811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

BENCHMARK

NORTHWEST CORNER OF SECTION 7, TOWNSHIP 15 SOUTH, RANGE 11 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 5415.57'

GENERAL NOTES

1. ALL WORK TO COMPLY WITH THE GOVERNING AGENCY'S STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
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4. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING SOIL CONDITIONS.
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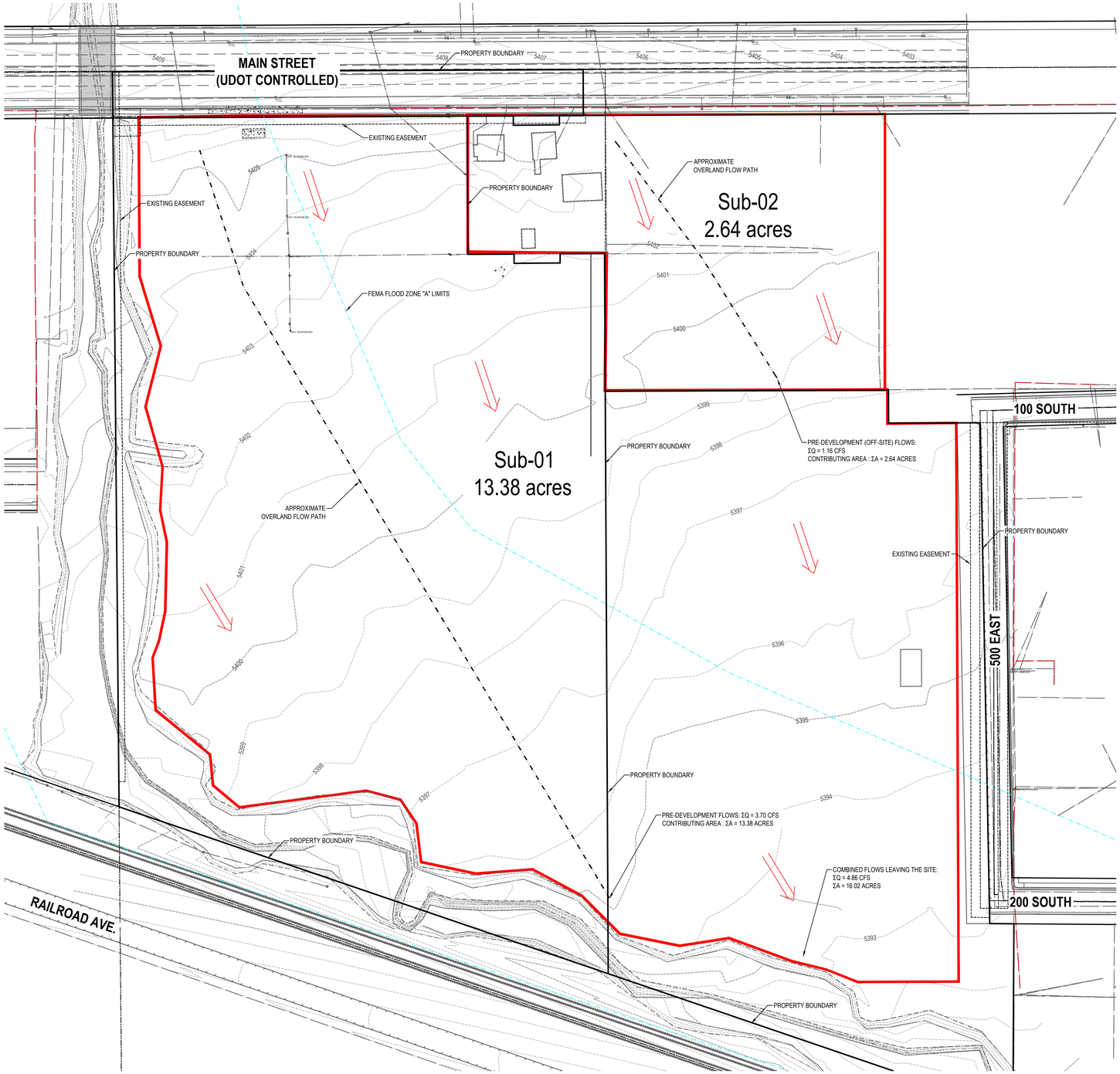
6. LANDSCAPED AREAS REQUIRE SUBGRADE TO BE MAINTAINED AT A SPECIFIC ELEVATION BELOW FINISHED GRADE AND REQUIRE SUBGRADE TO BE PROPERLY PREPARED AND SCARIFIED. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION.
7. SLOPE ALL LANDSCAPED AREAS AWAY FROM BUILDING FOUNDATIONS TOWARD CURB AND GUTTER OR STORM DRAIN INLETS.



