# PUBLIC NOTICE

Notice is hereby given that the Tooele City Council will meet in a Business Meeting on Wednesday, July 16, 2025 at the hour of 7:00 p.m. The meeting will be held in the Tooele City Hall Council Chambers, located at 90 North Main Street, Tooele, Utah. The complete public notice is posted on the Utah Public Notice Website www.utah.gov, the Tooele City Website www.tooelecity.gov, and at Tooele City Hall. To request a copy of the public notice or for additional inquiries please contact Shilo Baker, City Recorder at (435)843-2111 or shilob@tooelecity.gov.

*We encourage you to join the City Council meeting electronically by visiting the **Tooele City YouTube Channel**, at **https://www.youtube.com/@tooelecity** or by going to YouTube.com and searching "Tooele City Channel". If you are attending electronically and would like to submit a comment for the public comment period or for a public hearing item, please email cmpubliccomment@tooelecity.gov anytime up until the start of the meeting. Emails will be read at the designated points in the meeting.*

## AGENDA

1. **Pledge of Allegiance**

2. **Roll Call**

3. **Public Comment Period**

4. **Swearing in of Shilo Baker as City Recorder**
   *Administered by Loretta Herron, Deputy Recorder*

5. **Fourth Quarter Economic Development Update**
   *Presented by John Perez, Economic Development Director*

6. **Ordinance 2025-21** An Ordinance of Tooele City Updating the City Code by Amending Tooele City Code Title 9 (Water Supply) Chapter 4
   *Presented by Adrian Day, Chief of Police, and Paul Hansen, City Engineer*

7. **Ordinance 2025-22** An Ordinance of Tooele City Amending Tooele City Code Chapters 7-1 and 7-14, Regarding Twin Homes in Single-Family Residential Zones, Zero Lot Line Development and Condominium Plats for Two-Family Dwellings
   *Presented by Andrew Aagard, Community Development Director*

8. **Resolution 2025-61** A Resolution of the Tooele City Council Approving and Ratifying a Contract with Hydro Resources Rocky Mountain, Inc., for Drilling of the 2025 Tooele City Wells Project
   *Presented by Jamie Grandpre, Public Works Director*

9. **Resolution 2025-62** A Resolution of the Tooele City Council Approving a Local Agency Betterment Agreement with UDOT for the 600 N SR112 Roadway Improvement Project
   *Presented by Jamie Grandpre, Public Works Director*

10. **Resolution 2025-65** A Resolution of the Tooele City Council Approving an Agreement with SKM for SCADA System Upgrades to Well 12
    *Presented by Jamie Grandpre, Public Works Director*

11. **Resolution 2025-66** A Resolution of the Tooele City Council Approving an Agreement with JUB Engineers, Inc. for the Water Reclamation Solar Dryer Improvements Design
    *Presented by Jamie Grandpre, Public Works Director*

12. **Resolution 2025-64** A Resolution of the Tooele City Council Awarding the Public Defender Contract to Carolyn Pence and Bonewell Morris & Associates
    *Presented by Matthew Johnson, Assistant City Attorney*

13. **Invoices & Purchase Orders**
    *Presented by Shilo Baker, City Recorder*

14. **Minutes**
    ~June 18, 2025 Business Meeting

15. **Adjourn**

_____
Shilo Baker, Tooele City Recorder

Pursuant to the Americans with Disabilities Act, individuals needing special accommodations should notify Shilo Baker, Tooele City Recorder, at 435-843-2111 or shilob@tooelecity.gov prior to the meeting.

# Economic Development Fourth Quarter Update

Presented by: John Perez, Economic Development Director

Tooele Est. 1853 City

# Business Attraction/ Expansion

- Home 2 Suites by Hilton– Grand Opening
- Mountain West Medical Group: Overlake Clinic –Grand Opening

# Vacancy Rates

| Tooele City Vacancy Rates | | | |
|---|---|---|---|
| Category | Q3 | %Change | Q4 |
| Retail | 1.7% | 0.8% | 2.5% |
| Office | 0.0% | 0.0% | 0.0% |
| Industrial | 5.6% | 0.7% | 6.3% |
| Hospitality | 63.2% | 3.6% | 66.8% |

# Lead Generating Pipeline

| Lead Generating Pipeline | |
|---|---|
| **Type** | **# of Contacts Made** |
| **Restaurant** | **5** |
| **Retail/Hospitality** | **2** |
| **RFI** | **6** |
| **RFI Visits** | **1** |

# EDCUtah

- Submitted 3 RFIs
- Currently in 3rd stage of evaluation for 1 RFI submitted in Q3
- Currently in 4thstage of evaluation for RFI submitted in Q1
- Hosted 1 Site Visit

# Governor's Office of Economic Opportunity (GOEO)

- Submitted 3 RFIs
- 2nd Stage of Evaluation on 2 RFIs

# Redevelopment Agency (RDA)

- Founder's Pointe (1000N & SR 36)
  - Chipotle - Open
  - Wing Stop - Open
  - Chili's ~ Late Aug.
  - Hobby Lobby -Open
  - Ulta Beauty – 5th Sept.
  - Five Below – 18th July
  - TJ Maxx – 24th Aug.
  - Sierra Trading Post – 24th Aug.
  - Bath & Body Works – 12th Sept.
  - Café Zupas - TBD
  - Zao Asian Café - TBD

# Redevelopment Agency (RDA)

- The Peak (2400 N & SR 36)
  - Smith's Marketplace
  - Smith's Fuel Center
  - Starbuck's Coffee (In Smith's)
  - Jersey Mike's Subs
  - Beans & Brews Coffee House
  - Chase Bank
  - Tropical Smoothie Café
  - McDonald's

# Redevelopment Agency (RDA)

## PSOMAS

- Tooele Business Park
  - Updated Conceptual Map
  - Awaiting Final Engineering Review

# Broadway Property

- Former Hotel/Apartment Site
- Awaiting Items from State's Brownfield Program
- Building Removed
- Fencing Removed
- 17th May Broadway Street Party/Public Workshop Awaiting Results

# Tooele City Historic Main Street

- Wayfinding Signs – Completed
- Funding for Main Street Corridor Light Poles
- Utah Main Street Workshop

# Social Media

- Tooele City Facebook Page
  - 188.4% Increase in Reach
  - 138.1% Increase in Views
- Tooele City Instagram Page
  - 41.3% Increase in Reach
  - 92.4% Increase in Views
- Tooele City LinkedIn Page
  - 41.9% Increase in Impressions
  - 17.6% Increase in Reactions

# Economic Development Strategic Plan

- Economic Development Strategic Plan
  - Design/Administrative Review

# Quarterly Report

- Suggestions and/or Questions from Council

**TOOELE CITY CORPORATION**

**ORDINANCE 2025-21**

**AN ORDINANCE OF TOOELE CITY UPDATING THE CITY CODE BY AMENDING TOOELE CITY CODE TITLE 9 (WATER SUPPLY) CHAPTER 4.**

WHEREAS, Tooele City Code Title 9 regulates water supply in Tooele City, and,

WHEREAS, the City Administration recommends amending Title 9 Chapter 4 as described in the recitals below and as shown in Exhibit A; and,

- Section 9-4-3 (Written application for water): modernize, correct, and supplement the application process.
- Section 9-4-5 (Quality of service pipe, permit and fee): divided into subsections.
- Section 9-4-6 (Service pipes to be kept in good repair): amend the director of repairs for service pipes and add a violation to this section.
- Section 9-4-7 (Separate connections): add a violation to this section.
- Section 9-4-8 (Fire Hydrants): correct clerical issues, amend fire hydrant placement, and add a violation to this section.
- Section 9-4-9 (Fire hydrant wrenches): add a violation to this section.
- Section 9-4-10 (Use without payment prohibited): add a violation to this section.
- Section 9-4-13 (Turning on after being turned off prohibited): add a violation to this section.
- Section 9-4-14 (Waste prohibited): add a violation to this section.
- Section 9-4-15 (Water not to be supplied to motors irrigation): add a violation to this section.
- Section 9-4-16 (Restriction of water use): correct clerical issue.
- Section 9-4-18 (Unlawful to interfere with city officers): modernize and add a violation to this section.
- Section 9-4-19 (Nuisance on watershed): add a violation to this section.
- Section 9-4-20 (Unlawful to interconnect irrigation lines to city culinary lines): add a violation to this section.

WHEREAS, the proposed amendments shown in Exhibit A have been formulated by the City Attorney in cooperation with the Tooele City staff; and,

WHEREAS, the proposed amendments serve to modernize, correct, supplement, and clarify Title 9, making Title 9 serve the best interests of Tooele City and the public:

NOW, THEREFORE, BE IT ORDAINED BY THE TOOELE CITY COUNCIL that

1. Tooele City Code Title 9 Chapter 4 is hereby amended as shown in Exhibit A.

This Ordinance is necessary for the immediate preservation of the peace, health, safety, and welfare of Tooele City and its residents and businesses and shall become effective upon passage, without further publication, by authority of the Tooele City Charter.

IN WITNESS WHEREOF, this Ordinance is passed by the Tooele City Council this ____ day of _____, 2025.

TOOELE CITY COUNCIL

(For) (Against)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

ABSTAINING: _____

MAYOR OF TOOELE CITY

(Approved) (Disapproved)

_____ _____

ATTEST:

_____
Michelle Y. Pitt, City Recorder

S E A L

Approved as to Form: _____
Tooele City Attorney's Office

# Exhibit A

# Text Amendments (Redline)

## CHAPTER 4. WATER SUPPLY


**9-4-1. Waterworks.**
**9-4-2. Fees and regulations adopted by resolution.**
**9-4-3. Written application for water.**
**9-4-4. Users to pay expense of installation.**
**9-4-5. Quality of service pipe, permit and fee.**
**9-4-6. Service Pipes to be kept in good repair.**
**9-4-7. Separate connections.**
**9-4-8. Fire hydrants.**
**9-4-9. Fire hydrant wrenches.**
**9-4-10. Use without payment prohibited.**
**9-4-11. City may shut off water, when, no liability.**
**9-4-12. Notice to water users, delinquency.**
**9-4-13. Turning on after being turned off prohibited.**
**9-4-14. Waste prohibited.**
**9-4-15. Water not be supplied to motors, irrigation.**
**9-4-16. Restriction of water use.**
**9-4-17. City's jurisdiction over waterworks. Mayor to have free access.**
**9-4-18. Unlawful to interfere with city officers.**
**9-4-19. Nuisance on watershed.**
**9-4-20. Unlawful to interconnect irrigation lines to city culinary lines.**
**9-4-21. Irrigation outlets to be painted black.**


### 9-4-1. Waterworks.

Tooele City shall have the power to construct, maintain and operate a waterworks system including storage reservoirs, streams, canals, ditches, water mains, pipes, drains, services and fire hydrants or to authorize the construction, maintenance and operation of the same by others, or purchase or lease such works or systems from any person or corporation, and they may sell and deliver the surplus product or service capacity of any such works, not required by the City or its inhabitants, to others beyond the City limits. The waterworks constructed by Tooele City Corporation or others upon authorization of the City shall be designated and known as the Tooele City Waterworks System and it shall be the property of Tooele City.
(Ord. 1980-45, 12-4-1980)

### 9-4-2. Fees and regulations adopted by resolution.

(1) The Tooele City Council shall enact fees and regulations by resolution regarding water connections, water consumption and the inspection of water line installations. Unless otherwise provided in the resolution, all said regulations and fees shall take effect immediately upon final adoption by the Council and approval by the Mayor.

(2) All water connection permits issued by Tooele City shall lapse two years from the date thereof unless prior thereto a meter deposit is paid to Tooele City and water is delivered by Tooele City through said connection.

(3) Water connection fees shall be payable with the application for a water connection which application shall be made where applicable with the building permit and no building permit shall issue where water connection is contemplated, prior to the payment of the water connection fee.
(Ord. 79-32, 12-14-79; 78-22, 8- -78)

### 9-4-3. Written application for water.

(1) Application for the use of water must be made on printed forms, furnished by the City ~~Council~~and signed by the applicant. The applicant shall state fully and truly the purpose for which water is required, and shall agree to conform to, and be governed by such rules and regulations as may be prescribed by the Council for the control of the water supply. Said applicant shall, in his application, state the location and kind of building to be supplied.

(2) Any person desiring to discontinue the use of water supplied to any premises for a period of not less than one month shall give notice in writing to the Finance Department~~Mayor~~. No reduction or abatement of water rates shall be made unless such notice shall be given. No sprinkling will be allowed unless premises are supplied through a meter. (Ord. 1967-3, 08-14-1967)

### 9-4-4. Users to pay expense of installation.

All water meters shall be installed at the expense of the service owner or user, payable in advance. The Council shall by resolution fix the amount of each service installation charge and the terms and conditions thereof. (Ord. 1967-3, 08-14-1967)

### 9-4-5. Quality of service pipe, permit and fee.

(1) All service and other pipes used underground shall be of such material as approved by the Tooele City Plumbing Code, and the Utah State Department of Health, laid so that the finished elevation shall provide not less than four feet of cover material above said pipe, with the bedding of said pipe to be approved by the Tooele City Building Official or the City Engineer prior to installation, with all pipe used to be approved by the National Sanitation Foundation and approved by the Tooele City Building Official or the City Engineer prior to installation as to class, type and size. All new construction or replacement of existing water lines shall meet the requirements of the Tooele City Building and Construction codes, and all backfill density shall meet or exceed 95% of maximum laboratory density as determined by AASHO Designation T-99, Method D. Building permits shall be acquired prior to any such construction or replacement. Each separate dwelling structure shall have a separate service lateral connected to the City water main.

(2) Each service lateral shall have a corporation stop at the junction of the main and service lines.

(3) No consumer shall be permitted to conduct water pipes across lots or buildings to adjoining premises, without permission from the Mayor, and a stop-cock and key-box shall be attached at the junction of such service pipe.
(Ord. 1975-3, 4-28-1975)

### 9-4-6. Service pipes to be kept in good repair.

(1) All water users shall keep their sprinklers, hydrants, faucets, valves, hoses, connections, fixtures, and other apparatus and service pipes, except service pipes running from the main line to the meter, in good condition

at their own expense. Tooele City shall maintain the service pipe from the main line to and including the water meter and other apparatus within the meter box. The water user shall maintain all other service pipes and other fixtures or apparatus, on the outlet side of the meter box to the service location. Whenever service pipes or fixtures or apparatus, other than the service line from the main line to and including the meter box, and the fixture therein, are broken or not in a serviceable condition, the consumer shall, upon written notice make the necessary repairs or replacements at his expense. Should he fail to do so, water shall be turned off or service limited and not turned on again until said replacement or repairs are made.

(2) No person, except under the direction of the Public Works Director ~~Mayor~~and in compliance with the provisions of Title 4, Chapter 9 of this Code, shall dig into the street, sidewalk, right of way or other public place within the limits of Tooele City, for the purpose of laying, removing or repairing any service pipe.

(3) A violation of this Section is an infraction.

(Ord. 1983-02, 6-4-1983)

**9-4-7. Separate connections.**

(1) It shall be unlawful for two (2) or more separate water users to be connected onto one water meter or service line connection, unless the premises of all such water users are owned by the same owner. In all such cases where any one property owner has two (2) or more separate water users connected onto the City main by means of one water meter or service connection, the property owner shall in all cases be primarily liable to the City for all water used on all such premises.

(2) A violation of this Section is a class C misdemeanor.

(Ord. 1967-3, 08-14-1967)

**9-4-8. Fire hydrants.**

(1) Fire hydrants shall be of the compression or gate type conforming to AWWAC 502 specifications, and shall be of a make that has been adopted by the City for standard use. Fire hydrants shall be placed on all water mains at least every four hundred feet (400') in single family detached developments, and every three hundred feet (300') in all other developments or areas, including multi-family and non-residential. The Fire Marshall may require additional fire hydrants or fire protections consistent with the International Fire Code.

(2) It shall be unlawful for any person not duly authorized by the mayor or his designated representative to open or operate any fire hydrant or to tamper or interfere with or attempt to draw water therefrom or in any way to obstruct the approach thereto.

(3) It shall be unlawful for any person to interfere with, tamper with, or injure, break, damage or destroy any water meter, fire hydrant, or any other attachment pertaining to the water works system of Tooele City.

(4) A violation of this Section is a class B misdemeanor.

(Ord. 2016-13, 07-06-2016) (Ord. 1977-22, 11-19-1977)

**9-4-9. Fire hydrant wrenches.**

It shall be unlawful to have a fire hydrant wrench. The Mayor upon application shall furnish wrenches for fire hydrants to the Chief of the Fire Department for the use of the Department, and to such other persons as may be duly authorized.

(1) It shall be unlawful for any person without due authority to have in his possession, any wrench for a fire hydrant.

(2) It shall be unlawful for any person having lawful charge of any hydrant wrench to permit the same to be taken from him, or from place of deposit, or to permit such wrench to be used for any purpose other than that authorized by the Mayor.

(3) A violation of this Section is a class B misdemeanor.

(Ord. 1967-3, 08-14-1967)

**9-4-10. Use without payment prohibited.**

(1) It shall be unlawful for any person by himself, family, servants, or agents to use the water coming through the water mains without first paying therefor as hereinafter provided, or without authority to open any stop-cock or other fixture attached by the system of water supply, or to in any way injure, deface or to cast anything into any reservoir or tank belonging to said waterworks.

(2) A violation of this Section is a class B misdemeanor.

(Ord. 1967-3, 08-14-1967)

**9-4-11. City may shut off water, when, no liability.**

The City reserves the right at any time without notice, to shut off the water from its mains for the purpose of making repairs or extension or for other purposes, and no claims shall be made against the City, by reason of the breakage, stoppage, or interruption of any service pipe or service cock, or for any other damage that may result from the shutting off of water for repairing, laying or relaying mains, hydrants or other connections.

(Ord. 1967-3, 08-14-1967)

**9-4-12. Notice to water users, delinquency.**

The Mayor shall cause to be mailed or delivered to each water user, a notice stating the amount of water rates assessed against him and date when payment is due. If payment is not received within thirty (30) days from the date due, the Mayor may mail or deliver to the water user, a notice stating that if the payment is not received within 15 days the water will be turned off. This notice must explain that any disputes may be taken to the City Department of Finance, who has the authority to settle such disputes. The notice shall also state that if the water is turned off, a fee in addition to the delinquent payment must be paid before the water will be turned on, such fee being adopted by Resolution as part of the Tooele City Fee Schedule.

(Ord. 1997-44, 06-04-1997); (Ord. 1980-42, 10-2-1980)

**9-4-13. Turning on after being turned off prohibited.**

(1) It shall be unlawful for any person, after the water has been turned off from his premises on account of nonpayment of rates or other violation of the rules and regulations pertaining to the water supply, to turn on or allow the water to be turned on, or use, or allow the water to be used without authority from the Mayor.

(2) A violation of this Section is a class B misdemeanor.

(Ord. 1967-3, 08-14-1967)

**9-4-14. Waste prohibited.**

(1) It shall be unlawful for any water taker to waste water, or to allow it to be wasted by imperfect stops, valves, leaky joints, faucets, or stops, or through basins, water closets, urinals, sinks or other apparatus or to use the water for purposes other than those for which he has paid, or to use water in violation of the rules and regulations for controlling the water supply, or other provisions of this Chapter.

(2) A violation of this Section is a class C misdemeanor.

(Ord. 1967-3, 08-14-1967)

**9-4-15. Water not to be supplied to motors, irrigation.**

(1) No water shall be supplied from the pipes of the City waterworks for the purpose of driving any motor, syphon, turbine, or other wheels, or any hydraulic engines, or elevators, or for driving or propelling machinery of any kind whatsoever, nor shall any license be granted or issued for any such purpose except by special permission of the Mayor.

(2) A violation of this Section is a class C misdemeanor.

(Ord. 2002-08, 04-17-2002); (Ord. 1967-3, 08-14-1967)

**9-4-16. Restriction of water use.**

(1) In time of water shortage, whenever it shall in the judgment of the mayor be necessary, the mayor shall, by proclamation and without prior approval of the City Council, limit the use of water within the limits of Tooele City or as supplied by the Tooele City culinary distribution system to such an extent as may be necessary for the public good. Those nonessential purposes which may be restricted or curtailed absolutely shall include, but shall not be limited to the following:

(a) Using hoses, sprinklers, or other means of sprinkling or irrigation for watering shrubbery, trees, lawns, grass, plants, vines, gardens, vegetables, flowers, or other vegetation.

(b) Washing automobiles, trucks, trailers, trailer houses, or other types of mobile equipment.

(c) Washing streets, driveways, parking lots, service station aprons, office buildings, exteriors of homes, sidewalks, apartments, or other exterior surfaces of buildings or structures.

(d) Operating ornamental fountains or other structures making a similar use of water and not employing water conservation equipment or subject to excess evaporation as determined by the city engineer.

(e) Filling swimming and wading pools.

(f) Operating any water-cooled comfort air conditioning equipment which does not have water conserving features satisfactory to the city engineer.

(2) Whenever the mayor shall determine that an emergency exists requiring the implementation of the provisions of this section, he shall give public notice thereof by proclamation either printed in a newspaper of general circulation within Tooele City or published by other means reasonably calculated to notify the public of restricted watering schedules. The proclamation shall become effective immediately upon such publication or notification.

(3) Whenever more serious water restrictions than those initially instituted by the proclamation are deemed by the mayor necessary to be imposed, the mayor shall meet with the City Council to formulate a plan for instituting appropriate restricted watering schedules, conservation measures, rationing or other measures.

(4) The mayor may, upon recommendation of county health officers, permit reasonable use of water in any case necessary to maintain adequate health sanitation standards.

(5) Violations. A violation of the proclamation of the mayor or other restrictions, conservation measures, rationing, or other measures established by the mayor and City Council shall be a civil infraction, punishable as follows:

(a) a first violation during the calendar year: written warning;

(b) a second violation during the calendar year: $25 fine;

(c) a third violation during the calendar year: $100 fine;

(d) a fourth or subsequent violation during the calendar year: $250 fine.

In addition to these civil penalties, the City may cause a violator's water to be shut off or disconnected. In the event a violator's water is shut off or disconnected, the violator shall pay a reconnect fee of $50 before service is reestablished.

(6) Notice of Violation; service. City Finance Department and Police Department employees are hereby authorized to issue a Notice of Violation for violations of this Section or for violations of the restricted watering schedules established under authority of this Section. A Notice of Violation shall be served upon the violator, if possible, but if the violator is unavailable or unknown, the citation shall be posted at the violating premises. This Section presumes that the water account owner at the location of the violation is the violator. Fine amounts unpaid prior to the next water billing cycle shall be included in the account owner's water bill. Delinquent fine payments shall be invoiced in the same manner, and pursuant to the same procedures, as delinquent water bill payments, and may include water shutoff, reconnection fees, and referral to collections.

(7) Appeals. Appeal of a Notice of Violation shall be to the Administrative Hearing Officer.

(Ord. 2013-07, 04-17-2013); (Ord. 2006-02, 01-04-2006); (Ord. 2002-08, 04-17-2002); (Ord. 1989-15, 09-06-1989)

**9-4-17. City's jurisdiction over waterworks, Mayor to have free access.**

Tooele City shall have the power to construct or authorize the construction of waterworks within or without the Tooele City limits, and for the purpose of maintaining and protecting the same from injury and the water from pollution, Tooele City's jurisdiction shall extend over and the City shall have free access to all territory occupied by such works, and over and to all reservoirs, streams, canals,

ditches, water mains, pipes, drains, services, and fire hydrants used in and necessary for the construction, maintenance and operation of the Tooele City Waterworks System. The City shall also have free access at all reasonable hours, to all places supplied with water from the Waterworks System, to examine the apparatus, the amount of water used, the manner of its use and to make all necessary "shut-offs" for vacancy, delinquency and violations of this Chapter. Any water taker violating any of the rules and regulations controlling the water supply shall forfeit the right to the use of the water.

(Ord. 1980-45, 12-4-1980)

**9-4-18. Unlawful to interfere with city officers.**

(1) It shall be unlawful for any person to interfere with, molest, hinder, or obstruct the Mayor, or any of his agents, servants, or employees while in the performance of the duties imposed by the foregoing Sections.

(2) A violation of this Section is a class B misdemeanor.

(Ord. 1967-3, 08-14-1967)

**9-4-19. Nuisance on watershed.**

(1) It shall be unlawful for any person to construct, use or maintain any closet, privy, outhouse, cesspool, urinal or sewage disposal system or any public bathhouse, swimming tank or swimming pool at any place within the watershed area of said City unless such closet, privy, outhouse, cesspool, urinal or sewage disposal system, public bathhouse, or swimming tank is provided with effective germ destroying appliances and without first having obtained from the Mayor and Health Commissioner a permit for the construction, use and maintenance of same.

(2) It shall be unlawful for any person to do or permit to be done any of the things hereinafter described in any canyon or along any stream of water used by the inhabitants of the City for their supply anywhere within the watershed area of said City.

(a) To construct or maintain any corral, sheep pen, pig pen, chicken coop, stable, or any offensive or contaminating yard or outhouse.

(b) To deposit, pile, unload or leave any manure or offensive rubbish or carcass of any dead animals at any place within said watershed area, except at a garbage disposal plant designed by the Health Commission and Superintendent of Waterworks.

(c) To permit any loose cattle, horses, sheep, hogs or any other animals to run at large except where such livestock are more than three hundred feet (300') from any stream or source of water supply within said watershed area.

(d) To stake or graze horses, cattle, sheep, hogs or other animals within three hundred feet (300') of the bank of such stream, except that such horses or cattle may be staked or corralled within such three hundred feet (300') at such place and under such conditions as may be designated by the Health Commissioner and Mayor of the City. The person obtaining such permit must keep the premises whereon said animals are kept in good condition as may be required by the Health Commission and the Mayor and said permit may be revoked at any time by said officer upon failure of the permittee to comply with such reasonable sanitary regulations as are prescribed by said officer.

(e) To permit any horses, cattle, sheep, hogs, or other animals to water directly from the stream.

(f) To permit any horses, cattle, sheep, hogs or other animals to remain in or near or to pollute any such stream of water.

(g) To throw or deposit any garbage or other deleterious matter of any kind anywhere within said limits, except at a garbage disposal plant designated by the Health Commission and Superintendent of Waterworks.

(h) To permit any dog to run at large.

(i) To throw or break bottles or glass.

(j) To spread or eat lunch or picnic within one rod of the bank of such stream.

(k) To wade or bathe in the stream.

(l) To wash dishes or other articles in the stream.

(m) To commit any nuisance whatsoever.

(3) A violation of this Section is a class C misdemeanor.

(Ord. 1967-03, 08-14-1967)

**9-4-20. Unlawful to interconnect irrigation lines to city culinary lines.**

(1) It shall be unlawful for any person in interconnect irrigation water lines of whatever source to Tooele City culinary water lines without the express written permission of the Mayor of Tooele City or any agent designated by the Mayor, all pursuant to the laws of the State of Utah regarding culinary water quality.

(2) A violation of this Section is a class B misdemeanor.

(Ord. 1980-16, 4-10-1980)

**9-4-21. Irrigation outlets to be painted black.**

All irrigation water fire hydrants, risers, or other discharge outlets shall be painted black so as to identify said hydrants and risers as being for the discharge of non-potable irrigation water.

(Ord. 2009-06, 05-06-09) (Ord. 1980-16, 4-10-1980)

**TOOELE CITY CORPORATION**

**ORDINANCE 2025-22**

**AN ORDINANCE OF TOOELE CITY AMENDING TOOELE CITY CODE CHAPTERS 7-1 AND 7-14, REGARDING TWIN HOMES IN SINGLE-FAMILY RESIDENTIAL ZONES, ZERO LOT LINE DEVELOPMENT AND CONDOMINIUM PLATS FOR TWO-FAMILY DWELLINGS.**

WHEREAS, Utah Constitution, Article XI, Section 5 directly confers upon Utah's charter cities, including Tooele City, "the authority to exercise all powers relating to municipal affairs, and to adopt and enforce within its limits, local police, sanitary and similar regulations not in conflict with the general law"; and,

WHEREAS, UCA Section 10-8-84 enables Tooele City to "pass all ordinances and rules, and make all regulations . . . as are necessary and proper to provide for the safety and preserve the health, and promote the prosperity, improve the morals, peace and good order, comfort, and convenience of the city and its inhabitants, and for the protection of property in the city"; and,

WHEREAS, UCA Chapter 10-9a Part 5 authorizes Utah municipalities to enact land use regulations (formerly commonly known as zoning ordinances), for example, building heights; and,

WHEREAS, Tooele City Code currently permits the construction of two-family dwellings in the MR-16, MR-12, MR-8, R1-7 and R1-8 Residential zoning districts; and,

WHEREAS, to qualify for a two-family dwelling the current Code requires the lot to include double the minimum lot size required for the particular zoning district; and,

WHEREAS, current Tooele City Code does not clearly define the difference between a duplex and a twin home; and,

WHEREAS, current Tooele City Code does not clearly permit zero lot line development for property lines that extend through the middle of a twin home or town home; and,

WHEREAS, Tooele City Code currently prohibits condominium plats for two-family dwellings; and,

WHEREAS, these proposed amendments will enable the construction of twin homes with zero lot line development, define lot size requirements for twin home lots, define the differences between a duplex and a twin home and enable condominium platting for two-family dwellings; and,

WHEREAS, these proposed amendments will enable another type of residential development and provide additional flexibility and options for home development and ownership; and,

WHEREAS, development of twin homes may serve to reduce construction costs by eliminating the number of structural walls to be constructed; and,

WHEREAS, many of the previously mentioned considerations were presented to the City Council for its consideration in a prior Work Meeting (see exhibit A); and,

WHEREAS, the Planning Commission convened a public hearing, as required by UCA 10-9a-205 for land use regulations and by TCC 7-1A-6 for revisions to the City zoning ordinance, on July 9, 2025 and voted to recommend approval of this ordinance to the City Council (see the Staff Report attached as Exhibit B and the Planning Commission minutes attached as Exhibit C); and,

WHEREAS, the City Council convened a public hearing, as required by TCC 7-1A-6 for revisions to the City zoning ordinance, on July 16, 2025; and,

WHEREAS, the City Council finds that this ordinance is in the best interest of Tooele City because the reduction in lot size will enable existing In-Fill Area Lots just shy of the acreage necessary to subdivide the opportunity to subdivide, enable more development possibilities for existing lots, utilize existing public infrastructure and assist in providing reductions in costs for new housing units.

NOW, THEREFORE, BE IT ORDAINED BY THE TOOELE CITY COUNCIL that the following Tooele City Codes are hereby amended as shown in Exhibit D:

- Tooele City Code 7-1-5; Definitions.
- Tooele City Code 7-14; Residential Zoning Districts; Table 1, Table of Uses.
- Tooele City Code 7-14; Residential Zoning Districts; Table 2, Table of Allowed Density.
- Tooele City Code 7-14; Residential Zoning Districts; Table 3, Site Planning and Development Standards for Primary Buildings and Structures.

This Ordinance is necessary to enable greater flexibility of housing construction and home ownership arrangements in Tooele City and to harmonize existing legally non-conforming situations for town homes and twin homes within the City that currently do not conform to building side yard setbacks and shall become effective upon passage, without further publication, by authority of the Tooele City Charter.

IN WITNESS WHEREOF, this Ordinance is passed by the Tooele City Council this ____ day of _____, 2025.

TOOELE CITY COUNCIL

(For) (Against)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

ABSTAINING: _____

MAYOR OF TOOELE CITY

(Approved) (Disapproved)

_____ _____

ATTEST:

_____
Michelle Y. Pitt, City Recorder

S E A L

Approved as to Form: _____
Tooele City Attorney's Office

# Exhibit A

# June 4, 2025, City Council
# Work Session Report

# MEMORANDUM

To: Tooele City Council

Cc: Mayor Debbie Winn

From: Andrew Aagard, AICP, Director

Date: May 29, 2025

Re: Twin Homes

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**Tooele City has an abundance of twin homes. Drive through Shetland Meadows Subdivision and many privately owned twin homes will be seen. There is Porter's Place on Coleman Street. Valo on Vine is a development exclusive to twin homes. It is not a unique use in Tooele City to be sure. Recently, Staff have been fielding requests by Habitat for Humanity to construct twin homes in the Murdock Subdivision. Murdock Subdivision is a subdivision that was approved exclusively for single family homes on lots 7,000 square feet or larger. In evaluating our subdivision standards and ordinances it has been discovered that the ordinance does not clearly address twin homes.**

**Tooele City's MR-16, MR-12, MR-8, R1-7 and R1-8 Residential zoning districts permit the construction of two family dwellings, also known as duplexes. The issue isn't the use of two family dwellings within these zones as the use is already permissible. The issue involves the location of the property line and the ordinance's requirements for building setbacks from property lines. It is the intent of Staff to resolve this issue and to create a clear distinction in the code for zero lot line development as it relates to twin homes.**

**There is a difference between a duplex and a twin home.**

- **A duplex is a multi-family home. In a duplex there are two units with two sets of tenants. A duplex has one owner that is responsible for renting out and maintaining the entire property.**
- **A twin home also has two units, however, twin homes are technically classified as single-family homes because the twin home owner owns and maintains their half of the property.**

**Tooele City codes easily permit a duplex because when a duplex is constructed it does not involve a property line bisecting the unit into two. The duplex structure rests in the middle of a large lot and as such does not result in any setback issues. The issue arises when it is desired to create a twin home. A twin home proposes to divide the two family dwelling right down the middle of the structure creating a zero lot line development which our code currently does not address, anywhere.**

**It should also be noted that in order to construct a duplex in Tooele City the ordinance requires double the lot size that is required for a single-family dwelling. For example, in the R1-7 Residential zone in order to build a duplex the lot size must be 14,000 square feet where the minimum lot size for a single-family residential structure is 7,000 square feet. With a duplex, the 14,000 square foot lot size is clearly defined in the ordinance. With a twin home it is not clearly defined because the lot will be divided into two privately owned lots, the property line extending down the middle of the structure. Staff would like the code clearly address twin home lot sizes as well.**

**Therefore, Staff is proposing the following amendments to the City code to make twin home developments more feasible and permissible under the City code:**

1. ***7-1-5. Definitions*: Staff is proposing two definitions be added to the ordinances definition section.**
    a. **Add twin home to the ordinance's definition of a two family dwelling.**

   b. **Define a duplex as a two family dwelling that shares a center wall on one shared lot.**
   c. **Define a twin home as a two family dwelling that shares a center wall and the lot line extends down the middle of the home dividing the structure into two privately owned units on privately owned lots.**
2. ***7-14 Residential Zoning Districts Table 1: Table of Uses*: Staff is proposing to make a "condominium" dwelling a conditional use in both the R1-7 and R1-8 Residential zoning districts. A condo plat is one way that a twin home development can be facilitated. However, currently a condo plat can only occur on properties in the MR zoning districts. Permitting condo plats for two family dwellings in zones that permit two family dwellings is another tool in the City's tool box to facilitate twin home developments.**
3. ***7-14 Residential Zoning Districts Table 2: Table of Allowed Density*: Staff is proposing two changes to this table.**
   a. **Removing the row titled "zones being replace by inclusion." This was included in the table years ago when the City eliminated the HDR and MDR zoning districts and went with the RM zoning districts for multi-family zones. It served a purpose years ago but is entirely unnecessary today.**
   b. **On the two family dwelling row Staff proposes the addition of "twin home" with lot size clearly defined. If one desires to do a twin home each privately owned lot shall be the same size as a single-family dwelling lot. This lot size issue should be discussed to determine if this is how the Council wants to proceed.**
4. ***7-14 Residential Zoning Districts Table 3: Site Planning and Development Standards for Primary Buildings and Structures*. Staff is proposing three changes to this table and they are as follows:**
   a. **Staff is proposing to strike the minimum lot width requirement for properties in the MR-20, MR-16, MR-12 and MR-8 Multi-Family Residential zoning districts. These lot width requirements were included in the table during a time when the City code permitted single-family construction in multi-family residential zones. At least 5 years ago the City eliminated the construction of single-family homes in multi-family zones and as such the lot width requirement is no longer necessary. In fact, this lot with requirement often comes into conflict with town house development and the lack of minimum lot size requirement that was placed into the code to facilitate private ownership of town homes.**
   b. **Staff is proposing the addition of two footnotes regarding Minimum Side Yard Setbacks for Interior lots, specifically on the R1-7 and R1-8 columns. The foot note will then direct the reader to the notes section at the end of the table.**
   c. **Staff is proposing to expand note #2 to state "Twin Homes may be permitted a zero lot line for internal side yard setbacks." Including this in the code will clearly permit zero lot line development and eliminate the ambiguity of how we permit the property line extending down the middle of a structure for two family dwellings.**

**The proposed amendments do not create any new uses that currently are not permissible in these zoning districts. The proposed amendments are intended to create greater flexibility in two family housing development. Under the proposed amendments a developer can now build two family dwellings in the three following ways. 1) Duplex, 2) Condo and 3) Twin home, where currently, if we go by the letter of the ordinance, a two family dwelling can only be a duplex.**

**Staff is confident that this will help facilitate great flexibility in construction of affordable homes within Tooele City and also assist staff in reviewing these proposed housing arrangements and ensuring they meet and comply with the City Code. The propose amendments will also eliminate hundreds of currently legally non-conforming zero lot line twin homes and bring them into conformity with the code.**

# Exhibit B

# Staff Report

# STAFF REPORT

July 1, 2025

**To:** Tooele City Planning Commission
Business Date: July 9, 2025

**From:** Planning Division
Community Development Department

**Prepared By:** Andrew Aagard, Community Development Director

**Re:** **Twin Homes – City Code Text Amendment Request**

Applicant: Tooele City

Request: Request for approval of a City Code Text Amendment to Tables 1, 2 and 3 of Tooele City Code 7-14 Residential Zoning Districts and Tooele City Code 7-1-5; Definitions, regarding the construction of twin homes in certain residential zoning districts and zero lot line construction.

## BACKGROUND

Tooele City Staff is proposing amendments to the Table of Uses, the Table of Allowed Density and the Table of Site Planning and Development Standards for primary Buildings and Structures as found in Tooele City Code 7-14; Residential Zoning Districts, and proposing amendments to Tooele City Code 7-1-5; Definitions, regarding the construction of twin homes in certain residential zoning districts and to enable zero lot line construction, which the code currently does not address or permit.

## ANALYSIS

*The Proposed Amendments*. Tooele City has an abundance of twin homes. Drive through Shetland Meadows Subdivision and many privately owned twin homes will be seen. There is Porter's Place on Coleman Street. Valo on Vine is a development exclusive to twin homes. It is not a unique use in Tooele City to be sure. Recently, Staff have been fielding requests by Habitat for Humanity to construct twin homes in the Murdock Subdivision. Murdock Subdivision is a subdivision that was approved exclusively for single family homes on lots 7,000 square feet or larger. In evaluating our subdivision standards and ordinances it has been discovered that the ordinance does not clearly address twin homes.

Tooele City's MR-16, MR-12, MR-8, R1-7 and R1-8 Residential zoning districts permit the construction of two family dwellings, also known as duplexes. The issue isn't the use of two family dwellings within these zones as the use is already permissible. The issue involves the location of the property line and the ordinance's requirements for building setbacks from property lines. It is the intent of Staff to resolve this issue and to create a clear distinction in the code for zero lot line development as it relates to twin homes.

There is a difference between a duplex and a twin home.

- A duplex is a multi-family home. In a duplex there are two units with two sets of tenants. A duplex has one owner that is responsible for renting out and maintaining the entire property.
- A twin home also has two units, however, twin homes are technically classified as single-family homes because the twin home owner owns and maintains their half of the property.

Tooele City codes easily permit a duplex because when a duplex is constructed it does not involve a property line bisecting the unit into two. The duplex structure rests in the middle of a large lot and as such does not result in any setback issues. The issue arises when it is desired to create a twin home. A twin home proposes to divide

the two family dwelling right down the middle of the structure creating a zero lot line development which our code currently does not address, anywhere.

It should also be noted that in order to construct a duplex in Tooele City the ordinance requires double the lot size that is required for a single-family dwelling. For example, in the R1-7 Residential zone in order to build a duplex the lot size must be 14,000 square feet where the minimum lot size for a single-family residential structure is 7,000 square feet. With a duplex, the 14,000 square foot lot size is clearly defined in the ordinance. With a twin home it is not clearly defined because the lot will be divided into two privately owned lots, the property line extending down the middle of the structure. Staff would like the code clearly address twin home lot sizes as well.

Therefore, Staff is proposing the following amendments to the City code to make twin home developments more feasible and permissible under the City code:

1. *7-1-5. Definitions*: Staff is proposing two definitions be added to the ordinances definition section.
    a. Add twin home to the ordinance's definition of a two family dwelling.
    b. Define a duplex as a two family dwelling that shares a center wall on one shared lot.
    c. Define a twin home as a two family dwelling that shares a center wall and the lot line extends down the middle of the home dividing the structure into two privately owned units on privately owned lots.
2. *7-14 Residential Zoning Districts Table 1: Table of Uses*: Staff is proposing to make a "condominium" dwelling a conditional use in both the R1-7 and R1-8 Residential zoning districts. A condo plat is one way that a twin home development can be facilitated. However, currently a condo plat can only occur on properties in the MR zoning districts. Permitting condo plats for two family dwellings in zones that permit two family dwellings is another tool in the City's tool box to facilitate twin home developments.
3. *7-14 Residential Zoning Districts Table 2: Table of Allowed Density*: Staff is proposing two changes to this table.
    a. Removing the row titled "zones being replace by inclusion." This was included in the table years ago when the City eliminated the HDR and MDR zoning districts and went with the RM zoning districts for multi-family zones. It served a purpose years ago but is entirely unnecessary today.
    b. On the two family dwelling row Staff proposes the addition of "twin home" with lot size clearly defined. If one desires to do a twin home each privately owned lot shall be the same size as a single-family dwelling lot. This lot size issue should be discussed to determine if this is how the Council wants to proceed.
4. *7-14 Residential Zoning Districts Table 3: Site Planning and Development Standards for Primary Buildings and Structures*. Staff is proposing three changes to this table and they are as follows:
    a. Staff is proposing to strike the minimum lot width requirement for properties in the MR-20, MR-16, MR-12 and MR-8 Multi-Family Residential zoning districts. These lot width requirements were included in the table during a time when the City code permitted single-family construction in multi-family residential zones. At least 5 years ago the City eliminated the construction of single-family homes in multi-family zones and as such the lot width requirement is no longer necessary. In fact, this lot with requirement often comes into conflict with town house development and the lack of minimum lot size requirement that was placed into the code to facilitate private ownership of town homes.
    b. Staff is proposing the addition of two footnotes regarding Minimum Side Yard Setbacks for Interior lots, specifically on the R1-7 and R1-8 columns. The foot note will then direct the reader to the notes section at the end of the table.
    c. Staff is proposing to expand note #2 to state "Twin Homes may be permitted a zero lot line for internal side yard setbacks." Including this in the code will clearly permit zero lot line development and eliminate the ambiguity of how we permit the property line extending down the middle of a structure for two family dwellings.

The proposed amendments do not create any new uses that currently are not permissible in these zoning districts. The proposed amendments are intended to create greater flexibility in two family housing development. Under the proposed amendments a developer can now build two family dwellings in the three following ways. 1) Duplex, 2) Condo and 3) Twin home, where currently, if we go by the letter of the ordinance, a two family dwelling can only be a duplex.

Staff is confident that this will help facilitate great flexibility in construction of affordable homes within Tooele City and also assist staff in reviewing these proposed housing arrangements and ensuring they meet and comply with the City Code. The propose amendments will also eliminate hundreds of currently legally non-conforming zero lot line twin homes and bring them into conformity with the code.

*Building Codes*. It should be emphasized that the zoning code does not supersede the building code. If the code is amended to permit zero lot line development, the twin homes and town homes will still need to comply with all required building codes regarding appropriate separation, fire safety, and so forth.

*Ordinances Affected*. The following ordinance affects minor subdivisions:

1. Title 7; Uniform Zoning, Chapter 14, Residential Zoning Districts.
    a. Table 1: Table of Uses.
    b. Table 2: Table of Allowed Density.
    c. Table 3: Table of Site Planning and Development Standards for Primary Buildings and Structures.
2. Title 7; Uniform Zoning, Chapter 1-5, Definitions

*Criteria For Approval*. The criteria for review and potential approval of a City Code Text Amendment request is found in Sections 7-1A-7 of the Tooele City Code. This section depicts the standard of review for such requests as:

(1) No amendment to the Zoning Ordinance or Zoning Districts Map may be recommended by the Planning Commission or approved by the City Council unless such amendment or conditions thereto are consistent with the General Plan. In considering a Zoning Ordinance or Zoning Districts Map amendment, the applicant shall identify, and the City Staff, Planning Commission, and City Council may consider, the following factors, among others:
- (a) The effect of the proposed amendment on the character of the surrounding area.
- (b) Consistency with the goals and policies of the General Plan and the General Plan Land Use Map.
- (c) Consistency and compatibility with the General Plan Land Use Map for adjoining and nearby properties.
- (d) The suitability of the properties for the uses proposed viz. a. viz. the suitability of the properties for the uses identified by the General Plan.
- (e) Whether a change in the uses allowed for the affected properties will unduly affect the uses or proposed uses for adjoining and nearby properties.
- (f) The overall community benefit of the proposed amendment.

**REVIEWS**

*Planning Division Review*. The Tooele City Planning Division has completed their review of the City Code Text Amendment request and has issued the following comments:

1. Currently the ordinance permits duplexes but does not clearly permit twin homes and the necessary zero lot line development to make twin home development possible. By enabling zero lot line development the City then adds another tool to its tool box for residential development.
2. Current ordinances do not address zero lot line development for town homes. This text amendment

will correct this deficiency and codify zero lot line development for town homes.

3. Current ordinances do not permit condominium plats for two-family dwellings or twin homes. There is no clear reason why a condo plat cannot be applied to a two-family dwelling. This ordinance amendment will provide another means for constructing a two-family dwelling.
4. The ordinance does not clearly define a duplex or a twin home even though there is a significant difference between the two.
5. All of these ordinances are a benefit to Tooele City, the City's residents and potential developers in that they provide greater flexibility for constructing two-family dwellings which may assist in reducing housing costs.

*Engineering & Public Words Review*. The Tooele City Engineering Division and Public Works Division have not issued any comments regarding this proposed text amendment.

*Fire Department Review*. The Tooele City Fire Department has not issued any comments regarding this proposed text amendment.

*Noticing*. City Staff expressed their desire to amend the City Code and do so in a manner which is compliant with the City Code. As such, notice has been properly issued and posted in the manners outlined in the City and State Codes.

## STAFF RECOMMENDATION

Staff recommends the Planning Commission carefully weigh this request for a City Code Text Amendment according to the appropriate tenets of the Utah State Code and the Tooele City Code, particularly Section 7-1A-7(1) and render a decision in the best interest of the community with any conditions deemed appropriate and based on specific findings to address the necessary criteria for making such decisions.

Potential topics for findings that the Commission should consider in rendering a decision:

1. The effect the text amendment may have on potential applications regarding the character of the surrounding areas.
2. The degree to which the proposed text amendment may effect a potential application's consistency with the intent, goals, and objectives of any applicable master plan.
3. The degree to which the proposed text amendment may effect a potential application's consistency with the intent, goals, and objectives of the Tooele City General Plan.
4. The degree to which the proposed text amendment is consistent with the requirements and provisions of the Tooele City Code.
5. The suitability of the proposed text amendment on properties which may utilize its provisions for potential development applications.
6. The degree to which the proposed text amendment may effect an application's impact on the health, safety, and general welfare of the general public or the residents of adjacent properties.
7. The degree to which the proposed text amendment may effect an application's impact on the general aesthetic and physical development of the area.
8. The degree to which the proposed text amendment may effect the uses or potential uses for adjoining and nearby properties.
9. The overall community benefit of the proposed amendment.
10. Other findings the Commission deems appropriate to base their decision upon for the proposed application.

**MODEL MOTIONS**

Sample Motion for a Positive Recommendation – "I move we forward a positive recommendation to the City Council for the Twin Homes Text Amendment request by Tooele City for the purpose of amending Tooele City Codes to permit zero lot line development for twin homes and town houses, clearly define duplexes and twin homes, and permit condominium development for two-family dwellings, based on the following findings:"

1. List findings …

Sample Motion for a Negative Recommendation – "I move we forward a negative recommendation to the City Council for the Twin Homes Text Amendment request by Tooele City for the purpose of amending Tooele City Codes to permit zero lot line development for twin homes and town houses, clearly define duplexes and twin homes, and permit condominium development for two-family dwellings, based on the following findings:"

1. List findings …

# Exhibit C

# Planning Commission Minutes

# Exhibit D
# Proposed Text Amendment

**7-1-5. Definitions.**

Dwelling; Two-family – A structure designed to be occupied by two families, the structure having two dwelling units. Includes a duplex and twin home.

Duplex; A two family dwelling that shares a center wall on one shared lot.

Twin Home; - A two family dwelling that shares a center wall and the lot line extends down the middle of the home dividing the structure into two privately owned units on privately owned lots.

**Title 7 Chapter 14 Residential Zoning Districts**

## Table 1: Table of Uses

| USE | District | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MR-20 | MR-16 | MR-12 | MR-8 | R1-7 | R1-8 | R1-10 | R1-12 | R1-14 | R1-30 | RR-1 | RR-5 | RR-20 | MU-160 |
| Churches and Religious Facilities | C | C | C | C | C | C | C | C | C | C | C | C | C | C |
| Commercial Day-Care/Pre-School | | C | C | C | C | | | | | | | | | |
| Commercial Kennel/Animal Hospital | | | | | | | | | | | | C | C | C |
| Concrete and Asphalt Plant | | | | | | | | | | | | | | C |
| Day Treatment Facility and Program | | C | C | C | C | C | C | C | C | C | C | C | C | C |
| Dwelling: Single-Family | | | | | P | P | P | P | P | P | P | P | P | P |
| Dwelling: Two-Family | | P | P | P | P | C | | | | | | | | |
| Dwelling: Multi-Family | P | P | P | P | | | | | | | | | | |
| Dwelling: Cabin/Seasonal Home | | | | | | | | | | | | | C | C |
| Dwelling: Condominium | P | P | P | P | C | -C | | | | | | | | |
| Dwelling: Farm and Ranch Employee Housing | | | | | | | | | | | | | C | C |

## Table 2: Table of Allowed Density

| | Residential Zoning Districts | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Multi-Family | | | | Medium Density | | | Low Density | | |
| | MR-20 | MR-16 | MR-12 | MR-8 | R1-7 | R1-8 | R1-10 | R1-12 | R1-14 | R1-30 |
| ~~Zones Being Replaced by Inclusion~~ | - | ~~HDR, RM-16 (and proposed RM12)~~ | - | ~~MDR, R2-8 (and proposed RM-10, RM-8)~~ | ~~R1-7~~ | ~~R1-8, R1-9 (and proposed RM-4)~~ | ~~R1-10 (and proposed RM-4)~~ | ~~R1-12~~ | ~~R1-14~~ | ~~RA1-30~~ |
| Single Family Dwelling/Minimum Lot Size (square feet) | Not Permitted | Not Permitted | Not Permitted | Not Permitted | P/7,000 | P/8,000 | P/10,000 | P/12,000 | P/14,000 | P/30,000 |
| Two-Family Dwelling/Minimum Lot Size (square feet) | Not Permitted | P/10,000 Twin Home – 5,000 each lot. | P/11,000 Twin Home- 5,500 each lot. | P/12,000 Twin Home – 6,000 each lot. | P/14,000 Twin Home – 7,000 each lot. | C/16,000 Twin Home – 8,000 each lot. | | | | |
| Multi-Family Dwelling | P Maximum 20 Units Per Acre | P Maximum 16[3] Units Per Acre[2] | P Maximum 12[3] Units Per Acre[2] | P Maximum 8 Units Per Acre | | | | | | |
| Multi-Family Dwelling Minimum Lot Size | No Minimum[4] | No Minimum[4] | No Minimum[4] | No Minimum[4] | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|
| Maximum Dwelling Units Per Acre for PUD | 20.0 | 16.0 | 12.0 | 8.0 | 5.0 | 4.0 | 3.5 | 3.0 | 2.5 | 1.2 |
| Other Allowed Uses (Minimum Square Feet Required) | 8,000 | 8,000 | 8,000 | 8,000 | 10,000 | 10,000 | 12,000 | 12,000 | 14,000 | 30,000 |

Table 7-14 Allowed Density

## Table 3: Site Planning and Development Standards for Primary Buildings and Structures

| | Residential Zoning District | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **MR-20** | **MR-16** | **MR-12** | **MR-8** | **R1-7** | **R1-8** | **R1-10** | **R1-12** | **R1-14** | **R1-30** | **RR-1** | **RR-5** | **RR-20** | **MU-160** |
| Minimum Lot Width (At Front Property Line) | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 100 | 200 | 250 | 1320 |
| Minimum Lot Width (Interior Lots at Front Setback, Single-Family) | | | | | 60 | 75 | 85 | 85 | 90 | 100 | 100 | 200 | 250 | 1320 |
| Minimum Lot Width[3] (Corner Lots at Front Setback on Each Frontage, Single-Family | | | | | 80 | 90 | 100 | 110 | 120 | 120 | 120 | 200 | 250 | 1320 |
| Minimum Lot Width (At Front Setback, Two-Family) | 60 | 60 | 60 | 60 | 60 | 75 | 85 | 85 | 90 | 100 | 100 | 200 | 250 | 1320 |
| Minimum Lot Width (At Front Setback, All Other Residential Uses) | ~~70~~ | ~~70~~ | ~~75~~ | ~~75~~ | 60 | 75 | 85 | 85 | 90 | 100 | 100 | 200 | 250 | 1320 |
| Minimum Lot Width (At Front Setback, All Other Uses) | 80 | 80 | 80 | 80 | 80 | 80 | 100 | 100 | 100 | 100 | 100 | 200 | 250 | 1320 |
| Minimum Front Yard Setback | 25 ft.[2] | 25 ft.[2] | 25 ft.[2] | 25 ft.[2] | 20 | 20 | 25 | 25 | 25 | 30 | 30 | 30 | 30 | 30 |
| Minimum Rear Yard Setback (Interior Lot) | 20 ft.[2] | 25 ft.[2] | 25 ft.[2] | 25 ft.[2] | 20 | 20 | 25 ft.[1] | 25 ft.[1] | 30 ft.[1] | 30 | 30 | 60 | 60 | 60 |
| Minimum Rear Yard Setback (Corner Lot) | 20 ft.[2] | 20 | 20 | 20 | 20 | 20 | 30 ft.[2] | 30 | 30 | 30 | 30 | 60 | 60 | 60 |
| Minimum Side Yard Setback (Interior Lot) | 10 ft.[2] | 6 ft.[2] | 6 ft.[2] | 6 ft.[2] | ~~6~~[2] | ~~8~~[2] | 10 | 10 | 10 | 12 | 20 | 20 | 60 | |
| Minimum Side Yard Setback (Corner Lot) | 15 ft.[2] | 15 ft.[2] | 15 ft.[2] | 15 ft.[2] | 20 | 20 | 20 | 20 | 20 | 20 | 30 | 60 | 60 | |
| Maximum/Minimum Building Height[4] | 45 ft./1 story | 35 ft./1story | 35 ft./1 story | 35 ft./1 story | 35 ft./1 story | 35 ft./1 story | 35 ft./1 story | 35 ft./1 story | 35 ft./1 story | 35 ft./1 story | 35 ft./1 story | 35 ft./1 story | 35 ft./1story | 35 ft./1 story |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Lot Coverage (All Buildings) | 40% | 40% | 40% | 40% | 35% | 35% | 35% | 35% | 35% | 25% | 20% | 10% | 10% | 10% |

Table 7-14 Site Planning and Development Standards for Primary Buildings and Structures

(Ord. 2022-22, 07-06-2022) (Ord. 2020-45, 11-18-2020)

[1] The minimum rear yard setback may be reduced by up to 25% for not more than 20% of the width of the rear yard, measured at the rear yard property line.
(Ord. 2020-45, 11-18-2020) (Ord. 2005-15, 06-15-2005) (Ord. 2003-24, 11-05-2003) (Ord. 2000-08, 06-07-2000)
[2] Multi-family developments subject to Chapter 7-11a of this Title shall follow setback requirements in Section 7-11a-6. Twin Homes may be permitted a zero lot line for internal side setbacks.
(Ord. 2019-08, 03-20-2019)
[3] Minimum lot width for corner lots may be reduced to the minimum lot width requirement of interior lots when proper notation on the approved plat determines and restricts the orientation of the primary residential structure on the lot to that frontage only.
(Ord. 2020-45, 11-18-2020)
[4] For churches and religious worship facilities over 50,000 square feet see Section 7-2-8.
(Ord. 2021-05, 02-17-2021)
[5]All uncovered porches, walk out basement stairwells, decks, and balconies may extend or encroach into the rear yard setback, subject to adopted uniform codes.

**TOOELE CITY CORPORATION**

**RESOLUTION 2025-61**

**A RESOLUTION OF THE TOOELE CITY COUNCIL APPROVING AND RATIFYING A CONTRACT WITH HYDRO RESOURCES ROCKY MOUNTAIN, INC., FOR DRILLING OF THE 2025 TOOELE CITY WELLS PROJECT.**

WHEREAS, the City desires to develop additional water sources to meet the growth demands of the City in accordance with the City's adopted Culinary Water Master Plan; and,

WHEREAS, as part of the 2025 Tooele City Wells Project, the City desires to drill two exploration wells to an anticipated depth of 1,200 feet; and,

WHEREAS, the City accepted public bids for drilling of the Tooele Wells in accordance with the procedures of §11-39-101 *et seq.*, Utah Code Annotated, as amended (see Bid Evaluation attached as Exhibit A); and,

WHEREAS, Hydro Resources- Rocky Mountain, Inc., has submitted a cost proposal of Two Million Five Hundred Thirty-six Thousand Six Hundred Thirty-eight dollars ($2,536,638) for drilling and construction of the well; and

WHEREAS, the Mayor's notice of award and signing of the agreement was necessary as time was of the essence, and thus was in the best interest of the City; and,

WHEREAS, the City Administration requests an additional appropriation of 5% of the bid amount, or One Hundred Twenty-six Thousand Eight Hundred Thirty-two Dollars ($126,832), as contingency for change orders for changed conditions that may arise during the Project, as reviewed and authorized by the Mayor; and,

WHEREAS, the Project is to be funded using Tooele City Water Impact Fees:

NOW, THEREFORE, BE IT RESOLVED BY THE TOOELE CITY COUNCIL that the contract (attached as Exhibit B) with Hydro Resources Rocky Mountain, Inc., for drilling in connection with the 2025 Tooele City Wells Project at a cost of Two Million Five Hundred Thirty-six Thousand Six Hundred Thirty-eight dollars ($2,536,638), is hereby approved and the Mayor's notice of award and signature are ratified. In addition, a contingency amount of One Hundred Twenty-six Thousand Eight Hundred Thirty-two Dollars ($126,832) (representing 5% of the contract) is hereby approved, which may be used as necessary for changed conditions as reviewed and authorized by the Mayor.

This Resolution shall become effective upon passage, without further publication, by authority of the Tooele City Charter.

IN WITNESS WHEREOF, this Resolution is passed by the Tooele City Council this ____ day of _____, 2025.

TOOELE CITY COUNCIL

(For) (Against)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

ABSTAINING: _____

MAYOR OF TOOELE CITY

(Approved) (Disapproved)

_____ _____

ATTEST:

_____
Shilo Baker, City Recorder

S E A L

Approved as to Form: _____
Tooele City Attorney's Office

# Exhibit A

# Bid Evaluation

J-U-B ENGINEERS, INC.

**Schedule A: Well No.1 Site (C-101)**

| Item No. | Item Description | Unit | Quantity | Bidders: Hydro Resources Bid Unit Price | Hydro Resources Bid Price | Lang Equipment Bid Unit Price | Lang Equipment Bid Price | KP Ventures Bid Unit Price | KP Ventures Bid Price | Boart Long Year Bid Unit Price | Boart Long Year Bid Price |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A.1 | Mobilization, Demobilization, Bonding, and SWPPP | LS | 1 | $115,000 | $115,000 | $85,000 | $85,000 | $120,000 | $120,000 | $95,313 | $95,313 |
| A.2 | Borehole drilling (18" min dia., 0 to 40 feet) | LF | 40 | $442 | $17,680 | $300 | $12,000 | $600 | $24,000 | $574 | $22,960 |
| A.3 | Furnish and install 14" dia conductor casing (0 to 40 feet) | LF | 40 | $84 | $3,360 | $105 | $4,200 | $200 | $8,000 | $165 | $6,600 |
| A.4 | Surface seal installation (Conductor casing seal between 18" borehole and 14" conductor casing) | CF | 40 | $130 | $5,200 | $60 | $2,400 | $100 | $4,000 | $524 | $20,960 |
| A.5 | Borehole drilling (10" min dia. 40 to 1,200 feet) | LF | 1,160 | $156 | $180,960 | $160 | $185,600 | $160 | $185,600 | $280 | $324,800 |
| A.6 | Collect formation samples | LS | 1 | $1,000 | $1,000 | $2,000 | $2,000 | $3,500 | $3,500 | $471 | $471 |
| A.7 | Geophysical logging (SWL to 1,200 feet) | LS | 1 | $8,700 | $8,700 | $7,000 | $7,000 | $12,000 | $12,000 | $13,500 | $13,500 |
| A.8 | Caliper survey | LS | 1 | $4,600 | $4,600 | $7,000 | $7,000 | $3,500 | $3,500 | $9,335 | $9,335 |
| A.9 | Furnish and install top and bottom cap. | LS | 1 | $230 | $230 | $500 | $500 | $1,000 | $1,000 | $855 | $855 |
| A.10 | Furnish and install 5" dia. well casing (0 to 1,200 feet) with centralizers | LF | 1,200 | $32 | $38,400 | $35 | $42,000 | $60 | $72,000 | $45 | $54,000 |
| A.11 | Furnish and install silica gravel pack | CF | 410 | $21 | $8,610 | $65 | $26,650 | $80 | $32,800 | $41 | $16,810 |
| A.12 | Perforate 5" dia. well casing | LF | 300 | $85 | $25,500 | $40 | $12,000 | $200 | $60,000 | $77 | $23,100 |
| A.13 | Airlift development with rig(12 hours per zone) | HR | 36 | $750 | $27,000 | $650 | $23,400 | $850 | $30,600 | $950 | $34,200 |
| A.14 | Furnish and install 10 ft bentonite plug | EA | 3 | $3,700 | $11,100 | $1,500 | $4,500 | $2,500 | $7,500 | $1,959 | $5,877 |
| A.15 | Install and remove test pump | EA | 3 | $5,200 | $15,600 | $3,000 | $9,000 | $25,000 | $75,000 | $9,425 | $28,275 |
| A.16 | Zone pump testing and monitoring | HR | 36 | $525 | $18,900 | $480 | $17,280 | $600 | $21,600 | $685 | $24,660 |
| A.17 | Water quality sampling (at end of each zone test) | EA | 3 | $2,728 | $8,184 | $350 | $1,050 | $4,000 | $12,000 | $784 | $2,352 |
| A.18 | Well recovery monitoring (after each zone test) | HR | 12 | $475 | $5,700 | $300 | $3,600 | $450 | $5,400 | $615 | $7,380 |
| A.19 | Cement grout installation (between 12.25" dia borehole and 5" casing (between test zones), between 14" dia casing and 5" casing to surface, and inside 5" casing to the surface) See Figure 4, items 9 & 10 | CF | 890 | $45 | $40,050 | $65 | $57,850 | $80 | $71,200 | $105 | $93,450 |
| | **Total (Base Bid A):** | | | | $535,774 | | $503,030 | | $749,700 | | $784,898 |

J-U-B ENGINEERS, INC.

**Schedule B: Well No.2 Site (C-102)**

| Item No. | Item Description | Unit | Quantity | Bidders: Hydro Resources Bid Unit Price | Hydro Resources Bid Price | Lang Equipment Bid Unit Price | Lang Equipment Bid Price | KP Ventures Bid Unit Price | KP Ventures Bid Price | Boart Long Year Bid Unit Price | Boart Long Year Bid Price |
|---|---|---|---|---|---|---|---|---|---|---|---|
| B.1 | Mobilization, Demobilization, Bonding, and SWPPP | LS | 1 | $95,000 | $95,000 | $40,000 | $40,000 | $40,000 | $40,000 | $95,313 | $95,313 |
| B.2 | Borehole drilling (18" min dia., 0 to 40 feet) | LF | 40 | $442 | $17,680 | $300 | $12,000 | $600 | $24,000 | $574 | $22,960 |
| B.3 | Furnish and install 14" dia conductor casing (0 to 40 feet) | LF | 40 | $84 | $3,360 | $105 | $4,200 | $200 | $8,000 | $165 | $6,600 |
| B.4 | Surface seal installation (Conductor casing seal between 18" borehole and 14" conductor casing) | CF | 40 | $130 | $5,200 | $60 | $2,400 | $100 | $4,000 | $524 | $20,960 |
| B.5 | Borehole drilling (10" min dia. 40 to 1,200 feet) | LF | 1,160 | $156 | $180,960 | $160 | $185,600 | $160 | $185,600 | $280 | $324,800 |
| B.6 | Collect formation samples | LS | 1 | $1,000 | $1,000 | $2,000 | $2,000 | $3,500 | $3,500 | $471 | $471 |
| B.7 | Geophysical logging (SWL to 1,200 feet) | LS | 1 | $8,700 | $8,700 | $7,000 | $7,000 | $12,000 | $12,000 | $13,500 | $13,500 |
| B.8 | Caliper survey | LS | 1 | $4,600 | $4,600 | $7,000 | $7,000 | $3,500 | $3,500 | $9,335 | $9,335 |
| B.9 | Furnish and install top and bottom cap. | LS | 1 | $230 | $230 | $500 | $500 | $1,000 | $1,000 | $855 | $855 |
| B.10 | Furnish and install 5" dia. well casing (0 to 1,200 feet) with centralizers | LF | 1,200 | $32 | $38,400 | $35 | $42,000 | $60 | $72,000 | $45 | $54,000 |
| B.11 | Furnish and install silica gravel pack | CF | 410 | $21 | $8,610 | $65 | $26,650 | $80 | $32,800 | $41 | $16,810 |
| B.12 | Perforate 5" dia. well casing | LF | 300 | $85 | $25,500 | $40 | $12,000 | $200 | $60,000 | $77 | $23,100 |
| B.13 | Airlift development with rig | HR | 36 | $750 | $27,000 | $650 | $12,600 | $850 | $30,600 | $950 | $34,200 |
| B.14 | Furnish and install 10 ft bentonite plug | EA | 3 | $3,700 | $11,100 | $1,500 | $4,500 | $2,500 | $7,500 | $1,959 | $5,877 |
| B.15 | Install and remove test pump | EA | 3 | $5,200 | $15,600 | $3,000 | $9,000 | $25,000 | $75,000 | $9,425 | $28,275 |
| B.16 | Zone pump testing and monitoring | HR | 36 | $525 | $18,900 | $480 | $17,280 | $600 | $21,600 | $685 | $24,660 |
| B.17 | Water quality sampling (at end of each zone test) | EA | 3 | $2,728 | $8,184 | $350 | $1,050 | $4,000 | $12,000 | $784 | $2,352 |
| B.18 | Well recovery monitoring (after each zone test) | HR | 12 | $475 | $5,700 | $300 | $3,600 | $450 | $5,400 | $615 | $7,380 |
| B.19 | Cement grout installation (between 12.25" dia borehole and 5" casing (between test zones), between 14" dia casing and 5" casing to surface, and inside 5" casing to the surface) See Figure 4, items 9 & 10 | CF | 890 | $45 | $40,050 | $65 | $57,850 | $80 | $71,200 | $105 | $93,450 |
| | **Total (Base Bid B):** | | | | $515,774 | | $447,230 | | $669,700 | | $784,897 |

J-U-B ENGINEERS, INC.

| Schedule C: Proposed Public Water System (PWS) Well | | | | Bidders: | Hydro Resources | | Lang Equipment | | KP Ventures | | Boart Long Year | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Item No. | Item Description | Unit | Quantity | | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price |
| C.1 | Mobilization and Demo | LS | 1 | | $118,000 | $118,000 | $167,000 | $167,000 | $125,000 | $125,000 | $184,944 | $184,944 |
| C.2 | Drill Minimum 40-inch diameter conductor casing borehole | LF | 40 | | $496 | $19,840 | $690 | $27,600 | $1,000 | $40,000 | $1,373 | $54,920 |
| C.3 | Furnish Minimum 32-Inch Diameter (Conductor Casing) | LF | 40 | | $270 | $10,800 | $230 | $9,200 | $250 | $10,000 | $258 | $10,320 |
| C.4 | Install Minimum 32-Inch Diameter Conductor Casing | LF | 40 | | $86 | $3,440 | $115 | $4,600 | $200 | $8,000 | $195 | $7,800 |
| C.5 | Furnish and Install Well Seal for Conductor Casing | CF | 160 | | $110 | $17,600 | $75 | $12,000 | $80 | $12,800 | $110 | $17,600 |
| C.6 | Drill Minimum 28-Inch Diameter Production Borehole | LF | 1170 | | $365 | $427,050 | $460 | $538,200 | $190 | $222,300 | $616 | $720,720 |
| C.7 | Geophysical Logging of Production Borehole | LF | 1210 | | $9.5 | $11,495 | $14 | $16,940 | $10 | $12,100 | $20.7 | $25,095 |
| C.8 | Furnish Nominal 20-Inch Diameter Steel for Production Casing | LF | 701.5 | | $180 | $126,270 | $144 | $101,016 | $150 | $105,225 | $180 | $126,270 |
| C.9 | Install Nominal 20-Inch Diameter Steel for Production Casing | LF | 701.5 | | $40 | $28,060 | $86 | $60,329 | $40 | $28,060 | $69 | $48,404 |
| C.10 | Furnish Nominal 20-Inch Diameter Stainless Steel Wire-Wrap Well Screen | LF | 500 | | $400 | $200,000 | $322 | $161,000 | $315 | $157,500 | $386 | $193,000 |
| C.11 | Install Nominal 20-Inch Diameter Stainless Steel Wire-Wrap Well Screen | LF | 500 | | $40 | $20,000 | $86 | $43,000 | $40 | $20,000 | $79 | $39,500 |
| C.12 | Furnish and Install Filter Pack and Bentonite Plug | CF | 2885 | | $31 | $89,435 | $75 | $216,375 | $70 | $201,950 | $41 | $118,285 |
| C.13 | Furnish and Install Well Seal for Production Casing | CF | 350 | | $110 | $38,500 | $75 | $26,250 | $80 | $28,000 | $98 | $34,300 |
| C.14 | Well Development with Drill Rig | HR | 100 | | $750 | $75,000 | $800 | $80,000 | $800 | $80,000 | $950 | $95,000 |
| C.15 | Mobilization and Demobilization of Dual-Swab Rig | LS | 1 | | $28,500 | $28,500 | $23,000 | $23,000 | $15,000 | $15,000 | $51,594 | $51,594 |

J-U-B ENGINEERS, INC.

**Schedule C: Proposed Public Water System (PWS) Well (Continued)**

| | | | | Bidders: | Hydro Resources | | 350 | | 4000 | | 784 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Item No. | Item Description | Unit | Quantity | | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price | Bid Unit Price | Bid Price |
| C.16 | Well Development with Dual-Swab Rig | HR | 200 | | $550 | $110,000 | $460 | $92,000 | $600 | $120,000 | $430 | $86,000 |
| C.17 | Furnish, Install and Remove Test Pumping Equipment | LS | 1 | | $68,000 | $68,000 | $51,750 | $51,750 | $68,000 | $68,000 | $89,057 | $89,057 |
| C.18 | Development and Test Pumping | HR | 100 | | $600 | $60,000 | $690 | $69,000 | $700 | $70,000 | $430 | $43,000 |
| C.19 | Perform Plumbness and Alignment Survey | LS | 1 | | $3,500 | $3,500 | $4,600 | $4,600 | $9,600 | $9,600 | $12,858 | $12,858 |
| C.20 | Downhole Video Camera Inspection | LF | 1200 | | $4 | $4,800 | $3.5 | $4,200 | $8 | $9,600 | $7 | $8,400 |
| C.21 | Disinfect Well | LS | 1 | | $4,000 | $4,000 | $4,600 | $4,600 | $5,000 | $5,000 | $3,365 | $3,365 |
| C.22 | Standby Time | HR | 16 | | $550 | $8,800 | $345 | $5,520 | $700 | $11,200 | $630 | $10,080 |
| C.23 | Rig Time/Additional Work | HR | 16 | | $750 | $12,000 | $345 | $5,520 | $800 | $12,800 | $920 | $14,720 |
| | **Total (Base Bid C):** | | | | | $1,485,090 | | $1,723,700 | | $1,372,135 | | $1,995,231.9 |

J-U-B ENGINEERS, INC.

| | Bidders: | Hydro Resources | Lang Equipment | KP Ventures | Boart Long Year |
|---|---|---|---|---|---|
| **TOTAL BID PRICE:** | | $2,536,638 | $2,673,960 | $2,791,535 | $3,565,024.9 |
| **Difference from low bid:** | | | $137,322 | $254,897 | $1,028,387 |

**Schedule D: Optional Bid Items**

| Item No. | Item Description | Unit | Quantity | Bidders: Hydro Resources Bid Unit Price | Hydro Resources Bid Price | Lang Equipment Bid Unit Price | Lang Equipment Bid Price | KP Ventures Bid Unit Price | KP Ventures Bid Price | Boart Long Year Bid Unit Price | Boart Long Year Bid Price |
|---|---|---|---|---|---|---|---|---|---|---|---|
| D.1 | Noise Control at High School Well Site | Per Day | 60 | $1,120 | $67,200 | $600 | $36,000 | $800 | $48,000 | $1,569 | $94,140 |
| D.2 | Drilling Cutting Disposals off-site from the High School Well | CY | 50 | $925 | $46,250 | $40 | $2,000 | $300 | $15,000 | N/A | |
| D. 3 | Plug and Abandon Borehole - Exploration Well | LS | 2 | $31,950 | $63,900 | $16,000 | $32,000 | $34,000 | $68,000 | N/A | |
| D.4 | Plug and Abandon Borehole - PWS Well | LS | 1 | $70,300 | $70,300 | $240,000 | $240,000 | $185,000 | $185,000 | N/A | |
| | **Total:** | | | | $247,650 | | $310,000 | | $316,000 | | $94,140 |

# Exhibit B

# Agreement

# AGREEMENT
# BETWEEN OWNER AND CONTRACTOR
# FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)

THIS AGREEMENT is by and between **TOOELE CITY CORPORATION** ("Owner") and **HYDRO RESOURCES** ("Contractor").

Owner and Contractor hereby agree as follows:

**ARTICLE 1 – WORK**

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

**The 2025 Tooele City Wells Drilling Project consists of:**

Drilling and zone-testing of two exploration wells in Tooele City, as shown in the drawings. The estimated total drilling depth of each exploration borehole is up to 1200 feet. A new production well shall be drilled in one of the exploration well sites.

**ARTICLE 2 – THE PROJECT**

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: 2025 Tooele City Wells Drilling Project

**ARTICLE 3 – ENGINEER**

3.01 The Project has been designed by **J-U-B ENGINEERS, Inc.**

3.02 The Owner has retained **J-U-B ENGINEERS, Inc.** ("Engineer") to act as Owner's representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

**ARTICLE 4 – CONTRACT TIMES**

4.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

A. The Work for the **2025 Tooele City Wells Drilling Project** will be substantially completed on or before ~~**18**~~ **6 months from Notice to Proceed** and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **30 days after substantial completion.**

4.03 *Liquidated Damages*

A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and

Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):

1. Substantial Completion: Contractor shall pay Owner **$500** for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A above for Substantial Completion until the Work is substantially complete.

2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner **$500** for each day that expires after such time until the Work is completed and ready for final payment.

3. Liquidated damages for failing to timely attain Substantial Completion and final completion are not additive and will not be imposed concurrently.

4. **Liquidated damages shall not exceed 10% of the contract price regardless of days past contract dates.**

4.04 *Special Damages*

A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.

B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

**ARTICLE 5 – CONTRACT PRICE**

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

A. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit. The bid amount is: **$ 2,536,638 .**

**ARTICLE 6 – PAYMENT PROCEDURES**

6.01 *Submittal and Processing of Payments*

A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor's Applications for Payment on or about the **25th** day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract

a. 95 percent of Work completed (with the balance being retainage). If the Work has been 50 percent completed as determined by Engineer, and if the character and progress of the Work have been satisfactory to Owner and Engineer, then as long as the character and progress of the Work remain satisfactory to Owner and Engineer, there will be no additional retainage; and

b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

B. Upon Substantial Completion, Owner shall pay an amount sufficient to increase total payments to Contractor to **100** percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less **200** percent of Engineer's estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

**ARTICLE 7 – INTEREST**

7.01 All amounts not paid when due shall bear interest at the rate of *3* percent per annum.

**ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS**

8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:

A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.

B. Contractor has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Contractor has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor's safety precautions and programs.

F. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.

G. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.

H. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

**ARTICLE 9 – CONTRACT DOCUMENTS**

9.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (pages 1 to 8 inclusive).
2. Performance bond (pages 1 to 4, inclusive).
3. Payment bond (pages 1 to 4, inclusive).
4. Other bonds.
   a. NA (pages ___ to ___, inclusive).
5. General Conditions (pages 1 to 72, inclusive).
6. Supplementary Conditions (pages 1 to 9 inclusive).
7. Specifications as listed in the table of contents.
8. Drawings (not attached but incorporated by reference) consisting of sheets bearing the following general title: 2025 Tooele City Wells Drilling Project.

9. Addenda (numbers 1 to 4, inclusive).

10. Exhibits to this Agreement (enumerated as follows):

    a. Contractor's Bid (pages 1 to 38 inclusive).

11. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:

    a. Notice to Proceed.

    b. Work Change Directives.

    c. Change Orders.

    d. Field Orders.

B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

**ARTICLE 10 – MISCELLANEOUS**

10.01 *Terms*

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Contractor's Certifications*

A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract. For the purposes of this Paragraph 10.05:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process or in the Contract execution;

2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;

3. "collusive practice" means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish Bid prices at artificial, non-competitive levels; and

4. "coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

IN WITNESS WHEREOF, Owner and Contractor have signed this Agreement.

This Agreement will be effective on _____ (which is the Effective Date of the Contract).

| OWNER: | CONTRACTOR: |
|---|---|
| **Tooele City Corporation** | |
| By: | By: |
| Printed Name: | Printed Name: |
| Title: | Title: |
| | *(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)* |
| Attest: | Attest: |
| Title: | Title: |
| Address for giving notices: | Address for giving notices: |
| **90 NORTH MAIN** | |
| **TOOELE, UTAH, 84074** | |
| | License No.: *(where applicable)* |

*(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Agreement.)*

APPROVED AS TO FORM

_____

Roger Evans Baker

Tooele City Attorney

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# PERFORMANCE BOND

CONTRACTOR *(name and address)*:
**Hydro Resources**
**13027 County Road 18, Unit C**
**Fort Lupton, CO, 80621**

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:
**Tooele City Corporation**
**90 North Main**
**Tooele, Utah 84074**

CONSTRUCTION CONTRACT
Effective Date of the Agreement **(00520)**:
Amount:
Description *(name and location)*:

BOND
Bond Number:
Date *(not earlier than the Effective Date of the Agreement* **(00520)** *of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

| **CONTRACTOR AS PRINCIPAL** | **SURETY** |
|---|---|
| _____ *(seal)* | _____ *(seal)* |
| Contractor's Name and Corporate Seal | Surety's Name and Corporate Seal |
| **By:** _____ | **By:** _____ |
| Signature | Signature *(attach power of attorney)* |
| _____ | _____ |
| Print Name | Print Name |
| _____ | _____ |
| Title | Title |
| **Attest:** _____ | **Attest:** _____ |
| Signature | Signature |
| _____ | _____ |
| Title | Title |

***Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.***

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in

which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

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# PAYMENT BOND

CONTRACTOR *(name and address)*:

**Hydro Resources**
**13027 County Road 18, Unit C**
**Fort Lupton, CO, 80621**

SURETY *(name and address of principal place of business)*:

OWNER *(name and address)*:

**Tooele City Corporation**
**90 North Main**
**Tooele, Utah 84074**

CONSTRUCTION CONTRACT

Effective Date of the Agreement **(00520)**:
Amount:
Description *(name and location)*:

BOND

Bond Number:
Date *(not earlier than the Effective Date of the Agreement* **(00520)** *of the Construction Contract)*:
Amount:
Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

| **CONTRACTOR AS PRINCIPAL** | **SURETY** |
|---|---|
| _____ *(seal)* | _____ *(seal)* |
| Contractor's Name and Corporate Seal | Surety's Name and Corporate Seal |
| **By:** _____ | **By:** _____ |
| Signature | Signature *(attach power of attorney)* |
| _____ | _____ |
| Print Name | Print Name |
| _____ | _____ |
| Title | Title |
| **Attest:** _____ | **Attest:** _____ |
| Signature | Signature |
| _____ | _____ |
| Title | Title |

***Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.***

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.

4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.

5. The Surety's obligations to a Claimant under this Bond shall arise after the following:

    5.1 Claimants who do not have a direct contract with the Contractor,

        5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and

        5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).

    5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).

6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.

7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

    7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

    7.2 Pay or arrange for payment of any undisputed amounts.

    7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.

11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the

Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. **Definitions**

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and
8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default**: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

18. Modifications to this Bond are as follows:

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# STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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**ARTICLE 1 – DEFINITIONS AND TERMINOLOGY**

1.01 *Defined Terms*

A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.

2. *Agreement* **(00520)** —The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.

3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

5. *Bidder*—An individual or entity that submits a Bid to Owner.

6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.

7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.

8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.

9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.

10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision

regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.

12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.

13. *Contract Documents*—Those items so designated in the Agreement **(00520)**, and which together comprise the Contract.

14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .

15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.

16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.

17. *Cost of the Work*—See Paragraph 13.01 for definition.

18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.

19. *Effective Date of the Contract*—The date, indicated in the Agreement **(00520)**, on which the Contract becomes effective.

20. *Engineer*—The individual or entity named as such in the Agreement **(00520)**.

21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.

22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.

23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.

25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.

26. *Notice of Award*—The written notice by Owner to a Bidder of Owner's acceptance of the Bid.

27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.

28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.

29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.

30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.

31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents, the Agreement **(00520)**, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.

32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or "RPR" includes any assistants or field staff of Resident Project Representative.

33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.

34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer's review of the submittals and the performance of related construction activities.

35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.

37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.

38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work,

and certain administrative requirements and procedural matters applicable to the Work.

39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.

40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.

42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.

43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.

44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.

45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

46. *Unit Price Work*—Work to be paid for on the basis of unit prices.

47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.

48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives*:

1. The Contract Documents include the terms "as allowed," "as approved," "as ordered," "as directed" or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.

C. *Day*:

1. The word "day" means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective*:

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it:

a. does not conform to the Contract Documents; or

b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

E. *Furnish, Install, Perform, Provide*:

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish," "install," "perform," or "provide," then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.

F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

**ARTICLE 2 – PRELIMINARY MATTERS**

2.01 *Delivery of Bonds and Evidence of Insurance*

A. *Bonds*: When Contractor delivers the executed counterparts of the Agreement **(00520)** to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.

B. *Evidence of Contractor's Insurance*: When Contractor delivers the executed counterparts of the Agreement **(00520)** to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.

C. *Evidence of Owner's Insurance*: After receipt of the executed counterparts of the Agreement **(00520)** and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement **(00520)**, and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.

B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

A. *Preliminary Schedules*: Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:

1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;

2. a preliminary Schedule of Submittals; and

3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.

2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.

B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.

C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

**ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE**

3.01 *Intent*

A. The Contract Documents are complementary; what is required by one is as binding as if required by all.

B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.

C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.

E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

A. Standards Specifications, Codes, Laws and Regulations

1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*:

1. *Contractor's Verification of Figures and Field Measurements*: Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

2. *Contractor's Review of Contract Documents*: If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.

3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies*:

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:

a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer's written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.

C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

A. Contractor and its Subcontractors and Suppliers shall not:

1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or

2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner's express written consent, or violate any copyrights pertaining to such Contract Documents.

B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

**ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK**

4.01 *Commencement of Contract Times; Notice to Proceed*

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.

1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.

2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.

B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *Delays in Contractor's Progress*

A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.

C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;

2. abnormal weather conditions;

3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and

4. acts of war or terrorism.

D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.

E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.

F. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor.

G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

**ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS**

5.01 *Availability of Lands*

A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.

B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*:

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.

2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.

B. *Removal of Debris During Performance of the Work*: During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste

materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning*: Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading of Structures*: Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;

2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and

3. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

A. *Notice by Contractor*: If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:

1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or

2. is of such a nature as to require a change in the Drawings or Specifications; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

B. *Engineer's Review*: After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and advise Owner in writing of Engineer's findings, conclusions, and recommendations.

C. *Owner's Statement to Contractor Regarding Site Condition*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

D. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

    a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;

    b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,

    c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:

    a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or

    b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site

and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or

c. Contractor failed to give the written notice as required by Paragraph 5.04.A.

3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

A. *Contractor's Responsibilities*: The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and

2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:

a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;

b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;

c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and

d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.

B. *Notice by Contractor*: If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.

C. *Engineer's Review*: Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and

recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

D. *Owner's Statement to Contractor Regarding Underground Facility*: After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations in whole or in part.

E. *Possible Price and Times Adjustments*:

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:

a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;

b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;

c. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times; and

d. Contractor gave the notice required in Paragraph 5.05.B.

2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings*: The Supplementary Conditions identify:

1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and

2. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized*: Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer,

or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.

C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.

D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.

E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.

F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.

G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.

H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special

conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

J. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

**ARTICLE 6 – BONDS AND INSURANCE**

6.01 *Performance, Payment, and Other Bonds*

A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.

B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond

signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.

F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.

B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.

C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor

to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.

F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.

G. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 16.

H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.

I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.

J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

A. *Workers' Compensation*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.

2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).

3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).

4. Foreign voluntary worker compensation (if applicable).

B. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:

1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.

2. claims for damages insured by reasonably available personal injury liability coverage.

3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

C. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:

1. Products and completed operations coverage:

a. Such insurance shall be maintained for three years after final payment.

b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.

2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.

3. Broad form property damage coverage.

4. Severability of interest.

5. Underground, explosion, and collapse coverage.

6. Personal injury coverage.

7. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.

8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent.

D. *Automobile liability*: Contractor shall purchase and maintain automobile liability insurance against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.

E. *Umbrella or excess liability*: Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer's liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.

F. *Contractor's pollution liability insurance*: Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor's operations and completed operations. This insurance shall be maintained for no less than three years after final completion.

G. *Additional insureds*: The Contractor's commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis. Contractor shall obtain all necessary endorsements to support these requirements.

H. *Contractor's professional liability insurance*: If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial

Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.

I. *General provisions*: The policies of insurance required by this Paragraph 6.03 shall:

1. include at least the specific coverages provided in this Article.

2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.

3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.

4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.

5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.

J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."

2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.

3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.

4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).

5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).

6. extend to cover damage or loss to insured property while in transit.

7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

8. allow for the waiver of the insurer's subrogation rights, as set forth below.

9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.

10. not include a co-insurance clause.

11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.

12. include performance/hot testing and start-up.

13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.

B. *Notice of Cancellation or Change*: All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this

Paragraph 6.05 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.

C. *Deductibles*: The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.

D. *Partial Occupancy or Use by Owner*: If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.

E. *Additional Insurance*: If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.

F. *Insurance of Other Property*: If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.

C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.

D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.

C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

**ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES**

7.01 *Supervision and Superintendence*

A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 *Labor; Working Hours*

A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

7.03 *Services, Materials, and Equipment*

A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

B. All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

7.04 *"Or Equals"*

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment Engineer determines that:

1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;

2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;

3) it has a proven record of performance and availability of responsive service; and

4) it is not objectionable to Owner.

b. Contractor certifies that, if approved and incorporated into the Work:

1) there will be no increase in cost to the Owner or increase in Contract Times; and

2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

B. *Contractor's Expense*: Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

C. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

D. *Effect of Engineer's Determination*: Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.

E. *Treatment as a Substitution Request*: If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.

1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.

2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.

3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:

    a. shall certify that the proposed substitute item will:

        1) perform adequately the functions and achieve the results called for by the general design,

        2) be similar in substance to that specified, and

        3) be suited to the same use as that specified.

    b. will state:

        1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,

        2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

        3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.

    c. will identify:

        1) all variations of the proposed substitute item from that specified, and

        2) available engineering, sales, maintenance, repair, and replacement services.

    d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.

B. *Engineer's Evaluation and Determination*: Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.

C. *Special Guarantee*: Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

D. *Reimbursement of Engineer's Cost*: Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

E. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute at Contractor's expense.

F. *Effect of Engineer's Determination*: If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

A. Contractor may retain Subcontractors and Suppliers for the performance of parts of the Work. Such Subcontractors and Suppliers must be acceptable to Owner.

B. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.

C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.

D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.

E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.

F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.

G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.

H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.

I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.

J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.

K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.

L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.

N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.

O. Nothing in the Contract Documents:

1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor

2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.

B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified

as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.

C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.

B. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.

C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then

within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:

1. all persons on the Site or who may be affected by the Work;

2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and

3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.

C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.

D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.

E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any

Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

7.15 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.16 *Shop Drawings, Samples, and Other Submittals*

A. *Shop Drawing and Sample Submittal Requirements*:

1. Before submitting a Shop Drawing or Sample, Contractor shall have:

a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;

b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and

d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.

2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.

