DOCUMENT 00 91 13 A1
ADDENDUM 1

PART 1 CONTRACT DOCUMENT MODIFICATIONS

1.1 CLARIFY THAT THE EXISTING PUMP STATION IS NOT TO BE DEMOLISHED

A. Delete Document 00 11 16 Invitation to Bid in its entirety and replace it with Document 00 11 16 A1. This replacement Document is attached to this Addendum 1.

B. Delete Document 01 11 00S Summary of Work in its entirety and replace it with Document 01 11 00 A1. This replacement Document is attached to this Addendum 1.

C. Delete Drawing L-02 Rev A in its entirety and replace it with Drawing L-02 Rev 1. This replacement Drawing is attached to this Addendum 1.

D. The effect of this change is to clarify that the existing pump station is not to be demolished.

1.2 MODIFICATIONS TO SUPPLEMENTAL SPECIFICATION SECTION 22 11 23S WATER PUMP

A. Delete Supplemental Specification 22 11 23S Water Pump in its entirety and replace it with Supplemental Specification 22 11 23S A1 Water Pump. This replacement Supplemental Specification is attached to this Addendum 1.

B. The effect of this change is to clarify the pump requirements and that these requirements do not include a suction pipe or a strainer.

1.3 BACKUP GENSET SPECIFICATIONS

A. In response to Bidder's requests, specifications for the backup genset are attached to this Addendum 1.

END OF ADDENDUM 1

DOCUMENT 00 11 16 A1
INVITATION TO BID

PART 1 GENERAL

1.1 CONSTRUCTION CONTRACT

A. Bidders are invited to bid on the Construction Contract known **as Rock Canyon Aquifer Storage Booster Station & Transmission Line (PROVOEN202320182), Bid No. 1**.

B. The location of the work is: Provo Utah

C. The Work generally includes, but is not limited to, the following:

1. Pump station construction including, all mechanical, electrical, plumbing, structural, civil, and architectural.
2. Pipe connections to existing water mains located at the pump station.
3. Water main construction from the pump station to Rock Canyon.
4. One pipe outlet in Rock Canyon.
5. Two underground vaults.
6. Commissioning of the system.
7. Decommissioning of an existing pump station.

1.2 BID SUBMISSION AND BIDDING RESULTS

A. Bids will be received until 4:00 p.m. local time on September 7, 2023 only via SciQuest (www.purchasing.utah.gov) online bidding system. Bids received after 4:00 p.m. will not be considered.

B. Bidders will be informed of the Bid results via SciQuest (www.purchasing.utah.gov) or via e-mail Bidders will be informed of the Bid results via SciQuest (www.purchasing.utah.gov) or via e-mail.

1.3 BID BONDS

A. A Bid Bond in the amount of 5 percent of the Bid must accompany each Bid in accordance with the Instructions to Bidders. The Bid Bond will be returned to each unsuccessful Bidder after tabulation and award of the Construction Contract.

1.4 BASIS OF BIDS

A. Bids shall be on a unit price basis.

1.5 CONTRACT TIME

A. The proposed date of Substantial Completion shall be included in the Bid.

1.6 EXAMINATION AND PROCUREMENT OF DOCUMENTS

A. Complete sets of Contract Documents may be examined and obtained online at SciQuest (www.purchasing.utah.gov) after July 4, 2023.

1.7 PRE-BID MEETING

A. There will be no pre-bid meeting.

1.8 RIGHT TO REJECT BIDS

A. Provo City reserves the right to reject any or all Bids or to waive any informality or technicality in any Bid if deemed to be in the best interest of Provo City.

1.9 GOVERNING LAWS AND REGULATIONS

A. This project maybe federally funded and may require the payment of specific wage rates. If the project is federally funded, then payroll submittal will be required. See 00 21 13 Instruction to Bidders for additional information.

B. Bidders on this Work will be subject to the applicable provisions of all federal rules, laws and regulations or orders. ***This may include compliance with the Build America Buy America Act (BABA Act; Public Law 117-58). See 00 45 15 Federal Contract Requirements and 00 21 13 Instructions to Bidders for additional information.***

C. Bidder must provide proof that Bidder has completed the registration process in an approved immigration status verification system and is in full compliance with the immigration status verification program as well as all requirements of Utah Code Section 63G-12-302.

D. Bidder will also be required to provide similar proof of compliance for any Subcontractor who works under the terms of the Contract Documents.

