



# Board of Adjustment Staff Report

Meeting Date: June 3, 2021

Agenda Item: 8C

SPECIAL USE PERMIT CASE NUMBER: WSUP21-0010 SMTWRF

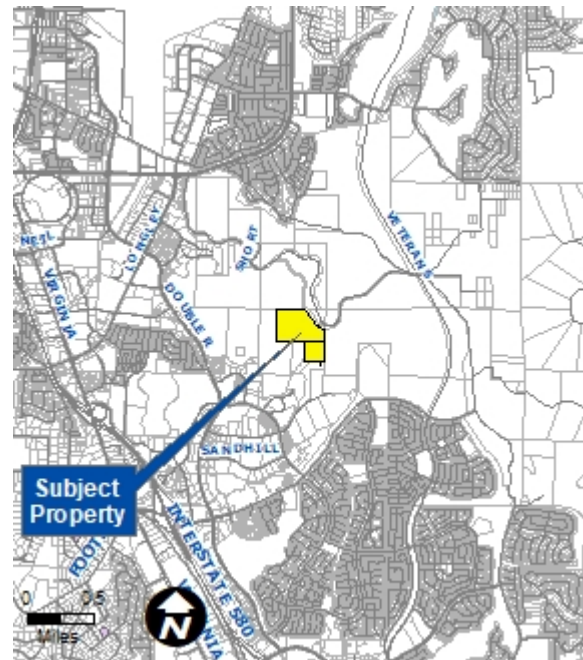
BRIEF SUMMARY OF REQUEST: To approve a special use permit to allow the expansion of the South Truckee Meadows Water Reclamation Facility (STMWRF)

STAFF PLANNER: Planner's Name: Julee Olander  
Phone Number: 775.328.3627  
E-mail: [jolander@washoecounty.us](mailto:jolander@washoecounty.us)

## CASE DESCRIPTION

For hearing, discussion, and possible action to approve a special use permit per Washoe County Code (WCC) Table 110.302.05.2 for expansion of a Utility Services for the South Truckee Meadows Water Reclamation Facility (STMWRF) from 36,999 SF to 45,858 SF of building space in order to expand wastewater treatment capacity. The request exceeds the threshold for major grading per WCC 110.438.35 with 177,000 SF of disturbed area; 23,000 CY of material excavated from various locations of the site and 22,000 CY exported off site and 1,000 CY remaining on site. The proposal also requests varying the landscaping requirements by reducing all required landscaping for the building expansion.

Applicant/ Property Owner: Washoe County  
Location: 8500 Alexander Road  
APN: 165-011-05 & 06  
Parcel Size: 49.43. & 14.97  
Master Plan: Suburban Residential (SR)  
Regulatory Zone: Public & Semi-Public Facilities (PSP)  
Area Plan: Southeast Truckee Meadows  
Citizen Advisory Board: South Truckee Meadows/Washoe Valley  
Development Code: Authorized in Articles 810, Special Use Permits and 438, Grading  
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 Planning Commission approve, with conditions, Special Use Permit Case Number WSUP21-0010 for Washoe County, having made all five findings in accordance with Washoe County Code Section 110.810.30

*(Motion with Findings on Page 9)*

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**Special Use Permit**

The purpose of a special use permit 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:

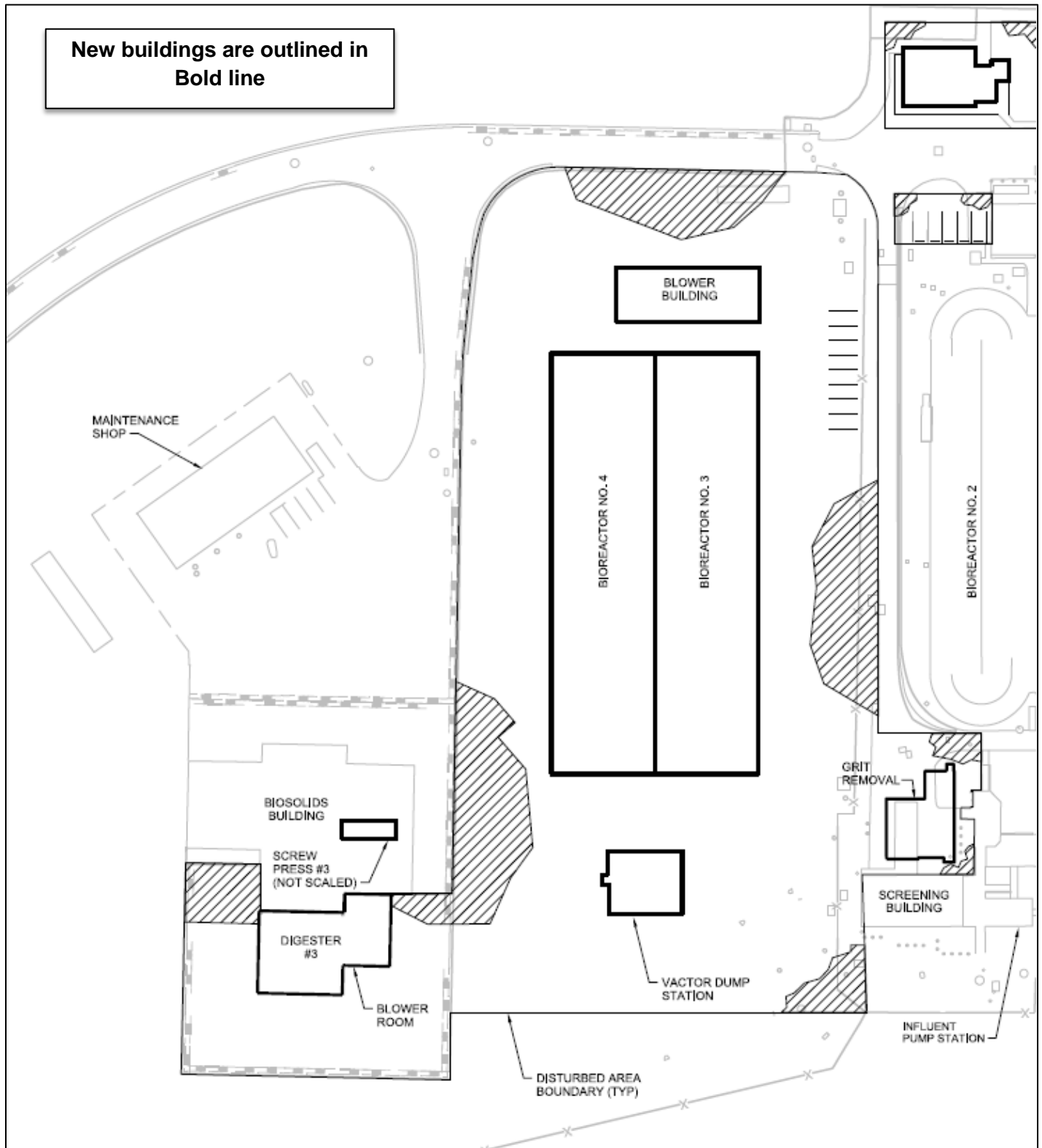
- Prior to permit issuance (i.e. a grading permit, a building permit, etc.)
- Prior to obtaining a final inspection and/or a certificate of occupancy on a structure
- Prior to the issuance of a business license or other permits/licenses
- Some conditions of approval are referred to as “operational conditions.” 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 WSUP21-0010 are attached to this staff report and will be included with the action order, if approved.

The subject property is designated as Public & Semi-Public Facilities (PSP). The proposed use of a water reclamation facility is classified a Major Public Facilities which is permitted in (PSP) with a special use permit per WCC Table 110.302.05.2. Therefore, the applicant is seeking approval of this SUP from the Board of Adjustment.

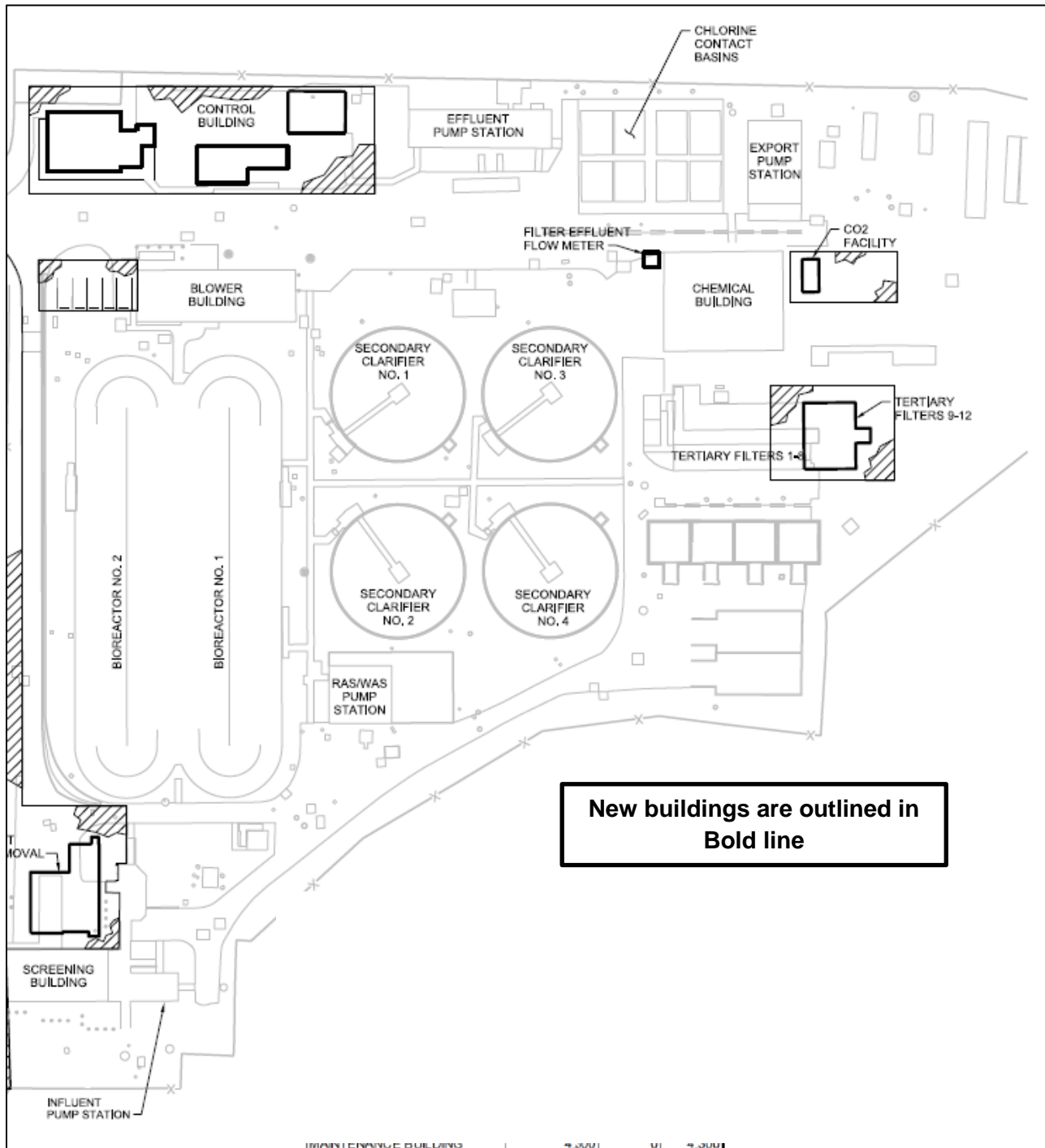
Additionally, Article 810, Special Use Permits, allows the Board of Adjustment to vary development code standards in conjunction with the approval process per WCC 110.810.20(e). Board of Adjustment will be ruling on the request(s) to vary standards below:

Variance Requested	Relevant Code
Landscaping	110.410



**Site Plan - Southern Portion of Site**





**Site Plan - Northern Portion of Site**

### **Project Evaluation**

Washoe County Community Services Department is proposing to expand the existing South Truckee Meadows Water Reclamation Facility (STMWRF). The expansion will increase the annual average daily flow of 4.1 million gallons of wastewater per day (MGD) to approximately 6.1 MGD and an average daily maximum month flow (ADMMF) of 4.62 million gallons per day (mgd) to an ADMMF condition of 6.86 mgd. This expansion of STMWRF will increase the size of the plant by 48% which will address to needs of the region's 2040 population projection. STMWRF is responsible for sanitary sewer collection, wastewater treatment, biosolids management, and reclaimed water treatment and distribution services within the South Truckee Meadows region of Washoe County.

