



Board of Adjustment Staff Report

Meeting Date: March 3, 2022

Agenda Item: 8C

SPECIAL USE PERMIT CASE NUMBER: WSUP21-0030 (TMWA Pump House)

BRIEF SUMMARY OF REQUEST: A special use permit for a wellhouse and an infiltration basin and for major grading

STAFF PLANNER: Katy Stark, Planner
Phone Number: 775.328.3618
Email: krstark@washoecounty.gov

CASE DESCRIPTION

For hearing, discussion, and possible action to approve a special use permit for the construction and operation of a new wellhouse and a new infiltration basin on the property and for major grading to create a permanent earthen structure greater than six feet in height. The project will include required improvements to the site, including pavement, landscaping and screening as required by Code. As part of this project, the existing wellhouse, water storage tank, and subgrade booster pump station are proposed to be demolished. As part of this project, the applicant also seeks to vary the Code requirements for paved parking, loading and maneuvering areas and to allow portions of those areas to be stabilized with road-base material. Additionally, the applicant is asking to vary the landscaping buffer as well as the requirement for a solid wall or fence adjoining the neighboring property to the east.

Applicant / Owner: Truckee Meadows Water Authority
Location: 13175 Brush Lane Reno, NV
APN: 049-171-09
Parcel Size: 2.433 acres
Master Plan: Suburban Residential
Regulatory Zone: Low Density Suburban (LDS)
Area Plan: Southwest (SW)
Development Code: Authorized in Article 438, Grading; and Article 810, Special Use Permits
Commission District: 2 – Commissioner Lucey



Vicinity Map

STAFF RECOMMENDATION

APPROVE

APPROVE WITH CONDITIONS

DENY

POSSIBLE MOTION

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP21-0030 for Truckee Meadows Water Authority, with the conditions included as Exhibit A to this matter, having made all five findings in accordance with Washoe County Code Section 110.810.30.

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Special Use Permit

The purpose of a special use permit (SUP) is to allow a method of review to identify any potential harmful impacts on adjacent properties or surrounding areas for uses that may be appropriate within a regulatory zone; and to provide for a procedure whereby such uses might be permitted by further restricting or conditioning them so as to mitigate or eliminate possible adverse impacts. If the Board of Adjustment grants an approval of the special use permit, that approval is subject to conditions of approval. Conditions of approval are requirements that need to be completed during different stages of the proposed project. Those stages are typically:

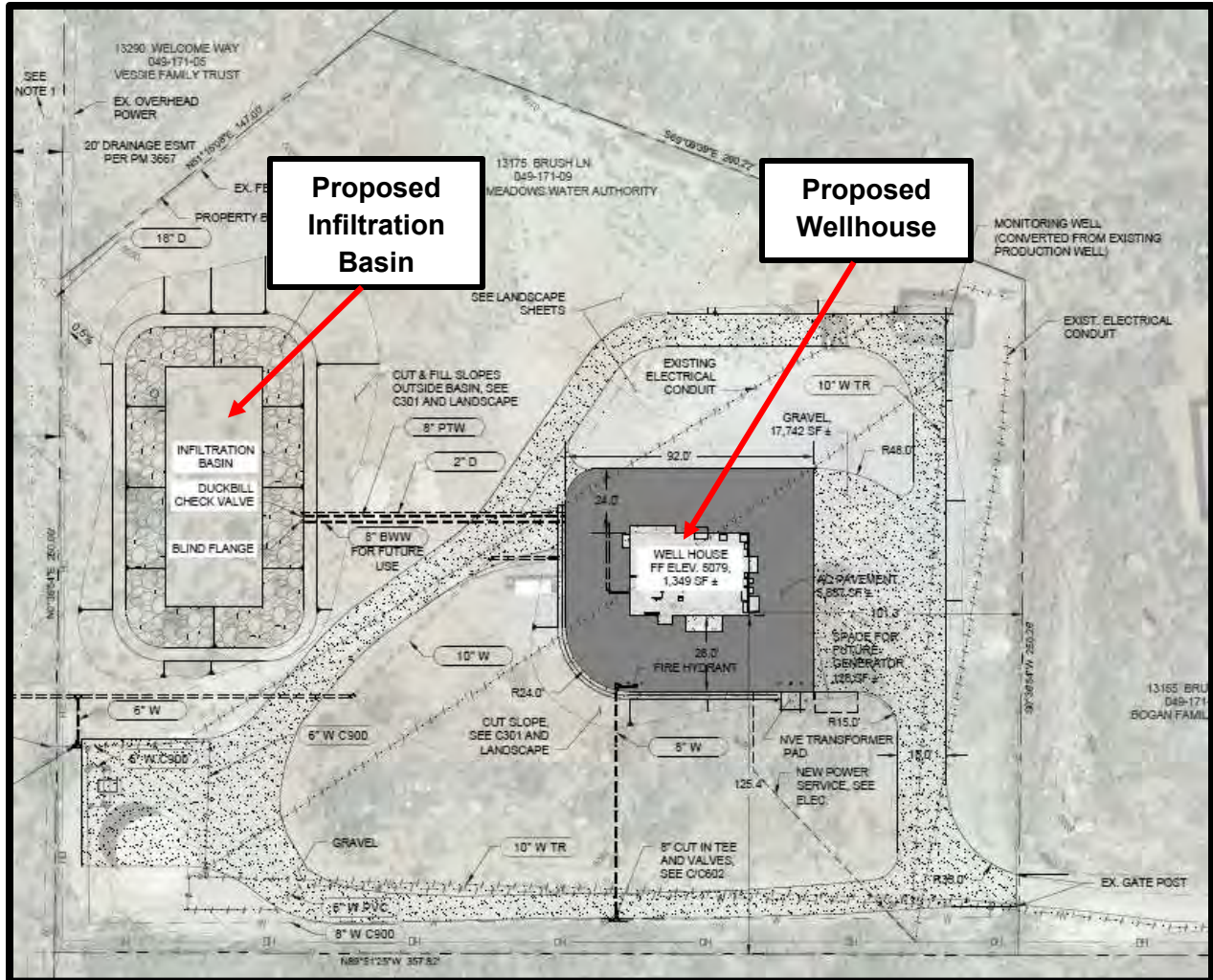
- Prior to permit issuance (i.e., a grading permit, a building permit, etc.)
- Prior to obtaining a final inspection and/or a certificate of occupancy on a structure
- Prior to the issuance of a business license or other permits/licenses
- Some conditions of approval are referred to as “operational conditions.” These conditions must be continually complied with for the life of the business or project.

The conditions of approval for Special Use Permit Case Number WSUP21-0030 are attached to this staff report and will be included with the action order.

The subject property has a regulatory zone of Low Density Suburban (LDS). The proposed use of a wellhouse and an infiltration basin is classified as a utility services use type and is permitted in the LDS regulatory zone with a special use permit per WCC 110.302.05.2. The proposed grading to create a permanent earthen structure greater than six feet in height is allowed with a special use permit for major grading per WCC Section 110.438.35. Therefore, the applicant is seeking approval of this SUP from the Board of Adjustment.

Additionally, Article 810, Special Use Permits, allows the Board of Adjustment to vary development code standards in conjunction with the approval process per WCC 110.810.20(e). The Board of Adjustment will be ruling on the requests to vary standards below:

Variance(s) Requested	Relevant Code
Waive paving requirement for on-site access roads	WCC Section 110.410.25(e)
Modify landscaped buffer adjoining a residential use	WCC Section 110.412.40(c)
Waive requirement for a solid wall or fence adjoining a residential use	WCC Section 110.412.40(d)



Site Plan

Project Evaluation

The applicant is requesting a special use permit for the construction and operation of a new wellhouse (utility services use type) and a new infiltration basin on the project site and for major grading to create a permanent earthen structure greater than six feet in height. The parcel was previously developed with a wellhouse (Thomas Creek Well) and storage tank constructed circa 1979. The water tank was modified, and an underground vault pump station was constructed circa 1996. The well, tank, and pump station are currently in operation and provide potable water to TMWA customers. A replacement production well with a higher production capacity has been drilled on the property to increase TMWA’s groundwater supply and redundancy for drought resiliency. This new well has not yet been equipped.

The project site is a 2.433-acre parcel owned by TMWA and located at 13175 Brush Lane. The project site and all abutting parcels are zoned Low Density Suburban (LDS). A vacant, undeveloped parcel to the west of the project site is owned by Sage Ridge School. A vacant, undeveloped parcel to the south of the project site is United States Forest Service land. The two abutting parcels to the north and east of the project site are developed with single-family residences.



Project Site & Abutting Parcels

The proposed new wellhouse will be approximately 1,349 square feet and will contain a new well pump, motor, discharge piping and appurtenances, and water treatment chemicals. The wellhouse will be painted in natural hues to match the surrounding residential area. After the new Thomas Creek well is operational, the existing wellhouse, water storage tank, and pump vault will be demolished.

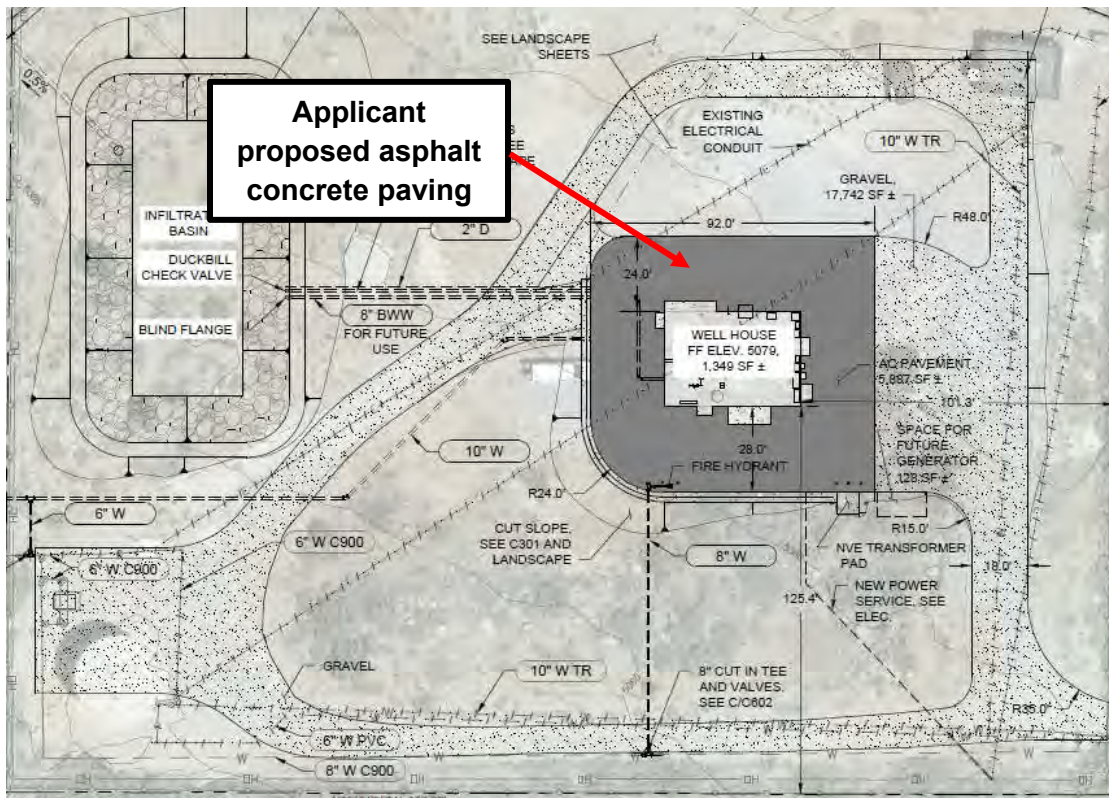
The proposed infiltration basin will be used for disposal of well water discharge on startup and shutdown of the well. This disposal is covered under TMWA’s operation and maintenance permit

with the Nevada Division of Environmental Protection (NDEP). Most water should percolate, but if the infiltration basin overflows, then the flow will discharge to an existing drainage ditch adjacent to the west side of the parcel. This drainage ditch terminates at a retention pond operated by TMWA at their STMGID 12 well site.

The proposed grading area for the project is 38,600 square feet. Washoe County Engineering has provided requirements for grading plans and a grading bond in the conditions of approval (Exhibit A). The construction of a permanent earthen structure of 6.7 feet in height is required for the infiltration basin. WCC Section 110.438.35 requires a special use permit for major grading for construction of a permanent earthen structure greater than six (6) feet in height. The applicant has indicated that the infiltration basin is required for disposal of pump-to-waste water at well startup and shutdown, and the basin elevations are set by the elevation of the drainage ditch to the west of the site.

The applicant has indicated that a drainage report will be submitted at the time of the building permit application. Washoe County Engineering has provided drainage conditions in Exhibit A.

The applicant is requesting to waive paving requirements for on-site access roads. WCC Section 110.410.25(e) requires that all parking spaces, driveways and maneuvering areas shall be paved and permanently maintained with asphalt or cement. The applicant will apply asphalt concrete paving to the area adjacent to the new wellhouse. The applicant is requesting to use a gravel or aggregate base for the other on-site access roads, rather than asphalt or cement, in order to reduce new impervious surfaces and reduce future maintenance of paved surfaces. The applicant has indicated that existing trips to the Thomas Creek Well site include one chemical delivery every two weeks and a weekly maintenance visit from TMWA staff. The frequency of travel to the site is not expected to change after construction of the proposed project is completed. Due to the low traffic volumes generated, staff is recommending approval of the applicant's request to use a gravel or aggregate base for the other on-site access roads. Staff recommends that asphalt or concrete paving be applied, as proposed by the applicant, to the area shown in the applicant's image below.



The applicant is requesting modifications to the landscaping and screening requirements. WCC Section 110.412.40 provides landscaping requirements for civic use types. Portions of several of these requirements are pertinent to the applicant's project:

- (a) Coverage. A minimum twenty (20) percent of the total developed land area shall be landscaped. Any disturbance to undeveloped portions of a site shall be mitigated.
- (c) Landscaped Buffers Adjoining Residential Uses. When a civic or commercial use adjoins a residential use, a landscaped buffer is required as follows:
 - (1) The buffer shall be the width of the required front, side or rear yard for the entire length of the adjoining common property line; and
 - (2) The buffer shall include at least one (1) tree every twenty (20) linear feet of property frontage, or fraction thereof, planted in off-set rows or groupings to achieve maximum screening.
- (d) Screening Adjoining Residential Uses. When a civic or commercial use adjoins a residential use, a solid decorative wall or fence shall be erected along the entire length of the common property line. This wall or fence shall be at least six (6) feet but not more than seven (7) feet in height.

The perimeter of the project parcel is currently fenced with a six-foot chain link fence. An image of the chain link fence is provided below. The parcels to the north and the east of the project site are developed with single-family residences. The applicant is requesting to maintain the chain link fence and waive the WCC requirement for a solid wall or fence along the entire length of the property lines abutting residential uses. The applicant is also asking to waive the WCC requirement for a tree buffer along the entire length of the property lines abutting residential uses. It is the applicant's opinion that the existing chain link fence will have less visual impact than a new solid fence. A small portion of the residential neighbor's property to the north (APN: 049-171-05) abuts the project site, and this abutting property line is in the far rear corner of the neighbor's property. This neighbor's home is built in the front of their property. The second residential neighbor (APN: 049-171-08) abuts the project site's east and northeast property lines. The applicant met with the owners of this property (APN: 049-171-08) on January 16, 2022, to discuss the proposed project, and the neighbor provided support of the proposed project. A letter of support from the neighbor is included in Exhibit C. The applicant modified their landscape plan as a result of this meeting with the neighbor, with the intent for the wellhouse to visually complement the surrounding residences. The applicant and neighbor developed a plan that would preserve views for the neighbor's property, while adjusting the landscaping to improve the screening of the well house improvements for the neighbors.



Existing Perimeter Chain Link Fence

Staff is in support of the applicant’s requests to retain the chain link fence, waive the solid wall/fence requirement, and waive the requirement for one (1) tree every twenty (20) linear feet of property frontage for the entire length of the property lines abutting residential uses. Staff believes that solid fencing and a line of trees would create more visual disruption for surrounding neighbors than the current chain link fence. The image below is a picture taken from the eastern neighbor’s property, looking toward the project site. The image shows the surrounding landscape and views.



View from east neighbor’s property (APN: 049-171-08), looking toward project site

The applicant’s revised landscape plan (image below) proposes to place trees and plants in locations that will screen the wellhouse. The applicant will apply non-irrigated native revegetation seed mix to the disturbed areas of the project site to match the surrounding area. Washoe County

Engineering and Washoe-Storey Conservation District have provided conditions to address revegetation, seed mix, and control of noxious weeds. These conditions are included in the conditions of approval (Exhibit A).



Proposed landscaping surrounding wellhouse

Southwest Truckee Meadows Area Plan Evaluation

The subject parcel is located within the Southwest Truckee Meadows Area Plan in the Thomas Creek Suburban Character Management Area (SCMA). The following are the pertinent policies from the Area Plan:

Relevant Area Plan Policies Reviewed

Policy	Brief Policy Description	Complies	Condition of Approval
SW.2.2	Site development plans in the Southwest Truckee Meadows planning area must include a plan for the control of noxious weeds. The plan should be developed through consultation with the Washoe County District Health Department, the University of Nevada Cooperative Extension, and/or the Washoe-Storey Conservation District. The control plan will be implemented on a voluntary compliance basis.	Yes	The applicant has included a landscaping plan with their application, as well as a native revegetation plan. Washoe County Engineering and Washoe-Storey Conservation District have provided conditions to address revegetation, seed mix, and control of noxious weeds. These conditions are included in the conditions of approval (Exhibit A).
SW.2.5	Any lighting proposed must show how it is consistent with current best practice “dark-sky” standards. In subdivisions established after the date of final	Yes	The applicant has indicated that exterior lighting will be limited to fixtures on each of the four faces of the building. Each light will have a maximum 5,208 lumens output and be angled down so that light from the

	adoption of this plan the use of streetlights will be minimized.		exterior wall mounted fixtures will not spillover beyond the property line.
SW.2.8	All landscape designs will emphasize the use of native vegetation, with nonnative and atypical vegetation integrated sparingly into any landscaped area.	Yes	The applicant has included a landscaping plan with their application, as well as a native revegetation plan. Washoe County Engineering and Washoe-Storey Conservation District have provided conditions to address revegetation. These conditions are included in the conditions of approval (Exhibit A).
SW.2.10	The impact of development on adjacent land uses will be mitigated. The appropriate form of mitigation should be determined through a process of community consultation and cooperation.	Yes	The applicant met with the property owners of 13155 Brush Lane (APN 049-171-08) located adjacent and to the east of the subject parcel to discuss the proposed project. The applicant revised the landscape plans as a result of this discussion, and the applicant stated their intention to visually complement the surrounding residences.
SW.2.14	The approval of all special use permits...must include a finding that the community character as described in the character statement can be adequately conserved through mitigation of any identified potential negative impacts.	Yes	This finding is included in the staff report.
SW.10.2	Development in the SWTM area will comply with all local, state and federal standards regarding air quality.	Yes	The development will comply with all local, state and federal air quality standards. Washoe County Air Quality reviewed this project and provided conditions of approval which are included in Exhibit A.
SW.10.3	The granting of special use permits in the SWTM planning area must be accompanied by a finding that no significant degradation of air quality will occur as a result of the permit. As necessary, conditions may be placed on special use permits to ensure no significant degradation of air quality will occur. The Department of Community Development will seek the advice and input of the Air Quality Division of the Department of Health in the implementation of this policy.	Yes	Washoe County Air Quality reviewed this project and provided conditions of approval which are included in Exhibit A.
SW.11.1	Development proposals, with the exception of single family homes and uses accessory to single family homes, within the Southwest Truckee Meadows planning area will include detailed soils and geo-technical studies sufficient to: a. Ensure structural integrity of roads and buildings. b.	Yes	Conditions for soils and geo-technical studies are included in the conditions of approval (Exhibit A).

	Provide adequate setbacks from potentially active faults or other hazards. c. Minimize erosion potential.		
SW.16.3	Project conformance with the Washoe County Comprehensive Regional Water Management Plan and other policies pertaining to water listed under Goal 16 shall be reviewed by Washoe County Department of Water Resources.	Yes	The project application was sent to State of Nevada Water Resources and Washoe County Water Management for review, and neither agency provided conditions for the project.

Reviewing Agencies

The following agencies/individuals received a copy of the project application for review and evaluation.

Agency	Sent to Review	Responded	Provided Conditions	Contact
Nevada Dept of Water Resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Washoe County Water Rights	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Timber Weiss, tweiss@washoecounty.gov
Washoe County Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Timber Weiss, tweiss@washoecounty.gov
Washoe County Operations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Washoe County Sherriff	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
WCHD – Environment Health	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	David Kelly, DAKelly@washoecounty.gov
WCHD – Air Quality	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Genine Rosa, grosa@washoecounty.gov
Truckee Meadows Fire Protection District	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Brittany Lemon, blemon@tmfpd.us
RTC Washoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Washoe-Storey Conservation District	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Jim Shaffer & Bret Tyler, shafferjam51@gmail.com & brettyler2@gmail.com
Nevada Historic Preservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NV Energy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
TMWA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

All conditions required by the contacted agencies can be found in Exhibit A, Conditions of Approval.

Staff Comment on Required Findings

WCC Section 110.810.30, Article 810, *Special Use Permits*, requires that all of the following findings be made to the satisfaction of the Washoe County Board of Adjustment before granting approval of the request. Staff has completed an analysis of the special use permit application and has determined that the proposal is in compliance with the required findings as follows.

1. Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the Southwest Truckee Meadows Area Plan.

Staff Comment: Staff has reviewed the Master Plan and the Southwest Truckee Meadows Area Plan, and the proposed use is consistent with the action programs, policies, standards and maps.

2. Improvements. That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven.

Staff Comment: Adequate utilities, roadways, sanitation, water supply, drainage, and other necessary facilities are already in place or have been provided. Roadway improvements are not required, because the applicant has indicated the site usage and number of trips to the site will not change after the project is constructed. Washoe County Engineering has provided drainage conditions, which are included in Exhibit A. The project application was sent to State of Nevada Water Resources and Washoe County Water Management for review, and neither agency provided conditions for the project.

3. Site Suitability. That the site is physically suitable for a wellhouse and an infiltration basin and for the intensity of such a development.

Staff Comment: The site is physically suitable for a wellhouse and an infiltration basin and for the intensity of such a development. The site has contained a wellhouse for more than 40 years. The site is classified as "Unconstrained" on the Southwest Development Constraints/Suitability map. Washoe County Engineering has reviewed the project and provided conditions for grading and drainage in Exhibit A.

4. Issuance Not Detrimental. That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area.

Staff Comment: The proposed use will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area. The property has functioned with a wellhouse for more than 40 years. The new well with a higher production capacity will increase TMWA's groundwater supply and redundancy for drought resiliency, which is a benefit to the community. The applicant is proposing an infiltration basin for disposal of well water discharge on startup and shutdown of the well, which will protect surrounding properties from well water discharge. In addition, the applicant has met with their eastern neighbor to assure appropriate screening/landscaping for the abutting residence.

5. Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

Staff Comment: There is no military installation within the area of required notice for this special use permit; therefore, the project will have no effect on a military installation.

Southwest Truckee Meadows Area Plan Findings

SW.2.14 The community character as described in the character statement can be adequately conserved through mitigation of any identified potential negative impacts.

Staff Comment: Potential negative impacts could be temporary noise and building activity during construction. These impacts will no longer exist when the project

construction is complete. The applicant has met with the abutting residential property owner to the east to develop appropriate landscaping/screening for this neighbor. The Southwest Truckee Meadows Area Plan character statement says the area can “be best characterized by its integration of human and natural environments.” This project will provide greater water supply for residents while maintaining the landscape with native revegetation.

Recommendation

After a thorough analysis and review, Special Use Permit Case Number WSUP21-0030 is being recommended for approval with conditions. Staff offers the following motion for the Board's consideration.

Motion

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Board of Adjustment approve with conditions Special Use Permit Case Number WSUP21-0030 for Truckee Meadows Water Authority, with the conditions included as Exhibit A to this matter, having made all five findings in accordance with Washoe County Code Section 110.810.30:

1. Consistency. That the proposed use is consistent with the action programs, policies, standards and maps of the Master Plan and the Southwest Truckee Meadows Area Plan;
2. Improvements. That adequate utilities, roadway improvements, sanitation, water supply, drainage, and other necessary facilities have been provided, the proposed improvements are properly related to existing and proposed roadways, and an adequate public facilities determination has been made in accordance with Division Seven;
3. Site Suitability. That the site is physically suitable for a wellhouse and an infiltration basin and for the intensity of such a development;
4. Issuance Not Detrimental. That issuance of the permit will not be significantly detrimental to the public health, safety or welfare; injurious to the property or improvements of adjacent properties; or detrimental to the character of the surrounding area;
5. Effect on a Military Installation. Issuance of the permit will not have a detrimental effect on the location, purpose or mission of the military installation.

Southwest Truckee Meadows Area Plan Finding

SW.2.14 The community character as described in the character statement can be adequately conserved through mitigation of any identified potential negative impacts.

Appeal Process

Board of Adjustment action will be effective 10 calendar days after the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant, unless the action is appealed to the Washoe County Board of County Commissioners, in which case the outcome of the appeal shall be determined by the Washoe County Board of County Commissioners. Any appeal must be filed in writing with the Planning and Building Division within 10 calendar days from the date the written decision is filed with the Secretary to the Board of Adjustment and mailed to the applicant.

Applicant/Owner: Truckee Meadows Water Authority, Attn: Ben Jesch
bjesch@tmwa.com

Consultant: Brown and Caldwell, Attn: Elizabeth Pierson
epierson@brwnald.com



Conditions of Approval

Special Use Permit Case Number WSUP21-0030

The project approved under Special Use Permit Case Number WSUP21-0030 shall be carried out in accordance with the conditions of approval granted by the Board of Adjustment on March 3, 2022. Conditions of approval are requirements placed on a permit or development by each reviewing agency. These conditions of approval may require submittal of documents, applications, fees, inspections, amendments to plans, and more. These conditions do not relieve the applicant of the obligation to obtain any other approvals and licenses from relevant authorities required under any other act.

Unless otherwise specified, all conditions related to the approval of this special use permit shall be met or financial assurance must be provided to satisfy the conditions of approval prior to issuance of a grading or building permit. The agency responsible for determining compliance with a specific condition shall determine whether the condition must be fully completed or whether the applicant shall be offered the option of providing financial assurance. All agreements, easements, or other documentation required by these conditions shall have a copy filed with the County Engineer and the Planning and Building Division.

Compliance with the conditions of approval related to this special use permit is the responsibility of the applicant, his/her successor in interest, and all owners, assignees, and occupants of the property and their successors in interest. Failure to comply with any of the conditions imposed in the approval of the special use permit may result in the institution of revocation procedures.

Washoe County reserves the right to review and revise the conditions of approval related to this Special Use Permit should it be determined that a subsequent license or permit issued by Washoe County violates the intent of this approval.

For the purpose of conditions imposed by Washoe County, “may” is permissive and “shall” or “must” is mandatory.

Conditions of approval are usually complied with at different stages of the proposed project. Those stages are typically:

- Prior to permit issuance (i.e., grading permits, building permits, etc.).
- Prior to obtaining a final inspection and/or a certificate of occupancy.
- Prior to the issuance of a business license or other permits/licenses.
- Some “conditions of approval” are referred to as “operational conditions.” These conditions must be continually complied with for the life of the project or business.

The Washoe County Commission oversees many of the reviewing agencies/departments with the exception of the following agencies.

- **The DISTRICT BOARD OF HEALTH, through the Washoe County Health District, has jurisdiction over all public health matters in the Health District. Any conditions set by the Health District must be appealed to the District Board of Health.**

FOLLOWING ARE CONDITIONS OF APPROVAL REQUIRED BY THE REVIEWING AGENCIES. EACH CONDITION MUST BE MET TO THE SATISFACTION OF THE ISSUING AGENCY.

Washoe County Planning and Building Division

1. The following conditions are requirements of Planning and Building, which shall be responsible for determining compliance with these conditions.

Contact Name – Katy Stark, Planner, 775.328.3618, krstark@washoecounty.gov

- a. **The applicant shall attach a copy of the action order approving this project to all permits and applications (including building permits) applied for as part of this special use permit.**
- b. The applicant shall demonstrate substantial conformance to the plans approved as part of this special use permit. The Planning and Building Division shall determine compliance with this condition.
- c. The applicant shall submit construction plans, with all information necessary for comprehensive review by Washoe County, and initial building permits shall be issued within two years from the date of approval by Washoe County. The applicant shall complete construction within the time specified by the building permits. Compliance with this condition shall be determined by the Planning and Building Division.
- d. A note shall be placed on all construction drawings and grading plans stating:

NOTE

Should any cairn or grave of a Native American be discovered during site development, work shall temporarily be halted at the specific site and the Sheriff’s Office as well as the State Historic Preservation Office of the Department of Conservation and Natural Resources shall be immediately notified per NRS 383.170.

- d. The following **Operational Conditions** shall be required for the life of the business:
 - i. This special use permit shall remain in effect until or unless it is revoked or is inactive for one year.
 - ii. Failure to comply with any of the conditions of approval shall render this approval out of conformance and subject to revocation.
 - iii. The applicant and any successors shall direct any potential purchaser/operator of the site and/or the administrative permit to meet with Planning and Building to review conditions of approval prior to the final sale of the site and/or the administrative permit. Any subsequent purchaser/operator of the site and/or the administrative permit shall notify Planning and Building of the name, address, telephone number, and contact person of the new purchaser/operator within 30 days of the final sale.
- e. The applicant shall provide detailed soils and geo-technical studies sufficient to:
 - i. Ensure structural integrity of roads and buildings.
 - ii. Provide adequate setbacks from potentially active faults or other hazards.
 - iii. Minimize erosion potential.

Washoe County Engineering and Capital Projects

2. The following conditions are requirements of the Engineering Division, which shall be responsible for determining compliance with these conditions.

Contact Name – Timber Weiss, P.E., 775.328.4626, tweiss@washoecounty.gov

- a. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMPs) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site and not allowed onto adjacent property.
- b. For construction areas larger than 1 acre, the developer shall obtain from the Nevada Division of Environmental Protection a Stormwater Discharge Permit or Waiver for construction and submit a copy to the Engineering Division prior to issuance of a grading permit.
- c. The developer shall complete and submit the Construction Permit Submittal Checklist and pay the Construction Stormwater Inspection Fee prior to obtaining a grading permit. The County Engineer shall determine compliance with this condition.
- d. A grading bond of \$2,000/acre of disturbed area shall be provided to the Engineering Division prior to any grading.
- e. Cross-sections indicating cuts and fills shall be submitted when applying for a grading permit. Estimated total volumes shall be indicated.
- f. All disturbed areas left undeveloped for more than 30 days shall be treated with a dust palliative. Disturbed areas left undeveloped for more than 45 days shall be revegetated. Methods and seed mix must be approved by the County Engineer with technical assistance from the Washoe-Storey Conservation District. The applicant shall submit a revegetation plan to the Washoe-Storey Conservation District for review.

DRAINAGE (COUNTY CODE 110.416, 110.420, and 110.421)

- g. A hydrology/hydraulic report prepared by a registered engineer shall be submitted to the Engineering Division for review and approval. The report shall include the locations, points of entry and discharge, flow rates and flood limits of all 5- and 100-year storm flows impacting both the site and offsite areas and the methods for handling those flows. The report shall include all storm drain pipe and ditch sizing calculations and a discussion of and mitigation measures for any impacts on existing offsite drainage facilities and properties.
- h. Any increase in storm water runoff resulting from the development and based upon the 5-year storm shall be detained on site to the satisfaction of the County Engineer.
- i. The following note shall be added to the construction drawings; “All properties, regardless of if they are located within or outside of a FEMA designated flood zone, may be subject to flooding. The property owner is required to maintain all drainage easements and natural drainages and not perform or allow unpermitted and unapproved modifications to the property that may have detrimental impacts to surrounding properties.”

Truckee Meadows Fire Protection District

3. The following condition is a requirement of the Truckee Meadows Fire Protection District, which shall be responsible for determining compliance with this condition.

Contact Name – Brittany Lemon, Fire Captain – Fire Prevention, 775.326.6079, blemon@tmfpd.us

- a. This project shall meet and comply with all requirements of currently adopted TMFPD fire codes, ordinances, and standards at the time of construction to include infrastructure for fire apparatus access roads and water supply. <https://tmfpd.us/fire-code/>

Washoe County Health District, Environmental Health Services (EHS)

4. The following conditions are requirements of the Washoe County Health District, Environmental Health Services (EHS), which shall be responsible for determining compliance with these conditions.

Contact Name – David Kelly, REHS, EHS Supervisor, 775.328.2434, DAKelly@washoecounty.gov

- a. EHS will review and approve all grading, demo, and site plans. In order for EHS to approve any building permits, verification that appropriate water projects have been completed and match the building permit plans will be required.

Washoe County Health District, Air Quality

5. The following conditions are requirements of the Washoe County Health District, Air Quality, which shall be responsible for determining compliance with these conditions.

Contact Name – Genine Rosa, Environmental Engineer II, 775.784.7204, GRosa@washoecounty.gov

- a. If disturbance reaches 1 acre, then a Dust Control Permit will be required prior to breaking ground. For Dust Control Permit questions call AQMD at 775-784-7200 or visit www.OurCleanAir.com.
- b. Applicant will need submit a NESHAP notification and apply for an Acknowledgement of Asbestos Assessment (AAA) from the Air Quality Management Division.

Washoe-Storey Conservation District

6. The following conditions are requirements of the Washoe-Storey Conservation District, which shall be responsible for determining compliance with these conditions.

Contact Name – Jim Shaffer and Bret Tyler, shafferjam51@gmail.com and bretttyler2@gmail.com

- a. To prevent the spread of noxious weeds concerning grading and exportation of material, the applicant shall collaborate with the Conservation District to develop an onsite noxious weeds management plan to ensure weed seeds do not impact other areas, utilizing certified weed free material.

*** End of Conditions ***



WASHOE COUNTY
COMMUNITY SERVICES
INTEGRITY COMMUNICATION SERVICE

P.O. Box 11130
Reno, Nevada 89520-0027
Phone: (775) 328-3600
Fax: (775) 328-3699

November 19, 2021

TO: Katy Stark, Planner, CSD, Planning & Development Division
FROM: Timber Weiss, Licensed Engineer, CSD
SUBJECT: Special Use Permit Case Number WSUP21-0030 (TMWA Pump House)

Project description:

The applicant is proposing to construct and operate a new wellhouse and new infiltration basin as well as grade a permanent earthen structure greater than six feet in height. The project includes the demolishing of existing infrastructure and site improvements, including pavement, landscaping and visual screening. The applicant also requests to carry Code requirements for paved parking, loading and maneuvering areas to allow portions of those road areas to be stabilized by road base material. The project is located at 13175 Brush Lane. The proposal includes the cutting of 1,101 cubic yards of earthen material, the importation of 1,869 cubic yards of earthen material, total of 768 cubic yards of fill and the disturbance of 38,600 square feet.

