P&Z Packet

Planning Commission Meeting 05/05/22

04/29/2021

Grantsville City Corporation
Kristy Clark, Zoning Administrator
Email: kclark@grantsvilleut.gov

P&Z 05/05/22

MEETING AGENDA

AMENDED AGENDA – APRIL 29, 2022

We will continue to broadcast the Planning Commission meetings electronically on Zoom. If you choose to attend, please wear a face covering.

PUBLIC NOTICE

Notice is hereby given that the Grantsville City Planning Commission will hold a Work Meeting and a Regular Meeting on **Thursday May 5, 2022** in the Grantsville City Hall Council Chambers at 429 East Main Street in Grantsville Utah. **The Work Meeting shall begin promptly at 6:00 p.m. and the Regular Meeting shall begin promptly at 7:00 p.m.**

THE WORK MEETING WILL OFFICIALLY BE CALLED TO ORDER BY COMMISSION CHAIRMAN, BRIAN PATTEE.

1. **Discussion to recommend approval the PUD Plan for Dustin Hall, D.A.B. & K, LLC. on the Willow Fields PUD Subdivision located at approximately at 834 N. Old Lincoln Hwy for the creation of twenty-seven (27) lots in the RR-1 zone.**

THE REGULAR MEETING WILL OFFICIALLY BE CALLED TO ORDER BY COMMISSION CHAIRMAN, BRIAN PATTEE.

PLEDGE OF ALLEGIANCE

1. **Discussion to approve a Commercial Conditional Use Permit for Shane and Jaime Reedy to own and operate a Tire Maintenance Shop located at 167 North Old Lincoln Hwy in the MD zone.**

PUBLIC HEARINGS:

a. **Proposed Commercial Conditional Use Permit for Shane and Jaime Reedy to own and operate a Tire Maintenance Shop located at 167 North Old Lincoln Hwy in the MD zone.**

CONSIDERATIONS:

1. **Consideration to approve Commercial Conditional Use Permit for Shane and Jaime Reedy to own and operate a Tire Maintenance Shop located at 167 North Old Lincoln Hwy in the MD zone.**

2. **Consideration to recommend approval of the Final Plat for Northstar Ranch, LLC and Travis Taylor for the Northstar Ranch Subdivision P.U.D., Phase 8 located at approximately 500 W Durfee Street for the creation of fifteen (15) lots in the R-1-21 zone.**

3. **Consideration to recommend approval the PUD Plan for Dustin Hall, D.A.B. & K, LLC. on the Willow Fields PUD Subdivision located at approximately at 834 N. Old Lincoln Hwy for the creation of twenty-seven (27) lots in the RR-1 zone.**

4. **Consideration to recommend approval of the Preliminary Plan for Dustin Hall, D.A.B. & K, LLC. on the Willow Fields PUD Subdivision located at approximately at 834 N. Old Lincoln Hwy for the**

creation of twenty-seven (27) lots in the RR-1 zone.

5. **Discussion to amend Chapter 14, 15, and 16 of the Grantsville City Land Use Management and Development Code.**

6. **Consideration to approve the meeting minutes for the previous P&Z Meeting that was held April 7, 2022.**

7. **Consideration to approve the meeting minutes for the previous P&Z Meeting that was held April 21, 2022.**

8. **Report from City Council Liaison Mayor Critchlow.**

9. **Adjourn.**

DATED April 29, 2022. By the Order of Grantsville City Planning Commission Chairman, Brian Pattee.
Kristy Clark, Zoning Administrator

The anchor location will be City Hall at the above address." All interested persons are invited to attend the Zoom meeting. All public comments for the public hearing section must be written comment and will need to be submitted to the Zoning Administrator in advance. The current zoning Code and proposed amendments may be reviewed on the Grantsville City website located at www.grantsvilleut.gov. In accordance with the Americans with Disabilities Act, Grantsville City will accommodate reasonable requests to assist the disabled to participate in meetings. Request for assistance may be made by calling City Hall at 435-884-3411 at least 24 hours prior to the meeting that will be attended.

CERTIFICATE OF POSTING: This agenda was posted on the Grantsville City Hall Notice Board, the State Public Notice website at www.utah.gov/pmn/index.html, the Tooele Transcript Bulletin, and the Grantsville City website at www.grantsvilleut.gov.

Join The Zoom Meeting
Meeting ID: 843 3790 2479

WORK MEETING AGENDA

ITEM #1

TECHNICAL MEMORANDUM

TO: Kristy Clark, Grantsville City Planning and Zoning Administrator
FROM: Shay Stark, Contract City Planner
DATE: April 21, 2022
SUBJECT: Willow Fields PUD Subdivision – Preliminary Application
PROJECT NO.:

An PUD and Preliminary application have been submitted to Grantsville City for the Willow Fields PUD Subdivision.

Background:

Zoning: RR-1 Zone
Property Size: 38.526 acres
Number of Lots Proposed: 27
Density: 0.70 units per acre.
Open Space 5.028 acres

The proposed subdivision is located on the Old Lincoln Highway at approximately 834 North. The subdivision has been through three reviews and has been brought forward to Planning Commission by the request of the Applicant. The proposed subdivision is asking for a PUD for several reasons, the specifics of the PUD can be found in the Willow Fields PUD Objectives provided in the Planning Commission Packet. A clear list of all the requested exceptions has not been provided in one concise location, however there are exceptions titled Proposed Setback Modifications on Preliminary Plan Sheet V-100. Other exceptions are interspersed throughout the application.

Technical Review:

The application proposes that two half acre lots be allowed fronting the Old Lincoln Highway. There are existing sewer and water utilities in the Old Lincoln Highway. The property loses elevation as it slopes away from the highway making it challenging to provide sewer service to the property from the highway. When the application was submitted the purpose of the two-half acre lots was to allow the applicant to develop lots on the highway that can be quickly improved

and sold to help with the costs for the development of the internal lots. Half acre lots are not allowed in the RR-1 zone. See GLUDMC Chapter 14.5. The approval of these two lots is an exception to the zoning requirements. In conjunction with the development of the half acre lots the applicant desires to reduce the setback requirements found in the RR-1 zone for these two lots because they are not full acre lots. The modification of the setbacks for the two lots fronting Old Lincoln Highway would also be an exception to the zoning ordinance. The overall density of the project is still less than one lot per acre even with the two-half acre lots.

Goal #3 Support a Mix of Land-Uses as found in the Land-Use element of the Grantsville City General Plan includes the following statement: #7. *Allow the sizes of lots/units within a subdivision to vary from the zoning requirement while maintaining the overall zoning density of the parcel to provide Improved Open Space through the Planned Unit Development (PUD) Process.* The proposed subdivision provides 5.028 acres of land as open space which in the Applicant's objectives calls the open space "open space/park" and make known that it will serve the surrounding residents. The Objectives also note that the five-acre park covers "13% of the projects gross land area." The City will not accept anything less than 5 acres for dedication. It should be noted that the location of the proposed park is centered in a wetland area as designated on the state wetlands mapping. Wetlands will be discussed further on. Due to the fact that additional open space beyond the 10% required by code and the overall density is still less than one unit per acre the allowance of various size lots should be taken into account when considering the two-half acre lots.

Probably the most significant exception to City standards is the street cross section that is being proposed. The street section that is proposed has 22-foot-wide pavement and 8-foot road base shoulder. A six-foot-wide trail runs along the south side of the street and stormwater infiltration channel running along the north side of the street. In the objectives the applicant references three goals from the General Plan to justify the proposed street cross section: Goal #2 Create a more pedestrian friendly community, Goal #4: Retain the small-town charm, Goal #6 preserve the natural environment.

The applicant uses goal #2 to justify the six-foot wide trail in place of the typical sidewalks. City staff is not opposed to the use of a trail as this has been approved in Worthington Ranch nearby. A trail is typically used by multiple types of users. Bikes, horses, scooters and pedestrians to name a few, share use of a trail. A pedestrian friendly trail is not one foot wider than a standard

sidewalk based on perception of safety or real factors into the design of a trail. The American Association of State Highway and Transportation Officials (AASHTO) has published design guidelines for multi-use trails and has established a recommendation of a minimum of 10 feet width (12 to 14 feet width for heavy use areas). Grantsville City has approved a minimum of 8-foot widths in other areas in town. Why wouldn't at least the same be recommended here?

The Applicant states that they are trying to retain the small-town charm by mimicking a design found in the County. As previously stated, the applicant proposes a 22-foot-wide pavement with 8-foot-wide shoulders on each side. The use of the drainage ditch and trail in place of sidewalk curb and gutter is argued to preserve the small-town charm. Here again, the city staff is not against considering such a design if it is correctly implemented. As has been noted by the applicant, there are several County streets that have a similar cross section. However, these streets are typically very sparsely populated and have not been developed as part of a subdivision but remain at their historic widths and levels of improvement from when they were lanes serving large agricultural properties. Even the County requires basic standards be met for new subdivisions. The design of a subdivision is looking forward to adequately serve the needs of the subdivision and its inclusion into community networks and systems.

In September 2017 the Grantsville City Council voted to remove the Residential Rural Roadway Section and the Residential Roadway Section from the city standards for multiple reasons. The fire department had presented the need for a minimum travel width of 42 feet because of accessibility issues due to parking on the narrower travel widths (32' and 34') of the residential streets. Large vehicles such as larger pickups, RV's toy haulers being temporarily left on residential streets combined with vehicles parked on the opposite side were making it impossible for emergency equipment to pass through. Secondarily, if fire equipment was set up with stabilization arms in place it was nearly impossible to get another larger vehicle by. The 42-foot-wide travel width greatly helps this situation. Other developments such as Presidents Park and Worthington Ranch have been approved through the PUD with 32-foot hard surface travel paths. In those cases, they limited on street parking and made sure that they had provided adequate onsite parking.

The water and sewer utilities are also part of the network of systems that must be considered. As the application was originally submitted the applicant was proposing septic systems. The City has been working with a neighboring landowner to develop a well field to municipal standards and put

a protection zone in place around the well field. The protection zone study is complete and either has been submitted to the state or is in process of being submitted to the state. The water owner is also filing a change application to move rights to the proposed new well locations with the intent to start the first well once the application is approved. The applicant was asked to provide a sanitary sewer system to protect the ground water and aquifer from the abundant nitrates that are produced by a septic system. The applicant has agreed to install the sewer system but there is a significant off-site system that is required which the owner does not feel he should bear the burden to construct as it will serve others in the future. The applicant has agreed to construct the first phase of their development with the sewer pipe installed and a small lift station and pressure sewer line at the bottom of the hill to be pumped to Old Lincoln Highway. The maintenance and cost of operation would be born by the residents of the subdivision. At the time that a plan is put in place to construct the sewer line from the Northwest Interceptor south in alignment with 600 West, future phases would be developed, and the sewer would be sent gravity flow to the 600 West sewer line. The lift station and pressure pump line would be decommissioned at that time.

At this point in time the water for the proposed application would come from Old Lincoln Highway. When development occurs to the east the line would be tied into the system to the east.

Goal # 6 Preserve the natural environment has been stated as one of the purposes for the open ditch stormwater system. Again, staff may not have a problem with this if it is designed correctly. Presidents Park was allowed to utilize a similar concept. However, one of the key reasons that that City eliminated the Residential Rural Roadway Section is due to the open drainage ditches and what residents have done with them as density has increased. Some residents do not like the ditches and have filled them in or allowed them to naturally fill in due to lack of maintenance, or modified driveways to block the ditches. Property damage has occurred with flooding. The city does not have the resources to constantly police these ditches. So, City Council moved to minimize the problems with future development by removing the residential option from the street standards. The property that this application covers has significant elevation change from Lincoln Highway to the east on roughly 1/3rd of the property. For this section of drainage to function as an infiltration area there will need to be several drop structures. Even then it is likely that a basin will be required at the bottom to catch the water and allow infiltration. Who maintains this elaborate system? How do you make this series of drop structures safe as it is in a public way? The City staff supports LID if it can be designed to be safe, protect property, and maintenance issues and costs are addressed.

Finally, the State maps show a wetland area in the center low point of this property. Again, the applicant has expressly stated that they want to comply with the General Plan Goal to Preserve the Natural Environment. The applicant was asked to address the wetland area and get a determination of the legitimacy of the wetland area, if necessary, a delineation. Worthington Ranch is located nearby and was required to do the same. The great concern to preserve the natural environment does not seem to apply to the wetlands area as the applicant has brought in truck loads of dirt to fill the wetland area in. They have not provided the city any evidence that they have worked through the wetlands processes, nor have they obtained the proper permits from the city for the earthwork that is occurring. Any legitimacy to the idea that the applicant desires to preserve the natural environment with the proposed project is destroyed by the blatant act of filling in what may be a wetland area without going through the appropriate processes to verify otherwise.

Recommendation:

Staff does not recommend approval of the Willow Fields PUD application as there are several items that have been discussed that do not meet City codes and standards nor does staff feel the application meets the intent the applicant has represented in the written objectives to meet certain goals in the General Plan as has been discussed above. For the same reasons staff does not recommend the approval of the Preliminary application as it is currently presented. If Planning Commission does see fit to recommend approval of either or both applications, staff respectfully requests that the City require all improvements including utilities and surface to be owned and maintained by the subdivision as they do not meet the current city standards.

END

GRANTSVILLE CITY PLANNED UNIT DEVELOPMMENT (P.U.D.) APPLICATION

DATE PAID 12-1-2021

$1000 + $30 ~~FEE $100.00~~ per dwelling

HEARING DATE April 7, 2022

PERMIT# _____

Name Dustin Hall / D.A.B.$K LLC Phone _____

Mailing Address: _____

Address of Subject Property 834 N. Old Lincoln Hwy, Grantsville, UT. 84029

Do You Own the Property? YES

Current Zoning and Total Acres Involved RR-1 / 38.526ac

Detailed Written Description of Proposed Use (attach separate sheets, if needed):

Subdivision development, mainly 1-Acre lots w/ (2) 0.5 Acre Lots and 5 Acres of open-space.

Submit All of the Following Items with the Application:

a. X Vicinity map of the parcel with North indicated;

b. X A plat or survey of parcel with legal description and actual dimensions of property;

c. X NA? USE PRELIMINARY PLAN Site plan with the size and location of all existing and proposed buildings, include building setbacks and elevations, along with all driveways and exact number and size of all parking spaces; Site plan application and associated fee (if applicable);

d. X A written statement which indicates specifically any change, alteration, modification or waiver of any zoning codes or development regulations being requested. There is no assumption of approval for waivers not included in the written request, or which are specifically granted by Planning Commission by motion;

e. X Attach a copy of the P.U.D. Objectives List with a written statement indicating how the proposed development will promote the objectives;

f. _____ Fifteen (15) "11 x 17" paper copies of the proposed plan.

g. X USE PRELIM PLAN LABELS. Names and Addresses of the owners of all properties within (500 feet) of the proposed subdivision's boundaries; a plat of the parcel and a Radius Report can be obtained from Tooele County Recorder's office, self-sealing envelopes, mailing labels and first class postage for all those listed on the labels. **DON'T PUT MAILING ADDRESSES ON ENVELOPES! THANK YOU! Addresses must be from Tooele County Recorder's Office!**

h. N/A If accessing Main Street, SR 112, or SR 138, an Encroachment Permit, or letter of feasibility from UDOT (if applicable);

i. _____ Any other items as required by Zoning Administrator and/or Planning Commission prior to, or after public hearing consideration.

NOTICE: Any items in this application that duplicates items requested in another concurrent process are not required.

Dustin Hall
SIGNATURE OF APPLICANT

Barry Anderson
SIGNATURE OF CO-APPLICANT

Memorandum

TO: Grantsville City Planning and Zoning

FROM: Barry Bunderson, P.E.

SUBJECT: Proposed Willow Fields PUD Objectives

DATE: February 17, 2022

CC: File

The Willow Fields PUD will achieve the following objectives:

A. This project proposes a unique roadway section that would not be possible through the standard land use processes. The roadway section includes the following elements consistent with the community design goals of the General Plan:
   1. Goal 2: Create a more pedestrian-friendly community. While the Willow Fields PUD is mostly 1-acre lots aimed at the core value of small community feel, the roadway section includes a pedestrian trail to provide connection to the recreational uses within the PUD
   2. Goal 4: Retain the small-town charm. The roadway section has the form of a more rural county roadway indicative of the less populated small-town charm.
   3. Goal 6: Preserve the natural environment: The Willow Fields PUD roadway section proposes to use a roadside swale within the right-of-way to handle the stormwater retention requirements. The intention is to mimic the natural response of groundwater recharge by allowing the water to collect into the swale and then be dammed up at specific intervals so that the water is infiltrated into the ground at the approximate location in which it fell to the earth.

B. Willow Fields PUD proposes to dedicate to Grantsville City 5 acres of open space. The 5 acres is 13% of the project's gross land area. The location of the proposed open space is in an area of town where recreational spaces are very limited. The location is also near the location of a proposed 5-acre park as identified on the General Plan- Recreation Plan Map.

C. No architecturally or historically significant buildings exist within the boundaries of this project.

D. Willow Fields PUD anticipates that the 5-acre open space/ park area will immediately serve the existing residents on Old Lincoln Highway as well as the Silver Fox community in addition to the PUD itself. The open space/ park area would be a safe location for users to get to as it is out of the flow of major traffic and in a quiet part of the city and will offer an elements of Goal 6 previously mentioned striving for a balance of open lands/recreation spaces with growth.

E. The Willow Fields PUD has an average Lot size of 1.003 Acres with a gross density of 1.43 acres per Lot. Overall, the proposed development is consistent with the underlying zoning and is compatible with the surrounding housing establishments and the compatibility with the surrounding undeveloped or agriculturally used lands is very likely.

Memorandum

TO: Grantsville City Planning and Zoning

FROM: Barry Bunderson, P.E.

SUBJECT: Proposed Willow Fields Subdivision Zoning modifications

DATE: November 29, 2021

CC: File

For the complete development a modified street section is proposed in the project drawings and is applicable to all streets of this development.

For Lots of the 0.5-acre class the zoning regulations are those as identified in Section 15.1 R-1-21 with the following modifications:

- Minimum yard setback on corner lots include: one front yard of 40 ft, one rear yard of 25 ft, one interior side yard of 10 ft, and one street side yard of 25 ft.

For Lots of the 1-acre class the zoning regulations are those as identified in Section 14.5 RR-1 with the following modifications:

- Minimum yard setback on corner lots include: one front yard of 40 ft, one rear yard of 30 ft, one interior side yard of 15 ft, and one street side yard of 30 ft.

Memorandum

TO: Grantsville City Planning and Zoning
FROM: Barry Bunderson, P.E.
SUBJECT: Proposed Willow Fields Subdivision Traffic Analysis
DATE: November 29, 2021
CC: File

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), *Trip Generation*, 10th Edition, 2017. Trip generation for the proposed project is attached.

The total trip generation for the development is as follows:

- Daily Trips: 264
- Morning Peak Hour Trips: 21
- Evening Peak Hour Trips: 28

At buildout, the distribution of traffic anticipated is to be 100% to and from the western end of the project via the connection to Old Lincoln Highway. It is anticipated that the development traffic will use Old Lincoln Highway as the connection to the streets network. Per the Grantsville City Street Masterplan Map Old Lincoln Highway is identified as a Local Street with Criteria of "under 200 Design Hour Vehicles (DHV)".

The Project Daily Trips averaged over a 24 hour period is approximated to be 11 vehicles per hour (veh/h). 11 (v/h) is 0.55% of the 200 DHV criteria of the City Street Masterplan Map.

The peak hour trip generation of 28 vehicles is approximately 1.9% of the 1,500 veh/h capacity of a single lane with stop control.

The impact of increased peak hour traffic to Old Lincoln Highway for each phase is as follows:

	Trips	% increase
• Phase 1:	2	0.13%
• Phase 2:	16	1.1%
• Phase 3:	10	0.67%

No significant impact is anticipated on the existing road network.

29-Nov-21

CIVIL PROJ-EX
ENGINEERS · PLANNERS

ITE Trip Generation Rates - 10th Edition
Pass-by rates from ITE Trip Generation Handbook - 2nd Edition
(copyrights, Insitute of Transportation Engineers)

Description/ITE Code	Units	ITE Vehicle Trip Generation Rates (peak hours are for peak hour of adjacent street traffic unless highlighted)								Units	Expected Units	Total Generated Trips			Total Distribution of Generated Trips					
		Weekday	AM	PM	Pass-By	AM In	AM Out	PM In	PM Out	Independent Variable		Daily	AM Hour	PM Hour	AM In	AM Out	Pass-By	PM In	PM Out	Pass-By
Single Family Homes 210	DU	9.44	0.74	0.99		25%	75%	63%	37%	DU	28.0	264	21	28	5	16	0	17	10	0

E/One Station Sizing

Quick Reference Guide to Selecting a Grinder Pump Station

Sizing and selecting an appropriate grinder pump station is important for ensuring long life of the pump. The following are basic guidelines for station sizing. Contact E/One if you need further assistance.

