PLANNING COMMISSION MEETING

117 South Main Street, Monticello, Utah 84535. Commission Chambers
March 09, 2023 at 6:00 PM

AGENDA

Google Meet joining info
Video call link: https://meet.google.com/wma-afjh-gbg
Or dial: (US) +1 727-877-8458 PIN: 489 854 957#
More phone numbers: https://tel.meet/wma-afjh-gbg?pin=5790317904712

YouTube Livestream Link:
https://youtube.com/live/MhqIUlgRJ6I?feature=share

GENERAL BUSINESS

Welcome / Roll Call

Pledge of Allegiance

Approval of Minutes

1. Approval of February 9, 2023 Planning Commission Meeting Minutes

PUBLIC COMMENT

PUBLIC HEARING

2. Rezone: Balanced Rock Resort, Spanish Valley Planned Community District, Residential Flex

ADMINISTRATIVE ITEMS

3. Consideration and Approval Conditional Use Permit, Richard Collins

4. Consideration and Approval, Hassen Estates Subdivision Amendment 3, Curtis Wells

5. Consideration and Approval of Lonesome Left Estates Subdivision Amendment 6, Lloyd Wilson

LEGISLATIVE ITEMS

6. Consideration and Recommendation, Balanced Rock Resort Rezone Application, Jim Schnepel, Gardner Plumb LLC

7. Spanish Valley Storm Water Master Plan, Greg Poole, Hansen Allen and Luce Engineers

BUILDING PERMIT(S) REVIEW

8. Building Permit List

ADJOURNMENT

In compliance with the Americans with Disabilities Act, persons needing auxiliary communicative aids and services for this meeting should contact the San Juan County Clerk's Office: 117 South Main, Monticello or telephone 435-587-3223, giving reasonable notice

PLANNING COMMISSION MEETING

117 South Main Street, Monticello, Utah 84535. Commission Chambers
February 09, 2023 at 6:00 PM

MINUTES

GENERAL BUSINESS

Welcome / Roll Call

Planning Commission Chair Trent Schafer called the meeting to order at 6:04 pm.

PRESENT
Chairman Trent Schafer
Commissioner Lloyd Wilson
Commissioner Cody Nielson
Commissioner Ann Austin

STAFF:
Ben Tomco, Building Inspector
Scott Burton, Planning and Zoning Administrator
Mitchell Maughan, Deputy County Attorney

Approval of Minutes

1. **Approval of Minutes for January 12, 2023 Planning Commission Meeting**

   Time Stamp 1:00 (audio)

   Motion to approve the minutes was made by Commissioner Austin, Seconded by Commissioner Wilson.
   Voting Yea: Chairman Schafer, Commissioner Wilson, Commissioner Nielson, Commissioner Austin

PUBLIC COMMENT

Time Stamp 2:26 (audio)

PC Trent Schafer opened the meeting for public comment, and mentioned four letters that were received expressing concern about the turn on US Hwy 191.

The following individuals made comment:

Lynda Smirz, a resident of northern San Juan County commented about the conditional use permit for Wandercamp and expressed a concern about an abandoned mine on the property, and a concern about the Bureau of Land Management (BLM) boundaries.

PC Commissioner Lloyd Wilson requested that the Planning Commission say the Pledge of Allegiance at the beginning of the meetings and that they be livestreamed to Facebook.

ADMINISTRATIVE ITEMS

2. **Preliminary Plat Review, Old Airport Subdivision, Brad Bunker, Bunker Engineering**

   Time Stamp 8:33 (audio)

   Tom Keogh the owner of the property presented the subdivision plat. County staff had a question about the access on SR 46. Tom will notify UDOT about the access point to see if they will require a turn lane or not. Tom also had a change that the roads would be county roads instead of private roads. The PC discussed the zoning which is almost completely in the Control District Highway Commercial.

   The PC had a discussion about the construction and maintenance of the roads. Because this has been a recurring discussion, Planning and Zoning Administrator, Scott Burton suggested we have a meeting with the County Commissioners and the Road Department to come up with a solution to the road questions.

   PC Chair Trent Schafer asked that the language about the road be changed on the plat to be a county road. PC Commissioner Ann Austin asked the the zoning be noted correctly on the plat.

3. **Consideration and Approval of Conditional Use Permit, Wondercamp Campground, Kylie Chenn, Wondercamp**

   Time Stamp 29:41 (audio)

   Andrew Chenn with Wondercamp presented this conditional use permit. Planning and Zoning Administrator discussed concerns that have been brought up including road access, property rights and water. Andrew addressed the abandoned mine and said that the mine has been sealed off. The water is planned to be provided by a service provider to haul water to the site. The property is private land that is being leased to Wondercamp.

   PC Chair Trent Schafer asked about the highway access at the bottom of Blue Hill which is an already congested and dangerous location. He asked what additional traffic they anticipate, and that they need to contact UDOT to make sure they did not have any additional requirements for the access point.

   Andrew explained that they cater to a more adventurous crowd that are aware of a need for a four wheel drive vehicle to access the site, and the limited services provided.

PC Commissioner Cody Nielson asked about the number of bathrooms, showers, and the holding capacity of the bath trailer to make sure it is sized sufficient for the number of people. Wondercamp is planning for 1-2 gallons of usage per person per day. These usage numbers will need to be verified with the County Health Department.

PC Commissioner Lloyd Wilson requested information about what the state requirements are for hauling water to a camping site like this.

Andrew mentioned that the state requirements would require facilities to be sized larger than the actual usage.

PC Commissioner Ann Austin mentioned that the County Economic Development Office is working on grant funding for mountain bike trails in this area. She mentioned that the access may be on the same road, and that they were working with UDOT on an improvement access.

PC Chair Trent Schafer asked that the applicant address the issues brought up and bring them back before they could approve the application.

BUILDING PERMIT(S) REVIEW

4. Building Permit List Review

Time Stamp 53:08 (audio)

The PC Reviewed the building permit list.

ADJOURNMENT

Time Stamp 53:08 (audio)

Motion to adjourn was made by Commissioner Wilson, Seconded by Commissioner Nielson.
Voting Yea: Chairman Schafer, Commissioner Wilson, Commissioner Nielson, Commissioner Austin

Meeting was adjourned at 6:58 pm

STAFF REPORT

MEETING DATE: March 9, 2023

ITEM TITLE, PRESENTER: Consideration and Approval Conditional Use Permit, Richard Collins

RECOMMENDATION: Consideration and Approval

SUMMARY

Richard Collins has applied for a Conditional Use Permit for a summer camp on his property at 383 North Old Highway as outlined in the attached application.

The following conditions are consistent with conditions placed on similar conditional use permit applications recently:

- *Must comply with the public water system requirements for water storage and pressure for fire suppression standards*
- *Must comply with any state or federal fire restrictions*
- *Must comply with San Juan County Fire Policy*
- *Must comply with all building permit requirements*
- *Must comply with San Juan County Health Department requirements and Utah State water system requirements.*

HISTORY/PAST ACTION

N/A

SAN JUAN COUNTY CONDITIONAL USE PERMIT APPLICATION

Type of Application (check all that apply):

☐	New Construction	☑	Land Use Change
☐	Addition	☐	Appeal

Subject Property Location or Address: 383 North Old Hwy.

Parcel Identification Number: 33S25E284800

Parcel Area: 40 Acres Current Use: residence

Floor Area: _____ Zoning Classification: _____

Applicant Name: Richard Collins

Mailing Address: P.O. Box 1044

City, State, ZIP: Monticello, UTAH 84535

Daytime Phone #: 859-393-4104 Fax#: _____

Email Address: gcfm07@gmail.com

Business Name (If applicable): _____

Property Owner's Name (If different): _____

Property Owner's Mailing Address: _____

City, State, ZIP: _____

Daytime Phone #: 859-393-4104 Fax#: _____

Describe your request in detail (use additional page(s) if necessary): I would like to use my property for A CAMP for the NAVAJO children for two months in the Summer. We are planning to have 20 children per week for four weeks.

Authorized Signature: Richard Collins Date: 2/13/23

Property Owner's Affidavit

I (we) RICHARD COLLINS, being first duly sworn, depose and that I (we) am (are) the current owner(s) of the property involved in this application; that I (we) have read the application and attached plans and other exhibits and are familiar with its contents; and that said contents are in all respects true and correct based upon my personal knowledge.

Owner's Signature

Owner's Signature (co-owner if any)

State of Utah)
:
County of San Juan)

Subscribed and sworn to before me this 16th day of February, 2023.

NOTARY PUBLIC
NATHAN JAMES PITTS
COMM. # 712069
MY COMMISSION EXPIRES
JUNE 29, 2024
STATE OF UTAH

Nathan James Pitts
Notary Public
Residing in Monticello, UT
My Commission expires: June 29, 2024

Dear Planning Committee,

Thank you for your consideration for a conditional use permit. We would like to use our property located at 383 North Old Highway for a summer camp for Navajo children. The camp will take place in the month of July.
Our goal is to give each camper an excellent camp experience. This will be accomplished by various team building activities, games, crafts, archery and bible teaching.
We will do four sessions of camp. Here is an example of how it will work.
We will transport the campers from Montezuma Creek to our property on Monday morning July 10th. They will spend three nights and four days. In the afternoon of the fourth day (Thursday July 14th) they will be transported back to Montezuma Creek. On Friday we prepare for the next group and on Saturday we pick up the next group of campers in Montezuma Creek. We will repeat this three more times for a total of four camp sessions. Each session will have twenty campers for a total of 80 campers for the month.

While at camp the campers will be sleeping in 14 X16 wall tents on wooden platforms. Meals will be prepared in the garage where we have set up a small kitchen and dining area.
We will have port-a-lets for the toilet facilities. The number will be determined by the San Juan County health department.
The children will shower in a the shower house and a washing station will be connected to the side of the shower house where the kids can wash up and brush their teeth.

The grey water from the kitchen will be caught in a tank and when it's full will be emptied into the septic system connected to our house.
The grey water from the shower house and wash station will drain into an existing septic system that was used to service a mobile home that used to sit on the property.

Please understand that this is a not for profit operation. My wife Michelle and I are doing the best we can with what we have. It is our hope that you will see the value in what we are doing and give us grace as we get this camp off the ground and work to raise the necessary support to make improvements and expand it into a great asset for San Juan County and the children on the Navajo Reservation.

Sincerely, Richard and Michelle Collins

Kyle Fullmers
Property
Steve Cannons Property
Camping
Area
Tent
Tent
Tent
Tent
Tent
Driveway
Camping Area
Garage
30'x34'
Tool
Shed
14'x16'
Smoke
House
8'x8'
Pump
House
8'x8'
Residence
42'x60'
Septic
N

STAFF REPORT

MEETING DATE: March 9, 2023

ITEM TITLE, PRESENTER: Consideration and Approval, Hassen Estates Subdivision Amendment 3, Curtis Wells

RECOMMENDATION: Consideration and Approval

SUMMARY

The San Juan Townhomes project was approved for the Spanish Valley Overnight Accommodations Overlay in April 2022 as outlined below.

This plat creates the property approved by the Spanish Valley Overnight Accommodations Overlay process.

This subdivision amendment reflects a change to the plan that removes the access from US 191. The San Juan County Road Department has expressed a concern about the only access being from the Tangren. This makes the shortest access back to the highway on Ranch Rd which is a gravel road that goes right through the LeGrand Johnson gravel operation.

Additional concerns from the staff review have been communicated to the developer for plat revisions.

HISTORY/PAST ACTION

The application for the Spanish Valley Overnight Accommodations Overlay was recommended for approval at the August 12, 2021 PC Meeting. The application was then approved by the Board of County Commissioners at their August 17, 2021 meeting.

At the March 10, 2022 Planning Commission Meeting, the Planning Commission voted to recommend that the Overnight Accommodations Overlay be attached to the development with the following conditions:

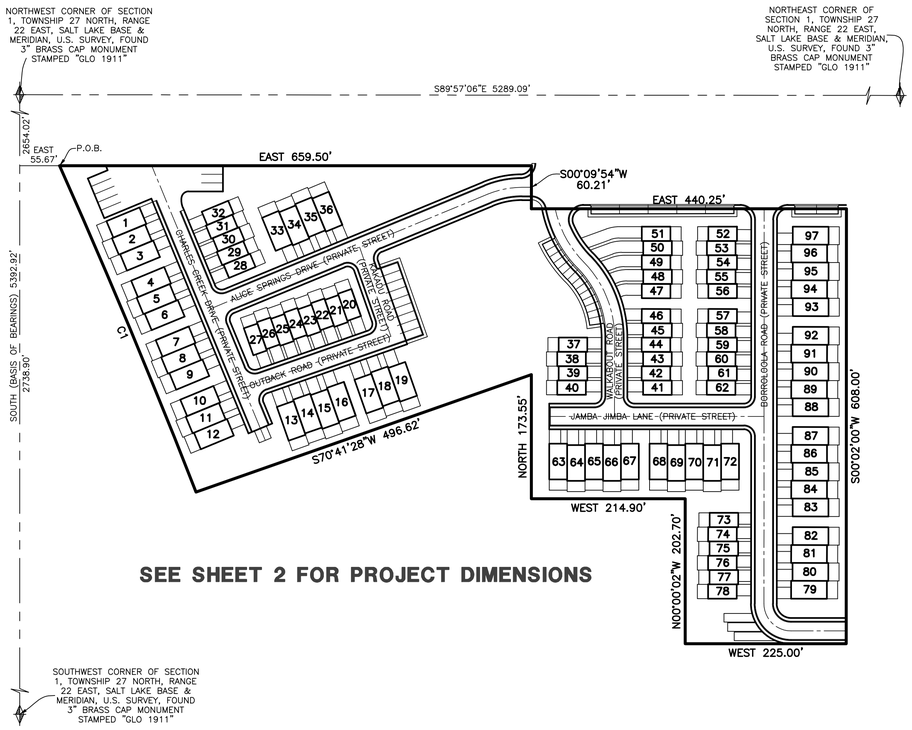
- Residential subdivision with nightly rentals
- Number of units: 98
- Must comply with the Utah Department of Transportation requirements for accessing US Hwy 191
- All roads in the development to remain private.
- Must have engineered storm drainage system ponds, rip wrap and overflow into the creek to meet the 100 year flood plain requirements, and any other requirements from the Army Corp of Engineers.
- Parking cannot spill out onto county roads or US Hwy 191

At the April 19, 2022 Board Of County Commissioners Meeting, the Commissioners approved to attach the Overnight Accommodations Overlay to this development with the above mentioned conditions.

SHEET 1 OF 2

HASSEN ESTATES AMENDMENT III

AMENDING LOT 1B, 2B, AND 3C OF HASSEN ESTATES AMENDMENT II TOGETHER WITH OTHER LANDS
PART OF THE WEST HALF OF SECTION 1, TOWNSHIP 27 SOUTH, RANGE 22 EAST, SALT LAKE BASE & MERIDIAN, U.S. SURVEY
SAN JUAN COUNTY, UTAH
MARCH, 2023



SEE SHEET 2 FOR PROJECT DIMENSIONS

VICINITY MAP

NOT TO SCALE

LIMITED COMMON SQUARE FOOTAGE TABLE

UNIT #	LIMITED COMMON DRIVEWAY S.F.	LIMITED COMMON PATIO S.F.	UNIT #	LIMITED COMMON DRIVEWAY S.F.	LIMITED COMMON PATIO S.F.
1	328 S.F.	375 S.F.	50	1128 S.F.	300 S.F.
2	360 S.F.	375 S.F.	51	1329 S.F.	300 S.F.
3	328 S.F.	375 S.F.	52	328 S.F.	300 S.F.
4	328 S.F.	375 S.F.	53	360 S.F.	300 S.F.
5	360 S.F.	375 S.F.	54	328 S.F.	300 S.F.
6	328 S.F.	375 S.F.	55	360 S.F.	300 S.F.
7	328 S.F.	375 S.F.	56	328 S.F.	300 S.F.
8	360 S.F.	375 S.F.	57	328 S.F.	300 S.F.
9	328 S.F.	375 S.F.	58	360 S.F.	300 S.F.
10	328 S.F.	375 S.F.	59	328 S.F.	300 S.F.
11	360 S.F.	375 S.F.	60	360 S.F.	300 S.F.
12	328 S.F.	375 S.F.	61	328 S.F.	300 S.F.
13	368 S.F.	375 S.F.	62	360 S.F.	300 S.F.
14	336 S.F.	375 S.F.	63	328 S.F.	375 S.F.
15	368 S.F.	375 S.F.	64	360 S.F.	375 S.F.
16	336 S.F.	375 S.F.	65	328 S.F.	375 S.F.
17	368 S.F.	375 S.F.	66	360 S.F.	375 S.F.
18	336 S.F.	375 S.F.	67	328 S.F.	375 S.F.
19	368 S.F.	375 S.F.	68	328 S.F.	375 S.F.
20	368 S.F.	300 S.F.	69	360 S.F.	375 S.F.
21	336 S.F.	300 S.F.	70	328 S.F.	375 S.F.
22	368 S.F.	300 S.F.	71	360 S.F.	375 S.F.
23	336 S.F.	300 S.F.	72	328 S.F.	375 S.F.
24	368 S.F.	300 S.F.	73	296 S.F.	300 S.F.
25	336 S.F.	300 S.F.	74	328 S.F.	300 S.F.
26	368 S.F.	300 S.F.	75	296 S.F.	300 S.F.
27	336 S.F.	300 S.F.	76	328 S.F.	300 S.F.
28	360 S.F.	300 S.F.	77	296 S.F.	300 S.F.
29	328 S.F.	300 S.F.	78	328 S.F.	300 S.F.
30	360 S.F.	300 S.F.	79	328 S.F.	375 S.F.
31	328 S.F.	300 S.F.	80	360 S.F.	375 S.F.
32	360 S.F.	300 S.F.	81	328 S.F.	375 S.F.
33	360 S.F.	375 S.F.	82	360 S.F.	375 S.F.
34	328 S.F.	375 S.F.	83	360 S.F.	375 S.F.
35	360 S.F.	375 S.F.	84	328 S.F.	375 S.F.
36	328 S.F.	375 S.F.	85	360 S.F.	375 S.F.
37	328 S.F.	300 S.F.	86	328 S.F.	375 S.F.
38	360 S.F.	300 S.F.	87	360 S.F.	375 S.F.
39	328 S.F.	300 S.F.	88	360 S.F.	375 S.F.
40	360 S.F.	300 S.F.	89	328 S.F.	375 S.F.
41	360 S.F.	300 S.F.	90	360 S.F.	375 S.F.
42	328 S.F.	300 S.F.	91	328 S.F.	375 S.F.
43	360 S.F.	300 S.F.	92	360 S.F.	375 S.F.
44	328 S.F.	300 S.F.	93	360 S.F.	375 S.F.
45	368 S.F.	300 S.F.	94	328 S.F.	375 S.F.
46	378 S.F.	300 S.F.	95	360 S.F.	375 S.F.
47	538 S.F.	300 S.F.	96	328 S.F.	375 S.F.
48	714 S.F.	300 S.F.	97	360 S.F.	375 S.F.
49	867 S.F.	300 S.F.			

SURVEYOR'S CERTIFICATE

I, **TREVOR J. HATCH**, DO HEREBY CERTIFY THAT I AM A PROFESSIONAL LAND SURVEYOR IN THE STATE OF UTAH IN ACCORDANCE WITH TITLE 58, CHAPTER 22, PROFESSIONAL ENGINEERS AND LAND SURVEYORS ACT; AND THAT I HAVE COMPLETED A SURVEY OF THE PROPERTY DESCRIBED ON THIS PLAT IN ACCORDANCE WITH SECTION 17-23-17 AND HAVE VERIFIED ALL MEASUREMENTS, AND HAVE PLACED MONUMENTS AS REPRESENTED ON THIS PLAT, AND THAT THIS PLAT OF **HASSEN ESTATES AMENDMENT III** IN **SAN JUAN COUNTY**, UTAH, HAS BEEN DRAWN CORRECTLY TO THE DESIGNATED SCALE AND IS A TRUE AND CORRECT REPRESENTATION OF THE HEREIN DESCRIBED LANDS INCLUDED IN SAID SUBDIVISION, BASED UPON DATA COMPILED FROM RECORDS IN THE **SAN JUAN COUNTY** RECORDER'S OFFICE AND FROM SAID SURVEY MADE BY ME ON THE GROUND, I FURTHER CERTIFY THAT THE REQUIREMENTS OF ALL APPLICABLE STATUTES AND ORDINANCES OF **SAN JUAN COUNTY**, CONCERNING ZONING REQUIREMENTS REGARDING LOT MEASUREMENTS HAVE BEEN COMPLIED WITH.

SIGNED THIS _____ DAY OF _____, 20___.

PROFESSIONAL LAND SURVEYOR
9031945
TREVOR J. HATCH
STATE OF UTAH

9031945
UTAH LICENSE NUMBER

OWNERS DEDICATION AND CERTIFICATION

KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED ARE THE OWNERS OF THE ABOVE DESCRIBED TRACT OF LAND, AND HEREBY CAUSE THE SAME TO BE DIVIDED INTO LOTS TOGETHER WITH EASEMENTS AS SET FORTH TO BE HEREAFTER KNOWN AS

HASSEN ESTATES AMENDMENT III

AND DO HEREBY DEDICATE ALL LAND DESIGNATED ON SAID PLAT AS PRIVATE STREETS AS ACCESS TO THE INDIVIDUAL UNITS, TO BE MAINTAINED BY A HOME OWNERS ASSOCIATION WHOSE MEMBERSHIP CONSISTS OF SAID OWNERS, THEIR GRANTEES, SUCCESSOR, OR ASSIGNS AND ALSO DO GRANT AND CONVEY TO THE HOME OWNERS ASSOCIATION ALL THOSE PARTS OR PORTIONS OF SAID TRACT OF LAND DESIGNATED AS COMMON AREAS TO BE USED FOR OPEN SPACE AND PUBLIC UTILITY FOR THE BENEFIT OF EACH UNIT IN COMMON WITH ALL OTHERS IN THE SUBDIVISION.

SIGNED THIS _____ DAY OF _____, 20___.

MIDWAY MEADOW DEVELOPMENT, LLC

AARON MUELLER, MANAGER

ACKNOWLEDGMENT

STATE OF UTAH)SS.
COUNTY OF _____)

ON THE _____ DAY OF _____, 20___, PERSONALLY APPEARED BEFORE ME, THE UNDERSIGNED NOTARY PUBLIC, _____ (AND) _____ BEING BY ME DULY SWORN, ACKNOWLEDGED TO ME THEY ARE _____ AND _____ OF SAID CORPORATION AND THAT THEY SIGNED THE ABOVE OWNER'S DEDICATION AND CERTIFICATION FREELY, VOLUNTARILY, AND IN BEHALF OF SAID CORPORATION FOR THE PURPOSES THEREIN MENTIONED.

COMMISSION EXPIRES

NOTARY PUBLIC

BASIS OF BEARINGS

THE BASIS OF BEARING FOR THIS PLAT IS THE SECTION LINE BETWEEN THE NORTHWEST CORNER AND THE SOUTHWEST CORNER OF SECTION 1, TOWNSHIP 27 SOUTH, RANGE 22 EAST, U.S. SURVEY, SHOWN HEREON AS DUE SOUTH.

NARRATIVE

THE BOUNDARY FOR THIS SUBDIVISION WAS DETERMINED BY DEED AND RETRACING AND THE HASSEN ESTATES AMENDMENT II SUBDIVISION PLAT FROM FOUND MONUMENTS. ALL BOUNDARY CORNERS WERE SET WITH A 5/8" X 24" REBAR AND PLASTIC CAP STAMPED "REEVE & ASSOCIATES".

BOUNDARY DESCRIPTION

ALL OF LOT 1B, 2B, AND 3C OF HASSEN ESTATES AMENDMENT II TOGETHER WITH OTHER LANDS BEING A PART OF THE WEST HALF OF SECTION 1, TOWNSHIP 27 SOUTH, RANGE 22 EAST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT BEING SOUTH 2654.02 FEET AND EAST 55.67 FEET FROM THE NORTHWEST CORNER OF SAID SECTION 1 (NORTHWEST CORNER BEING NORTH 5392.92 FEET FROM THE SOUTHWEST CORNER OF SAID SECTION 1); THENCE EAST 659.50 FEET; THENCE SOUTH 00°09'54" WEST 60.21 FEET TO A POINT ON AN EXISTING FENCE; THENCE ALONG SAID FENCE LINE THE FOLLOWING THREE (3) COURSES: (1) EAST 440.25 FEET; (2) SOUTH 00°02'00" WEST 608.00 FEET; AND (3) WEST 225.00 FEET; THENCE NORTH 00°00'02" WEST 202.70 FEET TO A POINT ON AN EXISTING FENCE LINE; THENCE ALONG SAID FENCE LINE THE FOLLOWING FOUR (4) COURSES: (1) WEST 214.90 FEET; (2) NORTH 173.55 FEET; (3) SOUTH 70°41'28" WEST 496.62 FEET; AND (4) ALONG A NON-TANGENT CURVE TURNING TO THE LEFT WITH A RADIUS OF 10277.72 FEET, AN ARC LENGTH OF 494.45 FEET, A DELTA ANGLE OF 02°45'23", A CHORD BEARING OF NORTH 22°40'51" WEST, AND A CHORD LENGTH OF 494.41 FEET TO THE POINT OF BEGINNING.

CONTAINING 441,837 SQUARE FEET OR 10.143 ACRES MORE OR LESS.

NOTES

1. ALL AREAS NOT LABELED AS PRIVATE UNIT, LIMITED COMMON AREA, OR PRIVATE STREET IS CONSIDERED COMMON AREA.
2. ALL COMMON AREA IS CONSIDERED PUBLIC UTILITY EASEMENT.
3. ALL LIMITED COMMON DRIVEWAYS ARE 16 FEET WIDE.
4. ALL UNIT TIES ARE PERPENDICULAR TO BOUNDARY LINES OR PRIVATE R.O.W. LINES.
5. THIS PLAT CONFORMS WITH THE SPANISH VALLEY OVERNIGHT ACCOMMODATIONS OVERLAY AND WAS APPROVED BY THE SAN JUAN COUNTY BOARD OF COUNTY COMMISSIONERS AT THEIR REGULAR MEETING ON APRIL 19, 2022.

LEGEND

= SECTION CORNER
= BOUNDARY LINE
= PRIVATE R.O.W. LINE
= EASEMENTS
= SECTION LINE

100 0 100 200 300
Scale: 1" = 100'

CURVE TABLE

#	RADIUS	ARC LENGTH	CHD LENGTH	TANGENT	CHD BEARING	DELTA
C1	10277.72'	494.45'	494.41'	247.28'	N22°40'51"W	2°45'23"

Reeve & Associates, Inc.
5160 S 1500 W, RIVERDALE, UTAH 84405
TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve.co

Project Info.
Surveyor: T. HATCH
Designer: N. ANDERSON
Begin Date: 2-6-2023
Name: HASSEN ESTATES AMENDMENT III
Number: 7374-03
Scale: 1"=100'

COUNTY SURVEYOR

APPROVAL IN ACCORDANCE WITH INFORMATION AND RECORDS ON FILE IN THIS OFFICE.

COUNTY SURVEYOR DATE

COUNTY ROAD DEPARTMENT

APPROVED THIS _____ DAY OF _____, 20___.

COUNTY ROAD DEPARTMENT

APPROVAL AS TO FORM

APPROVED AS TO FORM THIS _____ DAY OF _____, 20___.

ATTORNEY

COUNTY BOARD OF HEALTH

APPROVED THIS _____ DAY OF _____, 20___.

COUNTY BOARD OF HEALTH

PLANNING COMMISSION CERTIFICATE

APPROVED THIS _____ DAY OF _____, 20__,

BY SAN JUAN COUNTY PLANNING COMMISSION.

