



# Planning Commission Staff Report

Meeting Date: January 7, 2020

Agenda Item: 8A

TENTATIVE SUBDIVISION MAP CASE NUMBER: WTM19-003 (Blue Oaks)

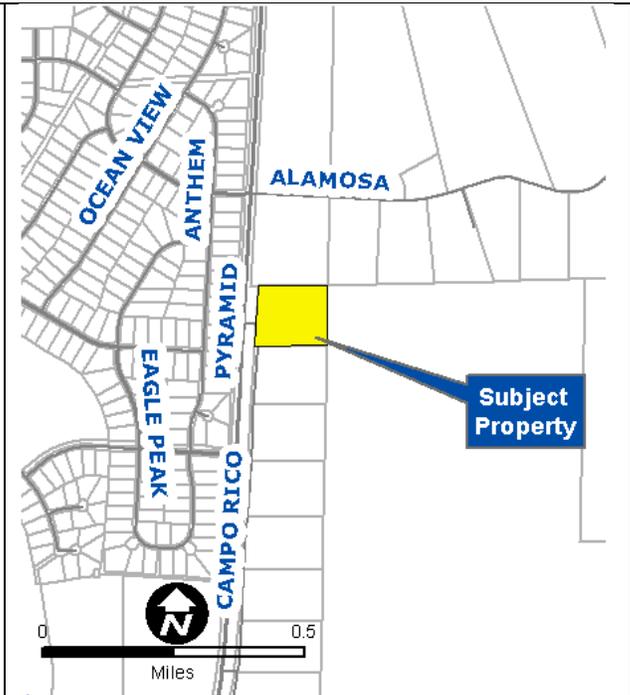
BRIEF SUMMARY OF REQUEST: To create a 10-lot, single-family residential tentative subdivision map.

STAFF PLANNER: Chris Bronczyk, 775.328.3612, [Cbronczyk@washoecounty.us](mailto:Cbronczyk@washoecounty.us), Dan Cahalane, 775.328.3628, [dcahalane@washoecounty.us](mailto:dcahalane@washoecounty.us)

### CASE DESCRIPTION

For possible action, hearing, and discussion to approve a 10-lot, single-family residential tentative subdivision map and grading of ±9,600 cubic yards of cut and ±9,600 cubic yards of fill. Lots range from 35,010 square feet to 47,110 square feet.

Owner/Applicant: Ken Dixon  
 Location: 11720 Campo Rico Lane  
 APN: 534-600-12  
 Parcel Size: 10 Acres  
 Master Plan: Suburban Residential (SR)  
 Regulatory Zone: Low Density Suburban (LDS) (Max Density of 1 dwelling unit per acre)  
 Area Plan: Spanish Springs  
 Citizen Advisory Board: Spanish Springs  
 Development Code: Authorized in Article 608, Tentative Subdivision Maps  
 Commission District: 4 – Commissioner Hartung



### 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 Tentative Subdivision Map Case Number WTM19-003 for Ken Dixon having made all ten findings in accordance with Washoe County Code Section 110.608.25.

*(Motion with Findings on Page 11)*

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Water Resources Memo ..... Exhibit B

Washoe County School District Memo ..... Exhibit C

Engineering and Capital Projects Memo ..... Exhibit D

Washoe-Storey Conservation District Memo ..... Exhibit E

Washoe County Health District Memo ..... Exhibit F

Project Application ..... Exhibit G

### **Tentative Subdivision Map**

The purpose of a tentative subdivision map is:

- To allow the creation of saleable lots;
- To implement the Washoe County Master Plan, including the Area Plans, and any specific plans adopted by the County;
- To establish reasonable standards of design and reasonable procedures for subdivision and re-subdivision in order to further the orderly layout and use of land and insure proper legal descriptions and monumenting of subdivided land; and;
- To safeguard the public health, safety and general welfare by establishing minimum standards of design and development for any subdivision platted in the unincorporated area of Washoe County.

If the Planning Commission grants an approval of the tentative subdivision map, 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 recordation of a final map.
- 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 project.

The conditions of approval for tentative Subdivision Map Case Number WTM19-003 are attached to this staff report and will be included with the action order.

The subject property has a regulatory zone of Low Density Suburban (LDS). The maximum number of residences allowed, based upon the existing zoning is 10 units on 10 acres.

The applicant is requesting to create 10 residential lots. This is permissible based upon the approval of a tentative subdivision map by Washoe County and compliance with all generally applicable provisions of the Development Code.



## **Project Evaluation**

The applicant is requesting to develop a 10 acre site located at 11720 Campo Rico Lane, adjacent to Pyramid Highway, with 10 single family lots. The parcel is located across the street from the Pebble Creek housing development, and the planned access will be from the proposed entry road to Harris Ranch on the Northeast Corner of the subject property terminating a cul-de-sac. The anticipated number of Average Daily Trips (ADT) is approximately 100, which is below the 250 ADT threshold required for sidewalks per Washoe County Code table 110.435.25.5, below:

Table 110.436.25.5

### **SIDEWALK REQUIREMENTS**

<b>Factor</b>	<b>Sidewalk Both Sides</b>	<b>Sidewalk One Side</b>	<b>No Sidewalk</b>
Street function	Collector <sup>(1)</sup>	Collector	Local/access/ cul-de-sac <sup>(3)</sup>
Traffic volume (ADT)	1,000+	251 to 1,000	250 or less
Comprehensive pedestrian plan <sup>(2)</sup>	Per plan	Per plan	Per plan

- Notes:
1. May be limited to one side if separated from roadway improvements.
  2. Any sidewalk/pedestrianway requirements may be supplemented with a pedestrian circulation plan at the request of the County Engineer.
  3. Proximity of known or anticipated schools, shopping centers, etc., will be anticipated.

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Source: Washoe County Department of Public Works

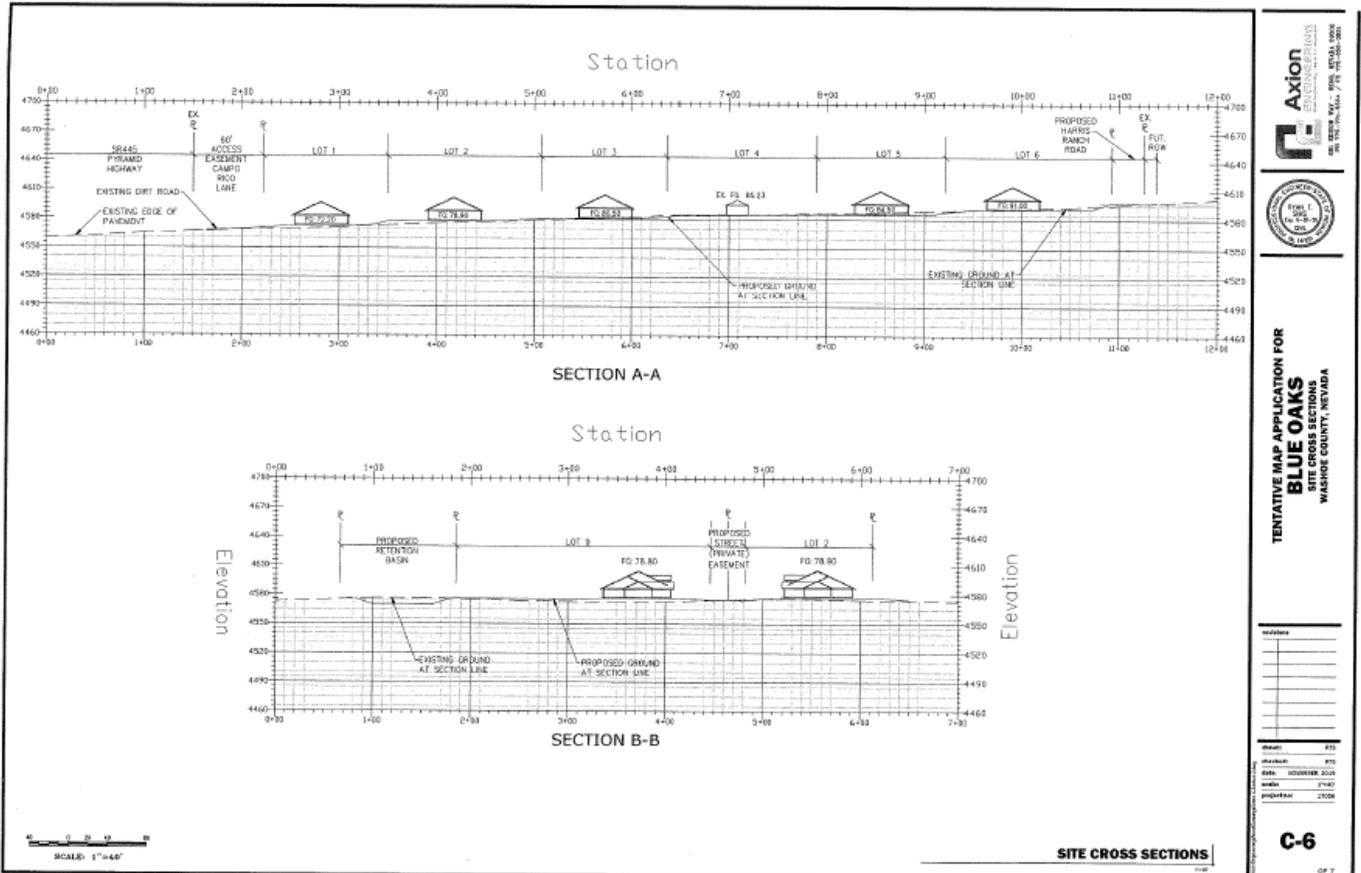
The property currently has access through Campo Rico Lane, which provides access to the current dwelling. The proposed tentative map will not allow access off Campo Rico Lane. Staff recommends that the proposed cul-de-sac be gated to allow emergency vehicles access off Campo Rico Lane.

The parcel has a master planned land use of Suburban Residential (SR) and has a regulatory zone of Low Density Suburban (LDS). The required LDS setbacks are 30 feet for the front and rear yards, and 12 feet for the side yards. The applicant is proposing a net density 0.837 dwelling unit per acre and a proposed gross density is 1 dwelling unit per acre. The proposal has an average lot size of 36,443 square feet, with a minimum lot size of 35,010 square feet, and a maximum lot size of 47,110 square feet. The proposed lots have an average lot width of 120 feet. These dimensions meet the minimum lot LDS lot size of 35,000 square feet and the minimum lot width of 120 feet. The project includes 8.37 acres of residential lots and 0.7 acres of drainage detention/retention areas. The Harris Ranch roadway and entrance area will encompass 4,768 square feet in the northwest corner of the proposed subdivision. An existing single-family residence is currently located on the parcel and was constructed in 1995; the applicant's intent is to remain in the existing home which will become lot 4 on the proposed subdivision map.

The proposed tentative map is in the Spanish Spring area plan, which requires that new developments will connect to community sewer and water. The proposed tentative map will connect to Washoe County Utilities for sewer and TMWA for water service.

**Grading**

The proposed tentative map provided a grading plan that showed future development will require 9,600 cubic yards of cut and 9,600 cubic yards of fill. All proposed house pad and retention and detention area cuts and fills meet the 3:1 slope Washoe County Code (WCC) 110.438.45. The only exceptions are the 2:1 slopes parallel to the private street for drainage area road which conforms with WCC 110.438.45(k). The proposed grading plan conforms to the grading standards required for a major grading permit.



**Spanish Springs Area Plan**

The applicable Spanish Springs Area Plan policies are:

**SS 1.7** Tentative subdivision maps will not be approved for any development until the impacts of that development have been included in any applicable water resources facilities plan.

*Staff Comment:* The application was routed to Washoe County’s Water Resource Coordinator, who provided a memo to staff and recommended conditions of approval. The memo can be found as Exhibit B.

**SS7.4** As new residential and commercial properties develop in the Spanish Springs Valley, the Washoe County Department of Parks and Recreation will review development proposals for potential trail connections.

*Staff Comment:* The application was routed to Washoe County’s Parks Planner. No comments or conditions were received.

**SS 12.1** Residential and commercial development must utilize one or a combination of the following reliable water resources that are replenished in quantities to meet the needs of the area without reliance upon groundwater mining or recharge from agricultural uses:

- a. Decreed Truckee River water rights or other approved imported surface water rights when used with an appropriate drought yield discount as determined by the water purveyor and approved by the State Engineer.
- b. Imported groundwater from a source that is replenished in sufficient quantity to meet the demands placed upon a source without groundwater mining.
- c. Certificated groundwater rights or permitted quasi-municipal groundwater rights (that existed as of May 22, 1990) matched by imported, decreed surface water from a source such as the Truckee River.
  - i. For residential developments, the quantity of imported water or decreed surface water shall be equal to 50 percent of the groundwater demand.
  - ii. For developments other than residential (commercial, industrial, recreational, etc.), the quantity of the matching imported or decreed surface water rights shall be equal to 100 percent of the calculated demand.
  - iii. The Truckee River surface water dedicated must be capable of diversion to the Orr Ditch.

Staff Comment: The application was routed to Washoe County's Water Resource Coordinator. Washoe County's Water Resource Coordinator provided a memo to staff and recommended conditions of approval. The memo can be found as Exhibit B.

**SS 12.7** The creation of parcels and lots in the Spanish Springs planning area shall require the dedication of water rights to Washoe County in quantities that are consistent with the water use standards set by the State Engineer and/or Washoe County.

Staff Comment: The application was routed to Washoe County's Water Resource Coordinator. Washoe County's Water Resource Coordinator provided a memo to staff and recommended conditions of approval. The memo can be found as Exhibit B.

**SS 12.8** Dedication of water rights to Washoe County at the time of building permit approval or final map recordation is required. A plan for the transfer, change in point of diversion, or change in use shall be outlined in sufficient detail to clearly state intended use. Water systems and facilities shall meet all applicable state and local requirements and shall make adequate provision for matters including, but not limited to, minimum size of system, inspection, fee collection and maintenance. The standards and procedures for the creation of water systems and facilities are subject to review and approval by the Board of County Commissioners.

Staff Comment: The application was routed to Washoe County's Water Resource Coordinator. Washoe County's Water Resource Coordinator provided a memo to staff and recommended conditions of approval. The memo can be found as Exhibit B.

**SS 12.9** Existing water rights (permitted and certificated) and water resources shall be retained in the valley whenever possible. Transfer of water (except those transfers in compliance with Policy SS.12.1) shall be discouraged unless the social, economic and environmental consequences are identified and mitigation measures are established.

Staff Comment: The application was routed to Washoe County's Water Resource Coordinator. Washoe County's Water Resource Coordinator provided a memo to staff and recommended conditions of approval. The memo can be found as Exhibit B.

**SS 15.1** Whenever applicable, all development within the Spanish Springs Suburban Character Management Area will connect to a community water service.

Staff Comment: Proposed subdivision will connect to Truckee Meadows Water Authority (TMWA), satisfying this requirement.

**SS 16.1** Whenever applicable, all development within the Spanish Springs Suburban Character Management Area will connect to a community sewer service.

*Staff Comment:* Proposed subdivision will connect to Washoe County Sewer services, satisfying this requirement.

**SS 16.2** Washoe County will continue to pursue the conversion of existing septic systems in portions of the Spanish Springs planning area to community sewer or alternative wastewater treatment processes.

*Staff Comment:* Existing residence is currently served by well and septic. Approval proposed to be conditioned on attachment of existing residence to community sewer.

### **Spanish Springs Modifiers**

The applicable Southwest Truckee Meadows Area Plan modifiers are:

**110.216.45 Water Rights Requirements** Residential and commercial development in the Spanish Springs planning area shall provide proof of sufficient water rights based upon the following:

- (a) Decreed Truckee River water rights when used in an appropriate drought yield discount as determined by the State Engineer;
- (b) Imported groundwater from a source that is replenished in sufficient quantity to meet demands placed upon a source without groundwater mining; and
- (c) Certificated groundwater rights or permitted quasi-municipal groundwater rights (that existed as of May 22, 1990) matched by imported, decreed surface water, from a source such as the Truckee River, equal to one-half (1/2) of the groundwater rights

*Staff Comment:* The application was routed to Washoe County's Water Resource Coordinator. Washoe County's Water Resource Coordinator provided a memo to staff and recommended conditions of approval. The memo can be found as Exhibit B.

**110.216.55 Spanish Springs Water Detention Facility** All proposed development in the Spanish Springs planning area shall evaluate and develop storm drainage improvements which ensure the Spanish Springs Water Detention Facility remains hydraulically equivalent to the design parameters of the facility existing at the time of adoption of this section.

*Staff Comment:* The application was routed to Washoe County Engineering. Washoe County Engineering provided a memo to staff and recommended conditions of approval. The memo can be found as Exhibit D.

### **Spanish Springs Citizen Advisory Board (SSCAB)**

The proposed project was presented by the applicant's representative at the regularly scheduled Citizen Advisory Board meeting on December 4, 2019.

- Public had concerns over continuing development in the area.
- Sidewalk requirements.
- Water and sewer service.
- Access to the site.

### **Reviewing Agencies**

- Washoe County Community Services Department
  - District Attorney, Civil Division
  - Engineering and Capital Projects
  - Planning and Building

- Traffic
  - Parks and Open Space
  - Water Management
  - Washoe County Health District
    - Air Quality
    - Environmental Health
    - Emergency Medical Services
  - State of Nevada
    - Division of Environmental Protection
    - Department of Water Resources
    - Division of Forestry
    - Department of Transportation
    - Division of Parks
    - Department of Wildlife
  - Truckee Meadows Fire Protection District
  - Regional Transportation Commission
  - Washoe County Sheriff
  - Washoe County Animal Services
  - Washoe County School District
  - Washoe-Storey Conservation District
  - U.S. Postal Service
  - AT&T
  - NV Energy
  - Truckee Meadows Water Authority
  - Spanish Springs Citizen Advisory Board
- Washoe County Planning and Building Division addressed general master plan and development code standards including access and roads.  
**Contact: Chris Bronczyk, 775.328.3612, [cbronczyk@washoecounty.us](mailto:cbronczyk@washoecounty.us); Dan Cahalane, 775.328.3628, [dcahalane@washoecounty.us](mailto:dcahalane@washoecounty.us)**
  - Washoe County Water Resource Coordinator addressed water rights conditions for the life of the project.  
**Contact: Vahid Behmaram, 775.954.4647, [VBehmaram@washoecounty.us](mailto:VBehmaram@washoecounty.us)**
  - Washoe County Engineering addressed general subdivision standards, roads, utilities, and drainage. The County Engineer also provided conditions of approval for the project.  
**Contact: Leo Vesely, 775.328.2313, [lvesely@washoecounty.us](mailto:lvesely@washoecounty.us); Tim Simpson, 775.954.4648, [tsimpson@washoecounty.us](mailto:tsimpson@washoecounty.us)**
  - Washoe County Health District addressed water rights conditions for the life of the project.  
**Contact: James English, 775.328. 2610, [JEnglish@washoecounty.us](mailto:JEnglish@washoecounty.us)**

### **Staff Comment on Required Findings**

WCC Section 110.608.25 of Article 608, *Tentative Subdivision Maps*, requires that all of the following findings be made to the satisfaction of the Washoe County Planning Commission before granting approval of the abandonment request. Staff has completed an analysis of the application and has determined that the proposal is in compliance with the required findings as follows.

- 1) Plan Consistency. That the proposed map is consistent with the Master Plan and any specific plan.

Staff Comment: The proposed tentative map is consistent with the goals and policies of the Master Plan and the Spanish Springs Area Plan.

- 2) Design or Improvement. That the design or improvement of the proposed subdivision is consistent with the Master Plan and any specific plan.

Staff Comment: The proposed tentative map meets all of the density and lot size the Master Plan and the Spanish Springs Area Plan.

- 3) Type of Development. That the site is physically suited for the type of development proposed.

Staff Comment: The site is physically suited for the type of development proposed and the site can accommodate the type of development proposed. To the west of this property is the Pebble Creek subdivision, which is zoned LDS, and to the east of the property is Harris Ranch which is also zoned LDS.

- 4) Availability of Services. That the subdivision will meet the requirements of Article 702, Adequate Public Facilities Management System.

Staff Comment: The proposed subdivision will meet the requirements of Article 702, Adequate Public Facilities Management System; impacts associated with the proposed subdivision will be appropriately mitigated, based upon the imposition of appropriate conditions of approval as included at Exhibit A to this report.

- 5) Fish or Wildlife. That neither the design of the subdivision nor any proposed improvements is likely to cause substantial environmental damage, or substantial and avoidable injury to any endangered plant, wildlife or their habitat.

Staff Comment: The proposed improvements will not cause substantial environmental damage or harm to endangered plants, wildlife or their habitat.

- 6) Public Health. That the design of the subdivision or type of improvement is not likely to cause significant public health problems. The application was routed to the Nevada Department of Wildlife, the Nevada Division of Environmental Protection, and the Nevada Division of Forestry – Endangered Species, staff received no comments back from these agencies regarding environmental damage, or endangered species present on this property.

Staff Comment: The proposed subdivision is similar to other residential subdivisions in the surrounding area. Due to the location and design of the subdivision and type of improvements, this development is not likely to cause significant public health problems.

- 7) Easements. That the design of the subdivision or the type of improvements will not conflict with easements acquired by the public at large for access through, or use of property within, the proposed subdivision.

Staff Comment: The proposed development has taken all easements (Campo Rico Lane) into consideration and will not conflict with the easements in regard to utility purposes or public access. The project does not indicate that Campo Rico Lane will be used as the primary access point.

- 8) Access. That the design of the subdivision provides any necessary access to surrounding, adjacent lands and provides appropriate secondary access for emergency vehicles.

Staff Comment: The subdivision will be accessed by public road, which will be constructed with the Harris Ranch Project. Access to Pyramid Highway via Campo Rico Lane will not be provided.

- 9) Dedications. That any land or improvements to be dedicated to the County is consistent with the Master Plan.

Staff Comment: In the event that the roads or other lands are dedicated to the County, the lands will be improved such that they are consistent with the Master Plan and/or built to County standards. The proposed project does not plan for any dedications to Washoe County.

- 10) Energy. That the design of the subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision.

Staff Comment: To the extent feasible, the development will include building materials to allow for passive or natural heating and cooling opportunities. Additionally, the homes will be oriented in such a way to take advantage of passive/natural heating and cooling opportunities.

### **Recommendation**

After a thorough analysis and review, Tentative Subdivision Map Case Number WTM19-003 is being recommended for approval with conditions. Staff offers the following motion for the Board's consideration.

### **Motion**

I move that, after giving reasoned consideration to the information contained in the staff report and information received during the public hearing, the Washoe County Planning Commission approve Tentative Subdivision Map Case Number WTM19-003 for Ken Dixon having made all ten findings in accordance with Washoe County Code Section 110.608.25:

- 1) Plan Consistency. That the proposed map is consistent with the Master Plan and any specific plan;
- 2) Design or Improvement. That the design or improvement of the proposed subdivision is consistent with the Master Plan and any specific plan;
- 3) Type of Development. That the site is physically suited for the type of development proposed;
- 4) Availability of Services. That the subdivision will meet the requirements of Article 702, Adequate Public Facilities Management System;
- 5) Fish or Wildlife. That neither the design of the subdivision nor any proposed improvements is likely to cause substantial environmental damage, or substantial and avoidable injury to any endangered plant, wildlife or their habitat;
- 6) Public Health. That the design of the subdivision or type of improvement is not likely to cause significant public health problems;
- 7) Easements. That the design of the subdivision or the type of improvements will not conflict with easements acquired by the public at large for access through, or use of property within, the proposed subdivision;
- 8) Access. That the design of the subdivision provides any necessary access to surrounding, adjacent lands and provides appropriate secondary access for emergency vehicles;
- 9) Dedications. That any land or improvements to be dedicated to the County is consistent with the Master Plan; and
- 10) Energy. That the design of the subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision.

**Appeal Process**

Planning Commission action will be effective 10 calendar days after the written decision is filed with the Secretary to the Planning Commission, 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 Planning Commission and mailed to the applicant.

Owner: Ken Dixon  
11720 Campo Rico Lane  
Sparks, NV 89441

Applicant: Axion Engineering  
681 Edison Way  
Reno, NV 89502



# Conditions of Approval

Tentative Subdivision Map Case Number WTM19-003

The project approved under Tentative Subdivision Map Case Number WTM19-003 shall be carried out in accordance with the conditions of approval granted by the Planning Commission on January 7, 2020. 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 tentative subdivision map shall be met or financial assurance must be provided to satisfy the conditions of approval prior to the recordation of a final parcel map. 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 tentative subdivision map 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 tentative parcel map may result in the institution of revocation procedures.

Washoe County reserves the right to review and revise the Conditions of Approval related to this tentative subdivision map 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 recordation of a final map.
- 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.

**STANDARD CONSIDERATIONS FOR SUBDIVISIONS**  
**Nevada Revised Statutes 278.349**

Pursuant to NRS 278.349, when contemplating action on a tentative subdivision map, the governing body, or the planning commission if it is authorized to take final action on a tentative map, shall consider:

- (a) Environmental and health laws and regulations concerning water and air pollution, the disposal of solid waste, facilities to supply water, community or public sewage disposal and, where applicable, individual systems for sewage disposal;
- (b) The availability of water which meets applicable health standards and is sufficient for the reasonably foreseeable needs of the subdivision;
- (c) The availability and accessibility of utilities;
- (d) The availability and accessibility of public services such as schools, police and fire protection, transportation, recreation and parks;
- (e) Conformity with the zoning ordinances and master plan, except that if any existing zoning ordinance is inconsistent with the master plan, the zoning ordinance takes precedence;
- (f) General conformity with the governing body's master plan of streets and highways;
- (g) The effect of the proposed subdivision on existing public streets and the need for new streets and highways to serve the subdivision;
- (h) Physical characteristics of the land such as floodplain, slope and soil;
- (i) The recommendations and comments of those entities reviewing the tentative map pursuant to NRS 278.330 and 278.335; and
- (j) The availability and accessibility of fire protection, including, but not limited to, the availability and accessibility of water and services for the prevention and containment of fires, including fires in wild lands.

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 the Planning and Building Division, which shall be responsible for determining compliance with these conditions.

**Contact: Chris Bronczyk, Planner, 775.328.3612, [cbronczyk@washoecounty.us](mailto:cbronczyk@washoecounty.us); Dan Cahalane, Planner, 775.328.3628, [dcahalane@washoecounty.us](mailto:dcahalane@washoecounty.us)**

- a. The applicant shall demonstrate substantial conformance to the plans approved as part of this tentative subdivision map.
- b. The subdivision shall be in substantial conformance with the provisions of Washoe County Development Code Article 604, Design Requirements, and Article 608, Tentative Subdivision Maps.
- c. Final maps and final construction drawings shall comply with all applicable statutes, ordinances, rules, regulations and policies in effect at the time of submittal of the tentative map or, if requested by the developer and approved by the applicable agency, those in effect at the time of approval of the final map.
- d. In accordance with NRS 278.360, the sub-divider shall present to Washoe County a final map, prepared in accordance with the tentative map, for the entire area for which a tentative map has been approved, or one of a series of final maps, each covering a portion of the approved tentative map, within four years after the date of approval of the tentative map or within one year of the date of approval for subsequent final maps. On subsequent final maps, that date may be extended by two years if the extension request is received prior to the expiration date.

- e. Final maps shall be in substantial compliance with all plans and documents submitted with and made part of this tentative map request, as may be amended by action of the final approving authority.
- f. All final maps shall contain the applicable portions of the following jurat:

The Tentative Map for WTM19-003 for Blue Oaks WAS APPROVED BY THE WASHOE COUNTY PLANNING COMMISSION ON January 7, 2020.

THIS FINAL MAP, **MAP NAME AND UNIT/PHASE #**, MEETS ALL APPLICABLE STATUTES, ORDINANCES AND CODE PROVISIONS, IS IN SUBSTANTIAL CONFORMANCE WITH THE TENTATIVE MAP, AND ALL CONDITIONS HAVE BEEN MET.

THIS FINAL MAP IS APPROVED AND ACCEPTED FOR RECORDATION **THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_** BY THE PLANNING AND BUILDING DIRECTOR. THE OFFER OF DEDICATION FOR **STREETS, SEWERS, ETC.** IS REJECTED AT THIS TIME, BUT WILL REMAIN OPEN IN ACCORDANCE WITH NRS CHAPTER 278.

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MOJRA HAUENSTEIN, DIRECTOR  
PLANNING AND BUILDING

**Jurat for ALL SUBSEQUENT FINAL MAPS**

THE TENTATIVE MAP for **WTPM19-003** APPROVED BY THE WASHOE COUNTY PLANNING COMMISSION ON *<date>*. *[If the TM had been appealed to the BCC --- Add:]* THE WASHOE COUNTY COMMISSION APPROVED THE TENTATIVE MAP ON APPEAL ON *<date>*.

THE FIRST FINAL MAP FOR THIS TENTATIVE MAP WAS APPROVED AND ACCEPTED FOR RECORDATION ON *<date of Planning and Building Director's signature on first final map>*. *[Omit the following if second map.]* THE MOST RECENTLY RECORDED FINAL MAP, *<subdivision name and prior unit/phase #>* FOR THIS TENTATIVE MAP WAS APPROVED AND ACCEPTED FOR RECORDATION ON *<date of Planning and Building Director's signature on most recent final map>* *[If an extension has been granted after that date – add the following]:* A TWO YEAR EXTENSION OF TIME FOR THE TENTATIVE MAP WAS APPROVED BY THE WASHOE COUNTY PLANNING COMMISSION ON *<date of last Planning Commission action to extend the tentative map>*.

