### **Tentative Subdivision Map**

## PYRAMID RANCH ANNEX SUBDIVISION

1	Application with Owner Affidavit and Request to Reserve New Street Names
2	Vicinity Map, Assessor's Site Map, Parcel Site Map
3	8"x11" Tentative Map Sheets
4	Proof of Property Tax Payments
5	Legal Description
6	Traffic Impact Report
7	Feasibility Study
8	Water Rights Letter
9	Acknowledgement of Water Service (from TMWA)
10	



## Community Services Department Planning and Development TENTATIVE SUBDIVISION MAP APPLICATION



Community Services Department Planning and Development 1001 E. Ninth St., Bldg A Reno, NV 89520

Telephone: 775.328.3600

### **Washoe County Development Application**

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Development staff at 775.328.3600.

Project Information	S	taff Assigned Case No.:	
Project Name: PYRAMID RANCH ANNEX S	SUBDIVISION		
Project 61 LOT TENTA Description:	TIVE MAP		
Project Address: Sand Dune	Drive and Dromedary	Road, Sparks, NV	
Project Area (acres or square	feet): 21.312 acres		
Project Location (with point of Intersection of Sand Dune Dr Springs Valley		streets <b>AND</b> area locator): ad, via Rosetta Stone to Egyptia	n Drive in Spanish
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No(s):	Parcel Acreage:
532-091-09 (portion)	15.574		
532-091-10	5.738		
Section(s)/Township/Range:	SW 1/4 SECTION 26	and SE 1/4 Section 27, T21N, R	20E
Indicate any previous Was Case No.(s). RZA16-001	hoe County approval	s associated with this applica	tion:
Applica	nt Information (atta	ch additional sheets if necessar	y)
Property Owner:		Professional Consultant:	
Name: Spanish Springs Ass	ociates, LP	Name: C&M Engineering and Design	
Address: 550 W. Plumb Land	e, #B-505	Address: 5488 Reno Corporate Drive #200B	
Reno, NV	Zip: 89509	Reno, NV	Zip: 89511
Phone: 775-425-4422	Fax: 775-329-8591	Phone: 775-856-3312	Fax: 775-856-3318
Email: jesse@hawcopropert	es.com	Email: Imenante@candmengineering.com	
Cell: 775-560-6922	Other:	Cell: 775-240-5664	Other:
Contact Person: Jesse Haw		Contact Person: Lisa Menante	
Applicant/Developer:		Other Persons to be Contacted:	
Name: Same as Owner		Name: Robert M. Sader	
Address:		Address: 8600 Technology Wa	
- Carlo Carl	Zip:	Reno, NV	Zip: 89521
Phone:	Fax:	Phone: 775-329-8310	Fax: 775-329-8591
Email:		Email: rmsader@robertmsade	rltd.com
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person: Robert M. Sa	der
	For Office	Use Only	
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

### **Property Owner Affidavit**

Applicant Name: SPANISH SPRINGS ASSOCIATES LIMITED PARTNERSHIP
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, JESSE HAW
(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 Development.
(A separate Affidavit must be provided by each property owner named in the title report.)
Assessor Parcel Number(s): 532-091-09 (portion) and 532-091-10
SPANISH SPRINGS ASSOCIATES LIMITED PARTNERSHIP BY HAWCO DEVELOPMENT COMPANY, GENERAL PARTNER  Signed  Jesse Haw, President  Address 550 W. Plumb Lane, #B-505
Address 330 W. Fidnib Lane, #b-505
Reno, NV 89509
Subscribed and sworn to before me this 14th day of September, 2016.  (Notary Stamp)  CHRISTIN WHITLOCK  NOTARY PUBLIC  STATE OF NEVADA  Appt. No. 15-2317-2  My Appt. Expires July 7, 2019
*Owner refers to the following: (Please mark appropriate box.)
<ul> <li>Owner</li> <li>Corporate Officer/Partner (Provide copy of recorded document indicating authority to sign.)</li> <li>Power of Attorney (Provide copy of Power of Attorney.)</li> <li>Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)</li> <li>Property Agent (Provide copy of record document indicating authority to sign.)</li> <li>Letter from Government Agency with Stewardship</li> </ul>

	New Street Name(s) nsible for all sign costs.
Applicant	Information
Name: Spanish Springs Associates,	LP
Address: 550 W. Plumb Lane, #B-505	
Reno, NV 89509	
Phone : (775) 425-4422	Fax: <u>(775)</u> 329-8591
✓ Private Citizen	Agency/Organization
	ne Requests " in the name. Attach extra sheet if necessary.)
Cardiff Court	
Penasquitos Court	
Piovana Court	
If final recordation has not occurred within or request for extension to the coordinator p	
Loc	ation
Project Name: PYRAMID RANCH ANNEX	( SUBDIVISION
Reno Spa	
Parcel Numbers: 532-091-09 (portion) and	
✓ Subdivision Pard	elization Private Street
Please attach maps, petition	s and supplementary information.
Approved:	Date:
Regional Street Naming Coordir Except where noted	ator
Denied:	Date:
Regional Street Naming Coordin	
Reno, NV	0 - 1001 E. Ninth Street 89520-0027
Phone: (775) 328-232	5 - Fax: (775) 328-6133

. .

This Folder

Office Outlook Web Access
Mail Mail
Calendar
S Contacts
*********
Deleted Items
Drafts [18]
Inbox (2)
Junk E-Mail
Sent Items
Click to view all folders ≥
Manage Folders

Forward Close Reply to All A Move

### FW: APPROVED STREET NAMES FOR PYRAMID RANCH ANNEX

X Delete

▼ 🔎 🖺 Address Book

Options

Log Off

4 7 🛭

RMSader [RMSader@robertmsaderltd.com]

Sent: Wednesday, September 07, 2016 7:52 AM

To: Sades

Type here to search

Reply

From: Lisa Menante [mailto:lmenante@candmengineering.com]

Sent: Tuesday, September 06, 2016 6:08 PM

To: rmsader

Cc: Samuel Chacon

Subject: APPROVED STREET NAMES FOR PYRAMID RANCH ANNEX

These street names have been accepted and reserved into the Washoe County Master Street Directory Reservation table as of the submittal date of 09/02/2016:

Location: Reno

Parcel Numbers: 532-091-09, 532-091-10

Description
Pyramid Ranch Annex (C and M Engineering – Lisa Menante for Spanish Springs Associates)
ne NA

These street names have been accepted and reserved into the Washoe County Master Street Directory Reservation table as of the submittal date of 09/01/2016:

Area: Washoe County

Parcels: 532-091-09, 532-091-10

			Reservations
	Date Submitted	Fullname	Description
-	9/1/2016		Pyramid Ranch Annex (C and M Engineering - Lisa Menante for Spanish Springs Associates)

These street names have been accepted and reserved into the Washoe County Master Street Directory Reservation table as of the submittal date of 09/01/2016:

Area: Washoe County

Parcels: 532-091-09, 532-091-10

		Reservations
Date Submitted Fullname Description		
9/1/2016		Pyramid Ranch Annex (C and M Engineering - Lisa Menante for Spanish Springs Associates)

Lisa C Menante, PE C&M Engineering and Design, LTD 5488 Reno Corporate Drive, Suite 200B Reno, NV 89511 (775) 856-3312

### Applicant Comments to Supplemental Information

This tentative map application involves a 15.574-acre portion of APN 532-091-09 and all of 532-091-10 (5.738 acres). The portion of 532-091-09 has until recently been zoned and designated for a potential regional park. On August 9, 2016 the Board of County Commissioners approved a regulatory zone amendment (Case No. RZA16-001) to change the zoning on the portion of 532-091-09 from Parks and Recreation to Medium Density Suburban. This approval followed a decision by county staff that a regional park would not be located on this site.

APN 532-091-10 is currently one of the parcels subject to the Eagle Canyon Ranch Subdivision (Case No. TM13-002). With the recent rezoning of APN 532-091-09 to MDS, the Applicant believes 532-091-10 should be planned and developed together with APN 532-091-09. This will result in a more efficient use of the property, simplify and improve utility extensions, and avoid constructing an additional street access.

Pyramid Ranch Annex is an infill subdivision bounded on the southeast, south and north by built or planned MDS subdivisions. Lot sizes are standard MDS dimensions. There will be no common area, negating the need for a common-interest community HOA and CC&Rs. The property is essentially flat (slopes less than 1%), so berms, retaining walls and extraordinary lot drainage are not issues. Once constructed, homes in this subdivision will be consistent and compatible with surrounding residences in the neighborhood.

In order to include APN 532-091-10 in this tentative map application, it will be necessary for the county to approve an amendment to the Eagle Canyon Ranch tentative map to exclude that parcel (and 13 lots) from the map. An amendment to this effect is being filed by the Applicant and others concurrently with this application, and must be approved prior to this application.

### Tentative Subdivision Map Application Supplemental Information

(All required information may be separately attached)

Chapter 110 of the Washoe County Code is commonly known as the Development Code. Specific references to tentative subdivision maps may be found in Article 608, Tentative Subdivision Maps.

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

Pyramid Ranch Annex Subdivision is located at the intersection of Sand Dune Drive and Dromedary Road, west of Alice Taylor Elementary School and Gator Swamp Park in Spanish Springs. The property is east of Pyramid Highway in the vicinity of the current terminus of Egyptian Drive.

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

Pyramid Ranch Annex Subdivision.		
*		

3. Density and lot design:

a. Acreage of project site	21.312
b. Total number of lots	61
c. Dwelling units per acre	2.86
d. Minimum and maximum area of proposed lots	12,000 s.f. min to 17,762 s.f. max
e. Minimum width of proposed lots	80 feet
f. Average lot size	13,182.26 s.f.

### 4. Utilities:

a. Sewer Service	Washoe County Department of Water Resources
b. Electrical Service	NV Energy
c. Telephone Service	AT&T
d. LPG or Natural Gas Service	NV Energy
e. Solid Waste Disposal Service	Waste Management
f. Cable Television Service	Charter Communications
g. Water Service	Washoe County Department of Water Resources

For a.	common open space subdivisions (Article 408), please answer the following:  Acreage of common open space:
	N/A
b.	Development constraints within common open space (slope, wetlands, faults, springs, ridgeline
	N/A
c.	Range of lot sizes (include minimum and maximum lot size):
	N/A
d.	Average lot size:
	N/A
e.	Proposed yard setbacks if different from standard:
	N/A
f.	Justification for setback reduction or increase, if requested:
	N/A
g.	Identify all proposed non-residential uses:
	N/A

h.	Improvements proposed for the common open space:					
	N/A					
i.	Describe or show on the tentative map any public or private trail systems within common open space of the development:					
	N/A					
j.	Describe the connectivity of the proposed trail system with existing trails or open space adjacent to or near the property:					
	N/A					
k.	If there are ridgelines on the property, how are they protected from development?					
	N/A					
I.	Will fencing be allowed on lot lines or restricted? If so, how?					
	N/A					

m. Identify the party responsible for maintenance of the common open space:
N/A
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 <a href="http://www.washoecounty.us/pubworks/engineering.htm">http://www.washoecounty.us/pubworks/engineering.htm</a> ). If so, how is access to those features provided?
No.
Is the parcel within the Truckee Meadows Service Area?
☑ Yes □ No
Is the parcel within the Cooperative Planning Area as defined by the Regional Plan?
☑ Yes □ No If yes, within what city? Sparks
Will a special use permit be required for utility improvement? If so, what special use permits are required and are they submitted with the application package?
No.
Has an archeological survey been reviewed and approved by SHPO on the property? If yes, what were the findings?
There are no known archaeological sites on the property.

11.	Indicate the type ar	id guantity of v	vater rights the	e application has	or proposes	to have available:

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

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

Spanish Springs Associates Limited Partnership and Hawco Development Company
have water rights banked with the Truckee Meadows Water Authority for use on this
property. See attached letter, Appendix 8.

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

Aspects of the model energy code will be applied including property insulation, energy efficient appliances, energy efficient windows and water saving shower heads, faucets, and toilets. Large lot sizes and generous building footprints will afford the project architects the opportunity to place homes on lots to take advantage of solar heating. Roadway widths will comply with minimum county standards for roadway width to reduce energy consumption associated with asphalt and aggregate production.

13. Is the subject property in an area identified by Planning and Development 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:

NO		2
	7.	