3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

B. *Submittal Procedures for Shop Drawings and Samples*: Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.

1. *Shop Drawings*:

a. Contractor shall submit the number of copies required in the Specifications.

b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.

2. *Samples*:

a. Contractor shall submit the number of Samples required in the Specifications.

b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.

3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. *Other Submittals*: Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.

D. *Engineer's Review*:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.

3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and

Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.

6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.

7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.

8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures*:

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.

3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or

2. normal wear and tear under normal usage.

C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;
2. recommendation by Engineer or payment by Owner of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
4. use or occupancy of the Work or any part thereof by Owner;
5. any review and approval of a Shop Drawing or Sample submittal;
6. the issuance of a notice of acceptability by Engineer;
7. any inspection, test, or approval by others; or
8. any correction of defective Work by Owner.

D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.

B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.

D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.

E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

**ARTICLE 8 – OTHER WORK AT THE SITE**

8.01 *Other Work*

A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.

B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or

alter others' work with the written consent of Engineer and the others whose work will be affected.

D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:

1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;

2. an itemization of the specific matters to be covered by such authority and responsibility; and

3. the extent of such authority and responsibilities.

B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.

B. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual

rights against Contractor with respect to the breach of the obligations set forth in this paragraph.

C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.

D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claims, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such damage, delay, disruption, or interference.

**ARTICLE 9 – OWNER'S RESPONSIBILITIES**

9.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in the Agreement **(00520)**.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.

B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.

C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

9.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.

B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

**ARTICLE 10 – ENGINEER'S STATUS DURING CONSTRUCTION**

10.01 *Owner's Representative*

A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract.

10.02 *Visits to Site*

A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On

the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.

B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

A. Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.

B. Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

C. Engineer's authority as to Change Orders is set forth in Article 11.

D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

A. Neither Engineer's authority or responsibility under this Article 10 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in

contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.

E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

**ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK**

11.01 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.

1. *Change Orders*:

a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.

b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.

2. *Work Change Directives*: A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of

Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.

3. *Field Orders*: Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 *Owner-Authorized Changes in the Work*

A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.

B. An adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the

basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).

C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;

b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;

e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.

B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or

Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.

1. *Procedures*: Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.

2. *Engineer's Action*: Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision*: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.

B. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 *Execution of Change Orders*

A. Owner and Contractor shall execute appropriate Change Orders covering:

1. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;

2. changes in Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;

3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and

4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.

B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 *Notification to Surety*

A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

**ARTICLE 12 – CLAIMS**

12.01 *Claims*

A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:

1. Appeals by Owner or Contractor of Engineer's decisions regarding Change Proposals;

2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and

3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.

B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor's knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.

C. *Review and Resolution*: The party receiving a Claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the Claim through the exchange of information and direct negotiations. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.

D. *Mediation*:

1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.

2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.

3. Owner and Contractor shall each pay one-half of the mediator's fees and costs.

E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.

F. *Denial of Claim*: If efforts to resolve a Claim are not successful, the party receiving the Claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the Claim within 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

G. *Final and Binding Results*: If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

**ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK**

13.01 *Cost of the Work*

A. *Purposes for Determination of Cost of the Work*: The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:

1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or

2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.

B. *Costs Included*: Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:

1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

    a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.

    b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.

    c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

    d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.

    e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

    f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval

of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.

i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.

C. *Costs Excluded*: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expediters, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.

2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.

3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.

4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.

D. *Contractor's Fee*: When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement **(00520)**. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.

E. *Documentation*: Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 *Allowances*

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances*: Contractor agrees that:

1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*: Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.

D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement **(00520)**.

B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.

C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.

D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.

E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:

1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement **(00520)**;

2. there is no corresponding adjustment with respect to any other item of Work; and

3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

**ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK**

14.01 *Access to Work*

A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of

Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.

B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.

D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:

1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;

2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;

3. by manufacturers of equipment furnished under the Contract Documents;

4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and

5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.

F. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

A. *Contractor's Obligation*: It is Contractor's obligation to assure that the Work is not defective.

B. *Engineer's Authority*: Engineer has the authority to determine whether Work is defective, and to reject defective Work.

C. *Notice of Defects*: Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.

D. *Correction, or Removal and Replacement*: Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.

E. *Preservation of Warranties*: When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

F. *Costs and Damages*: In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.

C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.

1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or

reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.

2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.

B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.

C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

**ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD**

15.01 *Progress Payments*

A. *Basis for Progress Payments*: The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the

provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments*:

1. At least 20 days before the date established in the Agreement **(00520)** for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement **(00520)**.

C. *Review of Applications*:

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

   a. the Work has progressed to the point indicated;

   b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and

   c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.

3. By recommending any such payment Engineer will not thereby be deemed to have represented that:

   a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in

progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or

b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.

4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:

a. to supervise, direct, or control the Work, or

b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or

c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or

d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or

e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.

5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.

6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:

a. the Work is defective, requiring correction or replacement;

b. the Contract Price has been reduced by Change Orders;

c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or

e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.

D. *Payment Becomes Due*:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.

E. *Reductions in Payment by Owner*:

1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:

a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from

workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;

b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;

c. Contractor has failed to provide and maintain required bonds or insurance;

d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;

e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;

f. the Work is defective, requiring correction or replacement;

g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;

h. the Contract Price has been reduced by Change Orders;

i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;

j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;

k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

l. there are other items entitling Owner to a set off against the amount recommended.

2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.

3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement **(00520)**.

15.02 *Contractor's Warranty of Title*

A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

15.03 *Substantial Completion*

A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request

that Engineer issue a certificate of Substantial Completion. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.

B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.

C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.

E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.

F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete,

Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.

2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.

3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

15.06 *Final Payment*

A. *Application for Payment*:

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:

a. all documentation called for in the Contract Documents;

b. consent of the surety, if any, to final payment;

c. satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any Liens or other title defects, or will so pass upon final payment.

d. a list of all disputes that Contractor believes are unsettled; and

e. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of the Work, and of Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any

way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance*:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Completion of Work*: The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.

B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted or appealed under the provisions of Article 17.

15.08 *Correction Period*

A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas

used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:

1. correct the defective repairs to the Site or such other adjacent areas;
2. correct such defective Work;
3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).

C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.

D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

**ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION**

16.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);

2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;

3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or

4. Contractor's repeated disregard of the authority of Owner or Engineer.

B. If one or more of the events identified in Paragraph 16.02.A occurs, then after giving Contractor (and any surety) ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the contract, Owner may proceed to:

1. declare Contractor to be in default, and give Contractor (and any surety) notice that the Contract is terminated; and

2. enforce the rights available to Owner under any applicable performance bond.

C. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere, and complete the Work as Owner may deem expedient.

D. Owner may not proceed with termination of the Contract under Paragraph 16.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.

E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.

F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.

G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and

3. other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.

B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

16.04 *Contractor May Stop Work or Terminate*

A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.

B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

**ARTICLE 17 – FINAL RESOLUTION OF DISPUTES**

17.01 *Methods and Procedures*

A. *Disputes Subject to Final Resolution*: The following disputed matters are subject to final resolution under the provisions of this Article:

1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and

2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.

B. *Final Resolution of Disputes*: For any dispute subject to resolution under this Article, Owner or Contractor may:

1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or

2. agree with the other party to submit the dispute to another dispute resolution process; or

3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

**ARTICLE 18 – MISCELLANEOUS**

18.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:

1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or

2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 *Computation of Times*

A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

18.04 *Limitation of Damages*

A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

18.05 *No Waiver*

A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

18.06 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

18.07 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

18.08 *Headings*

A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

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# TOOELE CITY

## 2025 TOOELE WELLS DRILLING PROJECT

## ADDENDUM NO. 1
**June 2nd, 2025**

**To All Plan Holders:**

You are hereby notified that the following changes, clarifications, and/or corrections have been made to the Drawings, Specifications, or Contract Documents for the above-referenced project.

ADDENDUM NO. 1 consists of the following:

### 1. Bid Schedule Changes
The date and time of the following bidding milestones are changed by this addendum:

| Item | Deadline: Date/Time |
|---|---|
| Last Day for Questions | ~~Monday, June 2nd, 2025~~ **Friday, June 6th, 2025** |
| Final Addendum | ~~Wednesday, June 4th, 2025~~ **Monday, June 9th, 2025** |
| Bids Due | ~~Thursday, June 5th, 2025 (2 pm MST)~~ **Thursday, June 12th, 2025 (3 pm MST)** |

### 2. Pre-Bid Meeting Agenda and Attendance List
a. The pre-bid conference was held at the Tooele Water Reclamation Facility: Rogers Well Site, Tooele, UT 84074, and virtually on Teams on Thursday, May 29, 2025, at 8:00 AM.
   i. The meeting minutes and attendance list are attached to this Addendum as a courtesy to bidders and do not reflect changes to the Contract. The items from the pre-bid meeting that led to contractual changes are listed below in this Addendum.

### 3. Questions and Clarifications
a. Bids shall be submitted in hard copy only. Electronic submittals will not be accepted.
b. At the high school site, the drilling cuttings shall be hauled away. At the Rogers site, the drilling cutting can be leveled into the existing grade. Fluids may be discharged on-site at both locations after appropriate treatment as described in specification 33 00 00.
c. The salt shed will be constructed to the north of the Rogers Well. The selected contractor shall coordinate with the city on the construction sequencing of the well drilling at Rogers Well and Salt Shed.
d. Flooded reverse circulation drilling method is required per section 1.2 of specification 33 00 00. Contractors may include clearly labeled alternate methods, but the award will be on the flooded reverse circulation as the base bid.
e. Three-zone tests are required for each well as per specification 33 00 00. The same pump can be reused for each test. Airlift is also needed in addition to zone testing per section 3.11 of spec 33 00 00.
f. The draw-down probe method for testing water quality is up to the contractor; risk of hang-up is the contractor's responsibility.

g. The use of 6-inch diameter casing in lieu of 5-inch diameter casing is acceptable for the test wells.
h. Anticipated water depth at the well sites is between 440 and 490 feet, as indicated in Figure 4, Item 11 of the Geotechnical Report.
i. Bid Item A14, 'Furnish and Install 10-foot Bentonite Plug,' and Bid Item A19, 'Cement Grout Installation,' appear to have overlapping applications for sealing between test zones. J-U-B Engineers will issue further clarification in Addendum No. 2 to specify the precise application and measurement for each of these items.
j. The use of an auger rig for drilling the surface casing (14-inch, 40-foot conductor) is acceptable.

**4. Changes to the Contract Documents**

a. Include the cost for 180 days of noise control at the high school site under the optional bid item #1 - Noise Control at High School Well Site.

**5. Changes to the Drawings**

None

**6. Changes to the Technical Specifications:**

a. 01 22 00 Measurement and Payment
    i. Add measurement and payment description for optional bid item #1 Noise Control at High School Well Site:

***"NOISE CONTROL AT HIGH SCHOOL WELL SITE – BID ITEM # 1***

*A. Measurement will be made on a per day basis for sound/noise control during the drilling, construction, developing and testing of the test well. This pay item shall constitute full compensation for all labor, equipment, tools, supplies, and materials required to complete this portion of the Work for this construction project.*

*B. Payment shall be made at per day price stated in the Bid Form."*

b. 01 50 00 Temporary Facilities and Control
    i. Tooele City is interested in using sound control panels to minimize construction noise at the high school site. Add section 1.17 and 1.18 as shown below:

***"1.17 NOISE CONTROL***

*A. The CONTRACTOR shall demonstrate compliance with the noise control requirements for any site requiring noise control as specified in the plans or specifications.*

*B. If noise control is required, noise levels shall be monitored at least once daily, and at the request of the ENGINEER, during a time when onsite equipment is in use and noise levels are expected to be the highest. Noise levels shall be measured next to the drill site boundary and at 50 and 100 feet from the drill site using a calibrated and certified sound level meter furnished by the CONTRACTOR and kept on site at all times. Noise levels will also be measured at the property boundary.*

***1.18 NOISE CONTROL FACILITIES***

*A. For the site requiring noise control, barriers/panels shall be constructed completely around the site to mitigate noise. The noise barrier walls shall consist of fiberglass filled acoustical walls, or equal, and have a minimum wall height of 20 feet. The noise barrier walls shall reduce the maximum continuous noise from drilling operations to less than 60 db at 50 feet around the perimeter of the drill site, or to levels designated in the noise permit, whichever is stricter."*

**7. Potential changes to contract – courtesy notification**

Clarification on Future Work and Potential Additive Alternate for Production Wells:

To leverage the successful execution of the test well phase, Tooele City and J-U-B Engineers are actively exploring the inclusion of an Additive Alternate Bid Item for the construction of a future Production Well. Further details regarding the scope or bid requirements of this Additive Alternate will be provided in a subsequent addendum.

This ADDENDUM #1 shall become a part of the Contract and all provisions of the Contract shall apply thereto. BIDDERS shall acknowledge receipt of this ADDENDUM in the space provided in the BID FORM.

Sincerely,
J-U-B ENGINEERS, INC.
Andrew Hobson, P.E.
Project Engineer

# Attachments

2025 Tooele City Wells Drilling Project

# PRE-BID MEETING

Project #55-25-021
Thursday, May 29th, 2025, at 8:00 am
Tooele Water Reclamation Facility

| NAME | REPRESENTING | OFFICE PHONE | CELL PHONE | EMAIL |
|---|---|---|---|---|
| Alan Lang | Lang Drilling | | 801-554-2419 | Alan.Lang@LangEquipment.net |
| Brian Nordgren | Boart Longyear | | 801-440-2141 | bnordgren@boartlongyear.com |
| Dylan Wilcox | Boart Longyear | 385-234-3829 | 801-638-1207 | dylan.wilcox@boartlongyear.com |
| Casey Curtis | Hydro Resources | 720-814-2628 | | ccurtis@hydroresources.com |
| Jason Lamb | Lamb Drilling | 801-834-9495 | 801-834-9495 | jason.lamb@lambdrilling.com |
| Clayton Thayer | KP Ventures Drilling | 928-639-1709 | 505-240-0833 | claytont@kpventures.com |
| Avery Kuper | White Mountain Operating | 307-367-3800 | 970-433-3969 | akuper@wmoperating.com |
| Brittany Ekstrom | APTIM | | | Brittany.Ekstrom@aptim.com |
| | | | | |

# Prebid Meeting Minutes

## TOOELE CITY CORPORATION

## Subject: 2025 Wells Drilling Project– Prebid Meeting Minutes

| | |
|---|---|
| PROJECT NAME AND MEETING NO.: | 2025 Tooele City Wells Drilling Project<br>242 271 758 133 8 |
| DATE AND TIME: | 05/29/25 at 8:00 am (MST) |
| LOCATION: | Virtual via Teams and Rogers Well (Well No. 1) Site |

ATTENDEES/TEAM:

**ENGINEER – J-U-B**

☐Branden Nielsen, Project Manager

☒ Andrew Hobson, Project Engineer

☒ Archana Dahal, Design Engineer

**Loughlin Water Associates, LLC**

☒ Bill Loughlin

☐ JB Brown

**OWNER - TOOELE CITY**

☐Jamie Grandpre, Public Works Director

Note: During the pre-bid walk-through meeting, all conversations are considered informal and are not contractually binding unless stated in the contract manual, drawings, or modified by a written addendum.

### DISCUSSION ITEMS

1. Site Access & Logistics
   a. Access via 2400 N (paving in progress) and field gate; possible fence cut for direct entry.
   b. Brown-grass area and adjacent unfenced strip available for staging; be mindful of future salt-shed north of well.
   c. Livestock occasionally wander from the adjacent field—secure openings.
2. Cuttings & Fluids Disposal
   a. Roger site: process cuttings onsite, grade & level after completion; water may discharge to the existing swale.
   b. School District site: haul cuttings off; clear development fluids may discharge to FEMA channel.
3. Bid Submission Requirements
   a. Hard-copy only—submit to Tooele City Recorder's Office (City Hall, upper level).
   b. Bid opening to follow immediately in the adjacent conference room.
4. Drilling Methodology & Alternatives
   a. Base bid: flood-reverse circulation per specs.

   b. Contractors may include clearly-labeled alternate methods, but the award will be on the base bid.
5. Testing Protocol
   a. Three 100-ft zones; air-lift development then 12 h pump test each (30–50 gpm).
   b. 14 in conductor to ≈40 ft; 5 in casing (6 in acceptable) to depth (~440–490 ft water).
   c. Draw-down probe method left to contractor; risk of hang-up is contractor's responsibility.
6. Zone Isolation & Seals
   a. 10 ft bentonite or cement plugs between zones; Bid Items A14 vs A19 will be clarified through an addendum.
   b. Construction will move from bottom-up following perforation, well development, testing, and sealing for each zone.
7. Sound Panels
   a. Additive alternate for ~16 ft sound walls at School District site; unlikely at City Shop site. Additional specifications on the sound panels will be provided through an addendum.
   b. Price on per-day unit basis.
8. Future Production Well Planning
   a. Two production wells anticipated; preferred site chosen after test-well evaluation.
9. Traffic & Haul Routes
   a. Avoid heavy truck traffic through residential streets; use highway for loaded hauls.

## ACTION ITEMS

| Responsible | Task | Due |
|---|---|---|
| Bidders | Base bid on flood-reverse drilling; list any alternates separately. | Bid due date |
| City Ops | Mark staging limits & provide gate/fence access before mobilization. | Pre-construction mtg |
| Design Team | Provide specifications on sound panels. | Through Addenda 1 |
| | Clarify A14 vs A19 | Through Addenda 1 |
| Contractor (post-award) | Coordinate Conex placement with salt-shed schedule; relocate if required. | During construction |

## SCHEDULE UPDATE (No changes from advertisement)

| Item | Deadline: Date/Time or Days |
|---|---|
| Substantial Completion | 18 months from Notice to Proceed |
| Contract Documents First Available | Wednesday, May 21st, 2025 |
| Prebid Conference | Thursday, May 29th, 2025 (8 am MST) |
| Last Day for Questions | Monday, June 2nd, 2025 |
| Final Addendum | Wednesday, June 4th, 2025 |
| Bids Due | Thursday, June 5th, 2025 (2 pm MST) |

## BIDDING AND CONTRACT CONSIDERATIONS

10. Plan holders: register with City: laurab@tooelecity.gov, bid submit to Laura.
11. All questions to Engineer in writing, final day for questions.
    i. Andrew Hobson
    ii. ahobson@jub.com
    iii. 385-290-9368
    a. Responses posted as an Addendum
    b. Email notification to planholders
    c. Has anyone had any issues downloading the Contract Documents?
12. Standard EJCDC Contract Documents – Bid security, performance and payment bonds, insurance, etc.
13. Bid Form review
14. Bids due: **Room 224, Tooele City Hall Recorder's Office**. Bids will be publicly opened and evaluated.
15. Substantial completion date (18 months after notice of award, tentatively Dec 2026)
16. Liquidated damages:
    a. Substantial Completion: $500 for each day
    b. Final Completion within Contract Time: $500 for each day
    c. Not to exceed 10% of the contract price.
17. Description of work:
    a. Drilling and zone-testing of two exploration wells in Tooele City, as shown in the drawings. The estimated total drilling depth of each exploration borehole is up to 1200 feet.
18. Bidders Qualifications

**TOOELE CITY**
**2025 TOOELE WELLS DRILLING PROJECT**

**ADDENDUM NO. 2**
**June 5, 2025**

**To All Plan Holders:**

You are hereby notified that the following changes, clarifications, and/or corrections have been made to the Drawings, Specifications, or Contract Documents for the above-referenced project.

The bid opening date, location, and time are NOT changed by this addendum.

ADDENDUM NO. 2 consists of the following:

1. **Questions and Clarifications**
   None
2. **Changes to the Contract Documents**
   a. Agreement
      i. Article 1
         a. The scope of work includes a new production well also referred to as Public Water System (PWS) well. The location of the PWS well has not been determined but will be at either the Rogers Exploration Well or High School Exploration Well. The Work specified in the contract documents is updated in section 1.01 of the Agreement to include:

"*……exploration borehole is up to 1200 feet. This project also includes drilling, construction, and testing of a new production well at one of the explorations well sites."*

      ii. Article 4
         a. Decreased substantial completion period in section 4.02 Contract Time:

*"The Work for the 2025 Tooele City Wells Drilling Project will be substantially completed on or before* ~~***18***~~ ***6*** *months from Notice to Proceed and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before 30 days after substantial completion."*

   b. 00 41 00 Bid Form
      i. Noise control panels should be installed around the high school exploratory well during well development. Use a 200 ft length of the noise panel to calculate the per-day bid price for this additive bid item. The actual required length shall be field verified by the contractor during construction.
      ii. The bid form is replaced in its entirety with changes marked in red and is attached to this addendum.

3. **Changes to the Drawings**
None

4. **Changes to the Technical Specifications:**
   a. 01 22 00 Measurement and Payment

i. The measurement and payment specification is replaced in its entirety with changes marked in red and is attached to this addendum.

b. 33 00 00 Drilling Construction Testing and Abandonment of Exploration Wells
   i. Section 1.4 Beginning and completion of work
      a. Updated as below:

*"…….The contractor shall substantially complete the work* ***at Rogers Exploratory Well*** *within 60 days of beginning the work.* ***After that, the Work at other sites shall be completed within the substantial completion period as stated in the Agreement.****"*

   ii. Section 1.5 Services furnished by the Owner
      a. The following services are NOT furnished by the Owner and are removed from Section 1.5 of the specification 33 00 00. These items shall be under the Contractor's scope of work:
         a. Notify local residents of the well drilling, construction, testing, and related operations, and receive and respond to complaints, if any, concerning noise and light.
         b. Stake the locations of the two exploration wells in advance of drilling
         c. Mark the locations of known underground utilities in the vicinity of the wells.
         d. Mark the locations of known underground utilities in the vicinity of the wells.
      b. The following service, furnished by the Owner, is modified for clarity in section 1.5 of the specification 33 00 00:

*"~~Provide~~* ***Submit*** *the "start card"* ~~*required by the*~~ ***to*** *DWRi for drilling of the proposed wells as outlined in UAC R655-4-4.1 Authorization to Drill."*

   iii. Section 1.6 Services furnished by the engineer
      a. The following services are NOT furnished by the Engineer and are removed from Section 1.6 of Specification 33 00 00. These items shall be under the Contractor's scope of work:
         a. Collect water quality samples for laboratory analysis
         b. Describe the drill cutting samples, collect select samples for sieve analysis, interpret subsurface geologic conditions and geophysical logs and prepare lithologic logs (which the CONTRACTOR can use for their Well Driller Reports).
   iv. Figure #4 Tooele City Proposed Construction – Exploration Wells
      a. The bore hole diameter, from 40 to 1200 feet depth, is increased from 10-in to 12.5in. The casing sizing remains 5-in.

c. 33 00 10 Drilling Construction and Testing of Production Wells
   i. The specification for the drilling, construction, and testing of the production/PWS well is attached to this addendum.

This ADDENDUM #2 shall become a part of the Contract and all provisions of the Contract shall apply thereto. BIDDERS shall acknowledge receipt of this ADDENDUM in the space provided in the BID FORM.

Sincerely,
J-U-B ENGINEERS, INC.
Andrew Hobson, P.E.
Project Engineer

# BID FORM

## TOOELE CITY CORPORATION

## 2025 TOOELE CITY WELLS DRILLING PROJECT

**(ADDENDUM NO. 2)**

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**ARTICLE 1 – BID RECIPIENT**

1.01 This Bid is submitted to:

**TOOELE CITY HALL - RECORDER'S OFFICE**

**90 NORTH MAIN**

**TOOELE, UTAH, 84074**

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement (00520) with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS**

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

**ARTICLE 3 – BIDDER'S REPRESENTATIONS**

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

| **Addendum No.** | **Addendum, Date** |
|---|---|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and

drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

**ARTICLE 4 – BIDDER'S CERTIFICATION**

4.01 Base Bid

**Schedule A – Well No.1 Site (C-101)**

| Item No. | Item Description | Unit | Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| A.1 | Mobilization, Demobilization, Bonding, and SWPPP | LS | 1 | $ | $ |
| A.2 | Borehole drilling (18" min dia., 0 to 40 feet) | LF | 40 | $ | $ |
| A.3 | Furnish and install 14" dia conductor casing (0 to 40 feet) | LF | 40 | $ | $ |
| A.4 | Surface seal installation (Conductor casing seal between 18" borehole and 14" conductor casing) | CF | 40 | $ | $ |
| A.5 | Borehole drilling (10" min dia. 40 to 1,200 feet) | LF | 1,160 | $ | $ |
| A.6 | Collect formation samples | LS | 1 | $ | $ |
| A.7 | Geophysical logging (SWL to 1,200 feet) | LS | 1 | $ | $ |
| A.8 | Caliper survey | LS | 1 | $ | $ |
| A.9 | Furnish and install top and bottom cap. | LS | 1 | $ | $ |
| A.10 | Furnish and install 5" dia. well casing (0 to 1,200 feet) with centralizers | LF | 1,200 | $ | $ |

| | | | | | |
|---|---|---|---|---|---|
| A.11 | Furnish and install silica gravel pack | CF | 410 | $ | $ |
| A.12 | Perforate 5” dia. well casing | LF | 300 | $ | $ |
| A.13 | Airlift development with rig (12 hours per zone) | HR | 36 | $ | $ |
| A.14 | Furnish and install 10 ft bentonite plug | EA | 3 | $ | $ |
| A.15 | Install and remove test pump | EA | 3 | $ | $ |
| A.16 | Zone pump testing and monitoring | HR | 36 | $ | $ |
| A.17 | Water quality sampling (at end of each zone test) | EA | 3 | $ | $ |
| A.18 | Well recovery monitoring (after each zone test) | HR | 12 | $ | $ |
| A.19 | Cement grout installation (between 12.25” dia borehole and 5” casing (between test zones), between 14” dia casing and 5” casing to surface, and inside 5” casing to the surface) See Figure 4, items 9 & 10 | CF | 890 | $ | $ |
| | **TOTAL OF SCHEDULE A BASE BID ITEMS:** | | | | $ |

## Schedule B – Well No.2 Site (C-102)

| Item No. | Item Description | Unit | Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| B.1 | Mobilization, Demobilization, Bonding, and SWPPP | LS | 1 | $ | $ |
| B.2 | Borehole drilling (18” min dia., 0 to 40 feet) | LF | 40 | $ | $ |
| B.3 | Furnish and install 14” dia conductor casing (0 to 40 feet) | LF | 40 | $ | $ |
| B.4 | Surface seal installation (Conductor casing seal between 18” borehole and 14” conductor casing) | CF | 40 | $ | $ |
| B.5 | Borehole drilling (10” min dia. 40 to 1,200 feet) | LF | 1,160 | $ | $ |
| B.6 | Collect formation samples | LS | 1 | $ | $ |
| B.7 | Geophysical logging (SWL to 1,200 feet) | LS | 1 | $ | $ |
| B.8 | Caliper survey | LS | 1 | $ | $ |
| B.9 | Furnish and install top and bottom cap. | LS | 1 | | |
| B.10 | Furnish and install 5” dia. well casing (0 to 1,200 feet) with centralizers | LF | 1,200 | $ | $ |
| B.11 | Furnish and install silica gravel pack | CF | 410 | | |

| | | | | | |
|---|---|---|---|---|---|
| B.12 | Perforate 5” dia. well casing | LF | 300 | $ | $ |
| B.13 | Airlift development with rig (12 hours per zone) | HR | 36 | $ | $ |
| B.14 | Furnish and install 10 ft bentonite plug | EA | 3 | $ | $ |
| B.15 | Install and remove test pump | EA | 3 | $ | $ |
| B.16 | Zone pump testing and monitoring | HR | 36 | $ | $ |
| B.17 | Water quality sampling (at end of each zone test) | EA | 3 | $ | $ |
| B.18 | Well recovery monitoring (after each zone test) | HR | 12 | $ | $ |
| B.19 | Cement grout installation (between 12.25” dia borehole and 5” casing (between test zones), between 14” dia casing and 5” casing to surface, and inside 5” casing to the surface) See Figure 4, items 9 & 10 | CF | 890 | $ | $ |
| | **TOTAL OF SCHEDULE B BASE BID ITEMS:** | | | | $ |

## Schedule C – Proposed Public Water System (PWS) Well

| Item No. | Item Description | Unit | Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| C.1 | Mobilization and Demo | LS | 1 | $ | $ |
| C.2 | Drill Minimum 40-inch diameter conductor casing borehole | LF | 40 | $ | $ |
| C.3 | Furnish Minimum 32-Inch Diameter Conductor Casing | LF | 40 | $ | $ |
| C.4 | Install Minimum 32-Inch Diameter Conductor Casing | LF | 40 | $ | $ |
| C.5 | Furnish and Install Well Seal for Conductor Casing | CF | 160 | $ | $ |
| C.6 | Drill Minimum 28-Inch Diameter Production Borehole | LF | 1170 | $ | $ |
| C.7 | Geophysical Logging of Production Borehole | LF | 1210 | $ | $ |
| C.8 | Furnish Nominal 20-Inch Diameter Steel Production Casing | LF | 701.5 | $ | $ |
| C.9 | Install Nominal 20-Inch Diameter Steel Production Casing | LF | 701.5 | $ | $ |
| C.10 | Furnish Nominal 20-Inch Diameter Stainless Steel Wire-Wrap Well Scree | LF | 500 | $ | $ |
| C.11 | Install Nominal 20-Inch Diameter Stainless Steel Wire-Wrap Well Screen | LF | 500 | $ | $ |
| C.12 | Furnish and Install Filter Pack and Bentonite Plug | CF | 2885 | $ | $ |
| C.13 | Furnish and Install Well Seal for Production Casing | CF | 350 | $ | $ |

| | | | | | |
|---|---|---|---|---|---|
| C.14 | Well Development with Drill Rig | HR | 100 | $ | $ |
| C.15 | Mobilization and Demobilization of Dual-Swab Rig | LS | 1 | $ | $ |
| C.16 | Well Development with Dual-Swab Rig | HR | 200 | $ | $ |
| C.17 | Furnish, Install and Remove Test Pumping Equipment | LS | 1 | $ | $ |
| C.18 | Development and Test Pumping | HR | 100 | $ | $ |
| C.19 | Perform Plumbness and Alignment Survey | LS | 1 | $ | $ |
| C.20 | Downhole Video Camera Inspection | LF | 1200 | $ | $ |
| C.21 | Disinfect Well | LS | 1 | $ | $ |
| C.22 | Standby Time | HR | 16 | $ | $ |
| C.23 | Rig Time/Additional Work | HR | 16 | $ | $ |
| | **TOTAL OF SCHEDULE C BID ITEMS:** | | | | $ |

**Total Bid Price:**

| | | |
|---|---|---|
| | TOTAL BID PRICE, SUM OF SCHEDULES A, B AND C: | $ |
| | TOTAL BID PRICE, IN WORDS: | |

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Document.

Alternates

A. Bidder will complete the Work in accordance with the Contract Documents for the following price(s), see Section 01 22 00 Measurement and Payment for additional information.

B. Unit Price as designated above.

4.02 Optional Bid Items

**Schedule D – Optional Bid Items**

| Item No. | Item Description | Unit | Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| D.1 | Noise Control at High School Well Site | Per Day | 60 | $ | $ |
| D.2 | Drilling Cutting Disposals off-site from the High School Well | CY | 50 | $ | $ |
| D. 3 | Plug and Abandon Borehole - Exploration Well | 2 | LS | $ | $ |

| | | | | | |
|---|---|---|---|---|---|
| D.4 | Plug and Abandon Borehole - PWS Well | 1 | LS | $ | $ |
| | **TOTAL OF SCHEDULE D OPTIONAL BID ITEMS:** | | | | $ |

**ARTICLE 5 – TIME OF COMPLETION**

5.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement (00520).

5.02 Bidder accepts the provisions of the Agreement (00520) as to liquidated damages.

**ARTICLE 6 – ATTACHMENTS TO THIS BID**

6.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security;

B. Contractor's License No.: _____ **[or]** Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;

C. _____

**ARTICLE 7 – DEFINED TERMS**

7.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

**ARTICLE 8 – BID SUBMITTAL**

BIDDER: *[Indicate correct name of bidding entity]*

_____

By:
*[Signature]* _____

*[Printed name]* _____
*(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest:
*[Signature]* _____

*[Printed name]* _____

Title: _____

Submittal Date: _____

Address for giving notices:

_____

Telephone Number: _____

Contact Name and e-mail address: _____

_____

Bidder's License No.: _____

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# SECTION 01 22 00
# MEASUREMENT AND PAYMENT
**(ADDENDUM NO. 2)**

## PART 1 GENERAL

### 1.1 SECTION INCLUDES

A. Authority

B. Payment

C. Defect Assessment

D. Non-Payment for Rejected Products

E. General Description of Measurement and Payment

F. Alternates

G. Schedule of Bid Items

### 1.2 AUTHORITY

A. See EJCDC C-700 General Conditions 10.07 and 10.08.

### 1.3 PAYMENT

A. See EJCDC C-700 General Conditions 15.01

### 1.4 DEFECT ASSESSMENT

A. EJCDC C-700 General Conditions 10.04 – Rejecting Defective Work

1. See EJCDC C-700 General Conditions Article 14

B. The authority of the Engineer to assess the defect and identify payment adjustment is final.

### 1.5 NON-PAYMENT FOR REJECTED PRODUCTS

A. Payment will not be made for any of the following:

1. Products wasted or disposed of in a manner that is not acceptable.

2. Products determined as unacceptable before or after placement.

3. Products not completely unloaded from the transporting vehicle.

4. Products placed beyond the lines and levels of the required Work.

5. Products remaining on hand after completion of the Work.

6. Loading, hauling, and disposing of rejected Products.

7. Removing rejected materials and/or work and replacing with materials and/or work in compliance with these specifications.

## 1.6 GENERAL DESCRIPTION OF MEASUREMENT AND PAYMENT

A. Measurement and Payment for the bid items listed in Base Bid shall be based on the description in the Technical Specifications and Drawings. Unless the work to be done is so specifically called out to be measured and paid for in Base Form, payment for such work shall be included in other applicable items, and there shall be no separate measurement and payment for the work.

B. Items listed in EJCDC C-410 – Bid Form as lump sum (L.S.) shall include all work for the complete installation as generally described in the Drawings and the Technical Specifications.

C. Payment shall be made at the contract bid price listed in the Bid Form.

D. Partial payment for unit price bid items and lump sum bid items only partially completed at the end of monthly pay periods shall be made based upon the Engineers interpretation of the percentage of work completed. Partial payment for materials delivered and stored will be considered, if said materials have been submitted to the Engineer for review per Section 01 33 00 – Submittal Procedures and supporting invoices and documentation have been provided.

E. Quantities indicated in the Bid Form are for bidding and contract purposes only, unless specified otherwise in the Technical Specifications.

F. If the actual work requires more or fewer quantities than those quantities indicated in the Bid Form, the Contractor shall provide the required quantities.

G. Payment Includes: Full compensation for all required labor, products, tools, equipment, materials, transportation, services and incidentals, erection, application, or installation of an item of the Work, including mobilization, demobilization, supervision, overhead and profit.

H. Final payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities accepted by the Engineer multiplied by the unit price for work which is incorporated in or made necessary by the Work unless specified otherwise.

## 1.7 ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in Owner-Contractor Agreement

B. Coordinate related work and modify surrounding work.

# SCHEDULE OF BID ITEMS – BASE BIDS A & B

The following base bid items are applicable for both wells and are tabulated under schedules A and B in the bid form.

## 1.8 MOBILIZATION, DEMOBILIZATION, BONDING, AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) – BID ITEM #1

A. Measurement shall be lump sum for the job, complete. Payment shall be as outline below:

| PAY FACTORS FOR MOBILIZATION, SWPPP & TEMPORARY FACILITIES | |
|---|---|
| Percent of Original Contract Amount Earned Not Including Materials Purchased | Percent of Amount Bid for Mobilization to be Paid |
| 5 | 40 |
| 15 | 20 |
| 40 | 30 |
| 50 | 10 |

B. This includes, but not limited to, all labor and equipment and materials for, safely moving equipment and related materials to and from the site, sanitation facilities, power, required permitting, dust abatement, temporary utilities and controls, project related documentation and coordination with State and Local authorities, Davis bacon documentation and reporting, and preparation and implementation of SWPPP and obtaining the Utah Pollutant Discharge Elimination (UPDES) Storm Water permit. Payment for the performance of the mobilization work as specified herein will be made at the contract lump sum price for "Mobilization" as listed in the Bid Schedule.

C. In the event the bid price for mobilization, demobilization, bonding, and SWPPP exceeds five percent (5%) of the total bid, payment of 3.75% of the total bid will be made upon full mobilization, with the balance paid upon final completion.

D. Payment shall be made at the contract lump sum (LS) price for Bid Item 1, “Mobilization, Demobilization, Bonding, and SWPPP” stated on the Bid Form.

## 1.9 BOREHOLE DRILLING (18” MIN DIA. AND 10” MIN DIA.) – BID ITEMS #2 AND #5

A. Measurement shall be on a linear foot basis to the minimum diameters and depths listed in the Bid Form and Technical Specifications. The measurement for drilling a

specific diameter borehole is exclusive to that diameter and shall not be measured or qualify for payment for a borehole of another diameter. Lengths of the borehole shall be measured along the centerline of the borehole, beginning at the existing ground surface and extending to the depth drilled. These bid items also include the cost of disposing of drilling fluids, cuttings, and pumped water associated with the drilling. This pay item shall constitute full compensation for all labor, equipment, tools, supplies, and materials required to complete this portion of the Work for this project as specified in these Specifications, Drawings, and elsewhere in these Contract Documents.

B. Payment shall be made at the contract linear foot (LF) price stated in the Bid Form.

## 1.10 FURNISH AND INSTALL CONDUCTOR AND WELL CASING W/ CENTRALIZERS – BID ITEMS #3 AND #10

A. Measurement shall be on a linear foot basis for the type and size of conductor or well casing listed in the Bid Form and Technical Specifications. The length of the casing eligible for payment shall be determined by measuring along the centerline of the casing as welded and installed. This item shall also include all equipment, labor, tools, materials, couplings, centralizers, welding rods and supplies, necessary excavation, aggregate, driving shoes, fittings, packers, testing, required permits, and all other items required to install the casing as described in the Specifications, Drawings, and elsewhere in the Contract Documents.

B. Payment shall be made at the contract linear foot (LF) price stated in the Bid Form.

## 1.11 SURFACE SEAL AND CEMENT GROUT INSTALLATION – BID ITEM #4 AND #19

A. Measurement shall be on a cubic foot basis of surface seal or cement grout installed as listed in the Bid Form. Contractor shall document volumes placed with truck tickets, bag counts, etc. as appropriate with placement method and materials. This item shall include all equipment, materials, placement tools, and labor required to install the surface seal or the placing of cement grout between zone test intervals so it complies with the requirements of these Specifications and all governing Federal, State, and local requirements.

B. Payment shall be made at the contract cubic foot (CF) price stated in the Bid Form.

## 1.12 COLLECT FORMATION SAMPLES – BID ITEM #6

A. Measurement shall be on a lump sum basis as listed in the Bid Form and Technical Specifications. This item includes all labor, materials, supplies, tools, and equipment required to collect, properly store, and label material samples extracted from well borehole drilling at intervals and methods set forth in the Technical Specifications. This pay item shall constitute full compensation for all labor, equipment, tools, supplies, and materials required to complete this portion of the Work.

B. Payment shall be made at contract lump sum (LS) price stated in the Bid Form.

## 1.13 GEOPHYSICAL LOGGING – BID ITEMS #7

A. Measurement shall be on a on a lump sum basis as listed in the Bid Form for geophysical logging of the constructed borehole with specific logging defined in the technical specifications. This pay item shall include all labor, equipment, tools, supplies, and materials required to complete this portion of the Work as set forth in the technical specifications, including processing and providing collected data and associated reports to the ENGINEER and OWNER.

B. Payment shall be made at the contract lump sum (LS) price stated in the Bid Form.

## 1.14 CALIPER SURVEY– BID ITEM #8

A. Measurement shall be on a lump sum basis as listed in the Bid Form for the cost of a caliper survey of a production well borehole. This pay item shall constitute full compensation for all labor, equipment, tools, supplies, and materials required to complete this portion of the Work as set forth in the Technical Specifications.

B. Payment shall be made at the contract lump sum (LS) price stated in the Bid Form.

## 1.15 FURNISH AND INSTALL TOP AND BOTTOM CAP - BID ITEM #9

A. No direct measurement will be made for installing for the installation of the top and bottom cap to be installed and shall be per a lump sum job complete as listed in the Bid Form and described in the Technical Specifications. The pay item shall include costs associated with all labor, materials, supplies, tools, and equipment required to install a 5-inch diameter stainless steel cap on the top and bottom of the well screen or a carbon steel cap if the bottom of the well is blank screen instead of screen as required by Specifications and shown on the drawings. This pay item shall constitute full compensation for all labor, equipment, tools, supplies, and materials required to complete this portion of the Work for this construction project.

B. Payment shall be made at the contract lump sum (LS) price stated in the Bid Form.

## 1.16 FURNISH AND INSTALL SILICA GRAVEL PACK – BID ITEM #11

A. Measurement shall be on a cubic foot basis of silica gravel pack installed as listed in the Bid Form. Payment includes costs associated with all labor, materials, supplies, tools, and equipment required to install the silica gravel pack at the size and location as required by Specifications and shown on the drawings. This pay item shall constitute full compensation for all labor, equipment, tools, supplies, and materials required to complete this portion of the Work for this construction project.

B. Payment shall be made at the contract cubic foot (CF) price stated in the Bid Form.

## 1.17 PERFORATE 5-IN DIA WELL CASING – BID ITEM #12

A. Measurement shall be on a linear foot basis of well casing perforated at the diameter listed in the Bid Form and Technical Specifications. Payment includes costs associated

with all labor, materials, supplies, tools, and equipment to perforate the well casing at the intervals directed by the ENGINEER and the dimensions described in the Contract Documents..

B. Payment shall be made at the contract linear foot (LF) price stated in the Bid Form.

**1.18 AIRLIFT DEVELOPMENT WITH RIG – BID ITEM #13**

A. Measurement: Measured on a per hour basis.

B. Payment Covers: Cost associated with all labor, materials, supplies, tools, and equipment required for the initial development of the production well as required by Specifications. This pay item shall constitute full compensation for all labor, equipment, tools, supplies, and materials required to complete this portion of the Work for this construction project.

C. Payment shall be made at the contract hour (HR) price stated in the Bid Form.

**1.19 FURNISH AND INSTALL 10 FT BENTONITE PLUG – BID ITEM #14**

A. Measurement shall be per each 10 ft bentonite plug installed as listed in the Bid Form and Technical Specifications. Payment includes costs associated with all labor, materials, supplies, tools, and equipment required to install the 10 ft bentonite plug to isolate pump zone intervals as described in the Contract Documents.

B. Payment shall be made for each (EA) plug as stated in the Bid Form.

**1.20 INSTALL AND REMOVE TEST PUMP – BID ITEM #15**

A. Measurement will be per each set of the temporary submersible test pump being both installed and removed as listed in the Bid Form. The installation and removal of the test pump shall include all equipment, labor, materials, test pump, temporary power source, piping and accessories, disinfection, flow meters, valves, and all incidental items required to install the test pump so zonal test pumping of the well can commence and remove the test pump after the zone test pumping is complete. Installation and removal of pumps used solely for well development or for purposes other than test pumping of the well in accordance with these specifications is considered incidental and will not be measured under this pay item.

B. Payment shall be made for each (EA) set as stated in the Bid Form.

**1.21 ZONE PUMP TESTING AND MONITORING – BID ITEM #16**

A. Measurement will be made on a per hour basis for test pumping and monitoring as listed in the Bid Form. Test pumping and monitoring shall include all equipment, labor, tools, materials, power, test pump discharge disposal and all other items of expense required to test pump and monitor the new well drawdown as described in the Specifications and elsewhere in the Contract Documents.

B. Payment shall be made at the contract hourly (HR) price stated in the Bid Form.

## 1.22 WATER QUALITY SAMPLING – BID ITEM #17

A. Measurement will be made per each water quality sampling performed on the new well as listed in the Bid Form. Water quality testing shall include all equipment, labor, sampling, materials, laboratory fees, transporting of samples, and all other items of expense required to perform the water quality tests on the new wells at the end of each zone test and provide test results to the Owner and Engineer in accordance with the Specifications, and Contract Documents.

B. Payment shall be made for each (EA) test as stated in the Bid Form.

## 1.23 WELL RECOVERY MONITORING – BID ITEM #18

A. Measurement will be made on a per hour basis for well recovery monitoring commencing upon conclusion of the test pumping. Well recovery monitoring shall include all equipment, labor, tools, materials, and all other items of expense required to monitor the recovery of the static water level in the new well after each zone test as directed by the Engineer and described in the Specifications and elsewhere in the Contract Documents.

B. Payment shall be made at the contract hourly (HR) price stated in the Bid Form.

# SCHEDULE OF BID ITEMS – BASE BID C

The following optional bid items are applicable to specific site as tabulated under schedule C in the bid form.

## 1.24 MOBILIZATION AND DEMOBILIZATION - BID ITEM #1

A. Measurement shall be lump sum for the job, complete. This includes: moving in of rigs, pumps, equipment, materials, power, labor, fuel, tools, and water conveyance structures, and incidentals to the project area necessary to do the work, and moving out of all such equipment, materials, tools, and incidentals and final site cleanup upon completion of the work. For purposes of partial payment, the initial mobilization portion of this bid item shall be considered as 60 percent of the total lump sum.

B. Payment shall be made at the contract lump sum (LS) price stated in the Bid Form.

## 1.25 DRILL MINIMUM 40-INCH DIAMETER CONDUCTOR CASING BOREHOLE - BID ITEM #2

A. Measurement for payment for the drilling conductor casing borehole will be based on the actual number of vertical feet of drilling in accordance with these Contract Documents.

B. Payment for drilling the borehole shall be full compensation for rigs, equipment, fuel, bits, labor, transportation, drilling fluids, temporary casing, materials, waste and water

management, and incidentals necessary to drill the borehole in accordance with these Contract Documents.

C. No payment shall be made for temporary casing, removal of temporary casing or drilling fluid materials used during normal drilling operations. All such costs shall be considered subsidiary to the unit prices listed on the Bid Schedule form.

D. No payment shall be made for time or expenses incurred in the recovery or replacement of tools or equipment lost during the drilling phase or any other phase of the WORK.

E. No payment shall be made for tests of borehole alignment; it shall be the responsibility of the CONTRACTOR to ensure that the hole remains within plumbness and alignment specifications.

F. No payment shall be made for time, materials, or labor costs incurred during remedial measures, in the event the well is of unacceptable plumbness and alignment.

G. No payment shall be made for time, materials, or labor costs incurred in abandoning the well in the event the well is of unacceptable plumbness and alignment following remedial measures, or if lost tools or equipment cannot be recovered from the borehole. No costs incurred for construction of the abandoned well shall be applied to construction of a new production well.

H. In the event of lost circulation conditions, the CONTRACTOR shall contact the ENGINEER for direction prior to the use of lost circulation materials. If after working 8 hours to re-establish circulation, and no additional footage is gained then additional work to regain circulation shall be at the hourly rig time rate, as listed on the Bid Schedule form, if approved in advance by the ENGINEER. Lost circulation materials and drilling fluids used in attempting to restore circulation shall be paid at invoice cost plus 15 percent for handling. Note: Lost circulation is defined as a complete loss of circulation with no return of drilling fluids to the surface and no advancement in drilling depth. No payment for footage drilled shall be made during the period for which hourly payment is made.

I. If approved in advance by the ENGINEER, the CONTRACTOR may cement the lost circulation interval, taking care not to cement beyond the lost circulation interval as directed by the ENGINEER. Payment for such cementing operations will be for the cement materials (at invoice cost plus 15 percent for handling, including commercial preparation and delivery, if applicable), rig time for placement of the cement, and to re-drill the cemented interval. No payment will be made for standby time waiting for cement to arrive from a concrete vendor. Payment shall be made for waiting for the cement to cure (harden) in the borehole at the hourly standby time rate, as listed on the Bid Schedule form. No payment shall be made for footage drilled during the period used to regain drilling fluid circulation by cementing operations.

J. In the event of unstable borehole conditions, the CONTRACTOR shall contact the ENGINEER if there is no advancement of drilling depth. If after working 8 hours to advance the depth of the borehole and no additional footage is gained then additional work to advance the depth of the borehole shall be at the hourly rig time rate, as listed

on the Bid Schedule form, if approved in advance by the ENGINEER. No payment for footage drilled shall be made during the period for which hourly payment is made.

K. If approved in advance by the ENGINEER, the CONTRACTOR may cement the unstable interval of the borehole, taking care not to cement beyond the unstable interval as directed by the ENGINEER. Payment for such cementing operations will be for the cement materials (at invoice cost plus 15 percent for handling, including commercial preparation and delivery, if applicable), rig time for placement of the cement, and to re-drill the cemented interval. No payment will be made for standby time waiting for cement to arrive from a concrete vendor. Payment shall be made for waiting for the cement to cure (harden) in the borehole at the hourly standby time rate, as listed on the Bid Schedule form. No payment shall be made for footage drilled during the period used to regain drilling fluid circulation by cementing operations.

## 1.26 FURNISH MINIMUM 32-INCH DIAMETER CONDUCTOR CASING - BID ITEM #3

A. Measurement for payment for furnishing conductor casing will be based on the number of linear feet of such materials installed in the borehole in accordance with these Contract Documents.

B. Payment for the casing shall be paid at invoice cost and constitute full compensation for taxes and transportation to the site.

## 1.27 INSTALL MINIMUM 32-INCH DIAMETER CONDUCTOR CASING - BID ITEM #4

A. Measurement for payment for installing conductor casing will be based on the number of linear feet of such materials installed in the borehole in accordance with these Contract Documents.

B. Payment for installing the casing shall constitute full compensation for materials, supplies, consumables, transportation, labor, fuel, equipment, waste and water management, threading, fittings, welding materials, taxes, and incidentals necessary to install the casing.

C. No payment shall be made for tests of borehole alignment; it shall be the responsibility of the CONTRACTOR to ensure that the hole and casing remain within plumbness and alignment specifications.

## 1.28 FURNISH AND INSTALL WELL SEAL FOR CONDUCTOR CASING - BID ITEM #5

A. Measurement for payment for furnishing and installing the certified cement grout well seal for the conductor casing will be based on the estimated volume of cubic feet of such materials installed in the borehole in accordance with these Contract Documents. Any additional volume required beyond the estimated volume presented the bid form to complete the seal in accordance with these documents will be paid as rig time plus cement materials at invoice cost plus 15 percent for handling, including commercial preparation and delivery, if applicable. All rig time for cementing operations must be pre-approved by the ENGINEER.

B. Payment for furnishing and installing the well seal shall constitute full compensation for furnishing all tools, rigs, equipment, waste and water management, labor, materials, cement, bentonite, sand, taxes, grout witness certification and incidentals necessary to construct the cement grout well seal at the specified location in accordance with the Contract Documents.

C. No payment shall be made for time waiting for cement to cure (harden) or bentonite to swell or set up; this time shall be included in the price bid to furnish and install the well seal.

## 1.29 DRILL MINIMUM 28-INCH DIAMETER PRODUCTION BOREHOLE - BID ITEM #6

A. Measurement for payment for the drilling production borehole will be based on the actual number of vertical feet of drilling in accordance with these Contract Documents.

B. Payment for drilling the borehole shall be full compensation for rigs, equipment, fuel, bits, labor, transportation, drilling fluids, temporary casing, materials, waste and water management, and incidentals necessary to drill the borehole in accordance with these Contract Documents.

C. No payment shall be made for temporary casing or drilling fluid materials used during normal drilling operations. All such costs shall be considered subsidiary to the unit prices listed on the Bid Schedule form.

D. No payment shall be made for time or expenses incurred in the recovery or replacement of tools or equipment lost during the drilling phase or any other phase of the WORK.

E. No payment shall be made for tests of borehole alignment; it shall be the responsibility of the CONTRACTOR to ensure that the hole remains within plumbness and alignment specifications.

F. No payment shall be made for time or expenses incurred to redrill or clean unstable zone(s) that were previously drilled on a footage rate.

G. No payment shall be made for time, materials, or labor costs incurred during remedial measures, in the event the well is of unacceptable plumbness and alignment.

H. No payment shall be made for time, materials, or labor costs incurred in abandoning the well in the event the well is of unacceptable plumbness and alignment following remedial measures, or if lost tools or equipment cannot be recovered from the borehole. No costs incurred for construction of the abandoned well shall be applied to construction of a new production well.

I. In the event of lost circulation conditions, the CONTRACTOR shall contact the ENGINEER for direction prior to the use of lost circulation materials. If after working 8 hours to re-establish circulation, and no additional footage is gained then additional work to regain circulation shall be at the hourly rig time rate, as listed on the Bid Schedule form, if approved in advance by the ENGINEER. Lost circulation materials and drilling fluids used in attempting to restore circulation shall be paid at invoice cost plus 15 percent for

handling. Note: Lost circulation is defined as a complete loss of circulation with no return of drilling fluids to the surface and no advancement in drilling depth. No payment for footage drilled shall be made during the period for which hourly payment is made.

J. If approved in advance by the ENGINEER, the CONTRACTOR may cement the lost circulation interval, taking care not to cement beyond the lost circulation interval as directed by the ENGINEER. Payment for such cementing operations will be for the cement materials (at invoice cost plus 15 percent for handling, including commercial preparation and delivery, if applicable), rig time for placement of the cement, and to re-drill the cemented interval. No payment will be made for standby time waiting for cement to arrive from a concrete vendor. Payment shall be made for waiting for the cement to cure (harden) in the borehole at the hourly standby time rate, as listed on the Bid Schedule form. No payment shall be made for footage drilled during the period used to regain drilling fluid circulation by cementing operations.

K. In the event of unstable borehole conditions, the CONTRACTOR shall contact the ENGINEER if there is no advancement of drilling depth. If after working 8 hours to advance the depth of the borehole and no additional footage is gained then additional work to advance the depth of the borehole shall be at the hourly rig time rate, as listed on the Bid Schedule form, if approved in advance by the ENGINEER. No payment for footage drilled shall be made during the period for which hourly payment is made.

L. If approved in advance by the ENGINEER, the CONTRACTOR may cement the unstable interval of the borehole, taking care not to cement beyond the unstable interval as directed by the ENGINEER. Payment for such cementing operations will be for the cement materials (at invoice cost plus 15 percent for handling, including commercial preparation and delivery, if applicable), rig time for placement of the cement, and to re-drill the cemented interval. No payment will be made for standby time waiting for cement to arrive from a concrete vendor. Payment shall be made for waiting for the cement to cure (harden) in the borehole at the hourly standby time rate, as listed on the Bid Schedule form. No payment shall be made for footage drilled during the period used to regain drilling fluid circulation by cementing operations.

## 1.30 GEOPHYSICAL LOGGING OF PRODUCTION BOREHOLE - BID ITEM #7

A. Measurement and payment for the geophysical logging of the borehole shall be based on a linear footage rate for the geophysical logs. The linear footage rate listed on the Bid Schedule form shall be full compensation for the moving in and moving out of geophysical equipment, set-up, logging runs, professional services, providing copies of logs, subsistence and incidentals, and all costs for the CONTRACTOR to aid the geophysical logging, rig-time and standby time.

## 1.31 FURNISH NOMINAL 20-INCH DIAMETER STEEL PRODUCTION CASING - BID ITEM #8

A. Measurement for payment for furnishing production casing will be based on the number of linear feet of such materials installed in the borehole in accordance with these Contract Documents.

B. Payment for the casing shall be paid at invoice cost and constitute full compensation for taxes and transportation to the site.

## 1.32 INSTALL NOMINAL 20-INCH DIAMETER STEEL PRODUCTION CASING - BID ITEM #9

A. Measurement for payment for installing the production casing will be based on the number of linear feet of such materials installed in the borehole to depths specified by the ENGINEER in accordance with these Contract Documents.

B. Payment for installing the casing shall constitute full compensation for materials, supplies, consumables, transportation, labor, fuel, equipment, waste and water management, threading, fittings, welding materials, taxes and incidentals necessary to install the casing.

C. No payment shall be made for tests of borehole alignment; it shall be the responsibility of the CONTRACTOR to ensure that the hole and casing remain within plumbness and alignment specifications.

## 1.33 FURNISH NOMINAL 20-INCH DIAMETER STAINLESS STEEL WIRE-WRAP WELL SCREEN – BID ITEM #10

A. Measurement for payment for furnishing well screen will be based on the number of linear feet of such materials installed in the borehole to depths specified by the ENGINEER in accordance with these Contract Documents.

B. Payment for the well screen shall be paid at invoice cost and constitute full compensation for taxes and transportation to the site.

C. No separate payment shall be made for placement of a well bottom cap; this item shall be included in the price bid to furnish the well screen.

## 1.34 INSTALL NOMINAL 20-INCH DIAMETER STAINLESS STEEL WIRE-WRAP WELL SCREEN - BID ITEM #11

A. Measurement for payment for installing the well screen will be based on the number of linear feet of such materials installed in the borehole to depths specified by the ENGINEER in accordance with these Contract Documents.

B. Payment for installing the well screen shall constitute full compensation for materials, supplies, consumables, transportation, labor, fuel, equipment, waste and water management, threading, fittings, welding materials, taxes and incidentals necessary to install the well screen.

C. No payment shall be made for tests of borehole alignment; it shall be the responsibility of the CONTRACTOR to ensure that the hole and casing remain within plumbness and alignment specifications.

## 1.35 FURNISH AND INSTALL FILTER PACK AND BENTONITE PLUG - BID ITEM #12

A. Measurement for payment for furnishing and installing the filter pack (also called gravel pack) and bentonite plugs will be based on the number of cubic feet of such materials installed in the borehole in accordance with these Contract Documents. Any additional volume of filter pack required beyond the estimated volume presented the bid form to install the filter pack to the specified depth in accordance with these documents will be paid as rig time plus filter pack materials at invoice cost plus 15 percent for handling, including delivery, if applicable. Additional rig time shall not exceed 8 hours per day. Rig time shall not apply to time waiting for filter pack materials to arrive on site. All rig time for installing filter pack operations must be pre-approved by the ENGINEER.

B. Payment for furnishing and installing the filter pack and bentonite plugs shall constitute full compensation for furnishing all tools, rigs, equipment, waste and water management, labor, materials, taxes, and incidentals necessary to install the filter pack and bentonite plugs at the specified location in accordance with the Contract Documents.

C. No payment shall be made for the time waiting for bentonite to swell; this time shall be included in the price bid to furnish and install the filter pack and bentonite plugs.

## 1.36 FURNISH AND INSTALL WELL SEAL FOR PRODUCTION CASING - BID ITEM #13

A. Measurement for payment for furnishing and installing the cement grout well seal for the production casing will be based on the number of cubic feet of such materials installed in the borehole in accordance with these Contract Documents. Any additional cement volume required beyond the estimated volume presented the bid form to complete the seal in accordance with these documents will be paid as rig time plus cement materials at invoice cost plus 15 percent for handling, including commercial preparation and delivery, if applicable. Additional rig time shall not exceed 8 hours per day. All rig time for cementing operations must be pre-approved by the ENGINEER.

B. Payment for furnishing and installing the well seal shall constitute full compensation for furnishing all tools, rigs, equipment, waste and water management, labor, materials, cement, taxes and incidentals necessary to construct the cement grout well seal at the specified location in accordance with the Contract Documents.

C. No payment shall be made for time waiting for cement to cure (harden) or bentonite to swell or set up; this time shall be included in the price bid to furnish and install the well seal.

## 1.37 WELL DEVELOPMENT WITH DRILL RIG - BID ITEM #14

A. Measurement for payment for well development with the drill rig will be based on the actual number of hours of development operations in accordance with these Contract Documents. Payment will be made at the unit price listed in the Bid Schedule form.

B. No payment shall be made for equipment acquisition, setup, or installation, or for recovery periods required by the ENGINEER to ensure thorough well development.

C. No payment shall be made for installation of the development water conveyance structures. No payment shall be made for management of drill cuttings, drilling fluids, and produced water.

D. Payment for chemicals as may be required by the ENGINEER to ensure thorough well development shall be reimbursed for the cost of the chemicals used at invoice cost plus 15 percent for handling.

## 1.38 MOBILIZATION AND DEMOBILIZATION OF DUAL-SWAB RIG - BID ITEM #15

A. Measurement for payment for mobilization and demobilization the dual-swab rig to the WORK site will be based on completion of the WORK as a lump sum unit. The lump sum price listed on the Bid Schedule form shall be full compensation for the moving in of rigs, pumps, equipment, materials, power, labor, fuel, tools, and water conveyance structures, and incidentals to the project area necessary to do the WORK, and moving out of all such equipment, materials, tools, and incidentals and final site cleanup upon completion of the WORK. For purposes of partial payment, the initial mobilization portion of this bid item shall be considered as 60 percent of the total lump sum.

## 1.39 WELL DEVELOPMENT WITH DUAL-SWAB RIG - BID ITEM #16

A. Measurement for payment for well development with the dual-swab rig will be based on the actual number of hours of development operations in accordance with these Contract Documents. Payment will be made at the unit price listed in the Bid Schedule form.

B. No payment shall be made for equipment acquisition, setup, or installation, or for drilling fluid break down or recovery periods required by the ENGINEER to ensure thorough well development.

C. No payment shall be made for installation of the development water conveyance structures. No payment shall be made for management of drill cuttings, drilling fluids and produced water.

## 1.40 FURNISH, INSTALL AND REMOVE TEST PUMPING EQUIPMENT - BID ITEM #17

A. Measurement for payment for furnishing, installing, and removing the test pump and related equipment will be based upon completion of the entire WORK as a lump sum unit, all in accordance with the requirements of these Contract Documents.

B. Payment for furnishing, installing, and removing the test pump and equipment will be made at the lump sum price listed on the Bid Schedule form, which price shall constitute full compensation for all work, including installation and removal of cable, controls, valves, generator, airline, orifices, temporary piping, and associated appurtenances.

C. No payment shall be made for time spent transporting or maintaining equipment. All such costs for time and maintenance materials shall be considered subsidiary to the unit price listed on the Bid Schedule form.

D. No payment shall be made for installation of water conveyance structures. No payment shall be made for management of drill cuttings, drilling fluids and produced water.

## 1.41 DEVELOPMENT PUMPING AND TEST PUMPING - BID ITEM #18

A. Measurement for payment for development and test pumping will be based on the actual number of hours of pumping operations in accordance with these Contract Documents. Payment will be made at the unit price listed on the Bid Schedule form.

B. No payment shall be made for standby time during the recovery periods between tests or following the tests.

C. No payment shall be made for time spent transporting or maintaining equipment. All such costs for time and maintenance materials shall be considered subsidiary to the unit price listed on the Bid Schedule form.

D. No payment shall be made for installation of water conveyance structures. No payment shall be made for management of drill cuttings, drilling fluids and produced water.

E. No payment shall be made for time, equipment, or materials used in a test aborted due to power failure or malfunction of pumping equipment.

## 1.42 PERFORM PLUMBNESS AND ALIGNMENT SURVEY - BID ITEM #19

A. Measurement for payment for performing a plumbness and alignment survey on the completed well shall be based upon completion of the entire WORK as a lump sum unit, all in accordance with the requirements of these Contract Documents. Payment at the lump sum rate listed on the Bid Schedule form shall be full compensation for the moving in and moving out of survey equipment, set-up, survey runs, professional services, providing copies of logs/data, subsistence and incidentals, and all costs for the CONTRACTOR to aid the plumbness and alignment survey, rig-time and standby time.

## 1.43 DOWNHOLE VIDEO CAMERA INSPECTION - BID ITEM #20

A. Measurement for payment for inspecting the well with a downhole video camera shall be based on the number of linear feet of the well video logged in accordance with these Contract Documents. Payment at the linear rate listed on the Bid Schedule form shall be full compensation for the moving in and moving out of video logging equipment, set-up, logging runs, professional services, providing copies of video logs, subsistence and incidentals, and all costs for the CONTRACTOR to aid the video logging, rig-time, and standby time.

### 1.44 DISINFECT WELL - BID ITEM #21

A. Measurement for payment for disinfecting the well will be based on completion of the entire WORK as a lump sum unit, all in accordance with the requirements of these Contract Documents. Payment for furnishing, operating, and removing disinfection equipment and supplies will be made at the lump sum price listed on the Bid Schedule form, which price shall constitute full compensation for all work.

### 1.45 STANDBY TIME - BID ITEM #22

A. Measurement for payment for standby time will be based on the actual number of hours required by the ENGINEER for such delays during the course of the project, and will be made at the unit price listed on the Bid Schedule form, but will not include waiting on cement to cure after cementing the casings in place, recovery periods between pumping tests, delays required for acquisition of materials, or other time that is part of the work specified herein. All standby time must be pre-approved by the ENGINEER.

### 1.46 RIG TIME/ADDITIONAL WORK - BID ITEM #23

A. Payment for rig time for other miscellaneous work as directed by the ENGINEER not otherwise covered in these Contract Documents will be based on the actual number of hours of additional work done and shall be full compensation for rigs, fuel, labor, equipment, waste and water management, and materials normally associated with CONTRACTOR'S additional work activities. All additional rig time must be pre-approved by the ENGINEER.

B. cement, taxes and incidentals necessary to properly plug and abandon the borehole in accordance with the Contract Documents.

## SCHEDULE OF BID ITEMS – OPTIONAL BID D

The following optional bid items are applicable to specific site as tabulated under schedule D in the bid form.

### 1.47 NOISE CONTROL AT HIGH SCHOOL WELL SITE– BID ITEM # 1

A. Measurement will be made on a per day basis for sound/noise control during the drilling, construction, developing and testing of the production well. This pay item shall constitute full compensation for all labor, equipment, tools, supplies, and materials required to complete this portion of the Work for this construction project.

B. Payment shall be made at per day price stated in the Bid Form.

### 1.48 DRILLING CUTTING DISPOSALS OFF-SITE FROM THE HIGH SCHOOL WELL – BID ITEM #2

A. Measurement will be made on a cubic foot basis for hauling and disposing of the drill cuttings to a location approved by the city (the Rogers Well Test site is one such location). This pay item shall constitute full compensation for all labor, equipment,

tools, supplies, and materials required to complete this portion of the Work for this construction project.

B. Payment shall be made at per cubic foot as stated in the bid form.

### 1.49 PLUG AND ABANDON BOREHOLE – BID ITEM #3 AND #4

A. Measurement for payment for plugging and abandoning the borehole will be based on a lump sum payment for labor and for cement materials installed in the borehole in accordance with these Contract Documents.

B. Payment for plugging and abandoning the borehole shall constitute full compensation for furnishing all tools, rigs, equipment, waste and water management, labor, materials,

## PART 2 PRODUCTS – NOT USED

## PART 3 EXECUTION – NOT USED

## END OF SECTION

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**SECTION 33 00 10**

# TECHNICAL SPECIFICATIONS
## DRILL, CONSTRUCT AND TEST THE
## PROPOSED PUBLIC WATER SYSTEM (PWS) WELL
## FOR
## TOOELE CITY
### PUBLIC WATER SYSTEM (PWS) NO. UTAH23004
### TOOELE COUNTY, UTAH

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2 Topographic Map
3 Location Map
4 Preliminary Design of Proposed PWS Well

**APPENDIX**

A Well Driller Reports
B Utah Division of Water Quality Water Discharge Fact Sheet

# 1.0 GENERAL REQUIREMENTS

## 1.1 THE REQUIREMENT

The Utah-licensed water well driller (the CONTRACTOR) shall furnish all materials, labor, plant, equipment, tools, supplies, transportation, and appurtenances to drill, construct, develop, and test the Proposed Public Water System (PWS) Well (the proposed PWS well) as specified herein (the WORK).

The WORK will be performed in accordance with the current requirements of: (1) Utah Department of Natural Resources (DNR), Division of Water Rights (DWRi), sometimes referred to as the *Office of the State Engineer*, including Utah Administrative Code (UAC) Rule R655-4, *Administrative Rules for Water Wells*; (2) Utah Department of Environmental Quality (DEQ) Division of Drinking Water (DDW), including UAC, R309-515-6, *Facility Design and Operation: Source Development; Ground Water – Wells*; (3) DEQ Division of Water Quality (DWQ), *Utah Water Quality Act*, 19-5-107(1); and (4) the requirements of the Contract Documents, including these Technical Specifications.

## 1.2 PROJECT DESCRIPTION

The location of the WORK site for the proposed PWS Well has not been determined but will be at either the Rogers Exploration Well or High School Exploration Well (the two exploration wells). Figures 1 and 2 show that the:

- Rogers Exploration Well (Exploration Well No. 1) is south of Rogers Street, west of 1000 West, about 1.5 miles due west of Main Street (Highway 36) and

- High School Exploration Well (Exploration Well No. 2), has a street address of approximately 200 East, 2400 North and about 0.25 miles due west of Main Street (Highway 36).

Figure 3 shows the location of nearby Tooele City PWS wells.

The desired yield of the proposed PWS well is 3000 gallons per minute (gpm).

The proposed PWS well will be drilled through and completed in valley-fill deposits that consist of unconsolidated to semi-consolidated clayey sand and gravel interbedded with sand and gravel, cobbles, boulders, conglomerate, and sandy clay. The estimated total drilling depth is up to 1210 feet. However, the final design of the proposed PWS well will be determined after the borehole is drilled and geologically and geophysically logged.

The WORK consists of drilling, constructing, developing, and testing proposed PWS well. As part of the WORK, the CONTRACTOR shall:

- Drill for and install 32-inch diameter conductor casing to depth of approximately 40 feet and install a certified cement grout seal.

- Drill 28-inch diameter and geophysically log production boring to depth of approximately 1205 feet.
- Install 20-inch diameter production casing and well screen assembly.
- Install filter pack and develop the proposed PWS well with the drill rig.
- Install a certified cement grout well seal around the production casing.
- Develop the proposed PWS well with the drilling rig
- Develop the proposed well with a dual-swab cable tool rig.
- Install a test pump and conduct development and pump testing of the proposed PWS well.
- Perform other tasks as directed by the ENGINEER and described in these Technical Specifications and the Contract Documents.

Figure 4 shows the preliminary design of the proposed PWS well. The CONTRACTOR shall use flooded reverse-circulation drilling methods to drill the borehole below the conductor casing. The ENGINEER will specify to the CONTRACTOR the total drilling depth and the final well design including filter pack gradation and well screen slot size, placement of well casing, screen, filter pack, cement grout well seal, and any other materials used to construct the proposed PWS well.

Tooele City is designated as the "*OWNER*" in these Technical Specifications and Contract Documents for the proposed PWS well. Tooele City is DDW Public Water System (PWS) No. UTAH23004. The DDW classifies Tooele City as a community water system.

Loughlin Water Associates, LLC (Loughlin Water) prepared these Technical Specifications for J-U-B Engineers and Tooele City and (2) is designated as the "*ENGINEER*" in these Technical Specifications.

The form and detail of the various features of the WORK are illustrated on the following drawings and documents and made part of these Technical Specifications:

Figure 1 – Regional Map
Figure 2 – Topographic Map
Figure 3 – Location Map
Figure 4 – Preliminary Design Proposed PWS Well
Appendix A – Well Driller Reports
Appendix B – Utah Division of Water Quality Water Discharge Fact Sheet

## 1.3 WORK SITE AND LOCATION

The location of the WORK site for the proposed PWS Well has not been determined but will be at either the Rogers Exploration Well or High School Exploration Well; see Figures 1, 2, and 3.

The OWNER will delineate the areas within which all of the CONTRACTOR operations shall occur. The CONTRACTOR shall not enter on or occupy with laborers, tools, equipment, or materials any ground outside the area delineated by the OWNER. Other contractors, employees, or agents of the OWNER/ENGINEER may enter the WORK site delineated by the OWNER for business purposes.

## 1.4 BEGINNING AND COMPLETION OF WORK

The CONTRACTOR shall begin WORK within 30 days of the Notice to Proceed. The CONTRACTOR shall substantially complete the WORK within 90 days of beginning the WORK.

## 1.5 SERVICES FURNISHED BY THE OWNER

The OWNER will:

- As conditions require, provide reasonable road access capable of handling heavy equipment;
- Provide rights-of-way for the WORK specified in this contract.
- Provide the "start card" required by the DWRi for the drilling of the proposed wells as outlined in UAC R655-4-4.1 *Authorization to Drill*.
- Obtain a Plan Approval for the proposed PWS well from the DDW prior to the start of drilling, which includes DDW approval of the Preliminary Evaluation Report (PER) as outlined in UAC R655-4-12.1.2, *Public Water Supply Wells*;
- Stake the locations of the two exploration wells in advance of drilling.
- Mark the locations of known underground utilities in the vicinity of the proposed PWS well;
- Allow the CONTRACTOR to use the OWNER's culinary water for the drilling operations (see Section 1.9).
- Obtain or help the CONTRACTOR obtain any required permits regarding workings hours, noise control and/or lighting restrictions (see Section 1.10).
- Notify local residents of the proposed PWS well drilling, construction, testing, and related operations, and receive and respond to complaints, if any, concerning noise and light; and
- Allow the CONTRACTOR to dispose of drill cuttings and solid wastes at a location specified by the OWNER (see Section 1.12).

## 1.6 SERVICES FURNISHED BY THE ENGINEER

The ENGINEER will:

- Describe the drill cutting samples, interpret subsurface geologic conditions and prepare a lithologic log, which the CONTRACTOR can use for their Well Driller Report (well log);

- Inform the CONTRACTOR about the collection of subsurface data during drilling operations;
- During the course of the WORK, the ENGINEER, in consultation with the OWNER and the CONTRACTOR, will specify to the CONTRACTOR the total drilling depth and the final well design including placement of well casing, screen, filter pack, cement grout well seal, and any other materials used to construct the proposed PWS well.
- Determine when well development is complete;
- Help plan and monitor pumping tests; and
- Collect water quality samples for laboratory analysis.

## 1.7 DRILLING AND WELL CONDITIONS

The target aquifer of the proposed PWS well is the principal basin-fill aquifer in Tooele Valley. The estimated total drilling depth is up to about 1200 feet. The valley-fill deposits at the proposed well sites are expected to consist of unconsolidated to semi-consolidated clayey sand and gravel interbedded with sand and gravel, cobbles, boulders, and sandy clay.

Figure 3 shows the locations and Appendix A provides copies of Well Driller Reports (well logs) for nearby Tooele City PWS wells. The following summarizes expected subsurface conditions based on the well logs in Appendix A:

| Depth (feet) | Geologic Unit | Description |
|---|---|---|
| 0 – 30 | Lacustrine gravel, Great Salt Lake and Lake Bonneville - Holocene to upper Pleistocene (Qlg) | Sandy gravel to boulders composed of locally derived rock fragments deposited in shore zones of Great Salt Lake and Lake Bonneville |
| 30 – 90 | Lacustrine and alluvial deposits, undivided (Qafy) (Holocene to upper Pleistocene) | Sand, gravel, silt, and clay; consists of alluvial deposits reworked by lakes, lacustrine deposits reworked by streams and slopewash, and alluvial and lacustrine deposits. |
| 90 – 200 | Older fan alluvium, pre-Lake Bonneville upper to middle Pleistocene (Qafo) | Poorly sorted boulders, cobbles, gravel, sand, silt, and clay that predate Lake Bonneville; includes fan surfaces of different levels. |
| 200 – 1100 | Older fan and alluvial deposits- lower Pleistocene to Pliocene, (Qafo, QTaf, Tsl) | Poorly sorted boulders, cobbles, gravel, sand, silt, and clay;<br>conglomerate, unconsolidated to semi-consolidated, may overlap in age with Tertiary Salt Lake Formation. |
| 1100 – 1210 | Older fan and alluvial deposits- lower Pleistocene to Pliocene, (QTaf, Tsl) | Semi-consolidated deposits, and Tertiary Salt Lake Formation (Tsl). |

We expect the aquifer to be unconfined and the depth to the static water level to be within about 440 to 490 feet below ground surface.

It is the CONTRACTOR's responsibility to become informed about local conditions affecting this WORK. Neither the information contained in these specifications, nor gleaned from the OWNER, ENGINEER, or their agents, shall act to relieve the CONTRACTOR from any responsibility set forth in the contract.

## 1.8 UTILITIES AND UTILITY CLEARANCES

The CONTRACTOR shall be responsible for calling Blue Stakes and taking other actions to identify utilities present at the worksite in accordance with UAC R655-4-10.2, *Well Site Locations*. The CONTRACTOR shall be fully responsible for identifying utilities and for any damage caused by the CONTRACTOR's negligence.

## 1.9 WATER, POWER, AND SITE IMPROVEMENTS

The CONTRACTOR may obtain water for drilling operations from Tooele City.

Any water entering a well during construction shall not be contaminated and should be obtained from a chlorinated municipal system. Where this is not possible the water shall be dosed to give a free chlorine residual of 100 milligrams per liter (mg/L). Water introduced into the proposed PWS well shall (1) shall meet the Utah Drinking Water Standards specified in UAC R309-200, *Drinking Water Standards* and (2) conform to all laws applicable to the protection of water quality including UAC R309-515-6(6)(j), *Water Entered Into Well During Construction* and UAC R655-4-11.6.5, *Well Disinfection and Chlorination of Water*.

Costs for water conveyance facilities or transportation to the WORK site shall be borne by the CONTRACTOR. Any required permits to acquire water from other sources are the responsibility of the CONTRACTOR. This includes all necessary piping and components, but only at such locations and in a manner approved by the ENGINEER. Before final acceptance of the proposed PWS well, all temporary connections and piping installed by the CONTRACTOR shall be removed in a manner satisfactory to the ENGINEER.

The CONTRACTOR shall provide, at his own expense, all power required for their operations under the contract.

If desired, security and safety fencing around the WORK site may be installed by the CONTRACTOR, at his own expense.

## 1.10 WORKING HOURS AND NOISE AND LIGHT CONTROL

The CONTRACTOR will be authorized for 24-hour-per-day work for the drilling, construction and testing of the proposed well. The CONTRACTOR shall work on this project in a steady and diligent manner. The CONTRACTOR shall, during all work periods, provide an adequate crew of suitably qualified personnel to prevent unnecessary delays in project completion.

WORK shall be prohibited on Christmas Eve, Christmas Day, New Year's Eve and New Year's Day.

The CONTRACTOR shall make reasonable provision for noise and light control that include, at a minimum, the following measures:

- All equipment and machinery shall be in proper working order.
- All equipment and machinery shall be fitted with adequate mufflers and shall be located, operated, and maintained to minimize noise.
- Air-compressors and generators shall be housed in noise attenuation enclosures.
- The drill rig shall be equipped with a muffler system for air discharges that occur during drilling operations.

The CONTRACTOR shall abide by Tooele City code Title 11, Section 2, Noise Control, which can be viewed at:

https://files.tooelecity.gov/Document%20Center/Government/City%20code/Title11Chapter2(Dec1991).pdf

The CONTRACTOR shall be responsible for meeting all requirements of working hours, noise control, outdoor lighting and nuisance abatement.

The OWNER will obtain or help the CONTRACTOR obtain any required permits regarding workings hours, noise control and/or lighting restrictions.

The CONTRACTOR will prepare and distribute an OWNER approved flyer with a description of the project with contact information for questions and comments regarding the project.

## 1.11 SANITATION

The CONTRACTOR shall provide chemical toilets at the WORK site. The toilets shall conform to applicable local, State and Federal requirements. The cost for these sanitary facilities shall be borne by the CONTRACTOR.

## 1.12 MANAGEMENT OF DRILL CUTTINGS, DRILLING FLUIDS AND PRODUCED WATER

It will be the responsibility of the CONTRACTOR to dispose of the drill cuttings and left-over drilling fluid.

The CONTRACTOR is responsible for following *Best Management Practices* (BMP's) regarding drilling fluid and water discharges during the drilling and testing of the proposed well. It is the responsibility of the drilling CONTRACTOR to use BMPs to limit pollutant discharge to *de minimis* quantities, thereby protecting waters of the State, in accordance with Division of Water Quality Fact Sheet provided in Appendix B. Prior to the start of the WORK, the CONTRACTOR shall submit to the ENGINEER their plan to manage the drilling fluid and water discharge during the drilling and testing of the proposed well.

Drilling fluids, drill cuttings and produced water shall be contained in above-ground tanks and disposed of in a manner to prevent surface or subsurface contamination and to prevent degradation of natural or man-made water courses, impoundments, waterways, lakes, reservoirs, irrigation ditches, storm sewers, and dry stream beds. Cuttings and waste from well drilling operations shall not be discharged into a waterway, lake or reservoir.

Discharge of produced water will be allowed during development and testing provided there are no adverse impacts. Water produced during development and testing shall be discharged into a holding tank or series of tanks or basins for settling. Discharge from the tanks or basins shall pass through straw bales and/or geofabric for erosion control and further filtration. The CONTRACTOR shall provide, at their own expense, all of the tanks, hay bales, geofabric, riprap, flexible hose, PVC or other tubing, and other materials and equipment to divert and dissipate the energy of and minimize erosion from the discharged water, filter and allow for settling of the solids in the discharged water.

Control of drill cuttings, fluids, and produced water shall conform with UAC R309-515-6(6)(d), *Disposal of Cuttings*, UAC R655-4-11.6.2, *Containment of Drilling Fluids*, rules of the DWQ, and the *Utah Water Quality Act*, 19-5-107(1).

## 1.13 PROTECTION OF GROUNDWATER QUALITY

The CONTRACTOR shall (1) take all necessary precautions to prevent contamination of the water in the proposed PWS well by preventing the introduction of any foreign substance, including contaminated water, gasoline, oil, and the like and (2) conform to all laws applicable to the protection of water quality including UAC R309-515-6(6)(j), *Water Entered Into Well During Construction*, UAC R655-4-11.6.4, *Down-hole Equipment* and UAC R655-4-11.6.5, *Well Disinfection and Chlorination of Water*.

## 1.14 FINAL CLEANUP

The CONTRACTOR shall thoroughly clean the site after completion of the drilling, well construction, and development and test pumping operations. All drill cuttings, debris, and other materials used or generated during these operations shall be properly disposed of by the CONTRACTOR. The disposal of cuttings and drilling fluids shall conform with UAC R309-515-6(6)(d), *Disposal of Cuttings*, UAC R655-4-11.6.2, *Containment of Drilling Fluids* and the *Utah Water Quality Act*, 19-5-107(1).

Following all operations, the CONTRACTOR shall promptly remove their equipment, temporary facilities, and materials, smooth the work site surface, and leave the site in a condition acceptable to the OWNER. No reseeding is to be done during the final cleanup.

# 2.0 WELL PRODUCTS

In accordance with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification*, all interior surfaces that may contact well water must consist of products complying with ANSI/NSF Standard 61. This requirement applies to drop pipes, interior casing and slotted casing, well screens, coatings, adhesives, solders, fluxes, pumps, switches, electrical wire, sensors, and all other equipment or surfaces which may contact the drinking water.

All substances introduced into the proposed PWS well during construction or development shall be certified to comply with ANSI/NSF Standard 60 in accordance with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification*. This requirement applies to drilling fluids (biocides, clay thinners, defoamers, foamers, loss circulation materials, lubricants, oxygen scavengers, viscosifiers, weighting agents) and regenerants. This requirement also applies to well grouting and sealing materials which may come in direct contact with the drinking water.

CONTRACTOR shall submit to the ENGINEER Safety Data Sheets (SDSs), formerly Material Safety Data Sheets (MSDSs) for all proposed chemicals (including lost circulation materials) to be added to the borehole for approval prior to their use.

## 2.1 DRILLING FLUIDS

### 2.1.1 General

In accordance with UAC R655-4-11.6.5 *Well Disinfection and Chlorination of Water*, potable water from a source approved by the ENGINEER shall be used as a base for drilling fluids whether used alone or in combination with drilling fluid additives.

The drilling fluid shall conform with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification* and UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs.* The drilling fluid may consist of air and/or water mixed with a foaming surfactant, polymer, high-grade bentonite, or other ENGINEER-approved materials. If there should be a conflict between the drilling fluid requirements for ease of drilling and drilling fluid requirements for aquifer protection, then the ruling requirements shall be those for aquifer protection. The drilling fluid shall possess characteristics required to: (1) prevent caving as drilling progresses; (2) permit recovery of representative drill cutting samples; (3) allow for geophysical logging, if required, and (4) maintain the structural integrity of the borehole during casing and screen installation. Any contaminants or pollutants introduced into the borehole or well by the CONTRACTOR shall be removed, eliminated, or remediated from the proposed PWS well by the CONTRACTOR.

### 2.1.2 Lost Circulation

In the event of lost circulation conditions, the CONTRACTOR shall use material in accordance with UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs* [lost

circulation materials]. CONTRACTOR shall only use inert, non-organic materials to regain drilling fluid circulation that are approved by the State of Utah.

## 2.2 CASING

All casing shall be steel and be of adequate size, strength, and wall thickness to facilitate subsequent drilling and construction and must meet the requirements of UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.2.3, *Well Casing – General – Steel Casing*. All steel casing shall be in new condition that meets AWWA Standard A-100, ASTM or API standards for steel pipe and have a minimum wall thickness for the designed depth as specified in R655-4-11.2.3, *Well Casing – General – Steel Casing*. Casing joints shall be welded in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Spot welding of joints is prohibited.

Steel casing shall meet the following requirements:

| | |
|---|---|
| **Conductor Casing:** | 32-inch diameter, minimum 0.375-inch wall thickness, low carbon steel casing |
| **Production Casing:** | Nominal 20-inch diameter, 0.375-inch wall thickness, low carbon steel casing |

Casing that does not meet the above requirements must be approved by the ENGINEER prior to use as casing in the proposed well.

Prior to installing casing, CONTRACTOR shall submit to the ENGINEER delivery tickets that show that the casing meets the specifications of Section 2.2.

## 2.3 WELL SCREEN

The well screen shall be constructed of 20-inch diameter 304 stainless steel wire-wrapped well screen that meets the requirements of Section 2.2 *Casing* and UAC R309-515-6(6)(f) *Screens* and R655-4-11.7.9 *Screen*.

The screen openings shall be continuous Vee wire wrapped machine made stainless steel screens with the "V" facing inward. Slot size will be based on results of sieve analyses of cuttings samples collected by the CONTRACTOR for the ENGINEER. For preliminary bidding purposes, a continuous wrapped screen meeting this requirement is a 0.080-inch with a maximum setting depth of 1000 feet, and a collapse strength of 350 psi.

Manufacturer's literature indicates that the following product meets this specification: "*Johnson Free-Flow – Size 8P 304 Stainless Steel Screen*". Any other product must be approved by the ENGINEER for use as the well screen in the proposed well. Other products may be considered by the ENGINEER as long as the above specifications are met.

Casing "*blanks*" between sections of the proposed PWS well screen may be required by the ENGINEER and shall meet the requirements of Section 2.2. The ENGINEER will specify the arrangement of well screen and blank casing that shall make up the assembly. Centralizers, described below, shall be placed on the proposed PWS well screen. The bottom of the production casing and well screen assembly shall be sealed with a bullnose end cap.

Prior to installing the proposed PWS well screen, CONTRACTOR shall submit to the ENGINEER delivery tickets that show that the proposed PWS well screen meets the specifications of Section 2.3.

## 2.4 CENTRALIZERS

Centralizers are not expected to be installed on the proposed well. If centralizers are used, they shall be installed as directed by the ENGINEER. Centralizers shall consist of the same material as the casing or well screen that the centralizers are attached to. Centralizers shall be placed at intervals of 60 feet or less. Centralizers manufactured to fit the casing may be used. Other types of centralizers may be utilized if the ENGINEER approves the method and materials in advance.

## 2.5 FILTER PACK

Filter pack (also called gravel pack) size and gradation will be determined by the ENGINEER following evaluation of sieve (gradation) analyses of formation lithologic samples from the borehole.

Filter pack material shall be sand and a product of commercial sand and gravel supplier. It shall (1) be properly sized and graded, (2) be composed of rounded, clean, smooth and uniform, 95 percent siliceous material, (3) no more than 5 percent acid solubility, (4) be free of flat or elongated pieces, organic matter, or other foreign matter, and (5) meet the requirements of AWWA specification B-100 for Granular Filter Material. The filter pack material shall conform to UAC R309-515-6(6)(k), *Filter pack Wells*, and UAC R655-4-11.5.2, *Filter pack or Filter Material*.

Prior to installing the filter pack, the CONTRACTOR shall submit to the ENGINEER the results of a gradation (sieve) analysis of a representative sample of the material that is shipped to the proposed PWS well site to confirm that the selected material is of appropriate size and gradation.
The filter pack material shall be (1) thoroughly sterilized with 100 parts per million (ppm) chlorine or hypochlorite solution immediately before being installed in the borehole or (2) dry chlorine should be mixed with the filter pack at the surface before it is installed in the borehole.

## 2.6 GROUT AND SEAL MATERIAL

Grout and seal material shall meet the requirements of UAC R655-4-2 *Definitions*, and UAC R655-4-11.4.2 *Seal Material*. Grout and seal material shall conform to the following specifications.

### 2.6.1 Bentonite Plugs

The bentonite plug, intended to keep grout from entering the filter pack and sealing the pitless adaptor seal interval, shall consist of coated sodium montmorillonite pellets or unhydrated bentonite. The bentonite shall be furnished in sacks or buckets from a commercial source and shall be free of impurities that adversely impact the water quality. Pellet size shall be 1/4 to 3/8-inch. The pellet coating should be such that it retards the swelling of the pellets for a minimum period of about 60 minutes.

### 2.6.2 Unhydrated Bentonite

Dry bentonite consisting primarily of granules, tablets, pellets, or chips that may be placed in a well or borehole in the dry state and hydrated in place by either formation water or by the addition of potable water into the proposed PWS well or borehole containing the dry bentonite. Unhydrated bentonite shall be used for sealing the pitless adapter seal interval and can be used for other seals and the abandonment of wells.