LEGEND

	SECTION CORNER		EXISTING EDGE OF ASPHALT
	EXISTING MONUMENT		EXISTING STRIPING
	EXISTING REBAR AND CAP	— x —	EXISTING FENCE
WM	EXISTING WATER METER		EXISTING FLOW LINE
W	EXISTING WATER MANHOLE	— sd —	EXISTING STORM DRAIN LINE
W	EXISTING WATER BOX	— ss —	EXISTING SANITARY SEWER
WV	EXISTING WATER VALVE	— ld —	EXISTING LAND DRAIN LINE
	EXISTING FIRE HYDRANT	— w —	EXISTING CULINARY WATER LINE
SW	EXISTING SECONDARY WATER VALVE	— sw —	EXISTING SECONDARY WATER LINE
IRR	EXISTING IRRIGATION BOX	— irr —	EXISTING IRRIGATION LINE
	EXISTING IRRIGATION VALVE	— ohp —	EXISTING OVERHEAD POWER LINE
S	EXISTING SANITARY SEWER MANHOLE	— e —	EXISTING ELECTRICAL LINE
	EXISTING SANITARY CLEAN OUT	— g —	EXISTING GAS LINE
	EXISTING STORM DRAIN CLEAN OUT BOX	— t —	EXISTING TELEPHONE LINE
	EXISTING STORM DRAIN INLET BOX		EXISTING CONTOURS
	EXISTING STORM DRAIN CATCH BASIN		PUBLIC DRAINAGE EASEMENT
	EXISTING STORM DRAIN COMBO BOX		EXISTING ASPHALT TO BE REMOVED
	EXISTING STORM DRAIN CLEAN OUT		EXISTING CURB AND GUTTER
	EXISTING STORM DRAIN CULVERT		EXISTING CONCRETE
E	EXISTING ELECTRICAL MANHOLE		BUILDING TO BE REMOVED
E	EXISTING ELECTRICAL BOX		EXISTING BUILDING
	EXISTING TRANSFORMER		
	EXISTING UTILITY POLE		
	EXISTING LIGHT		
	EXISTING GAS METER		
G	EXISTING GAS MANHOLE		
GV	EXISTING GAS VALVE		
T	EXISTING TELEPHONE MANHOLE		
	EXISTING TELEPHONE BOX		
CATV	EXISTING CABLE BOX		
	EXISTING BOLLARD		
	EXISTING SIGN		

NOTE: MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PLAN SET.

TABLE 1: MODEL RESULTS FROM PRE-DEVELOPMENT CONDITIONS

SN	Element ID	Area (acres)	Drainage Node ID	Weighted Curve Number	Rain Gage ID	Total Precipitation (inches)	Total Runoff (inches)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	Sub-01	13.39	Stor-01	83.00	ain Gage-01	1.41	0.33	3.70	0 00:21:49
2	Sub-02	2.64	Stor-02	86.00	ain Gage-01	1.41	0.43	1.16	0 00:20:00

NOTE:
- DRAINAGE NODES (STOR- 01 & STOR-02) = GENERIC OUTFALL POINTS/ NODES USED FOR MODELING PURPOSED ONLY
- WEIGHTED CURVE NUMBER = BRUSH OR BRUSH/WEED/GRASS MIXTURE SOIL GROUP "D" - POOR CONDITION
- RAIN GAGE - 01 = FARMER FLETCHER 3-HR, 25-YEAR STORM DISTRIBUTION

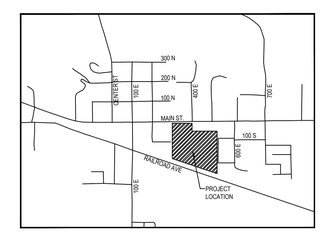
NORTH

HORIZONTAL GRAPHIC SCALE

60 0 30 60 120

(IN FEET)
HORZ: 1 inch = 60 ft.