	If private roads are proposed, will the community be gated? If so, is a public trail system easement provided through the subdivision?
	N/A - Streets will be public.
	Is the subject property located adjacent to an existing residential subdivision? If so, describe how the tentative map complies with each additional adopted policy and code requirement of Article 434, Regional Development Standards within Cooperative Planning Areas and all of Washoe County, in particular, grading within 50 and 200 feet of the adjacent developed properties under 5 acres and parcel matching criteria:
	Yes, The proposed subdivision is of the same zoning as adjacent existing and
	planned Medium Density Suburban residential lots, which are all within the unincorporated area and are over one mile from the Sparks city limits. Proposed
	and existing lots are of similar size.
16.	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?
	The Subdivision shall comply with all applicable policies of the Spanish Springs Area Plan.
	Alea Flan.
17.	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?
	Proof of water rights (see attached, Appendix 8) is provided pursuant to Section 110.216.45. Proposed drainage improvements shall comply with design parameters
	of the Spanish Springs Water Detention Facility pursuant to Section 110.216.55.

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	Will the project	ct be comple	eted in one phase or is phasing planned? If so, please provide that phasing
			ed at this time. The project will either be developed in one in two phases of ± 30 lots each.
			Article 424, Hillside Development? If yes, please address all requirements of a separate set of attachments and maps.
	☐ Yes	☑ No	If yes, include a separate set of attachments and maps.
20.			article 418, Significant Hydrologic Resources? If yes, please address Special vithin Section 110.418.30 in a separate attachment.
	☐ Yes	☑ No	If yes, include separate attachments.
			Grading
(1) bui imp cub	Disturbed and Idings and I ported and poic yards of edge do to be excepted.	rea exceedi landscaping laced as fil earth to be cavated, wh	ing additional questions if the project anticipates grading that involves: ing twenty-five thousand (25,000) square feet not covered by streets, g; (2) More than one thousand (1,000) cubic yards of earth to be II in a special flood hazard area; (3) More than five thousand (5,000) imported and placed as fill; (4) More than one thousand (1,000) cubic nether or not the earth will be exported from the property; or (5) If a re will be established over four and one-half (4.5) feet high:
21.	How many co	ubic yards of	f material are you proposing to excavate on site?
	none		
22.	anticipated,	where will that t measures	of material are you exporting or importing? If exporting of material is the material be sent? If the disposal site is within unincorporated Washoe will be taken for erosion control and revegetation at the site? If none, how ork on-site?
	110,000 c	y import to	be placed as fill. No export is anticipated.

	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?
	Disturbed areas during construction will be difficult to see from most directions, although visible from Dromedary Road and Neighborhood Way. Visitors to Gator Swamp Park will see construction on the adjacent site. Once the houses and fences are in place there will be no disturbed areas visible. New homes will be at nearly the same finish floor elevations as existing homes to the east and south.
24.	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?
	Maximum slope will be 3:1 cut or fill, but few if any such slopes are anticipated, since the property is flat.
	Revegetation is not anticipated to be needed, since disturbed areas will be paved for streets and lots will be improved with single family dwellings, landscaping, etc.
25.	Are you planning any berms and, if so, how tall is the berm at its highest? How will it be stabilized and/or revegetated?
	NO
26.	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?
	NO

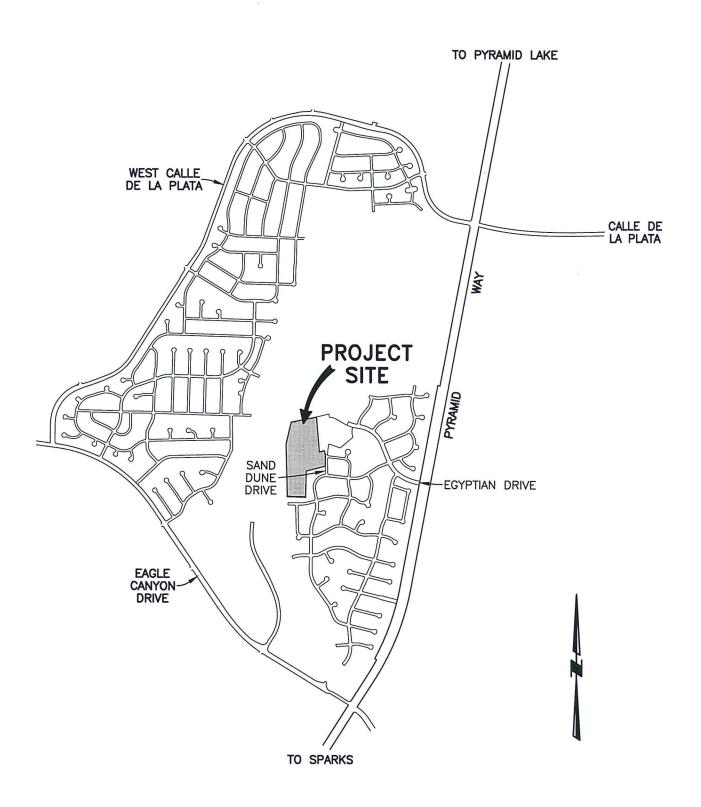
	No trees on the property.
28.	What type of revegetation seed mix are you planning to use and how many pounds per acre do intend to broadcast? Will you use mulch and, if so, what type?
	If revegetation is required, areas will be treated with a native seed mix comprised
	native shrubs and grasses per Washoe County requirements. However, no
	revegetation is planned to be needed.
29.	How are you providing temporary irrigation to the disturbed area?
	Use of water trucks or temporary sprinkler irrigation lines.
30.	Have you reviewed the revegetation plan with the Washoe Storey Conservation District? If yes, you incorporated their suggestions?
30.	
30.	you incorporated their suggestions?
30.	
30.	you incorporated their suggestions?

### Tahoe Basin

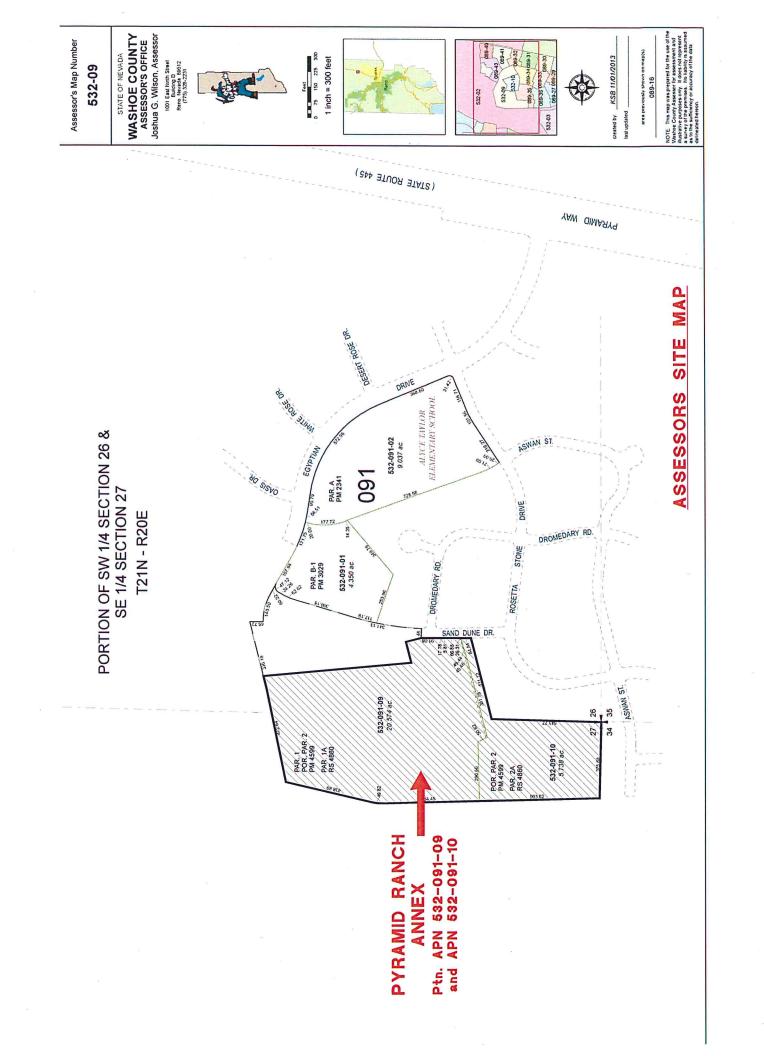
Please complete the following additional questions if the project is within the Tahoe Basin:

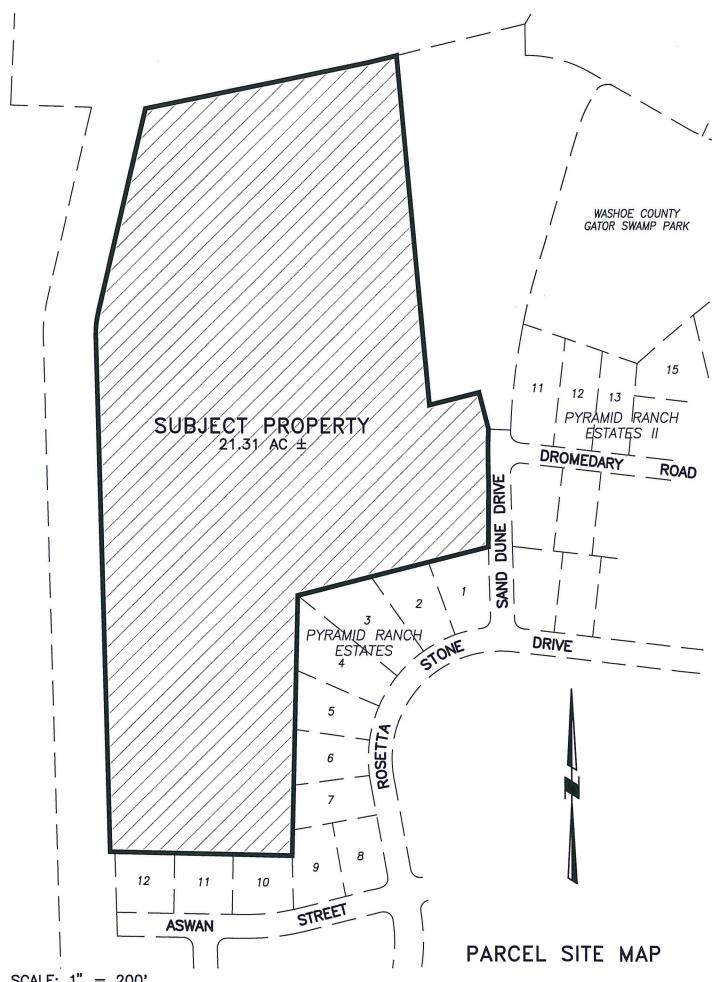
Who	o is the ension?	Tahoe Regio	onal Planning Agency (TRPA) project planner and what is his/her TRPA	1			
N/A	Α						
32. Is the project within a Community Plan (CP) area?							
	Yes	□ No	If yes, which CP?				
sec	tions:		ssing the goals and policies of the Community Plan for each of the following	g			
	N/A						
b.	Transpo	rtation:	•	_			
	N/A						
c.	Conserv	vation:					
	N/A						
	Is the Star sector a.	extension?  N/A  Is the project Yes  State how you sections: a. Land Us  N/A  b. Transpo  N/A  c. Conserv	extension?  N/A  Is the project within a Cor  Yes No  State how you are addressections: a. Land Use:  N/A  b. Transportation:  N/A  c. Conservation:	Is the project within a Community Plan (CP) area?  Yes No If yes, which CP?  State how you are addressing the goals and policies of the Community Plan for each of the following sections:  a. Land Use:  N/A  b. Transportation:  N/A  c. Conservation:			

d.	Recreation:
	N/A
e.	Public Services:
	N/A
34. ld	entify where the development rights for the proposed project will come from:
N	I/A
35. W	fill this project remove or replace existing housing?
	☐ Yes ☐ No If yes, how many units?
36. H	ow many residential allocations will the developer request from Washoe County?
١	N/A
37. D	escribe how the landscape plans conform to the Incline Village General Improvement Distric ndscaping requirements:
٨	I/A



VICINITY MAP SCALE: 1" = 2000'





## TENTATIVE MAP FOR

# PYRAMID RANCH ANNEX

## OWNER/DEVELOPER

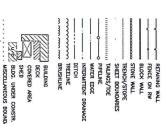
SPANISH SPRINGS ASSOCIATES LIMITED PARTNERSHIP 550 W. PLUMB LANE, SUITE B, #505 RENO, NEVADA 89509