CHAIR

COUNTY COMMISSION APPROVAL

PRESENTED TO THE SAN JUAN COUNTY COMMISSION THIS _____ DAY OF _____, 20__,

SUBDIVISION WAS ACCEPTED AND APPROVED

ATTEST

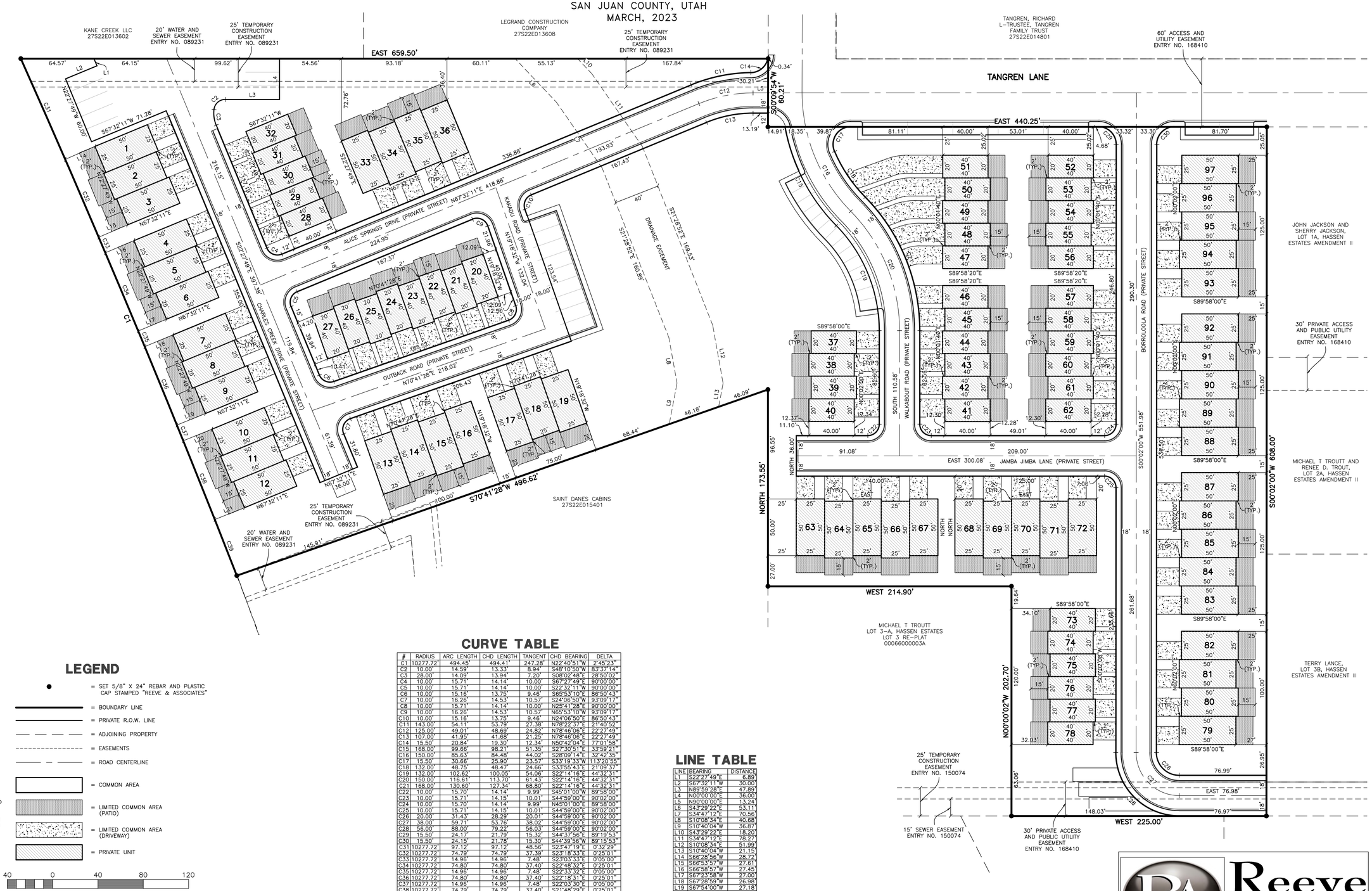
COUNTY RECORDER

STATE OF UTAH, SAN JUAN COUNTY, RECORDED AT THE REQUEST OF _____
DATE _____ BOOK _____ PAGE _____ FEE _____

SHEET 2 OF 2

HASSEN ESTATES AMENDMENT III

AMENDING LOT 1B, 2B, AND 3C OF HASSEN ESTATES AMENDMENT II TOGETHER WITH OTHER LANDS
PART OF THE WEST HALF OF SECTION 1, TOWNSHIP 27 SOUTH, RANGE 22 EAST, SALT LAKE BASE & MERIDIAN, U.S. SURVEY
SAN JUAN COUNTY, UTAH
MARCH, 2023



LEGEND

- = SET 5/8" X 24" REBAR AND PLASTIC CAP STAMPED "REEVE & ASSOCIATES"
- = BOUNDARY LINE
- = PRIVATE R.O.W. LINE
- = ADJOINING PROPERTY
- = EASEMENTS
- = ROAD CENTERLINE
- = COMMON AREA
- = LIMITED COMMON AREA (PATIO)
- = LIMITED COMMON AREA (DRIVEWAY)
- = PRIVATE UNIT

40 0 40 80 120

Scale: 1" = 40'

CURVE TABLE

#	RADIUS	ARC LENGTH	CHD LENGTH	TANGENT	CHD BEARING	DELTA
C1	10277.72'	494.45'	494.41'	247.28'	N22°40'51"W	2°45'23"
C2	10.00'	14.59'	13.33'	8.94'	S48°10'50"W	83°37'14"
C3	28.00'	14.09'	13.94'	7.20'	S08°09'48"E	28°50'02"
C4	10.00'	15.71'	14.14'	10.00'	S67°27'49"E	90°00'00"
C5	10.00'	15.71'	14.14'	10.00'	S22°32'11"W	90°00'00"
C6	10.00'	15.16'	13.75'	9.46'	S65°53'10"E	86°50'43"
C7	10.00'	16.26'	14.53'	10.57'	S24°06'50"W	93°09'17"
C8	10.00'	15.71'	14.14'	10.00'	N25°41'28"E	90°00'00"
C9	10.00'	16.26'	14.53'	10.57'	N65°53'10"W	93°09'17"
C10	10.00'	15.16'	13.75'	9.46'	N24°06'50"E	86°50'43"
C11	143.00'	54.11'	53.79'	27.38'	N78°22'37"E	21°40'52"
C12	125.00'	49.01'	48.69'	24.82'	N78°46'06"E	22°27'49"
C13	107.00'	41.95'	41.68'	21.25'	N78°46'06"E	22°27'49"
C14	15.50'	20.84'	19.30'	12.34'	N50°42'04"E	77°01'58"
C15	168.00'	99.66'	98.21'	51.35'	S27°30'51"E	33°59'21"
C16	150.00'	85.63'	84.48'	44.02'	S28°09'14"E	32°42'35"
C17	15.50'	30.66'	25.90'	23.57'	S33°19'33"W	113°20'55"
C18	132.00'	48.75'	48.47'	24.66'	S33°55'43"E	21°09'37"
C19	132.00'	102.62'	100.05'	54.06'	S22°14'16"E	44°32'31"
C20	150.00'	116.61'	113.70'	61.43'	S22°14'16"E	44°32'31"
C21	168.00'	130.60'	127.34'	68.80'	S22°14'16"E	44°32'31"
C22	10.00'	15.70'	14.14'	9.99'	S45°01'00"W	89°58'00"
C23	10.00'	15.71'	14.15'	10.01'	S44°59'00"E	90°02'00"
C24	10.00'	15.70'	14.14'	9.99'	N45°01'00"E	89°58'00"
C25	10.00'	15.71'	14.15'	10.01'	S44°59'00"E	90°02'00"
C26	20.00'	31.43'	28.29'	20.01'	S44°59'00"E	90°02'00"
C27	38.00'	59.71'	53.76'	38.02'	S44°59'00"E	90°02'00"
C28	56.00'	88.00'	79.22'	56.03'	S44°59'00"E	90°02'00"
C29	15.50'	24.17'	21.79'	15.32'	S44°37'56"E	89°19'53"
C30	15.50'	24.15'	21.78'	15.30'	S44°39'56"W	89°15'53"
C31	10277.72'	97.12'	97.12'	48.56'	S23°47'19"E	0°32'29"
C32	10277.72'	74.79'	74.79'	37.39'	S23°18'33"E	0°25'01"
C33	10277.72'	14.96'	14.96'	7.48'	S23°03'33"E	0°05'00"
C34	10277.72'	74.80'	74.80'	37.40'	S22°48'32"E	0°25'01"
C35	10277.72'	14.96'	14.96'	7.48'	S22°33'32"E	0°05'00"
C36	10277.72'	74.80'	74.80'	37.40'	S22°18'31"E	0°25'01"
C37	10277.72'	14.96'	14.96'	7.48'	S22°03'30"E	0°05'00"
C38	10277.72'	74.79'	74.79'	37.40'	S21°48'29"E	0°25'01"
C39	10277.72'	53.27'	53.27'	26.63'	S21°27'04"E	0°17'49"

LINE TABLE

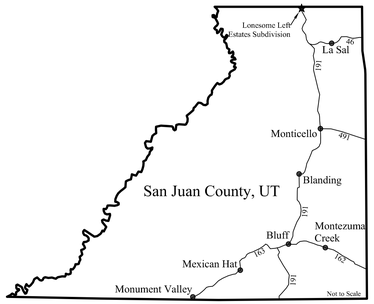
LINE	BEARING	DISTANCE
L1	S22°27'49"E	6.89'
L2	S67°32'11"W	30.00'
L3	N89°59'28"E	47.89'
L4	N00°00'00"E	36.00'
L5	N90°00'00"E	13.24'
L6	S43°29'22"E	53.11'
L7	S34°47'12"E	70.56'
L8	S10°08'34"E	40.68'
L9	S10°40'04"W	36.87'
L10	S43°29'22"E	18.20'
L11	S34°47'12"E	78.27'
L12	S10°08'34"E	51.99'
L13	S10°40'04"W	21.15'
L14	S66°28'56"W	28.72'
L15	S66°53'57"W	27.61'
L16	S66°58'57"W	27.45'
L17	S67°23'58"W	27.00'
L18	S67°28'59"W	26.98'
L19	S67°54'00"W	27.18'
L20	S67°59'00"W	27.28'
L21	S68°24'01"W	28.14'

Project Info.
Surveyor: T. HATCH
Designer: N. ANDERSON
Begin Date: 2-6-2023
Name: HASSEN ESTATES AMENDMENT III
Number: 7374-03
Scale: 1"=40'

Reeve & Associates, Inc.
5160 S 1500 W, RIVERDALE, UTAH 84405
TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve.co

Final Plat
Lonesome Left Estates Subdivision
Amendment No. 6
Within Section 1, T27S, R22E, SLB&M

Vicinity Map



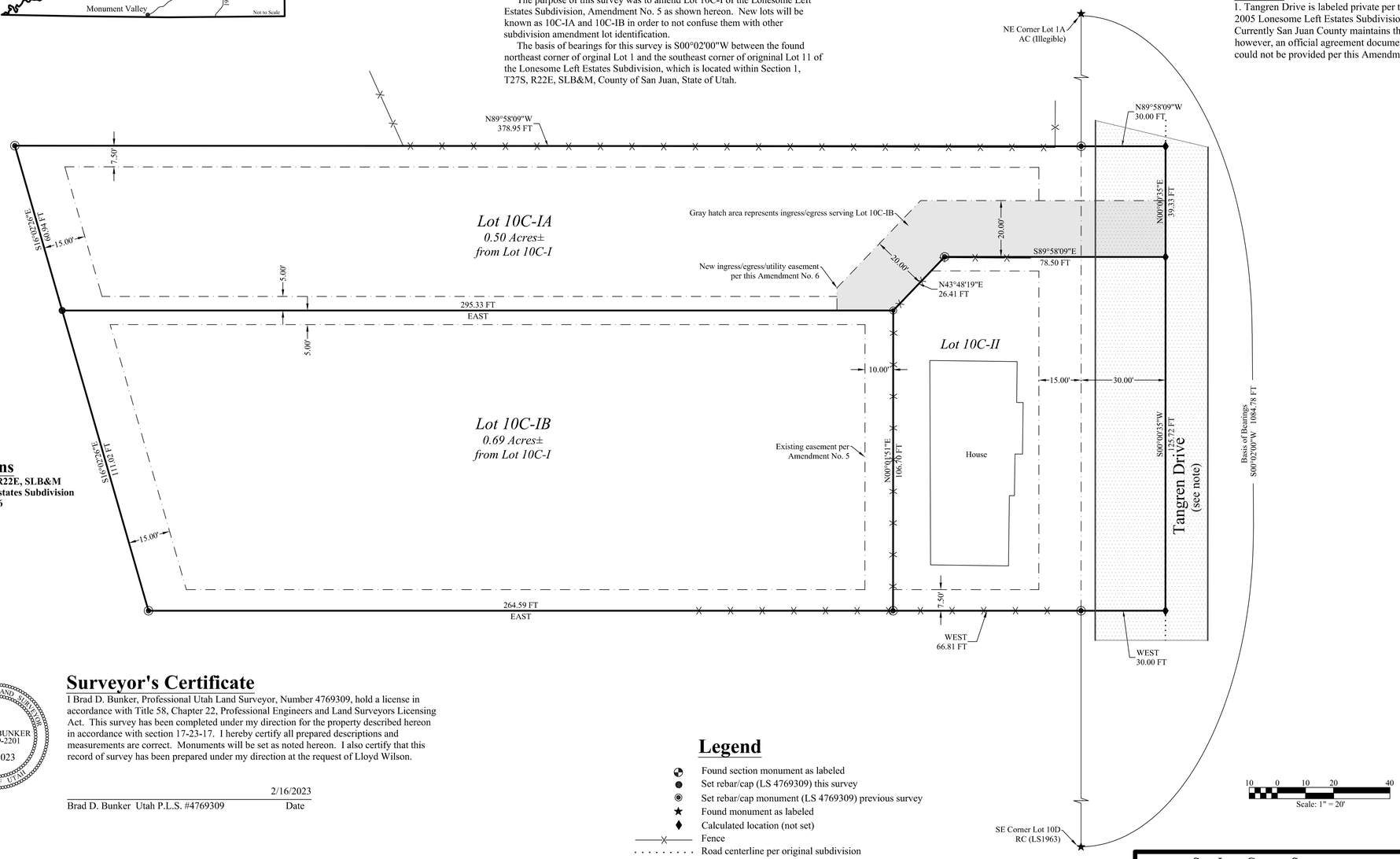
Narrative

The purpose of this survey was to amend Lot 10C-I of the Lonesome Left Estates Subdivision, Amendment No. 5 as shown hereon. New lots will be known as 10C-IA and 10C-IB in order to not confuse them with other subdivision amendment lot identification.

The basis of bearings for this survey is S00°02'00"W between the found northeast corner of orginal Lot 1 and the southeast corner of orignial Lot 11 of the Lonesome Left Estates Subdivision, which is located within Section 1, T27S, R22E, SLB&M, County of San Juan, State of Utah.

Notes

1. Tangren Drive is labeled private per the original 2005 Lonesome Left Estates Subdivision Plat. Currently San Juan County maintains this road, however, an official agreement document reference could not be provided per this Amendment No. 6.



Descriptions

Section 1, T27S, R22E, SLB&M
Lonesome Left Estates Subdivision
Amendment No. 6
Lot 10C-IA
Lot 10C-IB

Surveyor's Certificate

I Brad D. Bunker, Professional Utah Land Surveyor, Number 4769309, hold a license in accordance with Title 58, Chapter 22, Professional Engineers and Land Surveyors Licensing Act. This survey has been completed under my direction for the property described hereon in accordance with section 17-23-17. I hereby certify all prepared descriptions and measurements are correct. Monuments will be set as noted hereon. I also certify that this record of survey has been prepared under my direction at the request of Lloyd Wilson.

PROFESSIONAL LAND SURVEYOR
BRAD D. BUNKER
4769309-2201
2/16/2023
STATE OF UTAH

2/16/2023
Brad D. Bunker Utah P.L.S. #4769309 Date

Legend

- Found section monument as labeled
- Set rebar/cap (LS 4769309) this survey
- Set rebar/cap monument (LS 4769309) previous survey
- Found monument as labeled
- Calculated location (not set)
- Fence
- Road centerline per original subdivision
- Existing and amended utility easement

San Juan County Surveyor

Approval in accordance with information and records on file in this office.

SJC Surveyor Date

Health Department

Approved this ____ Day of _____ 20__.

Health Official

County Recorder

State of Utah, County of San Juan, Recorded at the request of _____

Filed : Date: _____ Time: _____ Fee: _____

Book: _____ Page: _____

County Recorder

Form Approval

Approved this ____ Day of _____ 20__.

Attorney

Owners Dedication

Know all men by these presents that we, the undersigned owners of the above described lots of land, having caused the same to be divided and amended hereafter to be known as the Lonesome Left Estates Subdivision Amendment No. 3.

By: _____

By: _____

In witness whereof I have hereunto set my hand this ____ Day of _____, 20__

Acknowledgement

State of Utah, County of San Juan, on the ____ Day of _____, 20__ personally appeared before me _____ and proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is (are) subscribed to this instrument, and acknowledged that he (she/they) executed the same freely and voluntarily for the purposes stated herein.

My commission expires _____, 20__ Residing in _____ County

Notary Public

San Juan County Planning Commission

Approved by the San Juan County Planning Commission this ____ Day of _____, 20__

Chairman

San Juan County Commission

The amendment hereon was presented to the San Juan County Commission this ____ day of _____, 20__, and was accepted and approved.

Attest _____ Commissioner

Bunker Engineering, LLC

965 South Creek Road, Monticello, UT 84535
P.O. Box 432, Monticello, UT 84535 (435) 459-9152

Date: 4/12/2022 | Drawn By: B.D. Bunker | Scale: 1" = 20' | Sheet: 1 of 1

Drawing Name: Survey Reference Number: BE1292

STAFF REPORT

MEETING DATE: March 9, 2023

ITEM TITLE, PRESENTER: Consideration and Recommendation, Balanced Rock Resort Rezone Application, Jim Schnepel, Gardner Plumb LLC

RECOMMENDATION: Consideration and Recommendation

SUMMARY

This rezone application includes parcels 27S22E063001, 27S23E06300 and 27S23E010001 as shown in the application. The property totals 72.27 acres and is currently in the Spanish Valley Residential District (SVR). The application is to rezone the property to the Spanish Valley Planned Community District (PC), Residential Flex (RF). The application also includes a preliminary Community Structure Plan for a Small Planned Community as outlined in Chapter 10 of the San Juan County Spanish Valley Development Ordinances. In order to qualify for the Small Planned Community the property needs to be 20 acres under single ownership.

This is step one of the PC approval process outlined in Table 2-1. The application provides the necessary information outlined in the table, including the Preliminary Community Structure Plan. (See attached application and PCSP)

The Planning Commission makes a recommendation to the Board of County Commissioners for their approval of the rezone request.

HISTORY/PAST ACTION

San Juan County, Utah
Planning and Zoning
117 S. Main Street
Monticello, UT 84535

REZONE APPLICATION

CONTACT INFORMATION

Property Owner:	Elkin Spielman Charitable Remainder Trust
Contact:	Karl Spielman
Address:	404 W. Main Street, #123, Cortez, CO 81321
Phone:	435-260-1383
Email address:	2karlspielman@comcast.net
Owner Representative:	Gardner Plumb LLC
Contact:	Jim Schnepel
Address:	201 S. Main Street, Suite 2000, Salt Lake City, UT 84111
Phone:	801-231-3666
Email address:	westernlanddev@gmail.com

PROJECT INFORMATION

Planned community name:	Balanced Rock Resort
General location of property:	North end of Spanish Valley
Size of property:	72.27 acres (per the survey)
Current zoning:	SVR
Proposed zoning:	Planned Community District, Small Community, Residential Flex

PROPERTY DESCRIPTION

Parcel 1
27S22E063001
35.92 acres

Parcel 2
27S23E063000
10.01 acres

Parcel 3
27S23E010001
26.34 acres

See Appendix A for a map of the property.

See attached Balanced Rock Resort Conceptual Layout. (230125_Balanced Rock Resort_Conceptual Layout)

SUPPORTING MATERIALS

The attached Preliminary Community Structure Plan (CSP) has additional project information, and a list of the adjacent parcels. (230125_Balanced Rock Resort_Community Structure Plan_preliminary)

NARRATIVE

- The Subject Property falls within the Spanish Valley Ordinances' definition for Central Development Areas:

  > *These are the flattest, least sensitive and easiest-to-develop sites in the Spanish Valley, which makes them suitable for a wide range of residential and park/open space uses. These are the preferred areas for locating higher residential density and mixed-use neighborhood centers, where a mix of residential, locally-scaled commercial and civic services will be provided. 4-5 residential units/ERUs per acre.* [ERU = Equivalent Residential Unit] (p.14)

- The San Juan County Spanish Valley Area Plan (April 17, 2018) recommends that, *"…development should be implemented sequentially from north to south as part of a rational extension of municipal water and sewer services (Phases 1-6)."* (p. 33) The Subject Property lies within Phase 1 of the *SUMMARY OF LAND USE PHASING ASSUMPTIONS* table which anticipates that Phase 1 properties will be developed first, within the next 0-10 years (written in 2018), and that these properties will draw from the existing 5,000 acre-feet of water supply. (p.36)

- This application to rezone approximately 72.27 acres ["Subject Property"] to the Spanish Valley **Planned Community (PC) District, Small Community, Residential Flex** is requested to accommodate a large-scale master-planned development, in accordance with the San Juan County Spanish Valley Development Ordinances of the San Juan County Zoning Ordinance, dated September 13, 2019. ["Spanish Valley Ordinance"]

- According to the Spanish Valley Ordinance,

> *"PC Zone(s) may include residential neighborhoods and subdivisions; neighborhood commercial centers; business, research and educational campuses; highway commercial and flex development areas; and parks and open space with convenient pedestrian access and connections. Individual structures within each PC Zone may contain mixed uses. Permitted densities may be higher than those permitted in surrounding districts."* *(p.14)*

- The Spanish Valley Ordinance lists the permitted uses in the Small Planned Community zone (20-199 acres), which include, among others (pp. 17-18):
  - *"Residential uses of various types and lot sizes including single family detached; single family attached; multifamily residential; town homes; loft apartments; residential units above ground floor retail or office…"*
  - *"Home-based businesses;"*
  - *"Common areas, such as parks, plazas, playgrounds, and trails;"*
  - *"Open space, including landscaped areas and areas in natural vegetation, waterways, parks, trails and recreational areas;"*
  - *"Other accessory uses which are ancillary and designed to serve the foregoing uses."*

- The Spanish Valley Ordinance states that the conditional uses in the Small Planned Community zone as:

> "*The PC Zone Plan or Community Structure Plan may include provisions for specific land uses identified as either a permitted or a conditional use within a given PC Zone and may include uses listed elsewhere in this chapter or additional uses."* (p. 18)

- The proposed permitted and conditional uses for the Balanced Rock Resort (Subject Property) include a range of lots consisting of single family, duplex, live/work/play townhomes or condominiums ["condos"], and a lodge (up to 130 rooms). (Depending on market conditions, the lodge lot may be converted to lots for condos or apartment building(s), and/or to the other uses listed above.)

Land Use Table: Permitted and Conditional Uses

PERMITTED USES	CONDITIONAL USES	NOTES
	Lodge	Up to 130 rooms
Single-Family		
Duplex		
Townhomes/Condos		Live/Work/Play

- The rezone would allow for a density of up to 4 units/ERUs[1] per acre, which is approximately 289 units given the 72.27 acres. (A later application may be submitted to develop under the PUD ordinance, which could provide a density bonus if it is needed.[2])

- The current preliminary layout includes a mix of single-family lots, duplex lots, live/work/play townhome/condo lots, and a lodge lot (up to 130 rooms). It will have open space with trails, as well as a community clubhouse with a pool, pickleball and tennis courts (which will also have basketball standards), a playground and other amenities.

- During discussions with the Planning and Zoning department, as well as by analyzing similar approaches in other municipalities, the number of lodge rooms may be converted to an equivalent number of units (ERUs) based on their being smaller in size than typical residential units, and due to their being occupied at a lower occupancy rate.

Land Use Table: Acres and Density (maximum density)

ACRES	MAXIMUM SQ. FT. NON RESIDENTIAL*	MAXIMUM UNITS/ROOMS	MAXIMUM ERUs**	DESCRIPTION
72.27			289	Number of units/ERUs allowed at 4 units/acre density***
33.10		250	250	Single-family, duplex, work/play townhomes/condos
5.00	45,000	130	39	130 Lodge rooms convered to units at 30% rate
			289	*Total ERUs*
3.06				Community space, including clubhouse and grounds
	5,800			Clubhouse (acres are noted above)
16.6				Open space

*** The Lodge maximum square footage figure is for the main level. It is anticipated to have additional levels.**
**** ERUs = Equivalent Residential Units**
***** The Central Development Areas allow for "4-5 residential units/ERUs per acre."**
(Due to some ambiguity in the Spanish Valley Ordinances, 5 units/ERUs per acre may be permitted in the PC Residential Flex zone. If needed, the applicant may apply to obtain a bonus density under the PUD ordinance.)

- The major utilities (gas, water, sewer, electric) are at, or near, the property boundary. (Depending on the power needs of the lodge there may be an option to reimburse the county for some of the expenses paid to install the 3-phase power to the Special Service District culinary well.)

APPLICANT STATEMENT

The applicants submit this request for a rezone with the intent of using the Small Planned Community Residential Flex zone to master plan a resort-style community. We believe that the type of real estate product mix we are proposing will hold high appeal to the types of residents and visitors who want to be in the Moab area. Our goal is to create a quality resort community that will reflect positively on San Juan County.

We plan to continue to work with SITLA and other landowners to ensure that our designs harmonize with the future developments planned for neighboring areas.

The Gardner Plumb group has a strong history of building high-quality communities and looks forward to bringing this resort to fruition.

For the Elkin Spielman Charitable Remainder Trust

Karl Spielman trustee 01/25/23

Karl Spielman Date

Melinda Elkin trustee 01/25/23

Melinda Elkin Date

For Gardner Plumb LLC

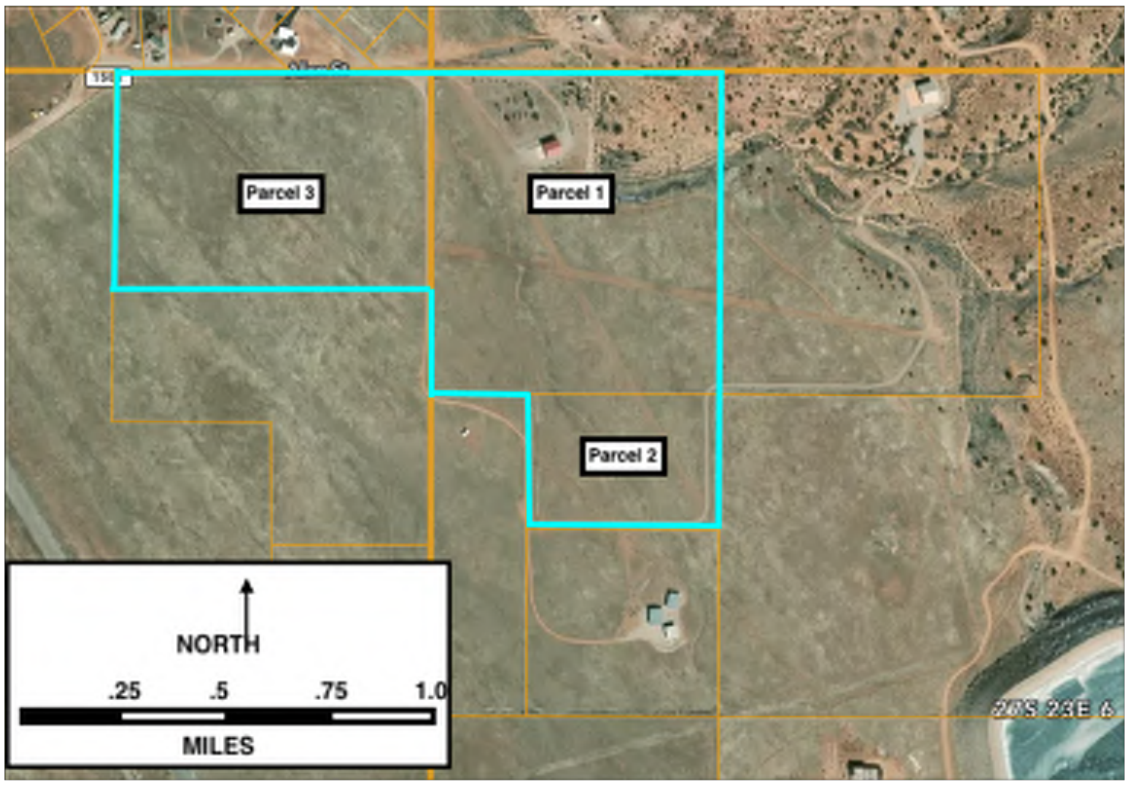
01/25/23

Walter J Plumb III Date

NOTES:

1. The density for the zone may be 4-5 units/ERUs rather than the 4 units/ERUs used in the table. The Spanish Valley Ordinances state that 4-5 units/ERUs per acre are allowed in the Central Development Areas. (p.14) It further states that 4-5 units/ERUs per acre are allowed in the three Flex Development Areas. (p.15) And, later states that 4 units per acre are allowed in a Small Planned Community. (p.16)
2. The San Juan County Utah Zoning Ordinance (Amended Sept. 2011) states: "Planned unit developments may be allowed by Planning Commission Approval in any zoning district." (p.29)

Exhibit A



Community Structure Plan

(preliminary)

Spanish Valley
San Juan County, Utah

January 25, 2023

Introduction

The Gardner Plumb group proposes to develop approximately 72.27 acres of land that is currently owned by the Elkin Spielman Charitable Remainder Trust. The land is located on the north end of Spanish Valley, in San Juan County, and is generally very flat. This preliminary Community Structure Plan (CSP) outlines our vision for the Balanced Rock Resort community we plan to build.