THIS FINAL MAP, *Blue Oaks*, MEETS ALL APPLICABLE STATUTES, ORDINANCES AND CODE PROVISIONS; IS IN SUBSTANTIAL CONFORMANCE WITH THE TENTATIVE MAP; AND ALL CONDITIONS HAVE BEEN MET.

THIS FINAL MAP IS APPROVED AND ACCEPTED FOR RECORDATION THIS \_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_ BY THE WASHOE COUNTY PLANNING AND BUILDING DIRECTOR. THE OFFER OF DEDICATION FOR <streets, sewers> IS REJECTED AT THIS TIME, BUT WILL REMAIN OPEN IN ACCORDANCE WITH NRS CHAPTER 278.

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MOJRA HAUENSTEIN, DIRECTOR,  
PLANNING AND BUILDING DIVISION

- g. A note shall be placed on all grading plans and construction drawings 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.

- h. The final map shall designate faults that have been active during the Holocene epoch of geological time, and the final map shall contain the following note:

NOTE

No habitable structures shall be located on a fault that has been active during the Holocene epoch of geological time.

- i. The developer and all successors shall direct any potential purchaser of the site to meet with the Planning and Building Division to review conditions of approval prior to the final sale of the site. Any subsequent purchasers of the site shall notify the Planning and Building Division of the name, address, telephone number and contact person of the new purchaser within thirty (30) days of the final sale.
- j. A certification letter or series of letters by a registered landscape architect or other persons permitted to prepare landscaping and irrigation plans pursuant to N.R.S. 623A shall be submitted to and approved by Planning and Building / Design Review Committee. The letter(s) shall certify that all applicable landscaping provisions of Articles **[408, 410 and 412]** of the Development Code have been met. Any landscaping plans and the letter shall be wet-stamped. The letter shall indicate any provisions of the code that the Director of Planning and Building Division has waived.
- k. All landscaping shall be maintained in accordance with the provisions found in Section 110.412.75, Maintenance. A three-year maintenance plan shall be submitted by a licensed landscape architect registered in the State of Nevada to the Planning and Building Division, prior to a Certificate of Occupancy. The plan shall be wet-stamped.
- l. Failure to comply with the conditions of approval shall render this approval null and void.
- m. Conditions, covenants, and restrictions (CC&Rs), including any supplemental CC&Rs, shall be submitted to Planning and Building staff for review and subsequent forwarding to the District Attorney for review and approval. The final CC&Rs shall be signed and notarized by the owner(s) and submitted to Planning and Building with the recordation fee prior to the recordation of the final map. The CC&Rs shall require all phases and units of the subdivision approved under this tentative map to be subject to the same CC&Rs. Washoe County shall be made a party to the applicable provisions of the

CC&Rs to the satisfaction of the District Attorney's Office. Said CC&Rs shall specifically address the potential for liens against the properties and the individual property owners' responsibilities for the funding of maintenance, replacement, and perpetuation of the following items, at a minimum:

1. Maintenance of public access easements, common areas, and common open spaces. Provisions shall be made to monitor and maintain, for a period of three (3) years regardless of ownership, a maintenance plan for the common open space area. The maintenance plan for the common open space area shall, as a minimum, address the following:
  - a. Vegetation management;
  - b. Watershed management;
  - c. Debris and litter removal;
  - d. Fire access and suppression; and
  - e. Maintenance of public access and/or maintenance of limitations to public access.
2. All drainage facilities and roadways not maintained by Washoe County shall be privately maintained and perpetually funded by the homeowners association.
3. All open space identified as common area on the final map shall be privately maintained and perpetually funded by the homeowners association. The deed to the open space and common area shall reflect perpetual dedication for that purpose. The maintenance of the common areas and related improvements shall be addressed in the CC&Rs to the satisfaction of the District Attorney's Office.
4. The project and adjacent to undeveloped land shall maintain a fire fuel break of a minimum 30 feet in width until such time as the adjacent land is developed.
5. Locating habitable structures on potentially active (Holocene) fault lines, whether noted on the recorded map or disclosed during site preparation, is prohibited.
6. All outdoor lighting on buildings and streets within the subdivision shall be down-shielded.
7. No motorized vehicles shall be allowed on the platted common area.
8. Washoe County will not assume responsibility for maintenance of the private street system of the development nor will Washoe County accept the streets for dedication to Washoe County unless the streets meet those Washoe County standards in effect at the time of offer for dedication.
9. Mandatory solid waste collection.
10. Fence material (if any), height, and location limitations, and re-fencing standards. Replacement fence must be compatible in materials, finish and location of existing fence.
- n. The common open space owned by the homeowners association shall be noted on the final map as "common open space" and the related deed of conveyance shall specifically provide for the preservation of the common open space in perpetuity. The deed to the open space and common area shall reflect perpetual dedication for that purpose. The deed shall be presented with the CC&Rs for review by Planning and Building staff and the District Attorney.

**Washoe County Engineering and Capital Projects**

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

**Contact: Leo Vesely, 775.328.2041, [lvesely@washoecounty.us](mailto:lvesely@washoecounty.us)**

- a. Final maps and final construction drawings shall comply with all applicable statutes, ordinances, rules, regulations, and policies in effect at the time of submittal of the tentative map or, if requested by the developer and approved by the applicable agency, those in effect at the time of approval of the final map.
- b. Prior to acceptance of public improvements and release of any financial assurances, the developer shall furnish to the Engineering Division a complete set of reproducible as-built construction drawings in an acceptable digital format prepared by a civil engineer licensed in the State of Nevada.
- c. The developer shall be required to participate in any applicable General Improvement District or Special Assessment District formed by Washoe County. The applicable County Department shall be responsible for determining compliance with this condition.
- d. The developer shall provide written approval from the U.S. Postal Service concerning the installation and type of mail delivery facilities. The system, other than individual mailboxes, must be shown on the project construction plans and installed as part of the onsite improvements.
- e. A complete set of construction improvement drawings, including an onsite grading plan, shall be submitted to the County Engineer for approval prior to finalization of any portion of the tentative map. Grading shall comply with best management practices (BMPs) and shall include detailed plans for grading and drainage on each lot, erosion control (including BMP locations and installation details), slope stabilization and mosquito abatement. Placement or disposal of any excavated material shall be indicated on the grading plan.
- f. A note on the final map shall indicate that all drainage facilities shall be privately maintained and perpetually funded by the homeowners association. The maintenance of the drainage facilities shall also be addressed in the homeowners association documents to the satisfaction of the District Attorney's Office.
- g. Any existing easements or utilities that conflict with the development shall be relocated, quitclaimed, and/or abandoned, as appropriate.
- h. Any easement documents recorded for the project shall include an exhibit map that shows the location and limits of the easement in relationship to the project.
- i. Appropriate easements shall be granted for any existing or new utilities, with each affected final map. This includes, but is not limited, to electrical lines, water lines, and drainage maintenance access.
- j. A 10 foot Public Utilities Easement and a 10 foot easement for traffic control signage and plowed snow storage shall be granted adjacent to all street rights-of-way.
- k. A design level geotechnical investigation with fault study shall be provided with the submittal of each final map.
- l. All cut slopes, fill slopes, and berms shall be setback from parcel lines and access easements in accordance with Washoe County Code Article 438.
- m. Prior to recordation of the affected final map, an ASTM E1527-13 Phase I Environmental Site Assessment shall be submitted for all parcels or right-of-way dedicated to Washoe County.
- n. The proposed street shall meet all Washoe County design standards for private streets.

- o. The portion of the right-of-way for the Harris Ranch Subdivision primary access road within this final map shall be dedicated to Washoe County.
- p. Prior to the recordation of this final subdivision map, if the Harris Ranch Subdivision primary access road (Kings River Drive) has not been constructed from the intersection with Pyramid Highway to the intersection of the private roadway, the applicant shall provide a financial assurance to guarantee the construction of the portion of Kings River Drive from Pyramid Highway to the intersection with the private roadway. Prior to final approval of the subdivision improvements and release of financial assurance(s), all access roadways including the portion of Kings River shall be fully constructed.
- q. A homeowners association shall be created with the first final map for the purpose of maintaining all private street, common area and drainage facilities.

**Washoe County Engineering Division – Drainage (County Code 110.420)**

3. The following conditions are requirements of the Washoe County Engineering Division, Drainage Program, which shall be responsible for determining compliance with these conditions.

**Contact Name: Leo Vesely, P.E., 775.328.2041**

- a. The conditional approval of this tentative map shall not be construed as final approval of the drainage facilities shown on the tentative map. Final approval of the drainage facilities will occur during the final map review and will be based upon the final hydrology report.
- b. Prior to finalization of the first final map, a master hydrology/hydraulic report and a master storm drainage plan shall be submitted to the County Engineer for approval.
- c. Prior to finalization of any portion of the tentative map, a final, detailed hydrology/hydraulic report for that unit shall be submitted to the County Engineer. All storm drainage improvements necessary to serve the project shall be designed and constructed to County standards and specifications and/or financial assurances in an appropriate form and amount shall be provided.
- d. Any increase in stormwater runoff flow rate resulting from the development and based on the 5 year and 100 storm(s) shall be detained onsite.
- e. Any increase in stormwater runoff volume resulting from the development based on the 100 storm 10 day storm event shall be retained onsite
- f. The following note shall be added to each final map; “All properties, regardless if they are located within or outside of a FEMA Special Flood Hazard Area, may be subject to flooding. The property owner is required to maintain all drainage easements and natural drainages and not perform or allow unpermitted and unapproved modifications to the property that may have detrimental impacts to surrounding properties.”
- g. Standard reinforced concrete headwalls or other approved alternatives shall be placed on the inlet and outlet of all drainage structures, and grouted rock riprap shall be used to prevent erosion at the inlets and outlets of all culverts.
- h. The developer shall provide pretreatment for petrochemicals and silt for all storm drainage leaving the site.
- i. The Truckee Meadows Regional Stormwater Quality Management Program Construction Permit Submittal Checklist and Inspection Fee shall be submitted with each final map.
- j. A note on the final map shall indicate that all drainage facilities not maintained by Washoe County shall be privately maintained and perpetually funded by a homeowners association. The maintenance and funding of private drainage facilities shall also be

addressed in the homeowners association documents to the satisfaction of the District Attorney's Office.

- k. The maximum permissible flow velocity (that which does not cause scour) shall be determined for all proposed channels and open ditches. The determination shall be based on a geotechnical analysis of the channel soil, proposed channel lining and channel cross section, and it shall be in accordance with acceptable engineering publications/calculations. Appropriate linings shall be provided for all proposed channels and open ditches such that the 100-year flows do not exceed the maximum permissible flow velocity.
- l. All slopes steeper than 3:1 shall be mechanically stabilized to control erosion. As an alternative to riprap, an engineered solution (geofabric, etc.) may be acceptable.
- m. Maintenance access and drainage easements shall be provided for all existing and proposed drainage facilities. All drainage facilities located within Common Area shall be constructed with an adjoining minimum 12' wide gravel access road. Maintenance access road shall be provided to the bottom of proposed detention basins as well as over County owned and maintained storm drainage facilities.
- n. Drainage easements shall be provided for all storm runoff that crosses more than one lot.
- o. Prior to the finalization of the first final map, an operation and maintenance plan for the maintenance of the project's detention/retention basin and drainage facilities shall be developed in accordance with the Washoe County Code Article 421. The Operation and Maintenance Plan shall be incorporated into the project CC&R's to the satisfaction of the County Engineer and District Attorney's Office.
- p. Offsite drainage and common area drainage, draining onto residential lots shall be perpetuated around the residential lots and drainage facilities capable of passing a 100-year storm, shall be constructed with the subdivision improvements to perpetuate the storm water runoff to improved or natural drainage facilities. The maintenance of these drainage facilities shall be addressed in the homeowners association documents to the satisfaction of the County Engineer and the District Attorney's Office.

**Washoe County Engineering Division – Traffic and Roadway (County Code 110.436)**

- 4. The following conditions are requirements of the Washoe County Engineering Division, Traffic and Roadway Program, which shall be responsible for determining compliance with these conditions.

**Contact Information: Leo Vesely, P.E., 775.328.2041**

- a. All roadway improvements necessary to serve the project shall be designed and constructed to County standards and specifications and/or financial assurances in an appropriate form and amount shall be provided.
- b. Street names shall be reviewed and approved by the Regional Street Naming Coordinator.
- c. A note on each affected final map shall state that no direct access from individual lots shall be allowed onto Campo Rico Lane or the Harris Ranch access road. This note shall also be included in the homeowners association documents to the satisfaction of the District Attorney's Office.
- d. For any utilities placed in existing County streets, the streets shall be repaired to the satisfaction of the County Engineer. At a minimum, this will require full depth removal and replacement of asphalt for half the street width, or replacement of non-woven pavement reinforcing fabric with a 2" asphalt overlay for half the street width. Type II

slurry seal is required for the entire street width with either option. Full width street improvements may be required if the proposed utility location is too close to the centerline of the existing street.

- e. Streetlights shall be constructed to Washoe County standards at locations to be determined at the final design stage.
- f. Appropriate transitions shall be provided between the existing and proposed improvements at all proposed street connections. This may include removal and replacement of existing pavement.
- g. All roadways shall be constructed with a minimum of 4 inches of hotmix asphalt meeting the requirements of Washoe County.

**Washoe County Engineering Division – Utilities (County Code 422 & Sewer Ordinance)**

- 5. The following conditions are requirements of the Washoe County Engineering Division, Utilities Program, which shall be responsible for determining compliance with these conditions.

**Contact Information: Tim Simpson, P.E., 775.954.4648**

- a. The applicant shall conform to all conditions imposed by intergovernmental agreements required to provide sewer service to the subject project, and, if required, be a party to any such agreements.
- b. All fees shall be paid or deferred in accordance with Washoe County Ordinance prior to the approval of each final map.
- c. Improvement plans shall be submitted and approved by CSD prior to approval of the final map. They shall be in compliance with Washoe County Design Standards and be designed by a Professional Engineer licensed to practice in the State of Nevada.
- d. The applicant shall submit an electronic copy of the street and lot layout for each final map at initial submittal time. The files must be in a format acceptable to Washoe County.
- e. The applicant shall construct and/or provide the financial assurance for the construction of any on-site and off-site sanitary sewer collection systems prior to signature on each final map. The financial assurance must be in a form and amount acceptable to the CSD.
- f. Approved improvement plans shall be used for the construction of on-site and off-site sanitary sewer collection system. The applicant shall provide an electronic copy of this improvement plans to Washoe County.
- g. The CSD will inspect the construction of the sanitary sewer collection system.
- h. The sewer main shall be extended to be adjacent to all lots within the subdivision and any tributary areas.
- i. The sanitary sewer collection system must be offered for dedication to Washoe County along with the recordation of each final map.
- j. Easements and real property for all sanitary sewer collection systems and appurtenances shall be in accordance with Washoe County Design Standards and offered for dedication to Washoe County along with the recordation of each final map.
- k. A master sanitary sewer report for the entire tentative map shall be prepared and submitted by the applicant's engineer at the time of the initial submittal for the first final map which addresses:
  - l. the estimated sewage flows generated by this project,

- m. projected sewage flows from potential or existing development within tributary areas,
- n. the impact on capacity of existing infrastructure,
- o. slope of pipe, invert elevation and rim elevation for all manholes,
- p. proposed collection line sizes, on-site and off-site alignment, and half-full velocities.
- q. No Certificate of Occupancy will be issued until all the sewer collection facilities necessary to serve each final map have been completed, accepted and engineer prepared as-built drawings are delivered to the utility. As-built drawings must be in a format acceptable to Washoe County.
- r. No permanent structures (including rockery or retaining walls, building's, etc.) shall be allowed within or upon any County maintained utility easement.
- s. A minimum 30-foot sanitary sewer and access easement shall be dedicated to Washoe County over any facilities not located in a dedicated right of way.
- t. A minimum 12-foot wide all weather sanitary sewer access road shall be constructed to facilitate access to off-site sanitary sewer manholes.
- u. The CSD shall reserve the right to over-size or realign the design of infrastructure to accommodate future development as determined by accepted engineering calculations. Funding shall be the responsibility of Washoe County. Washoe County shall either participate monetarily at the time of design and/or shall credit an appropriate dollar amount to the Developer at the time of recordation of the subdivision map.

### **Washoe County Health District**

6. 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: James English, 775.328. 2610, [JEnglish@washoecounty.us](mailto:JEnglish@washoecounty.us)**

- a. Construction plans for the development must be submitted to this Health District for approval. The construction drawings must conform to the State of Nevada Regulations Concerning Review of Plans for Subdivisions, Condominiums and Planned Unit Developments, and any applicable requirements of this Health District.
- b. Prior to approval of a final map for the referenced project and pursuant to NAC 278.370, the developer must have the design engineer or a third person submit to the satisfaction this Health District an inspection plan for periodic inspection of the construction of the systems for water supply and community sewerage. The inspection plan must address the following and be included with the final map submittal: a. The inspection plan must indicate if an authorized agency, city or county is performing inspection of the construction of the systems for water supply and community sewerage;
- c. The design engineer or third person shall, pursuant to the approved inspection plan, periodically certify in writing to this Health District that the improvements are being installed in accordance with the approved plans and recognized practices of the trade;
- d. The developer must bear the cost of the inspections; and
- e. The developer may select a third-person inspector, but the selection must be approved by the Health District or local agency. A third-person inspector must be a disinterested person who is not an employee of the developer.
- f. Prior to final map approval, a "Commitment for Service" letter from the sewage purveyor committing sewer service for the entire proposed development shall be submitted to this

Health District. The letter must indicate that the community facility for treatment will not be caused to exceed its capacity and the discharge permit requirements by this added service, or the facility will be expanded to provide for the added service. a. A copy of this letter must be included with the final map submittal.

- g. Prior to final map approval, a "Commitment for Water Service" letter from the water purveyor committing adequate water service for the entire proposed development must be submitted to this Health District. a. A copy of this letter must be included with the final map submittal.
- h. The final map submittal must include a letter from Nevada Division of Environmental Protection to the Health District certifying their approval of the final map.
- i. The final map application packet must include a letter from Division of Water Resources certifying their approval of the final map.
- j. Pursuant to NAC 278.360 of the State of Nevada Regulations Governing Review of plans for Subdivision, Condominiums, and Planned Unit Developments, the development of the subdivision must be carried on in a manner which will minimize water pollution. a. Construction plans shall clearly show how the subdivision will comply with NAC 278.360.
- k. Prior to approval of the final map, the applicant must submit to the Health District the final map fee.
- l. All grading and development activities must be in compliance with the DBOH Regulations Governing the Prevention of Vector-Borne Diseases.

### **Washoe County Water Resources**

- 7. The following conditions are requirements of Washoe County Water Resource Coordinator, which shall be responsible for determining compliance with these conditions.

**Contact: Vahid Behmaram, 775.954.4647**

- a. There are no water rights conditions for approval of this tentative map.
- b. Following the possible approval of the tentative subdivision map, the potential future project will require water supply and sewer service which in turn will require the expansion of water and sewer services and annexation to TMWA service area, if not already annexed.
- c. Valid water and sewer will serve letters will be required prior to approval of the final map proposed by this tentative map.  
TMWA discovery and an annexation agreement are completed and included in the application packet.

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



**WASHOE COUNTY**  
**COMMUNITY SERVICES**  
**INTEGRITY COMMUNICATION SERVICE**

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

November 27, 2019

TO: Chris Bronczyk, Planner, CSD, Planning & Development Division  
FROM: Vahid Behmaram, Water Management Planner Coordinator, CSD  
SUBJECT: Tentative Subdivision Map Case Number WTM19-003 (Blue Oaks)

**Project description:**

The applicant is proposing to approve a 10-lot, common open space single-family residential tentative subdivision map. Lots range from 35,010 square feet to 47,110 square feet.

Location 11720 Campo Rico Lane, Assessor's Parcel Numbers: 534-600-12.

Water service is to be provided by the Truckee Meadows Water Authority (TMWA).

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

- 1) There are no water rights conditions for approval of this tentative map.
- 2) Following the possible approval of the tentative subdivision map, the potential future project will require water supply and sewer service which in turn will require the expansion of water and sewer services and annexation to TMWA service area, if not already annexed.
- 3) Valid water and sewer will serve letters will be required prior to approval of the final map proposed by this tentative map.
- 4) TMWA discovery and an annexation agreement are completed and included in the application packet.



**Washoe County School District**

425 East Ninth Street \* P.O. Box 30425 \* Reno, NV 89520-3425  
Phone (775) 348-0200 \* (775) 348-0304 \* [www.washoeschools.net](http://www.washoeschools.net)

Board of Trustees: Katy Simon Holland, President \* Malena Raymond, Vice President \* Angela Taylor, Clerk  
\* Jacqueline Calvert \* Andrew Caudill \* Scott Kelley \* Ellen Minetto \* Kristen McNeill, Ed.D., Interim Superintendent

04-Dec-19

Chris Bronczyk, Planner & Dan Cahalane, Planner  
Washoe County  
1001 E Ninth St  
Reno, NV 89512

**RE: WTM 19-003 (Blue Oaks)**

Dear Mr. Bonczyk & Mr. Cahalane,

**Blue Oaks**, which proposes **10** new single-family residential units, will impact Washoe County School District facilities. This project is currently zoned for the following schools:

**Taylor Elementary School**

**Taylor ES** has **2** portable buildings (**4** classrooms) in use that provide temporary space for an additional **100** students.

- **Estimated Blue Oaks impact = 2** new ES students (**10** single-family units x **0.206** ES students per unit)
- **Base Capacity = 634**
- **Current Enrolment = 674**
- **% of Base Capacity = 106%**
  
- **Current Enrolment including Blue Oaks = 676**
- **% of Base Capacity including Blue Oaks = 106%**
- **Projected enrolment 2024/2025 School Year = 673/106% Capacity**
- **Projected enrolment 2029/2030 School Year = 674/106% Capacity**
  
- At the start of the 2020/2021 school year, a portion of Taylor will be rezoned for Hall elementary which will temporarily assist with Taylor's capacity, affecting up to 135 current Taylor students, 20% of its current enrolment. The school district has a 10 acre elementary school set-aside within the Harris Ranch Subdivision. The construction of a school within Harris Ranch as prompted by



**WTM19-003**  
Certificate No. 41433  
**EXHIBIT C**

regional school enrolments and adjacent residential developments would go towards the relief of Taylor Elementary.

### **Shaw Middle School**

**Shaw MS** has **2** portable buildings (**4** classrooms) in use that provide temporary space for an additional **100** students.

- **Estimated Blue Oaks impact = 1** new MS students (**10** single-family units x **0.088** MS students per unit)
- **Base Capacity = 1,183**
- **Current Enrolment = 933**
- **% of Base Capacity = 79%**
  
- **Current Enrolment including Blue Oaks = 934**
- **% of Base Capacity including Blue Oaks = 79%**
- **Projected enrolment 2024/2025 School Year = 1,053/89% Capacity**
- **Projected enrolment 2029/2030 School Year = 1,113/94% Capacity**
  
- Upon approaching exceeding enrolment capacities at Shaw Middle School, the school district will scope options for expanding school facilities at Shaw in order to accommodate anticipated growth within its enrolment boundary.

### **Spanish Springs High School**

**Spanish Springs HS** has **5** portable buildings (**10** classrooms) in use that provide temporary space for an additional **250** students.

- **Estimated Project Name impact = 1** new HS students (**10** single-family units x **0.094** HS students per unit)
- **Base Capacity = 2,312**
- **Current Enrolment = 2,486**
- **% of Base Capacity = 108%**
  
- **Current Enrolment including Blue Oaks = 2,487**

- **% of Base Capacity including Blue Oaks = 108%**
- **Projected enrolment 2024/2025 School Year = 1,877/81% Capacity**
- **Projected enrolment 2029/2030 School Year = 2,129/92% Capacity**
  
- The Washoe County School District will open Hug High School at Wildcreek golf course in the Fall of 2022. Part of the intention of opening Hug at Wildcreek is to rezone students in North Sun Valley from Spanish Springs High School to the new Hug location which will dramatically improve enrollment capacities for Spanish Springs High.

Thank you for the opportunity to comment. Please communicate any further questions and/or comments.

***Brett A. Rodela***

Brett A. Rodela, GIS Analyst  
Washoe County School District Capital Projects  
14101 Old Virginia Road  
Reno NV USA 89521  
775.325.8303  
[brett.rodela@washoeschools.net](mailto:brett.rodela@washoeschools.net)



# 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: December 03, 2019

To: Chris Bronczyk, Planner

From: Leo Vesely, P.E., Licensed Engineer

Re: **WTM19-0003** Blue Oaks Subdivision (10 Lots)

### GENERAL PROJECT DISCUSSION

Washoe County Engineering staff has reviewed the above referenced application. The proposed project consists of a 10 lot subdivision and is located on approximately 10 acres on the east side of Campo Rico Lane adjacent to the proposed Harris Ranch Subdivision. The parcel number is 534-600-12. The Engineering Division recommends approval subject to the following comments and conditions of approval, which supplement applicable County Code and are based upon our review of the site and the tentative map application prepared by Axion Engineering. The Engineering Division shall determine compliance with the following conditions of approval.

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

### Washoe County Engineering Division – Land Development

1. The following conditions are requirements of the Washoe County Engineering Division, Land Development Program, which shall be responsible for determining compliance with these conditions.  
**Contact Name:** Leo Vesely, P.E. (775) 328-2041
  - a. Final maps and final construction drawings shall comply with all applicable statutes, ordinances, rules, regulations, and policies in effect at the time of submittal of the tentative map or, if requested by the developer and approved by the applicable agency, those in effect at the time of approval of the final map.
  - b. Prior to acceptance of public improvements and release of any financial assurances, the developer shall furnish to the Engineering Division a complete set of reproducible as-built construction drawings in an acceptable digital format prepared by a civil engineer licensed in the State of Nevada.
  - c. The developer shall be required to participate in any applicable General Improvement District or Special Assessment District formed by Washoe County. The applicable County Department shall be responsible for determining compliance with this condition.
  - d. The developer shall provide written approval from the U.S. Postal Service concerning the installation and type of mail delivery facilities. The system, other than individual mailboxes, must be shown on the project construction plans and installed as part of the onsite improvements.



INTEGRITY



EFFECTIVE  
COMMUNICATION



QUALITY  
PUBLIC SERVICE

Subject: **Blue Oaks Subdivision WTM19-0003** (10 Lots)  
Date: December 03, 2019  
Page: 2

- e. A complete set of construction improvement drawings, including an onsite grading plan, shall be submitted to the County Engineer for approval prior to finalization of any portion of the tentative map. Grading shall comply with best management practices (BMPs) and shall include detailed plans for grading and drainage on each lot, erosion control (including BMP locations and installation details), slope stabilization and mosquito abatement. Placement or disposal of any excavated material shall be indicated on the grading plan.
- f. A note on the final map shall indicate that all drainage facilities shall be privately maintained and perpetually funded by the home owners association. The maintenance of the drainage facilities shall also be addressed in the home owner's association documents to the satisfaction of the District Attorney's Office.
- g. Any existing easements or utilities that conflict with the development shall be relocated, quitclaimed, and/or abandoned, as appropriate.
- h. Any easement documents recorded for the project shall include an exhibit map that shows the location and limits of the easement in relationship to the project.
- i. Appropriate easements shall be granted for any existing or new utilities, with each affected final map. This includes, but is not limited, to electrical lines, water lines, and drainage maintenance access.
- j. A 10 foot Public Utilities Easement and a 10 foot easement for traffic control signage and plowed snow storage shall be granted adjacent to all street rights-of-way.
- k. A design level geotechnical investigation with fault study shall be provided with the submittal of each final map.
- l. All cut slopes, fill slopes, and berms shall be setback from parcel lines and access easements in accordance with Washoe County Code Article 438.
- m. Prior to recordation of the affected final map, an ASTM E1527-13 Phase I Environmental Site Assessment shall be submitted for all parcels or right-of-way dedicated to Washoe County.
- n. The proposed street shall meet all Washoe County design standards for private streets.
- o. The portion of the right-of-way for the Harris Ranch Subdivision primary access road within this final map shall be dedicated to Washoe County.
- p. Prior to the recordation of this final subdivision map, if the Harris Ranch Subdivision primary access road (Kings River Drive) has not been constructed from the intersection with Pyramid Highway to the intersection of the private roadway, the applicant shall provide a financial assurance to guarantee the construction of the portion of Kings River Drive from Pyramid Highway to the intersection with the private roadway. Prior to final approval of the subdivision improvements and release of financial assurance(s), all access roadways including the portion of Kings River shall be fully constructed.
- q. A home owners association shall be created with the first final map for the purpose of maintaining all private street, common area and drainage facilities.