The Community Services Department (CSD) recommends approval of this project with the following Water Rights conditions:

There are no conditions of approval.



WASHOE COUNTY

COMMUNITY SERVICES DEPARTMENT

Engineering and Capital Projects

1001 EAST 9TH STREET
RENO, NEVADA 89512
PHONE (775) 328-3600
FAX (775) 328.3699

Date: November 29, 2021

To: Katy Stark, Planner

From: Timber Weiss, P.E., Licensed Engineer

Re: Special Use Permit for **TMWA Pump House, WSUP21-0030**
APN 049-171-09

GENERAL PROJECT DISCUSSION

Washoe County Engineering staff has reviewed the above referenced application. The Special Use Permit is for the construction of a replacement wellhouse, excavation of a new infiltration basin and demolition of a water tank and pump station. The project consists of approximately 2.433 acres of disturbance on APN 049-171-09 and 769 cy of net grading. The Engineering and Capital Projects Division recommends approval with the following comments and conditions of approval which supplement applicable County Code and are based upon our review of the site and the application prepared by Brown and Caldwell. The County Engineer shall determine compliance with the following conditions of approval.

For questions related to sections below, please see the contact name provided.

GENERAL CONDITIONS

Contact Information: Timber Weiss, P.E. (775) 328-4626

1. A complete set of construction improvement drawings, including an on-site grading plan, shall be submitted when applying for a building/grading permit. Grading shall comply with best management practices (BMPs) and shall include detailed plans for grading, site drainage, erosion control (including BMP locations and installation details), slope stabilization, and mosquito abatement. Placement or removal of any excavated materials shall be indicated on the grading plan. Silts shall be controlled on-site and not allowed onto adjacent property.
2. For construction areas larger than 1 acre, the developer shall obtain from the Nevada Division of Environmental Protection a Stormwater Discharge Permit or Waiver for construction and submit a copy to the Engineering Division prior to issuance of a grading permit.
3. The developer shall complete and submit the Construction Permit Submittal Checklist and pay the Construction Stormwater Inspection Fee prior to obtaining a grading permit. The County Engineer shall determine compliance with this condition.
4. A grading bond of \$2,000/acre of disturbed area shall be provided to the Engineering Division prior to any grading.
5. Cross-sections indicating cuts and fills shall be submitted when applying for a grading permit. Estimated total volumes shall be indicated.



Subject: **TMWA Pump House, WSUP21-0030**
Date: November 29, 2021
Page: 2

6. All disturbed areas left undeveloped for more than 30 days shall be treated with a dust palliative. Disturbed areas left undeveloped for more than 45 days shall be revegetated. Methods and seed mix must be approved by the County Engineer with technical assistance from the Washoe-Storey Conservation District. The applicant shall submit a revegetation plan to the Washoe-Storey Conservation District for review.

DRAINAGE (COUNTY CODE 110.416, 110.420, and 110.421)

Contact Information: Timber Weiss, P.E. (775) 328-4626

1. A hydrology/hydraulic report prepared by a registered engineer shall be submitted to the Engineering Division for review and approval. The report shall include the locations, points of entry and discharge, flow rates and flood limits of all 5- and 100-year storm flows impacting both the site and offsite areas and the methods for handling those flows. The report shall include all storm drain pipe and ditch sizing calculations and a discussion of and mitigation measures for any impacts on existing offsite drainage facilities and properties.
2. Any increase in storm water runoff resulting from the development and based upon the 5-year storm shall be detained on site to the satisfaction of the County Engineer.
3. The following note shall be added to the construction drawings; "All properties, regardless if they are located within or outside of a FEMA designated flood zone, may be subject to flooding. The property owner is required to maintain all drainage easements and natural drainages and not perform or allow unpermitted and unapproved modifications to the property that may have detrimental impacts to surrounding properties."

TRAFFIC AND ROADWAY (COUNTY CODE 110.436)

Contact Information: Mitch Fink, P.E. (775) 328-2050

1. There are no traffic comments or conditions.

UTILITIES (County Code 422 & Sewer Ordinance)

Contact Information: Tim Simpson, P.E. (775) 954-4648

1. There are no Utility comments or conditions

**WASHOE COUNTY
HEALTH DISTRICT**
ENHANCING QUALITY OF LIFE

December 8, 2021

Washoe County Community Services
Planning and Development Division
PO Box 11130
Reno, NV 89520-0027

RE: Thomas Creek Well House; 049-171-09
Special Use Permit; WSUP21-0030

Dear Washoe County Staff:

The following conditions are requirements of the Washoe County Health District, Environmental Health Division (EHS), which shall be responsible for determining compliance with these conditions.

Contact Name – David Kelly

- a) EHS will review and approve all grading, demo, and sit plans. In order for EHS to approve any building permits, verification that appropriate water projects have been completed and match the building permit plans will be required.

If you have any questions or would like clarification regarding the foregoing, please contact Dave Kelly, EHS Supervisor at dakelly@washoecounty.us regarding all Health District comments.

Sincerely,



Dave Kelly, REHS
EHS Supervisor
Environmental Health
Washoe County Health District

From: [Rosa, Genine](#)
To: [Stark, Katherine](#); [Restori, Joshua](#)
Subject: RE: I missed something
Date: Tuesday, February 8, 2022 3:49:13 PM
Attachments: [image008.png](#)
[image009.png](#)
[image010.png](#)
[image011.png](#)

Hello Katy,
No worries...here are my comments below:

Dust Control

If disturbance reaches 1 acre then a Dust Control Permit will be required prior to breaking ground, failure to do so may result in enforcement action resulting in a Notice of Violation with associated fines. For Dust Control Permit questions call AQMD at 775-784-7200 or visit www.OurCleanAir.com.

Link to application: [Dust Control Permit Application](#)

Asbestos

Applicant will need submit a NESHAP notification and apply for an Acknowledgement of Asbestos Assessment (AAA) from the Air Quality Management Division. **DO NOT** upload asbestos sampling results to your building permit record.

Visit the following page for more information and instructions on how to apply online via ACA: <https://www.washoecounty.us/health/programs-and-services/air-quality/Asbestos.php>

For the AAA you will need to upload the following to your ASB record, there is a separate application for the NESHAP:

- Copy of plans - demo sheet from plans at a minimum
- Sampling report and lab results - should include a clear floor plan/map showing where samples were taken, the consultant's report, and lab results along with the chain of custody.
- Any additional information you feel is pertinent to the scope of work i.e., photos

Once this is completed you will receive an e-mail requesting payment, once paid a copy of the Acknowledgement of Asbestos Assessment will be e-mailed to you, please notify me and I will approve the building plans for Air Quality.

Genine

Environmental Engineer II
O: (775) 784-7204

www.OurCleanAir.com | [Subscribe to get Air Quality Updates!](#)

Please take our customer satisfaction survey by clicking [here](#)

From: Stark, Katherine <KRStark@washoecounty.gov>
Sent: Saturday, February 5, 2022 12:41 PM
To: Rosa, Genine <GRosa@washoecounty.gov>; Restori, Joshua <JRestori@washoecounty.gov>
Cc: Stark, Katherine <KRStark@washoecounty.gov>
Subject: I missed something

Hi Genine and Josh,

Could you please let me know if you have any requirements for this project by Wednesday, February 9th?

I'm attaching the agency review memo from November. It's Item #3: WSUP21-0030 (TMWA Pump House). The case was put on hold while the applicant made some landscaping changes. The revised landscape plan is also attached to this email.

Thanks!



Please tell us how we did by taking a quick [survey](#)

Katy Stark
Planner, Planning & Building Division | Community Services Department
krstark@washoecounty.gov | Direct Line: 775.328.3618

My working hours: Monday-Friday 7:00 am to 4:00 pm

Visit us first online: www.washoecounty.gov/csd
Planning Division: 775.328.6100 | Planning@washoecounty.gov
CSD Office Hours: Monday-Friday 8:00am to 4:00pm
1001 East Ninth Street, Reno, NV 89512



Have some kudos to share about a Community Services Department employee or experience?
[Submit a Nomination](#)

From: [Lemon, Brittany](#)
To: [Stark, Katherine](#)
Cc: [Way, Dale](#)
Subject: WSUP21-0030 (TMWA Pump House)
Date: Tuesday, November 23, 2021 7:49:59 AM
Attachments: [image001.png](#)

Good Morning Katy,

“This project shall meet and comply with all requirements of currently adopted TMFPD fire codes, ordinances, and standards at the time of construction to include infrastructure for fire apparatus access roads and water supply.”

<https://tmfpd.us/fire-code/>

One question we had is if TMWA will be conducting water treatment on the site? If so, we will need to address the hazardous materials that they will most likely be storing.

Thank you.

Brittany Lemon

Fire Captain - Fire Prevention | Truckee Meadows Fire & Rescue

blemon@tmfpd.us | Office: 775.326.6079 | Cell: 775.379.0584

3663 Barron Way, Reno, NV 89511



"Committed to excellence, service, and the protection of life and property in our community"



Washoe-Storey Conservation District

Bret Tyler Chairman
Jim Shaffer Treasurer
Cathy Carfield Storey app.
Jean Herman Washoe app.

1365 Corporate Blvd.
Reno NV 89502
775 857-8500 ext. 131
nevadacconservation.com

November 19, 2021

Washoe County Community Services Department

C/O Katy Stark, Planner

1001 E Ninth Street, Bldg. A

Reno, NV 89512

R: WSUP21-0030 TMWA Pump House

Dear Katy,

In reviewing the special use permit to allow the construction of a new well house, the Conservation District has the following comments.

The District recommend 35lbs. instead of 25lbs of seed mix with the application method of hydroseeding for native revegetation.

The application states that most water should percolate if the basin overflows; we recommend as a condition two feet wide by three feet deep infiltration trench the length of the basin to further reduce overflows to the existing drainage ditch.

While the retrofit for the fence is for security purposes it does not address blending with the natural environmental landscape. We recommend as a condition of approval either a green or brown coated slats for the perimeter fencing of the pump house.

The District supports the exterior building paint hues to include earth tone colors for the roofing materials.

With the import of seven hundred cubic yards of material, the applicant provides a noxious weed plan to ensure weed seeds are not introduced to the project area.

The District recommends the propose lighting follow Washoe County code as it relates to night skies.

Thank you for providing us the opportunity to review the project that may have impacts on our natural resources and questions contact us at (775) 750-8272.

Sincerely,

Shaffer-Tyler



Washoe-Storey Conservation District

Bret Tyler Chairman
Jim Shaffer Treasurer
Cathy Canfield Storey app.
Jean Herman Washoe app.

1365 Corporate Blvd.
Reno NV 89502
775 857-8500 ext. 131
nevadacconservation.com

January 26, 2022

Washoe County Community Services Department

C/O Katy Stark, Planner

1001 E Ninth Street, Bldg. A

Reno, NV 89512

R: WSUP21-0030 TMWA Pump House

Dear Katy,

In reviewing the special use permit to allow the construction of a new well house, include the letter dated November 19, 2021 with the following recommendation.

To prevent the spread of noxious weeds concerning grading and exportation of material, the applicant shall collaborate with the Conservation District to develop an onsite noxious weeds management plan to ensure weed seeds do not impact other areas, utilizing certified weed free material.

Thank you for providing us the opportunity to review the project that may have impacts on our natural resources and questions contact us at (775) 750-8272.

Sincerely,

J. L. Shaffer

From: [Chris Bessey](#)
To: [Stark, Katherine](#)
Subject: Application WSUP21-0030 (TMWA Pump House)
Date: Friday, February 11, 2022 10:55:06 AM

[**NOTICE:** This message originated outside of Washoe County -- **DO NOT CLICK** on **links** or open **attachments** unless you are sure the content is safe.]

Dear Washoe County Staff:

Regarding application WSUP21-0030 (TMWA Pump House), the Truckee Meadows Water Authority staff visited our property to discuss the contents of the above application in greater detail. Thanks to their visit, my wife and I were able to fully and completely understand the need for the new facilities, as well as the operation, and any potential impacts. TMWA answered all of our questions, and we discussed modifying the landscaping planting materials and proposal locations to improve the screening of the improvements from our adjacent property as well as from those of our neighbors. Our property (on the west side of the pump house) contains large boulders along the property line screening the existing facilities but additional landscaping per the proposed plan is appreciated. It is also much appreciated that Ben and Cynthia recognized the value of the natural beauty of the surrounding land and mountains, and had a plan to preserve the views and vistas surrounding all of the properties.

As the property owners at 13155 Brush Lane, we fully support this request. Should staff have any questions, please do not hesitate to contact me at bessman1@yahoo.com

Sincerely,
Chris Bessey

[Sent from Yahoo Mail for iPad](#)

Public Notice

WSUP21-0030 (TMWA Pump House)



39 parcels within 1250 feet

Community Services Department

Planning and Building

SPECIAL USE PERMIT

(see page 7)

SPECIAL USE PERMIT FOR GRADING

(see page 9)

SPECIAL USE PERMIT FOR STABLES

(see page 12)

APPLICATION



Community Services Department
Planning and Building
1001 E. Ninth St., Bldg. A
Reno, NV 89512-2845

Telephone: 775.328.6100

Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Building staff at 775.328.6100.

Project Information		Staff Assigned Case No.: _____	
Project Name:			
Project Description:			
Project Address:			
Project Area (acres or square feet):			
Project Location (with point of reference to major cross streets AND area locator):			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
Indicate any previous Washoe County approvals associated with this application: Case No.(s).			
Applicant Information (attach additional sheets if necessary)			
Property Owner:		Professional Consultant:	
Name:		Name:	
Address:		Address:	
Zip:		Zip:	
Phone: Fax:		Phone: Fax:	
Email:		Email:	
Cell: Other:		Cell: Other:	
Contact Person:		Contact Person:	
Applicant/Developer:		Other Persons to be Contacted:	
Name:		Name:	
Address:		Address:	
Zip:		Zip:	
Phone: Fax:		Phone: Fax:	
Email:		Email:	
Cell: Other:		Cell: Other:	
Contact Person:		Contact Person:	
For Office Use Only			
Date Received: Initial:		Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Property Owner Affidavit

Applicant Name: TRUCKEE MEADOWS WATER AUTHORITY

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA)
)
COUNTY OF WASHOE)

I, MARK FOREE as General Manager of Truckee Meadows Water Authority
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Building.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 049-171-09

Printed Name Mark Foree, General Manager

Signed *Mark Foree*

P.O. Box 30013
Address Reno, NV 89520

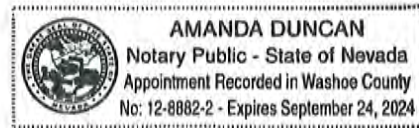
Amanda Duncan

(Notary Stamp)

Subscribed and sworn to before me this 25th day of October, 2021.

Amanda Duncan
Notary Public in and for said county and state

My commission expires: September 24, 2024



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Special Use Permit Application Supplemental Information

(All required information may be separately attached)

1. What is the project being requested?

2. Provide a site plan with all existing and proposed structures (e.g. new structures, roadway improvements, utilities, sanitation, water supply, drainage, parking, signs, etc.)

3. What is the intended phasing schedule for the construction and completion of the project?

4. What physical characteristics of your location and/or premises are especially suited to deal with the impacts and the intensity of your proposed use?

This project is an expansion of a previously established use. The site has previously been graded. Additionally, a ridge on the neighbor's property to the east provides screening of the the parcel.

5. What are the anticipated beneficial aspects or affects your project will have on adjacent properties and the community?

6. What are the anticipated negative impacts or affect your project will have on adjacent properties? How will you mitigate these impacts?

7. Provide specific information on landscaping, parking, type of signs and lighting, and all other code requirements pertinent to the type of use being purposed. Show and indicate these requirements on submitted drawings with the application.

See attached memo

8. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that apply to the area subject to the special use permit request? (If so, please attach a copy.)

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------

9. Utilities:

a. Sewer Service	
b. Electrical Service	
c. Telephone Service	
d. LPG or Natural Gas Service	
e. Solid Waste Disposal Service	
f. Cable Television Service	
g. Water Service	

For most uses, Washoe County Code, Chapter 110, Article 422, Water and Sewer Resource Requirements, requires the dedication of water rights to Washoe County. Please indicate the type and quantity of water rights you have available should dedication be required.

h. Permit #		acre-feet per year	
i. Certificate #		acre-feet per year	
j. Surface Claim #		acre-feet per year	
k. Other #		acre-feet per year	

Title of those rights (as filed with the State Engineer in the Division of Water Resources of the Department of Conservation and Natural Resources).

N/A for TMWA project

10. Community Services (provided and nearest facility):

a. Fire Station	
b. Health Care Facility	
c. Elementary School	
d. Middle School	
e. High School	
f. Parks	
g. Library	
h. Citifare Bus Stop	

**Special Use Permit Application
for Grading
Supplemental Information**
(All required information may be separately attached)

1. What is the purpose of the grading?

2. How many cubic yards of material are you proposing to excavate on site?

Approximately 1,101 CY Cut and 1,869 Fill (Net 768 CY fill)

3. How many square feet of surface of the property are you disturbing?

4. How many cubic yards of material are you exporting or importing? If none, how are you managing to balance the work on-site?

5. Is it possible to develop your property without surpassing the grading thresholds requiring a Special Use Permit? (Explain fully your answer.)

6. Has any portion of the grading shown on the plan been done previously? (If yes, explain the circumstances, the year the work was done, and who completed the work.)

7. Have you shown all areas on your site plan that are proposed to be disturbed by grading? (If no, explain your answer.)

8. Can the disturbed area be seen from off-site? If yes, from which directions and which properties or roadways?

9. Could neighboring properties also be served by the proposed access/grading requested (i.e. if you are creating a driveway, would it be used for access to additional neighboring properties)?

10. What is the slope (horizontal/vertical) of the cut and fill areas proposed to be? What methods will be used to prevent erosion until the revegetation is established?

11. Are you planning any berms?

Yes	No	If yes, how tall is the berm at its highest?
-----	----	--

12. If your property slopes and you are leveling a pad for a building, are retaining walls going to be required? If so, how high will the walls be and what is their construction (i.e. rockery, concrete, timber, manufactured block)?

13. What are you proposing for visual mitigation of the work?

Landscape screening and revegetation of disturbed area.

14. Will the grading proposed require removal of any trees? If so, what species, how many and of what size?

No

15. What type of revegetation seed mix are you planning to use and how many pounds per acre do you intend to broadcast? Will you use mulch and, if so, what type?

Topsoil salvage and replacement and application of inoculant and humic acid. A seed mix comprised of native and regionally adapted grasses, forbs and shrubs will be applied either by broadcast or hydroseed at a minimum of 25 PLS (pure live seed) per acre. Paper mulch and tackifier will be applied to the surface.

16. How are you providing temporary irrigation to the disturbed area?

--

17. Have you reviewed the revegetation plan with the Washoe Storey Conservation District? If yes, have you incorporated their suggestions?

No

18. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that may prohibit the requested grading?

Yes	No	If yes, please attach a copy.
-----	----	-------------------------------



1325 Airmotive Way, Suite 215
Reno, NV 89502

Special Use Permit

Prepared for: Truckee Meadows Water Authority

Project Title: Thomas Creek Wellhouse Replacement

Project No.: 156744


Subject: Thomas Creek Wellhouse Replacement Special Use Permit

Date: November 8, 2021

To: Planning and Building Division Planning Counter

From: Liz Pierson

Copy to: Ray Kruth

Prepared by: 
Liz Pierson, EI

Reviewed by: 
Raymond Kruth, P.E.

Limitations:

This document was prepared solely for Truckee Meadows Water Authority in accordance with professional standards at the time the services were performed and in accordance with the contract between Truckee Meadows Water Authority and Brown and Caldwell dated April 30, 2021. This document is governed by the specific scope of work authorized by Truckee Meadows; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Truckee Meadows Water Authority and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

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Introduction

This application is for a Special Use Permit for Truckee Meadows Water Authority (TMWA) to provide Utility Services (a municipal ground water well) in a Low Density Suburban (LDS) regulatory zone, including a special use permit for grading.

Note, the Owner Affidavit is provided in Attachment A, and proof of property tax exempt status is provided in Attachment B.

Project Background

The subject parcel was previously developed by Washoe County for utility services, and was equipped with a wellhouse and storage tank, designated the Thomas Creek Well. The existing wellhouse and water storage tank were constructed circa 1979. The water tank was modified, and an underground vault pump station was constructed circa 1996.

With the consolidation of the Washoe County Department of Water Resources (WCDWR) and the South Truckee Meadows General Improvement District (STMGID) into TMWA in December 2014, TMWA took over ownership and operation of the existing Thomas Creek Well located on the subject parcel.

The Thomas Creek well, tank, and pump station are currently in operation providing potable water to TMWA customers. In order to increase TMWA’s groundwater supply and redundancy for drought resiliency, TMWA has drilled a new well on the same parcel with a higher production capacity than the existing well. The new well has not yet been equipped with a pump, piping, or appurtenances.

Project Location

The project site is located on a 2.433 acre parcel owned by TMWA located at 13175 Brush Lane (Assessor's Parcel Number [APN] 049-171-09). The location of the project site is shown in Figure 1.

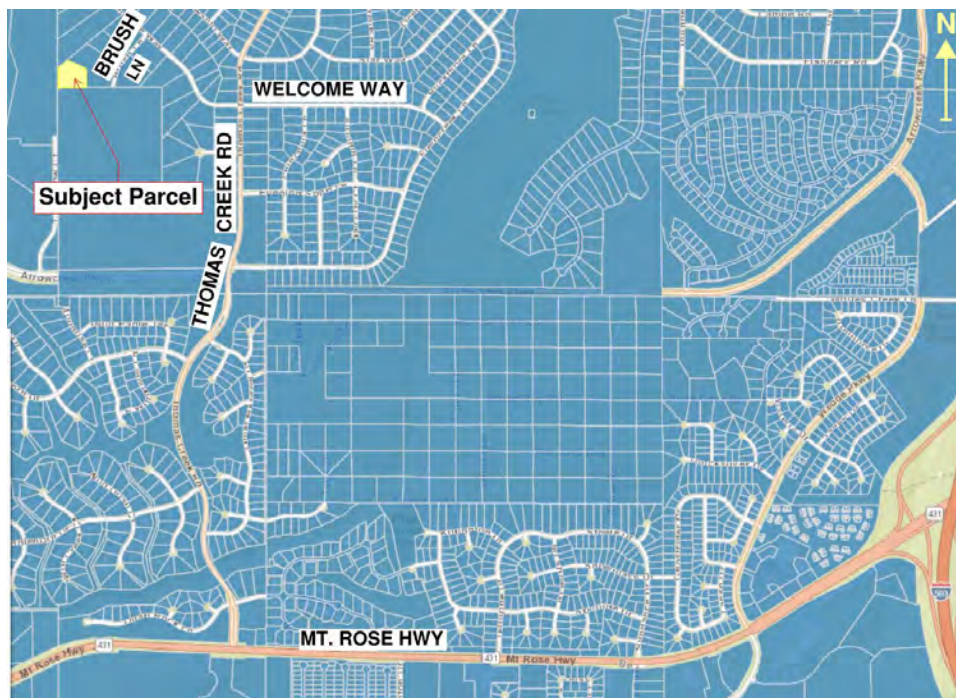


Figure 1. Vicinity map



Existing Conditions

The property is currently developed with a TMWA production well and wellhouse, an above grade water storage tank, and a below grade pump station. Additionally, a replacement production well has been drilled on the property which has not yet been equipped. Existing structures are shown in an aerial view of the property in Figure 2. Photos of the existing site are shown in Figure 3.

Residences zoned LDS are located adjacent to the subject parcel to the north and east. Vacant, undeveloped United States Forest Service land is located adjacent to the subject parcel to the south (zoned LDS). A vacant, undeveloped parcel owned by Sage Ridge School (zoned LDS) is located adjacent to the subject parcel to the west.



Figure 2. Aerial view of project site



Figure 3. Existing conditions

Project Components

This section describes the proposed project components of the Thomas Creek Wellhouse Replacement Project.

New Wellhouse

The new well pump, motor, discharge piping and appurtenances, and water treatment chemicals will be located in a new wellhouse with an approximate building footprint of 1,349 square feet (SF). 500 gallons of water treatment chemicals will be stored in the wellhouse, and more than 550 gallons of secondary spill containment will be provided in the wellhouse.

The new well house will be constructed of concrete masonry unit (CMU) block with an exterior stucco-look insulation system and composition roof. The stucco-look exterior will be painted in natural hues to match the surrounding residential area. The wellhouse plan and elevations are provided in Attachment D.

A site plan depicting the location of the wellhouse is provided in Figure 4, and a full size site plan is provided in Attachment C.

Existing Structure Demolition

After the new Thomas Creek well is operational, the existing wellhouse, water storage tank, and pump vault will be demolished. The existing wellhouse footprint is approximately 426 SF, the water tank footprint is

approximately 852 SF, and the existing pump station footprint is approximately 31 SF. The total footprint of existing structure proposed to be demolished is 1,323 SF.

Site Grading

The parcel area is 105,981 SF, and the proposed graded area for the project is 38,600 SF. Additionally, construction of a permanent earthen structure is required for an infiltration basin on site. The maximum height of the permanent earthen structure is 6.7 feet which requires a grading special use permit according to Washoe County Development Code (WCDC) Section 110.438.35. The basin is required for disposal of pump-to-waste water at well startup and shutdown, and the basin elevations are set by the elevation of the drainage ditch to the west of the site. A grading plan is provided in Attachment C.

Infiltration Basin

An infiltration basin will be constructed on the northwest quadrant of the parcel as shown in the engineering drawings provided in Attachment C. The basin will be used for disposal of well water discharge on startup and shutdown of the well. This disposal is covered under TMWA's operation and maintenance permit with the Nevada Division of Environmental Protection (NDEP).

Although most water should percolate, if the basin overflows, the flow will discharge to an existing drainage ditch adjacent to the west side of the subject parcel. The terminus of the drainage ditch is a retention pond operated by TMWA at their STMGID 12 well site.

Site Paving

WCDC Section 110.410.25 requires paving of all parking areas, driveways, and maneuvering areas. TMWA would like to request a waiver for this requirement. TMWA proposes applying asphalt concrete paving to the area adjacent to the new wellhouse and applying gravel or aggregate base to the other on-site access roads to reduce new impervious surfaces and reduce future maintenance of paved surfaces. Proposed pavement and gravel extents are shown in the engineering drawings provided in Attachment C.

Drainage Report

A drainage report will be submitted with the commercial building permit application for the Thomas Creek Wellhouse project.

Landscaping

WCDC Section 110.412.40 requires a minimum 20 percent of the developed land area to be landscaped. TMWA proposes to landscape the area adjacent to the new wellhouse with at least one tree every 20 linear feet in offset rows to achieve maximum screening of the wellhouse and apply non-irrigated native revegetation seed mix to the disturbed areas to match the surrounding area. After completion of the new wellhouse, the existing storage tank and wellhouse will be demolished. A landscaping plan is provided in Attachment E.



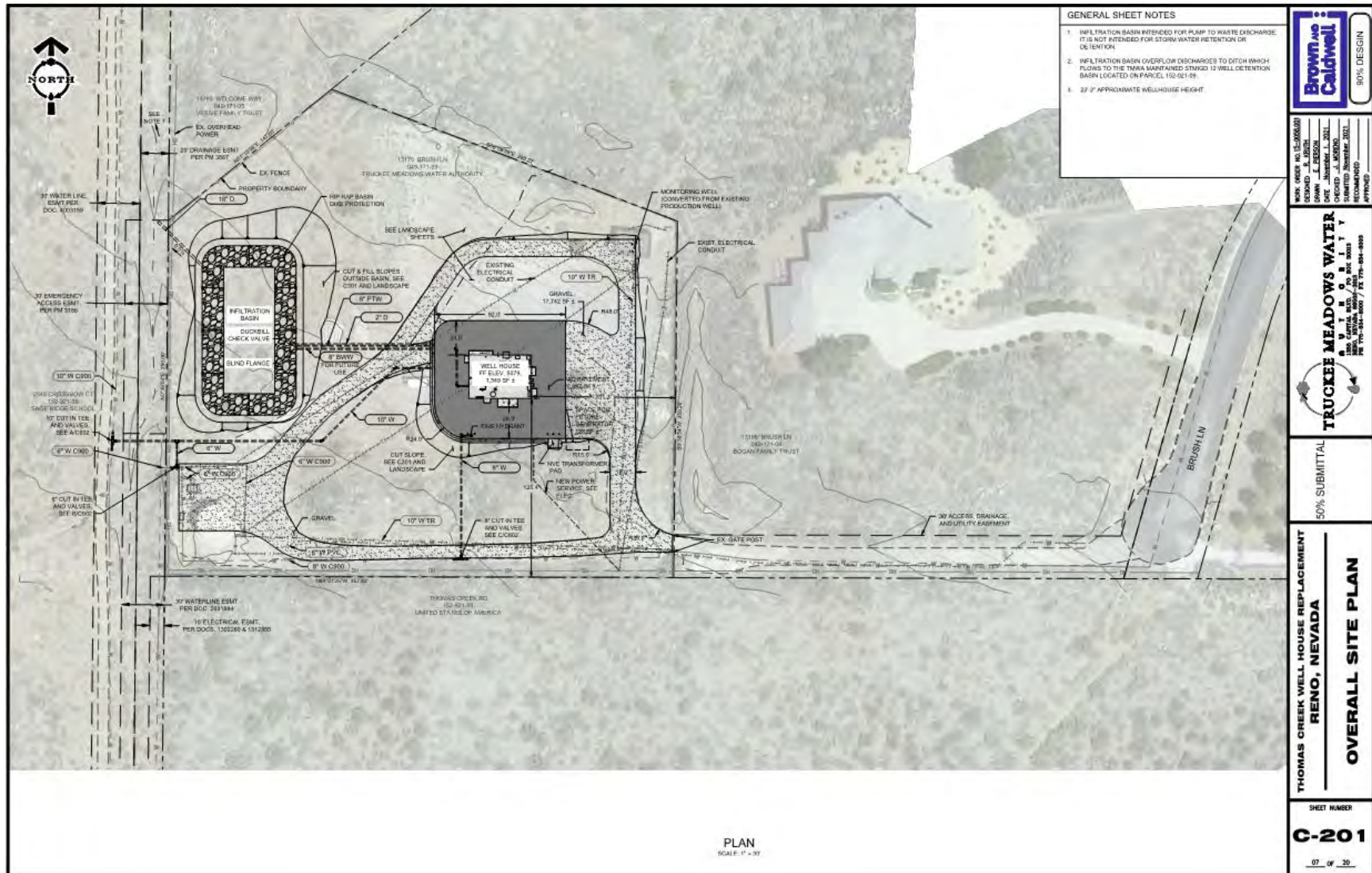


Figure 4. Proposed site plan



Screening

An existing six foot tall chain link fence with security barbed wire is located along the site perimeter as shown in Figure 5. WCDRC Section 110.406.12 requires an eight foot screening element along residential regulatory zone parcels. .



Figure 5. Existing Perimeter Chain Link Fence

TMWA requests a waiver from the eight foot fence requirement and proposes keeping the existing six foot chain link fence. The existing fence will have less visual impact than a new solid fence, and landscaping as described above will provide screening of the new wellhouse. TMWA will retrofit the existing fence to provide better security along the bottom of the fence. The proposed security retrofits are shown in Attachment F.

Site Lighting

Exterior lighting will be limited to fixtures mounted above the manway doors on each of the four faces of the building. Each light will have a maximum 5,208 lumens output and be angled down so that light from the exterior wall mounted fixtures will not spillover beyond the property line. Because the exterior light will be minimal, a photometric lighting plan has not been provided.

Traffic Impact

Existing traffic trips to the Thomas Creek Well site include one chemical delivery every two weeks and a weekly maintenance visit from TMWA staff. Because the use of the site is not changing, traffic trip generation is not expected to increase after the project is constructed; therefore, a traffic impact report has not been provided.



Attachment A: Owner Affidavit



Property Owner Affidavit

Applicant Name: TRUCKEE MEADOWS WATER AUTHORITY

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

STATE OF NEVADA)
)
COUNTY OF WASHOE)

I, MARK FOREE as General Manager of Truckee Meadows Water Authority
(please print name)

being duly sworn, depose and say that I am the owner* of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge and belief. I understand that no assurance or guarantee can be given by members of Planning and Building.

(A separate Affidavit must be provided by each property owner named in the title report.)

Assessor Parcel Number(s): 049-171-09

Printed Name Mark Foree, General Manager

Signed *Mark Foree*

P.O. Box 30013
Address Reno, NV 89520

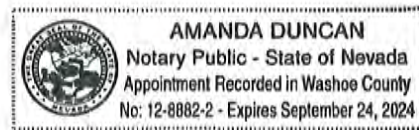
Amanda Duncan

(Notary Stamp)

Subscribed and sworn to before me this 25th day of October, 2021.

Amanda Duncan
Notary Public in and for said county and state

My commission expires: September 24, 2024



*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

Attachment B: Proof of Property Tax Exempt Status



Attachment C: Engineering Drawings



C-1

SUP Application Cover Letter_final.docx



GENERAL SHEET NOTES

1. TOTAL DEMOLISHED STRUCTURE AREA APPROXIMATELY 1,323 SF.



WORK ORDER NO. 15-0056.001
 DESIGNED R. KRUTH
 DRAWN E. PIERSON
 DATE November 1, 2021
 CHECKED J. MORENO
 SUBMITTED November 2021
 RECOMMENDED
 APPROVED

TRUCKEE MEADOWS WATER
 A U T H O R I T Y
 1365 CAPITAL BLVD. / PO BOX 30013
 RENO, NEVADA 89502-3013
 PH 775-854-8000 / FX 775-854-8003

50% SUBMITTAL

**THOMAS CREEK WELL HOUSE REPLACEMENT
 RENO, NEVADA**

**EXISTING SITE AND
 DEMOLITION PLAN**

SHEET NUMBER
Q-101
 06 OF 20



PLAN
 SCALE: 1" = 30'

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 Nov 01, 2021 10:16am



GENERAL SHEET NOTES

1. INFILTRATION BASIN INTENDED FOR PUMP TO WASTE DISCHARGE; IT IS NOT INTENDED FOR STORM WATER RETENTION OR DETENTION.
2. INFILTRATION BASIN OVERFLOW DISCHARGES TO DITCH WHICH FLOWS TO THE TMWA MAINTAINED STMIGD 12 WELL DETENTION BASIN LOCATED ON PARCEL 152-021-09.
3. 22'-2" APPROXIMATE WELLHOUSE HEIGHT.