The STMWRF 2020 Expansion Project serves as a central and critical regional water resource recovery facility. STMWRF is permitted by the Nevada Division of Environmental Protection to treat an ADMMF of up to 4.1 MGD. The average daily influent flow from 2019 is approximately 3.8 MGD. Liquid stream unit processes include the following: influent pumping; screening; flow splitting, metering; secondary treatment utilizing oxidation ditches and clarifiers; sand media filtration; sodium hypochlorite disinfection; effluent pumping; and reservoir storage. Waste solids are treated aerobically prior to dewatering and then hauled to the regional Lockwood Landfill. Reclaimed water is stored seasonally in the Huffaker Hills Reservoir and delivered to more than 300 customers through a distribution system network of transmission mains, pump stations, storage tanks, and distribution piping.



The parcels where STMWRF is located have a regulatory zone of Public & Semi-Public Facilities (PSP) and Washoe County Code (WCC) requires a special use permit for the use type of Major Services and Utilities, Utility Services per Table 110.302.05.2 for PSP parcels. The parcels to the north have a regulatory zone of PSP and General Rural (GR), to the west the parcel is Open Space (OS). The parcels to the south and east are within the City of Reno jurisdiction. The master plan designation for the parcel is Suburban Residential (SR), the parcel to the north is Rural (R) and the parcel to the west is Open Space (OS). The site is located in the Southeast Truckee Meadows Area Plan within Rural Character Management Plan.

The applicant is proposing to add 8,859 SF of building space to the existing 36,999 SF of buildings and structures, for a total of 45,858 SF, which will include the installation of two new bioreactors, an upgraded biosolids handling facility, a grit removal system and filter expansion in order to increase the treatment capacity of the plant. Project is scheduled to be completed by March 31, 2024. The building and structures to be expanded include the following:

<b>BUILDING SQUARE FOOT SUMMARY</b>			
<b>BUILDING</b>	<b>EXISTING SF</b>	<b>ADDED</b>	<b>NEW SF</b>
CONTROL BUILDING	3,600	4,013	7,613
NEW BLOWER BUILDING	n.a.	2,933	2,933
BIOSOLIDS BUILDING	11,348	1,152	12,500
HEADWORKS & GRIT REMOVAL	1,881	761	2,642
EXPORT PUMP STATION	1,650	0	1,650
EFFLUENT PUMP STATION	2,000	0	2,000
CHEMICAL BUILDING	4,320	0	4,320
RAS/WAS PS	4,000	0	4,000
EXISTING BLOWER BUILDING	3,000	0	3,000
MAINTENANCE BUILDING	4,300	0	4,300
OPERATIONS MAINTENANCE TRAILER	900	0	900
	36,999	8,859	45,858

### **Grading**

The grading of the site will meet the thresholds for major grading per WWC 110.438.35. The applicant is indicating that 177,000 SF of the site will be disturbed. There will be 23,000 CY of material excavated from various locations of the site, with 22,000 CY being exporting from the site and the remaining 1,000 CY will be used on site. The applicant is working with a neighboring property owner to locate the access material on the neighboring site.

### **Parking**

There will be 18 designated parking space located throughout the site. Washoe County Code (WWC) Table 110.410.10.2 allows the special use permit to specify the number of parking spaces for Utility Service use types. There are currently 10 parking spaces and 8 parking spaces will be added with the expansion. The applicant indicates that 18 spaces will meet the facility's parking needs with a total of 12 employees planned after the building expansion.

### **Landscaping**

The applicant is requesting to modify the landscaping requirements and not require any landscaping with the new building expansion. Currently there is landscaped around the perimeter of the area, with evergreen and deciduous trees along the driveway into the site and along the east and south property lines. The landscaping requirement is a "minimum of twenty percent of the total developed land area shall be landscaped." The applicant is disturbing 177,000 SF of the site which requires 35,400 SF of the site to be landscaped. The site is isolated from the surrounding properties and staff is of the opinion that this amount of landscaping will not a benefit this location and is in support of not adding anymore landscaping to the site.

### **Area Plan Evaluation**

The subject parcel is located within the Southeast Truckee Meadows Area Plan. The following are the pertinent policies from the Southeast Truckee Meadows Area Plan:

#### ***Relevant Area Plan Policies Reviewed***

<b>Policy</b>	<b>Brief Policy Description</b>	<b>Complies</b>	<b>Condition of Approval</b>
SETM.1.2	Southeast Truckee Meadows Rural Character Management Area allows PSP regulatory zoning	Yes	

SETM.2.3	Plan for the control of noxious weeds	Yes	Yes
SETM.2.4	Present development proposal items to the CAB	Yes	
SETM.11.3	To ensure no significant degradation of air quality will occur	Yes	

### **South Truckee Meadows/Washoe Valley Citizen Advisory Board (STM/WV CAB)**

The proposed project was presented by the applicant at the regularly scheduled Citizen Advisory Board meeting on May 6, 2021. The CAB unanimously recommended approval of the request. The CAB minutes were not available at the time that the staff report was prepared. The comments made at the CAB meeting included:

- Will be good for the community
- There is need for the expansion

### **Reviewing Agencies**

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

<b>Agency</b>	<b>Sent to Review</b>	<b>Responded</b>	<b>Provided Conditions</b>	<b>Contact</b>
Nevada Dept of Env Protection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Washoe County Building & Safety	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Washoe County Parks & Open Spaces	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Washoe County Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Walt West wwest@washoecounty.us
WCHD – Air Quality	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Genine Rosa rosa@washoeunty.us
WCHD – Environment Health	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Truckee Meadows Fire Protection District	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Dale Way/Brittany Lemon, 775.326.6000, dway@tmfpd.us/blemon@tmfpd.us
RTC Washoe	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Washoe Storey Conservation District	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
City of Reno	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Truckee Meadows Regional Planning Agency	<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 Southeast Truckee Meadows Area Plan.

*Staff Comment: The requested use, a Major Services and Utilities. Utility Services, is consistent and does not conflict with the policies, action programs, standards, and maps of the Master Plan and the Southeast 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.

*Staff Comment: There are adequate utilities and roadways to support the expansion of STMWRF in accordance with Division Seven. The proposed expansion of the facility will provide better water reclamation service for the community.*

3. Site Suitability. That the site is physically suitable for Education, Private School Facilities, and for the intensity of such a development.

*Staff Comment: The proposal is to expand the existing STMWRF and the expansion is not anticipated to create any significant demand from the existing utilities, roadway improvements, sanitation, or water supply. The expansion will better service the community.*

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 subject property is currently being used by SMTWRF as a water reclamation facility. The expansion will assist the public health, safety or welfare of the community and the expansion of the facility will not be detrimental to the property or 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.

*Staff Comment: There is no military installation in the required noticing distance of the proposed structure; therefore, this finding is not required to be made.*

## **Recommendation**

After a thorough analysis and review, Special Use Permit Case Number WSUP21-0010 is being recommended for approval with conditions. Staff offers the following motion for the Board/Commission'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 WSUP21-0010 for Washoe County, 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 Southeast 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 type of development, i.e. a bed and breakfast inn, etc., 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.

### **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: Washoe County  
Robert Wimer  
email: [rwimer@washoecounty.us](mailto:rwimer@washoecounty.us)  
Alan Jones  
Email: [ajones@washoecounty.us](mailto:ajones@washoecounty.us)





# Conditions of Approval

Special Use Permit Case Number WSUP21-0010

The project approved under Special Use Permit Case Number WSUP21-0010 shall be carried out in accordance with the conditions of approval granted by the Board of Adjustment on June 3, 2021. 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 – Julee Olander, 775.328.3627, jolander@washoecounty.us**

- 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.

- e. Construction work hours will be limited to 7am to 7pm Monday to Saturday.
- f. An onsite noxious weeds management plan needs to be developed to ensure weed seeds do not impact other areas.
- g. Any imported earthen materials shall be "certified weed free" in order to prevent the spread of noxious weeds within the county.
- h. The grading on site shall be in compliance with applicable best management practices to minimize erosion.
- i. 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.

**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 – Walt West, P.E, 775.328.2310, wwest@washoecounty.us**



- 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 (BMP's) 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. Applicant shall indicate on the plans where exported materials will be taken and a grading permit shall be obtained for the import site.
- 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 detailed 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 100-year storm shall be detained on site to the satisfaction of the County Engineer.
- i. The FEMA 100-year floodplain, floodway and/or shaded X boundaries with associated flood elevations shall appear on the site plan to the satisfaction of the County Engineer. Building permits for structures and fill in these areas shall be in conformance with the Washoe County Code Article 416.
- j. The developer shall provide pretreatment for petrochemicals and silt for all storm drainage from the site to the satisfaction of the County Engineer.

**Truckee Meadows Fire Protection District (TMFPD)**

3. The following conditions are requirements of the Truckee Meadows Fire Protection District, which shall be responsible for determining compliance with these conditions. Unless otherwise stated, these conditions shall be met prior to the issuance of any building or grading permit or on an ongoing basis (phased development) as determined by TMFPD.

Any future development of a single, multiple, or all parcels will be subject to currently adopted Fire and Wildland-Urban Interface Codes at the time of development on the specific

parcel.

**Contact Name – Dale Way/Brittany Lemon, 775.326.6000,  
dway@tmfpd.us/blemon@tmfpd.us**

- a. The Truckee Meadows Fire Protection District (TMFPD) will require that this project meet the requirements of all Washoe County adopted codes and amendments.

**Washoe County Health District- Air Quality**

4. The following conditions are requirements of the Health District, which shall be responsible for determining compliance with these conditions. The District Board of Health 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.

**Contact Name – Genine Rosa, 775-784-7200, grosa@washoecounty.us**

- a. If disturbance will be greater than 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](http://www.OurCleanAir.com).

\*\*\* End of Conditions \*\*\*

**From:** [Rosa, Genine](#)  
**To:** [Olander, Julee](#)  
**Subject:** Agency Memo II  
**Date:** Thursday, April 22, 2021 4:53:25 PM

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**Special Use Permit Case Number WSUP21-0010 (STMWRF)**

- Disturbance greater than 1 acre will require a Dust Control Permit to be obtained 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](http://www.OurCleanAir.com).

