LEHI CITY

STORM WATER MASTER PLAN

DATE: September 2, 2014

PREPARED BY:
CIVIL SCIENCE, INC.
LEHI, UTAH

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CHAPTER 1
INTRODUCTION

Lehi City is the northernmost community in Utah County located approximately 12 miles north of Provo and 23 miles south of Salt Lake City. It was originally settled by the Mormon Pioneers in 1850 and is Utah's sixth oldest town. The City is currently bordered by Salt Lake County on the North, American Fork on the East, Saratoga Springs on the West and Utah Lake on the South. Over the past decade the city has experienced significant growth predominantly north and south.

The climate is semiarid with annual rainfall averaging approximately 10 inches. Temperature averages range from a high of 95-100 degrees Fahrenheit in the summer to a low of 15-20 degrees Fahrenheit in the winter.

Beginning as a typical Utah agricultural community, Lehi City has several historical drainage and irrigation features throughout the city.

- Dry Creek – Runoff channel running through the middle of Lehi City from the northeast limits (Highland) to the southwest limits (Utah Lake). Dry Creek is the only FEMA studied channel in Lehi City. More information dealing with flooding and flood zones can be found in the FEMA Flood Insurance Study (FIS).
- Waste Ditch – Originally an irrigation feature the Waste Ditch is now used for storm runoff. Excess flows in Dry Creek can be diverted into Waste Ditch at the headwaters near Interstate-15. The Waste Ditch drains to the Jordan River.
- Murdock Canal (Provo Reservoir Canal System) – The Murdock Canal is owned and maintained by Provo River Water Users Association (PRWUA) and runs 21 miles along the base of the Wasatch Mountain range through Utah County. Through the city it parallels SR-92 on the south side of the roadway. The canal has recently been piped (construction completed in 2012).
- Bull River Ditch – Irrigation feature located south of SR-92.
- Fox Ditch – Irrigation/Drainage feature on the north end of Lehi City.
- Cedar Hollow –Major drainage feature on the east side of the City conveying flows from Highland.
- Spring Creek – Drainage/Irrigation feature located on the southeast part of the city draining the Mill Pond.

Other miscellaneous ditches include:

New Survey Ditch	Smith Ditch
Matthew Ditch	2nd North Ditch
Gray Ditch	3rd North Ditch

These features are being used as outfalls to the numerous drainage pipes and ditches throughout the city. It is important that as land use within the city changes that irrigation and drainage features are maintained and with easements to support current drainage patterns.

1.1 Objectives

This plan will serve as an update of the Storm Drain Master plan completed in 1999. It will serve to:

- Establish the design criteria for the management of storm water.
- Evaluate existing storm water facilities.
- Establish primary storm drains and associated sub-basin drainage areas with their boundaries.
- Estimate the storm water runoff flow projections for each primary storm drain at build-out through the use of a computer modeling system.

Based on these objectives and the study findings, this plan presents conceptual design recommendations for the storm drain system. The recommendations include the use of local detention facilities and the potential use of irrigation facilities for storm drainage.

1.2 Scope of Study

The scope of this Master Plan is to model the major trunkline ("backbone") systems for each pre-determined storm drainage basin within the city. Most of the drainage basins have been identified from the previous master plan. Slight boundary adjustments have been made based upon development and recent area plan changes. The city provided physical data for the trunk lines to be modeled. Sections or areas lacking survey data were supplemented with approximated pipe sizes and slopes. Generally, pipe sizes 18 inch and larger were modeled.

1.3 Description of the Study Area

For the purposes of this study, only major piped drainage basins south of SR-92 have been evaluated. The following three areas have not been modeled as part of this study but are included under separate studies:

- Thanksgiving Point
- Micron
- Traverse Mountain

1.4 Design Criteria

For purposes of approximating storm water runoff for this master plan, the following assumptions were used:

- Design year return period is 10-year for collection system piping. Detention basins are designed for the 100-year storm event.
- A rational coefficient C value of 0.4 was used throughout the city for the modeling the primary land use of single family homes. Detainage on nonresidential sites is required to match a flow release similar to single family densities. This value approximates a targeted release of 0.2 cfs per acres. Other specific areas, designated with lower targeted release rates, are shown in color shading on the overall city wide Storm Drain Master Plan Map.

- Refer to “Lehi City Design Standards and Public Improvement Specifications” for pipe materials and minimum pipe diameter.
- Minimum pipe slope to maintain 2 feet per second velocity flowing full.
- All storm drain piping was modeled assuming the use of smooth-lined pipe material (roughness factor, n=0.013).
- Pipe conveyance systems are designed so that the hydraulic grade line does not exceed the crown (inside top) of the pipe.
- Existing trunkline (pipe) facilities were surveyed where possible and actually data have been used in modeling. Elevation information for systems not yet built or not physically surveyed have been estimate converting USGS derived elevations to a comparative city datum (USGS elevation plus 3.2 feet). Slopes used approximate the general slope of the ground.
- System piping has been evaluated assuming full build-out. No open channel conditions have been modeled.
- Since detention basins are not modeled with this study, any detention basin release flows are added as a constant value and conveyed downstream as a base flow.

CHAPTER 2
METHODOLOGY

2.1 Rational Method

The Rational method is used in this study for predicting peak drainage system flows. Since detention basins are not evaluated as part of this study, a model developing hydrographs was not needed. The Rational Method can provide satisfactory results for storm drainage design when appropriate watershed conditions are present. This method is for small drainage basins of less than 200 acres with constant or homogeneous soils and cover type throughout the basin. The Rational Method uses the equation:

$$Q=CIA$$

Where:

Q = maximum rate of runoff in cubic feet per second (cfs)
C = the runoff coefficient is a function of impervious area, soil type, vegetation and topography.
I= the average intensity of rainfall in inches per hour for a duration equal to the time of concentration.
A=drainage area in acres

2.2 RAINFALL

Rainfall data was obtained from National Oceanic and Atmospheric Administration (NOAA's) National Weather Service, Hydrometeorological Design Studies Center, Precipitation Frequency Data Server (PFDS). http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=ut

Due to elevation and terrain differences within the city, rainfall data was derived for two locations:

- North of SR-92 /East of I-15
- The central part of the City (900 N. 700 W.) [Used by this study].

Rainfall data is tabulated below for each of the two areas.

Table 1: Rainfall

South of SR-92 and West of I-15

Precipitation Depth (inches)

Year	5 min	10 min	15 min	30 min	60 min	2 hr	3 hr	6 hr	12 hr	24 hr
10	0.27	0.41	0.51	0.69	0.85	0.97	1.04	1.25	1.52	1.62
100	0.53	0.81	1.00	1.34	1.67	1.81	1.83	1.96	2.26	2.29

Precipitation Intensity (inches/hour)

Year	5 min	10 min	15 min	30 min	60 min	2 hr	3 hr	6 hr	12 hr	24 hr
10	3.25	2.48	2.05	1.38	0.85	0.48	0.35	0.21	0.13	0.07
100	6.35	4.84	4.00	2.69	1.67	0.90	0.61	0.33	0.19	0.10

North of SR-92 and East of I-15

Precipitation Depth (inches)

Year	5 min	10 min	15 min	30 min	60 min	2 hr	3 hr	6 hr	12 hr	24 hr
10	0.28	0.43	0.54	0.71	0.88	1.01	1.10	1.34	1.68	1.84
100	0.54	0.84	1.03	1.38	1.70	1.89	1.93	2.10	2.51	2.58

Precipitation Intensity (inches/hour)

Year	5 min	10 min	15 min	30 min	60 min	2 hr	3 hr	6 hr	12 hr	24 hr
10	3.34	2.60	2.14	1.42	0.88	0.51	0.37	0.22	0.14	0.08
100	6.48	5.03	4.13	2.75	1.70	0.94	0.64	0.35	0.21	0.11

2.3 RUNOFF COEFFICIENT

The runoff coefficient describes the relationship between precipitation and runoff for the pervious and impervious portions of the basin and is somewhat subjective. Areas with high runoff rates have high runoff coefficient numbers. Areas that are more pervious have lower runoff coefficients. Lehi City's General Plan Land Use Map was used to help predict the amount of impervious area within an improved area. Soil properties also influence the relationship between rainfall and runoff by affecting the rate of infiltration in pervious areas. Lehi City has predominantly loam type (silty clay loam, sandy loam, and silt loam) material.

For fully improved areas an average value of 0.4 is used throughout the city for modeling purposes to estimate the peak runoff for residential areas. . Nonresidential or non-typical development sites may have different runoff values and will have to be detained on site to arrive at the same approximate discharge release rate. Each non-typical site should provide justification for using a different runoff coefficient to predict specific site runoff conditions.

Following is a table of C values recommended by American Society of Civil Engineers and Water Pollution Control Federation (ASCE and WPCW 1960). For more refined evaluations this table can be used for the development of a weighted land use value for specific developments.

Table 2: Runoff Coefficients

Area Description	Runoff Coefficient
Business	
Downtown	0.70 – 0.95
Neighborhood	0.50 – 0.70
Residential	
Single-Family	0.30 – 0.50
Multi-units, detached	0.40 – 0.60
Multi-units, attached	0.60 – 0.75
Residential (suburban)	0.25 – 0.40
Apartment	0.50 - .070
Industrial	
Light	0.50 – 0.80
Heavy	0.60 – 0.90

Area Description	Runoff Coefficient
Parks, cemeteries	0.10 0 0.25
Playgrounds	0.20 – 0.35
Railroad yard	0.20 – 0.35
Unimproved	0.10 – 0.30
Character of Surface	**Runoff Coefficient**
Pavement	
Asphalt and concrete	0.70 – 0.95
Brick	0.70 – 0.85
Roofs	0.75 – 0.95
Lawns, sandy soil	
Flat, 2 percent	0.05 – 0.10
Average, 2-7 percent	0.10 – 0.15
Steep 7+ percent	0.15 – 0.20
Lawns, heavy soil	
Flat, 2 percent	0.13 – 0.17
Average, 2-7 percent	0.18 – 0.22
Steep 7+ percent	0.25 – 0.35

The following drainage basins used a release rate modeled as direct inflow. Existing conveyance systems for these areas limited inflow to a determined discharge per acre.

- West Fox – 0.07 cfs/acre
- 900 North – 0.13 cfs/acre
- 300 South – 0.10 cfs/acre

2.4 TIME OF CONCENTRATION

The Time of Concentration is the time required for runoff to travel from the hydraulic most distant point in the basin to the outlet. This time will vary depending upon basin slope, flow path, conveyance characteristics and basin configuration. The preferred method for determining the time of concentration is the sum of travel times for similar flow segments. Flow times for each segment can be determined by taking the average segment velocity over the segment length. The time of concentration is the sum of the times for all segments. The segments used in this method consist of three types: sheet flow, shallow concentrated flow, and open channel flow.

- Overland (Sheet) Flow – Sheet flow is defined as flow over plane surfaces. Typically sheet flow occurs for no more than 250 feet before transitioning to shallow concentrated flow.
- Shallow Concentrated Flow – Shallow concentrated flow is considered as ditch, small channel or gutter flow.
- Open Channel/Pipe Flow – This flow condition would be the majority of the flow type in a large basin. The Open Channel/Pipe Flows are concentrated with typically higher velocities relating to shorter travel times. This length is dependent on the shape of the

basin and would consist of the total flow length of the runoff less Overland and Shallow Concentrated Flows.

The slope for each drainage sub-basin was calculated using the minimum and maximum elevations within the basin divided by the assumed flow path (typically following street slopes). Elevations were obtained from the USGS map for Lehi City and adjusted 3.2 feet (plus) to match the city datum. The length used is an approximation of the flow distance from the extracted elevation locations.

The minimum basin slope used for all segments in the time of concentration calculation is 0.4 percent. The assumption is made that site grading will be such to produce adequate drainage away from buildings and streets and underground conveyance pipes will be placed at minimum grade standards.

Overland Flow, t_i

Overland or Initial Flow time, sometimes referred to as sheet flow, is calculated using Natural Resources Conversation Service (NRCS), Urban Hydrology for Small Watersheds, Technical Release 55 (TR-55) methods. This simplified form of the Manning's kinematic solution is based upon the following: 1) shallow steady uniform flow, 2) constant intensity of rainfall excess, 3) rainfall duration of 24 hours, and 4) minor effect of infiltration on travel time. The equation is provided below

$$Ti = \frac{0.007(\mathrm{nL})\text{^}0.8}{(\mathrm{P2})\text{^}0.5S\text{^}0.4}$$

Where;

T_i = Travel time (hours)
n = Manning's roughness coefficient
L = overland flow length (feet), 250 feet typical
P2 = 2-year, 24-hour rainfall (in)
S = average basin slope (ft/ft)

Table 3: Roughness Coefficients for Sheet Flow

Surface Description	n
Smooth surfaces (concrete, asphalt, gravel, or bare soil)	0.011
Fallow (no residue)	0.05
Cultivated Soils (Residue Cover <20%)	0.06
Cultivated Soils (Residue Cover > 20%	0.17
Grass (Short grass prairie)	0.15
Grass (Dense Grasses)	0.24
Grass (Bermudagrass)	0.41
Range (natural)	0.13
Woods (Light Underbrush)	0.40
Woods (Dense Underbrush)	0.80

TR-55, Urban Hydrology for Small Watersheds, NRCS

Shallow Concentrated flow, t_g

After a short distance, overland flow usually becomes shallow concentrated flow collected in swales, small rills and gullies. Shallow concentration flow is assumed not to have a well-defined channel and has flow depths of 0.1 to 0.5 feet. For modeling purposes this has been assumed to be gutter flow in a full build out condition. The average velocity for this flow can be determined from the following equations for unpaved and paved areas.

Unpaved	$V = 16.1345(S)^{0.5}$
Paved	$V = 20.3282(S)^{0.5}$

V = average velocity (feet per second)
S = Slope (ft/ft)

Velocity is converted to time by:

$$t_g = L / V / 60$$

t_g = Time (minutes)
L = Flow length (feet), 500 feet (typical)

Open Channel/Pipe Flow, t_p

This segment considers conveyance in either an open channel or pipe system. For full build-out conditions, it is assumed that the length balance (remaining from Overland Flow and Shallow Concentrated Flow) of the conveyance system will be through a trunkline pipe. For simplicity, an approximate pipe velocity (24" diameter flowing full) has been assumed to determine the flow time.

$$V = 1.49/n*0.50^(2/3)*Slope^0.5$$

V = velocity (feet per second)
n = Pipe roughness
S = Slope (ft/ft)

Again, velocity is converted to time by:

$$t_p = L / V / 60$$

t_p = Time (minutes)
L = Flow length (feet), total basin length remaining

Total Flow Time, Tc

The cumulative Time of Concentration has been calculated utilizing these three flow conditions and is presented in tabulation for each of the sub-basins.

$$T_c = t_i + t_g + t_p$$

CHAPTER 3
PIPE SYSTEM EVALUATION

The city has been delineated into 38 drainage basins with outfalls to Utah Lake, Jordan River or any of the other drainage or irrigation facilities listed in the Introduction. These basins have been sub-divided into smaller areas similar in drainage conditions. The conveyance systems within each of the drainage basins have been modeled using Bentley StormCAD. This modeling software analyses the storm sewer systems using a peak flow approach as developed with the Rational Method.

Actual system data (grate elevation, flowline elevation, pipe size and material) have been used for existing pipe, as provided by the city. Proposed piping has been added between existing piping to complete the systems. Undersized existing pipes are identified for each basin.

Some developments have storage requirements limiting direct surface runoff from their site or, under coordination efforts City staff, have participated financially in piping projects in lieu of detention. Larger Development areas have developed systems independently with outfalls accepted by city facilities. These planned development areas have been excluded from this study except for adding there determined release discharge. For some of these described areas the system outflow was input into the model as a constant flow rate. As such, these directly input flows do not have the ability to attenuate with routing considerations and are recognized as being conservative in defining the peak flows within the system.

Drainage basins, including sub basins, are shown in the Appendix with the map titled, “Drainage Basin Delineation and Storm Drain Modeled Trunklines”.

CHAPTER 4
WATER QUALITY STANDARDS

The types of pollutants which adversely affect the quality of storm water depend on debris that is found on the surface within the tributary area that can be washed into the drainage system during storm events as well as other pollutants such as oils and grease, sediment, pesticides, and floatables such as plastic and Styrofoam. Each new development is required to provide methods for removal of pollutants from its storm water prior to discharging to an outfall.

Lehi City is a participant of the Utah Pollutant Discharge Elimination Systems (UPDES) General Permit for Discharges from Small Municipal separate Storm Sewer Systems (MS4s) (Permit No. UTR090038). This permit is conditioned upon meeting requirements specific by the Environmental Protection Agency (EPA) and commitments made in Lehi City's Storm Water Management Plan.

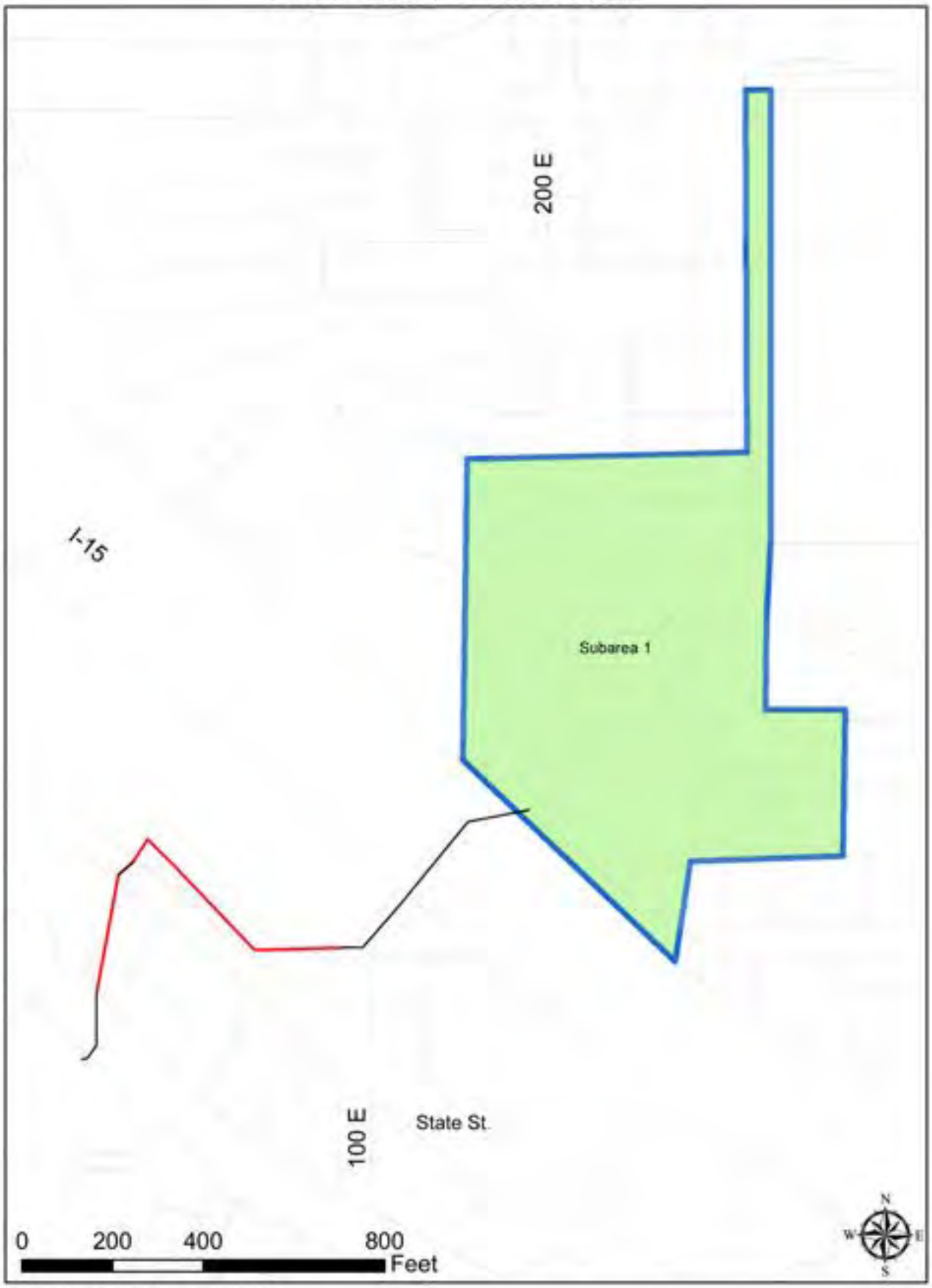
To assist in meeting storm water quality discharge requirements, the city has developed Best management Practices (BMPs) which can be used during and after construction to control the introduction of pollutants into storm water.

Additional information on BMPs can be found on-line in Lehi Design Standards, Chapter 12. Specific BMP Details can also be found at this location.
http://www.lehi-ut.gov/government/planning-zoning/design-standards

APPENDIX A

HYDRAULIC OUTPUT

Lehi Storm Drain Master Plan
100 East / I-15 Drain



Date Created: February 3, 2014

100 East_I-15_newrrpipe.stc

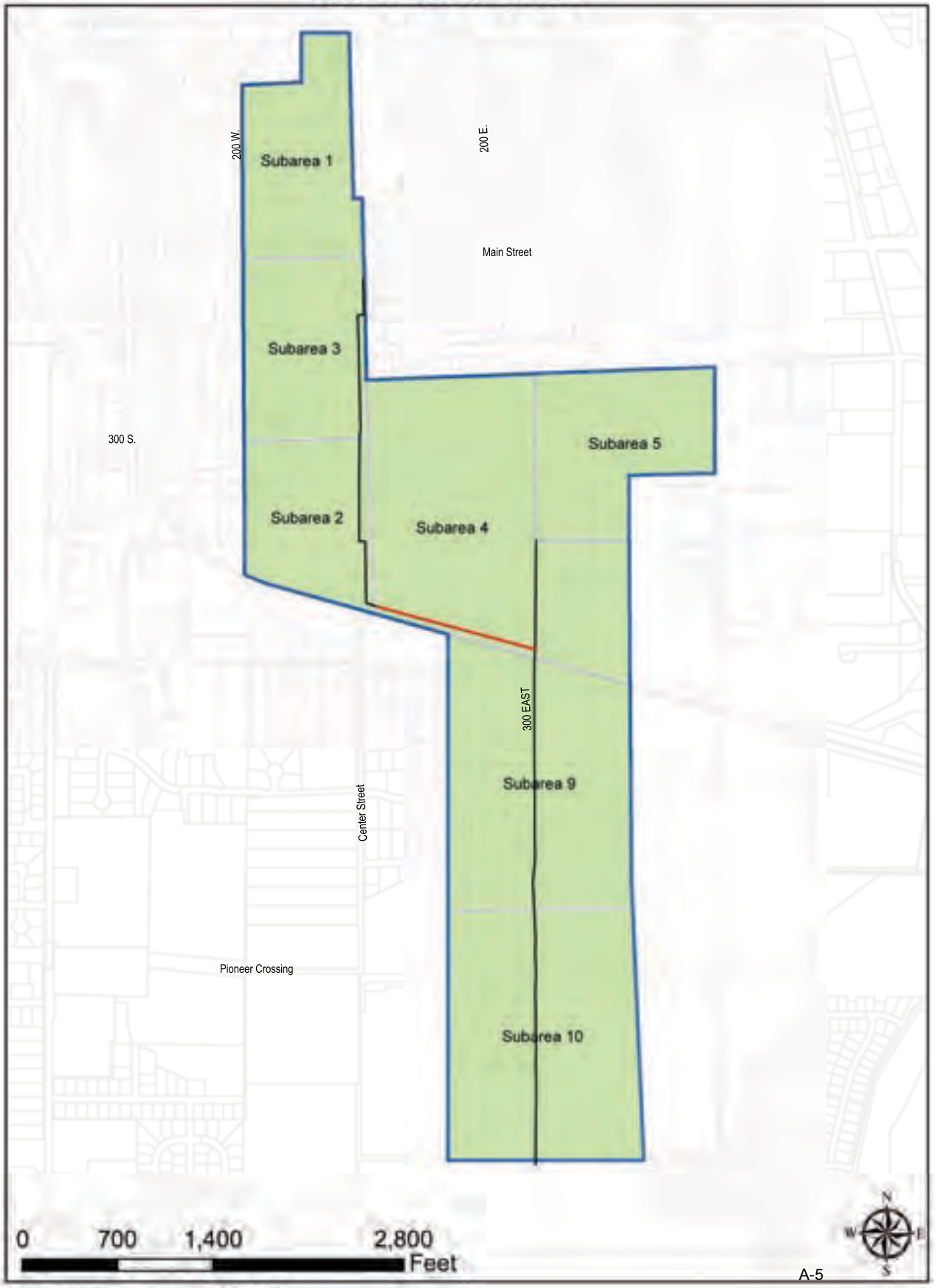
100 East_I-15_newrrpipe.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,593.60	4,584.95	6.410	50.470	0.00	4,586.12	4,586.12
CB-2	4,592.31	4,584.71	0.000	0.000	0.00	4,585.66	4,585.66
CB-3	4,592.91	4,583.76	0.000	0.000	0.00	4,584.70	4,584.70
CB-4	4,593.37	4,583.18	0.000	0.000	0.00	4,584.18	4,584.18
CB-5	4,591.87	4,583.02	0.000	0.000	0.00	4,584.10	4,584.10
CB-6	4,592.89	4,582.56	0.000	0.000	0.00	4,583.44	4,583.44
CB-7	4,589.18	4,580.58	0.000	0.000	0.00	4,581.46	4,581.46
CB-8	4,582.98	4,576.73	0.000	0.000	0.00	4,577.68	4,577.68
CB-9	4,583.49	4,576.39	0.000	0.000	0.00	4,577.82	4,577.82
CB-10	4,583.49	4,578.24	0.000	0.000	0.00	4,579.18	4,579.18
CB-11	4,583.68	4,579.24	0.000	0.000	0.00	4,580.28	4,580.28
CB-12	4,586.00	4,579.01	0.000	0.000	0.00	4,580.04	4,580.04
CB-13	4,586.00	4,578.90	0.000	0.000	0.00	4,579.94	4,579.94
CB-14	4,583.68	4,579.22	0.000	0.000	0.00	4,580.27	4,580.27

100 East_I-15_newrrpipe.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,584.95	4,584.71	24.0	0.013	136.5	0.002	6.410	1.018	6.58	9.48	4,586.12	4,585.66	3.26
P-2	CB-2	CB-3	4,584.71	4,583.76	24.0	0.013	239.0	0.004	6.410	1.006	6.50	14.26	4,585.66	4,584.70	4.44
P-3	CB-3	CB-4	4,583.76	4,583.27	24.0	0.013	122.0	0.004	6.410	0.990	6.40	14.34	4,584.70	4,584.18	4.43
P-4	CB-4	CB-5	4,583.18	4,583.02	24.0	0.013	45.0	0.004	6.410	0.982	6.35	13.49	4,584.18	4,584.10	4.23
P-5	CB-5	CB-6	4,583.02	4,582.57	24.0	0.013	188.0	0.002	6.410	0.979	6.33	11.07	4,584.10	4,583.46	3.64
P-6	CB-6	CB-7	4,582.56	4,580.58	24.0	0.013	251.0	0.008	6.410	0.964	6.23	20.09	4,583.44	4,581.34	5.64
P-7	CB-7	CB-11	4,580.58	4,579.32	24.0	0.013	89.0	0.014	6.410	0.951	6.14	26.92	4,581.46	4,580.28	6.94
P-8	CB-11	CB-14	4,579.24	4,579.22	24.0	0.013	7.0	0.003	6.410	0.947	6.12	12.09	4,580.28	4,580.27	3.86
P-9	CB-14	CB-12	4,579.22	4,579.01	24.0	0.013	85.0	0.002	6.410	0.946	6.11	11.24	4,580.27	4,580.04	3.65
P-10	CB-12	CB-13	4,579.01	4,578.90	24.0	0.013	42.0	0.003	6.410	0.939	6.07	11.58	4,580.04	4,579.94	3.73
P-11	CB-13	CB-10	4,578.90	4,578.24	24.0	0.013	264.0	0.002	6.410	0.936	6.05	11.31	4,579.94	4,579.18	3.66
P-12	CB-10	CB-9	4,578.24	4,576.39	18.0	0.013	117.0	0.016	6.410	0.915	5.91	13.21	4,579.18	4,577.82	7.27
P-13	CB-9	CB-8	4,576.79	4,576.73	24.0	0.013	34.0	0.002	6.410	0.910	5.88	9.50	4,577.82	4,577.68	3.18
P-14	CB-8	OF-6	4,576.73	4,576.70	24.0	0.013	13.0	0.002	6.410	0.907	5.86	10.87	4,577.68	4,577.56	3.52

Lehi Storm Drain Master Plan
300 East Drain



Date Created: January 30, 2014

300eastdrain.stc

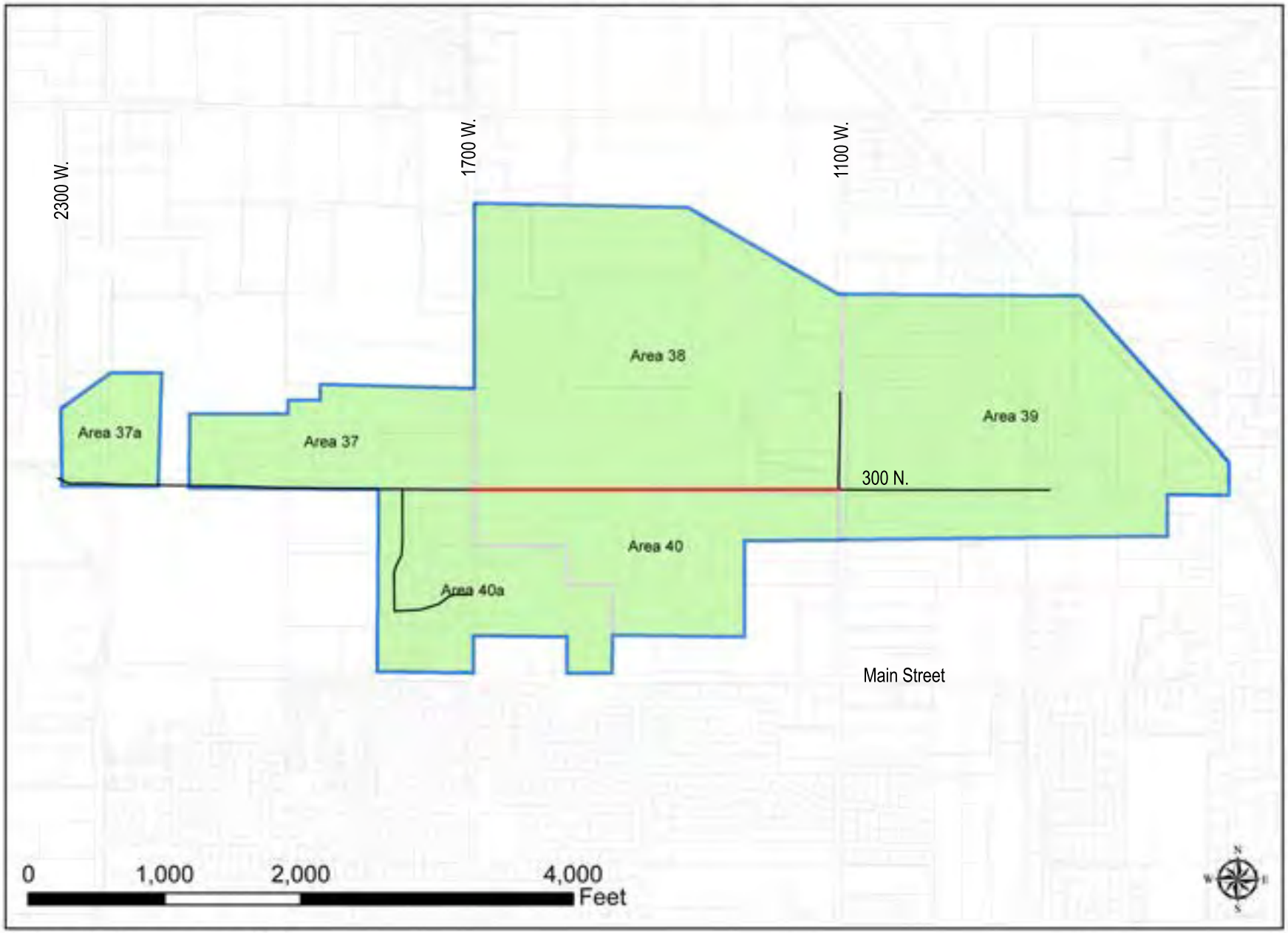
FlexTable: Catch Basin Table (300eastdrain.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,551.19	4,546.87	0.000	0.000	0.00	4,547.88	4,547.88
CB-2	4,550.87	4,546.68	0.000	0.000	0.00	4,547.70	4,547.70
CB-3	4,551.57	4,546.64	0.000	0.000	0.00	4,547.59	4,547.59
CB-4	4,548.41	4,544.97	0.000	0.000	0.00	4,545.92	4,545.92
CB-5	4,546.79	4,542.97	0.000	0.000	0.00	4,543.92	4,543.92
CB-6	4,544.49	4,540.81	0.000	0.000	0.00	4,541.75	4,541.75
CB-7	4,543.15	4,538.96	0.000	0.000	0.00	4,540.00	4,540.00
CB-8	4,543.33	4,538.48	11.107	107.300	0.00	4,539.75	4,539.75
CB-9	4,540.10	4,534.46	0.000	0.000	0.00	4,535.84	4,535.84
CB-10	4,537.91	4,533.31	0.000	0.000	0.00	4,534.48	4,534.48
CB-11	4,537.84	4,533.09	0.000	0.000	0.00	4,534.30	4,534.30
CB-12	4,536.23	4,530.75	9.630	86.470	0.00	4,532.15	4,532.15
CB-13	4,536.97	4,528.39	12.343	131.180	0.00	4,529.31	4,529.31
CB-14	4,533.84	4,525.54	0.000	0.000	0.00	4,526.53	4,526.53
CB-15	4,532.23	4,523.63	27.184	96.480	0.00	4,525.85	4,525.85
CB-16	4,529.76	4,523.36	0.000	0.000	0.00	4,525.20	4,525.20
CB-17	4,524.22	4,518.36	0.000	0.000	0.00	4,520.19	4,520.19
CB-18	4,521.97	4,514.44	0.000	0.000	0.00	4,516.32	4,516.32
CB-19	4,520.07	4,512.44	0.000	0.000	0.00	4,514.65	4,514.65
CB-20	4,519.56	4,511.14	22.755	110.170	0.00	4,514.33	4,514.33
CB-21	4,516.27	4,508.22	0.000	0.000	0.00	4,510.32	4,510.32
CB-22	4,516.26	4,507.84	0.000	0.000	0.00	4,509.85	4,509.85
CB-23	4,515.06	4,506.99	0.000	0.000	0.00	4,509.00	4,509.00
CB-24	4,516.36	4,506.09	0.000	0.000	0.00	4,508.67	4,508.67
CB-25	4,513.15	4,506.00	0.000	0.000	0.00	4,508.51	4,508.51
CB-26	4,512.80	4,505.92	0.000	0.000	0.00	4,508.41	4,508.41
CB-27	4,511.14	4,505.00	0.000	0.000	0.00	4,507.14	4,507.14
CB-28	4,510.41	4,504.57	0.000	0.000	0.00	4,507.08	4,507.08
CB-29	4,510.14	4,504.53	0.000	0.000	0.00	4,507.03	4,507.03
CB-30	4,508.62	4,503.74	23.501	108.090	0.00	4,506.78	4,506.78
CB-31	4,553.00	4,547.86	10.893	90.780	0.00	4,548.88	4,548.88

FlexTable: Conduit Table (300eastdrain.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,546.93	4,546.68	24.0	0.013	44.0	0.006	10.893	0.654	7.18	17.06	4,547.88	4,547.70	5.20
P-2	CB-2	CB-3	4,546.75	4,546.64	24.0	0.013	22.0	0.005	10.893	0.653	7.17	15.99	4,547.70	4,547.58	4.95
P-3	CB-3	CB-4	4,546.64	4,545.04	24.0	0.013	199.9	0.008	10.893	0.653	7.17	20.24	4,547.59	4,545.86	5.89
P-4	CB-4	CB-5	4,544.97	4,543.07	24.0	0.013	209.8	0.009	10.893	0.649	7.13	21.53	4,545.92	4,543.86	6.15
P-5	CB-5	CB-6	4,542.97	4,540.81	24.0	0.011	269.1	0.008	10.893	0.646	7.09	23.95	4,543.92	4,541.56	6.64
P-6	CB-6	CB-7	4,540.81	4,538.96	24.0	0.013	158.9	0.012	10.893	0.642	7.05	24.41	4,541.75	4,540.00	6.72
P-7	CB-7	CB-8	4,539.06	4,538.86	24.0	0.013	29.9	0.007	10.893	0.639	7.02	18.51	4,540.00	4,539.72	5.49
P-8	CB-8	CB-9	4,538.48	4,534.71	24.0	0.013	390.5	0.010	22.000	0.558	12.38	22.23	4,539.75	4,535.78	7.27
P-9	CB-9	CB-10	4,534.46	4,533.46	30.0	0.013	392.3	0.003	22.000	0.553	12.26	20.71	4,535.84	4,534.64	4.40
P-10	CB-10	CB-11	4,533.31	4,533.09	30.0	0.013	43.1	0.005	22.000	0.544	12.06	29.31	4,534.48	4,534.30	5.68
P-11	CB-11	CB-12	4,533.14	4,530.75	30.0	0.013	445.8	0.005	22.000	0.543	12.04	30.03	4,534.30	4,532.15	5.78
P-12	CB-13	CB-14	4,528.39	4,526.04	18.0	0.013	388.0	0.006	12.343	0.456	5.67	8.17	4,529.31	4,526.96	5.00
P-13	CB-14	CB-15	4,525.54	4,524.48	24.0	0.013	407.2	0.003	12.343	0.453	5.64	11.54	4,526.53	4,525.85	3.65
P-14	CB-15	CB-16	4,523.63	4,523.36	36.0	0.013	115.5	0.002	71.157	0.449	32.20	32.25	4,525.85	4,525.20	5.20
P-15	CB-16	CB-17	4,523.36	4,518.36	36.0	0.013	532.0	0.009	71.157	0.448	32.14	64.66	4,525.20	4,519.85	9.13
P-16	CB-17	CB-18	4,518.36	4,514.44	36.0	0.013	417.4	0.009	71.157	0.446	31.99	64.64	4,520.19	4,516.32	9.12
P-17	CB-18	CB-19	4,514.44	4,512.97	36.0	0.013	328.9	0.004	71.157	0.444	31.87	44.59	4,516.32	4,514.80	6.86
P-18	CB-19	CB-20	4,512.44	4,512.11	36.0	0.013	113.9	0.003	71.157	0.443	31.75	35.90	4,514.65	4,514.33	5.73
P-19	CB-20	CB-21	4,512.22	4,508.27	36.0	0.013	558.0	0.007	93.912	0.442	41.84	56.11	4,514.33	4,510.20	8.70
P-20	CB-21	CB-22	4,508.22	4,507.85	36.0	0.013	63.0	0.006	93.912	0.440	41.62	51.12	4,510.32	4,509.91	8.06
P-21	CB-22	CB-23	4,507.84	4,507.00	42.0	0.013	113.4	0.007	93.912	0.439	41.59	86.58	4,509.85	4,508.72	8.91
P-22	CB-23	CB-24	4,506.99	4,506.09	42.0	0.013	196.6	0.005	93.912	0.439	41.55	68.06	4,509.00	4,508.67	7.42
P-23	CB-24	CB-25	4,506.41	4,506.00	42.0	0.013	108.9	0.004	93.912	0.438	41.46	61.73	4,508.67	4,508.51	6.88
P-24	CB-25	CB-26	4,506.06	4,505.92	42.0	0.013	48.4	0.003	93.912	0.437	41.40	54.09	4,508.51	4,508.41	6.19
P-25	CB-26	CB-27	4,506.31	4,505.00	42.0	0.013	351.8	0.004	93.912	0.437	41.37	61.39	4,508.41	4,507.14	6.85
P-26	CB-27	CB-28	4,505.14	4,504.57	42.0	0.013	124.8	0.005	93.912	0.435	41.20	67.98	4,507.14	4,507.08	7.40
P-27	CB-28	CB-29	4,504.57	4,504.53	42.0	0.013	18.8	0.002	93.912	0.435	41.14	46.42	4,507.08	4,507.03	5.45
P-28	CB-29	CB-30	4,504.69	4,503.75	42.0	0.013	239.3	0.004	93.912	0.434	41.13	63.05	4,507.03	4,506.78	6.98
P-29	CB-30	OF-3	4,503.74	4,502.84	42.0	0.013	450.8	0.002	117.413	0.433	51.28	44.95	4,506.78	4,505.08	5.33
P-30	CB-12	CB-15	4,530.75	4,523.63	30.0	0.013	1,287.0	0.006	31.630	0.535	17.05	30.51	4,532.15	4,525.85	6.39
P-31	CB-31	CB-1	4,547.86	4,546.87	24.0	0.013	262.0	0.004	10.893	0.660	7.25	13.91	4,548.88	4,547.88	4.47

Lehi Storm Drain Master Plan
300 North Drain



Date Created: January 30, 2014

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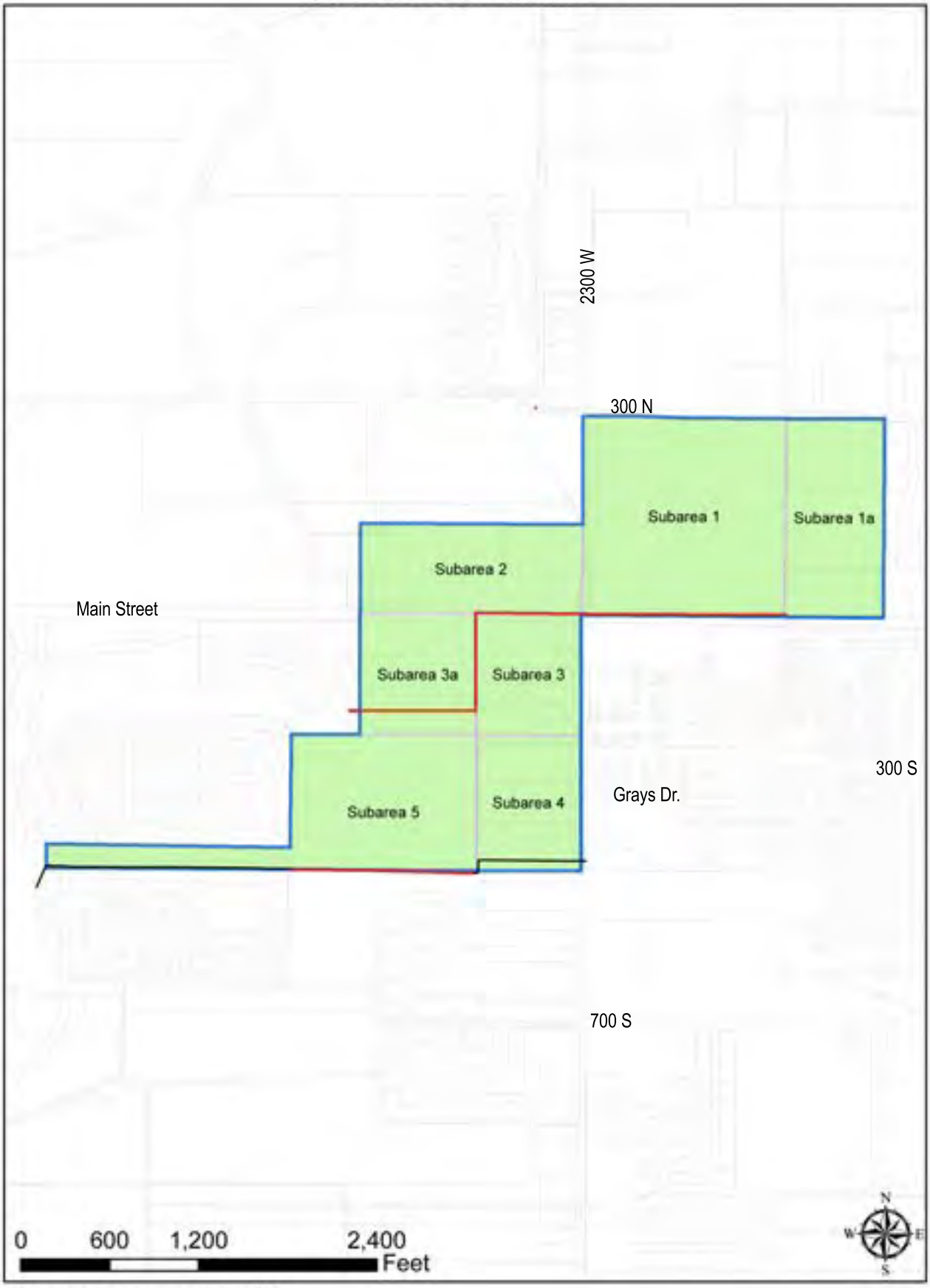
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,524.34	4,511.99	0.000	0.000	16.16	4,514.06	4,514.06
CB-2	4,523.52	4,511.49	0.000	0.000	0.00	4,513.41	4,513.41
CB-3	4,522.14	4,510.64	0.000	0.000	0.00	4,512.58	4,512.58
CB-4	4,520.25	4,509.65	0.000	0.000	0.00	4,511.82	4,511.82
CB-5	4,518.81	4,508.97	0.000	0.000	0.00	4,511.31	4,511.31
CB-6	4,517.09	4,507.99	0.000	0.000	3.18	4,510.60	4,510.60
CB-7	4,514.93	4,507.18	0.000	0.000	0.00	4,509.50	4,509.50
CB-8	4,514.36	4,506.17	0.000	0.000	0.00	4,508.54	4,508.54
CB-9	4,512.70	4,505.18	0.000	0.000	1.27	4,507.59	4,507.59
CB-10	4,512.04	4,504.89	0.000	0.000	0.00	4,507.34	4,507.34
CB-11	4,510.26	4,504.44	0.000	0.000	0.00	4,506.49	4,506.49
CB-12	4,510.05	4,504.10	0.000	0.000	0.00	4,506.08	4,506.08
CB-13	4,523.70	4,516.47	14.860	76.710	0.00	4,517.95	4,517.95
CB-14	4,522.52	4,516.29	0.000	0.000	0.00	4,517.75	4,517.75
CB-15	4,522.15	4,516.30	0.000	0.000	0.00	4,517.42	4,517.42
CB-16	4,521.58	4,515.31	0.000	0.000	0.00	4,516.57	4,516.57
CB-17	4,520.57	4,514.67	0.000	0.000	0.00	4,515.97	4,515.97
CB-18	4,519.28	4,514.13	0.000	0.000	0.00	4,515.19	4,515.19
CB-19	4,519.92	4,513.66	0.000	0.000	0.00	4,514.96	4,514.96
CB-20	4,520.52	4,512.98	0.000	0.000	0.00	4,514.02	4,514.02
CB-21	4,520.59	4,512.23	0.000	0.000	0.00	4,513.34	4,513.34
CB-22	4,520.25	4,511.80	0.000	0.000	0.00	4,512.98	4,512.98
CB-23	4,519.81	4,511.47	0.000	0.000	0.00	4,512.84	4,512.84
CB-24	4,549.14	4,544.53	0.000	0.000	9.74	4,545.78	4,545.78
CB-25	4,547.35	4,543.50	0.000	0.000	0.00	4,544.68	4,544.68
CB-26	4,545.54	4,542.18	0.000	0.000	0.00	4,543.30	4,543.30
CB-27	4,543.86	4,540.31	0.000	0.000	0.00	4,541.43	4,541.43
CB-28	4,540.76	4,536.56	0.000	0.000	0.00	4,538.26	4,538.26
CB-29	4,539.44	4,536.08	0.000	0.000	0.00	4,537.20	4,537.20
CB-30	4,539.37	4,536.74	0.000	0.000	0.00	4,537.20	4,537.20
CB-31	4,539.09	4,536.23	0.000	0.000	0.00	4,537.20	4,537.20
CB-32	4,539.30	4,536.09	0.000	0.000	0.00	4,537.20	4,537.20