### 2.6.3 Neat Cement Grout

Cement (Types I, II, III, V, high alumina, or a combination thereof) conforming to the ASTM Standard C150 (standard specification of Portland cement), with no more than six (6) gallons of water per 94-pound sack (1 cubic foot) of sufficient weight density of not less than 15 pounds per gallon (lbs/gal). Once cubic yard of neat cement grout contains 1993 pounds of Portland cement and not more than 127 gallons of clean water. Bentonite, controlled density fill (CDF), or fly ash shall not be added to neat cement grout unless State Engineer approval is received.

### 2.6.4 Sand Cement Grout

A grout consisting of equal parts by volume of cement conforming to ASTM Standard C150 and clean sand/aggregate with no more than six (6) gallons of water per 94-pound sack (one cubic foot) of cement. Sand cement grout may be used for annular openings of larger than 2-inches.

## 2.7 DISPERSANTS

Dispersants shall be utilized during well development to break down drilling fluids and to remove sediment from the filter pack. Dispersants shall conform with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification* and UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs.* Use of dispersing agents shall conform to UAC R309-515-6(7)(c), *Well Development* and the manufacturer's instructions for mixing, application, and disposal.

Manufacturer's literature indicates that the following products meet the specifications for dispersants:

- "*Johnson Screens NuWell 220 Dispersant Polymer*" and
- *"Bariod Aqua-Clear RFD Polymer Dispersant".*

### 2.8 WELL CAP

Upon completion of well construction and testing, the top of the proposed PWS well casing shall be equipped with a water-tight, tamper-resistant, locking steel casing cap in accordance with UAC R655-4-11.7.3 *Completion or Abandonment,* R655-4-14.1 *Temporary Abandonment* and R309-515-6(8) *Capping Requirements*. The proposed PWS well cap shall have an access port to permit installation of a well sounder probe. The access port shall be a minimum of 1-inch diameter and have a watertight plug. The temporary well cap will be removed and replaced for installation of the permanent pump later under separate specifications.

## 3.0 EXECUTION

Figure 4 presents the preliminary design for the proposed PWS well. The ENGINEER will specify to the CONTRACTOR the total drilling depth and the final well design including placement of well casing, perforations, cement grout well seal, and any other materials used to construct the proposed PWS well.

### 3.1 MOBILIZATION AND DEMOBILIZATION

Upon receiving the "*Notice to Proceed*", the CONTRACTOR shall notify the DWRi in accordance with UAC R655-4-4.2, *Start Cards.* The CONTRACTOR shall then move in all tools, equipment, and supplies necessary for the WORK and upon completion of the WORK, shall remove all such items from the premises promptly and leave the site in a clean, smoothed, and orderly condition. Site preparation and restoration shall be the responsibility of the CONTRACTOR.

### 3.2 BOREHOLE DRILLING - GENERAL

The CONTRACTOR shall collect representative formation samples as directed by the ENGINEER, at a minimum of 5-foot intervals and at major geologic formation changes. Each sample shall be stored in insect- and mildew-proof oil-well-sand sample bags. Plastic bags will not be accepted. Each sample bag shall be labeled with the proposed PWS well name, depth interval, date, and time of collection. Sample bags containing the drill cuttings shall be stored in order and in an area at the proposed PWS well site that is covered. The drill cuttings samples shall not be directly exposed to precipitation. Chip trays for drill cutting samples shall be made available to the ENGINEER.

The CONTRACTOR shall maintain a daily drilling log of the proposed PWS well. Information that shall be listed on the drilling log includes: (1) any drilling fluids and additives, including quantity of materials used; (2) any drilling fluid properties, including weight, viscosity, and sand content; (3) type and diameter of bits used for drilling and total footage for each bit; (4) any remarks or comments concerning the drilling characteristics of the borehole(s); (5) description of formation materials encountered during drilling, and (6) any remarks or comments regarding water encountered in the borehole(s). The CONTRACTOR shall keep the forms at the site for inspection by the ENGINEER or OWNER.

The CONTRACTOR shall complete and file a Well Driller's Report with the DWRi as required by UAC R655-4-4.5, *Official Well Drillers Report* (well log). Copies of all logs and forms shall be furnished to the ENGINEER following completion of all operations.

The CONTRACTOR shall drill and construct the production well sufficiently straight and plumb to meet the requirements stated in Section 3.16.

The CONTRACTOR shall manage drilling fluids and produced water and shall protect groundwater quality and the waters of the State, as specified in Section 1.12.

## 3.3 LOST CIRCULATION

In the event of lost circulation conditions, the CONTRACTOR shall contact the ENGINEER prior to the use of lost circulation materials. Use of lost circulation materials shall conform to the requirements of UAC R655-11.6.1, *Protection of Aquifer – Drilling Fluids and LCMs*.

## 3.4 CONDUCTOR CASING

The CONTRACTOR shall drill for, install, and grout in place minimum 32-inch diameter steel conductor casing. The CONTRACTOR shall drill a borehole for the conductor casing that is at least 4 inches in diameter larger than the outside diameter of the conductor casing. Drilling shall conform to the specifications provided in Section 3.2.

The casing shall be lowered into the borehole by a method which will always allow for the control of the rate of fall of the casing into the borehole. The casing shall not be dropped or allowed to fall uncontrolled into the borehole.

Individual lengths of casing shall be joined by welding in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Welding of the proposed PWS well casing shall be performed by properly qualified persons. Conductor casing shall conform to the specifications provided in Section 2.2, UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.3.2, *Steel Casing*. The conductor casing shall be unperforated in accordance with R655-4-11.5.5, *Permanent Conductor Casing Used.*

Centralizers shall be installed as directed by the ENGINEER.

The CONTRACTOR shall measure and record the lengths of each section of casing in the order of installation in the borehole for submittal to the ENGINEER.

The conductor casing shall be suspended in the borehole and cemented in place in accordance with the specifications provided in Section 3.16.

## 3.5 PRODUCTION BOREHOLE

The CONTRACTOR shall drill a 28-inch diameter production borehole to total depth (estimated to be 1210 feet), maintain a drilling log, and collect representative formation

samples. The ENGINEER shall determine the exact drill depth based on the lithology and other information collected from the borehole. Drilling shall conform to the specifications provided in Section 3.2.

## 3.7 GEOPHYSICAL LOGGING

If directed by the ENGINEER, the CONTRACTOR shall perform or subcontract the geophysical logging of the entire production borehole. Two printed copies plus an electronic copy (USB flash drive with data files of logs and pdf file of logs) shall be provided in the field at the conclusion of the logging runs. Geophysical logging shall be completed in accordance with accepted industry standards.

The following geophysical logs shall be run:

- Spontaneous-potential
- Short and long normal electrical resistance (16- and 64-inch spacing)
- Single point resistivity
- Natural-gamma
- 3-arm caliper
- Temperature
- Deviation (gyroscopic)
- Neutron-density (if requested by the ENGINEER)

## 3.8 RECEIPT OF FINAL WELL DESIGN

At the conclusion of geophysical logging, the ENGINEER shall have 72 hours to submit the final well design to the CONTRACTOR under which no standby time or rig time rates shall apply. In the final well design, the ENGINEER shall specify the total drill depth, filter pack gradation and well screen slot size, placement intervals of the production casing, well screen, filter pack, bentonite seals and cement grout seals. The ENGINEER may modify the design if new information becomes available.

## 3.9 PRODUCTION CASING AND WELL SCREEN

Individual lengths of casing shall be joined by welding in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Welding of the proposed PWS well casing shall be performed by properly qualified persons. Production casing shall conform to the specifications provided in Section 2.2, UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.3.2, *Steel Casing*. The proposed PWS well screen shall conform with the specifications provided in Section 2.3, UAC R309-515-6(6)(f) *Screens* and R655-4-11.7.9 *Screen*.

The bottom of the production casing and well screen assembly shall be sealed with a bullnose end cap.

Centralizers shall be installed on the production casing and well screen. Centralizers shall be placed at intervals of 60 feet or less.

The production casing and screen assembly shall be lowered into the borehole by a method which will always allow for control of the rate of fall of the assembly. The assembly shall not be dropped or allowed to fall uncontrolled into the borehole.

The production casing and well screen assembly shall be always suspended in the borehole during installation and shall not be supported from the bottom of the borehole at any time.

The CONTRACTOR shall measure and record the lengths of each section of casing and well screen in the order of installation in the borehole for submittal to the ENGINEER.

## 3.10 FILTER PACK

The filter pack shall extend from the bottom of the borehole upward to a depth determined by the ENGINEER, which shall be to a depth of about 120 feet below ground surface. The production casing and well screen assembly shall be suspended in the borehole while the filter packed is installed. The production casing and well screen assembly shall not be supported from the bottom of the borehole at any time during filter pack installation.

The filter pack shall be installed in accordance with AWWA Standard A100-15, *Water Wells*, Appendix B. Other installation methods may be considered by the ENGINEER as long as the filter pack shall is placed in one uniform continuous operation using a method that through common usage has been shown to minimize (1) bridging of the material between the borehole and the casing, and (2) excessive segregation of the material after it has been introduced into the annulus and before it settles in place from bottom to top.

The filter pack material shall be (1) thoroughly sterilized with 100 parts per million (ppm) chlorine or hypochlorite solution immediately before being installed in the borehole or (2) dry chlorine should be mixed with the filter pack at the surface before it is installed in the borehole.

The filter pack material shall conform to the specifications provided in Section 2.5, UAC R309-515-6(6)(k), *Filter pack Wells*, and UAC R655-4-11.5.2, *Filter pack or Filter Material*. Installation of filter pack material shall conform to UAC R309-515-6(6)(k), *Filter pack Wells*, and UAC R655-4-11.5.3, *Placement of Filter Material*.

No permanent gravel feed pipes shall be installed in the proposed PWS well or borehole.

## 3.11 WELL DEVELOPMENT WITH DRILL RIG

The proposed PWS well shall be initially developed with the drill rig to remove residual drilling fluids from the proposed PWS well and borehole. The proposed PWS well shall

be developed by airlifting, swabbing, surging, and/or bailing, as required by the ENGINEER. This development may also include hydraulic jetting and flushing. The CONTRACTOR shall have a reasonably close-fitting swab tool or bailer with sufficient line to reach the total depth of the proposed PWS well. The CONTRACTOR shall have a compressor capable of airlifting from the bottom of the borehole and shall also have sufficient tubing of adequate diameter to reach the total depth of the proposed PWS well. It is anticipated that air-lift development will take place in a staged manner throughout the lower portion of the proposed PWS well and thus may include considerable addition and subtraction of pipe.

If requested by the ENGINEER, a dispersing agent shall be utilized to break down residual drilling fluid in the borehole and formation. Dispersing agents shall conform to the specifications provided in Section 2.7 and use of dispersing agents shall conform to UAC R309-515-6(7)(c), *Well Development* and the manufacturer's instructions for mixing, application, and disposal. Blasting procedures shall be prohibited during well development. Well development shall conform to the requirements of UAC R309-515-6(7), *Well Development*.

Development shall continue until the water produced from the proposed PWS well is clear to the unaided eye, is reasonably sand-free and all materials pulled into the proposed PWS well by the development process have been removed and until the maximum specific capacity is obtained from the proposed PWS well in accordance with UAC R309-515-6(7), *Well Development*. The ENGINEER shall determine when development is complete.

All drill cuttings, drilling fluids and produced water shall be managed and disposed of in accordance with Section 1.12. Costs for management and disposal of drill cuttings, drilling fluids and produced water shall be borne by the CONTRACTOR.

### 3.12 WELL DEVELOPMENT WITH DUAL-SWAB RIG

The proposed PWS well screen shall be extensively developed with a dual-swab cable tool rig. The CONTRACTOR shall mobilize the dual-swab cable tool rig to the WORK site within 21 days after completion of development with the drill rig.

The CONTRACTOR shall have a reasonably close-fitting dual-swab tool with sufficient line to reach the total depth of the proposed PWS well. The dual-swab tool shall be minimum 10 feet in length and be equipped with a submersible pump with a minimum capacity of 200 gpm. The CONTRACTOR shall have sufficient pump column (tubing) of adequate diameter to reach the total depth of the proposed PWS well and have sufficient electrical wire to reach the bottom of the proposed PWS well.

Dual-swab development shall continue until the water produced from each swab zone in the proposed PWS well is clear with a sand content of 50 parts per million (ppm) or less as measured with a Rossum sand tester, or as specified by the ENGINEER. Development shall continue until maximum specific capacity is obtained from the

proposed PWS well in accordance with UAC R309-515-6(7), *Well Development*. The ENGINEER shall determine when dual-swab development is complete.

The CONTRACTOR shall measure and record the following during dual-swab development for submittal to the ENGINEER:

- Dual-swab development interval (measured in feet below ground surface);
- Pumping rate; and
- Sand content as measured with a Rossum sand tester at each dual-swab development interval at the end of each development period.

As required by the ENGINEER, filter pack shall be installed in the borehole as it settles during dual-swab development operations. The filter pack shall be installed up to a depth specified by the ENGINNER. Filter pack installation shall be in accordance with Section 3.10.

All drill cuttings, drilling fluids and produced water shall be managed and disposed of in accordance with Section 1.12. Costs for management and disposal of drill cuttings, drilling fluids and produced water shall be borne by the CONTRACTOR.

## 3.13 BENTONITE PLUG

In accordance with UAC R309-515-6(6)(k)(v), *Filter pack Wells,* after the production casing, well screen, and filter pack have been installed in the borehole, and the proposed PWS well developed with the drill rig, the annular space above the filter pack shall be sealed using unhydrated bentonite pellets. The plug shall be a minimum of 10 feet in thickness. The bentonite pellets shall be placed on top of the filter pack in a manner that prevents bridging of the bentonite in the annulus. The depth to the top of the bentonite plug shall be directly measured and recorded immediately after placement, without allowance for swelling. A minimum of 60 minutes should be allowed for the bentonite plug to hydrate and form a low permeability seal before grout is placed in the annular space above the bentonite plug. The bentonite plug shall conform to the specifications provided in Section 2.6.

## 3.14 CERTIFIED CEMENT GROUT WELL SEAL

The CONTRACTOR shall install a certified cement grout well seal that meets the requirements of UAC R309-515-6(6)(i), *Well Sealing Techniques and Requirements* and R655-4-11.4, *Surface Seals and Interval Seals*. The cement grout well seal shall be installed around any permanent conductor or conductor casing (if installed) and the production casing and extend to a depth determined by the ENGINEER which shall be a minimum depth of 110 feet below ground surface.

The cement grout surface seal(s) shall be installed by pressure circulation of cement grout from bottom to top in accordance with UAC R309-515-6(6)(i)(iii)(A), *Application*. The cement grout shall conform to the specifications provided in Section 2.6.

To accommodate a pitless adaptor unit, the cement grout shall extend up to a depth determined by the ENGINEER, but the cement grout shall not be allowed within the pitless unit sealing interval in accordance with UAC R655-4.11.7.5, *Pitless Adapters/Units*. The pitless adaptor sealing interval shall be sealed with unhydrated bentonite. The unhydrated bentonite shall conform to the specifications provided in Section 2.6.

The grouting procedure(s) shall be witnessed and certified by an engineer or geologist from the DDW, or the appropriate district engineer of the DEQ, or an authorized representative of the DWRi (also known as the State Engineer's Office), or an individual having authorization from the Executive Secretary of the Utah Drinking Water Board, in accordance with UAC R309-515-6(5)(b)(i), *Authorized Individuals*. The CONTRACTOR shall request that the authorized grout witness inspector present a copy of the letter that authorizes the inspector to witness a well sealing on behalf of the DDW, in accordance with UAC R309-515-6(5)(b)(i), *Authorized Individuals*. The CONTRACTOR shall provide a copy of the grout seal certificate to the ENGINEER.

Installation of the cement grout seal shall conform to the requirements of UAC R309-515-6(5)(b), *Grouting Inspection during Well Construction*, UAC R309-515-6(6)(i), *Well Sealing Techniques and Requirements*, UAC R655-4-11.4, *Surface Seals and Interval Seals*, R655-4-11.7.1, *Special Requirements - Explosives* and R655-4-12.1.2, and R655-4-12.1.2, *Public Water Supply Wells*. The cement grout shall be allowed to cure a minimum of 72 hours before well drilling, construction, or testing may be resumed as outlined in UAC R309-515-6(6)(i)(iii)(E), *Surface Seals and Interval Seals*.

## 3.15 DEVELOPMENT AND TEST PUMPING

As required by the ENGINEER, following well development with the drill rig, the proposed PWS well shall be further developed by pumping and backwashing prior to performing the aquifer pumping tests.

Prior to the start of test pumping, the aquifer shall be allowed to recover for a period of at least 12 hours, or as determined by the ENGINEER. The CONTRACTOR, with assistance from the ENGINEER, shall: (1) conduct a step-test lasting up to about 10 hours, which will consist of pumping the proposed PWS well at various rates; (2) allow the proposed PWS well to recover overnight or for an adequate period of time as determined by the ENGINEER; and (3) conduct a constant-rate pumping test lasting a minimum of 24 hours. Pumping test procedures shall conform to UAC 309-515-6(10), *Well Assessment*.

The test pump shall be capable of delivering up to about 3000 gpm with a minimum total dynamic head of 800 feet below ground level. The CONTRACTOR shall provide to the ENGINEER the pump curve for the test pump prior to installation of the test pump.

The CONTRACTOR shall furnish and install all necessary equipment for development and test pumping, including the following:

- Test pump and drop pipe (pump column).

- Valve system to control flow.
- Smooth nosed sampling tap to collect water samples from discharge piping.
- Rossum sand tester.
- Totalizing meter with instantaneous flow rate indicator and/or an orifice weir for accurately measuring the discharge from the proposed PWS well.
- 0.75-inch inside diameter tube (installed to within 10 feet of the pump) for measuring water levels during the pumping test.
- Pressure transducer (with a data logger) acceptable to the ENGINEER that is rated at a minimum of 200 psi and capable of measuring water levels from a depth of 800 feet. The pressure transducer shall be strapped to the entire length of the drop pipe or installed in a dedicated drop tube. The transducer shall be set to record water levels every minute during the step-rate and constant-rate pumping and recovery periods.
- Piping to discharge point and necessary materials to manage produced water in accordance with Section 1.12.

During the step-rate-test, the proposed PWS well shall be pumped at rates that range from about 1000 to 3000 gpm, as directed by the ENGINEER; each step shall be of a uniform duration ranging up to about 120 minutes each, and rates shall be held constant during each step. During the constant-rate test, the pumping rate shall be held constant at a rate specified by the ENGINEER after completion of the step-rate test.

The CONTRACTOR shall measure water levels "*by hand*" (in feet to nearest tenth and from the same datum throughout aquifer testing) using a battery powered water level sounder. The CONTRACTOR shall measure:

- The water level prior to starting the step-rate test;
- During the step-rate test, water level during each step at 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, and 60 minutes after start of each pumping step;
- The water level prior to starting the constant-rate test;
- During the constant-rate test, the water level during pumping at 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, and 60 minutes after start of pumping, and every 30 minutes thereafter; and
- Water level during recovery at 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, and 60 minutes after ceasing to pump, and every 30 minutes thereafter. Continue recovery water level measurements for minimum of 12 hours following cessation of pumping, or until there are no changes in depth to water for at least six hours.

The CONTRACTOR shall also record the following information during the pumping tests:

- The depth of the test pump intake;

- The time and date of starting and ending of pumping tests and recovery periods; and
- The actual pumping rate.

During the step-rate and constant rate pumping periods, the CONTRACTOR shall have a person assigned full-time to keeping the rate constant during first 30 minutes of pumping, then at least every 30 minutes thereafter. The CONTRACTOR shall measure and record the pumping rate at least every 30 minutes, even if the rate is constant; record fluctuations in pumping rate; record when adjustments are made to valves that control the pumping rate.

The CONTRACTOR shall be responsible for providing power for the test pump. The CONTRACTOR shall provide a means for safe refueling during pumping operations to prevent even brief shutdowns. Power shutdowns before the end of the testing procedure will require the CONTRACTOR to allow the water level to recover to pre-pumping conditions and initiate the test again.

CONTRACTOR shall have at least one person at all times during the pumping test to operate the pump, power supply, monitor and control the pumping rate, and to make and record frequent water level and flow rate measurements.

If required by the ENGINEER, the CONTRACTOR shall monitor and record specific conductance, temperature, turbidity and sand content during the step-rate and constant-rate pumping tests. Measurements shall be performed at about one-hour intervals while pumping.

If requested by the ENGINEER, the CONTRACTOR shall aid the ENGINEER in collecting water samples for submittal to an approved analytical laboratory within analytical hold-times (generally the same day as the sample is collected and several hours before the laboratory closes for the day).

After the constant rate test is completed, CONTRACTOR shall not disinfect the proposed PWS well or remove the pump for a minimum period of 24 hours while water level recovery measurements are being made.

All drill cuttings, drilling fluids and produced water shall be managed and disposed of in accordance with Section 1.12.

### 3.16 PLUMBNESS AND ALIGNMENT

The CONTRACTOR shall construct the proposed PWS well sufficiently straight and plumb to permit free installation of the production casing and well screen assembly, filter pack, bentonite plug, grout, test pump, production pump, and as specified below. It shall be the responsibility of the CONTRACTOR to see that the proposed PWS well is being constructed straight and plumb within these limits at all times.

The CONTRACTOR shall test the proposed PWS well for plumbness and alignment in accordance with the requirements of UAC R309-515-6(6)(g) and in accordance with AWWA Standard A100-15, Water Wells, Appendix D.

**Plumbness Tolerance**. The maximum allowable horizontal deviation of the production borehole and casing from the vertical shall not exceed 1.75 feet per 100 feet of depth.

**Alignment Tolerance**. The alignment of the proposed PWS well shall be deemed acceptable if the test pump and production pump can be freely installed and operated in the production casing.

If the proposed PWS well fails to meet the above plumbness and alignment tolerances, the proposed PWS well may be accepted at the sole discretion of the ENGINEER if, in their judgment, the proposed PWS well is still suitable for its intended use and that misalignment does not interfere with the installation or operation of the pump or uniform placement of filter pack or grout.

If the proposed PWS well is of unacceptable plumbness and alignment, the CONTRACTOR shall undertake remedial measures. Any alignment work required by the CONTRACTOR in redrilling or straightening the proposed PWS well shall be at their sole expense. If the proposed PWS well is deemed unacceptable following remedial measures, then the proposed PWS well shall be abandoned in accordance with Section 3.20 at the CONTRACTOR's expense. All costs incurred for construction of the abandoned well shall be applied to construction of the replacement well.

## 3.17 DOWNHOLE VIDEO CAMERA INSPECTION

If so directed by the ENGINEER, the CONTRACTOR shall use a downhole video camera to inspect the casing and screen and to observe the condition of the proposed PWS well. The video camera shall have both downward and side viewing capability. The video log shall be made in color, shall record and show the depth of the camera at all times during logging and shall be of sufficient quality that is acceptable to the ENGINEER. The CONTRACTOR shall provide one copy of the completed video log to the ENGINEER on a DVD or USB flash drive.

## 3.18 WELL DISINFECTION

Following the pumping test and recovery period (a minimum of 24 hours following the completion of the constant rate pumping test) and prior to demobilizing from the site, the proposed PWS well shall be disinfected in accordance with UAC R309-515-6(11) *Well Disinfection* and UAC R655-4-11.6.5 *Well Disinfection and Chlorination of Water*, using a solution of high-test sodium hypochlorite sufficient to establish a concentration of 100 parts per million (ppm) chlorine residual throughout the proposed PWS well.

The sodium hypochlorite shall be delivered to the site in original closed containers bearing the original label indicating the percentage of available chlorine and date of manufacture. The sodium hypochlorite shall not be more than 2 weeks old.

The CONTRACTOR shall prepare the disinfectant by mixing a concentrated solution of hypochlorite and water in suitable tanks. Unlined steel tanks shall not be used for mixing. The CONTRACTOR shall provide suitable transfer pumps and agitators necessary to accurately prepare the chemicals.

After adding the disinfectant to the proposed PWS well, the test pump in the proposed PWS well should be used to recirculate the water such that the pumped water is returned to the proposed PWS well and allowed to wet the portion of the casing above the water level in the proposed PWS well. After recirculation of the chlorinated well water, the CONTRACTOR shall allow 24 hours of contact time for disinfection prior to collecting coliform samples, if additional coliform samples are required. The disinfection process shall be repeated until water quality samples test negative for the presence of coliform bacteria.

Other well disinfection procedures may be approved by the ENGINEER, as long as they conform to UAC R309-515-6(11) *Well Disinfection* and UAC R655-4-11.6.5 *Well Disinfection and Chlorination of Water*.

The CONTRACTOR shall not demobilize from the work site until water quality samples test negative for the presence of coliform bacteria, unless approved by the ENGINEER.

## 3.19 WELL CAP CONSTRUCTION

The CONTRACTOR shall extend the steel conductor casing a minimum of 18 inches above the ground surface and install a water-tight locking security cover after all WORK associated with well construction, development, and testing is complete. Wellhead construction shall conform to the requirements of UAC R309-515-6(6)(b) *Permanent Steel Casing Pipe*, R309-515-6(8) *Capping Requirements*, R655-4-11.7.3 *Completion or Abandonment*, and R655-4-14.1 *Temporary Abandonment*. All exposed above-ground metal shall be painted with a brightly-colored rust-resistant paint.

No casing vents shall be installed on the proposed PWS well head.

## 3.20 PLUGGING AND ABANDONMENT

If so directed by the ENGINEER, the borehole shall be plugged and abandoned, or in the event that the CONTRACTOR fails to complete the proposed PWS well to the designed depth, or because of loss of their tools or equipment downhole, failure to meet plumbness and alignment requirements, or for any other cause related to deficiencies in their equipment or performance, the CONTRACTOR shall plug and abandon the proposed PWS well/borehole in accordance with UAC R309-515-6(9) *Well Abandonment* and R655-4-14 *Abandonment of Wells* or as approved by the DWRi. The CONTRACTOR shall remove as much casing as can be salvaged. All salvaged materials furnished by the CONTRACTOR shall remain their property.

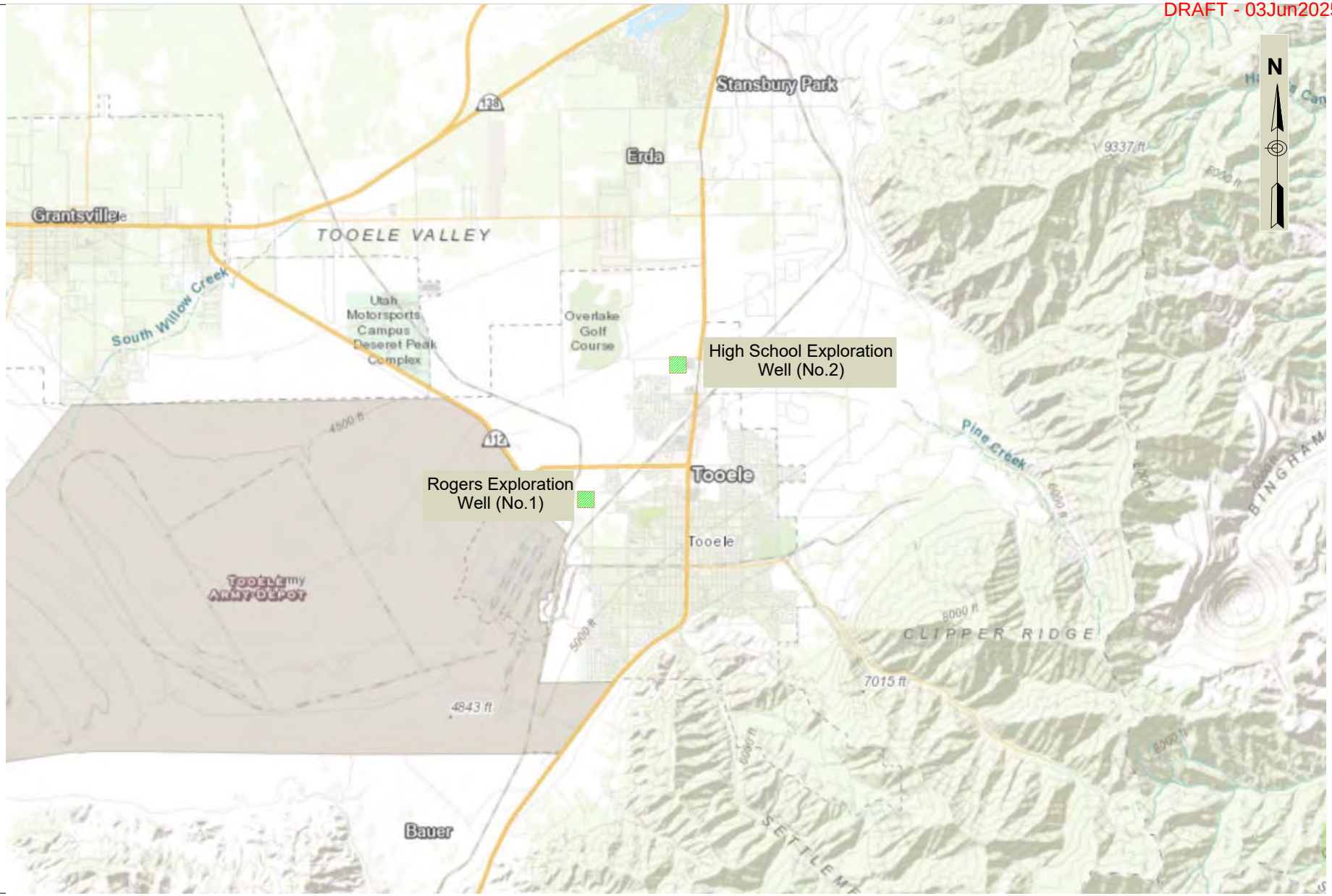
## 3.21 SUBMITTALS

The CONTRACTOR shall submit documentation to the ENGINEER that shall include, but is not limited to, the following:

| Submittal | Section Reference | When Due |
|---|---|---|
| Drilling fluid and water discharge plan | 1.12 | Prior to the start of the WORK |
| SDS sheets | 2.0 | For approval prior to using chemicals |
| Well casing delivery tickets | 2.2 | Prior to installation |
| Well screen delivery tickets | 2.3 | Prior to installation |
| Filter pack gradation (sieve) analysis | 2.5 | Prior to installation |
| Driller's daily reports | 3.2 | Following each day of work |
| Well Driller's Report | 3.2 | Within 30 days of well completion |
| Geophysical logs | 3.7 | At the conclusion of logging |
| Well seal certification | 3.14 | Within 30 days of well completion |
| Pump curve for test pump | 3.15 | Prior to installation |
| Pumping test data | 3.15 | Immediately following pumping test |
| Plumbness and alignment data and results | 3.16 | Prior to well disinfection |
| Down-hole video log | 3.17 | At the conclusion of video logging |

## FIGURES

DRAFT - 03Jun2025




Reference: Division of Water Rights Mapping Database 2025

LOUGHLIN WATER ASSOCIATES LLC

0 1.0 2.0

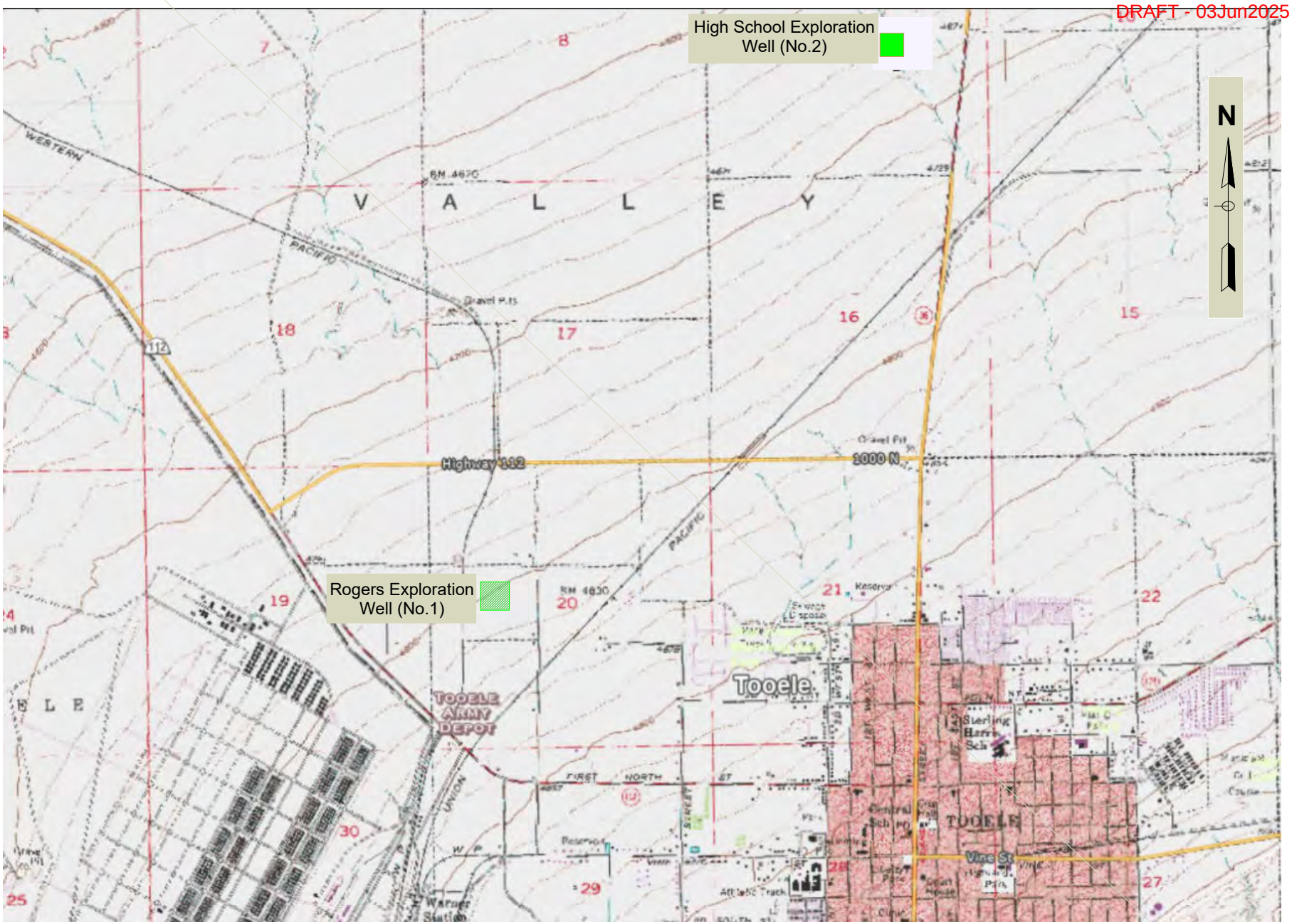
Approximate Scale in Miles

Tooele City

Regional Map

Figure 1

DRAFT - 03Jun2025




Reference: Division of Water Rights Mapping Database 2025

LOUGHLIN WATER ASSOCIATES ▲ LLC

0 1/4 1/2

Approximate Scale in Miles

Tooele City

Topographic Map

Figure 2

DRAFT - 03Jun2025

LOUGHLIN WATER ASSOCIATES LLC

0 1/4 1/2

Approximate Scale in Miles

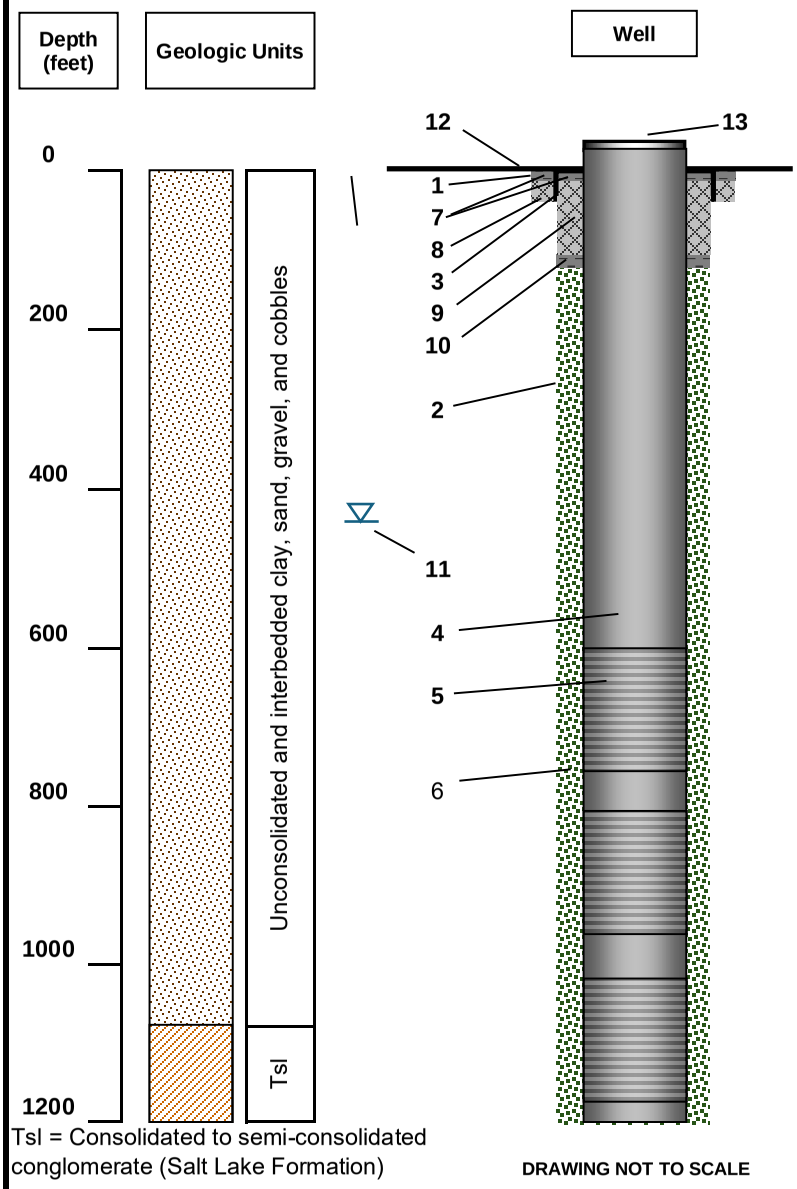
Red Del Papa Well #18 (WIN 443468)

See Appendix A for Drillers Logs

Tooele City

Tooele City Wells

Figure 3




Tsl = Consolidated to semi-consolidated conglomerate (Salt Lake Formation)

DRAWING NOT TO SCALE

Explanation

**Borehole Diameters**

1 - Minimum 40-inch diameter borehole (0 to 0 feet).

2 - 28-inch diameter borehole (40 to 1210 feet).

**Blank Casing**

3 - 32-inch diameter, minimum 0.375-inch wall thickness, low carbon steel conductor casing (0 to 40 feet).

4 - 20-inch diameter, minimum 0.375-inch wall thickness, low carbon steel production blank casing with a bull nose end cap (700 feet total) interspersed with well screen below about 600 feet.

**Well Screen**

5 - 20-inch diameter, 0.080-inch slotted stainless steel wire wrap well screen (500 feet total) interspersed with blank casing below about 600 feet).

**Filter Pack**

6 - Filter pack; gradation to be determined (120 to 1210 feet).

**Well Seals**

7 - Pitless adaptor seal interval shall be sealed with unhydrated benonite (0 to 10 feet).

8 - Certified cement grout well seal around conductor casing (10 to 40 feet).

9 - Certified cement grout well seal around production casing (10 to 110 feet).

10 - Bentonite plug (110 to 120 feet).

**Static Water Level**

11 - Static water level expected to be within about 440 to 490 feet below the ground surface.

12 - Ground elevation approximately 4660 to 4800 feet.

**Other**

13 - Well head shall extend at least 18 inches above ground surface and have locking well cap.

Notes:

1. Preliminary well design by William D. Loughlin, P.G.
2. Subsurface conditions at well site are uncertain.
3. All work shall be in accordance with: (1) Utah Division of Water Rights UAC R655-4 Rules for Water Wells; (2) Utah Division of Drinking Water UAC Rule R309-515 Source Development Rule, Ground Water - Wells; (3) Utah Division of Water Quality, Utah Water Quality Act, 19-5-107(1); and (4) the Technical Specifications.
4. ENGINEER will specify the total drilling depth and the final well design including gravel pack gradation and well screen slot size, placement of well casing, screen, gravel pack, cement grout well seal, and any other materials used to construct the well.

LOUGHLIN WATER ASSOCIATES, LLC

# Tooele City
# Preliminary Design
# Proposed PWS Well
# Figure 4

# APPENDIX A

# WELL DRILLER REPORTS

Berra Well #1 DRAFT 08/04/2020

# WELL DRILLER'S REPORT
## State of Utah
## Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Non-Production Well: 1915001M00 WIN: 443466

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2410 E 120 from the S4 corner of section 16, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 10/27/2019 Completion Date: 10/7/2020

Check all that apply: [X] New [ ] Repair [ ] Deepen [ ] Clean [ ] Replace [ ] Public Nature of Use: MUNICIPAL

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0 | 40 | 40 | AUGER | GEL / POLYMER |
| 0 | 912 | 14 3/4 | REVERSE CIRCULATION | GEL / POLYMER |
| 0 | 861 | 28 | REVERSE CIRCULATION | GEL / POLYMER |
| | | | | |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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RECEIVED
NOV 03 2020 LI
WATER RIGHTS
SALT LAKE

**Static Water Level**

SCANNED LP

Date 10/5/2020 Water Level 418.28 feet Flowing? [ ] Yes [X] No
Method of Water Level Measurement TRANSDUCER If Flowing, Capped Pressure N/A PSI
Point to Which Water Level Measurement was Referenced TOP OF CASING Elevation UNKNOWN
Height of Water Level reference point above ground surface 3.6 feet Temperature 15.93 degrees [X] C [ ] F

Well Log

## Construction Information

Bena Well DRAFT WCR2020-003966

| DEPTH (feet) FROM | TO | CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) |
|---|---|---|---|---|
| 0 | 40 | A-53 GRADE B | .375 | 32' |
| +3 | 525 | A-53 GRADE B | .375 | 20 |
| 580 | 600 | A-53 GRADE B | .375 | 20 |
| 660 | 670 | A-53 GRADE B | .375 | 20 |
| 740 | 760 | A-53 GRADE B | .375 | 20 |

| DEPTH (feet) FROM | TO | ☑ SCREEN ☐ PERFORATIONS ☐ OPEN BOTTOM<br>SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|
| 525 | 580 | .080 | 20 | SS WIRE WRAP |
| 600 | 660 | .080 | 20 | SS WIRE WRAP |
| 670 | 740 | .080 | 20 | SS WIRE WRAP |
| 760 | 850 | .080 | 20 | SS WIRE WRAP |

Well Head Configuration: DOUGHNUT BETWEEN CASINGS Access Port Provided? ☒ Yes ☐ No

Casing Joint Type: WELDED Perforator Used: N/A

Was a Surface Seal Installed? ☒ Yes ☐ No Depth of Surface Seal: 40' feet Drive Shoe? ☐ Yes ☒ No

Surface Seal Material Placement Method: PUMPED VIA TREMMIE

Was a temporary surface casing used? ☐ Yes ☒ No If yes, depth of casing: N/A feet diameter: N/A inches

| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION<br>SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 0 | 40 | 50/50 SAND CEMENT SLURRY | 7 YDS$^3$ | 17/GAL 15 BAG 5GAL/SACK |
| 0 | 110 | 50/50 SAND CEMENT SLURRY | 18 YDS$^3$ | 17/GAL 15 BAG 5GAL/SACK |
| 110 | 661 | SRI SUPREME 6X9 | 67 YDS$^3$ | N/A |
| | | | | |
| | | | | |
| | | | | |

## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | Units Check One CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| 9/12/20 | DUAL SWAB AIRLIFT | 350 | X | | UNKNOWN | 123 |
| | DUAL SWAB PUMP | 200 | X | | UNKNOWN | 200 |
| | TEST PUMP/SURGE | 2010 | X | | 98' | 117 |

## Pump (Permanent)

Pump Description: Horsepower: Pump Intake Depth: feet

Approximate Maximum Pumping Rate: Well Disinfected upon Completion? ☐ Yes ☐ No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name HYDRO RESOURCES WEST, INC. License No. 815

(Person, Firm, or Corporation - Print or Type)

Signature (Licensed Well Driller) Date 10/27/2020

Berra Well DRAFT 02/04/2006

# WELL DRILLER'S REPORT ADDTIONAL DATA FORM

## State of Utah
## Division of Water Rights



**Well Identification**

Non-Production Well: 1915001M00

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: _____

**Well Location** *Note any changes*

N 2410 E 120 from the S4 corner of section 16, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |

## Construction Information (con't)

| DEPTH (feet) FROM | DEPTH (feet) TO | CASING: CASING TYPE AND MATERIAL/GRADE | CASING: WALL THICK (in) | CASING: NOMINAL DIAM. (in) | DEPTH (feet) FROM | DEPTH (feet) TO | ☐SCREEN ☐PERFORATIONS ☐OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| +3 | 900 | A-53 GRADE B | 2 | .154 | | | | | |
| +3 | 120 | A-53 GRADE B | 3 | .216 | | | | | |
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| DEPTH (feet) FROM | DEPTH (feet) TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| | | | | |
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## Comments (con't)

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

**Name** HYDRO RESOURCES WEST, INC. (Person, Firm, or Corporation - Print or Type)

**License No.** 815

**Signature** _____ (Licensed Well Driller)

**Date** 10/27/2020

# Cuttings Log

start date

Berra Well #15 - DRAFT 03/04/2026

Hydro resources

| From | to | | | RIG | 10023 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | ⟷ | Clay sand & gravel | | | | | | | |
| 40 | 65 | ⟷ | sand and gravel | | | | | | | |
| 65 | 75 | ⟷ | Clay & gravel | | | | | | | |
| 75 | 80 | ⟷ | Gravel | | | | | | | |
| 80 | 85 | ⟷ | Gravel small cobbles | | | | | | | |
| 85 | 125 | ⟷ | Gravel | | | | | | | |
| 125 | 140 | ⟷ | clay | | | | | | | |
| *140* | 145 | ⟷ | Sandy clay | | | | | | | |
| 145 | *155* | ⟷ | Fine sand | | | | | | | |
| 155 | 190 | ⟷ | gravel | | | | | | | |
| 190 | 200 | ⟷ | sand & gravel | | | | | | | |
| 200 | 210 | ⟷ | Gravel | | | | | | | |
| 210 | 220 | ⟷ | sand & gravel | | | | | | | |
| 220 | 235 | ⟷ | gravel | | | | | | | |
| 235 | 240 | ⟷ | Red clay and gravel | | | | | | | |
| 240 | 265 | ⟷ | Gravel | | | | | | | |
| 265 | 290 | ⟷ | Red clay and gravel | | | | | | | |
| 290 | 355 | ⟷ | gravel | | | | | | | |
| 355 | 360 | ⟷ | sand & gravel | | | | | | | |
| 360 | 365 | ⟷ | sand gravel & clay | | | | | | | |
| 365 | 390 | ⟷ | sand & gravel | | | | | | | |
| 390 | 445 | ⟷ | Gravel | | | | | | | |
| 445 | 455 | ⟷ | clay & gravel | | | | | | | |
| 455 | 475 | ⟷ | gravel | | | | | | | |
| 475 | 490 | ⟷ | clay some gravel | | | | | | | |

# Cuttings Log

Berra Well #15 DRAFT 03/04/2026

start date

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 490 | 500 | ⟷ | clay & gravel | | | | | | | | |
| 500 | 510 | ⟷ | clay | | | | | | | | |
| 510 | 580 | ⟷ | sand & gravel | | | | | | | | |
| 580 | 610 | ⟷ | Clay & gravel | | | | | | | | |
| 610 | 630 | ⟷ | Gravel | | | | | | | | |
| 630 | 655 | ⟷ | Clay & gravel | | | | | | | | |
| 655 | 660 | ⟷ | gravel | | | | | | | | |
| 660 | 670 | ⟷ | clay & gravel | | | | | | | | |
| 670 | 680 | ⟷ | sand & gravel | | | | | | | | |
| 680 | 685 | ⟷ | sand clay & gravel | | | | | | | | |
| 685 | 690 | ⟷ | clay & sand | | | | | | | | |
| 690 | 745 | ⟷ | sand & gravel | | | | | | | | |
| 745 | 760 | ⟷ | Clay & gravel | | | | | | | | |
| 760 | 770 | ⟷ | sand 7 gravel | | | | | | | | |
| 770 | 835 | ⟷ | Gravel | | | | | | | | |
| 835 | 850 | ⟷ | Sand & gravel | | | | | | | | |
| 850 | 860 | ⟷ | Clay | | | | | | | | |
| 860 | 865 | ⟷ | clay & sand | | | | | | | | |
| 865 | 870 | ⟷ | clay sand & gravel | | | | | | | | |
| 870 | 880 | ⟷ | clay | | | | | | | | |
| 880 | 885 | ⟷ | Sand & clay | | | | | | | | |
| 885 | 912 | ⟷ | clay & gravel | | | | | | | | |
| | | ⟷ | | | | | | | | | |
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Rollo Grounds Well (#16)

AMENDED WELL LOG

DRAFT - 03Jun2025

# WELL DRILLER'S REPORT

## State of Utah
## Division of Water Rights

WIN 436568

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Change Application: a37675 (15-3417) WIN: 436568

**Owner** *Note any changes*

Tooele City Water Special Service District
90 North Main Street
Tooele, UT 84074

Well #16

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2065 E 2030 from the SW corner of section 21, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 8-22-13 Completion Date: 12-22-13

Check all that apply: ☒ New ☐ Repair ☐ Deepen ☐ Clean ☐ Replace ☐ Public Nature of Use: Drinking water

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0' | 93' | 48" | Auger | Dry |
| 93' | 488 | 32" | Reverse Circ | Water |
| 488' | 1000' | 26" | Reverse Circ | Water |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 93 | | | | X | | X | | | | | | Brown | |
| 93 | 200 | | | | | | | X | X | X | | | | |
| 200 | 210 | | | | X | | X | X | X | | | | | |
| 210 | 320 | | | | | | X | X | X | | | | | |
| 320 | 340 | | | | X | | X | X | X | | | | | |
| 340 | 415 | | | | X | | X | X | X | | | | | |
| 415 | 445 | | | | X | | X | X | X | | | Rock | | |
| 445 | 545 | | | | | | X | X | X | | | | | |
| 445 | 545 | | | | X | | X | X | ' | | | | | |
| 545 | 795' | | | | | | X | X | X | | | | | |

RECEIVED
JAN 30 2014
WATER RIGHTS
SALT LAKE

RECEIVED
JAN 21 2014
WATER RIGHTS
SALT LAKE

**Static Water Level**

Date 8-22-13 Water Level 441' feet Flowing? ☐ Yes ☑ No

Method of Water Level Measurement Sounder If Flowing, Capped Pressure _____ PSI

Point to Which Water Level Measurement was Referenced Ground Level Elevation _____

Height of Water Level reference point above ground surface 441' feet Temperature _____ degrees ☐ C ☐ F

[redacted] Well Log [redacted]

WIN 436568

DRAFT - 03Jun2025

## Construction Information

| DEPTH (feet) FROM | DEPTH (feet) TO | CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) |
|---|---|---|---|---|
| +3' | 570' | mild steel | .375 | 18" |
| 610' | 640' | | .375 | 18" |
| 660' | 670' | | .375 | 18" |
| 810' | 830' | | .375 | 18" |
| | | | | |

| DEPTH (feet) FROM | DEPTH (feet) TO | ☐SCREEN ☐PERFORATIONS ☐OPEN BOTTOM SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|
| 570' | 610' | .70 | 18" | 55 |
| 640' | 660' | .70 | 18" | 55 |
| 670' | 810' | .70 | 18" | 55 |
| 830' | 1000' | .70 | 18" | 55 |
| | | | | |

Well Head Configuration: CAP

Access Port Provided? ☐Yes ☑No

Casing Joint Type: Butt weld

Perforator Used:

Was a Surface Seal Installed? ☑Yes ☐No

Depth of Surface Seal: 488 feet

Drive Shoe? ☐Yes ☑No

Surface Seal Material Placement Method: TRIMMIE

Was a temporary surface casing used? ☑Yes ☐No If yes, depth of casing: 93' feet diameter: 36 inches

| DEPTH (feet) FROM | DEPTH (feet) TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | Quantity of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 100' | 470 ~~488~~' | 15 SK SAND SLURY | 79 yds | |
| 470' | 1000' | 6 x 9 COLORADO CILICA | 110 bags | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | Units Check One CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

## Pump (Permanent)

Pump Description: Horsepower: Pump Intake Depth: feet

Approximate Maximum Pumping Rate: Well Disinfected upon Completion? ☐Yes ☐No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name ZIM INDUSTRIES INC (Person, Firm, or Corporation - Print or Type)

License No. 697

Signature Mort J Jemmett (Licensed Well Driller)

Date 1/2/14

# WELL DRILLER'S REPORT ADDTIONAL DATA FORM

DRAFT - 03Jun2025

**State of Utah**
**Division of Water Rights**

WIN 436568



**Well Identification**

Change Application: a37675 (15-3417)

**Owner** *Note any changes*

Tooele City Water Special Service District
90 North Main Street
Tooele, UT 84074

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2065 E 2030 from the SW corner of section 21, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 795 | 810 | | | | X | | X | X | X | | | | Brown | |
| 810 | 880 | | | | | | X | X | X | | | | Brown | |
| 880 | 885 | | | | X | | X | X | X | | | | Brown | |
| 885 | 1000 | | | | | | X | X | X | | | | Brown | |

Rodeo Grounds Well (#16)

**Construction Information (con't)**

| DEPTH (feet) FROM | TO | CASING: CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) | DEPTH (feet) FROM | TO | ☐ SCREEN ☐ PERFORATIONS ☐ OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| 0' | 488' | mild Steel (Intermediate) | 375 | 28" | | | | | |
| 0' | 93' | mild Steel (conductor) | 375 | 36" | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |

| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| | | | | |
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| | | | | |

**Comments (con't)**

**Well Driller Statement** This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

**Name** ZIM INDUSTRIES INC (Person, Firm, or Corporation - Print or Type) **License No.** 697

**Signature** Robert J Zimmerman (Licensed Well Driller) **Date** 1/2/14

# WELL DRILLER'S REPORT

Red Del Papa DRAFT (WR 03-443468)

## State of Utah
## Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Non-Production Well: 1915001M00 WIN: 443468

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: PAUL HANSON (435) 843-2132

**Well Location** *Note any changes*

S 90 E 250 from the W4 corner of section 27, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 1/3/2020 Completion Date: 9/14/2020

Check all that apply: [X] New [ ] Repair [ ] Deepen [ ] Clean [ ] Replace [ ] Public Nature of Use: MUNICIPAL

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0 | 40 | 40 | AUGER | POLYMER - GEL |
| 40 | 1200 | 14 3/4 | REVERSE CIRCULATION | POLYMER - GEL |
| 40 | 1200 | 28 | REVERSE CIRCULATION | POLYMER - GEL |
| | | | | |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | SEE ATTACHED |

RECEIVED
SEP 29 2020 LI
WATER RIGHTS
SALT LAKE

SCANNED LP

**Static Water Level**

Date 9/12/2020 Water Level 464 feet Flowing? [ ] Yes [X] No
Method of Water Level Measurement SOUNDER If Flowing, Capped Pressure N/A PSI
Point to Which Water Level Measurement was Referenced TOP OF CASING Elevation UNKNOWN
Height of Water Level reference point above ground surface 20' feet Temperature 69 degrees [ ] C [ ] F

Well Log

## Construction Information

| DEPTH (feet) FROM | TO | CASING: CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) | DEPTH (feet) FROM | TO | ☒SCREEN ☐PERFORATIONS ☐OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | A-53 GRADE B | .375 | 32 | 605 | 865 | .060" | 20" | SS WIRE WRAP |
| 0 | 605 | A-53 GRADE B | .375 | 20 | 915 | 1,045 | .080" | 20" | SS WIRE WRAP |
| 865 | 915 | A-53 GRADE B | .375 | 20 | 1,075' | 1,200' | .080" | 20" | SS WIRE WRAP |
| 1,045 | 1,075 | A-53 GRADE B | .375 | 20 | | | | | |
| 0 | 900 | STEEL SCH 40 | .154 | 2" | | | | | |

Well Head Configuration: 20" STICK UP & DOUGHNUT BETWEEN CASINGS Access Port Provided? ☒Yes ☐No

Casing Joint Type: WELDED Perforator Used: NO

Was a Surface Seal Installed? ☒Yes ☐No Depth of Surface Seal: 100 feet Drive Shoe? ☐Yes ☒No

Surface Seal Material Placement Method: CEMENT

Was a temporary surface casing used? ☐Yes ☒No If yes, depth of casing: _____ feet diameter: _____ inches

| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | Quantity of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 0 | 40 | SAND CEMENT SLURRY | 10 YDS³ | 19/6AL 15SACK 6/6AL |
| 0 | 100 | SAND CEMENT SLURRY | 11 YDS³ | 19/6AL 15 SACK 6/6AL |
| 100 | 1200 | SRI SUPREME #6 | 101 YDS³ | N/A |
| | | | | |
| | | | | |
| | | | | |

## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| 6/24/2020 | DUAL SWAB AIRLIFT | 300 | X | | 4' | 96 HOURS |
| 9/12/2020 | PUMP DEVELOPMENT & TEST | 1,600 | X | | 115' | 51 HOURS |
| | | | | | | |

## Pump (Permanent)

Pump Description: _____ Horsepower: _____ Pump Intake Depth: _____ feet

Approximate Maximum Pumping Rate: _____ Well Disinfected upon Completion? ☐Yes ☐No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

ZONE SAMPLED 1045 - 1055 1060 - 1070 880 - 890

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name HYDRO RESOURCES WEST, INC. (Person, Firm, or Corporation - Print or Type) License No. 815

Signature _____ (Licensed Well Driller) Date 9/19/2020

# Cuttings Log

start date

Red Del Papa Well (W0344628) DRAFT

Hydro resources

Dec-19

| From | to | | | RIG | 10024 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | ⟷ | Clay sand & gravel | | | | | | | |
| 40 | 80 | ⟷ | Gravel | | | | | | | |
| 80 | 90 | ⟷ | Clay & gravel | | | | | | | |
| 90 | 175 | ⟷ | Rock gravel & clay | | | | | | | |
| 175 | 295 | ⟷ | Sand & gravel | | | | | | | |
| 295 | 300 | ⟷ | Sand Clay & gravel | | | | | | | |
| 300 | 380 | ⟷ | Sand & gravel | | | | | | | |
| *380* | 400 | ⟷ | Clay | | | | | | | |
| 400 | *405* | ⟷ | clay & sand | | | | | | | |
| 405 | 425 | ⟷ | Gravel | | | | | | | |
| 425 | 450 | ⟷ | Clay & gravel | | | | | | | |
| 450 | 475 | ⟷ | Clay sand & gravel | | | | | | | |
| 475 | 495 | ⟷ | Sand & gravel | | | | | | | |
| 495 | 560 | ⟷ | Gravel | | | | | | | |
| 560 | 900 | ⟷ | Gravel & sand | | | | | | | |
| 900 | 1075 | ⟷ | Clay sand & gravel | | | | | | | |
| 1075 | 1110 | ⟷ | Gravel & sand | | | | | | | |
| 1110 | 1200 | ⟷ | Bed rock | | | | | | | |
| | | ⟷ | | | | | | | | |
| | | ⟷ | | | | | | | | |
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| | | ⟷ | | | | | | | | |
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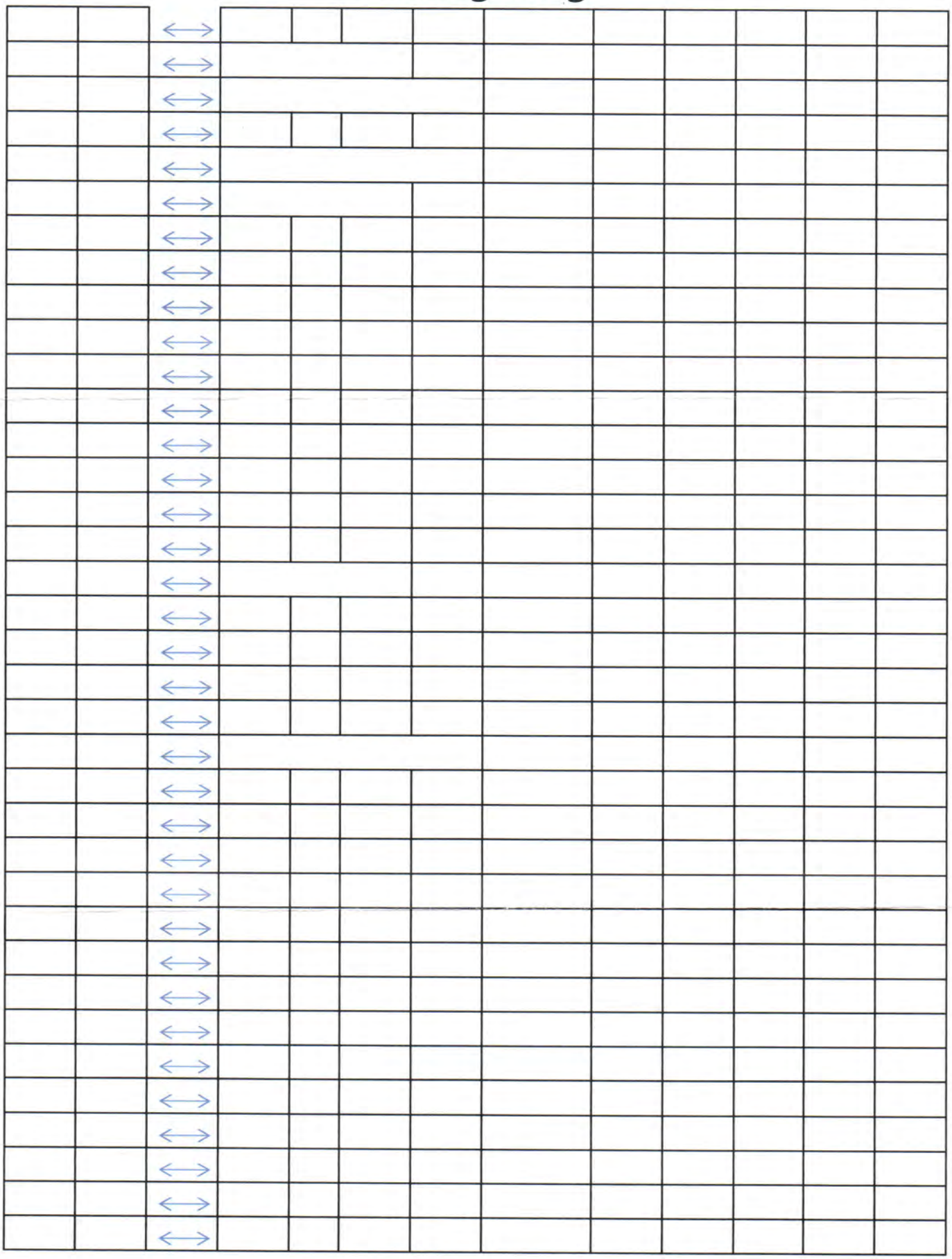
# Cuttings Log

start date

Red Del Papa DRAFT (WO3448628)



**APPENDIX B**

**UTAH DIVISION OF WATER QUALITY WATER DISHCARGE FACT SHEET**

# Fact Sheet Regarding Water Discharges From Water Well Drilling and Operation

**Prepared by: Utah Division of Water Quality**

**Updated July 2002**

## Background:

Utah Administrative Code (UAC) R317-8-2 requires a UPDES discharge permit for the discharge of pollutants from any point source into waters of the State. A point source is defined as "any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, from which pollutants are or may be discharged."

Through the use of various drilling methods and reasonable best management practices, water well drilling generally can be conducted such that no discharge occurs or that only de minimis (insignificant) amounts of pollutants would be released into waters of the State. As such, it has been the policy of the Division of Water Quality to not require water well drilling operations to obtain a discharge permit as long as they do not discharge or discharge de minimis amounts of pollutants.

There may be circumstances where a discharge permit is necessary or desired by the well driller or owner. However, because a discharge permit can take several months to issue, requires payment of a permit fee, and because the permit would contain specific enforceable effluent quality limits and frequent self-monitoring and reporting requirements, it is highly recommended that all options to avoid discharge or attain the de minimis discharge be explored before pursuing an individual discharge permit.

## Best Management Practices (BMP's)

The goal of BMP implementation is to avoid discharge or, if this is not practicable, to obtain a de minimis pollutant discharge during any phase of well development. The primary pollutants of concern are total suspended solids and turbidity in the form of drill cuttings and muds. Occasionally chemicals such as surfactants are used during the drilling operation. It is the responsibility of the operator and/or owner to assure that BMP's are properly installed and operated in order to contain all fluids or to produce a de minimis pollutant discharge to waters of the State. Some BMP's are indicated below:

1. Drill pits or ponds of adequate size for total containment of all fluids containing drill cuttings, surfactants and associated chemicals.

2. Pits or ponds used for settling; followed by filter cloth and/or straw bales which can be used for filtration prior to fluids entering surface waters of the state.

3. Land application of produced waters during drilling, pump testing, and well development where no discharge would occur to waters of the State.

4. Land application where sufficient filtration through vegetation removes solids and turbidity before water is diffused and enters any surface waters.

5. Other sediment and turbidity reduction treatment such as frac tanks, cyclone separators, etc.

Pollution of waters of the state is a violation of the Water Quality Act, UCA 19-5, which provides for significant monetary penalties, and additional penalties for violations that are willful or caused by gross negligence.

If you have any concerns not covered in this fact sheet or any further questions, please contact:

Mike Herkimer
(801) 536-4386
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Jim Goddard
(801) 538-7314
Division of Water Rights
1594 West North Temple, Suite 220
Salt Lake City, Utah 84114-6300

**TOOELE CITY**
**2025 TOOELE WELLS DRILLING PROJECT**

**ADDENDUM NO. 3**
**June 9, 2025**

**To All Plan Holders:**

You are hereby notified that the following changes, clarifications, and/or corrections have been made to the Drawings, Specifications, or Contract Documents for the above-referenced project.

The bid opening date, location, and time **ARE** changed by this addendum.

ADDENDUM NO. 3 consists of the following:

**1. Bid Schedule Changes**
The date and time of the following bidding milestones are changed by this addendum:

| Item | Deadline: Date/Time |
|---|---|
| Last Day for Questions | ~~Friday, June 6th, 2025~~ **Friday, June 13th, 2025, 5:00 pm MST** |
| Final Addendum | ~~Monday, June 9th, 2025~~ **Monday, June 16th, 2025** |
| Bids Due | ~~Thursday, June 12th, 2025 (3 pm MST)~~ **Thursday June 19th, 2025 (2pm MST)** |

**2. Questions and Clarifications**

a. Clarification between bid item A.14/B.14 and bid item A.19/B.19: Bid Items A.14 and B.14 will seal the annulus between the 5-inch diameter casing and borehole above the top of Gravel Pack in between test zones. The volume quantities for cement grout in Bid Items A.19 and B.19 did not include the Bentonite Plug annulus volume in its cubic yardage. Bentonite Plugs are preferred to be used, and it is assumed that cement grout will not be used in those areas.

**3. Changes to the Contract Documents**
a. C-200 Instruction to Bidders
    i. Section 3.01
        a. Added the following qualifications in section 3.01 of Article 3 of C-200 Instruction to Bidders.

***"B. Bidder shall provide (1) qualifications of the person who will prepare and monitor the use of drilling fluids during the course of the work and (2) a fluid management plan for disposal that includes how the aquifer will be protected."***

**4. Changes to the Drawings**
None

**5. Changes to the Technical Specifications:**
a. 33 00 00 Drilling, Construction, Testing, and Abandonment of Two Exploration Wells

   i. The specification is to be replaced in its entirety with the updated version attached to this addendum

b. 33 00 10 Drilling, Construction and Testing of Production Wells
   i. The specification is to be replaced in its entirety with the updated version attached to this addendum

This ADDENDUM #3 shall become a part of the Contract and all provisions of the Contract shall apply thereto. BIDDERS shall acknowledge receipt of this ADDENDUM in the space provided in the BID FORM.

Sincerely,
J-U-B ENGINEERS, INC.
Andrew Hobson, P.E.
Project Engineer

**SECTION 33 00 00**

# TECHNICAL SPECIFICATIONS
## DRILLING, CONSTRUCTION, TESTING and ABANDONMENT
## OF
# TWO EXPLORATION WELLS
## FOR
# TOOELE CITY
## PUBLIC WATER SYSTEM (PWS) NO. UTAH23004
## TOOELE COUNTY, UTAH

Prepared for:

J-U-B Engineering
Attn: Brandon Nielsen, P.E
466 North 900 West
Kaysville, UT 84037

Prepared by:

John S. Brown, P.G.
Senior Hydrogeologist

William D. Loughlin, P.G.
Principal Hydrogeologist, Manager

**Loughlin Water Associates, LLC**
3100 Pinebrook Road, Suite 1100
Park City, Utah 84098
(435) 649-4005
www.LoughlinWater.com

Date: June 9, 2025

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1 Regional Map
2 Topographic Map
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4 Preliminary Design - Exploration Wells

**APPENDIX**

A Well Driller Reports
B Utah Division of Water Quality Water Discharge Fact Sheet

# 1.0 GENERAL REQUIREMENTS

## 1.1 THE REQUIREMENT

The Utah-licensed water well driller (the CONTRACTOR) shall furnish all materials, labor, plant, equipment, tools, supplies, transportation, and appurtenances to drill, construct, develop, test, and abandon two exploration wells (the two exploration wells) as specified herein (the WORK).

The WORK will be performed in accordance with the current requirements of: (1) Utah Department of Natural Resources (DNR), Division of Water Rights (DWRi), sometimes referred to as the *Office of the State Engineer*, including Utah Administrative Code (UAC) Rule R655-4, *Administrative Rules for Water Wells*; (2) Utah Department of Environmental Quality (DEQ) Division of Drinking Water (DDW), including UAC, R309-515-6, *Facility Design and Operation: Source Development; Ground Water – Wells*; (3) DEQ Division of Water Quality (DWQ), *Utah Water Quality Act*, 19-5-107(1); and (4) the requirements of the Contract Documents, including these Technical Specifications.

## 1.2 PROJECT DESCRIPTION

Figures 1 and 2 show the locations of the WORK site, which are in Tooele City, Tooele County, Utah and include the:

- Rogers Exploration Well (Exploration Well No. 1) which is south of Rogers Street, west of 1000 West, about 1.5 miles due west of Main Street (Highway 36) and

- High School Exploration Well (Exploration Well No. 2), which has a street address of approximately 200 East, 2400 North and about 0.25 miles due west of Main Street (Highway 36).

Figure 3 shows the location of nearby Tooele City PWS wells.

The two exploration wells will be drilled through and zone tested in valley-fill deposits that consist of unconsolidated to semi-consolidated clayey sand and gravel interbedded with sand and gravel, cobbles, boulders, conglomerate, and sandy clay. The estimated total drilling depth of each exploration borehole is up to 1200 feet. However, the final design of each exploration well will be determined after each borehole is drilled, geologically and geophysically logged.

The WORK consists of drilling, constructing, testing, and abandonment of two (2) exploration wells. As part of the WORK, the CONTRACTOR shall:

- Drill for and install 14-inch diameter conductor casing to depth of approximately 40 feet and install a cement grout seal around the conductor casing.
- Drill a 12.25-inch diameter borehole to a depth of approximately 1200 feet, collect geologic samples and geophysically log the borehole.

- Collect samples for sieve analysis.
- Identify up to three potentially productive zones for testing (the three test zones).
- Plug back boring to bottom of lowest zone to be tested if required.
- Install a 5-inch diameter blank steel exploration well casing from surface to bottom of lowest test zone in boring.
- Tremie gravel pack to the three test zones with bentonite tremied between the test zones.
- Perforate the well through the lowest test zone and measure the depth to the static (unpumped) water level, develop with air, install temporary test pump, conduct a zone test, and collect a water sample.
- During each zone test the CONTRACTOR will operate the pump, measure and control pumping rate, and measure depth to water
- Remove temporary test pump and grout 5-inch diameter well casing up to bottom of the intermediate test zone.
- Perforate the well through the intermediate test zone and measure the depth to the static (unpumped) water level, develop with air, install temporary test pump, conduct a zone test, and collect a water sample.
- Remove temporary test pump and grout 5-inch diameter well casing up to bottom of the uppermost test zone.
- Perforate the well through the uppermost test zone and measure the depth to the static (unpumped) water level, develop with air, install temporary test pump, conduct a zone test, and collect a water sample.
- Remove temporary test pump and grout 5-inch diameter exploration well casing to ground surface.
- Perform other tasks as directed by the ENGINEER and described in these Technical Specifications and the Contract Documents.

Figure 4 shows the preliminary design of the two exploration wells. The CONTRACTOR shall utilize flooded reverse-circulation drilling methods to drill the boreholes below the conductor casing. The ENGINEER will specify to the CONTRACTOR the total drilling depth and the final well design including gravel pack gradation and perforation size, placement of well casing, perforations, gravel pack, cement grout well seal, and any other materials used to construct the two exploration wells.

Tooele City (the City) will be the "*OWNER*" and operator of the two exploration wells. Tooele City is Utah Public Water System (PWS) #23004.

Loughlin Water Associates, LLC (Loughlin Water) prepared these technical specifications for J-U-B and Tooele City and is designated as the "*ENGINEER*" in these Technical Specifications and the Contract Documents for the drilling, construction and testing of

the two exploration wells. J-U-B provides civil and water system engineering services to Tooele City and is designated the "*PROJECT MANAGER*" for this project.

The form and detail of the various features of the WORK are illustrated on the following drawings and documents and made part of these Technical Specifications:

Figure 1 – Regional Map
Figure 2 – Topographic Map
Figure 3 – Tooele City Wells
Figure 4 – Proposed Construction of Exploration Wells
Appendix A – Well Driller Reports
Appendix B – Utah Division of Water Quality Water Discharge Fact Sheet

## 1.3 WORK SITE

The Public Land Survey (PLS), State Plane, Universal Transverse Mercator (UTM), and Latitude (Lat) and Longitude (Long) coordinates of the two Exploration wells are approximately:

- Rogers Street Exploration Well (Exploration Well No. 1)
    - PLS - North 207 feet and East 908 feet from the West ¼ Corner (W4) of Section 20, Township 3 South (T3S), Range 4 West (R4W), Salt Lake Base & Meridian (SLB&M);
    - State Plane, North American Datum (NAD) 83, Utah Central – North 7,367,975.47 feet and East 1,410,317.28 feet;
    - UTM (NAD 83) – East 387,550.108 meters and North 4,488,991.808 meters; and
    - Lat 40.5440592413 degrees and Long -112.327957268 degrees.
- High School Exploration Well (Exploration Well No. 2)
    - PLS – South 193 feet and West 1,688 feet from the East ¼ Corner (E4) of Section 09, T3S, R4W, SLB&M;
    - State Plane (NAD 83), Utah Central – North 7,378,211.357 feet and East 1,418,263.089 feet;
    - UTM (NAD83) – East 389,989.538 meters and North 4,492,096.880 meters; and
    - Lat 40.5723528934 degrees and Long -112.299697421 degrees.

The ground surface elevations are estimated using the DWRi online map tool, Map, to be about

- 4800 feet at the Rogers Exploration Well and
- 4610 feet at the High School Exploration Well.

The OWNER will delineate the areas within which all of the CONTRACTOR operations shall occur. The CONTRACTOR shall not enter on or occupy with laborers, tools, equipment, or materials any ground outside the area delineated by the OWNER. Other contractors, employees, or agents of the OWNER/ENGINEER may enter the WORK site delineated by the OWNER for business purposes.

## 1.4 BEGINNING AND COMPLETION OF WORK

The CONTRACTOR shall begin WORK within 30 days of the Notice to Proceed. The contractor shall substantially complete the work at Roger Exploratory Well within 60 days of beginning the work. After that, the Work at other sites shall be completed within the substantial completion period as stated in the Agreement.

## 1.5 SERVICES FURNISHED BY THE OWNER

The OWNER will:

- Provide rights-of-way for the WORK specified in this contract.
- Allow the CONTRACTOR to use the OWNER's culinary water for the drilling operations (see Section 1.9).
- Obtain or help the CONTRACTOR obtain any required permits regarding workings hours, noise control and/or lighting restrictions (see Section 1.10).

## 1.6 SERVICES FURNISHED BY THE ENGINEER

The ENGINEER will:

- Specify the total depth of well drilling.
- Specify to the CONTRACTOR the depths of the zone tests, including gravel pack, bentonite, cement, and perforation intervals.
- Direct the CONTRACTOR in the collection of data during zone test operations and determine when zone testing is complete.
- During the course of the WORK, the ENGINEER, in consultation with the OWNER and the CONTRACTOR, will specify to the CONTRACTOR the total drilling depth and the final exploration well design including placement of well casing, perforated intervals, gravel pack, cement or bentonite grout well seals, and any other materials used to construct, develop and test the exploration wells.

## 1.7 DRILLING AND WELL CONDITIONS

The target aquifer of the two exploration wells is the principal basin-fill aquifer in Tooele Valley. The estimated total drilling depth of each borehole is up to 1200 feet. The valley-fill deposits at the proposed well sites are expected to consist of unconsolidated to semi-consolidated clayey sand and gravel interbedded with sand and gravel, cobbles, boulders, and sandy clay.

The expected subsurface geologic units are described below:

| Depth (feet) | Geologic Unit | Description |
|---|---|---|
| 0 – 30 | Lacustrine gravel, Great Salt Lake and Lake Bonneville - Holocene to upper Pleistocene (Qlg) | Sandy gravel to boulders composed of locally derived rock fragments deposited in shore zones of Great Salt Lake and Lake Bonneville |
| 30 – 90 | Lacustrine and alluvial deposits, undivided (Qafy) (Holocene to upper Pleistocene) | Sand, gravel, silt, and clay; consists of alluvial deposits reworked by lakes, lacustrine deposits reworked by streams and slopewash, and alluvial and lacustrine deposits. |
| 90 – 200 | Older fan alluvium, pre-Lake Bonneville upper to middle Pleistocene (Qafo) | Poorly sorted boulders, cobbles, gravel, sand, silt, and clay that predate Lake Bonneville; includes fan surfaces of different levels. |
| 200 – 900 | Older fan and alluvial deposits-lower Pleistocene to Pliocene, (Qafo, QTaf, Tsl) | Poorly sorted boulders, cobbles, gravel, sand, silt, and clay; conglomerate, unconsolidated to semi-consolidated, may overlap in age with Tertiary Salt Lake Formation. |
| 900 – 1200 | Older fan and alluvial deposits-lower Pleistocene to Pliocene, (QTaf, Tsl) | Semi-consolidated deposits, and Tertiary Salt Lake Formation. |

Figure 3 shows the location and Appendix A provides copies of the Well Driller Reports (well logs) for Tooele City PWS wells located near the two exploration wells.

It is the CONTRACTOR's responsibility to become informed about local conditions affecting this WORK. Neither the information contained in these specifications, nor gleaned from the OWNER, ENGINEER, or their agents, shall act to relieve the CONTRACTOR from any responsibility set forth in the contract.

## 1.8 UTILITIES AND UTILITY CLEARANCES

The CONTRACTOR shall be responsible for calling Blue Stakes and taking other actions to identify utilities present at the worksite in accordance with UAC R655-4-10.2, *Well*

*Site Locations*. The CONTRACTOR shall be fully responsible for identifying utilities and for any damage caused by the CONTRACTOR's negligence.

## 1.9 WATER, POWER, AND SITE IMPROVEMENTS

The OWNER will allow the CONTRACTOR to use the OWNER's culinary water for drilling operations. Connection to the water system must be approved by the OWNER and the removal of the connection must be inspected and approved by the OWNER.

Any water entering a well during construction shall not be contaminated and should be obtained from a chlorinated municipal system. Where this is not possible the water shall be dosed to give a free chlorine residual of 100 milligrams per liter (mg/L). Water introduced into the well shall (1) shall meet the Utah Drinking Water Standards specified in UAC R309-200, *Drinking Water Standards* and (2) conform to all laws applicable to the protection of water quality including UAC R309-515-6(6)(j), *Water Entered Into Well During Construction* and UAC R655-4-11.6.5, *Well Disinfection and Chlorination of Water*.

Costs for water conveyance facilities or transportation to the WORK site shall be borne by the CONTRACTOR. Any required permits to acquire water from other sources are the responsibility of the CONTRACTOR. This includes all necessary piping and components, but only at such locations and in a manner approved by the ENGINEER. Before final acceptance of the well, all temporary connections and piping installed by the CONTRACTOR shall be removed in a manner satisfactory to the ENGINEER.

The CONTRACTOR shall provide, at his own expense, all power required for their operations under the contract.

If desired, security and safety fencing around the WORK site may be installed by the CONTRACTOR, at his own expense.

## 1.10 WORKING HOURS AND NOISE AND LIGHT CONTROL

The CONTRACTOR will be authorized for 24-hour-per-day work for the drilling, construction and testing of the proposed well. The CONTRACTOR shall work on this project in a steady and diligent manner. The CONTRACTOR shall, during all work periods, provide an adequate crew of suitably qualified personnel to prevent unnecessary delays in project completion.

WORK shall be prohibited on Christmas Eve, Christmas Day, New Year's Eve and New Year's Day.

The CONTRACTOR shall make reasonable provision for noise and light control that include, at a minimum, the following measures:

- All equipment and machinery shall be in proper working order.
- All equipment and machinery shall be fitted with adequate mufflers and shall be located, operated, and maintained to minimize noise.

- Air-compressors and generators shall be housed in noise attenuation enclosures.
- The drill rig shall be equipped with a muffler system for air discharges that occur during drilling operations.

The CONTRACTOR shall abide by Tooele City code Title 11, Section 2, Noise Control, which can be viewed at:

https://files.tooelecity.gov/Document%20Center/Government/City%20code/Title11Chapter2(Dec1991).pdf

The CONTRACTOR shall be responsible for meeting all requirements of working hours, noise control, outdoor lighting and nuisance abatement.

The OWNER will obtain or help the CONTRACTOR obtain any required permits regarding workings hours, noise control and/or lighting restrictions.

The CONTRACTOR will prepare and distribute an OWNER approved flyer with a description of the project with contact information for questions and comments regarding the project.

## 1.11 SANITATION

The CONTRACTOR shall provide chemical toilets at the WORK site. The toilets shall conform to applicable local, State and Federal requirements. The cost for these sanitary facilities shall be borne by the CONTRACTOR.

## 1.12 MANAGEMENT OF DRILL CUTTINGS, DRILLING FLUIDS AND PRODUCED WATER

It will be the responsibility of the CONTRACTOR to dispose of the drill cuttings and left-over drilling fluid.

The CONTRACTOR is responsible for following *Best Management Practices* (BMP's) regarding drilling fluid and water discharges during the drilling and testing of the proposed well. It is the responsibility of the drilling CONTRACTOR to use BMPs to limit pollutant discharge to *de minimis* quantities, thereby protecting waters of the State, in accordance with Division of Water Quality Fact Sheet provided in Appendix B. Prior to the start of the WORK, the CONTRACTOR shall submit to the ENGINEER their plan to manage the drilling fluid and water discharge during the drilling and testing of the proposed well.

Drilling fluids, drill cuttings and produced water shall be contained in above-ground tanks and disposed of in a manner to prevent surface or subsurface contamination and to prevent degradation of natural or man-made water courses, impoundments, waterways, lakes, reservoirs, irrigation ditches, storm sewers, and dry stream beds. Cuttings and waste from well drilling operations shall not be discharged into a waterway, lake or reservoir.

Discharge of produced water will be allowed during development and testing provided there are no adverse impacts. Water produced during development and testing shall be discharged into a holding tank or series of tanks or basins for settling. Discharge from the tanks or basins shall pass through straw bales and/or geofabric for erosion control and further filtration. The CONTRACTOR shall provide, at their own expense, all of the tanks, hay bales, geofabric, riprap, flexible hose, PVC or other tubing, and other materials and equipment to divert and dissipate the energy of and minimize erosion from the discharged water, filter and allow for settling of the solids in the discharged water.

Control of drill cuttings, fluids, and produced water shall conform with UAC R309-515-6(6)(d), *Disposal of Cuttings*, UAC R655-4-11.6.2, *Containment of Drilling Fluids*, rules of the DWQ, and the *Utah Water Quality Act*, 19-5-107(1).

### 1.13 PROTECTION OF GROUNDWATER QUALITY

The CONTRACTOR shall (1) take all necessary precautions to prevent contamination of the water in the well by preventing the introduction of any foreign substance, including contaminated water, gasoline, oil, and the like and (2) conform to all laws applicable to the protection of water quality including UAC R309-515-6(6)(j), *Water Entered Into Well During Construction*, UAC R655-4-11.6.4, *Down-hole Equipment* and UAC R655-4-11.6.5, *Well Disinfection and Chlorination of Water*.

### 1.14 FINAL CLEANUP

The CONTRACTOR shall thoroughly clean the site after completion of the drilling, well construction, and development and test pumping operations. All drill cuttings, debris, and other materials used or generated during these operations shall be properly disposed of by the CONTRACTOR. The disposal of cuttings and drilling fluids shall conform with UAC R309-515-6(6)(d), *Disposal of Cuttings*, UAC R655-4-11.6.2, *Containment of Drilling Fluids* and the *Utah Water Quality Act*, 19-5-107(1).

Following all operations, the CONTRACTOR shall promptly remove their equipment, temporary facilities, and materials, smooth the work site surface and leave the site in a condition acceptable to the OWNER. No reseeding is to be done during the final cleanup.

## 2.0 WELL PRODUCTS

In accordance with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification*, all interior surfaces that may contact drinking water must consist of products complying with ANSI/NSF Standard 61. This requirement applies to drop pipes, well screens, coatings, adhesives, solders, fluxes, pumps, switches, electrical wire, sensors, and all other equipment or surfaces which may contact the drinking water.

All substances introduced into the well during construction or development shall be certified to comply with ANSI/NSF Standard 60 in accordance with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification*. This requirement applies to drilling fluids

(biocides, clay thinners, defoamers, foamers, loss circulation materials, lubricants, oxygen scavengers, viscosifiers, weighting agents) and regenerants.

CONTRACTOR shall submit to the ENGINEER Safety Data Sheets (SDSs), formerly Material Safety Data Sheets (MSDSs) for all proposed chemicals (including lost circulation materials) to be added to the borehole for approval prior to their use.

## 2.1 DRILLING FLUIDS

### 2.1.1 Material

In accordance with UAC R655-4-11.6.5 *Well Disinfection and Chlorination of Water*, potable water from a source approved by the ENGINEER shall be used as a base for drilling fluids whether used alone or in combination with drilling fluid additives.

The drilling fluid shall conform with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification* and UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs.* The drilling fluid may consist of air and/or water mixed with a foaming surfactant, polymer, high-grade bentonite or other ENGINEER-approved materials. If there should be a conflict between the drilling fluid requirements for ease of drilling and drilling fluid requirements for aquifer protection, then the ruling requirements shall be those for aquifer protection. The drilling fluid shall possess characteristics required to: (1) prevent caving as drilling progresses; (2) permit recovery of representative drill cutting samples; (3) allow for geophysical logging, if required, and (4) maintain the structural integrity of the borehole during casing installation. Any contaminants or pollutants introduced into the borehole or well by the CONTRACTOR shall be removed, eliminated or remediated from the well by the CONTRACTOR.

### 2.1.2 Lost Circulation Materials

In the event of lost circulation conditions, the CONTRACTOR shall use material in accordance with UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs* [lost circulation materials]. CONTRACTOR shall only use inert, non-organic materials to regain drilling fluid circulation that are approved by the State of Utah.

## 2.2 CASING

All casing shall be steel and be of adequate size, strength, and wall thickness to facilitate subsequent drilling and construction and must meet the requirements of UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.2.3, *Well Casing – General – Steel Casing*. All steel casing shall be in new condition that meets AWWA Standard A-100, ASTM or API standards for steel pipe and have a minimum wall thickness for the designed depth as specified in R655-4-11.2.3, *Well Casing – General – Steel Casing*. Casing joints shall be welded in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Spot welding of joints is prohibited.

Steel casing shall meet the following requirements:

| | |
|---|---|
| **Conductor Casing:** | 14-inch diameter, minimum 0.250-inch wall thickness, low carbon steel casing |
| **Exploratory Well Casing:** | 5-inch diameter, 0.250-inch wall thickness, low-carbon steel casing |

Prior to installing casing, CONTRACTOR shall submit to the ENGINEER delivery tickets that show that the casing meets the specifications of Section 2.2.

## 2.3 CENTRALIZERS

Centralizers shall be used for the installation of all permanent casings in the borehole. Centralizers shall consist of the same material as the casing that the centralizers are attached to. Centralizers shall be placed at intervals of 60 feet or less. Centralizers manufactured to fit the casing may be used. Other types of centralizers may be utilized if the ENGINEER approves the method and materials in advance.

## 2.4 GRAVEL PACK

Gravel pack (also called filter pack) size and gradation will be 1/4-inch x 1/8-inch gravel.

Gravel pack material shall be a product of a commercial sand and gravel supplier. It shall (1) be properly sized and graded, (2) be clean, smooth and uniform, 95 percent siliceous material, (3) no more than 5 percent acid solubility, (4) be free of flat or elongated pieces, organic matter, or other foreign matter, and (5) meet the requirements of AWWA specification B-100 for Granular Filter Material. The gravel pack material shall conform to UAC R309-515-6(6)(k), *Gravel Pack Wells*, and UAC R655-4-11.5.2, *Gravel Pack or Filter Material*.

