First Entitlement Submittal

Preliminary Drainage Report

5th & Sterling Avenue
San Bernardino, California

Prepared for:

Fifth & Sterling, LLC, a Delaware Limited Liability Company

5TH & STERLING AVENUE

Preliminary Drainage Report
2023-XXXX

JUNE 2023 | FIRST ENTITLEMENT SUBMITTAL

Prepared By:

Kimley»Horn

This Drainage Report has been prepared by Kimley-Horn and Associates, Inc. under the direct supervision of the following Registered Civil engineer. The undersigned attests to the technical data contained in this study, and to the qualifications of technical specialists providing engineering computations upon which the recommendations and conclusions are based.

_____ _____

Davie Cowan, CA PE 86803
Registered Civil Engineer

Date

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1 INTRODUCTION

1.1 PROJECT DESCRIPTION AND PURPOSE

This Drainage Report is provided in support of the PPD submittal for the proposed Warehouse in San Bernardino, California.

The existing project site is approximately ±24.72 acres located at the northeast corner of 5th Street and Sterling Avenue. The project will include a 551,800 SF industrial building with supporting parking, truck yard, and site amenities. The building will include office and warehouse space.

Offsite work includes street improvements up to the existing crown for 5th avenue, 6th avenue, and Sterling Avenue adjacent to the project site. Improvements include updated grading and construction of curb and gutter and public sidewalk.

The project site is currently undeveloped and is unpaved. The existing ground surface cover consists of exposed soil with sparse native grass and weed growth. See **Figure 1-1** for Project Location Map.

This drainage report includes the hydrologic analysis for the existing and proposed conditions as well as the analysis of the onsite underground chamber used to detain peak flows and infiltrate the water quality design capture volume.

Figure 1–1 Project Location Map

2 PROJECT SETTING

2.1 TOPOGRAPHY

Based upon survey and field observation, the existing topography slopes from east to west, eventually sheet flowing onto Sterling Avenue, sheet- flowing from the highest point around elevation 1122 to the lowest point at elevation 1106. The site is located at the intersection of 5th Street and Sterling Avenue. Please refer to the existing conditions hydrology exhibit included in **Appendix C.**

2.2 PRECIPITATION

Precipitation values for the hydrologic analysis were determined from site specific precipitation frequency estimates published online in the NOAA Atlas 14. For this site (San Bernardino, California) the 100-year, 1-hour storm precipitation depth equal to 1.35 inches was used in both the storm water flow and volume calculations. The 100-year 6-hour and 100-year 24-hour depths equal to 2.84 inches and 5.42 inches respectively were used in the volume calculations. **Appendix A** contains the site-specific tabular output from NOAA Atlas 14.

2.3 WATERSHED DESCRIPTION

The project has approximately 16' of fall and the regional topography slopes from east to west. The project site is part of a larger drainage area tributary to the Santa Ana River Watershed. Existing runoff from this project would sheet flow to the west of property, onto Sterling Avenue and eventually discharges to Santa Ana River.

2.4 SOIL TYPES

The type of soil and soil conditions are major factors affecting infiltration and resultant storm water runoff. The Natural Resources Conservation Service (NRCS) has classified soils into four general hydrologic soil groups for comparing infiltration and runoff rates. The groups are based on properties that influence runoff, such as water infiltration rate, texture, natural discharge and moisture condition. The runoff potential is based on the amount of runoff at the end of a long duration storm that occurs after wetting and swelling of the soil not protected by vegetation.

Using the NRCS GIS soil data, this site was identified as Tujunga gravelly loam (TvC) and Tujunga loamy sand (TuB). A small percentage (about 10%) is Hanford coarse sandy loam (HaC). The hydrologic classifications of the soil per San Bernardino Hydrology Manual is classified as Group A soil. Group A soils typically have low runoff potential with high infiltration rates when thoroughly wetted and consist chiefly of deep, well drained sands or gravels. **See Appendix L** for soil type classifications and additional information per the geotechnical report.

2.5 FEMA MAPPING

The project site is covered by Map Number 06071C8701J of the FEMA Flood Insurance Rate Map (FIRM) for San Bernardino County, California, and Incorporated Areas. The City of San Bernardino, community number 060281, is included in this FIRM. None of the project area is within a FEMA–mapped special flood hazard area. The site is classified as Zone X, which is an area of minimal flooding. The effective FEMA map is provided in **Appendix B.**

3 SITE CONDITIONS

3.1 EXISTING SITE CONDITIONS

The site is located at the intersection of 5th Street and Sterling Avenue. Based upon survey and field observation, the site slopes from the east to west, and sheetflows onto Sterling Ave. Please refer to the existing conditions hydrology exhibit included in **Appendix C.**

3.2 PROPOSED SITE CONDITIONS

Stormwater generated by the proposed development will be captured and conveyed to an on-site underground chamber through a network of proposed catch basins and underground piping. The proposed chamber will serve as both a water quality BMP as well as an underground storage facility to detain peak flow rates. During large storm events, runoff will surcharge the proposed pipe out of the underground infiltration chamber system and bubble out at the hydraulically lowest grate inlet, which is near the driveway approach on Spruce Avenue. The water that bubbles out will continue through an under sidewalk drain and discharges to the street, emulating existing conditions and overflowing to the street. For the purposes of this preliminary report, the underground chamber retardation of flow will be ignored. For all water quality calculations and documentation refer to the Preliminary Water Quality Management Plan. The site hydrologic basins were delineated based on the proposed grading. Refer to the Proposed Drainage Exhibit, included within **Appendix C**.

3.3 OFFSITE CONDITIONS

Offsite work includes street improvements up to the existing crown for 5th Street, 6th Street, and Sterling Avenue adjacent to the project site. Improvements include updated grading and construction of curb and gutter and public sidewalk.

4 HYDROLOGIC ANALYSIS

4.1 METHODOLOGY

Runoff calculations were prepared using the Modified Rational Method and the methodology described in Section D of the San Bernardino County Hydrology Manual (August 1986). AES HydroWin software (San Bernardino module) was used to estimate time of concentrations and 100 peak flow rates generated from the existing/ pre-developed conditions (see **Appendix D**).

Unit hydrographs were prepared using the methodology described in Section E of the San Bernardino County Hydrology Manual for determining the 100-year storm water volumes. AES HydroWin software (San Bernardino module) was used to estimate the 100-year peak flow rates and volumes over a 24-hour period for the proposed condition (see **Appendix E**).

A stage-storage analysis in conjunction with the peak flow rates and volumes from AES was prepared for the purposes of sizing and analyzing the proposed underground chamber characteristics. The stage-storage analysis and the hydrographs from AES were imported into PondPack to determine the 100-year mitigated flow rate.

4.1.1 GEOMETRY

Drainage Basin Areas were delineated for the project site's existing and proposed drainage conditions. Existing elevations, slopes and flow paths were established from the topography available at the time of this drainage study. Proposed elevations, slopes and flow paths were based on the proposed site grading plan. These hydrologic parameters are shown for existing and proposed conditions on Hydrology Exhibits in **Appendix C**.

4.1.2 INTENSITY AND TIME OF CONCENTRATION

Rainfall depths were gathered from the NOAA Atlas 14 precipitation frequency table for the project site location. The existing conditions and proposed conditions time of concentrations were calculated within AES given the drainage areas characteristics. The time of concentration for proposed conditions with small drainage areas were assumed to be 5 minutes as a conservative approach which is a valid assumption given that the basins travel relatively short distances.

The time of concentration calculated from the Modified Rational Method was used to calculate the lag time necessary to develop the unit hydrographs within the AES software.

4.1.3 CURVE NUMBERS AND LOSS RATES

The Antecedent Moisture Condition (AMC) is a common index used to describe how saturated a soil is before the design storm occurs. AMC III, which assumes the watershed is already saturated, was used for the 100-year storm analysis. AMC I was used for the 2-year analysis. The San Bernardino County Hydrology Manual provides Curve Numbers of Hydrologic Soil-Cover for AMC II. These AMC II Curve Numbers can be converted to AMC III Curve Numbers manually by use of Table C.1 from the San Bernardino County Hydrology Manual. However, AES automatically does this conversion within the program analysis. The existing condition's land use consists of annual grass with poor ground cover. The proposed condition's land use is predominantly impervious with some commercial landscaping.

Loss Rates were calculated by using the methodology presented in Section C.6 of the San Bernardino County Hydrology Manual. The Loss Rate calculation is a function of the Curve Number, Initial Abstraction and 24-hour rainfall depth, and was used to develop the unit hydrograph.

4.2 HYDROLOGIC RESULTS

Rational Method hydrologic results for onsite existing conditions and proposed conditions are summarized in **Table 4-1** and **Table 4-2**. Refer to **Appendix D** and **Appendix E** for the existing and proposed conditions hydrology analysis respectively.

Table 4–1 Onsite Existing Conditions Modified Rational Method Hydrology Results Summary

Existing Conditions Rational Method Onsite Flow Rates		
DMA ID	**Area (acre)**	**Q_{100} (cfs)**
DMA1	12.55	22.03
DMA2	12.56	21.65
TOTAL	**25.11**	**43.68**

Table 4–2 Onsite Proposed Conditions Modified Rational Method Hydrology Results Summary

Proposed Conditions Rational Method Onsite Flow Rates		
DMA ID	**Area (acre)**	**Q_{100} (cfs)**
DA1	9.32	31.75
DA2	15.40	46.80
TOTAL	**24.72**	**78.55**

Table 4–2A Offsite Proposed Conditions Modified Rational Method Hydrology Results Summary

Proposed Conditions Rational Method Offsite Flow Rates		
DMA ID	**Area (acre)**	**Q_{100} (cfs)**
DMA1	1.40	4.41
DMA2	0.70	2.33
DMA3	2.20	6.91
TOTAL	**4.30**	**13.65**

Table 4-3 summarizes the total mitigated outflow for the project area. See Table 4-2A above for offsite flow analysis.

Table 4–3 Proposed Mitigated Outflow Summary

Proposed Mitigated Outflow				
DMA ID	**Proposed Peak Unmitigated Flow (cfs)**	**Proposed Peak Mitigated Flow Out (cfs)**	**Allowable Flow (cfs)**	**Less than allowable?**
100 Year	78.55	0.0 *	43.68	yes

*__Note__: proposed peak mitigated outflow out is 0.0 cfs because the project is designed for full infiltration

Below, results shown in **Table 4-4** are the proposed loss rate estimation from the unit hydrograph method. Refer to **Appendix F** for the proposed conditions hydrology hydrograph method analysis. The AES computer program was used to develop these hydrographs based on the Rational Method analysis results.

Table 4–4 Proposed Onsite Unit Hydrograph Method Loss Rate Estimation Summary

Proposed Unit Hydrograph Method Loss Rate Estimation		
Storm Event	**Average Loss Rate, $F\bar{m}$ (in/hr)**	**Average Low Loss Fraction, $\bar{Y}$**
100 Year	0.074	0.121

5 WATER QUALITY AND LOW IMPACT DEVELOPMENT REQUIREMENTS

5.1 STORMWATER MITIGATION

5.1.1 STORMWATER TREATMENT

The proposed project will provide water quality by means of infiltration. Pre-treatment devices consisting of sedimentation traps with trash racks (catch basin inserts) located at all inlets will be used to pre-treat storm flows prior to discharging into the proposed underground chambers. The underground chambers will treat the remaining pollutants of concerns initially through a sediment settling chamber and then by means of infiltration. The site's 100-year peak volume will be detained by means of underground storage. During large storm events, runoff will surcharge the proposed pipe out of the underground infiltration chamber system and bubble out at the hydraulically lowest grate inlets, which are located near the driveway approach on 5th Street, and bubble out to 5th Street and Sterling Ave. The water that bubbles out will continue through an under sidewalk drain that discharges to the street and ultimately into the Santa Ana River. A low-flow pump will be added to the system for chamber drawdown.

5.1.2 STORMWATER MAINTENANCE

Stormwater facilities require routine maintenance to operate efficiently. It is recommended that facilities be inspected prior to the rainy season (fall) and after each runoff producing storm event. Sediment and debris shall be removed from the pre-treatment system to maintain the systems effectiveness. The underground chambers shall be routinely inspected, and sediment/debris build up removed to maintain efficient operation of the basin.

5.2 UNDERGROUND CHAMBER

5.2.1 UNDERGROUND CHAMBER STANDARDS

The proposed underground chambers were designed using the methodology described in San Bernardino County's Technical Guidance Document for Water Quality Management Plans and Detention Basin Design Criteria, since this system is designed for both water quality and detention. These documents state that:

- An energy dissipating inlet must be provided.
- An emergency overflow pipe to control 100-year proposed flows must be provided.
- A forebay settling basin or separate treatment control measure must be provided as pretreatment.

5.2.2 UNDERGROUND CHAMBER ANALYSIS

Basin Inflow Hydrographs were created using AES computer software for the 100-year storm events. The resulting hydrograph was manually imported into the stage storage spreadsheet to be used for the underground chamber routing calculations. Infiltration is accounted for in the 100-year storm event with an applied factor of safety of 2.5. Per the geotechnical report, there is an infiltration rate of 7.6 in/hr, providing a design rate of 7.6 in/hr / 2.5 = 3.04 in/hr.

5.2.3 UNDERGROUND CHAMBER RESULTS

The proposed underground chamber will infiltrate the entire Design Capture Volume (DCV) and detain 100-year flow rates to below maximum allowable flow rates as discussed in **Section 5.2.1** above. See underground chamber routing calculations in **Appendix I** prepared with the stage storage spreadsheets. **Table 5-1** below summarizes the underground chamber proposed 100-year storage. Infiltration was considered in the 100-year analysis with a factor of safety of 2.5 on the field infiltration rate. The underground chamber will be optimized during final design.

Table 5–1 Detention/Underground 100-YR Chamber Results Summary

BMP 1 Results Summary			
Storm Event	**Proposed Basin Inflow (cfs)**	**Max Water Surface Elevation (ft)**	**Max Storage (cf)**
100 Year	31.75	4.91	62,264

BMP 2 Results Summary			
Storm Event	**Proposed Basin Inflow (cfs)**	**Max Water Surface Elevation (ft)**	**Max Storage (cf)**
100 Year	46.80	4.88	95,773

The most conservative tested infiltration rate on site is 7.6 in/hr per Geotechnical Report prepared by Southern California Geotechnical, dated May 26, 2023, see **Appendix L** for results of infiltration testing on site. For design purposes, a factor of safety of 2.5 is used to size the underground chamber for infiltration and detention of the DCV in the 100-year storm. Refer to **Appendix I** for all chamber design details and analysis results from PondPack.

6 HYDRAULICS ANALYSIS

6.1 HYDRAULIC ANALYSIS

The proposed storm drains and inlet hydraulics were analyzed using the FlowMaster computer software.

6.1.1 STORM DRAIN PIPE CALCULATIONS

Storm drain pipe sizes were preliminarily determined using the flowrates from the proposed AES hydrologic analysis and the FlowMaster computer software. Storm drain pipes onsite are proposed to be HDPE pipe and a Manning's Roughness Coefficient value of 0.013 was used. Pipe's cross sections and results from FlowMaster calculations can be found in **Appendix H**.

6.1.2 INLET CALCULATIONS

Tributary flow rates for the proposed 100-year storm event calculated from the proposed AES hydrologic analysis were used to size all the inlets in the property. The proposed inlet hydraulics were preliminary analyzed using the FlowMaster computer software. Manning's Roughness Coefficient value of 0.015 was used for concrete gutter with asphalt road. All inlets were calculated using a clogging factor of 50% for all grated inlets on grade, grate inlets in sag, and curb inlet in sag. See **Appendix H** for inlet calculation results.

6.1.3 EMERGENCY SPILLWAY

The underground chambers provide storm drain piping with overflow relief in the 100-year storm via a 24" HDPE pipe. For storm events greater than the 100-year peak storm, the emergency spillway in this project is designed to be the proposed inlet and under sidewalk drain near the driveway entrance at Sterling Avenue and 5th Street. DA1 connects to the inlet that bubbles out to Sterling Ave, and DA 2 connects to the inlet that bubbles out to 5th Street. During large storm events, runoff will surcharge the proposed pipe out of the underground infiltration chamber system and bubble out at the hydraulically lowest grate inlet, which is near the driveway approach on 5th Street. The height difference between the lowest elevation at the underground chamber to the emergency spillway is about 12.5' and 8' for Drainage area 1 and 2, respectively. The water that bubbles out will continue through an under sidewalk drain that discharges to the street and ultimately into the Santa Ana River and onto the Santa Ana River Watershed.

APPENDICES

APPENDIX A

NOAA ALTAS 14 PRECIPITATION ESTIMATES

NOAA Atlas 14, Volume 6, Version 2
Location name: San Bernardino, California, USA*
Latitude: 34.1093°, Longitude: -117.2407°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.103** (0.085-0.125)	**0.136** (0.113-0.166)	**0.181** (0.150-0.220)	**0.218** (0.179-0.268)	**0.268** (0.213-0.342)	**0.308** (0.240-0.401)	**0.350** (0.265-0.466)	**0.393** (0.290-0.539)	**0.454** (0.320-0.649)	**0.502** (0.342-0.744)
10-min	**0.147** (0.122-0.179)	**0.195** (0.162-0.237)	**0.259** (0.215-0.316)	**0.312** (0.256-0.383)	**0.385** (0.306-0.490)	**0.442** (0.344-0.575)	**0.501** (0.380-0.668)	**0.564** (0.415-0.773)	**0.650** (0.459-0.931)	**0.719** (0.490-1.07)
15-min	**0.178** (0.148-0.216)	**0.236** (0.196-0.287)	**0.313** (0.260-0.382)	**0.377** (0.310-0.464)	**0.465** (0.370-0.592)	**0.535** (0.415-0.695)	**0.606** (0.459-0.808)	**0.682** (0.502-0.935)	**0.786** (0.555-1.13)	**0.870** (0.593-1.29)
30-min	**0.268** (0.223-0.326)	**0.356** (0.296-0.433)	**0.473** (0.392-0.576)	**0.569** (0.467-0.700)	**0.702** (0.557-0.893)	**0.807** (0.627-1.05)	**0.915** (0.693-1.22)	**1.03** (0.757-1.41)	**1.19** (0.837-1.70)	**1.31** (0.894-1.95)
60-min	**0.396** (0.330-0.481)	**0.526** (0.437-0.639)	**0.698** (0.578-0.851)	**0.840** (0.690-1.03)	**1.04** (0.823-1.32)	**1.19** (0.925-1.55)	**1.35** (1.02-1.80)	**1.52** (1.12-2.08)	**1.75** (1.24-2.51)	**1.94** (1.32-2.87)
2-hr	**0.567** (0.471-0.688)	**0.734** (0.610-0.892)	**0.955** (0.791-1.16)	**1.14** (0.933-1.40)	**1.38** (1.10-1.76)	**1.58** (1.22-2.05)	**1.77** (1.34-2.36)	**1.98** (1.46-2.71)	**2.26** (1.59-3.23)	**2.47** (1.69-3.67)
3-hr	**0.693** (0.577-0.842)	**0.890** (0.739-1.08)	**1.15** (0.951-1.40)	**1.36** (1.12-1.67)	**1.65** (1.31-2.10)	**1.87** (1.45-2.43)	**2.10** (1.59-2.80)	**2.33** (1.72-3.20)	**2.65** (1.87-3.80)	**2.90** (1.98-4.30)
6-hr	**0.963** (0.801-1.17)	**1.23** (1.02-1.49)	**1.58** (1.31-1.92)	**1.86** (1.53-2.29)	**2.24** (1.78-2.85)	**2.54** (1.97-3.30)	**2.84** (2.15-3.79)	**3.15** (2.32-4.32)	**3.57** (2.52-5.11)	**3.89** (2.65-5.77)
12-hr	**1.27** (1.06-1.54)	**1.63** (1.36-1.99)	**2.11** (1.75-2.57)	**2.49** (2.05-3.07)	**3.02** (2.39-3.84)	**3.42** (2.65-4.44)	**3.82** (2.90-5.09)	**4.24** (3.12-5.81)	**4.80** (3.39-6.87)	**5.23** (3.56-7.76)
24-hr	**1.72** (1.53-1.98)	**2.25** (1.99-2.59)	**2.93** (2.59-3.39)	**3.49** (3.06-4.07)	**4.25** (3.60-5.12)	**4.83** (4.01-5.94)	**5.42** (4.39-6.82)	**6.02** (4.75-7.80)	**6.84** (5.18-9.23)	**7.48** (5.47-10.4)
2-day	**2.12** (1.88-2.44)	**2.80** (2.48-3.23)	**3.71** (3.27-4.29)	**4.45** (3.89-5.18)	**5.46** (4.62-6.57)	**6.24** (5.18-7.67)	**7.04** (5.70-8.87)	**7.87** (6.20-10.2)	**9.00** (6.81-12.1)	**9.88** (7.23-13.8)
3-day	**2.30** (2.04-2.65)	**3.08** (2.72-3.55)	**4.11** (3.62-4.75)	**4.96** (4.34-5.78)	**6.13** (5.19-7.38)	**7.04** (5.85-8.66)	**7.98** (6.47-10.1)	**8.96** (7.07-11.6)	**10.3** (7.80-13.9)	**11.4** (8.32-15.9)
4-day	**2.47** (2.18-2.84)	**3.32** (2.94-3.83)	**4.47** (3.94-5.17)	**5.42** (4.74-6.32)	**6.73** (5.70-8.11)	**7.76** (6.44-9.55)	**8.82** (7.15-11.1)	**9.94** (7.83-12.9)	**11.5** (8.68-15.5)	**12.7** (9.28-17.7)
7-day	**2.81** (2.49-3.24)	**3.86** (3.41-4.45)	**5.26** (4.64-6.09)	**6.44** (5.63-7.50)	**8.07** (6.83-9.72)	**9.35** (7.76-11.5)	**10.7** (8.65-13.5)	**12.1** (9.53-15.6)	**14.0** (10.6-18.9)	**15.6** (11.4-21.7)
10-day	**3.04** (2.69-3.50)	**4.22** (3.73-4.87)	**5.80** (5.12-6.71)	**7.13** (6.24-8.31)	**8.98** (7.61-10.8)	**10.4** (8.67-12.8)	**12.0** (9.70-15.1)	**13.6** (10.7-17.6)	**15.8** (12.0-21.3)	**17.6** (12.9-24.5)
20-day	**3.75** (3.32-4.32)	**5.27** (4.66-6.08)	**7.33** (6.46-8.48)	**9.06** (7.93-10.6)	**11.5** (9.74-13.8)	**13.4** (11.1-16.5)	**15.5** (12.5-19.5)	**17.6** (13.9-22.8)	**20.6** (15.6-27.8)	**23.0** (16.8-32.1)
30-day	**4.41** (3.91-5.09)	**6.19** (5.48-7.14)	**8.62** (7.60-9.97)	**10.7** (9.33-12.4)	**13.5** (11.5-16.3)	**15.8** (13.2-19.5)	**18.3** (14.8-23.0)	**20.8** (16.4-27.0)	**24.4** (18.5-33.0)	**27.3** (20.0-38.1)
45-day	**5.31** (4.70-6.12)	**7.36** (6.51-8.49)	**10.2** (8.97-11.8)	**12.6** (11.0-14.6)	**15.9** (13.5-19.2)	**18.6** (15.5-22.9)	**21.5** (17.4-27.0)	**24.5** (19.3-31.7)	**28.7** (21.8-38.8)	**32.2** (23.5-44.9)
60-day	**6.25** (5.54-7.21)	**8.54** (7.56-9.86)	**11.7** (10.3-13.5)	**14.3** (12.6-16.7)	**18.1** (15.4-21.8)	**21.2** (17.6-26.0)	**24.4** (19.7-30.7)	**27.8** (21.9-36.0)	**32.6** (24.7-44.0)	**36.5** (26.7-50.9)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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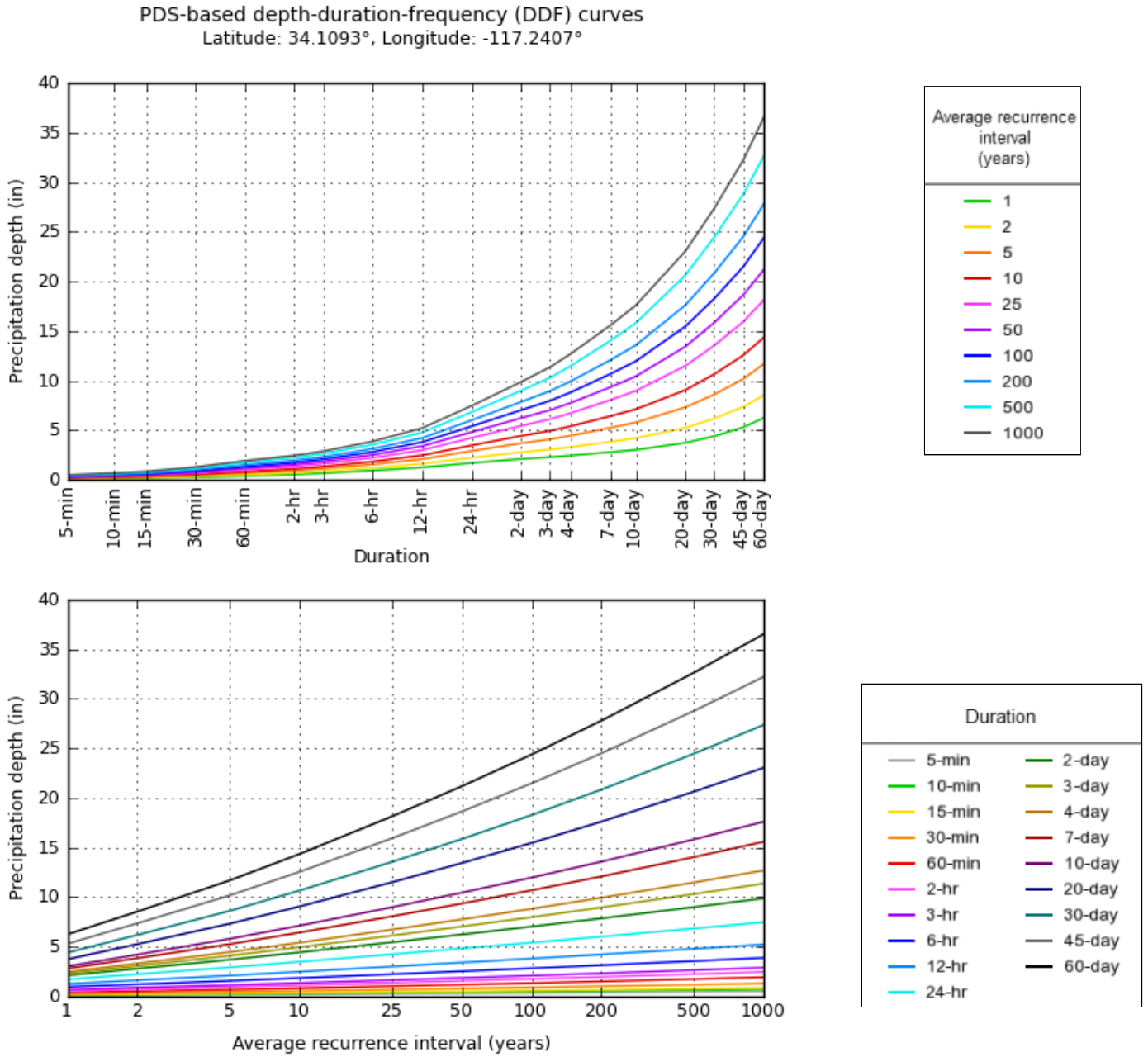
PF graphical



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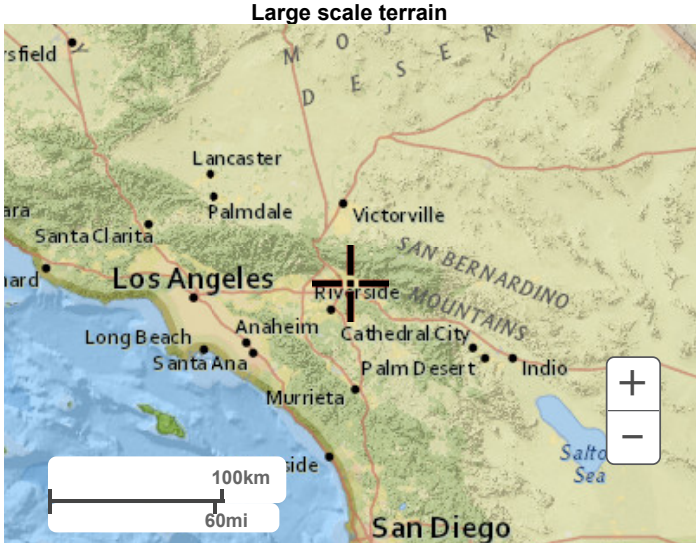
Maps & aerials

Small scale terrain

Large scale terrain



Large scale map

Large scale aerial

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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

NOAA Atlas 14, Volume 6, Version 2
Location name: San Bernardino, California, USA*
Latitude: 34.1093°, Longitude: -117.2407°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches/hour)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	1.24 (1.02-1.50)	1.63 (1.36-1.99)	2.17 (1.80-2.64)	2.62 (2.15-3.22)	3.22 (2.56-4.10)	3.70 (2.88-4.81)	4.20 (3.18-5.59)	4.72 (3.48-6.47)	5.45 (3.84-7.79)	6.02 (4.10-8.93)
10-min	0.882 (0.732-1.07)	1.17 (0.972-1.42)	1.55 (1.29-1.90)	1.87 (1.54-2.30)	2.31 (1.84-2.94)	2.65 (2.06-3.45)	3.01 (2.28-4.01)	3.38 (2.49-4.64)	3.90 (2.75-5.59)	4.31 (2.94-6.40)
15-min	0.712 (0.592-0.864)	0.944 (0.784-1.15)	1.25 (1.04-1.53)	1.51 (1.24-1.86)	1.86 (1.48-2.37)	2.14 (1.66-2.78)	2.42 (1.84-3.23)	2.73 (2.01-3.74)	3.14 (2.22-4.50)	3.48 (2.37-5.16)
30-min	0.536 (0.446-0.652)	0.712 (0.592-0.866)	0.946 (0.784-1.15)	1.14 (0.934-1.40)	1.40 (1.11-1.79)	1.61 (1.25-2.10)	1.83 (1.39-2.44)	2.06 (1.51-2.82)	2.37 (1.67-3.40)	2.62 (1.79-3.89)
60-min	0.396 (0.330-0.481)	0.526 (0.437-0.639)	0.698 (0.578-0.851)	0.840 (0.690-1.03)	1.04 (0.823-1.32)	1.19 (0.925-1.55)	1.35 (1.02-1.80)	1.52 (1.12-2.08)	1.75 (1.24-2.51)	1.94 (1.32-2.87)
2-hr	0.284 (0.236-0.344)	0.367 (0.305-0.446)	0.478 (0.396-0.582)	0.568 (0.466-0.698)	0.692 (0.549-0.880)	0.788 (0.612-1.02)	0.886 (0.672-1.18)	0.988 (0.728-1.36)	1.13 (0.796-1.61)	1.24 (0.842-1.83)
3-hr	0.231 (0.192-0.280)	0.296 (0.246-0.360)	0.382 (0.317-0.466)	0.453 (0.372-0.557)	0.549 (0.436-0.698)	0.623 (0.484-0.810)	0.699 (0.530-0.932)	0.777 (0.572-1.07)	0.883 (0.624-1.26)	0.966 (0.658-1.43)
6-hr	0.161 (0.134-0.195)	0.205 (0.170-0.249)	0.263 (0.218-0.321)	0.310 (0.255-0.382)	0.375 (0.297-0.477)	0.424 (0.329-0.551)	0.474 (0.359-0.632)	0.526 (0.387-0.721)	0.596 (0.421-0.853)	0.650 (0.443-0.964)
12-hr	0.105 (0.088-0.128)	0.136 (0.113-0.165)	0.175 (0.145-0.213)	0.207 (0.170-0.254)	0.250 (0.199-0.318)	0.284 (0.220-0.369)	0.317 (0.240-0.423)	0.352 (0.259-0.482)	0.398 (0.281-0.570)	0.434 (0.296-0.644)
24-hr	0.072 (0.064-0.083)	0.094 (0.083-0.108)	0.122 (0.108-0.141)	0.146 (0.127-0.170)	0.177 (0.150-0.213)	0.201 (0.167-0.247)	0.226 (0.183-0.284)	0.251 (0.198-0.325)	0.285 (0.216-0.384)	0.312 (0.228-0.435)
2-day	0.044 (0.039-0.051)	0.058 (0.052-0.067)	0.077 (0.068-0.089)	0.093 (0.081-0.108)	0.114 (0.096-0.137)	0.130 (0.108-0.160)	0.147 (0.119-0.185)	0.164 (0.129-0.212)	0.187 (0.142-0.253)	0.206 (0.151-0.287)
3-day	0.032 (0.028-0.037)	0.043 (0.038-0.049)	0.057 (0.050-0.066)	0.069 (0.060-0.080)	0.085 (0.072-0.103)	0.098 (0.081-0.120)	0.111 (0.090-0.140)	0.124 (0.098-0.161)	0.143 (0.108-0.193)	0.158 (0.116-0.220)
4-day	0.026 (0.023-0.030)	0.035 (0.031-0.040)	0.047 (0.041-0.054)	0.056 (0.049-0.066)	0.070 (0.059-0.084)	0.081 (0.067-0.099)	0.092 (0.074-0.116)	0.104 (0.082-0.134)	0.120 (0.090-0.161)	0.132 (0.097-0.184)
7-day	0.017 (0.015-0.019)	0.023 (0.020-0.026)	0.031 (0.028-0.036)	0.038 (0.034-0.045)	0.048 (0.041-0.058)	0.056 (0.046-0.068)	0.064 (0.052-0.080)	0.072 (0.057-0.093)	0.084 (0.063-0.113)	0.093 (0.068-0.129)
10-day	0.013 (0.011-0.015)	0.018 (0.016-0.020)	0.024 (0.021-0.028)	0.030 (0.026-0.035)	0.037 (0.032-0.045)	0.044 (0.036-0.054)	0.050 (0.040-0.063)	0.057 (0.045-0.073)	0.066 (0.050-0.089)	0.073 (0.054-0.102)
20-day	0.008 (0.007-0.009)	0.011 (0.010-0.013)	0.015 (0.013-0.018)	0.019 (0.017-0.022)	0.024 (0.020-0.029)	0.028 (0.023-0.034)	0.032 (0.026-0.041)	0.037 (0.029-0.047)	0.043 (0.032-0.058)	0.048 (0.035-0.067)
30-day	0.006 (0.005-0.007)	0.009 (0.008-0.010)	0.012 (0.011-0.014)	0.015 (0.013-0.017)	0.019 (0.016-0.023)	0.022 (0.018-0.027)	0.025 (0.021-0.032)	0.029 (0.023-0.037)	0.034 (0.026-0.046)	0.038 (0.028-0.053)
45-day	0.005 (0.004-0.006)	0.007 (0.006-0.008)	0.009 (0.008-0.011)	0.012 (0.010-0.014)	0.015 (0.012-0.018)	0.017 (0.014-0.021)	0.020 (0.016-0.025)	0.023 (0.018-0.029)	0.027 (0.020-0.036)	0.030 (0.022-0.042)
60-day	0.004 (0.004-0.005)	0.006 (0.005-0.007)	0.008 (0.007-0.009)	0.010 (0.009-0.012)	0.013 (0.011-0.015)	0.015 (0.012-0.018)	0.017 (0.014-0.021)	0.019 (0.015-0.025)	0.023 (0.017-0.031)	0.025 (0.019-0.035)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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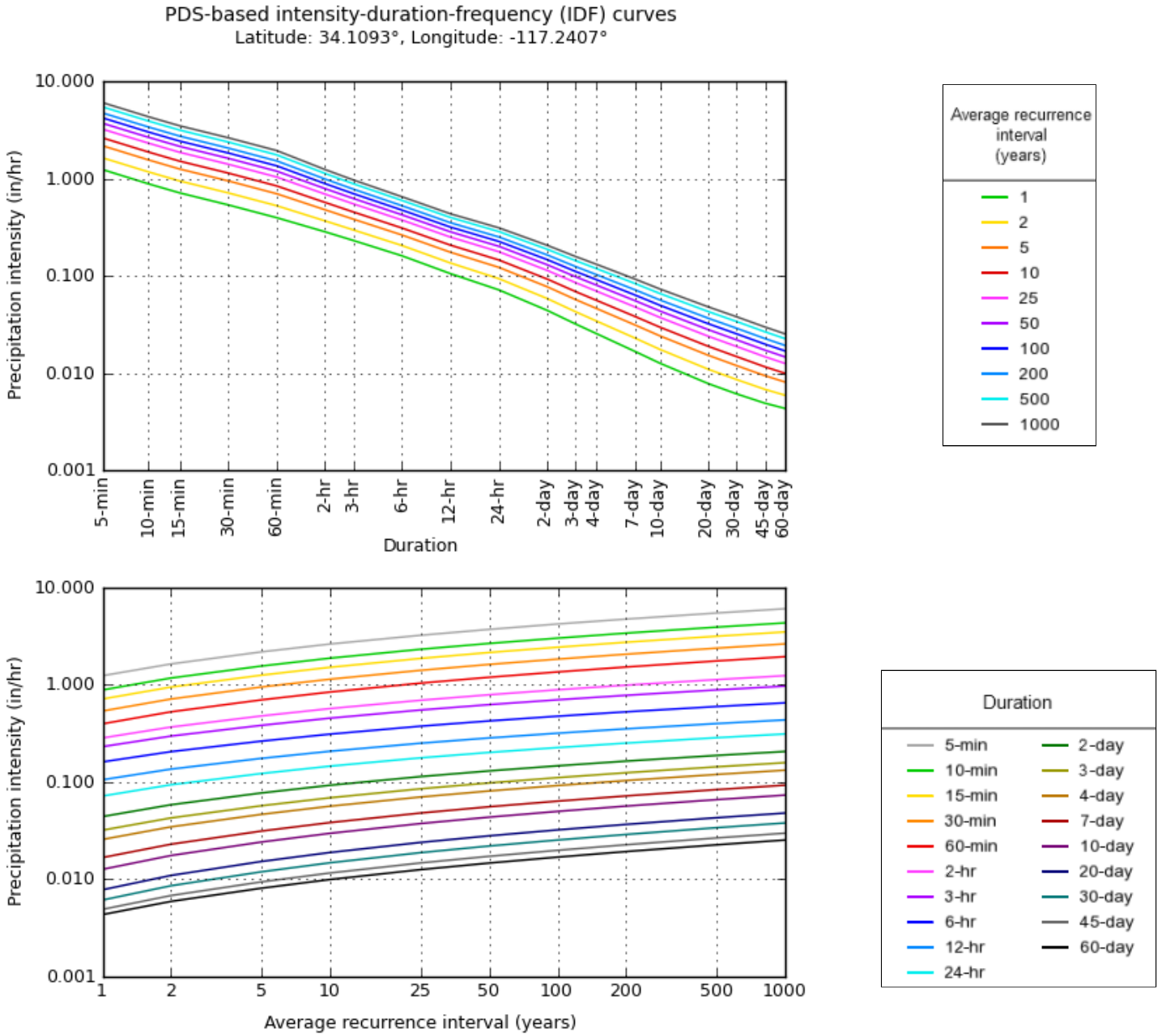
PF graphical



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Maps & aerials

Small scale terrain

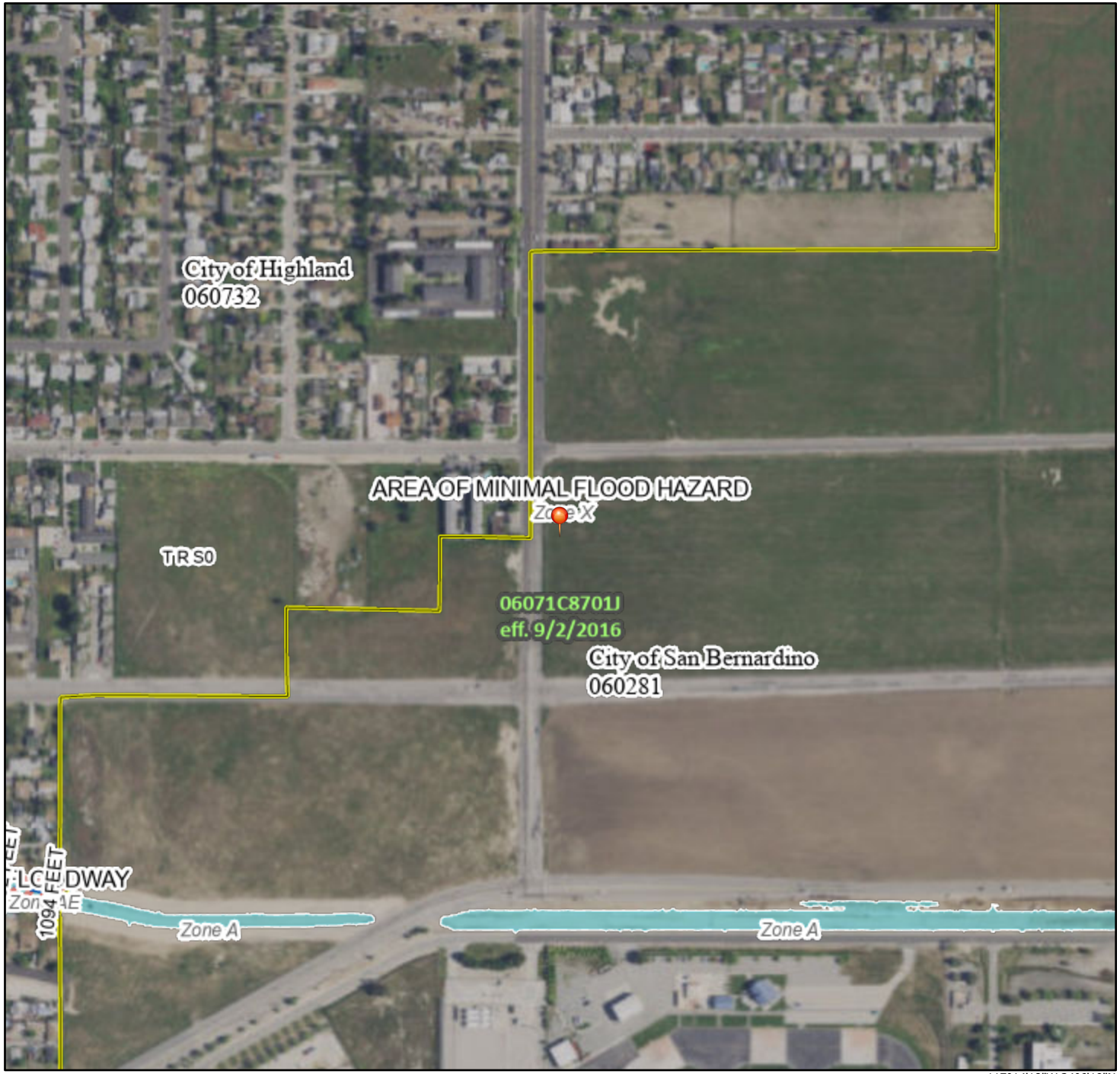
APPENDIX B

FEMA FIRMETTE

National Flood Hazard Layer FIRMette

FEMA

117°14'55"W 34°6'49"N



117°14'18"W 34°6'19"N

Feet 1:6,000

0 250 500 1,000 1,500 2,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

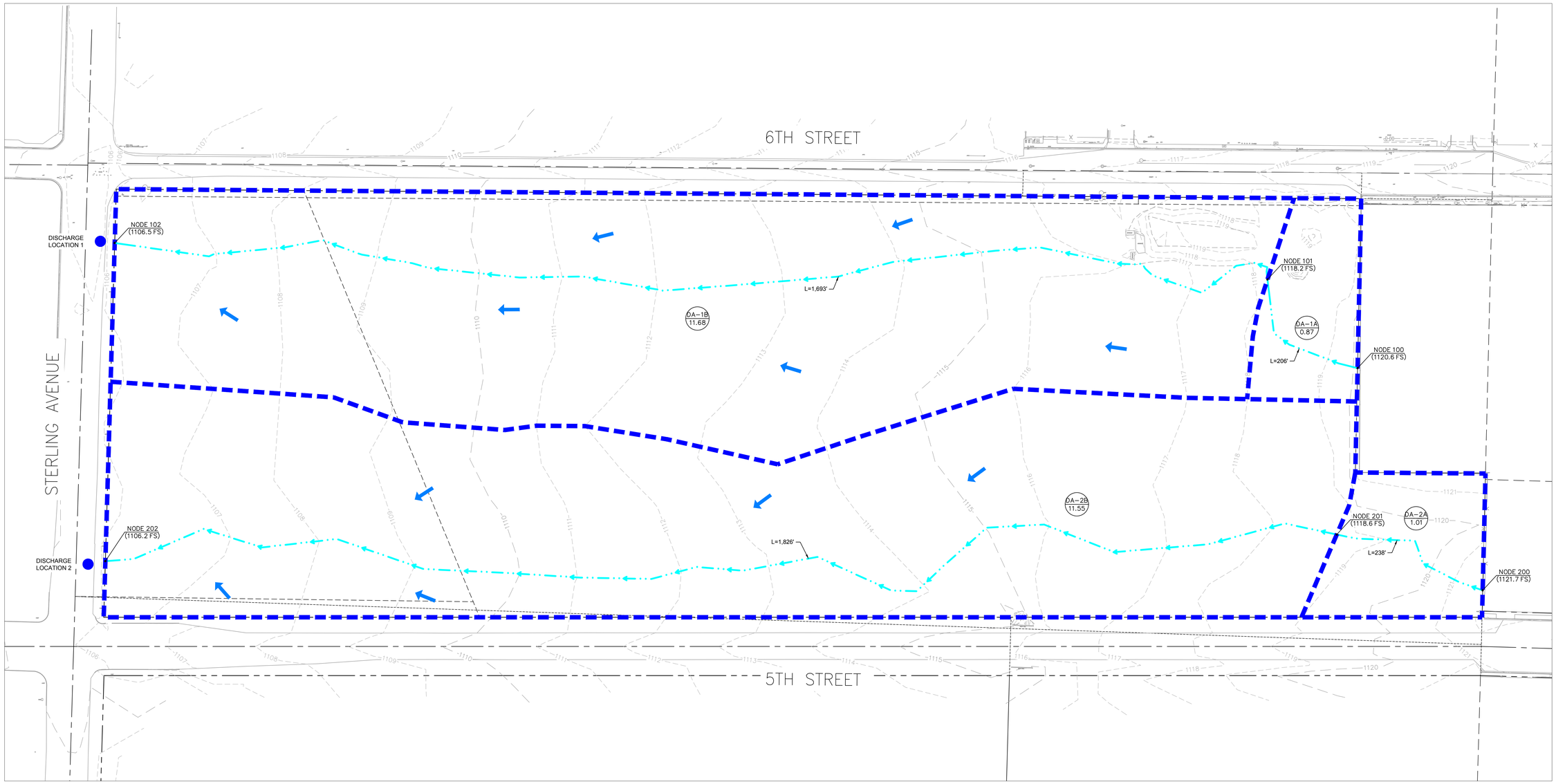
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/17/2023 at 2:03 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

APPENDIX C

DRAINAGE EXHIBITS



LEGEND

- DRAINAGE BASIN BOUNDARY
- FLOWLINE
- EXISTING CONTOUR (XXXX)
- PROPERTY LINE/RIGHT-OF-WAY
- DRAINAGE NODE NUMBER (100)
- DRAINAGE AREA LABEL (DA# / AC — ACRES)
- DISCHARGE LOCATION

SUMMARY TABLE

DMA ID	AREA (ACRE)	Q100 (CFS)
1	12.55	22.03
2	12.56	21.65

NORTH

GRAPHIC SCALE IN FEET
0 30 60 120

No.	REVISIONS	DATE	BY

Kimley»Horn

3801 UNIVERSITY AVENUE, SUITE 300, RIVERSIDE CA 92501
WWW.KIMLEY-HORN.COM

REGISTERED PROFESSIONAL ENGINEER
EUGENE DAVIS CORBELL
No. 84803
CIVIL
STATE OF CALIFORNIA

PRELIMINARY

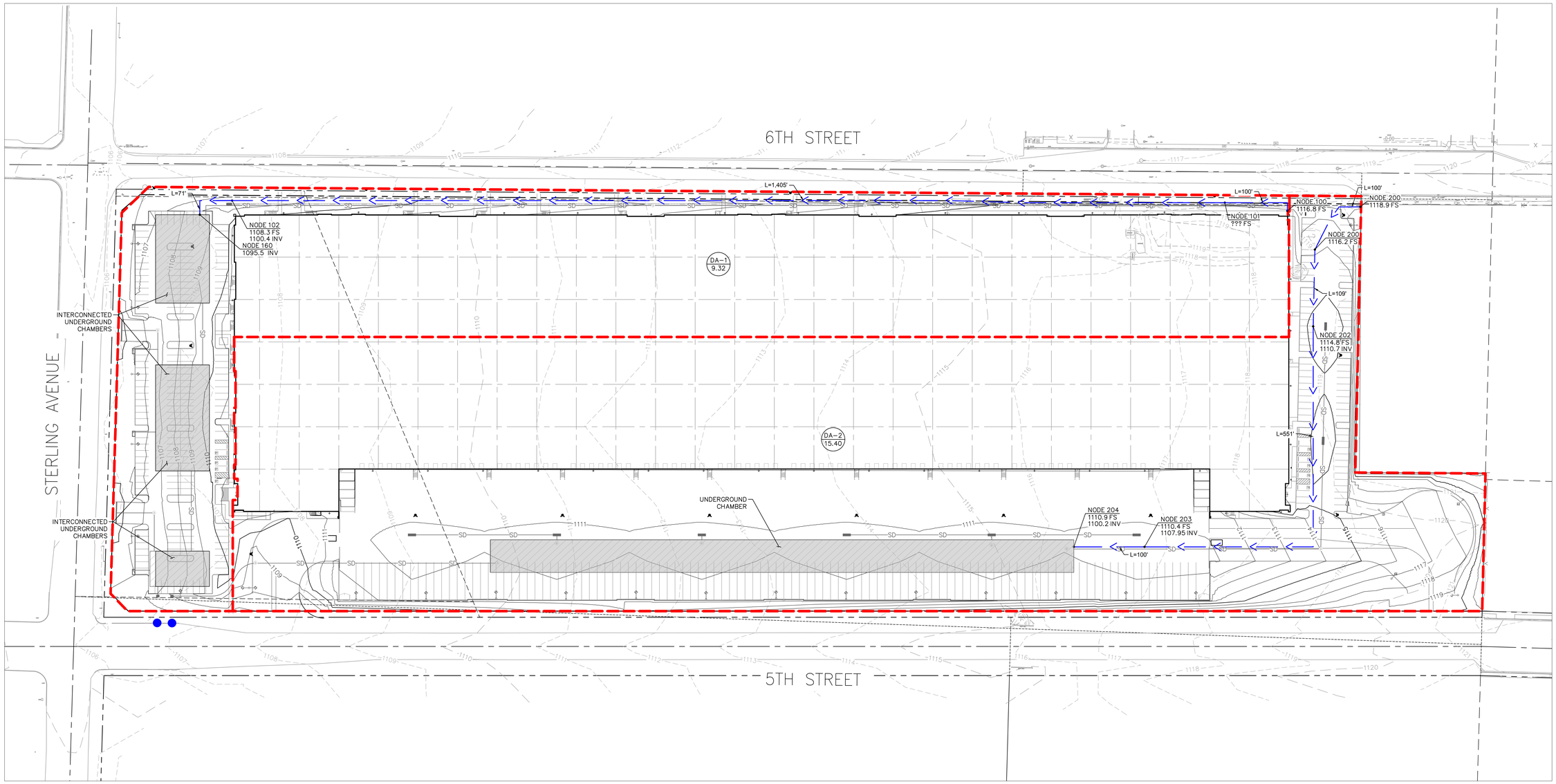
KHA PROJECT 193414002
DATE 2/12/2024
SCALE AS SHOWN
DESIGNED BY AF
DRAWN BY AF
CHECKED BY DC

EXISTING DRAINAGE EXHIBIT

5TH & STERLING AVENUE

CITY OF SAN BERNARDINO CA

SHEET NUMBER
OF 8



LEGEND

DRAINAGE NODE NUMBER — 100

DRAINAGE AREA LABEL — DA# / AC — ACRES

EMERGENCY DISCHARGE LOCATION

PROPERTY LINE/RIGHT-OF-WAY

OVERALL DMA BOUNDARY

FLOWLINE

EX MAJOR CONTOUR — 1000

EX MINOR CONTOUR — 1001

PROP MAJOR CONTOUR — 1000

PROP MINOR CONTOUR — 1001

SUMMARY TABLE

DMA ID	AREA (ACRE)	Q100 (CFS)
1	9.32	31.75
2	15.40	46.80

NORTH

GRAPHIC SCALE IN FEET
0 30 60 120

No.	REVISIONS	DATE	BY

Kimley»Horn
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3801 UNIVERSITY AVENUE, SUITE 300, RIVERSIDE CA 92501
WWW.KIMLEY-HORN.COM

REGISTERED PROFESSIONAL ENGINEER
EUGENE DAVIS CHUNG
No. 96803
CIVIL
STATE OF CALIFORNIA

PRELIMINARY

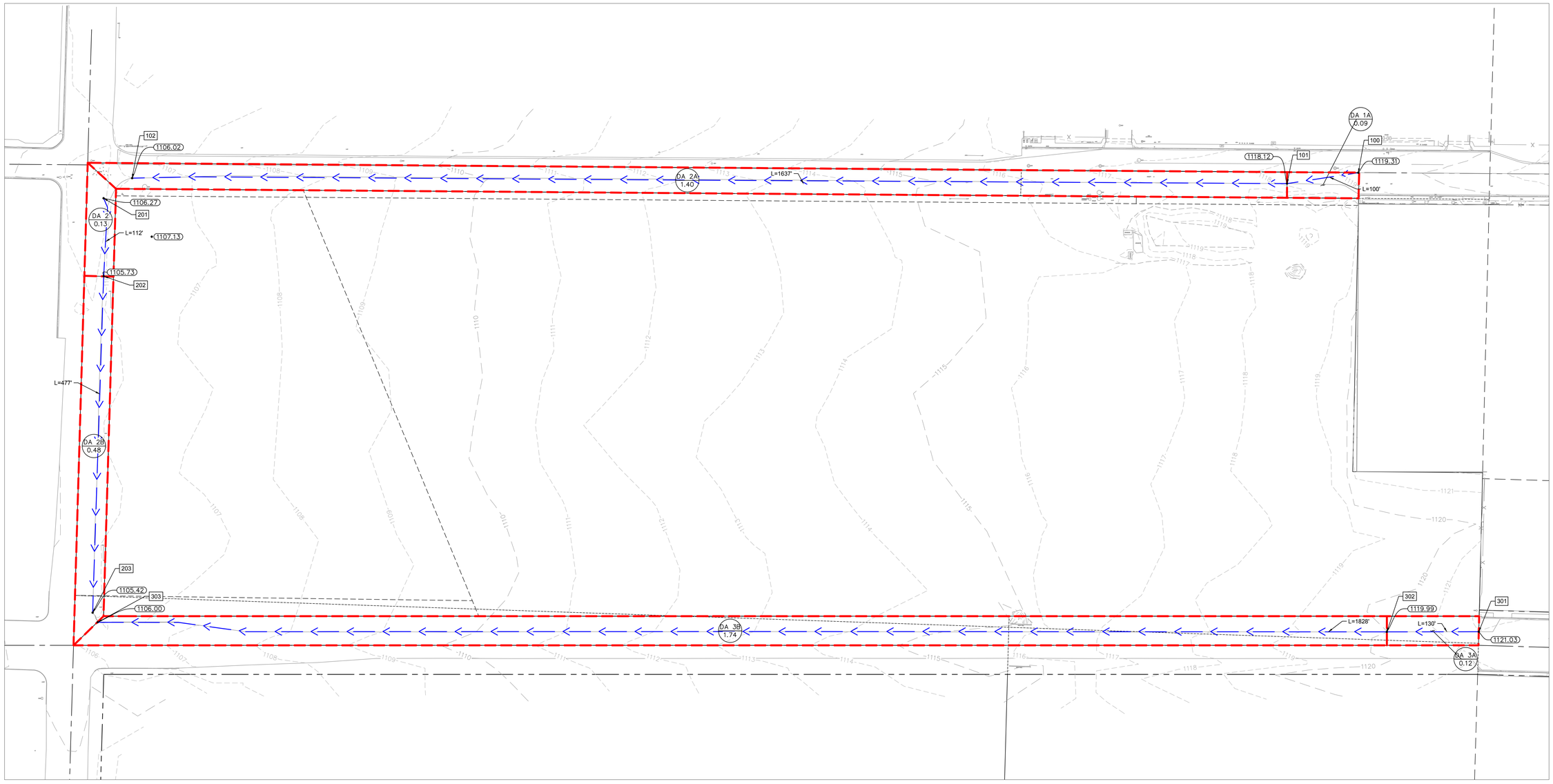
KHA PROJECT 196140002
DATE 2/12/2024
SCALE AS SHOWN
DESIGNED BY AF
DRAWN BY AF
CHECKED BY DC

PROPOSED DRAINAGE EXHIBIT

5TH & STERLING AVENUE

CITY OF SAN BERNARDINO CA

SHEET NUMBER
OF 8



LEGEND

DRAINAGE NODE NUMBER	100
DRAINAGE AREA LABEL	DA# / AC — ACRES
PROPERTY LINE/RIGHT-OF-WAY	
OVERALL DMA BOUNDARY	
FLOWLINE	
EX MAJOR CONTOUR	1000
EX MINOR CONTOUR	1001
PROP MAJOR CONTOUR	1000
PROP MINOR CONTOUR	1001

NORTH

GRAPHIC SCALE IN FEET
0 30 60 120

No.	REVISIONS	DATE	BY

Kimley»Horn

3801 UNIVERSITY AVENUE, SUITE 300, RIVERSIDE CA 92501
WWW.KIMLEY-HORN.COM

REGISTERED PROFESSIONAL ENGINEER
EUGENE DAVIS CORBIN
No. 84803
CIVIL
STATE OF CALIFORNIA

PRELIMINARY

KHA PROJECT
168140002

DATE
2/12/2024

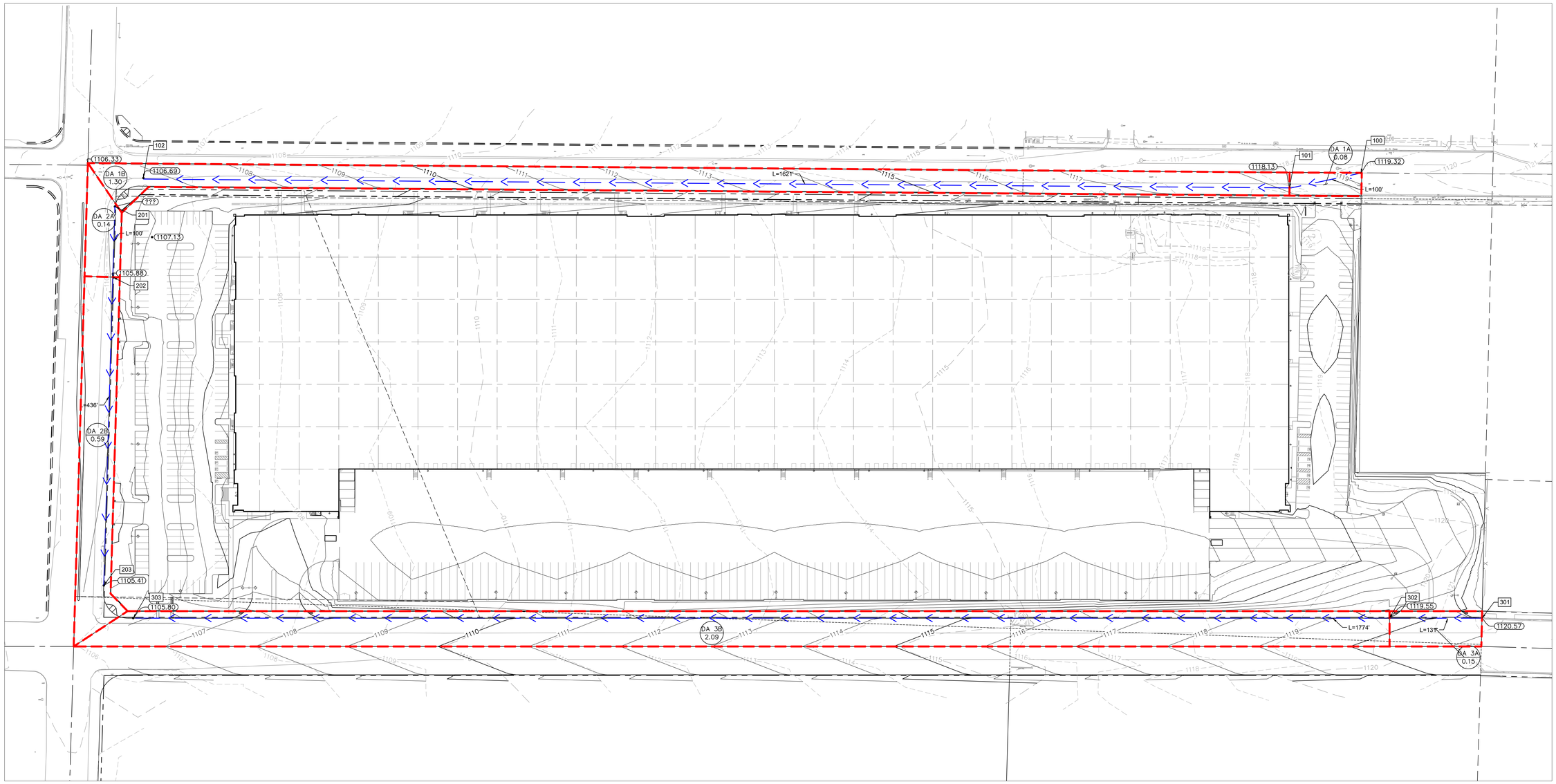
SCALE AS SHOWN
DESIGNED BY AF
DRAWN BY AF
CHECKED BY DC

EXISTING OFFSITE DRAINAGE EXHIBIT

5TH & STERLING AVENUE

CITY OF SAN BERNARDINO CA

SHEET NUMBER
OF 8



LEGEND

DRAINAGE NODE NUMBER — 100

DRAINAGE AREA LABEL — DA# / AC — ACRES

PROPERTY LINE/RIGHT-OF-WAY

OVERALL DMA BOUNDARY

FLOWLINE

EX MAJOR CONTOUR — 1000

EX MINOR CONTOUR — 1001

PROP MAJOR CONTOUR — 1000

PROP MINOR CONTOUR — 1001

NORTH

GRAPHIC SCALE IN FEET
0 30 60 120

No.	REVISIONS	DATE	BY

Kimley»Horn
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3801 UNIVERSITY AVENUE, SUITE 300, RIVERSIDE CA 92501
WWW.KIMLEY-HORN.COM

REGISTERED PROFESSIONAL ENGINEER
EUGENE DAVIS CHRISTIE
No. 86803
CIVIL
STATE OF CALIFORNIA
PRELIMINARY

KHA PROJECT	196140002
DATE	2/12/2024
SCALE	AS SHOWN
DESIGNED BY	AF
DRAWN BY	AF
CHECKED BY	DC

PROPOSED OFFSITE DRAINAGE EXHIBIT

5TH & STERLING AVENUE

CITY OF SAN BERNARDINO CA

SHEET NUMBER
OF 8

APPENDIX D

EXISTING CONDITIONS HYDROLOGY AES RATIONAL METHOD RESULTS

10-year Rational - Existing (Total)

```
******************************************************************************
             RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
          (Reference: 1986 SAN BERNARDINO CO. HYDROLOGY CRITERION)
         (c) Copyright 1983-2011 Advanced Engineering Software (aes)
             Ver. 18.0  Release Date: 07/01/2011  License ID 1499

                          Analysis prepared by:

                      Kimley-Horn and Associates, Inc.
                             765 The City Drive
                                 Suite 200
                              Orange, CA 92868

 ************************** DESCRIPTION OF STUDY **************************
* 5TH & STERLING AVENUE                                                   *
* EXISTING CONDITION - TOTAL                                              *
* 10-YEAR STORM EVENT                                                     *
 ***************************************************************************

  FILE NAME: SR_E10.DAT
  TIME/DATE OF STUDY: 14:40 05/17/2023
==============================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==============================================================================
                     --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =   10.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED TABLED RAINFALL USED*
  NUMBER OF [TIME,INTENSITY] DATA PAIRS =  6
   1)    5.00;  2.620
   2)   15.00;  1.510
   3)   30.00;  1.140
   4)   60.00;  0.840
   5)  360.00;  0.310
   6)  720.00;  0.180
  *ANTECEDENT MOISTURE CONDITION (AMC) II ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

******************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   206.00
  ELEVATION DATA: UPSTREAM(FEET) =   1120.60  DOWNSTREAM(FEET) =   1118.20
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   10.775
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  1.979
  SUBAREA Tc AND LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        0.87      0.42     1.000    78   10.78
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.42
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =      1.22
  TOTAL AREA(ACRES) =      0.87   PEAK FLOW RATE(CFS) =      1.22

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1118.20  DOWNSTREAM(FEET) =   1106.50
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1693.00   CHANNEL SLOPE =  0.0069
  CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  99.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   0.17

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  1.061
  SUBAREA LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  NATURAL POOR COVER
  "BARREN"                    A        5.00      0.42     1.000    78
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.42
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       2.97
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.04
  AVERAGE FLOW DEPTH(FEET) =   0.17   TRAVEL TIME(MIN.) =  27.14
  Tc(MIN.) =   37.92
  SUBAREA AREA(ACRES) =     5.00       SUBAREA RUNOFF(CFS) =    2.90
  EFFECTIVE AREA(ACRES) =      5.87     AREA-AVERAGED Fm(INCH/HR) =   0.42
  AREA-AVERAGED Fp(INCH/HR) =   0.42  AREA-AVERAGED Ap =   1.00
  TOTAL AREA(ACRES) =        5.9         PEAK FLOW RATE(CFS) =       3.41

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.17   FLOW VELOCITY(FEET/SEC.) =   1.19

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =    1899.00 FEET.

****************************************************************************
```

```
 FLOW PROCESS FROM NODE    102.00 TO NODE    102.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
 MAINLINE Tc(MIN.) =   37.92
 *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  1.061
 SUBAREA LOSS RATE DATA(AMC  II):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
 NATURAL POOR COVER
 "BARREN"                   A        6.68      0.42     1.000    78
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.42
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
 SUBAREA AREA(ACRES) =    6.68      SUBAREA RUNOFF(CFS) =    3.88
 EFFECTIVE AREA(ACRES) =     12.55   AREA-AVERAGED Fm(INCH/HR) =  0.42
 AREA-AVERAGED Fp(INCH/HR) =  0.42  AREA-AVERAGED Ap =  1.00
 TOTAL AREA(ACRES) =       12.5       PEAK FLOW RATE(CFS) =       7.28

****************************************************************************
 FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
 INITIAL SUBAREA FLOW-LENGTH(FEET) =   238.00
 ELEVATION DATA: UPSTREAM(FEET) =   1121.70  DOWNSTREAM(FEET) =   1118.60

 Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
 SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   11.164
 *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  1.936
 SUBAREA Tc AND LOSS RATE DATA(AMC  II):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
 NATURAL POOR COVER
 "BARREN"                   A        1.01      0.42     1.000    78   11.16
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.42
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
 SUBAREA RUNOFF(CFS) =      1.38
 TOTAL AREA(ACRES) =      1.01   PEAK FLOW RATE(CFS) =      1.38

****************************************************************************
 FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  51
----------------------------------------------------------------------------
 >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
 >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =   1118.60  DOWNSTREAM(FEET) =   1106.20
 CHANNEL LENGTH THRU SUBAREA(FEET) =  1826.00   CHANNEL SLOPE =  0.0068
 CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  99.000
 MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   0.17

        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

 *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  1.043
 SUBAREA LOSS RATE DATA(AMC  II):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
 NATURAL POOR COVER
 "BARREN"                   A        5.00      0.42     1.000    78
```

```
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.42
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       3.05
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.07
  AVERAGE FLOW DEPTH(FEET) =   0.17   TRAVEL TIME(MIN.) =  28.56
  Tc(MIN.) =   39.72
  SUBAREA AREA(ACRES) =     5.00       SUBAREA RUNOFF(CFS) =    2.82
  EFFECTIVE AREA(ACRES) =      6.01     AREA-AVERAGED Fm(INCH/HR) =   0.42
  AREA-AVERAGED Fp(INCH/HR) =   0.42  AREA-AVERAGED Ap =   1.00
  TOTAL AREA(ACRES) =        6.0         PEAK FLOW RATE(CFS) =       3.39

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.17   FLOW VELOCITY(FEET/SEC.) =   1.18

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =    2064.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    202.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   39.72
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  1.043
  SUBAREA LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap      SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  NATURAL POOR COVER
  "BARREN"                     A        6.55      0.42     1.000    78
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.42
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA AREA(ACRES) =     6.55      SUBAREA RUNOFF(CFS) =    3.69
  EFFECTIVE AREA(ACRES) =     12.56   AREA-AVERAGED Fm(INCH/HR) =  0.42
  AREA-AVERAGED Fp(INCH/HR) =  0.42  AREA-AVERAGED Ap =  1.00
  TOTAL AREA(ACRES) =       12.6       PEAK FLOW RATE(CFS) =       7.09

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    202.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   39.72
  RAINFALL INTENSITY(INCH/HR) =   1.04
  AREA-AVERAGED Fm(INCH/HR) =  0.42
  AREA-AVERAGED Fp(INCH/HR) =  0.42
  AREA-AVERAGED Ap =  1.00
  EFFECTIVE STREAM AREA(ACRES) =      12.56
  TOTAL STREAM AREA(ACRES) =      12.56
  PEAK FLOW RATE(CFS) AT CONFLUENCE =       7.09

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    202.00 IS CODE =   1
----------------------------------------------------------------------------
```

```
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
================================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   39.72
  RAINFALL INTENSITY(INCH/HR) =   1.04
  AREA-AVERAGED Fm(INCH/HR) =  0.42
  AREA-AVERAGED Fp(INCH/HR) =  0.42
  AREA-AVERAGED Ap =  1.00
  EFFECTIVE STREAM AREA(ACRES) =      12.56
  TOTAL STREAM AREA(ACRES) =      12.56
  PEAK FLOW RATE(CFS) AT CONFLUENCE =       7.09

  ** CONFLUENCE DATA **
   STREAM       Q      Tc   Intensity   Fp(Fm)     Ap     Ae     HEADWATER
   NUMBER     (CFS)   (MIN.) (INCH/HR) (INCH/HR)          (ACRES)    NODE
      1        7.09   39.72    1.043  0.42( 0.42) 1.00      12.6     200.00
      2        7.09   39.72    1.043  0.42( 0.42) 1.00      12.6       0.00

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
   STREAM       Q      Tc   Intensity   Fp(Fm)     Ap     Ae     HEADWATER
   NUMBER     (CFS)   (MIN.) (INCH/HR) (INCH/HR)          (ACRES)    NODE
      1       14.17   39.72    1.043  0.42( 0.42) 1.00      25.1     200.00
      2       14.17   39.72    1.043  0.42( 0.42) 1.00      25.1       0.00

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      14.17    Tc(MIN.) =    39.72
  EFFECTIVE AREA(ACRES) =      25.12   AREA-AVERAGED Fm(INCH/HR) =  0.42
  AREA-AVERAGED Fp(INCH/HR) =  0.42  AREA-AVERAGED Ap =  1.00
  TOTAL AREA(ACRES) =       25.1
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =    2064.00 FEET.
================================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       25.1  TC(MIN.) =     39.72
  EFFECTIVE AREA(ACRES) =     25.12  AREA-AVERAGED Fm(INCH/HR)=  0.42
  AREA-AVERAGED Fp(INCH/HR) =  0.42  AREA-AVERAGED Ap = 1.000
  PEAK FLOW RATE(CFS)   =      14.17

  ** PEAK FLOW RATE TABLE **
   STREAM       Q      Tc   Intensity   Fp(Fm)     Ap     Ae     HEADWATER
   NUMBER     (CFS)   (MIN.) (INCH/HR) (INCH/HR)          (ACRES)    NODE
      1       14.17   39.72    1.043  0.42( 0.42) 1.00      25.1     200.00
      2       14.17   39.72    1.043  0.42( 0.42) 1.00      25.1       0.00
================================================================================
================================================================================
  END OF RATIONAL METHOD ANALYSIS
```

100-year Rational - Existing (Total)

```
******************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
          (Reference: 1986 SAN BERNARDINO CO. HYDROLOGY CRITERION)
         (c) Copyright 1983-2011 Advanced Engineering Software (aes)
             Ver. 18.0  Release Date: 07/01/2011  License ID 1499

                          Analysis prepared by:

                     Kimley-Horn and Associates, Inc.
                            765 The City Drive
                                Suite 200
                             Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* 5TH & STERLING AVENUE                                                 *
* EXISTING CONDITION - TOTAL                                            *
* 100-YR STORM EVENT                                                    *
 ************************************************************************

  FILE NAME: SR_E100.DAT
  TIME/DATE OF STUDY: 18:21 05/08/2023
==============================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==============================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED TABLED RAINFALL USED*
  NUMBER OF [TIME,INTENSITY] DATA PAIRS =  6
   1)    5.00;  4.200
   2)   15.00;  2.420
   3)   30.00;  1.830
   4)   60.00;  1.350
   5)  360.00;  0.474
   6)  720.00;  0.317
  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   206.00
  ELEVATION DATA: UPSTREAM(FEET) =   1120.60  DOWNSTREAM(FEET) =   1118.20

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   10.775
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.172
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  NATURAL POOR COVER
  "BARREN"                    A        0.87      0.18     1.000    93   10.78
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =      2.34
  TOTAL AREA(ACRES) =      0.87   PEAK FLOW RATE(CFS) =      2.34

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1118.20  DOWNSTREAM(FEET) =   1106.50
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1693.00   CHANNEL SLOPE =  0.0069
  CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  99.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   0.17

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  2.131
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  NATURAL POOR COVER
  "BARREN"                    A        5.00      0.18     1.000    93
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       6.97
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.44
  AVERAGE FLOW DEPTH(FEET) =   0.17   TRAVEL TIME(MIN.) =  11.58
  Tc(MIN.) =   22.36
  SUBAREA AREA(ACRES) =     5.00       SUBAREA RUNOFF(CFS) =    8.78
  EFFECTIVE AREA(ACRES) =      5.87     AREA-AVERAGED Fm(INCH/HR) =   0.18
```

```
 AREA-AVERAGED Fp(INCH/HR) =   0.18  AREA-AVERAGED Ap =   1.00
 TOTAL AREA(ACRES) =        5.9         PEAK FLOW RATE(CFS) =      10.30

       ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
           CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
           ALLOWABLE DEPTH).
           AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
           ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


 END OF SUBAREA CHANNEL FLOW HYDRAULICS:
 DEPTH(FEET) =  0.17   FLOW VELOCITY(FEET/SEC.) =   3.60

 ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

 LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =    1899.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    102.00 TO NODE    102.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
 MAINLINE Tc(MIN.) =   22.36
 * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  2.131
 SUBAREA LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
 NATURAL POOR COVER
 "BARREN"                    A        6.68      0.18     1.000    93
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
 SUBAREA AREA(ACRES) =    6.68      SUBAREA RUNOFF(CFS) =   11.73
 EFFECTIVE AREA(ACRES) =     12.55   AREA-AVERAGED Fm(INCH/HR) =  0.18
 AREA-AVERAGED Fp(INCH/HR) =  0.18  AREA-AVERAGED Ap =  1.00
 TOTAL AREA(ACRES) =       12.5       PEAK FLOW RATE(CFS) =      22.03

****************************************************************************
 FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
 INITIAL SUBAREA FLOW-LENGTH(FEET) =   238.00
 ELEVATION DATA: UPSTREAM(FEET) =   1121.70  DOWNSTREAM(FEET) =   1118.60

 Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
 SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =   11.164
 * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.103
 SUBAREA Tc AND LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
 NATURAL POOR COVER
 "BARREN"                    A        1.01      0.18     1.000    93   11.16
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
```

```
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA RUNOFF(CFS) =      2.66
  TOTAL AREA(ACRES) =      1.01   PEAK FLOW RATE(CFS) =      2.66

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1118.60  DOWNSTREAM(FEET) =   1106.20
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1826.00   CHANNEL SLOPE =  0.0068
  CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  99.000
  MANNING'S FACTOR = 0.030   MAXIMUM DEPTH(FEET) =   0.17

        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  2.095
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  NATURAL POOR COVER
  "BARREN"                   A        5.00      0.18     1.000    93
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       7.20
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   2.52
  AVERAGE FLOW DEPTH(FEET) =   0.17   TRAVEL TIME(MIN.) =  12.09
  Tc(MIN.) =   23.26
  SUBAREA AREA(ACRES) =     5.00       SUBAREA RUNOFF(CFS) =    8.62
  EFFECTIVE AREA(ACRES) =      6.01     AREA-AVERAGED Fm(INCH/HR) =   0.18
  AREA-AVERAGED Fp(INCH/HR) =   0.18  AREA-AVERAGED Ap =   1.00
  TOTAL AREA(ACRES) =        6.0         PEAK FLOW RATE(CFS) =      10.36

        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.17   FLOW VELOCITY(FEET/SEC.) =   3.62

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =    2064.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    202.00 IS CODE =  81
```

```
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =   23.26
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  2.095
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  NATURAL POOR COVER
  "BARREN"                    A        6.55      0.18     1.000    93
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.18
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  1.000
  SUBAREA AREA(ACRES) =    6.55      SUBAREA RUNOFF(CFS) =   11.29
  EFFECTIVE AREA(ACRES) =     12.56   AREA-AVERAGED Fm(INCH/HR) =  0.18
  AREA-AVERAGED Fp(INCH/HR) =  0.18  AREA-AVERAGED Ap =  1.00
  TOTAL AREA(ACRES) =       12.6       PEAK FLOW RATE(CFS) =      21.65

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    202.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  1 ARE:
  TIME OF CONCENTRATION(MIN.) =   23.26
  RAINFALL INTENSITY(INCH/HR) =   2.10
  AREA-AVERAGED Fm(INCH/HR) =  0.18
  AREA-AVERAGED Fp(INCH/HR) =  0.18
  AREA-AVERAGED Ap =  1.00
  EFFECTIVE STREAM AREA(ACRES) =      12.56
  TOTAL STREAM AREA(ACRES) =      12.56
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      21.65

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    202.00 IS CODE =   1
----------------------------------------------------------------------------
  >>>>>DESIGNATE INDEPENDENT STREAM FOR CONFLUENCE<<<<<
  >>>>>AND COMPUTE VARIOUS CONFLUENCED STREAM VALUES<<<<<
============================================================================
  TOTAL NUMBER OF STREAMS =  2
  CONFLUENCE VALUES USED FOR INDEPENDENT STREAM  2 ARE:
  TIME OF CONCENTRATION(MIN.) =   23.26
  RAINFALL INTENSITY(INCH/HR) =   2.10
  AREA-AVERAGED Fm(INCH/HR) =  0.18
  AREA-AVERAGED Fp(INCH/HR) =  0.18
  AREA-AVERAGED Ap =  1.00
  EFFECTIVE STREAM AREA(ACRES) =      12.56
  TOTAL STREAM AREA(ACRES) =      12.56
  PEAK FLOW RATE(CFS) AT CONFLUENCE =      21.65

  ** CONFLUENCE DATA **
   STREAM       Q      Tc   Intensity   Fp(Fm)     Ap     Ae     HEADWATER
   NUMBER     (CFS)  (MIN.) (INCH/HR) (INCH/HR)         (ACRES)    NODE
      1       21.65   23.26    2.095  0.18( 0.18) 1.00      12.6     200.00
```

```
     2       21.65   23.26    2.095  0.18( 0.18) 1.00      12.6       0.00

  RAINFALL INTENSITY AND TIME OF CONCENTRATION RATIO
  CONFLUENCE FORMULA USED FOR  2 STREAMS.

  ** PEAK FLOW RATE TABLE **
   STREAM       Q      Tc   Intensity   Fp(Fm)     Ap     Ae     HEADWATER
   NUMBER     (CFS)  (MIN.) (INCH/HR) (INCH/HR)         (ACRES)    NODE
      1       43.30   23.26    2.095  0.18( 0.18) 1.00      25.1     200.00
      2       43.30   23.26    2.095  0.18( 0.18) 1.00      25.1       0.00

  COMPUTED CONFLUENCE ESTIMATES ARE AS FOLLOWS:
  PEAK FLOW RATE(CFS) =      43.30    Tc(MIN.) =    23.26
  EFFECTIVE AREA(ACRES) =      25.12   AREA-AVERAGED Fm(INCH/HR) =  0.18
  AREA-AVERAGED Fp(INCH/HR) =  0.18  AREA-AVERAGED Ap =  1.00
  TOTAL AREA(ACRES) =       25.1
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =    2064.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       25.1  TC(MIN.) =     23.26
  EFFECTIVE AREA(ACRES) =     25.12  AREA-AVERAGED Fm(INCH/HR)=  0.18
  AREA-AVERAGED Fp(INCH/HR) =  0.18  AREA-AVERAGED Ap = 1.000
  PEAK FLOW RATE(CFS)   =      43.30

  ** PEAK FLOW RATE TABLE **
   STREAM       Q      Tc   Intensity   Fp(Fm)     Ap     Ae     HEADWATER
   NUMBER     (CFS)  (MIN.) (INCH/HR) (INCH/HR)         (ACRES)    NODE
      1       43.30   23.26    2.095  0.18( 0.18) 1.00      25.1     200.00
      2       43.30   23.26    2.095  0.18( 0.18) 1.00      25.1       0.00
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

APPENDIX E

PROPOSED CONDITIONS HYDROLOGY AES RATIONAL METHOD RESULTS

10-year Rational - Proposed DA-1

```
******************************************************************************
             RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
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                           Analysis prepared by:

                      Kimley-Horn and Associates, Inc.
                             765 The City Drive
                                 Suite 200
                              Orange, CA 92868

 ************************** DESCRIPTION OF STUDY **************************
* 5TH & STERLING AVENUE                                                   *
* DEVELOPED CONDITION - DA-1                                              *
* 10-YR STORM EVENT                                                       *
 *************************************************************************

  FILE NAME: SRP101.DAT
  TIME/DATE OF STUDY: 13:17 05/17/2023
==============================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==============================================================================
                     --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =   10.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED TABLED RAINFALL USED*
  NUMBER OF [TIME,INTENSITY] DATA PAIRS =  6
   1)    5.00;  2.620
   2)   15.00;  1.510
   3)   30.00;  1.140
   4)   60.00;  0.840
   5)  360.00;  0.310
   6)  720.00;  0.180
  *ANTECEDENT MOISTURE CONDITION (AMC) II ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

******************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  ELEVATION DATA: UPSTREAM(FEET) =   1115.30  DOWNSTREAM(FEET) =   1114.00
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.000
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.620
  SUBAREA Tc AND LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                 A        0.10      0.98     0.100    32    5.00
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.97
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      0.23
  TOTAL AREA(ACRES) =      0.10   PEAK FLOW RATE(CFS) =      0.23

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1114.00  DOWNSTREAM(FEET) =   1104.70
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1405.00   CHANNEL SLOPE =  0.0066
  CHANNEL BASE(FEET) =    2.00   "Z" FACTOR =   3.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.33

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.266
  SUBAREA LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        7.05      0.98     0.100    32
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       7.24
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   7.34
  AVERAGE FLOW DEPTH(FEET) =   0.33   TRAVEL TIME(MIN.) =   3.19
  Tc(MIN.) =    8.19
  SUBAREA AREA(ACRES) =     7.05       SUBAREA RUNOFF(CFS) =   13.76
  EFFECTIVE AREA(ACRES) =      7.15     AREA-AVERAGED Fm(INCH/HR) =   0.10
  AREA-AVERAGED Fp(INCH/HR) =   0.97  AREA-AVERAGED Ap =   0.10
  TOTAL AREA(ACRES) =        7.2         PEAK FLOW RATE(CFS) =      13.95

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.33   FLOW VELOCITY(FEET/SEC.) =  14.14

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =    1505.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    160.00 IS CODE =  41
----------------------------------------------------------------------------
```

```
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
================================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1100.40  DOWNSTREAM(FEET) =  1095.50
  FLOW LENGTH(FEET) =    71.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   8.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  15.17
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      13.95
  PIPE TRAVEL TIME(MIN.) =   0.08    Tc(MIN.) =    8.27
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    160.00 =    1576.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    160.00 TO NODE    160.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =    8.27
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.257
  SUBAREA LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        2.17      0.98     0.100    32
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =    2.17      SUBAREA RUNOFF(CFS) =    4.22
  EFFECTIVE AREA(ACRES) =      9.32   AREA-AVERAGED Fm(INCH/HR) =  0.10
  AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap =  0.10
  TOTAL AREA(ACRES) =        9.3       PEAK FLOW RATE(CFS) =      18.12
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        9.3  TC(MIN.) =      8.27
  EFFECTIVE AREA(ACRES) =      9.32  AREA-AVERAGED Fm(INCH/HR)=  0.10
  AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap = 0.100
  PEAK FLOW RATE(CFS)   =      18.12
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

10-year Rational - Proposed DA-2

```
******************************************************************************
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                          Analysis prepared by:

                      Kimley-Horn and Associates, Inc.
                             765 The City Drive
                                 Suite 200
                              Orange, CA 92868

 ************************** DESCRIPTION OF STUDY **************************
* 5TH & STERLING AVENUE                                                   *
* DEVELOPED CONDITION - INDUSTRIAL                                        *
* 10 YR STORM EVENT - DA-2                                                *
 *************************************************************************

  FILE NAME: SRP102.DAT
  TIME/DATE OF STUDY: 13:18 05/17/2023
==============================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==============================================================================
                     --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =   10.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED TABLED RAINFALL USED*
  NUMBER OF [TIME,INTENSITY] DATA PAIRS =  6
   1)    5.00;  2.620
   2)   15.00;  1.510
   3)   30.00;  1.140
   4)   60.00;  0.840
   5)  360.00;  0.310
   6)  720.00;  0.180
  *ANTECEDENT MOISTURE CONDITION (AMC) II ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

******************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
------------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
==============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  ELEVATION DATA: UPSTREAM(FEET) =   1119.10  DOWNSTREAM(FEET) =   1115.50
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.000
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.620
  SUBAREA Tc AND LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                 A        0.18      0.98     0.100    32    5.00
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.97
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      0.41
  TOTAL AREA(ACRES) =      0.18   PEAK FLOW RATE(CFS) =      0.41

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1115.50  DOWNSTREAM(FEET) =   1113.70
  CHANNEL LENGTH THRU SUBAREA(FEET) =   109.00   CHANNEL SLOPE =  0.0165
  CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  99.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.50
  *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.469
  SUBAREA LOSS RATE DATA(AMC  II):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        0.25      0.98     0.100    32
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       0.68
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.33
  AVERAGE FLOW DEPTH(FEET) =   0.07   TRAVEL TIME(MIN.) =   1.36
  Tc(MIN.) =    6.36
  SUBAREA AREA(ACRES) =     0.25       SUBAREA RUNOFF(CFS) =    0.53
  EFFECTIVE AREA(ACRES) =      0.43     AREA-AVERAGED Fm(INCH/HR) =   0.10
  AREA-AVERAGED Fp(INCH/HR) =   0.98  AREA-AVERAGED Ap =   0.10
  TOTAL AREA(ACRES) =        0.4         PEAK FLOW RATE(CFS) =       0.92

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.08   FLOW VELOCITY(FEET/SEC.) =   1.48
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =     209.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    203.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1110.70  DOWNSTREAM(FEET) =  1107.95
  FLOW LENGTH(FEET) =   551.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   4.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   2.71
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       0.92
  PIPE TRAVEL TIME(MIN.) =   3.39    Tc(MIN.) =    9.75
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    203.00 =     760.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    203.00 TO NODE    203.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
```

```
 MAINLINE Tc(MIN.) =    9.75
 *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.093
 SUBAREA LOSS RATE DATA(AMC  II):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
 COMMERCIAL                 A        4.50      0.98     0.100    32
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
 SUBAREA AREA(ACRES) =    4.50      SUBAREA RUNOFF(CFS) =    8.08
 EFFECTIVE AREA(ACRES) =      4.93   AREA-AVERAGED Fm(INCH/HR) =  0.10
 AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap =  0.10
 TOTAL AREA(ACRES) =        4.9       PEAK FLOW RATE(CFS) =       8.85

****************************************************************************
 FLOW PROCESS FROM NODE    203.00 TO NODE    204.00 IS CODE =  41
----------------------------------------------------------------------------
 >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
 >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =  1107.95  DOWNSTREAM(FEET) =  1100.20
 FLOW LENGTH(FEET) =   100.00   MANNING'S N =  0.013
 DEPTH OF FLOW IN  24.0 INCH PIPE IS   6.2 INCHES
 PIPE-FLOW VELOCITY(FEET/SEC.) =  13.89
 GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
 PIPE-FLOW(CFS) =       8.85
 PIPE TRAVEL TIME(MIN.) =   0.12    Tc(MIN.) =    9.87
 LONGEST FLOWPATH FROM NODE    200.00 TO NODE    204.00 =     860.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    204.00 TO NODE    204.00 IS CODE =  81
----------------------------------------------------------------------------
 >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
 MAINLINE Tc(MIN.) =    9.87
 *  10 YEAR RAINFALL INTENSITY(INCH/HR) =  2.080
 SUBAREA LOSS RATE DATA(AMC  II):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
 COMMERCIAL                 A       10.50      0.98     0.100    32
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.98
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
 SUBAREA AREA(ACRES) =   10.50      SUBAREA RUNOFF(CFS) =   18.73
 EFFECTIVE AREA(ACRES) =     15.43   AREA-AVERAGED Fm(INCH/HR) =  0.10
 AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap =  0.10
 TOTAL AREA(ACRES) =       15.4       PEAK FLOW RATE(CFS) =      27.53
============================================================================
 END OF STUDY SUMMARY:
 TOTAL AREA(ACRES)     =       15.4  TC(MIN.) =      9.87
 EFFECTIVE AREA(ACRES) =     15.43  AREA-AVERAGED Fm(INCH/HR)=  0.10
 AREA-AVERAGED Fp(INCH/HR) =  0.98  AREA-AVERAGED Ap = 0.100
 PEAK FLOW RATE(CFS)   =      27.53
============================================================================
============================================================================
 END OF RATIONAL METHOD ANALYSIS
```

100-year Rational - Proposed DA-1

```
**************************************************************************
            RATIONAL METHOD HYDROLOGY COMPUTER PROGRAM PACKAGE
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                          Analysis prepared by:

                    Kimley-Horn and Associates, Inc.
                           765 The City Drive
                               Suite 200
                            Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* 5TH & STERLING AVENUE                                                 *
* DEVELOPED CONDITION - DA-1                                            *
* 100-YR STORM EVENT                                                    *
 ************************************************************************

  FILE NAME: SRP1001.DAT
  TIME/DATE OF STUDY: 09:38 05/12/2023
==========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED TABLED RAINFALL USED*
  NUMBER OF [TIME,INTENSITY] DATA PAIRS =  6
   1)    5.00;  4.200
   2)   15.00;  2.420
   3)   30.00;  1.830
   4)   60.00;  1.350
   5)  360.00;  0.474
   6)  720.00;  0.317
  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  ELEVATION DATA: UPSTREAM(FEET) =   1115.30  DOWNSTREAM(FEET) =   1114.00

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.000
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.200
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap      SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                 A        0.10      0.74     0.100    52    5.00
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      0.37
  TOTAL AREA(ACRES) =      0.10   PEAK FLOW RATE(CFS) =      0.37

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1114.00  DOWNSTREAM(FEET) =   1104.70
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1405.00   CHANNEL SLOPE =  0.0066
  CHANNEL BASE(FEET) =    2.00   "Z" FACTOR =   3.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.33

        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.871
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap      SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        7.05      0.74     0.100    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =      12.49
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =  12.66
  AVERAGE FLOW DEPTH(FEET) =   0.33   TRAVEL TIME(MIN.) =   1.85
  Tc(MIN.) =    6.85
  SUBAREA AREA(ACRES) =     7.05       SUBAREA RUNOFF(CFS) =   24.09
  EFFECTIVE AREA(ACRES) =      7.15     AREA-AVERAGED Fm(INCH/HR) =   0.07
  AREA-AVERAGED Fp(INCH/HR) =   0.74  AREA-AVERAGED Ap =   0.10
  TOTAL AREA(ACRES) =        7.2         PEAK FLOW RATE(CFS) =      24.43
```

```
        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.33   FLOW VELOCITY(FEET/SEC.) =  24.76

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =    1505.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    102.00 TO NODE    160.00 IS CODE =  41
----------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1100.40  DOWNSTREAM(FEET) =  1095.50
  FLOW LENGTH(FEET) =    71.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS  10.9 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  17.65
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      24.43
  PIPE TRAVEL TIME(MIN.) =   0.07    Tc(MIN.) =    6.92
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    160.00 =    1576.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    160.00 TO NODE    160.00 IS CODE =  81
----------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
============================================================================
  MAINLINE Tc(MIN.) =    6.92
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.859
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        2.17      0.74     0.100    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =    2.17      SUBAREA RUNOFF(CFS) =    7.39
  EFFECTIVE AREA(ACRES) =      9.32   AREA-AVERAGED Fm(INCH/HR) =  0.07
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap =  0.10
  TOTAL AREA(ACRES) =        9.3       PEAK FLOW RATE(CFS) =      31.75
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =        9.3  TC(MIN.) =      6.92
  EFFECTIVE AREA(ACRES) =      9.32  AREA-AVERAGED Fm(INCH/HR)=  0.07
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap = 0.100
  PEAK FLOW RATE(CFS)   =      31.75
============================================================================
```

```
================================================================================
  END OF RATIONAL METHOD ANALYSIS
```

100-year Rational - Proposed DA-2

```
**************************************************************************
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                          Analysis prepared by:




 ************************* DESCRIPTION OF STUDY *************************
* 5TH & STERLING AVENUE                                                 *
* DEVELOPED CONDITION - INDUSTRIAL                                      *
* 100 YR STORM EVENT - DA-2                                             *
 *************************************************************************

  FILE NAME: SRP1002.DAT
  TIME/DATE OF STUDY: 16:28 05/15/2023
==========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
==========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  18.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED TABLED RAINFALL USED*
  NUMBER OF [TIME,INTENSITY] DATA PAIRS =  6
   1)    5.00;  4.200
   2)   15.00;  2.420
   3)   30.00;  1.830
   4)   60.00;  1.350
   5)  360.00;  0.474
   6)  720.00;  0.317
  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  ================  ======  ===== ====== ===== =======
  1   30.0     20.0    0.018/0.018/0.020   0.67    2.00 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  6.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    200.00 TO NODE    201.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  ELEVATION DATA: UPSTREAM(FEET) =   1119.10  DOWNSTREAM(FEET) =   1115.50

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.000
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.200
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                 A        0.18      0.74     0.100    52    5.00
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      0.67
  TOTAL AREA(ACRES) =      0.18   PEAK FLOW RATE(CFS) =      0.67

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1115.50  DOWNSTREAM(FEET) =   1113.70
  CHANNEL LENGTH THRU SUBAREA(FEET) =   109.00   CHANNEL SLOPE =  0.0165
  CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  99.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.50
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.983
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        0.25      0.74     0.100    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       1.11
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.49
  AVERAGE FLOW DEPTH(FEET) =   0.09   TRAVEL TIME(MIN.) =   1.22
  Tc(MIN.) =    6.22
  SUBAREA AREA(ACRES) =     0.25       SUBAREA RUNOFF(CFS) =    0.88
  EFFECTIVE AREA(ACRES) =      0.43     AREA-AVERAGED Fm(INCH/HR) =   0.07
  AREA-AVERAGED Fp(INCH/HR) =   0.74  AREA-AVERAGED Ap =   0.10
  TOTAL AREA(ACRES) =        0.4          PEAK FLOW RATE(CFS) =       1.51

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.10   FLOW VELOCITY(FEET/SEC.) =   1.65
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    202.00 =     209.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    203.00 IS CODE =  41
```

```
------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
========================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1110.70  DOWNSTREAM(FEET) =  1107.95
  FLOW LENGTH(FEET) =   551.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   5.0 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =   3.15
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =       1.51
  PIPE TRAVEL TIME(MIN.) =   2.92    Tc(MIN.) =    9.14
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    203.00 =     760.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    203.00 TO NODE    203.00 IS CODE =  81
------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
========================================================================
  MAINLINE Tc(MIN.) =    9.14
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.463
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        4.50      0.74     0.100    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =    4.50      SUBAREA RUNOFF(CFS) =   13.72
  EFFECTIVE AREA(ACRES) =      4.93   AREA-AVERAGED Fm(INCH/HR) =  0.07
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap =  0.10
  TOTAL AREA(ACRES) =        4.9       PEAK FLOW RATE(CFS) =      15.04

****************************************************************************
  FLOW PROCESS FROM NODE    203.00 TO NODE    204.00 IS CODE =  41
------------------------------------------------------------------------
  >>>>>COMPUTE PIPE-FLOW TRAVEL TIME THRU SUBAREA<<<<<
  >>>>>USING USER-SPECIFIED PIPESIZE (EXISTING ELEMENT)<<<<<
========================================================================
  ELEVATION DATA: UPSTREAM(FEET) =  1107.95  DOWNSTREAM(FEET) =  1100.20
  FLOW LENGTH(FEET) =   100.00   MANNING'S N =  0.013
  DEPTH OF FLOW IN  24.0 INCH PIPE IS   8.1 INCHES
  PIPE-FLOW VELOCITY(FEET/SEC.) =  16.15
  GIVEN PIPE DIAMETER(INCH) =  24.00    NUMBER OF PIPES =   1
  PIPE-FLOW(CFS) =      15.04
  PIPE TRAVEL TIME(MIN.) =   0.10    Tc(MIN.) =    9.25
  LONGEST FLOWPATH FROM NODE    200.00 TO NODE    204.00 =     860.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    204.00 TO NODE    204.00 IS CODE =  81
------------------------------------------------------------------------
  >>>>>ADDITION OF SUBAREA TO MAINLINE PEAK FLOW<<<<<
========================================================================
  MAINLINE Tc(MIN.) =    9.25
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.444
  SUBAREA LOSS RATE DATA(AMC III):
```

```
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
        LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                  A       10.50      0.74     0.100    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA AREA(ACRES) =   10.50      SUBAREA RUNOFF(CFS) =   31.85
  EFFECTIVE AREA(ACRES) =     15.43   AREA-AVERAGED Fm(INCH/HR) =  0.07
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap =  0.10
  TOTAL AREA(ACRES) =       15.4       PEAK FLOW RATE(CFS) =      46.80
================================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)     =       15.4  TC(MIN.) =      9.25
  EFFECTIVE AREA(ACRES) =     15.43  AREA-AVERAGED Fm(INCH/HR)=  0.07
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap = 0.100
  PEAK FLOW RATE(CFS)   =      46.80
================================================================================
================================================================================
  END OF RATIONAL METHOD ANALYSIS
```

APPENDIX F

PROPOSED CONDITIONS HYDROLOGY AES UNIT HYDROGRPAH RESULTS

100-year Hydrograph - Proposed DA-1

```
================================================================================
*** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
    AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

    TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.42 (inches)

    SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
       TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
         1          9.32       10.00       32.(AMC II)     0.742       0.879

    TOTAL AREA (Acres) =      9.32

    AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.074

    AREA-AVERAGED LOW LOSS FRACTION, Y = 0.121
================================================================================

--------------------------------------------------------------------------------


    RATIONAL METHOD CALIBRATION COEFFICIENT = 0.96
    TOTAL CATCHMENT AREA(ACRES) =    9.32
    SOIL-LOSS RATE, Fm,(INCH/HR) =  0.074
    LOW LOSS FRACTION = 0.121
    TIME OF CONCENTRATION(MIN.) =  6.92
    SMALL AREA PEAK Q COMPUTED USING PEAK FLOW RATE FORMULA
    USER SPECIFIED RAINFALL VALUES ARE USED
    RETURN FREQUENCY(YEARS) = 100
       5-MINUTE POINT RAINFALL VALUE(INCHES) =  0.35
      30-MINUTE POINT RAINFALL VALUE(INCHES) =  0.92
       1-HOUR   POINT RAINFALL VALUE(INCHES) =  1.35
       3-HOUR   POINT RAINFALL VALUE(INCHES) =  2.10
       6-HOUR   POINT RAINFALL VALUE(INCHES) =  2.84
      24-HOUR   POINT RAINFALL VALUE(INCHES) =  5.42

--------------------------------------------------------------------------------

    TOTAL CATCHMENT   RUNOFF  VOLUME(ACRE-FEET) =     3.60
    TOTAL CATCHMENT SOIL-LOSS VOLUME(ACRE-FEET) =     0.61

********************************************************************************
  TIME     VOLUME       Q    0.       10.0      20.0      30.0      40.0
 (HOURS)    (AF)      (CFS)
--------------------------------------------------------------------------------
  0.08      0.0040      0.83  Q         .         .         .         .
  0.20      0.0119      0.83  Q         .         .         .         .
  0.31      0.0198      0.84  Q         .         .         .         .
  0.43      0.0278      0.84  Q         .         .         .         .
  0.55      0.0358      0.84  Q         .         .         .         .
  0.66      0.0439      0.85  Q         .         .         .         .
  0.78      0.0519      0.85  Q         .         .         .         .
  0.89      0.0601      0.85  Q         .         .         .         .
  1.01      0.0682      0.86  Q         .         .         .         .
  1.12      0.0764      0.86  Q         .         .         .         .
```

1.24	0.0846	0.86	Q	.	.	.	.
1.35	0.0928	0.87	Q	.	.	.	.
1.47	0.1011	0.87	Q	.	.	.	.
1.58	0.1094	0.87	Q	.	.	.	.
1.70	0.1178	0.88	Q	.	.	.	.
1.81	0.1261	0.88	Q	.	.	.	.
1.93	0.1346	0.88	Q	.	.	.	.
2.04	0.1430	0.89	Q	.	.	.	.
2.16	0.1515	0.89	Q	.	.	.	.
2.28	0.1600	0.90	Q	.	.	.	.
2.39	0.1686	0.90	Q	.	.	.	.
2.51	0.1772	0.91	Q	.	.	.	.
2.62	0.1859	0.91	Q	.	.	.	.
2.74	0.1946	0.91	Q	.	.	.	.
2.85	0.2033	0.92	Q	.	.	.	.
2.97	0.2121	0.92	Q	.	.	.	.
3.08	0.2209	0.93	Q	.	.	.	.
3.20	0.2297	0.93	Q	.	.	.	.
3.31	0.2386	0.93	Q	.	.	.	.
3.43	0.2475	0.94	Q	.	.	.	.
3.54	0.2565	0.94	Q	.	.	.	.
3.66	0.2655	0.95	Q	.	.	.	.
3.77	0.2746	0.95	Q	.	.	.	.
3.89	0.2837	0.96	Q	.	.	.	.
4.01	0.2929	0.96	Q	.	.	.	.
4.12	0.3021	0.97	Q	.	.	.	.
4.24	0.3113	0.97	Q	.	.	.	.
4.35	0.3206	0.98	Q	.	.	.	.
4.47	0.3300	0.98	Q	.	.	.	.
4.58	0.3394	0.99	Q	.	.	.	.
4.70	0.3488	0.99	Q	.	.	.	.
4.81	0.3584	1.00	.Q	.	.	.	.
4.93	0.3679	1.00	.Q	.	.	.	.
5.04	0.3775	1.01	.Q	.	.	.	.
5.16	0.3872	1.02	.Q	.	.	.	.
5.27	0.3969	1.02	.Q	.	.	.	.
5.39	0.4067	1.03	.Q	.	.	.	.
5.50	0.4165	1.03	.Q	.	.	.	.
5.62	0.4264	1.04	.Q	.	.	.	.
5.74	0.4363	1.05	.Q	.	.	.	.
5.85	0.4463	1.05	.Q	.	.	.	.
5.97	0.4564	1.06	.Q	.	.	.	.
6.08	0.4665	1.06	.Q	.	.	.	.
6.20	0.4767	1.07	.Q	.	.	.	.
6.31	0.4869	1.08	.Q	.	.	.	.
6.43	0.4972	1.09	.Q	.	.	.	.
6.54	0.5076	1.09	.Q	.	.	.	.
6.66	0.5181	1.10	.Q	.	.	.	.
6.77	0.5286	1.11	.Q	.	.	.	.
6.89	0.5392	1.12	.Q	.	.	.	.
7.00	0.5498	1.12	.Q	.	.	.	.
7.12	0.5606	1.13	.Q	.	.	.	.
7.23	0.5714	1.14	.Q	.	.	.	.
7.35	0.5822	1.15	.Q	.	.	.	.

7.47	0.5932	1.15	.Q	.	.	.	.
7.58	0.6042	1.16	.Q	.	.	.	.
7.70	0.6153	1.17	.Q	.	.	.	.
7.81	0.6265	1.18	.Q	.	.	.	.
7.93	0.6378	1.19	.Q	.	.	.	.
8.04	0.6492	1.20	.Q	.	.	.	.
8.16	0.6606	1.20	.Q	.	.	.	.
8.27	0.6722	1.22	.Q	.	.	.	.
8.39	0.6838	1.22	.Q	.	.	.	.
8.50	0.6955	1.24	.Q	.	.	.	.
8.62	0.7073	1.24	.Q	.	.	.	.
8.73	0.7193	1.26	.Q	.	.	.	.
8.85	0.7313	1.26	.Q	.	.	.	.
8.96	0.7434	1.28	.Q	.	.	.	.
9.08	0.7556	1.29	.Q	.	.	.	.
9.20	0.7680	1.30	.Q	.	.	.	.
9.31	0.7804	1.31	.Q	.	.	.	.
9.43	0.7930	1.33	.Q	.	.	.	.
9.54	0.8056	1.33	.Q	.	.	.	.
9.66	0.8184	1.35	.Q	.	.	.	.
9.77	0.8313	1.36	.Q	.	.	.	.
9.89	0.8444	1.38	.Q	.	.	.	.
10.00	0.8575	1.39	.Q	.	.	.	.
10.12	0.8709	1.41	.Q	.	.	.	.
10.23	0.8843	1.42	.Q	.	.	.	.
10.35	0.8979	1.44	.Q	.	.	.	.
10.46	0.9116	1.45	.Q	.	.	.	.
10.58	0.9255	1.47	.Q	.	.	.	.
10.69	0.9395	1.48	.Q	.	.	.	.
10.81	0.9537	1.50	.Q	.	.	.	.
10.93	0.9681	1.51	.Q	.	.	.	.
11.04	0.9826	1.54	.Q	.	.	.	.
11.16	0.9974	1.55	.Q	.	.	.	.
11.27	1.0123	1.58	.Q	.	.	.	.
11.39	1.0274	1.59	.Q	.	.	.	.
11.50	1.0426	1.62	.Q	.	.	.	.
11.62	1.0581	1.63	.Q	.	.	.	.
11.73	1.0739	1.66	.Q	.	.	.	.
11.85	1.0898	1.68	.Q	.	.	.	.
11.96	1.1060	1.71	.Q	.	.	.	.
12.08	1.1224	1.73	.Q	.	.	.	.
12.19	1.1385	1.65	.Q	.	.	.	.
12.31	1.1543	1.67	.Q	.	.	.	.
12.42	1.1704	1.71	.Q	.	.	.	.
12.54	1.1868	1.73	.Q	.	.	.	.
12.66	1.2035	1.77	.Q	.	.	.	.
12.77	1.2205	1.80	.Q	.	.	.	.
12.89	1.2379	1.85	.Q	.	.	.	.
13.00	1.2556	1.87	.Q	.	.	.	.
13.12	1.2737	1.93	.Q	.	.	.	.
13.23	1.2922	1.95	.Q	.	.	.	.
13.35	1.3111	2.02	. Q	.	.	.	.
13.46	1.3305	2.05	. Q	.	.	.	.
13.58	1.3503	2.12	. Q	.	.	.	.

13.69	1.3707	2.16	. Q . . . .
13.81	1.3916	2.24	. Q . . . .
13.92	1.4132	2.28	. Q . . . .
14.04	1.4354	2.37	. Q . . . .
14.15	1.4574	2.24	. Q . . . .
14.27	1.4793	2.36	. Q . . . .
14.39	1.5021	2.42	. Q . . . .
14.50	1.5258	2.56	. Q . . . .
14.62	1.5505	2.64	. Q . . . .
14.73	1.5765	2.81	. Q . . . .
14.85	1.6038	2.91	. Q . . . .
14.96	1.6327	3.15	. Q . . . .
15.08	1.6633	3.28	. Q . . . .
15.19	1.6962	3.61	. Q . . . .
15.31	1.7316	3.82	. Q . . . .
15.42	1.7760	5.49	. Q . . . .
15.54	1.8330	6.48	. Q . . . .
15.65	1.8999	7.55	. Q . . . .
15.77	1.9752	8.25	. Q . . . .
15.88	2.0662	10.85	. Q . . .
16.00	2.1848	14.03	. . Q . . .
16.12	2.4030	31.75	. . . .Q .
16.23	2.5981	9.18	. Q. . . .
16.35	2.6750	6.96	. Q . . . .
16.46	2.7274	4.05	. Q . . . .
16.58	2.7631	3.44	. Q . . . .
16.69	2.7939	3.02	. Q . . . .
16.81	2.8213	2.72	. Q . . . .
16.92	2.8461	2.49	. Q . . . .
17.04	2.8689	2.30	. Q . . . .
17.15	2.8910	2.33	. Q . . . .
17.27	2.9125	2.20	. Q . . . .
17.38	2.9329	2.08	. Q . . . .
17.50	2.9523	1.98	.Q . . . .
17.61	2.9708	1.90	.Q . . . .
17.73	2.9885	1.82	.Q . . . .
17.85	3.0055	1.75	.Q . . . .
17.96	3.0220	1.69	.Q . . . .
18.08	3.0378	1.63	.Q . . . .
18.19	3.0537	1.70	.Q . . . .
18.31	3.0696	1.65	.Q . . . .
18.42	3.0851	1.60	.Q . . . .
18.54	3.1002	1.56	.Q . . . .
18.65	3.1149	1.53	.Q . . . .
18.77	3.1293	1.49	.Q . . . .
18.88	3.1433	1.46	.Q . . . .
19.00	3.1571	1.43	.Q . . . .
19.11	3.1705	1.40	.Q . . . .
19.23	3.1837	1.37	.Q . . . .
19.34	3.1966	1.34	.Q . . . .
19.46	3.2093	1.32	.Q . . . .
19.58	3.2217	1.29	.Q . . . .
19.69	3.2339	1.27	.Q . . . .
19.81	3.2460	1.25	.Q . . . .