END OF DOCUMENT

SECTION 01 11 00S A1
SUMMARY OF WORK

Delete Standard Specification 01 11 00 in its entirety and replace it with the following:

PART 1 GENERAL

1.1 GENERAL

A. The Work to be performed under this contract shall consist of furnishing all, tools, equipment, materials, supplies, and manufactured articles and furnishing all labor, transportation, and services including fuel, power, water, and essential communications, and performing all Work, or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and all work, materials, and services not expressly indicated or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be provided by the CONTRACTOR as though originally so indicated, at no increase in cost to the OWNER.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. For Bid Schedule 1, the Work generally includes, but is not limited to, the following:

1. Maintain the operation of the existing pump station until the new pump station, including all features required for pump operation and control, have been commissioned.
2. Pump station construction including, all mechanical, electrical, plumbing, structural, civil, and architectural.
3. Pipe connections to existing water mains at the pump station area.
4. Commissioning of the system.
5. Decommissioning of an existing pump station.
6. Restoration of the site and adjacent streets, parking lots, and other facilities including implementing the site landscaping plan.

B. For Bid Schedule 2, the Work generally includes, but is not limited to, the following:

1. Construction of water main and appurtenances from the intersection of Temple View Drive and Temple Hill Drive to Rock Canyon.
2. One water main outlet in Rock Canyon.
3. One valve vault located in Rock Canyon.
4. Commissioning of the system.

5. Restoration of streets, boulevards, lawns, parking lots, and other facilities.

1.3 CONTRACT TYPE

A. The Work hereunder shall be completed under a contract that includes lump sum pay items.

1.4 WORK BY OTHERS

A. The CONTRACTOR shall cooperate fully with all utility forces of the OWNER or the forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities which interfere with the progress of the Work, and shall schedule the Work so as to minimize the interference with said relocation, altering or other rearranging of facilities.

B. All surveying and construction staking will be performed by CONTRACTOR. The CONTRACTOR shall notify the ENGINEER of any surveying needs 72 hours prior to the anticipated work.

1.5 LIMITATION OF OPERATIONS

A. No work is allowed between the hours of 10:00 PM and 7:00 AM without prior written approval from the ENGINEER.

1.6 CONTRACTOR USE OF PROJECT SITE

A. The CONTRACTOR's use of the project site shall be limited to its construction operations within the construction work zone. This includes on-site storage of materials, on-site fabrication facilities, and field offices. Storage of project materials will not be permitted on public streets outside of the construction work zone.

1.7 OWNER USE OF THE PROJECT SITE

A. The CONTRACTOR shall cooperate and coordinate with the OWNER to facilitate the OWNER's operations and to minimize interference with the CONTRACTOR's operations at the same time. In any event, the OWNER shall be allowed access to the project site during the period of construction.

1.8 STORM WATER POLLUTION PREVENTION

A. The CONTRACTOR shall be responsible for implementation of Best Management Practices for the project to eliminate illicit discharge into the Storm Water System. The CONTRACTOR shall be responsible to obtain a Utah State General Construction Permit and prepare a Storm Water Pollution Prevention Plan if the area of disturbance is one acre or greater. If a Storm Water Pollution Prevention Plan is not provided with the

Contract Documents and the area of disturbance is less than one acre, the CONTRACTOR shall at a minimum:

1. Provide storm drain inlet protection.
2. Provide appropriate washout bins for all concrete trucks on the project.
3. Provide stabilized construction accesses to eliminate tracking of sediment onto surrounding streets.
4. Provide sweeping on a daily basis, or as directed by the ENGINEER, of the project area and surrounding streets. More frequent sweeping may be required depending on project situations.

1.9 PUBLIC NOTICING

A. The CONTRACTOR shall provide a Public Relations Plan for the project and submit the plan to the OWNER at the pre-construction conference for approval. The Public Relations Plan shall address the following minimum requirements:

1. The CONTRACTOR shall provide a Public Relations Supervisor who is responsible for interfacing with the public throughout the project and resolving complaints and concerns of property/business owners and the public in general. The name and qualifications of the Public Relations Supervisor shall be identified in the Public Relations Plan and shall be presented to the ENGINEER at the pre-construction conference. The Public Relations Supervisor shall:

   a. Be listed with name and phone number on all project flyers, notifications, and project signs.

   b. Have a 24-hour access phone number to respond to construction complaints.

   c. Have the authority to direct the Work as required to resolve concerns and complaints.

   d. Provide an updated progress schedule to the ENGINEER on a weekly basis.

