Appendix K2

Preliminary Sewer Area Study

HUNSAKER
& ASSOCIATES
I R V I N E, I N C.

PLANNING
ENGINEERING
SURVEYING
GOVERNMENT RELATIONS

IRVINE
LOS ANGELES
PALM DESERT
RIVERSIDE
SAN DIEGO

Preliminary Sewer Area Study

Elephant Hill
Pomona, CA

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April 14, 2022



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Appendix A

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Sewer Flow Coefficients & Zoning Designations
Sewer Index Maps (E15, E16, F15 & F16)
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As-Built Plans (FB 982 & FB 1001)

I. Introduction

Hunsaker & Associates Irvine, Inc. (H&A) is pleased to submit the Preliminary Offsite Sewer Area Study for Elephant Hill. This analysis has been prepared to determine if the existing sewer system can accept the anticipated sanitary sewer flows generated from the proposed residential development. The existing sewer mains that would be affected run though Mission Boulevard, Phillips Drive & Southview Place before joining the existing 42" trunk main. All public sewer systems in the aforementioned areas are serviced and maintained by the City of Pomona.

Hydraulic models were prepared using Bentley Systems modeling software to model the peak flows that the existing sewer system would experience due to the proposed development.

This evaluation is based on existing conditions and should be re-evaluated if these conditions change or new information becomes available. Any interpretation of the information presented in this report should be referred to H&A to ensure the integrity of the results.

II. Site Description

The proposed project is located adjacent to the 57 freeway and Mission Boulevards in the City of Pomona, CA. The general location is shown on the attached exhibit entitled, "Figure 1 – Offsite Sewer System Layout".

III. Project Description

The Elephant Hill project has a total area of 120.62 acres, which includes water quality/debris basins, slopes, natural open space, streets, park, and sewer pump station. The residential development is 15.23 acres and consists of 227 medium density multiple residences. The area is consistent with LA County zone designation of R-4 and the corresponding zone coefficient (0.016 cfs/acre) will be used for determining proposed sewer flows.

IV. Existing Sewer System Description

The existing sewer system consists of 8, 10, 12 and 15-inch gravity sewer lines within Mission Boulevard, Phillips Drive & Southview Place. The existing 15-inch sewer main connects into the City of Pomona's 42-inch trunk main near Humane Way. Please refer to the City of Pomona Sewer Atlas Maps and Sewer As-Built Plans provided in the Appendix of this report for a complete representation of the existing sewer system. The offsite sewer system analyzed is shown on the attached exhibits entitled, "Figure 1 – Offsite Sewer System Layout" and "Figure 2 – Offsite Sewer System Model".

V. Existing Sewer Flows

H&A contracted a sewer flow monitoring company, Utility Systems Science & Software (US^3), to measure the existing sanitary sewer flows at a location recommended by the City of Pomona. The sewer flows were

monitored from 10/26/2020 thru 11/3/2020. The peak flow measured during the monitoring period was 0.514 mgd (0.7953 cfs) with a measure level of 5.98-inches in the 10-inch sewer line. The complete results are located in the Appendix of this report.

Based on the results it was determined that the existing sewer line in Southview Place does not have the capacity to accept additional flows, so it is proposed to construct a new sewer line in Mission Boulevard from the manhole located at the intersection of Phillips Drive to the manhole just upstream of the existing 15-inch sewer main.

According to the As-Built plans (FB 1001) there is an existing 12-inch stub into the manhole at the proposed connection point that is available. The plans do not indicate the slope of the 12-inch stub, so we have assume a slope of 0.5%.

VI. Existing and Proposed Sewer Design Flows

The sanitary sewer flows from the existing residential developments (approximately 33.8 acres) upstream of the proposed project connection at Mission Boulevard has been approximated using a coefficient of 0.016 cfs/acre, resulting a flow of 0.5408 cfs.

The sanitary sewer flows from the western portion of the proposed Elephant Hill development will be conveyed through a network of 8-inch gravity sewer lines to a proposed onsite sewer pump station. This area is approximately 12.9 acres and using a coefficient of 0.016 cfs/acre, the resulting flow is 0.2064 cfs.

The sewer pump station design flow fill be approximately 25 percent greater than the inflow to allow for proper cycling of the pumps. The resulting flow out of the proposed pump station will be 0.2562 cfs, and will be conveyed through a 4-inch force main to a discharge manhole within the eastern portion of the project.

The eastern portion of the project is approximately 2.3 acres and using a coefficient of 0.016 cfs/acre, the resulting flow is 0.0368 cfs. The total estimated sanitary sewer flow from the project at the connection point to the existing 8-inch sewer in Mission Boulevard is estimated to be 0.2930 cfs.

The combined flow of 0.8338 cfs shall be used to analyze a portion of the existing 8-inch sewer in Mission Boulevard, as well as, the proposed 8 & 12-inch sewer. The analyzed flow in the existing 15-inch sewer will be the measured flow (0.7953 cfs) plus the prosed project estimated flow (0.2930 cfs), resulting in a flow of 1.0883 cfs.

VII. Sewer Capacity Analysis

In order to confirm that the existing and proposed sewer system has sufficient capacity for the proposed and existing sewer flows, a hydraulic model has been prepared using Bentley FlowMaster V8i. The summary of outputs from the model runs are included in the Appendix of this report.

The sewer system schematic is shown on the attached exhibits entitled, "Figure 1 – Offsite Sewer System Layout" and "Figure 2 – Offsite Sewer System Model". The exhibits identify the existing & proposed sewer main reaches, sizes, slopes, flows and D/d's.

VIII. Conclusion

The capacity of the existing and proposed system analyzed does not exceed the typical design criteria of half full and velocities in the lines range from 2.0 ft/s to 6.8 ft/s.

APPENDIX A



SEWER FLOW CALCULATIONS

AREA	ACRES	Q (cfs)
1	10.1±	0.1616
2	11.0±	0.1760
3	9.7±	0.1552
4	3.0±	0.0480
5 A	12.9±	0.2064
5 B	PUMPED	0.2562
6	2.3±	0.0368
7	UNKNOWN	0.7953
POC #1	1-4, 5B & 6	0.8338
POC #2	5B, 6 & 7	1.0883

LEGEND

- EXISTING 8" GRAVITY SEWER MAIN
- EXISTING 10" GRAVITY SEWER MAIN
- EXISTING 15" GRAVITY SEWER MAIN
- PROPOSED 8" GRAVITY SEWER MAIN
- PROPOSED 12" GRAVITY SEWER MAIN
- PROPOSED 4" SEWER FORCE MAIN
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER PUMP STATION
- (#) SEWER REACH
- [#] TRIBUTARY AREA

NOTES:

1. SEE APPENDIX FOR SEWER SYSTEM FLOW CALCULATIONS
2. SEE FIGURE 2 – OFFSITE SEWER SYSTEM MODEL

0 200 400 800 1200 1600

SCALE: 1" = 400'

PREPARED BY:

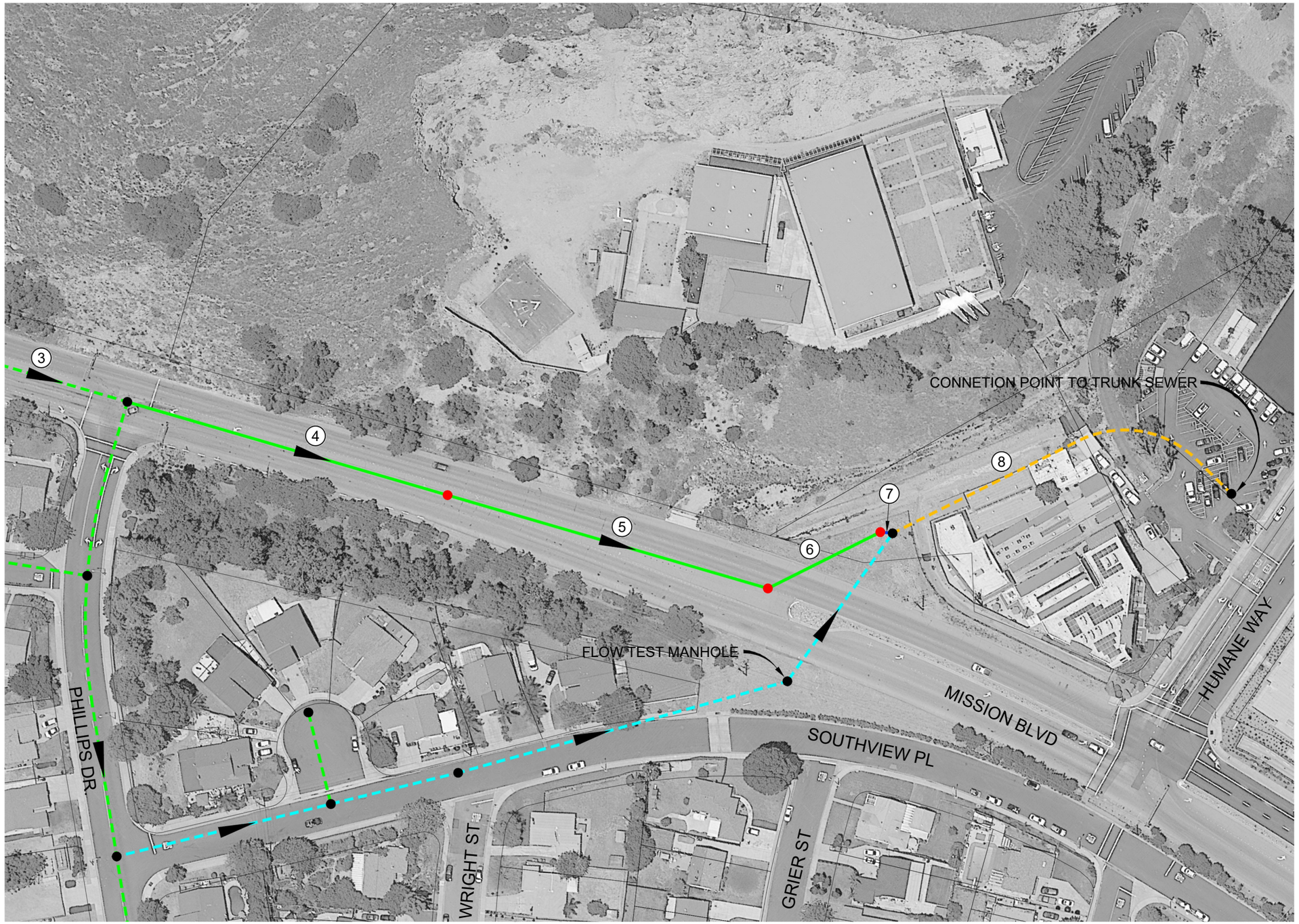
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949)583-1010 ▪ FX: (949)583-0759

ELEPHANT HILL
OFFSITE SEWER SYSTEM
LAYOUT

JOB NO. 3593-44X | DATE: 4/14/2022

FIGURE 1

PLOTTED BY: JohnC DATE: Apr. 14, 2022 TIME: 03:10 PM F:\0054\Engineering\WS_Studies\Sewer\Figure-01.dwg



SEWER FLOW CALCULATIONS

REACH	PIPE SIZE (in)	SLOPE (%)	Qpeak (cfs)	D/d (ft / ft)
1	8	5.030	0.8338	0.381
2	8	4.200	0.8338	0.400
3	8	4.720	0.8338	0.387
4	8	4.000	0.8338	0.405
5	8	4.000	0.8338	0.405
6	8	4.000	0.8338	0.405
7	12	0.500	0.8338	0.396
8	15	0.160	1.0883	0.453

LEGEND

- EXISTING 8" GRAVITY SEWER MAIN
- EXISTING 10" GRAVITY SEWER MAIN
- EXISTING 15" GRAVITY SEWER MAIN
- PROPOSED 8" GRAVITY SEWER MAIN
- PROPOSED 12" GRAVITY SEWER MAIN
- EXISTING SEWER MANHOLE
- PROPOSED SEWER MANHOLE
- (#) SEWER REACH

NOTES:

1. SEE APPENDIX FOR SEWER SYSTEM FLOW CALCULATIONS
2. SEE FIGURE 1 – OFFSITE SEWER SYSTEM LAYOUT

0 50 100 200 300 400

SCALE: 1" = 100'

PREPARED BY:

HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949)583-1010 ▪ FX: (949)583-0759