- Also, possible modification to existing Air Quality Operating Permit.

**Genine Rosa**

Environmental Engineer II | Air Quality Management Division | Washoe County Health District  
[grosa@washoecounty.us](mailto:grosa@washoecounty.us) | O: (775) 784-7204 | C: (775) 420-9185 | 1001 E. Ninth St., Bldg. B, Reno, NV 89512

\*My schedule is 4 x 10's M-Th 7-5:30 off on Fridays.

[www.OurCleanAir.com](http://www.OurCleanAir.com)





# WASHOE COUNTY

## COMMUNITY SERVICES DEPARTMENT

### Engineering and Capital Projects

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

Date: April 30, 2021

To: Julee Olander, Planner

From: Walter West, P.E., Licensed Engineer

Re: Special Use Permit for **South Truckee Meadows Water Reclamation Facility WSUP21-0010**  
APN 165-011-05 & 165-011-06

### GENERAL PROJECT DISCUSSION

Washoe County Engineering staff has reviewed the above referenced application. The Special Use Permit is for the construction of the South Truckee Meadows Water Reclamation Facility expansion from 4.62 MGD to 6.86 MGD and is located on approximately 64.4 acres at southeast Reno, near Alexander Lake, off Alexander Lake Road. 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 Washoe County. 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: Walter West, P.E. (775) 328-2310

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 (BMP's) 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. Applicant shall indicate on the plans where exported materials will be taken and a grading permit shall be obtained for the import site.
5. Cross-sections indicating cuts and fills shall be submitted when applying for a grading permit. Estimated total volumes shall be indicated.
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



INTEGRITY



EFFECTIVE  
COMMUNICATION



QUALITY  
PUBLIC SERVICE

**WSUP21-0010**  
**EXHIBIT B**

Subject: **South Truckee Meadows Water Reclamation Facility WSUP21-0010**  
Date: April 30, 2021  
Page: 2

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: Walter West, P.E. (775) 328-2310

1. A detailed 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 100-year storm shall be detained on site to the satisfaction of the County Engineer.
3. The FEMA 100-year floodplain, floodway and/or shaded X boundaries with associated flood elevations shall appear on the site plan to the satisfaction of the County Engineer. Building permits for structures and fill in these areas shall be in conformance with the Washoe County Code Article 416.
4. The developer shall provide pretreatment for petrochemicals and silt for all storm drainage from the site to the satisfaction of the County Engineer.

**From:** [Way, Dale](#)  
**To:** [Olander, Julee](#)  
**Cc:** [Lee, Brett](#); [Lemon, Brittany](#)  
**Subject:** WSUP21-0010 (STMWRF)  
**Date:** Friday, April 16, 2021 9:10:05 AM

---

Julee,

We have no specific comments on this request beyond adopted codes and amendments.

Thank you.

**Dale Way**

**Deputy Fire Chief – Fire Prevention | Truckee Meadows Fire & Rescue**

[dway@tmfpd.us](mailto:dway@tmfpd.us) | Office: 775.326.6000

3663 Barron Wy, Reno, NV 89511



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

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

May 7, 2021

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

RE: STMWRF Expansion; 165-011-05 & 06  
Special Use Permit; WSUP21-0010 (STMWRF

Dear Washoe County Staff:

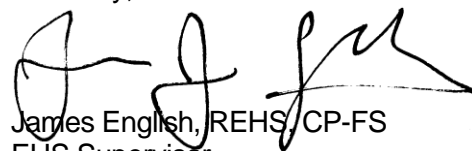
The following conditions are requirements of the Washoe County Health District, Environmental Health Division, (WCHD) which shall be responsible for determining compliance with these conditions.

**Contact Name – James English - [jenglish@washoecounty.us](mailto:jenglish@washoecounty.us)**

- a) Condition #1: The WCHD has no requirements or conditions as the special use permit is related to grading and the proposed use will be connected to Public Water and Sewer Systems.
- b) Condition #2: Final expansion of the sewer treatment plant will require amending the current waste management permit with the WCHD.

If you have any questions or would like clarification regarding the foregoing, please contact James English, EHS Supervisor at [jenglish@washoecounty.us](mailto:jenglish@washoecounty.us) regarding all Health District comments.

Sincerely,



James English, REHS, CP-FS  
EHS Supervisor  
Environmental Health Services  
Washoe County Health District

**From:** [Kirschenman, Sophia](#)  
**To:** [Olander, Julee](#)  
**Subject:** Parks Comments Re: STMWRF  
**Date:** Friday, April 30, 2021 8:50:47 AM  
**Attachments:** [Outlook-4z1bjlby.png](#)  
[Outlook-ds2qttlo.png](#)  
[Outlook-olu3e1ly.png](#)  
[Outlook-gujzqr30.png](#)  
[Outlook-wlrt5dyi.png](#)

---

Hi Julee,

I've reviewed Special Use Permit Case Number WSUP21-0010 (STMWRF) on behalf of Washoe County Regional Parks and Open Space and have no comments or conditions.

Thank you,



[Sophia Kirschenman](#)  
Park Planner | Community Services Department  
775.328.3623 | 1001 E. 9th Street, Reno, NV 89512  
Tell us how we did by taking a quick [survey](#).

Please consider the environment before printing this e-mail.





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

## Washoe-Storey Conservation District

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

April 29, 2021

Washoe County Community Services Department

C/O Julee Olander, Planner

1001 E Ninth Street, Bldg. A

Reno, NV 89512

R: WSUP21-0010 STMWRF

Dear Julee,

In reviewing the special use permit for expansion of the South Truckee Meadows Reclamation facility, the Conservation District has the following comments.

We request the applicant submits to the District for approval a revegetation plan prepared by a qualified professional that includes a seed mix based on soil type, a contingency water plan, fertilizer plan, erosion control structures and a monitoring plan with updates provided to the Conservation District after the completion of the growing season (October 31) every year for a three period.

While the applicant states the new buildings will match the existing building, this must include matching the existing roof materials.

Thank you for providing us the opportunity to review the project that may have impacts on our natural resources.

Sincerely,

Shaffer-Tyler

**From:** [Behmaram, Vahid](#)  
**To:** [Olander, Julie](#)  
**Subject:** No Comments  
**Date:** Monday, April 19, 2021 11:16:27 AM  
**Attachments:** [image001.png](#)

---

Special Use Permit Case Number WSUP21-0010 (STMWRF)

Julie I have no comments or conditions. Thanks,



Vahid Behmaram  
Water Rights & Water Resources Consultant  
Temporary Contractor for Washoe County  
[vbehmaram@washoecounty.us](mailto:vbehmaram@washoecounty.us) Office: (775)954-4647; Fax (775) 328-6133  
1001 E. 9th, St., Reno, NV 89512

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

May 7, 2021

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

RE: STMWRF Expansion; 165-011-05 & 06  
Special Use Permit; WSUP21-0010 (STMWRF

Dear Washoe County Staff:

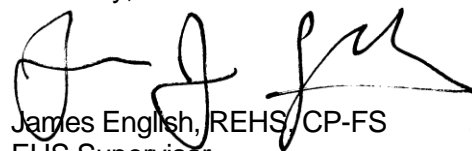
The following conditions are requirements of the Washoe County Health District, Environmental Health Division, (WCHD) which shall be responsible for determining compliance with these conditions.

**Contact Name – James English - [jenglish@washoecounty.us](mailto:jenglish@washoecounty.us)**

- a) Condition #1: The WCHD has no requirements or conditions as the special use permit is related to grading and the proposed use will be connected to Public Water and Sewer Systems.
- b) Condition #2: Final expansion of the sewer treatment plant will require amending the current waste management permit with the WCHD.

If you have any questions or would like clarification regarding the foregoing, please contact James English, EHS Supervisor at [jenglish@washoecounty.us](mailto:jenglish@washoecounty.us) regarding all Health District comments.

Sincerely,



James English, REHS, CP-FS  
EHS Supervisor  
Environmental Health Services  
Washoe County Health District



# WASHOE COUNTY

## COMMUNITY SERVICES DEPARTMENT

### Engineering & Capital Projects

1001 EAST 9<sup>TH</sup> STREET  
RENO, NEVADA 89512-2845  
PHONE (775) 328-3600  
FAX (775) 328-3699

Washoe County  
Planner | Community Services Department- Planning & Building Division  
1001 E. Ninth St., Bldg A  
Reno, NV 89512

RE: WSUP21-0010 CAB

To Whom it May Concern:

On May 6, 2021 Washoe County attended the South Truckee Meadows/Washoe Valley Citizen Advisory Board meeting regarding our SUP application for the South Truckee Meadows Water Reclamation Facility expansion. Hearing from the Board, there were no concerns regarding the SUP application; therefore, the original SUP application meets the concerns brought up during open comment.

At this time, we will not be submitting any additional information that is not included in the submitted SUP.

If you have any questions, feel free to contact me by email.

Sincerely,

Alan Jones, PE  
Senior Licensed Engineer  
Engineering & Capital Projects Division