VICINITY MAP



NO SCALE

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WELLINGTON RV PARK
DRAINAGE CONCEPT / HYDROLOGY STUDY MAP
WELLINGTON, UT

LICENSED PROFESSIONAL ENGINEER
20075592-2202
KELLY L. CHAPPELL
STATE OF UTAH

PRE-DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER 11460
PRINT DATE 2022-12-07
PROJECT MANAGER KC
DESIGNED BY BR

EX-001

811 Know what's below. Call before you dig.

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

BENCHMARK

NORTHWEST CORNER OF SECTION 7, TOWNSHIP 1S SOUTH, RANGE 1 EAST SALT LAKE BASE AND MERIDIAN

ELEV = 5415.57'

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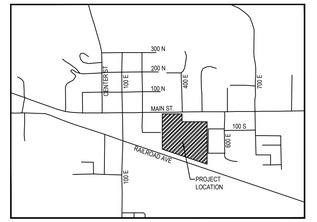
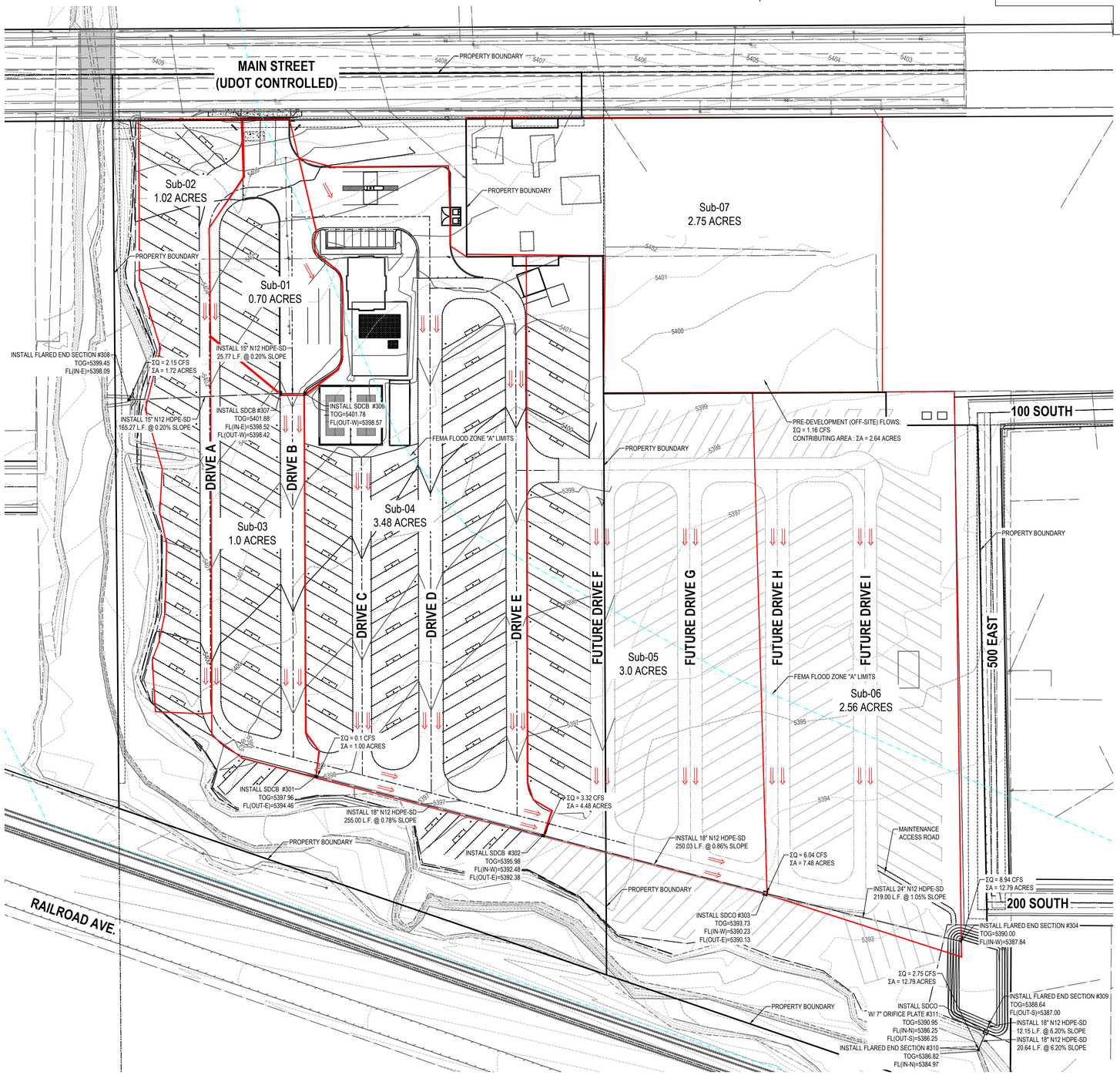
60 0 30 60 120

