

## PLANNING MEMORANDUM

1600 E. South Weber Drive  
South Weber, UT 84405

www.southwebercity.com

801-479-3177  
FAX 801-479-0066

To: Planning Commission  
From: Trevor Cahoon, Community Services Director;  
Re: Public Hearing and Action on: Kastle Cove Phase 2

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### Project Information

<b>Project Name</b>	Kastle Cove Phase 2
<b>Site Location</b>	Approx 7550 S 1160 E
<b>Tax ID Number</b>	130270018
<b>Applicant</b>	Layne Kap
<b>Owner</b>	Kastle Rock Excavation & Development LLC
<b>Proposed Actions</b>	Preliminary Plan
<b>Current Zoning</b>	R-M
<b>General Plan Land Use Classification</b>	R-M
<b>Gross Site</b>	Approx 8.852
<b>Number of Units</b>	13
<b>Units Per Acre</b>	1.47

### ACTION

Administrative Action: Consider approval of Preliminary Plat, and consider recommendation of approval of rezone and development agreement.

### ITEMS FOR PLANNING COMMISSION REVIEW

- **Preliminary Plat.** Preliminary Plat Items to Consider:
    - *Legal Description:* This has been supplied
    - *Subdivision Name:* The Subdivision name appears on the plat and is consistent with the application that has been submitted.
    - *Lot Sizes and Orientation:* Complete.
    - *Parcel Numbers or Lot Numbers of Surrounding Properties:* When recording the plat, it is necessary to indicate the parcel identification numbers or the lot number for adjoining subdivisions. This plat will need this updated information for the final plat.
    - *Right-of-Way (ROW) Dedication:* The ROW has been indicated on the drawings. This development is utilizing Private ROWs.
    - *Utility Easements:* The General Utility Easement required for property has been indicated on the plat.
    - *Signature Boxes:* Signature Boxes will be required for the Final Plat.
  - **Improvement Plans:** Developer has submitted improvement plans to be included in the submission.
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**APPROVALS PREVIOUSLY GRANTED BY PLANNING COMMISSION**

N/A

**RECOMMENDATIONS PREVIOUSLY GRANTED BY PLANNING COMMISSION**

N/A

**STAFF REVIEW SUMMARY**

City Staff has done a review of and have reviewed the following items:

**Planning Review:**

**PL-1: ZONING**

The primary current zoning for this project is Residential Moderate (R-M).

**PL-2: PROJECT SIZE**

The Project's approximately 8.852.

**PL-3: LOT AREAS**

Minimum lot area for R-M is 9000 sq ft. All lots are consistent with this requirement.

**PL-4: LOT WIDTH**

Minimum widths for R-M is maximum width of 80 feet for 25% of lots and minimum width of 100 feet for 25% of the lots with the average of all lots being more than 90 feet. The lots comply with this requirement.

**PL-5: SETBACKS**

Development will be able to accommodate all setback requirements with building permits.

**PL-6: ACCESS**

Development cannot receive building permits until Kastle Cove Phase 1 has completed the construction of the ROW.

**PL-7: ROADS**

All roadways comply with the General Plan.