ELEPHANT HILL
OFFSITE SEWER SYSTEM

MODEL

JOB NO. 3593-44X

DATE: 4/14/2022

FIGURE 2

PLOTTED BY: JohnC DATE: Apr. 14, 2022 TIME: 03:09 PM F:\0054\Engineering\WS_Studies\Sewer\Figure-02.dwg

Elephant Hill – Tract 72653
Offsite Sewer System
FlowMaster Calculations

Project Description	
Worksheet:	REACH 1
Flow Element:	Circular Pipe
Friction Method:	Manning Formula
Solve For:	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.0503	ft/ft
Diameter	8	in
Discharge	0.8338	ft^3/s

Results		
Normal Depth	0.25	in
Flow Area	0.12	ft^2
Wetted Perimeter	0.89	ft
Top Width	0.65	ft
Critical Depth	0.43	ft
Percent Full	38.10	%
Critical Slope	0.00839	ft/ft
Velocity	6.84	ft/s
Velocity Head	0.73	ft
Specific Energy	0.98	ft
Froude Number	2.78	
Maximum Discharge	2.92	ft^3/s
Discharge Full	2.71	ft^3/s
Slope Full	0.00476	ft/ft
Flow Type	SuperCritical	

Project Description	
Worksheet:	REACH 2
Flow Element:	Circular Pipe
Friction Method:	Manning Formula
Solve For:	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.0420	ft/ft
Diameter	8	in
Discharge	0.8338	ft^3/s

Results		
Normal Depth	0.27	in
Flow Area	0.13	ft^2
Wetted Perimeter	0.91	ft
Top Width	0.65	ft
Critical Depth	0.43	ft
Percent Full	40.00	%
Critical Slope	0.00837	ft/ft
Velocity	6.39	ft/s
Velocity Head	0.63	ft
Specific Energy	0.90	ft
Froude Number	2.52	
Maximum Discharge	2.66	ft^3/s
Discharge Full	2.48	ft^3/s
Slope Full	0.00476	ft/ft
Flow Type	SuperCritical	

Elephant Hill – Tract 72653
Offsite Sewer System
FlowMaster Calculations

Project Description	
Worksheet:	REACH 3
Flow Element:	Circular Pipe
Friction Method:	Manning Formula
Solve For:	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.0472	ft/ft
Diameter	8	in
Discharge	0.8338	ft^3/s

Results		
Normal Depth	0.26	in
Flow Area	0.12	ft^2
Wetted Perimeter	0.90	ft
Top Width	0.65	ft
Critical Depth	0.43	ft
Percent Full	38.70	%
Critical Slope	0.00837	ft/ft
Velocity	6.68	ft/s
Velocity Head	0.69	ft
Specific Energy	0.95	ft
Froude Number	2.69	
Maximum Discharge	2.82	ft^3/s
Discharge Full	2.63	ft^3/s
Slope Full	0.00476	ft/ft
Flow Type	SuperCritical	

Project Description	
Worksheet:	REACH 4
Flow Element:	Circular Pipe
Friction Method:	Manning Formula
Solve For:	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.0400	ft/ft
Diameter	8	in
Discharge	0.8338	ft^3/s

Results		
Normal Depth	0.27	in
Flow Area	0.13	ft^2
Wetted Perimeter	0.92	ft
Top Width	0.65	ft
Critical Depth	0.43	ft
Percent Full	40.50	%
Critical Slope	0.00837	ft/ft
Velocity	6.29	ft/s
Velocity Head	0.62	ft
Specific Energy	0.89	ft
Froude Number	2.47	
Maximum Discharge	2.60	ft^3/s
Discharge Full	2.42	ft^3/s
Slope Full	0.00476	ft/ft
Flow Type	SuperCritical	

Elephant Hill – Tract 72653
Offsite Sewer System
FlowMaster Calculations

Project Description	
Worksheet:	REACH 5
Flow Element:	Circular Pipe
Friction Method:	Manning Formula
Solve For:	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.0400	ft/ft
Diameter	8	in
Discharge	0.8338	ft^3/s

Results		
Normal Depth	0.27	in
Flow Area	0.13	ft^2
Wetted Perimeter	0.92	ft
Top Width	0.65	ft
Critical Depth	0.43	ft
Percent Full	40.50	%
Critical Slope	0.00837	ft/ft
Velocity	6.29	ft/s
Velocity Head	0.62	ft
Specific Energy	0.89	ft
Froude Number	2.47	
Maximum Discharge	2.60	ft^3/s
Discharge Full	2.42	ft^3/s
Slope Full	0.00476	ft/ft
Flow Type	SuperCritical	

Project Description	
Worksheet:	REACH 6
Flow Element:	Circular Pipe
Friction Method:	Manning Formula
Solve For:	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.0400	ft/ft
Diameter	8	in
Discharge	0.8338	ft^3/s

Results		
Normal Depth	0.27	in
Flow Area	0.13	ft^2
Wetted Perimeter	0.92	ft
Top Width	0.65	ft
Critical Depth	0.43	ft
Percent Full	40.50	%
Critical Slope	0.00837	ft/ft
Velocity	6.29	ft/s
Velocity Head	0.62	ft
Specific Energy	0.89	ft
Froude Number	2.47	
Maximum Discharge	2.60	ft^3/s
Discharge Full	2.42	ft^3/s
Slope Full	0.00476	ft/ft
Flow Type	SuperCritical	

Elephant Hill – Tract 72653
Offsite Sewer System
FlowMaster Calculations

Project Description	
Worksheet:	REACH 7
Flow Element:	Circular Pipe
Friction Method:	Manning Formula
Solve For:	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.0050	ft/ft
Diameter	12	in
Discharge	0.8338	ft^3/s

Results		
Normal Depth	0.40	in
Flow Area	0.29	ft^2
Wetted Perimeter	1.36	ft
Top Width	0.98	ft
Critical Depth	0.38	ft
Percent Full	39.60	%
Critical Slope	0.00571	ft/ft
Velocity	2.88	ft/s
Velocity Head	0.13	ft
Specific Energy	0.52	ft
Froude Number	0.93	
Maximum Discharge	2.71	ft^3/s
Discharge Full	2.52	ft^3/s
Slope Full	0.00055	ft/ft
Flow Type	SubCritical	

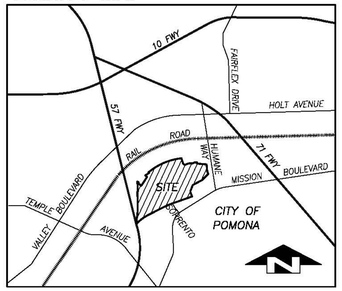
Project Description	
Worksheet:	REACH 8
Flow Element:	Circular Pipe
Friction Method:	Manning Formula
Solve For:	Normal Depth

Input Data		
Roughness Coefficient	0.013	
Channel Slope	0.0016	ft/ft
Diameter	15	in
Discharge	1.0883	ft^3/s

Results		
Normal Depth	0.57	in
Flow Area	0.54	ft^2
Wetted Perimeter	1.85	ft
Top Width	1.24	ft
Critical Depth	0.41	ft
Percent Full	45.30	%
Critical Slope	0.00523	ft/ft
Velocity	2.01	ft/s
Velocity Head	0.06	ft
Specific Energy	0.63	ft
Froude Number	0.54	
Maximum Discharge	2.78	ft^3/s
Discharge Full	2.58	ft^3/s
Slope Full	0.00028	ft/ft
Flow Type	SubCritical	

APPENDIX B

VICINITY MAP



BENCHMARK:

LOS ANGELES COUNTY PUBLIC WORKS DEPARTMENT
BENCHMARK NO. C 4642
ELEVATION: 758.002
DATUM: NAVD 88 (2005 ADJUSTMENT)

DESCRIPTION:
LEAD & TACK IN EAST CURB OF POMONA BLVD, +/- 33' EAST OF CENTERLINE ON CENTERLINE PROD OF PIONEER PL

NOTES

1. EXISTING LAND USE: VACANT.
2. PROPOSED LAND USE: URBAN NEIGHBORHOOD
3. EXISTING ZONING: CITY OF POMONA, PRD AND OPEN SPACE
4. PROPOSED ZONING: CITY OF POMONA, PRD AND OPEN SPACE
5. GENERAL PLAN: OPEN SPACE AND URBAN NEIGHBORHOOD
6. EARTHWORK: CUT- 1,111,998 CYS, FILL- 1,215,939 CYS
7. GROSS ACRES: 120.62 ACRES
8. ASSESSOR'S PARCEL NUMBER: 8707-020-001, 8707-020-008 AND 8708-021-058

UTILITY AGENCIES

SEWER & WATER:
CITY OF POMONA
505 SOUTH GAREY AVENUE
POMONA, CALIFORNIA 91766
(909) 620-2241

TELEPHONE SERVICE:
VERIZON
1400 PHILLIPS RANCH RD.
POMONA, CA 91766
(800) 483-3000

ELECTRIC SERVICE:
SOUTHERN CALIFORNIA EDISON
285 N. EAST END AVENUE
POMONA, CA 91767
(909) 469-0200

TRASH:
CITY OF POMONA
505 SOUTH GAREY AVENUE
POMONA, CALIFORNIA 91766
(909) 620-2241

GAS SERVICE:
SOUTHERN CALIFORNIA GAS COMPANY
13525 12TH STREET
CHINO, CA
(909) 355-7873

EXISTING EASEMENTS

(4) REFERS TO AN EASEMENT FOR THE PURPOSE PUBLIC HIGHWAY DRAINAGE PURPOSES IN FAVOR OF THE STATE OF CALIFORNIA RECORDED APRIL 8, 1970 AS INSTRUMENT NO. 2703, O.R. AFFECTS: A PROITON OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.

(5) THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE STREET, HIGHWAY, OR FREEWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED BY THE DOCUMENT RECORDED JULY 12, 1971 AS INSTRUMENT NO. 2995, OFFICIAL RECORDS.
AFFECTS: STATE FREEWAY

(6) REFERES TO AN EASEMENT FOR STORM DRAIN PURPOSES IN FAVOR OF THE CITY OF POMONA, A MUNICIPAL CORPORATION RECORDED MAY 29, 1992 AS INSTRUMENT NO. 92-974716, O.R.
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.

(7) REFERS TO AN EASEMENT FOR STORM DRAIN PURPOSES IN FAVOR OF THE CITY OF POMONA, A MUNICIPAL CORPORATION RECORDED JANUARY 22, 1998 AS INSTRUMENT NO. 98-101498, O.R.
AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.

(8) REFERS TO AN EASEMENT FOR SLOPE AND TEMPORARY CONSTRUCTION PURPOSES IN FAVOR OF ALAMEDA CORRIDOR-EAST CONSTRUCTION AUTHORITY RECORDED AUGUST 17, 2006 AS INSTRUMENT NO. 06-1835393, O.R.
AFFECTS: A PORITON OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.

(9) REFERS TO AN EASEMENT FOR OVERHEAD AND UNDERGROUND ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS PURPOSES RECORDED MARCH 18, 1969 AS INSTRUMENT NO. 2682, O.R.
AFFECTS: AS DESCRIBED THEREIN

(13) REFERS TO AN EASEMENT FOR WATERLINE PURPOSES AS DELINEATED ON OR AS OFFERED FOR DEDICATION ON MAP/PLAT: TRACT NO. 35167, M.B. 1080/57-61 IN FAVOR OF THE CITY OF POMONA.
AFFECTS: AS SHOWN ON SAID MAP

(14) REFERS TO AN EASEMENT FOR SEWER PURPOSES AS DELINEATED ON OR AS OFFERED FOR DEDICATION ON MAP/PLAT: TRACT 35167, M.B. 1080/57-61 IN FAVOR OF THE CITY OF POMONA.
AFFECTS: AS SHOWN ON SAID MAP

(15) REFERS TO AN EASEMENT FOR SEWER MAIN LINE PURPOSES AS DELINEATED ON OR AS OFFERED FOR DEDICATION ON MAP/PLAT: TRACT NO. 50048, M.B. 1196/38-39 IN FAVOR OF THE CITY OF POMONA.
AFFECTS: AS SHOWN ON SAID MAP.

PROPOSED EASEMENTS

(1.) INGRESS EGRESS AND EMERGENCY ACCESS OVER PRIVATE STREETS AND PUBLIC UTILITY PURPOSES WITH VARIES 20' MINIMUM.

