



Vicinity Map
SCALE: NONE

Boundary Description

PART OF THE WEST HALF OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN, U.S. SURVEY, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID POINT BEING N88°58'33"W 1008.99 FEET AND N01°01'27"E 140.47 FEET; THENCE N35°18'41"E 170.04 FEET; THENCE S33°18'08"E 35.00 FEET; THENCE N70°31'54"E 116.89 FEET; THENCE N70°31'55"E 50.15 FEET; THENCE N12°14'08"W 3.62 FEET; THENCE N77°45'19"E 60.00 FEET; THENCE N12°14'43"W 15.02 FEET; THENCE N77°45'17"E 125.00 FEET; THENCE S12°13'58"E 156.73 FEET; THENCE S77°44'57"W 38.07 FEET; THENCE S12°15'03"E 221.85 FEET; THENCE N89°41'07"W 52.36 FEET; THENCE N67°14'45"W 134.21 FEET; THENCE S35°18'26"W 100.00 FEET; THENCE N54°41'37"W 319.81 FEET TO THE POINT OF BEGINNING.

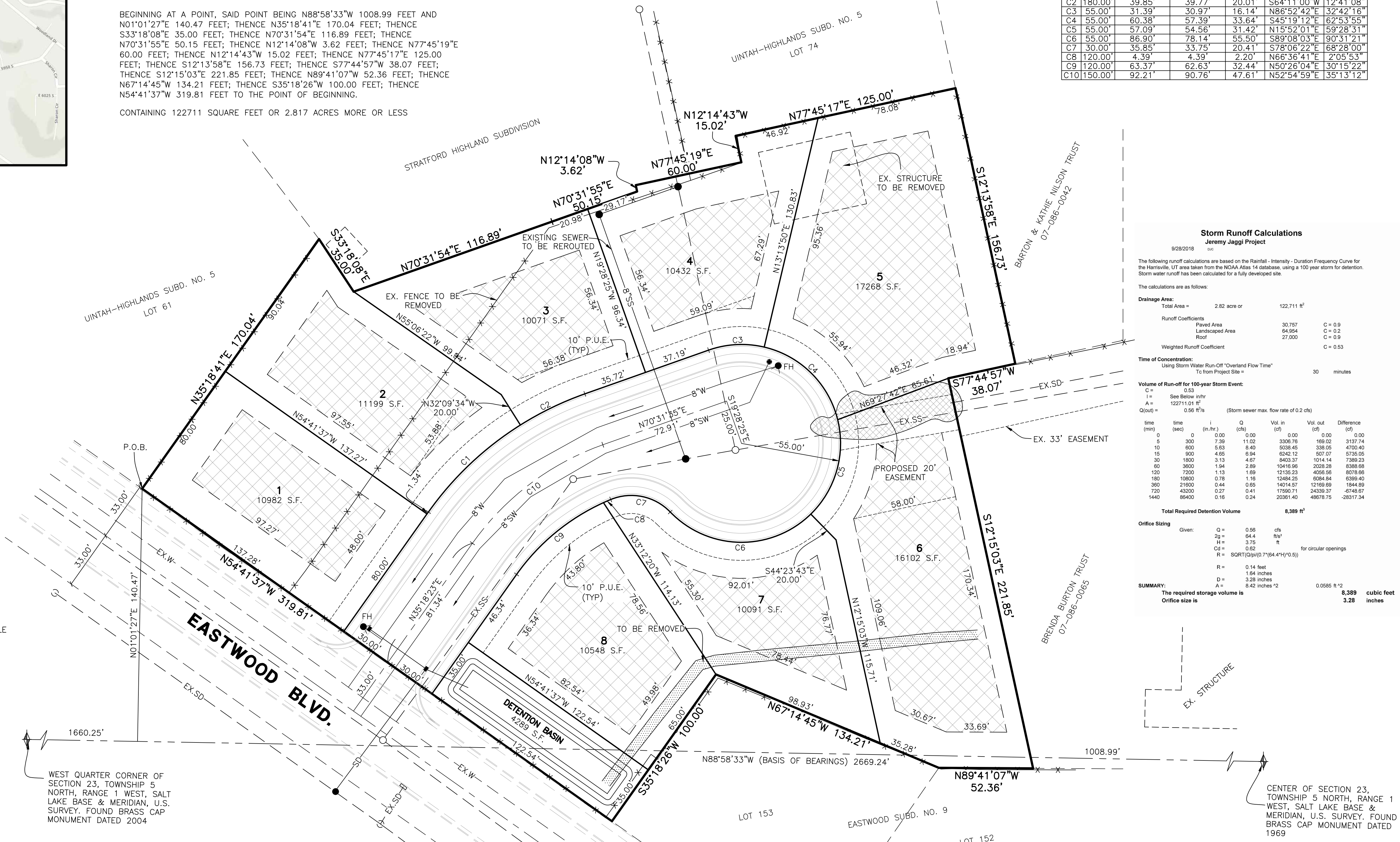
CONTAINING 122711 SQUARE FEET OR 2.817 ACRES MORE OR LESS