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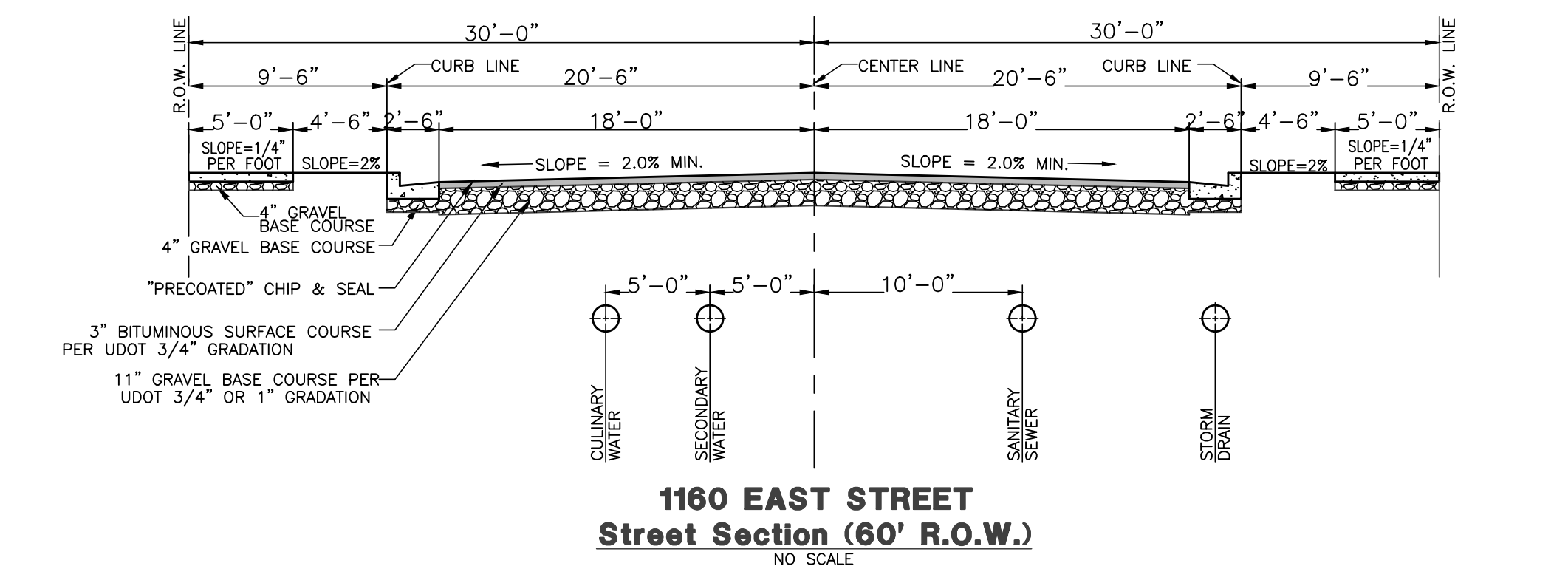
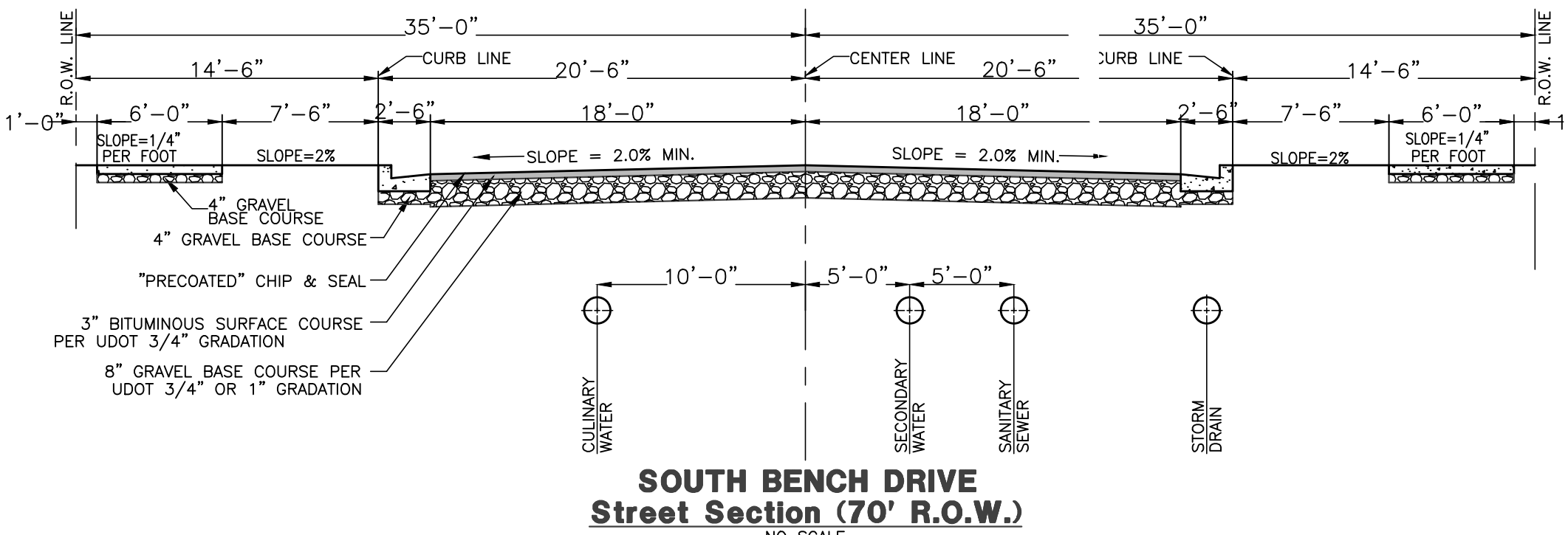