(IN FEET)
HORZ: 1 inch = 60 ft.



VICINITY MAP NO SCALE



LEGEND

- SECTION CORNER
- EXIST MONUMENT
- PRO MONUMENT
- EXIST REBAR AND CAP
- SET ENSIGN REBAR AND CAP
- EXIST WATER METER
- PRO WATER METER
- EXIST WATER MANHOLE
- PRO WATER MANHOLE
- EXIST WATER VALVE
- PRO WATER VALVE
- EXIST FIRE HYDRANT
- PRO FIRE HYDRANT
- EXIST SECONDARY WATER VALVE
- PRO SECONDARY WATER VALVE
- EXIST IRRIGATION VALVE
- PRO IRRIGATION VALVE
- EXIST SANITARY SEWER MANHOLE
- PRO SANITARY SEWER MANHOLE
- EXIST STORM DRAIN CLEAN OUT
- PRO STORM DRAIN CLEAN OUT
- EXIST STORM DRAIN CATCH BASIN
- PRO STORM DRAIN CATCH BASIN
- EXIST STORM DRAIN COMBO BOX
- PRO STORM DRAIN COMBO BOX
- EXIST STORM DRAIN CULVERT
- PRO STORM DRAIN CULVERT
- EXIST SIGN
- PRO SIGN
- EXIST UTILITY MANHOLE
- EXIST UTILITY POLE
- EXIST GAS VALVE
- EXIST TREE
- EXIST SHRUB

- DENSE VEGETATION PREVENTING ACCESS FOR ACCURATE SURVEY
- MINOR EXIST. CONTOURS 1' INCREMENT
- MAJOR EXIST. CONTOURS 5' INCREMENT
- MINOR PROPOSED CONTOURS 1' INCREMENT
- MAJOR PROPOSED CONTOURS 5' INCREMENT
- EXIST BUILDING
- PRO BUILDING
- BUILDABLE AREA WITHIN SETBACKS
- PUBLIC DRAINAGE EASEMENT
- EXISTING 30" CURB AND GUTTER
- PROPOSED 30" CURB AND GUTTER
- EXIST FLOW LINE
- PRO FLOW LINE
- EXIST FENCE
- PRO FENCE
- EXIST EDGE OF ASPHALT
- PRO EDGE OF ASPHALT
- EXIST SANITARY SEWER
- PRO SANITARY SEWER LINE
- EXIST STORM DRAIN LINE
- PRO STORM DRAIN LINE
- EXIST LAND DRAIN LINE
- PRO LAND DRAIN LINE
- EXIST WATER LINE
- PRO WATER LINE
- EXIST SECONDARY WATER LINE
- PRO SECONDARY WATER LINE
- EXIST IRRIGATION LINE
- PRO IRRIGATION LINE

NOTE: MAY CONTAIN SYMBOLS THAT ARE NOT USED IN THIS PLAN SET.

