

## STAFF REPORT FOR THE PLANNING COMMISSION MEETING OF DECEMBER 16, 2009

**FILE NO:** SUP-09-087

**AGENDA ITEM:** H-3

**STAFF AUTHOR:** Jennifer Pruitt, Principal Planner

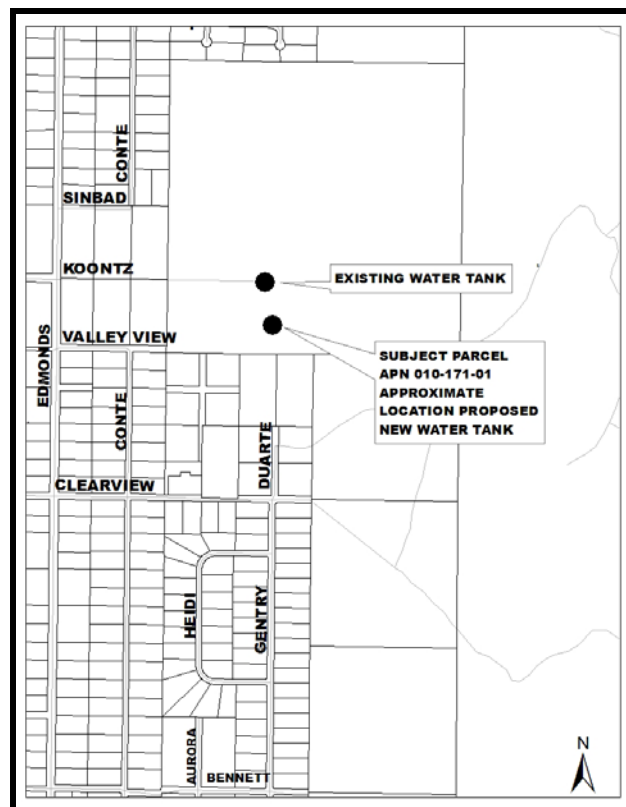
**REQUEST:** A Special Use Permit to approve construction of a new three million gallon steel water tank, which will replace the existing aging concrete water tank on property zoned Public Regional (PR), located east of the intersection of Edmonds Drive and Koontz Lane, 2599 Koontz Lane.

**APPLICANT:** Ken Arnold, Deputy Public Works Director

**OWNER:** Bureau of Land Management

**LOCATION/APN:** 2599 Koontz Lane/010-191-01

**RECOMMENDED MOTION:** "I move to approve SUP-09-087, a Special Use Permit from, Carson City Public Works (property owner: Bureau of Land Management), to approve a new three million gallon steel water tank, that will replace the aging concrete water tank on property zoned Public Regional (PR), subject to the conditions of approval and based on the findings contained in the staff report."



## **RECOMMENDED CONDITIONS OF APPROVAL:**

1. The applicant must sign and return the Notice of Decision for conditions of approval within ten days of receipt of notification. If the Notice of Decision is not signed and returned within ten days, then the item may be rescheduled for further consideration by the Planning Commission.

## **Conditions required to be incorporated into the proposed development:**

2. All development shall be substantially in accordance with the development plans approved with this application, except as otherwise modified by the conditions of approval herein.
3. All on and off-site improvements shall conform to City standards and requirements, including all Flood Plain Requirements contained in the Carson City Municipal Code.
4. Minor changes to the proposed plan may be authorized by the Planning Director. All other changes require an amendment to this Special Use Permit.
5. Project requires application for a Building Permit, issued through the Carson City Building Division. This will necessitate a complete review of the project to verify compliance with all adopted construction codes and municipal ordinances applicable to the scope of the project.

## **General Conditions:**

6. The use for which this permit is approved shall commence within 12 months of the date of final approval. As single, one year extension of time must be requested in writing to the Planning Division 30 days prior to the one year expiration date. Should this permit not be initiated within one year and no extension granted, the permit shall be come null and void.
7. All areas disturbed by the construction of the water tank will be required to be re-seeded using a mix as specified by the BLM.
8. The tank will be painted a color from the "Standard Environments Colors" per the color chart provided by the applicant and as recommended by BLM.
9. This project requires an application for a Building Permit, issued through the Carson City Building Division. This will necessitate a complete review of the project to verify compliance with all adopted construction codes and municipal ordinances applicable to the scope of the project.
10. The project plan submittal shall comply with the applicable commercial requirements as outlined within the Carson City Building Division handout titled *COMMERCIAL SUBMITTAL REQUIREMENTS: New Construction & Additions*.
11. The applicant must meet all applicable codes and ordinances as they apply to this request as they relate to Carson City Health and Human Services.
12. The applicant shall work with the Parks and Recreations Department to minimize any construction related impacts to public access at the exiting trail head facility or restoration of any existing recreational uses.

**LEGAL REQUIREMENTS:** CCMC 18.02.050 (Review); 18.02.080 (Special Use Permits) and 18.04.170 (Public zoning district).

**KEY ISSUES:** Will the proposed municipal water tank be compatible with or cause material damage to the surrounding land uses or properties?

**MASTER PLAN DESIGNATION:** Public/ Quasi Public

**ZONING:** The parcel is zoned Public Regional (PR).

**SURROUNDING LAND USE AND ZONING:**

North: Vacant land, Single Family dwelling units; Public Regional (PR) and Single Family One Acre (SF1A) zoning districts.

West: Single Family dwelling units; Single Family One Acre (SF1A) zoning district

South: Vacant land, Single Family dwelling units; Public Regional (PR) and Single Family One Acre (SF1A) zoning districts

East: BLM land; Public Regional (PR) zoning district

**SITE DEVELOPMENT INFORMATION**

1. LOT SIZE: 160 acres
2. PROPOSED TANK SIZE: three million gallons
3. PROPOSED TANK DIAMETER: 130 feet
4. PROPOSED TANK HEIGHT: 32 feet.
5. PARKING: Parking is set by the Special Use Permit per CCMC 18.04.180. No parking is proposed.
6. SETBACKS: Setbacks are set by the Special Use Permit process. The proposed new tank will be located approximately 2,000 feet east of Edmonds Drive.
7. VARIANCE REQUESTED: None

**DISCUSSION:**

A Special Use Permit is required for the following reasons:

1. Buildings and facilities owned, leased or operated by the City of Carson City, Carson City Unified School District or any other district, State of Nevada or the government of the United States are a conditional use in the Public zoning district. This includes water tank facilities.

2. Development standards: All Public zoning district development standards relative to lot area, setbacks, building height, landscaping, off-street parking and signs shall be based on requirements and conditions of the special use permit.

A site visit was conducted on November 23, 2009. The subject site is located on a 160 acre parcel to the east of the intersection of Edmonds Drive and Koontz Lane. The Prison Hill Water Tank #2 is proposed to be located on assessor's parcel number 010-171-01, which is under the jurisdiction of the Bureau of Land Management (BLM). This specific water tank site is located approximately 2,000 feet east of Edmonds Drive. A short water main will be constructed from the existing water main to the new tank using an easement provided by BLM.

Carson City is proposing to construct a new steel, three million gallon water tank, which will replace the existing three million gallon concrete water tank on site. The proposed water tank will be 32 feet in height and 130 feet in diameter and is very similar to other water tanks of Carson City.

The Carson City Public Works Department sent out notifications and project information to 256 neighboring properties on November 13, 2009. Per the applicant there was one inquiry regarding the proposed project.

Included with the new tank project is a 20 inch PVC water line that will be constructed from the existing water tank supply line to the new tank. A new below grade equipment vault and small metal cabinet similar to what currently exists will be located near the new tank. The new tank will also require a small UHF antenna to be installed on the roof of the tank.

The time frame noted by the applicant for the construction of the proposed tank is eight months and will commence in the spring of 2010, if this SUP is approved by the Planning Commission. Per the applicant, the proposed steel water tank will have anticipated life cycle of 50 years. Currently Carson City has 15 existing steel water tanks. The coating systems of the tanks are evaluated every five years and the interior and exterior coating is what protects the steel from corrosion, just like the Golden Gate Bridge.

In reviewing the information provided by the applicant and the required findings as identified below, the findings to grant approval of this Special Use Permit can be made. Therefore, it is recommended that the Planning Commission approve this Special Use Permit application, SUP-09-087.

**PUBLIC COMMENTS:** Public notices were mailed to 48 adjacent property owners within 300 feet of the subject parcel in accordance with the provisions of NRS and CCMC 18.02.045 on November 25, 2009. As of December 07, 2009, no written comments have been received by the Planning Division. Any comments that are received after this report is completed will be submitted prior to or at the Planning Commission meeting, depending on their submittal date to the Planning Division.

## **OTHER CITY DEPARTMENT OR OUTSIDE AGENCY COMMENTS:**

### Building Division:

***These comments do not constitute a complete plan review, but are merely observations based on the information and plan sheets provided. The comments do not reflect all submittal requirements necessary for this project, but are those requirements that have generated concerns with similar projects in the past.***

## **GENERAL COMMENTS**

1. This project requires an application for a Building Permit, issued through the Carson City Building Division. This will necessitate a complete review of the project to verify compliance with all adopted construction codes and municipal ordinances applicable to the scope of the project.
2. The project plan submittal shall comply with the applicable commercial requirements as outlined within the Carson City Building Division handout titled **COMMERCIAL SUBMITTAL REQUIREMENTS: New Construction & Additions**

### Health & Human Services:

- Carson City Health and Human Services has no comments regarding the project as described in the packet received. The applicant must meet all applicable codes and ordinances as they apply to this request.

### Engineering Division:

- The Engineering Division has no preference or objection to the Special Use Permit request, and no recommended conditions of approval.

### Parks and Recreation Department:

- The Parks and Recreation Department takes no exception to the Public works Department's request for the Special Use Permit on this project. As construction activities begin to occur in the future, the Parks and Recreation Department wants to work with the Public Works Department to minimize any construction related impacts to public access at the exiting trail head facility or restoration of any existing recreational uses.

**SPECIAL USE PERMIT FINDINGS:** Staff's recommendation is based upon the findings as required by CCMC Section 18.02.062 (Special Use Permits) enumerated below and further substantiated in the applicant's written justification.

1. **The proposed development will be consistent with the master plan elements.**

### ***Goal: Chapter 3: A Balanced Land Use Pattern***

***Policy: 1.1d, Municipal Code 18.12: Meet the provisions of the Growth Management Ordinance***

The proposed tank will meet the provisions of the Growth Management Ordinance.

*Policy: 1.4a: Provide pathway connections and easements consistent with the adopted Unified Pathways Master Plan and maintain access to adjacent public lands.*

The water tank will be located on BLM property. Carson City will have an easement on this parcel for the purpose of locating and maintaining the proposed water tank.

*Policy 3.3d,e: Sited outside the primary floodplain and away from geologic hazard areas or follows the required setbacks or other mitigation measures.*

The proposed water tank will not be located within the 100 year flood plain.

- 2. The proposed development will not be detrimental to the use, peaceful enjoyment, economic value, or development of surrounding properties or the general neighborhood; and will cause no objectionable noise, vibrations, fumes, odors, dust, glare or physical activity.**

The proposed water tank will not be located near any adjacent uses in which it would create any objectionable noise once constructed, vibrations, odors, dust, glare or physical activity that would be inconsistent with the uses already conducted on and intended for the subject public parcel, nor would the facility be detrimental to the use, peaceful enjoyment, economic value or development of surrounding properties.

According to the applicant, the property where the proposed water tank will be located is on BLM property and currently has a three million gallon concrete tank which will be demolished after the proposed tank is constructed. The spoils materials are to be used to fill the void left by the demolition of the old tank, which will be re-vegetated as per BLM standards.

Access to the new tank will be via the same dirt road used to access the existing concrete tank and the type vehicle will be a standard pick up truck.

The expected short and long range benefits to the residents of Carson City will be there will now be a tank that meets current building and seismic codes and one that does not have the potential of catastrophic failure that the existing concrete tank has.