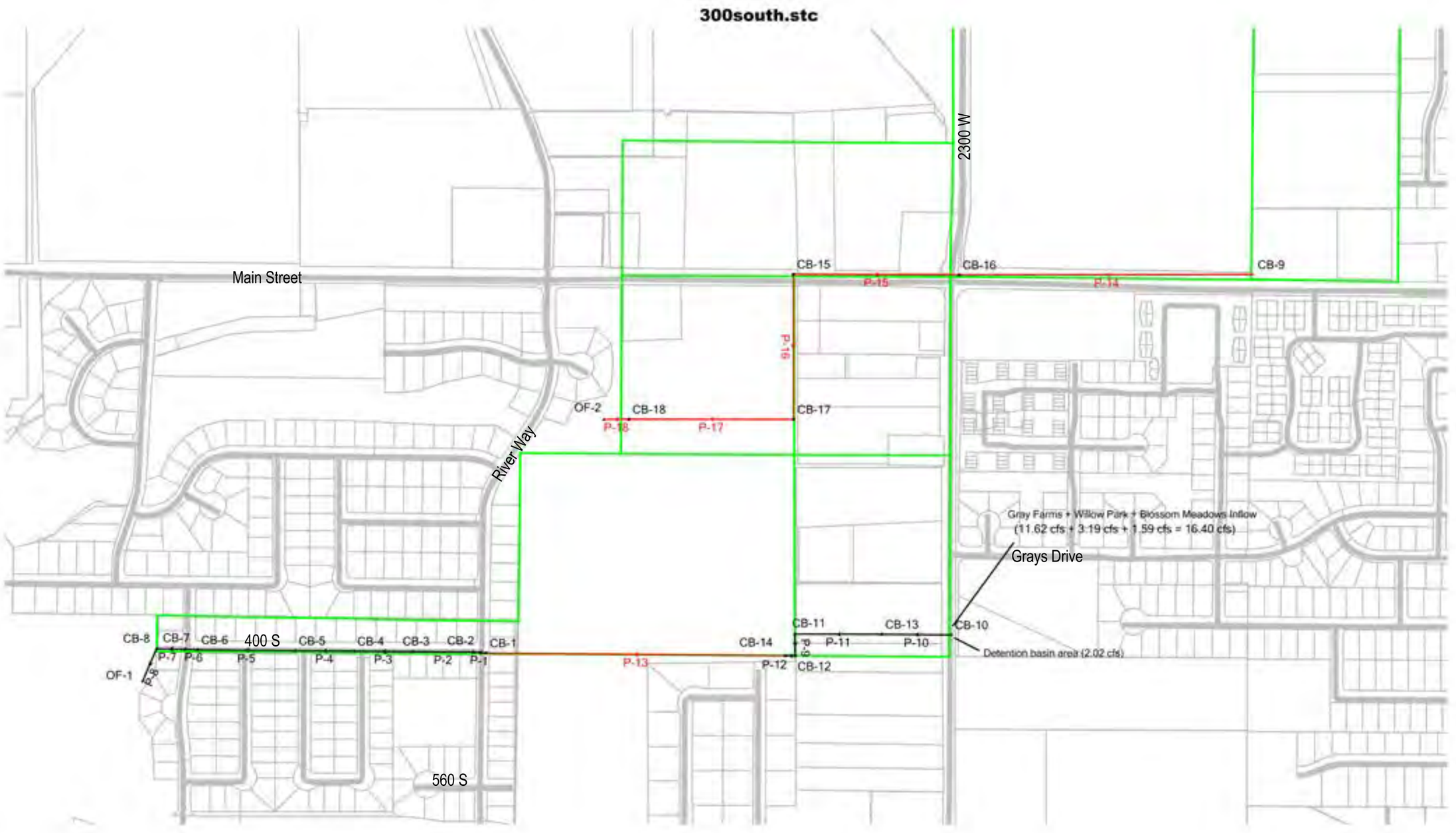
300 Northmod.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,511.99	4,511.49	36.0	0.013	239.0	0.002	0.000	2.174	25.90	30.51	4,514.06	4,513.41	4.84
P-2	CB-2	CB-3	4,511.54	4,510.76	36.0	0.013	263.0	0.003	0.000	2.103	25.90	36.32	4,513.41	4,512.58	5.58
P-3	CB-3	CB-4	4,510.64	4,509.70	42.0	0.013	251.0	0.004	14.860	0.710	36.54	61.57	4,512.58	4,511.82	6.67
P-4	CB-4	CB-5	4,509.65	4,508.97	42.0	0.013	244.0	0.003	14.860	0.706	36.48	53.11	4,511.82	4,511.31	5.95
P-5	CB-5	CB-6	4,509.21	4,508.00	42.0	0.013	405.0	0.003	14.860	0.702	36.41	54.99	4,511.31	4,510.60	6.11
P-6	CB-6	CB-7	4,507.99	4,507.34	42.0	0.013	399.0	0.002	14.860	0.695	39.49	40.61	4,510.60	4,509.50	4.81
P-7	CB-7	CB-8	4,507.18	4,506.17	42.0	0.013	399.0	0.003	14.860	0.687	39.37	50.62	4,509.50	4,508.54	5.81
P-8	CB-8	CB-9	4,506.28	4,505.18	42.0	0.013	401.0	0.003	14.860	0.680	39.26	52.69	4,508.54	4,507.59	6.00
P-9	CB-9	CB-10	4,505.35	4,504.94	42.0	0.013	125.0	0.003	14.860	0.673	40.43	57.62	4,507.59	4,507.34	6.48
P-10	CB-10	CB-11	4,504.89	4,504.44	42.0	0.013	226.0	0.002	14.860	0.671	40.40	44.89	4,507.34	4,506.49	5.28
P-11	CB-11	CB-12	4,504.44	4,504.10	42.0	0.013	88.0	0.004	14.860	0.666	40.33	62.53	4,506.49	4,506.08	6.91
P-12	CB-13	CB-14	4,516.47	4,516.29	30.0	0.013	112.0	0.002	14.860	0.747	11.19	16.44	4,517.95	4,517.75	3.60
P-13	CB-14	CB-15	4,516.50	4,516.37	30.0	0.013	47.0	0.003	14.860	0.744	11.14	21.57	4,517.75	4,517.49	4.43
P-14	CB-15	CB-16	4,516.30	4,515.76	30.0	0.013	93.0	0.006	14.860	0.743	11.12	31.25	4,517.42	4,516.79	5.83
P-15	CB-16	CB-17	4,515.31	4,514.90	30.0	0.013	144.0	0.003	14.860	0.741	11.10	21.89	4,516.57	4,516.02	4.47
P-16	CB-17	CB-18	4,514.67	4,514.18	30.0	0.013	191.0	0.003	14.860	0.738	11.05	20.77	4,515.97	4,515.29	4.30
P-17	CB-18	CB-19	4,514.13	4,514.04	36.0	0.013	24.0	0.004	14.860	0.733	10.98	40.84	4,515.19	4,515.09	4.90
P-18	CB-19	CB-20	4,513.66	4,513.22	36.0	0.013	252.0	0.002	14.860	0.733	10.97	27.87	4,514.96	4,514.27	3.71
P-19	CB-20	CB-21	4,512.98	4,512.57	36.0	0.013	50.0	0.008	14.860	0.726	10.87	60.39	4,514.02	4,513.44	6.47
P-20	CB-21	CB-22	4,512.23	4,511.93	36.0	0.013	95.0	0.003	14.860	0.725	10.86	37.48	4,513.34	4,512.98	4.59
P-21	CB-22	CB-23	4,511.80	4,511.52	36.0	0.013	100.0	0.003	14.860	0.723	10.83	35.29	4,512.98	4,512.84	4.39
P-22	CB-23	CB-3	4,511.47	4,510.73	36.0	0.013	385.0	0.002	14.860	0.720	10.79	29.24	4,512.84	4,512.58	3.82
P-23	CB-24	CB-25	4,544.53	4,543.56	24.0	0.013	265.0	0.004	0.000	3.250	9.74	13.69	4,545.78	4,544.68	4.73
P-24	CB-25	CB-26	4,543.50	4,542.19	24.0	0.013	299.0	0.004	0.000	3.250	9.74	14.97	4,544.68	4,543.31	5.07
P-25	CB-26	CB-27	4,542.18	4,540.83	24.0	0.013	267.0	0.005	0.000	3.250	9.74	16.09	4,543.30	4,541.95	5.36
P-26	CB-27	CB-28	4,540.31	4,536.71	24.0	0.013	362.0	0.010	0.000	3.250	9.74	22.56	4,541.43	4,538.26	6.92
P-27	CB-28	CB-29	4,536.56	4,536.08	24.0	0.013	356.0	0.001	0.000	3.250	9.74	8.31	4,538.26	4,537.20	3.10
P-28	CB-32	CB-29	4,536.09	4,536.08	24.0	0.013	20.0	0.001	0.000	3.250	0.00	5.06	4,537.20	4,537.20	0.00
P-29	CB-31	CB-32	4,536.23	4,536.09	24.0	0.013	58.0	0.002	0.000	3.250	0.00	11.11	4,537.20	4,537.20	0.00
P-30	CB-30	CB-31	4,536.74	4,536.23	21.0	0.013	195.0	0.003	0.000	3.250	0.00	8.10	4,537.20	4,537.20	0.00
P-31	CB-12	OF-1	4,504.10	4,504.07	42.0	0.013	7.0	0.004	14.860	0.665	40.31	65.86	4,506.08	4,506.05	7.19
P-32	CB-29	CB-1	4,536.08	4,520.82	24.0	0.013	2,698.0	0.006	0.000	3.168	9.74	17.01	4,537.20	4,521.90	5.60

Lehi Storm Drain Master Plan
300 South Drain



Date Created: January 27, 2014


300south.stc
2300 W
Main Street
CB-15
CB-16
CB-9
P-15
P-14
P-16
OF-2
CB-18
CB-17
P-18
P-17
River Way
Gray Farms + Willow Park + Blossom Meadows Inflow
(11.62 cfs + 3.19 cfs + 1.59 cfs = 16.40 cfs)
Grays Drive
CB-11
CB-13
CB-10
CB-14
P-11
P-10
Detention basin area (2.02 cfs)
P-13
P-12
CB-12
CB-8
CB-7
CB-6
400 S
CB-5
CB-4
CB-3
CB-2
CB-1
P-7
P-6
P-5
P-4
P-3
P-2
P-1
OF-1
560 S

300south.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,498.03	4,492.36	12.840	175.410	0.00	4,493.98	4,493.98
CB-2	4,497.67	4,491.77	0.000	0.000	0.00	4,494.03	4,494.03
CB-3	4,496.79	4,491.34	0.000	0.000	0.00	4,493.71	4,493.71
CB-4	4,496.86	4,491.17	0.000	0.000	0.00	4,493.31	4,493.31
CB-5	4,496.98	4,491.03	0.000	0.000	0.00	4,492.65	4,492.65
CB-6	4,496.67	4,489.87	0.000	0.000	0.00	4,491.88	4,491.88
CB-7	4,497.03	4,489.80	0.000	0.000	0.00	4,491.81	4,491.81
CB-8	4,498.35	4,489.55	0.000	0.000	0.00	4,491.71	4,491.71
CB-9	4,519.00	4,516.00	8.180	114.640	0.00	4,516.89	4,516.89
CB-10	4,510.01	4,502.21	0.000	0.000	18.42	4,505.04	4,505.04
CB-11	4,505.25	4,501.39	5.920	117.940	0.00	4,503.77	4,503.77
CB-12	4,506.23	4,501.38	0.000	0.000	0.00	4,503.47	4,503.47
CB-13	4,507.48	4,501.91	0.000	0.000	0.00	4,504.40	4,504.40
CB-14	4,506.23	4,501.45	0.000	0.000	0.00	4,503.02	4,503.02
CB-15	4,509.00	4,505.00	0.000	0.000	4.20	4,506.91	4,506.91
CB-16	4,514.00	4,510.50	0.000	0.000	8.38	4,511.76	4,511.76
CB-17	4,509.00	4,503.70	5.280	118.100	0.00	4,505.81	4,505.81
CB-18	4,507.00	4,502.22	5.860	148.410	0.00	4,504.19	4,504.19

300south.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,492.36	4,491.92	36.0	0.013	59.0	0.007	18.760	0.360	25.23	57.60	4,493.98	4,494.03	7.88
P-2	CB-2	CB-3	4,491.77	4,491.49	42.0	0.013	275.0	0.001	18.760	0.360	25.22	32.10	4,494.03	4,493.71	3.69
P-3	CB-3	CB-4	4,491.34	4,491.24	42.0	0.013	268.0	0.000	18.760	0.357	25.17	19.43	4,493.71	4,493.31	2.62
P-4	CB-4	CB-5	4,491.17	4,491.08	48.0	0.013	267.0	0.000	18.760	0.353	25.10	26.37	4,493.31	4,492.65	2.39
P-5	CB-5	CB-6	4,491.03	4,489.89	48.0	0.013	443.0	0.003	18.760	0.350	25.03	72.86	4,492.65	4,491.88	5.26
P-6	CB-6	CB-7	4,489.87	4,489.80	48.0	0.013	58.0	0.001	18.760	0.349	25.01	49.90	4,491.88	4,491.81	3.97
P-7	CB-7	CB-8	4,489.80	4,489.55	48.0	0.013	129.0	0.002	18.760	0.348	25.01	63.23	4,491.81	4,491.71	4.74
P-8	CB-8	OF-1	4,489.65	4,489.61	48.0	0.013	159.0	0.000	18.760	0.348	25.00	22.78	4,491.71	4,491.09	1.99
P-9	CB-11	CB-12	4,501.39	4,501.38	30.0	0.013	98.0	0.000	5.920	0.493	21.36	4.14	4,503.77	4,503.47	4.35
P-10	CB-10	CB-13	4,502.21	4,501.91	30.0	0.013	317.0	0.001	0.000	3.250	18.42	12.62	4,505.04	4,504.40	3.75
P-11	CB-13	CB-11	4,502.02	4,501.39	30.0	0.013	361.0	0.002	0.000	3.250	18.42	17.13	4,504.40	4,503.77	3.87
P-12	CB-12	CB-14	4,501.38	4,501.45	30.0	0.013	45.0	-0.002	5.920	0.490	21.35	-16.18	4,503.47	4,503.02	4.35
P-13	CB-14	CB-1	4,501.45	4,493.36	30.0	0.013	1,360.0	0.006	5.920	0.489	21.34	31.63	4,503.02	4,494.86	6.92
P-14	CB-9	CB-16	4,516.00	4,511.00	18.0	0.013	1,341.0	0.004	8.180	0.513	4.23	6.41	4,516.89	4,511.79	3.88
P-15	CB-16	CB-15	4,510.50	4,505.50	24.0	0.013	754.0	0.007	8.180	0.479	12.33	18.42	4,511.76	4,506.91	6.28
P-16	CB-15	CB-17	4,505.00	4,503.70	30.0	0.013	661.0	0.002	8.180	0.475	16.49	18.19	4,506.91	4,505.81	4.20
P-17	CB-17	CB-18	4,503.70	4,502.22	30.0	0.013	749.0	0.002	13.460	0.469	18.94	18.23	4,505.81	4,504.19	4.22
P-18	CB-18	OF-2	4,502.22	4,502.00	30.0	0.013	113.0	0.002	19.320	0.418	20.73	18.10	4,504.19	4,503.55	4.22

Lehi Storm Drain Master Plan
500 North Drain

Date Created: January 27, 2014

500northdrain.stc

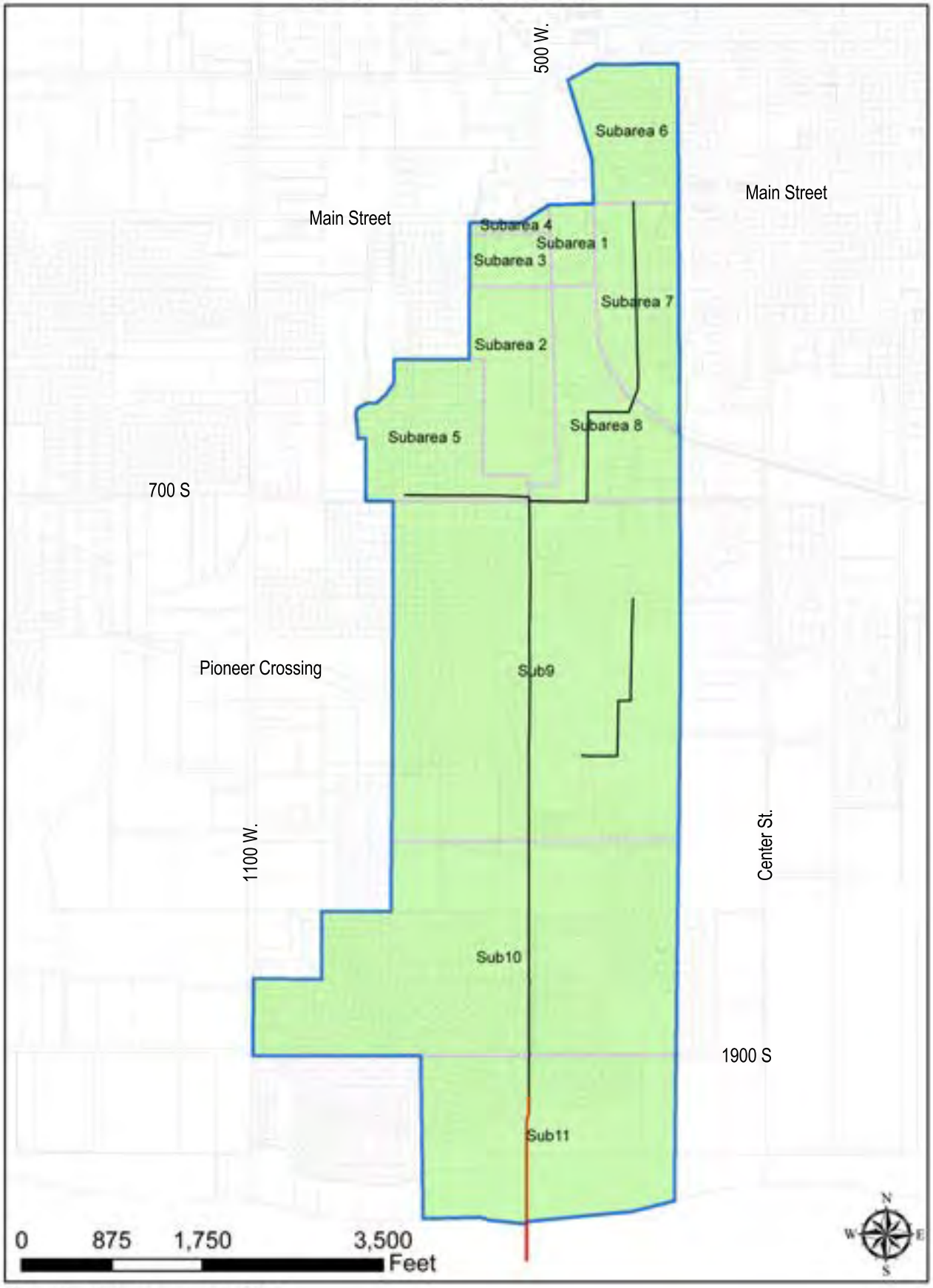
500northdrain.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,575.25	4,572.50	5.213	71.370	0.00	4,573.69	4,573.69
CB-2	4,573.75	4,570.75	3.958	77.410	0.00	4,571.82	4,571.82
CB-3	4,570.90	4,567.90	0.000	0.000	0.00	4,569.21	4,569.21

500northdrain.stc

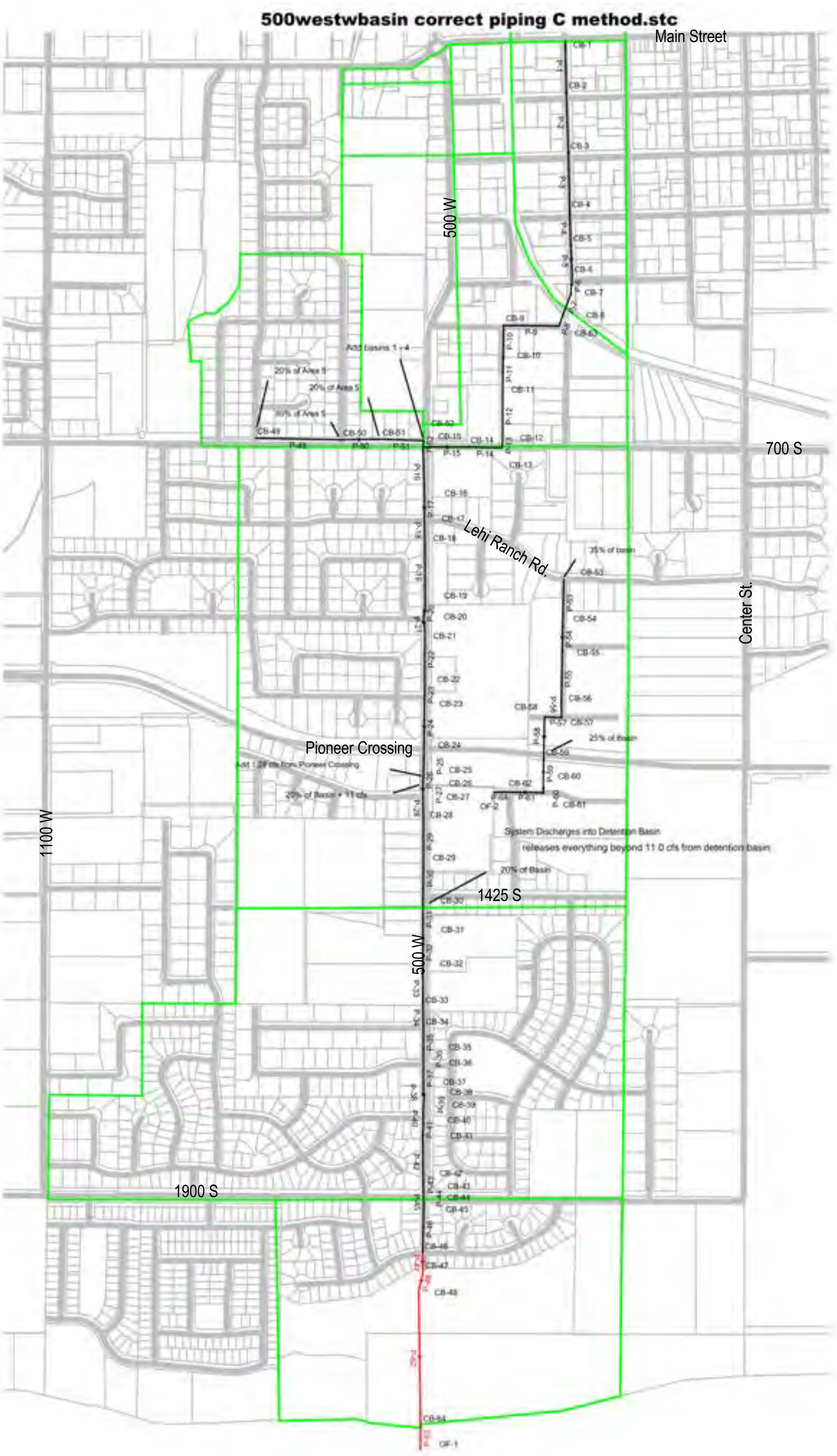
Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,572.50	4,571.00	15.0	0.013	452.0	0.003	5.213	0.780	4.10	3.72	4,573.69	4,571.82	3.34
P-2	CB-3	OF-1	4,567.90	4,566.61	18.0	0.013	345.0	0.004	9.171	0.733	6.77	6.42	4,569.21	4,567.62	4.11
P-3	CB-2	CB-3	4,570.75	4,567.90	18.0	0.013	487.0	0.006	9.171	0.743	6.87	8.04	4,571.82	4,569.21	5.11

Lehi Storm Drain Master Plan
500 West Drain



Date Created: January 27, 2014

500westwbasin correct piping C method.stc



FlexTable: Catch Basin Table (500westwbasin correct piping C method.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,555.66	4,551.91	11.260	90.930	0.00	4,552.97	4,552.97
CB-2	4,552.25	4,548.06	0.000	0.000	0.00	4,549.07	4,549.07
CB-3	4,548.17	4,543.48	0.000	0.000	0.00	4,544.44	4,544.44
CB-4	4,544.22	4,540.08	0.000	0.000	0.00	4,541.04	4,541.04
CB-5	4,542.65	4,538.82	0.000	0.000	0.00	4,539.77	4,539.77
CB-6	4,541.27	4,537.58	0.000	0.000	0.00	4,538.62	4,538.62
CB-7	4,540.33	4,536.63	0.000	0.000	0.00	4,537.89	4,537.89
CB-8	4,540.80	4,536.32	13.960	124.310	0.00	4,537.59	4,537.59
CB-9	4,537.11	4,532.69	0.000	0.000	0.00	4,533.93	4,533.93
CB-10	4,535.03	4,530.40	0.000	0.000	0.00	4,531.64	4,531.64
CB-11	4,532.97	4,528.43	0.000	0.000	0.00	4,529.75	4,529.75
CB-12	4,532.62	4,522.97	15.640	91.180	0.00	4,524.97	4,524.97
CB-13	4,532.55	4,522.88	0.000	0.000	0.00	4,524.94	4,524.94
CB-14	4,531.66	4,522.69	0.000	0.000	0.00	4,524.54	4,524.54
CB-15	4,529.76	4,521.87	0.000	0.000	0.00	4,524.05	4,524.05
CB-16	4,527.97	4,520.47	0.000	0.000	0.00	4,523.25	4,523.25
CB-17	4,527.48	4,520.32	0.000	0.000	0.00	4,522.68	4,522.68
CB-18	4,527.04	4,520.22	0.000	0.000	0.00	4,521.97	4,521.97
CB-19	4,523.66	4,517.98	0.000	0.000	0.00	4,519.74	4,519.74
CB-20	4,523.20	4,517.18	0.000	0.000	0.00	4,519.22	4,519.22
CB-21	4,522.64	4,517.08	0.000	0.000	0.00	4,518.83	4,518.83
CB-22	4,520.61	4,514.32	0.000	0.000	0.00	4,516.20	4,516.20
CB-23	4,520.24	4,513.53	0.000	0.000	0.00	4,515.29	4,515.29
CB-24	4,517.44	4,511.29	0.000	0.000	0.00	4,513.09	4,513.09
CB-25	4,516.90	4,510.42	0.000	0.000	0.00	4,512.61	4,512.61
CB-26	4,516.79	4,510.28	16.830	131.830	11.00	4,512.55	4,512.55
CB-27	4,516.95	4,509.75	0.000	0.000	0.00	4,511.96	4,511.96
CB-28	4,515.46	4,506.81	0.000	0.000	0.00	4,509.61	4,509.61
CB-29	4,513.95	4,506.29	0.000	0.000	0.00	4,508.49	4,508.49
CB-30	4,511.78	4,503.79	16.830	131.830	0.00	4,506.85	4,506.85
CB-31	4,510.06	4,503.37	0.000	0.000	0.00	4,505.89	4,505.89
CB-32	4,509.38	4,500.69	0.000	0.000	0.00	4,503.04	4,503.04
CB-33	4,508.18	4,499.37	0.000	0.000	0.00	4,501.81	4,501.81
CB-34	4,507.45	4,498.80	0.000	0.000	0.00	4,501.18	4,501.18
CB-35	4,506.13	4,497.82	0.000	0.000	0.00	4,500.26	4,500.26
CB-36	4,506.13	4,497.48	0.000	0.000	0.00	4,500.32	4,500.32
CB-37	4,505.13	4,497.06	0.000	0.000	0.00	4,499.56	4,499.56
CB-38	4,504.75	4,496.73	0.000	0.000	0.00	4,499.19	4,499.19
CB-39	4,504.10	4,496.43	0.000	0.000	0.00	4,498.99	4,498.99
CB-40	4,503.99	4,495.85	0.000	0.000	0.00	4,498.46	4,498.46
CB-41	4,503.61	4,495.62	0.000	0.000	0.00	4,498.10	4,498.10
CB-42	4,502.00	4,494.25	0.000	0.000	0.00	4,496.76	4,496.76
CB-43	4,502.38	4,494.17	0.000	0.000	0.00	4,496.75	4,496.75
CB-44	4,502.35	4,493.94	66.370	167.240	0.00	4,496.73	4,496.73
CB-45	4,501.84	4,493.76	0.000	0.000	0.00	4,496.54	4,496.54
CB-46	4,498.53	4,492.22	0.000	0.000	0.00	4,495.00	4,495.00
CB-47	4,497.32	4,491.61	0.000	0.000	0.00	4,494.30	4,494.30
CB-48	4,496.49	4,490.78	0.000	0.000	0.00	4,493.47	4,493.47

FlexTable: Catch Basin Table (500westwbasin correct piping C method.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-49	4,530.64	4,524.16	2.960	109.870	0.00	4,524.73	4,524.73
CB-50	4,531.29	4,522.71	8.870	109.870	0.00	4,524.36	4,524.36
CB-51	4,530.96	4,522.33	2.960	109.870	0.00	4,524.19	4,524.19
CB-52	4,529.66	4,521.91	20.450	129.090	0.00	4,524.09	4,524.09
CB-53	4,528.22	4,522.22	29.460	131.830	0.00	4,523.61	4,523.61
CB-54	4,525.48	4,521.19	0.000	0.000	0.00	4,522.78	4,522.78
CB-55	4,525.12	4,520.82	0.000	0.000	0.00	4,522.46	4,522.46
CB-56	4,524.41	4,520.12	0.000	0.000	0.00	4,521.68	4,521.68
CB-57	4,524.41	4,520.04	0.000	0.000	0.00	4,521.47	4,521.47
CB-58	4,524.17	4,519.72	0.000	0.000	0.00	4,521.07	4,521.07
CB-59	4,523.77	4,518.67	21.040	131.830	0.00	4,520.33	4,520.33
CB-60	4,518.40	4,513.95	0.000	0.000	0.00	4,516.18	4,516.18
CB-61	4,518.49	4,514.05	0.000	0.000	0.00	4,516.08	4,516.08
CB-62	4,517.60	4,513.13	0.000	0.000	0.00	4,514.81	4,514.81
CB-63	4,541.03	4,535.32	0.000	0.000	0.00	4,536.69	4,536.69
CB-64	4,490.71	4,485.01	66.370	145.710	0.00	4,488.46	4,488.46

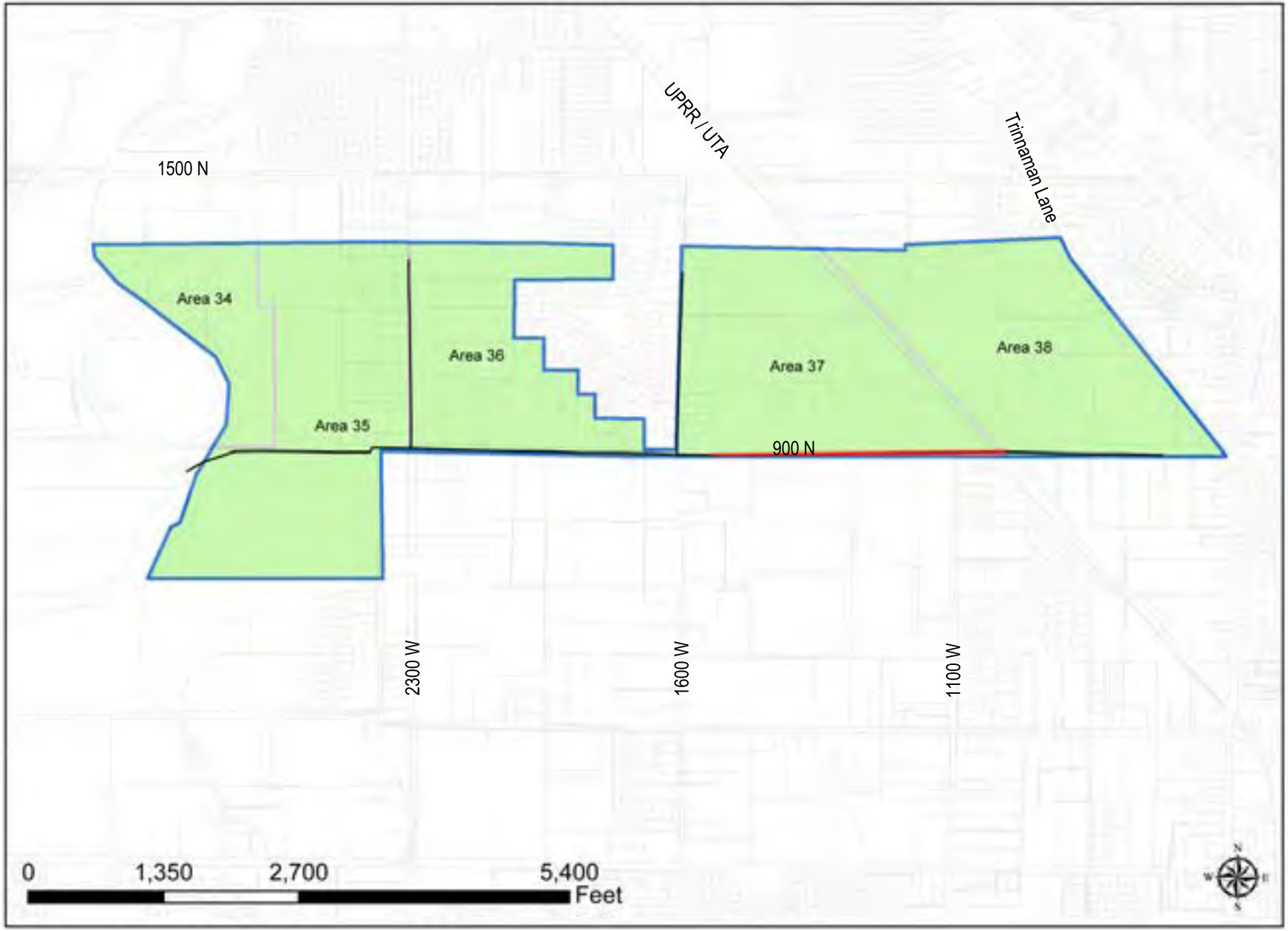
FlexTable: Conduit Table (500westwbasin correct piping C method.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,551.91	4,548.24	18.0	0.013	374.0	0.010	11.260	0.659	7.48	10.41	4,552.97	4,549.18	6.41
P-2	CB-2	CB-3	4,548.06	4,543.81	21.0	0.013	432.0	0.010	11.260	0.653	7.41	15.72	4,549.07	4,544.66	6.44
P-3	CB-3	CB-4	4,543.48	4,540.12	24.0	0.013	418.0	0.008	11.260	0.646	7.34	20.28	4,544.44	4,540.95	5.93
P-4	CB-4	CB-5	4,540.08	4,538.84	24.0	0.013	244.0	0.005	11.260	0.639	7.25	16.13	4,541.04	4,539.78	5.00
P-5	CB-5	CB-6	4,538.82	4,537.58	24.0	0.013	222.0	0.006	11.260	0.634	7.20	16.91	4,539.77	4,538.62	5.16
P-6	CB-6	CB-7	4,537.67	4,537.00	24.0	0.013	131.0	0.005	11.260	0.630	7.15	16.18	4,538.62	4,537.93	4.99
P-7	CB-7	CB-8	4,536.63	4,536.32	24.0	0.013	163.0	0.002	11.260	0.627	7.12	9.87	4,537.89	4,537.59	3.42
P-8	CB-8	CB-63	4,536.35	4,535.32	24.0	0.013	78.0	0.013	25.220	0.471	11.97	25.99	4,537.59	4,536.69	8.11
P-9	CB-63	CB-9	4,535.45	4,532.81	24.0	0.013	397.0	0.007	25.220	0.470	11.96	18.45	4,536.69	4,533.98	6.25
P-10	CB-9	CB-10	4,532.69	4,530.52	24.0	0.013	229.0	0.009	25.220	0.468	11.90	22.02	4,533.93	4,531.57	7.15
P-11	CB-10	CB-11	4,530.40	4,528.46	24.0	0.013	232.0	0.008	25.220	0.467	11.87	20.69	4,531.64	4,529.75	6.81
P-12	CB-11	CB-12	4,528.43	4,526.70	24.0	0.013	379.0	0.005	25.220	0.466	11.84	15.28	4,529.75	4,527.94	5.37
P-13	CB-12	CB-13	4,522.97	4,522.88	36.0	0.013	36.0	0.003	40.860	0.463	19.07	33.35	4,524.97	4,524.94	4.88
P-14	CB-13	CB-14	4,522.88	4,522.69	36.0	0.013	241.0	0.001	40.860	0.463	19.06	18.73	4,524.94	4,524.54	3.02
P-15	CB-14	CB-15	4,522.71	4,522.14	36.0	0.013	323.0	0.002	40.860	0.460	18.94	28.02	4,524.54	4,524.05	4.26
P-16	CB-15	CB-16	4,521.87	4,520.47	36.0	0.013	355.0	0.004	76.100	0.457	35.07	41.88	4,524.05	4,523.25	6.64
P-17	CB-16	CB-17	4,520.48	4,520.32	36.0	0.013	174.0	0.001	76.100	0.455	34.92	20.22	4,523.25	4,522.68	4.94
P-18	CB-17	CB-18	4,520.32	4,520.30	48.0	0.013	130.0	0.000	76.100	0.454	34.82	17.82	4,522.68	4,522.06	2.77
P-19	CB-18	CB-19	4,520.22	4,517.98	48.0	0.013	476.0	0.005	76.100	0.452	34.69	98.53	4,521.97	4,519.74	7.16
P-20	CB-19	CB-20	4,517.99	4,517.22	48.0	0.013	100.0	0.008	76.100	0.450	34.51	126.04	4,519.74	4,519.22	8.55
P-21	CB-20	CB-21	4,517.18	4,517.10	48.0	0.013	61.0	0.001	76.100	0.449	34.48	52.02	4,519.22	4,518.85	4.43
P-22	CB-21	CB-22	4,517.08	4,514.46	48.0	0.013	451.0	0.006	76.100	0.449	34.44	109.48	4,518.83	4,516.00	7.71
P-23	CB-22	CB-23	4,514.46	4,513.53	48.0	0.013	51.0	0.018	76.100	0.447	34.28	193.96	4,516.20	4,515.29	11.64
P-24	CB-23	CB-24	4,513.55	4,511.29	48.0	0.013	425.0	0.005	76.100	0.447	34.27	104.74	4,515.29	4,513.09	7.46
P-25	CB-24	CB-25	4,511.35	4,510.42	48.0	0.013	130.0	0.007	76.100	0.445	34.11	121.49	4,513.09	4,512.61	8.30
P-26	CB-25	CB-26	4,510.42	4,510.28	48.0	0.013	58.0	0.002	76.100	0.444	35.34	70.57	4,512.61	4,512.55	5.62
P-27	CB-26	CB-27	4,510.34	4,509.76	48.0	0.013	87.0	0.007	92.930	0.444	53.84	117.28	4,512.55	4,511.69	9.13
P-28	CB-27	CB-28	4,509.75	4,508.39	48.0	0.013	171.0	0.008	92.930	0.443	53.81	128.10	4,511.96	4,510.21	9.75
P-29	CB-28	CB-29	4,506.81	4,506.30	48.0	0.013	302.0	0.002	92.930	0.443	53.75	59.03	4,509.61	4,508.50	5.32
P-30	CB-29	CB-30	4,506.29	4,504.02	48.0	0.013	295.0	0.008	92.930	0.441	53.56	126.00	4,508.49	4,506.85	9.62
P-31	CB-30	CB-31	4,504.02	4,503.54	48.0	0.013	217.0	0.002	109.760	0.440	60.91	67.55	4,506.85	4,505.89	6.09
P-32	CB-31	CB-32	4,503.54	4,500.86	48.0	0.013	256.0	0.010	109.760	0.438	60.77	146.96	4,505.89	4,502.65	11.14
P-33	CB-32	CB-33	4,500.69	4,499.37	48.0	0.013	261.0	0.005	109.760	0.437	60.68	102.15	4,503.04	4,501.81	8.48
P-34	CB-33	CB-34	4,499.40	4,498.80	48.0	0.013	155.0	0.004	109.760	0.436	60.56	89.37	4,501.81	4,501.18	7.64

FlexTable: Conduit Table (500westwbasin correct piping C method.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-35	CB-34	CB-35	4,498.84	4,497.85	48.0	0.013	200.0	0.005	109.760	0.436	60.48	101.06	4,501.18	4,500.26	8.40
P-36	CB-35	CB-36	4,497.82	4,497.52	48.0	0.013	58.0	0.005	109.760	0.435	60.38	103.30	4,500.26	4,500.32	8.54
P-37	CB-36	CB-37	4,497.48	4,497.06	48.0	0.013	203.0	0.002	109.760	0.435	60.35	65.33	4,500.32	4,499.56	5.90
P-38	CB-37	CB-38	4,497.22	4,496.85	48.0	0.013	37.0	0.010	109.760	0.433	60.22	143.64	4,499.56	4,498.83	10.93
P-39	CB-38	CB-39	4,496.85	4,496.43	48.0	0.013	87.0	0.005	109.760	0.433	60.20	99.80	4,499.19	4,498.99	8.31
P-40	CB-39	CB-40	4,496.65	4,495.85	48.0	0.013	99.0	0.008	109.760	0.433	60.16	129.12	4,498.99	4,498.46	10.09
P-41	CB-40	CB-41	4,495.85	4,495.64	48.0	0.013	77.0	0.003	109.760	0.432	60.12	75.01	4,498.46	4,498.10	6.63
P-42	CB-41	CB-42	4,495.62	4,494.25	48.0	0.013	389.0	0.004	109.760	0.432	60.07	85.24	4,498.10	4,496.76	7.35
P-43	CB-42	CB-43	4,494.25	4,494.17	48.0	0.013	19.0	0.004	109.760	0.430	59.86	93.20	4,496.76	4,496.75	7.87
P-44	CB-43	CB-44	4,494.17	4,493.94	48.0	0.013	51.0	0.005	109.760	0.430	59.85	96.46	4,496.75	4,496.73	8.09
P-45	CB-44	CB-45	4,493.94	4,493.76	48.0	0.013	41.0	0.004	176.130	0.378	79.33	95.17	4,496.73	4,496.54	8.47
P-46	CB-45	CB-46	4,493.76	4,492.22	48.0	0.013	348.0	0.004	176.130	0.377	79.30	95.55	4,496.54	4,495.00	8.50
P-47	CB-46	CB-47	4,492.22	4,491.61	48.0	0.013	138.0	0.004	176.130	0.376	79.03	95.50	4,495.00	4,494.30	8.49
P-48	CB-47	CB-48	4,491.61	4,490.78	48.0	0.013	136.0	0.006	176.130	0.375	78.93	112.21	4,494.30	4,493.25	9.67
P-49	CB-49	CB-50	4,524.16	4,522.95	21.0	0.013	616.0	0.002	2.960	0.542	1.62	7.02	4,524.73	4,524.36	2.37
P-50	CB-50	CB-51	4,522.71	4,522.33	24.0	0.013	281.0	0.001	11.830	0.516	6.15	8.32	4,524.36	4,524.19	2.90
P-51	CB-51	CB-52	4,522.33	4,521.91	30.0	0.013	309.0	0.001	14.790	0.506	7.54	15.12	4,524.19	4,524.09	3.08
P-52	CB-52	CB-15	4,521.92	4,521.91	36.0	0.013	46.0	0.000	35.240	0.460	16.35	9.83	4,524.09	4,524.05	2.31
P-53	CB-53	CB-54	4,522.22	4,521.19	30.0	0.013	341.0	0.003	29.460	0.454	13.49	22.54	4,523.61	4,522.78	4.80
P-54	CB-54	CB-55	4,521.43	4,520.83	30.0	0.013	175.0	0.003	29.460	0.452	13.42	24.02	4,522.78	4,522.46	5.03
P-55	CB-55	CB-56	4,520.82	4,520.12	30.0	0.013	395.0	0.002	29.460	0.451	13.38	17.27	4,522.46	4,521.68	3.89
P-56	CB-56	CB-57	4,520.32	4,520.05	30.0	0.013	82.0	0.003	29.460	0.447	13.27	23.54	4,521.68	4,521.47	4.94
P-57	CB-57	CB-58	4,520.04	4,519.72	30.0	0.013	124.0	0.003	29.460	0.446	13.25	20.84	4,521.47	4,521.07	4.50
P-58	CB-58	CB-59	4,519.77	4,518.67	30.0	0.013	302.0	0.004	29.460	0.445	13.22	24.75	4,521.07	4,520.33	5.13
P-59	CB-59	CB-60	4,518.71	4,513.95	30.0	0.013	208.0	0.023	50.500	0.443	22.56	62.05	4,520.33	4,516.18	11.64
P-60	CB-60	CB-61	4,514.15	4,514.05	30.0	0.013	33.0	0.003	50.500	0.443	22.53	22.58	4,516.18	4,516.08	5.24
P-61	CB-61	CB-62	4,514.09	4,513.23	30.0	0.013	278.0	0.003	50.500	0.442	22.51	22.81	4,516.08	4,514.84	5.30
P-62	CB-48	CB-64	4,490.78	4,485.01	48.0	0.013	962.0	0.006	176.130	0.375	78.84	111.24	4,493.47	4,488.46	9.60
P-63	CB-64	OF-1	4,485.01	4,484.20	48.0	0.013	179.0	0.005	242.500	0.371	103.04	96.62	4,488.46	4,487.27	8.64
P-64	CB-62	OF-2	4,513.13	4,512.79	30.0	0.013	72.0	0.005	50.500	0.440	22.42	28.18	4,514.81	4,514.40	6.37

Lehi Storm Drain Master Plan
900 North Drain



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1/30/2014

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT 06795 USA +1-203-755-1666

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Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,545.86	4,532.73	0.000	0.000	0.00	4,532.73	4,532.73
CB-2	4,545.77	4,531.81	0.000	0.000	0.00	4,532.49	4,532.49
CB-3	4,545.62	4,531.56	0.000	0.000	3.62	4,532.49	4,532.49
CB-4	4,544.68	4,530.67	0.000	0.000	0.00	4,531.43	4,531.43
CB-5	4,543.88	4,529.62	0.000	0.000	0.00	4,530.35	4,530.35
CB-6	4,541.97	4,524.47	0.000	0.000	3.62	4,525.43	4,525.43
CB-7	4,540.06	4,523.06	0.000	0.000	0.00	4,524.02	4,524.02
CB-8	4,531.18	4,516.77	0.000	0.000	0.00	4,517.73	4,517.73
CB-9	4,527.88	4,512.29	0.000	0.000	19.36	4,513.97	4,513.97
CB-10	4,526.47	4,511.55	0.000	0.000	0.00	4,513.14	4,513.14
CB-11	4,525.25	4,508.75	0.000	0.000	0.00	4,511.56	4,511.56
CB-12	4,525.19	4,508.68	0.000	0.000	0.00	4,511.22	4,511.22
CB-13	4,527.75	4,508.16	0.000	0.000	0.00	4,510.60	4,510.60
CB-14	4,524.31	4,507.52	0.000	0.000	0.00	4,509.68	4,509.68
CB-15	4,523.54	4,506.64	0.000	0.000	0.00	4,508.88	4,508.88
CB-16	4,522.17	4,505.57	0.000	0.000	0.00	4,507.82	4,507.82
CB-17	4,521.11	4,504.62	0.000	0.000	0.00	4,506.77	4,506.77
CB-18	4,521.50	4,503.51	0.000	0.000	0.00	4,506.05	4,506.05
CB-19	4,521.43	4,502.82	0.000	0.000	0.00	4,506.14	4,506.14
CB-20	4,520.82	4,502.91	0.000	0.000	0.00	4,505.07	4,505.07
CB-21	4,519.88	4,502.22	0.000	0.000	0.00	4,504.38	4,504.38
CB-22	4,519.45	4,500.70	0.000	0.000	0.00	4,504.00	4,504.00
CB-23	4,518.19	4,500.40	0.000	0.000	16.40	4,503.61	4,503.61
CB-24	4,515.40	4,499.40	0.000	0.000	0.00	4,502.77	4,502.77
CB-25	4,513.91	4,498.51	0.000	0.000	5.41	4,501.80	4,501.80
CB-26	4,513.50	4,497.99	0.000	0.000	0.00	4,501.15	4,501.15
CB-27	4,511.95	4,497.15	0.000	0.000	0.00	4,499.89	4,499.89
CB-28	4,527.77	4,512.89	0.000	0.000	3.45	4,513.82	4,513.82
CB-29	4,527.92	4,512.42	0.000	0.000	0.00	4,513.49	4,513.49
CB-30	4,527.88	4,512.01	0.000	0.000	0.00	4,512.91	4,512.91
CB-31	4,526.37	4,511.48	0.000	0.000	0.00	4,512.67	4,512.67
CB-32	4,524.64	4,511.12	0.000	0.000	3.45	4,512.52	4,512.52
CB-33	4,522.95	4,510.50	0.000	0.000	0.00	4,512.20	4,512.20
CB-34	4,521.70	4,510.54	0.000	0.000	3.45	4,511.69	4,511.69
CB-35	4,546.00	4,541.32	0.000	0.000	4.88	4,542.61	4,542.61
CB-36	4,548.20	4,543.88	0.000	0.000	0.00	4,544.92	4,544.92
CB-37	4,549.70	4,544.86	0.000	0.000	0.00	4,545.90	4,545.90
CB-38	4,551.50	4,547.00	0.000	0.000	4.88	4,548.04	4,548.04
CB-39	4,553.20	4,549.21	0.000	0.000	0.00	4,549.99	4,549.99
CB-40	4,555.50	4,551.46	0.000	0.000	4.88	4,552.24	4,552.24