19.92	3.2578	1.23	.Q	.	.	.	.
20.04	3.2694	1.21	.Q	.	.	.	.
20.15	3.2809	1.19	.Q	.	.	.	.
20.27	3.2921	1.17	.Q	.	.	.	.
20.38	3.3033	1.16	.Q	.	.	.	.
20.50	3.3142	1.14	.Q	.	.	.	.
20.61	3.3250	1.13	.Q	.	.	.	.
20.73	3.3357	1.11	.Q	.	.	.	.
20.84	3.3462	1.10	.Q	.	.	.	.
20.96	3.3566	1.08	.Q	.	.	.	.
21.07	3.3668	1.07	.Q	.	.	.	.
21.19	3.3769	1.06	.Q	.	.	.	.
21.31	3.3869	1.04	.Q	.	.	.	.
21.42	3.3968	1.03	.Q	.	.	.	.
21.54	3.4066	1.02	.Q	.	.	.	.
21.65	3.4163	1.01	.Q	.	.	.	.
21.77	3.4258	1.00	Q	.	.	.	.
21.88	3.4353	0.99	Q	.	.	.	.
22.00	3.4446	0.98	Q	.	.	.	.
22.11	3.4539	0.97	Q	.	.	.	.
22.23	3.4630	0.96	Q	.	.	.	.
22.34	3.4721	0.95	Q	.	.	.	.
22.46	3.4811	0.94	Q	.	.	.	.
22.57	3.4900	0.93	Q	.	.	.	.
22.69	3.4988	0.92	Q	.	.	.	.
22.80	3.5075	0.91	Q	.	.	.	.
22.92	3.5161	0.90	Q	.	.	.	.
23.04	3.5247	0.89	Q	.	.	.	.
23.15	3.5332	0.89	Q	.	.	.	.
23.27	3.5416	0.88	Q	.	.	.	.
23.38	3.5500	0.87	Q	.	.	.	.
23.50	3.5583	0.86	Q	.	.	.	.
23.61	3.5665	0.86	Q	.	.	.	.
23.73	3.5746	0.85	Q	.	.	.	.
23.84	3.5827	0.84	Q	.	.	.	.
23.96	3.5907	0.84	Q	.	.	.	.
24.07	3.5986	0.83	Q	.	.	.	.
24.19	3.6026	0.00	Q	.	.	.	.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1446.3
10%	96.9
20%	55.4
30%	20.8
40%	13.8
50%	6.9
60%	6.9

70%	6.9
80%	6.9
90%	6.9

100-year Hydrograph - Proposed DA-2

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================================================================================
 *** NON-HOMOGENEOUS WATERSHED AREA-AVERAGED LOSS RATE (Fm)
     AND LOW LOSS FRACTION ESTIMATIONS FOR AMC III:

     TOTAL 24-HOUR DURATION RAINFALL DEPTH =     5.42 (inches)

     SOIL-COVER     AREA      PERCENT OF    SCS CURVE    LOSS RATE
        TYPE      (Acres)   PERVIOUS AREA     NUMBER    Fp(in./hr.)    YIELD
          1         15.40       10.00       32.(AMC II)     0.742       0.879

     TOTAL AREA (Acres) =     15.40

     AREA-AVERAGED LOSS RATE, Fm (in./hr.) =  0.074

     AREA-AVERAGED LOW LOSS FRACTION, Y = 0.121
 ================================================================================
--------------------------------------------------------------------------------


     RATIONAL METHOD CALIBRATION COEFFICIENT = 0.90
     TOTAL CATCHMENT AREA(ACRES) =   15.40
     SOIL-LOSS RATE, Fm,(INCH/HR) =  0.074
     LOW LOSS FRACTION = 0.121
     TIME OF CONCENTRATION(MIN.) =  9.25
     SMALL AREA PEAK Q COMPUTED USING PEAK FLOW RATE FORMULA
     USER SPECIFIED RAINFALL VALUES ARE USED
     RETURN FREQUENCY(YEARS) = 100
        5-MINUTE POINT RAINFALL VALUE(INCHES) =  0.35
       30-MINUTE POINT RAINFALL VALUE(INCHES) =  0.92
        1-HOUR   POINT RAINFALL VALUE(INCHES) =  1.35
        3-HOUR   POINT RAINFALL VALUE(INCHES) =  2.10
        6-HOUR   POINT RAINFALL VALUE(INCHES) =  2.84
       24-HOUR   POINT RAINFALL VALUE(INCHES) =  5.42

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     TOTAL CATCHMENT   RUNOFF  VOLUME(ACRE-FEET) =     5.56
     TOTAL CATCHMENT SOIL-LOSS VOLUME(ACRE-FEET) =     1.39

 ********************************************************************************
   TIME     VOLUME       Q    0.       12.5      25.0      37.5      50.0
  (HOURS)    (AF)      (CFS)
 --------------------------------------------------------------------------------
   0.12      0.0064      1.28  .Q        .         .         .         .
   0.28      0.0228      1.29  .Q        .         .         .         .
   0.43      0.0393      1.30  .Q        .         .         .         .
   0.58      0.0558      1.30  .Q        .         .         .         .
   0.74      0.0725      1.31  .Q        .         .         .         .
   0.89      0.0892      1.32  .Q        .         .         .         .
   1.05      0.1060      1.32  .Q        .         .         .         .
   1.20      0.1229      1.33  .Q        .         .         .         .
   1.35      0.1399      1.34  .Q        .         .         .         .
   1.51      0.1570      1.34  .Q        .         .         .         .
```

1.66	0.1742	1.35	.Q	.	.	.	.
1.82	0.1915	1.36	.Q	.	.	.	.
1.97	0.2089	1.37	.Q	.	.	.	.
2.12	0.2264	1.38	.Q	.	.	.	.
2.28	0.2440	1.39	.Q	.	.	.	.
2.43	0.2617	1.39	.Q	.	.	.	.
2.59	0.2795	1.40	.Q	.	.	.	.
2.74	0.2974	1.41	.Q	.	.	.	.
2.90	0.3155	1.42	.Q	.	.	.	.
3.05	0.3336	1.43	.Q	.	.	.	.
3.20	0.3519	1.44	.Q	.	.	.	.
3.36	0.3703	1.45	.Q	.	.	.	.
3.51	0.3887	1.46	.Q	.	.	.	.
3.67	0.4074	1.46	.Q	.	.	.	.
3.82	0.4261	1.48	.Q	.	.	.	.
3.97	0.4450	1.48	.Q	.	.	.	.
4.13	0.4639	1.50	.Q	.	.	.	.
4.28	0.4831	1.50	.Q	.	.	.	.
4.44	0.5023	1.52	.Q	.	.	.	.
4.59	0.5217	1.53	.Q	.	.	.	.
4.75	0.5412	1.54	.Q	.	.	.	.
4.90	0.5609	1.55	.Q	.	.	.	.
5.05	0.5807	1.56	.Q	.	.	.	.
5.21	0.6007	1.57	.Q	.	.	.	.
5.36	0.6208	1.59	.Q	.	.	.	.
5.52	0.6411	1.59	.Q	.	.	.	.
5.67	0.6615	1.61	.Q	.	.	.	.
5.82	0.6821	1.62	.Q	.	.	.	.
5.98	0.7029	1.64	.Q	.	.	.	.
6.13	0.7238	1.65	.Q	.	.	.	.
6.29	0.7449	1.66	.Q	.	.	.	.
6.44	0.7661	1.67	.Q	.	.	.	.
6.60	0.7876	1.69	.Q	.	.	.	.
6.75	0.8092	1.70	.Q	.	.	.	.
6.90	0.8311	1.72	.Q	.	.	.	.
7.06	0.8531	1.73	.Q	.	.	.	.
7.21	0.8753	1.76	.Q	.	.	.	.
7.37	0.8978	1.77	.Q	.	.	.	.
7.52	0.9204	1.79	.Q	.	.	.	.
7.68	0.9433	1.80	.Q	.	.	.	.
7.83	0.9664	1.82	.Q	.	.	.	.
7.98	0.9897	1.84	.Q	.	.	.	.
8.14	1.0132	1.86	.Q	.	.	.	.
8.29	1.0370	1.87	.Q	.	.	.	.
8.45	1.0611	1.90	.Q	.	.	.	.
8.60	1.0854	1.91	.Q	.	.	.	.
8.75	1.1100	1.94	.Q	.	.	.	.
8.91	1.1348	1.96	.Q	.	.	.	.
9.06	1.1599	1.99	.Q	.	.	.	.
9.22	1.1854	2.00	.Q	.	.	.	.
9.37	1.2111	2.04	.Q	.	.	.	.
9.52	1.2372	2.05	.Q	.	.	.	.
9.68	1.2635	2.09	.Q	.	.	.	.
9.83	1.2903	2.11	.Q	.	.	.	.

9.99	1.3173	2.14	.Q . . . .
10.14	1.3448	2.16	.Q . . . .
10.30	1.3726	2.20	.Q . . . .
10.45	1.4008	2.22	.Q . . . .
10.60	1.4294	2.27	.Q . . . .
10.76	1.4585	2.29	.Q . . . .
10.91	1.4880	2.34	.Q . . . .
11.07	1.5179	2.36	.Q . . . .
11.22	1.5484	2.42	.Q . . . .
11.38	1.5794	2.44	.Q . . . .
11.53	1.6109	2.50	. Q . . . .
11.68	1.6430	2.53	. Q . . . .
11.84	1.6756	2.60	. Q . . . .
11.99	1.7090	2.63	. Q . . . .
12.15	1.7419	2.54	. Q . . . .
12.30	1.7744	2.56	. Q . . . .
12.45	1.8076	2.65	. Q . . . .
12.61	1.8416	2.69	. Q . . . .
12.76	1.8765	2.78	. Q . . . .
12.92	1.9122	2.83	. Q . . . .
13.07	1.9489	2.94	. Q . . . .
13.23	1.9867	2.99	. Q . . . .
13.38	2.0257	3.12	. Q . . . .
13.53	2.0659	3.19	. Q . . . .
13.69	2.1074	3.34	. Q . . . .
13.84	2.1505	3.42	. Q . . . .
14.00	2.1953	3.61	. Q . . . .
14.15	2.2411	3.58	. Q . . . .
14.30	2.2871	3.65	. Q . . . .
14.46	2.3345	3.79	. Q . . . .
14.61	2.3847	4.09	. Q . . . .
14.77	2.4380	4.27	. Q . . . .
14.92	2.4951	4.70	. Q . . . .
15.07	2.5566	4.96	. Q . . . .
15.23	2.6241	5.63	. Q . . . .
15.38	2.6986	6.07	. Q . . . .
15.54	2.8018	10.13	. Q . . . .
15.69	2.9376	11.18	. Q . . . .
15.85	3.1015	14.55	. .Q . . .
16.00	3.3143	18.85	. . Q . . .
16.15	3.7072	42.82	. . . . Q .
16.31	4.0600	12.56	. Q . . . .
16.46	4.1901	7.87	. Q . . . .
16.62	4.2739	5.27	. Q . . . .
16.77	4.3359	4.47	. Q . . . .
16.92	4.3894	3.93	. Q . . . .
17.08	4.4370	3.54	. Q . . . .
17.23	4.4819	3.51	. Q . . . .
17.39	4.5250	3.26	. Q . . . .
17.54	4.5652	3.06	. Q . . . .
17.70	4.6031	2.88	. Q . . . .
17.85	4.6388	2.73	. Q . . . .
18.00	4.6728	2.60	. Q . . . .
18.16	4.7064	2.67	. Q . . . .

18.31	4.7398	2.57	. Q	.	.	.	.
18.47	4.7719	2.47	.Q	.	.	.	.
18.62	4.8028	2.39	.Q	.	.	.	.
18.77	4.8328	2.32	.Q	.	.	.	.
18.93	4.8619	2.25	.Q	.	.	.	.
19.08	4.8901	2.18	.Q	.	.	.	.
19.24	4.9175	2.12	.Q	.	.	.	.
19.39	4.9442	2.07	.Q	.	.	.	.
19.55	4.9703	2.02	.Q	.	.	.	.
19.70	4.9957	1.97	.Q	.	.	.	.
19.85	5.0206	1.93	.Q	.	.	.	.
20.01	5.0449	1.89	.Q	.	.	.	.
20.16	5.0687	1.85	.Q	.	.	.	.
20.32	5.0920	1.81	.Q	.	.	.	.
20.47	5.1149	1.78	.Q	.	.	.	.
20.62	5.1373	1.74	.Q	.	.	.	.
20.78	5.1594	1.71	.Q	.	.	.	.
20.93	5.1810	1.68	.Q	.	.	.	.
21.09	5.2023	1.66	.Q	.	.	.	.
21.24	5.2232	1.63	.Q	.	.	.	.
21.40	5.2438	1.60	.Q	.	.	.	.
21.55	5.2641	1.58	.Q	.	.	.	.
21.70	5.2840	1.56	.Q	.	.	.	.
21.86	5.3037	1.53	.Q	.	.	.	.
22.01	5.3231	1.51	.Q	.	.	.	.
22.17	5.3422	1.49	.Q	.	.	.	.
22.32	5.3611	1.47	.Q	.	.	.	.
22.48	5.3797	1.45	.Q	.	.	.	.
22.63	5.3981	1.43	.Q	.	.	.	.
22.78	5.4162	1.42	.Q	.	.	.	.
22.94	5.4341	1.40	.Q	.	.	.	.
23.09	5.4518	1.38	.Q	.	.	.	.
23.25	5.4693	1.37	.Q	.	.	.	.
23.40	5.4866	1.35	.Q	.	.	.	.
23.55	5.5037	1.33	.Q	.	.	.	.
23.71	5.5206	1.32	.Q	.	.	.	.
23.86	5.5374	1.31	.Q	.	.	.	.
24.02	5.5539	1.29	.Q	.	.	.	.
24.17	5.5621	0.00	Q	.	.	.	.

TIME DURATION(minutes) OF PERCENTILES OF ESTIMATED PEAK FLOW RATE:
(Note: 100% of Peak Flow Rate estimate assumed to have
an instantaneous time duration)

Percentile of Estimated Peak Flow Rate	Duration (minutes)
0%	1443.0
10%	120.2
20%	55.5
30%	27.8
40%	18.5
50%	9.2

60%	9.2
70%	9.2
80%	9.2
90%	9.2

APPENDIX G

EXISTING OFFSITE CONDITIONS HYDROLOGY AES RATIONAL METHOD RESULTS

```
************************************************************************
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                          Analysis prepared by:

                     Kimley-Horn and Associates, Inc.
                           765 The City Drive
                               Suite 200
                            Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* 5TH & STERLING AVENUE                                                 *
* EXISTING CONDITION - OFFSITE                                          *
* 100 YR STORM EVENT                                                    *
 ************************************************************************

  FILE NAME: SR_EO100.DAT
  TIME/DATE OF STUDY: 12:00 05/18/2023
========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  24.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED TABLED RAINFALL USED*
  NUMBER OF [TIME,INTENSITY] DATA PAIRS =  6
   1)    5.00;  4.200
   2)   15.00;  2.420
   3)   30.00;  1.830
   4)   60.00;  1.350
   5)  360.00;  0.474
   6)  720.00;  0.317
  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   33.0     22.0    0.020/0.020/0.020   0.67    1.67 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  8.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  ELEVATION DATA: UPSTREAM(FEET) =   1119.31  DOWNSTREAM(FEET) =   1118.12
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.510
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.109
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS   Tc
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  CONDOMINIUMS                A        0.09      0.74     0.350    52    5.51
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.350
  SUBAREA RUNOFF(CFS) =      0.31
  TOTAL AREA(ACRES) =      0.09   PEAK FLOW RATE(CFS) =      0.31

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1118.12  DOWNSTREAM(FEET) =   1106.02
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1637.00   CHANNEL SLOPE =  0.0074
  CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  25.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.33
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  2.193
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  CONDOMINIUMS                A        1.40      0.74     0.350    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.350
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       1.58
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   1.79
  AVERAGE FLOW DEPTH(FEET) =   0.19   TRAVEL TIME(MIN.) =  15.27
  Tc(MIN.) =   20.78
  SUBAREA AREA(ACRES) =     1.40       SUBAREA RUNOFF(CFS) =    2.44
  EFFECTIVE AREA(ACRES) =      1.49     AREA-AVERAGED Fm(INCH/HR) =   0.26
  AREA-AVERAGED Fp(INCH/HR) =   0.74  AREA-AVERAGED Ap =   0.35
  TOTAL AREA(ACRES) =        1.5         PEAK FLOW RATE(CFS) =       2.59

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.23   FLOW VELOCITY(FEET/SEC.) =   2.03
  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =    1737.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   112.00
  ELEVATION DATA: UPSTREAM(FEET) =   1106.27  DOWNSTREAM(FEET) =   1105.73

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.833
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.052
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/       SCS SOIL   AREA      Fp         Ap      SCS   Tc
       LAND USE             GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                  A        0.13      0.74     0.100    52    5.83
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      0.47
  TOTAL AREA(ACRES) =      0.13   PEAK FLOW RATE(CFS) =      0.47
```

```
****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    203.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1105.73  DOWNSTREAM(FEET) =   1105.42
  CHANNEL LENGTH THRU SUBAREA(FEET) =   477.00   CHANNEL SLOPE =  0.0006
  CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  99.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.17
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  2.096
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        0.48      0.74     0.100    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       0.91
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   0.46
  AVERAGE FLOW DEPTH(FEET) =   0.14   TRAVEL TIME(MIN.) =  17.42
  Tc(MIN.) =   23.25
  SUBAREA AREA(ACRES) =     0.48       SUBAREA RUNOFF(CFS) =    0.87
  EFFECTIVE AREA(ACRES) =      0.61     AREA-AVERAGED Fm(INCH/HR) =   0.07
  AREA-AVERAGED Fp(INCH/HR) =   0.74  AREA-AVERAGED Ap =   0.10
  TOTAL AREA(ACRES) =        0.6         PEAK FLOW RATE(CFS) =       1.11

  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.16   FLOW VELOCITY(FEET/SEC.) =   0.46
  LONGEST FLOWPATH FROM NODE    201.00 TO NODE    203.00 =     589.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    301.00 TO NODE    302.00 IS CODE =  21
----------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   130.00
  ELEVATION DATA: UPSTREAM(FEET) =   1121.03  DOWNSTREAM(FEET) =   1119.99

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    6.626
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.911
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  CONDOMINIUMS               A        0.12      0.74     0.350    52    6.63
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.350
  SUBAREA RUNOFF(CFS) =      0.39
  TOTAL AREA(ACRES) =      0.12   PEAK FLOW RATE(CFS) =      0.39

****************************************************************************
  FLOW PROCESS FROM NODE    302.00 TO NODE    303.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1119.99  DOWNSTREAM(FEET) =   1106.00
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1828.00   CHANNEL SLOPE =  0.0077
  CHANNEL BASE(FEET) =    0.00   "Z" FACTOR =  75.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.25
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  1.856
```

SUBAREA LOSS RATE DATA(AMC III):

DEVELOPMENT TYPE/ LAND USE	SCS SOIL GROUP	AREA (ACRES)	Fp (INCH/HR)	Ap (DECIMAL)	SCS CN
CONDOMINIUMS	A	1.74	0.74	0.350	52

SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) = 0.74
SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap = 0.350
TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) = 1.77
TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) = 1.34
AVERAGE FLOW DEPTH(FEET) = 0.13 TRAVEL TIME(MIN.) = 22.71
Tc(MIN.) = 29.33
SUBAREA AREA(ACRES) = 1.74 SUBAREA RUNOFF(CFS) = 2.50
EFFECTIVE AREA(ACRES) = 1.86 AREA-AVERAGED Fm(INCH/HR) = 0.26
AREA-AVERAGED Fp(INCH/HR) = 0.74 AREA-AVERAGED Ap = 0.35
TOTAL AREA(ACRES) = 1.9 PEAK FLOW RATE(CFS) = 2.67

END OF SUBAREA CHANNEL FLOW HYDRAULICS:
DEPTH(FEET) = 0.15 FLOW VELOCITY(FEET/SEC.) = 1.59
LONGEST FLOWPATH FROM NODE 301.00 TO NODE 303.00 = 1958.00 FEET.

==========

END OF STUDY SUMMARY:
TOTAL AREA(ACRES) = 1.9 TC(MIN.) = 29.33
EFFECTIVE AREA(ACRES) = 1.86 AREA-AVERAGED Fm(INCH/HR)= 0.26
AREA-AVERAGED Fp(INCH/HR) = 0.74 AREA-AVERAGED Ap = 0.350
PEAK FLOW RATE(CFS) = 2.67

==========

==========

END OF RATIONAL METHOD ANALYSIS

APPENDIX H

PROPOSED OFFSITE CONDITIONS HYDROLOGY AES RATIONAL METHOD RESULTS

```
************************************************************************
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                          Analysis prepared by:

                     Kimley-Horn and Associates, Inc.
                           765 The City Drive
                               Suite 200
                            Orange, CA 92868

 ************************* DESCRIPTION OF STUDY *************************
* 5TH & STERLING AVENUE                                                 *
* DEVELOPED CONDITION - OFFSITES                                        *
* 100 YR STORM EVENT                                                    *
 ************************************************************************

  FILE NAME: SRPO100.DAT
  TIME/DATE OF STUDY: 19:00 05/17/2023
========================================================================
  USER SPECIFIED HYDROLOGY AND HYDRAULIC MODEL INFORMATION:
========================================================================
                    --*TIME-OF-CONCENTRATION MODEL*--

  USER SPECIFIED STORM EVENT(YEAR) =  100.00
  SPECIFIED MINIMUM PIPE SIZE(INCH) =  24.00
  SPECIFIED PERCENT OF GRADIENTS(DECIMAL) TO USE FOR FRICTION SLOPE = 0.95
  *USER-DEFINED TABLED RAINFALL USED*
  NUMBER OF [TIME,INTENSITY] DATA PAIRS =  6
   1)    5.00;  4.200
   2)   15.00;  2.420
   3)   30.00;  1.830
   4)   60.00;  1.350
   5)  360.00;  0.474
   6)  720.00;  0.317
  *ANTECEDENT MOISTURE CONDITION (AMC) III ASSUMED FOR RATIONAL METHOD*

  *USER-DEFINED STREET-SECTIONS FOR COUPLED PIPEFLOW AND STREETFLOW MODEL*
     HALF-  CROWN TO   STREET-CROSSFALL:   CURB  GUTTER-GEOMETRIES:  MANNING
     WIDTH  CROSSFALL  IN-  / OUT-/PARK-  HEIGHT  WIDTH  LIP   HIKE  FACTOR
NO.   (FT)     (FT)    SIDE / SIDE/ WAY    (FT)    (FT)  (FT)  (FT)    (n)
===  =====  =========  =================  ======  ===== ====== ===== =======
  1   33.0     22.0    0.020/0.020/0.020   0.67    1.67 0.0313 0.167 0.0150

  GLOBAL STREET FLOW-DEPTH CONSTRAINTS:
    1. Relative Flow-Depth =  0.00 FEET
       as (Maximum Allowable Street Flow Depth) - (Top-of-Curb)
    2. (Depth)*(Velocity) Constraint =  8.0 (FT*FT/S)
  *SIZE PIPE WITH A FLOW CAPACITY GREATER THAN
   OR EQUAL TO THE UPSTREAM TRIBUTARY PIPE.*
  *USER-SPECIFIED MINIMUM TOPOGRAPHIC SLOPE ADJUSTMENT NOT SELECTED

************************************************************************
  FLOW PROCESS FROM NODE    100.00 TO NODE    101.00 IS CODE =  21
------------------------------------------------------------------------
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
========================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  ELEVATION DATA: UPSTREAM(FEET) =   1119.22  DOWNSTREAM(FEET) =   1118.63
```

```
  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    5.354
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  4.137
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                 A        0.08      0.74     0.100    52    5.35
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      0.29
  TOTAL AREA(ACRES) =      0.08   PEAK FLOW RATE(CFS) =      0.29

****************************************************************************
  FLOW PROCESS FROM NODE    101.00 TO NODE    102.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1118.63  DOWNSTREAM(FEET) =   1106.38
  CHANNEL LENGTH THRU SUBAREA(FEET) =  1621.00   CHANNEL SLOPE =  0.0076
  CHANNEL BASE(FEET) =    1.67   "Z" FACTOR =  19.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.08

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.626
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        1.30      0.74     0.100    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       2.40
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   9.41
  AVERAGE FLOW DEPTH(FEET) =   0.08   TRAVEL TIME(MIN.) =   2.87
  Tc(MIN.) =    8.23
  SUBAREA AREA(ACRES) =     1.30       SUBAREA RUNOFF(CFS) =    4.16
  EFFECTIVE AREA(ACRES) =      1.38     AREA-AVERAGED Fm(INCH/HR) =   0.07
  AREA-AVERAGED Fp(INCH/HR) =   0.74  AREA-AVERAGED Ap =   0.10
  TOTAL AREA(ACRES) =        1.4         PEAK FLOW RATE(CFS) =       4.41

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.08   FLOW VELOCITY(FEET/SEC.) =  17.28

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

  LONGEST FLOWPATH FROM NODE    100.00 TO NODE    102.00 =    1721.00 FEET.

****************************************************************************
  FLOW PROCESS FROM NODE    201.00 TO NODE    202.00 IS CODE =  21
----------------------------------------------------------------------------
```

```
  >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
  >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
  INITIAL SUBAREA FLOW-LENGTH(FEET) =   100.00
  ELEVATION DATA: UPSTREAM(FEET) =   1106.21  DOWNSTREAM(FEET) =   1106.05

  Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
  SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    6.952
  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.853
  SUBAREA Tc AND LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
  COMMERCIAL                 A        0.14      0.74     0.100    52    6.95
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  SUBAREA RUNOFF(CFS) =      0.48
  TOTAL AREA(ACRES) =      0.14   PEAK FLOW RATE(CFS) =      0.48

****************************************************************************
  FLOW PROCESS FROM NODE    202.00 TO NODE    203.00 IS CODE =  51
----------------------------------------------------------------------------
  >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
  >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
  ELEVATION DATA: UPSTREAM(FEET) =   1106.05  DOWNSTREAM(FEET) =   1105.52
  CHANNEL LENGTH THRU SUBAREA(FEET) =   436.00   CHANNEL SLOPE =  0.0012
  CHANNEL BASE(FEET) =    1.67   "Z" FACTOR =  19.000
  MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.08

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

  * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.620
  SUBAREA LOSS RATE DATA(AMC III):
   DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
       LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
  COMMERCIAL                 A        0.59      0.74     0.100    52
  SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
  SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
  TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       1.42
  TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =   5.56
  AVERAGE FLOW DEPTH(FEET) =   0.08   TRAVEL TIME(MIN.) =   1.31
  Tc(MIN.) =    8.26
  SUBAREA AREA(ACRES) =     0.59       SUBAREA RUNOFF(CFS) =    1.88
  EFFECTIVE AREA(ACRES) =      0.73     AREA-AVERAGED Fm(INCH/HR) =   0.07
  AREA-AVERAGED Fp(INCH/HR) =   0.74  AREA-AVERAGED Ap =   0.10
  TOTAL AREA(ACRES) =        0.7         PEAK FLOW RATE(CFS) =       2.33

         ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
             CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
             ALLOWABLE DEPTH).
             AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
             ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.


  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.08   FLOW VELOCITY(FEET/SEC.) =   9.13

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH
```

```
 LONGEST FLOWPATH FROM NODE    201.00 TO NODE    203.00 =     536.00 FEET.

****************************************************************************
 FLOW PROCESS FROM NODE    301.00 TO NODE    302.00 IS CODE =  21
----------------------------------------------------------------------------
 >>>>>RATIONAL METHOD INITIAL SUBAREA ANALYSIS<<<<<
 >>USE TIME-OF-CONCENTRATION NOMOGRAPH FOR INITIAL SUBAREA<<
============================================================================
 INITIAL SUBAREA FLOW-LENGTH(FEET) =   131.00
 ELEVATION DATA: UPSTREAM(FEET) =   1120.45  DOWNSTREAM(FEET) =   1120.08

 Tc = K*[(LENGTH** 3.00)/(ELEVATION CHANGE)]**0.20
 SUBAREA ANALYSIS USED MINIMUM Tc(MIN.) =    6.912
 * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.860
 SUBAREA Tc AND LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS   Tc
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN  (MIN.)
 COMMERCIAL                 A        0.15      0.74     0.100    52    6.91
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
 SUBAREA RUNOFF(CFS) =      0.51
 TOTAL AREA(ACRES) =      0.15   PEAK FLOW RATE(CFS) =      0.51

****************************************************************************
 FLOW PROCESS FROM NODE    302.00 TO NODE    303.00 IS CODE =  51
----------------------------------------------------------------------------
 >>>>>COMPUTE TRAPEZOIDAL CHANNEL FLOW<<<<<
 >>>>>TRAVELTIME THRU SUBAREA (EXISTING ELEMENT)<<<<<
============================================================================
 ELEVATION DATA: UPSTREAM(FEET) =   1120.08  DOWNSTREAM(FEET) =   1106.50
 CHANNEL LENGTH THRU SUBAREA(FEET) =  1774.00   CHANNEL SLOPE =  0.0077
 CHANNEL BASE(FEET) =    1.67   "Z" FACTOR =  19.000
 MANNING'S FACTOR = 0.015   MAXIMUM DEPTH(FEET) =   0.08

        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.

 * 100 YEAR RAINFALL INTENSITY(INCH/HR) =  3.503
 SUBAREA LOSS RATE DATA(AMC III):
  DEVELOPMENT TYPE/      SCS SOIL   AREA      Fp         Ap     SCS
      LAND USE            GROUP   (ACRES)  (INCH/HR)  (DECIMAL)  CN
 COMMERCIAL                 A        2.09      0.74     0.100    52
 SUBAREA AVERAGE PERVIOUS LOSS RATE, Fp(INCH/HR) =  0.74
 SUBAREA AVERAGE PERVIOUS AREA FRACTION, Ap =  0.100
 TRAVEL TIME COMPUTED USING ESTIMATED FLOW(CFS) =       3.76
 TRAVEL TIME THRU SUBAREA BASED ON VELOCITY(FEET/SEC.) =  14.74
 AVERAGE FLOW DEPTH(FEET) =   0.08   TRAVEL TIME(MIN.) =   2.01
 Tc(MIN.) =    8.92
 SUBAREA AREA(ACRES) =     2.09       SUBAREA RUNOFF(CFS) =    6.45
 EFFECTIVE AREA(ACRES) =      2.24     AREA-AVERAGED Fm(INCH/HR) =   0.07
 AREA-AVERAGED Fp(INCH/HR) =   0.74  AREA-AVERAGED Ap =   0.10
 TOTAL AREA(ACRES) =        2.2         PEAK FLOW RATE(CFS) =       6.91

        ==>>WARNING: FLOW IN CHANNEL EXCEEDS CHANNEL
            CAPACITY( NORMAL DEPTH EQUAL TO SPECIFIED MAXIMUM
            ALLOWABLE DEPTH).
            AS AN APPROXIMATION, FLOWDEPTH IS SET AT MAXIMUM
            ALLOWABLE DEPTH AND IS USED FOR TRAVELTIME CALCULATIONS.
```