Please reference the Balanced Rock Resort conceptual plan as you read through the following pages. (230125_Balanced Rock Resort_Conceptual Layout)

1. Name of Planned Community

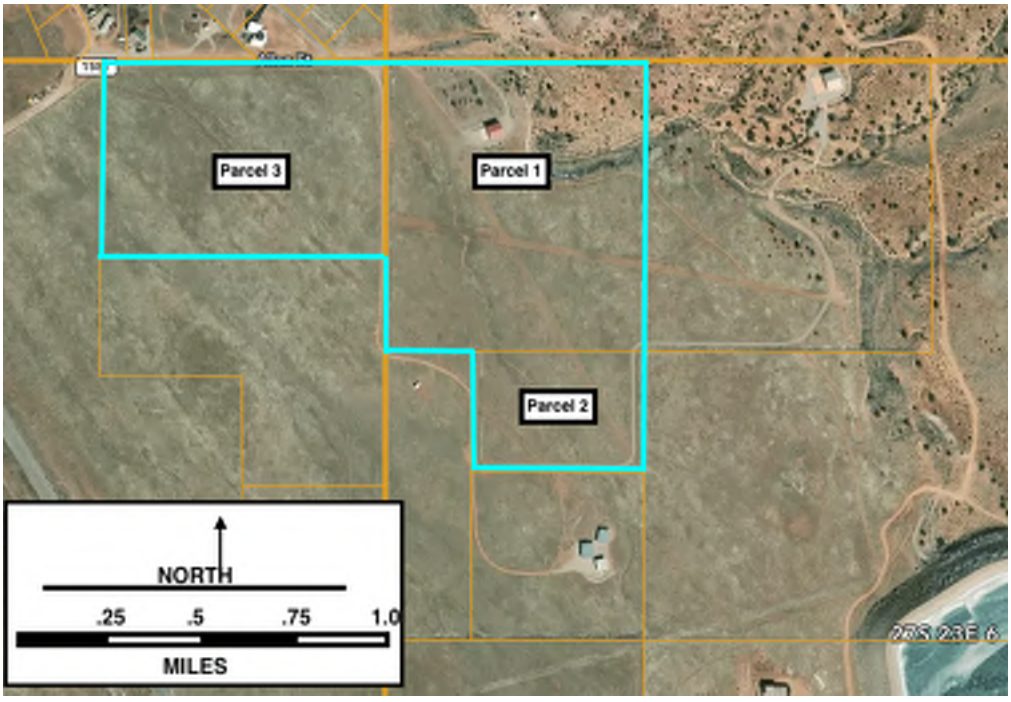
Balanced Rock Resort

2. Name, Address, and Phone Number of Applicant and Property Owner

Property Owner: Elkin Spielman Charitable Remainder Trust
Karl Spielman and Melinda Elkin
404 W. Main Street, #123
Cortez, CO 81321
435-260-1383

Applicant: Gardner Plumb LLC
Jim Schnepel
201 S. Main Street, Suite 2000
801-231-3666

3. CSP Location, Legal/Boundary Description and Acreage



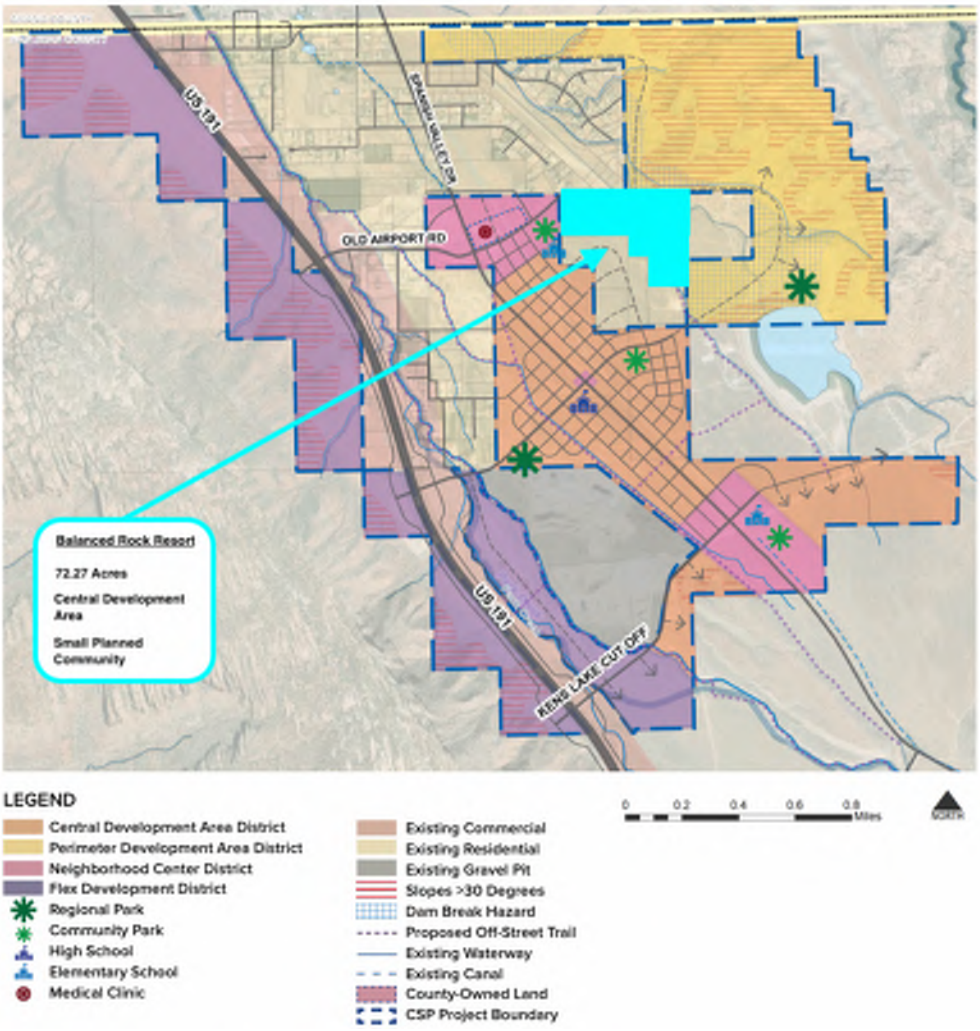
Parcel 1:
Township 27 South, Range 23 East, SLBM
Section 6: Lot 2
Parcel No: 27S23E063001

Parcel 2:
Beginning at a point which is South 89° 55' East 391.9 feet and North 767.4 feet from the West ¼ corner of Section 6, Township 27 South, Range 23 East, SLM, and proceeding thence North 552. 7 feet to a corner, thence South 89°57' East 788.1 feet to a corner, thence South 552.7 feet to a corner, thence North 89° 57' West 788. 1 feet to the point of beginning
Parcel No. 27S23E063000

Parcel 3
Beginning at the Northeast corner of Section 1, Township 27 South, Range 22 East, SLM, and proceeding thence with the East line of said Section 1, South 0° 04' West 867.3 feet to a corner, thence South 89° 56' West 1321.3 feet to a corner, thence North 0° 04' East 869.4 feet to a corner, thence with the North line of said Section 1, South 89° 56' East 1321.3 feet to the point of beginning.
Parcel No. 27S22E010001

4. Proposed Land Use District Boundaries and Acreages

This map was taken from SITLA's South Valley Community: Community Structure Plan (August 2, 2022) and modified to illustrate how a rezone will correlate with what is planned for the greater area.



5. Maximum Number of Dwelling Units and Acreages

These tables describe the general land uses, acreages, and assumptions for the CSP.

Land Use Table: Acres and Density (maximum density)

ACRES	MAXIMUM SQ. FT. NON RESIDENTIAL*	MAXIMUM UNITS/ROOMS	MAXIMUM ERUs**	DESCRIPTION
72.27			289	Number of units/ERUs allowed at 4 units/acre density***
33.10		250	250	Single-family, duplex, work/play townhomes/condos
5.00	45,000	130	39	130 Lodge rooms convered to units at 30% rate
			289	*Total ERUs*
3.06				Community space, including clubhouse and grounds
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16.6				Open space

* The Lodge maximum square footage figure is for the main level. It is anticipated to have additional levels.
** ERUs = Equivalent Residential Units
*** The Central Development Areas allow for "4-5 residential units/ERUs per acre."
(Due to some ambiguity in the Spanish Valley Ordinances, 5 units/ERUs per acre may be permitted in the PC Residential Flex zone.
If needed, the applicant may apply to obtain a bonus density under the PUD ordinance.)

Land Use Table: Floor Area Rations (FAR), and Acres by Lot Type (based on the conceptual layout)

LOT TYPE	QTY	BUILDING FOOTPRINT SF	TYPICAL LOT SF	FAR	TOTAL ACRES BY LOT TYPE	LOT TYPE AS % OF TOTAL ACRES*	NOTES
Single-Family "5k SF Lots"	46	2,200	5,000	44%	6.3	9%	
Single-Family "10k SF Lots"	46	3,500	10,000	35%	10.9	15%	
Single-Family "12k SF Lots"	6	3,500	12,000	29%	1.7	2%	
Single-Family "Hangar Lot"	1	5,865	37,026	16%	0.9	1%	The addition of a single-family house is planned for this lot
Duplex	42	2,800	10,450	27%	10.4	14%	There will be 2 living units per lot, for a total of 84 units
Live, Work, Play Townhomes	34	2,400	4,400	55%	2.9	4%	
					32.1	*46%*	*Totals*
Lodge	1	45,000	152,024	30%	5.0	7%	The Lodge lot is 3.49 acres. (There is also a separate lot for parking.)
Clubhouse	1	5,800	133,294	4%	3.1	4%	
Open Space	MISC.				16.617	23%	
RV Parking	MISC.				1.08	1%	
Streets	MISC.				13.43	19%	

* Total acres of project: 72.27

Note: The conceptual layout has 175 residential lots, for a total of 217 dwelling units (there will be two units on each duplex lot.)

6. Master Circulation System Plan

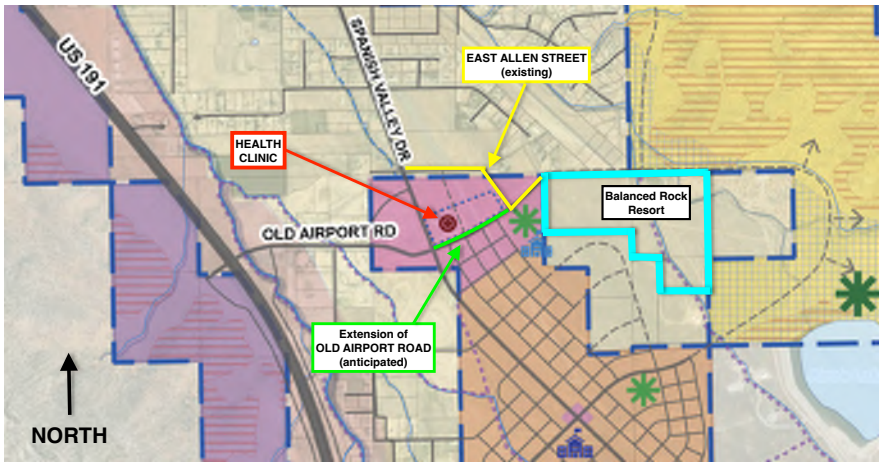
Existing Transportation System

The Spanish Valley area is primarily served by US-191 and Spanish Valley Drive. The property being proposed for the Balanced Rock Resort community currently is accessed by East Allen Street, which is a county road that goes from Spanish Valley Drive to the property boundary.

Future Transportation System

It is anticipated that in the future the Balanced Rock Resort community will primarily be accessed via a new road which will be an extension of Old Airport Road, which currently goes from US-191 to Spanish Valley Drive. One half of this future road extension has been identified along the south edge of the 10 acres that the county owns just east of Spanish Valley Drive (where the health clinic is located). SITLA has committed to provide the other

half of the land needed in the Purchase and Sale Agreement that covered the acquisition of the 10 acres by the county. This future road is shown in SITLA's latest plan and will connect to the eastern part of East Allen Street. Once completed, it will provide residents a direct route to Spanish Valley Drive and US-191.



The Balanced Rock Resort will also connect to adjoining land, with roads being planned to access properties to the east, west and south (where another subdivision is being planned). We strongly believe in coordinating with other landowners to ensure that roadways will effectively serve existing and future land uses.

The conceptual plan for the Balanced Rock Resort community shows proposed road alignments, ROW widths, and trails (for pedestrians and bicyclists) that will connect residents and the community to open spaces, and neighboring properties. It was designed to work with SITLA's most recent plan.

7. Water Sources, Flood Control, and Major Utilities and Easements

Major utilities run along the north border of the property, including water, sewer, and electricity. Natural gas is at the northwest property corner, and a smaller gas line (not adequate to serve the new development) runs to an existing structure. Please refer to Exhibit A.

It is anticipated that culinary water and sanitary sewer services will be provided through the San Juan Spanish Valley Special Service District. The property falls within that area that The San Juan County Spanish Valley Area Plan (April 17, 2018) identified as being the first phase

of development for the area, and that it would draw from the existing 5,000 acre-feet of water supply. The project has received an initial approval that the Special Service District will be able to provide service (see Exhibit B).

Please refer to the conceptual plan for the Balanced Rock Resort to see other easements that affect the property. We plan to work with the neighboring property owners who benefit from those easements to work on realignments of the easements that currently interfere with the development of the project.

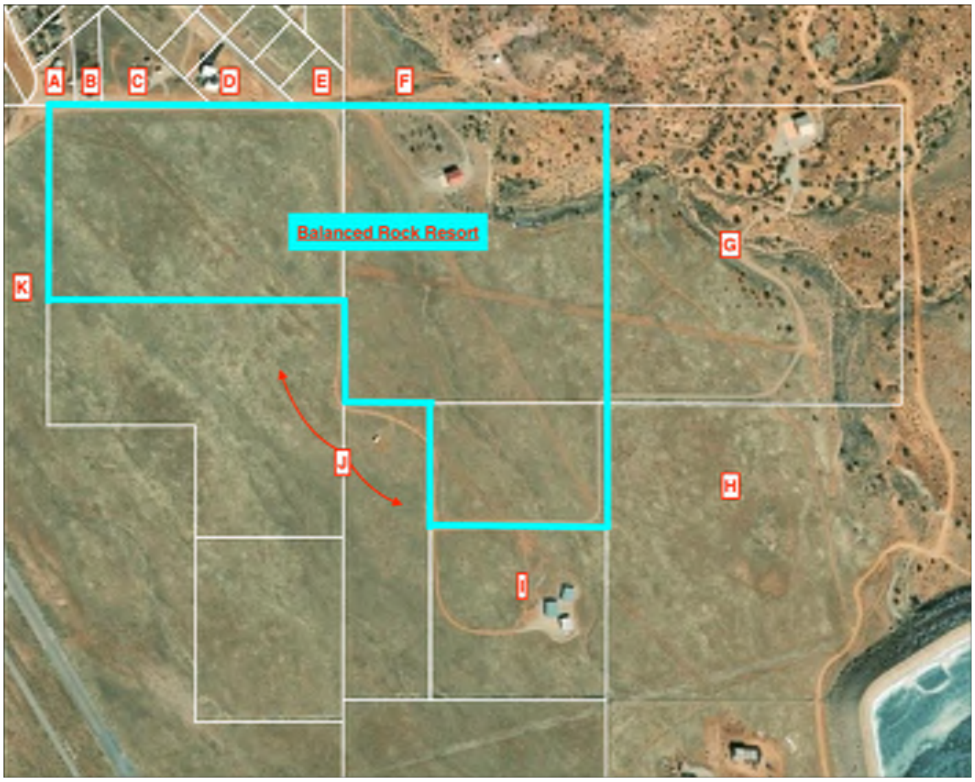
There is an existing well identified on the conceptual layout. Water from the well may be used for irrigation, at least initially to help establish new plants and trees.

The conceptual plan includes measures to mitigate surface and storm water. Low Impact Design (LID) storm water practices shall be required wherever possible.

There are no known FEMA designated flood zones for the property.

8. Adjacent Parcels

This map and table show the adjacent parcels, their owners, and their uses.



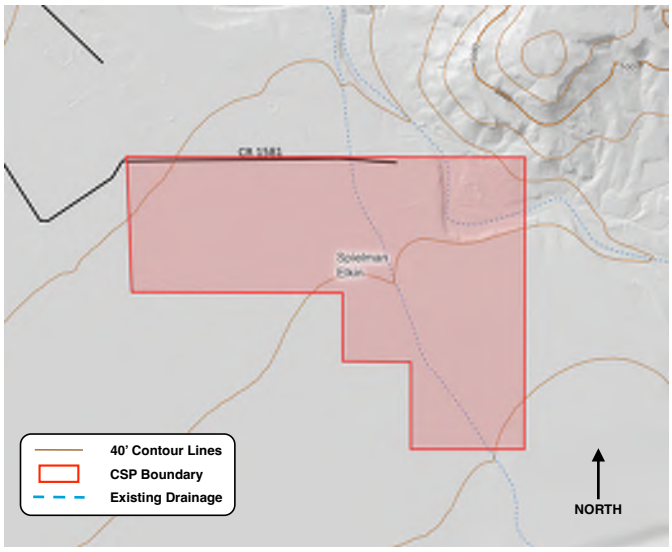
MAP IDENTIFIER	PARCEL NUMBER	USE	OWNER
A	000450000030	One house	Ronald Tazz Robinson and Kellie Warden
B	000450000040	One house	James Peter Patterson; Kimberly J Jacobs
C	000450000050	One house	James Peter Patterson; Kimberly J Jacobs
D	000640000050	One house	Business Resolutions, LLC
E	640000010	Vacant	Business Resolutions, LLC
F	T26S R23E	Vacant*	SITLA
G	27S23E062400	Hangar	Stephen P & Kathleen M Johnston
H	T27S R23E	Vacant*	SITLA
I	27S23E063600	One house	Timothy & Beverly B O'Neill
J	27S22E010002	Vacant*	B & B Thomas LLC
K	T27S R22E	Vacant*	SITLA

* Owner intends to develop the property

9. Topography and Form

The following map shows the 40-foot contours and significant topographic features within or adjacent to the CSP property. A more detailed topographic map can be found in the conceptual layout.

Most of the property is relatively flat, or moderately sloped, and is conducive to development. The high hill to the northeast provides some natural isolation to that area of the property.



10. Existing and Proposed Secondary Water Rights, Shares and Usage

This table shows the existing water rights that are within the CSP boundary. It is anticipated that the project will use water from the existing well for irrigation.

STATUS	WATER RIGHT	ACRE FEET	EXISTING USE	FUTURE USE
EXISTING	05-2779	6.73	Irrigation and culinary	Irrigation
EXISTING	05-2730	19.374	Irrigation and culinary	Irrigation

11. Open Space Plan

As is shown on the conceptual plan, there is approximately 16.6 acres of open space designed into the community. This represents about 23% of the entire property that will be available for residents and visitors to enjoy. We are planning to add a network of trails in the open space.

The open space is primarily broken into two major areas, with the first (approximately 8 acres) running north-south following a natural drainage through the heart of the development, and the second (approximately 7 acres) sited in the northeast corner of the property where greater privacy will be felt.

See Exhibit C for a map showing the open space.

12.Major Public Infrastructure Standards

Streets
All streets will be paved and will meet the county's road specs. The street rights-of-way are fifty feed wide. We do not anticipate including street furniture.

Sidewalks/Trails
To maintain an essence of the rural feel of Spanish Valley the streets and lots have been purposefully designed to not have sidewalks. There will be a network of trails for residents and visitors to enjoy sited in the open spaces. The trails within the central open space will be approximately 5-6' wide and will be finished with crushed gravel to ensure durability. The trails in the northeast portion of the property will follow a more natural style and will be more of a hiking path that you would find in a wilderness setting. There will be some benches provided along the trails.

Community Lighting
Dark sky preservation will be the prevailing theme. Limited public lighting will be provided. All lighting will be high quality and commercial grade, "Dark Sky" compliant, and will meet the requirements in the county code.

Clubhouse and Grounds

The clubhouse and associated amenities will be built early in the development of the project. On approximately 3 acres there will be a clubhouse, pool, pickleball and tennis courts (which may double as a basketball court), and a playground. The proposed locations are shown on the conceptual plan. Following, are photos of some amenities we built for a community we developed in St. George, UT:

13. Building Standards

Architectural Form

To create a community that fits into the natural environment and setting, the Balanced Rock community will advance architectural design standards that will create a cohesive-looking community. The design standards will apply to single-family, duplexes, townhomes (live/work/play), clubhouse and lodge.

Currently the Modern Desert style of architecture best captures our vision for the look and feel we like for the community. Here are some examples of the style:

The design, but not the Modern Desert style, of the live/work/play townhomes is represented by this photo:

The use of appropriate exterior materials for all structures will be chosen regarding colors that fit into the desert landscape, and for their permanence and resilience for maintenance.

Structure setbacks will conform with San Juan County codes.

Plumbing, maintenance, and mechanical equipment should be located on the interior of buildings whenever possible. If it is necessary to locate such features outside of building or on roofs, they should be screened using parapet walls, high-quality site walls, and other screening methods that match the quality and look of the structure.

Walls and Fencing
To maintain as sense of open space and community, the use of walls to separate lots will be discouraged unless they are made of high-quality materials (concrete, stone, adobe, etc.) and built with changes in height or other design features to enhance architectural interest. Fences, if any, will be made of metal (wrought iron or similar) or wood of a design that falls within the Modern Desert theme. Plastic/vinyl and chain-link fencing will not be allowed.

RV/Trailer Parking
Residents and visitors will be encouraged to park RVs and trailers in the provided parking lot.

Landscaping and Irrigation
Water-wise landscaping will be mandated and will follow the Spanish Valley Water Efficient Landscape ordinance to ensure that the water resources available in the region are used wisely and conserved. It is anticipated that the minimal landscaping that will be required near the clubhouse will be drawn from the existing well and the water rights associated with it.

All areas of lots and parcels not designated for open space, parking, buildings, or other hard surfacing shall be landscaped and properly maintained. The well water will be used to help establish drought tolerant plants and shrubs.

Designated open space shall remain in a natural condition ad properly maintained. A small grass area may be planted in the immediate area of the playground and pool area.

Maintenance

The applicable owners shall properly maintain all private areas of individual lots or parcels.

A Homeowners Association (HOA) will be established to manage the maintenance of all common area improvements including buildings, open space, recreational facilities, roads, fences/walls, utilities, landscaping, walkways, streetlights, and signs not specifically dedicated to or accepted for ownership or maintenance by San Juan County or other incorporated entity. The HOA will collect fees from lot owners to cover these costs.

EXHIBIT A

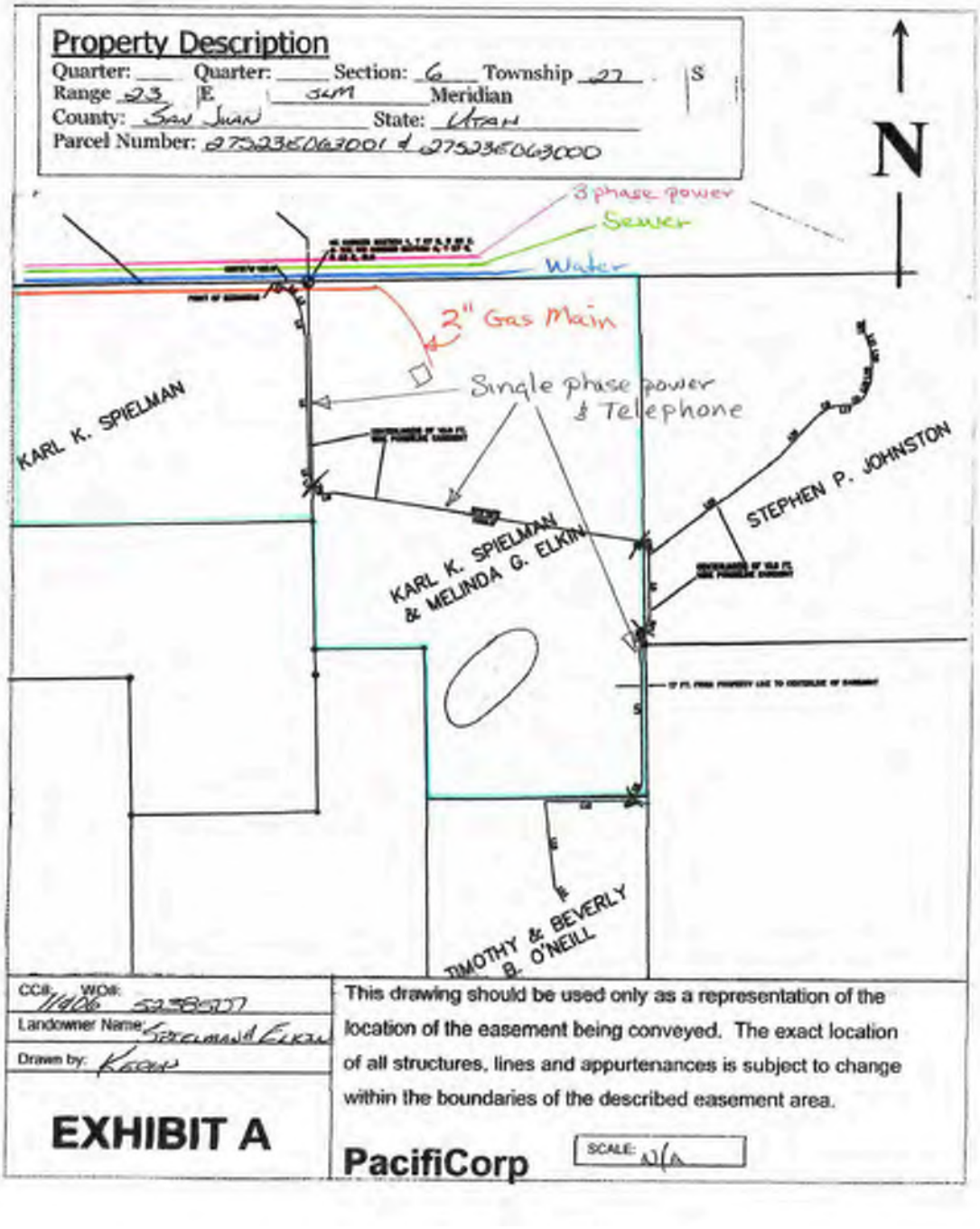

Property Description
Quarter: ___ Quarter: ___ Section: 6 Township 27 S
Range 23 E SLM Meridian
County: San Juan State: Utah
Parcel Number: 027523506300I & 027523506300O
N
3 phase power
Sewer
Water
2" Gas Main
Single phase power & Telephone
KARL K. SPIELMAN
KARL K. SPIELMAN & MELINDA G. ELKIN
STEPHEN P. JOHNSTON
TIMOTHY & BEVERLY B. O'NEILL
CC#: 11406 WO#: 5258977
Landowner Name: Spielman & Elkin
Drawn by: Kasey
EXHIBIT A
This drawing should be used only as a representation of the location of the easement being conveyed. The exact location of all structures, lines and appurtenances is subject to change within the boundaries of the described easement area.
PacifiCorp
SCALE: N/A

EXHIBIT B

San Juan Spanish Valley Special Service District

64 E Tangren Ln – 375 S Main St #234 – Moab, UT 84532
435-459-4121

Date: January 30, 2023

Property Owner: Elkin Spielman Charitable Remainder Trust

Mailing Address: 404 W. Main Street, #123

City: Cortez State: Colorado Zip: 81321

Phone: 435-260-1383

E-Mail: 2kartspielman@comcast.net

Contact Person(if Different): Jim Schnepel

Contact Phone: 801-231-3886 jbschnepel@yahoo.com

Property Developer
Gardner Plumb LLC
201 S. Main Street, Suite 2000
SLC UT 84111

Development Name
Balanced Rock Resort

Service Address: 185 S. Plainsfield Drive, Spanish Valley

Parcel Number: 27S23E063001, 27S23E063000, 27S22E013001

Requested Services: Sewer and Water service

Project Type (Residential Commercial Industrial)