LOT SUMMARY

Lot No.	Land Use	Acres
LOTS 1-85	RESIDENTIAL	11.52
LOTS 86-104	PRIVATE STREET	7.73
LOTS 105-106	WATER QUALITY/DEBRIS BASIN	1.11
LOT 107	RECREATION CENTER	1.02
LOTS 108-126	OPEN SPACE	28.84
LOT 127	OPEN SPACE	68.80
LOT 128	EMERGENCY, VEHICULAR ACCESS/SEWER & STORM DRAIN EASEMENT	0.61
LOT 129	LIFT STATION	0.09
LOT A	MISSION BOULEVARD	0.69
LOT B	MISSION BOULEVARD	0.20
TOTAL		120.61

LEGAL DESCRIPTION

BEING A PORTION OF THE RANCHO SAN JOSE TOGETHER WITH A PORTION OF LOT 1 OF TRACT NO. 50048, IN THE CITY OF POMONA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA.

STATEMENT OF OWNERSHIP

I HEREBY STATE THAT THIS MAP WAS PREPARED UNDER MY SUPERVISION AND THAT THE OWNER OF RECORD HAS KNOWLEDGE OF AND CONSENTS TO THE FILING OF THIS MAP.

AMANDA COPPOLA DATE 4/13/2023

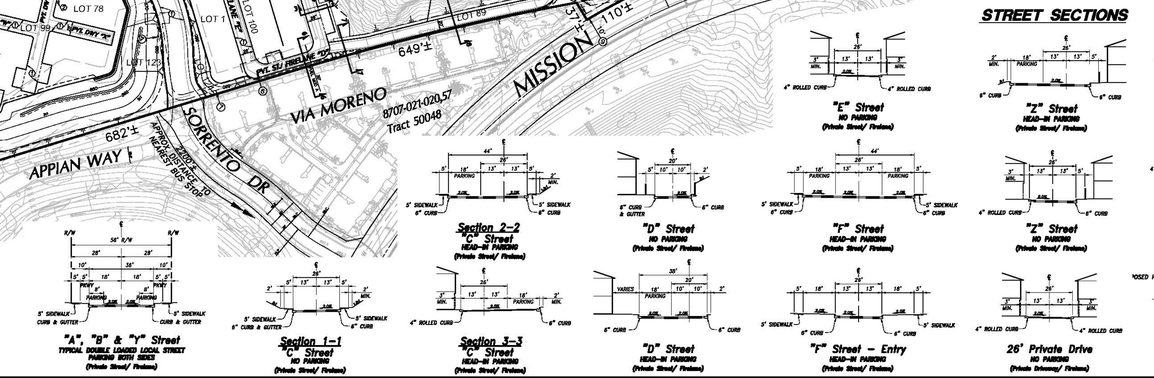
REGISTERED PROFESSIONAL ENGINEER AMANDA KATHLEEN COPPOLA NO. 85533 Exp. 09/30/24 CIVIL STATE OF CALIFORNIA

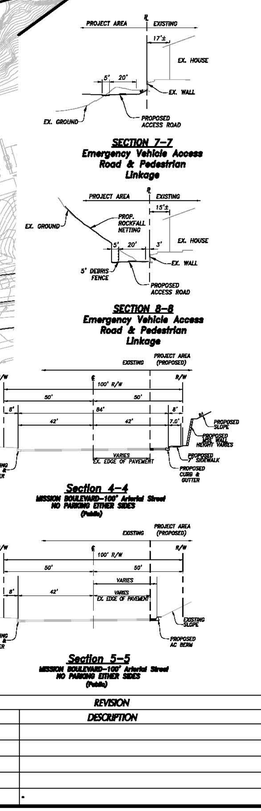
LEGEND

- PROJECT BOUNDARY LINE
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED CURB
- EASEMENT LINE
- FUEL MOD
- PROPOSED CENTERLINE
- PROPOSED WATER
- PROPOSED SEWER
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING SEWER
- EXISTING WATER
- RETAINING WALL/ RETAINING WALL HEIGHT
- PROPOSED M.S.E. WALL
- TOP OF SLOPE
- TOE OF SLOPE
- FIRE HYDRANT

SCALE: 1" = 100'

STREET SECTIONS





REVISION	
DATE	DESCRIPTION
-	-

OWNER/APPLICANT:
TRUMARK HOMES
450 NEWPORT CENTER DRIVE, SUITE 300
NEWPORT BEACH, CA 92660
PH: (949) 999-9800

PREPARED BY:
HUNSAKER & ASSOCIATES IRVINE, INC.
PLANNING • ENGINEERING • SURVEYING
Three Hughes • Irvine, CA 92618 • PH: (949) 583-1010 • FX: (949) 583-0759

CITY OF POMONA, COUNTY OF LOS ANGELES

TENTATIVE TRACT MAP 72653
ELEPHANT HILL

DESIGNED BY:	DATE:	CITY FILE NO.:	SHEET
DRAFTED BY:	4/12/23		1 OF 4
CHECKED BY:			

TTM 72653 ELEPHANT HILL
W.O. 3593-44X

DATE: Apr. 13, 2023 04:00:54 PM FILE: F:\0054\Planning\SA_TTM\TTM_SHT.1.dwg

8707-020-900
SPADRA CEMETERY ASSN.

LOT 106
W.Q. BASIN
BOTTOM=725

LOT 119
LOT 45
LOT 44
LOT 96
LOT 122
LOT 110
LOT 111
LOT 108
LOT 40
LOT 41
LOT 39
LOT 42
LOT 38
LOT 43
LOT 97
LOT 109
LOT 16
LOT 17
LOT 18
LOT 19
LOT 15
LOT 20
LOT 21
LOT 22
LOT 23
LOT 24
LOT 25

PVT. DWY "C"
PVT. DWY "F"
PVT. DWY "G"
PVT. DWY "H"
PVT. DWY "K"
PVT. DWY "M"

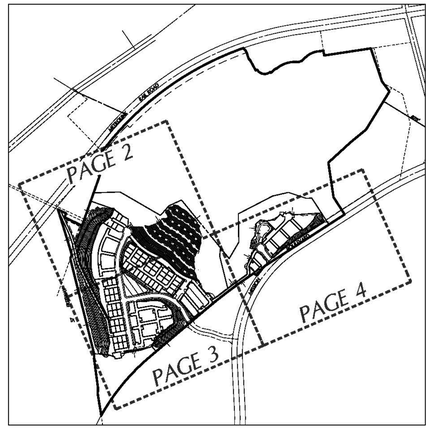
208'±
105'±
495'±
83'±
180'±
440'±
40'±
40'±

50' FUEL MOD A
70' FUEL MOD B
50' FUEL MOD C

CONTINUED ON PAGE 3
CONTINUED ON PAGE 3

Summary of Areas

Lot No.	Land Use	S.F	Acres	Lot No.	Land Use	S.F	Acres
LOT 1	RESIDENTIAL	12,727	0.29	LOT 67	RESIDENTIAL	2,580	0.06
LOT 2	RESIDENTIAL	26,425	0.61	LOT 68	RESIDENTIAL	2,520	0.06
LOT 3	RESIDENTIAL	3,403	0.08	LOT 69	RESIDENTIAL	2,460	0.06
LOT 4	RESIDENTIAL	3,276	0.08	LOT 70	RESIDENTIAL	2,460	0.06
LOT 5	RESIDENTIAL	3,276	0.08	LOT 71	RESIDENTIAL	2,520	0.06
LOT 6	RESIDENTIAL	3,912	0.09	LOT 72	RESIDENTIAL	2,580	0.06
LOT 7	RESIDENTIAL	2,842	0.07	LOT 73	RESIDENTIAL	8,764	0.20
LOT 8	RESIDENTIAL	2,856	0.07	LOT 74	RESIDENTIAL	6,968	0.16
LOT 9	RESIDENTIAL	2,788	0.06	LOT 75	RESIDENTIAL	6,856	0.16
LOT 10	RESIDENTIAL	2,856	0.07	LOT 76	RESIDENTIAL	15,602	0.36
LOT 11	RESIDENTIAL	2,924	0.07	LOT 77	RESIDENTIAL	26,700	0.61
LOT 12	RESIDENTIAL	2,924	0.07	LOT 78	RESIDENTIAL	33,077	0.76
LOT 13	RESIDENTIAL	2,856	0.07	LOT 79	RESIDENTIAL	10,960	0.25
LOT 14	RESIDENTIAL	2,788	0.06	LOT 80	RESIDENTIAL	9,738	0.22
LOT 15	RESIDENTIAL	2,856	0.07	LOT 81	RESIDENTIAL	10,036	0.23
LOT 16	RESIDENTIAL	2,897	0.07	LOT 82	RESIDENTIAL	14,058	0.32
LOT 17	RESIDENTIAL	2,592	0.06	LOT 83	RESIDENTIAL	15,239	0.35
LOT 18	RESIDENTIAL	2,774	0.06	LOT 84	RESIDENTIAL	19,942	0.46
LOT 19	RESIDENTIAL	2,778	0.06	LOT 85	RESIDENTIAL	11,064	0.25
LOT 20	RESIDENTIAL	2,460	0.06	LOT 86	PRIVATE STREET	107,649	2.47
LOT 21	RESIDENTIAL	2,520	0.06	LOT 87	PRIVATE STREET	12,407	0.29
LOT 22	RESIDENTIAL	2,832	0.07	LOT 88	PRIVATE STREET	15,513	0.36
LOT 23	RESIDENTIAL	2,832	0.07	LOT 89	PRIVATE STREET	15,314	0.35
LOT 24	RESIDENTIAL	2,520	0.06	LOT 90	PRIVATE STREET	42,193	0.97
LOT 25	RESIDENTIAL	2,460	0.06	LOT 91	PRIVATE STREET	3,976	0.09
LOT 26	RESIDENTIAL	2,460	0.06	LOT 92	PRIVATE STREET	4,662	0.11
LOT 27	RESIDENTIAL	2,520	0.06	LOT 93	PRIVATE STREET	3,030	0.07
LOT 28	RESIDENTIAL	2,832	0.07	LOT 94	PRIVATE STREET	3,030	0.07
LOT 29	RESIDENTIAL	2,832	0.07	LOT 95	PRIVATE STREET	3,030	0.07
LOT 30	RESIDENTIAL	2,520	0.06	LOT 96	PRIVATE STREET	21,563	0.50
LOT 31	RESIDENTIAL	2,460	0.06	LOT 97	PRIVATE STREET	3,815	0.09
LOT 32	RESIDENTIAL	2,460	0.06	LOT 98	PRIVATE STREET	26,404	0.61
LOT 33	RESIDENTIAL	2,520	0.06	LOT 99	PRIVATE STREET	44,435	1.02
LOT 34	RESIDENTIAL	2,832	0.07	LOT 100	PRIVATE STREET	18,261	0.42
LOT 35	RESIDENTIAL	2,832	0.07	LOT 101	PRIVATE STREET	2,597	0.06
LOT 36	RESIDENTIAL	2,520	0.06	LOT 102	PRIVATE STREET	2,726	0.06
LOT 37	RESIDENTIAL	2,460	0.06	LOT 103	PRIVATE STREET	2,724	0.06
LOT 38	RESIDENTIAL	4,667	0.11	LOT 104	PRIVATE STREET	3,488	0.08
LOT 39	RESIDENTIAL	2,642	0.06	LOT 105	W.Q. BASIN	30,154	0.69
LOT 40	RESIDENTIAL	4,125	0.10	LOT 106	W.Q. BASIN	18,351	0.42
LOT 41	RESIDENTIAL	4,738	0.11	LOT 107	PARK	44,461	1.02
LOT 42	RESIDENTIAL	2,520	0.06	LOT 108	SLOPE/OPEN SPACE	8,388	0.19
LOT 43	RESIDENTIAL	3,800	0.09	LOT 109	SLOPE/OPEN SPACE	2,258	0.05
LOT 44	RESIDENTIAL	33,092	0.76	LOT 110	SLOPE/OPEN SPACE	574	0.01
LOT 45	RESIDENTIAL	52,657	1.21	LOT 111	SLOPE/OPEN SPACE	4,459	0.10
LOT 46	RESIDENTIAL	2,460	0.06	LOT 112	SLOPE/OPEN SPACE	4,454	0.10
LOT 47	RESIDENTIAL	2,520	0.06	LOT 113	SLOPE/OPEN SPACE	21,391	0.49
LOT 48	RESIDENTIAL	2,580	0.06	LOT 114	SLOPE/OPEN SPACE	600	0.01
LOT 49	RESIDENTIAL	2,580	0.06	LOT 115	SLOPE/OPEN SPACE	600	0.01
LOT 50	RESIDENTIAL	2,520	0.06	LOT 116	SLOPE/OPEN SPACE	600	0.01
LOT 51	RESIDENTIAL	2,460	0.06	LOT 117	SLOPE/OPEN SPACE	600	0.01
LOT 52	RESIDENTIAL	2,460	0.06	LOT 118	SLOPE/OPEN SPACE	7,952	0.18
LOT 53	RESIDENTIAL	2,520	0.06	LOT 119	SLOPE/OPEN SPACE	122,460	2.81
LOT 54	RESIDENTIAL	2,580	0.06	LOT 120	SLOPE/OPEN SPACE	127,119	2.92
LOT 55	RESIDENTIAL	2,580	0.06	LOT 121	SLOPE/OPEN SPACE	26,431	0.61
LOT 56	RESIDENTIAL	2,520	0.06	LOT 122	SLOPE/OPEN SPACE	490,964	11.27
LOT 57	RESIDENTIAL	2,460	0.06	LOT 123	SLOPE/OPEN SPACE	53,169	1.22
LOT 58	RESIDENTIAL	2,460	0.06	LOT 124	SLOPE/OPEN SPACE	6,574	0.15
LOT 59	RESIDENTIAL	2,520	0.06	LOT 125	SLOPE/OPEN SPACE	148,671	3.41
LOT 60	RESIDENTIAL	2,580	0.06	LOT 126	SLOPE/OPEN SPACE	223,960	5.25
LOT 61	RESIDENTIAL	2,580	0.06	LOT 127	NATURAL SLOPE	2,996,949	68.80
LOT 62	RESIDENTIAL	2,520	0.06	LOT 128	E.V.A.	26,637	0.61
LOT 63	RESIDENTIAL	2,460	0.06	LOT 129	LIFT STATION	3,973	0.09
LOT 64	RESIDENTIAL	2,460	0.06	LOT A	MISSION BLVD.	30,038	0.69
LOT 65	RESIDENTIAL	2,520	0.06	LOT B	MISSION BLVD.	8,687	0.20
LOT 66	RESIDENTIAL	2,580	0.06	**TOTAL**		**5,249,198**	**120.61**