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COLUMN DE

### LEGEND

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ROCK RIPRAP	EXIST. SPOT ELEVATION	FIRE HYDRANT ASSEMBLY	AIR RELEASE ASSEMBLY	FLUSH VALVE ASSEMBLY	EXISTING WATER LINE W/VALVE	NEW WATER LINE W/VALVE	EXISTING CATCH BASIN	NEW CATCH BASIN/MANHOLE	EXISTING SANITARY SEWER	NEW SANITARY SEWER W/MANHOLE	EXISTING STORM DRAIN	NEW STORM DRAIN W/MANHOLE	DIRECTION OF FLOW	EXISTING 5' CONTOUR	NEW CURB & GUTTER	EXISTING CURB & GUTTER	NEW PAVEMENT
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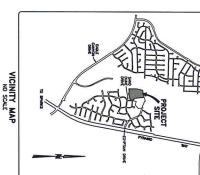
LEGEND FOR NON-ANNOTATED FEATURES:

*	<b>\$</b> -	<b></b>	•	g MB	۰	Ŧ	°	Q.	4	lu Vi	90	<u>‡</u>	×
EXCAVATION	MARSH	METER	MISC. OBJECT	MAIL BOX	RR XING SIGNAL	TRAFFIC SIGNAL	VALVE COVER	MANHOLE	FIRE HYDRANT	SIGN	POST/POLE	LIGHT POLE	TRANSMISSION TOWER

III DIRT ROAD

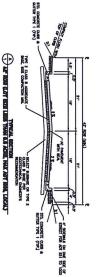
EDGE OF PAVEMENT APPROXIMATE INTERMEDIATE INTERMEDIATE DEPRESSION INDEX DEPRESSION
INTERMEDIATE CONTOUR APPROXIMATE INDEX

SUPPLY SONCRETE EDGE



## SHEET INDEX

- TITLE SHEET
- GRADING/UTILITIES



SHWFT
UTIL. VAULT/BOX
METER BOX

BASIS OF ELEVATION

HEVAOA DEPARTUENT OF TRANSPORTATION BENCHMARK
ALLMINUM CAP ON REBAR STAMPED "277086"
ELEVATION=4527.81 (NOPD 1929)

BASIS OF BEARINGS NEWAN STATE PLANE COORDINATE SYSTEM, WEST ZONE GRID, MOREA/94

- S-1 GEOMETRICS
- G-1 GRADING/UTILITIES C-1 CROSS SECTIONS

## CIVIL ENGINEER

C & MI IENGUNIEURING ANID DRESIGN, LIND Sees euro Corporate de, suite 2018, euro, ny 2021 Pedoua (75) 255-2312

C & M ENGINEERING AND DESIGN, LTD. 548B RENO CORPORATE DRIVE, SUITE 200B RENO, NEVADA 89511

## GENERAL NOTES:

. BASED ON FLOOD INSURANCE RATE MAP NO. 202015/2265 6 (DATE) 10/21/2014), PREPARED BY THE FEDERAL DEBROSKYY MANACERSIT ACSACY (FEMA, THE PROJECT SITE LES IN FLOOD ZONE X (INSURED) INDICATING AREAS "OUTSIDE THE SOC—TEAR FLOODELMA".

SC. LCM

STATE OF TAXABLE

9/8/16

- ALL STREETS TO BE PUBLIC UNLESS OTHERWISE NOTED.
- ALL SLOPES ARE 3:1 MAX. UNLESS OTHERWISE NOTED.
- MECHANICAL SLOPE STABILIZATION FOR SLOPES STEEPER THAN 3:1 WHEN ROCK REPARE IS USED FOR SLOPE STRBILIZATION, IT SHALL CONTAIN A MANUAU OF FOUR FRACTURED FACES AND BE PLACED TO A MANUAU DEPTH OF 12 INCHES. A MANUAUM OF 75% OF THE RIPRAP SHALL BE 8 NCH DAMETER ROCK OR GREATER.
- ALL JASES INSTRUBED AND LET INDERELDED FOR A PERIOD OF MARE THAN THEM (26) DAYS THAN BE STRUCKED BY THE APPLICATION OF DEST PALLIA-TRE AND E. THE JASES THAN ANALTY (60) DAYS TRANTED AS FOLICIAS:

  EXPLICITE (14 240) DAYS FOR THAN BE 124/AC. OF SOME MESTIFICATION OF SOME MESTIFICATION WINDERSON THAN THE STRUCKED THE SHOULD THE ARTHUR CORET WHICH THAN A STRUKE PARCHING TOOL OR CONTRIDUCTION OF THEM WESTIFIANS.

  EXPLICATION OF SOME MESTIFICANS OF A STRUKE PARCHING TOOL OR CONTRIDUCTION OF THEM WESTIFIANS OF THEM WESTIFIA

## LAND USE DATA:

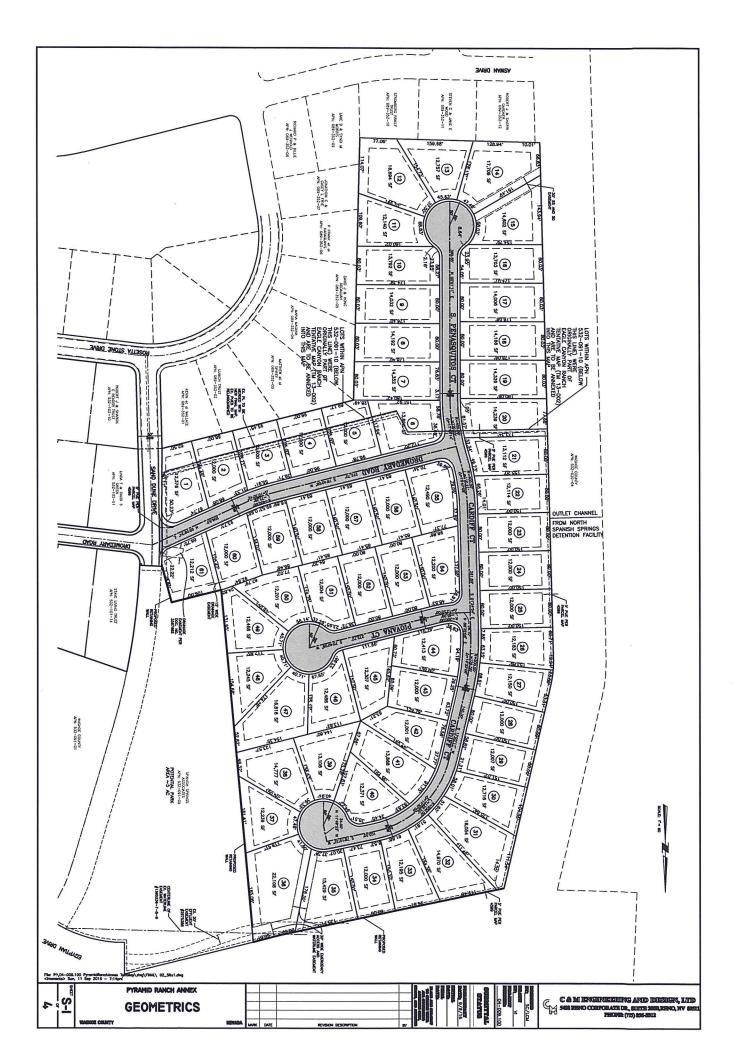
- PRESENT LAND USE CLASSIFICATION: MDS (15.5 AC PORTION OF 532-091-09) & MDS (532-091-10)
- PROPOSED LAND USE CLASSIFICATION: MDS
- TOTAL LAND AREA: 21.31 AC; LOT AREA: 18.46 AC STREETS: 2.85 AC; COMMON AREA: 0 AC
- NUMBER OF UNITS: 61; DENSITY: 2.86 DU/AC
- REQUIRED MINIMUM LOT SIZE: 12,000 SF MIN.
- REQUIRED MINIMUM LOT WIDTH: 80' MINIMUM LOT SIZE SHOWN: 12,000 SF; MAXIMUM LOT SIZE SHOWN: 22,108 SF
- MINIMUM LOT WIDTH: 80°, EXCLUDING CUL-DE-SACS
- MINIMUM SETBACK REQUIREMENTS: FRONT: 20' REAR: 20' SIDE: 8'

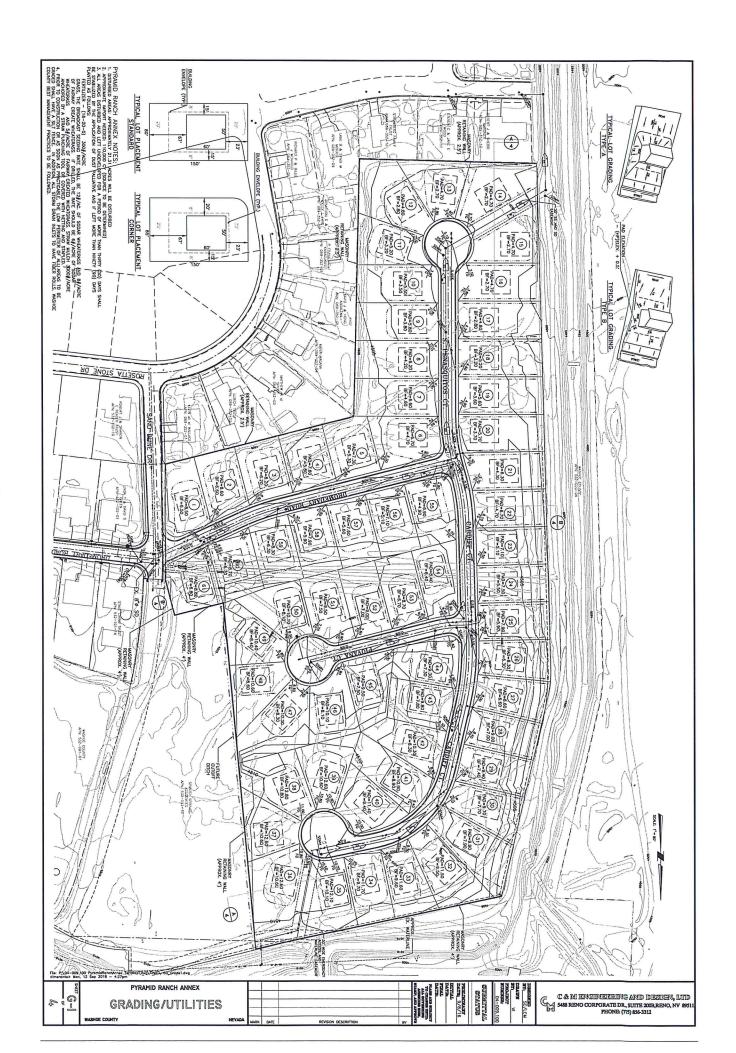
### UTILITIES:

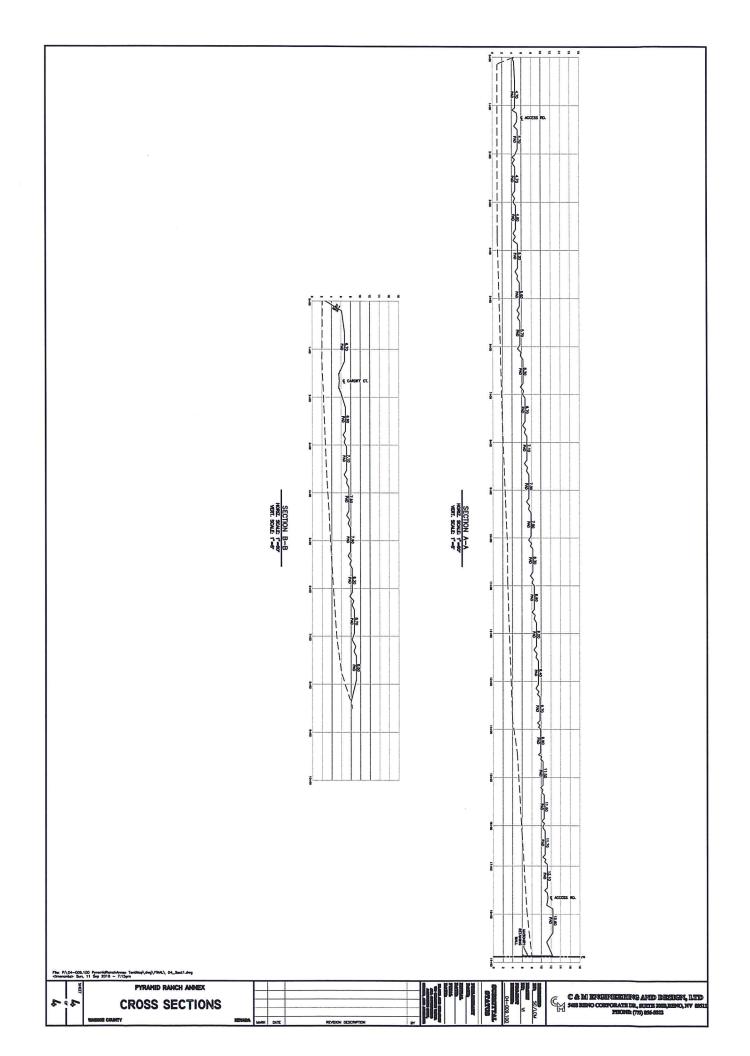
- CABLE -ELECTRICAL -SEWAGE DISPOSAL -
- CHARTER COMMUNICATIONS
  NEYADA ENERGY
  WASHOE COUNTY COMMUNITY SERVICES,
  CITY OF SPARKS
  CITY OF SPARKS
  ATATA HEAD
- SOLID WASTE TELEPHONE GAS WATER -AT&T NEVADA ENERGY TMWA

THESE PLANS (SHETTS 1 THROUGH 4) HAVE BEEN PREPARED IN ACCOMMANDE WITH ALL APPLICABLE PROVISIONS OF THE WISHOE COUNTY DEVELOPMENT CODE SHALL PREVAIL.