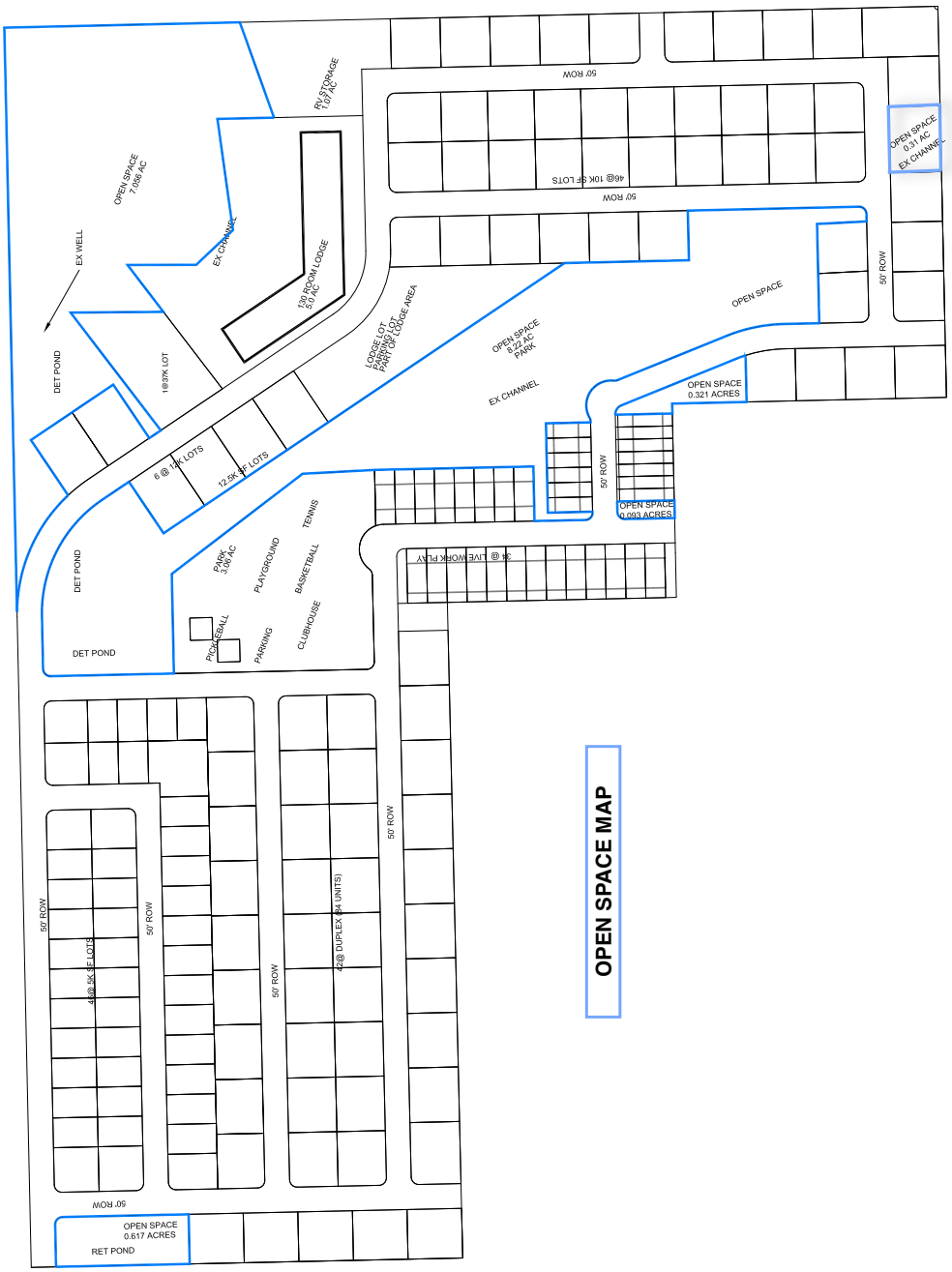
Meter Size Requested: Various

Need Service For
216 Residential Units:
98 Single Family Houses
84 Duplex Units (42 buildings)
34 Townhomes (Live/Work/Play)
216 Total
130 Lodge Rooms

Authorized Signature: _____ Date: January 23, 2023

This approval is A PRELIMINARY proof of service availability. SJSVSSD REQUIRES A WILL SERVICE APPLICATION, FEE AND DEVELOPMENT REVIEW PRIOR TO FINAL APPROVAL

EXHIBIT C


OPEN SPACE MAP
RV STORAGE
1.07 AC
60' ROW
OPEN SPACE
0.31 AC
EX CHANNEL
OPEN SPACE
7.059 AC
EX CHANNEL
46@ 10K SF LOTS
60' ROW
EX WELL
130 ROOM LODGE
1.5 AC
50' ROW
OPEN SPACE
LODGE LOT
PARKING
PART OF LODGE AREA
OPEN SPACE
8.2 AC
PARK
DET POND
18@7K LOT
EX CHANNEL
OPEN SPACE
0.321 ACRES
6 @ 7K LOTS
12.5K SF LOTS
50' ROW
OPEN SPACE
0.093 ACRES
TENNIS
PARK
3.00 AC
PLAYGROUND
BASKETBALL
24' @ LIVE WORK PLAY
DET POND
PICKLEBALL
PARKING
CLUBHOUSE
DET POND
50' ROW
50' ROW
50' ROW
42@ DUPLEX (84 UNITS)
50' ROW
40@ 5K SF LOTS
60' ROW
OPEN SPACE
0.617 ACRES
RET POND

ALTA/NSPS LAND TITLE SURVEY

LOCATED WITHIN THE NORTHEAST QUARTER OF
SECTION 1, T27S, R22E, &
THE NORTHWEST QUARTER OF SECTION 6, T27S, R23E,
SLB&M

VICINITY MAP

NOT TO SCALE

RED DESERT Land Surveying

88 East Center Street
Moab, UT 84532
435.259.8171

STANDARD LEGEND

- PROP. CORNER FOUND
- PROP. CORNER SET
- MAG NAIL FOUND
- MAG NAIL SET
- BLOCK CORNER
- CENTERLINE MONUMENT
- POWERPOLE
- GUY WIRE
- POWER LINE
- LIGHT POLE
- ELECTRIC METER
- ELECTRIC BOX
- GENERATOR
- (R) RECORD DATA
- (M) MEASURED DATA
- (C) CALCULATED DATA
- WATER LINE
- WATER VALVE
- WATER METER
- WATER MANHOLE
- HYDRANT
- TELEPHONE PEDESTAL
- GAS METER
- GAS VALVE
- GAS LINE
- CABLE PEDESTAL
- STOP SIGN
- FENCE
- ASPHALT
- SAN. SEWER LINE
- CLEAN OUT
- EASEMENTS

PROJECT TYPE:
ALTA/NSPS LAND SURVEY

PROJECT ADDRESS:
71.81 Acre T27S, R22E,
Sec 1 and Sec 6, UT
Moab, Utah 84532

PROJECT LOCATION:
SAN JUAN COUNTY, STATE OF UTAH

PREPARED FOR:
Gardner Plumb, LLC

SHEET
1 OF 2

DATE OF PLAT MAP: 11/19/22
DATE OF PLAT MAP REVISION:

JOB NUMBER:
197-22

NOTES CORRESPONDING TO SCHEDULE B-II

AS PER COMMITMENT NO. 14692 DATED August 17,2022 at 8:00 A.M.

1-13. *NOT A SURVEY MATTER

14. All easements, rights-of-way, reservations and restrictions, however evidenced, as set forth in instruments of record including, but not limited to, the following:
   a. warranty Deed from William Thomas and Betty E. Thomas to Melinda G. Elkin dated April 30, 1998 and recorded May 12, 1998 in Book 768 at page 368, Entry No. 055172.
   b. warranty Deed from R. Eugene Robertson to Melinda G. Elkin dated May 5, 1998 and recorded May 12, 1998 in Book 768 at page 369, Entry No. 055173.
   c. Warranty Deed from Norma E. Robertson to Melinda G. Elkin dated May 7, 1998 and recorded May 12, 1998 in Book 768 at page 370, Entry No. 055174.
   d. Quitclaim Deed from Melinda G. Elkin to Melinda G. Elkin, et ux., dated April 30, 1998 and recorded May 12, 1998 in Book 768 at page 371, Entry No. 055175.
   e. Quitclaim Deed form Melinda G. Elkin, et ux., to Karl K. Spielman and Melinda G. Elkin, Trustees under the Spielman and Elkin Revocable Trust dated June 14, 1999; dated July 1, 1999 and recorded July 8, 1999 in Book 779 at page 725, Entry No. 058846.
   f. Quit-Claim Deed from Norma J. Robertson, et ux., to Norma Robertson dated May 16, 2001 and recorded may 21, 2001 in Book 795 at page 214, Entry No. 063689.
   g. Quitclaim Deed from Norma E. Robertson, et al., to Norma E. Robertson dated July 17, 2001 and recorded August 17, 2001 in Book 797 at page 756, Entry No. 064380.
   h. Warranty Deed from Norma E. Robertson to Karl K. Spielman dated August 13, 2001 and recorded August 17, 2001 in Book 797 at page 759, Entry No. 064381.
   i. Quitclaim Deed from Norma E. Robertson, et al., to R Eugene Robertson dated July 17, 2001 and recorded September 4, 2001 in Book 798 at page 298, Entry No. 064505.
   j. Warranty Deed from R Eugene Robertson to Karl K. Spielman and Melinda G. Elkin, Trustees under the Spielman and Elkin Revocable Trust dated June 14, 1999; dated December 16, 2002 and recorded December 20, 2002 in Book 811 at page 362, Entry No. 067840.
   k. Quit Claim Deed from Karl K. Spielman to Karl K. Spielman and Melinda G. Elkin, Trustees under the Spielman and Elkin Revocable Trust dated June 14, 1999; dated August 4, 2011 and recorded August 11, 2011 in Book 931 at page 831, Entry No. 113908.
   l. Quitclaim Deed from Karl K. Spielman and Melinda G. Elkin, trustees of the Spielman and Elkin Revocable Trust dated June 14, 1999, and Karl Spielman, individually, and Melinda Elkin, individually to Melinda G. Elkin and Karl K. Spielman, trustees of the Elkin Spielman Charitable Remainder Trust dated May 4, 2018; dated August 11, 2022 and recorded August 11, 2022 in Book 1084 at page 242, Entry No. 171088.
   *SURVEY FINDINGS: EASEMENTS PLATTED AND LABELED
15. Cross Easement Agreement between Karl K. Spielman and Melinda G. Elkin, Trustees under the Spielman and Elkin Revocable Trust dated June 14, 1999 and Timothy O'Neil and Beverly B. O'Neil executed April 18, 2003 and recorded April 22, 2003 in Book 814 at page 836, Entry No. 068806 and Declarations of Covenants, Commitments and Restrictions executed by Karl K. Spielman and Melinda G. Elkin, trustees of the Spielman and Elkin Revocable Trust dated June 14, 1999, et al., dated May 26, 2006 and recorded May 31, 2006 in Book 855 at page 268, Entry No. 85829.
   *SURVEY FINDINGS: EASEMENTS PLATTED AND LABELED
16. Easement from Karl Spielman and Melinda G. Elkin, Trustees under the Spielman and Elkin Revocable Trust dated June 14, 1999 to Stephen Johnston, trustee of the Stephen P. Johnston Revocable Trust dated April 2, 1998; dated May 19, 2006 and recorded May 19, 2006 in Book 855 at page 23, Entry No. 085734.
   *SURVEY FINDINGS: EASEMENT PLATTED AND LABELED
17. The easements and all agreements and other provisions set forth in the Easement executed by the State of Utah, by and through the School and Institutional Trust Lands Administration, as grantor and RD. Carroll as grantee dated February 28, 1996 and recorded August 28, 1997 in Book 769 at page 2, Entry No. 1 K002930.
   *SURVEY FINDINGS: CENTERLINE PLATTED AND LABELED
18. The easements and all agreements and other provisions set forth in the Agreement for grant of, use of and Approval of Easement executed by RD. Carroll, grantor and R Eugene Robertson, et al., as grantees, and approved by State of Utah School and Institutional Trust Lands Administration dated April 30, 1998 and recorded May 12, 1998 in Book 768 at page 348, Entry No. 1 K005170.
   *SURVEY FINDINGS: CENTERLINE PLATTED AND LABELED
19. The easements and all agreements and other provisions set forth in the following:
   a. Easement executed by the State of Utah, by and through the School and Institutional Trust Lands Administration, as grantor and The Spielman & Elkin Revocable Trust, Attn: Karl Spielman & Linda Elkin, as grantee dated September 21, 2004 and recorded December 22, 2004 in Book 833 at page 125, Entry No. 074815.
   b. Amendment no. 1 to the Right of Way No. 837 executed by the State of Utah, by and throught the School and Institutional Trust Lands Administration, as grantor and the Spielman & Elkin Revocable Trust, Attn: Karl Spielman 438-442, Entry No. 17816
   *SURVEY FINDINGS: EASEMENT PLATTED AND LABELED
20. All easements granted to PacifiCorp, its successors and assigns, including, but not limited to, the following:
   a. Underground Right of Way Easement from Karl K. Spielman dated January 26, 2009 and recorded February 3, 2009 in Book 904 at page 472, Entry No. 106345.
   b. Underground Right of way Easement from Karl K. Spielman and Melinda G. Elkin dated January 26, 2009 and recorded February 3, 2009 in Book 904 at page 475, Entry No. 106346.
   *SURVEY FINDINGS: EASEMENTS PLATTED AND LABELED
21. *NOT A SURVEY MATTER
22. Claims that any portion of the Land is covered by a public street, road or easement.
   *SURVEY FINDINGS: NO PUBLIC STREETS COVER SUBJECT PARCEL BUT PUBLIC UTILITY LINES LOCATED WITH SURVEY
23. Access and rights of ingress and or egress from a dedicated street or highway are not disclosed of record, and such rights will be excluded from the coverage of our Policy.
   *SURVEY FINDINGS: NOT A SURVEY MATTER
24. *NOT A SURVEY MATTER

SURVEYOR'S CERTIFICATION

TO: STEWART TITLE GUARANTY COMPANY, A TEXAS CORPORATION; ANDERSON-OLIVER TITLE INSURANCE AGENCY, INC.; GARDNER PLUMB, LLC; MELINDA G. ELKIN AND KARL K. SPIELMAN, TRUSTEES OF THE ELKIN SPIELMAN CHARITABLE REMAINDER TRUST DATED MAY 4, 2018;
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7a, 8, 9, 11a, 13, 16 & 19 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON OCT. 25, 2021

FIELD SURVEY: Lucas Blake License No. 7540504

Lucas Blake
License No. 7540504

LICENSED PROFESSIONAL LAND SURVEYOR
NO. 7540504
LUCAS BLAKE
STATE OF UTAH

11/19/22
DATE

LEGAL DESCRIPTION

Parcel 1:
Township 27 South, Range 23 East, SLBM
Section 6: Lot 2
Parcel No: 27S23E063001

Parcel 2:
Beginning at a point which is South 89° 55' East 391.9 feet and North 767.4 feet from the West ¼ corner of Section 6, Township 27 South, Range 23 East, SLM, and proceeding thence North 552. 7 feet to a corner, thence South 89°57' East 788.1 feet to a corner, thence South 552.7 feet to a corner, thence North 89° 57' West 788. 1 feet to the point of beginning
Parcel No. 27S23E063000

Parcel 3:
Beginning at the Northeast corner of Section 1, Township 27 South, Range 22 East, SLM, and proceeding thence with the East line of said Section 1, South 0° 04' West 867.3 feet to a corner, thence South 89° 58' West 1321.3 feet to a corner, thence North 0° 04' East 869.4 feet to a corner, thence with the North line of said Section 1, South 89° 56' East 1321.3 feet to the point of beginning.
Parcel No. 27S22E010001

EXCEPTING all sub-surface and mineral rights.

Parcel 4:
The following non-exclusive easement:

A right of way for road purposes over and across a strip of land 25 feet on each side of the following described centerline in Section 1, Township 27 South, Range 22 East, SLB&M. The side lines of said strip to be shortened or lengthened to terminate at the property line:

Commencing at the N1/4 corner of Section 1, Township 27 South, Range 22 East, SLB&M, thence east along the north line of Section 1, a distance of 436.65 feet tot he true point of beginning; thence South 30°03'21" East 514.79 feet; thence North 57°12'04" East 525.86 feet; thence North 25 07'55" East 1493.9 feet; thence East 121.0 feet (Basis of bearing is the north line of Section 1, more particularly being east between the N1/4 corner, a found 3/4" rebar, and the NE corner, a found GLO cap of Section 1, Township 27 South, Range 22 East, SLB&M) as set forth in the Amendment No 1 to Right of Way No. 837, dated October 27, 2022, and recorded November 9, 2022, in Book 1087 at pages 438-442, Entry No. 171816.

SURVEYOR NOTES

THE BASIS OF BEARING IS S 89°56' E BETWEEN THE NORTH QUARTER CORNER AND THE NORTHEAST CORNER OF SECTION 1, TOWNSHIP 27 SOUTH, RANGE 22 EAST, SALT LAKE BASE AND MERIDIAN.

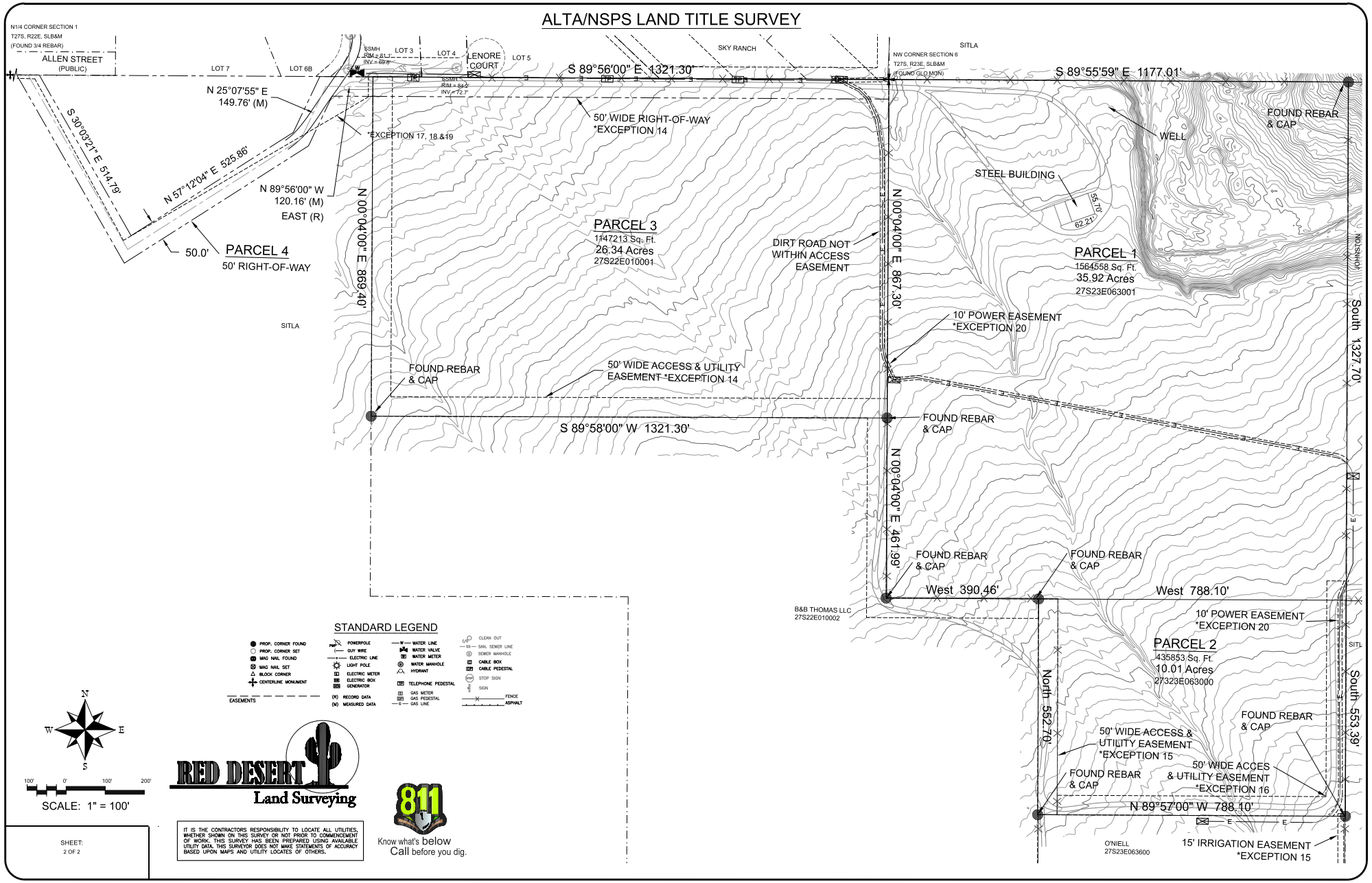
NO EVIDENCE OF RECENT EARTH WORK OBSERVED WITH SURVEY.

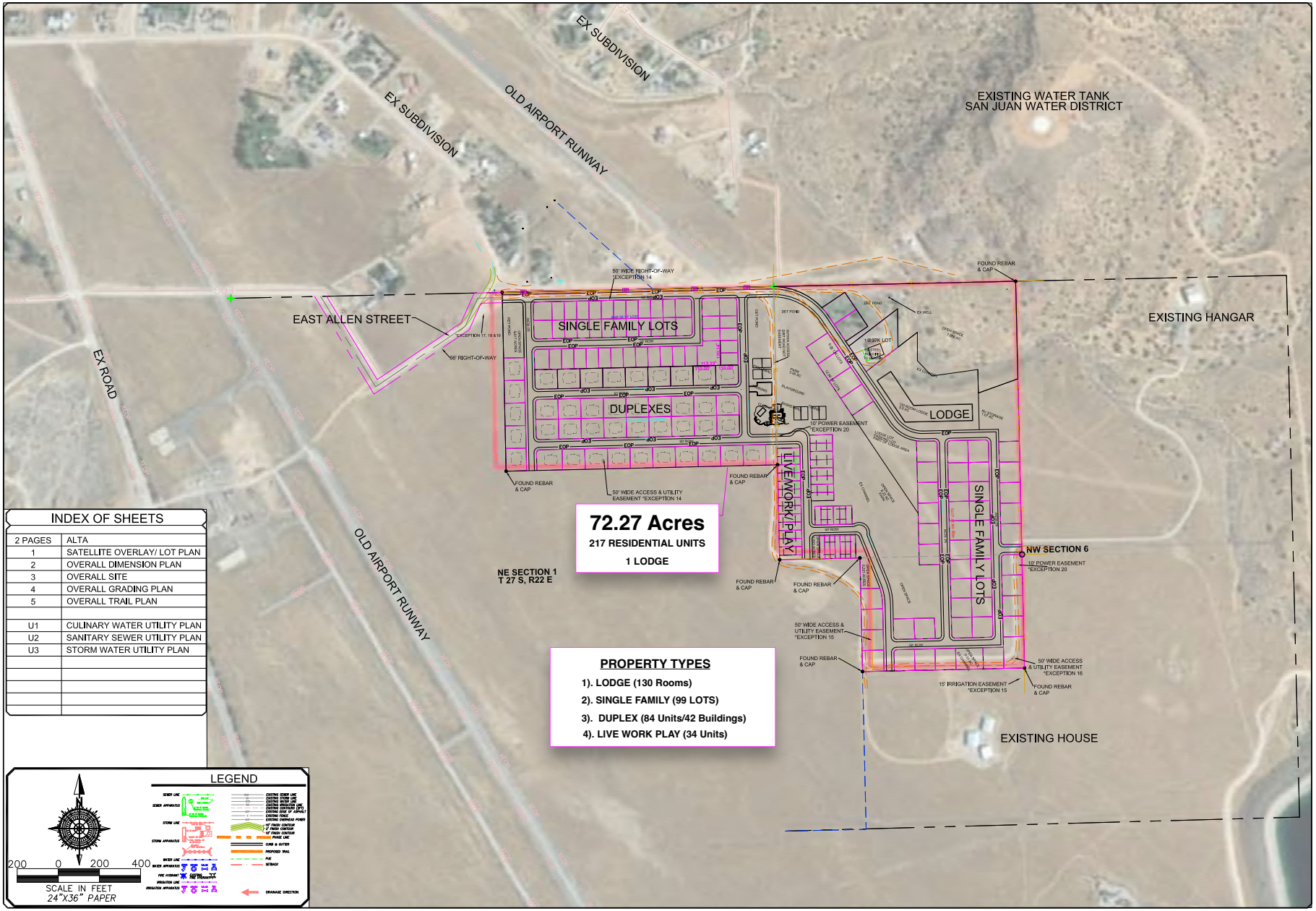
FLOOD DATA This community is not participating in the N.F.I.P. There are no firm maps or flood insurance available.

IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UTILITIES, WHETHER SHOWN ON THIS SURVEY OR NOT PRIOR TO COMMENCEMENT OF WORK. THIS SURVEY HAS BEEN PREPARED USING AVAILABLE UTILITY DATA. THIS SURVEYOR DOES NOT MAKE STATEMENTS OF ACCURACY BASED UPON MAPS AND UTILITY LOCATES OF OTHERS.