- 3. The proposed development will have little or no detrimental effect on vehicular or pedestrian traffic.**

The proposed tank will not generate additional traffic other than a City employee will access the site for periodic maintenance.

According to written comments received from Jeff Sharp, P.E., Carson City Deputy City Engineer, the proposal will have little effect on traffic or pedestrian facilities.

- 4. The proposed development will not overburden existing public services and facilities, including schools, police and fire protection, water, sanitary sewer, public roads, storm drainage, and other public improvements.**

According to written comments received from Jeff Sharp, P.E., Carson City Deputy City Engineer, the proposal will have little effect on existing public services.

The request is not in conflict with any Engineering Master Plans for streets or storm drainage.

**5. The proposed development meets the definition and specific standards set forth in Title 18 for such particular use and meets the purpose statement of that district.**

The proposed development meets the purpose of the Public zoning district, which is for "buildings and facilities owned, leased or operated by the city of Carson City, Carson City Unified School District or any other district, State of Nevada or the government of the United States". Upon approval of the Special Use Permit with the recommended conditions of approval, the proposed water tank will be in conformance with the requirements of the Carson City Municipal Code and related Development Standards.

**6. The proposed development will not be detrimental to the public health, safety, convenience and welfare.**

The proposed water tank will not be detrimental to the public health, safety, convenience and welfare, but will enhance the ability to serve the same, particularly by increasing the storage capacity for fire protection and by assuring a quality supply of water for domestic, commercial, and governmental uses as well as for limited irrigation uses.

**7. The proposed development will not result in material damage or prejudice to other property in the vicinity.**

As noted above, the impacts of the proposed water tank will be minimal and will not result in material damage or prejudice to other property in the vicinity, or will the project result in prejudice or infringe upon the property rights of any surrounding properties.

Respectfully submitted,

PUBLIC WORKS DEPARTMENT, PLANNING DIVISION

*Jennifer Pruitt*

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Jennifer Pruitt AICP, LEED AP  
Principal Planner

Attachments:

- Application (SUP-09-087)
- Building Division comments
- Engineering Division comments
- Health Department comments
- Parks and Recreation comments

**RECEIVED**

**Carson City Planning Division**  
 2621 Northgate Lane, Suite 62 • Carson City NV 89706  
 Phone: (775) 887-2180 • E-mail: [plandept@ci.carson-city.nv.us](mailto:plandept@ci.carson-city.nv.us)

FOR OFFICE USE ONLY:

CCMC 18.02

NOV 13 2009

**FILE # SUP - 09 - 007**

**SPECIAL USE PERMIT**

CARSON CITY  
 PLANNING DIVISION

**PROPERTY OWNER**

BUREAU OF LAND MANAGEMENT

**MAILING ADDRESS, CITY, STATE, ZIP**

5665 MORRIS MILL ROAD

**PHONE #**

885-6000

**FAX #**

Name of Person to Whom All Correspondence Should Be Sent

**APPLICANT/AGENT**

KEN ARNOLD

**MAILING ADDRESS, CITY, STATE ZIP**

3505 BUTTE WAY

**PHONE #**

887-2355

**FAX #**

887-2112

**E-MAIL ADDRESS**

KARNOLD@CI.CARSON-CITY.NV.US

**FEE: \$2,450.00 MAJOR  
 \$2,200.00 MINOR (Residential zoning districts)**

+ noticing fee and CD containing application digital data (all to be submitted once the application is deemed complete by staff)

**SUBMITTAL PACKET**

- ☐ 6 Completed Application Packets (1 Original + 5 Copies) including:
- ☐ Application Form
- ☐ Site Plan
- ☐ Building Elevation Drawings and Floor Plans
- ☐ Proposal Questionnaire With Both Questions and Answers Given
- ☐ Applicant's Acknowledgment Statement
- ☐ Documentation of Taxes Paid-to-Date (1 copy)
- ☐ Project Impact Reports (Engineering) (4 copies)

Application Reviewed and Received By:

Submittal Deadline: See attached PC application submittal schedule.

Note: Submittals must be of sufficient clarity and detail such that all departments are able to determine if they can support the request. Additional information may be required.

**Project's Assessor Parcel Number(s):**

010-171-99

**Street Address**

2599 KOONTE LAKE

**ZIP Code**

**Project's Master Plan Designation**

Public/Quasi Public (P/Q-P)

**Project's Current Zoning**

PUBLIC RESIDENTIAL

**Nearest Major Cross Street(s)**

EDWARDS

Briefly describe your proposed project: (Use additional sheets or attachments if necessary). In addition to the brief description of your project and proposed use, provide additional page(s) to show a more detailed summary of your project and proposal. In accordance with Carson City Municipal Code (CCMC) Section: 18.04.185, or Development Standards, Division N/A, Section N/A, a request to allow as a conditional use is as follows:

(SEE ATTACHED)

**PROPERTY OWNER'S AFFIDAVIT**

I, Lawrence Werner, being duly deposed, do hereby affirm that I am the record owner of the subject property, and that I have knowledge of, and I agree to, the filing of this application.

Signature

Address

Date

Use additional page(s) if necessary for other names.

STATE OF NEVADA  
 COUNTY Carson City

On November 4, 2009, Lawrence Werner personally known (or proved) to me to be the person whose name is subscribed to the foregoing document and who acknowledged to me that he/she executed the foregoing document.

Notary Public

personally appeared before me, a notary public, and acknowledged to me that he/she executed the foregoing document.

**JANET BUSSE**  
 NOTARY PUBLIC  
 STATE OF NEVADA

No. 05-94721-5

My Appl. Exp. Feb. 4, 2013

**NOTE:** If your project is located within the historic district, airport area, or downtown area, it may need to be scheduled before the Historic Resources Commission, the Airport Authority, and/or the Redevelopment Authority Citizens Committee prior to being scheduled for review by the Planning Commission. Planning personnel can help you make the above determination.



RECEIVED

NOV 05 2009

CARSON CITY  
PLANNING DIVISION

SUP - 09 - 087

## Statement of Findings

### Application for a Special Use Permit for

#### Construction of New Carson City Prison Hill Water Tank #2.

##### Project Description:

Carson City is proposing to construct a new 3 Million Gallon Steel Water Tank that will replace the aging concrete water tank that is located approximately 170' to the north. The existing tank will be demolished after the new tank has been brought on line. Carson City performed a structural evaluation of the existing concrete storage tank and the recommendation was to have the tank replaced as soon as possible.

The new tank will be located on BLM Property identified as APN 010-171-01. The address of the new tank is 2599 Koontz Lane and the APN for the new tank will be the same as the existing tank, which is 010-171-99. The new steel tank will be similar in every respect to every other 3 million gallon steel water tanks located in Carson City and the City is currently in the process of obtaining an easement amendment from the BLM for this new construction.

A 20" PVC water line will also be constructed from the new tank to the existing 20" supply line that currently serves the existing tank. A new below grade equipment vault and small metal cabinet will be located adjacent to the new tank. The metal cabinet will contain the radio gear necessary for the tank water level monitoring equipment to communicate with our offices Butti Way. The new tank will also require a small UHF style antenna to be installed on the roof of the tank, typical to all other tanks owned and maintained by Carson City.

The design has incorporated the use of the spoils materials to be used to fill the void left by the demolition of the old tank, which will be re-vegetated as per BLM standards. Additional spoils will be mounded in front of the tank in an effort to create a decorative mound to help shield the tank from view by residents below the tank. The tank will also be painted using a color from the "Standard Environmental Colors" (Muncell Soil Color Charts), as recommended by the BLM.

##### GENERAL REVIEW OF PERMITS

QUESTION I.: How will the proposed development further and be in keeping with and not contrary to the objectives of the Master Plan elements?

##### Chapter 3: A Balanced Land Use Pattern:

- ☐ The project does meet the provisions of the Growth Management Ordinance.
- ☐ The tank itself will be 130 feet in diameter and 32 feet tall. The above grade metal cabinet and below grade concrete equipment vault will be located in the same easement as the tank and will not have a water, sewer, or electrical demand.
- ☐ The tank will be located on BLM property, currently zoned Public, of which an easement will be obtained from the BLM.
- ☐ There are no existing walking paths or City improvements located where the new

- ☐ tank will be placed.
- ☐ There are no existing site features, such as trees, that will be in direct conflict with the construction of the new tank.
- ☐ The new tank is located on BLM Property. We are coordinating with the BLM in order to amend our existing easement in order to construct the new tank. Access to the new tank will be by use of the same easement that serves the existing tank.
- ☐ Project is not located in a Mixed-Use area.
- ☐ We do intend to meet any setbacks that are required, but none are expected.
- ☐ It is not expected to disturb any environmentally sensitive areas, but an A&E report will be performed to evaluate this possibility.
- ☐ The tank is not located within the 100 year flood plain.
- ☐ The design does contain all levels of services required for this type of project. No sidewalks are required due to the location, there will be no facilities located inside the associated vault that will require a water, sewer or septic connection.
- ☐ The project is not located in a Specific Plan Area.

#### Chapter 4: Equitable Distribution of Recreation Opportunities:

- ☐ The project does not require that park facility be constructed.
- ☐ The project is consistent with the Open Space Master Plan and the Carson River Master Plan.

#### Chapter 5: Economic Vitality:

- ☐ The project does not have an effect on the housing market.
- ☐ The project does have a direct effect on the local regional retail centers.
- ☐ The project does not have an effect on underused retail space.
- ☐ The project does not have a direct effect on tourism, cultural institutions and the State Capital.
- ☐ The project does not have an effect on revitalization of the Downtown core.
- ☐ The project does not have an effect on additional housing in and around the Downtown area.

#### Chapter 6: Livable Neighborhoods and Activity Centers:

- ☐ The tank will be constructed of durable steel. The associated equipment vault (8' wide x 14' long x 7' deep) will be constructed of concrete and completely buried so that only 6" of the top of the vault is visible. The approximately 24 inch wide by 30 inch tall metal cabinet will be attached to a 6 foot wide x 5 foot tall steel support assembly. The site will also be protected by a 6 foot tall chain link fence.
- ☐ Project will not include landscape materials, but all areas disturbed by construction will be reseeded using a mix as specified by the BLM.

Chapter 7: A connected City:

- ☐ The project is not located along any major travel corridor.

QUESTION II. Will the effect of the proposed development be detrimental to the immediate vicinity? To the general neighborhood?

RESPONSE: Carson City Public Works Water Tank should not be detrimental to the immediate vicinity or the general neighborhood based on the following observations.

Explanation:

A. The area where the new tank will be constructed has had an existing 3 million gallon concrete water tank located on the property since 1978. The new tank will be located approximately 2,000 feet east of Edmonds Drive. A short water main extension will be constructed from the existing water main to the new tank using an easement provided by the BLM.

B. Our project should not hurt property values in the existing areas, as the new tank will simply be replacing the existing tank. The nearest subdivision is approximately 1200 feet west of this site. Access to the new tank site will be via the same dirt road used to access the existing tank and the type of vehicle will be a standard pick-up truck. Carson City will require access to the site approximately once a day during normal operation and only once a month for periodic maintenance. This type of facility should fit in with the surrounding use as there is minimal impact from this type of construction.

C. This project should not be detrimental to the use, peaceful enjoyment or development of surrounding properties and the general neighborhood basically because this area is already best suited for this type of construction due to the nature of the surrounding land use types. The new water tank will require a minimal amount of space.

D. Considering the pedestrian and vehicular traffic that currently exists on the road serving our project, which is Edmonds Drive, the impact of this development when it is successfully operating will be exactly what it currently is.

E. The expected short and long range benefit to the people of Carson City will be that there will now be a tank that meets current building and seismic codes and one that does not have the potential of catastrophic failure that the existing concrete tank currently has.

QUESTION III. Has sufficient consideration been exercised by the applicant in adapting the project to existing improvements in the vicinity?