TITLE SHEET







Washoe County Treasurer Tammi Davis Washoe County Treasurer P.O. Box 30039, Reno, NV 89520-3039 ph: (775) 328-2510 fax: (775) 328-2500 Email: tax@washoecounty.us

### Account Detail

Back to Search Results

Change of Address

Print this Page

<b>Washoe County Parcel Inform</b>	ation	
Parcel ID	Status	Last Update
53209109	Active	9/10/2016 2:09:39 AM
Current Ourse		TTIC-

**Current Owner:** 

SPANISH SPRINGS ASSOCIATES

SITUS: 0 PYRAMID WAY WCTY NV

550 W PLUMB LN STE B RENO, NV 89509-3686

Taxing District 4000

Geo CD:

Legal Description

Lot 1A SubdivisionName \_UNSPECIFIED Township 21 Range 20

Tax Bill (Click on desired tax year for due dates and further details)											
Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due						
2016	\$233.49	\$233.49	\$0.00	\$0.00	\$0.00						
2015	\$233.33 \$233.33		\$0.00	\$0.00	\$0.00						
2014	\$233.34	\$233.34	\$0.00	\$0.00	\$0.00						
2013	\$233.34	\$233.34	\$0.00	\$0.00	\$0.00						
2012	\$225.64	\$225.64 \$225.64		\$0.00	\$0.00						
****				Total	\$0.00						

### **Important Payment Information**

- 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 Online**

No payment due for this account.

\$0.00

Pay By Check

Please make checks payable to: WASHOE COUNTY TREASURER

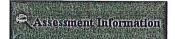
Mailing Address: P.O. Box 30039 Reno, NV 89520-3039

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









The Washoe County Treasurer's Office makes every effort to produce and publish the most current and accurate information possible. No warranties, expressed or implied, are provided for the data herein, its use, or its interpretation. If you have any questions, please contact us at (775) 328-2510 or tax@washoecounty.us

This site is best viewed using Google Chrome, Internet Explorer 11, Mozilla Firefox or Safari.

Washoe County Treasurer P.O. Box 30039, Reno, NV 89520-3039 ph: (775) 328-2510 fax: (775) 328-2500 Email: tax@washoecounty.us

### Washoe County Treasurer Tammi Davis

### Account Detail

Back to Search Results Change of Address Print this Page

Washoe County Parcel Information									
Parcel ID	Status	Last Update							
53209110	Active	9/10/2016 2:09:39 AM							

**Current Owner:** 

SPANISH SPRINGS ASSOCIATES

SITUS: 0 SAND DUNE DR WCTY NV

550 W PLUMB LN STE B RENO, NV 89509-3686

**Taxing District** 4000

Geo CD:

Legal Description

Lot 2A Township 21 Range 20 SubdivisionName \_UNSPECIFIED

Tax Bill (Click on desired tax year for due dates and further details)											
Tax Year	Net Tax	Total Paid	Penalty/Fees	Interest	Balance Due						
2016	\$550.94	\$550.94	\$0.00	\$0.00	\$0.00						
2015	\$549.68	\$549.68	\$0.00	\$0.00	\$0.00						
2014	\$532.64	\$532.64	\$0.00	\$0.00	\$0.00						
2013	\$517.12	\$517.12	\$0.00	\$0.00	\$0.00						
2012	\$499.00	\$499.00	\$0.00	\$0.00	\$0.00						
				Total	\$0.00						

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- 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 Online**

No payment due for this account.

### \$0.00

### 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









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This site is best viewed using Google Chrome, Internet Explorer 11, Mozilla Firefox or Safari.

### DESCRIPTION

### **PYRAMID RANCH ANNEX**

All that certain real property situate in the County of Washoe, State of Nevada, being portions of the SW1/4 of Section 26 and SE1/4 of Section 27, T.21N., R.20E., M.D.M.; more particularly described as follows:

### Portion APN 532-091-09:

Beginning at the southwest corner of Parcel 1A as described in that Boundary Line Adjustment Grant Deed recorded on February 27, 2007 as Document No. 3502430, and as depicted on that 5th Record of Survey Supporting a Boundary Line Adjustment for Spanish Springs Associates Limited Partnership, recorded on February 27, 2007 as File No. 3502431, Record of Survey Map 4860; Official Records of Washoe County, Nevada;

thence along the boundary of said Parcel 1A the following five (5) courses and distances: N 01°24'54" W, 484.45 feet;

on the arc of a 185.00 foot radius curve to the right through a central angle of 14°30'05" a distance of 46.82 feet;

N 13°05'11" E, 438.89 feet;

N 78°10'37" E, 472.64 feet;

N 76°00'37" E, 60.81 feet;

thence S 05°15'19" E, 733.78 feet;

thence N 75°40'06" E, 106.00 feet;

thence S 14°19'54" E, 78.80 feet to a point on the said boundary of Parcel 1A, said point also being on the west line of Sand Dune Drive;

thence along said boundary of Parcel 1A, and west line of Sand Dune Drive, the following four (4) courses and distances:

on the arc of a 1421.00 foot radius to the left from a tangent bearing S 02°15'07" W through a central angle of 03°40'21" a distance of 91.08 feet;

S 01°25'14" E, 17.78 feet;

on the arc of a 195.00 foot radius to the right through a central angle of 01°42'23" a distance of 5.81 feet;

S 00°17'10" W, 66.87 feet;

thence departing from said west line of Sand Dune Drive, and continuing along said boundary of Parcel 1A the following seven (7) courses and distances:

on the arc of a 20.00 foot radius to the right through a central angle of 75°22'56" a distance of 26.31 feet;

S 75°40'06" W, 12.70 feet;

on the arc of a 521.00 foot radius to the left through a central angle of 05°26'15" a distance of 49.44 feet to a point of reverse curvature;

on the arc of a 479.00 foot radius to the right through a central angle of 05°26'15" a distance of 45.46 feet;

S 75°40'06" W, 381.78 feet;

N 28°35'16" W, 50.62 feet;

S 88°35'06" W, 290.60 feet to the point of beginning.

### APN 532-091-10:

Parcel 2A as described in that Boundary Line Adjustment Grant Deed recorded on February 27, 2007 as Document No. 3502430, and as depicted on that 5th Record of Survey Supporting a Boundary Line Adjustment for Spanish Springs Associates Limited Partnership, recorded on February 27, 2007 as File No. 3502431, Record of Survey Map 4860; Official Records of Washoe County, Nevada.

Containing a total of 21.31 acres, more or less.

Basis of Bearings is the Nevada State Plane Coordinate System, West Zone Grid, NAD83/94, per Record of Survey Map 4860.



September 6, 2016

Ms. Clara Lawson, P.E. Washoe County Engineering Division P.O. Box 11130 Reno, Nevada 89520

RE: Pyramid Ranch Annex

Dear Clara:

This letter contains a review of projected traffic loadings on existing subdivision streets near the proposed Pyramid Ranch Annex development. The project site is located west of Sand Dune Drive and north of Aswan Street and will contain 61 single family dwelling units. The attached Figure 1 shows the location of the site. Access to the site will be provided from the extension of Dromedary Road west of Sand Dune Drive. Gated, emergency only access will be provided to Egyptian Drive. Pedestrian access will be provided to Egyptian Drive and to the west from the project's southwest corner.

The information included in this letter includes trip generation, distribution, and assignment calculations; a review of existing and buildout traffic volumes; and subsequent analysis of traffic loadings on Rosetta Stone Drive. Dromedary Road and Sand Dune Drive have excess capacity and were therefore not identified for analysis.

### Trip Generation Distribution, and Assignment

Trip generation volumes were calculated for the 61 dwelling units based on rates obtained from the Ninth Edition of *ITE Trip Generation* (2012) for Land Use 210: Single Family Detached Housing. Trips generated by the project were calculated for an average weekday and the peak hours occurring between 7:00 and 9:00 AM and 4:00 and 6:00 PM, which correspond to the peak hours of adjacent street traffic. Table 1 shows a summary of the average daily traffic (ADT) volumes and peak hour volumes generated by the project.

TABLE 1 TRIP GENERATION									
		AM	HOUR						
LAND USE	ADT	IN	OUT	TOTAL	IN	OUT	TOTAL		
Single Family Housing (61 D.U.)	581	12	34	46	38	23	61		

The project is anticipated to generate 581 average daily trips with 46 trips occurring during the AM peak hour and 61 trips occurring during the PM peak hour.

The distribution of these trips will be entirely from Pyramid Highway via Egyptian Drive, Rosetta Stone Drive, Sand Dune Drive, and Dromedary Road. The average daily traffic (ADT) volume shown in Table 1 was subsequently assigned to Rosetta Stone Drive. The attached Figure 2 shows the project trip assignment for the average daily traffic (ADT) volumes.

### Existing and Buildout Traffic Volumes

Figure 3 shows the existing traffic volumes on Rosetta Stone Drive. The AM and PM peak hour volumes were obtained from traffic counts taken on typical weekdays in August of 2016. The average daily traffic (ADT) volumes on Rosetta Stone Drive were then estimated based on the actual peak hour counts using trip generation rates obtained from Ninth Edition of *ITE Trip Generation* (2012) for Land Use 210: Single Family Detached Housing. Figure 4 shows the buildout average daily traffic (ADT) volumes on Rosetta Stone Drive. The buildout volumes were obtained by adding the trip assignment volumes shown on Figure 2 to the existing average daily traffic volumes shown on Figure 3.

### Street Traffic Loading Review

Rosetta Stone Drive was reviewed for street capacity based on Washoe County local street standards which indicate that local streets can carry up to 1,000 ADT. The buildout volumes shown on Figure 4 indicate that the segment of Rosetta Stone Drive between Aswan Street and Dromedary Road is anticipated to carry 933 ADT which is below the 1,000 ADT threshold. The segment of Rosetta Stone Drive between Egyptian Drive and Aswan Street is anticipated to carry 1,047 ADT which exceeds the 1,000 ADT threshold for local streets by less than 5% (5 dwelling units). It should be noted that this  $\pm 450$  foot segment of Rosetta Stone Drive serves only five residential driveways on the south side of the street and no residential driveways on the north side of the street which results in reduced vehicle conflicts and potentially higher street capacity.

We trust that this information will meet your requirements. Please call with any questions or concerns.