**Washoe County Engineering Division – Drainage (County Code 110.420)**

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

Subject: **Blue Oaks Subdivision WTM19-0003** (10 Lots)  
Date: December 03, 2019  
Page: 3

**Contact Name:** Leo Vesely, P.E. (775) 328-2041

- a. The conditional approval of this tentative map shall not be construed as final approval of the drainage facilities shown on the tentative map. Final approval of the drainage facilities will occur during the final map review and will be based upon the final hydrology report.
- b. Prior to finalization of the first final map, a master hydrology/hydraulic report and a master storm drainage plan shall be submitted to the County Engineer for approval.
- c. Prior to finalization of any portion of the tentative map, a final, detailed hydrology/hydraulic report for that unit shall be submitted to the County Engineer. All storm drainage improvements necessary to serve the project shall be designed and constructed to County standards and specifications and/or financial assurances in an appropriate form and amount shall be provided.
- d. Any increase in stormwater runoff flow rate resulting from the development and based on the 5 year and 100 storm(s) shall be detained onsite.
- e. Any increase in stormwater runoff volume resulting from the development based on the 100 storm 10 day storm event shall be retained onsite
- f. The following note shall be added to each final map; "All properties, regardless if they are located within or outside of a FEMA Special Flood Hazard Area, may be subject to flooding. The property owner is required to maintain all drainage easements and natural drainages and not perform or allow unpermitted and unapproved modifications to the property that may have detrimental impacts to surrounding properties."
- g. Standard reinforced concrete headwalls or other approved alternatives shall be placed on the inlet and outlet of all drainage structures, and grouted rock riprap shall be used to prevent erosion at the inlets and outlets of all culverts.
- h. The developer shall provide pretreatment for petrochemicals and silt for all storm drainage leaving the site.
- i. The Truckee Meadows Regional Stormwater Quality Management Program Construction Permit Submittal Checklist and Inspection Fee shall be submitted with each final map.
- j. A note on the final map shall indicate that all drainage facilities not maintained by Washoe County shall be privately maintained and perpetually funded by a home owners association. The maintenance and funding of private drainage facilities shall also be addressed in the home owner's association documents to the satisfaction of the District Attorney's Office.
- k. The maximum permissible flow velocity (that which does not cause scour) shall be determined for all proposed channels and open ditches. The determination shall be based on a geotechnical analysis of the channel soil, proposed channel lining and channel cross section, and it shall be in accordance with acceptable engineering publications/calculations. Appropriate linings shall be provided for all proposed channels and open ditches such that the 100-year flows do not exceed the maximum permissible flow velocity.
- l. All slopes steeper than 3:1 shall be mechanically stabilized to control erosion. As an alternative to riprap, an engineered solution (geofabric, etc.) may be acceptable.
- m. Maintenance access and drainage easements shall be provided for all existing and proposed drainage facilities. All drainage facilities located within Common Area shall be constructed with an adjoining minimum 12' wide gravel access road. Maintenance access road shall be provided to the bottom of proposed detention basins as well as over County owned and maintained storm drainage facilities.

Subject: **Blue Oaks Subdivision WTM19-0003** (10 Lots)  
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- n. Drainage easements shall be provided for all storm runoff that crosses more than one lot.
- o. Prior to the finalization of the first final map, an operation and maintenance plan for the maintenance of the project's detention/retention basin and drainage facilities shall be developed in accordance with the Washoe County Code Article 421. The Operation and Maintenance Plan shall be incorporated into the project CC&R's to the satisfaction of the County Engineer and District Attorney's Office.
- p. Offsite drainage and common area drainage, draining onto residential lots shall be perpetuated around the residential lots and drainage facilities capable of passing a 100-year storm, shall be constructed with the subdivision improvements to perpetuate the storm water runoff to improved or natural drainage facilities. The maintenance of these drainage facilities shall be addressed in the home owner's association documents to the satisfaction of the County Engineer and the District Attorney's Office.

**Washoe County Engineering Division – Traffic and Roadway (County Code 110.436)**

- 3. The following conditions are requirements of the Washoe County Engineering Division, Traffic and Roadway Program, which shall be responsible for determining compliance with these conditions.  
**Contact Information:** Leo Vesely, P.E (775) 328-2041
  - a. All roadway improvements necessary to serve the project shall be designed and constructed to County standards and specifications and/or financial assurances in an appropriate form and amount shall be provided.
  - b. Street names shall be reviewed and approved by the Regional Street Naming Coordinator.
  - c. A note on each affected final map shall state that no direct access from individual lots shall be allowed onto Campo Rico Lane or the Harris Ranch access road. This note shall also be included in the home owner's association documents to the satisfaction of the District Attorney's Office.
  - d. For any utilities placed in existing County streets, the streets shall be repaired to the satisfaction of the County Engineer. At a minimum, this will require full depth removal and replacement of asphalt for half the street width, or replacement of non-woven pavement reinforcing fabric with a 2" asphalt overlay for half the street width. Type II slurry seal is required for the entire street width with either option. Full width street improvements may be required if the proposed utility location is too close to the centerline of the existing street.
  - e. Streetlights shall be constructed to Washoe County standards at locations to be determined at the final design stage.
  - f. Appropriate transitions shall be provided between the existing and proposed improvements at all proposed street connections. This may include removal and replacement of existing pavement.
  - g. All roadways shall be constructed with a minimum of 4 inches of hotmix asphalt meeting the requirements of Washoe County.

Subject: **Blue Oaks Subdivision WTM19-0003** (10 Lots)  
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**Washoe County Engineering Division – Utilities (County Code 422 & Sewer Ordinance)**

4. The following conditions are requirements of the Washoe County Engineering Division, Utilities Program, which shall be responsible for determining compliance with these conditions.

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

- a. The applicant shall conform to all conditions imposed by intergovernmental agreements required to provide sewer service to the subject project, and, if required, be a party to any such agreements.
- b. All fees shall be paid or deferred in accordance with Washoe County Ordinance prior to the approval of each final map.
- c. Improvement plans shall be submitted and approved by CSD prior to approval of the final map. They shall be in compliance with Washoe County Design Standards and be designed by a Professional Engineer licensed to practice in the State of Nevada.
- d. The applicant shall submit an electronic copy of the street and lot layout for each final map at initial submittal time. The files must be in a format acceptable to Washoe County.
- e. The applicant shall construct and/or provide the financial assurance for the construction of any on-site and off-site sanitary sewer collection systems prior to signature on each final map. The financial assurance must be in a form and amount acceptable to the CSD.
- f. Approved improvement plans shall be used for the construction of on-site and off-site sanitary sewer collection system. The applicant shall provide an electronic copy of this improvement plans to Washoe County.
- g. The CSD will inspect the construction of the sanitary sewer collection system.
- h. The sewer main shall be extended to be adjacent to all lots within the subdivision and any tributary areas.
- i. The sanitary sewer collection system must be offered for dedication to Washoe County along with the recordation of each final map.
- j. Easements and real property for all sanitary sewer collection systems and appurtenances shall be in accordance with Washoe County Design Standards and offered for dedication to Washoe County along with the recordation of each final map.
- k. A master sanitary sewer report for the entire tentative map shall be prepared and submitted by the applicant's engineer at the time of the initial submittal for the first final map which addresses:
  - a. the estimated sewage flows generated by this project,
  - b. projected sewage flows from potential or existing development within tributary areas,
  - c. the impact on capacity of existing infrastructure,
  - d. slope of pipe, invert elevation and rim elevation for all manholes,
  - e. proposed collection line sizes, on-site and off-site alignment, and half-full velocities.

Subject: **Blue Oaks Subdivision WTM19-0003** (10 Lots)  
Date: December 03, 2019  
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- l. No Certificate of Occupancy will be issued until all the sewer collection facilities necessary to serve each final map have been completed, accepted and engineer prepared as-built drawings are delivered to the utility. As-built drawings must be in a format acceptable to Washoe County.
- m. No permanent structures (including rockery or retaining walls, building's, etc.) shall be allowed within or upon any County maintained utility easement.
- n. A minimum 30-foot sanitary sewer and access easement shall be dedicated to Washoe County over any facilities not located in a dedicated right of way.
- o. A minimum 12-foot wide all weather sanitary sewer access road shall be constructed to facilitate access to off-site sanitary sewer manholes.
- p. The CSD shall reserve the right to over-size or realign the design of infrastructure to accommodate future development as determined by accepted engineering calculations. Funding shall be the responsibility of Washoe County. Washoe County shall either participate monetarily at the time of design and/or shall credit an appropriate dollar amount to the Developer at the time of recordation of the subdivision map.



**Washoe-Storey Conservation District**

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

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

December 2, 2019

Washoe County Community Services Department

C/O Chris Bronczyk, Planner

1001 E Ninth Street, Bldg A

Reno, NV 89512

R: WTM19-003 Blue Oaks

Dear Chris,

In reviewing the 10-lot single family subdivision, the Conservation District has the following comments.

We request if road side ditches are constructed 6-8 inch rock placed in the flow line to minimize the downstream flow of sediment. In addition a minimum of two Infiltration trenches 2 feet deep and 3 feet wide placed where flow enters and exits the ditches.

In the retention basin below the inlet construct an infiltration trench 2 feet deep by 3 feet wide the length of the basin. If the basin is seeded no seed placed with a minimum of 2 feet of the infiltration trench. The infiltration trenches encourage ground water recharge and minimize flow to the closed Boneyard basin.

The District requests xeriscape front yards that reflects the high desert landscape to the area. If turf is placed in the front yards a 3 foot wide catchment area constructed from the back face of infrastructure to capture nuisance water flows from entering the infrastructure.

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

Sincerely,

Tyler-Shaffer

December 2, 2019

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

RE: Blue Oaks; APN 534-160-12  
Tentative Subdivision Map; WTM19-003

Dear Mr. Bronczyk:

The Washoe County Health District, Environmental Health Services Division (WCHD) has reviewed the above referenced project. Approval by the WCHD is subject to the following conditions:

**Tentative Map Review and Final Map Conditions per NAC 278**

**The WCHD requires the following conditions to be completed prior to review and approval of any final map:**

1. The parcel with the existing house must connect to the public sewer system and submit for a permit for a tank abandonment permit or the parcel with the existing house must have the current septic system plotted on the property with an associated repair area which meets all applicable setbacks.
2. The application looks to show the existing house will connect to the TMWA water system, therefore a well abandonment permit must be pulled for the existing well within 30 days of the water connection.
3. Prior to any final grading or other civil site improvements, a complete water system plan and Water Project submittal for the referenced proposal must be submitted to Health District. The plan must show that the water system will conform to the State of Nevada Design, Construction, Operation and Maintenance Regulations for Public Water Systems, NAC Chapter 445A, and the State of Nevada Regulations Governing Review of Plans for Subdivisions, Condominiums, and Planned Unit Developments, NAC 278.400 and 278.410.
  - a. The application for a Water Project shall conform to the requirements of NAC 445A.66695.
  - b. Two copies of complete construction plans are required for review. All plans must include an overall site plan, additional phases that will eventually be built to indicate that the water system will be looped, all proposed final grading, utilities, and improvements for the proposed application.
4. Mass grading may proceed after approval of the Tentative Map and after a favorable review by this Health District of a grading permit application.
  - a. The final map submittal shall include a Truckee Meadows Water Authority annexation and discovery with the mass grading permit.

5. Improvement plans for the water system may be constructed prior to final map submittal only after Water Project approval by this Health District.
  - a. For improvement plans approved prior to final map submittal, the Developer shall provide certification by the Professional Engineer of record that the improvement plans were not altered subsequent to final map submittal.
  - b. Any changes to previously approved improvement plans made prior to final map submittal shall be resubmitted to this Health District for approval per NAC 278.290 and NAC 445A.66715.

**The WCHD requires the following to be submitted with the final map application for review and approval:**

1. Construction plans for the development must be submitted to this Health District for approval. The construction drawings must conform to the State of Nevada Regulations Concerning Review of Plans for Subdivisions, Condominiums and Planned Unit Developments, and any applicable requirements of this Health District.
2. Prior to approval of a final map for the referenced project and pursuant to NAC 278.370, the developer must have the design engineer or a third person submit to the satisfaction this Health District an inspection plan for periodic inspection of the construction of the systems for water supply and community sewerage. The inspection plan must address the following and be included with the final map submittal:
  - a. The inspection plan must indicate if an authorized agency, city or county is performing inspection of the construction of the systems for water supply and community sewerage;
  - b. The design engineer or third person shall, pursuant to the approved inspection plan, periodically certify in writing to this Health District that the improvements are being installed in accordance with the approved plans and recognized practices of the trade;
  - c. The developer must bear the cost of the inspections; and
  - d. The developer may select a third-person inspector but the selection must be approved by the Health District or local agency. A third-person inspector must be a disinterested person who is not an employee of the developer.
3. Prior to final map approval, a "Commitment for Service" letter from the sewage purveyor committing sewer service for the entire proposed development shall be submitted to this Health District. The letter must indicate that the community facility for treatment will not be caused to exceed its capacity and the discharge permit requirements by this added service, or the facility will be expanded to provide for the added service.
  - a. A copy of this letter must be included with the final map submittal.
4. Prior to final map approval, a "Commitment for Water Service" letter from the water purveyor committing adequate water service for the entire proposed development must be submitted to this Health District.
  - a. A copy of this letter must be included with the final map submittal.
5. The final map submittal must include a letter from Nevada Division of Environmental Protection to the Health District certifying their approval of the final map.
6. The final map application packet must include a letter from Division of Water Resources certifying their approval of the final map.

7. Pursuant to NAC 278.360 of the State of Nevada Regulations Governing Review of plans for Subdivision, Condominiums, and Planned Unit Developments, the development of the subdivision must be carried on in a manner which will minimize water pollution.
  - a. Construction plans shall clearly show how the subdivision will comply with NAC 278.360.
8. Prior to approval of the final map, the applicant must submit to the Health District the final map fee.
9. All grading and development activities must be in compliance with the DBOH Regulations Governing the Prevention of Vector-Borne Diseases.

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

Sincerely,



James English, REHS, CP-FS  
EHS Supervisor  
Land Development Program

# Blue Oaks

## Tentative Map Application

### Prepared For:

Ken Dixon  
11720 Campo Rico Ln.  
Sparks, NV 89441

### Prepared By:



681 Edison Way  
Reno, NV 89502  
775-771-7983

November 15, 2019

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**Appendix A: Development Application**

- Washoe County Development Application
- Owner Affidavit
- Washoe County Tentative Map Application
- Street Name Request
- Proof of Property Tax Payment
- Assessor’s Map
- Title Report (Original Only)
- Water Rights Information
- TMWA Annexation & Water Service Acknowledgement

**Appendix B: Reports and Plan Sets**

- Preliminary Hydrology Study
- Preliminary Geotechnical Investigation
- U.S. Fish & Wildlife iPaC
- Title Sheet
- Site Plan
- Grading Plan
- Utility Plan
- Utility Plan – Offsite
- Cross Sections
- Landscape Plan

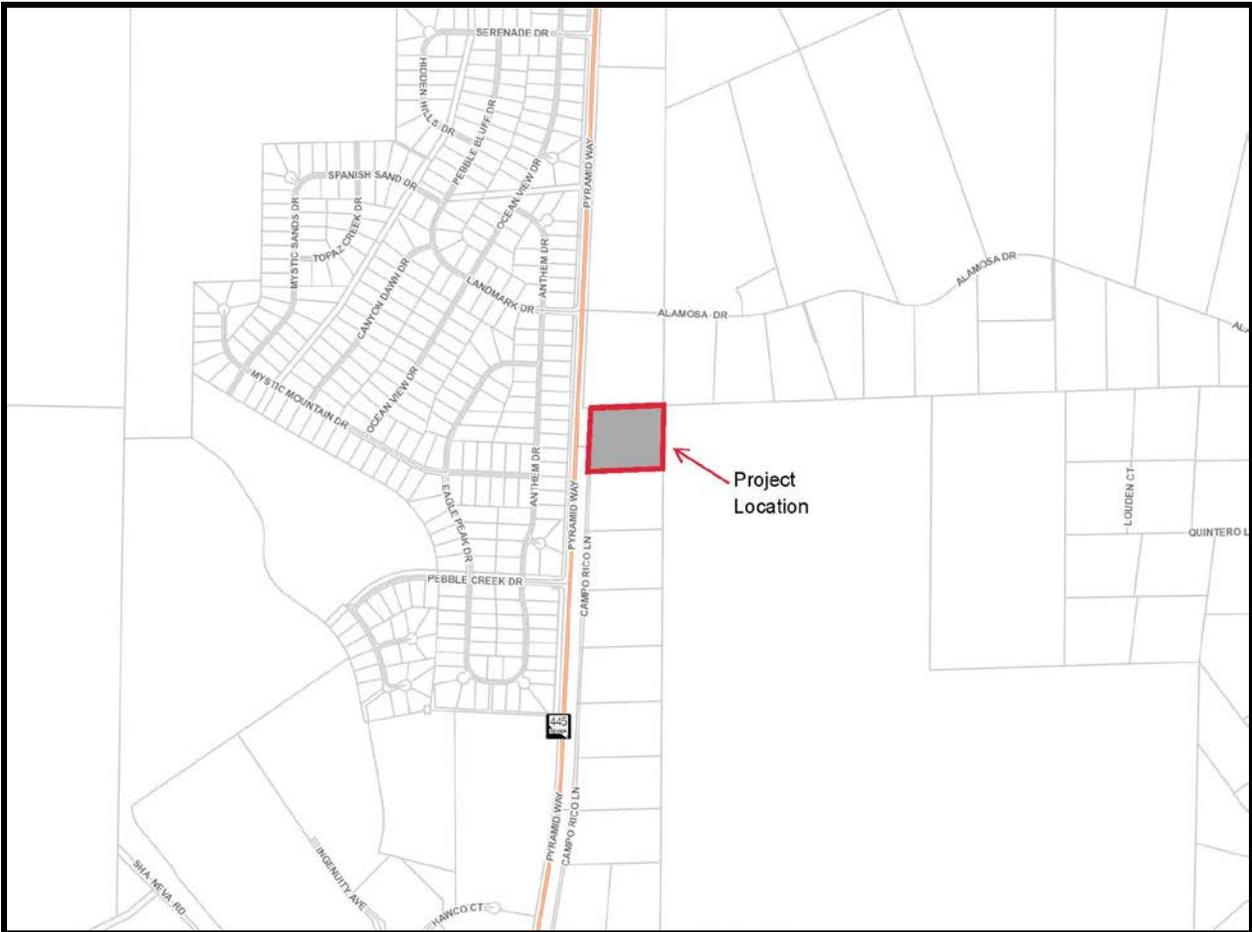
**Project Requests**

This application is for a **Tentative Subdivision Map** for:

- A) 10 Single Family Residential lots on 10 acres.

**Project Requests**

Blue Oaks is located approximately 1000 feet south of the Alamosa/Landmark intersection with Pyramid Highway and is across the street from the Pebble Creek housing development. It will be accessed from the proposed entry road to Harris Ranch at the Northeast corner of the subject property. The project site includes one parcel, APN 534-600-12 and consists of 10± acres, as shown in Figure 1 (below).



**Figure 1 – Vicinity Map**

**Project History**

The subject property is currently a single-family residential lot with one home on it. The existing home was constructed in 1995 by the current owner. His intention is to remain in the existing home which will become lot 4 with recordation of the subdivision map. The owner retains the option to remove or move the existing residence. The remaining portion of the property is undeveloped and covered with native vegetation. There are no known prior development applications associated with the subject property.

**Project Description**

The proposed project is for a 10 unit single family residential development with lot sizes ranging from 35,010 square feet to 47,110 square feet. The average lot size is 36,443 square feet. The project will include 8.37 acres of residential lots and 1.52 acres of existing access easements/roads and drainage detention/retention areas. The sliver of Harris Ranch roadway encompasses 0.11 acres and will provide access to the project site once constructed.

Proposed net density is 0.837 dwelling units per acre and the proposed gross density is 1.00 dwelling units per acre.

The project is designed to conform with the current zoning (LDS – Low Density Suburban), with 35,000 minimum lot area, 120’ minimum width, setbacks of 30’ front, 10’ side, 30’ rear. The allowable density in LDS zoning is 1 unit per acre. The proposed layout is shown below.

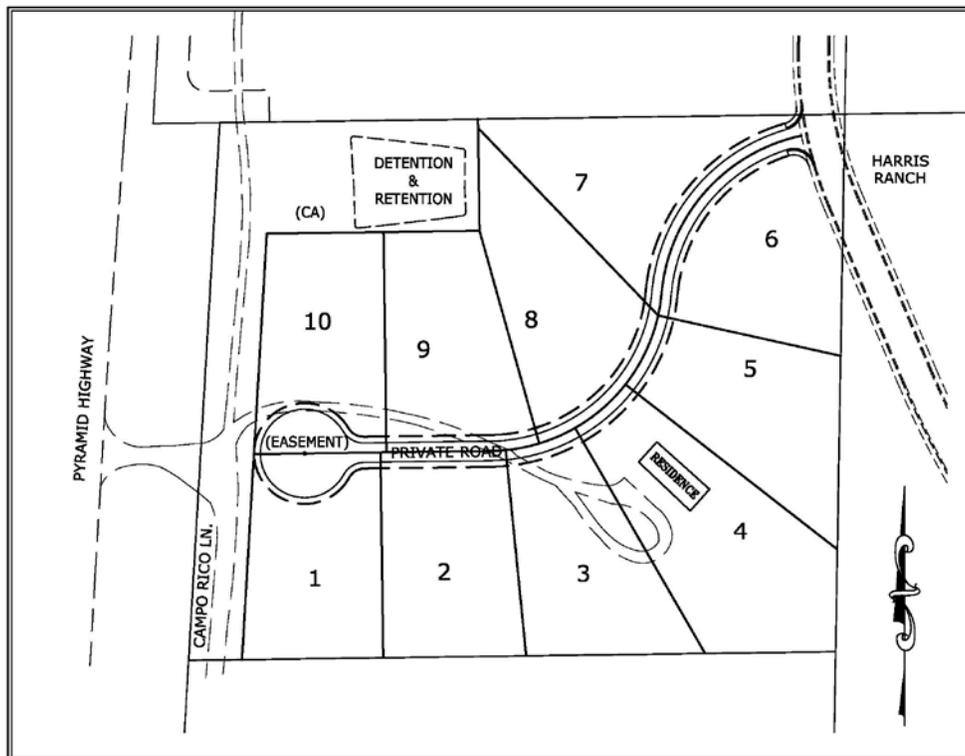


Figure 2 - Site Plan

## Tentative Map Findings

When considering a Tentative Subdivision Map the Washoe County development code requires that the Planning Commission determine if the proposal is in compliance with the required findings. The considered findings are as follows:

- 1) Plan Consistency – Determine that the proposed map is consistent with the Master Plan and any specific plan.

*Response: The proposed map is in conformance with all of the goals and policies of the Spanish Springs Area Plan. There are no specific plans associated with this request.*

- 2) Design or Improvement – Determine that the design or improvement of the proposed subdivision is consistent with the Master Plan and any specific plan.

*Response: The subdivision design complies with the policies of the Spanish Springs Area Plan all the elements of the Washoe County Master Plan.*

- 3) Type of Development – Determine that the project site is physically suited for the type of development proposed.

*Response: The proposed subdivision is located in an area with similar subdivisions to the east and west. The property to the west is the Pebble Creek residential development zoned LDS. East of the proposed project is the Harris Ranch Property (TM16-007) with proposed lot sizes averaging just under 15,000 square feet, also zoned LDS. Property to the north is currently vacant and the southerly property contains a single family home. Both northerly and southerly properties are zoned LDS. The proposed project is a suitable fit.*

- 4) Availability of Service – That the subdivision will meet the requirements of article 702, Adequate Public Facilities Management System.

*Response: Adequate facilities exist to accommodate the proposed development. Any determined deficiencies and/or required infrastructure to connect to existing facilities will be borne by the developer.*

- 5) Fish or Wildlife – Determine that neither the design of the subdivision nor any proposed improvements is likely to cause substantial environmental damage, or substantial and avoidable injury to any endangered plant, wildlife or their habitat.

*Response: There are no identified endangered plants or wildlife on the subject property.*

- 6) Public Health – Determine that the design of the subdivision or type of improvement is not likely to cause significant public health problems.

*Response: The proposed subdivision is similar to other residential subdivisions in the surrounding area and the design is not likely to cause significant health problems.*

- 7) Easements – Determine that the design of the subdivision or the type of improvements will not conflict with easements acquired by the public at large for access through, or use of property within, the proposed subdivision.

*Response: The design of the maintains the current existing access easement currently in-place on the property (Campo Rico Lane).*

- 8) Access – Determine that the design of the subdivision provides any necessary access to surrounding, adjacent lands and provides appropriate secondary access for emergency vehicles.

*Response: Access to and from the site will be via a public road constructed with the Harris Ranch project. Access to Pyramid Highway and adjacent residential properties will not be provided. Secondary emergency access is not required for developments of less than 30 lots per IFC Appendix D, section D107.*

- 9) Dedications – Determine that any land or improvements to be dedicated to Washoe County is consistent with the Master Plan.

*Response: No lands are planned to be dedicated to Washoe County with this development. Should any land need to be dedicated to Washoe County they will be consistent with the Master Plan.*

- 10) Energy – Determine that the design of the subdivision provides, to the extent feasible, for future passive or natural heating or cooling opportunities in the subdivision.

*Response: Adequate opportunities shall be provided for future passive or natural heating or cooling to the extent feasible.*

# APPENDIX "A"

## DEVELOPMENT APPLICATION



## 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>		Staff Assigned Case No.: _____	
Project Name:			
Project Description:			
Project Address:			
Project Area (acres or square feet):			
Project Location (with point of reference to major cross streets <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:		Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	



Property Owner Affidavit

Applicant Name: SURINDER DIXON

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, SURINDER A. DIXON
(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): 534-600-12

Printed Name SURINDER A. DIXON

Signed [Signature]

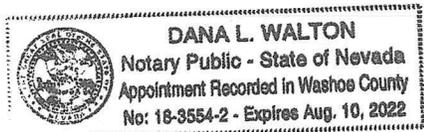
Address 11720 Campo Rico Lane
SPARKS, NV 89441

Subscribed and sworn to before me this
20<sup>th</sup> day of May, 2019.

(Notary Stamp)

Washoe County, State of Nevada
Notary Public in and for said county and state

My commission expires: 8/10/2022



Dana L. Walton

\*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

## Ryan Sims

---

**From:** Ken - ARORA <kdixon@aroraeng.com>  
**Sent:** Friday, November 15, 2019 11:46 AM  
**To:** Ryan Sims  
**Subject:** Re: Blue Oaks Tentative Map

Yes, we agree with your revised layout.

Ken Dixon, P.E.

On 11/14/2019 2:38 PM, Ryan Sims wrote:

Hey Ken,

I will be re-submitting the revised layout tomorrow showing 35,000 square foot minimum lots, private road within access easement, no amenities or "common open space". Take a look at the attached.

County has requested that I get confirmation from you that you are good with the changes. A reply to this email will suffice I'm sure.

Let me know if you have any questions,

Thanks!

### Truncated!

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**This message exceeded the Maximum Message Size set in Account Settings, so we have only downloaded the first few lines from the mail server.**

[Download the rest of the message.](#)

# Tentative Subdivision Map Application Supplemental Information

(All required information may be separately attached)

1. What is the location (address or distance and direction from nearest intersection)?

2. What is the subdivision name (proposed name must not duplicate the name of any existing subdivision)?

3. Density and lot design:

a. Acreage of project site	
b. Total number of lots	
c. Dwelling units per acre	
d. Minimum and maximum area of proposed lots	
e. Minimum width of proposed lots	
f. Average lot size	

4. What utility company or organization will provide services to the development:

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	

5. For common open space subdivisions (Article 408), please answer the following:

- a. Acreage of common open space:

- b. What development constraints are within the development and how many acres are designated slope, wetlands, faults, springs, and/or ridgelines:

- c. Range of lot sizes (include minimum and maximum lot size):

d. Proposed yard setbacks if different from standard:

e. Justification for setback reduction or increase, if requested:

f. Identify all proposed non-residential uses:

g. Improvements proposed for the common open space:

h. Describe or show on the tentative map any public or private trail systems within common open space of the development:

i. Describe the connectivity of the proposed trail system with existing trails or open space adjacent to or near the property:

j. If there are ridgelines on the property, how are they protected from development?

k. Will fencing be allowed on lot lines or restricted? If so, how?

l. Identify the party responsible for maintenance of the common open space:

6. Is the project adjacent to public lands or impacted by "Presumed Public Roads" as shown on the adopted April 27, 1999 Presumed Public Roads (see Washoe County Engineering website at <http://www.washoecounty.us/pubworks/engineering.htm>). If so, how is access to those features provided?

7. Is the parcel within the Truckee Meadows Service Area?

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

8. Is the parcel within the Cooperative Planning Area as defined by the Regional Plan?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, within what city?
------------------------------	-----------------------------	---------------------------

9. Has an archeological survey been reviewed and approved by SHPO on the property? If yes, what were the findings?

--

10. Indicate the type and quantity of water rights the application has or proposes to have available:

a. Permit #		acre-feet per year	
b. Certificate #		acre-feet per year	
c. Surface Claim #		acre-feet per year	
d. Other #		acre-feet per year	

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

--

11. Describe the aspects of the tentative subdivision that contribute to energy conservation:

--

12. Is the subject property in an area identified by Planning and Building as potentially containing rare or endangered plants and/or animals, critical breeding habitat, migration routes or winter range? If so, please list the species and describe what mitigation measures will be taken to prevent adverse impacts to the species:

--

13. If private roads are proposed, will the community be gated? If so, is a public trail system easement provided through the subdivision?

--

14. Are there any applicable policies of the adopted area plan in which the project is located that require compliance? If so, which policies and how does the project comply?

--

15. Are there any applicable area plan modifiers in the Development Code in which the project is located that require compliance? If so, which modifiers and how does the project comply?

--

16. Will the project be completed in one phase or is phasing planned? If so, please provide that phasing plan:

--

17. Is the project subject to Article 424, Hillside Development? If yes, please address all requirements of the Hillside Ordinance in a separate set of attachments and maps.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, include a separate set of attachments and maps.
------------------------------	-----------------------------	---

18. Is the project subject to Article 418, Significant Hydrologic Resources? If yes, please address Special Review Considerations within Section 110.418.30 in a separate attachment.