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Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,532.73	4,531.81	18.0	0.013	300.0	0.003	0.000	8.000	0.00	5.82	4,532.73	4,532.49	0.00
P-2	CB-2	CB-3	4,531.81	4,531.56	18.0	0.013	136.0	0.002	0.000	8.000	0.00	4.50	4,532.49	4,532.49	0.00
P-3	CB-3	CB-4	4,531.56	4,530.67	18.0	0.013	369.0	0.002	0.000	8.000	3.62	5.16	4,532.49	4,531.43	3.16
P-4	CB-4	CB-5	4,530.67	4,529.62	18.0	0.013	235.0	0.004	0.000	8.000	3.62	7.02	4,531.43	4,530.35	4.00
P-5	CB-5	CB-6	4,529.62	4,524.47	18.0	0.013	186.0	0.028	0.000	8.000	3.62	17.48	4,530.35	4,525.43	7.80
P-6	CB-6	CB-7	4,524.47	4,523.06	24.0	0.013	116.0	0.012	0.000	8.000	7.24	24.94	4,525.43	4,523.80	6.88
P-7	CB-7	CB-8	4,523.06	4,516.77	24.0	0.013	400.0	0.016	0.000	8.000	7.24	28.37	4,524.02	4,517.46	7.55
P-8	CB-8	CB-9	4,516.77	4,512.29	24.0	0.013	402.0	0.011	0.000	8.000	7.24	23.88	4,517.73	4,513.97	6.67
P-9	CB-9	CB-10	4,512.29	4,511.55	42.0	0.013	229.0	0.003	0.000	8.000	26.60	57.19	4,513.97	4,513.14	5.84
P-10	CB-10	CB-11	4,511.55	4,508.75	42.0	0.013	236.0	0.012	0.000	8.000	26.60	109.58	4,513.14	4,511.56	9.39
P-11	CB-11	CB-12	4,508.75	4,508.68	48.0	0.013	199.0	0.000	0.000	8.000	41.24	26.94	4,511.56	4,511.22	3.28
P-12	CB-12	CB-13	4,508.68	4,508.16	48.0	0.013	358.0	0.001	0.000	8.000	41.24	54.74	4,511.22	4,510.60	4.79
P-13	CB-13	CB-14	4,508.16	4,507.52	48.0	0.013	395.0	0.002	0.000	8.000	41.24	57.82	4,510.60	4,509.68	5.00
P-14	CB-14	CB-15	4,507.52	4,506.64	48.0	0.013	343.0	0.003	0.000	8.000	41.24	72.75	4,509.68	4,508.88	5.97
P-15	CB-15	CB-16	4,506.64	4,505.57	48.0	0.013	469.0	0.002	0.000	8.000	41.24	68.61	4,508.88	4,507.82	5.71
P-16	CB-16	CB-17	4,505.57	4,504.62	48.0	0.013	426.0	0.002	0.000	8.000	41.24	67.83	4,507.82	4,506.77	5.66
P-17	CB-17	CB-18	4,504.62	4,503.51	48.0	0.013	424.0	0.003	0.000	8.000	41.24	73.49	4,506.77	4,506.05	6.02
P-18	CB-18	CB-19	4,503.51	4,502.82	48.0	0.013	59.0	0.012	0.000	8.000	41.24	155.33	4,506.05	4,506.14	10.45
P-19	CB-19	CB-20	4,502.82	4,502.91	48.0	0.013	306.0	0.000	0.000	8.000	51.59	-24.63	4,506.14	4,505.07	4.11
P-20	CB-20	CB-21	4,502.91	4,502.22	48.0	0.013	63.0	0.011	0.000	8.000	51.59	150.32	4,505.07	4,503.94	10.85
P-21	CB-21	CB-22	4,502.22	4,500.70	48.0	0.013	51.0	0.030	0.000	8.000	51.59	247.97	4,504.38	4,504.00	15.58
P-22	CB-22	CB-23	4,500.70	4,500.40	48.0	0.013	288.0	0.001	0.000	8.000	51.59	46.36	4,504.00	4,503.61	4.11
P-23	CB-23	CB-24	4,500.40	4,499.40	48.0	0.013	398.0	0.003	0.000	8.000	67.99	72.00	4,503.61	4,502.77	6.52
P-24	CB-24	CB-25	4,499.40	4,498.51	48.0	0.013	434.0	0.002	0.000	8.000	67.99	65.04	4,502.77	4,501.80	5.87
P-25	CB-25	CB-26	4,498.51	4,497.99	48.0	0.013	223.0	0.002	0.000	8.000	73.40	69.36	4,501.80	4,501.15	6.23
P-26	CB-26	CB-27	4,497.99	4,497.15	48.0	0.013	324.0	0.003	0.000	8.000	73.40	73.14	4,501.15	4,499.89	6.63
P-27	CB-28	CB-29	4,512.89	4,512.42	18.0	0.013	198.0	0.002	0.000	8.000	3.45	5.12	4,513.82	4,513.49	3.11
P-28	CB-29	CB-30	4,512.42	4,512.01	18.0	0.013	311.0	0.001	0.000	8.000	3.45	3.81	4,513.49	4,512.91	2.44
P-29	CB-30	CB-31	4,512.01	4,511.48	24.0	0.013	320.0	0.002	0.000	8.000	3.45	9.21	4,512.91	4,512.67	2.72
P-30	CB-31	CB-32	4,511.48	4,511.12	24.0	0.013	374.0	0.001	0.000	8.000	3.45	7.02	4,512.67	4,512.52	2.22
P-31	CB-32	CB-33	4,511.12	4,510.50	24.0	0.013	338.0	0.002	0.000	8.000	6.90	9.69	4,512.52	4,512.20	3.35

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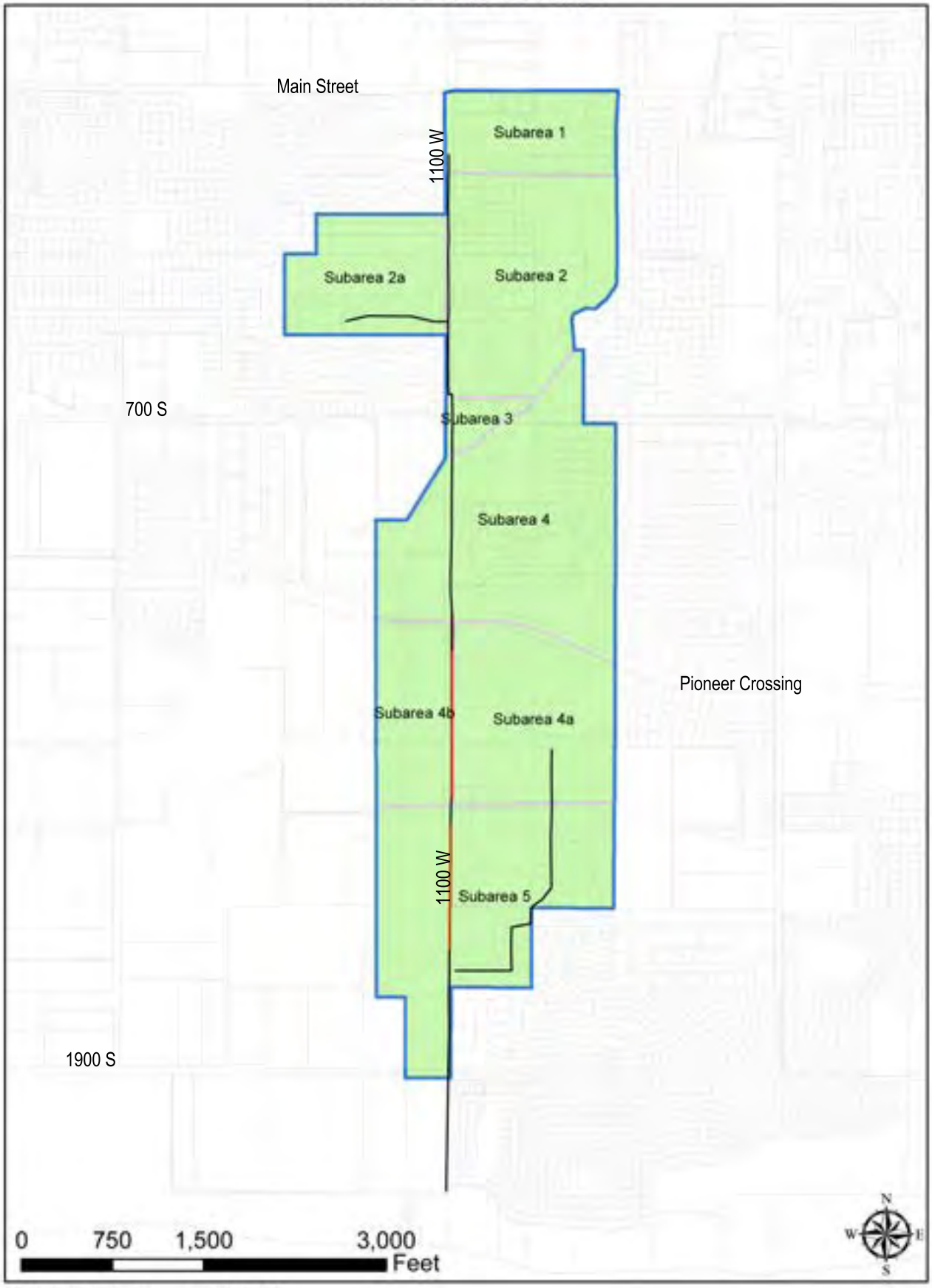
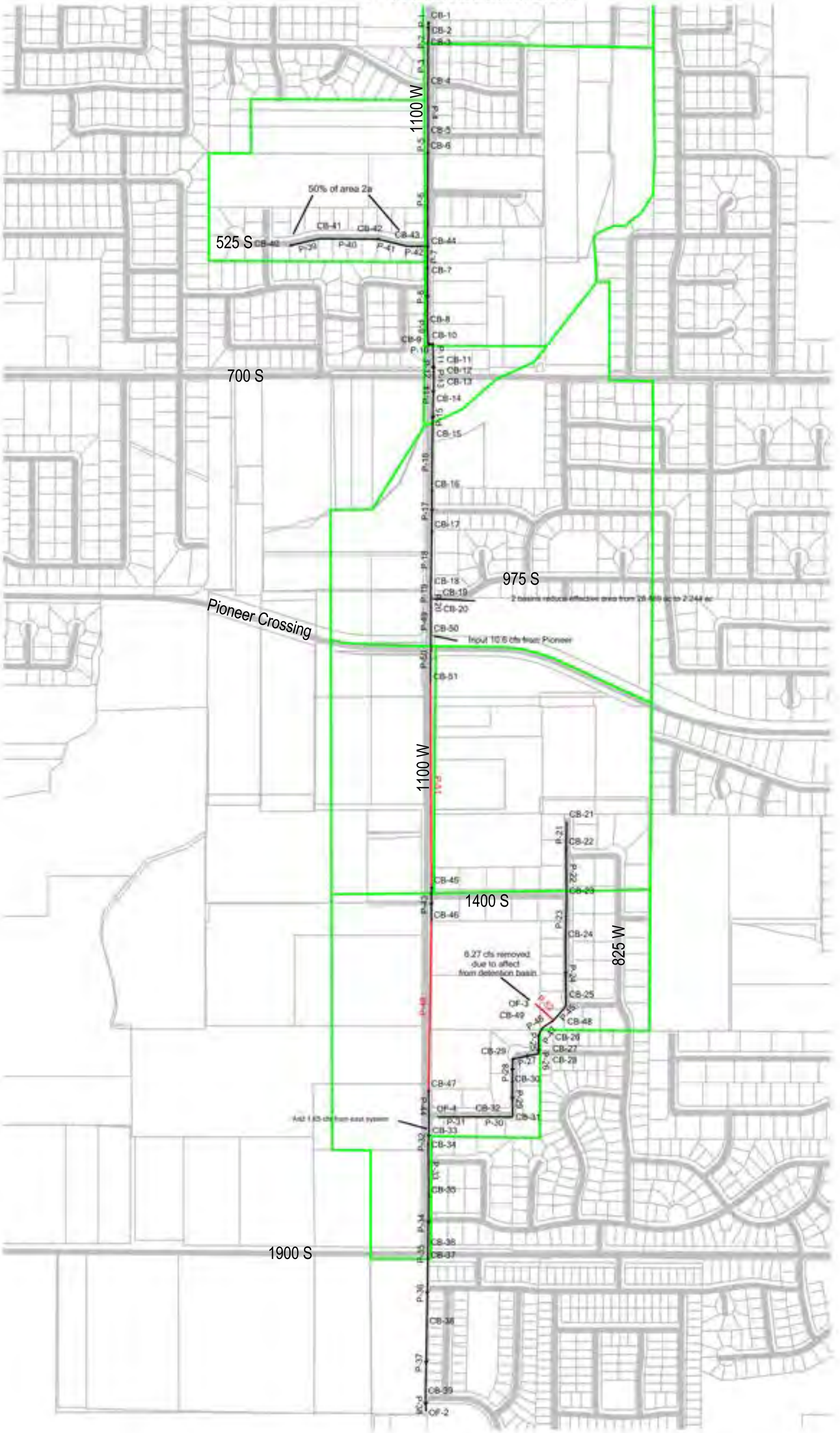
Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-32	CB-33	CB-34	4,510.50	4,510.54	24.0	0.013	312.0	0.000	0.000	8.000	6.90	-2.56	4,512.20	4,511.69	2.20
P-33	CB-34	CB-19	4,510.54	4,508.00	24.0	0.013	34.0	0.075	0.000	8.000	10.35	61.83	4,511.69	4,508.61	14.61
P-34	CB-27	OF-1	4,497.15	4,496.38	48.0	0.013	195.0	0.004	0.000	8.000	73.40	90.26	4,499.89	4,498.97	8.00
P-35	CB-35	CB-11	4,541.32	4,521.25	30.0	0.013	3,297.0	0.006	0.000	8.000	14.64	32.00	4,542.61	4,522.44	6.38
P-36	CB-40	CB-39	4,551.46	4,549.21	24.0	0.013	342.0	0.007	0.000	8.000	4.88	18.35	4,552.24	4,549.91	4.94
P-37	CB-39	CB-38	4,549.21	4,547.00	24.0	0.013	340.0	0.007	0.000	8.000	4.88	18.24	4,549.99	4,548.04	4.92
P-38	CB-38	CB-37	4,547.00	4,544.86	30.0	0.013	326.0	0.007	0.000	8.000	9.76	33.23	4,548.04	4,545.79	5.88
P-39	CB-37	CB-36	4,544.86	4,543.88	30.0	0.013	153.0	0.006	0.000	8.000	9.76	32.83	4,545.90	4,544.81	5.83
P-40	CB-36	CB-35	4,543.88	4,541.32	30.0	0.013	385.0	0.007	0.000	8.000	9.76	33.45	4,544.92	4,542.61	5.91

Lehi Storm Drain Master Plan
1100 West Drain



Date Created: January 27, 2014

1100westdrainmod.stc



FlexTable: Catch Basin Table (1100westdrainmod.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,536.84	4,530.68	8.865	108.750	0.00	4,531.53	4,531.53
CB-2	4,536.52	4,529.52	0.000	0.000	0.00	4,530.37	4,530.37
CB-3	4,536.64	4,528.77	0.000	0.000	0.00	4,529.82	4,529.82
CB-4	4,536.92	4,527.94	0.000	0.000	0.00	4,528.63	4,528.63
CB-5	4,535.49	4,525.62	0.000	0.000	0.00	4,526.30	4,526.30
CB-6	4,535.07	4,524.37	0.000	0.000	0.00	4,525.20	4,525.20
CB-7	4,531.22	4,523.00	0.000	0.000	0.00	4,524.46	4,524.46
CB-8	4,529.62	4,522.69	0.000	0.000	0.00	4,523.93	4,523.93
CB-9	4,529.53	4,522.54	0.000	0.000	0.00	4,523.54	4,523.54
CB-10	4,528.90	4,521.48	20.726	116.450	0.00	4,523.16	4,523.16
CB-11	4,528.03	4,521.15	0.000	0.000	0.00	4,522.69	4,522.69
CB-12	4,527.80	4,521.05	0.000	0.000	0.00	4,522.48	4,522.48
CB-13	4,526.91	4,520.21	0.000	0.000	0.00	4,521.64	4,521.64
CB-14	4,526.86	4,519.51	1.879	109.080	0.00	4,520.97	4,520.97
CB-15	4,528.05	4,518.65	0.000	0.000	0.00	4,520.48	4,520.48
CB-16	4,524.30	4,517.96	0.000	0.000	0.00	4,519.49	4,519.49
CB-17	4,523.28	4,517.08	0.000	0.000	0.00	4,518.53	4,518.53
CB-18	4,521.49	4,515.30	0.000	0.000	0.00	4,516.75	4,516.75
CB-19	4,521.21	4,514.99	2.244	120.670	0.00	4,516.79	4,516.79
CB-20	4,520.48	4,514.82	0.000	0.000	0.00	4,516.73	4,516.73
CB-21	4,519.35	4,511.94	10.199	119.150	0.00	4,513.09	4,513.09
CB-22	4,518.36	4,511.55	0.000	0.000	0.00	4,512.40	4,512.40
CB-23	4,516.89	4,509.78	0.000	0.000	0.00	4,510.98	4,510.98
CB-24	4,515.06	4,509.19	6.800	119.150	0.00	4,510.29	4,510.29
CB-25	4,512.00	4,505.95	0.000	0.000	0.00	4,507.41	4,507.41
CB-26	4,508.36	4,502.55	0.000	0.000	0.00	4,503.49	4,503.49
CB-27	4,509.01	4,502.60	0.000	0.000	0.00	4,503.24	4,503.24
CB-28	4,508.90	4,502.41	0.000	0.000	0.00	4,502.95	4,502.95
CB-29	4,508.56	4,501.78	0.000	0.000	0.00	4,502.43	4,502.43
CB-30	4,507.78	4,501.52	0.000	0.000	0.00	4,502.07	4,502.07
CB-31	4,509.90	4,500.77	0.000	0.000	0.00	4,501.31	4,501.31
CB-32	4,508.69	4,499.94	0.000	0.000	0.00	4,500.47	4,500.47
CB-33	4,506.09	4,498.70	25.581	115.070	1.65	4,501.38	4,501.38
CB-34	4,506.24	4,498.34	0.000	0.000	0.00	4,500.61	4,500.61
CB-35	4,503.97	4,496.02	0.000	0.000	0.00	4,498.58	4,498.58
CB-36	4,503.04	4,494.43	0.000	0.000	0.00	4,496.52	4,496.52
CB-37	4,502.87	4,492.75	0.000	0.000	0.00	4,495.48	4,495.48
CB-38	4,498.44	4,492.10	0.000	0.000	0.00	4,494.34	4,494.34
CB-39	4,497.25	4,490.77	0.000	0.000	0.00	4,493.15	4,493.15
CB-40	4,528.10	4,525.49	5.640	110.090	0.00	4,526.58	4,526.58
CB-41	4,528.91	4,525.40	0.000	0.000	0.00	4,526.25	4,526.25
CB-42	4,530.24	4,524.83	0.000	0.000	0.00	4,525.64	4,525.64
CB-43	4,530.94	4,524.47	5.640	110.090	0.00	4,525.36	4,525.36
CB-44	4,531.57	4,523.31	0.000	0.000	0.00	4,524.58	4,524.58
CB-45	4,512.29	4,506.74	8.889	106.420	0.00	4,509.50	4,509.50
CB-46	4,511.11	4,506.51	0.000	0.000	0.00	4,508.57	4,508.57
CB-47	4,506.80	4,502.07	0.000	0.000	0.00	4,504.00	4,504.00
CB-48	4,508.29	4,505.90	0.000	0.000	0.00	4,506.87	4,506.87
CB-49	4,509.58	4,506.15	0.000	0.000	0.00	4,506.68	4,506.68
CB-50	4,521.54	4,514.39	0.000	0.000	10.60	4,516.39	4,516.39
CB-51	4,519.50	4,513.29	0.000	0.000	0.00	4,515.12	4,515.12

FlexTable: Conduit Table (1100westdrainmod.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,530.68	4,529.52	18.0	0.013	79.0	0.015	8.865	0.549	4.91	12.73	4,531.53	4,530.17	6.73
P-2	CB-2	CB-3	4,529.52	4,528.77	18.0	0.013	56.0	0.013	8.865	0.548	4.90	12.16	4,530.37	4,529.82	6.51
P-3	CB-3	CB-4	4,528.77	4,527.94	18.0	0.013	267.0	0.003	8.865	0.547	4.89	5.86	4,529.82	4,528.79	3.71
P-4	CB-4	CB-5	4,527.94	4,525.62	36.0	0.013	303.0	0.008	8.865	0.540	4.82	58.36	4,528.63	4,526.20	4.99
P-5	CB-5	CB-6	4,525.62	4,524.37	36.0	0.013	95.0	0.013	8.865	0.534	4.77	76.50	4,526.30	4,525.20	6.03
P-6	CB-6	CB-44	4,524.37	4,523.31	36.0	0.013	574.0	0.002	8.865	0.532	4.75	28.66	4,525.20	4,524.58	3.00
P-7	CB-44	CB-7	4,523.31	4,523.00	36.0	0.013	133.0	0.002	20.145	0.507	10.30	32.20	4,524.58	4,524.46	4.05
P-8	CB-7	CB-8	4,523.00	4,522.69	36.0	0.013	360.0	0.001	20.145	0.504	10.23	19.57	4,524.46	4,523.93	2.80
P-9	CB-8	CB-9	4,522.69	4,522.54	36.0	0.013	108.0	0.001	20.145	0.490	9.96	24.86	4,523.93	4,523.54	3.32
P-10	CB-9	CB-10	4,522.54	4,521.48	36.0	0.013	29.0	0.037	20.145	0.487	9.89	127.51	4,523.54	4,523.16	10.71
P-11	CB-10	CB-11	4,521.48	4,521.15	36.0	0.013	138.0	0.002	40.871	0.487	20.06	32.61	4,523.16	4,522.69	4.85
P-12	CB-11	CB-12	4,521.15	4,521.05	36.0	0.013	33.0	0.003	40.871	0.484	19.94	36.71	4,522.69	4,522.48	5.30
P-13	CB-12	CB-13	4,521.05	4,520.21	36.0	0.013	65.0	0.013	40.871	0.483	19.91	75.82	4,522.48	4,521.30	9.04
P-14	CB-13	CB-14	4,520.21	4,519.51	36.0	0.013	124.0	0.006	40.871	0.483	19.88	50.11	4,521.64	4,520.97	6.68
P-15	CB-14	CB-15	4,519.51	4,518.65	36.0	0.013	191.0	0.005	42.750	0.481	20.71	44.75	4,520.97	4,520.48	6.21
P-16	CB-15	CB-16	4,518.65	4,517.96	36.0	0.013	351.0	0.002	42.750	0.479	20.65	29.57	4,520.48	4,519.49	4.52
P-17	CB-16	CB-17	4,517.96	4,517.08	36.0	0.013	249.0	0.004	42.750	0.476	20.53	39.65	4,519.49	4,518.53	5.66
P-18	CB-17	CB-18	4,517.08	4,515.30	36.0	0.013	348.0	0.005	42.750	0.475	20.46	47.70	4,518.53	4,516.67	6.49
P-19	CB-18	CB-19	4,515.30	4,514.99	36.0	0.013	64.0	0.005	42.750	0.473	20.37	46.42	4,516.75	4,516.79	6.35
P-20	CB-19	CB-20	4,514.99	4,514.82	36.0	0.013	52.0	0.003	44.994	0.472	21.43	38.13	4,516.79	4,516.73	5.55
P-21	CB-21	CB-22	4,511.94	4,511.55	18.0	0.013	167.0	0.002	10.199	0.485	4.99	5.08	4,513.09	4,512.41	3.27
P-22	CB-22	CB-23	4,511.55	4,509.78	18.0	0.013	303.0	0.006	10.199	0.480	4.93	8.03	4,512.40	4,510.98	4.78
P-23	CB-23	CB-24	4,509.78	4,509.19	18.0	0.013	266.0	0.002	10.199	0.478	4.91	4.95	4,510.98	4,510.29	3.19
P-24	CB-24	CB-25	4,509.19	4,505.95	18.0	0.013	398.0	0.008	16.999	0.475	8.13	9.48	4,510.29	4,507.41	6.03
P-25	CB-26	CB-27	4,502.84	4,502.61	15.0	0.013	85.0	0.003	3.785	0.470	1.79	3.36	4,503.49	4,503.24	2.78
P-26	CB-27	CB-28	4,502.60	4,502.54	15.0	0.013	26.0	0.002	3.785	0.469	1.79	3.10	4,503.24	4,503.07	2.62
P-27	CB-28	CB-29	4,502.41	4,501.78	18.0	0.013	164.0	0.004	3.785	0.469	1.79	6.51	4,502.95	4,502.43	3.14
P-28	CB-29	CB-30	4,501.78	4,501.52	18.0	0.013	137.0	0.002	3.785	0.467	1.78	4.58	4,502.43	4,502.07	2.43
P-29	CB-30	CB-31	4,501.52	4,500.77	18.0	0.013	219.0	0.003	3.785	0.465	1.77	6.15	4,502.07	4,501.31	3.01
P-30	CB-31	CB-32	4,500.77	4,499.94	18.0	0.013	232.0	0.004	3.785	0.462	1.76	6.28	4,501.31	4,500.47	3.05
P-31	CB-32	OF-4	4,499.94	4,499.05	18.0	0.013	227.0	0.004	3.785	0.460	1.75	6.58	4,500.47	4,499.55	3.15

FlexTable: Conduit Table (1100westdrainmod.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-32	CB-33	CB-34	4,498.70	4,498.34	36.0	0.013	94.0	0.004	79.464	0.455	48.70	41.27	4,501.38	4,500.61	6.89
P-33	CB-34	CB-35	4,498.34	4,496.02	36.0	0.013	324.0	0.007	79.464	0.455	48.66	56.44	4,500.61	4,498.58	8.98
P-34	CB-35	CB-36	4,496.02	4,494.43	36.0	0.013	322.0	0.005	79.464	0.453	48.55	46.87	4,498.58	4,496.70	7.54
P-35	CB-36	CB-37	4,494.43	4,492.75	48.0	0.013	57.0	0.029	79.464	0.452	48.43	246.59	4,496.52	4,495.48	15.24
P-36	CB-37	CB-38	4,492.75	4,492.10	48.0	0.013	426.0	0.002	79.464	0.452	48.42	56.11	4,495.48	4,494.34	5.02
P-37	CB-38	CB-39	4,492.10	4,490.77	48.0	0.013	428.0	0.003	79.464	0.449	48.18	80.07	4,494.34	4,493.15	6.66
P-38	CB-39	OF-2	4,490.77	4,490.60	48.0	0.013	83.0	0.002	79.464	0.446	47.99	65.01	4,493.15	4,492.68	5.66
P-39	CB-40	CB-41	4,525.49	4,525.40	18.0	0.013	183.0	0.000	5.640	0.541	3.08	2.33	4,526.58	4,526.25	1.74
P-40	CB-41	CB-42	4,525.40	4,524.83	21.0	0.013	356.0	0.002	5.640	0.530	3.01	6.34	4,526.25	4,525.64	2.60
P-41	CB-42	CB-43	4,524.83	4,524.47	21.0	0.013	190.0	0.002	5.640	0.516	2.93	6.90	4,525.64	4,525.36	2.75
P-42	CB-43	CB-44	4,524.47	4,523.31	21.0	0.013	121.0	0.010	11.280	0.509	5.79	15.51	4,525.36	4,524.58	5.98
P-43	CB-45	CB-46	4,506.74	4,506.51	36.0	0.013	213.0	0.001	53.883	0.463	35.73	21.92	4,509.50	4,508.57	5.06
P-44	CB-47	CB-33	4,502.07	4,498.70	36.0	0.013	234.0	0.014	53.883	0.456	35.36	80.04	4,504.00	4,501.38	10.97
P-45	CB-25	CB-48	4,505.95	4,505.90	24.0	0.013	114.0	0.000	16.999	0.472	8.09	4.74	4,507.41	4,506.91	2.58
P-46	CB-48	CB-49	4,505.92	4,505.80	12.0	0.013	81.0	0.001	(N/A)	(N/A)	1.80	1.37	(N/A)	(N/A)	(N/A)
P-47	CB-49	CB-26	4,506.15	4,502.55	15.0	0.013	55.0	0.065	3.785	0.471	1.80	16.53	4,506.68	4,503.49	8.82
P-48	CB-46	CB-47	4,506.51	4,502.07	36.0	0.013	1,034.0	0.004	53.883	0.461	35.65	43.70	4,508.57	4,504.01	6.89
P-49	CB-20	CB-50	4,514.82	4,514.44	36.0	0.013	191.0	0.002	44.994	0.472	21.41	29.75	4,516.73	4,516.39	4.58
P-50	CB-50	CB-51	4,514.39	4,513.29	36.0	0.013	296.0	0.004	44.994	0.471	31.94	40.66	4,516.39	4,515.12	6.37
P-51	CB-51	CB-45	4,513.29	4,506.74	36.0	0.013	1,245.0	0.005	44.994	0.469	31.87	48.38	4,515.12	4,509.50	7.31
P-52	CB-48	OF-3	4,505.90	4,502.00	18.0	0.013	153.0	0.025	13.214	0.471	6.27	16.77	4,506.87	4,502.64	8.80

Lehi Storm Drain Master Plan
1200 South Drain

Date Created: February 03, 2014

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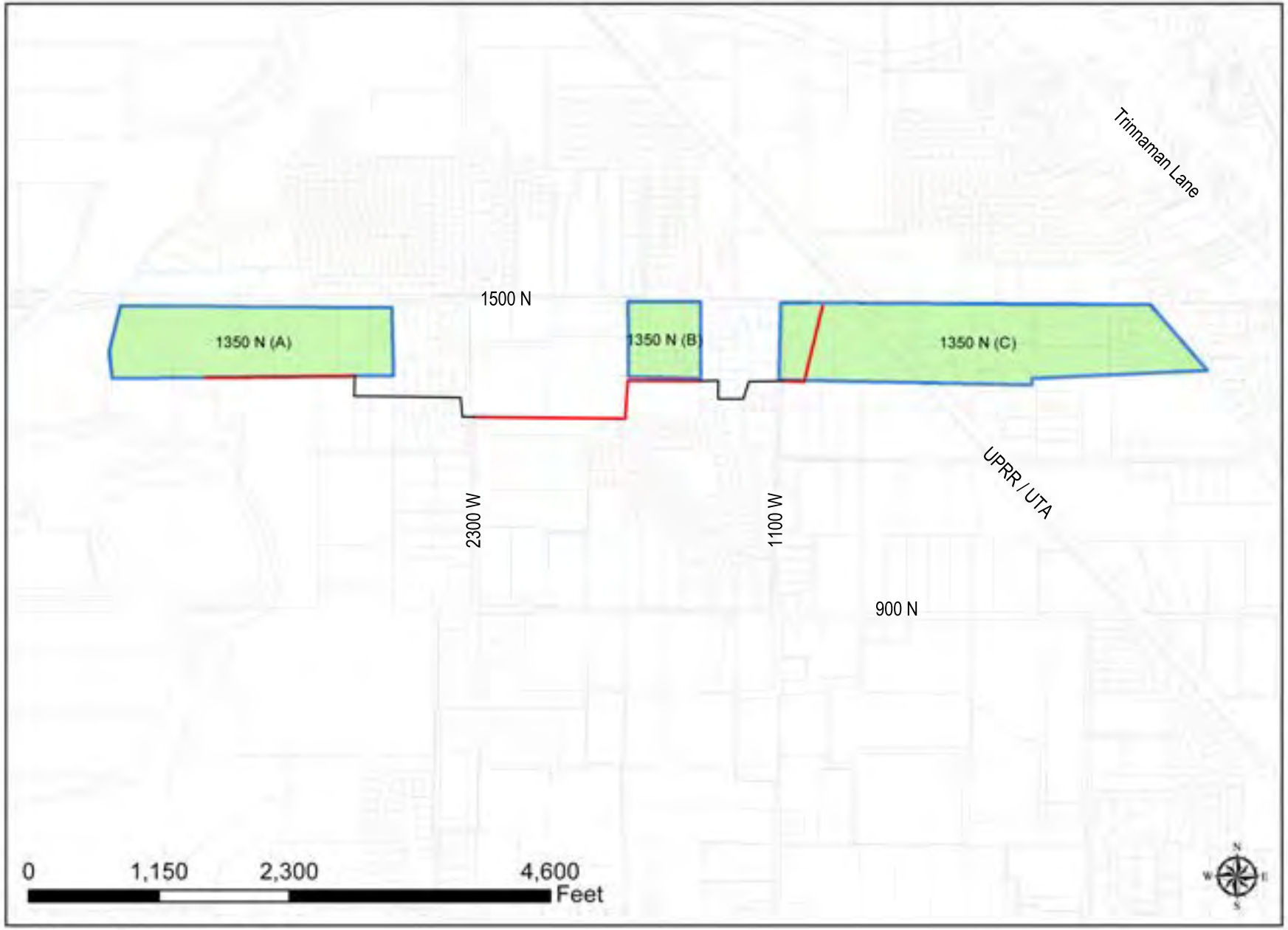
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,506.94	4,500.34	8.550	135.420	0.00	4,501.17	4,501.17
CB-2	4,506.40	4,499.29	0.000	0.000	0.00	4,500.18	4,500.18
CB-3	4,505.69	4,498.29	0.000	0.000	0.00	4,499.16	4,499.16
CB-4	4,504.47	4,496.27	8.550	135.420	0.00	4,497.87	4,497.87
CB-5	4,504.10	4,496.10	0.000	0.000	0.00	4,497.49	4,497.49
CB-6	4,504.06	4,495.86	0.000	0.000	0.00	4,497.33	4,497.33
CB-7	4,504.17	4,496.53	0.000	0.000	0.00	4,497.94	4,497.94
CB-8	4,505.80	4,496.90	0.000	0.000	0.00	4,498.61	4,498.61
CB-9	4,506.55	4,497.16	17.100	135.420	0.00	4,498.83	4,498.83
CB-10	4,500.35	4,494.55	0.000	0.000	0.00	4,495.85	4,495.85
CB-11	4,499.02	4,491.41	19.828	144.680	0.00	4,493.86	4,493.86
CB-12	4,495.51	4,490.43	0.000	0.000	0.00	4,492.64	4,492.64
CB-13	4,495.22	4,487.22	8.790	221.040	0.00	4,492.37	4,492.37
CB-14	4,495.22	4,487.14	0.000	0.000	0.00	4,492.25	4,492.25
CB-15	4,495.08	4,489.88	0.000	0.000	0.00	4,491.87	4,491.87
CB-16	4,494.97	4,489.64	0.000	0.000	0.00	4,491.56	4,491.56
CB-17	4,494.64	4,489.29	0.000	0.000	0.00	4,491.29	4,491.29
CB-18	4,494.48	4,489.10	0.000	0.000	0.00	4,491.00	4,491.00
CB-19	4,494.29	4,488.90	0.000	0.000	0.00	4,490.62	4,490.62
CB-20	4,493.87	4,488.63	0.000	0.000	0.00	4,490.02	4,490.02
CB-21	4,497.41	4,491.04	0.000	0.000	0.00	4,493.18	4,493.18
CB-22	4,495.30	4,490.20	0.000	0.000	0.00	4,492.26	4,492.26
CB-23	4,495.60	4,490.97	0.000	0.000	2.00	4,492.50	4,492.50
CB-24	4,495.50	4,490.42	0.000	0.000	0.00	4,492.49	4,492.49

12SDsouthofpioneermod.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-20	OF-1	4,488.69	4,488.63	36.0	0.013	38.5	0.002	42.287	0.305	13.01	26.33	4,490.02	4,489.78	3.71
P-2	CB-19	CB-20	4,488.90	4,488.63	36.0	0.013	387.6	0.001	42.287	0.307	13.09	17.60	4,490.62	4,490.02	2.73
P-3	CB-18	CB-19	4,489.10	4,488.91	36.0	0.013	396.5	0.000	42.287	0.309	13.18	14.60	4,491.00	4,490.62	2.34
P-4	CB-17	CB-18	4,489.29	4,489.10	36.0	0.013	396.7	0.000	42.287	0.311	13.27	14.60	4,491.29	4,491.00	2.34
P-5	CB-16	CB-17	4,489.64	4,489.29	36.0	0.013	404.6	0.001	42.287	0.313	13.35	19.62	4,491.56	4,491.29	2.98
P-6	CB-15	CB-16	4,489.88	4,489.69	36.0	0.013	396.5	0.000	42.287	0.315	13.44	14.60	4,491.87	4,491.56	2.34
P-7	CB-14	CB-15	4,490.42	4,490.11	36.0	0.013	407.6	0.001	42.287	0.317	13.52	18.39	4,492.25	4,491.87	2.84
P-8	CB-13	CB-14	4,490.42	4,490.42	36.0	0.013	125.4	0.000	42.287	0.318	13.56	0.00	4,492.37	4,492.25	1.92
P-9	CB-12	CB-13	4,490.43	4,490.42	36.0	0.013	361.2	0.000	33.497	0.419	14.15	3.51	4,492.64	4,492.37	2.00
P-10	CB-21	CB-12	4,491.04	4,490.43	36.0	0.013	359.9	0.002	54.028	0.422	22.99	27.46	4,493.18	4,492.64	4.35
P-11	CB-11	CB-21	4,491.41	4,491.13	36.0	0.013	399.0	0.001	54.028	0.427	23.23	17.67	4,493.86	4,493.18	3.29
P-12	CB-10	CB-11	4,494.55	4,492.26	30.0	0.013	399.6	0.006	34.200	0.430	14.82	31.05	4,495.85	4,493.86	6.25
P-13	CB-6	CB-10	4,495.86	4,494.63	30.0	0.013	398.5	0.003	34.200	0.433	14.92	22.79	4,497.33	4,495.93	4.95
P-14	CB-5	CB-6	4,496.10	4,495.96	24.0	0.013	94.1	0.001	17.100	0.434	7.48	8.72	4,497.49	4,497.33	3.12
P-15	CB-4	CB-5	4,496.27	4,496.22	24.0	0.013	201.6	0.000	17.100	0.437	7.53	3.56	4,497.87	4,497.49	2.40
P-16	CB-3	CB-4	4,498.29	4,496.99	18.0	0.013	403.8	0.003	8.550	0.441	3.80	5.96	4,499.16	4,497.87	3.57
P-17	CB-2	CB-3	4,499.30	4,498.32	18.0	0.013	309.4	0.003	8.550	0.444	3.83	5.91	4,500.18	4,499.16	3.56
P-18	CB-1	CB-2	4,500.34	4,499.29	18.0	0.013	272.8	0.004	8.550	0.447	3.85	6.52	4,501.17	4,500.18	3.84
P-19	CB-7	CB-6	4,496.53	4,495.96	24.0	0.013	373.8	0.002	17.100	0.439	7.56	8.83	4,497.94	4,497.33	3.16
P-20	CB-8	CB-7	4,497.08	4,496.63	24.0	0.013	400.3	0.001	17.100	0.444	7.65	7.58	4,498.61	4,497.94	2.75
P-21	CB-9	CB-8	4,497.16	4,496.90	24.0	0.013	202.8	0.001	17.100	0.447	7.70	8.10	4,498.83	4,498.61	2.93
P-22	CB-22	OF-2	4,490.20	4,488.63	30.0	0.013	2,526.0	0.001	20.531	0.414	10.57	10.23	4,492.26	4,489.72	2.37
P-23	CB-23	CB-24	4,490.97	4,490.92	24.0	0.013	79.0	0.001	0.000	3.250	2.00	5.69	4,492.50	4,492.49	1.65
P-24	CB-24	CB-22	4,490.42	4,490.20	30.0	0.013	345.0	0.001	20.531	0.419	10.67	10.36	4,492.49	4,492.26	2.40
P-25	CB-12	CB-24	4,490.43	4,490.42	12.0	0.013	18.0	0.001	(N/A)	(N/A)	8.67	0.84	(N/A)	(N/A)	(N/A)

Lehi Storm Drain Master Plan
1350 North Drain



Date Created: February 3, 2014

1350north.stc

1350north.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,549.00	4,545.88	21.660	114.440	0.00	4,547.62	4,547.62
CB-2	4,549.00	4,545.62	0.000	0.000	0.00	4,546.97	4,546.97
CB-3	4,546.50	4,542.91	0.000	0.000	0.00	4,544.23	4,544.23
CB-4	4,545.75	4,542.37	0.000	0.000	0.00	4,543.55	4,543.55
CB-5	4,545.75	4,541.53	0.000	0.000	0.00	4,543.52	4,543.52
CB-6	4,545.00	4,541.18	0.000	0.000	0.00	4,543.04	4,543.04
CB-7	4,546.70	4,540.87	0.000	0.000	0.00	4,542.83	4,542.83
CB-8	4,544.77	4,540.77	0.000	0.000	0.00	4,542.35	4,542.35
CB-9	4,545.10	4,540.68	0.000	0.000	0.00	4,541.84	4,541.84
CB-10	4,544.00	4,539.35	0.000	0.000	0.00	4,540.51	4,540.51
CB-11	4,526.00	4,519.57	0.000	0.000	0.00	4,521.56	4,521.56
CB-12	4,525.91	4,520.59	14.040	92.040	0.00	4,522.60	4,522.60
CB-13	4,525.79	4,522.06	0.000	0.000	0.00	4,524.08	4,524.08
CB-14	4,527.61	4,523.36	0.000	0.000	0.00	4,525.24	4,525.24
CB-15	4,527.68	4,523.93	0.000	0.000	0.00	4,525.84	4,525.84
CB-16	4,528.00	4,525.69	0.000	0.000	0.00	4,526.93	4,526.93
CB-17	4,538.50	4,534.05	0.000	0.000	0.00	4,535.30	4,535.30
CB-18	4,539.00	4,535.86	3.910	113.160	0.00	4,537.12	4,537.12

1350north.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,545.88	4,545.62	24.0	0.024	54.0	0.005	21.660	0.514	11.23	8.50	4,547.62	4,546.97	3.57
P-2	CB-2	CB-3	4,545.62	4,542.91	24.0	0.013	700.0	0.004	21.660	0.513	11.19	14.08	4,546.97	4,544.23	4.97
P-3	CB-3	CB-4	4,542.91	4,542.37	24.0	0.013	140.0	0.004	21.660	0.498	10.88	14.05	4,544.23	4,543.55	4.94
P-4	CB-4	CB-5	4,542.37	4,541.57	24.0	0.013	59.0	0.014	21.660	0.495	10.82	26.34	4,543.55	4,543.52	7.97
P-5	CB-5	CB-6	4,541.53	4,541.18	24.0	0.013	231.0	0.002	21.660	0.495	10.80	8.81	4,543.52	4,543.04	3.44
P-6	CB-6	CB-7	4,541.18	4,541.01	24.0	0.013	107.0	0.002	21.660	0.488	10.65	9.02	4,543.04	4,542.83	3.39
P-7	CB-7	CB-8	4,540.87	4,540.77	24.0	0.013	206.0	0.000	21.660	0.484	10.58	4.98	4,542.83	4,542.35	3.37
P-8	CB-8	CB-9	4,540.77	4,540.68	24.0	0.013	92.0	0.001	21.660	0.479	10.47	7.08	4,542.35	4,541.84	3.33
P-9	CB-9	CB-10	4,540.68	4,539.35	24.0	0.013	167.0	0.008	21.660	0.478	10.44	20.19	4,541.84	4,540.37	6.48
P-10	CB-10	CB-18	4,539.35	4,535.86	24.0	0.013	635.0	0.005	21.660	0.477	10.42	16.77	4,540.51	4,537.12	5.63
P-11	CB-18	CB-17	4,535.86	4,534.05	24.0	0.013	325.0	0.006	25.570	0.473	12.20	16.88	4,537.12	4,535.31	5.85
P-12	CB-17	CB-16	4,534.05	4,525.69	24.0	0.013	1,341.0	0.006	25.570	0.471	12.15	17.86	4,535.30	4,526.90	6.11
P-13	CB-16	CB-15	4,525.69	4,524.67	24.0	0.024	53.0	0.019	25.570	0.463	11.94	17.00	4,526.93	4,525.91	5.86
P-14	CB-15	CB-14	4,523.93	4,523.54	24.0	0.013	227.0	0.002	25.570	0.463	11.94	9.38	4,525.84	4,525.24	3.80
P-15	CB-14	CB-13	4,523.36	4,522.06	24.0	0.013	449.0	0.003	25.570	0.461	11.88	12.17	4,525.24	4,524.08	4.42
P-16	CB-13	CB-12	4,522.06	4,520.59	24.0	0.013	547.0	0.003	25.570	0.457	11.79	11.73	4,524.08	4,522.60	3.75
P-17	CB-12	CB-11	4,520.61	4,520.07	24.0	0.013	130.0	0.004	39.610	0.452	18.05	14.58	4,522.60	4,521.60	5.74
P-18	CB-11	OF-6	4,520.07	4,514.13	30.0	0.013	1,360.0	0.004	39.610	0.451	18.01	27.11	4,521.56	4,515.57	5.91

Lehi Storm Drain Master Plan
1500 North Drain

Date Created: February 03, 2014


1500north.stc
2100 N
2300 W
1900 W
1500 N
25% of area 33
25% of area 21
50% of area 31
OF-1
CB-13
CB-12
CB-11
CB-5
CB-4
CB-3
CB-2
CB-1
CB-10
CB-9
CB-8
CB-7
CB-14
CB-15
CB-16
CB-17
CB-18
CB-19

1500north.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,526.50	4,521.85	0.000	0.000	0.00	4,522.89	4,522.89
CB-2	4,526.17	4,521.37	0.000	0.000	0.00	4,522.45	4,522.45
CB-3	4,525.36	4,520.46	0.000	0.000	0.00	4,522.26	4,522.26
CB-4	4,524.91	4,520.01	19.200	130.540	0.00	4,522.06	4,522.06
CB-5	4,525.29	4,519.39	0.000	0.000	0.00	4,520.96	4,520.96
CB-6	4,525.49	4,518.79	0.000	0.000	0.00	4,520.61	4,520.61
CB-7	4,533.08	4,528.58	0.000	0.000	0.00	4,529.77	4,529.77
CB-8	4,529.77	4,526.81	0.000	0.000	0.00	4,528.12	4,528.12
CB-9	4,530.44	4,526.73	0.000	0.000	0.00	4,527.78	4,527.78
CB-10	4,525.55	4,521.84	0.000	0.000	0.00	4,523.20	4,523.20
CB-11	4,524.00	4,518.79	0.000	0.000	0.00	4,520.45	4,520.45
CB-12	4,522.00	4,515.50	35.560	116.780	0.00	4,517.41	4,517.41
CB-13	4,513.00	4,509.00	0.000	0.000	0.00	4,510.91	4,510.91
CB-14	4,533.50	4,529.48	0.000	0.000	0.00	4,530.55	4,530.55
CB-15	4,534.43	4,530.43	0.000	0.000	0.00	4,531.55	4,531.55
CB-16	4,536.00	4,531.75	9.600	130.540	0.00	4,532.81	4,532.81
CB-17	4,537.50	4,534.51	0.000	0.000	0.00	4,535.31	4,535.31
CB-18	4,541.50	4,537.95	0.000	0.000	0.00	4,538.76	4,538.76
CB-19	4,542.00	4,539.24	9.600	130.540	0.00	4,540.05	4,540.05

1500north.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,521.85	4,521.42	24.0	0.013	49.4	0.009	19.200	0.443	8.57	21.11	4,522.89	4,522.31	6.37
P-2	CB-2	CB-3	4,521.37	4,520.46	24.0	0.013	193.0	0.005	19.200	0.443	8.57	15.53	4,522.45	4,522.26	5.07
P-3	CB-3	CB-4	4,520.66	4,520.01	30.0	0.013	405.0	0.002	19.200	0.441	8.54	16.43	4,522.26	4,522.06	3.38
P-4	CB-4	CB-5	4,520.01	4,519.47	30.0	0.013	403.0	0.001	38.400	0.437	16.91	15.01	4,522.06	4,520.96	3.45
P-5	CB-5	CB-6	4,519.39	4,518.79	30.0	0.013	173.0	0.003	38.400	0.433	16.75	24.15	4,520.96	4,520.61	5.31
P-6	CB-7	CB-8	4,528.58	4,526.81	24.0	0.013	526.0	0.003	19.200	0.450	8.71	13.12	4,529.77	4,528.12	4.47
P-7	CB-8	CB-9	4,527.07	4,526.73	24.0	0.013	48.0	0.007	19.200	0.446	8.63	19.04	4,528.12	4,527.67	5.91
P-8	CB-10	CB-1	4,521.84	4,521.80	24.0	0.013	55.0	0.001	19.200	0.444	8.59	6.10	4,523.20	4,522.89	2.73
P-9	CB-6	CB-11	4,518.80	4,518.79	30.0	0.013	39.0	0.000	38.400	0.432	16.70	6.57	4,520.61	4,520.45	3.40
P-10	CB-9	CB-10	4,526.73	4,521.84	24.0	0.013	394.0	0.012	19.200	0.446	8.62	25.20	4,527.78	4,523.20	7.27
P-11	CB-11	CB-12	4,518.79	4,515.50	30.0	0.013	1,200.0	0.003	38.400	0.431	16.69	21.48	4,520.45	4,517.41	4.83
P-12	CB-12	CB-13	4,515.50	4,509.00	30.0	0.013	560.0	0.012	73.960	0.422	31.47	44.19	4,517.41	4,510.56	9.78
P-13	CB-13	OF-1	4,509.00	4,504.50	30.0	0.013	72.0	0.063	73.960	0.420	31.32	102.54	4,510.91	4,505.53	18.34
P-14	CB-14	CB-7	4,529.48	4,528.60	24.0	0.013	185.0	0.005	19.200	0.451	8.74	15.60	4,530.55	4,529.77	5.11
P-15	CB-15	CB-14	4,530.49	4,529.48	24.0	0.013	204.0	0.005	19.200	0.453	8.76	15.92	4,531.55	4,530.55	5.19
P-16	CB-16	CB-15	4,531.75	4,530.43	24.0	0.013	173.0	0.008	19.200	0.454	8.78	19.76	4,532.81	4,531.55	6.11
P-17	CB-19	CB-18	4,539.24	4,537.97	18.0	0.013	123.0	0.010	9.600	0.457	4.42	10.67	4,540.05	4,538.64	5.76
P-18	CB-18	CB-17	4,537.95	4,534.58	18.0	0.013	327.0	0.010	9.600	0.456	4.42	10.66	4,538.76	4,535.25	5.75
P-19	CB-17	CB-16	4,534.51	4,533.04	18.0	0.013	85.0	0.017	9.600	0.454	4.40	13.81	4,535.31	4,533.62	6.94