INTEGRITY

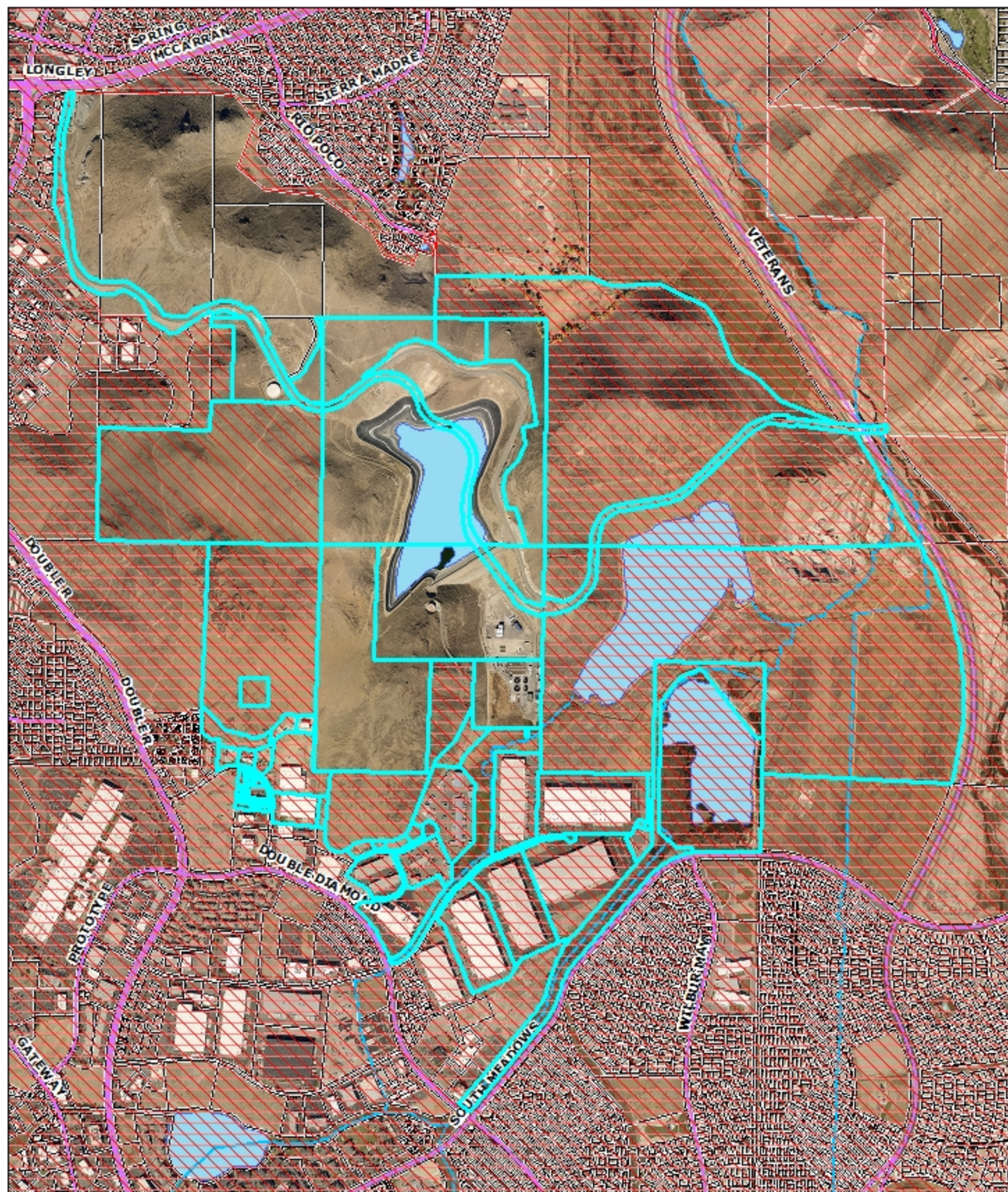


EFFECTIVE  
COMMUNICATION



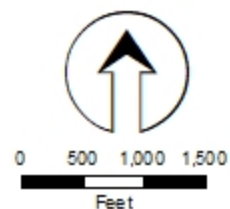
QUALITY  
PUBLIC SERVICE





WSUP21-0010 STMWRF

Noticing Map- 2,000 feet



Community Services  
Department



1001 E Ninth St  
Reno, Nevada 89512 (775) 328-3600



## 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.

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

## Property Owner Affidavit

**Applicant Name:** \_\_\_\_\_

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, \_\_\_\_\_,  
(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): \_\_\_\_\_

Printed Name \_\_\_\_\_

Signed \_\_\_\_\_

Address \_\_\_\_\_

Subscribed and sworn to before me this  
\_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
(Notary Stamp)

\_\_\_\_\_  
Notary Public in and for said county and state

My commission expires: \_\_\_\_\_

\*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?

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.



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).

--

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?

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?

--

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

--

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?

--

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?

--

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.
-----	----	-------------------------------

**SOUTH TRUCKEE MEADOWS  
WATER RECLAMATION FACILITY  
2020 EXPANSION PROJECT**



**PWP NO.:**

**Washoe County Community  
Services Department  
Water Resources**

**30% DESIGN**

**Draft Schematic Design Report**

**Jacobs**

50 West Liberty Street  
Suite 205  
Reno, NV 89501

**February 2021**

## South Truckee Meadows Water Reclamation Facility 2020 Expansion Project

Project No: W7Y28601.A.P4.FC.4-11  
Document Title: South Truckee Meadows Water Reclamation Facility 2020 Expansion Project  
Schematic Design Report  
Document No.: PPS0128211635CVO  
Revision: 30% Design  
Date: February 18, 2021  
Client Name: Washoe County  
Project Manager: Kevin Love

Jacobs Engineering Group Inc.

50 West Liberty Street  
Suite 205  
Reno, NV 89501  
United States

[www.jacobs.com](http://www.jacobs.com)

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### Document History and Status

Revision	Date	Description	By	Review	Approved

## ES1. Executive Summary

### ES1.1 Introduction

Washoe County Community Services Department is responsible for sanitary sewer collection, wastewater treatment, biosolids management, and reclaimed water treatment and distribution services within the South Truckee Meadows region of Reno, Nevada. The South Truckee Meadows Water Reclamation Facility (STMWRF) 2020 Expansion Project (Project) serves as a central and critical regional water resource recovery facility. STMWRF is permitted by the Nevada Division of Environmental Protection to treat an Average Daily Maximum Month Flow of up to 4.1 million gallons of wastewater per day (MGD).

Average daily influent flow from 2019 is approximately 3.8 MGD. Liquid stream unit processes include the following: influent pumping; screening; flow splitting, metering; secondary treatment utilizing oxidation ditches and clarifiers; sand media filtration; sodium hypochlorite disinfection; effluent pumping; and reservoir storage. Waste solids are treated aerobically prior to dewatering and then hauled to the regional Lockwood Landfill. STMWRF effluent is presently managed through a Category A reclaimed water distribution system.

Reclaimed water is stored seasonally in the Huffaker Hills Reservoir and delivered to more than 300 customers through a distribution system network of transmission mains, pump stations, storage tanks, and distribution piping. Annual reclaimed water delivery is presently 3,000 acre-feet, and peak day demands can exceed 8 MGD.

A Facility Plan update (Facility Plan) for STMWRF was completed in 2016 and was recently validated utilizing a 20-year (2040) planning interval. The Facility Plan efforts included a STMWRF 2020 Expansion Project Definition Summary Report that summarized expansion from an Annual Average Daily Flow of 4.1 MGD to approximately 6.1 MGD and an Average Daily Max Month Flow of 4.6 MGD to approximately 6.86 MGD to meet the region's 2040 population projection.

The purpose of this Schematic Design Report is to summarize the major design concepts for the Project. This report includes technical memorandums (TMs) summarizing each major discipline and facility. The concepts presented in these TMs will be further developed in construction drawings, details, and specifications for subsequent Project submittals.

### ES1.2 Design Flows and Loadings

Jacobs Engineering Group Inc. (Jacobs) developed flow projections from population growth projections for the STMWRF service area. Flow projections for certain years are shown in Table ES1-1.

**Table ES1-1. Projected Wastewater Flows (MGD)**

*STMWRF Schematic Design Report*

Year	Average Annual Daily Flow	Average Daily Max Month Flow	Peak Daily Flow	Peak Hour, Dry Weather Flow	Peak Hour, Wet Weather Flow
2019 <sup>a</sup>	4.13	4.62	6.35	8.67	10.20
2025	5.03	5.64	7.73	10.57	12.43
2030	5.60	6.27	8.61	11.76	13.83
2035	5.94	6.66	9.13	12.48	14.68



**Table ES1-1. Projected Wastewater Flows (MGD)***STMWRF Schematic Design Report*

Year	Average Annual Daily Flow	Average Daily Max Month Flow	Peak Daily Flow	Peak Hour, Dry Weather Flow	Peak Hour, Wet Weather Flow
2040	6.13	6.86	9.42	12.87	15.13
Buildout	6.45	7.23	9.92	13.55	15.94

Notes:

\* Flows for 2019 are estimated based on equivalent residential units assumptions, not per measured flows.

Historical data were used to develop loading design criteria for the Project. Key loading and concentration information is presented in Table ES-2.

**Table ES1-2. Projected Wastewater Loading and Concentration***STMWRF Schematic Design Report*

Wastewater Constituent	2019	2030	2040	Buildout
<b>Five-Day BOD</b>				
Design Concentration, mg/L	285	285	285	285
Average Annual Daily (lbs/day)	9,859	13,369	14,634	15,398
Average Daily Max Month (lbs/day)	13,606	18,449	20,195	21,249
Peak Daily (lbs/day)	17,254	23,395	25,609	26,946
<b>TSS</b>				
Design Concentration, mg/L	285	285	285	285
Average Annual Daily (lbs/day)	9,879	13,395	14,663	15,428
Average Daily Max Month (lbs/day)	13,633	18,485	20,234	21,291
Peak Daily (lbs/day)	17,288	23,441	25,660	26,999
<b>Ammonia</b>				
Design Concentration, mg/L	34	34	34	34
Average Annual Daily (lbs/day)	1,175	1,593	1,744	1,835
Average Daily Max Month (lbs/day)	1,622	2,199	2,407	2,533
Peak Daily (lbs/day)	2,056	2,788	3,052	3,212
<b>Total Kjeldahl Nitrogen</b>				
Design Concentration, mg/L	45	45	45	45
Average Annual Daily (lbs/day)	1,550	2,102	2,301	2,421
Average Daily Max Month (lbs/day)	2,140	2,901	3,176	3,341

**Table ES1-2. Projected Wastewater Loading and Concentration**  
*STMWRF Schematic Design Report*

Wastewater Constituent	2019	2030	2040	Buildout
Peak Daily (lbs/day)	2,713	3,679	4,027	4,237
<b>Total Phosphorus</b>				
Design Concentration, mg/L	5.44	5.44	5.44	5.44
Average Annual Daily (lbs/day)	191	259	284	299
Average Daily Max Month (lbs/day)	264	358	392	412
Peak Daily (lbs/day)	335	454	497	523
<b>Chemical Oxygen Demand</b>				
Design Concentration, mg/L	519	519	519	519
Average Annual Daily (lbs/day)	17,944	24,331	26,633	28,024
Average Daily Max Month (lbs/day)	24,762	33,576	36,754	38,673
Peak Daily (lbs/day)	31,402	42,578	46,608	49,041

Notes:

BOD = Biochemical Oxygen Demand  
 lbs/day = pound(s) per day  
 mg/L = milligram(s) per day  
 TSS = total suspended solids

### ES1.3 Preliminary Treatment

The preliminary treatment process consists of screening and grit removal sized for the 2040 peak hydraulic capacity. The existing 6-millimeter perforated plate screens physically remove debris from the raw wastewater that may impact downstream equipment reliability. The new grit removal process will reduce the accumulation of inert material in the bioreactors and digesters, increasing the functional volume and increasing equipment longevity. Grit removal will achieve 95 percent removal of inert material greater than 75 micrometers at design average flows and greater than 106 micrometers at peak flows.

### ES1.4 Secondary Treatment

The secondary treatment process is designed to remove total suspended solids (TSS), biochemical oxygen demand, total nitrogen, and phosphorus. The process will consist of four parallel bioreactor basins followed by four parallel secondary clarifiers. The bioreactors will be arranged in a five-stage Bardenpho configuration to achieve biological phosphorus removal and total nitrogen removal. The five stages of the process are:

- 1) The anaerobic stage promotes enhanced biological phosphorous removal by encouraging the growth of phosphorous accumulating organisms, utilizing readily biodegradable carbon. Selects against filamentous bacteria.
- 2) The anoxic stage receives a nitrified recycle from the end of the aerobic stage for nitrogen removal. Denitrification occurs in this stage, converting nitrate in the recycle into nitrogen gas.

- 3) The aerobic stage consumes additional carbonaceous biochemical oxygen demand and oxidizes ammonia nitrogen to nitrate through nitrification.
- 4) The post-anoxic stage converts residual nitrate from the aerobic stage to nitrogen gas using carbon from endogenous decay.
- 5) The post-aerobic stage converts any ammonia generated in the post-anoxic stage back into nitrate and raises the dissolved oxygen concentration of the mixed liquor prior to the secondary clarifiers. Nitrogen gas is stripped from the mixed liquor.