<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, include separate attachments.
------------------------------	-----------------------------	---------------------------------------

## Grading

**Please complete the following additional questions if the project anticipates grading that involves: (1) Disturbed area exceeding twenty-five thousand (25,000) square feet not covered by streets, buildings and landscaping; (2) More than one thousand (1,000) cubic yards of earth to be imported and placed as fill in a special flood hazard area; (3) More than five thousand (5,000) cubic yards of earth to be imported and placed as fill; (4) More than one thousand (1,000) cubic yards to be excavated, whether or not the earth will be exported from the property; or (5) If a permanent earthen structure will be established over four and one-half (4.5) feet high:**

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

20. How many cubic yards of material are you exporting or importing? If exporting of material is anticipated, where will the material be sent? If the disposal site is within unincorporated Washoe County, what measures will be taken for erosion control and revegetation at the site? If none, how are you balancing the work on-site?

21. Can the disturbed area be seen from off-site? If yes, from which directions, and which properties or roadways? What measures will be taken to mitigate their impacts?

22. 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?

23. Are you planning any berms and, if so, how tall is the berm at its highest? How will it be stabilized and/or revegetated?

24. Are retaining walls going to be required? If so, how high will the walls be, will there be multiple walls with intervening terracing, and what is the wall construction (i.e. rockery, concrete, timber, manufactured block)? How will the visual impacts be mitigated?

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

26. 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?

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

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

# Request to Reserve New Street Name(s)

The Applicant is responsible for all sign costs.

## Applicant Information

Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
Phone : \_\_\_\_\_ Fax: \_\_\_\_\_  
% Private Citizen                      % Agency/Organization

## Street Name Requests

(No more than 14 letters or 15 if there is an "i" in the name. Attach extra sheet if necessary.)


If final recordation has not occurred within one (1) year, it is necessary to submit a written request for extension to the coordinator prior to the expiration date of the original

## Location

Project Name: \_\_\_\_\_  
% Reno                      % Sparks                      % Washoe County  
Parcel Numbers: \_\_\_\_\_  
% Subdivision                      % Parcelization                      % Private Street

Please attach maps, petitions and supplementary information.

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
Regional Street Naming Coordinator  
% Except where noted  
Denied: \_\_\_\_\_ Date: \_\_\_\_\_  
Regional Street Naming Coordinator

## Washoe County Geographic Information Services

1001 E. Ninth Street  
Reno, NV 89512-2845

Phone: (775) 328-2325 - Fax: (775) 328-6133

# PROPERTY TAX INFORMATION



Washoe County Treasurer  
 Tammi Davis

Account Detail

[Back to Account Detail](#)

[Change of Address](#)

[Print this Page](#)

**CollectionCart**

Collection Cart	Items	Total	<a href="#">Checkout</a>	<a href="#">View</a>
Collection Cart	0	\$0.00		

**Pay Online**

**Washoe County Parcel Information**

Parcel ID	Status	Last Update
53460012	Active	4/25/2019 2:07:11 AM

**Current Owner:**  
 DIXON, KENNETH K & SURINDER A  
 11720 CAMPO RICO LN  
 SPARKS, NV 89441

**Taxing District:**  
 4000

**SITUS:**  
 11720 CAMPO RICO LN  
 WCTY NV

**Geo CD:**

Legal Description  
 Section Range 20 Lot 1 SubdivisionName \_UNSPECIFIED Township 21 Block

**Tax Bill (Click on desired tax year for due dates and further details)**

Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due
<a href="#">2018</a>	\$2,194.87	\$2,194.87	\$0.00	\$0.00	\$0.00
<a href="#">2017</a>	\$2,131.10	\$2,131.10	\$0.00	\$0.00	\$0.00
<a href="#">2016</a>	\$2,076.96	\$2,076.96	\$0.00	\$0.00	\$0.00
<a href="#">2015</a>	\$2,072.65	\$2,072.65	\$0.00	\$0.00	\$0.00
<a href="#">2014</a>	\$2,008.38	\$2,008.38	\$0.00	\$0.00	\$0.00
<b>Total</b>					<b>\$0.00</b>

**Disclaimer**

- ALERTS:** If your real property taxes are delinquent, the search results displayed may not reflect the correct amount owing. Please contact our office for the current amount due.
- For your convenience, online payment is available on this site. E-check payments are accepted without a fee. However, a service fee does apply for online credit card payments. See [Payment Information](#) for details.

**Pay By Check**

Please make checks payable to:  
**WASHOE COUNTY TREASURER**

**Mailing Address:**  
 P.O. Box 30039  
 Reno, NV 89520-3039

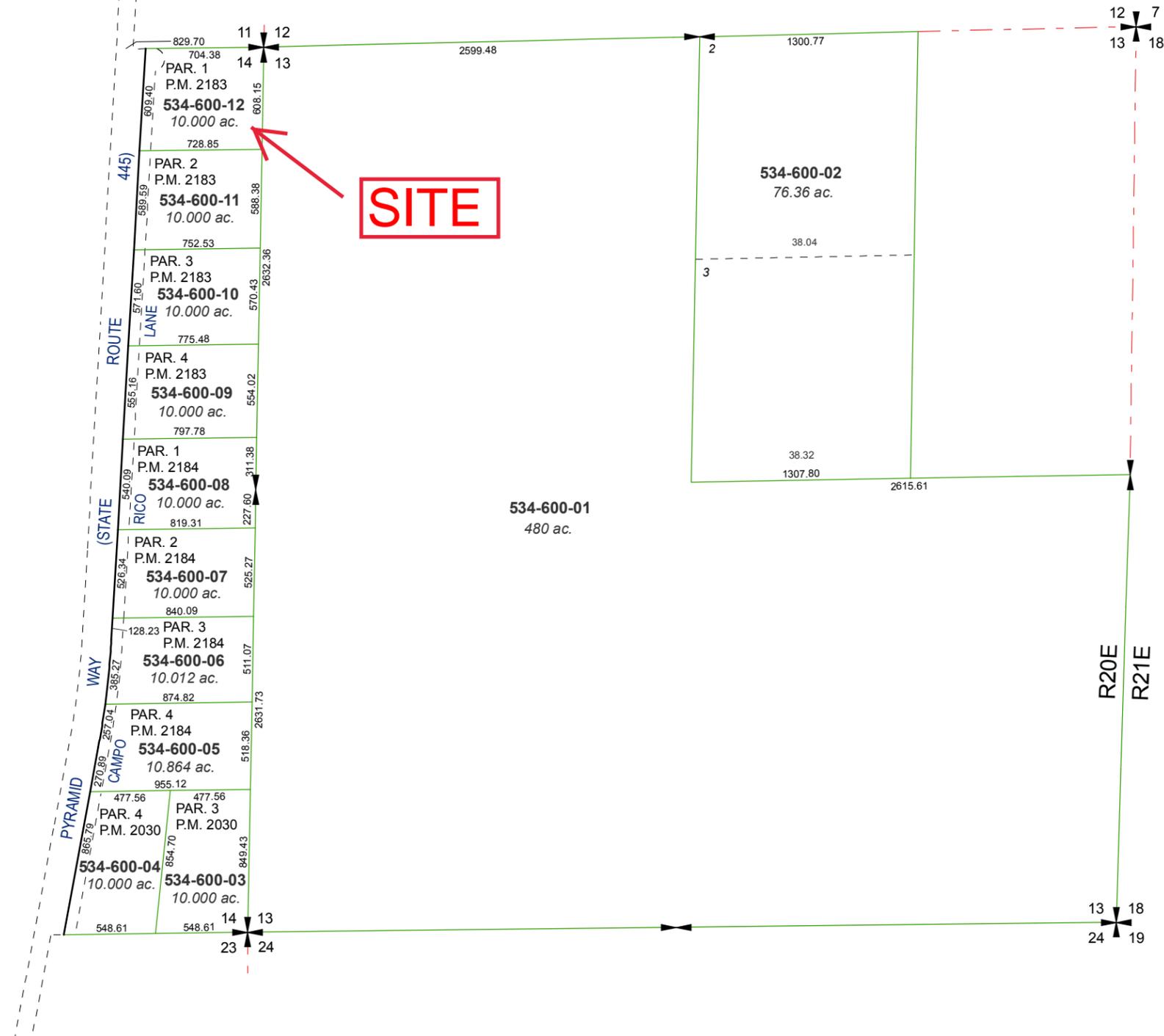
**Overnight Address:**  
 1001 E. Ninth St., Ste D140  
 Reno, NV 89512-2845



# ASSESSOR'S MAP

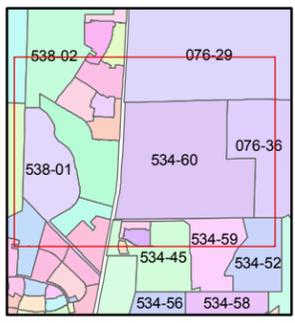
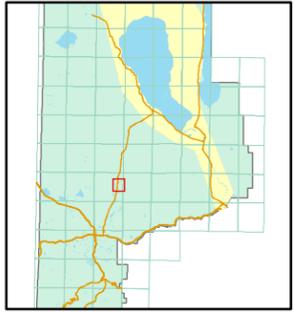
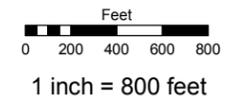


# MAP OF DIVISION INTO LARGE PARCELS # 20 SPANISH SPRINGS VALLEY RANCHES - UNIT 1



Assessor's Map Number  
**534-60**

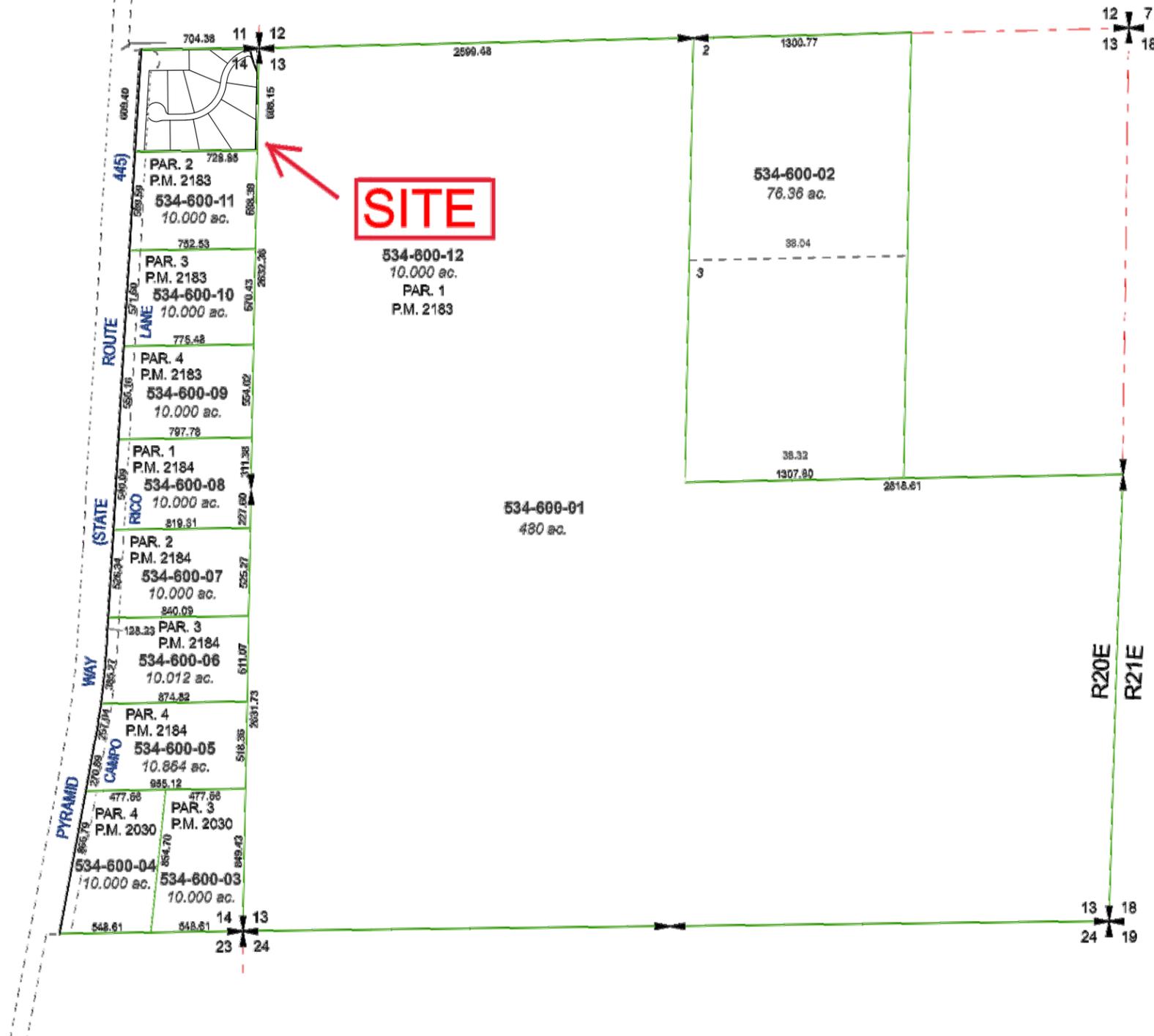
STATE OF NEVADA  
**WASHOE COUNTY**  
ASSESSOR'S OFFICE  
Joshua G. Wilson, Assessor  
1001 East Ninth Street  
Building D  
Reno, Nevada 89512  
(775) 328-2231



created by: TWT 9/14/2011  
last updated: \_\_\_\_\_  
area previously shown on map(s)  
076-36

NOTE: This map was prepared for the use of the Washoe County Assessor for assessment and illustrative purposes only. It does not represent a survey of the premises. No liability is assumed as to the sufficiency of the data delineated hereon.  
**WTM19-003**  
**EXHIBIT G**

# MAP OF DIVISION INTO LARGE PARCELS # 20 SPANISH SPRINGS VALLEY RANCHES - UNIT 1



Assessor's Map Number

**534-60**

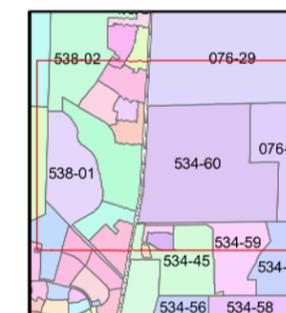
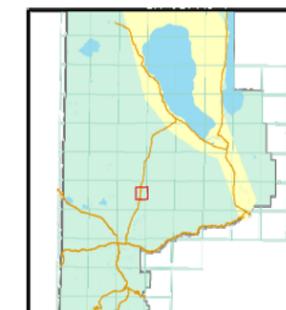
STATE OF NEVADA  
**WASHOE COUNTY**  
ASSESSOR'S OFFICE

Joshua G. Wilson, Assessor

1901 East Ninth Street  
Building D  
Reno, Nevada 89512  
(775) 328-2231



1 inch = 800 feet



created by: TWT 8/14/2011

last updated:

area previously shown on map(s)

076-36

NOTE: This map was prepared for the use of the Washoe County Assessor for assessment and illustrative purposes only. It does not represent a survey of the premises. No liability is assumed as to the sufficiency or accuracy of the data delineated hereon.

# WATER RIGHTS





Date: April 16, 2018

To: Karen Meyer

From: David Nelson *DN*

RE: 18-6141, Dixon 10 Lot Subdivision Discovery, (APN 534-600-12)

The New Business/Water Resource team will answer the following assumptions on each new discovery:

- Is the property within Truckee Meadows Water Authority's water service territory?
- Does the property have Truckee River water rights appurtenant to the property, groundwater or resource credits associated with the property?
  - If yes, what is the status of the water right: Agricultural or Municipal and Domestic use?
- Estimated water demand for residential and or commercial projects.
- Any special conditions, or issues, that are a concern to TMWA or the customer.

The following information is provided to complete the Discovery as requested:

- This subject parcel (APN 534-600-12) is not within Truckee Meadows Water Authority's (TMWA's) service territory. An annexation is required.
- There are no additional resource credits or Truckee River decreed water rights appurtenant to this property; however, the applicant received and domestic well credit (DWC) and has owned surface water rights to dedicate. The developer will be required to follow TMWA's current rules, specifically Rule 7, and pay all fees for water rights needed in order to obtain a will serve commitment letter.
- Based on the information provided by the applicant this project "The Dixon 10 Lot Discovery" is estimated to require a domestic demand of **7.5 acre-feet (AF)**. The applicant has a DWC and municipal surface water rights decreasing the purchase of rule 7 water resources to **3.23 acre-feet (AF)**. Landscaping plans were not provided to TMWA; therefore, a demand could not be determined. Please see the attached demand calculation sheet for the **estimated** demand and water resource fees. Once final plans are submitted a more accurate demand will be calculated. *Note: Water rights held or banked by the applicant must be dedicated to a project before any rule 7 water rights are purchased from TMWA. Rule 7 purchase is first come, first serve.*
- Any existing right of ways and public easements would need to be reviewed, and if needed the property owner will need to grant TMWA the proper easements and/or land dedications to provide water service to the subject properties. Property owner will be required, at its sole expense, to provide TMWA with a current preliminary title report for all subject properties. Owner will represent and warrant such property offered for dedication or easements to TMWA shall be free and clear of all liens and encumbrances. Owner is solely responsible for obtaining all appropriate permits, licenses, construction easements, subordination agreements, consents from lenders, and other necessary rights from all necessary parties to dedicate property or easements with title acceptable to TMWA.

**DIXON 10 LOT SFR**  
**SURFACE WATER RIGHTS AND METER FUND CONTRIBUTION**  
**CALCULATION WORKSHEET**

Line No.	Lot Number	Lot Size	Demand Calculation
1	1	<u>DWC</u>	<u>0.00</u>
2	2	<u>1.00</u>	<u>0.75</u>
3	3	<u>1.00</u>	<u>0.75</u>
4	4	<u>1.00</u>	<u>0.75</u>
5	5	<u>1.00</u>	<u>0.75</u>
6	6	<u>1.00</u>	<u>0.75</u>
7	7	<u>1.00</u>	<u>0.75</u>
8	8	<u>1.00</u>	<u>0.75</u>
9	9	<u>1.00</u>	<u>0.75</u>
10	10	<u>1.00</u>	<u>0.75</u>
		10.00	6.75

Less: Demand Credits -3.84 App. rights 3.84 Demand & 0.42AF F-11  
**NET PROJECT DEMAND** 2.91

Water Rights (0.11 AF per AF of total demand) 0.32

**TOTAL WATER RIGHTS REQUIRED** 3.23

Price of Water Rights per AF	\$7,600	\$	24,548
Meter Contribution (per AF of Net Project Demand)	\$1,830	\$	5,325
Will Serve Letter Preparation		\$	<u>100</u>
<b>TOTAL TO TRUCKEE MEADOWS WATER AUTHORITY</b>		\$	<b><u>29,973</u></b>

=====

SUBMITTED BY: Kenneth & Surinder Dixon PHONE: Kenneth 348-1816

APN: 534-600-12 DATE: 4/13/2018

PROJ NO: 18-6141 CALCED BY: David 834-8021

REMARKS: PRICE OF WATER RIGHTS SUBJECT TO CHANGE.

QUOTE IS EFFECTIVE FOR 10 CALENDAR DAYS FROM THE DATE

OF THIS WORKSHEET. PLEASE CALL TO VERIFY CURRENT PRICE.

Applicant has water rights to dedicate totaling 4.26AF. Permits 76469 & 76715

Quote is valid for 10 days  
from date of statement.

18-6141, 11720 Campo Rico Ln., 10 Lot SFR, 04-2018  
4/13/2018  
10:45 AM

**WTM19-003**  
**EXHIBIT G**

**TMWA ANNEXATION  
and  
WATER SERVICE  
ACKNOWLEDGEMENT**



APN: 534-600-12

**When Recorded, Return to:**

Truckee Meadows Water Authority  
Attn: Amanda Duncan, ARWP, Land Agent  
P O Box 30013  
Reno, NV 89520-3013  
TMWA WO: 18-6141

DOC #4908154

05/06/2019 01:52:58 PM  
Electronic Recording Requested By  
TRUCKEE MEADOWS WATER AUTHORITY  
Washoe County Recorder  
Kalie M. Work  
Fee: \$41.00 RPTT: \$0  
Page 1 of 11

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**RETAIL WATER SERVICE AREA ANNEXATION AGREEMENT**

THIS RETAIL WATER SERVICE AREA ANNEXATION AGREEMENT ("Annexation Agreement"), entered into this 3rd day of May, 2019 ("Effective Date"), by and between **TRUCKEE MEADOWS WATER AUTHORITY** (the "Authority"), a Joint Powers Authority entity created pursuant to a cooperative agreement among the cities of Reno, Nevada, Sparks, Nevada and Washoe County, Nevada pursuant to N.R.S. Chapter 277, and **KENNETH K. DIXON** and **SURINDER A. DIXON**, husband and wife, as joint tenants with right of survivorship, (referred to as "Developer" or "Owner" in this Agreement and exhibits attached hereto, and together with Authority collectively hereinafter referred to as "Parties");

WITNESSETH:

WHEREAS, Owner owns certain real property more particularly described on Exhibit "A" and depicted in Exhibit "A-1" attached hereto incorporated herein by this reference ("Property", or "Owner's Project"), located outside of Authority's current retail water service area.

WHEREAS, Owner desires the Authority to expand its retail water service area to provide water service to the Property.

WHEREAS, on December 31, 2014, Authority acquired the water utility system of the Washoe County Department of Water Resources and the South Truckee Meadows General Improvement District, and as a result, new customers may be eligible to annex into the Authority service area based upon their proximity to existing Authority facilities, availability of water resources, or cost-effectiveness.

WHEREAS, based upon these criteria, Authority has determined it is appropriate that Authority provide service to Owner and accordingly, Owner's property may be annexed into Authority's retail water service area.

WHEREAS, the expansion of Authority's retail water service area may require dedication of certain real property or water system facility improvements to facilitate the efficient management and operation of Authority's system to include the Property in its retail water service area.

WHEREAS, Authority is willing to expand its retail water service area to include water service to the Property and Owner agrees to the expansion of Authority's retail water service area upon the terms and conditions set forth in this Agreement, subject to and on the express condition that Owner fully and completely perform the terms and conditions set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein contained, the Parties agree as follows:

1. Expansion of Water Service Area. Authority agrees to expand its retail water service area as set forth in Exhibits "A" and "A-1" attached hereto to provide water service for the Property; provided, however, that such expansion of the Authority's retail water service area is specifically conditioned upon execution of this Agreement by Owner and the Authority, and the complete and satisfactory performance of the terms and conditions in Section 2 herein by Owner and its permitted successors and assigns, to the extent applicable.

2. Conditions to Annexation. The following conditions must be satisfied within the time frames stipulated below or this Agreement shall automatically terminate, and the Property shall be deemed de-annexed from the Authority retail service area.

2.1 Construction/Dedication of Facility Improvements. The Authority has determined that additions, improvements and/or modifications to its Water System Facilities are required to expand its retail water service area to include the Property. Owner is responsible for all costs related to, and except as otherwise provided herein, shall install and construct the off-site additions, improvements and modifications to the Authority's Water System Facilities as delineated in Exhibit "B" attached hereto and incorporated herein by this reference. Owner shall submit a complete Application for New or Modified Water Service and enter a Water Service Agreement with Authority for the completion of the foregoing Water Facilities (or portions thereof, for phased development) no later than twenty-four (24) months from the Effective Date of this Annexation Agreement, or this Agreement shall automatically terminate, and the Property shall be deemed de-annexed from the Authority retail service area. For phased development, Owner shall continue to submit complete Applications for New or Modified Water Service and enter into Water Service Agreements for subsequent phases no later than twenty-four months from the Effective Date of the previous Water Service Agreement, or this Annexation Agreement shall automatically terminate and portions of the Property not actively

receiving water service from Authority shall be deemed de-annexed from the Authority retail service area. Authority shall have no obligation to provide water service to any portion of the Property until required water system facilities are completed to the satisfaction of Authority. Upon completion of the facilities listed in Exhibit B, Owner shall dedicate the facilities to Authority pursuant to the terms of this Annexation Agreement and Authority's Rules, and Authority will own all capacity in the system including any excess capacity.

2.2 Dedication of Real Property. The Authority has determined that the dedication of certain real property in fee, or certain easements, rights of way or other interests in real property, is required to expand its retail water service area to include the Property. Owner shall, prior to the start of construction of any facilities required under this Annexation Agreement, grant and convey to Authority, all necessary easements, conveyances, deeds, rights-of-way, or other rights required by this Annexation Agreement. Such property shall be conveyed free and clear of all liens and encumbrances, and Owner shall obtain and provide Authority prior to dedication, at Owner's expense, a preliminary title report for any property offered for dedication showing all matters of record affecting such property. Owner is solely responsible for obtaining all appropriate permits, licenses, construction easements, subordination agreements, consents from lenders, and other necessary rights from all necessary parties to dedicate property with title acceptable to Authority. If any portion of the property required for dedication is located on property other than that owned by Owner, Owner shall be responsible for obtaining, at no cost to Authority, any necessary interests therein from such owners for conveyance to Authority free and clear of all liens and encumbrances. Owner may not apply for, nor shall Authority shall have any obligation to issue or enter, a Water Service Agreement for service to any portion of the Property until such real property required hereunder is granted to Authority in such form, location, scope and condition of title satisfactory to Authority. Furthermore, unless such real property is granted to Authority no later than twenty-four (24) months from the Effective Date of this Annexation Agreement, this Annexation Agreement shall automatically terminate, and the Property shall be deemed de-annexed from the Authority retail service area. In the event Owner has not conveyed the real property within the 24-month period, Owner may submit a written request for, and Authority in its sole discretion may grant, an extension up to one-year if Owner can show reasonable justification to Authority why the real property was not transferred.

3. Conditions of Water Service. Owner acknowledges and agrees that this Annexation Agreement merely addresses conditions required for the expansion of Authority's retail water service area, and that Owner must independently comply with all applicable requirements in Authority's Rules before the Authority has any obligation to provide water service to the Property, including without limitation (i) submitting and receiving approval from the Authority of appropriate applications for

service; (ii) dedicating sufficient Water Resources to the Authority and receiving a Will Serve Commitment for service to the Property; (iii) in addition to any dedication requirements in Section 2 of this Annexation Agreement, dedicating appropriate easements and other real property required for service; (iv) in addition to any dedication requirements in Section 2 of this Annexation Agreement, installing, constructing and dedicating subdivision or on-site water system facility additions, improvements or modifications or further additions, improvements, extensions or modifications to Authority's Water System Facilities as necessary to provide the requested new service(s) or modification of service(s) to the Property; and (v) satisfying such other terms and conditions pursuant to the Authority's Rules and any requirements of any local governmental entity with jurisdiction over the Property as necessary to obtain a Will-Serve Commitment letter from the Authority for the delivery of water to the Property. Owner shall submit such applications and execute such other documents required by Authority's Rules and procedures prior to being eligible for the delivery of water to the Property. All such conditions, dedications, additions, improvements, extensions and modifications shall be made in accordance with the Authority's Rules and regulations in effect at the time Authority and Owner enter into any agreement or agreements for the specific dedication, additions, improvements or modifications required to provide water service to the Property.

#### 4. General Terms

4.1 Owner acknowledges and agrees that it is entering this Annexation Agreement voluntarily, that the expansion of Authority's service area is specifically conditioned on Owner's performance of all terms and conditions contained herein, and that if any of the provisions of this Annexation Agreement are deemed unenforceable or if Owner fails to perform any of its obligations hereunder, Authority is under no obligation to expand its service area to include any portion of the Property for which the Authority has not previously entered an agreement to provide water service. Nothing in this paragraph shall be construed to grant Owner a right, and Owner specifically waives any right, if any exists, to dispute any of the terms and conditions of this Annexation Agreement under Rule 8 in Authority's Rules, as such may be amended from time to time. Upon annexation of the Property, the Parties acknowledge and agree that both are bound by the terms and conditions of the rules and regulations adopted by Authority, as the rules and regulations may be amended from time to time, and as such rules may exist at the time service is applied for or requested for the Property or certain phases of the Property.

4.2. Any written notices or communications required hereunder shall be served by placing such notices in the U.S. Mail, postage prepaid, properly addressed to the following:

To: Authority                      Truckee Meadows Water Authority  
   Attn. General Manager  
   P.O. Box 30013  
   Reno, NV 89520-3013

To: Owner                              Kenneth & Surinder Dixon  
   Attn: Ken Dixon  
   150 Isidor Ct., Bldg 204  
   Sparks, NV 89441

4.3. This Annexation Agreement shall inure to and be binding upon the parties, their respective successors and assigns.

4.4. This Annexation Agreement shall not be modified except in writing, signed by all parties.

4.5. This Annexation Agreement represents the entire agreement between the Parties related to the expansion of the Authority's retail water service area and supersedes all prior representations and agreements whether written or oral with respect to the covenants and conditions provided herein; provided, however, that the obligations set forth in this Annexation Agreement shall be in addition to, and do not supersede or replace, any obligations that may be imposed upon Owner under Authority's Rules.

4.6 This Annexation Agreement and terms and conditions herein shall run with the land and be binding upon and inure to the benefit and burden of the parties to the agreement and their heirs, successors and assigns and any future owners of the Property.

4.7 Neither this Annexation Agreement nor any of the terms set forth herein shall be effective or binding on Authority until this Annexation Agreement is executed by Authority, and the Authority will be under no obligation to execute this Annexation Agreement if not executed and returned by Owners to the Authority by **July 26, 2019**.

IN WITNESS WHEREOF, the Parties hereto have executed this Annexation Agreement effective as of the Effective Date first written above.

**TMWA:**  
**TRUCKEE MEADOWS WATER**  
**AUTHORITY, a Joint Powers Authority**

**OWNER:**

By: *Mark Foree*  
Mark Foree, General Manager

By: *Kenneth K. Dixon*  
Kenneth K. Dixon, Owner

By: *Surinder A. Dixon*  
Surinder A. Dixon, Owner

STATE OF Nevada )  
COUNTY OF Washoe ) ss.