Lehi Storm Drain Master Plan
1700 West Drain

Date Created: January 27, 2014

1700west.stc

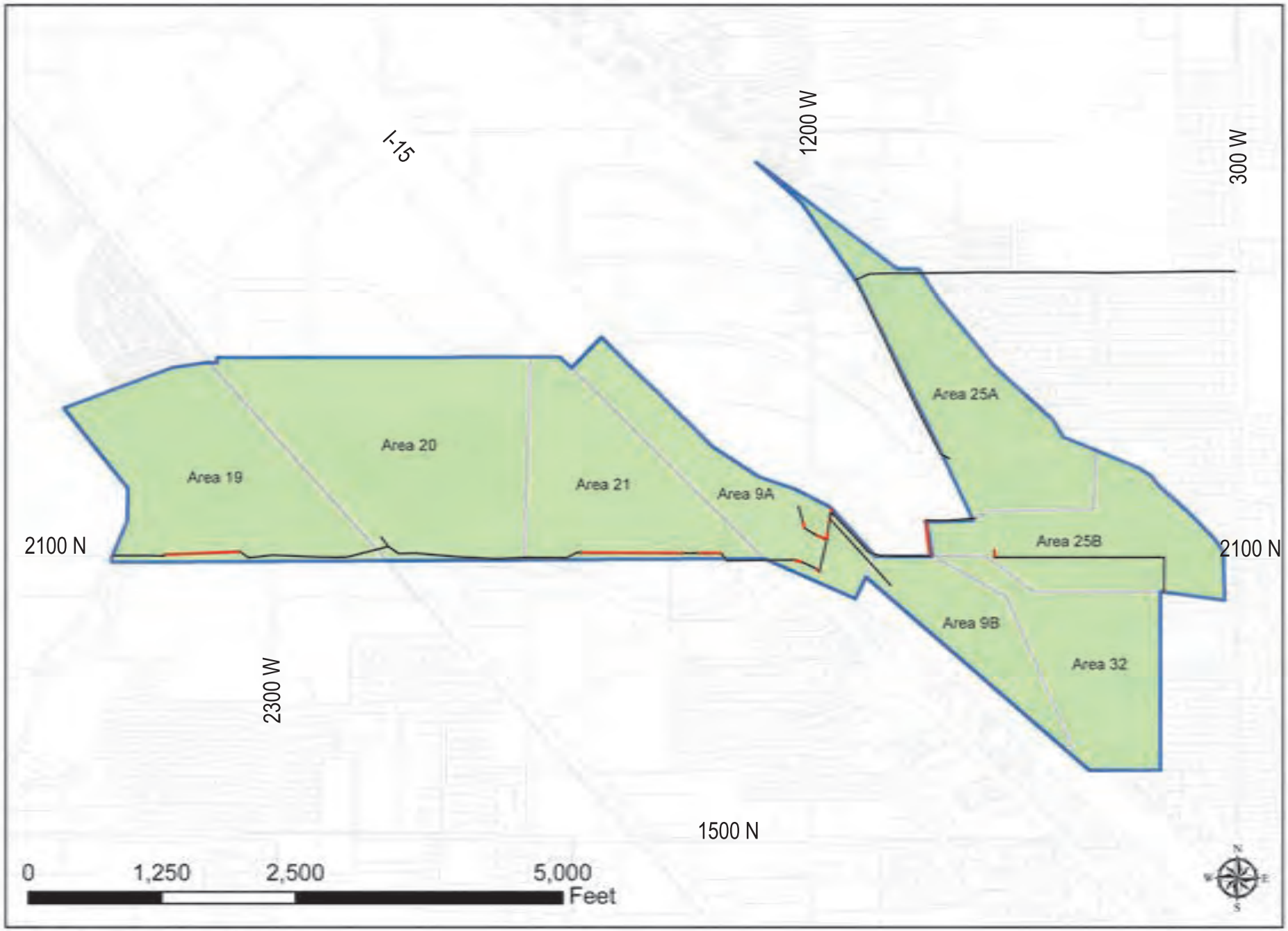
1700west.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,510.50	4,507.00	33.596	124.010	0.00	4,508.44	4,508.44
CB-2	4,501.50	4,497.00	27.423	143.180	0.00	4,498.95	4,498.95
CB-3	4,501.00	4,491.50	17.546	135.780	0.00	4,493.57	4,493.57

1700west.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,507.00	4,498.00	24.0	0.013	1,353.0	0.007	33.596	0.471	15.96	18.45	4,508.44	4,499.44	6.61
P-2	CB-2	CB-3	4,497.00	4,491.50	36.0	0.013	1,998.0	0.003	61.019	0.430	26.43	34.99	4,498.95	4,493.57	5.44
P-3	CB-3	OF-1	4,491.50	4,491.20	36.0	0.013	87.0	0.003	78.565	0.417	32.99	39.16	4,493.57	4,493.06	6.21

Lehi Storm Drain Master Plan
2100 North Drain North



Date Created: May 11, 2014

survey2100northnorth.stc

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5/9/2014

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT 06795 USA +1-203-755-1666

Bentley StormCAD V8i (SELECTseries 1)
[08.11.00.44]
Page 1 of 1

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Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,522.16	4,521.68	48.0	0.013	99.0	0.005	116.790	0.406	69.76	100.01	4,524.68	4,524.61	8.61
P-2	CB-2	CB-3	4,521.66	4,521.00	48.0	0.013	200.0	0.003	116.790	0.405	69.71	82.51	4,524.61	4,524.16	7.36
P-3	CB-3	CB-4	4,521.00	4,520.05	48.0	0.013	402.0	0.002	116.790	0.404	69.59	69.82	4,524.16	4,522.95	6.33
P-4	CB-4	CB-5	4,520.10	4,519.41	48.0	0.013	222.0	0.003	116.790	0.402	69.32	80.08	4,522.95	4,521.93	7.17
P-5	CB-5	CB-6	4,510.06	4,509.92	48.0	0.013	99.0	0.001	116.790	0.401	69.19	54.01	4,513.13	4,512.43	5.51
P-6	CB-7	CB-8	4,504.61	4,504.38	48.0	0.013	12.0	0.019	116.790	0.398	68.82	198.85	4,507.12	4,506.99	14.38
P-7	CB-8	CB-9	4,504.48	4,503.28	48.0	0.013	167.0	0.007	116.790	0.398	68.82	121.76	4,506.99	4,505.44	9.99
P-8	CB-9	CB-10	4,503.28	4,490.96	48.0	0.013	244.0	0.050	116.790	0.397	68.75	322.75	4,505.79	4,493.80	20.41
P-9	CB-10	OF-1	4,491.06	4,490.76	48.0	0.013	63.0	0.005	146.410	0.397	80.53	99.12	4,493.80	4,493.48	8.79
P-10	CB-11	CB-12	4,743.51	4,742.21	15.0	0.013	311.0	0.004	0.000	3.250	3.45	4.18	4,744.38	4,743.05	3.80
P-11	CB-12	CB-13	4,742.30	4,732.99	15.0	0.013	256.0	0.036	0.000	3.250	3.45	12.32	4,743.05	4,733.75	8.61
P-12	CB-13	CB-14	4,733.00	4,719.81	15.0	0.013	325.0	0.041	0.000	3.250	3.45	13.01	4,733.75	4,720.69	8.96
P-13	CB-14	CB-15	4,719.94	4,705.05	15.0	0.013	324.0	0.046	0.000	3.250	3.45	13.85	4,720.69	4,705.95	9.37
P-14	CB-15	CB-16	4,705.20	4,693.06	15.0	0.013	325.0	0.037	0.000	3.250	3.45	12.48	4,705.95	4,693.51	8.69
P-15	CB-16	CB-17	4,693.03	4,681.12	15.0	0.013	327.0	0.036	0.000	3.250	3.45	12.33	4,693.78	4,681.57	8.62
P-16	CB-17	CB-18	4,681.03	4,675.53	18.0	0.013	357.0	0.015	0.000	3.250	3.45	13.04	4,681.74	4,676.30	6.23
P-17	CB-18	CB-19	4,675.59	4,670.41	18.0	0.013	139.0	0.037	0.000	3.212	3.45	20.28	4,676.30	4,670.83	8.55
P-18	CB-19	CB-20	4,670.41	4,661.44	18.0	0.013	222.0	0.040	0.000	3.170	3.45	21.11	4,671.12	4,662.38	8.81
P-19	CB-20	CB-21	4,661.67	4,655.63	18.0	0.013	121.0	0.050	0.000	3.105	3.45	23.47	4,662.38	4,656.02	9.50
P-20	CB-21	CB-22	4,655.50	4,645.81	18.0	0.013	249.0	0.039	0.000	3.072	3.45	20.72	4,656.21	4,646.62	8.69
P-21	CB-22	CB-23	4,645.91	4,638.44	18.0	0.013	217.0	0.034	0.000	2.999	3.45	19.49	4,646.62	4,639.20	8.31
P-22	CB-23	CB-24	4,638.49	4,628.70	18.0	0.013	213.0	0.046	0.000	2.932	3.45	22.52	4,639.20	4,629.10	9.22
P-23	CB-24	CB-25	4,628.42	4,627.16	24.0	0.013	45.0	0.028	0.000	2.873	3.45	37.85	4,629.07	4,627.57	7.50
P-24	CB-25	CB-26	4,627.16	4,626.53	24.0	0.013	73.0	0.009	0.000	2.857	3.45	21.01	4,627.81	4,627.08	4.94
P-25	CB-26	CB-27	4,625.97	4,625.27	30.0	0.013	58.0	0.012	0.000	2.819	3.45	45.06	4,626.58	4,626.07	5.43
P-26	CB-27	CB-28	4,625.46	4,625.27	30.0	0.013	26.0	0.007	0.000	2.792	3.45	35.06	4,626.07	4,625.80	4.55
P-27	CB-28	CB-29	4,625.05	4,624.26	30.0	0.013	223.0	0.004	0.000	2.777	3.45	24.41	4,625.69	4,624.87	3.52
P-28	CB-29	CB-30	4,624.11	4,620.73	30.0	0.013	369.0	0.009	0.000	2.614	3.45	39.25	4,624.72	4,621.23	4.92
P-29	CB-30	CB-31	4,620.54	4,616.99	30.0	0.013	397.0	0.009	0.000	2.448	3.45	38.78	4,621.15	4,617.49	4.88
P-30	CB-31	CB-32	4,616.73	4,612.47	30.0	0.013	405.0	0.011	0.000	2.331	3.45	42.06	4,617.34	4,613.72	5.17
P-31	CB-32	CB-33	4,612.49	4,608.96	30.0	0.013	395.0	0.009	22.760	0.434	13.40	38.77	4,613.72	4,609.97	7.17
P-32	CB-33	OF-2	4,608.94	4,602.97	15.0	0.013	86.0	0.069	22.760	0.432	13.35	17.02	4,610.17	4,603.82	15.36
P-33	CB-34	CB-35	4,646.66	4,645.90	12.0	0.013	96.0	0.008	4.720	0.946	4.50	3.17	4,651.53	4,649.99	5.73
P-34	CB-35	CB-36	4,645.88	4,644.05	12.0	0.013	182.0	0.010	4.720	0.941	4.48	3.57	4,651.90	4,649.03	5.70

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-35	CB-36	CB-37	4,644.05	4,642.89	12.0	0.013	47.0	0.025	4.720	0.932	4.43	5.60	4,649.50	4,648.78	5.65
P-36	CB-37	CB-38	4,642.96	4,641.16	12.0	0.013	399.0	0.005	4.720	0.930	4.42	2.39	4,650.92	4,644.77	5.63
P-37	CB-38	CB-39	4,641.06	4,638.69	12.0	0.013	247.0	0.010	4.720	0.909	4.32	3.49	4,645.62	4,641.99	5.50
P-38	CB-39	CB-40	4,638.67	4,630.76	12.0	0.013	153.0	0.052	9.440	0.895	8.52	8.10	4,643.34	4,634.58	10.85
P-39	CB-40	CB-41	4,630.74	4,616.22	12.0	0.013	404.0	0.036	9.440	0.891	8.48	6.75	4,642.91	4,620.02	10.80
P-40	CB-41	CB-42	4,616.23	4,605.60	12.0	0.013	337.0	0.032	9.440	0.880	8.38	6.33	4,626.83	4,608.21	10.66
P-41	CB-42	CB-43	4,605.10	4,604.92	18.0	0.013	40.0	0.005	18.890	0.871	16.58	7.05	4,608.21	4,607.21	9.38
P-42	CB-6	CB-7	4,509.92	4,504.61	48.0	0.013	708.0	0.008	116.790	0.400	69.12	124.39	4,512.43	4,506.74	10.16
P-43	CB-45	CB-1	4,528.63	4,522.11	48.0	0.013	392.0	0.017	116.790	0.407	69.88	185.24	4,531.16	4,524.68	13.70
P-44	CB-43	OF-4	4,604.92	4,604.74	18.0	0.013	40.0	0.005	18.890	0.870	16.56	7.05	4,607.21	4,606.17	9.37
P-45	CB-49	CB-50	4,606.00	4,605.25	18.0	0.013	59.0	0.013	0.000	3.250	13.00	11.84	4,607.49	4,606.60	7.36
P-46	CB-50	CB-51	4,605.25	4,588.46	18.0	0.013	472.0	0.036	0.000	3.250	13.00	19.81	4,606.60	4,590.61	11.96
P-47	CB-51	CB-52	4,588.38	4,583.82	18.0	0.013	334.0	0.014	0.000	3.250	13.00	12.27	4,590.61	4,585.50	7.36
P-48	CB-48	CB-53	4,573.90	4,570.31	24.0	0.013	505.0	0.007	0.000	3.250	22.01	19.07	4,577.05	4,572.27	7.01
P-49	CB-55	CB-45	4,530.94	4,528.97	48.0	0.013	116.0	0.017	79.020	0.407	54.42	187.18	4,533.16	4,530.52	12.91
P-50	CB-56	CB-55	4,534.20	4,530.95	48.0	0.013	155.0	0.021	79.020	0.407	54.46	207.99	4,536.42	4,532.39	13.94
P-51	CB-44	CB-57	4,548.60	4,537.70	48.0	0.013	274.0	0.040	57.140	0.411	45.71	286.48	4,550.62	4,539.85	16.69
P-52	CB-57	CB-56	4,537.63	4,534.20	48.0	0.013	771.0	0.004	79.020	0.411	54.74	95.80	4,539.85	4,536.37	7.88
P-53	CB-58	CB-44	4,550.65	4,548.79	48.0	0.013	371.0	0.005	57.140	0.413	45.81	101.70	4,552.68	4,550.67	7.88
P-54	CB-59	CB-58	4,551.24	4,550.65	48.0	0.013	120.0	0.005	57.140	0.414	45.84	100.72	4,553.27	4,552.54	7.83
P-55	CB-60	CB-59	4,551.37	4,551.24	48.0	0.013	22.0	0.006	57.140	0.414	45.85	110.41	4,553.40	4,553.11	8.38
P-56	CB-61	CB-60	4,555.54	4,551.37	42.0	0.013	975.0	0.004	57.140	0.419	46.12	65.79	4,557.70	4,553.49	7.40
P-57	CB-62	CB-61	4,556.50	4,555.54	36.0	0.013	126.0	0.008	57.140	0.419	46.15	58.22	4,558.71	4,557.56	9.13
P-58	CB-63	CB-62	4,558.28	4,556.50	36.0	0.013	222.0	0.008	57.140	0.420	46.20	59.72	4,560.49	4,558.48	9.33
P-59	CB-46	CB-64	4,562.30	4,558.76	36.0	0.013	627.0	0.006	57.140	0.423	46.38	50.11	4,564.58	4,561.04	8.05
P-60	CB-64	CB-63	4,558.76	4,558.28	36.0	0.013	86.0	0.006	57.140	0.420	46.22	49.83	4,561.04	4,560.50	8.00
P-61	CB-65	CB-46	4,562.94	4,562.30	36.0	0.013	85.0	0.008	41.780	0.601	47.34	57.87	4,565.18	4,564.58	9.13
P-62	CB-47	CB-66	4,564.30	4,563.94	36.0	0.013	48.0	0.008	41.780	0.603	47.42	57.76	4,566.54	4,566.03	9.12
P-63	CB-66	CB-65	4,563.94	4,562.94	36.0	0.013	134.0	0.007	41.780	0.603	47.40	57.62	4,566.18	4,565.01	9.10
P-64	CB-53	CB-67	4,570.30	4,569.13	30.0	0.013	67.0	0.017	18.582	0.624	33.70	54.20	4,572.27	4,571.64	11.64
P-65	CB-68	CB-69	4,567.55	4,566.60	36.0	0.030	75.0	0.013	29.392	0.622	40.45	32.53	4,570.47	4,568.85	5.72
P-66	CB-69	CB-47	4,566.60	4,564.30	36.0	0.013	308.0	0.007	41.780	0.607	47.57	57.63	4,568.85	4,566.38	9.11
P-67	CB-67	CB-70	4,569.13	4,568.45	36.0	0.030	39.0	0.017	29.392	0.624	40.49	38.16	4,571.64	4,570.52	6.09
P-68	CB-70	CB-68	4,568.45	4,567.55	36.0	0.013	81.0	0.011	29.392	0.623	40.47	70.30	4,570.52	4,570.47	10.30

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Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-69	CB-71	CB-72	4,568.50	4,568.04	24.0	0.013	147.0	0.003	12.388	0.621	7.76	12.65	4,570.11	4,569.98	4.23
P-70	CB-72	CB-73	4,568.04	4,567.84	24.0	0.030	65.0	0.003	12.388	0.617	7.71	5.44	4,569.98	4,569.62	2.45
P-71	CB-73	CB-74	4,567.84	4,567.46	24.0	0.013	120.0	0.003	12.388	0.615	7.68	12.73	4,569.62	4,569.50	4.24
P-72	CB-74	CB-69	4,567.46	4,567.10	24.0	0.030	117.0	0.003	12.388	0.612	7.64	5.44	4,569.50	4,568.85	2.43
P-73	CB-76	CB-75	4,573.00	4,571.78	21.0	0.013	359.0	0.003	10.810	0.701	7.64	9.24	4,574.21	4,572.80	4.29
P-74	CB-75	CB-67	4,571.53	4,570.13	24.0	0.013	465.0	0.003	10.810	0.693	7.55	12.41	4,572.66	4,571.64	4.14
P-75	CB-52	CB-77	4,583.82	4,575.92	24.0	0.013	476.0	0.017	0.000	3.250	22.01	29.14	4,585.50	4,578.10	10.19
P-76	CB-77	CB-48	4,575.92	4,574.04	24.0	0.013	111.0	0.017	0.000	3.250	22.01	29.44	4,578.10	4,577.05	7.01
P-77	CB-54	CB-45	4,531.31	4,528.63	30.0	0.013	114.0	0.024	37.770	0.729	27.75	62.89	4,533.11	4,531.16	12.41

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Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,528.31	4,522.11	0.000	0.000	0.00	4,524.68	4,524.68
CB-2	4,528.93	4,521.66	0.000	0.000	0.00	4,524.61	4,524.61
CB-3	4,528.75	4,521.00	0.000	0.000	0.00	4,524.16	4,524.16
CB-4	4,527.10	4,520.05	0.000	0.000	0.00	4,522.95	4,522.95
CB-5	4,526.41	4,510.06	0.000	0.000	0.00	4,513.13	4,513.13
CB-6	4,515.63	4,509.92	0.000	0.000	0.00	4,512.43	4,512.43
CB-7	4,510.32	4,504.61	0.000	0.000	0.00	4,507.12	4,507.12
CB-8	4,515.38	4,504.38	0.000	0.000	0.00	4,506.99	4,506.99
CB-9	4,514.02	4,503.28	0.000	0.000	0.00	4,505.79	4,505.79
CB-10	4,509.81	4,490.96	29.620	63.240	0.00	4,493.80	4,493.80
CB-11	4,753.16	4,742.26	0.000	0.000	3.45	4,744.38	4,744.38
CB-12	4,750.15	4,742.21	0.000	0.000	0.00	4,743.05	4,743.05
CB-13	4,746.99	4,732.99	0.000	0.000	0.00	4,733.75	4,733.75
CB-14	4,725.58	4,719.81	0.000	0.000	0.00	4,720.69	4,720.69
CB-15	4,710.35	4,705.05	0.000	0.000	0.00	4,705.95	4,705.95
CB-16	4,699.73	4,693.03	0.000	0.000	0.00	4,693.78	4,693.78
CB-17	4,689.93	4,681.03	0.000	0.000	0.00	4,681.74	4,681.74
CB-18	4,680.46	4,675.53	0.000	0.000	0.00	4,676.30	4,676.30
CB-19	4,675.78	4,670.41	0.000	0.000	0.00	4,671.12	4,671.12
CB-20	4,665.61	4,661.44	0.000	0.000	0.00	4,662.38	4,662.38
CB-21	4,660.52	4,655.50	0.000	0.000	0.00	4,656.21	4,656.21
CB-22	4,652.96	4,645.81	0.000	0.000	0.00	4,646.62	4,646.62
CB-23	4,641.84	4,638.44	0.000	0.000	0.00	4,639.20	4,639.20
CB-24	4,632.72	4,628.42	0.000	0.000	0.00	4,629.07	4,629.07
CB-25	4,631.41	4,627.16	0.000	0.000	0.00	4,627.81	4,627.81
CB-26	4,630.77	4,625.97	0.000	0.000	0.00	4,626.58	4,626.58
CB-27	4,629.60	4,625.27	0.000	0.000	0.00	4,626.07	4,626.07
CB-28	4,629.54	4,625.05	0.000	0.000	0.00	4,625.69	4,625.69
CB-29	4,628.26	4,624.11	0.000	0.000	0.00	4,624.72	4,624.72
CB-30	4,624.62	4,620.54	0.000	0.000	0.00	4,621.15	4,621.15
CB-31	4,620.93	4,616.73	0.000	0.000	0.00	4,617.34	4,617.34
CB-32	4,616.68	4,612.47	22.760	141.360	0.00	4,613.72	4,613.72
CB-33	4,613.16	4,608.94	0.000	0.000	0.00	4,610.17	4,610.17
CB-34	4,649.82	4,646.66	4.720	54.550	0.00	4,649.82	4,649.82
CB-35	4,649.99	4,645.88	0.000	0.000	0.00	4,649.99	4,649.99
CB-36	4,649.03	4,644.05	0.000	0.000	0.00	4,649.03	4,649.03
CB-37	4,648.78	4,642.89	0.000	0.000	0.00	4,648.78	4,648.78
CB-38	4,644.77	4,641.06	0.000	0.000	0.00	4,644.77	4,644.77
CB-39	4,641.99	4,638.67	4.720	54.550	0.00	4,641.99	4,641.99
CB-40	4,634.58	4,630.74	0.000	0.000	0.00	4,634.58	4,634.58
CB-41	4,620.02	4,616.22	0.000	0.000	0.00	4,620.02	4,620.02
CB-42	4,609.33	4,605.10	9.450	54.550	0.00	4,608.21	4,608.21
CB-43	4,608.54	4,604.92	0.000	0.000	0.00	4,607.21	4,607.21
CB-44	4,553.00	4,548.60	0.000	0.000	0.00	4,550.62	4,550.62
CB-45	4,543.00	4,528.63	0.000	0.000	0.00	4,531.16	4,531.16
CB-46	4,566.00	4,562.30	15.360	146.240	0.00	4,564.58	4,564.58
CB-47	4,573.00	4,564.30	0.000	0.000	0.00	4,566.54	4,566.54

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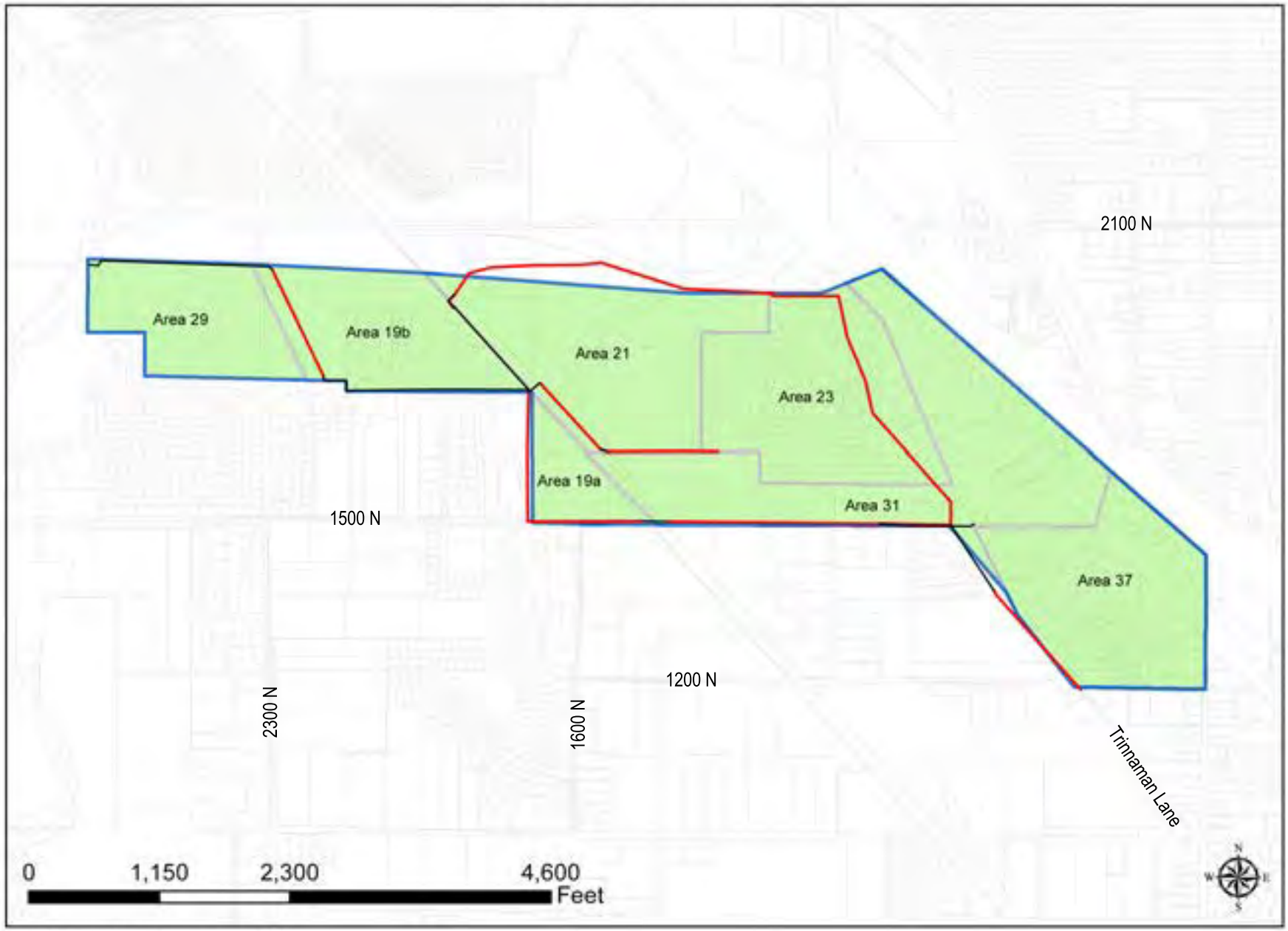
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-48	4,578.00	4,573.90	0.000	0.000	0.00	4,577.05	4,577.05
CB-49	4,608.50	4,606.00	0.000	0.000	13.00	4,607.49	4,607.49
CB-50	4,609.00	4,605.25	0.000	0.000	0.00	4,606.60	4,606.60
CB-51	4,592.53	4,588.38	0.000	0.000	0.00	4,590.61	4,590.61
CB-52	4,587.50	4,583.82	0.000	0.000	9.01	4,585.50	4,585.50
CB-53	4,576.24	4,570.30	18.582	96.593	0.00	4,572.27	4,572.27
CB-54	4,536.00	4,531.31	37.770	79.650	0.00	4,533.11	4,533.11
CB-55	4,543.80	4,530.94	0.000	0.000	0.00	4,533.16	4,533.16
CB-56	4,545.03	4,534.20	0.000	0.000	0.00	4,536.42	4,536.42
CB-57	4,543.98	4,537.63	21.880	86.770	0.00	4,539.85	4,539.85
CB-58	4,556.37	4,550.65	0.000	0.000	0.00	4,552.68	4,552.68
CB-59	4,556.07	4,551.24	0.000	0.000	0.00	4,553.27	4,553.27
CB-60	4,556.38	4,551.37	0.000	0.000	0.00	4,553.40	4,553.40
CB-61	4,561.45	4,555.54	0.000	0.000	0.00	4,557.70	4,557.70
CB-62	4,562.27	4,556.50	0.000	0.000	0.00	4,558.71	4,558.71
CB-63	4,563.63	4,558.28	0.000	0.000	0.00	4,560.49	4,560.49
CB-64	4,564.32	4,558.76	0.000	0.000	0.00	4,561.04	4,561.04
CB-65	4,568.12	4,562.94	0.000	0.000	0.00	4,565.18	4,565.18
CB-66	4,571.34	4,563.94	0.000	0.000	0.00	4,566.18	4,566.18
CB-67	4,575.85	4,569.13	0.000	0.000	0.00	4,571.64	4,571.64
CB-68	4,575.18	4,567.55	0.000	0.000	0.00	4,570.47	4,570.47
CB-69	4,574.77	4,566.60	0.000	0.000	0.00	4,568.85	4,568.85
CB-70	4,575.63	4,568.45	0.000	0.000	0.00	4,570.52	4,570.52
CB-71	4,571.00	4,568.50	12.388	97.124	0.00	4,570.11	4,570.11
CB-72	4,570.50	4,568.04	0.000	0.000	0.00	4,569.98	4,569.98
CB-73	4,570.50	4,567.84	0.000	0.000	0.00	4,569.62	4,569.62
CB-74	4,570.00	4,567.46	0.000	0.000	0.00	4,569.50	4,569.50
CB-75	4,575.50	4,571.53	0.000	0.000	0.00	4,572.66	4,572.66
CB-76	4,576.00	4,573.00	10.810	84.140	0.00	4,574.21	4,574.21
CB-77	4,579.58	4,575.92	0.000	0.000	0.00	4,578.10	4,578.10

Lehi Storm Drain Master Plan
2100 North Drain South



Date Created: February 17, 2014

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Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,573.75	4,568.75	0.000	0.000	15.21	4,570.48	4,570.48
CB-2	4,564.86	4,561.38	22.750	52.550	0.00	4,562.99	4,562.99
CB-3	4,565.15	4,560.35	0.000	0.000	0.00	4,561.96	4,561.96
CB-4	4,561.38	4,556.79	0.000	0.000	0.00	4,558.39	4,558.39
CB-5	4,560.29	4,555.77	0.000	0.000	0.00	4,557.37	4,557.37
CB-6	4,558.95	4,553.43	0.000	0.000	0.00	4,555.30	4,555.30
CB-7	4,550.39	4,545.04	0.000	0.000	0.00	4,546.79	4,546.79
CB-8	4,550.47	4,544.62	32.940	84.260	0.00	4,546.89	4,546.89
CB-9	4,551.42	4,542.09	0.000	0.000	0.00	4,544.36	4,544.36
CB-10	4,527.00	4,520.50	0.000	0.000	0.00	4,523.13	4,523.13
CB-11	4,527.04	4,520.14	0.000	0.000	0.00	4,522.77	4,522.77
CB-12	4,526.31	4,518.76	0.000	0.000	0.00	4,521.39	4,521.39
CB-13	4,513.23	4,498.28	0.000	0.000	0.00	4,501.02	4,501.02
CB-14	4,514.00	4,489.75	0.000	0.000	0.00	4,492.61	4,492.61
CB-15	4,551.00	4,542.00	0.000	0.000	0.00	4,544.42	4,544.42
CB-16	4,553.00	4,548.32	25.270	113.140	0.00	4,549.69	4,549.69
CB-17	4,529.50	4,523.68	0.000	0.000	0.00	4,526.44	4,526.44
CB-18	4,542.00	4,536.55	0.000	0.000	0.00	4,538.66	4,538.66
CB-19	4,544.00	4,534.10	0.000	0.000	0.00	4,536.53	4,536.53
CB-20	4,544.00	4,538.60	5.780	116.630	0.00	4,540.74	4,540.74
CB-21	4,544.00	4,540.85	0.000	0.000	0.00	4,542.61	4,542.61
CB-22	4,529.50	4,523.73	0.000	0.000	0.00	4,526.53	4,526.53
CB-23	4,530.86	4,524.55	0.000	0.000	0.00	4,527.56	4,527.56
CB-24	4,531.45	4,524.76	0.000	0.000	0.00	4,527.79	4,527.79
CB-25	4,538.28	4,526.80	16.670	81.280	0.00	4,529.86	4,529.86
CB-26	4,543.67	4,534.81	0.000	0.000	0.00	4,537.13	4,537.13
CB-27	4,542.00	4,538.16	24.930	95.960	0.00	4,539.86	4,539.86
CB-28	4,542.00	4,537.89	0.000	0.000	0.00	4,539.59	4,539.59
CB-29	4,542.00	4,535.53	0.000	0.000	0.00	4,537.78	4,537.78
CB-30	4,543.95	4,540.81	0.000	0.000	0.00	4,542.11	4,542.11
CB-31	4,516.85	4,504.90	0.000	0.000	0.00	4,507.69	4,507.69
CB-32	4,521.98	4,514.62	13.960	77.360	0.00	4,517.36	4,517.36
CB-33	4,543.99	4,540.84	0.000	0.000	0.00	4,542.53	4,542.53
CB-34	4,550.19	4,546.02	0.000	0.000	0.00	4,547.33	4,547.33
CB-35	4,552.65	4,548.05	0.000	0.000	0.00	4,549.43	4,549.43
CB-36	4,571.00	4,566.51	0.000	0.000	0.00	4,567.83	4,567.83
CB-37	4,571.00	4,566.21	0.000	0.000	0.00	4,567.53	4,567.53
CB-38	4,566.20	4,560.35	0.000	0.000	0.00	4,561.48	4,561.48
CB-39	4,565.50	4,561.11	0.000	0.000	0.00	4,562.13	4,562.13
CB-40	4,567.00	4,563.91	0.000	0.000	0.00	4,565.81	4,565.81
CB-41	4,568.05	4,563.73	0.000	0.000	0.00	4,564.80	4,564.80
CB-42	4,566.74	4,563.07	0.000	0.000	0.00	4,564.14	4,564.14
CB-43	4,565.59	4,562.09	0.000	0.000	0.00	4,563.11	4,563.11
CB-44	4,565.52	4,559.54	0.000	0.000	0.00	4,560.48	4,560.48
CB-45	4,565.52	4,559.52	0.000	0.000	0.00	4,560.39	4,560.39
CB-46	4,554.44	4,548.67	0.000	0.000	0.00	4,549.77	4,549.77
CB-47	4,550.80	4,544.91	0.000	0.000	0.00	4,546.57	4,546.57

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Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-48	4,550.87	4,545.17	0.000	0.000	0.00	4,546.71	4,546.71
CB-49	4,554.02	4,545.83	0.000	0.000	0.00	4,547.02	4,547.02
CB-50	4,552.31	4,546.55	0.000	0.000	0.00	4,547.65	4,547.65
CB-51	4,553.84	4,547.15	0.000	0.000	0.00	4,548.25	4,548.25
CB-52	4,548.00	4,545.13	0.000	0.000	0.00	4,546.00	4,546.00
CB-53	4,548.00	4,544.19	0.000	0.000	0.00	4,545.17	4,545.17
CB-54	4,547.00	4,543.98	0.000	0.000	0.00	4,544.85	4,544.85
CB-55	4,547.00	4,539.63	0.000	0.000	0.00	4,540.50	4,540.50

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Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-2	CB-3	4,561.38	4,560.41	30.0	0.013	49.0	0.020	22.750	0.982	22.51	57.71	4,562.99	4,561.58	11.03
P-2	CB-3	CB-4	4,560.35	4,556.79	30.0	0.013	416.0	0.009	22.750	0.980	22.48	37.94	4,561.96	4,558.17	8.06
P-3	CB-4	CB-5	4,556.79	4,555.77	30.0	0.013	120.0	0.008	22.750	0.965	22.13	37.81	4,558.39	4,557.14	8.01
P-4	CB-5	CB-6	4,555.77	4,553.47	30.0	0.013	273.0	0.008	22.750	0.961	22.03	37.65	4,557.37	4,555.30	7.97
P-5	CB-6	CB-7	4,553.43	4,545.54	36.0	0.013	1,852.0	0.004	22.750	0.951	31.01	43.53	4,555.30	4,547.35	6.69
P-6	CB-7	CB-8	4,545.04	4,544.62	36.0	0.013	34.0	0.012	22.750	0.869	29.14	74.13	4,546.79	4,546.89	9.86
P-7	CB-8	CB-9	4,544.62	4,542.09	36.0	0.013	205.0	0.012	55.690	0.700	48.53	74.09	4,546.89	4,543.86	11.18
P-8	CB-10	CB-11	4,520.50	4,520.14	48.0	0.013	35.0	0.010	128.340	0.467	75.57	145.67	4,523.13	4,522.40	11.70
P-9	CB-11	CB-12	4,520.14	4,518.86	48.0	0.013	90.0	0.014	128.340	0.466	75.55	171.30	4,522.77	4,520.85	13.20
P-10	CB-13	CB-14	4,498.28	4,489.75	48.0	0.013	53.0	0.161	142.300	0.462	81.54	576.23	4,501.02	4,492.61	32.43
P-11	CB-14	OF-1	4,489.75	4,489.42	48.0	0.013	76.0	0.004	142.300	0.462	81.53	94.65	4,492.61	4,492.16	8.47
P-12	CB-9	CB-15	4,542.09	4,542.00	36.0	0.013	7.0	0.013	55.690	0.699	48.42	75.62	4,544.36	4,544.42	11.35
P-13	CB-17	CB-10	4,523.68	4,520.50	54.0	0.013	1,023.0	0.003	128.340	0.472	76.21	109.63	4,526.44	4,523.13	7.45
P-14	CB-15	CB-20	4,542.00	4,538.60	42.0	0.013	1,001.0	0.003	55.690	0.698	48.42	58.63	4,544.42	4,540.77	6.81
P-15	CB-20	CB-18	4,538.60	4,536.55	42.0	0.013	610.0	0.003	61.470	0.501	40.24	58.32	4,540.74	4,538.66	6.54
P-16	CB-22	CB-17	4,523.73	4,523.68	54.0	0.013	20.0	0.002	128.340	0.472	76.22	98.32	4,526.53	4,526.44	6.83
P-17	CB-23	CB-22	4,524.55	4,523.73	54.0	0.013	347.0	0.002	128.340	0.473	76.46	95.59	4,527.56	4,526.53	6.68
P-18	CB-24	CB-23	4,524.76	4,524.55	54.0	0.013	90.0	0.002	128.340	0.474	76.53	94.99	4,527.79	4,527.56	6.64
P-19	CB-19	CB-25	4,534.10	4,526.80	54.0	0.013	745.0	0.010	111.670	0.483	69.58	194.65	4,536.53	4,529.86	11.22
P-20	CB-25	CB-24	4,526.80	4,524.76	54.0	0.013	864.0	0.002	128.340	0.479	77.13	95.55	4,529.86	4,527.79	6.69
P-21	CB-18	CB-26	4,536.55	4,534.81	42.0	0.013	516.0	0.003	61.470	0.491	39.65	58.42	4,538.66	4,537.13	6.53
P-22	CB-26	CB-19	4,534.81	4,534.40	54.0	0.013	14.0	0.029	111.670	0.483	63.59	336.51	4,537.13	4,536.22	16.26
P-23	CB-27	CB-28	4,538.16	4,537.89	30.0	0.013	13.0	0.021	50.200	0.490	24.78	59.11	4,539.86	4,539.27	11.51
P-24	CB-28	CB-29	4,537.89	4,535.53	30.0	0.013	115.0	0.021	50.200	0.490	24.77	58.76	4,539.59	4,537.78	11.46
P-25	CB-29	CB-26	4,535.95	4,535.91	30.0	0.013	12.0	0.003	50.200	0.488	24.72	23.68	4,537.78	4,537.60	5.47
P-26	CB-31	CB-13	4,504.95	4,498.28	48.0	0.013	501.0	0.013	142.300	0.464	81.73	165.73	4,507.69	4,500.26	13.14
P-27	CB-12	CB-32	4,518.76	4,514.87	48.0	0.013	408.0	0.010	128.340	0.466	75.52	140.25	4,521.39	4,516.96	11.37
P-28	CB-32	CB-31	4,514.62	4,504.90	48.0	0.013	476.0	0.020	142.300	0.465	81.89	205.25	4,517.36	4,507.69	15.41
P-29	CB-30	CB-27	4,540.81	4,538.16	30.0	0.013	775.0	0.003	25.270	0.506	12.88	23.98	4,542.11	4,539.86	4.97
P-30	CB-21	CB-33	4,540.85	4,540.84	24.0	0.013	20.0	0.001	25.270	0.507	12.93	5.06	4,542.61	4,542.53	4.11
P-31	CB-33	CB-30	4,540.84	4,540.81	24.0	0.013	51.0	0.001	25.270	0.507	12.91	5.49	4,542.53	4,542.11	4.11
P-32	CB-34	CB-21	4,546.02	4,540.85	24.0	0.013	667.0	0.008	25.270	0.518	13.18	19.92	4,547.33	4,542.61	6.78
P-33	CB-16	CB-35	4,548.32	4,548.05	21.0	0.013	35.0	0.008	25.270	0.522	13.30	13.92	4,549.69	4,549.43	6.59
P-34	CB-35	CB-34	4,548.05	4,546.02	21.0	0.013	268.0	0.008	25.270	0.522	13.29	13.79	4,549.43	4,547.38	6.53

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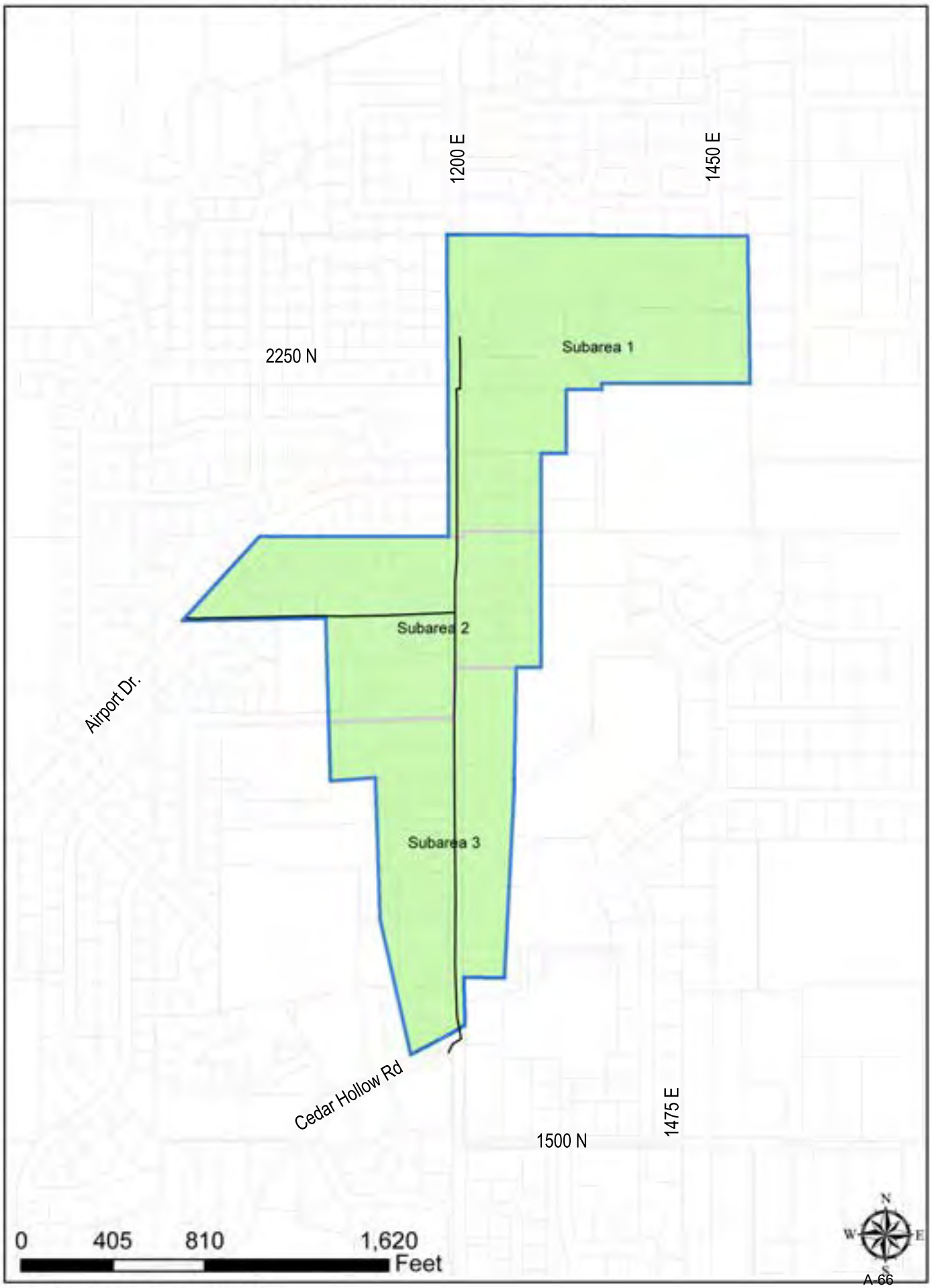
Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-35	CB-1	CB-36	4,568.75	4,566.51	30.0	0.013	1,111.0	0.002	0.000	3.250	15.21	18.42	4,570.48	4,567.83	4.19
P-36	CB-36	CB-37	4,566.51	4,566.21	30.0	0.013	41.0	0.007	0.000	3.250	15.21	35.08	4,567.83	4,567.38	6.89
P-37	CB-37	CB-38	4,566.21	4,561.42	30.0	0.013	696.0	0.007	0.000	3.250	15.21	34.03	4,567.53	4,562.59	6.74
P-38	CB-38	CB-6	4,560.35	4,553.43	21.0	0.013	631.0	0.011	0.000	3.059	9.21	16.59	4,561.48	4,555.30	7.08
P-39	CB-38	CB-40	4,563.95	4,563.91	24.0	0.013	205.0	0.000	(N/A)	(N/A)	6.00	3.16	(N/A)	(N/A)	(N/A)
P-40	CB-40	CB-41	4,563.91	4,563.73	24.0	0.013	1,033.0	0.000	0.000	3.250	6.00	2.99	4,565.81	4,564.80	1.91
P-41	CB-41	CB-42	4,563.73	4,563.07	24.0	0.013	296.0	0.002	0.000	2.632	6.00	10.68	4,564.80	4,564.14	3.50
P-42	CB-42	CB-43	4,563.07	4,562.09	24.0	0.013	435.0	0.002	0.000	2.443	6.00	10.74	4,564.14	4,563.11	3.51
P-43	CB-43	CB-39	4,562.09	4,561.11	24.0	0.013	371.0	0.003	0.000	2.266	6.00	11.63	4,563.11	4,562.13	3.73
P-44	CB-39	CB-44	4,561.11	4,559.54	24.0	0.013	589.0	0.003	0.000	2.123	6.00	11.68	4,562.13	4,560.48	3.74
P-45	CB-44	CB-45	4,559.54	4,559.52	24.0	0.013	8.0	0.002	0.000	1.971	6.00	11.31	4,560.48	4,560.39	3.65
P-46	CB-45	CB-46	4,559.52	4,548.67	24.0	0.013	791.0	0.014	0.000	1.969	6.00	26.49	4,560.39	4,549.77	6.82
P-47	CB-48	CB-47	4,545.17	4,544.91	24.0	0.013	199.0	0.001	0.000	1.510	6.00	8.18	4,546.71	4,546.57	2.84
P-48	CB-49	CB-48	4,545.83	4,545.17	24.0	0.013	318.0	0.002	0.000	1.580	6.00	10.31	4,547.02	4,546.71	3.40
P-49	CB-50	CB-49	4,546.55	4,545.83	24.0	0.013	352.0	0.002	0.000	1.657	6.00	10.23	4,547.65	4,547.02	3.39
P-50	CB-46	CB-51	4,548.67	4,547.15	24.0	0.013	738.0	0.002	0.000	1.883	6.00	10.27	4,549.77	4,548.25	3.39
P-51	CB-51	CB-50	4,547.15	4,546.55	24.0	0.013	291.0	0.002	0.000	1.721	6.00	10.27	4,548.25	4,547.65	3.40
P-52	CB-47	CB-52	4,544.91	4,545.13	24.0	0.013	258.0	-0.001	0.000	1.458	6.00	-6.61	4,546.57	4,546.00	1.91
P-53	CB-52	CB-53	4,545.13	4,544.19	24.0	0.013	76.0	0.012	0.000	1.371	6.00	25.16	4,546.00	4,545.17	6.57
P-54	CB-53	CB-54	4,544.19	4,543.98	24.0	0.013	72.0	0.003	0.000	1.368	6.00	12.22	4,545.17	4,544.85	3.87
P-55	CB-54	CB-55	4,543.98	4,543.93	24.0	0.013	10.0	0.005	0.000	1.362	6.00	16.00	4,544.85	4,544.78	4.73
P-56	CB-55	CB-19	4,539.63	4,534.40	24.0	0.013	980.0	0.005	0.000	1.362	6.00	16.53	4,540.50	4,536.53	4.84