VICINITY MAP  
NO SCALE

CURVE TABLE

CURVE	RADIUS	ARC LTH	CHD LTH	CHD BEARING	DELTA
C1	720.00	111.01	110.90	S64°20'58"E	8°50'03"
C2	720.00	130.85	130.67	S54°43'33"E	10°24'47"
C3	720.00	23.09	23.09	S48°36'02"E	1°50'16"
C4	755.00	252.36	251.18	S57°15'25"E	13°09'03"
C5	790.00	110.50	110.41	S60°47'53"E	8°00'51"
C6	790.00	125.60	125.47	S52°14'10"E	9°06'34"
C7	160.00	117.92	115.27	S68°47'41"E	42°13'34"
C8	10.50	16.49	14.85	N45°05'32"E	90°
C9	195.00	143.71	140.48	S68°47'41"E	42°13'34"
C10	230.00	68.79	68.53	S56°14'57"E	17°08'07"
C11	230.00	100.72	99.92	S77°21'44"E	25°05'28"
C12	10.50	16.49	14.85	S44°54'28"E	90°
C13	180.00	8.68	8.68	S01°17'24"E	2°45'51"
C14	180.00	37.08	37.01	S08°34'24"E	11°48'09"
C15	20.00	17.64	17.08	S10°47'56"W	50°32'49"
C16	63.00	100.14	89.93	S09°27'52"E	91°04'25"
C17	63.00	158.45	119.87	N52°56'43"E	144°06'26"
C18	63.00	55.63	53.84	N44°24'11"W	50°35'22"
C19	20.00	20.09	19.26	N40°54'54"W	57°33'56"
C20	120.00	25.60	25.55	N06°01'12"W	12°13'28"
C21	150.00	44.91	44.74	N08°29'04"W	17°09'11"
C22	10.50	16.49	14.85	N45°05'32"E	90°
C23	10.50	16.49	14.85	N44°54'28"W	90°



BOUNDARY DESCRIPTION

PART OF THE NORTHEAST QUARTER OF SECTION 33, TOWNSHIP 5 NORTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY. DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT BEING 475.44 FEET NORTH 89°49'55" WEST AND 583.34 FEET SOUTH 00°10'05" WEST FROM THE NORTHEAST QUARTER OF SAID SECTION 33; THENCE SOUTH 89°54'28" EAST 166.21 FEET; THENCE SOUTH 00°05'32" WEST 28.76 FEET; THENCE SOUTH 89°54'28" EAST 160.00 FEET; THENCE NORTH 00°05'32" EAST 29.34 FEET; THENCE NORTH 89°53'17" EAST 150.00 FEET; THENCE SOUTH 00°05'32" WEST 863.67 FEET; THENCE NORTH 79°46'28" WEST 146.36 FEET; THENCE NORTH 40°41'28" WEST 174.60 FEET; THENCE NORTH 28°09'28" WEST 270.00 FEET; THENCE NORTH 42°54'28" WEST 84.70 FEET; THENCE NORTH 55°45'28" WEST 200.00 FEET; THENCE NORTH 68°40'28" WEST 50.07 FEET; THENCE NORTH 21°14'00" EAST 112.16 FEET; THENCE NORTH 62°04'12" EAST 90.03 FEET; THENCE NORTH 25°11'42" EAST 140.81 FEET TO THE POINT OF BEGINNING.

CONTAINING 352202 SQUARE FEET OR 8.085 ACRES.

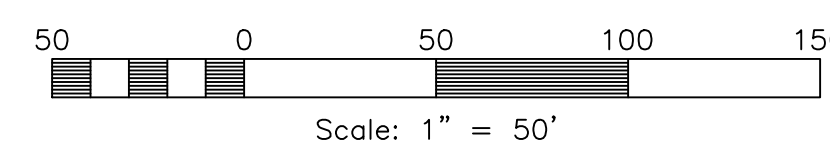


LEGEND

- = SECTION CORNER
- = BOUNDARY LINE
- = LOT LINE
- = ADJOINING PROPERTY
- = CENTERLINE
- = EASEMENTS
- = SECTION TIE LINE
- = PROPOSED SANITARY SEWER LINE
- = EX.SS = EXISTING SANITARY SEWER LINE
- = SW = PROPOSED SECONDARY WATER LINE
- = EX.SW = EXISTING SECONDARY WATER LINE
- = W = PROPOSED CULINARY WATER LINE (SIZE VARIES)
- = EX.W = EXISTING CULINARY WATER LINE
- = SD = PROPOSED STORM DRAIN (SIZE VARIES)
- = EX.SD = EXISTING STORM DRAIN
- = X = EXISTING FENCE LINE
- = ● = PROPOSED FIRE HYDRANT
- = ○ = EXISTING FIRE HYDRANT
- = ● = PROPOSED SANITARY SEWER MANHOLE
- = ○ = EXISTING SANITARY SEWER/STORM DRAIN MANHOLE
- = ● = PLUG W/ 2" BLOW-OFF
- = ● = PROPOSED SANITARY SEWER/STORM DRAIN MANHOLE
- = ■ = PROPOSED SINGLE GRATE CATCH BASIN WITH BICYCLE-SAFE GRATE