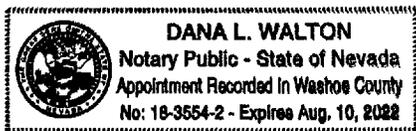
This instrument was acknowledged before me this 29<sup>th</sup> day of April, 2019, by **KENNETH K. DIXON**, as therein named.



*Amanda Duncan*  
Notary Public

STATE OF Nevada )  
COUNTY OF Washoe ) ss.

This instrument was acknowledged before me this 30<sup>th</sup> day of April, 2019, by **SURINDER A. DIXON**, as therein named.

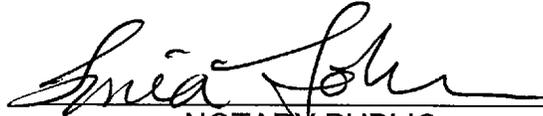


*Dana L. Walton*  
Notary Public

[TMWA Notary Acknowledgement Follows]

STATE OF NEVADA        )  
  ) ss  
COUNTY OF WASHOE    )

This instrument was acknowledged before me this 3<sup>RD</sup> day of MAY, 2019, by **MARK FOREE** as General Manager of **TRUCKEE MEADOWS WATER AUTHORITY** on behalf of said Joint Powers Authority as therein named.

  
\_\_\_\_\_  
NOTARY PUBLIC

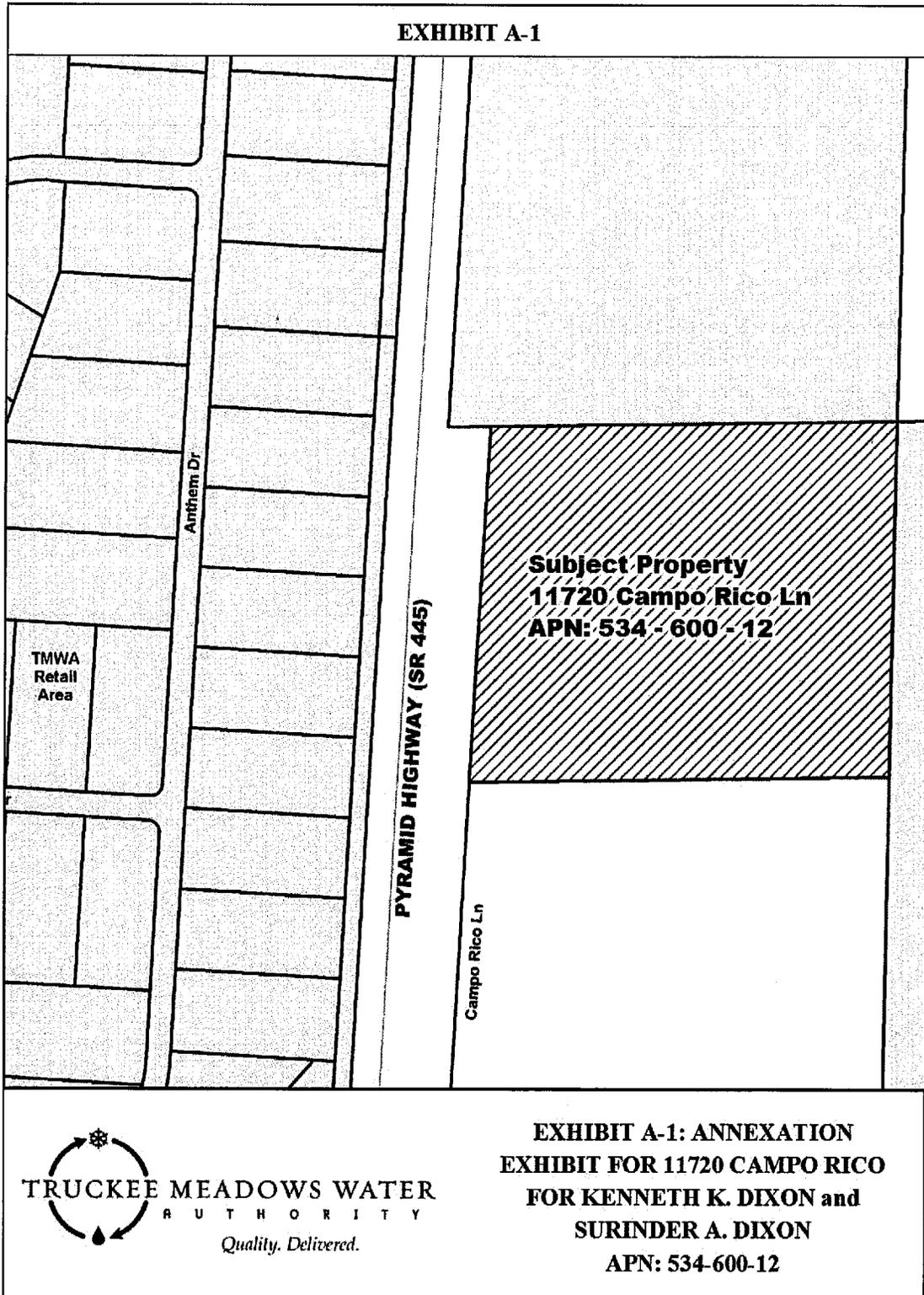


**Exhibit "A"**  
**Description of Property**

Parcel 1 of Parcel Map 2183, for BROOKSIDE SAVINGS AND LOAN, according to the map thereof, filed in the office of the County Recorder of Washoe County, State of Nevada, on September 9, 1987, as Document No. 1190961.

APN: 534-600-12

[Above legal description was referenced from that certain Grant, Bargain, Sale Deed recorded as Document No. 2491824 on October 17, 2000 in the office of the Washoe County Recorder, State of Nevada.]



## EXHIBIT B

**11720 CAMPO RICO LANE - APN 534-600-12  
SUMMARY OF MAJOR OFFSITE FACILITY REQUIREMENTS AND  
APPROXIMATE COSTS TO BE PAID BY DEVELOPER**

Table 1: Estimated Major Offsite Water Facility Costs

Facility Description	Quantity	Unit	Unit Cost	Total Cost	Comments
Offsite Facility Improvements	unknown	unknown	unknown	TBD	To be determined
Area 12 Facility Charge	19	per gpm	\$5,789	\$109,991	Rate Schedule WSF
Supply and Treatment Facility Charge	19	per gpm	\$4,163	\$79,097	Rate Schedule WSF
<b>Estimated Cost</b>				<b>\$189,088</b>	2019 partial planning level estimate only

Notes:

1. Water System Facility Charges are determined based on the maximum day demand (MDD) of the development. The above MDD is estimated and will be determined at the time final development plans are submitted with a formal application for water service. All facility requirements listed above are preliminary and are subject to change during the final planning and design process. TMWA plans to reevaluate the maximum day demand equations for all customer usage types within the next three to six months, as part of a Water Facility Plan Update.
2. Review of conceptual plans or tentative maps by TMWA does not constitute an application for service, nor implies a commitment by TMWA for planning, design or construction of the water facilities necessary for service. The extent of required off-site and on-site water infrastructure improvements will be determined by TMWA upon receiving a specific development proposal or complete application for service and upon review and approval of a water facilities plan by the local health authority. Because the NAC 445A Water System regulations are subject to interpretation, TMWA cannot guarantee that a subsequent water facility plan will be approved by the health authority or that a timely review and approval of the Project will be made. The Applicant should carefully consider the financial risk associated with committing resources to their project prior to receiving all required approvals. After submittal of a complete Application for Service, the required facilities, the cost of these facilities and associated fees will be estimated and will be included as part of the Water Service Agreement necessary for the Project. All fees must be paid to TMWA prior to water delivery to the Project.

## WASHOE COUNTY RECORDER

OFFICE OF THE RECORDER  
KALIE M. WORK, RECORDER

1001 E. NINTH STREET  
RENO, NV 89512  
PHONE (775) 328-3661  
FAX (775) 325-8010

### LEGIBILITY NOTICE

The Washoe County Recorder's Office has determined that the attached document may not be suitable for recording by the method used by the Recorder to preserve the Recorder's records. The customer was advised that copies reproduced from the recorded document would not be legible. However, the customer demanded that the document be recorded without delay as the parties rights may be adversely affected because of a delay in recording. Therefore, pursuant to NRS 247.120 (3), the County Recorder accepted the document conditionally, based on the undersigned's representation (1) that a suitable copy will be submitted at a later date (2) it is impossible or impracticable to submit a more suitable copy.

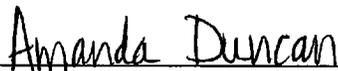
By my signing below, I acknowledge that I have been advised that once the document has been microfilmed it may not reproduce a legible copy.



\_\_\_\_\_  
Signature



\_\_\_\_\_  
Date



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



May 24, 2018

To: Karen Meyer  
 Thru: Scott Estes *SE*  
 From: Holly Flores *HMF*  
 RE: **11720 Campo Rico Lane Annexation 18-6141**

**Purpose:**

Conduct a high-level engineering analysis to determine the least cost major TMWA water facility requirements and preliminary cost estimate necessary to provide water service to the proposed project. The applicant has directed TMWA to only consider extending water service from the proposed Harris Ranch Project located east of this parcel.

**Preliminary Water Facility Requirements and Cost Estimates:**

The estimated *partial* cost for water facility charges associated with this project is approximately \$189,088. Offsite water facility requirements for service from the unbuilt Harris Ranch Project east of this property cannot be determined now. It is likely that there will be offsite water infrastructure required including, but not limited to, a possible main extension and pressure regulating station (\$75,000). These partial costs for water facility charges known now are summarized in the table below.

**Table 1: Estimated Major Offsite Water Facility Costs From Future Harris Ranch Project**

Facility Description	Quantity	Unit	Unit Cost	Total Cost	Comments
Offsite Facility Improvements	unknown	unknown	unknown	TBD	To be determined
Area 12 Facility Charge	19	per gpm	\$5,789	\$109,991	Rate Schedule WSF
Supply and Treatment Facility Charge	19	per gpm	\$4,163	\$79,097	Rate Schedule WSF
<b>Estimated Cost</b>				<b>\$189,088</b>	2018 partial planning level estimate only

The applicant's engineer has communicated that a water service plan through the future Harris Ranch Development to the east of this parcel is preferred by the owner. While this may be possible, not enough information exists now to determine if such service plan is feasible or to provide a complete cost estimate. In addition, the timing of construction of the Harris Ranch Project is unknown and out of the control of both TMWA and this owner. Please be advised that annexations expire two years after execution if construction has not commenced.

Alternate Water Service Plan:

For the sake of comparison, an alternate water service plan from existing TMWA water mains is estimated to cost approximately \$829,088 as described in the table below:

**Table 1: Estimated Major Offsite Water Facility Costs**

Facility Description	Quantity	Unit	Unit Cost	Total Cost	Comments
Water Main Extension	2,700	feet	\$200 per foot	\$540,000	Campo Rico Lane - Alamosa Drive to Pebble Creek Drive
Pyramid Way Bore and Jack	200	feet	\$500 per foot	\$100,000	Casing sized for 10-inch diameter main minimum
Area 12 Facility Charge	19	per gpm	\$5,789	\$109,991	Rate Schedule WSF
Supply and Treatment Facility Charge	19	per gpm	\$4,163	\$79,097	Rate Schedule WSF
<b>Estimated Cost</b>				<b>\$829,088</b>	2018 planning level estimate only

The plan above assumed a required fire flow between 1,500 gpm and 2,000 gpm within the project. Fire requirements are currently unknown.

**Discussion:**

Location:

The proposed development is located south of Alamosa Drive and east of Pyramid Way in Washoe County, Nevada on APN 534-600-12. The project development plan consists of approximately 10 single-family lots on 10 acres. The project is outside TMWA's retail water service territory so will require annexation prior to service. The preliminary site plan by Axion Engineering is attached for reference.

Estimated Project Demands:

The estimated maximum day demand for the project is approximately 19 gpm including an estimated demand for potable irrigation. Fire flow and duration are unknown now. Fire requirements were estimated at 1,500 to 2,000 gpm for two hours.

**Assumptions:**

1. This preliminary study was based on information provided by Axion Engineering in April 2018.
2. The conceptual water service plans described herein are preliminary and subject to change.
3. Annexation to TMWA's retail service territory is required.
4. Privately owned individual pressure regulating valves may be required and installed by the applicant per TMWA design standards and the Uniform Plumbing Code.
5. The estimated maximum day demand for the project is approximately 19 gpm including an estimate for potable irrigation. Actual demands will be determined at the time of service.
6. TMWA plans to reevaluate and possibly revise the maximum day demand calculations for all usage types within the next twelve months as part of the Water Facility Plan Update.

7. Fire flow requirements were not submitted with this project. The actual fire flow requirements will be set by the governing fire authority.
8. Facility requirements were based on the estimated maximum day demand and limitations of service of existing facilities in the local area. Changes in demand and assumed fire flow and duration requirements will affect the facility requirements and in turn the cost estimates included herein.
9. All cost estimates are preliminary and subject to change. Actual costs will be determined at the time of application for service.
10. This estimate does not include the cost of onsite facilities, water rights for the project, nor contribution to the water meter retrofit fund.
11. The ultimate water facility plan proposed by the Truckee Meadows Water Authority must be reviewed for compliance with state and local codes and regulations and approved by the health authority prior to service.
12. Dead ends must be eliminated and a looped water system designed, to the extent possible, per NAC 445A regulations. The health authority may require changes to the enclosed water facility plan that may in turn affect the included cost estimates.

Please call me at (775) 834-8026 if you have questions or need more information.

/hmf

cc: Gary Guzelis, P.E., Axion Engineering  
Kenneth and Surinder Dixon  
File: 18-6141

Attachments: Arora Estates Preliminary Site Plan by Axion Engineering  
Preliminary Demand Calculations  
TMWA Distribution Exhibit of Existing Water Facilities



Arora Estates Annexation - 10 SFR  
Preliminary Demand Calculations  
18-6141

Line No.	Lot Number	Lot Size (sq. ft.)	Max. Day Demand Calculation (gpm)
1	1	31,665	1.6
2	2	36,095	1.7
3	3	34,348	1.7
4	4	27,753	1.5
5	5	21,900	1.3
6	6	29,894	1.6
7	7	54,775	2.1
8	8	30,641	1.6
9	9	28,613	1.5
10	10	25,818	1.5
		321,502	16.1

Demand Equation (2005):  $y = 1.05 * 0.008607 * x^{0.5}$

where: y = maximum day demand in gpm  
x = lot size in square feet

Estimated historical peaking factors:

MDD:ADD = 2.61:1

PHD:MDD = 1.8:1

Residential Demand:

MDD = 16.1 gpm

Landscape demand estimate:

MDD = 2.9 gpm

Total Demands:

MDD = 19.0 gpm



**11720 CAMPO RICO LANE**  
ANNEXATION

DATE: May 14, 2018
MAP BY:
WORK ORDER #:
SCALE: NTS



WTM19-003  
EXHIBIT G  
PLANE WEST FEET



June 12, 2019

Gary Guzelis, P.E.  
Axion Engineering  
681 Edison Way  
Reno, NV 89502

**RE: ACKNOWLEDGEMENT OF WATER SERVICE  
BLUE OAKS TENTATIVE MAP**

Mr. Guzelis:

The referenced project is located within the Truckee Meadows Water Authority's (TMWA) retail water service territory. TMWA will provide water service to the project, subject to certain conditions precedent, including, without limitation, the dedication of water resources, approval of the water supply plan by the local health authority, the execution of a service contract, payment of fees, and the construction and dedication of infrastructure in accordance with our rules and tariffs.

Review of conceptual site plans or tentative maps by TMWA does not constitute an application for service, nor implies a commitment by TMWA for planning, design or construction of the water facilities necessary for service. The extent of required off-site and on-site water infrastructure improvements will be determined upon TMWA receiving a specific development proposal or complete application for service and upon review and approval of a water facilities plan. After submittal of a complete Application for Service, the required facilities, the cost of these facilities, which could be significant, and associated fees will be estimated and will be included as part of the Water Service Agreement for the project. All fees must be paid to TMWA prior to water being delivered to the project.

Please call me at (775) 834-8026 at your convenience if you have any questions.

Regards,

Holly M. Flores, P.E.  
Principal Engineer

cc: Karen Meyer, TMWA  
19-6899

# APPENDIX "B"

## REPORTS and PLAN SETS



# PRELIMINARY HYDROLOGY REPORT



# Preliminary Drainage Study

For

## Blue Oaks

Prepared for:

**Ken Dixon**  
**11720 Campo Rico Lane**  
**Sparks NV 89441**

Prepared by:



June, 2019

## **Introduction:**

The proposed Blue Oaks subdivision lies within APN 534-600-12, at 11720 Campo Rico Lane, along the east side of SR445 Pyramid Highway approximately 940' south of the intersection of SR445 and Landmark Drive. The 10 acre parcel lies within the Northeast ¼ of Section 14, Township 21 North, Range 20 East, Mount Diablo Meridian. Reference the attached Vicinity Map.

The proposed project is a tentative map for 10 residential lots along a private roadway and cul-de-sac, connecting to the proposed Harris Ranch Road to the east of the parcel. Reference the attached site plan.

The site currently contains a single residence, in the southeast portion of the site. The residence is currently accessed from Campo Rico Lane, a dirt road within the parcel along the west boundary. There is an existing access from SR445 Pyramid Highway directly in front of the parcel onto Campo Rico Lane. Except for Campo Rico Lane, the residence, the area immediately around the residence, and the driveway, the parcel is undeveloped. The undeveloped majority of the site is covered in a rangeland mix of sagebrush and grasses, and slopes typically from east to west at approximately 4%.

There are no current improved drainage facilities on the site, the site currently drains generally from east to west towards Campo Rico Lane and Pyramid Highway.

Upstream/uphill of the site, according to previous reports, there is an approximately 500 acre drainage basin that drains toward the east side of the site. Examination of topography and aerial photography shows that this flow is conveyed in a natural channel that intercepts the east boundary approximately 60' from the southeast corner of the property, and then exits at a point on the southern boundary approximately 60' from the southeast corner. This existing flow pattern, whether or not Harris Ranch is developed, will be maintained in its current state, therefore offsite flows are not considered in this report nor in the design of the project.

Previous related studies include:

Harris Ranch Subdivision Preliminary Drainage Report, dated July 8, 2016, by C&M Engineering and Design, LTD, included in the application for tentative map for Harris Ranch Subdivision.

Letter of Map Revision LOMR Boneyard Flat, Washoe County Nevada, December 2013, by DEW Hydrology.

Conditional Letter of Map Revision (CLOMR) Boneyard Flat, Washoe County, Nevada, December, 2013.

## **Existing and Proposed Hydrology**

### **Existing:**

As discussed above, the upstream drainage only cuts the corner of the site, and will not be considered for this analysis. Additionally, the expected construction of Harris Ranch Road and Harris Ranch Subdivision will effectively cut off any upstream flow entering the site, and according to the tentative map grading plan included in the application, will intercept and detain the flows, discharging slightly to

the south of the site. Any flows from the Harris Ranch Roadway will have to be returned to their natural condition.

These conditions will limit the drainage basin to be considered for the design of the project to the 10 acre property itself.

Currently the entire 10 acres drains overland toward the west boundary and Campo Rico Lane/SR445 Pyramid Highway. The drainage then flows along Pyramid Highway within roadside drainage, and due to the site being situated generally at a high point of the highway, both north and south toward culvert crossings to the west.

#### Proposed:

The developed site will be divided into two main drainage basins, the +-6 Acre east portion, and majority of the site, will drain toward roadside drainage along the proposed roadway, then be intercepted and flow into the proposed retention basin. At the current proposed design volume of 17,500 cubic feet, the retention pond will hold the overall site's increase in volume from pre-development to post-development storm flows, as well as the full storm volume from the east portion up to and including the 100-year, 2.4 day storm, or the 10 year, 10-day storm event. At the expected percolation rates, based on tests at nearby projects, the pond should drain and infiltrate within the required maximum time of 7 days.

The west 4 acre portion of the project will drain and be released toward Campo Rico Lane/SR445 Pyramid Highway without detention or retention. Flows will be directed, controlled, and released in a predevelopment condition.

Please reference the hydrology display showing the two drainage basins, retention pond, and expected outflows from all locations. Overall, the 5-year peak flow leaving the project will be reduced from 3.1 cfs to 2.2 cfs, the 100-year peak flow will be reduced from 19.5 cfs to 7.8 cfs, and the overall 100-year 10 day volume leaving the site will be reduced from 88,600 cubic feet in the predeveloped condition to 79,200 cubic feet in the developed condition, a decrease of 9,400 cubic feet, or 11%.

There are no current drainage problems on the site.

#### **Proposed Drainage Facilities**

The project will consist of large custom residential lots, the overall design of which is expected to maintain existing drainage patterns to the extent possible. Flows from the developed portions within the lots will be directed to roadside drainage along the proposed street, and then drain west toward Campo Rico Lane/SR445 Pyramid Highway.

The east portion drainage will be captured by drop inlets in the roadside ditches and conveyed north to the proposed retention basin.

The west portion of the project will drain and be released toward Campo Rico Lane/SR445 Pyramid Highway without detention or retention, via a drop inlet in the roadside drainage ditch at the low end of the proposed cul-de-sac, which will pipe under Campo Rico Lane and discharge the flow toward existing roadside drainage along SR445 Pyramid Highway.

The current Washoe County Boneyard Flat Closed Basin Interim Drainage Policy, which will apply to this site, requires:

New development within the basin shall not include any development or fill within current FEMA SFHA areas.

Design shall include analyses based on 100-year, 10 day storm event, using NOAA Atlas 14 Rainfall depths.

Increased stormwater volume resulting from development based on the 100-year, 10-day storm event shall be mitigated either through onsite facilities (retention ponds, infiltration improvements, etc) or volumetric mitigation within Boneyard Flat closed basin area.

All projects proposing to place fill may be required to implement a storage volume mitigation strategy.

To address these requirements, the retention basin will be constructed. At the current proposed design volume of 17,500 cubic feet, the retention pond will hold the overall site's increase in volume from pre-development to post-development 100-year, 10 day storm flows. It will retain the full storm volume from the east portion up to and including the 100-year, 2.4 day storm, or the 10 year, 10-day storm event. At the expected percolation rates, based on tests at nearby projects, the pond should drain and infiltrate within the required maximum time of 7 days.

The overall 100-year 10 day volume leaving the site will be reduced from 88,600 cubic feet in the predeveloped condition to 79,200 cubic feet in the developed condition, a decrease of 9,400 cubic feet, or 11%.

There will be no flood plain modifications or FEMA approvals necessary for this project.

This project will be constructed in one phase, and all drainage improvements will be complete at the end of this project, no relevant future facilities are planned.

### **Conclusions**

The project and associated drainage improvements will be in compliance with the current edition of the Truckee Meadows Regional Drainage Manual and the current Washoe County Boneyard Flat Closed Basin Interim Drainage Policy.

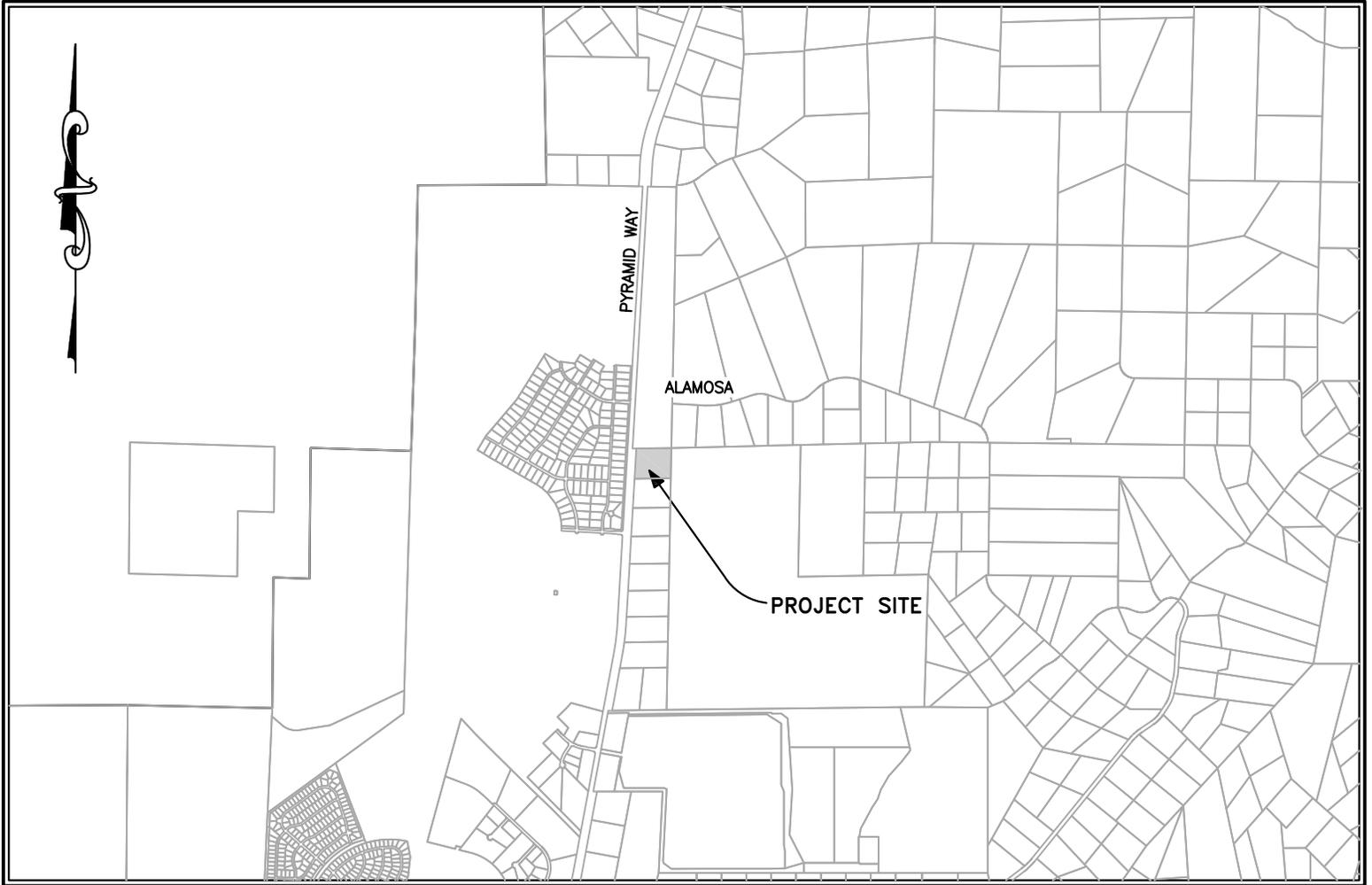
There are no requested exemptions to any current public policy in place covering this site.

Emergency all weather access is available with the construction of the project.

The project will be in compliance with current flood plain/flood hazard regulations.

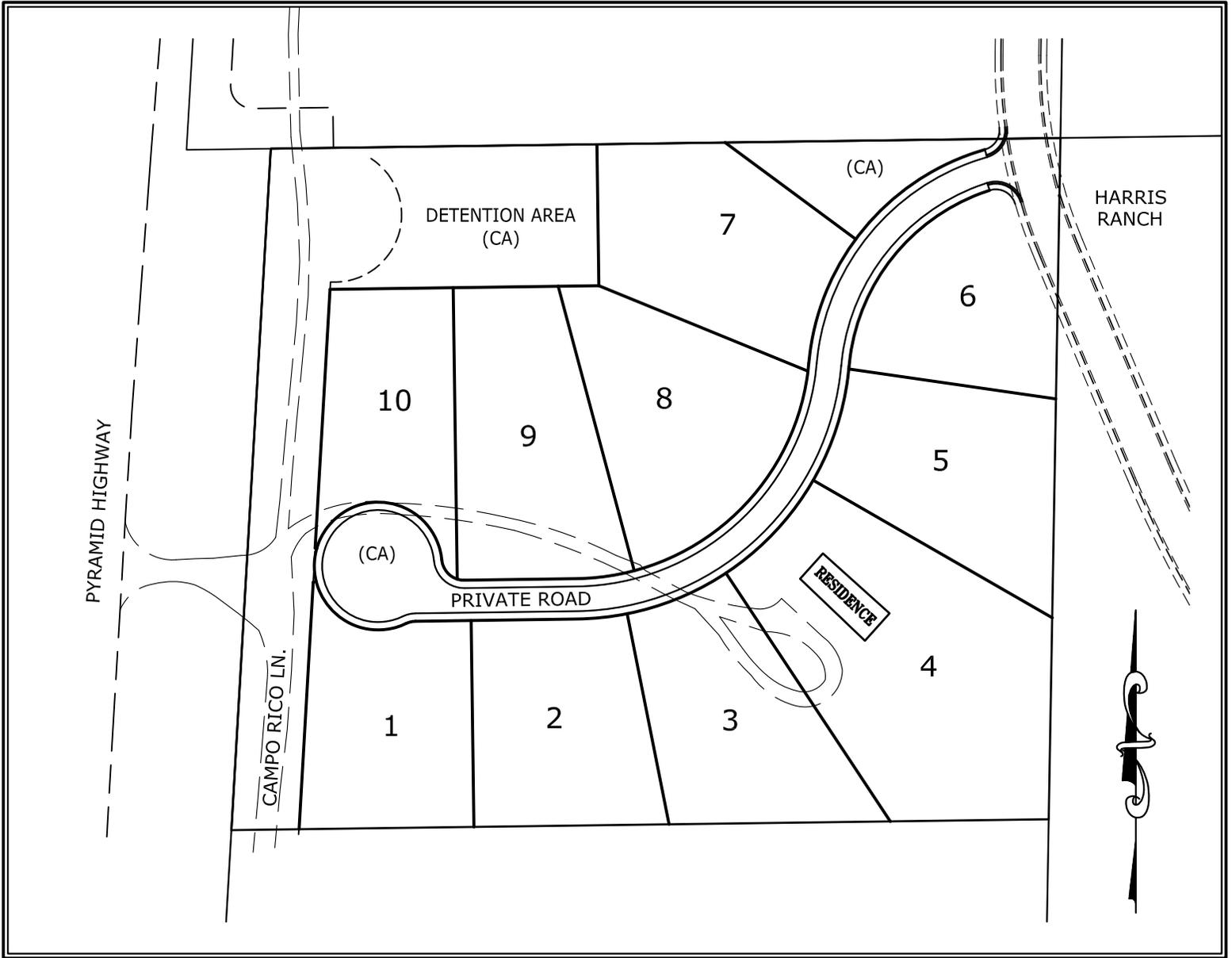
Overall, the 5-year peak flow leaving the project will be reduced from 3.1 cfs to 2.2 cfs, the 100-year peak flow will be reduced from 19.5 cfs to 7.8 cfs, and the overall 100-year 10 day volume leaving the site will be reduced from 88,600 cubic feet in the predeveloped condition to 79,200 cubic feet in the

developed condition, a decrease of 9,400 cubic feet, or 11%. Therefore the effect of the development on all adjacent and downstream properties and drainageways will be to lessen the impact of stormwater flows.