Enclosures
Letters\Pyramid Ranch Annex

9-6-16 EXPG-30-18

### **Trip Generation Summary - Alternative 1**

Project: New Project Alternative: Alternative 1

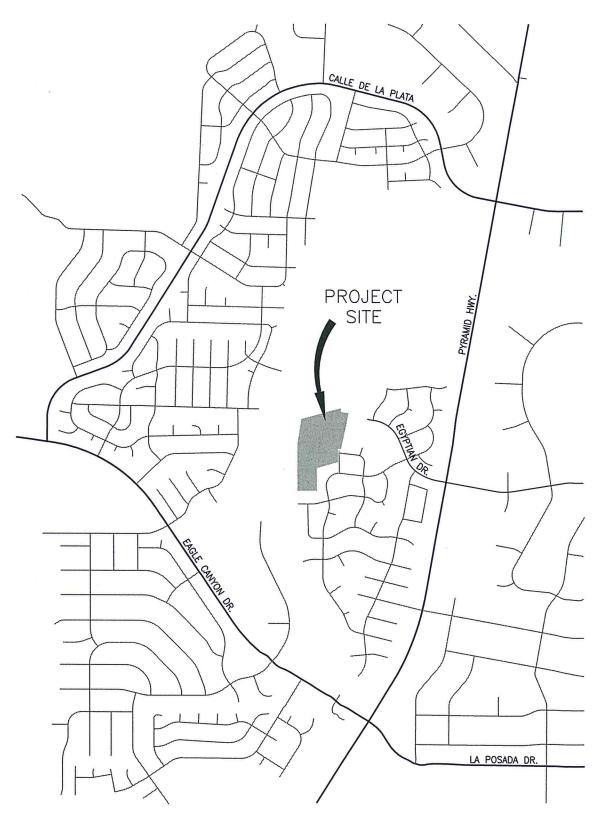
Open Date: 8/29/2016 Analysis Date: 8/29/2016

	Aver	age Daily	/ Trips		Peak Ho		PM Peak Hour of Adjacent Street Traffic		
ITE Land Use	Enter	Exit	Total	Enter	_Exit_	Total	Enter	_Exit_	_Total
210 SFHOUSE 1 61 Dwelling Units	291	290	581	12	34	46	38	23	61
Unadjusted Volume	0	0	0	0	0	0	0	0	0
Internal Capture Trips	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0
Volume Added to Adjacent Streets		0	0	0	0	0	0	0	0

Total AM Peak Hour Internal Capture = 0 Percent
Total PM Peak Hour Internal Capture = 0 Percent

SOLAEGUI ENGINEERS LTD.

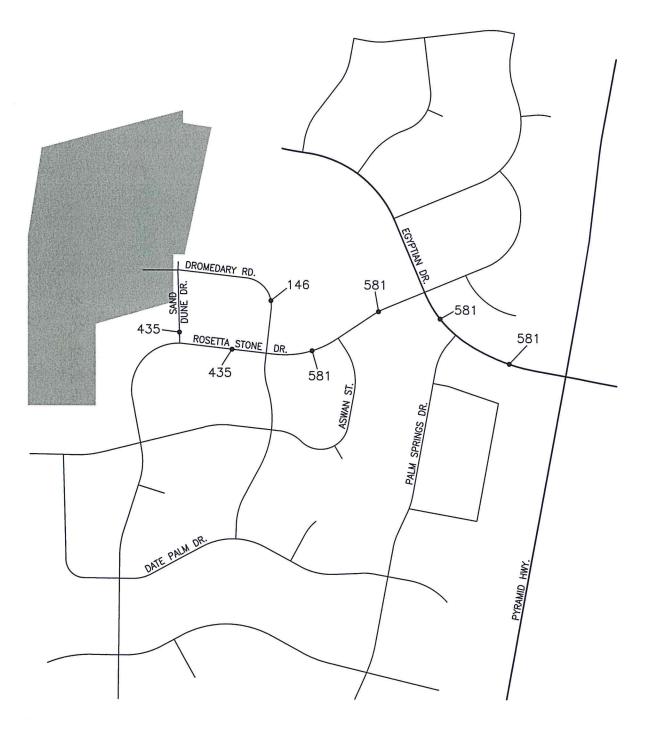




### PYRAMID RANCH ANNEX

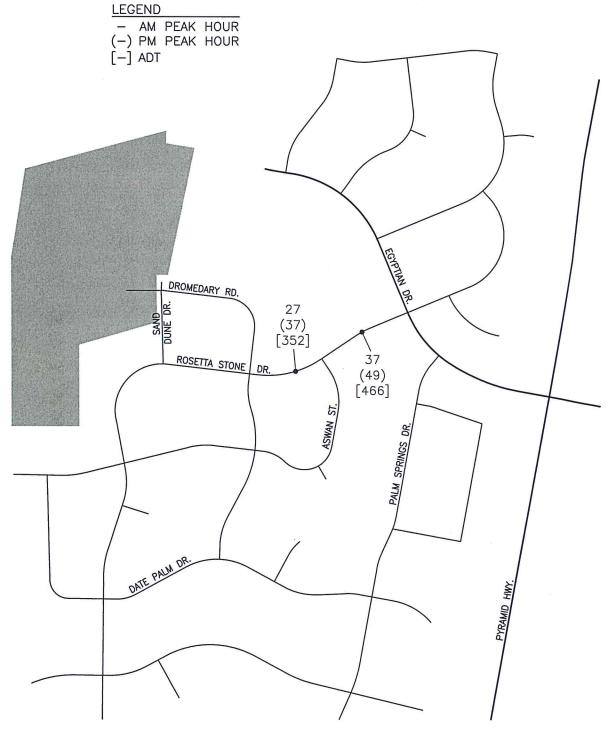
VICINITY MAP FIGURE 1 SOLAEGUI ENGINEERS LTD.







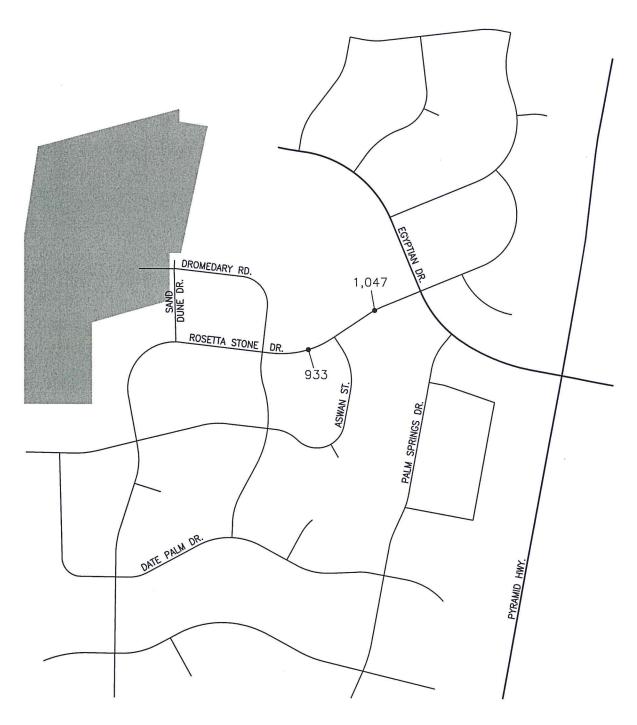


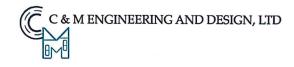


### PYRAMID RANCH ANNEX

SOLAEGUI ENGINEERS LTD.







September 7, 2016

Washoe County Community Services 1001 E. Ninth Street, Bldg. A Reno, NV 89520

RE: FEASIBILITY REPORT FOR WATER, SEWER, AND STORM DRAIN AT PROPOSED TENTATIVE MAP PYRAMID RANCH ANNEX – 15.574 ACRES (portion of APN 532-091-09) AND 5.738 ACRES (532-091-10)

Dear Community Services Department,

C & M Engineering and Design has analyzed the water system, sewer system, and storm drain in relationship to the potential tentative map, Pyramid Ranch Annex to develop a residential subdivision of up to 61 lots. In April 2016, the owner, Spanish Springs Associates Limited Partnership, initiated a Regulatory Zone Amendment (RZA16-001), from Parks and Recreation (PR) to Medium Density Suburban (MDS) for the 15.574 acre portion of the total 20.574. This application was approved by the Board of County Commissioners on August 9, 2016. This land that is located off Egyptian Drive on the west side of Pyramid Highway within Spanish Springs Valley. The 20.574 acre property was originally set aside by the owner at the request of Washoe County in the Spanish Springs Area Plan for a regional park. An amendment to Eagle Canyon Ranch, TM13-002, is simultaneously being submitted for the 5.738 acre parcel, 532-091-10, to delete its 13 lots that are a part of that map.

## DOMESTIC WATER

TMWA, Truckee Meadows Water Authority, in 2015 became the water purveyor for this proposed tentative map area. Prior to the merger, Washoe County Department of Water Resources (WCDWR) was the water purveyor. The owner has applied for an annexation of the land into the TMWA service territory. Based upon a preliminary planning meeting with TMWA, it will agree to serve the proposed project and sufficient existing water system capacity should be in place. The owner completed a TMWA Discovery to determine specific on-site needs to meet TMWA's requirements during final design. Due to Health Department regulations, looping of the system will be necessary. The owner will need to have secured water rights in place to serve this land at the time a will-serve commitment is requested, usually when a final map is approved. Approved final improvement plans and a service agreement will be necessary for TMWA to serve the project.

## **IRRIGATION WATER**

It is unlikely when a tentative subdivision map is submitted that the project will have any common area landscaping. If not, all the landscaping will be part of the individual residential units and will not use the reclaimed water system of the City of Sparks.

## SANITARY SEWER

The potential tentative map area will be served by a gravity sewer system that drains to the existing Special Assessment District 37 Spanish Springs Sewer-Phase 1a at the southern end of the project at the terminus of Aswan Drive adjacent to the property. Based upon Washoe County's Discovery study, the county has agreed to serve the proposed project. The Discovery did not deem any off-site facilities necessary and the County is able to serve the potential project. Washoe County is presently reviewing the Spanish Springs Area Plan regarding present connections and its fee structure. The owner will also be responsible for City of Sparks sewer connection fees since the sewage enters into its system.

## STORM WATER

All the storm water runoff from the proposed tentative map area will be conveyed westerly to the outlet channel of the North Spanish Springs Flood Detention Facility (NSSFDF). Pyramid Ranch Estates II, which is east of the site, conveys storm water runoff to the proposed site. The runoff is discharged on the surface and drains from east to west across the site. The amount of storm water flow per the <u>Drainage Report for Pyramid Ranch Estates II</u> is 7.08 cfs in the

100-year event. Its discharge location is just beyond the terminus of Dromedary Road at Sand Dune Drive. The existing Gator Swamp park is located adjacent to the proposed project. The existing Gator Swamp Park has a small impact to the site due to the flat slope on the park and it appears that the existing park retains most runoff. The 5.0 acre remainder parcel of the total 20.574 within 532-091-09 does convey storm water runoff to the proposed site. The amount of storm water flow is approximately 10.66 cfs in the 100-year event. Its discharge location is between lots 60 and 61 and ties into the proposed storm drain system. The overall offsite drainage is depicted in the <a href="Hydrology Report for the North Spanish Springs Detention Facility, Washoe County, Nevada</a>, dated May 2006, by Quad Knopf and the <a href="Hydrology Master Plan for Eagle Canyon Ranch">Hydrology Master Plan for Eagle Canyon Ranch</a> by DEW Hydrology dated March 3, 2016.. The referenced reports illustrate flows within the detention facility outlet channel, which is along the western property boundary. The runoff within the outlet channel should not impact the proposed project. Due to the development of this property, there will be increases in storm water discharge, however, the increase will be minimal and was included in the calculations of North Spanish Springs Flood Detention facilities. The analysis of detention and discharge from the detention facility were performed by Nimbus Engineers and AMEC Infrastructure, Inc. The on-site 5 year flows on the proposed site will be intercepted in underground storm drain system, which will discharge into the outlet channel previously mentioned.

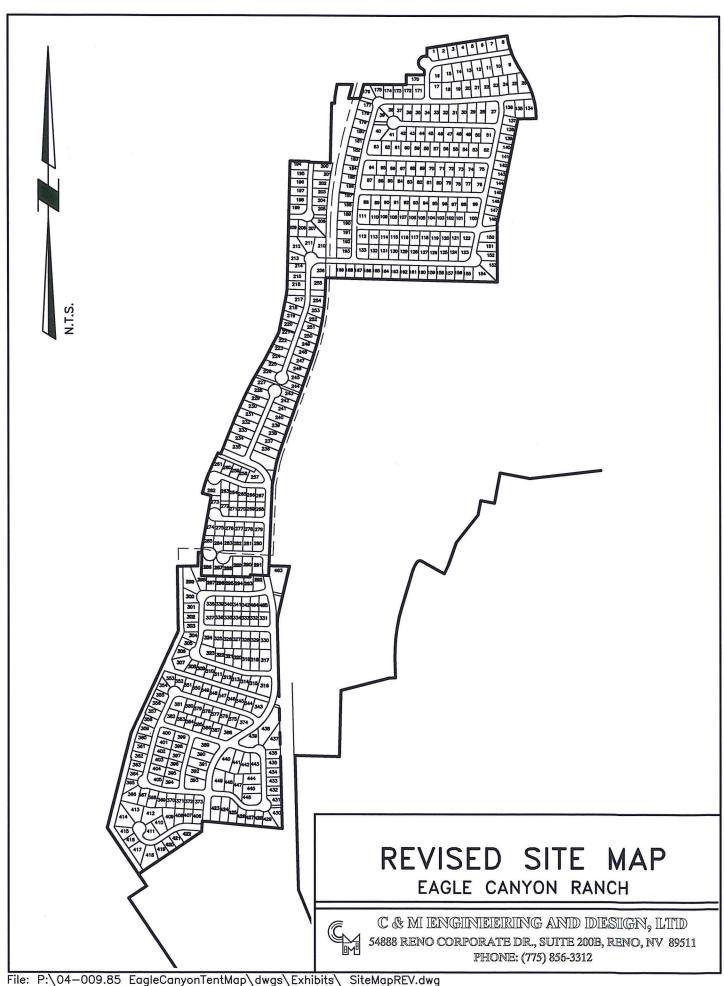
In summary, the existing domestic water and sanitary sewer systems have the potential to serve the proposed land. The proposed land's 5-year storm drain system will tie into the outlet channel of the NSSFDF which conveys flows to the City of Sparks regional detention facilities.