Brown and Caldwell

90% DESIGN

WORK ORDER NO. 15-0056.001
DESIGNED R. KRUTH
DRAWN E. PIERSON
DATE November 1, 2021
CHECKED J. MORENO
SUBMITTED November 2021
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER

A U T H O R I T Y

1365 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89502-3013
PH 775-854-8000 / FX 775-854-8003

50% SUBMITTAL

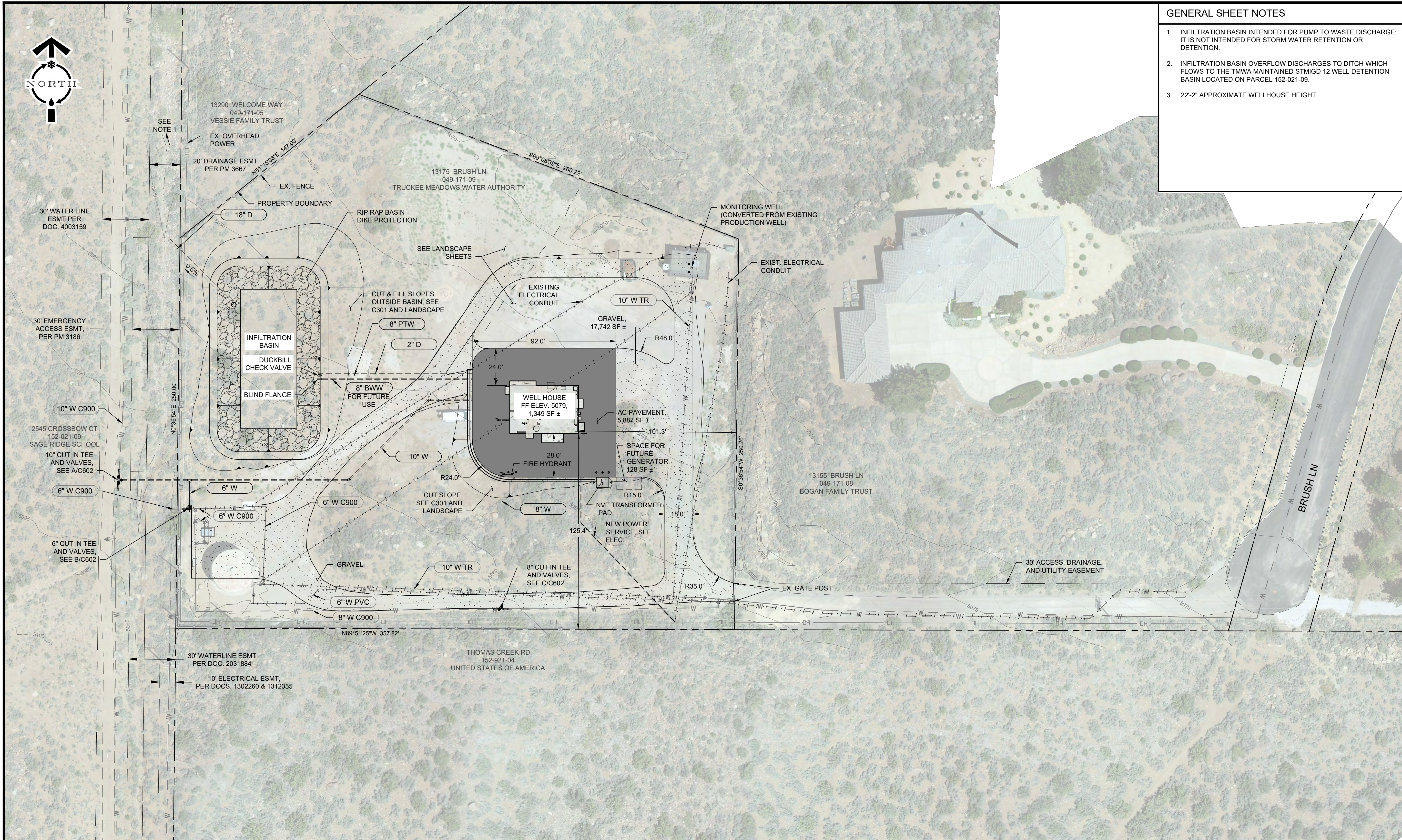
**THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA**

OVERALL SITE PLAN

SHEET NUMBER

C-201

07 OF 20



PLAN
SCALE: 1" = 30'

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Nov 01, 2021 9:41 am



GENERAL SHEET NOTES

- 1. APPROXIMATE EARTH WORK VOLUMES:
 CUT: 1,101 CY
 FILL: 1,869 CY
 NET: 768 CY (FILL)

Brown and Caldwell

90% DESIGN

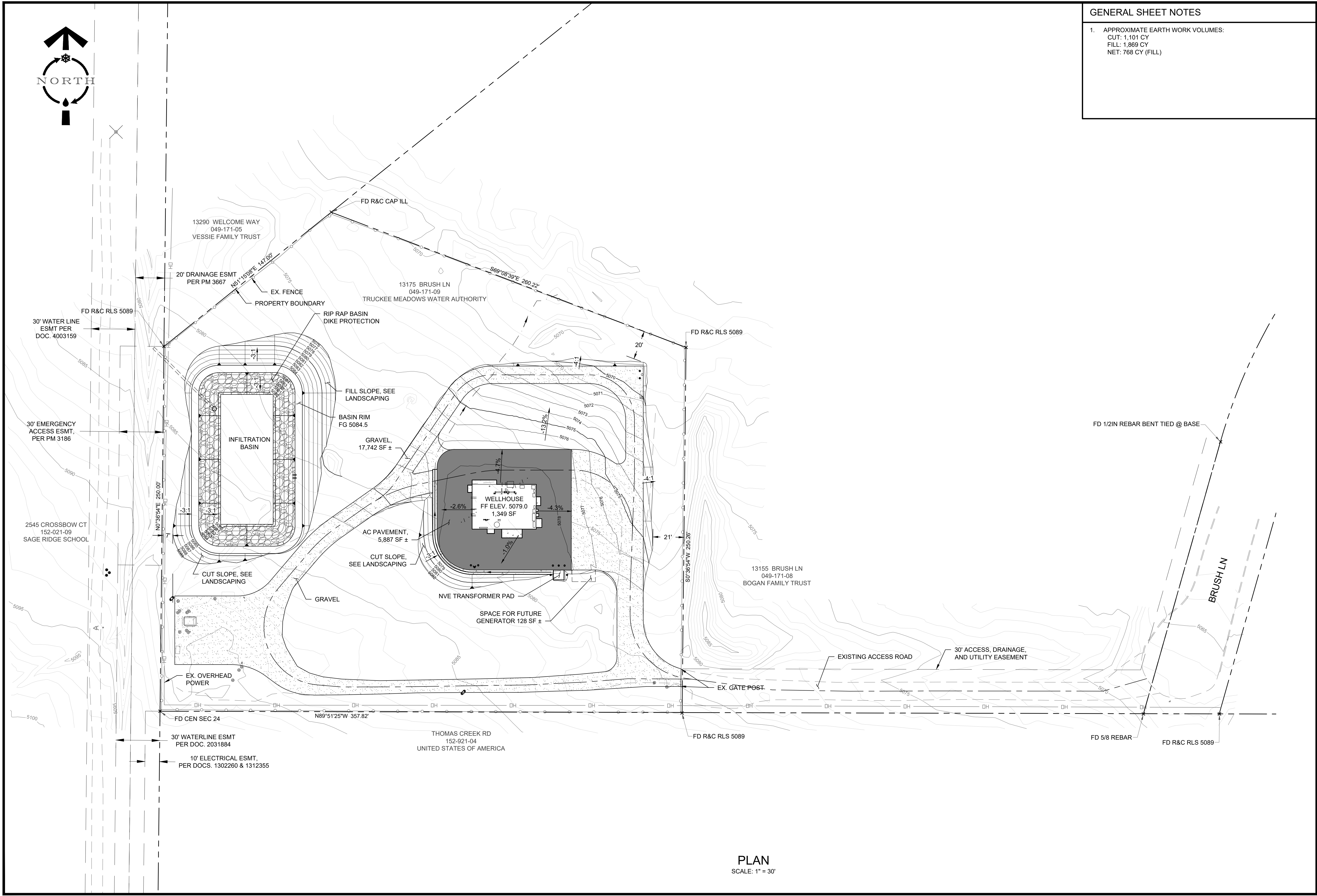
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 DESIGNED R. KRUTH
 DRAWN E. PIERSON
 DATE October 29, 2021
 CHECKED J. MORENO
 SUBMITTED October 2021
 RECOMMENDED
 APPROVED

TRUCKEE MEADOWS WATER
 A U T H O R I T Y
 1365 CAPITAL BLVD. / PO BOX 30013
 RENO, NEVADA 89502-3013
 PH 775-834-8000 / FX 775-834-8003

50% SUBMITTAL

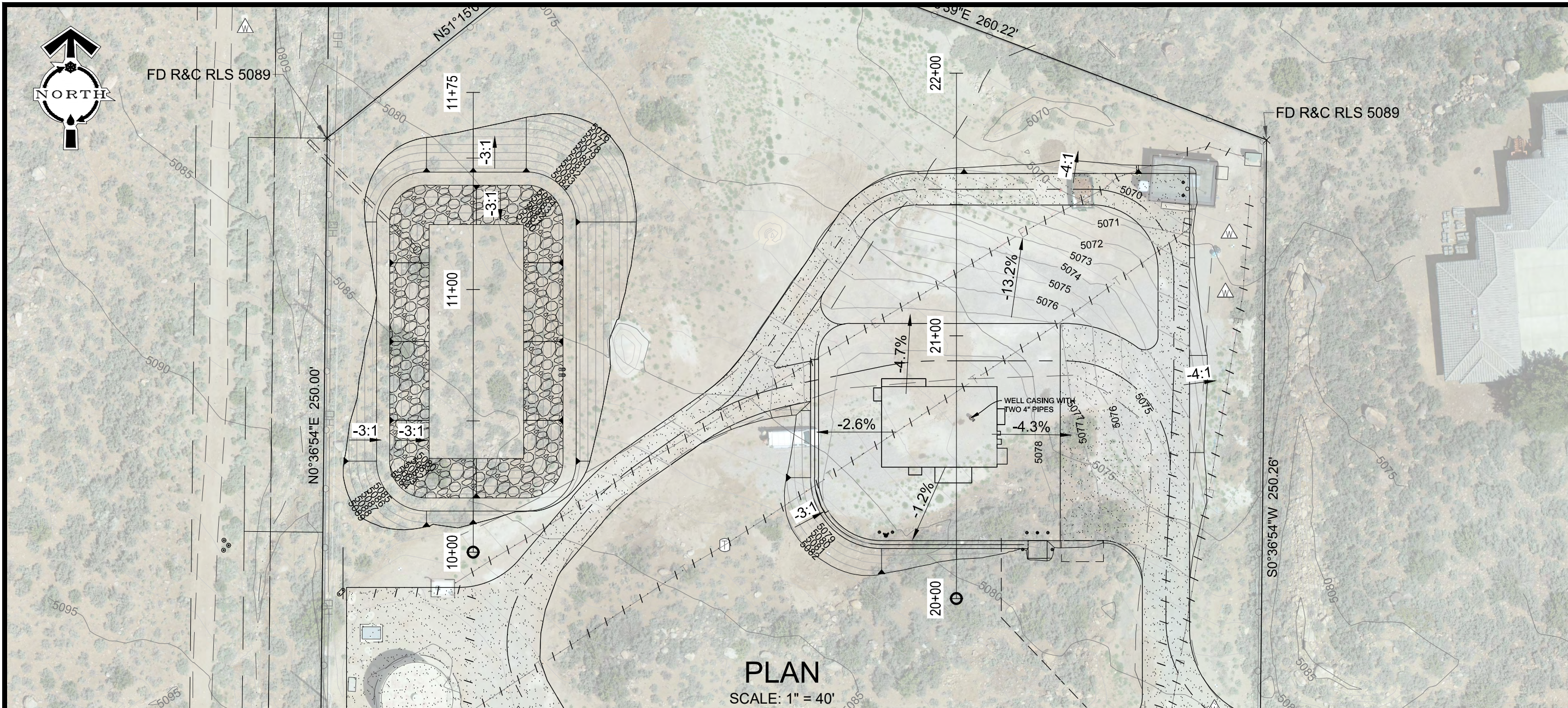
**THOMAS CREEK WELL HOUSE REPLACEMENT
 RENO, NEVADA**
**SITE GRADING AND
 PAVING**

SHEET NUMBER
C-301
 08 OF 20



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SCALE: 1" = 30'

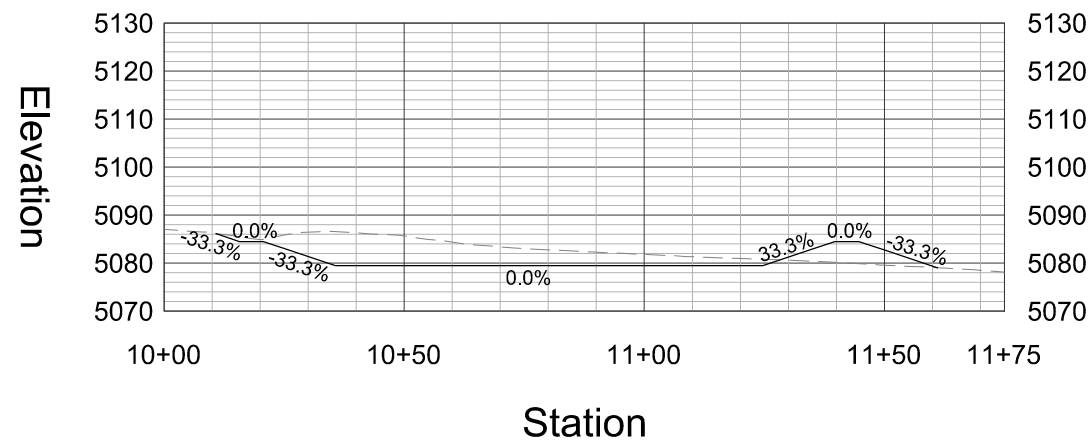
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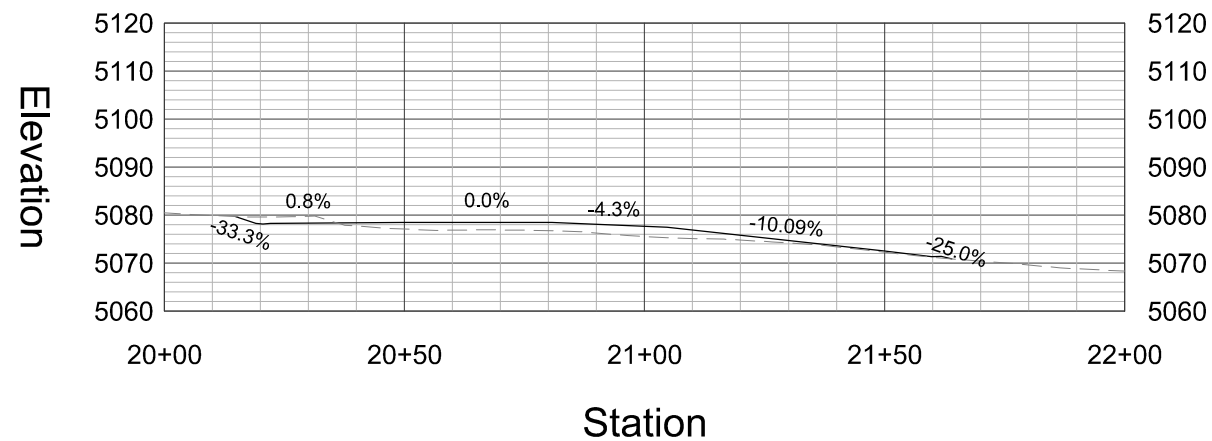
PLAN

SCALE: 1" = 40'

Profile View of Basin Cross Section



Profile View of Wellhouse Site Cross Section



**Thomas Creek Wellhouse Replacement
Site Cross Sections**

November 2021

157644



WSUP21-0030
EXHIBIT E

Attachment D: Architectural Drawings



D-1

ROOF PLAN NOTES:

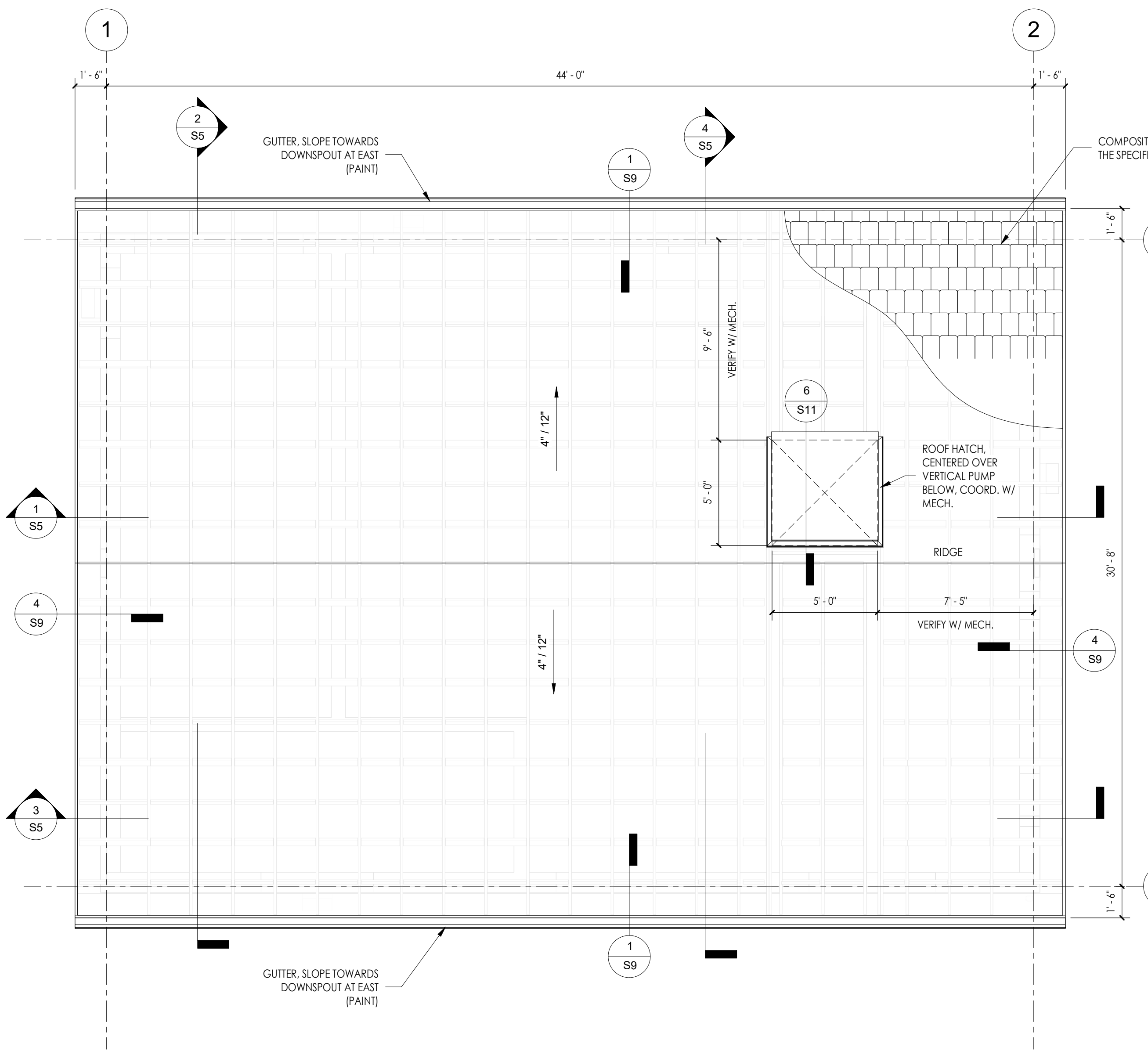
- SEE S3 FOR ROOF FRAMING AND ADDITIONAL INFORMATION.
- PROVIDE A 20" x 30" (MIN.) ACCESS PANEL. COORDINATE WITH T.M.W.A.
- SEE ELECTRICAL FOR CEILING LIGHT FIXTURE LAYOUT.
- SEE CONTRACT TECHNICAL SECTIONS FOR ARCHITECTURAL SPECIFICATIONS FOR PAINT, STONE-COATED METAL SHINGLE ROOFING, AND OTHER REQUIREMENTS.
- SEE 6/S11 FOR ROOF HATCH FLASHING. SEE SPECIFICATIONS FOR ROOF HATCH INFORMATION.

CODE ANALYSIS

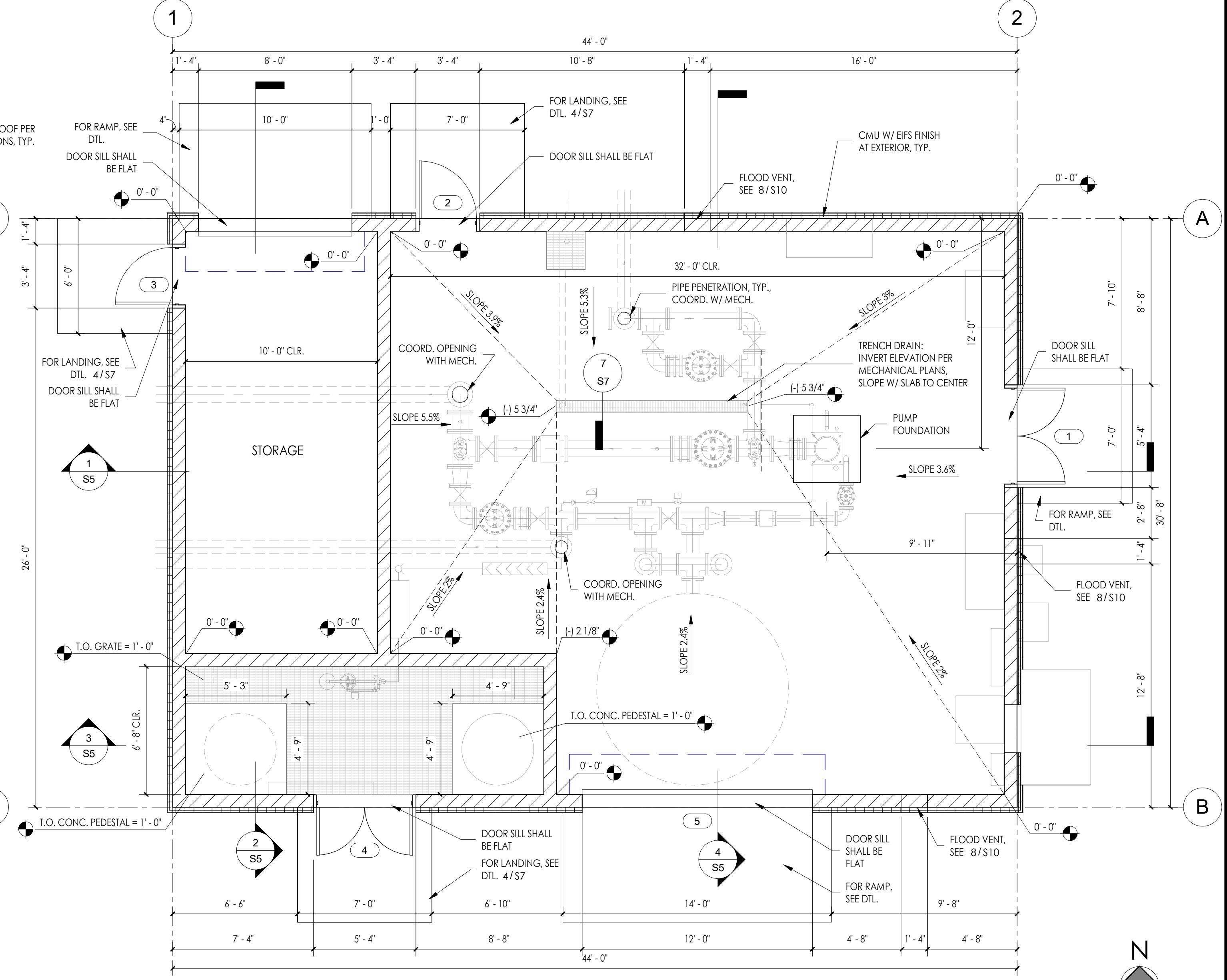
OCCUPANCY GROUP: F-2
 RISK CATEGORY: IV
 CONSTRUCTION TYPE: V-B
 AREA: 1350 SF < ALLOWABLE AREA = 13,000 SF MAX.
 HEIGHT = 22'-2" < ALLOWABLE HEIGHT = 40'-0"
 OCCUPANT LOAD: 1350 SF/100 = 14 OCCUPANTS
 EXITS: 1 & 2 PROVIDED > 1 REQUIRED
 FIRE SPRINKLER: NOT REQUIRED

FLOOR PLAN NOTES:

- ALL DIMENSIONS ARE FROM FACE-OF-BLOCK TO FACE-OF-BLOCK AND/OR FOAM, U.N.O.
- REFER TO CIVIL DRAWINGS FOR LOCATING THE BUILDING ON SITE AND FOR FINISHED FLOOR ELEVATIONS. THE FLOOR ELEVATION OF 0'-0" ON THESE PLANS REFERS TO 4804 +/- ON THE CIVIL DRAWINGS.
- FOR DIMENSIONS OF MASONRY WALL AND ROUGH OPENINGS, S3. MASONRY DIMENSIONS SHOWN ON THIS PLAN ARE REFERENCE ONLY. ANY DISCREPANCIES FOUND BETWEEN THE DIMENSIONS ON THIS SHEET AND THE REST OF THE STRUCTURAL DRAWINGS SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- SEE S3 FOR FLOOR SLAB CONTROL JOINT LOCATIONS.
- ALL INTERIOR CMU WALLS, PLYWOOD, AND EXPOSED INTERIOR WOOD FRAMING WITH PITTSBURGH PAINTS "DELICATE WHITE, S18-1".
- SEE SHEET S10 FOR TYPICAL EIFS DETAILS.
- SEE DOOR SCHEDULE AND SHEET S10 FOR DOOR, JAMB AND HEADER INFORMATION.



2 ROOF PLAN
 1/4" = 1'-0"

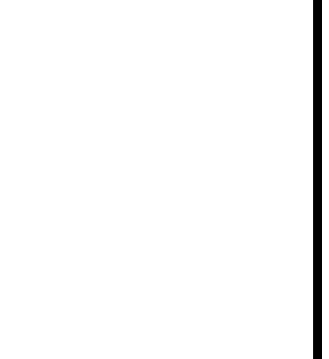


1 FLOOR PLAN
 1/4" = 1'-0"



WORK ORDER NO.	DESIGNED BY
DRAWN BY	CHECKED BY
DATE: 8/18/21	RECOMMENDED BY
SUBMITTED	APPROVED BY
REVISIONS	

TRUCKEE MEADOWS WATER
 A U T H O R I T Y
 1355 CAPITAL BLVD. / PO BOX 30013
 RENO, NEVADA 89502-3013
 PH 775-854-8000 / FX 775-854-8003



THOMAS CREEK WELL HOUSE
 PROJECT
 RENO, NEVADA
FLOOR PLANS

SHEET NUMBER
SN
 1 OF 4

PRELIMINARY
NELSON WILCOX
 STRUCTURAL ENGINEERS

ROOF FRAMING PLAN NOTES:

1. TOP OF BLOCK ELEVATION AT WALL TO BE (+) 16'-0" ABOVE FINISHED FLOOR.
2. CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND CONDITIONS WITH S2 PRIOR TO FABRICATION OR ERECTION.
3. SEE S1.1 FOR TRUSS LOADING REQUIREMENTS.
4. LINTEL REINFORCING PER 6/S8, TYP.
5. ROOF SHEATHING AND NAILING PER DIAPHRAGM ZONE PLAN AND PLYWOOD DIAPHRAGM SCHEDULE. SEE 7/S11 & 8/S11.
6. THE DIAPHRAGM IS CONSIDERED BLOCKED. ALL EDGES OF PANELS TO BE SUPPORTED BY 3x FRAMING, MIN.
7. PROVIDE A 20"x30" (MIN.) CEILING ACCESS PANEL. COORDINATE LOCATION WITH TMWA.
8. SEE SHEET S1 AND THE CONTRACT TECHNICAL SECTIONS FOR STRUCTURAL SPECIFICATIONS.
9. HANGERS FOR OUTRIGGERS AND BLOCKING NOT SHOWN. SEE SHEET S1.1 FOR REQUIREMENTS.
10. SEE S1.1 FOR LINTEL SCHEDULE.

WOOD ROOF TRUSSES AND ENGINEER'S TRUSS REVIEW LETTER SHALL BE A BUILDING DEPARTMENT DELEGATED DESIGN SUBMITTAL.

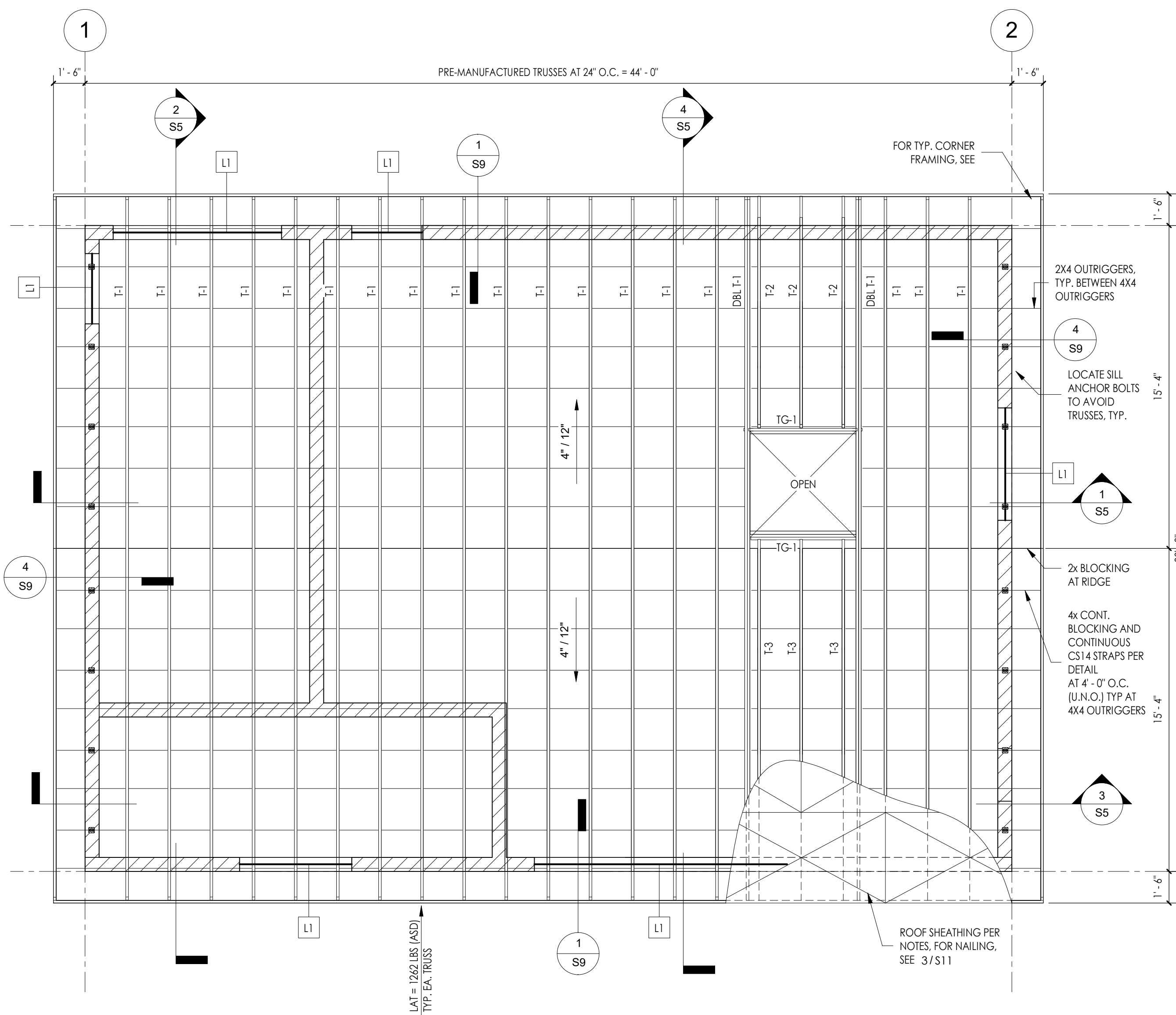
LEGEND:

C.J. = CONTROL JOINT PER 6/S6

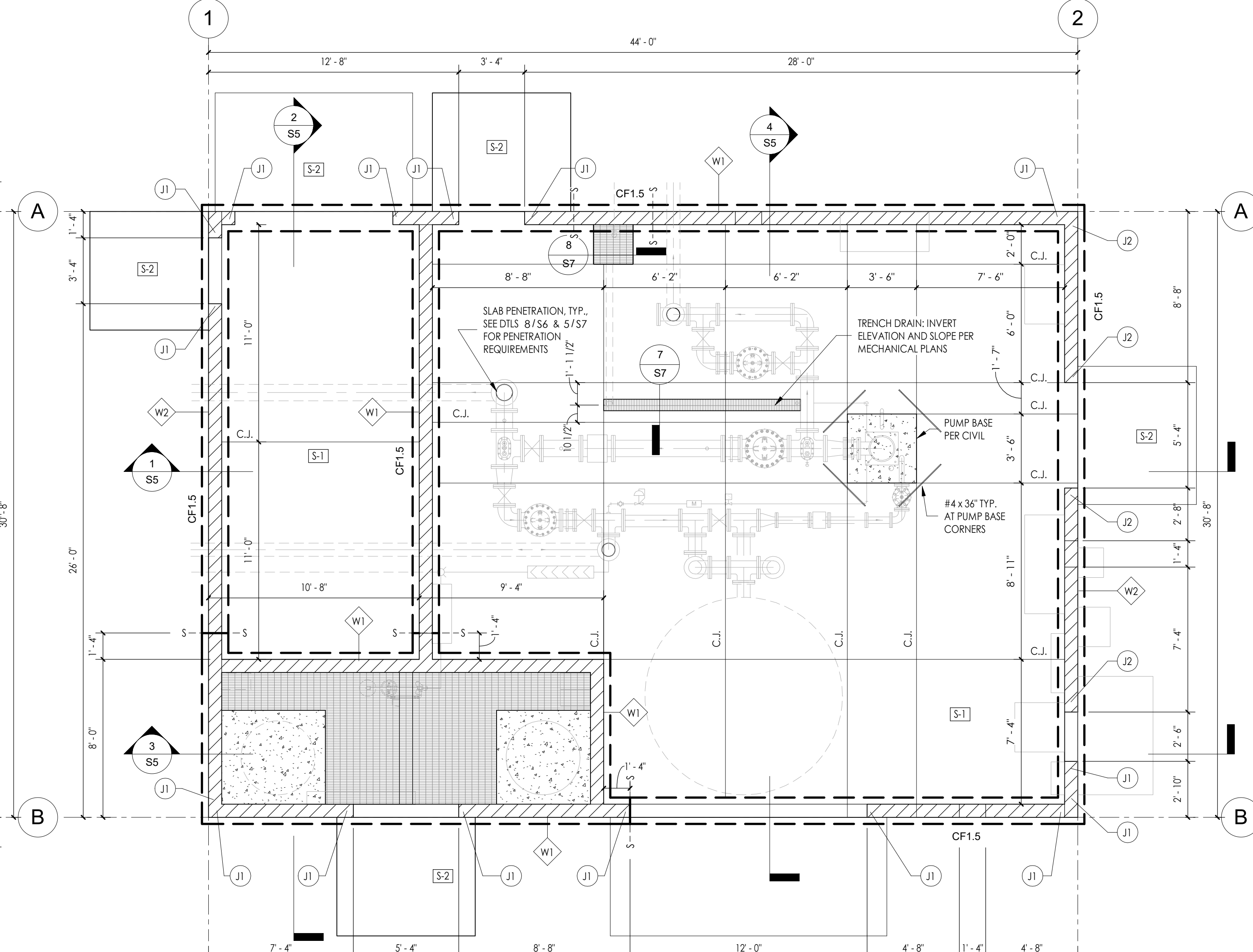
8" NOMINAL FULLY GROUTED CMU WALL PER SCHEDULE

FOUNDATION PLAN NOTES:

1. CONTRACTOR TO VERIFY AND COORDINATE ALL DIMENSIONS AND CONDITIONS WITH S2 PRIOR TO FABRICATION OR ERECTION.
2. T.O. EXTERIOR FOOTINGS = (+) 1'-4" BELOW FINISHED FLOOR TYP., U.N.O.
3. SEE S2 FOR SLAB SLOPE LAYOUT.
4. CENTER ALL STRIP FOOTINGS BELOW CMU WALL CORE, TYP.
5. NO CONDUIT SHALL BE PLACED IN THE SLAB ON GRADE.
6. SEE 3/S7 WHERE UTILITIES ENTER BUILDING OR ARE ADJACENT TO COLUMN FOOTINGS.
7. SEE GENERAL NOTES FOR ENGINEERING FILL REQUIREMENTS AND SUBGRADE PREPARATION REQUIREMENTS ON DTL 1/S7.
8. SEE MECHANICAL/PLUMBING DRAWINGS FOR ANY FLOOR DRAINS OR SINKS. CONTRACTOR TO COORDINATE.
9. SEE 6/S6 FOR TYPICAL SLAB ON GRADE JOINTS. JOINTS TO BE PLACED AT 12'-0" MAX. O.C. AND LOCATED AT ALL RE-ENTRANT SLAB CORNERS, INTERIOR COLUMN LOCATIONS, OR ANY OTHER SLAB ON GRADE DISCONTINUITIES.
10. SEE SHEET S1.1 CMU WALL SCHEDULE AND JAMB SCHEDULE.
11. SEE SHEET S1.1 FOR FOOTING SCHEDULE.
12. SEE 10/S6 FOR TYPICAL FOUNDATION REINFORCING LAPS AT CORNERS, ENDS, AND INTERSECTIONS.
13. SEE 1/S6 & 2/S6 FOR TYPICAL REINFORCING HOOKS, BENDS AND HOOKS & BENDS FOR TIRES.
14. SEE SPECIFICATIONS FOR MASONRY TYPES AND LAYOUT PATTERNS.
15. SEE 3/S8 FOR TYPICAL PLACEMENT OF CMU REINFORCING (U.N.O.).
16. SEE 5/S9 FOR TYPICAL CMU CORNER AND JAMB REINFORCING TO BE COORDINATED WITH FOUNDATION REINFORCING.
17. AT PUMP BASES, CONC. SLAB SHALL BE CAULKED WITH SIKAFLEX 2CNS OR APPROVED EQUIVALENT. SEE THE STRUCTURAL NOTES AND 7/S6 (SIM.)