   e. Provide an updated long-term progress schedule to the ENGINEER with each pay request.

   f. Ensure all notifications to adjacent property owners are made as described in the Contract Documents.

   g. Within 60 minutes of being notified, contact any property owners who have called with complaints or expressed concerns.

   h. Resolve all complaints and expressed concerns within 24 hours.

i. Follow-up with individuals or entities making complaints 24 hours after resolution to ensure that satisfactory results were obtained.

j. Document all complaints in a public relations log, including name, address, and contact information for the individual or entity, date and time of initial notification, nature of complaint, actions taken to resolve the complaint, date and time of complaint resolution, and the date and time of follow-up actions.

k. Provide an updated copy of the public relations log to the ENGINEER on a weekly basis.

2. The CONTRACTOR shall provide a professionally prepared, moveable, temporary project sign at each work location on the project. The sign shall have a minimum face area of 16 square feet and shall be readily visible and legible. A proof of the proposed sign shall be submitted to the ENGINEER for approval at the pre-construction conference. The sign shall contain the following information:

   a. Project Name:

   b. Contractor Name:

   c. Public Relations Supervisor Name:

   d. Public Relations Supervisor Contact Number:

3. Failure to comply with the approved Public Relations Plan shall be considered grounds for project suspension per Article 15.1 of the General Conditions (APWA Document 00 72 00).

END OF SECTION 01 11 00S A1

SECTION 22 11 23S A1
WATER PUMP

Delete Standard Specification 22 11 23 WATER PUMP in its entirety and replace it with the following.

PART 1 - GENERAL

1.1 WORK INCLUDED. This Section includes the furnishing, installation, testing and commissioning of vertical turbine pumps, discharge columns, shafting, discharge heads, motors and other types of pumps and appurtenant items.

1.2 RELATED WORK

Section 21 11 00S - Building Services Piping

Section 22 11 14S - Facility Valves and Actuators

Division 26 Electrical

1.3 REFERENCES

A. American Water Works Association (AWWA)

1. E101-88 Vertical Turbine Pumps - Line Shaft and Submersible Types

B. American National Standards Institute (ANSI)

1. B16.1 Flanges and Fittings for Cast Iron Pipe

C. American Society for Testing Materials (ASTM)

1. A48 Specification for Gray Iron Castings

2. A53 Specification for Pipe, Steel, Black or Hot-Dipped Zinc Coated, welded or seamless

1.4 SUBMITTALS

A. Preliminary Performance Curves shall be submitted for approval prior to manufacture of the pump. The curves shall be plotted on graph paper and shall indicate the head, brake horsepower, and overall efficiency over the range of discharges from shutoff to maximum, including the required points of operation.

B. Shop Drawings, including illustrative Drawings, catalogs, and detailed descriptive information and data on the proposed pump and motor, shall be submitted for approval.

C. Certified Test Curve. Certified performance test curves for the actual pump to be furnished shall be submitted based on the factory tests hereinafter specified. Approval of the certified test results shall precede the shipment of the pump from the factory.

D. Operation and Maintenance Manual. Provide three (3) copies of complete operation and maintenance information for the pump and motor.

PART 2 - PRODUCTS

2.1 DESIGN CONDITIONS. The following are the anticipated operating conditions and related requirements

ASR/Rock Canyon System Vertical Turbine Pumps – Quantity 3

- Static Water Level Range(approx.) Elevation 4894.8 – 4834.8
- Design Point 3000 GPM @ 595 Ft. TDH,
- Minimum Discharge Diameter 10 inch
- Maximum Motor Horsepower 600 hp
- Motor Synchronous Speed 1800 rpm
- Motor Voltage 480 volt
- Nominal Minimum Motor Efficiency 95 %

ASR/Rock Canyon System Vertical Turbine Pumps – Quantity 1

- Static Water Level Range(approx.) Elevation 4894.8 – 4834.8
- Design Point 1500 GPM @ 595 Ft. TDH,
- Minimum Discharge Diameter 8 inch
- Maximum Motor Horsepower 300 hp
- Motor Synchronous Speed 1800 rpm
- Motor Voltage 480 volt
- Nominal Minimum Motor Efficiency 95 %

Intermediate System Vertical Turbine Pumps – Quantity 3

- Static Water Level Range(approx.) Elevation 4894.8 – 4834.8
- Design Point 1400 GPM @ 230 Ft. TDH,
- Minimum Discharge Diameter 8 inch
- Maximum Motor Horsepower 150 hp
- Motor Synchronous Speed 1800 rpm
- Motor Voltage 480 volt
- Nominal Minimum Motor Efficiency 95 %

2.2 VERTICAL TURBINE PUMP

A. Pump Construction. Vertical turbine pump, with the exception of the motors, shall be the product of a single manufacturer. The turbine pump shall be enclosed impeller with high-grade enameled cast iron (ASTM A48-Class 30) bowls accurately machined, bronze or rubber bearings, and bronze impellers. Impellers shall be secured to a stainless-steel bowl shaft with stainless steel collets. Pump shall be manufactured by Goulds, Fairbanks Morse, Johnston, Layne-Bowler, National, or Peerless.

