I: Repealer. If any provisions of the City's Code previously adopted are inconsistent herewith they are hereby repealed.

SECTION II: Enactment. 19-5-7, Technical Specifications and Drawings, of Chapter 19-5, Subdivision Standards, of Title 19, Subdivisions, of the Revised Ordinances of Kaysville City is enacted as included as attached:

SECTION III: Severability. If any section, subsection, sentence, clause or phrase of this ordinance is declared invalid or unconstitutional by a court of competent jurisdiction, said portion shall be severed and such declaration shall not affect the validity of the remainder of this ordinance.

SECTION IV: Effective Date. This Ordinance shall take effect 20 days after being passed and adopted by the City Council.

PASSED AND ADOPTED by the City Council of Kaysville City, Utah, this ____th day of _____, 2020

Katie Witt
Mayor

ATTEST:

Annemarie Plaizier
City Recorder

STAFF REPORT



COUNCIL MEETING DATE: July 2, 2020

TYPE OF ITEM: Work

PRESENTED BY: Josh Belnap

SUBJECT/AGENDA TITLE: Water Quality Efforts

EXECUTIVE SUMMARY:

The Kaysville City Water Department has spent the last 3 years making several changes aimed at streamlining operations, increasing efficiency and increasing water quality and overall system reliability. These changes include updating our meter infrastructure, planning a project to automate our water tank valving, increasing valve and hydrant inspection/replacement, planning projects to boost chlorine levels, water line replacements and shifting around responsibilities within the Public Works Department. Each of these has, or will have, had a positive impact on the focus and ability of the department, but we are still finding ourselves shorthanded and scrambling to keep up with the basic operations of the department, let alone deal with emergencies, repairs or other projects.

Although the water department operates with enterprise funds rather than the general fund, the department is not unique in terms of staffing shortages and concerns about adequately meeting the demands of operating the system.

Public Works would like to discuss available options with the Council to help meet this need. We recognize the difficulty that all the departments are facing in this regard, and the delicate nature of the topic especially at this time of uncertainty, but we want to do everything we can to prevent an issue from arising with regard to system integrity or water quality.

Council Options: Discuss and provide direction

Recommended Options: NA

Fiscal Impact & Fund Source for Recommended Action: Water Enterprise Funds

Attachments: NA