2 ROOF FRAMING PLAN
1/4" = 1'-0"



1 FOUNDATION PLAN
1/4" = 1'-0"



WORK ORDER NO.	
DESIGNED: GWF	
DRAWN: DJE	
DATE: 8/18/21	
CHECKED: ERM	
SUBMITTED:	
RECOMMENDED:	
APPROVED:	

TRUCKEE MEADOWS WATER

1355 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA, 89502-3013
PH 775-654-8000 / FX 775-834-8003

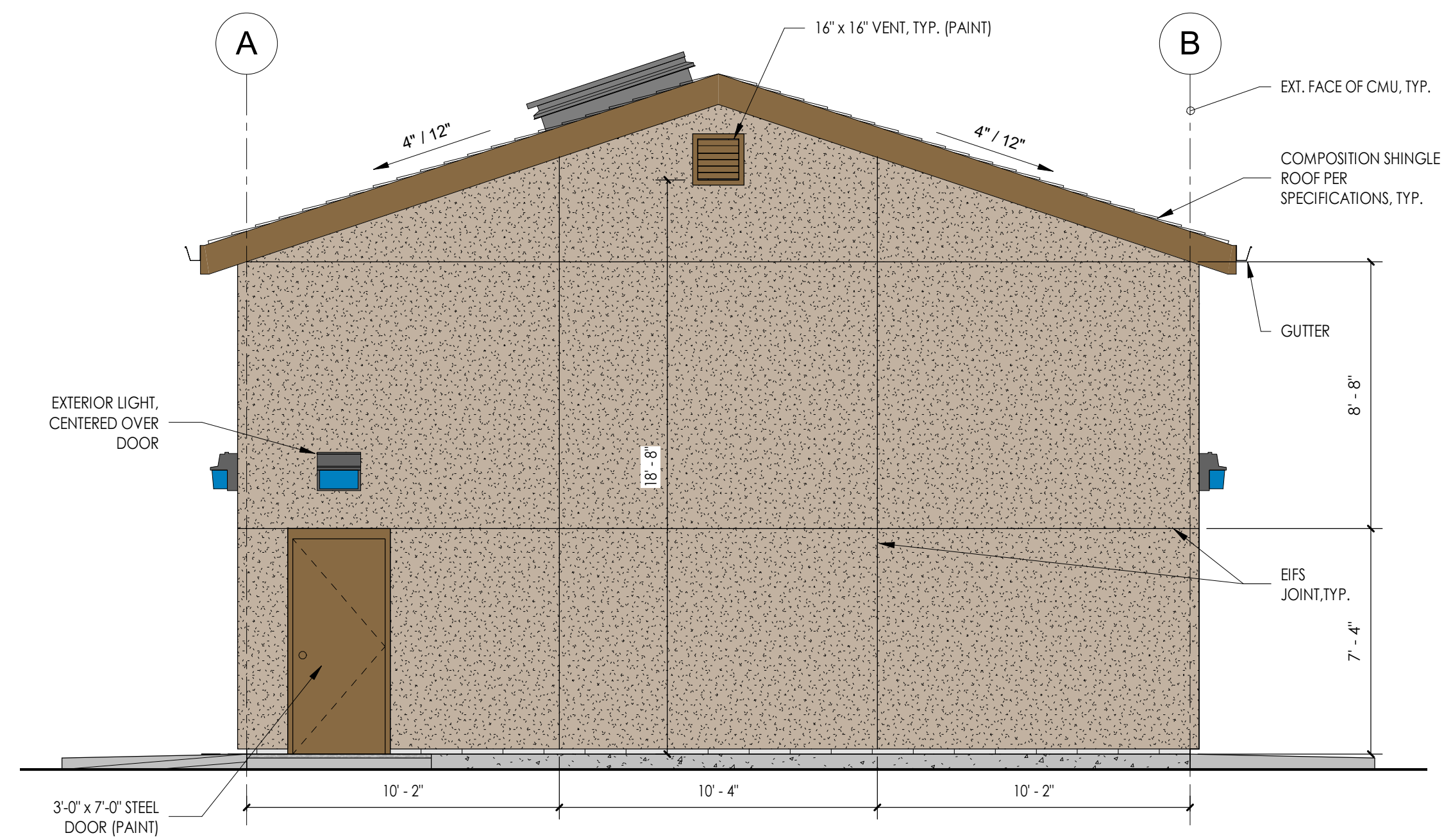
THOMAS CREEK WELL HOUSE PROJECT
RENO, NEVADA

STRUCTURAL PLANS

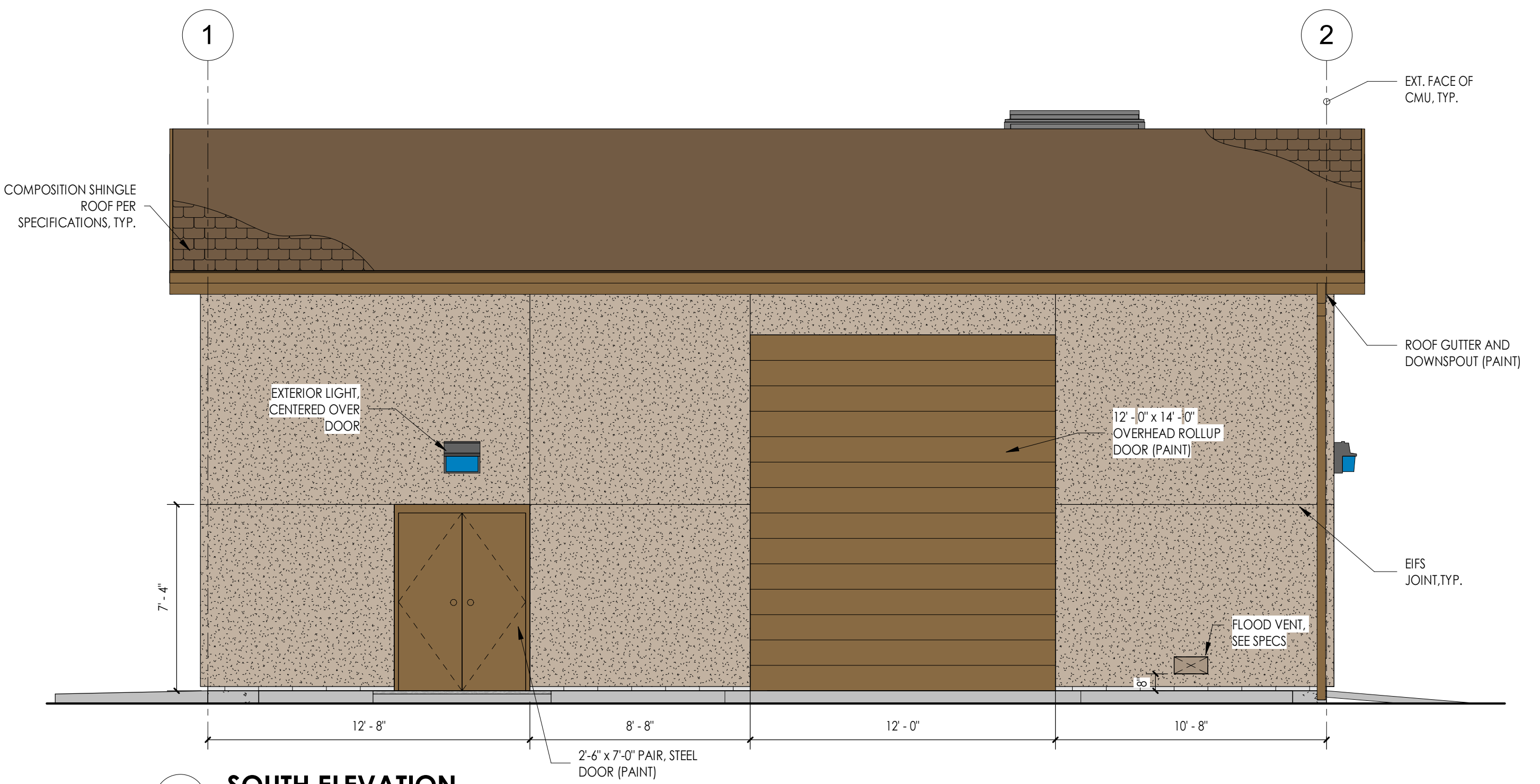
SHEET NUMBER
53
2 OF 4

PRELIMINARY
NELSON WILCOX
STRUCTURAL ENGINEERS

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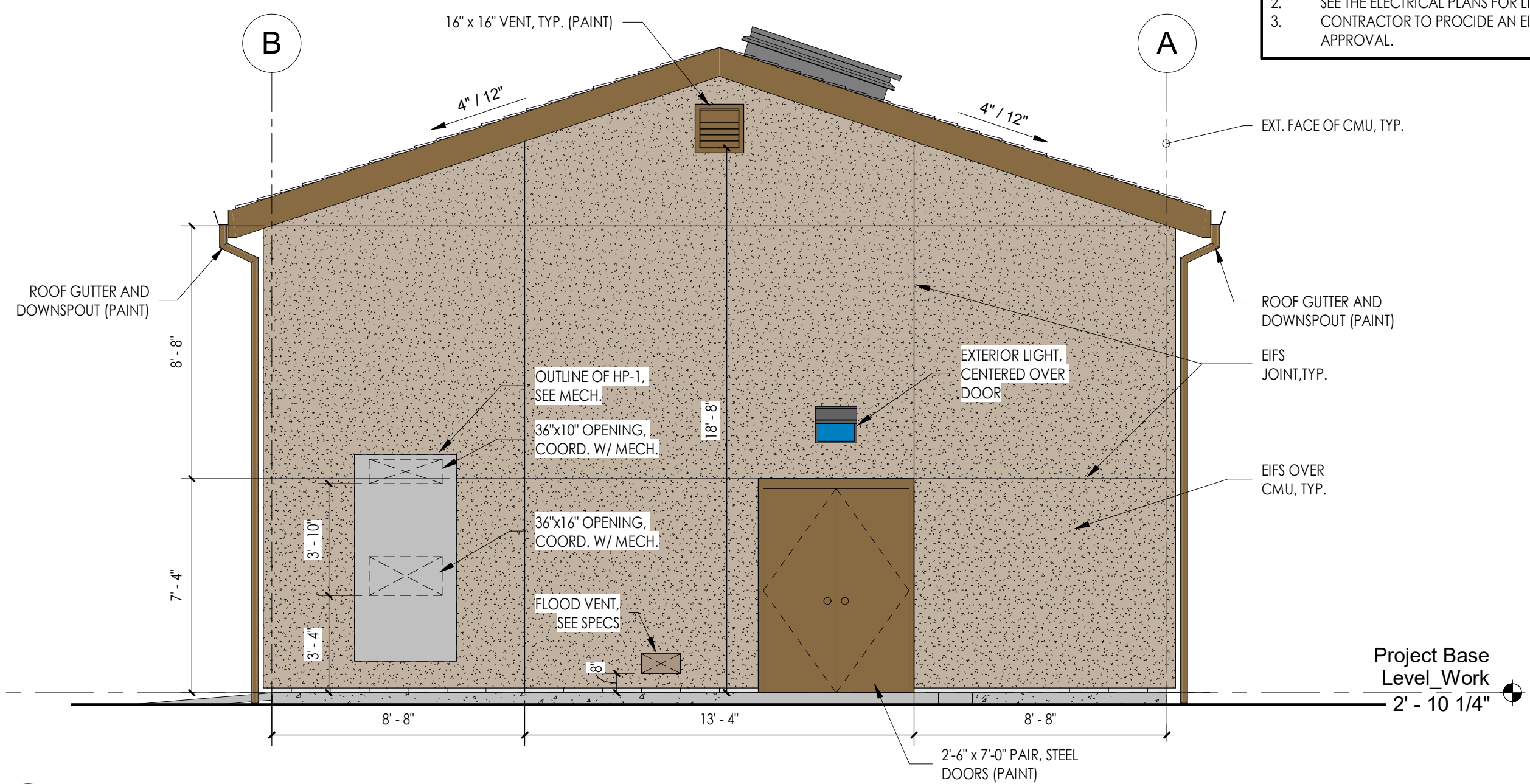
4 WEST ELEVATION
1/4" = 1'-0"



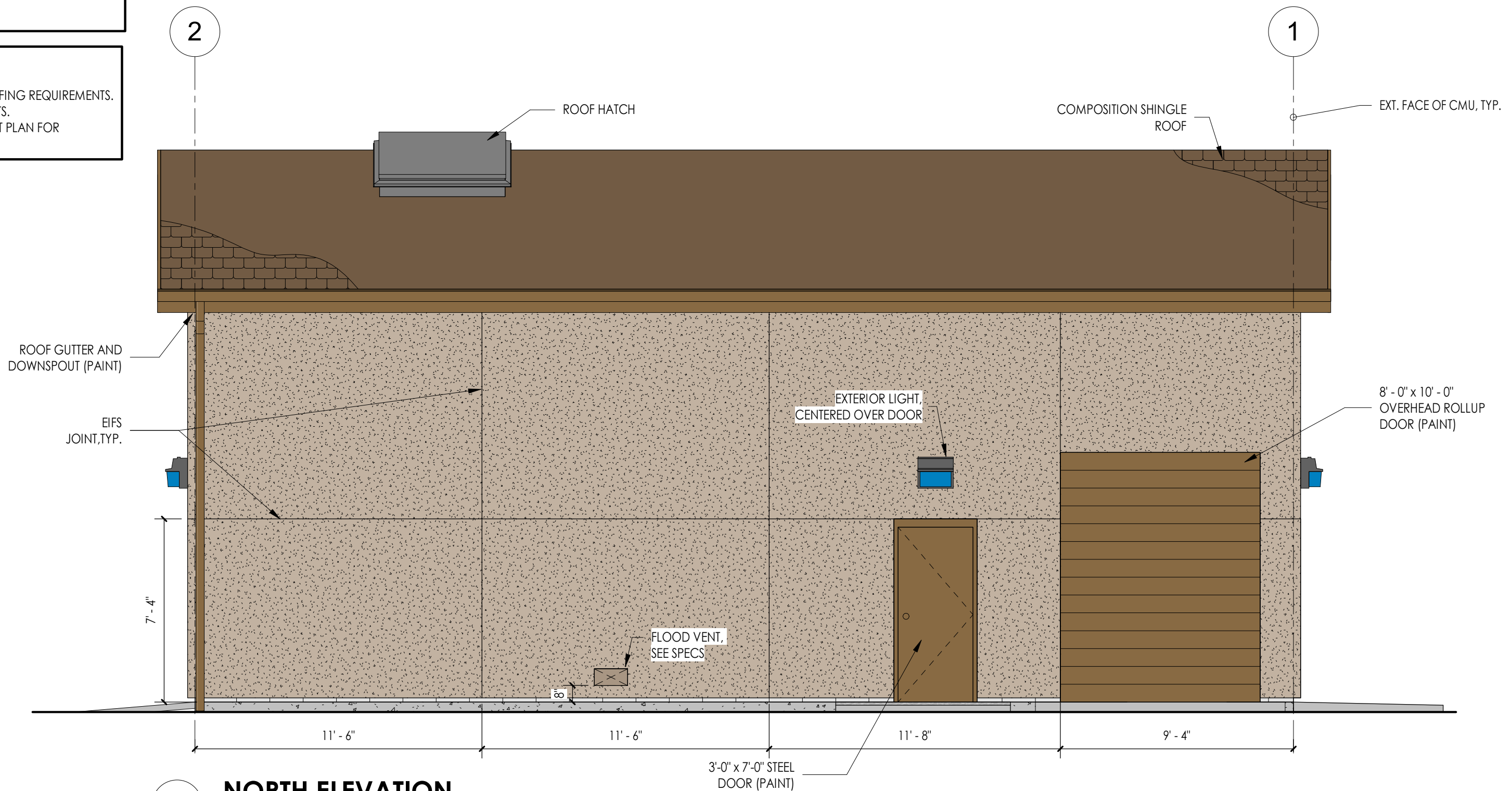
2 SOUTH ELEVATION
1/4" = 1'-0"

EXTERIOR FINISH LEGEND:	
	BUILDING STUCCO: BENJAMIN MOORE, PALM DESERT TAN #1123, TEXTURE FREESTYLE
	EXTERIOR STUCCO ACCENT/DOORS/TRIM/LOUVERS: BENJAMIN MOORE FORT SUMMER TAN #1119
	ROOF COLOR: HICKORY

ELEVATION NOTES:	
1.	SEE TECHNICAL SPECIFICATIONS FOR EIFS AND ROOFING REQUIREMENTS.
2.	SEE THE ELECTRICAL PLANS FOR LIGHT REQUIREMENTS.
3.	CONTRACTOR TO PROVIDE AN EIFS CONTROL JOINT PLAN FOR APPROVAL.



3 EAST ELEVATION
1/4" = 1'-0"

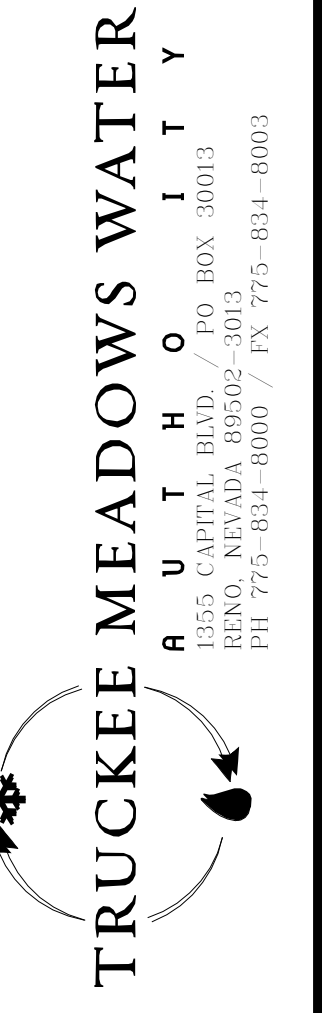


1 NORTH ELEVATION
1/4" = 1'-0"

Project Base Level Work
2' - 10 1/4"



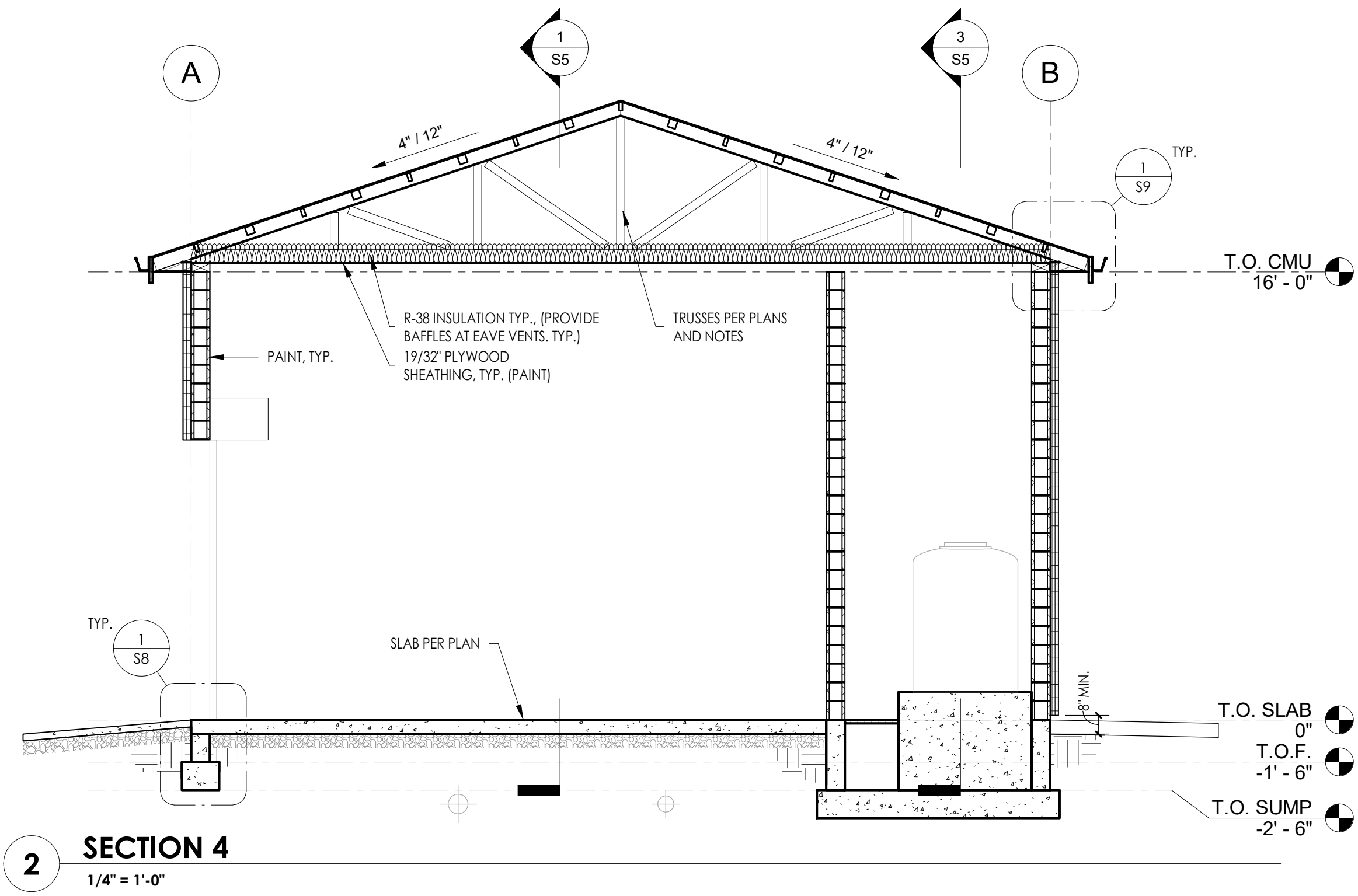
WORK ORDER NO. _____
DESIGNED BY: Designer _____
DRAWN BY: Author _____
DATE: 8/18/21
CHECKED BY: Checker _____
SUBMITTED: _____
RECOMMENDED: _____
APPROVED: Approver _____



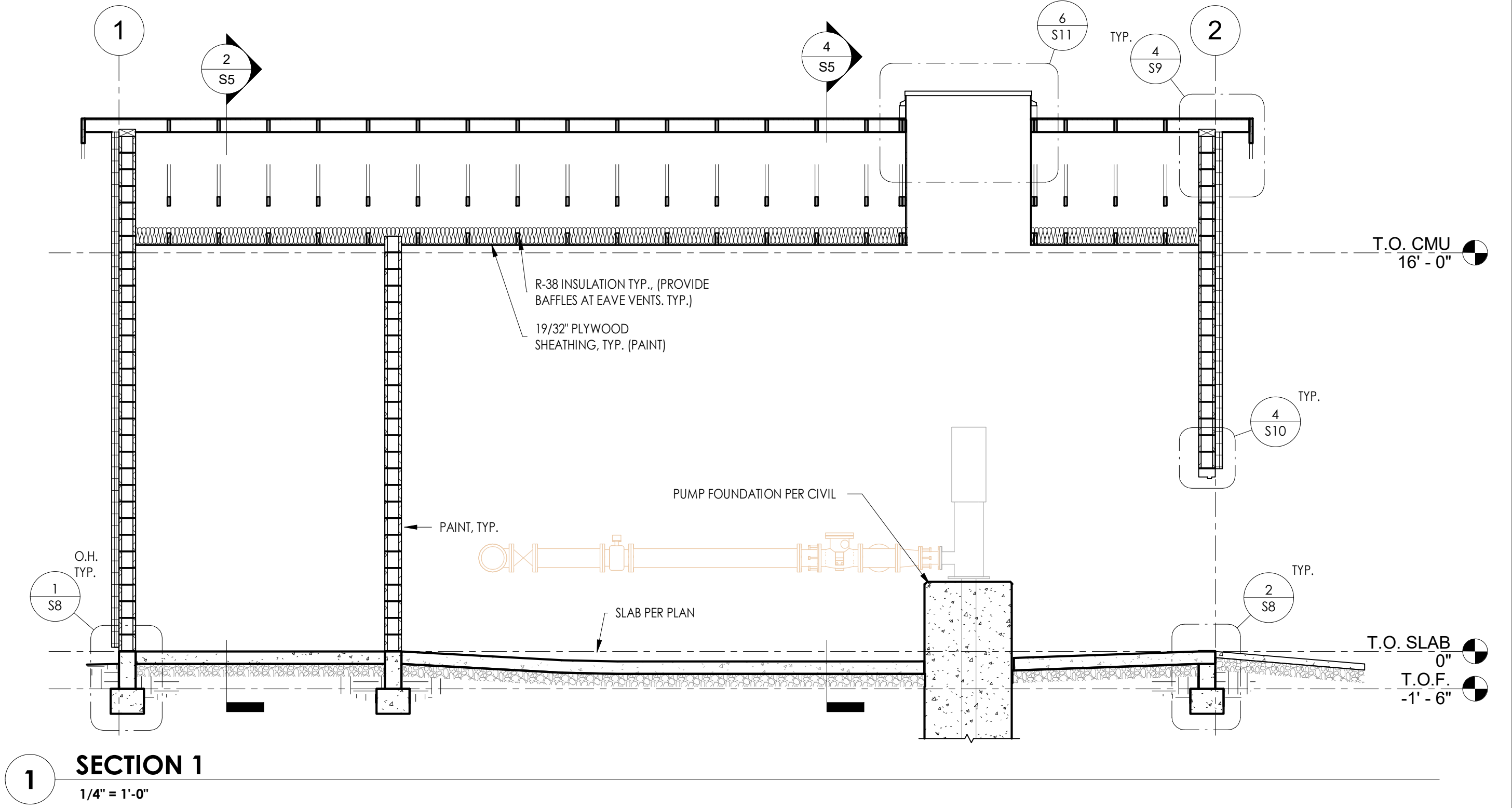
THOMAS CREEK WELL HOUSE PROJECT
RENO, NEVADA
ELEVATIONS

SHEET NUMBER
S4
3 OF 4

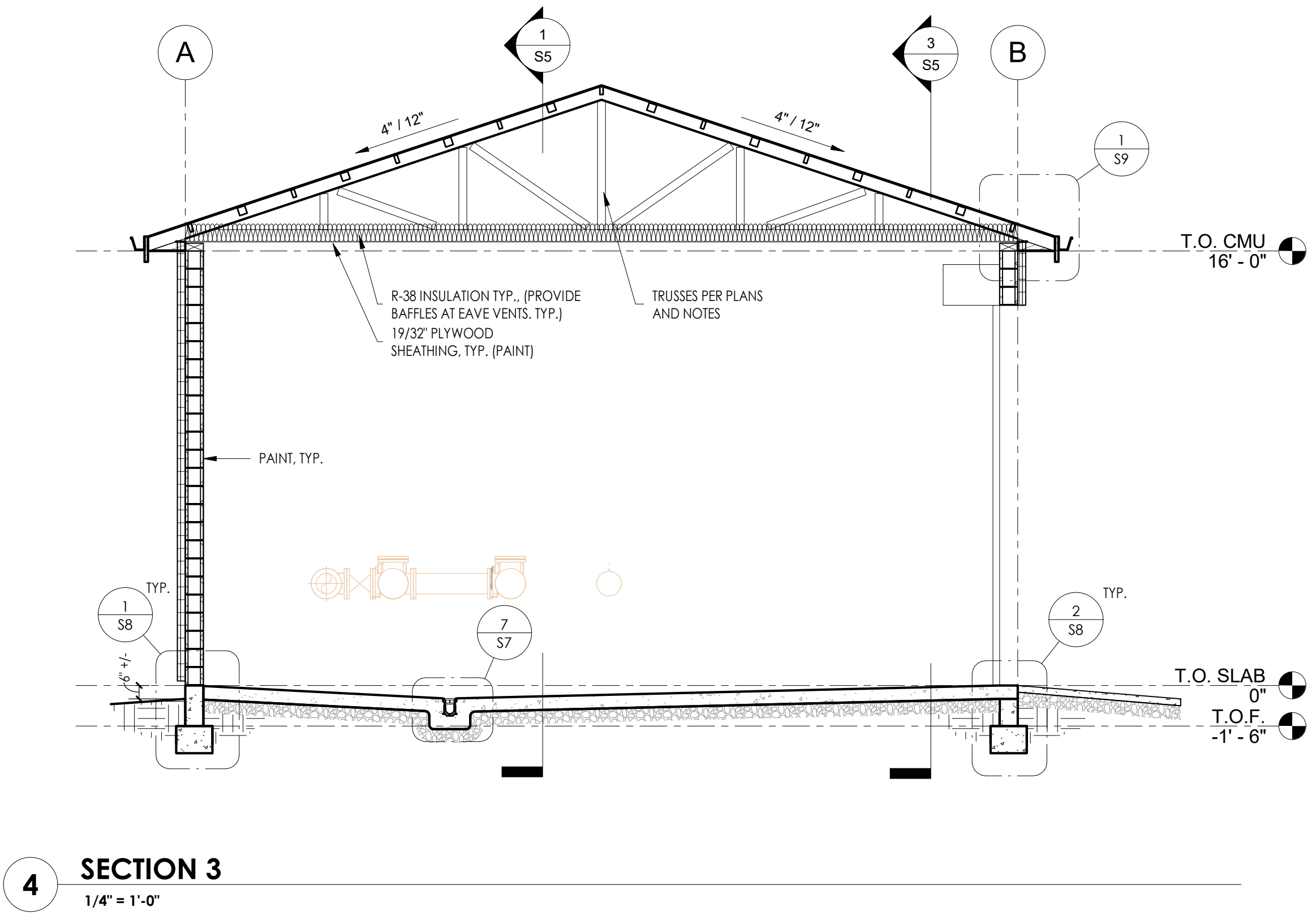
PRELIMINARY
NELSON WILCOX
STRUCTURAL ENGINEERS



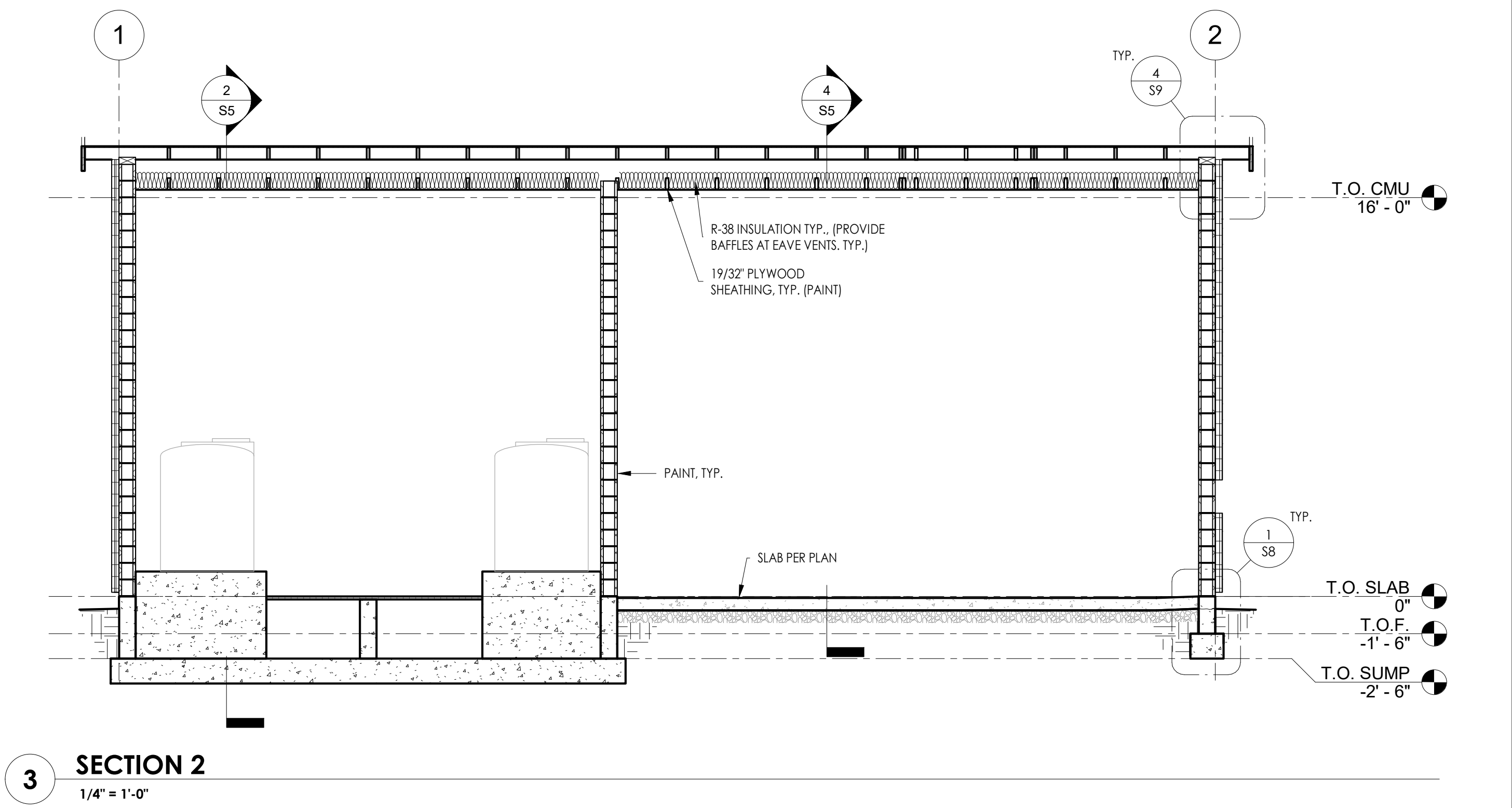
2 SECTION 4
1/4" = 1'-0"



1 SECTION 1
1/4" = 1'-0"



4 SECTION 3
1/4" = 1'-0"



3 SECTION 2
1/4" = 1'-0"

Attachment E: Landscape Planting and Irrigation Plans



LANDSCAPE SPECIFICATIONS

GENERAL

1. PLAN IS DIAGRAMMATIC ONLY. ALL LOCAL GOVERNING CODES SHALL BE MET. EXACT LOCATION OF TREES AND SHRUBS SHALL BE DETERMINED IN THE FIELD (INSTALL AS PER DETAILS) AND APPROVED BY THE OWNER'S REPRESENTATIVE.
2. A MINIMUM OF TWO WORKING DAYS BEFORE PERFORMING ANY DIGGING, CALL UNDERGROUND SERVICE ALERT FOR INFORMATION ON THE LOCATION OF NATURAL GAS LINES, ELECTRIC CABLES, TELEPHONE CABLES, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND PROTECTION OF ALL UTILITIES, AND REPAIR OF ANY DAMAGE RESULTING FROM HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
3. DAMAGES: CONTRACTOR SHALL PROMPTLY REPAIR ALL DAMAGES TO EXISTING SITE AT NO COST TO OWNER.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES (I.E., PAVING, PLUMBING, ELECTRICAL, ETC.)
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION AND TO NOTIFY THE OWNER'S REPRESENTATIVE SHOULD CONDITIONS EXIST WHICH PREVENT CONSTRUCTION AS PER THESE PLANS. COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE OF CONDITIONS AND RESPONSIBILITY FOR CORRECTIONS.
6. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING DUST CONTROL AND SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS AND CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE OWNER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT.