B. Drive Shaft and Pump Column. The drive shaft shall be constructed of precision steel, ANSI Type 416SS, turned, ground and polished, straight and true within a tolerance of 0.005 inches in each 10-foot length with butt joints and stainless-steel couplings made of solid steel bar stock accurately threaded. The head shaft shall be 416 SS HT extending through the hollow shaft of the drive and connected to a drive plate. Thrust and radial bearings, positioned in the drive, are to provide support to the load and guide the shaft and are to be oil lubricated.

The discharge column shall be of sufficient size to carry the required volumes of water without undue friction losses. The column pipe shall be Schedule 40, seamless, low carbon steel pipe meeting ASTM A53, Grade B requirements. With exception of the top and bottom sections, the column shall be assembled in 10 ft. lengths. Threaded couplings shall be used. The spiders or bearing retainers are to be constructed of bronze and fitted with Goodrich or equal rubber bearings. The spiders shall be positioned at column joints and screw into the coupling for a watertight joint. The bearings shall be designed for water lubrication.

C. Discharge Head and Base. This shall be constructed of cast iron designed for above ground discharge and to suit the manufacturer's standard product. The discharge outlet shall be a long sweep elbow of the size specified with a standard flanged outlet to fit without adaption of the specified discharge diameter. The base of the discharge head shall be sealed to the leveling plate at top of the casing in a manner as shown on the Drawings. Provide drain holes around pump base.

The head shall be arranged for the mounting of a hollow shaft drive, equipped with a suitable thrust bearing. Furnish the necessary foundation bolts and other bolting required. The column shall be secured to the head casting with a flanged joint. Provide the necessary lubricating equipment of design standard to the manufacturer's product including a deep stuffing box packed with impregnated packing where the shaft enters the column. Discharge head shall be designed to permit unobstructed access to the stuffing box to facilitate easy repacking.

Lubricating water line shall be provided by the CONTRACTOR. The head shall be provided with a water connection for shaft bearing lubrication.

The CONTRACTOR shall furnish between the top of the concrete foundation and

the pump head casting a steel or cast-iron leveling plate of at least 1" thickness and area equal to or greater than the area of the pump head casting, or another OWNER approved method for leveling the pumps. The leveling plate shall be grouted in place on the top of the foundation after being carefully leveled.

Pump shall have a brass nameplate mounted in accessible location with manufacturer's name and the design characteristics imprinted thereon.

D. Motor. The motor shall conform with applicable NEMA, IEEE and ANSI standards and shall be energy efficient having efficiency as scheduled in accordance with IEEE Standard 112, Test

The motor shall be a premium efficiency, vertical squirrel cage type, hollow shaft, suitable for 3-phase, 60 hertz, A.C. voltage, horsepower and a synchronous speed as hereinbefore specified. The motor shall be NEMA Weather-Protected Type I, normal torque, low starting current, 40 C ambient, 1.15 service factor, high thrust, ball bearing, low current starting, general purpose motor with moisture resistant windings. The motor shall be suitable for variable-frequency speed variation.

The rotor of the motor shall be dynamically balanced and free from objectionable vibrations. The motor shall be G.E. Energy Saver or equal. Motor shall be non-overloading when operating continuously over the entire operating range without using the service factor. A device shall be provided to prevent shaft reversal.

The motor shall have a brass nameplate mounted in an accessible location with the manufacturer's name and design characteristics imprinted thereon.

Electrical work shall be as specified in Division 26.

E. Factory Performance Test. The pump to be furnished shall be factory tested to verify its conformity with the specified performance. The tests, conducted in accordance with the applicable provisions of the Hydraulic Institute's Test Code, shall cover the full range of operating conditions from shutoff to maximum discharge. Data shall be obtained for discharge vs. operating head, and corresponding brake horsepower and efficiency. The test curves shall be plotted with the capacities as abscissas against operating head, brake horsepower, and efficiency plotted as ordinates. The test results shall indicate conformity with the specifications at the design points within zero percent (0%) minus tolerance and ten percent (10%) plus tolerance. Failure of the pump to achieve the required performance shall require modification of the pump and retesting.