TABLE 1: MODEL RESULTS FROM POST-DEVELOPMENT CONDITIONS (PIPE DATA)

SN	Element ID	Length (ft)	Peak Flow (cfs)	Max Flow Velocity (ft/sec)	Travel Time (min)	Design Flow Capacity (cfs)	Max Flow / Desing Flow Ratio	Max (min)	Total Time Surcharged (min)	Max Flow Depth (ft)
1	Pipe-(1)	255.00	0.10	1.90	2.24	6.14	0.02	0.09	0.00	0.11
2	Pipe-(2)	250.03	3.25	5.32	0.78	6.47	0.50	0.50	0.00	0.62
3	Pipe-(3)	210.08	5.96	4.05	0.86	12.88	0.46	0.48	0.00	0.93
4	Pipe-(4)	64.77	8.93	5.56	0.19	17.33	0.52	0.51	0.00	0.97
5	Pipe-(5)	25.77	1.24	2.40	0.18	3.12	0.40	0.44	0.00	0.55
6	Pipe-(6)	165.27	1.21	2.42	1.14	3.12	0.39	0.43	0.00	0.53

TABLE 2: MODEL RESULTS FROM POST-DEVELOPMENT CONDITIONS (JUNCTION DATA)

SN	Element ID	Invert Elevation (ft)	Ground/Rim (Max) Elevation (ft)	Surcharge Depth (ft)	Peak Inflow (cfs)	Maximum HGL Elevation Attained (ft)	Maximum HGL Depth Attained (ft)	Maximum Surcharge Depth Attained (ft)	Minimum Freeboard Attained (ft)	Total Flooded Volume (ac-inches)	Total Time Flooded (minutes)
1	301	5394.46	5397.96	0.00	0.10	5394.57	0.11	0.00	3.39	0.00	0.00
2	302	5392.38	5395.98	0.00	3.32	5393.01	0.63	0.00	2.96	0.00	0.00
3	303	5390.13	5393.73	0.00	6.04	5391.09	0.96	0.00	2.64	0.00	0.00
4	304	5389.45	5393.05	0.00	8.94	5390.51	1.06	0.00	2.54	0.00	0.00
5	306	5398.57	5401.78	0.00	1.24	5399.12	0.55	0.00	2.66	0.00	0.00
6	307	5398.42	5401.88	0.00	1.24	5399.07	0.65	0.00	2.81	0.00	0.00
7	308	5398.09	5404.09	0.00	2.15	5404.09	6.00	0.00	0.00	0.00	0.00
8	Out-1Pipe-(4)	5389.13	5395.13	0.00	8.93	5395.13	6.00	0.00	0.00	0.00	0.00

TABLE 3: MODEL RESULTS FROM POST-DEVELOPMENT CONDITIONS (SUBBASIN DATA)

SN	Element ID	Area (acres)	Drainage Node ID	Weighted Curve Number	Rain Gage ID	Peak Rate Factor	Total Precipitation (inches)	Total Runoff (inches)	Peak Runoff (cfs)	Time of Concentration (days hh:mm:ss)
1	Sub-01	0.70	306	94.04	Rain Gage-01	484	1.41	0.86	1.25	0 00:10:00
2	Sub-02	1.02	Out-1Pipe-(6)	89.00	Rain Gage-01	484	1.41	0.56	0.98	0 00:10:00
3	Sub-03	1.00	301	89.00	Rain Gage-01	484	1.41	0.09	0.10	0 00:05:00
4	Sub-04	3.48	302	89.00	Rain Gage-01	484	1.41	0.56	3.34	0 00:10:00
5	Sub-05	3.00	303	89.00	Rain Gage-01	484	1.41	0.56	2.88	0 00:10:00
6	Sub-06	2.57	304	89.00	Rain Gage-01	484	1.41	0.56	2.47	0 00:10:00
7	Sub-07	2.75	304	86.00	Rain Gage-01	484	1.41	0.43	1.21	0 00:20:00