811 Know what's below Call before you dig.

ALTA/NSPS LAND TITLE SURVEY





72.27 Acres
217 RESIDENTIAL UNITS
1 LODGE

PROPERTY TYPES

1). LODGE (130 Rooms)
2). SINGLE FAMILY (99 LOTS)
3). DUPLEX (84 Units/42 Buildings)
4). LIVE WORK PLAY (34 Units)

INDEX OF SHEETS

LEGEND

200 0 200 400
SCALE IN FEET
24"X36" PAPER

NO.	DESCRIPTION	DATE	APP'D

ORIG. DATE: 9-7-22
SURVEY BY:
DRAWN BY: GPW
DESIGNED BY: GPW
CHECKED BY: GPW
SCALE: 1"=200'

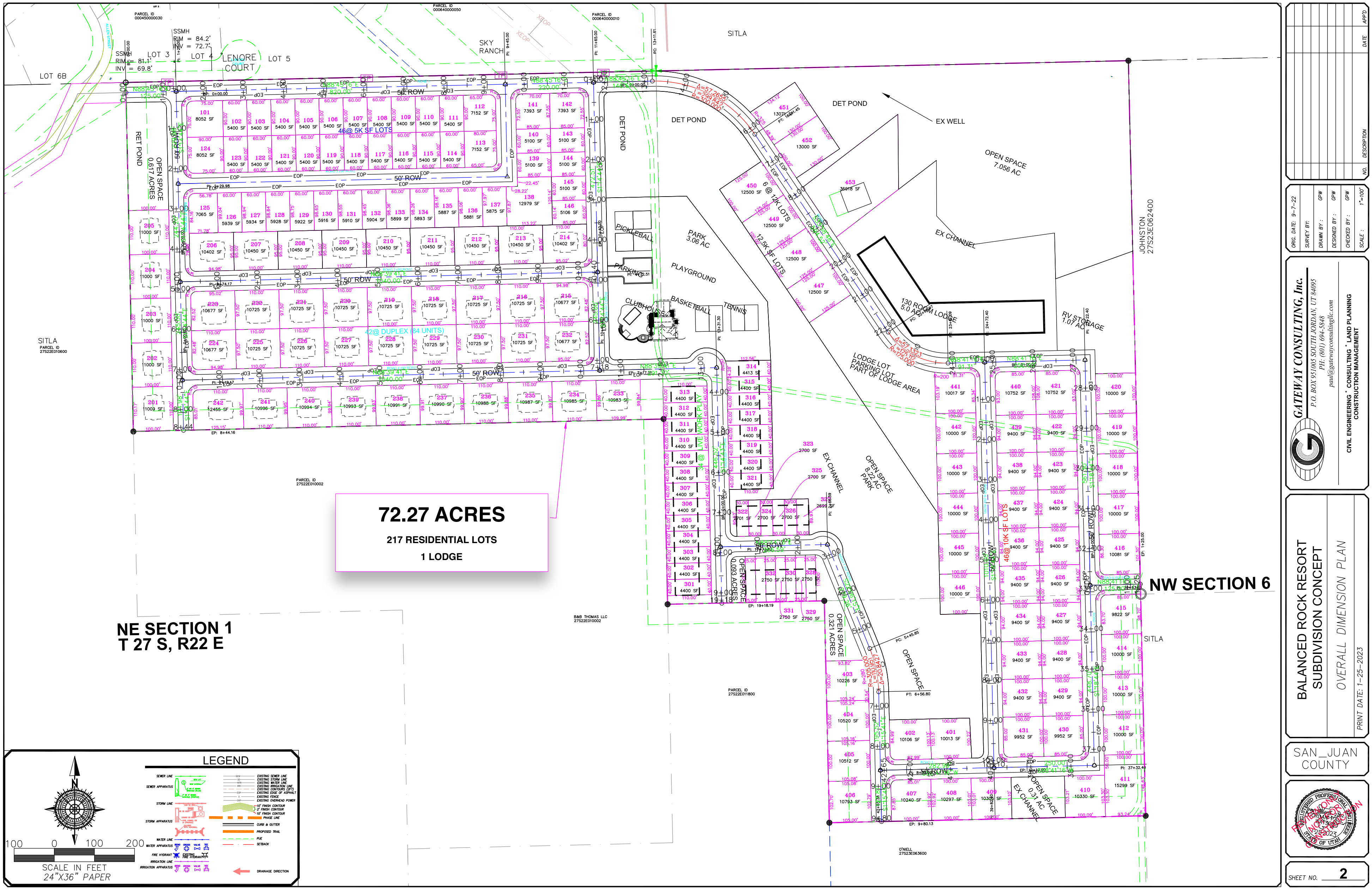
GATEWAY CONSULTING, Inc.
P.O. BOX 95 1005 SOUTH JORDAN, UT 84095
PH: (801) 694-3548
paul@gatewayconsultingllc.com
CIVIL ENGINEERING * CONSULTING * LAND PLANNING
CONSTRUCTION MANAGEMENT

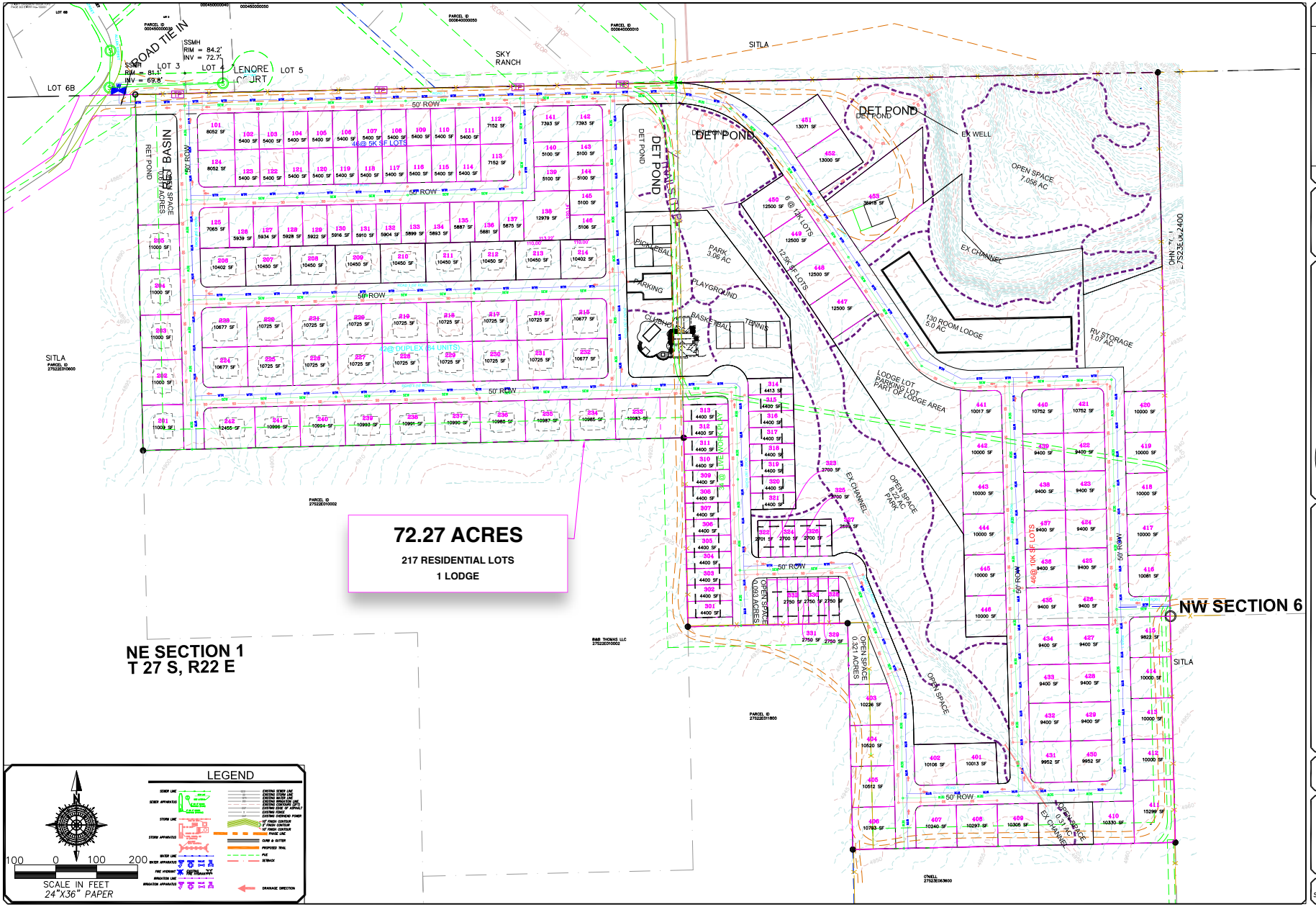
BALANCED ROCK RESORT
SUBDIVISION CONCEPT
SATELLITE OVERLAY
LOT PLAN
PRINT DATE: 1-25-2023

SAN_JUAN COUNTY

PRELIMINARY NOT FOR CONSTRUCTION

SHEET NO. 1


72.27 ACRES
217 RESIDENTIAL LOTS
1 LODGE
NE SECTION 1
T 27 S, R22 E
NW SECTION 6
SITLA
LOT 6B
LOT 3
LOT 4
LOT 5
LENORE COURT
SKY RANCH
JOHNSTON 27S23E062400
RET POND
OPEN SPACE 0.617 ACRES
DET POND
PICKLEBALL
PARK 3.06 AC
PLAYGROUND
PARKING
CLUBHOUSE
BASKETBALL
TENNIS
EX WELL
OPEN SPACE 7.056 AC
EX CHANNEL
130 ROOM LODGE 5.0 AC
RV STORAGE 1.07 AC
LODGE LOT PARKING LOT PART OF LODGE AREA
46@ 5K SF LOTS
42@ DUPLEX (84 UNITS)
8 @ 12K LOTS
12.5K SF LOTS
46@ 10K SF LOTS
OPEN SPACE 8.22 AC PARK
OPEN SPACE 0.093 ACRES
OPEN SPACE 0.321 ACRES
OPEN SPACE 0.31 AC
50' ROW
LEGEND
SCALE IN FEET
24"X36" PAPER
BALANCED ROCK RESORT SUBDIVISION CONCEPT
OVERALL DIMENSION PLAN
PRINT DATE: 1-25-2023
GATEWAY CONSULTING, Inc.
P.O. BOX 951005 SOUTH JORDAN, UT 84095
PH: (801) 694-5848
paul@gatewayconsultingllc.com
CIVIL ENGINEERING * CONSULTING * LAND PLANNING CONSTRUCTION MANAGEMENT
SAN_JUAN COUNTY
ORIG. DATE: 9-7-22
DRAWN BY: GPW
DESIGNED BY: GPW
CHECKED BY: GPW
SCALE: 1"=100'
SHEET NO. 2



NO.	DESCRIPTION	DATE	APP'D

ORIG. DATE: 9-7-22
SURVEY BY:
DRAWN BY: GPW
DESIGNED BY: GPW
CHECKED BY: GPW
SCALE: 1"=100'

GATEWAY CONSULTING, Inc.
P.O. BOX 95 1005 SOUTH JORDAN, UT 84095
PH: (801) 694-5548
paul@gatewayconsultingllc.com
CIVIL ENGINEERING * CONSULTING * LAND PLANNING
CONSTRUCTION MANAGEMENT

BALANCED ROCK RESORT
SUBDIVISION CONCEPT
OVERALL SITE PLAN

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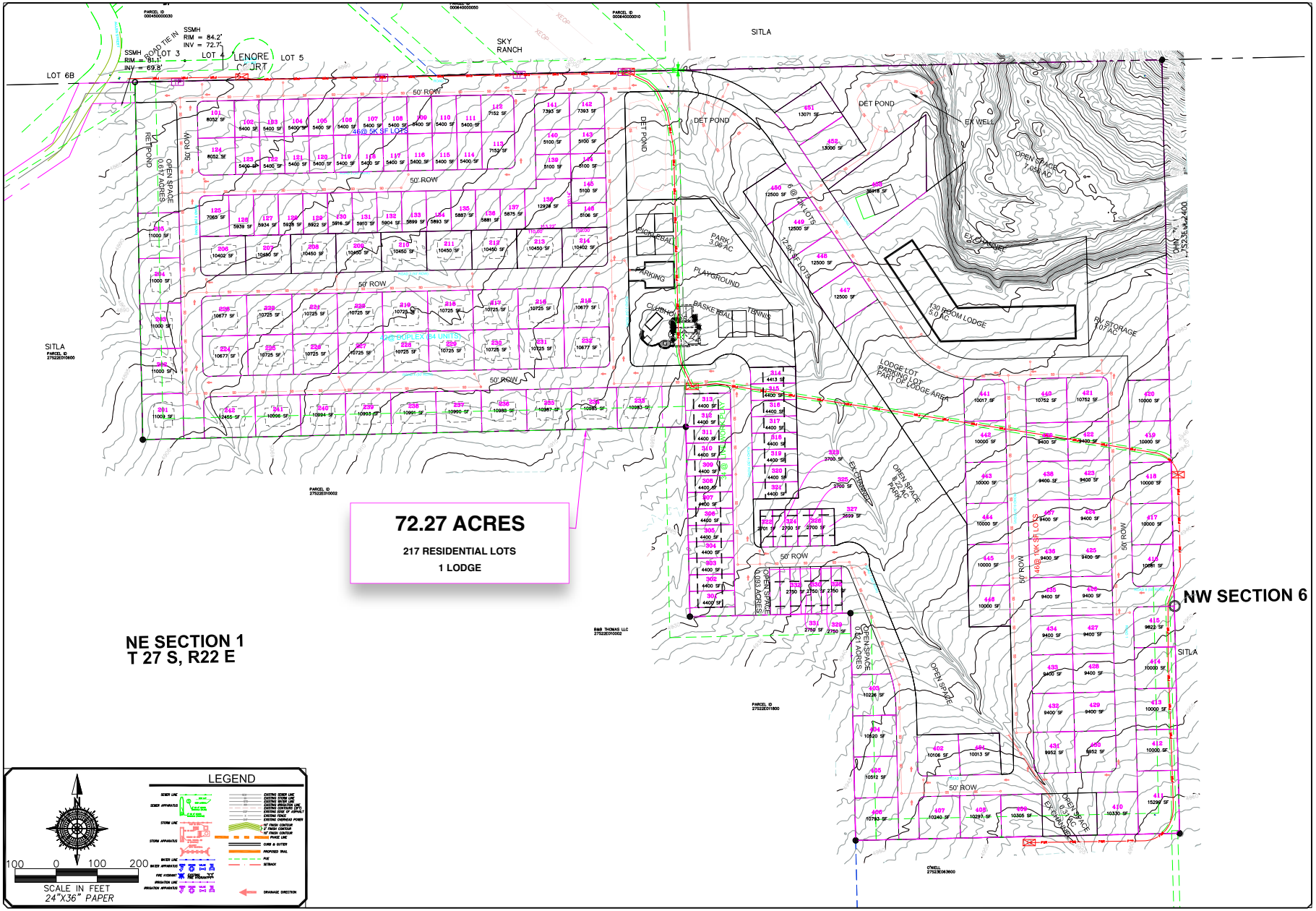

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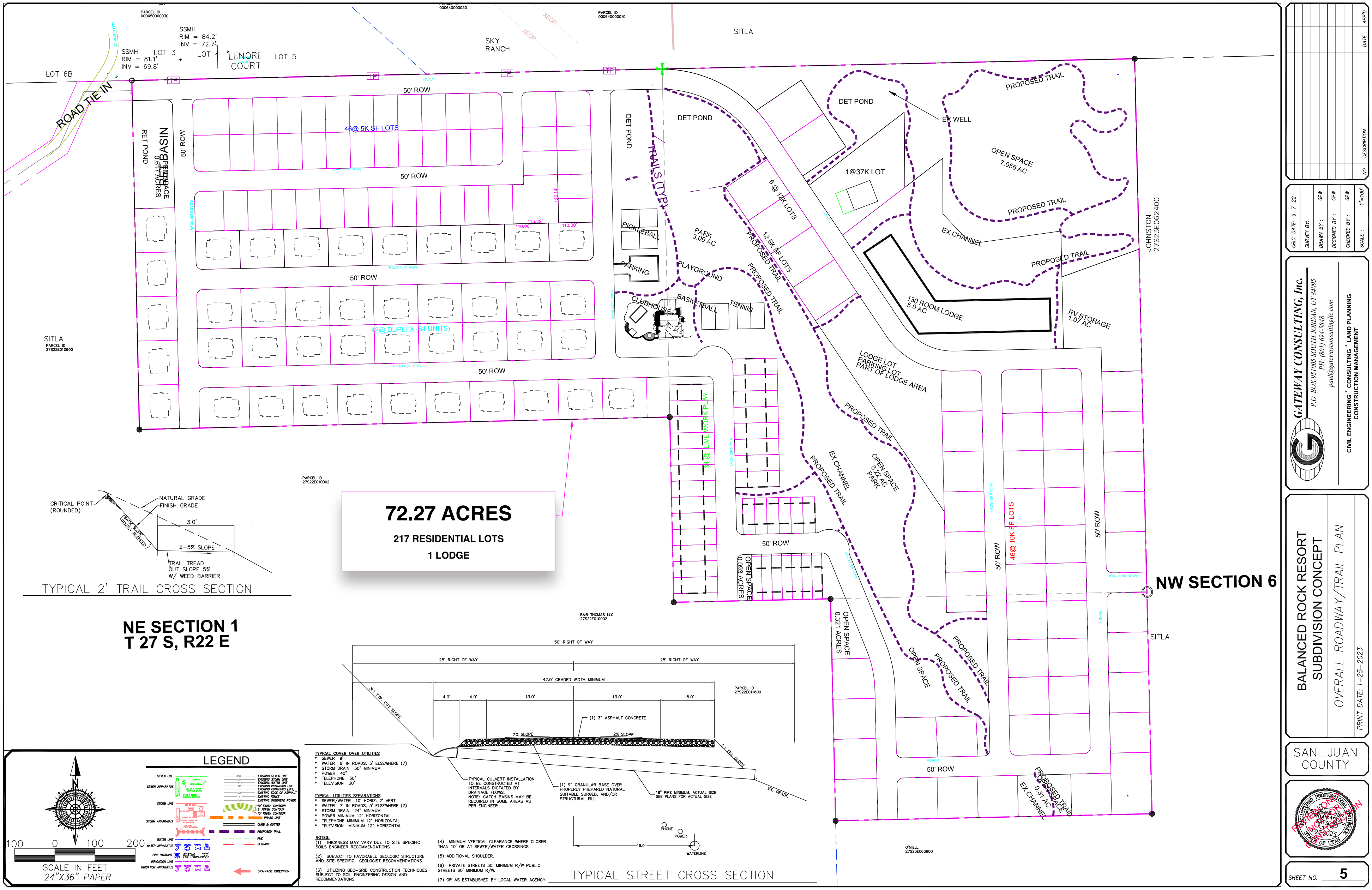
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SKY RANCH
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LOT 6B
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PARK
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B&B THOMAS LLC
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O'NEILL
27S23E063600
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FINISH GRADE
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TYPICAL COVER OVER UTILITIES
TYPICAL UTILITIES SEPARATIONS
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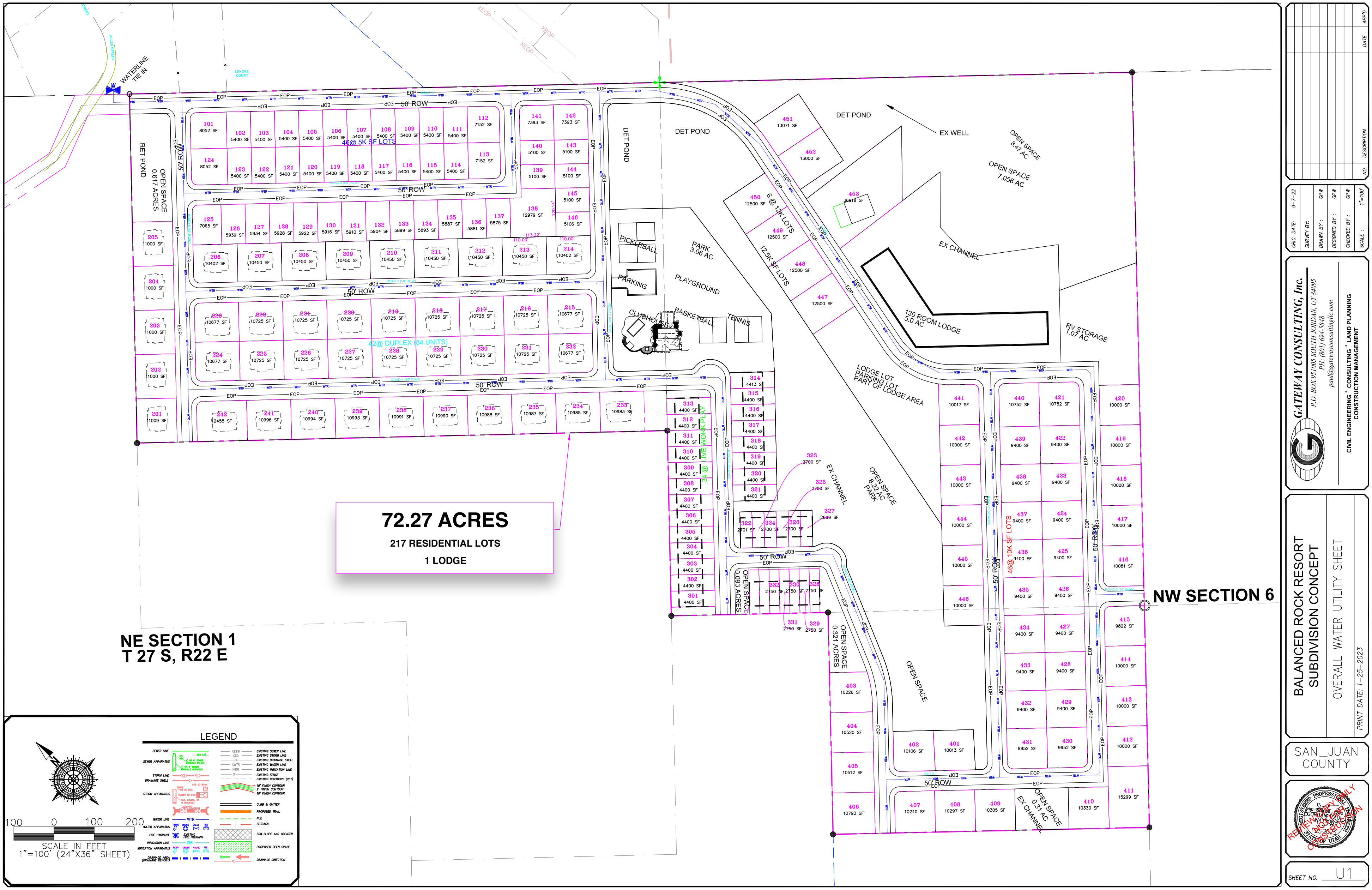
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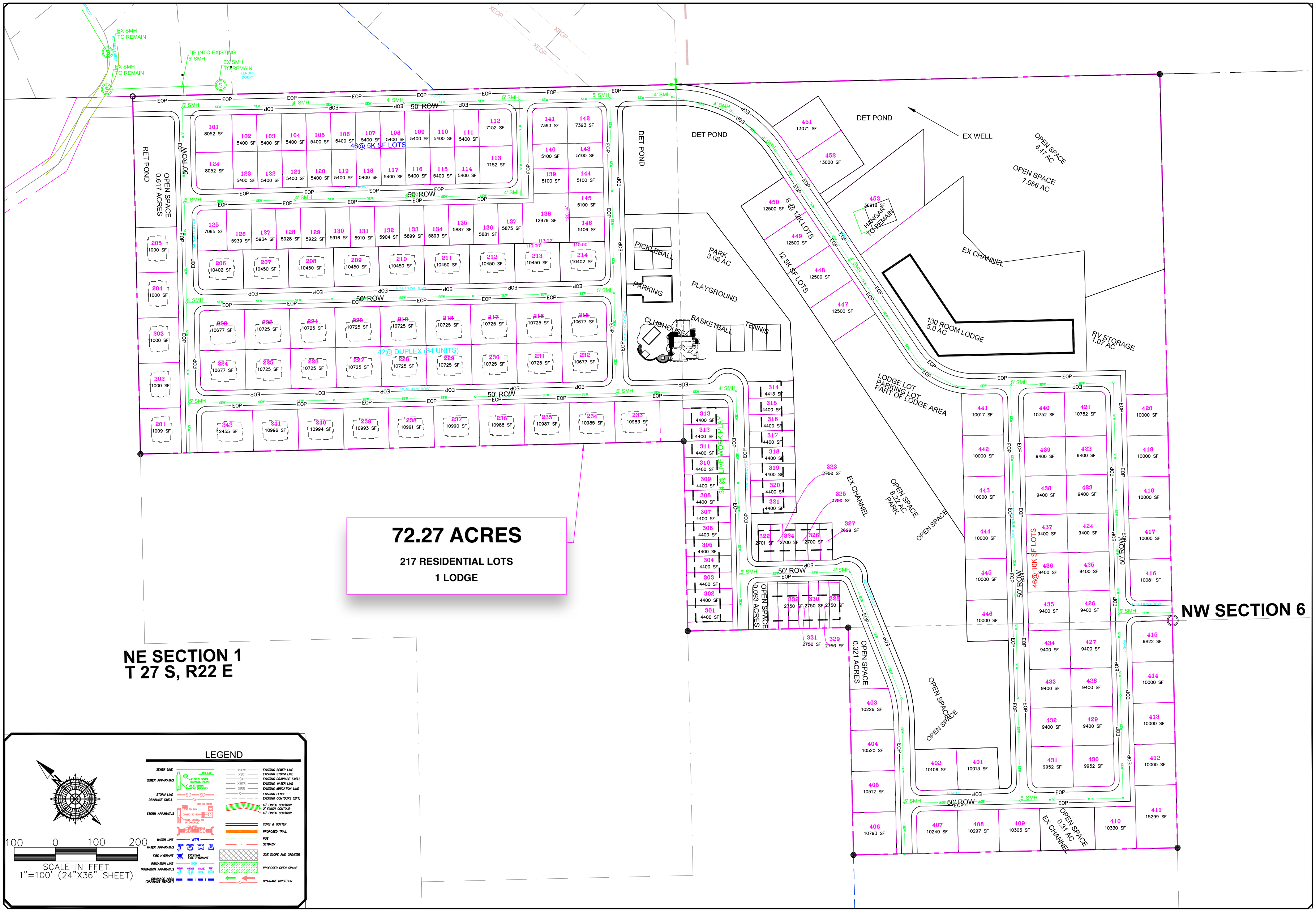

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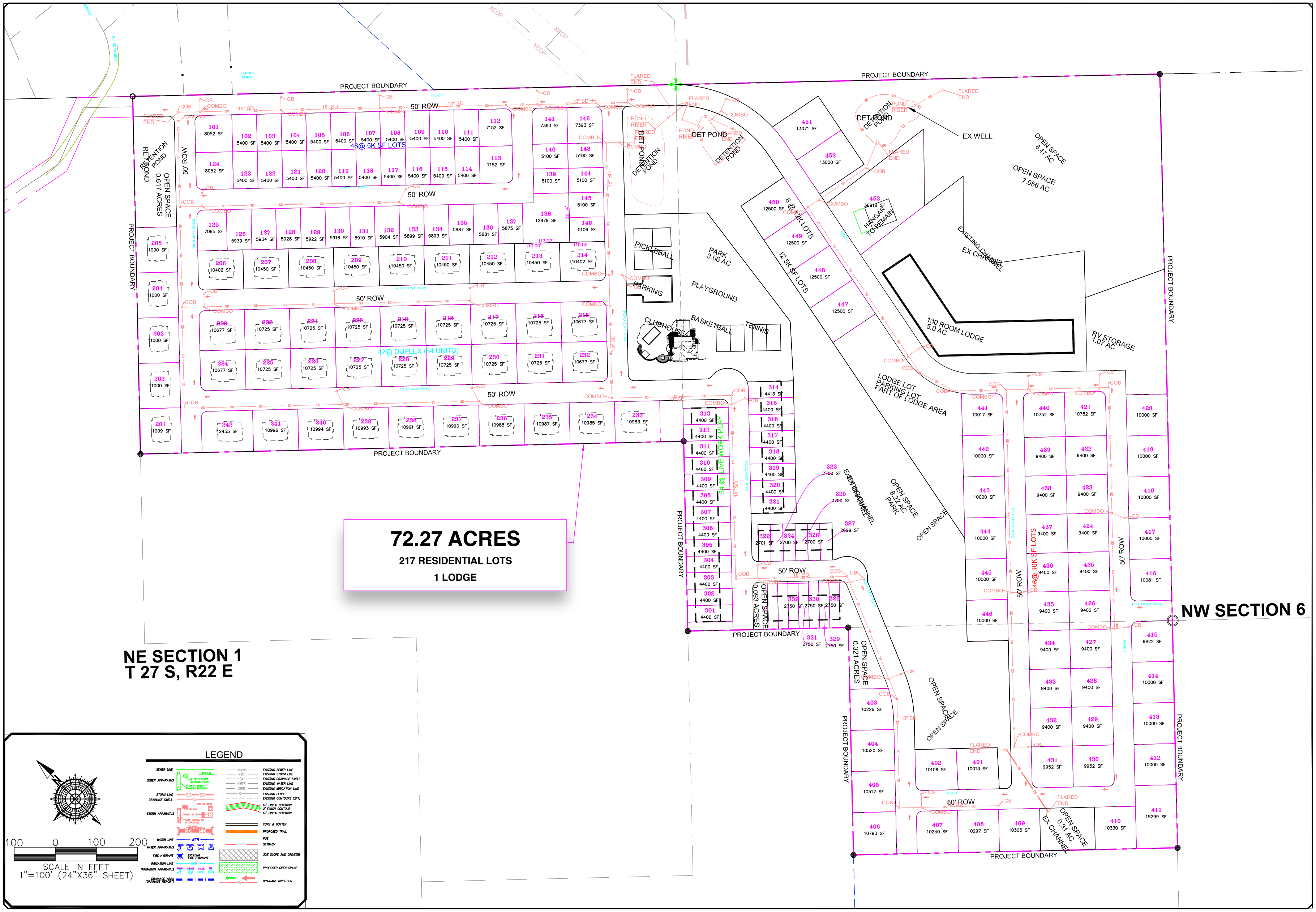

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SUBDIVISION CONCEPT

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STAFF REPORT

MEETING DATE: March 9, 2023

ITEM TITLE, PRESENTER: Spanish Valley Storm Water Master Plan, Greg Poole, Hansen Allen and Luce Engineers

RECOMMENDATION: Consideration and Recommendation

SUMMARY

This Spanish Valley Storm Water Master Plan was a prepared by Hansen, Allen and Luce Engineers. The plan was paid for by SITLA and San Juan County. County staff formed the stakeholder committee in the development of the plan.

The Planning Commission will make a recommendation to the Board of San Juan County Commissioners for adoption of the plan.

Possible Recommendations:

1. Include the Spanish Valley Storm Water Master Plan as an exhibit of the San Juan County Land Use and Development Ordinance (LUDMO).

OR

2. Codify the Spanish Valley Storm Water Master Plan as an Exhibit to the San Juan County Spanish Valley Development Ordinances of the San Juan County Zoning Ordinance, September 13, 2019, and modify the Table of Contents of the San Juan County Spanish Valley Development Ordinances of the San Juan County Zoning Ordinance, September 13, 2019 to include this plan

HISTORY/PAST ACTION

N/A

SPANISH VALLEY

STORM WATER DRAINAGE MASTER PLAN

(HAL Project No.: 452.02.100)

February 2023

SPANISH VALLEY

STORM WATER DRAINAGE MASTER PLAN

(HAL Project No.: 452.02.100)

Gregory J. Poole, P.E.
Principal, Project Manager

HANSEN ALLEN & LUCE INC
ENGINEERS

February 2023

ACKNOWLEDGEMENTS

Successful completion of this master plan was made possible by the cooperation and assistance of many individuals, including the personnel as shown below. We sincerely appreciate the cooperation and assistance provided by these individuals.

San Juan County

Mack McDonald - San Juan County Chief Administrative Officer
Kent B. (Sam) Cantrell – PLS, San Juan County Surveyor
Jacob Regalado – Chief Deputy Surveyor
Devlin McCarthy – Deputy Surveyor
Scott Burton – Subdivision Administrator
Todd Adair - Road Superintendent
Tammy Gallegos - Emergency Director

School Institutional Trust Lands Administration

Elise Erler - SITLA - Development

Hansen, Allen, & Luce, Inc.