PART 3 - EXECUTION

3.1 VERTICAL TURBINE

A. Pump Installation. The turbine pump, shafting, and discharge column shall be installed in the casing on a concrete foundation. The exposed surfaces shall be troweled with a cement wash to provide a smooth finish. Set a leveling plate over the top of the concrete base on which the pump discharge head is placed, as shown on the Drawings. The leveling plate shall be accurately leveled and grouted in place.

After the pump, shafting, discharge column, and electric motor are installed, the CONTRACTOR shall then connect the electric motor to the permanent electrical service to test the pump and place the pump in final operating condition. The costs incidental to this pump testing are to be included in the price bid for the pump installation. The CONTRACTOR shall accept the in the condition in which it was left by the CONTRACTOR and shall construct the pump foundation around the present casing to the elevation set by the ENGINEER. The casing will extend above the pumphouse floor elevation. This CONTRACTOR may have to shorten or extend the casing as necessary to place the sanitary seal for the discharge head. The placing of the sanitary seal shall be considered incidental to constructing the concrete base.

B. Vertical Turbine Pump Disinfection. CONTRACTOR shall disinfect the vertical turbine bowl assembly, discharge column, shafting, and pump base with a standard solution of calcium hypochlorite solution as he installs the pump. Both the inside and outside of the discharge column shall be swabbed, with suitable swabs, just before installation by using a saturated solution of calcium hypochlorite.

Prior to setting the vertical turbine pump base, the CONTRACTOR shall prepare a chlorine solution for disinfecting the and pumping equipment. Chlorine shall be so applied that a concentration of 50 ppm of chlorine shall be obtained in all parts of the. The chlorine solution shall be introduced into the in a manner to flush the surfaces above the static water level with the chlorine solution. The solution shall remain in the for a minimum of two hours and then pumped to waste in a manner approved by the ENGINEER. The chlorine solution discharge shall not have any impact on the surrounding wetland.

C. Vertical Turbine Field Tests. Field acceptance tests of the pumping equipment shall be conducted in the presence of the ENGINEER and the OWNER after the installation is completed. The CONTRACTOR shall furnish the necessary personnel and other equipment for conducting the field test. Capacity measurement shall be by using the measuring device installed in the discharge line under this contract. The testing equipment, its set-up, instruments, methods of conducting the test and the observations to be recorded shall be approved by the ENGINEER before the tests are made. Satisfactory evidence shall be given to the ENGINEER that the instruments which are used are accurate.

The vertical turbine pumps shall be tested for a period of one hour at its design capacity and head, the test being conducted in the presence of the ENGINEER and a representative of the OWNER. Readings of the instruments shall be taken at intervals of five (5) minutes for the drawdown, pumping head, flow rate and necessary data to

determine the overall efficiency of the pumping unit, and recorded on log sheets. Four copies of the log sheets shall be turned over to the ENGINEER. If the OWNER or ENGINEER is dissatisfied for any reason with the tests, additional ones shall be conducted as the ENGINEER may direct.

Should the test indicate that the pump has failed to meet the required performance, the CONTRACTOR shall proceed at once to correct the same. After this has been done, additional tests shall be conducted at the CONTRACTOR's expense.

In the event the CONTRACTOR is unable to obtain the specified performance, the OWNER reserves the right to reject the pump or accept a reduction in the contract price for an amount satisfactory to the OWNER. Should the pump be rejected, the CONTRACTOR shall proceed at once in securing and installing another pump that will meet the specified performance without cost to the OWNER. In the event the CONTRACTOR shall repeat the pumping test as specified above, it shall be at no additional cost to the OWNER.