Residential Applications

Single-Family Homes

- Refer to local regulations for daily flow. E/One assumes 200-300 gallons per day (gpd) or 750-1300 liters per day (lpd).
- DH07I and WH10I are the most common stations
- DH15I or WH23I is recommended for homes with 6+ bedrooms or large whirlpool bathtubs

Multi-Family Homes

- Assume 200-300 gpd (750-1300 lpd) per residence per day
- Refer to the E/One Station Capacity chart or the Product Catalog section at eone.com/sewers to find a station rated for sufficient daily flows

Commercial Applications

1. Estimate the Total Daily Flow
   - Use Table H 201.1 (4) from 2021 UPC Appendix H. Other UPC versions are available at iapmo.org. Note: Previous versions of the UPC referred to this table as Appendix K.
   - Base flows on occupancy, not fixture count
   - No "peaking" needs to be applied
2. Select an E/One Station
   - Station GPD/LPD flow rating should be greater than the flows in Step 1
   - Refer to the Product Catalog at eone.com/sewers or the E/One Station Capacity chart
3. Calculate peak flow and confirm number of pumps
   - GPD or LPD divided by peak flow time. E/One uses 4 hours for peak flow time, but may vary.
   - Confirm the number of pumps is suitable for peak flow:

     GPD or LPD / 4 hours / 60 minutes = Peaked Gallons or Liters per Minute

     1-15 gpm (6-47 lpm) = Simplex station (1 pump) or Duplex station (2 pumps)
     16-60 gpm (48-240 lpm) = Quadplex station (4 pumps)

Visit the E/One Design Center at eone.com/sewers for more information

e/one SEWER SYSTEMS

UPC TABLE H 201.1(4)

Type of Occupancy	Gallons (liters) Per Day
1. Airports	15 (56.8) per employee 5 (18.9) per passenger
2. Auto washers	Check with equipment manufacturer
3. Bowling alleys (snack bar only)	75 (283.9) per lane
4. Camps	
Campground with central comfort station.	35 (132.5) per person
Campground with flush toilets, no showers.	25 (94.6) per person
Day camps (no meals served)	15 (56.8) per person
Summer and seasonal	50 (189.3) per person
5. Churches (Sanctuary).	5 (18.9) per seat
with kitchen waste.	7 (26.5) per seat
6. Dance halls	5 (18.9) per person
7. Factories	
No showers.	25 (94.6) per employee
With showers	35 (132.5) per employee
Cafeteria, add…	5 (18.9) per employee
8. Hospitals	250 (946.4) per bed
Kitchen waste only.	25 (94.6) per bed
Laundry waste only	40 (151.4) per bed
9. Hotels (no kitchen waste)	60 (227.1) per bed (2 person)
10. Institutions (Resident)	75 (283.9) per person
Nursing home	125 (473.2) per person
Rest home	125 (473.2) per person
11. Laundries, self-service	
(minimum 10 hours per day)	50 (189.3) per wash cycle
Commercial	Per manufacturer's specifications
12. Motel	50 (189.3) per bed space
with kitchen.	60 (227.1) per bed space
13. Offices	20 (75.7) per employee
14. Parks, mobile homes	250 (946.4) per space
picnic parks (toilets only)	20 (75.7) per parking space
recreational vehicles	
without water hook-up.	75 (283.9) per space
with water and sewer hook-up	100 (378.5) per space
15. Restaurants – cafeterias	20 (75.7) per employee
toilet.	7 (26.5) per customer
kitchen waste	6 (22.7) per meal
add for garbage disposal.	1 (3.8) per meal
add for cocktail lounge.	2 (7.6) per customer
kitchen waste – Disposable service	2 (7.6) per meal
16. Schools – Staff and office.	20 (75.7) per person
Elementary students	15 (56.8) per person
Intermediate and high	20 (75.7) per student
with gym and showers, add.	5 (18.9) per student
with cafeteria, add	3 (11.4) per student
Boarding, total waste	(378.5) per person
17. Service station, toilets	1000 (3785) for 1st bay 500 (1892.7) for each additional bay
18. Stores	20 (75.7) per employee
public restrooms, add.	1 per 10 sq. ft. (4.1/m2) of floor space
19. Swimming pools, public.	10 (37.9) per person
20. Theaters, auditoriums.	5 (18.9) per seat
drive-in	10 (37.9) per space

E/ONE STATION CAPACITY

Complete product information, drawings and specifications are available in the Product Catalog at eone.com/sewers.

D-Series Model	W-Series Model	Basin ID (in)	Rated GPD (LPD)	Ideal Number of Houses	Houses Up To	Max Houses with Consent*
DH071	WH101	24	700 (2650)	1	1	2
	WH231	24-42	850 (3200)	1	1	2
DH151		36	1500 (5678)	1	4	6
DH152		36	3000 (11,356)	4	8	12
	WH472/WH482	42	3500 (13,249)	5	9	14
DH272		48	5000 (18,927)	6	13	19
DH502		60-72	6000 (22,712)	9	15	23
	WH483	42	5000 (18,927)	8	13	19
	WH484	42	7000 (26,498)	10	18	26
The following models refer to W-Series Fiberglass Stations						
	Duplex	48	5000 (18,927)	6	13	19
	Triplex	48	6500 (24,605)	10	17	25
	Quad	48	8500 (32,176)	12	22	32
	Duplex	60	6000 (22,712)	9	15	23
	Triplex	60	7500 (28,391)	12	19	29
	Quad	60	9500 (35,961)	14	24	36
	Triplex	72	8500 (32,176)	14	22	32
	Quad	72	10,500 (39,747)	16	27	40

*Where codes allow. Please consult with E/One.

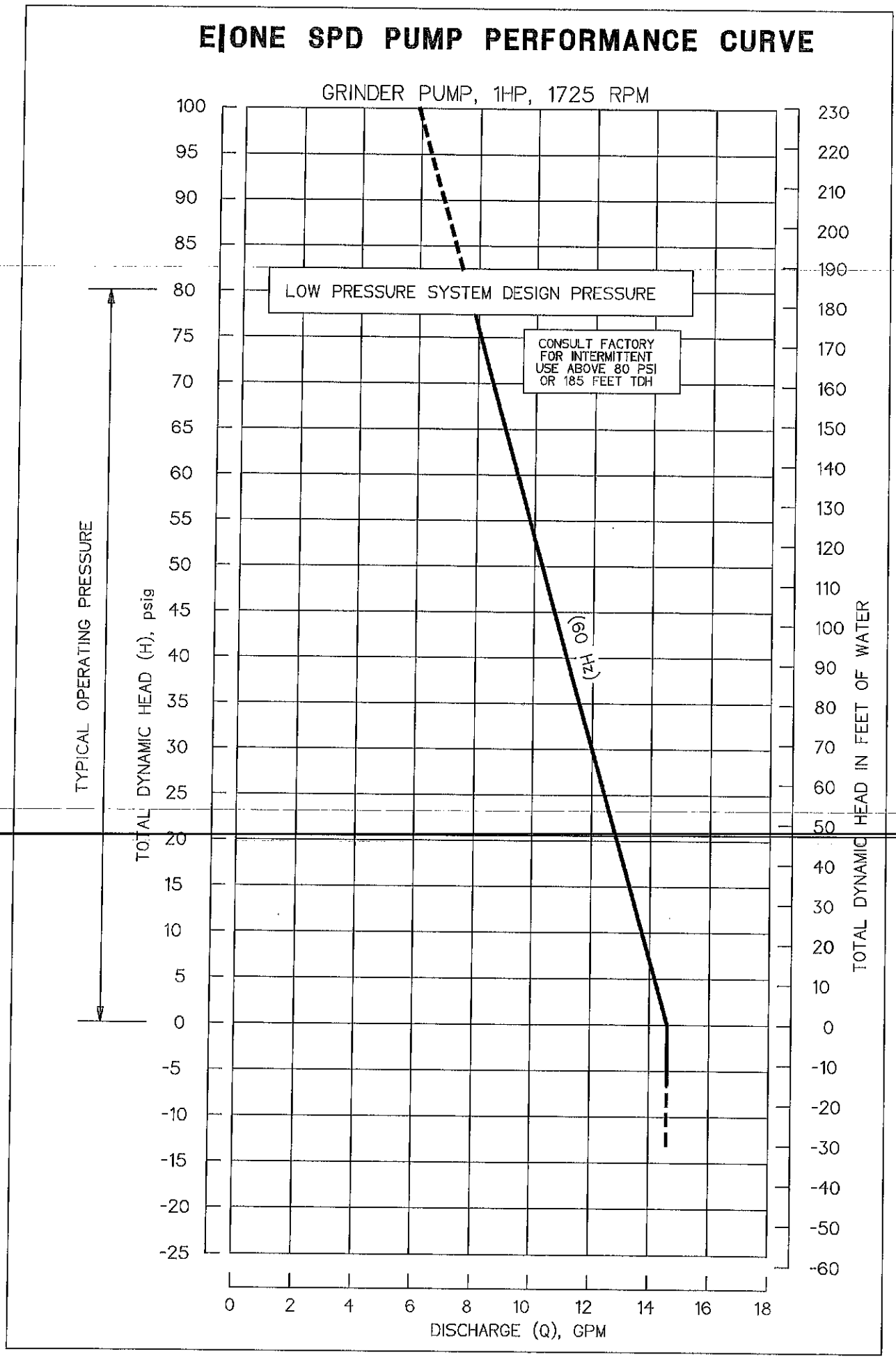
Disclaimer: This information is provided for reference only. The station size is ultimately the responsibility of the engineer of record. E/One's recommendations are based on demonstrated performance in a variety of applications and regions. Selecting the best station is important. Oversizing a station may lead to issues related to odor and corrosion. Undersizing a station may lead to nuisance alarms and possible overflows.

e/one SEWER SYSTEMS

Environment One Corporation
2773 Balltown Road, Niskayuna, New York 12309 USA
Tel 518.346.6161 • www.eone.com • A PCC Company

NA0777P01 Rev –
4/21

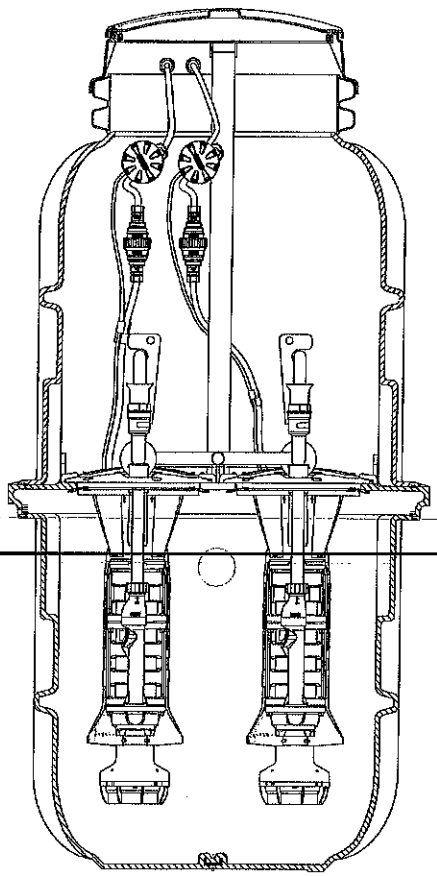
E|ONE SPD PUMP PERFORMANCE CURVE



ESD 08-0022 REV. 2, 6/08

E/ONE EXTREME SERIES

DH152/DR152



General Features

The model DH152 or DR152 grinder pump station is a complete unit that includes: two grinder pumps, check valve, polyethylene tank, controls, and alarm panel. A single DH152 or DR152 is ideal for up to four, average single-family homes and can also be used for up to 12 average single-family homes where codes allow and with consent of the factory.

- Rated for flows of 3000 gpd (11,356 lpd)
- 150 gallons (568 liters) of capacity
- Indoor or outdoor installation
- Standard outdoor heights range from 93 inches to 160 inches

The DH152 is the "hardwired," or "wired," model where a cable connects the motor controls to the level controls through watertight penetrations.

The DR152 is the "radio frequency identification" (RFID), or "wireless," model that uses wireless technology to communicate between the level controls and the motor controls.

Operational Information

Motor
1 hp, 1,725 rpm, high torque, capacitor start, thermally protected, 120/240V, 60 Hz, 1 phase

Inlet Connections
4-inch inlet grommet standard for DWV pipe. Other inlet configurations available from the factory.

Discharge Connections
Pump discharge terminates in 1.25-inch NPT female thread. Can easily be adapted to 1.25-inch PVC pipe or any other material required by local codes.

Discharge
15 gpm at 0 psig (0.95 lps at 0 m)
11 gpm at 40 psig (0.69 lps at 28 m)
7.8 gpm at 80 psig (0.49 lps at 56 m)

Accessories

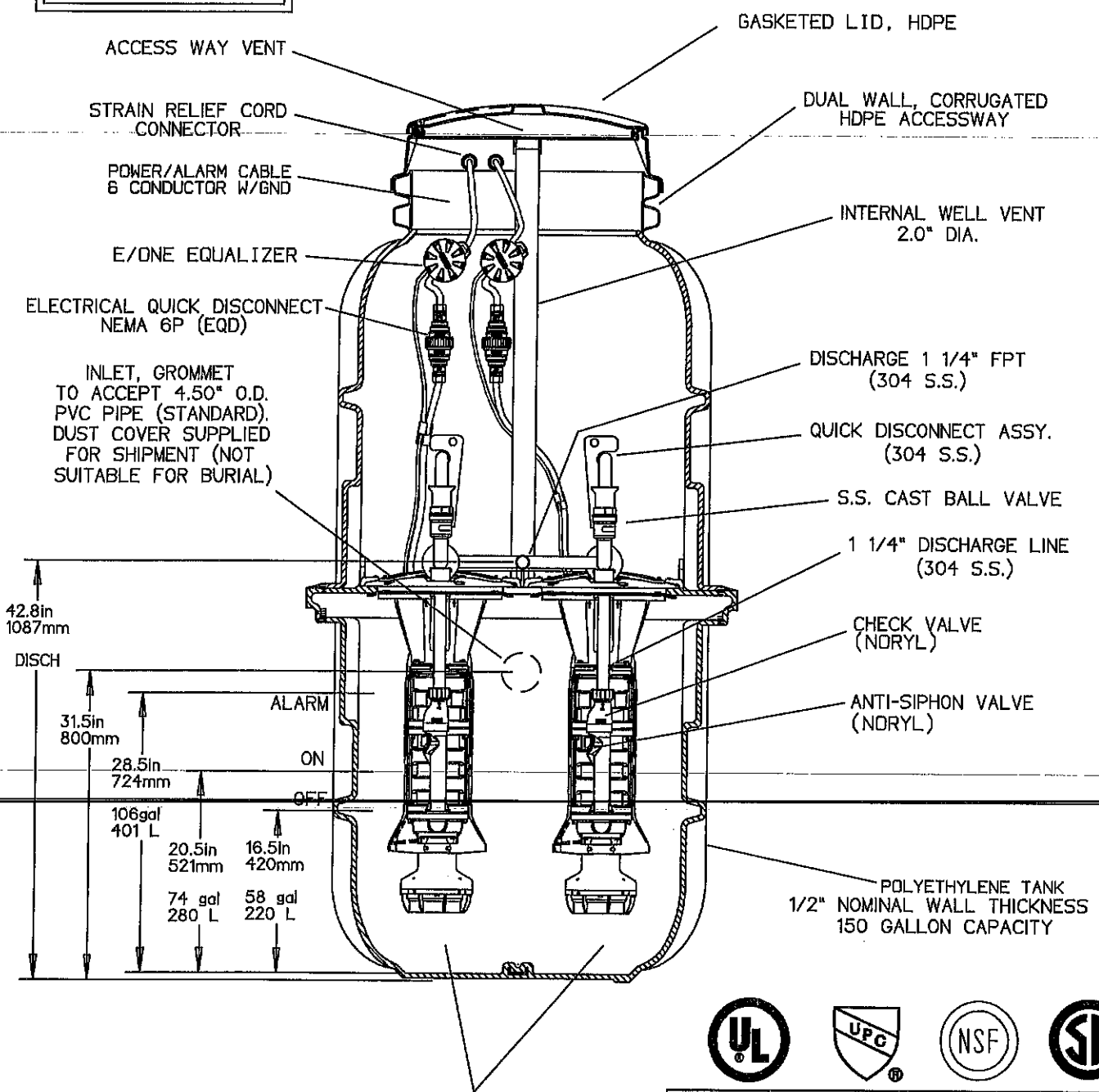
E/One requires that the Uni-Lateral, E/One's own stainless steel check valve, be installed between the grinder pump station and the street main for added protection against backflow.

Alarm panels are available with a variety of options, from basic monitoring to advanced notice of service requirements.

The Remote Sentry is ideal for installations where the alarm panel may be hidden from view.

OPTIONS: ☐ DH152 (HARD WIRED LEVEL CONTROLS)
☐ DR152 (WIRELESS LEVEL CONTROLS)

FIELD JOINT REQUIRED FOR MODELS DH152-129 / DR152-129 & DH152-160 / DR152-160



SEMI-POSITIVE DISPLACEMENT TYPE PUMP EACH DIRECTLY DRIVEN BY A 1 HP MOTOR

CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS

NOTE: DIMENSIONS ARE FOR REF ONLY

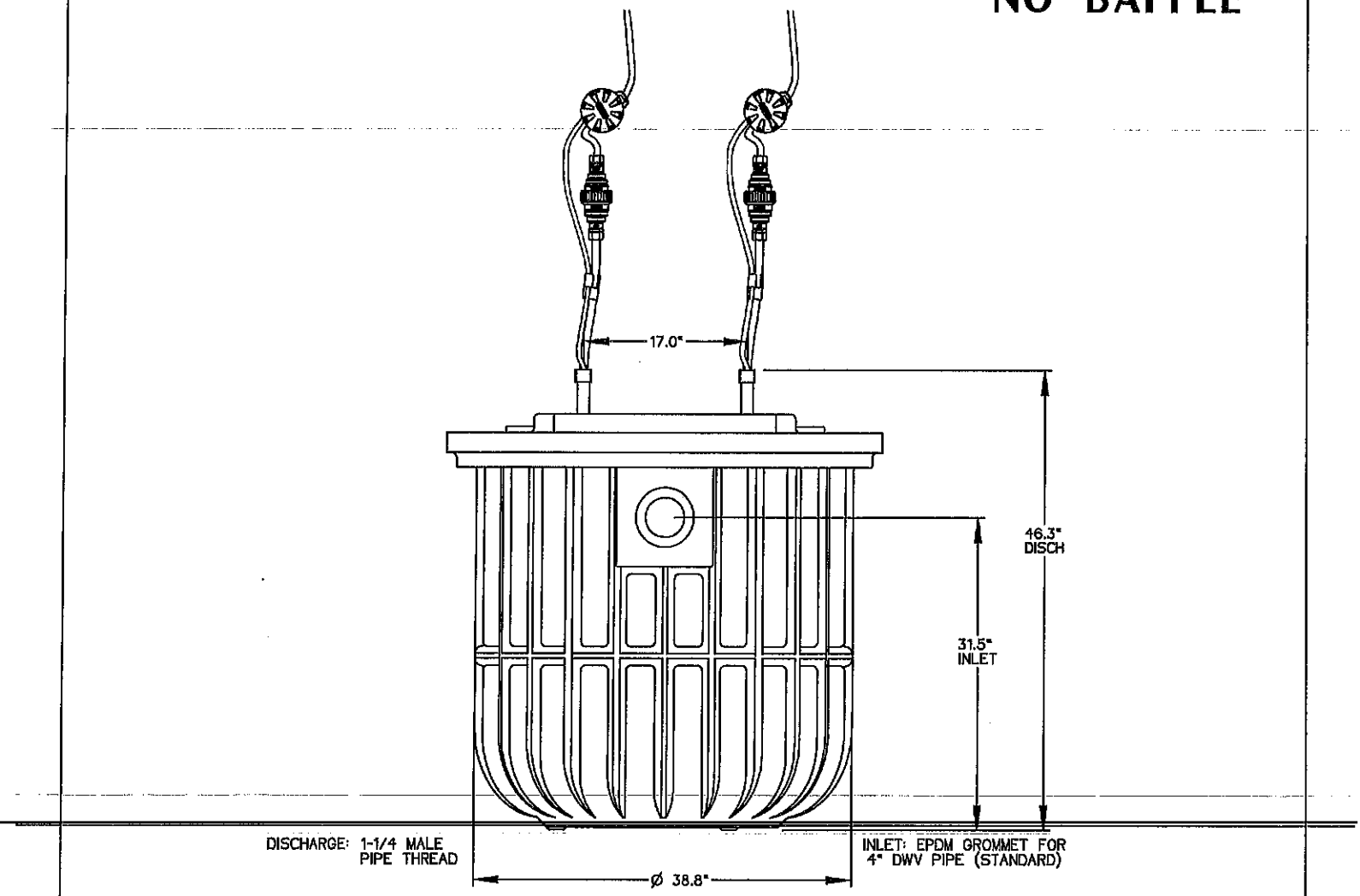
KC	PD	09/30/19	F	
DR BY	CHK'D	DATE	ISSUE	SCALE

e/one SEWER SYSTEMS

MODEL DH152 / DR152 DETAIL SHEET

NA0052P02

DH152-38
NO BAFFLE



NOTE: DIMENSIONS ARE FOR REF ONLY

CTT	CH	10/19/12	D	
DR BY	CHK'D	DATE	ISSUE	SCALE

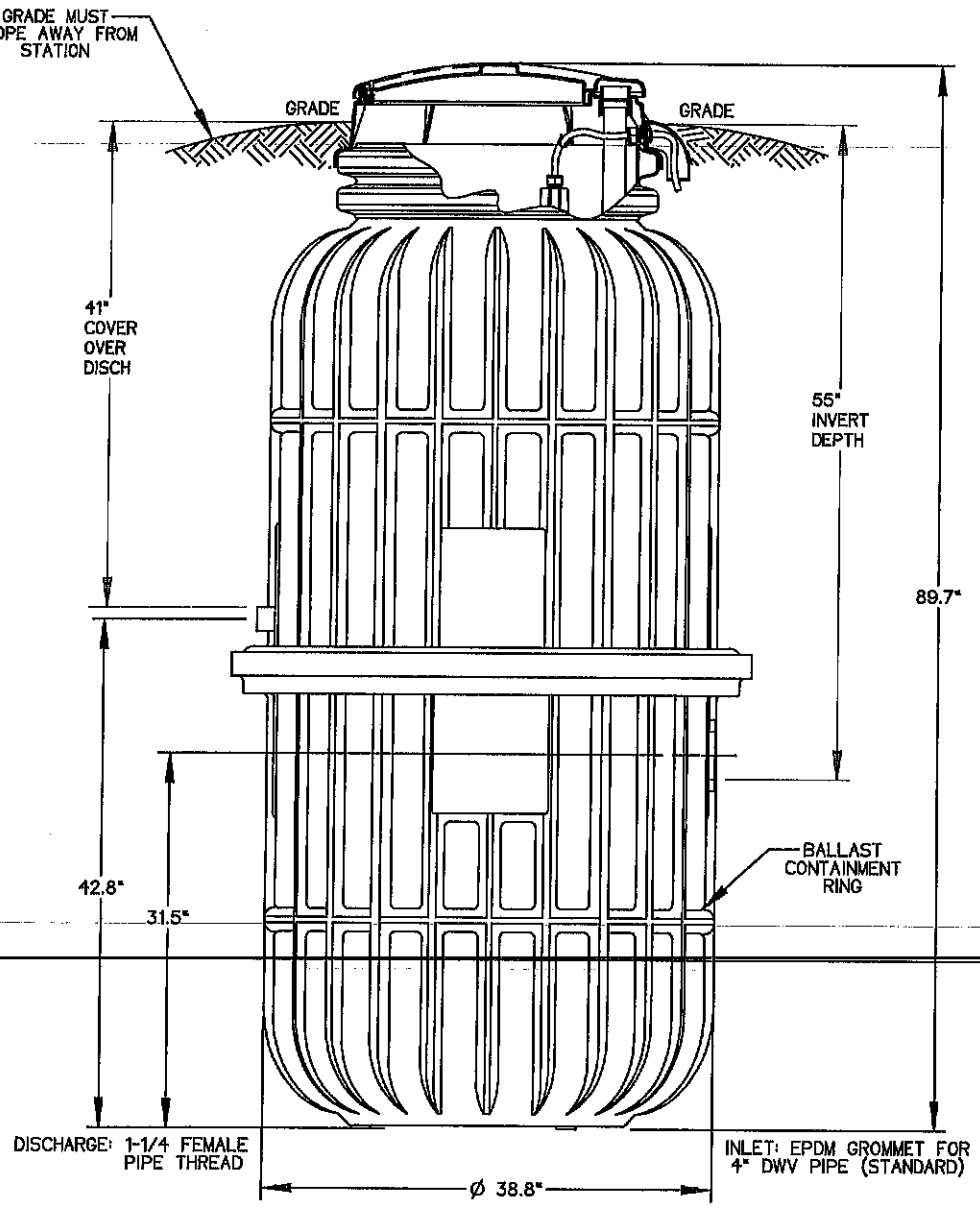
SEWER SYSTEMS

MODEL DH152-38, NO BAFFLE

NA0052P03

OPTIONS : ☐ DH152-93 (HARD WIRED LEVEL CONTROLS)