KEY MAP

LOT SUMMARY

Lot No.	Land Use	Acres
LOTS 1-85	RESIDENTIAL	11.52
LOTS 86-104	PRIVATE STREET	7.73
LOTS 105-106	WATER QUALITY/DEBRIS BASIN	1.11
LOT 107	RECREATION CENTER	1.02
LOTS 108-126	OPEN SPACE	28.84
LOT 127	OPEN SPACE	68.80
LOT 128	EMERGENCY, VEHICULAR ACCESS/SEWER & STORM DRAIN EASEMENT	0.61
LOT 129	LIFT STATION	0.09
LOT A	MISSION BOULEVARD	0.69
LOT B	MISSION BOULEVARD	0.20
TOTAL		120.61

LEGEND

- PROJECT BOUNDARY LINE
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED CURB
- EASEMENT LINE
- FUEL MOD
- PROPOSED CENTERLINE
- PROPOSED WATER
- PROPOSED SEWER
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING SEWER
- EXISTING WATER
- RETAINING WALL/ RETAINING WALL HEIGHT
- PROPOSED M.S.E. WALL
- TOP OF SLOPE
- TOE OF SLOPE
- FIRE HYDRANT

NORTH

0 20' 40' 80'
SCALE: 1" = 40'

REVISION	
DATE	DESCRIPTION
.	.

OWNER/APPLICANT:
TRUMARK HOMES
450 NEWPORT CENTER DRIVE, SUITE 300
NEWPORT BEACH, CA 92660
PH: (949) 999-9800

PREPARED BY:
HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING • ENGINEERING • SURVEYING
Irvine, CA 92618 • PH: (949) 583-1010 • FX: (949) 583-0759

CITY OF POMONA, COUNTY OF LOS ANGELES

TENTATIVE TRACT MAP 72653
ELEPHANT HILL

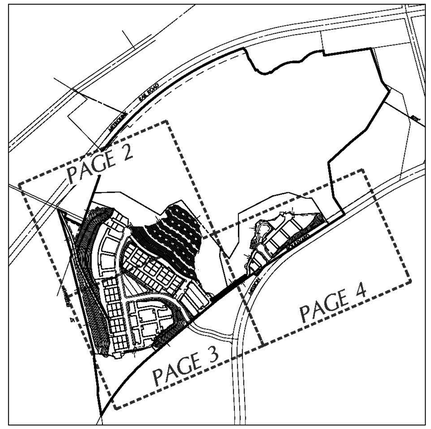
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CITY FILE NO.:
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W.O. 3593-44X TTM 72653 ELEPHANT HILL

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KEY MAP

LOT SUMMARY

Lot No.	Land Use	Acres
LOTS 1-85	RESIDENTIAL	11.52
LOTS 86-104	PRIVATE STREET	7.73
LOTS 105-106	WATER QUALITY/DEBRIS BASIN	1.11
LOT 107	RECREATION CENTER	1.02
LOTS 108-126	OPEN SPACE	28.84
LOT 127	OPEN SPACE	68.80
LOT 128	EMERGENCY, VEHICULAR ACCESS/SEWER & STORM DRAIN EASEMENT	0.61
LOT 129	LIFT STATION	0.09
LOT A	MISSION BOULEVARD	0.69
LOT B	MISSION BOULEVARD	0.20
TOTAL		120.61

LEGEND

- PROJECT BOUNDARY LINE
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED CURB
- EASEMENT LINE
- FUEL MOD
- PROPOSED CENTERLINE
- PROPOSED WATER
- PROPOSED SEWER
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING SEWER
- EXISTING WATER
- RETAINING WALL/ RETAINING WALL HEIGHT
- PROPOSED M.S.E. WALL
- TOP OF SLOPE
- TOE OF SLOPE
- FIRE HYDRANT

NORTH

0 20' 40' 80'

SCALE: 1" = 40'

OWNER/APPLICANT:
TRUMARK HOMES
450 NEWPORT CENTER DRIVE, SUITE 300
NEWPORT BEACH, CA 92660
PH: (949) 999-9800

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CITY OF POMONA, COUNTY OF LOS ANGELES

TENTATIVE TRACT MAP 72653
ELEPHANT HILL

REVISION	
DATE	DESCRIPTION
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DESIGNED BY: ———
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ELEPHANT HILL
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LOT 126

8707-020-902
CITY OF POMONA

LOT 105
DEBRIS BASIN
BOTTOM=950

LOT 85

LOT 88

LOT 84

LOT 83

LOT 82

LOT 81

LOT 80

LOT 79

LOT 87

LOT 103

LOT 104

LOT 102

LOT 101

LOT 121

LOT A

LOT B

PVT. ST./ FIRELANE "Z"

PVT. DWY "CC"

PVT. DWY "DD"

PVT. DWY "BB"

PVT. DWY "AA"

PVT. ST./ FIRELANE "Y"

FUEL MOD A

FUEL MOD B

FUEL MOD C

FUEL MOD G

EX. GUARDRAIL TO BE REMOVE

TRANSITION AC BERM TO EXISTING

BOULEVARD

929'±

618'

MISSION BLVD

MISSION

110'±

CONNECTION TO EXISTING

1611'±

3267'±

PHILIPS DR

PAGE 2

PAGE 3

PAGE 4

KEY MAP

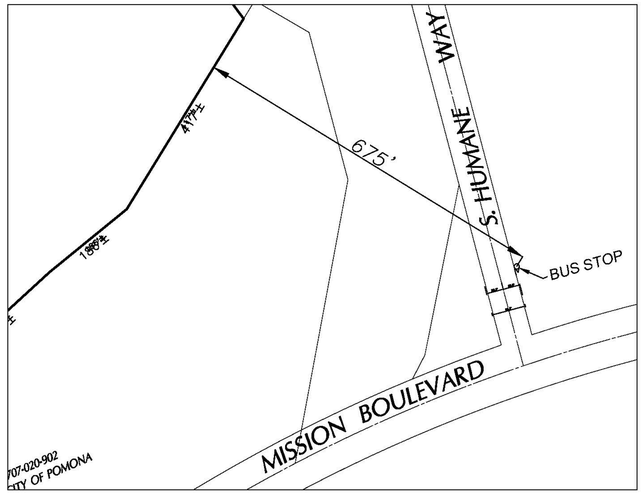
LOT SUMMARY

Lot No.	Land Use	Acres
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LOTS 86-104	PRIVATE STREET	7.73
LOTS 105-106	WATER QUALITY/DEBRIS BASIN	1.11
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LOTS 108-126	OPEN SPACE	28.84
LOT 127	OPEN SPACE	68.80
LOT 128	EMERGENCY, VEHICULAR ACCESS/SEWER & STORM DRAIN EASEMENT	0.61
LOT 129	LIFT STATION	0.09
LOT A	MISSION BOULEVARD	0.69
LOT B	MISSION BOULEVARD	0.20
TOTAL		120.61

LEGEND

- PROJECT BOUNDARY LINE
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED CURB
- EASEMENT LINE
- FUEL MOD
- PROPOSED CENTERLINE
- DW — PROPOSED WATER
- S — PROPOSED SEWER
- SD — PROPOSED STORM DRAIN
- RETAINING WALL/ RETAINING WALL HEIGHT
- PROPOSED M.S.E. WALL
- TOP OF SLOPE
- TOE OF SLOPE
- FIRE HYDRANT

BUS STOP LOCATION



NORTH

0 20' 40' 80'

SCALE: 1" = 40'

REVISION	
DATE	DESCRIPTION
-	-

OWNER/APPLICANT:
TRUMARK HOMES
450 NEWPORT CENTER DRIVE, SUITE 300
NEWPORT BEACH, CA 92660
PH: (949) 999-9800

PREPARED BY:
HUNSAKER & ASSOCIATES IRVINE, INC.
PLANNING * ENGINEERING * SURVEYING
Three Hughes • Irvine, CA 92618 • PH: (949) 583-1010 • FX: (949) 583-0759

CITY OF POMONA, COUNTY OF LOS ANGELES

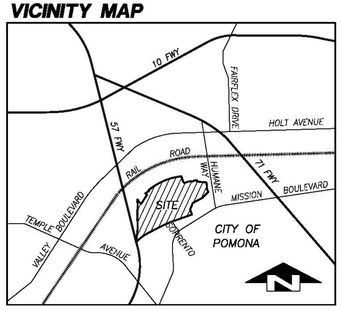
TENTATIVE TRACT MAP 72653
ELEPHANT HILL

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W.O. 3593-44X TTM 72653 ELEPHANT HILL

VICINITY MAP



UNIT SUMMARY

Cluster SFD

Unit Type	Sq. Ft.	Number of Units
Plan 1	1,690	24
Plan 2	1,760	21
Plan 3	1,930	23
Sub-Total		*68*

Duplex

Unit Type	Sq. Ft.	Number of Units
Plan 1	1,230	30
Plan 2	1,400	33
Plan 3	1,660	31
Sub-Total		*94*

Row/Townhome

Unit Type	Sq. Ft.	Number of Units
Plan 1	1,430	11
Plan 2	1,460	11
Plan 3	1,850	44
Sub-Total		*66*

Overall Total 228

NOTES

1. *EXISTING LAND USE: VACANT.*
2. *PROPOSED LAND USE: URBAN NEIGHBORHOOD*
3. *EXISTING ZONING: CITY OF POMONA, PRD AND OPEN SPACE*
4. *PROPOSED ZONING: CITY OF POMONA, PRD AND OPEN SPACE*
5. *GENERAL PLAN: OPEN SPACE AND URBAN NEIGHBORHOOD*
6. *EARTHWORK: CUT– 1,111,998 CYS, FILL– 1,215,939 CYS*
7. *GROSS ACRES: 120.62 ACRES*
8. *ASSESSOR'S PARCEL NUMBER: 8707–020–001, 8707–020–008 AND 8708–021–058*