END OF SECTION 22 11 23S A1

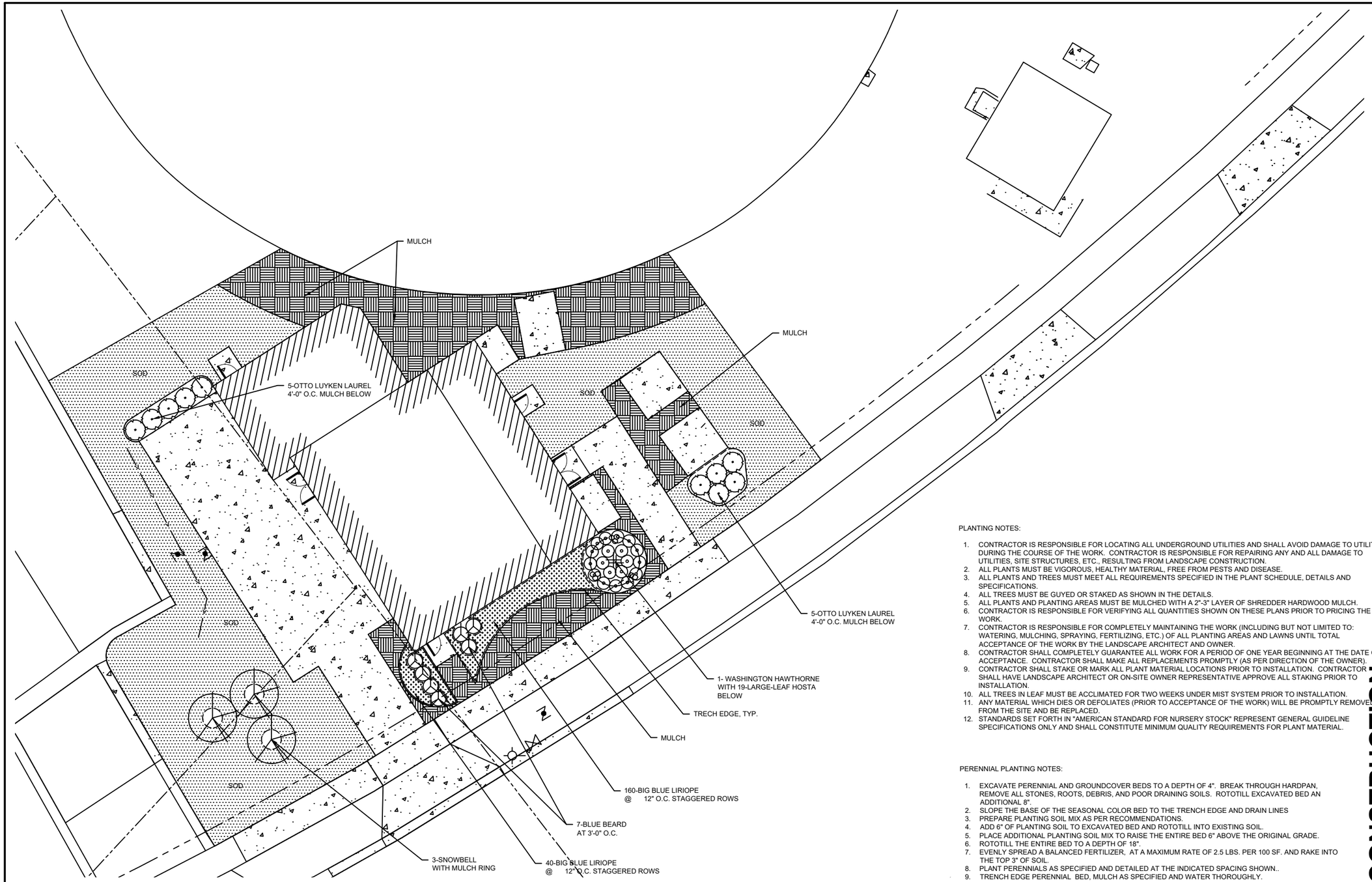
BACK-UP GENERATOR SCOPE OF SUPPLY:

Quantity 1 -Industrial gaseous engine-driven generator, turbocharged/aftercooled 12 cylinder 33.9L engine, consisting of the following features and accessories:

- Stationary Emergency-Standby rated
- Estimated 750 kW Rating, wired for 277/480 volt three phase, 60 Hz, Manufacturer to confirm.
- Included loads 1 each 300 HP motor, 2 each 150 HP motor, 50 kW misc. loads
- Permanent Magnet Excitation
- With upsized Alternator
- Natural Gas Fuel System
- UL2200
- EPA Certified
- Coolant Heater,
- Two-Stage Air Cleaner
- Battery Charger
- Power Zone Digital Control Panel for Single or MPS Generators
    - Meets NFPA 99 and 110 requirements
    - Temp Range -40 to 70 degrees C
    - Humidity 2 – 95% (Non Condensing)
    - UL6200
    - C-ETL-US
    - CE
    - FCC
    - IEC801 (Radiated Emissions, Susceptibility, and Surge Immunity)
    - 7” Resistive Color Touchscreen
        - Built-in Wi-Fi, Bluetooth, and Webserver
        - IP65 (front)
        - Auto/Manual/Off key switch, Alarm Indication, Not in Auto Indication, audible alarm, emergency stop switch
    - Dual Core Digital Microprocessor
        - RS485, Ethernet and CANbus ports
    - All engine sensors are 4-20ma for minimal interference
        - Sensors: Oil Pressure, optional Oil Temp, Coolant Temp and Level, Fuel Level/Pressure (where applicable), Engine Speed, DC Battery Voltage, Run-time Hours, Generator Voltages, Amps, Frequency, Power, Power Factor
        - Alarm Status: Low or High AC Voltage, Low or High Battery Voltage, Low or High Frequency, Pre-low or Low Oil Pressure, Pre-high or High Oil Temp (optional), LowWater Level and Temp, Pre-high or High Engine Temp, High, Low, and Critical-low Fuel Level/Pressure (where applicable), Overcrank, Over and Under Speed, Unit Not in Automatic
        - Programmable I/O

    - Engine function monitoring and control:
        - Full range standby operation; programmable auto crank, Emergency Stop, Auto-Off-Manual switch
        - Isochronous Governor
            - 0.25% digital frequency regulation with: soft-start ramping - adjustable, gain - adjustable, overshoot limit - adjustable
        - 3 Phase RMS Voltage Sensing
            - +/-0.5% digital voltage regulation with: soft-start voltage ramping - adjustable, loss of sensing protection - adjustable, negative power limit - adjustable, Hi/Lo voltage limit - adjustable, V/F slope and gain - adjustable, fault protection
    - Service reminders, trending, fault history (alarm log)
    - I2T function for full generator protection
    - Selectable low-speed exercise
    - 2-wire start controls for any 2-wire transfer switch
- No Enclosure (open set)
- Remote Emergency Stop Switch, Surface Mount
- Engine Run Relay, 10 Amp
- Flex Fuel Line
- Knock Sensing Detection
- Oil Temp Sender
- Fan and Belt Guards
- Radiator Stone Guard
- MLCB, 100% Rated Thermal/Magnetic
    - 1200 Amp
- 3 Owner's Manuals
- Standard Two Year Limited Warranty
- Startup assistance

Project Management Initials: Designer: Checked: Approved: ANSI D 22"x34"



NOTE:
1. CONTRACTOR SHALL REMOVE AND SAVE EXISTING IRRIGATION SYSTEM AS MUCH AS PRACTICAL AND RELOCATE IT TO PROPERLY WATER THE PROPOSED LANDSCAPE. ADDITIONAL IRRIGATION COMPONENTS WILL BE NECESSARY TO GET FULL IRRIGATION COVERAGE FOR THE PROPOSED LANDSCAPE.
2. MULCH SHALL BE A 3" DEPTH OF SHREDDED HARDWOOD MULCH PLACED DIRECTLY ON THE SOIL.

1

PLANT SCHEDULE

QTY	BOTANICAL NAME	COMMON NAME	CALIPER	HEIGHT	SPREAD	ROOT	CHARACTER
1	CRATAEGUS PHANOPYRUM	WASHINGTON HOWTHORN	2.5"	10'	5'	B&B	WELL BRANCHED, SPECIMEN TREE
3	STYRAX OBASSIA	SNOWBELL	2.5	10'	5'	B&B	FULL, WELL MATCHED
7	CARYOPTERIS INCANA	BLUE BEARD				5 GAL.	FULL IN POT, NOT ROOT BOUND
19	HOSTA 'DICK WARD'	LARGE LEAF HOSTA				3 GAL.	FULL IN POT, NOT ROOT BOUND
200	LIRIOPE MUSCARI 'BIG BLUE'	BIG BLUE LIRIOPE				1 GAL.	FULL IN POT, NOT ROOT BOUND
10	PRUNUS LAUROCERASUS 'OTTO LUYKEN'	OTTO LUYKEN LAUREL				5 GAL.	FULL IN POT, NOT ROOT BOUND
6750 SF	SOD						SOD TO THRIVE IN THE AREA
20 CY	SHREDDED HARDWOOD MULCH						