☐ DR152-93 (WIRELESS LEVEL CONTROLS)



CONCRETE BALLAST MAY BE REQUIRED
SEE INSTALLATION INSTRUCTIONS
FOR DETAILS

NOTE: DIMENSIONS ARE FOR REF ONLY

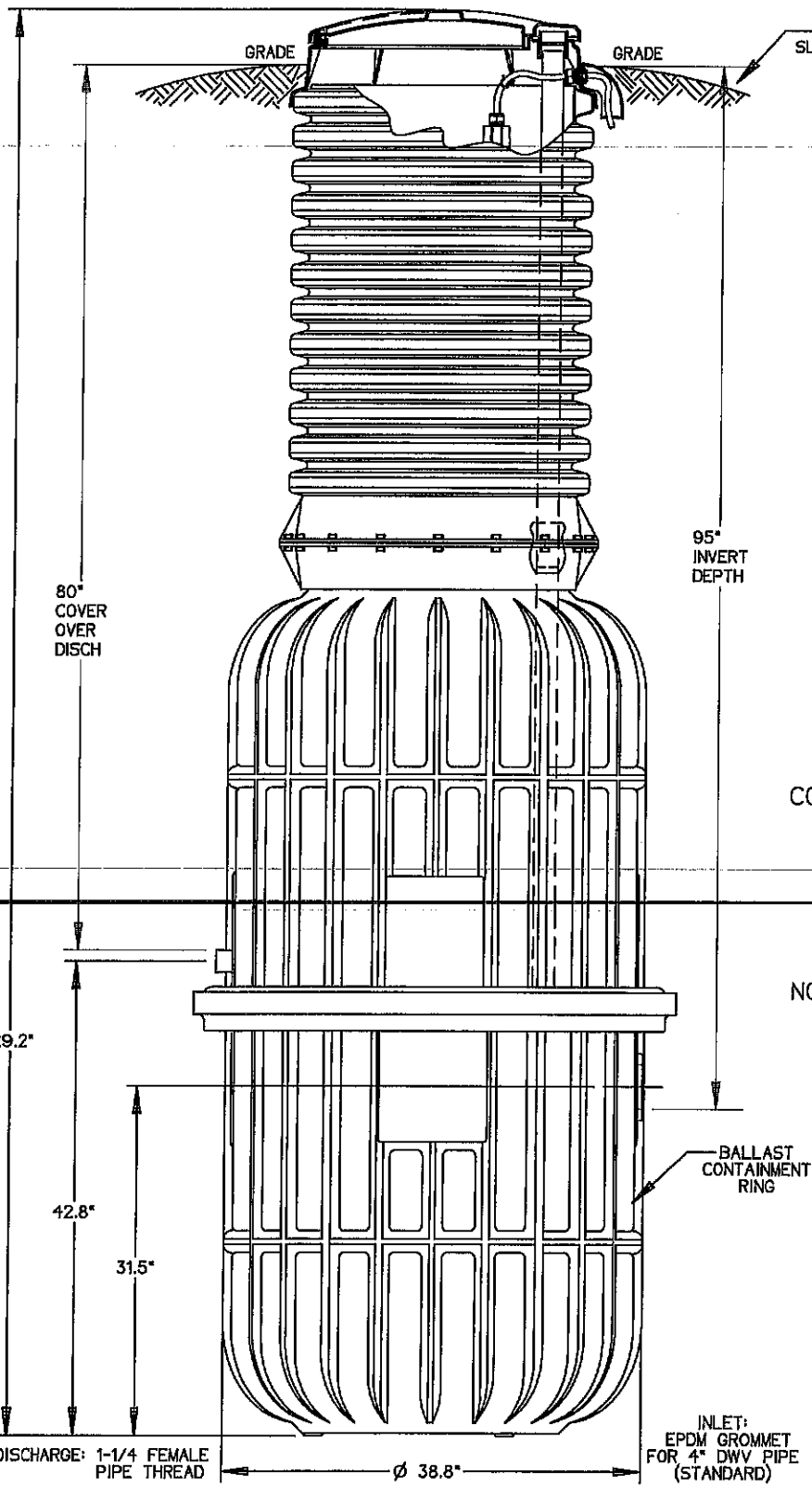
AD	CAH	7/13/07	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

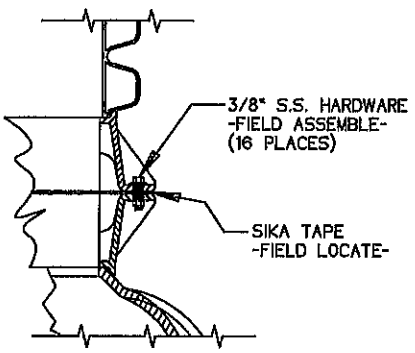
e/one SEWER SYSTEMS

MODEL DH152-93 / DR152-93

NA0052P04

OPTIONS : ☐ DH152 -129 (HARD WIRED LEVEL CONTROLS)
☐ DR152 -129 (WIRELESS LEVEL CONTROLS)





DETAIL, FIELD JOINT

SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS

CONCRETE BALLAST MAY BE REQUIRED SEE INSTALLATION INSTRUCTIONS FOR DETAILS

NOTE: DIMENSIONS ARE FOR REF ONLY

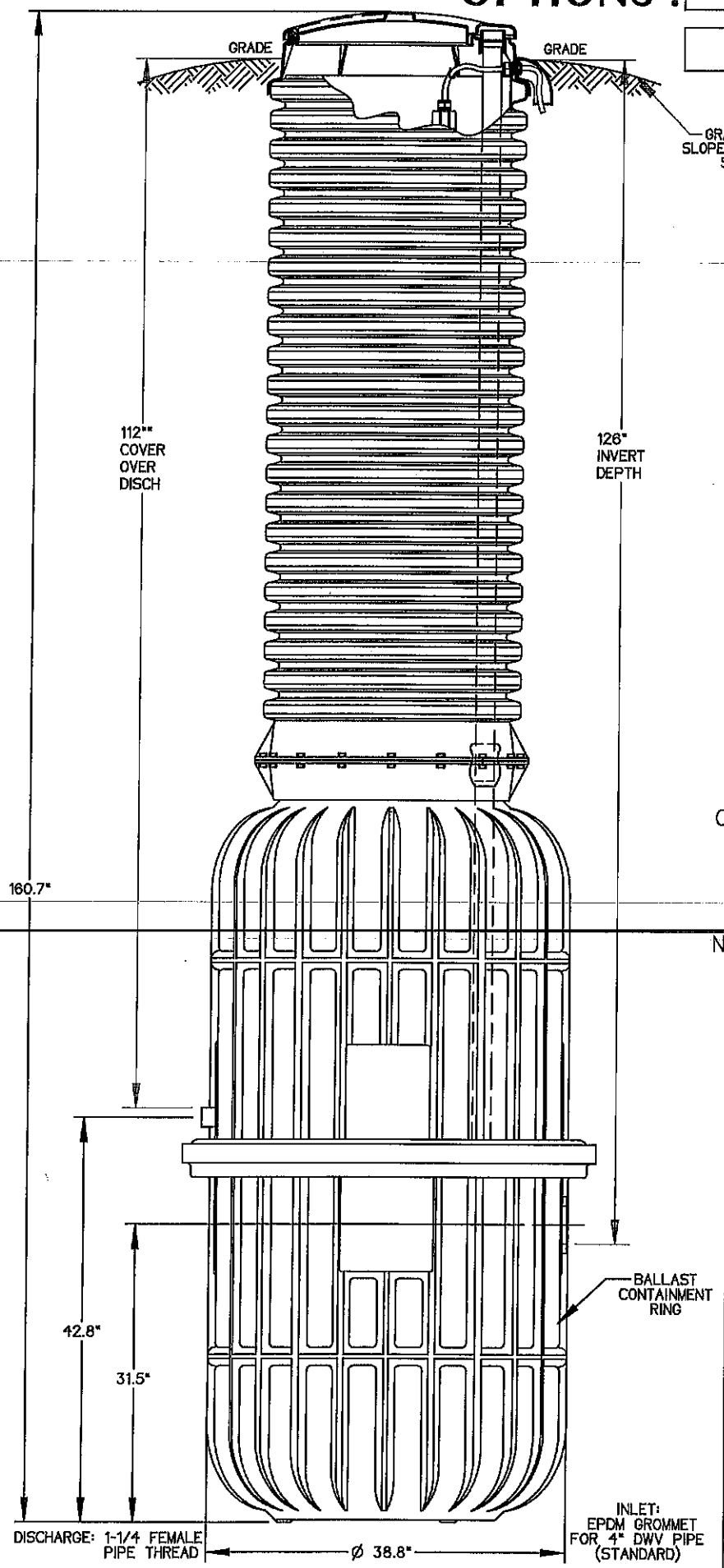
AD	CAH	7/13/07	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

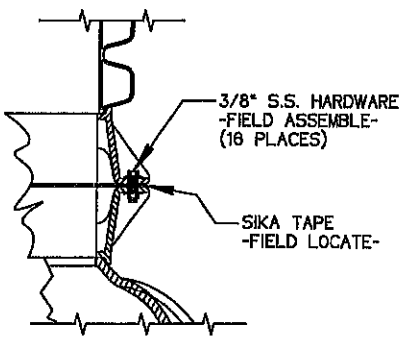
e|one SEWER SYSTEMS

MODEL DH152-129 / DR152-129

NA0052P05

OPTIONS : ☐ DH152 -160 (HARD WIRED LEVEL CONTROLS)
☐ DR152 -160 (WIRELESS LEVEL CONTROLS)