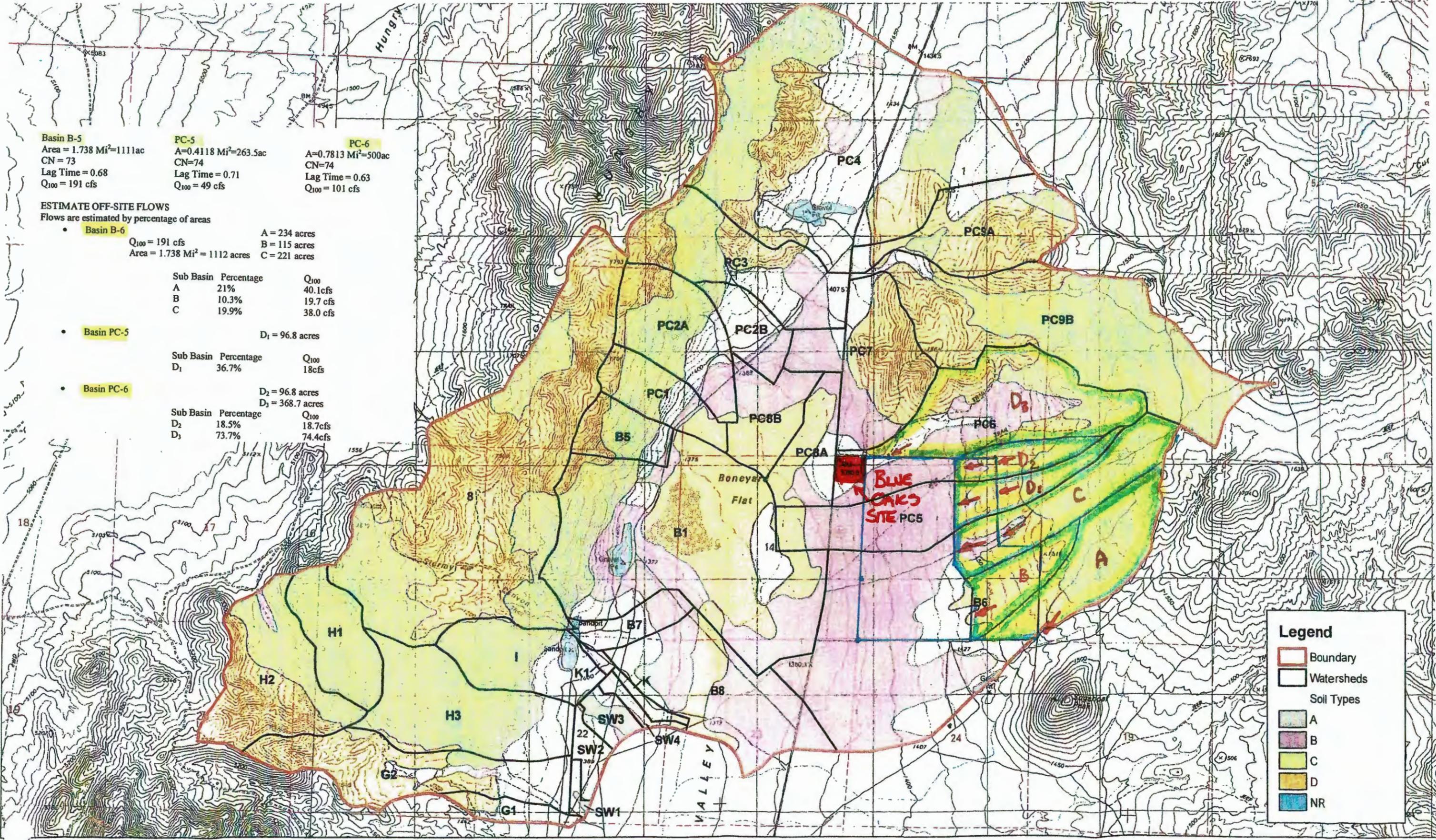
# VICINITY MAP

N.T.S.



**SITE**

N.T.S.



**Basin B-5**  
 Area = 1.738 Mi<sup>2</sup> = 1111 ac  
 CN = 73  
 Lag Time = 0.68  
 Q<sub>100</sub> = 191 cfs

**PC-5**  
 A = 0.4118 Mi<sup>2</sup> = 263.5 ac  
 CN = 74  
 Lag Time = 0.71  
 Q<sub>100</sub> = 49 cfs

**PC-6**  
 A = 0.7813 Mi<sup>2</sup> = 500 ac  
 CN = 74  
 Lag Time = 0.63  
 Q<sub>100</sub> = 101 cfs

**ESTIMATE OFF-SITE FLOWS**  
 Flows are estimated by percentage of areas

**Basin B-6**

Q<sub>100</sub> = 191 cfs  
 Area = 1.738 Mi<sup>2</sup> = 1112 acres

Sub Basin	Percentage	Q <sub>100</sub>
A	21%	40.1 cfs
B	10.3%	19.7 cfs
C	19.9%	38.0 cfs

**Basin PC-5**

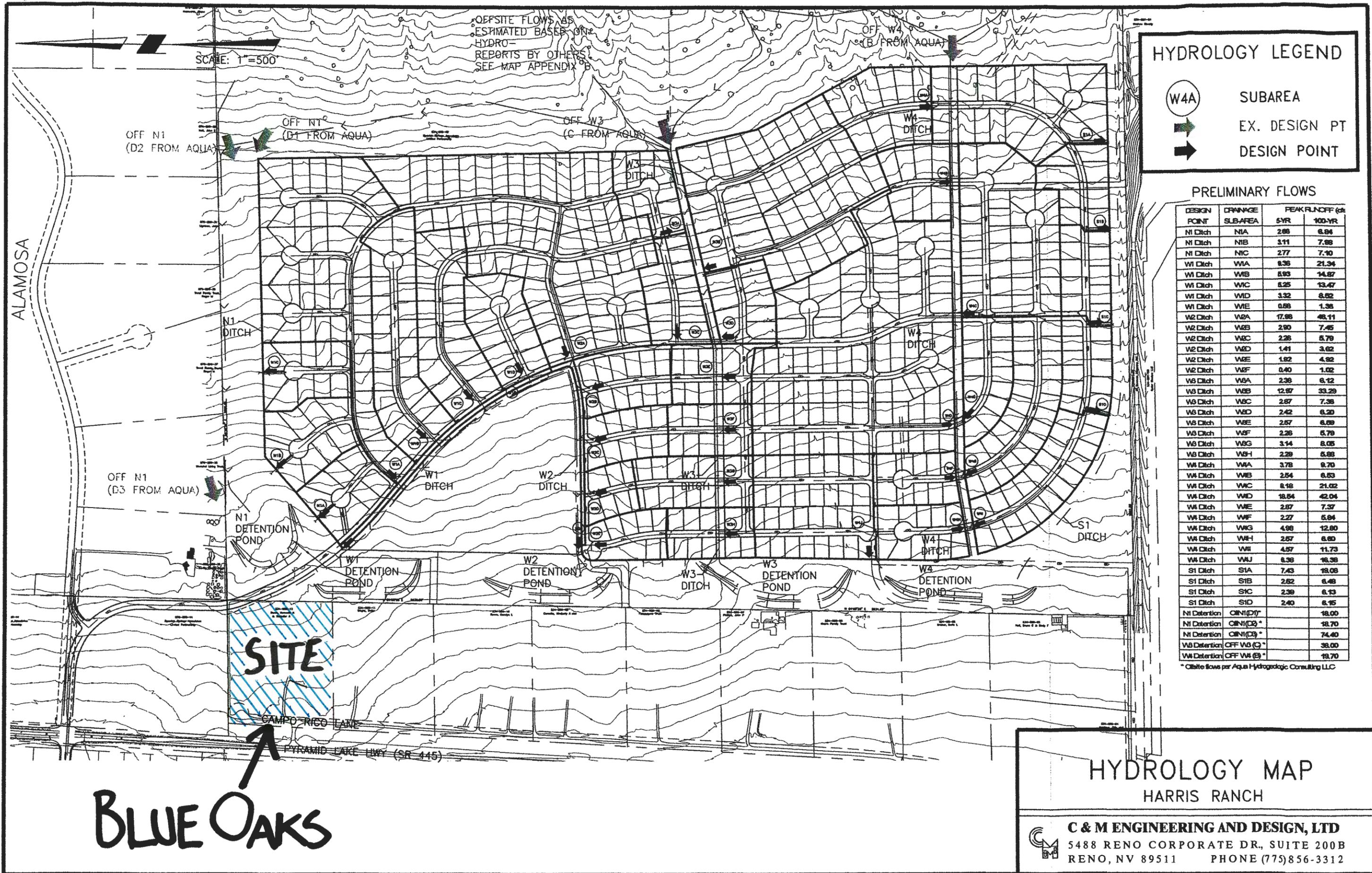
D<sub>1</sub> = 96.8 acres

Sub Basin	Percentage	Q <sub>100</sub>
D <sub>1</sub>	36.7%	18 cfs

**Basin PC-6**

D<sub>2</sub> = 96.8 acres  
 D<sub>3</sub> = 368.7 acres

Sub Basin	Percentage	Q <sub>100</sub>
D <sub>2</sub>	18.5%	18.7 cfs
D <sub>3</sub>	73.7%	74.4 cfs



### HYDROLOGY LEGEND

- W4A SUBAREA
- EX. DESIGN PT
- DESIGN POINT

### PRELIMINARY FLOWS

DESIGN POINT	DRAINAGE SUBAREA	5YR	100-YR
N1 Ditch	N1A	2.65	6.84
N1 Ditch	N1B	3.11	7.86
N1 Ditch	N1C	2.77	7.10
W1 Ditch	W1A	6.36	21.34
W1 Ditch	W1B	5.93	14.87
W1 Ditch	W1C	5.25	13.47
W1 Ditch	W1D	3.32	6.92
W1 Ditch	W1E	0.68	1.36
W2 Ditch	W2A	17.86	46.11
W2 Ditch	W2B	2.90	7.45
W2 Ditch	W2C	2.28	5.79
W2 Ditch	W2D	1.41	3.62
W2 Ditch	W2E	1.62	4.92
W2 Ditch	W2F	0.40	1.02
W3 Ditch	W3A	2.36	6.12
W3 Ditch	W3B	12.97	33.29
W3 Ditch	W3C	2.87	7.36
W3 Ditch	W3D	2.42	6.20
W3 Ditch	W3E	2.57	6.69
W3 Ditch	W3F	2.26	5.79
W3 Ditch	W3G	3.14	8.05
W3 Ditch	W3H	2.29	5.93
W4 Ditch	W4A	3.78	9.70
W4 Ditch	W4B	2.54	6.53
W4 Ditch	W4C	8.16	21.02
W4 Ditch	W4D	18.64	42.04
W4 Ditch	W4E	2.87	7.37
W4 Ditch	W4F	2.27	5.84
W4 Ditch	W4G	4.96	12.60
W4 Ditch	W4H	2.57	6.60
W4 Ditch	W4I	4.57	11.73
W4 Ditch	W4J	6.36	16.38
S1 Ditch	S1A	7.43	19.08
S1 Ditch	S1B	2.62	6.48
S1 Ditch	S1C	2.92	6.13
S1 Ditch	S1D	2.40	6.15
N1 Detention	OFF N1 (D1)		18.00
N1 Detention	OFF N1 (C2)		18.70
N1 Detention	OFF N1 (C3)		74.40
W3 Detention	OFF W3 (C)		38.00
W4 Detention	OFF W4 (B)		19.70

\* Cistern flows per Aqua Hydrologic Consulting LLC

## HYDROLOGY MAP

### HARRIS RANCH

**C & M ENGINEERING AND DESIGN, LTD**

5488 RENO CORPORATE DR., SUITE 200B  
 RENO, NV 89511      PHONE (775) 856-3312

# BLUE OAKS



**NOAA Atlas 14, Volume 1, Version 5**  
**Location name: Sparks, Nevada, USA\***  
**Latitude: 39.6937°, Longitude: -119.697°**  
**Elevation: 4585.17 ft\*\***  
 \* source: ESRI Maps  
 \*\* source: USGS



**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maltaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

**PF tabular**

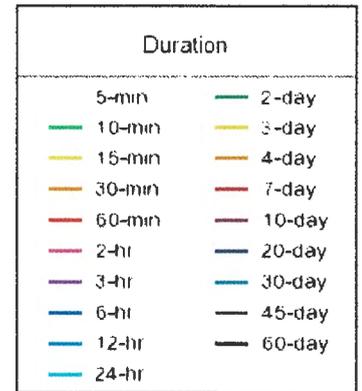
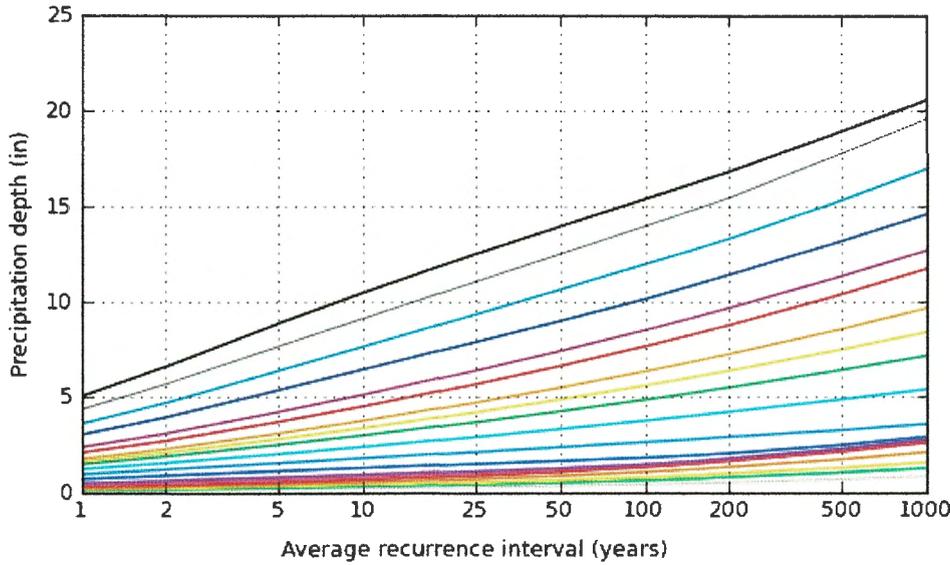
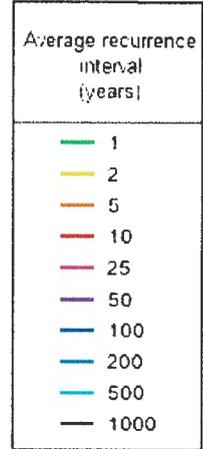
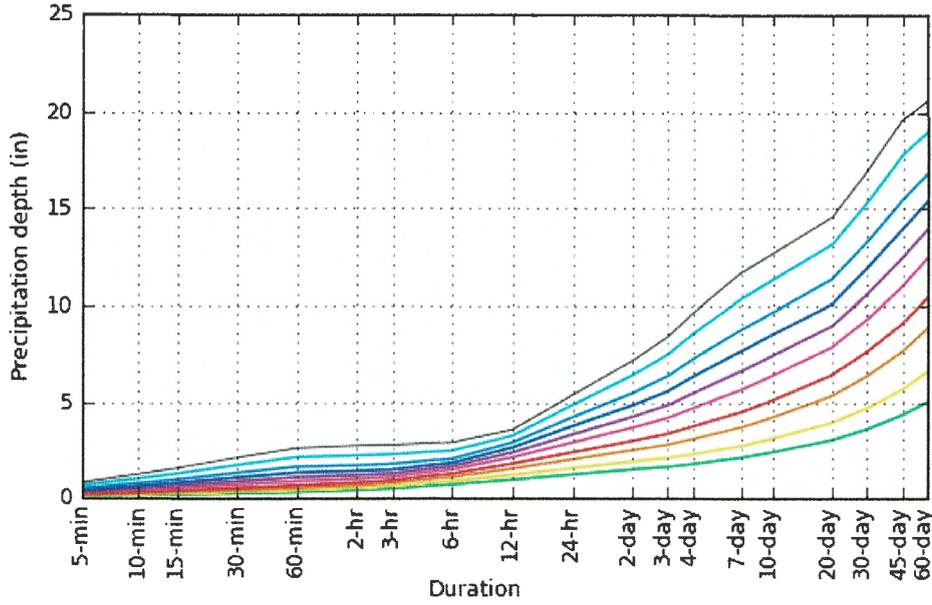
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
<b>5-min</b>	<b>0.103</b> (0.086-0.119)	<b>0.128</b> (0.107-0.150)	<b>0.172</b> (0.144-0.203)	<b>0.213</b> (0.179-0.254)	<b>0.283</b> (0.233-0.342)	<b>0.348</b> (0.279-0.428)	<b>0.428</b> (0.332-0.533)	<b>0.524</b> (0.392-0.669)	<b>0.683</b> (0.484-0.902)	<b>0.830</b> (0.564-1.12)
<b>10-min</b>	<b>0.157</b> (0.131-0.181)	<b>0.195</b> (0.163-0.228)	<b>0.261</b> (0.219-0.308)	<b>0.324</b> (0.273-0.386)	<b>0.430</b> (0.354-0.521)	<b>0.531</b> (0.425-0.651)	<b>0.650</b> (0.506-0.811)	<b>0.798</b> (0.597-1.02)	<b>1.04</b> (0.737-1.37)	<b>1.26</b> (0.858-1.71)
<b>15-min</b>	<b>0.194</b> (0.162-0.224)	<b>0.242</b> (0.201-0.282)	<b>0.324</b> (0.272-0.383)	<b>0.402</b> (0.338-0.479)	<b>0.534</b> (0.439-0.646)	<b>0.657</b> (0.526-0.806)	<b>0.806</b> (0.627-1.01)	<b>0.989</b> (0.740-1.26)	<b>1.29</b> (0.913-1.70)	<b>1.57</b> (1.06-2.12)
<b>30-min</b>	<b>0.261</b> (0.218-0.301)	<b>0.326</b> (0.271-0.380)	<b>0.436</b> (0.366-0.515)	<b>0.541</b> (0.455-0.644)	<b>0.719</b> (0.591-0.869)	<b>0.885</b> (0.709-1.09)	<b>1.09</b> (0.844-1.35)	<b>1.33</b> (0.996-1.70)	<b>1.73</b> (1.23-2.29)	<b>2.11</b> (1.43-2.86)
<b>60-min</b>	<b>0.323</b> (0.270-0.373)	<b>0.403</b> (0.336-0.471)	<b>0.539</b> (0.453-0.637)	<b>0.670</b> (0.563-0.798)	<b>0.889</b> (0.731-1.08)	<b>1.10</b> (0.877-1.34)	<b>1.34</b> (1.05-1.68)	<b>1.65</b> (1.23-2.10)	<b>2.15</b> (1.52-2.84)	<b>2.61</b> (1.77-3.54)
<b>2-hr</b>	<b>0.423</b> (0.372-0.490)	<b>0.527</b> (0.464-0.610)	<b>0.678</b> (0.590-0.787)	<b>0.811</b> (0.697-0.941)	<b>1.02</b> (0.853-1.19)	<b>1.20</b> (0.986-1.42)	<b>1.42</b> (1.14-1.70)	<b>1.71</b> (1.33-2.12)	<b>2.23</b> (1.66-2.86)	<b>2.74</b> (1.95-3.57)
<b>3-hr</b>	<b>0.510</b> (0.453-0.582)	<b>0.634</b> (0.568-0.727)	<b>0.796</b> (0.707-0.910)	<b>0.930</b> (0.818-1.07)	<b>1.12</b> (0.971-1.29)	<b>1.29</b> (1.10-1.50)	<b>1.49</b> (1.25-1.76)	<b>1.79</b> (1.46-2.13)	<b>2.29</b> (1.82-2.89)	<b>2.77</b> (2.14-3.61)
<b>6-hr</b>	<b>0.728</b> (0.651-0.823)	<b>0.909</b> (0.813-1.03)	<b>1.13</b> (1.00-1.28)	<b>1.29</b> (1.14-1.47)	<b>1.51</b> (1.32-1.73)	<b>1.68</b> (1.45-1.93)	<b>1.85</b> (1.57-2.14)	<b>2.06</b> (1.73-2.43)	<b>2.49</b> (2.05-2.97)	<b>2.92</b> (2.37-3.64)
<b>12-hr</b>	<b>0.981</b> (0.876-1.10)	<b>1.23</b> (1.10-1.39)	<b>1.55</b> (1.38-1.75)	<b>1.81</b> (1.60-2.04)	<b>2.14</b> (1.87-2.43)	<b>2.40</b> (2.07-2.74)	<b>2.66</b> (2.27-3.08)	<b>2.92</b> (2.45-3.42)	<b>3.27</b> (2.68-3.91)	<b>3.59</b> (2.88-4.35)
<b>24-hr</b>	<b>1.25</b> (1.12-1.41)	<b>1.58</b> (1.41-1.78)	<b>2.03</b> (1.81-2.29)	<b>2.40</b> (2.13-2.71)	<b>2.92</b> (2.57-3.30)	<b>3.34</b> (2.90-3.79)	<b>3.78</b> (3.25-4.32)	<b>4.24</b> (3.61-4.88)	<b>4.88</b> (4.07-5.68)	<b>5.40</b> (4.43-6.35)
<b>2-day</b>	<b>1.51</b> (1.33-1.72)	<b>1.92</b> (1.70-2.19)	<b>2.52</b> (2.21-2.87)	<b>3.00</b> (2.63-3.43)	<b>3.70</b> (3.19-4.23)	<b>4.26</b> (3.65-4.91)	<b>4.86</b> (4.11-5.64)	<b>5.50</b> (4.59-6.44)	<b>6.41</b> (5.23-7.62)	<b>7.15</b> (5.72-8.61)
<b>3-day</b>	<b>1.66</b> (1.46-1.89)	<b>2.12</b> (1.87-2.42)	<b>2.81</b> (2.47-3.21)	<b>3.38</b> (2.95-3.87)	<b>4.21</b> (3.63-4.83)	<b>4.87</b> (4.16-5.63)	<b>5.60</b> (4.71-6.52)	<b>6.37</b> (5.28-7.48)	<b>7.48</b> (6.05-8.93)	<b>8.39</b> (6.65-10.2)
<b>4-day</b>	<b>1.80</b> (1.58-2.06)	<b>2.31</b> (2.03-2.64)	<b>3.11</b> (2.73-3.55)	<b>3.76</b> (3.28-4.31)	<b>4.71</b> (4.06-5.42)	<b>5.49</b> (4.66-6.36)	<b>6.34</b> (5.30-7.39)	<b>7.24</b> (5.97-8.53)	<b>8.55</b> (6.86-10.2)	<b>9.63</b> (7.59-11.7)
<b>7-day</b>	<b>2.13</b> (1.85-2.46)	<b>2.74</b> (2.36-3.16)	<b>3.71</b> (3.22-4.29)	<b>4.51</b> (3.89-5.23)	<b>5.66</b> (4.82-6.60)	<b>6.61</b> (5.56-7.77)	<b>7.65</b> (6.34-9.06)	<b>8.76</b> (7.15-10.5)	<b>10.4</b> (8.25-12.6)	<b>11.7</b> (9.15-14.4)
<b>10-day</b>	<b>2.41</b> (2.09-2.79)	<b>3.12</b> (2.71-3.60)	<b>4.22</b> (3.66-4.89)	<b>5.11</b> (4.40-5.92)	<b>6.37</b> (5.43-7.43)	<b>7.40</b> (6.23-8.68)	<b>8.49</b> (7.06-10.0)	<b>9.65</b> (7.91-11.5)	<b>11.3</b> (9.05-13.7)	<b>12.6</b> (9.95-15.5)
<b>20-day</b>	<b>3.06</b> (2.67-3.52)	<b>3.96</b> (3.46-4.57)	<b>5.36</b> (4.66-6.18)	<b>6.43</b> (5.57-7.41)	<b>7.87</b> (6.76-9.09)	<b>8.97</b> (7.65-10.4)	<b>10.1</b> (8.52-11.8)	<b>11.4</b> (9.47-13.5)	<b>13.2</b> (10.7-15.8)	<b>14.6</b> (11.7-17.7)
<b>30-day</b>	<b>3.62</b> (3.16-4.20)	<b>4.71</b> (4.11-5.45)	<b>6.37</b> (5.53-7.37)	<b>7.63</b> (6.80-8.81)	<b>9.31</b> (8.00-10.8)	<b>10.6</b> (9.04-12.3)	<b>11.9</b> (10.1-14.0)	<b>13.3</b> (11.1-15.7)	<b>15.3</b> (12.6-18.3)	<b>16.9</b> (13.7-20.5)
<b>45-day</b>	<b>4.37</b> (3.80-4.98)	<b>5.68</b> (4.94-6.48)	<b>7.64</b> (6.62-8.70)	<b>9.09</b> (7.87-10.4)	<b>11.0</b> (9.46-12.6)	<b>12.5</b> (10.6-14.3)	<b>13.9</b> (11.8-16.1)	<b>15.5</b> (12.9-18.0)	<b>17.8</b> (14.6-20.9)	<b>19.6</b> (15.9-23.3)
<b>60-day</b>	<b>5.04</b> (4.37-5.76)	<b>6.59</b> (5.72-7.52)	<b>8.84</b> (7.66-10.1)	<b>10.4</b> (9.02-11.9)	<b>12.4</b> (10.7-14.2)	<b>13.9</b> (11.9-16.0)	<b>15.4</b> (13.1-17.8)	<b>16.8</b> (14.1-19.6)	<b>18.9</b> (15.7-22.2)	<b>20.6</b> (16.9-24.4)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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**PF graphical**

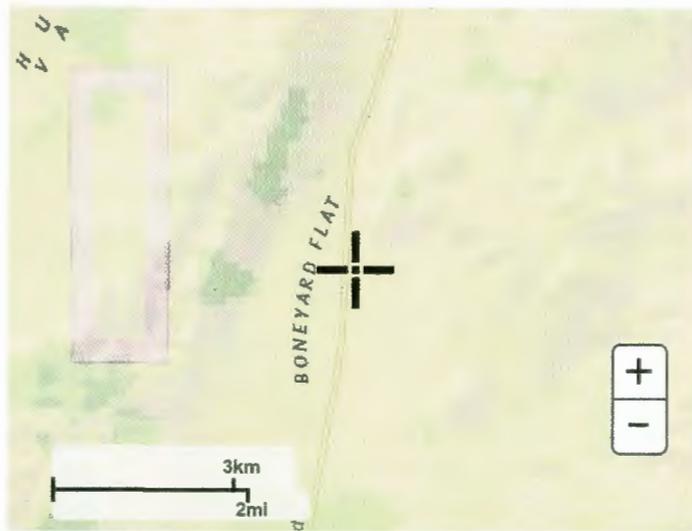
PDS-based depth-duration-frequency (DDF) curves  
Latitude: 39.6937°, Longitude: -119.6970°



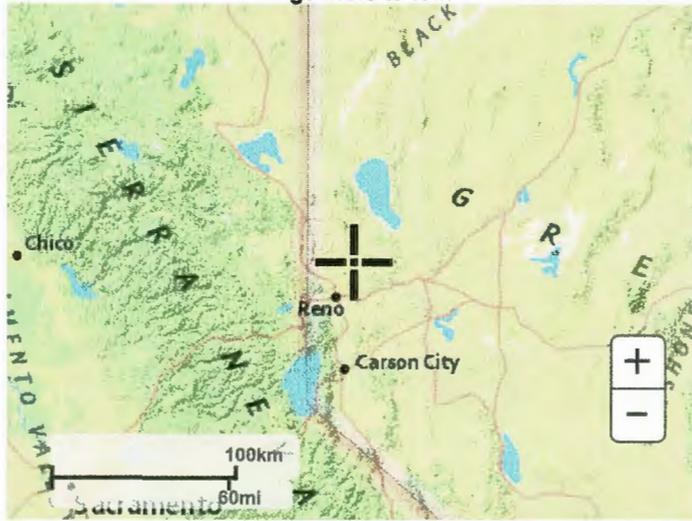
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### Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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Silver Spring, MD 20910  
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**NOAA Atlas 14, Volume 1, Version 5**  
**Location name: Sparks, Nevada, USA\***  
**Latitude: 39.6937°, Longitude: -119.697°**  
**Elevation: 4585.17 ft\*\***  
\* source: ESRI Maps  
\*\* source: USGS