NOTES

1. PROPERTY IS ZONED X PER FEMA FLOOD PANEL 49011C0089F EFFECTIVE 9/15/2022
2. CONTOURS ARE SHOWN IN ONE FOOT INTERVALS
3. PROPERTY IS ZONED R-M.



NORTHEAST CORNER OF SECTION 33, TOWNSHIP 5 NORTH, RANGE 1 WEST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY, FOUND DAVIS COUNTY BRASS CAP MONUMENT



REVISIONS	DESCRIPTION
DATE	

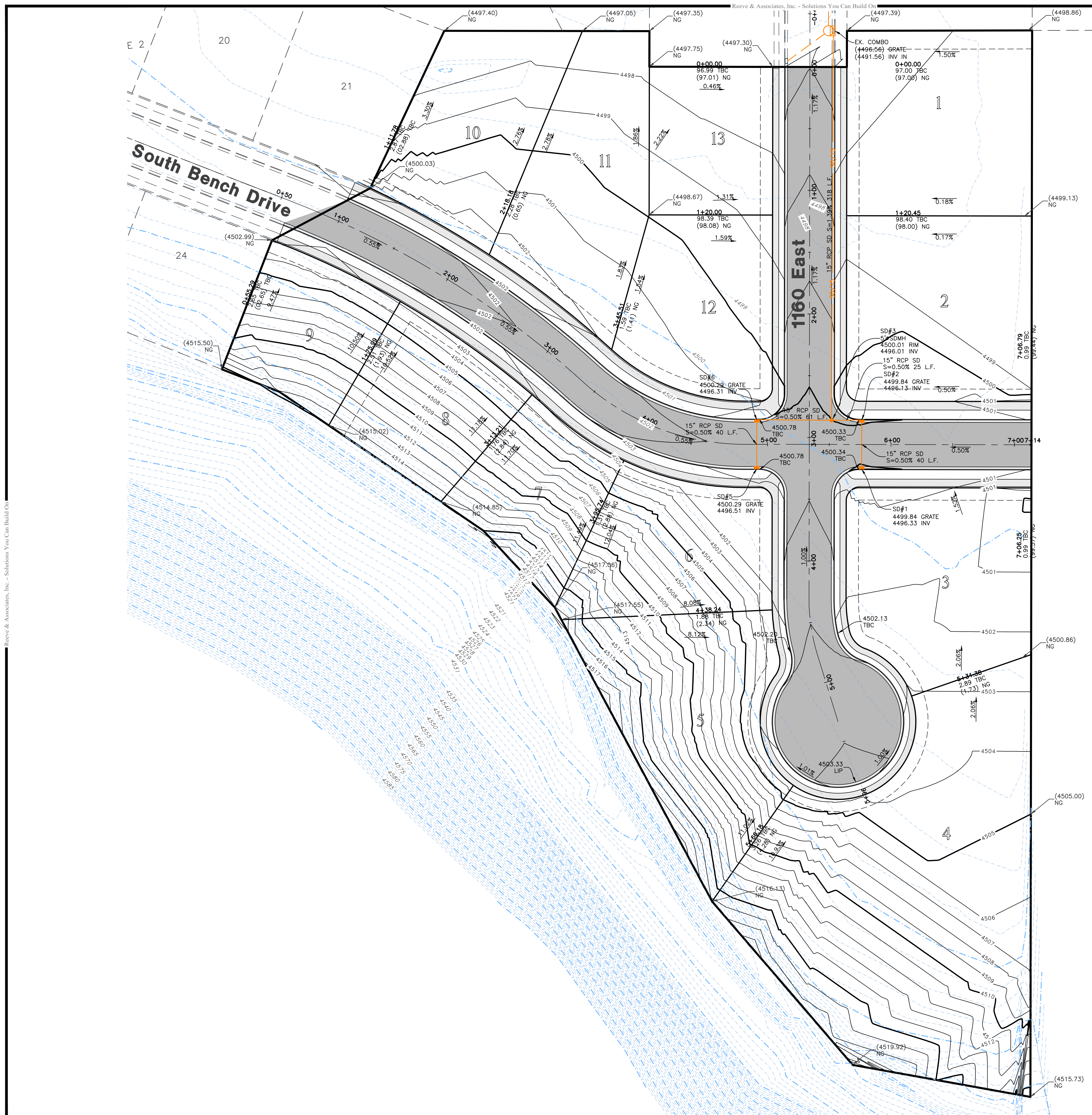
**Kastlecove II**  
PART OF THE NE 1/4 OF SECTION 33, T.5N., R. 1W., S.L.B. & M., U.S. SURVEY SOUTH WEBER, DAVIS COUNTY, UTAH