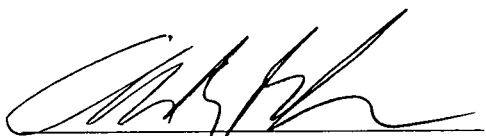
RESPONSE: We feel that we have given sufficient consideration in adapting the project to the existing improvements in the vicinity based on the following observations;

Explanation:

- A. Our project will not affect the school district in any way. It will not add to the student population nor will it provide a service to the student population. Our project is like any other unmanned city facility in that it will be maintained and secured by city personnel, but like anything else, is susceptible to vandalism. In general the project would not require any special police protection.
- B. Our project will not result in the covering of land area with paving. The existing drainage at this location will be modified only slightly in order to divert surface water run off away from the tanks site.
- C. Our project is for improvement of the existing water system and has no water demand.
- D. This project does not require any type of sewer connection.
- E. Operators will use the existing access road from Edmonds and a new all-weather access road will be constructed over the new water line to be used for access to the equipment vault and tank.
- F. The major source of information has been provided by the staff of Carson City Engineering and Public Works.
- G. No outdoor lighting will be required.
- H. The new vault and cabinet will not be landscaped, as there are no other street, sidewalk or lighting improvements in this area.
- I. Our project will only require enough on-site parking for one pick up truck. The concept is that a Utility pick-up truck will pull into the site using the existing access road, inspect the tank, then leave the site.

ACKNOWLEDGMENT OF APPLICANT

I certify that the forgoing statements are true and correct to the best of my knowledge and belief. I agree to fulfill all conditions as established by the Planning Commission/Board of Supervisors. I am aware that this permit becomes null and void if the use is not initiated within one year of the date of the Planning Commission's/Board of Supervisor's approval; and I understand that this permit may be revoked for violation of any of the conditions of approval. I further understand that approval of this application does not exempt me from all city code requirements.



Applicant

*Public Works Director*

10/26/09  
Date



## **PUBLIC WORKS DEPARTMENT**

### **ADMINISTRATION**

3505 Butti Way  
Carson City, NV 89701-3498  
Ph: 775-887-2355  
Fx: 775-887-2112

### **CONTRACTS**

3505 Butti Way  
Carson City, NV 89701-3498  
Ph: 775-887-2355  
Fx: 775-887-2112

### **FLEET SERVICES**

3303 Butti Way, Building 2  
Carson City, NV 89701-3498  
Ph: 775-887-2356  
Fx: 775-887-2258

### **OPERATIONS**

(Water, Sewer, Wastewater,  
Streets, Landfill, Environmental)  
3505 Butti Way  
Carson City, NV 89701-3498  
Ph: 775-887-2355  
Fx: 775-887-2112

### **TRANSPORTATION/ CAPITAL PROJECTS**

3505 Butti Way  
Carson City, NV 89701-3498  
Ph: 775-887-2355  
Fx: 775-887-2112

### **DEVELOPMENT SERVICES**

#### **BUILDING and SAFETY PERMIT CENTER**

2621 Northgate Lane, Suite 6  
Carson City, NV 89706-1319  
Ph: 775-887-2310  
Fx: 775-887-2202

#### **DEVELOPMENT ENGINEERING**

2621 Northgate Lane, Suite 54  
Carson City, NV 89706-1319  
Ph: 775-887-2300  
Fx: 775-887-2283

#### **PLANNING**

2621 Northgate Lane, Suite 62  
Carson City, NV 89706-1319  
Ph: 775-887-2180  
Fx: 775-887-2278

# **CARSON CITY NEVADA**

## **Consolidated Municipality and State Capital**



To: Carson City Residents:

Re: Construction of New Carson City Prison Hill Water Tank #2.

Carson City is proposing to construct a new 3 Million Gallon Steel Water Tank that will replace the aging concrete water tank that is located directly east of the intersection of Edmonds Drive and Koontz Lane. The existing tank will be demolished after the new tank has been brought on line. Carson City performed a structural evaluation of the existing concrete storage tank and the recommendation was to have the tank replaced as soon as possible due to possible failure.

The new tank will be the same as the existing tank and will be similar in every respect to the existing 3 million gallon water tank, only the new tank will be constructed of steel and not concrete. The City is currently in the process of obtaining an easement amendment from the BLM for construction of this new tank.

Included with the new tank project is a new 20" PVC water line that will be constructed from the existing water tank supply line to the new tank. A new below grade equipment vault and small metal cabinet similar to what currently exists at the existing tank will be located adjacent to the new tank. The metal cabinet will contain the radio gear necessary for the tank water level monitoring equipment to communicate with City offices at Butti Way. The new tank will also require a small UHF style antenna to be installed on the roof of the tank, typical to all other tanks owned and maintained by Carson City.

The design will incorporate the use of the spoils materials to fill the void left by the demolition of the old tank, which will be re-vegetated as per BLM standards. Additional spoils will also be mounded in front of the tank in the shape of a smooth rolling hill in an effort to create a "decorative" hill in order to help shield the tank from view by residents below the tank. This mound will also be re-vegetated using BLM seeding recommendations. The tank will be painted using a color from the "Standard Environmental Colors" (Muncell Soil Color Charts), as recommended by the BLM.

You may also receive a notice for a Special Use Permit hearing which is required to approve the new tank. We understand that the hearing is currently scheduled for December 16, 2009, at the Sierra Hearing Room at the Community Center.

Please contact Mark Brethauer, P.E., Senior Project Manager, at 887-2355 x 30364 if you have any questions. Thank you.

cc. Board of Supervisors.




# CARSON CITY, NEVADA

CONSOLIDATED MUNICIPALITY AND STATE CAPITAL

## MEMORANDUM

TO: Lee Plemel, Planning Director  
Jennifer Pruitt, Senior Planner (Hardcopy and Email)

FROM: Roger Moellendorf, Parks and Recreation Director   
Vern L. Krahn, Park Planner

DATE: December 9, 2009

SUBJECT: Parks and Recreation Department's comments for the  
Wednesday, December 16, 2009, Planning Commission meeting.

SUP-09-086	Our department takes no exception to this project. However, the Unified Pathways Master Plan identifies Snyder Avenue as a bicycle lane facility.
SUP-09-087	Our department takes no exception to the Public Works Department's request for a special use permit on this project. As construction activities begin to occur in the future, our department wants to work with the Public Works Department to minimize any construction related impacts to public access at the existing trail head facility or restoration of any existing recreational uses.
2CA-09-085	No Comment
MPA-09-083	No Comment
MISC-09-078	No Comment



**From:** Teresa Hayes  
**To:** MPR Committee  
**Date:** 11/9/2009 2:58 pm  
**Subject:** Planning Commission Comments: Dec 16, 2009

SUP 09-086

Carson City Health and Human Services has no comments regarding the project as described in the packet received. The applicant must meet all applicable codes and ordinances as they apply to this request.

SUP 09-087

Carson City Health and Human Services has no comments regarding the project as described in the packet received. The applicant must meet all applicable codes and ordinances as they apply to this request.

Teresa Hayes, R.E.H.S.  
Environmental Health Specialist II  
Carson City Health and Human Services  
900 E. Long St  
Carson City, NV 89706  
Phone: (775) 887-2190 ext 30227  
Fax: (775) 887-2248

**Go Green: Please do not print this e-mail unless you really need to!**

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<b>File # (Ex: MPR #07-111)</b>	<i>SUP 09-087</i>
<b>Brief Description</b>	<i>3-million gallon water tank on BLM land</i>
<b>Project Address or APN</b>	<i>2599 Koontz / APN 010-171-99</i>
<b>Bldg Div Plans Examiner</b>	<i>Don Wilkins</i>
<b>Review Date</b>	<i>November 20, 2009</i>
<b>Total Spent on Review</b>	

**BUILDING DIVISION COMMENTS:**

***NOTE: These comments do not constitute a complete plan review, but are merely observations based on the information provided.***

**SCOPE OF APPLICATION:**

Construction of a 3,000,000-gallon water tank to be constructed on U.S. Bureau of Land Management (BLM) property. The project will include the infrastructure improvements to connect the proposed tank to the existing 20" water main, and the construction of an underground utility vault.

**GENERAL PLAN SUBMITTAL COMMENTS:**

1. This project requires an application for a Building Permit, issued through the Carson City Building Division. This will necessitate a complete review of the project to verify compliance with all adopted construction codes and municipal ordinances applicable to the scope of the project.
2. The project plan submittal shall comply with the applicable commercial requirements as outlined within the Carson City Building Division handout titled ***COMMERCIAL SUBMITTAL REQUIREMENTS: New Construction & Additions***



# CARSON CITY, NEVADA

CONSOLIDATED MUNICIPALITY AND STATE CAPITAL  
DEVELOPMENT SERVICES

**RECEIVED**

Engineering Division  
Planning Commission Report  
File Number SUP 09-087

DEC 09 2009

CARSON CITY  
PLANNING DIVISION

TO: Planning Commission

FROM:  Jeff Sharp, P.E. – City Engineer

DATE: December 9, 2009

MEETING DATE: December 16, 2009

## SUBJECT TITLE:

Action to consider an application for a Special Use Permit from Ken Arnold, on behalf of Carson City Public Works for a new 3 million gallon water tank located on property zoned Public Regional located at 2599 Koontz Lane, APN 010-171-99.

## RECOMMENDATION:

The Engineering Division has no preference or objection to the special use request, and no recommended conditions of approval.

## DISCUSSION:

The Engineering Division has reviewed the conditions of approval within our areas of purview relative to adopted standards and practices and to the provisions of CCMC 18.02.080, Conditional Uses.

### CCMC 18.02.080 (2a) - Adequate Plans

The information submitted by the applicant is adequate for this analysis.

### CCMC 18.02.080 (5a) - Master Plan

The request is not in conflict with any Engineering Master Plans for streets or storm drainage.

### CCMC 18.02.080 (5c) - Traffic/Pedestrians

The proposal will have little effect on traffic or pedestrian facilities.

### CCMC 18.02.080 (5d) - Public Services

The proposal will have little effect on existing public services.

H:\EngDept\P&EShare\Engineering\Planning Commission Reports\Special Use Permits\2009\SUP 09-087 New Prison Hill Water Tank.doc

ENGINEERING DIVISION • 2621 Northgate Lane, Suite 54 • Carson City, Nevada 89706  
Phone: (775) 887-2300 Fax: (775) 887-2283 E-mail: engdiv@ci.carson-city.nv.us

NOV 05 2009  
CARSON CITY  
PLANNING DIVISION

CARSON CITY  
PLANNING DIVISION

<i>Bob Crowell</i>	<i>Mayor</i>
<i>Robin Williamson</i>	<i>Supervisor</i>
<i>Shelly Aldean</i>	<i>Supervisor</i>
<i>Pete Livermore</i>	<i>Supervisor</i>
<i>Molly Walt</i>	<i>Supervisor</i>
<i>Alan Glover</i>	<i>City Clerk</i>

CARSON CITY PUBLIC WORKS DEPARTMENT  
OPERATIONS DIVISION  
3505 BUTTI WAY  
CARSON CITY, NV 89701  
887-2355

1. ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2007 EDITION, AND THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION AS ADOPTED BY CARSON CITY.
2. ALL WORK IN NDOT RIGHT-OF-WAY SHALL CONFORM TO THE STATE OF NEVADA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2001 EDITION AND THE STATE OF NEVADA DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, 2007 EDITION.
3. ALL TRAFFIC CONTROL AND BARRICADING WITHIN CARSON CITY RIGHT-OF-WAY SHALL CONFORM TO SECTION 100.33, 332.04 AND 332.05 OF THE STANDARD SPECIFICATIONS, PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE UNR 12 CENTER TEMPORARY TRAFFIC CONTROL GUIDELINES LATEST EDITION. NO STREET CLOSURES WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF A TRAFFIC CONTROL PLAN BY THE CONSTRUCTION MANAGER.
4. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT ("CALL BEFORE YOU DIG") AT 1-800-272-7400 AT LEAST 2 WORKING DAYS PRIOR TO START OF CONSTRUCTION AND COMPLY WITH THE REQUIREMENTS OF NAC CHAPTER 455 - EXCAVATIONS AND DEMOLITIONS.
5. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE DRAWINGS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTORS' RESPONSIBILITY TO VERIFY THESE LOCATIONS AT THE PROPOSED POINTS OF CONNECTIONS AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION, PRIOR TO BEGINNING CONSTRUCTION. NOTHOLING IS REQUIRED. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
6. THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF PROPER SHORING OF TRENCHES IN ACCORDANCE WITH OCCUPATIONAL SAFETY LAWS. THE DUTIES OF THE ENGINEER DO NOT INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY IN, ON, OR NEAR THE CONSTRUCTION SITE.
7. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.
8. THE CONTRACTOR SHALL CALL THE CARSON CITY DEVELOPMENT ENGINEERING DIVISION (867-2300) AT LEAST 2 WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.
9. MODIFICATIONS TO THE APPROVED PLANS REQUIRES REVIEW AND APPROVAL BY CARSON CITY DEVELOPMENT ENGINEERING DIVISION. WORK PERFORMED WITHOUT WRITTEN APPROVAL BY THE DIVISION WILL REQUIRE REMOVAL AT THE CONTRACTORS EXPENSE.
10. THE APPROVED PLAN, PERMIT AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES.