**POINT PRECIPITATION FREQUENCY ESTIMATES**

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

[PF tabular](#) | [PF graphical](#) | [Maps & aerials](#)

**PF tabular**

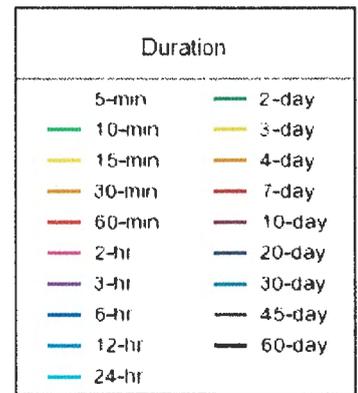
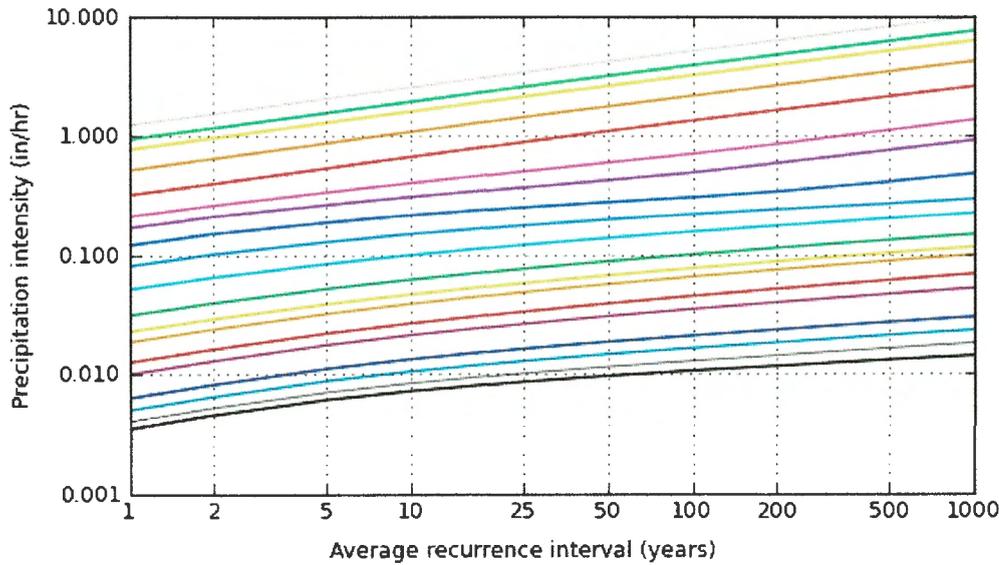
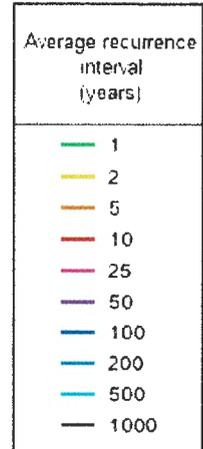
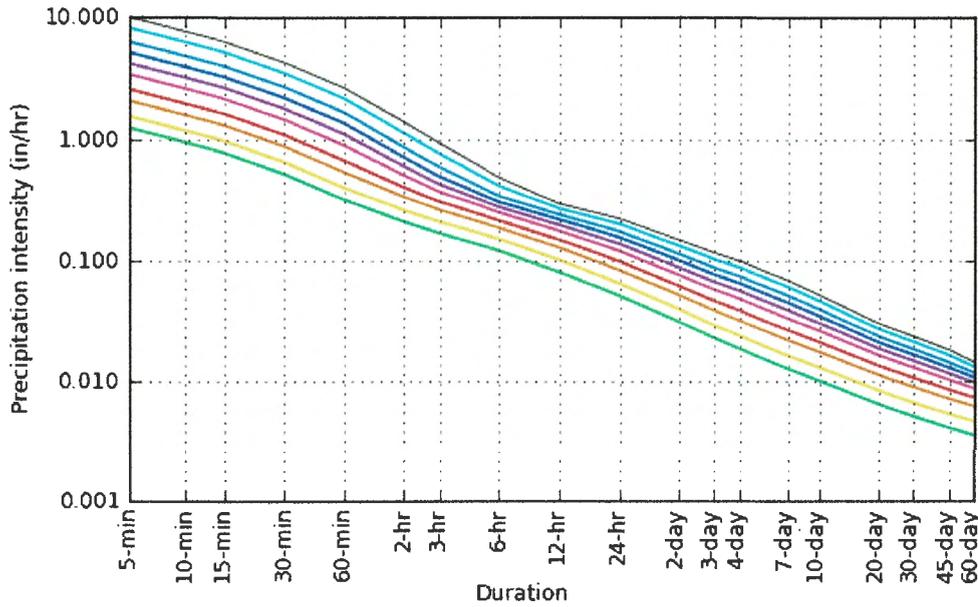
<b>PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)<sup>1</sup></b>										
Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.24 (1.03-1.43)	1.54 (1.28-1.80)	2.06 (1.73-2.44)	2.56 (2.15-3.05)	3.40 (2.80-4.10)	4.18 (3.35-5.14)	5.14 (3.98-6.40)	6.29 (4.70-8.03)	8.20 (5.81-10.8)	9.96 (6.77-13.5)
10-min	0.942 (0.786-1.09)	1.17 (0.978-1.37)	1.57 (1.31-1.85)	1.94 (1.64-2.32)	2.58 (2.12-3.13)	3.19 (2.55-3.91)	3.90 (3.04-4.87)	4.79 (3.58-6.11)	6.23 (4.42-8.24)	7.58 (5.15-10.3)
15-min	0.776 (0.648-0.896)	0.968 (0.804-1.13)	1.30 (1.09-1.53)	1.61 (1.35-1.92)	2.14 (1.76-2.58)	2.63 (2.10-3.22)	3.22 (2.51-4.02)	3.96 (2.96-5.04)	5.15 (3.65-6.80)	6.26 (4.26-8.48)
30-min	0.522 (0.436-0.602)	0.652 (0.542-0.760)	0.872 (0.732-1.03)	1.08 (0.910-1.29)	1.44 (1.18-1.74)	1.77 (1.42-2.17)	2.17 (1.69-2.71)	2.66 (1.99-3.40)	3.47 (2.46-4.58)	4.22 (2.86-5.71)
60-min	0.323 (0.270-0.373)	0.403 (0.336-0.471)	0.539 (0.453-0.637)	0.670 (0.563-0.798)	0.889 (0.731-1.08)	1.10 (0.877-1.34)	1.34 (1.05-1.68)	1.65 (1.23-2.10)	2.15 (1.52-2.84)	2.61 (1.77-3.54)
2-hr	0.212 (0.186-0.245)	0.264 (0.232-0.305)	0.339 (0.295-0.394)	0.406 (0.348-0.470)	0.508 (0.426-0.594)	0.601 (0.493-0.710)	0.710 (0.568-0.851)	0.856 (0.664-1.06)	1.12 (0.828-1.43)	1.37 (0.976-1.79)
3-hr	0.170 (0.151-0.194)	0.211 (0.189-0.242)	0.265 (0.235-0.303)	0.310 (0.272-0.355)	0.373 (0.323-0.429)	0.429 (0.366-0.499)	0.497 (0.416-0.586)	0.594 (0.486-0.710)	0.762 (0.605-0.963)	0.921 (0.713-1.20)
6-hr	0.122 (0.109-0.137)	0.152 (0.136-0.172)	0.188 (0.167-0.214)	0.216 (0.191-0.245)	0.253 (0.221-0.289)	0.280 (0.242-0.322)	0.308 (0.263-0.358)	0.344 (0.289-0.405)	0.416 (0.343-0.497)	0.487 (0.395-0.608)
12-hr	0.081 (0.073-0.091)	0.102 (0.091-0.115)	0.129 (0.115-0.145)	0.150 (0.132-0.169)	0.178 (0.155-0.202)	0.199 (0.172-0.228)	0.221 (0.188-0.255)	0.243 (0.204-0.284)	0.272 (0.223-0.324)	0.298 (0.239-0.361)
24-hr	0.052 (0.046-0.059)	0.066 (0.059-0.074)	0.085 (0.075-0.095)	0.100 (0.089-0.113)	0.122 (0.107-0.138)	0.139 (0.121-0.158)	0.157 (0.136-0.180)	0.176 (0.150-0.203)	0.203 (0.170-0.237)	0.225 (0.184-0.265)
2-day	0.032 (0.028-0.036)	0.040 (0.035-0.046)	0.052 (0.046-0.060)	0.063 (0.055-0.071)	0.077 (0.067-0.088)	0.089 (0.076-0.102)	0.101 (0.086-0.118)	0.115 (0.096-0.134)	0.133 (0.109-0.159)	0.149 (0.119-0.179)
3-day	0.023 (0.020-0.026)	0.029 (0.026-0.034)	0.039 (0.034-0.045)	0.047 (0.041-0.054)	0.058 (0.050-0.067)	0.068 (0.058-0.078)	0.078 (0.065-0.091)	0.088 (0.073-0.104)	0.104 (0.084-0.124)	0.117 (0.092-0.141)
4-day	0.019 (0.017-0.021)	0.024 (0.021-0.028)	0.032 (0.028-0.037)	0.039 (0.034-0.045)	0.049 (0.042-0.057)	0.057 (0.049-0.066)	0.066 (0.055-0.077)	0.075 (0.062-0.089)	0.089 (0.072-0.107)	0.100 (0.079-0.122)
7-day	0.013 (0.011-0.015)	0.016 (0.014-0.019)	0.022 (0.019-0.026)	0.027 (0.023-0.031)	0.034 (0.029-0.039)	0.039 (0.033-0.046)	0.046 (0.038-0.054)	0.052 (0.043-0.062)	0.062 (0.049-0.075)	0.070 (0.054-0.086)
10-day	0.010 (0.009-0.012)	0.013 (0.011-0.015)	0.018 (0.015-0.020)	0.021 (0.018-0.025)	0.027 (0.023-0.031)	0.031 (0.026-0.036)	0.035 (0.029-0.042)	0.040 (0.033-0.048)	0.047 (0.038-0.057)	0.053 (0.041-0.065)
20-day	0.006 (0.006-0.007)	0.008 (0.007-0.010)	0.011 (0.010-0.013)	0.013 (0.012-0.015)	0.016 (0.014-0.019)	0.019 (0.016-0.022)	0.021 (0.018-0.025)	0.024 (0.020-0.028)	0.027 (0.022-0.033)	0.030 (0.024-0.037)
30-day	0.005 (0.004-0.006)	0.007 (0.006-0.008)	0.009 (0.008-0.010)	0.011 (0.009-0.012)	0.013 (0.011-0.015)	0.015 (0.013-0.017)	0.017 (0.014-0.019)	0.018 (0.015-0.022)	0.021 (0.017-0.025)	0.024 (0.019-0.028)
45-day	0.004 (0.004-0.005)	0.005 (0.005-0.006)	0.007 (0.006-0.008)	0.008 (0.007-0.010)	0.010 (0.009-0.012)	0.012 (0.010-0.013)	0.013 (0.011-0.015)	0.014 (0.012-0.017)	0.016 (0.014-0.019)	0.018 (0.015-0.022)
60-day	0.003 (0.003-0.004)	0.005 (0.004-0.005)	0.006 (0.005-0.007)	0.007 (0.006-0.008)	0.009 (0.007-0.010)	0.010 (0.008-0.011)	0.011 (0.009-0.012)	0.012 (0.010-0.014)	0.013 (0.011-0.015)	0.014 (0.012-0.017)

<sup>1</sup> Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS). Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values. Please refer to NOAA Atlas 14 document for more information.

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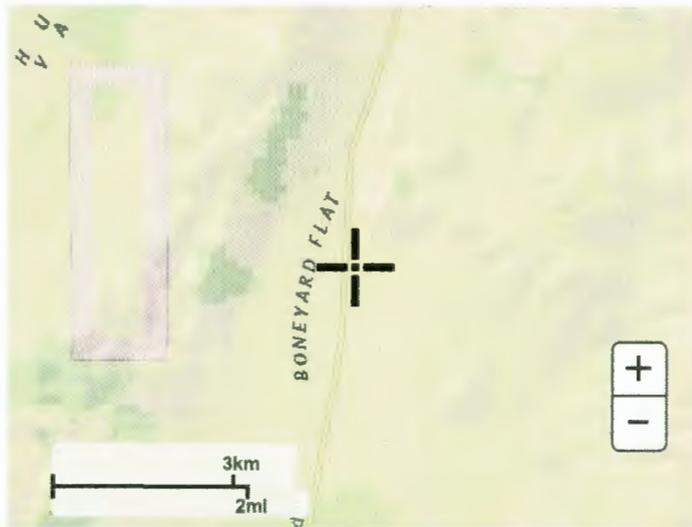
**PF graphical**

PDS-based intensity-duration-frequency (IDF) curves  
 Latitude: 39.6937°, Longitude: -119.6970°



**Maps & aerials**

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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# Worksheet 2: Runoff curve number and runoff

Project <b>BLUE OAKS</b>	By <b>RIS</b>	Date
Location <b>11720 CAMPO RIVER LN</b>	Checked	Date

Check one:  Present  Developed

## 1. Runoff curve number

Soil name and hydrologic group (appendix A)	Cover description  (cover type, treatment, and hydrologic condition; percent impervious; unconnected/connected impervious area ratio)	CN <sup>1/</sup>			Area  <input type="checkbox"/> acres <input type="checkbox"/> mi <sup>2</sup> <input type="checkbox"/> %	Product of CN x area
		Table 2-2	Figure 2-3	Figure 2-4		
<b>1210-LINHART STONY COARSE SAND HG. A</b>	<b>SAGEBRUSH/GRASS</b>	<b>49</b>			<b>100</b>	<b>49</b>
		<b>51</b>			<b>100</b>	<b>51</b>

PRE DEV.  
POST DEV

<sup>1/</sup> Use only one CN source per line

Totals ➡

CN (weighted) =  $\frac{\text{total product}}{\text{total area}}$  = \_\_\_\_\_ = \_\_\_\_\_ ;

Use CN ➡

PRE POST  
**49/51**

## 2. Runoff

	PRE-Development Storm #1	POST-Development Storm #2	Storm #3
Frequency ..... yr	<b>100 YR / 10 DAY</b>	<b>100 YR / 10 DAY</b>	
Rainfall, P (24-hour) ..... in	<b>8.49</b>	<b>8.49</b>	
Runoff, Q ..... in	<b>2.44</b>	<b>2.67</b>	

(Use P and CN with table 2-1, figure 2-1, or equations 2-3 and 2-4)

$S = \frac{1000}{CN} - 10$   $\left( \begin{matrix} 10.41 \text{ Pre} \\ 9.61 \text{ Post} \end{matrix} \right)$   $Q = \frac{(P \cdot 0.25)^2}{(P + 0.85)}$

# Worksheet 4: Graphical Peak Discharge method

Project <b>BLUE OAKS</b>	By	Date
Location	Checked	Date

Check one:  Present     Developed

**1. Data**

Drainage area .....  $A_m = 0.0156$  mi<sup>2</sup> (acres/640)

Runoff curve number .....  $CN = 49/51$  (From worksheet 2)

Time of concentration .....  $T_c = 0.167$  hr (From worksheet 3)

Rainfall distribution ..... = II (I, IA, II III)

Pond and swamp areas spread throughout watershed ..... = 0 percent of  $A_m$  ( \_\_\_\_\_ acres or mi<sup>2</sup> covered)

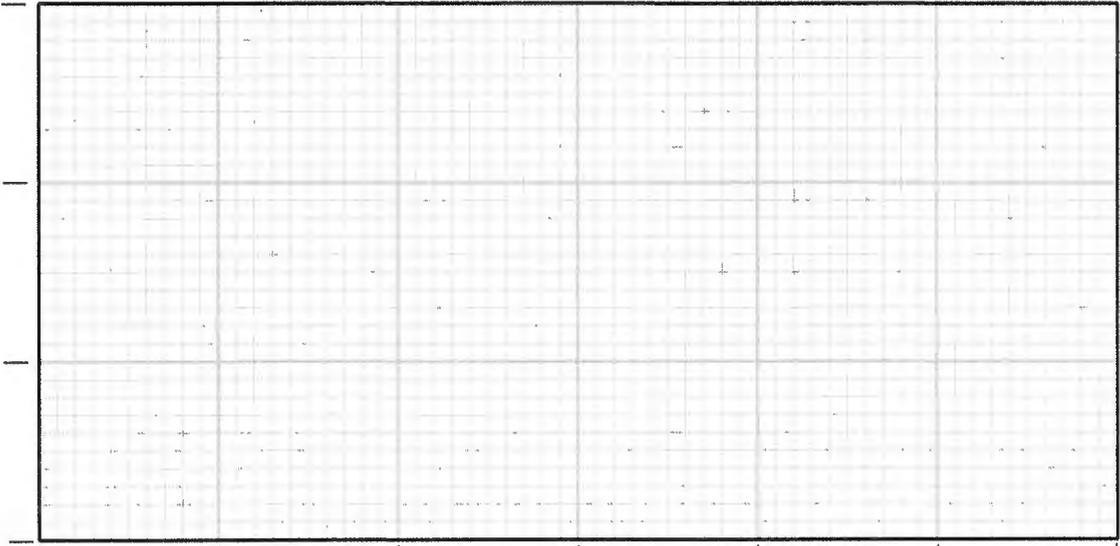
	<u>PRE</u>	<u>POST</u>	
2. Frequency ..... yr	Storm #1	Storm #2	Storm #3
3. Rainfall, P (24-hour) ..... in	100.00/10.00 8.49	100.00/10.00 8.49	
4. Initial abstraction, $I_a$ ..... in (Use CN with table 4-1)	2.062	1.922	
5. Compute $I_a/P$ .....	0.245	0.226	
6. Unit peak discharge, $q_u$ ..... csm/in (Use $T_c$ and $I_a/P$ with exhibit 4- _____ )	780	800	
7. Runoff, Q ..... in (From worksheet 2) Figure 2-6	2.44	2.67	
8. Pond and swamp adjustment factor, $F_p$ ..... (Use percent pond and swamp area with table 4-2. Factor is 1.0 for zero percent pond and swamp area.)	1	1	
9. Peak discharge, $q_p$ ..... ft <sup>3</sup> /s  ( Where $q_p = q_u A_m Q F_p$ )	29.69	33.3	

# Worksheet 6a: Detention basin storage, peak outflow discharge ( $q_o$ ) known

Project <b>BLUE OAKS</b>	By	Date
Location	Checked	Date

Check one:  Present  Developed

Elevation or  stage



Detention basin storage (acre feet)

1. Data:

Drainage area .....  $A_m = \frac{0.0156}{11}$  mi<sup>2</sup>  
 Rainfall distribution type (I, IA, II, III)

1st Stage	2nd Stage
-----------	-----------

2. Frequency ..... yr **10 yr / 100 yr**

3. Peak inflow discharge  $q_i$  ..... ft<sup>3</sup>/s **33.3**  
 (from worksheet 4 or 5b)

4. Peak outflow discharge  $q_u$  ..... ft<sup>3</sup>/s **29.69**

5. Compute  $\frac{q_o}{q_i}$  ..... **0.89**

<sup>1/</sup> 2nd stage  $q_o$  includes 1st stage  $q_o$ .

6.  $\frac{V_s}{V_r}$  ..... **0.18**  
 (Use  $\frac{q_o}{q_i}$  with figure 6-1)

7. Runoff, Q ..... in **2.67**  
 (From worksheet 2)

8. Runoff volume  $V_r$  ..... ac-ft **2.72**  
 ( $V_r = QA_m$  53.33)

9. Storage volume,  $V_s$  ..... ac-ft **0.40**  
**17,407 ft<sup>3</sup>**  
 ( $V_s = V_r (\frac{V_s}{V_r})$ )

10. Maximum storage  $E_{max}$  (from plot)

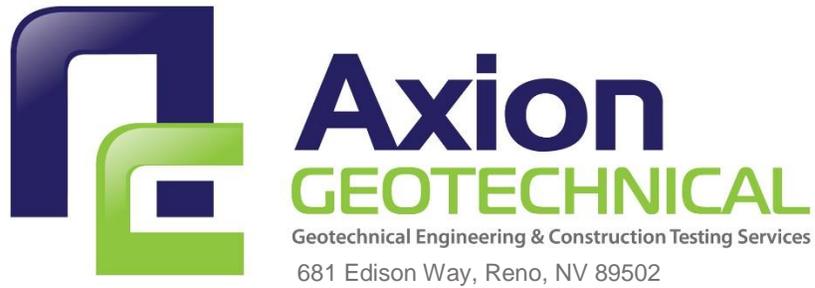
BASIN 1: 6 AC. BASIN 2: 4 AC  
 $V_r = 58,022 \text{ ft}^3$   $V_r = 38,681 \text{ ft}^3$   
 $- 17,500$   
40,522 + 38,681 = 79,203 ft<sup>3</sup> **WT**

PRE: A=10AC, Q=2AA →  $V_r = 86,566 \text{ ft}^3$



# PRELIMINARY GEOTECHNICAL REPORT





# **PRELIMINARY GEOTECHNICAL INVESTIGATION**

**PROPOSED**

**BLUE OAKS**

**Washoe County Assessor's Office Parcel Numbers 534-600-12**

**11720 Campo Rico Lane**

**Spanish Springs Valley**

**WASHOE COUNTY, NEVADA**

Prepared for:

Ken Dixon  
11720 Campo Rico Lane  
Sparks, Nevada 89441

May 24, 2019

Project No. 19.253.01-G



May 24, 2019  
Project No. 19.253.01-G

Ken Dixon  
11720 Campo Rico Lane  
Sparks, Nevada 89441

Re: Preliminary Geotechnical Feasibility Study, Proposed Blue Oaks,  
Washoe County APN 534-600-12, 11720 Campo Rico Lane,  
Spanish Springs Valley, Washoe County, Nevada

Dear Mr. Dixon:

Axion Geotechnical is pleased to present results of a preliminary geotechnical investigation our firm conducted at the property. Based on results of our work, experience in the area, and understanding of proposed development, we conclude that, from a preliminary geotechnical standpoint, the property is suitable for its intended use. The primary geotechnical concerns identified are the potential presence of **loose** surface soils and relative **clean nature** of portions of the native soils.

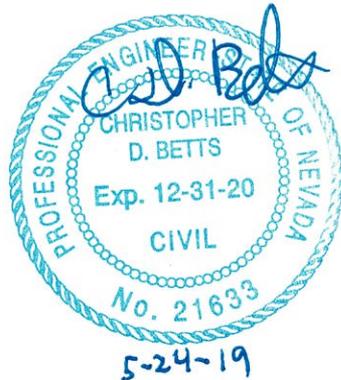
We appreciate having been selected to prepare this preliminary investigation and trust results fulfill your needs. If you or your design consultants have questions, please do not hesitate to contact us at (775) 771-2388 or [chris@axionengineering.net](mailto:chris@axionengineering.net).

Respectfully,

AXION GEOTECHNICAL, LLC

*Antonio Suarez*

Antonio Suarez, E.I.T



*Chris D. Betts*

Chris D. Betts, P.E.  
President

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## I INTRODUCTION

Axion Geotechnical is pleased to present results of a preliminary geotechnical investigation our firm performed for the proposed Blue Oaks development. The 10-acre parcel is Washoe County Assessor's Office Parcel Number 534-600-12 and is at 11720 Capo Rico Lane which is on the east side of Pyramid Highway in the Spanish Springs Valley area of Washoe County, Nevada (Property). We understand development will include construction of individual lots for single-family residences. We development will be serviced by community water and sewer systems with on-site storm water retention. We anticipate the structures will have one to two levels, will be wood-framed, and supported with shallow conventional spread foundations. Dedicated service streets will be surfaced with asphaltic concrete.

We have not received information concerning anticipated foundation loads; however, we anticipate maximum wall loads will be on the order of one kip per foot (dead plus live plus snow load), and maximum column loads will be less than two to three kips (dead plus live plus snow load). For frost protection, perimeter foundations will bottom at least 24 inches below lowest adjacent exterior ground surface. Structural design will follow criteria outlined in the 2016 *International Residential Code*.

We have not received civil engineering information; however, we anticipate that earthwork to attain proposed pad grades and for proper site drainage will result in cuts and fills of less than five feet. New slopes will be constructed at final inclinations of two horizontal to one vertical (2H:1V) or flatter. Site earth retaining walls are not anticipated. Depth of utility trenches should be less than 8 feet. We assume underground utilities in proposed structural areas will be abandoned or relocated. Earthwork will be performed in accordance with the 2016 *International Residential Code*, and the 2012 *Standard Specifications for Public Works Construction, Revision 8* (Regional Transportation Commission).

The purpose of our work was to perform a site reconnaissance and review available literature and maps to provide opinions and discussions concerning the geotechnical suitability of the Property for its intended use. Once design parameters, such as building locations, finish floor elevations, foundation loads and proposed grading are known; a design-level geotechnical investigation report with detailed information of the subsurface soil conditions and recommendations for design and construction must be performed.

This report is preliminary and geotechnical in nature and not intended to identify other potential site constraints such as environmental hazards, wetlands determinations or the potential presence of buried utilities. Opinions and discussions included in this report are specific to development at the Property and are not intended for off-site development.

## II SITE AND SOIL CONDITIONS

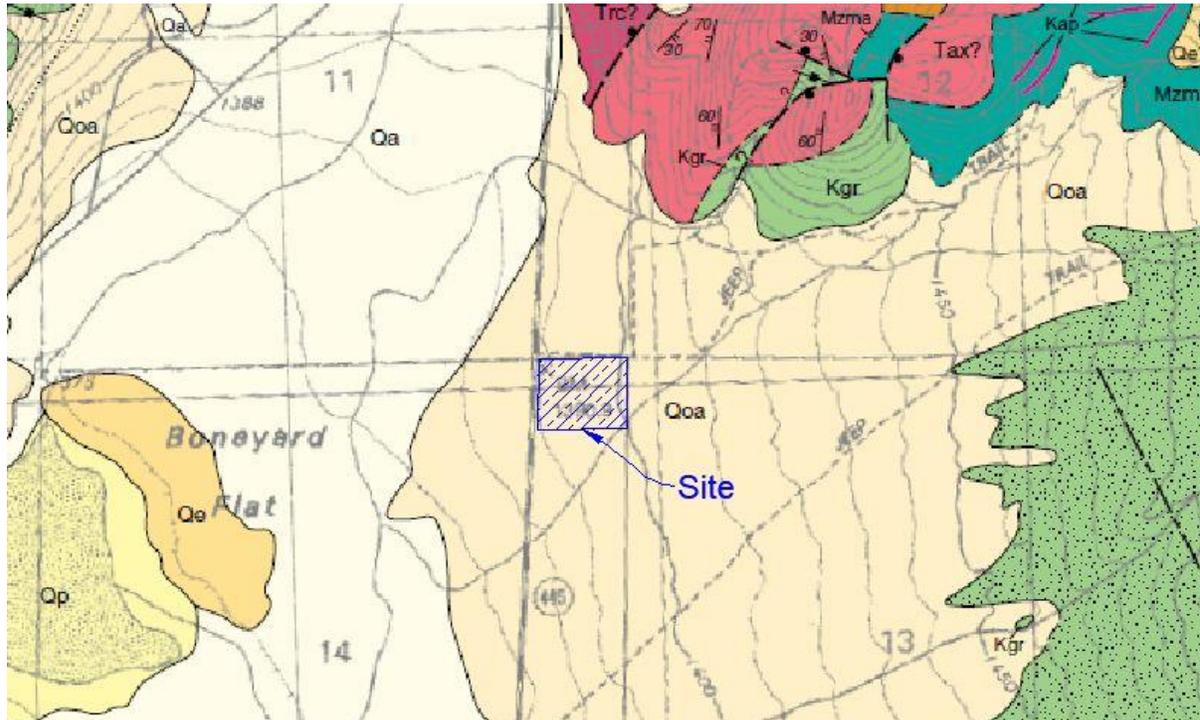
The Property is occupied by a single-family residence and is bordered by Campo Rico Lane to the west, undeveloped land to the north and east, and a single-family residence to the south. The Property grades gently downward from east to west and is covered by medium dense to dense sagebrush and weeds. Overhead utilities are present along the western property line.



View of Property from west to east

Based on the United States Geological Survey 7.5-Minute topographic map of the Griffith Canyon Quadrangle, the Property is in the Section 14, Township 21 North, Range 20 East, and elevation is between about 4560 and 4600 feet relative to mean sea level.

Mapping by Larry J. Garside and Fred L. Nials (*Preliminary Geologic Map of the Griffith Canyon Quadrangle*, Nevada Bureau of Mines and Geology, dated 1998), the materials underlying the Property consist of older alluvial fan deposits (Qoa). This unit consists of alluvial fan remnants with moderately to deeply incised surfaces, primarily consisting of semi-consolidated pebbly to bouldery arkosic sand derived from Hungry Ridge. In some areas, especially on the eastern margin of Hungry Ridge, these deposits grade into deposits of Qdg that may or may not contain corestones of relatively unweathered intrusive lithologies.