UTILITY AGENCIES

SEWER & WATER:
CITY OF POMONA
505 SOUTH GAREY AVENUE
POMONA, CALIFORNIA 91766
(909) 620–2241

ELECTRIC SERVICE:
SOUTHERN CALIFORNIA EDISON
265 N. EAST END AVENUE
POMONA, CA 91767
(909) 469–0200

GAS SERVICE:
SOUTHERN CALIFORNIA GAS COMPANY
13525 12TH STREET
CHINO, CA
(909) 355–7873

TELEPHONE SERVICE:
VERIZON
1400 PHILLIPS RANCH RD.
POMONA, CA 91766
(800) 483–3000

TRASH:
CITY OF POMONA
505 SOUTH GAREY AVENUE
POMONA, CALIFORNIA 91766
(909) 620–2241

EXISTING EASEMENTS

4. *REFERS TO AN EASEMENT FOR THE PURPOSE PUBLIC HIGHWAY DRAINAGE PURPOSES IN FAVOR OF THE STATE OF CALIFORNIA RECORDED APRIL 6, 1970 AS INSTRUMENT NO. 2703, O.R. AFFECTS: A PROTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.*
5. *THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE STREET, HIGHWAY, OR FREEWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED BY THE DOCUMENT RECORDED JULY 12, 1971 AS INSTRUMENT NO. 2995, OFFICIAL RECORDS. AFFECTS: STATE FREEWAY*
6. *REFERES TO AN EASEMENT FOR STORM DRAIN PURPOSES IN FAVOR OF THE CITY OF POMONA, A MUNICIPAL CORPORATION RECORDED MAY 29, 1992 AS INSTRUMENT NO. 92–274716, O.R. AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.*
7. *REFERS TO AN EASEMENT FOR STORM DRAIN PURPOSES IN FAVOR OF THE CITY OF POMONA, A MUNICIPAL CORPORATION RECORDED JANUARY 22, 1998 AS INSTRUMENT NO. 98–101498, O.R. AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.*
8. *REFERS TO AN EASEMENT FOR SLOPE AND TEMPORARY CONSTRUCTION PURPOSES IN FAVOR OF ALAMEDA CORRIDOR–EAST CONSTRUCTION AUTHORITY RECORDED AUGUST 17, 2006 AS INSTRUMENT NO. 06–1835393, O.R. AFFECTS: A PORITON OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT.*
9. *REFERS TO AN EASEMENT FOR OVERHEAD AND UNDERGROUND ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS PURPOSES RECORDED MARCH 18, 1969 AS INSTRUMENT NO. 2682, O.R. AFFECTS: AS DESCRIBED THEREIN*
13. *REFERS TO AN EASEMENT FOR WATERLINE PURPOSES AS DELINEATED ON OR AS OFFERED FOR DEDICATION ON MAP/PLAT: TRACT NO. 35167, M.B. 1080/57–61 IN FAVOR OF THE CITY OF POMONA. AFFECTS: AS SHOWN ON SAID MAP*
14. *REFERS TO AN EASEMENT FOR SEWER PURPOSES AS DELINEATED ON OR AS OFFERED FOR DEDICATION ON MAP/PLAT: TRACT 35167, M.B. 1080/57–61 IN FAVOR OF THE CITY OF POMONA. AFFECTS: AS SHOWN ON SAID MAP*
15. *REFERS TO AN EASEMENT FOR SEWER MAIN LINE PURPOSES AS DELINEATED ON OR AS OFFERED FOR DEDICATION ON MAP/PLAT: TRACT NO. 50048, M.B. 1196/38–39 IN FAVOR OF THE CITY OF POMONA. AFFECTS: AS SHOWN ON SAID MAP.*

LOT SUMMARY

Lot No.	Land Use	Acres
LOTS 1-85	RESIDENTIAL	11.52
LOTS 86-104	PRIVATE STREET	7.73
LOTS 105-106	WATER QUALITY/DEBRIS BASIN	1.11
LOT 107	RECREATION CENTER	1.02
LOTS 108-126	OPEN SPACE	28.84
LOT 127	OPEN SPACE	68.80
LOT 128	EMERGENCY, VEHICULAR ACCESS/SEWER & STORM DRAIN EASEMENT	0.61
LOT 129	LIFT STATION	0.09
LOT A	MISSION BOULEVARD	0.69
LOT B	MISSION BOULEVARD	0.20
TOTAL		120.61

PARKING SUMMARY

Area	Homes	Garage/Covered	Suface Head-In	Surface On-Street	Total Spaces
1	73	146	4	21	171
2	55	110	52	41	203
3	66	132	34	35	201
4	34	68	19	4	91
Subtotal	228	456	109	101	666

LEGEND

- PROJECT BOUNDARY LINE
- PROPOSED RIGHT OF WAY
- PROPOSED LOT LINE
- PROPOSED CURB
- EASEMENT LINE
- FUEL MOD
- PROPOSED CENTERLINE
- PROPOSED WATER
- PROPOSED SEWER
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN
- EXISTING SEWER
- EXISTING WATER
- RETAINING WALL/ RETAINING WALL HEIGHT
- PROPOSED M.S.E. WALL
- TOP OF SLOPE
- TOE OF SLOPE
- FIRE HYDRANT

SCALE: 1" = 100'

STREET SECTIONS

"A", "B" & "Y" Street — TYPICAL DOUBLE LOADED LOCAL STREET PARKING BOTH SIDES (Private Street/ Firelane)

Section 1–1 "C" Street — NO PARKING (Private Street/ Firelane)

Section 2–2 "C" Street — HEAD–IN PARKING (Private Street/ Firelane)

Section 3–3 "C" Street — HEAD–IN PARKING

"D" Street — NO PARKING (Private Street/ Firelane)

"D" Street — HEAD–IN PARKING (Private Street/ Firelane)

"E" Street — NO PARKING (Private Street/ Firelane)

"F" Street — HEAD–IN PARKING (Private Street/ Firelane)

"F" Street – Entry — HEAD–IN PARKING (Private Street/ Firelane)

"F" Street — NO PARKING (Private Street/ Firelane)

24' Private Drive — NO PARKING (Private Driveway/ Firelane)

24' Private Drive — NO PARKING (Private Driveway/ Firelane)

"G" Drive — NO PARKING (Private Driveway/ Firelane)

26' Private Drive — NO PARKING (Private Driveway/ Firelane)

SECTION 6–6 "F" Street — NO PARKING (Private Street/ Firelane)

SECTION 7–7 Emergency Vehicle Access Road & Pedestrian Linkage

SECTION 8–8 Emergency Vehicle Access Road & Pedestrian Linkage

Section 4–4 MISSION BOULEVARD–100' Arterial Street NO PARKING EITHER SIDES (Public)

Section 5–5 MISSION BOULEVARD–100' Arterial Street NO PARKING EITHER SIDES (Public)

REVISION	
DATE	DESCRIPTION
-	-

OWNER/APPLICANT:
TRUMARK HOMES
450 NEWPORT CENTER DRIVE, SUITE 300
NEWPORT BEACH, CA 92660
PH: (949) 999–9800

PREPARED BY:
HUNSAKER & ASSOCIATES IRVINE, INC.
PLANNING • ENGINEERING • SURVEYING
Three Hughes • Irvine, CA 92618 • PH: (949) 583-1010 • FX: (949) 583-0759

CITY OF POMONA, COUNTY OF LOS ANGELES

TENTATIVE TRACT MAP 72653
TECHNICAL SITE PLAN
ELEPHANT HILL

DESIGNED BY: ____ DRAFTED BY: ____ CHECKED BY: ____ DATE: 4/12/23 CITY FILE NO.:

W.O. 3593-44X TTM 72653 ELEPHANT HILL

DATE: Apr. 13, 2023 04:35:45 PM FILE: F:\0054\Planning\SA_Site Plan\Site Plan – Sht.1.dwg

The location and dimensions of sanitary sewer easements shall be sufficient to provide present and future sewer service to abutting areas and adequate access for maintenance as determined by the county engineer.

C. Until the required easements have been properly executed and recorded:

1. No plans shall be approved by the county engineer for sewer facilities to be constructed by any person across the property of others;

2. No sewer facilities shall be accepted for public use, nor placed in use by any person.

(Ord. 10020 § 3 (part), 1970: Ord. 8690 § 11, 1964: Ord. 6130 Part 5 Ch. 6 § 5605.1, 1952.)

20.32.440 Main-line sewers—Size specifications.

A. The size of main-line sewer pipe shall be determined by standards of design and the coefficients listed below, but in no case shall it be less than eight inches inside diameter.

For zoning in the following categories for residential areas:	Coefficient cu. ft. per sec. per acre
R-1	0.004
R-2	0.008
R-3	0.012
R-4	0.016*
For commercial areas:	
C-I through C-4	0.015*
For heavy industrial areas:	
M-I through M-4	0.021*

** Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown.*

B. The coefficient to be used for any zoned area not listed will be determined by the county engineer based upon the intended development and use.

C. The county engineer shall determine which of the coefficients or combination of coefficients shall be used for design, as determined by the established or proposed zoning in the study area. Any modifications to these coefficients due to topography, development or hazard areas shall be approved by the county engineer.

(Ord. 8690 § 12 (part), 1964: Ord. 6130 Part 5 Ch. 6 § 5606, 1952.)

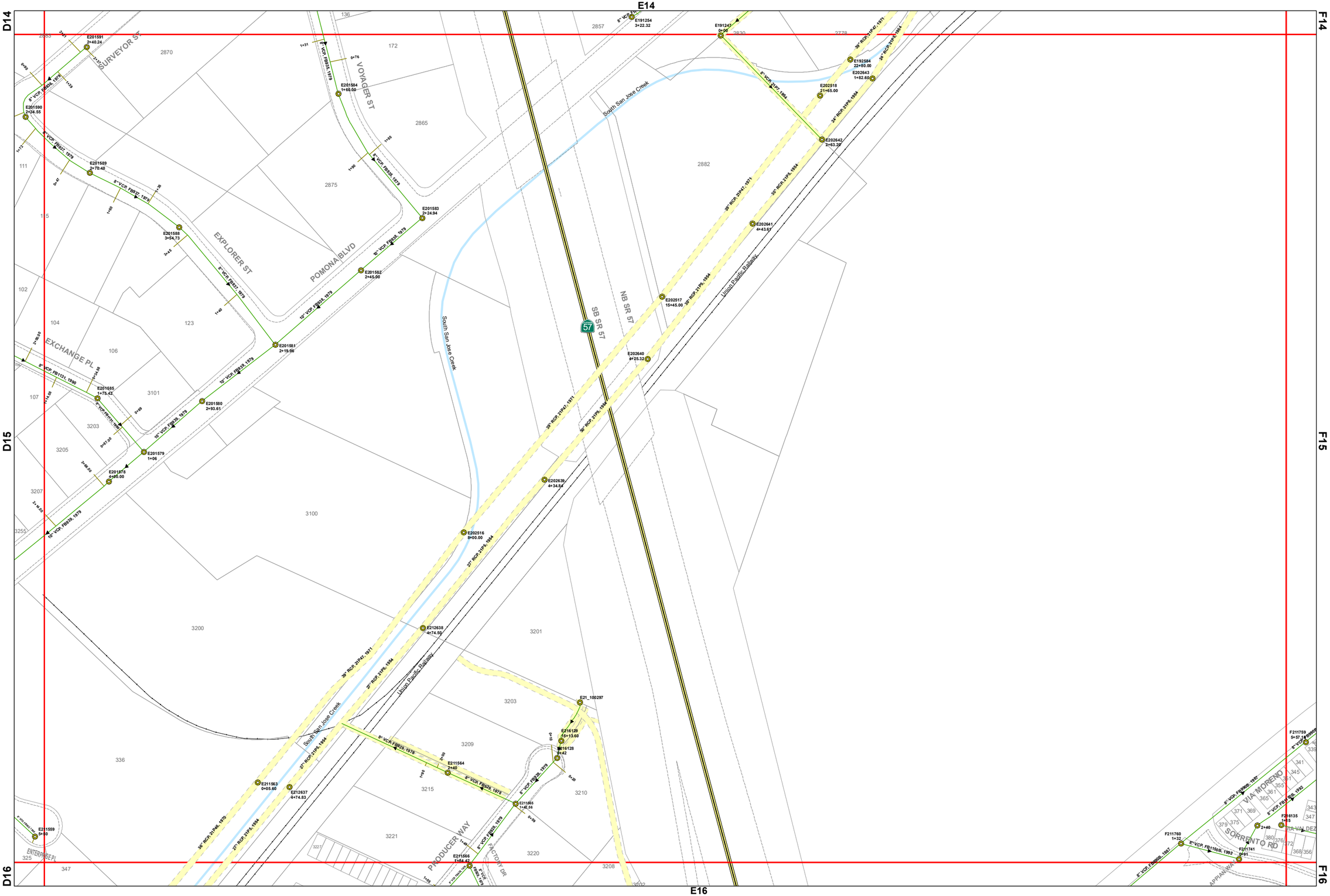
20.32.450 Main-line sewers—Minimum velocity.