Lehi Storm Drain Master Plan
Cedar Hollow Drain



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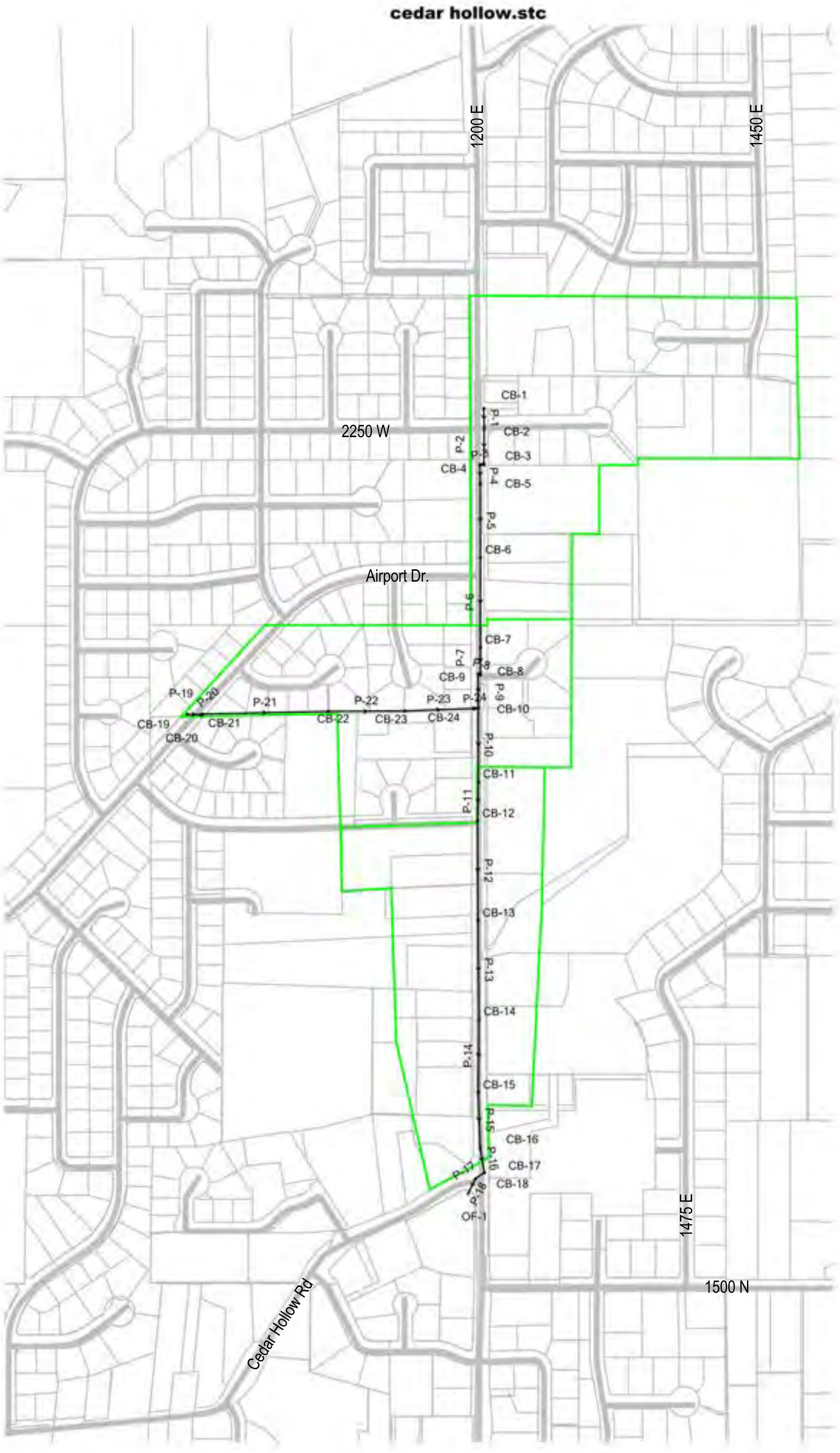

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1/29/2014

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT 06795 USA
+1-203-755-1666

Bentley StormCAD V8i (SELECTseries 1)
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Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,790.17	4,784.84	10.799	193.640	0.00	4,785.57	4,785.57
CB-2	4,790.14	4,782.19	0.000	0.000	0.00	4,782.92	4,782.92
CB-3	4,789.58	4,781.19	0.000	0.000	0.00	4,781.92	4,781.92
CB-4	4,789.91	4,781.01	0.000	0.000	0.00	4,781.74	4,781.74
CB-5	4,789.37	4,780.20	0.000	0.000	0.00	4,781.02	4,781.02
CB-6	4,787.82	4,779.10	0.000	0.000	0.00	4,779.83	4,779.83
CB-7	4,786.19	4,775.96	0.000	0.000	0.00	4,776.69	4,776.69
CB-8	4,785.73	4,775.60	0.000	0.000	0.00	4,776.27	4,776.27
CB-9	4,785.71	4,775.40	0.000	0.000	0.00	4,776.07	4,776.07
CB-10	4,785.20	4,774.36	1.953	134.270	0.00	4,775.65	4,775.65
CB-11	4,783.49	4,774.12	1.953	134.270	0.00	4,775.13	4,775.13
CB-12	4,782.36	4,773.66	0.000	0.000	0.00	4,774.55	4,774.55
CB-13	4,778.41	4,770.50	7.832	52.390	0.00	4,771.56	4,771.56
CB-14	4,774.90	4,766.25	0.000	0.000	0.00	4,767.31	4,767.31
CB-15	4,757.72	4,749.42	0.000	0.000	0.00	4,750.48	4,750.48
CB-16	4,743.92	4,736.43	0.000	0.000	0.00	4,737.76	4,737.76
CB-17	4,744.55	4,736.21	0.000	0.000	0.00	4,737.27	4,737.27
CB-18	4,741.39	4,732.14	0.000	0.000	0.00	4,733.20	4,733.20
CB-19	4,781.66	4,778.78	3.903	134.270	0.00	4,779.49	4,779.49
CB-20	4,781.80	4,778.70	0.000	0.000	0.00	4,779.27	4,779.27
CB-21	4,781.63	4,778.33	0.000	0.000	0.00	4,778.98	4,778.98
CB-22	4,784.14	4,776.98	0.000	0.000	0.00	4,777.59	4,777.59
CB-23	4,784.00	4,776.00	0.000	0.000	0.00	4,776.57	4,776.57
CB-24	4,784.32	4,774.91	0.000	0.000	0.00	4,775.68	4,775.68

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Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,784.84	4,782.19	18.0	0.013	78.0	0.034	10.799	0.339	3.69	19.36	4,785.57	4,782.63	8.44
P-2	CB-2	CB-3	4,782.19	4,781.19	18.0	0.013	147.0	0.007	10.799	0.339	3.69	8.66	4,782.92	4,781.87	4.71
P-3	CB-3	CB-4	4,781.19	4,781.01	18.0	0.013	16.0	0.011	10.799	0.339	3.69	11.14	4,781.92	4,781.63	5.66
P-4	CB-4	CB-5	4,781.01	4,780.20	18.0	0.013	77.0	0.011	10.799	0.339	3.69	10.77	4,781.74	4,781.02	5.52
P-5	CB-5	CB-6	4,780.20	4,779.10	18.0	0.013	298.0	0.004	10.799	0.339	3.69	6.38	4,781.02	4,779.83	3.74
P-6	CB-6	CB-7	4,779.10	4,775.96	18.0	0.013	364.0	0.009	10.799	0.338	3.68	9.76	4,779.83	4,776.60	5.13
P-7	CB-7	CB-8	4,775.96	4,775.60	24.0	0.013	111.0	0.003	10.799	0.337	3.67	12.88	4,776.69	4,776.27	3.53
P-8	CB-8	CB-9	4,775.60	4,775.40	24.0	0.013	9.0	0.022	10.799	0.336	3.66	33.72	4,776.27	4,775.91	7.03
P-9	CB-9	CB-10	4,775.40	4,774.36	24.0	0.013	138.0	0.008	10.799	0.336	3.66	19.64	4,776.07	4,775.65	4.78
P-10	CB-10	CB-11	4,774.36	4,774.12	24.0	0.013	298.0	0.001	16.655	0.336	5.64	6.42	4,775.65	4,775.13	2.31
P-11	CB-11	CB-12	4,774.12	4,773.66	24.0	0.013	156.0	0.003	18.608	0.334	6.27	12.28	4,775.13	4,774.55	3.93
P-12	CB-12	CB-13	4,773.66	4,770.50	24.0	0.013	403.0	0.008	18.608	0.334	6.26	20.03	4,774.55	4,771.56	5.64
P-13	CB-13	CB-14	4,770.50	4,766.25	24.0	0.013	400.0	0.011	26.440	0.333	8.87	23.32	4,771.56	4,767.10	6.92
P-14	CB-14	CB-15	4,766.25	4,749.42	24.0	0.013	297.0	0.057	26.440	0.332	8.85	53.85	4,767.31	4,749.97	12.66
P-15	CB-15	CB-16	4,749.42	4,736.43	24.0	0.013	223.0	0.058	26.440	0.332	8.84	54.60	4,750.48	4,737.76	12.78
P-16	CB-16	CB-17	4,736.43	4,736.21	24.0	0.013	103.0	0.002	26.440	0.332	8.84	10.45	4,737.76	4,737.27	3.73
P-17	CB-17	CB-18	4,736.21	4,732.14	24.0	0.013	42.0	0.097	26.440	0.331	8.83	70.42	4,737.27	4,732.65	15.31
P-18	CB-18	OF-1	4,732.14	4,720.48	24.0	0.013	68.0	0.171	26.440	0.331	8.82	93.67	4,733.20	4,720.89	18.74
P-19	CB-19	CB-20	4,778.78	4,778.70	15.0	0.013	59.0	0.001	3.903	0.449	1.77	2.38	4,779.49	4,779.27	2.12
P-20	CB-20	CB-21	4,778.70	4,778.33	12.0	0.013	5.0	0.074	3.903	0.448	1.76	9.69	4,779.27	4,778.98	9.37
P-21	CB-21	CB-22	4,778.33	4,776.98	15.0	0.013	508.0	0.003	3.903	0.448	1.76	3.33	4,778.98	4,777.59	2.75
P-22	CB-22	CB-23	4,776.98	4,776.00	15.0	0.013	311.0	0.003	3.903	0.441	1.74	3.63	4,777.59	4,776.57	2.92
P-23	CB-23	CB-24	4,776.00	4,774.91	15.0	0.013	278.0	0.004	3.903	0.438	1.72	4.04	4,776.57	4,775.68	3.16
P-24	CB-24	CB-10	4,774.91	4,774.89	15.0	0.013	20.0	0.001	3.903	0.434	1.71	2.04	4,775.68	4,775.65	1.86

Lehi Storm Drain Master Plan
Cedar Hollow Road Drain

Date Created: January 30, 2014


Airport Drive
300 E
600 E
Nuttal Dr
1500 N
Cedar Hollow Road
CB-1
CB-2
CB-3
CB-4
CB-5
CB-6
CB-7
CB-8
CB-9
CB-10
CB-11
CB-12
CB-13
CB-14
CB-15
CB-16
OF-1

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Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,666.13	4,661.09	5.320	38.740	0.00	4,661.94	4,661.94
CB-2	4,661.22	4,656.07	0.000	0.000	0.00	4,656.91	4,656.91
CB-3	4,653.93	4,648.78	0.000	0.000	0.00	4,649.75	4,649.75
CB-4	4,653.64	4,647.89	13.239	55.410	0.00	4,649.40	4,649.40
CB-5	4,653.00	4,647.24	0.000	0.000	0.00	4,648.66	4,648.66
CB-6	4,652.39	4,646.78	0.000	0.000	0.00	4,648.10	4,648.10
CB-7	4,651.57	4,645.39	0.000	0.000	0.00	4,646.75	4,646.75
CB-8	4,651.03	4,644.77	0.000	0.000	0.00	4,646.10	4,646.10
CB-9	4,649.44	4,643.54	0.000	0.000	0.00	4,644.83	4,644.83
CB-10	4,647.08	4,641.23	9.179	47.780	0.00	4,642.81	4,642.81
CB-11	4,645.79	4,639.65	0.000	0.000	0.00	4,641.22	4,641.22
CB-12	4,644.28	4,637.53	16.386	48.360	0.00	4,639.53	4,639.53
CB-13	4,639.41	4,633.41	0.000	0.000	0.00	4,635.41	4,635.41
CB-14	4,638.47	4,631.37	0.000	0.000	0.00	4,633.38	4,633.38
CB-15	4,635.77	4,629.18	0.000	0.000	0.00	4,631.08	4,631.08
CB-16	4,607.03	4,597.04	0.000	0.000	0.00	4,598.94	4,598.94

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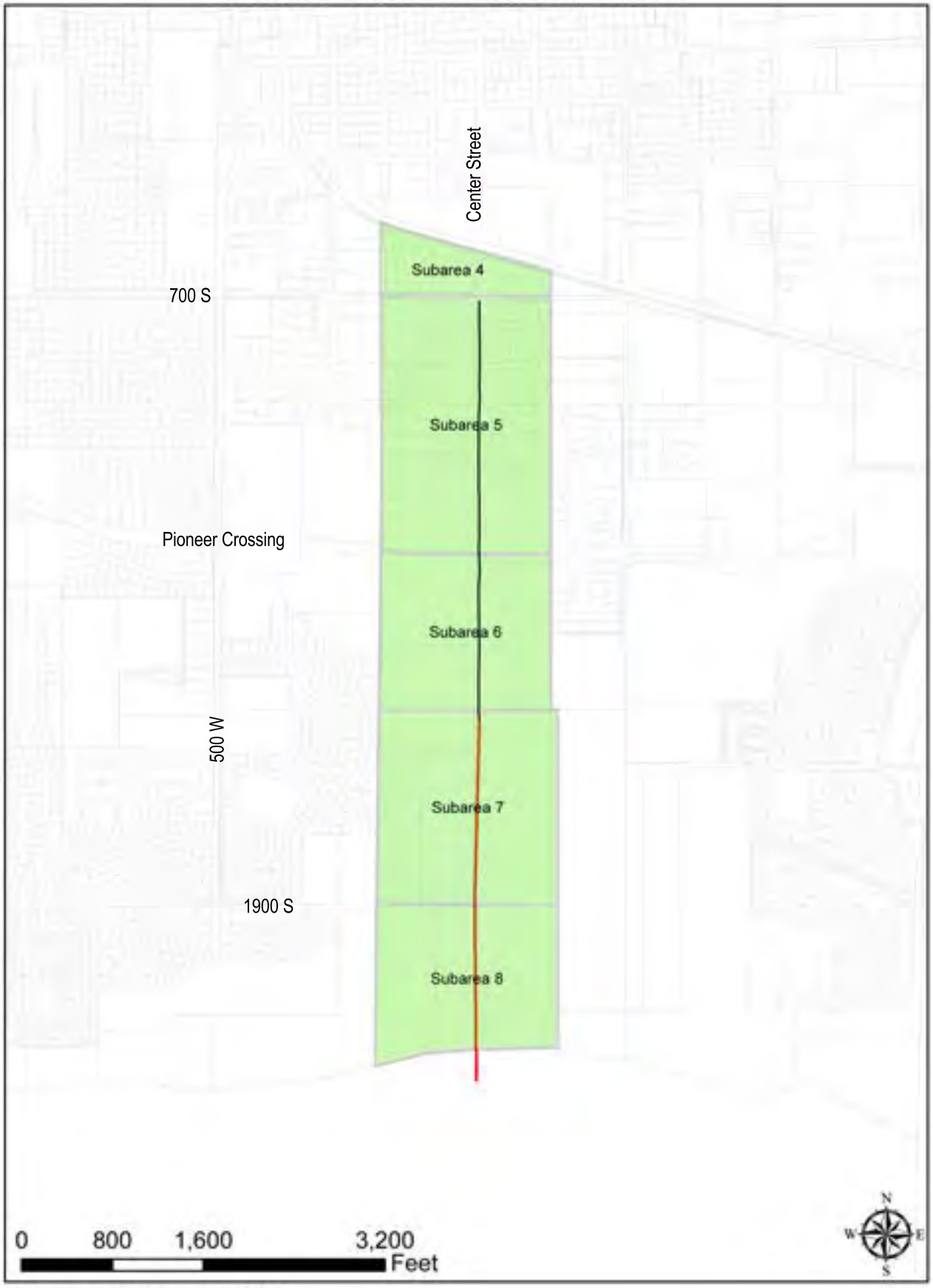
Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,661.09	4,656.13	30.0	0.013	351.0	0.014	5.320	1.226	6.57	48.76	4,661.94	4,656.75	6.93
P-2	CB-2	CB-3	4,656.07	4,648.96	30.0	0.013	389.7	0.018	5.320	1.211	6.49	55.40	4,656.91	4,649.54	7.56
P-3	CB-3	CB-4	4,648.78	4,648.62	30.0	0.013	69.1	0.002	5.320	1.195	6.41	19.73	4,649.75	4,649.46	3.59
P-4	CB-4	CB-5	4,647.89	4,647.36	36.0	0.013	198.1	0.003	18.559	0.931	17.42	34.50	4,649.40	4,648.70	4.89
P-5	CB-5	CB-6	4,647.24	4,646.79	36.0	0.013	140.6	0.003	18.559	0.919	17.20	37.74	4,648.66	4,648.12	5.22
P-6	CB-6	CB-7	4,646.78	4,645.53	36.0	0.013	222.0	0.006	18.559	0.911	17.05	50.04	4,648.10	4,646.74	6.41
P-7	CB-7	CB-8	4,645.39	4,644.77	36.0	0.013	173.8	0.004	18.559	0.901	16.86	39.83	4,646.75	4,646.10	5.40
P-8	CB-8	CB-9	4,644.77	4,643.54	36.0	0.013	326.1	0.004	18.559	0.892	16.68	40.96	4,646.10	4,644.85	5.50
P-9	CB-9	CB-10	4,643.54	4,641.58	36.0	0.013	308.1	0.006	18.559	0.874	16.35	53.19	4,644.83	4,642.72	6.62
P-10	CB-10	CB-11	4,641.23	4,639.80	36.0	0.013	328.7	0.004	27.738	0.860	24.06	43.99	4,642.81	4,641.38	6.36
P-11	CB-11	CB-12	4,639.65	4,637.93	36.0	0.013	107.2	0.016	27.738	0.848	23.72	84.49	4,641.22	4,639.53	10.26
P-12	CB-12	CB-13	4,637.53	4,633.41	36.0	0.013	318.7	0.013	44.124	0.847	37.68	75.84	4,639.53	4,635.41	10.71
P-13	CB-13	CB-14	4,633.42	4,631.37	36.0	0.013	246.8	0.008	44.124	0.844	37.55	60.78	4,635.41	4,633.38	9.05
P-14	CB-14	CB-15	4,631.48	4,629.19	42.0	0.013	76.9	0.030	44.124	0.841	37.42	173.59	4,633.38	4,630.39	14.39
P-15	CB-15	CB-16	4,629.18	4,597.08	42.0	0.013	450.3	0.071	44.124	0.841	37.40	268.62	4,631.08	4,597.96	19.65
P-16	CB-16	OF-1	4,597.04	4,595.15	42.0	0.013	316.9	0.006	44.124	0.838	37.29	77.70	4,598.94	4,596.86	7.99

Lehi Storm Drain Master Plan
Center Street Lower Drain



Date Created: January 27, 2014

lowercenterstmod_wosiphon.stc

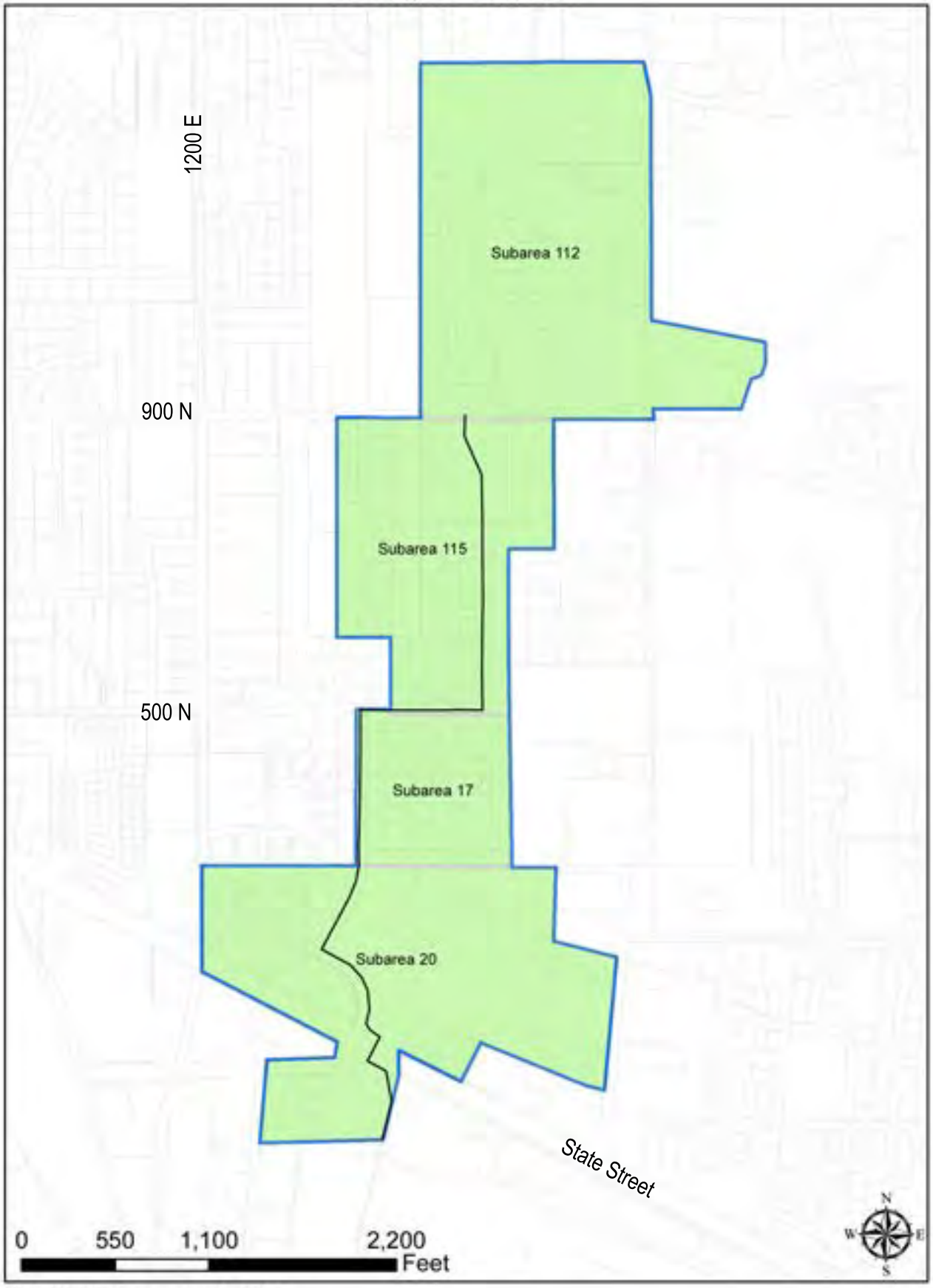
FlexTable: Catch Basin Table (lowercenterstmod_wosiphon.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,532.73	4,526.68	5.927	109.660	0.00	4,527.24	4,527.24
CB-2	4,519.33	4,511.70	0.000	0.000	0.00	4,512.24	4,512.24
CB-3	4,517.22	4,511.46	0.000	0.000	0.00	4,512.00	4,512.00
CB-4	4,517.24	4,510.46	0.000	0.000	0.00	4,511.57	4,511.57
CB-5	4,517.01	4,510.43	0.000	0.000	0.00	4,511.55	4,511.55
CB-6	4,516.10	4,510.30	0.000	0.000	0.00	4,511.53	4,511.53
CB-7	4,516.79	4,510.10	31.102	104.350	0.00	4,511.53	4,511.53
CB-8	4,514.14	4,509.30	0.000	0.000	0.00	4,510.94	4,510.94
CB-9	4,513.64	4,509.13	0.000	0.000	0.00	4,510.48	4,510.48
CB-10	4,507.20	4,502.04	19.041	112.310	0.00	4,503.71	4,503.71
CB-11	4,496.50	4,491.50	24.857	123.410	0.00	4,493.50	4,493.50
CB-12	4,531.45	4,524.06	0.000	0.000	0.00	4,524.62	4,524.62
CB-13	4,486.00	4,481.50	19.176	107.390	0.00	4,483.91	4,483.91
CB-14	4,530.36	4,523.05	0.000	0.000	0.00	4,523.66	4,523.66
CB-15	4,528.64	4,522.60	0.000	0.000	0.00	4,523.19	4,523.19
CB-16	4,528.32	4,522.46	0.000	0.000	0.00	4,523.21	4,523.21
CB-17	4,526.13	4,521.71	0.000	0.000	0.00	4,522.26	4,522.26
CB-18	4,524.50	4,519.18	0.000	0.000	0.00	4,519.73	4,519.73
CB-19	4,521.33	4,515.83	0.000	0.000	0.00	4,516.37	4,516.37
CB-20	4,527.29	4,522.29	0.000	0.000	0.00	4,522.84	4,522.84
CB-21	4,513.35	4,508.35	0.000	0.000	0.00	4,509.70	4,509.70
CB-22	4,510.49	4,505.49	0.000	0.000	0.00	4,506.84	4,506.84
CB-23	4,509.39	4,504.39	0.000	0.000	0.00	4,505.74	4,505.74
CB-24	4,507.50	4,501.80	0.000	0.000	0.00	4,503.47	4,503.47

FlexTable: Conduit Table (lowercenterstmod_wosiphon.stc)

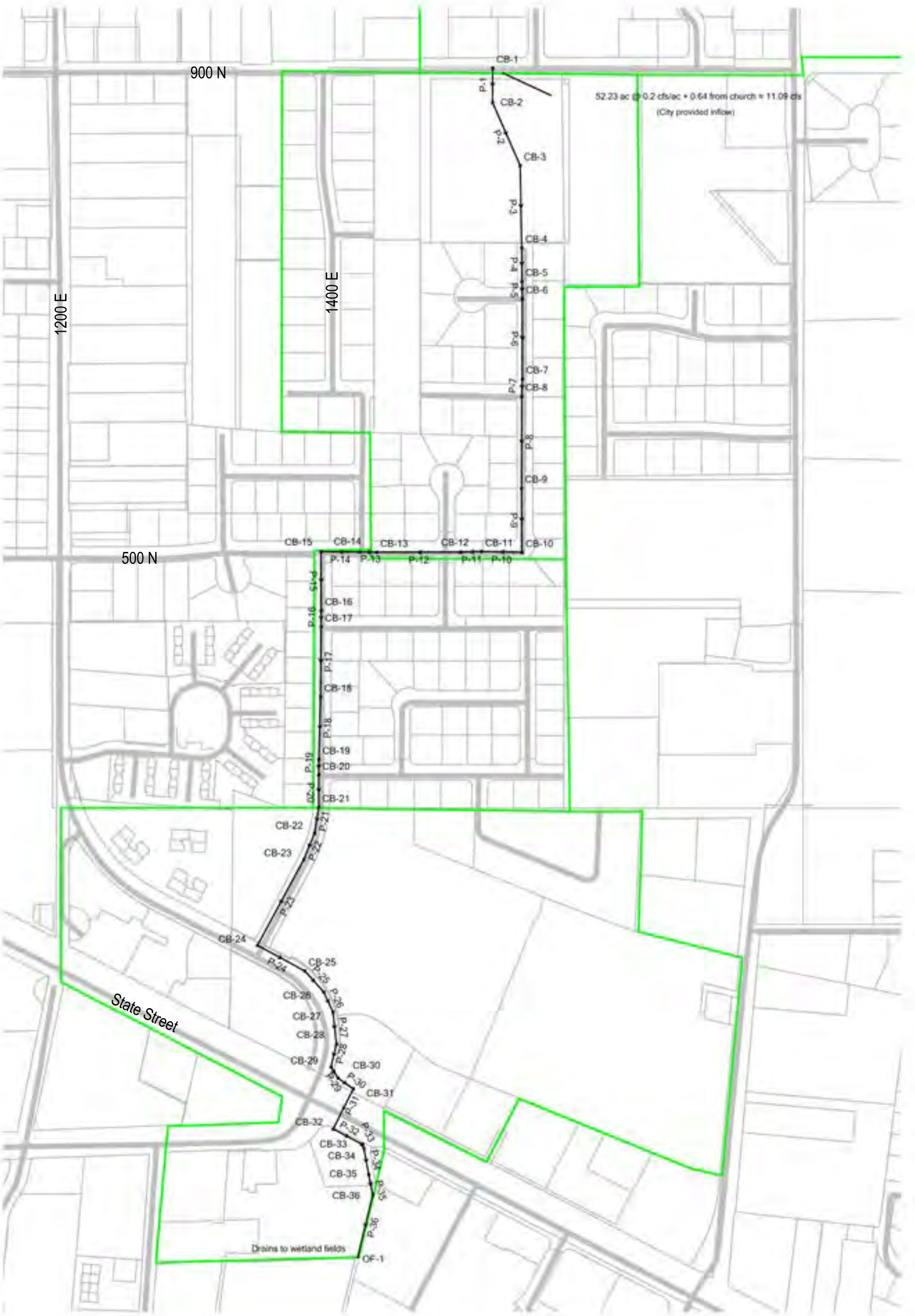
Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-12	4,526.68	4,524.06	36.0	0.013	224.0	0.012	5.927	0.544	3.25	72.13	4,527.24	4,524.49	5.15
P-2	CB-12	CB-14	4,524.06	4,523.05	36.0	0.013	164.0	0.006	5.927	0.539	3.22	52.34	4,524.62	4,523.66	4.10
P-3	CB-14	CB-15	4,523.05	4,522.60	36.0	0.013	160.0	0.003	5.927	0.535	3.20	35.37	4,523.66	4,523.19	3.11
P-4	CB-15	CB-16	4,522.60	4,522.46	36.0	0.013	31.0	0.005	5.927	0.530	3.17	44.82	4,523.19	4,523.21	3.66
P-5	CB-16	CB-20	4,522.46	4,522.29	36.0	0.013	163.0	0.001	5.927	0.529	3.16	21.54	4,523.21	4,522.84	2.18
P-6	CB-20	CB-17	4,522.29	4,521.71	36.0	0.013	109.0	0.005	5.927	0.521	3.11	48.65	4,522.84	4,522.22	3.86
P-7	CB-17	CB-18	4,521.71	4,519.18	36.0	0.013	183.0	0.014	5.927	0.518	3.10	78.42	4,522.26	4,519.59	5.39
P-8	CB-18	CB-19	4,519.18	4,515.83	36.0	0.013	349.0	0.010	5.927	0.515	3.08	65.34	4,519.73	4,516.27	4.73
P-9	CB-19	CB-2	4,515.83	4,511.70	36.0	0.013	301.0	0.014	5.927	0.507	3.03	78.12	4,516.37	4,512.10	5.34
P-10	CB-2	CB-3	4,511.70	4,511.46	36.0	0.013	39.0	0.006	5.927	0.502	3.00	52.32	4,512.24	4,511.95	4.02
P-11	CB-3	CB-4	4,511.46	4,510.56	36.0	0.013	159.0	0.006	5.927	0.501	2.99	50.18	4,512.00	4,511.57	3.90
P-12	CB-4	CB-5	4,510.46	4,510.43	36.0	0.013	99.0	0.000	5.927	0.496	2.97	11.61	4,511.57	4,511.55	1.37
P-13	CB-5	CB-6	4,510.43	4,510.30	36.0	0.013	122.0	0.001	5.927	0.489	2.92	21.77	4,511.55	4,511.53	2.15
P-14	CB-6	CB-7	4,510.30	4,510.10	36.0	0.013	61.0	0.003	5.927	0.483	2.89	38.19	4,511.53	4,511.53	3.18
P-15	CB-7	CB-8	4,510.10	4,509.30	36.0	0.013	232.0	0.003	37.029	0.481	17.96	39.16	4,511.53	4,510.94	5.42
P-16	CB-8	CB-9	4,509.30	4,509.13	36.0	0.013	101.0	0.002	37.029	0.479	17.87	27.36	4,510.94	4,510.48	4.13
P-17	CB-11	CB-13	4,491.50	4,481.50	36.0	0.013	1,280.0	0.008	80.927	0.464	37.83	58.95	4,493.50	4,483.91	8.85
P-18	CB-13	OF-1	4,481.50	4,480.07	36.0	0.013	287.0	0.005	100.103	0.459	46.27	47.08	4,483.91	4,482.29	7.59
P-19	CB-9	CB-21	4,509.13	4,508.35	36.0	0.013	141.0	0.006	37.029	0.478	17.84	49.61	4,510.48	4,509.59	6.44
P-20	CB-21	CB-22	4,508.35	4,505.49	36.0	0.013	400.0	0.007	37.029	0.477	17.81	56.40	4,509.70	4,506.65	7.07
P-21	CB-22	CB-23	4,505.49	4,504.39	36.0	0.013	238.0	0.005	37.029	0.475	17.73	45.34	4,506.84	4,505.69	6.02
P-22	CB-23	CB-10	4,504.39	4,502.04	36.0	0.013	346.0	0.007	37.029	0.474	17.68	54.97	4,505.74	4,503.71	6.93
P-23	CB-10	CB-24	4,502.04	4,501.80	36.0	0.013	35.0	0.007	56.070	0.472	26.67	55.23	4,503.71	4,503.30	7.75
P-24	CB-24	CB-11	4,501.80	4,491.50	36.0	0.013	1,657.0	0.006	56.070	0.472	26.66	52.58	4,503.47	4,493.50	7.46

Lehi Storm Drain Master Plan
Costco Drain



Date Created: January 31, 2014

costcodrain.stc



FlexTable: Catch Basin Table (costcodrain.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,665.17	4,655.32	0.000	0.000	0.00	4,656.59	4,656.59
CB-2	4,657.91	4,648.84	0.000	0.000	0.00	4,650.11	4,650.11
CB-3	4,651.22	4,642.17	0.000	0.000	0.00	4,643.44	4,643.44
CB-4	4,646.18	4,638.61	0.000	0.000	0.00	4,639.85	4,639.85
CB-5	4,644.21	4,637.15	0.000	0.000	0.00	4,638.39	4,638.39
CB-6	4,643.07	4,635.95	0.000	0.000	0.00	4,637.19	4,637.19
CB-7	4,636.76	4,629.59	0.000	0.000	0.00	4,630.83	4,630.83
CB-8	4,635.94	4,628.14	0.000	0.000	0.00	4,629.38	4,629.38
CB-9	4,629.07	4,621.71	0.000	0.000	0.00	4,622.95	4,622.95
CB-10	4,626.57	4,618.93	0.000	0.000	0.00	4,620.04	4,620.04
CB-11	4,625.56	4,617.66	0.000	0.000	0.00	4,618.78	4,618.78
CB-12	4,624.99	4,616.83	0.000	0.000	0.00	4,617.95	4,617.95
CB-13	4,623.77	4,615.46	16.684	58.250	0.00	4,617.69	4,617.69
CB-14	4,623.52	4,615.41	0.000	0.000	0.00	4,617.14	4,617.14
CB-15	4,623.24	4,614.16	0.000	0.000	0.00	4,615.89	4,615.89
CB-16	4,619.30	4,610.70	0.000	0.000	0.00	4,612.43	4,612.43
CB-17	4,618.29	4,608.19	0.000	0.000	0.00	4,609.92	4,609.92
CB-18	4,606.98	4,596.98	0.000	0.000	0.00	4,598.70	4,598.70
CB-19	4,594.67	4,584.47	0.000	0.000	0.00	4,586.19	4,586.19
CB-20	4,591.64	4,581.45	0.000	0.000	0.00	4,583.17	4,583.17
CB-21	4,585.21	4,574.91	7.531	51.120	0.00	4,576.83	4,576.83
CB-22	4,579.74	4,570.88	0.000	0.000	0.00	4,572.80	4,572.80
CB-23	4,574.58	4,567.74	0.000	0.000	0.00	4,569.66	4,569.66
CB-24	4,563.43	4,555.98	0.000	0.000	0.00	4,557.65	4,557.65
CB-25	4,562.12	4,555.20	0.000	0.000	0.00	4,556.87	4,556.87
CB-26	4,560.50	4,554.49	0.000	0.000	0.00	4,556.59	4,556.59
CB-27	4,560.76	4,554.31	25.148	59.440	0.00	4,556.50	4,556.50
CB-28	4,560.17	4,553.47	0.000	0.000	0.00	4,555.98	4,555.98
CB-29	4,559.87	4,553.29	0.000	0.000	0.00	4,555.47	4,555.47
CB-30	4,561.65	4,550.75	0.000	0.000	0.00	4,552.93	4,552.93
CB-31	4,562.70	4,547.87	0.000	0.000	0.00	4,550.05	4,550.05
CB-32	4,556.95	4,544.34	0.000	0.000	0.00	4,546.52	4,546.52
CB-33	4,556.22	4,543.72	0.000	0.000	0.00	4,545.90	4,545.90
CB-34	4,556.80	4,543.45	0.000	0.000	0.00	4,545.69	4,545.69
CB-35	4,553.30	4,543.10	0.000	0.000	0.00	4,545.28	4,545.28
CB-36	4,552.95	4,542.05	0.000	0.000	0.00	4,545.67	4,545.67

FlexTable: Conduit Table (costcodrain.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,655.32	4,648.84	18.0	0.013	124.0	0.052	0.000	3.250	11.09	24.01	4,656.59	4,649.56	13.32
P-2	CB-2	CB-3	4,648.84	4,642.17	18.0	0.013	246.0	0.027	0.000	3.250	11.09	17.30	4,650.11	4,643.04	10.39
P-3	CB-3	CB-4	4,642.17	4,638.86	18.0	0.013	294.0	0.011	0.000	3.250	11.09	11.15	4,643.44	4,640.08	7.19
P-4	CB-4	CB-5	4,638.61	4,637.15	21.0	0.013	121.0	0.012	0.000	3.250	11.09	17.40	4,639.85	4,638.17	7.67
P-5	CB-5	CB-6	4,637.15	4,635.95	21.0	0.013	62.0	0.019	0.000	3.250	11.09	22.04	4,638.39	4,636.85	9.18
P-6	CB-6	CB-7	4,635.95	4,629.59	21.0	0.013	287.0	0.022	0.000	3.250	11.09	23.59	4,637.19	4,630.43	9.66
P-7	CB-7	CB-8	4,629.59	4,628.14	21.0	0.013	62.0	0.023	0.000	3.250	11.09	24.23	4,630.83	4,629.00	9.85
P-8	CB-8	CB-9	4,628.14	4,621.71	21.0	0.013	329.0	0.020	0.000	3.250	11.09	22.15	4,629.38	4,622.59	9.22
P-9	CB-9	CB-10	4,621.71	4,618.93	21.0	0.013	230.0	0.012	0.000	3.250	11.09	17.42	4,622.95	4,619.94	7.67
P-10	CB-10	CB-11	4,618.93	4,617.66	30.0	0.013	145.0	0.009	0.000	3.250	11.09	38.38	4,620.04	4,618.58	6.77
P-11	CB-11	CB-12	4,617.66	4,616.83	30.0	0.013	73.0	0.011	0.000	3.250	11.09	43.73	4,618.78	4,617.70	7.44
P-12	CB-12	CB-13	4,616.83	4,615.46	30.0	0.013	302.0	0.005	0.000	3.250	11.09	27.62	4,617.95	4,617.69	5.32
P-13	CB-13	CB-14	4,615.46	4,615.41	30.0	0.013	60.0	0.001	16.684	0.881	25.90	11.84	4,617.69	4,617.15	5.28
P-14	CB-14	CB-15	4,615.41	4,614.16	30.0	0.013	139.0	0.009	16.684	0.878	25.85	38.89	4,617.14	4,615.65	8.48
P-15	CB-15	CB-16	4,614.16	4,610.70	30.0	0.013	211.0	0.016	16.684	0.873	25.77	52.52	4,615.89	4,611.94	10.65
P-16	CB-16	CB-17	4,610.70	4,608.19	30.0	0.013	58.0	0.043	16.684	0.867	25.67	85.32	4,612.43	4,609.23	15.21
P-17	CB-17	CB-18	4,608.19	4,596.98	30.0	0.013	251.0	0.045	16.684	0.866	25.65	86.68	4,609.92	4,597.91	15.37
P-18	CB-18	CB-19	4,596.98	4,584.47	30.0	0.013	222.0	0.056	16.684	0.861	25.57	97.36	4,598.70	4,585.34	16.71
P-19	CB-19	CB-20	4,584.47	4,581.45	30.0	0.013	56.0	0.054	16.684	0.857	25.50	95.25	4,586.19	4,582.43	16.44
P-20	CB-20	CB-21	4,581.45	4,574.91	30.0	0.013	115.0	0.057	16.684	0.856	25.49	97.81	4,583.17	4,576.83	16.75
P-21	CB-21	CB-22	4,574.91	4,570.88	30.0	0.013	94.0	0.043	24.215	0.854	31.94	84.92	4,576.83	4,572.00	16.08
P-22	CB-22	CB-23	4,570.88	4,567.74	30.0	0.013	103.0	0.030	24.215	0.852	31.89	71.61	4,572.80	4,568.96	14.17
P-23	CB-23	CB-24	4,567.74	4,555.98	30.0	0.013	349.0	0.034	24.215	0.850	31.84	75.29	4,569.66	4,557.11	14.70
P-24	CB-24	CB-25	4,555.98	4,555.20	48.0	0.013	192.0	0.004	24.215	0.848	31.78	91.55	4,557.65	4,556.83	6.63
P-25	CB-25	CB-26	4,555.20	4,554.55	48.0	0.013	101.0	0.006	24.215	0.845	31.71	115.23	4,556.87	4,556.59	7.83
P-26	CB-26	CB-27	4,554.49	4,554.31	48.0	0.013	80.0	0.002	24.215	0.843	31.67	68.13	4,556.59	4,556.50	5.32
P-27	CB-27	CB-28	4,554.31	4,553.47	48.0	0.013	115.0	0.007	49.363	0.842	52.97	122.76	4,556.50	4,555.98	9.41
P-28	CB-28	CB-29	4,553.47	4,553.29	48.0	0.013	85.0	0.002	49.363	0.841	52.91	66.10	4,555.98	4,555.48	5.84
P-29	CB-29	CB-30	4,553.29	4,550.75	48.0	0.013	47.0	0.054	49.363	0.839	52.84	333.91	4,555.47	4,552.04	19.41
P-30	CB-30	CB-31	4,550.75	4,547.87	48.0	0.013	67.0	0.043	49.363	0.839	52.83	297.80	4,552.93	4,549.17	17.88
P-31	CB-31	CB-32	4,547.87	4,544.34	48.0	0.013	161.0	0.022	49.363	0.838	52.81	212.68	4,550.05	4,545.73	14.04

FlexTable: Conduit Table (costcodrain.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-32	CB-32	CB-33	4,544.34	4,543.72	48.0	0.013	116.0	0.005	49.363	0.837	52.75	105.01	4,546.52	4,545.73	8.37
P-33	CB-33	CB-34	4,543.72	4,543.45	48.0	0.013	17.0	0.016	49.363	0.836	52.68	181.02	4,545.90	4,545.69	12.49
P-34	CB-34	CB-35	4,543.45	4,543.10	48.0	0.013	95.0	0.004	49.363	0.836	52.67	87.18	4,545.69	4,545.28	7.26
P-35	CB-35	CB-36	4,543.10	4,542.05	48.0	0.013	75.0	0.014	49.363	0.834	52.60	169.95	4,545.28	4,545.67	11.92
P-36	CB-36	OF-1	4,542.05	4,542.53	48.0	0.013	227.0	-0.002	49.363	0.834	52.57	-66.05	4,545.67	4,544.71	4.18

Lehi Storm Drain Master Plan
Flour Mill Drain

Date Created: Feburary 17, 2014


flour mill.stc
State Street
300 N
500 E
Main Street
850 E

flour mill.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,553.40	4,551.60	4.788	102.330	0.00	4,552.37	4,552.37
CB-2	4,553.00	4,550.50	1.876	13.280	0.00	4,551.30	4,551.30
CB-3	4,549.20	4,545.19	0.000	0.000	0.00	4,546.25	4,546.25
CB-4	4,547.02	4,544.37	0.000	0.000	0.00	4,545.27	4,545.27
CB-5	4,546.99	4,543.68	1.240	61.850	0.00	4,544.94	4,544.94
CB-6	4,546.37	4,543.07	0.000	0.000	0.00	4,544.69	4,544.69

flour mill.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,551.60	4,550.50	15.0	0.013	278.0	0.004	4.788	0.589	2.84	4.06	4,552.37	4,551.30	3.58
P-2	CB-2	CB-3	4,550.50	4,545.43	15.0	0.013	754.0	0.007	6.664	0.581	3.90	5.30	4,551.30	4,546.25	4.72
P-3	CB-3	CB-4	4,545.19	4,544.42	18.0	0.013	432.0	0.002	6.664	0.565	3.79	4.43	4,546.25	4,545.27	2.82
P-4	CB-4	CB-5	4,544.37	4,543.80	21.0	0.013	260.0	0.002	6.664	0.549	3.69	7.42	4,545.27	4,544.94	3.08
P-5	CB-5	CB-6	4,543.68	4,543.07	15.0	0.013	223.0	0.003	7.904	0.540	4.30	6.76	4,544.94	4,544.69	1.75
P-6	CB-6	OF-1	4,543.97	4,542.43	24.0	0.013	103.0	0.015	7.904	0.527	4.20	27.66	4,544.69	4,542.96	6.36

Lehi Storm Drain Master Plan
Industrial Drain

Date Created: February 17, 2014

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT 06795 USA +1
-203-755-1666

industrial drainmod.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,578.00	4,573.75	0.000	0.000	11.01	4,575.16	4,575.16
CB-2	4,591.00	4,587.50	0.000	0.000	0.00	4,588.28	4,588.28
CB-3	4,598.00	4,594.50	0.000	0.000	4.13	4,595.28	4,595.28
CB-4	4,583.00	4,579.00	0.000	0.000	12.38	4,580.27	4,580.27
CB-5	4,573.00	4,568.50	0.000	0.000	0.00	4,570.29	4,570.29

industrial drainmod.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-3	CB-2	4,594.50	4,587.50	18.0	0.013	1,098.0	0.006	0.000	8.000	4.13	8.39	4,595.28	4,588.24	4.73
P-2	CB-2	CB-1	4,587.50	4,574.00	18.0	0.013	794.0	0.017	0.000	8.000	4.13	13.70	4,588.28	4,575.16	6.79
P-3	CB-1	CB-5	4,573.75	4,569.50	18.0	0.013	117.0	0.036	0.000	8.000	15.14	20.02	4,575.16	4,570.48	12.45
P-4	CB-4	CB-5	4,579.00	4,569.00	24.0	0.013	977.0	0.010	0.000	8.000	12.38	22.89	4,580.27	4,570.29	7.43
P-5	CB-5	OF-1	4,568.50	4,567.64	30.0	0.013	23.0	0.037	0.000	8.000	27.52	79.31	4,570.29	4,568.90	14.69