1	TITLE SHEET
2	NOTES, LEGEND & ABBREVIATIONS
3	TANK SITE PLAN
4	HORIZONTAL CONTROL PLAN
5	SITE GRADING & DRAINAGE PLAN
6	TYPICAL SECTIONS & DETAILS
7	EXISTING TANK – SITE RESTORATION PLAN
8	YARD PIPING PLAN
9	TANK PLAN, ELEVATIONS & DETAILS
10	TANK SECTIONS & DETAILS
11	TANK SECTIONS & DETAILS
12	TANK SECTIONS & DETAILS
13	ALTITUDE VALVE VAULT DETAILS
14	CONSTRUCTION DETAILS
15	CONSTRUCTION DETAILS

JEFF SHARP, P.E., - CITY ENGINEER

DATE	DEPUTY PUBLIC WORKS DIRECTOR
	KEN ARNOLD, --

**Call 811**

1-800-227-2600

APPLICATION NO.

**PRELIMINARY**  
**FOR REVIEW ONLY**  
**CLIP INITIAL**

**CARSON CITY, NEVADA**  
**PROJECT 06-6019**

**CARSON CITY  
PUBLIC WORKS DEPARTMENT**  
3505 BUTTE WAY CARSON CITY, NEVADA 89701  
PH: 887-2355  
FAX: 887-2112

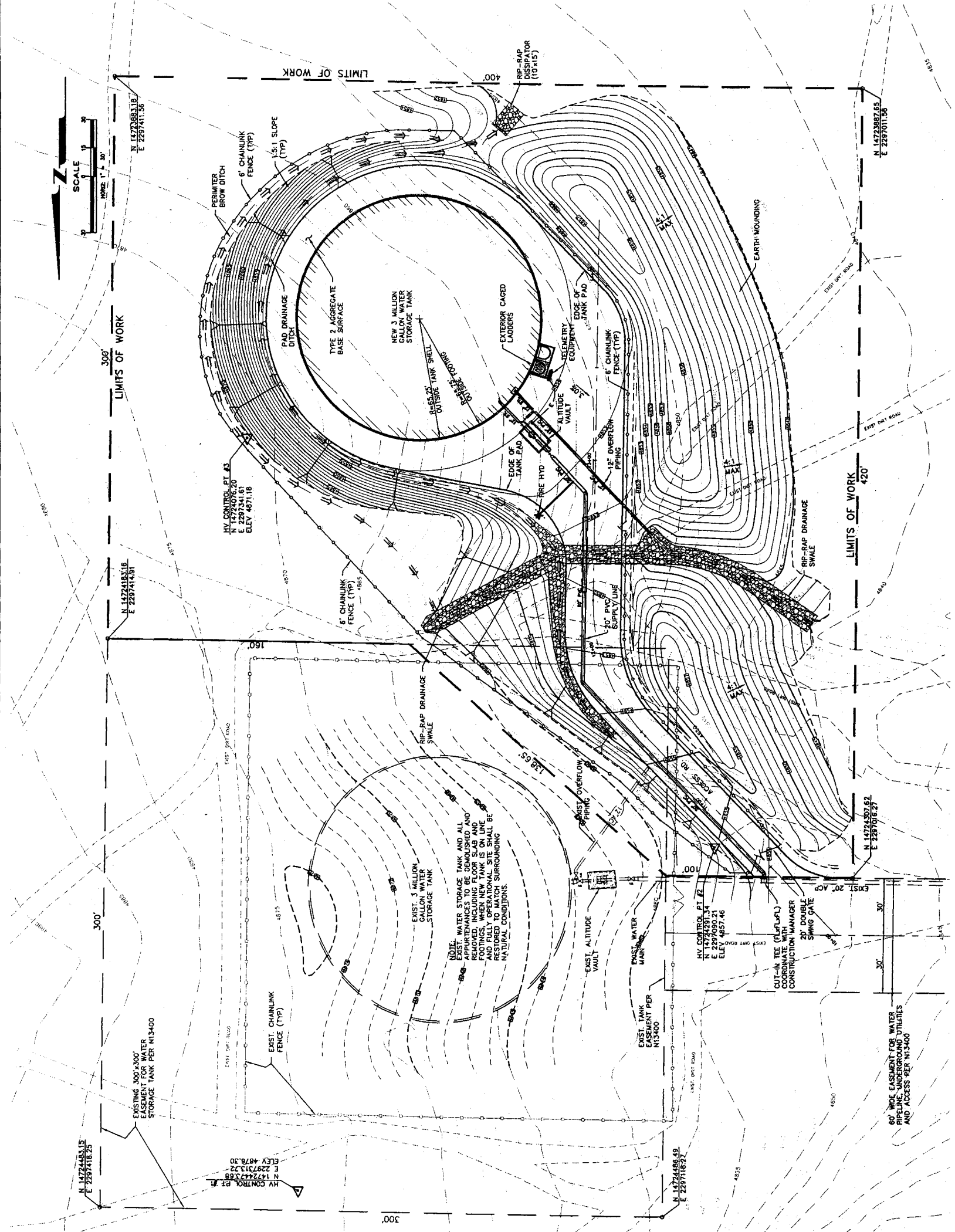
DESIGNED BY: DGR/TG/RF  
DRAWN BY: DGR  
CHECKED BY: TG/RF  
DWG NO.: 3-0736-TS.dwg  
SCALE (HORIZ): NA  
SCALE (VERT): NA  
PLOT DATE: 9-9-09

[illegible]

PRISON HILL WATER TANK #2  
SITE IMPROVEMENT PLANS  
PROJECT No. 06-6019  
TITLE SHEET

**SHEET 1 OF 15**





SITE PLAN - PRISON HILL WATER TANK #2

NOTE:  
REFERENCE SHEET 5, FOR SITE GRADING & DRAINAGE  
REFERENCE SHEET 7, FOR EXISTING TANK SITE RESTORATION PLAN  
REFERENCE SHEET 8, FOR YARD PIPING & EQUIPMENT LAYOUT

**BASIS OF ELEVATION:**  
NEVADA DEPARTMENT ON TRANSPORTATION MONUMENT 433005M  
2" COPPERWELD SET IN CONCRETE, STAMPED "433005M", 110'  
NORTH OF KOONITZ LANE AND 70' WEST OF SOUTHW EDWARDS  
AVENUE.  
ELEVATION = 4748.09' (NAVD88)

**BASIS OF COORDINATES:**  
NAD 83, NEVADA STATE PLANE, WEST ZONE

PRISON HILL WATER TANK #2  
PROJECT No. 06-6019  
SHEET 3 OF 15

PRISON HILL TANK #2  
SITE PLAN

DESIGNED BY: MDR/DR  
CHECKED BY: MDR  
DWG NO.: 06-6019-AL-2.dwg  
SCALE (HORIZ): NOTED  
LAYOUT NAME: SHT-21  
PLOT DATE: 9-9-09

3505 BUTTE WAY CARSON CITY, NEVADA 89701  
PH: 887-2335  
FAX: 887-2112

CARSON CITY  
PUBLIC WORKS DEPARTMENT

FOR CIVIL WORK ONLY

REV. DATE DESCRIPTION

MARK BRETHAUER  
PROFESSIONAL ENGINEER  
CIVIL  
Exp. 12/31/10  
STATE OF NEVADA

GRADING PLAN GENERAL NOTES:

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE UNIFORM BUILDING CODE, OSHA REQUIREMENTS FOR EXCAVATION, SPECIAL REQUIREMENTS OF THE PERMIT, AND SHALL FOLLOW THE GUIDELINES SET FORTH BY THE GEOTECHNICAL ENGINEER. THE REPORTED GEOTECHNICAL INVESTIGATION FOR PRISON HILL WATER TANK #2, DATED 10/26/2009, SHALL BE REVIEWED AND APPROVED BY THE CITY ENGINEER. ANY VIOLATIONS SHALL RESULT IN THE STOPPAGE OF ALL WORK UNTIL THE VIOLATION IS CORRECTED.
- NO WORK SHALL BE STARTED WITHOUT FIRST NOTIFYING THE CITY INSPECTOR AT (775)-887-2310 AT LEAST ONE (1) WORKING DAY BEFORE WORK IS COMMENCED.
- CUT SLOPES SHALL BE NO STEEPER THAN 1.5 HORIZONTAL TO 1 VERTICAL. FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL, OR AS DETERMINED BY THE SOILS ENGINEER AND APPROVED BY THE CITY.
- FILLS SHALL BE PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" AND THE CARSON CITY MUNICIPAL CODE HILLSIDE ORDINANCE (WHEN APPLICABLE).
- THE ENGINEER OF RECORD SHALL PROVIDE THE CITY WITH COPIES OF ALL TEST RESULTS ON A WEEKLY BASIS, AND A BOUND REPORT OF THE TEST RESULTS AND INSPECTION REPORTS ARRANGED IN CHRONOLOGICAL ORDER AT THE COMPLETION OF THE PROJECT. THE ENGINEER OF RECORD SHALL PROVIDE THE CITY WITH AN OPINION REGARDING THE CONSTRUCTION SIMILAR TO THE FOLLOWING:  

