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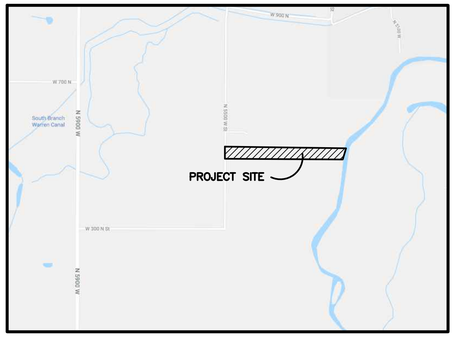


VICINITY MAP

SCALE: NONE

LEGEND

- = SECTION CORNER
- = BOUNDARY LINE
- = LOT LINE
- = ADJOINING PROPERTY
- = EASEMENTS
- = SECTION TIE LINE
- = EXISTING FENCELINE
- = SWALE
- W = PROPOSED CULINARY WATER LINE
- EX.W = EXISTING CULINARY WATER LINE
- SW = PROPOSED SECONDARY WATER LINE
- = PROPOSED FIRE HYDRANT
- = EXISTING FIRE HYDRANT
- = PROPOSED 3'X3' CATCH BASIN
- P.U.E. = PUBLIC UTILITY EASEMENT
- = EXISTING STRUCTURE
- = EXISTING PAVEMENT
- = PROPOSED PAVEMENT
- = EXISTING GRAVEL ROAD

BOUNDARY DESCRIPTION

PART OF THE SOUTHEAST QUARTER OF SECTION 7, TOWNSHIP 6 NORTH, RANGE 2 WEST, SALT LAKE BASE AND MERIDIAN, U.S. SURVEY. DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE SECTION LINE, SAID POINT BEING S00°18'53"W 1264.48 FROM THE CENTER OF SAID SECTION 7; THENCE S89°10'55"E ALONG THE SOUTH BOUNDARY OF FENSTER FARM PHASES 1, 2, 3 AND 4, 2152.24 FEET TO THE CENTER LINE OF WEBER RIVER; THENCE S16°29'12"W ALONG SAID CENTER LINE, 206.42 FEET; THENCE N89°41'07"W 2094.67 FEET; THENCE N00°18'53"E 217.16 FEET TO THE POINT OF BEGINNING.

CONTAINING 441319 SQUARE FEET OR 10.131 ACRES MORE OR LESS.

LINE TABLE

LINE	BEARING	DISTANCE
L1	S89°41'07"E	1192.51'
L2	N00°35'48"E	165.28'
L3	N00°18'53"E	20.00'

CURVE TABLE

#	RADIUS	ARC LENGTH	CHORD LENGTH	TANGENT	CHORD BEARING	DELTA ANGLE
C1	28.00'	43.84'	39.50'	27.86'	N45°27'20"E	89°43'05"

Storm Runoff Calculations

Warren Estates Subdivision
6600-03 10/13/2021 JD

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Ogden 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:

Drainage Area:

Total Area =	10.13 acre or	441,319 ft²	
Runoff Coefficients			
Paved Area		28,660	C = 0.9
Roof		26,400	C = 0.9
Landscaped Area		386,259	C = 0.2
Weighted Runoff Coefficient			C = 0.29

LID Retention

80th Percentile Rainfall Event	0.45	in
Is the site Feasible for LID?	Yes	
Site Imperviousness	0.12	
NRCS Soil Group	B	
Rv Equation	0.84*1.169	
R_v	0.07	
V_{goal}	1232	c.f.

Volume of Run-off for 100-year Storm Event:

C = 0.29
I = See Below in/hr
A = 441319.00 ft²
Q(out) = 2.03 ft³/s (0.2 cfs per acre)