Lehi Storm Drain Master Plan
Lehi Block Drain

Date Created: January 31, 2014

lehiblock.stc

Bentley StormCAD V8i (SELECTseries 1)
[08.11.00.44]
Page 1 of 1

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT 06795 USA +1
-203-755-1666

lehiblock.stc
2/13/2014

lehiblock.stc

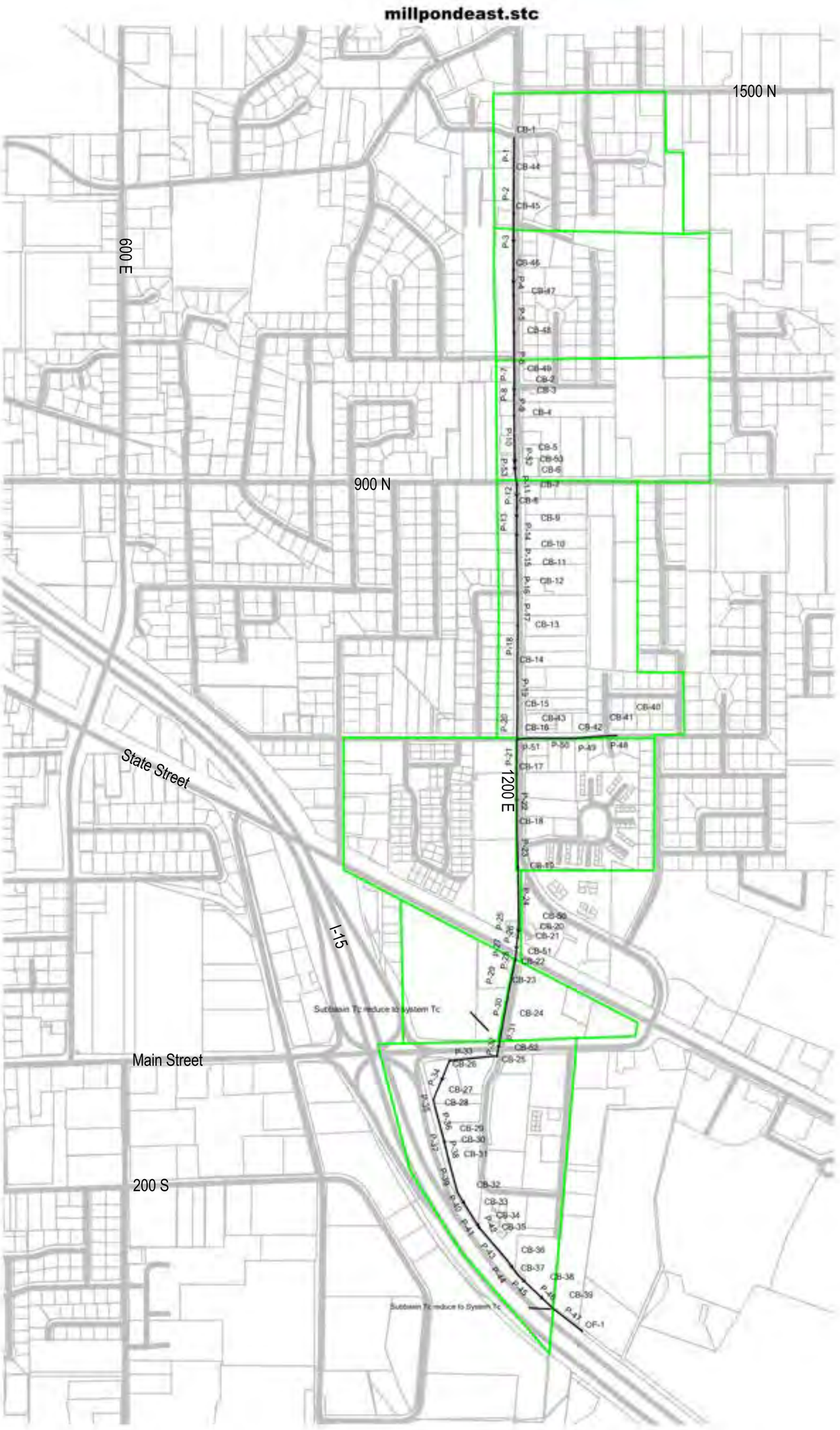
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,571.00	4,567.50	12.390	95.930	0.00	4,568.99	4,568.99
CB-2	4,576.50	4,570.50	18.580	95.930	0.00	4,572.25	4,572.25

lehiblock.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-2	OF-1	4,570.50	4,570.30	24.0	0.013	149.0	0.001	18.580	0.628	11.77	8.29	4,572.25	4,571.53	3.75
P-2	CB-1	OF-2	4,567.50	4,567.38	24.0	0.013	179.0	0.001	12.390	0.628	7.85	5.86	4,568.99	4,568.38	2.50

Lehi Storm Drain Master Plan
Mill Pond East Drain

Date Created: January 31, 2014



Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT 06795 USA
+1-203-755-1666

FlexTable: Catch Basin Table (millpondeast.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,751.21	4,746.66	0.000	0.000	0.00	4,746.66	4,746.66
CB-2	4,662.29	4,656.29	0.000	0.000	0.00	4,657.96	4,657.96
CB-3	4,662.25	4,654.15	0.000	0.000	0.00	4,655.82	4,655.82
CB-4	4,660.46	4,651.72	0.000	0.000	0.00	4,653.38	4,653.38
CB-5	4,655.85	4,648.96	0.000	0.000	0.00	4,650.62	4,650.62
CB-6	4,653.66	4,647.81	11.052	56.420	0.00	4,649.69	4,649.69
CB-7	4,651.63	4,645.65	0.000	0.000	0.00	4,647.52	4,647.52
CB-8	4,645.43	4,641.79	0.000	0.000	0.00	4,643.66	4,643.66
CB-9	4,640.93	4,637.92	0.000	0.000	0.00	4,639.79	4,639.79
CB-10	4,638.89	4,635.58	0.000	0.000	0.00	4,637.45	4,637.45
CB-11	4,636.51	4,631.63	0.000	0.000	0.00	4,633.81	4,633.81
CB-12	4,634.51	4,629.68	0.000	0.000	0.00	4,631.54	4,631.54
CB-13	4,628.97	4,624.62	0.000	0.000	0.00	4,626.48	4,626.48
CB-14	4,620.47	4,616.01	0.000	0.000	0.00	4,617.86	4,617.86
CB-15	4,612.41	4,607.52	0.000	0.000	0.00	4,609.37	4,609.37
CB-16	4,602.93	4,597.58	16.424	48.220	0.00	4,599.78	4,599.78
CB-17	4,591.20	4,584.31	0.000	0.000	0.00	4,586.51	4,586.51
CB-18	4,572.35	4,566.60	0.000	0.000	0.00	4,568.79	4,568.79
CB-19	4,565.39	4,558.84	7.650	45.010	0.00	4,561.13	4,561.13
CB-20	4,561.04	4,549.26	0.000	0.000	0.00	4,551.36	4,551.36
CB-21	4,560.29	4,549.11	0.000	0.000	0.00	4,551.21	4,551.21
CB-22	4,558.09	4,548.54	13.041	55.340	0.00	4,550.87	4,550.87
CB-23	4,554.63	4,545.93	0.000	0.000	0.00	4,548.64	4,548.64
CB-24	4,551.80	4,545.31	0.000	0.000	0.00	4,547.64	4,547.64
CB-25	4,549.31	4,544.16	0.000	0.000	0.00	4,546.61	4,546.61
CB-26	4,548.42	4,542.60	0.000	0.000	0.00	4,545.05	4,545.05
CB-27	4,545.87	4,539.65	0.000	0.000	0.00	4,542.65	4,542.65
CB-28	4,545.44	4,539.42	0.000	0.000	0.00	4,542.64	4,542.64
CB-29	4,544.20	4,538.91	0.000	0.000	0.00	4,542.06	4,542.06
CB-30	4,543.46	4,538.90	0.000	0.000	0.00	4,542.04	4,542.04
CB-31	4,542.94	4,538.27	0.000	0.000	0.00	4,541.93	4,541.93
CB-32	4,543.54	4,538.01	0.000	0.000	0.00	4,540.72	4,540.72
CB-33	4,542.40	4,537.21	0.000	0.000	0.00	4,539.97	4,539.97
CB-34	4,541.39	4,536.83	0.000	0.000	0.00	4,539.35	4,539.35
CB-35	4,540.32	4,534.40	0.000	0.000	0.00	4,536.82	4,536.82
CB-36	4,538.41	4,532.85	0.000	0.000	0.00	4,535.94	4,535.94
CB-37	4,537.59	4,532.73	0.000	0.000	0.00	4,535.14	4,535.14
CB-38	4,537.34	4,531.78	0.000	0.000	0.00	4,534.19	4,534.19
CB-39	4,537.19	4,529.94	16.080	66.160	0.00	4,532.59	4,532.59
CB-40	4,621.82	4,612.72	0.000	0.000	0.00	4,612.72	4,612.72
CB-41	4,621.01	4,611.98	0.000	0.000	0.00	4,611.98	4,611.98
CB-42	4,614.85	4,605.83	0.000	0.000	0.00	4,605.83	4,605.83
CB-43	4,604.61	4,599.36	0.000	0.000	0.00	4,599.78	4,599.78
CB-44	4,731.49	4,727.22	0.000	0.000	0.00	4,727.22	4,727.22
CB-45	4,708.65	4,701.35	10.650	45.540	0.00	4,702.59	4,702.59
CB-46	4,684.10	4,678.60	0.000	0.000	0.00	4,679.83	4,679.83
CB-47	4,675.94	4,669.94	0.000	0.000	0.00	4,671.17	4,671.17
CB-48	4,667.10	4,662.28	0.000	0.000	0.00	4,663.51	4,663.51
CB-49	4,662.67	4,657.40	11.500	43.660	0.00	4,659.14	4,659.14
CB-50	4,562.40	4,550.65	0.000	0.000	0.00	4,552.93	4,552.93
CB-51	4,557.99	4,548.61	0.000	0.000	0.00	4,550.82	4,550.82
CB-52	4,550.50	4,544.68	7.810	61.360	0.00	4,547.14	4,547.14
CB-53	4,654.75	4,648.39	0.000	0.000	0.00	4,650.04	4,650.04

FlexTable: Conduit Table (millpondeast.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-44	4,746.66	4,727.22	18.0	0.013	252.0	0.077	0.000	3.250	0.00	29.17	4,746.66	4,727.22	0.00
P-2	CB-44	CB-45	4,727.22	4,701.35	18.0	0.013	265.0	0.098	0.000	3.250	0.00	32.82	4,727.22	4,702.59	0.00
P-3	CB-45	CB-46	4,701.35	4,678.60	24.0	0.013	386.0	0.059	10.650	1.105	11.87	54.92	4,702.59	4,679.23	13.95
P-4	CB-46	CB-47	4,678.60	4,669.94	24.0	0.013	171.0	0.051	10.650	1.097	11.78	50.91	4,679.83	4,670.59	13.19
P-5	CB-47	CB-48	4,669.94	4,662.28	24.0	0.013	258.0	0.030	10.650	1.093	11.74	38.98	4,671.17	4,663.03	10.86
P-6	CB-48	CB-49	4,662.28	4,657.40	24.0	0.013	334.0	0.015	10.650	1.086	11.66	27.34	4,663.51	4,659.14	8.36
P-7	CB-49	CB-2	4,657.40	4,656.29	24.0	0.013	26.0	0.043	22.150	1.075	24.00	46.74	4,659.14	4,657.51	14.98
P-8	CB-2	CB-3	4,656.29	4,654.15	30.0	0.013	56.0	0.038	22.150	1.074	23.98	80.18	4,657.96	4,655.18	14.27
P-9	CB-3	CB-4	4,654.15	4,651.72	30.0	0.013	143.0	0.017	22.150	1.073	23.96	53.47	4,655.82	4,652.90	10.59
P-10	CB-4	CB-5	4,651.72	4,648.96	30.0	0.013	296.0	0.009	22.150	1.069	23.87	39.61	4,653.38	4,650.36	8.44
P-11	CB-6	CB-7	4,647.81	4,645.65	30.0	0.013	81.0	0.027	33.202	0.913	30.56	66.98	4,649.69	4,646.91	13.34
P-12	CB-7	CB-8	4,645.65	4,641.79	24.0	0.013	156.0	0.025	33.202	0.911	30.50	35.58	4,647.52	4,643.22	12.73
P-13	CB-8	CB-9	4,641.79	4,637.92	24.0	0.013	121.0	0.032	33.202	0.908	30.38	40.46	4,643.66	4,639.24	14.14
P-14	CB-9	CB-10	4,637.92	4,635.58	24.0	0.013	142.0	0.016	33.202	0.905	30.30	29.04	4,639.79	4,637.31	10.49
P-15	CB-10	CB-11	4,635.58	4,631.63	24.0	0.013	120.0	0.033	33.202	0.901	30.17	41.04	4,637.45	4,633.81	14.28
P-16	CB-11	CB-12	4,631.63	4,629.68	24.0	0.013	130.0	0.015	33.202	0.899	30.08	27.71	4,633.81	4,631.54	9.58
P-17	CB-12	CB-13	4,629.68	4,624.62	24.0	0.013	284.0	0.018	33.202	0.895	29.95	30.19	4,631.54	4,626.24	10.96
P-18	CB-13	CB-14	4,624.62	4,616.01	24.0	0.013	282.0	0.031	33.202	0.887	29.69	39.53	4,626.48	4,617.30	13.82
P-19	CB-14	CB-15	4,616.01	4,607.52	24.0	0.013	278.0	0.031	33.202	0.881	29.49	39.53	4,617.86	4,608.81	13.80
P-20	CB-15	CB-16	4,607.52	4,597.58	24.0	0.013	211.0	0.047	33.202	0.875	29.29	49.10	4,609.37	4,599.78	16.31
P-21	CB-16	CB-17	4,597.58	4,584.31	30.0	0.013	235.0	0.056	49.626	0.871	43.59	97.46	4,599.78	4,585.48	19.30
P-22	CB-17	CB-18	4,584.31	4,566.60	30.0	0.013	371.0	0.048	49.626	0.868	43.42	89.61	4,586.51	4,567.83	18.11
P-23	CB-18	CB-19	4,566.60	4,558.84	30.0	0.013	262.0	0.030	49.626	0.862	43.11	70.59	4,568.79	4,561.13	15.09
P-24	CB-19	CB-50	4,558.84	4,550.65	36.0	0.013	401.0	0.020	57.276	0.857	49.46	95.32	4,561.13	4,552.18	13.61
P-25	CB-50	CB-20	4,550.65	4,549.26	36.0	0.013	72.0	0.019	57.276	0.849	49.04	92.67	4,552.93	4,550.94	13.30
P-26	CB-20	CB-21	4,549.26	4,549.11	48.0	0.013	17.0	0.009	57.276	0.849	49.00	134.92	4,551.36	4,551.21	9.88
P-27	CB-21	CB-51	4,549.11	4,548.61	48.0	0.013	127.0	0.004	57.276	0.849	48.99	90.12	4,551.21	4,550.82	7.32
P-28	CB-51	CB-22	4,548.61	4,548.54	48.0	0.013	12.0	0.006	57.276	0.847	48.89	109.70	4,550.82	4,550.87	8.48
P-29	CB-22	CB-23	4,548.54	4,545.93	48.0	0.013	191.0	0.014	70.317	0.847	60.01	167.91	4,550.87	4,548.64	12.25
P-30	CB-23	CB-24	4,545.93	4,545.31	48.0	0.013	238.0	0.003	70.317	0.845	59.90	73.31	4,548.64	4,547.64	6.51
P-31	CB-24	CB-52	4,545.31	4,544.68	48.0	0.013	121.0	0.005	70.317	0.841	59.63	103.64	4,547.64	4,547.14	8.54

FlexTable: Conduit Table (millpondeast.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-32	CB-52	CB-25	4,544.68	4,544.16	48.0	0.013	113.0	0.005	78.127	0.840	66.14	97.44	4,547.14	4,546.58	8.33
P-33	CB-25	CB-26	4,544.16	4,542.60	48.0	0.013	322.0	0.005	78.127	0.838	66.03	99.98	4,546.61	4,544.97	8.50
P-34	CB-26	CB-27	4,542.60	4,539.65	48.0	0.013	284.0	0.010	78.127	0.835	65.72	146.39	4,545.05	4,542.65	11.34
P-35	CB-27	CB-28	4,539.65	4,539.42	48.0	0.013	40.0	0.006	78.127	0.832	65.52	108.92	4,542.65	4,542.64	9.07
P-36	CB-28	CB-29	4,539.42	4,538.91	48.0	0.013	254.0	0.002	78.127	0.832	65.49	64.36	4,542.64	4,542.06	5.83
P-37	CB-29	CB-30	4,538.91	4,538.90	48.0	0.013	8.0	0.001	78.127	0.827	65.13	50.78	4,542.06	4,542.04	5.18
P-38	CB-30	CB-31	4,538.90	4,538.27	48.0	0.013	123.0	0.005	78.127	0.827	65.12	102.80	4,542.04	4,541.93	8.66
P-39	CB-31	CB-32	4,538.27	4,538.01	42.0	0.013	227.0	0.001	78.127	0.825	65.01	34.05	4,541.93	4,540.72	6.76
P-40	CB-32	CB-33	4,538.01	4,537.21	42.0	0.013	172.0	0.005	78.127	0.822	64.73	68.61	4,540.72	4,539.97	8.11
P-41	CB-33	CB-34	4,537.21	4,536.83	42.0	0.013	90.0	0.004	78.127	0.820	64.56	65.37	4,539.97	4,539.35	7.75
P-42	CB-34	CB-35	4,536.83	4,534.40	42.0	0.013	19.0	0.128	78.127	0.819	64.47	359.78	4,539.35	4,535.88	28.30
P-43	CB-35	CB-36	4,534.40	4,532.85	48.0	0.013	288.0	0.005	78.127	0.819	64.46	105.37	4,536.82	4,535.94	8.80
P-44	CB-36	CB-37	4,532.85	4,532.73	48.0	0.013	130.0	0.001	78.127	0.815	64.20	43.64	4,535.94	4,535.15	5.11
P-45	CB-37	CB-38	4,532.73	4,531.78	48.0	0.013	124.0	0.008	78.127	0.813	63.99	125.72	4,535.14	4,533.83	10.05
P-46	CB-38	CB-39	4,531.78	4,529.94	48.0	0.013	207.0	0.009	78.127	0.811	63.89	135.42	4,534.19	4,532.59	10.62
P-47	CB-39	OF-1	4,529.94	4,527.78	48.0	0.013	251.0	0.009	94.207	0.809	76.85	133.25	4,532.59	4,529.96	10.98
P-48	CB-40	CB-41	4,612.72	4,611.98	30.0	0.013	82.0	0.009	0.000	3.250	0.00	38.96	4,612.72	4,611.98	0.00
P-49	CB-41	CB-42	4,611.98	4,605.83	30.0	0.013	213.0	0.029	0.000	3.250	0.00	69.69	4,611.98	4,605.83	0.00
P-50	CB-42	CB-43	4,605.83	4,599.36	30.0	0.013	304.0	0.021	0.000	3.250	0.00	59.84	4,605.83	4,599.78	0.00
P-51	CB-43	CB-16	4,599.36	4,597.58	30.0	0.013	83.0	0.021	0.000	3.250	0.00	60.06	4,599.78	4,599.78	0.00
P-52	CB-5	CB-53	4,648.96	4,648.39	30.0	0.013	46.0	0.012	22.150	1.059	23.64	45.66	4,650.62	4,649.73	9.38
P-53	CB-53	CB-6	4,648.39	4,647.81	30.0	0.013	47.0	0.012	22.150	1.057	23.61	45.56	4,650.04	4,649.69	9.37

Lehi Storm Drain Master Plan
Mill Pond West Drain

Date Created: March 14, 2014

millpondwest.stc

FlexTable: Catch Basin Table (millpondwest.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,639.02	4,635.02	8.460	45.140	0.00	4,636.19	4,636.19
CB-2	4,638.92	4,634.81	0.000	0.000	0.00	4,636.03	4,636.03
CB-3	4,638.20	4,634.69	0.000	0.000	0.00	4,635.79	4,635.79
CB-4	4,628.44	4,624.29	0.000	0.000	0.00	4,625.55	4,625.55
CB-5	4,592.63	4,589.63	28.220	75.920	0.00	4,591.29	4,591.29
CB-6	4,560.71	4,556.88	2.920	92.590	0.00	4,557.56	4,557.56
CB-7	4,563.52	4,558.69	0.000	0.000	0.00	4,559.29	4,559.29
CB-8	4,566.58	4,562.58	0.000	0.000	0.00	4,563.23	4,563.23
CB-9	4,567.48	4,563.43	3.688	70.830	0.00	4,564.15	4,564.15
CB-10	4,568.60	4,564.65	0.000	0.000	0.00	4,564.55	4,564.55
CB-11	4,568.51	4,565.30	16.180	62.190	0.00	4,567.25	4,567.25
CB-12	4,566.64	4,563.36	0.000	0.000	0.00	4,565.30	4,565.30
CB-13	4,566.15	4,561.94	0.000	0.000	0.00	4,563.88	4,563.88
CB-14	4,559.57	4,554.07	0.000	0.000	0.00	4,555.97	4,555.97
CB-15	4,556.87	4,553.22	0.000	0.000	0.00	4,555.67	4,555.67
CB-16	4,560.12	4,552.57	0.000	0.000	0.00	4,554.77	4,554.77
CB-17	4,557.96	4,552.00	0.000	0.000	0.00	4,554.20	4,554.20
CB-18	4,556.58	4,549.78	0.000	0.000	0.00	4,551.97	4,551.97
CB-19	4,554.34	4,547.15	0.000	0.000	0.00	4,549.81	4,549.81
CB-20	4,552.29	4,545.00	0.000	0.000	0.00	4,548.47	4,548.47
CB-21	4,551.08	4,544.59	0.000	0.000	0.00	4,547.98	4,547.98
CB-22	4,553.19	4,544.37	0.000	0.000	0.00	4,547.72	4,547.72
CB-23	4,550.54	4,544.01	0.000	0.000	0.00	4,546.92	4,546.92
CB-24	4,550.68	4,543.45	0.000	0.000	0.00	4,546.50	4,546.50
CB-25	4,550.89	4,543.24	0.000	0.000	0.00	4,545.80	4,545.80
CB-26	4,548.48	4,542.28	0.000	0.000	0.00	4,545.13	4,545.13
CB-27	4,629.57	4,626.27	5.342	58.230	0.00	4,627.53	4,627.53
CB-28	4,621.07	4,617.29	0.000	0.000	0.00	4,618.54	4,618.54
CB-29	4,617.96	4,614.45	3.500	43.890	0.00	4,615.85	4,615.85
CB-30	4,553.28	4,546.50	0.000	0.000	0.00	4,549.09	4,549.09
CB-31	4,551.40	4,544.67	5.016	85.330	0.00	4,548.36	4,548.36
CB-32	4,550.13	4,542.82	0.000	0.000	0.00	4,545.91	4,545.91
CB-33	4,549.99	4,542.54	0.000	0.000	0.00	4,545.59	4,545.59
CB-34	4,557.17	4,552.85	0.000	0.000	0.00	4,555.30	4,555.30
CB-35	4,565.47	4,561.76	0.000	0.000	0.00	4,563.77	4,563.77
CB-36	4,563.00	4,557.00	3.860	94.330	0.00	4,558.90	4,558.90
CB-37	4,562.00	4,555.00	1.707	85.000	0.00	4,556.70	4,556.70
CB-38	4,591.76	4,588.24	0.000	0.000	0.00	4,589.89	4,589.89
CB-39	4,589.62	4,585.73	0.000	0.000	0.00	4,587.38	4,587.38
CB-40	4,586.81	4,581.57	0.000	0.000	0.00	4,583.22	4,583.22
CB-41	4,568.93	4,567.63	0.000	0.000	0.00	4,568.94	4,568.94
CB-42	4,570.00	4,566.64	0.000	0.000	0.00	4,566.88	4,566.88
CB-43	4,573.00	4,568.53	0.000	0.000	0.00	4,568.53	4,568.53
CB-44	4,575.67	4,572.97	0.000	0.000	0.00	4,572.97	4,572.97
CB-45	4,594.18	4,590.80	1.920	33.090	0.00	4,592.26	4,592.26
CB-46	4,582.30	4,578.93	5.660	48.900	0.00	4,580.90	4,580.90
CB-47	4,569.50	4,564.92	12.330	51.310	0.00	4,567.47	4,567.47

FlexTable: Catch Basin Table (millpondwest.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-48	4,560.28	4,554.20	0.000	0.000	0.00	4,556.68	4,556.68
CB-49	4,595.46	4,593.53	11.820	48.140	0.00	4,594.81	4,594.81
CB-50	4,595.37	4,592.69	0.000	0.000	0.00	4,594.22	4,594.22
CB-51	4,595.14	4,591.40	0.000	0.000	0.00	4,593.28	4,593.28
CB-52	4,580.50	4,576.26	0.000	0.000	0.00	4,578.53	4,578.53
CB-53	4,576.00	4,571.56	0.000	0.000	0.00	4,573.44	4,573.44
CB-54	4,562.51	4,558.16	0.000	0.000	0.00	4,560.30	4,560.30
CB-55	4,593.80	4,591.08	0.000	0.000	0.00	4,592.98	4,592.98
CB-56	4,593.36	4,590.76	0.000	0.000	0.00	4,592.66	4,592.66
CB-57	4,592.37	4,589.81	0.000	0.000	0.00	4,591.35	4,591.35
CB-58	4,592.70	4,590.34	0.000	0.000	0.00	4,592.13	4,592.13
CB-59	4,591.89	4,587.07	2.620	57.580	0.00	4,588.90	4,588.90
CB-60	4,569.00	4,564.34	0.000	0.000	0.00	4,566.89	4,566.89
CB-61	4,564.60	4,560.11	0.000	0.000	0.00	4,562.49	4,562.49
CB-62	4,564.50	4,559.91	0.000	0.000	0.00	4,562.05	4,562.05
CB-63	4,559.61	4,553.81	0.000	0.000	0.00	4,556.08	4,556.08
CB-64	4,560.00	4,553.72	0.000	0.000	0.00	4,555.12	4,555.12
CB-65	4,554.00	4,549.10	0.000	0.000	0.00	4,550.64	4,550.64

FlexTable: Conduit Table (millpondwest.stc)

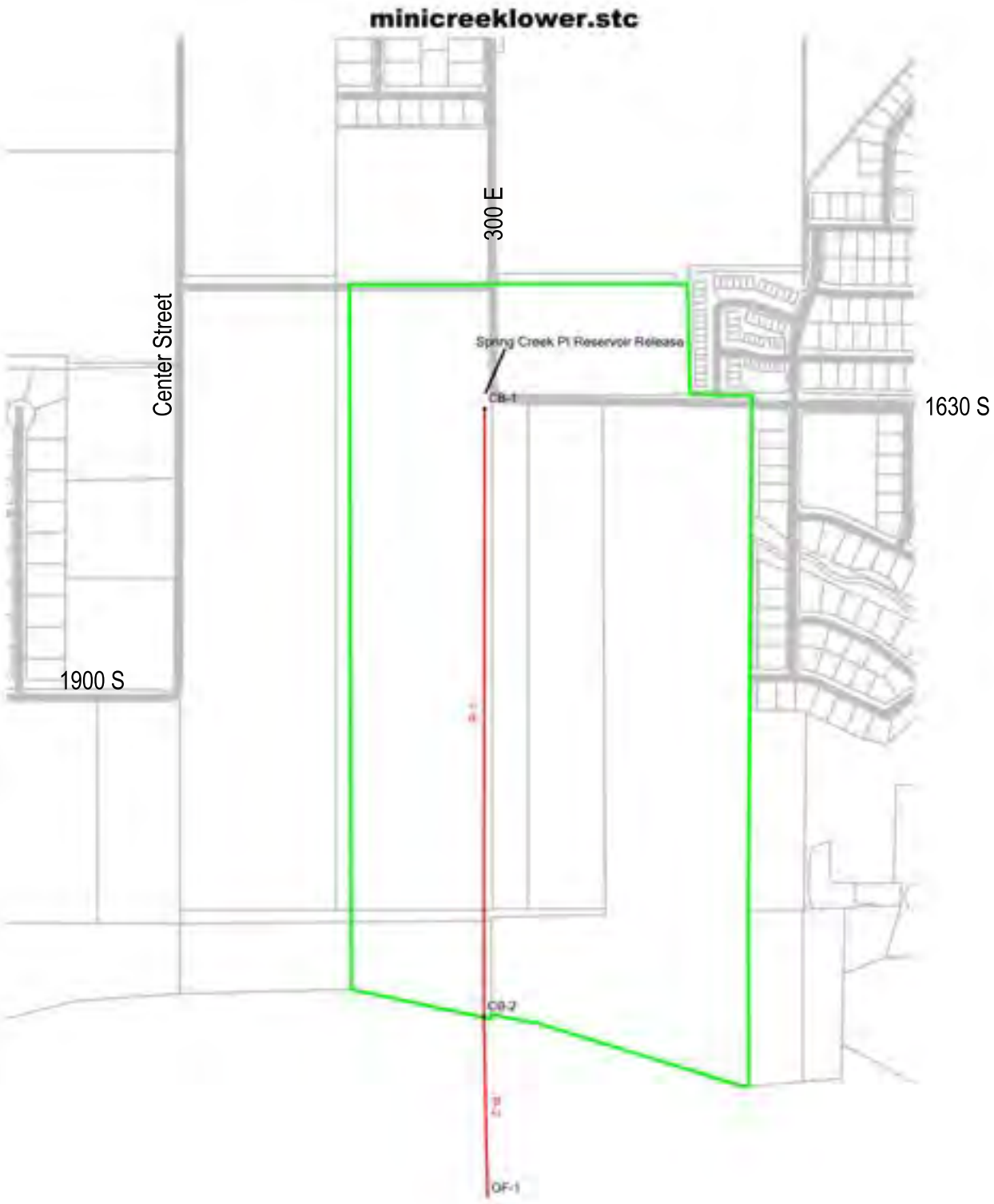
Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-2	CB-3	4,634.81	4,634.69	24.0	0.013	35.0	0.003	8.460	1.110	9.46	13.25	4,636.03	4,635.79	4.58
P-2	CB-3	CB-27	4,634.69	4,626.27	24.0	0.013	380.0	0.022	8.460	1.107	9.44	33.67	4,635.79	4,627.53	9.20
P-3	CB-27	CB-4	4,626.27	4,624.29	24.0	0.013	64.0	0.031	13.802	0.881	12.26	39.79	4,627.53	4,625.08	11.15
P-4	CB-4	CB-28	4,624.29	4,617.29	24.0	0.013	227.0	0.031	13.802	0.880	12.24	39.72	4,625.55	4,618.05	11.13
P-5	CB-28	CB-29	4,617.29	4,614.45	24.0	0.013	165.0	0.017	13.802	0.874	12.15	29.68	4,618.54	4,615.85	8.98
P-6	CB-10	CB-9	4,564.55	4,563.50	18.0	0.013	195.0	0.005	0.000	3.250	0.00	7.71	4,564.55	4,564.15	0.00
P-7	CB-9	CB-8	4,563.43	4,562.76	18.0	0.013	194.0	0.003	3.688	0.783	2.91	6.17	4,564.15	4,563.41	3.44
P-8	CB-8	CB-7	4,562.58	4,560.13	18.0	0.013	85.0	0.029	3.688	0.777	2.89	17.83	4,563.23	4,560.54	7.42
P-9	CB-11	CB-12	4,565.30	4,563.36	30.0	0.013	251.0	0.008	44.400	0.732	32.75	36.06	4,567.25	4,565.23	8.32
P-10	CB-12	CB-13	4,563.36	4,561.94	30.0	0.013	184.0	0.008	44.400	0.729	32.62	36.03	4,565.30	4,563.80	8.31
P-11	CB-13	CB-35	4,561.94	4,561.76	30.0	0.013	23.0	0.008	44.400	0.726	32.51	36.28	4,563.88	4,563.77	8.36
P-12	CB-14	CB-15	4,554.07	4,553.22	30.0	0.013	89.0	0.010	48.260	0.638	31.02	40.08	4,555.97	4,555.67	9.02
P-13	CB-15	CB-34	4,553.22	4,552.85	30.0	0.013	73.0	0.005	48.260	0.637	30.97	29.20	4,555.67	4,555.30	6.71
P-14	CB-34	CB-16	4,552.85	4,552.57	30.0	0.013	89.0	0.003	48.260	0.636	30.92	23.01	4,555.30	4,554.77	6.30
P-15	CB-16	CB-17	4,552.57	4,552.00	36.0	0.013	80.0	0.007	72.247	0.625	45.55	56.30	4,554.77	4,554.05	8.87
P-16	CB-17	CB-18	4,552.00	4,549.78	36.0	0.013	245.0	0.009	72.247	0.625	45.48	63.49	4,554.20	4,551.66	9.77
P-17	CB-18	CB-19	4,549.78	4,547.15	36.0	0.013	141.0	0.019	72.247	0.622	45.30	91.09	4,551.97	4,549.81	12.87
P-18	CB-19	CB-30	4,547.15	4,546.50	36.0	0.013	165.0	0.004	72.247	0.621	45.21	41.86	4,549.81	4,549.09	6.40
P-19	CB-30	CB-20	4,546.50	4,546.00	36.0	0.013	127.0	0.004	72.247	0.618	45.02	41.85	4,549.09	4,548.47	6.37
P-20	CB-20	CB-31	4,545.00	4,544.67	48.0	0.013	83.0	0.004	108.227	0.616	67.22	90.57	4,548.47	4,548.36	7.89
P-21	CB-31	CB-21	4,544.85	4,544.63	48.0	0.013	149.0	0.001	113.243	0.615	70.21	55.19	4,548.36	4,547.98	5.59
P-22	CB-21	CB-22	4,544.59	4,544.37	48.0	0.013	108.0	0.002	113.243	0.612	69.90	64.83	4,547.98	4,547.72	5.56
P-23	CB-22	CB-23	4,544.37	4,544.02	48.0	0.013	237.0	0.001	113.243	0.610	69.67	55.20	4,547.72	4,546.92	5.54
P-24	CB-23	CB-24	4,544.01	4,543.70	48.0	0.013	114.0	0.003	113.243	0.606	69.17	74.90	4,546.92	4,546.50	6.77
P-25	CB-24	CB-25	4,543.45	4,543.24	48.0	0.013	118.0	0.002	113.243	0.604	68.97	60.59	4,546.50	4,545.80	5.49
P-26	CB-25	CB-32	4,543.29	4,542.82	48.0	0.013	44.0	0.011	113.243	0.602	68.72	148.45	4,545.80	4,545.91	11.59
P-27	CB-32	CB-33	4,542.82	4,542.54	48.0	0.013	115.0	0.002	113.243	0.602	68.67	70.87	4,545.91	4,545.59	6.43
P-28	CB-33	CB-26	4,542.54	4,542.28	48.0	0.013	126.0	0.002	113.243	0.600	68.46	65.25	4,545.59	4,545.13	5.88
P-29	CB-26	OF-1	4,542.28	4,542.21	48.0	0.013	41.0	0.002	113.243	0.598	68.21	59.35	4,545.13	4,544.71	5.43
P-30	CB-7	CB-6	4,558.69	4,556.88	24.0	0.013	421.0	0.004	3.688	0.776	2.89	14.83	4,559.29	4,557.56	3.66
P-31	MH-1	MH-2	4,580.50	4,576.07	24.0	0.013	269.0	0.016	28.220	0.747	21.25	29.03	4,582.15	4,577.34	10.09
P-32	MH-2	MH-4	4,576.07	4,570.64	24.0	0.013	329.0	0.017	28.220	0.744	21.17	29.06	4,577.72	4,572.42	10.09
P-33	MH-4	MH-5	4,570.64	4,569.87	24.0	0.013	100.0	0.008	28.220	0.741	21.07	19.85	4,572.42	4,571.64	7.12
P-34	CB-1	CB-2	4,635.02	4,634.81	24.0	0.013	49.0	0.004	8.460	1.113	9.49	14.75	4,636.19	4,636.03	4.99
P-35	CB-35	CB-36	4,561.76	4,557.00	30.0	0.013	731.0	0.007	44.400	0.726	32.50	33.10	4,563.77	4,558.94	7.69

FlexTable: Conduit Table (millpondwest.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-36	CB-36	CB-14	4,557.00	4,554.07	30.0	0.013	89.0	0.033	48.260	0.638	31.05	74.42	4,558.90	4,555.26	14.48
P-37	CB-6	CB-37	4,556.88	4,555.00	30.0	0.013	375.0	0.005	6.608	0.649	4.32	29.04	4,557.56	4,556.70	4.25
P-38	CB-5	CB-38	4,589.63	4,588.24	24.0	0.013	75.0	0.019	28.220	0.752	21.39	30.80	4,591.29	4,589.50	10.59
P-39	CB-38	CB-39	4,588.24	4,585.73	24.0	0.013	139.0	0.018	28.220	0.751	21.37	30.40	4,589.89	4,586.97	10.48
P-40	CB-39	CB-40	4,585.73	4,581.57	24.0	0.013	228.0	0.018	28.220	0.750	21.33	30.56	4,587.38	4,582.80	10.52
P-41	CB-40	MH-1	4,581.57	4,580.49	24.0	0.013	59.0	0.018	28.220	0.748	21.26	30.61	4,583.22	4,582.15	10.52
P-42	MH-5	CB-41	4,569.87	4,567.63	24.0	0.013	289.0	0.008	28.220	0.739	21.03	19.92	4,571.64	4,569.27	7.17
P-43	CB-41	CB-11	4,567.63	4,565.80	24.0	0.013	237.0	0.008	28.220	0.735	20.91	19.88	4,569.38	4,567.44	7.16
P-44	CB-44	CB-43	4,572.97	4,568.78	15.0	0.013	294.0	0.014	0.000	3.250	0.00	7.71	4,572.97	4,568.78	0.00
P-45	CB-43	CB-42	4,568.53	4,566.64	18.0	0.013	141.0	0.013	0.000	3.250	0.00	12.16	4,568.53	4,566.88	0.00
P-46	CB-42	CB-10	4,566.88	4,564.65	18.0	0.013	105.0	0.021	0.000	3.250	0.00	15.31	4,566.88	4,564.65	0.00
P-47	CB-29	CB-45	4,614.45	4,590.80	24.0	0.013	748.0	0.032	17.302	0.868	15.14	40.22	4,615.85	4,592.26	11.90
P-48	CB-37	CB-48	4,555.00	4,554.70	30.0	0.013	103.0	0.003	8.315	0.640	5.36	22.14	4,556.70	4,556.68	3.72
P-49	CB-49	CB-50	4,593.53	4,592.88	24.0	0.013	83.0	0.008	11.820	1.060	12.62	20.02	4,594.81	4,594.22	6.74
P-50	CB-50	CB-51	4,592.69	4,591.63	24.0	0.013	295.0	0.004	11.820	1.056	12.58	13.56	4,594.22	4,593.28	4.90
P-51	CB-46	CB-52	4,578.93	4,576.26	30.0	0.024	85.0	0.031	39.322	0.847	33.55	39.37	4,580.90	4,578.53	9.01
P-52	CB-52	CB-53	4,576.26	4,571.80	30.0	0.024	224.0	0.020	39.322	0.846	33.52	31.35	4,578.53	4,573.77	7.16
P-53	CB-53	CB-47	4,571.56	4,564.92	36.0	0.024	396.0	0.017	39.322	0.842	33.39	46.78	4,573.44	4,567.47	7.19
P-54	CB-54	CB-48	4,558.16	4,554.20	36.0	0.013	236.0	0.017	51.652	0.830	43.21	86.39	4,560.30	4,556.68	12.22
P-55	CB-51	CB-55	4,591.40	4,591.08	24.0	0.013	120.0	0.003	11.820	1.038	12.37	11.68	4,593.28	4,592.98	4.20
P-56	CB-55	CB-56	4,591.08	4,590.77	24.0	0.013	124.0	0.002	11.820	1.030	12.27	11.31	4,592.98	4,592.66	3.91
P-57	CB-56	CB-58	4,590.76	4,590.34	24.0	0.013	203.0	0.002	11.820	1.020	12.16	10.29	4,592.66	4,592.13	3.87
P-58	CB-58	CB-57	4,590.34	4,589.81	24.0	0.013	260.0	0.002	11.820	1.005	11.97	10.21	4,592.13	4,591.35	3.81
P-59	CB-57	CB-59	4,589.81	4,589.66	24.0	0.013	68.0	0.002	11.820	0.985	11.73	10.62	4,591.35	4,590.89	3.74
P-60	CB-45	CB-59	4,590.80	4,587.26	24.0	0.013	36.0	0.098	19.222	0.850	16.47	70.94	4,592.26	4,588.90	18.39
P-61	CB-59	CB-46	4,587.07	4,578.93	30.0	0.024	264.0	0.031	33.662	0.850	28.83	39.01	4,588.90	4,580.90	8.70
P-62	CB-47	CB-60	4,564.92	4,564.34	36.0	0.024	42.0	0.014	51.652	0.837	43.56	42.45	4,567.47	4,566.89	6.84
P-63	CB-60	CB-61	4,564.34	4,560.11	36.0	0.024	310.0	0.014	51.652	0.836	43.53	42.20	4,566.89	4,562.49	6.79
P-64	CB-61	CB-62	4,560.11	4,559.91	36.0	0.024	15.0	0.013	51.652	0.831	43.29	41.72	4,562.49	4,562.05	6.70
P-65	CB-62	CB-54	4,559.91	4,558.16	36.0	0.013	128.0	0.014	51.652	0.831	43.27	77.98	4,562.05	4,559.79	11.32
P-66	CB-48	CB-63	4,554.20	4,553.81	36.0	0.013	139.0	0.003	59.967	0.637	38.51	35.33	4,556.68	4,556.08	5.45
P-67	CB-63	CB-64	4,553.81	4,553.72	36.0	0.013	33.0	0.003	59.967	0.634	38.35	34.83	4,556.08	4,555.74	5.43
P-68	CB-64	CB-16	4,553.72	4,552.57	36.0	0.013	397.0	0.003	23.987	0.634	15.33	35.90	4,555.12	4,554.77	4.88
P-69	CB-64	CB-65	4,556.31	4,549.10	30.0	0.013	481.0	0.015	(N/A)	(N/A)	22.99	50.22	(N/A)	(N/A)	(N/A)
P-70	CB-65	CB-20	4,549.10	4,546.00	36.0	0.013	294.0	0.011	35.980	0.634	22.99	68.49	4,550.64	4,548.47	8.73

Lehi Storm Drain Master Plan
Mini Creek Lower Drain

Date Created: March 14, 2014


minicreeklower.stc
300 E
Center Street
Spring Creek Pl Reservoir Release
CB-1
1630 S
1900 S
CB-2
OF-1

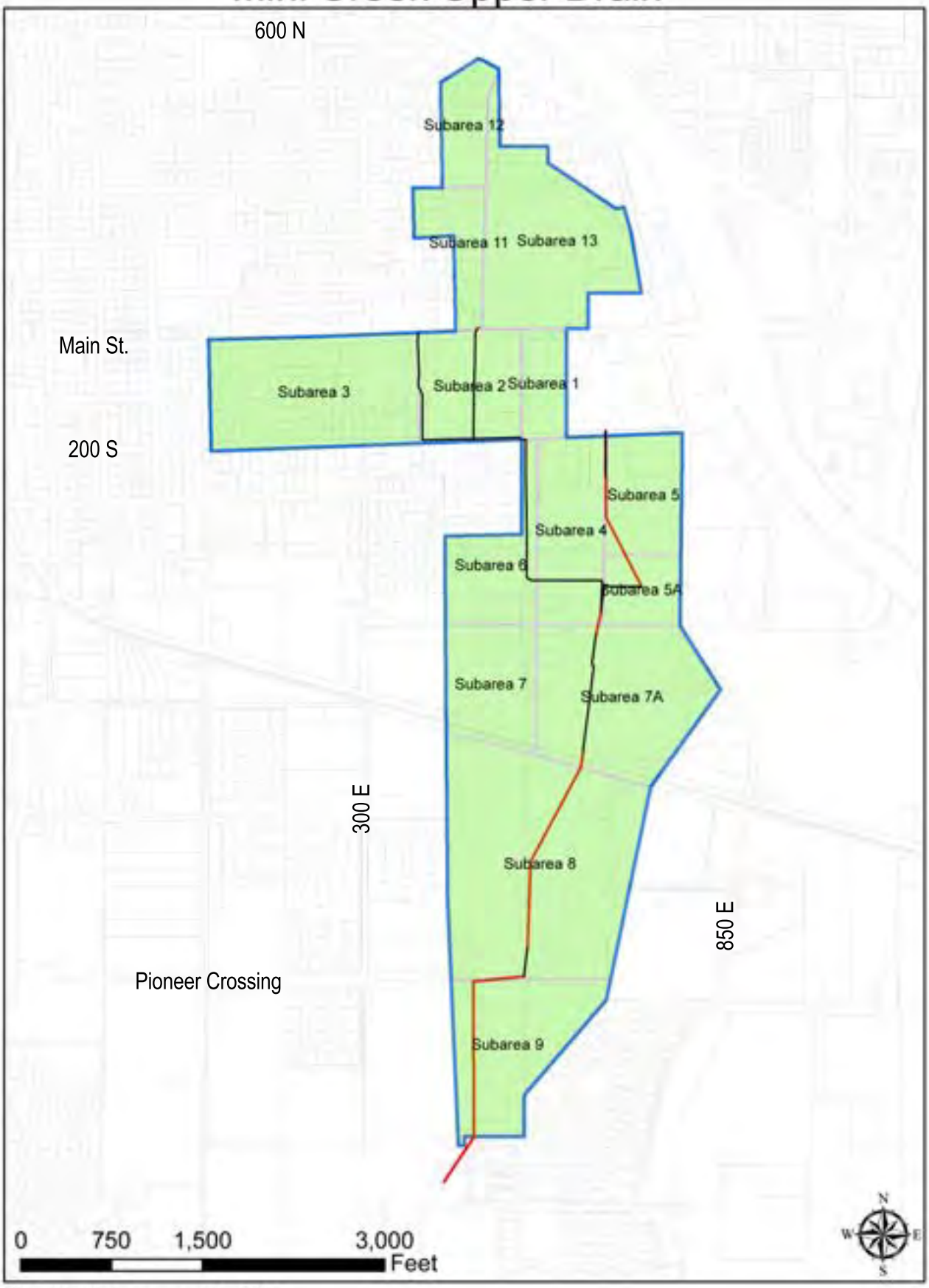
FlexTable: Catch Basin Table (minicreeklower.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,498.90	4,493.40	0.000	0.000	0.00	4,496.08	4,496.08
CB-2	4,493.40	4,487.90	47.819	136.480	0.00	4,491.09	4,491.09

FlexTable: Conduit Table (minicreeklower.stc)

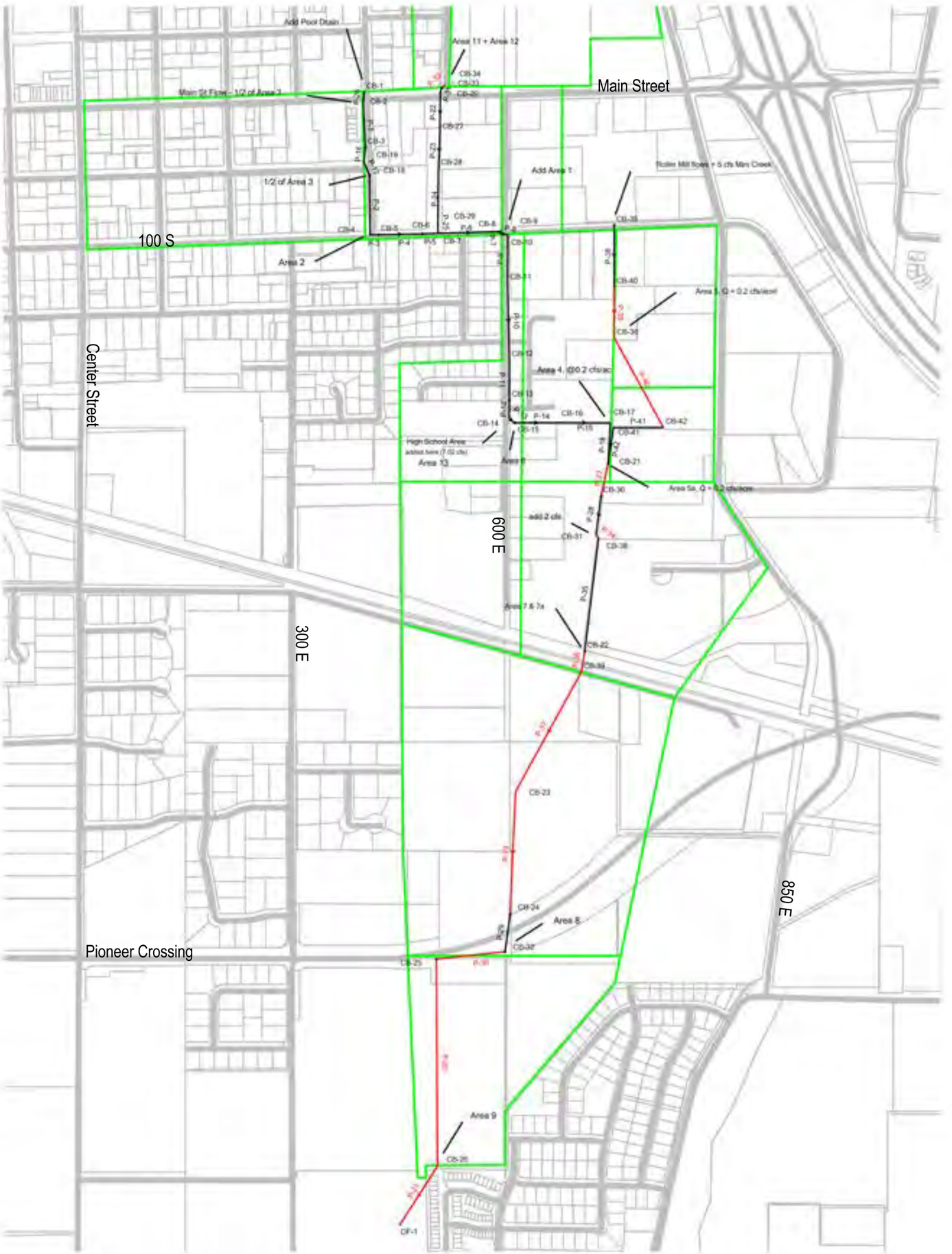
Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,493.40	4,487.90	48.0	0.013	2,564.0	0.002	0.000	3.250	52.50	66.52	4,496.08	4,491.09	5.87
P-2	CB-2	OF-1	4,487.90	4,485.00	48.0	0.013	1,037.0	0.003	47.819	0.444	73.92	75.96	4,491.09	4,487.60	6.89