Geologic units according to the Preliminary Geologic Map of Griffith Canyon Quadrangle

According to the U.S. Department of Agriculture Natural Resources Conservation Service *Web Soil Survey*, the underlying earth material consists of Linhart stony coarse sand, 4 to 8 percent slopes (map unit #1210). This very deep, somewhat excessively drained soil is on alluvial fans and formed in alluvium derived dominantly from granitic rocks. Elevation is from 4,500 to 6,500 feet. Typically, 1 to 3 percent of the surface is covered with stones. The surface layer is a dark grayish brown, stony coarse sand about 14 inches thick. The underlying material to a depth of 60 inches is a grayish brown to light brownish gray, stratified, very gravelly, coarse sand to very gravelly, loamy coarse sand. Permeability is rapid. Available water capacity is very low. Effective rooting depth is 60 inches or more. Runoff is slow, and the hazard of water erosion and soil blowing is slight. Limitations to shallow excavations are severe due to cutbanks caving. Limitations to dwellings with or without basements is severe due to flooding. Limitations to roads and streets are severe due to flooding. Limitations to septic tank absorption fields is severe due to flooding and poor filtering. Shrink-swell potential is low. Flooding is occasional and very brief. Depth to high water table is greater than 6 feet. Depth to bedrock is greater than 60 inches. Potential frost action is low. Risk of corrosion to uncoated steel and concrete is moderate. This soil is subject to occasional flash flooding during storms of unusually high intensity. The main limitations associated with this unit for urban development, as described by the Soil Conservation Service, are flooding and rapid permeability.



Soil units according to the Web Soil Survey

### III GEOLOGIC AND SEISMIC CONSIDERATIONS

To evaluate potential geological hazards at the Property, our study included a site reconnaissance and review of available literature and maps.

#### A. Geology

The Property is in the northern portion of the Spanish Springs Valley, a complex basin bordered to the east by the Pah Rah Range which is composed of granite and gabbro intrusions, ash flow tuffs, and andesitic and basaltic flows and to the west by primarily granitic rock. The entire valley and accompanying ridges drain to the south. The southern 1/3 of the valley is poorly drained and numerous small ponds have formed, in part, from the termination of the Orr Ditch. The North Truckee Drain which exits the valley partially drains the area.

#### B. Faulting and Seismicity

Based on referenced geologic map, faults do not cross the Property. According to *Quaternary Faults in Google Earth* by the USGS, faults do not cross the Property. Quaternary-age faults are those which have experienced movement in the last 1.6 million years. The website indicates that the nearest Holocene- to latest-Pleistocene-age fault is approximately 2.78 miles SW of the Property. Faults of this age have moved or shifted in the last 15,000 years.

Based on the Nevada Seismological Laboratory website (<http://www.seismo.unr.edu>), the nearest principal Quaternary-age faults is the Spanish Springs Valley fault zone. The Nevada Seismological Laboratory indicates an earthquake of magnitude 6.9, is possible along this fault zone (*Reno/Carson Fault Information*, updated January 31, 2003).

### C. Liquefaction

Liquefaction is a loss of soil shear strength associated with loose saturated granular soils subjected to strong earthquake shaking. Liquefaction can result in unacceptable movement of foundations supported by such soils. A detailed assessment of liquefaction potential is not part of the scope of our work; however, based on our anticipation that ground water is not present within the upper 50 feet, we do not believe the Property is susceptible to liquefaction.

### D. Slope Stability

Based on our anticipation that slopes will be constructed at final inclinations of two horizontal to one vertical (2H:1V) or flatter, and that proper drainage will be provided, we do not believe rock falls or landslides will impact the Property.

### E. Radon

Radon, a colorless, odorless, radioactive gas derived from the natural decay of uranium, is found in nearly all rocks and soils. The Environmental Protection Agency (EPA) suggests that remedial action be taken to reduce radon in any structure with average indoor radon of 4.0 picocuries per liter (pCi/L) or more. Based on our review of *Radon in Nevada*, the Property is in an area where average indoor radon concentrations can potentially be greater than 4.0 pCi/L.

### F. Flooding

The Federal Emergency Management Agency flood map (FEMA-Map 32031C2855G, dated March 16, 2009) shows the Property in Flood Hazard Zones X unshaded. According to FEMA, these are areas determined to be outside the 0.2% annual chance floodplain.

## IV OPINIONS AND DISCUSSIONS

Based on results of our investigation, experience in the area, and understanding of the proposed project, we conclude that the site is suitable for development of single-family residences provided the recommendations included in our report are adhered to during design and construction. The primary geotechnical concerns identified are the potential presence of **loose** surface soils and relative **clean nature** of portions of the native soils.

Portions of the native soils may be in a relatively low (e.g. loose) density state. Loose soils can experience a loss of shear strength, especially when wet or saturated, resulting in unacceptable movement of foundations, interior slabs-on-grade, exterior flatwork and pavement sections. Wet or saturated conditions can occur as a result of seasonal variations in precipitation, landscape irrigation, broken or leaking water pipes and sewer lines, and/or poor site drainage. To provide for adequate support within these areas, loose soils will require upgrading through compaction.

Portions of the underlying soil may be clean sand and contain little or no binder such as silt or fine sand. Consideration should be given to the increased difficulty associated with moisture conditioning and attaining specified compaction associated with clean soils. Consideration should also be given to the potential for instability of excavation sidewalls and the subsequent lateral increase in pit dimensions and trench widths due to widening or over-break. We anticipate stabilization measures such reducing slope excavation inclination or installing shoring will be necessary to maintain stability and to ensure safety.

The soil survey suggests the native soils may exhibit a corrosion potential to steel and concrete, and that native soils exhibit rapid permeability. Based on our experience in the area, we believe adequate corrosion mitigation can be achieved by using properly prepared and placed Type II portland cement concrete, by maintaining a minimum 3-inch concrete cover where reinforcing steel or other metal is in close proximity to on-site soils and, at the direction of the Manufacturer, by using special coating on reinforcing steel and metal. Based on our understanding that the Property will be serviced by community water, sewer and storm drain systems, we do not believe rapid permeability rates will impact the site. Consideration, however, should be given to performing infiltration tests if retention/detention basins are proposed.

There are no other apparent geologic hazards that would place unusual constraints on the project; however, strong ground shaking associated with earthquakes should be expected to occur during the life of the project.

## V REFERENCES

American Concrete Institute, *Building Code Requirements for Reinforced Concrete* (ACI 318-11), dated 2012.

Federal Emergency Management Agency, U.S. Department of Homeland Security, *FEMA's Flood Map Service Center* (<https://msc.fema.gov/portal>).

Garside, Larry J. and Nials, Fred L. *Griffith Canyon Quadrangle Preliminary Geologic Map*. 1:24,000. Reno: Nevada Bureau of Mines & Geology, University of Nevada, Reno, 1998.

International Code Council *2016 International Residential and Building Codes*, Whittier: International Code Council, Inc., 2016.

Lieberman, P. *Accelerated Corrosion Tests for Buried Metal Structures*. Pipeline and Gas Journal October 1996.

Regional Transportation Commission of Washoe County. *Standard Specification for Public Works Construction, Revision 8*. Reno: Regional Transportation Commission of Washoe County, 2012.

Rigby, James G., Jonathan G. Price, Lindsay G. Christensen, Daphne D. La Pointe, Alan R. Ramelli, Mario O. Desilets, Ronald H. Hess, and Stanley R. Marshall. *Radon in Nevada*. Reno: Nevada Bureau of Mines & Geology, Bulletin 108, University of Nevada, Reno, 1994.

United States Department of Agriculture, Soil Conservation Service. Web Soil Survey.

United States Department of the Interior Geological Survey. *Griffith Canyon Quadrangle, Nevada*. 7.5-minute series map (topographic). 1:24,000. Denver: USGS, 1986.

United States Department of the Interior Geological Survey. *Griffith Canyon Quadrangle, Nevada*. 7.5-minute series map (topographic). 1:24,000. Denver: USGS, 2018.

Mr. Ken Dixon  
Preliminary Geotechnical Feasibility Study - Project No. 19.253.01-G  
Proposed Blue Oaks  
11720 Campo Rico Lane - Spanish Springs Valley Area of Washoe County, Nevada  
May 24, 2019 - Page 8

**Axion Geotechnical, LLC**  
**681 Edison Way**  
**Reno, Nevada 89502**  
**(775) 771-2388**

## **VI DISTRIBUTION**

One wet-stamped .pdf via e-mail to:

Ken Dixon  
11720 Campo Rico Lane  
Sparks, Nevada 89441

Two wet-stamped copies to

Axion Engineering, LLC  
681 Edison Way  
Reno, Nevada 90502  
Attention: Gary Guzelis, P.E.  
Telephone: (775) 771-5554  
Facsimile: (775) 856-3951

**U.S. FISH & WILDLIFE  
iPac REPORT**



# Blue Oaks

## *Species Survey Guidelines (1 Species)*

Generated May 06, 2019 01:25 PM MDT, IPaC unspecified



IPaC - Information for Planning and Consultation (<https://ecos.fws.gov/ipac/>): A project planning tool to help streamline the U.S. Fish and Wildlife Service environmental review process.

# Table of Contents

Species Document Availability . . . . .	<a href="#">1</a>
Lahontan Cutthroat Trout - Reno Fish And Wildlife Office . . . . .	<a href="#">2</a>

# Species Document Availability

## Species with survey guidelines

Lahontan Cutthroat Trout *Oncorhynchus clarkii henshawi*

## Species without survey guidelines available

Cui-ui *Chasmistes cujus*

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Washoe County, Nevada



## Local office

Reno Fish And Wildlife Office

☎ (775) 861-6300

📠 (775) 861-6301

1340 Financial Boulevard, Suite 234  
Reno, NV 89502-7147

<http://www.fws.gov/nevada/>

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

## Fishes

NAME

STATUS

Cui-ui *Chasmistes cujus* Endangered  
No critical habitat has been designated for this species.  
<https://ecos.fws.gov/ecp/species/456>

Lahontan Cutthroat Trout *Oncorhynchus clarkii henshawi* Threatened  
No critical habitat has been designated for this species.  
<https://ecos.fws.gov/ecp/species/3964>

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

THERE ARE NO MIGRATORY BIRDS OF CONSERVATION CONCERN EXPECTED TO OCCUR AT THIS LOCATION.

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to

occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

### What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

### What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

## Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

## What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

## Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# Facilities

## National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

# Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

[R4SBJ](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

### Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

# TENTATIVE MAP APPLICATION BLUE OAKS

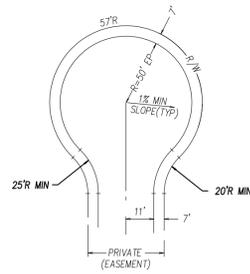
WASHOE COUNTY, NEVADA

## OWNER/DEVELOPER

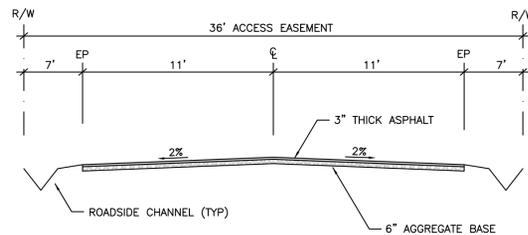
KEN DIXON  
11720 CAMPO RICO LANE  
SPARKS, NV 89441  
ATTN: KEN DIXON

## PUBLIC SERVICES

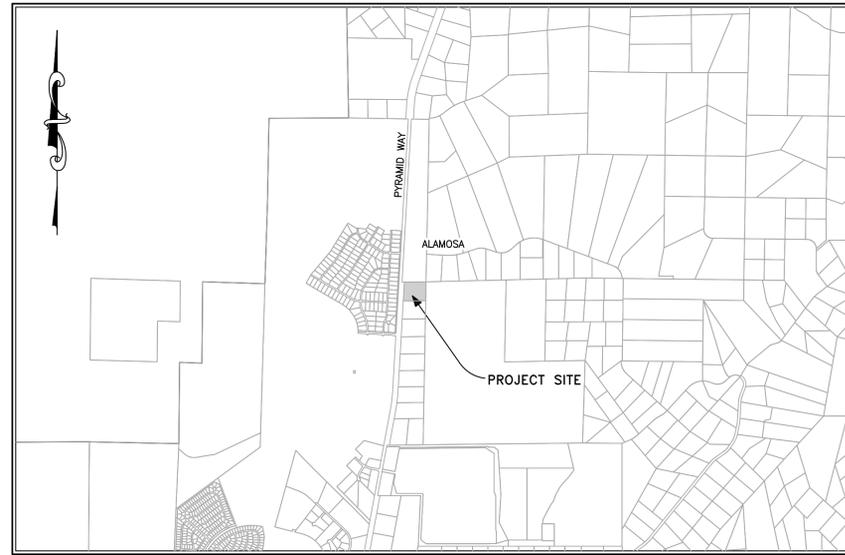
GAS & ELECTRICAL SERVICE: NV ENERGY  
WATER SERVICE: TRUCKEE MEADOWS WATER AUTHORITY  
SEWER SERVICE: WASHOE COUNTY  
TELEPHONE: AT&T  
CABLE TV: CHARTER COMMUNICATIONS  
FIRE PROTECTION: TRUCKEE MEADOWS FIRE DEPARTMENT  
POLICE PROTECTION: WASHOE COUNTY SHERIFF DEPARTMENT



PRIVATE CUL-DE-SAC

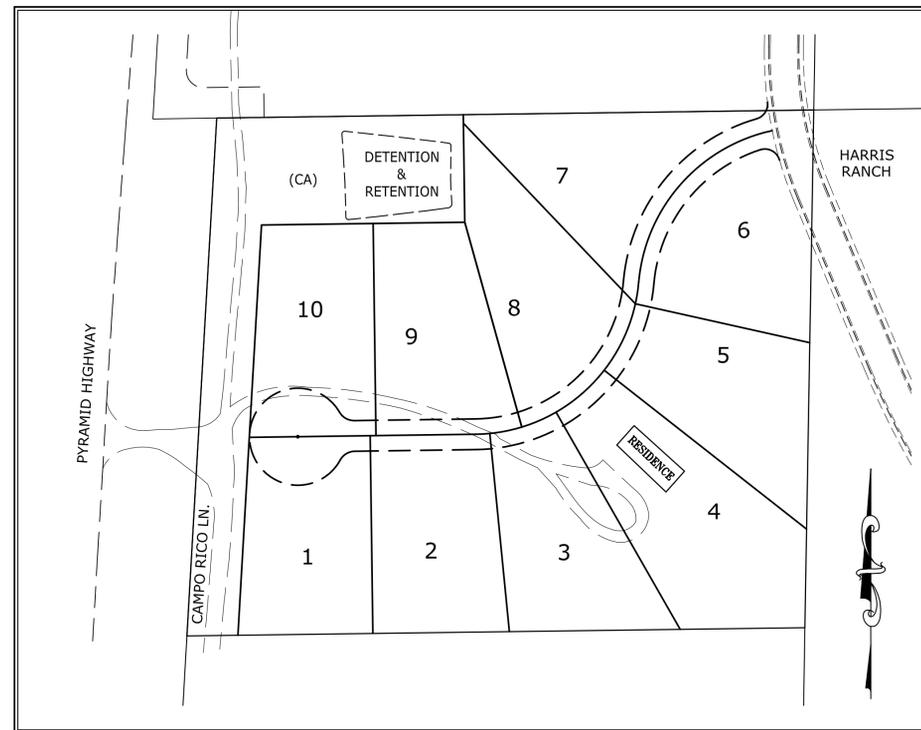


PRIVATE STREET SECTION



VICINITY MAP

N.T.S.



SITE

N.T.S.

## ENGINEER

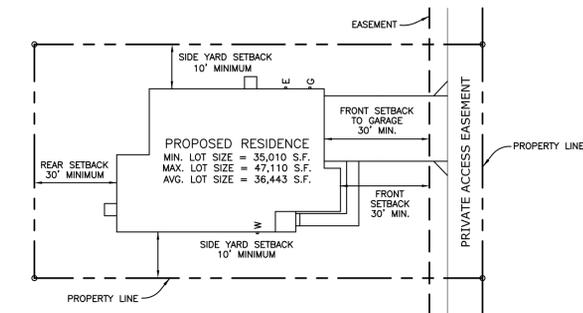


681 EDISON WAY - RENO, NEVADA 89502  
PH 775-771-5554 / FX 775-856-3951

## SHEET INDEX

- C1 .....TITLE SHEET
- C2 .....SITE PLAN
- C3 .....GRADING PLAN
- C4 .....UTILITY PLAN
- C5 .....OFFSITE UTILITY PLAN
- C6 .....CROSS SECTIONS
- L1 .....LANDSCAPE PLAN

## MINIMUM SETBACKS



## ENGINEERS STATEMENT

I, RYAN T. SIMS, DO HEREBY CERTIFY THAT THIS MAP HAS BEEN PREPARED BY ME, OR UNDER MY SUPERVISION AND WAS COMPLETED ON THIS 15th DAY OF NOVEMBER, 2019.



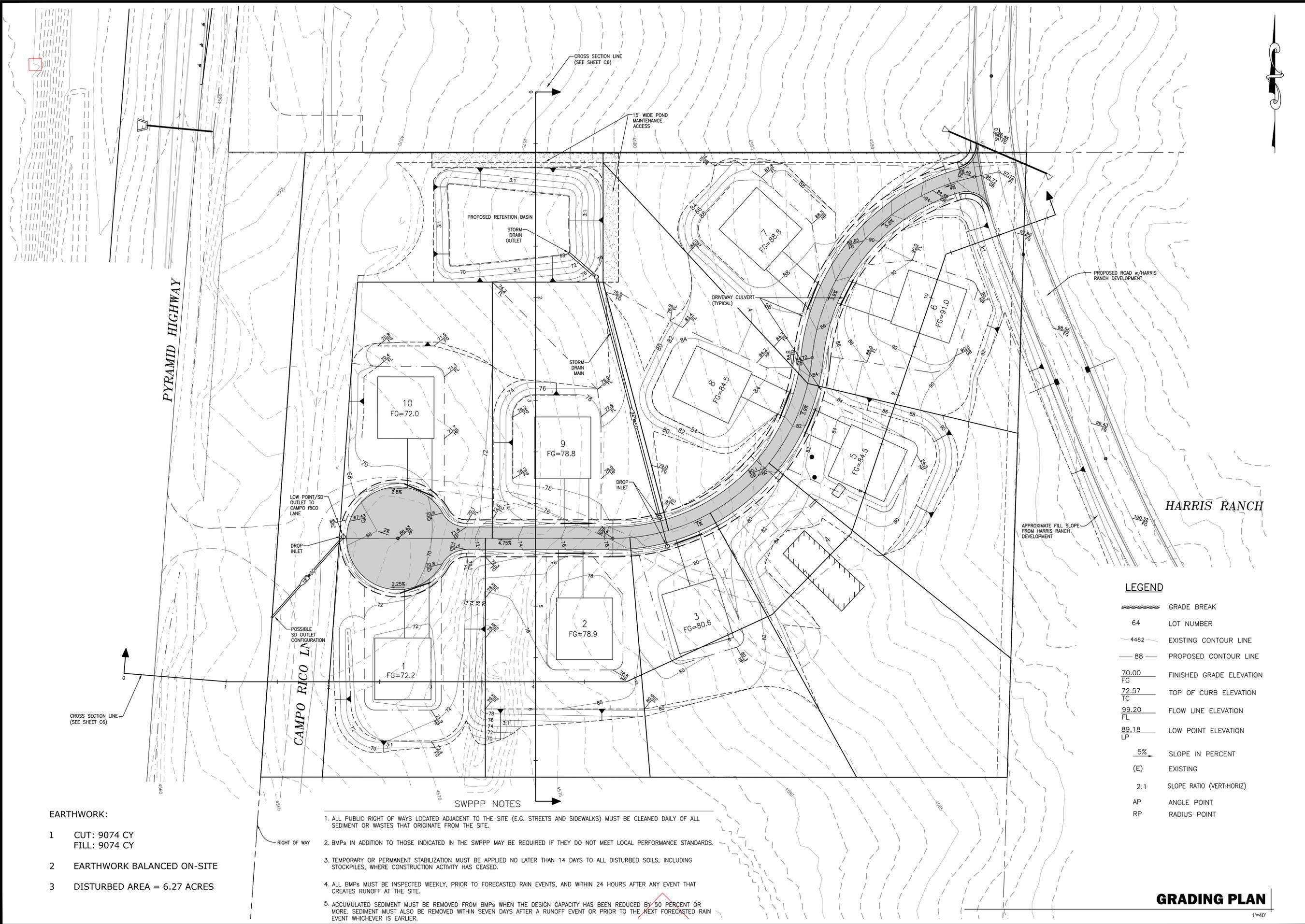
RYAN T. SIMS

P.E. #16951

# BLUE OAKS TITLE SHEET

C1





TENTATIVE MAP APPLICATION FOR  
**BLUE OAKS**  
PRELIMINARY GRADING PLAN  
WASHOE COUNTY, NEVADA

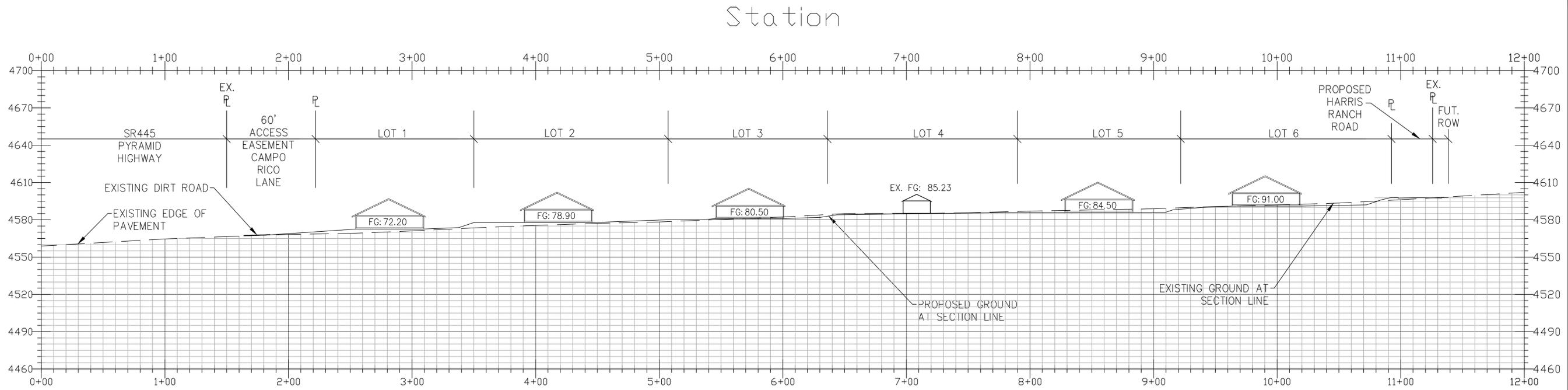
revisions

NO.	DESCRIPTION	DATE

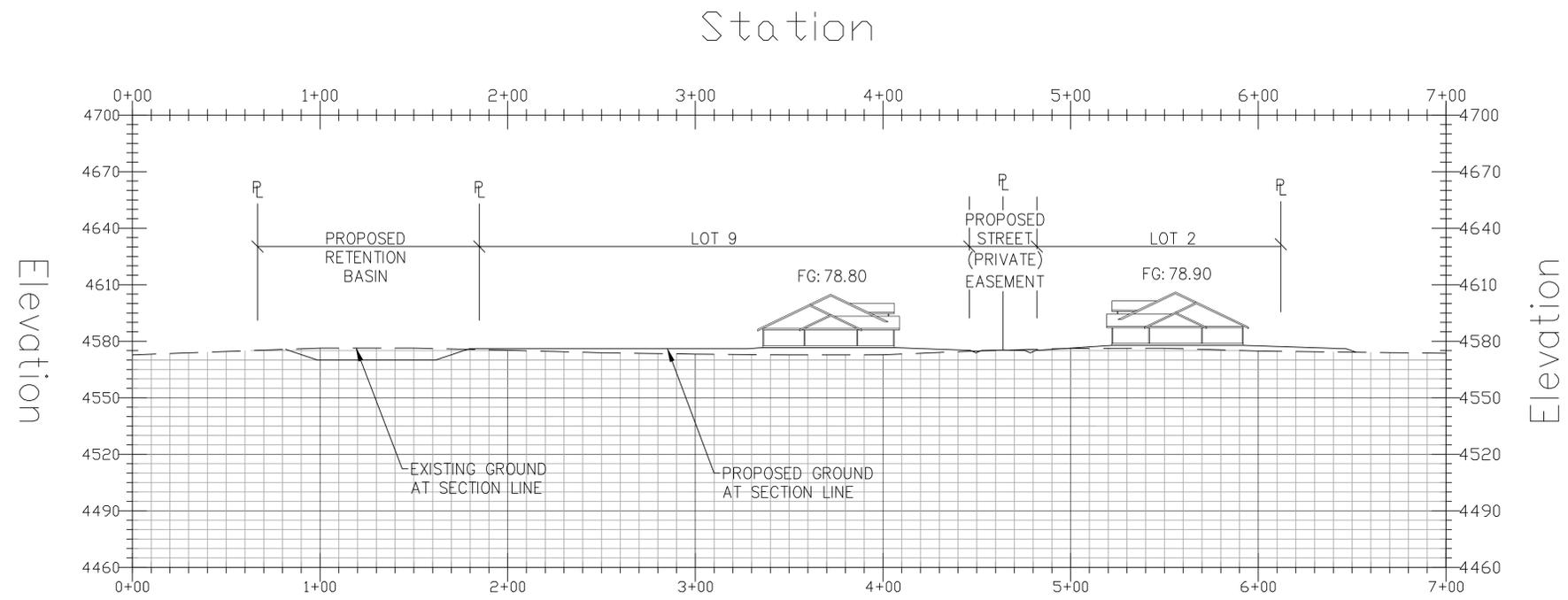
drawn: RTS  
checked: RTS  
date: NOVEMBER 2019  
scale: 1"=40'  
project no: 17036



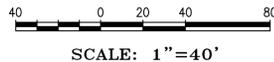




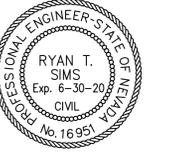
SECTION A-A



SECTION B-B



**SITE CROSS SECTIONS**



TENTATIVE MAP APPLICATION FOR  
**BLUE OAKS**  
 SITE CROSS SECTIONS  
 WASHOE COUNTY, NEVADA

revisions	

drawn: RTS  
 checked: RTS  
 date: NOVEMBER, 2019  
 scale: 1"=40'  
 project no: 17036



**LANDSCAPE LEGEND/REQUIREMENTS**



REQUIRED YARDS ADJOINING STREETS - ALL REQUIRED FRONT, REAR, AND SIDE YARDS WHICH ADJOIN A PUBLIC STREET SHALL BE LANDSCAPED AND SHALL INCLUDE AT LEAST ONE (1) TREE FOR EVERY FIFTY (50) LINEAR FEET OF STREET FRONTAGE, OR FRACTION THEREOF.

SUBDIVISION PERIMETERS - NEW RESIDENTIAL SUBDIVISION, REGARDLESS OF THE NUMBER OF DWELLING UNITS PER PARCEL, SHALL PROVIDE AT LEAST ONE (1) TREE FOR EVERY FIFTY (50) LINEAR FEET OF PERIMETER FRONTAGE ADJOINING AN ARTERIAL OR COLLECTOR IDENTIFIED IN THE WASHOE COUNTY COMPREHENSIVE PLAN STREETS AND HIGHWAYS SYSTEM PLAN MAP.

REVEGETATION AREA

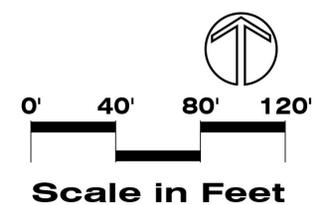
NOTE: THE COMPOSITION OF TREES SHALL REPRESENT A MIXTURE OF DECIDUOUS AND CONIFEROUS VARIETIES AS FOLLOWS:

- AT LEAST ONE-HALF (1/2) OF ALL EVERGREEN TREES SHALL BE AT LEAST SEVEN (7) FEET IN HEIGHT, AND THE REMAINDER MUST BE AT LEAST FIVE (5) FEET IN HEIGHT AT THE TIME OF PLANTING.
- AT LEAST ONE-HALF (1/2) OF THE REQUIRED NUMBER OF DECIDUOUS TREES SHALL BE AT LEAST TWO (2) INCH CALIPER PER AMERICAN NURSERY STANDARDS AT THE TIME OF PLANTING. THE REMAINING NUMBER OF REQUIRED DECIDUOUS TREES SHALL BE AT LEAST ONE (1) INCH CALIPER AT THE TIME OF PLANTING.
- ALL PLANTING AND IRRIGATION SHALL BE INSTALLED PER LOCAL GOVERNING CODES.

• FINAL PLANT SELECTION AND LAYOUT WILL BE BASED ON SOUND HORTICULTURAL PRACTICES RELATING TO MICRO-CLIMATE, SOIL, AND WATER REGIMES. ALL TREES WILL BE STAKED SO AS TO REMAIN UPRIGHT AND PLUMB FOLLOWING INSTALLATION. PLANT SIZE AND QUALITY AT TIME OF PLANTING WILL BE PER CURRENT EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z60.1).

• ALL PLANTER BEDS WILL RECEIVE 3" MINIMUM DEPTH OF MULCH WITH WEED CONTROL.

• ALL LANDSCAPING WILL BE AUTOMATICALLY IRRIGATED UNLESS NOTED OTHERWISE ON THE PLAN. CONTAINER PLANTINGS WILL BE DRIP IRRIGATED. A REDUCED-PRESSURE-TYPE BACKFLOW PREVENTER WILL BE PROVIDED ON THE IRRIGATION SYSTEM AS REQUIRED PER CODE.



No.	Revision Date