NOTE:
- DRAINAGE NODES (STOR- 01 & STOR-02) = GENERIC OUTFALL POINTS/ NODES USED FOR MODELING PURPOSED ONLY
- WEIGHTED CURVE NUMBER =
  - SUB - 01 = DIRT ROADS SOIL GROUP "D" (89) & PAVED CURBS & STORM SEWER GROUP "D" (98) - 56% IMPERVIOUS
  - SUB - 02 = DIRT ROADS SOIL GROUP "D" (89) - 0% IMPERVIOUS
  - SUB - 03 = DIRT ROADS SOIL GROUP "D" (89) - 0% IMPERVIOUS
  - SUB - 04 = DIRT ROADS SOIL GROUP "D" (89) & PAVED CURBS & STORM SEWER GROUP "D" (98) - 15% IMPERVIOUS
  - SUB - 05 = DIRT ROADS SOIL GROUP "D" (89) - 0% IMPERVIOUS
  - SUB - 06 = DIRT ROADS SOIL GROUP "D" (89) - 0% IMPERVIOUS
  - SUB - 07 = FARMSTEAD SOIL GROUP "D" (86) - 10% IMPERVIOUS
- RAIN GAGE - 01 = FARMER FLETCHER 3-HR, 25-YEAR STORM DISTRIBUTION

NOTE:
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4665 W. COUNTRY CLUB DR.
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CONTACT:
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WELLINGTON RV PARK
DRAINAGE CONCEPT / HYDROLOGY STUDY MAP
WELLINGTON, UT

LICENSED PROFESSIONAL ENGINEER
10875582-2202
KELLY L. CHAPPELL
STATE OF UTAH

POST-DEVELOPMENT DRAINAGE MAP

PROJECT NUMBER 11460
PRINT DATE 2022-12-07
PROJECT MANAGER KC
DESIGNED BY BR

EX-002

811 Know what's below. Call before you dig.

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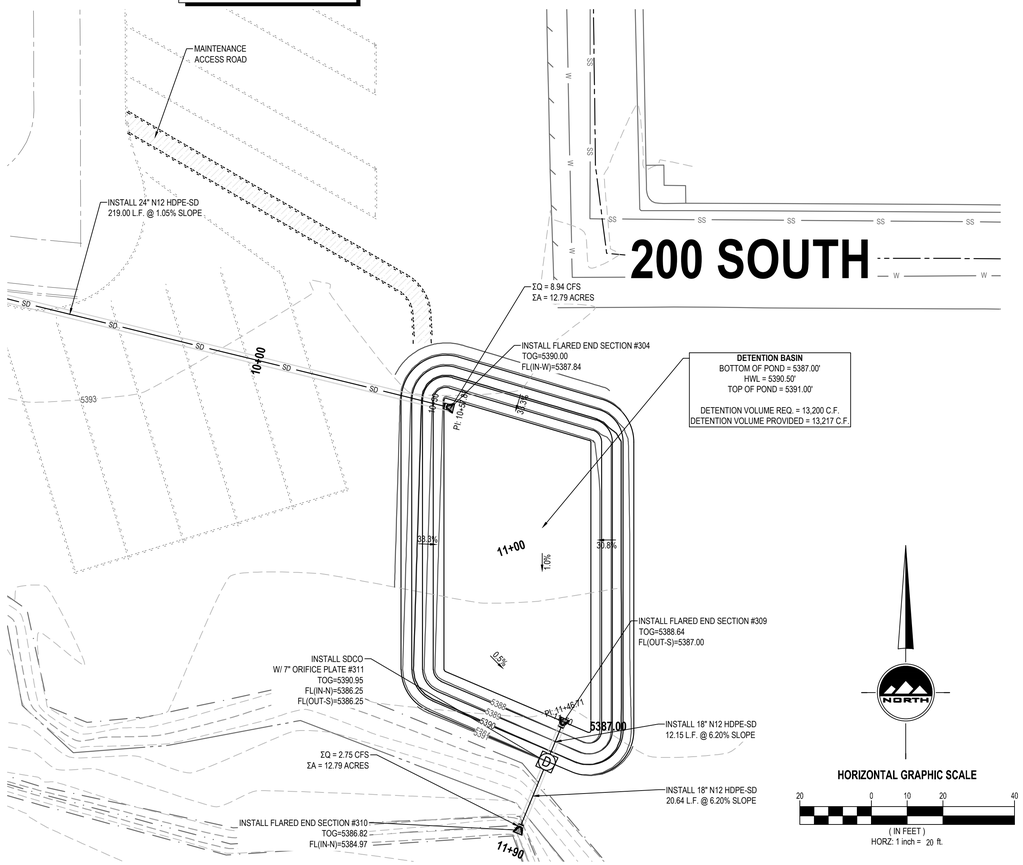
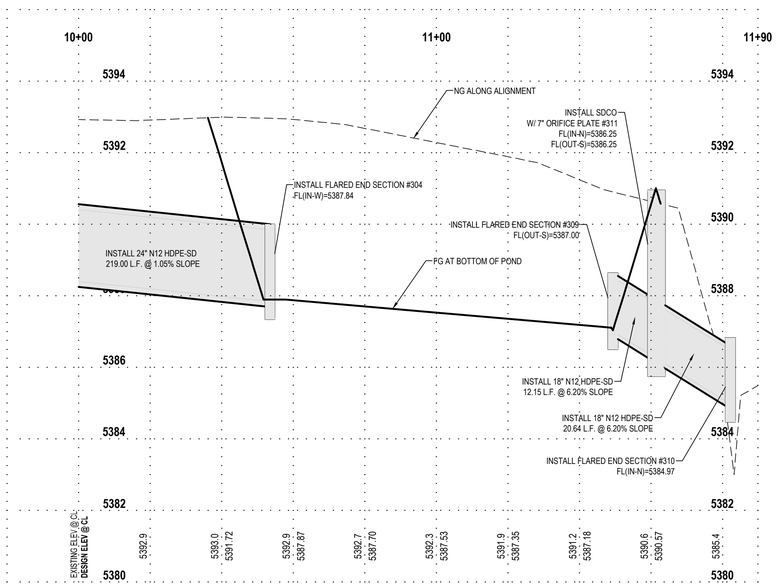
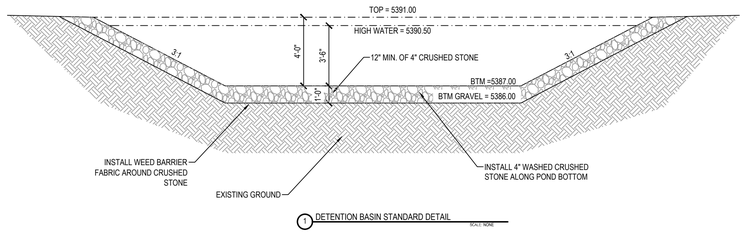
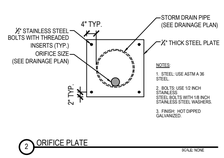
ELEV = 5415.57'