Gregory J. Poole - PE, Project Manager
Kayson Shurtz – PE, Pack Creek Master Plan
Dan Jones – PE, Development Drainage Master Plan

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EXECUTIVE SUMMARY

Storm water runoff is a difficult resource to manage. In a dry climate such as Utah's, existing drainage ways are often dry and, to the inexperienced, may appear to be prime places to construct buildings. Storm water flows are dependent on many complex time and spatially varied factors. Even a natural undeveloped drainage system is not static: streams can erode in one section while depositing in another; stream courses can also change alignment and cross section dramatically with just one storm runoff event. Urbanization compounds the problem and creates a need for a drainage system with the basic goals of managing nuisance water, protecting development from damage, and protecting downstream waters from adverse quality and quantity impacts.

Spanish Valley is expected to experience significant population growth and development. San Juan County recognizes the importance of developing a drainage master plan to guide development planning. This storm drainage master plan focuses on the San Juan County Spanish Valley floor where most of the development is expected to occur.

The San Juan County Area Plan (2018) and the South Valley Community Structure Plan (2022), prepared by Landmark Design for the School and Institutional Trust Lands Administration (SITLA), provide a framework for future development and a basis for storm drainage master planning.

KEY MASTER PLAN OBJECTIVES

- Protect developments from flooding in events up to the design storm runoff event.
- Potential development impacts on storm water quality and quantity to Pack Creek must be mitigated.
- Plan facilities with maintenance in mind.

STUDY AREA

The study area includes the San Juan County Spanish Valley floor south of the county line plus directly tributary areas.

PACK CREEK MASTER PLAN

Pack Creek poses a flood hazard risk to a significant portion of the San Juan County Spanish Valley floor. The braided nature of the channel network in the southern end of the valley is evidence of an alluvial fan. Above the valley floor Pack Creek flood flows are confined in mountain ravines which have high gradients and convey large quantities of eroded sand, rock, and boulders out onto the valley floor. On the valley floor land slopes are reduced and flood flow velocities are reduced depositing sediment and debris that form a fan shape. The erosion/deposition process results in channel braiding where channels are alternately cut and filled with sediment. This phenomenon is commonly referred to as an alluvial fan.

HAL performed a hydrologic study on Pack Creek previously to help San Juan County and SITLA better understand the flood hazards in Spanish Valley (HAL, 2019). San Juan County and SITLA are pursuing a recommendation from that study to develop debris basins and other facilities with sufficient capacity to convey the 1% chance flood event.

Two debris basins are currently planned as part of a Natural Resources Conservation Service (NRCS) project upstream of the drainage master plan study area. These new debris basins are

expected to reduce debris floods on the alluvial fan. In addition to the debris basins, a Pack Creek flood control basin is proposed to reduce the 1% chance flood flows.

The Pack Creek flood control basin is conceptually sized to provide about 423 acre-feet of flood attenuation storage. The flood control basin will normally be dry with available storage space to reduce storm runoff peak flood flowrates during a 100-year 24-hour storm event from 5,200 cfs to 1,500 cfs.

The Pack Creek master plan includes channel improvements below the flood control basin. The master plan improvements include grade control structures, channel forming and lining, and road crossings. The Pack Creek master plan alignment and proposed flood control basin are shown in **Figure EX-1**. The preferred channel cross section is shown in **Figure EX-2**. Conceptual construction cost estimates for the Pack Creek improvements are provided in **Table EX – 1**.

Table EX-1. Conceptual Cost Estimates for Pack Creek

Item	Estimated Construction Cost	Notes
Flood Control Detention Basin	$6,000,000	Cost estimate does not include land costs
Channel Improvements	$16,800,000	Total assumed length is 16,400 ft (from proposed detention basin to County line). Cost includes grouted boulder drops and protection for the low flow channel.
Typical Road Crossing	$430,000	Assumes three 9’ x 6’ box culverts to pass 1,500 cfs without overtopping the road.

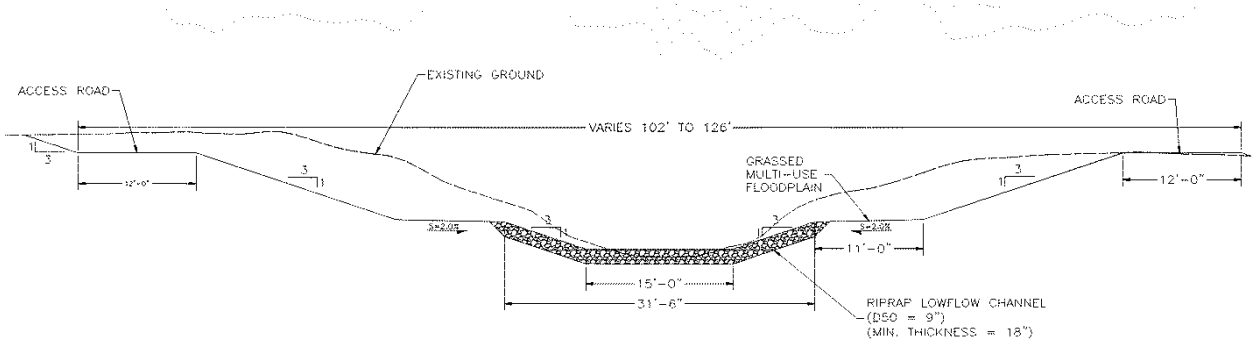
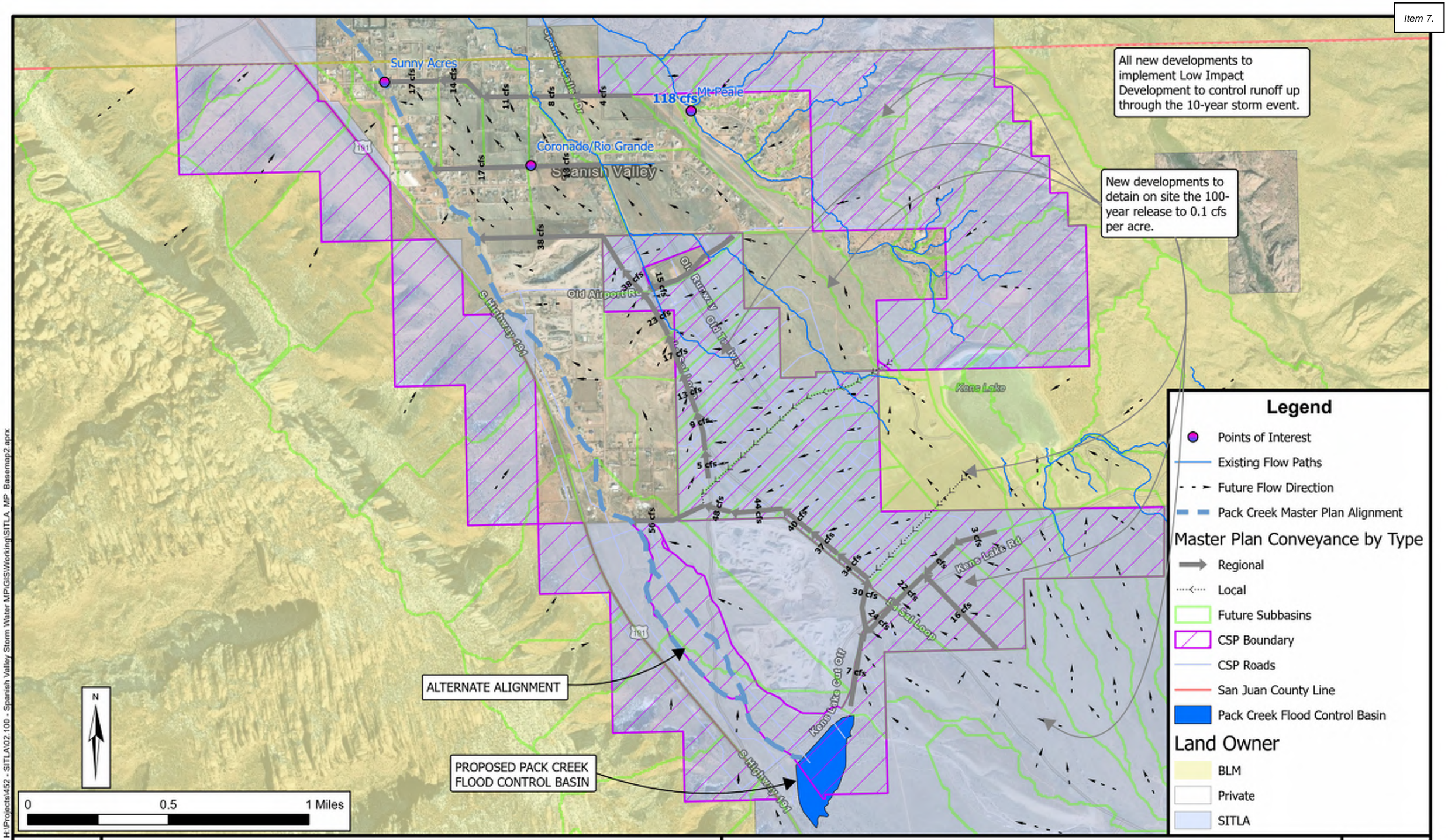


Figure EX-2 – Preferred Pack Creek Master Plan Cross Section



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HANSEN ALLEN & LUCE INC ENGINEERS

SAN JUAN COUNTY – SPANISH VALLEY

STORM DRAINAGE MASTER PLAN
LOCAL DETENTION ALTERNATIVE

FIGURE
EX-1

DRAINAGE DESIGN CRITERIA

Several workshops were held with San Juan County staff. The following storm drainage design criteria were selected for implementation in the San Juan County portion of Spanish Valley:

- Design minor storm is the 10-year 24-hour storm event.
- Design major storm is the 100-year 24-hour storm event. Future development buildings are to be protected from flooding in events up to the 100-year storm event.
- Require Low Impact Development to control minor storm runoff:
    - Minimize directly connected impervious area.
    - Use Rain Gardens and Dry Wells (sumps) with pre-treatment to capture and infiltrate runoff from a 10-year storm event close to the source of runoff.
- Require detention basins to control major storm runoff to pre-development rates.
- Downhill cul-de-sacs and sags in streets which are not located at an intersection are to be avoided.
- Maintenance:
    - Assure adequate access.
    - No drainage structures placed on back lot lines.

SPANISH VALLEY SOILS

Most of the soils in the Spanish Valley floor in the study area are classified as hydrologic soil group A and are highly permeable well drained soils.

UNDISTURBED NATIVE VEGETATION STORM RUNOFF CHARACTERISTICS

The predevelopment condition was established in the model by applying the design storm to a basin with a Curve Number of 60. This number was selected as the predominant soil group is A and the cover is most like desert shrub in fair to poor condition. The resultant runoff volume and peak discharge per unit area are tabulated in **Table EX-2**. The values in **Table EX-2** represent the hydrologic characteristics of the undisturbed native vegetation condition.

Table EX-2
Undisturbed Vegetation Storm Runoff Characteristics

Storm Frequency (24-hour)	**10-year**	**100-year**
Percent Annual Chance Exceedance	10%	1%
Precipitation (inches)	1.80	2.81
Runoff Volume (acre-inches/acre)	0.03	0.27
Peak Flowrate (cfs/ac)	0.004	0.1

DEVELOPMENT CHARACTERISTICS

The San Juan County Area Plan (2018) and the South Valley Community Action Plan (2022), prepared by Landmark Design for the School and Institutional Trust Lands Administration (SITLA), provide a framework for future development and a basis for drainage master planning.

DEVELOPMENT STORM DRAINAGE MASTER PLAN ALTERNATIVES

Minor storm. To prevent increased runoff during the 10-year storm for new development (commensurate with undisturbed native vegetation runoff), sumps or other infiltration means should be implemented to retain and infiltrate the runoff from a 10-year storm event onsite.

Major storm. To prevent increased peak storm runoff flowrates from new development during the 100-year storm (commensurate with undisturbed native vegetation, see **Table EX-2**), detention and conveyance need to be added. There are two primary approaches for construction and maintenance of detention basins: regional and local. A comparison of the pros and cons of regional and local detention alternatives is summarized in **Table EX-3**.

Table EX-3
Pros and Cons of Each Detention Basin Approach

Category	Regional	Local
Maintenance/Number of facilities	Low	High
Cost per acre-foot detention storage	Typically lower	Typically higher
Opportunity to "double store"	Lower	Higher
Conveyance Sizing	Larger	Smaller
Funding and Phasing difficulty	Higher	Low

Due to the funding constraints, the County has indicated a preference for the local detention approach for implementation in the master plan. Regional facilities may be permitted or required on a case-by-case basis.

Figure EX-1 shows a concept of the design flowrates for major conveyances under the local detention approach. **Table EX-4** provides a conceptual construction cost estimate for the major storm drainage conveyance facilities shown on **Figure EX-1.**

Table EX-4
Conceptual Cost Estimates
of the Master Plan Regional Storm Drainage Facilities

PROJECT	COST*
Master Plan Conveyances	$6,310,000
Coronado (new outfall to Pack Creek)	$512,000
Mt. Peale Drive (drainage crossing replacement)	$102,000

* Assumes that the local detention option is selected. Also assumes that Master Plan Conveyances are pipes. Includes 30% for contingency and engineering.

CHAPTER 1 – INTRODUCTION

BACKGROUND

Storm water runoff is a difficult resource to manage. In a dry climate such as Utah's, existing drainage ways are often dry and, to the inexperienced, may appear to be prime places to construct buildings. Unlike sanitary sewers and culinary water systems, there are no clearly defined minimum service requirements for storm water systems. Storm water flows are dependent on many complex time and spatially varied factors. Even a natural undeveloped drainage system is not static: streams can erode in one section while depositing in another; stream courses can also change alignment and cross section dramatically with just one storm runoff event. Urbanization compounds the problem and creates a need for a drainage system with the basic goals of managing nuisance water, protecting development from damage, and protecting downstream waters from adverse quality and quantity impacts.

"Stormwater (runoff) management is the planned set of public policies and activities undertaken to regulate runoff under various specified conditions within various portions of the urban drainage system (McPherson 1970). It may establish criteria for control of peak flows or volumes, for runoff detention and retention, or for control of pollution, and may specify criteria for the relative elevations among various elements of the drainage system. Stormwater management is primarily concerned with limiting future flood damages and environmental impacts due to development, whereas flood control aims at reducing the extent of flooding that occurs under current conditions (Walesh 1987)." (After "The Urban Water Resources Research Council of the American Society of Civil Engineers and the Water Environment Federation, 1992").

Spanish Valley is expected to experience significant population growth and development. San Juan County recognizes the importance of developing a drainage master plan to guide development planning. This storm drainage master plan focuses on the San Juan County Spanish Valley floor where most of the development is expected to occur.

The San Juan County Area Plan (2018) and the South Valley Community Structure Plan (2022), prepared by Landmark Design for the School and Institutional Trust Lands Administration (SITLA), provide a framework for future development and a basis for storm drainage master planning.

Low impact development (LID) techniques should be implemented as close as possible to the source of the runoff. Inherent in development is an increase in impervious area which can increase the volume and peak of storm water runoff. The Spanish Valley study area soils are permeable and LID practices including infiltration will be effective in mitigating the potential impacts. LID practices will potentially reduce initial infrastructure costs. The study area soils are conducive to the use of dry wells (sumps) to infiltrate runoff near the source and thus reduce the size and cost of downstream conveyance systems while recharging the valley fill aquifer.

KEY MASTER PLAN OBJECTIVES

- Protect developments from flooding in events up to the design storm runoff event (see drainage design criteria below).
- Potential development impacts on storm water quality and quantity to Pack Creek must be mitigated.

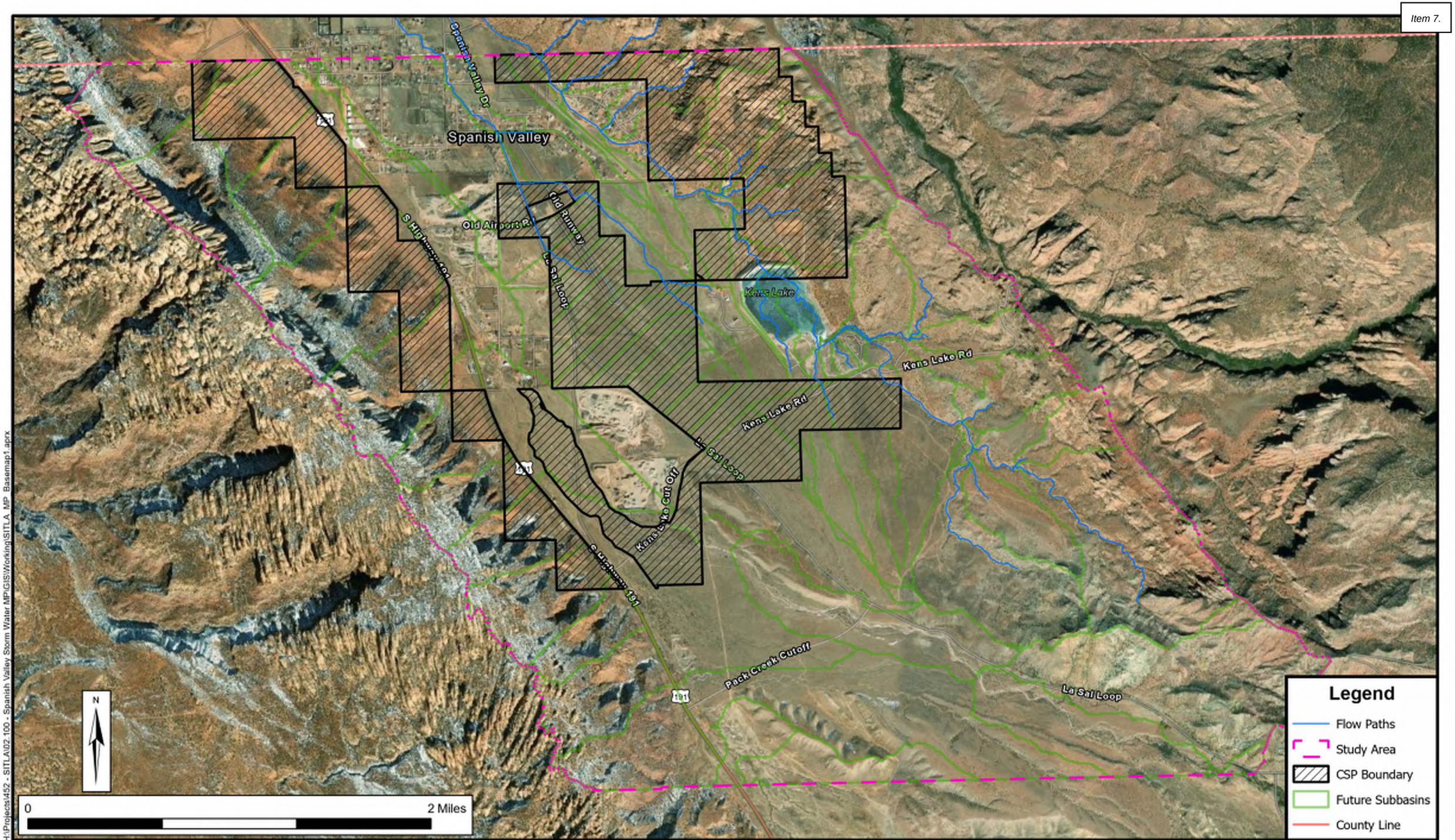
- Plan facilities with maintenance in mind.

AUTHORIZATION

The San Juan County and SITLA selected Hansen, Allen & Luce, Inc. (HAL) to prepare the Storm Water Drainage Master Plan. The Storm Water Drainage Master Plan has been completed in accordance with the agreement between SITLA and HAL dated March 15, 2022. The Storm Water Drainage Master Plan was completed under the direction of and in cooperation with San Juan County staff.

STUDY AREA

The portion of Spanish Valley included in the study area is shown on **Figure 1-1** and includes the San Juan County Spanish Valley floor south of the county line plus directly tributary areas.



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SAN JUAN COUNTY - SPANISH VALLEY

STUDY AREA

FIGURE 1-1

CHAPTER 2 – STORM RUNOFF HYDROLOGY

The project team adopted a workshop approach with San Juan County staff to determine the design criteria, study areas, analysis processes, deficiencies, alternatives, and solutions. This section describes the methodology followed in developing the Master Plan.

DRAINAGE DESIGN CRITERIA

Several workshops were held with San Juan County staff. The following storm drainage design criteria was selected for implementation in the San Juan County portion of Spanish Valley.

- Design minor storm is the 10-year 24-hour storm event.
- Design major storm is the 100-year 24-hour storm event. Future development buildings are to be protected from flooding in events up to the 100-year storm event.
- Require Low Impact Development to control minor storm runoff.
    - Minimize directly connected impervious area.
    - Use Rain Gardens and Dry Wells (sumps) with pre-treatment to capture and infiltrate runoff from a 10-year storm event close to the source of runoff.
- Require detention basins to control major storm runoff to pre-development rates.
- Downhill cul-de-sacs and sags in streets which are not located at an intersection are to be avoided.
- Maintenance:
    - Assure adequate access.
    - No drainage structures placed on back lot lines.

HYDROLOGY

Hydrology is the study of the movement, distribution, accumulation, and management of water. For this Master Plan, the hydrology performed includes selecting a rainfall design frequency and storm distribution; subbasin area delineations and calculations; calculating runoff potential using soil data, land cover, and impervious surface estimates; and estimating the timing of peak runoff. This chapter details these processes in greater detail.

Design Frequencies

Spanish Valley selected design storm event frequencies of 10-year (10% chance of being equaled or exceeded in any given year) and 100-year (1% chance of being equaled or exceeded in any given year) for this study. Criteria included:

- 10-year 24-hour design capacity for the initial retention system. The initial retention system includes sumps, rain gardens, bioretention cells, rainwater harvesting, and infiltration basins, trenches, or galleries. Stormwater discharge should be zero for storms smaller than or equal to this event.
- 100-year conveyance capacity where flooding of homes may occur.
- 100-year 24-hour storm runoff capacity on all detention facilities. Release rate should be restricted to the pre-development discharge rate (0.1 cfs/acre, see **Table 2-3** Undisturbed Vegetation Storm Runoff Characteristics, below).
- A minimum freeboard of 1-foot for open channel conveyances and detention facilities should be provided during a 1% chance storm event.

Design Storms

The design storm distribution is how the precipitation falls throughout a storm of a particular duration. Selection of an appropriate storm distribution is important because it determines peak flows through pipes and channels and peak storage volumes in detention ponds. These results, determined in part by storm distribution, dictate the sizing of projects designed to solve existing deficiencies.

The storm distribution selected for use in this plan is the 24-hour NRCS Nested distribution which can be seen in **Figure 2-1**.

Precipitation depths were obtained from *NOAA Atlas 14: Precipitation-Frequency Atlas of the United States* (Bonnin et al. 2004; NOAA 2013). The design storm rainfall depths modeled for this Master Plan are seen in **Table 2-1**.

Table 2-1
Modeled Rainfall Depths

Storm Frequency	24-hr Depths
10-yr Rainfall Amount (in)	1.80
100-yr Rainfall Amount (in)	2.50

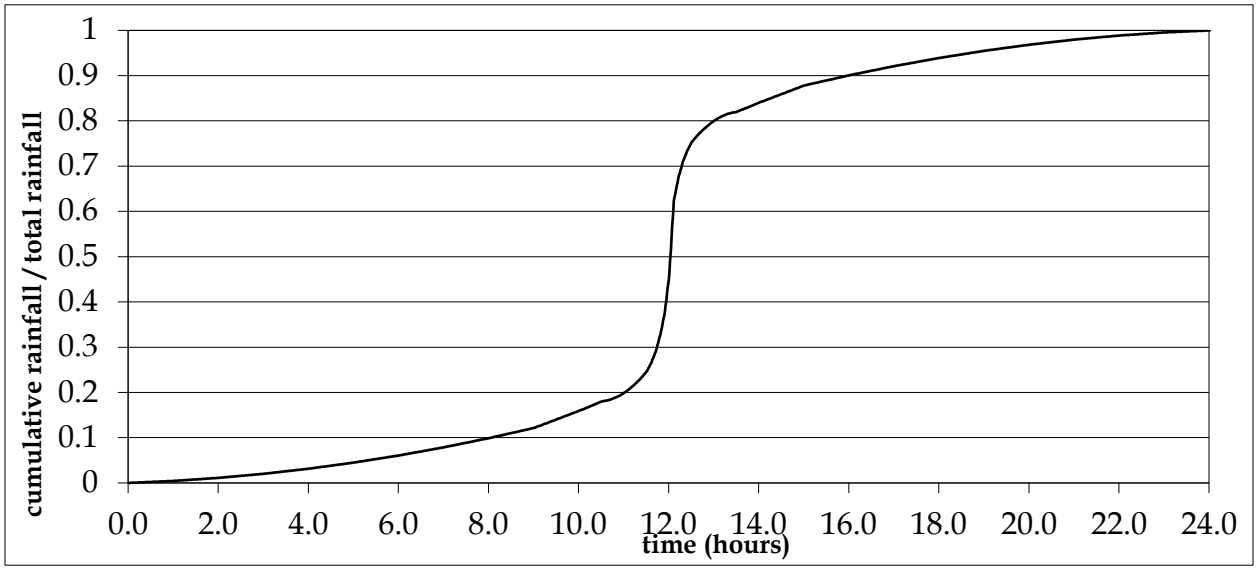


Figure 2-1 24-hour NRCS Nested Distribution

DEVELOPMENT OF THE HYDROLOGIC MODELS

As part of the Master Plan, HAL developed a hydrologic computer model to simulate runoff during storm events. The software used to develop this hydrologic model was HEC-HMS version 4.10.

Subbasins

A drainage basin, also called a subbasin, watershed or catchment, is an area in which all rainfall or snowmelt runoff will collect to a common point (the lowest point in the basin). Drainage basin boundaries depend upon both the topography and the location of storm drainage facilities. Subbasin characteristics developed for this plan were based on aerial imagery, soil data, GIS mapping, land use information from the County, and engineering literature. Important subbasin

characteristics described below include 1) area, 2) hydrologic soil group, 3) percentage of impervious area, 4) SCS curve number (CN), 5) Subbasin width, and 6) overland flow characteristics. Much of the methodology is documented in *Technical Release 55: Urban Hydrology for Small Watersheds* (NRCS, 1986), hereafter referred to as TR-55.

Subbasin Area

The amount of runoff is proportional to the area of the subbasin. The study area was divided into drainage subbasins based on best available mapping and planning. The estimated future subbasins are shown on **Figure 2-2**.

Hydrologic Soil Group

Hydrologic soil group is a general indication of a soil's infiltration capacity and is a key determinant of runoff behavior. The Natural Resources Conservation Service (NRCS) has classified soils into four hydrologic groups A, B, C, and D. Soils of group A have the highest infiltration rate and therefore produce the least amount of runoff. Group A soils include permeable gravels and well-drained sands. Group B soils have moderate infiltration rates and moderately fine or coarse textures. Group C soils have a lower infiltration rate and finer textures, sometimes with a layer that impedes infiltration. Soils of group D have the lowest infiltration rate and produce the highest amount of runoff. Group D soils include fine silts, clays, and other soils with low infiltration rates. Soil groups are described in TR-55 (NRCS, 1986).