```
  END OF SUBAREA CHANNEL FLOW HYDRAULICS:
  DEPTH(FEET) =  0.08   FLOW VELOCITY(FEET/SEC.) =  27.08

  ==>FLOWDEPTH EXCEEDS MAXIMUM ALLOWABLE DEPTH

  LONGEST FLOWPATH FROM NODE    301.00 TO NODE    303.00 =    1905.00 FEET.
============================================================================
  END OF STUDY SUMMARY:
  TOTAL AREA(ACRES)      =        2.2  TC(MIN.) =      8.92
  EFFECTIVE AREA(ACRES) =      2.24  AREA-AVERAGED Fm(INCH/HR)=  0.07
  AREA-AVERAGED Fp(INCH/HR) =  0.74  AREA-AVERAGED Ap = 0.100
  PEAK FLOW RATE(CFS)    =       6.91
============================================================================
============================================================================
  END OF RATIONAL METHOD ANALYSIS
```

APPENDIX I

UNDERGROUND CHAMBER ANALYSIS, PONDPACK HYDROGRAPHS RESULTS

100-year Detention - Proposed DA-1

5th & Sterling Avenue

Pond Pack Calculation

BMP 1

Project Summary	
Title	
Engineer	
Company	
Date	2/3/2023

Notes

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5th & Sterling Avenue
Pond Pack Calculation
BMP 1

Subsection: User Notifications

User Notifications?	No user notifications generated.

5th & Sterling Avenue
Pond Pack Calculation
BMP 1

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
CM-1	Base	0	157,022.000	16.140	27.6464

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
O-1	Base	0	0.000	0.000	0.0000

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
PO-1 (IN)	Base	0	157,026.000	16.140	27.6464	(N/A)	(N/A)
PO-1 (OUT)	Base	0	0.000	0.000	0.0000	1,099.91	66,141.000

Subsection: Read Hydrograph
Label: CM-1

Scenario: Base

Peak Discharge	27.6464 ft³/s
Time to Peak	16.140 hours
Hydrograph Volume	157,021.680 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.110 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.080	0.8300	0.8300	0.8391	0.8400	0.8400
0.630	0.8473	0.8500	0.8500	0.8558	0.8600
1.180	0.8600	0.8645	0.8700	0.8700	0.8733
1.730	0.8800	0.8800	0.8818	0.8900	0.8908
2.280	0.9000	0.9000	0.9092	0.9100	0.9100
2.830	0.9182	0.9200	0.9273	0.9300	0.9300
3.380	0.9358	0.9400	0.9450	0.9500	0.9542
3.930	0.9600	0.9627	0.9700	0.9718	0.9800
4.480	0.9809	0.9900	0.9900	1.0000	1.0000
5.030	1.0091	1.0183	1.0200	1.0275	1.0300
5.580	1.0367	1.0458	1.0500	1.0550	1.0600
6.130	1.0642	1.0736	1.0833	1.0900	1.0925
6.680	1.1018	1.1117	1.1200	1.1208	1.1300
7.230	1.1400	1.1492	1.1500	1.1582	1.1675
7.780	1.1773	1.1867	1.1964	1.2000	1.2109
8.330	1.2200	1.2291	1.2400	1.2473	1.2600
8.880	1.2655	1.2825	1.2917	1.3009	1.3117
9.430	1.3300	1.3300	1.3483	1.3591	1.3767
9.980	1.3882	1.4050	1.4173	1.4333	1.4464
10.530	1.4617	1.4755	1.4900	1.5042	1.5209
11.080	1.5433	1.5582	1.5825	1.5955	1.6217
11.630	1.6327	1.6617	1.6800	1.7100	1.7283
12.180	1.6573	1.6667	1.7027	1.7250	1.7567
12.730	1.7891	1.8292	1.8609	1.9000	1.9391
13.280	1.9792	2.0309	2.0733	2.1309	2.1800
13.830	2.2473	2.2950	2.3582	2.2500	2.3600
14.380	2.4150	2.5473	2.6267	2.7791	2.8850
14.930	3.0845	3.2367	3.4900	3.7325	4.7309
15.480	5.9850	6.9664	7.8417	9.1955	11.9100
16.030	18.4600	27.6464	8.8100	6.6955	3.9992
16.580	3.4400	3.0200	2.7450	2.5109	2.3317
17.130	2.3245	2.2325	2.1127	2.0133	1.9291
17.680	1.8533	1.7850	1.7227	1.6650	1.6555
18.230	1.6833	1.6364	1.5900	1.5545	1.5233
18.780	1.4873	1.4575	1.4300	1.4000	1.3725
19.330	1.3427	1.3233	1.2975	1.2755	1.2567
19.880	1.2373	1.2183	1.1991	1.1800	1.1655
20.430	1.1517	1.1364	1.1233	1.1073	1.0950

Subsection: Read Hydrograph
Scenario: Base
Label: CM-1

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.110 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
20.980	1.0782	1.0683	1.0583	1.0400	1.0300
21.530	1.0208	1.0109	1.0017	0.9918	0.9825
22.080	0.9727	0.9633	0.9536	0.9442	0.9345
22.630	0.9250	0.9155	0.9058	0.8967	0.8900
23.180	0.8875	0.8782	0.8683	0.8600	0.8592
23.730	0.8500	0.8400	0.8400	0.8309	0.1383

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.017	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.033	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.050	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.067	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.083	1,095.00	1,095.00	1,095.01	1,095.01	1,095.01
0.100	1,095.01	1,095.01	1,095.01	1,095.01	1,095.01
0.117	1,095.02	1,095.02	1,095.02	1,095.02	1,095.02
0.133	1,095.02	1,095.02	1,095.03	1,095.03	1,095.03
0.150	1,095.03	1,095.03	1,095.03	1,095.03	1,095.03
0.167	1,095.04	1,095.04	1,095.04	1,095.04	1,095.04
0.183	1,095.04	1,095.04	1,095.04	1,095.05	1,095.05
0.200	1,095.05	1,095.05	1,095.05	1,095.05	1,095.05
0.217	1,095.05	1,095.06	1,095.06	1,095.06	1,095.06
0.233	1,095.06	1,095.06	1,095.06	1,095.06	1,095.07
0.250	1,095.07	1,095.07	1,095.07	1,095.07	1,095.07
0.267	1,095.07	1,095.07	1,095.07	1,095.08	1,095.08
0.283	1,095.08	1,095.08	1,095.08	1,095.08	1,095.08
0.300	1,095.08	1,095.08	1,095.09	1,095.09	1,095.09
0.317	1,095.09	1,095.09	1,095.09	1,095.09	1,095.09
0.333	1,095.09	1,095.10	1,095.10	1,095.10	1,095.10
0.350	1,095.10	1,095.10	1,095.10	1,095.10	1,095.10
0.367	1,095.10	1,095.11	1,095.11	1,095.11	1,095.11
0.383	1,095.11	1,095.11	1,095.11	1,095.11	1,095.11
0.400	1,095.11	1,095.12	1,095.12	1,095.12	1,095.12
0.417	1,095.12	1,095.12	1,095.12	1,095.12	1,095.12
0.433	1,095.12	1,095.13	1,095.13	1,095.13	1,095.13
0.450	1,095.13	1,095.13	1,095.13	1,095.13	1,095.13
0.467	1,095.13	1,095.13	1,095.14	1,095.14	1,095.14
0.483	1,095.14	1,095.14	1,095.14	1,095.14	1,095.14
0.500	1,095.14	1,095.14	1,095.14	1,095.14	1,095.15
0.517	1,095.15	1,095.15	1,095.15	1,095.15	1,095.15
0.533	1,095.15	1,095.15	1,095.15	1,095.15	1,095.15
0.550	1,095.15	1,095.16	1,095.16	1,095.16	1,095.16
0.567	1,095.16	1,095.16	1,095.16	1,095.16	1,095.16
0.583	1,095.16	1,095.16	1,095.16	1,095.17	1,095.17
0.600	1,095.17	1,095.17	1,095.17	1,095.17	1,095.17
0.617	1,095.17	1,095.17	1,095.17	1,095.17	1,095.17
0.633	1,095.17	1,095.18	1,095.18	1,095.18	1,095.18
0.650	1,095.18	1,095.18	1,095.18	1,095.18	1,095.18
0.667	1,095.18	1,095.18	1,095.18	1,095.18	1,095.18
0.683	1,095.19	1,095.19	1,095.19	1,095.19	1,095.19

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.700	1,095.19	1,095.19	1,095.19	1,095.19	1,095.19
0.717	1,095.19	1,095.19	1,095.19	1,095.19	1,095.19
0.733	1,095.20	1,095.20	1,095.20	1,095.20	1,095.20
0.750	1,095.20	1,095.20	1,095.20	1,095.20	1,095.20
0.767	1,095.20	1,095.20	1,095.20	1,095.20	1,095.20
0.783	1,095.20	1,095.21	1,095.21	1,095.21	1,095.21
0.800	1,095.21	1,095.21	1,095.21	1,095.21	1,095.21
0.817	1,095.21	1,095.21	1,095.21	1,095.21	1,095.21
0.833	1,095.21	1,095.21	1,095.22	1,095.22	1,095.22
0.850	1,095.22	1,095.22	1,095.22	1,095.22	1,095.22
0.867	1,095.22	1,095.22	1,095.22	1,095.22	1,095.22
0.883	1,095.22	1,095.22	1,095.22	1,095.22	1,095.22
0.900	1,095.23	1,095.23	1,095.23	1,095.23	1,095.23
0.917	1,095.23	1,095.23	1,095.23	1,095.23	1,095.23
0.933	1,095.23	1,095.23	1,095.23	1,095.23	1,095.23
0.950	1,095.23	1,095.23	1,095.23	1,095.23	1,095.24
0.967	1,095.24	1,095.24	1,095.24	1,095.24	1,095.24
0.983	1,095.24	1,095.24	1,095.24	1,095.24	1,095.24
1.000	1,095.24	1,095.24	1,095.24	1,095.24	1,095.24
1.017	1,095.24	1,095.24	1,095.24	1,095.24	1,095.24
1.033	1,095.25	1,095.25	1,095.25	1,095.25	1,095.25
1.050	1,095.25	1,095.25	1,095.25	1,095.25	1,095.25
1.067	1,095.25	1,095.25	1,095.25	1,095.25	1,095.25
1.083	1,095.25	1,095.25	1,095.25	1,095.25	1,095.25
1.100	1,095.25	1,095.25	1,095.26	1,095.26	1,095.26
1.117	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1.133	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1.150	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1.167	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1.183	1,095.26	1,095.27	1,095.27	1,095.27	1,095.27
1.200	1,095.27	1,095.27	1,095.27	1,095.27	1,095.27
1.217	1,095.27	1,095.27	1,095.27	1,095.27	1,095.27
1.233	1,095.27	1,095.27	1,095.27	1,095.27	1,095.27
1.250	1,095.27	1,095.27	1,095.27	1,095.27	1,095.27
1.267	1,095.27	1,095.27	1,095.27	1,095.28	1,095.28
1.283	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.300	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.317	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.333	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.350	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.367	1,095.28	1,095.28	1,095.29	1,095.29	1,095.29
1.383	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1.400	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.417	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.433	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.450	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.467	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.483	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.500	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.517	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.533	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.550	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.567	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.583	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.600	1,095.30	1,095.30	1,095.30	1,095.31	1,095.31
1.617	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.633	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.650	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.667	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.683	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.700	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.717	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.733	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.750	1,095.31	1,095.32	1,095.32	1,095.32	1,095.32
1.767	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.783	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.800	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.817	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.833	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.850	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.867	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.883	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.900	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.917	1,095.32	1,095.32	1,095.33	1,095.33	1,095.33
1.933	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
1.950	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
1.967	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
1.983	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.000	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.017	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.033	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.050	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.067	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.083	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
2.100	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.117	1,095.33	1,095.33	1,095.34	1,095.34	1,095.34
2.133	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.150	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.167	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.183	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.200	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.217	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.233	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.250	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.267	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.283	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.300	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.317	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.333	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.350	1,095.34	1,095.34	1,095.35	1,095.35	1,095.35
2.367	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.383	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.400	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.417	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.433	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.450	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.467	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.483	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.500	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.517	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.533	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.550	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.567	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.583	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.600	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.617	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.633	1,095.35	1,095.35	1,095.36	1,095.36	1,095.36
2.650	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.667	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.683	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.700	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.717	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.733	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.750	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.767	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.783	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
2.800	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.817	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.833	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.850	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.867	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.883	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.900	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.917	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.933	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.950	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.967	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.983	1,095.36	1,095.36	1,095.36	1,095.36	1,095.37
3.000	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.017	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.033	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.050	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.067	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.083	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.100	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.117	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.133	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.150	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.167	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.183	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.200	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.217	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.233	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.250	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.267	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.283	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.300	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.317	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.333	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.350	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.367	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.383	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.400	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.417	1,095.37	1,095.37	1,095.38	1,095.38	1,095.38
3.433	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.450	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.467	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.483	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
3.500	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.517	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.533	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.550	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.567	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.583	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.600	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.617	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.633	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.650	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.667	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.683	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.700	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.717	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.733	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.750	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.767	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.783	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.800	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.817	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.833	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.850	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.867	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.883	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.900	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.917	1,095.38	1,095.39	1,095.39	1,095.39	1,095.39
3.933	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
3.950	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
3.967	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
3.983	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.000	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.017	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.033	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.050	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.067	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.083	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.100	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.117	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.133	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.150	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.167	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.183	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
4.200	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.217	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.233	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.250	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.267	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.283	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.300	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.317	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.333	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.350	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.367	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.383	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.400	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.417	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.433	1,095.39	1,095.39	1,095.39	1,095.40	1,095.40
4.450	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.467	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.483	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.500	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.517	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.533	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.550	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.567	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.583	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.600	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.617	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.633	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.650	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.667	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.683	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.700	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.717	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.733	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.750	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.767	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.783	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.800	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.817	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.833	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.850	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.867	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.883	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
4.900	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.917	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.933	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.950	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.967	1,095.40	1,095.40	1,095.40	1,095.40	1,095.41
4.983	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.000	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.017	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.033	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.050	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.067	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.083	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.100	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.117	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.133	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.150	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.167	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.183	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.200	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.217	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.233	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.250	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.267	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.283	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.300	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.317	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.333	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.350	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.367	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.383	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.400	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.417	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.433	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.450	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.467	1,095.41	1,095.41	1,095.41	1,095.42	1,095.42
5.483	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.500	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.517	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.533	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.550	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.567	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.583	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
5.600	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.617	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.633	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.650	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.667	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.683	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.700	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.717	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.733	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.750	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.767	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.783	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.800	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.817	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.833	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.850	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.867	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.883	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.900	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.917	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.933	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.950	1,095.42	1,095.42	1,095.43	1,095.43	1,095.43
5.967	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
5.983	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.000	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.017	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.033	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.050	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.067	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.083	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.100	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.117	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.133	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.150	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.167	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.183	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.200	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.217	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.233	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.250	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.267	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.283	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
6.300	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.317	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.333	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.350	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.367	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.383	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.400	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.417	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.433	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.450	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.467	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.483	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.500	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.517	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.533	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.550	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.567	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.583	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.600	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.617	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.633	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.650	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.667	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.683	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.700	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.717	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.733	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.750	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.767	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.783	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.800	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.817	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.833	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.850	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.867	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.883	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.900	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.917	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.933	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.950	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.967	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.983	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
7.000	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.017	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.033	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.050	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.067	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.083	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.100	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.117	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.133	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.150	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.167	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.183	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.200	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.217	1,095.45	1,095.45	1,095.45	1,095.45	1,095.46
7.233	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.250	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.267	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.283	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.300	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.317	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.333	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.350	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.367	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.383	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.400	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.417	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.433	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.450	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.467	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.483	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.500	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.517	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.533	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.550	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.567	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.583	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.600	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.617	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.633	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.650	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.667	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.683	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
7.700	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.717	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.733	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.750	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.767	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.783	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.800	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.817	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.833	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.850	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.867	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.883	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.900	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.917	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.933	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.950	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.967	1,095.47	1,095.47	1,095.48	1,095.48	1,095.48
7.983	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.000	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.017	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.033	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.050	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.067	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.083	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.100	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.117	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.133	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.150	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.167	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.183	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.200	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.217	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.233	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.250	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.267	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.283	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.300	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.317	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.333	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.350	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.367	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.383	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
8.400	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.417	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.433	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.450	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.467	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.483	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.500	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.517	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.533	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.550	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.567	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.583	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.600	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.617	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.633	1,095.49	1,095.50	1,095.50	1,095.50	1,095.50
8.650	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.667	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.683	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.700	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.717	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.733	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.750	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.767	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.783	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.800	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.817	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.833	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.850	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.867	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.883	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.900	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.917	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.933	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.950	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.967	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.983	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
9.000	1,095.50	1,095.50	1,095.50	1,095.50	1,095.51
9.017	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.033	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.050	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.067	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.083	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
9.100	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.117	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.133	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.150	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.167	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.183	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.200	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.217	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.233	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.250	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.267	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.283	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.300	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.317	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.333	1,095.51	1,095.51	1,095.52	1,095.52	1,095.52
9.350	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.367	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.383	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.400	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.417	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.433	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.450	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.467	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.483	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.500	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.517	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.533	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.550	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.567	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.583	1,095.52	1,095.52	1,095.52	1,095.52	1,095.53
9.600	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.617	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.633	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.650	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.667	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.683	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.700	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.717	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.733	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.750	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.767	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.783	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
9.800	1,095.53	1,095.53	1,095.53	1,095.54	1,095.54
9.817	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.833	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.850	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.867	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.883	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.900	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.917	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.933	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.950	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.967	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.983	1,095.54	1,095.54	1,095.54	1,095.55	1,095.55
10.000	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.017	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.033	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.050	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.067	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.083	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.100	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.117	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.133	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.150	1,095.55	1,095.55	1,095.56	1,095.56	1,095.56
10.167	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.183	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.200	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.217	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.233	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.250	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.267	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.283	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.300	1,095.56	1,095.57	1,095.57	1,095.57	1,095.57
10.317	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.333	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.350	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.367	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.383	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.400	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.417	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.433	1,095.57	1,095.57	1,095.57	1,095.58	1,095.58
10.450	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.467	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.483	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.517	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.533	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.550	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.567	1,095.58	1,095.59	1,095.59	1,095.59	1,095.59
10.583	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.600	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.617	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.633	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.650	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.667	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.683	1,095.59	1,095.59	1,095.60	1,095.60	1,095.60
10.700	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.717	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.733	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.750	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.767	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.783	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.800	1,095.60	1,095.60	1,095.61	1,095.61	1,095.61
10.817	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.833	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.850	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.867	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.883	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.900	1,095.61	1,095.61	1,095.61	1,095.61	1,095.62
10.917	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
10.933	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
10.950	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
10.967	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
10.983	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
11.000	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
11.017	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.033	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.050	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.067	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.083	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.100	1,095.63	1,095.63	1,095.63	1,095.63	1,095.64
11.117	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64
11.133	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64
11.150	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64
11.167	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64
11.183	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
11.200	1,095.64	1,095.64	1,095.65	1,095.65	1,095.65
11.217	1,095.65	1,095.65	1,095.65	1,095.65	1,095.65
11.233	1,095.65	1,095.65	1,095.65	1,095.65	1,095.65
11.250	1,095.65	1,095.65	1,095.65	1,095.65	1,095.65
11.267	1,095.65	1,095.65	1,095.65	1,095.65	1,095.65
11.283	1,095.65	1,095.65	1,095.65	1,095.65	1,095.66
11.300	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.317	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.333	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.350	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.367	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.383	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.400	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.417	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.433	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.450	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.467	1,095.68	1,095.68	1,095.68	1,095.68	1,095.68
11.483	1,095.68	1,095.68	1,095.68	1,095.68	1,095.68
11.500	1,095.68	1,095.68	1,095.68	1,095.68	1,095.68
11.517	1,095.68	1,095.68	1,095.68	1,095.68	1,095.68
11.533	1,095.68	1,095.68	1,095.68	1,095.68	1,095.69
11.550	1,095.69	1,095.69	1,095.69	1,095.69	1,095.69
11.567	1,095.69	1,095.69	1,095.69	1,095.69	1,095.69
11.583	1,095.69	1,095.69	1,095.69	1,095.69	1,095.69
11.600	1,095.69	1,095.69	1,095.69	1,095.69	1,095.69
11.617	1,095.69	1,095.69	1,095.70	1,095.70	1,095.70
11.633	1,095.70	1,095.70	1,095.70	1,095.70	1,095.70
11.650	1,095.70	1,095.70	1,095.70	1,095.70	1,095.70
11.667	1,095.70	1,095.70	1,095.70	1,095.70	1,095.70
11.683	1,095.70	1,095.70	1,095.70	1,095.70	1,095.70
11.700	1,095.71	1,095.71	1,095.71	1,095.71	1,095.71
11.717	1,095.71	1,095.71	1,095.71	1,095.71	1,095.71
11.733	1,095.71	1,095.71	1,095.71	1,095.71	1,095.71
11.750	1,095.71	1,095.71	1,095.71	1,095.71	1,095.71
11.767	1,095.71	1,095.72	1,095.72	1,095.72	1,095.72
11.783	1,095.72	1,095.72	1,095.72	1,095.72	1,095.72
11.800	1,095.72	1,095.72	1,095.72	1,095.72	1,095.72
11.817	1,095.72	1,095.72	1,095.72	1,095.72	1,095.72
11.833	1,095.72	1,095.72	1,095.72	1,095.73	1,095.73
11.850	1,095.73	1,095.73	1,095.73	1,095.73	1,095.73
11.867	1,095.73	1,095.73	1,095.73	1,095.73	1,095.73
11.883	1,095.73	1,095.73	1,095.73	1,095.73	1,095.73

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
11.900	1,095.73	1,095.73	1,095.73	1,095.74	1,095.74
11.917	1,095.74	1,095.74	1,095.74	1,095.74	1,095.74
11.933	1,095.74	1,095.74	1,095.74	1,095.74	1,095.74
11.950	1,095.74	1,095.74	1,095.74	1,095.74	1,095.74
11.967	1,095.74	1,095.74	1,095.74	1,095.75	1,095.75
11.983	1,095.75	1,095.75	1,095.75	1,095.75	1,095.75
12.000	1,095.75	1,095.75	1,095.75	1,095.75	1,095.75
12.017	1,095.75	1,095.75	1,095.75	1,095.75	1,095.75
12.033	1,095.75	1,095.75	1,095.76	1,095.76	1,095.76
12.050	1,095.76	1,095.76	1,095.76	1,095.76	1,095.76
12.067	1,095.76	1,095.76	1,095.76	1,095.76	1,095.76
12.083	1,095.76	1,095.76	1,095.76	1,095.76	1,095.76
12.100	1,095.76	1,095.77	1,095.77	1,095.77	1,095.77
12.117	1,095.77	1,095.77	1,095.77	1,095.77	1,095.77
12.133	1,095.77	1,095.77	1,095.77	1,095.77	1,095.77
12.150	1,095.77	1,095.77	1,095.77	1,095.77	1,095.77
12.167	1,095.77	1,095.77	1,095.78	1,095.78	1,095.78
12.183	1,095.78	1,095.78	1,095.78	1,095.78	1,095.78
12.200	1,095.78	1,095.78	1,095.78	1,095.78	1,095.78
12.217	1,095.78	1,095.78	1,095.78	1,095.78	1,095.78
12.233	1,095.78	1,095.78	1,095.78	1,095.79	1,095.79
12.250	1,095.79	1,095.79	1,095.79	1,095.79	1,095.79
12.267	1,095.79	1,095.79	1,095.79	1,095.79	1,095.79
12.283	1,095.79	1,095.79	1,095.79	1,095.79	1,095.79
12.300	1,095.79	1,095.79	1,095.79	1,095.79	1,095.79
12.317	1,095.80	1,095.80	1,095.80	1,095.80	1,095.80
12.333	1,095.80	1,095.80	1,095.80	1,095.80	1,095.80
12.350	1,095.80	1,095.80	1,095.80	1,095.80	1,095.80
12.367	1,095.80	1,095.80	1,095.80	1,095.80	1,095.80
12.383	1,095.81	1,095.81	1,095.81	1,095.81	1,095.81
12.400	1,095.81	1,095.81	1,095.81	1,095.81	1,095.81
12.417	1,095.81	1,095.81	1,095.81	1,095.81	1,095.81
12.433	1,095.81	1,095.81	1,095.81	1,095.81	1,095.81
12.450	1,095.82	1,095.82	1,095.82	1,095.82	1,095.82
12.467	1,095.82	1,095.82	1,095.82	1,095.82	1,095.82
12.483	1,095.82	1,095.82	1,095.82	1,095.82	1,095.82
12.500	1,095.82	1,095.82	1,095.82	1,095.82	1,095.83
12.517	1,095.83	1,095.83	1,095.83	1,095.83	1,095.83
12.533	1,095.83	1,095.83	1,095.83	1,095.83	1,095.83
12.550	1,095.83	1,095.83	1,095.83	1,095.83	1,095.83
12.567	1,095.83	1,095.83	1,095.83	1,095.84	1,095.84
12.583	1,095.84	1,095.84	1,095.84	1,095.84	1,095.84

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
12.600	1,095.84	1,095.84	1,095.84	1,095.84	1,095.84
12.617	1,095.84	1,095.84	1,095.84	1,095.84	1,095.84
12.633	1,095.84	1,095.85	1,095.85	1,095.85	1,095.85
12.650	1,095.85	1,095.85	1,095.85	1,095.85	1,095.85
12.667	1,095.85	1,095.85	1,095.85	1,095.85	1,095.85
12.683	1,095.85	1,095.85	1,095.85	1,095.85	1,095.86
12.700	1,095.86	1,095.86	1,095.86	1,095.86	1,095.86
12.717	1,095.86	1,095.86	1,095.86	1,095.86	1,095.86
12.733	1,095.86	1,095.86	1,095.86	1,095.86	1,095.86
12.750	1,095.86	1,095.87	1,095.87	1,095.87	1,095.87
12.767	1,095.87	1,095.87	1,095.87	1,095.87	1,095.87
12.783	1,095.87	1,095.87	1,095.87	1,095.87	1,095.87
12.800	1,095.87	1,095.87	1,095.88	1,095.88	1,095.88
12.817	1,095.88	1,095.88	1,095.88	1,095.88	1,095.88
12.833	1,095.88	1,095.88	1,095.88	1,095.88	1,095.88
12.850	1,095.88	1,095.88	1,095.88	1,095.89	1,095.89
12.867	1,095.89	1,095.89	1,095.89	1,095.89	1,095.89
12.883	1,095.89	1,095.89	1,095.89	1,095.89	1,095.89
12.900	1,095.89	1,095.89	1,095.89	1,095.90	1,095.90
12.917	1,095.90	1,095.90	1,095.90	1,095.90	1,095.90
12.933	1,095.90	1,095.90	1,095.90	1,095.90	1,095.90
12.950	1,095.90	1,095.90	1,095.90	1,095.90	1,095.91
12.967	1,095.91	1,095.91	1,095.91	1,095.91	1,095.91
12.983	1,095.91	1,095.91	1,095.91	1,095.91	1,095.91
13.000	1,095.91	1,095.91	1,095.91	1,095.91	1,095.92
13.017	1,095.92	1,095.92	1,095.92	1,095.92	1,095.92
13.033	1,095.92	1,095.92	1,095.92	1,095.92	1,095.92
13.050	1,095.92	1,095.92	1,095.92	1,095.93	1,095.93
13.067	1,095.93	1,095.93	1,095.93	1,095.93	1,095.93
13.083	1,095.93	1,095.93	1,095.93	1,095.93	1,095.93
13.100	1,095.93	1,095.93	1,095.94	1,095.94	1,095.94
13.117	1,095.94	1,095.94	1,095.94	1,095.94	1,095.94
13.133	1,095.94	1,095.94	1,095.94	1,095.94	1,095.94
13.150	1,095.94	1,095.95	1,095.95	1,095.95	1,095.95
13.167	1,095.95	1,095.95	1,095.95	1,095.95	1,095.95
13.183	1,095.95	1,095.95	1,095.95	1,095.95	1,095.95
13.200	1,095.96	1,095.96	1,095.96	1,095.96	1,095.96
13.217	1,095.96	1,095.96	1,095.96	1,095.96	1,095.96
13.233	1,095.96	1,095.96	1,095.96	1,095.97	1,095.97
13.250	1,095.97	1,095.97	1,095.97	1,095.97	1,095.97
13.267	1,095.97	1,095.97	1,095.97	1,095.97	1,095.97
13.283	1,095.97	1,095.98	1,095.98	1,095.98	1,095.98

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
13.300	1,095.98	1,095.98	1,095.98	1,095.98	1,095.98
13.317	1,095.98	1,095.98	1,095.98	1,095.99	1,095.99
13.333	1,095.99	1,095.99	1,095.99	1,095.99	1,095.99
13.350	1,095.99	1,095.99	1,095.99	1,095.99	1,095.99
13.367	1,095.99	1,096.00	1,096.00	1,096.00	1,096.00
13.383	1,096.00	1,096.00	1,096.00	1,096.00	1,096.00
13.400	1,096.00	1,096.00	1,096.00	1,096.00	1,096.01
13.417	1,096.01	1,096.01	1,096.01	1,096.01	1,096.01
13.433	1,096.01	1,096.01	1,096.01	1,096.01	1,096.01
13.450	1,096.01	1,096.01	1,096.01	1,096.02	1,096.02
13.467	1,096.02	1,096.02	1,096.02	1,096.02	1,096.02
13.483	1,096.02	1,096.02	1,096.02	1,096.02	1,096.02
13.500	1,096.02	1,096.02	1,096.03	1,096.03	1,096.03
13.517	1,096.03	1,096.03	1,096.03	1,096.03	1,096.03
13.533	1,096.03	1,096.03	1,096.03	1,096.03	1,096.03
13.550	1,096.03	1,096.04	1,096.04	1,096.04	1,096.04
13.567	1,096.04	1,096.04	1,096.04	1,096.04	1,096.04
13.583	1,096.04	1,096.04	1,096.04	1,096.04	1,096.05
13.600	1,096.05	1,096.05	1,096.05	1,096.05	1,096.05
13.617	1,096.05	1,096.05	1,096.05	1,096.05	1,096.05
13.633	1,096.05	1,096.05	1,096.06	1,096.06	1,096.06
13.650	1,096.06	1,096.06	1,096.06	1,096.06	1,096.06
13.667	1,096.06	1,096.06	1,096.06	1,096.06	1,096.06
13.683	1,096.07	1,096.07	1,096.07	1,096.07	1,096.07
13.700	1,096.07	1,096.07	1,096.07	1,096.07	1,096.07
13.717	1,096.07	1,096.07	1,096.07	1,096.08	1,096.08
13.733	1,096.08	1,096.08	1,096.08	1,096.08	1,096.08
13.750	1,096.08	1,096.08	1,096.08	1,096.08	1,096.08
13.767	1,096.09	1,096.09	1,096.09	1,096.09	1,096.09
13.783	1,096.09	1,096.09	1,096.09	1,096.09	1,096.09
13.800	1,096.09	1,096.09	1,096.10	1,096.10	1,096.10
13.817	1,096.10	1,096.10	1,096.10	1,096.10	1,096.10
13.833	1,096.10	1,096.10	1,096.10	1,096.10	1,096.11
13.850	1,096.11	1,096.11	1,096.11	1,096.11	1,096.11
13.867	1,096.11	1,096.11	1,096.11	1,096.11	1,096.11
13.883	1,096.12	1,096.12	1,096.12	1,096.12	1,096.12
13.900	1,096.12	1,096.12	1,096.12	1,096.12	1,096.12
13.917	1,096.12	1,096.13	1,096.13	1,096.13	1,096.13
13.933	1,096.13	1,096.13	1,096.13	1,096.13	1,096.13
13.950	1,096.13	1,096.13	1,096.13	1,096.14	1,096.14
13.967	1,096.14	1,096.14	1,096.14	1,096.14	1,096.14
13.983	1,096.14	1,096.14	1,096.14	1,096.15	1,096.15

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
14.000	1,096.15	1,096.15	1,096.15	1,096.15	1,096.15
14.017	1,096.15	1,096.15	1,096.15	1,096.15	1,096.16
14.033	1,096.16	1,096.16	1,096.16	1,096.16	1,096.16
14.050	1,096.16	1,096.16	1,096.16	1,096.16	1,096.16
14.067	1,096.17	1,096.17	1,096.17	1,096.17	1,096.17
14.083	1,096.17	1,096.17	1,096.17	1,096.17	1,096.17
14.100	1,096.17	1,096.18	1,096.18	1,096.18	1,096.18
14.117	1,096.18	1,096.18	1,096.18	1,096.18	1,096.18
14.133	1,096.18	1,096.18	1,096.19	1,096.19	1,096.19
14.150	1,096.19	1,096.19	1,096.19	1,096.19	1,096.19
14.167	1,096.19	1,096.19	1,096.19	1,096.20	1,096.20
14.183	1,096.20	1,096.20	1,096.20	1,096.20	1,096.20
14.200	1,096.20	1,096.20	1,096.20	1,096.20	1,096.20
14.217	1,096.21	1,096.21	1,096.21	1,096.21	1,096.21
14.233	1,096.21	1,096.21	1,096.21	1,096.21	1,096.21
14.250	1,096.21	1,096.22	1,096.22	1,096.22	1,096.22
14.267	1,096.22	1,096.22	1,096.22	1,096.22	1,096.22
14.283	1,096.22	1,096.23	1,096.23	1,096.23	1,096.23
14.300	1,096.23	1,096.23	1,096.23	1,096.23	1,096.23
14.317	1,096.23	1,096.24	1,096.24	1,096.24	1,096.24
14.333	1,096.24	1,096.24	1,096.24	1,096.24	1,096.24
14.350	1,096.24	1,096.24	1,096.25	1,096.25	1,096.25
14.367	1,096.25	1,096.25	1,096.25	1,096.25	1,096.25
14.383	1,096.25	1,096.25	1,096.26	1,096.26	1,096.26
14.400	1,096.26	1,096.26	1,096.26	1,096.26	1,096.26
14.417	1,096.26	1,096.27	1,096.27	1,096.27	1,096.27
14.433	1,096.27	1,096.27	1,096.27	1,096.27	1,096.27
14.450	1,096.27	1,096.28	1,096.28	1,096.28	1,096.28
14.467	1,096.28	1,096.28	1,096.28	1,096.28	1,096.28
14.483	1,096.29	1,096.29	1,096.29	1,096.29	1,096.29
14.500	1,096.29	1,096.29	1,096.29	1,096.29	1,096.30
14.517	1,096.30	1,096.30	1,096.30	1,096.30	1,096.30
14.533	1,096.30	1,096.30	1,096.30	1,096.31	1,096.31
14.550	1,096.31	1,096.31	1,096.31	1,096.31	1,096.31
14.567	1,096.31	1,096.31	1,096.32	1,096.32	1,096.32
14.583	1,096.32	1,096.32	1,096.32	1,096.32	1,096.32
14.600	1,096.32	1,096.33	1,096.33	1,096.33	1,096.33
14.617	1,096.33	1,096.33	1,096.33	1,096.33	1,096.34
14.633	1,096.34	1,096.34	1,096.34	1,096.34	1,096.34
14.650	1,096.34	1,096.34	1,096.35	1,096.35	1,096.35
14.667	1,096.35	1,096.35	1,096.35	1,096.35	1,096.35
14.683	1,096.36	1,096.36	1,096.36	1,096.36	1,096.36

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
14.700	1,096.36	1,096.36	1,096.36	1,096.37	1,096.37
14.717	1,096.37	1,096.37	1,096.37	1,096.37	1,096.37
14.733	1,096.37	1,096.38	1,096.38	1,096.38	1,096.38
14.750	1,096.38	1,096.38	1,096.38	1,096.39	1,096.39
14.767	1,096.39	1,096.39	1,096.39	1,096.39	1,096.39
14.783	1,096.39	1,096.40	1,096.40	1,096.40	1,096.40
14.800	1,096.40	1,096.40	1,096.40	1,096.41	1,096.41
14.817	1,096.41	1,096.41	1,096.41	1,096.41	1,096.41
14.833	1,096.42	1,096.42	1,096.42	1,096.42	1,096.42
14.850	1,096.42	1,096.42	1,096.43	1,096.43	1,096.43
14.867	1,096.43	1,096.43	1,096.43	1,096.43	1,096.44
14.883	1,096.44	1,096.44	1,096.44	1,096.44	1,096.44
14.900	1,096.44	1,096.45	1,096.45	1,096.45	1,096.45
14.917	1,096.45	1,096.45	1,096.45	1,096.46	1,096.46
14.933	1,096.46	1,096.46	1,096.46	1,096.46	1,096.47
14.950	1,096.47	1,096.47	1,096.47	1,096.47	1,096.47
14.967	1,096.48	1,096.48	1,096.48	1,096.48	1,096.48
14.983	1,096.48	1,096.48	1,096.49	1,096.49	1,096.49
15.000	1,096.49	1,096.49	1,096.49	1,096.50	1,096.50
15.017	1,096.50	1,096.50	1,096.50	1,096.50	1,096.51
15.033	1,096.51	1,096.51	1,096.51	1,096.51	1,096.51
15.050	1,096.51	1,096.52	1,096.52	1,096.52	1,096.52
15.067	1,096.52	1,096.52	1,096.53	1,096.53	1,096.53
15.083	1,096.53	1,096.53	1,096.53	1,096.53	1,096.54
15.100	1,096.54	1,096.54	1,096.54	1,096.54	1,096.54
15.117	1,096.55	1,096.55	1,096.55	1,096.55	1,096.55
15.133	1,096.55	1,096.56	1,096.56	1,096.56	1,096.56
15.150	1,096.56	1,096.56	1,096.57	1,096.57	1,096.57
15.167	1,096.57	1,096.57	1,096.58	1,096.58	1,096.58
15.183	1,096.58	1,096.58	1,096.58	1,096.59	1,096.59
15.200	1,096.59	1,096.59	1,096.59	1,096.59	1,096.60
15.217	1,096.60	1,096.60	1,096.60	1,096.60	1,096.61
15.233	1,096.61	1,096.61	1,096.61	1,096.61	1,096.61
15.250	1,096.62	1,096.62	1,096.62	1,096.62	1,096.62
15.267	1,096.63	1,096.63	1,096.63	1,096.63	1,096.63
15.283	1,096.64	1,096.64	1,096.64	1,096.64	1,096.64
15.300	1,096.65	1,096.65	1,096.65	1,096.65	1,096.66
15.317	1,096.66	1,096.66	1,096.66	1,096.66	1,096.67
15.333	1,096.67	1,096.67	1,096.67	1,096.68	1,096.68
15.350	1,096.68	1,096.68	1,096.69	1,096.69	1,096.69
15.367	1,096.69	1,096.70	1,096.70	1,096.70	1,096.70
15.383	1,096.71	1,096.71	1,096.71	1,096.72	1,096.72

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
15.400	1,096.72	1,096.72	1,096.73	1,096.73	1,096.73
15.417	1,096.74	1,096.74	1,096.74	1,096.74	1,096.75
15.433	1,096.75	1,096.75	1,096.76	1,096.76	1,096.76
15.450	1,096.77	1,096.77	1,096.77	1,096.78	1,096.78
15.467	1,096.78	1,096.79	1,096.79	1,096.79	1,096.80
15.483	1,096.80	1,096.81	1,096.81	1,096.81	1,096.82
15.500	1,096.82	1,096.82	1,096.83	1,096.83	1,096.83
15.517	1,096.84	1,096.84	1,096.85	1,096.85	1,096.85
15.533	1,096.86	1,096.86	1,096.87	1,096.87	1,096.87
15.550	1,096.88	1,096.88	1,096.89	1,096.89	1,096.89
15.567	1,096.90	1,096.90	1,096.91	1,096.91	1,096.91
15.583	1,096.92	1,096.92	1,096.93	1,096.93	1,096.94
15.600	1,096.94	1,096.94	1,096.95	1,096.95	1,096.96
15.617	1,096.96	1,096.97	1,096.97	1,096.98	1,096.98
15.633	1,096.98	1,096.99	1,096.99	1,097.00	1,097.00
15.650	1,097.01	1,097.01	1,097.02	1,097.02	1,097.03
15.667	1,097.03	1,097.03	1,097.04	1,097.04	1,097.05
15.683	1,097.05	1,097.06	1,097.06	1,097.07	1,097.07
15.700	1,097.08	1,097.08	1,097.09	1,097.09	1,097.10
15.717	1,097.10	1,097.10	1,097.11	1,097.11	1,097.12
15.733	1,097.12	1,097.13	1,097.13	1,097.14	1,097.14
15.750	1,097.15	1,097.16	1,097.16	1,097.17	1,097.17
15.767	1,097.18	1,097.18	1,097.19	1,097.19	1,097.20
15.783	1,097.20	1,097.21	1,097.21	1,097.22	1,097.23
15.800	1,097.23	1,097.24	1,097.24	1,097.25	1,097.25
15.817	1,097.26	1,097.27	1,097.27	1,097.28	1,097.28
15.833	1,097.29	1,097.30	1,097.30	1,097.31	1,097.31
15.850	1,097.32	1,097.33	1,097.33	1,097.34	1,097.35
15.867	1,097.35	1,097.36	1,097.37	1,097.37	1,097.38
15.883	1,097.39	1,097.39	1,097.40	1,097.41	1,097.42
15.900	1,097.42	1,097.43	1,097.44	1,097.44	1,097.45
15.917	1,097.46	1,097.47	1,097.47	1,097.48	1,097.49
15.933	1,097.50	1,097.51	1,097.52	1,097.52	1,097.53
15.950	1,097.54	1,097.55	1,097.56	1,097.57	1,097.58
15.967	1,097.59	1,097.60	1,097.61	1,097.62	1,097.63
15.983	1,097.64	1,097.65	1,097.66	1,097.67	1,097.68
16.000	1,097.69	1,097.70	1,097.71	1,097.72	1,097.74
16.017	1,097.75	1,097.76	1,097.77	1,097.78	1,097.80
16.033	1,097.81	1,097.82	1,097.83	1,097.85	1,097.86
16.050	1,097.87	1,097.89	1,097.90	1,097.91	1,097.93
16.067	1,097.94	1,097.96	1,097.97	1,097.99	1,098.00
16.083	1,098.02	1,098.03	1,098.05	1,098.07	1,098.08

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
16.100	1,098.10	1,098.12	1,098.14	1,098.15	1,098.17
16.117	1,098.19	1,098.21	1,098.23	1,098.24	1,098.26
16.133	1,098.28	1,098.30	1,098.32	1,098.34	1,098.36
16.150	1,098.38	1,098.40	1,098.41	1,098.43	1,098.45
16.167	1,098.46	1,098.48	1,098.50	1,098.51	1,098.53
16.183	1,098.54	1,098.56	1,098.57	1,098.59	1,098.60
16.200	1,098.62	1,098.63	1,098.64	1,098.65	1,098.67
16.217	1,098.68	1,098.69	1,098.70	1,098.71	1,098.72
16.233	1,098.73	1,098.73	1,098.74	1,098.75	1,098.76
16.250	1,098.76	1,098.77	1,098.77	1,098.78	1,098.79
16.267	1,098.79	1,098.80	1,098.80	1,098.81	1,098.82
16.283	1,098.82	1,098.83	1,098.83	1,098.84	1,098.84
16.300	1,098.85	1,098.86	1,098.86	1,098.87	1,098.87
16.317	1,098.88	1,098.88	1,098.89	1,098.89	1,098.90
16.333	1,098.90	1,098.91	1,098.91	1,098.92	1,098.92
16.350	1,098.93	1,098.93	1,098.93	1,098.94	1,098.94
16.367	1,098.95	1,098.95	1,098.96	1,098.96	1,098.96
16.383	1,098.97	1,098.97	1,098.98	1,098.98	1,098.98
16.400	1,098.99	1,098.99	1,099.00	1,099.00	1,099.00
16.417	1,099.01	1,099.01	1,099.02	1,099.02	1,099.02
16.433	1,099.03	1,099.03	1,099.03	1,099.04	1,099.04
16.450	1,099.04	1,099.05	1,099.05	1,099.05	1,099.06
16.467	1,099.06	1,099.06	1,099.06	1,099.07	1,099.07
16.483	1,099.07	1,099.08	1,099.08	1,099.08	1,099.08
16.500	1,099.09	1,099.09	1,099.09	1,099.09	1,099.10
16.517	1,099.10	1,099.10	1,099.10	1,099.11	1,099.11
16.533	1,099.11	1,099.11	1,099.12	1,099.12	1,099.12
16.550	1,099.12	1,099.13	1,099.13	1,099.13	1,099.13
16.567	1,099.14	1,099.14	1,099.14	1,099.14	1,099.15
16.583	1,099.15	1,099.15	1,099.15	1,099.15	1,099.16
16.600	1,099.16	1,099.16	1,099.16	1,099.16	1,099.17
16.617	1,099.17	1,099.17	1,099.17	1,099.18	1,099.18
16.633	1,099.18	1,099.18	1,099.18	1,099.19	1,099.19
16.650	1,099.19	1,099.19	1,099.19	1,099.19	1,099.20
16.667	1,099.20	1,099.20	1,099.20	1,099.20	1,099.21
16.683	1,099.21	1,099.21	1,099.21	1,099.21	1,099.22
16.700	1,099.22	1,099.22	1,099.22	1,099.22	1,099.22
16.717	1,099.23	1,099.23	1,099.23	1,099.23	1,099.23
16.733	1,099.23	1,099.24	1,099.24	1,099.24	1,099.24
16.750	1,099.24	1,099.24	1,099.25	1,099.25	1,099.25
16.767	1,099.25	1,099.25	1,099.25	1,099.26	1,099.26
16.783	1,099.26	1,099.26	1,099.26	1,099.26	1,099.27

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
16.800	1,099.27	1,099.27	1,099.27	1,099.27	1,099.27
16.817	1,099.27	1,099.28	1,099.28	1,099.28	1,099.28
16.833	1,099.28	1,099.28	1,099.29	1,099.29	1,099.29
16.850	1,099.29	1,099.29	1,099.29	1,099.29	1,099.30
16.867	1,099.30	1,099.30	1,099.30	1,099.30	1,099.30
16.883	1,099.30	1,099.30	1,099.31	1,099.31	1,099.31
16.900	1,099.31	1,099.31	1,099.31	1,099.31	1,099.32
16.917	1,099.32	1,099.32	1,099.32	1,099.32	1,099.32
16.933	1,099.32	1,099.32	1,099.33	1,099.33	1,099.33
16.950	1,099.33	1,099.33	1,099.33	1,099.33	1,099.33
16.967	1,099.34	1,099.34	1,099.34	1,099.34	1,099.34
16.983	1,099.34	1,099.34	1,099.34	1,099.35	1,099.35
17.000	1,099.35	1,099.35	1,099.35	1,099.35	1,099.35
17.017	1,099.35	1,099.35	1,099.36	1,099.36	1,099.36
17.033	1,099.36	1,099.36	1,099.36	1,099.36	1,099.36
17.050	1,099.36	1,099.37	1,099.37	1,099.37	1,099.37
17.067	1,099.37	1,099.37	1,099.37	1,099.37	1,099.37
17.083	1,099.38	1,099.38	1,099.38	1,099.38	1,099.38
17.100	1,099.38	1,099.38	1,099.38	1,099.38	1,099.39
17.117	1,099.39	1,099.39	1,099.39	1,099.39	1,099.39
17.133	1,099.39	1,099.39	1,099.39	1,099.40	1,099.40
17.150	1,099.40	1,099.40	1,099.40	1,099.40	1,099.40
17.167	1,099.40	1,099.40	1,099.41	1,099.41	1,099.41
17.183	1,099.41	1,099.41	1,099.41	1,099.41	1,099.41
17.200	1,099.41	1,099.42	1,099.42	1,099.42	1,099.42
17.217	1,099.42	1,099.42	1,099.42	1,099.42	1,099.42
17.233	1,099.43	1,099.43	1,099.43	1,099.43	1,099.43
17.250	1,099.43	1,099.43	1,099.43	1,099.43	1,099.43
17.267	1,099.44	1,099.44	1,099.44	1,099.44	1,099.44
17.283	1,099.44	1,099.44	1,099.44	1,099.44	1,099.44
17.300	1,099.45	1,099.45	1,099.45	1,099.45	1,099.45
17.317	1,099.45	1,099.45	1,099.45	1,099.45	1,099.45
17.333	1,099.45	1,099.46	1,099.46	1,099.46	1,099.46
17.350	1,099.46	1,099.46	1,099.46	1,099.46	1,099.46
17.367	1,099.46	1,099.46	1,099.47	1,099.47	1,099.47
17.383	1,099.47	1,099.47	1,099.47	1,099.47	1,099.47
17.400	1,099.47	1,099.47	1,099.47	1,099.48	1,099.48
17.417	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
17.433	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
17.450	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
17.467	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
17.483	1,099.49	1,099.49	1,099.49	1,099.50	1,099.50

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
17.500	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
17.517	1,099.50	1,099.50	1,099.50	1,099.51	1,099.51
17.533	1,099.51	1,099.51	1,099.51	1,099.51	1,099.51
17.550	1,099.51	1,099.52	1,099.52	1,099.52	1,099.52
17.567	1,099.52	1,099.52	1,099.52	1,099.53	1,099.53
17.583	1,099.53	1,099.53	1,099.53	1,099.53	1,099.53
17.600	1,099.53	1,099.54	1,099.54	1,099.54	1,099.54
17.617	1,099.54	1,099.54	1,099.54	1,099.54	1,099.54
17.633	1,099.55	1,099.55	1,099.55	1,099.55	1,099.55
17.650	1,099.55	1,099.55	1,099.55	1,099.56	1,099.56
17.667	1,099.56	1,099.56	1,099.56	1,099.56	1,099.56
17.683	1,099.56	1,099.56	1,099.57	1,099.57	1,099.57
17.700	1,099.57	1,099.57	1,099.57	1,099.57	1,099.57
17.717	1,099.57	1,099.58	1,099.58	1,099.58	1,099.58
17.733	1,099.58	1,099.58	1,099.58	1,099.58	1,099.58
17.750	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
17.767	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
17.783	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
17.800	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
17.817	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
17.833	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
17.850	1,099.62	1,099.62	1,099.62	1,099.62	1,099.62
17.867	1,099.62	1,099.62	1,099.62	1,099.62	1,099.62
17.883	1,099.62	1,099.63	1,099.63	1,099.63	1,099.63
17.900	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
17.917	1,099.63	1,099.63	1,099.64	1,099.64	1,099.64
17.933	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
17.950	1,099.64	1,099.64	1,099.64	1,099.65	1,099.65
17.967	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
17.983	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
18.000	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
18.017	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
18.033	1,099.66	1,099.66	1,099.67	1,099.67	1,099.67
18.050	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
18.067	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
18.083	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
18.100	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
18.117	1,099.68	1,099.68	1,099.69	1,099.69	1,099.69
18.133	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
18.150	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
18.167	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
18.183	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
18.200	1,099.70	1,099.70	1,099.71	1,099.71	1,099.71
18.217	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
18.233	1,099.71	1,099.71	1,099.71	1,099.71	1,099.72
18.250	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
18.267	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
18.283	1,099.72	1,099.73	1,099.73	1,099.73	1,099.73
18.300	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
18.317	1,099.73	1,099.73	1,099.73	1,099.73	1,099.74
18.333	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
18.350	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
18.367	1,099.74	1,099.74	1,099.75	1,099.75	1,099.75
18.383	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
18.400	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
18.417	1,099.75	1,099.76	1,099.76	1,099.76	1,099.76
18.433	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
18.450	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
18.467	1,099.76	1,099.77	1,099.77	1,099.77	1,099.77
18.483	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
18.500	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
18.517	1,099.77	1,099.78	1,099.78	1,099.78	1,099.78
18.533	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
18.550	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
18.567	1,099.78	1,099.78	1,099.79	1,099.79	1,099.79
18.583	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
18.600	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
18.617	1,099.79	1,099.79	1,099.79	1,099.79	1,099.80
18.633	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
18.650	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
18.667	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
18.683	1,099.80	1,099.81	1,099.81	1,099.81	1,099.81
18.700	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
18.717	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
18.733	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
18.750	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
18.767	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
18.783	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
18.800	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
18.817	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
18.833	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
18.850	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
18.867	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
18.883	1,099.83	1,099.84	1,099.84	1,099.84	1,099.84

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
18.900	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
18.917	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
18.933	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
18.950	1,099.84	1,099.84	1,099.84	1,099.84	1,099.85
18.967	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
18.983	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.000	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.017	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.033	1,099.85	1,099.85	1,099.85	1,099.85	1,099.86
19.050	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.067	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.083	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.100	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.117	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.133	1,099.86	1,099.86	1,099.87	1,099.87	1,099.87
19.150	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.167	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.183	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.200	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.217	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.233	1,099.87	1,099.87	1,099.87	1,099.88	1,099.88
19.250	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.267	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.283	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.300	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.317	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.333	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.350	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.367	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.383	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.400	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.417	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.433	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.450	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.467	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.483	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.500	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
19.517	1,099.89	1,099.89	1,099.90	1,099.90	1,099.90
19.533	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.550	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.567	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.583	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
19.600	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.617	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.633	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.650	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.667	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.683	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.700	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.717	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.733	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
19.750	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.767	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.783	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.800	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.817	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.833	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.850	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.867	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.883	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.900	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.917	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.933	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.950	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.967	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
19.983	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.000	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.017	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.033	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.050	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.067	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.083	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.100	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.117	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.133	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.150	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.167	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.183	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.200	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.217	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.233	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.250	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.267	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.283	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
20.300	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.317	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.333	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.350	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.367	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.383	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.400	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.417	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.433	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.450	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.467	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.483	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.500	1,099.91	1,099.91	1,099.91	1,099.91	1,099.91
20.517	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.533	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.550	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.567	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.583	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.600	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.617	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.633	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.650	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.667	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.683	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.700	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.717	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.733	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.750	1,099.90	1,099.90	1,099.90	1,099.90	1,099.90
20.767	1,099.90	1,099.90	1,099.90	1,099.90	1,099.89
20.783	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.800	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.817	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.833	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.850	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.867	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.883	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.900	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.917	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.933	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.950	1,099.89	1,099.89	1,099.89	1,099.89	1,099.89
20.967	1,099.89	1,099.88	1,099.88	1,099.88	1,099.88
20.983	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
21.017	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
21.033	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
21.050	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
21.067	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
21.083	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
21.100	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
21.117	1,099.88	1,099.88	1,099.87	1,099.87	1,099.87
21.133	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
21.150	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
21.167	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
21.183	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
21.200	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
21.217	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
21.233	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
21.250	1,099.87	1,099.87	1,099.87	1,099.87	1,099.86
21.267	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
21.283	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
21.300	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
21.317	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
21.333	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
21.350	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
21.367	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
21.383	1,099.86	1,099.85	1,099.85	1,099.85	1,099.85
21.400	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.417	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.433	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.450	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.467	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.483	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.500	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.517	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.533	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.550	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.567	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.583	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.600	1,099.84	1,099.84	1,099.84	1,099.83	1,099.83
21.617	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.633	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.650	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.667	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.683	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.700	1,099.83	1,099.83	1,099.83	1,099.83	1,099.82
21.717	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.733	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.750	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.767	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.783	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.800	1,099.82	1,099.82	1,099.82	1,099.81	1,099.81
21.817	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.833	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.850	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.867	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.883	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.900	1,099.81	1,099.81	1,099.80	1,099.80	1,099.80
21.917	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.933	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.950	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.967	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.983	1,099.80	1,099.80	1,099.80	1,099.80	1,099.79
22.000	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
22.017	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
22.033	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
22.050	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
22.067	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
22.083	1,099.79	1,099.78	1,099.78	1,099.78	1,099.78
22.100	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
22.117	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
22.133	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
22.150	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
22.167	1,099.78	1,099.77	1,099.77	1,099.77	1,099.77
22.183	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
22.200	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
22.217	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
22.233	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
22.250	1,099.77	1,099.76	1,099.76	1,099.76	1,099.76
22.267	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.283	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.300	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.317	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.333	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
22.350	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
22.367	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
22.383	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
22.400	1,099.75	1,099.75	1,099.75	1,099.74	1,099.74
22.417	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
22.433	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
22.450	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
22.467	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
22.483	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
22.500	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
22.517	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
22.533	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
22.550	1,099.73	1,099.73	1,099.73	1,099.72	1,099.72
22.567	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
22.583	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
22.600	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
22.617	1,099.72	1,099.72	1,099.72	1,099.72	1,099.71
22.633	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
22.650	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
22.667	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
22.683	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
22.700	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
22.717	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
22.733	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
22.750	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
22.767	1,099.70	1,099.69	1,099.69	1,099.69	1,099.69
22.783	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
22.800	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
22.817	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
22.833	1,099.69	1,099.68	1,099.68	1,099.68	1,099.68
22.850	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
22.867	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
22.883	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
22.900	1,099.68	1,099.67	1,099.67	1,099.67	1,099.67
22.917	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
22.933	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
22.950	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
22.967	1,099.67	1,099.66	1,099.66	1,099.66	1,099.66
22.983	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
23.000	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
23.017	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
23.033	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
23.050	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
23.067	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
23.083	1,099.65	1,099.65	1,099.65	1,099.65	1,099.64

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
23.100	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
23.117	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
23.133	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
23.150	1,099.64	1,099.64	1,099.64	1,099.63	1,099.63
23.167	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
23.183	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
23.200	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
23.217	1,099.63	1,099.62	1,099.62	1,099.62	1,099.62
23.233	1,099.62	1,099.62	1,099.62	1,099.62	1,099.62
23.250	1,099.62	1,099.62	1,099.62	1,099.62	1,099.62
23.267	1,099.62	1,099.62	1,099.62	1,099.62	1,099.61
23.283	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
23.300	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
23.317	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
23.333	1,099.61	1,099.61	1,099.61	1,099.60	1,099.60
23.350	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
23.367	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
23.383	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
23.400	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
23.417	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
23.433	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
23.450	1,099.59	1,099.59	1,099.59	1,099.58	1,099.58
23.467	1,099.58	1,099.58	1,099.58	1,099.58	1,099.58
23.483	1,099.58	1,099.58	1,099.58	1,099.58	1,099.58
23.500	1,099.58	1,099.58	1,099.58	1,099.58	1,099.58
23.517	1,099.57	1,099.57	1,099.57	1,099.57	1,099.57
23.533	1,099.57	1,099.57	1,099.57	1,099.57	1,099.57
23.550	1,099.57	1,099.57	1,099.57	1,099.57	1,099.57
23.567	1,099.57	1,099.57	1,099.57	1,099.56	1,099.56
23.583	1,099.56	1,099.56	1,099.56	1,099.56	1,099.56
23.600	1,099.56	1,099.56	1,099.56	1,099.56	1,099.56
23.617	1,099.56	1,099.56	1,099.56	1,099.56	1,099.56
23.633	1,099.55	1,099.55	1,099.55	1,099.55	1,099.55
23.650	1,099.55	1,099.55	1,099.55	1,099.55	1,099.55
23.667	1,099.55	1,099.55	1,099.55	1,099.55	1,099.55
23.683	1,099.55	1,099.55	1,099.54	1,099.54	1,099.54
23.700	1,099.54	1,099.54	1,099.54	1,099.54	1,099.54
23.717	1,099.54	1,099.54	1,099.54	1,099.54	1,099.54
23.733	1,099.54	1,099.54	1,099.54	1,099.54	1,099.53
23.750	1,099.53	1,099.53	1,099.53	1,099.53	1,099.53
23.767	1,099.53	1,099.53	1,099.53	1,099.53	1,099.53
23.783	1,099.53	1,099.53	1,099.53	1,099.53	1,099.53

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
23.800	1,099.52	1,099.52	1,099.52	1,099.52	1,099.52
23.817	1,099.52	1,099.52	1,099.52	1,099.52	1,099.52
23.833	1,099.52	1,099.52	1,099.52	1,099.52	1,099.52
23.850	1,099.52	1,099.51	1,099.51	1,099.51	1,099.51
23.867	1,099.51	1,099.51	1,099.51	1,099.51	1,099.51
23.883	1,099.51	1,099.51	1,099.51	1,099.51	1,099.51
23.900	1,099.51	1,099.51	1,099.51	1,099.50	1,099.50
23.917	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
23.933	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
23.950	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
23.967	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
23.983	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
24.000	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
24.017	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
24.033	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
24.050	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
24.067	1,099.49	1,099.49	1,099.48	1,099.48	1,099.48
24.083	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
24.100	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
24.117	1,099.48	1,099.48	1,099.48	1,099.47	1,099.47
24.133	1,099.47	1,099.47	1,099.47	1,099.47	1,099.47
24.150	1,099.47	1,099.47	1,099.47	1,099.47	1,099.47
24.167	1,099.46	1,099.46	1,099.46	1,099.46	1,099.46
24.183	1,099.46	1,099.46	1,099.46	1,099.45	1,099.45
24.200	1,099.45	1,099.45	1,099.45	1,099.45	1,099.45
24.217	1,099.45	1,099.45	1,099.44	1,099.44	1,099.44
24.233	1,099.44	1,099.44	1,099.44	1,099.44	1,099.44
24.250	1,099.43	1,099.43	1,099.43	1,099.43	1,099.43
24.267	1,099.43	1,099.43	1,099.43	1,099.42	1,099.42
24.283	1,099.42	1,099.42	1,099.42	1,099.42	1,099.42
24.300	1,099.42	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.017	0.000	0.000	0.000	0.000	0.000
0.033	0.000	0.000	0.000	0.000	0.000
0.050	0.000	0.000	0.000	0.000	0.000
0.067	0.000	0.000	0.000	0.000	5.000
0.083	15.000	25.000	35.000	44.000	54.000
0.100	64.000	74.000	83.000	93.000	102.000
0.117	112.000	121.000	131.000	140.000	150.000
0.133	159.000	168.000	177.000	187.000	196.000
0.150	205.000	214.000	223.000	232.000	241.000
0.167	250.000	259.000	268.000	277.000	285.000
0.183	294.000	303.000	312.000	320.000	329.000
0.200	337.000	346.000	355.000	363.000	372.000
0.217	380.000	388.000	397.000	405.000	413.000
0.233	422.000	430.000	438.000	446.000	454.000
0.250	463.000	471.000	479.000	487.000	495.000
0.267	503.000	511.000	519.000	526.000	534.000
0.283	542.000	550.000	558.000	565.000	573.000
0.300	581.000	589.000	596.000	604.000	611.000
0.317	619.000	626.000	634.000	641.000	649.000
0.333	656.000	663.000	671.000	678.000	685.000
0.350	692.000	700.000	707.000	714.000	721.000
0.367	728.000	735.000	742.000	749.000	756.000
0.383	763.000	770.000	777.000	784.000	791.000
0.400	797.000	804.000	811.000	818.000	824.000
0.417	831.000	838.000	844.000	851.000	857.000
0.433	864.000	870.000	877.000	883.000	890.000
0.450	896.000	902.000	909.000	915.000	921.000
0.467	928.000	934.000	940.000	946.000	952.000
0.483	959.000	965.000	971.000	977.000	983.000
0.500	989.000	995.000	1,001.000	1,007.000	1,013.000
0.517	1,018.000	1,024.000	1,030.000	1,036.000	1,042.000
0.533	1,048.000	1,053.000	1,059.000	1,065.000	1,070.000
0.550	1,076.000	1,082.000	1,087.000	1,093.000	1,099.000
0.567	1,104.000	1,110.000	1,115.000	1,121.000	1,126.000
0.583	1,132.000	1,137.000	1,143.000	1,148.000	1,153.000
0.600	1,159.000	1,164.000	1,169.000	1,175.000	1,180.000
0.617	1,185.000	1,190.000	1,196.000	1,201.000	1,206.000
0.633	1,211.000	1,216.000	1,222.000	1,227.000	1,232.000
0.650	1,237.000	1,242.000	1,247.000	1,252.000	1,257.000
0.667	1,262.000	1,267.000	1,272.000	1,277.000	1,282.000
0.683	1,287.000	1,291.000	1,296.000	1,301.000	1,306.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.700	1,311.000	1,315.000	1,320.000	1,325.000	1,330.000
0.717	1,334.000	1,339.000	1,344.000	1,348.000	1,353.000
0.733	1,357.000	1,362.000	1,367.000	1,371.000	1,376.000
0.750	1,380.000	1,385.000	1,389.000	1,394.000	1,398.000
0.767	1,402.000	1,407.000	1,411.000	1,416.000	1,420.000
0.783	1,424.000	1,428.000	1,433.000	1,437.000	1,441.000
0.800	1,446.000	1,450.000	1,454.000	1,458.000	1,462.000
0.817	1,466.000	1,471.000	1,475.000	1,479.000	1,483.000
0.833	1,487.000	1,491.000	1,495.000	1,499.000	1,503.000
0.850	1,507.000	1,511.000	1,515.000	1,519.000	1,523.000
0.867	1,527.000	1,531.000	1,534.000	1,538.000	1,542.000
0.883	1,546.000	1,550.000	1,554.000	1,557.000	1,561.000
0.900	1,565.000	1,569.000	1,573.000	1,576.000	1,580.000
0.917	1,584.000	1,587.000	1,591.000	1,595.000	1,598.000
0.933	1,602.000	1,606.000	1,609.000	1,613.000	1,616.000
0.950	1,620.000	1,624.000	1,627.000	1,631.000	1,634.000
0.967	1,638.000	1,641.000	1,645.000	1,648.000	1,652.000
0.983	1,655.000	1,659.000	1,662.000	1,665.000	1,669.000
1.000	1,672.000	1,676.000	1,679.000	1,682.000	1,686.000
1.017	1,689.000	1,692.000	1,696.000	1,699.000	1,702.000
1.033	1,705.000	1,709.000	1,712.000	1,715.000	1,718.000
1.050	1,721.000	1,725.000	1,728.000	1,731.000	1,734.000
1.067	1,737.000	1,740.000	1,744.000	1,747.000	1,750.000
1.083	1,753.000	1,756.000	1,759.000	1,762.000	1,765.000
1.100	1,768.000	1,771.000	1,774.000	1,777.000	1,780.000
1.117	1,783.000	1,786.000	1,789.000	1,792.000	1,795.000
1.133	1,798.000	1,801.000	1,803.000	1,806.000	1,809.000
1.150	1,812.000	1,815.000	1,818.000	1,820.000	1,823.000
1.167	1,826.000	1,829.000	1,831.000	1,834.000	1,837.000
1.183	1,840.000	1,842.000	1,845.000	1,848.000	1,851.000
1.200	1,853.000	1,856.000	1,859.000	1,861.000	1,864.000
1.217	1,866.000	1,869.000	1,872.000	1,874.000	1,877.000
1.233	1,879.000	1,882.000	1,885.000	1,887.000	1,890.000
1.250	1,892.000	1,895.000	1,897.000	1,900.000	1,902.000
1.267	1,905.000	1,907.000	1,910.000	1,912.000	1,915.000
1.283	1,917.000	1,920.000	1,922.000	1,924.000	1,927.000
1.300	1,929.000	1,932.000	1,934.000	1,937.000	1,939.000
1.317	1,941.000	1,944.000	1,946.000	1,948.000	1,951.000
1.333	1,953.000	1,955.000	1,958.000	1,960.000	1,962.000
1.350	1,965.000	1,967.000	1,969.000	1,971.000	1,974.000
1.367	1,976.000	1,978.000	1,980.000	1,983.000	1,985.000
1.383	1,987.000	1,989.000	1,992.000	1,994.000	1,996.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
1.400	1,998.000	2,000.000	2,002.000	2,005.000	2,007.000
1.417	2,009.000	2,011.000	2,013.000	2,015.000	2,017.000
1.433	2,020.000	2,022.000	2,024.000	2,026.000	2,028.000
1.450	2,030.000	2,032.000	2,034.000	2,036.000	2,038.000
1.467	2,040.000	2,042.000	2,044.000	2,046.000	2,048.000
1.483	2,050.000	2,052.000	2,054.000	2,056.000	2,058.000
1.500	2,060.000	2,062.000	2,064.000	2,066.000	2,067.000
1.517	2,069.000	2,071.000	2,073.000	2,075.000	2,077.000
1.533	2,079.000	2,081.000	2,082.000	2,084.000	2,086.000
1.550	2,088.000	2,090.000	2,092.000	2,093.000	2,095.000
1.567	2,097.000	2,099.000	2,101.000	2,102.000	2,104.000
1.583	2,106.000	2,108.000	2,109.000	2,111.000	2,113.000
1.600	2,115.000	2,116.000	2,118.000	2,120.000	2,122.000
1.617	2,123.000	2,125.000	2,127.000	2,128.000	2,130.000
1.633	2,132.000	2,133.000	2,135.000	2,137.000	2,138.000
1.650	2,140.000	2,142.000	2,143.000	2,145.000	2,147.000
1.667	2,148.000	2,150.000	2,152.000	2,153.000	2,155.000
1.683	2,156.000	2,158.000	2,160.000	2,161.000	2,163.000
1.700	2,164.000	2,166.000	2,168.000	2,169.000	2,171.000
1.717	2,172.000	2,174.000	2,176.000	2,177.000	2,179.000
1.733	2,180.000	2,182.000	2,183.000	2,185.000	2,186.000
1.750	2,188.000	2,189.000	2,191.000	2,192.000	2,194.000
1.767	2,195.000	2,197.000	2,198.000	2,200.000	2,201.000
1.783	2,203.000	2,204.000	2,206.000	2,207.000	2,209.000
1.800	2,210.000	2,211.000	2,213.000	2,214.000	2,216.000
1.817	2,217.000	2,218.000	2,220.000	2,221.000	2,223.000
1.833	2,224.000	2,225.000	2,227.000	2,228.000	2,229.000
1.850	2,231.000	2,232.000	2,233.000	2,235.000	2,236.000
1.867	2,237.000	2,239.000	2,240.000	2,241.000	2,243.000
1.883	2,244.000	2,245.000	2,247.000	2,248.000	2,249.000
1.900	2,250.000	2,252.000	2,253.000	2,254.000	2,255.000
1.917	2,257.000	2,258.000	2,259.000	2,260.000	2,262.000
1.933	2,263.000	2,264.000	2,265.000	2,267.000	2,268.000
1.950	2,269.000	2,270.000	2,271.000	2,273.000	2,274.000
1.967	2,275.000	2,276.000	2,277.000	2,279.000	2,280.000
1.983	2,281.000	2,282.000	2,283.000	2,285.000	2,286.000
2.000	2,287.000	2,288.000	2,289.000	2,290.000	2,292.000
2.017	2,293.000	2,294.000	2,295.000	2,296.000	2,297.000
2.033	2,299.000	2,300.000	2,301.000	2,302.000	2,303.000
2.050	2,304.000	2,305.000	2,307.000	2,308.000	2,309.000
2.067	2,310.000	2,311.000	2,312.000	2,313.000	2,315.000
2.083	2,316.000	2,317.000	2,318.000	2,319.000	2,320.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
2.100	2,321.000	2,322.000	2,323.000	2,324.000	2,326.000
2.117	2,327.000	2,328.000	2,329.000	2,330.000	2,331.000
2.133	2,332.000	2,333.000	2,334.000	2,335.000	2,336.000
2.150	2,337.000	2,338.000	2,339.000	2,340.000	2,341.000
2.167	2,342.000	2,343.000	2,344.000	2,345.000	2,346.000
2.183	2,347.000	2,348.000	2,349.000	2,350.000	2,351.000
2.200	2,352.000	2,353.000	2,354.000	2,355.000	2,356.000
2.217	2,357.000	2,358.000	2,359.000	2,360.000	2,361.000
2.233	2,362.000	2,363.000	2,364.000	2,365.000	2,366.000
2.250	2,367.000	2,368.000	2,369.000	2,370.000	2,371.000
2.267	2,372.000	2,373.000	2,374.000	2,375.000	2,376.000
2.283	2,377.000	2,378.000	2,379.000	2,380.000	2,381.000
2.300	2,382.000	2,383.000	2,384.000	2,385.000	2,386.000
2.317	2,387.000	2,388.000	2,389.000	2,389.000	2,390.000
2.333	2,391.000	2,392.000	2,393.000	2,394.000	2,395.000
2.350	2,396.000	2,397.000	2,398.000	2,399.000	2,399.000
2.367	2,400.000	2,401.000	2,402.000	2,403.000	2,404.000
2.383	2,405.000	2,406.000	2,406.000	2,407.000	2,408.000
2.400	2,409.000	2,410.000	2,411.000	2,412.000	2,412.000
2.417	2,413.000	2,414.000	2,415.000	2,416.000	2,417.000
2.433	2,418.000	2,418.000	2,419.000	2,420.000	2,421.000