Sincerely,

Samuel Chacon, P.E.

James Danson

Principal



## SPANISH SPRINGS ASSOCIATES LIMITED PARTNERSHIP 550 W. Plumb Lane, Suite B #505

Reno, NV 89509 (775) 425-4425

September 15, 2016

PROJECT NAME: Pyramid Ranch Annex Tentative Subdivision Map Application, a portion of APN 532-091-09 and 532-091-10.

## To Whom It May Concern:

This letter verifies that Spanish Springs Associates Limited Partnership and its General Partner, Hawco Development Company, have adequate water rights for the proposed above-referenced tentative map application, which will allow up to 61 homes on 21.312 acres of land with MDS zoning.

The applicant has the following water rights banked with TMWA (previously held with Washoe County):

Permit Number	Acre feet
70702	36.4
70426	40.25
70086	36.2
72270	1.81
70087	0.85
68185	1.24
64639	8.21
62614	5.12
Total	129.22

Thank you for your attention to this matter. Feel free to call me with any questions or concerns.

Sincerely

Jesse Haw, President

Hawco Development Company, General Partner of Spanish Springs Associates Limited Partnership



September 8, 2016

Samuel Chacon, P.E. C & M Engineering and Design, Ltd 5488 Reno Corporate Drive, Suite 200B Reno, NV 89511

RE: Pyramid Ranch Annex Subdivision Tentative Map Acknowledgement of Water Service

(Tentative Map Review - 61 Units)

Dear Mr. Chacon:

I have reviewed the plans for the above referenced development ("Project") and have determined the Project is outside the Truckee Meadows Water Authority's retail water service area. This letter constitutes an Acknowledgment of Water Service pursuant to NAC 445A.6666, and the Truckee Meadows Water Authority hereby acknowledges that Truckee Meadows Water Authority is agreeable to supplying water service to the Project subject to applicant satisfying certain conditions precedent, including, without limitation, annexation to the Truckee Meadows Water Authority's retail water service territory, the dedication of water resources, approval of the water supply plan by the local health authority, the execution of a Water Service Agreement, payment of fees, and the construction and dedication of infrastructure in accordance with our rules and tariffs. This Acknowledgement does not constitute a legal obligation by Truckee Meadows Water Authority to supply water service to the Project, and is made subject to all applicable Truckee Meadows Water Authority Rules.

Review of conceptual site plans or tentative maps by Truckee Meadows Water Authority does not constitute an application for service, nor implies a commitment by Truckee Meadows Water Authority 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 Truckee Meadows Water Authority 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. Truckee Meadows Water Authority 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, which could be significant, 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 Truckee Meadows Water Authority prior to water being delivered to the Project.

Pyramid Ranch Annex Subdivision September 8, 2016 Page 2 of 2

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

Sincerely,

Holly M. Flores, P.E. Principal Engineer

Hour M. Flores

cc: Chris Peterson, P.E., Washoe County District Health Dept. 16-5173

Mr. Jesse Haw Spanish Springs Associates Limited Partnership 550 W Plumb Lane, Suite B, #505 Reno, Nevada 89509 September 8, 2016 Project No. 1012-04-2

RE:

Geotechnical Summary Pyramid Ranch Annex Washoe County, Nevada

Dear Mr. Haw:

Black Eagle Consulting, Inc. (BEC) is pleased to present this geotechnical summary of the proposed Pyramid Ranch Annex residential development in northern Spanish Springs Valley, Washoe County, Nevada. The project is in early development, and an application for a new tentative map is planned to be submitted. The project will consist of approximately 61 residential lots served by dedicated streets and underground utilities. The proposed residential subdivision will be located within an approximate 20-acre, undeveloped parcel west of Sand Dune Drive. Access to the proposed residential lots will be provided via a new asphalt concrete paved street that extends west from the current termination of Sand Dune Drive and by 3 or more cul-de-sacs. This summary is to be used for planning and tentative map submittal purposes and should be updated with field exploration, laboratory testing, and geotechnical analysis before final design.

## Site Conditions

The site consists of approximately 20 acres lying within Sections 26 and 27, Township 21 North, Range 20 East, Mount Diablo Meridian. As noted above, the site lies just west of Sand Dune Drive in the northwestern portion of Spanish Springs Valley.

The site exhibits a gentle slope from the northeastern corner to the south and west. The overall parcel is bordered by residential subdivisions to the south and southeast, open space to the west and north, and Sand Dune Drive to the east. A drainage channel crosses the site east-westerly; this drainage channel will likely be replaced by buried storm drain pipes as part of the proposed project. The site is presently undeveloped land blanketed by a moderate growth of sagebrush. Occasional jeep trails traverse the site.

## Geologic and General Soil Conditions

The site is mapped by the Nevada Bureau of Mines and Geology (NBMG) as lying in Holocene age alluvium deposits of Spanish Springs Valley (Garside and Nials, 1998). The site soils are described by the NBMG as Unconsolidated, predominately arkosic, sand and gravelly sand deposited as sheet wash and wash alluvium in Holocene to modern channels or as broad, low-gradient alluvial plains. Locally contains abundant medium sand reworked with older aeolian deposits...No soil development except on very localized Holocene terraces, where weak 10-15 cm grey-brown A horizon is present in some places. Includes undifferentiated alluvial fan and colluvial deposits in upland areas.

Based on BEC's previous explorations in the general area of the subject site and lying in the same alluvium deposits, and particularly the geotechnical investigation completed by BEC for the parcel east of Sand Dune Drive (BEC, 2005), the site soils are expected to consist of sandy lean clay and clayey sand soils near the

Mr. Jesse Haw Spanish Springs Associates Limited Partnership September 8, 2016 2

surface (through about 5 feet depth) underlain by clayey and silty sand soils with a significant percentage of gravels. The near-surface clay and clay-rich soils will likely exhibit medium to high plasticity fines. The groundwater table is expected to lie at sufficient depths that will not affect design or construction of the project.

## Geologic Hazards

No fault hazard map is available for the project site. However, the NBMG Quaternary Fault Map of Nevada, Reno Sheet (Bell, 1984) does not indicate the presence of any fault structures within the site. Pleistocene age faults are mapped as lying to the east and west of the site, closer towards the foothills of the Spanish Springs Valley. The mapped faults are at least 3/4 mile from the site and will have no impact on planning and design of this project. The area is mapped as Zone X, or areas determined to be outside the 500-year flood plain (Federal Emergency Management Agency, 2009). The site should exhibit a moderate potential for dust generation during dry months. No other geologic hazards were identified.

## Discussion and Conclusion

The subject 20-acre parcel is geotechnically suitable for the proposed residential development. The near-surface native clay soils and clayey sand with a higher percentage of plastic fines will exhibit expansive characteristics and, therefore, will require separation from improvements with structural fill. During design, the geotechnical constraints associated with the presence of clay and clay-rich soils should be addressed via field exploration, laboratory testing, and appropriate geotechnical recommendations for the adequate performance of the proposed improvements. When excavated, native granular soils that lie below approximately 5 feet depth can be reused as structural fill.

If you require any clarification of our findings, please contact us.

Sincerely,

Black Eagle Consulting, Inc.

Vimal P. Vimalaraj, P.E. Engineering Division Manager

PV:cjr

Copies to:

Addressee (1 copy and PDF via email)

Mr. Samuel Chacon, C&M Engineering and Design, LTD (3 copies and PDF via email)

Tel: 775/359-6600 Fax: 775/359-7766 Email: mail@blackeagleconsulting.com Mr. Jesse Haw Spanish Springs Associates Limited Partnership September 8, 2016 3

## References:

- Bell, J. W., 1984, *Quaternary Fault Map of Nevada, Reno Sheet*: Nevada Bureau of Mines and Geology, Map 79.
- Black Eagle Consulting, Inc. (BEC), 2005, Geotechnical Investigation, Spanish Springs Parcel APN 089-160-41, Washoe County, Nevada, Private Consultant Report dated April 29, 2005. BEC Project No. 0198-04-1.
- Federal Emergency Management Agency, 2009 (March 16, 2009), *Flood Insurance Rate Map 32031C2865G*, Washoe County, Nevada. Revised to Reflect LOMR with an Effective Date of March 18, 2009.
- Garside, L. J. and Nials, F. L., 1998, *Geologic Map of the Griffith Canyon Quadrangle, Nevada*, Nevada Bureau of Mines and Geology, Open File Report 99-4.

## **PYRAMID RANCH ANNEX**

## PRELIMINARY DRAINAGE REPORT

September 15, 2016
C&M Engineering and Design, LTD.



## INTRODUCTION

This report presents the preliminary stormwater hydrologic analysis and tentative drainage plan for Pyramid Ranch Annex in Washoe County, Nevada. The project is located at the intersection of Sand Dune Drive and Dromedary Drive in Spanish Springs. The site was removed from the Flood Zone AO after completion of the North Spanish Springs Flood Detention Facility (NSSFDF). The proposed site drains into the outlet channel of the NSSFDF. The Rational Method and reference to previous studies have been utilized in this preliminary drainage study.

## SITE DESCRIPTION

The proposed Pyramid Ranch Annex is located within a portion of Assessor's parcel number (APN) 532-091-09, 15.5 acres of the total 20.574 acres, and all of Assessor's parcel number 532-091-10, 5.738 acres. The subject site is adjacent to Gator Swamp Park and the 20.574 acre parcel, APN 532-091-10 was reserved by the owner, Spanish Springs Associates Limited Partnership, for the expansion of the park. Due to budget constraints the Parks Department has agreed for only 5.0 acres to be reserved. The Washoe County Planning Commission approved the rezoning for the 15.574 acres to Medium Density Suburban (MDS). The other parcel, APN 532-091-10, was originally part of Eagle Canyon Ranch Tentative Map as 13 lots. The owner is simultaneously submitting a revision to that tentative map to remove lots from that map.

The subject property is currently undeveloped. Gator Swamp Park is located east of the subject site. The built-out Pyramid Ranch Estates Subdivision is located east and south of the subject property. Washoe County Spanish Springs Flood Detention facility is located north and its outflow channel runs along the westside of the subject site. See Figure #1.

The site slopes toward the west at grades ranging from 0.4 to 1.0 percent. An existing trapezoidal channel (outlet channel of the NSSFDF) runs south from the Storm Detention Facility to Eagle Canyon Drive. Ground cover consists primarily of sagebrush and weeds. According to the site geotechnical letter by Black Eagle Consulting dated September 2016, the site soils consists of a variety of soil types ranging from clay, sand, and gravel to silty clay.

## FLOOD ZONE

Pyramid Ranch Annex lies within panel 32031C2865G of the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps dated October 20, 2014. The 100-year flood is contained within the NSSFDF and the existing NSSFDF channels. The site is within Flood Zone X (unshaded). See Figure #2 of the LOMR dated October 20, 2014 for the area.