A mainline sewer shall be designed to provide a minimum velocity of two feet per second for pipes flowing one-half full, except that the county engineer may approve a gradient that will develop a lower velocity if he finds that a gradient that will develop a velocity of two feet per second is unobtainable.

TABLE 22.06.010-A: ZONES	
Abbreviation	Full Name
Agricultural, Open Space, Resort and Recreation, and Watershed Zones	
A-1	Light Agricultural
A-2	Heavy Agricultural
O-S	Open Space
R-R	Resort and Recreation
W	Watershed
Residential Zones	
R-A	Residential Agricultural
R-1	Single-Family Residence
R-2	Two-Family Residence
R-3	Limited Density Multiple Residence
R-4	Medium Density Multiple Residence
R-5	High Density Multiple Residence
RPD	Residential Planned Development
Commercial Zones	

TABLE 22.06.010-A: ZONES	
Abbreviation	Full Name
C-1	Restricted Commercial
C-2	Neighborhood Commercial
C-3	General Commercial
C-H	Commercial Highway
C-M	Commercial Manufacturing
C-MJ	Major Commercial
C-R	Commercial Recreation
CPD	Commercial Planned Development
Industrial Zones	
M-1	Light Manufacturing
M-1.5	Restricted Heavy Manufacturing
M-2	Heavy Manufacturing
M-2.5	Aircraft and Heavy Industrial
M-3	Unclassified
MPD	Manufacturing—Industrial Planned Development

TABLE 22.06.010-A: ZONES	
Abbreviation	Full Name
B-1	Buffer Strip
B-2	Corner Buffer Strip
Rural Zones	
C-RU	Rural Commercial
MXD-RU	Rural Mixed Use Development
Special Purpose Zones	
IT	Institutional
MXD	Mixed Use Development
SP	Specific Plan
SR-D	Scientific Research and Development
P-R	Restricted Parking



City of Pomona

Sewer Atlas Map

Tile: E15

Updated June 20, 2020

Sewer Main

Labeled with: Diameter, Material, Drawing, Year Installed

- City of Pomona
- Los Angeles County
- Private
- San Bernardino County
- City of Claremont
- Abandoned Main

Laterals

Labeled with: Stationing

- Service Lateral

Sewer Structures

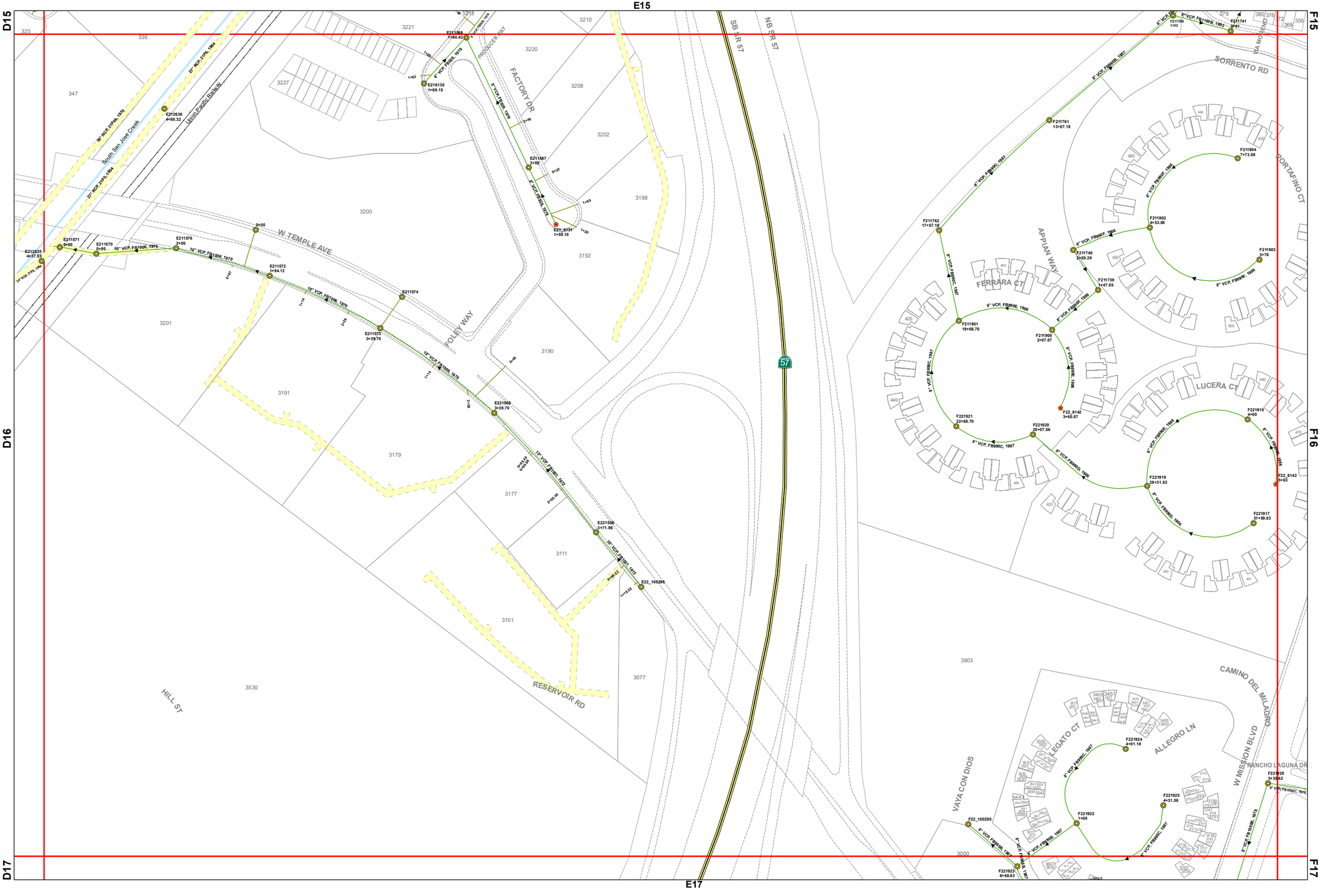
Labeled with: Manhole ID Stationing

- Manhole
- Clean Out
- Lamp Hole
- Cap
- Plug
- Pump
- Well
- Easement
- Casing

0 75 150 300 Feet

CITY OF POMONA DISCLAIMER

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City of Pomona

Sewer Atlas Map

Tile: E16

Updated June 20, 2020

Sewer Main

Labeled with: Diameter, Material, Drawing, Year Installed

- City of Pomona
- Los Angeles County
- Private
- San Bernardino County
- City of Claremont
- Abandoned Main

Laterals

Labeled with: Stationing

- Service Lateral

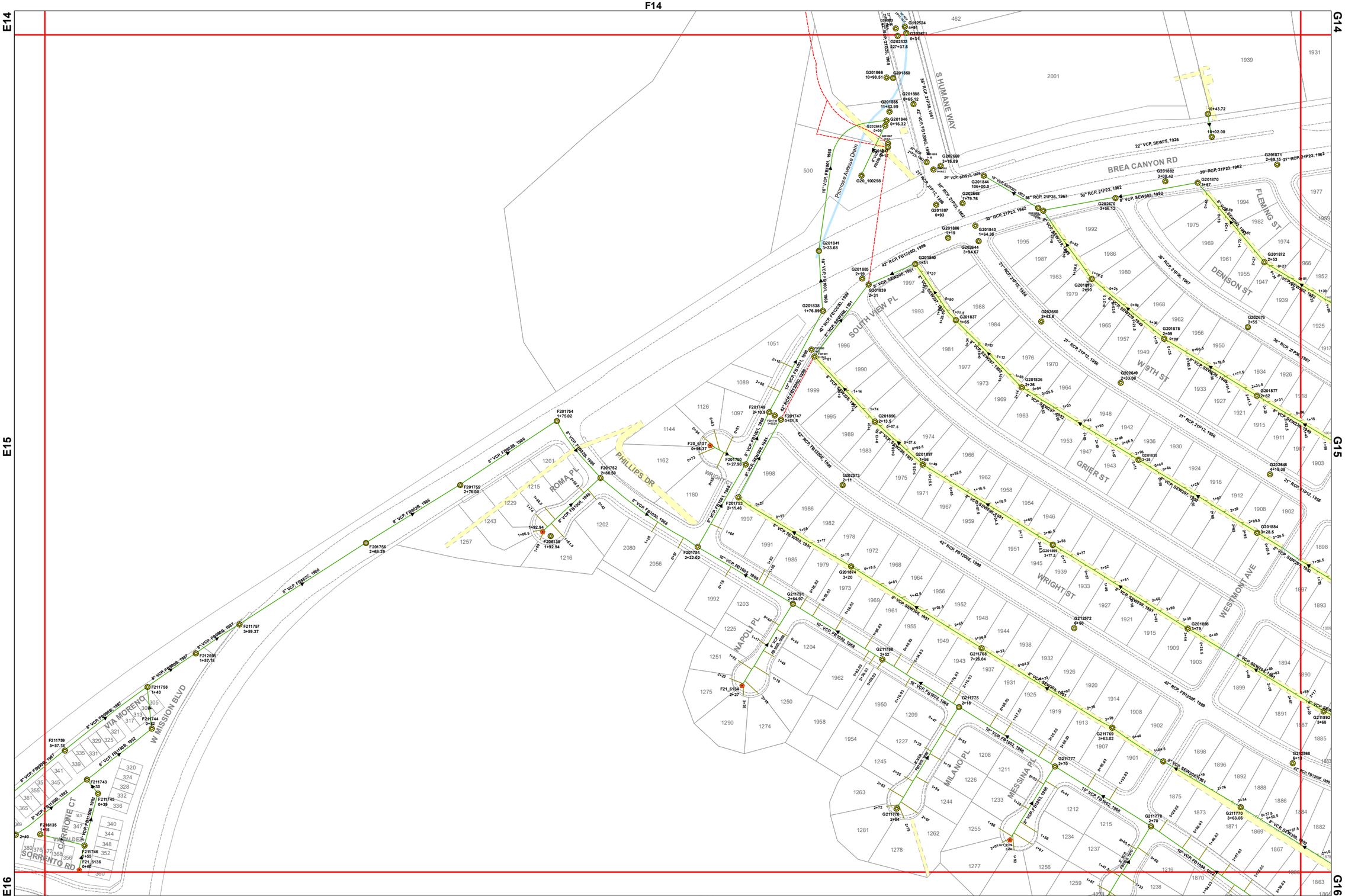
Sewer Structures

Labeled with: Manhole ID Stationing

- Manhole
- Clean Out
- Lamp Hole
- Cap
- Plug
- Pump
- Well
- Easement
- Casing

0 75 150 300 Feet

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City of Pomona

Sewer Atlas Map

Tile: F15

Updated June 20, 2020

Sewer Main

Labeled with: Diameter, Material, Drawing, Year Installed

- City of Pomona
- Los Angeles County
- Private
- San Bernardino County
- City of Claremont
- Abandoned Main