Lehi Storm Drain Master Plan
Mini Creek Upper Drain



Date Created: January 31, 2014

minicreekuppermod3.stc



FlexTable: Catch Basin Table (minicreekuppermod3.stc)

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,547.29	4,542.56	53.300	97.604	0.00	4,544.52	4,544.52
CB-2	4,547.10	4,541.41	7.202	103.670	0.00	4,543.34	4,543.34
CB-3	4,545.01	4,538.35	0.000	0.000	0.00	4,540.30	4,540.30
CB-4	4,543.20	4,534.88	7.161	109.040	0.00	4,537.20	4,537.20
CB-5	4,542.83	4,534.54	0.000	0.000	0.00	4,537.14	4,537.14
CB-6	4,541.89	4,533.68	0.000	0.000	0.00	4,535.76	4,535.76
CB-7	4,541.57	4,532.88	0.000	0.000	0.00	4,535.10	4,535.10
CB-8	4,540.81	4,531.46	0.000	0.000	0.00	4,533.88	4,533.88
CB-9	4,540.40	4,531.39	0.000	0.000	0.00	4,533.95	4,533.95
CB-10	4,540.42	4,531.26	3.100	101.370	0.00	4,533.85	4,533.85
CB-11	4,539.17	4,530.50	0.000	0.000	0.00	4,533.06	4,533.06
CB-12	4,537.26	4,529.27	0.000	0.000	0.00	4,531.76	4,531.76
CB-13	4,535.83	4,528.63	0.000	0.000	0.00	4,530.81	4,530.81
CB-14	4,535.05	4,528.05	0.000	0.000	7.02	4,530.31	4,530.31
CB-15	4,533.74	4,527.09	6.081	100.520	0.00	4,529.80	4,529.80
CB-16	4,532.11	4,526.15	0.000	0.000	0.00	4,528.59	4,528.59
CB-17	4,531.64	4,524.65	0.000	0.000	3.34	4,527.71	4,527.71
CB-18	4,543.96	4,537.22	7.202	103.670	0.00	4,539.26	4,539.26
CB-19	4,544.50	4,537.76	0.000	0.000	0.00	4,539.69	4,539.69
CB-20	4,547.17	4,542.06	0.000	0.000	0.00	4,542.92	4,542.92
CB-21	4,529.70	4,522.29	0.000	0.000	1.69	4,525.07	4,525.07
CB-22	4,523.00	4,516.35	21.200	114.600	0.00	4,519.06	4,519.06
CB-23	4,518.50	4,511.45	0.000	0.000	0.00	4,514.15	4,514.15
CB-24	4,514.25	4,507.49	0.000	0.000	0.00	4,510.19	4,510.19
CB-25	4,504.65	4,498.15	0.000	0.000	0.00	4,501.12	4,501.12
CB-26	4,500.05	4,493.55	10.326	107.390	0.00	4,496.53	4,496.53
CB-27	4,544.07	4,539.90	0.000	0.000	0.00	4,541.02	4,541.02
CB-28	4,543.76	4,539.58	0.000	0.000	0.00	4,540.43	4,540.43
CB-29	4,541.57	4,535.05	0.000	0.000	0.00	4,535.90	4,535.90
CB-30	4,528.00	4,521.26	0.000	0.000	0.00	4,524.03	4,524.03
CB-31	4,529.50	4,520.02	0.000	0.000	2.00	4,522.86	4,522.86
CB-32	4,513.30	4,506.09	25.534	120.010	0.00	4,508.99	4,508.99
CB-33	4,546.20	4,542.89	0.000	0.000	0.00	4,543.75	4,543.75
CB-34	4,547.17	4,543.94	7.398	88.410	0.00	4,544.81	4,544.81
CB-35	4,540.63	4,537.12	7.904	112.638	5.00	4,538.20	4,538.20
CB-36	4,535.00	4,530.23	0.000	0.000	2.84	4,531.33	4,531.33
CB-38	4,529.29	4,519.92	0.000	0.000	0.00	4,522.76	4,522.76
CB-39	4,522.41	4,515.69	0.000	0.000	0.00	4,518.40	4,518.40
CB-40	4,537.00	4,532.87	0.000	0.000	0.00	4,533.82	4,533.82
CB-41	4,529.48	4,523.43	0.000	0.000	0.00	4,525.14	4,525.14
CB-42	4,530.20	4,524.98	0.000	0.000	0.00	4,526.07	4,526.07

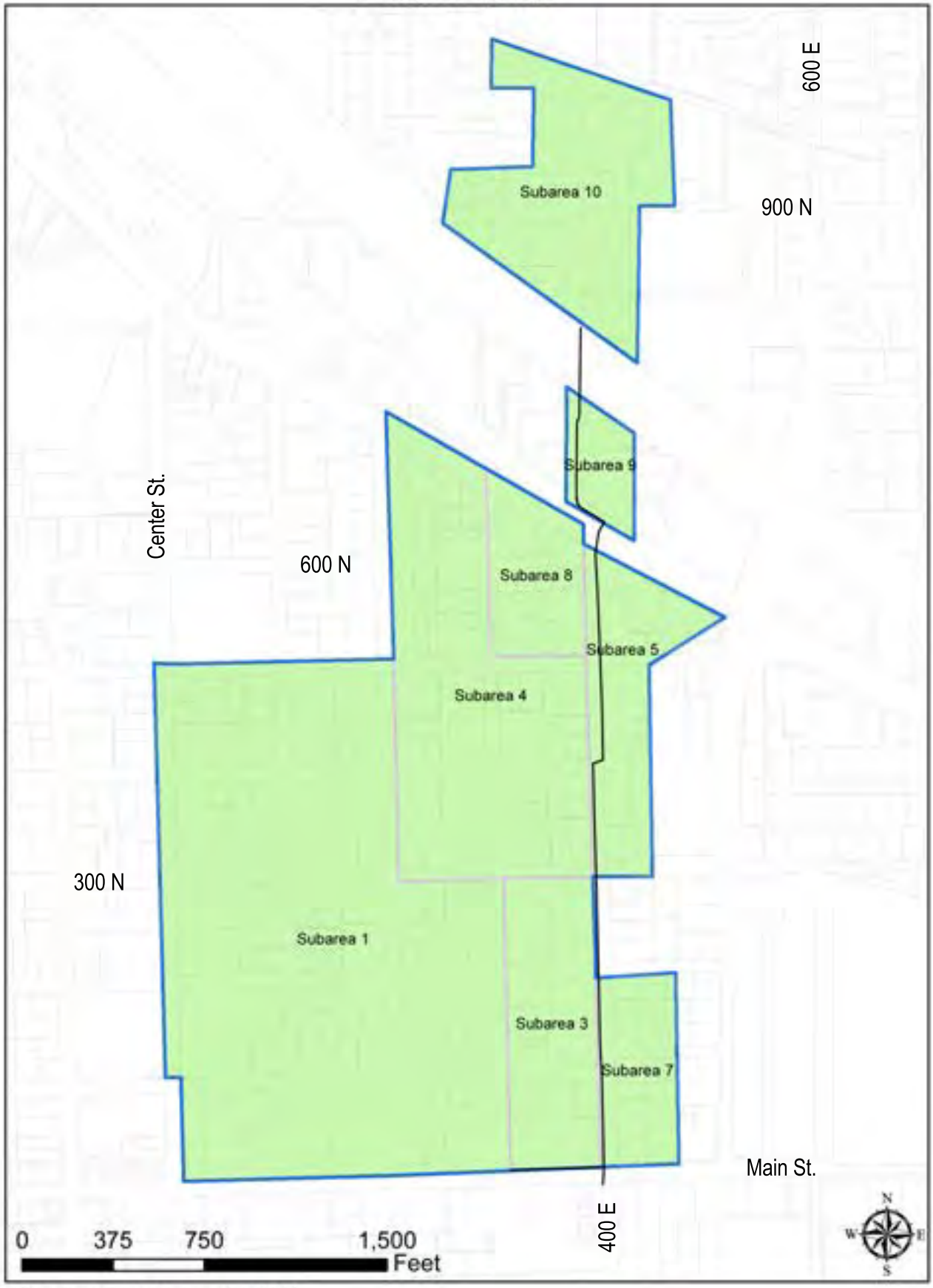
FlexTable: Conduit Table (minicreekuppermod3.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-2	CB-3	4,541.41	4,538.35	36.0	0.013	273.0	0.011	60.502	0.581	35.41	70.61	4,543.34	4,540.30	10.00
P-2	CB-18	CB-4	4,537.22	4,534.88	36.0	0.013	370.0	0.006	67.704	0.576	39.28	53.04	4,539.26	4,537.20	8.21
P-3	CB-4	CB-5	4,534.88	4,534.54	36.0	0.013	53.0	0.006	74.865	0.548	41.32	53.42	4,537.20	4,537.14	8.34
P-4	CB-5	CB-6	4,534.54	4,533.68	36.0	0.013	267.0	0.003	74.865	0.547	41.27	37.85	4,537.14	4,535.77	5.84
P-5	CB-6	CB-7	4,533.68	4,532.88	36.0	0.013	101.0	0.008	74.865	0.542	40.92	59.36	4,535.76	4,535.10	9.06
P-6	CB-7	CB-8	4,532.88	4,531.46	42.0	0.013	380.0	0.004	82.263	0.541	44.87	61.50	4,535.10	4,533.88	6.98
P-7	CB-8	CB-9	4,531.51	4,531.39	42.0	0.013	11.0	0.011	82.263	0.535	44.40	105.08	4,533.88	4,533.95	10.46
P-8	CB-9	CB-10	4,531.42	4,531.26	42.0	0.013	49.0	0.003	82.263	0.535	44.39	57.49	4,533.95	4,533.85	6.60
P-9	CB-10	CB-11	4,531.26	4,530.50	42.0	0.013	297.0	0.003	85.363	0.535	46.00	50.89	4,533.85	4,533.06	5.99
P-10	CB-11	CB-12	4,530.50	4,529.27	42.0	0.013	474.0	0.003	85.363	0.530	45.56	51.25	4,533.06	4,531.76	6.02
P-11	CB-12	CB-13	4,529.27	4,528.63	42.0	0.013	249.0	0.003	85.363	0.521	44.87	51.00	4,531.76	4,530.81	5.98
P-12	CB-13	CB-14	4,528.73	4,528.05	42.0	0.013	114.0	0.006	85.363	0.517	44.50	77.70	4,530.81	4,530.31	8.35
P-13	CB-14	CB-15	4,528.07	4,527.44	42.0	0.013	41.0	0.015	85.363	0.516	51.40	124.71	4,530.31	4,529.80	12.34
P-14	CB-15	CB-16	4,527.44	4,526.15	42.0	0.013	280.0	0.005	91.444	0.515	54.53	68.29	4,529.80	4,528.59	7.88
P-15	CB-16	CB-17	4,526.18	4,524.84	42.0	0.013	310.7	0.004	91.444	0.512	54.19	66.07	4,528.59	4,527.71	7.66
P-16	CB-3	CB-19	4,538.37	4,537.76	36.0	0.013	93.0	0.007	60.502	0.578	35.24	54.02	4,540.30	4,539.53	8.14
P-17	CB-19	CB-18	4,537.76	4,537.22	36.0	0.013	85.0	0.006	60.502	0.577	35.17	53.16	4,539.69	4,539.26	8.04
P-18	CB-17	CB-21	4,524.65	4,524.07	42.0	0.013	255.3	0.002	91.444	0.508	57.15	47.95	4,527.71	4,526.44	5.94
P-19	CB-23	CB-24	4,511.45	4,507.49	48.0	0.013	758.0	0.005	120.548	0.476	79.71	103.82	4,514.15	4,510.12	9.11
P-20	CB-25	CB-26	4,498.15	4,493.55	54.0	0.013	1,279.0	0.004	146.082	0.471	91.24	117.93	4,501.12	4,496.53	8.19
P-21	CB-26	OF-1	4,493.55	4,491.86	54.0	0.013	436.0	0.004	156.408	0.465	95.25	122.42	4,496.53	4,494.73	8.51
P-22	CB-20	CB-27	4,542.06	4,539.90	18.0	0.013	248.5	0.009	7.398	0.674	5.03	9.79	4,542.92	4,541.02	5.58
P-23	CB-27	CB-28	4,540.00	4,539.61	24.0	0.013	220.7	0.002	7.398	0.670	4.99	9.51	4,541.02	4,540.43	3.06
P-24	CB-28	CB-29	4,539.58	4,538.33	24.0	0.013	375.5	0.003	7.398	0.662	4.94	13.05	4,540.43	4,539.11	3.87
P-25	CB-29	CB-7	4,535.05	4,534.49	18.0	0.013	24.9	0.022	7.398	0.652	4.86	15.75	4,535.90	4,535.10	7.85
P-26	CB-1	CB-2	4,542.56	4,541.41	30.0	0.013	67.0	0.017	53.300	0.618	33.21	53.73	4,544.52	4,542.91	11.52
P-27	CB-21	CB-30	4,522.29	4,521.26	42.0	0.013	205.0	0.005	99.348	0.494	69.32	71.31	4,525.07	4,524.03	8.45
P-28	CB-30	CB-31	4,521.26	4,520.02	42.0	0.013	246.0	0.005	99.348	0.491	69.07	71.43	4,524.03	4,522.86	8.46
P-29	CB-24	CB-32	4,507.49	4,506.09	48.0	0.013	233.0	0.006	120.548	0.473	79.35	111.34	4,510.19	4,508.99	9.62
P-30	CB-32	CB-25	4,506.09	4,498.15	48.0	0.013	427.0	0.019	146.082	0.472	91.39	195.87	4,508.99	4,501.12	15.32
P-31	CB-33	CB-20	4,542.89	4,542.06	18.0	0.013	27.0	0.031	7.398	0.674	5.03	18.42	4,543.75	4,542.64	8.88

FlexTable: Conduit Table (minicreekuppermod3.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-32	CB-34	CB-33	4,543.94	4,542.89	18.0	0.013	34.0	0.031	7.398	0.675	5.03	18.49	4,544.81	4,543.45	8.91
P-34	CB-31	CB-38	4,520.02	4,519.92	42.0	0.013	20.0	0.005	99.348	0.488	70.77	71.14	4,522.86	4,522.76	8.43
P-35	CB-38	CB-22	4,519.92	4,516.35	42.0	0.013	707.0	0.005	99.348	0.488	70.75	71.49	4,522.76	4,519.06	8.47
P-36	CB-22	CB-39	4,516.35	4,515.69	48.0	0.013	132.0	0.005	120.548	0.480	80.19	101.57	4,519.06	4,518.37	8.96
P-37	CB-39	CB-23	4,515.69	4,511.45	48.0	0.013	840.0	0.005	120.548	0.479	80.12	102.05	4,518.40	4,514.12	8.99
P-38	CB-35	CB-40	4,537.12	4,533.87	24.0	0.013	382.0	0.009	7.904	0.525	9.19	20.87	4,538.20	4,534.80	6.43
P-39	CB-40	CB-36	4,532.87	4,530.23	36.0	0.013	315.0	0.008	7.904	0.519	9.14	61.06	4,533.82	4,531.33	6.21
P-40	CB-36	CB-42	4,530.23	4,524.98	36.0	0.013	628.0	0.008	7.904	0.514	11.94	60.98	4,531.33	4,525.88	6.69
P-41	CB-42	CB-41	4,524.98	4,523.43	36.0	0.013	307.0	0.005	7.904	0.504	11.86	47.39	4,526.07	4,525.14	5.57
P-42	CB-41	CB-21	4,523.43	4,522.79	36.0	0.013	226.0	0.003	7.904	0.499	11.81	35.49	4,525.14	4,525.07	4.51

Lehi Storm Drain Master Plan
Pool Drain



Date Created: February 18, 2014


poolmod2.stc
800 N
600 E
Center Street
600 N
I-15
State Street
300 N
Main Street
400 E
CB-13
CB-17
CB-18
CB-20
CB-19
CB-12
CB-16
CB-11
CB-1
CB-15
CB-2
CB-14
CB-3
CB-4
CB-5
CB-6
CB-7
CB-8
CB-10
CB-9
OF-1

FlexTable: Catch Basin Table (poolmod.stc)

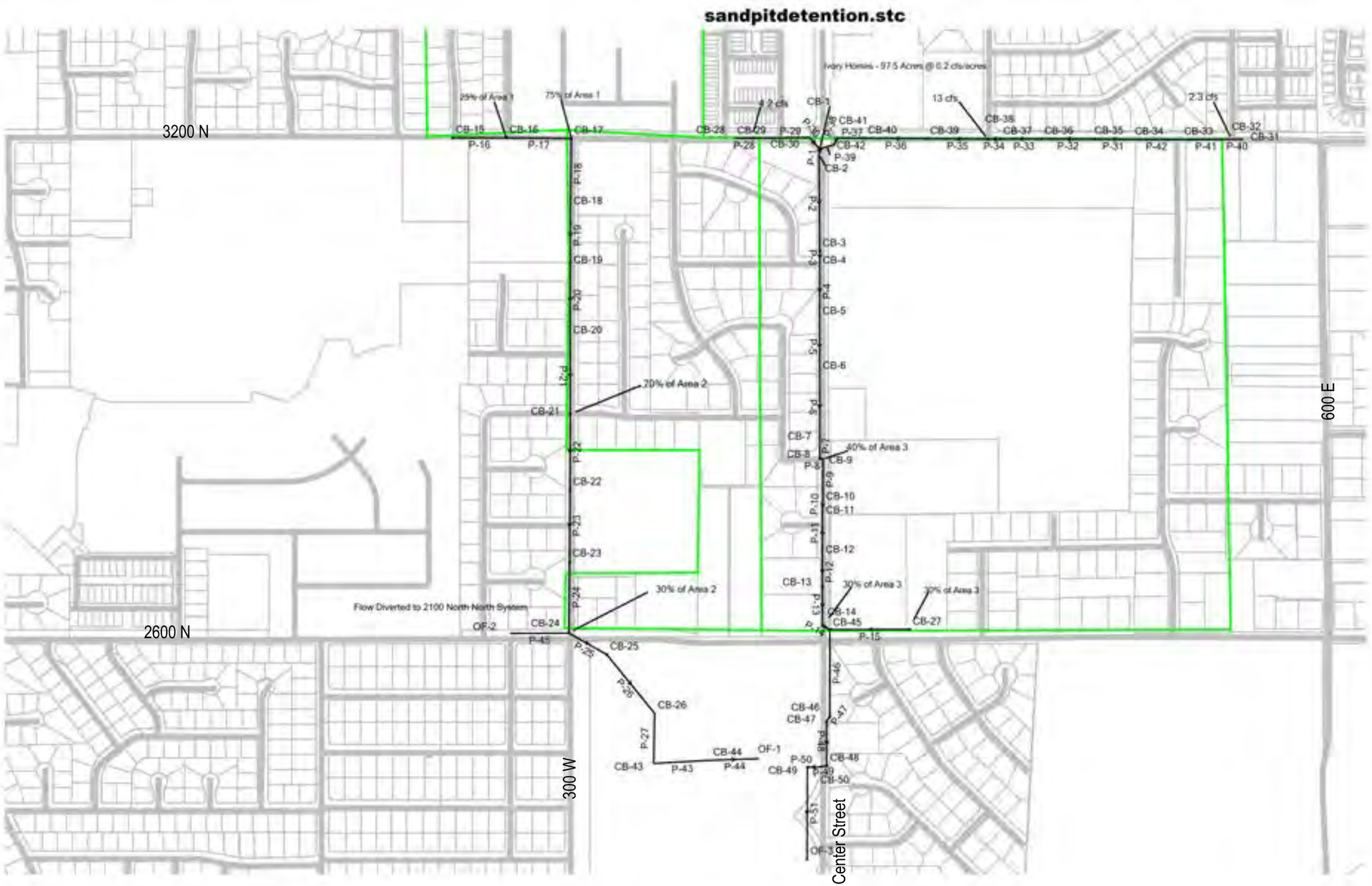
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,571.25	4,567.80	2.370	70.690	0.00	4,568.87	4,568.87
CB-2	4,564.20	4,560.36	0.000	0.000	0.00	4,561.43	4,561.43
CB-3	4,560.75	4,557.12	0.000	0.000	0.00	4,558.19	4,558.19
CB-4	4,556.98	4,553.83	13.515	94.100	0.00	4,555.14	4,555.14
CB-5	4,553.58	4,548.91	0.000	0.000	0.00	4,550.21	4,550.21
CB-6	4,550.05	4,546.25	0.000	0.000	0.00	4,547.54	4,547.54
CB-7	4,549.42	4,545.35	0.000	0.000	0.00	4,546.64	4,546.64
CB-8	4,547.29	4,542.38	6.385	78.610	0.00	4,544.34	4,544.34
CB-9	4,547.10	4,541.41	0.000	0.000	0.00	4,543.37	4,543.37
CB-10	4,548.30	4,545.29	23.647	87.560	0.00	4,546.65	4,546.65
CB-11	4,573.05	4,569.44	0.000	0.000	0.00	4,570.37	4,570.37
CB-12	4,574.50	4,571.50	1.179	68.940	0.00	4,572.43	4,572.43
CB-13	4,584.50	4,579.50	6.204	68.330	0.00	4,580.36	4,580.36

FlexTable: Conduit Table (poolmod.stc)

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,567.80	4,560.36	18.0	0.013	457.0	0.016	9.753	0.781	7.67	13.40	4,568.87	4,561.17	7.84
P-2	CB-2	CB-3	4,560.36	4,557.12	18.0	0.013	231.0	0.014	9.753	0.775	7.62	12.44	4,561.43	4,557.97	7.39
P-3	CB-3	CB-4	4,557.12	4,553.83	18.0	0.013	232.0	0.014	9.753	0.771	7.58	12.51	4,558.19	4,555.14	7.42
P-4	CB-4	CB-5	4,553.83	4,548.91	30.0	0.013	573.0	0.009	23.268	0.640	15.00	38.01	4,555.14	4,550.00	7.29
P-5	CB-5	CB-6	4,548.91	4,546.25	30.0	0.013	343.0	0.008	23.268	0.632	14.81	36.12	4,550.21	4,547.37	6.99
P-6	CB-6	CB-7	4,546.25	4,545.35	30.0	0.013	158.0	0.006	23.268	0.627	14.70	30.96	4,547.54	4,546.56	6.22
P-7	CB-7	CB-8	4,545.35	4,542.38	30.0	0.013	359.0	0.008	23.268	0.624	14.64	37.31	4,546.64	4,544.34	7.14
P-8	CB-8	CB-9	4,542.38	4,541.41	30.0	0.013	67.0	0.014	53.300	0.619	33.25	49.35	4,544.34	4,542.98	10.79
P-9	CB-10	CB-8	4,545.29	4,542.38	30.0	0.013	382.0	0.008	23.647	0.680	16.21	35.80	4,546.65	4,544.34	7.11
P-10	CB-9	OF-1	4,541.41	4,541.31	30.0	0.013	7.0	0.014	53.300	0.618	33.21	49.02	4,543.37	4,543.09	10.73
P-11	CB-12	CB-11	4,571.50	4,569.44	18.0	0.013	156.0	0.013	7.383	0.786	5.85	12.07	4,572.43	4,570.18	6.78
P-12	CB-13	CB-12	4,579.50	4,571.50	18.0	0.013	738.0	0.011	6.204	0.799	4.99	10.94	4,580.36	4,572.43	6.05
P-13	CB-11	CB-1	4,569.44	4,567.80	18.0	0.013	179.0	0.009	7.383	0.784	5.83	10.05	4,570.37	4,568.87	5.90

Lehi Storm Drain Master Plan
Sandpit Detention Drain

Date Created: March 14, 2014



sandpitdetention.stc
3/6/2014

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W Watertown, CT 06795 USA +1-203-755-1666

Bentley StormCAD V8i (SELECTseries 1)
[08.11.00.44]
Page 1 of 1

sandpitdetention.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,789.11	4,778.51	0.000	0.000	0.00	4,780.26	4,780.26
CB-2	4,787.79	4,778.44	0.000	0.000	0.00	4,780.01	4,780.01
CB-3	4,784.56	4,776.25	0.000	0.000	0.00	4,777.86	4,777.86
CB-4	4,784.68	4,774.66	0.000	0.000	0.00	4,776.16	4,776.16
CB-5	4,781.81	4,773.17	0.000	0.000	0.00	4,774.68	4,774.68
CB-6	4,779.85	4,771.66	0.000	0.000	0.00	4,773.20	4,773.20
CB-7	4,778.01	4,769.37	0.000	0.000	0.00	4,771.06	4,771.06
CB-8	4,777.59	4,768.27	0.000	0.000	0.00	4,770.78	4,770.78
CB-9	4,777.67	4,768.18	23.572	108.470	0.00	4,770.74	4,770.74
CB-10	4,776.53	4,767.54	0.000	0.000	0.00	4,770.42	4,770.42
CB-11	4,775.95	4,767.59	0.000	0.000	0.00	4,770.30	4,770.30
CB-12	4,774.58	4,767.35	0.000	0.000	0.00	4,769.54	4,769.54
CB-13	4,773.24	4,766.93	0.000	0.000	0.00	4,768.77	4,768.77
CB-14	4,771.97	4,765.02	17.679	108.470	0.00	4,767.13	4,767.13
CB-15	4,773.75	4,763.37	0.000	57.930	0.00	4,764.19	4,764.19
CB-16	4,777.31	4,762.90	4.288	57.930	0.00	4,764.19	4,764.19
CB-17	4,780.36	4,762.05	12.863	57.930	0.00	4,764.11	4,764.11
CB-18	4,775.04	4,761.75	0.000	0.000	0.00	4,763.43	4,763.43
CB-19	4,771.10	4,760.98	0.000	0.000	0.00	4,762.68	4,762.68
CB-20	4,765.19	4,760.22	0.000	0.000	0.00	4,761.49	4,761.49
CB-21	4,762.03	4,757.15	14.252	77.180	0.00	4,758.80	4,758.80
CB-22	4,759.37	4,754.30	0.000	0.000	0.00	4,756.10	4,756.10
CB-23	4,757.61	4,752.60	0.000	0.000	0.00	4,754.24	4,754.24
CB-24	4,753.16	4,742.26	6.108	77.180	0.00	4,745.02	4,745.02
CB-25	4,756.96	4,742.04	0.000	0.000	0.00	4,744.73	4,744.73
CB-26	4,754.47	4,741.64	0.000	0.000	0.00	4,743.90	4,743.90
CB-27	4,773.60	4,765.70	17.679	108.470	0.00	4,767.69	4,767.69
CB-28	4,786.42	4,782.22	0.000	0.000	0.00	4,782.95	4,782.95
CB-29	4,786.64	4,781.81	0.000	0.000	4.20	4,782.95	4,782.95
CB-30	4,789.00	4,779.98	0.000	0.000	0.00	4,780.81	4,780.81
CB-31	4,797.39	4,790.39	0.000	0.000	0.00	4,790.39	4,790.39
CB-32	4,797.29	4,789.29	0.000	0.000	2.30	4,789.90	4,789.90
CB-33	4,796.02	4,788.46	0.000	0.000	0.00	4,789.08	4,789.08
CB-34	4,795.11	4,787.44	0.000	0.000	0.00	4,788.00	4,788.00
CB-35	4,794.59	4,786.52	0.000	0.000	0.00	4,787.08	4,787.08
CB-36	4,793.76	4,785.49	0.000	0.000	0.00	4,786.12	4,786.12
CB-37	4,792.61	4,784.95	0.000	0.000	0.00	4,785.62	4,785.62
CB-38	4,792.39	4,784.27	0.000	0.000	13.00	4,785.59	4,785.59
CB-39	4,790.86	4,782.36	0.000	0.000	0.00	4,783.68	4,783.68
CB-40	4,789.49	4,780.52	0.000	0.000	0.00	4,781.84	4,781.84
CB-41	4,788.93	4,779.33	0.000	0.000	0.00	4,781.36	4,781.36
CB-42	4,788.21	4,779.21	0.000	0.000	0.00	4,781.33	4,781.33
CB-43	4,754.10	4,741.05	0.000	0.000	0.00	4,743.58	4,743.58
CB-44	4,756.27	4,740.87	0.000	0.000	0.00	4,743.09	4,743.09
CB-45	4,772.24	4,764.22	0.000	0.000	0.00	4,766.49	4,766.49
CB-46	4,770.81	4,758.79	0.000	0.000	0.00	4,761.02	4,761.02
CB-47	4,770.43	4,758.49	0.000	0.000	0.00	4,760.72	4,760.72
CB-48	4,768.42	4,757.04	0.000	0.000	0.00	4,759.69	4,759.69
CB-49	4,768.00	4,748.00	0.000	0.000	0.00	4,750.23	4,750.23
CB-50	4,769.60	4,756.88	0.000	0.000	0.00	4,759.11	4,759.11

sandpitdetention.stc

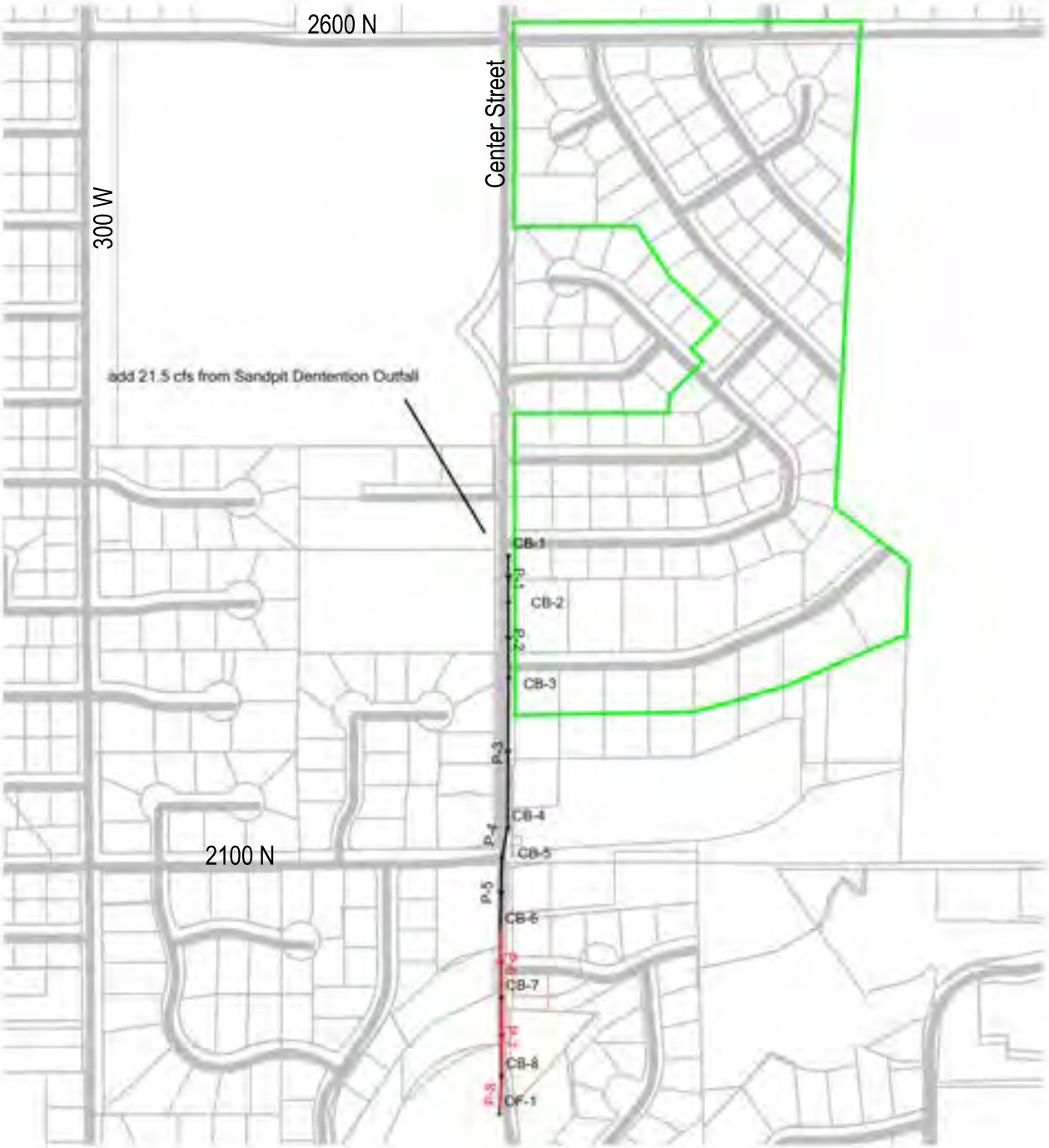
Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,778.51	4,778.44	30.0	0.013	35.0	0.002	0.000	2.610	19.50	18.34	4,780.26	4,780.01	4.21
P-2	CB-2	CB-3	4,778.44	4,776.25	30.0	0.013	505.0	0.004	0.000	2.589	19.50	27.01	4,780.01	4,777.86	5.99
P-3	CB-3	CB-4	4,776.36	4,774.76	30.0	0.013	66.0	0.024	0.000	2.420	19.50	63.86	4,777.86	4,775.76	11.42
P-4	CB-4	CB-5	4,774.66	4,773.17	30.0	0.013	294.0	0.005	0.000	2.412	19.50	29.20	4,776.16	4,774.68	6.37
P-5	CB-5	CB-6	4,773.18	4,771.66	30.0	0.013	290.0	0.005	0.000	2.346	19.50	29.69	4,774.68	4,773.20	6.45
P-6	CB-6	CB-7	4,771.70	4,769.37	30.0	0.013	351.0	0.007	0.000	2.281	19.50	33.42	4,773.20	4,771.06	7.07
P-7	CB-7	CB-8	4,769.56	4,768.27	30.0	0.013	98.0	0.013	0.000	2.210	19.50	47.06	4,771.06	4,770.78	9.14
P-8	CB-8	CB-9	4,768.31	4,768.18	30.0	0.013	18.0	0.007	0.000	2.195	19.50	34.86	4,770.78	4,770.74	7.30
P-9	CB-9	CB-10	4,768.57	4,767.54	36.0	0.013	221.0	0.005	23.572	0.551	32.59	45.53	4,770.74	4,770.42	7.00
P-10	CB-10	CB-11	4,767.72	4,767.60	36.0	0.013	59.0	0.002	23.572	0.548	32.52	30.08	4,770.42	4,770.30	4.60
P-11	CB-11	CB-12	4,767.59	4,767.35	36.0	0.013	245.0	0.001	23.572	0.547	32.49	20.87	4,770.30	4,769.54	4.60
P-12	CB-12	CB-13	4,767.35	4,766.93	36.0	0.013	153.0	0.003	23.572	0.541	32.36	34.94	4,769.54	4,768.78	5.61
P-13	CB-13	CB-14	4,766.93	4,765.37	36.0	0.013	206.0	0.008	23.572	0.538	32.29	58.04	4,768.77	4,766.97	8.43
P-14	CB-14	CB-45	4,765.02	4,764.22	36.0	0.013	45.0	0.018	41.251	0.536	41.78	88.93	4,767.13	4,766.49	12.38
P-15	CB-27	CB-45	4,765.70	4,765.42	24.0	0.013	422.0	0.001	17.679	0.551	9.82	5.83	4,767.69	4,766.54	3.13
P-16	CB-15	CB-16	4,763.37	4,762.90	18.0	0.013	284.0	0.002	0.000	0.887	0.00	4.27	4,764.19	4,764.19	0.00
P-17	CB-16	CB-17	4,762.92	4,762.08	24.0	0.013	343.0	0.002	4.288	0.887	3.83	11.19	4,764.19	4,764.11	3.23
P-18	CB-17	CB-18	4,762.05	4,761.75	30.0	0.013	373.0	0.001	17.151	0.855	14.79	11.63	4,764.11	4,763.43	3.01
P-19	CB-18	CB-19	4,761.75	4,761.23	30.0	0.013	281.0	0.002	17.151	0.839	14.51	17.64	4,763.43	4,762.68	4.01
P-20	CB-19	CB-20	4,760.98	4,760.25	30.0	0.013	404.0	0.002	17.151	0.832	14.38	17.43	4,762.68	4,761.53	3.97
P-21	CB-20	CB-21	4,760.22	4,757.16	30.0	0.013	403.0	0.008	17.151	0.821	14.20	35.74	4,761.49	4,758.80	6.86
P-22	CB-21	CB-22	4,757.15	4,754.37	30.0	0.013	400.0	0.007	31.403	0.744	23.55	34.19	4,758.80	4,756.10	7.51
P-23	CB-22	CB-23	4,754.30	4,752.66	30.0	0.013	378.0	0.004	31.403	0.739	23.38	27.02	4,756.10	4,754.31	6.19
P-24	CB-23	CB-24	4,752.60	4,743.19	30.0	0.013	380.0	0.025	31.403	0.732	23.18	64.54	4,754.24	4,745.02	12.07
P-25	CB-24	CB-25	4,742.26	4,742.04	36.0	0.013	230.0	0.001	34.018	0.729	25.00	20.63	4,745.02	4,744.73	3.54
P-26	CB-25	CB-26	4,742.46	4,741.90	36.0	0.013	401.0	0.001	34.018	0.722	24.77	24.92	4,744.73	4,743.90	4.02
P-27	CB-26	CB-43	4,741.64	4,741.05	36.0	0.013	265.0	0.002	34.018	0.712	24.42	31.47	4,743.90	4,743.58	4.92
P-28	CB-28	CB-29	4,782.22	4,781.93	12.0	0.013	94.0	0.003	0.000	3.250	0.00	1.98	4,782.95	4,782.95	0.00
P-29	CB-29	CB-30	4,781.81	4,780.74	15.0	0.013	300.0	0.004	0.000	3.250	4.20	3.86	4,782.95	4,781.57	3.42
P-30	CB-30	CB-1	4,779.98	4,779.41	15.0	0.013	82.0	0.007	0.000	3.250	4.20	5.39	4,780.81	4,780.26	4.85
P-31	CB-34	CB-35	4,787.44	4,786.59	21.0	0.013	196.0	0.004	0.000	3.250	2.30	10.43	4,788.00	4,787.14	3.48

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-32	CB-35	CB-36	4,786.52	4,785.54	24.0	0.013	282.0	0.003	0.000	3.250	2.30	13.34	4,787.08	4,786.12	3.18
P-33	CB-36	CB-37	4,785.49	4,785.01	24.0	0.013	217.0	0.002	0.000	3.235	2.30	10.64	4,786.12	4,785.62	2.70
P-34	CB-37	CB-38	4,784.95	4,784.74	24.0	0.013	65.0	0.003	0.000	3.029	2.30	12.86	4,785.62	4,785.59	3.10
P-35	CB-38	CB-39	4,784.27	4,782.49	30.0	0.013	322.0	0.006	0.000	2.975	15.30	30.49	4,785.59	4,783.74	6.22
P-36	CB-39	CB-40	4,782.36	4,780.52	30.0	0.013	328.0	0.006	0.000	2.842	15.30	30.72	4,783.68	4,781.77	6.25
P-37	CB-40	CB-41	4,780.52	4,779.43	30.0	0.013	150.0	0.007	0.000	2.707	15.30	34.96	4,781.84	4,781.36	6.88
P-38	CB-41	CB-42	4,779.33	4,779.21	30.0	0.013	35.0	0.003	0.000	2.651	15.30	24.02	4,781.36	4,781.33	5.18
P-39	CB-42	CB-1	4,780.01	4,778.66	30.0	0.013	84.0	0.016	0.000	2.634	15.30	52.00	4,781.33	4,780.26	9.21
P-40	CB-31	CB-32	4,790.39	4,789.84	12.0	0.013	66.0	0.008	0.000	3.250	0.00	3.25	4,790.39	4,789.90	0.00
P-41	CB-32	CB-33	4,789.29	4,788.46	21.0	0.013	263.0	0.003	0.000	3.250	2.30	8.90	4,789.90	4,789.08	3.10
P-42	CB-33	CB-34	4,788.52	4,787.44	21.0	0.013	261.0	0.004	0.000	3.250	2.30	10.19	4,789.08	4,788.00	3.42
P-43	CB-43	CB-44	4,741.06	4,740.87	36.0	0.013	299.0	0.001	34.018	0.707	24.23	16.81	4,743.58	4,743.09	3.43
P-44	CB-44	OF-1	4,740.88	4,740.60	36.0	0.013	260.0	0.001	34.018	0.698	23.92	21.89	4,743.09	4,742.18	3.38
P-45	CB-24	OF-2	4,743.51	4,742.21	15.0	0.013	311.0	0.004	(N/A)	(N/A)	2.57	4.18	(N/A)	(N/A)	(N/A)
P-46	CB-45	CB-46	4,764.25	4,759.06	42.0	0.013	462.0	0.011	58.930	0.535	51.30	106.63	4,766.49	4,760.77	10.98
P-47	CB-46	CB-47	4,758.79	4,758.49	42.0	0.013	28.0	0.011	58.930	0.531	51.05	104.14	4,761.02	4,760.40	10.77
P-48	CB-47	CB-48	4,758.49	4,757.04	42.0	0.013	236.0	0.006	58.930	0.531	51.03	78.86	4,760.72	4,759.69	8.72
P-49	CB-48	CB-50	4,757.04	4,757.00	42.0	0.013	45.0	0.001	58.930	0.528	50.86	29.99	4,759.69	4,759.23	5.29
P-50	CB-50	CB-49	4,756.88	4,748.24	42.0	0.013	58.0	0.149	58.930	0.527	50.81	388.29	4,759.11	4,749.23	27.91
P-51	CB-49	OF-3	4,748.00	4,745.10	42.0	0.013	487.0	0.006	58.930	0.527	50.80	77.63	4,750.23	4,747.16	8.60

Lehi Storm Drain Master Plan
Sandpit Drain

Date Created: March 14, 2014

sandpitdrainredobelow.stc



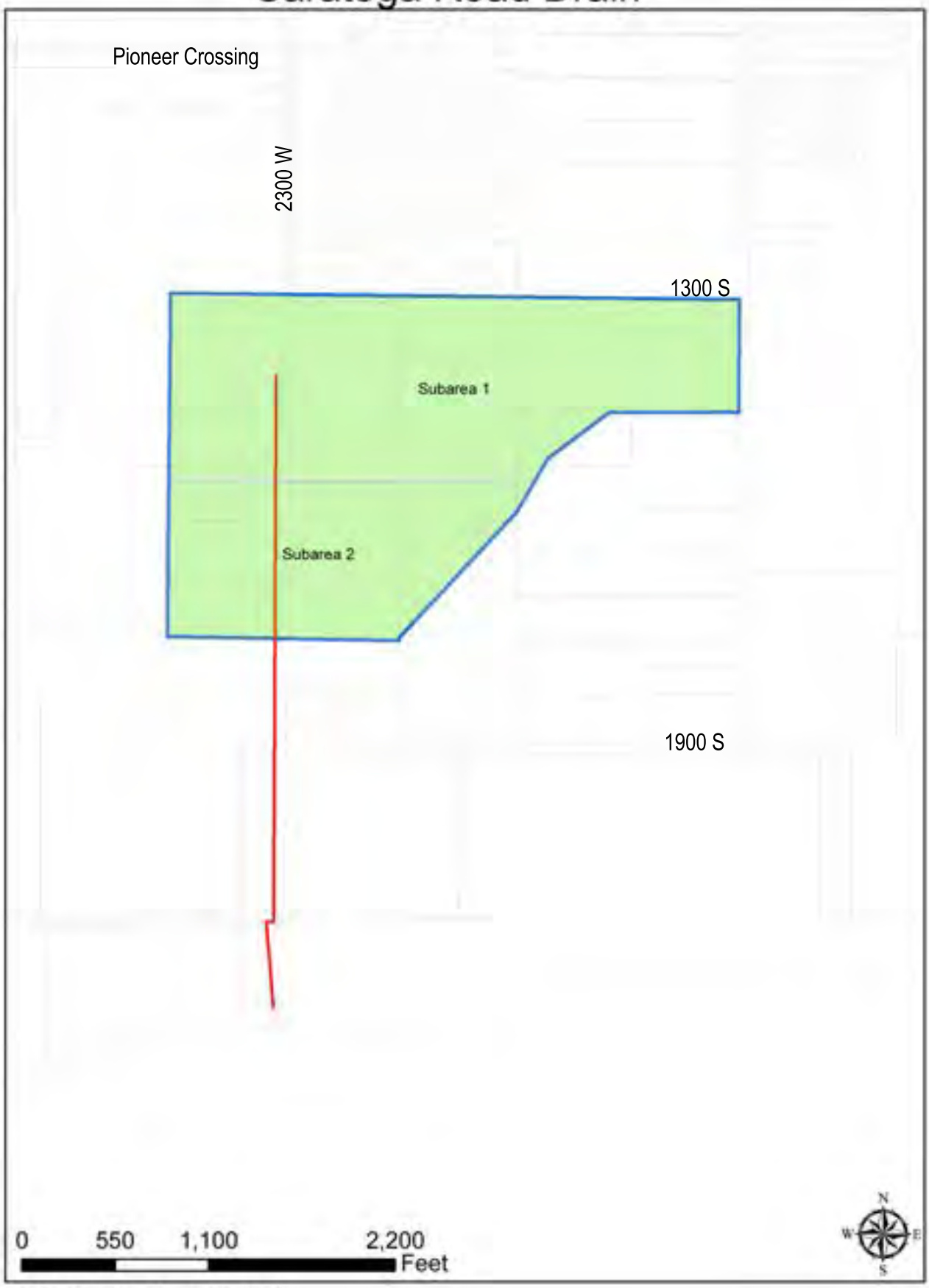
sandpitdrainredobelow.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,739.40	4,732.42	18.910	63.590	21.45	4,733.95	4,733.95
CB-2	4,728.93	4,724.78	0.000	0.000	0.00	4,726.52	4,726.52
CB-3	4,718.00	4,710.58	0.000	0.000	0.00	4,712.32	4,712.32
CB-4	4,678.24	4,674.46	0.000	0.000	0.00	4,676.20	4,676.20
CB-5	4,669.35	4,658.16	0.000	0.000	0.00	4,659.90	4,659.90
CB-6	4,645.14	4,637.76	0.000	0.000	0.00	4,639.70	4,639.70
CB-7	4,632.91	4,628.39	0.000	0.000	0.00	4,630.33	4,630.33
CB-8	4,624.21	4,619.34	0.000	0.000	0.00	4,621.97	4,621.97

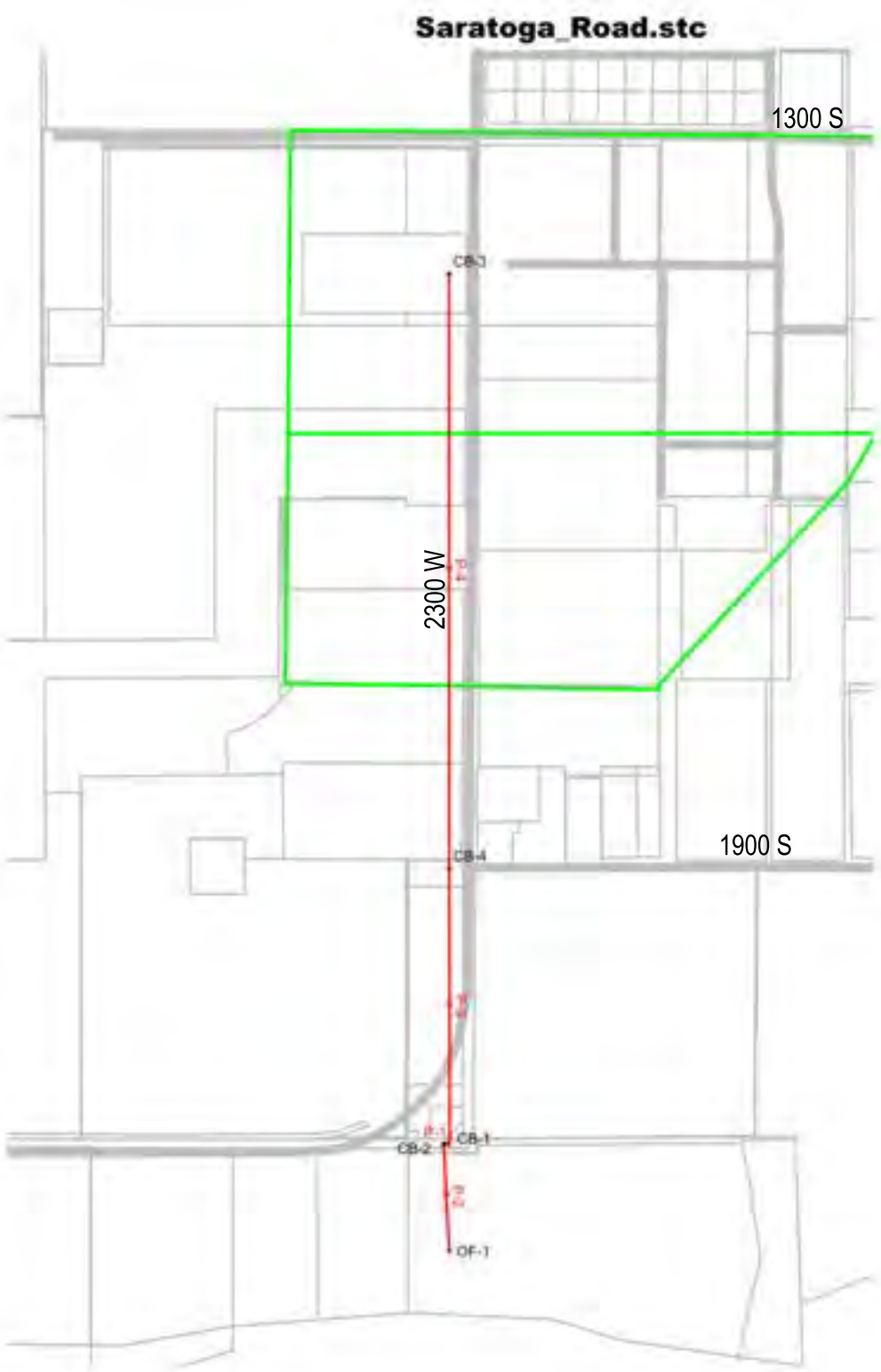
sandpitdrainredobelow.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,732.42	4,724.84	21.0	0.013	150.0	0.0505	18.910	0.828	37.23	35.62	4,733.95	4,726.58	16.80
P-2	CB-2	CB-3	4,724.78	4,710.58	21.0	0.013	240.0	0.0592	18.910	0.827	37.21	38.54	4,726.52	4,711.96	18.25
P-3	CB-3	CB-4	4,710.58	4,674.77	21.0	0.013	477.0	0.0751	18.910	0.826	37.19	43.41	4,712.32	4,676.02	20.28
P-4	CB-4	CB-5	4,674.46	4,664.94	21.0	0.013	97.0	0.0981	18.910	0.823	37.14	49.64	4,676.20	4,666.13	22.64
P-5	CB-5	CB-6	4,658.16	4,641.93	21.0	0.013	232.0	0.0700	18.910	0.823	37.13	41.91	4,659.90	4,643.21	19.68
P-6	CB-6	CB-7	4,637.76	4,628.44	24.0	0.013	214.0	0.0436	18.910	0.822	37.11	47.21	4,639.70	4,629.78	16.64
P-7	CB-7	CB-8	4,628.39	4,619.84	24.0	0.013	250.0	0.0342	18.910	0.820	37.08	41.83	4,630.33	4,621.97	15.04
P-8	CB-8	OF-1	4,619.34	4,618.73	30.0	0.013	121.0	0.0050	18.910	0.818	37.05	29.12	4,621.97	4,620.79	7.55