DETAIL, FIELD JOINT
SEE INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS

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SEE INSTALLATION INSTRUCTIONS FOR DETAILS

NOTE: DIMENSIONS ARE FOR REF ONLY

AD	CAH	7/13/07	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

e/one
SEWER SYSTEMS

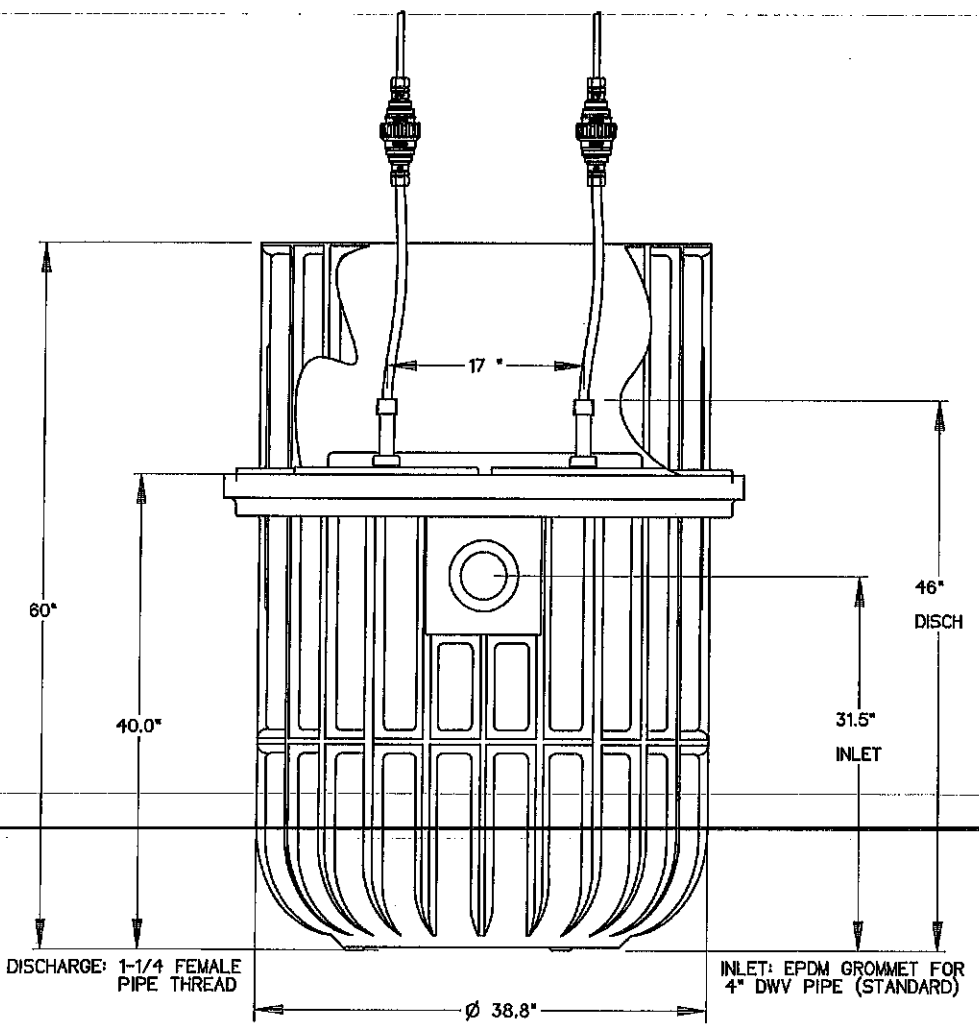
MODEL DH152-160 / DR152-160

NA0052P06

DH152-57

BUILDERS MODEL

STRAIGHT DISCHARGE



AD	CAH	06-27-07	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

SEWER SYSTEMS

MODEL DH152-57
BUILDERS

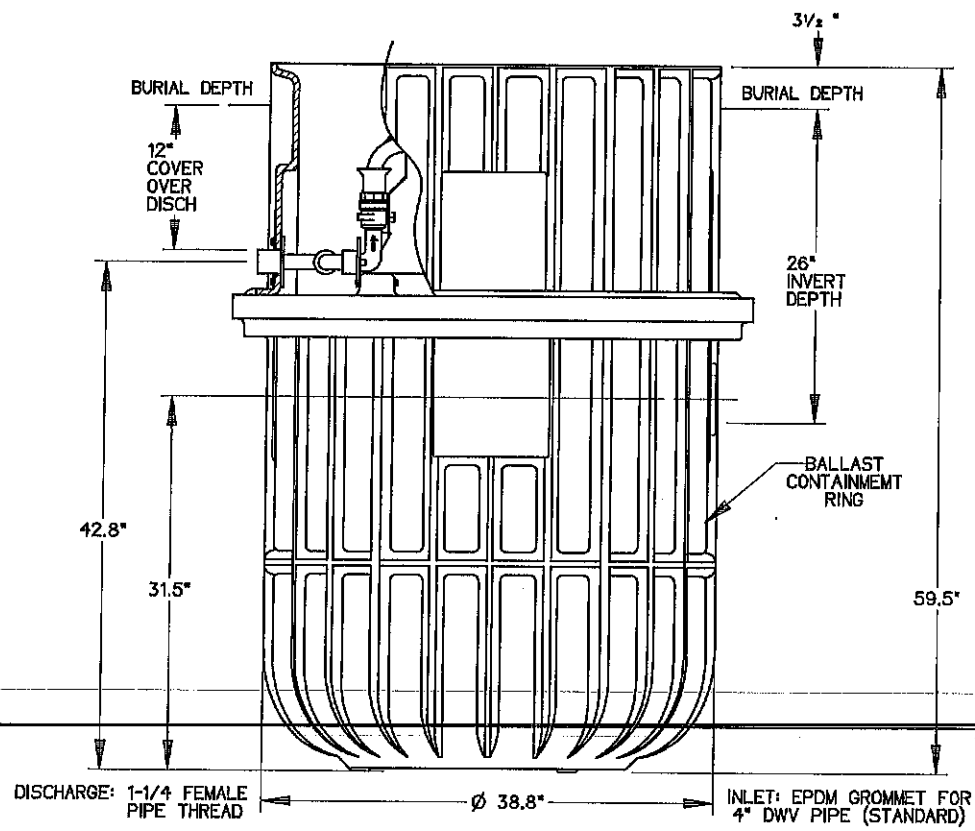
NA0052P07

NOTE: DIMENSIONS ARE FOR REF ONLY

DH152-57

BUILDERS MODEL

DISCHARGE VALVE



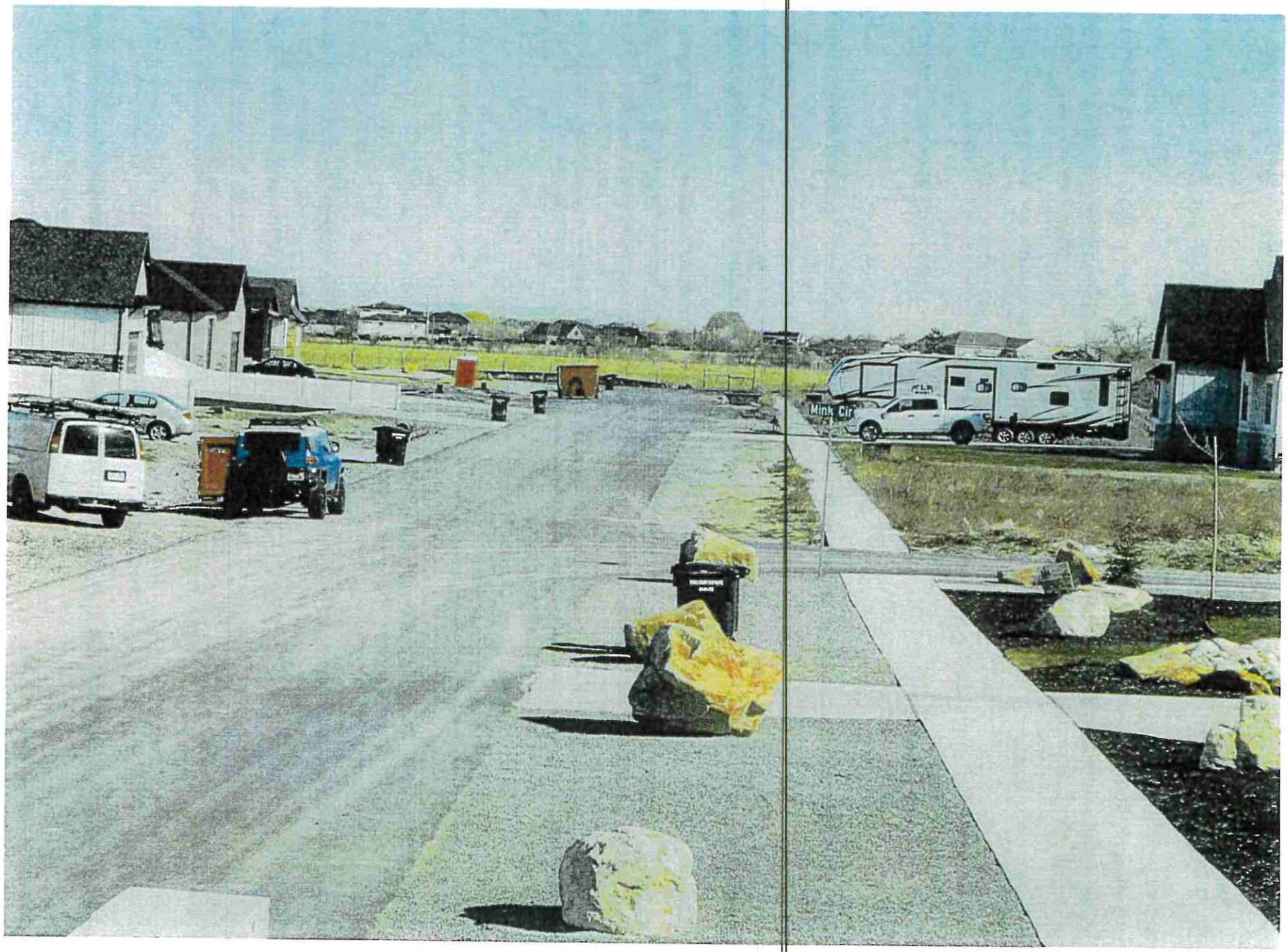
NOTE: DIMENSIONS ARE FOR REF ONLY

AD	CAH	06/27/07	C	1/16
DR BY	CHK'D	DATE	ISSUE	SCALE

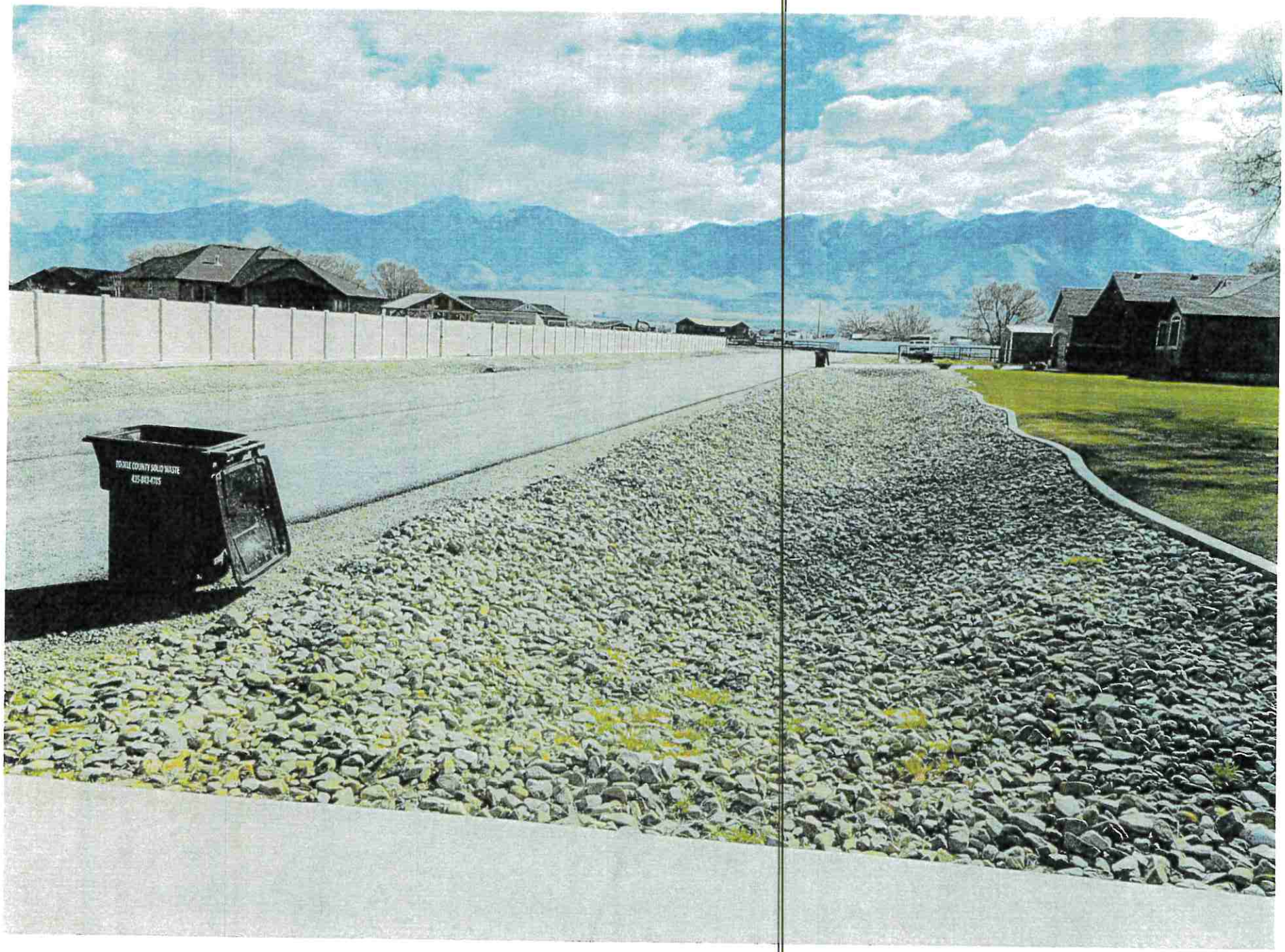
SEWER SYSTEMS

MODEL DH152-57
BUILDERS

NA0052P08


Mink Cir


Lila Ln
Humming Bird Way


TOOELE COUNTY SOLID WASTE
435-882-4715

TOOELE COUNTY HEALTH DEPARTMENT

151 N. Main Street
Environmental Health, Suite 140
Tooele, Utah 84074
Phone (435) 277-2440 • Fax (435) 277-2444
www.tooelehealth.org

December 21, 2021

DUSTIN HALL
57 SOUTH MATHEWS LN.
GRANTSVILLE, UT 84029

RE: Willow Fields Subdivision located in Grantsville, Utah
Statement of Wastewater Disposal and Water Supply Feasibility

Dear Mr. Hall:

We have received plans and supportive information to establish feasibility for the Willow Fields Subdivision in Grantsville, Utah. The following comments reflect the results of our review regarding feasibility.

WASTEWATER DISPOSAL

Onsite wastewater disposal systems are the proposed method of wastewater disposal for 26 of the 28 new lots (lots #101 and #102, will be on public sewer) located in the Willow Fields Subdivision. Based on the review of the submitted plans and supportive information, onsite wastewater disposal systems by means of septic tanks and subsurface absorption systems and other department approved systems appears **feasible**. Acceptability of onsite wastewater disposal for each lot will be dependent on strict compliance with the following:

1. The design for each onsite wastewater disposal system must be based on the results of soil exploration and percolation tests conducted on each lot. The results of these tests and detailed plans for each disposal system must be submitted to the Tooele County Health Department for review and evaluation prior to construction and installation. If soil and related tests disclose unfavorable conditions for onsite wastewater and subsurface disposal on certain lots, septic tanks and subsurface absorption systems will not be permitted on these lots.

2. Each wastewater disposal system must be installed in compliance with the Utah Department of Environmental Quality, Onsite Wastewater Systems Rule (R317-4, UAC).

3. Approval of onsite wastewater disposal systems may be granted only after an onsite inspection of each system, by an authorized representative of our department, following construction and installation but prior to backfilling.

DRINKING WATER SUPPLY

Culinary water for the Willow Fields Subdivision will be supplied by the Grantsville City water system, which is a state-approved water system. Therefore, it is approved by the Tooele County Health Department.

If you have any questions regarding the foregoing information, please call me at (435) 277-2440.

Sincerely,

Taylor Palmer

Taylor Palmer, L.E.H.S.
Environmental Health Scientist

November 11, 2020

Mr. Bryan Slade
Tooele County Health Department

RE: Proposed Willow Fields Subdivision

Dear Mr. Slade,

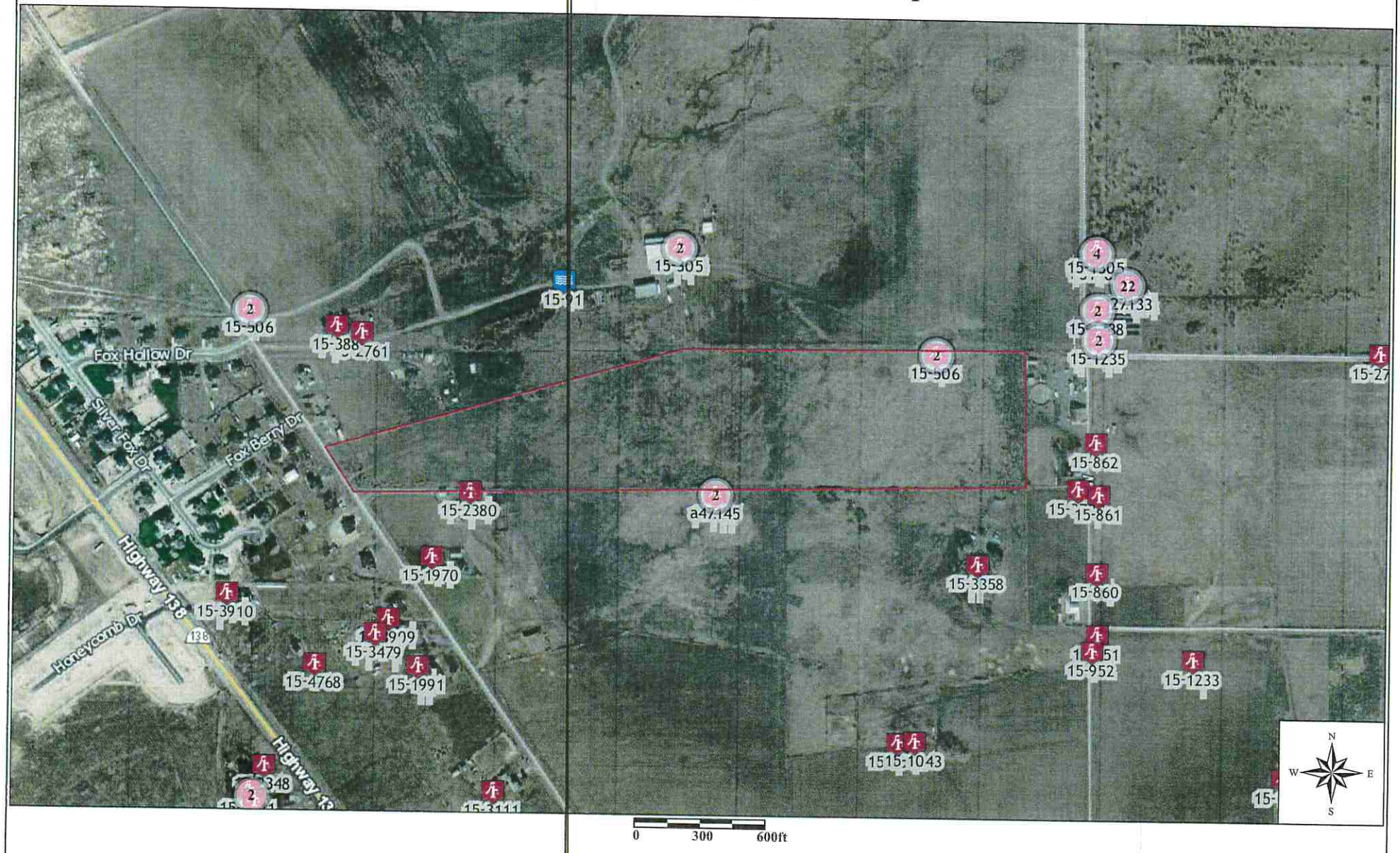
This letter is concerning the short- and long-term feasibility of water supply and wastewater disposal facilities.

The proposed water supply system is via the Grantsville City water system. There is a water main in Old Lincoln Highway that the project anticipates connecting to. A new main would be extended within the new roadways to serve the individual Lots. Because the Grantsville City water system is a long-established system it is anticipated that the feasibility for short- and long-term is very favorable.

The proposed wastewater system is that Lots 101 and 102 will connect to the Grantsville City sewer main line in Old Lincoln Highway. This existing sewer is approximately 4 ft deep. The other proposed 26 Lots anticipate using on-site wastewater system for each lot. Percolation testing was performed by Caleb Knoblauch and the soil reports are included in the submission package. It appears that a soil application rate design value of 0.4 gal/s.f. per day could be used. It is anticipated that an 1875 s.f. absorption area would be adequate for each Lot assuming 5-bedroom homes. With 1 acre Lots it is anticipated that a replacement absorption area is feasible as the sum of the absorption bed plus replacement bed is only 8.6% of the lot area. The short- and long-term feasibility is favorable.

Barry V. Bunderson, PE, PMP
Barry V. Bunderson
Vice President

Utah Water Right Application Map

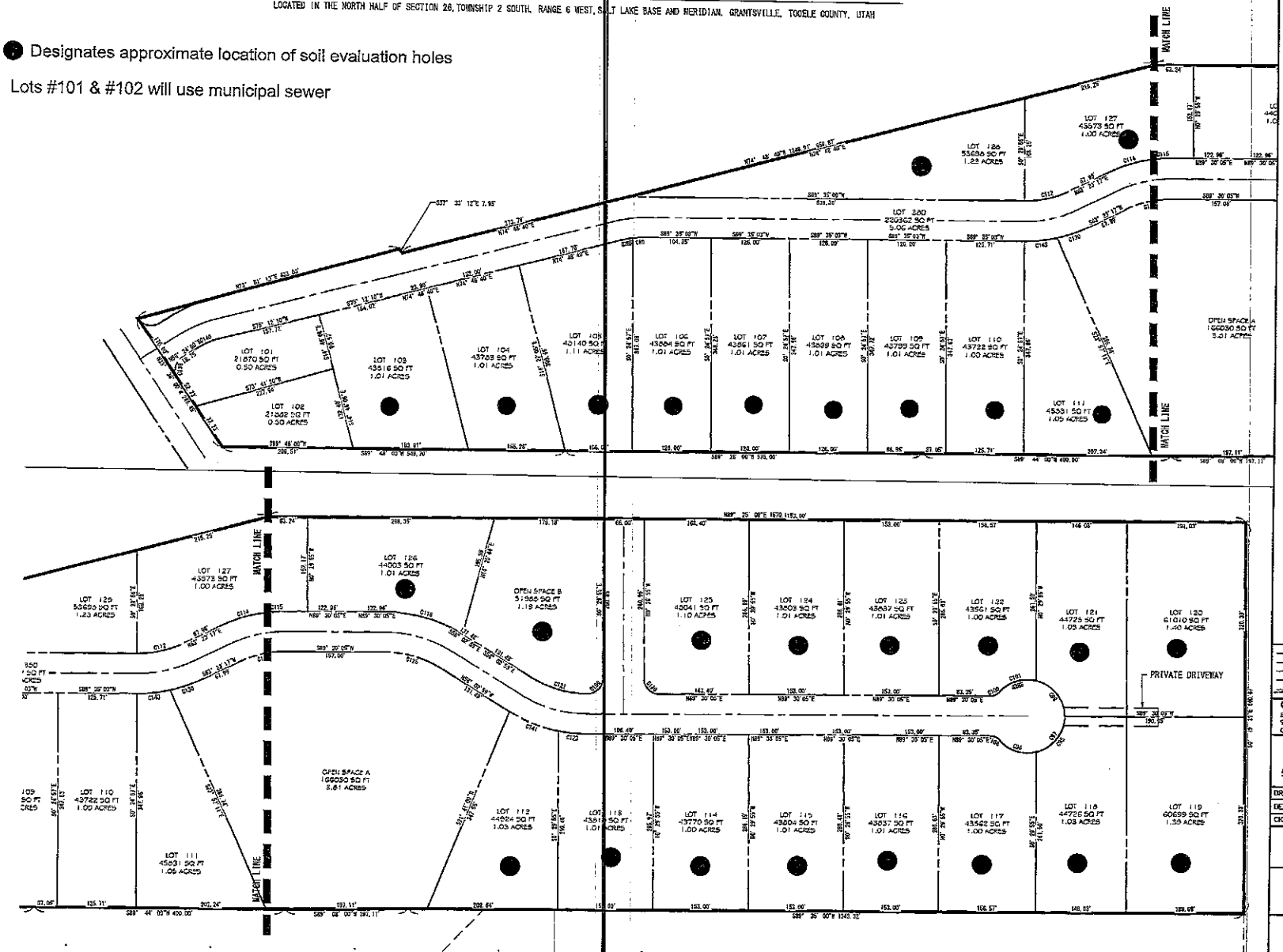


PRELIMINARY PLAN - WILLOW FIELDS SUBDIVISION

LOCATED IN THE NORTH HALF OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE AND MERIDIAN, GRANTSVILLE, TOOELE COUNTY, UTAH

● Designates approximate location of soil evaluation holes

Lots #101 & #102 will use municipal sewer



CIVIL PROJ-EX, INC
ENGINEERS + PLANNERS
96 QUIRK STREET
GRANTSVILLE, UTAH 84029

DEVELOPER: DUSTIN HALL
801-514-3623
57 SOUTH MATHEWS LN., GRANTSVILLE, UT 84029

DRN: BVB	DATE: 2021.03.28	SCALE: AS SHOWN	
DES: BVB	DATE: 2021.03.28	JOB # 20-45015	NO. 1 OF 1
CKD:	DATE:		

WILLOW FIELDS SUBDIVISION

LOCATED IN THE NORTH HALF OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE AND MERIDIAN GRANTSVILLE, TOOELE COUNTY, UTAH

PLANNING AND ZONING COMMISSION

APPROVED THIS _____ DAY OF _____, 20____

5/25/2021 4:05:26 PM

BY THE GRANTSVILLE CITY PLANNING AND ZONING COMMISSION.

_____
CHAIRPERSON, GRANTSVILLE CITY PLANNING AND ZONING

TOOELE COUNTY HEALTH DEPARTMENT

151 N. Main Street, Suite 140
Tooele, UT 84074
Phone (435) 277-2440 • Fax (435) 277-2444
www.tooelehealth.org

SUBDIVISION FEASIBILITY REVIEW APPLICATION

Subdivision Name Willow Fields

Developer Name Dustin Hall

Developer Address 57 South Mathews Ln. Grantsville UT, 84029

Telephone Number 801.514.3623 Fax Number _____

Site Location 855 N Old Lincoln Hwy Grantsville UT, 84029

Number of Lots 28 Total Lots, 2 will be on municipal sewer

A. WATER

[ ] Existing, approved community system

[X] New, community system

[ ] Individual water system

B. WASTEWATER

[ ] Existing, approved community system

[ ] New, community system

[X] Onsite wastewater systems

C. FEE

[X] $25.00 / lot = $700

For Office Use Only

Date Received _____ Fee Paid _____ Receipt # _____

Feasibility Letter Sent _____
(Date)

Final Plat Signed _____ Signed by _____
(Date)

Caleb Knoblauch I. A sufficient number of soil exploration pits shall be dug on the property to provide an accurate description of subsurface soil conditions. Soil description shall conform with the United States Department of Agriculture soil classification system. Soil exploration pits shall be of sufficient size to permit visual inspection, and to a minimum depth of ten feet, and at least four feet below the bottom of proposed absorption systems. One end of each pit should be sloped gently to permit easy entry if necessary. Deeper soil exploration pits are required if deep absorption systems, such as deep wall trenches or seepage pits, are proposed.

Caleb Knoblauch II. For each soil exploration pit, a log of the subsurface formations encountered must be submitted for review which describes the texture, structure, and depth of each soil type, the depth of the ground water table if encountered, and any indications of the maximum ground water table.

Caleb Knoblauch III. Soil exploration pits and percolation tests shall be made at the rate of at least one test per lot. Percolation tests shall be conducted in accordance with R317-4-5. If soil conditions and surface topography indicate, a greater number of soil exploration pits or percolation tests may be required by the Tooele County Health Department. Whenever available, information from published soil studies of the area of the proposed subdivision shall be submitted for review. Soil exploration pits and percolation tests must be conducted as closely as possible to the absorption system sites on the lots or parcels. The Tooele County Health Department shall have the option of inspecting the open soil exploration pits and monitoring the percolation test procedure. Complete results shall be submitted for review, including all unacceptable test results. Absorption systems are not permitted in areas where the requirements of R31-4-5 cannot be met or where the percolation rate is slower than 60 minutes per inch or faster than one minute per inch. Where soil and other site conditions are clearly unsuitable, there is no need for conducting soil exploration pits or percolation tests.

Caleb Knoblauch L. The location of all soil exploration pits and percolation test holes shall be clearly identified on the subdivision final plat and identified by a key number or letter designation. The results of such soil tests, including stratified depths of soils and final percolation rates for each lot shall be recorded on or with the final plat. All soil tests shall be conducted at the owner's expense.

____ 4. WATER SUPPLY INFORMATION

_X_ A. Statement must be provided indicating how individual homeowners will obtain water for household and related uses.

_X_ B. If water is to be provided from an existing public water system, a letter must be furnished by those responsible for the system stating that the development can be served adequately.

NA C. If a new public water system is proposed, a letter of feasibility must be issued by the Utah State Department of Environmental Quality, Division of Drinking Water.

NA D. If a non-public water system will serve the development, the Tooele County Health Department Rules for Non-Public Water Systems (1-14 Connections) must be followed. Information that must be submitted includes:

_____ I. If individual wells are proposed, then wells need to be developed on 10% of the proposed lots as described in Section 5.2(b).

_____ II. Evidence of sufficient water rights, as issued by the Utah Division of Water Rights

_____ III. Well drillers' log if well is source of water, Section 6.1(c).

_____ IV. Satisfactory bacteriological and chemical quality analysis as specified in Section 6.1(a)(b) of the Tooele County Health Department rules.

_____ V. Documentation of adequate protection area surrounding all water sources, as specified in Section 8 of Tooele County Health Department rules.

_____ VI. For developments with 5-14 connections plan approval, as specified in Section 11.6 of the Tooele County Health Department rules, is required prior to construction.

NA E. If individual water wells are anticipated as sources of supply for each lot, a statement from the Utah Division of Water Rights must be submitted indicating feasibility of obtaining groundwater suitable in quantity and quality throughout the subdivision area.

TBD F. Where required, fire flows shall be included with plan submittal. Fire flows must be included in storage capacity, and shall be included in sizing the distribution lines for peak flows.

After review of all information, plans, and proposals, the Tooele County Health Department will send a letter to the individual who submitted the feasibility report stating the results of the review or the need for additional information. An affirmative statement of feasibility does not imply that it will be possible to install onsite wastewater systems on all of the proposed lots, but shall mean that such onsite wastewater systems may be installed on the majority of the proposed lots in accordance with minimum State requirements and any conditions that may be imposed.

Please make sure all information is submitted in a neat, concise package. Feasibility reports lacking appropriate items will be returned. We will not be responsible for storing partially completed packages for individuals. Tooele County Health Department Standards and Regulations for Individual Water Systems.

GRANTSVILLE

Kristy Clark <kclark@grantsvilleut.gov>

Fwd: Development w Septic Tanks near Timpie Farms'/Grantsville City's Well Field

6 messages

James Waltz <jwaltz@grantsvilleut.gov> Mon, Jan 10, 2022 at 2:26 PM
To: Jesse Wilson <jwilson@grantsvilleut.gov>, Kristy Clark <kclark@grantsvilleut.gov>, Shay Stark <shays@aquaeng.com>, Dan England <dengland@grantsvilleut.gov>
Cc: Christy Montierth <cmontierth@grantsvilleut.gov>

---------- Forwarded message ---------
From: **Jeffrey C. Miller** <jeffrey.miller@tooeleco.org>
Date: Mon, Jan 10, 2022 at 2:16 PM
Subject: RE: Development w Septic Tanks near Timpie Farms'/Grantsville City's Well Field
To: crobinson@theensigngroup.com <crobinson@theensigngroup.com>
Cc: James Waltz <jwaltz@grantsvilleut.gov>, Rachelle Custer <rachelle.custer@tooeleco.org>, Judd Lawrence <jlawrence@binghamnet.com>, Bryan Slade <bryan.slade@tooelehealth.org>

Chris,

Thank you for reaching out. This property is actually located within Grantsville City boundaries, so you will need to reach out to their planner, Kristy Clarke. She can be reached at: 435-884-4604 or by e-mail at: kclark@grantsvilleut.gov

I also looked and see that this particular parcel wasn't included in a recorded subdivision plat.