PLANTING

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADING THROUGHOUT ALL LANDSCAPE AREAS SUCH THAT THERE ARE NO HUMPS OR DEPRESSIONS AND POSITIVE DRAINAGE OCCURS THROUGHOUT.
8. THE CONTRACTOR SHALL PROVIDE SOIL TEST RESULTS FOR EXISTING SITE SOIL INCLUDING: TEXTURE CLASSIFICATION, PH, NITROGEN, POTASSIUM, PHOSPHORUS, SODIUM HAZARD, SALINITY HAZARD, AND FERTILIZATION RECOMMENDATION FOR THE INTENDED USE. CONTRACTOR SHALL FOLLOW RECOMMENDATIONS OF SOIL TEST.
9. INSTALL ALL PLANT MATERIALS AS PER DETAILS AND SOIL AND PLANT LAB REPORT. INFORMATION IN SOILS AND PLANT LAB REPORT SHALL PREVAIL OVER NOTES AND DETAILS.
10. SOIL AMENDMENT SHALL BE TRIPLE MIX COMPOSED OF TOPSOIL, BARK HUMUS, AND COMPOST. SUBMIT TO OWNER'S REPRESENTATIVE FOR APPROVAL.
11. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANT MATERIAL PER SYMBOLS AND SPACING INDICATED ON PLAN. SYMBOLS PREVAIL OVER NUMBERS ON PLANT LIST. NO SUBSTITUTIONS WILL BE ACCEPTED WITHOUT EXPRESSED WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE. SEE SUBMITTALS.
12. ALL PLANTS NOT MEETING OR EXCEEDING REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN SHALL BE REJECTED. CONTRACTOR SHALL RECEIVE ON-SITE APPROVAL OF PLANT MATERIAL BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. FAILURE TO RECEIVE PRIOR APPROVAL MAY RESULT IN REJECTION OF PLANT MATERIAL FOLLOWING INSTALLATION. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND EVALUATE PLANT MATERIAL THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD.
13. ALL PLANTING BEDS IN WHICH NO OTHER GROUND COVER IS SPECIFIED SHALL RECEIVE A FOUR-INCH DEPTH OF DECOMPOSED GRANITE (OAE) INSTALLED OVER LANDSCAPE FABRIC. LANDSCAPE FABRIC TO BE "DEWITT" PRO-5 WEED BARRIER (OAE) INSTALLED IN ACCORDANCE WITH MFG'S SPECIFICATIONS.

INSPECTIONS/APPROVALS/SUBMITTALS

21. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING OWNER'S REPRESENTATIVE, A MINIMUM OF 48 HOURS IN ADVANCE, FOR THE FOLLOWING SITE OBSERVATIONS AND/OR MEETINGS:
 - A. PRECONSTRUCTION MEETING WITH ALL PARTIES
 - B. PLANT MATERIAL ON SITE, PRIOR TO INSTALLATION
 - C. PLANT LOCATIONS STAKED OUT, PRIOR TO PLANTING
 - D. OPEN TRENCH, MAINLINE (WITH VALVES ATTACHED) PRESSURE TEST
 - E. IRRIGATION COVERAGE TEST
 - F. FINAL PROJECT WALK-THROUGH
 - G. ADDITIONAL SITE OBSERVATIONS AS DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE AND/OR CONTRACTOR.
22. SUBMIT AMENDMENT AND MULCH SAMPLES TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION. FAILURE TO COMPLY MAY RESULT IN REJECTION OF MULCH OR AMENDMENT PRIOR TO OR FOLLOWING INSTALLATION.
23. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROVIDE PLANT MATERIAL AS SPECIFIED ON THIS PLAN. THE CONTRACTOR MAY SUBMIT A REQUEST TO PROVIDE SUBSTITUTIONS FOR THE SPECIFIED PLANT MATERIAL UNDER THE FOLLOWING CONDITIONS:
 - A. ANY SUBSTITUTIONS PROPOSED SHALL BE SUBMITTED TO THE PROJECT OWNER'S REPRESENTATIVE WITHIN TWO WEEKS OF THE AWARD OF CONTRACT. SUBSTITUTIONS MUST MEET EQUIVALENT DESIGN AND FUNCTIONAL GOALS OF THE ORIGINAL MATERIALS AS DETERMINED BY THE OWNER'S REPRESENTATIVE. ANY CHANGES MUST HAVE THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
 - B. THE REQUEST WILL BE ACCOMPANIED BY AT LEAST THREE NOTICES FROM PLANT MATERIAL SUPPLIERS THAT THE PLANT MATERIAL SPECIFIED IS NOT AVAILABLE AND WILL NOT BE AVAILABLE PRIOR TO CONSTRUCTION.
24. SUBMIT REQUIRED SOIL REPORT, AND SAMPLE OF PROPOSED SOIL AMENDMENTS TO OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
25. RECORD (AS-BUILT) DRAWINGS: FOLLOWING COMPLETION OF PROJECT INSTALLATION, AND PRIOR TO FINAL APPROVAL, CONTRACTOR SHALL PREPARE AND SUBMIT RECORD DRAWINGS DEPICTING A COMPLETE LANDSCAPE AND IRRIGATION INSTALLATION. PROCURE FROM OWNER FULL-SIZE SHEETS OF CONTRACT DRAWINGS. CONSTRUCTION DRAWINGS SHALL BE ON THE PROJECT SITE AT ALL TIMES DURING INSTALLATION. CONTRACTOR SHALL MAKE A DAILY RECORD OF ALL WORK INSTALLED DURING EACH DAY. ACTUAL LOCATION OF TREES AND SHRUB BEDS, IRRIGATION VALVES, AND ALL IRRIGATION AND DRAINAGE PIPING SHALL BE SHOWN ON THE PRINTS BY DIMENSIONS FROM EASILY IDENTIFIED PERMANENT FEATURES, SUCH AS BUILDING, CURBS, FENCES, WALKS, OR PROPERTY LINES. DRAWINGS SHALL SHOW MANUFACTURER'S NAME AND CATALOG NUMBER. THE DRAWINGS SHALL BE TO SCALE. ALL INFORMATION NOTED ON THE PRINT SHALL BE TRANSFERRED TO THE COPIES BY CONTRACTOR AND ALL INDICATIONS SHALL BE RECORDED IN A NEAT, ORDERLY WAY. THE RECORD SET/PA SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE.

GUARANTEES/WARRANTY

26. ALL PLANTED AREAS SHALL BE MAINTAINED FOR A PERIOD OF ONE YEAR FOLLOWING WRITTEN ACCEPTANCE BY OWNER'S REPRESENTATIVE. CONTRACTOR SHALL GUARANTEE ALL TREES AND SHRUBS FOR A PERIOD OF ONE-YEAR FOLLOWING COMPLETION OF MAINTENANCE PERIOD.

LANDSCAPE REQUIREMENTS

ZONING: LD SUBURBAN
DEVELOPED SITE AREA: 31760 SF
TOTAL SITE AREA: 104735 SF

USE: CIVIL USE, MAJOR SERVICES AND UTILITIES, UTILITY SERVICES
 • LANDSCAPE COVERAGE: 20% DEVELOPED AREA REQUIRED/PROVIDED 20% (6350 SF)

ZONING: 1 TREE PER/300 SF OF LANDSCAPE AREA, 22 REQUIRED/ PROVIDED
 • EVERGREEN MIN SIZE AT PLANTING TO BE 7'HT. 17 PROVIDED
 • DECIDUOUS MIN. SIZE AT PLANTING TO BE 2" CAL. 5 PROVIDED

BUFFER REQUIRED ADJOINING RESIDENTIAL USE:
 • BUFFER THE WIDTH OF REQUIRED YARD AND 1 TREE/20 LF PROPERTY FRONTAGE REQUIRED
 • REDUCTION OF THIS REQUIREMENT REQUESTED THROUGH SUP PROCESS.
 • 1 TREE/20 LF PROVIDED DIRECTLY AROUND STRUCTURE, TOTAL 22 TREES PROVIDED

SCREENING ADJOINING RESIDENTIAL USES, SOLID DECORATIVE WALL OR FENCE ALONG ENTIRE EDGE OF PROPERTY LINE REQUIRED
 • REMOVAL OF THIS REQUIREMENT REQUESTED THROUGH SUP PROCESS

TREES TOTAL: 22 REQUIRED/ PROVIDED

SHRUBS:
 • 50% MIN. SIZE AT PLANTING TO BE 5 GALLON
 • 50% MIN. SIZE AT PLANTING TO BE 1 GALLON

PLANT LEGEND

EVERGREEN	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	JUNIPERUS SCOPULORUM	ROCKY MOUNTAIN JUNIPER	7' HT	30'HX20'W	11
	PINUS PONDEROSA	PONDEROSA PINE	7' HT	60'HX30'W	6
SHADE TREE	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	2" CAL	30'HX30'W	5
SHRUB AREAS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	ROCK MULCH AND SHRUBS AT 6 SHRUBS/300 PLANTING AREA OX ROCK 2"- 6" SIZE PLACED AT 6" DEPTH SEE SHRUB LEGEND FOR SHRUBS TYPE AND SIZE		-		14,774 SF
GROUND COVERS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	REVEGETATION SEEDING SEE NOTE #2 SHEET LP1	PREVIOUSLY DISTURBED AREA	-		17,824 SF
	REVEGETATION SEEDING SEE NOTE #2 SHEET LP1	NEW DISTURBED AREA	-		11,517 SF

SHRUB LEGEND

BOTANICAL NAME	COMMON NAME	SIZE HXW
CERCOCARPUS LEDIFOLIUS	CURL-LEAF MOUNTAIN MAHOGANY	18'HX10'W
CHAMAEBATIARIA MILLEFOLIUM 'FERNBUSH'	FERNBUSH	8'HX8'W
FORESTIERA NEOMEXICANA	NEW MEXICO PRIVET	10'HX10'W
HESPERALOE PARVIFLORA	RED YUCCA	3'HX3'W
PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	5'HX4'W
PRUNUS BESSEYI 'P011S' TM	PAWNEE BUTTES SAND CHERRY	1.5'HX5'W

NOTES:
 1. SHRUBS TO BE SHOWN IN SUBSEQUENT SUBMITTALS.
 2. THE REVEGETATION PROCEDURE WILL INCLUDE TOPSOIL SALVAGE AND REPLACEMENT AND APPLICATION OF INOCULANT AND HUMIC ACID. A SEED MIX COMPRISED OF NATIVE AND REGIONALLY ADAPTED GRASSES, FORBS AND SHRUBS WILL BE APPLIED EITHER BY BROADCAST OR HYDROSEEDING AT A MINIMUM OF 25 PLS (PURE LIVE SEED) POUNDS PER ACRE. PAPER MULCH AND TACKIFIER WILL BE APPLIED TO THE SURFACE.

Stantec

WORK ORDER NO. 15-0056.001

DESIGNED BS
DRAWN TB
DATE November 3, 2021
CHECKED BS
SUBMITTED SEPTEMBER 2021
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER

A U T H O R I T Y

1965 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89502-3013
PH 775-834-8000 / FX 775-834-8003

50% SUBMITTAL

**THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA**

**PLANTING LEGEND
AND NOTES**

SHEET NUMBER

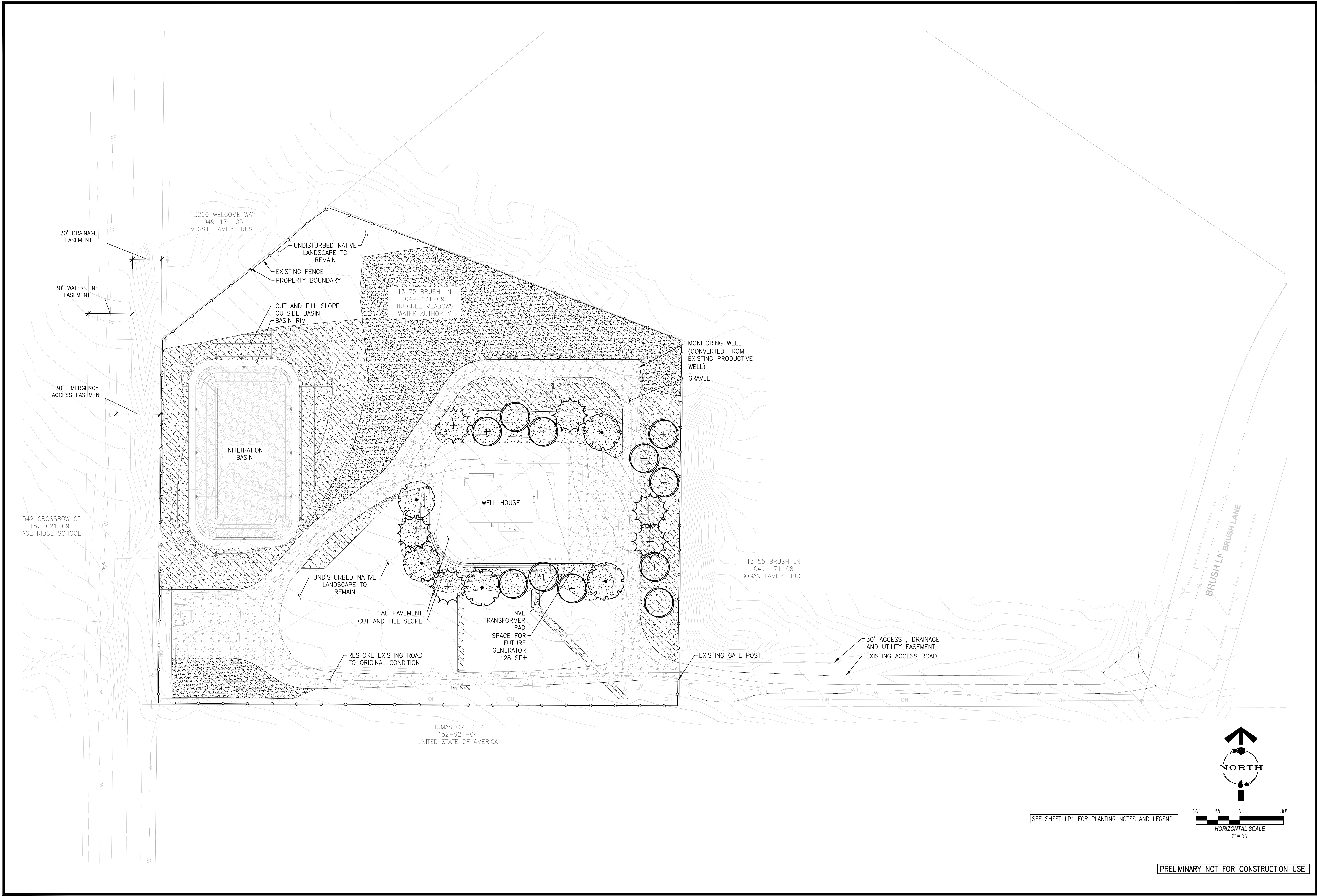
LP1

1 OF 5

PRELIMINARY NOT FOR CONSTRUCTION USE

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Stantec

WORK ORDER NO. 15-0056.001

DESIGNED	BS
DRAWN	TB
DATE	November 3, 2021
CHECKED	BS
SUBMITTED	SEPTEMBER 2021
RECOMMENDED	
APPROVED	

TRUCKEE MEADOWS WATER
A U T H O R I T Y
1865 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89502-3013
PH 775-854-8000 / FX 775-854-8003

50% SUBMITTAL

**THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA**

PLANTING PLAN

SHEET NUMBER

LP2

2 OF 5

IRRIGATION SPECIFICATIONS

GENERAL

1. PLAN IS DIAGRAMMATIC ONLY. FINAL LOCATION OF LINES AND HEADS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE. LINES SHALL BE IN A COMMON TRENCH WHEREVER POSSIBLE. THE POINT-OF-CONNECTION SHALL BE AS INDICATED ON THE PLAN.
2. THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AND ENSURE THAT ALL LOCAL CODES ARE MET. VERIFY PRESSURE (PSI) PRE AND POST CONSTRUCTION.
3. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL PERMITS REQUIRED FOR INSTALLATION OF THE IRRIGATION SYSTEM AS DEPICTED ON THESE PLANS.
4. CONTRACTOR SHALL VERIFY AVAILABLE FLOW AND PRESSURE DOWNSTREAM FROM THE POINT-OF-CONNECTION PRIOR TO SYSTEM INSTALLATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY IF AVAILABLE FLOW IS LESS THAN REQUIRED TO RUN THE LARGEST ZONE. CONTRACTOR SHALL NOT PROCEED ANY FURTHER WITH INSTALLATION OF THE SYSTEM UNTIL NECESSARY DESIGN REVISIONS HAVE BEEN DETERMINED BY OWNER'S REPRESENTATIVE.
5. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR DIFFERENCES IN DIMENSIONS EXIST THAT MIGHT HAVE BEEN UNKNOWN DURING ENGINEERING. SUCH OBSTRUCTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY AT NO ADDITIONAL COST TO OWNER.
6. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
7. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SPRINKLER MATERIALS, INCLUDING PIPE, WITH THE LANDSCAPE DRAWINGS TO AVOID INTERFERING WITH THE PLANTING OF TREES, SHRUBS, OR OTHER PLANTINGS.
8. ALL VALVES ARE TO BE LOCATED IN PLANTING AREAS WHEREVER POSSIBLE.
9. ALL ELECTRICAL WIRE FROM CONTROLLER TO VALVES SHALL BE 12 GAUGE UL DIRECT BURIAL OR LARGER AS REQUIRED BY LENGTH PER MANUFACTURER'S SPECIFICATIONS.
10. BACKFILL FOR TRENCHING SHALL BE COMPACTED TO A DRY DENSITY EQUAL TO THE UNDISTURBED ADJACENT SOIL AND SHALL CONFORM TO ADJACENT GRADES WITHOUT DIPS, HUMPS, OR OTHER IRREGULARITIES. BLUE DETECTION TAPE TO BE INSTALLED 10-12" ABOVE PIPE.
11. A MINIMUM OF TWO WORKING DAYS PRIOR TO PERFORMING ANY DIGGING, CALL UNDERGROUND SERVICE ALERT AT 1-800-227-2600 FOR INFORMATION ON THE LOCATION OF NATURAL GAS LINES, ELECTRICAL CABLES, TELEPHONE CABLES, ETC.
12. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING DUST CONTROL AND SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
13. INSTALL ALL PIPE AND CONTROL WIRES IN LANDSCAPE BEDS AND IN COMMON TRENCHES WHEREVER POSSIBLE.
14. INSTALL ALL PIPE AND CONTROL WIRE, WHICH RUNS UNDER PAVING, WITHIN SCH. 40 PVC SLEEVES 4" DIA. MINIMUM SIZE AS REQUIRED TO ALLOW INSTALLATION WITHOUT BINDING. PROVIDE (1) SLEEVE PER PIPE. PROVIDE SEPARATE SLEEVES FOR CONTROL WIRE. LEAVE ABOVE GRADE MARKERS ON BOTH SIDES OF SLEEVE.
15. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE FOR COMPLETE DRAINAGE OF THE MAINLINES BY INSTALLING MANUAL DRAINS AS INDICATED ON PLAN AND AT ALL SYSTEM LOW POINTS. NO KING DRAINS.

FLUSHING AND TESTING

16. PIPING SHALL BE COMPLETELY FLUSHED OF FOREIGN PARTICLES BEFORE ATTACHING IRRIGATION COMPONENTS AND DRAIN VALVES.
17. AFTER FLUSHING, AND WHEN ALL VALVES AND QUICK COUPLERS ARE IN PLACE, ALL MAIN SUPPLY LINES SHALL BE TESTED AT 100 POUNDS PER SQUARE INCH (100 PSI) WITH VALVES CLOSED. MAINTAIN PRESSURE FOR A PERIOD OF NOT LESS THAN (4) CONSECUTIVE HOURS. ALL JOINTS SHOWING LEAKS SHALL BE CLEANED, REMADE, AND TESTED.
18. AFTER FLUSHING, LATERAL PIPES SHALL BE TESTED WITH RISERS CAPPED AND DRAIN VALVES CLOSED. THE TEST SHALL BE MADE AT MAXIMUM OPERATING PRESSURE FOR A PERIOD OF NOT LESS THAN (1) HOUR. ALL JOINTS SHOWING LEAKS SHALL BE CLEANED, REMADE, AND TESTED. ALL TESTING SHALL BE DONE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING OVER PIPING.
19. OPERATIONAL TESTING: PERFORM OPERATIONAL TESTING AFTER HYDROSTATIC TESTING IS COMPLETED. DEMONSTRATE TO THE OWNER'S REPRESENTATIVE THAT THE SYSTEM MEETS COVERAGE REQUIREMENTS (100%) AND THAT AUTOMATIC CONTROLS FUNCTION PROPERLY.

SUBMITTALS

20. MATERIALS LIST: WITHIN (15) DAYS AFTER AWARD OF CONTRACT, SUBMIT TO OWNER'S REPRESENTATIVE (3) COPIES OF A COMPLETE MATERIAL LIST (PARTIAL LIST NOT ACCEPTABLE) OF ALL MATERIALS TO BE USED ON THE PROJECT, SPECIFYING MANUFACTURER, GRADE, TRADE NAME, CATALOG NUMBER, SIZE, ETC. THIS SHALL IN NO WAY BE CONSTRUED AS ALLOWING A SUBSTITUTION FOR ANY ITEM SPECIFIED ON THE PLANS. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE MAY BE REJECTED AND THE CONTRACTOR REQUIRED TO REMOVE THE MATERIALS AT HIS OWN EXPENSE.
- INSTALLATION AND PERFORMANCE OF APPROVED SUBSTITUTIONS ARE THE CONTRACTORS RESPONSIBILITY. ANY CHANGES REQUIRED FOR INSTALLATION OF ANY APPROVED SUBSTITUTION MUST BE MADE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE WITHOUT ADDITIONAL COST TO OWNER.

21. PRIOR TO SYSTEM INSTALLATION CONTRACTOR SHALL VERIFY AND SUBMIT TO OWNER'S REPRESENTATIVE IN WRITING, AVAILABLE FLOW AND PRESSURE AT POINT-OF-CONNECTION AS DESCRIBED IN SPECIFICATION #4 ABOVE.

22. COMPLETE WARRANTY CARDS FOR AUTOMATIC CONTROLLER AND OTHER IRRIGATION MATERIAL (CONTROLLER KEYS, ETC.) SHALL BE DELIVERED TO OWNER.

23. CONTRACTOR SHALL PREPARE AND ISSUE TO THE OWNER (AT COMPLETION OF THE INSTALLATION) AN ANNUAL CHART INDICATING LOCATION, OPERATING DATES, CYCLES, AND TIME FOR EACH ZONE.

24. ASBUILT IRRIGATION DRAWINGS: CONTRACTOR SHALL FURNISH ASBUILTS OF THE COMPLETE IRRIGATION SYSTEM. PROCURE FROM OWNER'S REPRESENTATIVE FULL-SIZED SHEETS OF CONTRACT DRAWINGS. CONSTRUCTION DRAWINGS SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES WHILE THE IRRIGATION SYSTEM IS BEING INSTALLED. CONTRACTOR SHALL MAKE A DAILY RECORD OF ALL WORK INSTALLED DURING EACH DAY. ACTUAL LOCATION OF VALVES AND ALL IRRIGATION AND DRAINAGE PIPING SHALL BE SHOWN ON THE PRINTS BY DIMENSIONS FROM EASILY IDENTIFIED PERMANENT FEATURES, SUCH AS BUILDINGS, CURBS, FENCES, WALKS OR PROPERTY LINES. DRAWINGS SHALL SHOW APPROVED MANUFACTURER'S NAME AND CATALOG NUMBER. THE DRAWINGS SHALL BE TO SCALE AND ALL INDICATIONS SHALL BE NEAT. ALL INFORMATION NOTED ON THE PRINT SHALL BE TRANSFERRED TO THE COPIES BY CONTRACTOR AND ALL INDICATIONS SHALL BE RECORDED IN A NEAT, ORDERLY WAY. THE RECORD SEPIA SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE AT OR BEFORE FINAL ACCEPTANCE/APPROVAL OF THE PROJECT.

GUARANTEE/FINAL ACCEPTANCE

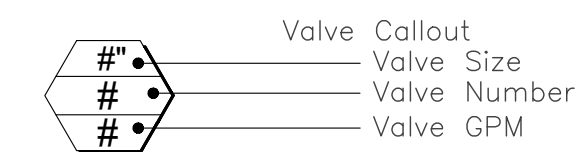
25. CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE THE IRRIGATION SYSTEM FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. MANUFACTURER WARRANTIES SHALL ONLY EXCEED THIS GUARANTEE AND CONTRACTOR SHALL BE LIABLE FOR REPAIRS/REPLACEMENT OF FAILED MATERIAL/WORKMANSHIP.

MAINTENANCE

26. AFTER SYSTEM IS INSTALLED AND APPROVED, INSTRUCT OWNER'S DESIGNATED PERSONNEL IN COMPLETE OPERATION AND MAINTENANCE PROCEDURES. DRAIN ENTIRE SYSTEM AT END OF FIRST WATERING SEASON FOLLOWING INSTALLATION. TRAIN OWNER'S DESIGNATED PERSONNEL BY HAVING THEM ASSIST IN WINTERIZING PROCEDURE.

IRRIGATION LEGEND

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD MDCFCAP DRIPLINE FLUSH VALVE CAP IN COMPRESSION FITTING COUPLER.
	RAIN BIRD PCT SINGLE OUTLET EMITTER PRESSURE COMPENSATING THREADED LOW-FLOW BUBBLERS. OFFERED IN 5 GPH, 7 GPH, AND 10 GPH MODELS, WITH 1/2" FPT THREADED INLET. LIGHT BROWN = 5 GPH, VIOLET = 7 GPH, AND GREEN = 10 GPH.
	AREA TO RECEIVE DRIP EMITTERS RAIN BIRD XB-PC SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS. FLOW RATES OF 0.5GPH=BLUE, 1.0GPH=BLACK, AND 2.0GPH=RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET.
	Emitter Notes: 1.0 GPH emitters (3 assigned to each #5 plant)
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD DVF STANDARD CONFIGURATION, ELECTRIC REMOTE CONTROL VALVE. PLASTIC RESIDENTIAL IN 1". WITH FLOW CONTROL.
	RAIN BIRD 44-LRC 1" BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.
	MUELLER CURB STOP VALVE MAINLINE ISOLATION VALVE, SAME SIZE AS MAINLINE.
	RAIN BIRD ESP4MEI WITH (3) ESP-SM6 22 STATION, HYBRID MODULAR INDOOR CONTROLLER. FOR RESIDENTIAL OR LIGHT COMMERCIAL APPLICATIONS.
	RAIN BIRD RSD-BEX RAIN SENSOR, WITH METAL LATCHING BRACKET, EXTENSION WIRE.
	RAIN BIRD PRF-100-RBY 1" INLET/ OUTLET WITH 3.0 TO 15 GPM AND 40 PSI REGULATED PRESSURE. INLET PRESSURE: 20 TO 150 PSI.
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21
	IRRIGATION MAINLINE: PVC SCHEDULE 40
	PIPE SLEEVE: PVC SCHEDULE 40 PIPE SLEEVE: PVC SCHEDULE 40 ALL SLEEVES SHALL BE 4" IN SIZE AND EXTEND 2' MIN. BEYOND EDGE OF PAVEMENT OR CURB AND MARKED ABOVE GRADE.

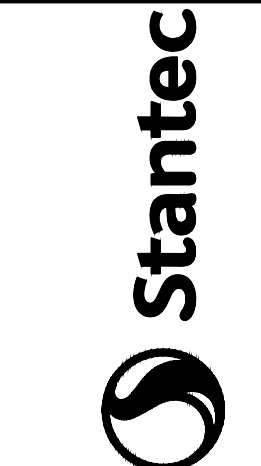


DESIGN PRESSURE AND FLOW

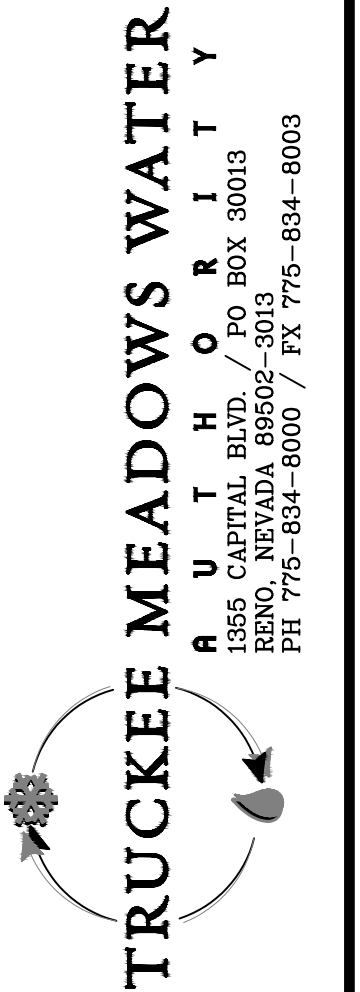
ASSUMED AVAILABLE WATER PRESSURE AT P.O.C. IS 30 PSI. ASSUMED FLOW IS 20 GPM @ 4.5 FPS. CONTRACTOR TO VERIFY PRIOR TO SYSTEM INSTALLATION. FUTURE PRESSURES MAY VARY DUE TO NEW DEVELOPMENT AND/OR OTHER UNFORESEEN CIRCUMSTANCES. LANDSCAPE ARCHITECT SHALL BEAR NO RESPONSIBILITY FOR FUTURE DEVIATIONS IN PRESSURE AND ANY RESULTING EFFECTS ON THE PERFORMANCE OF THE IRRIGATION SYSTEM.

WHENEVER POSSIBLE, ALL IRRIGATION COMPONENTS SHALL BE LOCATED IN PLANTING BEDS.

NOTE: ALL CONSTRUCTION DETAILS AND NOTES FROM THE APPROVED LANDSCAPE PLANS SHALL APPLY.