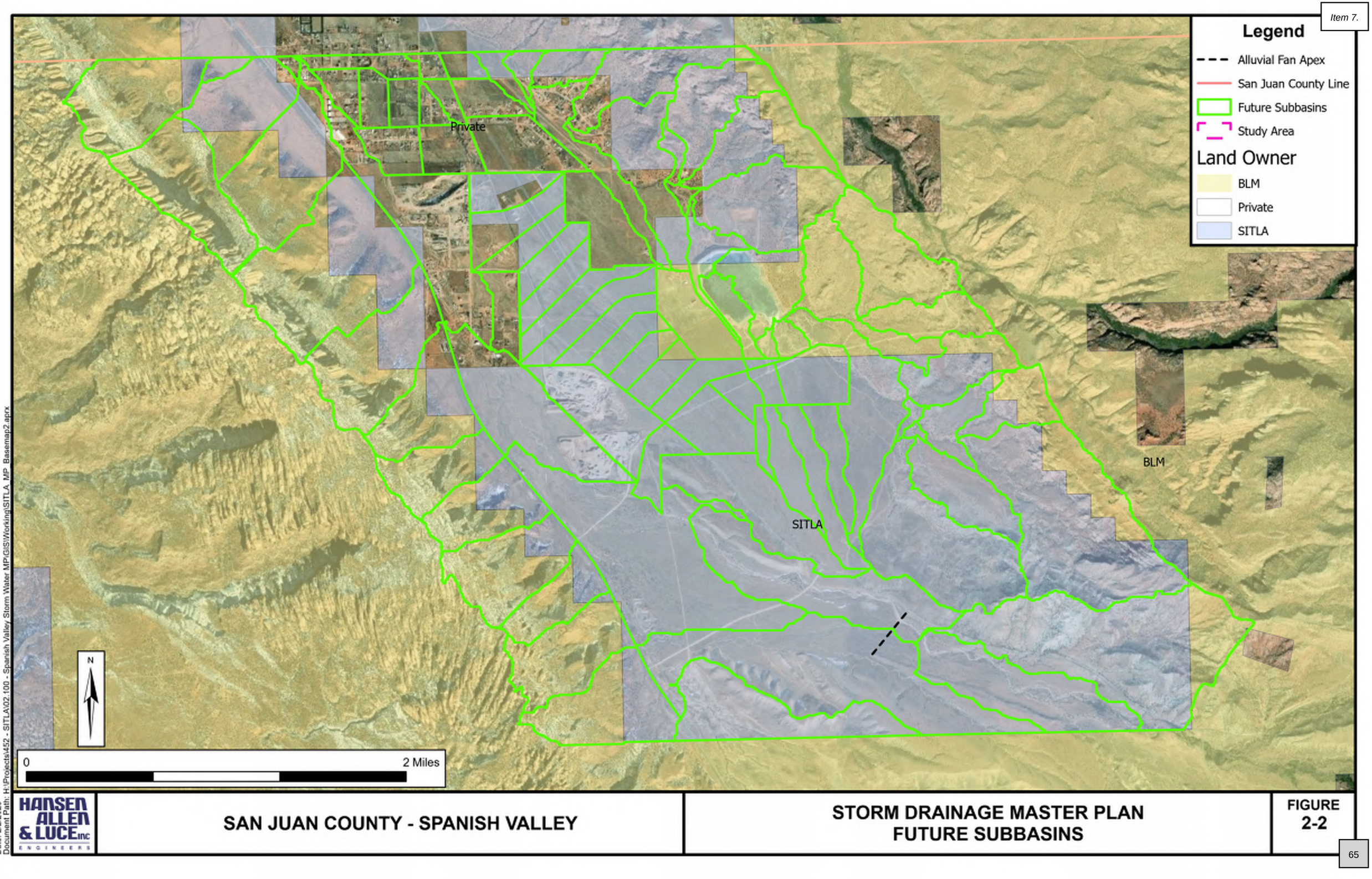
Group A soil is the most prevalent in the Study area and is geologically associated with the valley fill. As the landscape changes to the rocky cliffs, the soil type also changes to soil type D. Soil data for this study originated from the NRCS Web Soil Survey (Canyonlands Area Soil Survey, 2020). A soil map of the Study area is shown in **Figure 2-3**. The hydrologic soil group is a factor used to determine the CN for each subbasin.

Land Use

Different types of land cover in a watershed determine to what degree water infiltrates, accumulates (remains as puddles), or flows over the land (runoff). Various land covers have higher or lower amounts of interception and evapotranspiration. The land cover used in the hydrologic model was developed through a field visit and through available aerial imagery. The predominant land cover for undeveloped areas is most closely associated with TR-55's desert shrub in poor to fair condition or sagebrush in poor hydrologic condition. To develop curve numbers for poor to fair condition, a linear average was computed for the desert shrub between poor and fair conditions. As sagebrush with grass understory does not have a curve number for soil type A, it was assumed to be the same as desert shrub in poor to fair condition. The existing land cover can be seen in **Figure 2-4**.

Impervious Area

Impervious areas within each subbasin were assumed to be disconnected from the runoff network, which assumes that runoff will flow over a pervious region at some point in its flow to Pack Creek. The future model also assumed that impervious areas would remain disconnected, through implementation of Low Impact Development (LID) practices and careful planning. The future model shows the need for and impact of not implementing LID, and therefore design future flows assume development occurs according to this Master Plan. Flows from the future hydrologic model were reduced by applying the discharge per area requirement to the upstream detained area and adding it to the more local undetained flows.



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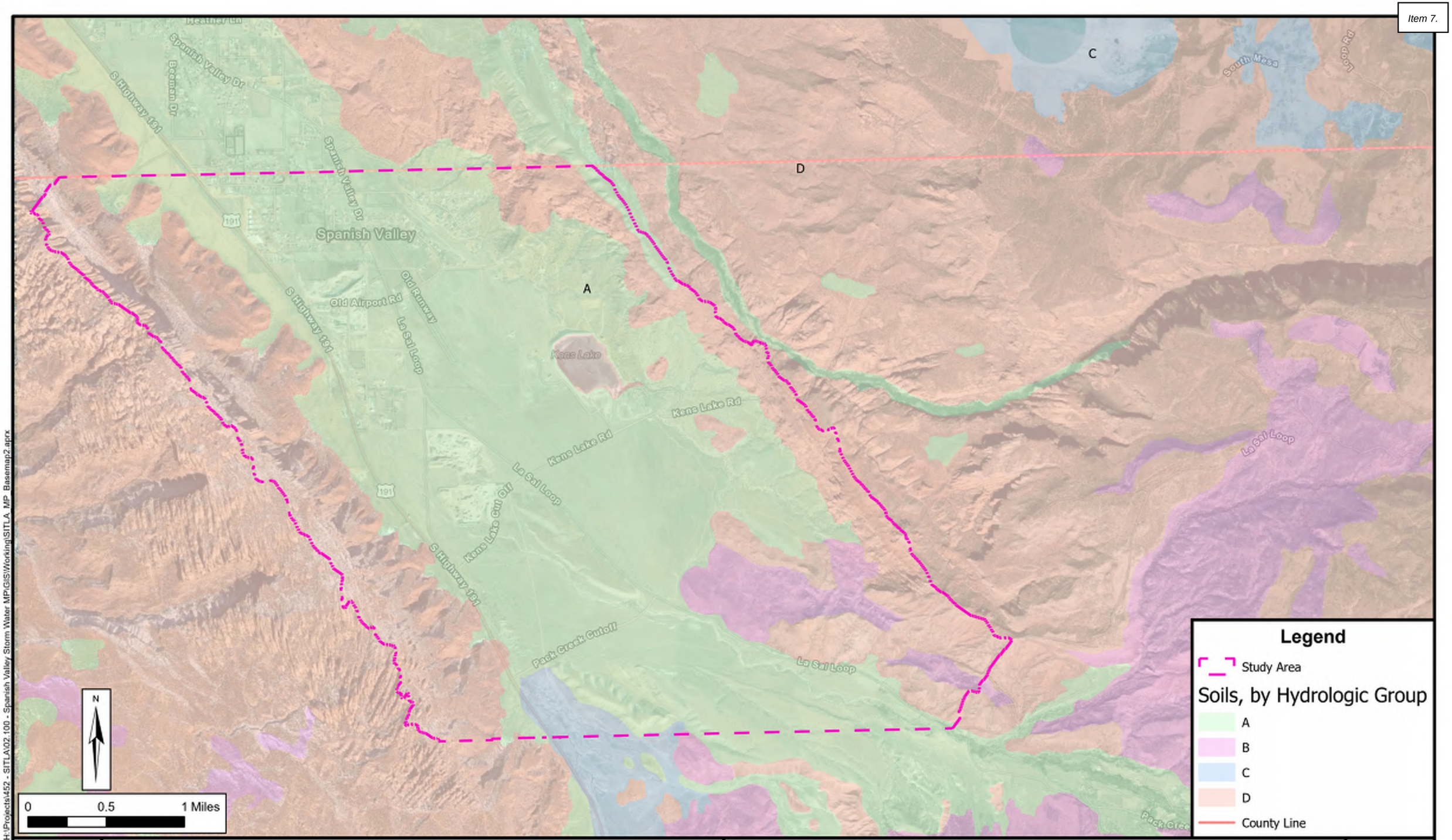
STORM DRAINAGE MASTER PLAN
FUTURE SUBBASINS

FIGURE 2-2



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STORM DRAINAGE MASTER PLAN
HYDROLOGIC SOIL GROUP

FIGURE 2-3

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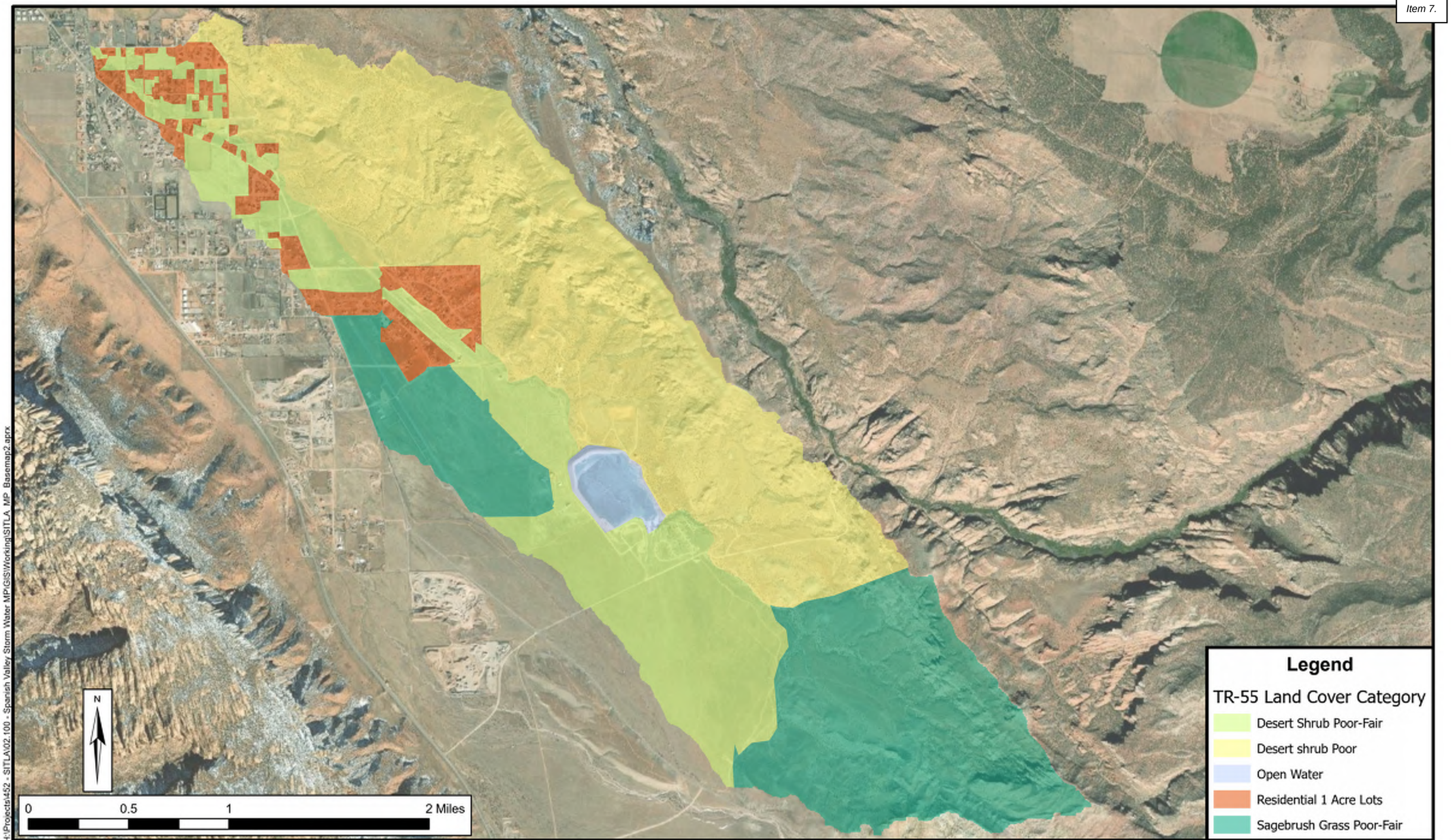

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STORM DRAINAGE MASTER PLAN
EXISTING LAND COVER

FIGURE 2-4

SCS Curve Number

Each subbasin was assigned a curve number based on hydrologic soil group, land use, and ground cover type as outlined in Chapter 2 of TR-55 (NRCS, 1986). The curve number describes the relationship between precipitation and runoff for the pervious and unconnected impervious portions of the subbasin. Practical curve numbers range from 30 to 98. Areas that are more pervious have lower curve numbers. For example, a well-vegetated subbasin with sandy soils and little impervious area would have a lower curve number than a poorly vegetated subbasin with clay soils and a significant amount of impervious area. Curve numbers used in the model for existing conditions on the valley floor are shown on **Table 2-2**.

Table 2-2
Curve Number Assignment Table

TR-55 Category	CN
Sagebrush Grass, Poor-Fair	60
Desert Shrub, Poor	64
Desert Shrub, Poor-Fair	60
Residential 1 Acre Lots	68
Open Water	98

UNDISTURBED NATIVE VEGETATION STORM RUNOFF CHARACTERISTICS

The predevelopment condition was established in the model by applying the design storm to a basin with a Curve Number of 60. This number was selected based on Hydrologic Soil Group A with a cover which is most similar to desert shrub in fair to poor condition. The timing and area of the basin were selected from Subbasin-15, which is a basin that is nearly untouched by development. The resultant runoff volume and peak discharge per unit area are tabulated in **Table 2-3**.

Table 2-3
Undisturbed Vegetation Storm Runoff Characteristics

Storm Frequency	10-year	100-year
Percent Annual Chance Exceedance	10%	1%
Precipitation (inches)	1.80	2.81
Runoff Volume (acre-inches/acre)	0.03	0.27
Peak Flowrate (cfs/ac)	0.004	0.1

Table 2-3 represents the hydrologic characteristics of the undisturbed native vegetation condition. This is an important baseline as it is the metric against which new development is graded. For a new development to have no adverse effects on its downstream neighbors, it must detain to the undisturbed flowrates reported above. All development will increase volume and there is potential for increased flows due to hydrograph aggregation from several detention basins; however, the peak flows should not exceed predevelopment conditions. As the discharge per acre is quite low for a 10-year event, and as the soils are well suited for infiltration, San Juan County has selected a full retention policy for the 10-year event. For the 100-year event, Spanish Valley has selected a detention release rate of no greater than 0.1 cfs per tributary acre.

DEVELOPMENT CHARACTERISTICS

Community Structure Action Plan

A draft version of a document titled the Community Structure Plan for the South Valley Community dated July 13, 2022, was provided to HAL. The Community Structure Plan (CSP) describes a land-use vision of the community and includes planning and description of community boundaries, development densities, a circulation plan, and utility connections and improvements.

Volume weighting was performed to the Curve Numbers to account for increased future impervious percentage. The assumed future percentage impervious was developed according to zoning maps provided in the Planned Community Rezone Application (e.g. Map 2, CSP). Predicted future impervious percentage is shown in **Figure 2-5**.

Infill Assumptions

As one-acre lots are subdivided into quarter-acre lots, infill is expected to happen which will result in an increase in impervious area. The projected future impervious percentage is shown in **Figure 2-5**. We recommend that new lots be required to provide sumps to capture and infiltrate the runoff from storm events up to a 10-year 24-hour storm from the new impervious area.

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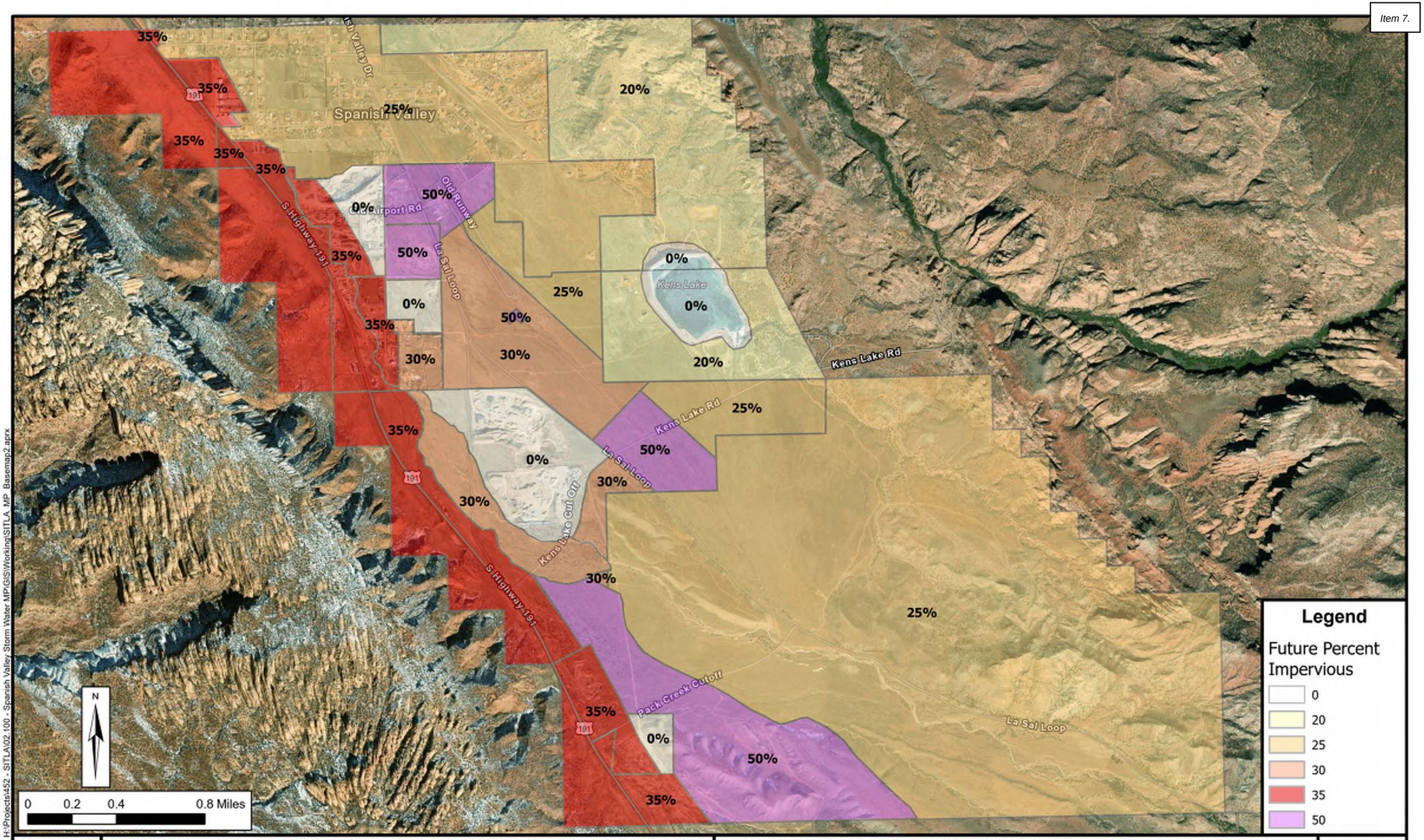

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HANSEN ALLEN & LUCE INC ENGINEERS	SAN JUAN COUNTY - SPANISH VALLEY	STORM DRAINAGE MASTER PLAN ASSUMED FUTURE PERCENT IMPERVIOUS

FIGURE 2-5

CHAPTER 3 – PACK CREEK MASTER PLAN

HAL performed a hydrologic study on Pack Creek previously to help San Juan County and SITLA better understand the flood hazards in Spanish Valley (HAL, 2019). San Juan County and SITLA are pursuing recommendations from that study to develop debris basins and other facilities with sufficient capacity to convey the 1% chance flood event.

The results of the prior study predict that the 1% annual chance exceedance peak flood flow for Pack Creek at the San Juan County line is about 5,200 cfs. The 10% annual chance exceedance peak flood flow estimated by the HMS model is about 2,400 cfs.

Pack Creek poses a flood hazard risk to a significant portion of the San Juan County Spanish Valley floor. The braided nature of the channel network in the southern end of the valley is evidence of an alluvial fan. Above the valley floor, Pack Creek flood flows are confined in mountain ravines which have high gradients and convey large quantities of eroded sand, rock, and boulders out onto the valley floor. On the valley floor, land slopes are reduced; and flood flow velocities are reduced depositing sediment and debris forming a fan shape. The erosion/deposition process results in channel braiding where channels are alternately cut and filled with sediment. This phenomenon is commonly referred to as an alluvial fan.

The Pack Creek alluvial fan presents a special flood hazard (see SITLA Flood Hazard Mapping memo, HAL 2019). Two debris basins are currently planned as part of a Natural Resources Conservation Service (NRCS) project upstream of the drainage master plan study area. These new debris basins are expected to reduce debris floods on the alluvial fan. In addition to the debris basins, a flood control basin is proposed to reduce the 1% chance flood flows.

Pack Creek is an intermittent stream through the study reach with visibly flowing water occurring during periods of snow melt and rainfall events. The creek bed is dry much of the year (see **Figure 3-1**). The water table is deep in the valley floor, and the stream channel lacks riparian vegetation.

Figure 3-1. Pack Creek Channel in Valley Floor

FLOOD CONTROL BASIN

San Juan County and SITLA are exploring the option of constructing a detention basin on Pack Creek to reduce peak flowrates and protect existing homes and structures; it will also make more land developable. The general location of the proposed detention basin is southeast of the gravel pits that are owned by SITLA. A conceptual figure showing the approximate size, location, and extents of the potential basin is shown in **Figure 3-2.**

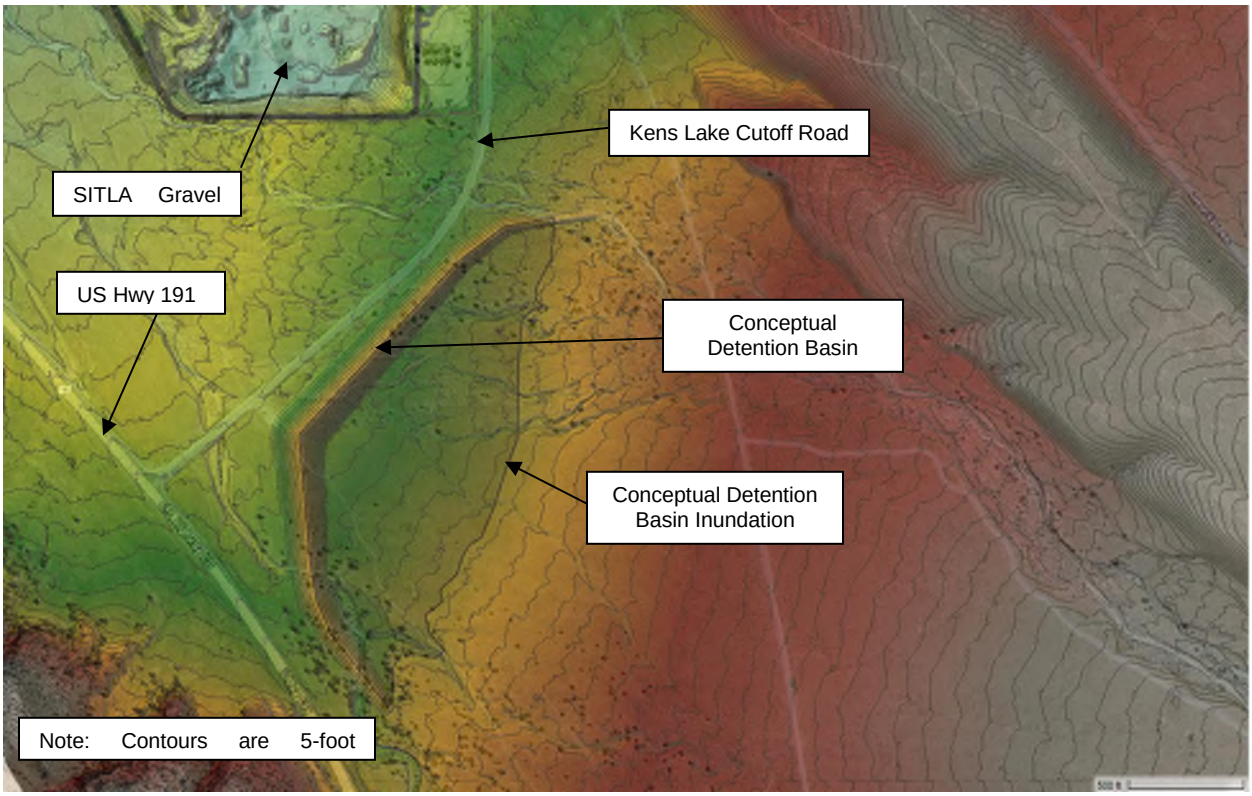

Figure 3-2. Conceptual Detention Basin Location and Extents

The detention basin would be downstream of debris basins that are currently in the design phase. The hydrologic model developed previously was used to estimate the required detention volume for various release rates. A hypothetical dam was added to the existing terrain data at a location selected by SITLA and San Juan County. A storage elevation curve was developed based on anticipated grading and the assumption that much of the material to create the detention basin embankment could come from material excavated on site.

It was estimated the required berm height would be approximately 35 feet above lowest existing elevation and would require about 156 acre-ft of material for the prism of the detention embankment. It was assumed that 100 of the 156 acre-ft of required volume could be extracted within the first 8 feet above the lowest existing elevation. The estimated elevation storage curve for the potential detention basin is shown in **Figure 3-3** below.

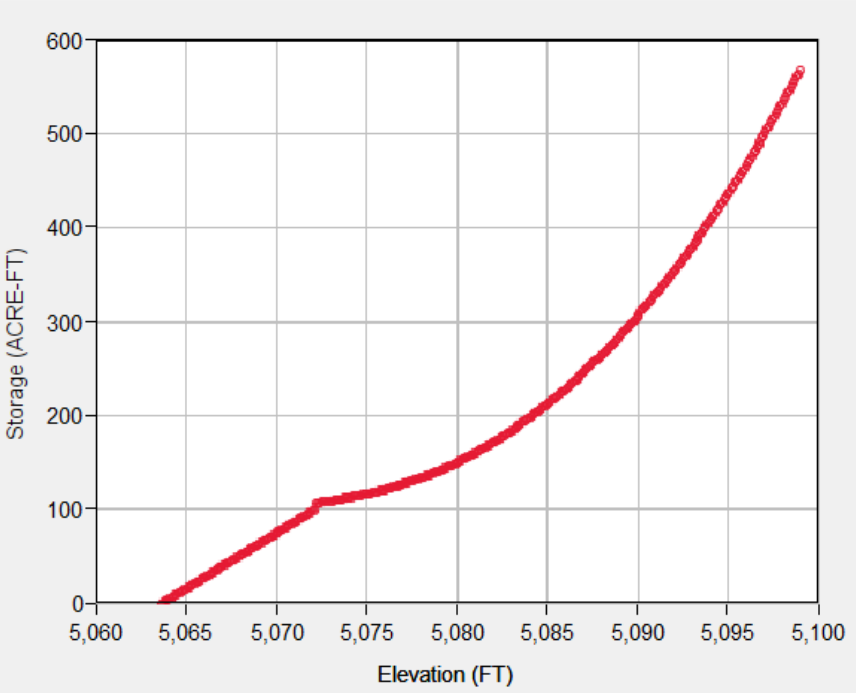

Figure 3-3. Hypothetical Future Pack Creek Detention Basin Storage vs. Elevation Curve

A recent relatively high flow event on Pack Creek was reported at approximately 1,500 cfs. Existing dwellings along Pack Creek in San Juan County and in Grand County were not impacted by the flow. Minor damage occurred during the event but was mostly attributed to excessive debris and not necessarily the flowrate. The general thought has been if the upstream debris basins significantly reduce debris loads and the flowrate can be reduced to 1,500 cfs via the flood control detention basin, then existing dwellings along Pack Creek in San Juan and Grand counties will not be flooded in a 1% chance event.