2.450	2,422.000	2,423.000	2,423.000	2,424.000	2,425.000
2.467	2,426.000	2,427.000	2,428.000	2,429.000	2,429.000
2.483	2,430.000	2,431.000	2,432.000	2,433.000	2,434.000
2.500	2,435.000	2,435.000	2,436.000	2,437.000	2,438.000
2.517	2,439.000	2,440.000	2,440.000	2,441.000	2,442.000
2.533	2,443.000	2,444.000	2,445.000	2,445.000	2,446.000
2.550	2,447.000	2,448.000	2,449.000	2,449.000	2,450.000
2.567	2,451.000	2,452.000	2,453.000	2,453.000	2,454.000
2.583	2,455.000	2,456.000	2,456.000	2,457.000	2,458.000
2.600	2,459.000	2,459.000	2,460.000	2,461.000	2,462.000
2.617	2,462.000	2,463.000	2,464.000	2,465.000	2,465.000
2.633	2,466.000	2,467.000	2,468.000	2,468.000	2,469.000
2.650	2,470.000	2,470.000	2,471.000	2,472.000	2,473.000
2.667	2,473.000	2,474.000	2,475.000	2,475.000	2,476.000
2.683	2,477.000	2,477.000	2,478.000	2,479.000	2,480.000
2.700	2,480.000	2,481.000	2,482.000	2,482.000	2,483.000
2.717	2,484.000	2,484.000	2,485.000	2,485.000	2,486.000
2.733	2,487.000	2,487.000	2,488.000	2,489.000	2,489.000
2.750	2,490.000	2,491.000	2,491.000	2,492.000	2,493.000
2.767	2,493.000	2,494.000	2,495.000	2,495.000	2,496.000
2.783	2,497.000	2,497.000	2,498.000	2,499.000	2,499.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
2.800	2,500.000	2,501.000	2,501.000	2,502.000	2,503.000
2.817	2,503.000	2,504.000	2,505.000	2,505.000	2,506.000
2.833	2,507.000	2,507.000	2,508.000	2,509.000	2,509.000
2.850	2,510.000	2,511.000	2,511.000	2,512.000	2,512.000
2.867	2,513.000	2,514.000	2,514.000	2,515.000	2,516.000
2.883	2,516.000	2,517.000	2,518.000	2,518.000	2,519.000
2.900	2,519.000	2,520.000	2,521.000	2,521.000	2,522.000
2.917	2,523.000	2,523.000	2,524.000	2,524.000	2,525.000
2.933	2,526.000	2,526.000	2,527.000	2,527.000	2,528.000
2.950	2,529.000	2,529.000	2,530.000	2,530.000	2,531.000
2.967	2,532.000	2,532.000	2,533.000	2,533.000	2,534.000
2.983	2,535.000	2,535.000	2,536.000	2,536.000	2,537.000
3.000	2,538.000	2,538.000	2,539.000	2,539.000	2,540.000
3.017	2,541.000	2,541.000	2,542.000	2,542.000	2,543.000
3.033	2,544.000	2,544.000	2,545.000	2,545.000	2,546.000
3.050	2,547.000	2,547.000	2,548.000	2,548.000	2,549.000
3.067	2,550.000	2,550.000	2,551.000	2,551.000	2,552.000
3.083	2,553.000	2,553.000	2,554.000	2,554.000	2,555.000
3.100	2,556.000	2,556.000	2,557.000	2,557.000	2,558.000
3.117	2,558.000	2,559.000	2,560.000	2,560.000	2,561.000
3.133	2,561.000	2,562.000	2,562.000	2,563.000	2,564.000
3.150	2,564.000	2,565.000	2,565.000	2,566.000	2,566.000
3.167	2,567.000	2,567.000	2,568.000	2,569.000	2,569.000
3.183	2,570.000	2,570.000	2,571.000	2,571.000	2,572.000
3.200	2,572.000	2,573.000	2,573.000	2,574.000	2,574.000
3.217	2,575.000	2,576.000	2,576.000	2,577.000	2,577.000
3.233	2,578.000	2,578.000	2,579.000	2,579.000	2,580.000
3.250	2,580.000	2,581.000	2,581.000	2,582.000	2,582.000
3.267	2,583.000	2,583.000	2,584.000	2,584.000	2,585.000
3.283	2,585.000	2,585.000	2,586.000	2,586.000	2,587.000
3.300	2,587.000	2,588.000	2,588.000	2,589.000	2,589.000
3.317	2,590.000	2,590.000	2,591.000	2,591.000	2,592.000
3.333	2,592.000	2,593.000	2,593.000	2,594.000	2,594.000
3.350	2,595.000	2,595.000	2,596.000	2,596.000	2,597.000
3.367	2,597.000	2,598.000	2,598.000	2,599.000	2,599.000
3.383	2,600.000	2,600.000	2,601.000	2,601.000	2,602.000
3.400	2,602.000	2,603.000	2,603.000	2,604.000	2,604.000
3.417	2,605.000	2,605.000	2,606.000	2,606.000	2,606.000
3.433	2,607.000	2,607.000	2,608.000	2,608.000	2,609.000
3.450	2,609.000	2,610.000	2,610.000	2,611.000	2,611.000
3.467	2,612.000	2,612.000	2,613.000	2,613.000	2,614.000
3.483	2,614.000	2,615.000	2,615.000	2,616.000	2,616.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
3.500	2,617.000	2,617.000	2,617.000	2,618.000	2,618.000
3.517	2,619.000	2,619.000	2,620.000	2,620.000	2,621.000
3.533	2,621.000	2,622.000	2,622.000	2,623.000	2,623.000
3.550	2,624.000	2,624.000	2,625.000	2,625.000	2,626.000
3.567	2,626.000	2,626.000	2,627.000	2,627.000	2,628.000
3.583	2,628.000	2,629.000	2,629.000	2,630.000	2,630.000
3.600	2,631.000	2,631.000	2,632.000	2,632.000	2,633.000
3.617	2,633.000	2,634.000	2,634.000	2,634.000	2,635.000
3.633	2,635.000	2,636.000	2,636.000	2,637.000	2,637.000
3.650	2,638.000	2,638.000	2,639.000	2,639.000	2,640.000
3.667	2,640.000	2,641.000	2,641.000	2,641.000	2,642.000
3.683	2,642.000	2,643.000	2,643.000	2,644.000	2,644.000
3.700	2,645.000	2,645.000	2,646.000	2,646.000	2,647.000
3.717	2,647.000	2,648.000	2,648.000	2,648.000	2,649.000
3.733	2,649.000	2,650.000	2,650.000	2,651.000	2,651.000
3.750	2,652.000	2,652.000	2,653.000	2,653.000	2,654.000
3.767	2,654.000	2,655.000	2,655.000	2,655.000	2,656.000
3.783	2,656.000	2,657.000	2,657.000	2,658.000	2,658.000
3.800	2,659.000	2,659.000	2,660.000	2,660.000	2,660.000
3.817	2,661.000	2,661.000	2,662.000	2,662.000	2,663.000
3.833	2,663.000	2,664.000	2,664.000	2,665.000	2,665.000
3.850	2,665.000	2,666.000	2,666.000	2,667.000	2,667.000
3.867	2,668.000	2,668.000	2,669.000	2,669.000	2,670.000
3.883	2,670.000	2,670.000	2,671.000	2,671.000	2,672.000
3.900	2,672.000	2,673.000	2,673.000	2,674.000	2,674.000
3.917	2,675.000	2,675.000	2,676.000	2,676.000	2,676.000
3.933	2,677.000	2,677.000	2,678.000	2,678.000	2,679.000
3.950	2,679.000	2,680.000	2,680.000	2,681.000	2,681.000
3.967	2,681.000	2,682.000	2,682.000	2,683.000	2,683.000
3.983	2,684.000	2,684.000	2,685.000	2,685.000	2,686.000
4.000	2,686.000	2,686.000	2,687.000	2,687.000	2,688.000
4.017	2,688.000	2,689.000	2,689.000	2,689.000	2,690.000
4.033	2,690.000	2,691.000	2,691.000	2,692.000	2,692.000
4.050	2,693.000	2,693.000	2,693.000	2,694.000	2,694.000
4.067	2,695.000	2,695.000	2,696.000	2,696.000	2,696.000
4.083	2,697.000	2,697.000	2,698.000	2,698.000	2,699.000
4.100	2,699.000	2,700.000	2,700.000	2,700.000	2,701.000
4.117	2,701.000	2,702.000	2,702.000	2,703.000	2,703.000
4.133	2,704.000	2,704.000	2,705.000	2,705.000	2,705.000
4.150	2,706.000	2,706.000	2,707.000	2,707.000	2,708.000
4.167	2,708.000	2,709.000	2,709.000	2,710.000	2,710.000
4.183	2,710.000	2,711.000	2,711.000	2,712.000	2,712.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
4.200	2,713.000	2,713.000	2,714.000	2,714.000	2,714.000
4.217	2,715.000	2,715.000	2,716.000	2,716.000	2,717.000
4.233	2,717.000	2,717.000	2,718.000	2,718.000	2,719.000
4.250	2,719.000	2,720.000	2,720.000	2,720.000	2,721.000
4.267	2,721.000	2,722.000	2,722.000	2,723.000	2,723.000
4.283	2,723.000	2,724.000	2,724.000	2,725.000	2,725.000
4.300	2,726.000	2,726.000	2,726.000	2,727.000	2,727.000
4.317	2,728.000	2,728.000	2,729.000	2,729.000	2,730.000
4.333	2,730.000	2,730.000	2,731.000	2,731.000	2,732.000
4.350	2,732.000	2,733.000	2,733.000	2,734.000	2,734.000
4.367	2,735.000	2,735.000	2,735.000	2,736.000	2,736.000
4.383	2,737.000	2,737.000	2,738.000	2,738.000	2,739.000
4.400	2,739.000	2,740.000	2,740.000	2,740.000	2,741.000
4.417	2,741.000	2,742.000	2,742.000	2,743.000	2,743.000
4.433	2,743.000	2,744.000	2,744.000	2,745.000	2,745.000
4.450	2,746.000	2,746.000	2,746.000	2,747.000	2,747.000
4.467	2,748.000	2,748.000	2,749.000	2,749.000	2,749.000
4.483	2,750.000	2,750.000	2,751.000	2,751.000	2,751.000
4.500	2,752.000	2,752.000	2,753.000	2,753.000	2,754.000
4.517	2,754.000	2,754.000	2,755.000	2,755.000	2,756.000
4.533	2,756.000	2,757.000	2,757.000	2,757.000	2,758.000
4.550	2,758.000	2,759.000	2,759.000	2,760.000	2,760.000
4.567	2,761.000	2,761.000	2,761.000	2,762.000	2,762.000
4.583	2,763.000	2,763.000	2,764.000	2,764.000	2,765.000
4.600	2,765.000	2,766.000	2,766.000	2,766.000	2,767.000
4.617	2,767.000	2,768.000	2,768.000	2,769.000	2,769.000
4.633	2,770.000	2,770.000	2,770.000	2,771.000	2,771.000
4.650	2,772.000	2,772.000	2,773.000	2,773.000	2,773.000
4.667	2,774.000	2,774.000	2,775.000	2,775.000	2,776.000
4.683	2,776.000	2,776.000	2,777.000	2,777.000	2,778.000
4.700	2,778.000	2,778.000	2,779.000	2,779.000	2,780.000
4.717	2,780.000	2,780.000	2,781.000	2,781.000	2,782.000
4.733	2,782.000	2,783.000	2,783.000	2,783.000	2,784.000
4.750	2,784.000	2,785.000	2,785.000	2,786.000	2,786.000
4.767	2,786.000	2,787.000	2,787.000	2,788.000	2,788.000
4.783	2,789.000	2,789.000	2,790.000	2,790.000	2,790.000
4.800	2,791.000	2,791.000	2,792.000	2,792.000	2,793.000
4.817	2,793.000	2,794.000	2,794.000	2,795.000	2,795.000
4.833	2,795.000	2,796.000	2,796.000	2,797.000	2,797.000
4.850	2,798.000	2,798.000	2,799.000	2,799.000	2,799.000
4.867	2,800.000	2,800.000	2,801.000	2,801.000	2,802.000
4.883	2,802.000	2,802.000	2,803.000	2,803.000	2,804.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
4.900	2,804.000	2,804.000	2,805.000	2,805.000	2,806.000
4.917	2,806.000	2,807.000	2,807.000	2,807.000	2,808.000
4.933	2,808.000	2,809.000	2,809.000	2,809.000	2,810.000
4.950	2,810.000	2,811.000	2,811.000	2,812.000	2,812.000
4.967	2,812.000	2,813.000	2,813.000	2,814.000	2,814.000
4.983	2,814.000	2,815.000	2,815.000	2,816.000	2,816.000
5.000	2,817.000	2,817.000	2,818.000	2,818.000	2,818.000
5.017	2,819.000	2,819.000	2,820.000	2,820.000	2,821.000
5.033	2,821.000	2,822.000	2,822.000	2,823.000	2,823.000
5.050	2,823.000	2,824.000	2,824.000	2,825.000	2,825.000
5.067	2,826.000	2,826.000	2,827.000	2,827.000	2,828.000
5.083	2,828.000	2,829.000	2,829.000	2,830.000	2,830.000
5.100	2,831.000	2,831.000	2,832.000	2,832.000	2,833.000
5.117	2,833.000	2,834.000	2,834.000	2,834.000	2,835.000
5.133	2,835.000	2,836.000	2,836.000	2,837.000	2,837.000
5.150	2,838.000	2,838.000	2,839.000	2,839.000	2,840.000
5.167	2,840.000	2,841.000	2,841.000	2,842.000	2,842.000
5.183	2,843.000	2,843.000	2,844.000	2,844.000	2,845.000
5.200	2,845.000	2,846.000	2,846.000	2,847.000	2,847.000
5.217	2,848.000	2,848.000	2,849.000	2,849.000	2,849.000
5.233	2,850.000	2,850.000	2,851.000	2,851.000	2,852.000
5.250	2,852.000	2,853.000	2,853.000	2,854.000	2,854.000
5.267	2,855.000	2,855.000	2,855.000	2,856.000	2,856.000
5.283	2,857.000	2,857.000	2,858.000	2,858.000	2,859.000
5.300	2,859.000	2,860.000	2,860.000	2,861.000	2,861.000
5.317	2,861.000	2,862.000	2,862.000	2,863.000	2,863.000
5.333	2,864.000	2,864.000	2,865.000	2,865.000	2,866.000
5.350	2,866.000	2,867.000	2,867.000	2,868.000	2,868.000
5.367	2,869.000	2,869.000	2,870.000	2,870.000	2,871.000
5.383	2,871.000	2,872.000	2,872.000	2,872.000	2,873.000
5.400	2,873.000	2,874.000	2,874.000	2,875.000	2,875.000
5.417	2,876.000	2,876.000	2,877.000	2,877.000	2,878.000
5.433	2,878.000	2,878.000	2,879.000	2,879.000	2,880.000
5.450	2,880.000	2,881.000	2,881.000	2,882.000	2,882.000
5.467	2,883.000	2,883.000	2,883.000	2,884.000	2,884.000
5.483	2,885.000	2,885.000	2,886.000	2,886.000	2,887.000
5.500	2,887.000	2,888.000	2,888.000	2,888.000	2,889.000
5.517	2,889.000	2,890.000	2,890.000	2,891.000	2,891.000
5.533	2,892.000	2,892.000	2,893.000	2,893.000	2,893.000
5.550	2,894.000	2,894.000	2,895.000	2,895.000	2,896.000
5.567	2,896.000	2,897.000	2,897.000	2,898.000	2,898.000
5.583	2,899.000	2,899.000	2,899.000	2,900.000	2,900.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
5.600	2,901.000	2,901.000	2,902.000	2,902.000	2,903.000
5.617	2,903.000	2,904.000	2,904.000	2,905.000	2,905.000
5.633	2,906.000	2,906.000	2,907.000	2,907.000	2,908.000
5.650	2,908.000	2,909.000	2,909.000	2,910.000	2,910.000
5.667	2,911.000	2,911.000	2,912.000	2,912.000	2,913.000
5.683	2,913.000	2,914.000	2,914.000	2,915.000	2,915.000
5.700	2,916.000	2,916.000	2,917.000	2,917.000	2,918.000
5.717	2,918.000	2,919.000	2,919.000	2,920.000	2,920.000
5.733	2,921.000	2,921.000	2,922.000	2,922.000	2,923.000
5.750	2,923.000	2,924.000	2,924.000	2,925.000	2,925.000
5.767	2,926.000	2,926.000	2,927.000	2,927.000	2,928.000
5.783	2,928.000	2,929.000	2,929.000	2,930.000	2,930.000
5.800	2,931.000	2,931.000	2,932.000	2,932.000	2,933.000
5.817	2,933.000	2,934.000	2,934.000	2,935.000	2,935.000
5.833	2,936.000	2,936.000	2,937.000	2,937.000	2,938.000
5.850	2,938.000	2,939.000	2,939.000	2,939.000	2,940.000
5.867	2,940.000	2,941.000	2,941.000	2,942.000	2,942.000
5.883	2,943.000	2,943.000	2,944.000	2,944.000	2,945.000
5.900	2,945.000	2,946.000	2,946.000	2,947.000	2,947.000
5.917	2,948.000	2,948.000	2,949.000	2,949.000	2,950.000
5.933	2,950.000	2,951.000	2,951.000	2,952.000	2,952.000
5.950	2,953.000	2,953.000	2,954.000	2,954.000	2,955.000
5.967	2,955.000	2,955.000	2,956.000	2,956.000	2,957.000
5.983	2,957.000	2,958.000	2,958.000	2,959.000	2,959.000
6.000	2,960.000	2,960.000	2,961.000	2,961.000	2,962.000
6.017	2,962.000	2,963.000	2,963.000	2,964.000	2,964.000
6.033	2,965.000	2,965.000	2,966.000	2,966.000	2,966.000
6.050	2,967.000	2,967.000	2,968.000	2,968.000	2,969.000
6.067	2,969.000	2,970.000	2,970.000	2,971.000	2,971.000
6.083	2,972.000	2,972.000	2,973.000	2,973.000	2,974.000
6.100	2,974.000	2,974.000	2,975.000	2,975.000	2,976.000
6.117	2,976.000	2,977.000	2,977.000	2,978.000	2,978.000
6.133	2,979.000	2,979.000	2,980.000	2,980.000	2,981.000
6.150	2,981.000	2,982.000	2,982.000	2,982.000	2,983.000
6.167	2,983.000	2,984.000	2,984.000	2,985.000	2,985.000
6.183	2,986.000	2,986.000	2,987.000	2,987.000	2,988.000
6.200	2,988.000	2,989.000	2,989.000	2,990.000	2,990.000
6.217	2,991.000	2,991.000	2,992.000	2,992.000	2,993.000
6.233	2,993.000	2,994.000	2,994.000	2,995.000	2,995.000
6.250	2,996.000	2,996.000	2,997.000	2,997.000	2,998.000
6.267	2,998.000	2,999.000	3,000.000	3,000.000	3,001.000
6.283	3,001.000	3,002.000	3,002.000	3,003.000	3,003.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
6.300	3,004.000	3,004.000	3,005.000	3,005.000	3,006.000
6.317	3,006.000	3,007.000	3,008.000	3,008.000	3,009.000
6.333	3,009.000	3,010.000	3,010.000	3,011.000	3,011.000
6.350	3,012.000	3,013.000	3,013.000	3,014.000	3,014.000
6.367	3,015.000	3,015.000	3,016.000	3,016.000	3,017.000
6.383	3,018.000	3,018.000	3,019.000	3,019.000	3,020.000
6.400	3,020.000	3,021.000	3,021.000	3,022.000	3,023.000
6.417	3,023.000	3,024.000	3,024.000	3,025.000	3,025.000
6.433	3,026.000	3,026.000	3,027.000	3,028.000	3,028.000
6.450	3,029.000	3,029.000	3,030.000	3,030.000	3,031.000
6.467	3,031.000	3,032.000	3,033.000	3,033.000	3,034.000
6.483	3,034.000	3,035.000	3,035.000	3,036.000	3,036.000
6.500	3,037.000	3,038.000	3,038.000	3,039.000	3,039.000
6.517	3,040.000	3,040.000	3,041.000	3,041.000	3,042.000
6.533	3,042.000	3,043.000	3,043.000	3,044.000	3,044.000
6.550	3,045.000	3,045.000	3,046.000	3,047.000	3,047.000
6.567	3,048.000	3,048.000	3,049.000	3,049.000	3,050.000
6.583	3,050.000	3,051.000	3,051.000	3,052.000	3,052.000
6.600	3,053.000	3,053.000	3,054.000	3,054.000	3,055.000
6.617	3,055.000	3,056.000	3,056.000	3,057.000	3,058.000
6.633	3,058.000	3,059.000	3,059.000	3,060.000	3,060.000
6.650	3,061.000	3,061.000	3,062.000	3,062.000	3,063.000
6.667	3,064.000	3,064.000	3,065.000	3,065.000	3,066.000
6.683	3,066.000	3,067.000	3,067.000	3,068.000	3,069.000
6.700	3,069.000	3,070.000	3,070.000	3,071.000	3,071.000
6.717	3,072.000	3,072.000	3,073.000	3,074.000	3,074.000
6.733	3,075.000	3,075.000	3,076.000	3,077.000	3,077.000
6.750	3,078.000	3,078.000	3,079.000	3,079.000	3,080.000
6.767	3,081.000	3,081.000	3,082.000	3,082.000	3,083.000
6.783	3,084.000	3,084.000	3,085.000	3,085.000	3,086.000
6.800	3,087.000	3,087.000	3,088.000	3,088.000	3,089.000
6.817	3,089.000	3,090.000	3,091.000	3,091.000	3,092.000
6.833	3,093.000	3,093.000	3,094.000	3,094.000	3,095.000
6.850	3,096.000	3,096.000	3,097.000	3,097.000	3,098.000
6.867	3,099.000	3,099.000	3,100.000	3,100.000	3,101.000
6.883	3,102.000	3,102.000	3,103.000	3,103.000	3,104.000
6.900	3,105.000	3,105.000	3,106.000	3,106.000	3,107.000
6.917	3,108.000	3,108.000	3,109.000	3,109.000	3,110.000
6.933	3,111.000	3,111.000	3,112.000	3,112.000	3,113.000
6.950	3,114.000	3,114.000	3,115.000	3,115.000	3,116.000
6.967	3,116.000	3,117.000	3,118.000	3,118.000	3,119.000
6.983	3,119.000	3,120.000	3,120.000	3,121.000	3,121.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
7.000	3,122.000	3,123.000	3,123.000	3,124.000	3,124.000
7.017	3,125.000	3,125.000	3,126.000	3,126.000	3,127.000
7.033	3,128.000	3,128.000	3,129.000	3,129.000	3,130.000
7.050	3,130.000	3,131.000	3,131.000	3,132.000	3,133.000
7.067	3,133.000	3,134.000	3,134.000	3,135.000	3,135.000
7.083	3,136.000	3,136.000	3,137.000	3,138.000	3,138.000
7.100	3,139.000	3,139.000	3,140.000	3,140.000	3,141.000
7.117	3,142.000	3,142.000	3,143.000	3,143.000	3,144.000
7.133	3,145.000	3,145.000	3,146.000	3,146.000	3,147.000
7.150	3,147.000	3,148.000	3,149.000	3,149.000	3,150.000
7.167	3,150.000	3,151.000	3,152.000	3,152.000	3,153.000
7.183	3,153.000	3,154.000	3,155.000	3,155.000	3,156.000
7.200	3,156.000	3,157.000	3,158.000	3,158.000	3,159.000
7.217	3,159.000	3,160.000	3,161.000	3,161.000	3,162.000
7.233	3,162.000	3,163.000	3,164.000	3,164.000	3,165.000
7.250	3,166.000	3,166.000	3,167.000	3,167.000	3,168.000
7.267	3,169.000	3,169.000	3,170.000	3,171.000	3,171.000
7.283	3,172.000	3,172.000	3,173.000	3,174.000	3,174.000
7.300	3,175.000	3,176.000	3,176.000	3,177.000	3,178.000
7.317	3,178.000	3,179.000	3,179.000	3,180.000	3,181.000
7.333	3,181.000	3,182.000	3,183.000	3,183.000	3,184.000
7.350	3,185.000	3,185.000	3,186.000	3,186.000	3,187.000
7.367	3,188.000	3,188.000	3,189.000	3,190.000	3,190.000
7.383	3,191.000	3,191.000	3,192.000	3,193.000	3,193.000
7.400	3,194.000	3,194.000	3,195.000	3,196.000	3,196.000
7.417	3,197.000	3,197.000	3,198.000	3,198.000	3,199.000
7.433	3,200.000	3,200.000	3,201.000	3,201.000	3,202.000
7.450	3,203.000	3,203.000	3,204.000	3,204.000	3,205.000
7.467	3,205.000	3,206.000	3,206.000	3,207.000	3,208.000
7.483	3,208.000	3,209.000	3,209.000	3,210.000	3,211.000
7.500	3,211.000	3,212.000	3,212.000	3,213.000	3,213.000
7.517	3,214.000	3,215.000	3,215.000	3,216.000	3,216.000
7.533	3,217.000	3,217.000	3,218.000	3,219.000	3,219.000
7.550	3,220.000	3,220.000	3,221.000	3,222.000	3,222.000
7.567	3,223.000	3,223.000	3,224.000	3,225.000	3,225.000
7.583	3,226.000	3,226.000	3,227.000	3,227.000	3,228.000
7.600	3,229.000	3,229.000	3,230.000	3,230.000	3,231.000
7.617	3,232.000	3,232.000	3,233.000	3,234.000	3,234.000
7.633	3,235.000	3,235.000	3,236.000	3,237.000	3,237.000
7.650	3,238.000	3,238.000	3,239.000	3,240.000	3,240.000
7.667	3,241.000	3,241.000	3,242.000	3,243.000	3,243.000
7.683	3,244.000	3,245.000	3,245.000	3,246.000	3,246.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
7.700	3,247.000	3,248.000	3,248.000	3,249.000	3,250.000
7.717	3,250.000	3,251.000	3,251.000	3,252.000	3,253.000
7.733	3,253.000	3,254.000	3,255.000	3,255.000	3,256.000
7.750	3,257.000	3,257.000	3,258.000	3,258.000	3,259.000
7.767	3,260.000	3,260.000	3,261.000	3,262.000	3,262.000
7.783	3,263.000	3,264.000	3,264.000	3,265.000	3,266.000
7.800	3,266.000	3,267.000	3,268.000	3,268.000	3,269.000
7.817	3,270.000	3,270.000	3,271.000	3,271.000	3,272.000
7.833	3,273.000	3,273.000	3,274.000	3,275.000	3,275.000
7.850	3,276.000	3,277.000	3,277.000	3,278.000	3,279.000
7.867	3,279.000	3,280.000	3,281.000	3,281.000	3,282.000
7.883	3,283.000	3,283.000	3,284.000	3,285.000	3,285.000
7.900	3,286.000	3,287.000	3,287.000	3,288.000	3,289.000
7.917	3,289.000	3,290.000	3,291.000	3,292.000	3,292.000
7.933	3,293.000	3,294.000	3,294.000	3,295.000	3,296.000
7.950	3,296.000	3,297.000	3,298.000	3,298.000	3,299.000
7.967	3,300.000	3,300.000	3,301.000	3,302.000	3,302.000
7.983	3,303.000	3,304.000	3,305.000	3,305.000	3,306.000
8.000	3,307.000	3,307.000	3,308.000	3,309.000	3,309.000
8.017	3,310.000	3,311.000	3,311.000	3,312.000	3,313.000
8.033	3,313.000	3,314.000	3,315.000	3,316.000	3,316.000
8.050	3,317.000	3,318.000	3,318.000	3,319.000	3,320.000
8.067	3,320.000	3,321.000	3,322.000	3,322.000	3,323.000
8.083	3,324.000	3,324.000	3,325.000	3,325.000	3,326.000
8.100	3,327.000	3,327.000	3,328.000	3,329.000	3,329.000
8.117	3,330.000	3,331.000	3,331.000	3,332.000	3,333.000
8.133	3,333.000	3,334.000	3,335.000	3,335.000	3,336.000
8.150	3,337.000	3,337.000	3,338.000	3,339.000	3,339.000
8.167	3,340.000	3,341.000	3,341.000	3,342.000	3,343.000
8.183	3,343.000	3,344.000	3,345.000	3,345.000	3,346.000
8.200	3,347.000	3,347.000	3,348.000	3,349.000	3,349.000
8.217	3,350.000	3,351.000	3,351.000	3,352.000	3,353.000
8.233	3,353.000	3,354.000	3,355.000	3,356.000	3,356.000
8.250	3,357.000	3,358.000	3,358.000	3,359.000	3,360.000
8.267	3,360.000	3,361.000	3,362.000	3,362.000	3,363.000
8.283	3,364.000	3,365.000	3,365.000	3,366.000	3,367.000
8.300	3,367.000	3,368.000	3,369.000	3,369.000	3,370.000
8.317	3,371.000	3,372.000	3,372.000	3,373.000	3,374.000
8.333	3,374.000	3,375.000	3,376.000	3,376.000	3,377.000
8.350	3,378.000	3,379.000	3,379.000	3,380.000	3,381.000
8.367	3,381.000	3,382.000	3,383.000	3,383.000	3,384.000
8.383	3,385.000	3,386.000	3,386.000	3,387.000	3,388.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
8.400	3,388.000	3,389.000	3,390.000	3,391.000	3,391.000
8.417	3,392.000	3,393.000	3,393.000	3,394.000	3,395.000
8.433	3,396.000	3,396.000	3,397.000	3,398.000	3,398.000
8.450	3,399.000	3,400.000	3,401.000	3,401.000	3,402.000
8.467	3,403.000	3,403.000	3,404.000	3,405.000	3,406.000
8.483	3,406.000	3,407.000	3,408.000	3,409.000	3,409.000
8.500	3,410.000	3,411.000	3,411.000	3,412.000	3,413.000
8.517	3,414.000	3,414.000	3,415.000	3,416.000	3,417.000
8.533	3,417.000	3,418.000	3,419.000	3,420.000	3,420.000
8.550	3,421.000	3,422.000	3,423.000	3,423.000	3,424.000
8.567	3,425.000	3,425.000	3,426.000	3,427.000	3,428.000
8.583	3,428.000	3,429.000	3,430.000	3,431.000	3,431.000
8.600	3,432.000	3,433.000	3,434.000	3,434.000	3,435.000
8.617	3,436.000	3,437.000	3,437.000	3,438.000	3,439.000
8.633	3,440.000	3,440.000	3,441.000	3,442.000	3,442.000
8.650	3,443.000	3,444.000	3,445.000	3,445.000	3,446.000
8.667	3,447.000	3,448.000	3,448.000	3,449.000	3,450.000
8.683	3,451.000	3,451.000	3,452.000	3,453.000	3,454.000
8.700	3,454.000	3,455.000	3,456.000	3,457.000	3,457.000
8.717	3,458.000	3,459.000	3,460.000	3,460.000	3,461.000
8.733	3,462.000	3,463.000	3,463.000	3,464.000	3,465.000
8.750	3,466.000	3,466.000	3,467.000	3,468.000	3,469.000
8.767	3,470.000	3,470.000	3,471.000	3,472.000	3,473.000
8.783	3,473.000	3,474.000	3,474.000	3,476.000	3,477.000
8.800	3,477.000	3,478.000	3,479.000	3,480.000	3,481.000
8.817	3,481.000	3,482.000	3,483.000	3,484.000	3,484.000
8.833	3,485.000	3,486.000	3,487.000	3,488.000	3,489.000
8.850	3,489.000	3,490.000	3,491.000	3,492.000	3,493.000
8.867	3,493.000	3,494.000	3,495.000	3,496.000	3,497.000
8.883	3,498.000	3,498.000	3,499.000	3,500.000	3,501.000
8.900	3,502.000	3,503.000	3,504.000	3,504.000	3,505.000
8.917	3,506.000	3,507.000	3,508.000	3,509.000	3,510.000
8.933	3,511.000	3,512.000	3,513.000	3,514.000	3,515.000
8.950	3,516.000	3,516.000	3,517.000	3,518.000	3,519.000
8.967	3,520.000	3,521.000	3,522.000	3,523.000	3,524.000
8.983	3,525.000	3,526.000	3,527.000	3,529.000	3,530.000
9.000	3,531.000	3,532.000	3,533.000	3,534.000	3,535.000
9.017	3,536.000	3,537.000	3,538.000	3,539.000	3,540.000
9.033	3,541.000	3,542.000	3,543.000	3,544.000	3,546.000
9.050	3,547.000	3,548.000	3,549.000	3,550.000	3,551.000
9.067	3,552.000	3,553.000	3,554.000	3,555.000	3,557.000
9.083	3,558.000	3,559.000	3,560.000	3,561.000	3,562.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
9.100	3,563.000	3,565.000	3,566.000	3,567.000	3,568.000
9.117	3,569.000	3,570.000	3,572.000	3,573.000	3,574.000
9.133	3,575.000	3,576.000	3,577.000	3,579.000	3,580.000
9.150	3,581.000	3,582.000	3,583.000	3,585.000	3,586.000
9.167	3,587.000	3,588.000	3,589.000	3,591.000	3,592.000
9.183	3,593.000	3,594.000	3,596.000	3,597.000	3,598.000
9.200	3,599.000	3,601.000	3,602.000	3,603.000	3,604.000
9.217	3,606.000	3,607.000	3,608.000	3,609.000	3,611.000
9.233	3,612.000	3,613.000	3,614.000	3,616.000	3,617.000
9.250	3,618.000	3,620.000	3,621.000	3,622.000	3,624.000
9.267	3,625.000	3,626.000	3,628.000	3,629.000	3,630.000
9.283	3,632.000	3,633.000	3,634.000	3,636.000	3,637.000
9.300	3,638.000	3,640.000	3,641.000	3,642.000	3,644.000
9.317	3,645.000	3,647.000	3,648.000	3,649.000	3,651.000
9.333	3,652.000	3,654.000	3,655.000	3,656.000	3,658.000
9.350	3,659.000	3,661.000	3,662.000	3,664.000	3,665.000
9.367	3,667.000	3,668.000	3,670.000	3,671.000	3,673.000
9.383	3,674.000	3,676.000	3,677.000	3,679.000	3,680.000
9.400	3,682.000	3,683.000	3,685.000	3,686.000	3,688.000
9.417	3,690.000	3,691.000	3,693.000	3,694.000	3,696.000
9.433	3,697.000	3,699.000	3,701.000	3,702.000	3,704.000
9.450	3,706.000	3,707.000	3,709.000	3,710.000	3,712.000
9.467	3,714.000	3,715.000	3,717.000	3,718.000	3,720.000
9.483	3,722.000	3,723.000	3,725.000	3,726.000	3,728.000
9.500	3,730.000	3,731.000	3,733.000	3,734.000	3,736.000
9.517	3,738.000	3,739.000	3,741.000	3,742.000	3,744.000
9.533	3,746.000	3,747.000	3,749.000	3,750.000	3,752.000
9.550	3,754.000	3,755.000	3,757.000	3,759.000	3,760.000
9.567	3,762.000	3,764.000	3,765.000	3,767.000	3,769.000
9.583	3,770.000	3,772.000	3,774.000	3,775.000	3,777.000
9.600	3,779.000	3,781.000	3,782.000	3,784.000	3,786.000
9.617	3,787.000	3,789.000	3,791.000	3,793.000	3,795.000
9.633	3,796.000	3,798.000	3,800.000	3,802.000	3,804.000
9.650	3,805.000	3,807.000	3,809.000	3,811.000	3,813.000
9.667	3,815.000	3,816.000	3,818.000	3,820.000	3,822.000
9.683	3,824.000	3,826.000	3,828.000	3,829.000	3,831.000
9.700	3,833.000	3,835.000	3,837.000	3,839.000	3,841.000
9.717	3,843.000	3,845.000	3,846.000	3,848.000	3,850.000
9.733	3,852.000	3,854.000	3,856.000	3,858.000	3,860.000
9.750	3,862.000	3,864.000	3,866.000	3,868.000	3,870.000
9.767	3,872.000	3,874.000	3,876.000	3,878.000	3,880.000
9.783	3,882.000	3,884.000	3,886.000	3,888.000	3,890.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
9.800	3,892.000	3,894.000	3,896.000	3,898.000	3,900.000
9.817	3,902.000	3,904.000	3,906.000	3,908.000	3,910.000
9.833	3,912.000	3,914.000	3,916.000	3,919.000	3,921.000
9.850	3,923.000	3,925.000	3,927.000	3,929.000	3,931.000
9.867	3,934.000	3,936.000	3,938.000	3,940.000	3,942.000
9.883	3,944.000	3,947.000	3,949.000	3,951.000	3,953.000
9.900	3,955.000	3,958.000	3,960.000	3,962.000	3,964.000
9.917	3,966.000	3,969.000	3,971.000	3,973.000	3,975.000
9.933	3,978.000	3,980.000	3,982.000	3,984.000	3,987.000
9.950	3,989.000	3,991.000	3,993.000	3,996.000	3,998.000
9.967	4,000.000	4,003.000	4,005.000	4,007.000	4,009.000
9.983	4,012.000	4,014.000	4,016.000	4,019.000	4,021.000
10.000	4,023.000	4,026.000	4,028.000	4,030.000	4,033.000
10.017	4,035.000	4,037.000	4,040.000	4,042.000	4,045.000
10.033	4,047.000	4,049.000	4,052.000	4,054.000	4,057.000
10.050	4,059.000	4,062.000	4,064.000	4,066.000	4,069.000
10.067	4,071.000	4,074.000	4,076.000	4,079.000	4,081.000
10.083	4,084.000	4,086.000	4,089.000	4,091.000	4,094.000
10.100	4,096.000	4,099.000	4,101.000	4,104.000	4,106.000
10.117	4,109.000	4,111.000	4,114.000	4,117.000	4,119.000
10.133	4,122.000	4,124.000	4,127.000	4,129.000	4,132.000
10.150	4,135.000	4,137.000	4,140.000	4,142.000	4,145.000
10.167	4,147.000	4,150.000	4,153.000	4,155.000	4,158.000
10.183	4,161.000	4,163.000	4,166.000	4,168.000	4,171.000
10.200	4,174.000	4,176.000	4,179.000	4,182.000	4,184.000
10.217	4,187.000	4,190.000	4,192.000	4,195.000	4,198.000
10.233	4,201.000	4,203.000	4,206.000	4,209.000	4,211.000
10.250	4,214.000	4,217.000	4,220.000	4,222.000	4,225.000
10.267	4,228.000	4,231.000	4,234.000	4,236.000	4,239.000
10.283	4,242.000	4,245.000	4,248.000	4,250.000	4,253.000
10.300	4,256.000	4,259.000	4,262.000	4,264.000	4,267.000
10.317	4,270.000	4,273.000	4,276.000	4,279.000	4,282.000
10.333	4,284.000	4,287.000	4,290.000	4,293.000	4,296.000
10.350	4,299.000	4,302.000	4,305.000	4,308.000	4,311.000
10.367	4,314.000	4,316.000	4,319.000	4,322.000	4,325.000
10.383	4,328.000	4,331.000	4,334.000	4,337.000	4,340.000
10.400	4,343.000	4,346.000	4,349.000	4,352.000	4,355.000
10.417	4,358.000	4,361.000	4,364.000	4,367.000	4,370.000
10.433	4,373.000	4,376.000	4,379.000	4,382.000	4,385.000
10.450	4,388.000	4,391.000	4,394.000	4,397.000	4,400.000
10.467	4,403.000	4,407.000	4,410.000	4,413.000	4,416.000
10.483	4,419.000	4,422.000	4,425.000	4,428.000	4,431.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	4,435.000	4,438.000	4,441.000	4,444.000	4,447.000
10.517	4,450.000	4,453.000	4,457.000	4,460.000	4,463.000
10.533	4,466.000	4,469.000	4,473.000	4,476.000	4,479.000
10.550	4,482.000	4,485.000	4,489.000	4,492.000	4,495.000
10.567	4,498.000	4,502.000	4,505.000	4,508.000	4,511.000
10.583	4,515.000	4,518.000	4,521.000	4,524.000	4,528.000
10.600	4,531.000	4,534.000	4,538.000	4,541.000	4,544.000
10.617	4,547.000	4,551.000	4,554.000	4,557.000	4,561.000
10.633	4,564.000	4,567.000	4,571.000	4,574.000	4,577.000
10.650	4,581.000	4,584.000	4,588.000	4,591.000	4,594.000
10.667	4,598.000	4,601.000	4,605.000	4,608.000	4,611.000
10.683	4,615.000	4,618.000	4,622.000	4,625.000	4,628.000
10.700	4,632.000	4,635.000	4,639.000	4,642.000	4,646.000
10.717	4,649.000	4,653.000	4,656.000	4,660.000	4,663.000
10.733	4,667.000	4,670.000	4,674.000	4,677.000	4,681.000
10.750	4,684.000	4,688.000	4,691.000	4,695.000	4,698.000
10.767	4,702.000	4,705.000	4,709.000	4,713.000	4,716.000
10.783	4,720.000	4,723.000	4,727.000	4,730.000	4,734.000
10.800	4,738.000	4,741.000	4,745.000	4,748.000	4,752.000
10.817	4,756.000	4,759.000	4,763.000	4,767.000	4,770.000
10.833	4,774.000	4,778.000	4,781.000	4,785.000	4,789.000
10.850	4,792.000	4,796.000	4,800.000	4,803.000	4,807.000
10.867	4,811.000	4,814.000	4,818.000	4,822.000	4,826.000
10.883	4,829.000	4,833.000	4,837.000	4,841.000	4,844.000
10.900	4,848.000	4,852.000	4,856.000	4,859.000	4,863.000
10.917	4,867.000	4,871.000	4,875.000	4,878.000	4,882.000
10.933	4,886.000	4,890.000	4,894.000	4,898.000	4,901.000
10.950	4,905.000	4,909.000	4,913.000	4,917.000	4,921.000
10.967	4,925.000	4,929.000	4,932.000	4,936.000	4,940.000
10.983	4,944.000	4,948.000	4,952.000	4,956.000	4,960.000
11.000	4,964.000	4,968.000	4,972.000	4,976.000	4,980.000
11.017	4,984.000	4,988.000	4,992.000	4,996.000	5,000.000
11.033	5,004.000	5,008.000	5,012.000	5,016.000	5,020.000
11.050	5,024.000	5,028.000	5,033.000	5,037.000	5,041.000
11.067	5,045.000	5,049.000	5,053.000	5,057.000	5,062.000
11.083	5,066.000	5,070.000	5,074.000	5,078.000	5,082.000
11.100	5,087.000	5,091.000	5,095.000	5,099.000	5,103.000
11.117	5,108.000	5,112.000	5,116.000	5,120.000	5,125.000
11.133	5,129.000	5,133.000	5,137.000	5,142.000	5,146.000
11.150	5,150.000	5,154.000	5,159.000	5,163.000	5,167.000
11.167	5,172.000	5,176.000	5,180.000	5,185.000	5,189.000
11.183	5,193.000	5,198.000	5,202.000	5,206.000	5,211.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
11.200	5,215.000	5,219.000	5,224.000	5,228.000	5,233.000
11.217	5,237.000	5,241.000	5,246.000	5,250.000	5,255.000
11.233	5,259.000	5,264.000	5,268.000	5,273.000	5,277.000
11.250	5,282.000	5,286.000	5,291.000	5,295.000	5,300.000
11.267	5,304.000	5,309.000	5,313.000	5,318.000	5,322.000
11.283	5,327.000	5,332.000	5,336.000	5,341.000	5,345.000
11.300	5,350.000	5,355.000	5,359.000	5,364.000	5,369.000
11.317	5,373.000	5,378.000	5,383.000	5,387.000	5,392.000
11.333	5,397.000	5,401.000	5,406.000	5,411.000	5,415.000
11.350	5,420.000	5,425.000	5,429.000	5,434.000	5,439.000
11.367	5,444.000	5,448.000	5,453.000	5,458.000	5,463.000
11.383	5,467.000	5,472.000	5,477.000	5,482.000	5,486.000
11.400	5,491.000	5,496.000	5,501.000	5,506.000	5,510.000
11.417	5,515.000	5,520.000	5,525.000	5,530.000	5,534.000
11.433	5,539.000	5,544.000	5,549.000	5,554.000	5,559.000
11.450	5,564.000	5,569.000	5,574.000	5,578.000	5,583.000
11.467	5,588.000	5,593.000	5,598.000	5,603.000	5,608.000
11.483	5,613.000	5,618.000	5,623.000	5,628.000	5,633.000
11.500	5,638.000	5,643.000	5,648.000	5,654.000	5,659.000
11.517	5,664.000	5,669.000	5,674.000	5,679.000	5,684.000
11.533	5,689.000	5,694.000	5,699.000	5,705.000	5,710.000
11.550	5,715.000	5,720.000	5,725.000	5,730.000	5,735.000
11.567	5,741.000	5,746.000	5,751.000	5,756.000	5,761.000
11.583	5,766.000	5,772.000	5,777.000	5,782.000	5,787.000
11.600	5,792.000	5,798.000	5,803.000	5,808.000	5,813.000
11.617	5,818.000	5,824.000	5,829.000	5,834.000	5,839.000
11.633	5,845.000	5,850.000	5,855.000	5,860.000	5,866.000
11.650	5,871.000	5,876.000	5,882.000	5,887.000	5,892.000
11.667	5,898.000	5,903.000	5,908.000	5,914.000	5,919.000
11.683	5,925.000	5,930.000	5,935.000	5,941.000	5,946.000
11.700	5,952.000	5,957.000	5,963.000	5,968.000	5,974.000
11.717	5,979.000	5,985.000	5,990.000	5,996.000	6,001.000
11.733	6,007.000	6,012.000	6,018.000	6,024.000	6,029.000
11.750	6,035.000	6,040.000	6,046.000	6,052.000	6,057.000
11.767	6,063.000	6,068.000	6,074.000	6,080.000	6,085.000
11.783	6,091.000	6,097.000	6,102.000	6,108.000	6,114.000
11.800	6,120.000	6,125.000	6,131.000	6,137.000	6,142.000
11.817	6,148.000	6,154.000	6,160.000	6,165.000	6,171.000
11.833	6,177.000	6,183.000	6,189.000	6,194.000	6,200.000
11.850	6,206.000	6,212.000	6,218.000	6,223.000	6,229.000
11.867	6,235.000	6,241.000	6,247.000	6,253.000	6,259.000
11.883	6,264.000	6,270.000	6,276.000	6,282.000	6,288.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
11.900	6,294.000	6,300.000	6,306.000	6,312.000	6,318.000
11.917	6,324.000	6,330.000	6,336.000	6,342.000	6,348.000
11.933	6,354.000	6,360.000	6,367.000	6,373.000	6,379.000
11.950	6,385.000	6,391.000	6,397.000	6,403.000	6,410.000
11.967	6,416.000	6,422.000	6,428.000	6,434.000	6,440.000
11.983	6,447.000	6,453.000	6,459.000	6,465.000	6,472.000
12.000	6,478.000	6,484.000	6,490.000	6,497.000	6,503.000
12.017	6,509.000	6,515.000	6,522.000	6,528.000	6,534.000
12.033	6,541.000	6,547.000	6,553.000	6,560.000	6,566.000
12.050	6,572.000	6,579.000	6,585.000	6,591.000	6,598.000
12.067	6,604.000	6,610.000	6,617.000	6,623.000	6,629.000
12.083	6,636.000	6,642.000	6,648.000	6,654.000	6,661.000
12.100	6,667.000	6,673.000	6,679.000	6,685.000	6,691.000
12.117	6,697.000	6,703.000	6,709.000	6,715.000	6,721.000
12.133	6,727.000	6,733.000	6,739.000	6,745.000	6,750.000
12.150	6,756.000	6,762.000	6,768.000	6,773.000	6,779.000
12.167	6,785.000	6,790.000	6,796.000	6,801.000	6,807.000
12.183	6,813.000	6,818.000	6,824.000	6,829.000	6,835.000
12.200	6,840.000	6,846.000	6,851.000	6,857.000	6,863.000
12.217	6,868.000	6,874.000	6,879.000	6,885.000	6,890.000
12.233	6,896.000	6,902.000	6,907.000	6,913.000	6,918.000
12.250	6,924.000	6,930.000	6,935.000	6,941.000	6,946.000
12.267	6,952.000	6,958.000	6,963.000	6,969.000	6,975.000
12.283	6,980.000	6,986.000	6,991.000	6,997.000	7,003.000
12.300	7,008.000	7,014.000	7,020.000	7,026.000	7,031.000
12.317	7,037.000	7,043.000	7,049.000	7,054.000	7,060.000
12.333	7,066.000	7,072.000	7,078.000	7,083.000	7,089.000
12.350	7,095.000	7,101.000	7,107.000	7,113.000	7,119.000
12.367	7,125.000	7,131.000	7,137.000	7,143.000	7,149.000
12.383	7,155.000	7,161.000	7,167.000	7,173.000	7,179.000
12.400	7,185.000	7,191.000	7,197.000	7,203.000	7,209.000
12.417	7,215.000	7,221.000	7,228.000	7,234.000	7,240.000
12.433	7,246.000	7,252.000	7,258.000	7,265.000	7,271.000
12.450	7,277.000	7,283.000	7,289.000	7,296.000	7,302.000
12.467	7,308.000	7,314.000	7,321.000	7,327.000	7,333.000
12.483	7,339.000	7,346.000	7,352.000	7,358.000	7,364.000
12.500	7,371.000	7,377.000	7,383.000	7,390.000	7,396.000
12.517	7,403.000	7,409.000	7,415.000	7,422.000	7,428.000
12.533	7,434.000	7,441.000	7,447.000	7,454.000	7,460.000
12.550	7,467.000	7,473.000	7,480.000	7,486.000	7,493.000
12.567	7,499.000	7,506.000	7,512.000	7,519.000	7,526.000
12.583	7,532.000	7,539.000	7,545.000	7,552.000	7,559.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
12.600	7,565.000	7,572.000	7,579.000	7,585.000	7,592.000
12.617	7,599.000	7,605.000	7,612.000	7,619.000	7,626.000
12.633	7,632.000	7,639.000	7,646.000	7,653.000	7,660.000
12.650	7,666.000	7,673.000	7,680.000	7,687.000	7,694.000
12.667	7,701.000	7,708.000	7,715.000	7,721.000	7,728.000
12.683	7,735.000	7,742.000	7,749.000	7,756.000	7,763.000
12.700	7,770.000	7,777.000	7,784.000	7,791.000	7,798.000
12.717	7,805.000	7,812.000	7,820.000	7,827.000	7,834.000
12.733	7,841.000	7,848.000	7,855.000	7,862.000	7,870.000
12.750	7,877.000	7,884.000	7,891.000	7,898.000	7,906.000
12.767	7,913.000	7,920.000	7,927.000	7,935.000	7,942.000
12.783	7,949.000	7,957.000	7,964.000	7,972.000	7,979.000
12.800	7,986.000	7,994.000	8,001.000	8,009.000	8,016.000
12.817	8,024.000	8,031.000	8,039.000	8,046.000	8,054.000
12.833	8,061.000	8,069.000	8,076.000	8,084.000	8,092.000
12.850	8,099.000	8,107.000	8,115.000	8,122.000	8,130.000
12.867	8,138.000	8,145.000	8,153.000	8,161.000	8,168.000
12.883	8,176.000	8,184.000	8,192.000	8,199.000	8,207.000
12.900	8,215.000	8,223.000	8,231.000	8,238.000	8,246.000
12.917	8,254.000	8,262.000	8,270.000	8,278.000	8,286.000
12.933	8,294.000	8,302.000	8,309.000	8,317.000	8,325.000
12.950	8,333.000	8,341.000	8,349.000	8,357.000	8,365.000
12.967	8,373.000	8,381.000	8,390.000	8,398.000	8,406.000
12.983	8,414.000	8,422.000	8,430.000	8,438.000	8,446.000
13.000	8,455.000	8,463.000	8,471.000	8,479.000	8,487.000
13.017	8,496.000	8,504.000	8,512.000	8,521.000	8,529.000
13.033	8,537.000	8,546.000	8,554.000	8,562.000	8,571.000
13.050	8,579.000	8,587.000	8,596.000	8,604.000	8,613.000
13.067	8,621.000	8,630.000	8,638.000	8,647.000	8,655.000
13.083	8,664.000	8,672.000	8,681.000	8,689.000	8,698.000
13.100	8,707.000	8,715.000	8,724.000	8,733.000	8,741.000
13.117	8,750.000	8,759.000	8,767.000	8,776.000	8,785.000
13.133	8,793.000	8,802.000	8,811.000	8,820.000	8,829.000
13.150	8,837.000	8,846.000	8,855.000	8,864.000	8,873.000
13.167	8,882.000	8,891.000	8,900.000	8,909.000	8,917.000
13.183	8,926.000	8,935.000	8,944.000	8,953.000	8,962.000
13.200	8,971.000	8,981.000	8,990.000	8,999.000	9,008.000
13.217	9,017.000	9,026.000	9,035.000	9,044.000	9,053.000
13.233	9,063.000	9,072.000	9,081.000	9,090.000	9,100.000
13.250	9,109.000	9,118.000	9,127.000	9,137.000	9,146.000
13.267	9,155.000	9,165.000	9,174.000	9,183.000	9,193.000
13.283	9,202.000	9,212.000	9,221.000	9,230.000	9,240.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
13.300	9,249.000	9,259.000	9,269.000	9,278.000	9,288.000
13.317	9,297.000	9,307.000	9,316.000	9,326.000	9,336.000
13.333	9,345.000	9,355.000	9,365.000	9,375.000	9,384.000
13.350	9,394.000	9,404.000	9,414.000	9,424.000	9,433.000
13.367	9,443.000	9,453.000	9,463.000	9,473.000	9,483.000
13.383	9,493.000	9,503.000	9,513.000	9,523.000	9,533.000
13.400	9,543.000	9,553.000	9,563.000	9,573.000	9,584.000
13.417	9,594.000	9,604.000	9,614.000	9,624.000	9,634.000
13.433	9,645.000	9,655.000	9,665.000	9,675.000	9,686.000
13.450	9,696.000	9,706.000	9,716.000	9,727.000	9,737.000
13.467	9,747.000	9,758.000	9,768.000	9,779.000	9,789.000
13.483	9,799.000	9,810.000	9,820.000	9,831.000	9,841.000
13.500	9,852.000	9,862.000	9,873.000	9,884.000	9,894.000
13.517	9,905.000	9,915.000	9,926.000	9,937.000	9,947.000
13.533	9,958.000	9,969.000	9,980.000	9,991.000	10,001.000
13.550	10,012.000	10,023.000	10,034.000	10,045.000	10,056.000
13.567	10,067.000	10,078.000	10,089.000	10,100.000	10,111.000
13.583	10,122.000	10,133.000	10,144.000	10,155.000	10,166.000
13.600	10,177.000	10,188.000	10,199.000	10,211.000	10,222.000
13.617	10,233.000	10,244.000	10,256.000	10,267.000	10,278.000
13.633	10,290.000	10,301.000	10,312.000	10,324.000	10,335.000
13.650	10,346.000	10,358.000	10,369.000	10,381.000	10,392.000
13.667	10,404.000	10,415.000	10,427.000	10,439.000	10,450.000
13.683	10,462.000	10,473.000	10,485.000	10,497.000	10,508.000
13.700	10,520.000	10,532.000	10,543.000	10,555.000	10,567.000
13.717	10,579.000	10,590.000	10,602.000	10,614.000	10,626.000
13.733	10,638.000	10,650.000	10,662.000	10,674.000	10,686.000
13.750	10,698.000	10,710.000	10,722.000	10,734.000	10,746.000
13.767	10,758.000	10,770.000	10,782.000	10,795.000	10,807.000
13.783	10,819.000	10,831.000	10,844.000	10,856.000	10,868.000
13.800	10,881.000	10,893.000	10,906.000	10,918.000	10,931.000
13.817	10,943.000	10,956.000	10,968.000	10,981.000	10,993.000
13.833	11,006.000	11,019.000	11,031.000	11,044.000	11,057.000
13.850	11,069.000	11,082.000	11,095.000	11,108.000	11,120.000
13.867	11,133.000	11,146.000	11,159.000	11,172.000	11,184.000
13.883	11,197.000	11,210.000	11,223.000	11,236.000	11,249.000
13.900	11,262.000	11,275.000	11,288.000	11,301.000	11,314.000
13.917	11,327.000	11,340.000	11,353.000	11,366.000	11,379.000
13.933	11,393.000	11,406.000	11,419.000	11,432.000	11,445.000
13.950	11,459.000	11,472.000	11,485.000	11,498.000	11,512.000
13.967	11,525.000	11,539.000	11,552.000	11,565.000	11,579.000
13.983	11,592.000	11,606.000	11,619.000	11,633.000	11,646.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
14.000	11,660.000	11,674.000	11,687.000	11,701.000	11,715.000
14.017	11,728.000	11,742.000	11,756.000	11,770.000	11,783.000
14.033	11,797.000	11,811.000	11,825.000	11,839.000	11,853.000
14.050	11,867.000	11,880.000	11,894.000	11,908.000	11,922.000
14.067	11,936.000	11,949.000	11,963.000	11,977.000	11,990.000
14.083	12,004.000	12,018.000	12,031.000	12,044.000	12,058.000
14.100	12,071.000	12,085.000	12,098.000	12,111.000	12,124.000
14.117	12,138.000	12,151.000	12,164.000	12,177.000	12,190.000
14.133	12,203.000	12,216.000	12,229.000	12,242.000	12,254.000
14.150	12,267.000	12,280.000	12,293.000	12,305.000	12,318.000
14.167	12,331.000	12,343.000	12,356.000	12,369.000	12,382.000
14.183	12,395.000	12,408.000	12,421.000	12,434.000	12,447.000
14.200	12,460.000	12,473.000	12,486.000	12,499.000	12,513.000
14.217	12,526.000	12,539.000	12,553.000	12,566.000	12,580.000
14.233	12,593.000	12,607.000	12,620.000	12,634.000	12,648.000
14.250	12,661.000	12,675.000	12,689.000	12,703.000	12,716.000
14.267	12,730.000	12,744.000	12,758.000	12,772.000	12,786.000
14.283	12,800.000	12,814.000	12,828.000	12,843.000	12,857.000
14.300	12,871.000	12,885.000	12,899.000	12,913.000	12,928.000
14.317	12,942.000	12,956.000	12,970.000	12,985.000	12,999.000
14.333	13,013.000	13,028.000	13,042.000	13,056.000	13,071.000
14.350	13,085.000	13,100.000	13,114.000	13,129.000	13,143.000
14.367	13,158.000	13,172.000	13,187.000	13,201.000	13,216.000
14.383	13,231.000	13,245.000	13,260.000	13,275.000	13,290.000
14.400	13,305.000	13,320.000	13,335.000	13,350.000	13,365.000
14.417	13,380.000	13,395.000	13,410.000	13,425.000	13,441.000
14.433	13,456.000	13,472.000	13,487.000	13,503.000	13,518.000
14.450	13,534.000	13,549.000	13,565.000	13,581.000	13,597.000
14.467	13,612.000	13,628.000	13,644.000	13,660.000	13,676.000
14.483	13,692.000	13,709.000	13,725.000	13,741.000	13,757.000
14.500	13,774.000	13,790.000	13,806.000	13,823.000	13,839.000
14.517	13,855.000	13,872.000	13,888.000	13,905.000	13,921.000
14.533	13,938.000	13,955.000	13,971.000	13,988.000	14,005.000
14.550	14,021.000	14,038.000	14,055.000	14,072.000	14,088.000
14.567	14,105.000	14,122.000	14,139.000	14,156.000	14,173.000
14.583	14,190.000	14,207.000	14,224.000	14,241.000	14,258.000
14.600	14,275.000	14,293.000	14,310.000	14,327.000	14,345.000
14.617	14,362.000	14,379.000	14,397.000	14,415.000	14,432.000
14.633	14,450.000	14,468.000	14,485.000	14,503.000	14,521.000
14.650	14,539.000	14,557.000	14,575.000	14,593.000	14,612.000
14.667	14,630.000	14,648.000	14,667.000	14,685.000	14,703.000
14.683	14,722.000	14,741.000	14,759.000	14,778.000	14,797.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
14.700	14,815.000	14,834.000	14,853.000	14,872.000	14,891.000
14.717	14,910.000	14,929.000	14,948.000	14,968.000	14,987.000
14.733	15,006.000	15,025.000	15,045.000	15,064.000	15,083.000
14.750	15,103.000	15,122.000	15,142.000	15,161.000	15,181.000
14.767	15,201.000	15,220.000	15,240.000	15,260.000	15,279.000
14.783	15,299.000	15,319.000	15,339.000	15,359.000	15,379.000
14.800	15,399.000	15,419.000	15,439.000	15,459.000	15,479.000
14.817	15,500.000	15,520.000	15,540.000	15,561.000	15,581.000
14.833	15,601.000	15,622.000	15,643.000	15,663.000	15,684.000
14.850	15,705.000	15,726.000	15,747.000	15,768.000	15,789.000
14.867	15,811.000	15,832.000	15,853.000	15,875.000	15,896.000
14.883	15,918.000	15,940.000	15,961.000	15,983.000	16,005.000
14.900	16,027.000	16,049.000	16,071.000	16,093.000	16,116.000
14.917	16,138.000	16,160.000	16,183.000	16,205.000	16,228.000
14.933	16,251.000	16,274.000	16,296.000	16,319.000	16,342.000
14.950	16,365.000	16,388.000	16,411.000	16,434.000	16,457.000
14.967	16,481.000	16,504.000	16,527.000	16,551.000	16,574.000
14.983	16,598.000	16,621.000	16,645.000	16,669.000	16,692.000
15.000	16,716.000	16,740.000	16,764.000	16,788.000	16,812.000
15.017	16,836.000	16,860.000	16,884.000	16,908.000	16,933.000
15.033	16,957.000	16,981.000	17,006.000	17,030.000	17,055.000
15.050	17,080.000	17,105.000	17,130.000	17,155.000	17,180.000
15.067	17,205.000	17,230.000	17,255.000	17,281.000	17,306.000
15.083	17,332.000	17,358.000	17,384.000	17,409.000	17,436.000
15.100	17,462.000	17,488.000	17,514.000	17,540.000	17,567.000
15.117	17,593.000	17,620.000	17,647.000	17,674.000	17,701.000
15.133	17,728.000	17,755.000	17,782.000	17,809.000	17,837.000
15.150	17,864.000	17,892.000	17,919.000	17,947.000	17,975.000
15.167	18,003.000	18,031.000	18,059.000	18,087.000	18,115.000
15.183	18,144.000	18,172.000	18,201.000	18,229.000	18,258.000
15.200	18,287.000	18,316.000	18,345.000	18,374.000	18,403.000
15.217	18,432.000	18,462.000	18,491.000	18,520.000	18,550.000
15.233	18,580.000	18,610.000	18,639.000	18,669.000	18,699.000
15.250	18,730.000	18,760.000	18,790.000	18,820.000	18,851.000
15.267	18,882.000	18,913.000	18,945.000	18,977.000	19,010.000
15.283	19,042.000	19,076.000	19,109.000	19,143.000	19,177.000
15.300	19,212.000	19,247.000	19,282.000	19,318.000	19,354.000
15.317	19,390.000	19,427.000	19,464.000	19,502.000	19,540.000
15.333	19,578.000	19,616.000	19,655.000	19,695.000	19,734.000
15.350	19,774.000	19,815.000	19,856.000	19,897.000	19,938.000
15.367	19,980.000	20,022.000	20,065.000	20,108.000	20,152.000
15.383	20,196.000	20,240.000	20,285.000	20,331.000	20,376.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
15.400	20,423.000	20,469.000	20,517.000	20,564.000	20,612.000
15.417	20,661.000	20,710.000	20,759.000	20,809.000	20,860.000
15.433	20,911.000	20,962.000	21,014.000	21,066.000	21,119.000
15.450	21,172.000	21,225.000	21,279.000	21,334.000	21,389.000
15.467	21,444.000	21,500.000	21,556.000	21,613.000	21,670.000
15.483	21,728.000	21,786.000	21,844.000	21,903.000	21,962.000
15.500	22,022.000	22,081.000	22,142.000	22,202.000	22,263.000
15.517	22,324.000	22,386.000	22,448.000	22,510.000	22,573.000
15.533	22,636.000	22,699.000	22,763.000	22,827.000	22,891.000
15.550	22,956.000	23,021.000	23,087.000	23,152.000	23,219.000
15.567	23,285.000	23,352.000	23,419.000	23,487.000	23,555.000
15.583	23,623.000	23,692.000	23,761.000	23,830.000	23,900.000
15.600	23,970.000	24,041.000	24,111.000	24,182.000	24,254.000
15.617	24,325.000	24,397.000	24,469.000	24,542.000	24,615.000
15.633	24,688.000	24,762.000	24,836.000	24,910.000	24,984.000
15.650	25,059.000	25,134.000	25,210.000	25,285.000	25,361.000
15.667	25,438.000	25,515.000	25,592.000	25,669.000	25,747.000
15.683	25,825.000	25,903.000	25,982.000	26,060.000	26,140.000
15.700	26,219.000	26,299.000	26,380.000	26,461.000	26,542.000
15.717	26,624.000	26,707.000	26,790.000	26,873.000	26,957.000
15.733	27,041.000	27,126.000	27,212.000	27,298.000	27,384.000
15.750	27,471.000	27,558.000	27,646.000	27,734.000	27,823.000
15.767	27,913.000	28,003.000	28,093.000	28,184.000	28,275.000
15.783	28,367.000	28,459.000	28,552.000	28,645.000	28,739.000
15.800	28,833.000	28,928.000	29,023.000	29,119.000	29,215.000
15.817	29,313.000	29,411.000	29,511.000	29,611.000	29,713.000
15.833	29,815.000	29,918.000	30,023.000	30,128.000	30,235.000
15.850	30,342.000	30,450.000	30,560.000	30,670.000	30,781.000
15.867	30,893.000	31,007.000	31,121.000	31,236.000	31,352.000
15.883	31,470.000	31,588.000	31,707.000	31,827.000	31,948.000
15.900	32,070.000	32,194.000	32,318.000	32,443.000	32,569.000
15.917	32,696.000	32,824.000	32,954.000	33,086.000	33,221.000
15.933	33,357.000	33,497.000	33,638.000	33,782.000	33,929.000
15.950	34,078.000	34,229.000	34,382.000	34,538.000	34,697.000
15.967	34,857.000	35,021.000	35,186.000	35,354.000	35,524.000
15.983	35,697.000	35,872.000	36,049.000	36,229.000	36,411.000
16.000	36,596.000	36,783.000	36,972.000	37,164.000	37,358.000
16.017	37,554.000	37,753.000	37,954.000	38,158.000	38,364.000
16.033	38,572.000	38,785.000	39,000.000	39,219.000	39,441.000
16.050	39,667.000	39,896.000	40,128.000	40,363.000	40,602.000
16.067	40,845.000	41,090.000	41,339.000	41,591.000	41,847.000
16.083	42,106.000	42,368.000	42,634.000	42,903.000	43,175.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
16.100	43,451.000	43,730.000	44,012.000	44,298.000	44,587.000
16.117	44,879.000	45,175.000	45,474.000	45,776.000	46,082.000
16.133	46,391.000	46,703.000	47,019.000	47,333.000	47,640.000
16.150	47,940.000	48,234.000	48,520.000	48,800.000	49,073.000
16.167	49,339.000	49,598.000	49,850.000	50,096.000	50,335.000
16.183	50,566.000	50,791.000	51,009.000	51,221.000	51,425.000
16.200	51,623.000	51,813.000	51,997.000	52,174.000	52,344.000
16.217	52,507.000	52,664.000	52,813.000	52,956.000	53,092.000
16.233	53,221.000	53,343.000	53,459.000	53,567.000	53,669.000
16.250	53,764.000	53,855.000	53,945.000	54,034.000	54,123.000
16.267	54,211.000	54,298.000	54,384.000	54,470.000	54,555.000
16.283	54,639.000	54,722.000	54,805.000	54,886.000	54,967.000
16.300	55,048.000	55,127.000	55,206.000	55,284.000	55,361.000
16.317	55,437.000	55,513.000	55,588.000	55,662.000	55,735.000
16.333	55,807.000	55,879.000	55,950.000	56,020.000	56,090.000
16.350	56,158.000	56,226.000	56,294.000	56,360.000	56,425.000
16.367	56,490.000	56,553.000	56,616.000	56,678.000	56,738.000
16.383	56,798.000	56,856.000	56,914.000	56,971.000	57,026.000
16.400	57,081.000	57,135.000	57,188.000	57,239.000	57,290.000
16.417	57,340.000	57,389.000	57,437.000	57,484.000	57,530.000
16.433	57,574.000	57,618.000	57,661.000	57,703.000	57,744.000
16.450	57,784.000	57,823.000	57,861.000	57,898.000	57,934.000
16.467	57,970.000	58,004.000	58,037.000	58,071.000	58,104.000
16.483	58,137.000	58,169.000	58,202.000	58,234.000	58,266.000
16.500	58,298.000	58,330.000	58,361.000	58,393.000	58,424.000
16.517	58,455.000	58,485.000	58,516.000	58,546.000	58,576.000
16.533	58,606.000	58,636.000	58,665.000	58,694.000	58,724.000
16.550	58,752.000	58,781.000	58,809.000	58,838.000	58,866.000
16.567	58,894.000	58,921.000	58,949.000	58,976.000	59,003.000
16.583	59,030.000	59,056.000	59,083.000	59,109.000	59,136.000
16.600	59,162.000	59,188.000	59,213.000	59,239.000	59,265.000
16.617	59,290.000	59,315.000	59,340.000	59,365.000	59,390.000
16.633	59,414.000	59,439.000	59,463.000	59,487.000	59,511.000
16.650	59,535.000	59,558.000	59,582.000	59,605.000	59,628.000
16.667	59,651.000	59,674.000	59,697.000	59,720.000	59,742.000
16.683	59,764.000	59,786.000	59,808.000	59,830.000	59,852.000
16.700	59,873.000	59,895.000	59,916.000	59,938.000	59,959.000
16.717	59,980.000	60,001.000	60,022.000	60,043.000	60,064.000
16.733	60,084.000	60,105.000	60,125.000	60,146.000	60,166.000
16.750	60,186.000	60,206.000	60,226.000	60,246.000	60,266.000
16.767	60,285.000	60,305.000	60,324.000	60,343.000	60,363.000
16.783	60,382.000	60,401.000	60,420.000	60,439.000	60,457.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
16.800	60,476.000	60,495.000	60,513.000	60,531.000	60,550.000
16.817	60,568.000	60,586.000	60,604.000	60,622.000	60,640.000
16.833	60,658.000	60,675.000	60,693.000	60,710.000	60,728.000
16.850	60,745.000	60,762.000	60,780.000	60,797.000	60,814.000
16.867	60,831.000	60,848.000	60,864.000	60,881.000	60,898.000
16.883	60,914.000	60,930.000	60,947.000	60,963.000	60,979.000
16.900	60,995.000	61,011.000	61,027.000	61,043.000	61,059.000
16.917	61,074.000	61,090.000	61,106.000	61,121.000	61,136.000
16.933	61,152.000	61,167.000	61,182.000	61,197.000	61,213.000
16.950	61,228.000	61,243.000	61,257.000	61,272.000	61,287.000
16.967	61,302.000	61,316.000	61,331.000	61,345.000	61,360.000
16.983	61,374.000	61,389.000	61,403.000	61,417.000	61,431.000
17.000	61,445.000	61,459.000	61,473.000	61,487.000	61,501.000
17.017	61,514.000	61,528.000	61,542.000	61,555.000	61,569.000
17.033	61,583.000	61,596.000	61,610.000	61,623.000	61,637.000
17.050	61,651.000	61,664.000	61,678.000	61,691.000	61,705.000
17.067	61,719.000	61,732.000	61,746.000	61,759.000	61,773.000
17.083	61,786.000	61,800.000	61,814.000	61,827.000	61,841.000
17.100	61,854.000	61,868.000	61,881.000	61,895.000	61,909.000
17.117	61,922.000	61,936.000	61,949.000	61,963.000	61,976.000
17.133	61,990.000	62,003.000	62,017.000	62,030.000	62,044.000
17.150	62,057.000	62,070.000	62,083.000	62,097.000	62,110.000
17.167	62,123.000	62,136.000	62,149.000	62,163.000	62,176.000
17.183	62,189.000	62,202.000	62,215.000	62,227.000	62,240.000
17.200	62,253.000	62,266.000	62,279.000	62,292.000	62,304.000
17.217	62,317.000	62,330.000	62,342.000	62,355.000	62,367.000
17.233	62,380.000	62,392.000	62,405.000	62,417.000	62,430.000
17.250	62,442.000	62,454.000	62,466.000	62,479.000	62,491.000
17.267	62,503.000	62,515.000	62,527.000	62,539.000	62,551.000
17.283	62,563.000	62,575.000	62,586.000	62,598.000	62,610.000
17.300	62,622.000	62,633.000	62,645.000	62,656.000	62,668.000
17.317	62,679.000	62,691.000	62,702.000	62,713.000	62,725.000
17.333	62,736.000	62,747.000	62,758.000	62,769.000	62,780.000
17.350	62,791.000	62,802.000	62,813.000	62,824.000	62,835.000
17.367	62,846.000	62,857.000	62,868.000	62,878.000	62,889.000
17.383	62,900.000	62,910.000	62,921.000	62,931.000	62,942.000
17.400	62,952.000	62,963.000	62,973.000	62,984.000	62,994.000
17.417	63,004.000	63,014.000	63,025.000	63,035.000	63,045.000
17.433	63,055.000	63,065.000	63,075.000	63,085.000	63,095.000
17.450	63,105.000	63,115.000	63,125.000	63,135.000	63,144.000
17.467	63,154.000	63,164.000	63,174.000	63,183.000	63,193.000
17.483	63,203.000	63,212.000	63,222.000	63,231.000	63,241.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
17.500	63,250.000	63,260.000	63,269.000	63,278.000	63,288.000
17.517	63,297.000	63,306.000	63,315.000	63,325.000	63,334.000
17.533	63,343.000	63,352.000	63,361.000	63,370.000	63,379.000
17.550	63,388.000	63,397.000	63,406.000	63,415.000	63,424.000
17.567	63,433.000	63,442.000	63,450.000	63,459.000	63,468.000
17.583	63,476.000	63,485.000	63,494.000	63,502.000	63,511.000
17.600	63,520.000	63,528.000	63,537.000	63,545.000	63,554.000
17.617	63,562.000	63,570.000	63,579.000	63,587.000	63,595.000
17.633	63,604.000	63,612.000	63,620.000	63,628.000	63,636.000
17.650	63,645.000	63,653.000	63,661.000	63,669.000	63,677.000
17.667	63,685.000	63,693.000	63,701.000	63,709.000	63,717.000
17.683	63,725.000	63,732.000	63,740.000	63,748.000	63,756.000
17.700	63,764.000	63,771.000	63,779.000	63,787.000	63,794.000
17.717	63,802.000	63,810.000	63,817.000	63,825.000	63,832.000
17.733	63,840.000	63,847.000	63,855.000	63,862.000	63,869.000
17.750	63,877.000	63,884.000	63,891.000	63,899.000	63,906.000
17.767	63,913.000	63,921.000	63,928.000	63,935.000	63,942.000
17.783	63,949.000	63,956.000	63,963.000	63,970.000	63,977.000
17.800	63,984.000	63,991.000	63,998.000	64,005.000	64,012.000
17.817	64,019.000	64,026.000	64,033.000	64,040.000	64,047.000
17.833	64,053.000	64,060.000	64,067.000	64,073.000	64,080.000
17.850	64,087.000	64,094.000	64,100.000	64,107.000	64,113.000
17.867	64,120.000	64,126.000	64,133.000	64,139.000	64,146.000
17.883	64,152.000	64,159.000	64,165.000	64,171.000	64,178.000
17.900	64,184.000	64,190.000	64,197.000	64,203.000	64,209.000
17.917	64,215.000	64,222.000	64,228.000	64,234.000	64,240.000
17.933	64,246.000	64,252.000	64,258.000	64,265.000	64,271.000
17.950	64,277.000	64,283.000	64,289.000	64,294.000	64,300.000
17.967	64,306.000	64,312.000	64,318.000	64,324.000	64,330.000
17.983	64,336.000	64,341.000	64,347.000	64,353.000	64,359.000
18.000	64,364.000	64,370.000	64,376.000	64,381.000	64,387.000
18.017	64,392.000	64,398.000	64,404.000	64,409.000	64,415.000
18.033	64,420.000	64,426.000	64,432.000	64,437.000	64,443.000
18.050	64,448.000	64,454.000	64,460.000	64,465.000	64,471.000
18.067	64,476.000	64,482.000	64,487.000	64,493.000	64,499.000
18.083	64,504.000	64,510.000	64,515.000	64,521.000	64,526.000
18.100	64,532.000	64,537.000	64,543.000	64,548.000	64,554.000
18.117	64,559.000	64,565.000	64,570.000	64,576.000	64,581.000
18.133	64,587.000	64,593.000	64,598.000	64,604.000	64,609.000
18.150	64,615.000	64,621.000	64,626.000	64,632.000	64,637.000
18.167	64,643.000	64,649.000	64,654.000	64,660.000	64,666.000
18.183	64,671.000	64,677.000	64,683.000	64,689.000	64,694.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
18.200	64,700.000	64,706.000	64,712.000	64,717.000	64,723.000
18.217	64,729.000	64,735.000	64,741.000	64,746.000	64,752.000
18.233	64,758.000	64,764.000	64,770.000	64,775.000	64,781.000
18.250	64,787.000	64,793.000	64,798.000	64,804.000	64,810.000
18.267	64,816.000	64,821.000	64,827.000	64,832.000	64,838.000
18.283	64,844.000	64,849.000	64,855.000	64,860.000	64,866.000
18.300	64,871.000	64,877.000	64,882.000	64,888.000	64,893.000
18.317	64,898.000	64,904.000	64,909.000	64,915.000	64,920.000
18.333	64,925.000	64,931.000	64,936.000	64,941.000	64,946.000
18.350	64,952.000	64,957.000	64,962.000	64,967.000	64,972.000
18.367	64,978.000	64,983.000	64,988.000	64,993.000	64,998.000
18.383	65,003.000	65,008.000	65,013.000	65,018.000	65,023.000
18.400	65,028.000	65,033.000	65,038.000	65,043.000	65,048.000
18.417	65,053.000	65,058.000	65,063.000	65,067.000	65,072.000
18.433	65,077.000	65,082.000	65,087.000	65,091.000	65,096.000
18.450	65,101.000	65,106.000	65,110.000	65,115.000	65,120.000
18.467	65,124.000	65,129.000	65,134.000	65,138.000	65,143.000
18.483	65,148.000	65,152.000	65,157.000	65,161.000	65,166.000
18.500	65,170.000	65,175.000	65,179.000	65,184.000	65,188.000
18.517	65,193.000	65,197.000	65,202.000	65,206.000	65,211.000
18.533	65,215.000	65,219.000	65,224.000	65,228.000	65,232.000
18.550	65,237.000	65,241.000	65,245.000	65,250.000	65,254.000
18.567	65,258.000	65,263.000	65,267.000	65,271.000	65,275.000
18.583	65,280.000	65,284.000	65,288.000	65,292.000	65,296.000
18.600	65,301.000	65,305.000	65,309.000	65,313.000	65,317.000
18.617	65,321.000	65,325.000	65,329.000	65,334.000	65,338.000
18.633	65,342.000	65,346.000	65,350.000	65,354.000	65,358.000
18.650	65,362.000	65,366.000	65,370.000	65,374.000	65,378.000
18.667	65,382.000	65,385.000	65,389.000	65,393.000	65,397.000
18.683	65,401.000	65,405.000	65,409.000	65,413.000	65,416.000
18.700	65,420.000	65,424.000	65,428.000	65,432.000	65,435.000
18.717	65,439.000	65,443.000	65,447.000	65,450.000	65,454.000
18.733	65,458.000	65,461.000	65,465.000	65,469.000	65,472.000
18.750	65,476.000	65,479.000	65,483.000	65,487.000	65,490.000
18.767	65,494.000	65,497.000	65,501.000	65,504.000	65,508.000
18.783	65,511.000	65,515.000	65,518.000	65,522.000	65,525.000
18.800	65,529.000	65,532.000	65,535.000	65,539.000	65,542.000
18.817	65,546.000	65,549.000	65,552.000	65,556.000	65,559.000
18.833	65,562.000	65,566.000	65,569.000	65,572.000	65,576.000
18.850	65,579.000	65,582.000	65,585.000	65,589.000	65,592.000
18.867	65,595.000	65,598.000	65,601.000	65,605.000	65,608.000
18.883	65,611.000	65,614.000	65,617.000	65,620.000	65,623.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
18.900	65,627.000	65,630.000	65,633.000	65,636.000	65,639.000
18.917	65,642.000	65,645.000	65,648.000	65,651.000	65,654.000
18.933	65,657.000	65,660.000	65,663.000	65,666.000	65,669.000
18.950	65,672.000	65,675.000	65,678.000	65,681.000	65,684.000
18.967	65,687.000	65,690.000	65,692.000	65,695.000	65,698.000
18.983	65,701.000	65,704.000	65,707.000	65,710.000	65,712.000
19.000	65,715.000	65,718.000	65,721.000	65,724.000	65,726.000
19.017	65,729.000	65,732.000	65,735.000	65,737.000	65,740.000
19.033	65,743.000	65,745.000	65,748.000	65,751.000	65,753.000
19.050	65,756.000	65,759.000	65,761.000	65,764.000	65,766.000
19.067	65,769.000	65,772.000	65,774.000	65,777.000	65,779.000
19.083	65,782.000	65,784.000	65,787.000	65,789.000	65,792.000
19.100	65,794.000	65,797.000	65,799.000	65,802.000	65,804.000
19.117	65,807.000	65,809.000	65,811.000	65,814.000	65,816.000
19.133	65,819.000	65,821.000	65,823.000	65,826.000	65,828.000
19.150	65,830.000	65,833.000	65,835.000	65,837.000	65,840.000
19.167	65,842.000	65,844.000	65,846.000	65,849.000	65,851.000
19.183	65,853.000	65,855.000	65,858.000	65,860.000	65,862.000
19.200	65,864.000	65,866.000	65,868.000	65,871.000	65,873.000
19.217	65,875.000	65,877.000	65,879.000	65,881.000	65,883.000
19.233	65,885.000	65,887.000	65,889.000	65,892.000	65,894.000
19.250	65,896.000	65,898.000	65,900.000	65,902.000	65,904.000
19.267	65,906.000	65,907.000	65,909.000	65,911.000	65,913.000
19.283	65,915.000	65,917.000	65,919.000	65,921.000	65,923.000
19.300	65,925.000	65,926.000	65,928.000	65,930.000	65,932.000
19.317	65,934.000	65,936.000	65,937.000	65,939.000	65,941.000
19.333	65,943.000	65,944.000	65,946.000	65,948.000	65,950.000
19.350	65,951.000	65,953.000	65,955.000	65,956.000	65,958.000
19.367	65,960.000	65,961.000	65,963.000	65,965.000	65,966.000
19.383	65,968.000	65,970.000	65,971.000	65,973.000	65,975.000
19.400	65,976.000	65,978.000	65,979.000	65,981.000	65,983.000
19.417	65,984.000	65,986.000	65,987.000	65,989.000	65,990.000
19.433	65,992.000	65,993.000	65,995.000	65,997.000	65,998.000
19.450	66,000.000	66,001.000	66,003.000	66,004.000	66,005.000
19.467	66,007.000	66,008.000	66,010.000	66,011.000	66,013.000
19.483	66,014.000	66,015.000	66,017.000	66,018.000	66,020.000
19.500	66,021.000	66,022.000	66,024.000	66,025.000	66,026.000
19.517	66,028.000	66,029.000	66,030.000	66,031.000	66,033.000
19.533	66,034.000	66,035.000	66,037.000	66,038.000	66,039.000
19.550	66,040.000	66,041.000	66,043.000	66,044.000	66,045.000
19.567	66,046.000	66,047.000	66,049.000	66,050.000	66,051.000
19.583	66,052.000	66,053.000	66,054.000	66,055.000	66,056.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
19.600	66,058.000	66,059.000	66,060.000	66,061.000	66,062.000
19.617	66,063.000	66,064.000	66,065.000	66,066.000	66,067.000
19.633	66,068.000	66,069.000	66,070.000	66,071.000	66,072.000
19.650	66,073.000	66,074.000	66,075.000	66,076.000	66,077.000
19.667	66,078.000	66,079.000	66,080.000	66,081.000	66,081.000
19.683	66,082.000	66,083.000	66,084.000	66,085.000	66,086.000
19.700	66,087.000	66,088.000	66,089.000	66,089.000	66,090.000
19.717	66,091.000	66,092.000	66,093.000	66,094.000	66,094.000
19.733	66,095.000	66,096.000	66,097.000	66,098.000	66,098.000
19.750	66,099.000	66,100.000	66,101.000	66,101.000	66,102.000
19.767	66,103.000	66,104.000	66,104.000	66,105.000	66,106.000
19.783	66,106.000	66,107.000	66,108.000	66,108.000	66,109.000
19.800	66,110.000	66,110.000	66,111.000	66,112.000	66,112.000
19.817	66,113.000	66,114.000	66,114.000	66,115.000	66,115.000
19.833	66,116.000	66,117.000	66,117.000	66,118.000	66,118.000
19.850	66,119.000	66,119.000	66,120.000	66,121.000	66,121.000
19.867	66,122.000	66,122.000	66,123.000	66,123.000	66,124.000
19.883	66,124.000	66,125.000	66,125.000	66,126.000	66,126.000
19.900	66,126.000	66,127.000	66,127.000	66,128.000	66,128.000
19.917	66,129.000	66,129.000	66,129.000	66,130.000	66,130.000
19.933	66,131.000	66,131.000	66,131.000	66,132.000	66,132.000
19.950	66,132.000	66,133.000	66,133.000	66,133.000	66,134.000
19.967	66,134.000	66,134.000	66,135.000	66,135.000	66,135.000
19.983	66,136.000	66,136.000	66,136.000	66,136.000	66,137.000
20.000	66,137.000	66,137.000	66,137.000	66,138.000	66,138.000
20.017	66,138.000	66,138.000	66,138.000	66,139.000	66,139.000
20.033	66,139.000	66,139.000	66,139.000	66,139.000	66,140.000
20.050	66,140.000	66,140.000	66,140.000	66,140.000	66,140.000
20.067	66,140.000	66,140.000	66,141.000	66,141.000	66,141.000
20.083	66,141.000	66,141.000	66,141.000	66,141.000	66,141.000
20.100	66,141.000	66,141.000	66,141.000	66,141.000	66,141.000
20.117	66,141.000	66,141.000	66,141.000	66,141.000	66,141.000
20.133	66,141.000	66,141.000	66,141.000	66,141.000	66,141.000
20.150	66,141.000	66,141.000	66,141.000	66,140.000	66,140.000
20.167	66,140.000	66,140.000	66,140.000	66,140.000	66,140.000
20.183	66,140.000	66,140.000	66,139.000	66,139.000	66,139.000
20.200	66,139.000	66,139.000	66,139.000	66,138.000	66,138.000
20.217	66,138.000	66,138.000	66,137.000	66,137.000	66,137.000
20.233	66,137.000	66,137.000	66,136.000	66,136.000	66,136.000
20.250	66,136.000	66,135.000	66,135.000	66,135.000	66,135.000
20.267	66,134.000	66,134.000	66,134.000	66,133.000	66,133.000
20.283	66,133.000	66,132.000	66,132.000	66,132.000	66,131.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
20.300	66,131.000	66,131.000	66,130.000	66,130.000	66,130.000
20.317	66,129.000	66,129.000	66,129.000	66,128.000	66,128.000
20.333	66,127.000	66,127.000	66,127.000	66,126.000	66,126.000
20.350	66,125.000	66,125.000	66,125.000	66,124.000	66,124.000
20.367	66,123.000	66,123.000	66,122.000	66,122.000	66,122.000
20.383	66,121.000	66,121.000	66,120.000	66,120.000	66,119.000
20.400	66,119.000	66,118.000	66,118.000	66,117.000	66,117.000
20.417	66,116.000	66,116.000	66,115.000	66,115.000	66,114.000
20.433	66,114.000	66,113.000	66,112.000	66,112.000	66,111.000
20.450	66,111.000	66,110.000	66,110.000	66,109.000	66,108.000
20.467	66,108.000	66,107.000	66,107.000	66,106.000	66,105.000
20.483	66,105.000	66,104.000	66,103.000	66,103.000	66,102.000
20.500	66,102.000	66,101.000	66,100.000	66,100.000	66,099.000
20.517	66,098.000	66,098.000	66,097.000	66,096.000	66,095.000
20.533	66,095.000	66,094.000	66,093.000	66,093.000	66,092.000
20.550	66,091.000	66,090.000	66,090.000	66,089.000	66,088.000
20.567	66,087.000	66,087.000	66,086.000	66,085.000	66,084.000
20.583	66,084.000	66,083.000	66,082.000	66,081.000	66,080.000
20.600	66,080.000	66,079.000	66,078.000	66,077.000	66,076.000
20.617	66,076.000	66,075.000	66,074.000	66,073.000	66,072.000
20.633	66,071.000	66,070.000	66,070.000	66,069.000	66,068.000
20.650	66,067.000	66,066.000	66,065.000	66,064.000	66,063.000
20.667	66,063.000	66,062.000	66,061.000	66,060.000	66,059.000
20.683	66,058.000	66,057.000	66,056.000	66,055.000	66,054.000
20.700	66,053.000	66,052.000	66,051.000	66,050.000	66,049.000
20.717	66,048.000	66,047.000	66,046.000	66,045.000	66,044.000
20.733	66,043.000	66,042.000	66,041.000	66,040.000	66,039.000
20.750	66,038.000	66,037.000	66,036.000	66,035.000	66,034.000
20.767	66,033.000	66,032.000	66,031.000	66,030.000	66,028.000
20.783	66,027.000	66,026.000	66,025.000	66,024.000	66,023.000
20.800	66,022.000	66,021.000	66,020.000	66,018.000	66,017.000
20.817	66,016.000	66,015.000	66,014.000	66,013.000	66,012.000
20.833	66,010.000	66,009.000	66,008.000	66,007.000	66,006.000
20.850	66,004.000	66,003.000	66,002.000	66,001.000	66,000.000
20.867	65,998.000	65,997.000	65,996.000	65,995.000	65,994.000
20.883	65,992.000	65,991.000	65,990.000	65,989.000	65,987.000
20.900	65,986.000	65,985.000	65,984.000	65,982.000	65,981.000
20.917	65,980.000	65,978.000	65,977.000	65,976.000	65,974.000
20.933	65,973.000	65,972.000	65,970.000	65,969.000	65,968.000
20.950	65,966.000	65,965.000	65,964.000	65,962.000	65,961.000
20.967	65,959.000	65,958.000	65,957.000	65,955.000	65,954.000
20.983	65,952.000	65,951.000	65,950.000	65,948.000	65,947.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	65,945.000	65,944.000	65,942.000	65,941.000	65,939.000
21.017	65,938.000	65,937.000	65,935.000	65,934.000	65,932.000
21.033	65,931.000	65,929.000	65,928.000	65,926.000	65,925.000
21.050	65,923.000	65,922.000	65,920.000	65,919.000	65,917.000
21.067	65,916.000	65,914.000	65,913.000	65,911.000	65,910.000
21.083	65,908.000	65,907.000	65,905.000	65,904.000	65,902.000
21.100	65,900.000	65,899.000	65,897.000	65,896.000	65,894.000
21.117	65,893.000	65,891.000	65,890.000	65,888.000	65,886.000
21.133	65,885.000	65,883.000	65,882.000	65,880.000	65,878.000
21.150	65,877.000	65,875.000	65,874.000	65,872.000	65,870.000
21.167	65,869.000	65,867.000	65,866.000	65,864.000	65,862.000
21.183	65,861.000	65,859.000	65,857.000	65,856.000	65,854.000
21.200	65,852.000	65,851.000	65,849.000	65,847.000	65,846.000
21.217	65,844.000	65,842.000	65,841.000	65,839.000	65,837.000
21.233	65,836.000	65,834.000	65,832.000	65,830.000	65,829.000
21.250	65,827.000	65,825.000	65,823.000	65,822.000	65,820.000
21.267	65,818.000	65,816.000	65,814.000	65,813.000	65,811.000
21.283	65,809.000	65,807.000	65,805.000	65,803.000	65,802.000
21.300	65,800.000	65,798.000	65,796.000	65,794.000	65,792.000
21.317	65,790.000	65,789.000	65,787.000	65,785.000	65,783.000
21.333	65,781.000	65,779.000	65,777.000	65,775.000	65,773.000
21.350	65,771.000	65,769.000	65,768.000	65,766.000	65,764.000
21.367	65,762.000	65,760.000	65,758.000	65,756.000	65,754.000
21.383	65,752.000	65,750.000	65,748.000	65,746.000	65,744.000
21.400	65,742.000	65,740.000	65,738.000	65,736.000	65,734.000
21.417	65,732.000	65,730.000	65,728.000	65,726.000	65,724.000
21.433	65,722.000	65,720.000	65,718.000	65,716.000	65,714.000
21.450	65,712.000	65,710.000	65,708.000	65,706.000	65,704.000
21.467	65,702.000	65,700.000	65,698.000	65,696.000	65,694.000
21.483	65,692.000	65,690.000	65,688.000	65,686.000	65,684.000
21.500	65,681.000	65,679.000	65,677.000	65,675.000	65,673.000
21.517	65,671.000	65,669.000	65,667.000	65,665.000	65,663.000
21.533	65,661.000	65,658.000	65,656.000	65,654.000	65,652.000
21.550	65,650.000	65,648.000	65,646.000	65,644.000	65,641.000
21.567	65,639.000	65,637.000	65,635.000	65,633.000	65,631.000
21.583	65,628.000	65,626.000	65,624.000	65,622.000	65,620.000
21.600	65,618.000	65,615.000	65,613.000	65,611.000	65,609.000
21.617	65,607.000	65,604.000	65,602.000	65,600.000	65,598.000
21.633	65,596.000	65,593.000	65,591.000	65,589.000	65,587.000
21.650	65,584.000	65,582.000	65,580.000	65,578.000	65,576.000
21.667	65,573.000	65,571.000	65,569.000	65,567.000	65,564.000
21.683	65,562.000	65,560.000	65,557.000	65,555.000	65,553.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.700	65,551.000	65,548.000	65,546.000	65,544.000	65,541.000
21.717	65,539.000	65,537.000	65,535.000	65,532.000	65,530.000
21.733	65,528.000	65,525.000	65,523.000	65,521.000	65,518.000
21.750	65,516.000	65,514.000	65,511.000	65,509.000	65,507.000
21.767	65,504.000	65,502.000	65,499.000	65,497.000	65,495.000
21.783	65,492.000	65,490.000	65,488.000	65,485.000	65,483.000
21.800	65,480.000	65,478.000	65,476.000	65,473.000	65,471.000
21.817	65,469.000	65,466.000	65,464.000	65,461.000	65,459.000
21.833	65,456.000	65,454.000	65,452.000	65,449.000	65,447.000
21.850	65,444.000	65,442.000	65,439.000	65,437.000	65,434.000
21.867	65,432.000	65,430.000	65,427.000	65,425.000	65,422.000
21.883	65,420.000	65,417.000	65,415.000	65,412.000	65,410.000
21.900	65,407.000	65,405.000	65,402.000	65,400.000	65,397.000
21.917	65,395.000	65,392.000	65,390.000	65,387.000	65,385.000
21.933	65,382.000	65,380.000	65,377.000	65,375.000	65,372.000
21.950	65,369.000	65,367.000	65,364.000	65,362.000	65,359.000
21.967	65,357.000	65,354.000	65,352.000	65,349.000	65,346.000
21.983	65,344.000	65,341.000	65,339.000	65,336.000	65,333.000
22.000	65,331.000	65,328.000	65,326.000	65,323.000	65,320.000
22.017	65,318.000	65,315.000	65,313.000	65,310.000	65,307.000
22.033	65,305.000	65,302.000	65,299.000	65,297.000	65,294.000
22.050	65,291.000	65,289.000	65,286.000	65,284.000	65,281.000
22.067	65,278.000	65,276.000	65,273.000	65,270.000	65,267.000
22.083	65,265.000	65,262.000	65,259.000	65,257.000	65,254.000
22.100	65,251.000	65,249.000	65,246.000	65,243.000	65,240.000
22.117	65,238.000	65,235.000	65,232.000	65,230.000	65,227.000
22.133	65,224.000	65,221.000	65,219.000	65,216.000	65,213.000
22.150	65,210.000	65,208.000	65,205.000	65,202.000	65,199.000
22.167	65,197.000	65,194.000	65,191.000	65,188.000	65,185.000
22.183	65,183.000	65,180.000	65,177.000	65,174.000	65,171.000
22.200	65,169.000	65,166.000	65,163.000	65,160.000	65,157.000
22.217	65,155.000	65,152.000	65,149.000	65,146.000	65,143.000
22.233	65,140.000	65,138.000	65,135.000	65,132.000	65,129.000
22.250	65,126.000	65,123.000	65,120.000	65,118.000	65,115.000
22.267	65,112.000	65,109.000	65,106.000	65,103.000	65,100.000
22.283	65,097.000	65,095.000	65,092.000	65,089.000	65,086.000
22.300	65,083.000	65,080.000	65,077.000	65,074.000	65,071.000
22.317	65,068.000	65,065.000	65,062.000	65,060.000	65,057.000
22.333	65,054.000	65,051.000	65,048.000	65,045.000	65,042.000
22.350	65,039.000	65,036.000	65,033.000	65,030.000	65,027.000
22.367	65,024.000	65,021.000	65,018.000	65,015.000	65,012.000
22.383	65,009.000	65,006.000	65,003.000	65,000.000	64,997.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
22.400	64,994.000	64,991.000	64,988.000	64,985.000	64,982.000
22.417	64,979.000	64,976.000	64,973.000	64,970.000	64,967.000
22.433	64,964.000	64,961.000	64,958.000	64,955.000	64,951.000
22.450	64,948.000	64,945.000	64,942.000	64,939.000	64,936.000
22.467	64,933.000	64,930.000	64,927.000	64,924.000	64,921.000
22.483	64,918.000	64,914.000	64,911.000	64,908.000	64,905.000
22.500	64,902.000	64,899.000	64,896.000	64,893.000	64,889.000
22.517	64,886.000	64,883.000	64,880.000	64,877.000	64,874.000
22.533	64,871.000	64,867.000	64,864.000	64,861.000	64,858.000
22.550	64,855.000	64,852.000	64,848.000	64,845.000	64,842.000
22.567	64,839.000	64,836.000	64,832.000	64,829.000	64,826.000
22.583	64,823.000	64,820.000	64,816.000	64,813.000	64,810.000
22.600	64,807.000	64,804.000	64,800.000	64,797.000	64,794.000
22.617	64,791.000	64,787.000	64,784.000	64,781.000	64,778.000
22.633	64,774.000	64,771.000	64,768.000	64,765.000	64,761.000
22.650	64,758.000	64,755.000	64,751.000	64,748.000	64,745.000
22.667	64,742.000	64,738.000	64,735.000	64,732.000	64,728.000
22.683	64,725.000	64,722.000	64,718.000	64,715.000	64,712.000
22.700	64,709.000	64,705.000	64,702.000	64,699.000	64,695.000
22.717	64,692.000	64,688.000	64,685.000	64,682.000	64,678.000
22.733	64,675.000	64,672.000	64,668.000	64,665.000	64,662.000
22.750	64,658.000	64,655.000	64,651.000	64,648.000	64,645.000
22.767	64,641.000	64,638.000	64,634.000	64,631.000	64,628.000
22.783	64,624.000	64,621.000	64,617.000	64,614.000	64,611.000
22.800	64,607.000	64,604.000	64,600.000	64,597.000	64,593.000
22.817	64,590.000	64,586.000	64,583.000	64,580.000	64,576.000
22.833	64,573.000	64,569.000	64,566.000	64,562.000	64,559.000
22.850	64,555.000	64,552.000	64,548.000	64,545.000	64,541.000
22.867	64,538.000	64,534.000	64,531.000	64,527.000	64,524.000
22.883	64,520.000	64,517.000	64,513.000	64,510.000	64,506.000
22.900	64,503.000	64,499.000	64,495.000	64,492.000	64,488.000
22.917	64,485.000	64,481.000	64,478.000	64,474.000	64,471.000
22.933	64,467.000	64,463.000	64,460.000	64,456.000	64,453.000
22.950	64,449.000	64,446.000	64,442.000	64,438.000	64,435.000
22.967	64,431.000	64,428.000	64,424.000	64,420.000	64,417.000
22.983	64,413.000	64,410.000	64,406.000	64,402.000	64,399.000
23.000	64,395.000	64,391.000	64,388.000	64,384.000	64,381.000
23.017	64,377.000	64,373.000	64,370.000	64,366.000	64,362.000
23.033	64,359.000	64,355.000	64,351.000	64,348.000	64,344.000
23.050	64,340.000	64,337.000	64,333.000	64,329.000	64,326.000
23.067	64,322.000	64,318.000	64,315.000	64,311.000	64,307.000
23.083	64,304.000	64,300.000	64,296.000	64,293.000	64,289.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
23.100	64,285.000	64,282.000	64,278.000	64,274.000	64,271.000
23.117	64,267.000	64,263.000	64,259.000	64,256.000	64,252.000
23.133	64,248.000	64,245.000	64,241.000	64,237.000	64,234.000
23.150	64,230.000	64,226.000	64,223.000	64,219.000	64,215.000
23.167	64,211.000	64,208.000	64,204.000	64,200.000	64,197.000
23.183	64,193.000	64,189.000	64,185.000	64,182.000	64,178.000
23.200	64,174.000	64,171.000	64,167.000	64,163.000	64,159.000
23.217	64,156.000	64,152.000	64,148.000	64,144.000	64,141.000
23.233	64,137.000	64,133.000	64,129.000	64,126.000	64,122.000
23.250	64,118.000	64,114.000	64,110.000	64,107.000	64,103.000
23.267	64,099.000	64,095.000	64,092.000	64,088.000	64,084.000
23.283	64,080.000	64,076.000	64,072.000	64,069.000	64,065.000
23.300	64,061.000	64,057.000	64,053.000	64,050.000	64,046.000
23.317	64,042.000	64,038.000	64,034.000	64,030.000	64,026.000
23.333	64,023.000	64,019.000	64,015.000	64,011.000	64,007.000
23.350	64,003.000	63,999.000	63,995.000	63,992.000	63,988.000
23.367	63,984.000	63,980.000	63,976.000	63,972.000	63,968.000
23.383	63,964.000	63,960.000	63,956.000	63,952.000	63,948.000
23.400	63,945.000	63,941.000	63,937.000	63,933.000	63,929.000
23.417	63,925.000	63,921.000	63,917.000	63,913.000	63,909.000
23.433	63,905.000	63,901.000	63,897.000	63,893.000	63,889.000
23.450	63,885.000	63,881.000	63,877.000	63,873.000	63,869.000
23.467	63,865.000	63,861.000	63,857.000	63,853.000	63,849.000
23.483	63,845.000	63,841.000	63,837.000	63,833.000	63,829.000
23.500	63,825.000	63,821.000	63,817.000	63,813.000	63,809.000
23.517	63,805.000	63,801.000	63,797.000	63,793.000	63,789.000
23.533	63,785.000	63,781.000	63,777.000	63,773.000	63,769.000
23.550	63,765.000	63,761.000	63,756.000	63,752.000	63,748.000
23.567	63,744.000	63,740.000	63,736.000	63,732.000	63,728.000
23.583	63,724.000	63,720.000	63,716.000	63,712.000	63,708.000
23.600	63,704.000	63,700.000	63,696.000	63,692.000	63,688.000
23.617	63,684.000	63,680.000	63,676.000	63,672.000	63,668.000
23.633	63,663.000	63,659.000	63,655.000	63,651.000	63,647.000
23.650	63,643.000	63,639.000	63,635.000	63,631.000	63,627.000
23.667	63,623.000	63,619.000	63,615.000	63,610.000	63,606.000
23.683	63,602.000	63,598.000	63,594.000	63,590.000	63,586.000
23.700	63,582.000	63,578.000	63,573.000	63,569.000	63,565.000
23.717	63,561.000	63,557.000	63,553.000	63,549.000	63,544.000
23.733	63,540.000	63,536.000	63,532.000	63,528.000	63,524.000
23.750	63,519.000	63,515.000	63,511.000	63,507.000	63,503.000
23.767	63,498.000	63,494.000	63,490.000	63,486.000	63,482.000
23.783	63,477.000	63,473.000	63,469.000	63,465.000	63,461.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
23.800	63,456.000	63,452.000	63,448.000	63,444.000	63,439.000
23.817	63,435.000	63,431.000	63,427.000	63,422.000	63,418.000
23.833	63,414.000	63,410.000	63,405.000	63,401.000	63,397.000
23.850	63,392.000	63,388.000	63,384.000	63,380.000	63,375.000
23.867	63,371.000	63,367.000	63,362.000	63,358.000	63,354.000
23.883	63,350.000	63,345.000	63,341.000	63,337.000	63,333.000
23.900	63,328.000	63,324.000	63,320.000	63,315.000	63,311.000
23.917	63,307.000	63,303.000	63,298.000	63,294.000	63,290.000
23.933	63,286.000	63,281.000	63,277.000	63,273.000	63,268.000
23.950	63,264.000	63,260.000	63,256.000	63,251.000	63,247.000
23.967	63,243.000	63,238.000	63,234.000	63,230.000	63,226.000
23.983	63,221.000	63,217.000	63,213.000	63,208.000	63,204.000
24.000	63,200.000	63,195.000	63,191.000	63,187.000	63,182.000
24.017	63,178.000	63,174.000	63,169.000	63,165.000	63,161.000
24.033	63,156.000	63,152.000	63,148.000	63,143.000	63,139.000
24.050	63,134.000	63,130.000	63,126.000	63,121.000	63,117.000
24.067	63,112.000	63,107.000	63,102.000	63,096.000	63,090.000
24.083	63,084.000	63,078.000	63,072.000	63,065.000	63,058.000
24.100	63,051.000	63,043.000	63,035.000	63,027.000	63,019.000
24.117	63,010.000	63,002.000	62,992.000	62,983.000	62,974.000
24.133	62,964.000	62,954.000	62,943.000	62,933.000	62,922.000
24.150	62,911.000	62,900.000	62,888.000	62,876.000	62,864.000
24.167	62,852.000	62,839.000	62,824.000	62,810.000	62,796.000
24.183	62,781.000	62,767.000	62,752.000	62,738.000	62,724.000
24.200	62,709.000	62,695.000	62,681.000	62,666.000	62,652.000
24.217	62,638.000	62,623.000	62,609.000	62,595.000	62,580.000
24.233	62,566.000	62,551.000	62,537.000	62,523.000	62,508.000
24.250	62,494.000	62,480.000	62,465.000	62,451.000	62,437.000
24.267	62,422.000	62,408.000	62,394.000	62,379.000	62,365.000
24.283	62,351.000	62,336.000	62,322.000	62,307.000	62,293.000
24.300	62,279.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Outlet Input Data Scenario: Base
Label: Composite Outlet Structure - 1

Requested Pond Water Surface Elevations	
Minimum (Headwater)	1,095.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	1,100.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	TW	1,099.99	1,100.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data Scenario: Base
Label: Composite Outlet Structure - 1

Structure ID: Orifice - 1 Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	1,099.99 ft
Orifice Diameter	0.1 in
Orifice Coefficient	0.600

Subsection: Elevation-Volume-Flow Table (Pond) Scenario: Base
Label: PO-1

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	1.1963 ft³/s

Initial Conditions	
Elevation (Water Surface, Initial)	1,095.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.0000 ft³/s
Flow (Initial Infiltration)	0.0000 ft³/s
Flow (Initial, Total)	0.0000 ft³/s
Time Increment	0.003 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (acres)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
1,095.00	0.0000	0.000	0.000	0.0000	0.0000	0.0000
1,095.50	0.0000	3,474.399	0.000	1.1963	1.1963	580.2627
1,096.00	0.0000	9,505.023	0.000	1.1963	1.1963	1,585.3669
1,096.50	0.0000	16,844.310	0.000	1.1963	1.1963	2,808.5813
1,097.00	0.0000	24,936.434	0.000	1.1963	1.1963	4,157.2686
1,097.50	0.0000	33,379.422	0.000	1.1963	1.1963	5,564.4333
1,098.00	0.0000	41,822.410	0.000	1.1963	1.1963	6,971.5980
1,098.50	0.0000	49,914.534	0.000	1.1963	1.1963	8,320.2852
1,099.00	0.0000	57,253.821	0.000	1.1963	1.1963	9,543.4997
1,099.50	0.0000	63,284.445	0.000	1.1963	1.1963	10,548.6039
1,099.99	0.0000	66,689.356	0.000	1.1963	1.1963	11,116.0890
1,100.00	0.0000	66,758.844	0.000	1.1963	1.1963	11,127.6703

5th & Sterling Avenue
Pond Pack Calculation
BMP 1

Subsection: Level Pool Pond Routing Summary
Scenario: Base
Label: PO-1 (IN)

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	1.1963 ft³/s

Initial Conditions	
Elevation (Water Surface, Initial)	1,095.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.0000 ft³/s
Flow (Initial Infiltration)	0.0000 ft³/s
Flow (Initial, Total)	0.0000 ft³/s
Time Increment	0.003 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	27.6464 ft³/s	Time to Peak (Flow, In)	16.140 hours
Infiltration (Peak)	1.1963 ft³/s	Time to Peak (Infiltration)	8.790 hours
Flow (Peak Outlet)	0.0000 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	1,099.91 ft
Volume (Peak)	66,141.075 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	157,026.000 ft³
Volume (Total Infiltration)	94,761.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	62,264.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Pond Inflow Summary
Label: PO-1 (IN)

Scenario: Base

Summary for Hydrograph Addition at 'PO-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	CM-1

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CM-1	157,021.680	16.140	27.6464
Flow (In)	PO-1	157,025.830	16.140	27.6464

5th & Sterling Avenue
Pond Pack Calculation
BMP 1

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PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

Advanced Drainage Systems, Inc.

BMP 1

SAN BERNARDINO, CA

ADS RETENTION/DETENTION PIPE SYSTEM SPECIFICATION

SCOPE
THIS SPECIFICATION DESCRIBES ADS RETENTION/DETENTION PIPE SYSTEMS FOR USE IN NON-PRESSURE GRAVITY-FLOW STORM WATER COLLECTION SYSTEMS UTILIZING A CONTINUOUS OUTFALL STRUCTURE.

PIPE REQUIREMENTS
ADS RETENTION/DETENTION SYSTEMS MAY UTILIZE ANY OF THE VARIOUS PIPE PRODUCTS BELOW:
- N-12® STIB PIPE (PER AASHTO) SHALL MEET AASHTO M 294, TYPE S OR ASTM F2306
- N-12® STIB PIPE (PER ASTM F2648) SHALL MEET ASTM F2648
- N-12® MEGA GREEN™ STIB SHALL MEET ASTM F2648

ALL PRODUCTS SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. ALL STIB PIPE PRODUCTS ARE AVAILABLE AS PERFORATED OR NON-PERFORATED. WTIB PIPE PRODUCTS ARE ONLY AVAILABLE AS NON-PERFORATED. PRODUCT-SPECIFIC PIPE SPECIFICATIONS ARE AVAILABLE IN THE DRAINAGE HANDBOOK SECTION 1 "SPECIFICATIONS".

JOINT PERFORMANCE
PLAIN END / SOIL-TIGHT (STIB):
STIB PIPE SHALL BE JOINED USING A BELL AND SPIGOT JOINT. THE BELL AND SPIGOT JOINT SHALL MEET THE SOIL-TIGHT REQUIREMENTS OF ASTM F2306 AND GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.

PLAIN END PIPE AND FITTINGS CONNECTIONS SHALL BE JOINED WITH COUPLING BANDS COVERING AT LEAST TWO FULL CORRUGATIONS ON EACH END OF THE PIPE. GASKETED SOIL-TIGHT COUPLING BAND CONNECTIONS SHALL INCORPORATE A CLOSED-CELL SYNTHETIC EXPANDED RUBBER GASKET MEETING THE REQUIREMENTS OF ASTM D1056 GRADE 2A2. GASKETS, WHEN APPLICABLE, SHALL BE INSTALLED BY THE PIPE MANUFACTURER.

FITTINGS
FITTINGS SHALL CONFORM TO ASTM F2306 AND MEET JOINT PERFORMANCE INDICATED ABOVE FOR FITTINGS CONNECTIONS. CUSTOM FITTINGS ARE AVAILABLE AND MAY REQUIRE SPECIAL INSTALLATION CRITERION.

INSTALLATION
INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 AND ADS RECOMMENDED INSTALLATION GUIDELINES, WITH THE EXCEPTION THAT MINIMUM COVER IN NON-TRAFFIC AREAS FOR 12-60 INCH (300-1500 mm) DIAMETERS SHALL BE 1 FT (0.3 m). MINIMUM COVER IN TRAFFICKED AREAS FOR 12-36 INCH (300-900 mm) DIAMETERS SHALL BE 1 FT (0.3 m) AND FOR 42-60 INCH (1050-1500 mm) DIAMETERS, THE MINIMUM COVER SHALL BE 2 FT (0.6 m). BACKFILL SHALL CONSIST OF CLASS I (COMPACTED) OR CLASS II (MINIMUM 95% SPD) MATERIAL, WITH THE EXCEPTION THAT 60 INCH (1500 mm) SYSTEMS SHALL USE CLASS I MATERIAL ONLY. MINIMUM COVER HEIGHTS DO NOT ACCOUNT FOR PIPE BUOYANCY. REFER TO ADS TECHNICAL NOTE 5.05 "PIPE FLOTATION" FOR BUOYANCY DESIGN CONSIDERATIONS. MAXIMUM COVER OVER SYSTEM USING STANDARD BACKFILL IS 8 FT (2.4 m); CONTACT A REPRESENTATIVE WHEN MAXIMUM FILL HEIGHT MAY BE EXCEEDED. ADDITIONAL INSTALLATION REQUIREMENTS ARE PROVIDED IN THE DRAINAGE HANDBOOK SECTION 6 "RETENTION/DETENTION".

ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES:

1) ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS, INLETS AND OUTLETS, SHALL BE VERIFIED BY THE ENGINEER PRIOR TO RELEASING FOR FABRICATION.

2) IN SITUATIONS WHERE A FINE-GRAINED BACKFILL MATERIAL IS USED ADJACENT TO THE PIPE SYSTEM, AND ESPECIALLY INVOLVING GROUND WATER CONDITIONS, CONSIDERATION SHOULD BE GIVEN TO THE USE OF GASKETED PIPE JOINTS. AT THE VERY LEAST THE PIPE JOINTS SHOULD BE WRAPPED IN A SUITABLE, NON-WOVEN GEOTEXTILE FABRIC TO PREVENT INFILTRATION OF FINES INTO THE PIPE SYSTEM.

3) CONSIDERATION FOR CONSTRUCTION EQUIPMENT LOADS MUST BE TAKEN INTO ACCOUNT.

4) ALL PIPE DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

5) ALL RISERS TO BE FIELD EXTENDED OR TRIMMED TO FINAL GRADE.

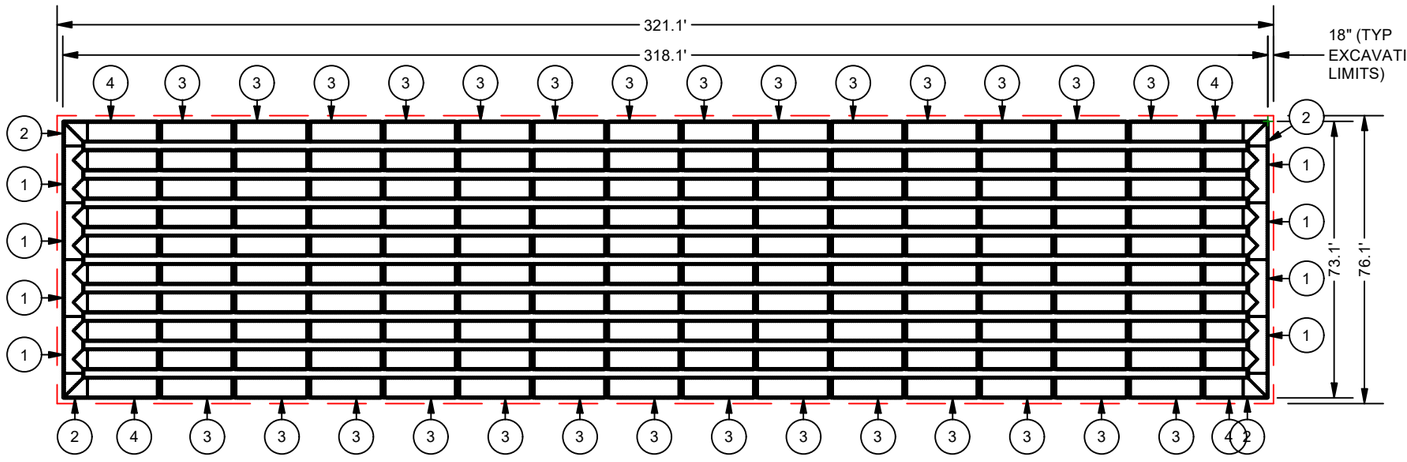
THE UNDERSIGNED HERBY APPROVES THE ATTACHED PAGES.

CUSTOMER DATE

ITEM	QTY	ALT. QTY	PART #	DESCRIPTION	STAN.	VENDOR	NOTE
1	8		6052AN	60".DOUBLE MANIFOLD TEE	STAN	ADS	SEE DETAIL
2	4		6098AN	60".MANIFOLD 90 DEG BEND	STAN	ADS	SEE DETAIL
3	140 STICKS	2755 LF	60850020IB	60".N12 HWY.STIB.SOLID.20'	STAN	ADS	AS SHOWN
4	16 STICKS	297 LF	60850020IB	60".N12 HWY.STIB.SOLID.20'	STAN	ADS	FIELD CUT
5	30		6065AA	60".SPLIT COUPLER.(25/PALLET)	STAN	ADS	NOT SHOWN
6	15 ROLLS	7500 SY	0601TG	601.15' X 300'.(500 SY).(NTPEP SCAN) (20% OVERAGE)	STAN	ADS	SEE DETAIL
7	159501 CF	5908 CY	NA	EXCAVATION	NA	NA	NOT SHOWN

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE PIPE COVER REQUIREMENTS ARE MET.
- STUB SIZES AND INVERTS TO BE VERIFIED BY THE SITE DESIGN ENGINEER PRIOR TO FABRICATION.
- ADS RISERS ARE FABRICATED 36" (900 mm) FROM TOP OF PIPE TO TOP OF RISER DUE TO SHIPPING LIMITATIONS. ADDITIONAL PIPE AND COUPLERS CAN BE USED TO EXTEND THE RISERS TO GRADE.
- LAYOUT SHOWN DOES NOT INCLUDE ADDITIONAL PIPE & MANIFOLD NEEDED FOR PROPER PIPE INSERTION INTO STRUCTURES.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.



ADS GEOTEXTILE FABRIC

BMP 1

SAN BERNARDINO, CA

DATE: DRAWN: CA CHECKED: N/A

PROJECT #:

DATE	DRW	CHK	DESCRIPTION

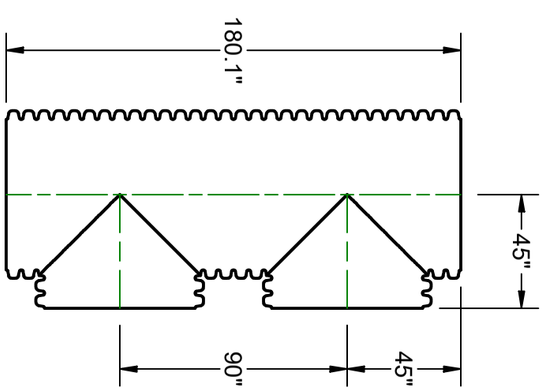
60" STIB SOLID
DETENTION SYSTEM

LandMax
Stormwater Management System

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

0 40 80

60" DOUBLE MANIFOLD TEE [6052AN]



ITEM #: 1
QTY: 8
6052AN

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

60" STIB SOLID
DETENTION SYSTEM

LandMax

Stormwater Management System

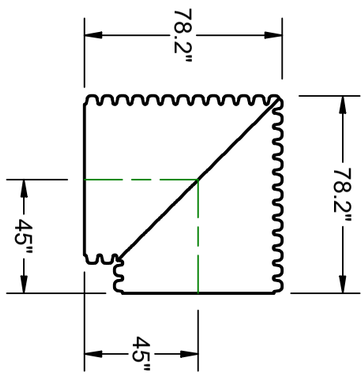
DATE	DRW	CHK	DESCRIPTION

BMP 1

SAN BERNARDINO, CA

DATE:	DRAWN: CA
PROJECT #:	CHECKED: N/A

60" X 90° MANIFOLD BEND [6098AN]



ITEM #: 2
QTY: 4
6098AN

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

60" STIB SOLID
DETENTION SYSTEM

LandMax

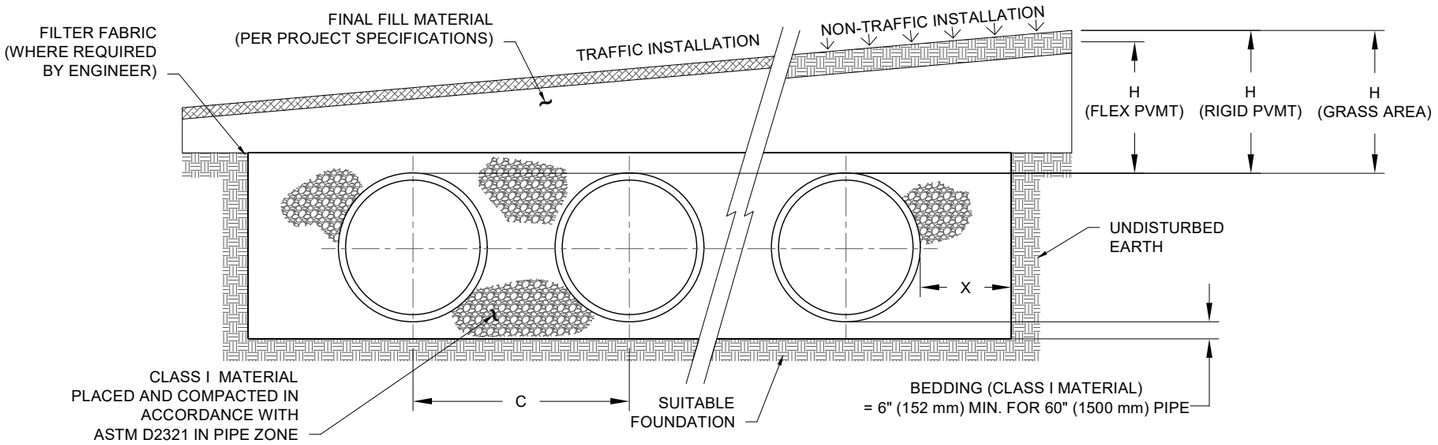
Stormwater Management System

DATE	DRW	CHK	DESCRIPTION

BMP 1

SAN BERNARDINO, CA

DATE:	DRAWN: CA
PROJECT #:	CHECKED: N/A



NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	MIN. H (NON-TRAFFIC)	MIN. H (TRAFFIC)	MAX. H*
60" (1500 mm)	67" (1702 mm)	90" (2286 mm)	18" (457 mm)	12" (305 mm)	24" (610 mm)	8' (2.4 m)

* MAXIMUM FILL HEIGHTS OVER MANIFOLD FITTINGS. CONTACT MANUFACTURER'S REPRESENTATIVE FOR INSTALLATION CONSIDERATIONS WHEN COVER EXCEEDS 8 FT (2.4 m).
**60" (1500 mm) SYSTEMS REQUIRE CLASS I BACKFILL AROUND ALL LATERALS AND FITTINGS.

NOTES:

1. ALL REFERENCES TO CLASS I MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE. THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (102 mm) FOR 4"-24" (100-600 mm); 6" (152 mm) FOR 30-60" (750-900 mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" (152 mm) ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (305 mm) FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" (305 mm) UP TO 36" (900 mm) DIAMETER PIPE AND 24" (610 mm) OF COVER FOR 42-60" (1050-1500 mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. MAXIMUM FILL HEIGHT LIMITED TO 8 FT (2.4 m) OVER FITTINGS FOR STANDARD INSTALLATIONS. CONTACT A SALES REPRESENTATIVE WHEN MAXIMUM FILL HEIGHTS EXCEED 8 FT (2.4 m) FOR INSTALLATION CONSIDERATIONS.

BMP 1

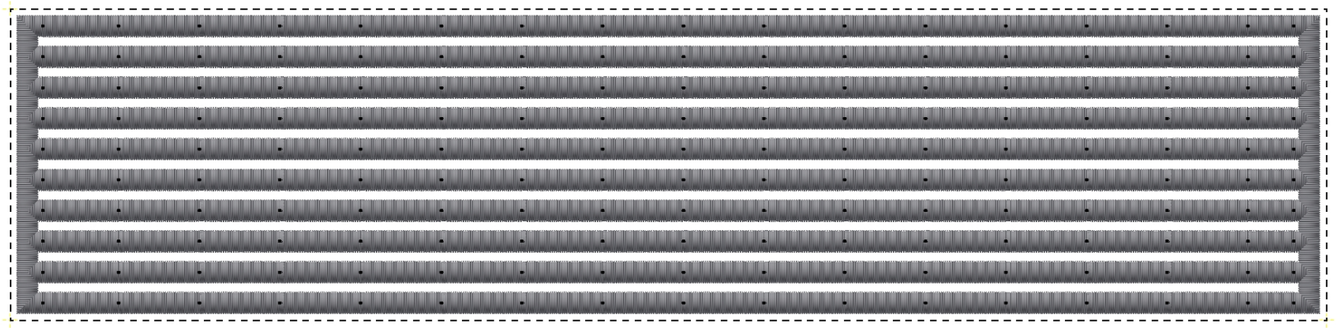
SAN BERNARDINO, CA

DATE: | DRAWN: CA | PROJECT #: | CHECKED: N/A

DATE	DRW	CHK	DESCRIPTION

60" STIB SOLID
DETENTION SYSTEM
LandMax
Stormwater Management System

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473



100-year Detention - Proposed DA-2

5th & Sterling Avenue

Pond Pack Calculation

BMP 2

Project Summary	
Title	
Engineer	
Company	
Date	2/3/2023

Notes

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Subsection: User Notifications

User Notifications?	No user notifications generated.

5th & Sterling Avenue
Pond Pack Calculation
BMP 2

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
CM-1	Base	0	241,892.000	16.180	37.1463

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)
O-1	Base	0	0.000	0.000	0.0000

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ft³)	Time to Peak (hours)	Peak Flow (ft³/s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ft³)
PO-1 (IN)	Base	0	241,899.000	16.180	37.1463	(N/A)	(N/A)
PO-1 (OUT)	Base	0	0.000	0.000	0.0000	1,099.88	101,804.000

Subsection: Read Hydrograph
Label: CM-1

Scenario: Base

Peak Discharge	37.1463 ft³/s
Time to Peak	16.180 hours
Hydrograph Volume	241,891.518 ft³

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.110 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
0.120	1.2800	1.2869	1.2940	1.3000	1.3000
0.670	1.3056	1.3127	1.3200	1.3200	1.3240
1.220	1.3313	1.3387	1.3400	1.3427	1.3500
1.770	1.3569	1.3640	1.3713	1.3787	1.3856
2.320	1.3900	1.3900	1.3969	1.4040	1.4113
2.870	1.4181	1.4253	1.4327	1.4400	1.4469
3.420	1.4540	1.4600	1.4600	1.4707	1.4800
3.970	1.4800	1.4938	1.5000	1.5025	1.5163
4.520	1.5253	1.5325	1.5394	1.5467	1.5540
5.070	1.5613	1.5681	1.5807	1.5900	1.5900
5.620	1.6033	1.6140	1.6225	1.6363	1.6453
6.170	1.6525	1.6594	1.6667	1.6775	1.6907
6.720	1.6980	1.7107	1.7225	1.7294	1.7500
7.270	1.7638	1.7713	1.7860	1.7950	1.8040
7.820	1.8187	1.8333	1.8475	1.8607	1.8680
8.370	1.8850	1.9020	1.9093	1.9300	1.9475
8.920	1.9620	1.9840	1.9950	2.0080	2.0373
9.470	2.0467	2.0650	2.0913	2.1060	2.1250
10.020	2.1440	2.1587	2.1850	2.2067	2.2233
10.570	2.2600	2.2800	2.3000	2.3367	2.3525
11.120	2.3800	2.4213	2.4350	2.4680	2.5060
11.670	2.5280	2.5738	2.6100	2.6244	2.5625
12.220	2.5493	2.5780	2.6440	2.6750	2.7200
12.770	2.7831	2.8175	2.8813	2.9494	2.9837
13.320	3.0680	3.1433	3.1994	3.3025	3.3773
13.870	3.4556	3.5862	3.5920	3.6033	3.6587
14.420	3.7550	3.9300	4.1237	4.2475	4.5280
14.970	4.7867	5.0019	5.4625	5.8353	6.8312
15.520	9.6225	10.7600	12.2331	14.5500	17.7033
16.070	30.0360	37.1463	16.3425	9.7460	7.0575
16.620	5.2700	4.6833	4.2180	3.8569	3.5888
17.170	3.5220	3.4319	3.2600	3.1133	2.9813
17.720	2.8600	2.7500	2.6520	2.6219	2.6700
18.270	2.5967	2.5263	2.4593	2.4007	2.3480
18.820	2.2981	2.2500	2.1987	2.1538	2.1133
19.370	2.0767	2.0419	2.0067	1.9700	1.9407
19.920	1.9125	1.8847	1.8553	1.8275	1.8020
20.470	1.7800	1.7507	1.7269	1.7060	1.6840

Subsection: Read Hydrograph
Scenario: Base
Label: CM-1

HYDROGRAPH ORDINATES (ft³/s)
Output Time Increment = 0.110 hours
Time on left represents time for first value in each row.

Time (hours)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)	Flow (ft³/s)
21.020	1.6688	1.6520	1.6300	1.6094	1.5920
21.570	1.5773	1.5627	1.5431	1.5247	1.5100
22.120	1.4963	1.4820	1.4675	1.4538	1.4393
22.670	1.4273	1.4200	1.4063	1.3920	1.3788
23.220	1.3719	1.3593	1.3447	1.3300	1.3231
23.770	1.3160	1.3075	1.2938	0.6020	0.0000

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.000	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.017	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.033	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.050	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.067	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.083	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.100	1,095.00	1,095.00	1,095.00	1,095.00	1,095.00
0.117	1,095.00	1,095.00	1,095.00	1,095.00	1,095.01
0.133	1,095.01	1,095.01	1,095.01	1,095.01	1,095.01
0.150	1,095.01	1,095.01	1,095.02	1,095.02	1,095.02
0.167	1,095.02	1,095.02	1,095.02	1,095.02	1,095.03
0.183	1,095.03	1,095.03	1,095.03	1,095.03	1,095.03
0.200	1,095.03	1,095.03	1,095.04	1,095.04	1,095.04
0.217	1,095.04	1,095.04	1,095.04	1,095.04	1,095.04
0.233	1,095.05	1,095.05	1,095.05	1,095.05	1,095.05
0.250	1,095.05	1,095.05	1,095.05	1,095.06	1,095.06
0.267	1,095.06	1,095.06	1,095.06	1,095.06	1,095.06
0.283	1,095.06	1,095.07	1,095.07	1,095.07	1,095.07
0.300	1,095.07	1,095.07	1,095.07	1,095.07	1,095.07
0.317	1,095.08	1,095.08	1,095.08	1,095.08	1,095.08
0.333	1,095.08	1,095.08	1,095.08	1,095.08	1,095.09
0.350	1,095.09	1,095.09	1,095.09	1,095.09	1,095.09
0.367	1,095.09	1,095.09	1,095.09	1,095.10	1,095.10
0.383	1,095.10	1,095.10	1,095.10	1,095.10	1,095.10
0.400	1,095.10	1,095.10	1,095.10	1,095.11	1,095.11
0.417	1,095.11	1,095.11	1,095.11	1,095.11	1,095.11
0.433	1,095.11	1,095.11	1,095.11	1,095.12	1,095.12
0.450	1,095.12	1,095.12	1,095.12	1,095.12	1,095.12
0.467	1,095.12	1,095.12	1,095.12	1,095.13	1,095.13
0.483	1,095.13	1,095.13	1,095.13	1,095.13	1,095.13
0.500	1,095.13	1,095.13	1,095.13	1,095.13	1,095.14
0.517	1,095.14	1,095.14	1,095.14	1,095.14	1,095.14
0.533	1,095.14	1,095.14	1,095.14	1,095.14	1,095.14
0.550	1,095.15	1,095.15	1,095.15	1,095.15	1,095.15