WORK ORDER NO. 15-00568.001
DESIGNED BS
DRAWN TB
DATE November 3, 2021
CHECKED BS
SUBMITTED SEPTEMBER 2021
RECOMMENDED
APPROVED



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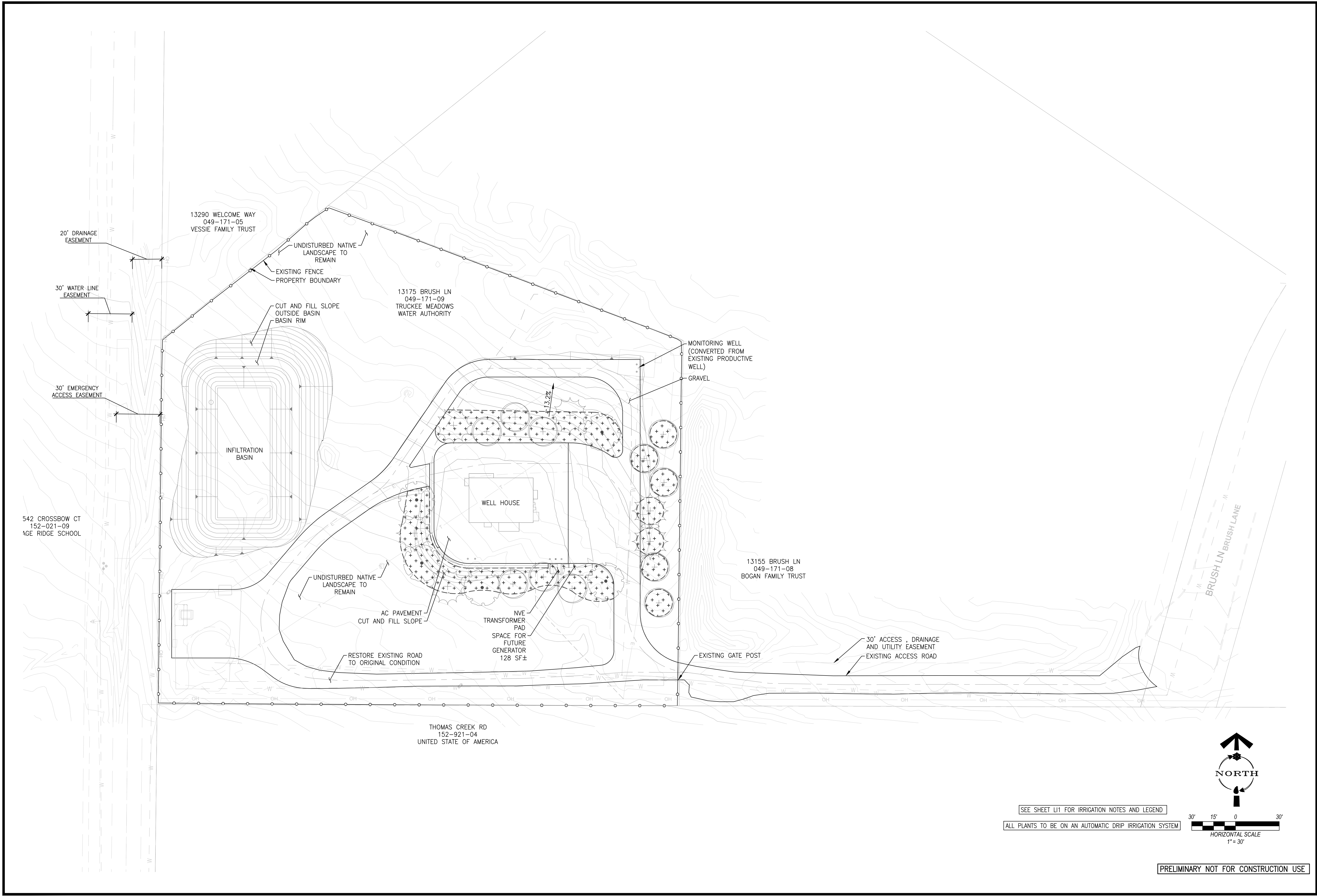
THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA
IRRIGATION LEGEND
AND NOTES

SHEET NUMBER
11
3 OF 5

PRELIMINARY NOT FOR CONSTRUCTION USE

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Stantec

WORK ORDER NO. 15-0056.001

DESIGNED BS

DRAWN TB

DATE November 3, 2021

CHECKED BS

SUBMITTED SEPTEMBER 2021

RECOMMENDED

APPROVED

TRUCKEE MEADOWS WATER

A U T H O R I T Y

1865 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89502-3013
PH 775-854-8000 / FX 775-854-8003

50% SUBMITTAL

**THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA**

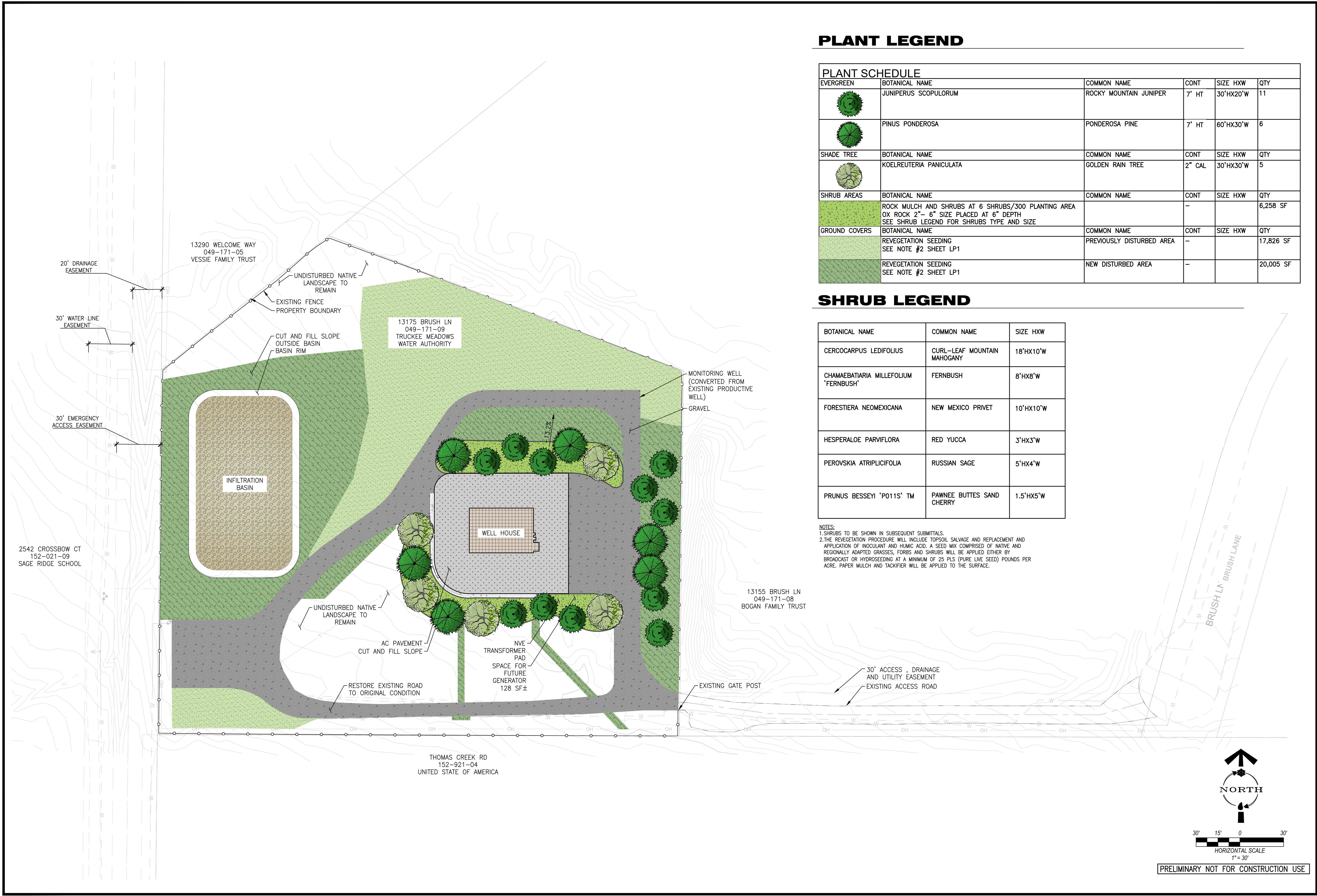
IRRIGATION PLAN

SHEET NUMBER

L11

4 OF 5

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PLANT LEGEND

PLANT SCHEDULE					
EVERGREEN	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	JUNIPERUS SCOPULORUM	ROCKY MOUNTAIN JUNIPER	7' HT	30'HX20'W	11
	PINUS PONDEROSA	PONDEROSA PINE	7' HT	60'HX30'W	6
SHADE TREE	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	2" CAL	30'HX30'W	5
SHRUB AREAS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	ROCK MULCH AND SHRUBS AT 6 SHRUBS/300 PLANTING AREA OX ROCK 2"- 6" SIZE PLACED AT 6" DEPTH SEE SHRUB LEGEND FOR SHRUBS TYPE AND SIZE		-		6,258 SF
GROUND COVERS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	REVEGETATION SEEDING SEE NOTE #2 SHEET LP1	PREVIOUSLY DISTURBED AREA	-		17,826 SF
	REVEGETATION SEEDING SEE NOTE #2 SHEET LP1	NEW DISTURBED AREA	-		20,005 SF

SHRUB LEGEND

BOTANICAL NAME	COMMON NAME	SIZE HXW
CERCOCARPUS LEDIFOLIUS	CURL-LEAF MOUNTAIN MAHOGANY	18'HX10'W
CHAMAEBATIARIA MILLEFOLIUM 'FERNBUSH'	FERNBUSH	8'HX8'W
FORESTIERA NEOMEXICANA	NEW MEXICO PRIVET	10'HX10'W
HESPERALOE PARVIFLORA	RED YUCCA	3'HX3'W
PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	5'HX4'W
PRUNUS BESSEYI 'P011S' TM	PAWNEE BUTTES SAND CHERRY	1.5'HX5'W

NOTES:
1. SHRUBS TO BE SHOWN IN SUBSEQUENT SUBMITTALS.
2. THE REVEGETATION PROCEDURE WILL INCLUDE TOPSOIL SALVAGE AND REPLACEMENT AND APPLICATION OF INOCULANT AND HUMIC ACID. A SEED MIX COMPRISED OF NATIVE AND REGIONALLY ADAPTED GRASSES, FORBS AND SHRUBS WILL BE APPLIED EITHER BY BROADCAST OR HYDROSEEDING AT A MINIMUM OF 25 PLS (PURE LIVE SEED) POUNDS PER ACRE. PAPER MULCH AND TACKIFIER WILL BE APPLIED TO THE SURFACE.

WORK ORDER NO. 15-0056.001
DESIGNED: BS
DRAWN: TB
DATE: November 3, 2021
CHECKED: BS
SUBMITTED: SEPTEMBER 2021
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER
A U T H O R I T Y
1865 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89502-3013
PH 775-864-8000 / FX 775-864-8003

50% SUBMITTAL

**THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA**

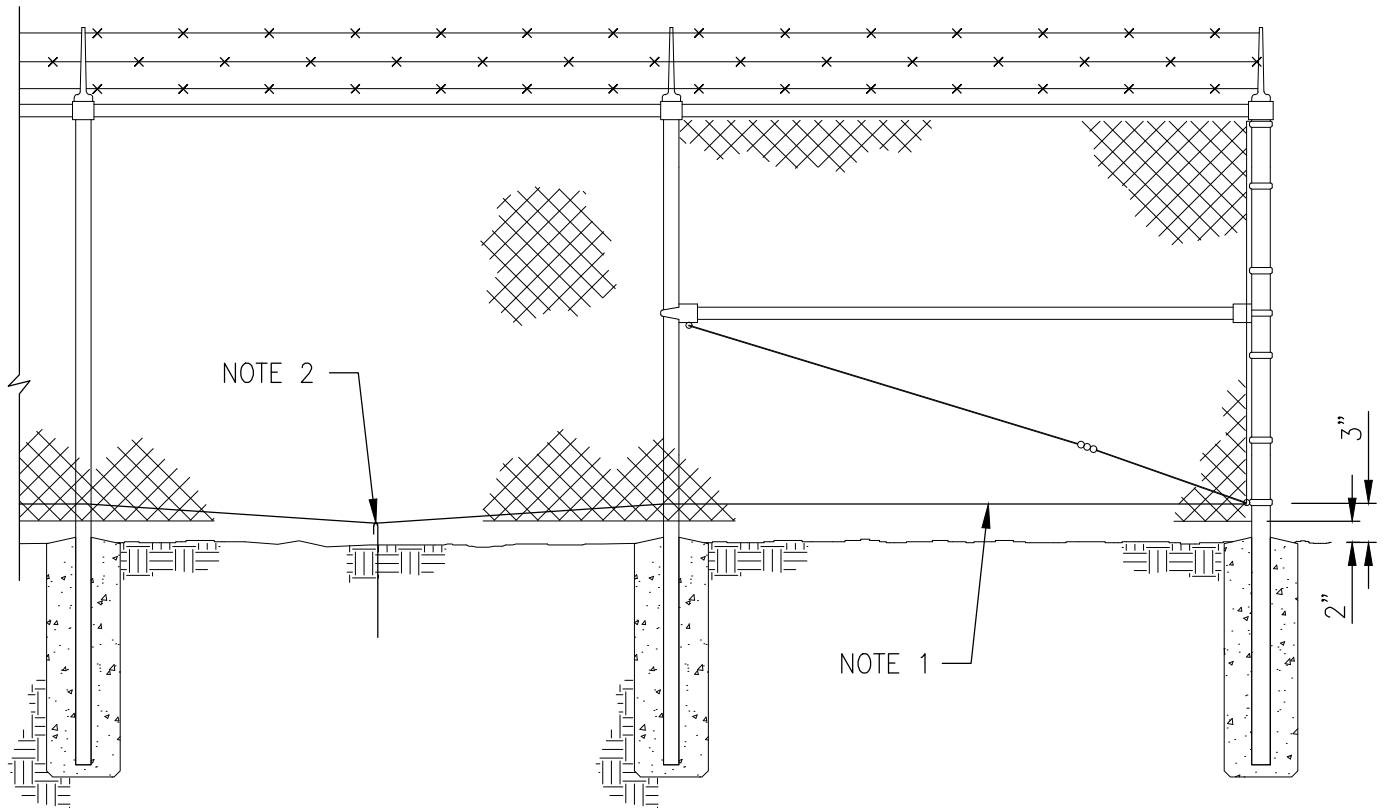
COLORED SITE PLAN

SHEET NUMBER
XX
5 OF 5

Attachment F: Existing Fence Security Retrofit



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NOTES:

1. INSTALL BOTTOM TENSION WIRE,
 - 1.1. 7 GA. (0.180" DIAMETER) GALVANIZED STEEL. WIRE TO BE INSTALLED TAUT @ 3" A.F.G.
 - 1.2. ATTACH FABRIC TO WIRE WITH HOG RINGS.
 - 1.3. CONTRACTOR SHALL ENSURE ALL AREAS OF FENCING CANNOT BE PULLED UP ABOVE 5" A.F.G.

2. OPTIONAL J-HOOK REBAR ANCHORS MAY BE UTILIZED TO ACHIEVE NOTE 1.3.



October 2021

156744

Detail C472/TYP

Existing Fence Security Retrofit
 WSUP21-0030
 EXHIBIT E

1325 Airmotive Way, Suite 215
Reno, NV 89502

T: 775.834.0165



January 20, 2022

Katherine Stark
Community Services Department
Washoe County
1001 East 9th Street
Reno, NV 89512

156744

Subject: Special Use Permit WSUP21-0030, TMWA Thomas Creek Wellhouse

Dear Ms. Stark:

Truckee Meadows Water Authority (TMWA) representatives and Washoe County Community Services Department representatives met to discuss proposed components of the Thomas Creek Wellhouse project located on APN 049-171-09 Wednesday January 12, 2022. Additionally, TMWA representatives met with the property owners of 13155 Brush Lane (APN 049-171-08) located adjacent and to the east of the subject parcel to discuss the proposed project Sunday January 16, 2022.

As a result of these discussions, the landscape plans have been revised, and the latest landscape plans are attached. The goal of the revised landscape plan is for the wellhouse to visually complement the surrounding residences.

The adjacent property owner will send an email or letter to you expressing their support of the proposed project.

Regards,

Brown and Caldwell

A handwritten signature in blue ink, appearing to read 'Liz Pierson', with a long horizontal flourish extending to the right.

Liz Pierson, Project Manager
Reno, Nevada

cc: Ben Jesch, TMWA; file

Attachments (1)

1. Attachment A: Revised Landscape Plans

LANDSCAPE SPECIFICATIONS

GENERAL

1. PLAN IS DIAGRAMMATIC ONLY. ALL LOCAL GOVERNING CODES SHALL BE MET. EXACT LOCATION OF TREES AND SHRUBS SHALL BE DETERMINED IN THE FIELD (INSTALL AS PER DETAILS) AND APPROVED BY THE OWNER'S REPRESENTATIVE.
2. A MINIMUM OF TWO WORKING DAYS BEFORE PERFORMING ANY DIGGING, CALL UNDERGROUND SERVICE ALERT FOR INFORMATION ON THE LOCATION OF NATURAL GAS LINES, ELECTRIC CABLES, TELEPHONE CABLES, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION AND PROTECTION OF ALL UTILITIES, AND REPAIR OF ANY DAMAGE RESULTING FROM HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
3. DAMAGES: CONTRACTOR SHALL PROMPTLY REPAIR ALL DAMAGES TO EXISTING SITE AT NO COST TO OWNER.
4. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES (I.E., PAVING, PLUMBING, ELECTRICAL, ETC.)
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION AND TO NOTIFY THE OWNER'S REPRESENTATIVE SHOULD CONDITIONS EXIST WHICH PREVENT CONSTRUCTION AS PER THESE PLANS. COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE OF CONDITIONS AND RESPONSIBILITY FOR CORRECTIONS.
6. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING DUST CONTROL AND SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS AND CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS THE OWNER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT.

PLANTING

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADING THROUGHOUT ALL LANDSCAPE AREAS SUCH THAT THERE ARE NO HUMPS OR DEPRESSIONS AND POSITIVE DRAINAGE OCCURS THROUGHOUT.
8. THE CONTRACTOR SHALL PROVIDE SOIL TEST RESULTS FOR EXISTING SITE SOIL INCLUDING: TEXTURE CLASSIFICATION, PH, NITROGEN, POTASSIUM, PHOSPHORUS, SODIUM HAZARD, SALINITY HAZARD, AND FERTILIZATION RECOMMENDATION FOR THE INTENDED USE. CONTRACTOR SHALL FOLLOW RECOMMENDATIONS OF SOIL TEST.
9. INSTALL ALL PLANT MATERIALS AS PER DETAILS AND SOIL AND PLANT LAB REPORT. INFORMATION IN SOILS AND PLANT LAB REPORT SHALL PREVAIL OVER NOTES AND DETAILS.
10. SOIL AMENDMENT SHALL BE TRIPLE MIX COMPOSED OF TOPSOIL, BARK HUMUS, AND COMPOST. SUBMIT TO OWNER'S REPRESENTATIVE FOR APPROVAL.
11. CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANT MATERIAL PER SYMBOLS AND SPACING INDICATED ON PLAN. SYMBOLS PREVAIL OVER NUMBERS ON PLANT LIST. NO SUBSTITUTIONS WILL BE ACCEPTED WITHOUT EXPRESSED WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE. SEE SUBMITTALS.
12. ALL PLANTS NOT MEETING OR EXCEEDING REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN SHALL BE REJECTED. CONTRACTOR SHALL RECEIVE ON-SITE APPROVAL OF PLANT MATERIAL BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING. FAILURE TO RECEIVE PRIOR APPROVAL MAY RESULT IN REJECTION OF PLANT MATERIAL FOLLOWING INSTALLATION. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND EVALUATE PLANT MATERIAL THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD.
13. ALL PLANTING BEDS IN WHICH NO OTHER GROUNDCOVER IS SPECIFIED SHALL RECEIVE A FOUR-INCH DEPTH OF DECOMPOSED GRANITE (OAE) INSTALLED OVER LANDSCAPE FABRIC. LANDSCAPE FABRIC TO BE 'DEWITT' PRO-5 WEED BARRIER (OAE) INSTALLED IN ACCORDANCE WITH MFG'S SPECIFICATIONS.

INSPECTIONS/APPROVALS/SUBMITTALS

21. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING OWNER'S REPRESENTATIVE, A MINIMUM OF 48 HOURS IN ADVANCE, FOR THE FOLLOWING SITE OBSERVATIONS AND/OR MEETINGS:
 - A. PRECONSTRUCTION MEETING WITH ALL PARTIES
 - B. PLANT MATERIAL ON SITE, PRIOR TO INSTALLATION
 - C. PLANT LOCATIONS STAKED OUT, PRIOR TO PLANTING
 - D. OPEN TRENCH, MAINLINE (WITH VALVES ATTACHED) PRESSURE TEST
 - E. IRRIGATION COVERAGE TEST
 - F. FINAL PROJECT WALK-THROUGH
 - G. ADDITIONAL SITE OBSERVATIONS AS DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE AND/OR CONTRACTOR.
 22. SUBMIT AMENDMENT AND MULCH SAMPLES TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION. FAILURE TO COMPLY MAY RESULT IN REJECTION OF MULCH OR AMENDMENT PRIOR TO OR FOLLOWING INSTALLATION.
 23. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROVIDE PLANT MATERIAL AS SPECIFIED ON THIS PLAN. THE CONTRACTOR MAY SUBMIT A REQUEST TO PROVIDE SUBSTITUTIONS FOR THE SPECIFIED PLANT MATERIAL UNDER THE FOLLOWING CONDITIONS:
 - A. ANY SUBSTITUTIONS PROPOSED SHALL BE SUBMITTED TO THE PROJECT OWNER'S REPRESENTATIVE WITHIN TWO WEEKS OF THE AWARD OF CONTRACT. SUBSTITUTIONS MUST MEET EQUIVALENT DESIGN AND FUNCTIONAL GOALS OF THE ORIGINAL MATERIALS AS DETERMINED BY THE OWNER'S REPRESENTATIVE. ANY CHANGES MUST HAVE THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
 - B. THE REQUEST WILL BE ACCOMPANIED BY AT LEAST THREE NOTICES FROM PLANT MATERIAL SUPPLIERS THAT THE PLANT MATERIAL SPECIFIED IS NOT AVAILABLE AND WILL NOT BE AVAILABLE PRIOR TO CONSTRUCTION.
 24. SUBMIT REQUIRED SOIL REPORT, AND SAMPLE OF PROPOSED SOIL AMENDMENTS TO OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
 25. RECORD (AS-BUILT) DRAWINGS: FOLLOWING COMPLETION OF PROJECT INSTALLATION, AND PRIOR TO FINAL APPROVAL, CONTRACTOR SHALL PREPARE AND SUBMIT RECORD DRAWINGS DEPICTING A COMPLETE LANDSCAPE AND IRRIGATION INSTALLATION. PROCURE FROM OWNER FULL-SIZE SHEETS OF CONTRACT DRAWINGS. CONSTRUCTION DRAWINGS SHALL BE ON THE PROJECT SITE AT ALL TIMES DURING INSTALLATION. CONTRACTOR SHALL MAKE A DAILY RECORD OF ALL WORK INSTALLED DURING EACH DAY. ACTUAL LOCATION OF TREES AND SHRUB BEDS, IRRIGATION VALVES, AND ALL IRRIGATION AND DRAINAGE PIPING SHALL BE SHOWN ON THE PRINTS BY DIMENSIONS FROM EASILY IDENTIFIED PERMANENT FEATURES, SUCH AS BUILDING, CURBS, FENCES, WALKS, OR PROPERTY LINES. DRAWINGS SHALL SHOW MANUFACTURER'S NAME AND CATALOG NUMBER. THE DRAWINGS SHALL BE TO SCALE. ALL INFORMATION NOTED ON THE PRINT SHALL BE TRANSFERRED TO THE COPIES BY CONTRACTOR AND ALL INDICATIONS SHALL BE RECORDED IN A NEAT, ORDERLY MANNER. THE RECORD SEPIA GUARANTEE WILL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE.
- GUARANTEES/WARRANTY**
26. ALL PLANTED AREAS SHALL BE MAINTAINED FOR A PERIOD OF ONE YEAR FOLLOWING WRITTEN ACCEPTANCE BY OWNER'S REPRESENTATIVE. CONTRACTOR SHALL GUARANTEE ALL TREES AND SHRUBS FOR A PERIOD OF ONE-YEAR FOLLOWING COMPLETION OF MAINTENANCE PERIOD.

LANDSCAPE REQUIREMENTS

ZONING: LD SUBURBAN
DEVELOPED SITE AREA: 31,760 SF
TOTAL SITE AREA: 104,735 SF

- USE: CIVIL USE, MAJOR SERVICES AND UTILITIES, UTILITY SERVICES
- LANDSCAPE COVERAGE: 20% DEVELOPED AREA REQUIRED (6,350 SF)
 - LANDSCAPE PROVIDED (15,150 SF)

- TREES: 1 TREE PER/300 SF OF LANDSCAPE AREA, 22 REQUIRED/ PROVIDED
- EVERGREEN MIN. SIZE AT PLANTING TO BE 7'HT, 14 PROVIDED
 - DECIDUOUS MIN. SIZE AT PLANTING TO BE 2" CAL, 8 PROVIDED

- BUFFER REQUIRED ADJOINING RESIDENTIAL USE:
- BUFFER THE WIDTH OF REQUIRED YARD AND 1 TREE/20 LF PROPERTY FRONTAGE REQUIRED
 - REDUCTION OF THIS REQUIREMENT REQUESTED THROUGH SUP PROCESS.
 - 1 TREE/20 LF PROVIDED AROUND STRUCTURE, TOTAL 22 TREES PROVIDED

- SCREENING ADJOINING RESIDENTIAL USES, SOLID DECORATIVE WALL OR FENCE ALONG ENTIRE EDGE OF PROPERTY LINE REQUIRED
- REMOVAL OF THIS REQUIREMENT REQUESTED THROUGH SUP PROCESS

TREES TOTAL: 22 REQUIRED/ PROVIDED

- SHRUBS:
- 6 SHRUBS PER/300 SF OF REQUIRED LANDSCAPE AREA, 127 REQUIRED/PROVIDED
 - 50% MIN. SIZE AT PLANTING TO BE 5 GALLON, 64 REQUIRED 127 PROVIDED

TREE LEGEND

DECIDUOUS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	2" CAL	30'HX30'W	2
	PRUNUS VIRGINIANA 'CANADA RED'	CANADA RED CHOKECHERRY	2" CAL	25'HX20'W	3
	SORBUS AUCUPARIA 'MICHRED' TM	CARDINAL ROYAL MOUNTAIN ASH	2" CAL	25'HX20'W	3
EVERGREEN	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	JUNIPERUS SCOPULORUM	ROCKY MOUNTAIN JUNIPER	7' HT	30'HX20'W	7
	PINUS PONDEROSA	PONDEROSA PINE	7' HT	60'HX30'W	7

SHRUB/GROUNDCOVER LEGEND

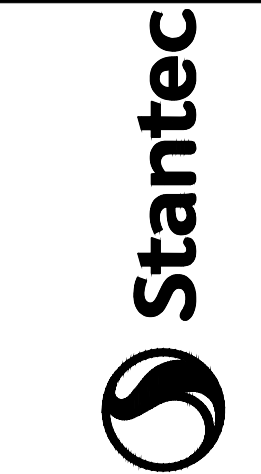
SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	CERCOCARPUS LEDIFOLIUS	CURL-LEAF MOUNTAIN MAHOGANY	#5	18'HX10'W	12
	CHAMAEBATIARIA MILLEFOLIUM	FERNBUSH	#5	8'HX8'W	32
	FORESTIERA NEOMEXICANA	NEW MEXICO PRIVET	#5	10'HX10'W	17
	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	#5	5'HX4'W	38
	PRUNUS BESSEYI 'P011S' TM	PAWNEE BUTTES SAND CHERRY	#5	1.5'HX5'W	28
SHRUB AREAS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	ROCK MULCH OX ROCK 2"- 6" SIZE PLACED AT 6" DEPTH		-		8,821 SF
GROUND COVERS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	REVEGETATION SEEDING SEE NOTE #2 SHEET LP1	PREVIOUSLY DISTURBED AREA	-		15,388 SF
	REVEGETATION SEEDING SEE NOTE #2 SHEET LP1	NEW DISTURBED AREA	-		17,543 SF

EXISTING VEGETATION SCHEDULE

DEMOLITION		
SYMBOL	DESCRIPTION	QTY
[D-01]	TEMPORARY VEGETATION PROTECTION CONSTRUCTION FENCE	1,923 LF
EXISTING CONDITIONS		
SYMBOL	DESCRIPTION	QTY
	EXISTING NATIVE VEGETATION TO BE PRESERVED SEE NOTE #3 SHEET LP1	28,764 SF

NOTES:

1. SEED MIX TO BE SHOWN IN SUBSEQUENT SUBMITTALS.
2. THE REVEGETATION PROCEDURE WILL INCLUDE TOPSOIL SALVAGE AND REPLACEMENT AND APPLICATION OF INOCULANT AND HUMIC ACID. A SEED MIX COMPRISED OF NATIVE AND REGIONALLY ADAPTED GRASSES, FORBS AND SHRUBS WILL BE APPLIED EITHER BY BROADCAST OR HYDROSEEDING AT A MINIMUM OF 25 PLS (PURE LIVE SEED) POUNDS PER ACRE. PAPER MULCH AND TACKIFIER WILL BE APPLIED TO THE SURFACE. REVEGETATION WILL INCLUDE CONSTRUCTION MONITORING AND 2 YEAR MINIMUM POST CONSTRUCTION MONITORING OR UNTIL 70% PLANT DENSITY OF SURROUNDING NATIVE VEGETATION IS ACHIEVED. CONTRACTOR TO PROVIDE CPESC FOR POST CONSTRUCTION MONITORING TO OBSERVE REVEGETATION STATUS EVERY 2 WEEKS FROM APRIL 1 THROUGH OCTOBER 1 EACH YEAR. CPESC TO PROVIDE POST CONSTRUCTION MONITORING REPORT TO OWNER. ADDITIONAL REVEGETATION WILL BE REQUIRED AFTER FIRST YEAR AND SECOND YEAR IF PLANT DENSITY IS NOT ACHIEVED.
3. EXISTING VEGETATION TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH FENCING STAKED AT THE PERIMETER. EXISTING VEGETATION THAT IS DISTURBED SHALL BE RESTORED USING FULL REVEGETATION SPECIFICATIONS AND WARRANTY AND MINIMUM 2 YEAR POST CONSTRUCTION MONITORING AT CONTRACTORS EXPENSE.