ENGINEER'S OPINION  
I, [NAME], A LICENSED ENGINEER IN THE STATE OF NEVADA, HAVE REVIEWED THE TEST RESULTS AND INSPECTION REPORTS, AND BELIEVE THE PROJECT WAS CONSTRUCTED IN GENERAL CONFORMANCE WITH THE PLANS AND SPECIFICATIONS, AND IN MY PROFESSIONAL OPINION, IS IN COMPLIANCE WITH APPLICABLE LAWS, CODES AND ORDINANCES.
- FILL AREAS SHALL BE CLEARED OF ALL VEGETATION AND DEBRIS, SCARIFIED, AND BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE PLACING OF FILL MATERIAL.
- PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED TO PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION OF IMPROVEMENTS.
- DUST SHALL BE CONTROLLED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY AND IN ACCORDANCE WITH THE AIR QUALITY PERMIT FROM THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION WHEN REQUIRED.
- ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING OPERATIONS. ALL OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE STORMWATER DISCHARGE PERMIT FROM THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION.
- ALL CESSPOOLS, SEPTIC TANKS, ETC., TO BE ABANDONED SHALL BE FILLED OR REMOVED IN ACCORDANCE WITH THE STATE OF NEVADA STANDARDS AND CERTIFIED BY THE ENGINEER OF RECORD.
- EXISTING WELLS TO BE ABANDONED SHALL BE CAPPED IN ACCORDANCE WITH THE STATE OF NEVADA DIVISION OF WATER RESOURCES REGULATIONS FOR WATER WELL AND RELATED DRILLING.
- THE DEVELOPER'S ENGINEER OR SURVEYOR SHALL SET GRADE STAKES FOR ALL DRAINAGE DEVICES, AND THE CONTRACTOR SHALL OBTAIN INSPECTION BEFORE PLACING CONCRETE.
- FINISHED GRADING SHALL BE COMPLETED AND APPROVED, AND SLOPE PLANTING AND IRRIGATION SYSTEMS INSTALLED BEFORE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- NO ROCK OR SIMILAR MATERIAL GREATER THAN SIX INCHES (6") IN DIAMETER SHALL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH APPLICABLE MATERIALS HAVE BEEN SUBMITTED BY THE SOILS ENGINEER IN ADVANCE AND APPROVED BY THE CITY.
- THE SOILS ENGINEER SHALL APPROVE ALL GRADING INCLUDING COMPACTION REQUIREMENTS AND THE STABILITY OF SLOPES CREATED, EXISTING OR REMAINING.
- IN THE EVENT OF CHANGES ARISING DURING CONSTRUCTION, THE DEVELOPER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR REVIEW AND APPROVAL BY THE CITY. NO CHANGES IN THE DESIGN SHALL BE PERMITTED UNLESS WRITTEN APPROVALS GIVEN BY THE PROJECT MANAGER.
- EROSION CONTROL:
  - IF AN EMERGENCY, CALL:
  - A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT APPROVED LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR DAMAGED EROSION CONTROL MEASURES.
  - AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING FACILITIES. GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING THE RAINSTORM SHALL ALSO BE REPAIRED.
- FILL SLOPES AT THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE TOP OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
- A SIX-FOOT (6') HIGH PERIMETER FENCE OR A 24-HOUR GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN A FACILITY EXCEEDS EIGHTEEN INCHES (18").

GRADING LEGEND:

- FINISH CONTOUR
- EXIST. CONTOUR
- DRAINAGE SWALE
- FLOWLINE
- GRADE BREAK
- CUT SLOPE (1.5:1)
- FILL SLOPE (3:1)
- TYPE II AGG BASE
- RIP-RAP DISSIPATOR
- CHANLINK FENCE
- WATER LINE
- FIRE HYDRANT

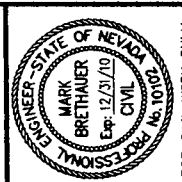
PRELIMINARY  
FOR REVIEW ONLY  
95% SUBMITTAL  
DATE: 9-9-09

Call before you Dig  
Avoid creating underground  
utility lines. It's costly.

**Call 811**  
OR  
1-800-227-2800

DESIGNED BY: MDR/DGR  
DRAWN BY: DGR  
CHECKED BY: MDR  
DWG NO.: 06-8019-A17.dwg  
SCALE (HORIZ): 1"=20'  
LAYOUT NAME: SHT-X  
PLOT DATE: 9-9-09

**CARSON CITY**  
**PUBLIC WORKS DEPARTMENT**  
3505 BUTTE WAY CARSON CITY, NEVADA 89701  
PH: 887-2355  
FAX: 887-2112

[illegible]

PRISON HILL WATER TANK #2  
SITE IMPROVEMENT PLAN  
PROJECT No. 06-6019  
PRISON HILL TANK  
HORIZONTAL CONTROL PLAN  
TANK #2

SHEET 4 OF 15

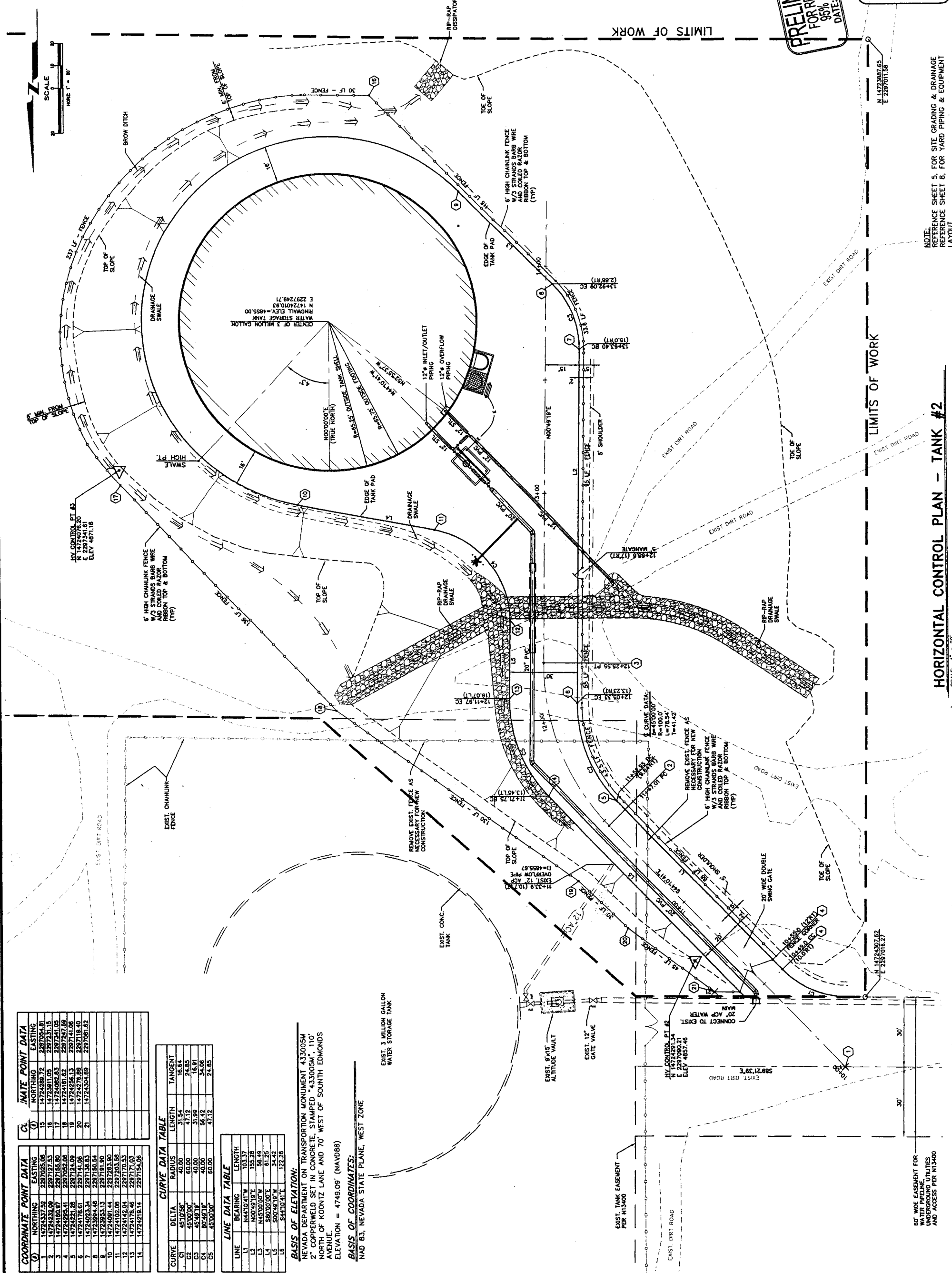
**PRELIMINARY**  
**FOR REVIEW ONLY**  
**95% SUBMITTAL**  
**DATE: 9-9-09**

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Avoid cutting underground utility lines. It's costly.

**Call 811**

OR  
1-800-227-2600

NOTE:  
REFERENCE SHEET 5, FOR SITE GRADING & DRAINAGE  
REFERENCE SHEET 8, FOR YARD PIPING & EQUIPMENT  
LAYOUT



COORDINATE POINT DATA			MATE POINT DATA		
(Q)	NORTHING	EASTING	(Q)	NORTHING	EASTING
1	14724337.52	22972025.06	15	14724388.72	2297054.81
2	14724337.09	2297127.53	16	1472391.05	229721.15
3	14724163.87	2297155.60	17	147241.65	2297247.59
4	14724163.87	2297155.60	18	14724258.13	2297141.05
5	14724163.87	2297155.60	19	14724276.89	2297118.40
6	14724176.61	2297141.06	20	14724304.69	2297061.62
7	14724399.48	2297136.83	21		
8	14724399.48	2297150.54			
9	147235953.13	2297181.90			
10	14724091.44	2297293.90			
11	14724102.06	2297203.58			
12	14724192.54	2297170.53			
13	14724176.46	2297171.03			
14	14724218.14	2297154.05			

CURVE DATA TABLE				
CURVE	DELTA	RADIUS	LENGTH	TANGENT
C1	45°07'56"	40.00	31.54	16.64
C2	45°00'00"	60.00	24.85	16.91
C3	45°49'18"	60.00	31.99	16.91
C4	90°49'18"	40.00	56.42	34.06
C5	45°00'00"	60.00	47.12	24.85

LINE DATA TABLE		
LINE	BEARING	LENGTH
L1	N44°10'41"W	103.37
L2	N00°49'19"E	155.28
L3	N45°00'00"W	58.49
L4	S80°00'00"E	61.25
L5	S07°49'19"W	34.42
L6	S44°10'41"E	122.28

**BASIS OF ELEVATION:**  
NEVADA DEPARTMENT ON TRANSPORTATION MONUMENT 433005M  
2" COPPERWELD SET IN CONCRETE, STAMPED "433005M", 110'  
NORTH OF KOONTZ LANE AND 70' WEST OF SOUTH EDMONS  
AVENUE.  
ELEVATION = 4749.09' (NAV088)

**BASIS OF COORDINATES:**  
NAD 83, NEVADA STATE PLANE, WEST ZONE


60' WIDE EASEMENT FOR -  
WATER PIPELINE,  
UNDERGROUND UTILITIES  
AND ACCESS PER N13400



PRISON HILL WATER TANK #2  
SITE IMPROVEMENT PLAN  
PROJECT NO. 06-6019  
PRISON HILL TANK  
SITE GRADING & DRAINAGE PLAN  
TANK #2

**Call before you Dig**  
Avoid cutting underground  
utility lines. It's costly.

**Call**



OR

**1-800-227-2600**

**PRELIMINARY**  
**FOR REVIEW ONLY**  
**95% SUBMITTAL**  
**DATE: 9-9-09**

NOTE: ALL TOP SOIL FROM THE AREAS TO BE DISTURBED BY THIS SITE GRADING SHALL BE REMOVED AND STOCKPILED FOR PLACEMENT (6" MIN) ON FINISH GRADED SLOPES OF 3:1 AND FLATTER

REFERENCE SHEET 4, FOR DETAILED HORIZONTAL CONTROL PLAN.  
REFERENCE SHEET 7, FOR EXISTING TANK SITE RESTORATION PLAN.  
REFERENCE SHEET 8, FOR YARD PIPING PLAN.