## EXISTING HYDROLOGY

The overall off-site drainage is depicted in the Hydrology Master Plan for Eagle Canyon Ranch Subdivision dated March 3, 2016 prepared by DEW Hydrology and the Hydrology Report for the North Spanish Springs Facility, Washoe County Nevada dated May 2006 by Quad Knopf. This study indicates there are two existing adjacent properties' storm drain systems which convey storm water runoff to the proposed site. The runoff from the surrounding properties is currently discharged on surface and drains from east to west and south across the site to the NSSFDF outlet channel along the proposed project's western boundary. These existing storm drain systems are discharged at two different locations on the proposed site. The existing Gator Swamp Park has a small impact to the site due to the flat slope on the park and it appears that the existing park retains most runoff. The other existing storm drain system was constructed with Pyramid Ranch Estates II. This system, located east of the proposed site, discharges onto the

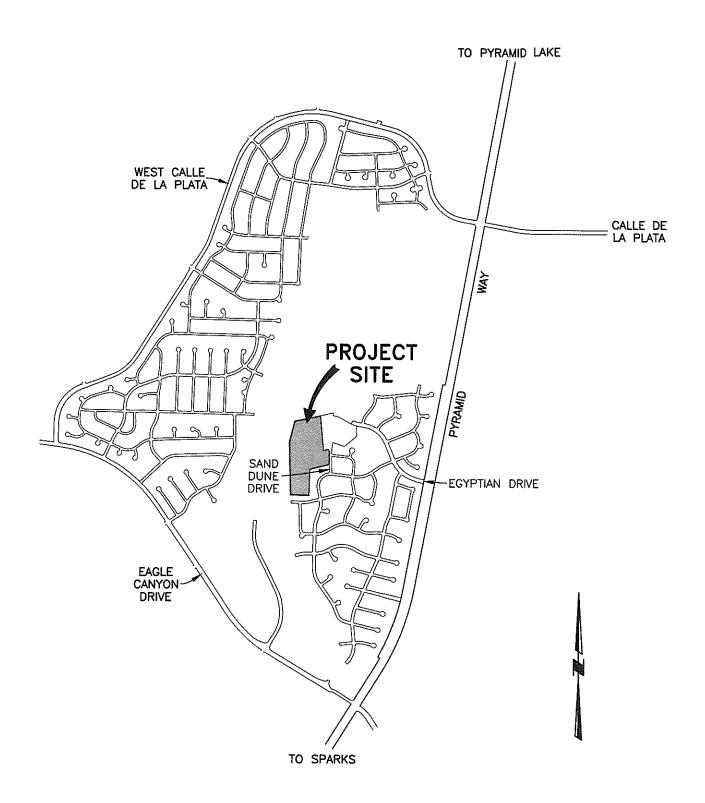


FIGURE 1.
VICINITY MAP
SCALE: 1" = 2000'

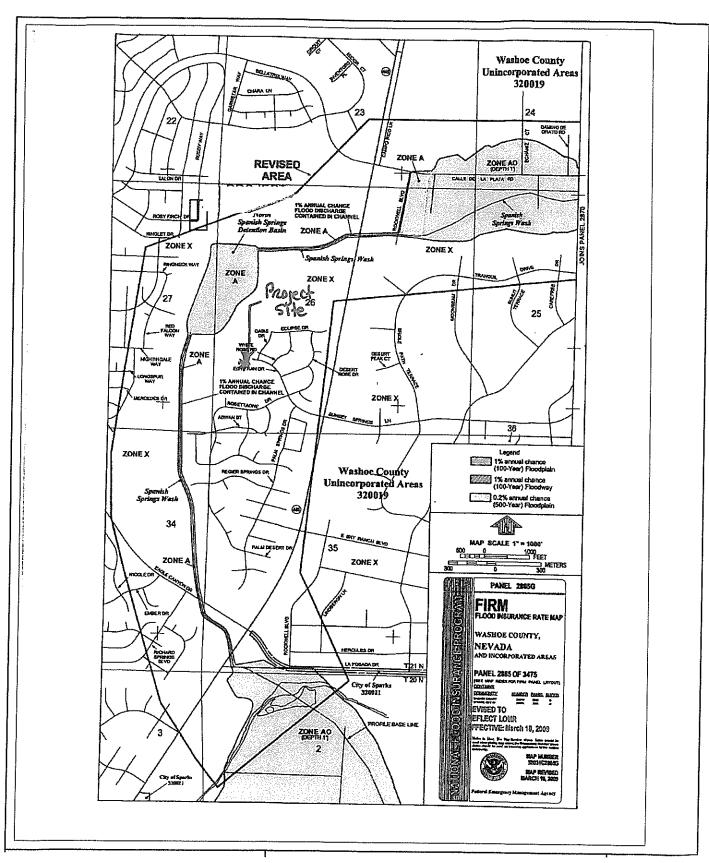


FIGURE 2
FLOOD ZONE MAP

proposed site via an existing storm drain pipe. This 18" diameter storm drain pipe will tie into the proposed 5-year storm drain system and be perpetuated across the proposed subdivision. As mentioned above, the outlet trapezoidal channel of the NSSFDF runs south and borders the site at the western boundary of the proposed subdivision. According to the Hydrology Master Plan for Eagle Canyon Ranch Subdivision by DEW Hydrology, March 3, 2016 the outlet channel has the capacity to convey the peak flows of 763 cfs at the downstream reach. The outlet channel is designed to convey these flows with freeboard.

## PROPOSED DRAINAGE

The proposed on-site drainage system for Pyramid Ranch Annex consists of curb and gutter, catch basins, and a storm drain system. The on-site 5-year flows will be intercepted in an underground storm drain system. This storm drain system will also intercept the existing flow as previously mentioned. The proposed storm drain system will discharge to the existing outlet channel of the NSSFDF. The 5 and 100-year flows from the proposed subdivision will not impact the hydraulic grade line of the outlet channel as depicted in the Hydrology Master Plan for Eagle Canyon Ranch Subdivision.

## HYDROLOGY

A preliminary on-site storm drain system was laid out and analyzed using the Rational Method. The drainage areas are delineated and can be seen on the Preliminary Hydrology Map in the Appendix under the Rational Method section. Detailed Hydrologic and Hydraulic calculations will be provided during final design.

## **DETENTION**

The existing runoff within the Pyramid Ranch Annex will increase in storm water discharge. A detention facility will not be necessary for the proposed project as was demonstrated by the existing study reports.

## **CONCLUSIONS**

- 1. Based on this preliminary hydrologic analysis, it appears that Pyramid Ranch Annex can be developed as planned without adverse impact to downstream properties with respect to storm drainage.
- 2. A master storm drainage plan should be prepared prior to final design.
- 3. No detention is needed, per previous hydrology studies.

## REFERENCES

C&M Engineering and Design, LTD, <u>Preliminary Drainage Report for Eagle Canyon IV</u>, April 2003.

DEW Hydrology, Hydrology Master Plan for Eagle Canyon Ranch Subdivision, March 3, 2016.

Wood Rodgers, <u>Preliminary Hydrology/Drainage Report for Eagle Canyon V Tentative Map Application</u>, December 15, 2005.

Nimbus Engineers., <u>Application For Conditional Letter Of Map Revision For Griffith</u> Canyon/Stormy Canyon Washoe County, Nevada, November 2002.

Quad Knopf, Hydrology Report for the North Spanish Springs Detention Facility, Washoe County, Nevada, May 2006.

## **APPENDIX A**

**RATIONAL METHOD CALCULATIONS** 

## **RATIONAL METHOD - WASHOE COUNTY**

The Rational Method is used to estimate the peak runoff resulting from a rain storm of given intensity and frequency falling on a specific watershed. The peak flow is expressed as:

$$Q = CiA$$

where

Q = Maximum rate of runoff, cubic feet per second

C = Runoff coefficient

i = Average rainfall intensity, inches per hour

A = Watershed area, acres

Washoe County allows the use of the Rational Method for urban and small watersheds of less than 500 acres. Runoff computations are made using criteria provided by Article 420 of the <u>Washoe County Development Code</u> (1994). Runoff coefficients used are 0.25 - 0.30 for undeveloped areas, 0.35 for rear yards, 0.45 - 0.50 for residential areas, 0.65 for front yards, and 0.85 - 0.90 for paved areas. In Reno, rainfall intensities are determined from the City of Reno Design Manual intensity-duration-frequency curves. In Sparks and Spanish Springs, intensities are determined from the Sparks IDF curves referenced in U.B.C Section 7006 as amended by Washoe County. The initial time of concentration, T<sub>C(1)</sub>, is calculated by the formula:

$$T_{C(1)} = 10 \text{ or } \frac{L}{60xV}$$

where

 $T_{C(1)}$  = Initial time of concentration, minutes

L = Length from uppermost point of watershed to design

point.

feet

V = Channel or overland velocity, feet per second

The initial time of concentration models build-up and sheet flow conditions in the uppermost part of the watershed. Except for very small impervious watersheds, the minimum build-up time of 10 minutes is assumed. Therefore, for the first design point, the time of concentration is determined by adding travel time to the build-up time as follows:

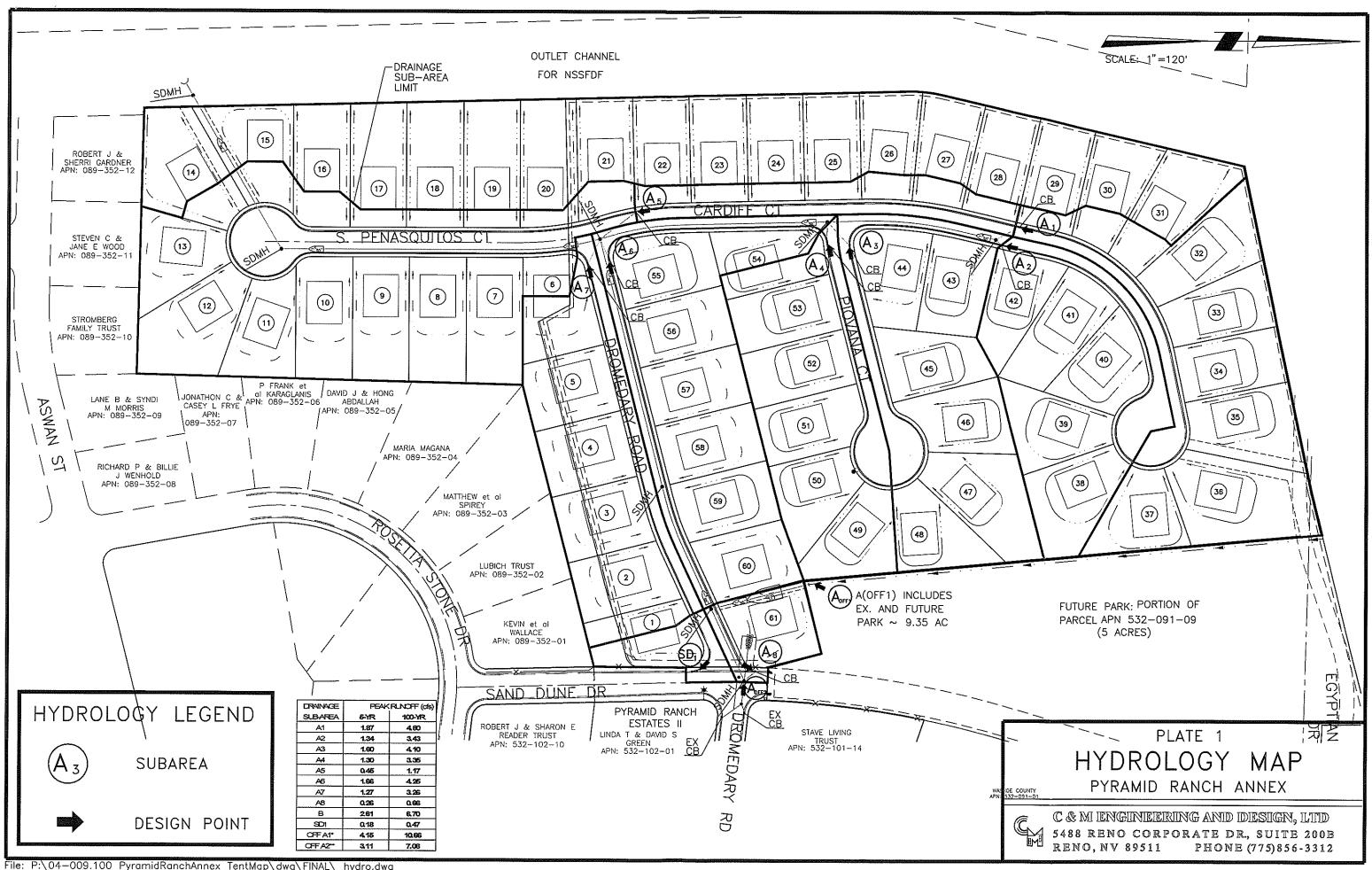
$$T_{C(1)} = 10 + \frac{L}{60 \times V}$$

The time of concentration at successive points downstream is calculated by adding total travel time to the initial build-up time:

$$T_{C(n)} = 10 + \sum \frac{L}{60 \times V}$$
 where 
$$T_{C(n)} = \text{Time of concentration at design point, minutes}$$
 
$$\sum \frac{L}{60 \times V} = \text{Total travel time to design point, minutes}$$
 
$$L = \text{Length of flow path between design points, feet}$$
 
$$V = \text{Velocity, feet per second}$$

Velocities used are 2 - 3 fps for surface flow and 3 - 5 fps for channel and conduit flow.