Prior to installing the gravel pack, the CONTRACTOR shall submit to the ENGINEER both a sample of the material and the results of a gradation (sieve) analysis of a representative sample of the material that is shipped to the well site to confirm that the selected material is of appropriate size and gradation.

The gravel pack material shall be (1) thoroughly sterilized with 100 parts per million (ppm) chlorine or hypochlorite solution immediately before being installed in the borehole or (2) dry chlorine should be mixed with the gravel pack at the surface before it is installed in the borehole.

## 2.5 GROUT AND SEAL MATERIAL

Grout and seal material shall meet the requirements of UAC R655-4-2 *Definitions*, and UAC R655-4-11.4.2 *Seal Material*. Grout and seal material shall conform to the following specifications.

### 2.5.1 Bentonite Plugs

The bentonite plug, intended to keep grout from entering the filter pack and sealing the pitless adaptor seal interval, shall consist of coated sodium montmorillonite pellets or unhydrated bentonite. The bentonite shall be furnished in sacks or buckets from a commercial source and shall be free of impurities that adversely impact the water quality. Pellet size shall be 1/4 to 3/8-inch. The pellet coating should be such that it retards the swelling of the pellets for a minimum period of about 60 minutes.

### 2.5.2 Unhydrated Bentonite

Dry bentonite consisting primarily of granules, tablets, pellets, or chips that may be placed in a well or borehole in the dry state and hydrated in place by either formation water or by the addition of potable water into the well or borehole containing the dry bentonite. Unhydrated bentonite can be used for other seals and the abandonment of the wells.

### 2.5.3 Neat Cement Grout

Cement (Types I, II, III, V, high alumina, or a combination thereof) conforming to the ASTM Standard C150 (standard specification of Portland cement), with no more than six (6) gallons of water per 94-pound sack (1 cubic foot) of sufficient weight density of not less than 15 lbs/gallon. Once cubic yard of neat cement grout contains 1993 pounds of Portland cement and not more than 127 gallons of clean water. Bentonite, controlled density fill (CDF), or fly ash shall not be added to neat cement grout unless State Engineer approval is received.

### 2.5.4 Sand Cement Grout

A grout consisting of equal parts by volume of cement conforming to ASTM Standard C150 and clean sand/aggregate with no more than six (6) gallons of water per 94-pound sack (one cubic foot) of cement. Sand cement grout may be used for annular openings of larger than 2-inches.

## 2.6 DISPERSANTS

Dispersants may be utilized during prior to zone testing to break down drilling fluids and to remove sediment from the gravel pack. Dispersants shall conform with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification* and UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs.* Use of dispersing agents shall conform to UAC R309-515-6(7)(c), *Well Development* and the manufacturer's instructions for mixing, application, and disposal.

Manufacturer's literature indicates that the following products meet the specifications for dispersants:

- "*Johnson Screens NuWell 220 Dispersant Polymer*" and

- *"Bariod Aqua-Clear RFD Polymer Dispersant".*

### 2.7 ABANDONMENT

Upon completion of well construction and testing, the two exploration wells will be abandoned. Grout and seal material shall meet the requirements of UAC R655-4-2 Definitions, and UAC R655-4-11.4.2 Seal Material. Before well or borehole abandonment, all pump equipment, piping, and other debris shall be removed to the extent possible.

## 3.0 EXECUTION

Figure 4 presents the preliminary design for the two exploration wells. The ENGINEER will specify to the CONTRACTOR the total drilling depth and the final well design including placement of well casing, gravel pack intervals, grout well seal intervals, perforation intervals, and any other materials used to construct the well.

### 3.1 MOBILIZATION AND DEMOBILIZATION

Upon receiving the "*Notice to Proceed*", the CONTRACTOR shall notify the DWRi in accordance with UAC R655-4-4.2, *Start Cards.* The CONTRACTOR shall then move in all tools, equipment, and supplies necessary for the WORK and upon completion of the WORK, shall remove all such items from the premises promptly and leave the site in a clean, smoothed, and orderly condition. Site preparation and restoration shall be the responsibility of the CONTRACTOR.

### 3.2 BOREHOLE DRILLING - GENERAL

The CONTRACTOR shall collect representative formation samples as directed by the ENGINEER, at a minimum of 5-foot intervals and at major geologic formation changes. Each sample shall be stored in insect- and mildew-proof oil-well-sand sample bags. Plastic bags will not be accepted. Each sample bag shall be labeled with the well name, depth interval, date and time of collection. Sample bags containing the drill cuttings shall be stored in order and in an area at the well site that is covered. The drill cuttings samples shall not be directly exposed to precipitation. Chip trays for drill cutting samples shall be made available to the ENGINEER.

The CONTRACTOR shall maintain a daily drilling log of the well. Information that shall be listed on the drilling log includes: (1) any drilling fluids and additives, including quantity of materials used; (2) any drilling fluid properties, including weight, viscosity, and sand content; (3) type and diameter of bits used for drilling and total footage for each bit; (4) any remarks or comments concerning the drilling characteristics of the borehole(s); (5) description of formation materials encountered during drilling, and (6) any remarks or comments regarding water encountered in the borehole(s). The CONTRACTOR shall keep the forms at the site for inspection by the ENGINEER or OWNER.

The CONTRACTOR shall complete and file a Well Driller's Report with the DWRi as required by UAC R655-4-4.5, *Official Well Drillers Report* (well log). Copies of all logs and forms shall be furnished to the ENGINEER following completion of all operations.

The CONTRACTOR shall drill and construct the exploration well sufficiently straight and plumb to meet the requirements stated in Section 3.2.

The CONTRACTOR shall manage drilling fluids and produced water and shall protect groundwater quality and the waters of the State, as specified in Section 1.12.

## 3.3 LOST CIRCULATION

In the event of lost circulation conditions, the CONTRACTOR shall contact the ENGINEER prior to the use of lost circulation materials. Use of lost circulation materials must be approved by the ENGINEER and shall conform to the requirements of UAC R655-11.6.1, *Protection of Aquifer – Drilling Fluids and LCMs*.

## 3.4 CONDUCTOR CASING

The CONTRACTOR shall drill for, install and grout in place 14-inch diameter steel conductor casing. The CONTRACTOR shall drill a borehole for the conductor casing that is at least 4 inches in diameter larger than the outside diameter of the conductor casing. Drilling shall conform to the specifications provided in Section 3.2.

The conductor casing shall be lowered into the borehole by a method which will always allow for the control of the rate of fall of the casing into the borehole. The casing shall not be dropped or allowed to fall uncontrolled into the borehole.

Individual lengths of casing shall be joined by welding in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Welding of the well casing shall be performed by properly qualified persons. Conductor casing shall conform to the specifications provided in Section 2.2, UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.3.2, *Steel Casing*. The conductor casing shall be unperforated in accordance with R655-4-11.5.5, *Permanent Conductor Casing Used.*

Centralizers shall be installed as directed by the ENGINEER.

The CONTRACTOR shall measure and record the lengths of each section of casing in the order of installation in the borehole for submittal to the ENGINEER.

The conductor casing shall be cemented in place in accordance with the specifications provided in Section 3.10.

## 3.5 GEOPHYSICAL LOGGING

The CONTRACTOR shall perform or subcontract the geophysical logging of the entire surface casing and exploration boreholes. Two printed copies plus an electronic copy

(USB flash drive with data files of logs and pdf file of logs) shall be provided in the field at the conclusion of the logging runs. Geophysical logging shall be completed in accordance with accepted industry standards.

The following geophysical logs shall be run:

- Spontaneous-potential
- Short and long normal electrical resistance (16- and 64-inch spacing)
- Single point resistivity
- Natural-gamma
- 3-arm caliper
- Temperature
- Deviation (gyroscopic)
- Neutron-density (if requested by the ENGINEER)

## 3.6 RECEIPT OF FINAL WELL DESIGN

At the conclusion of geophysical logging of the exploration borehole, the ENGINEER shall have 72 hours to submit the exploration well design to the CONTRACTOR under which no standby time or rig time rates shall apply. In the final well design, the ENGINEER shall specify the total well depth, zone test intervals, gravel pack intervals, intervening sealed intervals, bentonite seals and cement grout seals. The ENGINEER may modify the design if new information becomes available.

## 3.7 INSTALLATION OF EXPLORATION WELL CASING ASSEMBLY

The anticipated total drilling depth for the two exploration wells is approximately up to 1200, but the ENGINEER reserves the right to drill lesser footage if hydrogeologic conditions warrant. The preliminary design anticipates utilizing a maximum of 1200 feet per well of exploration well casing.

The ENGINEER shall determine the exact drilled depth, depths and lengths of exploration well casing and placement of other materials based on the results of lithologic and geophysical logging the borehole. Following receipt of the final well design from the ENGINEER, the CONTRACTOR shall install the exploration well casing.

Individual lengths of casing shall be joined by welding in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Welding of the well casing shall be performed by properly qualified persons. Casing shall conform to the requirements of UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.3.2, *Steel Casing*.

Centralizers shall be installed on the zone test casing. Centralizers shall be placed at intervals of 60 feet or less.

The exploration well casing shall be lowered into the borehole by a method which will allow for control of the rate of fall of the assembly at all times. The assembly shall not be dropped or allowed to fall uncontrolled into the borehole.

The exploration well casing shall be suspended in the borehole at all times during installation and shall not be supported from the bottom of the borehole at any time.

## 3.8 INSTALLATION OF GRAVEL PACK

Gravel pack shall (1) be installed in the annulus between the outside of the 5-inch diameter casing and the borehole wall in each of the three zone test intervals and (2) extend from the bottom of the borehole upward to a depth determined by the ENGINEER, which shall be a minimum of about 10 feet above the top of each zone test interval. The exploration well casing assembly shall be suspended in the borehole while the gravel packed is installed. The exploration well casing assembly shall not be supported from the bottom of the borehole at any time during gravel pack installation.

The gravel pack shall be installed in accordance with AWWA Standard A100-15, *Water Wells, Appendix B*. Other installation methods may be considered by the ENGINEER as long as the gravel pack is placed in one uniform continuous operation using a method that through common usage has been shown to minimize (1) bridging of the material between the borehole and the casing, and (2) excessive segregation of the material after it has been introduced into the annulus and before it settles in place from bottom to top. This includes actions made by the CONTRACTOR to surge the well with a bailer during installation of the gravel pack.

The gravel pack material shall be (1) thoroughly sterilized with 100 parts per million (ppm) chlorine or hypochlorite solution immediately before being installed in the borehole or (2) dry chlorine should be mixed with the gravel pack at the surface before it is installed in the borehole.

The gravel pack material shall conform to the specifications provided in Section 2.4, UAC R309-515-6(6)(k), *Gravel Pack Wells*, and UAC R655-4-11.5.2, *Gravel Pack or Filter Material*. Installation of gravel pack material shall conform to UAC R309-515-6(6)(k), *Gravel Pack Wells*, and UAC R655-4-11.5.3, *Placement of Filter Material*.

## 3.9 BENTONITE PLUG

In accordance with UAC R309-515-6(6)(k)(v), *Gravel Pack Wells,* after the exploration well casing, and gravel pack have been installed in the borehole, the annular space above the gravel pack shall be sealed using unhydrated bentonite pellets. The plug shall be a minimum of 10 feet in thickness. The bentonite pellets shall be placed on top of the gravel pack in a manner that prevents bridging of the bentonite in the annulus. The depth to the top of the bentonite plug shall be directly measured and recorded immediately after placement, without allowance for swelling. A minimum of 60 minutes should be allowed for the bentonite plug to hydrate and form a low permeability seal

before 3 feet of gravel pack is placed in the annular space above the bentonite plug. The bentonite plug shall conform to the specifications provided in Section 2.5.

## 3.10 INSTALLATION OF GROUT WELL SEAL

The CONTRACTOR shall a cement grout well seal around the conductor casing and well casing that meets the requirements of UAC R309-515-6(6)(i), Well Sealing Techniques and Requirements and R655-4-11.4, Surface Seals and Interval Seals. The cement grout well seal shall be installed around the exploration well casing and extend to a depth determined by the ENGINEER between each zone test interval.

Installation of the cement grout seal shall conform to the requirements of UAC R655-4-11.4, Surface Seals and Interval Seals, R655-4-11.7.1, Special Requirements - Explosives and R655-4-12.1.2, and R655-4-12.1.2, Public Water Supply Wells. The cement grout shall be allowed to cure for a period of 24 hours before well drilling, construction, or testing may be resumed.

## 3.11 ZONE TESTING

At the direction of the ENGINEER and after geophysically logging the exploration boreholes and well construction, the CONTRACTOR shall zone test the exploration borehole using a temporary test pump. The CONTRACTOR shall furnish the pump model and performance curve and shall install all materials and equipment to conduct multiple zone tests in each well. The CONTRACTOR shall manage drilling fluids and produced water and shall protect groundwater quality and the waters of the State, as specified in Section 1.13.

Zone testing shall conform to the following:

1. The depth intervals of three zone tests shall be specified by the ENGINEER.
2. Prior to installing the exploration well casing, ENGINEER will determine whether boring should be plugged back from total drilled depth and place cement grout as required.
3. Weld bottom plate to 5-inch diameter steel exploration well casing and set to depth specified by the ENGINEER.
4. Sterilized gravel pack shall be tremied in the annular space between the borehole wall and the 5-inch diameter exploration well casing to depths specified by the ENGINEER that are at least 10 feet above the top and 5 feet below the bottom of each interval to be tested.
5. A minimum 10-foot bentonite plug shall be tremied on top of the gravel pack to seal the zone test interval in the borehole.
6. Perforate the bottom (lowermost) zone for testing using a 1/8-inch perforator. The CONTRACTOR shall airlift from the bottom of the well until produced water is relatively clear and sand free. The CONTRACTOR shall measure the static (unpumped) depth to the water level after airlifting.

7. A temporary submersible test pump shall then be installed to a depth that is at least 100 feet below the measured water level. The pump must be capable of delivering 30 to 50 gallons per minute (gpm) from depths of 450 to 650 feet.
8. Measure and control and record pumping rate, measure and record depth to water during and after zone test.
9. Allow ENGINEER to monitor water quality during and collect water quality sample at the end of each zone test.
10. Following completion of each zone testing, remove pumping equipment and grout back 5-inch diameter casing to bottom of next higher zone test and repeat steps 6 through 9.
11. Following completion of last (uppermost) zone test, remove pumping equipment and grout back to ground surface.

As directed by the ENGINEER, the CONTRACTOR shall measure and record the following for each zone test for submittal to the ENGINEER:

- Depth of perforated interval, gravel pack, and bentonite seal;
- Depth of air line or air turn-around sub;
- Air pressure required to begin air-lifting (unload pressure);
- Running air pressure while air-lifting (running pressure);
- Rate at which water is being produced during air-lifting;
- Water level after air-lifting;
- Submersible pump intake depth;
- Static water level prior to zone testing;
- Pumping rate during zone testing;
- Pumping water levels during zone testing; and
- Recovery water levels after shutting down the pump.

Pumping rate measurements shall be made and recorded every 5 minutes for the first 30 minutes of pumping and then decreased to once every 10 minutes for the remaining 3.5 hours of each zone test, or as directed by ENGINEER. Water level measurements shall be made and recorded once every 10 minutes during both pumping and recovery periods to estimate aquifer parameters. Zone testing production rates shall be measured using an in-line totalizing flow meter or volumetrically by discharging into a tank of known volume while measuring the time to fill the tank of known volume. Water levels shall be measured "*by hand*" (in feet to nearest tenth and from the same datum throughout recovery) using a battery powered water level sounder or other suitable device approved by the ENGINEER.

Near the conclusion of the zone test, the CONTRACTOR shall aid the ENGINEER in collecting a water sample for submittal to an approved analytical laboratory within

analytical hold-times (generally the same day as the sample is collected and several hours before the laboratory closes for the day).

## 3.12 PLUGGING AND ABANDONMENT

Well abandonment shall be accomplished under the direct supervision of a currently Utah-Licensed Water Well Driller who shall be responsible for verification of the procedures and materials used. The CONTRACTOR shall plug and abandon each well in accordance with UAC R309-515-6(9) *Well Abandonment* and R655-4-14 *Abandonment of Wells* or as approved by the DWRi.

After testing is completed, neat cement or sand cement grout shall be introduced at the bottom of the well or required sealing interval and placed progressively upward to the top of the well. The sealing material shall be placed by the use of a grout pipe, tremie line, dump bailer or equivalent to avoid freefall, bridging, or dilution of the sealing materials or separation of aggregates from sealants. Sealing material shall not be installed by freefall or gravity unless the interval to be sealed is dry and no deeper than 30 feet below ground surface.

Within 30 days of the completion of abandonment work on each well, the CONTRACTOR shall file an abandonment log with the DWRi. The blank abandonment log will be mailed to the licensed well driller upon notice to the DWRi of the start of abandonment work as described in UAC R655-4-4(4.2.5).4.6.3. The water right number or non-production well number, owner name and address, and the well location, if available, will be preprinted on the blank abandonment log provided to the well driller. The driller shall verify this information and make any necessary changes on the abandonment log before submitting the log.

The driller must provide the following information on the abandonment log:

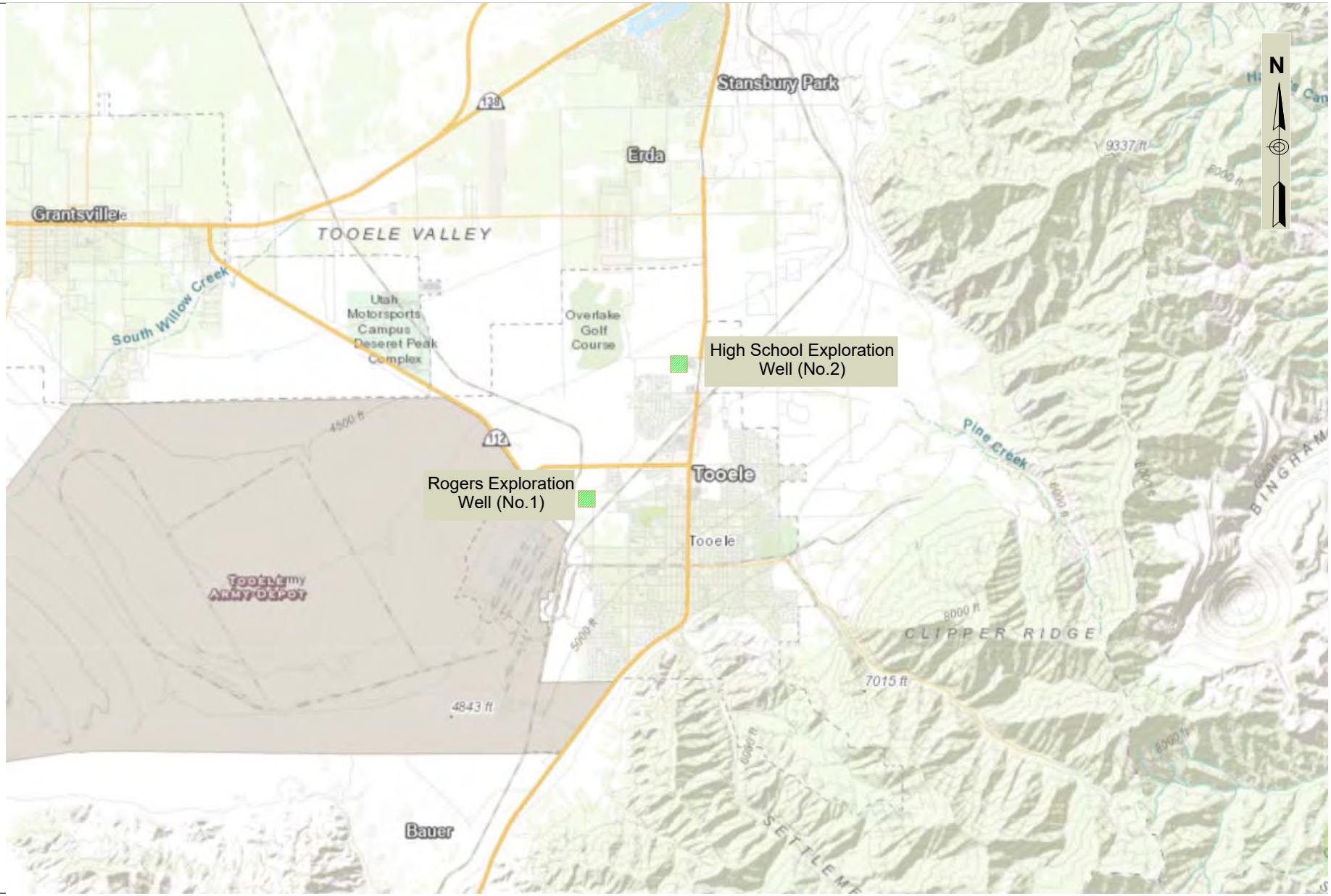
- Existing well construction information;
- Date of abandonment;
- Reason for abandonment;
- A description of the abandonment method;
- A description of the abandonment materials including depth intervals, material type, quantity, and mix ratio;
- The Well Driller statement includes the driller name, license number, signature, and date.

## 3.13 SUBMITTALS

The CONTRACTOR shall submit documentation to the ENGINEER that shall include, but is not limited to, the following:

| Submittal | Section Reference | When Due |
|---|---|---|
| Drilling fluid and water discharge plan | 1.12 | Prior to the start of the WORK |
| SDS sheets | 2.0 | For approval prior to using chemicals |
| Well casing delivery tickets | 2.2 | Prior to installation |
| Gravel pack gradation (sieve) analysis results | 2.4 | Prior to installation |
| Driller's daily reports | 3.2 | Following each day of work |
| Well Driller's Report | 3.2 | Within 30 days of well completion |
| Geophysical logs | 3.5 | At the conclusion of logging |
| Pump Curve - Zone testing data | 3.11 | Prior to testing – At conclusion of each zone test |

## FIGURES




Reference: Division of Water Rights Mapping Database 2025

LOUGHLIN WATER ASSOCIATES LLC

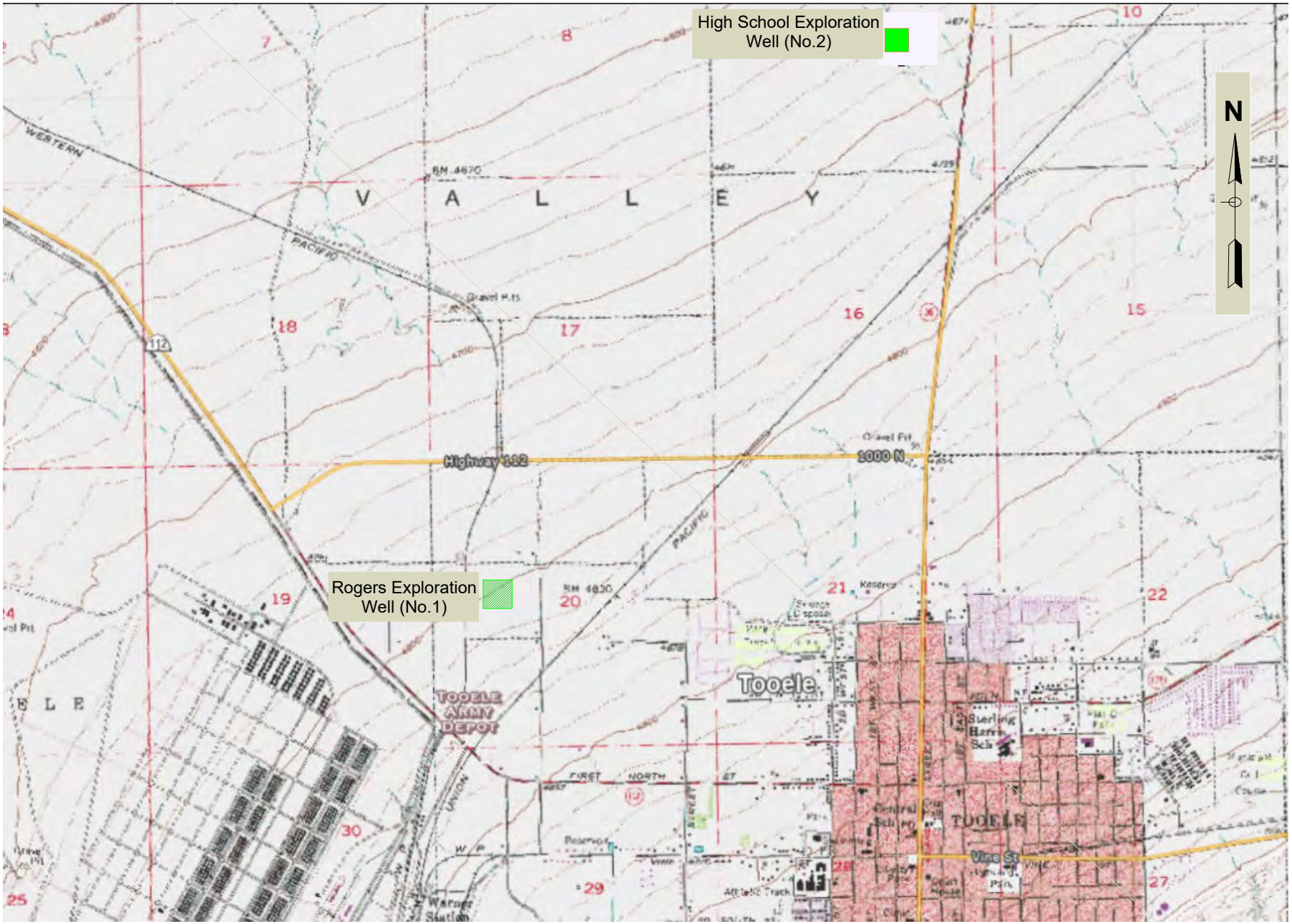
0 1.0 2.0

Approximate Scale in Miles

Tooele City

Regional Map

Figure 1




LOUGHLIN WATER ASSOCIATES ▲ LLC

Tooele City

Topographic Map

Figure 2

LOUGHLIN WATER ASSOCIATES LLC

0 1/4 1/2

Approximate Scale in Miles

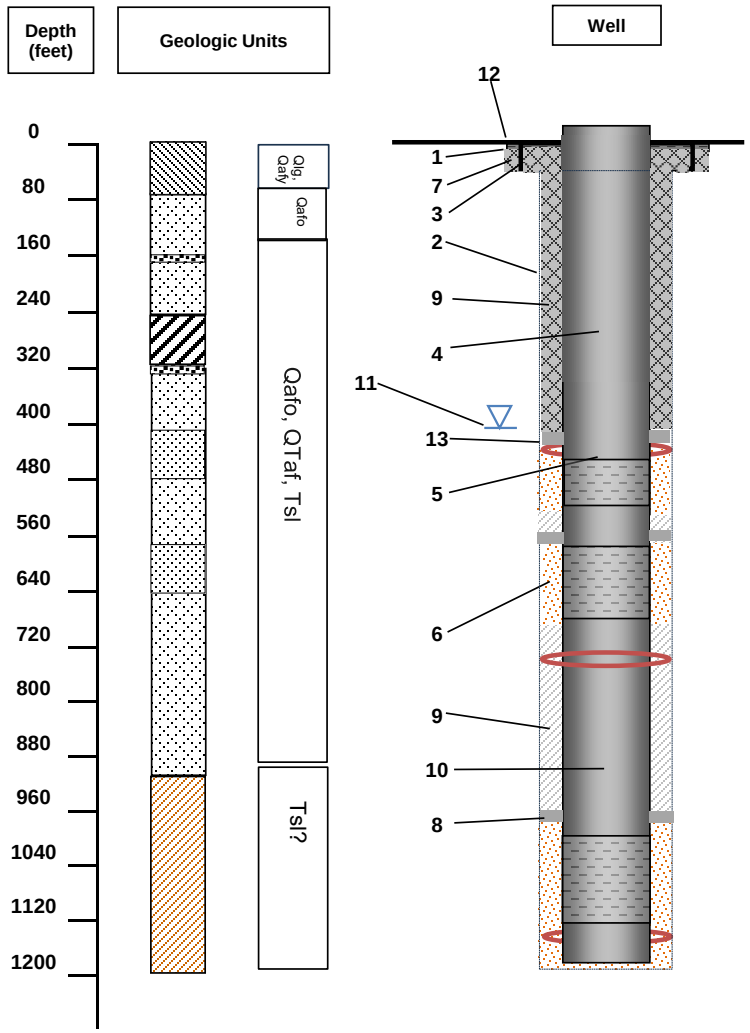
Red Del Papa Well #18 (WIN 443468)

See Appendix A for Drillers Logs

Tooele City

Tooele City Wells

Figure 3




DRAWING NOT TO SCALE

**Explanation**

**Borehole Diameters**

1 - 18-inch diameter borehole (0 to 40 feet)

2 - 12.25-inch diameter borehole (40 to 1200 feet)

**Blank Casing**

3 - 14-inch diameter low carbon steel conductor casing; 0.25-inch wall thickness (0 to 40 feet)

4 - 5-inch diameter low carbon steel exploration well casing; 0.250-inch wall thickness (0 to 1200 feet)

**Perforation**

5 - 1/8-inch perforation zone minimum two perforations per foot

**Gravel Pack**

6- 1/4" x 1/8 " Clean washed silica gravel tremied to depth based on subsurface conditions specified by the ENGINEER that are at least 10 feet above the top and 5 feet below the bottom of each interval to be tested.

**Well Seals**

7 - 14-inch casing sealed between 40 feet to surface with neat cement grout

8 - A minimum 10-foot bentonite plug tremied on top of the gravel pack to seal the zone test interval in the borehole.

9 - Cement grout well seal around 5-inch diameter casing above the uppermost test zone (0 to 450 feet).

10 - Inside of 5-inch casing sealed with neat cement grout between each test zone and to surface above uppermost test zone.

**Static Water Level**

11 - Estimated between 440 and 490 feet

12 - Ground elevations approximately 4800 feet at Rogers Street and 4660 feet at High School Exploration Well

**Other**

13 - Centralizers approximately every 60 feet.

Notes:

Key to geologic units:

- Undifferentiated gravel, sand, clayey sand, clayey gravel
- Clayey formations with differing amounts sand, gravel, conglomerate, cobbles, boulders
- Tertiary Formation including Salt Lake Formation

1. Designed by John S. Brown, P.G., L.P.I;
2. Subsurface conditions at well site are uncertain;
3. All work shall be in accordance with: (1) Utah Division of Water Rights Utah Administrative Code (UAC) Rule R655-4 Administrative Rules for Water Wells; (2) Utah Department of Environmental Quality (DEQ) Division of Drinking Water UAC Rule R309-515 Source Development Rule, Ground Water - Wells; (3) DEQ Division of Water Quality, Utah Water Quality Act, 19-5-107(1); and (4) the Technical Specifications. ENGINEER shall specify the exact drill depth, depths and lengths of casing, perforations and placement of other materials based on the results of lithologic and geophysical logging the borehole.

LOUGHLIN WATER ASSOCIATES LLC

Tooele City
Preliminary Design
Exploration Wells
Figure 4

# APPENDIX A

# WELL DRILLER REPORTS

Berra Well #19 - WIN 443466

# WELL DRILLER'S REPORT
## State of Utah
## Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Non-Production Well: 1915001M00 WIN: 443466

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2410 E 120 from the S4 corner of section 16, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 10/27/2019 Completion Date: 10/7/2020

Check all that apply: [X] New [ ] Repair [ ] Deepen [ ] Clean [ ] Replace [ ] Public Nature of Use: Municipal

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0 | 40 | 40 | AUGER | GEL / POLYMER |
| 0 | 912 | 14 3/4 | REVERSE CIRCULATION | GEL / POLYMER |
| 0 | 861 | 28 | REVERSE CIRCULATION | GEL / POLYMER |
| | | | | |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
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RECEIVED
NOV 03 2020 LI
WATER RIGHTS
SALT LAKE

**Static Water Level**

SCANNED LP

Date 10/5/2020 Water Level 418.28 feet Flowing? [ ] Yes [X] No
Method of Water Level Measurement TRANSDUCER If Flowing, Capped Pressure N/A PSI
Point to Which Water Level Measurement was Referenced TOP OF CASING Elevation UNKNOWN
Height of Water Level reference point above ground surface 3.6 feet Temperature 15.93 degrees [X] C [ ] F

## Construction Information

| DEPTH (feet) FROM | TO | CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) |
|---|---|---|---|---|
| 0 | 40 | A-53 GRADE B | .375 | 32' |
| +3 | 525 | A-53 GRADE B | .375 | 20 |
| 580 | 600 | A-53 GRADE B | .375 | 20 |
| 660 | 670 | A-53 GRADE B | .375 | 20 |
| 740 | 760 | A-53 GRADE B | .375 | 20 |

| DEPTH (feet) FROM | TO | ☑ SCREEN ☐ PERFORATIONS ☐ OPEN BOTTOM<br>SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|
| 525 | 580 | .080 | 20 | SS WIRE WRAP |
| 600 | 660 | .080 | 20 | SS WIRE WRAP |
| 670 | 740 | .080 | 20 | SS WIRE WRAP |
| 760 | 850 | .080 | 20 | SS WIRE WRAP |

Well Head Configuration: DOUGHNUT BETWEEN CASINGS  Access Port Provided? ☒ Yes ☐ No

Casing Joint Type: WELDED  Perforator Used: N/A

Was a Surface Seal Installed? ☒ Yes ☐ No  Depth of Surface Seal: 40' feet  Drive Shoe? ☐ Yes ☒ No

Surface Seal Material Placement Method: PUMPED VIA TREMMIE

Was a temporary surface casing used? ☐ Yes ☒ No  If yes, depth of casing: N/A feet  diameter: N/A inches

| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION<br>SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 0 | 40 | 50/50 SAND CEMENT SLURRY | 7 YDS$^3$ | 17/GAL 15 BAG 5GAL/SACK |
| 0 | 110 | 50/50 SAND CEMENT SLURRY | 18 YDS$^3$ | 17/GAL 15 BAG 5GAL/SACK |
| 110 | 661 | SRI SUPREME 6X9 | 67 YDS$^3$ | N/A |
| | | | | |
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## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| 9/12/20 | DUAL SWAB AIRLIFT | 350 | X | | UNKNOWN | 123 |
| | DUAL SWAB PUMP | 200 | X | | UNKNOWN | 200 |
| | TEST PUMP/SURGE | 2010 | X | | 98' | 117 |

## Pump (Permanent)

Pump Description:  Horsepower:  Pump Intake Depth: feet

Approximate Maximum Pumping Rate:  Well Disinfected upon Completion? ☐ Yes ☐ No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name HYDRO RESOURCES WEST, INC. (Person, Firm, or Corporation - Print or Type)  License No. 815

Signature (Licensed Well Driller)  Date 10/27/2020

# WELL DRILLER'S REPORT ADDTIONAL DATA FORM
## State of Utah
## Division of Water Rights



**Well Identification**

Non-Production Well: 1915001M00

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: _____

**Well Location** *Note any changes*

N 2410 E 120 from the S4 corner of section 16, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
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## Construction Information (con't)

| DEPTH (feet) FROM | DEPTH (feet) TO | CASING: CASING TYPE AND MATERIAL/GRADE | CASING: WALL THICK (in) | CASING: NOMINAL DIAM. (in) | DEPTH (feet) FROM | DEPTH (feet) TO | ☐SCREEN ☐PERFORATIONS ☐OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| +3 | 900 | A-53 GRADE B | 2 | .154 | | | | | |
| +3 | 120 | A-53 GRADE B | 3 | .216 | | | | | |
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| DEPTH (feet) FROM | DEPTH (feet) TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
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## Comments (con't)

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

**Name** HYDRO RESOURCES WEST, INC. (Person, Firm, or Corporation - Print or Type)

**License No.** 815

**Signature** _____ (Licensed Well Driller)

**Date** 10/27/2020

# Cuttings Log

start date

Berra Well #19 - WIN 443466

Hydro resources

| From | to | | | RIG | 10023 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | ⟷ | Clay sand & gravel | | | | | | | |
| 40 | 65 | ⟷ | sand and gravel | | | | | | | |
| 65 | 75 | ⟷ | Clay & gravel | | | | | | | |
| 75 | 80 | ⟷ | Gravel | | | | | | | |
| 80 | 85 | ⟷ | Gravel small cobbles | | | | | | | |
| 85 | 125 | ⟷ | Gravel | | | | | | | |
| 125 | 140 | ⟷ | clay | | | | | | | |
| 140 | 145 | ⟷ | Sandy clay | | | | | | | |
| 145 | 155 | ⟷ | Fine sand | | | | | | | |
| 155 | 190 | ⟷ | gravel | | | | | | | |
| 190 | 200 | ⟷ | sand & gravel | | | | | | | |
| 200 | 210 | ⟷ | Gravel | | | | | | | |
| 210 | 220 | ⟷ | sand & gravel | | | | | | | |
| 220 | 235 | ⟷ | gravel | | | | | | | |
| 235 | 240 | ⟷ | Red clay and gravel | | | | | | | |
| 240 | 265 | ⟷ | Gravel | | | | | | | |
| 265 | 290 | ⟷ | Red clay and gravel | | | | | | | |
| 290 | 355 | ⟷ | gravel | | | | | | | |
| 355 | 360 | ⟷ | sand & gravel | | | | | | | |
| 360 | 365 | ⟷ | sand gravel & clay | | | | | | | |
| 365 | 390 | ⟷ | sand & gravel | | | | | | | |
| 390 | 445 | ⟷ | Gravel | | | | | | | |
| 445 | 455 | ⟷ | clay & gravel | | | | | | | |
| 455 | 475 | ⟷ | gravel | | | | | | | |
| 475 | 490 | ⟷ | clay some gravel | | | | | | | |

# Cuttings Log

start date

Berra Well #19 - WIN 443466

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 490 | 500 | ⟷ | clay & gravel | | | | | | | | |
| 500 | 510 | ⟷ | clay | | | | | | | | |
| 510 | 580 | ⟷ | sand & gravel | | | | | | | | |
| 580 | 610 | ⟷ | Clay & gravel | | | | | | | | |
| 610 | 630 | ⟷ | Gravel | | | | | | | | |
| 630 | 655 | ⟷ | Clay & gravel | | | | | | | | |
| 655 | 660 | ⟷ | gravel | | | | | | | | |
| 660 | 670 | ⟷ | clay & gravel | | | | | | | | |
| 670 | 680 | ⟷ | sand & gravel | | | | | | | | |
| 680 | 685 | ⟷ | sand clay & gravel | | | | | | | | |
| 685 | 690 | ⟷ | clay & sand | | | | | | | | |
| 690 | 745 | ⟷ | sand & gravel | | | | | | | | |
| 745 | 760 | ⟷ | Clay & gravel | | | | | | | | |
| 760 | 770 | ⟷ | sand 7 gravel | | | | | | | | |
| 770 | 835 | ⟷ | Gravel | | | | | | | | |
| 835 | 850 | ⟷ | Sand & gravel | | | | | | | | |
| 850 | 860 | ⟷ | Clay | | | | | | | | |
| 860 | 865 | ⟷ | clay & sand | | | | | | | | |
| 865 | 870 | ⟷ | clay sand & gravel | | | | | | | | |
| 870 | 880 | ⟷ | clay | | | | | | | | |
| 880 | 885 | ⟷ | Sand & clay | | | | | | | | |
| 885 | 912 | ⟷ | clay & gravel | | | | | | | | |
| | | ⟷ | | | | | | | | | |
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| | | ⟷ | | | | | | | | | |

Rollo Grounds Well (#16)

**AMENDED WELL LOG**

# WELL DRILLER'S REPORT

## State of Utah
## Division of Water Rights

WIN 436568

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Change Application: a37675 (15-3417) WIN: 436568

**Owner** *Note any changes*

Tooele City Water Special Service District
90 North Main Street
Tooele, UT 84074

Well #16

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2065 E 2030 from the SW corner of section 21, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 8-22-13 Completion Date: 12-22-13

Check all that apply: ☒ New ☐ Repair ☐ Deepen ☐ Clean ☐ Replace ☐ Public Nature of Use: Drinking water

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0' | 93' | 48" | Auger | Dry |
| 93' | 488 | 32" | Reverse Circ | Water |
| 488' | 1000' | 26" | Reverse Circ | Water |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 93 | | | | X | | X | | | | | | Brown | |
| 93 | 200 | | | | | | | X | X | X | | | | |
| 200 | 210 | | | | X | | X | X | X | | | | | |
| 210 | 320 | | | | | | X | X | X | | | | | |
| 320 | 340 | | | | X | | X | X | X | | | | | |
| 340 | 415 | | | | X | | X | X | X | | | | | |
| 415 | 448 | | | | X | | X | X | X | | | Rock | | |
| 445 | 545 | | | | | | X | X | X | | | | | |
| 445 | 548 | | | | X | | X | X | ' | | | | | |
| 545 | 795' | | | | | | X | X | X | | | | | |

RECEIVED
JAN 30 2014
WATER RIGHTS
SALT LAKE

RECEIVED
JAN 21 2014
WATER RIGHTS
SALT LAKE

**Static Water Level**

Date 8-22-13 Water Level 441' feet Flowing? ☐ Yes ☑ No

Method of Water Level Measurement Sounder If Flowing, Capped Pressure _____ PSI

Point to Which Water Level Measurement was Referenced Ground Level Elevation _____

Height of Water Level reference point above ground surface 441' feet Temperature _____ degrees ☐ C ☐ F

[redacted] *Well Log* [redacted]

Rodeo Grounds Well (#16)

WIN 436568

## Construction Information

| DEPTH (feet) FROM | DEPTH (feet) TO | CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) | DEPTH (feet) FROM | DEPTH (feet) TO | ☐SCREEN ☐PERFORATIONS ☐OPEN BOTTOM SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| +3' | 370' | mild steel | .375 | 18" | 370' | 610' | .70 | 18" | 55 |
| 610' | 640' | | .375 | 18" | 640' | 660' | .70 | 18" | 55 |
| 660' | 670' | | .375 | 18" | 670' | 810' | .70 | 18" | 55 |
| 810' | 830' | | .375 | 18" | 830' | 1000' | .70 | 18" | 55 |
| | | | | | | | | | |

Well Head Configuration: CAP

Access Port Provided? ☐Yes ☑No

Casing Joint Type: Butt weld

Perforator Used:

Was a Surface Seal Installed? ☑Yes ☐No

Depth of Surface Seal: 488 feet

Drive Shoe? ☐Yes ☑No

Surface Seal Material Placement Method: TRIMMIC

Was a temporary surface casing used? ☑Yes ☐No If yes, depth of casing: 93' feet diameter: 36 inches

| DEPTH (feet) FROM | DEPTH (feet) TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | Quantity of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 100' | 470 488' | 15 SK SAND SLURY | 79 yds | |
| 470' | 1000 | 6 x 9 COLORADO CILICA | 110 BAGS | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | Units Check One CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |

## Pump (Permanent)

Pump Description: Horsepower: Pump Intake Depth: feet

Approximate Maximum Pumping Rate: Well Disinfected upon Completion? ☐Yes ☐No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name ZIM INDUSTRIES INC (Person, Firm, or Corporation - Print or Type)

License No. 697

Signature Mark J Jemmett (Licensed Well Driller)

Date 1/2/14

# WELL DRILLER'S REPORT ADDTIONAL DATA FORM

**State of Utah**
**Division of Water Rights**

WIN 436568



**Well Identification**

Change Application: a37675 (15-3417)

**Owner** *Note any changes*

Tooele City Water Special Service District
90 North Main Street
Tooele, UT 84074

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2065 E 2030 from the SW corner of section 21, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 795 | 810 | | | | X | | X | X | X | | | | Brown | |
| 810 | 880 | | | | | | X | X | X | | | | Brown | |
| 880 | 885 | | | | X | | X | X | X | | | | Brown | |
| 885 | 1000 | | | | | | X | X | X | | | | Brown | |

Rodeo Grounds Well (#16)

**Construction Information (con't)**

| DEPTH (feet) FROM | TO | CASING: CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) | DEPTH (feet) FROM | TO | ☐ SCREEN ☐ PERFORATIONS ☐ OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| 0' | 488' | mild Steel (Intermediate) | 375 | 28" | | | | | |
| 0' | 93' | mild Steel (conductor) | 375 | 36" | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
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| | | | | | | | | | |

| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| | | | | |
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| | | | | |
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| | | | | |
| | | | | |

**Comments (con't)**

**Well Driller Statement** This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

**Name** ZIM INDUSTRIES INC (Person, Firm, or Corporation - Print or Type) **License No.** 697

**Signature** Robert J Zimmer (Licensed Well Driller) **Date** 1/2/14

Red Del Papa Well (WIN 443468)

# WELL DRILLER'S REPORT
## State of Utah
## Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Non-Production Well: 1915001M00 WIN: 443468

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: PAUL HANSON (435) 843-2132

**Well Location** *Note any changes*

S 90 E 250 from the W4 corner of section 27, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 1/3/2020 Completion Date: 9/14/2020

Check all that apply: [X] New [ ] Repair [ ] Deepen [ ] Clean [ ] Replace [ ] Public Nature of Use: MUNICIPAL

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0 | 40 | 40 | AUGER | POLYMER - GEL |
| 40 | 1200 | 14 3/4 | REVERSE CIRCULATION | POLYMER - GEL |
| 40 | 1200 | 28 | REVERSE CIRCULATION | POLYMER - GEL |
| | | | | |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | SEE ATTACHED |

RECEIVED
SEP 29 2020 LI
WATER RIGHTS
SALT LAKE

SCANNED LP

**Static Water Level**

Date 9/12/2020 Water Level 464 feet Flowing? [ ] Yes [X] No
Method of Water Level Measurement SOUNDER If Flowing, Capped Pressure N/A PSI
Point to Which Water Level Measurement was Referenced TOP OF CASING Elevation UNKNOWN
Height of Water Level reference point above ground surface 20' ~~feet~~ Temperature 69 degrees [ ] C [ ] F

Well Log

Red Del Papa Well (WIN 443468)

## Construction Information

| DEPTH (feet) FROM | TO | CASING: CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) | DEPTH (feet) FROM | TO | ☒SCREEN ☐PERFORATIONS ☐OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | A-53 GRADE B | .375 | 32 | 605 | 865 | .060" | 20" | SS WIRE WRAP |
| 0 | 605 | A-53 GRADE B | .375 | 20 | 915 | 1,045 | .080" | 20" | SS WIRE WRAP |
| 865 | 915 | A-53 GRADE B | .375 | 20 | 1,075' | 1,200' | .080" | 20" | SS WIRE WRAP |
| 1,045 | 1,075 | A-53 GRADE B | .375 | 20 | | | | | |
| 0 | 900 | STEEL SCH 40 | .154 | 2" | | | | | |

Well Head Configuration: 20" STICK UP & DOUGHNUT BETWEEN CASINGS Access Port Provided? ☒Yes ☐No

Casing Joint Type: WELDED Perforator Used: NO

Was a Surface Seal Installed? ☒Yes ☐No Depth of Surface Seal: 100 feet Drive Shoe? ☐Yes ☒No

Surface Seal Material Placement Method: CEMENT

Was a temporary surface casing used? ☐Yes ☒No If yes, depth of casing: _____ feet diameter: _____ inches

| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | Quantity of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 0 | 40 | SAND CEMENT SLURRY | 10 YDS$^3$ | 19/6AL 15SACK 6/6AL |
| 0 | 100 | SAND CEMENT SLURRY | 11 YDS$^3$ | 19/6AL 15 SACK 6/6AL |
| 100 | 1200 | SRI SUPREME #6 | 101 YDS$^3$ | N/A |
| | | | | |
| | | | | |
| | | | | |

## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | Units Check One CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| 6/24/2020 | DUAL SWAB AIRLIFT | 300 | X | | 4' | 96 HOURS |
| 9/12/2020 | PUMP DEVELOPMENT & TEST | 1,600 | X | | 115' | 51 HOURS |
| | | | | | | |

## Pump (Permanent)

Pump Description: _____ Horsepower: _____ Pump Intake Depth: _____ feet

Approximate Maximum Pumping Rate: _____ Well Disinfected upon Completion? ☐Yes ☐No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

ZONE SAMPLED 1045 - 1055 1060 - 1070 880 - 890

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name HYDRO RESOURCES WEST, INC. (Person, Firm, or Corporation - Print or Type) License No. 815

Signature _____ (Licensed Well Driller) Date 9/19/2020

# Cuttings Log

start date

Red Del Papa Well (WIN 443468)

Hydro resources

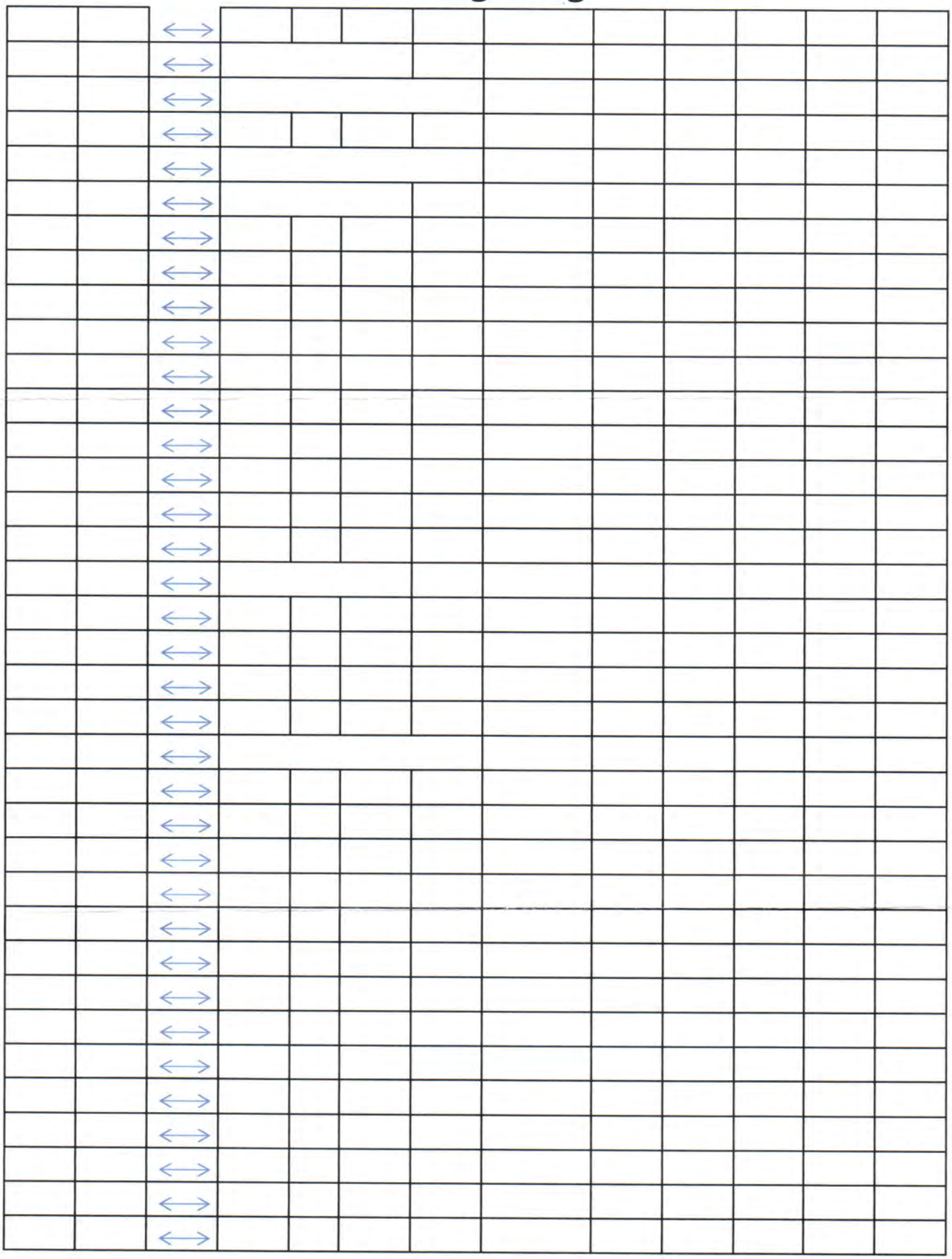
Dec-19

| From | to | | | RIG | 10024 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | ⟷ | Clay sand & gravel | | | | | | | |
| 40 | 80 | ⟷ | Gravel | | | | | | | |
| 80 | 90 | ⟷ | Clay & gravel | | | | | | | |
| 90 | 175 | ⟷ | Rock gravel & clay | | | | | | | |
| 175 | 295 | ⟷ | Sand & gravel | | | | | | | |
| 295 | 300 | ⟷ | Sand Clay & gravel | | | | | | | |
| 300 | 380 | ⟷ | Sand & gravel | | | | | | | |
| *380* | 400 | ⟷ | Clay | | | | | | | |
| 400 | *405* | ⟷ | clay & sand | | | | | | | |
| 405 | 425 | ⟷ | Gravel | | | | | | | |
| 425 | 450 | ⟷ | Clay & gravel | | | | | | | |
| 450 | 475 | ⟷ | Clay sand & gravel | | | | | | | |
| 475 | 495 | ⟷ | Sand & gravel | | | | | | | |
| 495 | 560 | ⟷ | Gravel | | | | | | | |
| 560 | 900 | ⟷ | Gravel & sand | | | | | | | |
| 900 | 1075 | ⟷ | Clay sand & gravel | | | | | | | |
| 1075 | 1110 | ⟷ | Gravel & sand | | | | | | | |
| 1110 | 1200 | ⟷ | Bed rock | | | | | | | |
| | | ⟷ | | | | | | | | |
| | | ⟷ | | | | | | | | |
| | | ⟷ | | | | | | | | |
| | | ⟷ | | | | | | | | |
| | | ⟷ | | | | | | | | |
| | | ⟷ | | | | | | | | |

# Cuttings Log

Red Del Papa Well (WIN 443468)

start date



## APPENDIX B

## UTAH DIVISION OF WATER QUALITY WATER DISHCARGE FACT SHEET

# Fact Sheet Regarding Water Discharges From Water Well Drilling and Operation

## Prepared by: Utah Division of Water Quality

## Updated July 2002

## Background:

Utah Administrative Code (UAC) R317-8-2 requires a UPDES discharge permit for the discharge of pollutants from any point source into waters of the State. A point source is defined as "any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, from which pollutants are or may be discharged."

Through the use of various drilling methods and reasonable best management practices, water well drilling generally can be conducted such that no discharge occurs or that only de minimis (insignificant) amounts of pollutants would be released into waters of the State. As such, it has been the policy of the Division of Water Quality to not require water well drilling operations to obtain a discharge permit as long as they do not discharge or discharge de minimis amounts of pollutants.

There may be circumstances where a discharge permit is necessary or desired by the well driller or owner. However, because a discharge permit can take several months to issue, requires payment of a permit fee, and because the permit would contain specific enforceable effluent quality limits and frequent self-monitoring and reporting requirements, it is highly recommended that all options to avoid discharge or attain the de minimis discharge be explored before pursuing an individual discharge permit.

## Best Management Practices (BMP's)

The goal of BMP implementation is to avoid discharge or, if this is not practicable, to obtain a de minimis pollutant discharge during any phase of well development. The primary pollutants of concern are total suspended solids and turbidity in the form of drill cuttings and muds. Occasionally chemicals such as surfactants are used during the drilling operation. It is the responsibility of the operator and/or owner to assure that BMP's are properly installed and operated in order to contain all fluids or to produce a de minimis pollutant discharge to waters of the State. Some BMP's are indicated below:

1. Drill pits or ponds of adequate size for total containment of all fluids containing drill cuttings, surfactants and associated chemicals.

2. Pits or ponds used for settling; followed by filter cloth and/or straw bales which can be used for filtration prior to fluids entering surface waters of the state.

3. Land application of produced waters during drilling, pump testing, and well development where no discharge would occur to waters of the State.

4. Land application where sufficient filtration through vegetation removes solids and turbidity before water is diffused and enters any surface waters.

5. Other sediment and turbidity reduction treatment such as frac tanks, cyclone separators, etc.

Pollution of waters of the state is a violation of the Water Quality Act, UCA 19-5, which provides for significant monetary penalties, and additional penalties for violations that are willful or caused by gross negligence.

If you have any concerns not covered in this fact sheet or any further questions, please contact:

Mike Herkimer
(801) 536-4386
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Jim Goddard
(801) 538-7314
Division of Water Rights
1594 West North Temple, Suite 220
Salt Lake City, Utah 84114-6300

**SECTION 33 00 10**

# TECHNICAL SPECIFICATIONS
## DRILL, CONSTRUCT AND TEST THE
## PROPOSED PUBLIC WATER SYSTEM (PWS) WELL
## FOR
## TOOELE CITY
### PUBLIC WATER SYSTEM (PWS) NO. UTAH23004
### TOOELE COUNTY, UTAH

Prepared for:

J-U-B Engineering
*Attn: Brandon Nielsen, P.E.*
466 North 900 West
Kaysville, UT 84037

Prepared by:

William D. Loughlin, P.G.
Principal Hydrogeologist, Manager

**Loughlin Water Associates, LLC**
3100 Pinebrook Road, Suite 1100
Park City, Utah 84098
(435) 649-4005
www.LoughlinWater.com

Date: June 9, 2025

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**APPENDIX**

A Well Driller Reports
B Utah Division of Water Quality Water Discharge Fact Sheet

# 1.0 GENERAL REQUIREMENTS

## 1.1 THE REQUIREMENT

The Utah-licensed water well driller (the CONTRACTOR) shall furnish all materials, labor, plant, equipment, tools, supplies, transportation, and appurtenances to drill, construct, develop, and test the Proposed Public Water System (PWS) Well (the proposed PWS well) as specified herein (the WORK).

The WORK will be performed in accordance with the current requirements of: (1) Utah Department of Natural Resources (DNR), Division of Water Rights (DWRi), sometimes referred to as the *Office of the State Engineer*, including Utah Administrative Code (UAC) Rule R655-4, *Administrative Rules for Water Wells*; (2) Utah Department of Environmental Quality (DEQ) Division of Drinking Water (DDW), including UAC, R309-515-6, *Facility Design and Operation: Source Development; Ground Water – Wells*; (3) DEQ Division of Water Quality (DWQ), *Utah Water Quality Act*, 19-5-107(1); and (4) the requirements of the Contract Documents, including these Technical Specifications.

## 1.2 PROJECT DESCRIPTION

The location of the WORK site for the proposed PWS Well has not been determined but will be at either the Rogers Exploration Well or High School Exploration Well (the two exploration wells). Figures 1 and 2 show that the:

- Rogers Exploration Well (Exploration Well No. 1) is south of Rogers Street, west of 1000 West, about 1.5 miles due west of Main Street (Highway 36) and

- High School Exploration Well (Exploration Well No. 2), has a street address of approximately 200 East, 2400 North and about 0.25 miles due west of Main Street (Highway 36).

Figure 3 shows the location of nearby Tooele City PWS wells.

The desired yield of the proposed PWS well is 3000 gallons per minute (gpm).

The proposed PWS well will be drilled through and completed in valley-fill deposits that consist of unconsolidated to semi-consolidated clayey sand and gravel interbedded with sand and gravel, cobbles, boulders, conglomerate, and sandy clay. The estimated total drilling depth is up to 1210 feet. However, the final design of the proposed PWS well will be determined after the borehole is drilled and geologically and geophysically logged.

The WORK consists of drilling, constructing, developing, and testing proposed PWS well. As part of the WORK, the CONTRACTOR shall:

- Drill for and install 32-inch diameter conductor casing to depth of approximately 40 feet and install a certified cement grout seal.

- Drill 28-inch diameter and geophysically log production boring to depth of approximately 1205 feet.
- Install 20-inch diameter production casing and well screen assembly.
- Install filter pack and develop the proposed PWS well with the drill rig.
- Install a certified cement grout well seal around the production casing.
- Develop the proposed PWS well with the drilling rig
- Develop the proposed well with a dual-swab cable tool rig.
- Install a test pump and conduct development and pump testing of the proposed PWS well.
- Perform other tasks as directed by the ENGINEER and described in these Technical Specifications and the Contract Documents.

Figure 4 shows the preliminary design of the proposed PWS well. The CONTRACTOR shall use flooded reverse-circulation drilling methods to drill the borehole below the conductor casing. The ENGINEER will specify to the CONTRACTOR the total drilling depth and the final well design including filter pack gradation and well screen slot size, placement of well casing, screen, filter pack, cement grout well seal, and any other materials used to construct the proposed PWS well.

Tooele City is designated as the "*OWNER*" in these Technical Specifications and Contract Documents for the proposed PWS well. Tooele City is DDW Public Water System (PWS) No. UTAH23004. The DDW classifies Tooele City as a community water system.

Loughlin Water Associates, LLC (Loughlin Water) prepared these Technical Specifications for J-U-B Engineers and Tooele City and (2) is designated as the "*ENGINEER*" in these Technical Specifications.

The form and detail of the various features of the WORK are illustrated on the following drawings and documents and made part of these Technical Specifications:

Figure 1 – Regional Map
Figure 2 – Topographic Map
Figure 3 – Location Map
Figure 4 – Preliminary Design Proposed PWS Well
Appendix A – Well Driller Reports
Appendix B – Utah Division of Water Quality Water Discharge Fact Sheet

## 1.3 WORK SITE AND LOCATION

The location of the WORK site for the proposed PWS Well has not been determined but will be at either the Rogers Exploration Well or High School Exploration Well; see Figures 1, 2, and 3.

The OWNER will delineate the areas within which all of the CONTRACTOR operations shall occur. The CONTRACTOR shall not enter on or occupy with laborers, tools, equipment, or materials any ground outside the area delineated by the OWNER. Other contractors, employees, or agents of the OWNER/ENGINEER may enter the WORK site delineated by the OWNER for business purposes.

## 1.4 BEGINNING AND COMPLETION OF WORK

The CONTRACTOR shall begin WORK within 30 days of the Notice to Proceed. The CONTRACTOR shall substantially complete the WORK within 90 days of beginning the WORK.

## 1.5 SERVICES FURNISHED BY THE OWNER

The OWNER will:

- As conditions require, provide reasonable road access capable of handling heavy equipment;
- Provide rights-of-way for the WORK specified in this contract.
- Obtain a Plan Approval for the proposed PWS well from the DDW prior to the start of drilling, which includes DDW approval of the Preliminary Evaluation Report (PER) as outlined in UAC R655-4-12.1.2, *Public Water Supply Wells*;
- Allow the CONTRACTOR to use the OWNER's culinary water for the drilling operations (see Section 1.9).
- Obtain or help the CONTRACTOR obtain any required permits regarding workings hours, noise control and/or lighting restrictions (see Section 1.10).
- Allow the CONTRACTOR to dispose of drill cuttings and solid wastes at a location specified by the OWNER (see Section 1.12).

## 1.6 SERVICES FURNISHED BY THE ENGINEER

The ENGINEER will:

- Inform the CONTRACTOR about the collection of subsurface data during drilling operations.
- During the course of the WORK, the ENGINEER, in consultation with the OWNER and the CONTRACTOR, will specify to the CONTRACTOR the total drilling depth and the final well design including placement of well casing, screen, filter pack, cement grout well seal, and any other materials used to construct the proposed PWS well.
- Determine when well development is complete.
- Help plan and monitor pumping tests.

## 1.7 DRILLING AND WELL CONDITIONS

The target aquifer of the proposed PWS well is the principal basin-fill aquifer in Tooele Valley. The estimated total drilling depth is up to about 1200 feet. The valley-fill deposits at the proposed well sites are expected to consist of unconsolidated to semi-consolidated clayey sand and gravel interbedded with sand and gravel, cobbles, boulders, and sandy clay.

Figure 3 shows the locations and Appendix A provides copies of Well Driller Reports (well logs) for nearby Tooele City PWS wells. The following summarizes expected subsurface conditions based on the well logs in Appendix A:

| Depth (feet) | Geologic Unit | Description |
|---|---|---|
| 0 – 30 | Lacustrine gravel, Great Salt Lake and Lake Bonneville - Holocene to upper Pleistocene (Qlg) | Sandy gravel to boulders composed of locally derived rock fragments deposited in shore zones of Great Salt Lake and Lake Bonneville |
| 30 – 90 | Lacustrine and alluvial deposits, undivided (Qafy) (Holocene to upper Pleistocene) | Sand, gravel, silt, and clay; consists of alluvial deposits reworked by lakes, lacustrine deposits reworked by streams and slopewash, and alluvial and lacustrine deposits. |
| 90 – 200 | Older fan alluvium, pre-Lake Bonneville upper to middle Pleistocene (Qafo) | Poorly sorted boulders, cobbles, gravel, sand, silt, and clay that predate Lake Bonneville; includes fan surfaces of different levels. |
| 200 – 1100 | Older fan and alluvial deposits- lower Pleistocene to Pliocene, (Qafo, QTaf, Tsl) | Poorly sorted boulders, cobbles, gravel, sand, silt, and clay;<br>conglomerate, unconsolidated to semi-consolidated, may overlap in age with Tertiary Salt Lake Formation. |
| 1100 – 1210 | Older fan and alluvial deposits- lower Pleistocene to Pliocene, (QTaf, Tsl) | Semi-consolidated deposits, and Tertiary Salt Lake Formation (Tsl). |

We expect the aquifer to be unconfined and the depth to the static water level to be within about 440 to 490 feet below ground surface.

It is the CONTRACTOR's responsibility to become informed about local conditions affecting this WORK. Neither the information contained in these specifications, nor gleaned from the OWNER, ENGINEER, or their agents, shall act to relieve the CONTRACTOR from any responsibility set forth in the contract.

## 1.8 UTILITIES AND UTILITY CLEARANCES

The CONTRACTOR shall be responsible for calling Blue Stakes and taking other actions to identify utilities present at the worksite in accordance with UAC R655-4-10.2, *Well Site Locations*. The CONTRACTOR shall be fully responsible for identifying utilities and for any damage caused by the CONTRACTOR's negligence.

## 1.9 WATER, POWER, AND SITE IMPROVEMENTS

The CONTRACTOR may obtain water for drilling operations from Tooele City.

Any water entering a well during construction shall not be contaminated and should be obtained from a chlorinated municipal system. Where this is not possible the water shall be dosed to give a free chlorine residual of 100 milligrams per liter (mg/L). Water introduced into the proposed PWS well shall (1) shall meet the Utah Drinking Water Standards specified in UAC R309-200, *Drinking Water Standards* and (2) conform to all laws applicable to the protection of water quality including UAC R309-515-6(6)(j), *Water Entered Into Well During Construction* and UAC R655-4-11.6.5, *Well Disinfection and Chlorination of Water*.

Costs for water conveyance facilities or transportation to the WORK site shall be borne by the CONTRACTOR. Any required permits to acquire water from other sources are the responsibility of the CONTRACTOR. This includes all necessary piping and components, but only at such locations and in a manner approved by the ENGINEER. Before final acceptance of the proposed PWS well, all temporary connections and piping installed by the CONTRACTOR shall be removed in a manner satisfactory to the ENGINEER.

The CONTRACTOR shall provide, at his own expense, all power required for their operations under the contract.

If desired, security and safety fencing around the WORK site may be installed by the CONTRACTOR, at his own expense.

## 1.10 WORKING HOURS AND NOISE AND LIGHT CONTROL

The CONTRACTOR will be authorized for 24-hour-per-day work for the drilling, construction and testing of the proposed well. The CONTRACTOR shall work on this project in a steady and diligent manner. The CONTRACTOR shall, during all work periods, provide an adequate crew of suitably qualified personnel to prevent unnecessary delays in project completion.

WORK shall be prohibited on Christmas Eve, Christmas Day, New Year's Eve and New Year's Day.

The CONTRACTOR shall make reasonable provision for noise and light control that include, at a minimum, the following measures:

- All equipment and machinery shall be in proper working order.
- All equipment and machinery shall be fitted with adequate mufflers and shall be located, operated, and maintained to minimize noise.
- Air-compressors and generators shall be housed in noise attenuation enclosures.
- The drill rig shall be equipped with a muffler system for air discharges that occur during drilling operations.

The CONTRACTOR shall abide by Tooele City code Title 11, Section 2, Noise Control, which can be viewed at:

https://files.tooelecity.gov/Document%20Center/Government/City%20code/Title11Chapter2(Dec1991).pdf

The CONTRACTOR shall be responsible for meeting all requirements of working hours, noise control, outdoor lighting and nuisance abatement.

The OWNER will obtain or help the CONTRACTOR obtain any required permits regarding workings hours, noise control and/or lighting restrictions.

The CONTRACTOR will prepare and distribute an OWNER approved flyer with a description of the project with contact information for questions and comments regarding the project.

## 1.11 SANITATION

The CONTRACTOR shall provide chemical toilets at the WORK site. The toilets shall conform to applicable local, State and Federal requirements. The cost for these sanitary facilities shall be borne by the CONTRACTOR.

## 1.12 MANAGEMENT OF DRILL CUTTINGS, DRILLING FLUIDS AND PRODUCED WATER

It will be the responsibility of the CONTRACTOR to dispose of the drill cuttings and left-over drilling fluid.

The CONTRACTOR is responsible for following *Best Management Practices* (BMP's) regarding drilling fluid and water discharges during the drilling and testing of the proposed well. It is the responsibility of the drilling CONTRACTOR to use BMPs to limit pollutant discharge to *de minimis* quantities, thereby protecting waters of the State, in accordance with Division of Water Quality Fact Sheet provided in Appendix B. Prior to the start of the WORK, the CONTRACTOR shall submit to the ENGINEER their plan to manage the drilling fluid and water discharge during the drilling and testing of the proposed well.
Drilling fluids, drill cuttings and produced water shall be contained in above-ground tanks and disposed of in a manner to prevent surface or subsurface contamination and to prevent degradation of natural or man-made water courses, impoundments, waterways, lakes, reservoirs, irrigation ditches, storm sewers, and dry stream beds. Cuttings and waste from well drilling operations shall not be discharged into a waterway, lake or reservoir.

Discharge of produced water will be allowed during development and testing provided there are no adverse impacts. Water produced during development and testing shall be discharged into a holding tank or series of tanks or basins for settling. Discharge from the tanks or basins shall pass through straw bales and/or geofabric for erosion control and further filtration. The CONTRACTOR shall provide, at their own expense, all of the

tanks, hay bales, geofabric, riprap, flexible hose, PVC or other tubing, and other materials and equipment to divert and dissipate the energy of and minimize erosion from the discharged water, filter and allow for settling of the solids in the discharged water.

Control of drill cuttings, fluids, and produced water shall conform with UAC R309-515-6(6)(d), *Disposal of Cuttings*, UAC R655-4-11.6.2, *Containment of Drilling Fluids*, rules of the DWQ, and the *Utah Water Quality Act*, 19-5-107(1).

### 1.13 PROTECTION OF GROUNDWATER QUALITY

The CONTRACTOR shall (1) take all necessary precautions to prevent contamination of the water in the proposed PWS well by preventing the introduction of any foreign substance, including contaminated water, gasoline, oil, and the like and (2) conform to all laws applicable to the protection of water quality including UAC R309-515-6(6)(j), *Water Entered Into Well During Construction*, UAC R655-4-11.6.4, *Down-hole Equipment* and UAC R655-4-11.6.5, *Well Disinfection and Chlorination of Water*.

### 1.14 FINAL CLEANUP

The CONTRACTOR shall thoroughly clean the site after completion of the drilling, well construction, and development and test pumping operations. All drill cuttings, debris, and other materials used or generated during these operations shall be properly disposed of by the CONTRACTOR. The disposal of cuttings and drilling fluids shall conform with UAC R309-515-6(6)(d), *Disposal of Cuttings*, UAC R655-4-11.6.2, *Containment of Drilling Fluids* and the *Utah Water Quality Act*, 19-5-107(1).

Following all operations, the CONTRACTOR shall promptly remove their equipment, temporary facilities, and materials, smooth the work site surface, and leave the site in a condition acceptable to the OWNER. No reseeding is to be done during the final cleanup.

## 2.0 WELL PRODUCTS

In accordance with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification*, all interior surfaces that may contact well water must consist of products complying with ANSI/NSF Standard 61. This requirement applies to drop pipes, interior casing and slotted casing, well screens, coatings, adhesives, solders, fluxes, pumps, switches, electrical wire, sensors, and all other equipment or surfaces which may contact the drinking water.

All substances introduced into the proposed PWS well during construction or development shall be certified to comply with ANSI/NSF Standard 60 in accordance with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification*. This requirement applies to drilling fluids (biocides, clay thinners, defoamers, foamers, loss circulation materials, lubricants, oxygen scavengers, viscosifiers, weighting agents) and

regenerants. This requirement also applies to well grouting and sealing materials which may come in direct contact with the drinking water.

CONTRACTOR shall submit to the ENGINEER Safety Data Sheets (SDSs), formerly Material Safety Data Sheets (MSDSs) for all proposed chemicals (including lost circulation materials) to be added to the borehole for approval prior to their use.

## 2.1 DRILLING FLUIDS

### 2.1.1 General

In accordance with UAC R655-4-11.6.5 *Well Disinfection and Chlorination of Water*, potable water from a source approved by the ENGINEER shall be used as a base for drilling fluids whether used alone or in combination with drilling fluid additives.

The drilling fluid shall conform with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification* and UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs.* The drilling fluid may consist of air and/or water mixed with a foaming surfactant, polymer, high-grade bentonite, or other ENGINEER-approved materials. If there should be a conflict between the drilling fluid requirements for ease of drilling and drilling fluid requirements for aquifer protection, then the ruling requirements shall be those for aquifer protection. The drilling fluid shall possess characteristics required to: (1) prevent caving as drilling progresses; (2) permit recovery of representative drill cutting samples; (3) allow for geophysical logging, if required, and (4) maintain the structural integrity of the borehole during casing and screen installation. Any contaminants or pollutants introduced into the borehole or well by the CONTRACTOR shall be removed, eliminated, or remediated from the proposed PWS well by the CONTRACTOR.

### 2.1.2 Lost Circulation

In the event of lost circulation conditions, the CONTRACTOR shall use material in accordance with UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs* [lost circulation materials]. CONTRACTOR shall only use inert, non-organic materials to regain drilling fluid circulation that are approved by the State of Utah.

## 2.2 CASING

All casing shall be steel and be of adequate size, strength, and wall thickness to facilitate subsequent drilling and construction and must meet the requirements of UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.2.3, *Well Casing – General – Steel Casing*. All steel casing shall be in new condition that meets AWWA Standard A-100, ASTM or API standards for steel pipe and have a minimum wall thickness for the designed depth as specified in R655-4-11.2.3, *Well Casing – General – Steel Casing*. Casing joints shall be welded in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Spot welding of joints is prohibited.

Steel casing shall meet the following requirements:

| | |
|---|---|
| **Conductor Casing:** | 32-inch diameter, minimum 0.375-inch wall thickness, low carbon steel casing |
| **Production Casing:** | Nominal 20-inch diameter, 0.375-inch wall thickness, low carbon steel casing |

Casing that does not meet the above requirements must be approved by the ENGINEER prior to use as casing in the proposed well.

Prior to installing casing, CONTRACTOR shall submit to the ENGINEER delivery tickets that show that the casing meets the specifications of Section 2.2.

## 2.3 WELL SCREEN

The well screen shall be constructed of 20-inch diameter 304 stainless steel wire-wrapped well screen that meets the requirements of Section 2.2 *Casing* and UAC R309-515-6(6)(f) *Screens* and R655-4-11.7.9 *Screen*.

The screen openings shall be continuous Vee wire wrapped machine made stainless steel screens with the "V" facing inward. Slot size will be based on results of sieve analyses of cuttings samples collected by the CONTRACTOR for the ENGINEER. For preliminary bidding purposes, a continuous wrapped screen meeting this requirement is 0.080-inch with a maximum setting depth of 1200 feet, and a collapse strength of 350 psi.

Manufacturer's literature indicates that the following product meets this specification: "*Johnson Free-Flow – Size 20P 304 Stainless Steel Screen*". Any other product must be approved by the ENGINEER for use as the well screen in the proposed well. Other products may be considered by the ENGINEER as long as the above specifications are met.

Casing "*blanks*" between sections of the proposed PWS well screen may be required by the ENGINEER and shall meet the requirements of Section 2.2. The ENGINEER will specify the arrangement of well screen and blank casing that shall make up the assembly. Centralizers, described below, shall be placed on the proposed PWS well screen. The bottom of the production casing and well screen assembly shall be sealed with a bullnose end cap.

Prior to installing the proposed PWS well screen, CONTRACTOR shall submit to the ENGINEER delivery tickets that show that the proposed PWS well screen meets the specifications of Section 2.3.

## 2.4 CENTRALIZERS

Centralizers are not expected to be installed on the proposed well. If centralizers are used, they shall be installed as directed by the ENGINEER. Centralizers shall consist of the same material as the casing or well screen that the centralizers are attached to. Centralizers shall be placed at intervals of 60 feet or less. Centralizers manufactured to

fit the casing may be used. Other types of centralizers may be utilized if the ENGINEER approves the method and materials in advance.

## 2.5 FILTER PACK

Filter pack (also called gravel pack) size and gradation will be determined by the ENGINEER following evaluation of sieve (gradation) analyses of formation lithologic samples from the borehole.

Filter pack material shall be sand and a product of commercial sand and gravel supplier. It shall (1) be properly sized and graded, (2) be composed of rounded, clean, smooth and uniform, 95 percent siliceous material, (3) no more than 5 percent acid solubility, (4) be free of flat or elongated pieces, organic matter, or other foreign matter, and (5) meet the requirements of AWWA specification B-100 for Granular Filter Material. The filter pack material shall conform to UAC R309-515-6(6)(k), *Filter pack Wells*, and UAC R655-4-11.5.2, *Filter pack or Filter Material*.

Prior to installing the filter pack, the CONTRACTOR shall submit to the ENGINEER the results of a gradation (sieve) analysis of a representative sample of the material that is shipped to the proposed PWS well site to confirm that the selected material is of appropriate size and gradation.
The filter pack material shall be (1) thoroughly sterilized with 100 parts per million (ppm) chlorine or hypochlorite solution immediately before being installed in the borehole or (2) dry chlorine should be mixed with the filter pack at the surface before it is installed in the borehole.

## 2.6 GROUT AND SEAL MATERIAL

Grout and seal material shall meet the requirements of UAC R655-4-2 *Definitions*, and UAC R655-4-11.4.2 *Seal Material*. Grout and seal material shall conform to the following specifications.

### 2.6.1 Bentonite Plugs

The bentonite plug, intended to keep grout from entering the filter pack and sealing the pitless adaptor seal interval, shall consist of coated sodium montmorillonite pellets or unhydrated bentonite. The bentonite shall be furnished in sacks or buckets from a commercial source and shall be free of impurities that adversely impact the water quality. Pellet size shall be 1/4 to 3/8-inch. The pellet coating should be such that it retards the swelling of the pellets for a minimum period of about 60 minutes.

### 2.6.2 Unhydrated Bentonite

Dry bentonite consisting primarily of granules, tablets, pellets, or chips that may be placed in a well or borehole in the dry state and hydrated in place by either formation water or by the addition of potable water into the proposed PWS well or borehole containing the dry bentonite. Unhydrated bentonite shall be used for sealing the pitless adapter seal interval and can be used for other seals and the abandonment of wells.

### 2.6.3 Neat Cement Grout

Cement (Types I, II, III, V, high alumina, or a combination thereof) conforming to the ASTM Standard C150 (standard specification of Portland cement), with no more than six (6) gallons of water per 94-pound sack (1 cubic foot) of sufficient weight density of not less than 15 pounds per gallon (lbs/gal). Once cubic yard of neat cement grout contains 1993 pounds of Portland cement and not more than 127 gallons of clean water. Bentonite, controlled density fill (CDF), or fly ash shall not be added to neat cement grout unless State Engineer approval is received.

### 2.6.4 Sand Cement Grout

A grout consisting of equal parts by volume of cement conforming to ASTM Standard C150 and clean sand/aggregate with no more than six (6) gallons of water per 94-pound sack (one cubic foot) of cement. Sand cement grout may be used for annular openings of larger than 2-inches.

## 2.7 DISPERSANTS

Dispersants shall be utilized during well development to break down drilling fluids and to remove sediment from the filter pack. Dispersants shall conform with R309-515-6(6)(a), *ANSI/NSF Standards 60 and 61 Certification* and UAC R655-4-11.6.1, *Protection of Aquifer - Drilling Fluids and LCMs.* Use of dispersing agents shall conform to UAC R309-515-6(7)(c), *Well Development* and the manufacturer's instructions for mixing, application, and disposal.

Manufacturer's literature indicates that the following products meet the specifications for dispersants:

- "*Johnson Screens NuWell 220 Dispersant Polymer*" and
- *"Bariod Aqua-Clear RFD Polymer Dispersant".*

## 2.8 WELL CAP

Upon completion of well construction and testing, the top of the proposed PWS well casing shall be equipped with a water-tight, tamper-resistant, locking steel casing cap in accordance with UAC R655-4-11.7.3 *Completion or Abandonment,* R655-4-14.1 *Temporary Abandonment* and R309-515-6(8) *Capping Requirements*. The proposed PWS well cap shall have an access port to permit installation of a well sounder probe. The access port shall be a minimum of 1-inch diameter and have a watertight plug. The temporary well cap will be removed and replaced for installation of the permanent pump later under separate specifications.

# 3.0 EXECUTION

Figure 4 presents the preliminary design for the proposed PWS well. The ENGINEER will specify to the CONTRACTOR the total drilling depth and the final well design including

placement of well casing, perforations, cement grout well seal, and any other materials used to construct the proposed PWS well.

## 3.1 MOBILIZATION AND DEMOBILIZATION

Upon receiving the "*Notice to Proceed*", the CONTRACTOR shall notify the DWRi in accordance with UAC R655-4-4.2, *Start Cards.* The CONTRACTOR shall then move in all tools, equipment, and supplies necessary for the WORK and upon completion of the WORK, shall remove all such items from the premises promptly and leave the site in a clean, smoothed, and orderly condition. Site preparation and restoration shall be the responsibility of the CONTRACTOR.

## 3.2 BOREHOLE DRILLING - GENERAL

The CONTRACTOR shall collect representative formation samples as directed by the ENGINEER, at a minimum of 5-foot intervals and at major geologic formation changes. Each sample shall be stored in insect- and mildew-proof oil-well-sand sample bags. Plastic bags will not be accepted. Each sample bag shall be labeled with the proposed PWS well name, depth interval, date, and time of collection. Sample bags containing the drill cuttings shall be stored in order and in an area at the proposed PWS well site that is covered. The drill cuttings samples shall not be directly exposed to precipitation. Chip trays for drill cutting samples shall be made available to the ENGINEER.

The CONTRACTOR shall maintain a daily drilling log of the proposed PWS well. Information that shall be listed on the drilling log includes: (1) any drilling fluids and additives, including quantity of materials used; (2) any drilling fluid properties, including weight, viscosity, and sand content; (3) type and diameter of bits used for drilling and total footage for each bit; (4) any remarks or comments concerning the drilling characteristics of the borehole(s); (5) description of formation materials encountered during drilling, and (6) any remarks or comments regarding water encountered in the borehole(s). The CONTRACTOR shall keep the forms at the site for inspection by the ENGINEER or OWNER.

The CONTRACTOR shall complete and file a Well Driller's Report with the DWRi as required by UAC R655-4-4.5, *Official Well Drillers Report* (well log). Copies of all logs and forms shall be furnished to the ENGINEER following completion of all operations.

The CONTRACTOR shall drill and construct the production well sufficiently straight and plumb to meet the requirements stated in Section 3.16.

The CONTRACTOR shall manage drilling fluids and produced water and shall protect groundwater quality and the waters of the State, as specified in Section 1.12.

## 3.3 LOST CIRCULATION

In the event of lost circulation conditions, the CONTRACTOR shall contact the ENGINEER prior to the use of lost circulation materials. Use of lost circulation materials

shall conform to the requirements of UAC R655-11.6.1, *Protection of Aquifer – Drilling Fluids and LCMs*.

## 3.4 CONDUCTOR CASING

The CONTRACTOR shall drill for, install, and grout in place minimum 32-inch diameter steel conductor casing. The CONTRACTOR shall drill a borehole for the conductor casing that is at least 4 inches in diameter larger than the outside diameter of the conductor casing. Drilling shall conform to the specifications provided in Section 3.2.

The casing shall be lowered into the borehole by a method which will always allow for the control of the rate of fall of the casing into the borehole. The casing shall not be dropped or allowed to fall uncontrolled into the borehole.

Individual lengths of casing shall be joined by welding in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Welding of the proposed PWS well casing shall be performed by properly qualified persons. Conductor casing shall conform to the specifications provided in Section 2.2, UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.3.2, *Steel Casing*. The conductor casing shall be unperforated in accordance with R655-4-11.5.5, *Permanent Conductor Casing Used.*

Centralizers shall be installed as directed by the ENGINEER.

The CONTRACTOR shall measure and record the lengths of each section of casing in the order of installation in the borehole for submittal to the ENGINEER.

The conductor casing shall be suspended in the borehole and cemented in place in accordance with the specifications provided in Section 3.16.

## 3.5 PRODUCTION BOREHOLE

The CONTRACTOR shall drill a 28-inch diameter production borehole to total depth (estimated to be 1210 feet), maintain a drilling log, and collect representative formation samples. The ENGINEER shall determine the exact drill depth based on the lithology and other information collected from the borehole. Drilling shall conform to the specifications provided in Section 3.2.

## 3.7 GEOPHYSICAL LOGGING

If directed by the ENGINEER, the CONTRACTOR shall perform or subcontract the geophysical logging of the entire production borehole. Two printed copies plus an electronic copy (USB flash drive with data files of logs and pdf file of logs) shall be provided in the field at the conclusion of the logging runs. Geophysical logging shall be completed in accordance with accepted industry standards.

The following geophysical logs shall be run:

- Spontaneous-potential

- Short and long normal electrical resistance (16- and 64-inch spacing)
- Single point resistivity
- Natural-gamma
- 3-arm caliper
- Temperature
- Deviation (gyroscopic)
- Neutron-density (if requested by the ENGINEER)

## 3.8 RECEIPT OF FINAL WELL DESIGN

At the conclusion of geophysical logging, the ENGINEER shall have 72 hours to submit the final well design to the CONTRACTOR under which no standby time or rig time rates shall apply. In the final well design, the ENGINEER shall specify the total drill depth, filter pack gradation and well screen slot size, placement intervals of the production casing, well screen, filter pack, bentonite seals and cement grout seals. The ENGINEER may modify the design if new information becomes available.

## 3.9 PRODUCTION CASING AND WELL SCREEN

Individual lengths of casing shall be joined by welding in accordance with UAC R655-4-11.3.2, *Casing Joints – Steel Casing*. Welding of the proposed PWS well casing shall be performed by properly qualified persons. Production casing shall conform to the specifications provided in Section 2.2, UAC R309-515-6(6)(b), *Permanent Steel Casing Pipe* and R655-4-11.3.2, *Steel Casing*. The proposed PWS well screen shall conform with the specifications provided in Section 2.3, UAC R309-515-6(6)(f) *Screens* and R655-4-11.7.9 *Screen*.

The bottom of the production casing and well screen assembly shall be sealed with a bullnose end cap.

Centralizers shall be installed on the production casing and well screen. Centralizers shall be placed at intervals of 60 feet or less.

The production casing and screen assembly shall be lowered into the borehole by a method which will always allow for control of the rate of fall of the assembly. The assembly shall not be dropped or allowed to fall uncontrolled into the borehole.

The production casing and well screen assembly shall be always suspended in the borehole during installation and shall not be supported from the bottom of the borehole at any time.

The CONTRACTOR shall measure and record the lengths of each section of casing and well screen in the order of installation in the borehole for submittal to the ENGINEER.

## 3.10 FILTER PACK

The filter pack shall extend from the bottom of the borehole upward to a depth determined by the ENGINEER, which shall be to a depth of about 120 feet below ground surface. The production casing and well screen assembly shall be suspended in the borehole while the filter packed is installed. The production casing and well screen assembly shall not be supported from the bottom of the borehole at any time during filter pack installation.

The filter pack shall be installed in accordance with AWWA Standard A100-15, *Water Wells*, Appendix B. Other installation methods may be considered by the ENGINEER as long as the filter pack shall is placed in one uniform continuous operation using a method that through common usage has been shown to minimize (1) bridging of the material between the borehole and the casing, and (2) excessive segregation of the material after it has been introduced into the annulus and before it settles in place from bottom to top.

The filter pack material shall be (1) thoroughly sterilized with 100 parts per million (ppm) chlorine or hypochlorite solution immediately before being installed in the borehole or (2) dry chlorine should be mixed with the filter pack at the surface before it is installed in the borehole.

The filter pack material shall conform to the specifications provided in Section 2.5, UAC R309-515-6(6)(k), *Filter pack Wells*, and UAC R655-4-11.5.2, *Filter pack or Filter Material*. Installation of filter pack material shall conform to UAC R309-515-6(6)(k), *Filter pack Wells*, and UAC R655-4-11.5.3, *Placement of Filter Material*.

No permanent gravel feed pipes shall be installed in the proposed PWS well or borehole.

## 3.11 WELL DEVELOPMENT WITH DRILL RIG

The proposed PWS well shall be initially developed with the drill rig to remove residual drilling fluids from the proposed PWS well and borehole. The proposed PWS well shall be developed by airlifting, swabbing, surging, and/or bailing, as required by the ENGINEER. This development may also include hydraulic jetting and flushing. The CONTRACTOR shall have a reasonably close-fitting swab tool or bailer with sufficient line to reach the total depth of the proposed PWS well. The CONTRACTOR shall have a compressor capable of airlifting from the bottom of the borehole and shall also have sufficient tubing of adequate diameter to reach the total depth of the proposed PWS well. It is anticipated that air-lift development will take place in a staged manner throughout the lower portion of the proposed PWS well and thus may include considerable addition and subtraction of pipe.