### **ES1.5 Filtration**

The tertiary filters will be expanded to maintain a maximum loading rate of 5 gallons per minute per square foot at the design peak hour flow rate. The design assumes the filters will be operated in a continuous backwash mode with a constant 0.7 MGD recycle to the headworks. TSS removal is assumed to be 90 percent.

### **ES1.6 Disinfection**

No major chlorination facility improvements are necessary as part of this Project because the existing facilities are adequate to treat the future peak hour wet weather flow of 15.2 MGD.

Disinfection will use free chlorine as described in the 2020 Facility Plan Update TM 6A, Facility Plan Validation. The secondary treatment process will be controlled to maintain the secondary effluent ammonia concentration less than 1 mg /L as nitrogen at all times. The ammonia concentration entering the chlorine contact basin will be measured and the hypochlorite dose will be adjusted to compensate. This will allow disinfection with combined chlorine to be avoided.

### **ES1.7 Treated Water**

Treated Water refers to the Export Pump Station, Effluent Pump Station, Huffaker Reservoir (and related facilities), Field Creek Pump Station and Creek Water Pump Station.

#### **ES1.7.1 Effluent Pumping**

The Project includes electrical improvements and control system improvements to limit pump cycling for the Effluent Pumping facility.

#### **ES1.7.2 Export Pumping**

The Project includes electrical improvements and control system improvements to help reduce flow surging for the Export Pump Station. Additionally, the Project includes evaluation of the pump station configuration, suction conditions, and potential expansion capabilities. Pump testing will be conducted to better understand the net positive suction head and vacuum conditions with various pumps online. Pending the results of the test, additional improvements may be considered.

#### **ES1.7.3 Huffaker Reservoir Return Flow Valve**

The Project includes replacing the existing 18-inch Huffaker Reservoir return flow control butterfly valve with an 18-inch v-port ball valve to control flows up to 12 MGD. The *Washoe County Community Services Department 2050 Water Reclamation Distribution Facility Plan* by SB Engineering projects a potential maximum flow rate of 19 MGD in the year 2050. Export pump station modifications would be required in

the future to achieve the 19-MGD future flow rate. The Project includes controls improvements to limit flow surging.

#### **ES1.7.4 Field Creek Pump Station**

The project includes replacement of failed electrical starters and replacement of failed isolation and check valves.

#### **ES1.7.5 Creek Water Pump Station**

Project elements are yet to be determined.

### **ES1.8 Biosolids**

The Project includes constructing a third digester cell immediately to the west of the existing two cells and replacing the three smaller blowers (1,100-standard-cubic-feet-per-minute [scfm] capacity) with new blowers with a capacity slightly larger than the current large blower. The new blowers will have a capacity of 2,360 scfm, while the existing larger blower has a 2,000-scfm capacity. The Project also includes a third screw press in the existing empty slot planned for a third unit and a new mechanical/electrical room for a new sludge feed pump, polymer feed unit, and up-sized electrical equipment.

### **ES1.9 Support Systems**

The Project includes upgrade and/or expansion of the following areas.

- Control Building and Lab
- Collaboration Building
- Odor Control Facilities
- Chemical Facilities
- Electrical System
- Control and Security Systems
- Facility Water
- Groundwater Pumping

#### **ES1.9.1 Control Building and Lab**

The Project includes renovation and expansion of the existing control building and lab to provide necessary space and furnishings for ongoing facility operation and maintenance. Once complete, the building will contain a control room, laboratory, office and conference space, shops and miscellaneous support spaces. This building will continue to serve as the main public entry, with a reception entry and multipurpose room.

#### **ES1.9.2 Collaboration Building**

The Project includes a Collaboration Building for potential training opportunities with regional partners such as the University of Nevada at Reno, Nevada Department of Transportation, and other Washoe County (County) departments. This facility will also be used for repair and testing of equipment by the County or partners and manufacturer testing.

### ES1.9.3 Odor Control Facilities

Currently, STMWRF does not operate any odor treatment systems. Instead, the plant has implemented odor containment and odor dispersion approaches. Existing odor control systems/approaches currently implemented and practiced at the STMWRF include:

- Odor containment at Headworks with wall exhaust fans for promoting plume dispersion.
- Odor containment at Biosolids Facility with roof-mounted dispersion fan for plume mixing.
- Good housekeeping practices.

The final selection of odor control approach and the corresponding details will be determined during detailed design.

### ES1.9.4 Chemical Facilities

#### ES1.9.4.1 Sodium Hypochlorite

No modifications to the sodium hypochlorite system are proposed for the Project.

#### ES1.9.5 Ferric Chloride System

The Project includes a new ferric chloride (ferric) storage and injection system installed near the tertiary filters to provide for supplemental TP removal in the event the EBPR process does not produce an effluent TP concentration below the 0.5 mg/L goal. Ferric will be added at the mixed liquor distribution box upstream of the secondary clarifiers and/or upstream of the tertiary filters. Final ferric dosing location will be determined during detailed design.

#### ES1.9.6 Carbon Dioxide System

The Project includes a carbon dioxide (CO<sub>2</sub>) storage and injection system to reduce the pH of Huffaker Reservoir return flow water. CO<sub>2</sub> will be injected into the return flow pipe downstream of the return flow meter and isolation valve, where the pipe is above grade in the Chemical Building.

### ES1.10 Electrical System

The Project includes renovation and expansion of the existing electrical system to provide the required power to the new and existing facilities and to provide emergency standby power.

### ES1.11 Control System

As discussed in the STMWRF SCADA Master Plan, the STMWRF control network needs to be upgraded due to lack of capacity and aging equipment. Because of this, and the need for increased treatment capacity, the following work will be performed on the STMWRF process instrumentation and control system:

- All existing fiber-optic cables will be replaced with 48-strand, single-mode fiber in a ring configuration.
- All existing field network switches will be replaced.
- Complete instrumentation and control components to be provided for new equipment added as part of 2020 plant expansion.
- Control and monitoring of the new equipment and instrumentation will be incorporated into the existing supervisory control and data acquisition using Wonderware software.

### **ES1.12 Security System**

The Project includes an access control system at new facilities where applicable. The design will identify access control equipment types and locations and any other features that should be integrated into the system, such as alarm notification and remote software access.

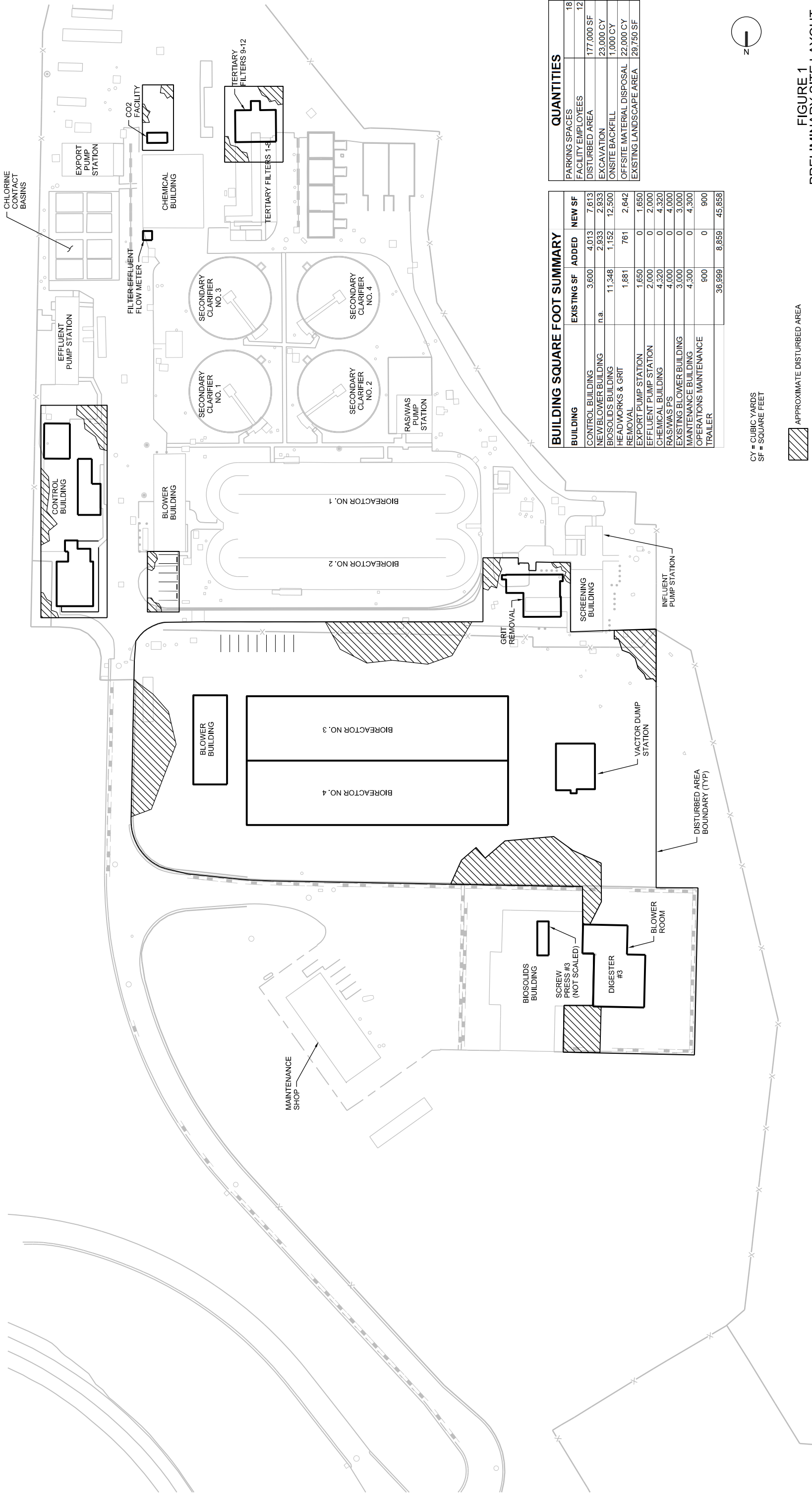
The Project includes a video surveillance system at main entrance gates and vendor loading/unloading including the Chemical Building and Biosolids Facility. The design will include video management software and file storage for video recording. Specified video surveillance equipment will conform with County standard and identify equipment types and locations and any other features that should be integrated into the system, such as alarm notification and remote software access.

### **ES1.13 Facility Water**

The Project includes connecting new facilities to the existing potable water and reclaimed water infrastructure. No major potable water and reclaimed water are expected.

### **ES1.14 Groundwater Pumping**

The Project includes replacing Wells 1 and 3 with new equipment to match the existing equipment no longer in service. It is assumed that new wells will be constructed adjacent to new basins. Further geotechnical analysis will be done during design to confirm whether the new wells are required to prevent uplift of dewatered structures.