0.567	1,095.15	1,095.15	1,095.15	1,095.15	1,095.15
0.583	1,095.15	1,095.15	1,095.16	1,095.16	1,095.16
0.600	1,095.16	1,095.16	1,095.16	1,095.16	1,095.16
0.617	1,095.16	1,095.16	1,095.16	1,095.16	1,095.16
0.633	1,095.17	1,095.17	1,095.17	1,095.17	1,095.17
0.650	1,095.17	1,095.17	1,095.17	1,095.17	1,095.17
0.667	1,095.17	1,095.17	1,095.17	1,095.18	1,095.18
0.683	1,095.18	1,095.18	1,095.18	1,095.18	1,095.18

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
0.700	1,095.18	1,095.18	1,095.18	1,095.18	1,095.18
0.717	1,095.18	1,095.18	1,095.19	1,095.19	1,095.19
0.733	1,095.19	1,095.19	1,095.19	1,095.19	1,095.19
0.750	1,095.19	1,095.19	1,095.19	1,095.19	1,095.19
0.767	1,095.19	1,095.19	1,095.20	1,095.20	1,095.20
0.783	1,095.20	1,095.20	1,095.20	1,095.20	1,095.20
0.800	1,095.20	1,095.20	1,095.20	1,095.20	1,095.20
0.817	1,095.20	1,095.20	1,095.21	1,095.21	1,095.21
0.833	1,095.21	1,095.21	1,095.21	1,095.21	1,095.21
0.850	1,095.21	1,095.21	1,095.21	1,095.21	1,095.21
0.867	1,095.21	1,095.21	1,095.21	1,095.21	1,095.22
0.883	1,095.22	1,095.22	1,095.22	1,095.22	1,095.22
0.900	1,095.22	1,095.22	1,095.22	1,095.22	1,095.22
0.917	1,095.22	1,095.22	1,095.22	1,095.22	1,095.22
0.933	1,095.22	1,095.22	1,095.23	1,095.23	1,095.23
0.950	1,095.23	1,095.23	1,095.23	1,095.23	1,095.23
0.967	1,095.23	1,095.23	1,095.23	1,095.23	1,095.23
0.983	1,095.23	1,095.23	1,095.23	1,095.23	1,095.23
1.000	1,095.23	1,095.24	1,095.24	1,095.24	1,095.24
1.017	1,095.24	1,095.24	1,095.24	1,095.24	1,095.24
1.033	1,095.24	1,095.24	1,095.24	1,095.24	1,095.24
1.050	1,095.24	1,095.24	1,095.24	1,095.24	1,095.24
1.067	1,095.24	1,095.25	1,095.25	1,095.25	1,095.25
1.083	1,095.25	1,095.25	1,095.25	1,095.25	1,095.25
1.100	1,095.25	1,095.25	1,095.25	1,095.25	1,095.25
1.117	1,095.25	1,095.25	1,095.25	1,095.25	1,095.25
1.133	1,095.25	1,095.25	1,095.25	1,095.26	1,095.26
1.150	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1.167	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1.183	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1.200	1,095.26	1,095.26	1,095.26	1,095.26	1,095.26
1.217	1,095.26	1,095.26	1,095.26	1,095.27	1,095.27
1.233	1,095.27	1,095.27	1,095.27	1,095.27	1,095.27
1.250	1,095.27	1,095.27	1,095.27	1,095.27	1,095.27
1.267	1,095.27	1,095.27	1,095.27	1,095.27	1,095.27
1.283	1,095.27	1,095.27	1,095.27	1,095.27	1,095.27
1.300	1,095.27	1,095.27	1,095.27	1,095.27	1,095.28
1.317	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.333	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.350	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.367	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28
1.383	1,095.28	1,095.28	1,095.28	1,095.28	1,095.28

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
1.400	1,095.28	1,095.28	1,095.28	1,095.28	1,095.29
1.417	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.433	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.450	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.467	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.483	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.500	1,095.29	1,095.29	1,095.29	1,095.29	1,095.29
1.517	1,095.29	1,095.29	1,095.30	1,095.30	1,095.30
1.533	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.550	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.567	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.583	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.600	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.617	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.633	1,095.30	1,095.30	1,095.30	1,095.30	1,095.30
1.650	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.667	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.683	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.700	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.717	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.733	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.750	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.767	1,095.31	1,095.31	1,095.31	1,095.31	1,095.31
1.783	1,095.31	1,095.31	1,095.31	1,095.32	1,095.32
1.800	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.817	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.833	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.850	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.867	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.883	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.900	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.917	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.933	1,095.32	1,095.32	1,095.32	1,095.32	1,095.32
1.950	1,095.32	1,095.32	1,095.33	1,095.33	1,095.33
1.967	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
1.983	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.000	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.017	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.033	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.050	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.067	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.083	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
2.100	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.117	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.133	1,095.33	1,095.33	1,095.33	1,095.33	1,095.33
2.150	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.167	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.183	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.200	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.217	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.233	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.250	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.267	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.283	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.300	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.317	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.333	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.350	1,095.34	1,095.34	1,095.34	1,095.34	1,095.34
2.367	1,095.34	1,095.34	1,095.34	1,095.35	1,095.35
2.383	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.400	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.417	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.433	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.450	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.467	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.483	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.500	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.517	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.533	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.550	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.567	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.583	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.600	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.617	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.633	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.650	1,095.35	1,095.35	1,095.35	1,095.35	1,095.35
2.667	1,095.35	1,095.36	1,095.36	1,095.36	1,095.36
2.683	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.700	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.717	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.733	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.750	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.767	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.783	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
2.800	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.817	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.833	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.850	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.867	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.883	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.900	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.917	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.933	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.950	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.967	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
2.983	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
3.000	1,095.36	1,095.36	1,095.36	1,095.36	1,095.36
3.017	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.033	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.050	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.067	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.083	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.100	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.117	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.133	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.150	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.167	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.183	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.200	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.217	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.233	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.250	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.267	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.283	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.300	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.317	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.333	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.350	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.367	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.383	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.400	1,095.37	1,095.37	1,095.37	1,095.37	1,095.37
3.417	1,095.37	1,095.38	1,095.38	1,095.38	1,095.38
3.433	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.450	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.467	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.483	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
3.500	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.517	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.533	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.550	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.567	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.583	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.600	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.617	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.633	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.650	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.667	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.683	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.700	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.717	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.733	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.750	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.767	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.783	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.800	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.817	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.833	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.850	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.867	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.883	1,095.38	1,095.38	1,095.38	1,095.38	1,095.38
3.900	1,095.38	1,095.39	1,095.39	1,095.39	1,095.39
3.917	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
3.933	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
3.950	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
3.967	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
3.983	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.000	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.017	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.033	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.050	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.067	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.083	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.100	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.117	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.133	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.150	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.167	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.183	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
4.200	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.217	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.233	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.250	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.267	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.283	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.300	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.317	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.333	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.350	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.367	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.383	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.400	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.417	1,095.39	1,095.39	1,095.39	1,095.39	1,095.39
4.433	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.450	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.467	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.483	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.500	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.517	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.533	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.550	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.567	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.583	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.600	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.617	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.633	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.650	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.667	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.683	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.700	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.717	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.733	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.750	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.767	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.783	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.800	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.817	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.833	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.850	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.867	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.883	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
4.900	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.917	1,095.40	1,095.40	1,095.40	1,095.40	1,095.40
4.933	1,095.40	1,095.40	1,095.40	1,095.40	1,095.41
4.950	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
4.967	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
4.983	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.000	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.017	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.033	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.050	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.067	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.083	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.100	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.117	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.133	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.150	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.167	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.183	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.200	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.217	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.233	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.250	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.267	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.283	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.300	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.317	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.333	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.350	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.367	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.383	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.400	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.417	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.433	1,095.41	1,095.41	1,095.41	1,095.41	1,095.41
5.450	1,095.41	1,095.41	1,095.41	1,095.42	1,095.42
5.467	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.483	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.500	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.517	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.533	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.550	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.567	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.583	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
5.600	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.617	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.633	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.650	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.667	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.683	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.700	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.717	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.733	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.750	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.767	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.783	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.800	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.817	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.833	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.850	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.867	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.883	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.900	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.917	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.933	1,095.42	1,095.42	1,095.42	1,095.42	1,095.42
5.950	1,095.42	1,095.42	1,095.43	1,095.43	1,095.43
5.967	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
5.983	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.000	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.017	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.033	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.050	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.067	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.083	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.100	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.117	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.133	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.150	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.167	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.183	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.200	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.217	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.233	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.250	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.267	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.283	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
6.300	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.317	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.333	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.350	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.367	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.383	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.400	1,095.43	1,095.43	1,095.43	1,095.43	1,095.43
6.417	1,095.43	1,095.44	1,095.44	1,095.44	1,095.44
6.433	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.450	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.467	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.483	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.500	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.517	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.533	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.550	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.567	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.583	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.600	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.617	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.633	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.650	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.667	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.683	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.700	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.717	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.733	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.750	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.767	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.783	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.800	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.817	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.833	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.850	1,095.44	1,095.44	1,095.44	1,095.44	1,095.44
6.867	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.883	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.900	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.917	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.933	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.950	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.967	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
6.983	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
7.000	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.017	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.033	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.050	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.067	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.083	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.100	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.117	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.133	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.150	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.167	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.183	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.200	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.217	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.233	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.250	1,095.45	1,095.45	1,095.45	1,095.45	1,095.45
7.267	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.283	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.300	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.317	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.333	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.350	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.367	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.383	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.400	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.417	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.433	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.450	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.467	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.483	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.500	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.517	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.533	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.550	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.567	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.583	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.600	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.617	1,095.46	1,095.46	1,095.46	1,095.46	1,095.46
7.633	1,095.46	1,095.47	1,095.47	1,095.47	1,095.47
7.650	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.667	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.683	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
7.700	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.717	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.733	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.750	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.767	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.783	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.800	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.817	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.833	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.850	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.867	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.883	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.900	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.917	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.933	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.950	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.967	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
7.983	1,095.47	1,095.47	1,095.47	1,095.47	1,095.47
8.000	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.017	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.033	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.050	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.067	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.083	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.100	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.117	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.133	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.150	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.167	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.183	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.200	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.217	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.233	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.250	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.267	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.283	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.300	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.317	1,095.48	1,095.48	1,095.48	1,095.48	1,095.48
8.333	1,095.48	1,095.48	1,095.49	1,095.49	1,095.49
8.350	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.367	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.383	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
8.400	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.417	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.433	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.450	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.467	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.483	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.500	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.517	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.533	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.550	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.567	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.583	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.600	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.617	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.633	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.650	1,095.49	1,095.49	1,095.49	1,095.49	1,095.49
8.667	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.683	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.700	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.717	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.733	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.750	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.767	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.783	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.800	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.817	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.833	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.850	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.867	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.883	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.900	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.917	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.933	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.950	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.967	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
8.983	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
9.000	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
9.017	1,095.50	1,095.50	1,095.50	1,095.50	1,095.50
9.033	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.050	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.067	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.083	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
9.100	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.117	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.133	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.150	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.167	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.183	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.200	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.217	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.233	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.250	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.267	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.283	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.300	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.317	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.333	1,095.51	1,095.51	1,095.51	1,095.51	1,095.51
9.350	1,095.51	1,095.51	1,095.51	1,095.51	1,095.52
9.367	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.383	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.400	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.417	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.433	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.450	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.467	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.483	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.500	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.517	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.533	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.550	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.567	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.583	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.600	1,095.52	1,095.52	1,095.52	1,095.52	1,095.52
9.617	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.633	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.650	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.667	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.683	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.700	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.717	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.733	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.750	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.767	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.783	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
9.800	1,095.53	1,095.53	1,095.53	1,095.53	1,095.53
9.817	1,095.53	1,095.53	1,095.53	1,095.54	1,095.54
9.833	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.850	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.867	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.883	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.900	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.917	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.933	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.950	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.967	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
9.983	1,095.54	1,095.54	1,095.54	1,095.54	1,095.54
10.000	1,095.54	1,095.54	1,095.54	1,095.54	1,095.55
10.017	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.033	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.050	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.067	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.083	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.100	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.117	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.133	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.150	1,095.55	1,095.55	1,095.55	1,095.55	1,095.55
10.167	1,095.55	1,095.55	1,095.55	1,095.55	1,095.56
10.183	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.200	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.217	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.233	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.250	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.267	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.283	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.300	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.317	1,095.56	1,095.56	1,095.56	1,095.56	1,095.56
10.333	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.350	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.367	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.383	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.400	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.417	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.433	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.450	1,095.57	1,095.57	1,095.57	1,095.57	1,095.57
10.467	1,095.57	1,095.57	1,095.58	1,095.58	1,095.58
10.483	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
10.500	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.517	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.533	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.550	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.567	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.583	1,095.58	1,095.58	1,095.58	1,095.58	1,095.58
10.600	1,095.58	1,095.59	1,095.59	1,095.59	1,095.59
10.617	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.633	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.650	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.667	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.683	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.700	1,095.59	1,095.59	1,095.59	1,095.59	1,095.59
10.717	1,095.59	1,095.59	1,095.60	1,095.60	1,095.60
10.733	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.750	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.767	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.783	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.800	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.817	1,095.60	1,095.60	1,095.60	1,095.60	1,095.60
10.833	1,095.60	1,095.61	1,095.61	1,095.61	1,095.61
10.850	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.867	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.883	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.900	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.917	1,095.61	1,095.61	1,095.61	1,095.61	1,095.61
10.933	1,095.61	1,095.61	1,095.61	1,095.62	1,095.62
10.950	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
10.967	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
10.983	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
11.000	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
11.017	1,095.62	1,095.62	1,095.62	1,095.62	1,095.62
11.033	1,095.62	1,095.62	1,095.62	1,095.62	1,095.63
11.050	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.067	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.083	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.100	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.117	1,095.63	1,095.63	1,095.63	1,095.63	1,095.63
11.133	1,095.63	1,095.63	1,095.63	1,095.64	1,095.64
11.150	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64
11.167	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64
11.183	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
11.200	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64
11.217	1,095.64	1,095.64	1,095.64	1,095.64	1,095.64
11.233	1,095.64	1,095.65	1,095.65	1,095.65	1,095.65
11.250	1,095.65	1,095.65	1,095.65	1,095.65	1,095.65
11.267	1,095.65	1,095.65	1,095.65	1,095.65	1,095.65
11.283	1,095.65	1,095.65	1,095.65	1,095.65	1,095.65
11.300	1,095.65	1,095.65	1,095.65	1,095.65	1,095.65
11.317	1,095.65	1,095.65	1,095.65	1,095.66	1,095.66
11.333	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.350	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.367	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.383	1,095.66	1,095.66	1,095.66	1,095.66	1,095.66
11.400	1,095.66	1,095.66	1,095.66	1,095.66	1,095.67
11.417	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.433	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.450	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.467	1,095.67	1,095.67	1,095.67	1,095.67	1,095.67
11.483	1,095.67	1,095.67	1,095.67	1,095.67	1,095.68
11.500	1,095.68	1,095.68	1,095.68	1,095.68	1,095.68
11.517	1,095.68	1,095.68	1,095.68	1,095.68	1,095.68
11.533	1,095.68	1,095.68	1,095.68	1,095.68	1,095.68
11.550	1,095.68	1,095.68	1,095.68	1,095.68	1,095.68
11.567	1,095.68	1,095.68	1,095.68	1,095.69	1,095.69
11.583	1,095.69	1,095.69	1,095.69	1,095.69	1,095.69
11.600	1,095.69	1,095.69	1,095.69	1,095.69	1,095.69
11.617	1,095.69	1,095.69	1,095.69	1,095.69	1,095.69
11.633	1,095.69	1,095.69	1,095.69	1,095.69	1,095.69
11.650	1,095.69	1,095.70	1,095.70	1,095.70	1,095.70
11.667	1,095.70	1,095.70	1,095.70	1,095.70	1,095.70
11.683	1,095.70	1,095.70	1,095.70	1,095.70	1,095.70
11.700	1,095.70	1,095.70	1,095.70	1,095.70	1,095.70
11.717	1,095.70	1,095.70	1,095.70	1,095.70	1,095.71
11.733	1,095.71	1,095.71	1,095.71	1,095.71	1,095.71
11.750	1,095.71	1,095.71	1,095.71	1,095.71	1,095.71
11.767	1,095.71	1,095.71	1,095.71	1,095.71	1,095.71
11.783	1,095.71	1,095.71	1,095.71	1,095.71	1,095.71
11.800	1,095.72	1,095.72	1,095.72	1,095.72	1,095.72
11.817	1,095.72	1,095.72	1,095.72	1,095.72	1,095.72
11.833	1,095.72	1,095.72	1,095.72	1,095.72	1,095.72
11.850	1,095.72	1,095.72	1,095.72	1,095.72	1,095.72
11.867	1,095.72	1,095.73	1,095.73	1,095.73	1,095.73
11.883	1,095.73	1,095.73	1,095.73	1,095.73	1,095.73

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
11.900	1,095.73	1,095.73	1,095.73	1,095.73	1,095.73
11.917	1,095.73	1,095.73	1,095.73	1,095.73	1,095.73
11.933	1,095.73	1,095.74	1,095.74	1,095.74	1,095.74
11.950	1,095.74	1,095.74	1,095.74	1,095.74	1,095.74
11.967	1,095.74	1,095.74	1,095.74	1,095.74	1,095.74
11.983	1,095.74	1,095.74	1,095.74	1,095.74	1,095.74
12.000	1,095.74	1,095.74	1,095.75	1,095.75	1,095.75
12.017	1,095.75	1,095.75	1,095.75	1,095.75	1,095.75
12.033	1,095.75	1,095.75	1,095.75	1,095.75	1,095.75
12.050	1,095.75	1,095.75	1,095.75	1,095.75	1,095.75
12.067	1,095.75	1,095.75	1,095.76	1,095.76	1,095.76
12.083	1,095.76	1,095.76	1,095.76	1,095.76	1,095.76
12.100	1,095.76	1,095.76	1,095.76	1,095.76	1,095.76
12.117	1,095.76	1,095.76	1,095.76	1,095.76	1,095.76
12.133	1,095.76	1,095.76	1,095.76	1,095.77	1,095.77
12.150	1,095.77	1,095.77	1,095.77	1,095.77	1,095.77
12.167	1,095.77	1,095.77	1,095.77	1,095.77	1,095.77
12.183	1,095.77	1,095.77	1,095.77	1,095.77	1,095.77
12.200	1,095.77	1,095.77	1,095.77	1,095.77	1,095.77
12.217	1,095.78	1,095.78	1,095.78	1,095.78	1,095.78
12.233	1,095.78	1,095.78	1,095.78	1,095.78	1,095.78
12.250	1,095.78	1,095.78	1,095.78	1,095.78	1,095.78
12.267	1,095.78	1,095.78	1,095.78	1,095.78	1,095.78
12.283	1,095.78	1,095.78	1,095.79	1,095.79	1,095.79
12.300	1,095.79	1,095.79	1,095.79	1,095.79	1,095.79
12.317	1,095.79	1,095.79	1,095.79	1,095.79	1,095.79
12.333	1,095.79	1,095.79	1,095.79	1,095.79	1,095.79
12.350	1,095.79	1,095.79	1,095.79	1,095.80	1,095.80
12.367	1,095.80	1,095.80	1,095.80	1,095.80	1,095.80
12.383	1,095.80	1,095.80	1,095.80	1,095.80	1,095.80
12.400	1,095.80	1,095.80	1,095.80	1,095.80	1,095.80
12.417	1,095.80	1,095.80	1,095.80	1,095.80	1,095.81
12.433	1,095.81	1,095.81	1,095.81	1,095.81	1,095.81
12.450	1,095.81	1,095.81	1,095.81	1,095.81	1,095.81
12.467	1,095.81	1,095.81	1,095.81	1,095.81	1,095.81
12.483	1,095.81	1,095.81	1,095.81	1,095.82	1,095.82
12.500	1,095.82	1,095.82	1,095.82	1,095.82	1,095.82
12.517	1,095.82	1,095.82	1,095.82	1,095.82	1,095.82
12.533	1,095.82	1,095.82	1,095.82	1,095.82	1,095.82
12.550	1,095.82	1,095.82	1,095.83	1,095.83	1,095.83
12.567	1,095.83	1,095.83	1,095.83	1,095.83	1,095.83
12.583	1,095.83	1,095.83	1,095.83	1,095.83	1,095.83

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
12.600	1,095.83	1,095.83	1,095.83	1,095.83	1,095.83
12.617	1,095.84	1,095.84	1,095.84	1,095.84	1,095.84
12.633	1,095.84	1,095.84	1,095.84	1,095.84	1,095.84
12.650	1,095.84	1,095.84	1,095.84	1,095.84	1,095.84
12.667	1,095.84	1,095.84	1,095.84	1,095.85	1,095.85
12.683	1,095.85	1,095.85	1,095.85	1,095.85	1,095.85
12.700	1,095.85	1,095.85	1,095.85	1,095.85	1,095.85
12.717	1,095.85	1,095.85	1,095.85	1,095.85	1,095.85
12.733	1,095.85	1,095.86	1,095.86	1,095.86	1,095.86
12.750	1,095.86	1,095.86	1,095.86	1,095.86	1,095.86
12.767	1,095.86	1,095.86	1,095.86	1,095.86	1,095.86
12.783	1,095.86	1,095.86	1,095.87	1,095.87	1,095.87
12.800	1,095.87	1,095.87	1,095.87	1,095.87	1,095.87
12.817	1,095.87	1,095.87	1,095.87	1,095.87	1,095.87
12.833	1,095.87	1,095.87	1,095.87	1,095.88	1,095.88
12.850	1,095.88	1,095.88	1,095.88	1,095.88	1,095.88
12.867	1,095.88	1,095.88	1,095.88	1,095.88	1,095.88
12.883	1,095.88	1,095.88	1,095.88	1,095.88	1,095.88
12.900	1,095.89	1,095.89	1,095.89	1,095.89	1,095.89
12.917	1,095.89	1,095.89	1,095.89	1,095.89	1,095.89
12.933	1,095.89	1,095.89	1,095.89	1,095.89	1,095.89
12.950	1,095.90	1,095.90	1,095.90	1,095.90	1,095.90
12.967	1,095.90	1,095.90	1,095.90	1,095.90	1,095.90
12.983	1,095.90	1,095.90	1,095.90	1,095.90	1,095.90
13.000	1,095.91	1,095.91	1,095.91	1,095.91	1,095.91
13.017	1,095.91	1,095.91	1,095.91	1,095.91	1,095.91
13.033	1,095.91	1,095.91	1,095.91	1,095.91	1,095.91
13.050	1,095.92	1,095.92	1,095.92	1,095.92	1,095.92
13.067	1,095.92	1,095.92	1,095.92	1,095.92	1,095.92
13.083	1,095.92	1,095.92	1,095.92	1,095.92	1,095.93
13.100	1,095.93	1,095.93	1,095.93	1,095.93	1,095.93
13.117	1,095.93	1,095.93	1,095.93	1,095.93	1,095.93
13.133	1,095.93	1,095.93	1,095.93	1,095.94	1,095.94
13.150	1,095.94	1,095.94	1,095.94	1,095.94	1,095.94
13.167	1,095.94	1,095.94	1,095.94	1,095.94	1,095.94
13.183	1,095.94	1,095.94	1,095.95	1,095.95	1,095.95
13.200	1,095.95	1,095.95	1,095.95	1,095.95	1,095.95
13.217	1,095.95	1,095.95	1,095.95	1,095.95	1,095.95
13.233	1,095.95	1,095.96	1,095.96	1,095.96	1,095.96
13.250	1,095.96	1,095.96	1,095.96	1,095.96	1,095.96
13.267	1,095.96	1,095.96	1,095.96	1,095.96	1,095.97
13.283	1,095.97	1,095.97	1,095.97	1,095.97	1,095.97

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
13.300	1,095.97	1,095.97	1,095.97	1,095.97	1,095.97
13.317	1,095.97	1,095.97	1,095.98	1,095.98	1,095.98
13.333	1,095.98	1,095.98	1,095.98	1,095.98	1,095.98
13.350	1,095.98	1,095.98	1,095.98	1,095.98	1,095.98
13.367	1,095.99	1,095.99	1,095.99	1,095.99	1,095.99
13.383	1,095.99	1,095.99	1,095.99	1,095.99	1,095.99
13.400	1,095.99	1,095.99	1,096.00	1,096.00	1,096.00
13.417	1,096.00	1,096.00	1,096.00	1,096.00	1,096.00
13.433	1,096.00	1,096.00	1,096.00	1,096.00	1,096.00
13.450	1,096.01	1,096.01	1,096.01	1,096.01	1,096.01
13.467	1,096.01	1,096.01	1,096.01	1,096.01	1,096.01
13.483	1,096.01	1,096.01	1,096.01	1,096.01	1,096.02
13.500	1,096.02	1,096.02	1,096.02	1,096.02	1,096.02
13.517	1,096.02	1,096.02	1,096.02	1,096.02	1,096.02
13.533	1,096.02	1,096.02	1,096.02	1,096.03	1,096.03
13.550	1,096.03	1,096.03	1,096.03	1,096.03	1,096.03
13.567	1,096.03	1,096.03	1,096.03	1,096.03	1,096.03
13.583	1,096.03	1,096.03	1,096.04	1,096.04	1,096.04
13.600	1,096.04	1,096.04	1,096.04	1,096.04	1,096.04
13.617	1,096.04	1,096.04	1,096.04	1,096.04	1,096.04
13.633	1,096.05	1,096.05	1,096.05	1,096.05	1,096.05
13.650	1,096.05	1,096.05	1,096.05	1,096.05	1,096.05
13.667	1,096.05	1,096.05	1,096.05	1,096.06	1,096.06
13.683	1,096.06	1,096.06	1,096.06	1,096.06	1,096.06
13.700	1,096.06	1,096.06	1,096.06	1,096.06	1,096.06
13.717	1,096.06	1,096.07	1,096.07	1,096.07	1,096.07
13.733	1,096.07	1,096.07	1,096.07	1,096.07	1,096.07
13.750	1,096.07	1,096.07	1,096.07	1,096.07	1,096.08
13.767	1,096.08	1,096.08	1,096.08	1,096.08	1,096.08
13.783	1,096.08	1,096.08	1,096.08	1,096.08	1,096.08
13.800	1,096.08	1,096.09	1,096.09	1,096.09	1,096.09
13.817	1,096.09	1,096.09	1,096.09	1,096.09	1,096.09
13.833	1,096.09	1,096.09	1,096.09	1,096.10	1,096.10
13.850	1,096.10	1,096.10	1,096.10	1,096.10	1,096.10
13.867	1,096.10	1,096.10	1,096.10	1,096.10	1,096.10
13.883	1,096.11	1,096.11	1,096.11	1,096.11	1,096.11
13.900	1,096.11	1,096.11	1,096.11	1,096.11	1,096.11
13.917	1,096.11	1,096.12	1,096.12	1,096.12	1,096.12
13.933	1,096.12	1,096.12	1,096.12	1,096.12	1,096.12
13.950	1,096.12	1,096.12	1,096.13	1,096.13	1,096.13
13.967	1,096.13	1,096.13	1,096.13	1,096.13	1,096.13
13.983	1,096.13	1,096.13	1,096.13	1,096.14	1,096.14

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
14.000	1,096.14	1,096.14	1,096.14	1,096.14	1,096.14
14.017	1,096.14	1,096.14	1,096.14	1,096.14	1,096.15
14.033	1,096.15	1,096.15	1,096.15	1,096.15	1,096.15
14.050	1,096.15	1,096.15	1,096.15	1,096.15	1,096.15
14.067	1,096.16	1,096.16	1,096.16	1,096.16	1,096.16
14.083	1,096.16	1,096.16	1,096.16	1,096.16	1,096.16
14.100	1,096.16	1,096.17	1,096.17	1,096.17	1,096.17
14.117	1,096.17	1,096.17	1,096.17	1,096.17	1,096.17
14.133	1,096.17	1,096.17	1,096.18	1,096.18	1,096.18
14.150	1,096.18	1,096.18	1,096.18	1,096.18	1,096.18
14.167	1,096.18	1,096.18	1,096.19	1,096.19	1,096.19
14.183	1,096.19	1,096.19	1,096.19	1,096.19	1,096.19
14.200	1,096.19	1,096.19	1,096.19	1,096.20	1,096.20
14.217	1,096.20	1,096.20	1,096.20	1,096.20	1,096.20
14.233	1,096.20	1,096.20	1,096.20	1,096.20	1,096.21
14.250	1,096.21	1,096.21	1,096.21	1,096.21	1,096.21
14.267	1,096.21	1,096.21	1,096.21	1,096.21	1,096.22
14.283	1,096.22	1,096.22	1,096.22	1,096.22	1,096.22
14.300	1,096.22	1,096.22	1,096.22	1,096.22	1,096.22
14.317	1,096.23	1,096.23	1,096.23	1,096.23	1,096.23
14.333	1,096.23	1,096.23	1,096.23	1,096.23	1,096.23
14.350	1,096.24	1,096.24	1,096.24	1,096.24	1,096.24
14.367	1,096.24	1,096.24	1,096.24	1,096.24	1,096.24
14.383	1,096.25	1,096.25	1,096.25	1,096.25	1,096.25
14.400	1,096.25	1,096.25	1,096.25	1,096.25	1,096.25
14.417	1,096.26	1,096.26	1,096.26	1,096.26	1,096.26
14.433	1,096.26	1,096.26	1,096.26	1,096.26	1,096.26
14.450	1,096.27	1,096.27	1,096.27	1,096.27	1,096.27
14.467	1,096.27	1,096.27	1,096.27	1,096.27	1,096.27
14.483	1,096.28	1,096.28	1,096.28	1,096.28	1,096.28
14.500	1,096.28	1,096.28	1,096.28	1,096.28	1,096.29
14.517	1,096.29	1,096.29	1,096.29	1,096.29	1,096.29
14.533	1,096.29	1,096.29	1,096.29	1,096.30	1,096.30
14.550	1,096.30	1,096.30	1,096.30	1,096.30	1,096.30
14.567	1,096.30	1,096.30	1,096.31	1,096.31	1,096.31
14.583	1,096.31	1,096.31	1,096.31	1,096.31	1,096.31
14.600	1,096.31	1,096.32	1,096.32	1,096.32	1,096.32
14.617	1,096.32	1,096.32	1,096.32	1,096.32	1,096.33
14.633	1,096.33	1,096.33	1,096.33	1,096.33	1,096.33
14.650	1,096.33	1,096.33	1,096.34	1,096.34	1,096.34
14.667	1,096.34	1,096.34	1,096.34	1,096.34	1,096.34
14.683	1,096.35	1,096.35	1,096.35	1,096.35	1,096.35

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
14.700	1,096.35	1,096.35	1,096.35	1,096.35	1,096.36
14.717	1,096.36	1,096.36	1,096.36	1,096.36	1,096.36
14.733	1,096.36	1,096.36	1,096.37	1,096.37	1,096.37
14.750	1,096.37	1,096.37	1,096.37	1,096.37	1,096.38
14.767	1,096.38	1,096.38	1,096.38	1,096.38	1,096.38
14.783	1,096.38	1,096.38	1,096.39	1,096.39	1,096.39
14.800	1,096.39	1,096.39	1,096.39	1,096.39	1,096.40
14.817	1,096.40	1,096.40	1,096.40	1,096.40	1,096.40
14.833	1,096.40	1,096.40	1,096.41	1,096.41	1,096.41
14.850	1,096.41	1,096.41	1,096.41	1,096.41	1,096.42
14.867	1,096.42	1,096.42	1,096.42	1,096.42	1,096.42
14.883	1,096.42	1,096.43	1,096.43	1,096.43	1,096.43
14.900	1,096.43	1,096.43	1,096.43	1,096.44	1,096.44
14.917	1,096.44	1,096.44	1,096.44	1,096.44	1,096.45
14.933	1,096.45	1,096.45	1,096.45	1,096.45	1,096.45
14.950	1,096.45	1,096.46	1,096.46	1,096.46	1,096.46
14.967	1,096.46	1,096.46	1,096.47	1,096.47	1,096.47
14.983	1,096.47	1,096.47	1,096.47	1,096.47	1,096.48
15.000	1,096.48	1,096.48	1,096.48	1,096.48	1,096.48
15.017	1,096.49	1,096.49	1,096.49	1,096.49	1,096.49
15.033	1,096.49	1,096.50	1,096.50	1,096.50	1,096.50
15.050	1,096.50	1,096.50	1,096.50	1,096.51	1,096.51
15.067	1,096.51	1,096.51	1,096.51	1,096.51	1,096.52
15.083	1,096.52	1,096.52	1,096.52	1,096.52	1,096.52
15.100	1,096.52	1,096.53	1,096.53	1,096.53	1,096.53
15.117	1,096.53	1,096.53	1,096.54	1,096.54	1,096.54
15.133	1,096.54	1,096.54	1,096.54	1,096.55	1,096.55
15.150	1,096.55	1,096.55	1,096.55	1,096.55	1,096.56
15.167	1,096.56	1,096.56	1,096.56	1,096.56	1,096.56
15.183	1,096.57	1,096.57	1,096.57	1,096.57	1,096.57
15.200	1,096.57	1,096.58	1,096.58	1,096.58	1,096.58
15.217	1,096.58	1,096.58	1,096.59	1,096.59	1,096.59
15.233	1,096.59	1,096.59	1,096.60	1,096.60	1,096.60
15.250	1,096.60	1,096.60	1,096.60	1,096.61	1,096.61
15.267	1,096.61	1,096.61	1,096.61	1,096.62	1,096.62
15.283	1,096.62	1,096.62	1,096.62	1,096.63	1,096.63
15.300	1,096.63	1,096.63	1,096.63	1,096.63	1,096.64
15.317	1,096.64	1,096.64	1,096.64	1,096.64	1,096.65
15.333	1,096.65	1,096.65	1,096.65	1,096.66	1,096.66
15.350	1,096.66	1,096.66	1,096.66	1,096.67	1,096.67
15.367	1,096.67	1,096.67	1,096.67	1,096.68	1,096.68
15.383	1,096.68	1,096.68	1,096.69	1,096.69	1,096.69

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
15.400	1,096.69	1,096.70	1,096.70	1,096.70	1,096.70
15.417	1,096.71	1,096.71	1,096.71	1,096.71	1,096.72
15.433	1,096.72	1,096.72	1,096.72	1,096.73	1,096.73
15.450	1,096.73	1,096.73	1,096.74	1,096.74	1,096.74
15.467	1,096.75	1,096.75	1,096.75	1,096.76	1,096.76
15.483	1,096.76	1,096.77	1,096.77	1,096.77	1,096.78
15.500	1,096.78	1,096.78	1,096.79	1,096.79	1,096.79
15.517	1,096.80	1,096.80	1,096.81	1,096.81	1,096.81
15.533	1,096.82	1,096.82	1,096.82	1,096.83	1,096.83
15.550	1,096.84	1,096.84	1,096.84	1,096.85	1,096.85
15.567	1,096.86	1,096.86	1,096.86	1,096.87	1,096.87
15.583	1,096.88	1,096.88	1,096.88	1,096.89	1,096.89
15.600	1,096.90	1,096.90	1,096.90	1,096.91	1,096.91
15.617	1,096.92	1,096.92	1,096.92	1,096.93	1,096.93
15.633	1,096.94	1,096.94	1,096.95	1,096.95	1,096.96
15.650	1,096.96	1,096.96	1,096.97	1,096.97	1,096.98
15.667	1,096.98	1,096.99	1,096.99	1,097.00	1,097.00
15.683	1,097.00	1,097.01	1,097.01	1,097.02	1,097.02
15.700	1,097.03	1,097.03	1,097.04	1,097.04	1,097.05
15.717	1,097.05	1,097.05	1,097.06	1,097.06	1,097.07
15.733	1,097.07	1,097.08	1,097.08	1,097.09	1,097.09
15.750	1,097.10	1,097.10	1,097.11	1,097.11	1,097.12
15.767	1,097.12	1,097.13	1,097.13	1,097.14	1,097.14
15.783	1,097.15	1,097.15	1,097.16	1,097.16	1,097.17
15.800	1,097.17	1,097.18	1,097.18	1,097.19	1,097.20
15.817	1,097.20	1,097.21	1,097.21	1,097.22	1,097.22
15.833	1,097.23	1,097.23	1,097.24	1,097.25	1,097.25
15.850	1,097.26	1,097.26	1,097.27	1,097.28	1,097.28
15.867	1,097.29	1,097.29	1,097.30	1,097.31	1,097.31
15.883	1,097.32	1,097.33	1,097.33	1,097.34	1,097.34
15.900	1,097.35	1,097.36	1,097.36	1,097.37	1,097.38
15.917	1,097.38	1,097.39	1,097.40	1,097.40	1,097.41
15.933	1,097.42	1,097.43	1,097.43	1,097.44	1,097.45
15.950	1,097.45	1,097.46	1,097.47	1,097.47	1,097.48
15.967	1,097.49	1,097.50	1,097.51	1,097.51	1,097.52
15.983	1,097.53	1,097.54	1,097.55	1,097.56	1,097.57
16.000	1,097.57	1,097.58	1,097.59	1,097.60	1,097.61
16.017	1,097.62	1,097.63	1,097.64	1,097.66	1,097.67
16.033	1,097.68	1,097.69	1,097.70	1,097.71	1,097.72
16.050	1,097.73	1,097.75	1,097.76	1,097.77	1,097.78
16.067	1,097.80	1,097.81	1,097.82	1,097.84	1,097.85
16.083	1,097.86	1,097.88	1,097.89	1,097.90	1,097.92

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
16.100	1,097.93	1,097.94	1,097.96	1,097.97	1,097.99
16.117	1,098.00	1,098.02	1,098.03	1,098.05	1,098.06
16.133	1,098.08	1,098.09	1,098.11	1,098.12	1,098.14
16.150	1,098.16	1,098.17	1,098.19	1,098.20	1,098.22
16.167	1,098.24	1,098.25	1,098.27	1,098.29	1,098.30
16.183	1,098.32	1,098.34	1,098.35	1,098.37	1,098.39
16.200	1,098.40	1,098.42	1,098.43	1,098.44	1,098.46
16.217	1,098.47	1,098.49	1,098.50	1,098.51	1,098.53
16.233	1,098.54	1,098.55	1,098.57	1,098.58	1,098.59
16.250	1,098.60	1,098.61	1,098.63	1,098.64	1,098.65
16.267	1,098.66	1,098.67	1,098.68	1,098.69	1,098.69
16.283	1,098.70	1,098.71	1,098.72	1,098.73	1,098.73
16.300	1,098.74	1,098.75	1,098.76	1,098.76	1,098.77
16.317	1,098.78	1,098.78	1,098.79	1,098.80	1,098.80
16.333	1,098.81	1,098.82	1,098.82	1,098.83	1,098.83
16.350	1,098.84	1,098.85	1,098.85	1,098.86	1,098.86
16.367	1,098.87	1,098.87	1,098.88	1,098.88	1,098.89
16.383	1,098.89	1,098.90	1,098.90	1,098.91	1,098.91
16.400	1,098.91	1,098.92	1,098.92	1,098.93	1,098.93
16.417	1,098.94	1,098.94	1,098.94	1,098.95	1,098.95
16.433	1,098.95	1,098.96	1,098.96	1,098.97	1,098.97
16.450	1,098.97	1,098.98	1,098.98	1,098.98	1,098.99
16.467	1,098.99	1,098.99	1,099.00	1,099.00	1,099.00
16.483	1,099.01	1,099.01	1,099.01	1,099.02	1,099.02
16.500	1,099.03	1,099.03	1,099.03	1,099.04	1,099.04
16.517	1,099.04	1,099.05	1,099.05	1,099.05	1,099.06
16.533	1,099.06	1,099.06	1,099.06	1,099.07	1,099.07
16.550	1,099.07	1,099.08	1,099.08	1,099.08	1,099.08
16.567	1,099.09	1,099.09	1,099.09	1,099.10	1,099.10
16.583	1,099.10	1,099.10	1,099.11	1,099.11	1,099.11
16.600	1,099.11	1,099.12	1,099.12	1,099.12	1,099.12
16.617	1,099.13	1,099.13	1,099.13	1,099.13	1,099.13
16.633	1,099.14	1,099.14	1,099.14	1,099.14	1,099.14
16.650	1,099.15	1,099.15	1,099.15	1,099.15	1,099.16
16.667	1,099.16	1,099.16	1,099.16	1,099.16	1,099.17
16.683	1,099.17	1,099.17	1,099.17	1,099.17	1,099.18
16.700	1,099.18	1,099.18	1,099.18	1,099.18	1,099.18
16.717	1,099.19	1,099.19	1,099.19	1,099.19	1,099.19
16.733	1,099.20	1,099.20	1,099.20	1,099.20	1,099.20
16.750	1,099.20	1,099.21	1,099.21	1,099.21	1,099.21
16.767	1,099.21	1,099.22	1,099.22	1,099.22	1,099.22
16.783	1,099.22	1,099.22	1,099.23	1,099.23	1,099.23

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
16.800	1,099.23	1,099.23	1,099.23	1,099.24	1,099.24
16.817	1,099.24	1,099.24	1,099.24	1,099.24	1,099.24
16.833	1,099.25	1,099.25	1,099.25	1,099.25	1,099.25
16.850	1,099.25	1,099.26	1,099.26	1,099.26	1,099.26
16.867	1,099.26	1,099.26	1,099.26	1,099.27	1,099.27
16.883	1,099.27	1,099.27	1,099.27	1,099.27	1,099.27
16.900	1,099.28	1,099.28	1,099.28	1,099.28	1,099.28
16.917	1,099.28	1,099.28	1,099.29	1,099.29	1,099.29
16.933	1,099.29	1,099.29	1,099.29	1,099.29	1,099.29
16.950	1,099.30	1,099.30	1,099.30	1,099.30	1,099.30
16.967	1,099.30	1,099.30	1,099.30	1,099.31	1,099.31
16.983	1,099.31	1,099.31	1,099.31	1,099.31	1,099.31
17.000	1,099.31	1,099.32	1,099.32	1,099.32	1,099.32
17.017	1,099.32	1,099.32	1,099.32	1,099.32	1,099.33
17.033	1,099.33	1,099.33	1,099.33	1,099.33	1,099.33
17.050	1,099.33	1,099.33	1,099.33	1,099.34	1,099.34
17.067	1,099.34	1,099.34	1,099.34	1,099.34	1,099.34
17.083	1,099.34	1,099.34	1,099.35	1,099.35	1,099.35
17.100	1,099.35	1,099.35	1,099.35	1,099.35	1,099.35
17.117	1,099.35	1,099.36	1,099.36	1,099.36	1,099.36
17.133	1,099.36	1,099.36	1,099.36	1,099.36	1,099.36
17.150	1,099.37	1,099.37	1,099.37	1,099.37	1,099.37
17.167	1,099.37	1,099.37	1,099.37	1,099.37	1,099.38
17.183	1,099.38	1,099.38	1,099.38	1,099.38	1,099.38
17.200	1,099.38	1,099.38	1,099.38	1,099.38	1,099.39
17.217	1,099.39	1,099.39	1,099.39	1,099.39	1,099.39
17.233	1,099.39	1,099.39	1,099.39	1,099.40	1,099.40
17.250	1,099.40	1,099.40	1,099.40	1,099.40	1,099.40
17.267	1,099.40	1,099.40	1,099.40	1,099.41	1,099.41
17.283	1,099.41	1,099.41	1,099.41	1,099.41	1,099.41
17.300	1,099.41	1,099.41	1,099.41	1,099.42	1,099.42
17.317	1,099.42	1,099.42	1,099.42	1,099.42	1,099.42
17.333	1,099.42	1,099.42	1,099.42	1,099.43	1,099.43
17.350	1,099.43	1,099.43	1,099.43	1,099.43	1,099.43
17.367	1,099.43	1,099.43	1,099.43	1,099.43	1,099.44
17.383	1,099.44	1,099.44	1,099.44	1,099.44	1,099.44
17.400	1,099.44	1,099.44	1,099.44	1,099.44	1,099.44
17.417	1,099.45	1,099.45	1,099.45	1,099.45	1,099.45
17.433	1,099.45	1,099.45	1,099.45	1,099.45	1,099.45
17.450	1,099.45	1,099.46	1,099.46	1,099.46	1,099.46
17.467	1,099.46	1,099.46	1,099.46	1,099.46	1,099.46
17.483	1,099.46	1,099.46	1,099.46	1,099.47	1,099.47

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
17.500	1,099.47	1,099.47	1,099.47	1,099.47	1,099.47
17.517	1,099.47	1,099.47	1,099.47	1,099.47	1,099.47
17.533	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
17.550	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
17.567	1,099.48	1,099.48	1,099.48	1,099.49	1,099.49
17.583	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
17.600	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
17.617	1,099.49	1,099.49	1,099.50	1,099.50	1,099.50
17.633	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
17.650	1,099.50	1,099.50	1,099.50	1,099.51	1,099.51
17.667	1,099.51	1,099.51	1,099.51	1,099.51	1,099.51
17.683	1,099.51	1,099.52	1,099.52	1,099.52	1,099.52
17.700	1,099.52	1,099.52	1,099.52	1,099.52	1,099.52
17.717	1,099.53	1,099.53	1,099.53	1,099.53	1,099.53
17.733	1,099.53	1,099.53	1,099.53	1,099.53	1,099.54
17.750	1,099.54	1,099.54	1,099.54	1,099.54	1,099.54
17.767	1,099.54	1,099.54	1,099.54	1,099.55	1,099.55
17.783	1,099.55	1,099.55	1,099.55	1,099.55	1,099.55
17.800	1,099.55	1,099.55	1,099.55	1,099.56	1,099.56
17.817	1,099.56	1,099.56	1,099.56	1,099.56	1,099.56
17.833	1,099.56	1,099.56	1,099.57	1,099.57	1,099.57
17.850	1,099.57	1,099.57	1,099.57	1,099.57	1,099.57
17.867	1,099.57	1,099.57	1,099.57	1,099.58	1,099.58
17.883	1,099.58	1,099.58	1,099.58	1,099.58	1,099.58
17.900	1,099.58	1,099.58	1,099.58	1,099.59	1,099.59
17.917	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
17.933	1,099.59	1,099.59	1,099.59	1,099.59	1,099.60
17.950	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
17.967	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
17.983	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
18.000	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
18.017	1,099.61	1,099.61	1,099.62	1,099.62	1,099.62
18.033	1,099.62	1,099.62	1,099.62	1,099.62	1,099.62
18.050	1,099.62	1,099.62	1,099.62	1,099.63	1,099.63
18.067	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
18.083	1,099.63	1,099.63	1,099.63	1,099.63	1,099.64
18.100	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
18.117	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
18.133	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
18.150	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
18.167	1,099.65	1,099.66	1,099.66	1,099.66	1,099.66
18.183	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
18.200	1,099.66	1,099.66	1,099.66	1,099.67	1,099.67
18.217	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
18.233	1,099.67	1,099.67	1,099.67	1,099.67	1,099.68
18.250	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
18.267	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
18.283	1,099.68	1,099.69	1,099.69	1,099.69	1,099.69
18.300	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
18.317	1,099.69	1,099.69	1,099.69	1,099.70	1,099.70
18.333	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
18.350	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
18.367	1,099.70	1,099.71	1,099.71	1,099.71	1,099.71
18.383	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
18.400	1,099.71	1,099.71	1,099.71	1,099.71	1,099.72
18.417	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
18.433	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
18.450	1,099.72	1,099.72	1,099.72	1,099.73	1,099.73
18.467	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
18.483	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
18.500	1,099.73	1,099.73	1,099.73	1,099.74	1,099.74
18.517	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
18.533	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
18.550	1,099.74	1,099.74	1,099.74	1,099.75	1,099.75
18.567	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
18.583	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
18.600	1,099.75	1,099.75	1,099.75	1,099.75	1,099.76
18.617	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
18.633	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
18.650	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
18.667	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
18.683	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
18.700	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
18.717	1,099.77	1,099.77	1,099.77	1,099.78	1,099.78
18.733	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
18.750	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
18.767	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
18.783	1,099.78	1,099.78	1,099.79	1,099.79	1,099.79
18.800	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
18.817	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
18.833	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
18.850	1,099.79	1,099.79	1,099.80	1,099.80	1,099.80
18.867	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
18.883	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
18.900	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
18.917	1,099.80	1,099.80	1,099.80	1,099.81	1,099.81
18.933	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
18.950	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
18.967	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
18.983	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
19.000	1,099.81	1,099.82	1,099.82	1,099.82	1,099.82
19.017	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
19.033	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
19.050	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
19.067	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
19.083	1,099.82	1,099.83	1,099.83	1,099.83	1,099.83
19.100	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
19.117	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
19.133	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
19.150	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
19.167	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
19.183	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
19.200	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
19.217	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
19.233	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
19.250	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
19.267	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
19.283	1,099.84	1,099.84	1,099.84	1,099.85	1,099.85
19.300	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.317	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.333	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.350	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.367	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.383	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.400	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
19.417	1,099.85	1,099.86	1,099.86	1,099.86	1,099.86
19.433	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.450	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.467	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.483	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.500	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.517	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.533	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.550	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
19.567	1,099.86	1,099.86	1,099.86	1,099.87	1,099.87
19.583	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
19.600	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.617	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.633	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.650	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.667	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.683	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.700	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.717	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.733	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.750	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.767	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.783	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
19.800	1,099.87	1,099.87	1,099.88	1,099.88	1,099.88
19.817	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.833	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.850	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.867	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.883	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.900	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.917	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.933	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.950	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.967	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
19.983	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.000	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.017	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.033	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.050	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.067	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.083	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.100	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.117	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.133	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.150	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.167	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.183	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.200	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.217	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.233	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.250	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.267	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.283	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88

Subsection: Time vs. Elevation
Scenario: Base
Label: PO-1 (IN)

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
20.300	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.317	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.333	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.350	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.367	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.383	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.400	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.417	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.433	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.450	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.467	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.483	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.500	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.517	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.533	1,099.88	1,099.88	1,099.88	1,099.88	1,099.88
20.550	1,099.88	1,099.88	1,099.88	1,099.87	1,099.87
20.567	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.583	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.600	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.617	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.633	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.650	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.667	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.683	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.700	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.717	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.733	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.750	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.767	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.783	1,099.87	1,099.87	1,099.87	1,099.87	1,099.87
20.800	1,099.87	1,099.87	1,099.87	1,099.86	1,099.86
20.817	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.833	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.850	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.867	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.883	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.900	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.917	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.933	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.950	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.967	1,099.86	1,099.86	1,099.86	1,099.86	1,099.86
20.983	1,099.86	1,099.86	1,099.86	1,099.86	1,099.85

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.000	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.017	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.033	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.050	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.067	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.083	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.100	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.117	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.133	1,099.85	1,099.85	1,099.85	1,099.85	1,099.85
21.150	1,099.85	1,099.85	1,099.84	1,099.84	1,099.84
21.167	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.183	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.200	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.217	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.233	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.250	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.267	1,099.84	1,099.84	1,099.84	1,099.84	1,099.84
21.283	1,099.84	1,099.84	1,099.84	1,099.83	1,099.83
21.300	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.317	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.333	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.350	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.367	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.383	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.400	1,099.83	1,099.83	1,099.83	1,099.83	1,099.83
21.417	1,099.83	1,099.82	1,099.82	1,099.82	1,099.82
21.433	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.450	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.467	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.483	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.500	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.517	1,099.82	1,099.82	1,099.82	1,099.82	1,099.82
21.533	1,099.82	1,099.81	1,099.81	1,099.81	1,099.81
21.550	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.567	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.583	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.600	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.617	1,099.81	1,099.81	1,099.81	1,099.81	1,099.81
21.633	1,099.81	1,099.81	1,099.81	1,099.81	1,099.80
21.650	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.667	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.683	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
21.700	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.717	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.733	1,099.80	1,099.80	1,099.80	1,099.80	1,099.80
21.750	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
21.767	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
21.783	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
21.800	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
21.817	1,099.79	1,099.79	1,099.79	1,099.79	1,099.79
21.833	1,099.79	1,099.79	1,099.79	1,099.79	1,099.78
21.850	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
21.867	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
21.883	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
21.900	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
21.917	1,099.78	1,099.78	1,099.78	1,099.78	1,099.78
21.933	1,099.78	1,099.78	1,099.77	1,099.77	1,099.77
21.950	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
21.967	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
21.983	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
22.000	1,099.77	1,099.77	1,099.77	1,099.77	1,099.77
22.017	1,099.77	1,099.77	1,099.77	1,099.77	1,099.76
22.033	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.050	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.067	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.083	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.100	1,099.76	1,099.76	1,099.76	1,099.76	1,099.76
22.117	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
22.133	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
22.150	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
22.167	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
22.183	1,099.75	1,099.75	1,099.75	1,099.75	1,099.75
22.200	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
22.217	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
22.233	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
22.250	1,099.74	1,099.74	1,099.74	1,099.74	1,099.74
22.267	1,099.74	1,099.74	1,099.74	1,099.74	1,099.73
22.283	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
22.300	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
22.317	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
22.333	1,099.73	1,099.73	1,099.73	1,099.73	1,099.73
22.350	1,099.73	1,099.73	1,099.73	1,099.72	1,099.72
22.367	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
22.383	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
22.400	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
22.417	1,099.72	1,099.72	1,099.72	1,099.72	1,099.72
22.433	1,099.72	1,099.71	1,099.71	1,099.71	1,099.71
22.450	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
22.467	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
22.483	1,099.71	1,099.71	1,099.71	1,099.71	1,099.71
22.500	1,099.71	1,099.71	1,099.71	1,099.71	1,099.70
22.517	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
22.533	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
22.550	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
22.567	1,099.70	1,099.70	1,099.70	1,099.70	1,099.70
22.583	1,099.70	1,099.69	1,099.69	1,099.69	1,099.69
22.600	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
22.617	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
22.633	1,099.69	1,099.69	1,099.69	1,099.69	1,099.69
22.650	1,099.69	1,099.69	1,099.68	1,099.68	1,099.68
22.667	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
22.683	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
22.700	1,099.68	1,099.68	1,099.68	1,099.68	1,099.68
22.717	1,099.68	1,099.68	1,099.68	1,099.67	1,099.67
22.733	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
22.750	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
22.767	1,099.67	1,099.67	1,099.67	1,099.67	1,099.67
22.783	1,099.67	1,099.67	1,099.67	1,099.67	1,099.66
22.800	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
22.817	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
22.833	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
22.850	1,099.66	1,099.66	1,099.66	1,099.66	1,099.66
22.867	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
22.883	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
22.900	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
22.917	1,099.65	1,099.65	1,099.65	1,099.65	1,099.65
22.933	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
22.950	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
22.967	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
22.983	1,099.64	1,099.64	1,099.64	1,099.64	1,099.64
23.000	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
23.017	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
23.033	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
23.050	1,099.63	1,099.63	1,099.63	1,099.63	1,099.63
23.067	1,099.62	1,099.62	1,099.62	1,099.62	1,099.62
23.083	1,099.62	1,099.62	1,099.62	1,099.62	1,099.62

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
23.100	1,099.62	1,099.62	1,099.62	1,099.62	1,099.62
23.117	1,099.62	1,099.62	1,099.62	1,099.62	1,099.61
23.133	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
23.150	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
23.167	1,099.61	1,099.61	1,099.61	1,099.61	1,099.61
23.183	1,099.61	1,099.61	1,099.61	1,099.60	1,099.60
23.200	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
23.217	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
23.233	1,099.60	1,099.60	1,099.60	1,099.60	1,099.60
23.250	1,099.60	1,099.59	1,099.59	1,099.59	1,099.59
23.267	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
23.283	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
23.300	1,099.59	1,099.59	1,099.59	1,099.59	1,099.59
23.317	1,099.58	1,099.58	1,099.58	1,099.58	1,099.58
23.333	1,099.58	1,099.58	1,099.58	1,099.58	1,099.58
23.350	1,099.58	1,099.58	1,099.58	1,099.58	1,099.58
23.367	1,099.58	1,099.58	1,099.58	1,099.57	1,099.57
23.383	1,099.57	1,099.57	1,099.57	1,099.57	1,099.57
23.400	1,099.57	1,099.57	1,099.57	1,099.57	1,099.57
23.417	1,099.57	1,099.57	1,099.57	1,099.57	1,099.57
23.433	1,099.57	1,099.56	1,099.56	1,099.56	1,099.56
23.450	1,099.56	1,099.56	1,099.56	1,099.56	1,099.56
23.467	1,099.56	1,099.56	1,099.56	1,099.56	1,099.56
23.483	1,099.56	1,099.56	1,099.56	1,099.56	1,099.55
23.500	1,099.55	1,099.55	1,099.55	1,099.55	1,099.55
23.517	1,099.55	1,099.55	1,099.55	1,099.55	1,099.55
23.533	1,099.55	1,099.55	1,099.55	1,099.55	1,099.55
23.550	1,099.55	1,099.54	1,099.54	1,099.54	1,099.54
23.567	1,099.54	1,099.54	1,099.54	1,099.54	1,099.54
23.583	1,099.54	1,099.54	1,099.54	1,099.54	1,099.54
23.600	1,099.54	1,099.54	1,099.54	1,099.54	1,099.53
23.617	1,099.53	1,099.53	1,099.53	1,099.53	1,099.53
23.633	1,099.53	1,099.53	1,099.53	1,099.53	1,099.53
23.650	1,099.53	1,099.53	1,099.53	1,099.53	1,099.53
23.667	1,099.53	1,099.52	1,099.52	1,099.52	1,099.52
23.683	1,099.52	1,099.52	1,099.52	1,099.52	1,099.52
23.700	1,099.52	1,099.52	1,099.52	1,099.52	1,099.52
23.717	1,099.52	1,099.52	1,099.52	1,099.51	1,099.51
23.733	1,099.51	1,099.51	1,099.51	1,099.51	1,099.51
23.750	1,099.51	1,099.51	1,099.51	1,099.51	1,099.51
23.767	1,099.51	1,099.51	1,099.51	1,099.51	1,099.51
23.783	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50

Subsection: Time vs. Elevation
Label: PO-1 (IN)

Scenario: Base

Time vs. Elevation (ft)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)	Elevation (ft)
23.800	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
23.817	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
23.833	1,099.50	1,099.50	1,099.50	1,099.50	1,099.50
23.850	1,099.50	1,099.50	1,099.49	1,099.49	1,099.49
23.867	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
23.883	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
23.900	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
23.917	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
23.933	1,099.49	1,099.49	1,099.49	1,099.49	1,099.49
23.950	1,099.49	1,099.48	1,099.48	1,099.48	1,099.48
23.967	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
23.983	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
24.000	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
24.017	1,099.48	1,099.48	1,099.48	1,099.48	1,099.48
24.033	1,099.48	1,099.47	1,099.47	1,099.47	1,099.47
24.050	1,099.47	1,099.47	1,099.47	1,099.47	1,099.47
24.067	1,099.47	1,099.47	1,099.47	1,099.47	1,099.47
24.083	1,099.47	1,099.46	1,099.46	1,099.46	1,099.46
24.100	1,099.46	1,099.46	1,099.46	1,099.46	1,099.46
24.117	1,099.46	1,099.46	1,099.46	1,099.45	1,099.45
24.133	1,099.45	1,099.45	1,099.45	1,099.45	1,099.45
24.150	1,099.45	1,099.45	1,099.45	1,099.45	1,099.44
24.167	1,099.44	1,099.44	1,099.44	1,099.44	1,099.44
24.183	1,099.44	1,099.44	1,099.44	1,099.43	1,099.43
24.200	1,099.43	1,099.43	1,099.43	1,099.43	1,099.43
24.217	1,099.43	1,099.43	1,099.42	1,099.42	1,099.42
24.233	1,099.42	1,099.42	1,099.42	1,099.42	1,099.42
24.250	1,099.41	1,099.41	1,099.41	1,099.41	1,099.41
24.267	1,099.41	1,099.41	1,099.41	1,099.41	1,099.40
24.283	1,099.40	1,099.40	1,099.40	1,099.40	1,099.40
24.300	1,099.40	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.000	0.000	0.000	0.000	0.000	0.000
0.017	0.000	0.000	0.000	0.000	0.000
0.033	0.000	0.000	0.000	0.000	0.000
0.050	0.000	0.000	0.000	0.000	0.000
0.067	0.000	0.000	0.000	0.000	0.000
0.083	0.000	0.000	0.000	0.000	0.000
0.100	0.000	0.000	0.000	0.000	0.000
0.117	0.000	8.000	23.000	38.000	53.000
0.133	68.000	84.000	99.000	113.000	128.000
0.150	143.000	158.000	173.000	187.000	202.000
0.167	216.000	231.000	245.000	260.000	274.000
0.183	288.000	302.000	317.000	331.000	345.000
0.200	359.000	373.000	386.000	400.000	414.000
0.217	428.000	441.000	455.000	468.000	482.000
0.233	495.000	509.000	522.000	535.000	548.000
0.250	562.000	575.000	588.000	601.000	614.000
0.267	627.000	639.000	652.000	665.000	678.000
0.283	690.000	703.000	716.000	728.000	741.000
0.300	753.000	765.000	778.000	790.000	802.000
0.317	814.000	826.000	838.000	851.000	862.000
0.333	874.000	886.000	898.000	910.000	922.000
0.350	933.000	945.000	957.000	968.000	980.000
0.367	991.000	1,003.000	1,014.000	1,025.000	1,037.000
0.383	1,048.000	1,059.000	1,070.000	1,081.000	1,092.000
0.400	1,103.000	1,114.000	1,125.000	1,136.000	1,147.000
0.417	1,158.000	1,169.000	1,179.000	1,190.000	1,201.000
0.433	1,211.000	1,222.000	1,233.000	1,243.000	1,253.000
0.450	1,264.000	1,274.000	1,285.000	1,295.000	1,305.000
0.467	1,315.000	1,325.000	1,335.000	1,345.000	1,356.000
0.483	1,365.000	1,375.000	1,385.000	1,395.000	1,405.000
0.500	1,415.000	1,425.000	1,434.000	1,444.000	1,453.000
0.517	1,463.000	1,473.000	1,482.000	1,492.000	1,501.000
0.533	1,510.000	1,520.000	1,529.000	1,538.000	1,547.000
0.550	1,557.000	1,566.000	1,575.000	1,584.000	1,593.000
0.567	1,602.000	1,611.000	1,620.000	1,629.000	1,638.000
0.583	1,647.000	1,655.000	1,664.000	1,673.000	1,681.000
0.600	1,690.000	1,699.000	1,707.000	1,716.000	1,724.000
0.617	1,733.000	1,741.000	1,750.000	1,758.000	1,767.000
0.633	1,775.000	1,783.000	1,791.000	1,800.000	1,808.000
0.650	1,816.000	1,824.000	1,832.000	1,840.000	1,848.000
0.667	1,856.000	1,864.000	1,872.000	1,880.000	1,888.000
0.683	1,896.000	1,904.000	1,912.000	1,919.000	1,927.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
0.700	1,935.000	1,943.000	1,950.000	1,958.000	1,965.000
0.717	1,973.000	1,981.000	1,988.000	1,996.000	2,003.000
0.733	2,010.000	2,018.000	2,025.000	2,032.000	2,040.000
0.750	2,047.000	2,054.000	2,062.000	2,069.000	2,076.000
0.767	2,083.000	2,090.000	2,097.000	2,104.000	2,111.000
0.783	2,118.000	2,125.000	2,132.000	2,139.000	2,146.000
0.800	2,153.000	2,160.000	2,167.000	2,174.000	2,180.000
0.817	2,187.000	2,194.000	2,201.000	2,207.000	2,214.000
0.833	2,221.000	2,227.000	2,234.000	2,240.000	2,247.000
0.850	2,253.000	2,260.000	2,266.000	2,273.000	2,279.000
0.867	2,286.000	2,292.000	2,298.000	2,305.000	2,311.000
0.883	2,317.000	2,323.000	2,330.000	2,336.000	2,342.000
0.900	2,348.000	2,354.000	2,360.000	2,366.000	2,372.000
0.917	2,379.000	2,385.000	2,390.000	2,396.000	2,402.000
0.933	2,408.000	2,414.000	2,420.000	2,426.000	2,432.000
0.950	2,437.000	2,443.000	2,449.000	2,455.000	2,460.000
0.967	2,466.000	2,472.000	2,477.000	2,483.000	2,488.000
0.983	2,494.000	2,499.000	2,505.000	2,510.000	2,516.000
1.000	2,521.000	2,527.000	2,532.000	2,537.000	2,543.000
1.017	2,548.000	2,553.000	2,559.000	2,564.000	2,569.000
1.033	2,575.000	2,580.000	2,585.000	2,590.000	2,595.000
1.050	2,600.000	2,605.000	2,611.000	2,616.000	2,621.000
1.067	2,626.000	2,631.000	2,636.000	2,641.000	2,646.000
1.083	2,651.000	2,655.000	2,660.000	2,665.000	2,670.000
1.100	2,675.000	2,680.000	2,685.000	2,689.000	2,694.000
1.117	2,699.000	2,704.000	2,708.000	2,713.000	2,718.000
1.133	2,722.000	2,727.000	2,732.000	2,736.000	2,741.000
1.150	2,745.000	2,750.000	2,755.000	2,759.000	2,764.000
1.167	2,768.000	2,773.000	2,777.000	2,782.000	2,786.000
1.183	2,790.000	2,795.000	2,799.000	2,804.000	2,808.000
1.200	2,812.000	2,817.000	2,821.000	2,825.000	2,830.000
1.217	2,834.000	2,838.000	2,842.000	2,847.000	2,851.000
1.233	2,855.000	2,859.000	2,863.000	2,867.000	2,872.000
1.250	2,876.000	2,880.000	2,884.000	2,888.000	2,892.000
1.267	2,896.000	2,900.000	2,904.000	2,908.000	2,912.000
1.283	2,916.000	2,920.000	2,924.000	2,928.000	2,932.000
1.300	2,936.000	2,940.000	2,944.000	2,948.000	2,951.000
1.317	2,955.000	2,959.000	2,963.000	2,967.000	2,971.000
1.333	2,974.000	2,978.000	2,982.000	2,986.000	2,989.000
1.350	2,993.000	2,997.000	3,000.000	3,004.000	3,008.000
1.367	3,011.000	3,015.000	3,019.000	3,022.000	3,026.000
1.383	3,029.000	3,033.000	3,036.000	3,040.000	3,043.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
1.400	3,047.000	3,050.000	3,054.000	3,057.000	3,061.000
1.417	3,064.000	3,068.000	3,071.000	3,074.000	3,078.000
1.433	3,081.000	3,084.000	3,088.000	3,091.000	3,094.000
1.450	3,098.000	3,101.000	3,104.000	3,107.000	3,111.000
1.467	3,114.000	3,117.000	3,120.000	3,124.000	3,127.000
1.483	3,130.000	3,133.000	3,136.000	3,139.000	3,142.000
1.500	3,146.000	3,149.000	3,152.000	3,155.000	3,158.000
1.517	3,161.000	3,164.000	3,167.000	3,170.000	3,173.000
1.533	3,176.000	3,179.000	3,182.000	3,185.000	3,188.000
1.550	3,191.000	3,194.000	3,197.000	3,199.000	3,202.000
1.567	3,205.000	3,208.000	3,211.000	3,214.000	3,217.000
1.583	3,220.000	3,222.000	3,225.000	3,228.000	3,231.000
1.600	3,234.000	3,236.000	3,239.000	3,242.000	3,245.000
1.617	3,247.000	3,250.000	3,253.000	3,256.000	3,258.000
1.633	3,261.000	3,264.000	3,266.000	3,269.000	3,272.000
1.650	3,275.000	3,277.000	3,280.000	3,282.000	3,285.000
1.667	3,288.000	3,290.000	3,293.000	3,296.000	3,298.000
1.683	3,301.000	3,303.000	3,306.000	3,308.000	3,311.000
1.700	3,314.000	3,316.000	3,319.000	3,321.000	3,324.000
1.717	3,326.000	3,329.000	3,331.000	3,334.000	3,336.000
1.733	3,339.000	3,341.000	3,343.000	3,346.000	3,348.000
1.750	3,351.000	3,353.000	3,356.000	3,358.000	3,360.000
1.767	3,363.000	3,365.000	3,368.000	3,370.000	3,372.000
1.783	3,375.000	3,377.000	3,379.000	3,382.000	3,384.000
1.800	3,386.000	3,389.000	3,391.000	3,393.000	3,395.000
1.817	3,398.000	3,400.000	3,402.000	3,405.000	3,407.000
1.833	3,409.000	3,411.000	3,414.000	3,416.000	3,418.000
1.850	3,420.000	3,422.000	3,425.000	3,427.000	3,429.000
1.867	3,431.000	3,433.000	3,436.000	3,438.000	3,440.000
1.883	3,442.000	3,444.000	3,446.000	3,448.000	3,451.000
1.900	3,453.000	3,455.000	3,457.000	3,459.000	3,461.000
1.917	3,463.000	3,465.000	3,467.000	3,469.000	3,471.000
1.933	3,474.000	3,476.000	3,478.000	3,480.000	3,482.000
1.950	3,484.000	3,486.000	3,488.000	3,490.000	3,492.000
1.967	3,494.000	3,496.000	3,498.000	3,500.000	3,502.000
1.983	3,504.000	3,506.000	3,508.000	3,510.000	3,512.000
2.000	3,514.000	3,516.000	3,517.000	3,519.000	3,521.000
2.017	3,523.000	3,525.000	3,527.000	3,529.000	3,531.000
2.033	3,533.000	3,535.000	3,537.000	3,538.000	3,540.000
2.050	3,542.000	3,544.000	3,546.000	3,548.000	3,550.000
2.067	3,551.000	3,553.000	3,555.000	3,557.000	3,559.000
2.083	3,561.000	3,562.000	3,564.000	3,566.000	3,568.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
2.100	3,570.000	3,571.000	3,573.000	3,575.000	3,577.000
2.117	3,579.000	3,580.000	3,582.000	3,584.000	3,586.000
2.133	3,587.000	3,589.000	3,591.000	3,593.000	3,594.000
2.150	3,596.000	3,598.000	3,599.000	3,601.000	3,603.000
2.167	3,605.000	3,606.000	3,608.000	3,610.000	3,611.000
2.183	3,613.000	3,615.000	3,616.000	3,618.000	3,620.000
2.200	3,621.000	3,623.000	3,625.000	3,626.000	3,628.000
2.217	3,630.000	3,631.000	3,633.000	3,635.000	3,636.000
2.233	3,638.000	3,639.000	3,641.000	3,643.000	3,644.000
2.250	3,646.000	3,647.000	3,649.000	3,650.000	3,652.000
2.267	3,654.000	3,655.000	3,657.000	3,658.000	3,660.000
2.283	3,661.000	3,663.000	3,664.000	3,666.000	3,667.000
2.300	3,669.000	3,670.000	3,672.000	3,673.000	3,675.000
2.317	3,676.000	3,678.000	3,679.000	3,681.000	3,682.000
2.333	3,684.000	3,685.000	3,687.000	3,688.000	3,690.000
2.350	3,691.000	3,692.000	3,694.000	3,695.000	3,697.000
2.367	3,698.000	3,699.000	3,701.000	3,702.000	3,704.000
2.383	3,705.000	3,706.000	3,708.000	3,709.000	3,710.000
2.400	3,712.000	3,713.000	3,714.000	3,716.000	3,717.000
2.417	3,718.000	3,720.000	3,721.000	3,722.000	3,724.000
2.433	3,725.000	3,726.000	3,728.000	3,729.000	3,730.000
2.450	3,731.000	3,733.000	3,734.000	3,735.000	3,736.000
2.467	3,738.000	3,739.000	3,740.000	3,742.000	3,743.000
2.483	3,744.000	3,745.000	3,747.000	3,748.000	3,749.000
2.500	3,750.000	3,751.000	3,753.000	3,754.000	3,755.000
2.517	3,756.000	3,758.000	3,759.000	3,760.000	3,761.000
2.533	3,762.000	3,764.000	3,765.000	3,766.000	3,767.000
2.550	3,769.000	3,770.000	3,771.000	3,772.000	3,773.000
2.567	3,774.000	3,776.000	3,777.000	3,778.000	3,779.000
2.583	3,780.000	3,782.000	3,783.000	3,784.000	3,785.000
2.600	3,786.000	3,787.000	3,789.000	3,790.000	3,791.000
2.617	3,792.000	3,793.000	3,794.000	3,795.000	3,797.000
2.633	3,798.000	3,799.000	3,800.000	3,801.000	3,802.000
2.650	3,803.000	3,805.000	3,806.000	3,807.000	3,808.000
2.667	3,809.000	3,810.000	3,811.000	3,812.000	3,814.000
2.683	3,815.000	3,816.000	3,817.000	3,818.000	3,819.000
2.700	3,820.000	3,821.000	3,822.000	3,824.000	3,825.000
2.717	3,826.000	3,827.000	3,828.000	3,829.000	3,830.000
2.733	3,831.000	3,832.000	3,833.000	3,834.000	3,835.000
2.750	3,837.000	3,838.000	3,839.000	3,840.000	3,841.000
2.767	3,842.000	3,843.000	3,844.000	3,845.000	3,846.000
2.783	3,847.000	3,848.000	3,849.000	3,850.000	3,851.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
2.800	3,852.000	3,854.000	3,855.000	3,856.000	3,857.000
2.817	3,858.000	3,859.000	3,860.000	3,861.000	3,862.000
2.833	3,863.000	3,864.000	3,865.000	3,866.000	3,867.000
2.850	3,868.000	3,869.000	3,870.000	3,871.000	3,872.000
2.867	3,873.000	3,874.000	3,875.000	3,876.000	3,877.000
2.883	3,878.000	3,879.000	3,880.000	3,881.000	3,882.000
2.900	3,883.000	3,884.000	3,885.000	3,886.000	3,887.000
2.917	3,888.000	3,889.000	3,890.000	3,891.000	3,892.000
2.933	3,893.000	3,894.000	3,895.000	3,896.000	3,897.000
2.950	3,898.000	3,899.000	3,900.000	3,901.000	3,902.000
2.967	3,903.000	3,904.000	3,905.000	3,906.000	3,907.000
2.983	3,908.000	3,909.000	3,910.000	3,910.000	3,911.000
3.000	3,912.000	3,913.000	3,914.000	3,915.000	3,916.000
3.017	3,917.000	3,918.000	3,919.000	3,920.000	3,921.000
3.033	3,922.000	3,923.000	3,924.000	3,925.000	3,926.000
3.050	3,927.000	3,927.000	3,928.000	3,929.000	3,930.000
3.067	3,931.000	3,932.000	3,933.000	3,934.000	3,935.000
3.083	3,936.000	3,937.000	3,938.000	3,939.000	3,940.000
3.100	3,940.000	3,941.000	3,942.000	3,943.000	3,944.000
3.117	3,945.000	3,946.000	3,947.000	3,948.000	3,949.000
3.133	3,950.000	3,951.000	3,951.000	3,952.000	3,953.000
3.150	3,954.000	3,955.000	3,956.000	3,957.000	3,958.000
3.167	3,959.000	3,960.000	3,960.000	3,961.000	3,962.000
3.183	3,963.000	3,964.000	3,965.000	3,966.000	3,967.000
3.200	3,968.000	3,968.000	3,969.000	3,970.000	3,971.000
3.217	3,972.000	3,973.000	3,974.000	3,975.000	3,975.000
3.233	3,976.000	3,977.000	3,978.000	3,979.000	3,980.000
3.250	3,981.000	3,982.000	3,982.000	3,983.000	3,984.000
3.267	3,985.000	3,986.000	3,987.000	3,988.000	3,989.000
3.283	3,989.000	3,990.000	3,991.000	3,992.000	3,993.000
3.300	3,994.000	3,995.000	3,995.000	3,996.000	3,997.000
3.317	3,998.000	3,999.000	4,000.000	4,000.000	4,001.000
3.333	4,002.000	4,003.000	4,004.000	4,005.000	4,006.000
3.350	4,006.000	4,007.000	4,008.000	4,009.000	4,010.000
3.367	4,011.000	4,011.000	4,012.000	4,013.000	4,014.000
3.383	4,015.000	4,016.000	4,016.000	4,017.000	4,018.000
3.400	4,019.000	4,020.000	4,021.000	4,021.000	4,022.000
3.417	4,023.000	4,024.000	4,025.000	4,025.000	4,026.000
3.433	4,027.000	4,028.000	4,029.000	4,030.000	4,030.000
3.450	4,031.000	4,032.000	4,033.000	4,034.000	4,034.000
3.467	4,035.000	4,036.000	4,037.000	4,038.000	4,038.000
3.483	4,039.000	4,040.000	4,041.000	4,042.000	4,042.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
3.500	4,043.000	4,044.000	4,045.000	4,046.000	4,046.000
3.517	4,047.000	4,048.000	4,049.000	4,050.000	4,050.000
3.533	4,051.000	4,052.000	4,053.000	4,053.000	4,054.000
3.550	4,055.000	4,056.000	4,056.000	4,057.000	4,058.000
3.567	4,059.000	4,060.000	4,060.000	4,061.000	4,062.000
3.583	4,062.000	4,063.000	4,064.000	4,065.000	4,065.000
3.600	4,066.000	4,067.000	4,068.000	4,068.000	4,069.000
3.617	4,070.000	4,070.000	4,071.000	4,072.000	4,072.000
3.633	4,073.000	4,074.000	4,075.000	4,075.000	4,076.000
3.650	4,077.000	4,077.000	4,078.000	4,079.000	4,079.000
3.667	4,080.000	4,081.000	4,081.000	4,082.000	4,083.000
3.683	4,084.000	4,084.000	4,085.000	4,086.000	4,086.000
3.700	4,087.000	4,088.000	4,088.000	4,089.000	4,090.000
3.717	4,091.000	4,091.000	4,092.000	4,093.000	4,093.000
3.733	4,094.000	4,095.000	4,096.000	4,096.000	4,097.000
3.750	4,098.000	4,098.000	4,099.000	4,100.000	4,101.000
3.767	4,101.000	4,102.000	4,103.000	4,103.000	4,104.000
3.783	4,105.000	4,106.000	4,106.000	4,107.000	4,108.000
3.800	4,108.000	4,109.000	4,110.000	4,111.000	4,111.000
3.817	4,112.000	4,113.000	4,114.000	4,114.000	4,115.000
3.833	4,116.000	4,116.000	4,117.000	4,118.000	4,119.000
3.850	4,119.000	4,120.000	4,121.000	4,122.000	4,122.000
3.867	4,123.000	4,124.000	4,124.000	4,125.000	4,126.000
3.883	4,127.000	4,127.000	4,128.000	4,129.000	4,129.000
3.900	4,130.000	4,131.000	4,131.000	4,132.000	4,133.000
3.917	4,134.000	4,134.000	4,135.000	4,136.000	4,136.000
3.933	4,137.000	4,138.000	4,138.000	4,139.000	4,140.000
3.950	4,140.000	4,141.000	4,142.000	4,142.000	4,143.000
3.967	4,143.000	4,144.000	4,145.000	4,145.000	4,146.000
3.983	4,147.000	4,147.000	4,148.000	4,149.000	4,149.000
4.000	4,150.000	4,151.000	4,151.000	4,152.000	4,153.000
4.017	4,153.000	4,154.000	4,155.000	4,155.000	4,156.000
4.033	4,157.000	4,157.000	4,158.000	4,159.000	4,159.000
4.050	4,160.000	4,161.000	4,161.000	4,162.000	4,163.000
4.067	4,164.000	4,164.000	4,165.000	4,166.000	4,166.000
4.083	4,167.000	4,168.000	4,168.000	4,169.000	4,170.000
4.100	4,171.000	4,171.000	4,172.000	4,173.000	4,173.000