If requested by the ENGINEER, a dispersing agent shall be utilized to break down residual drilling fluid in the borehole and formation. Dispersing agents shall conform to the specifications provided in Section 2.7 and use of dispersing agents shall conform to UAC R309-515-6(7)(c), *Well Development* and the manufacturer's instructions for mixing, application, and disposal. Blasting procedures shall be prohibited during well

development. Well development shall conform to the requirements of UAC R309-515-6(7), *Well Development*.

Development shall continue until the water produced from the proposed PWS well is clear to the unaided eye, is reasonably sand-free and all materials pulled into the proposed PWS well by the development process have been removed and until the maximum specific capacity is obtained from the proposed PWS well in accordance with UAC R309-515-6(7), *Well Development*. The ENGINEER shall determine when development is complete.

All drill cuttings, drilling fluids and produced water shall be managed and disposed of in accordance with Section 1.12. Costs for management and disposal of drill cuttings, drilling fluids and produced water shall be borne by the CONTRACTOR.

### 3.12 WELL DEVELOPMENT WITH DUAL-SWAB RIG

The proposed PWS well screen shall be extensively developed with a dual-swab cable tool rig. The CONTRACTOR shall mobilize the dual-swab cable tool rig to the WORK site within 21 days after completion of development with the drill rig.

The CONTRACTOR shall have a reasonably close-fitting dual-swab tool with sufficient line to reach the total depth of the proposed PWS well. The dual-swab tool shall be minimum 10 feet in length and be equipped with a submersible pump with a minimum capacity of 200 gpm. The CONTRACTOR shall have sufficient pump column (tubing) of adequate diameter to reach the total depth of the proposed PWS well and have sufficient electrical wire to reach the bottom of the proposed PWS well.

Dual-swab development shall continue until the water produced from each swab zone in the proposed PWS well is clear with a sand content of 50 parts per million (ppm) or less as measured with a Rossum sand tester, or as specified by the ENGINEER. Development shall continue until maximum specific capacity is obtained from the proposed PWS well in accordance with UAC R309-515-6(7), *Well Development*. The ENGINEER shall determine when dual-swab development is complete.

The CONTRACTOR shall measure and record the following during dual-swab development for submittal to the ENGINEER:

- Dual-swab development interval (measured in feet below ground surface);
- Pumping rate; and
- Sand content as measured with a Rossum sand tester at each dual-swab development interval at the end of each development period.

As required by the ENGINEER, filter pack shall be installed in the borehole as it settles during dual-swab development operations. The filter pack shall be installed up to a depth specified by the ENGINNER. Filter pack installation shall be in accordance with Section 3.10.

All drill cuttings, drilling fluids and produced water shall be managed and disposed of in accordance with Section 1.12. Costs for management and disposal of drill cuttings, drilling fluids and produced water shall be borne by the CONTRACTOR.

## 3.13 BENTONITE PLUG

In accordance with UAC R309-515-6(6)(k)(v), *Filter pack Wells,* after the production casing, well screen, and filter pack have been installed in the borehole, and the proposed PWS well developed with the drill rig, the annular space above the filter pack shall be sealed using unhydrated bentonite pellets. The plug shall be a minimum of 10 feet in thickness. The bentonite pellets shall be placed on top of the filter pack in a manner that prevents bridging of the bentonite in the annulus. The depth to the top of the bentonite plug shall be directly measured and recorded immediately after placement, without allowance for swelling. A minimum of 60 minutes should be allowed for the bentonite plug to hydrate and form a low permeability seal before grout is placed in the annular space above the bentonite plug. The bentonite plug shall conform to the specifications provided in Section 2.6.

## 3.14 CERTIFIED CEMENT GROUT WELL SEAL

The CONTRACTOR shall install a certified cement grout well seal that meets the requirements of UAC R309-515-6(6)(i), *Well Sealing Techniques and Requirements* and R655-4-11.4, *Surface Seals and Interval Seals*. The cement grout well seal shall be installed around any permanent conductor or conductor casing (if installed) and the production casing and extend to a depth determined by the ENGINEER which shall be a minimum depth of 110 feet below ground surface.

The cement grout surface seal(s) shall be installed by pressure circulation of cement grout from bottom to top in accordance with UAC R309-515-6(6)(i)(iii)(A), *Application*. The cement grout shall conform to the specifications provided in Section 2.6.

To accommodate a pitless adaptor unit, the cement grout shall extend up to a depth determined by the ENGINEER, but the cement grout shall not be allowed within the pitless unit sealing interval in accordance with UAC R655-4.11.7.5, *Pitless Adapters/Units*. The pitless adaptor sealing interval shall be sealed with unhydrated bentonite. The unhydrated bentonite shall conform to the specifications provided in Section 2.6.

The grouting procedure(s) shall be witnessed and certified by an engineer or geologist from the DDW, or the appropriate district engineer of the DEQ, or an authorized representative of the DWRi (also known as the State Engineer's Office), or an individual having authorization from the Executive Secretary of the Utah Drinking Water Board, in accordance with UAC R309-515-6(5)(b)(i), *Authorized Individuals*. The CONTRACTOR shall request that the authorized grout witness inspector present a copy of the letter that authorizes the inspector to witness a well sealing on behalf of the DDW, in accordance with UAC R309-515-6(5)(b)(i), *Authorized Individuals*. The CONTRACTOR shall provide a copy of the grout seal certificate to the ENGINEER.

Installation of the cement grout seal shall conform to the requirements of UAC R309-515-6(5)(b), *Grouting Inspection during Well Construction*, UAC R309-515-6(6)(i), *Well Sealing Techniques and Requirements*, UAC R655-4-11.4, *Surface Seals and Interval Seals*, R655-4-11.7.1, *Special Requirements - Explosives* and R655-4-12.1.2, and R655-4-12.1.2, *Public Water Supply Wells*. The cement grout shall be allowed to cure a minimum of 72 hours before well drilling, construction, or testing may be resumed as outlined in UAC R309-515-6(6)(i)(iii)(E), *Surface Seals and Interval Seals.*

## 3.15 DEVELOPMENT AND TEST PUMPING

As required by the ENGINEER, following well development with the drill rig, the proposed PWS well shall be further developed by pumping and backwashing prior to performing the aquifer pumping tests.

Prior to the start of test pumping, the aquifer shall be allowed to recover for a period of at least 12 hours, or as determined by the ENGINEER. The CONTRACTOR, with assistance from the ENGINEER, shall: (1) conduct a step-test lasting up to about 10 hours, which will consist of pumping the proposed PWS well at various rates; (2) allow the proposed PWS well to recover overnight or for an adequate period of time as determined by the ENGINEER; and (3) conduct a constant-rate pumping test lasting a minimum of 24 hours. Pumping test procedures shall conform to UAC 309-515-6(10), *Well Assessment*.

The test pump shall be capable of delivering up to about 3000 gpm with a minimum total dynamic head of 800 feet below ground level. The CONTRACTOR shall provide to the ENGINEER the pump curve for the test pump prior to installation of the test pump.

The CONTRACTOR shall furnish and install all necessary equipment for development and test pumping, including the following:

- Test pump and drop pipe (pump column).
- Valve system to control flow.
- Smooth nosed sampling tap to collect water samples from discharge piping.
- Rossum sand tester.
- Totalizing meter with instantaneous flow rate indicator and/or an orifice weir for accurately measuring the discharge from the proposed PWS well.
- 0.75-inch inside diameter tube (installed to within 10 feet of the pump) for measuring water levels during the pumping test.
- Pressure transducer (with a data logger) acceptable to the ENGINEER that is rated at a minimum of 200 psi and capable of measuring water levels from a depth of 800 feet. The pressure transducer shall be strapped to the entire length of the drop pipe or installed in a dedicated drop tube. The transducer shall be set to record water levels every minute during the step-rate and constant-rate pumping and recovery periods.

- Piping to discharge point and necessary materials to manage produced water in accordance with Section 1.12.

During the step-rate-test, the proposed PWS well shall be pumped at rates that range from about 1000 to 3000 gpm, as directed by the ENGINEER; each step shall be of a uniform duration ranging up to about 120 minutes each, and rates shall be held constant during each step. During the constant-rate test, the pumping rate shall be held constant at a rate specified by the ENGINEER after completion of the step-rate test.

The CONTRACTOR shall measure water levels "*by hand*" (in feet to nearest tenth and from the same datum throughout aquifer testing) using a battery powered water level sounder. The CONTRACTOR shall measure:

- The water level prior to starting the step-rate test;
- During the step-rate test, water level during each step at 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, and 60 minutes after start of each pumping step;
- The water level prior to starting the constant-rate test;
- During the constant-rate test, the water level during pumping at 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, and 60 minutes after start of pumping, and every 30 minutes thereafter; and
- Water level during recovery at 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, and 60 minutes after ceasing to pump, and every 30 minutes thereafter. Continue recovery water level measurements for minimum of 12 hours following cessation of pumping, or until there are no changes in depth to water for at least six hours.

The CONTRACTOR shall also record the following information during the pumping tests:

- The depth of the test pump intake;
- The time and date of starting and ending of pumping tests and recovery periods; and
- The actual pumping rate.

During the step-rate and constant rate pumping periods, the CONTRACTOR shall have a person assigned full-time to keeping the rate constant during first 30 minutes of pumping, then at least every 30 minutes thereafter. The CONTRACTOR shall measure and record the pumping rate at least every 30 minutes, even if the rate is constant; record fluctuations in pumping rate; record when adjustments are made to valves that control the pumping rate.

The CONTRACTOR shall be responsible for providing power for the test pump. The CONTRACTOR shall provide a means for safe refueling during pumping operations to prevent even brief shutdowns. Power shutdowns before the end of the testing procedure

will require the CONTRACTOR to allow the water level to recover to pre-pumping conditions and initiate the test again.

CONTRACTOR shall have at least one person at all times during the pumping test to operate the pump, power supply, monitor and control the pumping rate, and to make and record frequent water level and flow rate measurements.

If required by the ENGINEER, the CONTRACTOR shall monitor and record specific conductance, temperature, turbidity and sand content during the step-rate and constant-rate pumping tests. Measurements shall be performed at about one-hour intervals while pumping.

If requested by the ENGINEER, the CONTRACTOR shall aid the ENGINEER in collecting water samples for submittal to an approved analytical laboratory within analytical hold-times (generally the same day as the sample is collected and several hours before the laboratory closes for the day).

After the constant rate test is completed, CONTRACTOR shall not disinfect the proposed PWS well or remove the pump for a minimum period of 24 hours while water level recovery measurements are being made.

All drill cuttings, drilling fluids and produced water shall be managed and disposed of in accordance with Section 1.12.

### 3.16 PLUMBNESS AND ALIGNMENT

The CONTRACTOR shall construct the proposed PWS well sufficiently straight and plumb to permit free installation of the production casing and well screen assembly, filter pack, bentonite plug, grout, test pump, production pump, and as specified below. It shall be the responsibility of the CONTRACTOR to see that the proposed PWS well is being constructed straight and plumb within these limits at all times.

The CONTRACTOR shall test the proposed PWS well for plumbness and alignment in accordance with the requirements of UAC R309-515-6(6)(g) and in accordance with AWWA Standard A100-15, Water Wells, Appendix D.

**Plumbness Tolerance**. The maximum allowable horizontal deviation of the production borehole and casing from the vertical shall not exceed 1.75 feet per 100 feet of depth.

**Alignment Tolerance**. The alignment of the proposed PWS well shall be deemed acceptable if the test pump and production pump can be freely installed and operated in the production casing.

If the proposed PWS well fails to meet the above plumbness and alignment tolerances, the proposed PWS well may be accepted at the sole discretion of the ENGINEER if, in their judgment, the proposed PWS well is still suitable for its intended use and that

misalignment does not interfere with the installation or operation of the pump or uniform placement of filter pack or grout.

If the proposed PWS well is of unacceptable plumbness and alignment, the CONTRACTOR shall undertake remedial measures. Any alignment work required by the CONTRACTOR in redrilling or straightening the proposed PWS well shall be at their sole expense. If the proposed PWS well is deemed unacceptable following remedial measures, then the proposed PWS well shall be abandoned in accordance with Section 3.20 at the CONTRACTOR's expense. All costs incurred for construction of the abandoned well shall be applied to construction of the replacement well.

## 3.17 DOWNHOLE VIDEO CAMERA INSPECTION

If so directed by the ENGINEER, the CONTRACTOR shall use a downhole video camera to inspect the casing and screen and to observe the condition of the proposed PWS well. The video camera shall have both downward and side viewing capability. The video log shall be made in color, shall record and show the depth of the camera at all times during logging and shall be of sufficient quality that is acceptable to the ENGINEER. The CONTRACTOR shall provide one copy of the completed video log to the ENGINEER on a DVD or USB flash drive.

## 3.18 WELL DISINFECTION

Following the pumping test and recovery period (a minimum of 24 hours following the completion of the constant rate pumping test) and prior to demobilizing from the site, the proposed PWS well shall be disinfected in accordance with UAC R309-515-6(11) *Well Disinfection* and UAC R655-4-11.6.5 *Well Disinfection and Chlorination of Water*, using a solution of high-test sodium hypochlorite sufficient to establish a concentration of 100 parts per million (ppm) chlorine residual throughout the proposed PWS well.

The sodium hypochlorite shall be delivered to the site in original closed containers bearing the original label indicating the percentage of available chlorine and date of manufacture. The sodium hypochlorite shall not be more than 2 weeks old.

The CONTRACTOR shall prepare the disinfectant by mixing a concentrated solution of hypochlorite and water in suitable tanks. Unlined steel tanks shall not be used for mixing. The CONTRACTOR shall provide suitable transfer pumps and agitators necessary to accurately prepare the chemicals.

After adding the disinfectant to the proposed PWS well, the test pump in the proposed PWS well should be used to recirculate the water such that the pumped water is returned to the proposed PWS well and allowed to wet the portion of the casing above the water level in the proposed PWS well. After recirculation of the chlorinated well water, the CONTRACTOR shall allow 24 hours of contact time for disinfection prior to collecting coliform samples, if additional coliform samples are required. The disinfection process shall be repeated until water quality samples test negative for the presence of coliform bacteria.

Other well disinfection procedures may be approved by the ENGINEER, as long as they conform to UAC R309-515-6(11) *Well Disinfection* and UAC R655-4-11.6.5 *Well Disinfection and Chlorination of Water*.

The CONTRACTOR shall not demobilize from the work site until water quality samples test negative for the presence of coliform bacteria, unless approved by the ENGINEER.

## 3.19 WELL CAP CONSTRUCTION

The CONTRACTOR shall extend the steel conductor casing a minimum of 18 inches above the ground surface and install a water-tight locking security cover after all WORK associated with well construction, development, and testing is complete. Wellhead construction shall conform to the requirements of UAC R309-515-6(6)(b) *Permanent Steel Casing Pipe*, R309-515-6(8) *Capping Requirements*, R655-4-11.7.3 *Completion or Abandonment*, and R655-4-14.1 *Temporary Abandonment*. All exposed above-ground metal shall be painted with a brightly-colored rust-resistant paint.

No casing vents shall be installed on the proposed PWS well head.

## 3.20 PLUGGING AND ABANDONMENT

If so directed by the ENGINEER, the borehole shall be plugged and abandoned, or in the event that the CONTRACTOR fails to complete the proposed PWS well to the designed depth, or because of loss of their tools or equipment downhole, failure to meet plumbness and alignment requirements, or for any other cause related to deficiencies in their equipment or performance, the CONTRACTOR shall plug and abandon the proposed PWS well/borehole in accordance with UAC R309-515-6(9) *Well Abandonment* and R655-4-14 *Abandonment of Wells* or as approved by the DWRi. The CONTRACTOR shall remove as much casing as can be salvaged. All salvaged materials furnished by the CONTRACTOR shall remain their property.

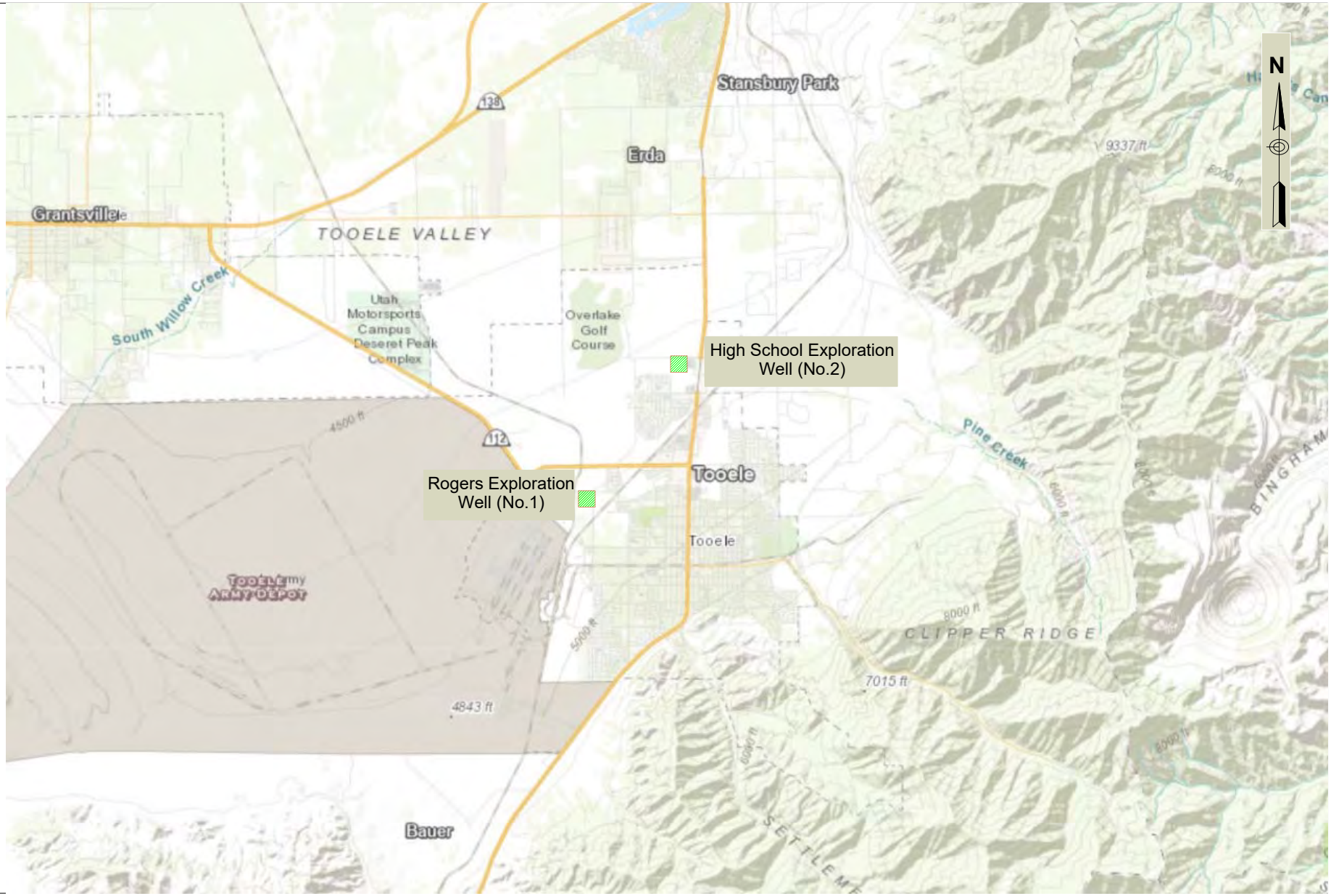
## 3.21 SUBMITTALS

The CONTRACTOR shall submit documentation to the ENGINEER that shall include, but is not limited to, the following:

| Submittal | Section Reference | When Due |
|---|---|---|
| Drilling fluid and water discharge plan | 1.12 | Prior to the start of the WORK |
| SDS sheets | 2.0 | For approval prior to using chemicals |
| Well casing delivery tickets | 2.2 | Prior to installation |
| Well screen delivery tickets | 2.3 | Prior to installation |
| Filter pack gradation (sieve) analysis | 2.5 | Prior to installation |
| Driller's daily reports | 3.2 | Following each day of work |

| Submittal | Section Reference | When Due |
|---|---|---|
| Well Driller's Report | 3.2 | Within 30 days of well completion |
| Geophysical logs | 3.7 | At the conclusion of logging |
| Well seal certification | 3.14 | Within 30 days of well completion |
| Pump curve for test pump | 3.15 | Prior to installation |
| Pumping test data | 3.15 | Immediately following pumping test |
| Plumbness and alignment data and results | 3.16 | Prior to well disinfection |
| Down-hole video log | 3.17 | At the conclusion of video logging |

## FIGURES




Reference: Division of Water Rights Mapping Database 2025

LOUGHLIN WATER ASSOCIATES LLC

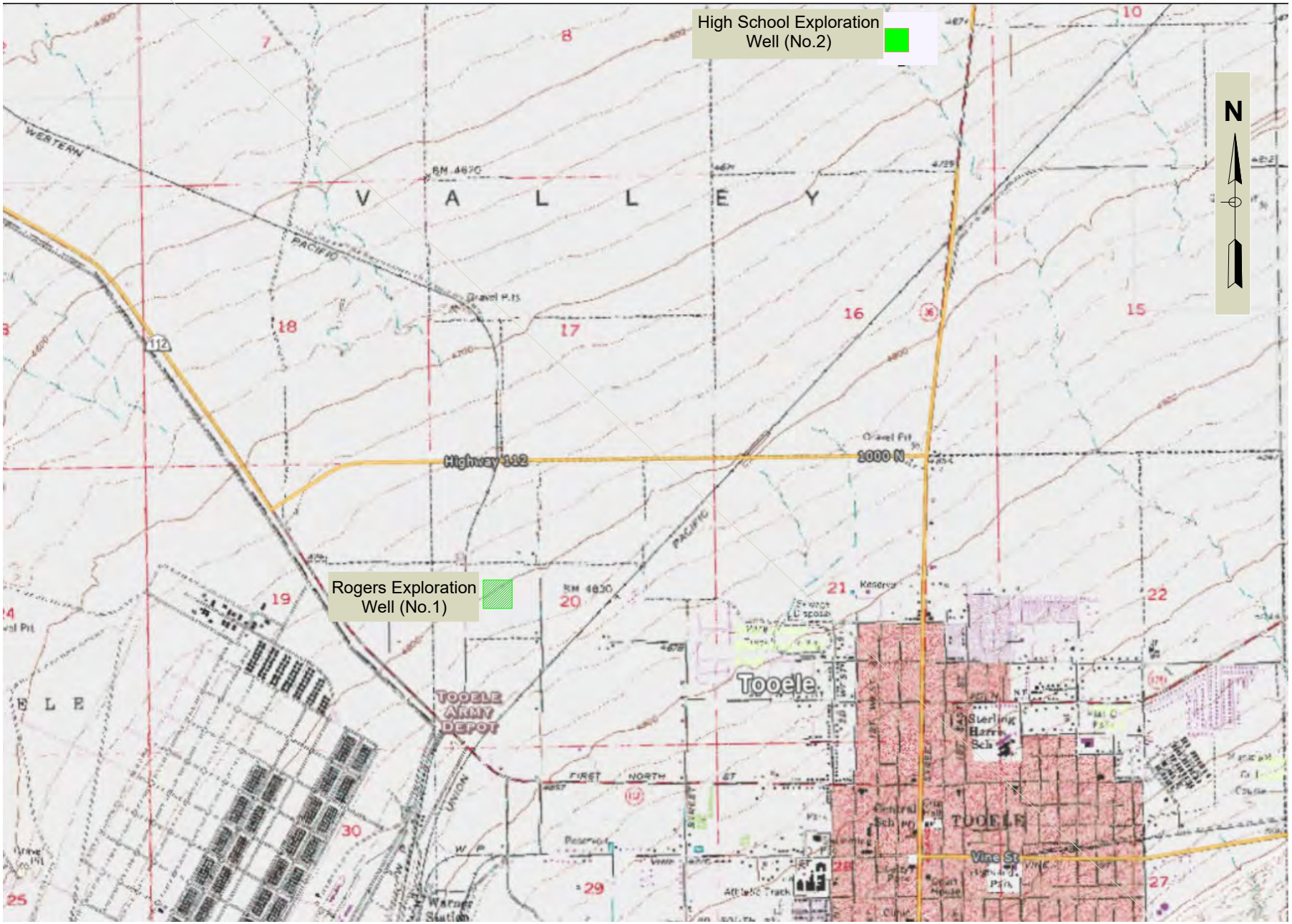
0 1.0 2.0

Approximate Scale in Miles

Tooele City

Regional Map

Figure 1




LOUGHLIN WATER ASSOCIATES ▲ LLC

Tooele City

Topographic Map

Figure 2

LOUGHLIN WATER ASSOCIATES LLC

0 1/4 1/2

Approximate Scale in Miles

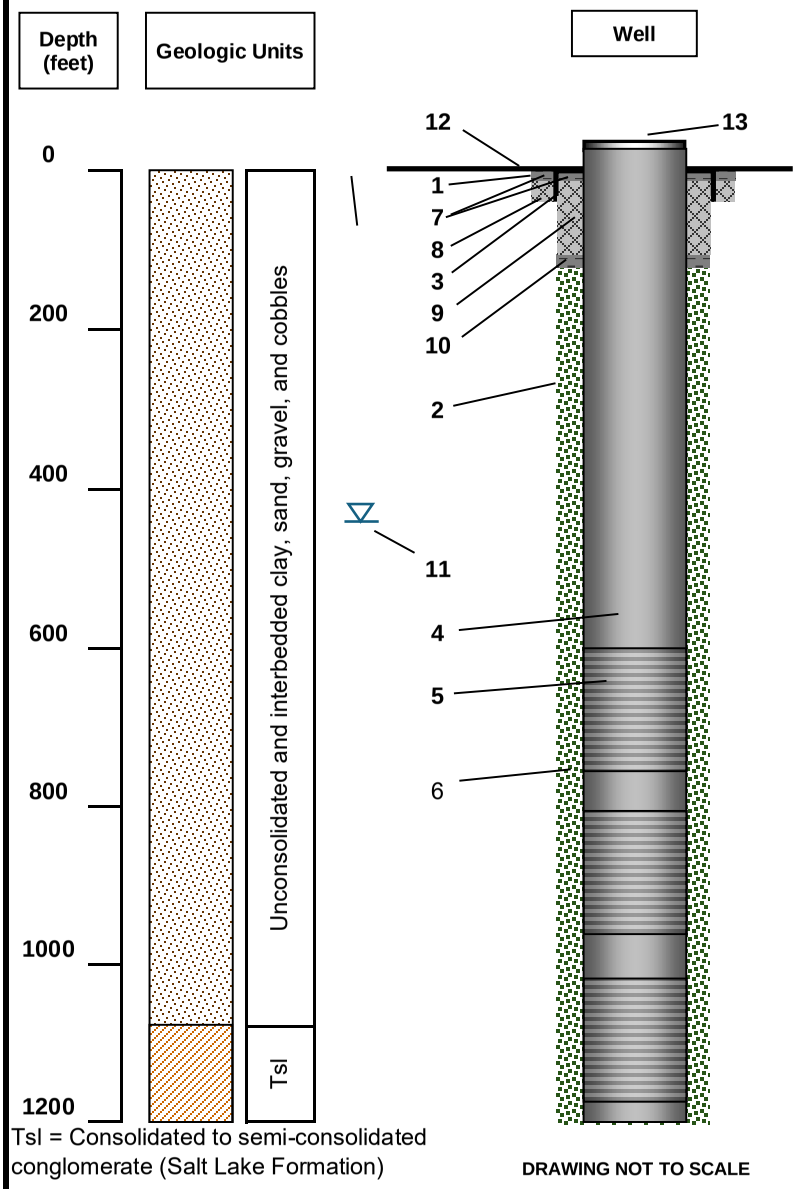
Red Del Papa Well #18 (WIN 443468)

See Appendix A for Drillers Logs

Tooele City

Tooele City Wells

Figure 3




Tsl = Consolidated to semi-consolidated conglomerate (Salt Lake Formation)

DRAWING NOT TO SCALE

Notes:

1. Preliminary well design by William D. Loughlin, P.G.
2. Subsurface conditions at well site are uncertain.
3. All work shall be in accordance with: (1) Utah Division of Water Rights UAC R655-4 Rules for Water Wells; (2) Utah Division of Drinking Water UAC Rule R309-515 Source Development Rule, Ground Water - Wells; (3) Utah Division of Water Quality, Utah Water Quality Act, 19-5-107(1); and (4) the Technical Specifications.
4. ENGINEER will specify the total drilling depth and the final well design including gravel pack gradation and well screen slot size, placement of well casing, screen, gravel pack, cement grout well seal, and any other materials used to construct the well.

**Explanation**

**Borehole Diameters**

1 - Minimum 40-inch diameter borehole (0 to 0 feet).
2 - 28-inch diameter borehole (40 to 1210 feet).

**Blank Casing**

3 - 32-inch diameter, minimum 0.375-inch wall thickness, low carbon steel conductor casing (0 to 40 feet).
4 - 20-inch diameter, minimum 0.375-inch wall thickness, low carbon steel production blank casing with a bull nose end cap (700 feet total) interspersed with well screen below about 600 feet.

**Well Screen**

5 - 20-inch diameter, 0.080-inch slotted stainless steel wire wrap well screen (500 feet total) interspersed with blank casing below about 600 feet).

**Filter Pack**

6 - Filter pack; gradation to be determined (120 to 1210 feet).

**Well Seals**

7 - Pitless adaptor seal interval shall be sealed with unhydrated benonite (0 to 10 feet).
8 - Certified cement grout well seal around conductor casing (10 to 40 feet).
9 - Certified cement grout well seal around production casing (10 to 110 feet).
10 - Bentonite plug (110 to 120 feet).

**Static Water Level**

11 - Static water level expected to be within about 440 to 490 feet below the ground surface.
12 - Ground elevation approximately 4660 to 4800 feet.

**Other**

13 - Well head shall extend at least 18 inches above ground surface and have locking well cap.

LOUGHLIN WATER ASSOCIATES, LLC

Tooele City
Preliminary Design
Proposed PWS Well
Figure 4

# APPENDIX A

# WELL DRILLER REPORTS

Berra Well #19 - WIN 443466

# WELL DRILLER'S REPORT
## State of Utah
## Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Non-Production Well: 1915001M00 WIN: 443466

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2410 E 120 from the S4 corner of section 16, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 10/27/2019 Completion Date: 10/7/2020

Check all that apply: [X] New [ ] Repair [ ] Deepen [ ] Clean [ ] Replace [ ] Public Nature of Use: Municipal

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0 | 40 | 40 | AUGER | GEL / POLYMER |
| 0 | 912 | 14 3/4 | REVERSE CIRCULATION | GEL / POLYMER |
| 0 | 861 | 28 | REVERSE CIRCULATION | GEL / POLYMER |
| | | | | |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | |
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RECEIVED
NOV 03 2020 LI
WATER RIGHTS
SALT LAKE

**Static Water Level**

SCANNED LP

Date 10/5/2020 Water Level 418.28 feet Flowing? [ ] Yes [X] No
Method of Water Level Measurement TRANSDUCER If Flowing, Capped Pressure N/A PSI
Point to Which Water Level Measurement was Referenced TOP OF CASING Elevation UNKNOWN
Height of Water Level reference point above ground surface 3.6 feet Temperature 15.93 degrees [X] C [ ] F

## Construction Information

| DEPTH (feet) FROM | TO | CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) |
|---|---|---|---|---|
| 0 | 40 | A-53 GRADE B | .375 | 32' |
| +3 | 525 | A-53 GRADE B | .375 | 20 |
| 580 | 600 | A-53 GRADE B | .375 | 20 |
| 660 | 670 | A-53 GRADE B | .375 | 20 |
| 740 | 760 | A-53 GRADE B | .375 | 20 |

| DEPTH (feet) FROM | TO | ☑ SCREEN ☐ PERFORATIONS ☐ OPEN BOTTOM<br>SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|
| 525 | 580 | .080 | 20 | SS WIRE WRAP |
| 600 | 660 | .080 | 20 | SS WIRE WRAP |
| 670 | 740 | .080 | 20 | SS WIRE WRAP |
| 760 | 850 | .080 | 20 | SS WIRE WRAP |

Well Head Configuration: DOUGHNUT BETWEEN CASINGS  Access Port Provided? ☒ Yes ☐ No

Casing Joint Type: WELDED  Perforator Used: N/A

Was a Surface Seal Installed? ☒ Yes ☐ No  Depth of Surface Seal: 40' feet  Drive Shoe? ☐ Yes ☒ No

Surface Seal Material Placement Method: PUMPED VIA TREMMIE

Was a temporary surface casing used? ☐ Yes ☒ No  If yes, depth of casing: N/A feet  diameter: N/A inches

| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION<br>SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 0 | 40 | 50/50 SAND CEMENT SLURRY | 7 YDS$^3$ | 17/GAL 15 BAG 5GAL/SACK |
| 0 | 110 | 50/50 SAND CEMENT SLURRY | 18 YDS$^3$ | 17/GAL 15 BAG 5GAL/SACK |
| 110 | 661 | SRI SUPREME 6X9 | 67 YDS$^3$ | N/A |
| | | | | |
| | | | | |
| | | | | |

## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| 9/12/20 | DUAL SWAB AIRLIFT | 350 | X | | UNKNOWN | 123 |
| | DUAL SWAB PUMP | 200 | X | | UNKNOWN | 200 |
| | TEST PUMP/SURGE | 2010 | X | | 98' | 117 |

## Pump (Permanent)

Pump Description:  Horsepower:  Pump Intake Depth: feet

Approximate Maximum Pumping Rate:  Well Disinfected upon Completion? ☐ Yes ☐ No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name HYDRO RESOURCES WEST, INC. (Person, Firm, or Corporation - Print or Type)  License No. 815

Signature (Licensed Well Driller)  Date 10/27/2020

# WELL DRILLER'S REPORT ADDTIONAL DATA FORM
## State of Utah
## Division of Water Rights



**Well Identification**

Non-Production Well: 1915001M00

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: _____

**Well Location** *Note any changes*

N 2410 E 120 from the S4 corner of section 16, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
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## Construction Information (con't)

| DEPTH (feet) FROM | DEPTH (feet) TO | CASING: CASING TYPE AND MATERIAL/GRADE | CASING: WALL THICK (in) | CASING: NOMINAL DIAM. (in) | DEPTH (feet) FROM | DEPTH (feet) TO | ☐SCREEN ☐PERFORATIONS ☐OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| +3 | 900 | A-53 GRADE B | 2 | .154 | | | | | |
| +3 | 120 | A-53 GRADE B | 3 | .216 | | | | | |
| | | | | | | | | | |
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| DEPTH (feet) FROM | DEPTH (feet) TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
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## Comments (con't)

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

**Name** HYDRO RESOURCES WEST, INC. (Person, Firm, or Corporation - Print or Type)

**License No.** 815

**Signature** _____ (Licensed Well Driller)

**Date** 10/27/2020

# Cuttings Log

start date

Berra Well #19 - WIN 443466

Hydro resources

| From | to | | | RIG | 10023 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | ⟷ | Clay sand & gravel | | | | | | | |
| 40 | 65 | ⟷ | sand and gravel | | | | | | | |
| 65 | 75 | ⟷ | Clay & gravel | | | | | | | |
| 75 | 80 | ⟷ | Gravel | | | | | | | |
| 80 | 85 | ⟷ | Gravel small cobbles | | | | | | | |
| 85 | 125 | ⟷ | Gravel | | | | | | | |
| 125 | 140 | ⟷ | clay | | | | | | | |
| 140 | 145 | ⟷ | Sandy clay | | | | | | | |
| 145 | 155 | ⟷ | Fine sand | | | | | | | |
| 155 | 190 | ⟷ | gravel | | | | | | | |
| 190 | 200 | ⟷ | sand & gravel | | | | | | | |
| 200 | 210 | ⟷ | Gravel | | | | | | | |
| 210 | 220 | ⟷ | sand & gravel | | | | | | | |
| 220 | 235 | ⟷ | gravel | | | | | | | |
| 235 | 240 | ⟷ | Red clay and gravel | | | | | | | |
| 240 | 265 | ⟷ | Gravel | | | | | | | |
| 265 | 290 | ⟷ | Red clay and gravel | | | | | | | |
| 290 | 355 | ⟷ | gravel | | | | | | | |
| 355 | 360 | ⟷ | sand & gravel | | | | | | | |
| 360 | 365 | ⟷ | sand gravel & clay | | | | | | | |
| 365 | 390 | ⟷ | sand & gravel | | | | | | | |
| 390 | 445 | ⟷ | Gravel | | | | | | | |
| 445 | 455 | ⟷ | clay & gravel | | | | | | | |
| 455 | 475 | ⟷ | gravel | | | | | | | |
| 475 | 490 | ⟷ | clay some gravel | | | | | | | |

# Cuttings Log

start date

Berra Well #19 - WIN 443466

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 490 | 500 | ⟷ | clay & gravel | | | | | | | | |
| 500 | 510 | ⟷ | clay | | | | | | | | |
| 510 | 580 | ⟷ | sand & gravel | | | | | | | | |
| 580 | 610 | ⟷ | Clay & gravel | | | | | | | | |
| 610 | 630 | ⟷ | Gravel | | | | | | | | |
| 630 | 655 | ⟷ | Clay & gravel | | | | | | | | |
| 655 | 660 | ⟷ | gravel | | | | | | | | |
| 660 | 670 | ⟷ | clay & gravel | | | | | | | | |
| 670 | 680 | ⟷ | sand & gravel | | | | | | | | |
| 680 | 685 | ⟷ | sand clay & gravel | | | | | | | | |
| 685 | 690 | ⟷ | clay & sand | | | | | | | | |
| 690 | 745 | ⟷ | sand & gravel | | | | | | | | |
| 745 | 760 | ⟷ | Clay & gravel | | | | | | | | |
| 760 | 770 | ⟷ | sand 7 gravel | | | | | | | | |
| 770 | 835 | ⟷ | Gravel | | | | | | | | |
| 835 | 850 | ⟷ | Sand & gravel | | | | | | | | |
| 850 | 860 | ⟷ | Clay | | | | | | | | |
| 860 | 865 | ⟷ | clay & sand | | | | | | | | |
| 865 | 870 | ⟷ | clay sand & gravel | | | | | | | | |
| 870 | 880 | ⟷ | clay | | | | | | | | |
| 880 | 885 | ⟷ | Sand & clay | | | | | | | | |
| 885 | 912 | ⟷ | clay & gravel | | | | | | | | |
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Rollo Grounds Well (#16)

**AMENDED WELL LOG**

# WELL DRILLER'S REPORT

## State of Utah
## Division of Water Rights

WIN 436568

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Change Application: a37675 (15-3417) WIN: 436568

**Owner** *Note any changes*

Tooele City Water Special Service District
90 North Main Street
Tooele, UT 84074

Well #16

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2065 E 2030 from the SW corner of section 21, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 8-22-13 Completion Date: 12-22-13

Check all that apply: ☒ New ☐ Repair ☐ Deepen ☐ Clean ☐ Replace ☐ Public Nature of Use: Drinking water

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0' | 93' | 48" | Auger | Dry |
| 93' | 488 | 32" | Reverse Circ | Water |
| 488' | 1000' | 26" | Reverse Circ | Water |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 93 | | | | X | | X | | | | | | Brown | |
| 93 | 200 | | | | | | | X | X | X | | | | |
| 200 | 210 | | | | X | | X | X | X | | | | | |
| 210 | 320 | | | | | | X | X | X | | | | | |
| 320 | 340 | | | | X | | X | X | X | | | | | |
| 340 | 415 | | | | X | | X | X | X | | | | | |
| 415 | 448 | | | | X | | X | X | X | | | Rock | | |
| 445 | 545 | | | | | | X | X | X | | | | | |
| 445 | 548 | | | | X | | X | X | ' | | | | | |
| 545 | 795' | | | | | | X | X | X | | | | | |

RECEIVED
JAN 30 2014
WATER RIGHTS
SALT LAKE

RECEIVED
JAN 21 2014
WATER RIGHTS
SALT LAKE

**Static Water Level**

Date 8-22-13 Water Level 441' feet Flowing? ☐ Yes ☑ No

Method of Water Level Measurement Sounder If Flowing, Capped Pressure _____ PSI

Point to Which Water Level Measurement was Referenced Ground Level Elevation _____

Height of Water Level reference point above ground surface 441' feet Temperature _____ degrees ☐ C ☐ F

[redacted] *Well Log* [redacted]

Rodeo Grounds Well (#16)

WIN 436568

## Construction Information

| DEPTH (feet) FROM | DEPTH (feet) TO | CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) | DEPTH (feet) FROM | DEPTH (feet) TO | ☐SCREEN ☐PERFORATIONS ☐OPEN BOTTOM SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| +3' | 370' | mild steel | .375 | 18" | 370' | 610' | .70 | 18" | 55 |
| 610' | 640' | | .375 | 18" | 640' | 660' | .70 | 18" | 55 |
| 660' | 670' | | .375 | 18" | 670' | 810' | .70 | 18" | 55 |
| 810' | 830' | | .375 | 18" | 830' | 1000' | .70 | 18" | 55 |
| | | | | | | | | | |

Well Head Configuration: CAP

Access Port Provided? ☐Yes ☑No

Casing Joint Type: Butt weld

Perforator Used:

Was a Surface Seal Installed? ☑Yes ☐No

Depth of Surface Seal: 488 feet

Drive Shoe? ☐Yes ☑No

Surface Seal Material Placement Method: TRIMMIC

Was a temporary surface casing used? ☑Yes ☐No If yes, depth of casing: 93' feet diameter: 36 inches

| DEPTH (feet) FROM | DEPTH (feet) TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | Quantity of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 100' | 470 488' | 15 SK SAND SLURY | 79 yds | |
| 470' | 1000 | 6 x 9 COLORADO CILICA | 110 BAGS | |
| | | | | |
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## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | Units Check One CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| | | | | | | |
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## Pump (Permanent)

Pump Description: Horsepower: Pump Intake Depth: feet

Approximate Maximum Pumping Rate: Well Disinfected upon Completion? ☐Yes ☐No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name ZIM INDUSTRIES INC (Person, Firm, or Corporation - Print or Type)

License No. 697

Signature Mark J Jemmett (Licensed Well Driller)

Date 1/2/14

# WELL DRILLER'S REPORT ADDTIONAL DATA FORM

**State of Utah**
**Division of Water Rights**

WIN 436568



**Well Identification**

Change Application: a37675 (15-3417)

**Owner** *Note any changes*

Tooele City Water Special Service District
90 North Main Street
Tooele, UT 84074

Contact Person/Engineer: PAUL HANSON

**Well Location** *Note any changes*

N 2065 E 2030 from the SW corner of section 21, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 795 | 810 | | | | X | | X | X | X | | | | Brown | |
| 810 | 880 | | | | | | X | X | X | | | | Brown | |
| 880 | 885 | | | | X | | X | X | X | | | | Brown | |
| 885 | 1000 | | | | | | X | X | X | | | | Brown | |

Rodeo Grounds Well (#16)

**Construction Information (con't)**

| DEPTH (feet) FROM | TO | CASING: CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) | DEPTH (feet) FROM | TO | ☐ SCREEN ☐ PERFORATIONS ☐ OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| 0' | 488' | mild Steel (Intermediate) | 375 | 28" | | | | | |
| 0' | 93' | mild Steel (conductor) | 375 | 36" | | | | | |
| | | | | | | | | | |
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| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | **Quantity** of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
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**Comments (con't)**

**Well Driller Statement** This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

**Name** ZIM INDUSTRIES INC (Person, Firm, or Corporation - Print or Type) **License No.** 697

**Signature** Robert J Zimmer (Licensed Well Driller) **Date** 1/2/14

Red Del Papa Well (WIN 443468)

# WELL DRILLER'S REPORT
## State of Utah
## Division of Water Rights

For additional space, use "Additional Well Data Form" and attach

**Well Identification**

Non-Production Well: 1915001M00 WIN: 443468

**Owner** *Note any changes*

TOOELE CITY CORPORATION
C/O PAUL HANSEN
90 NORTH MAIN
TOOELE, UT 84074

Contact Person/Engineer: PAUL HANSON (435) 843-2132

**Well Location** *Note any changes*

S 90 E 250 from the W4 corner of section 27, Township 3S, Range 4W, SL B&M

Location Description: (address, proximity to buildings, landmarks, ground elevation,local well #)

**Drillers Activity** Start Date: 1/3/2020 Completion Date: 9/14/2020

Check all that apply: [X] New [ ] Repair [ ] Deepen [ ] Clean [ ] Replace [ ] Public Nature of Use: MUNICIPAL

If a replacement well, provide location of new well. _____ feet north/south and _____ feet east/west of the existing well.

| DEPTH (feet) FROM | TO | BOREHOLE DIAMETER (in) | DRILLING METHOD | DRILLING FLUID |
|---|---|---|---|---|
| 0 | 40 | 40 | AUGER | POLYMER - GEL |
| 40 | 1200 | 14 3/4 | REVERSE CIRCULATION | POLYMER - GEL |
| 40 | 1200 | 28 | REVERSE CIRCULATION | POLYMER - GEL |
| | | | | |

**Well Log**

| DEPTH (feet) FROM | TO | WATER | PERMEABLE High | PERMEABLE Low | UNCONSOLIDATED CLAY | SILT | SAND | GRAVEL | COBBLES | BOULDER | OTHER | CONSOLIDATED ROCK TYPE | COLOR | DESCRIPTION AND REMARKS (e.g., relative %, grain size, sorting, angularity, bedding, grain composition density, plasticity, shape, cementation, consistancy, water bearing, odor, fracturing, minerology, texture,degree of weathering, hardness, water quality, etc.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | SEE ATTACHED |

RECEIVED
SEP 29 2020 LI
WATER RIGHTS
SALT LAKE

SCANNED LP

**Static Water Level**

Date 9/12/2020 Water Level 464 feet Flowing? [ ] Yes [X] No
Method of Water Level Measurement SOUNDER If Flowing, Capped Pressure N/A PSI
Point to Which Water Level Measurement was Referenced TOP OF CASING Elevation UNKNOWN
Height of Water Level reference point above ground surface 20' ~~feet~~ Temperature 69 degrees [ ] C [ ] F

Well Log

Red Del Papa Well (WIN 443468)

## Construction Information

| DEPTH (feet) FROM | TO | CASING: CASING TYPE AND MATERIAL/GRADE | WALL THICK (in) | NOMINAL DIAM. (in) | DEPTH (feet) FROM | TO | ☒SCREEN ☐PERFORATIONS ☐OPEN BOTTOM: SCREEN SLOT SIZE OR PERF SIZE (in) | SCREEN DIAM. OR PERF LENGTH (in) | SCREEN TYPE OR NUMBER PERF (per round/interval) |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | A-53 GRADE B | .375 | 32 | 605 | 865 | .060" | 20" | SS WIRE WRAP |
| 0 | 605 | A-53 GRADE B | .375 | 20 | 915 | 1,045 | .080" | 20" | SS WIRE WRAP |
| 865 | 915 | A-53 GRADE B | .375 | 20 | 1,075' | 1,200' | .080" | 20" | SS WIRE WRAP |
| 1,045 | 1,075 | A-53 GRADE B | .375 | 20 | | | | | |
| 0 | 900 | STEEL SCH 40 | .154 | 2" | | | | | |

Well Head Configuration: 20" STICK UP & DOUGHNUT BETWEEN CASINGS Access Port Provided? ☒Yes ☐No

Casing Joint Type: WELDED Perforator Used: NO

Was a Surface Seal Installed? ☒Yes ☐No Depth of Surface Seal: 100 feet Drive Shoe? ☐Yes ☒No

Surface Seal Material Placement Method: CEMENT

Was a temporary surface casing used? ☐Yes ☒No If yes, depth of casing: _____ feet diameter: _____ inches

| DEPTH (feet) FROM | TO | SURFACE SEAL / INTERVAL SEAL / FILTER PACK / PACKER INFORMATION: SEAL MATERIAL, FILTER PACK and PACKER TYPE and DESCRIPTION | Quantity of Material Used (if applicable) | GROUT DENSITY (lbs./gal., # bag mix, gal./sack etc.) |
|---|---|---|---|---|
| 0 | 40 | SAND CEMENT SLURRY | 10 YDS$^3$ | 19/6AL 15SACK 6/6AL |
| 0 | 100 | SAND CEMENT SLURRY | 11 YDS$^3$ | 19/6AL 15 SACK 6/6AL |
| 100 | 1200 | SRI SUPREME #6 | 101 YDS$^3$ | N/A |
| | | | | |
| | | | | |
| | | | | |

## Well Development and Well Yield Test Information

| DATE | METHOD | YIELD | Units Check One GPM | Units Check One CFS | DRAWDOWN (ft) | TIME PUMPED (hrs & min) |
|---|---|---|---|---|---|---|
| 6/24/2020 | DUAL SWAB AIRLIFT | 300 | X | | 4' | 96 HOURS |
| 9/12/2020 | PUMP DEVELOPMENT & TEST | 1,600 | X | | 115' | 51 HOURS |
| | | | | | | |

## Pump (Permanent)

Pump Description: _____ Horsepower: _____ Pump Intake Depth: _____ feet

Approximate Maximum Pumping Rate: _____ Well Disinfected upon Completion? ☐Yes ☐No

## Comments

Description of construction activity, additional materials used, problems encountered, extraordinary Circumstances, abandonment procedures. *Use additional well data form for more space.*

ZONE SAMPLED 1045 - 1055 1060 - 1070 880 - 890

## Well Driller Statement

This well was drilled and constructed under my supervision, according to applicable rules and regulations, and this report is complete and correct to the best of my knowledge and belief.

Name HYDRO RESOURCES WEST, INC. (Person, Firm, or Corporation - Print or Type) License No. 815

Signature _____ (Licensed Well Driller) Date 9/19/2020

# Cuttings Log

start date

Red Del Papa Well (WIN 443468)

Hydro resources

Dec-19

| From | to | | | RIG | 10024 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 40 | ⟷ | Clay sand & gravel | | | | | | | |
| 40 | 80 | ⟷ | Gravel | | | | | | | |
| 80 | 90 | ⟷ | Clay & gravel | | | | | | | |
| 90 | 175 | ⟷ | Rock gravel & clay | | | | | | | |
| 175 | 295 | ⟷ | Sand & gravel | | | | | | | |
| 295 | 300 | ⟷ | Sand Clay & gravel | | | | | | | |
| 300 | 380 | ⟷ | Sand & gravel | | | | | | | |
| *380* | 400 | ⟷ | Clay | | | | | | | |
| 400 | *405* | ⟷ | clay & sand | | | | | | | |
| 405 | 425 | ⟷ | Gravel | | | | | | | |
| 425 | 450 | ⟷ | Clay & gravel | | | | | | | |
| 450 | 475 | ⟷ | Clay sand & gravel | | | | | | | |
| 475 | 495 | ⟷ | Sand & gravel | | | | | | | |
| 495 | 560 | ⟷ | Gravel | | | | | | | |
| 560 | 900 | ⟷ | Gravel & sand | | | | | | | |
| 900 | 1075 | ⟷ | Clay sand & gravel | | | | | | | |
| 1075 | 1110 | ⟷ | Gravel & sand | | | | | | | |
| 1110 | 1200 | ⟷ | Bed rock | | | | | | | |
| | | ⟷ | | | | | | | | |
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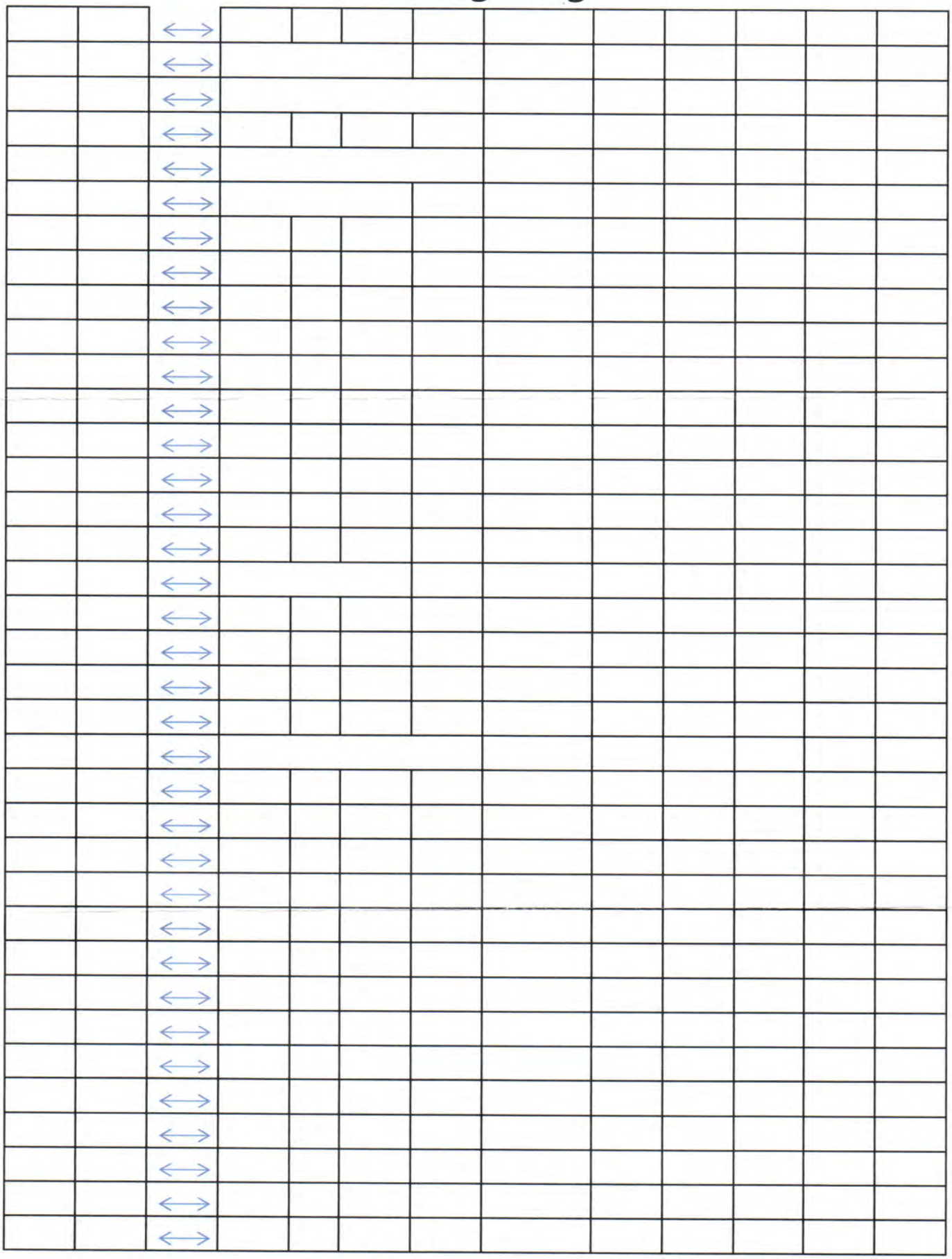
# Cuttings Log

Red Del Papa Well (WIN 443468)

start date



## APPENDIX B

## UTAH DIVISION OF WATER QUALITY WATER DISHCARGE FACT SHEET

# Fact Sheet Regarding Water Discharges From Water Well Drilling and Operation

## Prepared by: Utah Division of Water Quality

## Updated July 2002

## Background:

Utah Administrative Code (UAC) R317-8-2 requires a UPDES discharge permit for the discharge of pollutants from any point source into waters of the State. A point source is defined as "any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, from which pollutants are or may be discharged."

Through the use of various drilling methods and reasonable best management practices, water well drilling generally can be conducted such that no discharge occurs or that only de minimis (insignificant) amounts of pollutants would be released into waters of the State. As such, it has been the policy of the Division of Water Quality to not require water well drilling operations to obtain a discharge permit as long as they do not discharge or discharge de minimis amounts of pollutants.

There may be circumstances where a discharge permit is necessary or desired by the well driller or owner. However, because a discharge permit can take several months to issue, requires payment of a permit fee, and because the permit would contain specific enforceable effluent quality limits and frequent self-monitoring and reporting requirements, it is highly recommended that all options to avoid discharge or attain the de minimis discharge be explored before pursuing an individual discharge permit.

## Best Management Practices (BMP's)

The goal of BMP implementation is to avoid discharge or, if this is not practicable, to obtain a de minimis pollutant discharge during any phase of well development. The primary pollutants of concern are total suspended solids and turbidity in the form of drill cuttings and muds. Occasionally chemicals such as surfactants are used during the drilling operation. It is the responsibility of the operator and/or owner to assure that BMP's are properly installed and operated in order to contain all fluids or to produce a de minimis pollutant discharge to waters of the State. Some BMP's are indicated below:

1. Drill pits or ponds of adequate size for total containment of all fluids containing drill cuttings, surfactants and associated chemicals.

2. Pits or ponds used for settling; followed by filter cloth and/or straw bales which can be used for filtration prior to fluids entering surface waters of the state.

3. Land application of produced waters during drilling, pump testing, and well development where no discharge would occur to waters of the State.

4. Land application where sufficient filtration through vegetation removes solids and turbidity before water is diffused and enters any surface waters.

5. Other sediment and turbidity reduction treatment such as frac tanks, cyclone separators, etc.

Pollution of waters of the state is a violation of the Water Quality Act, UCA 19-5, which provides for significant monetary penalties, and additional penalties for violations that are willful or caused by gross negligence.

If you have any concerns not covered in this fact sheet or any further questions, please contact:

Mike Herkimer
(801) 536-4386
Division of Water Quality
195 North 1950 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Jim Goddard
(801) 538-7314
Division of Water Rights
1594 West North Temple, Suite 220
Salt Lake City, Utah 84114-6300

**TOOELE CITY**
**2025 TOOELE WELLS DRILLING PROJECT**

**ADDENDUM NO. 4**
**June 16, 2025**

**To All Plan Holders:**

You are hereby notified that the following changes, clarifications, and/or corrections have been made to the Drawings, Specifications, or Contract Documents for the above-referenced project.

The bid opening time **IS** changed by this addendum.

ADDENDUM NO. 4 consists of the following:

**1. Bidding date, location, and time**
The time of the following bidding milestones are changed by this addendum:

| Item | Deadline: Date/Time |
|---|---|
| Bids Due | Thursday, June 19th, 2025 ~~(2 pm MST)~~ **(11 am MST)** |

**2. Questions and Clarifications**

a. Clarification is made that a dielectric coupler is not required between the casing and the well screen for the Exploration Wells (Schedules A and B). The requirement for a dielectric coupler on the Production Well (Schedule C) is contingent upon water quality results from the exploration wells. If the Engineer determines a dielectric coupler is necessary, the work will be authorized via a Change Order. Payment will be based on the "Rig Time/Additional Work" hourly rate (Bid Item C.23) for installation, and the material will be reimbursed at invoice cost plus 15%.
b. Clarification is made that the selection of a drilling rig with adequate capacity, and all other means and methods for installing casing and other well components to the specified depths, is the sole responsibility of the Contractor.
c. Will the production well be drilled immediately upon completion of test wells?
    i. Project Sequencing and Contract Time: Clarification is made regarding the sequence of work and its relation to the Contract Time. The Owner intends to proceed with the work in up to two distinct phases.
        a. **Phase 1 (Exploration Wells)**: An initial Notice to Proceed will authorize the work for the two Exploration Wells (Schedules A and B).
        b. **Concurrent Administrative Review Period**: Following the completion of the Rogers Exploration Well, a period of administrative review by the Owner and regulatory agencies (DWRi) for the Preliminary Evaluation Report (PER) and water right change application will occur. The administrative review period is intended to run concurrently with the Contractor's work on the second exploration well. The duration of this review period is outside of the Contractor's control and is not included in the Contract Time for Substantial Completion.

c. **Phase 2 (Production Well)**: Upon receipt of all necessary approvals, the Owner, at its sole discretion, may issue a second, separate Notice to Proceed for the Production Well (Schedule C).
d. The 6-month substantial completion period defined in the Agreement shall apply to the total time for all physical work, cumulative across all Notices to Proceed, and shall be exclusive of any administrative review periods between phases.

**3. Changes to the Contract Documents**
None

**4. Changes to the Drawings**
None

**5. Changes to the Technical Specifications:**
None

This ADDENDUM #4 shall become a part of the Contract and all provisions of the Contract shall apply thereto. BIDDERS shall acknowledge receipt of this ADDENDUM in the space provided in the BID FORM.

Sincerely,
J-U-B ENGINEERS, INC.
Andrew Hobson, P.E.
Project Engineer

Hydro resources - Rocky Mountain, Inc.

June 19, 2025

Tooele City, Utah

**ATTN:** **Mr. Andrew Hobson, P.E.**
**Project:** **2025 Tooele City Wells Drilling Project**

Mr. Hobson,

Hydro Resources (HR) would like to thank you for the opportunity to provide costs for the Tooele City Wells Drilling Project. Before reviewing the project details, HR would first like to stress our commitment to providing you and the city with a company committed to making Health & Safety our number one priority on this project.

Hydro Resources is highly qualified and positioned to provide a comprehensive range of groundwater construction services to meet the specific needs and requirements of our clients. Our team of knowledgeable and experienced industry professionals, along with our modern equipment fleet and our unwavering commitment to safety, make Hydro Resources the right partner when choosing your groundwater services contractor.

We know there can be many choices when selecting a contractor to do your work. I want to stress that Hydro has drilled multiple successful wells for Tooele City in the past. We know the ground and we know what to expect when drilling in the area. We strive to be the most competitive in our bids, but we also hope to help our clients understand the *value* Hydro brings. The lowest bid is certainly not always the best bid.

I have included our Statement of Qualifications at the back of this proposal. I encourage you and the City of Tooele to look at it to get a better understanding of Hydro's capabilities.

We are confident that Tooele City will be pleased with our professional drilling services and look forward to the opportunity to provide this service. Please contact our office at your earliest convenience with any questions you may have.

Sincerely,

*Casey Curtis*

Business Development
Hydro Resources
Rocky Mountain and West Regions
ccurtis@hydroresources.com

**ARTICLE 1 – BID RECIPIENT**

1.01 This Bid is submitted to:

TOOELE CITY HALL - RECORDER'S OFFICE

90 NORTH MAIN

TOOELE, UTAH, 84074

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement (00520) with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

**ARTICLE 2 – BIDDER'S ACKNOWLEDGEMENTS**

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

**ARTICLE 3 – BIDDER'S REPRESENTATIONS**

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

| Addendum No. | Addendum, Date | |
|---|---|---|
| Number 1 | 06.02.25 | TM 6/19/25 |
| Number 2 | 06.05.25 | TM 6/19/25 |
| Number 3 | 06.09.25 | TM 6/19/25 |
| Number 4 | 06.16.25 | TM 6/19/25 |

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and

drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

## ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Base Bid

**Schedule A – Well No.1 Site (C-101)**

| Item No. | Item Description | Unit | Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| A.1 | Mobilization, Demobilization, Bonding, and SWPPP | LS | 1 | $115,000.00 | $115,000.00 |
| A.2 | Borehole drilling (18" min dia., 0 to 40 feet) | LF | 40 | $442.00 | $17,680.00 |
| A.3 | Furnish and install 14" dia conductor casing (0 to 40 feet) | LF | 40 | $84.00 | $3,360.00 |
| A.4 | Surface seal installation (Conductor casing seal between 18" borehole and 14" conductor casing) | CF | 40 | $130.00 | $5,200.00 |
| A.5 | Borehole drilling (10" min dia. 40 to 1,200 feet) | LF | 1,160 | $156.00 | $180,960.00 |
| A.6 | Collect formation samples | LS | 1 | $1,000.00 | $1,000.00 |
| A.7 | Geophysical logging (SWL to 1,200 feet) | LS | 1 | $8,700.00 | $8,700.00 |
| A.8 | Caliper survey | LS | 1 | $4,600.00 | $4,600.00 |
| A.9 | Furnish and install top and bottom cap. | LS | 1 | $230.00 | $230.00 |
| A.10 | Furnish and install 5" dia. well casing (0 to 1,200 feet) with centralizers | LF | 1,200 | $32.00 | $38,400.00 |

| | | | | | |
|---|---|---|---|---|---|
| A.11 | Furnish and install silica gravel pack | CF | 410 | $21.00 | $8,610.00 |
| A.12 | Perforate 5" dia. well casing | LF | 300 | $85.00 | $25,500.00 |
| A.13 | Airlift development with rig (12 hours per zone) | HR | 36 | $750.00 | $27,000.00 |
| A.14 | Furnish and install 10 ft bentonite plug | EA | 3 | $3,700.00 | $11,100.00 |
| A.15 | Install and remove test pump | EA | 3 | $5,200.00 | $15,600.00 |
| A.16 | Zone pump testing and monitoring | HR | 36 | $525.00 | $18,900.00 |
| A.17 | Water quality sampling (at end of each zone test) | EA | 3 | $2,728.00 | $8,184.00 |
| A.18 | Well recovery monitoring (after each zone test) | HR | 12 | $475.00 | $5,700.00 |
| A.19 | Cement grout installation (between 12.25" dia borehole and 5" casing (between test zones), between 14" dia casing and 5" casing to surface, and inside 5" casing to the surface) See Figure 4, items 9 & 10 | CF | 890 | $45.00 | $40,050.00 |
| | **TOTAL OF SCHEDULE A BASE BID ITEMS:** | | | | $535,774.00 |

**Schedule B – Well No.2 Site (C-102)**

| Item No. | Item Description | Unit | Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| B.1 | Mobilization, Demobilization, Bonding, and SWPPP | LS | 1 | $95,000.00 | $95,000.00 |
| B.2 | Borehole drilling (18" min dia., 0 to 40 feet) | LF | 40 | $442.00 | $17,680.00 |
| B.3 | Furnish and install 14" dia conductor casing (0 to 40 feet) | LF | 40 | $84.00 | $3,360.00 |
| B.4 | Surface seal installation (Conductor casing seal between 18" borehole and 14" conductor casing) | CF | 40 | $130.00 | $5,200.00 |
| B.5 | Borehole drilling (10" min dia. 40 to 1,200 feet) | LF | 1,160 | $156.00 | $180,960.00 |
| B.6 | Collect formation samples | LS | 1 | $1,000.00 | $1,000.00 |
| B.7 | Geophysical logging (SWL to 1,200 feet) | LS | 1 | $8,700.00 | $8,700.00 |
| B.8 | Caliper survey | LS | 1 | $4,600.00 | $4,600.00 |
| B.9 | Furnish and install top and bottom cap. | LS | 1 | $230.00 | $230.00 |
| B.10 | Furnish and install 5" dia. well casing (0 to 1,200 feet) with centralizers | LF | 1,200 | $32.00 | $38,400.00 |
| B.11 | Furnish and install silica gravel pack | CF | 410 | $21.00 | $8,610.00 |

| | | | | | |
|---|---|---|---|---|---|
| B.12 | Perforate 5" dia. well casing | LF | 300 | $ 85.00 | $25,500.00 |
| B.13 | Airlift development with rig (12 hours per zone) | HR | 36 | $750.00 | $27,000.00 |
| B.14 | Furnish and install 10 ft bentonite plug | EA | 3 | $3,700.00 | $11,100.00 |
| B.15 | Install and remove test pump | EA | 3 | $5,200.00 | $15,600.00 |
| B.16 | Zone pump testing and monitoring | HR | 36 | $525.00 | $18,900.00 |
| B.17 | Water quality sampling (at end of each zone test) | EA | 3 | $2,728.00 | $8,184.00 |
| B.18 | Well recovery monitoring (after each zone test) | HR | 12 | $475.00 | $5,700.00 |
| B.19 | Cement grout installation (between 12.25" dia borehole and 5" casing (between test zones), between 14" dia casing and 5" casing to surface, and inside 5" casing to the surface) See Figure 4, items 9 & 10 | CF | 890 | $45.00 | $40,050.00 |
| | **TOTAL OF SCHEDULE B BASE BID ITEMS:** | | | | $515,774.00 |

## Schedule C – Proposed Public Water System (PWS) Well

| Item No. | Item Description | Unit | Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| C.1 | Mobilization and Demo | LS | 1 | $118,000.00 | $118,000.00 |
| C.2 | Drill Minimum 40-inch diameter conductor casing borehole | LF | 40 | $496.00 | $19,840.00 |
| C.3 | Furnish Minimum 32-Inch Diameter Conductor Casing | LF | 40 | $270.00 | $10,800.00 |
| C.4 | Install Minimum 32-Inch Diameter Conductor Casing | LF | 40 | $86.00 | $3,440.00 |
| C.5 | Furnish and Install Well Seal for Conductor Casing | CF | 160 | $110.00 | $17,600.00 |
| C.6 | Drill Minimum 28-Inch Diameter Production Borehole | LF | 1170 | $365.00 | $427,050.00 |
| C.7 | Geophysical Logging of Production Borehole | LF | 1210 | $9.50 | $11,495.00 |
| C.8 | Furnish Nominal 20-Inch Diameter Steel Production Casing | LF | 701.5 | $180.00 | $126,270.00 |
| C.9 | Install Nominal 20-Inch Diameter Steel Production Casing | LF | 701.5 | $40.00 | $28,060.00 |
| C.10 | Furnish Nominal 20-Inch Diameter Stainless Steel Wire-Wrap Well Scree | LF | 500 | $400.00 | $200,000.00 |
| C.11 | Install Nominal 20-Inch Diameter Stainless Steel Wire-Wrap Well Screen | LF | 500 | $40.00 | $20,000.00 |
| C.12 | Furnish and Install Filter Pack and Bentonite Plug | CF | 2885 | $31.00 | $89,435.00 |
| C.13 | Furnish and Install Well Seal for Production Casing | CF | 350 | $110.00 | $38,500.00 |

| | | | | | |
|---|---|---|---|---|---|
| C.14 | Well Development with Drill Rig | HR | 100 | $750.00 | $75,000.00 |
| C.15 | Mobilization and Demobilization of Dual-Swab Rig | LS | 1 | $28,500.00 | $28,500.00 |
| C.16 | Well Development with Dual-Swab Rig | HR | 200 | $550.00 | $110,000.00 |
| C.17 | Furnish, Install and Remove Test Pumping Equipment | LS | 1 | $68,000.00 | $68,000.00 |
| C.18 | Development and Test Pumping | HR | 100 | $600.00 | $60,000.00 |
| C.19 | Perform Plumbness and Alignment Survey | LS | 1 | $3,500.00 | $3,500.00 |
| C.20 | Downhole Video Camera Inspection | LF | 1200 | $4.00 | $4,800.00 |
| C.21 | Disinfect Well | LS | 1 | $4,000.00 | $4,000.00 |
| C.22 | Standby Time | HR | 16 | $550.00 | $8,800.00 |
| C.23 | Rig Time/Additional Work | HR | 16 | $750.00 | $12,000.00 |
| | | | | TOTAL OF SCHEDULE C BID ITEMS: | $1,485,090.00 |

**Total Bid Price:**

| | | |
|---|---|---|
| | TOTAL BID PRICE, SUM OF SCHEDULES A, B AND C: | $2,536,638.00 |
| | TOTAL BID PRICE, IN WORDS: Two million, five hundred thirty-six thousand, six hundred thirty-eight dollars | |

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Document.

Alternates

A. Bidder will complete the Work in accordance with the Contract Documents for the following price(s), see Section 01 22 00 Measurement and Payment for additional information.

B. Unit Price as designated above.

4.02 Optional Bid Items

**Schedule D – Optional Bid Items**

| Item No. | Item Description | Unit | Quantity | Bid Unit Price | Bid Price |
|---|---|---|---|---|---|
| D.1 | Noise Control at High School Well Site | Per Day | 60 | $1,120.00 | $67,200.00 |
| D.2 | Drilling Cutting Disposals off-site from the High School Well | CY | 50 | $925.00 | $46,250.00 |
| D. 3 | Plug and Abandon Borehole - Exploration Well | 2 | LS | $31,950.00 | $63,900.00 |

| | | | | | |
|---|---|---|---|---|---|
| D.4 | Plug and Abandon Borehole - PWS Well | 1 | LS | $70,300.00 | $70,300.00 |
| | | | TOTAL OF SCHEDULE D OPTIONAL BID ITEMS: | | $247,650.00 |

**ARTICLE 5 – TIME OF COMPLETION**

5.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement (00520).

5.02 Bidder accepts the provisions of the Agreement (00520) as to liquidated damages.

**ARTICLE 6 – ATTACHMENTS TO THIS BID**

6.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security;

B. Contractor's License No.: 886 & 815 & 810 **[or]** Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;

C. _____

**ARTICLE 7 – DEFINED TERMS**

7.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

**ARTICLE 8 – BID SUBMITTAL**

BIDDER: *[Indicate correct name of bidding entity]*

Hydro Resources - Rocky Mountain, Inc.

By:
*[Signature]* Thomas J Roberts

*[Printed name]* Thomas J Roberts VP / General Manager

*(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)*

Attest:
*[Signature]* Marlene Aamold

*[Printed name]* Marlene Aamold

Title: Purchasing Manager

Submittal Date: 06.19.25

Address for giving notices:

Hydro Resources - Rocky Mountain, Inc.

13027 Weld County Road 18

Ft. Lupton, CO 80621

Telephone Number: 303-857-7540

Contact Name and e-mail address: Casey Curtis 720-814-2628

CCurtis@HydroResources.com

Bidder's License No.: 886 & 815 & 810

# BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER *(Name and Address)*: Hydro Resources - Rocky Mountain, Inc.
13027 CR-18, Unit C
Fort Lupton, CO 80621

SURETY *(Name, and Address of Principal Place of Business)*: Arch Insurance Company
Harborside 3, 210 Hudson St., Suite 300
Jersey City, NJ 07311-1107

OWNER *(Name and Address)*: Tooele City Corporation
90 North Main
Tooele, Utah 84074

BID

Bid Due Date: June 19, 2025

Description *(Project Name— Include Location)*: 2025 Tooele City Wells Drilling Project
Tooele City, Utah

BOND

Bond Number: N/A - Bid Bond

Date: June 19, 2025

Penal sum Five Percent of the Greatest Amount Bid-- (Words) $ 5% G.A.B. (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

| **BIDDER** | **SURETY** |
|---|---|
| Hydro Resources - Rocky Mountain, Inc. (Seal) | Arch Insurance Company (Seal) |
| Bidder's Name and Corporate Seal | Surety's Name and Corporate Seal |
| By: Thomas J. Roberts | By: David T. Miclette |
| Signature | Signature (Attach Power of Attorney) |
| THOMAS J. ROBERTS | David T. Miclette |
| Print Name | Print Name |
| VICE PRESIDENT/GENERAL MGR. | Attorney-in-Fact |
| Title | Title |
| Attest: Marlene Arnold | Attest: Al Johnson |
| Signature | Signature / Al Johnson |
| Procurement Manager | Witness |
| Title | Title |

*Note: Addresses are to be used for giving any required notice.*
*Provide execution by any additional parties, such as joint venturers, if necessary.*

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.

2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement (00520) required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.

3. This obligation shall be null and void if:

3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement (00520) required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or

3.2 All Bids are rejected by Owner, or

3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).

4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.

5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.

6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.

7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.

8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.

9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.

10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.

11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

***This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated. Not valid for Note, Loan, Letter of Credit, Currency Rate, Interest Rate or Residential Value Guarantees.***

**POWER OF ATTORNEY**

**Know All Persons By These Presents:**
That the Arch Insurance Company, a corporation organized and existing under the laws of the State of Missouri, having its principal administrative office in Jersey City, New Jersey (hereinafter referred to as the "Company") does hereby appoint:

**Aaron Hawley, Ashley Britt, Barry K. McCord, David T. Miclette, Lucas Lomax, Kathleen Cuckler, Nancy Rios, Nikole Jeannette, Robert C. Davis, Stacey Bosley, Stacy Owens and Will Duke of Houston, TX (EACH) Rita G. Gulizo of New Orleans, LA**

its true and lawful Attorney(s)in-Fact, to make, execute, seal, and deliver from the date of issuance of this power for and on its behalf as surety, and as its act and deed: Any and all bonds, undertakings, recognizances and other surety obligations, in the penal sum not exceeding One Hundred Fifty Million Dollars ($150,000,000.00). This authority does not permit the same obligation to be split into two or more bonds In order to bring each such bond within the dollar limit of authority as set forth herein.

The execution of such bonds, undertakings, recognizances and other surety obligations in pursuance of these presents shall be as binding upon the said Company as fully and amply to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at its principal administrative office in Jersey City, New Jersey.

This Power of Attorney is executed by authority of resolutions adopted by unanimous consent of the Board of Directors of the Company on August 31, 2022, true and accurate copies of which are hereinafter set forth and are hereby certified to by the undersigned Secretary as being in full force and effect:
"**VOTED**, That the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, or the Secretary shall have the power and authority to appoint agents and attorneys-in-fact, and to authorize them subject to the limitations set forth in their respective powers of attorney, to execute on behalf of the Company, and attach the seal of the Company thereto, bonds, undertakings, recognizances and other surety obligations obligatory in the nature thereof, and any such officers of the Company may appoint agents for acceptance of process."

This Power of Attorney is signed, sealed and certified by facsimile under and by authority of the following resolution adopted by the unanimous consent of the Board of Directors of the Company on August 31, 2022:

**VOTED**, That the signature of the Chairman of the Board, the President, or the Executive Vice President, or any Senior Vice President, of the Surety Business Division, or their appointees designated in writing and filed with the Secretary, and the signature of the Secretary, the seal of the Company, and certifications by the Secretary, may be affixed by facsimile on any power of attorney or bond executed pursuant to the resolution adopted by the Board of Directors on August 31, 2022, and any such power so executed, sealed and certified with respect to any bond or undertaking to which it is attached, shall continue to be valid and binding upon the Company. **In Testimony Whereof**, the Company has caused this instrument to be signed and its corporate seal to be affixed by their authorized officers, this **27th day of February, 2025**.

**Attested and Certified**

Regan A. Shulman, Secretary

Arch Insurance Company — CORPORATE SEAL 1971 — Missouri

**Arch Insurance Company**

Stephen C. Ruschak, Executive Vice President

**STATE OF PENNSYLVANIA SS**
**COUNTY OF PHILADELPHIA SS**

I, **Michele Tripodi**, a Notary Public, do hereby certify that Regan A. Shulman and Stephen C. Ruschak personally known to me to be the same persons whose names are respectively as Secretary and Executive Vice President of the Arch Insurance Company, a Corporation organized and existing under the laws of the State of Missouri, subscribed to the foregoing instrument, appeared before me this day in person and severally acknowledged that they being thereunto duly authorized signed, sealed with the corporate seal and delivered the said instrument as the free and voluntary act of said corporation and as their own free and voluntary acts for the uses and purposes therein set forth.

Commonwealth of Pennsylvania - Notary Seal
MICHELE TRIPODI, Notary Public
Philadelphia County
My Commission Expires July 31, 2025
Commission Number 1168622

Michele Tripodi, Notary Public
My commission expires 07/31/2025

CERTIFICATION

I, **Regan A. Shulman**, Secretary of the Arch Insurance Company, do hereby certify that the attached **Power of Attorney dated February 27, 2025** on behalf of the person(s) as listed above is a true and correct copy and that the same has been in full force and effect since the date thereof and is in full force and effect on the date of this certificate; and I do further certify that the said Stephen C. Ruschak, who executed the Power of Attorney as Executive Vice President, was on the date of execution of the attached Power of Attorney the duly elected Executive Vice President of the Arch Insurance Company.

**IN TESTIMONY WHEREOF**, I have hereunto subscribed my name and affixed the corporate seal of the Arch Insurance Company on this **19th day of** June, **20** 25.

Regan A. Shulman, Secretary

This Power of Attorney limits the acts of those named therein to the bonds and undertakings specifically named therein and they have no authority to bind the Company except in the manner and to the extent herein stated

**PLEASE SEND ALL CLAIM INQUIRIES RELATING TO THIS BOND TO THE FOLLOWING ADDRESS:**
**Arch Insurance Company Claims Department**
**Surety Claims**
**P.O. Box 542033**
**Omaha, NE 68154**
**suretyclaims@archinsurance.com**

Arch Insurance Company — CORPORATE SEAL 1971 — Missouri

***To verify the authenticity of this Power of Attorney, please contact Arch Insurance Company at SuretyAuthentic@archinsurance.com***
***Please refer to the above named Attorney-in-Fact and the details of the bond to which the power is attached.***

**UNANIMOUS WRITTEN CONSENT OF BOARD OF DIRECTORS OF HYDRO RESOURCES – ROCKY MOUNTAIN, INC In lieu of Meeting**

Pursuant to the provisions of Section 141 of the General Corporation Law of the State of Delaware, as amended, the undersigned members of the Board of Directors (the "Board") of Hydro Resources – Rocky Mountain, Inc., a Delaware corporation (the "Corporation"), do hereby execute this Unanimous Written Consent for the purpose of voting for, adopting, approving and consenting the following resolutions:

**WHEREAS,** the Board has made the following determinations:

- Officers of the company will be confirmed per the attached schedule.

**NOW, THEREFORE, BE IT**

**RESOLVED,** that officers will be confirmed per the attached schedule.

This Unanimous Written Consent may be executed in multiple counterparts, each of which shall constitute an original, of which together shall constitute one and the same Unanimous Written Consent.

[Signature page follows]

**IN WITNESS WHEREOF,** the undersigned members of the Board of Directors of the Corporation hereby consent to all of the foregoing effective as of March 27, 2024.

**BOARD OF DIRECTORS:**

Alton Cherry

Alton L. Cherry

Randy Taylor

## HYDRO RESOURCES ORGANIZATION

**Officer & Directors Information**

Hydro Resources - Rocky Mountain, Inc. (a Delaware corporation)
EIN: 56-2306568

| Title | Name | Director | Address |
|---|---|---|---|
| President/CEO | Alton L. Cherry | Yes | 1 Sugar Creek Center Blvd., Suite 400, Sugar Land, TX 77478 713-622-4033 |
| Senior Vice President | Randy Taylor | Yes | 7531 FM 119 Sunray, TX 79086 806-948-4421 |
| Vice President/CFO | Justin Traurig | | 1 Sugar Creek Center Blvd., Suite 400, Sugar Land, TX 77478 713-622-4033 |
| Vice President | Rick Grinols | | 13027 Weld County Road 18, Building C Ft. Lupton, CO 80621 303-857-7540 |
| Vice President | Jason Barnum | | 13027 Weld County Road 18, Building C Ft. Lupton, CO 80621 303-857-7540 |
| Vice President | Thomas Roberts | | 13027 Weld County Road 18, Building C Ft. Lupton, CO 80621 303-857-7540 |
| Treasurer | Justin Traurig | | 1 Sugar Creek Center Blvd., Suite 400, Sugar Land, TX 77478 713-622-4033 |
| Secretary | Justin Traurig | | 1 Sugar Creek Center Blvd., Suite 400, Sugar Land, TX 77478 713-622-4033 |
| Asst. Secretary | Angelica Martinez | | 1 Sugar Creek Center Blvd., Suite 400, Sugar Land, TX 77478 713-622-4033 |

# FRED ROTHAUGE
## Drilling Fluids Specialist

## PROFILE

Provides Technical Support to Hydro Drilling Operations based on vast experience of drilling water supply wells in his tenure with the company. Provides engineered drilling fluid plans and monitors drilling fluid properties throughout individual projects. Assists in strategic planning for large projects and available for on-site supervision during critical phases.

**Selected as the 2023 McElhiney Distinguished Lecturer** by The Groundwater Foundation and National Ground Water Association

## CONTACT


CELL:
970-381-3788

OFFICE:
303-857-7540

EMAIL:
FRothauge@HydroResources.com

WEBSITE:
www.HydroResources.com


## WORK EXPERIENCE

**Hydro Resources, Inc.** **2004 to Present**
Fluids Manager

**Quality Drilling Fluids** **1997 - Present**
Owner

## EDUCATION

**Oregon State University,**
**+Agriculture and Forest Education, Teach Certificate, 1979**
**Treasure Valley Community College**
**+Associate of Science Degree, Range and Forest Technology, 1976**

## PROFESSIONAL AFFILIATIONS

The Grounwater Foudnation
National Groundwater Association

## SPECIALIZED TRAINING & CERTIFICATIONS

Arizona Well Drillers License # 816 in Air Rotary, Mud Rotary, and Reverse Circulation.
New Mexico Well Drillers License # WD-1683,
Oregon Water Supply #2001,
South Dakota Well Drillers License #774;
Texas Well Driller #60121 M W;
Utah Water Well Drillers License #810;
Wyoming Water Well Drilling License # COWD 047;
Montana WD# 670; Colorado #1469
NGWA Certified in Air Rotary, Mud Rotary, Reverse Circulation, and Well Servicing and Maintenance.

## REFERENCES

Courtney Hemenway, Hemenway Groundwater Engineering
303-805-1750 CHemenway@MSN.com
Lance Nielsen P.E., Hansen, Allen & Luce
801-566-5599 LNielsen@HansenAllenLuce.com
Heather Justus, Town of Castle Rock, CO
720-733-6081 HJustus@CRGov.com
Gina Burke, Jehn Water Consultants, President
303-321-8335 GBurke@JehnWater.com

# STATE OF UTAH

## Department of Natural Resources
## Division of Water Rights

*Fred Rothauge*
of
*HYDRO RESOURCES*

**Has complied with the provisions of Title 73-3-25 of the Utah Water Rights Law and Section R655-4-3 and R655-4-4 of the Utah Administrative Rules for Water Wells and is hereby granted a Utah WATER WELL DRILLER License under the following categories:**

**Air Rotary, Mud Rotary, Reverse Rotary, Dual Reverse, Abandon Wells, Monitor Wells. Pump installation and repair**

# WATER WELL DRILLER LICENSE NO. 810

**This license is non-transferable and expires June 30, 2026**

Teresa Wilhelmsen

**Teresa Wilhelmsen, P.E.**
**State Engineer**

Cut here

**STATE OF UTAH**
**NATURAL RESOURCES**
**Division of Water Rights**

**2026**

**WATER WELL DRILLER LICENSE** **No.810**

This certifies that by virtue of the provisions of section 73-3-25 Utah Code Annotated 1953, the State Engineer licenses

*Fred Rothauge*
*HYDRO RESOURCES*

authorizing the licensee to perform regulated well activities in accordance with state laws and rules promulgated by the State Engineer. This registration expires June 30, 2026

Teresa Wilhelmsen

Teresa Wilhelmsen, P.E.
State Engineer

Cut out and RETAIN wallet card

# STATE OF UTAH

## Department of Natural Resources

## Division of Water Rights

*Michael John Taylor*

of

*HYDRO RESOURCES ROCKY MOUNTAIN, INC.*

**Has complied with the provisions of Title 73-3-25 of the Utah Water Rights Law and Section R655-4-3 and R655-4-4 of the Utah Administrative Rules for Water Wells and is hereby granted a Utah WATER WELL DRILLER License under the following categories:**

**Air Rotary, Mud Rotary, Reverse Rotary, Dual Reverse, Abandon Wells, Monitor Wells. Pump installation and repair**

# WATER WELL DRILLER LICENSE NO. 866

**This license is non-transferable and expires June 30, 2026**

Teresa Wilhelmsen

**Teresa Wilhelmsen, P.E.**
**State Engineer**

Cut here

**STATE OF UTAH**
**NATURAL RESOURCES**
**Division of Water Rights**

**2026**

**WATER WELL DRILLER LICENSE** **No.866**

**This certifies that by virtue of the provisions of section 73-3-25 Utah Code Annotated 1953, the State Engineer licenses**

***Michael John Taylor***
***HYDRO RESOURCES ROCKY MOUNTAIN, INC.***

**authorizing the licensee to perform regulated well activities in accordance with state laws and rules promulgated by the State Engineer. This registration expires June 30, 2026**

Teresa Wilhelmsen

**Teresa Wilhelmsen, P.E.**
**State Engineer**

Cut out and RETAIN wallet card

# STATE OF UTAH

## Department of Natural Resources

## Division of Water Rights

*Jim Hale*

of

***HYDRO RESOURCES - ROCKY MOUNTAIN***

Has complied with the provisions of Title 73-3-25 of the Utah Water Rights Law and Section R655-4-3 and R655-4-4 of the Utah Administrative Rules for Water Wells and is hereby granted a Utah WATER WELL DRILLER License under the following categories:

Air Rotary, Mud Rotary, Reverse Rotary, Dual Reverse, Abandon Wells, Pump installation and repair

# WATER WELL DRILLER LICENSE NO. 815

**This license is non-transferable and expires June 30, 2025**

Teresa Wilhelmsen

Teresa Wilhelmsen, P.E.
State Engineer

Cut here

STATE OF UTAH
NATURAL RESOURCES
Division of Water Rights

**2025**

WATER WELL DRILLER LICENSE No.815

This certifies that by virtue of the provisions of section 73-3-25 Utah Code Annotated 1953, the State Engineer Division

Jim Hale

HYDRO RESOURCES - ROCKY MOUNTAIN

authorizing the licensee to perform permitted well activities in accordance with state laws and rules promulgated by the State Engineer. This registration expires June 30, 2025

Teresa Wilhelmsen

Teresa Wilhelmsen, P.E.
State Engineer

Cut out and RETAIN wallet card

Hydro resources ~ Rocky Mountain, Inc.

# RECOMMENDED DRILLING FLUIDS PROGRAM

**Provided To**

**Jim Hale**

**For**

**City of Tooele PWS well**
**28" to 1,210' +/-**

**Reverse Circulation Drilling**

**Prepared By**

**Ryan Brooks**

**June 16, 2025**

Hydro resources
Hydro Resources - Rocky Mountain, Inc
Fax (303)857-3826
Cell (303)720-4775
E-Mail (rbrooks@hydroresources.com)
Web (www.hydroresources.com)

Hydro resources – Rocky Mountain, Inc.