WORK ORDER NO. 15-0056.001
DESIGNED BS
DRAWN TB
DATE JANUARY 19, 2022
CHECKED BS
SUBMITTED SEPTEMBER 2021
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER
A U T H O R I T Y
1965 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89502-3013
PH 775-854-8000 / FX 775-854-8003



**THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA**

**PLANTING LEGEND
AND NOTES**

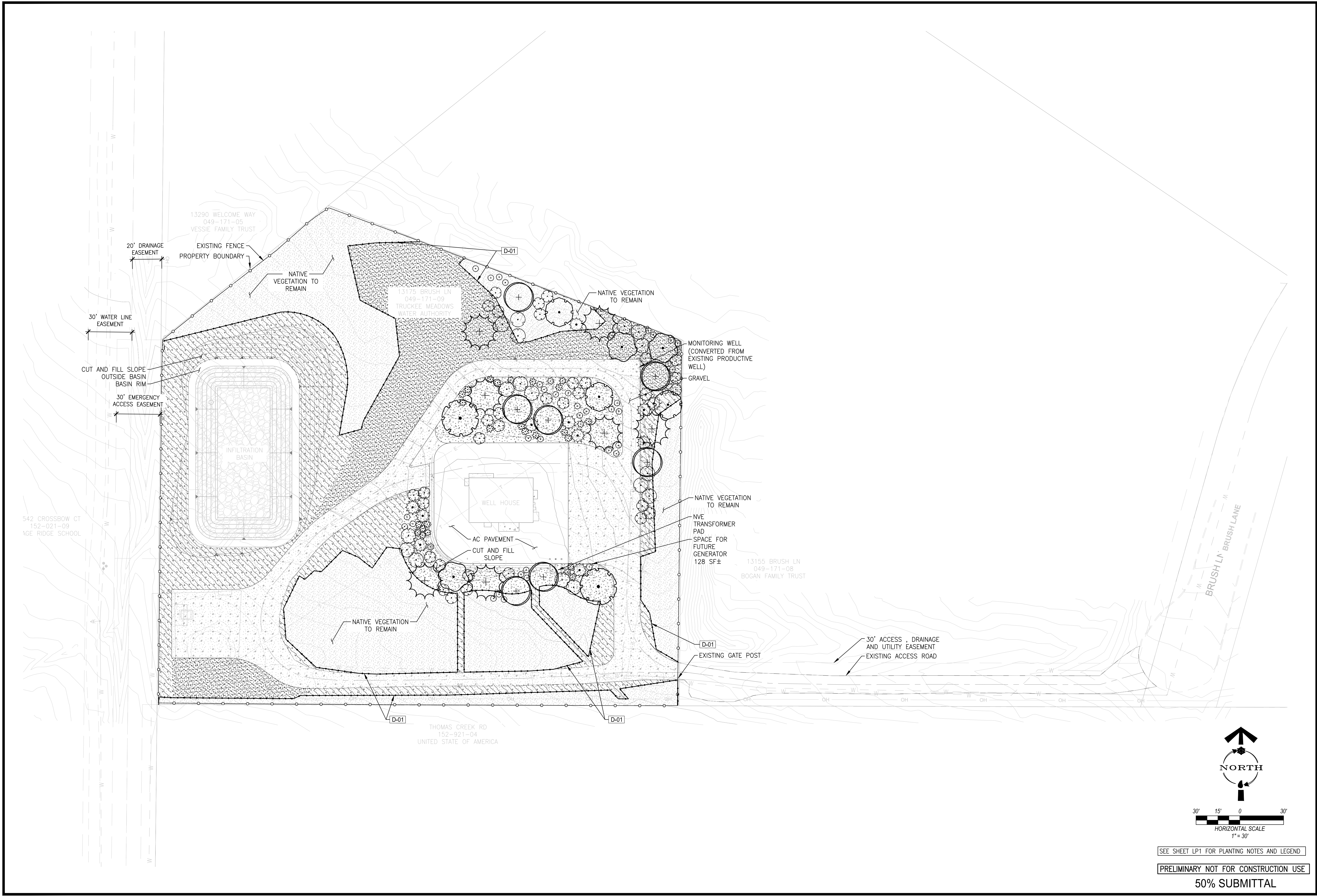
SHEET NUMBER
LP1
1 OF 6

PRELIMINARY NOT FOR CONSTRUCTION USE

50% SUBMITTAL

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SEE SHEET LP1 FOR PLANTING NOTES AND LEGEND
 PRELIMINARY NOT FOR CONSTRUCTION USE
 50% SUBMITTAL

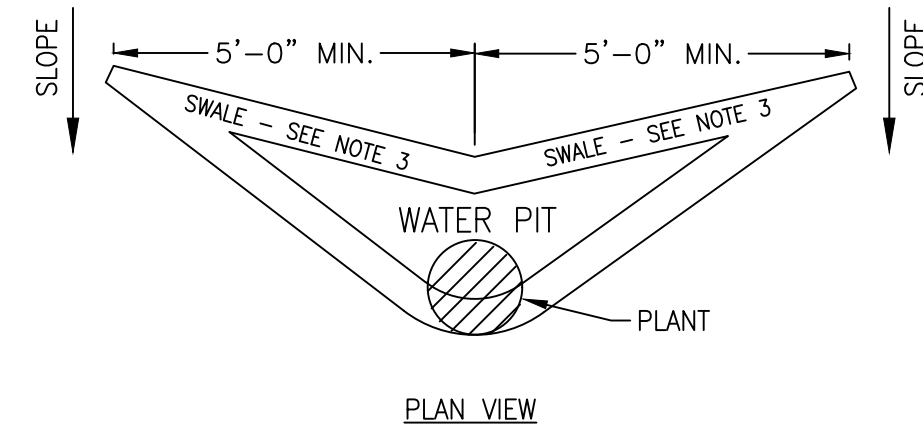
Stantec	
WORK ORDER NO. 15-0056.001	DESIGNED BS
DRAWN TB	DATE JANUARY 19, 2022
CHECKED BS	SUBMITTED SEPTEMBER 2021
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TRUCKEE MEADOWS WATER
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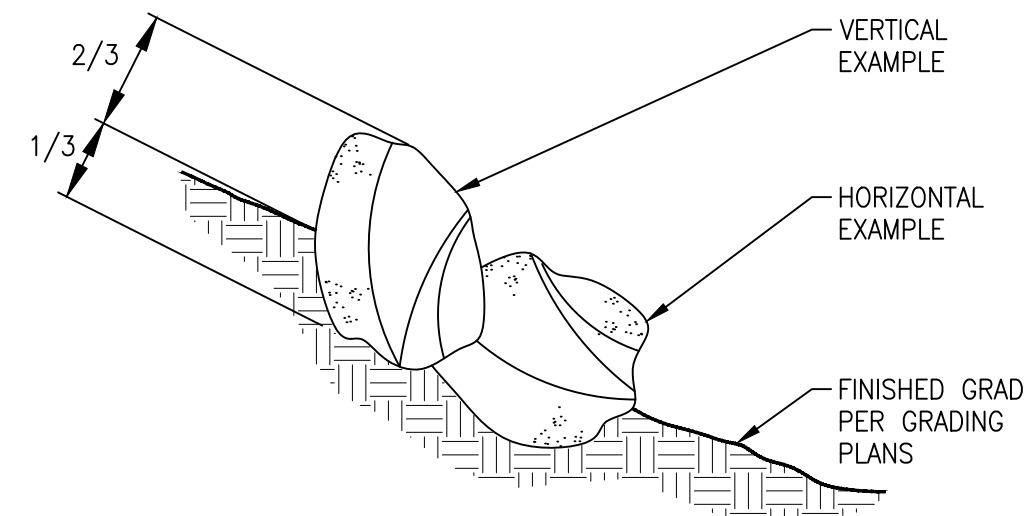
THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA
PLANTING PLAN

SHEET NUMBER
LP2
2 OF 6



NOTES:

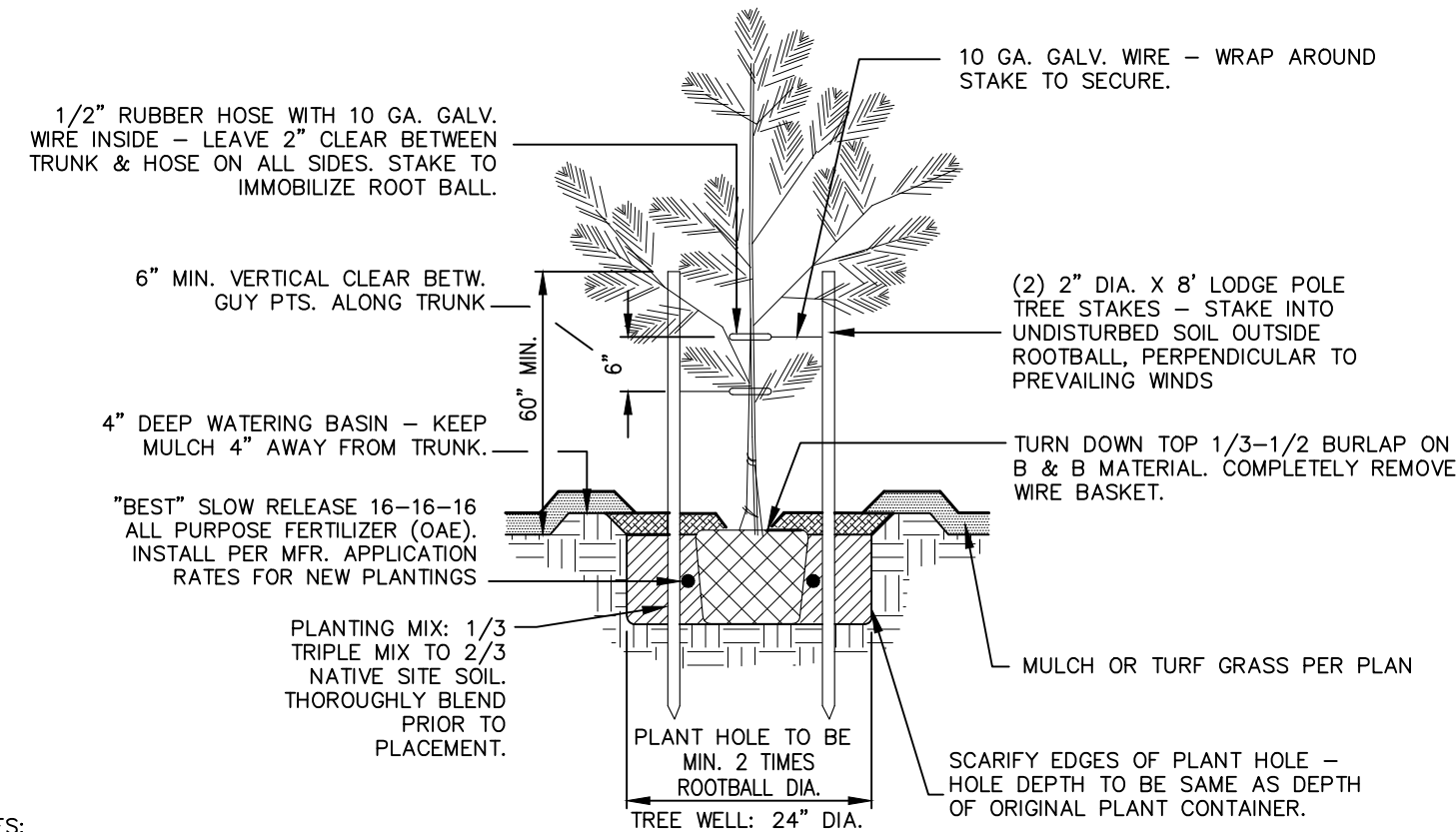
- WHERE PLANTING IN LANDSCAPE AREAS WITH POSITIVE DRAINAGE, INSTALL SHALLOW SWALES ON UPHILL SIDE OF PIT TO HARVEST RAINWATER AND GRADE TO PIT. SEE SPECIAL PLANTING.
- NO SURFACE MULCH SHALL BE PLACED UNTIL PLANT PIT SWALES ARE BUILT AND APPROVED.
- RAIN WATER HARVESTING FOR ALL PLANTS ON SLOPE - DIG (2) SHALLOW 4" DEEP X 12" WIDE X ±5' LONG ON UPHILL SIDE OF PITS TO DIRECT RAINWATER TO PIT CAPTURED FROM SLOPE. FILL WITH SPECIFIED MULCH (NO FINES) OF MATCHING ADJACENT SPECIFIED MULCH (WHERE OCCURS).



NOTES:

- PLACE 1/3 OF THE TOTAL DIAMETER BELOW FINISHED GRADE.
- STAKE BOULDER LOCATIONS AS SHOWN ON PLAN. LANDSCAPE ARCHITECT TO REVIEW PRIOR TO PLACEMENT.
- REFER TO GEOTECHNICAL RECOMMENDATIONS WHERE APPLICABLE.
- "V" REFERS TO VERTICAL PLACEMENT.

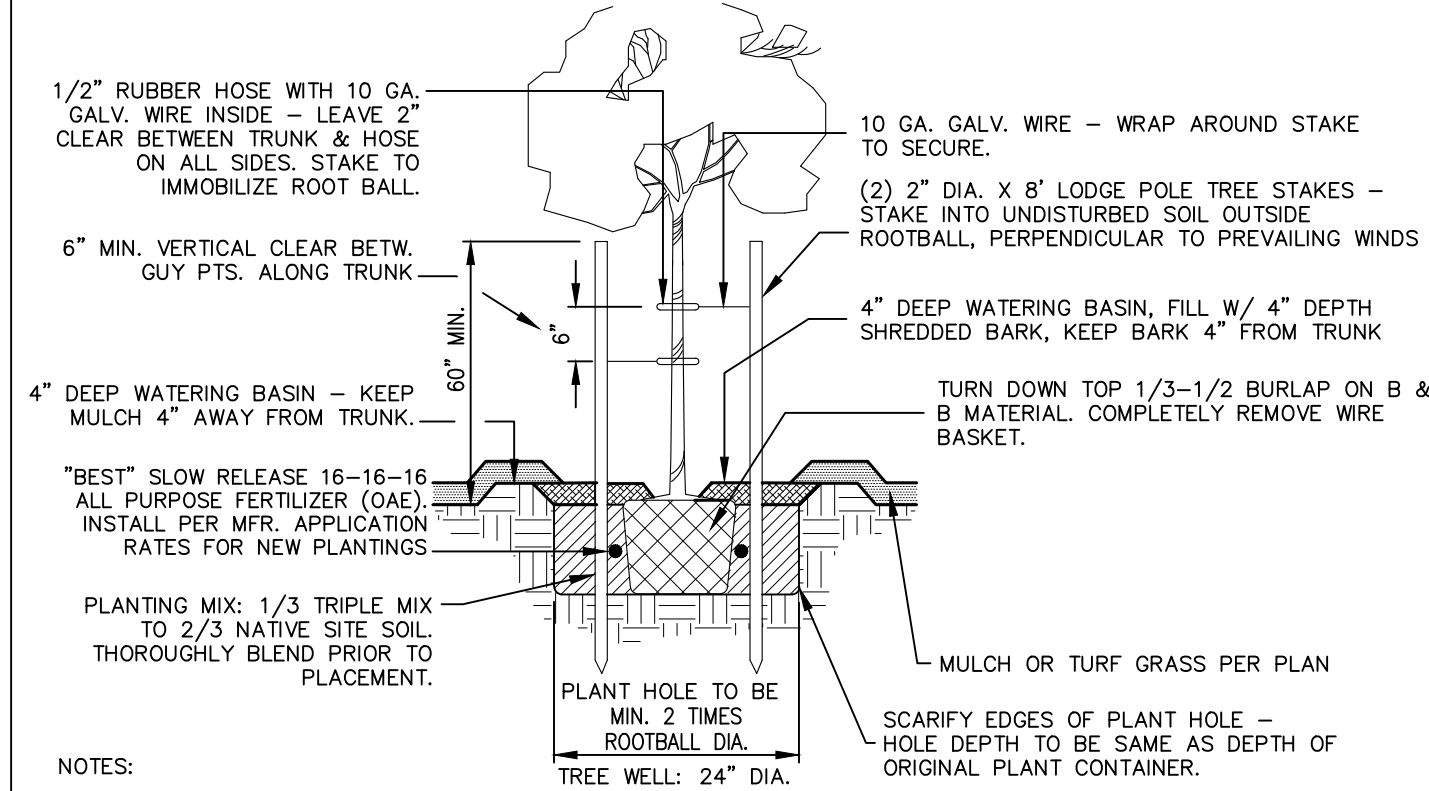
1 WATER HARVESTING



NOTES:

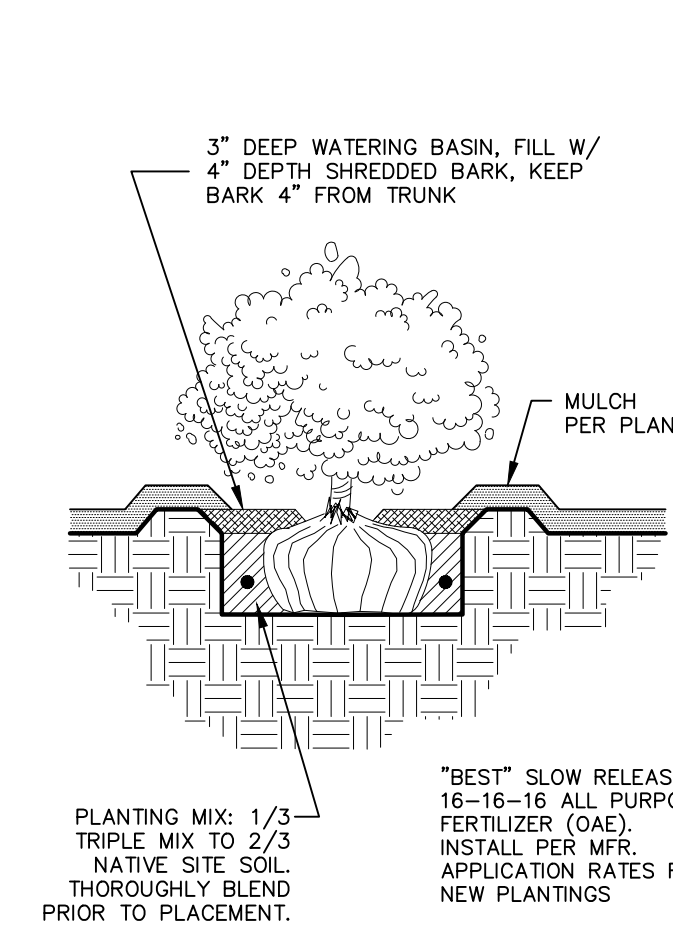
- REMOVE ALL NURSERY STAKES, TIES & TAGS - TREES MUST STAND UPRIGHT TO BE ACCEPTABLE. SEE NURSERY STOCK QUALITY STANDARDS. ALL TREES SHALL BE STAKED SO AS TO REMAIN UPRIGHT AND PLUMB FOLLOWING INSTALLATION.
 - REMOVE DAMAGED BRANCHES - DO NOT REMOVE CENTRAL LEADER OR ANY LOWER BRANCHES.
 - TOP OF ROOT BALL* TO BE 1" ABOVE EXISTING GRADE - NO NATIVE SOIL TO BE PLACED ON TOP OF ROOT BALL.
 - GRADE WATERING BASIN SUCH THAT WATER COLLECTS AT EDGE OF ROOT BALL, NOT AT TRUNK.
 - THOROUGHLY WATER IMMEDIATELY AFTER PLANTING.
 - ORIENT GRAFT UNION TO FACE NORTH.
- * TOP OF ROOT BALL IS DEFINED AS THE LOCATION OF THE UPPERMOST LATERAL ROOT NOT THE SOIL LEVEL IN THE PLANT CONTAINER.

2 BOULDER PLACEMENT



NOTES:

- REMOVE ALL NURSERY STAKES, TIES & TAGS - TREES MUST STAND UPRIGHT TO BE ACCEPTABLE. SEE NURSERY STOCK QUALITY STANDARDS. ALL TREES SHALL BE STAKED SO AS TO REMAIN UPRIGHT AND PLUMB FOLLOWING INSTALLATION.
 - REMOVE DAMAGED BRANCHES - DO NOT REMOVE CENTRAL LEADER OR ANY LOWER BRANCHES.
 - TOP OF ROOT BALL* TO BE 1" ABOVE EXISTING GRADE - NO NATIVE SOIL TO BE PLACED ON TOP OF ROOT BALL.
 - GRADE WATERING BASIN SUCH THAT WATER COLLECTS AT EDGE OF ROOT BALL, NOT AT TRUNK.
 - THOROUGHLY WATER IMMEDIATELY AFTER PLANTING.
 - ORIENT GRAFT UNION TO FACE NORTH.
- * TOP OF ROOT BALL IS DEFINED AS THE LOCATION OF THE UPPERMOST LATERAL ROOT NOT THE SOIL LEVEL IN THE PLANT CONTAINER.



3 EVERGREEN TREE PLANTING

4 DECIDUOUS TREE PLANTING

5 SHRUB PLANTING

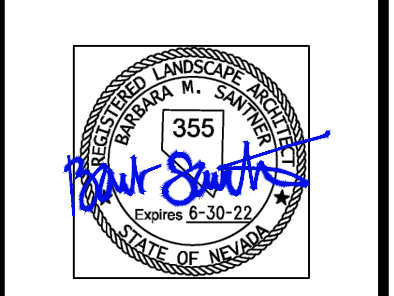
Stantec

WORK ORDER NO. 15-0058.001
 DESIGNED: BS
 DRAWN: TB
 DATE: January 20, 2022
 CHECKED: BS
 SUBMITTED: SEPTEMBER 2021
 RECOMMENDED:
 APPROVED:

TRUCKEE MEADOWS WATER

A U T H O R I T Y

1985 CAPITAL BLVD. / PO BOX 30013
 RENO, NEVADA 89502-3013
 PH 775-854-8000 / FX 775-854-8003



THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA

PLANTING DETAILS

SHEET NUMBER

LP3

3 OF 6

PRELIMINARY NOT FOR CONSTRUCTION USE
 50% SUBMITTAL

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IRRIGATION SPECIFICATIONS

GENERAL

1. PLAN IS DIAGRAMMATIC ONLY. FINAL LOCATION OF LINES AND HEADS SHALL BE DETERMINED IN THE FIELD AND APPROVED BY THE OWNER'S REPRESENTATIVE. LINES SHALL BE IN A COMMON TRENCH WHEREVER POSSIBLE. THE POINT-OF-CONNECTION SHALL BE AS INDICATED ON THE PLAN.
2. THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AND ENSURE THAT ALL LOCAL CODES ARE MET. VERIFY PRESSURE (PSI) PRE AND POST CONSTRUCTION.
3. THE CONTRACTOR SHALL APPLY AND PAY FOR ALL PERMITS REQUIRED FOR INSTALLATION OF THE IRRIGATION SYSTEM AS DEPICTED ON THESE PLANS.
4. CONTRACTOR SHALL VERIFY AVAILABLE FLOW AND PRESSURE DOWNSTREAM FROM THE POINT-OF-CONNECTION PRIOR TO SYSTEM INSTALLATION. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY IF AVAILABLE FLOW IS LESS THAN REQUIRED TO RUN THE LARGEST ZONE. CONTRACTOR SHALL NOT PROCEED ANY FURTHER WITH INSTALLATION OF THE SYSTEM UNTIL NECESSARY DESIGN REVISIONS HAVE BEEN DETERMINED BY OWNER'S REPRESENTATIVE.
5. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR DIFFERENCES IN DIMENSIONS EXIST THAT MIGHT HAVE BEEN UNKNOWN DURING ENGINEERING. SUCH OBSTRUCTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY AT NO ADDITIONAL COST TO OWNER.
6. ALL SPRINKLER EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
7. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SPRINKLER MATERIALS, INCLUDING PIPE, WITH THE LANDSCAPE DRAWINGS TO AVOID INTERFERING WITH THE PLANTING OF TREES, SHRUBS, OR OTHER PLANTINGS.
8. ALL VALVES ARE TO BE LOCATED IN PLANTING AREAS WHEREVER POSSIBLE.
9. ALL ELECTRICAL WIRE FROM CONTROLLER TO VALVES SHALL BE 12 GAUGE UL DIRECT BURIAL OR LARGER AS REQUIRED BY LENGTH PER MANUFACTURER'S SPECIFICATIONS.
10. BACKFILL FOR TRENCHING SHALL BE COMPACTED TO A DRY DENSITY EQUAL TO THE UNDISTURBED ADJACENT SOIL AND SHALL CONFORM TO ADJACENT GRADES WITHOUT DIPS, HUMPS, OR OTHER IRREGULARITIES. BLUE DETECTION TAPE TO BE INSTALLED 10-12" ABOVE PIPE.
11. A MINIMUM OF TWO WORKING DAYS PRIOR TO PERFORMING ANY DIGGING, CALL UNDERGROUND SERVICE ALERT AT 1-800-227-2600 FOR INFORMATION ON THE LOCATION OF NATURAL GAS LINES, ELECTRICAL CABLES, TELEPHONE CABLES, ETC.
12. CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING DUST CONTROL AND SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS.
13. INSTALL ALL PIPE AND CONTROL WIRES IN LANDSCAPE BEDS AND IN COMMON TRENCHES WHEREVER POSSIBLE.
14. INSTALL ALL PIPE AND CONTROL WIRE, WHICH RUNS UNDER PAVING, WITHIN SCH. 40 PVC SLEEVES 4" DIA. MINIMUM SIZE AS REQUIRED TO ALLOW INSTALLATION WITHOUT BINDING. PROVIDE (1) SLEEVE PER PIPE. PROVIDE SEPARATE SLEEVES FOR CONTROL WIRE. LEAVE ABOVE GRADE MARKERS ON BOTH SIDES OF SLEEVE.
15. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE FOR COMPLETE DRAINAGE OF THE MAINLINES BY INSTALLING MANUAL DRAINS AS INDICATED ON PLAN AND AT ALL SYSTEM LOW POINTS. NO KING DRAINS.

FLUSHING AND TESTING

16. PIPING SHALL BE COMPLETELY FLUSHED OF FOREIGN PARTICLES BEFORE ATTACHING IRRIGATION COMPONENTS AND DRAIN VALVES.
17. AFTER FLUSHING, AND WHEN ALL VALVES AND QUICK COUPLERS ARE IN PLACE, ALL MAIN SUPPLY LINES SHALL BE TESTED AT 100 POUNDS PER SQUARE INCH (100 PSI) WITH VALVES CLOSED. MAINTAIN PRESSURE FOR A PERIOD OF NOT LESS THAN (4) CONSECUTIVE HOURS. ALL JOINTS SHOWING LEAKS SHALL BE CLEANED, REMADE, AND TESTED.
18. AFTER FLUSHING, LATERAL PIPES SHALL BE TESTED WITH RISERS CAPPED AND DRAIN VALVES CLOSED. THE TEST SHALL BE MADE AT MAXIMUM OPERATING PRESSURE FOR A PERIOD OF NOT LESS THAN (1) HOUR. ALL JOINTS SHOWING LEAKS SHALL BE CLEANED, REMADE, AND TESTED. ALL TESTING SHALL BE DONE IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING OVER PIPING.
19. OPERATIONAL TESTING: PERFORM OPERATIONAL TESTING AFTER HYDROSTATIC TESTING IS COMPLETED. DEMONSTRATE TO THE OWNER'S REPRESENTATIVE THAT THE SYSTEM MEETS COVERAGE REQUIREMENTS (100%) AND THAT AUTOMATIC CONTROLS FUNCTION PROPERLY.

SUBMITTALS

20. MATERIALS LIST: WITHIN (15) DAYS AFTER AWARD OF CONTRACT, SUBMIT TO OWNER'S REPRESENTATIVE (3) COPIES OF A COMPLETE MATERIAL LIST (PARTIAL LIST NOT ACCEPTABLE) OF ALL MATERIALS TO BE USED ON THE PROJECT, SPECIFYING MANUFACTURER, GRADE, TRADE NAME, CATALOG NUMBER, SIZE, ETC. THIS SHALL IN NO WAY BE CONSTRUED AS ALLOWING A SUBSTITUTION FOR ANY ITEM SPECIFIED ON THE PLANS. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE MAY BE REJECTED AND THE CONTRACTOR REQUIRED TO REMOVE THE MATERIALS AT HIS OWN EXPENSE.

INSTALLATION AND PERFORMANCE OF APPROVED SUBSTITUTIONS ARE THE CONTRACTORS RESPONSIBILITY. ANY CHANGES REQUIRED FOR INSTALLATION OF ANY APPROVED SUBSTITUTION MUST BE MADE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE WITHOUT ADDITIONAL COST TO OWNER.

21. PRIOR TO SYSTEM INSTALLATION CONTRACTOR SHALL VERIFY AND SUBMIT TO OWNER'S REPRESENTATIVE IN WRITING, AVAILABLE FLOW AND PRESSURE AT POINT-OF-CONNECTION AS DESCRIBED IN SPECIFICATION #4 ABOVE.

22. COMPLETE WARRANTY CARDS FOR AUTOMATIC CONTROLLER AND OTHER IRRIGATION MATERIAL (CONTROLLER KEYS, ETC.) SHALL BE DELIVERED TO OWNER.

23. CONTRACTOR SHALL PREPARE AND ISSUE TO THE OWNER (AT COMPLETION OF THE INSTALLATION) AN ANNUAL CHART INDICATING LOCATION, OPERATING DATES, CYCLES, AND TIME FOR EACH ZONE.

24. ASBUILT IRRIGATION DRAWINGS: CONTRACTOR SHALL FURNISH ASBUILTS OF THE COMPLETE IRRIGATION SYSTEM. PROCURE FROM OWNER'S REPRESENTATIVE FULL-SIZED SHEETS OF CONTRACT DRAWINGS. CONSTRUCTION DRAWINGS SHALL BE ON THE CONSTRUCTION SITE AT ALL TIMES WHILE THE IRRIGATION SYSTEM IS BEING INSTALLED. CONTRACTOR SHALL MAKE A DAILY RECORD OF ALL WORK INSTALLED DURING EACH DAY. ACTUAL LOCATION OF VALVES AND ALL IRRIGATION AND DRAINAGE PIPING SHALL BE SHOWN ON THE PRINTS BY DIMENSIONS FROM EASILY IDENTIFIED PERMANENT FEATURES, SUCH AS BUILDINGS, CURBS, FENCES, WALKS OR PROPERTY LINES. DRAWINGS SHALL SHOW APPROVED MANUFACTURER'S NAME AND CATALOG NUMBER. THE DRAWINGS SHALL BE TO SCALE AND ALL INDICATIONS SHALL BE NEAT. ALL INFORMATION NOTED ON THE PRINT SHALL BE TRANSFERRED TO THE COPIES BY CONTRACTOR AND ALL INDICATIONS SHALL BE RECORDED IN A NEAT, ORDERLY WAY. THE RECORD SEPIA SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE AT OR BEFORE FINAL ACCEPTANCE/APPROVAL OF THE PROJECT.

GUARANTEE/FINAL ACCEPTANCE

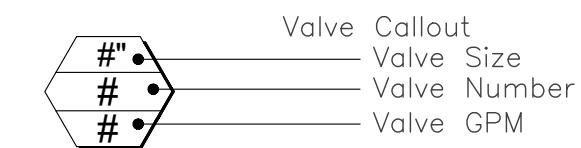
25. CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE THE IRRIGATION SYSTEM FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. MANUFACTURER WARRANTIES SHALL ONLY EXCEED THIS GUARANTEE AND CONTRACTOR SHALL BE LIABLE FOR REPAIRS/REPLACEMENT OF FAILED MATERIAL/WORKMANSHIP.

MAINTENANCE

26. AFTER SYSTEM IS INSTALLED AND APPROVED, INSTRUCT OWNER'S DESIGNATED PERSONNEL IN COMPLETE OPERATION AND MAINTENANCE PROCEDURES. DRAIN ENTIRE SYSTEM AT END OF FIRST WATERING SEASON FOLLOWING INSTALLATION. TRAIN OWNER'S DESIGNATED PERSONNEL BY HAVING THEM ASSIST IN WINTERIZING PROCEDURE.

IRRIGATION LEGEND

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD MDCFCAP DRIPLINE FLUSH VALVE CAP IN COMPRESSION FITTING COUPLER.
	RAIN BIRD PCT SINGLE OUTLET EMITTER PRESSURE COMPENSATING THREADED LOW-FLOW BUBBLERS. OFFERED IN 5 GPH, 7 GPH, AND 10 GPH MODELS, WITH 1/2" FPT THREADED INLET. LIGHT BROWN = 5 GPH, VIOLET = 7 GPH, AND GREEN = 10 GPH.
	AREA TO RECEIVE DRIP EMITTERS RAIN BIRD XB-PC SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS. FLOW RATES OF 0.5GPH=BLUE, 1.0GPH=BLACK, AND 2.0GPH=RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET.
	Emitter Notes: 1.0 GPH emitters (3 assigned to each #5 plant)
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD DVF STANDARD CONFIGURATION, ELECTRIC REMOTE CONTROL VALVE. PLASTIC RESIDENTIAL IN 1". WITH FLOW CONTROL.
	RAIN BIRD 44-LRC 1" BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, AND 2-PIECE BODY.
	MUELLER CURB STOP VALVE MAINLINE ISOLATION VALVE, SAME SIZE AS MAINLINE.
	RAIN BIRD ESP4MEI WITH (3) ESP-SM6 22 STATION, HYBRID MODULAR INDOOR CONTROLLER. FOR RESIDENTIAL OR LIGHT COMMERCIAL APPLICATIONS.
	RAIN BIRD RSD-BEX RAIN SENSOR, WITH METAL LATCHING BRACKET, EXTENSION WIRE.
	RAIN BIRD PRF-100-RBY 1" INLET/ OUTLET WITH 3.0 TO 15 GPM AND 40 PSI REGULATED PRESSURE. INLET PRESSURE: 20 TO 150 PSI.
	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21
	IRRIGATION MAINLINE: PVC SCHEDULE 40
	PIPE SLEEVE: PVC SCHEDULE 40 PIPE SLEEVE: PVC SCHEDULE 40 ALL SLEEVES SHALL BE 4" IN SIZE AND EXTEND 2' MIN. BEYOND EDGE OF PAVEMENT OR CURB AND MARKED ABOVE GRADE.

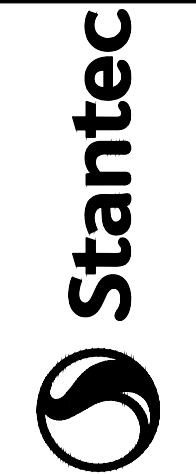


DESIGN PRESSURE AND FLOW

ASSUMED AVAILABLE WATER PRESSURE AT P.O.C. IS 30 PSI. ASSUMED FLOW IS 20 GPM @ 4.5 FPS. CONTRACTOR TO VERIFY PRIOR TO SYSTEM INSTALLATION. FUTURE PRESSURES MAY VARY DUE TO NEW DEVELOPMENT AND/OR OTHER UNFORESEEN CIRCUMSTANCES. LANDSCAPE ARCHITECT SHALL BEAR NO RESPONSIBILITY FOR FUTURE DEVIATIONS IN PRESSURE AND ANY RESULTING EFFECTS ON THE PERFORMANCE OF THE IRRIGATION SYSTEM.

WHENEVER POSSIBLE, ALL IRRIGATION COMPONENTS SHALL BE LOCATED IN PLANTING BEDS.

NOTE: ALL CONSTRUCTION DETAILS AND NOTES FROM THE APPROVED LANDSCAPE PLANS SHALL APPLY.