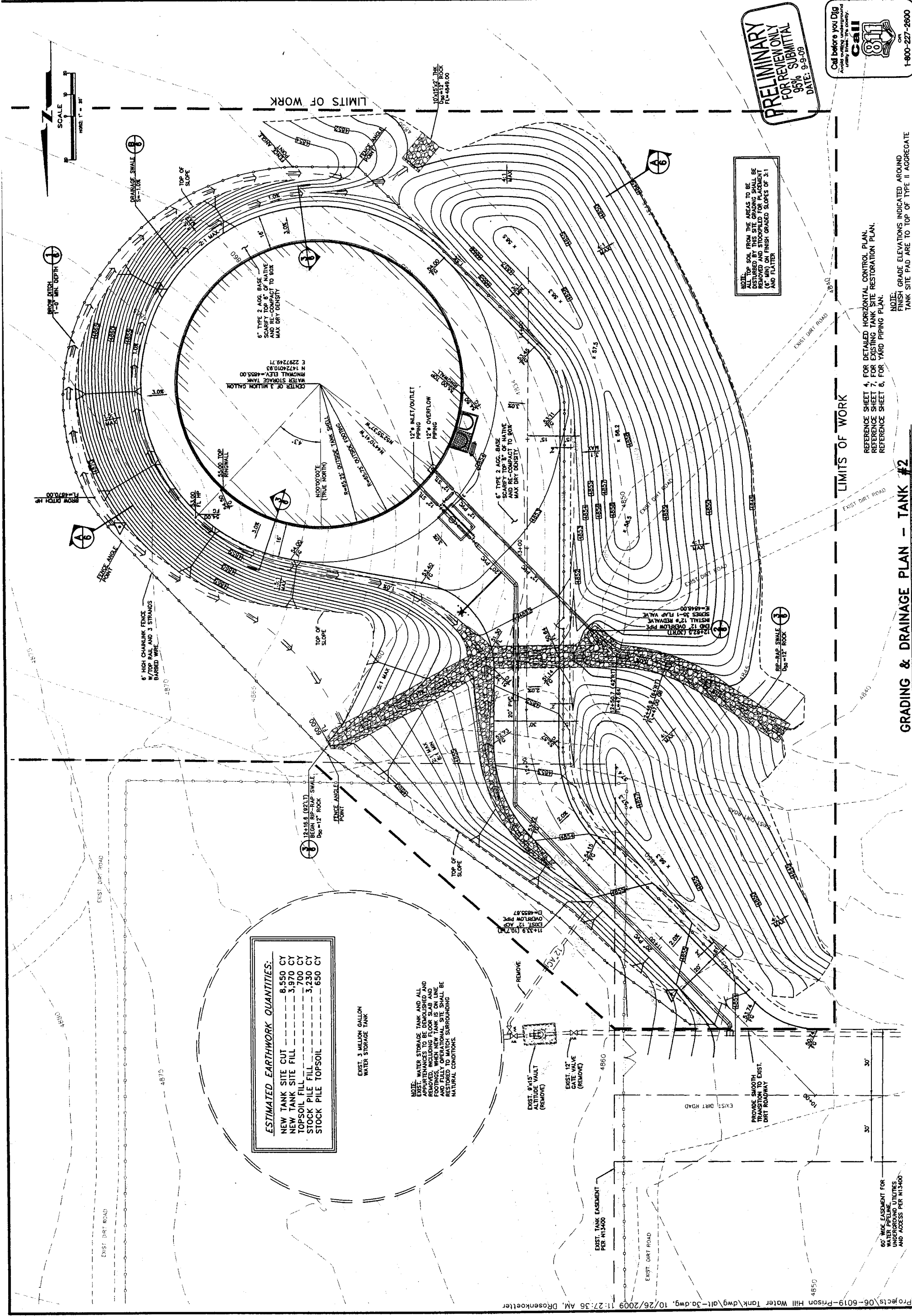
**NOTE:** FINISH GRADE ELEVATIONS INDICATED AROUND TANK SITE PAD ARE TO TOP OF TYPE II AGGREGATE

GRADING & DRAINAGE PLAN - TANK #2

[illegible]

**CARSON CITY  
PUBLIC WORKS DEPARTMENT**  
3505 BUTTE WAY CARSON CITY, NEVADA 89701  
PH: 887-2355  
FAX: 887-2112

DESIGNED BY: M08/DGB  
DRAWN BY: DGB  
CHECKED BY: MDS  
DWG NO.: 08-6018-A12.dwg  
SCALE (HORIZ): 1"=20'  
LAYOUT NAME: SH1-X  
PLOT DATE: 8-8-08



<u>ESTIMATED EARTHWORK QUANTITIES:</u>	
NEW TANK SITE CUT	8,550 CY
NEW TANK SITE FILL	3,970 CY
TOPSOIL FILL	700 CY
STOCK PILE FILL	3,230 CY
STOCK PILE TOPSOIL	650 CY

**NOTE:** WATER STORAGE TANK AND ALL APPURTENANCES TO BE DEMOLISHED AND REMOVED, INCLUDING FLOOR SLAB AND FOOTINGS. WHEN NEW TANK IS ON LINE AND FULLY OPERATIONAL, SITE SHALL BE RESTORED TO MATCH SURROUNDING NATURAL CONDITIONS.

60' WIDE EASEMENT FOR  
WATER PIPELINE,  
UNDERGROUND UTILITIES  
AND ACCESS PER N13400

PRISON HILL WATER TANK #2  
SITE IMPROVEMENT PLAN  
PROJECT No. 06-6019  
PRISON HILL TANK  
TYPICAL SECTIONS & DETAILS

Call before you Dig  
Avoid cutting underground  
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**Call**

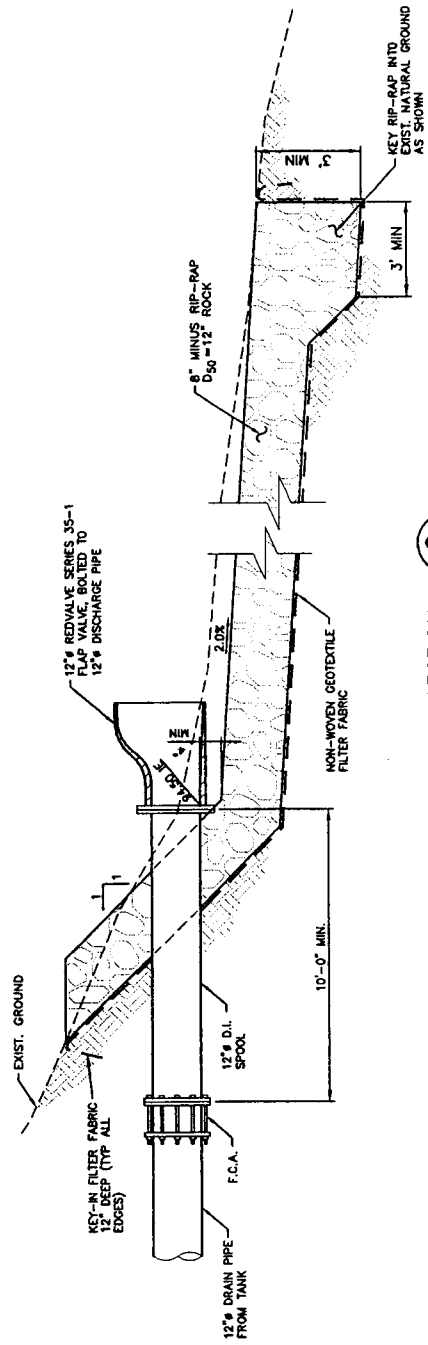
**1-800-227-2600**

OR

**1-800-227-2600**



**PRELIMINARY**  
**FOR REVIEW ONLY**  
**95% SUBMITTAL**  
**DATE: 9-8-09**

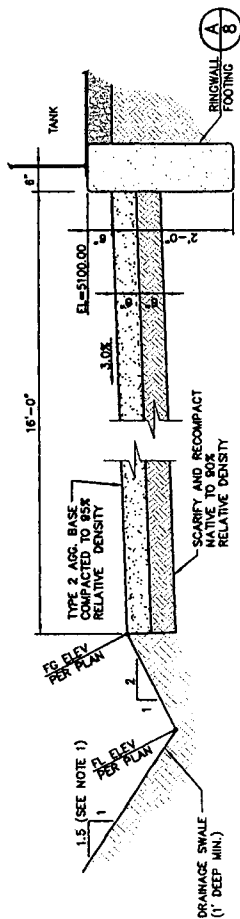


TYPICAL SECTION

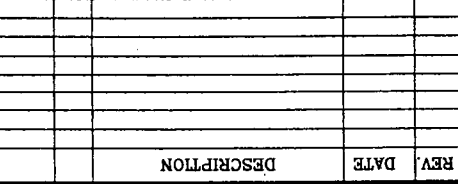
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NTS

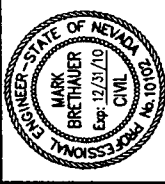
C  
6



TANK PERIMETER ROADWAY

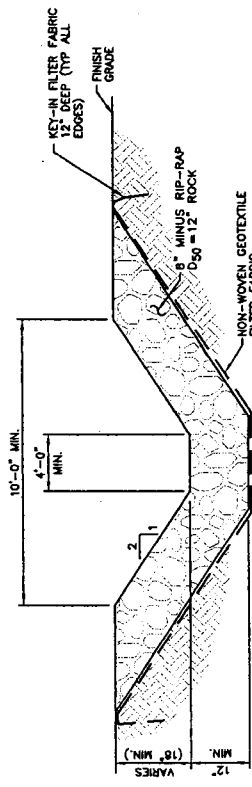


FOR CIVIL WORK ONLY

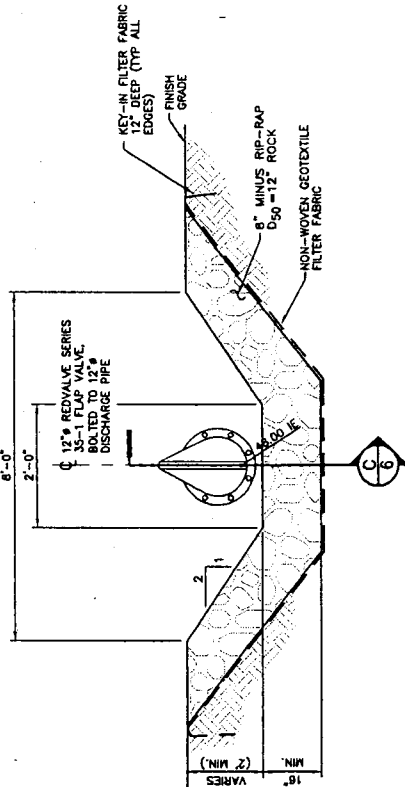


CARSON CITY  
PUBLIC WORKS DEPARTMENT  
3505 BUTTI WAY  
CARSON CITY, NEVADA 89701  
PH: 887-2355  
FAX: 887-2112

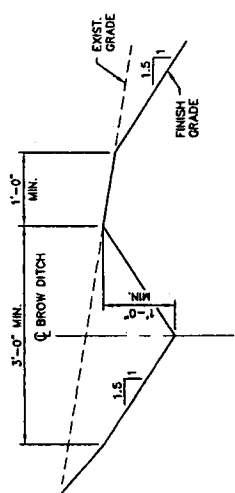
DESIGNED BY: M08/D08  
DRAWN BY: D08  
CHECKED BY: M08  
DWG NO.: 08-8018-A17.4mg  
SCALE (HORIZ): 1"=20'  
LAYOUT NAME: SHT-X  
PLOT DATE: 9-9-09



RIP-RAP SWALE  
NTS



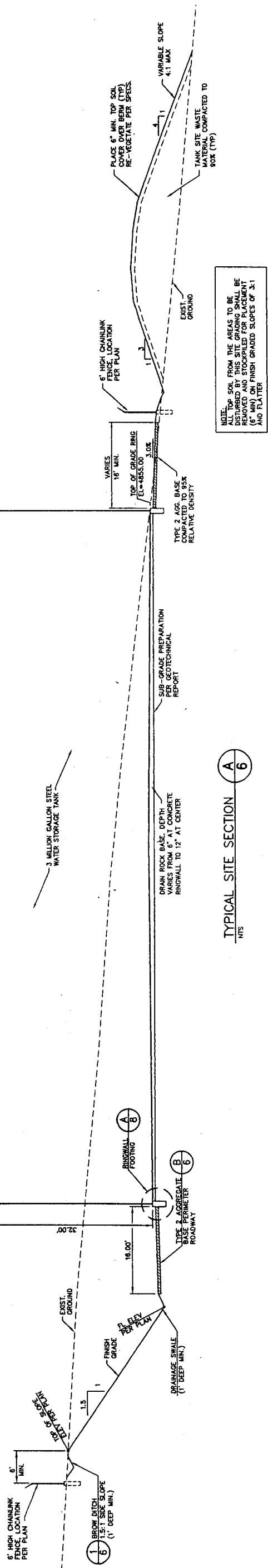
RIP RAP CHANNEL 2  
NTS 6



TYPICAL BROW DITCH

NTS

1/6



TYPICAL SITE SECTION  
NTS

H:\Projects\06-6019-Prison Hill Water Tank\dwg\alt-3a.dwg, 10/26/2009 11:27:11 AM, Drosenkoetter