## DRILLING FLUIDS PROGRAM

Hydro Resources Rocky Mountain, Inc. (HRRMI) is providing the following document for the drilling program for The city of Tooele PWS well in Tooele, Utah. In order for HRRMI to stabilize the hole and minimize swelling from clays and shales, the initial drilling fluid mixture will start with 3 lbs/bbl of Wyoming Bentonite along with .5 lb/bbl of Drispac Plus (Pac) for fluid loss and .45 lbs/bbl of polyacrylamide (Flopam). During this initial "mudding-up" procedure, soda ash should be added as needed to maintain a pH of 7-9 in the drilling fluid. HRRMI has found this formulation to be especially effective in areas where swelling clays and unconsolidated sands are a potential problem and should be used whenever water loss and formation protection is a high priority.

### MUD UP PROCEDURES:

Reduce the calcium (Ca) content of the make-up water to below 100 ppm and increase the pH to 8.5 with soda ash. Bentonite should be first added to the water as the primary agent for viscosity along with Drispac Plus to control the fluid loss to +/- 12 cubic centimeters (cc)/30 minutes. Flopam should be added to strengthen wall cake and control the rheology, or flow properties, of the drilling fluid. Always add bentonite gel and Drispac Plus before adding the polyacrylamide (Flopam). Actual volumes to be determined by the Drilling Manager.

### DRILLING PROCEDURES:

During drilling activities, regular checks of the drilling fluid is required to be performed by a Mud Engineer, or the driller under the direction of the Mud Engineer. As drilling progresses, the driller shall continue adding Drispac Plus and polyacrylamide (Flopam) to maintain a 40-45 viscosity and a mud weight of 8.5 - 9.2 lbs/gallon while keeping fluid losses at less than 12cc. The sand/solids content should not exceed 2% at the return tube. If the sand content approaches 2%, the mud pit should be cleaned and system circulated without drilling as needed to allow sand content to be maintained below 2%.

Marsh funnel viscosity should be maintained between 40-45 seconds per quart for drilling and development.

### CONSTRUCTION AND DEVELOPMENT PROCEDURES:

After the tremie pipe, screen and casing are in place, the drilling fluid should be thinned with 1 gallon of Hyperdrill DF2020 per 500 gallons and 15 gallons of 10% sodium hypochlorite per 1,000 gallons of total volume. This is mixed into the recirculation system through the drilling pit trying to obtain a 29-31 viscosity prior to gravel packing. In addition to this mixture, 1 gallon of NW-220 per 1,000 gallons of treatable fluid volume should be added with the gravel pack to assure that all bentonite from the drilling process is reduced of its caking ability. This process will be a field call based on hole conditions determined by the Drilling Manager and on-site lead driller. In the event there are potential construction issues, this procedure can be done with the gravel pack placement or following the gravel packing process as situations require.

All products to be used on this project are NSF–60 certified and comply with products to be used in constructing potable water wells.

13027 County Road 18, Unit C Fort Lupton, CO 80621 (303) 857-7540

Hydro resources – Rocky Mountain, Inc.

## RECOMMENDED FLUID PROPERTIES:

| MUD WEIGHT | FUNNEL VISCOSITY | FILTRATE | pH | CALCIUM |
|---|---|---|---|---|
| 8.4 - 9.2 | 40-45 +/- SEC | <12 cc | 7.0-9.0 | 100 |

THEORECTICAL HOLE SIZE: 28" TO 1,210 ft bgs = 959 bbls
ESTIMATED PIT SIZE: Earth Pit 7' x 8' x 30' = 300 bbls

**Estimated Product to Mud-Up:**

| Product | Units | Estimated Qty |
|---|---|---|
| Soda Ash (Sodium Carbonate) | 50 lbs bag | 1 bags |
| Max Gel (Hi-Yield Betontite) | 50 lbs bag | 18 bags |
| Drispac Plus Regular | 50 lbs bag | 3 bags |
| Drispac Plus Superlo | 50 lbs bag | 1 bags |
| Flopam | 45 lbs pail | 2 pails |

**Total Estimated Drilling Fluid Products:**

| Product | Units | Estimated Qty |
|---|---|---|
| Soda Ash (Sodium Carbonate) | 50 lbs bag | 40 bags |
| Max Gel (Hi-Yield Betontite) | 50 lbs bag | 768 bags |
| Drispac Plus Regular | 50 lbs bag | 80 bags |
| Drispac Plus Superlo | 50 lbs bag | 20 bags |
| Flopam | 45 lbs Pail | 32 pails |
| Hyperdrill DF-2020 | 45 lbs pail | 32 pails |
| Nu-Well 220 | 52 lbs pail | 2 pails |
| 10% Sodium Hypochlorite | Per Gallon | 661Gallons |
| Sodium Thiosulfate | 50 lbs Pail | 9 pails |
| | | |
| | | |

Hydro

# Statement of Qualifications

2023/2024

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# Welcome Message

Hydro Resources was established in 1999 by our CEO, Alton Cherry, and a team of professionals that recognized the need for a large-scale, professionally managed groundwater services contracting firm. By and through the acquisition of some of the industry's most reputable companies serving the agricultural and municipal groundwater markets, the vision of our founders started becoming a reality.

Through the seamless integration of the acquired companies, a continued focus on providing the best equipment fleet in the industry, and our constant commitment to quality and excellent customer service, Hydro Resources has become recognized as a top tier firm within the groundwater services industry delivering tailored solutions throughout the central and western regions of the United States. Our size, technical expertise, equipment capabilities and financial strength allow us to engage projects of any size or complexity. Today, Hydro Resources operates from six strategically located facilities across Texas, New Mexico, Colorado, and Kansas.

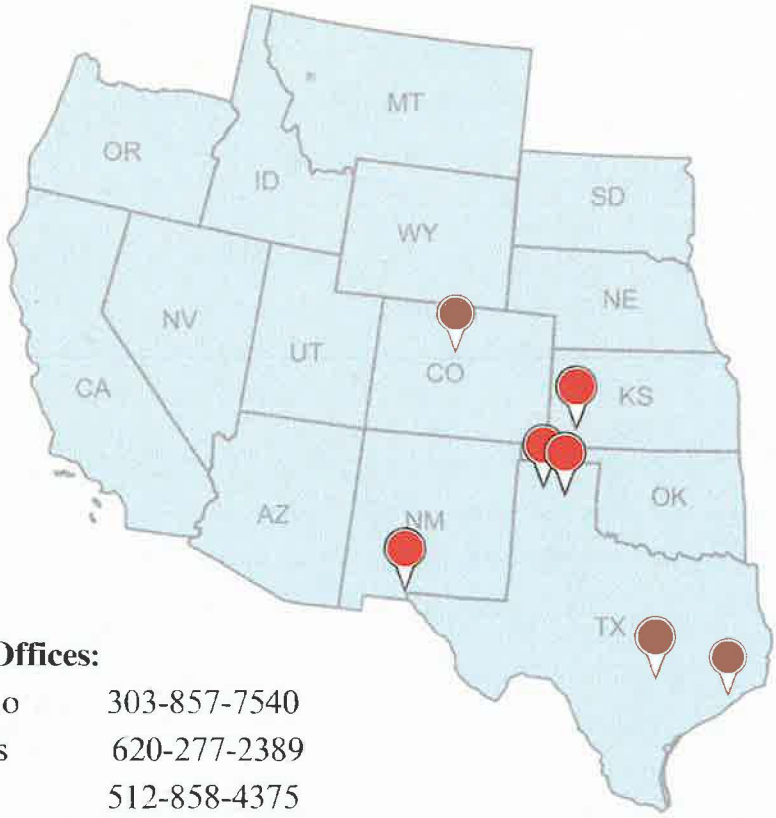
Our team at Hydro Resources believe that we've only begun this journey and intend to continue leading the way in the groundwater services industry. We would be honored to have the opportunity to assist you in providing solutions for all of your groundwater-related needs.

## America's premier driller since 1999

Our substantial size, financial strength, and unwavering stability empower us to meticulously plan, organize, manage, and successfully complete a full-line of groundwater solutions. Whether it's drilling, exploration, or other groundwater-related services, Hydro Resources is well-equipped to deliver tailored solutions across the central and western regions of the United States.

Join us on our journey as we continue to lead the way in water well drilling and services. Experience firsthand the caliber of our expertise and the reliability of our groundwater solutions.

# Hydro Resources is licensed to operate in 15 states.




**Our Offices:**

| | |
|---|---|
| Ft. Lupton, Colorado | 303-857-7540 |
| Garden City, Kansas | 620-277-2389 |
| Creedmoor, Texas | 512-858-4375 |
| Sunray, Texas | 806-249-5160 |
| Dalhart, Texas | 806-249-5160 |
| Las Cruces, New Mexico | 575-215-0050 |
| Sugar Land, Texas | 800-401-9092 |

Offices - 7
Licenses - 154
Employees - 380

**Hydro Resources Offices**

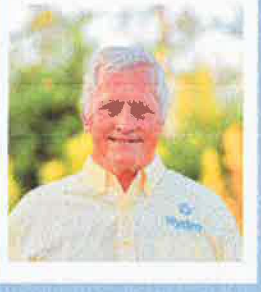
# Meet Our Team

**Alton Cherry**
**President & CEO**

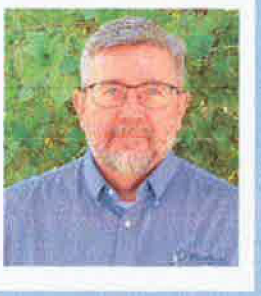
**Randy Taylor**
**Senior Vice President**
**GM - Sunray, TX**

**Rick Grinols**
**VP - Operations**

**Jason Barnum**
**VP - Business Development**



**Fred Rothauge**
**Fluid Specialist**
**2023 McElhiney**
**Distinguished Lecturer**



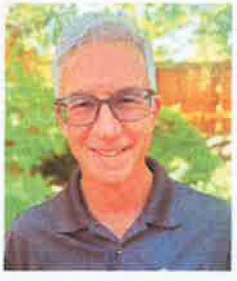
**Tom Roberts**
**GM - Fort Lupton, CO**

**Josh Buse**
**GM - Creedmoor, TX**

**Mike Thelander**
**GM - Dalhart, TX**

**James Stair**
**GM - Las Cruces, NM**

**Tony Wedel**
**GM - Garden City, KS**



**Mark Scharenbroich**
**Board Advisor**

# Hydro Experience

Our company specializes in the development of large-scale groundwater resources for public water supplies, irrigation wells for the agricultural industry, injection wells, large commercial projects and deep geothermal projects. As a leading groundwater services firm in the United States, we have expertise in every phase of the development process, including geological groundwater imaging, design and construction of high-volume water wells, well rehabilitation capabilities, and the design, installation and maintenance of high-volume pumping systems0.

Henkle Drilling and Supply Co. was founded in 1937 in Garden City, KS. It operated in Kansas, Nebraska, Utah, Colorado, New Mexico, Texas, Oklahoma, and Wyoming and specialized in water well drilling for the municipal, commercial, and agricultural industries. Henkle was a pioneer in developing the reverse-circulation drilling technique for deep drilling applications, which has become a specified drilling standard in many parts of the country.

AmWest Inc was founded in 1977. It was the leading pumping system design, installation and service company operating in the Denver Basin. In addition to specializing in the design, installation and maintenance of large volume, high horsepower pumping systems for municipalities and large commercial customers, AmWest was also one of the leading well rehabilitation specialists operating throughout the Colorado market.

Quality Drilling Fluids was founded in 1984 by Fred Rothauge to service the western US oilfield market with drilling supplies and mud engineering services. During the past 25 years, QDF has specialized in full line drilling supply business to the water well industry.

Hydro Resources has since also acquired Humbolt Drilling, LT Drilling, StrataTek Groundwater Imaging and Whisenant & Lyle Water Services.

Hydro Resources acquired these companies over the past 11 years with the purpose of combining their drilling, pump and mud expertise to provide a complete package to customers. Since their acquisition, we have completed several hundred projects that have combined drilling, pump installation, and controls.

# Colorado Projects

| REFERENCE PROJECT | State | OWNER | Owner or Engineer | Diameter of Well | Depth of Well | Was Well A Public Drinking Water Well? | Drilling Method | Tested Capacity of Well | CONTRACT AMOUNT |
|---|---|---|---|---|---|---|---|---|---|
| ACWWA - Elkhorn Well No 3, (2023) Parker, CO | Colorado | Arapahoe County Water & Wastewater Authority | Mr. Alan Leak RESPEC (720) 775-6406 | Qty 1 - 10" | 1726' | Yes | Mud rotary, Reverse Circulation | 130 | $1,231,360.00 |
| Bennett Well LFH-6 (2020) Bennett, CO | Colorado | Bennett | Ms. Gina Burke Jehn Water Consultants Inc. 303-321-8335 | Qty 1 -10" | 1600' | Yes | Mud rotary, Reverse Circulation | 250 | $ 475,000.00 |
| Bennett - Wells LA-14 & LFH-14, (2023) Bennett, Co | Colorado | Bennett | Ms. Gina Burke Jehn Water Consultants Inc. 303-321-8335 | Qty 2 - 8" | 1082', 1572' | Yes | Mud rotary, Reverse Circulation | 50 | $1,292,700.00 |
| Castle Rock EPCOS Aprapahoe, Denver & Dawson Wells , (2022-2023) Castle Rock, CO | Colorado | Castle Rock Water | Castle Rock (720) 733-6021 Jacob Bauer - LRE Water (303) 455-9589 | Qty 2 - 12" Qty 1 - 10" | 1800', 1395', 490' | Yes | Mud rotary, Reverse Circulation | 300, 125, 80 | $4,001,670.00 |
| Castle Rock Bell Mountain (2023) Castle Rock, CO | Colorado | Castle Rock Water | Mr. Lauren Moore Castle Rock (720) 733-6021 Jacob Bauer - LRE Water (303) 455-9589 | Qty 1 - 12" | 1950' | Yes | Mud rotary, Reverse Circulation | 200 | $2,778,045.00 |
| Castle Rock Lantern Wells No. 228, 229, & 230 (2018-2019) Castle Rock, CO | Colorado | Castle Rock Water | Mr. Heather Justus Castle Rock Water 720-733-6081 | Qty. 3 - 12" | 1800', 1500', 600' | Yes | Mud rotary, Reverse Circulation | 100-300 | $3,584,000.00 |
| Castle Rock Waterman Wells 232 & 233 (2020) Castle Rock, CO | Colorado | Castle Rock Water | Ms. Heather Justus Castle Rock Water 720-733-6081 | Qty. 2 - 12" | 2365', 1670' | Yes | Mud rotary, Reverse Circulation | 300 | $2,457,000.00 |
| Centennial Water Wells A-2R and A-8 (2019) Centennial, CO | Colorado | Centennial Water | Mr. Courtney Hemenway Hemenway Groundwater Engineering, Inc. 303-901-2287 | Qty. 2 - 12" | 1800', 1500' | Yes | Mud rotary, Reverse Circulation | 250 | $1,500,000.00 |
| Cervi Enterprises, North & South Well (2022), Roggen, CO | Colorado | Cervi Ranch | Mr. Courtney Hemenway Hemenway Groundwater Engineering, Inc. 303-901-2287 | Qty. 2 - 8" | 600' | No | Mud rotary, Reverse Circulation | 80 | $ 849,460.00 |
| Cottonwood Water and Sanitation District Wells D-1R (2020) | Colorado | Cottonwood Water | Mr. Luis Tovar Mulhern MRE, Inc. 303-649-9857 | Qty. 1 - 10" | 1660' | Yes | Mud rotary, Reverse Circulation | 250 | $ 570,000.00 |
| Denver Water Deep Monitoring Well Project | Colorado | Denver | Mr. Dave Colvin LRE Water 303-455-9589 | Qty. 1 - 8" | 1840' | No | Mud rotary, Reverse Circulation | 100 | $ 900,000.00 |
| Dominion Water & Santiation District Well WS-3, (2023) Sedalia, CO | Colorado | Dominion Water & Santiation | Mr. Dave Colvin - LRE Water (303) 455-9589 Mr. Evan Behn - Dominion (303) 523-0380 | Qty 1 - 12" | 1355' | Yes | Mud rotary, Reverse Circulation | 150 | $2,468,447.00 |
| Town of Elizabeth Wells A2 & D2 (2020) Elizabeth, CO | Colorado | Elizabeth | Mr. Reid Polmanteer HRS Water 303-462-1111 | Qty. 2 - 10"/8" | 2058', 1,580' | Yes | Mud rotary, Reverse Circulation | 250 | $ 865,000.00 |
| Meridian Metro Service District Wells A-6 & LFH-6 (2019-2020) Falcon, CO | Colorado | Falcon | Mr. Mario Espasiquale JDS Hydro 719-227-0072 | Qty. 2 - 10" | 1850', 2330' | Yes | Mud rotary, Reverse Circulation | 200 | $1,275,700.00 |
| Firestone Injection Well SWD#1 | Colorado | Firestone | Mr. David Lindsay Colorado Civil Group 970-278-0029 | Qty. 1 - 6" | 10,000' | No | Mud rotary | NA | $4,187,000.00 |
| CB Independence Development Arapahoe Well (2018) Franktown, CO | Colorado | Franktown | Ms. Gina Burke Jehn Water Consultants Inc. 303-321-8335 | Qty. 1 - 12" | 2100' | Yes | Mud rotary, Reverse Circulation | 300 | $ 700,000.00 |
| Goldsmith Metropolitan District Arapahoe Well 2RR, (2022) Denver Tech Center, CO | Colorado | Goldsmith Metropolitan District | Troy Nedved - RT Civil (303) 431-0505 Randy Gabriel - Guldsmith (303) 790-1498 Courtney Hemenway (303) 901-2287 | Qty 1 - 12" | 1550' | Yes | Mud rotary, Reverse Circulation | 500 | $1,562,603.00 |
| Guttersen Exchange, Capitol Sand Well (2019) Keenesb | Colorado | Guttersen Ranches | Mr. Courtney Hemenway Hemenway Groundwater Engineering, Inc. 303-901-2287 | Qty 1 - 8" | 800' | No | Mud rotary, Reverse Circulation | 90 | $ 253,620.00 |
| Guttersen Ranches, Well #4 & 5 (2022) Keenesburg, CO | Colorado | Guttersen Ranches | Mr. Courtney Hemenway Hemenway Groundwater Engineering, Inc 303-901-2287 | Qty. 2 - 8" | 565' & 705' | No | Mud rotary, Reverse Circulation | 80-100 | $ 622,730.00 |
| Lions Tail Ranch Well, (2023) Larkspur, CO | Colorado | Lions Tail Ranch, LLC | Ms. Theresa Jehn-Dellaport Quantum Water & Environment (720) 524-4294 | Qty 1 - 8" | 1380' | No | Mud rotary, Reverse Circulation | NA | $ 598,980.00 |
| Woodmoor Well No 22, (2022) Monument, CO | Colorado | Monument | Mr. Tim Crawford BBA Water (303) 806-3952 Jessie Shaffer - Monument (719) 488-2525 | Qty 1 - 10" | 2215' | Yes | Mud rotary, Reverse Circulation | 240 | $1,237,771.00 |
| Monument Wells 11, 12, 13, (2023) Monument, CO | Colorado | Monument | Mr. Bruce Lytle Lytle Water 303-350-4090 | Qty 3 - 10" | 1038', 1075', 1185' | Yes | Mud rotary, Reverse Circulation | 200, 70, 110 | $2,404,954.00 |
| Parker Ridgegate & Canyons 6 Well Project (2019-2020) Parker, CO | Colorado | Parker Water | Mr. Bruce Lytle Lytle Water 303-350-4090 | Qty. 2 - 12" Qty. 4 - 10" | 474'-2108' | Yes | Mud rotary, Reverse Circulation | 100-300 | $2,942,000.00 |
| Triview Metropolitan District Well A-9 & D-9 (2020) Colorado Springs, CO | Colorado | Triview Metropolitan District | Mr. Jim McGrady Triview M.D. 719-602-4391 | Qty. 2 - 12" | 1880', 1380' | Yes | Mud rotary, Reverse Circulation | 300 | $1,800,000.00 |
| Wolf Ranch Water Company Araphoe Production Well | Colorado | Wolf Ranch | Mr. Courtney Hemenway Hemenway Groundwater Engineering, Inc. 303-901-2287 | Qty 1 - 12" | 1850' | Yes | Mud rotary, Reverse Circulation | 350 | $ 622,000.00 |

# Texas Projects

| REFERENCE PROJECT | State | OWNER | Owner or Engineer | Diameter of Well | Depth of Well | Was Well A Public Drinking Water Well? | Drilling Method | Tested Capacity of Well | CONTRACT AMOUNT |
|---|---|---|---|---|---|---|---|---|---|
| North I-35 Public Water Supply Well (2018-2019), Troy, TX | Texas | Troy | Mr. Billy Gamblin<br>Gamblin Engineering, Inc<br>(512) 484-2033 | 12.75" | 1800' | Yes | Mud rotary, Reverse Circulation | 500 | $ 613,730.00 |
| Phase 1B Project (2021), Rosanky, TX | Texas | Alliance Regional Water Authority | Ms. Alisa Gruber<br>CP&Y Engineering<br>(210) 798-2302 | Qty. 4 - 16" | 770' | Yes | Mud rotary, Reverse Circulation | 800 | $ 2,597,000.00 |
| Chase Field Production Wells (2018-2019), Beeville, TX | Texas | Beeville | Mr. Bob Harden<br>Harden Hydrology<br>(512) 791-1153 | Qty. 4 - 8" | 620' | Yes | Mud rotary, Reverse Circulation | 350 | $ 2,000,000.00 |
| Nelson Well #2 (2020-2021), Hunter, Texas | Texas | Crystal Clear Special Utility District | Ms. Carissa Parker<br>M&S Engineering<br>(512) 576-1149 | 18" | 400' | Yes | Mud rotary, Reverse Circulation | 2000 | $ 275,000.00 |
| El Paso Water Utilities Ten Well Project (2023), El Paso, TX | Texas | El Paso Water Utilities | Mr. Joe Moreno<br>Brown & Caldwell<br>(915) 545-4400 | Qty 10 - 16" | 800' | Yes | Mud rotary, Reverse Circulation | 1000 | $ 8,500,000.00 |
| El Paso Water Utilities Six Well Project (2020), El Paso, TX | Texas | El Paso Water Utilities | Mr. Joe Moreno<br>Brown & Caldwell<br>(915) 545-4400 | Qty. 6 - 16" | 700' | Yes | Mud rotary, Reverse Circulation | 750 | $ 2,291,000.00 |
| Wilcox Public Water Supply Wells (2010-2020), Elmendorf, TX | Texas | Elmendorf | Mr. Garry Montgomery<br>Utility Engineering Group<br>(830) 789-3952 | Qty. 4 - 10" | 650' | Yes | Mud rotary, Reverse Circulation | 550 | $ 1,380,000.00 |
| Plaza Well Project (2022-2023), Floresville, TX | Texas | Floresville | Mr. Brady Kosub<br>M&S Engineering<br>(830) 629-2988 | 14" | 1050' | Yes | Mud rotary, Reverse Circulation | 1400 | $ 1,114,000.00 |
| HCMUD #565 - Water Plant #1 (2019-2020) Hockley, TX | Texas | Harris County Municipal Utility District #565 | Mr. Nathanial<br>Leal Water Engineers, Inc.<br>(281) 373-0500 | 10" | 500' | Yes | Mud rotary, Reverse Circulation | 500 | $ 310,000.00 |
| Wellfield Project (2020), Hereford, TX | Texas | Hereford | Ms. Kelli Cool<br>Parkhill, Smith & Cooper<br>(806) 376-8600 | Qty. 4 - 16" | 850' | Yes | Mud rotary, Reverse Circulation | 800 | $ 1,880,000.00 |
| Well #9 (2021), McCoy, TX | Texas | McCoy Water Supply Corporation | Mr. Jerry Shepard<br>Southwest Engineers<br>(830) 672-7546 | 12" | 1350' | Yes | Mud rotary, Reverse Circulation | 500 | $ 578,000.00 |
| ASR Demonstration Well Project (2019-2020), New Braunfels, TX | Texas | New Braunfels Utilities | Mr. David Pyne<br>ASR Systems, Inc.<br>(352) 336-3820 | 24" | 700' | Yes | Mud rotary, Reverse Circulation | 1400 | $ 1,381,000.00 |
| Restlawn Memorial Park (#0166) (2022), El Paso, TX | Texas | Restlawn Memorial Park | NA | Qty. 1 - 12" | 800' | No | Mud rotary, Reverse Circulation | 600 | $ 800,690.00 |
| Hickory Well Field Project (2022-2023), Melvin, TX | Texas | San Angelo | Mr. Leroy Arce<br>Enprotec/Hibbs & Todd<br>(325) 370-4137 | Qty. 5 - 14" | 2900' | Yes | Mud rotary, Reverse Circulation | 500 | $ 8,500,000.00 |
| Artesia Pump Station - Well #7 & #8 (2022-2023), San Antonio, TX | Texas | San Antonio Water System | Mr. Maxwell Wallack<br>Aracdis U.S., Inc.<br>(512) 659-4770 | 30" | 1330' | Yes | Mud rotary, Reverse Circulation | 1330 | $ 9,700,000.00 |
| Antlers Well #1 (2021) Savoy, TX | Texas | Southwest Fannin Special Utility District | Mr. Eddy Daniel<br>Daniel & Brown, Inc<br>(972) 784-777 | 10" | 2235" | Yes | Mud rotary, Reverse Circulation | 300 | $ 778,000.00 |
| 536 Well Field Project (2022), Stephenville, TX | Texas | Stephenville | Mr. Kent Riker<br>Provenance Engineering<br>(817) 785-7121 | Qty. 5 - 10" | 600' | Yes | Mud rotary, Reverse Circulation | 200 | $ 2,732,000.00 |
| Garner State Park - Well #3 (2020) | Texas | Texas Parks & Wildlife Agency | Mr. Todd Neff<br>Texas Water & Soil, Inc.<br>(325) 653-8533 | 16" | 1422" | Yes | Mud rotary, Reverse Circulation | 290 | $ 795,000.00 |
| Tioga Public Water Supply Well #5 (2018), Tioga, TX | Texas | Tioga | Mr. Kevin Van Hoosier<br>Haytar Engineering<br>(903) 785-0303 | 12" | 1600' | Yes | Mud rotary, Reverse Circulation | 200 | $ 778,000.00 |

# Utah Projects

| REFERENCE PROJECT | State | OWNER | Owner or Engineer | Diameter of Well | Depth of Well | Was Well A Public Drinking Water Well? | Drilling Method | Tested Capacity of Well | CONTRACT AMOUNT |
|---|---|---|---|---|---|---|---|---|---|
| Antimony Town Well Project (2023) Antimony, Utah | Utah | Antimony | Mr. Kelly Chappell<br>Ensign Engineering<br>385-315-8983 | 8" | 600' | Yes | Mud rotary, Reverse Circulation | 200 | $1,000,000.00 |
| Bear Lake Production Well (2019) Bear Lake, UT | Utah | Bear Lake Development | Mr. Lance Anderson<br>Cache Landmark Engineering<br>435-713-0099 | 12" | 400' | Yes | Mud rotary, Reverse Circulation | 700 | $ 420,000.00 |
| Central Utah Water Conservation District Wells 7 & 17 Project (2022-2023) Vineyard, UT | Utah | Central Utah Water Conservation District | Mr. Lance Nielsen<br>Hansen, Allen & Luce<br>801-566-5599 | Qty. 2 - 24" | 1260' | Yes | Mud rotary, Reverse Circulation | 6,000 | $8,900,000.00 |
| Central Utah Water Conservation District Wells 8, 9, & 10 Project (2018-2019) Vineyard, UT | Utah | Central Utah Water Conservation District | Mr. Lance Nielsen<br>Hansen, Allen & Luce<br>801-566-5599 | Qty. 3 - 24" | 1500' | Yes | Mud rotary, Reverse Circulation | 6000 | $7,000,000.00 |
| Central Utah Water Conservation District High Head Wells Project Qty. 5 (2011-2014), Salt Lake City, UT | Utah | Central Utah Water Conservation District | Mr. KC Shaw<br>Central Utah Water<br>801-226-7100 | Qty. 5 - 24" | 1500' | Yes | Mud rotary, Reverse Circulation | 3000 | $8,000,000.00 |
| Grantsville City North Replacement Production Well (2018-2019) Grantsville, UT | Utah | Grantsville City | Aqua Engineering<br>801-299-1337 | 16" | 550' | Yes | Mud rotary, Reverse Circulation | 500 | $ 540,000.00 |
| Intrepid Potash Deep Well (2022) Wendover, UT | Utah | Intrepid Potash | Ms. Chandler Ridler<br>Intrepid Potash<br>719-684-6784 | 18" | 1630' | No | Mud rotary, Reverse Circulation | 4,000 | $2,300,000.00 |
| Intrepid Potash Brackish Well (2021) Wendover, UT | Utah | Intrepid Potash | Ms. Chandler Ridler<br>Intrepid Potash<br>719-684-6784 | 12" | 250' | No | Mud rotary, Reverse Circulation | 1,000 | $ 325,000.00 |
| Ogden Airport Well Construction (2019), Ogden, UT | Utah | Ogden | Mr. Chris DeKorver<br>Bowen Collins<br>801-495-2224 | 20" | 1000' | Yes | Mud rotary, Reverse Circulation | 1200 | $ 900,000.00 |
| City of Orem Well No 10 (2023) Orem, Utah | Utah | Orem | Mr. Lane Gray<br>City of Orem<br>801-229-7596 | 20" | 900' | Yes | Mud rotary, Reverse Circulation | 6000 | $2,300,000.00 |
| Viridian Farms Production Well c/o DR Horton (2023) | Utah | Salem | Mr. Lance Nielsen<br>Hansen, Allen & Luce<br>801-566-5599 | 16" | 650' | Yes | Mud rotary, Reverse Circulation | 1000 | $1,177,000.00 |
| Temple Square Production Well (2022) Salt Lake City, UT | Utah | Salt Lake City | Mr. Lance Nielsen<br>Hansen, Allen & Luce<br>801-566-5599 | 20" | 650' | No | Mud rotary, Reverse Circulation | 3500 | $1,250,000.00 |
| Taylorsville Bennion Improvement District Millrace Exploratory Well and Wirthlin Production Well (2016), Taylorsville, UT | Utah | Taylorsville Water District | Mr. Mark Chandler<br>CRS Engineers<br>801-359-5565 | 20" | 1200' | Yes | Mud rotary, Reverse Circulation | 750 | $ 900,000.00 |
| Tooele City Test Well, Berra & Park Production Well Program (2019-2020) Tooele, UT | Utah | Tooele City | Mr. Paul Hansen<br>City of Tooele<br>435-843-2132 | Qty. 2 - 20" | 1200', 810' | Yes | Mud rotary, Reverse Circulation | 2000 | $2,000,000.00 |
| Utah Forge Wells Seismic Wells (2019) Milford, Utah | Utah | University of Utah | Mr. Ben Barker<br>geothermalben@gmail.com | Qty. 2 - 8" | 3000', 1000' | Yes | Mud rotary, Reverse Circulation | 50 | $ 990,000.00 |
| Weber Basin Wells (Bountiful and Fruit Heights) Salt Lake City, UT | Utah | Weber Basin Water Conservancy District | Mr. Lance Nielsen<br>Hansen, Allen & Luce<br>801-566-5599 | 12" (final) | 1200' | Yes | Mud rotary, Reverse Circulation | 500 | $1,500,000.00 |

# Projects - Various States

| REFERENCE PROJECT | State | OWNER | Owner or Engineer | Diameter of Well | Depth of Well | Was Well A Public Drinking Water Well? | Drilling Method | Tested Capacity of Well | CONTRACT AMOUNT |
|---|---|---|---|---|---|---|---|---|---|
| Florence Copper Phase 1 Injection/Recovery Wells (2018) Florence, AZ | Arizona | Florence | Mr. Ian Ream<br>Florence Copper<br>520-374-3984 | Qty. 20 - 6" | 1000' | No | Mud rotary, Reverse Circulation | NA | $5,600,000.00 |
| City of Phoenix Well No. 237 (2019) Phoenix, AZ | Arizona | Phoenix | Nikhil Pareekh<br>City of Phoenix Water Dept. | Qty. 1 - 18" | 1000' | Yes | Mud rotary, Reverse Circulation | 1500 | $ 700,000.00 |
| Queen Creek Barney Farms Lake Well 193 (2019) Maricopa, AZ | Arizona | Queen Creek | Mr. Darren Farar<br>City of Queen Creek<br>480-358-3000 | Qty. 1 - 18" | 1219' | Yes | Mud rotary, Reverse Circulation | 1000 | $ 975,000.00 |
| Mayfield Springs Development (2021) Boise, ID | Idaho | Boise | Mr. Ed Stowe<br>Mountain Waterworks Inc.<br>208-780-3992 | Qty. 2 - 16" | 1200' | Yes | Mud rotary, Reverse Circulation | 500 | $1,200,000.00 |
| UGC Farms Irrigation Well (2023) | Idaho | Holbrook | Mr. Courtney Hemenway<br>Hemenway Groundwater Engineering, Inc.<br>303-901-2287 | Qty. 1 - 16" | 900' | No | Mud rotary, Reverse Circulation | 750 | $1,100,000.00 |
| Musselshell Judith Gap Well 3 (2019) Judith Gap, MT | Montana | Judith Gap | Mr. Bob Church<br>Great West Engineering<br>406-449-8627 | Qty. 1 - 8" | 2800' | Yes | Mud rotary, Reverse Circulation | 500 | $1,685,000.00 |
| Town of Stanford Madison Wells (2019) Stanford, MT | Montana | Stanford | Mr. Robert Morton<br>Robert Peccia & Associates<br>406-447-5000 | Qty. 1 - 8" | 3500' | Yes | Mud rotary, Reverse Circulation | 300 | $1,340,000.00 |
| Nebraska Public Power District Gerald Gentleman Station Injection Well (2023) | Nebraska | Nebraska Power | Ms. Melinda Evans<br>Nebraska Power<br>402-563-5438 | Qty. 1 - 7" | 3480' | No | Mud rotary, Reverse Circulation | 200 | $3,977,000.00 |
| Isabella Pearl Well PW4 (2021) | Nevada | Isabella Pearl Mine | Mr. Mark Henry<br>Walker Lane Minerals<br>775-238-7196 | Qty. 1- 12" | 1300' | No | Mud rotary, Reverse Circulation | 500 | $ 580,000.00 |
| Virgin Valley Water Wells 35 & 36 (2021) | Nevada | Mesquite | Mr. Chris DeKorver<br>Bowen Collins<br>801-495-2224 | Qty. 2 - 20" | 1400', 1600' | Yes | Mud rotary, Reverse Circulation | 1500 | $4,800,000.00 |
| Ormat - San Emidio Geothermal Project (2023) near Gerlach, Nevada | Nevada | Ormat Nevada Inc. | Mr. Matt Folsom<br>Ormat<br>775-399-8480 | Qty. 4 - 14" | 1000' | No | Mud rotary, Reverse Circulation | 1000 | $5,000,000.00 |
| Golden Mile Mine (2022) near Luning, Nevada | Nevada | Walker Lane Minerals | Mr. Mark Henry<br>Golden Mile Mine<br>775-238-7196 | 12" | 1200' | No | Mud rotary, Reverse Circulation | 100 | $1,800,000.00 |
| Rio Rancho Well 9R Project (2023) | New Mexico | Rio Rancho | Mr. Roger Peery<br>John Shomaker & Assoc. Inc.<br>505-345-3407 | 18" | 2000' | Yes | Mud rotary, Reverse Circulation | 1500 | $4,125,000.00 |
| Great River Energy - Non Hazardous Class 1 Injection Well (2015) | North Dakota | Washburn | Mr. Ron Jorgenson<br>Golder and Associates<br>303-980-0540 | Qty. 1 - 8" | 5,600' | No | Mud Rotary | NA | $2,100,000.00 |
| Wingfoot Water Resources 5 Well Project (2019) Carr, WY | Wyoming | Carr | Mr. Chris Dietzler<br>Wingfoot Water<br>970-672-1041 | Qty. 5 - 12" | 950'-1400' | Yes | Mud rotary, Reverse Circulation | 700 | $2,500,000.00 |
| Town of Pine Haven Well No. 3 (2018) Pine Haven, WY | Wyoming | Pine Haven | Town of Pine Haven<br>307-756-9807 | Qty. 1 - 12" | 2,630' | Yes | Mud rotary, Reverse Circulation | 500 | $ 971,000.00 |

# ASR, Mining, Injection & Geothermal Wells

| REFERENCE PROJECT | State | OWNER | Owner or Engineer | Diameter of Well | Depth of Well | Was Well A Public Drinking Water Well? | Drilling Method | Tested Capacity of Well | CONTRACT AMOUNT |
|---|---|---|---|---|---|---|---|---|---|
| Florence Copper Phase 1 Injection/Recovery Wells (2018) Florence, AZ. | Arizona | Florence | Mr. Ian Ream<br>Florence Copper<br>520-374-3984 | Qty. 20 - 6" | 1000' | No | Mud rotary, Reverse Circulation | NA | $5,600,000.00 |
| Castle Rock Waterman ASR Wells 232 & 233 (2020) Castle Rock, CO | Colorado | Castle Rock Water | Ms. Heather Justus<br>Castle Rock Water<br>720-733-6081 | Qty. 2 - 12" | 2365', 1670' | Yes | Mud rotary, Reverse Circulation | 300 | $2,457,000.00 |
| Denver Water Deep Monitoring Well Project | Colorado | Denver | Mr. Dave Colvin<br>LRE Water<br>303-455-9589 | Qty. 1 - 8" | 1840' | No | Mud rotary, Reverse Circulation | 100 | $ 900,000.00 |
| East Cherry Creek DI1 & DI2 Class 1 Injection Wells (2016) | Colorado | East Cherry Creek | Kennedy Jenks Consulting<br>303-985-3636 | Qty. 1 - 8" | 10,500' | No | Mud Rotary | NA | $3,070,000.00 |
| Firestone Injection Well SWD#1 | Colorado | Firestone | Mr. David Lindsay<br>Colorado Civil Group<br>970-278-0029 | Qty. 1 - 6" | 10,000' | No | Mud rotary | NA | $4,187,060.00 |
| Nebraska Public Power District Gerald Gentleman Station Injection Well (2023) | Nebraska | Nebraska Power | Ms. Melinda Evans<br>Nebraska Power<br>402-563-5438 | Qty. 1 - 7" | 3480' | No | Mud rotary, Reverse Circulation | 200 | $3,977,000.00 |
| Isabella Pearl Well PW4 (2021) | Nevada | Isabella Pearl Mine | Mr. Mark Henry<br>Walker Lane Minerals<br>775-238-7196 | Qty. 1- 12" | 1300' | No | Mud rotary, Reverse Circulation | 500 | $ 580,000.00 |
| Ormat - San Emidio Geothermal Project (2023) near Gerlach, Nevada | Nevada | Ormat Nevada Inc | Mr. Matt Folsom<br>Ormat<br>775-399-8480 | Qty. 4 - 14" | 1000' | No | Mud rotary, Reverse Circulation | 1000 | $5,000,000.00 |
| Golden Mile Mine (2022) near Luning, Nevada | Nevada | Walker Lane Minerals | Mr. Mark Henry<br>Golden Mile Mine<br>775-238-7196 | 12" | 1200' | No | Mud rotary, Reverse Circulation | 100 | $1,800,000.00 |
| Great River Enery - Non Hazardous Class 1 Injection Well (2015) | North Dakota | Washburn | Mr. Ron Jorgenson<br>Gulder and Associates<br>303-980-0540 | Qty. 1 - 8" | 5,600' | No | Mud Rotary | NA | $2,100,000.00 |
| ASR Demonstration Well Project (2019-2020), New Braunfels, TX | Texas | New Braunfels Utilities | Mr. David Pyne<br>ASR Systems, Inc.<br>(352) 336-3820 | 24" | 700' | Yes | Mud rotary, Reverse Circulation | 1400 | $1,381,000.00 |
| Twin Oaks Brackish Desalination Injection Well (2015) | Texas | San Antonio Water System | Mr. Bill Stern<br>LBG Guyton<br>512-694-9640 | Qty. 1 - 7" | 5,600' | No | Mud Rotary | NA | $5,600,000.00 |
| Intrepid Potash Deep Well (2022) Wendover, UT | Utah | Intrepid Potash | Ms. Chandler Ridler<br>Intrepid Potash<br>719-684-6784 | 18" | 1630' | No | Mud rotary, Reverse Circulation | 4,000 | $2,300,000.00 |
| Intrepid Potash Brackish Well (2021) Wendover, UT | Utah | Intrepid Potash | Ms. Chandler Ridler<br>Intrepid Potash<br>719-684-6784 | 12" | 250' | No | Mud rotary, Reverse Circulation | 1,000 | $ 325,000.00 |
| Utah Forge Wells Seismic Wells (2019) Milford, Utah | Utah | University of Utah | Mr. Ben Barker<br>geothermalben@gmail.com | Qty. 2 - 8" | 3000', 1000' | Yes | Mud rotary, Reverse Circulation | 50 | $ 990,000.00 |

# Pump Equipment & Well Rehabilitation Projects

| REFERENCE PROJECT | State | OWNER | Owner or Engineer | Scope | CONTRACT AMOUNT |
|---|---|---|---|---|---|
| Guttersen Ranches, Well #4 & 5 Permanent Equipment (2022) Keenesburg, CO | Colorado | Guttersen Ranches | Mr. Courtney Hemenway<br>Hemenway Groundwater Engineering, Inc.<br>303-901-2287 | Provide and install permanent pumping equipment for two wells, 15 HP & 30 HP submersible pumps set to 450', pitless adapter units, VFDs, vaults, flow meters, discharge piping and controls. | $ 170,000.00 |
| Castle Rock Lantern Wells No. 228, 229, & 230 Permanent Equipment (2018-2019) Castle Rock, CO | Colorado | Castle Rock Water | Ms. Heather Justus<br>Castle Rock Water<br>720-733-6081 | Provide and install permanent pumping equipment, 500 HP & 525 HP submersible pumps set to 2200' & 1550', pitless adapter units, ASR valves, transducers, VFDs, flow meters, discharge piping and controls. | $ 3,100,000.00 |
| Castle Rock Waterman Wells 232 & 233 ASR Permanent Equipment Installation (2020) Castle Rock, CO | Colorado | Castle Rock Water | Ms. Heather Justus<br>Castle Rock Water<br>720-733-6081 | Provide and install permanent pumping equipment, 500 HP & 525 HP submersible pumps set to 2200' & 1550', pitless adapter units, ASR valves, transducers, VFDs, flow meters, discharge piping and controls. | $ 1,100,000.00 |
| Aurora North Campus Well Rehabilitation Program (2018) | Colorado | Aurora | Kennedy Jenks Consulting<br>303-985-3636 | Remove pumping equipment from 6 alluvial wells and perform well rehabilitations on each well including equipment repair & replacement. | $ 378,000.00 |
| Castle Rock EPCOS Aprapahoe, Denver & Dawson Wells Permanent Pump Equipment, Castle Rock, CO (2023) | Colorado | Castle Rock | Mr. Lauren Moore<br>Castle Rock (720) 733-6021<br>Jacob Bauer - LRE Water<br>(303) 455-9589 | Provide and install permanent pumping equipment, 250 HP & 100 HP submersible pumps set to 1675' & 1280', pitless adapter units, transducers, VFDs, flow meters, discharge piping and controls. | $ 1,100,000.00 |
| Centennial WSD Deep Well Rehabilitations (2019) | Colorado | Centennial Water | Mr. Courtney Hemenway<br>Hemenway Groundwater Engineering, Inc<br>303-901-2287 | Remove medium voltage deep set submersible pumps from 3 wells, perform well rehabilitations (acidizing, surge block, sonar jet, disinfection), and repair/replace permanent pump equipment. | $ 236,000.00 |
| Monument Wells 11, 12, 13 Permanent Pump Equipment Monument CO (2023) | Colorado | Monument | Mr. Bruce Lytle<br>Lytle Water<br>303-350-4090 | Provide and install permanent pumping equipment, 125 HP & 50 HP submersible pumps set to 1000' & 1100', pitless adapter units, transducers, VFDs, flow meters, and controls. | $ 540,000.00 |
| Triview Metropolitan District Well A-9 & D-9 Permanent Equipment (2020) Colorado Springs, CO | Colorado | Triview Metropolitan District | Mr. Jim McGrady<br>Triview M.D.<br>719-602-4391 | Provide and install permanent pumping equipment, 240 & 120 HP submersible pumps set to 1780' & 1260', pitless adapter units, transducers, VFDs, flow meters, discharge piping and controls. | $ 800,000.00 |
| El Paso Water Utilities, Drought Resolution Well Rehabilitation for various Existing Water Wells, (2022-2023), El Paso, TX | Texas | El Paso Water Utilities | CDM Smith<br>915-544-2340 | Remove vertical turbine & submersible pumps from multiple wells, perform well rehabilitations (acidizing, surge block, sonar jet, disinfection), and repair/replace permanent pump equipment. | $ 1,000,000.00 |
| Pinery Water District Well Rehabilitation Program (2021) | Colorado | Parker | Mr. Richard Krulish<br>Pinery WSD<br>303-841-2797 | Remove deep set submersible pumps from 5 wells, perform well rehabilitations (acidizing, surge block, sonar jet, disinfection), and repair/replace permanent pump equipment. Replace well controls and VFDs. | $ 460,000.00 |
| Meridian Service Metro District Wells 5, 7 & 8 Permanent Equipment (2021) | Colorado | Falcon | Mr. Mario Dipasquale<br>JDS Hydro<br>719-227-0072 | Provide and install permanent pumping equipment for three 2000' wells, submersible pumps set to 1800', pitless adapter units, transducers, VFDs, flow meters, discharge piping and controls. | $ 800,000.00 |

# Primary Drilling Equipment

## Challenger 360

- Qty. 2 Challenger 360 Rigs
- Double Drawwork, Powered by Cat C-15 475 HP @ 2,100 PRM, Tier 4 Final
- Mast is Fixed, 84' Single, Rated 200,000 lbs API, Rotary Table is HT.
- Custom 350 bbl Mud Tank with Mongoose Pro Linear Shaker, 1,000 GPM
- (2) Miller Xmt 350Cc/cv Invertor Units and (2) Lincoln Ln-25 Feed Units
- 2,000 Gallon Fuel Tank with Metered Fuel Pump
- Doghouse has Crew Lockers, Work Room, Storage, Tower Lighting, Depth Recorder

## Challenger 320

- Qty. 3 Challenger 320 Rigs
- 150,000# capacity w/ 10' Substructure, Doghouse with 1,800 Gallon Diesel Tank
- 900 Cfm 350 PSI Compressor or 1,100 Cfm 350 PSI Compressor, 60 KVA Generator
- 3000' of 41/2" Direct Rotary Drill Pipe with 10, 6" Collars
- 3,000' of 65/8" Reverse Circulation Drill Pipe with 9" Collars
- 10,000# Extended Reach Forklift, 400bbl Mud Tank – 2 Shakers with De-Sanders (if needed)

## Challenger 230

- 2,200' Portable, Trailer Mounted Drilling Rig, California Card Certified Equipment
- Fixed 64' Single Mast, Rated 150,000#, Powered by Cat C-15, 475 Hp @ 2,100 PRM
- Sullair Hh700, 700 Cfm @ 200 Psi Compressor, Sound Attenuated Enclosure
- 350 Bbl Tank with Miswaco Mongoose Pro Linear shaker, 1,000 GPM Mud Cleaner
- (2) Miller Xmt 350 Cc/cv Invertor Units, (2) Lincoln Ln-25 Wire Feed Units
- Self Contained Dog House with Crew Lockers and Work Room

## Schramm T200XD

- Qty. 2 Schramm T200XD Top Head Drill Rig
- Rated at 200,000# capacity, Loadsafe Drill Rod Handling System
- 1,170 Cfm 350 PSI Compressor, 100 KV Generator
- 4,000' 7"x 4" Dual Wall Reverse Drill Pipe, 10.75" Drill Collars
- 350 Barrel Mud System w/MI SWACO Linear Shaker and Mud Cleaner

## Schramm T130

- 130,000# capacity, Loadsafe Drill Rod Handling System
- Telescoping Mast with 52' Travel
- 3,000' of 5.5" x 3" Dual Wall Drill Pipe, Qty. 2 IR 1,170 x 350 PSI Compressors
- 210 BBL Mud System Tank with dual shale shakers
- Self Contained Dog House with Welders, Work Room, and Tower Lighting

## Loadcraft 1000

- Telescoping Mast 118' feet
- 410,00# rotary beam capacity, 250,000 setback capacity
- (2) Cat C-15's, 540 HP, 6 cylinder engines, Allison CLT 6061RB Transmission
- Warrior 250 Top Drive, Model 250HR, hydraulic, MZ9 Pump, with Caterpillar 3508, 1,000 HP Engine
- Cagle C-98 Mid Pit, with (3) National Oil Well MXMA05 agitators

# Primary Drilling Equipment con't.

## Service King 775

- 4,000' Trailer Mounted Drill Rig with 112' Telescoping Mast Rated 350,000# API
- Hydraulically Raised with 14' x 16' Floor
- 300 Barrel Mud System with Dual 580 GPM Shale Shaker, desander & desilter
- Generac SD500 Diesel Generator
- 4,000' of drill rod and collars
- 10' x 40' Self Contained Dog House

## Midway 3500

- 4,000' Trailer Mounted Drill Rig with 112' Telescoping Mast Rated 350,000# API
- Hydraulically Raised with 14' x 16' Floor
- 300 Barrel Mud System with Dual 580 GPM Shale Shaker, desander & desilter
- Generac SD500 Diesel Generator
- 4,000' of drill rod and collars
- 10' x 40' Self Contained Dog House

## Midway 2500

- 1,200' Portable, Trailer Mounted Drill Rig with California Carb Certified Equipment
- Wilson Junior Double Drum Dramworks, Powered by Detroit Series 40, 210 HP @ 2,100 RPM
- 60' Mast, Rated at 125,000#, Sullair Hh700, 700Cfm @ 200 PSI, Sound Attenuated Enclosure
- 350 Bbl Tank with Miswaco Mongoose Pro Linear shaker, 1,000 GPM Mud Cleaner
- Self Contained Dog House with Crew Lockers, Work Room, Tool Storage, and Tower Lighting

## Gefco SS50K

- 1,500' Portable Truck Mounted Drill Rig with California "Carb Compliant" Equipment
- Rated at 50,000# capacity,Powered by Cat C-15 Diesel, 550 HP
- Sullair 1,150 Cfm @ 350 PSI, 2 Stage Twin Screw Air Drilling Compressor
- Mast 35' Height Above Table, Rated 50,000# Pull Down, 50,000# Hold Back
- Tibban Mud Puppy Mud System, Double Screen Shaker, 600 Gallon Mud Tan

## Gefco JED Rig

- 1,500' Portable Trailer Mounted Drill Rig with Cat 3116, 200 BHP @ 2,100 RPM Engine
- 60' Fixed Mast Rated at 90,000#
- 400 CFM @ 200 PSI Compressor with 30 KW Generator
- 1,500' of 6 5/8" drill pipe and collars
- Self Contained Dog House

## Atlas TH-60

- Qty. 2 - Truck Mounted Drill Rig on 3 Axle Carrier, 8,000 gvwr
- Powered by Cummins Isx-600 HP @ 1800 RPM, 30,000 Single Line Bare Drum, 180 ft/min
- Structural Capacity 75,000 lbs, Pull Back Capacity 70,000 lbs, Pull Down Capacity 30,000 lbs
- Two Speed Rotary Head: 8,000 ft-lbs @ 105 RPM, 5,500 ft-lbs @ 145 RPM

# Primary Service Equipment

Hydro Resources has an extensive fleet of pump service rigs available at all of our locations. Our rigs are sized and designed to pull all variations of well pumps, from shallow set turbine pumps to deep set submersible pumps. Our offices have in-house facilities to disassemble pumps, inspect pumping equipment, and rebuild equipment when possible. Hydro Resources has a fleet of temporary pumps, test pumps, and rental pumps available to install for both testing and emergency well failures.

Each location is equipped to perform multiple forms of well rehabilitation including surge block development, wire brushing, bailing, well acidization, well disinfection, well redevelopment, high pressure well jetting, Sonar-Jetting, and many others.

Hydro Resources has a specialized Controls Group that is able to provide, install, and service well controls including variable frequency drives and telemetry. The Controls Group has control packages that are available to rent and install in the case of sudden equipment failure.

**Pump Rigs, Pulling Units, and Work Over Rigs**

**DALHART**

45' DERRICK WITH DOUBLE DRUM Pulling Unit
1988 MACK PUMP RIG Wichtex C-30 Pulling Unit
Uniplex 50T Pump Rig
(Wichtex C-30) 1984 pulling rig double drum unit
1998 Mack S-1800 Pump Rig
1984 international S-2500 Baling Rig
1984 GMC Single Drum Pulling Unit
Wichtex TE-2 Double Drum Pump Rig
Semco S30 Pump Rig
Semco 25 Ton Pulling Unit

**CREEDMOOR**

WELL SERVICE RIG
Wichtex Pulling Unit

**GARDEN CITY**

Wichita Engineering Pulling Unit
8T Pump Rig
10T Smeal Pump Rig
12T Smeal Pump Rig
Wichita Engineering Pulling Unit
1975 5T Smeal Pulling Unit
1973 10T Smeal Pulling Unit
1996 12T SMEAL Pulling Unit
SEMPCO S-15 Pump Rig
1991 R12 Smeal Pulling Unit

**LAS CRUCES**

1981 SARGENT Pump Rig
SEMCO S-20 Pump Rig
SEMPCO S-25 Pump Rig

**FORT LUPTON**

R12 SMEAL Pulling Unit - Pump Rig
2006 Sterling 40T - Pump Rig
Smeal 12T pulling rig - Pump Rig
2001 Smeal 35T - Pump Rig
Semco 30T pulling unit - Pump Rig
10T SMEAL - Pump Rig
Pulstar 100000 Pump Rig
Bucyrus Erie 36L - Workover Rig

**SUNRAY**

45' DERRICK W/ SINGLE DRUM - Workover Rig
1967 Cardwell Bailing Rig H&H - Workover Rig
1999 MACK BAILING RIG - Workover Rig

# Commitment to Safety

At Hydro Resources, SAFETY is not just another 6-letter word. SAFETY is woven into every fiber, of every fabric, of every operation, every day! Our companywide goal is zero accidents but more importantly to SAFELY return our valued employees home to their families and loved ones!

We have cultivated a culture of SAFETY that is driven from the top down but is inclusive of all employees from the bottom up! All employees have work-stop authority and are encouraged through various programs to report near-misses, SAFETY concerns, and process improvement ideas.

Using technology, computer-based, and hands-on training sessions for both new hire orientation and re-occurring training, we strive to keep our employees SAFETY smart and SAFETY conscious. Hydro has even developed its own in-house smart phone SAFETY app to keep employees connected!

We believe the best SAFETY programs are the most proactive ones! Each office has a designated SAFETY manager to monitor field operations, educate and train employees, and take meaningful action to correct any UNSAFE condition or behavior. The SAFETY team also works hand-in-hand with local management to initiate industry best practices and ensure compliance with all federal and local standards.

You are in good hands with Hydro Resources and our SAFETY team!

Rick Grinols – VP of Safety & Fleet Management
John Halloran – Corporate Safety & Compliance Manager
Jeremy Bauer – Safety Manager (RKY), Ft Lupton
Danny Maisch – Safety Manager (MDC), Garden City/Holcomb
Earl Harris – Safety Manager (MDC), Dalhart/Sunray
Mike Hughes – Safety Manager (MDC), Creedmoor
Darrell Carrillo – Safety Manager (MDC), Las Cruces

**Programs**

- Substance Abuse Program
- Personal Protective Equipment
  Program Confined Space Entry
  Program
- Fall Protection Program
- Lockout Tag-Out Program
- Hazard Communication Program
  Preventive Maintenance Program
- First Aid & CP

**Certification & Vetting Portals**

- ISNetWorld
- Browz
- Avetta / PICS

**Additional Practices**

- Workplace Hazard Control
- Inspections & Audits
- Monthly Safety Meetings
- Daily Tailgate Safety Meetings
- Work Practices & Procedures
- Task Specific Job Safety Analysis

# Quality Assurance & Approach

## Quality Assurance

Hydro Resources strives to complete the project to the client and the engineer's specification. We use the most current methods and products to achieve a quality product for the client. We are backed by a large company base and support staff to complete projects on schedule and budget. We utilize a multi-tiered management system beginning with the day/shift Supervisor, Tool Pusher, Project Manager, and Regional Managers. All work is reported to management daily for review and scheduling of materials and subcontractors. Daily site meetings and weekly management meetings facilitate smooth operations in the field. All materials are inspected at the time of delivery to guarantee the quality and specification of the materials. All fluids or materials are NSF or AWWA certified to meet the highest of water quality standards. Full time Mud Engineers are on site to assure hole properties are maintained, which minimizes damage to the water baring formations. All sub-contractors are subject to inspection from the management team and are required to perform to the expectations of the client and our supervisors. In the event of non-conforming work, the subcontractor will be responsible to mitigate the problem or even replace the defective items.

## Value Engineering

At Hydro Resources, we have a vast knowledge of the water industry and strive to provide the client with a best value in the products we provide. We offer a wide range of in-house capabilities from geophysical imaging, drilling of nearly all scopes, testing, pump installation and custom controls work for all applications. We also have a wide range of consulting resources if the situation warrants additional resources to complete the project.

## Specialized Knowledge

Hydro Resources has an extensive knowledge base and equipment range to complete nearly any project scope. From monitoring wells to large diameter (24") and deep (3,000+ ft.) wells, Hydro Resources has the equipment and manpower to complete and manage a wide range of drilling projects. Our large diameter reverse circulation drilling rigs and top head rotary rigs (Challenger 320s, Challenger 360s, Schramm T200s) are capable of drilling a 30" diameter borehole to depths of 2,000'+ and smaller boreholes to a much greater depth. Hydro Resources has an experienced pump service division prepared to work on everything from short set booster pumps to 2,000' set submersible pumps.

**TOOELE CITY CORPORATION**

**RESOLUTION 2025-62**

**A RESOLUTION OF THE TOOELE CITY COUNCIL APPROVING A LOCAL AGENCY BETTERMENT AGREEMENT WITH UDOT FOR THE 600 N SR112 ROADWAY IMPROVEMENT PROJECT.**

WHEREAS, Tooele City has more than 220 lane miles of public roadway located within City limits for which it has maintenance; and,

WHEREAS, a significant number of those roadways require maintenance in varying levels of effort in order to maintain reasonably safe and convenient public access and to extend the life of those roadways; and,

WHEREAS, one such roadway is Franks Drive (600 West), which intersects with State Road 112; and,

WHEREAS, the Utah Department of Transportation ("UDOT") anticipates improvements to the intersection of State Road 112 and Franks Drive (600 West) to support the signal at this intersection, and those improvements will include improvements to City-owned Franks Drive (600 West); and,

WHEREAS, Tooele City wishes to enter into the attached Betterment Agreement (Exhibit A) with UDOT, whereby UDOT will oversee the improvements to the City-owned roadway Franks Drive (600 West), at an estimated cost of $85,394;

NOW, THEREFORE, BE IT RESOLVED BY THE TOOELE CITY COUNCIL that the agreement with UDOT attached as Exhibit A is hereby approved, in the amount of $85,394.

This Resolution shall become effective upon passage, without further publication, by authority of the Tooele City Charter.

IN WITNESS WHEREOF, this Resolution is passed by the Tooele City Council this_____ day of _____, 2025.

TOOELE CITY COUNCIL

(For) (Against)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

ABSTAINING: _____

MAYOR OF TOOELE CITY

(Approved) (Disapproved)

_____ _____

ATTEST:

_____

Shilo Baker, City Recorder

S E A L

Approved as to Form: _____

Tooele City Attorney's Office

# EXHIBIT A

## UDOT Betterment Agreement

Contract Number Tracking Number

| | | |
|---|---|---|
| **Local Agency Cost Estimate Betterment Agreement (Draft)** | Betterment Description: Roadway work on Tooele City Franks Drive (600 West) to support the signal at SR-112 at 600 West | Estimated Cost for Betterment<br><br>$85,394.00 |
| PIN: 19491<br><br>FINET/CID: 74682 | Project Number: S-0112(15)7<br><br>Project Name: SR-112 at 600W | Agreement Number<br><br>Date Executed |

**THIS AGREEMENT**, made and entered into the date shown below, by and between the **Utah Department of Transportation**, ("**UDOT**"), and **Tooele City** a political subdivision of the State of Utah, ("**Local Agency**").

Subject to the attached provisions, UDOT will include the following betterment work items into the above referenced Project and will oversee construction of the betterment work. Upon signing this Agreement, the Local Agency agrees that the costs shown below are estimates only and the Local Agency is responsible for paying all actual costs associated with these betterment items, based on Contract Unit Bid Prices, and actual quantities placed.

Detailed Description of Betterment Work:

Work for roadway improvements on Tooele City Franks Drive (600W) to accommodate lanes for the new signal.

| Bid Item No. | Description | Quantity | Estimated Unit Price | Estimated Cost |
|---|---|---|---|---|
| 20 | Mobilization | 1 | $10,000.00 | $10,000.00 |
| 21 | Traffic Control | 1 | $1,000.00 | $1,000.00 |
| 22 | Granular Borrow (Plan Quantity) | 238 cu yd | $38.00 | $9,044.00 |
| 23 | Roadway Excavation (Plan Quantity) | 476 cu yd | $33.00 | $15,708.00 |
| 24 | Untreated Base Course (Plan Quantity) | 119 cu yd | $62.00 | $7,378.00 |
| 25 | HMA - ½ inch | 249 Ton | $145.00 | $36,105.00 |
| 26 | Emulsified Asphalt (Tack) | 1 Ton | $767.00 | $767.00 |

| | | | | |
|---|---|---|---|---|
| 27 | Remove Pavement Message | 448 ft | $4.00 | $1,792.00 |
| 28 | Pavement Message Paint | 24 gal | $50.00 | $1,200.00 |
| 29 | Pavement Message (Preformed Thermoplastic) | 6 Each | $400.00 | $2,400.00 |
| | **Total Estimated Cost of Betterment Work** | | | $85,394.00 |

The total estimated cost of the betterment work shall be advanced / deposited with UDOT prior to advertising / procurement of the Project. The Local Agency shall deposit the amount with UDOT's Comptroller's Office located at UDOT/Comptroller, 4501 South 2700 West, Box 141510, Salt Lake City 84119-1510.

In the event the actual betterment costs are higher, the Local Agency shall pay the additional amount required within 30 days of receiving an invoice from UDOT. In the event the actual betterment costs are lower, UDOT will refund the balance of the amount deposited within 30 days of determining the final cost of the betterment work.

**Provisions**
**(Note: the language in these provisions shall not be changed without prior approval from the Utah AG's office)**

The Local Agency desires to include the betterment work items described herein in the project contract work.

UDOT will include the Local Agency's requested betterment work in the project contract provided that the Local Agency pay the actual additional costs and UDOT's project will not be delayed because of the betterments. No betterments will be added to the bid package until this Agreement has been signed by both parties.

The Local Agency, at no cost to the Project, shall provide on-call support from Local Agency's Design Engineer or appropriate representative to correct or clarify issues during construction and to perform the necessary inspection for the Local Agency work installed by the contractor. The Local Agency engineer and / or inspector shall work with and through UDOT's Project Manager or Resident Engineer and shall give no orders directly to UDOT's contractor unless authorized in writing to do so. UDOT's contractor will accomplish the work covered herein on the Local Agency's facilities in accordance with the plans and specifications provided by the Local Agency, including changes or additions to the plans and specifications which are approved by the parties.

The Local Agency, through its inspection of the work, will provide UDOT's Project Manager or Resident Engineer with information covering any problems or concerns the Local Agency may have with acceptance of the facilities upon completion of construction.

Any periodic plan and specification review or construction inspection performed by UDOT arising out of the performance of the project does not relieve the Local Agency of its duty in the performance of this project or to ensure compliance with acceptable standards.

Except in cases of emergency, access for maintenance and servicing of the Local Agency facilities located on UDOT's right-of-way will be by permit issued by UDOT to the Local Agency, and that the Local Agency will obtain the permit and abide by the conditions thereof for policing and other controls in the conformance with Utah Administrative Rules.

**I. Indemnification:**

UDOT and the Local Agency are both governmental entities subject to the Governmental Immunity Act. Each party agrees to indemnify, defend, and save harmless the other from and against all claims, suits and costs, including attorneys' fees for injury or damage of any kind, arising out of its negligent acts, errors or omissions of its officers, agents, contractors or employees in the performance of this agreement. Nothing in this paragraph is intended to create additional rights to third parties or to waive any of the provisions of the Governmental Immunity Act. The obligation to indemnify is limited to the dollar amounts set forth in the Governmental Immunity Act, provided the Act applies to the action or omission giving rise to the protections in this paragraph. The indemnification in this paragraph shall survive the expiration or termination of this Agreement.

**II. Termination:**

This Agreement may be terminated as follows:

a. By mutual agreement of the parties, in writing.
b. By either UDOT or the Local Agency for failure of the other party to fulfill their obligations as set forth in the provisions of this Agreement. Reasonable allowances will be made for circumstances beyond the control of the parties. Written notice of intent to terminate is required and shall specify the reasons for termination.
c. By UDOT for the convenience of the State upon written notice to the Local Agency.
d. Upon satisfactory completion of the provisions of this Agreement.

**III. Maintenance:**

The Local Agency agrees that, upon completion and final inspection of the project construction, to accept, own and maintain the betterment work covered herein at no further cost to UDOT.

**IV. Payment and Reimbursement to UDOT:**

The Local Agency shall be responsible for all actual costs associated with these betterment items.

The Local Agency agrees that if it modifies or cancels this Agreement at any time after it has been signed, the Local Agency agrees to pay any cancellation penalties or costs incurred by UDOT as a result of the betterment work scope being modified or cancelled. In the event the Local Agency fails to reimburse UDOT for the costs included in this Agreement, funding for other Local Agency projects or B&C road funds may be withheld until the entire payment is made.

**V. Change in Scope and Schedule:**

The Local Agency recognizes that if its project scope or schedule changes from the terms of this Agreement, Local Agency will notify the UDOT Project Manager or Resident Engineer will be notified prior to changes being made. Any costs incurred by UDOT as a result of these scope or schedule changes will be the responsibility of the Local Agency.

In the event there are changes in the scope of the work, extra work, or changes in the planned work covered by this Agreement, a signed written modification to this Agreement is required prior to the start of work on the changes or additions.

**VI. Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment:**

All work of the Company that relates to any agreement with UDOT is subject to Public Law 115-232, Sec. 889 and 2 CFR § 200.216 (the "Telecommunications Laws"). Among other things, the Telecommunications Laws prohibit the use of any sort of "covered telecommunications" equipment or services, which are those provided by a company listed in such laws. The Company shall at all times comply with the Telecommunications Laws. The Company hereby certifies that it has read the Telecommunications Laws and consulted with legal counsel as needed. For all matters which are the subject of any agreement between the Company and UDOT, the Company hereby certifies that it currently conforms with, and will continue to conform with, the Telecommunications Laws in all respects. The Company shall also place this certification in all UDOT-related contracts with subcontractors, consultants, and suppliers for UDOT's benefit. If any government entity having jurisdiction determines that the Company or its associates is not in compliance with the Telecommunications Laws, the Company agrees that it shall promptly notify UDOT of the same and remedy any deficiency.

**VII. Miscellaneous:**

This Agreement shall constitute the entire agreement and understanding of the parties with respect to the betterments, and shall supersede all offers, negotiations, and other agreements. Any amendment to this agreement must be in writing and executed by authorized representatives of each party.

Each party agrees to undertake and perform all further acts that are reasonably necessary to carry out the intent and purpose of this agreement at the request of the other party.

The failure of either party to insist upon strict compliance of any of the terms and conditions, or failure or delay by either party to exercise any rights or remedies provided in this Agreement, or by law, will not release either party from any obligations arising under this Agreement.

This Agreement may be executed in counter parts by the parties.

Each party represents that it has the authority to enter into this Agreement.

Language content was reviewed and approved by the Utah AG's office on April 10, 2018.

| Local Agency | | | Utah Department of Transportation | | |
|---|---|---|---|---|---|
| By | | Date | By | | Date |
| Jamie Grandpre, Tooele City Public Works Director | | | Robert Astle Acting as UDOT Project Manager | | |
| | | | By | | Date |
| | | | Robert Stewart Region Two Director | | |
| | | | By | | Date |
| | | | Kristi Barney Comptroller's Office | | |

**Signature:**

**Email:** contractsetup@utah.gov

**TOOELE CITY CORPORATION**

**RESOLUTION 2025-65**

**A RESOLUTION OF THE TOOELE CITY COUNCIL APPROVING AN AGREEMENT WITH SKM FOR SCADA SYSTEM UPGRADES TO WELL 12.**

WHEREAS, the City owns and operates an extensive public drinking water system; and,

WHEREAS, the Public Works Director recommends that Well #12 needs upgrades in order to function as designed and built, those upgrades include replacement of outdated and failing SCADA equipment, and a network rework which will allow for the remote operation and sensing of key WATER system components; and,

WHEREAS, SKM currently serves as the City's consultant for the management and operation of the PLC and SCADA control system; and,

WHEREAS, SKM has submitted a cost proposal of $45,442.00 for the Well 12 SCADA System Upgrades (see Cost Proposal letter and Agreement attached as Exhibit A).

NOW, THEREFORE, BE IT RESOLVED BY THE TOOELE CITY COUNCIL that the agreement with SKM in the amount of $45,442.00, is hereby approved, and that the Mayor is authorized to sign the agreement on behalf of the City.

This Resolution shall become effective upon passage, without further publication, by authority of the Tooele City Charter.

IN WITNESS WHEREOF, this Resolution is passed by the Tooele City Council this day of _____, 2025.

TOOELE CITY COUNCIL

| (For) | (Against) |
| --- | --- |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

ABSTAINING: _____

MAYOR OF TOOELE CITY

| (Approved) | (Disapproved) |
| --- | --- |
| _____ | _____ |

ATTEST:

_____
Shilo Baker, City Recorder

S E A L

Approved as to Form: _____
Tooele City Attorney

# Exhibit A

# Agreement and Cost Proposal

Tooele City
Est. 1853

# AGREEMENT

TOOELE CITY CORPORATION, a municipal corporation of the State of Utah, (hereinafter "City"), and SKM Engineering of 533 W 2600 S STE 25, Bountiful, Utah 84010 a(n) LLC (hereinafter "Contractor") enter into this Agreement on the **11th day of July, 2025** (the "Effective Date").

**Now, therefore, in consideration of the promises contained in this Agreement, the City and the Contractor agree to the following:**

1. Services (Scope of Work). The Contractor shall provide the following services to the City:
**See Attachment Quote Well 12 PLC Replacement and Network Rework**

2. Disclaimer of Right of Control. Contractor shall perform its duties competently. The City disclaims any right to control the Contractor's performance of the Services.

3. Compensation.
   a. Rate. The City shall pay the Contractor the sum of **$45,442.00** for fully performing the Services, pursuant to invoice.
   b. Total Cost Contract. This Agreement is a "Total Cost Contract." The contract Rate includes all costs and expenses associated with the provision of the Services.
   c. No Benefits. The parties specifically agree that as an independent contractor, Contractor neither claims nor is entitled to benefits accorded City employees.

4. Term of Agreement. Contractor shall fully perform the Services by **September 30, 2025**.

5. Termination. The City may terminate this Agreement at any time. Should the City terminate this Agreement prior to the Services being fully performed, the City shall pay for those Services performed.

6. Indemnification and Insurance.
   a. Contractor Liability Insurance. Contractor shall obtain and maintain liability insurance in the amount of at least $1,000,000. Contractor shall list the City as an additional insured on endorsements issued under its liability insurance policy. Contractor shall require that all of its subcontractors list the City as an additional insured on endorsements issued under their respective liability insurance policies, with respect to the Services rendered under this Agreement.
   b. Contractor Indemnification. Contractor shall indemnify and hold the City and its agents harmless from all claims of liability for injury or damage caused by any intentional or negligent act or omission of Contractor and/or its agents and subcontractors arising out of or related to this Agreement.
   c. Contractor Workers' Compensation Insurance. Contractor shall purchase and maintain workers compensation insurance for all of its employees. In the alternative, assuming eligibility, Contractor may obtain a Workers' Compensation Coverage Waiver from the Utah Labor Commission. Contractor shall verify that all its subcontractors have purchased and do maintain workers compensation insurance for their employees or have obtained an

exclusion, and shall indemnify the City against claims resulting from a failure to obtain and maintain the insurance.

d. Performance and Payment Bonds. Contractor shall obtain performance and payment bonds in form amount sufficient to the City.

e. Evidence of Contractor Insurance. Contractor shall provide written evidence of liability insurance, including all Contractor and subcontractor endorsements, workers compensation insurance or exclusion, and payment and performance bonds to the City within ten (10) days of the Effective Date. The City will not make any payments under this Agreement until it receives from Contractor the evidence required under this section.

f. Status Verification Indemnification. Contractor shall indemnify and hold the City and its agents harmless from all claims resulting from any violation of immigration status verification obligations contained in U.C.A. §63G-11-103 et seq.

g. Post-Retirement Release. Contractor shall release the City from all claims related to any alleged violation of State of Utah post-retirement employment rules, and shall complete and return to the City the attached certification and release.

h. Governmental Immunity. The City is a governmental entity subject to the Utah Governmental Immunity Act ("Act"; U.C.A. Chapter 63G-7), and does not waive any procedural or substantive defense or benefit provided by the Act or by comparative legislative enactment, including UCA §63G-7-604 regarding limitation of judgments. Any indemnity and insurance obligations incurred by the City under this agreement are expressly limited to the amounts identified in the Act.

7. Business License. If required by Tooele City Code §5-1-1 *et seq.*, Contractor shall obtain a Tooele City business license.

8. Complete Agreement. This Agreement is the only agreement or understanding between the parties, and may be modified or amended only by a written document signed by both parties.

9. Waiver of Jury Trial. The Parties irrevocably waive any and all right to trial by jury in any legal proceeding arising out of or relating to this contract and the transactions contemplated.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

TOOELE CITY CORPORATION

Debra E. Winn, Tooele City Mayor

CONTRACTOR

Signature
Print Name/Title:

Attest:

Michelle Y. Pitt, Tooele City Recorder

SEAL

Approved as to form:

ASSISTANT CITY ATTORNEY

~~Roger Evans Baker~~, Tooele City Attorney

matthew Johnson

*(Revised 10/25/2024)*

Tooele City
Est. 1853

# UTAH RETIREMENT SYSTEMS POST-EMPLOYMENT/POST-RETIREMENT RESTRICTIONS ACT CERTIFICATION & RELEASE

Tooele City is a Utah Retirement System (URS) participating agency. As a participating agency, post-retirement employment/vendor/contractor rules apply. Post-retirement employment means returning to work either on our payroll or as a vendor/contractor for a URS participating employer following your retirement date with the Utah Retirement Systems. Different standards apply depending on whether you return to work within one year or after one year from your retirement date with URS.

You must separate from employment (including part-time and vendor/contractor arrangements) with any participating employer for one year following your retirement date with URS, unless eligible exclusions apply.

You are responsible for understanding post-retirement employment rules and ensuring there is no violation of such rules by providing services to Tooele City Corporation. **If you have any questions, call the URS office at 801-366-7770 or 800-695-4877 before you begin any work for or provide any services to Tooele City.**

CHECK APPLICABLE BOX:

□ Contractor (a sole proprietor) certifies that he or she is NOT a Utah State Retirement Systems (URS) retiree and acknowledges that should he/she retire from the URS system in the future, he/she assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and/or penalties that may occur at any time in the future.

□ Contractor (on behalf of a partnership, LLC, company, or corporation) certifies that NO officer or principal is a Utah State Retirement Systems (URS) retiree and acknowledges that should he/she retire from the URS system in the future, he/she assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and/or penalties that may occur at any time in the future.

□ Contractor certifies that following contractor(s), officer(s) or principal(s) of the business ARE Utah State Retirement Systems (URS) retiree(s). Contractor further certifies that the URS office has been properly notified of post-retirement reemployment of such individuals. Contractor assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and or/penalties that may occur at any time in the future if found to be in violation. URS Retirees:

Name: _____ Social Security Number: _____

Name: _____ Social Security Number: _____

[State law requires that the City, through Human Resources, provide such information to URS.]

As a condition of doing business with Tooele City, you hereby accept responsibility and waive all claims of joint liability against Tooele City for any violations of the URS post-retirement re-employment/ vendor/contractor rules.

_____ _____

Contractor Signature Date

skm
SAVE TIME · SAVE ENERGY · SAVE MONEY
533 W 2600 S, Suite 25, Bountiful, UT 84010
(801)677-0011 www.skmeng.com

## Quotation

May 9th, 2025

Chris Johnson

Tooele Water

Re: Well 12 PLC Replacement and Network Rework

| | | |
|---|---|---|
| 1 | Panel Design and Drawings | $3,970.00 |
| 2 | Programming | $12,992.00 |
| 3 | Startup | $3,480.00 |
| 4 | Electrical Installer | $9,000.00 |
| 5 | PLC Equipment (Already Purchased by Tooele) | $0.00 |
| 6 | Network Equipment (Already Purchased by Tooele) | $0.00 |
| 7 | Control Panel Fabrication | $16,000.00 |
| | | |
| | Total | $45,442.00 |

Thanks,

**Mark Taylor, Principal**

**SKM Engineering, LLC**

mark.taylor@skmeng.com

801.694.2599

**TOOELE CITY CORPORATION**

**RESOLUTION 2025-66**

**A RESOLUTION OF THE TOOELE CITY COUNCIL APPROVING AN AGREEMENT WITH JUB ENGINEERS, INC. FOR THE WATER RECLAMATION SOLAR DRYER IMPROVEMENTS DESIGN.**

WHEREAS, Tooele City owns and operates a water reclamation facility ("Facility"), which requires a program of evaluation, design, and upgrade for optimal functioning of the City's wastewater treatment program; and,

WHEREAS, the City is ready to design an upgrade of the Solar Dryer Facility improvements such as: raising the roof, modify structural support columns as necessary, installing a larger door for the building for a front loader, replacing aging turners, install new heated concrete floor with boiler and hot water piping loop, and construction of new solar dryer support buildings as extensions of the existing building, necessary both for increased capacity and to address aging infrastructure ("Upgrade") and,

WHEREAS, the City Administration recommends retaining J-U-B Engineers, Inc. ("JUB"), to design the Upgrade, and JUB has provided a cost proposal of $593,300 for the Upgrade design; and,

WHEREAS, JUB has extensive design and construction management experience with water reclamation facilities, including the Tooele Facility:

- on January 6, 2021, the City Council approved Resolution 2021-01 and an agreement with JUB for design services associated with the Facility as a whole;
- on December 15, 2021, the City Council approved Resolution 2021-115 and an agreement with JUB for design of the Facility headworks building;
- on May 17, 2023, the City Council approved Resolution 2023-41 and an agreement with JUB for construction management of the Facility's new headworks building.
- on December 18, 2024, the City Council approved Resolution 2024-95 and an agreement with JUB for design of the Facility phase 1 upgrades

WHEREAS, JUB has other relevant experience designing City facilities:

- on September 21, 2022, the City Council approved Resolution 2022-82 and an agreement with JUB to master plan the City's public work campus;
- on May 1, 2024, the City Council approved Resolution 2024-36 and an agreement with JUB for design of a City salt storage building.

WHEREAS, the City Code requires all claims against the City over $30,000 to be approved by the City Council, and the JUB agreement is in the amount of $593,300; and,

WHEREAS, as an engineering design contract, the agreement (attached as Exhibit A) does not require competitive bidding under Utah law:

NOW, THEREFORE, BE IT RESOLVED BY THE TOOELE CITY COUNCIL that the agreement attached as Exhibit A with J-U-B Engineers, Inc. is hereby approved, in the amount of ($593,300), for completion of the Solar Dryer Improvements design.

This Resolution shall become effective upon passage, without further publication, by authority of the Tooele City Charter.

IN WITNESS WHEREOF, this Resolution is passed by Tooele City Council this ____ day of _____ 2025.

TOOELE CITY COUNCIL

(For) (Against)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

ABSTAINING: _____

MAYOR OF TOOELE CITY

(Approved) (Disapproved)

_____ _____

ATTEST:

_____

Shilo Baker, City Recorder

S E A L

Approved as to Form: _____

Tooele City Attorney

# Exhibit A

# Agreement

Tooele City
Est. 1853

# AGREEMENT

TOOELE CITY CORPORATION, a municipal corporation of the State of Utah, (hereinafter "City"), and **JUB Engineers, Inc.** of **392 E. Winchester St. Ste. 300 Salt Lake City, Utah 84107**, a company, (hereinafter "Contractor") enter into this Agreement on the July 10th, 2025.

**Now, therefore, in consideration of the promises contained in this Agreement, the City and the Contractor agree to the following:**

1. Services (Scope of Work). The Contractor shall provide the following services to the City:

   **See Attachment 1A – Scope of Services, Schedule, Basis of Fee, for Solar Dryer Improvement Design**

2. Disclaimer of Right of Control. Contractor shall perform its duties competently. The City disclaims any right to control the Contractor's performance of the Services.

3. Compensation.
   a. Rate. The City shall pay the Contractor the sum of **$543,300** for fully performing the Services, pursuant to invoice.
   b. Total Cost Contract. This Agreement is a "Total Cost Contract." The contract Rate includes all costs and expenses associated with the provision of the Services.
   c. No Benefits. The parties specifically agree that as an independent contractor, Contractor neither claims nor is entitled to benefits accorded City employees.

4. Term of Agreement. Contractor shall fully perform the Services by **June 30, 2026**.

5. Termination. The City may terminate this Agreement at any time. Should the City terminate this Agreement prior to the Services being fully performed, the City shall pay for those Services performed.

6. Indemnification and Insurance.
   a. Contractor Liability Insurance. Contractor shall obtain and maintain liability insurance in the amount of at least $250,000.
   b. Contractor Indemnification. Contractor shall indemnify and hold the City and its agents harmless from all claims of liability for injury or damage to the extent caused by any breach of contract, or any negligent, reckless or intentional act or omission of Contractor or its agents in performance of this Agreement.
   c. Contractor Workers Compensation Insurance. Contractor shall purchase and maintain workers compensation insurance for all of its employees. If Contractor is a sole proprietor, Contractor shall purchase and maintain workers compensation insurance or obtain an exclusion from Workers Compensation Fund of Utah.

d. Evidence of Contractor Insurance. Contractor shall provide written evidence of liability insurance and workers compensation insurance or exclusion to the City within ten (10) days of the Effective Date. The City will not make any payments under this Agreement until it receives from Contractor the evidence of insurance.

e. Status Verification Indemnification. Contractor shall indemnify and hold the City and its agents harmless from all claims resulting from any violation of immigration status verification obligations contained in U.C.A. §63G-11-103 et seq.

f. Post-Retirement Release. Contractor shall release the City from all claims related to any alleged violation of State of Utah post-retirement employment rules, and shall complete and return to the City the attached certification and release.

7. Business License. Contractor shall obtain a Tooele City business license as required by Tooele City Code §5-1-1 *et seq.*

8. Complete Agreement. This Agreement is the only agreement or understanding between the parties, and may be modified or amended only by a written document signed by both parties.

9. Waiver of Jury Trial. The Parties irrevocably waive any and all right to trial by jury in any legal proceeding arising out of or relating to this contract and the transactions contemplated.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

TOOELE CITY CORPORATION

Debra E. Winn, Tooele City Mayor

CONTRACTOR

Signature
Print Name/Title:

Attest:

Michelle Y. Pitt, Tooele City Recorder

SEAL

Approved as to form:

ASSISTANT CITY ATTORNEY

~~Roger Evans Baker~~, Tooele City Attorney
Matthew Johnson

(Revised 11/12/2019)

Tooele City
Est. 1853

# UTAH RETIREMENT SYSTEMS POST-EMPLOYMENT/POST-RETIREMENT RESTRICTIONS ACT CERTIFICATION & RELEASE

Tooele City is a Utah Retirement System (URS) participating agency. As a participating agency, post-retirement employment/vendor/contractor rules apply. Post-retirement employment means returning to work either on our payroll or as a vendor/contractor for a URS participating employer following your retirement date with the Utah Retirement Systems. Different standards apply depending on whether you return to work within one year or after one year from your retirement date with URS.

You must separate from employment (including part-time and vendor/contractor arrangements) with any participating employer for one year following your retirement date with URS, unless eligible exclusions apply.

You are responsible for understanding post-retirement employment rules and ensuring there is no violation of such rules by providing services to Tooele City Corporation. **If you have any questions, call the URS office at 801-366-7770 or 800-695-4877 before you begin any work for or provide any services to Tooele City.**

CHECK APPLICABLE BOX:

□ Contractor (a sole proprietor) certifies that he or she is NOT a Utah State Retirement Systems (URS) retiree and acknowledges that should he/she retire from the URS system in the future, he/she assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and/or penalties that may occur at any time in the future.

□ Contractor (on behalf of a partnership, LLC, company, or corporation) certifies that NO officer or principal is a Utah State Retirement Systems (URS) retiree and acknowledges that should he/she retire from the URS system in the future, he/she assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and/or penalties that may occur at any time in the future.

□ Contractor certifies that following contractor(s), officer(s) or principal(s) of the business ARE Utah State Retirement Systems (URS) retiree(s). Contractor further certifies that the URS office has been properly notified of post-retirement reemployment of such individuals. Contractor assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and or/penalties that may occur at any time in the future if found to be in violation. URS Retirees:

Name: _____ Social Security Number: _____

Name: _____ Social Security Number: _____

[State law requires that the City, through Human Resources, provide such information to URS.]

As a condition of doing business with Tooele City, you hereby accept responsibility and waive all claims of joint liability against Tooele City for any violations of the URS post-retirement re-employment/ vendor/contractor rules.

_____ _____

Contractor Signature Date

J-U-B ENGINEERS, INC.

# J-U-B ENGINEERS, Inc.
# AGREEMENT FOR PROFESSIONAL SERVICES

## FOR
## Tooele City Water Reclamation Facility
## Solar Dryer Improvements Design

## Attachment 1A – Scope of Services, Schedule, and Basis of Fee

The Agreement for Professional Services is amended and supplemented to include the following provisions regarding the Scope of Services, Schedule of Services, and the Basis of Fee.

For the purposes of this attachment, 'Agreement for Professional Services' and 'the Agreement' shall refer to the document entitled 'Agreement for Professional Services,' executed between J-U-B and CLIENT to which this exhibit and any other exhibits have been attached.

**PROJECT UNDERSTANDING / BACKGROUND**

The City of Tooele (CLIENT) is seeking continued professional engineering services from J-U-B ENGINEERS, Inc. (J-U-B or ENGINEER) for wastewater treatment engineering. In April of 2025, a Biosolids Handling Pre-design Tech Memo was completed by J-U-B. The memo identified preliminary equipment options and layouts for the existing dewatering and solar dryer facilities that are necessary to increase capacity and maintain reliability of the treatment process over the next 20 years.

The City has elected to begin design on the improvements to the solar dryer facility. The scope of work will include engineering services at the CLIENT'S Water Reclamation Facility (WRF) generally consisting of implementing the Solar Dryer Retrofit Alternative 1B as outlined in the Biosolids Pre-Design Technical Memorandum, which includes:

- Raise greenhouse roof to accommodate increased concrete thickness for the heated floor and add new wall panels, modify structural support columns as needed.
- Install new heated concrete floor with boiler and hot water piping loop.
- Replace aging turners with new HUBER Model SRT 11s.
- Install larger roll-up doors so a front-end loader can enter solar dryer building.
- Construct new solar dryer support building (SDS building), which will be an extension of the existing dewatering building.

The upgrades identified above are understood to be designed for inclusion in a single project that will be competitively bid in accordance with Tooele City procedures and Utah Division of Water Quality statutes. The following scope of services has therefore been developed and divided into the following main tasks to support this project:

- **Task 100 – Project Administration**
    - Project Management
    - Meetings

- Project Closeout

- **Task 200 – Design**
  - 30 Percent Design
  - 60 Percent Design
  - 90 Percent Design
  - Final Design / Bid Set
  - Quality Assurance / Quality Control
- **Task 300 – Bid Phase Services**
  - Bid Phase Services
  - Project Award
- **Task 400 – Construction Phase Services**
  - Following completion of the Design Phase Services, the Agreement will be modified accordingly for continuation of services through construction.
- **Task 900 – Management Reserve**
  - Additional services to be performed at City's discretion and direction that are not included in this scope of work. These services will not be performed without written authorization from the CLIENT.

Anticipated funding for the project includes City funds and Impact Fee funds.

**PART 1 - SCOPE OF SERVICES**

A. **Basic Services** - J-U-B's Basic Services under this Agreement are limited to the following tasks. CLIENT reserves the right to add subsequent phases or related work to the scope of services upon mutual agreement of scope, additional fees, and schedule.

1. **Task 100 – Project Administration**
   a. **Subtask - 110: Project Management**
      1) Provide updates as requested for regularly scheduled meetings.
      2) Oversee project tasks and coordinate with CLIENT representatives to manage the scope, schedule, budget, and work plan for the engineering phase. Invoices will be prepared and submitted to the CLIENT on a monthly basis and will reflect work accomplished during the billing period.
      3) This task also includes project setup, project planning and controls, communication and coordination of subconsultant activities, and ongoing document handling and filing.
   b. **Subtask - 120: Client Meetings**
      1) Project Kick-Off Meeting: Conduct a Kick-Off meeting with the CLIENT and operations staff to define project goals, review a preliminary list of equipment options, discuss project schedule, discuss funding status, conduct site visits, and other project objectives.