WORK ORDER NO. 15-00568.001
 DESIGNED BS
 DRAWN TB
 DATE January 20, 2022
 CHECKED BS
 SUBMITTED SEPTEMBER 2021
 RECOMMENDED
 APPROVED

TRUCKEE MEADOWS WATER
 A U T H O R I T Y
 1966 CAPITAL BLVD. / PO BOX 30013
 RENO, NEVADA 89502-3013
 PH 775-854-8000 / FX 775-854-8003



THOMAS CREEK WELL HOUSE REPLACEMENT
 RENO, NEVADA
 IRRIGATION LEGEND
 AND NOTES

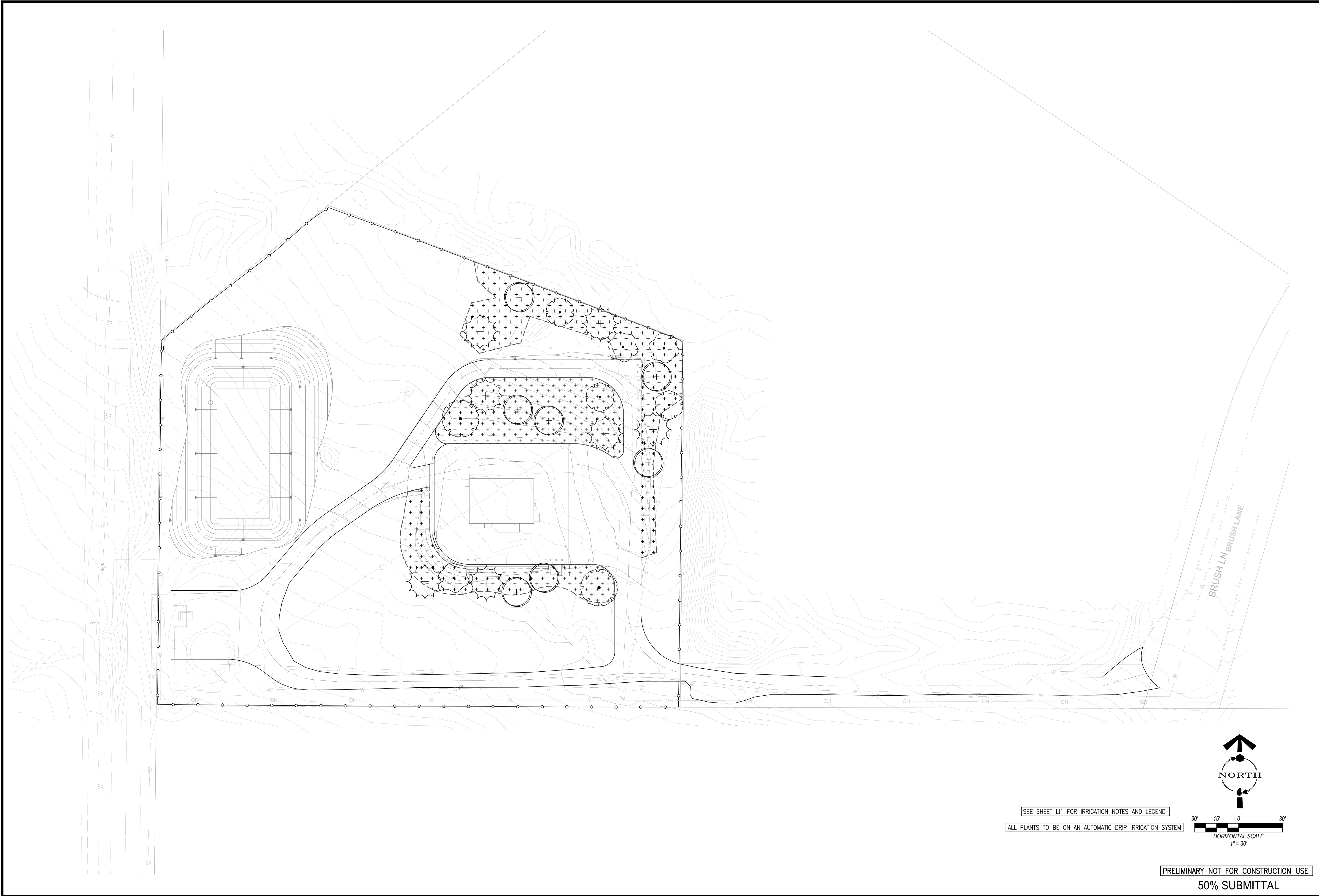
SHEET NUMBER
 4 OF 6

PRELIMINARY NOT FOR CONSTRUCTION USE

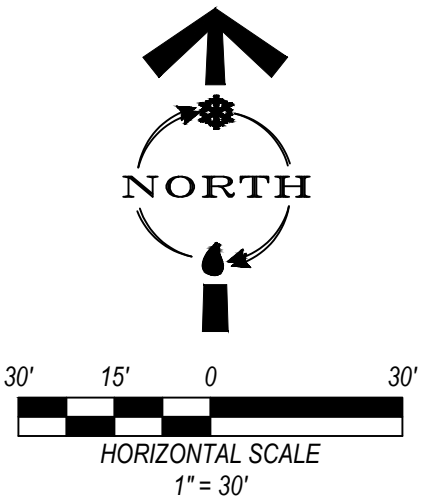
50% SUBMITTAL

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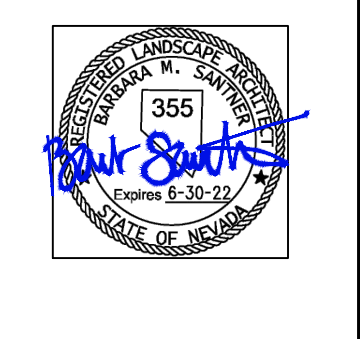
SEE SHEET L11 FOR IRRIGATION NOTES AND LEGEND
ALL PLANTS TO BE ON AN AUTOMATIC DRIP IRRIGATION SYSTEM



PRELIMINARY NOT FOR CONSTRUCTION USE
50% SUBMITTAL

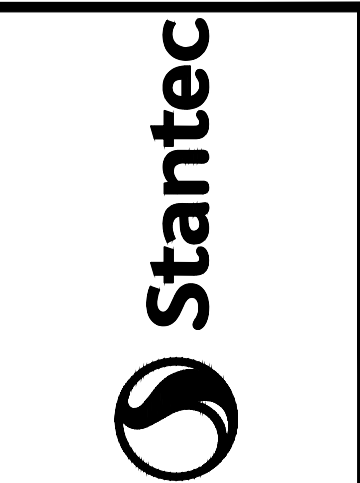
WORK ORDER NO. 15-0058.001
DESIGNED BS
DRAWN TB
DATE JANUARY 19, 2022
CHECKED BS
SUBMITTED SEPTEMBER 2021
RECOMMENDED
APPROVED

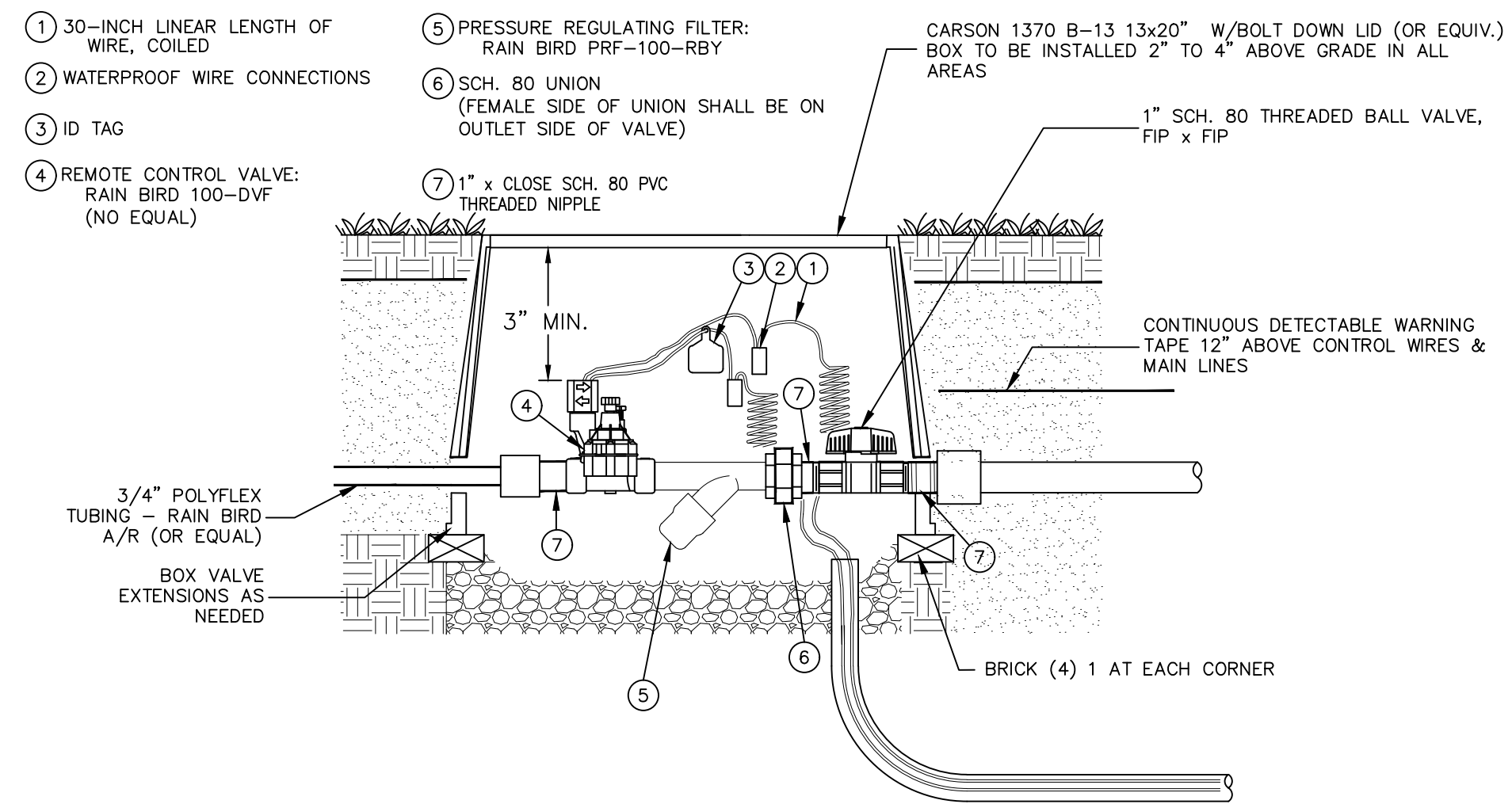
TRUCKEE MEADOWS WATER
A U T H O R I T Y
1855 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89502-3013
PH 775-834-8000 / FX 775-834-8003



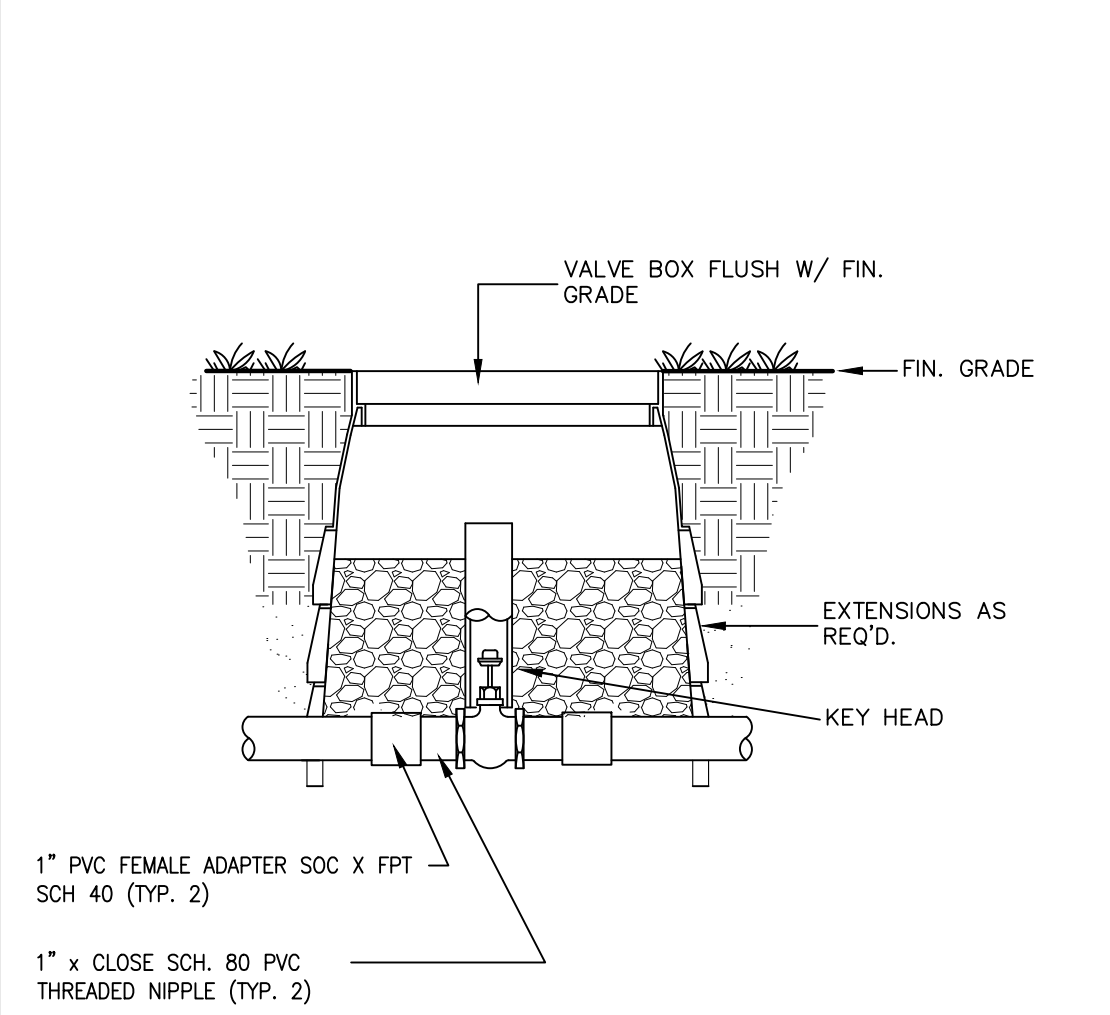
**THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA
IRRIGATION PLAN**

SHEET NUMBER
L11
5 OF 6

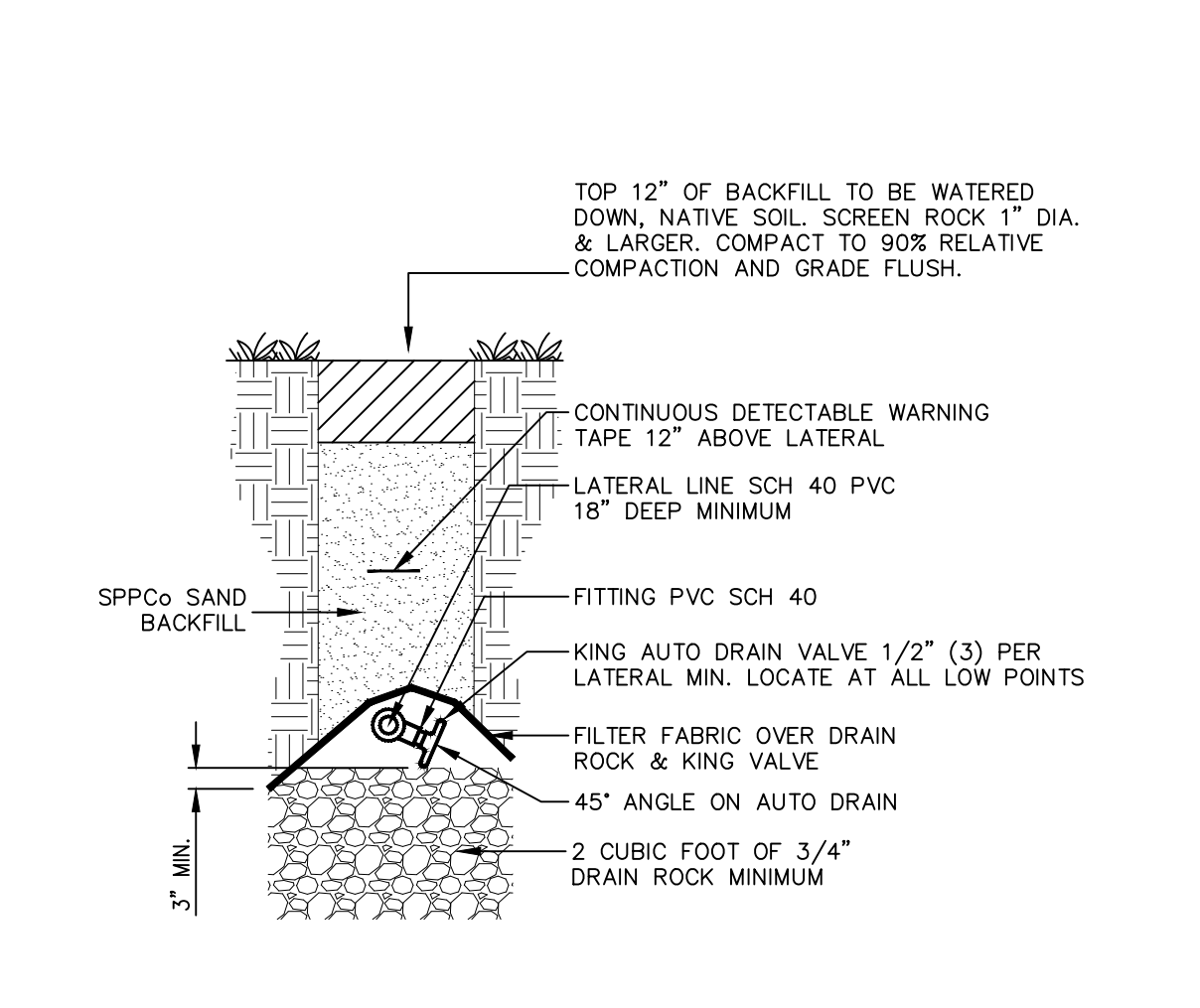




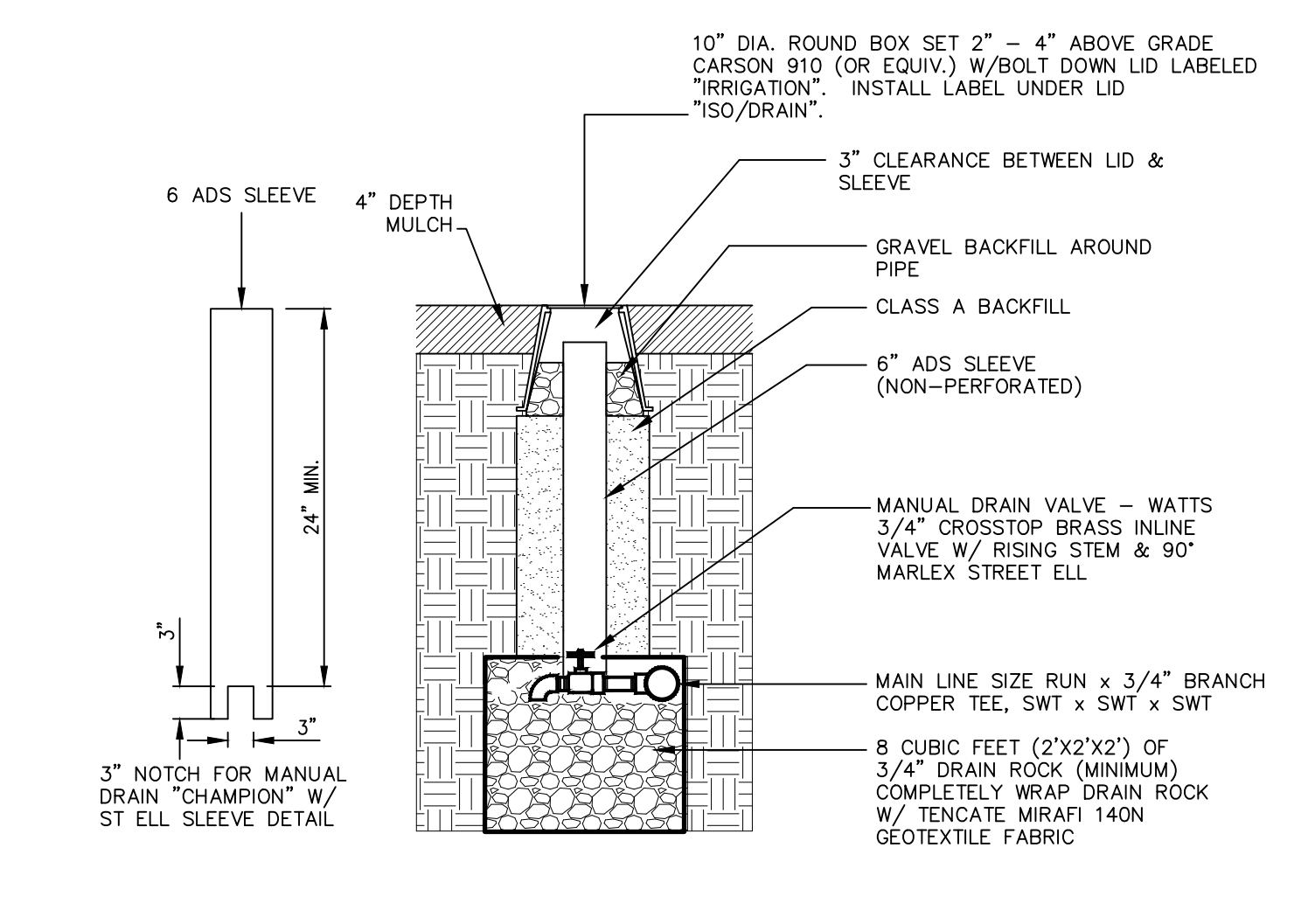
1 DRIP VALVE ASSEMBLY



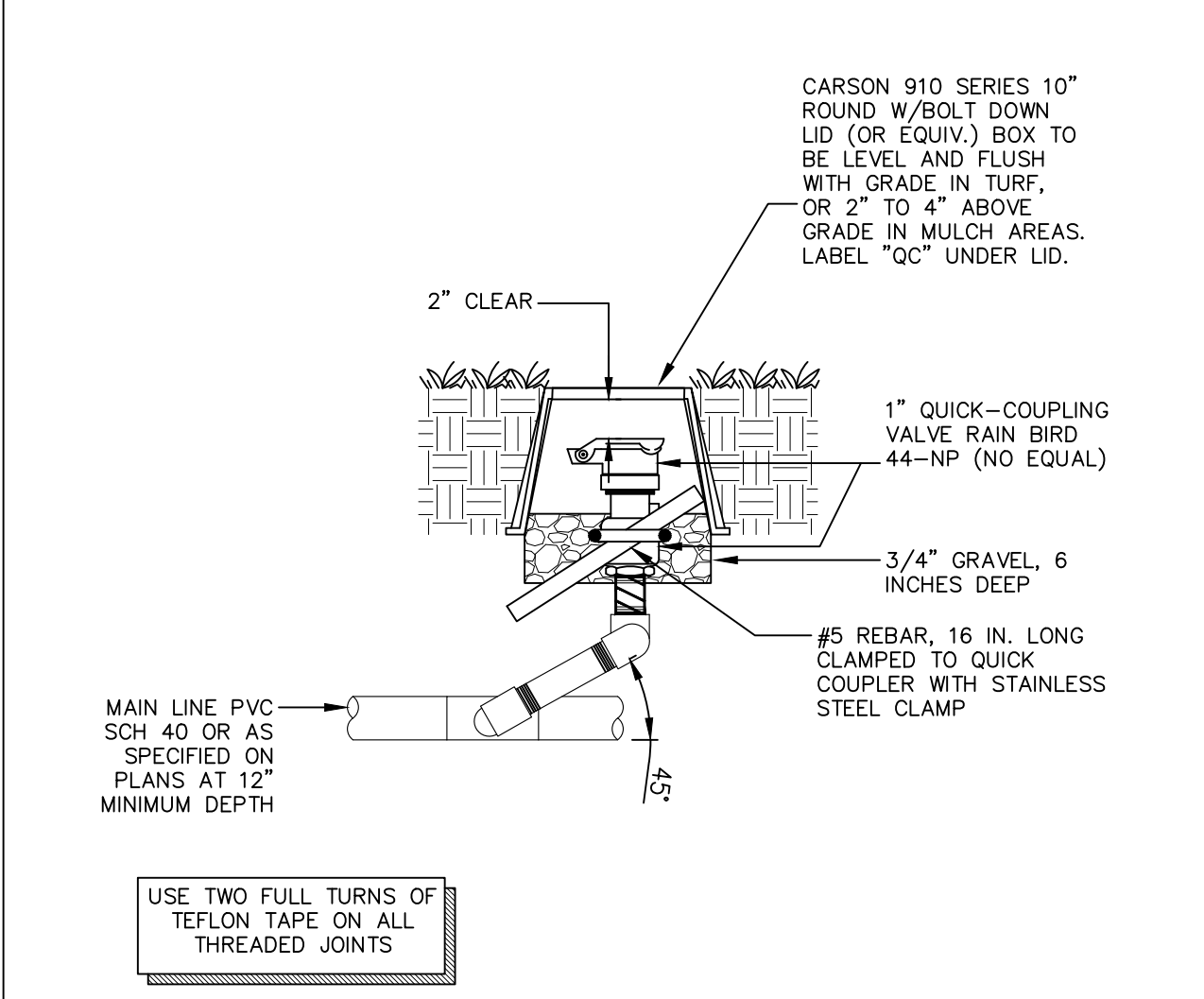
2 LINE VALVE



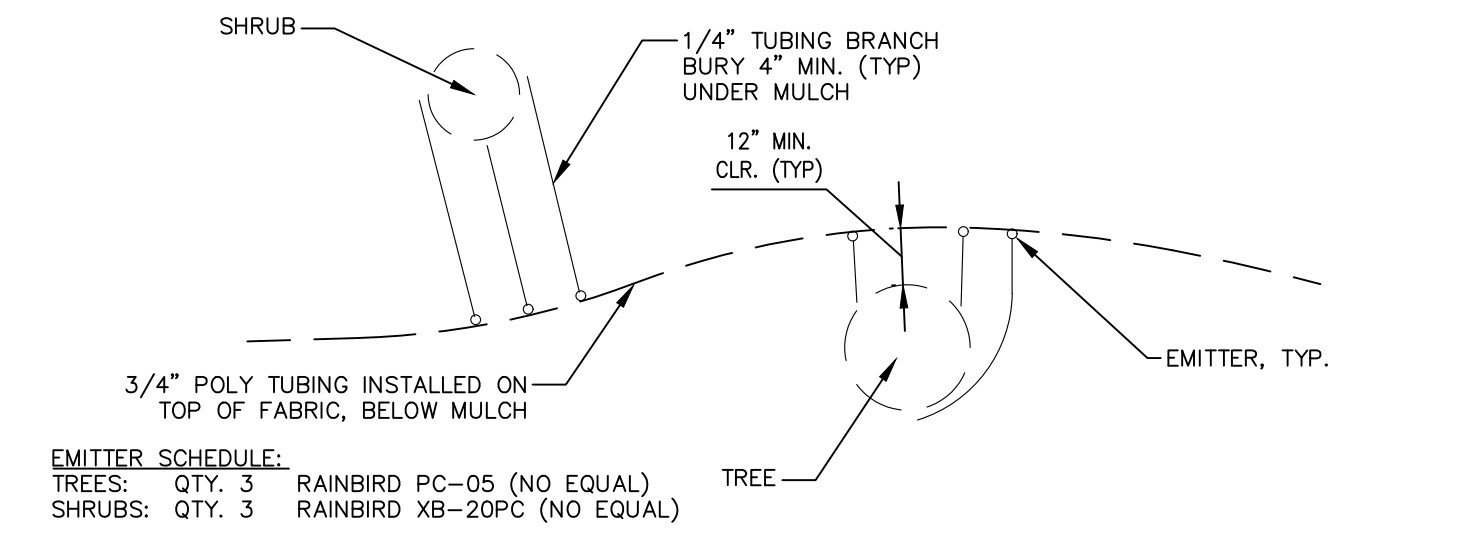
3 AUTO DRAIN



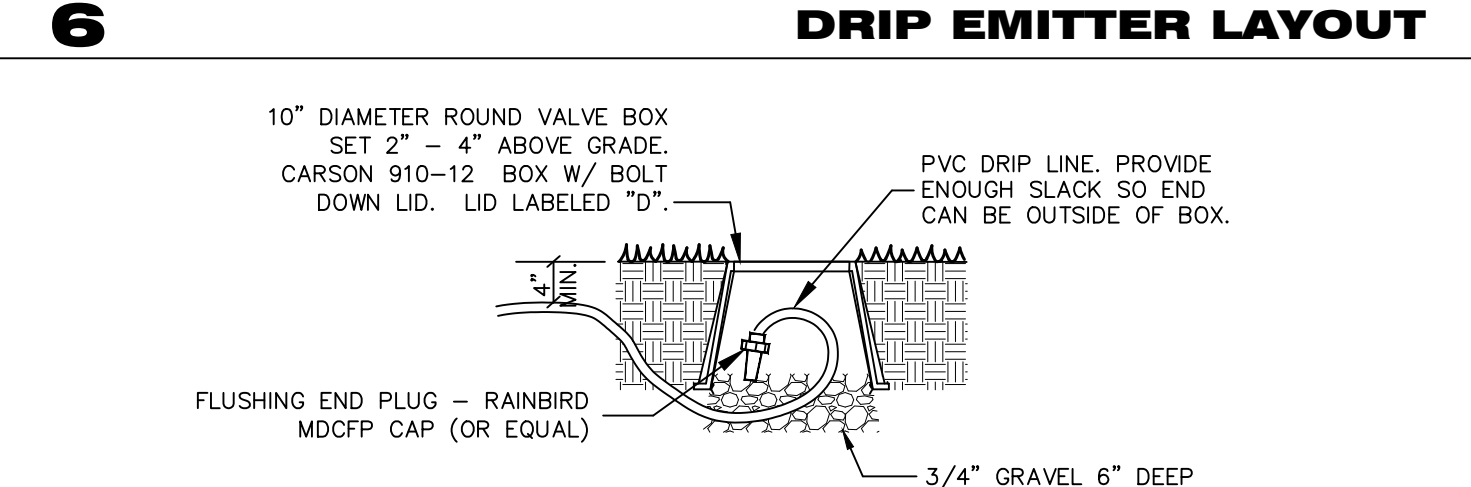
4 MANUAL DRAIN VALVE



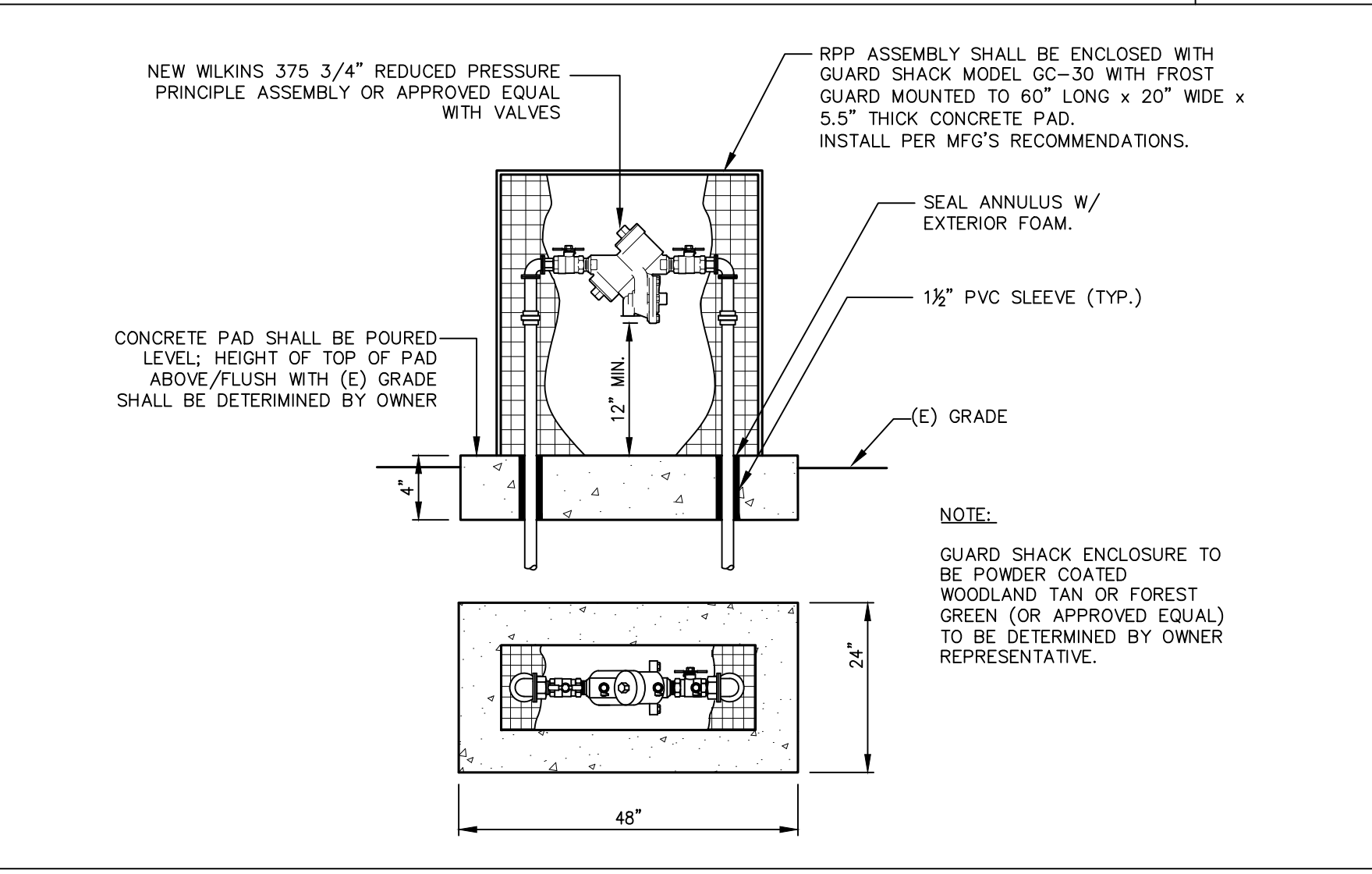
5 QUICK COUPLING VALVE



6 DRIP EMITTER LAYOUT



7 FLUSHING END PLUG



8 GUARDSHACK CAGE COVER

Stantec

WORK ORDER NO. 15-0058.001
 DESIGNED: BS
 DRAWN: TB
 DATE: January 20, 2022
 CHECKED: BS
 SUBMITTED: SEPTEMBER 2021
 RECOMMENDED
 APPROVED

TRUCKEE MEADOWS WATER

A U T H O R I T Y

1985 CAPITAL BLVD. / PO BOX 30013
 RENO, NEVADA 89502-3013
 PH 775-854-8000 / FX 775-854-8003



THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA

IRRIGATION DETAILS

SHEET NUMBER

L13

6 OF 6

PRELIMINARY NOT FOR CONSTRUCTION USE
 50% SUBMITTAL

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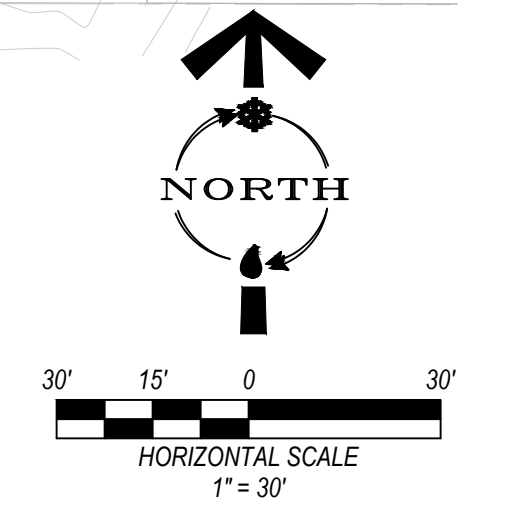
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PLANT LEGEND

PLANT SCHEDULE					
DECIDUOUS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	KOELREUTERIA PANICULATA	GOLDEN RAIN TREE	2" CAL	30'HX30'W	2
	PRUNUS VIRGINIANA 'CANADA RED'	CANADA RED CHOKECHERRY	2" CAL	25'HX20'W	3
	SORBUS AUCUPARIA 'MICHRED' TM	CARDINAL ROYAL MOUNTAIN ASH	2" CAL	25'HX20'W	3
EVERGREEN	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	JUNIPERUS SCOPULORUM	ROCKY MOUNTAIN JUNIPER	7' HT	30'HX20'W	7
	PINUS PONDEROSA	PONDEROSA PINE	7' HT	60'HX30'W	7
SHRUBS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	CERCOCARPUS LEDIFOLIUS	CURL-LEAF MOUNTAIN MAHOGANY	#5	18'HX10'W	12
	CHAMAEBATIARIA MILLEFOLIUM	FERNBUSH	#5	8'HX8'W	32
	FORESTIERA NEOMEXICANA	NEW MEXICO PRIVET	#5	10'HX10'W	17
	PEROVSKIA ATRIPLICIFOLIA	RUSSIAN SAGE	#5	5'HX4'W	38
	PRUNUS BESSEYI 'P011S' TM	PAWNEE BUTTES SAND CHERRY	#5	1.5'HX5'W	28
SHRUB AREAS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	ROCK MULCH OX ROCK 2"- 6" SIZE PLACED AT 6" DEPTH		-		8,821 SF
GROUND COVERS	BOTANICAL NAME	COMMON NAME	CONT	SIZE HXW	QTY
	REVEGETATION SEEDING SEE NOTE #2 SHEET LP1	PREVIOUSLY DISTURBED AREA	-		15,388 SF
	REVEGETATION SEEDING SEE NOTE #2 SHEET LP1	NEW DISTURBED AREA	-		17,542 SF

EXISTING VEGETATION SCHEDULE		
SYMBOL	DESCRIPTION	QTY
	EXISTING NATIVE VEGETATION TO BE PRESERVED SEE NOTE #3 SHEET LP1	28,764 SF



PRELIMINARY NOT FOR CONSTRUCTION USE
50% SUBMITTAL

WORK ORDER NO. 15-0056.001
DESIGNED BS
DRAWN TB
DATE JANUARY 19, 2022
CHECKED BS
SUBMITTED SEPTEMBER 2021
RECOMMENDED
APPROVED

TRUCKEE MEADOWS WATER AUTHORITY
1965 CAPITAL BLVD. / PO BOX 30013
RENO, NEVADA 89502-3013
PH 775-854-8000 / FX 775-854-8003

**THOMAS CREEK WELL HOUSE REPLACEMENT
RENO, NEVADA**

COLORED SITE PLAN

SHEET NUMBER
XX
X OF 6