Rational Method calculations are performed using a spreadsheet containing the appropriate IDF curves and routing parameters. Hydrologic tabling is done in two parts. In Part A, the peak flow for each drainage area is determined based on the runoff coefficient, initial time of concentration, and area. These flows are used to locate and size the drainage inlets. In Part B, flows are accumulated starting with the initial subarea and proceeding downstream. At each design point travel time is added and the peak flow is computed using the average runoff coefficient, the time of concentration at that point, and the total tributary area. These cumulative flows are used in the design of interceptor channels and storm drains where applicable.



# RATIONAL METHOD HYDROLOGY WASHOE COUNTY / RENO IDF CURVES PYRAMID RANCH ANNEX

# PART A: INDIVIDUAL DRAINAGE AREAS

AREA	EA RUNOFF	WATERSHED	VELOCITY	TIME OF CONC INTENSITY (in/hr)	INTENS	TY (in/hr)	PEA	PEAK RUNOFF (c
மு	(acres) COEFF.	LENGTH (ft)	(fl/sec)	(min)	5-YR	100-YR	5-YR	100-YR
100	2.53 0.50	700	2	10.00	1,48	3.80	1.87	4.80
1.81	0.50	650	2	10.00	1.48	3.80	1.34	3.43
2.16	0.50	570	2	10.00	1.48	3.80	1.60	4.10
1.76	0.50	009	2	10.00	1.48	3.80	1.30	3.35
0.61	0.50	570	2	10.00	1.48	3.80	0.45	1.17
2.24	0.50	635	2	10.00	1.48	3.80	1.66	4.25
1.72	0:20	675	2	10.00	1.48	3.80	1.27	3.26
0.35	0.50	233	2	10.00	1.48	3.80	0.26	0.66
4.41	0.40	150	2	10.00	1.48	3.80	2.61	6.70
0.25	0.50	265	2	10.00	1.48	3.80	0.18	0.47
9.35	0.30	730	3	10.00	1.48	3.80	4.15	10.66
4.63	0.57	80	3	17.78	1.19	2.70	3.11	7.08

Note: \* OFF A1 is Gator Swamp Park - existing and proposed Note: \*\* OFF A2 is from Pyramid Ranch II improvements

# 

# OWNER/ 'DEVELOPER

SPANISH SPRINGS ASSOCIATES LIMITED 550 W. PLUMB LANE, SUITE B, #505 RENO, NEVADA 89509 **PARTNERSHIP** 

# LEGEND

NEW PAVEMENT

BLOCK WALL
STONE WALL

FENCE ON RW

RETAINING WALL

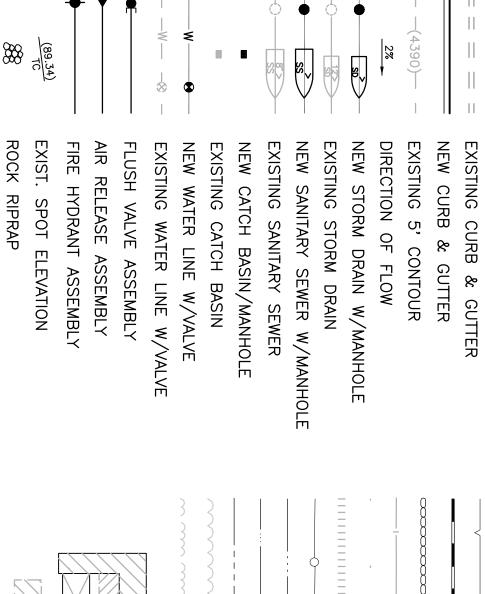
TRENCH/STOPE

SHEET BOUNDARIES

PIPELINE

WATER EDGE

TAILINGS/TOE



TREELINE

BRUSHLINE

DITCH

INTERMITTENT DRAINAGE

				_ \					
$\odot$			 	0/6/		X			
Z ONLY CONTROL POINT	N,E,Z CONTROL POINT	RAILROAD	MISCELLANEOUS BOUNDARIES	BLDG. UNDER CONSTR.	SHED	COVERED AREA	DECK	BUILDING	

LEGEND FOR NON-ANNOTATED FEATURES:

M			*	弄	<b></b>	8	·MB	❖	単	°<	OMI	&F H	\sigma_0\S	°P	•		(>	<b>⊕</b> ••	•	$\odot$
METER BOX	UTIL. VAULT/BOX	SHAFT	EXCAVATION	MARSH	METER	MISC. OBJECT	MAIL BOX	RR XING SIGNAL	TRAFFIC SIGNAL	VALVE COVER	MANHOLE	FIRE HYDRANT	SIGN	POST/POLE	LIGHT POLE	TRANSMISSION TOWER	POLE ANCHOR	POWER POLES	SURVEY MONUMENT	Z ONLY CONTROL POINT

CURB LINE GUTTER/CONCRETE EDGE

DIRT ROAD

EDGE OF PAVEMENT

INTERMEDIATE DEPRESSION

APPROXIMATE

INTERMEDIATE

INDEX DEPRESSION INTERMEDIATE CONT

CONTOUR

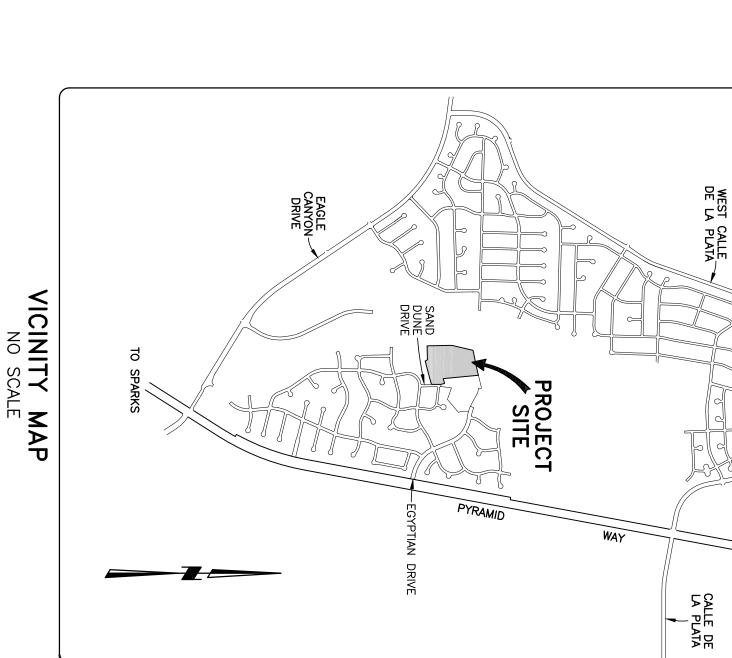
APPROXIMATE INDEX

INDEX CONTOUR

JEEP/FOOT TRAIL

MEDIAN WALL

GUARD-RAIL



## SHEET INDEX

TITLE SHEET

**GEOMETRICS** 

GRADING/UTILITIES

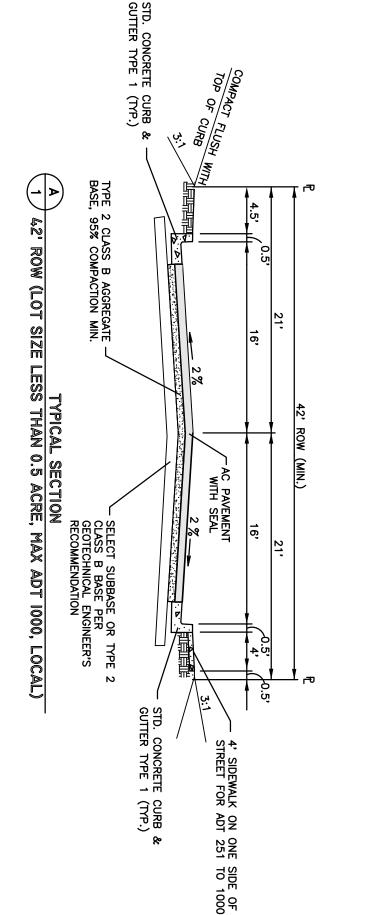
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CROSS

SECTIONS

G-

S



BASIS OF ELEVATION

NEVADA DEPARTMENT OF TRANSPORTATION BENCHMARK ALUMINUM CAP ON REBAR STAMPED "277066" ELEVATION=4527.81 (NGVD 1929)

BASIS OF BEARINGS

NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE GRID, NAD83/94

# ENGINEER

5488 RENO CORPORATE DR, SUITE 200B, RENO, NV 8951

PHONE: (775) 856-3312

LAKE

C & N 5488 RENO, M ENGINEERING AND DESIGN, LTD. RENO CORPORATE DRIVE, SUITE 200B NEVADA 89511

# GENERAL NOTES:

BASED ON FLOOD INSURANCE RATE MAP NO. 32031C2865 G (DATED 10/21/2014), PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA), THE PROJECT SITE LIES IN FLOOD ZONE X (UNSHADED) INDICATING AREAS "OUTSIDE THE 500-YEAR FLOODPLAIN".

LCM

IGNI配 SC, LCM

- ALL STREETS TO BE PUBLIC UNLESS OTHERWISE NOTED.
- SLOPES ARE 3:1 MAX. UNLESS OTHERWISE NOTED.

SWEWITTALL

009.100

STATUS

- MECHANICAL SLOPE STABILIZATION FOR SLOPES STEEPER THAN 3:1 WHEN ROCK RIPRAP IS USED FOR SLOPE STABILIZATION, IT SHALL CONTAIN A MINIMUM OF FOUR FRACTURED FACES AND BE PLACED TO A MINIMUM DEPTH OF 12 INCHES. A MINIMUM OF 75% OF THE RIPRAP SHALL BE 8 INCH DIAMETER ROCK OR GREATER.
- ALL AREAS DISTURBED AND LEFT UNDEVELOPED FOR A PERIOD OF MORE THAN THIRTY (30) DAYS SHALL BE STABILIZED BY THE APPLICATION OF DUST PALLIA—TIVE AND IF LEFT MORE THAN NINETY (90) DAYS PLANTED AS FOLLOWS: FERTILIZER (16—20—0) 300#/acre GRASS, THE BROADCAST SEEDING RATE SHALL BE 12#/AC. OF SODAR WHEATGRASS AND 8#/AC. OF FAIRWAY CREATE WHEATGRASS. IF DRILLED, THE RATE SHOULD BE 6#/AC. OF SODAR WHEATGRASS AND 5#AC. OF FAIRWAY CREATED WHEATGRASS. STRAW MULCH 3000#/AC. ANCHORED BY A STRAW PUNCHING TOOL OR COVERED WITH NETTING AND STAPLED.

# USE DATA:

- PRESENT LAND USE CLASSIFICATION: MDS (15.5 & MDS (532-091-10) AC PORTION OF 532-091-09)
- PROPOSED LAND USE CLASSIFICATION: MDS
- TOTAL LAND AREA: 21.31 AC.; LOT AREA: STREETS: 2.85 AC; COMMON AREA: 0 AC 18.46

REVISION DESCRIPTION

- NUMBER OF UNITS: 61; DENSITY: 2.86 DU/AC
- REQUIRED MINIMUM LOT SIZE: 12,000 SF MIN.
- MINIMUM LOT SIZE SHOWN: 12,000 SF; MAXIMUM LOT SIZE SHOWN: 22,108
- REQUIRED MINIMUM LOT WIDTH: 80'
- MINIMUM LOT WIDTH: 80', EXCLUDING CUL-DE-SACS
- MINIMUM SETBACK REQUIREMENTS: FRONT: 20' REAR: 20' SIDE: 8'

# ITES:

CABLE -ELECTRICAL SEWAGE DIS DISPOSAL CHARTER NEVADA E ENERGY COMMUNICATIONS COMMUNITY

SOLID WASTE TELEPHONE – GAS – WATER – NEVADA TMWA WASHOE CITY OF RENO AT&T DISPOSAL ENERGY COUNTY

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**SERVICES** ΕX

NEVADA

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