Best of luck!

Thanks,

Jeff Miller

County Planner

Zoning Administrator

TOOELE COUNTY

Planning and Zoning

(435)-843-3251

jeffrey.miller@tooeleco.org

Please note that my new e-mail address is: jeffrey.miller@tooeleco.org

From: Chris Robinson <crobinson@theensigngroup.com>
Sent: Monday, January 10, 2022 12:26 PM
To: Jeffrey C. Miller <jcmiller@tooeleco.org>
Cc: James Waltz <jwaltz@grantsvilleut.gov>; Rachelle Custer <rachelle.custer@tooeleco.org>; Judd Lawrence

<jlawrence@binghamnet.com>; Bryan Slade <bslade@tooelehealth.org>
Subject: [EXTERNAL] Development w Septic Tanks near Timpie Farms'/Grantsville City's Well Field

This Message originated outside our organization. Please use caution when clicking links or attachments.

Jeff,

As I mentioned to you on Friday, Grantsville City and we have been working on a potential public drinking water well field as shown on the attached map.

It has recently come to my attention that there may be a proposed subdivision on the parcel identified in red on the attached map, which subdivision would be served with septic tanks and drain fields for santitary sewer.

Grantsville City has a sewer line just north of the well field, which crosses our property west to east and we are willing to grant an easement to Grantsville City such that a sewer line can be installed to serve this proposed subdivision.

I am cc'ing James Waltz, Grantsville's Public Works Director, so he can fill in some details.

I am uncertain whether this proposed project is in the unincorporated county or whether it's within the City limits, but needs County Health Department approval for the septic tanks and drain fields.

Can you please let us know what you know about it?

We're not opposed to the property being developed but just want to help protect this very important aquifer.

Best,

Chris

801-599-4397

James Waltz <jwaltz@grantsvilleut.gov> Mon, Jan 10, 2022 at 2:36 PM
To: Chris Robinson <crobinson@theensigngroup.com>
Cc: Judd Lawrence <jlawrence@binghamnet.com>, Bryan Slade <bslade@tooelehealth.org>, Kristy Clark <kclark@grantsvilleut.gov>, Jesse Wilson <jwilson@grantsvilleut.gov>, Shay Stark <shays@aquaeng.com>, Dan England <dengland@grantsvilleut.gov>, Christy Montierth <cmontierth@grantsvilleut.gov>

Chris,

Thank you for getting this dialogue started with the Health Department. As you stated, this aquifer is very important to the growth and sustainability of our community. Protecting this resource is of the utmost importance as we consider the development potential surrounding it. Septic tanks would be a potentially serious hazard to this critical resource. We should explore alternatives.

Please note, I have copied our City Manager, Jesse Wilson; and some key staff of this reply.

Many thanks,

James Waltz
Public Works Director
Grantsville City
336 West Main Street
Grantsville, UT 84029
jwaltz@grantsvilleut.gov
Office: (435) 884-0621
Cell: (435) 849-1636

[Quoted text hidden]

Bryan Slade <bryan.slade@tooelehealth.org> Tue, Jan 11, 2022 at 8:52 AM
To: James Waltz <jwaltz@grantsvilleut.gov>, "crobinson@theensigngroup.com" <crobinson@theensigngroup.com>
Cc: Judd Lawrence <jlawrence@binghamnet.com>, Kristy Clark <kclark@grantsvilleut.gov>, Jesse Wilson <jwilson@grantsvilleut.gov>, Shay Stark <shays@aquaeng.com>, Dan England <dengland@grantsvilleut.gov>, Christy Montierth <cmontierth@grantsvilleut.gov>

Chris and James (and all others), Dustin Hall is the developer of the Willow Fields Subdivision, and Barry Bunderson of Civil Proj-ex is the engineer. They approached the Health Department about this subdivision over a year ago, and from the very beginning we were encouraging them to connect to Grantsville City's sewer. After a few months they told me that only lots 101 and 102 could be connected to the nearest city sewer line, and that the remaining 26 lots were too low in elevation to make the sewer line connection work. If there is another way to run a sewer line to make the connection work for the whole subdivision, we would highly encourage that.

Please note: my email address has changed to **bryan.slade@tooelehealth.org**

Please update your contact information for future correspondence.

Bryan Slade, LEHS

Environmental Health Director

Tooele County Health Department

151 N Main St, Tooele, UT 84074

bryan.slade@tooelehealth.org

(O) 435-277-2440

(F) 435-277-2444

www.tooelehealth.org

From: James Waltz <jwaltz@grantsvilleut.gov>
Sent: Monday, January 10, 2022 2:37 PM

To: crobinson@theensigngroup.com
Cc: Judd Lawrence <jlawrence@binghamnet.com>; Bryan Slade <bslade@tooelehealth.org>; Kristy Clark <kclark@grantsvilleut.gov>; Jesse Wilson <jwilson@grantsvilleut.gov>; Shay Stark <shays@aquaeng.com>; Dan England <dengland@grantsvilleut.gov>; Christy Montierth <cmontierth@grantsvilleut.gov>
Subject: [EXTERNAL] Re: Development w Septic Tanks near Timpie Farms'/Grantsville City's Well Field

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Many thanks,

James Waltz
Public Works Director
Grantsville City
336 West Main Street
Grantsville, UT 84029
jwaltz@grantsvilleut.gov
Office: (435) 884-0621
Cell: (435) 849-1636

GRANTSVILLE
-PUBLIC WORKS-

On Mon, Jan 10, 2022 at 12:26 PM Chris Robinson <crobinson@theensigngroup.com> wrote:

Jeff,

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Best,

Chris

801-599-4397

[Quoted text hidden]

Chris Robinson <crobinson@theensigngroup.com> Tue, Jan 11, 2022 at 10:12 AM
To: Bryan Slade <bryan.slade@tooelehealth.org>, James Waltz <jwaltz@grantsvilleut.gov>
Cc: Judd Lawrence <jlawrence@binghamnet.com>, Kristy Clark <kclark@grantsvilleut.gov>, Jesse Wilson <jwilson@grantsvilleut.gov>, Shay Stark <shays@aquaeng.com>, Dan England <dengland@grantsvilleut.gov>, Christy Montierth <cmontierth@grantsvilleut.gov>

Bryan,

Thanks for providing this information.

Do you have contact info for the developer and the engineer?

Best,

Chris

801-599-4397

[Quoted text hidden]

Bryan Slade <bryan.slade@tooelehealth.org> Tue, Jan 11, 2022 at 10:32 AM
To: "crobinson@theensigngroup.com" <crobinson@theensigngroup.com>, James Waltz <jwaltz@grantsvilleut.gov>
Cc: Judd Lawrence <jlawrence@binghamnet.com>, Kristy Clark <kclark@grantsvilleut.gov>, Jesse Wilson <jwilson@grantsvilleut.gov>, Shay Stark <shays@aquaeng.com>, Dan England <dengland@grantsvilleut.gov>, Christy Montierth <cmontierth@grantsvilleut.gov>

Dustin Hall, 801-514-3623, dhall@pacwestllc.com

Barry Bunderson (Civil Proj-Ex), 435-228-6736, barry.bunderson@civilprojex.com

[Quoted text hidden]

Jesse Wilson <jwilson@grantsvilleut.gov> Tue, Jan 11, 2022 at 11:15 AM
To: Bryan Slade <bryan.slade@tooelehealth.org>
Cc: "crobinson@theensigngroup.com" <crobinson@theensigngroup.com>, James Waltz <jwaltz@grantsvilleut.gov>, Judd Lawrence <jlawrence@binghamnet.com>, Kristy Clark <kclark@grantsvilleut.gov>, Shay Stark <shays@aquaeng.com>, Dan England <dengland@grantsvilleut.gov>, Christy Montierth <cmontierth@grantsvilleut.gov>, Brett Coombs <bcoombs@grantsvilleut.gov>

Bryan and Chris,

A couple of us are meeting with Dustin Hall this afternoon. I was going to encourage or require them to hook on to the sewer as we talked about last week. If they followed your East border and South border they should be able to get sewer to Dustin's property pretty easily. This would also help the city with having a sewer line that could be easily accessible for other developments in the future.

Jesse D. Wilson
Grantsville City Manager
429 E Main Street
Grantsville, UT 84029
(435) 884-4632
jwilson@grantsvilleut.gov

[Quoted text hidden]

GRANTSVILLE
— INCORPORATED 1867 —

Kristy Clark <kclark@grantsvilleut.gov>

Willow Fields Subdivision-Development w Septic Tanks near Timpie Farms'/Grantsville City's Well Field

1 message

Dustin Hall <dhall@pacwestllc.com> Tue, Jan 11, 2022 at 11:25 AM
To: "waltz@grantsvilleut.gov" <waltz@grantsvilleut.gov>, "crobinson@theensigngroup.com" <crobinson@theensigngroup.com>, "kclark@grantsvilleut.gov" <kclark@grantsvilleut.gov>, "jwilson@grantsvilleut.gov" <jwilson@grantsvilleut.gov>, "dengland@grantsvilleut.gov" <dengland@grantsvilleut.gov>, "shays@aquaeng.com" <shays@aquaeng.com>, "cmontierth@grantsvilleut.gov" <cmontierth@grantsvilleut.gov>, "jlawrence@binghamnet.com" <jlawrence@binghamnet.com>, Bryan Slade <bryan.slade@tooelehealth.org>
Cc: "Kevin Hall (KHALLN@msn.com)" <KHALLN@msn.com>, Barry Bunderson <barry.bunderson@civilprojex.com>

All,

I have recently been forwarded a chain of emails that I have not been included in and still not sure if I've intentionally been excluded from or not, but I have a pretty good idea which it is. The emails have originated surrounding my recent PUD application to Grantsville City and the potential for contamination of a city drinking water aquifer with septic tanks. I thought it was important to disclose to the group for full transparency that as I followed the application process and all the requirements of Grantsville City to apply for the subdivision, I was denied sewer service by Grantsville City on the intent to serve form as was required by Grantsville City. I then did as was necessary also part of the required application process to complete a sewer feasibility study which included doing perc tests or soil analysis test pits for each lot (26 ea). The tests were completed, and the feasibility application process was completed with Tooele County Health also as was required. The feasibility of the proposed subdivision using the data from the tests was approved by Tooele County Health and therefore should not be ignored. I have now invested thousands of dollars on what I feel is a bait and switch by Grantsville City. I have been charged thousands of dollars by Grantsville City for sewer modeling as well, all of which has resulted in nothing. I am a native of Grantsville and am not a full-time developer, I want nothing more than to preserve Grantsville and what's best for our community and for my own kids to have a place to build a home and to enjoy just as I have enjoyed here. I have tried to do things the right way in our planning keeping our community's best interest in mind and to preserve the dwindling rural feel and way of life we all enjoy and following the current Master Plan. I started with a desire to simply create a nice place for my children to have a home and did so with an economical and responsible approach instead of using the typical high density "best bang for a buck" developer's approach that currently plagues us. As a result, I am being forced to do things that aren't even economically feasible to do to have a low-density rural development which fits in our community and its desired Master Plan. From a developer's perspective I can certainly see why our rural Grantsville is becoming a thing of the past because when the development costs are driven up by these outlandish requirements developers have no choice but to proceed with a high-density approach or scrap development plans in our city. I challenge you to prove me otherwise. How many 1 acre or larger lot developments are currently available in our city?? And the availability of such will continue to be slim if this type of agenda continues. I want nothing more than to work with the city and do what's best for all involved. I appreciate the fact that Mr. Robinson has offered up an easement to Grantsville City to service this development, but he is only one of several private property owners that would have to be part of the equation and at this juncture and at this point it remains not economically feasible for the project. Currently my project is also being held up by a PROPOSED city well field source protection that did not and still does not exist so please keep that in mind as to the lawfulness of such.

Regards,

Dustin Hall

PROPERTY OWNER AFFIDAVIT

STATE OF UTAH)
) ss
COUNTY OF TOOELE)

I, (we), Dustin Hall being duly sworn depose and say that I (we) am (are) the owners(s) of the property identified in the attached application and that the statements herein contained and the information provided in the attached plans and other exhibits are in all respects true and correct to the best of my (our) knowledge. I also acknowledge that I have received written instruction regarding the process for which I am applying and the Grantsville City staff have indicated they are available to assist me in making this application.

Dustin Hall / D.A.B$K LLC
(Property Owner)

Dustin K. Hall
(Property Owner)

Subscribed and sworn to me this 20 day of August 2021.

SUZANNE JOHNSON
Notary Public - State of Utah
Comm. No. 697102
My Commission Expires on
Nov 20, 2021

Suzanne Johnson
(Notary)

Residing in: Davis County

My Commission Expires: NOV 20, 2021

* *

AGENT AUTHORIZATION

I (we), Dustin Hall the owner(s) of the real property described in the attached application, do authorize as my (our) agent(s), Barry Bunderson / CIVIL PROJ-EX, INC to represent me (us) regarding the attached application and to appear on my (our) behalf before any administrative or legislative body in Grantsville City considering this application and to act in all respects as our agent in matters pertaining to the attached application.

Dustin Hall / D.A.B.$K LLC
(Property Owner)

Dustin K. Hall
(Property Owner)

Dated this 20 day of August 2021 personally appeared before me Dustin Hall the signer(s) of the above agent authorization who duly acknowledged to me that they executed the same.

SUZANNE JOHNSON
Notary Public - State of Utah
Comm. No. 697102
My Commission Expires on
Nov 20, 2021

Suzanne Johnson
(Notary)

Residing in: Davis County

My Commission Expires: NOV 20, 2021

CMT ENGINEERING LABORATORIES

ENGINEERING •GEOTECHNICAL •ENVIRONMENTAL (ESA I & II) •
MATERIALS TESTING •SPECIAL INSPECTIONS •
ORGANIC CHEMISTRY • PAVEMENT
DESIGN •GEOLOGY

GEOTECHNICAL ENGINEERING STUDY

Hall Willow Fields

About 830 North Old Lincoln Highway
Grantsville, Utah
CMT PROJECT NO. 16685

FOR:
Pacific West LLC
57 South Matthews Lane
Grantsville, Utah 84029

July 9, 2021

CMT ENGINEERING LABORATORIES

July 9, 2021

Mr. Dustin Hall
Pacific West LLC
57 South Matthews Lane
Grantsville, Utah 84029

Subject: Geotechnical Engineering Study
Hall Willow Fields
About 830 North Old Lincoln Highway
Grantsville, Utah
CMT Project No. 16685

Mr. Hall:

Submitted herewith is the report of our geotechnical engineering study for the subject site. This report contains the results of our findings and an engineering interpretation of the results with respect to the available project characteristics. It also contains recommendations to aid in the design and construction of the earth related phases of this project.

On June 9, 2021, a CMT Engineering Laboratories (CMT) staff professional was on-site and supervised the excavation of 10 test pits extending to depths of about 6 to 12 feet below the existing ground surface. Soil samples were obtained during the field operations and subsequently transported to our laboratory for further testing and observation.

Conventional spread and/or continuous footings may be utilized to support the proposed structures, provided the recommendations in this report are followed. A detailed discussion of design and construction criteria is presented in this report.

We appreciate the opportunity to work with you at this stage of the project. CMT offers a full range of Geotechnical Engineering, Geological, Material Testing, Special Inspection services, and Phase I and II Environmental Site Assessments. With offices throughout Utah, Idaho and Arizona, our staff is capable of efficiently serving your project needs. If we can be of further assistance or if you have any questions regarding this project, please do not hesitate to contact us at 801-492-4132.

Sincerely,
CMT Engineering Laboratories

LICENSED PROFESSIONAL ENGINEER 171715 WILLIAM G. TURNER 7/9/21 STATE OF UTAH

William G. Turner, P.E., M.ASCE
Senior Geotechnical Engineer

Reviewed by:

Jeffrey J. Egbert, P.E., LEED A.P., M. ASCE
Senior Geotechnical Engineer

CMT ENGINEERING LABORATORIES

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 General

CMT Engineering Laboratories (CMT) was retained to conduct a geotechnical subsurface study for the proposed development of nearly 40 acres as a residential subdivision. The parcel is situated on the east side of Old Lincoln Highway at about 830 North in Grantsville, Utah, as shown in the **Vicinity Map** below.

VICINITY MAP

1.2 Objectives, Scope and Authorization

The objectives and scope of our study were planned in discussions between Mr. Barry Bunderson of Civil ProjEx, and Mr. Bill Turner of CMT Engineering Laboratories (CMT). In general, the objectives of this study were to define and evaluate the subsurface soil and groundwater conditions at the site, and provide appropriate foundation, earthwork, pavement and seismic recommendations to be utilized in the design and construction of the proposed development.

In accomplishing these objectives, our scope of work has included performing field exploration, which consisted of the excavating/logging/sampling of 10 test pits, performing laboratory testing on representative samples of the subsurface soils collected in the test pits, and conducting an office program, which consisted of

correlating available data, performing engineering analyses, and preparing this summary report. This scope of work was authorized by returning a signed copy of our proposal dated May 25, 2021 and executed on May 28, 2021.

1.3 Description of Proposed Construction

We understand that the project will consist of developing nearly 40 acres for the construction of about 28 single-family homes. We anticipate the residences will be 1 to 2 stories in height above existing grade, with possibly partial to full basement levels. We project that maximum loads will be 4,000 pounds per lineal foot for walls, 50,000 pounds for columns, and 100 pounds per square foot for floors. If the loading conditions are different than we have projected, please notify us so that any appropriate modifications to our conclusions and recommendations contained herein can be made.

We anticipate that asphalt-paved residential streets will be constructed as part of the development. Traffic is projected to consist of a light volume of automobiles and pickup trucks, one or two daily medium-weight delivery trucks, a weekly garbage truck, and an occasional fire truck.

Site development will require some earthwork in the form of minor cutting and filling. A site grading plan was not available at the time of this report, but we project that maximum cuts and fills may be on the order of 2 to 3 feet. If deeper cuts or fills are planned, CMT should be notified to provide additional recommendations, if needed.

1.4 Executive Summary

Proposed residences can be supported upon conventional spread and continuous wall foundations. The most significant geotechnical aspects regarding site development include the following:

1. Approximately 6 to 12 inches of topsoil or up to 2 feet of undocumented fill (which could vary in depth and extent) blankets the site, which will require removal beneath structures;
2. Potentially collapsible silt soils are present within the upper 3 to 4 feet in some areas of the site, as confirmed by consolidation/collapse tests that indicated these soils have a collapse potential up to 3.3%; and
3. Foundations and floor slabs may be placed entirely on suitable (non-collapsible), undisturbed natural soils or entirely on properly placed and compacted structural fill extending to suitable, undisturbed natural soils.

CMT must assess that topsoil, undocumented fills, potentially collapsible soils, debris, disturbed or unsuitable soils have been removed and that suitable soils have been encountered prior to placing site grading fills, footings, slabs, and pavements.

In the following sections, detailed discussions pertaining to the site are provided, including subsurface descriptions, geologic/seismic setting, earthwork, foundations, lateral resistance, lateral pressure, floor slabs, and pavements.

2.0 FIELD EXPLORATION

2.1 General

In order to define and evaluate the subsurface soil and groundwater conditions, 10 test pits were excavated with a backhoe at the site to depths of approximately 6 to 12 feet below the existing ground surface. Locations of the test pits are shown on **Figure 1, Site Plan**, included in the Appendix. The field exploration was performed under the supervision of an experienced member of our geotechnical staff.

Representative soil samples were collected by obtaining disturbed "grab" samples and cutting relatively undisturbed "block" samples from within each test pit. The samples were placed in sealed plastic bags and containers prior to transport to the laboratory.

The subsurface soils encountered in the test pits were classified in the field based upon visual and textural examination, logged and described in general accordance with ASTM[1] D-2488. These field classifications were supplemented by subsequent examination and testing of select samples in our laboratory. Graphical representations of the subsurface conditions encountered are presented on each individual Test Pit Log, **Figures 2 through 11**, included in the Appendix. A Key to Symbols defining the terms and symbols used on the logs, is provided as **Figure 12** in the Appendix.

Upon completion of logging and sampling, the test pits were backfilled with the excavated soils. When backfilling, minimal to no effort was made to compact the backfill and no compaction testing was performed. Thus, the test pit backfill is considered undocumented fill and settlement of the backfill in the test pits over time should be anticipated.

2.2 Infiltration Testing

An infiltration test was also performed as part of our field exploration by digging a small hole using a shovel within test pit TP-8 at a depth of about 4 feet. The testing consisted of filling the small hole with water, and measuring the rate of water drop within the small hole over a certain time period (i.e. 10 minutes). This process was repeated multiple times until subsequent readings were the same. The results of this test indicate that the clayey soils at this site have an infiltration rate of about 55 minutes per inch. We recommend that an appropriate factor of safety be applied to this value to account for potential siltation.

3.0 LABORATORY TESTING

Selected samples of the subsurface soils were subjected to various laboratory tests to assess pertinent engineering properties, as follows:

1. Moisture Content, ASTM D-2216, Percent moisture representative of field conditions
2. Dry Density, ASTM D-2937, Dry unit weight representing field conditions

[1]American Society for Testing and Materials

3. Atterberg Limits, ASTM D-4318, Plasticity and workability
4. Gradation Analysis, ASTM D-1140/C-117, Grain Size Analysis
5. One Dimension Consolidation, ASTM D-2435, Consolidation properties

To provide data necessary for our settlement analyses, a consolidation test was performed on each of 4 representative samples of the surficial silt/clay soils encountered across the site. Based upon data obtained from the consolidation testing, the silt/clay soils at this site are moderately over-consolidated, moderately compressible under additional loading, and the silt soils within the upper 3 to 4 feet have a collapse potential of approximately 3.3% at a load of 2,000 psf when water was added (see the **Lab Summary Table** below). Detailed results of the test are maintained within our files and can be transmitted to you, if so desired.