The model was then run with an orifice sized to release 400 cfs up to 8 feet of depth and 100-acre-ft of volume (2-5 year event). A second orifice was set at a depth of 8 feet and sized to release a combined 1,500 cfs for the 100-year flood event. A summary of the orifice configuration is shown in **Table 3-1.**

Table 3-1. Summary of Assumed Orifice Configuration

Orifice #	Elevation (ft)	Area (sf)	Coefficient
1	5064	29	0.61
2	5072	31	0.61

The required volume based on the configuration described above is approximately 423 acre-feet. The model results are shown in **Figure 3-4.**

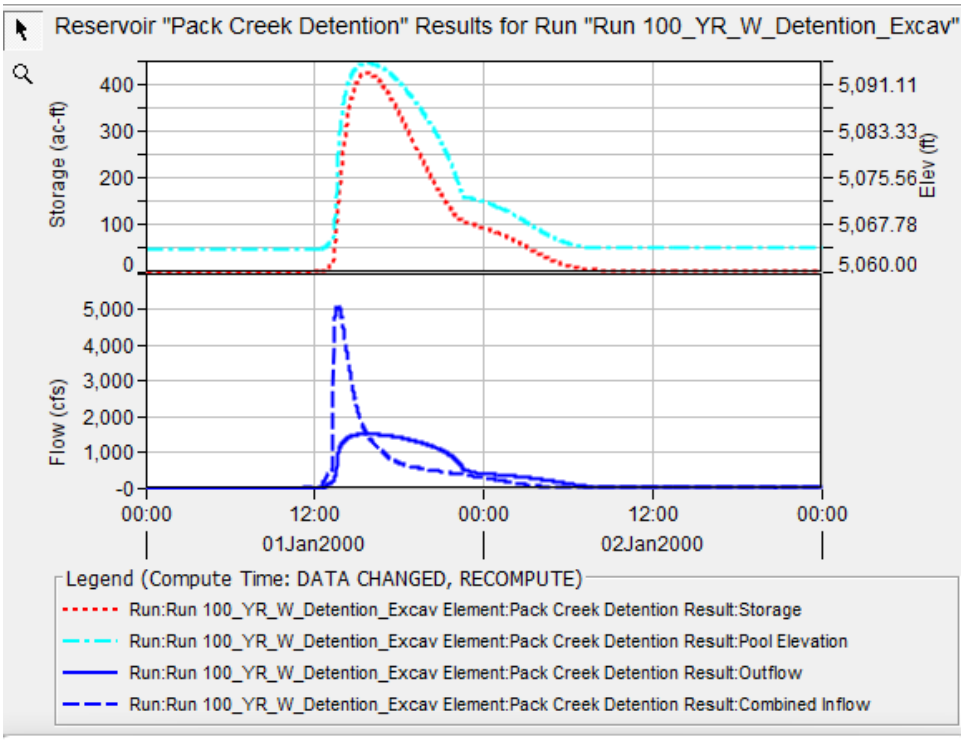

Figure 3-4. HEC-HMS Pack Creek Model Detention Analysis Results

PACK CREEK CHANNEL MASTER PLAN CROSS SECTION

Below the proposed flood control basin, Pack Creek will need stabilization and increased conveyance to accommodate the existing and proposed developments. The following channel design criteria were selected in consultation with SITLA and San Juan County.

Design Flow

- Low Flow Channel capacity = 400 cfs (approximately 2 to 5-year detained release)
- Total Channel capacity = 1,500 cfs (100-year detained release)

Channel Hydraulics

- Maximum Froude Number in low flow channel = 0.8
- Low Flow Channel riprap design based on safety factor method with a safety factor of 1.5. Calculated D50 is 9-inches.
- Composite channel will be sized to convey the 1,500 cfs.

The recommended Pack Creek channel design includes the use of grade control structures. The existing slopes are too steep for subcritical flow; Froude numbers less than or equal to 0.8 are desirable for a stable channel design. The recommended Pack Creek Channel design involves a series of stable channel reaches and grade control structures as needed based on ground slopes. An example profile of how this may look is shown in **Figure 3-5**. The typical spacing between drops for a 3- and 4-foot drop are provided in **Table 3-2**.

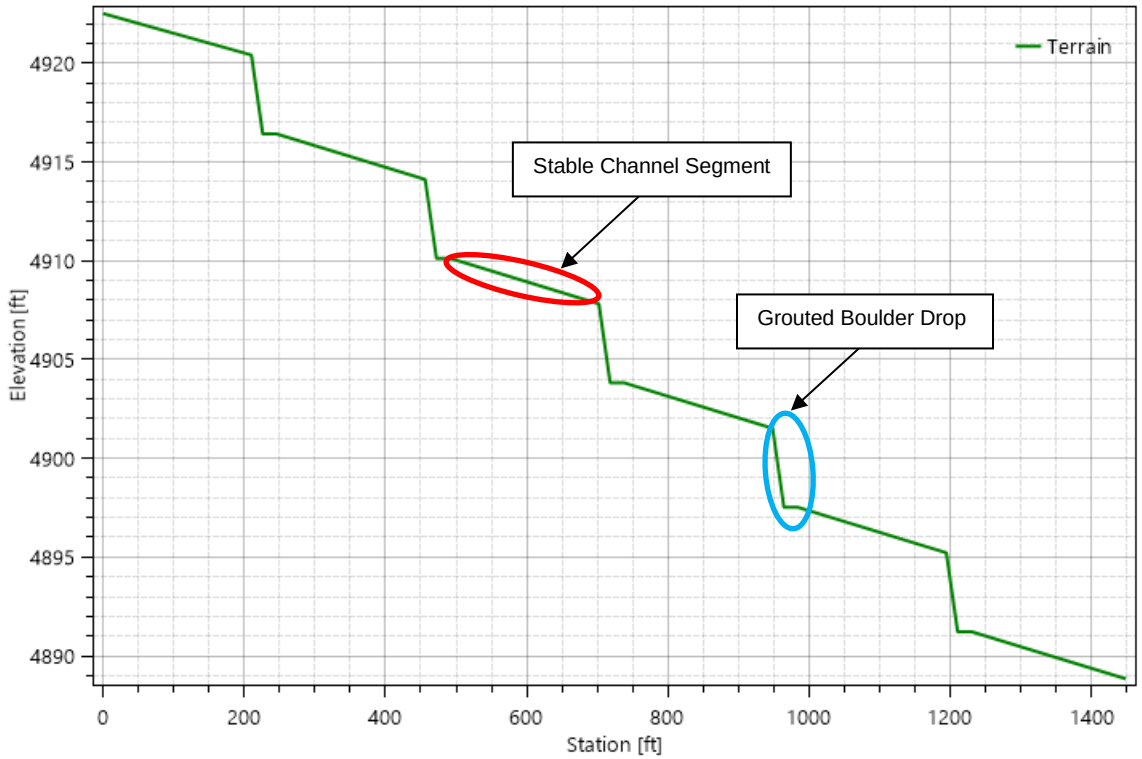

Figure 3-5. Typical Pack Creek Design Channel Profile

Table 3-2.Typical Spacing Between Drops

	Typical 3' Drop Spacing (ft)	Typical 4' Drop Spacing (ft)
	Design Channel Slope (ft/ft)	Design Channel Slope (ft/ft)
Ground Slope (ft/ft)	0.01	0.01
0.030	150	200
0.025	200	267
0.020	300	400

The preferred method for grade control is the Grouted Sloping Boulder Drops with criteria as specified in the Urban Storm Drainage Criteria Manual, Volume 2, Mile High Flood District Denver, Colorado (MHFD, 2016). **Figure 3-6** shows an example of a grouted boulder drop profile with a free draining stilling basin.

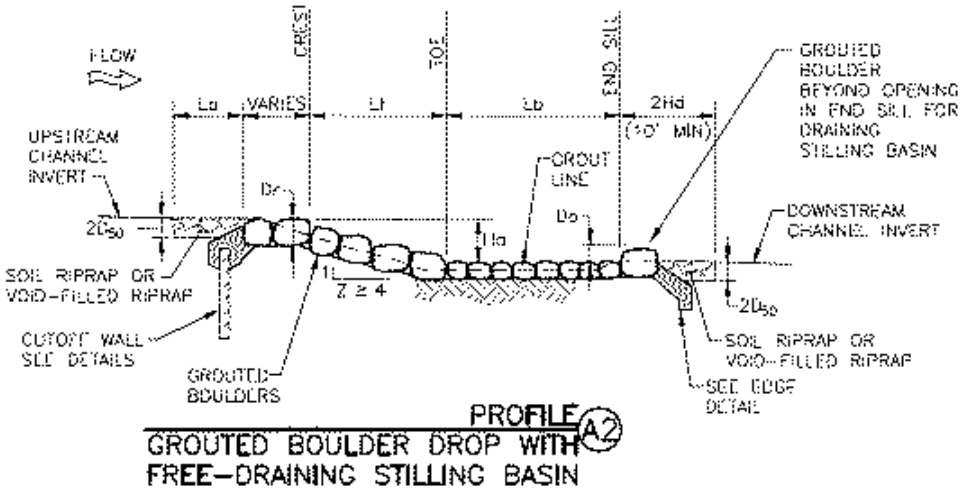

Figure 3-6. Grouted Boulder Drop Profile Drawing (MHFD, 2016)

Preferred Pack Creek Channel Section

The preferred composite design channel cross section for Pack Creek downstream of the proposed detention basin is shown in **Figure 3-7**.

Low flow channel
- Bottom Width of 15 feet
- Side slopes of 3H:1V
- Channel slope of 1%
- Riprap protection D50 of 9-inches
- Depth of approximately 2.75 feet

The Preferred Composite Channel Cross Section extends out beyond the top of the low flow channel by 11 feet on each side, and then has 3:1 side slopes up to the existing grade (total required width varies based on proximity to drop structures).

Narrow Pack Creek Channel Section

In areas where top width is limited due to existing development, gabion walls could be used to reduce the required top width while keeping the low flow channel the same. The typical narrow cross section configuration is shown in **Figure 3-8**.

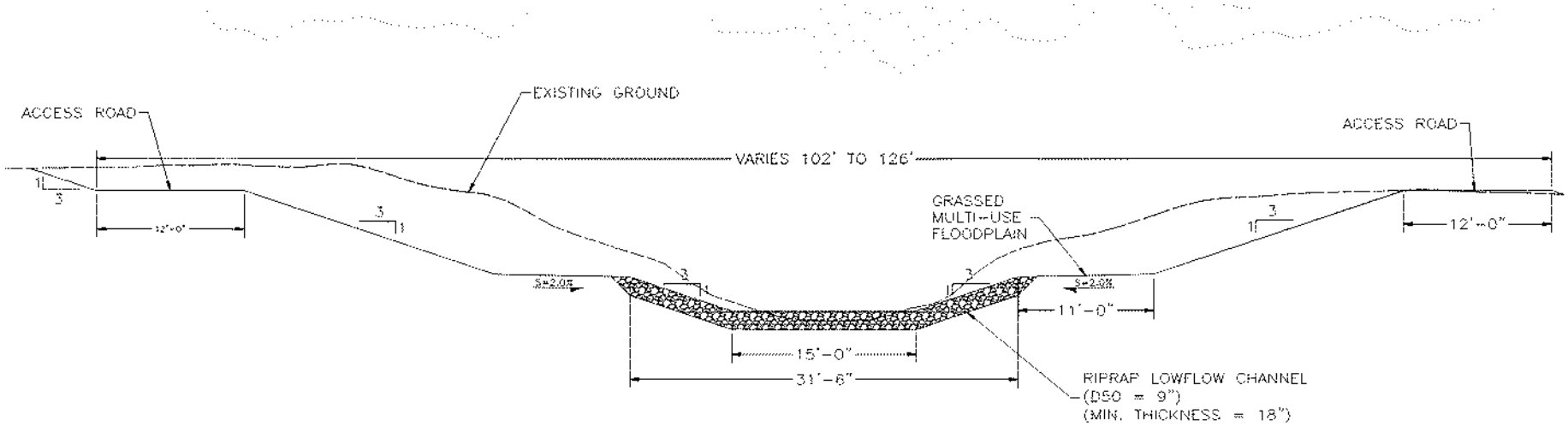

Figure 3-7. Pack Creek Preferred Cross Section

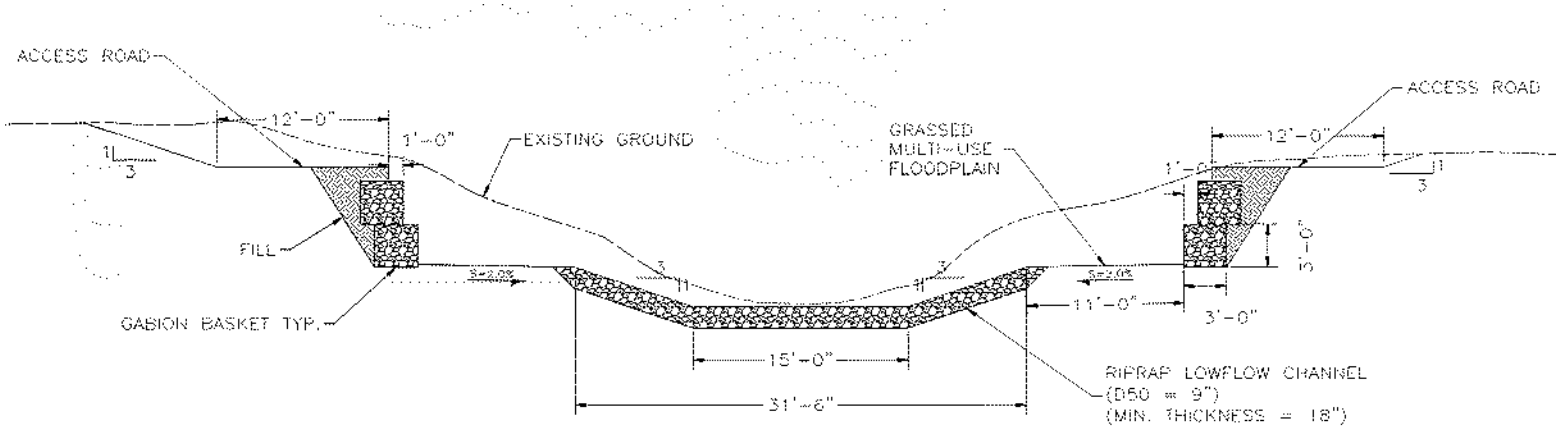

Figure 3-8. Pack Creek Narrow Cross Section (for use where existing channel encroachments preclude use of the preferred cross section)

MASTER PLAN TYPICAL ROAD CROSSING

Two alternatives for crossings to allow conveying the 100-year flood event without impacting buildings have been investigated: 1) use of box culverts with sufficient capacity to convey the 100-year flood event without overtopping the road, and 2) use of a depressed road surface in the section of the crossing with a culvert sized sufficiently to convey 1,500 cfs with combined culvert and weir flow over the road.

Box Culverts Sized for 100-Year Flood Event

Because of the available gradients through the study reach (generally greater than 2%), box culverts for the road crossings have been conceptually sized and are shown below based on inlet control conditions.

- Approximate Size is three 9’ x 6’ box culverts to pass the 1,500 cfs.
- Approximate Size is one 15’ x 6’ box culvert to pass the 1,100 cfs (the additional 400 cfs of weir flow would require approximately 1.5 feet of head and 75 feet of weir length).

In the situation where weir flow over the road is possible, signs should be placed in the road to warn of the flood prone nature of the crossing.

We recommend that the culverts be sized to carry the full 1,500 cfs without overtopping the road. Because the flows are being detained, the likelihood that the channel will experience flows of this magnitude is increased significantly.

Existing Crossings

The existing crossing at Sunny Acres Lane is severely undersized and should be improved as the design channel is constructed in that area. The existing crossing at Old Airport Road currently has sufficient capacity to pass the 1,500 cfs without overtopping. No existing dirt road crossing has sufficient capacity for the design flows. These crossings should either be removed or improved to provide sufficient capacity for the design flow of 1,500 cfs. This will become increasingly important as development occurs, because bottlenecks in the creek increase flood risk.

CONCEPTUAL CONSTRUCTION COST ESTIMATES

Construction cost estimates for the detention basin, channel improvements, and typical road crossings are provided in **Table 3-3**. The unit cost for channel improvements is approximately $1,000 per linear foot.

Table 3-3. Conceptual Cost Estimates for Pack Creek

Item	Estimated Construction Cost	Notes
Detention Basin	$6,000,000	Cost estimate does not include land costs
Channel Improvements	$16,800,000	Total assumed length is 16,400 ft (from proposed detention basin to County line). Cost includes grouted boulder drops and protection for the low flow channel.
Typical Road Crossing	$430,000	Assumes three 9’ x 6’ box culverts to pass 1,500 cfs without overtopping the road.

CHAPTER 4 – STORM DRAINAGE MASTER PLAN

The existing storm drainage system in Spanish Valley is primarily open channel, comprised mostly of creeks, washes, roadside swales, irrigation ditches, and some culvert road crossings. The proposed development will change the landscape of Spanish Valley and will require associated drainage improvements. This chapter discusses the existing drainage deficiencies and the plan to prevent future deficiencies for both existing and future landowners as land develops.

EXISTING DRAINAGE DEFICIENCIES

The existing deficiencies in this master plan were identified by San Juan County staff for areas which constituted known drainage issues. Identified existing drainage deficiencies and possible solutions are described below by location.

Coronado

The residence of 110 East Coronado Street has been flooded several times according to the County. The contributing drainage area to 110 East Coronado Street for minor storm events appears to be limited to local drainage. Major storm events could contribute flow from south of Coronado Street or east of Cabrillo Street. This location is particularly hazardous as the driveway directs flow away from the road into or near the house. Some possible solutions which would resolve the minor event flooding include:

1. Adding sumps on both sides of the driveway which would intercept and infiltrate the road drainage.
2. Increasing conveyance by improving the ditch along the east side of the driveway.
3. Developing storage in the undeveloped land east of the driveway.

The ideal option is of course elevation of the structure and, wherever possible, this option should be employed. This example serves as a reminder why homes should be elevated and driveways sloped down to the road.

There is an irrigation ditch on the south side of Coronado which, if it overtops, would spill some flow north across Coronado during large events. Solving the major event flooding would require also installing detention or retention upstream. Good siting for this basin or these basins would include the areas immediately south of the property and/or the southeast corner of the intersection at Coronado and La Sal Loop Rd.

Rio Grande

Any flow from the major event that does not cross Coronado at the location discussed above, crosses Rio Grande Drive just to the west. According to LiDAR, the minimum crest elevation for Rio Grande is approximately one foot lower than that of Coronado's (4791.2 compared to 4792.2). This means that this conveyance path receives 100% of the storm runoff from south of Coronado Street until the flood is large enough to overtop Coronado, at which time both locations experience major flooding. A potential solution for this location includes a culvert under Rio Grande Drive to convey the design peak flow. The selected master plan solution is to construct a new conveyance to Pack Creek from the west end of Coronado.

Mt. Peale

The crossing of the open drainage way (wash) just east of Sky Ranch airport with Mt. Peale Drive results in the closing of the road during flood events. The neighborhood just east of the crossing has more than 50 homes and is currently accessible only via Mt. Peale Drive. It is recommended that the design event for this crossing be the 100-year storm. The 100-year design flow for this crossing is 118 cfs. A 54-inch diameter culvert operating under inlet control is adequate to pass the design flow (118 cfs) with a headwater depth of 5.2 feet.

Sunny Acres

The County identified the Sunny Acres Drive crossing of Pack Creek as prone to flooding; it needs to be replaced. This crossing is addressed in the Pack Creek master plan (see Chapter 3).

MASTER PLAN ALTERNATIVES

Minor storm. To prevent increased runoff during the 10-year storm for new development (commensurate with undisturbed native vegetation runoff), sumps or other infiltration means should be implemented to retain and infiltrate the runoff from a 10-year storm event onsite.

Major storm. To prevent increased runoff from new development during the 100-year storm (commensurate with undisturbed native vegetation), detention and conveyance need to be added. There are two primary approaches for construction and maintenance of detention basins: regional and local. The following paragraphs describe the advantages and disadvantages of each approach.

Regional Detention Basins

Regional detention facilities serve to detain flows from a large contributing area. The advantage of regional detention facilities is that they are few. Maintenance is consolidated for maintenance personnel with fewer basins. Regional detention basins are larger and provide an increased opportunity for multi-use facilities. Regional detention basins are usually maintained by the local government entity. The cost per unit storage is generally lower due to economy of scale. As the system detains flow in fewer places, there is less opportunity to “double-store” volume, which happens when water has been detained once already and is mixed with undetained flows prior to entering another detention facility.

A disadvantage of regional detention facilities is the higher requirement for coordination on the funding. Construction of the regional facility will need to happen early in the development process to provide the required benefits. Additionally, the conveyance sizing to direct flows to the regional facility are larger as the flow is accumulated prior to being detained. **Figure 4-1** shows a concept of the pipes and basins under the regional detention approach.

Development Detention Basins

Local detention basins only serve the development for which they were constructed. Their strengths and weaknesses are generally opposite those of regional facilities. As they must occur for every development, local detention policy will result in creation of many detention basins. Maintenance costs are higher, and the cost per unit storage is generally larger than for regional facilities. The system detains flow in more places and there is more opportunity to “double-store” volume. The sizing of the conveyances to route the flow from the local facilities is smaller than it would have been in the regional case, but care should be taken not to commingle detained flows

All new developments to implement Low Impact Development to control runoff up through the 10-year storm event.

All new developments should be required to detain 100-year release to 0.1 cfs per acre.

The topography for areas west of Hwy 191 does not lend itself to regional detention facilities. Local detention facilities will still be required in these and other similar areas to detain the 100-year release to 0.1 cfs/acre.

118 cfs
48"

6 AF

3 AF

2 AF

4 AF

Spanish Valley

Spanish Valley Dr

S Highway 191

Old Airport Rd

Old Runway

Old Taxiway

Kens Lake

Kens Lake Rd

Kens Lake Cut Off

La Sal Loop

27 cfs
23 cfs
28 cfs
90 cfs
74 cfs
50 cfs
38 cfs
27 cfs
15 cfs
54 cfs
73 cfs
62 cfs
53 cfs
46 cfs
40 cfs
35 cfs
101 cfs
101 cfs
40 cfs
70 cfs
33 cfs
12 cfs

N

0 0.5 1 Miles

Legend

- Flow Paths
- Points of Interest
- Detention Basins

Master Plan Conveyance by Type

- Regional
- Local
- Future Subbasins
- CSP Boundary
- CSP Roads
- County Line
- Pack Creek Flood Control Basin

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STORM DRAINAGE MASTER PLAN
REGIONAL DETENTION ALTERNATIVE

FIGURE
4-1

with undetained flows. **Figure 4-2** shows a concept of the pipes and basins under the local detention approach. **Table 4-1** provides a summary of the pros and cons of each approach.

Table 4-1
Pros and Cons of Each Detention Basin Approach

Category	Regional	Local
Maintenance/Number of facilities	Low	High
Cost per unit volume	Typically lower	Typically higher
Opportunity to "double store"	Lower	Higher
Conveyance Sizing	Larger	Smaller
Funding and Phasing difficulty	Higher	Low

Due to the funding constraints, the County has chosen the local detention approach for implementation in the master plan. Regional facilities may be permitted or required on a case-by-case basis.

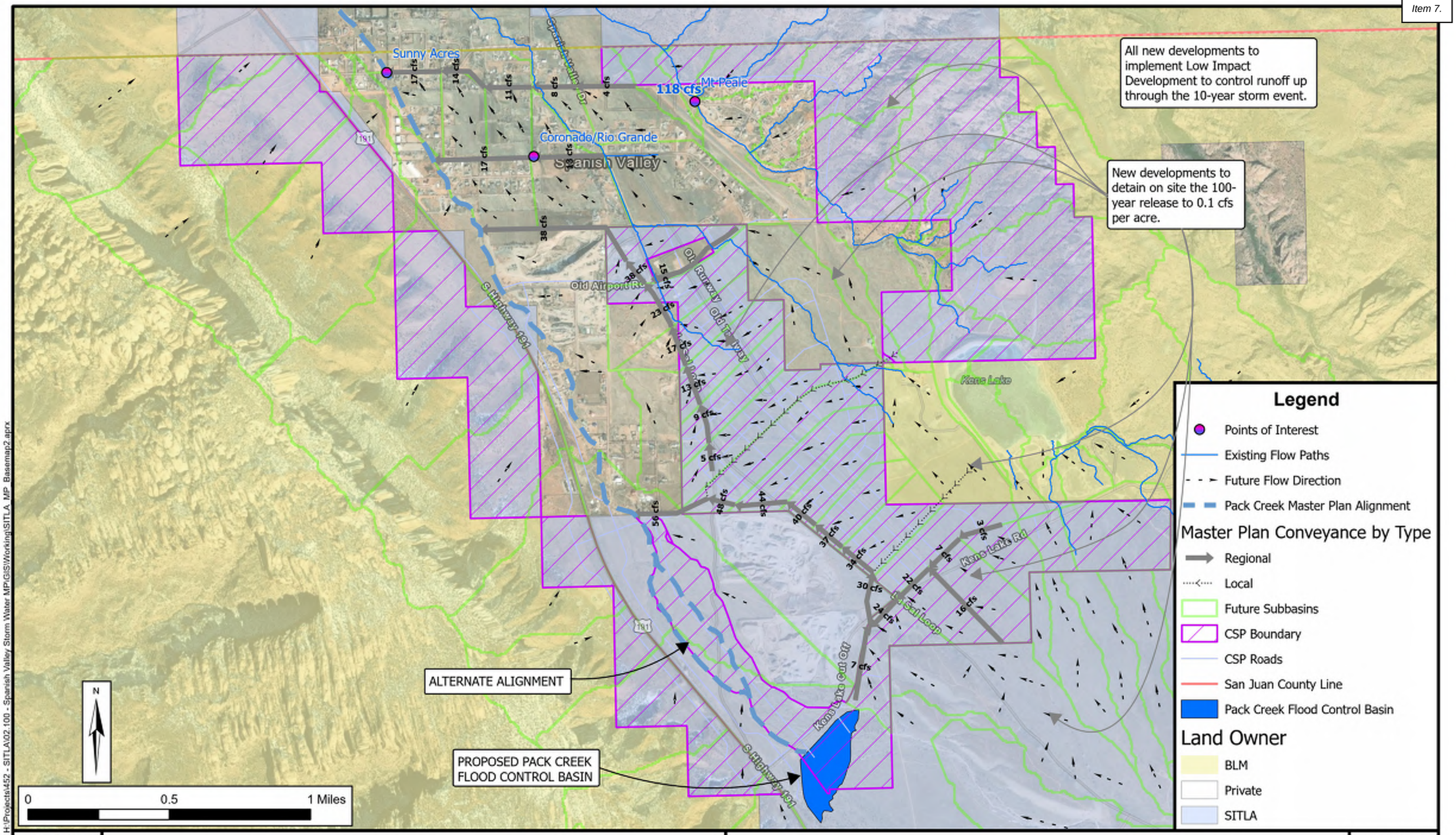
CONCEPTUAL CONSTRUCTION COST ESTIMATES

Construction cost estimates for the master plan conveyances and existing deficiencies on Mt. Peale Drive and Coronado Street are provided in **Table 4-2**. This cost estimate assumes that the local detention option is selected and that the Master Plan Conveyances are pipes.

Table 4-2
Conceptual Cost Estimates
of the Master Plan Regional Storm Drainage Facilities

PROJECT	COST*
Master Plan Conveyances	$6,310,000
Coronado (new outfall to Pack Creek)	$512,000
Mt. Peale Drive (drainage crossing replacement)	$102,000

* Assumes that the local detention option is selected. Also assumes that Master Plan Conveyances are pipes. Includes 30% for contingency and engineering.



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SAN JUAN COUNTY – SPANISH VALLEY

STORM DRAINAGE MASTER PLAN
LOCAL DETENTION ALTERNATIVE

FIGURE
4-2

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"Sediment Transport Technology" D. B. Simons and F. Senturk, Water Resources Publications, Ft. Collins, Co., 1977 and 1992.

"Urban Storm Drainage Criteria Manual", Volume 2. Denver, CO: Mile High Flood District. Website: www.mhfd.

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Permit Report

02/04/2023 - 03/03/2023

Permit #	Permit Date	City or County	Residential or Commercial	Type of Permit	Building CityStateZip	Owner Name	Applicant Name	Parcel #	Parcel Address
23,021	3/3/2023			Modular Home	Moab, Utah 84532		Affordable Builders	0003900000C0	
23,020	3/3/2023	San Juan County	Residential	Modular Home	Moab, Utah 84532		Affordable Builders	0003900000C0	
23,019	3/3/2023	San Juan County	Commercial	HVAC	Moab, Utah 84532		Moab Property Mananagment	000850010060	11850 S HWY 191, STE A-6
23,018	2/17/2023			New Construction/ADU	bluff ut 84512	Lynda Stocks	William H Hoagland	C40210253005	430 N 300 W
23,017	2/16/2023	San Juan County	Residential	New Construction	Moab, UT 84532		Eric R. Wolz	000700000040	377 W STONE CLIFF DR
23,016	2/14/2023	San Juan County	Residential	New Construction	MOAB, UT 84532		GERALD TRAINOR	700000330	16 S PINON RD
23,015	2/13/2023	San Juan County	Residential	Manufactured Home-Private Property	LaSal UT 84530		Affordable Builders	001530000630	209 BOBBIE LANE
23,014	2/9/2023	Town of Bluff	Residential	Addition	Bluff UT 84512	Ann Brown and Rusty Munn	Milan Munson	C00720020110	68 SOUTH 10TH WEST
23,013	2/7/2023	San Juan County	Residential	Addition	Monticello UT 84535	Justin Ramsay	Justin Ramsay	34S25E043610	
23,012	2/6/2023	San Juan County	Residential	Solar	Moab, Utah, 84532		Randy Barbe	27S23E221800	70 N DESERT SOLITAIRE RD

Total Records: 10 **3/3/2023**

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