**Preliminary Plat**  
**'Not to be Recorded'**

**Project Info.**  
Engineer: N. Reeve  
Planner: C. Cove  
Designer: E. Roche  
Date: 3-13-23  
Name: KASTLECOVE II  
Number: 5918-19

**Developer:**  
Layne Kap  
244 W. South Weber Dr.  
South Weber, UT 84405  
(801) 725-5510







### Storm Runoff Calculations

**Kastlecove II**  
5918-19      3/16/2023

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the South Weber City area taken from the NOAA Atlas 14 database. Calculations have been completed for the 100-yr 24-hr storm event. Storm water runoff has been calculated for a fully developed site and limited to a release rate of 0.2 cfs/acre.

The calculations are as follows:

<b>Drainage Area:</b>	Total Area = 8.09 acre or 352,202 ft <sup>2</sup>	
	Runoff Coefficients	
	Paved Area 66,536	C = 0.9
	Roof 40,300	C = 0.9
	Landscaped Area 245,366	C = 0.2
	Weighted Runoff Coefficient	C = 0.41

<b>LID Retention</b>	80 <sup>th</sup> Percentile Rainfall Event (d)	0.45 in
	Is the site Feasible for LID?	Yes
	Site Imperviousness (I)	0.30
	NRCS Soil Group	B
	R <sub>v</sub> Equation	0.84*1.169
	R <sub>v</sub> (Soil Group A: 0.84*1.302; B: 0.84*1.169; C/D: 0.83*1.122)	0.21
	V <sub>pond</sub> = R <sub>v</sub> x d x Total Site SF	2777 c.f.

<b>Volume of Run-off for 100-year Storm Event:</b>		
C =	0.41	
I =	See Below in/hr	
A =	352202.00 ft <sup>2</sup>	
Q(out) =	1.62 ft <sup>3</sup> /s	(0.2 cfs per acre)

time (min)	time (sec)	i (in./hr.)	Q (cfs)	Vol. in (cf)	Vol. out (cf)	Difference (cf)
0	0	0.00	0.00	0	0	0
5	300	7.21	24.24	7271	485	6786
10	600	5.48	18.42	11053	970	10083
15	900	4.53	15.23	13706	1455	12250
30	1800	3.05	10.25	18456	2911	15545
60	3600	1.89	6.35	22873	5822	17052
120	7200	1.08	3.63	26141	11643	14498
180	10800	0.739	2.48	26830	17465	9366
360	21600	0.409	1.37	29699	34929	-5230
720	43200	0.251	0.84	36452	69858	-33407
1440	86400	0.14	0.47	40663	139716	-99053

<b>Orifice Sizing</b>	Given:	Q = 1.62 cfs	
		2g = 64.4 ft/s <sup>2</sup>	
		H = 3.00 ft	
		Cd = 0.62	for circular openings
		R = SQRT(Q/(0.7*(64.4*H) <sup>0.5</sup> ))	
		R = 0.24 feet	
		D = 2.93 inches	
		D = 5.87 inches	
		A = 27.03 inches <sup>2</sup>	0.1877 ft <sup>2</sup>


Pipe Sizing	Description	Pipe Size	Slope	Cap. (cfs)	Req. Cap.
		15	0.50%	4.61	

**SUMMARY:**

The required 100-yr storage volume is	17,052	cubic feet
The required LID Retention volume is	2,777	cubic feet
Orifice size is	5.9	inches

**Legend**

	= PROPOSED ASPHALT PAVEMENT
	= PROPOSED CONCRETE




## Kastlecove II

SOUTH WEBER, DAVIS COUNTY, UTAH

# Preliminary Grading Plan

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REGISTERED PROFESSIONAL ENGINEER  
J. NATE REEVE  
STATE OF UTAH  
375328

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**Project Info.**  
 Engineer: J. NATE REEVE, P.E.  
 Drafter: Z. DECARIA  
 Begin Date: MARCH 2023  
 Name: KASTLECOVE II  
 Number: 5918-19

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**2**  
Total Sheets