Laboratory test results are presented on the test pit logs (**Figures 2 through 11**) and in the following **Lab Summary Table**:

LAB SUMMARY TABLE

TEST PIT	DEPTH (feet)	SOIL CLASS	SAMPLE TYPE	MOISTURE CONTENT(%)	DRY DENSITY (pcf)	GRADATION			ATTERBERG LIMITS			COLLAPSE (-)/ EXPANSION(+)
						GRAV.	SAND	FINES	LL	PL	PI	
TP-1	2.5	ML	Bag	9				70				
TP-2	4.5	OL	Block	55						NP	NP	
TP-3	5	ML	Block	27	80					NP	NP	-0.7%
TP-4	2.5	OL	Bag	66				77				
TP-5	6	CL	Bag	32				98				
TP-6	3	OL	Bag	51				86				
	6	CL	Bag	23	95				39	22	17	< -0.5%
TP-7	10	CL	Bag	39				95				
TP-8	11	CL	Bag	25	93				40	23	17	< -0.5%
TP-9	3	CL	Bag	26				82				
TP-10	3	ML	Bag	23	59				48	35	13	-3.3%
	6	CL	Bag	30				94				

4.0 GEOLOGIC & SEISMIC CONDITIONS

4.1 Geologic Setting

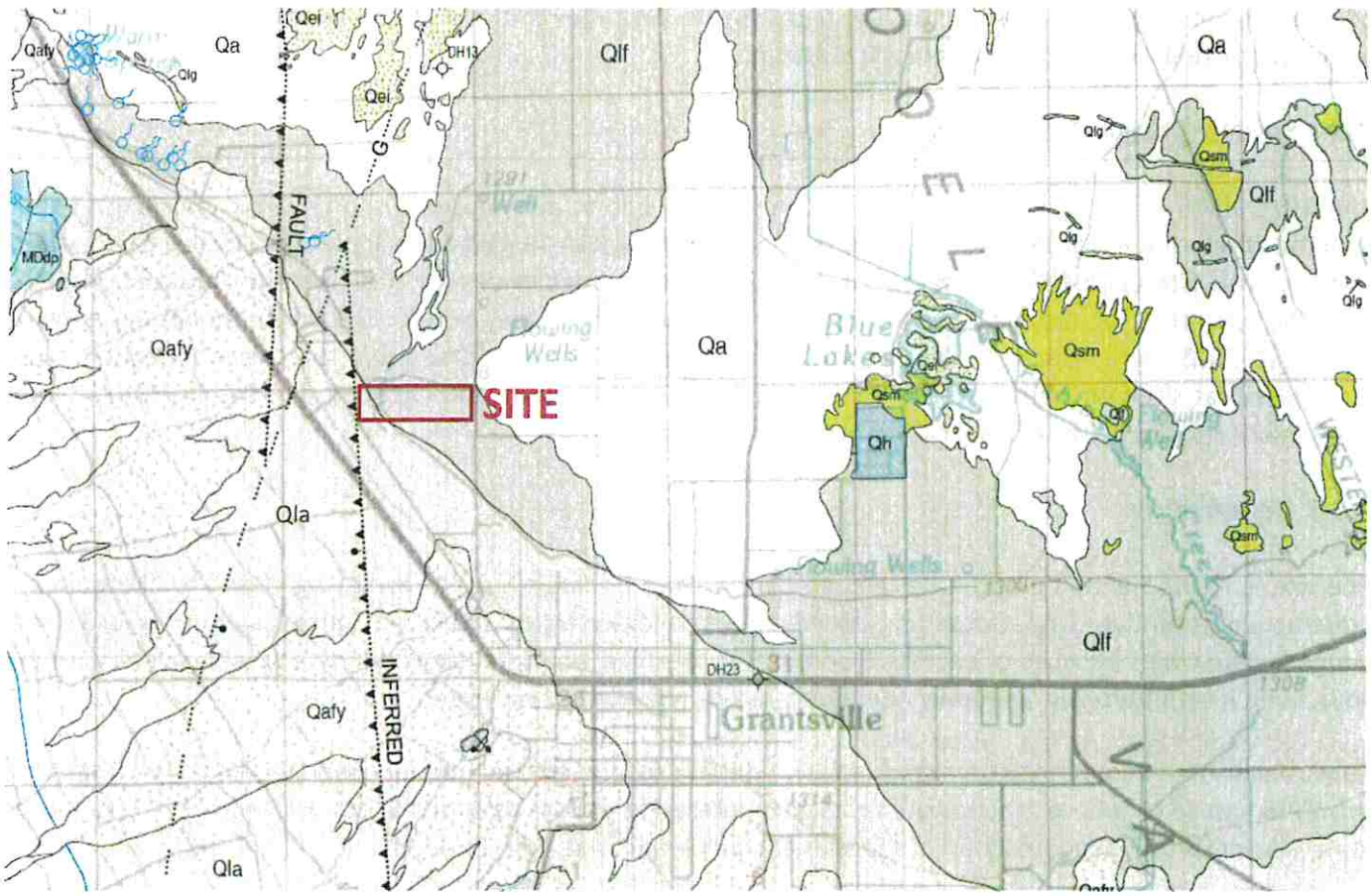
The subject site is located in the northwest portion of the Tooele Valley in north-central Utah. The site sits at an elevation between approximately 4,300 and 4,260 feet above sea level. The Tooele Valley is a deep, sediment-filled basin that is part of the Basin and Range Physiographic Province. The valley was formed by extensional tectonic processes during the Tertiary and Quaternary geologic time periods, and is bordered by the Oquirrh Mountain Range on the east and the northern Stansbury Range on the west.

Much of northwestern Utah, including the Tooele Valley, was previously covered by the Pleistocene age Lake Bonneville. The Great Salt Lake located at the northern end of the valley is a remnant of this ancient fresh water lake. Lake Bonneville reached a high-stand elevation of between approximately 5,160 and 5,200 feet above sea level at between 18,500 and 17,400 years ago. Approximately 17,400 years ago, the lake breached

its basin in southeastern Idaho and dropped relatively fast, by almost 300 feet, as water drained into the Snake River. Following this catastrophic release, the lake level continued to drop slowly over time, primarily driven by drier climatic conditions, until reaching the current level of the Great Salt Lake. Shoreline terraces formed at the high-stand elevation of the lake and several subsequent lower lake levels are visible in places on the mountain slopes surrounding the valley. Much of the sediment within the Tooele Valley was deposited as lacustrine sediments during both the transgressive (rise) and regressive (fall) phases of Lake Bonneville and in older pre-Bonneville lakes that previously occupied the basin.

The geology of portions of the Tooele 30' x 60' Quadrangle, which includes the location of the subject site, has been mapped by Clark and others[2]. The surficial geology at the location of the subject site and adjacent properties is mostly mapped as "Lacustrine fine-grained deposits" (Map Unit Qlf) dated to be Holocene to upper Pleistocene. The west margin of the site is mapped as "Lacustrine and alluvial deposits, undivided" (Map Unit Qla) also dated to be Holocene to upper Pleistocene. Unit Qlf is described in the referenced mapping as "Sand, silt, marl, and calcareous clay of Great Salt Lake and Lake Bonneville; thin to very thick bedded; ... locally may include small areas of sand and gravel; can include thin eolian sand deposits at surface; ...; thickness 10 to 100 feet (3–30 m) or more." Unit Qla is described in the referenced mapping as "Sand, gravel, silt, and clay; consists of alluvial deposits reworked by lakes, lacustrine deposits reworked by streams and slopewash, and alluvial and lacustrine deposits that cannot be readily differentiated at map scale; grade into other lacustrine and alluvial deposits; ... thickness locally exceeds 30 feet (10 m)." No fill has been mapped at the location of the site on the geologic map. Refer to the **Geologic Map**, shown below.

[2] Clark, D.L., Oviatt, C.G., and Dinter, D.A., 2015, Interim Geologic Map of the East and Central Parts of the Tooele 30' x 60' Quadrangle, Tooele, Salt Lake, and Davis Counties, Utah, Year 2; Utah Geological Survey Open File Report 644, Scale 1:62,500.



GEOLOGIC MAP

4.2 Faulting

No active (Holocene) surface fault traces are shown on the referenced geologic map crossing, adjacent to, or projecting toward the subject site. The nearest mapped active fault is the Stansbury Fault Zone located approximately 8.5 miles to the west-southwest. Seismic design issues are addressed in **Section 4.3** below.

4.3 Seismicity

4.3.1 Site Class

Utah has adopted the International Building Code (IBC) 2018, which determines the seismic hazard for a site based upon 2014 mapping of bedrock accelerations prepared by the United States Geologic Survey (USGS) and the soil site class. The USGS values are presented on maps incorporated into the IBC code and are also available based on latitude and longitude coordinates (grid points). For site class definitions, IBC 2018 Section 1613.2.2 refers to Chapter 20, Site Classification Procedure for Seismic Design, of ASCE[3] 7-16, which stipulates that the average values of shear wave velocity, blow count and/or shear strength within the upper 100 feet (30 meters) be utilized to determine seismic site class. Considering our explorations only extended to a depth

[3]American Society of Civil Engineers

of about 15 feet, it is our opinion the site best fits Site Class D – Stiff Soil Profile (without data, or default), which we recommend for seismic structural design.

4.3.2 Seismic Design Category

The 2014 USGS mapping utilized by the IBC provides values of peak ground, short period and long period spectral accelerations for the Site Class B/C boundary and the Risk-Targeted Maximum Considered Earthquake (MCE_R). This Site Class B/C boundary represents average bedrock values for the Western United States and must be corrected for local soil conditions. The Seismic Design Categories in the International Residential Code (IRC 2018 Table R301.2.2.1.1) are based upon the Site Class as addressed in the previous section. For Site Class D at site grid coordinates of 40.6206 degrees north latitude and -112.492 degrees west longitude, S_{DS} is 0.527 and the **Seismic Design Category** is D_0.

4.3.3 Liquefaction

The site is located within an area designated by the Utah Geologic Survey[4] as having "Low" to "Moderate" liquefaction potential. Liquefaction is defined as the condition when saturated, loose, sandy soils lose their support capabilities because of excessive pore water pressure which develops during a seismic event. Clayey soils, even if saturated, will generally not liquefy during a major seismic event.

Subsurface soils encountered consisted of clay, typically not liquefiable, and medium stiff silt soils within test pits TP-3 and TP-4, where groundwater was encountered at depths of about 5.5 to 6 feet. These conditions generally indicate that liquefaction of the soils encountered is not likely to occur.

4.4 Other Geologic Hazards

No landslide deposits or features, including lateral spread deposits, are mapped on or adjacent to the site. The site is not located within a currently known or mapped potential debris flow, stream flooding, or rock fall hazard area.

5.0 SITE CONDITIONS

5.1 Surface Conditions

At the time the test pits were excavated the site consisted of a vacant field vegetated with some grasses, weeds, sagebrush and a few small trees. Corrals/fences and a stock-loading ramp existed within the west margin of the site (adjacent to Old Lincoln Highway). The site grade sloped downward to the northeast with an overall gradient of about 30 feet. Based upon aerial photos readily available online dating back to 1997, the site appears to have remained relatively unchanged since that time. The site is bounded on the west by

[4] Utah Geological Survey, "Liquefaction Susceptibility Map for Tooele Valley, Tooele County, Utah," Utah Geological Survey Public Information Series 80, August 2003. https://ugspub.nr.utah.gov/publications/public_information/pi-80.pdf

Old Lincoln Highway and on the remaining sides by similar vacant fields and some residences (see **Vicinity Map** in **Section 1.1** above).

5.2 Subsurface Soils

At the locations of most of the test pits, we encountered approximately 6 to 12 inches of topsoil at the surface. At the locations of test pits TP-1 and TP-2, we encountered approximately 0.5 to 2 feet of fill soils, which consisted of silty sand with debris and are considered undocumented/untested. We observed natural soils beneath the topsoil/fill soils, consisting of SILT to ORGANIC SILT with sand (ML to OL) and Silty CLAY with varying amounts of sand (CL), extending to the full depth penetrated, 12 feet.

These natural silt/clay soils were slightly moist to wet, brown to dark brown/gray/black to greenish gray in color, and estimated to be soft to stiff in consistency. They also exhibited moderate over consolidation and strength characteristics with moderate to slightly high compressibility characteristics. The silt soils within the upper 3 to 4 feet indicated a moderate potential for collapse when wetted.

For a more descriptive interpretation of subsurface conditions, please refer to the test pit logs, **Figures 2 through 11**, which graphically represent the subsurface conditions encountered. The lines designating the interface between soil types on the logs generally represent approximate boundaries - in situ, the transition between soil types may be gradual.

5.3 Groundwater

Groundwater was encountered in test pits TP-3 and TP-4 at respective depths of about 6 and 5.5 feet below existing grade at the time of our field exploration. In addition, calcified nodules (a visual indicator of past groundwater levels) were also observed in other test pits as shallow as 5 feet. These depths to groundwater could affect deeper excavations.

Groundwater levels can fluctuate seasonally. Numerous other factors such as heavy precipitation, irrigation of neighboring land, and other unforeseen factors, may also influence ground water elevations at the site. The detailed evaluation of these and other factors, which may be responsible for ground water fluctuations, is beyond the scope of this study.

5.4 Site Subsurface Variations

Based on the results of the subsurface explorations and our experience, variations in the continuity and nature of subsurface conditions should be anticipated. Due to the heterogeneous characteristics of natural soils, care should be taken in interpolating or extrapolating subsurface conditions between or beyond the exploratory locations.

Also, when logging and sampling of the test pits was completed, the test pits were backfilled with the excavated soils but minimal to no effort was made to compact these soils. Thus, the test pit backfill is considered undocumented fill and settlement of the backfill in the test pits over time should be anticipated.

6.0 SITE PREPARATION AND GRADING

6.1 General

All deleterious materials should be stripped from the site prior to commencement of construction activities. This includes loose and disturbed soils, topsoil, vegetation, etc. Based upon the conditions observed in the test pits there is topsoil on the surface of the site which we estimated to be about 6 to 12 inches in thickness. When stripping and grubbing, topsoil should be distinguished by the apparent organic content and not solely by color; thus we estimate that topsoil stripping will need to include the upper 4 inches. However, it is possible that the upper 12 to 15 inches may have been disturbed during farming.

In addition, approximately 0.5 to 2 feet of undocumented fill is present on the surface of the west portion of the site (which could vary in depth and extent). All undocumented fill shall be removed from beneath structures, but may remain beneath flatwork and pavements, provided the owner understands that additional maintenance may be required. Outside of building footprints, proper preparation of undocumented fill and disturbed soils shall consist of removing the upper 12 inches, scarifying to a minimum depth of 8 inches and compacting the soils in place. The exposed subgrade must then be proofrolled by passing moderate-weight rubber tire-mounted construction equipment over the surface at least twice. If excessively soft or loose soils are encountered, they must be removed (up to a maximum depth of 2 feet) and replaced with structural fill.

Potentially collapsible silt (ML) soils were encountered in some areas of the site within the upper 3 to 4 feet. These soils may remain in pavement areas if:

1. They are properly prepared/partially replaced as outlined below;
2. No more than 3 feet of subsequent overlying site grading fills are installed above any remaining sequence of potentially collapsible soils;
3. Any planned subsurface detention systems are installed well away and down gradient from nearby structures, and preferably below any remaining sequence of potentially collapsible soils; and
4. Adequate site drainage is maintained to reduce the potential for subsurface soil saturation.
5. The owner accepts the risk that some settlement of pavement areas could occur if the underlying potentially collapsible soils become wetted, which could result in minor to significant maintenance.

Proper preparation of potentially collapsible soils in pavement areas shall consist of removing the upper 18 inches, scarifying to a minimum depth of 8 inches and compacting the soils in place. The exposed subgrade must then be proofrolled by passing moderate-weight rubber tire-mounted construction equipment over the surface at least twice. If excessively soft or loose soils are encountered, they must be removed (up to a maximum depth of 2 feet) and replaced with structural fill.

The site should be observed by a CMT geotechnical engineer to assess that suitable natural soils have been exposed and any deleterious materials, loose and/or disturbed soils have been removed, prior to placing site grading fills, footings, slabs, and pavements.

Fill placed over large areas to raise overall site grades can induce settlements in the underlying natural soils. If more than 3 feet of site grading fill is anticipated over the natural ground surface, we should be notified to

assess potential settlements and provide additional recommendations as needed. These recommendations may include placement of the site grading fill far in advance to allow potential settlements to occur prior to construction.

6.2 Temporary Excavations

Excavations deeper than 8 feet are not anticipated at the site. Groundwater was encountered at depths of 5.5 to 6 feet below the existing ground surface, but visual indicators (calcified nodules) were also observed as shallow as 5 feet. We anticipate that excavations extending below a depth of about 5 to 6 feet could encounter groundwater, and dewatering of such excavations will likely be required.

The near-surface natural soils encountered at this site predominantly consisted of non-plastic silt/organic silt. These soils are considered cohesionless, thus temporary construction excavations not exceeding 4 feet in depth should be no steeper than one-half horizontal to one vertical (0.5H:1V). For excavations up to 8 feet and above groundwater, side slopes should be no steeper than one horizontal to one vertical (1H:1V). Excavations encountering saturated cohesionless soils will be very difficult to maintain, and will require very flat side slopes and/or shoring, bracing and dewatering.

In clayey (cohesive) soils, temporary construction excavations not exceeding 4 feet in depth may be constructed with near-vertical side slopes. Temporary excavations up to 8 feet deep, above or below groundwater, may be constructed with side slopes no steeper than one-half horizontal to one vertical (0.5H:1V).

To reduce disturbance of the natural soils during excavation, we recommend that smooth edge buckets/blades be utilized.

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

6.3 Fill Material

Following are our recommendations for the various fill types we anticipate will be used at this site:

FILL MATERIAL TYPE	DESCRIPTION | RECOMMENDED SPECIFICATION
Structural Fill	Placed below structures, flatwork and pavement. Well-graded sand/gravel mixture, with maximum particle size of 4 inches, a minimum 70% passing 3/4-inch sieve, a maximum 20% passing the No. 200 sieve, and a maximum Plasticity Index of 10.
Site Grading Fill	Placed over larger areas to raise the site grade. Sandy to gravelly soil, with a maximum particle size of 6 inches, a minimum 70% passing 3/4-inch sieve, a maximum 50% passing No. 200 sieve, and a maximum Plasticity Index of 15.

FILL MATERIAL TYPE	DESCRIPTION | RECOMMENDED SPECIFICATION
Non-Structural Fill	Placed below non-structural areas, such as landscaping. On-site soils or imported soils, with a maximum particle size of 8 inches, including silt/clay soils not containing excessive amounts of degradable/organic material (see discussion below).
Stabilization Fill	Placed to stabilize soft areas prior to placing structural fill and/or site grading fill. Coarse angular gravels and cobbles 1 inch to 8 inches in size. May also use 1.5-inch to 2.0-inch gravel placed on stabilization fabric, such as Mirafi RS280i, or equivalent (see **Section 6.6**).

On-site silt/clay soils are not suitable for use as structural fill or site grading fill, but may be used as non-structural fill. Note that these silt/clay soils are moisture-sensitive, which means they are inherently more difficult to work with in proper moisture conditioning (they are very sensitive to changes in moisture content), requiring very close moisture control during placement and compaction. This will be very difficult, if not impossible, during wet and cold periods of the year.

All fill material should be approved by a CMT geotechnical engineer prior to placement.

6.4 Fill Placement and Compaction

The various types of compaction equipment available have their limitations as to the maximum lift thickness that can be compacted. For example, hand operated equipment is limited to lifts of about 4 inches and most "trench compactors" have a maximum, consistent compaction depth of about 6 inches. Large rollers, depending on soil and moisture conditions, can achieve compaction at 8 to 12 inches. The full thickness of each lift should be compacted to at least the following percentages of the maximum dry density as determined by ASTM D-1557 (or AASHTO[5] T-180) in accordance with the following recommendations:

LOCATION	TOTAL FILL THICKNESS (FEET)	MINIMUM PERCENTAGE OF MAXIMUM DRY DENSITY
Beneath an area extending at least 4 feet beyond the perimeter of structures, and below flatwork and pavement (applies to structural fill and site grading fill) extending at least 2 feet beyond the perimeter	0 to 5 5 to 8	95 98
Site grading fill outside area defined above	0 to 5 5 to 8	92 95
Utility trenches within structural areas	--	96
Roadbase and subbase	-	96
Non-structural fill	0 to 5 5 to 8	90 92

Structural fills greater than 8 feet thick are not anticipated at the site. For best compaction results, we recommend that the moisture content for structural fill/backfill be within 2% of optimum. Field density tests should be performed on each lift as necessary to verify that proper compaction is being achieved.

[5] American Association of State Highway and Transportation Officials

6.5 Utility Trenches

For the bedding zone around the utility, we recommend utilizing sand bedding fill material that meets current APWA[6] requirements.

All utility trench backfill material below structurally loaded facilities (foundations, floor slabs, flatwork, parking lots/drive areas, etc.) should be placed at the same density requirements established for structural fill in the previous section.

Most utility companies and local governments are requiring Type A-1a or A-1b (AASHTO Designation) soils (sand/gravel soils with limited fines) be used as backfill over utilities within public rights of way, and the backfill be compacted over the full depth above the bedding zone to at least 96% of the maximum dry density as determined by AASHTO T-180 (ASTM D-1557).

Where the utility does not underlie structurally loaded facilities and public rights of way, on-site fill and natural soils may be utilized as trench backfill above the bedding layer, provided they are properly moisture conditioned and compacted to the minimum requirements stated above in **Section 6.4**.

6.6 Stabilization

The natural silt/clay soils at this site will likely be susceptible to rutting and pumping. The likelihood of disturbance or rutting and/or pumping of the existing natural soils is a function of the load applied to the surface, as well as the frequency of the load. Consequently, rutting and pumping can be minimized by avoiding concentrated traffic, minimizing the load applied to the surface by using lighter equipment and/or partial loads, by working in drier times of the year, or by providing a working surface for the equipment. Rubber-tired equipment particularly, because of high pressures, promotes instability in moist/wet, soft soils. If rutting or pumping occurs, traffic should be stopped and the disturbed soils should be removed and replaced with stabilization material. Typically, a minimum of 18 inches of the disturbed soils must be removed to be effective. However, deeper removal is sometimes required.