4.117	4,174.000	4,175.000	4,176.000	4,176.000	4,177.000
4.133	4,178.000	4,178.000	4,179.000	4,180.000	4,180.000
4.150	4,181.000	4,182.000	4,183.000	4,183.000	4,184.000
4.167	4,185.000	4,185.000	4,186.000	4,187.000	4,187.000
4.183	4,188.000	4,189.000	4,189.000	4,190.000	4,191.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
4.200	4,192.000	4,192.000	4,193.000	4,194.000	4,194.000
4.217	4,195.000	4,196.000	4,196.000	4,197.000	4,198.000
4.233	4,198.000	4,199.000	4,200.000	4,200.000	4,201.000
4.250	4,202.000	4,202.000	4,203.000	4,204.000	4,204.000
4.267	4,205.000	4,205.000	4,206.000	4,207.000	4,207.000
4.283	4,208.000	4,209.000	4,209.000	4,210.000	4,211.000
4.300	4,211.000	4,212.000	4,212.000	4,213.000	4,214.000
4.317	4,214.000	4,215.000	4,216.000	4,216.000	4,217.000
4.333	4,218.000	4,218.000	4,219.000	4,220.000	4,220.000
4.350	4,221.000	4,222.000	4,222.000	4,223.000	4,224.000
4.367	4,224.000	4,225.000	4,226.000	4,226.000	4,227.000
4.383	4,228.000	4,228.000	4,229.000	4,230.000	4,230.000
4.400	4,231.000	4,232.000	4,233.000	4,233.000	4,234.000
4.417	4,235.000	4,235.000	4,236.000	4,237.000	4,237.000
4.433	4,238.000	4,239.000	4,240.000	4,240.000	4,241.000
4.450	4,242.000	4,242.000	4,243.000	4,244.000	4,245.000
4.467	4,245.000	4,246.000	4,247.000	4,247.000	4,248.000
4.483	4,249.000	4,250.000	4,250.000	4,251.000	4,252.000
4.500	4,252.000	4,253.000	4,254.000	4,255.000	4,255.000
4.517	4,256.000	4,257.000	4,257.000	4,258.000	4,259.000
4.533	4,260.000	4,260.000	4,261.000	4,262.000	4,262.000
4.550	4,263.000	4,264.000	4,265.000	4,265.000	4,266.000
4.567	4,267.000	4,267.000	4,268.000	4,269.000	4,270.000
4.583	4,270.000	4,271.000	4,272.000	4,272.000	4,273.000
4.600	4,274.000	4,274.000	4,275.000	4,276.000	4,277.000
4.617	4,277.000	4,278.000	4,279.000	4,279.000	4,280.000
4.633	4,281.000	4,282.000	4,282.000	4,283.000	4,284.000
4.650	4,284.000	4,285.000	4,286.000	4,286.000	4,287.000
4.667	4,288.000	4,289.000	4,289.000	4,290.000	4,291.000
4.683	4,291.000	4,292.000	4,293.000	4,293.000	4,294.000
4.700	4,295.000	4,296.000	4,296.000	4,297.000	4,298.000
4.717	4,298.000	4,299.000	4,300.000	4,300.000	4,301.000
4.733	4,302.000	4,303.000	4,303.000	4,304.000	4,305.000
4.750	4,305.000	4,306.000	4,307.000	4,307.000	4,308.000
4.767	4,309.000	4,309.000	4,310.000	4,311.000	4,311.000
4.783	4,312.000	4,313.000	4,314.000	4,314.000	4,315.000
4.800	4,316.000	4,316.000	4,317.000	4,318.000	4,318.000
4.817	4,319.000	4,320.000	4,320.000	4,321.000	4,322.000
4.833	4,323.000	4,323.000	4,324.000	4,325.000	4,325.000
4.850	4,326.000	4,327.000	4,327.000	4,328.000	4,329.000
4.867	4,329.000	4,330.000	4,331.000	4,331.000	4,332.000
4.883	4,333.000	4,333.000	4,334.000	4,335.000	4,336.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
4.900	4,336.000	4,337.000	4,338.000	4,338.000	4,339.000
4.917	4,340.000	4,340.000	4,341.000	4,342.000	4,342.000
4.933	4,343.000	4,344.000	4,344.000	4,345.000	4,346.000
4.950	4,346.000	4,347.000	4,348.000	4,348.000	4,349.000
4.967	4,350.000	4,351.000	4,351.000	4,352.000	4,353.000
4.983	4,353.000	4,354.000	4,355.000	4,355.000	4,356.000
5.000	4,357.000	4,357.000	4,358.000	4,359.000	4,359.000
5.017	4,360.000	4,361.000	4,361.000	4,362.000	4,363.000
5.033	4,363.000	4,364.000	4,365.000	4,365.000	4,366.000
5.050	4,367.000	4,367.000	4,368.000	4,369.000	4,370.000
5.067	4,370.000	4,371.000	4,372.000	4,372.000	4,373.000
5.083	4,374.000	4,374.000	4,375.000	4,376.000	4,376.000
5.100	4,377.000	4,378.000	4,378.000	4,379.000	4,380.000
5.117	4,380.000	4,381.000	4,382.000	4,382.000	4,383.000
5.133	4,384.000	4,384.000	4,385.000	4,386.000	4,386.000
5.150	4,387.000	4,388.000	4,388.000	4,389.000	4,390.000
5.167	4,390.000	4,391.000	4,392.000	4,392.000	4,393.000
5.183	4,394.000	4,394.000	4,395.000	4,396.000	4,396.000
5.200	4,397.000	4,398.000	4,398.000	4,399.000	4,400.000
5.217	4,400.000	4,401.000	4,402.000	4,403.000	4,403.000
5.233	4,404.000	4,405.000	4,405.000	4,406.000	4,407.000
5.250	4,407.000	4,408.000	4,409.000	4,410.000	4,410.000
5.267	4,411.000	4,412.000	4,412.000	4,413.000	4,414.000
5.283	4,414.000	4,415.000	4,416.000	4,417.000	4,417.000
5.300	4,418.000	4,419.000	4,420.000	4,420.000	4,421.000
5.317	4,422.000	4,422.000	4,423.000	4,424.000	4,425.000
5.333	4,425.000	4,426.000	4,427.000	4,428.000	4,428.000
5.350	4,429.000	4,430.000	4,430.000	4,431.000	4,432.000
5.367	4,433.000	4,433.000	4,434.000	4,435.000	4,436.000
5.383	4,436.000	4,437.000	4,438.000	4,439.000	4,439.000
5.400	4,440.000	4,441.000	4,441.000	4,442.000	4,443.000
5.417	4,444.000	4,444.000	4,445.000	4,446.000	4,446.000
5.433	4,447.000	4,448.000	4,449.000	4,449.000	4,450.000
5.450	4,451.000	4,451.000	4,452.000	4,453.000	4,453.000
5.467	4,454.000	4,455.000	4,455.000	4,456.000	4,457.000
5.483	4,457.000	4,458.000	4,459.000	4,459.000	4,460.000
5.500	4,461.000	4,461.000	4,462.000	4,463.000	4,463.000
5.517	4,464.000	4,465.000	4,465.000	4,466.000	4,467.000
5.533	4,467.000	4,468.000	4,469.000	4,469.000	4,470.000
5.550	4,471.000	4,471.000	4,472.000	4,473.000	4,473.000
5.567	4,474.000	4,475.000	4,475.000	4,476.000	4,477.000
5.583	4,477.000	4,478.000	4,479.000	4,479.000	4,480.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
5.600	4,481.000	4,481.000	4,482.000	4,483.000	4,484.000
5.617	4,484.000	4,485.000	4,486.000	4,486.000	4,487.000
5.633	4,488.000	4,489.000	4,489.000	4,490.000	4,491.000
5.650	4,491.000	4,492.000	4,493.000	4,494.000	4,494.000
5.667	4,495.000	4,496.000	4,496.000	4,497.000	4,498.000
5.683	4,499.000	4,499.000	4,500.000	4,501.000	4,502.000
5.700	4,502.000	4,503.000	4,504.000	4,504.000	4,505.000
5.717	4,506.000	4,507.000	4,507.000	4,508.000	4,509.000
5.733	4,510.000	4,510.000	4,511.000	4,512.000	4,513.000
5.750	4,513.000	4,514.000	4,515.000	4,515.000	4,516.000
5.767	4,517.000	4,518.000	4,518.000	4,519.000	4,520.000
5.783	4,521.000	4,521.000	4,522.000	4,523.000	4,524.000
5.800	4,524.000	4,525.000	4,526.000	4,527.000	4,527.000
5.817	4,528.000	4,529.000	4,530.000	4,530.000	4,531.000
5.833	4,532.000	4,532.000	4,533.000	4,534.000	4,535.000
5.850	4,535.000	4,536.000	4,537.000	4,538.000	4,538.000
5.867	4,539.000	4,540.000	4,541.000	4,541.000	4,542.000
5.883	4,543.000	4,544.000	4,545.000	4,545.000	4,546.000
5.900	4,547.000	4,548.000	4,548.000	4,549.000	4,550.000
5.917	4,551.000	4,552.000	4,552.000	4,553.000	4,554.000
5.933	4,555.000	4,555.000	4,556.000	4,557.000	4,558.000
5.950	4,559.000	4,559.000	4,560.000	4,561.000	4,562.000
5.967	4,563.000	4,563.000	4,564.000	4,565.000	4,566.000
5.983	4,567.000	4,567.000	4,568.000	4,569.000	4,570.000
6.000	4,571.000	4,571.000	4,572.000	4,573.000	4,574.000
6.017	4,575.000	4,575.000	4,576.000	4,577.000	4,578.000
6.033	4,579.000	4,579.000	4,580.000	4,581.000	4,582.000
6.050	4,583.000	4,583.000	4,584.000	4,585.000	4,586.000
6.067	4,587.000	4,587.000	4,588.000	4,589.000	4,590.000
6.083	4,591.000	4,591.000	4,592.000	4,593.000	4,594.000
6.100	4,595.000	4,595.000	4,596.000	4,597.000	4,598.000
6.117	4,599.000	4,599.000	4,600.000	4,601.000	4,602.000
6.133	4,602.000	4,603.000	4,604.000	4,605.000	4,606.000
6.150	4,606.000	4,607.000	4,608.000	4,609.000	4,609.000
6.167	4,610.000	4,611.000	4,612.000	4,613.000	4,613.000
6.183	4,614.000	4,615.000	4,616.000	4,616.000	4,617.000
6.200	4,618.000	4,619.000	4,620.000	4,620.000	4,621.000
6.217	4,622.000	4,623.000	4,623.000	4,624.000	4,625.000
6.233	4,626.000	4,626.000	4,627.000	4,628.000	4,629.000
6.250	4,630.000	4,630.000	4,631.000	4,632.000	4,633.000
6.267	4,633.000	4,634.000	4,635.000	4,636.000	4,636.000
6.283	4,637.000	4,638.000	4,639.000	4,639.000	4,640.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
6.300	4,641.000	4,642.000	4,642.000	4,643.000	4,644.000
6.317	4,645.000	4,645.000	4,646.000	4,647.000	4,648.000
6.333	4,648.000	4,649.000	4,650.000	4,651.000	4,651.000
6.350	4,652.000	4,653.000	4,654.000	4,654.000	4,655.000
6.367	4,656.000	4,657.000	4,657.000	4,658.000	4,659.000
6.383	4,660.000	4,660.000	4,661.000	4,662.000	4,663.000
6.400	4,663.000	4,664.000	4,665.000	4,666.000	4,666.000
6.417	4,667.000	4,668.000	4,669.000	4,669.000	4,670.000
6.433	4,671.000	4,672.000	4,672.000	4,673.000	4,674.000
6.450	4,675.000	4,675.000	4,676.000	4,677.000	4,678.000
6.467	4,678.000	4,679.000	4,680.000	4,681.000	4,681.000
6.483	4,682.000	4,683.000	4,684.000	4,684.000	4,685.000
6.500	4,686.000	4,687.000	4,688.000	4,688.000	4,689.000
6.517	4,690.000	4,691.000	4,691.000	4,692.000	4,693.000
6.533	4,694.000	4,695.000	4,695.000	4,696.000	4,697.000
6.550	4,698.000	4,698.000	4,699.000	4,700.000	4,701.000
6.567	4,702.000	4,702.000	4,703.000	4,704.000	4,705.000
6.583	4,706.000	4,706.000	4,707.000	4,708.000	4,709.000
6.600	4,710.000	4,711.000	4,711.000	4,712.000	4,713.000
6.617	4,714.000	4,715.000	4,715.000	4,716.000	4,717.000
6.633	4,718.000	4,719.000	4,720.000	4,720.000	4,721.000
6.650	4,722.000	4,723.000	4,724.000	4,724.000	4,725.000
6.667	4,726.000	4,727.000	4,728.000	4,728.000	4,729.000
6.683	4,730.000	4,731.000	4,732.000	4,732.000	4,733.000
6.700	4,734.000	4,735.000	4,736.000	4,736.000	4,737.000
6.717	4,738.000	4,739.000	4,740.000	4,740.000	4,741.000
6.733	4,742.000	4,743.000	4,744.000	4,744.000	4,745.000
6.750	4,746.000	4,747.000	4,748.000	4,748.000	4,749.000
6.767	4,750.000	4,751.000	4,752.000	4,753.000	4,753.000
6.783	4,754.000	4,755.000	4,756.000	4,757.000	4,757.000
6.800	4,758.000	4,759.000	4,760.000	4,761.000	4,762.000
6.817	4,762.000	4,763.000	4,764.000	4,765.000	4,766.000
6.833	4,767.000	4,767.000	4,768.000	4,769.000	4,770.000
6.850	4,771.000	4,772.000	4,772.000	4,773.000	4,774.000
6.867	4,775.000	4,776.000	4,777.000	4,778.000	4,778.000
6.883	4,779.000	4,780.000	4,781.000	4,782.000	4,783.000
6.900	4,784.000	4,784.000	4,785.000	4,786.000	4,787.000
6.917	4,788.000	4,789.000	4,790.000	4,790.000	4,791.000
6.933	4,792.000	4,793.000	4,794.000	4,795.000	4,796.000
6.950	4,796.000	4,797.000	4,798.000	4,799.000	4,800.000
6.967	4,801.000	4,802.000	4,802.000	4,803.000	4,804.000
6.983	4,805.000	4,806.000	4,807.000	4,807.000	4,808.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
7.000	4,809.000	4,810.000	4,811.000	4,812.000	4,813.000
7.017	4,813.000	4,814.000	4,815.000	4,816.000	4,817.000
7.033	4,818.000	4,818.000	4,819.000	4,820.000	4,821.000
7.050	4,822.000	4,823.000	4,823.000	4,824.000	4,825.000
7.067	4,826.000	4,827.000	4,828.000	4,829.000	4,829.000
7.083	4,830.000	4,831.000	4,832.000	4,833.000	4,834.000
7.100	4,835.000	4,836.000	4,836.000	4,837.000	4,838.000
7.117	4,839.000	4,840.000	4,841.000	4,842.000	4,843.000
7.133	4,844.000	4,845.000	4,846.000	4,847.000	4,847.000
7.150	4,848.000	4,849.000	4,850.000	4,851.000	4,852.000
7.167	4,853.000	4,854.000	4,855.000	4,856.000	4,857.000
7.183	4,858.000	4,859.000	4,860.000	4,861.000	4,862.000
7.200	4,863.000	4,864.000	4,865.000	4,866.000	4,867.000
7.217	4,868.000	4,869.000	4,870.000	4,871.000	4,872.000
7.233	4,873.000	4,873.000	4,874.000	4,875.000	4,876.000
7.250	4,877.000	4,878.000	4,879.000	4,880.000	4,881.000
7.267	4,882.000	4,883.000	4,884.000	4,885.000	4,886.000
7.283	4,887.000	4,888.000	4,889.000	4,890.000	4,891.000
7.300	4,892.000	4,893.000	4,894.000	4,895.000	4,896.000
7.317	4,897.000	4,898.000	4,899.000	4,900.000	4,901.000
7.333	4,902.000	4,903.000	4,904.000	4,905.000	4,906.000
7.350	4,907.000	4,908.000	4,909.000	4,910.000	4,910.000
7.367	4,911.000	4,912.000	4,913.000	4,914.000	4,915.000
7.383	4,916.000	4,917.000	4,918.000	4,919.000	4,920.000
7.400	4,921.000	4,922.000	4,923.000	4,924.000	4,925.000
7.417	4,926.000	4,927.000	4,928.000	4,929.000	4,930.000
7.433	4,931.000	4,932.000	4,933.000	4,933.000	4,934.000
7.450	4,935.000	4,936.000	4,937.000	4,938.000	4,939.000
7.467	4,940.000	4,941.000	4,942.000	4,943.000	4,944.000
7.483	4,945.000	4,946.000	4,947.000	4,948.000	4,949.000
7.500	4,950.000	4,951.000	4,952.000	4,953.000	4,954.000
7.517	4,955.000	4,956.000	4,957.000	4,958.000	4,959.000
7.533	4,960.000	4,961.000	4,962.000	4,963.000	4,964.000
7.550	4,965.000	4,966.000	4,967.000	4,968.000	4,969.000
7.567	4,970.000	4,971.000	4,972.000	4,973.000	4,974.000
7.583	4,975.000	4,976.000	4,977.000	4,978.000	4,979.000
7.600	4,980.000	4,980.000	4,981.000	4,982.000	4,983.000
7.617	4,984.000	4,985.000	4,986.000	4,987.000	4,988.000
7.633	4,989.000	4,990.000	4,991.000	4,992.000	4,993.000
7.650	4,994.000	4,995.000	4,996.000	4,997.000	4,998.000
7.667	4,999.000	5,000.000	5,001.000	5,002.000	5,002.000
7.683	5,003.000	5,004.000	5,005.000	5,006.000	5,007.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
7.700	5,008.000	5,009.000	5,010.000	5,011.000	5,012.000
7.717	5,013.000	5,014.000	5,015.000	5,016.000	5,017.000
7.733	5,018.000	5,019.000	5,020.000	5,021.000	5,021.000
7.750	5,022.000	5,023.000	5,024.000	5,025.000	5,026.000
7.767	5,027.000	5,028.000	5,029.000	5,030.000	5,031.000
7.783	5,032.000	5,033.000	5,034.000	5,035.000	5,036.000
7.800	5,037.000	5,038.000	5,039.000	5,040.000	5,041.000
7.817	5,042.000	5,043.000	5,044.000	5,045.000	5,046.000
7.833	5,047.000	5,048.000	5,049.000	5,050.000	5,051.000
7.850	5,052.000	5,053.000	5,054.000	5,055.000	5,056.000
7.867	5,057.000	5,058.000	5,059.000	5,060.000	5,061.000
7.883	5,062.000	5,063.000	5,064.000	5,065.000	5,066.000
7.900	5,067.000	5,068.000	5,069.000	5,070.000	5,071.000
7.917	5,072.000	5,073.000	5,074.000	5,075.000	5,076.000
7.933	5,077.000	5,078.000	5,079.000	5,080.000	5,081.000
7.950	5,082.000	5,083.000	5,084.000	5,085.000	5,086.000
7.967	5,087.000	5,089.000	5,090.000	5,091.000	5,092.000
7.983	5,093.000	5,094.000	5,095.000	5,096.000	5,097.000
8.000	5,098.000	5,099.000	5,100.000	5,101.000	5,102.000
8.017	5,103.000	5,104.000	5,105.000	5,106.000	5,107.000
8.033	5,108.000	5,109.000	5,110.000	5,112.000	5,113.000
8.050	5,114.000	5,115.000	5,116.000	5,117.000	5,118.000
8.067	5,119.000	5,120.000	5,121.000	5,122.000	5,123.000
8.083	5,124.000	5,125.000	5,126.000	5,127.000	5,128.000
8.100	5,130.000	5,131.000	5,132.000	5,133.000	5,134.000
8.117	5,135.000	5,136.000	5,137.000	5,138.000	5,139.000
8.133	5,140.000	5,141.000	5,142.000	5,143.000	5,144.000
8.150	5,146.000	5,147.000	5,148.000	5,149.000	5,150.000
8.167	5,151.000	5,152.000	5,153.000	5,154.000	5,155.000
8.183	5,156.000	5,157.000	5,158.000	5,159.000	5,160.000
8.200	5,161.000	5,162.000	5,163.000	5,164.000	5,165.000
8.217	5,167.000	5,168.000	5,169.000	5,170.000	5,171.000
8.233	5,172.000	5,173.000	5,174.000	5,175.000	5,176.000
8.250	5,177.000	5,178.000	5,179.000	5,180.000	5,181.000
8.267	5,182.000	5,183.000	5,184.000	5,185.000	5,186.000
8.283	5,187.000	5,188.000	5,189.000	5,190.000	5,191.000
8.300	5,192.000	5,193.000	5,194.000	5,195.000	5,196.000
8.317	5,197.000	5,198.000	5,199.000	5,200.000	5,202.000
8.333	5,203.000	5,204.000	5,205.000	5,206.000	5,207.000
8.350	5,208.000	5,209.000	5,210.000	5,211.000	5,212.000
8.367	5,213.000	5,214.000	5,215.000	5,216.000	5,218.000
8.383	5,219.000	5,220.000	5,221.000	5,222.000	5,223.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
8.400	5,224.000	5,225.000	5,226.000	5,227.000	5,228.000
8.417	5,230.000	5,231.000	5,232.000	5,233.000	5,234.000
8.433	5,235.000	5,236.000	5,237.000	5,238.000	5,240.000
8.450	5,241.000	5,242.000	5,243.000	5,244.000	5,245.000
8.467	5,246.000	5,247.000	5,248.000	5,250.000	5,251.000
8.483	5,252.000	5,253.000	5,254.000	5,255.000	5,256.000
8.500	5,257.000	5,259.000	5,260.000	5,261.000	5,262.000
8.517	5,263.000	5,264.000	5,265.000	5,266.000	5,267.000
8.533	5,269.000	5,270.000	5,271.000	5,272.000	5,273.000
8.550	5,274.000	5,275.000	5,276.000	5,277.000	5,278.000
8.567	5,279.000	5,281.000	5,282.000	5,283.000	5,284.000
8.583	5,285.000	5,286.000	5,287.000	5,288.000	5,289.000
8.600	5,290.000	5,291.000	5,292.000	5,293.000	5,294.000
8.617	5,296.000	5,297.000	5,298.000	5,299.000	5,300.000
8.633	5,301.000	5,302.000	5,303.000	5,304.000	5,306.000
8.650	5,307.000	5,308.000	5,309.000	5,310.000	5,311.000
8.667	5,312.000	5,313.000	5,315.000	5,316.000	5,317.000
8.683	5,318.000	5,319.000	5,320.000	5,321.000	5,323.000
8.700	5,324.000	5,325.000	5,326.000	5,327.000	5,328.000
8.717	5,330.000	5,331.000	5,332.000	5,333.000	5,334.000
8.733	5,335.000	5,337.000	5,338.000	5,339.000	5,340.000
8.750	5,341.000	5,343.000	5,344.000	5,345.000	5,346.000
8.767	5,347.000	5,349.000	5,350.000	5,351.000	5,352.000
8.783	5,353.000	5,355.000	5,356.000	5,357.000	5,358.000
8.800	5,359.000	5,361.000	5,362.000	5,363.000	5,365.000
8.817	5,365.000	5,365.000	5,368.000	5,369.000	5,370.000
8.833	5,372.000	5,373.000	5,374.000	5,375.000	5,377.000
8.850	5,378.000	5,379.000	5,380.000	5,382.000	5,383.000
8.867	5,384.000	5,385.000	5,387.000	5,388.000	5,389.000
8.883	5,391.000	5,392.000	5,393.000	5,395.000	5,396.000
8.900	5,397.000	5,399.000	5,400.000	5,401.000	5,403.000
8.917	5,404.000	5,406.000	5,407.000	5,408.000	5,410.000
8.933	5,411.000	5,413.000	5,414.000	5,415.000	5,417.000
8.950	5,418.000	5,420.000	5,421.000	5,423.000	5,424.000
8.967	5,426.000	5,427.000	5,429.000	5,430.000	5,432.000
8.983	5,433.000	5,435.000	5,436.000	5,438.000	5,439.000
9.000	5,441.000	5,442.000	5,444.000	5,446.000	5,447.000
9.017	5,449.000	5,450.000	5,452.000	5,454.000	5,455.000
9.033	5,457.000	5,459.000	5,460.000	5,462.000	5,464.000
9.050	5,465.000	5,467.000	5,469.000	5,470.000	5,472.000
9.067	5,474.000	5,475.000	5,477.000	5,479.000	5,480.000
9.083	5,482.000	5,484.000	5,486.000	5,487.000	5,489.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
9.100	5,491.000	5,492.000	5,494.000	5,496.000	5,498.000
9.117	5,499.000	5,501.000	5,503.000	5,505.000	5,506.000
9.133	5,508.000	5,510.000	5,512.000	5,513.000	5,515.000
9.150	5,517.000	5,519.000	5,521.000	5,522.000	5,524.000
9.167	5,526.000	5,528.000	5,530.000	5,532.000	5,533.000
9.183	5,535.000	5,537.000	5,539.000	5,541.000	5,543.000
9.200	5,544.000	5,546.000	5,548.000	5,550.000	5,552.000
9.217	5,554.000	5,556.000	5,558.000	5,559.000	5,561.000
9.233	5,563.000	5,565.000	5,567.000	5,569.000	5,571.000
9.250	5,573.000	5,575.000	5,577.000	5,579.000	5,581.000
9.267	5,583.000	5,585.000	5,587.000	5,589.000	5,591.000
9.283	5,593.000	5,595.000	5,597.000	5,599.000	5,601.000
9.300	5,603.000	5,605.000	5,607.000	5,609.000	5,611.000
9.317	5,614.000	5,616.000	5,618.000	5,620.000	5,622.000
9.333	5,624.000	5,627.000	5,629.000	5,631.000	5,633.000
9.350	5,635.000	5,638.000	5,640.000	5,642.000	5,645.000
9.367	5,647.000	5,649.000	5,651.000	5,654.000	5,656.000
9.383	5,658.000	5,661.000	5,663.000	5,665.000	5,668.000
9.400	5,670.000	5,672.000	5,675.000	5,677.000	5,679.000
9.417	5,682.000	5,684.000	5,686.000	5,689.000	5,691.000
9.433	5,693.000	5,696.000	5,698.000	5,700.000	5,703.000
9.450	5,705.000	5,707.000	5,710.000	5,712.000	5,715.000
9.467	5,717.000	5,719.000	5,722.000	5,724.000	5,727.000
9.483	5,729.000	5,731.000	5,734.000	5,736.000	5,739.000
9.500	5,741.000	5,744.000	5,746.000	5,749.000	5,751.000
9.517	5,754.000	5,756.000	5,759.000	5,761.000	5,764.000
9.533	5,766.000	5,769.000	5,771.000	5,774.000	5,776.000
9.550	5,779.000	5,781.000	5,784.000	5,786.000	5,789.000
9.567	5,792.000	5,794.000	5,797.000	5,799.000	5,802.000
9.583	5,805.000	5,807.000	5,810.000	5,813.000	5,815.000
9.600	5,818.000	5,821.000	5,823.000	5,826.000	5,829.000
9.617	5,831.000	5,834.000	5,837.000	5,840.000	5,842.000
9.633	5,845.000	5,848.000	5,851.000	5,853.000	5,856.000
9.650	5,859.000	5,862.000	5,865.000	5,868.000	5,870.000
9.667	5,873.000	5,876.000	5,879.000	5,882.000	5,885.000
9.683	5,888.000	5,891.000	5,893.000	5,896.000	5,899.000
9.700	5,902.000	5,905.000	5,908.000	5,911.000	5,914.000
9.717	5,917.000	5,920.000	5,923.000	5,926.000	5,929.000
9.733	5,932.000	5,935.000	5,938.000	5,941.000	5,944.000
9.750	5,947.000	5,950.000	5,953.000	5,956.000	5,959.000
9.767	5,962.000	5,965.000	5,968.000	5,971.000	5,975.000
9.783	5,978.000	5,981.000	5,984.000	5,987.000	5,990.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
9.800	5,993.000	5,996.000	5,999.000	6,002.000	6,006.000
9.817	6,009.000	6,012.000	6,015.000	6,018.000	6,021.000
9.833	6,024.000	6,028.000	6,031.000	6,034.000	6,037.000
9.850	6,040.000	6,044.000	6,047.000	6,050.000	6,053.000
9.867	6,057.000	6,060.000	6,063.000	6,066.000	6,070.000
9.883	6,073.000	6,076.000	6,079.000	6,083.000	6,086.000
9.900	6,089.000	6,093.000	6,096.000	6,099.000	6,103.000
9.917	6,106.000	6,109.000	6,113.000	6,116.000	6,119.000
9.933	6,123.000	6,126.000	6,130.000	6,133.000	6,136.000
9.950	6,140.000	6,143.000	6,147.000	6,150.000	6,154.000
9.967	6,157.000	6,160.000	6,164.000	6,167.000	6,171.000
9.983	6,174.000	6,178.000	6,181.000	6,185.000	6,188.000
10.000	6,192.000	6,195.000	6,199.000	6,202.000	6,206.000
10.017	6,209.000	6,213.000	6,217.000	6,220.000	6,224.000
10.033	6,227.000	6,231.000	6,235.000	6,238.000	6,242.000
10.050	6,245.000	6,249.000	6,253.000	6,256.000	6,260.000
10.067	6,263.000	6,267.000	6,271.000	6,274.000	6,278.000
10.083	6,282.000	6,285.000	6,289.000	6,293.000	6,296.000
10.100	6,300.000	6,304.000	6,307.000	6,311.000	6,315.000
10.117	6,319.000	6,322.000	6,326.000	6,330.000	6,333.000
10.133	6,337.000	6,341.000	6,345.000	6,349.000	6,352.000
10.150	6,356.000	6,360.000	6,364.000	6,368.000	6,371.000
10.167	6,375.000	6,379.000	6,383.000	6,387.000	6,391.000
10.183	6,394.000	6,398.000	6,402.000	6,406.000	6,410.000
10.200	6,414.000	6,418.000	6,422.000	6,426.000	6,430.000
10.217	6,434.000	6,438.000	6,442.000	6,446.000	6,450.000
10.233	6,454.000	6,458.000	6,462.000	6,466.000	6,470.000
10.250	6,474.000	6,478.000	6,482.000	6,486.000	6,491.000
10.267	6,495.000	6,499.000	6,503.000	6,507.000	6,511.000
10.283	6,515.000	6,520.000	6,524.000	6,528.000	6,532.000
10.300	6,536.000	6,540.000	6,545.000	6,549.000	6,553.000
10.317	6,557.000	6,562.000	6,566.000	6,570.000	6,574.000
10.333	6,579.000	6,583.000	6,587.000	6,591.000	6,596.000
10.350	6,600.000	6,604.000	6,609.000	6,613.000	6,617.000
10.367	6,622.000	6,626.000	6,630.000	6,635.000	6,639.000
10.383	6,644.000	6,648.000	6,652.000	6,657.000	6,661.000
10.400	6,665.000	6,670.000	6,674.000	6,679.000	6,683.000
10.417	6,688.000	6,692.000	6,696.000	6,701.000	6,705.000
10.433	6,710.000	6,714.000	6,719.000	6,723.000	6,728.000
10.450	6,732.000	6,737.000	6,741.000	6,746.000	6,750.000
10.467	6,755.000	6,759.000	6,764.000	6,768.000	6,773.000
10.483	6,778.000	6,782.000	6,787.000	6,792.000	6,796.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
10.500	6,801.000	6,806.000	6,810.000	6,815.000	6,820.000
10.517	6,824.000	6,829.000	6,834.000	6,839.000	6,843.000
10.533	6,848.000	6,853.000	6,858.000	6,863.000	6,868.000
10.550	6,872.000	6,877.000	6,882.000	6,887.000	6,892.000
10.567	6,897.000	6,902.000	6,907.000	6,912.000	6,917.000
10.583	6,922.000	6,927.000	6,932.000	6,937.000	6,942.000
10.600	6,947.000	6,952.000	6,957.000	6,962.000	6,967.000
10.617	6,972.000	6,977.000	6,982.000	6,987.000	6,992.000
10.633	6,997.000	7,002.000	7,008.000	7,013.000	7,018.000
10.650	7,023.000	7,028.000	7,033.000	7,038.000	7,043.000
10.667	7,049.000	7,054.000	7,059.000	7,064.000	7,069.000
10.683	7,075.000	7,080.000	7,085.000	7,090.000	7,095.000
10.700	7,101.000	7,106.000	7,111.000	7,116.000	7,122.000
10.717	7,127.000	7,132.000	7,137.000	7,143.000	7,148.000
10.733	7,153.000	7,159.000	7,164.000	7,169.000	7,175.000
10.750	7,180.000	7,185.000	7,191.000	7,196.000	7,201.000
10.767	7,207.000	7,212.000	7,218.000	7,223.000	7,228.000
10.783	7,234.000	7,239.000	7,245.000	7,250.000	7,256.000
10.800	7,261.000	7,267.000	7,272.000	7,278.000	7,283.000
10.817	7,289.000	7,294.000	7,300.000	7,305.000	7,311.000
10.833	7,316.000	7,322.000	7,328.000	7,333.000	7,339.000
10.850	7,345.000	7,350.000	7,356.000	7,362.000	7,367.000
10.867	7,373.000	7,379.000	7,385.000	7,390.000	7,396.000
10.883	7,402.000	7,408.000	7,414.000	7,420.000	7,425.000
10.900	7,431.000	7,437.000	7,443.000	7,449.000	7,455.000
10.917	7,461.000	7,467.000	7,472.000	7,478.000	7,484.000
10.933	7,490.000	7,496.000	7,502.000	7,508.000	7,514.000
10.950	7,520.000	7,526.000	7,532.000	7,538.000	7,544.000
10.967	7,550.000	7,556.000	7,562.000	7,568.000	7,574.000
10.983	7,580.000	7,586.000	7,592.000	7,598.000	7,604.000
11.000	7,610.000	7,616.000	7,622.000	7,628.000	7,634.000
11.017	7,640.000	7,646.000	7,653.000	7,659.000	7,665.000
11.033	7,671.000	7,677.000	7,683.000	7,689.000	7,695.000
11.050	7,702.000	7,708.000	7,714.000	7,720.000	7,726.000
11.067	7,733.000	7,739.000	7,745.000	7,751.000	7,758.000
11.083	7,764.000	7,770.000	7,777.000	7,783.000	7,789.000
11.100	7,796.000	7,802.000	7,808.000	7,815.000	7,821.000
11.117	7,827.000	7,834.000	7,840.000	7,847.000	7,853.000
11.133	7,859.000	7,866.000	7,872.000	7,879.000	7,885.000
11.150	7,892.000	7,898.000	7,905.000	7,912.000	7,918.000
11.167	7,925.000	7,931.000	7,938.000	7,945.000	7,951.000
11.183	7,958.000	7,965.000	7,971.000	7,978.000	7,985.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
11.200	7,991.000	7,998.000	8,005.000	8,012.000	8,019.000
11.217	8,025.000	8,032.000	8,039.000	8,046.000	8,053.000
11.233	8,060.000	8,067.000	8,074.000	8,080.000	8,087.000
11.250	8,094.000	8,101.000	8,108.000	8,115.000	8,122.000
11.267	8,129.000	8,136.000	8,143.000	8,150.000	8,157.000
11.283	8,164.000	8,171.000	8,178.000	8,185.000	8,192.000
11.300	8,199.000	8,206.000	8,213.000	8,220.000	8,227.000
11.317	8,234.000	8,241.000	8,248.000	8,255.000	8,262.000
11.333	8,269.000	8,276.000	8,283.000	8,290.000	8,297.000
11.350	8,304.000	8,311.000	8,318.000	8,325.000	8,333.000
11.367	8,340.000	8,347.000	8,354.000	8,361.000	8,368.000
11.383	8,376.000	8,383.000	8,390.000	8,397.000	8,405.000
11.400	8,412.000	8,419.000	8,426.000	8,434.000	8,441.000
11.417	8,448.000	8,456.000	8,463.000	8,470.000	8,478.000
11.433	8,485.000	8,493.000	8,500.000	8,507.000	8,515.000
11.450	8,522.000	8,530.000	8,537.000	8,545.000	8,552.000
11.467	8,560.000	8,567.000	8,575.000	8,582.000	8,590.000
11.483	8,597.000	8,605.000	8,613.000	8,620.000	8,628.000
11.500	8,635.000	8,643.000	8,651.000	8,659.000	8,666.000
11.517	8,674.000	8,682.000	8,689.000	8,697.000	8,705.000
11.533	8,713.000	8,721.000	8,728.000	8,736.000	8,744.000
11.550	8,752.000	8,760.000	8,768.000	8,776.000	8,783.000
11.567	8,791.000	8,799.000	8,807.000	8,815.000	8,823.000
11.583	8,831.000	8,839.000	8,847.000	8,855.000	8,863.000
11.600	8,871.000	8,879.000	8,887.000	8,895.000	8,903.000
11.617	8,911.000	8,919.000	8,927.000	8,935.000	8,943.000
11.633	8,951.000	8,959.000	8,968.000	8,976.000	8,984.000
11.650	8,992.000	9,000.000	9,008.000	9,016.000	9,024.000
11.667	9,033.000	9,041.000	9,049.000	9,057.000	9,065.000
11.683	9,074.000	9,082.000	9,090.000	9,098.000	9,107.000
11.700	9,115.000	9,123.000	9,132.000	9,140.000	9,148.000
11.717	9,157.000	9,165.000	9,174.000	9,182.000	9,191.000
11.733	9,199.000	9,208.000	9,216.000	9,225.000	9,233.000
11.750	9,242.000	9,250.000	9,259.000	9,267.000	9,276.000
11.767	9,285.000	9,293.000	9,302.000	9,311.000	9,319.000
11.783	9,328.000	9,337.000	9,346.000	9,354.000	9,363.000
11.800	9,372.000	9,381.000	9,390.000	9,398.000	9,407.000
11.817	9,416.000	9,425.000	9,434.000	9,443.000	9,452.000
11.833	9,461.000	9,470.000	9,478.000	9,487.000	9,496.000
11.850	9,505.000	9,514.000	9,523.000	9,532.000	9,542.000
11.867	9,551.000	9,560.000	9,569.000	9,578.000	9,587.000
11.883	9,596.000	9,605.000	9,614.000	9,623.000	9,633.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
11.900	9,642.000	9,651.000	9,660.000	9,669.000	9,679.000
11.917	9,688.000	9,697.000	9,706.000	9,715.000	9,725.000
11.933	9,734.000	9,743.000	9,752.000	9,761.000	9,771.000
11.950	9,780.000	9,789.000	9,798.000	9,808.000	9,817.000
11.967	9,826.000	9,836.000	9,845.000	9,854.000	9,863.000
11.983	9,873.000	9,882.000	9,891.000	9,901.000	9,910.000
12.000	9,919.000	9,929.000	9,938.000	9,947.000	9,956.000
12.017	9,966.000	9,975.000	9,984.000	9,993.000	10,002.000
12.033	10,011.000	10,020.000	10,030.000	10,039.000	10,048.000
12.050	10,057.000	10,066.000	10,075.000	10,083.000	10,092.000
12.067	10,101.000	10,110.000	10,119.000	10,128.000	10,137.000
12.083	10,145.000	10,154.000	10,163.000	10,172.000	10,180.000
12.100	10,189.000	10,198.000	10,206.000	10,215.000	10,223.000
12.117	10,232.000	10,240.000	10,249.000	10,258.000	10,266.000
12.133	10,275.000	10,283.000	10,292.000	10,300.000	10,309.000
12.150	10,317.000	10,326.000	10,334.000	10,343.000	10,351.000
12.167	10,360.000	10,368.000	10,377.000	10,385.000	10,394.000
12.183	10,402.000	10,411.000	10,419.000	10,428.000	10,436.000
12.200	10,445.000	10,453.000	10,462.000	10,470.000	10,479.000
12.217	10,487.000	10,495.000	10,504.000	10,512.000	10,521.000
12.233	10,529.000	10,538.000	10,546.000	10,555.000	10,563.000
12.250	10,572.000	10,580.000	10,589.000	10,597.000	10,606.000
12.267	10,614.000	10,623.000	10,632.000	10,640.000	10,649.000
12.283	10,657.000	10,666.000	10,675.000	10,683.000	10,692.000
12.300	10,701.000	10,709.000	10,718.000	10,727.000	10,735.000
12.317	10,744.000	10,753.000	10,762.000	10,770.000	10,779.000
12.333	10,788.000	10,797.000	10,805.000	10,814.000	10,823.000
12.350	10,832.000	10,841.000	10,850.000	10,859.000	10,868.000
12.367	10,877.000	10,886.000	10,895.000	10,904.000	10,913.000
12.383	10,922.000	10,932.000	10,941.000	10,950.000	10,959.000
12.400	10,969.000	10,978.000	10,987.000	10,996.000	11,006.000
12.417	11,015.000	11,025.000	11,034.000	11,043.000	11,053.000
12.433	11,062.000	11,072.000	11,082.000	11,091.000	11,101.000
12.450	11,110.000	11,120.000	11,129.000	11,139.000	11,149.000
12.467	11,158.000	11,168.000	11,178.000	11,187.000	11,197.000
12.483	11,207.000	11,216.000	11,226.000	11,236.000	11,246.000
12.500	11,255.000	11,265.000	11,275.000	11,285.000	11,295.000
12.517	11,304.000	11,314.000	11,324.000	11,334.000	11,344.000
12.533	11,354.000	11,364.000	11,373.000	11,383.000	11,393.000
12.550	11,403.000	11,413.000	11,423.000	11,433.000	11,443.000
12.567	11,453.000	11,463.000	11,473.000	11,483.000	11,493.000
12.583	11,503.000	11,513.000	11,524.000	11,534.000	11,544.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
12.600	11,554.000	11,564.000	11,574.000	11,585.000	11,595.000
12.617	11,605.000	11,615.000	11,626.000	11,636.000	11,646.000
12.633	11,657.000	11,667.000	11,677.000	11,688.000	11,698.000
12.650	11,709.000	11,719.000	11,729.000	11,740.000	11,750.000
12.667	11,761.000	11,771.000	11,782.000	11,793.000	11,803.000
12.683	11,814.000	11,824.000	11,835.000	11,846.000	11,857.000
12.700	11,867.000	11,878.000	11,889.000	11,900.000	11,910.000
12.717	11,921.000	11,932.000	11,943.000	11,954.000	11,965.000
12.733	11,976.000	11,987.000	11,998.000	12,009.000	12,020.000
12.750	12,031.000	12,042.000	12,053.000	12,064.000	12,076.000
12.767	12,087.000	12,098.000	12,109.000	12,121.000	12,132.000
12.783	12,143.000	12,154.000	12,166.000	12,177.000	12,188.000
12.800	12,200.000	12,211.000	12,222.000	12,234.000	12,245.000
12.817	12,256.000	12,268.000	12,279.000	12,291.000	12,302.000
12.833	12,314.000	12,325.000	12,337.000	12,348.000	12,360.000
12.850	12,371.000	12,383.000	12,394.000	12,406.000	12,417.000
12.867	12,429.000	12,441.000	12,452.000	12,464.000	12,475.000
12.883	12,487.000	12,499.000	12,510.000	12,522.000	12,534.000
12.900	12,546.000	12,558.000	12,569.000	12,581.000	12,593.000
12.917	12,605.000	12,617.000	12,629.000	12,641.000	12,653.000
12.933	12,665.000	12,677.000	12,689.000	12,701.000	12,713.000
12.950	12,725.000	12,737.000	12,749.000	12,762.000	12,774.000
12.967	12,786.000	12,798.000	12,811.000	12,823.000	12,835.000
12.983	12,848.000	12,860.000	12,872.000	12,885.000	12,897.000
13.000	12,910.000	12,922.000	12,935.000	12,947.000	12,960.000
13.017	12,972.000	12,985.000	12,998.000	13,010.000	13,023.000
13.033	13,036.000	13,048.000	13,061.000	13,074.000	13,087.000
13.050	13,100.000	13,113.000	13,125.000	13,138.000	13,151.000
13.067	13,164.000	13,177.000	13,190.000	13,203.000	13,216.000
13.083	13,229.000	13,243.000	13,256.000	13,269.000	13,282.000
13.100	13,295.000	13,309.000	13,322.000	13,335.000	13,348.000
13.117	13,362.000	13,375.000	13,388.000	13,402.000	13,415.000
13.133	13,428.000	13,442.000	13,455.000	13,468.000	13,482.000
13.150	13,495.000	13,509.000	13,522.000	13,535.000	13,549.000
13.167	13,562.000	13,576.000	13,589.000	13,603.000	13,616.000
13.183	13,630.000	13,643.000	13,657.000	13,671.000	13,684.000
13.200	13,698.000	13,711.000	13,725.000	13,739.000	13,752.000
13.217	13,766.000	13,780.000	13,793.000	13,807.000	13,821.000
13.233	13,835.000	13,849.000	13,863.000	13,876.000	13,890.000
13.250	13,904.000	13,918.000	13,932.000	13,947.000	13,961.000
13.267	13,975.000	13,989.000	14,003.000	14,017.000	14,032.000
13.283	14,046.000	14,060.000	14,075.000	14,089.000	14,104.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
13.300	14,118.000	14,132.000	14,147.000	14,161.000	14,176.000
13.317	14,191.000	14,205.000	14,220.000	14,235.000	14,249.000
13.333	14,264.000	14,279.000	14,294.000	14,309.000	14,323.000
13.350	14,338.000	14,353.000	14,368.000	14,383.000	14,398.000
13.367	14,413.000	14,428.000	14,443.000	14,458.000	14,473.000
13.383	14,489.000	14,504.000	14,519.000	14,534.000	14,549.000
13.400	14,565.000	14,580.000	14,595.000	14,611.000	14,626.000
13.417	14,642.000	14,657.000	14,673.000	14,688.000	14,704.000
13.433	14,719.000	14,735.000	14,750.000	14,766.000	14,782.000
13.450	14,797.000	14,813.000	14,829.000	14,844.000	14,860.000
13.467	14,876.000	14,892.000	14,908.000	14,923.000	14,939.000
13.483	14,955.000	14,971.000	14,987.000	15,003.000	15,019.000
13.500	15,035.000	15,051.000	15,067.000	15,083.000	15,099.000
13.517	15,115.000	15,131.000	15,147.000	15,163.000	15,179.000
13.533	15,196.000	15,212.000	15,228.000	15,244.000	15,261.000
13.550	15,277.000	15,293.000	15,310.000	15,326.000	15,343.000
13.567	15,359.000	15,376.000	15,392.000	15,409.000	15,425.000
13.583	15,442.000	15,459.000	15,476.000	15,492.000	15,509.000
13.600	15,526.000	15,543.000	15,560.000	15,577.000	15,594.000
13.617	15,611.000	15,628.000	15,645.000	15,663.000	15,680.000
13.633	15,697.000	15,714.000	15,732.000	15,749.000	15,766.000
13.650	15,784.000	15,801.000	15,819.000	15,836.000	15,854.000
13.667	15,872.000	15,889.000	15,907.000	15,924.000	15,942.000
13.683	15,960.000	15,978.000	15,995.000	16,013.000	16,031.000
13.700	16,049.000	16,067.000	16,085.000	16,103.000	16,121.000
13.717	16,139.000	16,157.000	16,175.000	16,193.000	16,211.000
13.733	16,229.000	16,247.000	16,265.000	16,284.000	16,302.000
13.750	16,320.000	16,338.000	16,357.000	16,375.000	16,393.000
13.767	16,412.000	16,430.000	16,449.000	16,467.000	16,486.000
13.783	16,504.000	16,523.000	16,541.000	16,560.000	16,579.000
13.800	16,597.000	16,616.000	16,635.000	16,654.000	16,672.000
13.817	16,691.000	16,710.000	16,729.000	16,748.000	16,767.000
13.833	16,786.000	16,805.000	16,824.000	16,843.000	16,862.000
13.850	16,881.000	16,900.000	16,919.000	16,939.000	16,958.000
13.867	16,977.000	16,996.000	17,016.000	17,035.000	17,055.000
13.883	17,074.000	17,094.000	17,113.000	17,133.000	17,152.000
13.900	17,172.000	17,192.000	17,212.000	17,231.000	17,251.000
13.917	17,271.000	17,291.000	17,311.000	17,331.000	17,352.000
13.933	17,372.000	17,392.000	17,412.000	17,433.000	17,453.000
13.950	17,473.000	17,494.000	17,514.000	17,535.000	17,555.000
13.967	17,576.000	17,597.000	17,618.000	17,638.000	17,659.000
13.983	17,680.000	17,701.000	17,722.000	17,743.000	17,764.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
14.000	17,784.000	17,805.000	17,826.000	17,847.000	17,868.000
14.017	17,889.000	17,910.000	17,931.000	17,952.000	17,972.000
14.033	17,993.000	18,014.000	18,035.000	18,056.000	18,077.000
14.050	18,098.000	18,119.000	18,140.000	18,161.000	18,182.000
14.067	18,202.000	18,223.000	18,244.000	18,265.000	18,286.000
14.083	18,307.000	18,328.000	18,349.000	18,370.000	18,391.000
14.100	18,412.000	18,433.000	18,454.000	18,475.000	18,496.000
14.117	18,517.000	18,538.000	18,559.000	18,580.000	18,601.000
14.133	18,622.000	18,643.000	18,664.000	18,685.000	18,706.000
14.150	18,727.000	18,748.000	18,769.000	18,790.000	18,811.000
14.167	18,832.000	18,853.000	18,874.000	18,895.000	18,916.000
14.183	18,937.000	18,958.000	18,979.000	19,000.000	19,021.000
14.200	19,042.000	19,063.000	19,084.000	19,105.000	19,127.000
14.217	19,148.000	19,169.000	19,190.000	19,211.000	19,233.000
14.233	19,254.000	19,275.000	19,297.000	19,318.000	19,339.000
14.250	19,361.000	19,382.000	19,403.000	19,425.000	19,446.000
14.267	19,468.000	19,489.000	19,511.000	19,532.000	19,554.000
14.283	19,575.000	19,597.000	19,618.000	19,640.000	19,662.000
14.300	19,683.000	19,705.000	19,727.000	19,749.000	19,770.000
14.317	19,792.000	19,814.000	19,836.000	19,858.000	19,880.000
14.333	19,902.000	19,924.000	19,946.000	19,968.000	19,990.000
14.350	20,012.000	20,034.000	20,056.000	20,079.000	20,101.000
14.367	20,123.000	20,146.000	20,168.000	20,190.000	20,213.000
14.383	20,235.000	20,258.000	20,280.000	20,303.000	20,326.000
14.400	20,348.000	20,371.000	20,394.000	20,416.000	20,439.000
14.417	20,462.000	20,485.000	20,508.000	20,531.000	20,554.000
14.433	20,577.000	20,600.000	20,623.000	20,647.000	20,670.000
14.450	20,694.000	20,717.000	20,741.000	20,764.000	20,788.000
14.467	20,812.000	20,836.000	20,859.000	20,883.000	20,907.000
14.483	20,931.000	20,956.000	20,980.000	21,004.000	21,028.000
14.500	21,053.000	21,077.000	21,102.000	21,126.000	21,151.000
14.517	21,176.000	21,200.000	21,225.000	21,250.000	21,275.000
14.533	21,300.000	21,325.000	21,350.000	21,376.000	21,401.000
14.550	21,426.000	21,452.000	21,477.000	21,503.000	21,529.000
14.567	21,554.000	21,580.000	21,606.000	21,632.000	21,658.000
14.583	21,684.000	21,710.000	21,736.000	21,763.000	21,789.000
14.600	21,816.000	21,842.000	21,869.000	21,895.000	21,922.000
14.617	21,949.000	21,976.000	22,003.000	22,030.000	22,057.000
14.633	22,084.000	22,111.000	22,138.000	22,166.000	22,193.000
14.650	22,220.000	22,248.000	22,275.000	22,303.000	22,331.000
14.667	22,358.000	22,386.000	22,414.000	22,441.000	22,469.000
14.683	22,497.000	22,525.000	22,553.000	22,581.000	22,609.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
14.700	22,637.000	22,665.000	22,694.000	22,722.000	22,750.000
14.717	22,778.000	22,807.000	22,835.000	22,864.000	22,892.000
14.733	22,921.000	22,949.000	22,978.000	23,007.000	23,035.000
14.750	23,064.000	23,093.000	23,122.000	23,151.000	23,180.000
14.767	23,210.000	23,239.000	23,268.000	23,298.000	23,328.000
14.783	23,357.000	23,387.000	23,417.000	23,447.000	23,478.000
14.800	23,508.000	23,538.000	23,569.000	23,599.000	23,630.000
14.817	23,661.000	23,692.000	23,723.000	23,754.000	23,785.000
14.833	23,816.000	23,848.000	23,879.000	23,911.000	23,942.000
14.850	23,974.000	24,006.000	24,038.000	24,070.000	24,103.000
14.867	24,135.000	24,167.000	24,200.000	24,232.000	24,265.000
14.883	24,298.000	24,331.000	24,364.000	24,397.000	24,430.000
14.900	24,463.000	24,496.000	24,530.000	24,563.000	24,597.000
14.917	24,631.000	24,665.000	24,699.000	24,733.000	24,767.000
14.933	24,801.000	24,835.000	24,869.000	24,904.000	24,939.000
14.950	24,973.000	25,008.000	25,043.000	25,078.000	25,113.000
14.967	25,148.000	25,183.000	25,218.000	25,254.000	25,289.000
14.983	25,325.000	25,360.000	25,396.000	25,432.000	25,468.000
15.000	25,504.000	25,540.000	25,576.000	25,612.000	25,648.000
15.017	25,685.000	25,721.000	25,758.000	25,794.000	25,831.000
15.033	25,867.000	25,904.000	25,941.000	25,978.000	26,015.000
15.050	26,052.000	26,089.000	26,127.000	26,164.000	26,201.000
15.067	26,239.000	26,277.000	26,314.000	26,352.000	26,390.000
15.083	26,428.000	26,466.000	26,504.000	26,543.000	26,581.000
15.100	26,620.000	26,659.000	26,698.000	26,737.000	26,777.000
15.117	26,816.000	26,856.000	26,896.000	26,936.000	26,976.000
15.133	27,017.000	27,058.000	27,098.000	27,139.000	27,180.000
15.150	27,222.000	27,263.000	27,305.000	27,347.000	27,388.000
15.167	27,431.000	27,473.000	27,515.000	27,558.000	27,601.000
15.183	27,644.000	27,687.000	27,730.000	27,774.000	27,817.000
15.200	27,861.000	27,905.000	27,949.000	27,993.000	28,037.000
15.217	28,082.000	28,126.000	28,171.000	28,216.000	28,261.000
15.233	28,306.000	28,351.000	28,396.000	28,442.000	28,487.000
15.250	28,533.000	28,579.000	28,625.000	28,671.000	28,717.000
15.267	28,764.000	28,810.000	28,857.000	28,904.000	28,951.000
15.283	28,998.000	29,045.000	29,093.000	29,140.000	29,188.000
15.300	29,236.000	29,284.000	29,332.000	29,381.000	29,430.000
15.317	29,479.000	29,529.000	29,580.000	29,630.000	29,681.000
15.333	29,732.000	29,784.000	29,836.000	29,888.000	29,941.000
15.350	29,994.000	30,048.000	30,102.000	30,156.000	30,210.000
15.367	30,265.000	30,321.000	30,376.000	30,432.000	30,489.000
15.383	30,545.000	30,602.000	30,660.000	30,718.000	30,776.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
15.400	30,834.000	30,893.000	30,953.000	31,012.000	31,072.000
15.417	31,134.000	31,196.000	31,260.000	31,324.000	31,389.000
15.433	31,456.000	31,523.000	31,592.000	31,661.000	31,731.000
15.450	31,803.000	31,875.000	31,949.000	32,023.000	32,099.000
15.467	32,176.000	32,253.000	32,332.000	32,411.000	32,492.000
15.483	32,574.000	32,656.000	32,740.000	32,825.000	32,910.000
15.500	32,997.000	33,085.000	33,173.000	33,263.000	33,354.000
15.517	33,446.000	33,538.000	33,632.000	33,726.000	33,820.000
15.533	33,915.000	34,010.000	34,106.000	34,202.000	34,298.000
15.550	34,395.000	34,492.000	34,590.000	34,688.000	34,786.000
15.567	34,885.000	34,985.000	35,084.000	35,184.000	35,285.000
15.583	35,386.000	35,487.000	35,589.000	35,691.000	35,794.000
15.600	35,897.000	36,000.000	36,104.000	36,208.000	36,313.000
15.617	36,418.000	36,524.000	36,630.000	36,736.000	36,843.000
15.633	36,950.000	37,058.000	37,166.000	37,275.000	37,384.000
15.650	37,494.000	37,605.000	37,715.000	37,827.000	37,939.000
15.667	38,052.000	38,165.000	38,278.000	38,393.000	38,505.000
15.683	38,623.000	38,738.000	38,855.000	38,972.000	39,089.000
15.700	39,207.000	39,325.000	39,444.000	39,564.000	39,684.000
15.717	39,805.000	39,926.000	40,047.000	40,170.000	40,292.000
15.733	40,416.000	40,540.000	40,664.000	40,789.000	40,915.000
15.750	41,042.000	41,169.000	41,298.000	41,427.000	41,557.000
15.767	41,688.000	41,820.000	41,952.000	42,086.000	42,220.000
15.783	42,355.000	42,491.000	42,628.000	42,766.000	42,904.000
15.800	43,044.000	43,184.000	43,325.000	43,467.000	43,610.000
15.817	43,753.000	43,898.000	44,043.000	44,189.000	44,336.000
15.833	44,484.000	44,632.000	44,782.000	44,932.000	45,083.000
15.850	45,235.000	45,388.000	45,543.000	45,698.000	45,854.000
15.867	46,012.000	46,171.000	46,331.000	46,492.000	46,654.000
15.883	46,817.000	46,982.000	47,147.000	47,314.000	47,482.000
15.900	47,651.000	47,821.000	47,992.000	48,165.000	48,339.000
15.917	48,513.000	48,689.000	48,866.000	49,045.000	49,224.000
15.933	49,405.000	49,586.000	49,769.000	49,953.000	50,138.000
15.950	50,324.000	50,512.000	50,700.000	50,890.000	51,083.000
15.967	51,280.000	51,481.000	51,687.000	51,898.000	52,112.000
15.983	52,332.000	52,556.000	52,784.000	53,017.000	53,254.000
16.000	53,496.000	53,743.000	53,993.000	54,249.000	54,508.000
16.017	54,773.000	55,042.000	55,315.000	55,592.000	55,875.000
16.033	56,161.000	56,453.000	56,748.000	57,048.000	57,353.000
16.050	57,662.000	57,976.000	58,294.000	58,616.000	58,943.000
16.067	59,275.000	59,611.000	59,951.000	60,293.000	60,637.000
16.083	60,985.000	61,335.000	61,687.000	62,042.000	62,400.000

Subsection: Time vs. Volume
Label: PO-1

Scenario: Base

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
16.100	62,760.000	63,123.000	63,488.000	63,856.000	64,227.000
16.117	64,600.000	64,976.000	65,354.000	65,735.000	66,119.000
16.133	66,505.000	66,893.000	67,285.000	67,679.000	68,075.000
16.150	68,474.000	68,876.000	69,280.000	69,687.000	70,096.000
16.167	70,508.000	70,922.000	71,340.000	71,759.000	72,182.000
16.183	72,601.000	73,014.000	73,418.000	73,815.000	74,205.000
16.200	74,587.000	74,961.000	75,328.000	75,687.000	76,039.000
16.217	76,383.000	76,720.000	77,049.000	77,370.000	77,684.000
16.233	77,991.000	78,289.000	78,581.000	78,864.000	79,140.000
16.250	79,409.000	79,670.000	79,923.000	80,169.000	80,407.000
16.267	80,638.000	80,861.000	81,077.000	81,285.000	81,485.000
16.283	81,678.000	81,863.000	82,041.000	82,214.000	82,384.000
16.300	82,552.000	82,717.000	82,881.000	83,041.000	83,200.000
16.317	83,356.000	83,509.000	83,660.000	83,809.000	83,955.000
16.333	84,099.000	84,241.000	84,380.000	84,517.000	84,651.000
16.350	84,783.000	84,913.000	85,040.000	85,165.000	85,287.000
16.367	85,407.000	85,525.000	85,640.000	85,753.000	85,863.000
16.383	85,971.000	86,077.000	86,180.000	86,280.000	86,379.000
16.400	86,475.000	86,569.000	86,662.000	86,755.000	86,846.000
16.417	86,937.000	87,026.000	87,114.000	87,202.000	87,288.000
16.433	87,374.000	87,458.000	87,542.000	87,624.000	87,706.000
16.450	87,787.000	87,866.000	87,945.000	88,023.000	88,099.000
16.467	88,175.000	88,250.000	88,324.000	88,396.000	88,468.000
16.483	88,539.000	88,609.000	88,678.000	88,746.000	88,813.000
16.500	88,878.000	88,943.000	89,007.000	89,070.000	89,133.000
16.517	89,194.000	89,255.000	89,315.000	89,375.000	89,434.000
16.533	89,492.000	89,550.000	89,607.000	89,663.000	89,719.000
16.550	89,774.000	89,828.000	89,882.000	89,935.000	89,988.000
16.567	90,039.000	90,091.000	90,141.000	90,191.000	90,240.000
16.583	90,289.000	90,337.000	90,384.000	90,430.000	90,476.000
16.600	90,522.000	90,566.000	90,610.000	90,654.000	90,696.000
16.617	90,738.000	90,780.000	90,821.000	90,862.000	90,902.000
16.633	90,942.000	90,982.000	91,022.000	91,062.000	91,102.000
16.650	91,141.000	91,180.000	91,219.000	91,257.000	91,296.000
16.667	91,334.000	91,372.000	91,410.000	91,447.000	91,485.000
16.683	91,522.000	91,559.000	91,595.000	91,632.000	91,668.000
16.700	91,704.000	91,740.000	91,776.000	91,811.000	91,846.000
16.717	91,881.000	91,916.000	91,951.000	91,985.000	92,019.000
16.733	92,053.000	92,087.000	92,120.000	92,154.000	92,187.000
16.750	92,220.000	92,253.000	92,286.000	92,319.000	92,351.000
16.767	92,383.000	92,415.000	92,447.000	92,479.000	92,511.000
16.783	92,542.000	92,573.000	92,604.000	92,635.000	92,666.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
16.800	92,696.000	92,727.000	92,757.000	92,787.000	92,817.000
16.817	92,847.000	92,876.000	92,906.000	92,935.000	92,964.000
16.833	92,993.000	93,021.000	93,050.000	93,078.000	93,107.000
16.850	93,135.000	93,163.000	93,191.000	93,218.000	93,246.000
16.867	93,273.000	93,301.000	93,328.000	93,355.000	93,382.000
16.883	93,409.000	93,435.000	93,462.000	93,488.000	93,515.000
16.900	93,541.000	93,567.000	93,593.000	93,618.000	93,644.000
16.917	93,670.000	93,695.000	93,720.000	93,745.000	93,770.000
16.933	93,795.000	93,820.000	93,844.000	93,869.000	93,893.000
16.950	93,917.000	93,941.000	93,965.000	93,989.000	94,013.000
16.967	94,037.000	94,060.000	94,084.000	94,107.000	94,130.000
16.983	94,154.000	94,177.000	94,200.000	94,223.000	94,245.000
17.000	94,268.000	94,291.000	94,313.000	94,336.000	94,358.000
17.017	94,380.000	94,402.000	94,424.000	94,446.000	94,468.000
17.033	94,490.000	94,511.000	94,533.000	94,554.000	94,576.000
17.050	94,597.000	94,618.000	94,639.000	94,660.000	94,681.000
17.067	94,702.000	94,723.000	94,743.000	94,764.000	94,785.000
17.083	94,806.000	94,826.000	94,847.000	94,868.000	94,888.000
17.100	94,909.000	94,930.000	94,950.000	94,971.000	94,991.000
17.117	95,012.000	95,032.000	95,053.000	95,073.000	95,094.000
17.133	95,114.000	95,134.000	95,155.000	95,175.000	95,195.000
17.150	95,215.000	95,236.000	95,256.000	95,276.000	95,296.000
17.167	95,316.000	95,337.000	95,357.000	95,377.000	95,397.000
17.183	95,417.000	95,437.000	95,457.000	95,476.000	95,496.000
17.200	95,516.000	95,536.000	95,556.000	95,575.000	95,595.000
17.217	95,615.000	95,634.000	95,654.000	95,673.000	95,693.000
17.233	95,712.000	95,732.000	95,751.000	95,771.000	95,790.000
17.250	95,809.000	95,829.000	95,848.000	95,867.000	95,886.000
17.267	95,906.000	95,925.000	95,944.000	95,963.000	95,982.000
17.283	96,001.000	96,020.000	96,039.000	96,057.000	96,076.000
17.300	96,095.000	96,113.000	96,132.000	96,150.000	96,169.000
17.317	96,187.000	96,206.000	96,224.000	96,242.000	96,260.000
17.333	96,278.000	96,296.000	96,314.000	96,332.000	96,350.000
17.350	96,367.000	96,385.000	96,403.000	96,420.000	96,438.000
17.367	96,455.000	96,473.000	96,490.000	96,507.000	96,524.000
17.383	96,541.000	96,558.000	96,575.000	96,592.000	96,609.000
17.400	96,626.000	96,643.000	96,659.000	96,676.000	96,693.000
17.417	96,709.000	96,726.000	96,742.000	96,759.000	96,775.000
17.433	96,791.000	96,807.000	96,824.000	96,840.000	96,856.000
17.450	96,872.000	96,888.000	96,904.000	96,920.000	96,935.000
17.467	96,951.000	96,967.000	96,983.000	96,998.000	97,014.000
17.483	97,029.000	97,045.000	97,060.000	97,075.000	97,091.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
17.500	97,106.000	97,121.000	97,136.000	97,151.000	97,166.000
17.517	97,181.000	97,196.000	97,211.000	97,226.000	97,241.000
17.533	97,255.000	97,270.000	97,285.000	97,299.000	97,314.000
17.550	97,328.000	97,343.000	97,357.000	97,371.000	97,386.000
17.567	97,400.000	97,414.000	97,428.000	97,443.000	97,457.000
17.583	97,471.000	97,485.000	97,498.000	97,512.000	97,526.000
17.600	97,540.000	97,554.000	97,567.000	97,581.000	97,595.000
17.617	97,608.000	97,622.000	97,635.000	97,649.000	97,662.000
17.633	97,675.000	97,688.000	97,702.000	97,715.000	97,728.000
17.650	97,741.000	97,754.000	97,767.000	97,780.000	97,793.000
17.667	97,806.000	97,819.000	97,832.000	97,844.000	97,857.000
17.683	97,870.000	97,882.000	97,895.000	97,907.000	97,920.000
17.700	97,932.000	97,945.000	97,957.000	97,969.000	97,982.000
17.717	97,994.000	98,006.000	98,018.000	98,030.000	98,042.000
17.733	98,054.000	98,066.000	98,078.000	98,090.000	98,102.000
17.750	98,114.000	98,126.000	98,137.000	98,149.000	98,161.000
17.767	98,172.000	98,184.000	98,195.000	98,207.000	98,218.000
17.783	98,230.000	98,241.000	98,252.000	98,264.000	98,275.000
17.800	98,286.000	98,297.000	98,309.000	98,320.000	98,331.000
17.817	98,342.000	98,353.000	98,364.000	98,375.000	98,385.000
17.833	98,396.000	98,407.000	98,418.000	98,428.000	98,439.000
17.850	98,450.000	98,460.000	98,471.000	98,481.000	98,492.000
17.867	98,502.000	98,513.000	98,523.000	98,534.000	98,544.000
17.883	98,554.000	98,564.000	98,575.000	98,585.000	98,595.000
17.900	98,605.000	98,615.000	98,625.000	98,635.000	98,645.000
17.917	98,655.000	98,665.000	98,675.000	98,685.000	98,694.000
17.933	98,704.000	98,714.000	98,723.000	98,733.000	98,743.000
17.950	98,752.000	98,762.000	98,772.000	98,781.000	98,791.000
17.967	98,800.000	98,810.000	98,819.000	98,829.000	98,839.000
17.983	98,848.000	98,858.000	98,867.000	98,877.000	98,886.000
18.000	98,896.000	98,905.000	98,914.000	98,924.000	98,933.000
18.017	98,943.000	98,952.000	98,961.000	98,971.000	98,980.000
18.033	98,990.000	98,999.000	99,008.000	99,018.000	99,027.000
18.050	99,036.000	99,045.000	99,055.000	99,064.000	99,074.000
18.067	99,083.000	99,092.000	99,102.000	99,111.000	99,121.000
18.083	99,130.000	99,139.000	99,149.000	99,159.000	99,168.000
18.100	99,178.000	99,187.000	99,197.000	99,206.000	99,216.000
18.117	99,226.000	99,235.000	99,245.000	99,255.000	99,264.000
18.133	99,274.000	99,284.000	99,294.000	99,303.000	99,313.000
18.150	99,323.000	99,333.000	99,343.000	99,352.000	99,362.000
18.167	99,372.000	99,382.000	99,392.000	99,402.000	99,411.000
18.183	99,421.000	99,431.000	99,440.000	99,450.000	99,459.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
18.200	99,469.000	99,479.000	99,488.000	99,498.000	99,507.000
18.217	99,516.000	99,526.000	99,535.000	99,545.000	99,554.000
18.233	99,563.000	99,573.000	99,582.000	99,591.000	99,600.000
18.250	99,609.000	99,618.000	99,628.000	99,637.000	99,646.000
18.267	99,655.000	99,664.000	99,673.000	99,682.000	99,691.000
18.283	99,700.000	99,708.000	99,717.000	99,726.000	99,735.000
18.300	99,744.000	99,752.000	99,761.000	99,770.000	99,779.000
18.317	99,787.000	99,796.000	99,804.000	99,813.000	99,822.000
18.333	99,830.000	99,839.000	99,847.000	99,855.000	99,864.000
18.350	99,872.000	99,881.000	99,889.000	99,897.000	99,906.000
18.367	99,914.000	99,922.000	99,930.000	99,938.000	99,947.000
18.383	99,955.000	99,963.000	99,971.000	99,979.000	99,987.000
18.400	99,995.000	100,003.000	100,011.000	100,019.000	100,027.000
18.417	100,035.000	100,043.000	100,050.000	100,058.000	100,066.000
18.433	100,074.000	100,082.000	100,089.000	100,097.000	100,105.000
18.450	100,112.000	100,120.000	100,128.000	100,135.000	100,143.000
18.467	100,150.000	100,158.000	100,165.000	100,173.000	100,180.000
18.483	100,188.000	100,195.000	100,202.000	100,210.000	100,217.000
18.500	100,224.000	100,231.000	100,239.000	100,246.000	100,253.000
18.517	100,260.000	100,268.000	100,275.000	100,282.000	100,289.000
18.533	100,296.000	100,303.000	100,310.000	100,317.000	100,324.000
18.550	100,331.000	100,338.000	100,345.000	100,352.000	100,359.000
18.567	100,366.000	100,372.000	100,379.000	100,386.000	100,393.000
18.583	100,400.000	100,406.000	100,413.000	100,420.000	100,426.000
18.600	100,433.000	100,440.000	100,446.000	100,453.000	100,459.000
18.617	100,466.000	100,473.000	100,479.000	100,486.000	100,492.000
18.633	100,498.000	100,505.000	100,511.000	100,518.000	100,524.000
18.650	100,531.000	100,537.000	100,543.000	100,549.000	100,556.000
18.667	100,562.000	100,568.000	100,575.000	100,581.000	100,587.000
18.683	100,593.000	100,599.000	100,605.000	100,611.000	100,618.000
18.700	100,624.000	100,630.000	100,636.000	100,642.000	100,648.000
18.717	100,654.000	100,660.000	100,666.000	100,672.000	100,678.000
18.733	100,683.000	100,689.000	100,695.000	100,701.000	100,707.000
18.750	100,713.000	100,718.000	100,724.000	100,730.000	100,736.000
18.767	100,741.000	100,747.000	100,753.000	100,758.000	100,764.000
18.783	100,770.000	100,775.000	100,781.000	100,786.000	100,792.000
18.800	100,797.000	100,803.000	100,808.000	100,814.000	100,819.000
18.817	100,825.000	100,830.000	100,836.000	100,841.000	100,846.000
18.833	100,852.000	100,857.000	100,862.000	100,868.000	100,873.000
18.850	100,878.000	100,883.000	100,889.000	100,894.000	100,899.000
18.867	100,904.000	100,909.000	100,915.000	100,920.000	100,925.000
18.883	100,930.000	100,935.000	100,940.000	100,945.000	100,950.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
18.900	100,955.000	100,960.000	100,965.000	100,970.000	100,975.000
18.917	100,980.000	100,985.000	100,990.000	100,994.000	100,999.000
18.933	101,004.000	101,009.000	101,014.000	101,018.000	101,023.000
18.950	101,028.000	101,033.000	101,037.000	101,042.000	101,047.000
18.967	101,051.000	101,056.000	101,060.000	101,065.000	101,070.000
18.983	101,074.000	101,079.000	101,083.000	101,088.000	101,092.000
19.000	101,097.000	101,101.000	101,105.000	101,110.000	101,114.000
19.017	101,119.000	101,123.000	101,127.000	101,132.000	101,136.000
19.033	101,140.000	101,144.000	101,149.000	101,153.000	101,157.000
19.050	101,161.000	101,165.000	101,169.000	101,174.000	101,178.000
19.067	101,182.000	101,186.000	101,190.000	101,194.000	101,198.000
19.083	101,202.000	101,206.000	101,210.000	101,214.000	101,218.000
19.100	101,222.000	101,226.000	101,230.000	101,234.000	101,237.000
19.117	101,241.000	101,245.000	101,249.000	101,253.000	101,256.000
19.133	101,260.000	101,264.000	101,268.000	101,271.000	101,275.000
19.150	101,279.000	101,283.000	101,286.000	101,290.000	101,293.000
19.167	101,297.000	101,301.000	101,304.000	101,308.000	101,311.000
19.183	101,315.000	101,318.000	101,322.000	101,325.000	101,329.000
19.200	101,332.000	101,336.000	101,339.000	101,343.000	101,346.000
19.217	101,349.000	101,353.000	101,356.000	101,360.000	101,363.000
19.233	101,366.000	101,370.000	101,373.000	101,376.000	101,379.000
19.250	101,383.000	101,386.000	101,389.000	101,392.000	101,395.000
19.267	101,399.000	101,402.000	101,405.000	101,408.000	101,411.000
19.283	101,414.000	101,417.000	101,420.000	101,424.000	101,427.000
19.300	101,430.000	101,433.000	101,436.000	101,439.000	101,442.000
19.317	101,445.000	101,448.000	101,451.000	101,453.000	101,456.000
19.333	101,459.000	101,462.000	101,465.000	101,468.000	101,471.000
19.350	101,474.000	101,476.000	101,479.000	101,482.000	101,485.000
19.367	101,488.000	101,490.000	101,493.000	101,496.000	101,499.000
19.383	101,501.000	101,504.000	101,507.000	101,509.000	101,512.000
19.400	101,515.000	101,517.000	101,520.000	101,522.000	101,525.000
19.417	101,528.000	101,530.000	101,533.000	101,535.000	101,538.000
19.433	101,540.000	101,543.000	101,545.000	101,548.000	101,550.000
19.450	101,553.000	101,555.000	101,558.000	101,560.000	101,562.000
19.467	101,565.000	101,567.000	101,570.000	101,572.000	101,574.000
19.483	101,577.000	101,579.000	101,581.000	101,584.000	101,586.000
19.500	101,588.000	101,590.000	101,593.000	101,595.000	101,597.000
19.517	101,599.000	101,601.000	101,604.000	101,606.000	101,608.000
19.533	101,610.000	101,612.000	101,614.000	101,616.000	101,618.000
19.550	101,621.000	101,623.000	101,625.000	101,627.000	101,629.000
19.567	101,631.000	101,633.000	101,635.000	101,637.000	101,639.000
19.583	101,641.000	101,643.000	101,644.000	101,646.000	101,648.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
19.600	101,650.000	101,652.000	101,654.000	101,656.000	101,658.000
19.617	101,659.000	101,661.000	101,663.000	101,665.000	101,666.000
19.633	101,668.000	101,670.000	101,672.000	101,673.000	101,675.000
19.650	101,677.000	101,678.000	101,680.000	101,682.000	101,683.000
19.667	101,685.000	101,687.000	101,688.000	101,690.000	101,691.000
19.683	101,693.000	101,694.000	101,696.000	101,697.000	101,699.000
19.700	101,700.000	101,702.000	101,703.000	101,705.000	101,706.000
19.717	101,708.000	101,709.000	101,710.000	101,712.000	101,713.000
19.733	101,715.000	101,716.000	101,717.000	101,719.000	101,720.000
19.750	101,721.000	101,723.000	101,724.000	101,725.000	101,726.000
19.767	101,728.000	101,729.000	101,730.000	101,731.000	101,733.000
19.783	101,734.000	101,735.000	101,736.000	101,737.000	101,739.000
19.800	101,740.000	101,741.000	101,742.000	101,743.000	101,744.000
19.817	101,745.000	101,746.000	101,748.000	101,749.000	101,750.000
19.833	101,751.000	101,752.000	101,753.000	101,754.000	101,755.000
19.850	101,756.000	101,757.000	101,758.000	101,759.000	101,760.000
19.867	101,761.000	101,762.000	101,763.000	101,764.000	101,764.000
19.883	101,765.000	101,766.000	101,767.000	101,768.000	101,769.000
19.900	101,770.000	101,771.000	101,771.000	101,772.000	101,773.000
19.917	101,774.000	101,775.000	101,775.000	101,776.000	101,777.000
19.933	101,778.000	101,778.000	101,779.000	101,780.000	101,780.000
19.950	101,781.000	101,782.000	101,783.000	101,783.000	101,784.000
19.967	101,785.000	101,785.000	101,786.000	101,786.000	101,787.000
19.983	101,788.000	101,788.000	101,789.000	101,789.000	101,790.000
20.000	101,790.000	101,791.000	101,792.000	101,792.000	101,793.000
20.017	101,793.000	101,794.000	101,794.000	101,794.000	101,795.000
20.033	101,795.000	101,796.000	101,796.000	101,797.000	101,797.000
20.050	101,797.000	101,798.000	101,798.000	101,799.000	101,799.000
20.067	101,799.000	101,800.000	101,800.000	101,800.000	101,800.000
20.083	101,801.000	101,801.000	101,801.000	101,802.000	101,802.000
20.100	101,802.000	101,802.000	101,802.000	101,803.000	101,803.000
20.117	101,803.000	101,803.000	101,803.000	101,803.000	101,804.000
20.133	101,804.000	101,804.000	101,804.000	101,804.000	101,804.000
20.150	101,804.000	101,804.000	101,804.000	101,804.000	101,804.000
20.167	101,804.000	101,804.000	101,804.000	101,804.000	101,804.000
20.183	101,804.000	101,804.000	101,804.000	101,804.000	101,804.000
20.200	101,804.000	101,804.000	101,804.000	101,804.000	101,804.000
20.217	101,803.000	101,803.000	101,803.000	101,803.000	101,803.000
20.233	101,803.000	101,802.000	101,802.000	101,802.000	101,802.000
20.250	101,802.000	101,801.000	101,801.000	101,801.000	101,801.000
20.267	101,800.000	101,800.000	101,800.000	101,799.000	101,799.000
20.283	101,799.000	101,798.000	101,798.000	101,798.000	101,797.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
20.300	101,797.000	101,797.000	101,796.000	101,796.000	101,795.000
20.317	101,795.000	101,795.000	101,794.000	101,794.000	101,793.000
20.333	101,793.000	101,792.000	101,792.000	101,791.000	101,791.000
20.350	101,790.000	101,790.000	101,789.000	101,789.000	101,788.000
20.367	101,788.000	101,787.000	101,787.000	101,786.000	101,785.000
20.383	101,785.000	101,784.000	101,784.000	101,783.000	101,782.000
20.400	101,782.000	101,781.000	101,780.000	101,780.000	101,779.000
20.417	101,778.000	101,778.000	101,777.000	101,776.000	101,776.000
20.433	101,775.000	101,774.000	101,773.000	101,773.000	101,772.000
20.450	101,771.000	101,770.000	101,770.000	101,769.000	101,768.000
20.467	101,767.000	101,766.000	101,766.000	101,765.000	101,764.000
20.483	101,763.000	101,762.000	101,761.000	101,761.000	101,760.000
20.500	101,759.000	101,758.000	101,757.000	101,756.000	101,755.000
20.517	101,754.000	101,753.000	101,752.000	101,751.000	101,750.000
20.533	101,749.000	101,748.000	101,747.000	101,746.000	101,745.000
20.550	101,744.000	101,743.000	101,742.000	101,741.000	101,740.000
20.567	101,739.000	101,737.000	101,736.000	101,735.000	101,734.000
20.583	101,733.000	101,732.000	101,731.000	101,729.000	101,728.000
20.600	101,727.000	101,726.000	101,725.000	101,723.000	101,722.000
20.617	101,721.000	101,720.000	101,718.000	101,717.000	101,716.000
20.633	101,714.000	101,713.000	101,712.000	101,710.000	101,709.000
20.650	101,708.000	101,706.000	101,705.000	101,704.000	101,702.000
20.667	101,701.000	101,700.000	101,698.000	101,697.000	101,695.000
20.683	101,694.000	101,693.000	101,691.000	101,690.000	101,688.000
20.700	101,687.000	101,685.000	101,684.000	101,682.000	101,681.000
20.717	101,679.000	101,678.000	101,676.000	101,675.000	101,673.000
20.733	101,672.000	101,670.000	101,669.000	101,667.000	101,665.000
20.750	101,664.000	101,662.000	101,661.000	101,659.000	101,658.000
20.767	101,656.000	101,654.000	101,653.000	101,651.000	101,649.000
20.783	101,648.000	101,646.000	101,644.000	101,643.000	101,641.000
20.800	101,639.000	101,638.000	101,636.000	101,634.000	101,632.000
20.817	101,631.000	101,629.000	101,627.000	101,626.000	101,624.000
20.833	101,622.000	101,620.000	101,618.000	101,617.000	101,615.000
20.850	101,613.000	101,611.000	101,609.000	101,608.000	101,606.000
20.867	101,604.000	101,602.000	101,600.000	101,598.000	101,596.000
20.883	101,594.000	101,593.000	101,591.000	101,589.000	101,587.000
20.900	101,585.000	101,583.000	101,581.000	101,579.000	101,577.000
20.917	101,575.000	101,573.000	101,571.000	101,569.000	101,567.000
20.933	101,565.000	101,563.000	101,561.000	101,559.000	101,557.000
20.950	101,555.000	101,553.000	101,551.000	101,549.000	101,547.000
20.967	101,545.000	101,543.000	101,541.000	101,539.000	101,537.000
20.983	101,535.000	101,533.000	101,530.000	101,528.000	101,526.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.000	101,524.000	101,522.000	101,520.000	101,518.000	101,516.000
21.017	101,514.000	101,511.000	101,509.000	101,507.000	101,505.000
21.033	101,503.000	101,501.000	101,498.000	101,496.000	101,494.000
21.050	101,492.000	101,490.000	101,487.000	101,485.000	101,483.000
21.067	101,481.000	101,479.000	101,476.000	101,474.000	101,472.000
21.083	101,470.000	101,467.000	101,465.000	101,463.000	101,461.000
21.100	101,458.000	101,456.000	101,454.000	101,451.000	101,449.000
21.117	101,447.000	101,444.000	101,442.000	101,440.000	101,437.000
21.133	101,435.000	101,433.000	101,430.000	101,428.000	101,426.000
21.150	101,423.000	101,421.000	101,418.000	101,416.000	101,414.000
21.167	101,411.000	101,409.000	101,406.000	101,404.000	101,401.000
21.183	101,399.000	101,396.000	101,394.000	101,391.000	101,389.000
21.200	101,386.000	101,384.000	101,381.000	101,379.000	101,376.000
21.217	101,374.000	101,371.000	101,369.000	101,366.000	101,364.000
21.233	101,361.000	101,358.000	101,356.000	101,353.000	101,351.000
21.250	101,348.000	101,345.000	101,343.000	101,340.000	101,337.000
21.267	101,335.000	101,332.000	101,329.000	101,327.000	101,324.000
21.283	101,321.000	101,319.000	101,316.000	101,313.000	101,310.000
21.300	101,308.000	101,305.000	101,302.000	101,299.000	101,297.000
21.317	101,294.000	101,291.000	101,288.000	101,285.000	101,283.000
21.333	101,280.000	101,277.000	101,274.000	101,271.000	101,268.000
21.350	101,266.000	101,263.000	101,260.000	101,257.000	101,254.000
21.367	101,251.000	101,248.000	101,245.000	101,243.000	101,240.000
21.383	101,237.000	101,234.000	101,231.000	101,228.000	101,225.000
21.400	101,222.000	101,219.000	101,216.000	101,213.000	101,210.000
21.417	101,207.000	101,204.000	101,201.000	101,198.000	101,195.000
21.433	101,192.000	101,189.000	101,186.000	101,183.000	101,180.000
21.450	101,177.000	101,174.000	101,171.000	101,168.000	101,165.000
21.467	101,162.000	101,159.000	101,156.000	101,153.000	101,150.000
21.483	101,146.000	101,143.000	101,140.000	101,137.000	101,134.000
21.500	101,131.000	101,128.000	101,125.000	101,121.000	101,118.000
21.517	101,115.000	101,112.000	101,109.000	101,106.000	101,103.000
21.533	101,099.000	101,096.000	101,093.000	101,090.000	101,087.000
21.550	101,083.000	101,080.000	101,077.000	101,074.000	101,071.000
21.567	101,067.000	101,064.000	101,061.000	101,058.000	101,054.000
21.583	101,051.000	101,048.000	101,045.000	101,041.000	101,038.000
21.600	101,035.000	101,031.000	101,028.000	101,025.000	101,021.000
21.617	101,018.000	101,015.000	101,012.000	101,008.000	101,005.000
21.633	101,002.000	100,998.000	100,995.000	100,991.000	100,988.000
21.650	100,985.000	100,981.000	100,978.000	100,975.000	100,971.000
21.667	100,968.000	100,964.000	100,961.000	100,958.000	100,954.000
21.683	100,951.000	100,947.000	100,944.000	100,941.000	100,937.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
21.700	100,934.000	100,930.000	100,927.000	100,923.000	100,920.000
21.717	100,916.000	100,913.000	100,909.000	100,906.000	100,902.000
21.733	100,899.000	100,895.000	100,892.000	100,888.000	100,885.000
21.750	100,881.000	100,877.000	100,874.000	100,870.000	100,867.000
21.767	100,863.000	100,859.000	100,856.000	100,852.000	100,849.000
21.783	100,845.000	100,841.000	100,838.000	100,834.000	100,830.000
21.800	100,827.000	100,823.000	100,819.000	100,816.000	100,812.000
21.817	100,808.000	100,805.000	100,801.000	100,797.000	100,793.000
21.833	100,790.000	100,786.000	100,782.000	100,778.000	100,775.000
21.850	100,771.000	100,767.000	100,763.000	100,760.000	100,756.000
21.867	100,752.000	100,748.000	100,744.000	100,741.000	100,737.000
21.883	100,733.000	100,729.000	100,725.000	100,721.000	100,717.000
21.900	100,714.000	100,710.000	100,706.000	100,702.000	100,698.000
21.917	100,694.000	100,690.000	100,686.000	100,682.000	100,679.000
21.933	100,675.000	100,671.000	100,667.000	100,663.000	100,659.000
21.950	100,655.000	100,651.000	100,647.000	100,643.000	100,639.000
21.967	100,635.000	100,631.000	100,627.000	100,623.000	100,619.000
21.983	100,615.000	100,611.000	100,607.000	100,603.000	100,599.000
22.000	100,595.000	100,591.000	100,587.000	100,583.000	100,579.000
22.017	100,575.000	100,571.000	100,567.000	100,563.000	100,559.000
22.033	100,555.000	100,550.000	100,546.000	100,542.000	100,538.000
22.050	100,534.000	100,530.000	100,526.000	100,522.000	100,518.000
22.067	100,513.000	100,509.000	100,505.000	100,501.000	100,497.000
22.083	100,493.000	100,489.000	100,484.000	100,480.000	100,476.000
22.100	100,472.000	100,468.000	100,464.000	100,459.000	100,455.000
22.117	100,451.000	100,447.000	100,443.000	100,438.000	100,434.000
22.133	100,430.000	100,426.000	100,421.000	100,417.000	100,413.000
22.150	100,409.000	100,404.000	100,400.000	100,396.000	100,392.000
22.167	100,387.000	100,383.000	100,379.000	100,374.000	100,370.000
22.183	100,366.000	100,361.000	100,357.000	100,353.000	100,348.000
22.200	100,344.000	100,340.000	100,335.000	100,331.000	100,327.000
22.217	100,322.000	100,318.000	100,314.000	100,309.000	100,305.000
22.233	100,301.000	100,296.000	100,292.000	100,287.000	100,283.000
22.250	100,279.000	100,274.000	100,270.000	100,265.000	100,261.000
22.267	100,256.000	100,252.000	100,247.000	100,243.000	100,239.000
22.283	100,234.000	100,230.000	100,225.000	100,221.000	100,216.000
22.300	100,212.000	100,207.000	100,203.000	100,198.000	100,194.000
22.317	100,189.000	100,185.000	100,180.000	100,176.000	100,171.000
22.333	100,167.000	100,162.000	100,157.000	100,153.000	100,148.000
22.350	100,144.000	100,139.000	100,135.000	100,130.000	100,125.000
22.367	100,121.000	100,116.000	100,112.000	100,107.000	100,102.000
22.383	100,098.000	100,093.000	100,089.000	100,084.000	100,079.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
22.400	100,075.000	100,070.000	100,065.000	100,061.000	100,056.000
22.417	100,051.000	100,047.000	100,042.000	100,037.000	100,033.000
22.433	100,028.000	100,023.000	100,018.000	100,014.000	100,009.000
22.450	100,004.000	100,000.000	99,995.000	99,990.000	99,985.000
22.467	99,981.000	99,976.000	99,971.000	99,966.000	99,962.000
22.483	99,957.000	99,952.000	99,947.000	99,943.000	99,938.000
22.500	99,933.000	99,928.000	99,923.000	99,918.000	99,914.000
22.517	99,909.000	99,904.000	99,899.000	99,894.000	99,889.000
22.533	99,885.000	99,880.000	99,875.000	99,870.000	99,865.000
22.550	99,860.000	99,855.000	99,851.000	99,846.000	99,841.000
22.567	99,836.000	99,831.000	99,826.000	99,821.000	99,816.000
22.583	99,811.000	99,806.000	99,801.000	99,796.000	99,792.000
22.600	99,787.000	99,782.000	99,777.000	99,772.000	99,767.000
22.617	99,762.000	99,757.000	99,752.000	99,747.000	99,742.000
22.633	99,737.000	99,732.000	99,727.000	99,722.000	99,717.000
22.650	99,712.000	99,707.000	99,702.000	99,697.000	99,692.000
22.667	99,687.000	99,682.000	99,677.000	99,672.000	99,667.000
22.683	99,662.000	99,657.000	99,651.000	99,646.000	99,641.000
22.700	99,636.000	99,631.000	99,626.000	99,621.000	99,616.000
22.717	99,611.000	99,606.000	99,601.000	99,596.000	99,591.000
22.733	99,586.000	99,580.000	99,575.000	99,570.000	99,565.000
22.750	99,560.000	99,555.000	99,550.000	99,545.000	99,540.000
22.767	99,535.000	99,529.000	99,524.000	99,519.000	99,514.000
22.783	99,509.000	99,504.000	99,499.000	99,493.000	99,488.000
22.800	99,483.000	99,478.000	99,473.000	99,468.000	99,463.000
22.817	99,457.000	99,452.000	99,447.000	99,442.000	99,437.000
22.833	99,431.000	99,426.000	99,421.000	99,416.000	99,410.000
22.850	99,405.000	99,400.000	99,395.000	99,390.000	99,384.000
22.867	99,379.000	99,374.000	99,369.000	99,363.000	99,358.000
22.883	99,353.000	99,347.000	99,342.000	99,337.000	99,332.000
22.900	99,326.000	99,321.000	99,316.000	99,310.000	99,305.000
22.917	99,300.000	99,294.000	99,289.000	99,284.000	99,278.000
22.933	99,273.000	99,268.000	99,262.000	99,257.000	99,251.000
22.950	99,246.000	99,241.000	99,235.000	99,230.000	99,224.000
22.967	99,219.000	99,214.000	99,208.000	99,203.000	99,197.000
22.983	99,192.000	99,186.000	99,181.000	99,176.000	99,170.000
23.000	99,165.000	99,159.000	99,154.000	99,148.000	99,143.000
23.017	99,137.000	99,132.000	99,126.000	99,121.000	99,115.000
23.033	99,110.000	99,104.000	99,099.000	99,093.000	99,088.000
23.050	99,082.000	99,077.000	99,071.000	99,066.000	99,060.000
23.067	99,054.000	99,049.000	99,043.000	99,038.000	99,032.000
23.083	99,027.000	99,021.000	99,015.000	99,010.000	99,004.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
23.100	98,999.000	98,993.000	98,987.000	98,982.000	98,976.000
23.117	98,971.000	98,965.000	98,959.000	98,954.000	98,948.000
23.133	98,942.000	98,937.000	98,931.000	98,925.000	98,920.000
23.150	98,914.000	98,908.000	98,903.000	98,897.000	98,892.000
23.167	98,886.000	98,880.000	98,875.000	98,869.000	98,863.000
23.183	98,858.000	98,852.000	98,846.000	98,840.000	98,835.000
23.200	98,829.000	98,823.000	98,818.000	98,812.000	98,806.000
23.217	98,801.000	98,795.000	98,789.000	98,783.000	98,778.000
23.233	98,772.000	98,766.000	98,761.000	98,755.000	98,749.000
23.250	98,743.000	98,738.000	98,732.000	98,726.000	98,720.000
23.267	98,715.000	98,709.000	98,703.000	98,697.000	98,692.000
23.283	98,686.000	98,680.000	98,674.000	98,668.000	98,663.000
23.300	98,657.000	98,651.000	98,645.000	98,639.000	98,633.000
23.317	98,628.000	98,622.000	98,616.000	98,610.000	98,604.000
23.333	98,598.000	98,592.000	98,587.000	98,581.000	98,575.000
23.350	98,569.000	98,563.000	98,557.000	98,551.000	98,545.000
23.367	98,539.000	98,534.000	98,528.000	98,522.000	98,516.000
23.383	98,510.000	98,504.000	98,498.000	98,492.000	98,486.000
23.400	98,480.000	98,474.000	98,468.000	98,462.000	98,456.000
23.417	98,450.000	98,444.000	98,438.000	98,432.000	98,426.000
23.433	98,420.000	98,414.000	98,408.000	98,402.000	98,396.000
23.450	98,390.000	98,384.000	98,378.000	98,372.000	98,366.000
23.467	98,360.000	98,354.000	98,348.000	98,341.000	98,335.000
23.483	98,329.000	98,323.000	98,317.000	98,311.000	98,305.000
23.500	98,299.000	98,293.000	98,286.000	98,280.000	98,274.000
23.517	98,268.000	98,262.000	98,256.000	98,249.000	98,243.000
23.533	98,237.000	98,231.000	98,225.000	98,219.000	98,212.000
23.550	98,206.000	98,200.000	98,194.000	98,188.000	98,181.000
23.567	98,175.000	98,169.000	98,163.000	98,156.000	98,150.000
23.583	98,144.000	98,138.000	98,132.000	98,125.000	98,119.000
23.600	98,113.000	98,107.000	98,100.000	98,094.000	98,088.000
23.617	98,082.000	98,075.000	98,069.000	98,063.000	98,056.000
23.633	98,050.000	98,044.000	98,038.000	98,031.000	98,025.000
23.650	98,019.000	98,013.000	98,006.000	98,000.000	97,994.000
23.667	97,987.000	97,981.000	97,975.000	97,969.000	97,962.000
23.683	97,956.000	97,950.000	97,943.000	97,937.000	97,931.000
23.700	97,924.000	97,918.000	97,912.000	97,905.000	97,899.000
23.717	97,893.000	97,886.000	97,880.000	97,874.000	97,867.000
23.733	97,861.000	97,855.000	97,848.000	97,842.000	97,836.000
23.750	97,829.000	97,823.000	97,817.000	97,810.000	97,804.000
23.767	97,797.000	97,791.000	97,785.000	97,778.000	97,772.000
23.783	97,766.000	97,759.000	97,753.000	97,746.000	97,740.000

Subsection: Time vs. Volume
Scenario: Base
Label: PO-1

Time vs. Volume (ft³)

Output Time increment = 0.003 hours
Time on left represents time for first value in each row.

Time (hours)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)	Volume (ft³)
23.800	97,734.000	97,727.000	97,721.000	97,714.000	97,708.000
23.817	97,701.000	97,695.000	97,689.000	97,682.000	97,676.000
23.833	97,669.000	97,663.000	97,656.000	97,650.000	97,644.000
23.850	97,637.000	97,631.000	97,624.000	97,618.000	97,611.000
23.867	97,605.000	97,598.000	97,592.000	97,585.000	97,579.000
23.883	97,573.000	97,566.000	97,560.000	97,553.000	97,547.000
23.900	97,540.000	97,534.000	97,527.000	97,520.000	97,514.000
23.917	97,507.000	97,501.000	97,494.000	97,488.000	97,481.000
23.933	97,475.000	97,468.000	97,462.000	97,455.000	97,448.000
23.950	97,442.000	97,435.000	97,429.000	97,422.000	97,416.000
23.967	97,409.000	97,402.000	97,396.000	97,389.000	97,382.000
23.983	97,376.000	97,369.000	97,363.000	97,356.000	97,349.000
24.000	97,341.000	97,334.000	97,326.000	97,318.000	97,310.000
24.017	97,301.000	97,293.000	97,284.000	97,274.000	97,265.000
24.033	97,255.000	97,245.000	97,235.000	97,224.000	97,213.000
24.050	97,202.000	97,191.000	97,179.000	97,168.000	97,156.000
24.067	97,143.000	97,131.000	97,118.000	97,105.000	97,092.000
24.083	97,078.000	97,064.000	97,050.000	97,036.000	97,021.000
24.100	97,006.000	96,991.000	96,976.000	96,961.000	96,945.000
24.117	96,929.000	96,913.000	96,896.000	96,880.000	96,863.000
24.133	96,846.000	96,829.000	96,811.000	96,794.000	96,776.000
24.150	96,758.000	96,739.000	96,721.000	96,702.000	96,683.000
24.167	96,664.000	96,644.000	96,625.000	96,605.000	96,585.000
24.183	96,564.000	96,544.000	96,523.000	96,502.000	96,481.000
24.200	96,460.000	96,438.000	96,416.000	96,394.000	96,372.000
24.217	96,350.000	96,328.000	96,305.000	96,283.000	96,261.000
24.233	96,239.000	96,217.000	96,195.000	96,172.000	96,150.000
24.250	96,128.000	96,106.000	96,084.000	96,062.000	96,039.000
24.267	96,017.000	95,995.000	95,973.000	95,951.000	95,929.000
24.283	95,906.000	95,884.000	95,862.000	95,840.000	95,818.000
24.300	95,796.000	(N/A)	(N/A)	(N/A)	(N/A)

Subsection: Outlet Input Data Scenario: Base
Label: Composite Outlet Structure - 1

Requested Pond Water Surface Elevations	
Minimum (Headwater)	1,095.00 ft
Increment (Headwater)	0.50 ft
Maximum (Headwater)	1,100.00 ft

Outlet Connectivity

Structure Type	Outlet ID	Direction	Outfall	E1 (ft)	E2 (ft)
Orifice-Circular	Orifice - 1	Forward	TW	1,099.99	1,100.00
Tailwater Settings	Tailwater			(N/A)	(N/A)

Subsection: Outlet Input Data Scenario: Base

Label: Composite Outlet Structure - 1

Structure ID: Orifice - 1 Structure Type: Orifice-Circular	
Number of Openings	1
Elevation	1,099.99 ft
Orifice Diameter	0.1 in
Orifice Coefficient	0.600

5th & Sterling Avenue
Pond Pack Calculation
BMP 2

Subsection: Elevation-Volume-Flow Table (Pond) Scenario: Base
Label: PO-1

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	1.8472 ft³/s

Initial Conditions	
Elevation (Water Surface, Initial)	1,095.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.0000 ft³/s
Flow (Initial Infiltration)	0.0000 ft³/s
Flow (Initial, Total)	0.0000 ft³/s
Time Increment	0.003 hours

Elevation (ft)	Outflow (ft³/s)	Storage (ft³)	Area (acres)	Infiltration (ft³/s)	Flow (Total) (ft³/s)	2S/t + O (ft³/s)
1,095.00	0.0000	0.000	0.000	0.0000	0.0000	0.0000
1,095.50	0.0000	5,364.880	0.000	1.8472	1.8472	895.9939
1,096.00	0.0000	14,676.874	0.000	1.8472	1.8472	2,447.9929
1,096.50	0.0000	26,009.597	0.000	1.8472	1.8472	4,336.7800
1,097.00	0.0000	38,504.787	0.000	1.8472	1.8472	6,419.3117
1,097.50	0.0000	51,541.754	0.000	1.8472	1.8472	8,592.1396
1,098.00	0.0000	64,578.722	0.000	1.8472	1.8472	10,764.9675
1,098.50	0.0000	77,073.912	0.000	1.8472	1.8472	12,847.4993
1,099.00	0.0000	88,406.635	0.000	1.8472	1.8472	14,736.2863
1,099.50	0.0000	97,718.629	0.000	1.8472	1.8472	16,288.2854
1,099.99	0.0000	102,976.211	0.000	1.8472	1.8472	17,164.5491
1,100.00	0.0000	103,083.509	0.000	1.8472	1.8472	17,182.4320

Subsection: Level Pool Pond Routing Summary
Scenario: Base
Label: PO-1 (IN)

Infiltration	
Infiltration Method (Computed)	Constant
Infiltration Rate (Constant)	1.8472 ft³/s

Initial Conditions	
Elevation (Water Surface, Initial)	1,095.00 ft
Volume (Initial)	0.000 ft³
Flow (Initial Outlet)	0.0000 ft³/s
Flow (Initial Infiltration)	0.0000 ft³/s
Flow (Initial, Total)	0.0000 ft³/s
Time Increment	0.003 hours

Inflow/Outflow Hydrograph Summary			
Flow (Peak In)	37.1463 ft³/s	Time to Peak (Flow, In)	16.180 hours
Infiltration (Peak)	1.8472 ft³/s	Time to Peak (Infiltration)	8.817 hours
Flow (Peak Outlet)	0.0000 ft³/s	Time to Peak (Flow, Outlet)	0.000 hours

Elevation (Water Surface, Peak)	1,099.88 ft
Volume (Peak)	101,804.382 ft³

Mass Balance (ft³)	
Volume (Initial)	0.000 ft³
Volume (Total Inflow)	241,899.000 ft³
Volume (Total Infiltration)	146,126.000 ft³
Volume (Total Outlet Outflow)	0.000 ft³
Volume (Retained)	95,773.000 ft³
Volume (Unrouted)	0.000 ft³
Error (Mass Balance)	0.0 %

Subsection: Pond Inflow Summary
Label: PO-1 (IN)

Scenario: Base

Summary for Hydrograph Addition at 'PO-1'

Upstream Link	Upstream Node
<Catchment to Outflow Node>	CM-1

Node Inflows

Inflow Type	Element	Volume (ft^3)	Time to Peak (hours)	Flow (Peak) (ft^3/s)
Flow (From)	CM-1	241,891.518	16.180	37.1463
Flow (In)	PO-1	241,899.198	16.180	37.1463

5th & Sterling Avenue
Pond Pack Calculation
BMP 2

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PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER	
ADS SALES REP	
PROJECT NO.	

Advanced Drainage Systems, Inc.

BMP 2

SAN BERNARDINO, CA

ADS RETENTION/DETENTION PIPE SYSTEM SPECIFICATION

SCOPE
THIS SPECIFICATION DESCRIBES ADS RETENTION/DETENTION PIPE SYSTEMS FOR USE IN NON-PRESSURE GRAVITY-FLOW STORM WATER COLLECTION SYSTEMS UTILIZING A CONTINUOUS OUTFALL STRUCTURE.

PIPE REQUIREMENTS
ADS RETENTION/DETENTION SYSTEMS MAY UTILIZE ANY OF THE VARIOUS PIPE PRODUCTS BELOW:
- N-12® STIB PIPE (PER AASHTO) SHALL MEET AASHTO M 294, TYPE S OR ASTM F2306
- N-12® STIB PIPE (PER ASTM F2648) SHALL MEET ASTM F2648
- N-12® MEGA GREEN™ STIB SHALL MEET ASTM F2648

ALL PRODUCTS SHALL HAVE A SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. ALL STIB PIPE PRODUCTS ARE AVAILABLE AS PERFORATED OR NON-PERFORATED. WTIB PIPE PRODUCTS ARE ONLY AVAILABLE AS NON-PERFORATED. PRODUCT-SPECIFIC PIPE SPECIFICATIONS ARE AVAILABLE IN THE DRAINAGE HANDBOOK SECTION 1 "SPECIFICATIONS".

JOINT PERFORMANCE
PLAIN END / SOIL-TIGHT (STIB):
STIB PIPE SHALL BE JOINED USING A BELL AND SPIGOT JOINT. THE BELL AND SPIGOT JOINT SHALL MEET THE SOIL-TIGHT REQUIREMENTS OF ASTM F2306 AND GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477.

PLAIN END PIPE AND FITTINGS CONNECTIONS SHALL BE JOINED WITH COUPLING BANDS COVERING AT LEAST TWO FULL CORRUGATIONS ON EACH END OF THE PIPE. GASKETED SOIL-TIGHT COUPLING BAND CONNECTIONS SHALL INCORPORATE A CLOSED-CELL SYNTHETIC EXPANDED RUBBER GASKET MEETING THE REQUIREMENTS OF ASTM D1056 GRADE 2A2. GASKETS, WHEN APPLICABLE, SHALL BE INSTALLED BY THE PIPE MANUFACTURER.

FITTINGS
FITTINGS SHALL CONFORM TO ASTM F2306 AND MEET JOINT PERFORMANCE INDICATED ABOVE FOR FITTINGS CONNECTIONS. CUSTOM FITTINGS ARE AVAILABLE AND MAY REQUIRE SPECIAL INSTALLATION CRITERION.

INSTALLATION
INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 AND ADS RECOMMENDED INSTALLATION GUIDELINES, WITH THE EXCEPTION THAT MINIMUM COVER IN NON-TRAFFIC AREAS FOR 12-60 INCH (300-1500 mm) DIAMETERS SHALL BE 1 FT (0.3 m). MINIMUM COVER IN TRAFFICKED AREAS FOR 12-36 INCH (300-900 mm) DIAMETERS SHALL BE 1 FT (0.3 m) AND FOR 42-60 INCH (1050-1500 mm) DIAMETERS, THE MINIMUM COVER SHALL BE 2 FT (0.6 m). BACKFILL SHALL CONSIST OF CLASS I (COMPACTED) OR CLASS II (MINIMUM 95% SPD) MATERIAL, WITH THE EXCEPTION THAT 60 INCH (1500 mm) SYSTEMS SHALL USE CLASS I MATERIAL ONLY. MINIMUM COVER HEIGHTS DO NOT ACCOUNT FOR PIPE BUOYANCY. REFER TO ADS TECHNICAL NOTE 5.05 "PIPE FLOTATION" FOR BUOYANCY DESIGN CONSIDERATIONS. MAXIMUM COVER OVER SYSTEM USING STANDARD BACKFILL IS 8 FT (2.4 m); CONTACT A REPRESENTATIVE WHEN MAXIMUM FILL HEIGHT MAY BE EXCEEDED. ADDITIONAL INSTALLATION REQUIREMENTS ARE PROVIDED IN THE DRAINAGE HANDBOOK SECTION 6 "RETENTION/DETENTION".

ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES:

1) ALL ELEVATIONS, DIMENSIONS AND LOCATIONS OF RISERS, INLETS AND OUTLETS, SHALL BE VERIFIED BY THE ENGINEER PRIOR TO RELEASING FOR FABRICATION.

2) IN SITUATIONS WHERE A FINE-GRAINED BACKFILL MATERIAL IS USED ADJACENT TO THE PIPE SYSTEM, AND ESPECIALLY INVOLVING GROUND WATER CONDITIONS, CONSIDERATION SHOULD BE GIVEN TO THE USE OF GASKETED PIPE JOINTS. AT THE VERY LEAST THE PIPE JOINTS SHOULD BE WRAPPED IN A SUITABLE, NON-WOVEN GEOTEXTILE FABRIC TO PREVENT INFILTRATION OF FINES INTO THE PIPE SYSTEM.

3) CONSIDERATION FOR CONSTRUCTION EQUIPMENT LOADS MUST BE TAKEN INTO ACCOUNT.

4) ALL PIPE DIMENSIONS ARE SUBJECT TO MANUFACTURERS TOLERANCES.

5) ALL RISERS TO BE FIELD EXTENDED OR TRIMMED TO FINAL GRADE.

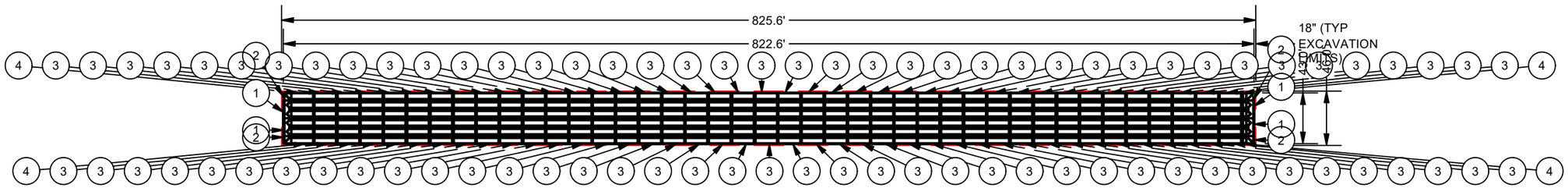
THE UNDERSIGNED HERBY APPROVES THE ATTACHED PAGES.

CUSTOMER DATE

ITEM	QTY	ALT. QTY	PART #	DESCRIPTION	STAN.	VENDOR	NOTE
1	4		6052AN	60".DOUBLE MANIFOLD TEE	STAN	ADS	SEE DETAIL
2	4		6098AN	60".MANIFOLD 90 DEG BEND	STAN	ADS	SEE DETAIL
3	240 STICKS	4722 LF	60850020IB	60".N12 HWY.STIB.SOLID.20'	STAN	ADS	AS SHOWN
4	7 STICKS	137 LF	60850020IB	60".N12 HWY.STIB.SOLID.20'	STAN	ADS	FIELD CUT
5	18		6065AA	60".SPLIT COUPLER.(25/PALLET)	STAN	ADS	NOT SHOWN
6	24 ROLLS	12000 SY	0601TG	601.15' X 300'.(500 SY).(NTPEP SCAN) (20% OVERAGE)	STAN	ADS	SEE DETAIL
7	248259 CF	9195 CY	NA	EXCAVATION	NA	NA	NOT SHOWN

NOTES

- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE PIPE COVER REQUIREMENTS ARE MET.
- STUB SIZES AND INVERTS TO BE VERIFIED BY THE SITE DESIGN ENGINEER PRIOR TO FABRICATION.
- ADS RISERS ARE FABRICATED 36" (900 mm) FROM TOP OF PIPE TO TOP OF RISER DUE TO SHIPPING LIMITATIONS. ADDITIONAL PIPE AND COUPLERS CAN BE USED TO EXTEND THE RISERS TO GRADE.
- LAYOUT SHOWN DOES NOT INCLUDE ADDITIONAL PIPE & MANIFOLD NEEDED FOR PROPER PIPE INSERTION INTO STRUCTURES.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.



ADS GEOTEXTILE FABRIC

BMP 2

SAN BERNARDINO, CA

DATE:

DRAWN: CA

PROJECT #:

CHECKED: N/A

DATE	DRW	CHK	DESCRIPTION

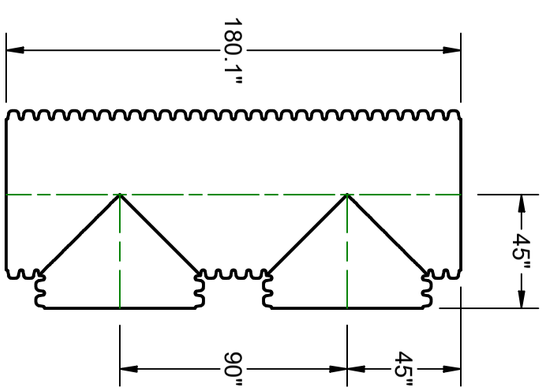
60" STIB SOLID
DETENTION SYSTEM

LandMax
Stormwater Management System

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

0 100 200

60" DOUBLE MANIFOLD TEE [6052AN]



ITEM #: 1
QTY: 4
6052AN

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

60" STIB SOLID
DETENTION SYSTEM

LandMax

Stormwater Management System

DATE	DRW	CHK	DESCRIPTION

BMP 2

SAN BERNARDINO, CA

DATE:	DRAWN: CA
PROJECT #:	CHECKED: N/A

60" X 90° MANIFOLD BEND [6098AN]

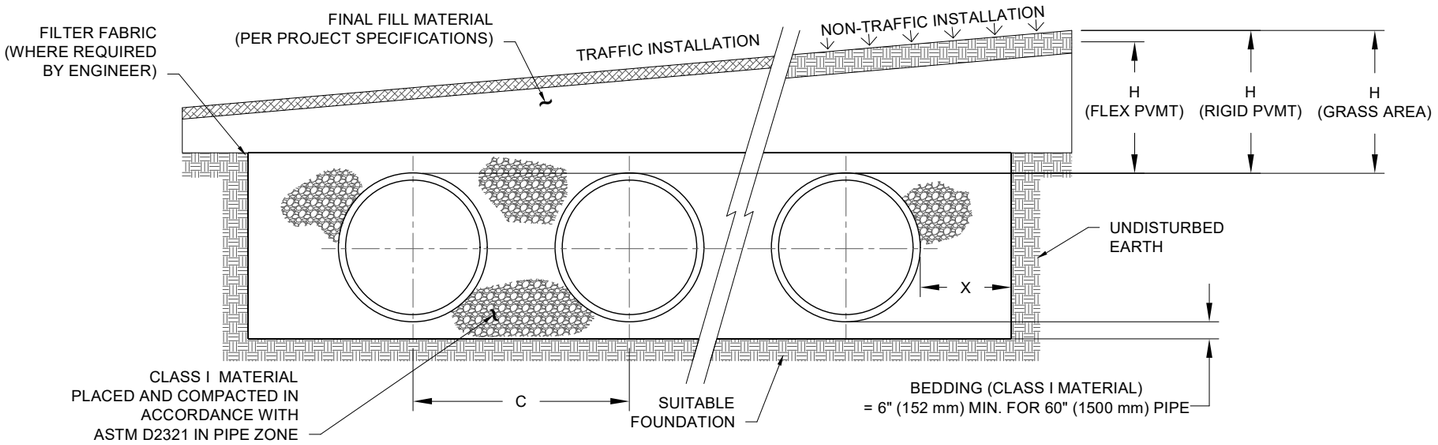
ITEM #: 2
QTY: 4
6098AN

BMP 2
SAN BERNARDINO, CA
DATE:
DRAWN: CA
PROJECT #:
CHECKED: N/A

DATE	DRW	CHK	DESCRIPTION

60" STIB SOLID
DETENTION SYSTEM
LandMax
Stormwater Management System

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473



NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "C"	TYPICAL SIDE WALL "X"	MIN. H (NON-TRAFFIC)	MIN. H (TRAFFIC)	MAX. H*
60" (1500 mm)	67" (1702 mm)	90" (2286 mm)	18" (457 mm)	12" (305 mm)	24" (610 mm)	8' (2.4 m)

* MAXIMUM FILL HEIGHTS OVER MANIFOLD FITTINGS. CONTACT MANUFACTURER'S REPRESENTATIVE FOR INSTALLATION CONSIDERATIONS WHEN COVER EXCEEDS 8 FT (2.4 m).
**60" (1500 mm) SYSTEMS REQUIRE CLASS I BACKFILL AROUND ALL LATERALS AND FITTINGS.

NOTES:

1. ALL REFERENCES TO CLASS I MATERIAL ARE PER ASTM D2321 "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION.
2. ALL RETENTION AND DETENTION SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST EDITION AND THE MANUFACTURER'S PUBLISHED INSTALLATION GUIDELINES.
3. MEASURES SHOULD BE TAKEN TO PREVENT THE MIGRATION OF NATIVE FINES INTO THE BACKFILL MATERIAL, WHEN REQUIRED. SEE ASTM D2321.
4. FILTER FABRIC: A GEOTEXTILE FABRIC MAY BE USED AS SPECIFIED BY THE ENGINEER TO PREVENT THE MIGRATION OF FINES FROM THE NATIVE SOIL INTO THE SELECT BACKFILL MATERIAL.
5. FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE. THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
6. BEDDING: SUITABLE MATERIAL SHALL BE CLASS I. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 4" (102 mm) FOR 4"-24" (100-600 mm); 6" (152 mm) FOR 30-60" (750-900 mm).
7. INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" (152 mm) ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
8. COVER: MINIMUM COVER OVER ALL RETENTION/DETENTION SYSTEMS IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" (305 mm) FROM TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER IS 12" (305 mm) UP TO 36" (900 mm) DIAMETER PIPE AND 24" (610 mm) OF COVER FOR 42-60" (1050-1500 mm) DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT. MAXIMUM FILL HEIGHT LIMITED TO 8 FT (2.4 m) OVER FITTINGS FOR STANDARD INSTALLATIONS. CONTACT A SALES REPRESENTATIVE WHEN MAXIMUM FILL HEIGHTS EXCEED 8 FT (2.4 m) FOR INSTALLATION CONSIDERATIONS.

BMP 2

SAN BERNARDINO, CA

DATE: | DRAWN: CA | PROJECT #: | CHECKED: N/A

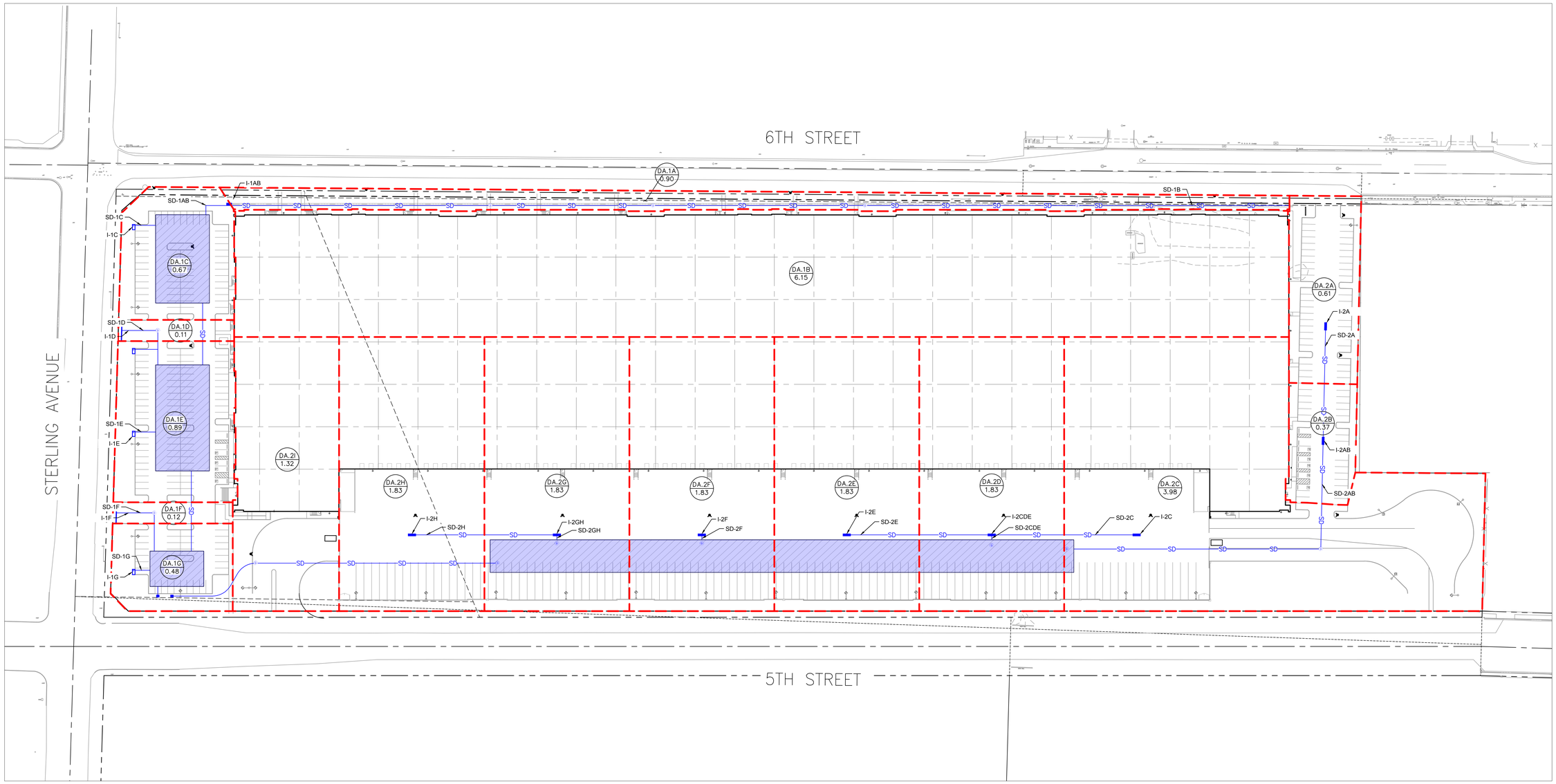
DATE	DRW	CHK	DESCRIPTION

60" STIB SOLID
DETENTION SYSTEM
LandMax
Stormwater Management System

4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

APPENDIX J

FLOWMASTER HYDRAULICS ANALYSIS – PIPE AND INLET SIZING CALCULATION



LEGEND

PIPE LABEL — SD-XX

DRAINAGE AREA LABEL — DA# / AC — ACRES

PROPERTY LINE/RIGHT-OF-WAY

OVERALL DMA BOUNDARY

PROP MAJOR CONTOUR — 1000

PROP MINOR CONTOUR — 1001

SUMMARY TABLE

DA ID	AREA (SF)	AREA (AC)	100-YR FLOW RATE RATIO (CFS/AC)	100-YR PEAK FLOW (CFS)	10-YR FLOW RATE RATIO (CFS/AC)	10-YR PEAK FLOW (CFS)
DA.1A	39,060	0.90	3.41	3.06	1.94	1.74
DA.1B	268,098	6.15	3.41	20.99	1.94	11.94
DA.1C	29,302	0.67	3.41	2.29	1.94	1.31
DA.1D	4,916	0.11	3.41	0.38	1.94	0.22
DA.1E	38,572	0.89	3.41	3.02	1.94	1.72
DA.1F	5,083	0.12	3.41	0.40	1.94	0.23
DA.1G	20,985	0.48	3.41	1.64	1.94	0.93
DA.2A	26,404	0.61	3.04	1.84	1.79	1.08
DA.2B	16,025	0.37	3.04	1.12	1.79	0.66
DA.2C	173,208	3.98	3.04	12.09	1.79	7.12
DA.2D	79,506	1.83	3.04	5.55	1.79	3.27
DA.2E	79,506	1.83	3.04	5.55	1.79	3.27
DA.2F	79,506	1.83	3.04	5.55	1.79	3.27
DA.2G	79,506	1.83	3.04	5.55	1.79	3.27
DA.2H	79,765	1.83	3.04	5.57	1.79	3.28
DA.2I	57,490	1.32	3.04	4.01	1.79	2.36

SUMMARY TABLE

DA ID	PIPE ID	100-YR PEAK FLOW (CFS)	10-YR PEAK FLOW (CFS)
DA.1B	SD-1B	20.99	11.94
DA.1A+DA.1B	SD-1AB	24.05	13.68
DA.1C	SD-1C	2.29	1.31
DA.1D	SD-1D	0.38	0.22
DA.1E	SD-1E	3.02	1.72
DA.1F	SD-1F	0.40	0.23
DA.1G	SD-1G	1.64	0.93
DA.2A	SD-2A	1.84	1.08
DA.2A+DA.2B	SD-2AB	2.96	1.74
DA.2C	SD-2C	12.09	7.12
DA.2E	SD-2E	5.55	3.27
DA.2C+DA.2D+DA.2E	SD-2CDE	23.19	13.65
DA.2F	SD-2F	5.55	3.27
DA.2H	SD-2H	5.57	3.28
DA.2G+DA.2H	SD-2GH	11.12	6.54

SUMMARY TABLE

DA ID	INLET ID	100-YR PEAK FLOW (CFS)	INLET TYPE	CAPACITY FLOW (CFS) (75% Clogged)	INLET SIZE
DA.1A+DA.1B	I-1AB	24.05	Drop Inlet	29.39	48"x96" Grate
DA.1C	I-1C	2.29	Catch Basin	4.90	12"x12" Grate
DA.1D	I-1D	0.38	Trench Drain	29.79	6"x30' Trench
DA.1E	I-1E	3.02	Catch Basin	14.51	14' Curb Inlet
DA.1F	I-1F	0.40	Trench Drain	29.79	6"x30' Trench
DA.1G	I-1G	1.64	Catch Basin	14.51	14' Curb Inlet
DA.2A	I-2A	1.84	Drop Inlet	4.90	12"x12" Grate
DA.2B	I-2B	1.12	Drop Inlet	4.90	12"x12" Grate
DA.2C	I-2C	12.09	Drop Inlet	14.70	24"x48" Grate
DA.2D	I-2D	5.55	Drop Inlet	7.35	18"x18" Grate
DA.2E	I-2E	5.55	Drop Inlet	7.35	18"x18" Grate
DA.2F	I-2F	5.55	Drop Inlet	7.35	18"x18" Grate
DA.2G	I-2G	5.55	Drop Inlet	7.35	18"x18" Grate
DA.2H+DA.2I	I-2HI	9.58	Drop Inlet	9.80	24"x24" Grate

NORTH

GRAPHIC SCALE IN FEET
0 30 60 120

No.	REVISIONS	DATE	BY

Kimley»Horn
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3801 UNIVERSITY AVENUE, SUITE 300, RIVERSIDE CA 92501
WWW.KIMLEY-HORN.COM

REGISTERED PROFESSIONAL ENGINEER
EUGENE DAVIS CHUNG
No. 96803
CIVIL
STATE OF CALIFORNIA

PRELIMINARY

KHA PROJECT 196140002
DATE 2/12/2024
SCALE AS SHOWN
DESIGNED BY AF
DRAWN BY AF
CHECKED BY DC

PROPOSED DRAINAGE EXHIBIT - PIPE & INLET SIZING 100-YEAR STORM EVENT

5TH & STERLING AVENUE

CITY OF SAN BERNARDINO CA

SHEET NUMBER
OF 8

SUMMARY TABLE

DA ID	AREA (SF)	AREA (AC)	100-YR FLOW RATE RATIO (CFS/AC)	100-YR PEAK FLOW (CFS)	10-YR FLOW RATE RATIO (CFS/AC)	10-YR PEAK FLOW (CFS)
DA.1A	39,060	0.90	3.41	3.06	1.94	1.74
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DA.1D	4,916	0.11	3.41	0.38	1.94	0.22
DA.1E	38,572	0.89	3.41	3.02	1.94	1.72
DA.1F	5,083	0.12	3.41	0.40	1.94	0.23
DA.1G	20,985	0.48	3.41	1.64	1.94	0.93
DA.2A	26,404	0.61	3.04	1.84	1.79	1.08
DA.2B	16,025	0.37	3.04	1.12	1.79	0.66
DA.2C	173,208	3.98	3.04	12.09	1.79	7.12
DA.2D	79,506	1.83	3.04	5.55	1.79	3.27
DA.2E	79,506	1.83	3.04	5.55	1.79	3.27
DA.2F	79,506	1.83	3.04	5.55	1.79	3.27
DA.2G	79,506	1.83	3.04	5.55	1.79	3.27
DA.2H	79,765	1.83	3.04	5.57	1.79	3.28
DA.2I	57,490	1.32	3.04	4.01	1.79	2.36

SUMMARY TABLE

DA ID	INLET ID	100-YR PEAK FLOW (CFS)	INLET TYPE	CAPACITY FLOW (CFS) (75% Clogged)	INLET SIZE
DA.1A+DA.1B	I-1AB	24.05	Drop Inlet	29.39	48"x96" Grate
DA.1C	I-1C	2.29	Catch Basin	4.90	12"x12" Grate
DA.1D	I-1D	0.38	Trench Drain	74.71	6"x30' Trench
DA.1E	I-1E	3.02	Catch Basin	4.29	3.5' Curb Inlet
DA.1F	I-1F	0.40	Trench Drain	74.71	6"x30' Trench
DA.1G	I-1G	1.64	Catch Basin	4.29	3.5' Curb Inlet
DA.2A	I-2A	1.84	Drop Inlet	4.90	12"x12" Grate
DA.2B	I-2B	1.12	Drop Inlet	4.90	12"x12" Grate
DA.2C	I-2C	12.09	Drop Inlet	14.70	24"x48" Grate
DA.2D	I-2D	5.55	Drop Inlet	7.35	18"x18" Grate
DA.2E	I-2E	5.55	Drop Inlet	7.35	18"x18" Grate
DA.2F	I-2F	5.55	Drop Inlet	7.35	18"x18" Grate
DA.2G	I-2G	5.55	Drop Inlet	7.35	18"x18" Grate
DA.2H+DA.2I	I-2HI	9.58	Drop Inlet	9.80	24"x24" Grate

SD-1AB

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.007 ft/ft
Diameter	36.0 in
Discharge	24.05 cfs

Results	
Normal Depth	15.8 in
Flow Area	3.0 ft²
Wetted Perimeter	4.3 ft
Hydraulic Radius	8.2 in
Top Width	2.98 ft
Critical Depth	19.0 in
Percent Full	43.9 %
Critical Slope	0.004 ft/ft
Velocity	8.06 ft/s
Velocity Head	1.01 ft
Specific Energy	2.33 ft
Froude Number	1.421
Maximum Discharge	65.03 cfs
Discharge Full	60.45 cfs
Slope Full	0.001 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	43.9 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	15.8 in
Critical Depth	19.0 in
Channel Slope	0.007 ft/ft
Critical Slope	0.004 ft/ft

SD-1B

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.007 ft/ft
Diameter	24.0 in
Discharge	20.99 cfs

Results	
Normal Depth	20.2 in
Flow Area	2.8 ft²
Wetted Perimeter	4.7 ft
Hydraulic Radius	7.3 in
Top Width	1.46 ft
Critical Depth	19.7 in
Percent Full	84.3 %
Critical Slope	0.007 ft/ft
Velocity	7.43 ft/s
Velocity Head	0.86 ft
Specific Energy	2.54 ft
Froude Number	0.940
Maximum Discharge	22.06 cfs
Discharge Full	20.50 cfs
Slope Full	0.007 ft/ft
Flow Type	Subcritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	61.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	20.2 in
Critical Depth	19.7 in
Channel Slope	0.007 ft/ft
Critical Slope	0.007 ft/ft

SD-1C

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	12.0 in
Discharge	2.29 cfs

Results	
Normal Depth	6.7 in
Flow Area	0.4 ft²
Wetted Perimeter	1.7 ft
Hydraulic Radius	3.2 in
Top Width	0.99 ft
Critical Depth	7.8 in
Percent Full	55.4 %
Critical Slope	0.006 ft/ft
Velocity	5.12 ft/s
Velocity Head	0.41 ft
Specific Energy	0.96 ft
Froude Number	1.347
Maximum Discharge	4.15 cfs
Discharge Full	3.86 cfs
Slope Full	0.004 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	55.4 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	6.7 in
Critical Depth	7.8 in
Channel Slope	0.010 ft/ft
Critical Slope	0.006 ft/ft

SD-1D

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	6.0 in
Discharge	0.38 cfs

Results	
Normal Depth	3.4 in
Flow Area	0.1 ft²
Wetted Perimeter	0.9 ft
Hydraulic Radius	1.6 in
Top Width	0.49 ft
Critical Depth	3.8 in
Percent Full	57.3 %
Critical Slope	0.008 ft/ft
Velocity	3.27 ft/s
Velocity Head	0.17 ft
Specific Energy	0.45 ft
Froude Number	1.187
Maximum Discharge	0.65 cfs
Discharge Full	0.61 cfs
Slope Full	0.004 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	57.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	3.4 in
Critical Depth	3.8 in
Channel Slope	0.010 ft/ft
Critical Slope	0.008 ft/ft

SD-1E

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	12.0 in
Discharge	3.02 cfs

Results	
Normal Depth	8.0 in
Flow Area	0.6 ft²
Wetted Perimeter	1.9 ft
Hydraulic Radius	3.5 in
Top Width	0.94 ft
Critical Depth	8.9 in
Percent Full	66.6 %
Critical Slope	0.007 ft/ft
Velocity	5.44 ft/s
Velocity Head	0.46 ft
Specific Energy	1.13 ft
Froude Number	1.249
Maximum Discharge	4.15 cfs
Discharge Full	3.86 cfs
Slope Full	0.006 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	66.6 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	8.0 in
Critical Depth	8.9 in
Channel Slope	0.010 ft/ft
Critical Slope	0.007 ft/ft

SD-1F

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	6.0 in
Discharge	0.40 cfs

Results	
Normal Depth	3.6 in
Flow Area	0.1 ft²