Curve Table

#	RADIUS	ARC LENGTH	CHD LENGTH	TANGENT	CHD BEARING	DELTA
C1	180.00'	70.79'	70.34'	35.86'	S46°34'24"W	22°32'04"
C2	180.00'	39.85'	39.77'	20.01'	S64°11'00"W	12°41'08"
C3	55.00'	31.39'	30.97'	16.14'	N86°52'42"E	32°42'16"
C4	55.00'	60.38'	57.39'	33.64'	S45°19'12"E	62°53'55"
C5	55.00'	57.09'	54.56'	31.42'	N15°52'01"E	59°28'31"
C6	55.00'	86.90'	78.14'	55.50'	S89°08'03"E	90°51'21"
C7	30.00'	35.85'	33.75'	20.41'	S78°06'22"E	68°28'00"
C8	120.00'	4.39'	4.39'	2.20'	N66°36'41"E	2°05'53"
C9	120.00'	63.37'	62.63'	32.44'	N50°26'04"E	30°15'22"
C10	150.00'	92.21'	90.76'	47.61'	N52°54'59"E	35°13'12"

Legend

- ◆ = SECTION CORNER
- = BOUNDARY LINE
- - - = LOT LINE
- - - = ADJOINING PROPERTY
- - - = EASEMENTS
- - - = SECTION TIE LINE
- SS = PROPOSED SANITARY SEWER LINE
- EX.SS = EXISTING SANITARY SEWER LINE
- SW = PROPOSED IRRIGATION WATER LINE
- EX.SW = EXISTING IRRIGATION WATER LINE (SIZE VARIES)
- 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
- = PROPOSED SANITARY SEWER MANHOLE
- = EXISTING SANITARY SEWER/STORM DRAIN MANHOLE
- = PROPOSED STORM DRAIN MANHOLE
- = PROPOSED SINGLE GRATE CATCH BASIN
- = EXISTING CATCH BASIN
- = AIR-VAC ASSEMBLY
- P.U.E. = PUBLIC UTILITY EASEMENT
- FH = FIRE HYDRANT
- [] = EXISTING STRUCTURE
- [] = EXISTING BASIN
- [] = EXISTING PAVEMENT



Storm Runoff Calculations
Jeremy Jaggi Project
9/28/2016

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Hanamiville, UT area taken from the NOAA Atlas 14 database, using a 100 year storm for detention. Storm water runoff has been calculated for a fully developed site.

The calculations are as follows:

Drainage Area:
Total Area = 2.82 acre or 122,711 ft²

Runoff Coefficients:
Paved Area: 30,787 ft² C = 0.9
Landscape Area: 84,924 ft² C = 0.2
Roof: 27,000 ft² C = 0.9
Weighted Runoff Coefficient: C = 0.53

Time of Concentration:
Using Storm Water Run-Off "Overland Flow Time"
To from Project Site = 30 minutes

Volume of Run-off for 100-year Storm Event:
C = 0.53
I = See Below in/hr
A = 122,711.01 ft²
Q(Out) = 0.56 ft³/s (Storm sewer max flow rate of 0.2 cfs)

time (min)	time (sec)	i (in./hr)	Q (cfs)	Vol in (cf)	Vol out (cf)	Difference (cf)
0	0	0.00	0.00	0.00	0.00	0.00
5	300	7.99	11.02	3306.75	169.02	3137.74
10	600	5.63	8.40	5038.45	338.05	4700.40
15	900	4.65	6.94	6243.12	507.07	5736.05
30	1800	3.13	4.67	8403.37	1014.14	7389.23
60	3600	1.94	2.89	10416.96	2028.29	8388.68
120	7200	1.13	1.59	12135.23	4056.58	8078.65
180	10800	0.78	1.16	12484.25	6084.84	6399.40
360	21600	0.44	0.65	14014.57	12169.69	1844.89
720	43200	0.27	0.41	17550.71	24339.37	-6788.67
1440	86400	0.16	0.24	20361.40	48678.75	-28317.34