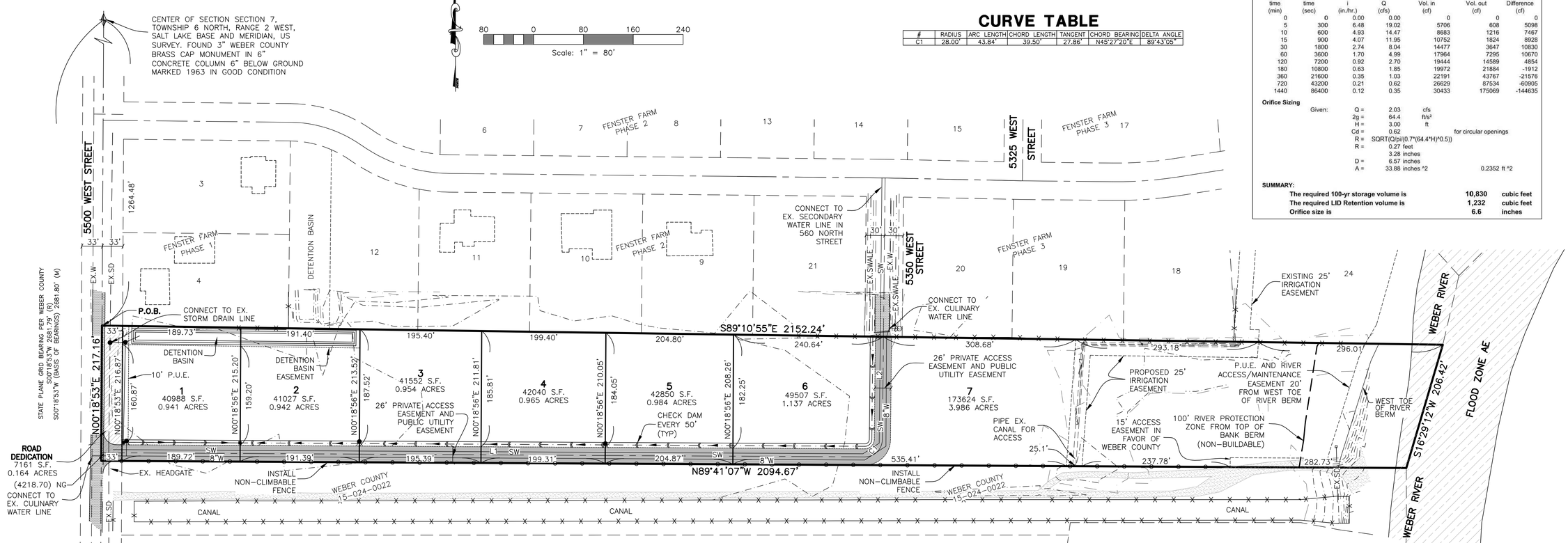
time (min)	time (sec)	i (in./hr.)	Q (cfs)	Vol. in (cf)	Vol. out (cf)	Difference (cf)
0	0	0.00	0.00	0	0	0
5	300	6.48	19.02	5706	608	5098
10	600	4.93	14.47	8683	1216	7467
15	900	4.07	11.95	10752	1824	8928
30	1800	2.74	8.04	14477	3647	10830
60	3600	1.70	4.99	17964	7295	10670
120	7200	0.92	2.70	19444	14589	4854
180	10800	0.63	1.85	19972	21884	-1912
360	21600	0.35	1.03	22191	43767	-21576
720	43200	0.21	0.62	26629	87534	-60905
1440	86400	0.12	0.35	30433	175069	-144635

Orifice Sizing

Given:
Q = 2.03 cfs
2g = 64.4 ft/s²
H = 3.00 ft
Cd = 0.62 for circular openings
R = SQRT(Q/pi/(0.7*(64.4*H)^0.5))
R = 0.27 feet
3.28 inches
D = 6.57 inches
A = 33.88 inches ^2 0.2352 ft ^2

SUMMARY:

The required 100-yr storage volume is	**10,830**	**cubic feet**
The required LID Retention volume is	**1,232**	**cubic feet**
Orifice size is	**6.6**	**inches**

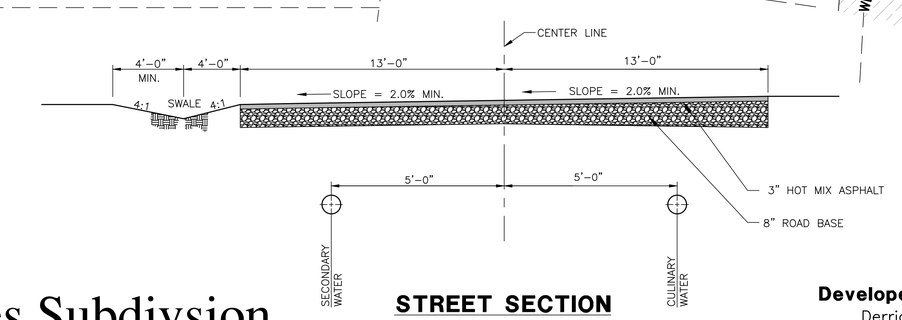


ELEVATION NOTES

1. ADD 3.18 TO PROJECT ELEVATIONS FOR COMPARISON TO FEMA FIRM PARCELS (LOCATED ON NAVD88)
2. ALL LOTS: FFE 4224.82
   BFE 4222.82

NOTES

1. LOTS WILL HAVE SEPTIC TANKS
2. CONTOURS ARE SHOWN IN 1 FOOT INTERVALS
3. PROJECT IS DESIGNED BY LOT AVERAGING
   AVERAGE LOT SIZE: 57,249 S.F.
   1.31 ACRES
4. SECONDARY WATER WILL CONNECT TO MOUNTAIN VIEW IRRIGATION PRESSURIZED SYSTEM IN 560 NORTH AND IN 5500 WEST STREET.
5. FRONT BUILDABLE SETBACK WILL BE FROM THE PRIVATE ACCESS EASEMENT.



STREET SECTION
PRIVATE ACCESS EASEMENT

SCALE: NONE

Warren Estates Subdivsion
A Lot Averaged Subdivison

Weber County, Utah

Developer:
Derrick Oman
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TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS
DATE | DESCRIPTION

Warren Estates Subdivision
A Lot Averaged Subdivision
PART OF THE SE 1/4 OF SECTION 7, T.6N., R.2W., S.L.B & M., U.S. SURVEY
WEBER COUNTY, UTAH

Preliminary Plan

Project Info.
Engineer: J. Nate Reeve
Planner: Chris J. Cave
Designer: Emilee Roche
Begin Date: 08/26/2021
Name: WARREN ESTATES
Number: 6600-03

1
1 Total Sheets

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