Wetted Perimeter	0.9 ft
Hydraulic Radius	1.7 in
Top Width	0.49 ft
Critical Depth	3.9 in
Percent Full	59.2 %
Critical Slope	0.008 ft/ft
Velocity	3.30 ft/s
Velocity Head	0.17 ft
Specific Energy	0.47 ft
Froude Number	1.174
Maximum Discharge	0.65 cfs
Discharge Full	0.61 cfs
Slope Full	0.004 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	59.2 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	3.6 in
Critical Depth	3.9 in
Channel Slope	0.010 ft/ft
Critical Slope	0.008 ft/ft

SD-1G

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	12.0 in
Discharge	1.64 cfs

Results	
Normal Depth	5.5 in
Flow Area	0.3 ft²
Wetted Perimeter	1.5 ft
Hydraulic Radius	2.8 in
Top Width	1.00 ft
Critical Depth	6.5 in
Percent Full	45.5 %
Critical Slope	0.005 ft/ft
Velocity	4.72 ft/s
Velocity Head	0.35 ft
Specific Energy	0.80 ft
Froude Number	1.408
Maximum Discharge	4.15 cfs
Discharge Full	3.86 cfs
Slope Full	0.002 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	45.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	5.5 in
Critical Depth	6.5 in
Channel Slope	0.010 ft/ft
Critical Slope	0.005 ft/ft

SD-2A

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	12.0 in
Discharge	1.84 cfs

Results	
Normal Depth	5.8 in
Flow Area	0.4 ft²
Wetted Perimeter	1.5 ft
Hydraulic Radius	2.9 in
Top Width	1.00 ft
Critical Depth	6.9 in
Percent Full	48.6 %
Critical Slope	0.006 ft/ft
Velocity	4.86 ft/s
Velocity Head	0.37 ft
Specific Energy	0.85 ft
Froude Number	1.391
Maximum Discharge	4.15 cfs
Discharge Full	3.86 cfs
Slope Full	0.002 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	48.6 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	5.8 in
Critical Depth	6.9 in
Channel Slope	0.010 ft/ft
Critical Slope	0.006 ft/ft

SD-2AB

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	12.0 in
Discharge	2.96 cfs

Results	
Normal Depth	7.9 in
Flow Area	0.5 ft²
Wetted Perimeter	1.9 ft
Hydraulic Radius	3.5 in
Top Width	0.95 ft
Critical Depth	8.9 in
Percent Full	65.7 %
Critical Slope	0.007 ft/ft
Velocity	5.41 ft/s
Velocity Head	0.46 ft
Specific Energy	1.11 ft
Froude Number	1.258
Maximum Discharge	4.15 cfs
Discharge Full	3.86 cfs
Slope Full	0.006 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	65.7 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	7.9 in
Critical Depth	8.9 in
Channel Slope	0.010 ft/ft
Critical Slope	0.007 ft/ft

SD-2C

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	18.0 in
Discharge	12.09 cfs

Results	
Normal Depth	16.1 in
Flow Area	1.7 ft²
Wetted Perimeter	3.7 ft
Hydraulic Radius	5.4 in
Top Width	0.93 ft
Critical Depth	15.8 in
Percent Full	89.4 %
Critical Slope	0.010 ft/ft
Velocity	7.26 ft/s
Velocity Head	0.82 ft
Specific Energy	2.16 ft
Froude Number	0.953
Maximum Discharge	12.24 cfs
Discharge Full	11.38 cfs
Slope Full	0.011 ft/ft
Flow Type	Subcritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	48.6 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	16.1 in
Critical Depth	15.8 in
Channel Slope	0.010 ft/ft
Critical Slope	0.010 ft/ft

SD-2CDE

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	24.0 in
Discharge	23.19 cfs

Results	
Normal Depth	18.6 in
Flow Area	2.6 ft²
Wetted Perimeter	4.3 ft
Hydraulic Radius	7.3 in
Top Width	1.67 ft
Critical Depth	20.5 in
Percent Full	77.5 %
Critical Slope	0.008 ft/ft
Velocity	8.87 ft/s
Velocity Head	1.22 ft
Specific Energy	2.77 ft
Froude Number	1.251
Maximum Discharge	26.36 cfs
Discharge Full	24.51 cfs
Slope Full	0.009 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	77.5 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	18.6 in
Critical Depth	20.5 in
Channel Slope	0.010 ft/ft
Critical Slope	0.008 ft/ft

SD-2E

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	18.0 in
Discharge	5.55 cfs

Results	
Normal Depth	8.9 in
Flow Area	0.9 ft²
Wetted Perimeter	2.3 ft
Hydraulic Radius	4.5 in
Top Width	1.50 ft
Critical Depth	10.9 in
Percent Full	49.3 %
Critical Slope	0.005 ft/ft
Velocity	6.40 ft/s
Velocity Head	0.64 ft
Specific Energy	1.38 ft
Froude Number	1.485
Maximum Discharge	12.24 cfs
Discharge Full	11.38 cfs
Slope Full	0.002 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	49.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	8.9 in
Critical Depth	10.9 in
Channel Slope	0.010 ft/ft
Critical Slope	0.005 ft/ft

SD-2F

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	18.0 in
Discharge	5.55 cfs

Results	
Normal Depth	8.9 in
Flow Area	0.9 ft²
Wetted Perimeter	2.3 ft
Hydraulic Radius	4.5 in
Top Width	1.50 ft
Critical Depth	10.9 in
Percent Full	49.3 %
Critical Slope	0.005 ft/ft
Velocity	6.40 ft/s
Velocity Head	0.64 ft
Specific Energy	1.38 ft
Froude Number	1.485
Maximum Discharge	12.24 cfs
Discharge Full	11.38 cfs
Slope Full	0.002 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	49.3 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	8.9 in
Critical Depth	10.9 in
Channel Slope	0.010 ft/ft
Critical Slope	0.005 ft/ft

SD-2GH

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	18.0 in
Discharge	11.12 cfs

Results	
Normal Depth	14.4 in
Flow Area	1.5 ft²
Wetted Perimeter	3.3 ft
Hydraulic Radius	5.5 in
Top Width	1.20 ft
Critical Depth	15.3 in
Percent Full	80.0 %
Critical Slope	0.009 ft/ft
Velocity	7.34 ft/s
Velocity Head	0.84 ft
Specific Energy	2.04 ft
Froude Number	1.152
Maximum Discharge	12.24 cfs
Discharge Full	11.38 cfs
Slope Full	0.010 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	80.0 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	14.4 in
Critical Depth	15.3 in
Channel Slope	0.010 ft/ft
Critical Slope	0.009 ft/ft

SD-2H

Project Description	
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data	
Roughness Coefficient	0.012
Channel Slope	0.010 ft/ft
Diameter	18.0 in
Discharge	5.57 cfs

Results	
Normal Depth	8.9 in
Flow Area	0.9 ft²
Wetted Perimeter	2.3 ft
Hydraulic Radius	4.5 in
Top Width	1.50 ft
Critical Depth	10.9 in
Percent Full	49.4 %
Critical Slope	0.005 ft/ft
Velocity	6.41 ft/s
Velocity Head	0.64 ft
Specific Energy	1.38 ft
Froude Number	1.484
Maximum Discharge	12.24 cfs
Discharge Full	11.38 cfs
Slope Full	0.002 ft/ft
Flow Type	Supercritical

GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	49.4 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	8.9 in
Critical Depth	10.9 in
Channel Slope	0.010 ft/ft
Critical Slope	0.005 ft/ft

APPENDIX K

WATERSHED FACT SHEETS

Appendix L: San Bernardino County (Santa Ana Watershed Region) Subwatershed Fact Sheets

Subwatershed Fact Sheets

A series of Subwatershed Fact Sheets have been developed to provide the planner, environmental consultant, project proponent and other interested stakeholders a starting point for overall subwatershed particulars. These fact sheets should be used in conjunction with the geodatabase when analysis watershed needs. The watershed key map is Figure 1 in this document.

These Fact Sheets, as found in this appendix, should be used for preliminary data and initial guidance and should be printed out for use as a handout or for reference by planning staff, CEQA analysts and other stakeholder. The listing of the Fact Sheets as they presented is as follows:

- Big Bear Lake Watershed Fact Sheet
- Cucamonga Creek Watershed Fact Sheet
- Cypress Channel Watershed Fact Sheet
- Day Creek Watershed Fact Sheet
- Lytle Cajon Creek Watershed Fact Sheet
- Mill Creek Watershed Fact Sheet
- Rialto Channel Watershed Fact Sheet
- San Antonio Creek Watershed Fact Sheet
- San Sevaine Watershed Fact Sheet
- San Timoteo Watershed Fact Sheet
- Santa Ana (East) Watershed Fact Sheet
- Santa Ana (West) Watershed Fact Sheet
- Warm Channel Watershed Fact Sheet

This appendix is formatted for double sided printing.

Big Bear Lake Watershed Fact Sheet

Big Bear Lake Watershed

Big Bear Lake Watershed is located in the mountainous region of San Bernardino County and includes the county of San Bernardino and the cities of Big Bear Lake and Big Bear. Federal jurisdictions include the Angeles Forest (USFS) and Big Bear Lake (USACOE).

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at:
http://sbcounty.permitrack.com/WAP/

Waterbodies: Grout Creek, North Creek, Rathbone Creek, Sand Canyon Creek, Knickerbocker Creek, Metcalf Creek, Big Bear Lake

Source Waters: 1) Headwater locations should be checked for spring sources 2) Effluent dominated sources include: Big Bear Waste Water Treatment Plant

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Mill Creek Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Southern Rubber Boa – throughout forest areas
        - San Bernardino Bluegrass – throughout forest areas
        - Mountain Bladderpod –throughout forest areas
        - Bald Eagle – throughout watershed
    - No Fish, Rodents, Tortoise, Insects, Snakes

Groundwater Basins:

Depth to Groundwater is presented on the Geodatabase and is available from the following water purveyors:

http://www.bbmwd.com/Home.html

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 3 and 6 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels: This watershed has both non -Engineered Hardened Maintained (non-EHM) and EHM channels. Projects not draining to an EHM must meet requirements in the WQMP Manual. (http://www.sbcounty.gov/dpw/land/npdes.asp)

Hydrologic Conditions of Concern (HCOC): Watershed must meet the HCOC criteria in the WQMP Manual.

Recharge information: Most of the watershed does not meet recharge geohydrology criteria due to soil and bedrock.

Beneficial Uses:

- **North Creek:** MUN, GWR, REC1, REC2, COLD, WILD, SPWN

- **Metcalf Creek:** MUN, GWR, REC1, REC2, COLD, WILD, SPWN
- **Grout Creek:** MUN, GWR, REC1, REC2, COLD, WILD, SPWN
- **Rathbone Creek:** MUN, GWR, REC1, REC2, COLD, WILD
- **Other Tributaries:** MUN, GWR, REC1, REC2, COLD, WILD
- **Big Bear Lake:** MUN, AGR, GWR, REC 1, REC2, WARM, COLD, WILD, RARE

303(d) Impairments:

- **Grout Creek:** Nutrients
- **Knickerbocker Creek:** Pathogens
- **Rathbone Creek:** Cadmium, Copper, Nutrients, Sedimentation/Siltation
- **Big Bear Lake:** Mercury, PCBs

Approved TMDLs:

- **Big Bear Lake:** Noxious plants, Nutrients

Water Quality Objectives :

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in: http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Big Bear Lake Tributaries						
	Big Bear Lake	Grout Creek	Rathbone Creek	Summit Creek	Knickerbocker Creek, Metcalf, North Creeks	Mountain Home Creek	Mountain Home Creek, East Fork
BASIN PLAN							
Tributary Rule Waterbody							
Notes	*						
WAP Subwatershed	Big Bear Lake	Big Bear Lake	Big Bear Lake	Big Bear Lake	Big Bear Lake	Big Bear Lake	Big Bear Lake
Impairment, 303(d) listing							
Hardness	125	NA	NA	NA	NA	100	NA
Sodium (mg/L)	20	NA	NA	NA	NA	30	NA
Chloride (mg/L)	10	NA	NA	NA	NA	10	NA
Sulfate (mg/L)	10	NA	NA	NA	NA	20	NA
Nitrate, as N (mg/L)	10	10	10	10	10	10	10
Floride (mg/L)	0.9	0.9	0.9	0.9	0.9	0.9	0.9
TDS	175	150	300	NA	175	200	NA
COD	NA	NA	NA	NA	NA	5.0	NA
MBAS	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Total Inorganic Nitrogen	0.15	NA	NA	NA	NA	1.0	NA

	Big Bear Lake Tributaries						
	Big Bear Lake	Grout Creek	Rathbone Creek	Summit Creek	Knickerbocker Creek, Metcalf, North Creeks	Mountain Home Creek	Mountain Home Creek, East Fork
As (CTR) (ug/L)	150	340	340	340	340	340	340
Cd (SSO) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc	Calc
Cr (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc	Calc
Cu SSO (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc	Calc
Pb SSO (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc	Calc
Hg (ug/L)	NA	NA	NA	NA	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5	5	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc	Calc
Total Coliform (Org/100mL)	100	100	100	100	100	100	100
Fecal Coliform (Org/100mL)	400	400	400	400	400	400	400
E.Coli (MPN/100mL)	126	126	126	126	126	126	126
pH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	6	6	6	6	6	6	6
Boron (mg/L)	30	30	30	30	30	30	30

***additional objective: 0.035 mg/l Phosphorus**

Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 83% (Forest Service), Agriculture – 0%, Commercial/Industrial – 2%, Residential – 15%.
- **Regional Imperviousness Approximate Percentage:** 17% impervious; 83% pervious
- **Project-Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within the mountains and is underlain by both alluvial and granitic bedrock. See the geodatabase soil information.

Items of Note: None


Big Bear Lake
Santa Ana River
Mill Creek

Cucamonga Creek Watershed Fact Sheet

Cucamonga Creek Watershed

Cucamonga Creek Watershed is located within the western portion of San Bernardino County and includes portions of San Bernardino and Riverside counties and portions of the cities of Chino, Upland, Ontario, and Rancho Cucamonga. Federal jurisdictions include the United States Forest Service (Angeles Forest) and United States Army Corp of Engineers (Prado Basin).

The following data summary provides general watershed information. Site specific information can also be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at: http://sbcounty.permitrack.com/WAP/

Waterbodies	**Primary Tributaries**	
Santa Ana Reach 3 (Prado Basin)	Demens Creek	Deer Creek
Cucamonga Creek	West Cucamonga	Lower Deer Creek

Source Waters:

- Headwater locations should be checked for spring sources (i.e. mountain locations)
- Effluent dominated sources include: IEUA RP-1 (Cucamonga Creek)

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Cucamonga Creek Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Delhi Sands –southern third of subwatershed
        - Least Bell Vireo – southern end of subwatershed
    - Potential Habitat:
        - Grassland/Remnant RAFSS – mid portion, east side of subwatershed
        - Riparian/Wetland – southern end of subwatershed
        - Riversidean Alluvial Fan Sage Scrub – locations along north end, along foothills
    - No Fish, Frog, Rodents, Tortoise, Insects, Snakes

Groundwater Basins:

- Depth to Groundwater is presented on the following CBWM map: http://www.cbwm.org/docs/engdocs/maps
- Per the obligations codified in the 2004 Basin Plan amendment it is regionally required to eliminate groundwater outflow to the Santa Ana River. This is the Hydraulic Control Monitoring Program and is managed through the Chino Basin Desalter Authority, the Chino Basin Watermaster and Inland Empire Utilities Agency. All areas south of the 60 Freeway must review this information.

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 1 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels:

- All but the headwater and southern portion of the drainages are Engineered Hardened Maintained (EHM) Channels. Projects not draining to a EHM must meet requirements in the WQMP Manual (http://www.sbcounty.gov/dpw/land/npdes.asp

Hydrologic Conditions of Concern (HCOC):

- The northern two-thirds of the watershed is Hydrologic Conditions of Concern (HCOC) Exempt. Remaining portions of watershed must meet the HCOC criteria in the WQMP Manual (the headwaters and the southern one-third within City of Ontario).

Recharge information:

The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.*

Contact information and watershed specific information is found at:

http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm
http://www.cbwcd.org/129/Percolation-Basins

Beneficial Uses:

Discharges must not impair these beneficial uses:

- **Cucamonga Creek:** MUN, AGR, IND, PROC, GWR, POW, REC1, REC2, COLD, WILD
- **Deer Creek: (all intermittent/,mountain reach)** MUN, GWR, REC1, REC2, COLD, WILD
- **Santa Ana River Reach 3:** AGR, GWR, REC 1, REC2, WARM, WILD, RARE

http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

303(d) Impairments:

- **Cucamonga:** Cadmium , Copper , Lead , Zinc, pH
- **Reach 3:** Lead

Approved TMDLs:

- **Cucamonga:** Coliform Bacteria,
- **Reach 3:** Copper (Wet season only)

Water Quality Objectives:

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in: http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Cucamonga Creek			
	Cucamonga Creek- Reach 1 (Valley Reach)	Cucamonga Creek - Reach 2 (Mtn reach)	Mill Creek (Prado Area)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN				
Tributary Rule Waterbody				
Notes	Exempt from MUN		Exempt from MUN	Exempt from MUN
WAP Subwatershed	Cucamonga Creek	Cucamonga Creek	Cucamonga Creek	
Impairment, 303(d) listing				
Hardness	NA	100	NA	350
Sodium (mg/L)	NA	15	NA	110
Chloride (mg/L)	NA	4.0	NA	140
Sulfate (mg/L)	NA	25	NA	150
Nitrate, as N (mg/L)	NA	10	NA	NA
Floride (mg/L)	NA	0.8	NA	NA
TDS	NA	200	NA	700
COD	NA	5.0	NA	30
MBAS	NA	0.05	NA	NA
Total Inorganic Nitrogen	NA	4.0	NA	10
As (CTR) (ug/L)	340	340	340	340
Cd (SSO) (ug/L)	4.0	Calc	4.0	4.0
Cr (CTR) (ug/L)	Calc	Calc	Calc	Calc
Cu SSO (ug/L)	37.0	Calc	37.0	37.0
Pb SSO (ug/L)	28.0	Calc	28.0	28.0
Hg (ug/L)	NA	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc	Calc
Total Coliform (Org/100mL)	NA	100	NA	NA
Fecal Coliform (Org/100mL)	400	400	400	400
E.Coli (MPN/100mL)	126	126	NA	126
pH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	NA	6	5	5
Boron (mg/L)	30	30	30	30

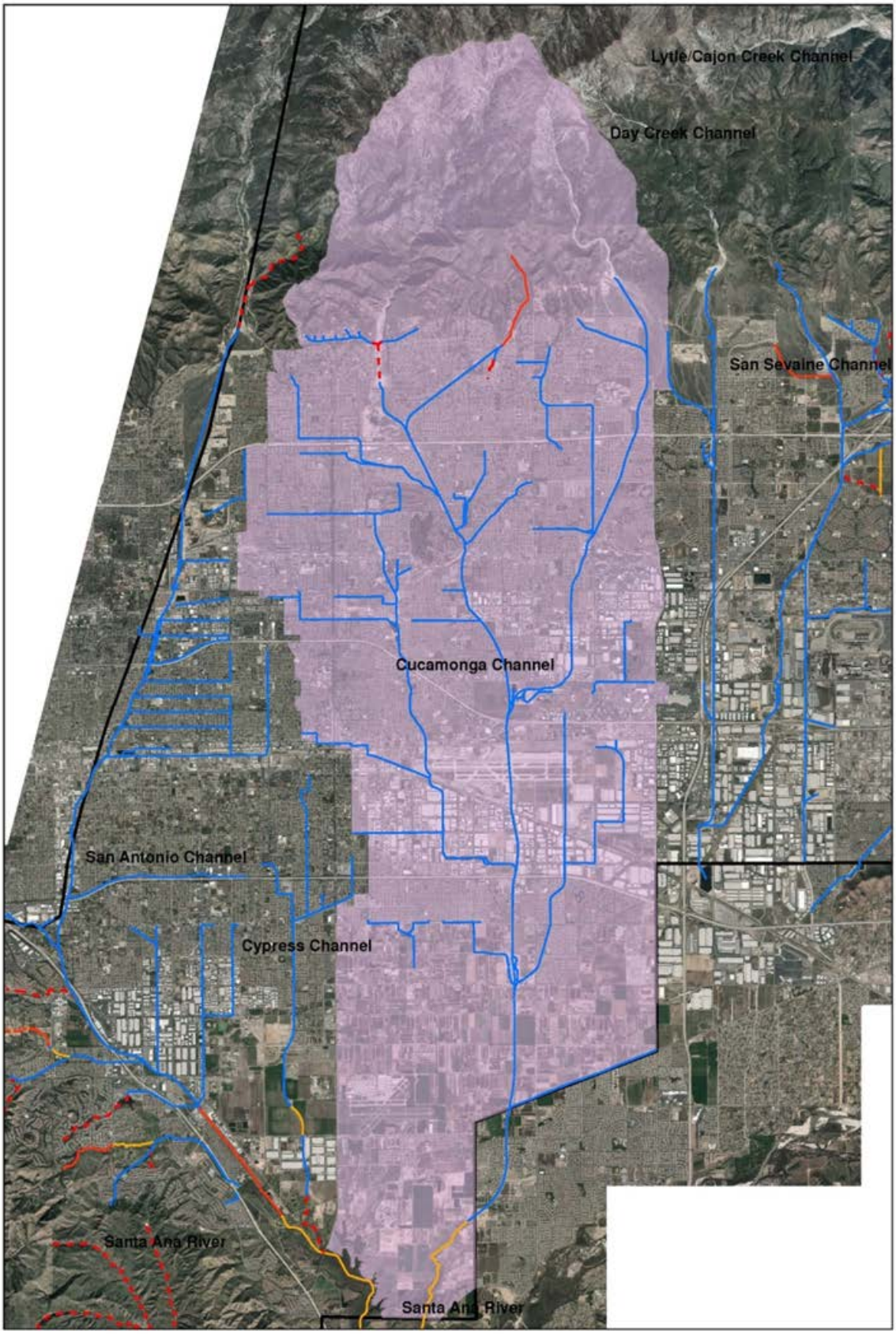
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 22%, Agriculture – 15%, Commercial/Industrial – 17%, Residential – 45%.
- **Regional Imperviousness Approximate Percentage:** 63% impervious; 37% pervious
- **Project – Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

- **CBRP compliance:** This watershed is within the CBRP compliance area. Stormwater runoff and urban discharges to the waterbodies are being investigated as part of the County of San Bernardino Areawide Stormwater CBRP program
  (http://www.sawpa.org/collaboration/projects/tmdl-taskforce/)
- **Infeasibility**
  Possible infiltration infeasibility constraints include:
  - Soil type (per project specific geotechnical report)
  - Locations within the Hydrologic Control Plan area
  - Perched groundwater or artisan groundwater conditions

Cucamonga Creek Watershed



Cypress Channel Watershed Fact Sheet

Cypress Channel Watershed

Cypress Channel Watershed is located within the western portion of San Bernardino County and includes portions of the City of Chino.

The following data summary provides general watershed information. Site specific information can also be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at: http://sbcounty.permitrack.com/WAP/

Waterbodies:

Cypress Creek Santa Ana Reach 3 (Prado Basin)

Source Waters:

- There are no spring sources
- Effluent dominated sources include: IEUA Chino Desalter 1, and IEUA RP-5 (Cypress Channel)

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Cypress Channel Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Delhi Sands – eastern border
        - Least Bell Vireo – southern end of subwatershed
    - Potential Habitat:
        - Riparian/Wetland – southern half of watershed
    - No Tortoise, Fish, Frogs, Insects, Snakes

Groundwater Basins:

- Depth to Groundwater is presented on the following CBWM map http://www.cbwm.org/docs/engdocs/maps
- Per the obligations codified in the 2004 Basin Plan amendment it is regionally required to eliminate groundwater outflow to the Santa Ana River. This is the Hydraulic Control Monitoring Program and is managed through the Chino Basin Desalter Authority, the Chino Basin Watermaster and Inland Empire Utilities Agency. All areas south of the 60 Freeway must review this information.

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 1 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels:

- The majority of the watershed has been classified as Engineered Hardened Maintained (EHM) Channel with the exception of one channel portion south of the Chino Institution for Men and the channel portion within the El Prado Golf Course. Projects not draining to a EHM must meet requirements in the WQMP Manual (http://www.sbcounty.gov/dpw/land/npdes.asp)

Hydrologic Conditions of Concern (HCOC):

- Northern portion of the watershed is Hydrologic Conditions of Concern (HCOC) Exempt. Remaining portions of watershed must meet the HCOC criteria in the WQMP Manual.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.* Contact information and watershed specific information is found at:

http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm
http://www.cbwcd.org/129/Percolation-Basins

Beneficial Uses:

Dischargers must not impair these beneficial uses:

- **Santa Ana River Reach 3:** AGR, GWR, REC 1, REC2, WARM, WILD, RARE

303(d) Impairments:

- **Santa Ana River Reach 3**: Lead
- **Santa Ana River Reach 3:** Copper (Wet season only)

Water Quality Objectives:

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in: http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Cypress Channel	
	Cypress Channel	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN		
Tributary Rule Waterbody	SAR Reach 3	
Notes		Exempt from MUN
WAP Subwatershed	Cypress Channel	
Impairment, 303(d) listing		
Hardness	350	350
Sodium (mg/L)	110	110
Chloride (mg/L)	140	140
Sulfate (mg/L)	150	150
Nitrate, as N (mg/L)	NA	NA
Floride (mg/L)	NA	NA
TDS	700	700
COD	30	30
MBAS	NA	NA
Total Inorganic Nitrogen	10	10

	Cypress Channel	
	Cypress Channel	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
As (CTR) (ug/L)	340	340
Cd (SSO) (ug/L)	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc
Cu SSO (ug/L)	Calc	37.0
Pb SSO (ug/L)	Calc	28.0
Hg (ug/L)	NA	NA
Ni (CTR) (ug/L)	Calc	Calc
Se (CTR) (ug/L)	5	5
Ag (CTR) (ug/L)	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc
Total Coliform (Org/100mL)	NA	NA
Fecal Coliform (Org/100mL)	400	400
E.Coli (MPN/100mL)	126	126
pH	6.5-8.5	6.5-8.5
DO (mg/L)	5	5
Boron (mg/L)	30	30

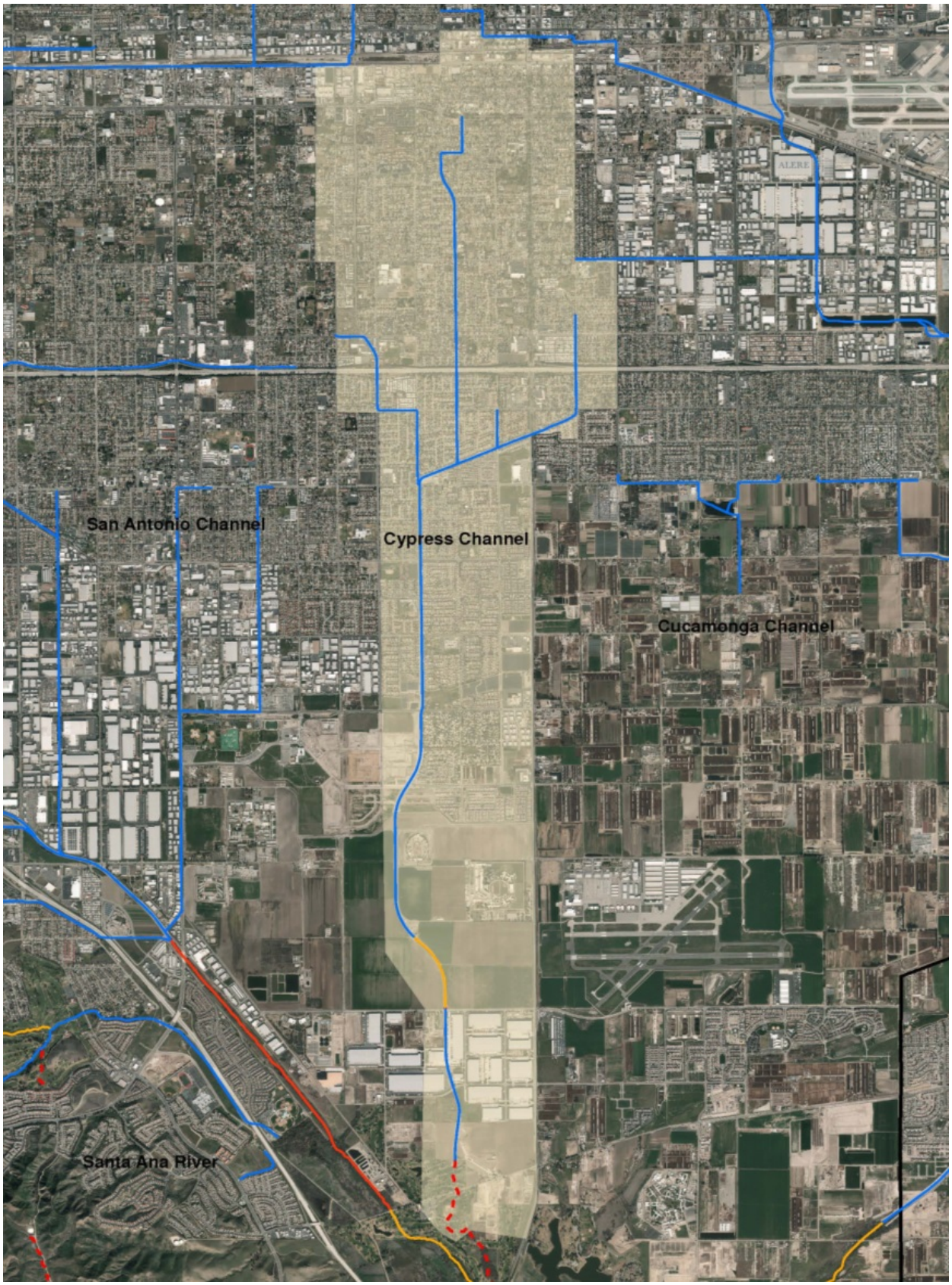
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 9%, Agriculture – 11%, Commercial/Industrial – 17%, Residential – 62%.
- **Regional Imperviousness Approximate Percentage:** 80% impervious; 20% pervious
- **Project- Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

- **CBRP compliance:** This watershed is within the CBRP compliance area. Stormwater runoff and urban discharges to the waterbodies are being investigated as part of the County of San Bernardino Areawide Stormwater CBRP program
  (http://www.sawpa.org/collaboration/projects/tmdl-taskforce/)
- **Infeasibility**
  Possible infiltration infeasibility constraints include:
  - Soil type (per project specific geotechnical report)
  - Locations within the Hydrologic Control Plan area
  - Perched groundwater or artisan groundwater conditions

Cypress Channel Watershed



Day Creek Watershed Fact Sheet

Day Creek Watershed

Day Creek Watershed is located in the midsection of the San Bernardino County valley and includes the counties of San Bernardino and Riverside and portions of the cities of Rancho Cucamonga, Ontario, and Fontana. Federal jurisdictions include the Angeles Forest (USFS).

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at: http://sbcounty.permitrack.com/WAP/

Waterbodies: Day Creek, Lower Etiwanda, Santa Ana Reach 3 (Prado Basin)

Source Waters: 1) Headwater locations should be checked for spring sources (i.e. mountain locations); 2) Effluent dominated sources include: IEUA RP-4

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Day Creek Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Delhi Sands – southeast portion of subwatershed
        - Mountain Yellow Legged Frog – northern portion at foothills
        - Merriam K Rat – northern portion at foothills
    - Potential Habitat:
        - Riversidean Alluvial Fan Sage Scrub – northern portion at foothills
        - Grassland/Remnant RAFSS – southern portion of subwatershed
    - No Bird, Tortoise, Insects, Snakes

Groundwater Basins:

- Depth to Groundwater is presented on the following CBWM map: http://www.cbwm.org/docs/engdocs/maps

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 1 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels: All drainages are Engineered Hardened Maintained (EHM) Channels

Hydrologic Conditions of Concern (HCOC): Watershed is entirely within the Hydrologic Conditions of Concern (HCOC) exempt area.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.* Recharge management information is found at the following websites and in the Stormwater Facility Mapping Tool

http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm
http://www.cvwdwater.com

Beneficial Uses:

- **Day Creek Channel:** MUN, PROC, GWR, REC1, REC2, COLD, WILD
- **East Etiwanda Creek** MUN, PROC, GWR, REC1, REC2, COLD, WILD, RARE
- **Santa Ana River Reach 3:** AGR, GWR, REC 1, REC2, WARM, WILD, RARE

303(d)/TMDLs:

- **Reach 3:** Lead

Approved TMDL:

- **Reach 3:** Copper (Wet season only)

Water Quality Objectives :

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in: http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Day Creek		
	Day Creek (Valley Reach)	Day Creek (Mtn Reach)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN			
Tributary Rule Waterbody	Chino-North Basin		
Notes	use underlying GW Basin Objectives		Exempt from MUN
WAP Subwatershed	Day Creek	Day Creek	
Impairment, 303(d) listing			
Hardness	NA	100	350
Sodium (mg/L)	NA	15	110
Chloride (mg/L)	NA	4.0	140
Sulfate (mg/L)	NA	25	150
Nitrate, as N (mg/L)	5.0	10.0	NA
Floride (mg/L)	NA	0.8	NA
TDS	420	200	700
COD	NA	5.0	30
MBAS	NA	0.05	NA
Total Inorganic Nitrogen	NA	4.0	10
As (CTR) (ug/L)	340	340	340

	Day Creek		
	Day Creek (Valley Reach)	Day Creek (Mtn Reach)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
Cd (SSO) (ug/L)	Calc	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc	Calc
Cu SSO (ug/L)	Calc	Calc	37.0
Pb SSO (ug/L)	Calc	Calc	28.0
Hg (ug/L)	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc
Total Coliform (Org/100mL)	?	100	NA
Fecal Coliform (Org/100mL)	?	400	400
E.Coli (MPN/100mL)	?	126	126
pH	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	NA	6	5
Boron (mg/L)	30	30	30

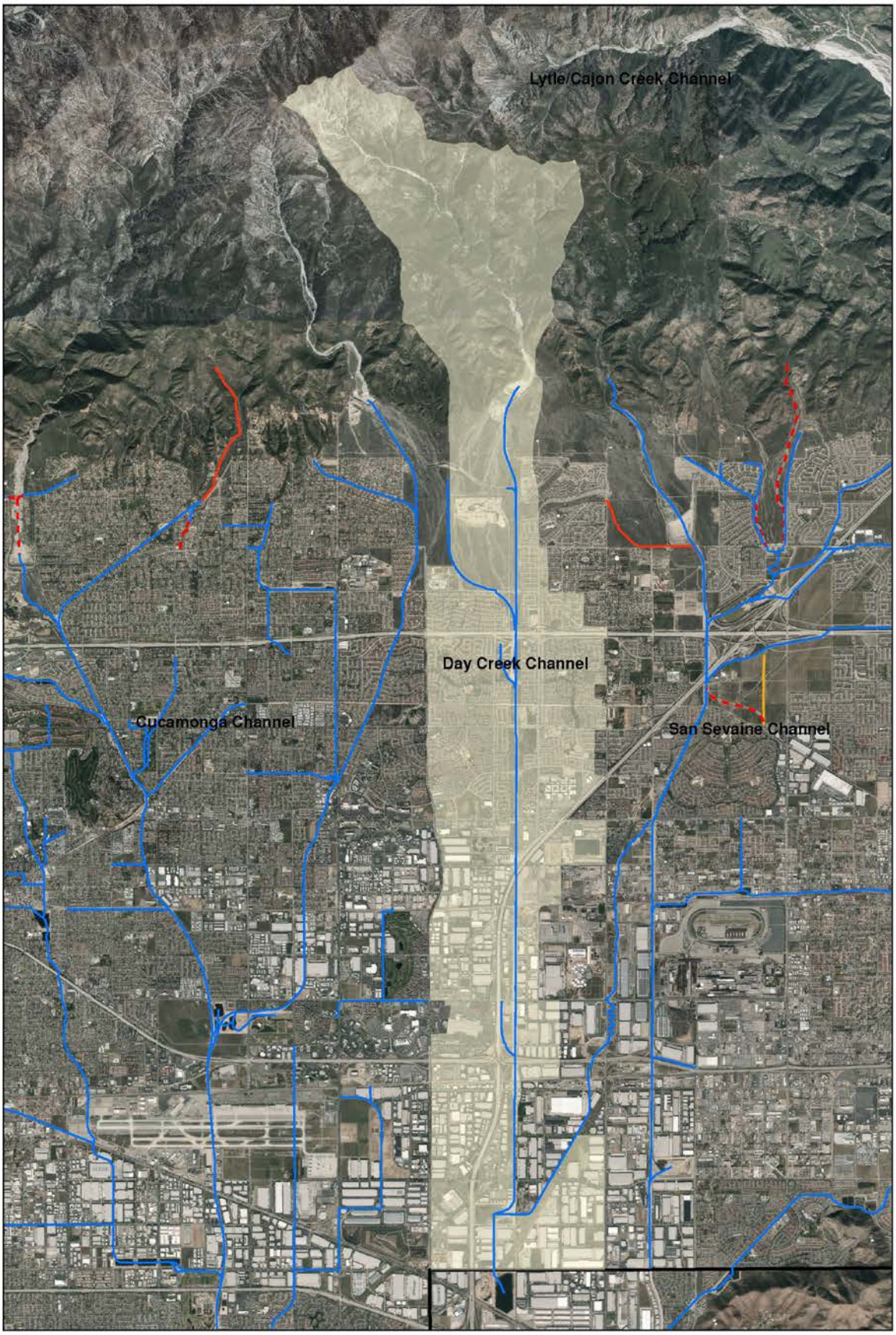
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 52%, Agriculture – 0%, Commercial/Industrial – 31%, Residential – 17%.
- **Regional Imperviousness Approximate Percentage:** 48% impervious; 52% pervious
- **Project – Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.

Soils: Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information

Items of Note:

- **CBRP compliance:** This watershed is within the CBRP compliance area. Stormwater runoff and urban discharges to the waterbodies are being investigated as part of the County of San Bernardino Areawide Stormwater CBRP program (http://www.sawpa.org/collaboration/projects/tmdl-taskforce/)
- **Infeasibility**
  Possible infiltration infeasibility constraints include:
  - Soil type (per project specific geotechnical report)
  - Locations within the Hydrologic Control Plan area
  - Perched groundwater or artisan groundwater conditions (south end)


Lytle/Cajon Creek Channel
Day Creek Channel
Cucamonga Channel
San Sevaine Channel

Lytle/Cajon Creek Watershed Fact Sheet

Lytle and Cajon Creek Watershed

Lytle and Cajon Creek Watershed is located within the midsection of the San Bernardino County valley and includes the county of San Bernardino and portions of the cities of Colton, Fontana, Rialto and San Bernardino. Federal jurisdiction includes the Angeles Forest (USFS).

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at:
http://sbcounty.permitrack.com/WAP/

Waterbodies: Lytle Creek, Cajon Creek, Devil Canyon Creek, Macy Storm Drain, Cable Creek, Muscoy Storm Drain, Santa Ana Reach 3 and 4
Source Waters: 1) Headwater locations should be checked for spring sources (i.e. mountain locations); 2) Effluent dominated sources include: none
Wetlands/Riparian Areas:

- Sensitive Riparian/Wetland areas are generally identified on the geodatabase. Due to the detailed documentation necessary, project level analysis is also required.
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Lytle and Cajon Creek Watersheds contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Merriam K Rat – throughout subwatershed
    - Potential Habitat:
        - Riversidean Alluvial Fan Sage Scrub – throughout subwatershed
    - No Fish, Bird, Frogs, Snakes, Insects or Tortoise

Groundwater Basins:
Depth to Groundwater is presented on the Geodatabase and is available from the following water purveyors:
http://www.sbvmwd.com/
http://www.cbwm.org/docs/engdocs/maps

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zones 2 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels: This watershed is both Engineered Hardened Maintained (EHM) and non -Engineered Hardened Maintained (non-EHM) Channels. Projects not draining to an EHM must meet requirements in the WQMP Manual (http://www.sbcounty.gov/dpw/land/npdes.asp)

Hydrologic Conditions of Concern (HCOC): Watershed must meet the HCOC criteria in the WQMP Manual.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing*

hydrogeologic modeling criteria and groundwater management plans. Recharge management information is found at the following websites and in the Stormwater Facility Mapping Tool.

http://www.sbvmwd.com/
http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm

Beneficial Uses:

- **Cajon Creek**: MUN, GWR, REC 1, REC2, COLD, WILD, RARE (mountain reach only)
- **Devil Canyon Creek**: MUN, GWR, REC 1, REC2, COLD, WILD (mountain reach only)
- **Lytle Creek**: MUN, AGR, IND, PROC, GWR, POW, REC 1, REC2, COLD, WILD, RARE (South, Middle and North Forks)
- **Santa Ana River Reach 3**: AGR, GWR, REC 1, REC2, WARM, WILD, RARE

303(d) Impairments:

- **Cajon Creek:** Pathogens
- **Santa Ana River Reach 3:** Lead

Approved TMDLs:

- **Santa Ana River Reach 3:** Copper (Wet season only), Pathogens

Water Quality Objectives:
Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in:
http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

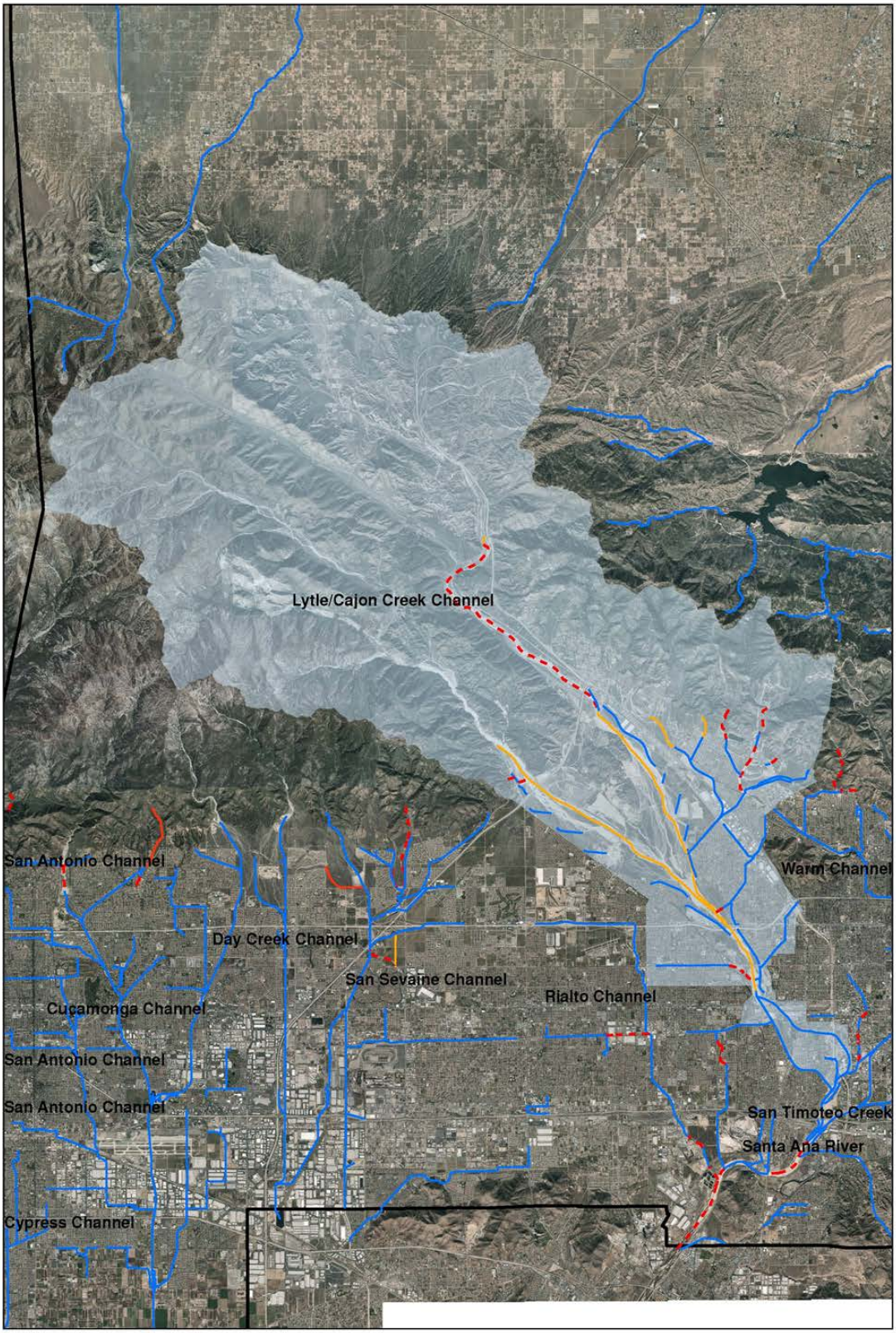
	Lytle/Cajon Creek				
	Cajon Creek (Valley Reach)	Cajon Creek (Mt. reach)	Lytle Creek/Mt Reaches: S/M/N Forks and Coldwater Creek Canyon	East Rialto Channel	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN					
Tributary Rule Waterbody	Bunker Hill - A		Chino-North Basin	SAR Reach 5	
Notes	use underlying GW Basin Objectives		use underlying GW Basin Objectives		Exempt from MUN
WAP Subwatershed	Lytle / Cajon	Lytle / Cajon	Lytle / Cajon	Lytle / Cajon	
Impairment, 303(d) listing			Pathogens	None	
Hardness	NA	100	NA	190	350
Sodium (mg/L)	NA	30	NA	30	110
Chloride (mg/L)	NA	10	NA	20	140
Sulfate (mg/L)	NA	20	NA	60	150
Nitrate, as N (mg/L)	2.7	10	5.0	NA	NA
Floride (mg/L)	0.8	0.8	NA	NA	NA

	Lytle/Cajon Creek				
	Cajon Creek (Valley Reach)	Cajon Creek (Mt. reach)	Lytle Creek/Mt Reaches: S/M/N Forks and Coldwater Creek Canyon	East Rialto Channel	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
TDS	310	200	420	300	700
COD	NA	5.0	NA	25	30
MBAS	0.05	0.05	NA	NA	NA
Total Inorganic Nitrogen	NA	1.0	NA	5.0	10
As (CTR) (ug/L)	340	340	340	340	340
Cd (SSO) (ug/L)	Calc	Calc	Calc	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc
Cu SSO (ug/L)	Calc	Calc	Calc	Calc	37.0
Pb SSO (ug/L)	Calc	Calc	Calc	Calc	28.0
Hg (ug/L)	NA	NA	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc
Total Coliform (Org/100mL)	100	100	?	100	NA
Fecal Coliform (Org/100mL)	400	400	?	400	400
E.Coli (MPN/100mL)	126	126	?	126	126
pH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	NA	6	NA	6	5
Boron (mg/L)	NA	30	30	30	30

Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 88%, Agriculture – 0%, Commercial/Industrial – 4%, Residential – 8%.
- **Regional Imperviousness Approximate Percentage:** 12% impervious; 88% pervious
- **Project-specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Lytle Cajon Creek Watershed



Mill Creek Watershed Fact Sheet

Mill Creek Watershed

Mill Creek Watershed is located at the eastern boundary of San Bernardino County valley and includes the county of San Bernardino and portions of the cities of Highland and Redlands. Federal jurisdictions include the Angeles Forest (USFS).

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at:
http://sbcounty.permitrack.com/WAP/

Waterbodies: Mill Creek, Santa Ana Reach 4

Source Waters: 1) Headwater locations should be checked for spring sources (i.e. mountain locations); 2) Effluent dominated sources include: Redlands Waste Water Treatment Plant

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Mill Creek Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Delhi Sands – Rialto/Colton area, southwest end of subwatershed
        - Mountain Yellow Legged Frog – northern end of City Creek
        - California Gnatcatcher – southwest end of subwatershed,
        - Southwest Willow Flycatcher – along Santa Ana River
        - Santa Ana Sucker Fish – in Santa Ana River
        - Merriam K Rat – Throughout length of Santa Ana River within Valley
    - Potential Habitat:
        - Coastal Sage Scrub – Southwest border and within Santa Ana River
        - Riparian/Wetland – throughout length of Santa Ana River
    - No Tortoise, Insects, Snakes

Groundwater Basins:

Depth to Groundwater is presented on the Geodatabase and is available from the following water purveyors:

http://www.sbvmwd.com/

http://www.cbwm.org/docs/engdocs/maps

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 3 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels: This watershed is primarily non -Engineered Hardened Maintained (non-EHM) Channels. Projects not draining to a EHM must meet requirements in the WQMP Manual (http://www.sbcounty.gov/dpw/land/npdes.asp)

Hydrologic Conditions of Concern (HCOC): Watershed must meet the HCOC criteria in the WQMP Manual.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.* Recharge management information is found at the following websites and in the Stormwater Facility Mapping Tool.

http://www.sbvmwd.com/

http://www.ieua.org/sustain/gw/recharge.html

http://www.cbwm.org/rep_engineering.htm

Beneficial Uses:

- **Mill Creek:** MUN, AGR, GWR, POW, REC1, REC2, COLD, WILD, RARE (intermittent)
- **Santa Ana River Reach 4:** MUN, GWR, REC 1, REC2, WARM, WILD, RARE

303(d):

- **Mill Creek:** Pathogens
- **Santa Ana Reach 4:** Pathogens

Approved TMDLs:

- **None**

Water Quality Objectives :

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in: http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Mill Creek		
	Mill Creek - Reach 1 (confluence at upper powerhouse)	Mill Creek - Reach 2 (Powerhouse to headwaters)	Santa Ana Reach 4 (Mission Blvd to San Jacinto Fault)
BASIN PLAN			
Tributary Rule Waterbody			
Notes			Exempt from MUN
WAP Subwatershed	Mill Creek	Mill Creek	
Impairment, 303(d) listing			
Hardness	100	100	NA
Sodium (mg/L)	30	25	NA
Chloride (mg/L)	10	5.0	NA
Sulfate (mg/L)	20	15	NA
Nitrate, as N (mg/L)	10	10	NA
Floride (mg/L)	0.8	0.8	NA
TDS	200	110	550
COD	5.0	5.0	30
MBAS	0.05	0.05	NA
Total Inorganic	1.0	1.0	10

	Mill Creek		
	Mill Creek - Reach 1 (confluence at upper powerhouse)	Mill Creek - Reach 2 (Powerhouse to headwaters)	Santa Ana Reach 4 (Mission Blvd to San Jacinto Fault)
Nitrogen			
As (CTR) (ug/L)	340	340	340
Cd (SSO) (ug/L)	Calc	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc	Calc
Cu SSO (ug/L)	Calc	Calc	37.0
Pb SSO (ug/L)	Calc	Calc	28.0
Hg (ug/L)	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc
Total Coliform (Org/100mL)	100	100	NA
Fecal Coliform (Org/100mL)	400	400	400
E.Coli (MPN/100mL)	126	126	126
pH	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	6	6	5
Boron (mg/L)	30	30	30

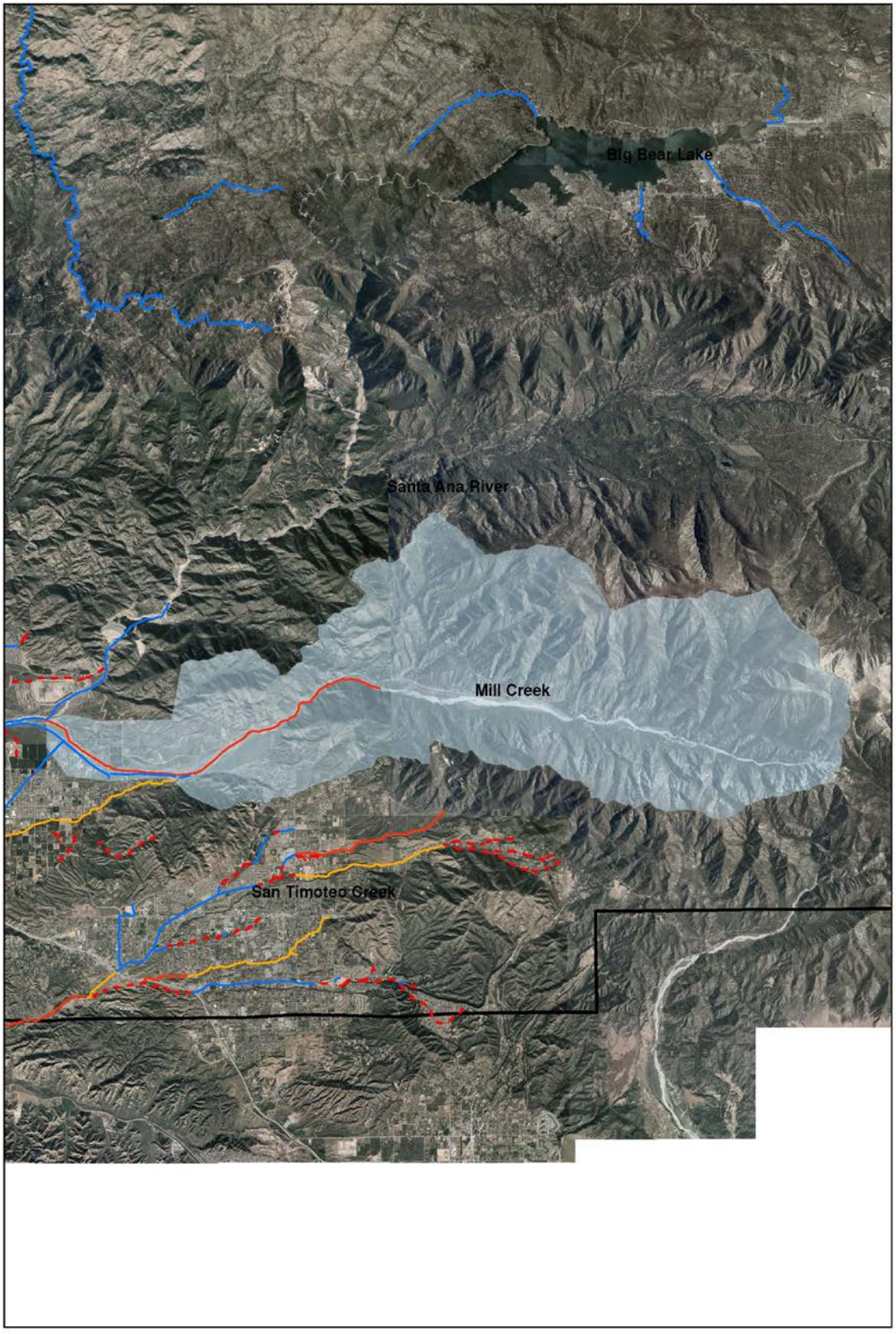
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 98%, Agriculture – 1%, Commercial/Industrial – 0%, Residential – 1%.
- **Regional Imperviousness Approximate Percentage:** 1% impervious; 99% pervious
- **Project – Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

None

Mill Creek Watershed



Rialto Channel Watershed Fact Sheet

Rialto Channel Watershed

Rialto Channel Watershed is located in the midsection of the San Bernardino County valley and includes the county of San Bernardino and portions of the cities of Colton, Fontana and Rialto.

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at: http://sbcounty.permitrack.com/WAP/

Waterbodies: Cactus Channel, Rialto Channel, East Fontana Storm Drain, Santa Ana Reach 3 (Prado Basin)

Source Waters: 1) Headwater locations should be checked for spring sources (i.e. mountain locations); 2) Effluent dominated sources include: Rialto Waste Water Treatment Plant and the RIX Facility

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas :** Rialto Channel Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Delhi Sand – Southeast border
        - Merriam K Rat – Northwest corner
    - Potential Habitat:
        - Riversidean Alluvial Fan Sage Scrub – northwest corner
    - No Fish, Birds, Frogs, Snakes, Insects or Tortoise

Groundwater Basins:

- Depth to Groundwater is presented on the following CBWM map http://www.cbwm.org/docs/engdocs/maps

Drainage channels: The main Rialto Channel drainage has been designated as Engineered Hardened Maintained (EHM), however East Fontana Storm Drain has been designated as Non-EHM. Refer to the Watershed Geodatabase for site specific data.

Hydrologic Conditions of Concern (HCOC): While most of the watershed is Hydrologic Conditions of Concern (HCOC) Exempt there are remaining portions of watershed must meet the HCOC criteria in the WQMP Manual. Refer to the Watershed Geodatabase for site specific data.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.* Recharge management information is found at the following websites and in the Stormwater Facility Mapping Tool.

http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm

Beneficial Uses:

- **Santa Ana River Reach 3:** AGR, GWR, REC 1, REC2, WARM, WILD, RARE

303(d) Impairments:

- Lead

Approved TMDLs:

- **Reach 3:** Copper (Wet season only)

Water Quality Objectives :
Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in:
http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Rialto Channel	
	Rialto Channel	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN		
Tributary Rule Waterbody	SAR Reach 4	
Notes		Exempt from MUN
WAP Subwatershed	Rialto Channel	
Impairment, 303(d) listing	None	
Hardness	NA	350
Sodium (mg/L)	NA	110
Chloride (mg/L)	NA	140
Sulfate (mg/L)	NA	150
Nitrate, as N (mg/L)	NA	NA
Floride (mg/L)	NA	NA
TDS	550	700
COD	30	30
MBAS	NA	NA
Total Inorganic Nitrogen	10	10
As (CTR) (ug/L)	340	340
Cd (SSO) (ug/L)	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc
Cu SSO (ug/L)	Calc	37.0
Pb SSO (ug/L)	Calc	28.0
Hg (ug/L)	NA	NA
Ni (CTR) (ug/L)	Calc	Calc
Se (CTR) (ug/L)	5	5
Ag (CTR) (ug/L)	Calc	Calc

	Rialto Channel	
	Rialto Channel	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
Zn (CTR) (ug/L)	Calc	Calc
Total Coliform (Org/100mL)	NA	NA
Fecal Coliform (Org/100mL)	400	400
E.Coli (MPN/100mL)	126	126
pH	6.5-8.5	6.5-8.5
DO (mg/L)	5	5
Boron (mg/L)	30	30

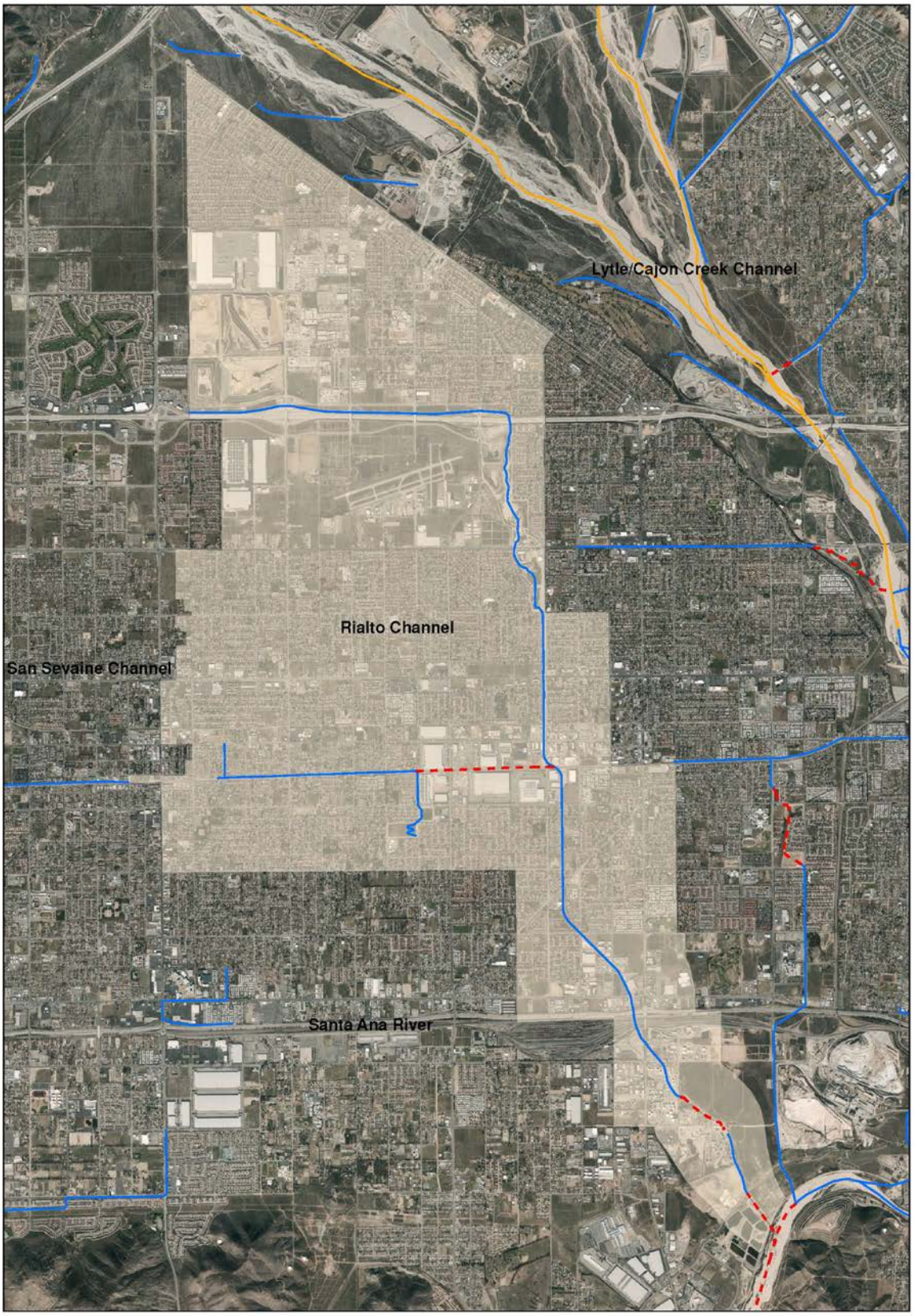
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 5%, Agriculture – 0%, Commercial/Industrial – 43%, Residential – 52%.
- **Regional Imperviousness Approximate Percentage:** 95% impervious; 5% pervious
- **Project-Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

- **CBRP compliance:** This watershed is within the CBRP compliance area. Stormwater runoff and urban discharges to the waterbodies are being investigated as part of the County of San Bernardino Areawide Stormwater CBRP program
  (http://www.sawpa.org/collaboration/projects/tmdl-taskforce/)
- **Infeasibility**
  Possible infiltration infeasibility constraints include:
  - Soil type (per project specific geotechnical report)
  - Locations within the Hydrologic Control Plan area
  - Perched groundwater or artisan groundwater conditions (south end)

Rialto Channel Watershed



San Antonio Creek Watershed Fact Sheet

San Antonio Channel Watershed

San Antonio Channel Watershed is located at the western boundary of San Bernardino County and includes portions of the counties of San Bernardino, Los Angeles, and Riverside, all of the City of Montclair and portions of the cities of Pomona, Claremont, Upland, Ontario, Chino and Chino Hills. Federal jurisdictions include the United States Forest Service (Angeles Forest) and United States Army Corp of Engineers (Prado Basin).

The following data summary provides general watershed information. Site specific information can also be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at: http://sbcounty.permitrack.com/WAP/

Waterbodies :

San Antonio Channel
Chino Creek
Santa Ana Reach 3 (Prado Basin)

Primary Tributaries:

Little Chino Creek
English Canyon
Carbon Canyon Creek
Los Serranos Channel
Chino Storm Drain

Source Waters:

- Headwater locations should be checked for spring sources (i.e. Chino Hills and mountain locations)
- Effluent dominated sources include: IEUA Carbon Canyon Water Reclamation Facility (San Antonio Channel), IEUA RP-2 (Chino Creek)

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** San Antonio Creek Watershed is contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Delhi Sands – Eastern portion, near Chino Storm Drain
        - Least Bell Vireo – South end of subwatersehd
    - Potential Habitat:
        - Coastal Sage Scrub – southern end
        - Riparian/Wetlands – southern end
    - No Fish, Frogs, Snakes, Insects or Tortoise

Groundwater Basins:

- Depth to Groundwater is presented on the following CBWM map: http://www.cbwm.org/docs/engdocs/maps
- Per the obligations codified in the 2004 Basin Plan amendment it is regionally required to eliminate groundwater outflow to the Santa Ana River. This is the Hydraulic Control Monitoring Program and is managed through the Chino Basin Desalter Authority, the Chino Basin Watermaster and Inland Empire Utilities Agency. All areas south of the 60 Freeway must review this information.

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 1 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels:

- All but nine drainage courses are Engineered Hardened Maintained (EHM) Channels. Projects not draining to a EHM must meet requirements in the WQMP Manual (http://www.sbcounty.gov/dpw/land/npdes.asp)

Hydrologic Conditions of Concern (HCOC)

- Northeast portion of the watershed is Hydrologic Conditions of Concern (HCOC) Exempt
- Remaining watershed portions must meet the HCOC requirements in the WQMP Manual

Stormwater Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.*

Contact information and watershed specific information is found at:

http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm
http://www.cbwcd.org/129/Percolation-Basins

Beneficial Uses:

Discharges must not impair these beneficial uses:

- **San Antonio Creek:** MUN, AGR, IND, PROC, GWR, POW, REC1, REC2, COLD, WILD
- **Chino Creek:** MUN, GWR, REC1, REC2, WARM, LWARM, WILD, RARE
- **Santa Ana River Reach 3:** AGR, GWR, REC 1, REC2, WARM, WILD, RARE

303(d) Impairments

- **San Antonio Creek:** pH
- **Chino Creek:** Chemical oxygen demand (COD), pH
- **Santa Ana River Reach 3:** Lead

Approved TMDLs:

- **Chino Creek:** Pathogens, Nutrients, Coliform, Bacteria
- **Santa Ana River Reach 3:** Copper (Wet season only)

Water Quality Objectives :

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in:
http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	San Antonio Channel					
	Chino Creek 1 - 1A	Chino Creek 1 - 1B	Prado Park (wetlands)	San Antonio Creek (Valley Reach)	San Antonio Creek (Mtn Reach)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN						
Tributary Rule Waterbody				Chino-North Basin		
Notes	Exempt from MUN	Exempt from MUN	Exempt from MUN	use underlying GW Basin Objectives		Exempt from MUN
WAP Subwatershed	San Antonio Channel	San Antonio Channel	San Antonio Channel	San Antonio Channel	San Antonio Channel	

	San Antonio Channel					
	Chino Creek 1 - 1A	Chino Creek 1 - 1B	Prado Park (wetlands)	San Antonio Creek (Valley Reach)	San Antonio Creek (Mtn Reach)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
Impairment, 303(d) listing						
Hardness	350	240	NA	NA	150	350
Sodium (mg/L)	110	75	NA	NA	20	110
Chloride (mg/L)	140	75	NA	NA	6.0	140
Sulfate (mg/L)	150	60	NA	NA	25	150
Nitrate, as N (mg/L)	NA	NA	NA	5.0	10	NA
Floride (mg/L)	NA	NA	NA	NA	NA	NA
TDS	700	550	700	420	225	700
COD	30	15	NA	NA	5.0	30
MBAS	NA	NA	NA	NA	0.05	NA
Total Inorganic Nitrogen	10	8.0	10	NA	4.0	10
As (CTR) (ug/L)	340	340	150	340	340	340
Cd (SSO) (ug/L)	Calc	4.0	Calc	Calc	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Cu SSO (ug/L)	Calc	37.0	Calc	Calc	Calc	37.0
Pb SSO (ug/L)	Calc	28.0	Calc	Calc	Calc	28.0
Hg (ug/L)	NA	NA	NA	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Total Coliform (Org/100mL)	NA	100	NA	?	100	NA
Fecal Coliform (Org/100mL)	400	400	NA	?	400	400
E.Coli (MPN/100mL)	126	126	NA	?	126	126
pH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	5	5	5	NA	6	5
Boron (mg/L)	30	30	30	30	30	30

Land Use Information:

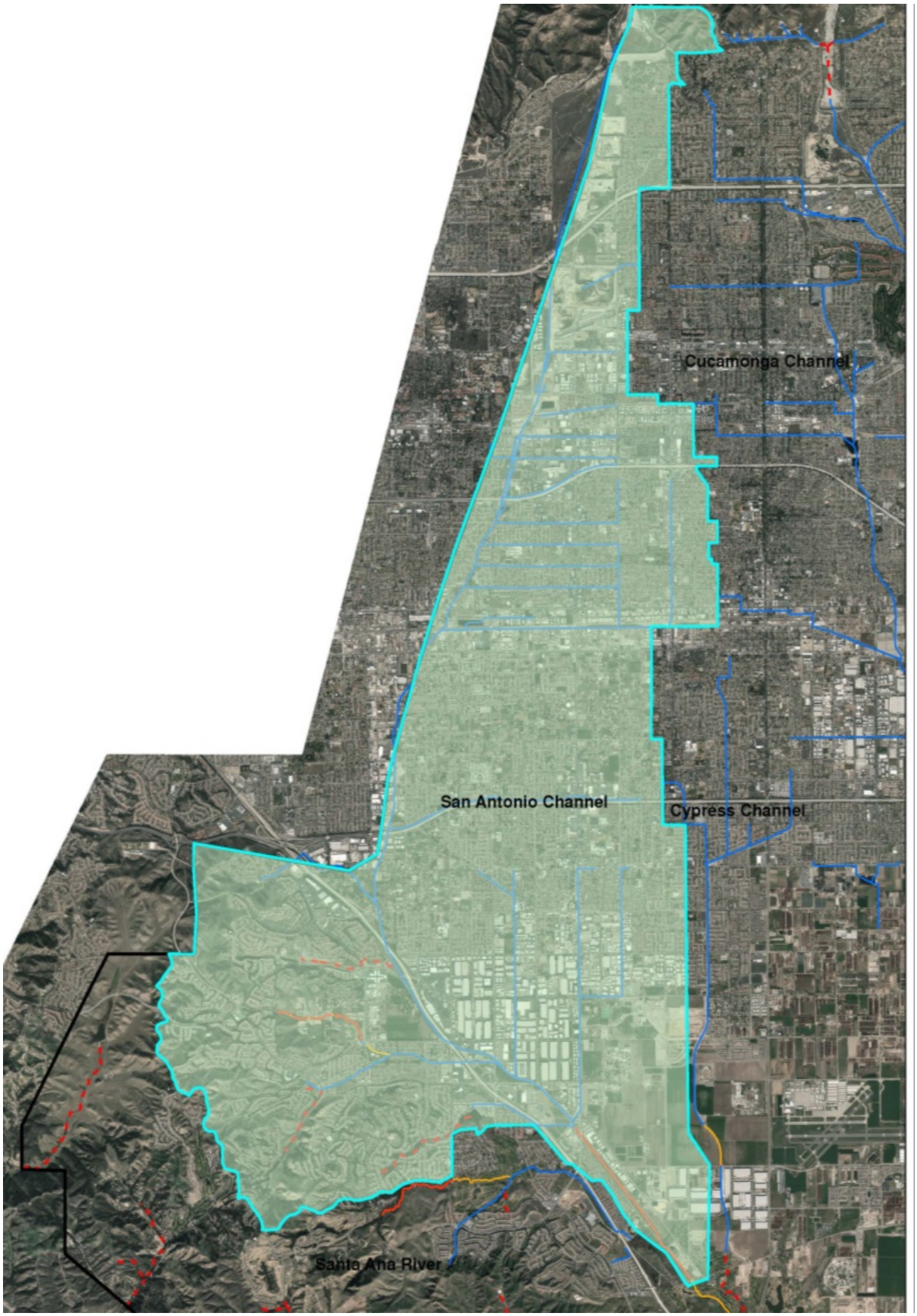
- **Percent Approximate Land Use by Category:** Open – 2%, Agriculture – 3%, Commercial/Industrial – 34%, Residential – 61%.
- **Regional Imperviousness Approximate Percentage:** 95% impervious; 5% pervious
- **Project-Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.

- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

- **CBRP compliance:** This watershed is within the CBRP compliance area. Stormwater runoff and urban discharges to the waterbodies are being investigated as part of the County of San Bernardino Areawide Stormwater CBRP program
  (http://www.sawpa.org/collaboration/projects/tmdl-taskforce/)
- **Infeasibility**
  Possible infiltration infeasibility constraints include:
  - Soil type (per project specific geotechnical report)
  - Locations within the Hydrologic Control Plan area
  - Perched groundwater or artisan groundwater conditions

San Antonio Channel Watershed



San Sevaine Watershed Fact Sheet

San Sevaine Watershed

San Sevaine Watershed is located in the midsection of the San Bernardino County valley and includes the counties of San Bernardino and Riverside and portions of the cities of Rancho Cucamonga, Ontario, and Fontana. Federal jurisdictions include the Angeles Forest (USFS).

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at: http://sbcounty.permitrack.com/WAP/

Waterbodies: Etiwanda Creek Channel, San Sevaine Channel, Declez Channel, Santa Ana Reach 3 (Prado Basin)

Source Waters: 1) Headwater locations should be checked for spring sources (i.e. mountain locations); 2) Effluent dominated sources include: none

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** San Sevaine Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Delhi Sand – Southern border
        - California Gnatcatcher – Southern border
        - Merriam K Rat – North end, base of foothills
    - Potential Habitat:
        - Coastal Sage Scrub – Southern border
        - Riversidean Alluvial Fan Sage Scrub – north portion, primarily above 210 freeway
    - No Fish, Frogs, Snakes, Insects or Tortoise

Groundwater Basins:

- Depth to Groundwater is presented on the following CBWM map: http://www.cbwm.org/docs/engdocs/maps

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 1 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels: While most drainages are Engineered Hardened Maintained (EHM) Channels, there are earthen channels remaining in this watershed as identified in the Geodatabase.

Hydrologic Conditions of Concern (HCOC): The watershed is Hydrologic Conditions of Concern (HCOC) Exempt.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.* Recharge management information is found at the following websites and in the Stormwater Facility Mapping Tool.

http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm

Beneficial Uses:

- **San Sevaine Creek: : (all intermittent/mountain reach)** MUN, GWR, REC1, REC2, COLD, WILD
- **Etiwanda Creek:** MUN, PROC, GWR, REC1, REC2, COLD WILD, RARE
- **Santa Ana River Reach 3:** AGR, GWR, REC 1, REC2, WARM, WILD, RARE

303(d) Impairments:

- **Reach 3:** Lead

Approved TMDLs:

- **Reach 3:** Copper (Wet season only), Pathogens

Water Quality Objectives :

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in: http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	San Sevaine Channel			
	San Sevaine Channel (Valley Reach)	East Etiwanda Creek (Valley Reach)	East Etiwanda Creek (Mtn Reach)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN				
Tributary Rule Waterbody		Chino-North Basin		
Notes		use underlying GW Basin Objectives		Exempt from MUN
WAP Subwatershed	San Sevaine	San Sevaine	San Sevaine	
Impairment, 303(d) listing				
Hardness	NA	NA	100	350
Sodium (mg/L)	NA	NA	15	110
Chloride (mg/L)	NA	NA	4.0	140
Sulfate (mg/L)	NA	NA	25	150
Nitrate, as N (mg/L)	10	5.0	10	NA
Floride (mg/L)	NA	NA	0.8	NA
TDS	200	420	200	700
COD	NA	NA	5.0	30
MBAS	0.05	NA	0.05	NA
Total Inorganic Nitrogen	NA	NA	4.0	10
As (CTR) (ug/L)	340	340	340	340
Cd (SSO) (ug/L)	Calc	Calc	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc	Calc	Calc

	San Sevaine Channel			
	San Sevaine Channel (Valley Reach)	East Etiwanda Creek (Valley Reach)	East Etiwanda Creek (Mtn Reach)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
Cu SSO (ug/L)	Calc	Calc	Calc	37.0
Pb SSO (ug/L)	Calc	Calc	Calc	28.0
Hg (ug/L)	NA	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc	Calc
Total Coliform (Org/100mL)	100	?	100	NA
Fecal Coliform (Org/100mL)	400	?	400	400
E.Coli (MPN/100mL)	126	?	126	126
pH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	5	NA	6	5
Boron (mg/L)	30	30	30	30

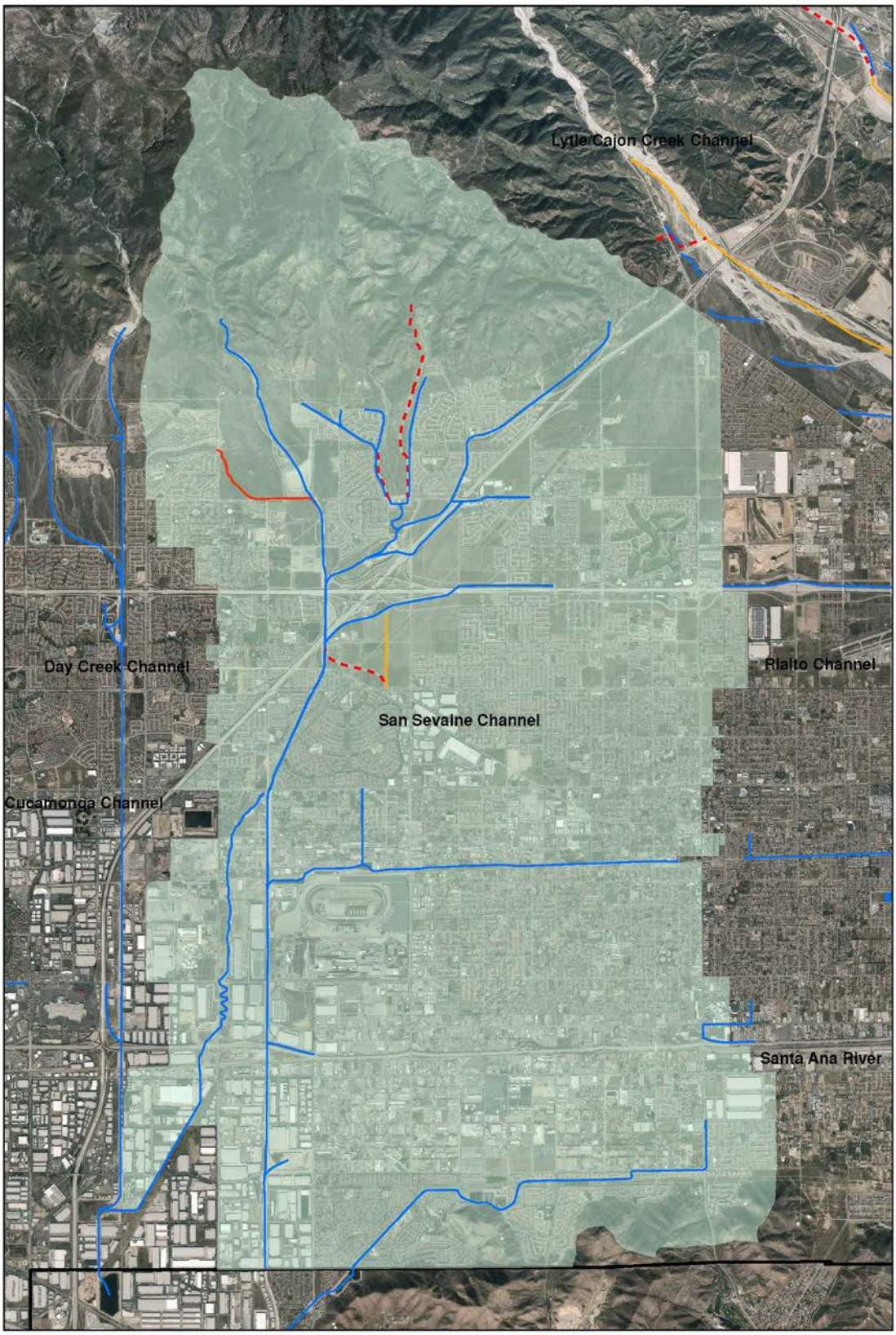
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 30%, Agriculture – 0%, Commercial/Industrial – 48%, Residential – 22%.
- **Regional Imperviousness Approximate Percentage:** 70% impervious; 30% pervious
- **Project- Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

- **CBRP compliance:** This watershed is within the CBRP compliance area. Stormwater runoff and urban discharges to the waterbodies are being investigated as part of the County of San Bernardino Areawide Stormwater CBRP program
  (http://www.sawpa.org/collaboration/projects/tmdl-taskforce/)
- **Infeasibility**
  Possible infiltration infeasibility constraints include:
  - Soil type (per project specific geotechnical report)
  - Locations within the Hydrologic Control Plan area
  - Perched groundwater or artisan groundwater conditions (south end)

SAN SEVAINE CHANNEL WATERSHED



San Timoteo Creek Watershed Fact Sheet

San Timoteo Creek Watershed

San Timoteo Watershed is located at the eastern boundary of San Bernardino County valley and includes the counties of San Bernardino and Riverside and portions of the cities of Loma Linda, Redlands, and Yucaipa. Federal jurisdictions include the Angeles Forest (USFS).

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at:
http://sbcounty.permitrack.com/WAP/

Waterbodies: Live Oak Creek, Wildwood Creek, Wilson Creek, Oak Glen Creek, San Timoteo Creek, Santa Ana Reach 4

Source Waters: 1) Headwater locations should be checked for spring sources (i.e. mountain locations); 2) Effluent dominated sources include: none

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** San Timoeto Creek Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Merriam K Rat – where subwatershed meets Santa Ana River
    - Potential Habitat:
        - Coastal Sage Scrub – eastern end, northern portion above Wilson Creek and large area north of Live Oak Creek
        - Riparian/Wetlands – Along Live Oak Creek and where subwatershed meets Santa Ana River
    - No Fish, Frogs, Snakes, Insects or Tortoise

Groundwater Basins:

Depth to Groundwater is presented on the Geodatabase and is available from the following water purveyors:

http://www.sbvmwd.com
http://www.yvwd.dst.ca.us

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 3 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels: This watershed has both non -Engineered Hardened Maintained (non-EHM) and EHM channels. Projects not draining to an EHM must meet requirements in the WQMP Manual. (http://www.sbcounty.gov/dpw/land/npdes.asp)

Hydrologic Conditions of Concern (HCOC): Watershed must meet the HCOC criteria in the WQMP Manual.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.* Recharge management information is found at the following websites and in the Stormwater Facility Mapping Tool.

http://www.sbvmwd.com
http://www.yvwd.dst.ca.us

Beneficial Uses:

- **San Timoteo Creek:** MUN, AGR, GWR, REC1, REC2, WARM, WILD (need to analyze on a site specific basis using Basin Plan)
- **Tributary Creeks to San Timoteo:** MUN, GWR, REC1, REC2, WARM, WILD, SPWN (need to analyze on a site specific basis using Basin Plan)
- **Santa Ana River Reach 4:** MUN, GWR, REC 1, REC2, WARM, WILD, RARE

303(d) Impairments

- **Santa Ana Reach 4:** Pathogens

Approved TMDLs:

- **None**

Water Quality Objectives:

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in: http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	San Timoteo Creek					
	San Timeoto Creek - Reach 1A (SAR Confluence to Barton Rd)	San Timeoto Creek - Reach 1B (Barton Rd to San Tim Cyn Rd)	San Timeoto Creek - Reach 2 (San Tim Cyn Rd to Yucaipa Crk)	Oak Glen, Potato Canyon, Birch Creeks, Little San Gregornio Creek	Yucaipa Creek	Santa Ana Reach 4 (Mission Blvd to San Jacinto Fault)
BASIN PLAN						
Tributary Rule Waterbody						
Notes	Exempt from MUN	Exempt from MUN	Exempt from MUN			Exempt from MUN
WAP Subwatershed	San Timoteo	San Timoteo	San Timoteo	San Timoteo	San Timoteo	
Impairment, 303(d) listing						
Hardness	NA	NA	NA	125	175	NA
Sodium (mg/L)	NA	NA	NA	50	60	NA
Chloride (mg/L)	NA	NA	NA	40	60	NA
Sulfate (mg/L)	NA	NA	NA	45	45	NA
Nitrate, as N (mg/L)	5.0	5.0	5.0	10	10	NA

	San Timoteo Creek					
	San Timeoto Creek - Reach 1A (SAR Confluence to Barton Rd)	San Timeoto Creek - Reach 1B (Barton Rd to San Tim Cyn Rd)	San Timeoto Creek - Reach 2 (San Tim Cyn Rd to Yucaipa Crk)	Oak Glen, Potato Canyon, Birch Creeks, Little San Gregornio Creek	Yucaipa Creek	Santa Ana Reach 4 (Mission Blvd to San Jacinto Fault)
Floride (mg/L)	NA	NA	NA	0.8	0.8	NA
TDS	400	400	400	230	290	550
COD	NA	NA	NA	5.0	15	30
MBAS	NA	NA	NA	0.05	0.05	NA
Total Inorganic Nitrogen	NA	NA	NA	3.0	6.0	10
As (CTR) (ug/L)	340	340	340	340	340	340
Cd (SSO) (ug/L)	Calc	Calc	Calc	Calc	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Cu SSO (ug/L)	Calc	Calc	Calc	Calc	Calc	37.0
Pb SSO (ug/L)	Calc	Calc	Calc	Calc	Calc	28.0
Hg (ug/L)	NA	NA	NA	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Total Coliform (Org/100mL)	100	100	100	100	100	NA
Fecal Coliform (Org/100mL)	400	400	400	400	400	400
E.Coli (MPN/100mL)	126	126	126	126	126	126
pH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	NA	NA	NA	5	5	5
Boron (mg/L)	NA	NA	NA	30	15	30

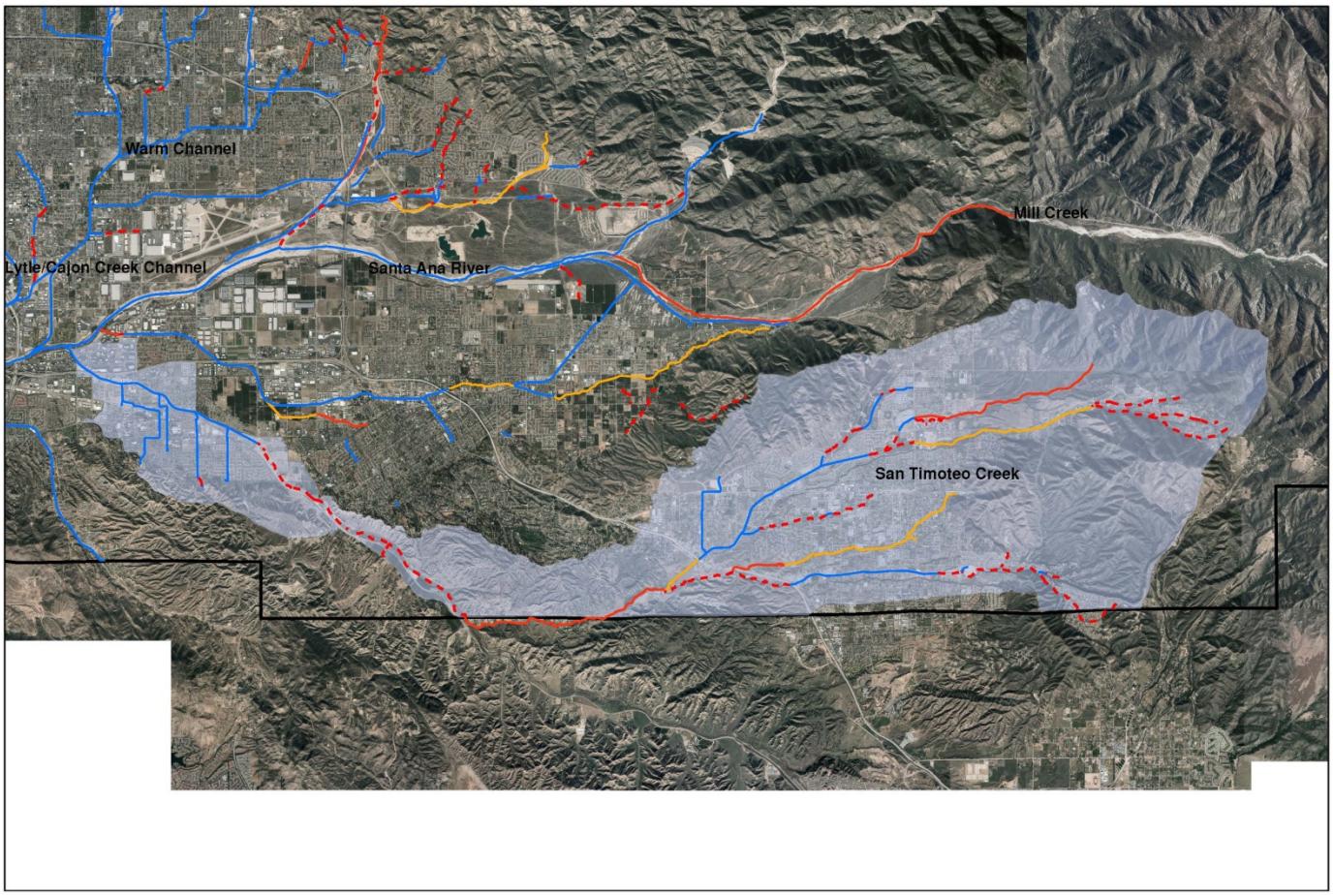
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 55%, Agriculture – 3%, Commercial/Industrial – 6%, Residential – 39%.
- **Regional Imperviousness Approximate Percentage:** 48% impervious; 52% pervious
- **Project-Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

None

San Timoteo Creek Watershed



Santa Ana (East) Watershed Fact Sheet

Santa Ana River (East) Watershed

Santa Ana River (East) Watershed is located at the eastern boundary of San Bernardino County valley and includes the county of San Bernardino and portions of the cities of Rialto, Colton, San Bernardino, Loma Linda, Highland and Redlands. Federal jurisdiction includes the Angeles Forest (USFS).

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at:
http://sbcounty.permitrack.com/WAP/

Waterbodies: Plunge Creek, Oak Creek, Zanja (Mission) Creek, Santa Ana Reach 3 and 4

Source Waters: 1) Headwater locations should be checked for spring sources (i.e. mountain locations); 2) Effluent dominated sources include: Colton Waste Water Treatment Plant and San Bernardino Waste Water Treatment Plant

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Santa Ana River Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Delhi Sands – Rialto/Colton area, southwest end of subwatershed
        - Mountain Yellow Legged Frog – northern end of City Creek
        - California Gnatcatcher – southwest end of subwatershed,
        - Southwest Willow Flycatcher – along Santa Ana River
        - Santa Ana Sucker Fish – in Santa Ana River
        - Merriam K Rat – Throughout length of Santa Ana River within Valley
    - Potential Habitat:
        - Coastal Sage Scrub – Southwest border and within Santa Ana River
        - Riparian/Wetland – throughout length of Santa Ana River
    - No Tortoise, Insects, Snakes

Groundwater Basins:

Depth to Groundwater is presented on the Geodatabase and is available from the following water purveyors:

http://www.sbvmwd.com/

http://www.cbwm.org/docs/engdocs/maps

Flood Control Measures/ Plans:

Watershed is located within San Bernardino County Flood Control District Zones 2 and 3 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels: This watershed is both Engineered Hardened Maintained (EHM) and non -Engineered Hardened Maintained (non-EHM) Channels. Projects not draining to an EHM must meet requirements in the WQMP Manual (http://www.sbcounty.gov/dpw/land/npdes.asp)

Hydrologic Conditions of Concern (HCOC): Watershed must meet the HCOC criteria in the WQMP Manual.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.* Recharge management information is found at the following websites and in the Stormwater Facility Mapping Tool.

http://www.sbvmwd.com/
http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm

Beneficial Uses:

- **Santa Ana River Reach 3**: AGR, GWR, REC 1, REC2, WARM, WILD, RARE
- **Santa Ana River Reach 4:** MUN, GWR, REC 1, REC2, WARM, WILD, RARE

303(d) Impairments:

- **Santa Ana Reach 3:** Lead
- **Santa Ana Reach 4:** Pathogens

Approved TMDLs:

- **Santa Ana Reach 3:** Copper (Wet season only), Pathogens

Water Quality Objectives:
Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in:
http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Santa Ana River East	
	Santa Ana Reach 4 (Mission Blvd to San Jacinto Fault)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN		
Tributary Rule Waterbody		
Notes	Exempt from MUN	Exempt from MUN
WAP Subwatershed		
Impairment, 303(d) listing		
Hardness	NA	350
Sodium (mg/L)	NA	110
Chloride (mg/L)	NA	140
Sulfate (mg/L)	NA	150
Nitrate, as N (mg/L)	NA	NA
Floride (mg/L)	NA	NA

	Santa Ana River East	
	Santa Ana Reach 4 (Mission Blvd to San Jacinto Fault)	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
TDS	550	700
COD	30	30
MBAS	NA	NA
Total Inorganic Nitrogen	10	10
As (CTR) (ug/L)	340	340
Cd (SSO) (ug/L)	4.0	4.0
Cr (CTR) (ug/L)	Calc	Calc
Cu SSO (ug/L)	37.0	37.0
Pb SSO (ug/L)	28.0	28.0
Hg (ug/L)	NA	NA
Ni (CTR) (ug/L)	Calc	Calc
Se (CTR) (ug/L)	5	5
Ag (CTR) (ug/L)	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc
Total Coliform (Org/100mL)	NA	NA
Fecal Coliform (Org/100mL)	400	400
E.Coli (MPN/100mL)	126	126
pH	6.5-8.5	6.5-8.5
DO (mg/L)	5	5
Boron (mg/L)	30	30

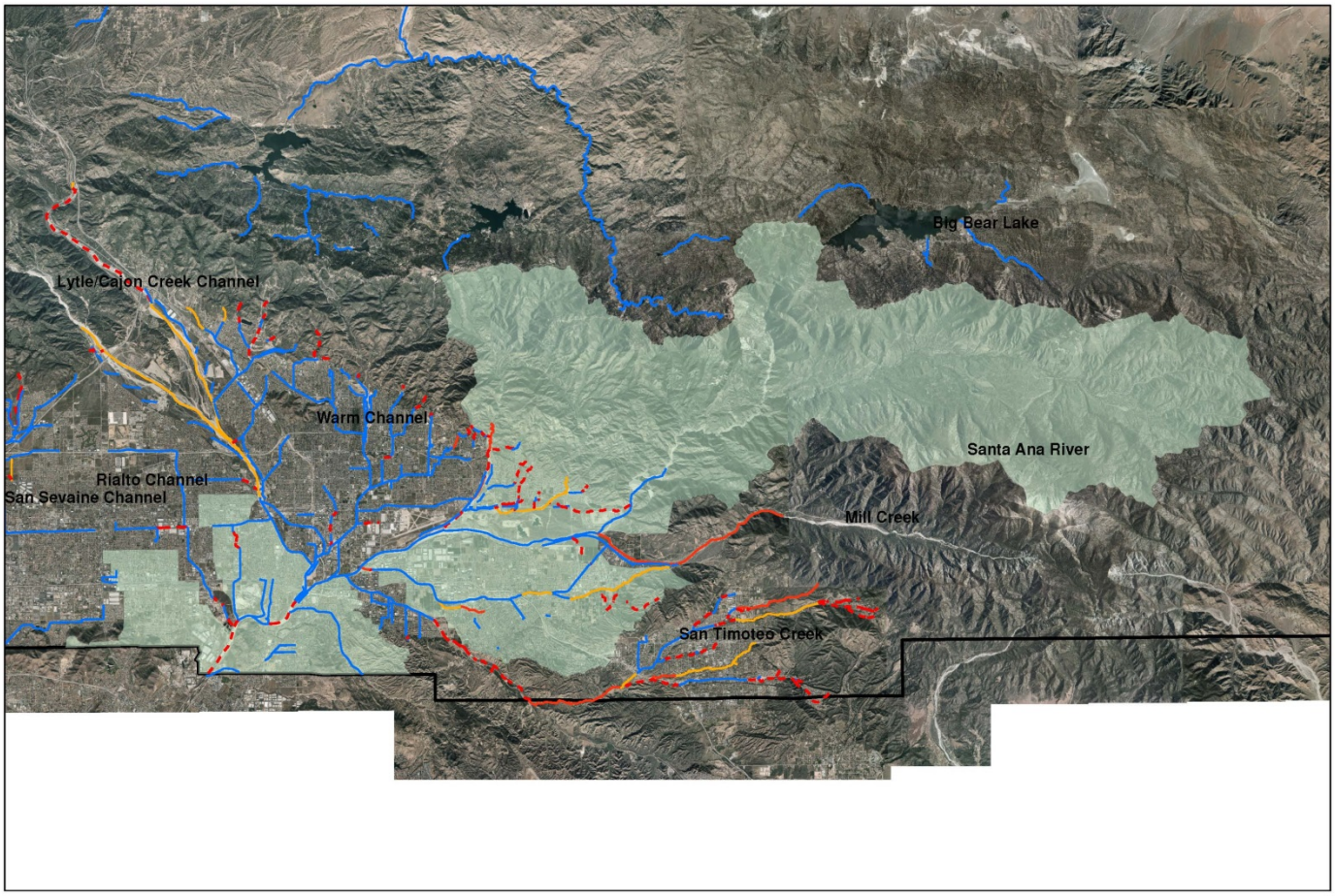
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 79%, Agriculture – 1%, Commercial/Industrial – 6%, Residential – 14%.
- **Regional Imperviousness Approximate Percentage:** 20% impervious; 80% pervious
- **Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

None

Santa Ana River (East) Watershed



Santa Ana (West) Watershed Fact Sheet

Santa Ana River (West) Watershed

The Santa Ana River Sub-Watershed is located within the western edge of San Bernardino County and includes a portion of Riverside and Orange Counties, and City of Chino Hills. Chino Hills State Park is the primary watershed use.

The following data summary provides general watershed information. Site specific information can also be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at: http://sbcounty.permitrack.com/WAP/

Waterbodies
Santa Ana Reach 3 (Prado Basin)

Primary Tributaries
Aliso Canyon
Water Canyon
Abacherly Canyon
Bane Canyon
Slaughter Canyon

Source Waters:

- Headwater locations should be checked for spring sources
- There are no effluent dominated sources

Wetlands/Riparian Areas:

- There are no Riparian/Wetland areas are identified within this Watershed.
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Santa Ana River (West) Watershed contains known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - California Gnatcatcher – southwest border of subwatershed
        - Least Bell Vireo – southeast border of subwatershed
    - Potential Habitat:
        - Coastal Sage Scrub – throughout subwatershed
        - Riparian/Wetland – eastern border of subwatershed
    - No Fish, Bird, Rodents, Expected Plants, Frogs, Snakes, Insects or Tortoise

Groundwater Basins:

- Depth to Groundwater is presented on the following CBWM map http://www.cbwm.org/docs/engdocs/maps
- Per the obligations codified in the 2004 Basin Plan amendment it is regionally required to eliminate groundwater outflow to the Santa Ana River. This is the Hydraulic Control Monitoring Program and is managed through the Chino Basin Desalter Authority, the Chino Basin Watermaster and Inland Empire Utilities Agency. Areas south of the 60 Freeway must review this information.

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 1 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels:

- There are no Engineered Hardened Maintained (EHM) Channels within this watershed.

Hydrologic Conditions of Concern (HCOC):

- All development within the watershed must meet the HCOC criteria in the WQMP Manual.

Recharge information:

The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.*

Contact information and watershed specific information is found at:

http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm
http://www.cbwcd.org/129/Percolation-Basins

Beneficial Uses:

Dischargers must not impair these beneficial uses:

- **Santa Ana River Reach 3:** AGR, GWR, REC 1, REC2, WARM, WILD, RARE

303(d) Impairments:

- **Santa Ana River Reach 3:** Lead

Approved TMDLs:

- **Santa Ana River Reach 3: Copper** (wet season only), Pathogen

Water Quality Objectives :

Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in:
http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Santa Ana River West
	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
BASIN PLAN	
Tributary Rule Waterbody	
Notes	Exempt from MUN
WAP Subwatershed	
Impairment, 303(d) listing	
Hardness	350
Sodium (mg/L)	110
Chloride (mg/L)	140
Sulfate (mg/L)	150
Nitrate, as N (mg/L)	NA
Floride (mg/L)	NA
TDS	700
COD	30
MBAS	NA
Total Inorganic Nitrogen	10
As (CTR) (ug/L)	340
Cd (SSO) (ug/L)	4.0

	Santa Ana River West
	Santa Ana Reach 3 (Prado Dam to Mission Blvd, Riverside (base flow))
Cr (CTR) (ug/L)	Calc
Cu SSO (ug/L)	37.0
Pb SSO (ug/L)	28.0
Hg (ug/L)	NA
Ni (CTR) (ug/L)	Calc
Se (CTR) (ug/L)	5
Ag (CTR) (ug/L)	Calc
Zn (CTR) (ug/L)	Calc
Total Coliform (Org/100mL)	NA
Fecal Coliform (Org/100mL)	400
E.Coli (MPN/100mL)	126
pH	6.5-8.5
DO (mg/L)	5
Boron (mg/L)	30

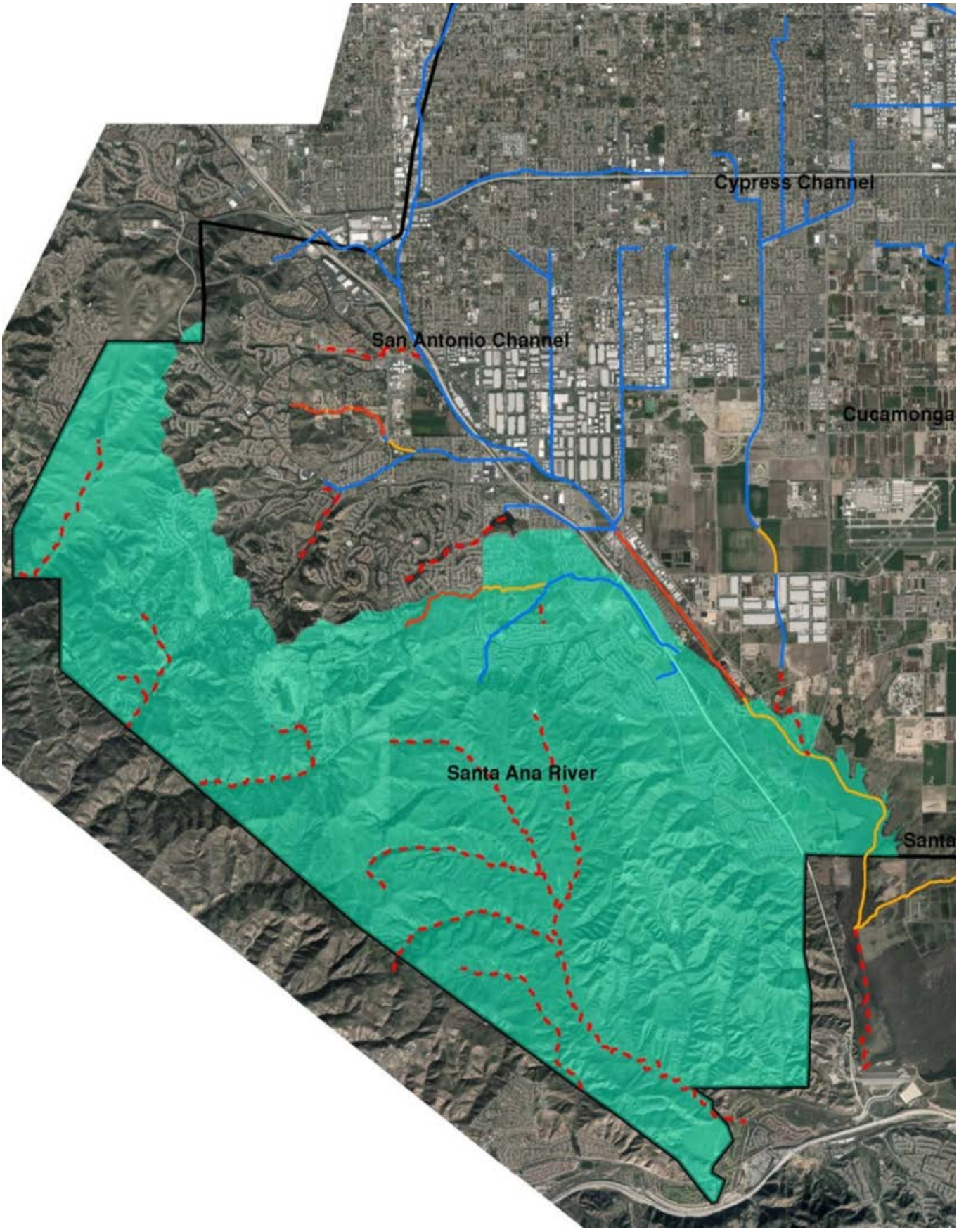
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 82%, Agriculture – 1%, Commercial/Industrial – 0%, Residential – 17%.
- **Regional Imperviousness Approximate Percentage:** 17% impervious; 83% pervious
- **Project- Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within a hilly region. Soil types are typically fine-grained Silts and silty Clays. See the geodatabase soil information

Items of Note:

- **CBRP compliance:** This watershed is within the CBRP compliance area. Stormwater runoff and urban discharges to the waterbodies are being investigated as part of the County of San Bernardino Areawide Stormwater CBRP program
  (http://www.sawpa.org/collaboration/projects/tmdl-taskforce/)
- **Infeasibility**
  Possible infiltration infeasibility constraints include:
  - Soil type (per project specific geotechnical report)
  - Locations within the Hydrologic Control Plan area
  - Perched groundwater or artisan groundwater conditions

Santa Ana River West Watershed



Warm Channel Watershed Fact Sheet

Warm Channel Watershed

Warm Channel Watershed is located within the eastern portion of the San Bernardino County valley and includes the county of San Bernardino and portions of the cities of Highland and San Bernardino. Federal jurisdictions include the Angeles Forest (USFS).

The following data summary provides general watershed information. Site specific information must be researched on the Stormwater Facility Mapping Tool (Watershed Geodatabase) found at:
http://sbcounty.permitrack.com/WAP/

Waterbodies: Devil Creek, Del Rosa Channel, Twin Creek, City Creek, Warm Creek, Santa Ana Reach 4

Source Waters: 1) Headwater locations should be checked for spring sources (i.e. mountain locations); 2) Effluent dominated sources include: San Bernardino Waste Water Treatment Plant and Colton Waste Water Treatment Plant

Wetlands/Riparian Areas:

- Riparian/Wetland areas are identified on the geodatabase
- During the CEQA process, the jurisdictional delineations for riparian and wetland areas are delineated and included into the CEQA analysis per USACOE (Section 404), Calif. Dept. of Fish and Wildlife (Section 1600) and Calif. Water Resources Control Board (Section 401) permitting requirements.
- **Biological Sensitive Areas:** Warm Channel Watershed contains isolated locations where known mapped plant and animal sensitive areas. It is typically required to analyze sites with respect to biological criteria.
    - Expected Habitat:
        - Merriam K Rat, Santa Ana Sucker – along the Santa Ana River area
        - Mountain Yellow Legged Frog – North end of City Creek
    - Potential Habitat:
        - Riparian/Wetlands - along the Santa Ana River area
        - Riversidean Alluvial Fan Sage Scrub – along Santa Ana River and north end of Warm Channel
    - No expected plants or birds

Groundwater Basins:

Depth to Groundwater is presented on the Geodatabase and is available from the following water purveyors:

http://www.sbvmwd.com/

http://www.cbwm.org/docs/engdocs/maps

Flood Control Measures/ Plans:

- Watershed is located within San Bernardino County Flood Control District Zone 2 (SBCFCD) and must be in compliance with current operating procedures and requirements. Please contact SBCFCD for site specific information (909-387-8104).

Drainage channels: Most of the drainages are Engineered Hardened Maintained (EHM) Channels however it, however portions has been designated as Non-EHM. Refer to the Watershed Geodatabase for site specific data.

Hydrologic Conditions of Concern (HCOC): Northeast portion of the watershed is Hydrologic Conditions of Concern (HCOC) Exempt. Remaining portions of watershed must meet the HCOC criteria in the WQMP Manual.

Recharge information: The watershed is highly managed with strict recharge criteria. Recharge management information is found at the following websites. *Recharge activities within this adjudicated watershed must meet existing hydrogeologic modeling criteria and groundwater management plans.* Recharge management information is found at the following websites and in the Stormwater Facility Mapping Tool**.**

http://www.sbvmwd.com/
http://www.ieua.org/sustain/gw/recharge.html
http://www.cbwm.org/rep_engineering.htm

Beneficial Uses:

- **Santa Ana River Reach 4:** MUN, GWR, REC 1, REC2, WARM, WILD

303(d) Impairments:

- **Santa Ana Reach 4:** Pathogens

Approved TMDLs

- **None**

Water Quality Objectives :
Discharges **must not cause exceedance** of the following Basin Plan Water Quality Objectives as presented in:
http://www.waterboards.ca.gov/rwqcb8/water_issues/programs/basin_plan/index.shtml

	Warm Channel					
	Warm Creek Channel	Del Rosa Channel	City Creek (Valley Reach)	City Creek (Mtn Reach)	Devil Canyon (Mt. reach)	Santa Ana Reach 4 (Mission Blvd to San Jacinto Fault)
BASIN PLAN						
Tributary Rule Waterbody	SAR Reach 5	SAR Reach 5	Bunker Hill - B			
Notes			use underlying GW Basin Objectives			Exempt from MUN
WAP Subwatershed	Warm Channel	Warm Channel	Warm Channel	Warm Channel	Warm Channel	
Impairment, 303(d) listing						
Hardness	190	190	NA	115	125	NA
Sodium (mg/L)	30	30	NA	30	35	NA
Chloride (mg/L)	20	20	NA	10	20	NA
Sulfate (mg/L)	60	60	NA	20	25	NA
Nitrate, as N (mg/L)	NA	NA	7.3	10	10	NA
Floride (mg/L)	NA	NA	0.8	0.8	0.8	NA
TDS	300	300	330	200	275	550
COD	25	25	NA	5.0	5.0	30
MBAS	NA	NA	0.05	0.05	0.05	NA
Total Inorganic Nitrogen	5.0	5.0	NA	1.0	1.0	10

	Warm Channel					
	Warm Creek Channel	Del Rosa Channel	City Creek (Valley Reach)	City Creek (Mtn Reach)	Devil Canyon (Mt. reach)	Santa Ana Reach 4 (Mission Blvd to San Jacinto Fault)
As (CTR) (ug/L)	340	340	340	340	340	340
Cd (SSO) (ug/L)	Calc	Calc	Calc	Calc	Calc	4.0
Cr (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Cu SSO (ug/L)	Calc	Calc	Calc	Calc	Calc	37.0
Pb SSO (ug/L)	Calc	Calc	Calc	Calc	Calc	28.0
Hg (ug/L)	NA	NA	NA	NA	NA	NA
Ni (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Se (CTR) (ug/L)	5	5	5	5	5	5
Ag (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Zn (CTR) (ug/L)	Calc	Calc	Calc	Calc	Calc	Calc
Total Coliform (Org/100mL)	100	100	100	100	100	NA
Fecal Coliform (Org/100mL)	400	400	400	400	400	400
E.Coli (MPN/100mL)	126	126	126	126	126	126
pH	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5	6.5-8.5
DO (mg/L)	5	5	5	6	6	5
Boron (mg/L)	30	30	30	30	30	30

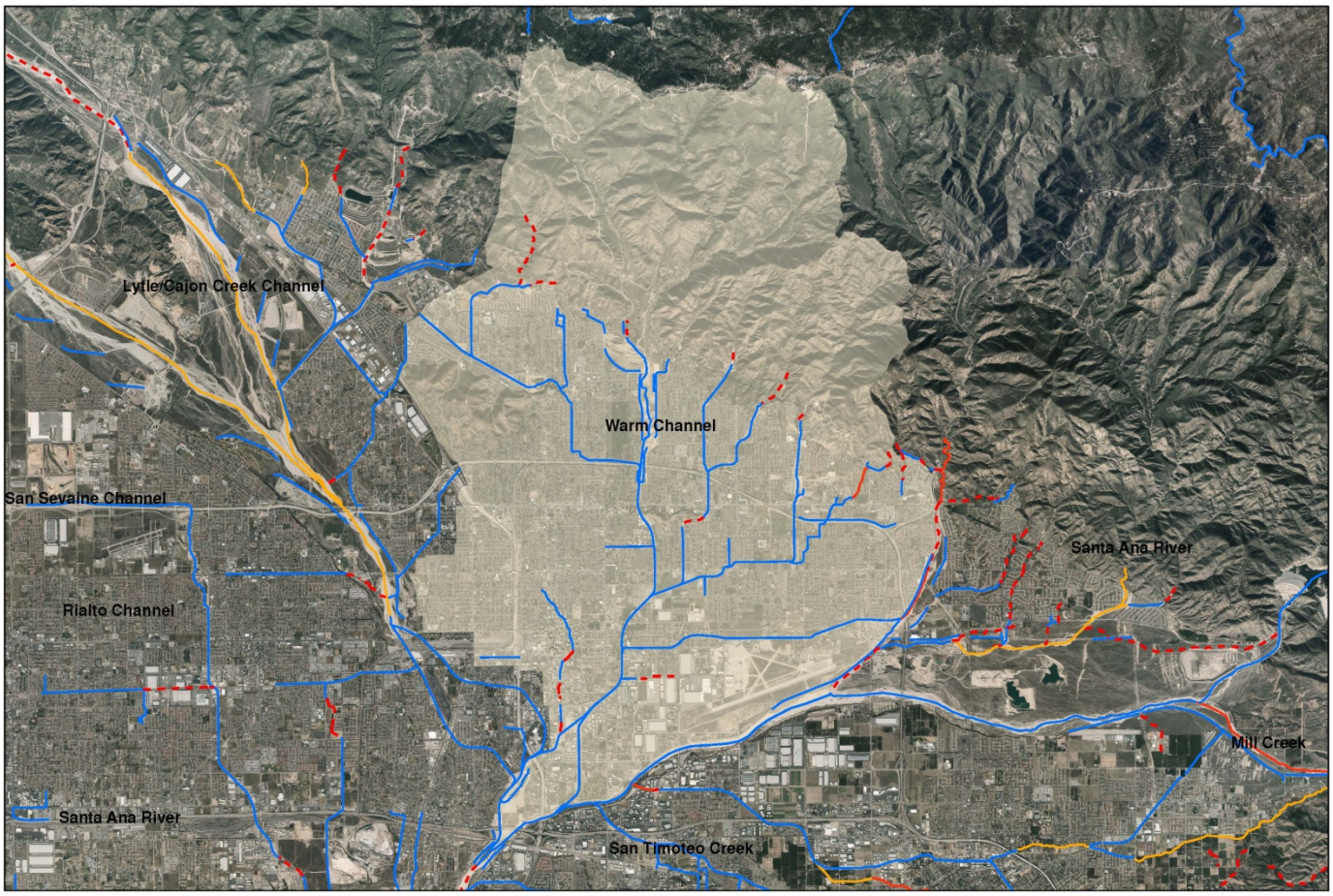
Land Use Information:

- **Percent Approximate Land Use by Category:** Open – 43%, Agriculture – 0%, Commercial/Industrial – 24%, Residential – 33%.
- **Regional Imperviousness Approximate Percentage:** 57% impervious; 43% pervious
- **Project- Specific Imperviousness Percentage:** Project specific impervious is to be provided by the project civil engineer
- **Land Use:** Allowable land use criteria is provided as part of the planning process through zoning and jurisdictional General or Specific Plans.
- **Soils:** Watershed is located within an alluvial fan. Soil types are typically coarse-grained Sands upslope near the mountains, with fine grained Silts and silty Sands located downslope, closer to Prado Basin. See the geodatabase soil information.

Items of Note:

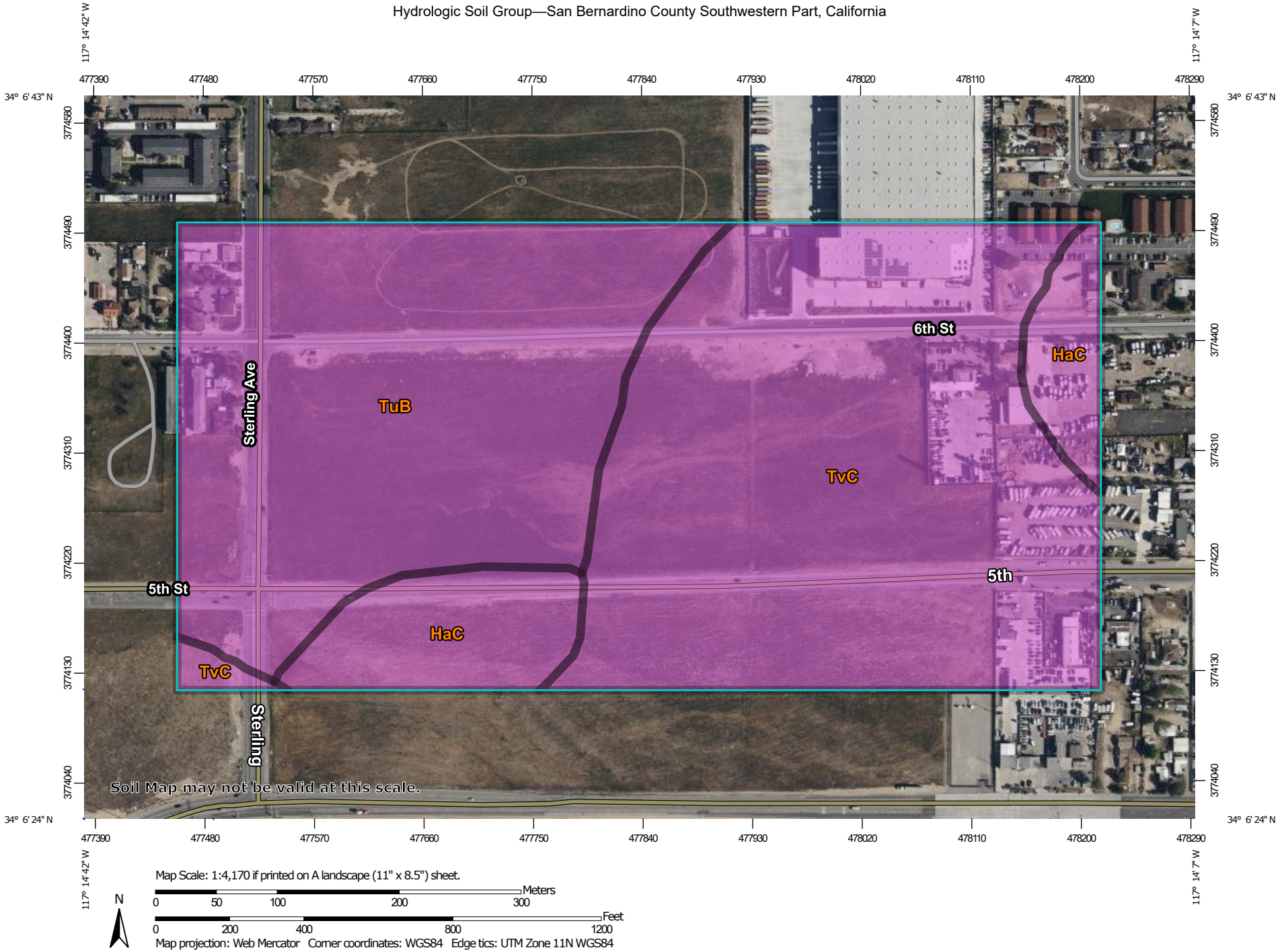
None

Warm Channel Watershed



APPENDIX L

SOILS INFORMATION, INFILTRATION AND GEOTECHNICAL REPORT


117° 14' 42" W
117° 14' 7" W
34° 6' 43" N
34° 6' 24" N
477390
477480
477570
477660
477750
477840
477930
478020
478110
478200
478290
3774580
3774490
3774400
3774310
3774220
3774130
3774040
TuB
TvC
HaC
HaC
TvC
6th St
5th St
5th
Sterling Ave
Sterling
Soil Map may not be valid at this scale.
Map Scale: 1:4,170 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 50 100 200 300
Feet
0 200 400 800 1200
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 14, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 17, 2022—Jun 12, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HaC	Hanford coarse sandy loam, 2 to 9 percent slopes	A	7.5	10.4%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	A	28.8	40.0%
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	A	35.7	49.6%
Totals for Area of Interest			**72.1**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

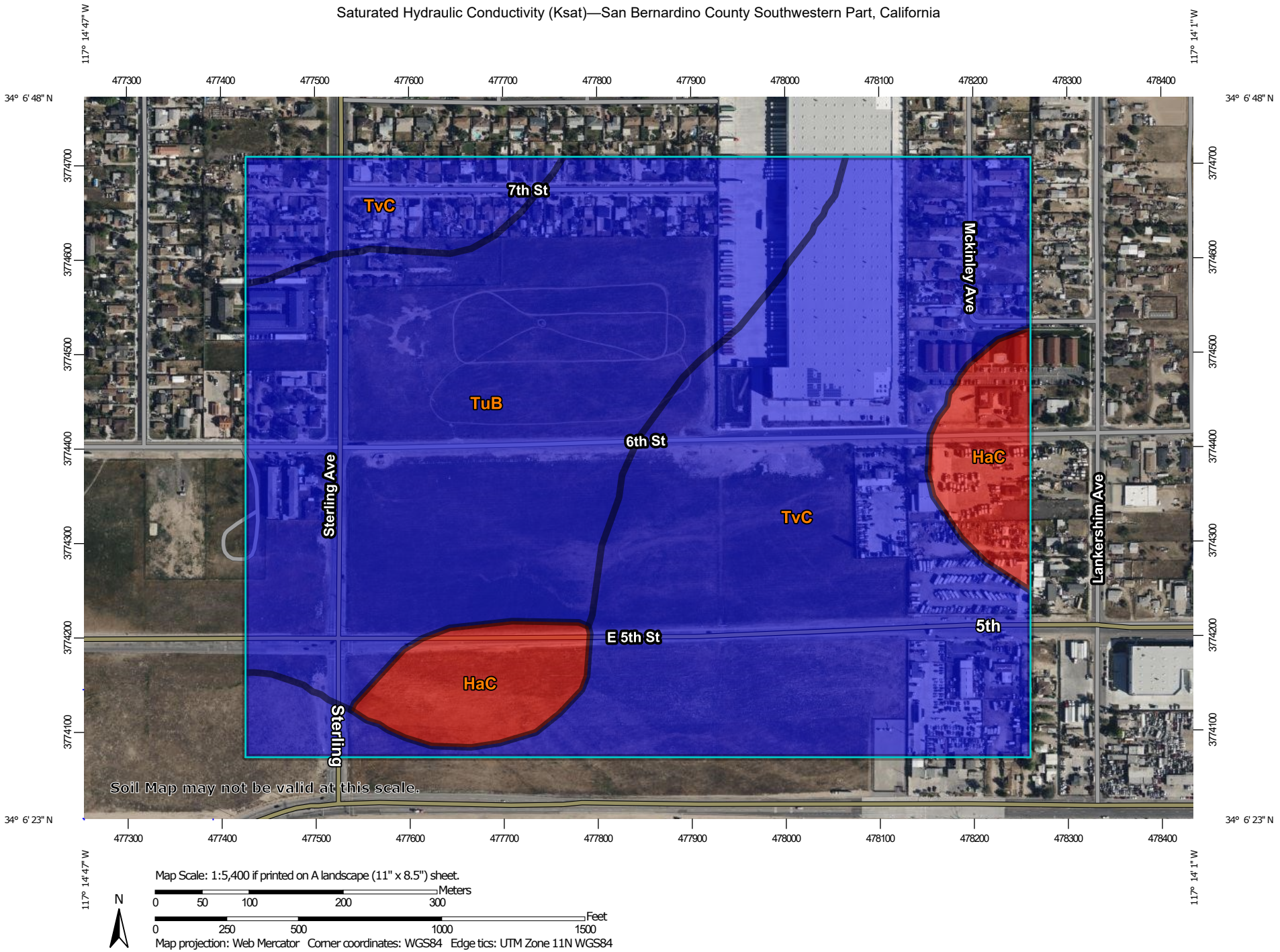
The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

Component Percent Cutoff: None Specified

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

Tie-break Rule: Higher

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.



Map Scale: 1:5,400 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- <= 28.0000
- > 28.0000 and <= 92.0000
- Not rated or not available

Soil Rating Lines

- <= 28.0000
- > 28.0000 and <= 92.0000
- Not rated or not available

Soil Rating Points

- <= 28.0000
- > 28.0000 and <= 92.0000
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California
Survey Area Data: Version 14, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 17, 2022—Jun 12, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Saturated Hydraulic Conductivity (Ksat)

Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
HaC	Hanford coarse sandy loam, 2 to 9 percent slopes	28.0000	11.5	8.7%
TuB	Tujunga loamy sand, 0 to 5 percent slopes	92.0000	53.9	40.9%
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	92.0000	66.4	50.4%
Totals for Area of Interest			**131.7**	**100.0%**

Description

Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

The numeric Ksat values have been grouped according to standard Ksat class limits.

Rating Options

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): All Layers (Weighted Average)

May 26, 2023

SBABP I, LLC
c/o TCC SoCal Development, Inc.
3501 Jamboree Road, Suite 230
Newport Beach, California 92660

Attention: David Drake
Executive Vice President

Project No.: **23G142-2**

Subject: **Results of Infiltration Testing**
Proposed Industrial Building
SEC 6th Street at Sterling Avenue
San Bernardino, California

Reference: Geotechnical Investigation, Proposed Industrial Building, SEC 6th Street at Sterling Avenue, San Bernardino, California, prepared by Southern California Geotechnical, Inc. (SCG) for SBABP I, LCC, SCG Project No. 23G142-1, dated May 26, 2023.

Mr. Drake:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 23P229, dated April 20, 2023. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the on-site soils. The infiltration testing was performed in general accordance with the guidelines published in the Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, prepared for the Riverside County Department of Environmental Health (RCDEH), dated December, 2013. The San Bernardino County standards defer to the guidelines published by the RCDEH.

Site and Project Description

The subject site is located at the southeast corner of 6th Street and Sterling Avenue in San Bernardino, California. The site is bounded to the north by 6th Street, to the east by Armada Towing and an RV and trailer storage lot, to the south by 5th Street, and to the west by Sterling Avenue. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of an irregularly shaped parcel, 25.12± acres in size. Based on our subsurface investigation, the site is currently vacant and undeveloped except for the remnants of a concrete slab in the northeastern area of the site and associated foundations. The ground surface cover

throughout the site generally consists of exposed soil with sparse native grass and weed growth, and areas of scattered debris including trash and furniture.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the site is relatively level with an overall site topography gently sloping downward to the west at a gradient less than 1 percent with an elevation differential of approximately 14 feet.

Proposed Development

Based on a conceptual site plan prepared by RGA, the site will be developed with one (1) new industrial building. The new building will be 537,618± ft² in size and will be located in the north-central area of the site. Dock-high doors will be constructed along the southern building wall. The building is expected to be surrounded by asphaltic concrete pavements in the parking and drive lanes, Portland cement concrete pavements in the loading dock areas, and limited areas of landscape planters.

An infiltration testing location plan, prepared by Kimley Horn, the project civil engineer, was provided to our office. This plan indicates the proposed location of five (5) infiltration borings. Two are located in the southern half of the western-most area of the site, two are located in the proposed southern truck lot, and the final infiltration boring is located in the south-eastern area of the site. The south-eastern area of the site is proposed as a water quality basin.

Concurrent Study

SCG concurrently conducted a geotechnical investigation at the subject site, referenced above. As a part of this study, ten (10) borings were advanced to depths of 5 to 50± feet below the existing site grades. In addition to the borings, ten (10) trenches were excavated to depths of 8 to 10± feet below the existing site grades.

Artificial fill soils were encountered at the ground surface at all of the boring and trench locations, extending to depths of 2 to 5½± feet below the existing site grades. The fill soils generally consist of very loose to medium dense silty sands, sandy silts, and sands with varying amounts of silt and fine gravel. The fill soils possess a disturbed and mottled appearance resulting in the classification of artificial fill. Native alluvial soils were encountered beneath the artificial fill soils at all of the boring and trench locations, extending to at least the maximum depth explored of 50± feet below existing site grades. The near surface alluvium generally consists of medium dense to very dense silty sands, sandy silts, and poorly- to well-graded sands with varying amounts of fine to coarse gravel, cobbles, and boulders, extending to depths of 12 to 25± feet below existing site grades. Deeper alluvial soils consist of dense to very dense silty sands, sandy silts and poorly-graded sands with varying amounts of fine to coarse gravel, cobbles, and boulders, extending to the maximum depth explored of 50± feet below the site grades. Boring Nos. B-5 and B-7 encountered loose poorly- to well-graded sands at depths of 4½ to 5½± feet. Boring No. B-3 encountered a layer of loose silty sands and medium dense well-graded sands at a depth of 22± feet.

Groundwater

Free water was encountered during the drilling at a depth of 37± feet below existing site grade at Boring No. B-3. Delayed groundwater level readings were taken at Boring No. B-3 approximately two hours after completion. Water was measured in this boring at a depth of 37± feet. The remaining boreholes were dry at the completion of drilling. Very moist samples were also encountered at Boring No. B-1, at a depth of 42± feet and extending to the maximum depth explored of 50± feet. Based on the water level measurements and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth of 37± feet below existing site grades, at the time of the subsurface investigation.

A groundwater contour map titled, "Contour Map Showing Minimum Depth to Ground Water, San Bernardino Valley and Vicinity, 1973-1983," prepared by Carson and Matti in 1986 indicates that the minimum depth to groundwater at the site could be approximately 37 to 45 feet.

As a part of our research, we reviewed available groundwater data in order to determine groundwater levels for the site. Recent water level data was obtained from the California Department of Water Resources website, https://wdl.water.ca.gov/waterdatalibrary/. One monitoring well (Well No. 341072N1172350W001) is located approximately 1,675 feet southeast of the site. Water level readings within this monitoring well indicates a high groundwater level of 163± feet below the ground surface in April 2008.

Subsurface Exploration

Scope of Exploration

The subsurface exploration conducted for the infiltration testing consisted of five (5) infiltration test borings, advanced to a depth of 10± feet below the existing site grades. The infiltration borings were advanced using a truck-mounted drilling rig, equipped with 8-inch-diameter hollow-stem augers and were logged during drilling by a member of our staff. The approximate locations of the infiltration test borings (identified as I-1 through I-5) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Upon the completion of the infiltration borings, the bottom of each test boring was covered with 2± inches of clean ¾-inch gravel. A sufficient length of 3-inch-diameter perforated PVC casing was then placed into each test hole so that the PVC casing extended from the bottom of the test hole to the ground surface. Clean ¾-inch gravel was then installed in the annulus surrounding the PVC casing.

Geotechnical Conditions

Artificial fill soils were encountered at the ground surface at all of the infiltration boring locations, extending to a depth of 3½± feet below the existing site grades. The fill soils generally consist of loose silty sands with varying amounts of clay, and fine gravel. The fill soils possess a disturbed and mottled appearance resulting in the classification of artificial fill. The native alluvial soils were encountered beneath the artificial fill soils at all of the infiltration boring locations, extending to at least the maximum depth explored of 10± feet below existing site grades. Native alluvium consists of loose to very dense well-graded sands with varying amounts of fine to coarse gravel

and cobbles. The Boring Logs, which illustrate the conditions encountered at the boring locations, are included with this report.

Infiltration Testing

As previously mentioned, the infiltration testing was performed in general accordance with the guidelines published in Riverside County – Low Impact Development BMP Design Handbook – Section 2.3 of Appendix A, which apply to San Bernardino County.

Pre-soaking

In accordance with the county infiltration standards for sandy soils, all infiltration test borings were pre-soaked 2 hours prior to the infiltration testing or until all of the water had percolated through the test holes. The pre-soaking process consisted of filling test borings by inverting a full 5-gallon bottle of clear water supported over each hole so that the water flow into the hole holds constant at a level at least 5 times the hole's radius above the gravel at the bottom of each hole. Pre-soaking was completed after all of the water had percolated through the test holes.

Infiltration Testing

Following the pre-soaking process of the infiltration test borings, SCG performed the infiltration testing. Each test hole was filled with water to a depth of at least 5 times the hole's radius above the gravel at the bottom of each test hole. In accordance with the Riverside County guidelines, in areas where "sandy soils" were encountered at the bottom of the infiltration test borings (where 6 inches of water infiltrated into the surrounding soils in less than 25 minutes for two (2) consecutive readings), readings were taken at 10-minute intervals for 1 hour at the test locations. The water level readings are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on the spreadsheets.

The infiltration rates from the test are tabulated in inches per hour. In accordance with the typically accepted practice, it is recommended that the most conservative reading from the latter part of the infiltration tests be used as the design infiltration rate. The rates are summarized below:

Infiltration Test No.	Depth (feet)	Soil Description	Measured Infiltration Rate (inches/hour)
I-1	10	Fine to coarse Sand, trace Silt, little fine Gravel	12.6
I-2	10	Fine to medium Sand, little coarse Sand, trace Silt	10.2
I-3	10	Fine to medium Sand, trace to little coarse Sand, trace Silt, extensive Cobbles	15.5
I-4	10	Fine to coarse Sand, little fine to coarse Gravel, trace Silt, occasional Cobbles	7.7
I-5	10	Fine to medium Sand, little coarse Sand, little fine to coarse Gravel, trace Silt	7.6

Laboratory Testing

Moisture Content

The moisture contents for the recovered soil samples within the borings were determined in accordance with ASTM D-2216 and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Grain Size Analysis

The grain size distribution of selected soils collected from the base of each infiltration test boring have been determined using a range of wire mesh screens. These tests were performed in general accordance with ASTM D-422 and/or ASTM D-1140. The weight of the portion of the sample retained on each screen is recorded and the percentage finer or coarser of the total weight is calculated. The results of these tests are presented on Plates C-1 through C-4 of this report.

Design Recommendations

Five (5) infiltration tests were performed at the subject site. As noted above, the infiltration rates at these locations vary from 7.6 to 15.5 inches per hour. The major factor affecting the difference in infiltration rates at the infiltration test locations is the presence of silt and the relative densities of the soils at the tested depths. Based on the infiltration test results, we recommend the following rates be used in the design of the infiltration systems:

Location	Design Infiltration Rate (Inches per Hour)
Proposed Water Quality Basin-Southeast of Site	12.6
Southern Truck Lot	10.2
Western Region	7.6

The design of the storm water infiltration system should be performed by the project civil engineer, in accordance with the City of San Bernadino guidelines. It is recommended that the system be constructed so as to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the system. The presence of such materials would decrease the effective infiltration rates. **It is recommended that the project civil engineer apply an appropriate factor of safety. The infiltration rates recommended above are based on the assumption that only clean water will be introduced to the subsurface profile. Any fines, debris, or organic materials could significantly impact the infiltration rate.** It should be noted that the recommended infiltration rate is based on infiltration testing at five (5) discrete locations and that the overall infiltration rate of the proposed infiltration system could vary considerably.

Infiltration Rate Considerations

The infiltration rate presented herein was determined in accordance with the San Bernardino County guidelines and is considered valid only for the time and place of the actual test. Varying subsurface conditions will exist in other areas of the site, which could alter the recommended infiltration rate presented above. The infiltration rate will decline over time between maintenance cycles as silt or clay particles accumulate on the BMP surface. The infiltration rate is highly dependent upon a number of factors, including density, silt and clay content, grainsize distribution throughout the range of particle sizes, and particle shape. Small changes in these factors can cause large changes in the infiltration rate.

Infiltration rates are based on unsaturated flow. As water is introduced into soils by infiltration, the soils become saturated and the wetting front advances from the unsaturated zone to the saturated zone. Once the soils become saturated, infiltration rates become zero, and water can only move through soils by hydraulic conductivity at a rate determined by pressure head and soil permeability. Changes in soil moisture content will affect the infiltration rate. Infiltration rates should be expected to decrease until the soils become saturated. Soil permeability values will then govern groundwater movement. Permeability values may be on the order of 10 to 20 times less than infiltration rates. The system designer should incorporate adequate factors of safety and allow for overflow design into appropriate traditional storm drain systems, which would transport storm water off-site.

Construction Considerations

The infiltration rates presented in this report are specific to the tested locations and tested depths. Infiltration rates can be significantly reduced if the soils are exposed to excessive disturbance or compaction during construction. Compaction of the soils at the bottom of the infiltration system can significantly reduce the infiltration ability of the basins. Therefore, the subgrade soils within proposed infiltration system areas should not be over-excavated, undercut or compacted in any significant manner. **It is recommended that a note to this effect be added to the project plans and/or specifications.**

We recommend that a representative from the geotechnical engineer be on-site during the construction of the proposed infiltration system to identify the soil classification at the base of the system. It should be confirmed that the soils at the base of the proposed infiltration system correspond with those presented in this report to ensure that the performance of the system will be consistent with the rate reported herein.

We recommend that scrapers and other rubber-tired heavy equipment not be operated on the basin bottom, or at levels lower than 2 feet above the bottom of the system, particularly within basins. As such, the bottom 24 inches of the infiltration system should be excavated with non-rubber-tired equipment, such as excavators.

Infiltration Chamber or Basin Maintenance

The proposed project may include infiltration chambers or basins. Water flowing into these chambers will carry some level of sediment. This layer has the potential to significantly reduce the infiltration rate of the chamber subgrade soils. Therefore, a formal chamber maintenance

program should be established to ensure that these silt and clay deposits are removed from the chamber on a regular basis.

Wind-blown sediments and erosion of the basin side walls will also contribute to sediment deposition at the bottom of the basin. This layer has the potential to significantly reduce the infiltration rate of the basin subgrade soils. Therefore, a formal basin maintenance program should be established to ensure that these silt and clay deposits are removed from the basin on a regular basis. Appropriate vegetation on the basin sidewalls and bottom may reduce erosion and sediment deposition.

Basin maintenance should also include measures to prevent animal burrows, and to repair any burrows or damage caused by such. Animal burrows in the basin sidewalls can significantly increase the risk of erosion and piping failures.

Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Overlying structures and pavements in the infiltration area could potentially be damaged due to saturation of the subgrade soils. **The proposed infiltration system for this site should be located at least 25 feet away from any structures, including retaining walls.** Even with this provision of locating the infiltration system at least 25 feet from the building(s), it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed or existing structures. It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure, depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration system.

The infiltration system designer should also give special consideration to the effect that the proposed infiltration system may have on nearby subterranean structures, open excavations, or descending slopes. In particular, infiltration systems should not be located near the crest of descending slopes, particularly where the slopes are comprised of granular soils. Such systems will require specialized design and analysis to evaluate the potential for slope instability, piping failures and other phenomena that typically apply to earthen dam design. This type of analysis is beyond the scope of this infiltration test report, but these factors should be considered by the infiltration system designer when locating the infiltration systems.

General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the proposed storm water infiltration system is the responsibility of the civil engineer.

The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rate contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the proposed storm water infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

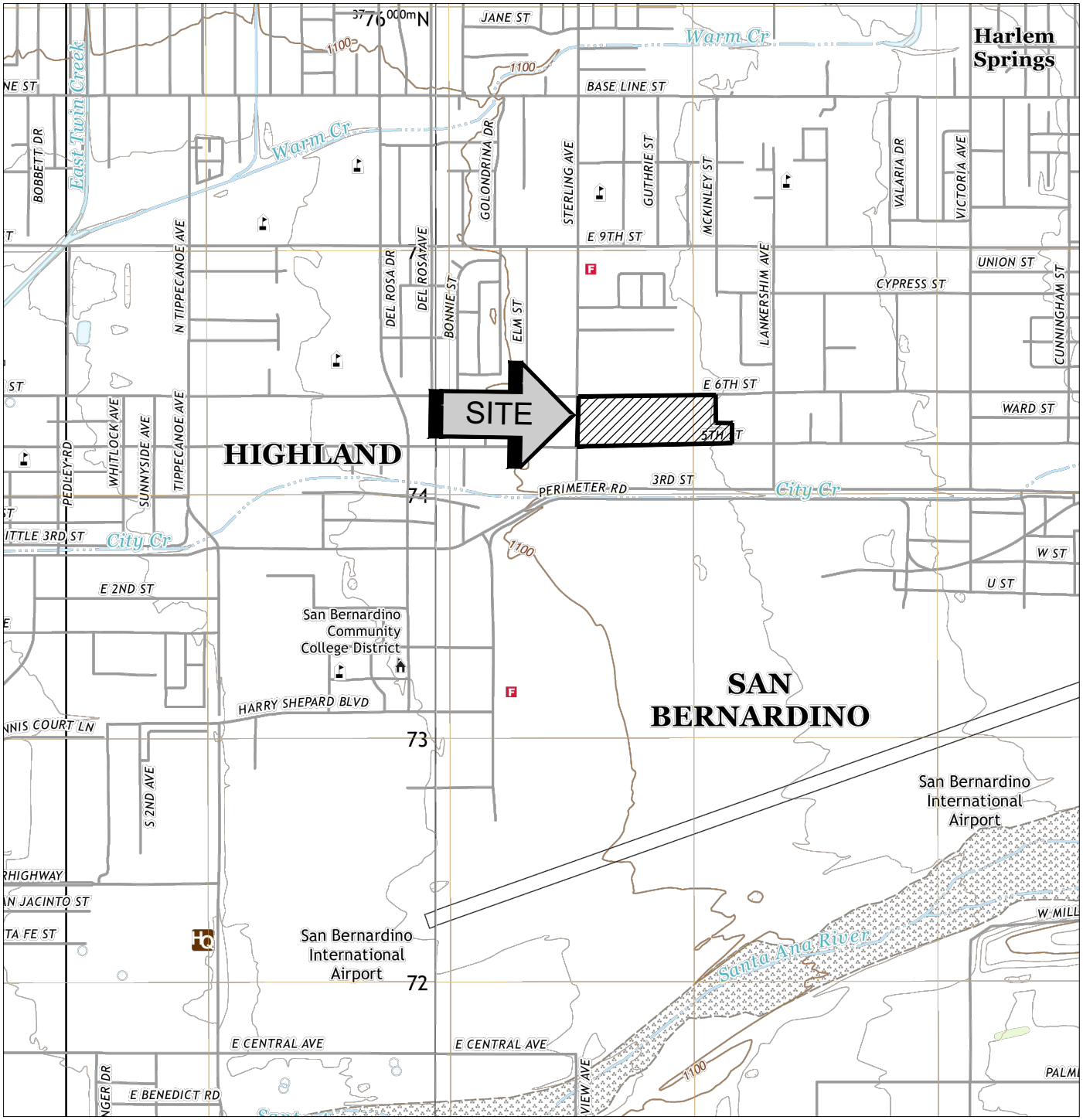
SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Ricardo Frias, RCE 91772
Project Engineer

Gregory K. Mitchell, GE 2364
Principal Engineer

Distribution: (1) Addressee

Enclosures: Plate 1 - Site Location Map
Plate 2 - Infiltration Test Location Plan
Boring Log Legend and Logs (7 pages)
Infiltration Test Results Spreadsheets (5 pages)
Grain Size Distribution Graphs (4 pages)



SOURCE: USGS TOPOGRAPHIC MAP OF THE REDLANDS AND SAN BERNARDINO SOUTH QUADRANGLES, SAN BERNARDINO COUNTY, CALIFORNIA, 2021.

SITE LOCATION MAP

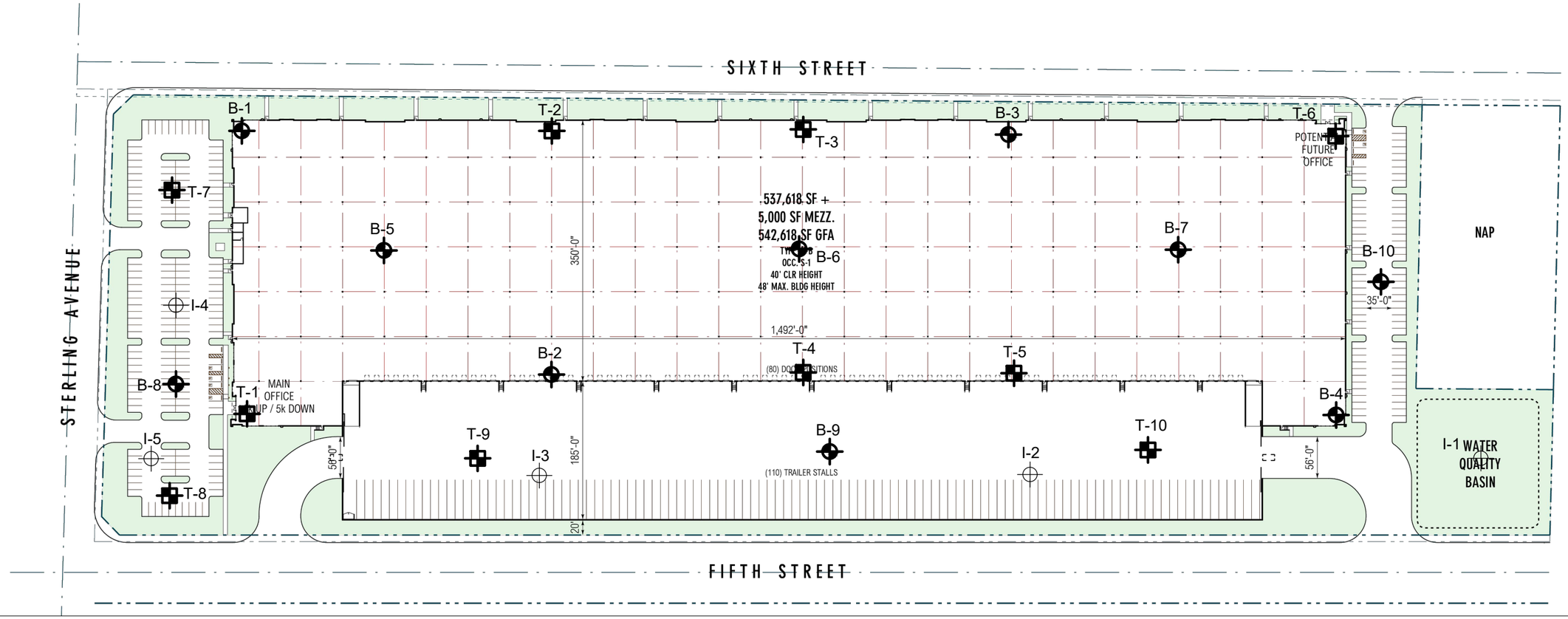
PROPOSED INDUSTRIAL BUILDING

SAN BERNARDINO, CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: MK CHKD: RF	
SCG PROJECT 23G142-2	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



GEOTECHNICAL LEGEND

- APPROXIMATE INFILTRATION TEST LOCATION
- APPROXIMATE BORING LOCATION (SCG PROJECT NO. 23G142-1)
- APPROXIMATE TRENCH LOCATION (SCG PROJECT NO. 23G142-1)

NOTE: SITE PLAN PROVIDED BY RGA.

NORTH

INFILTRATION TEST LOCATION PLAN

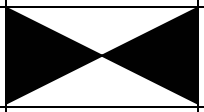
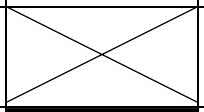
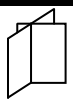
PROPOSED INDUSTRIAL BUILDING

SAN BERNARDINO, CALIFORNIA

SCALE: 1" = 150'	
DRAWN: MK CHKD: RF	
SCG PROJECT 23G142-2	
PLATE 2	

SOUTHERN CALIFORNIA GEOTECHNICAL

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

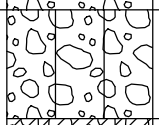
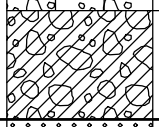
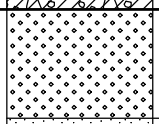
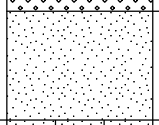
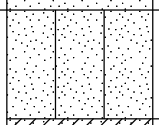
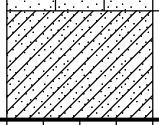
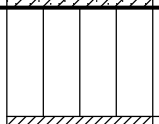
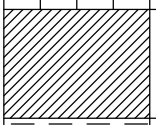
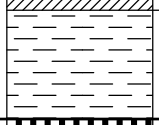
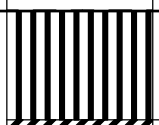
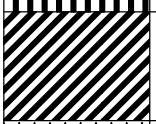
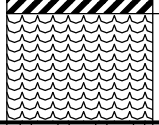
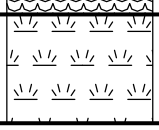
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. I-1

JOB NO.: 23G142-2
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		4			FILL: Dark Brown Silty fine Sand, trace to little medium Sand, trace coarse Sand, loose-damp		7					
5		6			ALLUVIUM: Light Brown fine to coarse Sand, trace fine Gravel, trace Silt, trace to little iron oxide staining, loose to medium dense-dry to damp		5					
		14					3					
10					Boring Terminated at 10'							

TBL 23G142-2.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-1

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. I-2

JOB NO.: 23G142-2
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		7			FILL: Dark Brown Silty fine Sand, trace medium to coarse Sand, trace fine Gravel, loose-damp		7					
5		11			ALLUVIUM: Light Red Brown fine to medium Sand, little coarse Sand, trace Silt, trace to little iron oxide staining, medium dense-damp		3					
		24					5					
10					Boring Terminated at 10'							

TBL 23G142-2.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG **PLATE B-2**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. I-3