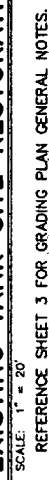


EXIST. TANK SITE FILL	3,230 CY
TOPSOIL FILL	650 CY
TOTAL IN PLACE FILL	3,880 CY

**Call before you Dig**  
Avoid cutting underground  
utility lines. It's costly.

**Call**  
**811**

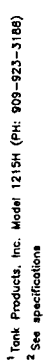
OR  
1-800-227-2600



1. 12 GAGE BARE COPPER DETECTION WIRE TO LAY IN TRENCH ADJACENT TO CONDUIT AND ATTACH TO LOCATION MARKER AT EACH END.
2. GRIND INTERIOR OF 30" STEEL COATED STEEL CASING SMOOTH AND LUBRICATE PRIOR TO INSTALLATION. CASING COATING SHALL BE REMOVED FROM ALL JOINTS TO BE GROUNDED TO A SMOOTH FINISH. ALL WELDING TO CONFORM TO ANNA STANDARD FOR FIELD WELDING OF WATER PIPE.
3. CASING TO BE INSTALLED SYMMETRICALLY ABOUT WATER MAIN CENTERLINE. CASING SHALL BE LAD OUT TO USE AND GRADE WITH NO BENDS OR CHANGES IN GRADE.
4. EXTERIOR OF STEEL CASING SHALL BE COATED WITH DEVTAR 5A EPOXY HIGH BUILD COATING AS MANUFACTURED BY DEVO HIGH PERFORMANCE COATINGS (2 COATS AT 8 MIL DRY THICKNESS PER COAT) PER MANUFACTURERS REQUIREMENTS.
5. END SEALS SHALL COMMERCIALLY MANUFACTURED FOR THIS PURPOSE AND SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
6. FILLING ANNUAL PUMP NOT ALLOWED.



SHEET 9 OF 15



NOTE: ELECTRICAL GROUNDING NOT SHOWN. SEE GROUNDING DETAIL

<sup>1</sup> Tank Products, Inc. Model 121SH (PH: 909-923-3188)  
<sup>2</sup> See specifications

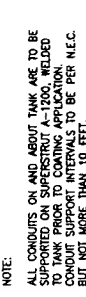
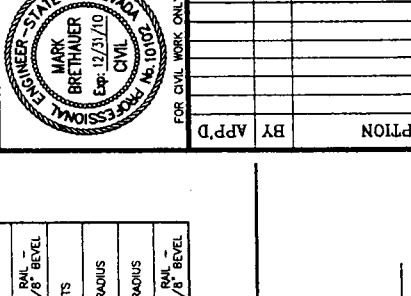
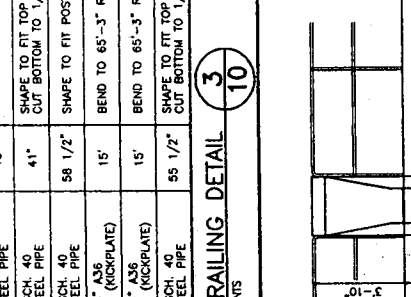
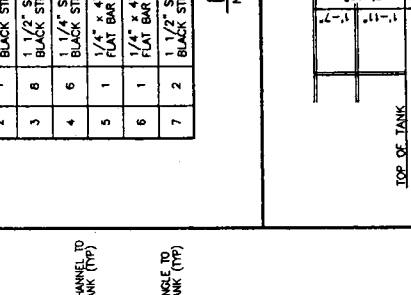
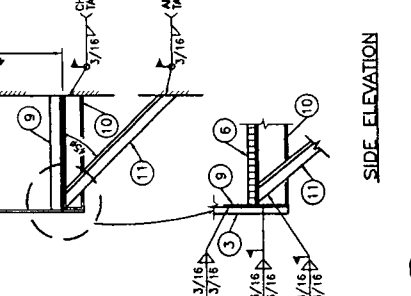
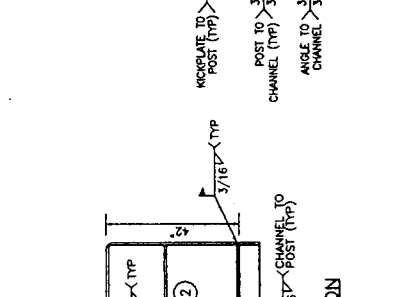
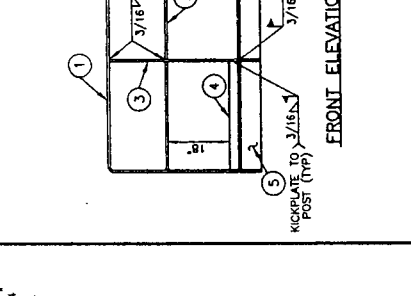
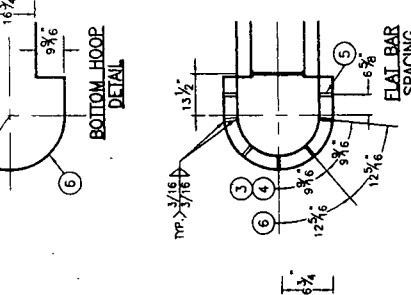
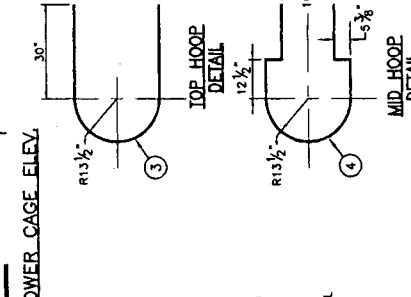
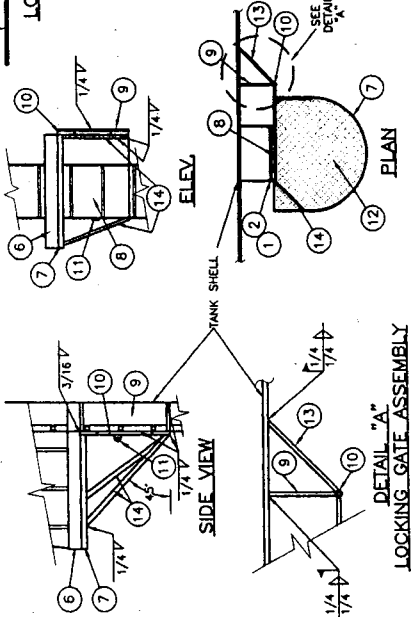
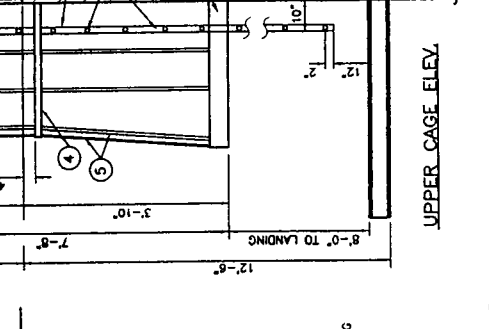
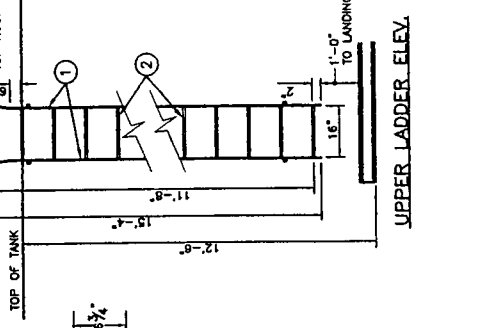
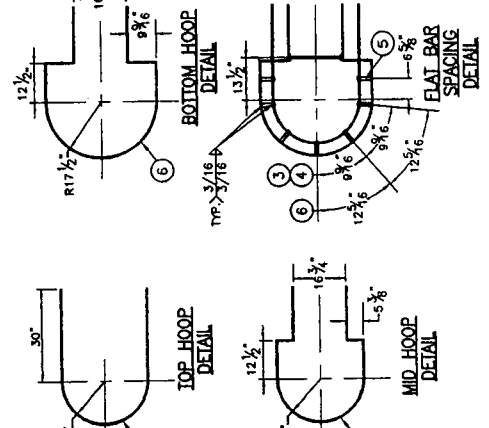


Diagram illustrating the drain rock base construction. The base is a concrete ring with a diameter of 12" at center. The centerline elevation is 5993.5. The depth of the base varies from 6" at the concrete ring to 12" at center. The diagram shows flexible coupling adaptors and piping shown out of section.

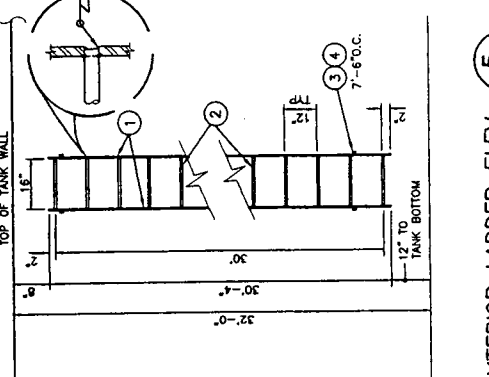
EXTERIOR LADDER MATERIAL LIST		
ITEM	QTY.	DESCRIPTION
1	46.87 FT	3/8" x 2" FLAT BAR x 292" (2 REQ'D.)
2	33 FT	NO. 6 DEFORMED BAR 16-1/2" LG.(24 REQ'D.)
3	1	3/16" x 6" FLAT BAR x 90-1/4" LG.
4	2	1/4" x 2" FLAT BAR x 90-1/4" LG.
5	7	1" x 1/4" x 144" (7 REQ'D.)
6	8.5 FT	3/16" x 6" FLAT BAR x 110-5/8" LG.
7	7 FT	2" x 3/16" FLAT BAR x 82" LG.
8	6 SQ FT	A-36 1/4" PL x 24" x 36" LG.
9	1.5 SQ FT	A-36 3/8" PL x 10-3/4" x 24" LG.
10	1	1/2" ROD W/1/2" ST. PIPE HINGE ASSEMBLY
11	1	2X2X1/4" STEEL PLATE W/5P W/1/2" HOLE
12	7.5 FT	50-1/4X36" 1-1/2" NO. 16 EXP. METAL (BULK STL.)
13	2.6 FT	2" x 3/8" FLAT BAR x 15-1/4" LG.(2 REQ'D.)
14	3/8" FLAT BAR	2" x 3/8" FLAT BAR x 15-1/4" LG.(2 REQ'D.)
15	92 SQ FT	144X96" 1-1/2" NO. 16 EXP. METAL (BULK STL.)



EXTERIOR LADDER MATERIAL LIST		
ITEM	QTY.	DESCRIPTION
1	30.67 FT	3/8" x 2" FLAT BAR x 184" (2 REQ'D.)
2	16.5 FT	NO. 6 DEFORMED BAR 18-1/2" LG. (13 REQ'D.)
3	1	3/16" x 6" FLAT BAR x 90-1/4" LG.
4	1	1/4" x 2" FLAT BAR x 90-1/4" LG.
5	58.5 FT	1" x 1/4" x 102" (7 REQ'D.)
6	6.5 FT	3/16" x FLAT BAR x 110-5/8" LG.