1 DETENTION BASIN STANDARD DETAIL SCALE: NONE



2 ORIFICE PLATE SCALE: NONE

NOTE:

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LEGEND

SECTION CORNER	DENSE VEGETATION PREVENTING ACCESS FOR ACCURATE SURVEY
EXIST MONUMENT	MINOR EXIST. CONTOURS 1' INCREMENT
PRO MONUMENT	MAJOR EXIST. CONTOURS 5' INCREMENT
EXIST REBAR AND CAP	MINOR PROPOSED CONTOURS 1' INCREMENT
SET ENSIGN REBAR AND CAP	MAJOR PROPOSED CONTOURS 5' INCREMENT
EXIST WATER METER	EXIST BUILDING
PRO WATER METER	PRO BUILDING
EXIST WATER MANHOLE	BUILDABLE AREA WITHIN SETBACKS
PRO WATER MANHOLE	PUBLIC DRAINAGE EASEMENT
EXIST WATER VALVE	EXISTING 30" CURB AND GUTTER
PRO WATER VALVE	PROPOSED 30" CURB AND GUTTER
EXIST FIRE HYDRANT	EXIST FLOW LINE
PRO FIRE HYDRANT	PRO FLOW LINE
EXIST SECONDARY WATER VALVE	EXIST FENCE
PRO SECONDARY WATER VALVE	PRO FENCE
EXIST IRRIGATION VALVE	EXIST EDGE OF ASPHALT
PRO IRRIGATION VALVE	PRO EDGE OF ASPHALT
EXIST SANITARY SEWER MANHOLE	EXIST SANITARY SEWER
PRO SANITARY SEWER MANHOLE	PRO SANITARY SEWER LINE
EXIST STORM DRAIN CLEAN OUT	EXIST STORM DRAIN LINE
PRO STORM DRAIN CLEAN OUT	PRO STORM DRAIN LINE
EXIST STORM DRAIN CATCH BASIN	EXIST LAND DRAIN LINE
PRO STORM DRAIN CATCH BASIN	PRO LAND DRAIN LINE
EXIST STORM DRAIN COMBO BOX	EXIST WATER LINE
PRO STORM DRAIN COMBO BOX	PRO WATER LINE
EXIST STORM DRAIN CULVERT	EXIST SECONDARY WATER LINE
PRO STORM DRAIN CULVERT	PRO SECONDARY WATER LINE
EXIST SIGN	EXIST IRRIGATION LINE
PRO SIGN	PRO IRRIGATION LINE
EXIST UTILITY MANHOLE	
EXIST UTILITY POLE	
EXIST GAS VALVE	
EXIST TREE	
EXIST SHRUB	