Lehi Storm Drain Master Plan
Saratoga Road Drain



Date Created: March 17, 2014

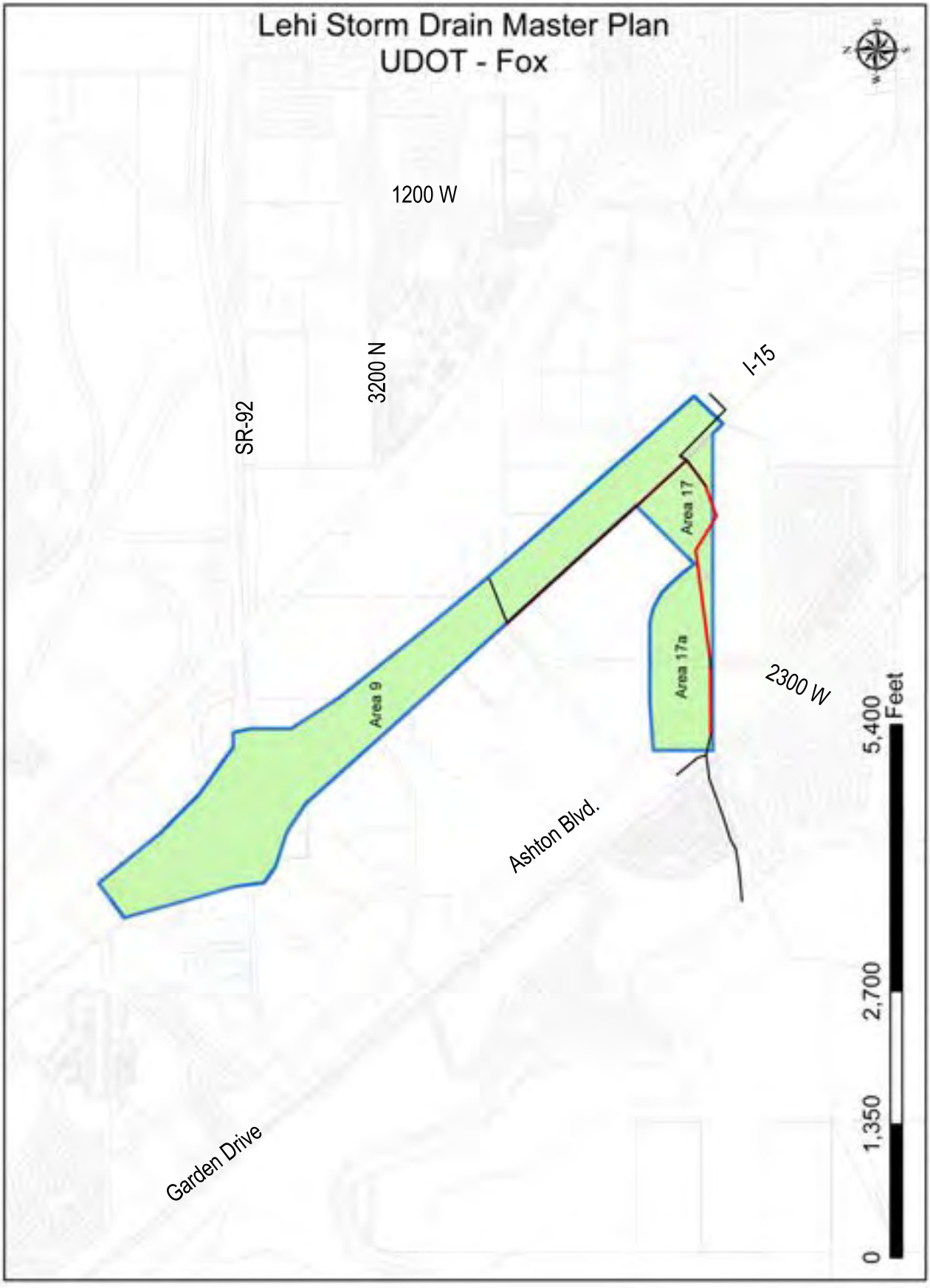

Saratoga_Road.stc
1300 S
CB-3
2300 W
1900 S
CB-4
CB-1
CB-2
OF-1

Saratoga_Road.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,493.00	4,488.49	0.000	0.000	0.00	4,490.22	4,490.22
CB-2	4,493.00	4,488.46	0.000	0.000	0.00	4,490.19	4,490.19
CB-3	4,500.10	4,492.97	29.869	136.480	0.00	4,494.86	4,494.86
CB-4	4,495.23	4,489.75	15.186	177.200	0.00	4,491.57	4,491.57

Saratoga_Road.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,488.49	4,488.46	36.0	0.013	22.0	0.001	45.055	0.349	15.83	24.63	4,490.22	4,490.19	3.70
P-2	CB-2	OF-1	4,488.46	4,487.96	36.0	0.013	390.0	0.001	45.055	0.348	15.82	23.88	4,490.19	4,489.23	3.61
P-3	CB-4	CB-1	4,489.75	4,488.49	36.0	0.013	1,011.0	0.001	45.055	0.356	16.17	23.55	4,491.57	4,490.22	3.59
P-4	CB-3	CB-4	4,492.97	4,490.25	30.0	0.013	2,176.0	0.001	29.869	0.444	13.38	14.50	4,494.86	4,491.57	3.35


Lehi Storm Drain Master Plan
UDOT - Fox
1200 W
3200 N
SR-92
I-15
Area 17
Area 17a
Area 9
2300 W
Ashton Blvd.
Garden Drive
0
1,350
2,700
5,400
Feet
Date Created: March 13, 2014


modified udot-fox.stc
From West Fox basin
Frontage Road
Garden Drive
Ashton Blvd.
2300 W
I-15
From Industrial basin
3' X 8' Box Culvert
modelled as 48" pipe

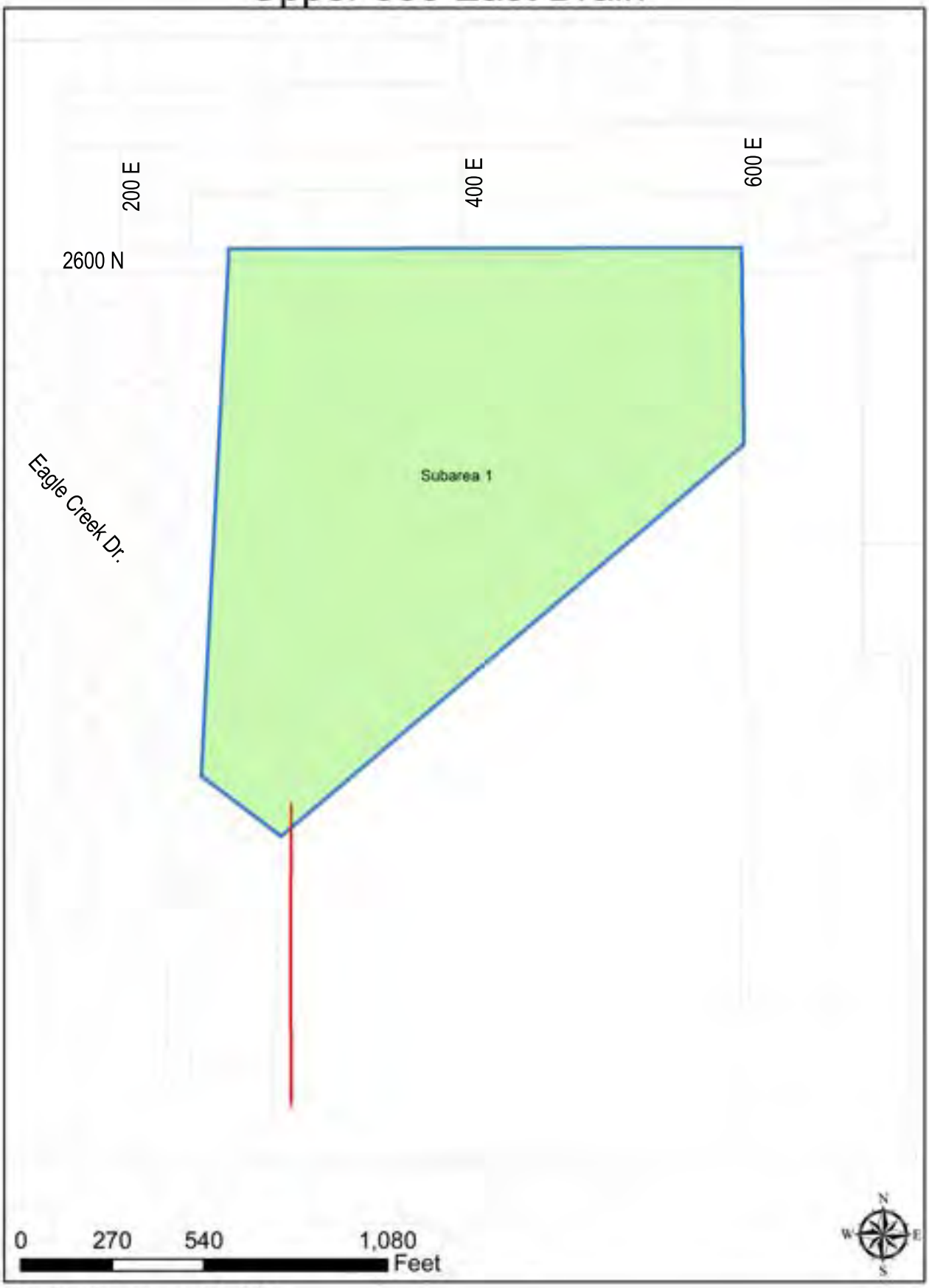
modified udot-fox.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,573.00	4,560.96	39.120	101.770	0.00	4,564.03	4,564.03
CB-2	4,575.00	4,562.48	4.600	101.770	0.00	4,565.25	4,565.25
CB-3	4,575.00	4,567.64	0.000	0.000	27.52	4,569.46	4,569.46
CB-4	4,567.00	4,558.39	0.000	0.000	0.00	4,561.50	4,561.50
CB-5	4,562.00	4,555.92	0.000	0.000	0.00	4,559.03	4,559.03
CB-6	4,624.00	4,619.12	0.000	0.000	52.50	4,621.48	4,621.48
CB-7	4,603.00	4,593.83	0.000	0.000	0.00	4,596.19	4,596.19
CB-8	4,575.00	4,570.26	0.000	0.000	0.00	4,572.62	4,572.62
CB-9	4,572.00	4,560.73	0.000	0.000	0.00	4,563.84	4,563.84
CB-10	4,545.16	4,534.28	0.000	0.000	71.00	4,537.63	4,537.63
CB-11	4,543.28	4,534.06	0.000	0.000	0.00	4,537.53	4,537.53
CB-12	4,546.01	4,533.50	0.000	0.000	0.00	4,536.74	4,536.74
CB-13	4,539.00	4,522.73	0.000	0.000	0.00	4,526.61	4,526.61
CB-14	4,509.00	4,500.15	0.000	0.000	0.00	4,504.17	4,504.17
CB-15	4,594.00	4,588.91	0.000	0.000	0.00	4,591.27	4,591.27
CB-16	4,624.00	4,601.47	0.000	0.000	0.00	4,604.24	4,604.24
CB-17	4,559.50	4,552.94	5.360	53.550	0.00	4,556.09	4,556.09
CB-18	4,550.57	4,544.78	0.000	0.000	0.00	4,548.23	4,548.23
CB-19	4,549.97	4,544.22	0.000	0.000	0.00	4,547.83	4,547.83
CB-20	4,546.51	4,540.88	9.940	74.880	0.00	4,544.09	4,544.09
CB-80	4,541.49	4,532.81	0.000	0.000	0.00	4,536.69	4,536.69

modified udot-fox.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-3	CB-2	4,567.64	4,563.48	24.0	0.013	225.7	0.018	0.000	3.250	27.52	30.71	4,569.46	4,564.96	11.06
P-2	CB-2	CB-1	4,562.48	4,560.96	36.0	0.013	636.0	0.002	4.600	0.592	30.27	32.61	4,565.25	4,564.03	5.24
P-3	CB-4	CB-5	4,558.39	4,555.92	48.0	0.013	321.0	0.008	43.720	0.576	105.39	126.00	4,561.50	4,558.72	11.23
P-4	CB-1	CB-9	4,560.96	4,560.73	42.0	0.013	82.0	0.003	43.720	0.580	53.08	53.28	4,564.03	4,563.84	6.31
P-5	CB-9	CB-4	4,560.73	4,558.39	48.0	0.013	321.0	0.007	43.720	0.579	105.52	122.64	4,563.84	4,561.25	10.98
P-6	CB-8	CB-9	4,570.26	4,566.33	36.0	0.013	144.0	0.027	0.000	3.250	52.50	110.18	4,572.62	4,567.84	15.40
P-7	CB-10	CB-11	4,534.28	4,534.06	48.0	0.013	58.0	0.004	0.000	3.250	71.00	88.46	4,537.63	4,537.53	7.83
P-8	CB-11	CB-12	4,534.06	4,533.50	48.0	0.013	304.0	0.002	0.000	3.250	71.00	61.65	4,537.53	4,536.74	5.65
P-9	CB-80	CB-13	4,532.81	4,531.30	60.0	0.013	246.0	0.006	59.020	0.550	183.73	204.04	4,536.69	4,535.01	11.76
P-10	CB-13	CB-14	4,522.73	4,500.15	60.0	0.013	644.0	0.035	59.020	0.548	183.60	487.65	4,526.61	4,504.17	23.08
P-11	CB-14	OF-1	4,500.29	4,491.26	60.0	0.013	636.0	0.014	59.020	0.545	183.43	310.32	4,504.17	4,494.03	16.46
P-12	CB-7	CB-15	4,593.83	4,588.91	36.0	0.013	732.0	0.007	0.000	3.250	52.50	54.68	4,596.19	4,591.27	8.81
P-13	CB-15	CB-8	4,588.91	4,570.26	36.0	0.013	1,584.0	0.012	0.000	3.250	52.50	72.37	4,591.27	4,572.15	11.16
P-14	CB-6	CB-16	4,619.12	4,611.43	36.0	0.024	67.0	0.115	0.000	3.250	52.50	122.39	4,621.48	4,612.80	16.65
P-15	CB-16	CB-7	4,601.47	4,593.85	36.0	0.024	416.0	0.018	0.000	3.250	52.50	48.89	4,604.24	4,596.21	7.71
P-16	CB-5	CB-17	4,555.92	4,552.94	48.0	0.013	386.0	0.008	43.720	0.573	105.26	126.20	4,559.03	4,556.09	11.24
P-17	CB-17	CB-18	4,552.94	4,544.78	48.0	0.013	1,044.0	0.008	49.080	0.569	108.18	126.99	4,556.09	4,548.23	11.35
P-18	CB-18	CB-19	4,544.78	4,544.22	48.0	0.013	97.0	0.006	49.080	0.560	107.71	109.14	4,548.23	4,547.83	9.90
P-19	CB-19	CB-20	4,544.22	4,540.88	48.0	0.013	683.0	0.005	49.080	0.559	107.66	100.44	4,547.83	4,544.09	8.93
P-20	CB-20	CB-80	4,540.88	4,532.81	48.0	0.013	209.0	0.039	59.020	0.551	112.79	282.24	4,544.09	4,536.69	21.20
P-21	CB-12	CB-80	4,533.50	4,532.81	48.0	0.013	92.0	0.007	0.000	3.250	71.00	124.39	4,536.74	4,536.69	10.23

Lehi Storm Drain Master Plan
Upper 300 East Drain



Date Created: January 31, 2014

upper300eastmod.stc

upper300eastmod.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
MH-1	4,745.00	4,741.50	4,742.85	4,742.85

upper300eastmod.stc

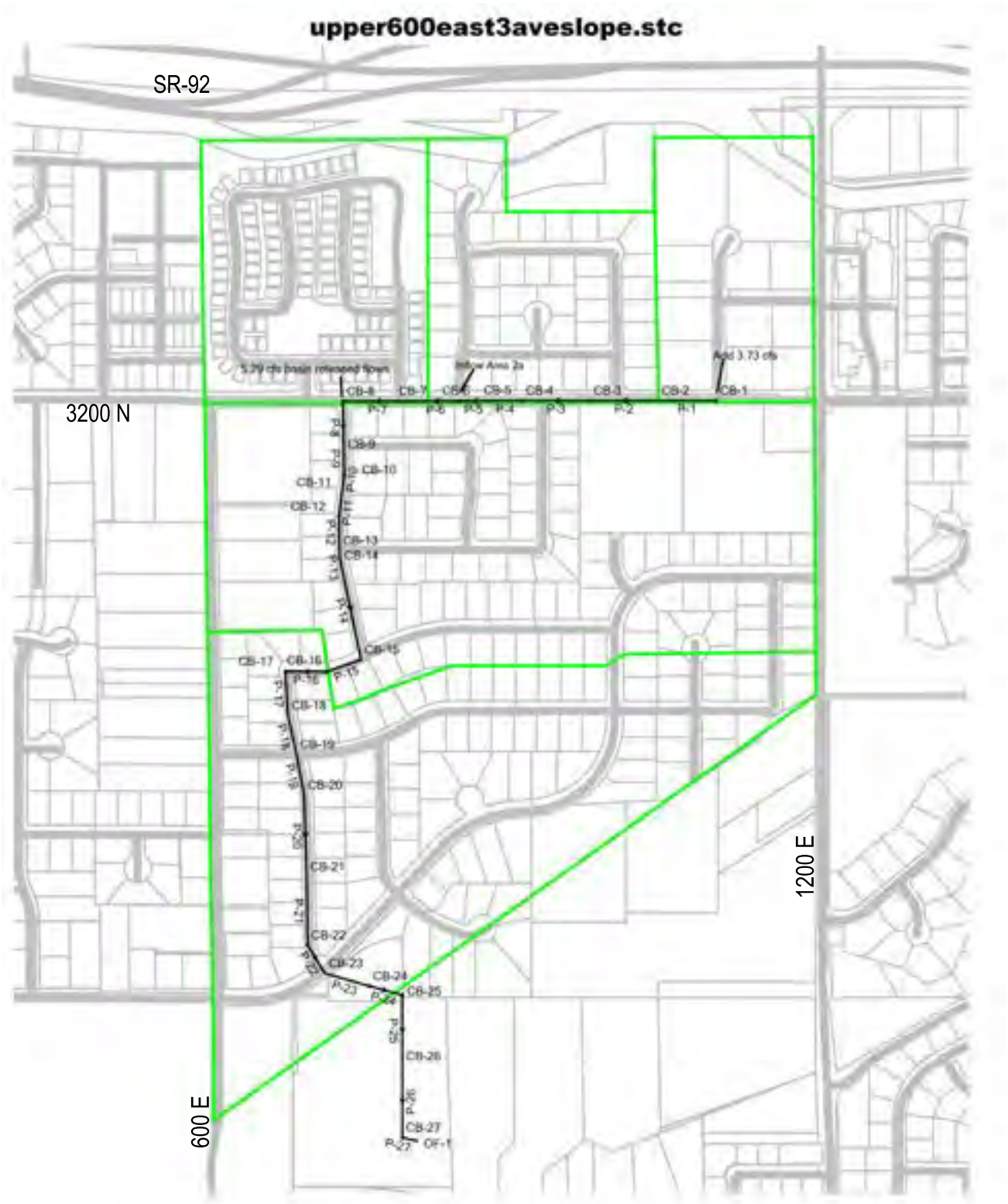
Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,761.00	4,757.50	17.380	77.660	0.00	4,758.85	4,758.85

upper300eastmod.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	MH-1	4,757.50	4,741.50	18.0	0.013	357.0	0.045	17.380	0.741	12.98	22.24	4,758.85	4,742.32	13.07
P-2	MH-1	OF-1	4,741.50	4,676.50	18.0	0.013	400.0	0.163	17.380	0.738	12.93	42.34	4,742.85	4,677.07	21.06

Lehi Storm Drain Master Plan
Upper 600 East Drain

Date Created: January 31, 2014



upper600east3aveslope.stc
3/6/2014

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W
Watertown, CT 06795 USA +1-203-755-1666

Bentley StormCAD V8i (SELECTseries 1)
[08.11.00.44]
Page 1 of 1

upper600east3aveslope.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,806.63	4,797.26	0.000	0.000	3.73	4,798.16	4,798.16
CB-2	4,804.82	4,796.74	0.000	0.000	0.00	4,797.58	4,797.58
CB-3	4,803.75	4,796.10	0.000	0.000	0.00	4,796.87	4,796.87
CB-4	4,802.32	4,795.17	0.000	0.000	0.00	4,796.08	4,796.08
CB-5	4,801.85	4,794.95	0.000	0.000	0.00	4,795.84	4,795.84
CB-6	4,801.62	4,794.42	8.830	67.560	0.00	4,795.81	4,795.81
CB-7	4,801.02	4,793.67	0.000	0.000	0.00	4,795.21	4,795.21
CB-8	4,800.19	4,792.29	0.000	0.000	5.29	4,793.79	4,793.79
CB-9	4,796.85	4,791.50	0.000	0.000	0.00	4,793.10	4,793.10
CB-10	4,796.64	4,791.18	0.000	0.000	0.00	4,792.93	4,792.93
CB-11	4,796.33	4,791.20	0.000	0.000	0.00	4,792.55	4,792.55
CB-12	4,795.78	4,790.58	0.000	0.000	0.00	4,792.11	4,792.11
CB-13	4,795.11	4,790.09	0.000	0.000	0.00	4,791.81	4,791.81
CB-14	4,795.17	4,789.93	0.000	0.000	0.00	4,791.75	4,791.75
CB-15	4,796.10	4,788.40	27.850	114.440	0.00	4,791.17	4,791.17
CB-16	4,795.45	4,787.79	0.000	0.000	0.00	4,790.42	4,790.42
CB-17	4,795.11	4,787.17	0.000	0.000	0.00	4,789.59	4,789.59
CB-18	4,794.23	4,786.53	0.000	0.000	0.00	4,788.79	4,788.79
CB-19	4,793.88	4,785.94	0.000	0.000	0.00	4,787.73	4,787.73
CB-20	4,792.83	4,782.65	0.000	0.000	0.00	4,784.44	4,784.44
CB-21	4,791.41	4,780.03	0.000	0.000	0.00	4,781.89	4,781.89
CB-22	4,789.90	4,778.14	0.000	0.000	0.00	4,779.94	4,779.94
CB-23	4,789.42	4,777.30	26.812	125.190	0.00	4,779.50	4,779.50
CB-24	4,752.25	4,745.02	0.000	0.000	0.00	4,747.13	4,747.13
CB-25	4,752.40	4,742.05	0.000	0.000	0.00	4,744.10	4,744.10
CB-26	4,704.96	4,696.98	0.000	0.000	0.00	4,699.01	4,699.01
CB-27	4,674.99	4,669.69	0.000	0.000	0.00	4,671.64	4,671.64

upper600east3aveslope.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,797.26	4,796.87	24.0	0.013	257.0	0.002	0.000	3.250	3.73	8.81	4,798.16	4,797.58	2.69
P-2	CB-2	CB-3	4,796.74	4,796.15	24.0	0.013	299.0	0.002	0.000	3.250	3.73	10.05	4,797.58	4,796.87	2.96
P-3	CB-3	CB-4	4,796.10	4,795.28	24.0	0.013	299.0	0.003	0.000	3.250	3.73	11.85	4,796.87	4,796.08	3.34
P-4	CB-4	CB-5	4,795.17	4,794.95	24.0	0.013	149.0	0.001	0.000	3.250	3.73	8.69	4,796.08	4,795.84	2.66
P-5	CB-5	CB-6	4,794.95	4,794.42	24.0	0.013	130.0	0.004	0.000	3.142	3.73	14.44	4,795.84	4,795.81	3.86
P-6	CB-6	CB-7	4,794.42	4,793.72	24.0	0.013	207.0	0.003	8.830	0.803	10.88	13.15	4,795.81	4,795.21	4.68
P-7	CB-7	CB-8	4,793.67	4,792.90	24.0	0.013	304.0	0.003	8.830	0.799	10.84	11.38	4,795.21	4,794.08	4.12
P-8	CB-8	CB-9	4,792.29	4,791.50	30.0	0.013	234.0	0.003	8.830	0.791	16.06	23.83	4,793.79	4,793.10	5.21
P-9	CB-9	CB-10	4,791.50	4,791.18	30.0	0.013	95.0	0.003	8.830	0.787	16.02	23.80	4,793.10	4,792.93	5.20
P-10	CB-10	CB-11	4,791.18	4,791.20	30.0	0.013	47.0	0.000	8.830	0.785	16.00	-8.46	4,792.93	4,792.55	3.26
P-11	CB-11	CB-12	4,791.20	4,790.58	30.0	0.013	132.0	0.005	8.830	0.783	15.99	28.11	4,792.55	4,792.11	5.91
P-12	CB-12	CB-13	4,790.58	4,790.09	30.0	0.013	145.0	0.003	8.830	0.781	15.97	23.84	4,792.11	4,791.81	5.21
P-13	CB-13	CB-14	4,790.09	4,789.93	30.0	0.013	45.0	0.004	8.830	0.778	15.95	24.46	4,791.81	4,791.75	5.31
P-14	CB-14	CB-15	4,789.93	4,788.40	30.0	0.013	455.0	0.003	8.830	0.777	15.94	23.78	4,791.75	4,791.17	5.19
P-15	CB-15	CB-16	4,788.40	4,787.79	30.0	0.013	160.0	0.004	36.680	0.514	28.03	25.32	4,791.17	4,790.42	5.71
P-16	CB-16	CB-17	4,787.79	4,787.17	30.0	0.013	183.0	0.003	36.680	0.511	27.93	23.87	4,790.42	4,789.59	5.69
P-17	CB-17	CB-18	4,787.17	4,786.53	30.0	0.013	190.0	0.003	36.680	0.508	27.81	23.80	4,789.59	4,788.79	5.66
P-18	CB-18	CB-19	4,786.53	4,785.94	30.0	0.013	175.0	0.003	36.680	0.505	27.68	23.81	4,788.79	4,787.73	5.64
P-19	CB-19	CB-20	4,785.94	4,782.70	30.0	0.013	183.0	0.018	36.680	0.501	27.56	54.57	4,787.73	4,783.96	11.14
P-20	CB-20	CB-21	4,782.65	4,780.03	30.0	0.013	360.0	0.007	36.680	0.500	27.50	34.99	4,784.44	4,781.89	7.89
P-21	CB-21	CB-22	4,780.11	4,778.15	30.0	0.013	302.0	0.006	36.680	0.495	27.33	33.04	4,781.89	4,779.94	7.52
P-22	CB-22	CB-23	4,778.14	4,777.30	30.0	0.013	145.0	0.006	36.680	0.491	27.17	31.22	4,779.94	4,779.50	7.16
P-23	CB-23	CB-24	4,777.39	4,745.02	30.0	0.013	204.0	0.159	63.492	0.469	39.02	163.38	4,779.50	4,745.85	27.31
P-24	CB-24	CB-25	4,745.02	4,742.05	30.0	0.013	149.0	0.020	63.492	0.468	39.00	57.91	4,747.13	4,743.57	12.66
P-25	CB-25	CB-26	4,742.15	4,696.98	24.0	0.013	315.0	0.143	63.492	0.468	38.98	85.66	4,744.10	4,699.01	26.63
P-26	CB-26	CB-27	4,697.06	4,669.69	24.0	0.013	315.0	0.087	63.492	0.468	38.95	66.68	4,699.01	4,670.79	22.05
P-27	CB-27	OF-1	4,669.69	4,666.53	24.0	0.013	71.0	0.045	63.492	0.467	38.92	47.72	4,671.64	4,668.01	16.93

Lehi Storm Drain Master Plan
Upper 1200 East Drain

Date Created: March 17, 2014


upper1200eastmod.stc
SR-92
3200 N
Utah Highland Dr.
1200 E
2600 N

upper1200eastmod.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,806.00	4,802.50	10.177	81.390	0.00	4,803.55	4,803.55
CB-2	4,793.00	4,789.50	4.611	70.620	0.00	4,790.74	4,790.74

upper1200eastmod.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,802.50	4,789.50	18.0	0.013	1,229.0	0.011	10.177	0.718	7.37	10.80	4,803.55	4,790.74	6.58
P-2	CB-2	OF-1	4,789.50	4,694.50	18.0	0.013	719.0	0.132	14.788	0.699	10.42	38.18	4,790.74	4,695.04	18.40

Date Created: January 30, 2014


SR-92
3200 N
300 W
I-15
1200 W
2600 N

westfoxmod.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,647.84	4,643.63	0.000	0.000	33.92	4,645.52	4,645.52
CB-2	4,648.50	4,642.60	0.000	0.000	0.00	4,644.49	4,644.49
CB-3	4,649.77	4,641.51	0.000	0.000	0.00	4,643.40	4,643.40
CB-4	4,645.20	4,640.87	0.000	0.000	0.00	4,642.76	4,642.76
CB-5	4,644.00	4,639.16	0.000	0.000	10.59	4,641.33	4,641.33
CB-6	4,639.00	4,630.66	0.000	0.000	0.00	4,633.04	4,633.04
CB-7	4,637.15	4,630.39	0.000	0.000	0.00	4,632.79	4,632.79
CB-8	4,637.27	4,630.08	0.000	0.000	0.00	4,632.52	4,632.52
CB-9	4,630.63	4,626.28	0.000	0.000	0.00	4,628.80	4,628.80
CB-10	4,632.83	4,625.16	0.000	0.000	7.98	4,627.84	4,627.84
CB-11	4,629.00	4,624.85	0.000	0.000	0.00	4,627.21	4,627.21

westfoxmod.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,643.63	4,642.60	36.0	0.013	172.0	0.006	0.000	8.000	33.92	51.61	4,645.52	4,644.37	7.79
P-2	CB-2	CB-3	4,642.60	4,641.51	36.0	0.013	209.0	0.005	0.000	8.000	33.92	48.17	4,644.49	4,643.37	7.38
P-3	CB-3	CB-4	4,641.51	4,640.87	36.0	0.013	123.0	0.005	0.000	8.000	33.92	48.11	4,643.40	4,642.73	7.38
P-4	CB-4	CB-5	4,640.87	4,639.16	36.0	0.013	326.0	0.005	0.000	8.000	33.92	48.30	4,642.76	4,641.33	7.40
P-5	CB-5	CB-6	4,639.16	4,630.76	36.0	0.013	1,354.0	0.006	0.000	8.000	44.51	52.53	4,641.33	4,633.04	8.34
P-6	CB-6	CB-7	4,630.66	4,630.49	36.0	0.013	39.0	0.004	0.000	8.000	44.51	44.03	4,633.04	4,632.79	7.10
P-7	CB-7	CB-8	4,630.39	4,630.18	36.0	0.013	48.0	0.004	0.000	8.000	44.51	44.11	4,632.79	4,632.52	7.11
P-8	CB-8	CB-9	4,630.08	4,626.38	36.0	0.013	818.0	0.005	0.000	8.000	44.51	44.86	4,632.52	4,628.80	7.23
P-9	CB-9	CB-10	4,626.28	4,625.26	36.0	0.013	236.0	0.004	0.000	8.000	44.51	43.85	4,628.80	4,627.84	7.07
P-10	CB-10	CB-11	4,625.16	4,624.85	36.0	0.013	67.0	0.005	0.000	8.000	52.49	45.37	4,627.84	4,627.21	7.43
P-11	CB-11	OF-1	4,624.85	4,619.12	36.0	0.013	409.0	0.014	0.000	8.000	52.49	78.94	4,627.21	4,620.91	11.95

Lehi Storm Drain Master Plan
West - 10400 North

Date Created: May 11, 2014

west 10400 North mod.stc

west 10400 North mod.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-2	4,578.25	4,571.00	78.000	101.050	0.00	4,573.23	4,573.23
CB-3	4,550.20	4,546.20	0.000	0.000	0.00	4,548.38	4,548.38

west 10400 North mod.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-2	CB-2	CB-3	4,571.00	4,546.20	36.0	0.013	2,610.0	0.010	78.000	0.597	46.93	65.01	4,573.23	4,548.09	10.02
P-3	CB-3	OF-1	4,546.20	4,531.00	36.0	0.013	1,601.0	0.009	78.000	0.570	44.82	64.99	4,548.38	4,532.83	9.92

Lehi Storm Drain Master Plan
West - 2100 North

west 2100 North.stc

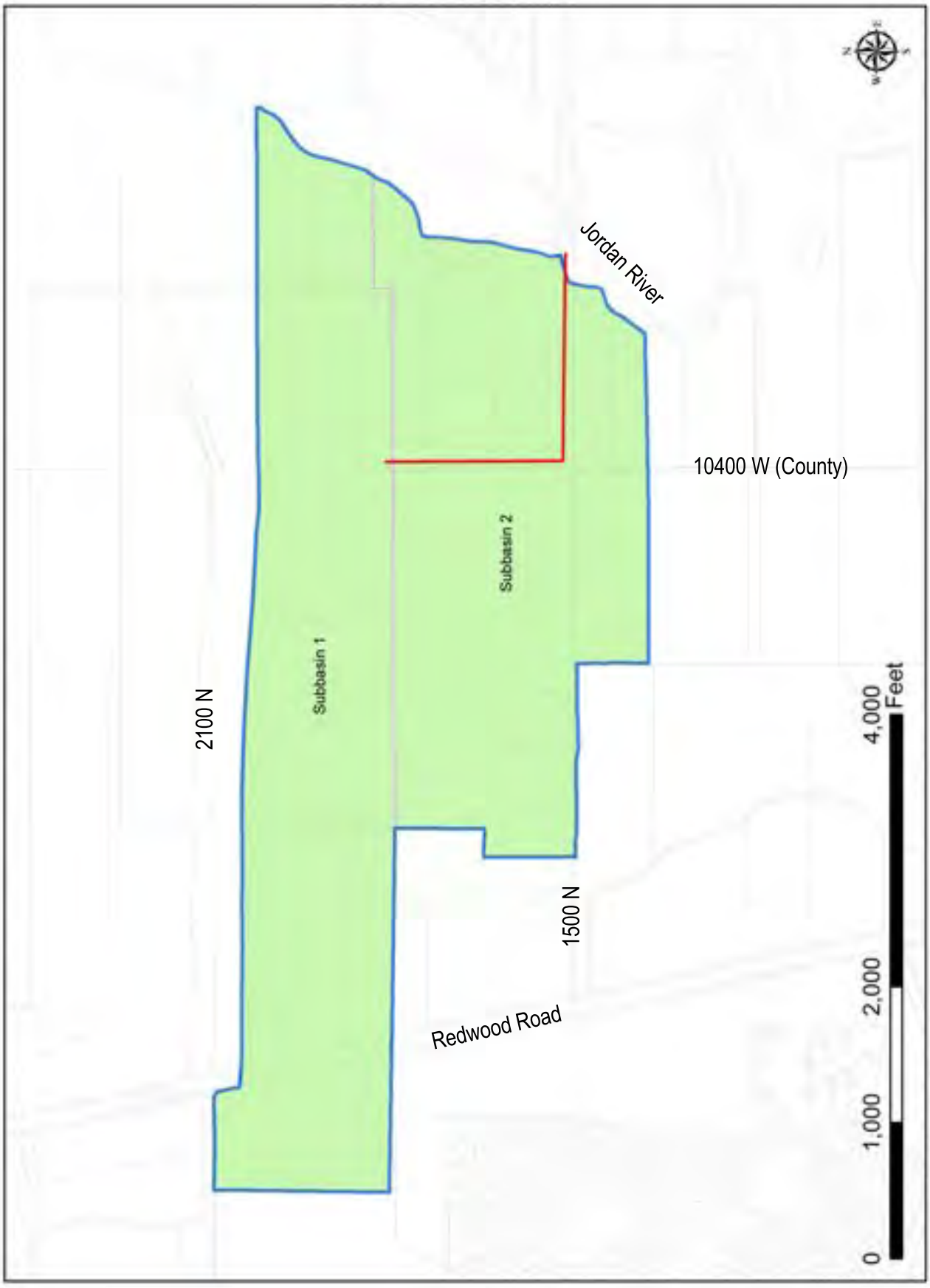
west 2100 North.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,675.00	4,671.00	62.000	44.770	0.00	4,673.44	4,673.44
CB-2	4,584.00	4,579.00	46.540	53.000	0.00	4,582.14	4,582.14
CB-3	4,537.00	4,531.00	66.000	94.990	0.00	4,534.28	4,534.28
CB-4	4,523.00	4,514.50	60.260	119.560	0.00	4,517.73	4,517.73

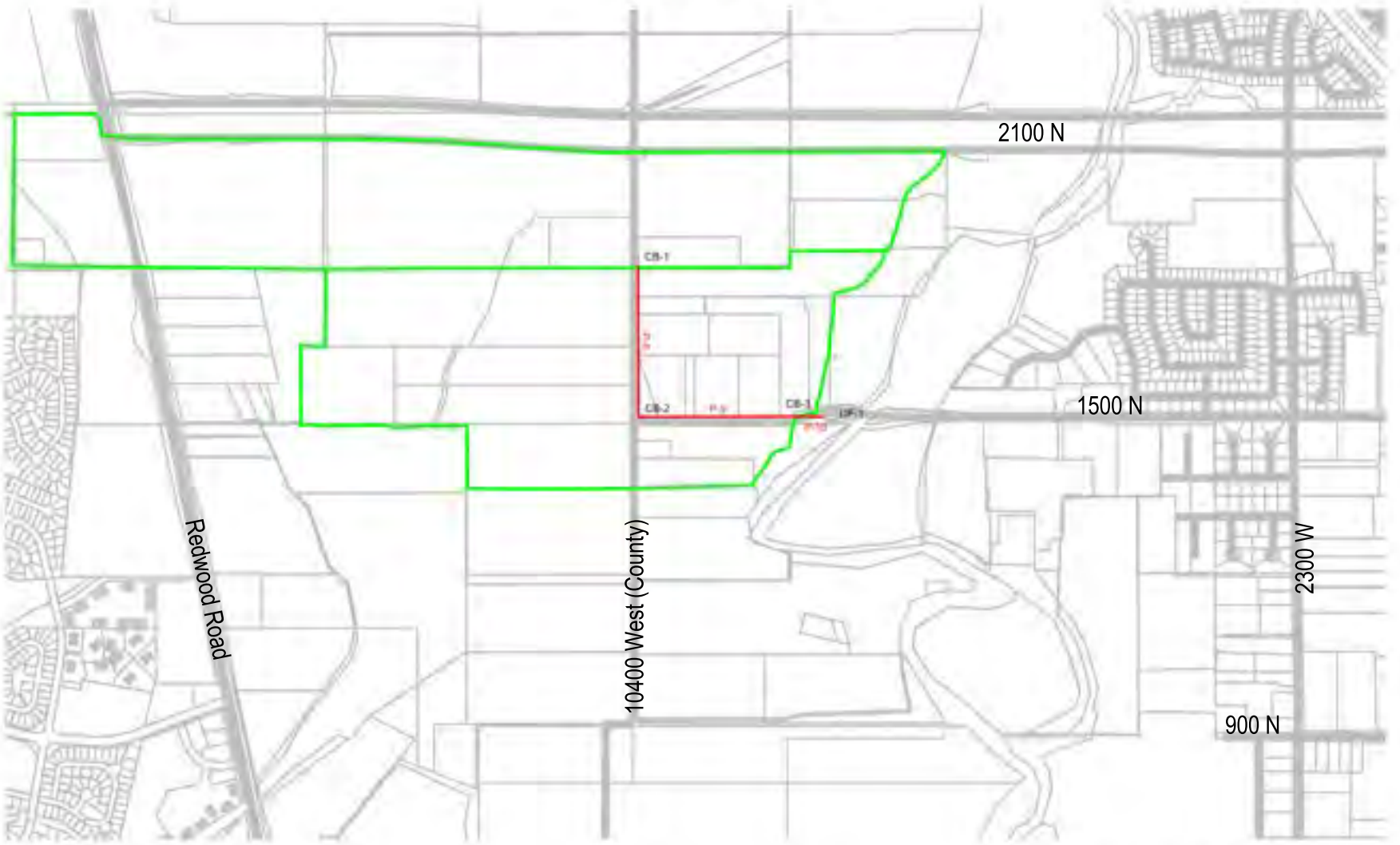
west 2100 North.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-4	CB-5	4,671.00	4,580.00	30.0	0.013	1,820.0	0.050	62.000	1.119	69.94	91.71	4,673.44	4,581.63	20.57
P-2	CB-5	CB-6	4,579.00	4,531.50	42.0	0.013	2,673.0	0.018	108.540	0.974	106.53	134.11	4,582.14	4,533.86	15.47
P-3	CB-6	CB-7	4,531.00	4,514.50	48.0	0.013	2,737.0	0.006	174.540	0.634	111.58	111.52	4,534.28	4,517.73	10.12
P-4	CB-7	OF-2	4,514.50	4,497.00	48.0	0.013	243.0	0.072	234.800	0.483	114.25	385.46	4,517.73	4,498.52	26.72

Lehi Storm Drain Master Plan
West - 1500 North



west 1500 North.stc



west 10400 North mod.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-2	4,578.25	4,571.00	78.000	101.050	0.00	4,573.23	4,573.23
CB-3	4,550.20	4,546.20	0.000	0.000	0.00	4,548.38	4,548.38

west 1500 North mod.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-8	CB-1	CB-2	4,522.00	4,515.00	42.0	0.013	1,299.0	0.005	74.470	1.008	75.64	73.85	4,524.95	4,517.72	8.74
P-9	CB-2	CB-3	4,514.50	4,502.50	48.0	0.013	1,351.0	0.009	142.830	0.787	113.30	135.37	4,517.71	4,505.30	12.06
P-10	CB-3	OF-1	4,502.50	4,489.50	42.0	0.013	234.0	0.056	142.830	0.775	111.65	237.13	4,505.69	4,491.24	24.28

Lehi Storm Drain Master Plan
West - 900 North

Date Created: March 14, 2014

west 900 North.stc

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W
Watertown, CT 06795 USA +1-203-755-1666

west 900 North.stc

Label	Elevation (Rim) (ft)	Elevation (Invert) (ft)	External CA (acres)	External Tc (min)	Flow (Additional Carryover) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)
CB-1	4,525.00	4,521.00	55.400	120.570	0.00	4,522.76	4,522.76
CB-2	4,510.00	4,505.00	61.730	76.100	0.00	4,507.66	4,507.66
CB-3	4,490.00	4,485.00	0.000	0.000	0.00	4,487.72	4,487.72
CB-4	4,526.00	4,522.50	34.040	63.360	0.00	4,524.34	4,524.34

west 900 North.stc

Label	Start Node	Stop Node	Invert (US) (ft)	Invert (DS) (ft)	Dia. (in)	Rough (n)	Length (ft)	Slope (ft/ft)	System CA (acres)	System Intensity (in/hr)	Flow (ft^3/s)	Capacity (Design) (ft^3/s)	Hydraulic Grade Line (In) (ft)	Hydraulic Grade Line (Out) (ft)	Vel. (Ave) (ft/s)
P-1	CB-1	CB-2	4,521.00	4,506.00	30.0	0.013	1,105.0	0.014	55.400	0.479	26.74	47.79	4,522.76	4,507.34	10.01
P-2	CB-2	CB-3	4,505.00	4,485.00	42.0	0.013	1,896.0	0.011	151.170	0.475	72.35	103.33	4,507.66	4,487.72	11.62
P-3	CB-3	OF-1	4,485.00	4,483.00	42.0	0.013	357.0	0.006	151.170	0.469	71.45	75.30	4,487.72	4,485.65	8.91
P-4	CB-4	CB-2	4,522.50	4,506.50	24.0	0.013	508.0	0.031	34.040	0.829	28.45	40.15	4,524.34	4,507.74	13.87

APPENDIX B

BASIN DELINEATION AND MODELED TRUNKLINES MAP *(Placed in Pocket)*

Basin Delineation and Modeled Trunklines

Produced by Civil Science, Inc
February 18, 2014 1:21,000

N
W E
S

2,750 1,375 0 2,750 5,500
Feet

Traverse Mountain
Micron
Thanksgiving Point

Pilgrim's Landing
Ivory Homes
Ivory Ridge
Sandpit Detention
Upper 1200 East
Upper 600 East
Upper 300 East
Sandpit Drain
Mini Creek Upper
Cedar Hollow
Mill Pond East
Mill Pond West
Costco Drain
500 North Drain
Pool
High School
Colony Point
Jordan Willows
Gray Farms
Independent System
Spring Creek Ranch
Mini Creek Lower
Cedar Hollow Road
100 East / I -15
Lower Center Street
Pioneer Crossing

UDOT Fox
West Fox
Industrial Drain
Lehi Block
2100 North Drain North
2100 North Drain South
1500 North
1350 North
900 North Drain
300 North Drain
300 South Drain
1100 West Drain
500 West Drain
1700 West
1200 South
Saratoga Road
West - 10400 North
West - 2100 North
West -1500 North
West -900 North
Mini Creek Upper
300 East Drain

1200 W.
Center St.
1200 E.
3200 N.
2600 N.
2100 N.
1500 N.
900 N.
300 N.
1900 S.
700 S.
Main St.
State Street
2300 W.
1700 W.
1100 W.
500 W.
300 W.
600 E.
300 E.

Legend

- Pipes - Trunkline (Proposed)
- Pipes - Trunkline (Existing)
- Planned Drainage Areas
- Existing Detention Basins
- Planned Detention Basins
- Water Ways

APPENDIX C

STORM DRAIN PROPOSED IMPROVEMENTS *(Placed in Pocket)*

Lehi City Storm Water Drainage Master Plan

Approved by the Lehi City Council on May 12, 2015

Scale: 1:12,000

1,000 500 0 1,000 2,000 3,000 4,000 Feet

N W E S

See Traverse Mountain Area Plan

See Micron Area Plan

Outflow = 0.07 CFS / Acre (Or Less)

Outflow = 0.13 CFS / Acre (Or Less)

Outflow = 0.10 CFS / Acre (Or Less)

Traverse Mountain B

Harvest Homes

Timpanogos Hwy

Bull River Run

Foxmoor Ridge

Fox Run

Owen Dean

Smithfield Ridge

Hillcreek

Willow Brooke

Rail Trail

Woods Meadows

Westview Acres

Dahl

Canyon View Estates

Summerset

Sunset Meadows

Holiday Acres

Prets Place

Benny Estates

Cedar Hollow Estates

Dairy View Estates

Autumn Ridge Estates

Old Farm Estates

Lehi Ranches

Park View

Aspen Ridge

Anthem Country Estates

North Lake

Spring Creek Ranch

Spring Creek Ranch 2

Ashton Blvd

Redwood Road

Main Street

Pioneer Crossing Blvd

Ashton Blvd

Center Street

Main St

500 West

600 East

850 East

1200 East

1700 West

2300 West

3200 North

2600 North

2100 North

1500 North

900 North

700 South

300 North

300 West

1100 West

Legend

- Existing Sumps
- Storm Drain Manholes
- Storm Drain Outlets
- Storm Drain Lines
- Existing Ditches

Future Storm Drain Lines

Type

- Existing Irrigation Drainage to be Altered
- Proposed Drainage Facility
- Future Detention Basins
- Existing Detention Basins