2) 30% Progress Print Review: Upon completion of 30 percent design, meet with the CLIENT at the WRF to review the deliverables, project status, and probable construction budget.

3) 60% Progress Print Review: Upon completion of the 60% plans, meet with the CLIENT at the WRF to review the deliverables, project status, and probable construction budget.

4) 90% Progress Print Review: Upon completion of the 90% plans and technical specifications, meet with the CLIENT at the WRF to review the deliverables, project status, and probable construction budget.

c. **Subtask - 190: Project Closeout**

1) Prepare paper and electronic archive.
2) Communicate the project completion to CLIENT and other affected agencies and stakeholders, as required.
3) Close financial billing and account records.

2. **Task 200 – Solar Dryer Improvements Design**

a. **Subtask – 210: 30 Percent Design**

1) Topographic survey of dewatering building extension and solar dryer load out areas
2) General Sheet Development
   i. Develop cover sheet, sheet index, project overview, WWTP site overview, legends, design criteria, process schematics, schedules, and related general sheets.
3) Civil Design:
   i. The area analyzed for site planning will be limited to the existing solar dryer and dewatering building extension areas..
   ii. Any proposed improvements will be within setback limits established by Tooele City.
   iii. Prepare conceptual horizontal arrangement of proposed facilities, space identified for future elements, and roadway alignments. Site grades will be identified with slope indicators only; spot elevations and/or development of a detailed grading plan will not be completed at 30% Design.
   iv. Develop an existing yard piping plan (pipe size, use, and depth) for the proposed improvement areas based on information as available in record drawings, other information provided by CLIENT, and design information from earlier tasks.
   v. The record drawings have variable accuracy; therefore, the base yard piping plan will reflect approximate locations and cannot be relied upon for detailed location information. Contractor will be responsible for determining actual locations. If additional detail is deemed necessary by CLIENT to reduce risk and/or uncertainty during construction, CLIENT may choose to pothole areas for surveying and/or detailed measurements.
4) Structural Design
   i. Design Criteria for Greenhouse Retrofit and Dewatering Building Extension
   ii. Preliminary Floor Plans

iii. Preliminary Coordination with Greenhouse Manufacturer

5) Process Mechanical Design
   i. Establish design criteria for the solar dryer and solar dryer support building (dewatering building extension) based on the projected design conditions.
   ii. Coordinate with solar dryer vendor and solicit preliminary proposal for overall technology review and applicability to the project requirements.
   iii. Develop plan view drawings to firm up building footprints.
6) Electrical and Instrumentation Design (by others)
   i. Coordinate with SKM on electrical and instrumentation design.
   ii. Coordinate process and instrumentation diagrams (P&IDs) for new equipment (SKM to finalize CAD drawings).
7) Mechanical and Plumbing Design
   i. Boiler Design:
      1. Calculate energy requirements for the boiler based on process demands.
      2. Preliminary piping layout for boiler system, including recirculation pipe loop.
8) Preliminary cost opinion with 30% contingency (AACE Class 4 estimate)
9) Technical Specifications – Table of Contents
10) Quality Control
   i. Conduct internal review for quality control and assurance.
11) Deliverables Production

b. **Subtask – 220: 60 Percent Design**

1) General Sheet Development
   i. Refine Cover Sheet: Update project title, description, client and engineer information, project location, date, sheet index, and legend.
   ii. Refine Project Overview: Detailed scope, objectives, key design criteria, assumptions, existing conditions, and proposed improvements.
   iii. Update WWTP Site Overview: Confirm layout, boundaries, existing and proposed structures, major process areas, and equipment locations.
   iv. Refine Legends and Design Criteria: Verify symbols, abbreviations, color codes, line types, structural design standards, codes, load assumptions (e.g., dead loads, live loads, wind loads, seismic loads), material specifications, and properties.
   v. Update Process Schematics: Detailed flow diagrams, equipment layouts, control, and instrumentation points.
2) Civil Design:
   i. Progression of site grading design. Design will be completed using AutoCAD Civil 3D and establish proposed surface (horizontal and vertical) for the improvements. Plan views and major profiles / sections will be developed.
   ii. Develop detailed yard piping plans to incorporate work items for the proposed building tie-ins. Plans will include horizontal routing of proposed piping.

iii. Vertical profile drawings will be created based on record drawing information and field verification. Actual location of crossings (horizontal/vertical) will not be verified unless potholing is authorized as an additional service.

iv. Existing and proposed yard piping design will include relevant plans, sections, profiles, and details.

3) Structural Design

i. Design Criteria for Greenhouse Retrofit and Dewatering Building Extension:
   1. Structural load calculations based on equipment and process requirements.
   2. Compliance with relevant building codes and standards.
   3. Consideration of environmental factors (e.g., wind, snow, seismic activity).

ii. Foundation Plans:
   1. Detailed layout of foundation elements (e.g., footings, slabs, piers).
   2. Dimensions and reinforcement details.
   3. Soil and geotechnical considerations.

iii. Floor Plans:
   1. Layout of floor areas and equipment locations.
   2. Structural support elements (e.g., beams, columns).
   3. Load distribution and reinforcement details.

iv. Wall Sections:
   1. Cross-sectional views of walls showing construction details.
   2. Material specifications and insulation requirements.
   3. Integration with mechanical and plumbing systems.

v. Roof Plans for Solar Dryer Greenhouse and Support Building:
   1. Design of Solar Dryer Support Building roof structure and support elements.
   2. Coordinate with greenhouse supplier on roof height extension factors and structural retrofit of existing greenhouse.
   3. Load calculations for roof equipment and environmental factors.
   4. Waterproofing and drainage details.

4) Architectural Design

i. The SDS building will consist of a single metal building located northeast of the existing dewatering building and include a boiler, expansion tank, piping manifolds, mechanical and plumbing appurtenances and an electrical room with internal access on a single ground floor. Walls will be constructed with insulated metal panels around a steel frame.

ii. Incorporate CLIENT directed architectural elements based on surrounding structures and materials. Produce 3D rendered models for CLIENT approval.

iii. Develop window, door, and finish schedules.

iv. Develop room layout and use classification.

5) Process Mechanical Design

i. Finalize design criteria for major equipment items and ancillary equipment.

ii. Continued vendor coordination regarding equipment sizing, heat load calculations, etc.

iii. Review hydraulic conditions of the new equipment and review compatibility with existing system tie-ins.

iv. Develop plan views and sections for major equipment and interconnects.

6) Electrical and Instrumentation Design (by others)

i. Coordination with SKM: Integration of electrical systems with process equipment, refined control narratives, instrumentation diagrams, and electrical codes/standards coordination.

ii. P&IDs: Coordinate updated diagrams showing equipment connections and control points, integration with process schematics and mechanical designs, coordinate requirements for instrumentation and control devices.

iii. Prepare control narratives in coordination with manufacturers and SKM.

7) Mechanical and Plumbing Design

i. HVAC System Design:

1. Develop HVAC system layout for dewatering building extension.
2. Determine heating, ventilation, and air conditioning requirements based on equipment and process needs.
3. Calculate heating and cooling loads for climate control within the facility.
4. Select appropriate HVAC equipment, including air handlers, ductwork, and exhaust systems.
5. Design control systems for HVAC to maintain optimal operating conditions.

ii. Boiler Design:

1. Design boiler system to provide necessary heat for the solar dryer processes.
2. Calculate energy requirements for the boiler based on process demands.
3. Develop piping layout for boiler system, including recirculation pipe loop.
4. Specify boiler equipment, including expansion tanks, piping manifolds, and mechanical appurtenances.

8) Develop Technical Specifications for major equipment items

9) Update cost opinion with 20% contingency (AACE Class 2)

10) Quality Control

i. Conduct internal review for quality control and assurance.

11) Deliverables Production

c. **Subtask – 230: 90 Percent Design**

1) General Sheet Development

i. Continued design progression of General Sheets

ii. Continued design progression of equipment schedules and tagging

2) Civil Design

i. Continued design progression of Civil Sheets

ii. Development of site civil details

3) Structural Design

i. Foundation Plans: Final layout of foundation elements (e.g., footings, slabs, piers), dimensions, reinforcement details, soil, and geotechnical considerations.

ii. Floor Plans: Final equipment locations, structural supports (e.g., beams, columns), load distribution, and reinforcement details.

iii. Wall Sections: Detailed cross-sectional views of walls showing construction details, material specifications, insulation requirements, integration with mechanical and plumbing systems.

iv. Roof Plans for Solar Dryer Greenhouse and Support Building: Final structural layout, support elements, load calculations for roof equipment, environmental factors, waterproofing, and drainage details.

4) Architectural Design

i. Room Layout and Use Classification: Final detailed room layouts, classifications based on usage (e.g., process areas, storage, control rooms), accessibility, and safety considerations.

ii. Window, Door, and Finish Schedules: Final specifications for windows and doors (e.g., dimensions, materials, hardware), finish schedules for walls, floors, and ceilings, integration with structural and mechanical designs.

iii. 3D Rendered Models: Final visual representations of proposed structures and layouts, detailed views of key areas and equipment, interactive models for client review and feedback.

iv. Client Directed Architectural Elements: Final design elements based on surrounding structures and materials, aesthetic considerations, client preferences, integration with overall project design.

5) Process Mechanical Design

i. Design Criteria: Final equipment specifications based on projected design conditions, redundancy, and stand-by power needs, coordination with equipment vendors for technology review.

ii. Hydraulic Conditions Review: new equipment with existing system tie-ins, solids calculations, integration with process schematics.

iii. Equipment Layouts: Final detailed plan views and sections showing equipment locations and connections, cross-sectional views showing installation details, coordination with structural and architectural designs.

iv. Incorporate process mechanical details.

6) Electrical and Instrumentation Design (by others)

i. Coordination with SKM: Continued progression of electrical and instrumentation design

ii. Finalize control narratives

7) Mechanical and Plumbing Design

i. HVAC System Design: Refined layout and specifications for heating, ventilation, and air conditioning systems, updated load calculations, equipment selection, integration with structural and architectural designs.

ii. Boiler Design: Detailed design of boiler system and associated piping, refined energy calculations, equipment specifications.

iii. Drainage System: Detailed layout and specifications for drainage system, updated flow rate calculations, pipe sizes, integration with structural and architectural designs.

iv. Water Supply System: Updated design and specifications for water supply distribution system, fixtures, valves, fittings.

v. Mechanical Equipment Schedule: Detailed specifications for HVAC units, boilers, pumps, compressors, installation requirements, capacities.

vi. Plumbing Equipment Schedule: Updated specifications for fixtures, valves, pumps, piping, installation requirements, capacities.

vii. Energy Calculations: Detailed calculations for heating systems, including boilers and heated floors, energy consumption, efficiency analysis, compliance with energy standards and regulations.

8) Specifications

i. Prepare front end contract documents for review by CLIENT and CLIENT's legal counsel review (if needed). Documents include bidding, agreement, general conditions, supplemental conditions. Incorporate changes requested by City.

ii. Prepare technical specifications incorporating CLIENT standards, equipment specifications, and other technical specifications as needed for construction of project.

9) Update cost opinion with 10% contingency (AACE Class 1)

10) Quality Control

i. Conduct internal review for quality control and assurance.

11) Deliverables Production

d. **Subtask – 240: Final Design / Bid Set**

1) General Sheet Development

i. Finalize Equipment Schedules

2) Structural Design

i. Foundation Plans: Final layout and reinforcement details.

ii. Floor Plans: Finalize equipment locations and structural supports.

iii. Wall Sections: Detailed construction and material specifications.

iv. Roof Plans: Final structural layout.

3) Architectural Design

i. Room Layout and Use Classification: Final detailed room layouts.

ii. Window, Door, and Finish Schedules: Final specifications.

iii. 3D Rendered Models: Final visual representations.

iv. Client Directed Architectural Elements: Final design elements and aesthetics.

4) Process Mechanical Design

i. Equipment Layouts: Final design progression, detailed plan views and sections.

ii. Final equipment specifications.

5) Electrical and Instrumentation Design (by others)
   i. Coordination with SKM: Final design and integration of electrical systems.
6) Mechanical and Plumbing Design
   i. HVAC System Design: Final layout and design progression.
   ii. Boiler Design: Final design progression.
   iii. Drainage System: Final design progression.
   iv. Water Supply System: Final design and specifications.
   v. Mechanical Equipment Schedule: Final detailed specifications.
   vi. Plumbing Equipment Schedule: Final updated specifications.
7) Update Cost Opinion: Final detailed cost analysis with 0% contingency.
8) Finalize Front End Contract Documents and Technical Specifications
9) Quality Control and Assurance
   i. Final Internal Review for design accuracy and compliance.
10) Deliverables Production
   i. Preparation of Construction Documents: Detailed specifications and drawings.
   ii. Bid Documents: Prepare bid documents for contractor solicitation.

3. **Task 300 – Bid Phase Services**
   a. **Subtask – 310: Bid Phase Services**
      1) Advertise and produce documents for bidding
      2) Attend and conduct pre-bid meeting
      3) Respond to contractor questions and issue electronic pdf addenda as required
      4) Evaluate bids for responsiveness and summarize bid results for review by City. Prepare a Notice of Award and preliminary contract documents for execution by City and Contractor, if directed by City.

4. **Task 400 – Construction Phase Services**
   a. Following completion of the Design phase, the scope of work will be amended as necessary for construction phase services.

5. **Task 900 – Management Reserve Fund**
   a. At the CLIENT's request, Additional Services may be performed by J-U-B (upon mutual agreement of scope, additional fees, and schedule) under the Management Reserve Fund task. An initial budget has been established herein, but may be adjusted upon mutual agreement by CLIENT and J-U-B.
   b. This Agreement will pre-authorize an amount not to be exceeded without CLIENT approval for the Additional Services completed under this task.

6. **Other Items:**
   a. Deliverables
      1) Compile 30% plans and distribute for review / approval as follows:
         i. CLIENT – 2 hard copies and electronic PDF
      2) Compile 60% plans and distribute for review / approval as follows:
         i. CLIENT – 2 hard copies and electronic PDF
      3) Compile 90% set of the Drawings and Technical Specifications and distribute for review / approval as follows:
         i. CLIENT – 3 hard copies and electronic PDF
      4) Compile final Bidding Documents (Front Ends, Technical Specifications, and Drawings) and distribute as follows:
         i. CLIENT – 3 hard copies and electronic PDF
   b. Plan Size: All plans for review and construction purposes shall be issued on reduced size (11x17) sheets; no full-size plans shall be generated or provided. Electronic submissions shall be in PDF format.
   c. Front End Contract Documents will be based on Engineers Joint Contract Documents Committee (EJCDC) Construction Documents.
   d. Technical Specifications will be developed around Construction Specifications Institute (CSI) Master Format List of Titles (2016 version).
   e. Consultant's Opinion of Probable Construction Costs (OPCC). Cost opinions will be prepared at the following major design milestones, 30%, 60%, and 90%. Cost opinions will be prepared in accordance with the cost estimate classes defined by the Association for the Advancement of Cost Engineering (AACE): 30% Design- Class 4 level estimate, 60% Design- Class 3 level estimate, 90% Design - Class 2 level estimate. CLIENT acknowledges that construction cost estimates, financial analysis and feasibility projections are subject to many influences including, but not limited to, price of labor and materials, unknown or latent conditions of existing equipment or structures, and time or quality of performance by third parties. CLIENT acknowledges that such influences may not be precisely forecasted and are beyond the control of Consultant and that actual costs incurred may vary substantially from the estimates prepared by Consultant. Consultant does not warrant or guarantee the accuracy of construction cost estimates
   f. Note: The concrete floor retrofit by the solar dryer equipment manufacturer has yet to be completely installed and in operation at any facility. They have two installations that were greenfield installs located in Hayden, ID and Western Riverside, CA. These two installs reportedly are working well and are achieving Class A biosolids most of the year. In Hayden's case, in the winter, sometimes they need to pass the biosolids through the solar dryer twice to achieve Class A biosolids. The implementation of the first-floor heating retrofit for a solar dryer system is in progress in Europe and they are awaiting results on the performance. However, the solar dryer equipment manufacturer agreed with the pre-design approach described in the Biosolids Handling Pre-Design tech memo completed by J-U-B, where the greenhouse structure would be removed and raised, and the floor heating added on top of the existing concrete floor.

B. **CLIENT's Responsibilities/Exclusions from Current Scope** - CLIENT is responsible for completing, authorizing J-U-B to complete as Additional Services, or authorizing others to complete all tasks not specifically included above in J-U-B's Basic Services that may be required for the project, including, but not limited to:

1. Electrical and instrumentation design will be performed by SKM under a separate contract with the CLIENT. J-U-B has included hours for coordinating design work only.
2. Integration of controls within this project into the plant-wide SCADA will be performed by SKM under a separate contract with the CLIENT.
3. As this project is a retrofit of existing facilities to replace aging infrastructure and improve operations, it is assumed these drawings will not need to be submitted to Utah DWQ for review and issuance of a construction permit.
4. It is assumed that the City and City's legal counsel will review and determine whether sole source procurement for the replacement of existing equipment is permissible.
5. It is assumed that the recently upgraded heating system in the existing greenhouse (to keep temperatures above freezing) is adequate and improvements are not included in this scope of work.
6. This scope of work includes modifications to the existing greenhouse roof structure to increase the building height. It is assumed that the existing greenhouse roof structure is in adequate condition and design work to replace the roof is not included in this scope of work.
7. It is assumed that the existing solids distribution horizontal conveyor in the solar dryer greenhouse is in adequate condition and design work to replace or upsize the conveyor is not included in this scope of work.
8. Perform wastewater sampling and pay for / conduct testing if required.
9. Provide copies of previous reports, record drawings, and planning studies.
10. Historical operational and monitoring data for the WWTP.
11. Subsurface utility location services.
12. Pay for any agency review fees that may be needed.
13. Public involvement.
14. Legal counsel, including review and approval of any contract documents to be executed by CLIENT with contractor(s).
15. Securing bonds for the project.
16. Environmental clearances, surveys, permits, and mitigation plans such as for wetlands, wildlife, archeology, cultural, historical, etc.
17. Give prompt written notice to J-U-B whenever CLIENT observes or otherwise becomes aware of any development that affects the scope or time of performance of J-U-B's services, or any defect or nonconformance in J-U-B's services, the Work, or in the performance of any Contractor.
18. Arrange for safe access to and make all provisions for J-U-B to enter upon public and private property as required for J-U-B to perform services under the Agreement.
19. Davis-Bacon prevailing wage documentation including certified payrolls, wage interviews, and Davis Bacon compliance reporting, as applicable.

20. Operate and maintain the WWTP throughout the project in accordance with all applicable permits, laws, and regulations.
21. It is assumed that project funding will be provided by the City. Tracking allocation of project costs among the various funding sources, prepare funding applications and status summaries for agencies, and complete reimbursement requests that are required by the funding agencies, as applicable, are excluded from this scope of work

**PART 2 - SCHEDULE OF SERVICES**

A. The following table summarizes the anticipated schedule for the identified Basic Services predicated upon timely receipt of CLIENT-provided information, typical review periods, and active direction during work. CLIENT acknowledges that J-U-B will not be responsible for impacts to the schedule by events or actions of others over which J-U-B has no control.

| Task Number | Task Name | Anticipated Schedule |
|---|---|---|
| **100** | Project Management | Concurrent with project |
| **200** | Design | **30 Percent**: 45 days after Notice to Proceed<br>**60% Submittal**: 75 days from receipt of comments from City on 30 percent submittal.<br>**90% Submittal:** 75 days from receipt of comments from City on 60 percent submittal.<br>**Final Bidding Documents**: 30 days from receipt of comments from City on 90 percent submittal. |
| **300** | Bid-Phase Services | **Bid Opening:** 30 days after delivery of Final Bidding Documents.<br>**Notice of Award:** 15 days after Bid Opening. |
| **400** | Construction Phase Services | Scope determined after design phase. |
| **900** | Management Reserve Fund | As mutually agreed upon. |

**PART 3 - BASIS OF FEE**

A. CLIENT shall pay J-U-B for the identified Basic Services as follows:

1. For Lump Sum fees:
    a. The portion of the Lump Sum amount billed for J-U-B's services will be based upon J-U-B's estimate of the percentage of the total services actually completed during the billing period.
2. J-U-B may alter the distribution of compensation between individual tasks to be consistent with services actually rendered while not exceeding the total project amount.

The fee types and amounts for each task are presented in the following table:

| Task Number | Task Name | Fee Type | Amount |
|---|---|---|---|
| **100** | **Project Management** | **Lump Sum** | **$28,100** |
| 100-110 | Project Management and Controls | $14,800 | |
| 100-120 | Design Review Meetings and Site Visits | $12,300 | |
| 100-190 | Project Closeout | $1,000 | |
| **200** | **Design Phase Services** | **Lump Sum** | **$501,900** |
| 200-210 | 30% Design | $92,800 | |
| 200-220 | 60% Design | $131,900 | |
| 200-230 | 90% Design | $125,600 | |
| 200-240 | Final Design / Bid Set | $77,300 | |
| 200-250 | Subconsultant Services | $74,300 | |
| **300** | **Bid Phase Services** | **Time and Materials** | **$13,300** |
| 300-310 | Bid Phase Services | $13,300 | |
| **TOTAL BIOSOLIDS HANDLING IMPROVEMENTS DESIGN AND BIDDING SERVICES** | | | **$543,300** |
| 400 | Construction Phase Services | Time and Materials | To Be Determined |
| 900 | Management Reserve Fund (can only be activated with prior approval from client) | Time and Materials | $50,000 |
| **TOTAL INCLUDING OPTIONAL MANAGEMENT RESERVE FUND** | | | **$593,300** |
| *The above fees include HVAC/mechanical/plumbing and architectural subconsultant services. These subconsultants will contract directly with J-U-B. It is assumed electrical design and SCADA integration services will be provided by SKM under an existing T&M contract with the CLIENT.* | | | |

B. Period of Service: If the period of service for the task(s) identified above is extended beyond 12 months, the compensation amount for J-U-B's services shall be appropriately adjusted to account for inflation and salary adjustments.

# TOOELE CITY RESOLUTION 2025-64

**A RESOLUTION OF THE TOOELE CITY COUNCIL AWARDING THE PUBLIC DEFENDER CONTRACT TO CAROLYN PENCE AND BONEWELL MORRIS & ASSOCIATES.**

WHEREAS, the Tooele City public defender contract has been held most recently by Linares Law Office (Jacob Linares) and Bonewell Morris & Associates (Curt Morris), with one-half of the contract each. Mr. Linares will resign from the contract effective July 31, 2025. The City Administration wishes to retain Carolyn Pence to replace Mr. Linares's one-half of the public defender contract. Mr. Morris previously maintained a portion of the City's public defender contract from 2005-2008 and currently has maintained a portion from 2022 to the present, providing quality representation to his appointed clients. Ms. Pence has over twenty years of legal experience, which has included criminal law in recent years; and,

WHEREAS, the City Administration recommends that the public defender contract continue to be held by more than one attorney, as in previous years, primarily to avoid the necessity of retaining conflict counsel when a contracted public defender has a conflict of interest prohibiting that particular public defender from representing a particular defendant; and,

WHEREAS, the public defender contract is currently budgeted to at $68,520 annually, which would be divided equally between Ms. Pence and Mr. Morris (at $2,855 per month for each attorney); and,

WHEREAS, the City Administration has revised the public defender contract consistent with this Resolution (see Exhibit A, attached):

NOW, THEREFORE, BE IT RESOLVED BY THE TOOELE CITY COUNCIL that the Mayor is hereby authorized to sign on behalf of Tooele City a new contract for public defender services with Carolyn Pence and Bonewell Morris & Associates for the rate, terms, and conditions as set forth in the contract is attached hereto as Exhibit A.

This Resolution shall become effective on the date of passage.

IN WITNESS WHEREOF, this Resolution is passed by the Tooele City Council this _____ day of _____, 2025.

TOOELE CITY COUNCIL

(For) (Against)

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

ABSTAINING:_____

MAYOR OF TOOELE CITY

(For) (Against)

_____ _____

ATTEST:

_____
Michelle Y. Pitt, City Recorder

S E A L

Approved as to form: _____
Tooele City Attorney's Office

# Exhibit A

# Public Defender Contract

# PUBLIC DEFENDER CONTRACT FOR TOOELE CITY

This contract is made the **1st day of August, 2025**, between **Tooele City Corporation** ("the City"), and **Carolyn Pence** and **Curt Morris Attorney, LLC** (collectively "the Attorneys").

1. Purpose. The City hereby contracts with the Attorneys as Public Defenders to defend, upon Court appointment, indigent persons charged in District and/or Justice Court criminal cases and appeals and who are prosecuted by the City.

2. Acceptance. The Attorneys accept the employment as public defenders and promise to render, to the best of their ability, the services described herein during the term of this contract. They will provide public defender services on an alternating basis, as the court determines.

3. Compensation. As compensation in full for all services to be rendered by the Attorneys hereunder, the City shall pay to each of the Attorneys the sum of **$34,260 per year**, for each and every year during the term of this contract. The City agrees to make such payment by paying each of the Attorneys **$2,855 each month**.

4. Recoupment. The City shall have the exclusive right to receive all amounts ordered by a Court as recoupment or restitution for reasonable attorneys' fees. The Attorneys shall not receive or be entitled to any such amounts.

5. Conflicts of Interest. The Attorneys shall be alert to the possibility of a conflict of interest, as determined by applicable Utah legal standards. In the event a court finds that one of the Attorneys has a conflict of interest, the alternating Attorney shall be appointed. It is understood that the Attorneys are not partners, that they maintain separate and independent practices and offices. Therefore, it is unlikely that when one of the Attorneys has a conflict of interest the other Attorney will also have a conflict. The City will be responsible to obtain other Public Defender Services if there exists a conflict of interest on the part of both Attorneys.

6. Term. This contract shall be in effect through December 31, 2025. Thereafter, the contract shall be automatically renewed for successive terms of one year, beginning January 1, 2026.

7. Termination. This contract may be terminated at any time and for any reason upon thirty (30) days notice in writing by either party.

**TOOELE CITY CORPORATION**

_____
Mayor Debra E. Winn

APPROVED AS TO FORM:

_____
Tooele City Attorney's Office

ATTEST:

_____
Michelle Y. Pitt, City Recorder

**CAROLYN PENCE**

_____
By: Carolyn Pence

**CURT MORRIS ATTORNEY, LLC**

_____
By: Curt Morris

**TOOELE CITY CORPORATION**
**FISCAL NOTE TO PROPOSED EXPENDITURE**

07/09/25

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** KEN GARFF WEST VALLEY FORD V# 09566

2025 FORD F-150 CREW CAB WHITE FOR PUBLIC WORKS ASSISTANT

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| AUTOS & TRUCKS | 41 4620 748000 | 232,000.00 | 38,287.00 | 50,348.00 | 143,365.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL: | | | | 50,348.00 | |

REQUESTED /s/ Jaime Grandpre
DEPARTMENT HEAD

REVIEWED S. Simmons
FINANCE DIRECTOR

APPROVED _____
MAYOR

APPROVED _____
COUNCIL CHAIRMAN

# 2025 F-150

**F-150**

**200A**

Crew Cab
5.5' Bed

VA 095616

**Exterior Color**
OXFORD WHITE

**Interior Color**
BLACK

Window Sticker

Invoice

18 City / 23 Hwy
**EPA Estimated MPG**

**Power & Handling**

2.7L V6 ECOBOOST
ELEC TEN-SPEED AUTO TRANS

## Ken Garff Fleet Price:

## $50,348.00

**Exterior Features**

- DAYTIME RUNNING LAMPS
- EASY FUEL® CAPLESS FILLER
- FULLY BOXED STEEL FRAME
- GRILLE - BLACK & DARK GRAY
- HEADLAMPS - AUTO HIGH BEAM
- HEADLAMPS - AUTOLAMP
- (ON/OFF)
- LED REFLECTOR HEADLAMPS
- PICKUP BOX TIE DOWN HOOKS
- POWER TAILGATE LOCK
- REAR PRIVACY GLASS
- TRAILER SWAY CONTROL
- WIPERS- INTERMITTENT

Vehicle for PW Assistant Director

This ~~was~~ is budgeted for in the Capital Budget (41) in FY26.

41-4620-748000

Need Vendor -

**Interior Features**

- CRUISE CONTROL
- DOOR LOCKS - POWER
- DUAL SUNVISORS
- ILLUMINATED ENTRY
- MESSAGE CTR: OUTSIDE TEMP,
- COMPASS, TRIP COMPUTER
- TILT/TELESCOPE STR COLUMN

**Functional**

- AM/FM STEREO
- AUTO HOLD
- BLIS W/CROSS-TRAFFIC ALERT

- CLASS IV TRAILER HITCH W/
- SMART TRLR TOW CONNECTOR
- CURVE CONTROL
- FORDPASS CONNECT 5GWI-FI
- HOTSPOT TELEMATICS MODEM
- LANE-KEEPING SYSTEM
- POST-COLLISION BRAKING
- PRE-COLLISION ASSIST W/AEB
- REVERSE SENSING AND
- REAR VIEW CAMERA
- SELECTABLE DRIVE MODES
- SYNC®4 W/EVR & 12" SCREEN

**Safety/Security**

- ADVANCETRAC WITH RSC®
- AIRBAGS - FRONT SEAT
- MOUNTED SIDE IMPACT
- AIRBAGS - SAFETY CANOPY®
- CTR HIGH MOUNT STOP LAMP
- PERIMETER ALARM
- SECURE PKG 1 YR INCLUDED
- SOS POST-CRASH ALERT SYS
- TIRE PRESSURE MONIT SYS

**Warranty**

- 3YR/36,000 BUMPER / BUMPER
- 5YR/60,000 POWERTRAIN
- 5YR/60,000 ROADSIDE ASSIST

**Options**

- 2025 MODEL YEAR
- OXFORD WHITE
- BLACK STX CLOTH 40/CON/40
- EXTENDED RANGE 36GAL FUEL TAN
- 2.7L V6 ECOBOOST
- ELEC TEN-SPEED AUTO TRANS
- 275/60R20 BSW ALL-TERRAIN
- 3.55 RATIO REGULAR AXLE
- 6650# GVWR PACKAGE
- JOB #2 ORDER
- FRONT LICENSE PLATE BRACKET
- 50 STATE EMISSIONS
- MOBILE OFFICE PACKAGE
- 20" DARK GRAY W/MACH ALUM WHLS
- INTEGRATED TRAILER BRAKE CONT
- WMI GVW CLASS II AIRBAG W/SIDE
- EQUIPMENT GROUP 200A
- COLOR-COORDINATED CARPET
- MANUAL AIR CONDITIONING
- AM/FM STEREO
- LED FOG LAMPS
- EXTENDED RANGE 36GAL FUEL TANK
- STX SERIES
- STX CLOTH 40/CON/40
- BLACK
- PRIVACY GLASS W/REAR DEFROSTER

**Dealer Add-ons**

**TOOELE CITY CORPORATION** 07/11/25
**FISCAL NOTE TO PROPOSED EXPENDITURE**

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** KEN GARFF WEST VALLEY FORD V# 09566

2023 FORD RANGER WHITE VIN#1FTER4FH5PLE32981

FOR PUBLIC WORKS UTILITY LOCATOR

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| AUTOS & TRUCKS | 41 4620 748000 | 232,000.00 | 0.00 | 33,031.00 | 198,969.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **TOTAL:** | | | | 33,031.00 | |

REQUESTED /s/ Jamie Grandpre
DEPARTMENT HEAD

REVIEWED /s/ Shannon Wimmer
FINANCE DIRECTOR

APPROVED _____
MAYOR

APPROVED _____
COUNCIL CHAIRMAN

V# 095666
P0#
41-4620-748000 $19,652.00
51-5100-748000 $6,689.50
52-5200-748000 $6,689.50
$33,031.00
07-10-2025

SELLER/DEALER:

DEAL# 57447
CUST# 5147559

KEN GARFF WEST VALLEY FORD
4091 W 3500 S
WEST VALLEY CITY, UT 84120

# MOTOR VEHICLE CONTRACT OF SALE

DATE OF SALE: 07/09/2025

TOOELE CITY
PURCHASER'S NAME

90 N MAIN ST
STREET ADDRESS

| TOOELE | TOOELE | UT | 84074 |
|---|---|---|---|
| CITY | COUNTY | STATE | ZIP CODE |

RES. PHONE

(435) 241-2173
BUS. PHONE

Purchaser and Co-Purchaser(s), if any, (hereafter referred to as "Purchaser") hereby agree to purchase the following vehicle from Seller/Dealer (hereafter referred to as "Seller"), subject to all terms, conditions, warranties and agreements contained herein, including those printed on the reverse side hereof.

| NEW | USED | DEMO | YEAR | MAKE | SERIES | BODY TYPE | CYL | COLOR |
|---|---|---|---|---|---|---|---|---|
| | XX | | 2023 | FORD | RANGER | CREW CAB PICKUP - SHORT BED | 4 | WHITE |

| VIN | ODOMETER | STOCK NO | DEL. DATE | SALESPERSON |
|---|---|---|---|---|
| 1FTER4FH5PLE32981 | 41089 | PLE32981P | 07/09/2025 | STEPHANIE SMITH |

## PURCHASE PRICE AND OTHER SUMS DUE

| | |
|---|---|
| 1. CASH PRICE OF VEHICLE | 33,031.00 |
| 2. ACCESSORIES/OPTIONS | N/A |
| 3. N/A | N/A |
| 4. N/A | N/A |
| 5. N/A | N/A |
| 6. TOTAL CASH PRICE (add lines 1-5) | 33,031.00 |
| 7. MFR. REBATE $ N/A | |
| 8. PORTION/REBATE APPLIED TO PURCHASE | ( N/A) |
| 9. SUBTOTAL (lines 6 minus 8) | 33,031.00 |

## TRADE-IN AND/OR OTHER CREDITS

YEAR/MAKE
ODOMETER
SERIES
BODY TYPE
VIN

*BALANCE OWED ON TRADE-IN:
BALANCE OWED TO:
ADDRESS:

PAYOFF VERIFIED BY:
GOOD UNTIL:
DATE OF VERIFICATION
ACC.#:

***WARRANTY AS TO BALANCE OWED ON TRADED-IN VEHICLE:**
**Purchaser warrants that he/she has given Seller a true pay-off amount on any vehicle traded in, and that if it is not correct and is greater than the amount shown above, Purchaser will pay the excess to Seller on demand.**

| | | |
|---|---|---|
| 10. TRADE-IN ALLOWANCE | | N/A |
| 11. BALANCE OWED ON TRADE-IN* | | N/A |
| 12. NET ALLOWANCE ON TRADE-IN | (line 10 minus line 11) | N/A |
| 13. DEPOSIT/CASH DOWN PAYMENT | (omit amt. line 8) | N/A |
| 14. TOTAL CREDITS | (total lines 12 & 13) | 0.00 |
| 15. SUBTOTAL FROM LINE 9 | | 33,031.00 |
| 16. SERVICE CONTRACT | | N/A |
| 17. DEALER DOCUMENTARY SERVICE FEE | | N/A |
| 18. N/A | | N/A |
| 19. SUBTOTAL-TAXABLE ITEMS | (total lines 15-18) | 33,031.00 |
| 20. TRADE ALLOWANCE ** (line 10) | N/A | ** If lease, no tax credit |
| 21. NET TAXABLE AMOUNT (line 19 minus line 20) | $ 33,031.00 | |
| 22. UTAH SALES/USE TAX ON "TAXABLE AMOUNT" | | N/A |
| 23. UTAH LICENSE AND REGISTRATION FEES | | N/A |
| 24. UTAH AGE BASED/PROPERTY ASSESSMENT FEES | | N/A |
| 25. UTAH EMISSIONS TEST FEE | | N/A |
| 26. UTAH WASTE TIRE RECYCLING FEE | | N/A |
| 27. N/A | | N/A |
| 28. N/A | | N/A |
| 29. TOTAL OF ALL ITEMS ABOVE | (lines 19, 22-28) | 33,031.00 |
| 30. TOTAL CREDITS | (line 14) | ( 0.00) |
| 31. **BALANCE DUE** DAY 09 MONTH JULY YEAR 2025 | (total line 29 minus 30) | 33,031.00 |

THIS SECTION FOR SELLER'S USE ONLY PERTAINING TO TRADE-IN

☐ Title (if not, explain): _____

| REGISTRATION | POWER OF ATTORNEY | ODOMETER STATEMENT | TRADE-IN APPRAISAL | AUTHORIZATION FOR PAYOFF | MANUFACTURED OUT OF COUNTRY | |
|---|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## NOTICE ONLY TO BUYERS OF USED VEHICLES

The information you see on the window form [Buyer's Guide] for this vehicle is part of this contract. Information on the window form overrides any contrary provisions in the contract of sale.

I HAVE RECEIVED A COPY OF THE FTC BUYERS GUIDE.

X _____

## FINANCING DISCLOSURE

INSTRUCTION: One of the two following disclosures, either "A" or "B", must be acknowledged, if Purchaser agrees to be responsible for financing, or if this is a cash-only or cash-plus-trade-in only transaction, the Purchaser must sign disclosure "A". If Seller agrees to arrange for financing, then both Seller and Purchaser must sign disclosure "B". BY SIGNING, PURCHASER AFFIRMS THAT HE/SHE HAS READ THE DISCLOSURE AND AGREES THERETO. **IF SIGNING DISCLOSURE "B", DO NOT SIGN UNTIL ALL BLANKS HAVE BEEN FILLED IN. PURCHASER ACKNOWLEDGES THAT THE TERMS SET FORTH BELOW ("A") AND ("B") ARE MANDATED BY STATE LAW AND ARE NOT TO BE CONSTRUED AS CONTRACTUAL TERMS BETWEEN SELLER AND PURCHASER.**

## PURCHASER AGREES TO ARRANGE FINANCING

"(A)" THE PURCHASER OF THE MOTOR VEHICLE DESCRIBED IN THIS CONTRACT ACKNOWLEDGES THAT THE SELLER OF THE MOTOR VEHICLE HAS MADE NO PROMISES, WARRANTIES, OR REPRESENTATIONS REGARDING SELLER'S ABILITY TO OBTAIN FINANCING FOR THE PURCHASE OF THE MOTOR VEHICLE. FURTHERMORE, PURCHASER UNDERSTANDS THAT IF FINANCING IS NECESSARY IN ORDER FOR THE PURCHASER TO COMPLETE THE PAYMENT TERMS OF THIS CONTRACT ALL THE FINANCING ARRANGEMENTS ARE THE SOLE RESPONSIBILITY OF THE PURCHASER.

SIGNATURE OF PURCHASER _____

## SELLER AGREES TO SEEK ARRANGEMENTS FOR FINANCING

"(B)" (1) THE PURCHASER OF THE MOTOR VEHICLE DESCRIBED IN THIS CONTRACT HAS EXECUTED THE CONTRACT IN RELIANCE UPON THE SELLER'S REPRESENTATION THAT SELLER CAN PROVIDE FINANCING ARRANGEMENTS FOR THE PURCHASE OF THE MOTOR VEHICLE. THE PRIMARY TERMS OF THE FINANCING ARE AS FOLLOWS:

INTEREST RATE BETWEEN N/A % AND N/A % PER ANNUM, TERM BETWEEN N/A MONTHS AND N/A MONTHS. MONTHLY PAYMENTS BETWEEN $ N/A PER MONTH AND $ N/A PER MONTH BASED ON A DOWN PAYMENT OF $ N/A.

(2) (a) IF SELLER IS NOT ABLE TO ARRANGE FINANCING WITHIN THE TERMS DISCLOSED, THEN SELLER MUST, WITHIN SEVEN CALENDAR DAYS OF THE DATE OF SALE MAIL NOTICE TO THE PURCHASER THAT HE HAS NOT BEEN ABLE TO ARRANGE FINANCING.
(b) PURCHASER THEN HAS 14 DAYS FROM THE DATE OF SALE TO ELECT, IF PURCHASER CHOOSES, TO RESCIND THE CONTRACT OF SALE PURSUANT TO [UTAH CODE ANN.] SECTION 41-3-401.
(c) IN ORDER TO RESCIND THE CONTRACT OF SALE, THE PURCHASER SHALL:
(i) RETURN TO SELLER THE MOTOR VEHICLE HE PURCHASED;
(ii) PAY THE SELLER AN AMOUNT EQUAL TO THE CURRENT STANDARD MILEAGE RATE FOR THE COST OF OPERATING A MOTOR VEHICLE ESTABLISHED BY THE FEDERAL INTERNAL REVENUE SERVICE FOR EACH MILE THE MOTOR VEHICLE HAS BEEN DRIVEN; AND
(iii) COMPENSATE SELLER FOR ANY PHYSICAL DAMAGE TO THE MOTOR VEHICLE.
(3) IN RETURN, SELLER SHALL GIVE BACK TO THE PURCHASER ALL PAYMENTS OR OTHER CONSIDERATION PAID BY THE PURCHASER, INCLUDING ANY DOWN PAYMENT AND ANY MOTOR VEHICLE TRADED IN.
(4) IF THE TRADE-IN HAS BEEN SOLD OR OTHERWISE DISPOSED OF BEFORE THE PURCHASER RESCINDS THE TRANSACTION, THEN THE SELLER SHALL RETURN TO THE PURCHASER A SUM EQUIVALENT TO THE ALLOWANCE TOWARD THE PURCHASE PRICE GIVEN BY THE SELLER FOR THE TRADE-IN, AS NOTED IN THE DOCUMENT OF SALE.
(5) IF PURCHASER DOES NOT ELECT TO RESCIND THE CONTRACT OF SALE AS PROVIDED IN SUBSECTION (2)(b) OF THIS FORM:
(a) THE PURCHASER IS RESPONSIBLE FOR ADHERENCE TO THE TERMS AND CONDITIONS OF THE CONTRACT OR RISKS BEING FOUND IN DEFAULT OF THE TERMS AND CONDITIONS;
(b) IF THE TERMS AND CONDITIONS OF THE DISCLOSURES SET FORTH IN SECTION (1) OF THIS FORM ARE NOT BINDING ON THE SELLER; AND
(c) IF FINANCING IS NECESSARY FOR THE PURCHASER TO COMPLETE THE PAYMENT TERMS OF THE CONTRACT OF SALE, THE PURCHASER IS SOLELY RESPONSIBLE FOR MAKING ALL THE FINANCING ARRANGEMENTS.
(6) SIGNING THIS DISCLOSURE DOES NOT PROHIBIT THE PURCHASER FROM SEEKING HIS OWN FINANCING.

SIGNATURE OF PURCHASER _____

SIGNATURE OF SELLER _____

**OTHER TERMS AGREED TO:** NONE ☒ AS FOLLOWS ☐

Purchaser has arranged insurance on vehicle through _____ insurance company. Policy # _____

**SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO THE MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR OTHERWISE CONCERNING THE VEHICLE, PARTS OR ACCESSORIES DESCRIBED HEREIN. UNLESS OTHERWISE INDICATED BY SELLER IN WRITING, ANY WARRANTY IS LIMITED TO THE MANUFACTURER'S WARRANTY, IF ANY, AS EXPLAINED AND CONDITIONED BY PARAGRAPH 4 ON THE REVERSE SIDE HEREOF.**

This Contract includes all of the terms, conditions, restrictions, limitations and other provisions on both the face and the reverse side hereof. This contract cancels and supersedes any prior contract and as of the date hereof comprises the complete and exclusive statement of the terms of the Contract relating to the subject matters covered hereby. PURCHASER BY HIS EXECUTION OF THIS CONTRACT ACKNOWLEDGES THAT HE HAS READ ITS TERMS, CONDITIONS AND WARRANTIES BOTH ON THE FACE AND THE REVERSE SIDE HEREOF AND HAS RECEIVED A TRUE COPY OF THIS CONTRACT, AND FURTHER AGREES TO PAY THE "BALANCE DUE" AS SET FORTH ABOVE ON OR BEFORE THE DATE SPECIFIED. IF NO DATE IS SPECIFIED, THEN THE BALANCE IS DUE AS OF THE DATE OF THIS CONTRACT. THIS CONTRACT IS NOT A RECEIPT OF PAYMENT. NO RETURNS, REFUNDS OR EXCHANGES ARE PERMISSIBLE EXCEPT AS NOTED ABOVE.

SIGNATURE OF PURCHASER _____ DATE 07/09/2025 VEHICLE TO BE TITLED IN NAME OF TOOELE CITY

SIGNATURE OF CO-PURCHASER N/A DATE N/A SIGNATURE OF SELLER _____ DATE 07/09/2025

**TOOELE CITY CORPORATION** 07/09/25
**FISCAL NOTE TO PROPOSED EXPENDITURE**

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** JUB ENGINEERS, INC. V# 01547

SALT SHED METAL BUILDING

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| BUILDING IMPROVEMENTS | 78 4415 721000 | 200,000.00 | 0.00 | 80,000.00 | 120,000.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL: | | | | 80,000.00 | |

REQUESTED /s/ Jaime Grandpre
DEPARTMENT HEAD

REVIEWED
FINANCE DIRECTOR

APPROVED
MAYOR

APPROVED
COUNCIL CHAIRMAN

J-U-B COMPANIES | THE LANGDON GROUP | GATEWAY MAPPING INC.

**J-U-B ENGINEERS, INC.**

V #0154

July 7, 2025

fiscal note -
need line item -
78-4415-721000

Jamie Grandpre
Public Works Director, Tooele City
90 N Main Street
Tooele, UT, 84074

**RE: Tooele Salt Shed Package 1: Metal Building**

Dear Jamie,

Enclosed is the proposal from Nelson Brothers Construction Company for the above-referenced project, dated June 26, 2025. We recommend a contract for the following items:

| | |
|---|---|
| Metal Building from CO Building Systems | $68,200 |
| Sales Tax (7%) | $4,774 |
| Contractor Administration Services | $7,026 |

Hence, the total project award for this package is **$80,000.**

We recommend awarding the **Tooele Salt Shed Package 1** Contract to Nelson Brothers Construction Company. Please contact me if you have any questions or concerns.

Sincerely,
J-U-B ENGINEERS, Inc.

Andrew Hobson, P.E.
Project Manager

Metal Bldg - Salt Shed
~~$80,000~~ 80,000
Buy now - Anticipated in 4-6 months

**NELSON BROTHERS CONSTRUCTION CO.**
347 West 1600 South, Salt Lake City, Utah 84115
Phone: 801/487-5401 Fax: 801/487-8534

June 26, 2025

Jamie Grandpre
Tooele City Public Works Director
90 North Main Street
Tooele City, Utah 84074

Project: Tooele Salt Shed
Work Package 1 – Procurement of Metal Building Materials

Jamie:

We have solicited pricing from several pre-engineered metal building suppliers for the salt shed. The lowest responsible bid was submitted by CO Building Systems, Inc. of Ephraim, Utah. I've attached a copy of their quote and encourage you to thoroughly review it to confirm you are getting what you need. The cost of the building materials is $68,200.00 plus sale tax. If Tooele City is exempt from paying sales tax, you will need to send a copy of your exemption certificate with the order.

To move the project along, a purchase order with a 25% deposit needs to be sent to them. The deposit will lock in pricing and get them started on calculating the building forces. JUB Engineering will use the building forces to the finalize the structural design.

A few key points about the proposed building:

- Size is 60' by 60' with an eave height of 26 feet. The eave height is achieved by the 10 foot concrete stem wall plus 16 foot metal framing and sheeting.
- One side is open. There are no door ways or windows.
- The building walls and roof are not insulated.
- The roof panels are standing seam. The color is Galvalume.
- The wall panels are colored but have a limited color selection.
- Structural steel framing material is galvanized.

I have requested a price for an option to install wall liner to help keep salt and dust away from the framing. I won't have that price until next week.

*In summary, I encourage Tooele City to quickly proceed with ordering the building materials. Let me know if you have questions or would like our assistance with this order.*

Thank you,

Lee Redd

Digitally signed by Lee Redd
DN: C=US, E=lredd@nelsonbros.com, O=Nelson Bros. Construction Company, OU=Nelson Bros. Construction Company, CN=Lee Redd
Date: 2025.06.26 10:55:14-06'00'

320 West 100 North, Ephraim, UT 84627, 800-262-5347 phone, 435-580-8157 fax

5/22/2025



Quote #: 5012901R1
Sales Rep: HT
email: holden.tucker@cobuildings.net

Order # _____
Est. Ship Date: _____
Draftsman : _____

# Quote Confirmation

## 1. BUYER: *(where drawings will be mailed)*

| | | | |
|---|---|---|---|
| **Name:** | Nelson Bros Construction CO. | Project: | Tooele Utah Salt Shed |
| **Address:** | | | |
| **City:** | | | |
| **Contact:** | Montana Gardner | | |
| **Phone:** | | | |
| **Cell:** | 801-946-7916 | | |
| **Fax:** | | | |
| **Email:** | mgardnerA@nelsonbros.com | | |

## 2. OWNER: *(as it will appear on drawings)*

**Name:** _____
**Address:** _____
**City:** _____ *State:* *Zip:*
**Contact:** _____
**Phone:** _____

*PROJECT ADDRESS*
_____
_____

DELIVERY ADDRESS
(If different than project address)
_____
_____

***Engineered Structural Steel Drawings For Construction:*** 3ea
***NO PRODUCTION HOLD, NO SUBMITTALS REQUIRED***

## 3. BUILDING DESIGN:

| | | | |
|---|---|---|---|
| **Building Profile:** | Symmetrical Double Slope | | |
| **Main Frame Type:** | 'tapered depth 3 rigid frames, clear span | | |
| **Width:** | 60'-0" | | |
| **Length:** | 60'-0" | | |
| **Height:** | 26'-0" Front Side Wall | | |
| | 26'-0" Back Side Wall | | |
| | ( 10' stem wall + 16' sheeting = 26' total eave height) | | |
| | (Main frame columns top of wall, End Wall Columns top of wall, door jambs top of wall) | | |
| **Inside Clearance:** | N A | | |
| **Roof Slope:** | 1.0:12 | | |
| **Side Wall Bay Spacing:** | 3 at 20 | **Girt Design FSW / BSW** | Flush |
| **Left End Wall:** | Non-expandable Rigid | **Girt Design LEW:** | Flush |
| **Right End Wall:** | Non-expandable P&B | **Girt Design REW:** | Flush |

## 4. LOADING CONDITIONS:

Please Verify with your local building official the following information. Price is subject to change accordingly.

**Building Use:** _____

| | | | | | |
|---|---|---|---|---|---|
| **Building Code:** | IBC 2021 | Risk Category II (Table 1604.5) | | | |
| **Live Load:** | 20 psf | | | | |
| **Ground Snow Load Pg** | 32.0 psf | | | | |
| **Flat Roof Snow Load Pf:** | 30.0 psf (Includes Thermal Ct=1, Exposure, Ce=1, Importance I=1) | | | | |
| **Minimum Roof Snow Load :** | N A psf | | | | |
| **Auxiliary:** | 5 psf | | | | |
| **Wind Load (Ultimate):** | 102 mph | EXP: C | | Risk Category II | |
| **Seismic Site Class:** | D (Default) | Seismic Acceleration Ss: | 7.0% | | (I=1) |
| **Crane Type:** | N A | | | | |

## 5. ROOF COVERING:

| | | | |
|---|---|---|---|
| **Roof Color:** | Galvalume | **Trim Color:** | NEED COLOR |
| **Roof Panel Type:** | TS-324 | **Trim Type:** | Commercial |
| **Roof Gauge:** | 24 | **Roof Lights:** | none |
| **Clip:** | 0.5" Standoff / Fixed | | |
| **Purlin Bridging:** | 1 x 1 angle X pattern between purlins | | |

## 6. WALL COVERING:

**Wall Color:** Polar White, Lightstone, Ash Gray , Charcoal, Black **Trim Color:** NEED COLOR

R1

| | |
|---|---|
| **Wall Panel Type:** | PBR |
| **Wall Gauge:** | 24 |
| **Fastener Length:** | 1.25" |
| **Base Support:** | DFB |
| **Wall Lights:** | NONE |

**For IMP 4" roof and 2" Wall Panels ADD $70,356 to base price**

NBCC note: IMP means Insulated Metal Panel. The building is open on one end and I don't see any need for insulated panels.

## 7. DOOR FRAMED OPENINGS: NONE

## 7b. OPEN WALL AREAS:

| | |
|---|---|
| **Front Sidewall:** | Sheeted |
| **Back Sidewall:** | Sheeted |
| **Left Endwall:** | 60'-0" wide x Full Height Open wall area |
| **Right Endwall:** | Sheeted |

## 8. GUTTERS & DOWNSPOUTS: NONE

*(Not recommended over 1:12 roof pitch or greater)*

## 9. WALK DOORS: NONE

## 10. WINDOW FRAMED OPENINGS: NONE

## 11. INSULATION: NONE

CO BUILDING SYSTEMS INC.
320 West 100 North, Ephraim, UT 84627, 800-262-5347 phone, 435-580-8157 fax

Quote #: 5012901R1
Sales Rep: HT



NBCC note: I've requested a price for wall liner as an option. The liner may help keep salt and salt dust away from the structural members.

**12. LINER COVERING:** NONE

**13. PARTITIONS:** NONE

**14. SIDEWALL EAVE EXTENSIONS:** NONE

**15. ENDWALL PURLIN EXTENSIONS:** NONE

**16. ADDITIONAL INFORMATION:**

Galvanized Primary and Secondary Framing

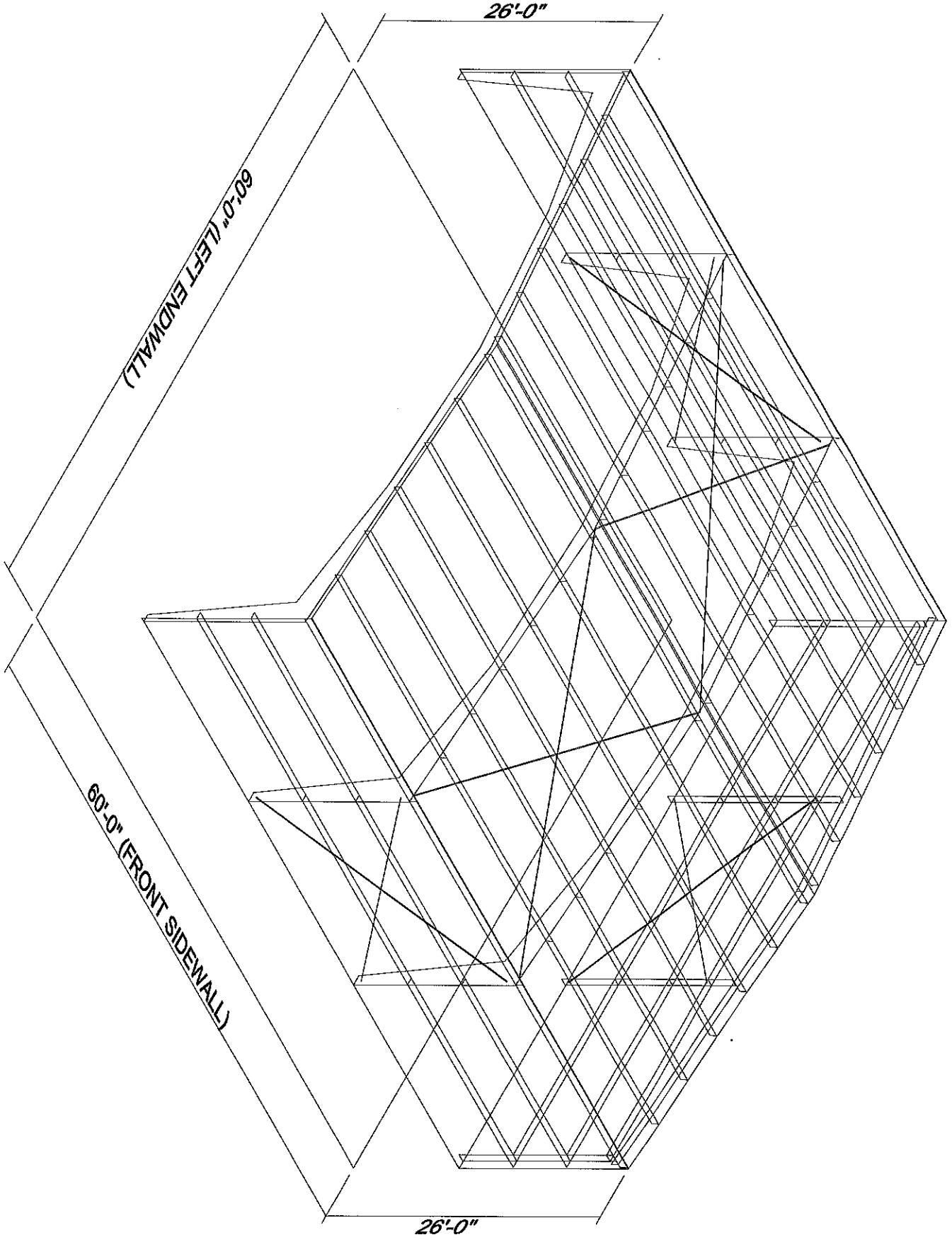
## PRICE & WEIGHT SUMMARY

***Freight:*** 130 MILES (Freight is over paved roads only)

BASE PRICE: $68,200 EST. WT: 24,003 lbs

This quotation is good for **10 Days** from the date shown on the quotation. CO Building Systems will hold prices stable as long as possible but does reserve the right to change pricing as is necessary. Quotation is subject to customer signature on CO Building Systems standard contract. Payment terms are 25% down payment upon acceptance of contract with the balance remaining due by certified check upon delivery of materials to the jobsite.

Price does not include anchor bolts, foundation design, sales tax, or any other taxes.


26'-0"
60'-0" (LEFT ENDWALL)
60'-0" (FRONT SIDEWALL)
26'-0"

**NELSON BROTHERS CONSTRUCTION CO.**
347 West 1600 South, Salt Lake City, Utah 84115
Phone: 801/487-5401 Fax: 801/487-8534

June 26, 2025

Jamie Grandpre
Tooele City Public Works Director
90 North Main Street
Tooele City, Utah 84074

Project: Tooele Salt Shed
Work Package 1 – Procurement of Metal Building Materials

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*In summary, I encourage Tooele City to quickly proceed with ordering the building materials. Let me know if you have questions or would like our assistance with this order.*

Thank you,

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Digitally signed by Lee Redd
DN: C=US, E=lredd@nelsonbros.com, O=Nelson Bros. Construction Company, OU=Nelson Bros. Construction Company, CN=Lee Redd
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| **Address:** | | | |
| **City:** | | | |
| **Contact:** | Montana Gardner | | |
| **Phone:** | | | |
| **Cell:** | 801-946-7916 | | |
| **Fax:** | | | |
| **Email:** | mgardnerA@nelsonbros.com | | |

## 2. OWNER: *(as it will appear on drawings)*

**Name:** _____
**Address:** _____
**City:** _____ *State:* *Zip:*
**Contact:** _____
**Phone:** _____

*PROJECT ADDRESS*

_____
_____

DELIVERY ADDRESS
(If different than project address)

_____
_____

***Engineered Structural Steel Drawings For Construction:*** 3ea
***NO PRODUCTION HOLD, NO SUBMITTALS REQUIRED***

## 3. BUILDING DESIGN:

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| | (Main frame columns top of wall, End Wall Columns top of wall, door jambs top of wall) | | |
| **Inside Clearance:** | N A | | |
| **Roof Slope:** | 1.0:12 | | |
| **Side Wall Bay Spacing:** | 3 at 20 | **Girt Design FSW / BSW** | Flush |
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| **Flat Roof Snow Load Pf:** | 30.0 psf (Includes Thermal Ct=1, Exposure, Ce=1, Importance I=1) | | | | |
| **Minimum Roof Snow Load :** | N A psf | | | | |
| **Auxiliary:** | 5 psf | | | | |
| **Wind Load (Ultimate):** | 102 mph | EXP: C | | Risk Category II | |
| **Seismic Site Class:** | D (Default) | Seismic Acceleration Ss: | 7.0% | (I=1) | |
| **Crane Type:** | N A | | | | |

## 5. ROOF COVERING:

| | | | |
|---|---|---|---|
| ***Roof Color:*** | Galvalume | ***Trim Color:*** | NEED COLOR |
| ***Roof Panel Type:*** | TS-324 | ***Trim Type:*** | Commercial |
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| ***Clip:*** | 0.5" Standoff / Fixed | | |
| ***Purlin Bridging:*** | 1 x 1 angle X pattern between purlins | | |

## 6. WALL COVERING:

***Wall Color:*** Polar White, Lightstone, Ash Gray , Charcoal, Black ***Trim Color:*** NEED COLOR

| | | |
|---|---|---|
| | ***Wall Panel Type:*** | PBR |
| R1 | ***Wall Gauge:*** | 24 |
| | ***Fastener Length:*** | 1.25" |
| | ***Base Support:*** | DFB |
| | ***Wall Lights:*** | NONE |

**For IMP 4" roof and 2" Wall Panels ADD $70,356 to base price**

## 7. DOOR FRAMED OPENINGS: *NONE*

## 7b. OPEN WALL AREAS:

| | |
|---|---|
| ***Front Sidewall:*** | Sheeted |
| ***Back Sidewall:*** | Sheeted |
| ***Left Endwall:*** | 60'-0" wide x Full Height Open wall area |
| ***Right Endwall:*** | Sheeted |

## 8. GUTTERS & DOWNSPOUTS: *NONE*

*(Not recommended over 1:12 roof pitch or greater)*

## 9. WALK DOORS: *NONE*

## 10. WINDOW FRAMED OPENINGS: *NONE*

## 11. INSULATION: NONE

**12. LINER COVERING:** *NONE*

**13. PARTITIONS:** *NONE*

**14. SIDEWALL EAVE EXTENSIONS:** *NONE*

**15. ENDWALL PURLIN EXTENSIONS:** *NONE*

**16. ADDITIONAL INFORMATION:**

**Galvanized Primary and Secondary Framing**

## PRICE & WEIGHT SUMMARY

***Freight:*** 130 MILES (Freight is over paved roads only)

BASE PRICE: $68,200 EST. WT: 24,003 lbs

This quotation is good for **10 Days** from the date shown on the quotation. CO Building Systems will hold prices stable as long as possible but does reserve the right to change pricing as is necessary. Quotation is subject to customer signature on CO Building Systems standard contract. Payment terms are 25% down payment upon acceptance of contract with the balance remaining due by certified check upon delivery of materials to the jobsite.

Price does not include anchor bolts, foundation design, sales tax, or any other taxes.

**TOOELE CITY CORPORATION**
**FISCAL NOTE TO PROPOSED EXPENDITURE**

07/11/25

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** TOOELE MOTOR COMPANY V# 09865

2024 FORD RANGER XL 4WD SUPERCREW WHITE

COMMUNITY DEVELOPMENT INSPECTOR

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| AUTOS & TRUCKS | 41 4620 748000 | 232,000.00 | 0.00 | 34,869.76 | 197,130.24 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **TOTAL:** | | | | 34,869.76 | |

REQUESTED /s/ Andrew Aagard
DEPARTMENT HEAD

REVIEWED Shannon Wimmer
FINANCE DIRECTOR

APPROVED _____
MAYOR

APPROVED _____
COUNCIL CHAIRMAN

SELLER/DEALER:

# MOTOR VEHICLE CONTRACT OF SALE

07/08/25
DATE OF SALE:

TOOELE MOTOR COMPANY
1141 N Main St
Tooele, UT 84074
(385)554-1110

TOOELE COUNTY CITY
PURCHASER'S NAME

90 NORTH MAIN ST
STREET ADDRESS

| TOOELE | TOOELE | UT | 84074 |
|---|---|---|---|
| CITY | COUNTY | STATE | ZIP C |

(435)840-4703 RES. PHONE
N/A BUS. PHONE

Purchaser and Co-Purchaser(s), if any, (hereafter referred to as "Purchaser") hereby agree to purchase the following vehicle from Seller/Dealer (hereafter referred to as "Seller"), subje all terms, conditions, warranties and agreements contained herein, including those printed on the reverse side hereof.

| NEW | USED | DEMO | YEAR | MAKE | SERIES | BODY TYPE | CYL. | COLOR |
|---|---|---|---|---|---|---|---|---|
| X | | | 2024 | FORD | RANGER | XL 4WD SUPERCR | | OXFORD WHITE |

| V.I.N. | ODOMETER | STOCK NO. | DEL. DATE | SALESPERSON |
|---|---|---|---|---|
| 1FTER4PH1RLE52999 | 29 | F4898 | 07/08/25 | ASHLEY HILDEBRAND |

## PURCHASE PRICE AND OTHER SUMS DUE

| | | |
|---|---|---|
| 1. CASH PRICE OF VEHICLE | | 36,710.00 |
| 2. ACCESSORIES/OPTIONS | | N/A |
| 3. N/A | | N/A |
| 4. N/A | | N/A |
| 5. N/A | | N/A |
| 6. TOTAL CASH PRICE (add lines 1-5) | | 36,710.00 |
| 7. MFR. REBATE $ | | 2,500.00 |
| 8. PORTION/REBATE APPLIED TO PURCHASE | | ( 2,500.00 ) |
| 9. SUBTOTAL | (lines 6 minus 8) | 34,210.00 |

## TRADE-IN AND/OR OTHER CREDITS

YEAR/MAKE: N/A N/A
ODOMETER: N/A
SERIES: N/A
BODY TYPE: N/A
V.I.N.: N/A
*BALANCE OWED ON TRADE-IN: N/A
BALANCE OWED TO: N/A
ADDRESS: N/A
PAYOFF VERIFIED BY:
GOOD UNTIL: N/A
DATE OF VERIFICATION 07/08/25
ACC.#: N/A

***WARRANTY AS TO BALANCE OWED ON TRADED-IN VEHICLE:**
**Purchaser warrants that he/she has given Seller a true pay-off amount on any vehicle traded in, and that if it is not correct and is greater than the amount shown above, Purchaser will pay the excess to Seller on demand.**

| | | |
|---|---|---|
| 10. TRADE-IN ALLOWANCE | | N/A |
| 11. BALANCE OWED ON TRADE-IN* | | N/A |
| 12. NET ALLOWANCE ON TRADE-IN | (line 10 minus line 11) | N/A |
| 13. DEPOSIT/CASH DOWN PAYMENT | (omit amt. line 8) | N/A |
| 14. TOTAL CREDITS | (total lines 12 & 13) | N/A |
| 15. SUBTOTAL FROM LINE 9 | | 34,210.00 |
| 16. SERVICE CONTRACT | | N/A |
| 17. DEALER DOCUMENTARY SERVICE FEE | | 400.00 |
| 18. | | N/A |
| 19. SUBTOTAL-TAXABLE ITEMS | (total lines 15-18) | 34,610.00 |
| 20. TRADE ALLOWANCE ** (line 10) | N/A | ** If lease, no tax credit |
| 21. NET TAXABLE AMOUNT (line 19 minus line 20) | $ 34,610.00 | |
| 22. UTAH SALES/USE TAX ON "TAXABLE AMOUNT" | | N/A |
| 23. UTAH LICENSE AND REGISTRATION FEES | | 259.76 |
| 24. UTAH AGE BASED/PROPERTY ASSESSMENT FEES | | N/A |
| 25. UTAH INSPECTION/EMISSIONS TEST FEE | | N/A |

**THIS SECTION FOR SELLER'S USE ONLY PERTAINING TO TRADE-IN**

☐ Title (if not, explain):

| REGISTRATION | POWER OF ATTORNEY | ODOMETER STATEMENT | TRADE-IN APPRAISAL | AUTHORIZATION FOR PAYOFF | MANUFACTURED OUT OF COUNTRY |
|---|---|---|---|---|---|
| ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

## NOTICE ONLY TO BUYERS OF USED VEHICLES

The information you see on the window form [Buyer's Guide] for this vehicle is part of this contrac Information on the window form overrides any contrary provisions in the contract of sale.

I HAVE RECEIVED A COPY OF THE FTC BUYERS GUIDE.

X _____

## FINANCING DISCLOSURE

INSTRUCTION: One of the two following disclosures, either "A" or "B", must be acknowledged, if Purchaser ag to be responsible for financing, or if this is a cash-only or cash-plus-trade-in only transaction, the Purchaser must disclosure "A". If Seller agrees to arrange for financing, then both Seller and Purchaser must sign disclosure "B" SIGNING, PURCHASER AFFIRMS THAT HE/SHE HAS READ THE DISCLOSURE AND AGREES THERETO SIGNING DISCLOSURE "B", DO NOT SIGN UNTIL ALL BLANKS HAVE BEEN FILLED IN. PURCHASER ACKNO EDGES THAT THE TERMS SET FORTH BELOW ("A") AND ("B") ARE MANDATED BY STATE LAW AND ARE TO BE CONSTRUED AS CONTRACTUAL TERMS BETWEEN SELLER AND PURCHASER.

## PURCHASER AGREES TO ARRANGE FINANCING

"(A)" THE PURCHASER OF THE MOTOR VEHICLE DESCRIBED IN THIS CONTRACT ACKNOV EDGES THAT THE SELLER OF THE MOTOR VEHICLE HAS MADE NO PROMISES, WARRANTI OR REPRESENTATIONS REGARDING SELLER'S ABILITY TO OBTAIN FINANCING FOR T PURCHASE OF THE MOTOR VEHICLE. FURTHERMORE, PURCHASER UNDERSTANDS THAT FINANCING IS NECESSARY IN ORDER FOR THE PURCHASER TO COMPLETE THE PAYME TERMS OF THIS CONTRACT ALL THE FINANCING ARRANGEMENTS ARE THE SOLE RESPO SIBILITY OF THE PURCHASER.

SIGNATURE OF PURCHASER _____

## SELLER AGREES TO SEEK ARRANGEMENTS FOR FINANCING

"(B)" (1) THE PURCHASER OF THE MOTOR VEHICLE DESCRIBED IN THIS CONTRACT H EXECUTED THE CONTRACT IN RELIANCE UPON THE SELLER'S REPRESENTATION TH SELLER CAN PROVIDE FINANCING ARRANGEMENTS FOR THE PURCHASE OF THE MOT VEHICLE. THE PRIMARY TERMS OF THE FINANCING ARE AS FOLLOWS:

INTEREST RATE BETWEEN 0.00 % AND 0 % PER ANNUM, TERM BETWE 1 MONTHS AND 72 MONTHS. MONTHLY PAYMEN BETWEEN $ 34,874.76 PER MONTH AND $ .N/A PER MONTH BAS ON A DOWN PAYMENT OF $ N/A .

(2) (a) IF SELLER IS NOT ABLE TO ARRANGE FINANCING WITHIN THE TERMS DISCLOSED, THEN SELLER MUST, W SEVEN CALENDAR DAYS OF THE DATE OF SALE MAIL NOTICE TO THE PURCHASER THAT HE HAS NOT BEEN ABI ARRANGE FINANCING.
(b) PURCHASER THEN HAS 14 DAYS FROM THE DATE OF SALE TO ELECT, IF PURCHASER CHOOSES, TO RESCIN CONTRACT OF SALE PURSUANT TO [UTAH CODE ANN.] SECTION 41-3-401.
(c) IN ORDER TO RESCIND THE CONTRACT OF SALE, THE PURCHASER SHALL:
(i) RETURN TO SELLER THE MOTOR VEHICLE HE PURCHASED;
(ii) PAY THE SELLER AN AMOUNT EQUAL TO THE CURRENT STANDARD MILEAGE RATE FOR THE COST OF OPER/ A MOTOR VEHICLE ESTABLISHED BY THE FEDERAL INTERNAL REVENUE SERVICE FOR EACH MILE THE MOTOR VE HAS BEEN DRIVEN; AND
(iii) COMPENSATE SELLER FOR ANY PHYSICAL DAMAGE TO THE MOTOR VEHICLE.
(3) IN RETURN, SELLER SHALL GIVE BACK TO THE PURCHASER ALL PAYMENTS OR OTHER CONSIDERATION PAID B PURCHASER, INCLUDING ANY DOWN PAYMENT AND ANY MOTOR VEHICLE TRADED IN.
(4) IF THE TRADE-IN HAS BEEN SOLD OR OTHERWISE DISPOSED OF BEFORE THE PURCHASER RESCINDS THE TRANSAC THEN THE SELLER SHALL RETURN TO THE PURCHASER A SUM EQUIVALENT TO THE ALLOWANCE TOWARD THE PURC PRICE GIVEN BY THE SELLER FOR THE TRADE-IN, AS NOTED IN THE DOCUMENT OF SALE.
(5) IF PURCHASER DOES NOT ELECT TO RESCIND THE CONTRACT OF SALE AS PROVIDED IN SUBSECTION (2)(b) OF THIS I
(a) THE PURCHASER IS RESPONSIBLE FOR ADHERENCE TO THE TERMS AND CONDITIONS OF CONTRACT OR RISKS BEING FOUND IN DEFAULT OF THE TERMS AND CONDITIONS
(b) IF THE TERMS AND CONDITIONS OF THE DISCLOSURES SET FORTH IN SECTION (1) OF THIS FORM ARE NOT BI ON THE SELLER; AND
(c) IF FINANCING IS NECESSARY FOR THE PURCHASER TO COMPLETE THE PAYMENT TERMS OF THE CONTRA SALE, THE PURCHASER IS SOLELY RESPONSIBLE FOR MAKING ALL THE FINANCING ARRANGEMENTS.
(6) SIGNING THIS DISCLOSURE DOES NOT PROHIBIT THE PURCHASER FROM SEEKING HIS OWN FINANCING.

Ken Garff Ford | West Valley

# New 2025 Ford Ranger XL 4X4 SuperCrew®

**VIN:** 1FTER4PH4SLE25141
**Stock:** SLE25141

**Exterior: Oxford White**
**Transmission: Automatic**
**Fuel Efficiency: 19 CITY / 26 HWY**

**Drivetrain: 4X4**
**Engine: I4**

**Ken Garff West Valley Ford**

**4091 West 3500 South**
**West Valley City, UT 84120**
**(801) 559-0314**
**replies@sales.kengarfffordwestvalley.com**

## Vehicle Details:

- Autolamp Auto On/Off Reflector Auto High-Beam Daytime Running Lights Preference Setting Headlamps w/Delay-Off
- Black Door Handles
- Black Grille
- Black Power Side Mirrors w/Manual Folding
- Black Rear Step Bumper
- Black Side Windows Trim and Black Front Windshield Trim
- Black Wheel Well Trim
- Body-Colored Front Bumper w/Body-Colored Rub Strip/Fascia Accent and 2 Tow Hooks
- Cargo Lamp w/High Mount Stop Light
- Fixed Rear Window
- Front License Plate Bracket
- Full-Size Spare Tire Stored Underbody w/Crankdown
- Galvanized Steel/Aluminum Panels
- Halogen Fog Lamps
- Headlights-Automatic Highbeams
- LED Reflector Headlamps
- Light Tinted Glass
- Regular Box Style
- Steel Spare Wheel
- STX Fender Badge
- Tailgate Rear Cargo Access
- Tailgate/Rear Door Lock Included w/Power Door Locks
- Tires: 255/70R17 All-Terrain BSW
- Variable Intermittent Wipers
- Wheels: 17 Silver-Painted Aluminum
- Wheels: 17" Silver-Painted Aluminum
- 1 12V DC Power Outlet
- 2 LCD Monitors In The Front
- Cab Mounted Cargo Lights
- Cloth Front Bucket Seats -inc: 8-way manual adjustable driver including lumbar, 6-way manual adjustable passenger, driver and passenger manual reclining seats, flow-through console and floor shift
- Compass
- Cruise Control w/Steering Wheel Controls
- Day-Night Rearview Mirror
- Delayed Accessory Power
- Digital/Analog Appearance
- Driver Information Center
- Driver Seat
- Fade-To-Off Interior Lighting
- Front And Rear Map Lights
- Front Cupholder
- Full Cloth Headliner
- Full Floor Console w/Covered Storage, Full Overhead Console w/Storage and 1 12V DC Power Outlet
- Full Folding Bench Front Facing Fold-Up Cushion Rear Seat
- Full Vinyl/Rubber Floor Covering
- Gauges -inc: Speedometer, Odometer, Voltmeter, Oil Pressure, Engine Coolant Temp, Transmission Fluid Temp, Trip Odometer and Trip Computer
- HVAC -inc: Underseat Ducts
- Instrument Panel Bin, Dashboard Storage, Driver / Passenger And Rear Door Bins and 2nd Row Underseat Storage
- Integrated Roof Antenna
- Interior Trim -inc: Metal-Look Instrument Panel Insert, Cabback Insulator and Chrome Interior Accents
- Locking Glove Box
- Manual Tilt/Telescoping Steering Column
- Manual w/Tilt Front Head Restraints and Manual Adjustable Rear Head Restraints
- Outside Temp Gauge
- Passenger Seat
- Perimeter Alarm
- Power 1st Row Windows w/Driver And Passenger 1-Touch Up/Down
- Power Door Locks w/Autolock Feature
- Power Rear Windows
- Radio w/Seek-Scan, Clock, Speed Compensated Volume Control and Steering Wheel Controls
- Radio: AM/FM Stereo -inc: 6 speakers and A and C USB ports
- Rear Center Armrest
- Rear Cupholder

- Redundant Digital Speedometer
- Securilock Anti-Theft Ignition (pats) Immobilizer
- Streaming Audio
- Tracker System
- Urethane Gear Shifter Material
- Radio w/Seek-Scan, Clock, Speed Compensated Volume Control and Steering Wheel Controls
- 2 LCD Monitors In The Front
- 1711# Maximum Payload
- 3.73 Axle Ratio
- 70-Amp/Hr 700CCA Maintenance-Free Battery w/Run Down Protection
- Electronic Transfer Case
- Engine: 2.3L EcoBoost -Inc: auto start-stop technology
- Gas-Pressurized Shock Absorbers
- Part-Time Four-Wheel Drive
- Single Stainless Steel Exhaust
- SULEV Emissions System
- Trailer Wiring Harness
- Transmission: Electronic 10-Speed Automatic -Inc: selectable drive modes: normal, ECO, sport, tow/haul and slippery
- Airbag Occupancy Sensor
- Dual Stage Driver And Passenger Front Airbags
- Ford Co-Pilot360 - Reverse Camera Back-Up Camera
- Lane Keeping Alert Lane Keeping Assist
- Pre-Collision Assist with Automatic Emergency Braking (AEB)
- Safety Canopy System Curtain 1st And 2nd Row Airbags
- Vehicle Name: Ford Ranger
- Body Code: T
- Passenger Capacity: 5
- Gross Axle Wt Rating - Front: 3130
- Curb Weight - Front: 2554
- EPA Greenhouse Gas Score: 5.0 (Est)
- Fuel Economy Est-Combined: 22 (2024)
- EPA Fuel Economy Est - Hwy: 24 (2024)
- Dead Weight Hitch - Max Trailer Wt.: 5000
- Wt Distributing Hitch - Max Trailer Wt.: 7500
- Maximum Trailering Capacity: 7500
- Engine Type: Intercooled Turbo Regular Unleaded I-4
- Fuel System: Gasoline Direct Injection
- SAE Net Torque @ RPM: 310 @ 3000
- Trans Type: 10
- Trans Description Cont. Again:
- Second Gear Ratio (:1): 3.00
- Fourth Gear Ratio (:1): 1.77
- Sixth Gear Ratio (:1): 1.27
- Trans PTO Access: No
- Transfer Case Power Take Off: No
- Cold Cranking Amps @ 0° F (2nd): 700
- Remote Keyless Entry w/Integrated Key Transmitter, Illuminated Entry and Panic Button
- Smart Device Remote Engine Start
- SYNC 4A -inc: enhanced voice recognition communications and entertainment system, 10 touchscreen in center stack w/swipe capability, AppLink, 911 Assist and Apple CarPlay and Android Auto compatibility
- Trip Computer
- Voice Activated Manual Air Conditioning
- Streaming Audio
- Integrated Roof Antenna
- 150 Amp Alternator
- 18 Gal. Fuel Tank
- 4-Wheel Disc Brakes w/4-Wheel ABS, Front Vented Discs, Brake Assist, Hill Hold Control and Electric Parking Brake
- Auto Locking Hubs
- Electric Power-Assist Speed-Sensing Steering
- Engine Auto Stop-Start Feature
- Front Anti-Roll Bar
- GVWR: 6,170 lbs
- Short And Long Arm Front Suspension w/Coil Springs
- Solid Axle Rear Suspension w/Leaf Springs
- Towing Equipment -Inc: Trailer Sway Control
- Transmission w/Driver Selectable Mode and SelectShift Sequential Shift Control
- ABS And Driveline Traction Control
- Advancetrac w/Roll Stability Control Electronic Stability Control (ESC) And Roll Stability Control (RSC)
- Collision Mitigation-Front
- Dual Stage Driver And Passenger Seat-Mounted Side Airbags
- Lane Keeping Alert Lane Departure Warning
- Outboard Front Lap And Shoulder Safety Belts -Inc: Rear Center 3 Point, Height Adjusters and Pretensioners
- Rear Child Safety Locks
- Restricted Driving Mode/Alerts
- Side Impact Beams
- Tire Specific Low Tire Pressure Warning
- Body Style: SuperCrew
- Drivetrain: Four Wheel Drive
- Base Curb Weight: 4415
- Gross Axle Wt Rating - Rear: 3370
- Curb Weight - Rear: 1887
- Gross Vehicle Weight Rating Cap: 6170
- EPA Fuel Economy Est - City: 20 (2024)
- Gross Combined Wt Rating: 12588
- Dead Weight Hitch - Max Tongue Wt.: 500
- Wt Distributing Hitch - Max Tongue Wt.: 750
- Engine Order Code: 99H
- Displacement: 2.3 L/140
- SAE Net Horsepower @ RPM: 270 @ 5500
- Trans Order Code: 44T
- Trans Description Cont.: Automatic w/OD
- First Gear Ratio (:1): 4.71
- Third Gear Ratio (:1): 2.15
- Fifth Gear Ratio (:1): 1.52
- Reverse Ratio (:1): 4.88
- Transfer Case Model: Electronic
- Cold Cranking Amps @ 0° F (Primary): 700
- Tons/yr of CO2 Emissions @ 15K mi/year: 8.0 (2024)

- Maximum Alternator Capacity (amps): 150
- Suspension Type - Front: Short And Long Arm
- Spring Capacity - Front: 3130
- Axle Type - Front: Independent
- Axle Capacity - Front: 3130
- Axle Ratio (:1) - Front: 3.73
- Front Tire Order Code:
- Spare Tire Order Code:
- Rear Tire Size: P255/70SR17
- Front Tire Capacity: 3130
- Front Wheel Size: 17 X 8
- Spare Wheel Size: Full-Size
- Rear Wheel Material: Aluminum
- Steering Type: Rack-Pinion
- Brake Type: 4-Wheel Disc
- Brake ABS System (Second Line): 4-Wheel
- Disc - Rear (Yes or ): Yes
- Rear Brake Rotor Diam x Thickness: 12.1
- Rear Drum Diam x Width:
- Front Head Room: 41
- Front Shoulder Room: 57.1
- Second Head Room: 38.3
- Second Shoulder Room: 56.7
- Wheelbase: 128.7
- Width, Max w/o mirrors: 79
- Overhang, Front: 35.8
- Ground Clearance, Front: 9.3
- Cargo Box Length @ Floor: 59.6
- Cargo Box Width @ Floor: 62.4
- Cargo Box (Area) Height: 20.9
- Cargo Volume: 43.5
- Eighth Gear Ratio (:1): 0.85
- Vehicle Segment: Small Pick-up
- Body Cab Style: Crew Cab
- Engine Displacement Units: 2.3
- Engine Block Type: aluminum
- Engine Valve Count: 4
- ENGINE: 2.3L ECOBOOST -inc: auto start-stop technology (STD)
- Power Steering
- 4-Wheel Disc Brakes
- Aluminum Wheels
- Tires - Rear All-Terrain
- Tow Hooks
- Intermittent Wipers
- Power Door Locks
- Automatic Headlights
- Fog Lamps
- AM/FM Stereo
- Bluetooth Connection
- Telematics
- WiFi Hotspot
- Requires Subscription
- Adjustable Steering Wheel
- Power Windows
- Cruise Control
- Cloth Seats
- Driver Adjustable Lumbar
- Immobilizer
- Stability Control
- Engine Oil Cooler: None
- Suspension Type - Rear: Leaf
- Spring Capacity - Rear: 3370
- Axle Type - Rear: Rigid Axle
- Axle Capacity - Rear: 3370
- Axle Ratio (:1) - Rear: 3.73
- Rear Tire Order Code:
- Front Tire Size: P255/70SR17
- Spare Tire Size: Full-Size
- Rear Tire Capacity: 3571
- Rear Wheel Size: 17 X 8
- Front Wheel Material: Aluminum
- Spare Wheel Material: Steel
- Turning Diameter - Curb to Curb: 42.5
- Brake ABS System: 4-Wheel
- Disc - Front (Yes or ): Yes
- Front Brake Rotor Diam x Thickness: 12.2
- Drum - Rear (Yes or ):
- Fuel Tank Capacity, Approx: 18
- Front Leg Room: 43.7
- Front Hip Room: 55.9
- Second Leg Room: 34.6
- Second Hip Room: 54.1
- Length, Overall: 210.6
- Height, Overall: 74.4
- Ground to Top of Load Floor: 34.7
- Ground Clearance, Rear: 9.3
- Cargo Box Width @ Top, Rear: 62.4
- Cargo Box Width @ Wheelhousings: 48.2
- Tailgate Width: 55.4
- Seventh Gear Ratio (:1): 1.00
- Model Group: Ranger
- Vehicle Type: SuperCrew
- Bed Style: regular
- Engine Camshaft: DOHC
- Engine Cylinder Count: 4
- Country of Origin: United States Ford
- Turbocharged
- Four Wheel Drive
- ABS
- Brake Assist
- Tires - Front All-Terrain
- Conventional Spare Tire
- Power Mirror(s)
- Variable Speed Intermittent Wipers
- Daytime Running Lights
- Automatic Highbeams
- LED Headlights
- MP3 Capability
- Steering Wheel Audio Controls
- Auxiliary Audio Input
- Smart Device Integration
- Rear Bench Seat
- Trip Computer
- Keyless Entry
- A/C
- Bucket Seats
- Security System
- Traction Control
- Front Side Air Bag

- Lane Departure Warning
- Front Collision Mitigation
- Driver Air Bag
- Front Head Air Bag
- Passenger Air Bag Sensor
- Child Safety Locks
- 4 Cylinder Engine
- A/T
- 10-Speed A/T
- Lane Keeping Assist
- Tire Pressure Monitor
- Passenger Air Bag
- Rear Head Air Bag
- Driver Restriction Features
- Back-Up Camera
- Gasoline Fuel
- Transmission w/Dual Shift Mode

**MSRP $38,915**

**Disclaimer:**

New vehicle pricing includes all offers and incentives. Tax, Title and Tags not included in vehicle prices shown and must be paid by the purchaser. While great effort is made to ensure the accuracy of the information on this site, errors do occur so please verify information with a customer service rep. This is easily done by calling us at 385-202-6452 or by visiting us at the dealership.

**The prices displayed are not guaranteed and are subject to change. Rates subject to lender final approval. Nothing on this site is an offer to contract.

## Tim Dahle Price $39,705

Vehicle Viewed 8 times

VIEW ALL

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## Tim Dahle Price $39,705

Ford Conditional Offers

| | |
|---|---|
| 2025 College Student Recognition Exclusive Cash Reward Pgm. | $500 |
| 2025 Farm Bureau Recognition Exclusive Cash Reward | $500 |
| 2025 First Responder Recognition Exclusive Cash Reward | $500 |
| 2025 Military Recognition Exclusive Cash Reward | $500 |

## Final Conditional Price $37,705

Your Trade

0

Get E-Price

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→ In Transit

Advertised price excludes tax, title, license, $249 door edge guards and $449 dealer doc fee are extra. Offer assumes these paid at time of sale. Offe... Read More...

Text Link

### VEHICLE DETAILS

**EXTERIOR:**
Carbonized Gray Metallic

**INTERIOR:**
Bh

**BODY TYPE:**
Crew Cab Pickup

**DRIVE TYPE:**
4WD

**HIGHWAY/CITY MPG:**
24 / 20 [3]
*EPA ESTIMATED

**ENGINE:**
Intercooled Turbo Regular Unleaded I-4 2.3 L/140

**TRANSMISSION:**
Automatic

**MODEL CODE:**
R4P

### KEY FEATURES

- SIDE-IMPACT AIRBAGS
- REMOTE START
- KEYLESS ENTRY

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SPECIFICATIONS

EXTERIOR

INTERIOR

MECHANICAL

SAFETY

RESEARCH MODELS

WINDOW STICKER

## Similar Vehicles

**2025 Ford**
**Ranger XLT 4WD SuperCrew 5' Box**

VIN: 1FTER4HP5SLE23744

Stock: # 106287

MSRP

$45,170

Tim Dahle Price

$41,939

FINANCE FOR

$588.28/mo

for 72 months

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## Tim Dahle Ford

Contact Us

2534 N 200 E, Spanish Fork, UT 84660-8502

Sales: 385-338-4009

Service: 801-290-0337

Parts: 801-609-2348

### Inventory

- New Vehicles
- Pre-Owned Vehicles
- Vehicles Under 25K

### Service

- Schedule Service
- Service & Parts Specials
- Service Department
- Mobile Service
- Pickup and Delivery
- Parts Department
- Ford Accessories Store
- Order Parts

### Finance

- Finance Department
- Apply For Financing
- Value Your Trade
- Ford Credit

### About

- Forever-Warranty
- About Us
- Contact Us
- Get Directions



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**TOOELE CITY CORPORATION** 07/07/25

**FISCAL NOTE TO PROPOSED EXPENDITURE**

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** UTILITAC EQUIP. & UPFITTING V# 12659

6 POLICE VEHICLES & EQUIPMENT

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| AUTOS & TRUCKS | 10 4211 748000 | 375,000.00 | 0.00 | 364,157.94 | 10,842.06 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **TOTAL:** | | | | 364,157.94 | |

REQUESTED _____
DEPARTMENT HEAD

REVIEWED _____
FINANCE DIRECTOR

APPROVED _____
MAYOR

APPROVED _____
COUNCIL CHAIRMAN

**Michelle Pitt**

**From:**
**Sent:** ly 2, 2025 10:17 AM
**To:**
**Cc:**
**Subject:** July 16th Business Meeting

Shannon - please prepare a fiscal note for 6 vehicles for the PD. Then return to Michelle.