BUILDING SQUARE FOOT SUMMARY			
BUILDING	EXISTING SF	ADDED	NEW SF
CONTROL BUILDING	3,600	4,013	7,613
NEW BLOWER BUILDING	n.a.	2,933	2,933
BIO SOLIDS BUILDING	11,348	1,152	12,500
HEADWORKS & GRIT REMOVAL	1,881	761	2,642
EXPORT PUMP STATION	1,650	0	1,650
EFFLUENT PUMP STATION	2,000	0	2,000
CHEMICAL BUILDING	4,320	0	4,320
RAS/WAS PS	4,000	0	4,000
EXISTING BLOWER BUILDING	3,000	0	3,000
MAINTENANCE BUILDING	4,300	0	4,300
OPERATIONS MAINTENANCE TRAILER	900	0	900
	36,999	8,859	45,858

QUANTITIES			
PARKING SPACES			18
FACILITY EMPLOYEES			12
DISTURBED AREA			177,000 SF
EXCAVATION			23,000 CY
ONSITE BACKFILL			1,000 CY
OFFSITE MATERIAL DISPOSAL			22,000 CY
EXISTING LANDSCAPE AREA			29,750 SF

CY = CUBIC YARDS  
SF = SQUARE FEET

APPROXIMATE DISTURBED AREA



FIGURE 1  
PRELIMINARY SITE LAYOUT

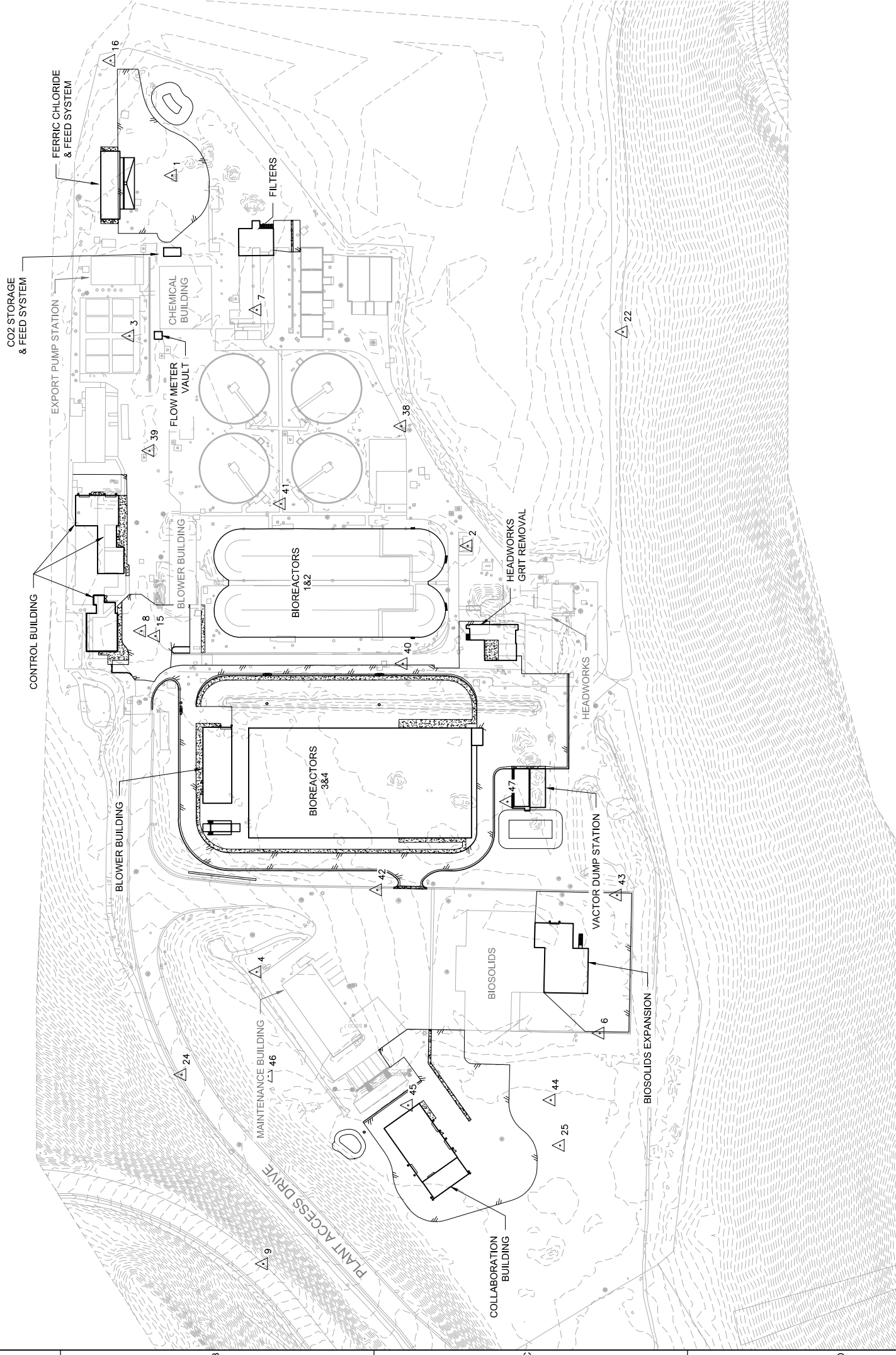
## GENERAL NOTES

## BASIS OF BEARINGS

NORTH AMERICAN DATUM OF 1983 AS BASED ON FEDERAL  
BASE NETWORK/COOPERATIVE BASE NETWORK  
OBSERVATIONS IN 1994 (AKA NAD83/94), NEVADA STATE  
PLANE COORDINATE SYSTEM, WEST ZONE AND HOLDING  
THE WASHOE COUNTY PUBLISHED LATITUDE AND  
LONGITUDE OF 39° 31' 12.71628" NORTH  
AND 119° 42' 10.28557" WEST FOR REGIONAL GNSS  
CORS "WWRP" (WASHOE COUNTY IDENTIFIER  
S11SN15000). A COMBINED GRID-TO-GROUND SCALE  
FACTOR OF 1.000179739 IS USED TO SCALE THE STATE  
PLANE GRID COORDINATES TO GROUND.

## BASIS OF ELEVATIONS

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88) AND  
HOLDING THE WASHOE COUNTY PUBLISHED ELLIPSOID  
HEIGHT OF 1326.259 METERS (4351.235 FEET) FOR REGIONAL  
GNSS CORRS "WWRF" AND USING GEOID 99 TO DERIVE THE  
ORTHOMETRIC ELEVATION ABOVE MEAN SEA LEVEL.



SURVEY CONTROL POINTS TABLE				
Point #	Northing	Easting	Elevation	Description
1	14842023.0400	2297633.1920	4439.01	2A/C
2	14842452.0200	2297930.8940	4448.16	2A/C
3	14842208.7900	2297832.8650	4442.08	2A/C
4	14842945.2600	2297535.4460	4442.01	2A/C
6	14843016.2300	2297138.1300	4439.04	2A/C
7	14842178.8600	2297535.1340	4445.88	2A/C
8	14842550.6300	2297688.7980	4438.25	2A/C
9	14843283.2700	2297527.7260	4488.60	2A/C
10	14844001.9600	2297309.8970	4560.43	2A/C
11	14843673.3100	2296782.7780	4560.46	2A/C
12	14843458.6400	2296421.1320	4557.18	2A/C
13	14843737.5200	2296661.1190	4560.18	2A/C
14	14844589.7940	2296061.2480	4579.86	SCP
15	14842556.4610	2297652.4460	4438.94	PK
16	14841890.2850	2297704.4680	4433.88	PK
17	14842887.9970	2295633.8280	4577.40	SCP
19	14844407.8710	2297234.7210	4579.73	PK
21	14841755.2590	2296639.3940	4471.22	SCP
22	14842204.1600	2297111.9910	4440.38	SCP
23	14845930.7990	2296608.8830	4548.54	PK
24	14843064.3980	2297622.1970	4452.90	SCP
25	14843146.2040	2297184.1080	4438.60	SCP
31	14844014.4690	2297282.6760	4567.25	2inMaat
32	14843648.7080	2298336.7010	4490.59	PK
35	14846440.4220	2295715.8930	4648.52	SCP
36	14846013.2500	2297709.8890	4558.06	SCP
37	14842463.6640	2297238.7480	4439.41	PK
38	14842313.3070	2297367.5420	4438.84	PK
39	14842341.9190	2297659.2300	4438.95	PK
40	14842588.4490	2297385.9550	4439.28	PK
41	14842403.4520	2297507.1910	4439.31	Scrub
42	14842850.4380	2297395.6780	4440.04	PK
43	14842856.4150	2297117.9840	4437.61	PK
44	14843093.7560	2297194.8450	4438.21	SCP
45	14843099.8070	2297359.8400	4438.34	SCP
46	14843066.0900	2297522.2040	4441.47	SCP
47	14842748.3090	2297244.9390	4437.97	SCP

VERIFY SCALE	DATE	FEBRUARY 2021
BAR IS ONE INCH ON ORIGINAL DRAWING.	PROJ	WY28601
0 [REDACTED] 1*	DWG	CVS-C-2001
	ISSUED	WSP21-0010
	PLC	EXHIBIT 16





Jacobs

STMMWRF 2020 EXPANSION PROJECT  
WASHOE COUNTY DWR  
RENO, NEVADA

RENDERING PERSPECTIVE  
FILTERS

VERIFICATION SCALE  
BAR IS ONE INCH ON  
ORIGINAL DRAWING  
0 1" 2"

DATE FEBRUARY 2021

PROJ WY28601

DWG FLT-R-9001

30% SUBMITTAL

WY28601-0010

EXHIBIT E





## CIVIL SITE RENDERING PERSPECTIVE

STMWRF 2020 EXPANSION PROJECT  
WASHOE COUNTY DWR  
RENO, NEVADA

[illegible]

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REUSE OF DOCUMENTS:



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DATE	FEBRUARY 2021
PROJ	W7Y28601
DWG	B34-R-9001
SHEET	<b>WSUP21-0010</b>
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. 0 [REDACTED] 1"	

\$PWURL	\\denpwp01d\$\policiesworking\822703\1072557_3IB34-R-9001_W7Y28601.dgn	FILENAME: B34-R-9001_W7Y28601.dgn	PLOT DATE: 2/12/2021	PLOT TIME: 2:33:09PM
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STMWRF 2020 EXPANSION PROJECT WASHOE COUNTY DWR RENO, NEVADA	NO.	DATE	DR	S WAGONER	CHK	APVD	K WHITTIER