Laterals

Labeled with: Stationing

- Service Lateral

Sewer Structures

Labeled with: Manhole ID Stationing

- Manhole
- Clean Out
- Lamp Hole
- Cap
- Plug
- Pump
- Well
- Easement
- Casing

0 75 150 300 Feet

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F15

E15

G15

E16

G16

E17

G17

F17

SORRENTO RD

CARBONE CT

FORTAFINO CT

APPIAN WAY

LUCERA CT

W MISSION BLVD

ALLEGRE LN

RANCHO LAGUNA DR

WESTMONT AVE

PHILLIPS DR

VENEZIA PL

F21_6136
0+60

F224903

F22_6142
5+63

F221917
3+59.83

F221928
3+39.62

8" VCP, FB1055C, 1978

8" VCP, FB1055A, 1978

F221927
2+48.39

8" VCP, FB1055C, 1978

F221_6140
1+98

10" VCP, FB1055A, 1972

G211778
3+82.48

10" VCP, FB1055A, 1972

G211780
2+44.47

8" VCP, FB1055C, 1978

City of Pomona

Sewer Atlas Map

Tile: F16

Updated June 20, 2020

Sewer Main

Labeled with: Diameter, Material, Drawing, Year Installed

- City of Pomona
- Los Angeles County
- Private
- San Bernardino County
- City of Claremont
- Abandoned Main

Laterals

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Sewer Structures

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- Manhole
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0 75 150 300 Feet

CITY OF POMONA DISCLAIMER
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Site Report 11/03/2020

Confidential Proprietary Information

Hunsaker & Associates

2020.10 Mission MH G201838

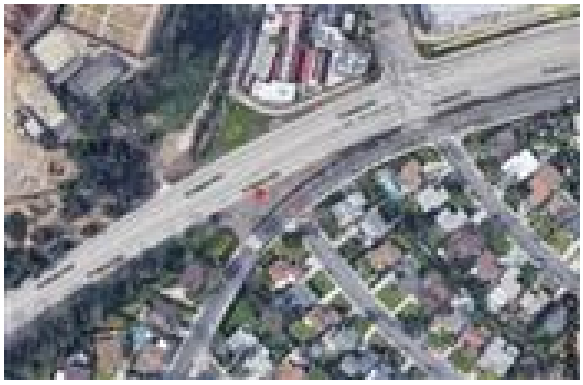
MH at ~1000 Southview Pl
Pomona, CA 91766
MH # G201838

Access:
MH in middle of greenspace, NW of intersection (Southview Pl & Grier St)

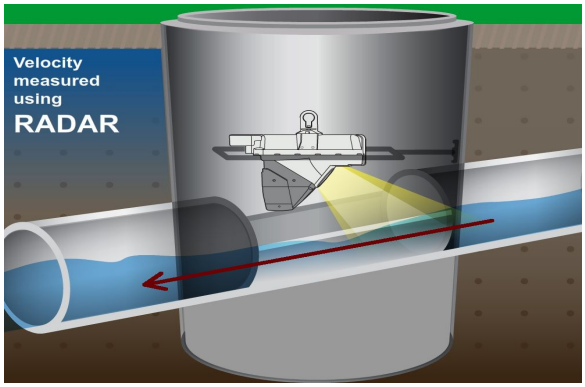
System Type:
Sanitary [X] Storm [ ]

Install Date: 10/26/2020

Map



Technology



Sewer Plan



Flow Meter			
Meter Depth: 120.65"			
MH Coordinates: 34.051759, -117.790538			
Moderate open channel hydraulics			
Avg Velocity	Avg Measured Level		Multiplier
2.40 fps	4.40"		1.0
Gas			
O2	H2S	CO	LEL
19.9	1	4	0

Notes

No laterals; monitored the upstream line as it provided the best hydraulics.

Traffic Safety

MH in greenspace, no traffic control required.

Land Use

Residential	Commercial	Industrial	Trunk
X			

Manhole Depth	135.5"
Monitored Pipe Size	10"
Inner Pipe Size (In/Out)	10"/10"
Pipe Shape	Round
Pipe Condition	Good
Manhole Material	Concrete
Silt	None observed
Velocity Profile Data	*
Velocity Profile Taken	0.4 2-D
Sensor Offset	14.85"
Sensor Dist. to Crown	4.85"
Sensor Direction	Upstream
Flow Heading	North

Meter Site Document

2020.10 Mission MH G201838

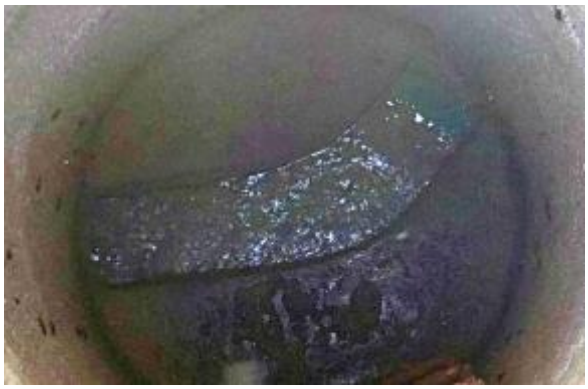
MH at ~1000 Southview Pl

Pomona, CA 91766

Site



Manhole Before Install



Installation Process



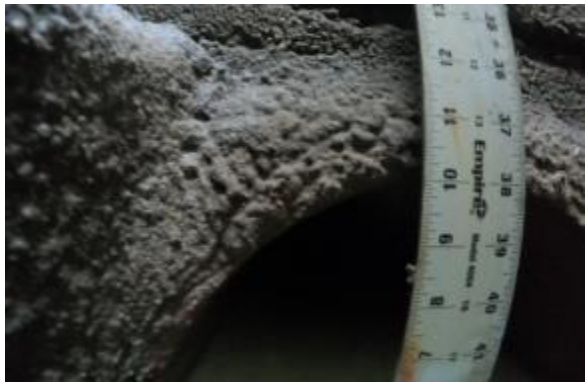
Installed



Upstream



Monitored Pipe Size



Temporary Flow Study

Hunsaker & Associates

2020.10 Mission MH G201838

Meter Start Date		From	10/26/2020
Meter Stop Date		To	11/3/2020
Velocity (fps)		Level (in)	Flow (mgd)
Average	2.414	4.465	0.371
Maximum	3.050	5.980	0.514
Minimum	1.570	2.510	0.111
Pipe Size		10.000	
Estimated Capacity (mgd)		Not Calculated	
Capacity Used		Not Calculated	
Sensor Type		Hach - Flodar	

Utility Systems, Science and Software

9314 Bond Av, Suite A
El Cajon, CA 92021

601 N. Parkcenter Dr, Suite 209
Santa Ana, CA 92705

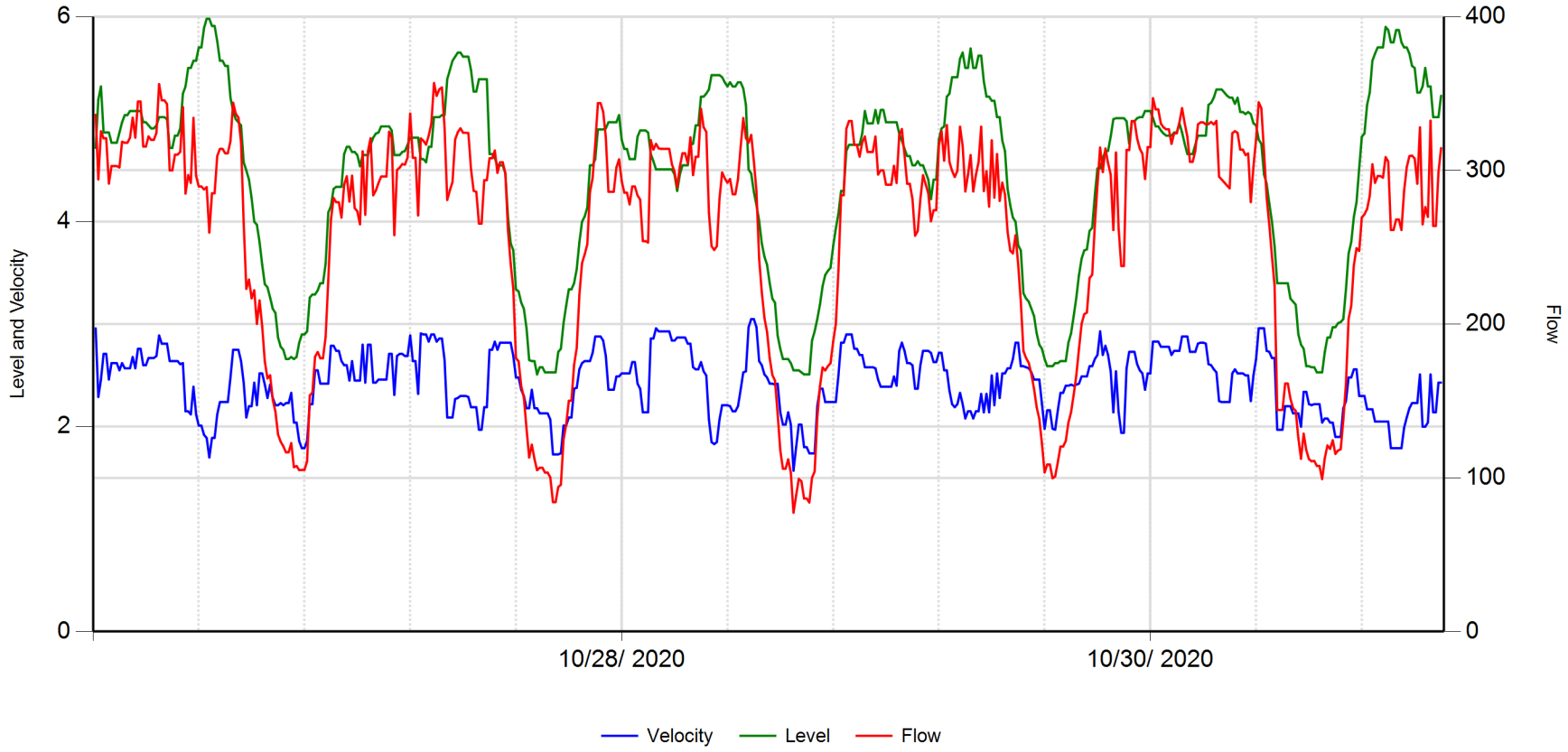
Utility Systems Science and Software

Report Date: 11/03/2020
Customer: Hunsaker & Associates
Group: Elephant Hill Project
Site: 2020.10 Mission MH G201838

Statistics for 2020.10 Mission MH G201838: 10/26/2020 thru 11/03/2020

	Flow (GPM)			Flow (MGD)			Velocity (FPS)			Level (inches)				
Date	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Avg	Max	Min	Total Gal	Rain
10/26/20	305.85	356.18	200.21	0.44	0.51	0.29	2.46	2.96	1.70	5.09	5.98	3.97	440,426	
10/27/20	258.18	356.87	105.07	0.37	0.51	0.15	2.48	2.91	1.79	4.38	5.65	2.66	371,778	
10/28/20	250.81	343.82	84.24	0.36	0.50	0.12	2.46	3.05	1.73	4.29	5.43	2.51	361,163	
10/29/20	250.18	332.15	77.36	0.36	0.48	0.11	2.40	2.90	1.57	4.35	5.69	2.51	360,263	
10/30/20	265.30	347.01	99.79	0.38	0.50	0.14	2.55	2.96	1.94	4.37	5.29	2.59	382,031	
10/31/20	239.21	332.36	99.24	0.34	0.48	0.14	2.27	2.92	1.79	4.43	5.90	2.53	344,467	
11/1/20	246.64	327.78	97.15	0.36	0.47	0.14	2.28	2.77	1.94	4.55	5.83	2.55	355,158	
Week:	**259.45**	**356.87**	**77.36**	**0.37**	**0.51**	**0.11**	**2.41**	**3.05**	**1.57**	**4.49**	**5.98**	**2.51**	**2,615,287**	
11/2/20	261.68	344.51	103.89	0.38	0.50	0.15	2.44	2.89	1.99	4.49	5.62	2.61	376,819	
11/3/20	184.47	306.94	110.69	0.27	0.44	0.16	2.44	2.82	2.00	3.43	4.65	2.72	265,633	
Week:	**223.07**	**344.51**	**103.89**	**0.32**	**0.50**	**0.15**	**2.44**	**2.89**	**1.99**	**3.96**	**5.62**	**2.61**	**642,452**	
Totals:	**251.37**	**356.87**	**77.36**	**0.36**	**0.51**	**0.11**	**2.42**	**3.05**	**1.57**	**4.37**	**5.98**	**2.51**	**3,257,739**	