JOB NO.: 23G142-2
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		4			FILL: Dark Brown Silty fine Sand, trace medium to coarse Sand, loose-moist		11					
5		10			ALLUVIUM: Light Red Brown fine to medium Sand, trace Silt, trace to little coarse Sand, trace fine Gravel, medium dense-damp		5					
		50/3"			@ 8½ feet, extensive Cobbles, very dense-dry		1					
10					Boring Terminated at 10'							

TBL 23G142-2.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG **PLATE B-3**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. I-4

JOB NO.: 23G142-2
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		3			FILL: Dark Gray Brown Silty fine Sand, trace medium Sand, trace Clay, trace fine root fibers, loose-moist		10					
5		7			FILL: Dark Brown fine Sandy Silt, trace Clay, trace medium to coarse Sand, trace iron oxide staining, loose-moist		17					
		44			ALLUVIUM: Light Brown fine to coarse Sand, little fine to coarse Gravel, trace Silt, occasional Cobbles, dense-dry		1					
10					Boring Terminated at 10'							

TBL 23G142-2.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-4

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. I-5

JOB NO.: 23G142-2
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		5			FILL: Dark Brown Silty fine Sand, trace medium to coarse Sand, trace roots, loose-moist		9					
5		11			ALLUVIUM: Light Red Brown fine to medium Sand, little coarse Sand, little fine to coarse Gravel, trace Silt, trace to little iron oxide staining, medium dense-damp		3					
		33			@ 8½ feet, occasional Cobbles, dense		3					
10					Boring Terminated at 10'							

TBL 23G142-2.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-5

INFILTRATION CALCULATIONS

Project Name	Proposed Industrial Building
Project Location	San Bernardino
Project Number	23G142-2
Engineer	Michelle Krizek

Test Hole Radius	4	(in)
Test Depth	10.12	(ft)

Infiltration Test Hole: I-1

Soil Criteria Test

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:05 AM	24.00	7.00	37.44	YES	SANDY SOILS
	Final	7:29 AM		10.12			
2	Initial	7:31 AM	25.00	7.00	36.00	YES	SANDY SOILS
	Final	7:56 AM		10.00			

Test Data

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	7:59 AM	10.00	7.00	2.41	1.92	13.89
	Final	8:09 AM		9.41			
2	Initial	8:11 AM	10.00	7.00	2.31	1.97	13.00
	Final	8:21 AM		9.31			
3	Initial	8:24 AM	10.00	7.00	2.31	1.97	13.00
	Final	8:34 AM		9.31			
4	Initial	8:35 AM	10.00	7.00	2.28	1.98	12.75
	Final	8:45 AM		9.28			
5	Initial	8:48 AM	10.00	7.00	2.27	1.99	12.66
	Final	8:58 AM		9.27			
6	Initial	9:01 AM	10.00	7.00	2.27	1.99	12.66
	Final	9:11 AM		9.27			

Per County Standards, Infiltration Rate calculated as follows:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Where:
- Q = Infiltration Rate (in inches per hour)
- ΔH = Change in Height (Water Level) over the time interval
- r = Test Hole (Borehole) Radius
- Δt = Time Interval
- H_{avg} = Average Head Height over the time interval

INFILTRATION CALCULATIONS

Project Name	Proposed Industrial Building
Project Location	San Bernardino
Project Number	23G142-2
Engineer	Michelle Krizek

Test Hole Radius	4	(in)
Test Depth	10.13	(ft)

Infiltration Test Hole	I-2

Soil Criteria Test

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	9:26 AM	12.00	7.40	32.76	YES	SANDY SOILS
	Final	9:38 AM		10.13			
2	Initial	9:41 AM	20.00	7.40	32.76	YES	SANDY SOILS
	Final	10:01 AM		10.13			

Test Data

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	10:03 AM	10.00	7.40	1.82	1.82	10.99
	Final	10:13 AM		9.22			
2	Initial	10:16 AM	10.00	7.40	1.79	1.84	10.73
	Final	10:26 AM		9.19			
3	Initial	10:28 AM	10.00	7.40	1.77	1.85	10.56
	Final	10:38 AM		9.17			
4	Initial	10:39 AM	10.00	7.40	1.76	1.85	10.47
	Final	10:49 AM		9.16			
5	Initial	10:54 AM	10.00	7.40	1.74	1.86	10.30
	Final	11:04 AM		9.14			
6	Initial	11:06 AM	10.00	7.40	1.73	1.87	10.22
	Final	11:16 AM		9.13			

Per County Standards, Infiltration Rate calculated as follows:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Where: Q = Infiltration Rate (in inches per hour)
ΔH = Change in Height (Water Level) over the time interval
r = Test Hole (Borehole) Radius
Δt = Time Interval
H_{avg} = Average Head Height over the time interval

INFILTRATION CALCULATIONS

Project Name	Proposed Industrial Building
Project Location	San Bernardino
Project Number	23G142-2
Engineer	Michelle Krizek

Test Hole Radius	4	(in)
Test Depth	10.13	(ft)

Infiltration Test Hole	I-3

Soil Criteria Test

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	11:38 AM	25.00	7.50	31.08	YES	SANDY SOILS
	Final	12:03 PM		10.09			
2	Initial	12:04 PM	25.00	7.50	31.08	YES	SANDY SOILS
	Final	12:29 PM		10.09			

Test Data

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	12:32 PM	10.00	7.50	2.51	1.38	19.54
	Final	12:42 PM		10.01			
2	Initial	12:45 PM	10.00	7.50	2.50	1.38	19.40
	Final	12:55 PM		10.00			
3	Initial	12:57 PM	10.00	7.50	2.51	1.38	19.54
	Final	1:07 PM		10.01			
4	Initial	1:11 PM	10.00	7.50	2.45	1.41	18.71
	Final	1:21 PM		9.95			
5	Initial	1:23 PM	10.00	7.50	2.20	1.53	15.56
	Final	1:33 PM		9.70			
6	Initial	1:37 PM	10.00	7.50	2.20	1.53	15.56
	Final	1:47 PM		9.70			

Per County Standards, Infiltration Rate calculated as follows:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Where: Q = Infiltration Rate (in inches per hour)
ΔH = Change in Height (Water Level) over the time interval
r = Test Hole (Borehole) Radius
Δt = Time Interval
H_{avg} = Average Head Height over the time interval

INFILTRATION CALCULATIONS

Project Name	Proposed Industrial Building
Project Location	San Bernardino
Project Number	23G142-2
Engineer	Michelle Krizek

Test Hole Radius	4	(in)
Test Depth	10.13	(ft)

Infiltration Test Hole	I-4

Soil Criteria Test

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	7:03 AM	22.00	7.60	30.36	YES	SANDY SOILS
	Final	7:25 AM		10.13			
2	Initial	7:27 AM	25.00	7.60	29.76	YES	SANDY SOILS
	Final	7:52 AM		10.08			

Test Data

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	8:04 AM	10.00	7.60	1.45	1.81	8.83
	Final	8:14 AM		9.05			
2	Initial	8:17 AM	10.00	7.60	1.37	1.85	8.17
	Final	8:27 AM		8.97			
3	Initial	8:19 AM	10.00	7.60	1.34	1.86	7.93
	Final	8:29 AM		8.94			
4	Initial	8:30 AM	10.00	7.60	1.32	1.87	7.78
	Final	8:40 AM		8.92			
5	Initial	8:42 AM	10.00	7.60	1.32	1.87	7.78
	Final	8:52 AM		8.92			
6	Initial	8:56 AM	10.00	7.60	1.31	1.88	7.70
	Final	9:06 AM		8.91			

Per County Standards, Infiltration Rate calculated as follows:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Where: Q = Infiltration Rate (in inches per hour)
ΔH = Change in Height (Water Level) over the time interval
r = Test Hole (Borehole) Radius
Δt = Time Interval
H_{avg} = Average Head Height over the time interval

INFILTRATION CALCULATIONS

Project Name	Proposed Industrial Building
Project Location	San Bernardino
Project Number	23G142-2
Engineer	Michelle Krizek

Test Hole Radius	4	(in)
Test Depth	10.15	(ft)

Infiltration Test Hole	I-5

Soil Criteria Test

Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (in)	Did 6 inches of water seep away in less than 25 minutes?	Sandy Soils or Non-Sandy Soils?
1	Initial	9:21 AM	10.00	6.90	39.00	YES	SANDY SOILS
	Final	9:31 AM		10.15			
2	Initial	9:35 AM	17.00	6.90	39.00	YES	SANDY SOILS
	Final	9:52 AM		10.15			

Test Data

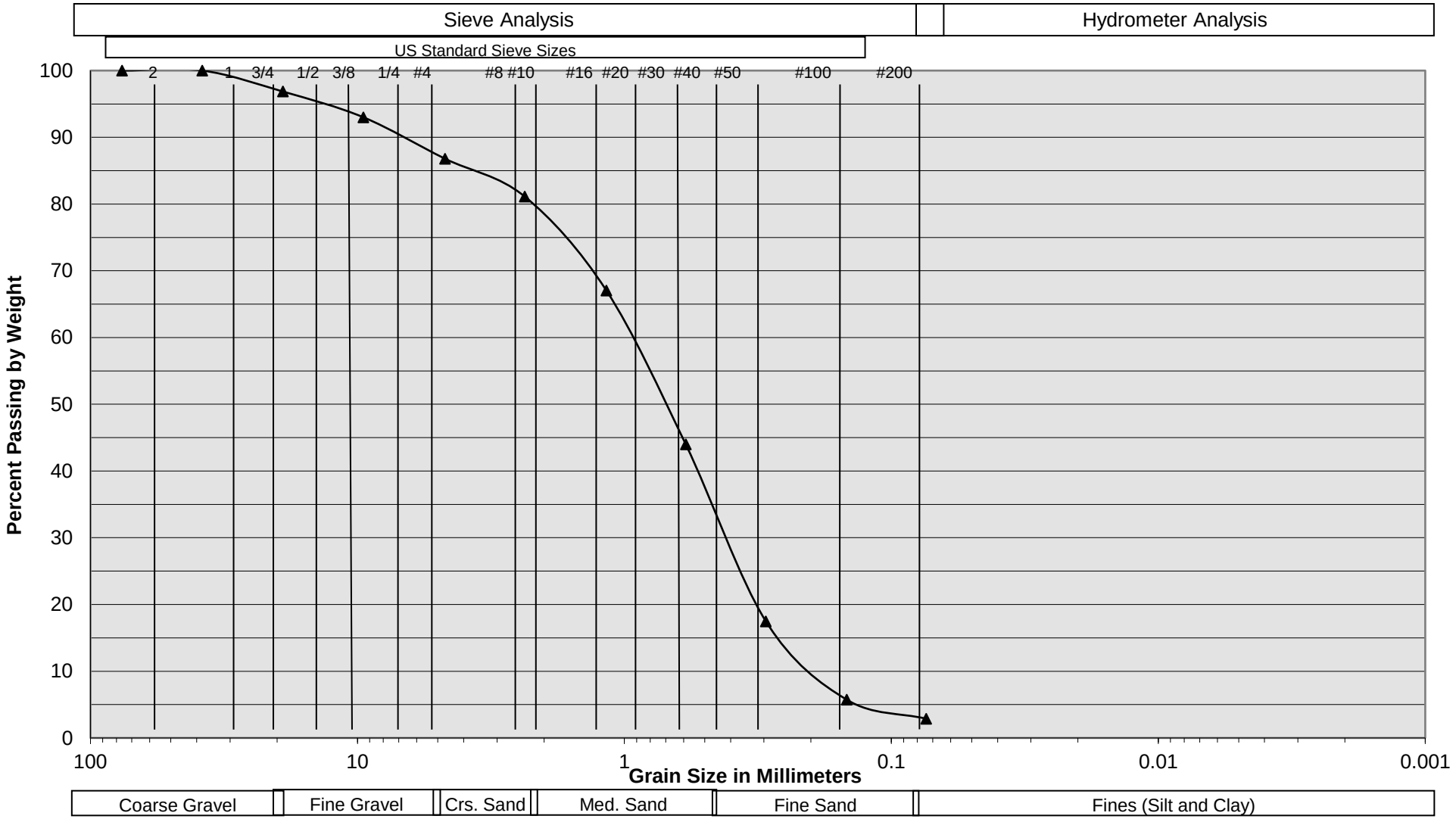
Interval Number		Time	Time Interval (min)	Water Depth (ft)	Change in Water Level (ft)	Average Head Height (ft)	Infiltration Rate Q (in/hr)
1	Initial	9:56 AM	10.00	6.90	1.67	2.42	7.76
	Final	10:06 AM		8.57			
2	Initial	10:08 AM	10.00	6.90	1.58	2.46	7.22
	Final	10:18 AM		8.48			
3	Initial	10:22 AM	10.00	6.90	1.65	2.43	7.64
	Final	10:32 AM		8.55			
4	Initial	10:35 AM	10.00	6.90	1.69	2.41	7.89
	Final	10:45 AM		8.59			
5	Initial	10:50 AM	10.00	6.90	1.65	2.43	7.64
	Final	11:00 AM		8.55			
6	Initial	11:02 AM	10.00	6.90	1.65	2.43	7.64
	Final	11:12 AM		8.55			

Per County Standards, Infiltration Rate calculated as follows:

$$Q = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Where: Q = Infiltration Rate (in inches per hour)
ΔH = Change in Height (Water Level) over the time interval
r = Test Hole (Borehole) Radius
Δt = Time Interval
H_{avg} = Average Head Height over the time interval

Grain Size Distribution

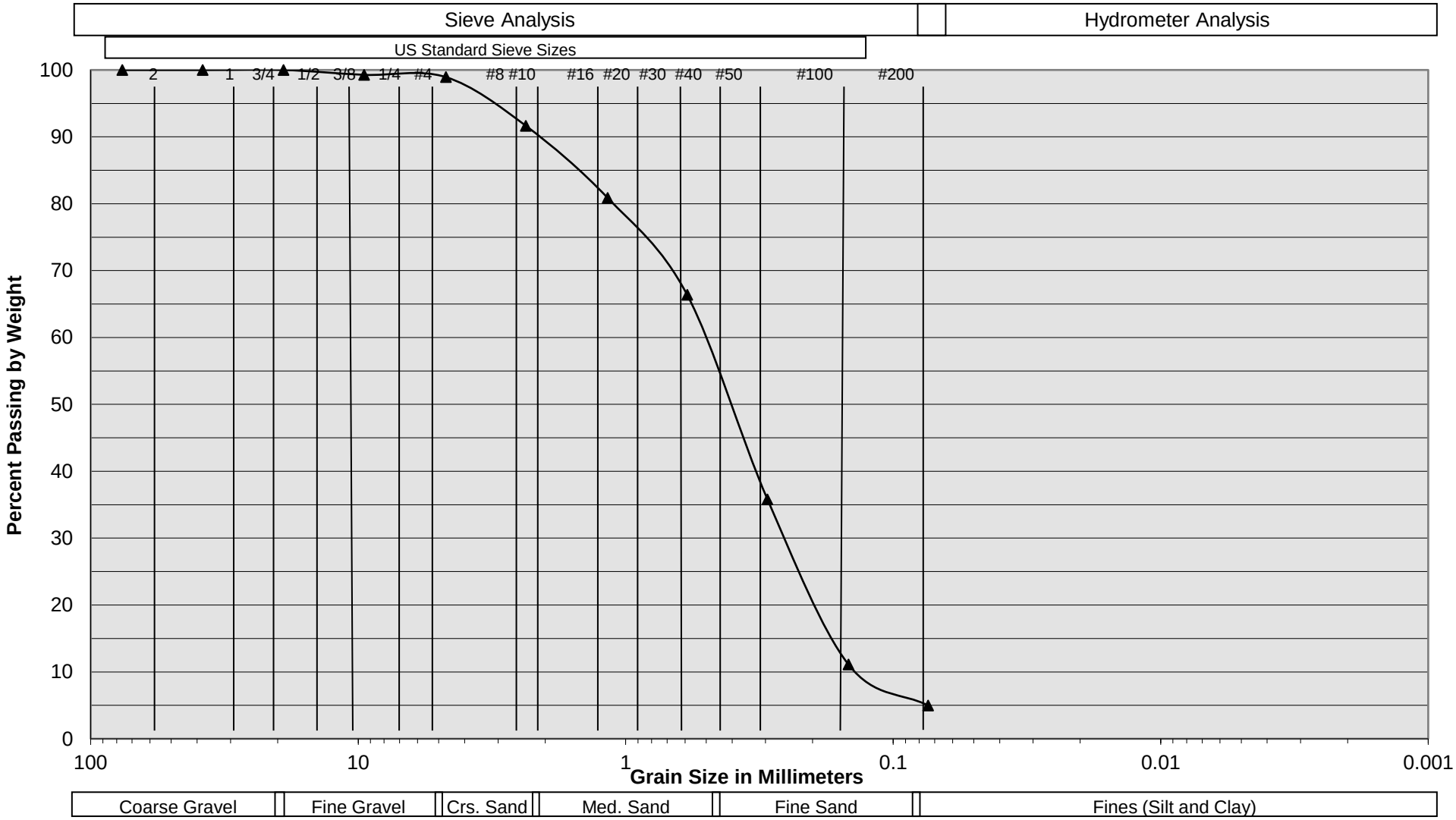


Sample Description	I-1 @ 8½'
Soil Classification	Light Brown fine to coarse Sand, trac fine Gravel, trace Silt

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-2
PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution

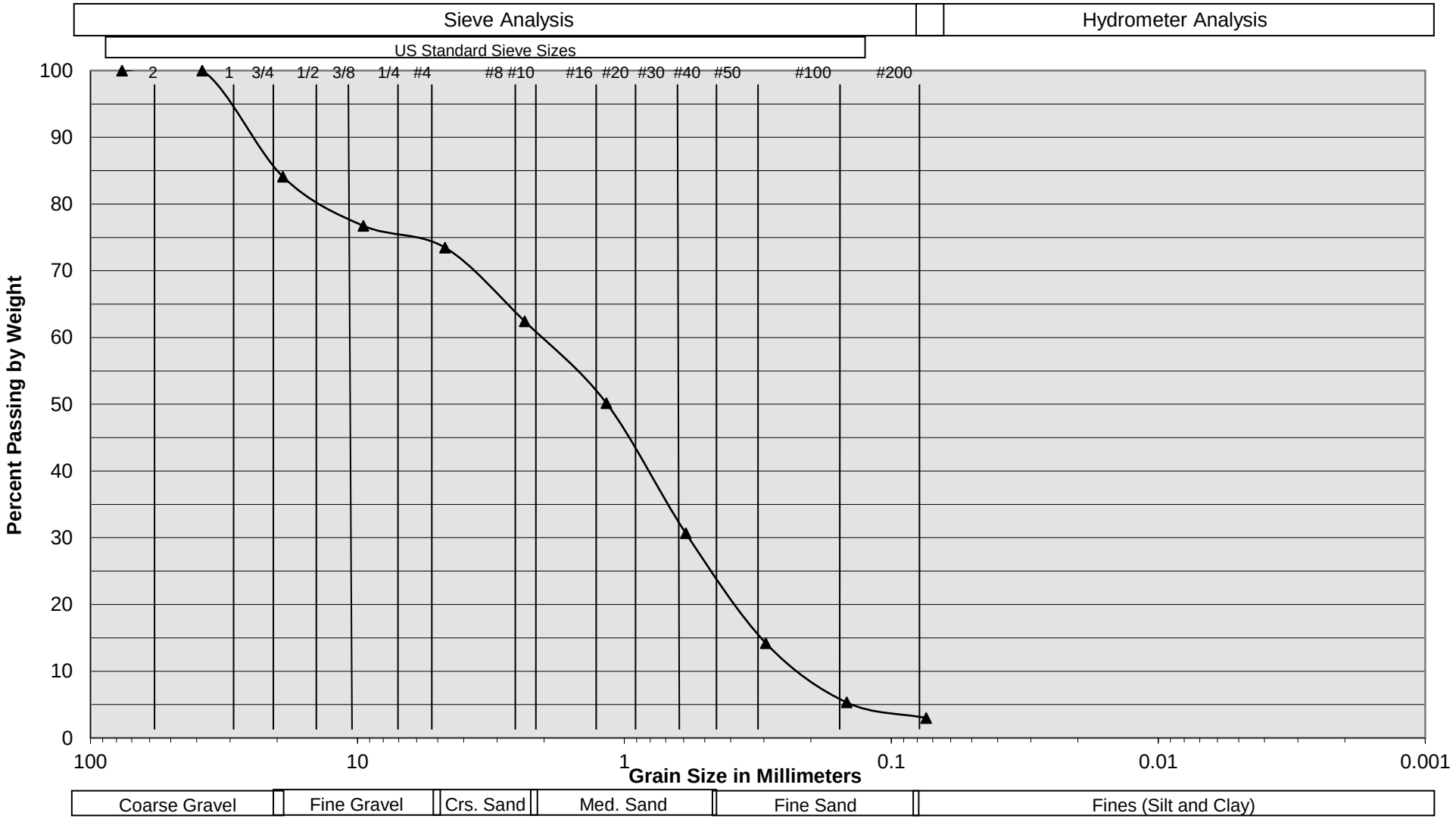


Sample Description	I-2 @ 8½'
Soil Classification	Light Red Brown fine to medium Sand, little coarse Sand, trace Silt

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-2
PLATE C- 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution

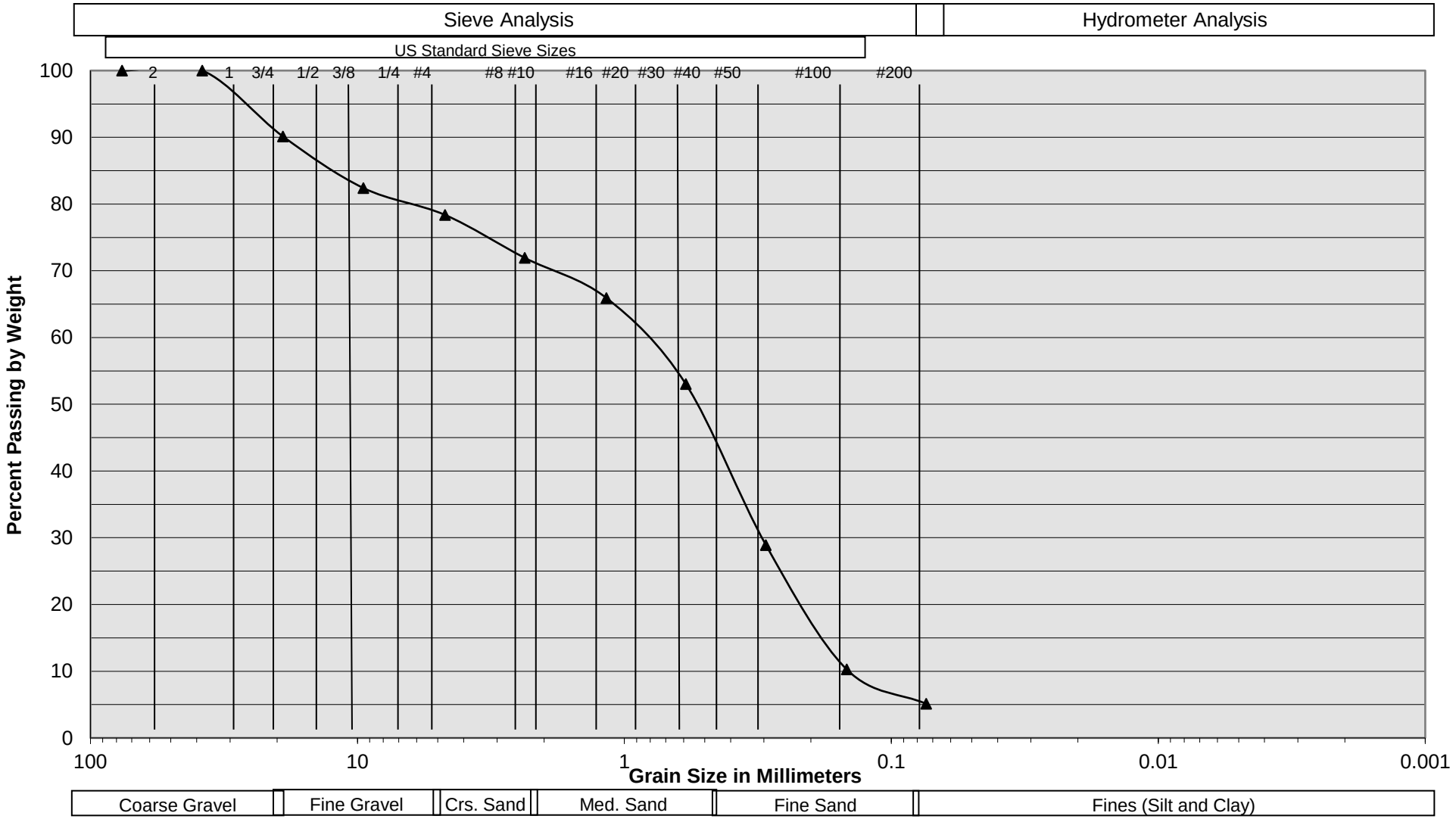


Sample Description	I-4 @ 8½'
Soil Classification	Light Brown fine to coarse Sand, little fine to coarse Gravel, trace Silt

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-2
PLATE C- 3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution



Sample Description	I-5 @ 8½'
Soil Classification	Light Red Brown fine to medium Sand, little coarse Sand, little fine to coarse Gravel, trace Silt

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-2
PLATE C- 4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

GEOTECHNICAL INVESTIGATION
PROPOSED INDUSTRIAL BUILDING

SEC 6th Street at Sterling Avenue
San Bernardino, California

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

May 26, 2023

SBABP I, LLC
c/o TCC SoCal Development, Inc.
3501 Jamboree Road, Suite 230
Newport Beach, California 92660

Attention: David Drake
Executive Vice President

Project No.: **23G142-1**

Subject: **Geotechnical Investigation**
Proposed Industrial Building
SEC 6th Street at Sterling Avenue
San Bernardino, California

Mr. Drake:

In accordance with your request, we have conducted a geotechnical investigation and liquefaction evaluation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Ricardo Frias, RCE 91772
Project Engineer

Gregory K. Mitchell, GE 2364
Principal Engineer

Distribution: (1) Addressee

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1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Geotechnical Design Considerations

- The results of the liquefaction evaluation indicate total dynamic settlements ranging between 0 and 0.39± inches. The liquefaction-induced differential settlements are expected to be on the order of ¼± inch.
- Based on the estimated magnitude of the differential settlements, the proposed structure may be supported on shallow foundations.
- Artificial fill soils were encountered at all of the boring locations, extending from the ground surface to depths of 2 to 5½± feet. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structure.
- The near-surface alluvial soils possess varying strengths. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structures. The deeper alluvium generally possesses higher strengths and densities and more favorable consolidation/collapse characteristics.
- Based on the water level measurements performed after completion of drilling and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth of 37± feet below existing site grades at the time of the subsurface exploration.

Site Preparation

- Initial site preparation should include demolition of the remnants of the previous development including all foundations, floor slabs, utilities, septic systems, and any other subsurface improvements that will not remain in place for use with the new development. Stripping of the existing vegetation including grass, weed growth, trash, and furniture. These materials should be disposed of off-site. Concrete and asphalt debris may be crushed to a maximum 1-inch particle size, mixed well with the on-site soils, and incorporated into structural fills if desired. Alternatively, it may be feasible to process these materials into crushed miscellaneous base.
- Remedial grading is recommended to be performed within the proposed building pad area to remove the undocumented fill soils, which extend to depths of 2 to 5½± feet at all of the boring and trench locations, in their entirety. The building pad area should also be overexcavated to a depth of at least 4 feet below existing grade and to a depth of at least 3 feet below proposed pad grade, whichever is greater. Overexcavation within the foundation areas is recommended to extend to a depth of at least 3 feet below proposed foundation bearing grade.
- Deeper removals may be necessary in the areas of Boring Nos. B-5 and B-7 due to the presence of loose and compressible/collapsible soils extending to depths of 6½ to 8± feet below the existing site grades.
- After overexcavation has been completed, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be overexcavated.

The resulting soils should be scarified and thoroughly watered to achieve a moisture content of 0 to 4 percent above optimum moisture, to a depth of at least 24 inches. The overexcavation subgrade soils should then be recompacted and the excavated soils replaced as structural fill, compacted to 90 percent of the ASTM D-1557 maximum dry density.

- The new parking area subgrade soils are recommended to be scarified to a depth of 12± inches, moisture conditioned or air dried and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundations

- Conventional shallow foundations, supported in newly placed compacted fill.
- 3,000 lbs/ft^2 maximum allowable soil bearing pressure.
- Minimum reinforcement consisting of at least four (4) No. 5 rebars (2 top and 2 bottom) in strip footings. Additional reinforcement may be necessary for structural considerations.

Building Floor Slab

- Conventional Slab-on-Grade: minimum 6 inches thick.
- Modulus of Subgrade Reaction: k = 150 psi/in.
- Reinforcement is not considered necessary for geotechnical considerations.
- The actual floor slab reinforcement should be determined by the structural engineer, based on the imposed slab loading.

Pavement Design Recommendations

ASPHALT PAVEMENTS (R = 50)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	3	4	5	5	7
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 50)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 23P229, dated April 20, 2023. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. Based on the location of the subject site, this investigation also included a site-specific liquefaction evaluation. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located at the southeast corner of 6th Street and Sterling Avenue in San Bernardino, California. The site is bounded to the north by 6th Street, to the east by Armada Towing and an RV and trailer storage lot, to the south by 5th Street, and to the west by Sterling Avenue. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of an irregularly shaped parcel, 25.12± acres in size. Based on our subsurface investigation, the site is currently vacant and undeveloped except for the remnants of a concrete slab in the northeastern area of the site and associated foundations. The ground surface cover throughout the site generally consists of exposed soil with sparse native grass and weed growth, and areas of scattered debris including trash and furniture.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth and visual observations made at the time of the subsurface investigation, the site is relatively level with an overall site topography gently sloping downward to the west at a gradient less than 1 percent with an elevation differential of approximately 14 feet.

3.2 Proposed Development

Based on a conceptual site plan prepared by RGA, the site will be developed with one (1) new industrial building. The new building will be 537,618± ft² in size and will be located in the north-central area of the site. Dock-high doors will be constructed along the southern building wall. The building is expected to be surrounded by asphaltic concrete pavements in the parking and drive lanes, Portland cement concrete pavements in the loading dock areas, and limited areas of landscape planters.

Detailed structural information was not available at the time of this proposal. It is assumed that the new building will be a single-story structure of tilt-up concrete construction, typically supported on conventional shallow foundations with concrete slab-on-grade floors. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 4 to 7 kips per linear foot, respectively.

No significant amounts of below-grade construction, such as crawl spaces or basements, are expected to be included in the proposed development. Based on the assumed topography, cuts and fills of up to 3 to 5± feet are expected to be necessary to achieve the proposed site grades.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration for this project consisted of ten (10) borings at the site to depths of 5 to 50± feet. One (1) of the four 50-foot borings encountered refusal conditions at a shallower depth (32± feet) than proposed. In addition, ten (10) trenches were excavated to depths of 8 to 10± feet below ground surface. The borings and trenches were logged during drilling and excavation by a member of our staff.

Hollow Stem Auger Borings

The borings were advanced with hollow-stem augers, by a conventional truck-mounted drilling rig. The trenches were advanced with a rubber-tire backhoe equipped with a 3-foot bucket. Representative bulk and relatively undisturbed soil samples were taken during drilling. Relatively undisturbed soil samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. In-situ samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings and trenches are indicated on the Boring and Trench Location Plan, included as Plate 2 in Appendix A of this report. The Boring and Trench Logs, which illustrate the conditions encountered at the boring and trench locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Artificial Fill

Artificial fill soils were encountered at the ground surface at all of the boring and trench locations, extending to depths of 2 to 5½± feet below the existing site grades. The fill soils generally consist of very loose to medium dense silty sands, sandy silts, and sands with varying amounts of silt and fine gravel. The fill soils possess a disturbed and mottled appearance resulting in the classification of artificial fill.

Alluvium

Native alluvial soils were encountered beneath the artificial fill soils at all of the boring and trench locations, extending to at least the maximum depth explored of 50± feet below existing site grades. The near surface alluvium generally consists of medium dense to very dense silty sands, sandy silts, and poorly- to well-graded sands with varying amounts of fine to coarse gravel, cobbles, and boulders, extending to depths of 12 to 25± feet below existing site grades. Deeper alluvial soils consist of dense to very dense silty sands, sandy silts and poorly-graded sands with varying amounts of fine to coarse gravel, cobbles, and boulders, extending to the maximum depth explored of 50± feet below the site grades. Boring Nos. B-5 and B-7 encountered loose poorly- to well-graded sands at depths of 4½ to 5½± feet. Boring No. B-3 encountered a layer of loose silty sands and medium dense well-graded sands at a depth of 22± feet.

Groundwater

Free water was encountered during the drilling at one (1) of the boring locations. Water was encountered at 37± feet below existing site grades at Boring No. B-3. Delayed groundwater level readings were taken at Boring No. B-3 approximately two hours after completion. Water was measured in this boring at a depth 37± feet. The remaining boreholes were dry at the completion of drilling. Very moist samples were also encountered at Boring No. B-1, at a depth of 42± feet and extending to the maximum depth explored of 50± feet. Based on the water level measurements and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth of 37± feet below existing site grades, at the time of the subsurface investigation.

A groundwater contour map titled, "Contour Map Showing Minimum Depth to Ground Water, San Bernardino Valley and Vicinity, 1973-1983," prepared by Carson and Matti in 1986 indicates that the minimum depth to groundwater at the site could be approximately 37 to 45 feet.

As a part of our research, we reviewed available groundwater data in order to determine groundwater levels for the site. Recent water level data was obtained from the California Department of Water Resources website, https://wdl.water.ca.gov/waterdatalibrary/. One monitoring well (Well No. 341072N1172350W001) is located approximately 1,675 feet southeast of the site. Water level readings within this monitoring well indicates a high groundwater level of 163± feet below the ground surface in April 2008.

Based on the available groundwater data, we used a conservative water level in our liquefaction analyses of 37 feet below the existing ground surface.

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. Field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Consolidation

Selected soil samples have been tested to determine their consolidation potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-8 in Appendix C of this report.

Maximum Dry Density and Optimum Moisture Content

Representative bulk samples have been tested for their maximum dry densities and optimum moisture contents. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557 and are presented on Plates C-9 and C-10 in Appendix C of this report. This test is generally used to compare the in-situ densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Soluble Sulfates

Representative samples of the near-surface soils were submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in

soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

Sample Identification	Soluble Sulfates (%)	Sulfate Classification
B-1 @ 1 to 5 feet	0.002	Negligible (SO)
B-7 @ 1 to 5 feet	0.002	Negligible (SO)

Corrosivity Testing

Representative samples of the near-surface soils were submitted to a subcontracted corrosion engineering laboratory to identify potentially corrosive characteristics with respect to common construction materials. The corrosivity testing included a determination of the electrical resistivity, pH, and chloride and nitrate concentrations of the soils, as well as other tests. The results of some of these tests are presented below.

Sample Identification	Saturated Resistivity (ohm-cm)	pH	Chlorides (mg/kg)	Nitrates (mg/kg)	Sulfides (mg/kg)	Redox Potential (mV)
B-1 @ 1 to 5 feet	9,380	7.4	7.1	22.1	0.8	150
B-7 @ 1 to 5 feet	7,370	6.9	24.7	61.7	0.7	153

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structure should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Therefore, the possibility of significant fault rupture on the site is considered to be low.

The potential for other geologic hazards such as seismically induced settlement, lateral spreading, tsunamis, inundation, seiches, flooding, and subsidence affecting the site is considered low. Liquefaction is a potential geologic hazard for this site and is discussed below.

Seismic Design Parameters

The 2022 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site.

The 2022 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website www.seismicmaps.org. This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-16, upon which the 2022 CBC is based. The application utilizes a database of risk-targeted maximum considered earthquake (MCE_R) site accelerations at 0.01-degree intervals for each of the code documents. The table below was created using data obtained from the application. The output generated from this program is attached to this letter.

The 2022 CBC states that for Site Class D sites with a mapped S1 value greater than 0.2, a site-specific ground motion analysis may be required in accordance with Section 11.4.8 of ASCE 7-16. Supplement 3 to ASCE 7-16 modifies Section 11.4.8 of ASCE 7-16 and states that "a ground motion hazard analysis is not required where the value of the parameter SM1 determined by Eq. (11.4-2) is increased by 50% for all applications of SM1 in this Standard. The resulting value of the parameter SD1 determined by Eq. (11.4-4) shall be used for all applications of SD1 in this Standard."

The seismic design parameters presented in the table below were calculated using the site coefficients (Fa and Fv) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2022 CBC. It should be noted that the site coefficient Fv and the parameters SM1 and SD1 were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the ASCE 7-16 standard. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2022 CBC using the value of S1 obtained from the Seismic Design Maps Tool. **The values of SM1 and SD1 tabulated below** were evaluated using equations 11.4-2 and 11.4-4 of ASCE 7-16 (Equations 16-20 and 16-23, respectively, of the 2022 CBC) and **do not include a 50 percent increase.** As discussed above, if a ground motion hazard analysis has not been performed, SM1 and SD1 must be increased by 50 percent for all applications with respect to ASCE 7-16.

2022 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped Spectral Acceleration at 0.2 sec Period	S_S	2.286
Mapped Spectral Acceleration at 1.0 sec Period	S_1	0.841
Site Class	---	D*
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	2.286
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	1.430[1]
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	1.524
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	0.953[1]

[1]Note: These values must be increased by 50 percent if a site-specific ground motion hazard analysis has not been performed.

*The 2022 CBC requires that Site Class F be assigned to any profile containing soils vulnerable to potential failure or collapse under seismic loading, such as liquefiable soils. For Site Class F, the site *coefficients* are to be determined in accordance with Section 11.4.7 of ASCE 7-16. However, Section 20.3.1 of ASCE 7-16 indicates that for sites with structures having a fundamental period of vibration equal to or less than 0.5 seconds, the site coefficient factors (F_a and F_v) may be determined using the standard procedures. The seismic design parameters tabulated above were calculated using the site coefficient factors for Site Class D, assuming that the fundamental period of the structure is less than 0.5 seconds. However, the results of the liquefaction evaluation indicate that the subject site is underlain by potentially liquefiable soils. Therefore, if the proposed structure has a fundamental period greater than 0.5 seconds, a site-specific seismic hazards analysis will be required and additional subsurface exploration will be necessary.

It should be noted that the site coefficient F_v and the parameters S_{M1} and S_{D1} were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2022 CBC. We calculated these parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2022 CBC using the value of S_1 obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed building at this site.

Ground Motion Parameters

For the purposes of the liquefaction analysis performed for this study, we utilized a site acceleration consistent with maximum considered earthquake ground motions, as required by the 2022 CBC. The peak ground acceleration (PGA) was determined in accordance with Section 11.8.3 of ASCE 7-16. The parameter PGA_M is the maximum considered earthquake geometric mean (MCE_G) PGA, multiplied by the appropriate site coefficient from Table 11.8-1 of ASCE 7-16. The web-based software application SEAOC/OSHPD Seismic Design Maps Tool (described in the previous section) was used to determine PGA_M, which is 1.036g. A portion of the program output is included as Plate E-1 of this report. An associated earthquake magnitude was obtained from the USGS Unified Hazard Tool, Interactive Deaggregation application available on the USGS website. The deaggregated mean magnitude is 7.24, based on the peak ground acceleration and soil classification D for a return period greater than 2,500 years.

Liquefaction

Research of the San Bernardino County Land Use Plan, Geologic Hazard Overlays, San Bernardino South Quadrangle, FH30 C indicates that the subject site is located within a zone of liquefaction susceptibility. Therefore, the scope of this investigation included a detailed liquefaction evaluation in order to determine the site-specific liquefaction potential.

Liquefaction is the loss of strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and plasticity characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Non-sensitive clayey (cohesive) soils which possess a plasticity index of at least 18 (Bray and Sancio, 2006) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The liquefaction analysis was conducted in accordance with the requirements of Special Publication 117A (CDMG, 2008), and currently accepted practice (SCEC, 1997). The liquefaction potential of the subject site was evaluated using the empirical method developed by Boulanger and Idriss (Boulanger and Idriss, 2008, 2014). This method predicts the earthquake-induced liquefaction potential of the site based on a given design earthquake magnitude and peak ground acceleration at the subject site. This procedure essentially compares the cyclic resistance ratio (CRR) [the cyclic stress ratio required to induce liquefaction for a cohesionless soil stratum at a given depth] with the earthquake-induced cyclic stress ratio (CSR) at that depth from a specified design earthquake (defined by a peak ground surface acceleration and an associated earthquake moment magnitude). CRR is determined as a function of the corrected SPT N-value $(N_1)_{60\text{-}cs}$, adjusted for fines content and/or the corrected CPT tip stress, $q_{c1N\text{-}cs}$. The factor of safety against liquefaction is defined as CRR/CSR. Based on Special Publication 117A, a factor of safety of at least 1.3 is required in order to demonstrate that a given soil stratum is non-liquefiable. Additionally, in accordance with Special Publication 117A, clayey soils which do not meet the criteria for liquefiable soils defined by Bray and Sancio (2006), loose soils with a plasticity index (PI) less than 12 and moisture content greater than 85 percent of the liquid limit, are considered to be insusceptible to liquefaction. Non-sensitive soils with a PI greater than 18 are also considered non-liquefiable.

The liquefaction analysis procedure is tabulated on the spreadsheet forms included in Appendix F of this report. The liquefaction analysis was performed for Boring Nos. B-1 through B-3. The liquefaction potential of the site was analyzed utilizing a PGA_M of 1.036g for a magnitude 7.24 seismic event.

The historic high groundwater depth was obtained from USGS Bulletin 1898, by Matti and Carson, 1991, which indicates high groundwater level ranging from 37 to 45± feet. We conservatively utilized a historic high groundwater table of 37 feet below grade to evaluate the liquefaction potential of the various layers encountered in the boring logs. Layers above this level were not

considered in the liquefaction analysis. Soils in Boring No. B-1 at a depth of 42 to 50 feet were calculated to be potentially liquefiable.

If liquefiable soils are identified, the potential settlements that could occur as a result of liquefaction are evaluated using the equation for volumetric strain due to post-cyclic reconsolidation (Yoshimine et. al, 2006). This procedure uses an empirical relationship between the induced cyclic shear strain and the corrected N-value to evaluate the expected volumetric strain of saturated sands subjected to earthquake shaking. This analysis is also documented on the spreadsheets included in Appendix F.

Conclusions and Recommendations

The results of the liquefaction analysis have identified a potentially liquefiable soil layer at Boring No. B-1. Soils which are located above the historic groundwater table or possess factors of safety of at least 1.3 are considered to be non-liquefiable. Settlement analyses was conducted for the potentially liquefiable layer. The total dynamic settlement for each boring location, based on the results of the dynamic settlement analyses (presented in Appendix F) are presented below:

- B-1: 0.39± inches
- B-2: 0 inches
- B-3: 0 inches

Based on these total settlements, differential settlements of up to¼± inch could be expected to occur during a liquefaction inducing seismic event. The estimated differential settlement could be assumed to occur across a distance of 50 feet, indicating a maximum angular distortion of less than 0.001 inches per inch. Based on this evaluation of potential settlement, no design considerations related to liquefaction are considered related to liquefaction are considered warranted for this site.

The use of a shallow foundation system, as described in this report, is typical for buildings of this type, where they are underlain by the extent of liquefiable soils encountered at this site. The post-liquefaction damage that could occur within the building proposed for this site will also be typical of similar buildings in the vicinity of this project. However, if the owner determines that this level of potential damage is not acceptable, other geotechnical and structural options are available.

6.2 Geotechnical Design Considerations

General

The site is generally underlain by artificial fill soils, extending to depths of 2 to 5½± feet at all of the boring and trench locations. These soils possess variable densities, variable composition, and a disturbed, mottled appearance. Additionally, no documentation regarding the placement and compaction of these soils has been provided. The fill soils are therefore considered to be undocumented fill. The fill soils are underlain by native alluvium which possesses unfavorable consolidation/collapse characteristics to a depth of up to 6± feet below the existing site grades.

Based on these conditions, the artificial fill materials and the near-surface alluvium, in their present condition, are not considered suitable for support of the foundations and floor slab of the new structure. Remedial grading will be necessary within the proposed building area to remove the artificial fill soils in their entirety as well as a portion of the near-surface alluvium, and to replace these soils as compacted structural fill.

Settlement

The recommended remedial grading will remove the existing undocumented fill soils and a portion of the near-surface native alluvial soils and replace these materials as compacted structural fill. The native soils that will remain in place below the recommended depth of overexcavation will not be subject to significant stress increases from the foundations of the new structure. Therefore, following completion of the recommended grading, post-construction static settlements are expected to be within tolerable limits.

Soluble Sulfates

The results of the soluble sulfate testing indicated a sulfate concentration of approximately 0.002 percent for the selected sample of the near-surface soils. This concentration is considered to be "not applicable" (S0) with respect to the American Concrete Institute (ACI) Publication 318-14 Building Code Requirements for Structural Concrete and Commentary, Section 4.3. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building area.

Corrosion Potential

The results of laboratory testing indicate that representative samples of the on-site soils possess minimum resistivity values of 7,370 and 9,380 ohm-cm, and pH values of 6.9 and 7.4. These soils possess redox potentials of 150 and 153 mV and trace sulfide concentrations of about 0.1 parts per million. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Resistivity, pH, sulfide concentration, redox potential, and moisture content are the five factors that enter into the evaluation procedure. Based on these factors, the on-site soils are considered to be less corrosive to ferrous materials including iron pipes. Therefore, corrosion protection will likely not be required for cast iron or ductile iron pipes.

Low concentrations of chlorides (7.1 and 24.7 mg/kg) were detected in the samples submitted for corrosivity testing. In general, soils possessing chloride concentrations in excess of 500 parts per million (ppm) are considered to be corrosive with respect to steel reinforcement within reinforced concrete. Based on the lack of any significant chlorides in the tested sample, the site is considered to have a C1 chloride exposure in accordance with the American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary. Therefore, a specialized concrete mix design for reinforced concrete for protection against chloride exposure is not considered warranted.

Nitrates present in soil can be corrosive to copper tubing at concentrations greater than 50 mg/kg. The tested samples possess nitrate concentrations of 22.1 to 61.7 mg/kg. **Based on these test results, the on-site soils are considered to be potentially corrosive to copper pipe with respect to their nitrate concentration.**

Since SCG does not practice in the area of corrosion engineering, we recommend that the client contact a corrosion engineer to provide a more thorough evaluation of these test results.

Shrinkage/Subsidence

Removal and recompaction of the existing fill soils and near-surface alluvium to an average 92 percent relative compaction is estimated to result in an average shrinkage of 5 to 15 percent. However, potential shrinkage for individual samples ranged between 1 and 18 percent. It should be noted that the shrinkage estimate is based on the results of dry density testing performed on small-diameter samples of the existing soils taken at the boring locations. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test pits where in-place densities are determined using in-situ testing methods instead of laboratory density testing on small-diameter samples. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.1 feet.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Grading and Foundation Plan Review

Grading and foundation plans were not available at the time of this report. It is therefore recommended that we be provided with copies of the preliminary grading and foundation plans, when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping and Demolition

Remnants of concrete slab and building foundations are present at the ground surface at the site. Initial site preparation should include the demolition of the existing slab and foundations. Site demolition should also include any utilities, septic systems, and any other subsurface improvements associated with the previous development of the site. Debris resultant from demolition should be disposed of off-site. Alternatively, concrete and asphalt debris may be crushed to a maximum 1-inch particle size, mixed with the on-site soils, and reused as compacted structural fill. It may also be feasible to process these materials into crushed miscellaneous base (CMB).

Initial site preparation should include stripping of any topsoil, vegetation, organic debris, and any scattered debris on the site. Based on conditions observed at the time of the subsurface exploration, this will include native grass, weed growth, trash, and furniture. These materials should be disposed of off-site. The actual extent of stripping should be determined in the field by a representative of the geotechnical engineer, based on the organic content and the stability of the encountered materials.

Treatment of Existing Soils: Building Pad

Remedial grading should be performed within the proposed building area in order to remove the existing undocumented fill soils. Based on conditions encountered at the boring locations, excavation to depths of 2 to 5½± feet will be required to remove the existing fill soils. The existing soils within the proposed building area are also recommended to be overexcavated to a depth of at least 4 feet below existing grade and to a depth of at least 3 feet below proposed building pad subgrade elevation, whichever is greater.

Where not encompassed within the general building pad overexcavations, additional overexcavation should be performed within the influence zones of the new foundations, to provide for a new layer of compacted structural fill extending to a depth of 3 feet below proposed bearing grade.

The overexcavation areas should extend at least 5 feet beyond the building perimeter and foundations, and to an extent equal to the depth of fill below the new foundations. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the overexcavation should also encompass these areas.

Slightly deeper areas of overexcavation will also be required in the area of Boring Nos. B-5 and B-7, where loose and potentially collapsible soils extend to depths of 6½ to 8± feet. Additional evaluation of the exposed overexcavation subgrade soils by the geotechnical engineer will be required in this area of the site to verify that the full extent of loose and potentially collapsible soils, as encountered at Boring Nos. B-5 and B-7, are removed.

Following completion of the overexcavation, the subgrade soils within the building area should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structure. This evaluation should include proofrolling and probing to identify any soft, loose or otherwise unstable soils that must

be removed. Some localized areas of deeper excavation may be required if additional fill materials or loose, porous, or low density native soils are encountered at the base of the overexcavation.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches, and thoroughly watered to raise the moisture content of the underlying soils to at least 0 to 4 percent above optimum moisture content, extending to a depth of at least 24 inches. The moisture conditioning of the overexcavation subgrade soils should be verified by the geotechnical engineer. The subgrade soils should then be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of proposed retaining and non-retaining site walls should be overexcavated to a depth of at least 3 feet below foundation bearing grade and replaced as compacted structural fill as discussed above for the proposed building pad. Any undocumented fill soils within any of these foundation areas should be removed in their entirety. Please note that erection pads are considered to be part of the foundation system. These overexcavation recommendations apply to erection pads also. The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning, and recompacting the upper 12 inches of exposed subgrade soils, as discussed for the building areas. The previously excavated soils may then be replaced as compacted structural fill.

Please note that if the lateral and/or vertical extents of overexcavation are not achievable for the project retaining walls or site walls (as may occur along property lines), then additional recommendations including, but not limited to reduced design bearing pressures may be required. Additionally, specialized grading techniques such as slot cutting or shoring may be required in order to facilitate construction.

Treatment of Existing Soils: Parking, Drive and Flatwork Areas

Based on economic considerations, overexcavation of the existing soils in the new parking, drive, and flatwork areas are not considered warranted, with the exception of areas where lower strength or unstable soils are identified by the geotechnical engineer during grading.

Subgrade preparation in the new parking, drive, and flatwork areas should initially consist of removal of all soils disturbed during stripping operations. The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. The subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 0 to 4 percent above optimum, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of undocumented fill soils and compressible/collapsible alluvial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed parking, drive, and flatwork areas assume that the owner and/or developer can tolerate minor amounts of settlement within these areas. The grading recommendations presented above do not completely mitigate the extent of loose alluvium in the parking, drive, and flatwork areas. As such, settlement and

associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the parking, drive, and flatwork areas should be overexcavated to a depth of 2 feet below proposed subgrade elevation, with the resulting soils replaced as compacted structural fill.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to 0 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2022 CBC and the grading code of the City of San Bernardino.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Fill soils should be well mixed.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Selective Grading and Oversized Material Placement

Some of the native alluvial soils possess moderate cobble content. In general, these cobble-containing soils are located at depths of 4½ to 32± feet. It is expected that large scrapers (Caterpillar 657 or equivalent) will be adequate to move the cobble containing soils. Since the proposed grading will require excavation of cobble containing soils, it may be desirable to selectively grade the proposed building pad area. The presence of particles greater than 3 inches in diameter within the upper 1 to 3 feet of the building pad subgrade will impact the utility and foundation excavations. Depending on the depths of fills required within the proposed parking areas, it may be feasible to sort the on-site soils, placing the materials greater than 3 inches in diameter within the lower depths of the fills, and limiting the upper 1 to 3 feet of soils to materials less than 3 inches in size. Oversized materials could also be placed within the lower depths of the recommended overexcavations. In order to achieve this grading, it would likely be necessary to use rock buckets and/or rock sieves to separate the oversized materials from the remaining soil. Although such selective grading will facilitate further construction activities, it is not considered mandatory and a suitable subgrade could be achieved without such extensive sorting. However, in any case, it is recommended that all materials greater than 6 inches in size be excluded from the upper 1 foot of the surface of any compacted fills.

The placement of any oversized materials should be performed in accordance with the Grading Guide Specifications included in Appendix D of this report. If disposal of oversized materials is required, rock blankets or windrows should be used and such areas should be observed during construction and placement by a representative of the geotechnical engineer.

Imported Structural Fill

All imported structural fill should consist of very low expansive (EI < 20), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). It is recommended that materials in excess of 3 inches in size not be used for utility trench backfill. Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by City of San Bernardino. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

6.4 Construction Considerations

Excavation Considerations

The near surface soils generally consist of silty sands and sands. These materials will likely be subject to caving within shallow excavations. Where caving occurs within shallow excavations, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of temporary slopes should not exceed 2h:1v. Deeper excavations may require some form of external stabilization such as shoring or bracing. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Groundwater

The static groundwater table at this site is considered to exist at a depth of approximately 37± feet. Therefore, groundwater is not expected to impact the grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pad will be underlain by structural fill soils used to replace near-surface alluvial soils. These new structural fill soils are expected to extend to depths of at least 3 feet below proposed foundation bearing grade, underlain by 1± foot of additional soil that has been densified and moisture conditioned

in place. Based on this subsurface profile, and based on the design considerations presented in Section 6.1 of this report, the proposed structure may be supported on conventional shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 3,000 lbs/ft^2.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Four (4) No. 5 rebars (2 top and 2 bottom).
- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.
- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressures presented above may be increased by 1/3 when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on geotechnical considerations; additional reinforcement may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill, compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill, with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 0 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential static settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively. Differential movements are expected to occur over a 50-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slabs and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 300 lbs/ft^3
- Friction Coefficient: 0.30

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill. The maximum allowable passive pressure is 3,000 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support new floor slabs should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, the floor of the new structure may be constructed as a conventional slab-on-grade supported on newly placed structural fill, extending to a depth of at least 4 feet below proposed finished pad grade. Based on geotechnical considerations, the floor slab may be designed as follows:

- Minimum slab thickness: 6 inches.

- Modulus of Subgrade Reaction: k = 150 psi/in.

- Minimum slab reinforcement: Not required for geotechnical considerations. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

- Slab underlayment: If moisture sensitive floor coverings will be used then minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire area of the proposed slab where such moisture sensitive floor coverings are expected. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. Given that a rock free subgrade is anticipated and that a capillary break is not required, sand below

the barrier is not required. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview. Where moisture sensitive floor coverings are not anticipated, the vapor barrier may be eliminated.

- Moisture condition the floor slab subgrade soils to 0 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slab should be completed by the structural engineer to verify adequate thickness and reinforcement. Additional rigidity may be necessary for structural considerations.

6.7 Exterior Flatwork Design and Construction

Subgrades which will support new exterior slabs-on-grade for sidewalks, patios, and other concrete flatwork, should be prepared in accordance with the recommendations contained in the ***Grading Recommendations*** section of this report. Based on geotechnical considerations, exterior slabs on grade may be designed as follows:

- Minimum slab thickness: 4½ inches.

- The flatwork at building entry areas should be structurally connected to the perimeter foundation that is recommended to span across the door opening. This recommendation is designed to reduce the potential for differential movement at this joint.

- Moisture condition the slab subgrade soils to at least 0 to 4 percent above the optimum moisture content, to a depth of at least 12 inches. Adequate moisture conditioning should be verified by the geotechnical engineer 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

- Control joints should be provided at a maximum spacing of 8 feet on center in two directions for slabs and at 6 feet on center for sidewalks. Control joints are intended to direct cracking. Minor cracking of exterior concrete slabs on grade should be expected.

Expansion or felt joints should be used at the interface of exterior slabs on grade and any fixed structures to permit relative movement.

6.8 Retaining Wall Design and Construction

Although not indicated on the site plan, some small (less than 6 feet in height) retaining walls may be required to facilitate the new site grades and in the dock-high areas of the buildings. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. We have provided parameters assuming the use of on-site soils for retaining wall backfill. The near surface soils generally consist of silty sands and sands. Based on their classifications, these materials are expected to possess a friction angle of at least 30 degrees when compacted to 90 percent of the ASTM-1557 maximum dry density.

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		**Soil Type**
		On-Site Sands and Silty Sands
Internal Friction Angle (ϕ)		30°
Unit Weight		130 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	44 lbs/ft^3
	Active Condition (2h:1v backfill)	70 lbs/ft^3
	At-Rest Condition (level backfill)	65 lbs/ft^3

Regardless of the backfill type, the walls should be designed using a soil-footing coefficient of friction of 0.30 and an equivalent passive pressure of 300 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Seismic Lateral Earth Pressures

In accordance with the 2022 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed compacted structural fill, extending to a depth of at least 3 feet below the proposed bearing grade. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Backfill Material

On-site soils may be used to backfill the retaining walls. **However, all backfill material placed within 3 feet of the back wall face should have a particle size no greater than 3 inches.** The retaining wall backfill materials should be well graded.

It is recommended that a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls be used. If the drainage composite material is not covered by an impermeable surface, such as a structure or pavement, a 12-inch thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils. The drainage composite should be separated from the backfill soils by a suitable geotextile, approved by the geotechnical engineer.

All retaining wall backfill should be placed and compacted under engineering controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 2-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 10-foot on-center spacing. Alternatively, 4-inch diameter holes

at an approximate 20-foot on-center spacing can be used for this type of drainage system. In addition, the weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system. The actual design of this type of system should be determined by the civil engineer to verify that the drainage system possesses the adequate capacity and slope for its intended use.

6.9 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The near-surface soils generally consist of silty sands and clayey sands. These soils are considered to possess good pavement support characteristics with estimated R-values of 50 to 70. The subsequent pavement design is based upon an R-value of 50. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering controlled conditions. It is recommended that R-value testing be performed after completion of rough grading. Depending upon the results of the R-value testing, it may be feasible to use thinner pavement sections in some areas of the site.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20 year design life, assuming six operational traffic days per week.

Traffic Index	No. of Heavy Trucks per Day
4.0	0
5.0	1
6.0	3
7.0	11

8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS (R = 50)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	3	4	5	5	7
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 50)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. Any reinforcement within the PCC pavements should be determined by the project structural engineer. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

7.0 GENERAL COMMENTS

This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

8.0 REFERENCES

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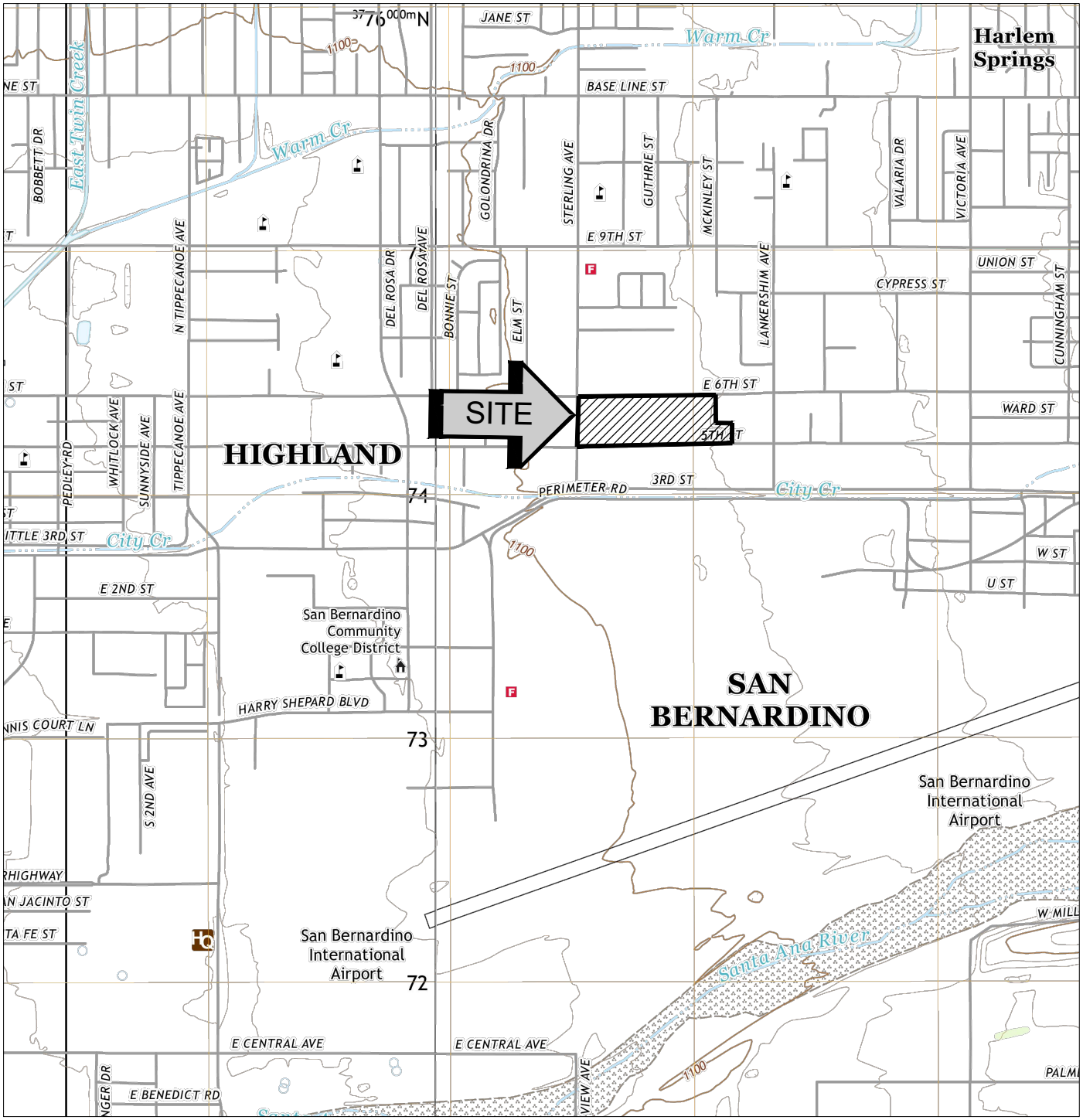
APPENDIX A



SOURCE: USGS TOPOGRAPHIC MAP OF THE REDLANDS AND SAN BERNARDINO SOUTH QUADRANGLES, SAN BERNARDINO COUNTY, CALIFORNIA, 2021.

SITE LOCATION MAP

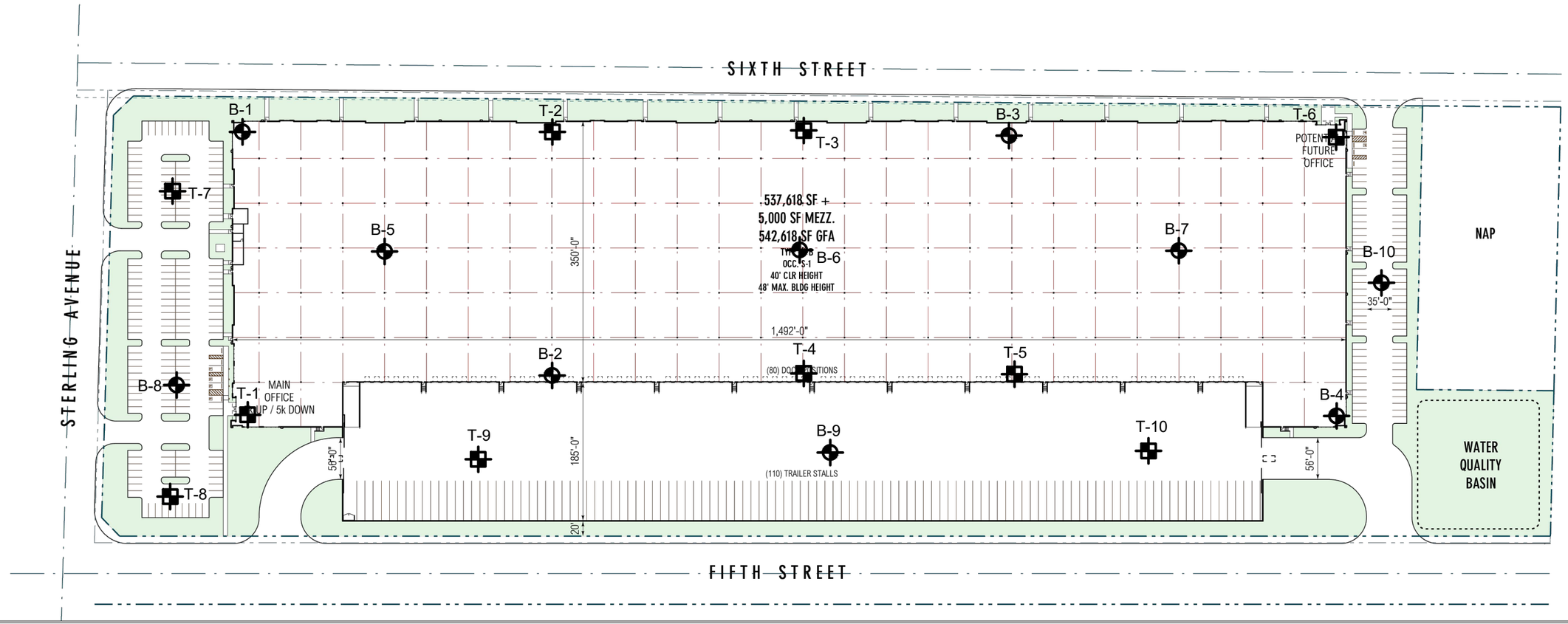
PROPOSED INDUSTRIAL BUILDING

SAN BERNARDINO, CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: MK CHKD: RF	
SCG PROJECT 23G142-1	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



GEOTECHNICAL LEGEND

- APPROXIMATE BORING LOCATION
- APPROXIMATE TRENCH LOCATION

NORTH

NOTE: SITE PLAN PREPARED BY RGA,

BORING AND TRENCH LOCATION PLAN

PROPOSED INDUSTRIAL BUILDING

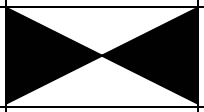
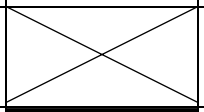
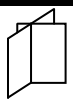
SAN BERNARDINO, CALIFORNIA

SCALE: 1" = 150'	
DRAWN: MK CHKD: RF	
SCG PROJECT 23G142-1	
PLATE 2	

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX B

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

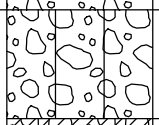
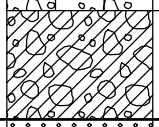
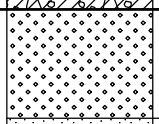
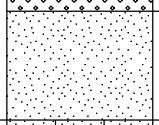
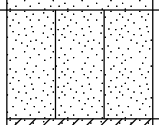
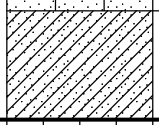
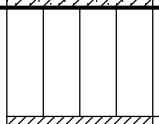
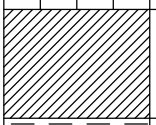
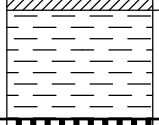
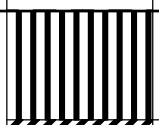
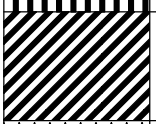
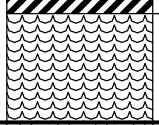
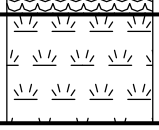
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joseph Lozano Leon

WATER DEPTH: Dry
CAVE DEPTH: 47 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		10			FILL: Dark Brown Silty fine Sand, little medium Sand, trace coarse Sand, loose to medium dense-damp to moist	102	8					
		15				123	7					
					ALLUVIUM: Brown Silty fine Sand, trace to little medium Sand, little iron oxide staining, medium dense-damp to moist							
5		15				103	13					
		20										No Sample Recovery
		87/11"			Light Gray Brown fine to coarse Sand, little SIlt, trace to little fine to coarse Gravel, dense to very dense-dry	116	1					
10												
		50			@ 13½ feet, occasional cobbles and boulders		1					
15												
		39					1					
20												
					Brown fine Sandy Silt, with 2-inch lense of Silty fine to medium Sand, medium dense-moist to very moist							
		21					16					
25												
					Gray Brown Silty fine Sand, trace medium Sand, trace fine Gravel, dense to very dense-damp to moist							
		63					6					
30												
		47					7					

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-1a

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joseph Lozano Leon

WATER DEPTH: Dry
CAVE DEPTH: 47 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
40		33			Gray Brown Silty fine Sand, trace medium Sand, trace fine Gravel, dense to very dense-damp to moist		12					
45		27			Gray fine Sandy Silt, trace medium Sand, medium dense-very moist		22					
50		24					23					
					Boring Terminated at 50'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-1b

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-2

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joseph Lozano Leon

WATER DEPTH: Dry
CAVE DEPTH: 43 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		2			FILL: Dark Brown Silty fine to medium Sand, trace coarse Sand, trace fine Gravel, very loose to loose-damp		6					
		8					6					
5		14			ALLUVIUM: Light Red Brown fine to coarse Sand, trace fine Gravel, trace Silt, medium dense-damp		3					
		35			Gray Brown fine to coarse Sand, little Silt, trace fine to coarse Gravel, dense-dry to damp		2					
10												
		42			@ 13½ feet, occasional cobbles		2					
15												
		25			Gray Brown Silty fine to medium Sand, trace coarse Sand, trace fine to coarse Gravel, medium dense-damp		4					
20												
		57/7"			Brown fine Sandy Silt, litte iron oxide staining, occasional cobbles and boulders, very dense-very moist		26					
25												
		30			Light Red Brown fine to medium Sand, little Silt, trace coarse Sand, dense to very dense-dry to damp		3					
30												
		58			@ 33½ feet, little coarse Sand, little fine to coarse Gravel		1					

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-2a

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-2

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joseph Lozano Leon

WATER DEPTH: Dry
CAVE DEPTH: 43 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
40		67			Light Red Brown fine to medium Sand, little Silt, trace coarse Sand, dense to very dense-dry to damp		1					
45		42			Gray Brown fine Sand, little Silt, with a 2-inch lense of Silt, little iron oxide staining, dense-moist to very moist		14					
50		39			Dark Gray Brown fine Sandy Silt, trace medium Sand, dense-moist to very moist		14					
					Boring Terminated at 50'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-2b

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-3

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joseph Lozano Leon

WATER DEPTH: 37 feet
CAVE DEPTH: 40 feet
READING TAKEN: 2 hrs. after drilling

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		5			FILL: Dark Brown Silty fine Sand, little medium Sand, trace coarse sand, loose to medium dense-damp to moist		8					
		11					6					
5		17			ALLUVIUM: Light Red Brown fine to coarse Sand, trace Silt, little fine Gravel, occasional Cobbles, medium dense-damp		4					
		25			@ 8½ feet, little fine to coarse Gravel, dense		3					
10												
		24			Light Red Brown fine Sand, little medium to coarse Sand, trace Silt, trace fine Gravel, medium dense-damp		7					
15												
		31			Light Red Brown fine to medium Sand, trace coarse Sand, trace fine to coarse Gravel, trace Silt, dense-damp		3					
20												
		7			Dark Brown Silty fine Sand, trace Clay, loose-moist							No Sample Recovery
25												
		15			Dark Gray Brown fine to medium Sand, trace coarse Sand, medium dense to dense-damp to moist	109	13					
		39					4					
30												
		20			Gray Brown to Dark Gray Brown Silty fine Sand to fine Sandy Silt, medium dense-very moist		23					

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG **PLATE B-3a**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-3

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joseph Lozano Leon

WATER DEPTH: 37 feet
CAVE DEPTH: 40 feet
READING TAKEN: 2 hrs. after drilling

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION (Continued)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					Gray Brown to Dark Gray Brown Silty fine Sand to fine Sandy Silt, medium dense-very moist							
					Gray Brown fine Sandy Silt, dense-wet							
		31					23					
40												
					Light Gray Brown fine Sand, little Silt, dense-moist							
		39					8					
45												
					Light Brown fine Sand, trace medium Sand, with 2-inch lense of Dark Brown Silty fine to medium Sand, little iron oxide staining, medium dense-wet							
		29					15					
50					Boring Terminated at 50'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-3b

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-4

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joseph Lozano Leon

WATER DEPTH: Dry
CAVE DEPTH: 20 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		13			FILL: Dark Brown Silty fine Sand, trace medium to coarse Sand, little fine root fibers, loose-damp	105	6					
		15			ALLUVIUM: Light Gray Brown fine to medium Sand, little coarse Sand, trace Silt, trace fine Gravel, medium dense-dry to damp	94	5					
5		20				105	2					
		28				105	2					
		40				124	2					
10					Gray Brown fine Sand, little medium Sand, little Silt, trace fine Gravel, medium dense-dry to damp							
		50/3"			Gray Brown fine to medium Sand, trace Silt, trace coarse Sand, trace fine to coarse Gravel, occasional Cobbles and Boulders, dense to very dense-damp		4					
15												
		82/10"			@ 18½ feet, little coarse Sand, little fine to coarse Gravel, abundant Cobbles, occasional Boulders		3					
20												
		42			@ 23½ feet, abundant Cobbles and Boulders		3					
25												
		50/5"					3					
30												
					Boring Terminated at 32' due to refusal							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-4

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-5

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: 10½
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		5			FILL: Dark Gray Brown Silty fine to medium Sand, trace coarse Sand, trace fine Gravel, loose-damp		7					
		7			FILL: Brown Silty fine Sand, trace medium to coarse Sand, trace Clay, loose-moist to very moist		15					
5		9			ALLUVIUM: Light Red Brown fine Sand, trace medium Sand, trace fine Gravel, loose to dense-dry to damp		7					
		20			@ 8½ feet, trace medium to coarse Sand, occasional Cobbles		3					
10												
		32			@ 13½ feet, little medium Sand		2					
15					Boring Terminated at 15'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-5

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: 7 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		17			FILL: Dark Gray Brown Silty fine Sand, trace to little medium Sand, trace coarse Sand, medium dense-moist	116	8					
		15				114	10					
5		16			ALLUVIUM: Light Red Brown Silty fine to medium Sand, trace to little coarse Sand, trace fine to coarse Gravel, occasional Cobbles, little iron oxide staining, medium dense-damp	109	5					
		19			Light Brown fine to coarse Sand, trace fine to coarse Gravel, occasional Cobbles, little iron oxide staining, medium dense to very dense-damp	115	4					
		50/5"				111	4					
10												
		88/11"			@ 13½ feet, trace Silt		2					
15												
					Light Brown fine Sand, trace medium to coarse Sand, dense-dry to damp							
		42					2					
20					Boring Terminated at 20'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-6

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-7

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: 7 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		9			FILL: Dark Gray Brown Silty fine Sand, trace medium to coarse Sand, trace fine Gravel, loose-damp	106	4					
		10			FILL: Brown Silty fine Sand, trace to little medium Sand, trace coarse Sand, trace fine Gravel, loose-damp	100	6					
5		13			ALLUVIUM: Light Red Brown fine to medium Sand, trace Silt, trace coarse Sand, trace fine Gravel, loose to medium dense-damp	102	5					
		22				100	5					
		32			Light Brown fine to coarse Sand, trace coarse Gravel, little fine Gravel, medium dense-dry to damp	107	2					
10												
		60			Light Gray Brown Gravelly fine to coarse Sand, trace Silt, occasional Cobbles, very dense-dry to damp		2					
15					Boring Terminated at 15'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-7

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-8

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: 2 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		8			FILL: Dark Brown Silty fine Sand, trace medium to coarse Sand, trace fine Gravel, loose-moist		11					
		11			ALLUVIUM: Brown fine to medium Sand, little Silt, trace coarse Sand, medium dense-damp		6					
5					Boring Terminated at 5'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG

PLATE B-8

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-9

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: 3 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		3			FILL: Dark Brown Silty fine to medium Sand, trace coarse Sand, trace fine Gravel, loose-damp to moist		8					
		7			ALLUVIUM: Dark Brown Silty fine Sand, trace medium to coarse Sand, trace fine Gravel, trace iron oxide staining, loose-damp		7					
5					Boring Terminated at 5'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG **PLATE B-9**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-10

JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California

DRILLING DATE: 4/27/23
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Michelle Krizek

WATER DEPTH: Dry
CAVE DEPTH: 3½
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		6			FILL: Dark Brown Silty fine Sand, trace medium to coarse Sand, loose-moist		9					
		10			ALLUVIUM: Light Red Brown fine to medium Sand, trace coarse Sand, trace fine Gravel, trace Silt, medium dense-damp		3					
5					Boring Terminated at 5'							

TBL 23G142-1.GPJ SOCALGEO.GDT 5/26/23

TEST BORING LOG **PLATE B-10**

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-1

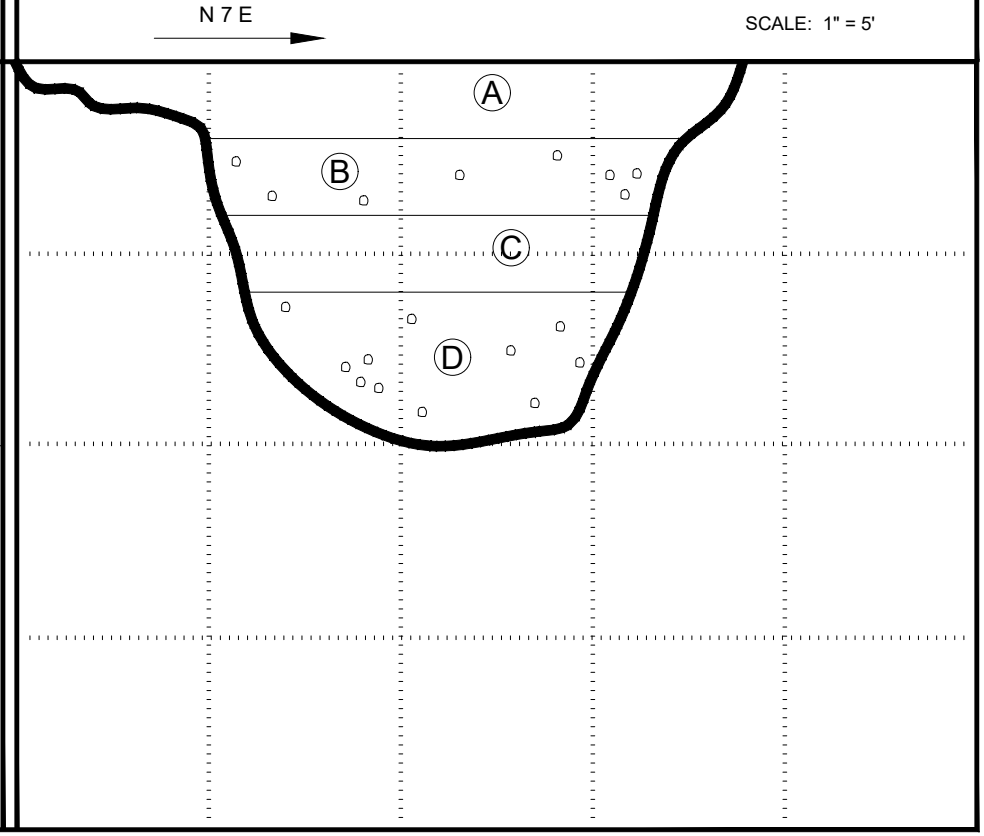
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: N 7 E
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
	b		6	A: FILL: Dark Brown Silty fine Sand, medium dense-damp
	b		7	B: FILL: Dark Brown Silty fine Sand, trace fine Gravel, medium dense-damp
5	b		6	C: ALLUVIUM: Red Brown fine to medium Sand, medium dense-damp
	b		4	D: Red Brown fine to coarse Sand, trace fine to coarse Gravel, medium dense-damp
	b		3	
10				Trench Terminated @ 10 feet
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-11

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-2

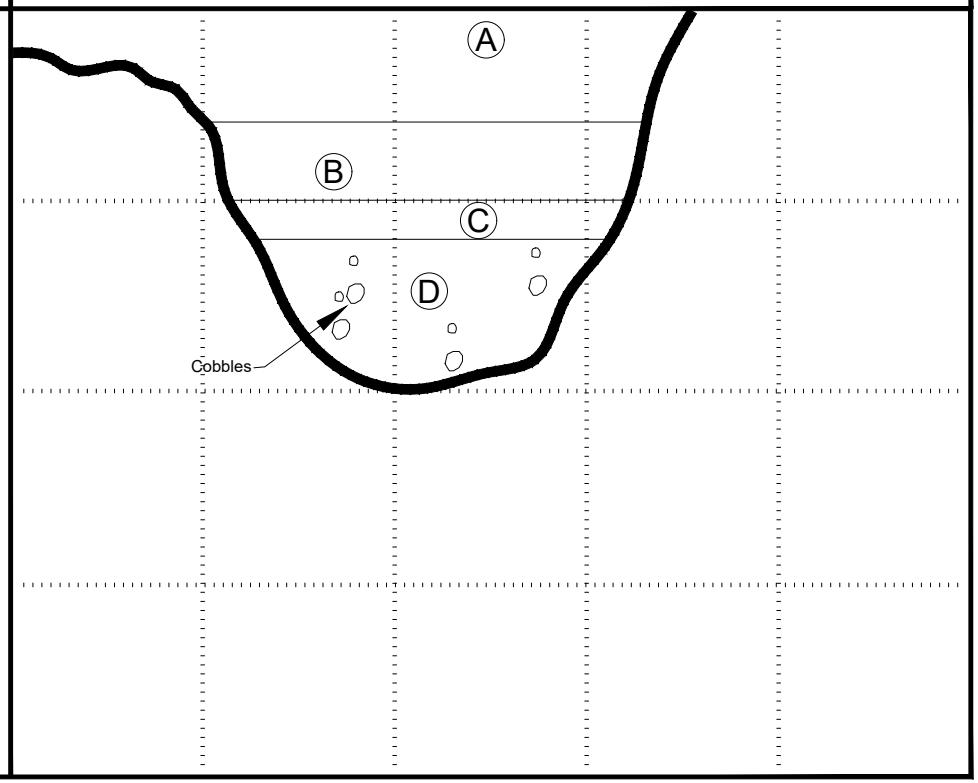
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: N 70 E
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
	b		8	A: FILL: Dark Brown Silty fine Sand, loose-moist
	b		8	B: FILL: Dark Brown fine Sand, trace to little Silt, medium dense-damp to moist
5	b		8	C: ALLUVIUM: Brown fine Sand, trace Silt, medium dense-moist
	b		3	D: Red Brown fine to medium Sand, little coarse Sand, little fine to coarse Gravel, occasional Cobbles, medium dense-damp
	b		4	
10				Trench Terminated @ 10 feet
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-12

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-3

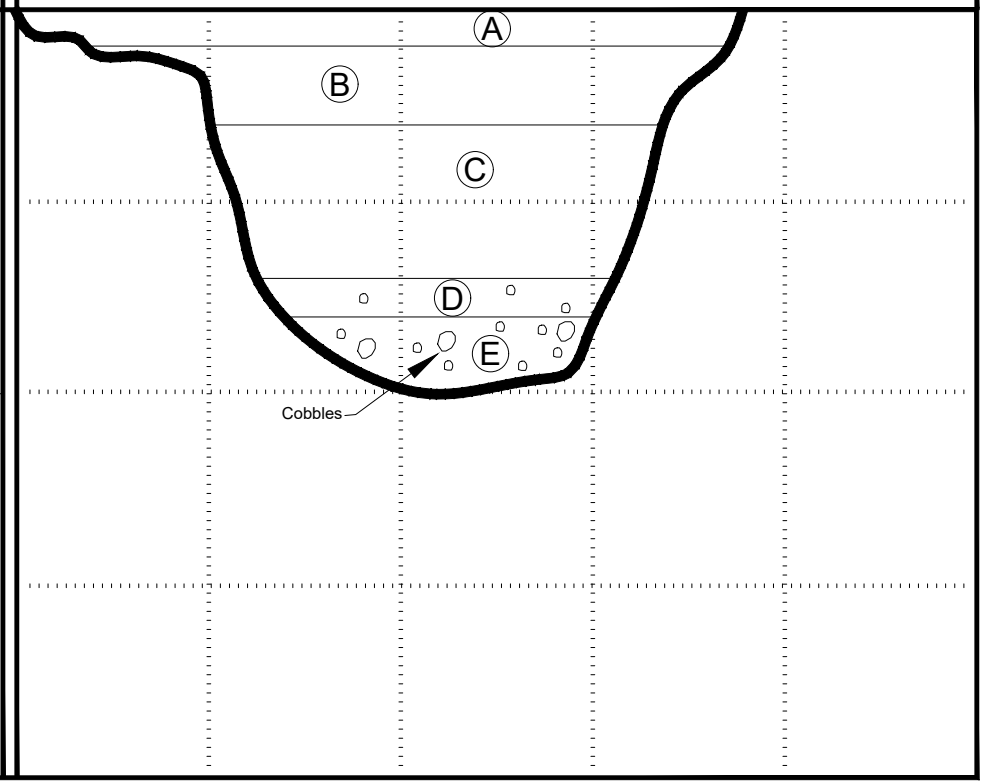
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: S 86 W
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
	b		8	A: FILL: Dark Brown fine Sandy Silt, loose-moist
	b		6	B: FILL: Brown Silty fine Sand, loose-damp
	b		5	C: ALLUVIUM: Red Brown fine Sand, trace Silt, medium dense-damp
5				
	b		3	D: Red Brown fine to medium Sand, trace coarse Sand, trace fine Gravel, medium dense-damp
	b		3	E: Gray Brown Gravelly fine to medium Sand, occasional Cobbles, medium dense-damp
10				Trench Terminated @ 10 feet
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-13

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-4

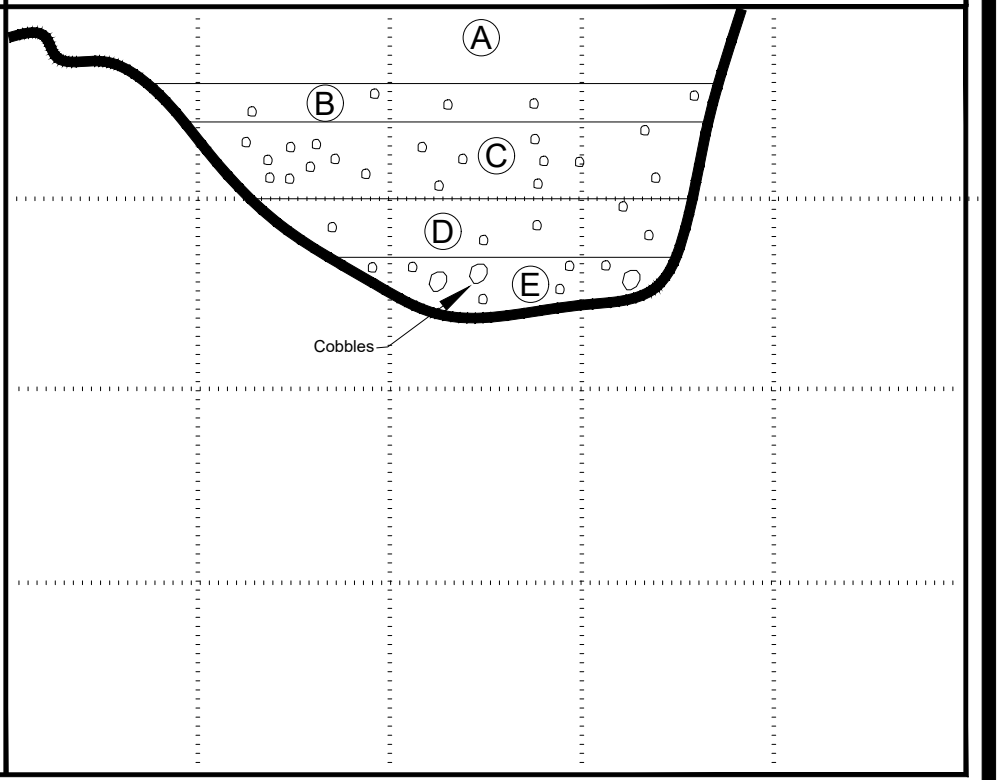
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: S 75 W
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: FILL: Dark Brown fine Sandy Silt, loose-damp
	b		7	
	b		4	B: FILL: Brown fine to coarse Sand, trace fine Gravel, loose-damp C: ALLUVIUM: Light Brown Gravelly fine to coarse Sand, medium dense-dry to damp
	b		2	
5				D: Dark Brown fine to medium Sand, trace coarse Sand, trace fine Gravel, medium dense-damp E: Light Red Brown fine to medium Sand, little fine Gravel, occasional Cobbles, medium dense-damp
	b		4	
	b		5	
				Trench Terminated @ 8 feet due to caving
10				
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-14

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-5

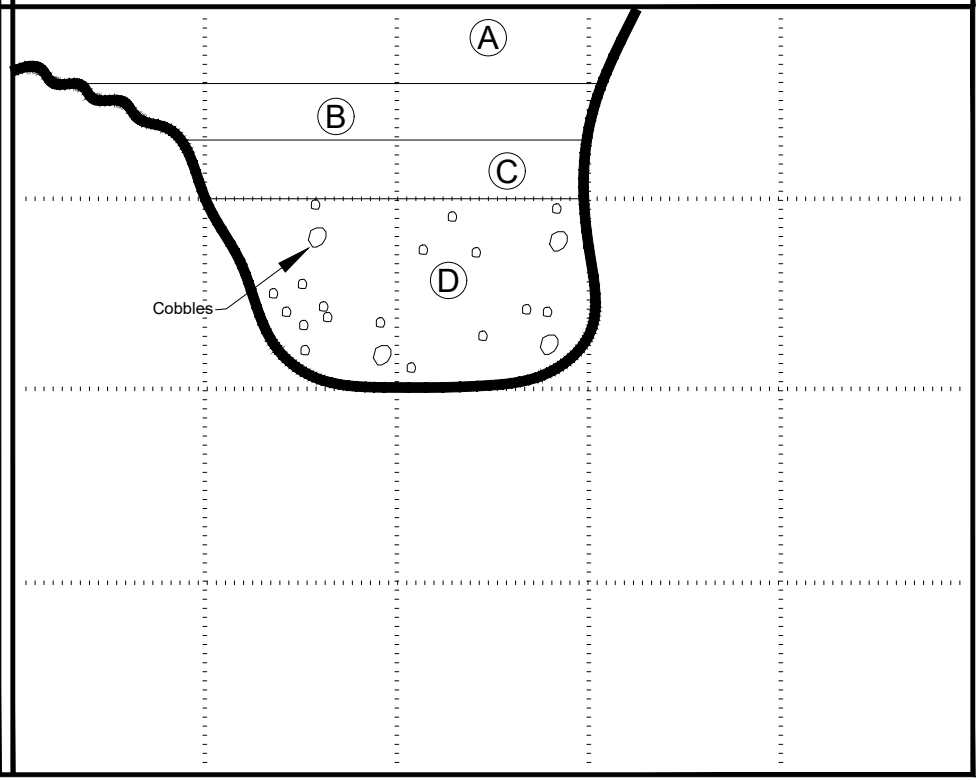
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: N 90 W
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: FILL: Dark Brown fine Sandy Silt, loose-moist
	b		8	
				B: FILL: Brown Silty fine Sand, medium dense-damp to moist
	b		7	
				C: ALLUVIUM: Red Brown fine to medium Sand, medium dense-damp
	b		5	
5				
	b		5	
				D: Gray Brown fine to coarse Sand, little fine to coarse Gravel, occasional Cobbles, medium dense-damp
10				Trench Terminated @ 10 feet
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-15

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-6

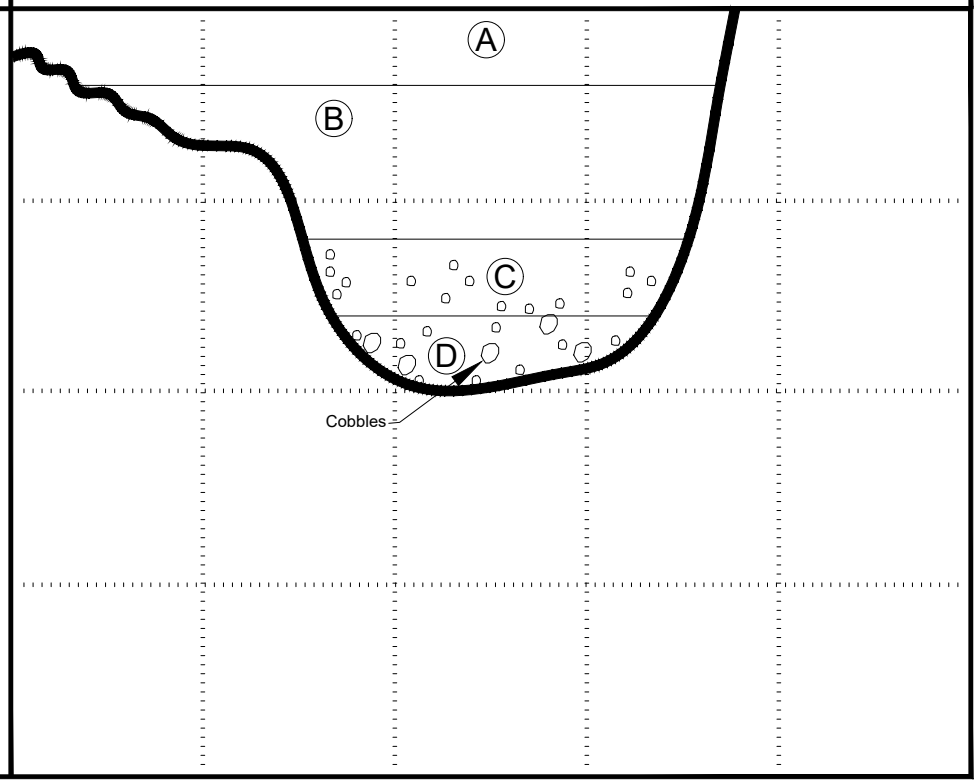
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: N 22 W
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: FILL: Dark Brown Silty fine Sand, medium dense-moist
	b		9	
				B: ALLUVIUM: Brown fine Sandy Silt, medium dense-very moist
	b		20	
5				
				C: Brown fine to coarse Sand, trace fine Gravel, medium dense-damp
	b		3	
				D: Brown fine to medium Sand, some fine to coarse Gravel, extensive Cobbles, medium dense to dense-damp
	b		3	
10				Trench Terminated @ 10 feet
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-16

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-7

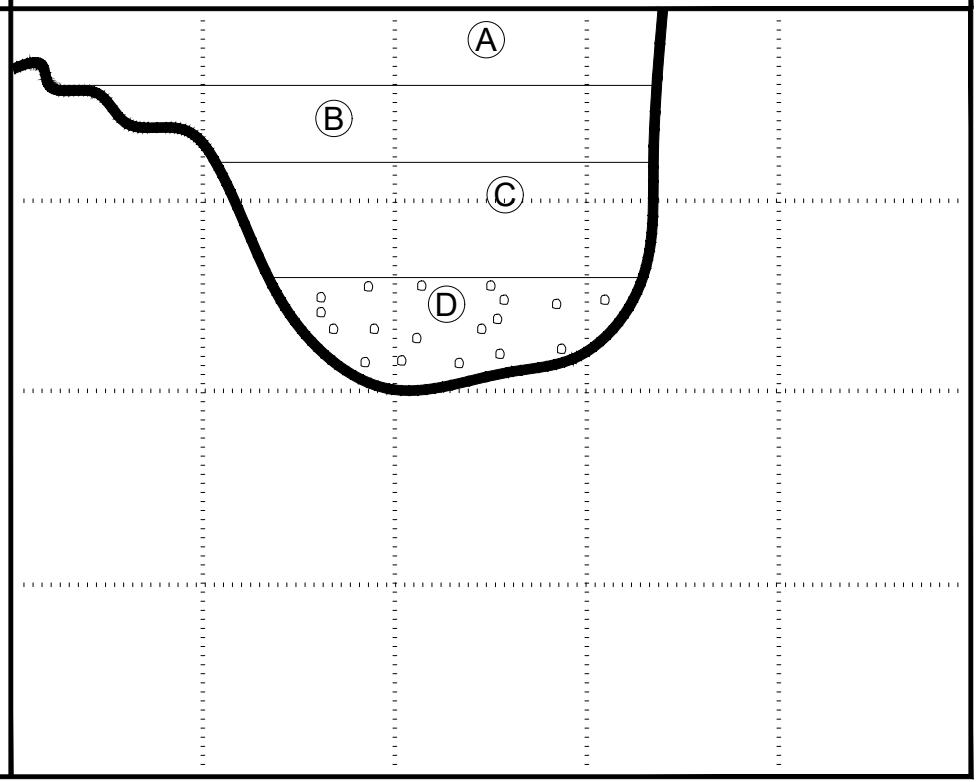
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: N 72 E
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: FILL: Dark Brown Silty fine Sand, loose-damp
	b		6	
	b		7	B: FILL: Brown fine Sand, little Silt, loose-damp
5				C: ALLUVIUM: Brown Silty fine Sand, medium dense-damp
	b		6	
				D: Brown Silty fine Sand, trace fine Gravel, mottled, medium dense-damp
	b		3	
10				Trench Terminated @ 10 feet
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-17

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-8

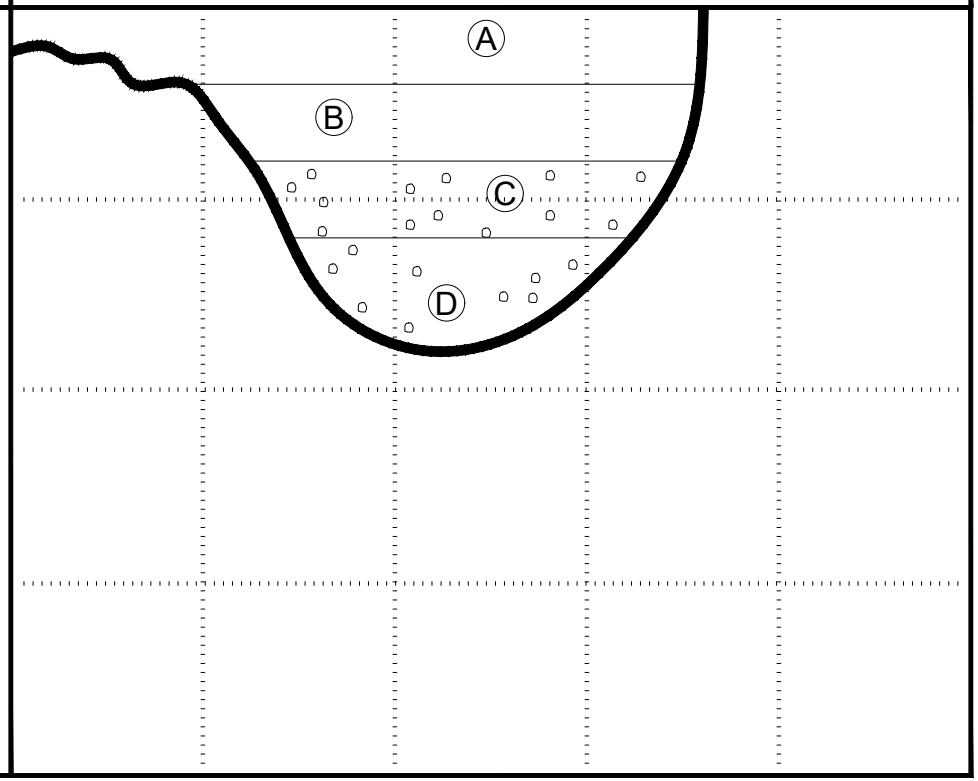
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: N 38 E
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
	b		8	A: FILL: Dark Brown Silty fine Sand, loose-moist
	b		6	B: FILL: Brown fine Sand, little Silt, loose-damp
5	b		5	C: ALLUVIUM: Red Brown fine to medium Sand, trace fine Gravel, medium dense-damp
	b		4	D: Gray Brown, fine to coarse Sand, little fine to coarse Gravel, medium dense-damp
				Trench Terminated @ 9 feet
10				
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-18

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-9

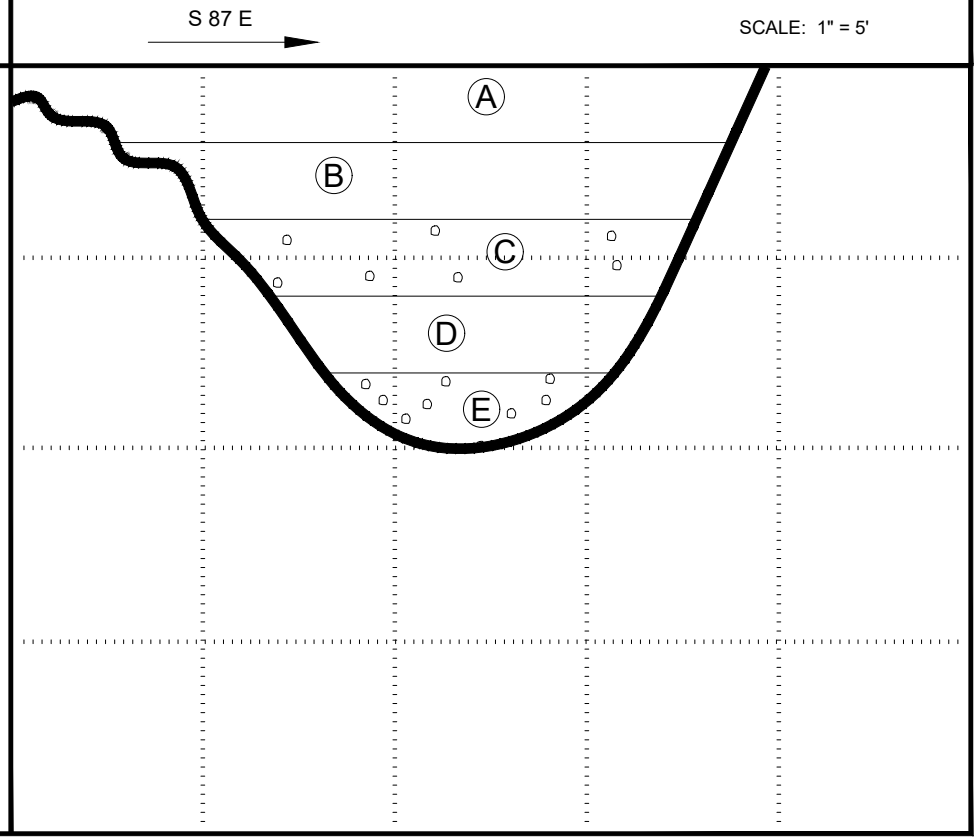
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: S 87 E
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
				A: FILL: Dark Brown Silty fine Sand, loose-moist
	b		9	
	b		12	B: FILL: Dark Brown fine Sand Silt, loose-moist
				C: ALLUVIUM: Brown fine Sand, trace Silt, trace fine Gravel, medium dense-damp
5	b		5	
				D: Light Red Brown fine to medium Sand, trace coarse Sand, medium dense-damp
	b		5	
				E: Light Red Brown fine to coarse Sand, little to some fine to coarse Gravel, medium dense-dry to damp
	b		2	
10				Trench Terminated @ 10 feet
15				

GRAPHIC REPRESENTATION



KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-19

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH NO. T-10

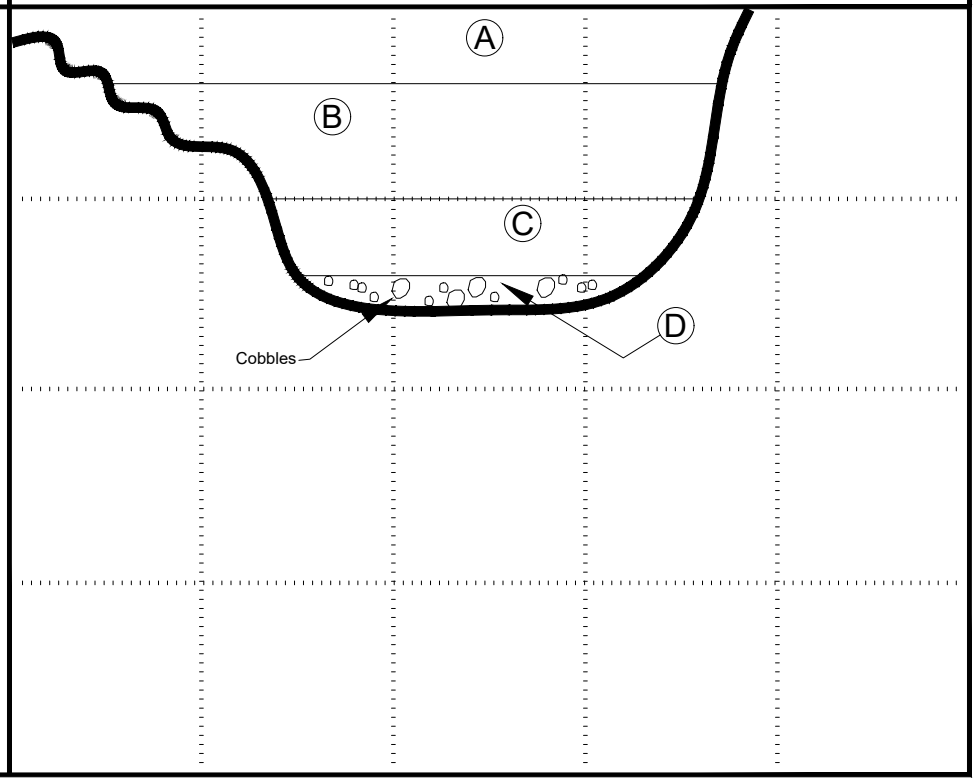
JOB NO.: 23G142-1
PROJECT: Proposed Industrial Building
LOCATION: San Bernardino, California
DATE: 4/28/2023

EQUIPMENT USED: Backhoe
LOGGED BY: Caleb Brackett
ORIENTATION: N 69 W
ELEVATION: ---

WATER DEPTH: Dry
SEEPAGE DEPTH: Dry
READINGS TAKEN: At Completion

DEPTH	SAMPLE	DRY DENSITY (PCF)	MOISTURE (%)	EARTH MATERIALS DESCRIPTION
	b		9	A: FILL: Dark Brown fine Sandy Silt, trace coarse Sand, loose-moist
	b		6	B: ALLUVIUM: Brown fine Sand, trace Silt, medium dense-damp
				C: Brown fine to medium Sand, medium dense-damp
5				D: Red Brown fine to coarse Sand, trace fine to coarse Gravel, extensive Cobbles, medium dense-damp
	b		4	
	b		4	
				Trench Terminated @ 8 feet due to caving
10				
15				

GRAPHIC REPRESENTATION



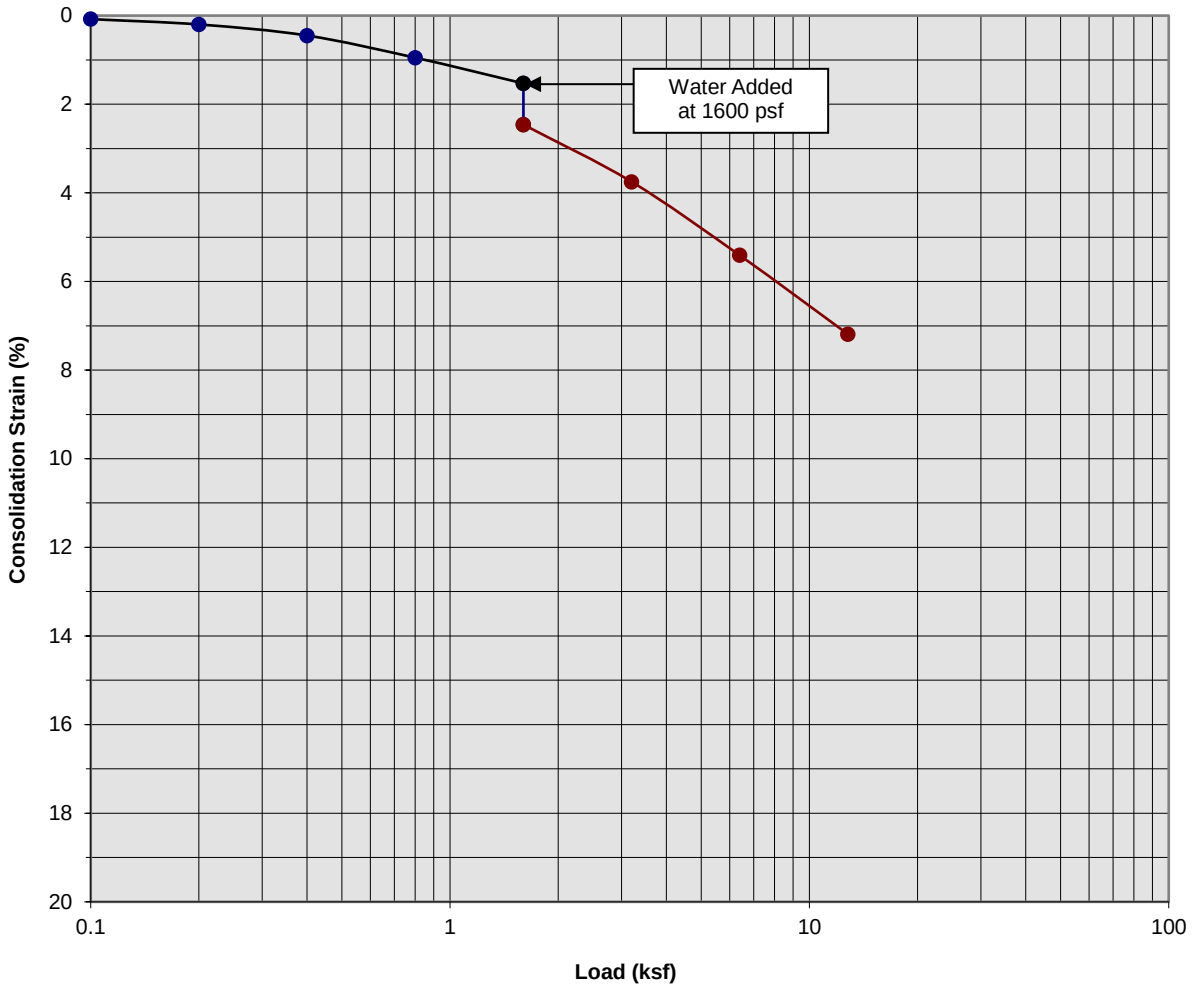
KEY TO SAMPLE TYPES:
B - BULK SAMPLE (DISTURBED)
R - RING SAMPLE 2-1/2" DIAMETER (RELATIVELY UNDISTURBED)

TRENCH LOG

PLATE B-20

APPENDIX C

Consolidation/Collapse Test Results



Classification: FILL: Dark Gray Brown Silty fine Sand, trace to little medium Sand

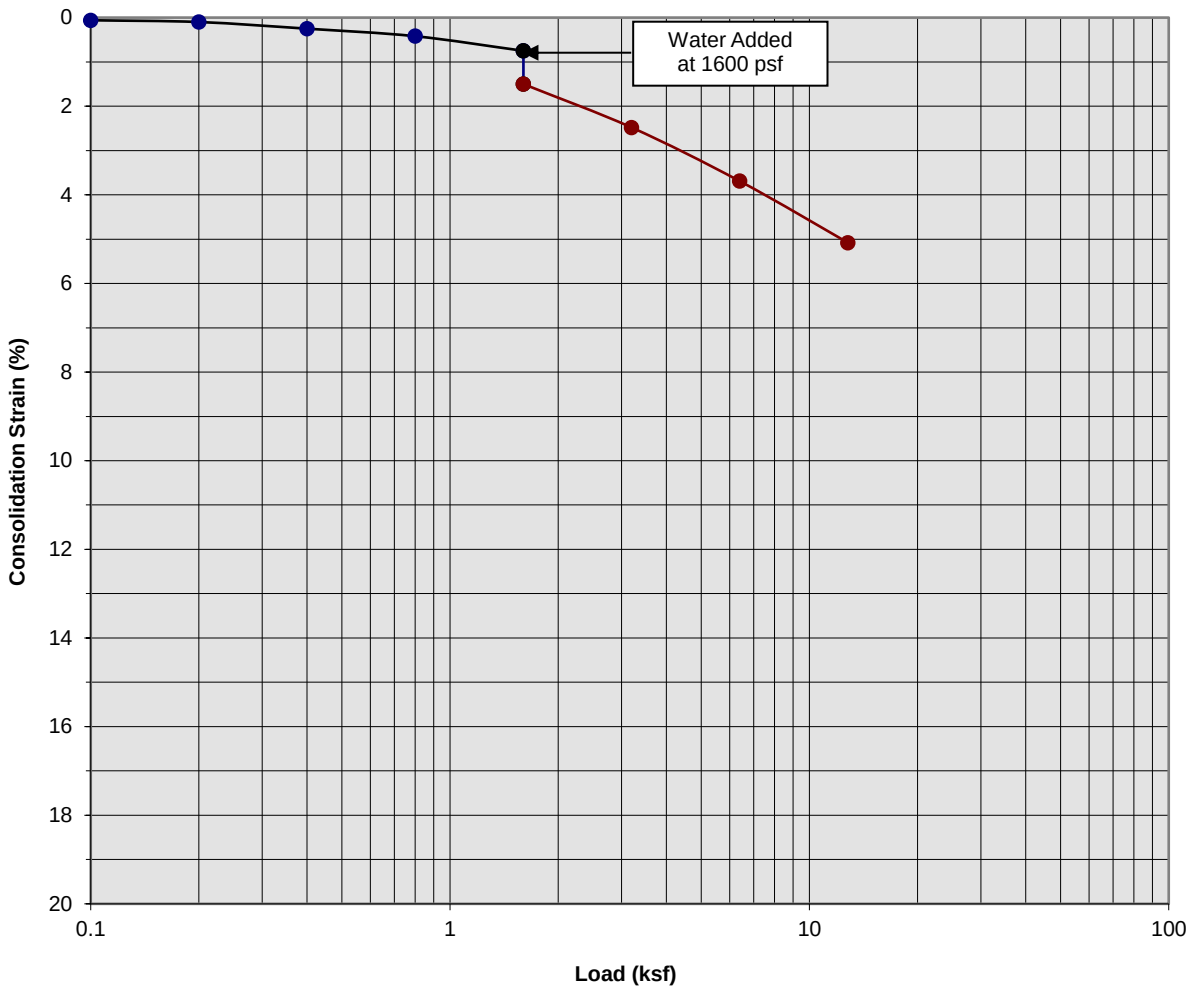
Boring Number:	B-6	Initial Moisture Content (%)	10
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	3 to 4	Initial Dry Density (pcf)	114.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	122.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.93

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-1

PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Red Brown Silty fine to medium Sand, trace to little coarse Sand

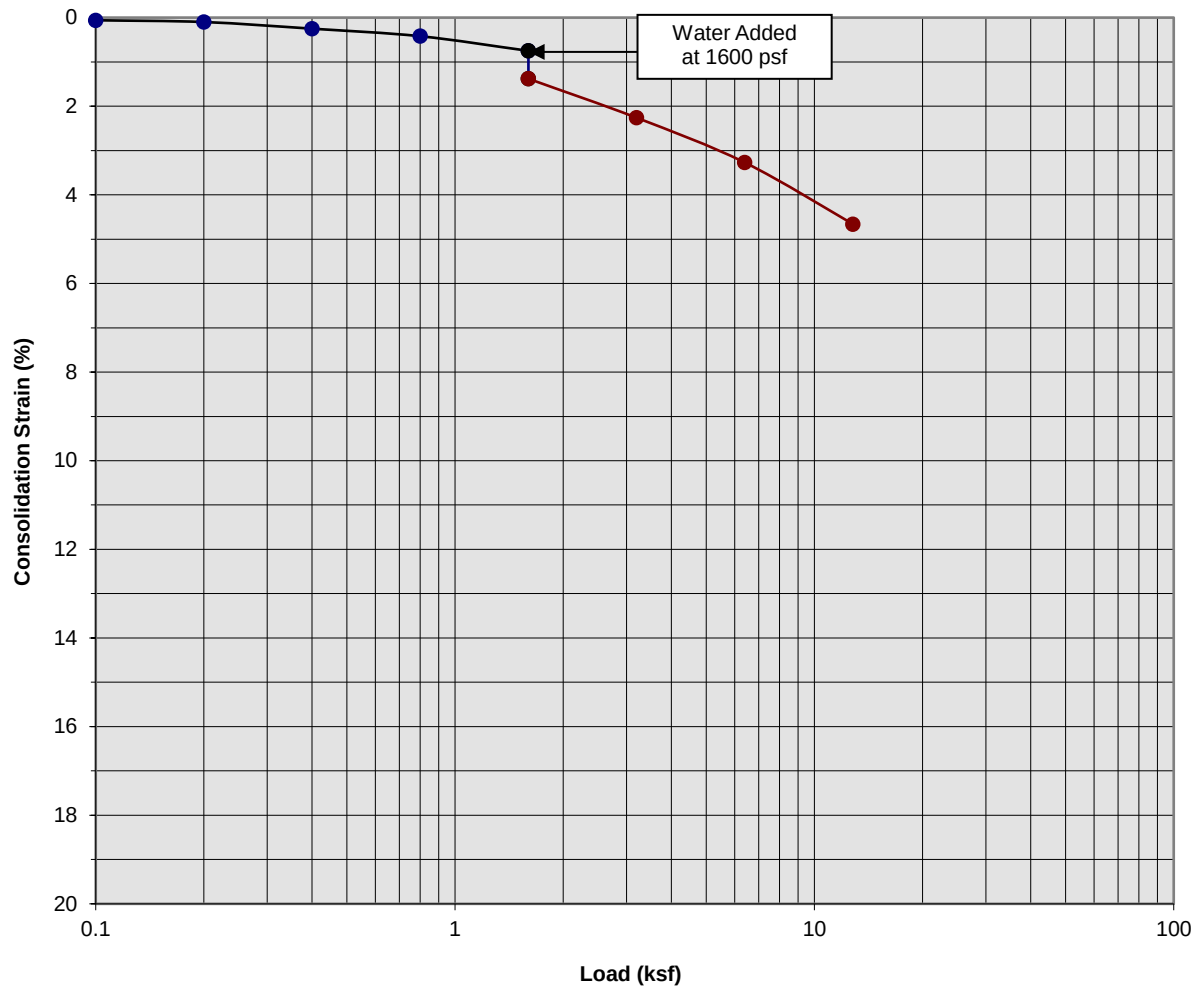
Boring Number:	B-6	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	15
Depth (ft)	5 to 6	Initial Dry Density (pcf)	109.2
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	114.9
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.75

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-1

PLATE C- 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Brown fine to coarse Sand

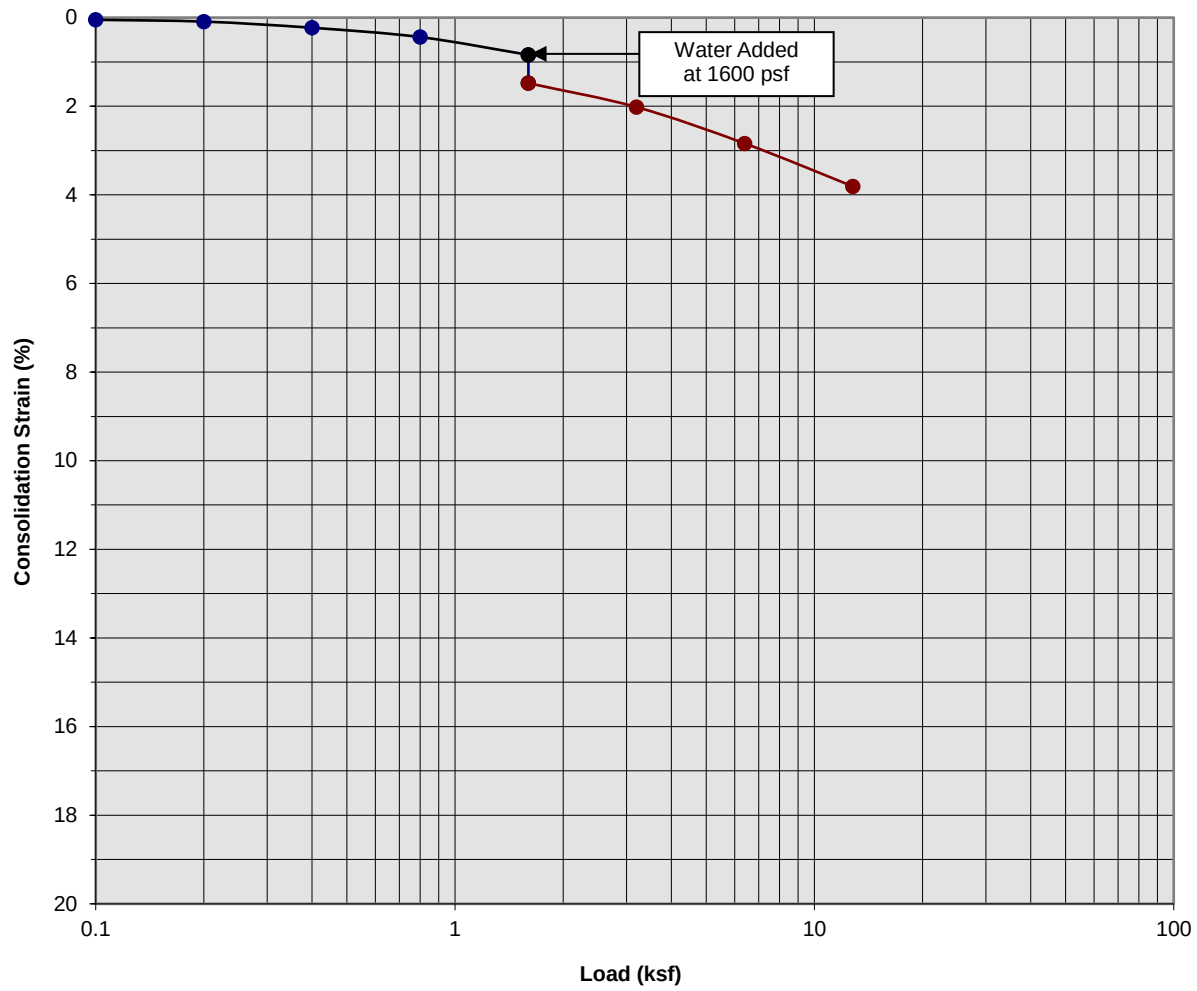
Boring Number:	B-6	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	19
Depth (ft)	7 to 8	Initial Dry Density (pcf)	115.1
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.9
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.63

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-1

PLATE C- 3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Brown fine to coarse Sand

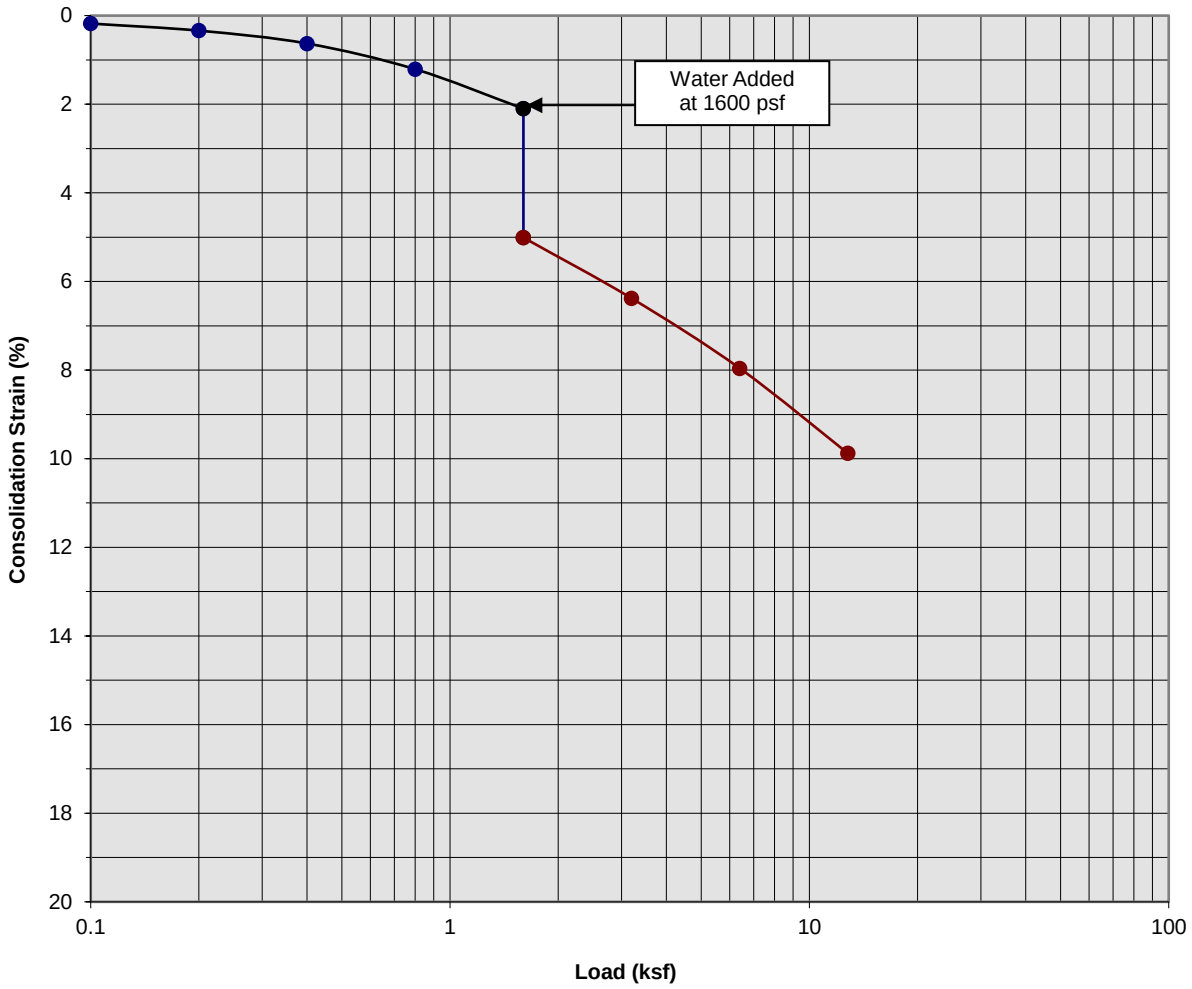
Boring Number:	B-6	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	9 to 10	Initial Dry Density (pcf)	111.2
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	116.1
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.64

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-1

PLATE C- 4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: FILL: Brown Silty fine Sand, trace to little medium Sand

Boring Number:	B-7	Initial Moisture Content (%)	6
Sample Number:	---	Final Moisture Content (%)	18
Depth (ft)	3 to 4	Initial Dry Density (pcf)	100.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	111.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.91

Proposed Industrial Building
San Bernardino, California
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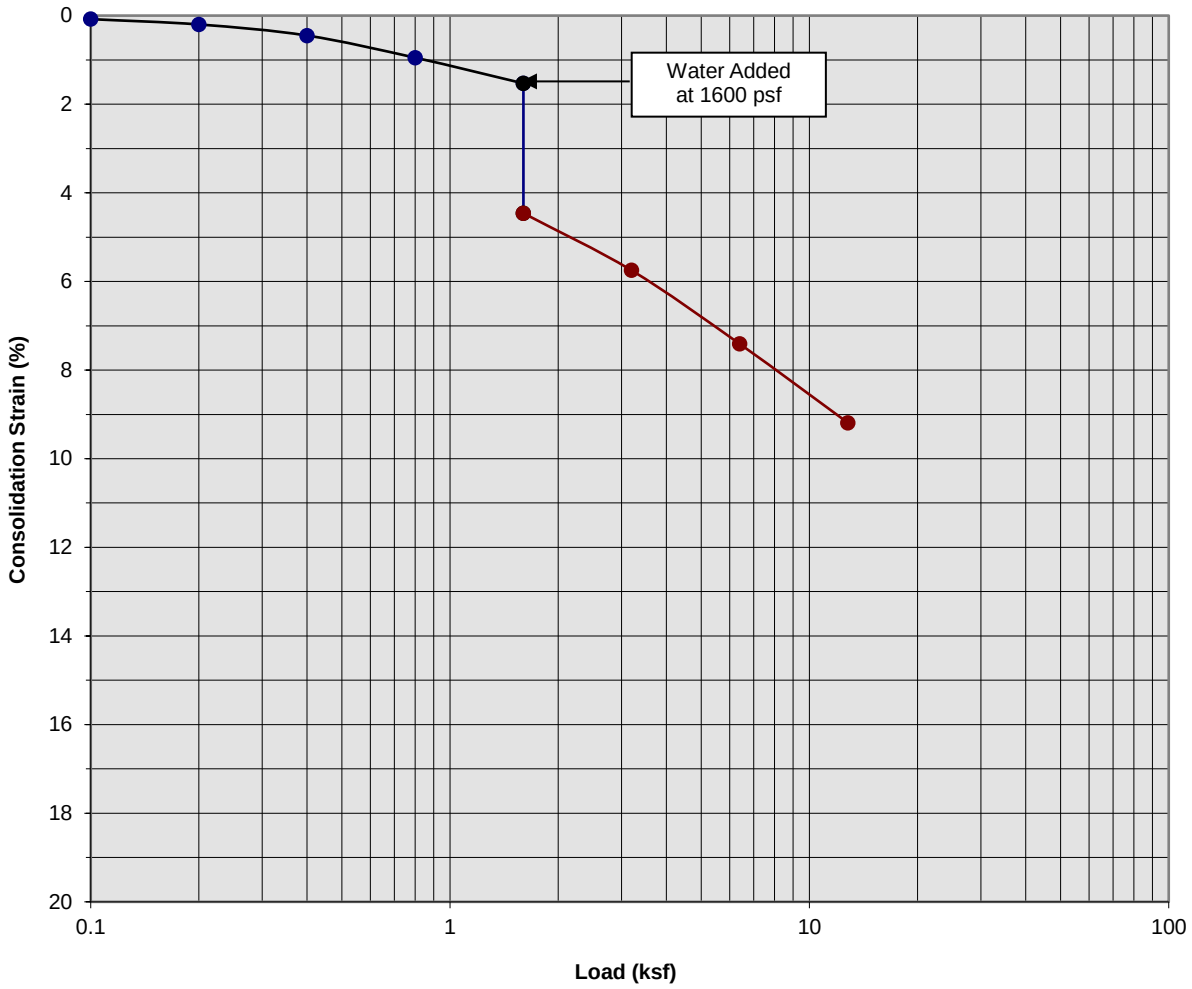
PLATE C- 5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Red Brown fine to medium Sand, trace Silt, trace coarse Sand

Boring Number:	B-7	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	20
Depth (ft)	5 to 6	Initial Dry Density (pcf)	102.3
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	112.9
Specimen Thickness (in)	1.0	Percent Collapse (%)	2.93

Proposed Industrial Building
San Bernardino, California
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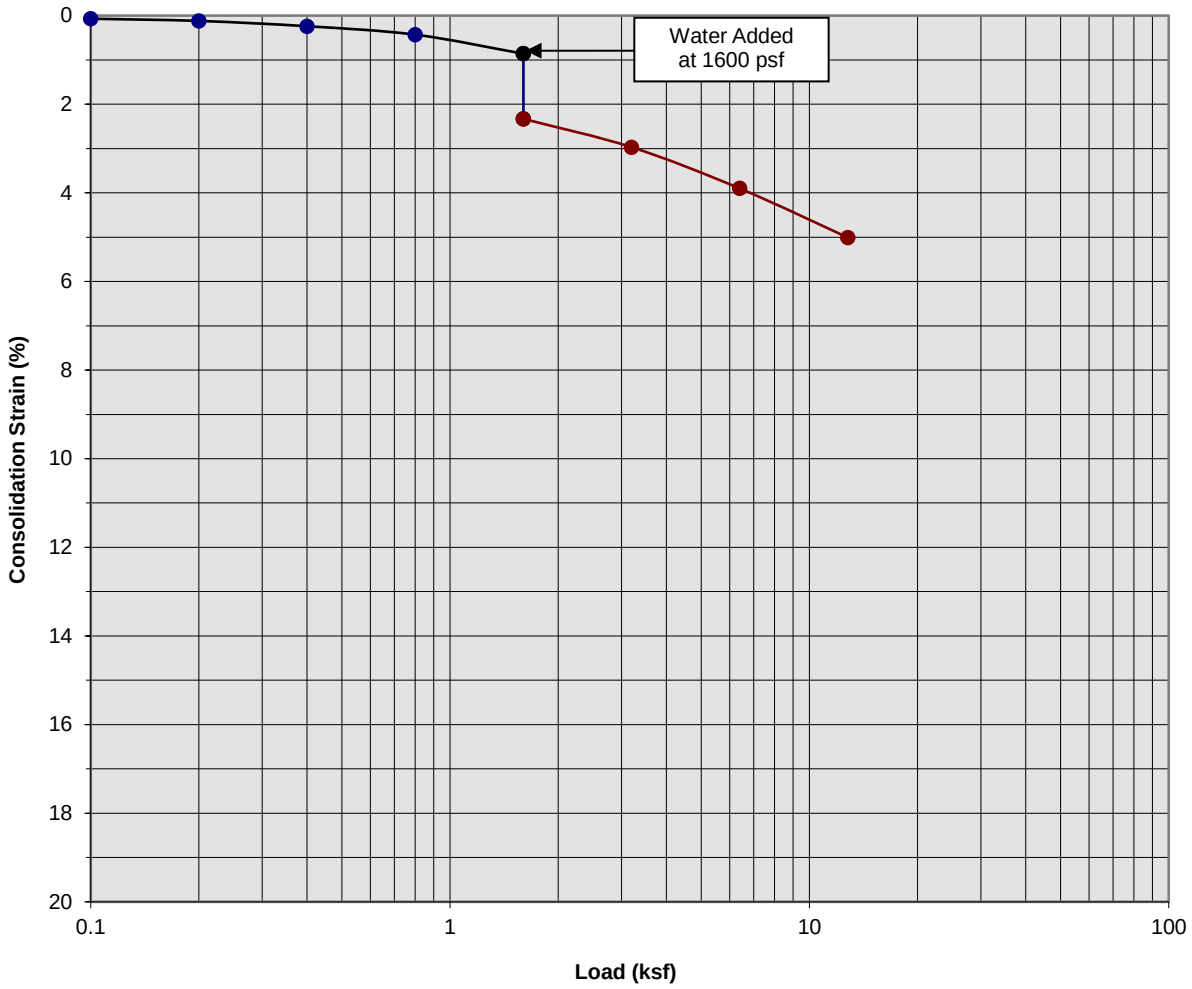
PLATE C- 6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Red Brown fine to medium Sand, trace Silt, trace coarse Sand

Boring Number:	B-7	Initial Moisture Content (%)	5
Sample Number:	---	Final Moisture Content (%)	20
Depth (ft)	7 to 8	Initial Dry Density (pcf)	100.2
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	105.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	1.47

Proposed Industrial Building
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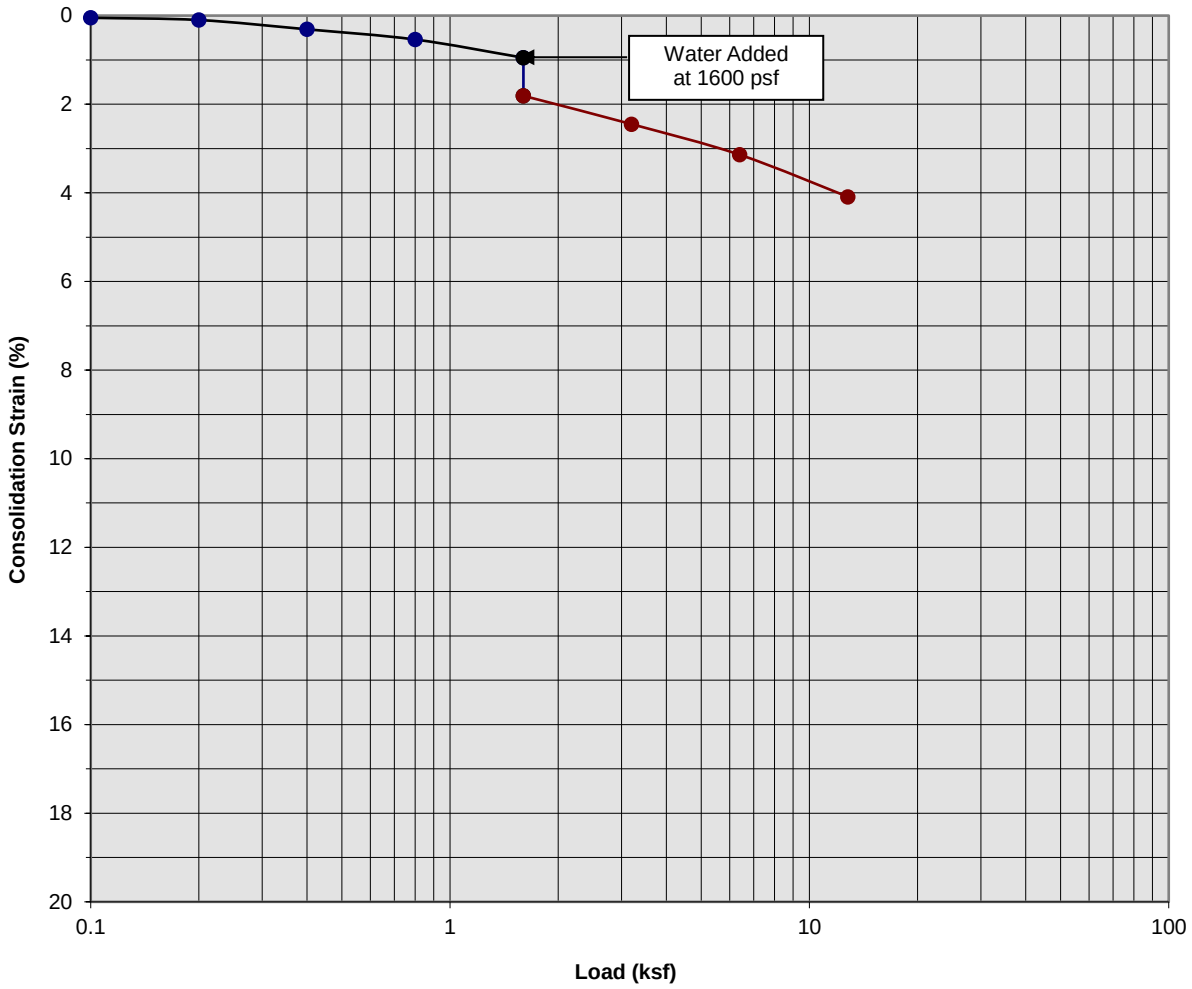
PLATE C- 7

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Light Brown fine to coarse Sand

Boring Number:	B-7	Initial Moisture Content (%)	2
Sample Number:	---	Final Moisture Content (%)	18
Depth (ft)	9 to 10	Initial Dry Density (pcf)	107.1
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	111.4
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.86

Proposed Industrial Building
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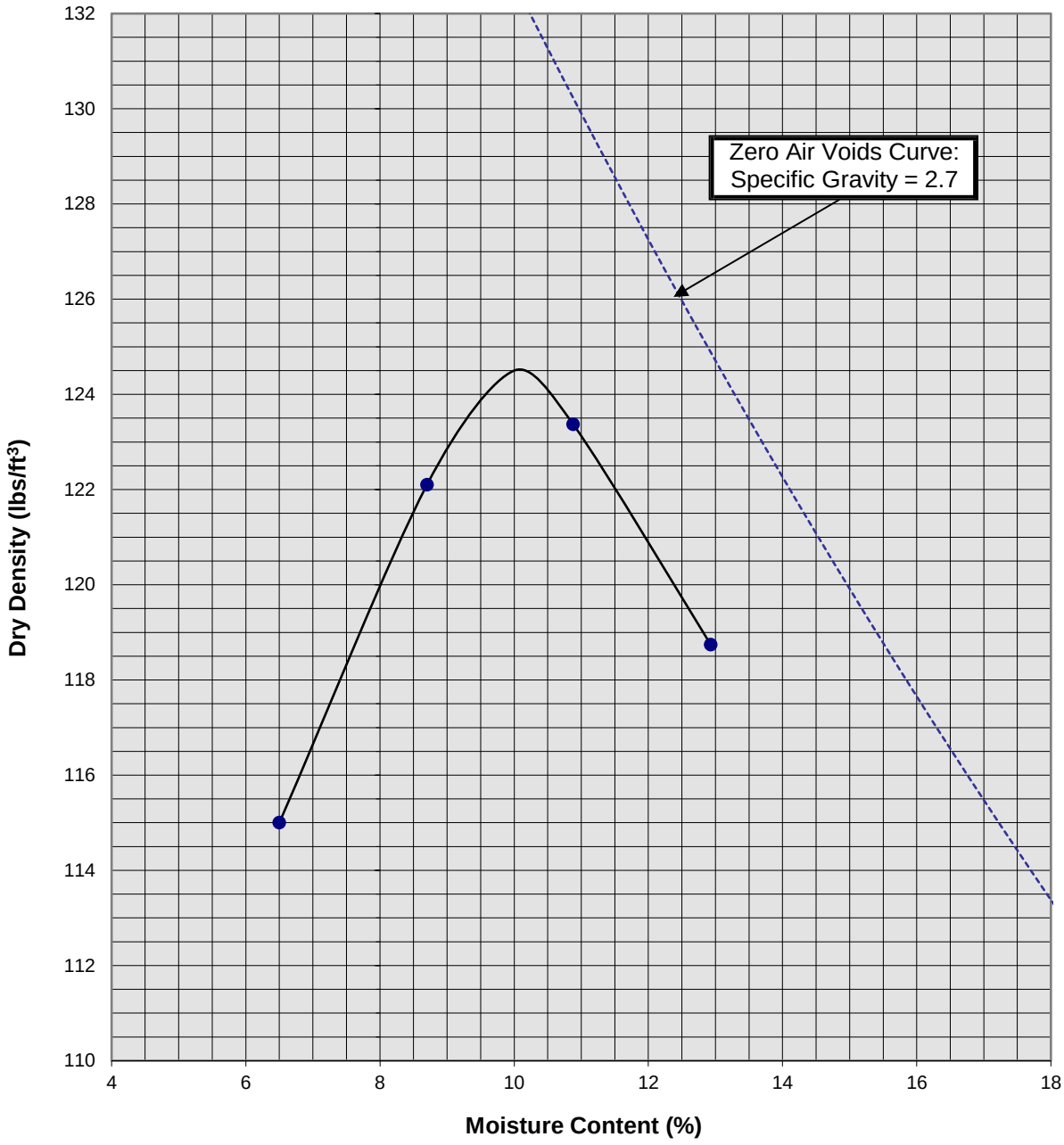
PLATE C- 8

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Moisture/Density Relationship
ASTM D-1557



Soil ID Number	B-1 @ 1-5'
Optimum Moisture (%)	10
Maximum Dry Density (pcf)	124.5
Soil Classification	Brown Silty fine Sand, little medium Sand, trace coarse Sand

Proposed Industrial Building
San Bernardino, California
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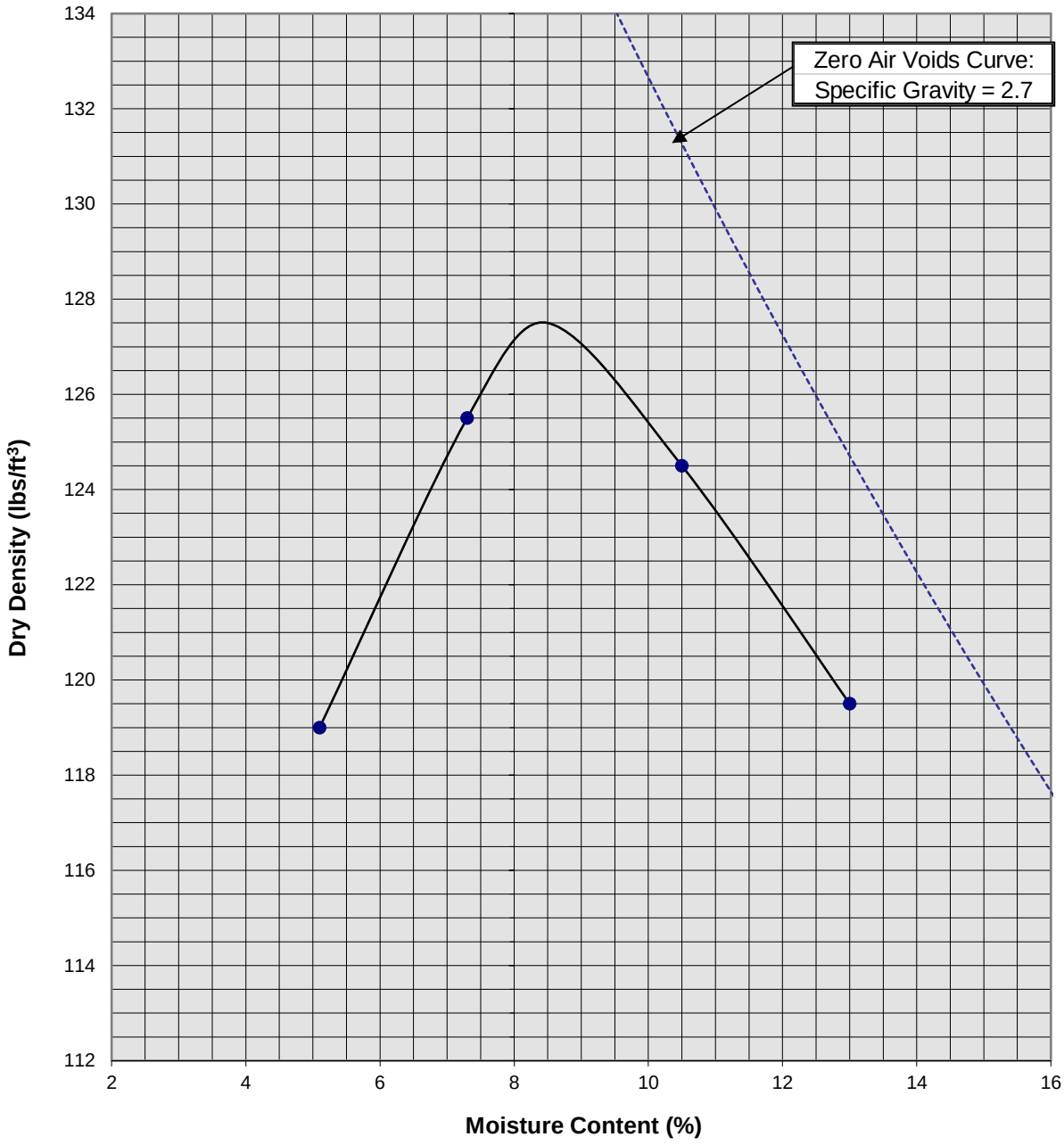
PLATE C-9

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Moisture/Density Relationship
ASTM D-1557



Soil ID Number	B-7 @ 1-5'
Optimum Moisture (%)	8.5
Maximum Dry Density (pcf)	127.5
Soil Classification	Dark Brown Silty fine Sand, trace medium to coarse Sand, trace fine Gravel

Proposed Industrial Building
San Bernardino, California
Project No. 23G142-1

PLATE C-10

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

APPENDIX D

GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.

- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.

- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.

- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.

- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.

- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as “contaminated,” and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

    - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

    - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or

concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.

- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.

- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.

- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.

- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.

- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.

- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

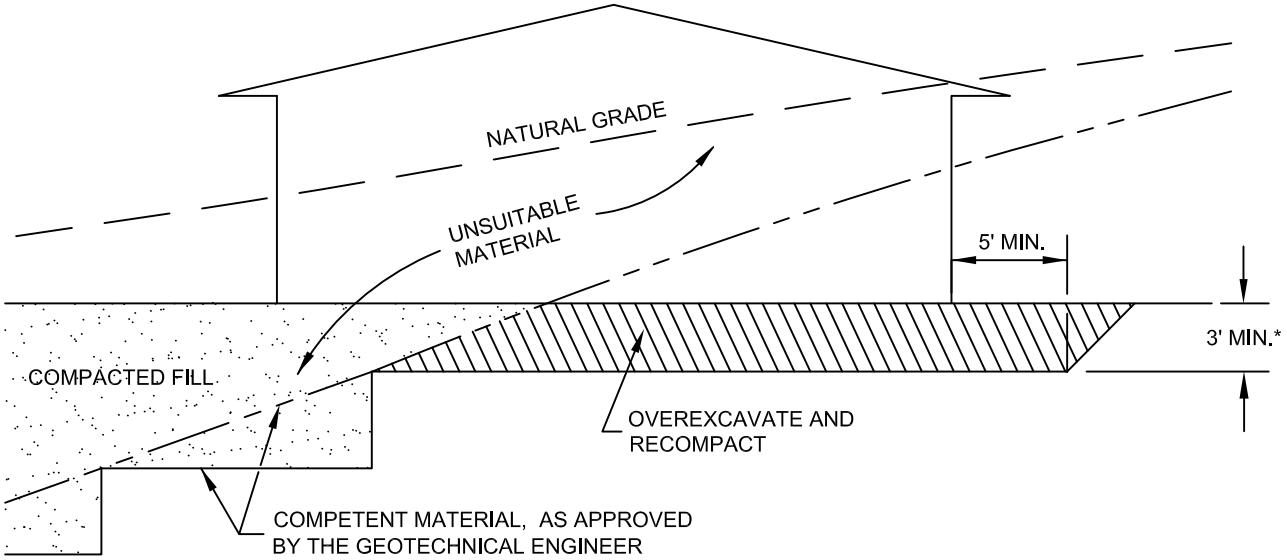
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

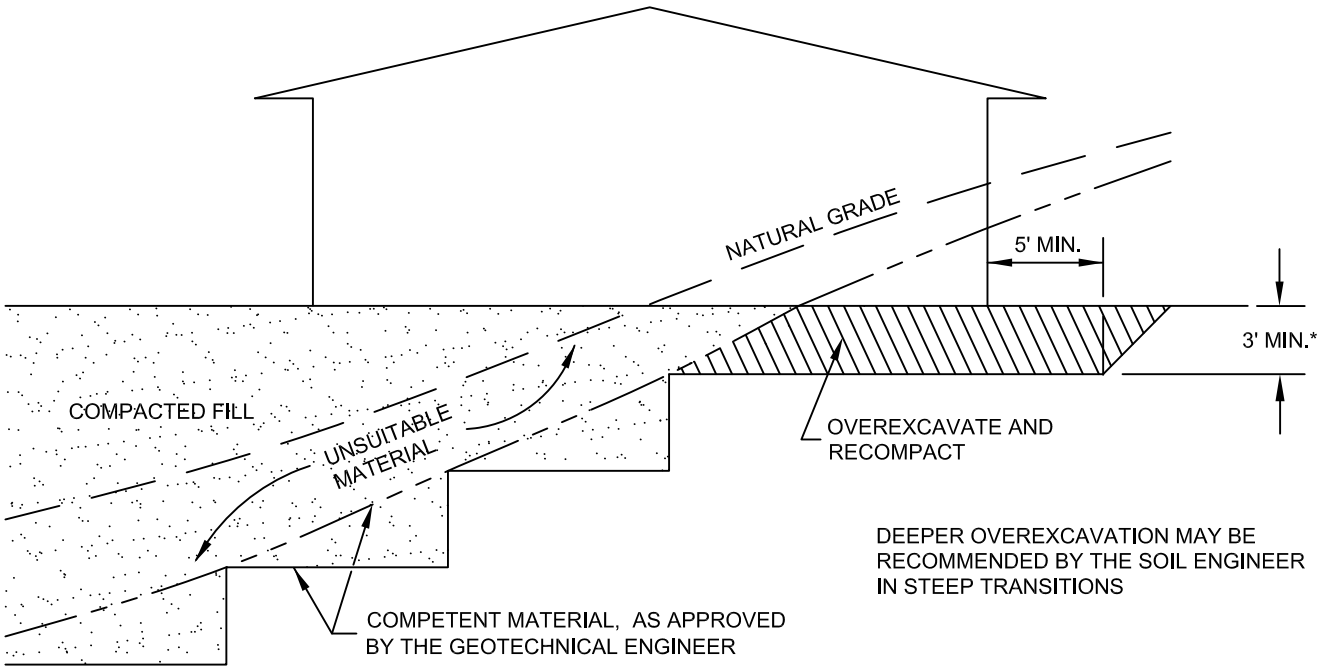
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT



CUT/FILL LOT (TRANSITION)

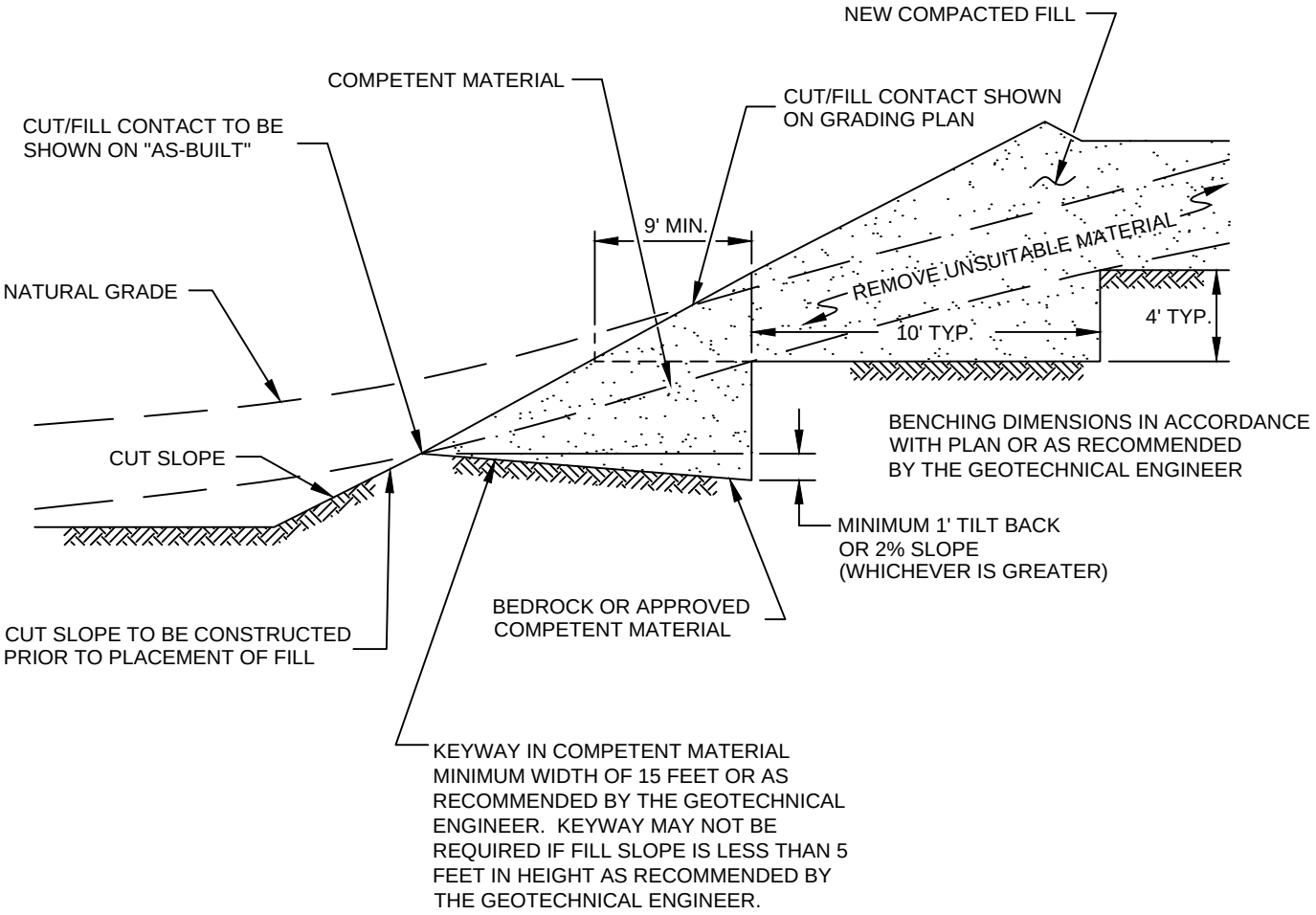


*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION. ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE	SoCalGeo SOUTHERN CALIFORNIA GEOTECHNICAL
DRAWN: JAS CHKD: GKM	
PLATE D-1	



FILL ABOVE CUT SLOPE DETAIL

GRADING GUIDE SPECIFICATIONS

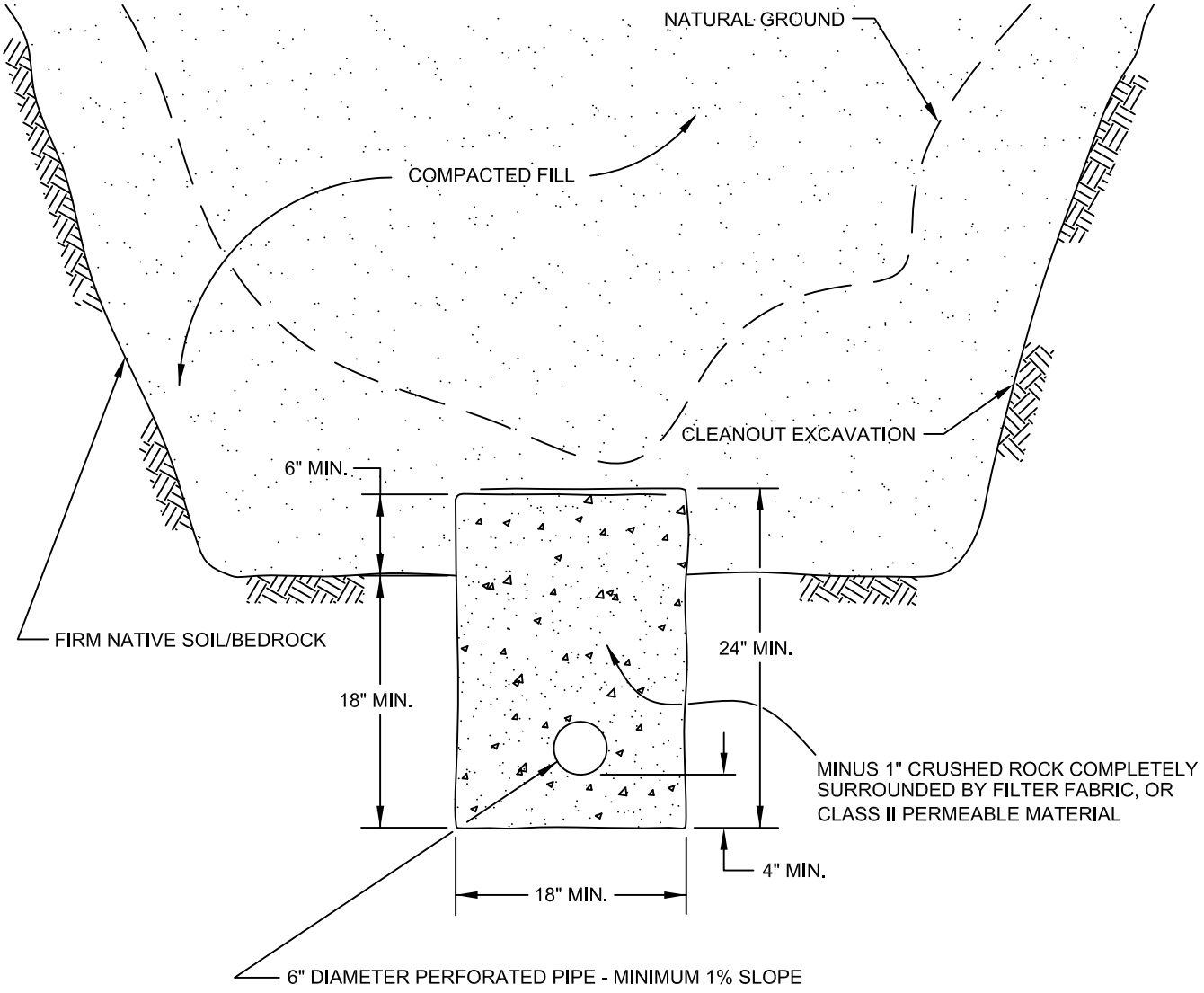
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-2

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

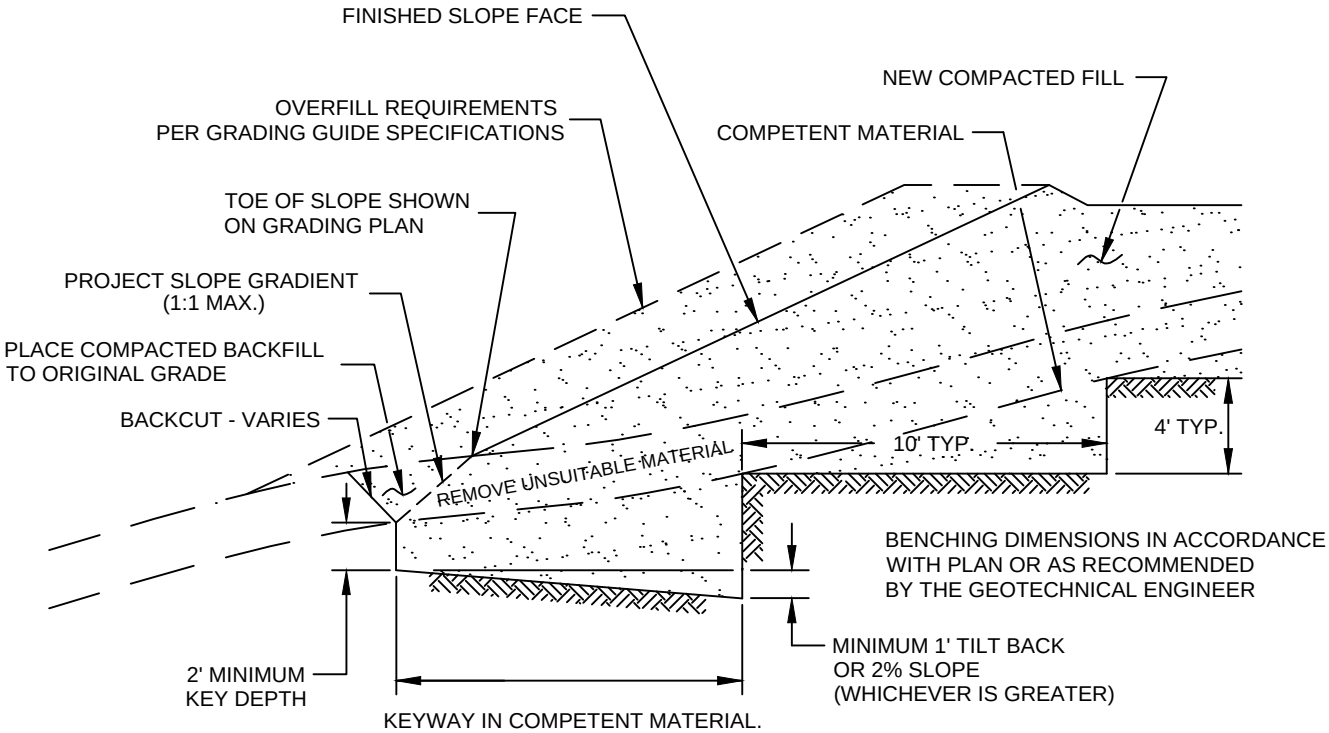
SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE
DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



NOTE:
BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

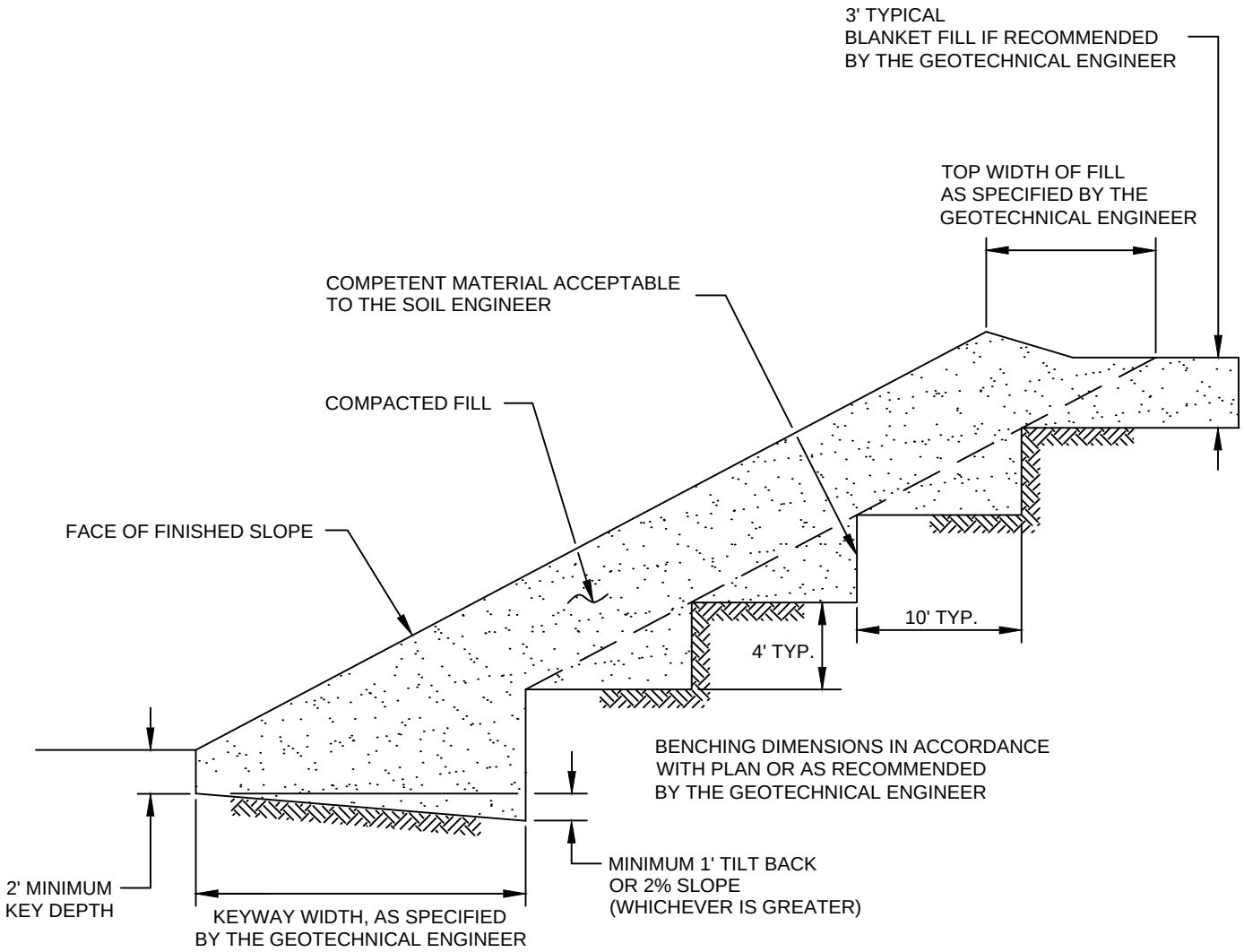
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



STABILIZATION FILL DETAIL

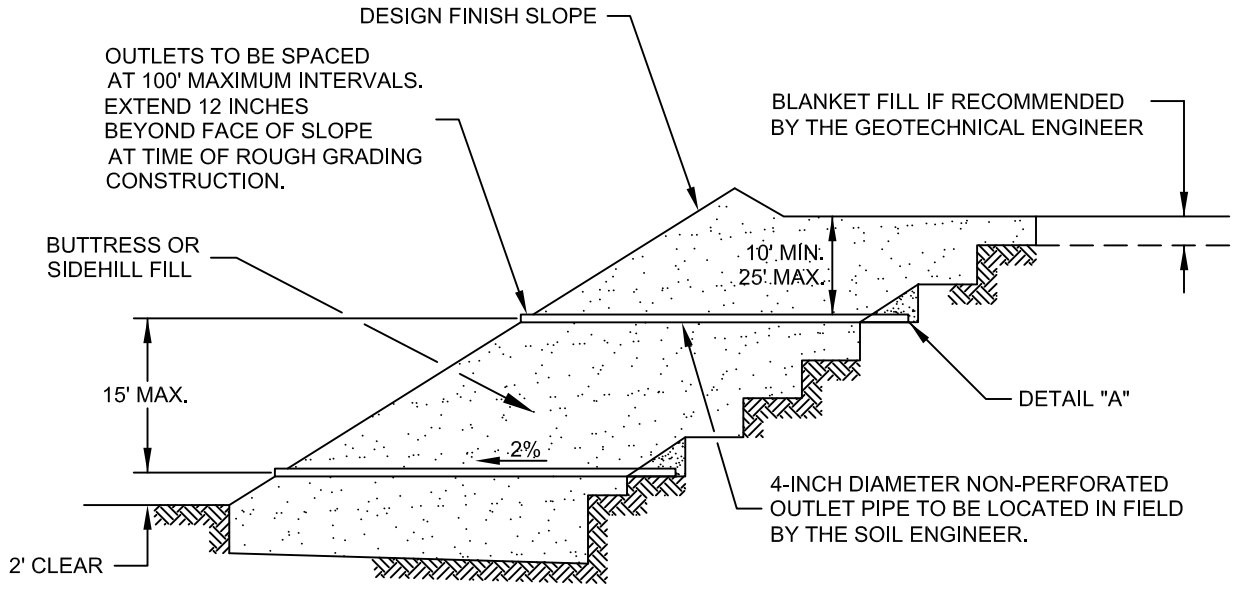
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



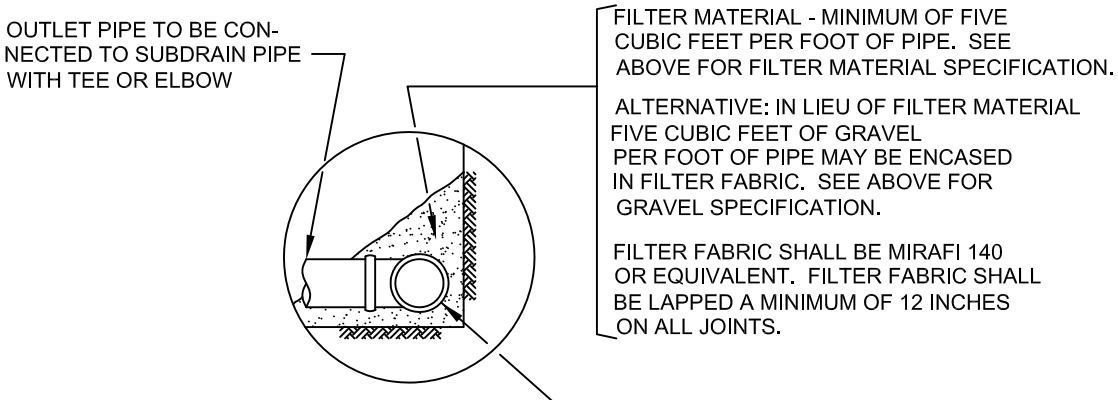
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50



DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS

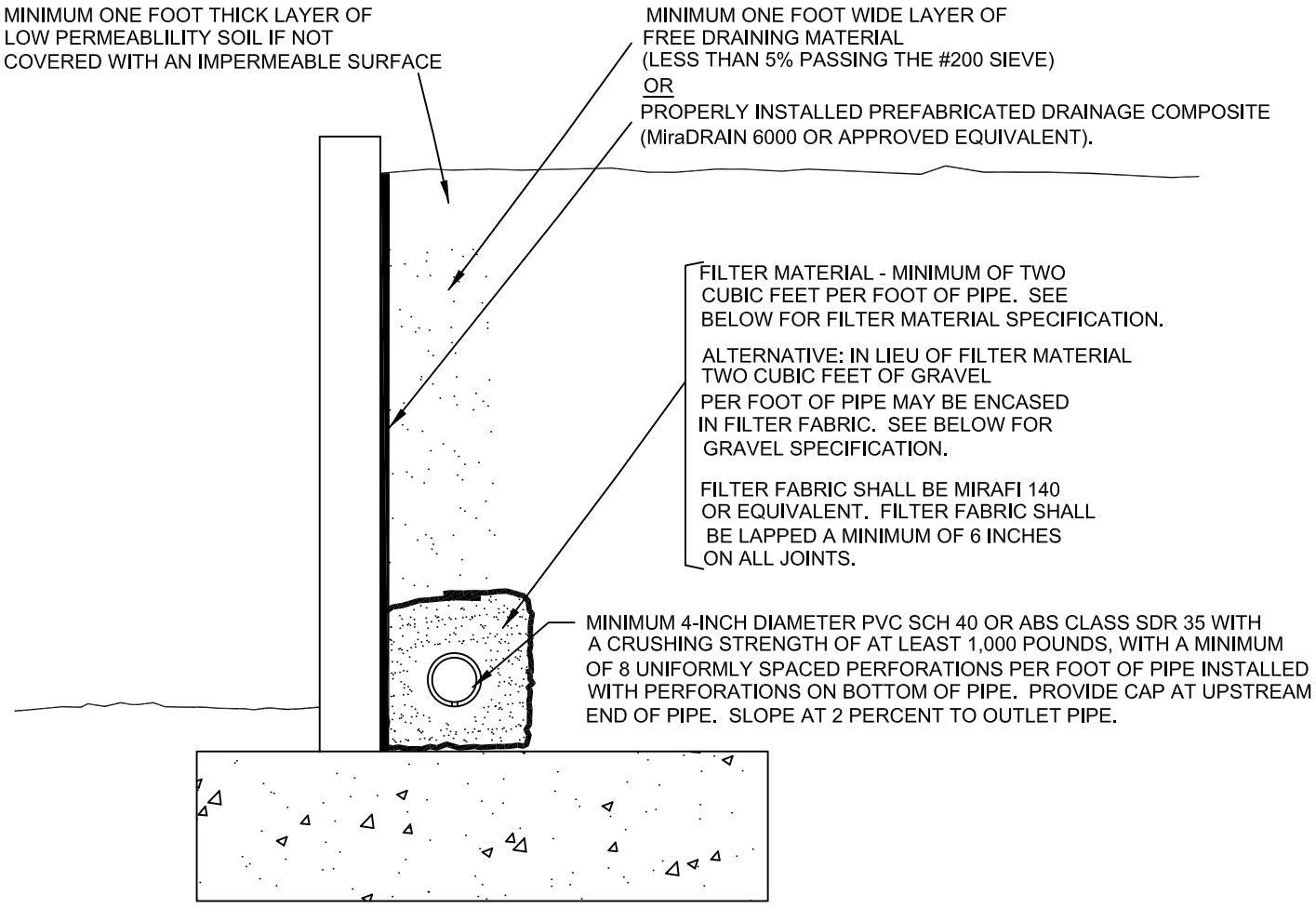
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

GRADING GUIDE SPECIFICATIONS

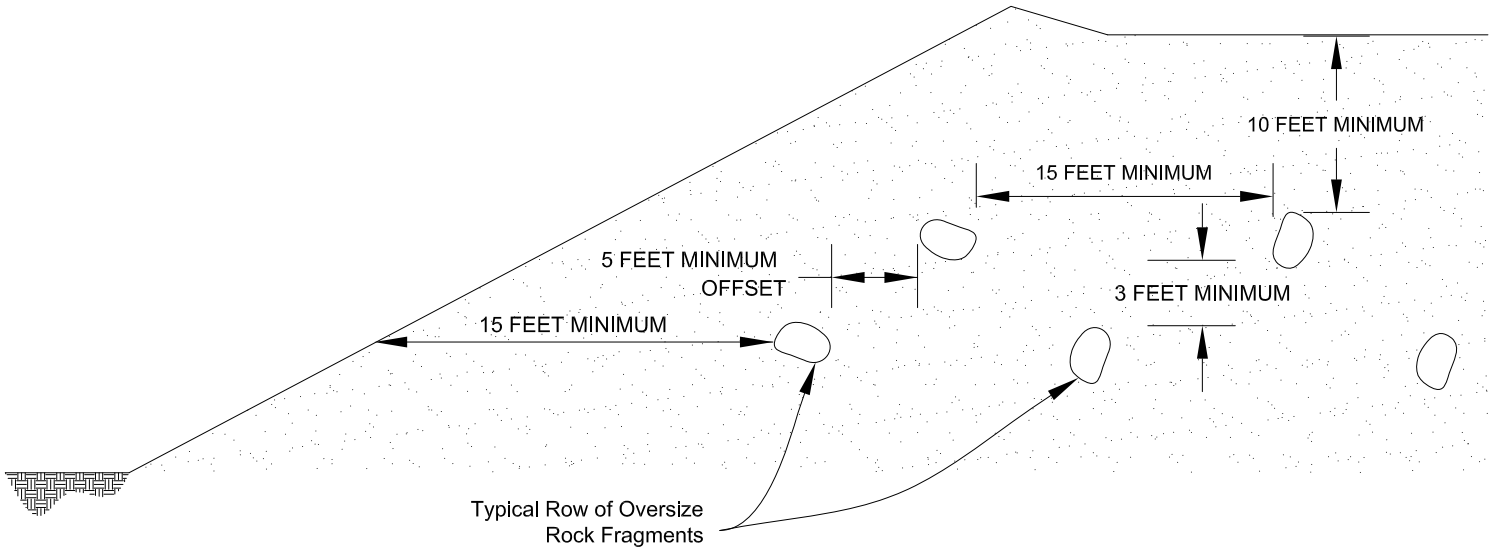
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

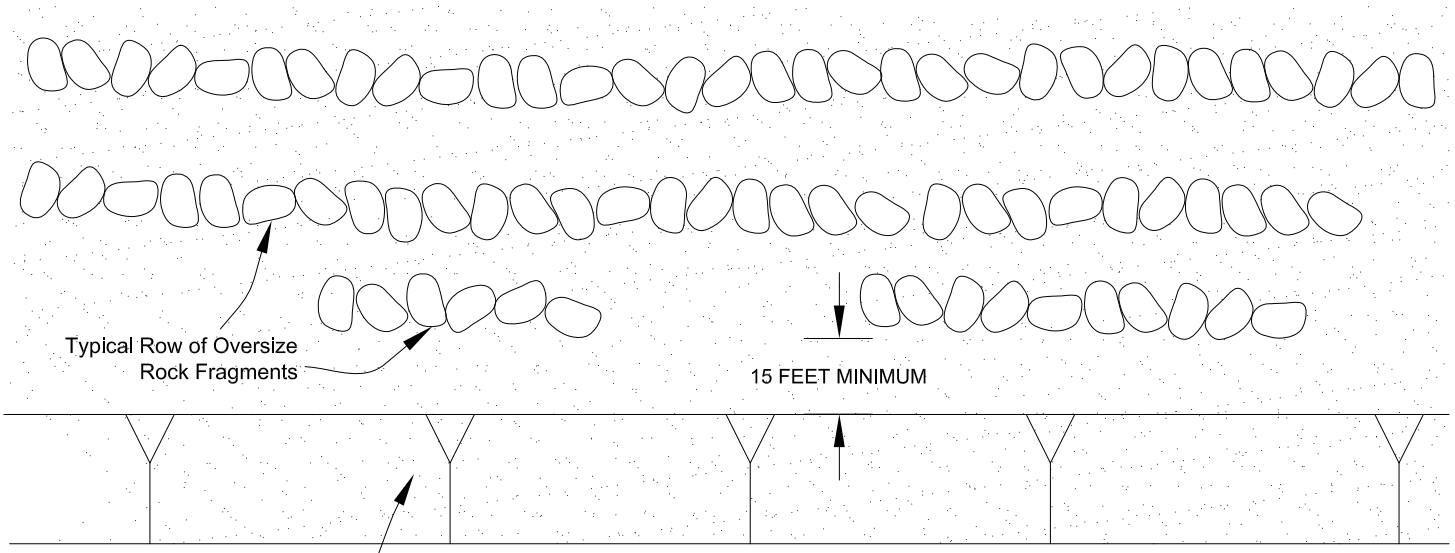
PLATE D-7

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



Section View



Plan View

PLACEMENT OF OVERSIZED MATERIAL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: PM
CHKD: GKM

PLATE D-8

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX E

Latitude, Longitude: 34.10929205, -117.23972003

Date	5/9/2023, 2:28:44 PM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	2.286	MCE_R ground motion. (for 0.2 second period)
S_1	0.841	MCE_R ground motion. (for 1.0s period)
S_{MS}	2.286	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	1.524	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.942	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	1.036	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	2.786	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	3.049	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	2.286	Factored deterministic acceleration value. (0.2 second)
S1RT	1.111	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	1.249	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.841	Factored deterministic acceleration value. (1.0 second)
PGAd	0.942	Factored deterministic acceleration value. (Peak Ground Acceleration)
PGA_{UH}	1.203	Uniform-hazard (2% probability of exceedance in 50 years) Peak Ground Acceleration
C_{RS}	0.914	Mapped value of the risk coefficient at short periods
C_{R1}	0.889	Mapped value of the risk coefficient at a period of 1 s
C_V	1.5	Vertical coefficient

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2022 CBC
PROPOSED INDUSTRIAL BUILDING
SAN BERNARDINO, CALIFORNIA

DRAWN: MK
CHKD: RF
SCG PROJECT 23G142-1
PLATE E-1

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX F

LIQUEFACTION EVALUATION

Project Name	Proposed Industrial Building	MCE_G Design Acceleration	1.036	(g)
Project Location	San Bernardino, California	Design Magnitude	7.24	
Project Number	23G142-1	Historic High Depth to Groundwater	37	(ft)
Engineer	Ricardo Frias	Depth to Groundwater at Time of Drilling	60	(ft)
		Borehole Diameter	6	(in)
Boring No.	B-1			

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.24)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	37	18.5		120		1.3	1.05	1.1	0.96	0.75	0.0	0.0	2220	2220	2220	0.94	1.01	1	0.06	0.06	N/A	N/A	Above Water Table
39.5	37	42	39.5	33	120		1.3	1.05	1.3	0.82	1	47.7	47.7	4740	4584	4740	0.85	1.11	0.77	2.00	1.70	0.59	2.89	Nonliquefiable
44.5	42	47	44.5	27	120		1.3	1.05	1.3	0.74	1	35.4	35.4	5340	4872	5340	0.82	1.11	0.77	1.20	1.03	0.61	1.71	Nonliquefiable
49.5	47	50	48.5	24	120		1.3	1.05	1.291	0.69	1	29.1	29.1	5820	5102	5820	0.80	1.08	0.83	0.43	0.39	0.61	0.63	**Liquefiable**

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}
(2) Borehole Diameter Correction (Skempton, 1986)
(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)
(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)
(5) Rod Length Correction for Samples <10 m in depth
(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden
(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)
(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)
(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)
(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)
(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)
(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)
(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Proposed Industrial Building
Project Location	San Bernardino, California
Project Number	23G142-1
Engineer	Ricardo Frias

Boring No. B-1

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter Fα	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	37	18.5	0.0	0.0	0.0	N/A	0.50	0.95	0.00	37.00		0.000		0.00	Above Water Table
39.5	37	42	39.5	47.7	0.0	47.7	2.89	0.00	-1.41	0.00	5.00		0.000		0.00	Nonliquefiable
44.5	42	47	44.5	35.4	0.0	35.4	1.71	0.02	-0.46	0.01	5.00		0.000		0.00	Nonliquefiable
49.5	47	50	48.5	29.1	0.0	29.1	0.63	0.05	-0.03	0.05	3.00		0.011		0.39	**Liquefiable**
											Total Deformation (in)				0.39	

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer

(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)

(3) Corrected $(N_1)_{60}$ for fines content

(4) Factor of Safety against Liquefaction, calculated previously for the individual layer

(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)

(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)

(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)

(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)

LIQUEFACTION EVALUATION

Project Name	Proposed Industrial Building	MCE_G Design Acceleration	1.036 (g)
Project Location	San Bernardino, California	Design Magnitude	7.24
Project Number	23G142-1	Historic High Depth to Groundwater	37 (ft)
Engineer	Ricardo Frias	Depth to Groundwater at Time of Drilling	60 (ft)
		Borehole Diameter	6 (in)
Boring No.	B-2		

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.24)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	37	18.5		120		1.3	1.05	1.1	0.96	0.75	0.0	0.0	2220	2220	2220	0.94	1.01	1	0.06	0.06	N/A	N/A	Above Water Table
39.5	37	42	39.5	67	120		1.3	1.05	1.3	1.07	1	127.0	127.0	4740	4584	4740	0.85	1.11	0.77	2.00	1.70	0.59	2.89	Nonliquefiable
44.5	42	47	44.5	42	120		1.3	1.05	1.3	0.85	1	63.6	63.6	5340	4872	5340	0.82	1.11	0.75	2.00	1.66	0.61	2.75	Nonliquefiable
49.5	47	50	48.5	39	120		1.3	1.05	1.3	0.81	1	56.0	56.0	5820	5102	5820	0.80	1.11	0.74	2.00	1.63	0.61	2.66	Nonliquefiable

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}
(2) Borehole Diameter Correction (Skempton, 1986)
(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)
(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)
(5) Rod Length Correction for Samples <10 m in depth
(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden
(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)
(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)
(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)
(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)
(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)
(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)
(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Proposed Industrial Building
Project Location	San Bernardino, California
Project Number	23G142-1
Engineer	Ricardo Frias

Boring No. B-2

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter Fα	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	37	18.5	0.0	0.0	0.0	N/A	0.50	0.95	0.00	37.00		0.000		0.00	Above Water Table
39.5	37	42	39.5	127.0	0.0	127.0	2.89	0.00	-8.70	0.00	5.00		0.000		0.00	Nonliquefiable
44.5	42	47	44.5	63.6	0.0	63.6	2.75	0.00	-2.73	0.00	5.00		0.000		0.00	Nonliquefiable
49.5	47	50	48.5	56.0	0.0	56.0	2.66	0.00	-2.08	0.00	3.00		0.000		0.00	Nonliquefiable
											Total Deformation (in)				0.00	

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer

(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)

(3) Corrected $(N_1)_{60}$ for fines content

(4) Factor of Safety against Liquefaction, calculated previously for the individual layer

(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)

(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)

(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)

(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)

LIQUEFACTION EVALUATION

Project Name	Proposed Industrial Building	MCE_G Design Acceleration	1.036	(g)
Project Location	San Bernardino, California	Design Magnitude	7.24	
Project Number	23G142-1	Historic High Depth to Groundwater	37	(ft)
Engineer	Ricardo Frias	Depth to Groundwater at Time of Drilling	37	(ft)
		Borehole Diameter	6	(in)
Boring No.	B-3			

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	Uncorrected SPT N-Value	Unit Weight of Soil (pcf)	Fines Content (%)	Energy Correction	C_B	C_S	C_N	Rod Length Correction	$(N_1)_{60}$	$(N_1)_{60CS}$	Overburden Stress (σ_o) (psf)	Eff. Overburden Stress (Hist. Water) (σ_o') (psf)	Eff. Overburden Stress (Curr. Water) (σ_o') (psf)	Stress Reduction Coefficient (r_d)	MSF	Ks	Cyclic Resistance Ratio (M=7.5)	Cyclic Resistance Ratio (M=7.24)	Cyclic Stress Ratio Induced by Design Earthquake	Factor of Safety	Comments
							(1)	(2)	(3)	(4)	(5)	(6)	(7)				(8)	(9)	(10)	(11)	(12)	(13)		
7	0	37	18.5		120		1.3	1.05	1.1	0.96	0.75	0.0	0.0	2220	2220	2220	0.94	1.01	1	0.06	0.06	N/A	N/A	Above Water Table
39.5	37	42	39.5	31	120		1.3	1.05	1.3	0.81	1	44.6	44.6	4740	4584	4584	0.85	1.11	0.77	2.00	1.70	0.59	2.89	Nonliquefiable
44.5	42	47	44.5	39	120		1.3	1.05	1.3	0.85	1	58.8	58.8	5340	4872	4872	0.82	1.11	0.75	2.00	1.66	0.61	2.75	Nonliquefiable
49.5	47	50	48.5	29	120		1.3	1.05	1.3	0.77	1	39.5	39.5	5820	5102	5102	0.80	1.11	0.74	2.00	1.63	0.61	2.66	Nonliquefiable

Notes:

(1) Energy Correction for N_{90} of automatic hammer to standard N_{60}
(2) Borehole Diameter Correction (Skempton, 1986)
(3) Correction for split-spoon sampler with room for liners, but liners are absent, (Seed et al., 1984, 2001)
(4) Overburden Correction, Caluclated by Eq. 39 (Boulanger and Idriss, 2008)
(5) Rod Length Correction for Samples <10 m in depth
(6) N-value corrected for energy, borehole diameter, sampler with absent liners, rod length, and overburden
(7) N-value corrected for fines content per Eqs. 75 and 76 (Boulanger and Idriss, 2008)
(8) Stress Reduction Coefficient calculated by Eq. 22 (Boulanger and Idriss, 2008)
(9) Magnitude Scaling Factor calculated by Eqns. A.8 & A.10 (Boulanger and Idriss, 2014)
(10) Overburden Correction Factor calcuated by Eq. 54 (Boulanger and Idriss, 2008)
(11) Calcuated by Eq. 70 (Boulanger and Idriss, 2008)
(12) Calcuated by Eq. 72 (Boulanger and Idriss, 2008)
(13) Calcuated by Eq. 25 (Boulanger and Idriss, 2008)

LIQUEFACTION INDUCED SETTLEMENTS

Project Name	Proposed Industrial Building
Project Location	San Bernardino, California
Project Number	23G142-1
Engineer	Ricardo Frias

Boring No. B-3

Sample Depth (ft)	Depth to Top of Layer (ft)	Depth to Bottom of Layer (ft)	Depth to Midpoint (ft)	$(N_1)_{60}$	DN for fines content	$(N_1)_{60\text{-}CS}$	Liquefaction Factor of Safety	Limiting Shear Strain γ_{min}	Parameter Fα	Maximum Shear Strain γ_{max}	Height of Layer		Vertical Reconsolidation Strain ε_v		Total Deformation of Layer (in)	Comments
				(1)	(2)	(3)	(4)	(5)	(6)	(7)			(8)			
7	0	37	18.5	0.0	0.0	0.0	N/A	0.50	0.95	0.00	37.00		0.000		0.00	Above Water Table
39.5	37	42	39.5	44.6	0.0	44.6	2.89	0.00	-1.16	0.00	5.00		0.000		0.00	Nonliquefiable
44.5	42	47	44.5	58.8	0.0	58.8	2.75	0.00	-2.32	0.00	5.00		0.000		0.00	Nonliquefiable
49.5	47	50	48.5	39.5	0.0	39.5	2.66	0.01	-0.76	0.00	3.00		0.000		0.00	Nonliquefiable
											Total Deformation (in)				0.00	

Notes:

(1) $(N_1)_{60}$ calculated previously for the individual layer

(2) Correction for fines content per Equation 76 (Boulanger and Idriss, 2008)

(3) Corrected $(N_1)_{60}$ for fines content

(4) Factor of Safety against Liquefaction, calculated previously for the individual layer

(5) Calcuated by Eq. 86 (Boulanger and Idriss, 2008)

(6) Calcuated by Eq. 89 (Boulanger and Idriss, 2008)

(7) Calcuated by Eqs. 90, 91, and 92 (Boulanger and Idriss, 2008)

(8) Volumetric Strain Induced in a Liquefiable Layer, Calcuated by Eq. 96 (Boulanger and Idriss, 2008)
(Strain N/A if Factor of Safety against Liquefaction > 1.3)