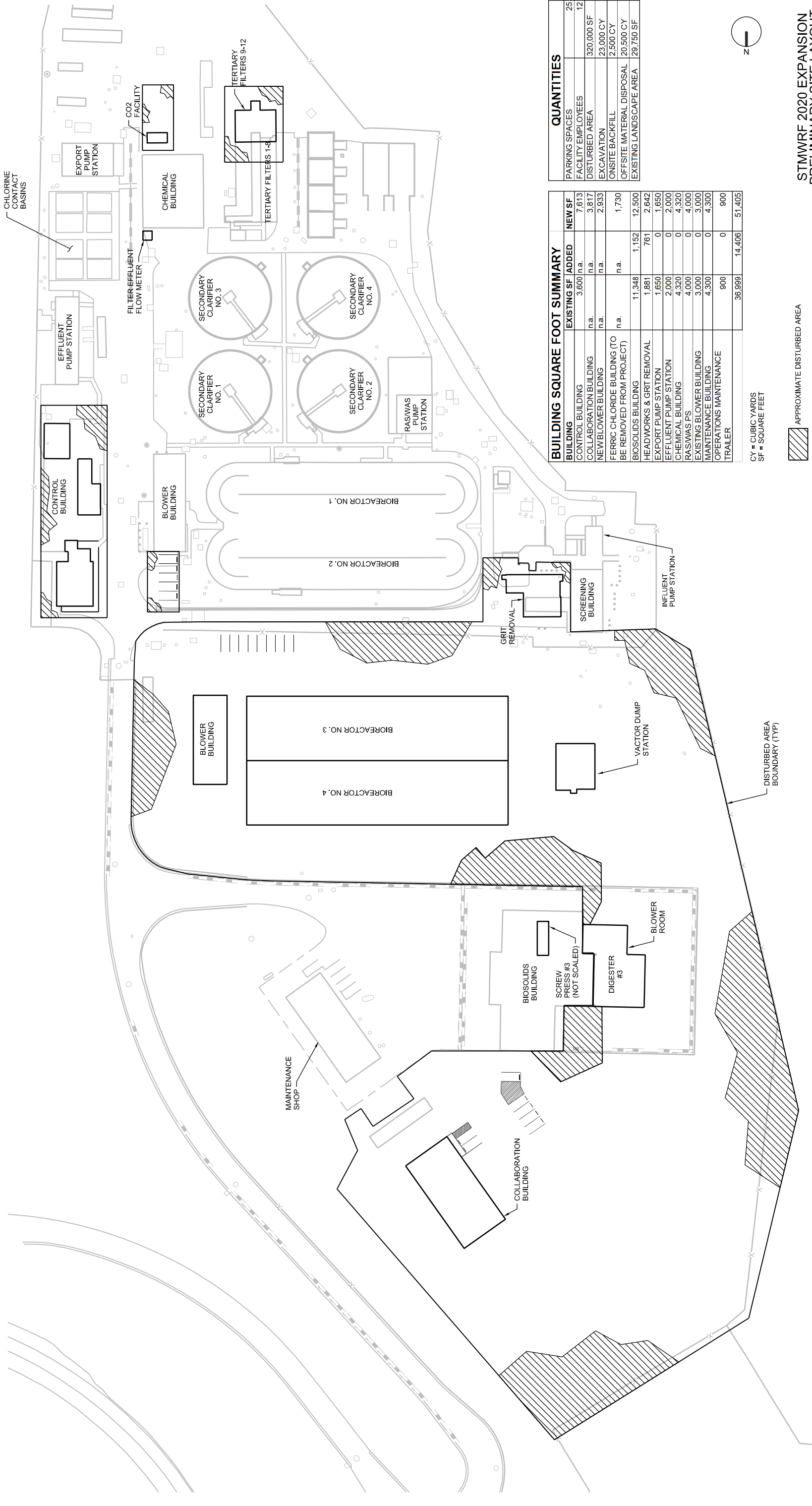
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QUANTITIES	
PARKING SPACES	25
FACILITY EMPLOYEES	12
DISTURBED AREA	320,000 SF
EXCAVATION	23,000 CY
ONSITE BACKFILL	2,500 CY
OFFSITE MATERIAL DISPOSAL	20,500 CY
EXISTING LANDSCAPE AREA	29,750 SF

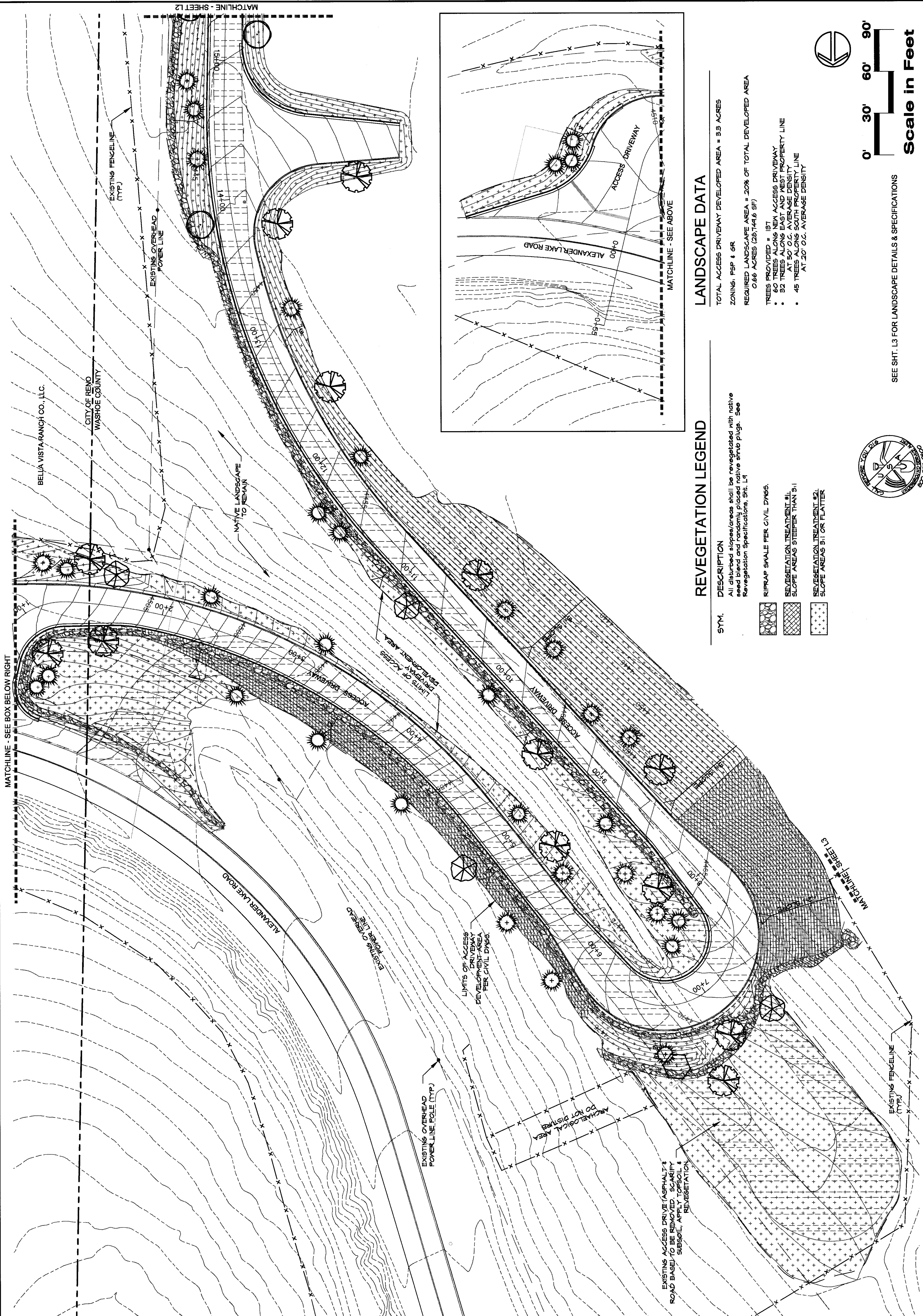
BUILDING SQUARE FOOT SUMMARY			
BUILDING	EXISTING SF	ADDED	NEW SF
CONTROL BUILDING	n.a.	3,600	7,613
COLLABORATION BUILDING	n.a.	n.a.	3,817
NEW BLOWER BUILDING	n.a.	n.a.	2,933
FERRIC CHLORIDE BUILDING (TO BE REMOVED FROM PROJECT)	n.a.	n.a.	1,730
BIO-SOLIDS BUILDING	11,348	1,152	12,500
HEADWORKS & GRIT REMOVAL	1,881	761	2,642
EXPORT PUMP STATION	1,650	0	1,650
EFFLUENT PUMP STATION	2,000	0	2,000
CHEMICAL BUILDING	4,320	0	4,320
RAS/WAS PS	4,000	0	4,000
EXISTING BLOWER BUILDING	3,000	0	3,000
MAINTENANCE BUILDING	4,300	0	4,300
OPERATIONS MAINTENANCE	900	0	900
TRAILER	36,999	14,406	51,405

CY = CUBIC YARDS  
SF = SQUARE FEET

APPROXIMATE DISTURBED AREA

STMWRF 2020 EXPANSION  
PRELIMINARY SITE LAYOUT





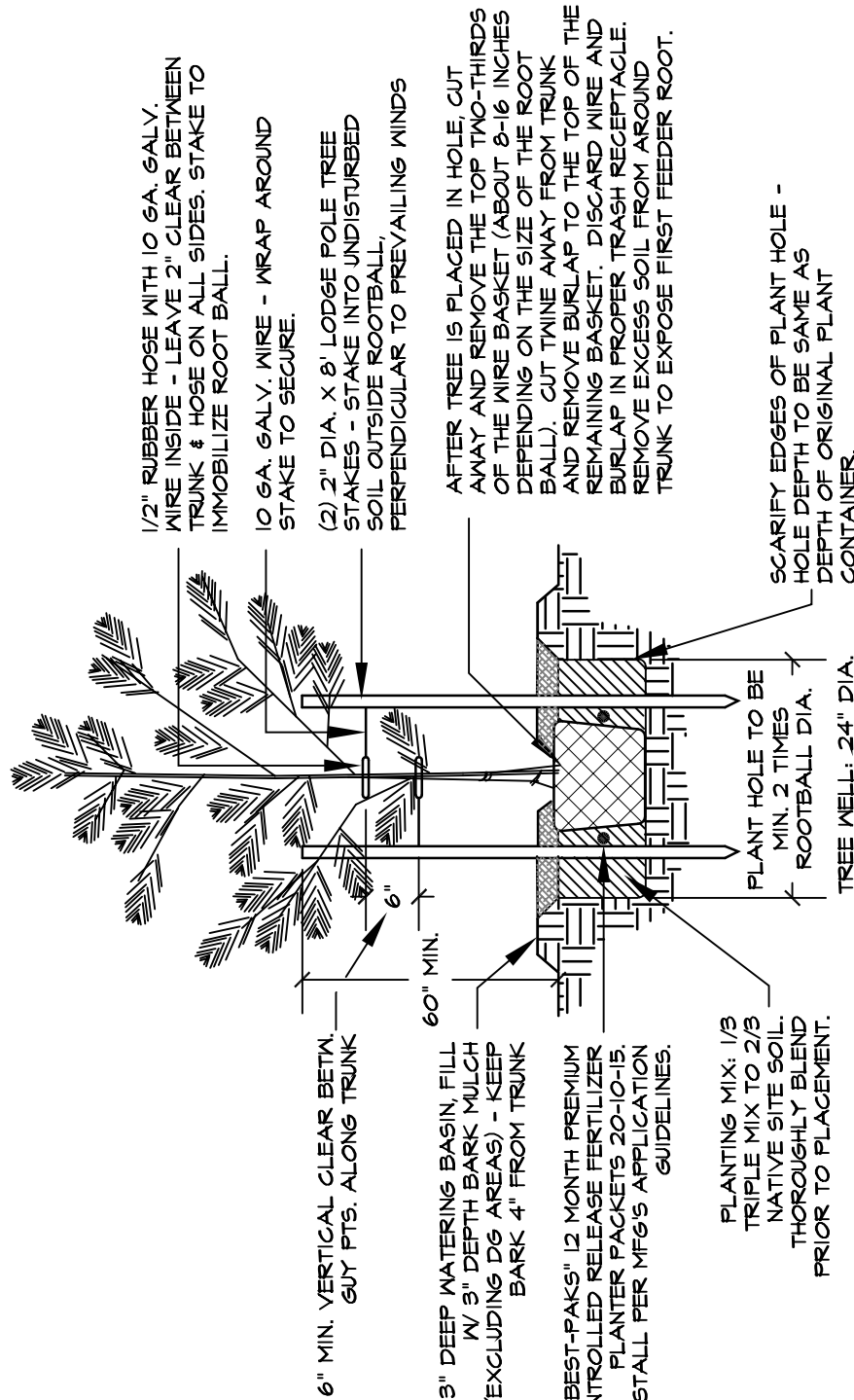






PLANT LIST

SYM.	QNT.	BOTANICAL NAME/COMMON NAME	MIN. SIZE
EVERGREEN TREES			
15		PINUS JEFFREYI/JEFFREY'S PINE	5' Min. Ht.
15		PINUS JEFFREYI/JEFFREY'S PINE	7' Min. Ht.