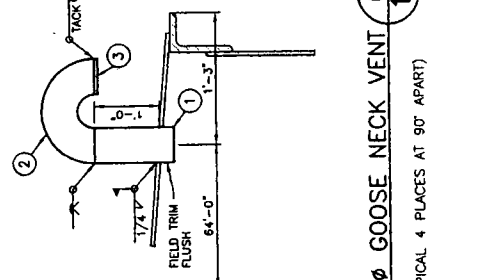


INTERIOR LADDER MATERIAL LIST		DESCRIPTION
ITEM	QTY.	
1	60.67 FT	3/8" 2" DIA BAR x 360" (2 REQ'D) 304 SS
2	40 FT	3/8"x16-1/2" LG ROD (304 SS) (50 REQ'D)
3	10 EA	3/16"x6" A36 FLAT BAR x 10' LG. (12 REQ'D)
4	20 EA	5/8"x1-1/2" 304SS BOLT & NUT

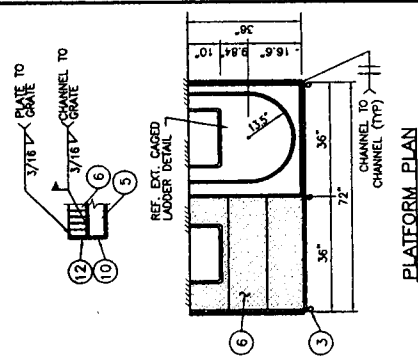


MATERIAL LIST		
NO.	QTY.	DESCRIPTION
1	1	PIPE 6" STD x 1'-2"
2	1	ELL 6" STD L.R. 180°
3	1	SCREEN 0'-6" 22-24 MESH

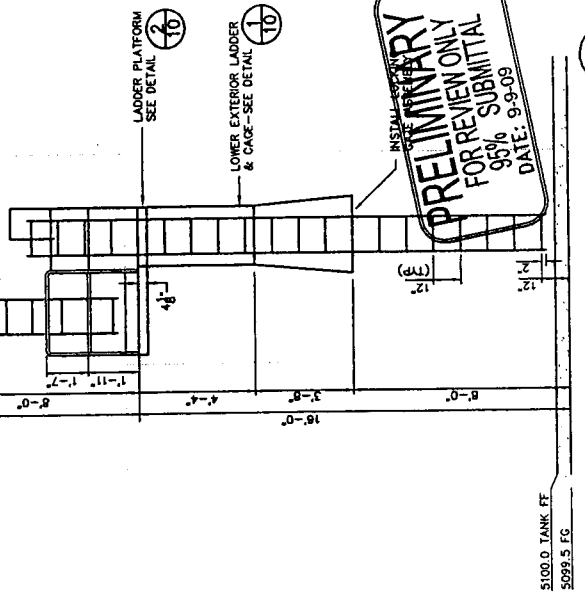
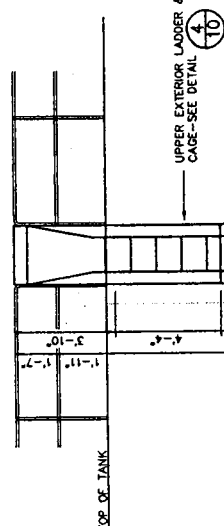
NOTE: QUANTITIES ARE FOR 1 VENT (4 REQUIRED). CONTRACTOR TO VERIFY VENTING REQUIREMENTS.



EXTERIOR PLATFORM MATERIAL LIST				
NO.	QTY.	DESCRIPTION	LENGTH	NOTES
1	1	1-1/2" SCH. 40 BL. ST. PIPE	72"	RAILING
2	2	1-1/4" SCH. 40 BL. ST. PIPE	33'-3/4"	RAILING
3	3	1-1/2" SCH. 40 BL. ST. PIPE	45"	RAILING
4	4	1/4" x 6" x 36 FLAT BAR	36"	KICKPLATE
5	1	C 3 x 4.1 CHANNEL	72"	
6	3	11-3/4" x 36" 14GA. GRIP STRUT BT MONOLITHS CO. 1-800-231-5820	36"	GRATING
7	1	1-1/2" SCH. 40 BL. ST. PIPE	37'-1/2"	RAILING
8	1	1-1/4" SCH. 40 BL. ST. PIPE	36"	RAILING
9	9	1/4" x 6" x 36 FLAT BAR	36"	KICKPLATE
10	3	C 3 x 4.1 CHANNEL	36"	
11	2	L 2-1/2" x 3'-2" x 1/4" ANGLE	51"	SUPPORT ANGLE CUT TO FIT
12	1	1/4" x 1-1/2" x 36 FLAT BAR	36"	CUT TO FIT

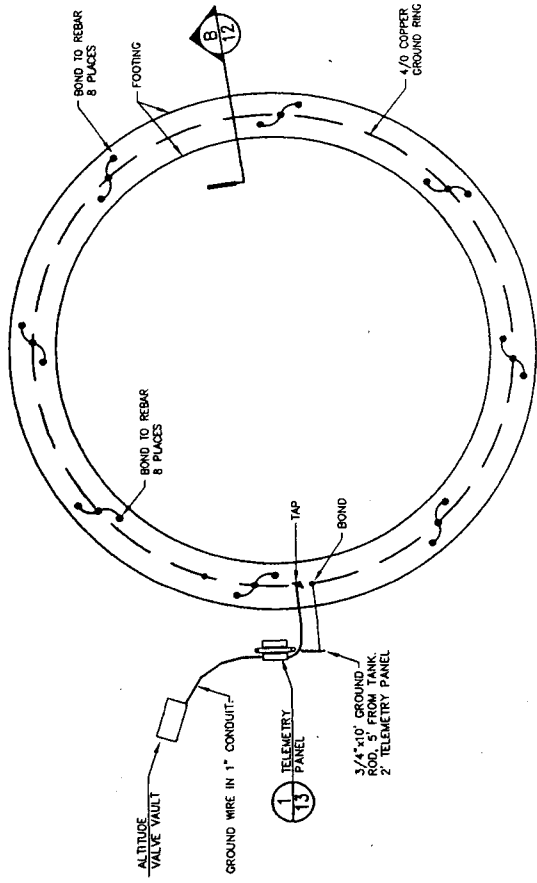


MATERIAL LIST				
NO.	QTY.	DESCRIPTION	LENGTH	NOTES
1	1	1 1/2" SCH. 40 BLACK STEEL PIPE	15'	BEND TO 65°-3" RADIUS
2	1	1 1/2" SCH. 40 BLACK STEEL PIPE	15'	BEND TO 65°-3" RADIUS
3	8	1 1/2" SCH. 40 BLACK STEEL PIPE	41"	SHAPE TO FIT TOP RAIL - CUT BOTTOM TO 1/8" BEVEL
4	6	1 1/4" SCH. 40 BLACK STEEL PIPE	58 1/2"	SHAPE TO FIT POSTS
5	1	1 1/4" x 4" A36 FLAT BAR (NICKLEPLATE)	15'	BEND TO 65°-3" RADIUS
6	1	1 1/4" x 4" A36 FLAT BAR (NICKLEPLATE)	15'	BEND TO 65°-3" RADIUS
7	2	1 1/2" SCH. 40 BLACK STEEL PIPE	55 1/2"	SHAPE TO FIT TOP RAIL - CUT BOTTOM TO 1/8" BEVEL



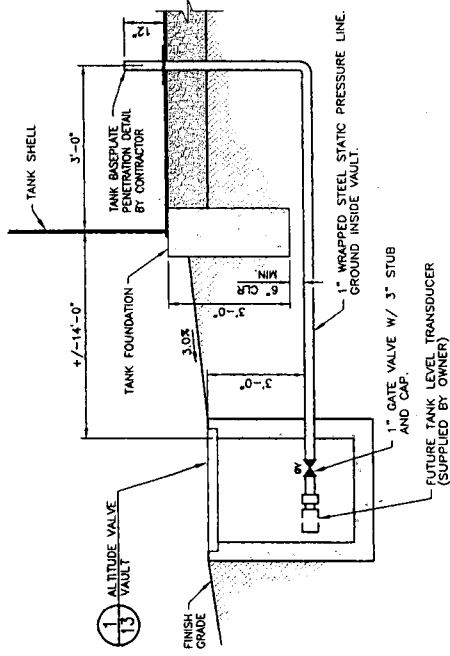




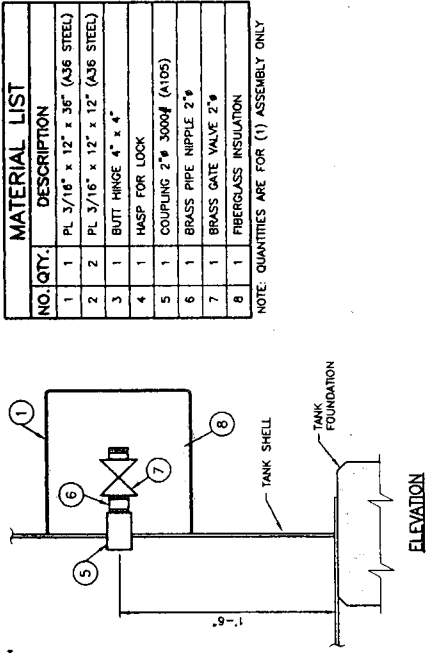


LAYOUT OF SITE GROUNDING SYSTEM

1. COORDINATE WORK SO GROUND WIRES ARE INSTALLED IN COMMON TRENCHES WITH CONDUITS
2. ALL GROUNDING SYSTEM SHALL BE No.4/0 STRANDED BARE COPPER WIRE. ALL BONDS AND JOINTS MADE WITH EXOTHERMIC WELDING PROCESS. COB WELDING SHALL BE USED FOR ALL JOINTS.
3. DRIVE 3"x10" COPPER WELD GROUND ROD 5' MAX. FROM TANK-BOND TO SYSTEM.
4. GROUNDING CONDUCTORS OUTSIDE OF CONC. FOOTING ARE TO FOLLOW EXCAVATIONS FOR PIPELINES OR CONDUITS INSTALLED TO MINIMUM COVER ON GROUND CONDUCTORS. GROUND STATIC LINE IN ALT. VAULT.

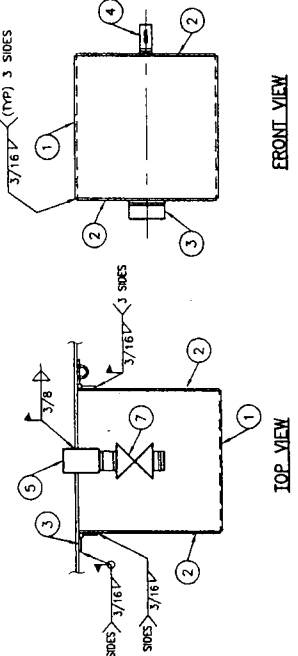


STATIC PRESSURE LINE



MATERIAL LIST	
NO.	QTY. DESCRIPTION
1	1 PL 3/16" x 12" x 36" (A36 STEEL)
2	2 PL 3/16" x 12" x 12" (A36 STEEL)
3	1 BUTT HINGE 4" x 4"
4	1 HASP FOR LOCK
5	1 COUPLING 2" 3000# (A105)
6	1 BRASS PIPE NIPPLE 2"
7	1 BRASS GATE VALVE 2"
8	1 FIBERGLASS INSULATION

NOTE: QUANTITIES ARE FOR (1) ASSEMBLY ONLY




2"Ø SAMPLE TAP

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NTS

1  
12



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







NOTES:

1. EXTEND 1-1/2" STL. CONDUIT TO TELEMETRY PANEL CLAMP AS REQUIRED.
2. PANELS SUPPORTS SHALL BE SET SO FINAL ASSEMBLY FACES DUE SOUTH. CENTER SUPPORTS MIDWAY BETWEEN TANK VENT AND EDGE OF TANK.
3. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE STRUCTURAL REQUIREMENTS AND DESIGN OF THE SOLAR PANEL SUPPORTS FOR CONNECTION TO THE NEW ROOF. (DESIGN FOR 80 MPH WIND FACTOR)