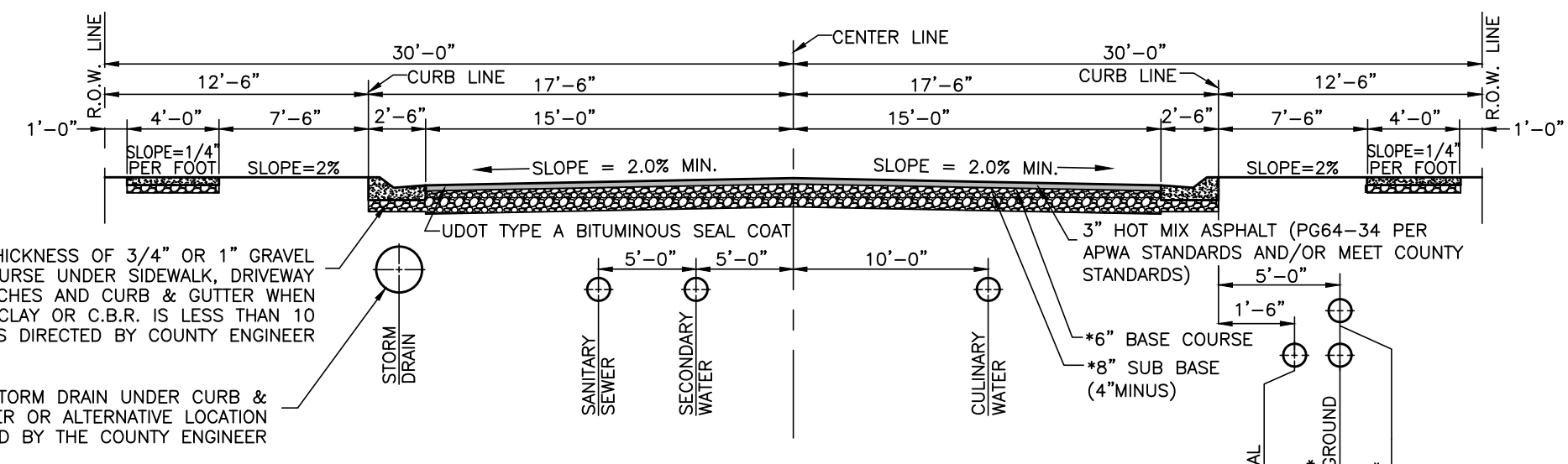
Total Required Detention Volume: 8,389 ft³

Orifice Sizing:
Given: Q = 0.56 cfs
Z₀ = 64.4 ft
H = 3.76 ft
C_d = 0.62
R = $\sqrt[4]{\frac{Q(2g)^{0.75}(64.4+H)^{0.5}}{C_d}}$
R = 0.14 feet
D = 1.64 inches
D = 3.28 inches
A = 8.42 inches²

SUMMARY:
The required storage volume is **8,389 cubic feet**
Orifice size is **3.28 inches**

WEST QUARTER CORNER OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN, U.S. SURVEY. FOUND BRASS CAP MONUMENT DATED 2004

CENTER OF SECTION 23, TOWNSHIP 5 NORTH, RANGE 1 WEST, SALT LAKE BASE & MERIDIAN, U.S. SURVEY. FOUND BRASS CAP MONUMENT DATED 1969

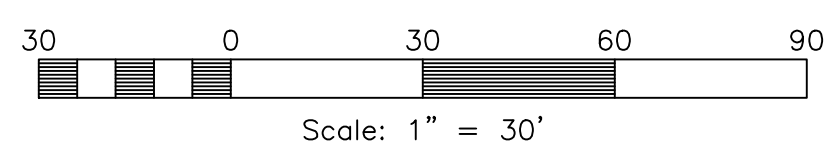


Street Section (60' R.O.W.)
SCALE: NONE

*VERIFY LOCATION WITH PHONE, GAS AND POWER COMPANIES.

Burton Property

Weber County, Utah



Developer:

Jeremy Jaggi
4287 Harrison Blvd.
#135
Ogden, UT. 84403
(801) 805-559-0197

NOTES:
1. CONTOURS ARE SHOWN WITH A ONE FOOT INTERVAL.

Reeve & Associates, Inc.
5160 SOUTH 1500 WEST RIVERDALE, UTAH 84405
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LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DESCRIPTION	DATE

Burton Property
PART OF THE WEST HALF OF SECTION 23, T5N, R. 1W, S11B & M., U.S. SURVEY
WEBER COUNTY, UTAH

Preliminary Design

Project Info.
Engineer: N. Reeve
Designer: C. Gave
Begin Date: 9-26-18
Name: SUBD. NAME
Number: 7075-01

Sheet	1
1	Sheets