To stabilize soft subgrade conditions (if encountered), a mixture of coarse, clean, angular gravels and cobbles and/or 1.5- to 2.0-inch clean gravel should be utilized, as indicated above in **Section 6.3**. Often the amount of gravelly material can be reduced with the use of a geotextile fabric such as Mirafi RS280i or equivalent. Its use will also help avoid mixing of the subgrade soils with the gravelly material. After excavating the soft/disturbed soils, the fabric should be spread across the bottom of the excavation and up the sides a minimum of 18 inches. Otherwise, it should be placed in accordance with the manufacturer's recommendation, including proper overlaps. The gravel material can then be placed over the fabric in compacted lifts as described above.

[6] American Public Works Association

7.0 FOUNDATION RECOMMENDATIONS

The following recommendations have been developed on the basis of the previously described project characteristics, including the maximum loads discussed in **Section 1.3**, the subsurface conditions observed in the field and the laboratory test data, and standard geotechnical engineering practice.

7.1 Foundation Recommendations

Based on our geotechnical engineering analyses, the proposed residences may be supported upon conventional spread and/or continuous wall foundations placed on suitable, undisturbed natural soils and/or on structural fill extending to suitable natural soils. Footings may be designed using a net bearing pressure of 1,500 psf if placed entirely on suitable, undisturbed, natural soils or 2,000 psf if placed entirely on a minimum 18 inches of structural fill. The term "net bearing pressure" refers to the pressure imposed by the portion of the structure located above lowest adjacent final grade, thus the weight of the footing and backfill to lowest adjacent final grade need not be considered. The allowable bearing pressure may be increased by 1/3 for temporary loads such as wind and seismic forces.

We also recommend the following:

1. Exterior footings subject to frost should be placed at least 30 inches below final grade.
2. Interior footings not subject to frost should be placed at least 16 inches below grade.
3. Continuous footing widths should be maintained at a minimum of 18 inches.
4. Spot footings should be a minimum of 24 inches wide.

7.2 Installation

Under no circumstances shall foundations be placed directly on potentially collapsible soils, on undocumented fill, topsoil with organics, sod, rubbish, construction debris, other deleterious materials, frozen soils, or within ponded water. Where footings would otherwise be placed on potentially collapsible soils, we recommend the collapsible soils be completely removed or over-excavated a minimum 24 inches, whichever is less, and replaced with properly compacted structural fill.

Deep, large roots may be encountered where trees and larger bushes are located or were previously located at the site; such large roots should be removed. If other unsuitable soils are encountered, they must be completely removed and replaced with properly compacted structural fill. Excavation bottoms should be examined by a CMT geotechnical engineer to confirm that suitable bearing soils have been exposed.

All structural fill should meet the requirements for such, and should be placed and compacted in accordance with **Section 6** above. The width of structural replacement fill below footings should be equal to the width of the footing plus 1 foot for each foot of fill thickness. For instance, if the footing width is 2 feet and the structural fill depth beneath the footing is 2 feet, the fill replacement width should be 4 feet, centered beneath the footing.

The minimum thickness of structural fill below footings should be equivalent to one-third the thickness of structural fill below any other portion of the foundations. For example, if the maximum depth of structural fill is 6 feet, all footings for the new structure should be underlain by a minimum 2 feet of structural fill.

7.3 Estimated Settlement

Foundations designed and constructed in accordance with our recommendations could experience some settlement, but we anticipate that total settlements of footings founded as recommended above will not exceed 1 inch, with differential settlements on the order of 0.5 inches over a distance of 25 feet. We expect approximately 50% of the total settlement to initially take place during construction.

7.4 Lateral Resistance

Lateral loads imposed upon foundations due to wind or seismic forces may be resisted by the development of passive earth pressures and friction between the base of the footings and the supporting soils. In determining frictional resistance, a coefficient of 0.30 for natural silt/clay soils or 0.40 for structural fill, may be utilized for design. Passive resistance provided by properly placed and compacted structural fill above the water table may be considered equivalent to a fluid with a density of 350 pcf. A combination of passive earth resistance and friction may be utilized if the friction component of the total is divided by 1.5.

8.0 LATERAL EARTH PRESSURES

We project that basement walls up to 8 feet tall will be constructed at this site. The lateral earth pressure values given below anticipate that native silt/clay soils will be used as backfill material, placed and compacted in accordance with the recommendations presented herein. If other soil types will be used as backfill, we should be notified so that appropriate modifications to these values can be provided, as needed.

The lateral pressures imposed upon subgrade facilities will depend upon the relative rigidity and movement of the backfilled structure. Following are the recommended lateral pressure values, which also assume that the soil surface behind the wall is horizontal and that the backfill within 3 feet of the wall will be compacted with hand-operated compacting equipment.

CONDITION	STATIC (psf/ft)*	SEISMIC (psf)*
Active Pressure (wall is allowed to yield, i.e. move away from the soil, with a minimum 0.001H movement/rotation at the top of the wall, where "H" is the total height of the wall)	47	17
At-Rest Pressure (wall is not allowed to yield)	67	N/A
Passive Pressure (wall moves into the soil)	300	70

*Equivalent Fluid Pressure (applied at 1/3 Height of Wall)

*Equivalent Fluid Pressure (added to static and applied at 1/3 Height of Wall)

9.0 FLOOR SLABS

Floor slabs may be established upon suitable, undisturbed, natural soils and/or on structural fill extending to suitable natural soils (same as for foundations). Under no circumstances shall floor slabs be established directly on potentially collapsible soils, or any topsoil, undocumented fills, loose or disturbed soils, sod, rubbish, construction debris, other deleterious materials, frozen soils, or within ponded water.

In order to facilitate curing of the concrete, we recommend that floor slabs be directly underlain by at least 4 inches of "free-draining" fill, such as "pea" gravel or 3/4-inch to 1-inch minus, clean, gap-graded gravel. To help control normal shrinkage and stress cracking, the floor slabs should have the following features:

1. Adequate reinforcement for the anticipated floor loads with the reinforcement continuous through interior floor joints;
2. Frequent crack control joints; and
3. Non-rigid attachment of the slabs to foundation walls and bearing slabs.

10.0 DRAINAGE RECOMMENDATIONS

10.1 Surface Drainage

Some of the on-site near-surface clayey soils are potentially collapsible when subjected to water, thus it is very important to the long-term performance of foundations and floor slabs that water not be allowed to collect near the foundation walls and infiltrate into the underlying soils. We recommend the following:

1. All areas around each residence should be sloped to provide drainage away from the foundations. We recommend a minimum slope of 6 inches in the first 10 feet away from the structure. This slope should be maintained throughout the lifetime of the structure.

2. All roof drainage should be collected in rain gutters with downspouts designed to discharge at least 10 feet from the foundation walls or well beyond the backfill limits, whichever is greater.

3. Adequate compaction of the foundation backfill should be provided. We suggest a minimum of 90% of the maximum laboratory density as determined by ASTM D-1557. Water consolidation methods should not be used under any circumstances.

4. Landscape sprinklers should be aimed away, and maintained a distance of at least 4 feet, from the foundation walls. The sprinkling systems should be designed with proper drainage and be well-maintained. Over watering should be avoided.

5. Other precautions that may become evident during construction.

10.2 Foundation Subdrains

Groundwater or signs of past groundwater were encountered at depths of about 5 to 6 feet in some areas of the site. If floor slabs will be placed deeper than approximately 4 feet below the existing ground surface in those areas, or deeper than 6 feet throughout the site, we recommend that perimeter foundation subdrains be installed.

Foundation subdrains should consist of a 4-inch diameter perforated or slotted plastic or PVC pipe surrounded by clean gravel. The invert of the subdrain should be at least 2 feet below the top of the lowest adjacent floor slab. The gravel portion of the drain should extend a minimum 2 inches laterally and below the perforated pipe and at least 1 foot above the top of the lowest adjacent floor slab. The gravel zone must be installed immediately adjacent to the perimeter footings and the foundation walls. To reduce the possibility of plugging, the gravel must be wrapped with a geotextile, such as Mirafi 140N or equivalent. Prior to the installation of the footing subdrain, the below-grade walls should be dampproofed. The slope of the subdrain should be at least 0.5%. The gravel placed around the drain pipe should be clean 3/4-inch to 1-inch minus gap-graded gravel and/or "pea" gravel. The foundation subdrains can be discharged into the area subdrains, storm drains, or other suitable down-gradient location.

11.0 PAVEMENTS

All pavement areas must be prepared as discussed above in **Section 6.1**. Under no circumstances shall pavements be established over topsoil, undocumented fills, loose or disturbed soils, sod, rubbish, construction debris, other deleterious materials, frozen soils, or within ponded water.

In roadway areas, subsequent to stripping and prior to the placement of pavement materials, the exposed subgrade must be proof rolled by passing moderate-weight rubber tire-mounted construction equipment over the surface at least twice. If excessively soft or otherwise unsuitable soils are encountered, we recommend they be removed to a minimum of 18 inches below the subgrade level and replaced with structural fill.

We anticipate the natural silt/clay soils will exhibit poor pavement support characteristics when saturated or nearly saturated. Based on our laboratory testing experience with similar soils, our pavement design utilized a California Bearing Ratio (CBR) of 3 for the natural silt/clay soils.

Given the projected traffic as discussed above in **Section 1.3**, the following pavement sections are recommended for approximately 4 ESAL's (18-kip equivalent single-axle loads) per day:

MATERIAL	PAVEMENT SECTION THICKNESS (inches)	
Asphalt	3	3
Road-Base	10	6
Subbase	0	6
Total Thickness	13	15

Untreated base course (UTBC) should conform to city specifications, or to 1-inch-minus UDOT specifications for A–1-a/NP, and have a minimum CBR value of 70%. Material meeting our specification for structural fill can be used for subbase, as long as the fines content (percent passing No. 200 sieve) does not exceed 15%. Roadbase and subbase material should be compacted as recommended above in **Section 6.4**. Asphalt material generally should conform to APWA requirements, having a ½-inch maximum aggregate size, a 75-gyration Superpave mix containing no more than 15% of recycled asphalt (RAP) and a PG58-28 binder.

12.0 QUALITY CONTROL

We recommend that CMT be retained as part of a comprehensive quality control testing and observation program. With CMT on-site we can help facilitate implementation of our recommendations and address, in a timely manner, any subsurface conditions encountered which vary from those described in this report. Without such a program CMT cannot be responsible for application of our recommendations to subsurface conditions which may vary from those described herein. This program may include, but not necessarily be limited to, the following:

12.1 Field Observations

Observations should be completed during all phases of construction such as site preparation, foundation excavation, structural fill placement and concrete placement.

12.2 Fill Compaction

Compaction testing by CMT is required for all structural supporting fill materials. Maximum Dry Density (Modified Proctor, ASTM D-1557) tests should be requested by the contractor immediately after delivery of any fill materials. The maximum density information should then be used for field density tests on each lift as necessary to ensure that the required compaction is being achieved.

12.3 Excavations

All excavation procedures and processes should be observed by a geotechnical engineer from CMT or their representative. In addition, for the recommendations in this report to be valid, all backfill and structural fill placed in trenches and all pavements should be density tested by CMT. We recommend that freshly mixed concrete be tested by CMT in accordance with ASTM designations.

13.0 LIMITATIONS

The recommendations provided herein were developed by evaluating the information obtained from the subsurface explorations and soils encountered therein. The exploration logs reflect the subsurface conditions only at the specific location at the particular time designated on the logs. Soil and ground water conditions may differ from conditions encountered at the actual exploration locations. The nature and extent of any variation in the explorations may not become evident until during the course of construction. If variations do

appear, it may become necessary to re-evaluate the recommendations of this report after we have observed the variation.

Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices. This warranty is in lieu of all other warranties, either expressed or implied.

We appreciate the opportunity to be of service to you on this project. If we can be of further assistance or if you have any questions regarding this project, please do not hesitate to contact us at (801) 492-4132. To schedule materials testing, please call (801) 381-5141.

APPENDIX

SUPPORTING
DOCUMENTATION

CMT ENGINEERING LABORATORIES	Hall Willow Fields About 830 North Old Lincoln Highway, Grantsville, Utah	SITE MAP	Date: 17-Jun-2021 CMT No.: 16685	Figure: 1

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-1

Total Depth: 6'
Water Depth: (see Remarks)

Date: 6/9/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation: Gravel %	Gradation: Sand %	Gradation: Fines %	Atterberg: LL	Atterberg: PL	Atterberg: PI
0		FILL: silty sand with debris										
1		Light Brown SILT with fine sand (ML) slightly moist, stiff (estimated)										
2												
3				1	9				70			
4												
5												
6		END AT 6'										
7												
8												
9												
10												
11												
12												
13												
14												

Remarks: Groundwater not encountered during excavation.

Coordinates: 40.62017°, -112.49743°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Sterling Howell

Figure: 2

CMT ENGINEERING LABORATORIES

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-2

Total Depth: 9'
Water Depth: (see Remarks)
Date: 6/9/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation Gravel %	Gradation Sand %	Gradation Fines %	Atterberg LL	Atterberg PL	Atterberg PI
0		FILL: silty sand with debris										
2		Dark Brown ORGANIC SILT with fine sand (OL) slightly moist, medium stiff (estimated)										
4				2								
		very moist		3	55						NP	NP
8				4								
9		END AT 9'										

Remarks: Groundwater not encountered during excavation.

Coordinates: 40.61983°, -112.49596°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Sterling Howell

CMT ENGINEERING LABORATORIES

Figure: 3

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-3

Total Depth: 9'
Water Depth: 6'

Date: 6/9/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation Gravel %	Gradation Sand %	Gradation Fines %	Atterberg LL	Atterberg PL	Atterberg PI
0		Topsoil										
		Dark Grayish-Brown SILT with sand (ML) slightly moist, stiff (estimated)										
5		grades light orange brown very moist, medium stiff (estimated)		5	27	80					NP	NP
6		wet										
9		END AT 9'										

Remarks: Groundwater encountered during excavation at depth of 6 feet.

Coordinates: 40.62087°, -112.49423°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Sterling Howell

CMT ENGINEERING LABORATORIES

Figure: 4

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-4

Total Depth: 8'
Water Depth: 5.5'

Date: 6/9/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation Gravel %	Gradation Sand %	Gradation Fines %	Atterberg LL	Atterberg PL	Atterberg PI
0		Topsoil										
1		Dark Brown to Black ORGANIC SILT with fine sand (OL) moist, medium stiff (estimated)										
2												
3				6	66				77			
4												
5		Light Brown Silty CLAY (CL), trace sand soft (estimated) wet										
6												
7												
8		END AT 8'										
9												
10												
11												
12												
13												
14												

Remarks: Groundwater encountered during excavation at depth of 5.5 feet.

Coordinates: 40.62004°, -112.49257°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Sterling Howell

CMT ENGINEERING LABORATORIES

Figure: 5

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-5

Total Depth: 10.5'
Water Depth: (see Remarks)
Date: 6/14/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation Gravel %	Gradation Sand %	Gradation Fines %	Atterberg LL	Atterberg PL	Atterberg PI
0		Topsoil										
1		Brown Silty CLAY with fine sand (CL), some organics slightly moist, medium stiff (estimated)										
2		grades dark grayish- to greenish-brown, some calcification										
3				7								
4		Light Greenish-Gray Silty CLAY (CL), trace sand moist, medium stiff (estimated)										
5												
6		very moist		8	32				98			
7												
8												
9												
10				9								
11		END AT 10.5'										
12												
13												
14												

Remarks: Groundwater not encountered during excavation.

Coordinates: 40.62119°, -112.49172°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Annie Smoot

CMT ENGINEERING LABORATORIES

Figure: 6

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-6

Total Depth: 10.5'
Water Depth: (see Remarks)

Date: 6/14/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation Gravel %	Gradation Sand %	Gradation Fines %	Atterberg LL	Atterberg PL	Atterberg PI
0		Topsoil, brown clay										
1		Dark Brown ORGANIC SILT with fine sand (OL) moist, medium stiff (estimated)										
3		very moist		10	51				86			
5		Brown Silty CLAY (CL), trace sand moist, medium stiff (estimated)										
6				11	23	95				39	22	17
10				12								
		END AT 10.5'										

Remarks: Groundwater not encountered during excavation.

Coordinates: 40.62096°, -112.48992°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Annie Smoot

CMT ENGINEERING LABORATORIES

Page: 1 of 1

Figure: 7

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-7

Total Depth: 10.5'
Water Depth: (see Remarks)
Date: 6/14/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation: Gravel %	Gradation: Sand %	Gradation: Fines %	Atterberg: LL	Atterberg: PL	Atterberg: PI
0		Topsoil, silty clayey sand with organics										
1		Dark Brown ORGANIC SILT with fine sand (OL) moist, medium stiff (estimated)										
2												
3				13								
4		Brown Silty CLAY (CL), trace sand moist, medium stiff (estimated)										
5												
6				14								
7												
8		grades greenish-gray										
9												
10		very moist		15	39				95			
		END AT 10.5'										
11												
12												
13												
14												

Remarks: Groundwater not encountered during excavation.

Coordinates: 40.62144°, -112.48851°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Annie Smoot

Figure: 8

CMT ENGINEERING LABORATORIES

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-8

Total Depth: 12'
Water Depth: (see Remarks)

Date: 6/14/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation			Atterberg		
							Gravel %	Sand %	Fines %	LL	PL	PI
0		Topsoil										
1		Brown Silty CLAY with fine sand (CL), some organics slightly moist, stiff (estimated)										
2												
3				16								
4		Infiltration Test = 55 minutes/inch										
5		Brown Silty CLAY (CL), trace sand moist, medium stiff (estimated)										
6				17								
7												
8												
9		grades greenish-gray										
10												
11				18	25	93				40	23	17
12		END AT 12'										
13												
14												

Remarks: Groundwater not encountered during excavation.

Coordinates: 40.62145°, -112.48681°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Annie Smoot

CMT ENGINEERING LABORATORIES

Figure: 9

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-9

Total Depth: 10.5'
Water Depth: (see Remarks)
Date: 6/14/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation Gravel %	Gradation Sand %	Gradation Fines %	Atterberg LL	Atterberg PL	Atterberg PI
0		Topsoil, silty clayey sand with organics										
1		Brown Silty CLAY with fine sand (CL), some organics slightly moist, stiff (estimated)										
2												
3				19	26				82			
4		Brown Silty CLAY (CL), trace sand moist, medium stiff (estimated)										
5												
6				20								
7												
8												
9												
10				21								
11		END AT 10.5'										
12												
13												
14												

Remarks: Groundwater not encountered during excavation.

Coordinates: 40.6199°, -112.48695°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Annie Smoot

CMT ENGINEERING LABORATORIES

Figure: 10

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Test Pit Log TP-10

Total Depth: 10.5'
Water Depth: (see Remarks)
Date: 6/14/21
Job #: 16685

Depth (ft)	GRAPHIC LOG	Soil Description	Sample Type	Sample #	Moisture (%)	Dry Density(pcf)	Gradation Gravel %	Gradation Sand %	Gradation Fines %	Atterberg LL	Atterberg PL	Atterberg PI
0		Topsoil										
1		Brown Clayey SILT with fine sand (ML), some organics moist, stiff (estimated)										
2												
3				22	23	59				48	35	13
4												
5		Brown Silty CLAY (CL), trace sand, some calcified nodules moist, medium stiff (estimated)										
6				23	30				94			
7												
8												
9		grades greenish-gray										
10				24								
11		END AT 10.5'										
12												
13												
14												

Remarks: Groundwater not encountered during excavation.

Coordinates: 40.61989°, -112.48904°
Surface Elev. (approx): Not Given

Equipment: Rubber Tire Backhoe
Excavated By: Blane Hone
Logged By: Annie Smoot

CMT ENGINEERING LABORATORIES

Figure: 11

Hall Willow Fields

About 830 North Old Lincoln Highway, Grantsville, Utah

Key to Symbols

Date: 6/9/21
Job #: 16685

① Depth (ft)	② GRAPHIC LOG	③ Soil Description	④ Sample Type	⑤ Sample #	⑥ Moisture (%)	⑦ Dry Density(pcf)	Gradation ⑧ Gravel %	Sand %	Fines %	Atterberg ⑨ LL	PL	PI

COLUMN DESCRIPTIONS

① **Depth (ft.):** Depth (feet) below the ground surface (including groundwater depth - see water symbol below).

② **Graphic Log:** Graphic depicting type of soil encountered (see ② below).

③ **Soil Description:** Description of soils encountered, including Unified Soil Classification Symbol (see below).

④ **Sample Type:** Type of soil sample collected at depth interval shown; sampler symbols are explained below-right.

⑤ **Sample #:** Consecutive numbering of soil samples collected during field exploration.

⑥ **Moisture (%):** Water content of soil sample measured in laboratory (percentage of dry weight of sample).

⑦ **Dry Density (pcf):** The dry density of a soil measured in laboratory (pounds per cubic foot).

⑧ **Gradation:** Percentages of Gravel, Sand and Fines (Silt/Clay), obtained from lab test results of soil passing the No. 4 and No. 200 sieves.

⑨ **Atterberg:** Individual descriptions of Atterberg Tests are as follows:

LL = Liquid Limit (%): Water content at which a soil changes from plastic to liquid behavior.

PL = Plastic Limit (%): Water content at which a soil changes from liquid to plastic behavior.

PI = Plasticity Index (%): Range of water content at which a soil exhibits plastic properties (= Liquid Limit - Plastic Limit).

STRATIFICATION	
Description	**Thickness**
Seam	Up to ½ inch
Lense	Up to 12 inches
Layer	Greater than 12 in.
Occasional	1 or less per foot
Frequent	More than 1 per foot

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

MOISTURE CONTENT
Dry: Absence of moisture, dusty, dry to the touch.
Moist: Damp / moist to the touch, but no visible water.
Wet: Visible water, usually soil below groundwater.

UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

MAJOR DIVISIONS			USCS SYMBOLS	②	TYPICAL DESCRIPTIONS
COARSE-GRAINED SOILS More than 50% of material is larger than No. 200 sieve size.	GRAVELS The coarse fraction retained on No. 4 sieve.	CLEAN GRAVELS (< 5% fines)	GW		Well-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines
			GP		Poorly-Graded Gravels, Gravel-Sand Mixtures, Little or No Fines
		GRAVELS WITH FINES (≥ 12% fines)	GM		Silty Gravels, Gravel-Sand-Silt Mixtures
			GC		Clayey Gravels, Gravel-Sand-Clay Mixtures
	SANDS The coarse fraction passing through No. 4 sieve.	CLEAN SANDS (< 5% fines)	SW		Well-Graded Sands, Gravelly Sands, Little or No Fines
			SP		Poorly-Graded Sands, Gravelly Sands, Little or No Fines
		SANDS WITH FINES (≥ 12% fines)	SM		Silty Sands, Sand-Silt Mixtures
			SC		Clayey Sands, Sand-Clay Mixtures
FINE-GRAINED SOILS More than 50% of material is smaller than No. 200 sieve size.	SILTS AND CLAYS Liquid Limit less than 50%		ML		Inorganic Silts and Sandy Silts with No Plasticity or Clayey Silts with Slight Plasticity
			CL		Inorganic Clays of Low to Medium Plasticity, Gravelly Clays, Sandy Clays, Silty Clays, Lean Clays
			OL		Organic Silts and Organic Silty Clays of Low Plasticity
	SILTS AND CLAYS Liquid Limit greater than 50%		MH		Inorganic Silts, Micacious or Diatomacious Fine Sand or Silty Soils
			CH		Inorganic Clays of High Plasticity, Fat Clays
			OH		Organic Silts and Organic Clays of Medium to High Plasticity
HIGHLY ORGANIC SOILS			PT		Peat, Soils with High Organic Contents

Note: Dual Symbols are used to indicate borderline soil classifications (i.e. GP-GM, SC-SM, etc.).

SAMPLER SYMBOLS

- Block Sample
- Bulk/Bag Sample
- Modified California Sampler 3.5" OD, 2.42" ID
- D&M Sampler
- Rock Core
- Standard Penetration Split Spoon Sampler
- Thin Wall (Shelby Tube)

WATER SYMBOL

- Encountered Water Level
- Measured Water Level

(see Remarks on Logs)

1. The results of laboratory tests on the samples collected are shown on the logs at the respective sample depths.
2. The subsurface conditions represented on the logs are for the locations specified. Caution should be exercised if interpolating between or extrapolating beyond the exploration locations.
3. The information presented on each log is subject to the limitations, conclusions, and recommendations presented in this report.

CMT ENGINEERING LABORATORIES

Figure: 12

APPLICATION FOR A
PUD (Planned Unit Development) PLAN
CONSIDERATION BY GRANTSVILLE CITY PLANNING COMMISSION

An application has been received in our office for consideration of a PUD Plan approval for:

Dustin Hall, D.A.B. & K, LLC. on the Willow Fields PUD Subdivision located at approximately at 834 N. Old Lincoln Hwy for the creation of twenty-eight (28) lots in the RR-1 zone.

This site is in the area of, or adjoins property you own, according to the tax rolls of Tooele County. A discussion and public hearing to receive public input on the proposed project will be held on April 7, 2022. The Planning Commission will make a recommendation to the City Council on April 21, 2022. All meetings will be held in person and through Zoom on:

Thursday, April 7, 2022 at 7:00 p.m.

You are invited to view the application and proposed plans by emailing me at kclark@grantsvilleut.gov.

If you choose to attend, please wear a face covering. Comments through email or by mail must be received no later than 5:00 p.m. on April 7, 2022. For more information, please call me at 435-884-4604 or email me.

For more information, please email me at kclark@grantsvilleut.gov.

Thank you,

Kristy Clark
Zoning Administrator

Join Zoom Meeting
https://us02web.zoom.us/j/84177815725

Meeting ID: 841 7781 5725
One tap mobile
+16699009128,84177815725# US (San Jose)
+12532158782,84177815725# US (Tacoma)

Dial by your location
+1 669 900 9128 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)
+1 646 558 8656 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
Find your local number:
https://us02web.zoom.us/u/kbJNBH7yh1

JANICE J WISHART JT
820 OLD LINCOLN HWY
GRANTSVILLE, UT 84029

SCOTT CANTRELL
855 NORTH OLD LINCOLN HIGHWAY
GRANTSVILLE, UT 84029

MCKENZIE BARNHURST JT
1034 W FOX CIR
GRANTSVILLE, UT 84029

CHRISTOPHER L BATTERMAN
1045 W FOX HOLLOW DR
GRANTSVILLE, UT 84029

PETERSEN LANCE
1031 W. FOX CIRCLE
GRANTSVILLE, UT 84029

RYAN USSING JT
1019 W FOX BERRY DR
GRANTSVILLE, UT 84029

RICHARDSON BRETT
1029 W FOX BERRY DRIVE
GRANTSVILLE, UT 84029

PODBORNY CHRISTOPHER JT
1024 WEST FOX BERRY DRIVE
GRANTSVILLE, UT 84029

RICK E SAUNDERS
1034 W FOX BERRY DR
GRANTSVILLE, UT 84029

TAYLOR ALLEN JAY JR JT
1039 W FOX BERRY DR
GRANTSVILLE, UT 84029

ANDERSON JOSEPH TRUSTEE
1049 W FOX BERRY DR
GRANTSVILLE, UT 84029

DEVIN R WARR JT
1054 W FOX BERRY DR
GRANTSVILLE, UT 84029

AARON P LEE JT
1044 W FOX BERRY DR
GRANTSVILLE, UT 84029

BROWN KASEY M. JT
20 E. DURFEE STREET
GRANTSVILLE, UT 84029

DURFEE KENNETH J TRUSTEE
162 S COOLEY ST
GRANTSVILLE, UT 84029

JOHN RYDALCH
PO BOX 713
GRANTSVILLE, UT 84029

BECKY B FIELDS JT
823 N OLD LINCOLN HWY
GRANTSVILLE, UT 84029

BATEMAN KLANSEY JT
550 PILOT AVE
WENDOVER, UT 84117

HOWARD WAYNE STANWORTH JT
833 OLD LINCOLN HWY
GRANTSVILLE, UT 84029

BEAVER CREEK INVESTMENT
P O BOX 540478
NORTH SALT LAKE, UT 84054

FIELDS GORDON J. JT
366 E. MAIN ST. #208
GRANTSVILLE, UT 84029

GRANTSVILLE LLC
1597 E 1000 S
BOUNTIFUL, UT 0

KEVIN G HALL JT
PO BOX 110
GRANTSVILLE, UT 84029

ANNETTE M ANDERSON TRUSTEE
825 OLD LINCOLN HWY
GRANTSVILLE, UT 84029

MOORE WILBERT JT
799 NORTH 600 WEST
GRANTSVILLE, UT 84029

DAB&K LLC
57 S MATTHEWS LANE
GRANTSVILLE, UT 84029
Applicant

STEPHEN F NORRIS JT
848 OLD LINCOLN HWY
GRANTSVILLE, UT 84029

ANDERSON MARTIN L TRUSTEE
133 EAST DURFEE STREET
GRANTSVILLE , UT 84029

NANCY C SALVESEN JT
816 OLD LINCOLN HWY
GRANTSVILLE, UT 84029

NATHAN CLAPIER JT
1057 W FOX HOLLOW DR
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ORAM CHAD D JT
844 OLD LINCOLN HIGHWAY
GRANTSVILLE, UT 84029

FOSTER KAYCEE M
840 OLD LINCOLN HIGHWAY
GRANTSVILLE , UT 84029

GRANTSVILLE, LLC
1597 E 1000 S
BOUNTIFUL, UT 84010

DONALD J NORTH JT
650 OLD LINCOLN HWY
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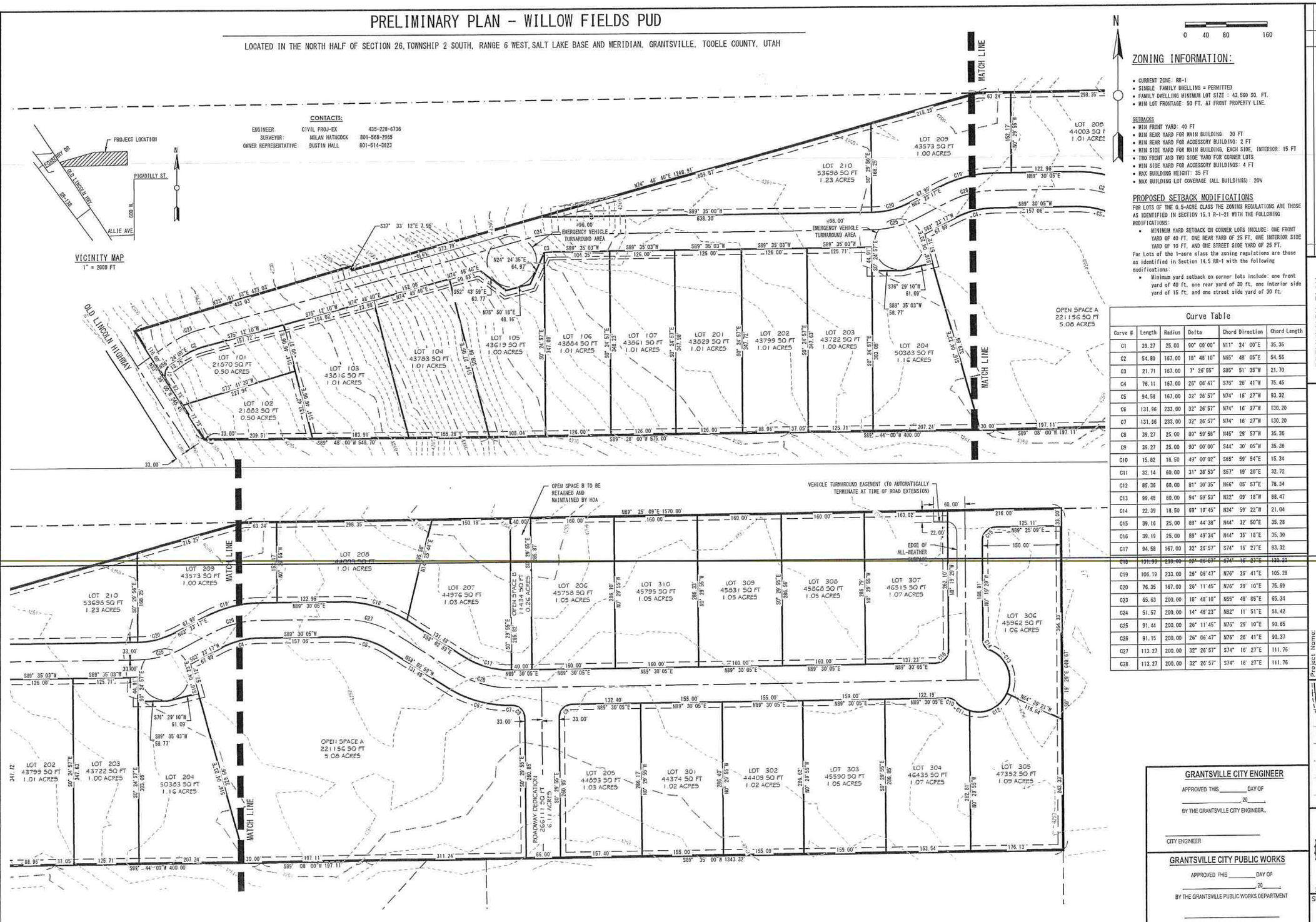
PRELIMINARY PLAN - WILLOW FIELDS PUD

LOCATED IN THE NORTH HALF OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE AND MERIDIAN, GRANTSVILLE, TOOELE COUNTY, UTAH

CONTACTS:

ENGINEER:	CIVIL PROJ-EX	435-228-6736
SURVEYOR:	NOLAN HATHCOCK	801-568-2965
OWNER REPRESENTATIVE:	DUSTIN HALL	801-514-3623

VICINITY MAP
1" = 2000 FT



ZONING INFORMATION:

- CURRENT ZONE: RR-1
- SINGLE FAMILY DWELLING = PERMITTED
- FAMILY DWELLING MINIMUM LOT SIZE : 43,560 SQ. FT.
- MIN LOT FRONTAGE: 50 FT. AT FRONT PROPERTY LINE.

SETBACKS
- MIN FRONT YARD: 40 FT
- MIN REAR YARD FOR MAIN BUILDING 30 FT
- MIN REAR YARD FOR ACCESSORY BUILDING: 2 FT
- MIN SIDE YARD FOR MAIN BUILDING, EACH SIDE, INTERIOR: 15 FT
- TWO FRONT AND TWO SIDE YARD FOR CORNER LOTS
- MIN SIDE YARD FOR ACCESSORY BUILDINGS: 4 FT
- MAX BUILDING HEIGHT: 35 FT
- MAX BUILDING LOT COVERAGE (ALL BUILDINGS): 20%

PROPOSED SETBACK MODIFICATIONS

FOR LOTS OF THE 0.5-ACRE CLASS THE ZONING REGULATIONS ARE THOSE AS IDENTIFIED IN SECTION 15.1 R-1-21 WITH THE FOLLOWING MODIFICATIONS:

- MINIMUM YARD SETBACK ON CORNER LOTS INCLUDE: ONE FRONT YARD OF 40 FT, ONE REAR YARD OF 25 FT, ONE INTERIOR SIDE YARD OF 10 FT, AND ONE STREET SIDE YARD OF 25 FT.

For Lots of the 1-acre class the zoning regulations are those as identified in Section 14.5 RR-1 with the following modifications:

- Minimum yard setback on corner lots include: one front yard of 40 ft, one rear yard of 30 ft, one interior side yard of 15 ft, and one street side yard of 30 ft.

Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	39.27	25.00	90° 00'00"	N11° 24' 00"E	35.36
C2	54.80	167.00	18° 48' 10"	N85° 48' 05"E	54.56
C3	21.71	167.00	7° 26' 55"	S85° 51' 35"W	21.70
C4	76.11	167.00	26° 06' 47"	S76° 26' 41"W	75.45
C5	94.58	167.00	32° 26' 57"	N74° 16' 27"W	93.32
C6	131.96	233.00	32° 26' 57"	N74° 16' 27"W	130.20
C7	131.96	233.00	32° 26' 57"	N74° 16' 27"W	130.20
C8	39.27	25.00	89° 59' 58"	N45° 29' 57"W	35.36
C9	39.27	25.00	90° 00' 00"	S44° 30' 05"W	35.36
C10	15.82	18.50	49° 00' 02"	S65° 59' 54"E	15.34
C11	33.14	60.00	31° 38' 53"	S57° 19' 20"E	32.72
C12	85.36	60.00	81° 30' 35"	N66° 05' 57"E	78.34
C13	99.48	60.00	94° 59' 53"	N22° 09' 18"W	88.47
C14	22.39	18.50	69° 19' 45"	N24° 59' 22"W	21.04
C15	39.16	25.00	89° 44' 38"	N44° 32' 50"E	35.28
C16	39.19	25.00	89° 49' 34"	N44° 35' 18"E	35.30
C17	94.58	167.00	32° 26' 57"	S74° 16' 27"E	93.32
C18	131.96	233.00	32° 26' 57"	S74° 16' 27"E	130.20
C19	106.19	233.00	26° 06' 47"	N76° 26' 41"E	105.28
C20	76.35	167.00	26° 11' 45"	N76° 29' 10"E	75.69
C23	65.63	200.00	18° 48' 10"	N85° 48' 05"E	65.34
C24	51.57	200.00	14° 46' 23"	N82° 11' 51"E	51.42
C25	91.44	200.00	26° 11' 45"	N76° 29' 10"E	90.65
C26	91.15	200.00	26° 06' 47"	N76° 26' 41"E	90.37
C27	113.27	200.00	32° 26' 57"	S74° 16' 27"E	111.76
C28	113.27	200.00	32° 26' 57"	S74° 16' 27"E	111.76

GRANTSVILLE CITY ENGINEER

APPROVED THIS _____ DAY OF _____, 20____,

BY THE GRANTSVILLE CITY ENGINEER.

_____
CITY ENGINEER

GRANTSVILLE CITY PUBLIC WORKS

APPROVED THIS _____ DAY OF _____, 20____,

BY THE GRANTSVILLE PUBLIC WORKS DEPARTMENT

_____
GRANTSVILLE CITY PUBLIC WORKS DIRECTOR

No.	Revisions	By	Date
1	City Public Works requires 4500 PSI concrete for Public Way Improvements	BVB	8.12.21

PRELIMINARY PLAN

Project Number 21-45015 | Designed By BVB | Drawn By BVB | Date Issued 2022.03.08

Project Name:
WILLOW FIELDS PUD
GRANTSVILLE,
TOOELE COUNTY, UTAH

CIVIL PROJ-EX, INC
ENGINEERS • PLANNERS
96 QUIRK STREEET
GRANTSVILLE UTAH 84029

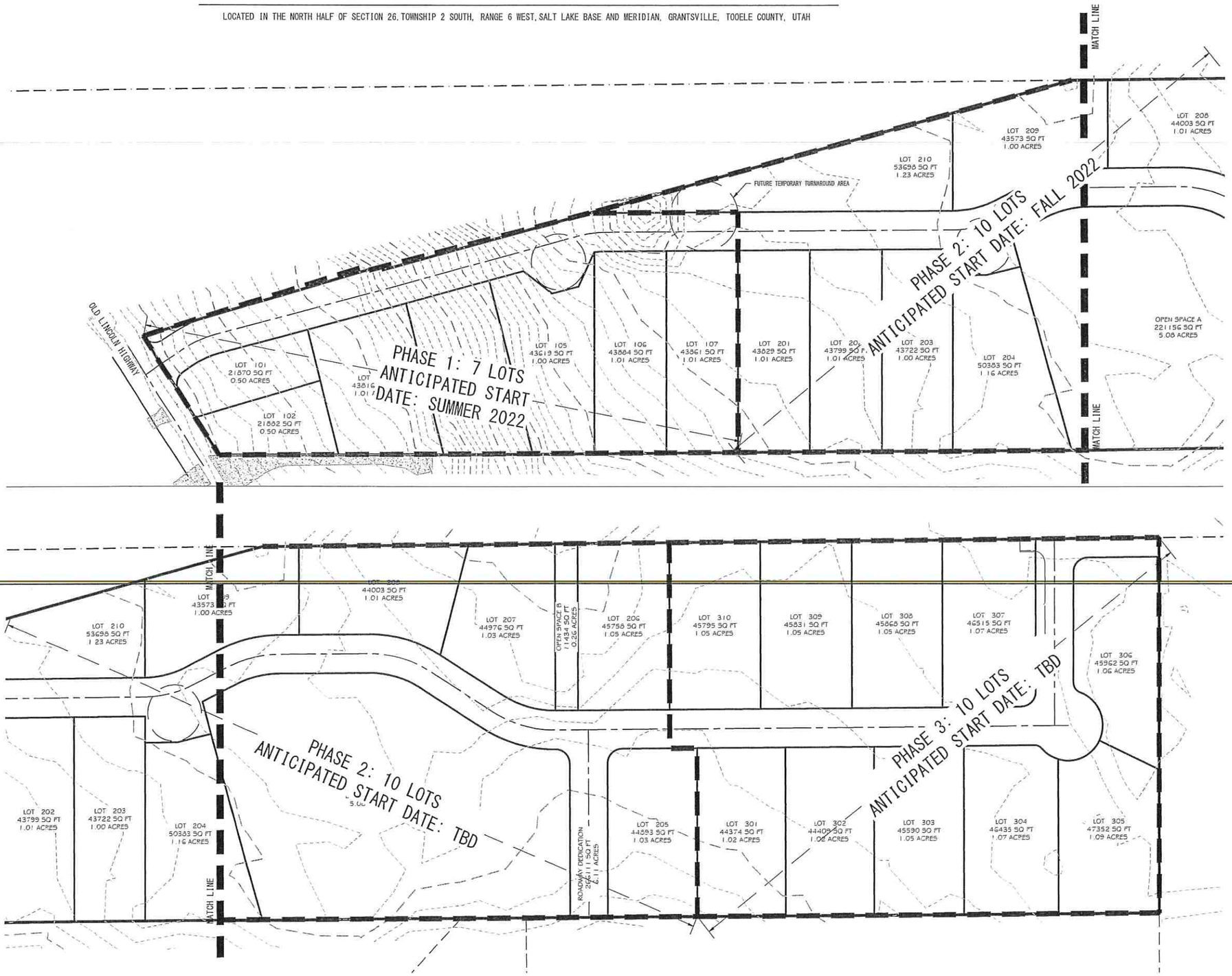
PROFESSIONAL ENGINEER
7224167
BARRY V. BUNDERSON
2022.03.08
STATE OF UTAH

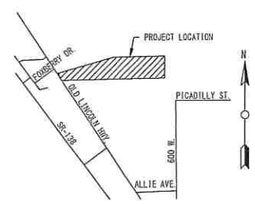
3/14/2022 12:19:04 PM

Sheet Name:
V-100

PHASING PLAN – WILLOW FIELDS PUD

LOCATED IN THE NORTH HALF OF SECTION 26, TOWNSHIP 2 SOUTH, RANGE 6 WEST, SALT LAKE BASE AND MERIDIAN, GRANTSVILLE, TOOELE COUNTY, UTAH





VICINITY MAP
1" = 2000 FT

GRANTSVILLE CITY ENGINEER

APPROVED THIS _____ DAY OF
_____, 20____.
BY THE GRANTSVILLE CITY ENGINEER.

_____
CITY ENGINEER

GRANTSVILLE CITY PUBLIC WORKS

APPROVED THIS _____ DAY OF
_____, 20____.
BY THE GRANTSVILLE PUBLIC WORKS DEPARTMENT

_____
GRANTSVILLE CITY PUBLIC WORKS DIRECTOR

No.	Revisions	By	Date
1	City Public Works requires 4500 PSI concrete for Public Way improvements	BVB	8.12.21

PRELIMINARY PLAN

Project Number	21-45015
Designed By	BVB
Drawn By	BVB
Date Issued	2022.03.08

Project Name:

WILLOW FIELDS PUD
GRANTSVILLE,
TOOELE COUNTY, UTAH

CIVIL PROJ-EX, INC
ENGINEERS • PLANNERS
SURVEYORS
GRANTSVILLE, UTAH 84029

PROFESSIONAL ENGINEER
7224157
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2022.03.08
STATE OF UTAH

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Sheet Name:

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