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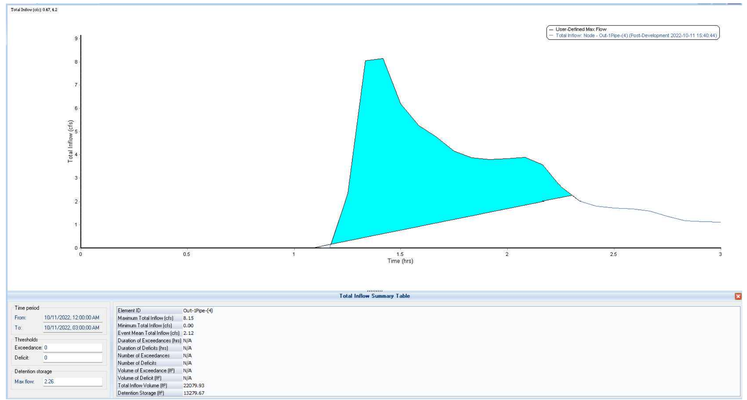

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WELLINGTON RV PARK
DRAINAGE CONCEPT / HYDROLOGY STUDY MAP

WELLINGTON, UT

PROFESSIONAL ENGINEER
LICENSED
10875592-2202
KELLY L. CHAPPELL
STATE OF UTAH

DETENTION BASIN DRAINAGE MAP

PROJECT NUMBER	PRINT DATE
11460	2022-12-07
PROJECT MANAGER	DESIGNED BY
KC	BR

EX-003

7.0 APPENDIX B – MODEL RESULTS

Project Description

File Name	Post-Development.SPF

Project Options

Flow Units	CFS
Elevation Type	Elevation
Hydrology Method	SCS TR-55
Time of Concentration (TOC) Method	SCS TR-55
Link Routing Method	Kinematic Wave
Enable Overflow Ponding at Nodes	YES
Skip Steady State Analysis Time Periods	NO

Analysis Options

Start Analysis On	Oct 11, 2022	00:00:00
End Analysis On	Oct 11, 2022	03:00:00
Start Reporting On	Oct 11, 2022	00:00:00
Antecedent Dry Days	0	days
Runoff (Dry Weather) Time Step	0 01:00:00	days hh:mm:ss
Runoff (Wet Weather) Time Step	0 00:05:00	days hh:mm:ss
Reporting Time Step	0 00:05:00	days hh:mm:ss
Routing Time Step	5	seconds

Number of Elements

	Qty
Rain Gages	1
Subbasins	7
Nodes	8
Junctions	8
Outfalls	0
Flow Diversions	0
Inlets	0
Storage Nodes	0
Links	6
Channels	0
Pipes	6
Pumps	0
Orifices	0
Weirs	0
Outlets	0
Pollutants	0
Land Uses	0

Rainfall Details

SN	Rain Gage ID	Data Source	Data Source ID	Rainfall Type	Rain Units	State	County	Return Period (years)	Rainfall Depth (inches)	Rainfall Distribution
1	Rain Gage-01	Time Series	FF-25	Cumulative	inches				0.00	