- 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.
  - DO NOT REMOVE 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.
  - 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.

1 EVERGREEN TREE PLANTING

NOT TO SCALE

LANDSCAPE SPECIFICATIONS

- GENERAL**
- PLAN IS DIAGNMMATIC 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.
  - 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 LINES, AND OTHER UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF ALL UTILITIES AND REPAIR OF ANY DAMAGE RESULTING FROM HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
  - DAMAGES: CONTRACTOR SHALL PROMPTLY REPAIR ALL DAMAGES TO EXISTING SITE AT NO COST TO OWNER.
  - CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES (I.E. PAVING, PLUMBING, ELECTRICAL, ETC).
  - THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY AND PREVENT CONSTRUCTION AS PER THESE PLANS. COMMENCEMENT OF WORK SHALL CONSTITUTE ACCEPTANCE OF CONDITIONS AND RESPONSIBILITY FOR CORRECTIONS.
  - CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR ASSIGNS SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONNEL AND THE PROTECTION OF EXISTING UTILITIES AND STRUCTURES. CONTRACTOR 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**
    - THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADING THROUGHOUT ALL LANDSCAPE AREAS SUCH THAT THERE ARE NO HARDS OR DEPRESSIONS AND POSITIVE DRAINAGE OCCURS THROUGHOUT. THE TOP 18" OF ALL PLANTING BEDS SHALL BE CLEAN NATIVE SOIL FREE OF ALL DEBRIS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINISH GRADING AND PLUMBING ALL PLANTING BEDS. PLANTING BEDS SHALL BE FINISHED WITH A MINIMUM OF 18" OF NATIVE PLANTERS (I.E. MULCH SURFACE) SHALL BE FLUSH WITH ADJACENT HARDSCAPE SURFACES.
    - SOIL TESTS:** CONTRACTOR SHALL PROVIDE SOIL TEST RESULTS FOR EXISTING SITE SOIL AS FOLLOWS:
      - ANALYSIS PACKAGE LTP-4 BY SUNLAND ANALYTICAL (H16/082-0897 (O&E)).
      - TEST RESULTS SHALL INCLUDE SOIL SATURATION PERCENT, SOIL TEXTURE, PH, NITROGEN, PHOSPHORUS, POTASSIUM, CALCIUM, MAGNESIUM, SULFUR, CHLORIDE, BORON, COPPER, IRON, MANGANESE, ZINC & LIME REQUIREMENT OR OPTIMUM REQUIREMENT, SODIUM ABSORPTION RATIO, EXCHANGEABLE SODIUM PERCENT & ORGANIC MATTER, ALONG WITH RECOMMENDATIONS FOR SOIL AMENDMENT.

IRRIGATION NOTE

CONTRACTOR SHALL PROVIDE FULLY AUTOMATIC DRIP IRRIGATION SYSTEM TO ALL NEW TREES (50 TREES TOTAL) ALONG WITH A 3/4 INCH STUB OUT ACROSS THE AC PAVED AREA. INSTALL A NEW IRRIGATION CONTROL CLOCK INSIDE THE BUILDING PER OWNER'S INSTRUCTIONS.

LANDSCAPE REQUIREMENT

PER CONDITION OF APPROVAL (IF) "LANDSCAPING FOR THE PROJECT SHALL CONSIST OF EVERGREEN TREES PLANTED AT A RATE OF ONE TREE EVERY TEN FEET AROUND THE EXTERIOR OF THE STRUCTURE TO THE NORTHWEST, NORTHEAST AND SOUTHWEST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MEETING ALL REQUIREMENTS AT TIME OF PLANTING AS REQUIRED BY ARTICLE 412 OF THE DEVELOPMENT CODE.

- AMENDMENT BASED ON ANALYSIS RESULTS.
- CONTRACTOR SHALL FOLLOW RECOMMENDATIONS OF SOIL TEST.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO TOTAL AND CONFIRM ALL MATERIAL QUANTITIES, ITEMS QUANTIFIED BY AN AREA (I.E. SQUARE FEET - SF), SQUARE YARD - SY) OR VOLUME (CUBIC YARD - CY). THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A DETAILED LIST OF THE QUANTITIES LISTED ON THE PLANT LIST ARE ESTIMATED. IN THE EVENT OF A DISCREPANCY BETWEEN THE TOTALS LISTED ON THE PLANT LIST AND THE QUANTITY OF GRAPHIC PLANT SYMBOLS DEFINED ON THE DRAWINGS, THE GRAPHIC SYMBOLS ON THE PLANS SHALL GOVERN. THE ACTUAL TOTAL QUANTITIES SHALL BE DETERMINED BY THE CONTRACTOR.
  - SOIL AMENDMENT:** UNLESS OTHERWISE INDICATED BY THE SOIL TEST, SOIL AMENDMENT SHALL BE PROVIDED TO ALL PLANTING AREAS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING PLANT MATERIAL, PER SYMBOLS AND SPECIFICATIONS NOTED ON PLANS. EXCESS FERTILIZER OVER NUMBERS ON PLANS MUST NOT BE SUBMITTED. ACCEPTED WITHOUT EXPRESSED WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE. SEE SUBMITTALS.
  - ALL PLANTS NOT MEETING OR EXCEEDING REQUIREMENTS AND RECOMMENDATIONS OF THE LATEST EDITION OF THE ANSI Z601 "AMERICAN STANDARD FOR NURSERY STOCK" BY THE AMERICAN NATIONAL STANDARD INSTITUTE SHALL BE REJECTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING 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.
  - ALL TREE WELLS SHALL RECEIVE TOP-DRESSING OF MULCH AS FOLLOWS:
    - BARK MULCH - INSTALL WALK-ON BARK MULCH (O&E) IN TREE AND SHRUB WATERING WELLS. DO NOT INSTALL NEED FABRIC UNDER BARK MULCH.
    - GRANULAR PRE-EMERGENT - FOLLOWING MULCH PLACEMENT, APPLY GRANULAR PRE-EMERGENT TO ALL TREE WELLS PER MP'S SPECIFICATIONS.
- OBSERVATIONS/APPROVALS/SUBMITTALS**
- CONTRACTOR IS RESPONSIBLE FOR NOTIFYING OWNER'S REPRESENTATIVE, A MINIMUM OF 48 HOURS IN ADVANCE FOR THE FOLLOWING SITE OBSERVATIONS AND/OR MEETINGS:
    - PRECONSTRUCTION MEETING WITH ALL PARTIES
    - PLANT MATERIAL ON SITE PRIOR TO INSTALLATION
    - FINAL PROJECT WALK-THROUGH
    - FINAL PROJECT OBSERVATIONS AS DEEMED NECESSARY BY THE OWNER'S REPRESENTATIVE AND/OR CONTRACTOR.
  - 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 FOLLOWING INSTALLATION.
- 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:
    - ANY SUBSTITUTIONS PROPOSED SHALL BE SUBMITTED TO THE PROJECT OWNER'S REPRESENTATIVE. ANY CHANGES MUST HAVE THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
    - THE SUBSTITUTIONS MUST BE OF EQUIVALENT OR BETTER QUALITY THAN THE SPECIFIED PLANT MATERIAL. THE SUBSTITUTIONS MUST BE OF EQUIVALENT DESIGN AND FUNCTIONAL GOALS OF THE ORIGINAL MATERIALS AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
    - THE SUBSTITUTIONS MUST BE OF EQUIVALENT OR BETTER QUALITY THAN THE SPECIFIED PLANT MATERIAL. THE SUBSTITUTIONS MUST BE OF EQUIVALENT DESIGN AND FUNCTIONAL GOALS OF THE ORIGINAL MATERIALS AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
    - THE SUBSTITUTIONS MUST BE OF EQUIVALENT OR BETTER QUALITY THAN THE SPECIFIED PLANT MATERIAL. THE SUBSTITUTIONS MUST BE OF EQUIVALENT DESIGN AND FUNCTIONAL GOALS OF THE ORIGINAL MATERIALS AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
  - SUBMIT REQUIRED SOIL REPORT, AND SAMPLE OF PROPOSED SOIL AMENDMENTS TO OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
  - 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 A COMPLETE LANDSCAPE AND IRRIGATION INSTALLATION. CONTRACTOR SHALL MAKE A DAILY RECORD OF ALL WORK INSTALLED DURING EACH DAY. ACTUAL LOCATION OF TREES AND SHRUB BEDS, IRRIGATION LINES, AND ALL IRRIGATION AND DRAINAGE FINISHES SHALL BE SHOWN ON THE PRINTS BY HAND. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE MANUFACTURER'S NAME AND CATALOG NUMBERS, OR PROPERTY LINES. DRAWINGS SHALL SHOW MANUFACTURER'S NAME AND CATALOG NUMBERS. THE DRAWINGS SHALL BE TO SCALE. ALL INFORMATION NOTED ON THE PRINT SHALL BE NEAT, ORDERLY MAY. THE RECORD COPIES SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE.
  - GUARANTEES/WARRANTY**
    - ALL PLANTED AREAS SHALL BE MAINTAINED FOR A PERIOD OF SIXTY DAYS FOLLOWING INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PLANT MATERIAL INCLUDING, BUT NOT LIMITED TO TREES, SHRUBS, GRASS/COVER AND GRASSES) FOR A PERIOD OF ONE FULL YEAR FOLLOWING FINAL ACCEPTANCE OF THE LANDSCAPE INSTALLATION BY THE OWNER'S AUTHORIZED REPRESENTATIVE. IN BIDDING AND INSTALLING THE LANDSCAPE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE LANDSCAPE. THE CONTRACTOR AGREES TO HONOR THE WARRANTY AND, IF NECESSARY, REPLACE SPECIES WITH A MORE HARDY PLANT SPECIES IF DEEMED NECESSARY DUE TO EXCESSIVE DIE OUT. IF THE LANDSCAPE CONTRACTOR AGREES TO HONOR THE WARRANTY, THE CONTRACTOR SHALL REQUEST TO MAKE PLANT MATERIAL SUBSTITUTIONS IN WRITING TO THE LANDSCAPE ARCHITECT PRIOR TO THE START OF INSTALLATION. PROPOSED SUBSTITUTIONS WILL RESULT IN NO ADDED COST.