PLANTING NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL AVOID DAMAGE TO UTILITIES DURING THE COURSE OF THE WORK. CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE TO UTILITIES, SITE STRUCTURES, ETC., RESULTING FROM LANDSCAPE CONSTRUCTION.
2. ALL PLANTS MUST BE VIGOROUS, HEALTHY MATERIAL, FREE FROM PESTS AND DISEASE.
3. ALL PLANTS AND TREES MUST MEET ALL REQUIREMENTS SPECIFIED IN THE PLANT SCHEDULE, DETAILS AND SPECIFICATIONS.
4. ALL TREES MUST BE GUYED OR STAKED AS SHOWN IN THE DETAILS.
5. ALL PLANTS AND PLANTING AREAS MUST BE MULCHED WITH A 2"-3" LAYER OF SHREDDER HARDWOOD MULCH.
6. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES SHOWN ON THESE PLANS PRIOR TO PRICING THE WORK.
7. CONTRACTOR IS RESPONSIBLE FOR COMPLETELY MAINTAINING THE WORK (INCLUDING BUT NOT LIMITED TO: WATERING, MULCHING, SPRAYING, FERTILIZING, ETC.) OF ALL PLANTING AREAS AND LAWNS UNTIL TOTAL ACCEPTANCE OF THE WORK BY THE LANDSCAPE ARCHITECT AND OWNER.
8. CONTRACTOR SHALL COMPLETELY GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE. CONTRACTOR SHALL MAKE ALL REPLACEMENTS PROMPTLY (AS PER DIRECTION OF THE OWNER).
9. CONTRACTOR SHALL STAKE OR MARK ALL PLANT MATERIAL LOCATIONS PRIOR TO INSTALLATION. CONTRACTOR SHALL HAVE LANDSCAPE ARCHITECT OR ON-SITE OWNER REPRESENTATIVE APPROVE ALL STAKING PRIOR TO INSTALLATION.
10. ALL TREES IN LEAF MUST BE ACCLIMATED FOR TWO WEEKS UNDER MIST SYSTEM PRIOR TO INSTALLATION.
11. ANY MATERIAL WHICH DIES OR DEFOLIATES (PRIOR TO ACCEPTANCE OF THE WORK) WILL BE PROMPTLY REMOVED FROM THE SITE AND BE REPLACED.
12. STANDARDS SET FORTH IN "AMERICAN STANDARD FOR NURSERY STOCK" REPRESENT GENERAL GUIDELINE SPECIFICATIONS ONLY AND SHALL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.

PERENNIAL PLANTING NOTES:

1. EXCAVATE PERENNIAL AND GROUNDCOVER BEDS TO A DEPTH OF 4". BREAK THROUGH HARDPAN, REMOVE ALL STONES, ROOTS, DEBRIS, AND POOR DRAINING SOILS. ROTOTILL EXCAVATED BED AN ADDITIONAL 8".
2. SLOPE THE BASE OF THE SEASONAL COLOR BED TO THE TRENCH EDGE AND DRAIN LINES
3. PREPARE PLANTING SOIL MIX AS PER RECOMMENDATIONS.
4. ADD 6" OF PLANTING SOIL TO EXCAVATED BED AND ROTOTILL INTO EXISTING SOIL.
5. PLACE ADDITIONAL PLANTING SOIL MIX TO RAISE THE ENTIRE BED 6" ABOVE THE ORIGINAL GRADE.
6. ROTOTILL THE ENTIRE BED TO A DEPTH OF 18".
7. EVENLY SPREAD A BALANCED FERTILIZER, AT A MAXIMUM RATE OF 2.5 LBS. PER 100 SF. AND RAKE INTO THE TOP 3" OF SOIL.
8. PLANT PERENNIALS AS SPECIFIED AND DETAILED AT THE INDICATED SPACING SHOWN..
9. TRENCH EDGE PERENNIAL BED, MULCH AS SPECIFIED AND WATER THOROUGHLY.

NOT FOR CONSTRUCTION

Last Plotted:
Filename:

AECOM

PROJECT

ROCK CANYON AQUIFER STORAGE BOOSTER STATION &

CLIENT

CITY OF PROVO

ENGINEER

BARR ENGINEERING COMPANY

170 S MAIN STREET
SUITE 500
SALT LAKE CITY, UT 84101

ARCHITECT

AECOM

277 W. NATIONWIDE BLVD
SUITE 500
COLUMBUS, OHIO 43215

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
1	07/24/2023	DELETED NOTE 2
A	03/31/2023	ISSUED FOR BID

PROJECT NUMBER

60681049

SHEET TITLE

LANDSCAPE PLAN

SHEET NUMBER

L-01