Michelle,

I'm not sure what Chief is asking here? Is he wanting a fiscal note to be done on these or something else?

Loretta

**From:** Adrian Day <ADay@tooelecity.gov>
**Sent:** Wednesday, July 2, 2025 9:35 AM
**To:** Loretta Herron <LorettaH@tooelecity.gov>
**Cc:** Shilo Baker <ShiloB@tooelecity.gov>
**Subject:** Invoices for July 16th Business Meeting

Hello Loretta,

Can I get this invoice to go in front of city council on July 16th for the purchase of six vehicles for the police department? The total for all six (police equipment already installed and transportation to the police department) is $364,157.94. However, the JAG grant is paying $6,000 for the K-9 cage in one of the vehicles so the amount going in front of council will be $358,157.94.

This is coming out of the police department line item 748000, which Kaylene is currently entering. We want to have the check ready when Utilitac is complete to transport to us.

Let me know if there are issues.

Adrian Day
Chief of Police
TOOELE CITY POLICE

**From:** Kaylene Young <kyoung@tooelecity.gov>
**Sent:** Wednesday, July 2, 2025 9:25 AM
**To:** Adrian Day <ADay@tooelecity.gov>
**Subject:** Fw: Utilitac/Tooele City PD Invoices

*Kaylene Young*
Business Services Administrator
Tooele City Police Department
50 North Garden St. Tooele, UT 84074

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00287

V#12659

Tooele City Police Department
323 N Main St
Tooele UT 84074
United States

| Invoice Date | Due Date | Source | Reference |
|---|---|---|---|
| 07/02/2025 | 08/01/2025 | UTE06205 | VIN: 2C3CDXKG7PH687931 #2764 |

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| **Vehicle** | | | | |
| [23CHRV6-BLACK] 2023 Dodge Charger (V6 Pursuit, Black)<br>Cooperative Contract: National<br>VIN: 2C3CDXKG7PH687931 #2764 | 1.00 Units | 37,499.00 | | $ 37,499.00 |
| | | | **Subtotal** | $ 37,499.00 |
| **Console** | | | | |
| [C-VS-0909-CHGR-PT4-2] Havis Consoles (2011-2024 Charger, Primer Mount, Standard Steel) | 1.00 Units | 488.40 | | $ 488.40 |
| [C-HDM-214] Havis Dock Mounts (2011-2024 Charger, Console Mount) | 1.00 Units | 121.44 | | $ 121.44 |
| [C-MD-119] Havis Dock Mounts (2011-2024 Charger, Motion Device) | 1.00 Units | 242.22 | | $ 242.22 |
| [C-ARM-102] Havis Arm Rests (Side Mount) | 2.00 Units | 62.04 | | $ 124.08 |
| [C-UP2-1004] Havis Cup Holders (Standard Internal) [C-UP2-1004] Havis Cup Holders | 1.00 Units | 42.90 | | $ 42.90 |
| [MMSU-1] Magnetic Mic | 2.00 Units | 26.40 | | $ 52.80 |
| [C-MCB] Havis Mic Clip Bracket (Standard) | 2.00 Units | 12.54 | | $ 25.08 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00287

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| PA Labor (Console)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | **Subtotal** | $ 1,592.92 |
| **Partition** | | | | |
| [redacted] | [redacted] | [redacted] | | [redacted] |
| [GVPM-S (HANDCUFF)] ProGard Gun Locks (Single Gun Partition Mount, Handcuff, Universal) | 1.00 Units | 485.87 | | $ 485.87 |
| [redacted] | [redacted] | [redacted] | | [redacted] |
| | | | **Subtotal** | $ 3,892.65 |
| **Bumper** | | | | |
| [36-2035] Westin Bumpers (Bumper Only - PIT Bars / Headlight Guard Sold Separate, 2011-2024 Charger) | 1.00 Units | 338.25 | | $ 338.25 |
| [redacted] | [redacted] | [redacted] | | [redacted] |
| PA Labor (Bumper)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | **Subtotal** | $ 865.70 |
| **Siren Controller** | | | | |
| [redacted] | [redacted] | [redacted] | | [redacted] |
| [ETSKLF101] SoundOff Low Frequency Siren (100 Watt) | 1.00 Units | 388.50 | | $ 388.50 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00287

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [ENGLMK002] SoundOff Vehicle Cable (2011-2024 Charger) | 1.00 Units | 246.75 | | $ 246.75 |
| [ENGSYMD01] SoundOff Sync Module | 1.00 Units | 183.75 | | $ 183.75 |
| [ETSSLFVBK08] SoundOff Low Frequency Siren Brackets (2011-2024 Charger, Drivers Side) | 1.00 Units | 57.77 | | $ 57.77 |
| [ETSS100J] SoundOff Siren Speaker | 1.00 Units | 141.75 | | $ 141.75 |
| [ETSS100CBKDC15] SoundOff Speaker Brackets (2011-2024 Charger, Universal) | 1.00 Units | 75.85 | | $ 75.85 |
| PA Labor (Wiring + Electronics)<br>**** LIFETIME WARRANTY **** | 12.00 Hours | 124.00 | | $ 1,488.00 |
| | | | Subtotal | $ 3,254.37 |
| Lighting | | | | |
| [ENFWB01SSU] SoundOff Interior Lightbar (2011-2024 Charger, Full Windshield, Red/Blue) | 1.00 Units | 941.98 | | $ 941.98 |
| [EMPSF0ZVD-8] SoundOff Surface Mount (4" mPower HD, Red/Blue/White, Stud Mount, Data (3-Wire), Clear)<br>(4 Mounted in Bumper) | 4.00 Units | 119.95 | | $ 479.80 |
| [ENT2B3RBW] SoundOff Mirror Light (Under Mirror (Puck), Red/Blue/White) | 2.00 Units | 164.05 | | $ 328.10 |
| [PNT3BKUMB4] SoundOff Mirror Bracket (Surface Mount, 2018+ Durango, Mirror, Universal) | 2.00 Units | 22.49 | | $ 44.98 |
| [EMPS2WZVD-8] SoundOff Surface Mount (4" mPower, Red/Blue/Amber, Stud Mount, Standard (3-Wire), Clear)<br>(2 Mounted on Side of Bumper) | 2.00 Units | 119.95 | | $ 239.90 |

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00287

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [EMPS8007Z-8] SoundOff Surface Mount (4" mPower, Red/Blue/White, Stud Mount, Data (3-Wire), Clear) (2 Plate) | 2.00 Units | 119.95 | | $ 239.90 |
| [PMP2BRK2LPV] SoundOff Surface Mount Bracket (4" mPower, Stud Mount, Universal, License Plate, Universal) | 1.00 Units | 25.14 | | $ 25.14 |
| PA Labor (Lighting)<br>**** LIFETIME WARRANTY **** | 16.00 Hours | 124.00 | | $ 1,984.00 |
| | | | **Subtotal** | $ 4,283.80 |
| **Other** | | | | |
| [T0711035-IW-BLK] TigerTough Seat Covers (2011-2024 Charger, No) | 1.00 Units | 286.67 | | $ 286.67 |
| [MB820] Antenna Mounts (No Connector) [MB820] Antenna Mounts (None) | 1.00 Units | 20.64 | | $ 20.64 |
| [PJ-863] Brother Printers (Without Battery) | 1.00 Units | 476.51 | | $ 476.51 |
| [LB3692-003] Brother Car Power Adapter (Pocketjet 8) | 1.00 Units | 27.16 | | $ 27.16 |
| KustomSignals Radar Units (Eagle 3) | 1.00 Units | 3,234.00 | | $ 3,234.00 |
| PA Labor (Additional / Other Equipment)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| XPEL Window Tint (PRIME Nano-Ceramic)<br>Tint Level: 35%<br>Tint Position: Front Windows | 1.00 Units | 249.99 | | $ 249.99 |
| PA Labor (Window Tint) | 2.00 Hours | 124.00 | | $ 248.00 |
| Shop Supplies Allowance<br>Wire, Terminals, Fuses, Heat Shrink, Etc. | 1.00 Units | 650.00 | | $ 650.00 |

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00287

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [Delivery_007] Vendor Equipment Delivery Standard delivery | 1.00 Units | 450.00 | | $ 450.00 |
| PA Vehicle Transportation - Mileage | 2,023.00 mi | 2.00 | | $ 4,046.00 |
| | | | **Subtotal** | $ 10,134.97 |
| | | | Untaxed Amount | $ 61,523.41 |
| | | | **Total** | $ 61,523.41 |

Payment terms: 30 Days

Payment Communication: **INV/2025/00287**

## Terms & Conditions

To approve, please click accept or sign and return. By approving you are agreeing to all the terms below.

- **Payment:** Unless otherwise specified, account terms require vehicles to be paid NET30 upon acceptance of the proposal and the remainder of the proposal is to be paid NET30 immediately following completion of scheduled work.
- **Limitations:** This is a proposal valid for only 30 days. Truck chassis must come ready to accept the body and any additional work or modifications will be barred by the customer. Additional shipping charges not listed on the proposal may incur.
- **Contracts:** If applicable to this project, National BuyBoard Contract # 698-23 or PA COSTARS contract #012-E22-242 / #025-E22-476 applies.
- **Fees:** Custom orders can not be canceled or returned. Cancellation fee of an approved quote is 5% of the total cost. If the manufacturer charges a restocking fee for any items, the customer is responsible for charges. No returns on any items after 30 days.

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00288

Tooele City Police Department
323 N Main St
Tooele UT 84074
United States

| Invoice Date | Due Date | Source | Reference |
|---|---|---|---|
| 07/02/2025 | 08/01/2025 | UTE06206 | 1C4RDJFG0PC717626 #2765 |

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| **Vehicle** | | | | |
| [24DURV6-BLACK] 2024 Dodge Durango (V6 Pursuit, Black)<br>Cooperative Contract: National<br>VIN: 1C4RDJFG0PC717626 #2765 | 1.00 Units | 42,999.00 | UT STATE 0% | $ 42,999.00 |
| | | | **Subtotal** | $ 42,999.00 |
| **Console** | | | | |
| [C-VS-2WX-DUR] Havis Console (2018+ Durango, Console Only, Standard Shell) | 1.00 Units | 384.10 | UT STATE 0% | $ 384.10 |
| [C-HDM-214] Havis Dock Mounts (2018+ Durango, Console Mount) | 1.00 Units | 121.44 | UT STATE 0% | $ 121.44 |
| [C-MD-119] Havis Dock Mounts (2018+ Durango, Motion Device) | 1.00 Units | 242.22 | UT STATE 0% | $ 242.22 |
| [C-ARM-102] Havis Arm Rests (Side Mount) | 2.00 Units | 62.04 | UT STATE 0% | $ 124.08 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00288

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [CUP2-1004] Havis Cup Holders (Standard Universal) [CUP2-1004] Havis Cup Holders | 1.00 Units | 42.90 | UT STATE 0% | $ 42.90 |
| [C-MCB] Havis Mic Clip Bracket (Standard) | 1.00 Units | 12.54 | UT STATE 0% | $ 12.54 |
| [MMSU-1] Magnetic Mic | 1.00 Units | 26.40 | UT STATE 0% | $ 26.40 |
| PA Labor (Console)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | UT STATE 0% | $ 496.00 |
| | | | Subtotal | $ 1,451.68 |

**Partition**

| | | | | |
|---|---|---|---|---|
| American Aluminum K9 Units (2018+ Durango, 2/3 K9 - 1/3 Prisoner) | 1.00 Units | 3,643.00 | UT STATE 0% | $ 3,643.00 |
| [PAGER] American Aluminum K9 Heat Alarm / Door Pop (Heat Alarm Remote Popper) | 1.00 Units | 559.65 | UT STATE 0% | $ 559.65 |
| [REMCUE] American Aluminum K9 Heat Alarm / Door Pop (Door Pop) | 1.00 Units | 462.00 | UT STATE 0% | $ 462.00 |
| American Aluminum Water Bowl | 1.00 Units | 153.30 | UT STATE 0% | $ 153.30 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00288

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [GVPN4-S (HANDCUFF)] ProGard Gun Locks (Single Gun Partition Mount, Handcuff, Universal) | 1.00 Units | 485.87 | UT STATE 0% | $ 485.87 |
| PA Labor (Transport System)<br>**** LIFETIME WARRANTY **** | 16.00 Hours | 124.00 | UT STATE 0% | $ 1,984.00 |
| | | | Subtotal | $ 7,487.82 |

**Siren Controller**

| | | | | |
|---|---|---|---|---|
| [ENGSA52000RSP] SoundOff Smart Siren Controller (200 Watt, Remote Mount, Button) | 1.00 Units | 572.00 | UT STATE 0% | $ 572.00 |
| [ENGLMK002] SoundOff Vehicle Cable (2018+ Durango) | 1.00 Units | 246.75 | UT STATE 0% | $ 246.75 |
| [ETSS120] SoundOff Siren Speaker | 1.00 Units | 141.75 | UT STATE 0% | $ 141.75 |
| [ETSSVBK05] SoundOff Speaker Brackets (2018+ Durango, Universal) | 2.00 Units | 66.15 | UT STATE 0% | $ 132.30 |
| PA Labor (Wiring + Electronics)<br>**** LIFETIME WARRANTY **** | 12.00 Hours | 124.00 | UT STATE 0% | $ 1,488.00 |
| | | | Subtotal | $ 2,680.80 |

**Lighting**

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00288

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [ENFWB01GFT] SoundOff Interior Lightbar (2018+ Durango, Full Windshield, Red/Blue) | 1.00 Units | 941.98 | UT STATE 0% | $ 941.98 |
| [EMPSF02VD-6] SoundOff Surface Mount (4" mPower HD, Red/Blue/White, Stud Mount, Data (3-Wire), Clear) (2 Mounted in grille) | 2.00 Units | 119.95 | UT STATE 0% | $ 239.90 |
| [EMPS80082-J] SoundOff Surface Mount (4" mPower, Red/Blue, Stud Mount, Data (3-Wire), Clear) (Cargo) | 2.00 Units | 108.05 | UT STATE 0% | $ 216.10 |
| [EMP2WSSBM] SoundOff Surface Mount Bracket (4" mPower, Stud Mount, Universal, Window Shroud, Universal) | 2.00 Units | 12.35 | UT STATE 0% | $ 24.70 |
| [ENFWB01ST8] SoundOff Interior Lightbar (2018+ Durango, Rear Window, Red/Blue) | 1.00 Units | 730.74 | UT STATE 0% | $ 730.74 |
| [ELUC3H025J] SoundOff Hideaway (Red/Blue) (Reverse) | 2.00 Units | 113.24 | UT STATE 0% | $ 274.68 |
| PA Labor (Lighting)<br>**** LIFETIME WARRANTY **** | 16.00 Hours | 124.00 | UT STATE 0% | $ 1,984.00 |
| | | | Subtotal | $ 4,364.10 |

**Other**

| | | | | |
|---|---|---|---|---|
| [PL-562] Realtek Printers (Without Battery) | 1.00 Units | 474.51 | UT STATE 0% | $ 474.51 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00288

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [LB3692-003] Brother Car Power Adapter (Pocketjet 8) | 1.00 Units | 27.16 | UT STATE 0% | $ 27.16 |
| PA Labor (Additional / Other Equipment)<br>**** LIFETIME WARRANTY **** | 1.00 Hours | 124.00 | UT STATE 0% | $ 124.00 |
| XPEL Window Tint (PRIME Nano-Ceramic)<br>Tint Level: 35%<br>Tint Position: Front Windows | 1.00 Units | 249.99 | UT STATE 0% | $ 249.99 |
| PA Labor (Window Tint) | 2.00 Hours | 124.00 | UT STATE 0% | $ 248.00 |
| Shop Supplies Allowance<br>Wire, Terminals, Fuses, Heat Shrink, Etc. | 1.00 Units | 600.00 | UT STATE 0% | $ 600.00 |
| [Delivery_007] Vendor Equipment Delivery Standard delivery | 1.00 Units | 900.00 | UT STATE 0% | $ 900.00 |
| PA Vehicle Transportation - Mileage | 2,023.00 mi | 2.00 | UT STATE 0% | $ 4,046.00 |
| | | | Subtotal | $ 6,671.66 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

America's Commercial Vehicle Source

# Invoice INV/2025/00288

| | |
|---|---|
| Untaxed Amount | $ 65,655.06 |
| UT STATE | $ 0.00 |
| Total | $ 65,655.06 |

Payment terms: 30 Days

Payment Communication: **INV/2025/00288**

## Terms & Conditions

To approve, please click accept or sign and return. By approving you are agreeing to all the terms below.

- **Payment:** Unless otherwise specified, account terms require vehicles to be paid NET30 upon acceptance of the proposal and the remainder of the proposal is to be paid NET30 immediately following completion of scheduled work.
- **Limitations:** This is a proposal valid for only 30 days. Truck chassis must come ready to accept the body and any additional work or modifications will be barred by the customer. Additional shipping charges not listed on the proposal may incur.
- **Contracts:** If applicable to this project, National BuyBoard Contract # 698-23 or PA COSTARS contract #012-E22-242 / #025-E22-476 applies.
- **Fees:** Custom orders can not be canceled or returned. Cancellation fee of an approved quote is 5% of the total cost. If the manufacturer charges a restocking fee for any items, the customer is responsible for charges. No returns on any items after 30 days.

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00289

Tooele City Police Department
323 N Main St
Tooele UT 84074
United States

| Invoice Date | Due Date | Source | Reference |
|---|---|---|---|
| 07/02/2025 | 08/01/2025 | UTE06207 | 2C3CDXKG1PH687925 #2766 |

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| **Vehicle** | | | | |
| [23CHRV6-BLACK] 2023 Dodge Charger (V6 Pursuit, Black) Cooperative Contract: National 2C3CDXKG1PH687925 #2766 | 1.00 Units | 37,499.00 | | $ 37,499.00 |
| | | | **Subtotal** | $ 37,499.00 |
| **Console** | | | | |
| [C-VS-0909-CHGR-PM-2] Havis Consoles (2011-2024 Charger, Printer Mount, Standard Steel) | 1.00 Units | 488.40 | | $ 488.40 |
| [C-HDM-214] Havis Dock Mounts (2011-2024 Charger, Console Mount) | 1.00 Units | 121.44 | | $ 121.44 |
| [C-MD-119] Havis Dock Mounts (2011-2024 Charger, Motion Device) | 1.00 Units | 242.22 | | $ 242.22 |
| [C-ARM-102] Havis Arm Rests (Side Mount) | 2.00 Units | 62.04 | | $ 124.08 |
| [CUP2-1004] Havis Cup Holders (Standard Internal) [CUP2-1004] Havis Cup Holders | 1.00 Units | 42.90 | | $ 42.90 |
| [MMSU-1] Magnetic Mic | 2.00 Units | 26.40 | | $ 52.80 |
| [C-MCB] Havis Mic Clip Bracket (Standard) | 2.00 Units | 12.54 | | $ 25.08 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00289

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| PA Labor (Console)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | **Subtotal** | $ 1,592.92 |
| **Partition** | | | | |
| [P1000C15AOSB] ProGard Prisoner Transport (2011-2024 Charger, Single Prisoner Transport System) | 1.00 Units | 2,166.78 | | $ 2,166.78 |
| [GVPM-S (HANDCUFF)] ProGard Gun Locks (Single Gun Partition Mount, Handcuff, Universal) | 1.00 Units | 485.87 | | $ 485.87 |
| PA Labor (Transport System)<br>**** LIFETIME WARRANTY **** | 10.00 Hours | 124.00 | | $ 1,240.00 |
| | | | **Subtotal** | $ 3,892.65 |
| **Bumper** | | | | |
| [36-2035] Westin Bumpers (Bumper Only - PIT Bars / Headlight Guard Sold Separate, 2011-2024 Charger) | 1.00 Units | 338.25 | | $ 338.25 |
| [36-6005MP4] Westin Light Channels (2011-2024 Charger (4) SoundOff) | 1.00 Units | 31.45 | | $ 31.45 |
| PA Labor (Bumper)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | **Subtotal** | $ 865.70 |
| **Siren Controller** | | | | |
| [ENGSA5200RSP] SoundOff Smart Siren/Controller (200 Watt, Remote Mount, Button) | 1.00 Units | 672.00 | | $ 672.00 |
| [ETSKLF101] SoundOff Low Frequency Siren (100 Watt) | 1.00 Units | 388.50 | | $ 388.50 |

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00289

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [ENGLMK002] SoundOff Vehicle Cable (2011-2024 Charger) | 1.00 Units | 246.75 | | $ 246.75 |
| [ENGSYMD01] SoundOff Sync Module | 1.00 Units | 183.75 | | $ 183.75 |
| [ETSSLFVBK08] SoundOff Low Frequency Siren Brackets (2011-2024 Charger, Drivers Side) | 1.00 Units | 57.77 | | $ 57.77 |
| [ETSS100J] SoundOff Siren Speaker | 1.00 Units | 141.75 | | $ 141.75 |
| [ETSS100CBK08] SoundOff Speaker Brackets (2011-2024 Charger, Universal) | 1.00 Units | 75.85 | | $ 75.85 |
| PA Labor (Wiring + Electronics)<br>**** LIFETIME WARRANTY **** | 12.00 Hours | 124.00 | | $ 1,488.00 |
| | | | Subtotal | $ 3,254.37 |

**Lighting**

| | | | | |
|---|---|---|---|---|
| [ENFW8N13SU] SoundOff Interior Lightbar (2011-2024 Charger, Full Windshield, Red/Blue) | 1.00 Units | 941.98 | | $ 941.98 |
| [EMPSF0ZVD-8] SoundOff Surface Mount (4" mPower HD, Red/Blue/White, Stud Mount, Data (3-Wire), Clear)<br>(4 Mounted in Bumper) | 4.00 Units | 119.95 | | $ 479.80 |
| [ENT2B3RBW] SoundOff Mirror Light (Under Mirror Puck, Red/Blue/White) | 2.00 Units | 164.05 | | $ 328.10 |
| [PNT3BKUMB4] SoundOff Mirror Bracket (Surface Mount, 2018+ Durango, Mirror, Universal) | 2.00 Units | 22.49 | | $ 44.98 |
| [EMPS2ZVD-6] SoundOff Surface Mount (6" mPower, Red/Blue/Amber, Stud Mount, Standard (5-Wire), Clear)<br>(2 Mounted on Side of Bumper) | 2.00 Units | 119.95 | | $ 239.90 |

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00289

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [EMPS8007Z-8] SoundOff Surface Mount (4" mPower, Red/Blue/White, Stud Mount, Data (3-Wire), Clear) (2 Plate) | 2.00 Units | 119.95 | | $ 239.90 |
| [PMP2BRK2LPV] SoundOff Surface Mount Bracket (4" mPower, Stud Mount, Universal, License Plate, Universal) | 1.00 Units | 25.14 | | $ 25.14 |
| PA Labor (Lighting)<br>**** LIFETIME WARRANTY **** | 16.00 Hours | 124.00 | | $ 1,984.00 |
| | | | **Subtotal** | $ 4,283.80 |
| **Other** | | | | |
| [T0711035-IW-BLK] TigerTough Seat Covers (2011-2024 Charger, No) | 1.00 Units | 286.67 | | $ 286.67 |
| [MB820] Antenna Mounts (No Connector) [MB820] Antenna Mounts (None) | 1.00 Units | 20.64 | | $ 20.64 |
| [PJ-863] Brother Printers (Without Battery) | 1.00 Units | 476.51 | | $ 476.51 |
| [LB3692-003] Brother Car Power Adapter (Pocketjet 8) | 1.00 Units | 27.16 | | $ 27.16 |
| KustomSignals Radar Units (Eagle 3) | 1.00 Units | 3,234.00 | | $ 3,234.00 |
| PA Labor (Additional / Other Equipment)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| [illegible] | 1.00 Units | 248.00 | | $ 248.00 |
| PA Labor (Window Tint) | 2.00 Hours | 124.00 | | $ 248.00 |
| Shop Supplies Allowance<br>Wire, Terminals, Fuses, Heat Shrink, Etc. | 1.00 Units | 600.00 | | $ 600.00 |

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00289

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [Delivery_007] Vendor Equipment Delivery Standard delivery | 1.00 Units | 450.00 | | $ 450.00 |
| PA Vehicle Transportation - Mileage | 2,023.00 mi | 2.00 | | $ 4,046.00 |
| | | | **Subtotal** | $ 10,134.97 |
| | | | Untaxed Amount | $ 61,523.41 |
| | | | **Total** | $ 61,523.41 |

Payment terms: 30 Days

Payment Communication: **INV/2025/00289**

## Terms & Conditions

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- **Limitations:** This is a proposal valid for only 30 days. Truck chassis must come ready to accept the body and any additional work or modifications will be barred by the customer. Additional shipping charges not listed on the proposal may incur.
- **Contracts:** If applicable to this project, National BuyBoard Contract # 698-23 or PA COSTARS contract #012-E22-242 / #025-E22-476 applies.
- **Fees:** Custom orders can not be canceled or returned. Cancellation fee of an approved quote is 5% of the total cost. If the manufacturer charges a restocking fee for any items, the customer is responsible for charges. No returns on any items after 30 days.

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00290

Tooele City Police Department
323 N Main St
Tooele UT 84074
United States

| Invoice Date | Due Date | Source | Reference |
|---|---|---|---|
| 07/02/2025 | 08/01/2025 | UTE06208 | 2C3CDXKG2PH687917 #2767 |

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| **Vehicle** | | | | |
| [23CHRV6-BLACK] 2023 Dodge Charger (V6 Pursuit, Black) Cooperative Contract: National 2C3CDXKG2PH687917 #2767 | 1.00 Units | 37,499.00 | | $ 37,499.00 |
| | | | **Subtotal** | $ 37,499.00 |
| **Console** | | | | |
| [C-VS-0909-CHGR-PM-2] Havis Consoles (2011-2024 Charger, Printer Mount, Standard Steel) | 1.00 Units | 488.40 | | $ 488.40 |
| [C-HDM-214] Havis Dock Mounts (2011-2024 Charger, Console Mount) | 1.00 Units | 121.44 | | $ 121.44 |
| [C-MD-119] Havis Dock Mounts (2011-2024 Charger, Motion Device) | 1.00 Units | 242.22 | | $ 242.22 |
| [C-ARM-102] Havis Arm Rests (Side Mount) | 2.00 Units | 62.04 | | $ 124.08 |
| [CUP2-1004] Havis Cup Holders (Standard Internal) [CUP2-1004] Havis Cup Holders | 1.00 Units | 42.90 | | $ 42.90 |
| [MMSU-1] Magnetic Mic | 2.00 Units | 26.40 | | $ 52.80 |
| [C-MCB] Havis Mic Clip Bracket (Standard) | 2.00 Units | 12.54 | | $ 25.08 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00290

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| PA Labor (Console)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | Subtotal | $ 1,592.92 |
| **Partition** | | | | |
| [P1000C15AC0SB] ProGard Prisoner Transport (2011-2024 Charger, Single Prisoner Transport System) | 1.00 Units | 2,166.78 | | $ 2,166.78 |
| [GVPM-S (HANDCUFF)] ProGard Gun Locks (Single Gun Partition Mount, Handcuff, Universal) | 1.00 Units | 485.87 | | $ 485.87 |
| PA Labor (Transport System)<br>**** LIFETIME WARRANTY **** | 10.00 Hours | 124.00 | | $ 1,240.00 |
| | | | Subtotal | $ 3,892.65 |
| **Bumper** | | | | |
| [36-2035] Westin Bumpers (Bumper Only - PIT Bars / Headlight Guard Sold Separate, 2011-2024 Charger) | 1.00 Units | 338.25 | | $ 338.25 |
| [34-6005SMPM] Westin Light Channels (2011-2024 Charger, (4) SoundOff) | 1.00 Units | 31.45 | | $ 31.45 |
| PA Labor (Bumper)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | Subtotal | $ 865.70 |
| **Siren Controller** | | | | |
| [ENGSA52001BSP] SoundOff Smart Siren Controller (200 Watt, Remote Mount, Button) | 1.00 Units | 472.00 | | $ 472.00 |
| [ETSKLF101] SoundOff Low Frequency Siren (100 Watt) | 1.00 Units | 388.50 | | $ 388.50 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00290

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [ENGLMK002] SoundOff Vehicle Cable (2011-2024 Charger) | 1.00 Units | 246.75 | | $ 246.75 |
| [ENGSYMD01] SoundOff Sync Module | 1.00 Units | 183.75 | | $ 183.75 |
| [ETSSLFVBK08] SoundOff Low Frequency Siren Brackets (2011-2024 Charger, Drivers Side) | 1.00 Units | 57.77 | | $ 57.77 |
| [ETSS100J] SoundOff Siren Speaker | 1.00 Units | 141.75 | | $ 141.75 |
| [ETSS100CBKDC15] SoundOff Speaker Brackets (2011-2024 Charger, Universal) | 1.00 Units | 75.85 | | $ 75.85 |
| PA Labor (Wiring + Electronics)<br>**** LIFETIME WARRANTY **** | 12.00 Hours | 124.00 | | $ 1,488.00 |
| | | | Subtotal | $ 3,254.37 |

**Lighting**

| | | | | |
|---|---|---|---|---|
| [EMPWB0135U] SoundOff Interior Lightbar (2011-2024 Charger, Full Windshield, Red/Blue) | 1.00 Units | 941.98 | | $ 941.98 |
| [EMPSF0ZVD-8] SoundOff Surface Mount (4" mPower HD, Red/Blue/White, Stud Mount, Data (3-Wire), Clear)<br>(4 Mounted in Bumper) | 4.00 Units | 119.95 | | $ 479.80 |
| [EMT2BZRMV] SoundOff Mirror Light (Under Mirror (Pair), Red/Blue/White) | 2.00 Units | 164.05 | | $ 328.10 |
| [PNT3BKUMB4] SoundOff Mirror Bracket (Surface Mount, 2018+ Durango, Mirror, Universal) | 2.00 Units | 22.49 | | $ 44.98 |
| [EMPS2001P-4] SoundOff Surface Mount (4" mPower, Red/Blue/Amber, Stud Mount, Standard (5-Wire), Clear)<br>(2 Mounted on Side of Bumper) | 2.00 Units | 119.95 | | $ 239.90 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00290

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [EMPS8007Z-8] SoundOff Surface Mount (4" mPower, Red/Blue/White, Stud Mount, Data (3-Wire), Clear) (2 Plate) | 2.00 Units | 119.95 | | $ 239.90 |
| [PMPZBRK2LPV] SoundOff Surface Mount Bracket (4" mPower, Stud Mount, Universal, License Plate, Universal) | 1.00 Units | 25.14 | | $ 25.14 |
| PA Labor (Lighting)<br>**** LIFETIME WARRANTY **** | 16.00 Hours | 124.00 | | $ 1,984.00 |
| | | | Subtotal | $ 4,283.80 |

**Other**

| | | | | |
|---|---|---|---|---|
| [T0711035-IW-BLK] TigerTough Seat Covers (2011-2024 Charger, No) | 1.00 Units | 286.67 | | $ 286.67 |
| [MB820] Antenna Mounts (No Connector) [MB820] Antenna Mounts (None) | 1.00 Units | 20.64 | | $ 20.64 |
| [PJ-863] Brother Printers (Without Battery) | 1.00 Units | 476.51 | | $ 476.51 |
| [LB3692-003] Brother Car Power Adapter (Pocketjet 8) | 1.00 Units | 27.16 | | $ 27.16 |
| KustomSignals Radar Units (Eagle 3) | 1.00 Units | 3,234.00 | | $ 3,234.00 |
| PA Labor (Additional / Other Equipment)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| XPEL Window Tint (PRIME Nano-Ceramic)<br>Tint Level: 35%<br>Tint Position: Front Windows | 1.00 Units | 249.99 | | $ 249.99 |
| PA Labor (Window Tint) | 2.00 Hours | 124.00 | | $ 248.00 |
| Shop Supplies & Hardware<br>Wire, Terminals, Fuses, Heat Shrink, Etc. | 1.00 Units | 400.00 | | $ 400.00 |

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00290

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [Delivery_007] Vendor Equipment Delivery Standard delivery | 1.00 Units | 450.00 | | $ 450.00 |
| PA Vehicle Transportation - Mileage | 2,023.00 mi | 2.00 | | $ 4,046.00 |
| | | | **Subtotal** | $ 10,134.97 |
| | | | Untaxed Amount | $ 61,523.41 |
| | | | **Total** | $ 61,523.41 |

Payment terms: 30 Days

Payment Communication: **INV/2025/00290**

## Terms & Conditions

To approve, please click accept or sign and return. By approving you are agreeing to all the terms below.

- **Payment:** Unless otherwise specified, account terms require vehicles to be paid NET30 upon acceptance of the proposal and the remainder of the proposal is to be paid NET30 immediately following completion of scheduled work.
- **Limitations:** This is a proposal valid for only 30 days. Truck chassis must come ready to accept the body and any additional work or modifications will be barred by the customer. Additional shipping charges not listed on the proposal may incur.
- **Contracts:** If applicable to this project, National BuyBoard Contract # 698-23 or PA COSTARS contract #012-E22-242 / #025-E22-476 applies.
- **Fees:** Custom orders can not be canceled or returned. Cancellation fee of an approved quote is 5% of the total cost. If the manufacturer charges a restocking fee for any items, the customer is responsible for charges. No returns on any items after 30 days.

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00291

Tooele City Police Department
323 N Main St
Tooele UT 84074
United States

| Invoice Date | Due Date | Source | Reference |
|---|---|---|---|
| 07/02/2025 | 08/01/2025 | UTE06210 | 2C3CDXKG3PH687926 #2768 |

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| **Vehicle** | | | | |
| [23CHRV6-BLACK] 2023 Dodge Charger (V6 Pursuit, Black)<br>Cooperative Contract: National<br>(Unmarked Car)<br>VIN: 2C3CDXKG3PH687926 #2768 | 1.00 Units | 37,499.00 | | $ 37,499.00 |
| | | | **Subtotal** | $ 37,499.00 |
| **Console** | | | | |
| [C-VS-0809-CHGR-2] Havis Consoles (2011-2024 Charger, Console Only, Standard Steel) | 1.00 Units | 390.72 | | $ 390.72 |
| [C-ARM-102] Havis Arm Rests (Side Mount) | 2.00 Units | 62.04 | | $ 124.08 |
| [CUP2-1004] Havis Cup Holders (Standard Internal) [CUP2-1004] Havis Cup Holders | 1.00 Units | 42.90 | | $ 42.90 |
| [C-MCB] Havis Mic Clip Bracket (Standard) | 2.00 Units | 12.54 | | $ 25.08 |
| [MMSU-1] Magnetic Mic | 2.00 Units | 26.40 | | $ 52.80 |
| PA Labor (Console)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | **Subtotal** | $ 1,131.58 |

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00291

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| **Siren Controller** | | | | |
| [ENGSA5200RSP] SoundOff Smart Siren/Controller (200 Watt, Remote Mount, Button) | 1.00 Units | 672.00 | | $ 672.00 |
| [ETSKLF101] SoundOff Low Frequency Siren (100 Watt) | 1.00 Units | 388.50 | | $ 388.50 |
| [ENGLMK002] SoundOff Vehicle Cable (2011-2024 Charger) | 1.00 Units | 246.75 | | $ 246.75 |
| [ETSSLFVBK08] SoundOff Low Frequency Siren Brackets (2011-2024 Charger, Drivers Side) | 1.00 Units | 57.77 | | $ 57.77 |
| [ETSS100J] SoundOff Siren Speaker | 1.00 Units | 141.75 | | $ 141.75 |
| [ETSS100CBKDC15] SoundOff Speaker Brackets (2011-2024 Charger, Universal) | 1.00 Units | 75.85 | | $ 75.85 |
| PA Labor (Wiring + Electrical)<br>**** LIFETIME WARRANTY **** | 12.00 Hours | 124.00 | | $ 1,488.00 |
| | | | **Subtotal** | $ 3,070.62 |
| **Lighting** | | | | |
| [ENFWB01SSU] SoundOff Interior Lightbar (2011-2024 Charger, Full Windshield, Red/Blue) | 1.00 Units | 941.98 | | $ 941.98 |
| [ENFSB03B2-J] SoundOff Surface Mount 4" mPower, Red/Blue, Stud Mount, Data ID Wire, Clear<br>(2 Hidden in Grille) | 2.00 Units | 108.05 | | $ 216.10 |
| [ENFWB01QZ6] SoundOff Interior Lightbar (2011-2024 Charger, Rear Window, Red/Blue) | 1.00 Units | 941.98 | | $ 941.98 |
| [ELUC3x02J] SoundOff Hideaway (Red/Blue)<br>(2 Reverse) | 2.00 Units | 113.36 | | $ 226.72 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00291

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| PA Labor (Lighting)<br>**** LIFETIME WARRANTY **** | 16.00 Hours | 124.00 | | $ 1,984.00 |
| | | | Subtotal | $ 4,310.74 |
| **Other** | | | | |
| [T0711035-IW-BLK] TigerTough Seat Covers (2011-2024 Charger, No) | 1.00 Units | 286.67 | | $ 286.67 |
| [MB820] Antenna Mounts (No Connector) [MB820] Antenna Mounts (None) | 1.00 Units | 20.64 | | $ 20.64 |
| PA Labor (Additional / Other Equipment)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| XPEL Window Tint (PRIME Nano-Ceramic)<br>Tint Level: 35%<br>Tint Position: Front Windows | 1.00 Units | 249.99 | | $ 249.99 |
| PA Labor (Window Tint) | 2.00 Hours | 124.00 | | $ 248.00 |
| Shop Supplies Allowance<br>Wire, Terminals, Fuses, Heat Shrink, Etc. | 1.00 Units | 600.00 | | $ 600.00 |
| [Delivery_007] Vendor Equipment Delivery Standard delivery | 1.00 Units | 450.00 | | $ 450.00 |
| PA Vehicle Transportation - Mileage | 2,023.00 mi | 2.00 | | $ 4,046.00 |
| | | | Subtotal | $ 6,397.30 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00291

Payment terms: 30 Days

| | |
|---|---|
| Untaxed Amount | $ 52,409.24 |
| **Total** | **$ 52,409.24** |

Payment Communication: **INV/2025/00291**

## Terms & Conditions

To approve, please click accept or sign and return. By approving you are agreeing to all the terms below.

- **Payment:** Unless otherwise specified, account terms require vehicles to be paid NET30 upon acceptance of the proposal and the remainder of the proposal is to be paid NET30 immediately following completion of scheduled work.
- **Limitations:** This is a proposal valid for only 30 days. Truck chassis must come ready to accept the body and any additional work or modifications will be barred by the customer. Additional shipping charges not listed on the proposal may incur.
- **Contracts:** If applicable to this project, National BuyBoard Contract # 698-23 or PA COSTARS contract #012-E22-242 / #025-E22-476 applies.
- **Fees:** Custom orders can not be canceled or returned. Cancellation fee of an approved quote is 5% of the total cost. If the manufacturer charges a restocking fee for any items, the customer is responsible for charges. No returns on any items after 30 days.

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

# Invoice INV/2025/00292

Tooele City Police Department
323 N Main St
Tooele UT 84074
United States

| Invoice Date | Due Date | Source | Reference |
|---|---|---|---|
| 07/02/2025 | 08/01/2025 | UTE06209 | 2C3CDXKG6PH691212 #2770 |

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| **Vehicle** | | | | |
| [23CHRV6-BLACK] 2023 Dodge Charger (V6 Pursuit, Black)<br>Cooperative Contract: National<br>VIN: 2C3CDXKG6PH691212 #2770 | 1.00 Units | 37,499.00 | | $ 37,499.00 |
| | | | **Subtotal** | $ 37,499.00 |
| **Console** | | | | |
| [C-VS-0909-CHGR-PM-2] Havis Consoles (2011-2024 Charger, Printer Mount, Standard Steel) | 1.00 Units | 488.40 | | $ 488.40 |
| [C-HDM-214] Havis Dock Mounts (2011-2024 Charger, Console Mount) | 1.00 Units | 121.44 | | $ 121.44 |
| [C-MD-119] Havis Dock Mounts (2011-2024 Charger, Motion Device) | 1.00 Units | 242.22 | | $ 242.22 |
| [C-ARM-102] Havis Arm Rests (Side Mount) | 2.00 Units | 62.04 | | $ 124.08 |
| [CUP2-1004] Havis Cup Holders (Standard Internal) [CUP2-1004] Havis Cup Holders | 1.00 Units | 42.90 | | $ 42.90 |
| [MMSU-1] Magnetic Mic | 2.00 Units | 26.40 | | $ 52.80 |
| [C-MCB] Havis Mic Clip Bracket (Standard) | 2.00 Units | 12.54 | | $ 25.08 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00292

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| PA Labor (Console)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | **Subtotal** | $ 1,592.92 |
| **Partition** | | | | |
| [P1000C15AOSB] ProGard Prisoner Transport (2011-2024 Charger, Single Prisoner Transport System) | 1.00 Units | 2,166.78 | | $ 2,166.78 |
| [GVPM-S (HANDCUFF)] ProGard Gun Locks (Single Gun Partition Mount, Handcuff, Universal) | 1.00 Units | 485.87 | | $ 485.87 |
| PA Labor (Transport System)<br>**** LIFETIME WARRANTY **** | 10.00 Hours | 124.00 | | $ 1,240.00 |
| | | | **Subtotal** | $ 3,892.65 |
| **Bumper** | | | | |
| [36-2035] Westin Bumpers (Bumper Only - PIT Bars / Headlight Guard Sold Separate, 2011-2024 Charger) | 1.00 Units | 338.25 | | $ 338.25 |
| [36-6005SMP4] Westin Light Channels (2011-2024 Charger, (4) SoundOff) | 1.00 Units | 31.45 | | $ 31.45 |
| PA Labor (Bumper)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| | | | **Subtotal** | $ 865.70 |
| **Siren Controller** | | | | |
| [ENGSA5200RSP] SoundOff Smart Siren/Controller (200 Watt, Remote Mount, Button) | 1.00 Units | 672.00 | | $ 672.00 |
| [ETSKLF101] SoundOff Low Frequency Siren (100 Watt) | 1.00 Units | 388.50 | | $ 388.50 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00292

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [ENGLMK002] SoundOff Vehicle Cable (2011-2024 Charger) | 1.00 Units | 246.75 | | $ 246.75 |
| [ENGSYMD01] SoundOff Sync Module | 1.00 Units | 183.75 | | $ 183.75 |
| [ETSSLFVBK08] SoundOff Low Frequency Siren Brackets (2011-2024 Charger, Drivers Side) | 1.00 Units | 57.77 | | $ 57.77 |
| [ETSS100J] SoundOff Siren Speaker | 1.00 Units | 141.75 | | $ 141.75 |
| [ETSS100CBKDC15] SoundOff Speaker Brackets (2011-2024 Charger, Universal) | 1.00 Units | 75.85 | | $ 75.85 |
| PA Labor (Wiring + Electronics)<br>**** LIFETIME WARRANTY **** | 12.00 Hours | 124.00 | | $ 1,488.00 |
| | | | **Subtotal** | $ 3,254.37 |
| **Lighting** | | | | |
| [ENFWB01SSU] SoundOff Interior Lightbar (2011-2024 Charger, Full Windshield, Red/Blue) | 1.00 Units | 941.98 | | $ 941.98 |
| [EMPSF0ZVD-8] SoundOff Surface Mount (4" mPower HD, Red/Blue/White, Stud Mount, Data (3-Wire), Clear)<br>(4 Mounted in Bumper) | 4.00 Units | 119.95 | | $ 479.80 |
| [ENT2B3RBW] SoundOff Mirror Light (Under Mirror (Puck), Red/Blue/White) | 2.00 Units | 164.05 | | $ 328.10 |
| [PNT3BKUMB4] SoundOff Mirror Bracket (Surface Mount, 2018+ Durango, Mirror, Universal) | 2.00 Units | 22.49 | | $ 44.98 |
| [EMPS2001P-6] SoundOff Surface Mount (4" mPower, Red/Blue/Amber, Stud Mount, Standard (5-Wire), Clear)<br>(2 Mounted on Side of Bumper) | 2.00 Units | 119.95 | | $ 239.90 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00292

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [EMPS8007Z-8] SoundOff Surface Mount (4" mPower, Red/Blue/White, Stud Mount, Data (3-Wire), Clear) (2 Plate) | 2.00 Units | 119.95 | | $ 239.90 |
| [PMP2BRK2LPV] SoundOff Surface Mount Bracket (4" mPower, Stud Mount, Universal, License Plate, Universal) | 1.00 Units | 25.14 | | $ 25.14 |
| PA Labor (Lighting)<br>**** LIFETIME WARRANTY **** | 16.00 Hours | 124.00 | | $ 1,984.00 |
| | | | **Subtotal** | $ 4,283.80 |
| **Other** | | | | |
| [T0711035-IW-BLK] TigerTough Seat Covers (2011-2024 Charger, No) | 1.00 Units | 286.67 | | $ 286.67 |
| [MB820] Antenna Mounts (No Connector) [MB820] Antenna Mounts (None) | 1.00 Units | 20.64 | | $ 20.64 |
| [PJ-863] Brother Printers (Without Battery) | 1.00 Units | 476.51 | | $ 476.51 |
| [LB3692-003] Brother Car Power Adapter (Pocketjet 8) | 1.00 Units | 27.16 | | $ 27.16 |
| KustomSignals Radar Units (Eagle 3) | 1.00 Units | 3,234.00 | | $ 3,234.00 |
| PA Labor (Additional / Other Equipment)<br>**** LIFETIME WARRANTY **** | 4.00 Hours | 124.00 | | $ 496.00 |
| XPEL Window Tint (PRIME Nano-Ceramic)<br>Tint Level: 35%<br>Tint Position: Front Windows | 1.00 Units | 249.99 | | $ 249.99 |
| PA Labor (Window Tint) | 2.00 Hours | 124.00 | | $ 248.00 |
| Shop Supplies Allowance<br>Wire, Terminals, Fuses, Heat Shrink, Etc. | 1.00 Units | 600.00 | | $ 600.00 |

UTILITAC - National
1 Bark Street
Ridgway, PA 15853

UTILITAC
EQUIPMENT & UPFITTING

America's Commercial Vehicle Source

# Invoice INV/2025/00292

| Description | Quantity | Unit Price | Taxes | Amount |
|---|---|---|---|---|
| [Delivery_007] Vendor Equipment Delivery Standard delivery | 1.00 Units | 450.00 | | $ 450.00 |
| PA Vehicle Transportation - Mileage | 2,023.00 mi | 2.00 | | $ 4,046.00 |
| | | | **Subtotal** | $ 10,134.97 |

Payment terms: 30 Days

| | |
|---|---|
| Untaxed Amount | $ 61,523.41 |
| Total | $ 61,523.41 |

Payment Communication: **INV/2025/00292**

## Terms & Conditions

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- **Fees:** Custom orders can not be canceled or returned. Cancellation fee of an approved quote is 5% of the total cost. If the manufacturer charges a restocking fee for any items, the customer is responsible for charges. No returns on any items after 30 days.

**TOOELE CITY CORPORATION**
**FISCAL NOTE TO PROPOSED EXPENDITURE**

07/07/25

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** BROKEN ARROW V# 00093

EMERGENCY REPAIR OF ROAD 557 E SMELTER RD.

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| CURRENT YEAR ROAD IMPROVEMENT | 78 4415 731800 | 1,400,000.00 | 1,197,730.00 | 47,306.97 | 154,963.03 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| TOTAL: | | | | 47,306.97 | |

REQUESTED _____
DEPARTMENT HEAD

REVIEWED _____
FINANCE DIRECTOR

APPROVED _____
MAYOR

APPROVED _____
COUNCIL CHAIRMAN

# INVOICE

INVOICE NO
51122

BROKEN ARROW
QUALITY & INTEGRITY

BOX 580 TOOELE, UTAH 84074 (435) 882-3942
SALT LAKE PHONE (801) 355-0527
FAX (435) 882-6911

BILL TO
TOOELE CITY CORPORATION
90 NORTH MAIN STREET
TOOELE, UT 84074

JOB
557 E. SMELTER ROAD REPAIR
557 E. SMELTER ROAD
JOB # BC2520
TOOELE, UT 84074

| CUSTOMER | PO NUMBER | BILL THRU | TERMS | INVOICE DATE | PAGE |
|---|---|---|---|---|---|
| BC2520 | | | Net 30 | 6/30/2025 | 1 |

EXCAVATE AND REPAIR SOFT SPOT IN ROADWAY/NEW CURB & GUTTER AND DRIVE APPROACH

| ITEM NO | QUANTITY | DESCRIPTION | UNIT PRICE | EXTENDED PRICE |
|---|---|---|---|---|
| | 1 | LUMP SUM - LABOR 03/19, 03/20, 03/21, 03/24, 04/07, 04/08/2025 | 24,582.00 | 24,582.00 |
| | 1 | LUMP SUM - MATERIALS | 22,724.97 | 22,724.97 |

**SALES AMOUNT** **$47,306.97**

VENDOR # 00093
P.O. # ———
DEPT. # 78-4415-731800
DATE 7/2/25
AMOUNT $47,306.97
SIGNATURE Jami Knapp

Please Remit to:
P.O. Box 580
Tooele, UT 84074

**MEMORANDUM**

**To:** Michelle Pitt
**From:** Jamie Grandpre
**Date:** July 3, 2025
**Subject:** Broken Arrow Emergency Excavation and Repair on Smelter Road

This memo is to document the emergency excavation and repair work performed by Broken Arrow on Smelter Road, including new curb, gutter, and driveway approach installations, which were completed on **June 2, 2025**.

The repairs were necessary due to a developing safety and infrastructure issue. Water flowing down the gutter was seeping into the ground through cracks in the existing curb and gutter. This infiltration led to **saturation of the underlying soil**, compromising the stability of the roadway structure. Over time, this caused **progressive deterioration**, including the formation of **sinkholes** and the **sinking of drive approaches and the roadway itself**, which posed a hazard to both vehicles and pedestrians.

To mitigate further damage and risk, an **emergency excavation and stabilization** of the affected area was conducted. The scope of work included removing compromised materials, replacing the base, and installing new curb, gutter, and driveway approaches to reestablish structural integrity and proper drainage.

Given the nature of the failure, it is evident that this section of **Smelter Road requires long-term storm water management improvements** to prevent future incidents. A formal assessment and planning for stormwater infrastructure upgrades are recommended.

Please let me know if further information or documentation is needed.

**TOOELE CITY CORPORATION**
**FISCAL NOTE TO PROPOSED EXPENDITURE**

07/07/25

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** BLACK & MCDONALD V# 12268

INSTALLATION OF SOLAR LIGHTS

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| NEW STREET LIGHTS | 55 5500 742001 | 300,000.00 | 15,020.00 | 58,494.64 | 226,485.36 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **TOTAL:** | | | | 58,494.64 | |

REQUESTED _____
DEPARTMENT HEAD

REVIEWED _____
FINANCE DIRECTOR

APPROVED _____
MAYOR

APPROVED _____
COUNCIL CHAIRMAN

Remit To:

BLACK & MCDONALD
6900 EXECUTIVE DRIVE
KANSAS CITY MO 64120
For Inquiries: 801 569-9219

# INVOICE

Black & McDonald

**Invoice To:**

TOOELE, UT
90 N. MAIN ST
TOOELE UT 84074

**For Work At:**

TOOELE, TOOELE COUNTY,
SEE ATTACHMENTS

| | |
|---|---|
| **Invoice No.** | **76 - 1789835** |
| **Invoice Date** | May 23 / 25 |
| **Our Division** | 7638 - SL Maintenance UT |
| **Our Work Order No.** | 4241422 |
| **Our Customer No.** | 775014 |
| **Your P.O. No.** | |

INSTALLING OF SOLAR LIGHTS

Quoted Amount 58,494.64

Nottingham Circle (1)
Nottingham Drive (12)
Upland Drive (2)
7th Street (2) North & South
Juniper Drive (1)
Valley View Drive (3)
10

V# 12268
PO# June 2025
55-5500-742001
$58,494.64
07-03-2025

| | |
|---|---|
| **Subtotal** | 58,494.64 |
| **Please Pay This Amount:** | USD 58,494.64 |

**Terms:** Due Upon Receipt
Interest at 18% per annum charged on overdue accounts



Council Mtg. 07/16/2025

**Invoice No** 76 - 1789835

# Back-Up Detail

**Invoice Date** May 23 / 25

**Our Work Order No.** 4241422

**For Work At:**
TOOELE, TOOELE COUNTY SEE ATTACHMENTS
INSTALLSOLARLIGHTS MATERIAL HE

**Start Date** Jul 25 / 24 **End Date** Feb 23 / 25

## Quoted

| Description | Extended Amount |
|---|---|
| Quoted Amount | 58,494.64 |
| Subtotal | 58,494.64 |

## Labor

| Work Date | Employee | Description | Hours | Rate | Extended Amount |
|---|---|---|---|---|---|
| 1/20/2025 | HADDENHAM, MICHAEL | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 1/20/2025 | PETERS, JOSEPH | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 1/21/2025 | BRENKMANN, THAD | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 1/21/2025 | HADDENHAM, MICHAEL | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 1/22/2025 | BRENKMANN, THAD | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 1/22/2025 | HADDENHAM, MICHAEL | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 1/23/2025 | BRENKMANN, THAD | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 1/23/2025 | HADDENHAM, MICHAEL | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 1/30/2025 | BLUE, WAYLON | S/L Utility Worker-Worker 1-Regular | 5.00 | | |
| 1/30/2025 | HADDENHAM, MICHAEL | S/L Utility Worker-Worker-Regular | 5.00 | | |
| 1/30/2025 | HEAPS, NICHOLAS | S/L Utility Worker-Worker 2-Regular | 5.00 | | |
| 2/12/2025 | HADDENHAM, MICHAEL | S/L Utility Worker-Worker-Regular | 10.00 | | |
| 2/12/2025 | LOPEZ-GARCIA, JOSE | S/L Utility Worker-Worker-Regular | 5.00 | | |
| 2/16/2025 | HADDENHAM, MICHAEL | S/L Utility Worker-Worker-Regular | 5.00- | | |
| 2/23/2025 | HADDENHAM, MICHAEL | S/L Utility Worker-Worker-Regular | 5.00 | | |
| 7/25/2024 | HAMILTON, CAMDEN | S/L Utility Worker-Worker 2-Regular | 3.00 | | |
| 7/25/2024 | MONTES ORTIZ, ERNESTO | S/L Utility Worker-Worker-Regular | 3.00 | | |
| 7/25/2024 | TUTTLE, LOGAN | S/L Utility Worker-Worker-Regular | 3.00 | | |
| | | | | Subtotal | 0.00 |

## Material

| Description | Extended Amount |
|---|---|
| BR-1-290-T3-30W-4K-350MA-A4-1 | |
| CONCRETE | |
| VAC HOLES FOR POLES | |
| Subtotal | 0.00 |

**Invoice No** 76 - 1789835

# Back-Up Detail

**Invoice Date** May 23 / 25

## Vehicle Charges

| Description | Hours | Rate | Extended Amount |
|---|---|---|---|
| TRAILER, FLAT BED, DUAL AXLE | 40.00 | | |
| TRAILER, POLE | 8.00 | | |
| UTILITY LARGE BUCKET GRTR 35FT | 53.00 | | |
| UTILITY, DIGGER DERRIK | 8.00 | | |
| | | Subtotal | 0.00 |
| | | WO Total: | 58,494.64 |

**Total before tax:** **USD 58,494.64**

**TOOELE CITY CORPORATION**
**FISCAL NOTE TO PROPOSED EXPENDITURE**

07/11/25

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** TOOELE CITY ARTS COUNCIL V# 06300

Fiscal Year 2025-2026 Arts Council 4TH of July Reimbursement

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| ARTS COUNCIL/4TH OF JULY | 21 4511 921010 | 70,000.00 | 0.00 | 35,120.11 | 34,879.89 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **TOTAL:** | | | | 35,120.11 | |

REQUESTED /s/ Administration
DEPARTMENT HEAD

REVIEWED Shannon Wimmer
FINANCE DIRECTOR

APPROVED _____
MAYOR

APPROVED _____
COUNCIL CHAIRMAN

255 S. 100 E.
Tooele, UT 84074
435-830-2458
info@tooelecityartscouncil.com
www.tooelecityartscouncil.org

July 10, 2025

Tooele City
90 N Main St
Tooele, Ut 84074

RE: REQUEST FOR TOOELE CITY ARTS COUNCIL 4TH OF JULY REIMBURSEMENT

| | | |
|---|---|---|
| 1- | The Booking House (Hotel California Band) | $8,000 |
| 2- | Metro Productions (Stage) | $6,750 |
| 3- | Dragon Dynamite Displays (Fireworks) | $16,700 |
| 4- | Johnny Utah Band (Post-Parade show) | $600 |
| 5- | Transcript Bulletin (Ticket Printing) | $336 |
| 6- | Health Department (Mass Gathering Permit) | $250 |
| 7- | Walmart (Food for Green Room and Staff) | $89.41 |
| 8- | Lucky Grocery Store (Food for Green Room) | $17.59 |
| 9- | Little Caesers (Lunch for stage/sound staff) | $41.37 |
| 10- | Applebee's (Dinner for Band) | $153.85 |
| 11- | Milly's Subs (Dinner for staff and volunteers) | $639.77 |
| 12- | Holiday Inn (Hotel rooms for Band) | $1,542.12 |
| | **Total:** | **$35,120.11** |

Please allow this letter to serve as a request for these funds. We thank you for funding and supporting the Tooele City Arts Council.

Sincerely,
Tooele City Arts Council Board
(Administrator, Cade Fuhriman)

VH 06300
PO#
21-4511-921010
$35,120.11
07-10-2025
Debra E. W
7-10-25

BOARD MEMBERS
Pamela Giles
Matt Flygare
Maresa Manzione
Dave McCall
Holly Tippetts
Rebecca Rockwell
Leslie Dean
Michelle Boekweg
Braxton Roberts
Denece Hall
Lisha Pyne

**TOOELE CITY CORPORATION**
**FISCAL NOTE TO PROPOSED EXPENDITURE**

07/10/25

**DESCRIPTION OF EXPENDITURE:** **VENDOR:** TOOELE CITY ARTS COUNCIL V# 06300

Fiscal Year 2025-2026 Arts Council Contribution

| REVENUE LINE ITEM: | ACCOUNT NUMBER | CURRENT BUDGET | RECEIPTS TO DATE | ADDITIONAL FUNDING | TOTAL FUNDING |
|---|---|---|---|---|---|
| | | | | | 0.00 |
| | | | | | |
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| EXPENDITURE LINE ITEM | ACCOUNT NUMBER | ADJUSTED BUDGET | Y. T. D. EXPENSES | PROPOSED EXPENSE | BUDGET BALANCE |
|---|---|---|---|---|---|
| CONTRIBUTION TO ARTS COUNCIL | 21 4511 921000 | 250,000.00 | 0.00 | 250,000.00 | 0.00 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| **TOTAL:** | | | | 250,000.00 | |

REQUESTED Administration
DEPARTMENT HEAD

REVIEWED S. Wimmer
FINANCE DIRECTOR

APPROVED _____
MAYOR

APPROVED _____
COUNCIL CHAIRMAN

TOOELE CITY ARTS COUNCIL

255 S. 100 E.
Tooele, UT 84074
435-830-2458
info@tooelecityartscouncil.com
www.tooelecityartscouncil.org

July 10, 2025

Shannon Wimmer
Tooele City Finance Director
90 N. Main St
Tooele, Ut 84074

RE: REQUEST FOR TOOELE CITY ARTS COUNCIL FUNDS

Dear Shannon Wimmer,

Thank you for the continued support and funding for the Tooele City Arts Council. It allows us to provide many engaging and creative events and programs for the citizens of Tooele through art classes, concerts, films, and theater. The Tooele City Arts Council is appreciative of the funding this year in the approved amount of $250,000. Please allow this letter to serve as a request for those funds. Thank you again for your support.

Sincerely,

Tooele City Arts Council Board
(Administrator, Cade Fuhriman)

BOARD MEMBERS
Pamela Giles
Matt Flygare
Maresa Manzione
Dave McCall
Holly Tippetts
Rebecca Rockwell
Leslie Dean
Michelle Boekweg
Braxton Roberts
Denece Hall
Lisha Pyne

# City Council Business Meeting Minutes

**Date:** June 18, 2025
**Time:** 7:00 p.m.
**Place:** Tooele City Hall Council Chambers
90 North Main Street, Tooele City, Utah

**Council Present**
Justin Brady
Melodi Gochis
Maresa Manzione
Dave McCall

**Excused**
Ed Hansen

**Staff Present**
Mayor Debbie Winn
Matt Johnson, Assistant City Attorney
Michelle Pitt, City Recorder
Loretta Herron, Deputy City Recorder
Shilo Baker, Mayor's Assistant
Jamie Grandpre, Public Works Director
Darwin Cook, Parks and Recreation Director
Chris Sloan, Planning Commissioner
Police Chief Adrian Day
Kami Perkins, HR Director
Andrew Aagard, Community Development Director
Shannon Wimmer, Finance Director
Kelley Anderson, Planning Commissioner

Minutes prepared by Alicia Fairbourne

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1. **Pledge of Allegiance**

   Chairman Brady opened the meeting at 7:00 p.m. and led the Pledge of Allegiance

2. **Roll Call**

   Councilwoman Manzione, Present
   Councilwoman Gochis, Present
   Chairman Brady, Present
   Councilman McCall, Present
   Councilman Hansen, Excused

3. **Public Comment Period**

   Chairman Brady opened the floor for public comment at 7:01 p.m. and noted an email had been received in advance from Samantha Willow. In her message, Ms. Willow proposed a volunteer-led

monarch butterfly conservation project as part of her master's capstone. She explained her background working with the Disney Conservation Team and outlined a plan to replicate similar efforts locally, including planting milkweed, studying monarch migration, and preparing reports in collaboration with the San Diego Zoo Wildlife Alliance. She requested permission to use city land – specifically suggesting the property near the Train Museum – for the garden and offered to supply all necessary materials. The only resources she requested from the city were land and water. She also mentioned possibly working with the school board in the future to distribute flyers to generate student interest.

Following the reading of her comment, the floor was opened for in-person public input. No members of the public came forward. At 7:03 p.m., the public comment period was closed.

**4. Recognition of Michelle Pitt's Retirement**

The City Council recognized the retirement of Michelle Pitt, Tooele City's longtime City Recorder. Mayor Winn introduced the item, describing it as a bittersweet moment. She praised Ms. Pitt's 27 years of dedicated service to the City, highlighting her professionalism, commitment, and numerous contributions. Ms. Pitt began her career with Tooele City in 1998 as a legal secretary in the attorney's office, later serving as the mayor's assistant from 2006 to 2011, and then as City Recorder for the past 14 years. She was notable for being the only recorder in the state reappointed every two years due to a unique provision in the City's charter, a requirement she helped change.

Mayor Winn also recognized Ms. Pitt's role in establishing the 501(c)(3) designation for the Tooele City Arts Council and her longstanding service on the Arts Council itself. She commended Ms. Pitt's efforts in improving the City's records management and her consistent support of City operations, particularly during Council meetings. A small gift was presented to commemorate her service, and Mayor Winn invited Council Members to express their appreciation and participate in an upcoming retirement celebration before Ms. Pitt's official retirement date of July 15.

Ms. Pitt then offered remarks of gratitude. She reflected on her career accomplishments, including completing her bachelor's degree through the City's educational reimbursement program and earning her Certified Municipal Clerk (CMC) designation. She shared her pride in helping transform the records room in City Hall and her work on creating a City-specific records retention schedule, which she intended to present later in the meeting. She noted she had worked under three different mayors and ten different city councils. She attended over 800 City meetings throughout her career and expressed heartfelt thanks to the City's mayors, council members, and staff for their support and trust over the years. Her comments concluded with applause from those in attendance. Chairman Brady offered congratulations on behalf of the Council and wished her well in retirement.

**5. Public Hearing and Motion on Ordinance 2025-12 An Ordinance of the Tooele City Council Adopting a Compensation Schedule for Fiscal Year 2025-2026**

*Presented by Kami Perkins, HR Director*

Ms. Perkins presented the item, explaining that the compensation schedule formed a foundational part of the City's budgeting process. She described the structure and policy-based nature of the City's compensation system, emphasizing that all salary determinations were guided by established procedures detailed in the employee handbook. These policies had been vetted by department heads, approved by the Mayor, and ultimately submitted to the Council for adoption.

Ms. Perkins clarified that the ordinance before the Council included a 2.5% cost of living adjustment (COLA) applied to the entry step of each salary grade, with subsequent steps calculated accordingly. She also noted that although the Mayor retained limited discretion over department head salaries, there were no deviations from the compensation policy proposed in this year's budget. For

transparency, she pointed out that the compensation schedule also included a comparison to the previous year's figures.

Councilwoman Gochis expressed appreciation for the time and effort Ms. Perkins and Finance Director Shannon Wimmer spent explaining the compensation schedule to her, stating that she felt confident the proposal balanced employee needs with responsible stewardship of public funds.

There being no further comments from Council, at 7:16 p.m. Chairman Brady opened the public hearing. There were none. The public hearing was closed.

**Motion: Councilman McCall moved to approve Ordinance 2025-12, an Ordinance of the Tooele City Council Adopting a Compensation Schedule for Fiscal Year 2025-2026.** Councilwoman Manzione seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

6. **Public Hearing and Motion on Resolution 2025-57 A Resolution of the Tooele City Council Approving Budget Amendments for Fiscal Year 2024-2025**
*Presented by Shannon Wimmer, Finance Director*

Ms. Wimmer presented the item, explaining that this would be the final set of amendments for the fiscal year. She noted that the resolution included nine brief adjustments, all of which were outlined in the Council's meeting packet. Ms. Wimmer offered to review the amendments individually if requested but indicated her willingness to address any questions from the Council.

No questions or comments were raised by the Council.

At 7:18 p.m., Chairman Brady opened the public hearing. There were no comments. The hearing was closed.

**Motion: Councilwoman Manzione moved to approve Resolution 2025-57, a Resolution of the Tooele City Council approving budget amendments for Fiscal Year 2024-2025.** Councilwoman Gochis seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

7. **Resolution 2025-56 A Resolution of the Tooele City Council Adopting the Certified Tax Rate for Fiscal Year 2025-2026**
*Presented by Shannon Wimmer, Finance Director*

Ms. Wimmer explained that, as in previous years, the City would not be pursuing a truth-in-taxation hearing. Instead, the Council would adopt the certified tax rate calculated by the State, which for the upcoming fiscal year was set at 0.002476.

Councilwoman Manzione emphasized the importance of clarifying that adopting the certified tax rate meant the City was not raising taxes. Ms. Wimmer confirmed this and added that the rate was actually decreasing by approximately 3.5%. However, she noted that the impact on individual tax bills could still vary based on changes in property values.

Councilman McCall further pointed out that while Tooele City was not raising taxes, other taxing entities within the county might be, and Tooele City often received misplaced criticism for decisions made at the county level.

Ms. Wimmer acknowledged that some other entities, such as the county, would be going through truth-in-taxation, but reiterated that Tooele City was not.

As this item was not designated as a public hearing, no public comments were taken. Chairman Brady noted the procedure and offered to speak with residents after the meeting if they had questions. The Council then proceeded to consider a motion.

**Motion: Councilman McCall moved to approve Resolution 2025-56, a Resolution of the Tooele City Council Adopting the Certified Tax Rate for Fiscal Year 2025-2026.** Councilwoman Gochis seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

8. **Public Hearing and Motion on Resolution 2025-35 A Resolution of the Tooele City Council Adopting a Final Budget for Tooele City for Fiscal Year 2025-2026**

*Presented by Shannon Wimmer, Finance Director*

Ms. Wimmer outlined the changes made to the budget since the Council's last review on May 21. She described the updates as minor and briefly summarized each one.

The adjustments included adding $25,000 to complete irrigation upgrades at the cemetery and allocating funds for the Sons of Utah Pioneers Museum, both within the capital projects fund. A $60,000 expense for a park truck was removed after the City was able to purchase it during the current fiscal year. An additional $7,000 was included for monthly gas bills at the pool. A reduction of $253,000 in estimated revenue reflected the finalized certified tax rate received on June 8. Ms. Wimmer also noted a $33,000 increase in the IT department budget to cover iCloud and maintenance costs related to Tyler software, which supports the City's online payment systems.

Additional corrections included a $275 accounting adjustment to align fund transfers between the General Fund and Fund 41, a $10,000 increase for streetlight power charges, and restructured line items within the police department to better track expenses for ammunition, SWAT operations, and equipment. Ms. Wimmer confirmed that all police department changes were budget-neutral.

There being no questions from the Council, at 7:24 p.m. Chairman Brady opened the public hearing.

A resident, Primus Butler, asked what Councilman McCall had said that caused everyone to laugh. Councilman McCall explained that he had made a lighthearted comment pointing out that Tooele City was not raising taxes, despite the common perception that the City is responsible for tax increases across the county. Chairman Brady added that the comment was made in jest, noting that Tooele City often takes the brunt of public frustration even when other taxing entities are the ones implementing increases.

No further comments were made, and at 7:25 p.m., the public hearing was closed.

**Motion: Councilwoman Manzione moved to approve Resolution 2025-35, a Resolution of the Tooele City Council Adopting a Final Budget for Tooele City for Fiscal Year 2025-2026.** Councilman McCall seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

After the budget was adopted, Mayor Winn thanked the Council and staff for their hard work. She noted that the City's choice not to raise taxes was made possible by years of focused economic development. She praised department heads and employees for their careful budgeting and expressed pride in the City's continued financial stability.

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9. **Fraud Risk Assessment**
*Presented by Shannon Wimmer, Finance Director*

Ms. Wimmer explained that the assessment is submitted each year to the State Auditor's Office to demonstrate compliance with state standards. Tooele City maintained a score of 355, which is considered low risk and consistent with previous years. She noted the score was unlikely to change unless the state modified its evaluation criteria. No vote was required, and no questions were raised.

10. **Resolution 2025-51 A Resolution of the Tooele City Council Approving the Annexation of 1,432 Acres of Property Known as the Compass Point Property into the North Tooele City Special Service District**
*Presented by Justin Brady, City Council Chairman*

Chairman Brady introduced the item, noting that the petition for annexation had been submitted on May 22, 2025, and that the area in question was held under a single ownership.

He explained that the North Tooele City Special Service District, established in 1999, was created to maintain unique infrastructure features on the north end of the city. These include public street lighting, signage, drainage and flood control systems, recreation areas, street designs with traffic-calming elements, and associated landscaping. Residents in the district pay an additional tax to fund these maintenance efforts, which are limited to the district boundaries. Chairman Brady highlighted 2000 North as an example of the district's amenities and mentioned that the district's seven-member board would be meeting the following night.

He stated his support for the annexation, expressing optimism that it would benefit the area and the Compass Point development. The Council then moved forward with a motion on the resolution.

**Motion: Councilwoman Gochis moved to approve Resolution 2025-51, a Resolution of the Tooele City Council approving the annexation of 1,432 acres of property known as the Compass Point Property into the North Tooele City Special Service District.** Councilman McCall seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

11. **Public Hearing and Motion on Resolution 2025-52 A Resolution of the City Council (The "Council") of Tooele City, Utah (The "City"), Providing for the Creation of the Compass Point Public Infrastructure Districts No. 1 Through 8 (Collectively, the "Districts") as Independent Districts; Authorizing and Approving a Governing Document and an Interlocal Agreement; Appointing Boards of Trustees; Authorizing other Documents in Connection Therewith; and Related Matters**
*Presented by Matthew Johnson, Assistant City Attorney*

Mr. Johnson briefly introduced the item and deferred to Lynsi Neve, the petitioner's representative, for further explanation.

Ms. Naive informed the Council of a revision to the board composition originally listed in the petition. While three initial board members had been named previously, the updated proposal included herself, Steve Peterson (who would remain), and Chris Jepsen, the CFO of Perry Companies. She confirmed that all necessary disclosures and voter confirmations had been submitted. She emphasized that the purpose of forming the PIDs was to finance significant infrastructure improvements for the Compass Point development, which aimed to be a well-planned community connected to the recently annexed area within the North Tooele City Special Service District. She also introduced Sam Elder, a representative from the D.A. Davidson Company, who would assist with future bonding processes.

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Councilwoman Manzione noted a clerical error in the resolution referencing "Utah County" instead of "Tooele County," which she had flagged earlier in the day. She confirmed that the correction had been submitted for inclusion in the final version of the document.

There being no questions from the Council, at 7:34 p.m., Chairman Brady then opened the public hearing and invited members of the public to comment.

*Primus Butler* asked for clarification on the location of the Compass Point development. Chairman Brady explained that it was situated on the north end of Tooele City, encompassing currently undeveloped land. He indicated the area was around 3100 North. After Mr. Butler's question was addressed, no additional members of the public came forward. Chairman Brady closed the public hearing at 7:36 p.m.

**Motion: Councilwoman Manzione moved to approve Resolution 2025-52, a Resolution of the City Council of Tooele City providing for the creation of the Compass Point Public Infrastructure Districts no. 1 through 8 as independent districts; authorizing and approving a governing document and an interlocal agreement; appointing boards of trustees; authorizing other documents in connection therewith; and related matters with the updated board appointments of Lynsi Neve and Chris Jepsen, and the correction of the erroneous reference to Utah County as noted.** Councilman McCall seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

12. **Public Hearing and Motion on Ordinance 2025-20 An Ordinance of Tooele City Reassigning the Zoning for Approximately 11.7 Acres of Property Located at 249 East 1000 North from the RR-5 Residential Zoning District to the LI Light Industrial Zoning District**

*Presented by Andrew Aagard, Community Development Director*

Mr. Aagard presented the item, noting that the Council had recently approved a land use map amendment for the same property. He explained that the existing RR-5 zoning, which allows for residential and agricultural uses, had historically served as a holding zone. The requested LI zoning would allow for a broader range of commercial and light industrial uses that do not generate significant impacts such as noise, odor, or dust. He emphasized that the LI designation is distinct from heavy industrial zoning and supports uses such as auto repair, professional offices, retail, restaurants, hotels, health services, recreation facilities, and warehousing.

He also referenced the City's master transportation plan, noting that the subject property is located along a proposed future roadway that would connect to Western Acres, making the location strategically significant for long-term development. The Planning Commission had held a public hearing on June 11, 2025, and unanimously recommended approval of the zoning change.

There being no questions from the Council, Chairman Brady opened the floor for public comment at 7:42 p.m. There were none. The floor was closed.

**Motion: Councilwoman Gochis moved to approve Ordinance 2025-20 An Ordinance of Tooele City Reassigning the Zoning for Approximately 11.7 Acres of Property Located at 249 East 1000 North from the RR-5 Residential Zoning District to the LI Light Industrial Zoning District.** Councilwoman Manzione seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

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13. **Ordinance 2025-18 An Ordinance of Tooele City Enacting Tooele City Code Chapter 3-8 and Adopting the Utah Wildland Urban Interface Building Code**
*Presented by Nick Wall, Fire Marshal*

Mr. Wall stated that HB 48 mandated counties and cities to adopt the 2006 Utah Wildland Urban Interface (WUI) Code by January 2026. The bill introduced a property-level wildfire risk mapping tool intended to improve risk assessments, insurance decisions, and mitigation strategies. It required annual inspections of high-risk properties, allowed for mitigation fees, and updated fire safety codes to encourage defensible space and fire-resistant construction practices.

He explained that while the updated WUI code was not yet finalized, its adoption would enable the City to implement the necessary standards once released. These standards would vary based on risk classification – high, moderate, or low – and could include measures such as fire-resistant materials and structural hardening of homes. He emphasized that the ordinance aimed to help homeowners retain insurance coverage and potentially reduce premiums.

Councilwoman Manzione inquired about the scope of the new building standards, and Fire Marshal Wall clarified that the standards would include requirements for roofing, eaves, and other construction elements in high-risk areas. No additional comments or questions were raised.

**Motion: Councilwoman Manzione moved to approve Ordinance 2025-18, an Ordinance of Tooele City enacting Tooele City Code Chapter 3-8 and adopting the Utah Wildland Urban Interface Building Code.** Councilman McCall seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

14. **Resolution 2025-37 A Resolution of the Tooele City Council Consenting to the Payment of a Retention Bonus to School Resource Officers (SROs) Assigned on a Regular Full-Time Basis to a School for the 2025-2026 School Year**
*Presented by Kami Perkins, HR Director*

Ms. Perkins explained that this program began as a pilot two years prior to help retain officers in school assignments, which often posed unique challenges. Since its implementation, the program had seen success, with officers staying in their assigned schools for the full academic year, except in one case where an officer was promoted to detective.

She noted that some SROs compared their compensation to that of patrol officers and found they were earning less due to missing out on the holiday buyback program. This prompted a reassessment of the bonus amount. The increase to $5,000 was proposed to better reflect the compensation gap and provide greater incentive for retention. The bonus would apply to full-year assignments and would be prorated in cases of mid-year transfers.

Ms. Perkins added that the program included SROs at Tooele High School, Deseret Peak High School, and the junior high schools. A sergeant would now be assigned full-time to oversee the SRO team, reflecting the program's continued expansion and importance.

Ms. Perkins explained that the proposed bonus program was not included in the City's standard compensation policies and therefore required separate Council approval.

There were no objections or further discussion, and the Council moved forward with the item.

**Motion: Councilman McCall moved to approve Resolution 2025-37, a Resolution of the Tooele City Council Consenting to the Payment of a Retention Bonus to School Resource Officers (SROs) Assigned on a Regular Full-Time Basis to a School for the 2025-2026 School Year.** Councilwoman Manzione seconded the motion. The vote was as follows: Councilman McCall,

DRAFT

"Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

15. **Resolution 2025-38 A Resolution of the Tooele City Council Declaring that Tooele City, After July 1, 2025, Will Pick up and Pay an Amount of the Required Employee Contributions for all Tooele City Employees who are Members of the Utah State Retirement Tier II Public Safety & Firefighter Contributory Retirement Plan and Includes Provisions Relating to the Employer Pick-up**

*Presented by Kami Perkins, HR Director*

Ms. Perkins explained that while public safety employees are legally permitted to have their contributions paid by the employer, recent legislative inaction continued to prohibit this option for other public employees.

Previously, the City had offset only part of the contribution to ensure parity across employee groups. However, as other jurisdictions – including surrounding counties – opted to cover the full amount for their public safety employees, Tooele City found itself at a competitive disadvantage. The new resolution, already accounted for in the upcoming budget, was intended to correct that.

A formal resolution was required to authorize the Mayor to sign the necessary paperwork with the State Retirement Office, allowing the payroll office to implement the change. Council members offered no objections, and one praised the clarity of the explanation.

**Motion: Councilwoman Gochis moved to approve Resolution 2025-38, a Resolution of the Tooele City Council declaring that Tooele City, After July 1, 2025, will pick up and pay an amount of the required employee contributions for all Tooele City employees who are members of the Utah State Retirement Tier II Public Safety & Firefighter contributory retirement plan, and includes provisions relating to the employer pick-up.** Councilwoman Manzione mad the second. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

16. **Resolution 2025-53 A Resolution of the Tooele City Council Approving an Agreement with England Construction, LLC for the Gleneagles Park Restroom Project**

*Presented by Darwin Cook, Parks & Recreation Director*

Mr. Cook explained that although the project was included in the FY 2025–2026 budget just adopted, early approval was necessary due to procurement and scheduling delays, especially with the next Council meeting scheduled for after the July 4th holiday. This project would be funded through park impact fees, which are collected from developers for new residential construction.

The project aimed to enhance the usability of Gleneagles Park, which already included a soccer field, pavilions, and a playground. England Construction submitted the only bid, totaling $309,300, with a 5% contingency of $15,450 to cover related costs such as meters and engineering services. The new restroom facility would be similar to the one recently built at Settlers Park.

Council members briefly discussed concerns about restroom vandalism. Councilwoman Gochis inquired about the cost comparison between hand dryers and paper towel dispensers. Mr. Cook noted that paper dispensers were significantly less expensive to replace, and previous attempts to install dryers had resulted in vandalism.

Council members expressed appreciation for the project and agreed on the need for improved facilities at Gleneagles Park.

**Motion: Councilwoman Gochis moved to approve Resolution 2025-53, Resolution of the Tooele City Council approving an agreement with England Construction, LLC for the Gleneagles Park**

**Restroom Project.** Councilwoman Manzione seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

17. **Resolution 2025-55 A Resolution of the Tooele City Council Approving an Agreement with England Construction, LLC for the Veterans Memorial Park Restroom Project**
*Presented by Darwin Cook, Parks & Recreation Director*

Mr. Cook explained that this project was bid concurrently with the Gleneagles Park restroom project, with both included in the upcoming fiscal year's budget. England Construction submitted the only bid for the Veterans Park restroom, totaling $308,500 with a contingency of $15,425.

The restroom would be identical to those at Gleneagles, Settlers Park, and the golf course – multi-gender, equipped with security cameras, and designed for durability. Mr. Cook emphasized the importance of having permanent restroom facilities at Veterans Park due to its frequent use for city and community events, noting that porta-potties had previously been the standard. The new facility would be located on the north side of the park, near existing utilities.

Councilwoman Manzione and Chairman Brady both expressed support for the project. In response to a question about future restroom needs, Mr. Cook stated that this project would meet the current needs at the most heavily used parks. He suggested Linear Park could be considered next but reiterated his ongoing policy not to accept new parks from developers unless permanent restroom facilities are included.

**Motion: Councilman McCall moved to approve Resolution 2025-55, a Resolution of the Tooele City Council approving an agreement with England Construction, LLC for the Veterans Memorial Park Restroom Project.** Councilwoman Manzione seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

18. **Resolution 2025-54 A Resolution of the Tooele City Council Approving an Agreement with England Construction, LLC for the Gleneagles Park Water Meter and Pressure Reducing Zone Valve Project**
*Presented by Darwin Cook, Parks & Recreation Director*

Mr. Cook explained that the project was funded through PAR tax revenue and was necessary due to long-standing irrigation challenges at Gleneagles Park. The existing two-inch water connection lacked sufficient volume to meet irrigation needs during warmer months.

The project involved upgrading to a four-inch connection, installing a new reduced pressure zone (RPZ) valve, adding irrigation zones, and implementing a smart timer system. The improvement was intended to increase water volume and efficiency before upgrading the irrigation zones themselves, which was also included in the newly adopted budget.

Mr. Cook noted that although the project was initially bid out alongside a similar project at Red Delpapa Park, only the Red Delpapa improvements were completed at that time due to budget limitations. England Construction, who submitted one of the original bids, agreed to honor their previous pricing: $409,500 with a contingency of $5,475. He added that England's involvement in both the irrigation and restroom projects would allow for proper separation and metering of domestic and irrigation water use, as required by the state.

**Motion: Councilwoman Manzione moved to approve Resolution 2025-54, a Resolution of the Tooele City Council approving an agreement with England Construction, LLC for the Gleneagles Park Water Meter and Pressure Reducing Zone Valve Project.** Councilwoman

Gochis seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

19. **Resolution 2025-58 A Resolution of the Tooele City Council Approving a Contract with Musco Sports Lighting, LLC, for the Installation of Ball Field Lighting at Parker's Park**
*Presented by Darwin Cook, Parks & Recreation Director*

Mr. Cook explained that the existing lights in Parker's Park, which were several years old, had become inoperable due to outdated drivers that were no longer manufactured. While some lights still functioned, 18 were out of service across the two little league fields.

To resolve the issue, Musco Sports Lighting recommended retaining the existing poles but replacing all the heads and relocating the drivers to the base of each pole for easier maintenance. The upgrade would also allow the City to install programmable timers and remote control access to prevent lights from being left on unintentionally.

Mr. Cook noted that the $244,545 project was contracted through Musco as a state vendor. He anticipated that the work would begin as soon as materials arrived, with the goal of having the lighting ready in time for the fall ball season, and certainly by next year's regular season.

**Motion: Councilwoman Manzione moved to approve Resolution 2025-58, a Resolution of the Tooele City Council approving a contract with Musco Sports Lighting, LLC, for the installation of ball field lighting at Parker's Park.** Councilwoman Gochis seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

20. **Resolution 2025-59 A Resolution of the Tooele City Council Approving a Purchase and Financing Documents with Yamaha Motor Finance Corporation for the Purchase of 80 New Golf Carts**
*Presented by Darwin Cook, Parks & Recreation Director*

Mr. Cook explained that this resolution would approve a purchase and financing agreement with Yamaha Motor Finance Corporation for the replacement of the golf cart fleet at Oquirrh Hills Golf Course. He noted that the current fleet of 80 carts, purchased in 2019, had become increasingly unreliable, with frequent breakdowns requiring staff to retrieve inoperable carts during shifts.

Rather than replacing 12 carts per year at over $70,000 annually, the City opted for a more cost-effective solution: a five-year lease agreement covering all 80 carts at a cost of approximately $33,660 per year. The agreement included a trade-in value of $196,000 for the existing fleet, bringing the total financed amount to $313,360. Highland Golf would assume ownership and the remaining financed balance after the lease term. The deal also provided flexibility in switching vendors after the lease ends.

Mr. Cook noted that the new lease would be fully funded through recent fee increases for golf cart rentals. Council members expressed support, acknowledging the importance of providing a positive and reliable experience for golfers.

**Motion: Councilman McCall moved to approve Resolution 2025-59, a Resolution of the Tooele City Council approving a Purchase and Financing Document with Yamaha Motor Finance Corporation for the purchase of 80 new golf carts.** Councilwoman Manzione seconded the motion and clarified that the resolution being signed contained the correct language. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

21. **Resolution 2025-60 A Resolution of the Tooele City Council Approving a Contract with Tagmarshal International Limited for the Lease of a Golf Cart GPS System for the Oquirrh Hills Golf Course**

*Presented by Darwin Cook, Parks & Recreation Director*

Mr. Cook presented the proposed resolution, which approved a contract with Tagmarshal International Limited for the lease of a GPS system to be installed on the 80 new golf carts at Oquirrh Hills Golf Course. The 10-inch onboard screens would assist in managing pace of play, tracking cart locations, setting geo-fences, and improving operational efficiency. Mr. Cook explained that the system could also deter misuse of carts and promote faster play, potentially opening up additional tee times. The GPS units would include advertising capabilities, with the potential for sponsorship revenue to exceed system costs. He noted that the recent cart rental fee increase would also cover the cost of the system. Chairman Brady and Councilmembers expressed support and interest in the additional safety and monitoring features.

**Motion: Councilwoman Gochis moved to approve Resolution 2025-60, a Resolution of the Tooele City Council approving a contract with Tagmarshal International Limited for the lease of a golf cart GPS system for the Oquirrh Hills Golf Course.** Councilman McCall seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

Mr. Cook thanked the Council for their support, acknowledging that while some of the approved projects were costly, they were not taken lightly. He expressed appreciation for the Council's commitment to providing improved facilities and long-overdue upgrades to public play spaces.

22. **Ordinance 2025-19 An Ordinance of Tooele City Adopting Government Records Retention Schedules**

*Presented by Michelle Pitt, City Recorder*

Ms. Pitt explained that the City had previously relied on the State of Utah's general retention schedules, but this ordinance would establish a tailored schedule organized by department, making it easier for staff to locate and manage records appropriately. She noted that after Council adoption, the proposed schedule would be submitted to the Utah State Archives for final approval to ensure compliance with state laws. Councilwoman Manzione commended the thoroughness of the work, noting the extensive number of records and the overall quality of the final product.

**Motion: Councilwoman Manzione moved to approve Ordinance 2025-19, an Ordinance of Tooele City adopting Government Records Retention Schedules.** Councilman McCall seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

23. **Renaming Ordinance 2025-11, Regarding a Zoning Map Amendment Request by Perry Homes**

*Presented by Michelle Pitt, City Recorder*

Ms. Pitt explained that while the ordinance had been publicly noticed and discussed under the correct title – referring to Perry Homes' request to rezone 122.7 acres near Compass Point – the ordinance document itself incorrectly listed the title as a zoning amendment for property near 1405 Conifer Street. She clarified that the ordinance text, agenda notice, and Council discussion all accurately described the Compass Point rezoning request. No motion was required, but the correction was entered into the record to align the ordinance title with the content and official proceedings.

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**24. Invoices & Purchase Orders**

*Presented by Michelle Pitt, City Recorder*

There were none.

**25. Minutes**

**~June 4, 2025 Work Meeting**

**~June 4, 2025 Business Meeting**

No corrections were noted.

**Motion: Councilwoman Manzione moved to approve the meeting minutes of the June 4, 2025 Work Meeting and June 4, 2025 Business Meeting as presented.** Councilman McCall seconded the motion. The vote was as follows: Councilman McCall, "Aye"; Councilwoman Gochis, "Aye"; Councilwoman Manzione, "Aye"; Chairman Brady, "Aye". Absent: Councilman Hansen. There were none opposed. The motion passed.

**26. Adjourn**

There being no further business, Chairman Brady adjourned the meeting at 8:30 p.m.

*The content of the minutes is not intended, nor are they submitted, as a verbatim transcription of the meeting. These minutes are a brief overview of what occurred at the meeting.*

Approved this ____ day of July, 2025

_____

Justin Brady, City Council Chair

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