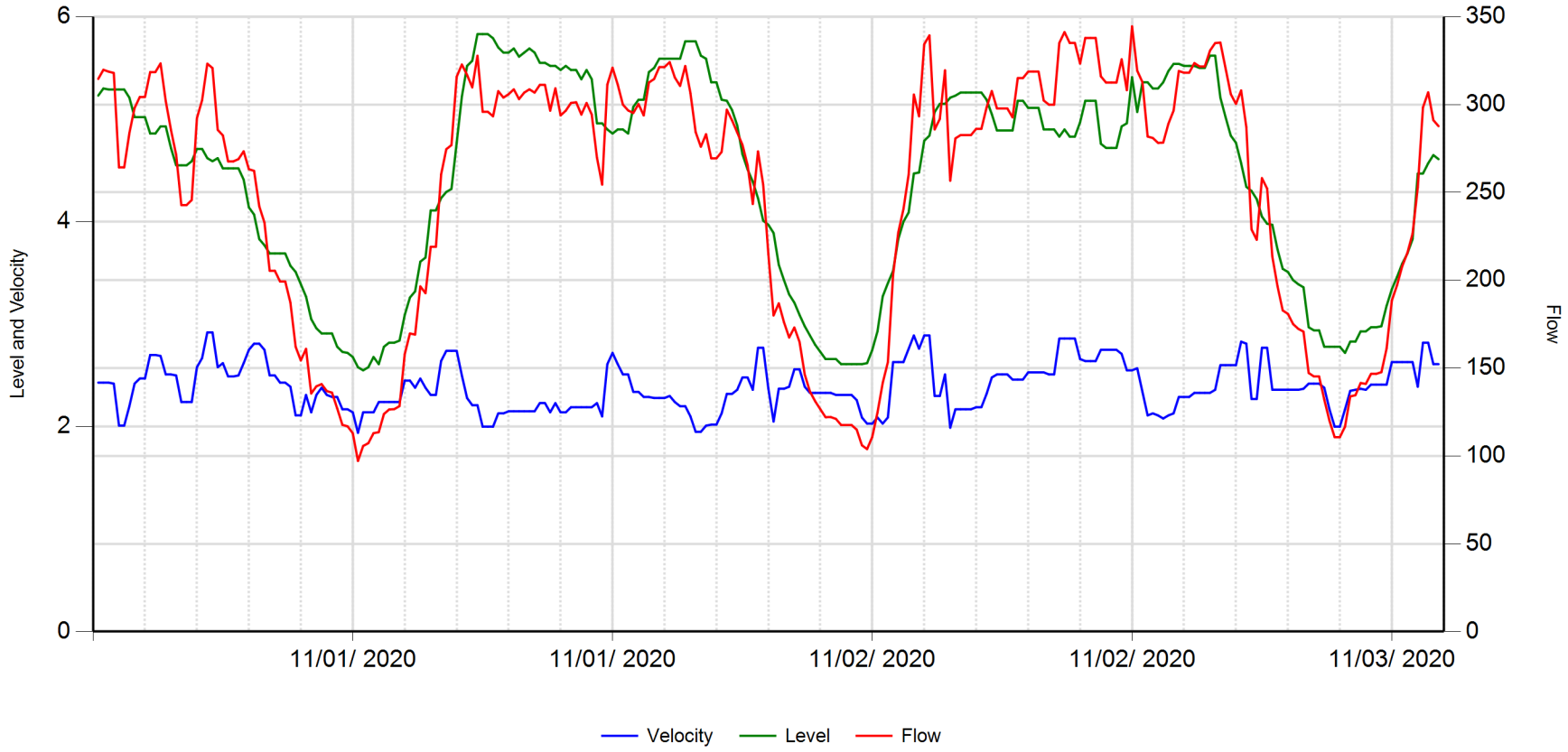
2020.10 Mission MH G201838



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	2.429	4.428	257.027	**RainFall**	Inches
Maximum	3.050	5.980	356.874		
Minimum	1.570	2.510	77.361		

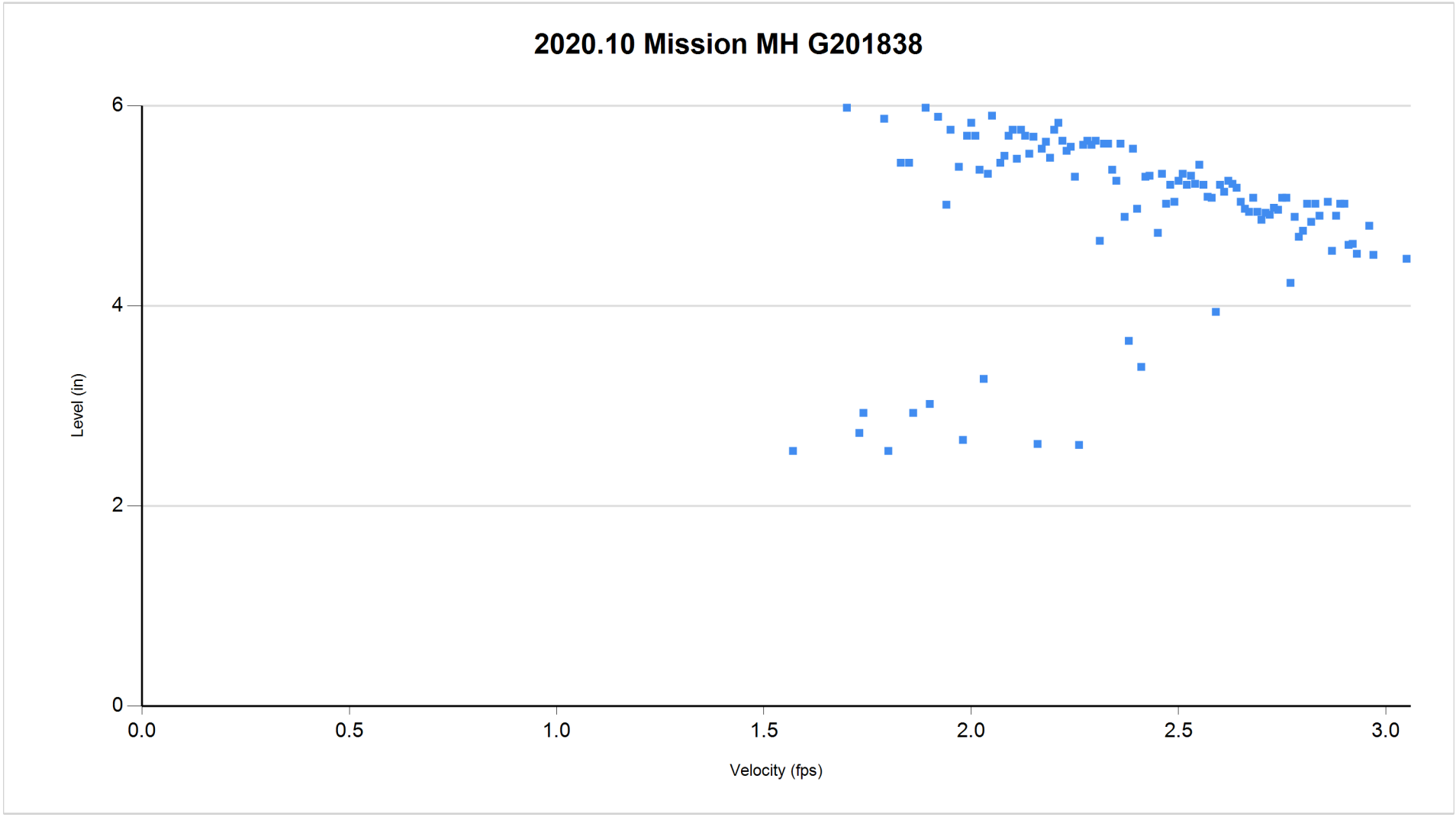
11/03/2020

2020.10 Mission MH G201838



	Velocity (fps)	Level (in)	Flow (gpm)		
Average	2.389	4.399	248.832	**RainFall**	Inches
Maximum	2.920	5.830	344.513		
Minimum	1.940	2.550	97.152		

11/03/2020



10/26/2020 thru 11/03/2020

11/3/2020 12:18:36 PM

Utility Systems Science and Software

Report Date: 11/03/2020
Customer: US3
Group: Elephant Hill Project
Site: 2020.10 Mission MH G201838

Data for 2020.10 Mission MH G201838: 10/26/2020 thru 11/03/2020

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/26 08:38	4.72	336.25	2.96
2020/10/26 08:53	5.19	294.17	2.29
2020/10/26 09:08	5.32	325.49	2.46
2020/10/26 09:23	4.87	320.90	2.71
2020/10/26 09:38	4.87	320.90	2.71
2020/10/26 09:53	4.87	291.46	2.46
2020/10/26 10:08	4.77	302.85	2.62
2020/10/26 10:23	4.77	302.85	2.62
2020/10/26 10:38	4.77	302.85	2.62
2020/10/26 10:53	4.87	301.94	2.55
2020/10/26 11:08	4.97	318.68	2.62
2020/10/26 11:23	5.04	317.99	2.57
2020/10/26 11:38	5.04	317.99	2.57
2020/10/26 11:53	5.08	321.32	2.57
2020/10/26 12:08	5.08	334.30	2.68
2020/10/26 12:23	5.08	321.32	2.57
2020/10/26 12:38	5.08	344.79	2.76
2020/10/26 12:53	5.08	344.79	2.76
2020/10/26 13:08	4.97	315.55	2.60
2020/10/26 13:23	4.97	315.55	2.60
2020/10/26 13:38	4.94	322.15	2.67
2020/10/26 13:53	4.91	319.86	2.67
2020/10/26 14:08	4.91	319.86	2.67
2020/10/26 14:23	4.94	324.51	2.69
2020/10/26 14:38	5.02	356.18	2.89
2020/10/26 14:53	5.02	345.62	2.81
2020/10/26 15:08	5.02	345.62	2.81
2020/10/26 15:23	5.00	343.19	2.81
2020/10/26 15:38	4.72	300.00	2.64
2020/10/26 15:53	4.72	300.00	2.64
2020/10/26 16:08	4.84	310.28	2.64
2020/10/26 16:23	4.84	310.28	2.64
2020/10/26 16:38	4.91	312.15	2.61
2020/10/26 16:53	5.25	341.25	2.62
2020/10/26 17:08	5.32	284.93	2.15
2020/10/26 17:23	5.50	297.01	2.15
2020/10/26 17:38	5.50	291.94	2.12
2020/10/26 17:53	5.57	334.17	2.39
2020/10/26 18:08	5.57	296.53	2.12

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/26 18:23	5.70	289.58	2.01
2020/10/26 18:38	5.70	289.58	2.01
2020/10/26 18:53	5.89	287.64	1.92
2020/10/26 19:08	5.98	289.17	1.89
2020/10/26 19:23	5.98	259.58	1.70
2020/10/26 19:38	5.91	285.14	1.89
2020/10/26 19:53	5.91	285.14	1.89
2020/10/26 20:08	5.76	309.44	2.12
2020/10/26 20:23	5.57	314.03	2.24
2020/10/26 20:38	5.57	314.03	2.24
2020/10/26 20:53	5.52	311.18	2.24
2020/10/26 21:08	5.52	311.18	2.24
2020/10/26 21:23	5.21	319.17	2.48
2020/10/26 21:38	5.08	344.03	2.75
2020/10/26 21:53	5.00	336.87	2.75
2020/10/26 22:08	4.97	334.44	2.75
2020/10/26 22:23	4.94	318.26	2.64
2020/10/26 22:38	4.58	265.76	2.43
2020/10/26 22:53	4.50	222.99	2.09
2020/10/26 23:08	4.41	229.03	2.20
2020/10/26 23:23	4.23	216.80	2.20
2020/10/26 23:38	4.00	222.08	2.43
2020/10/26 23:53	3.97	200.21	2.21
2020/10/27 00:08	3.80	215.49	2.52
2020/10/27 00:23	3.58	198.68	2.52
2020/10/27 00:38	3.39	175.62	2.41
2020/10/27 00:53	3.36	164.72	2.28
2020/10/27 01:08	3.26	166.81	2.41
2020/10/27 01:23	3.15	150.83	2.28
2020/10/27 01:38	3.11	143.12	2.21
2020/10/27 01:53	2.87	128.26	2.21
2020/10/27 02:08	2.78	123.54	2.23
2020/10/27 02:23	2.75	120.56	2.21
2020/10/27 02:38	2.66	116.67	2.23
2020/10/27 02:53	2.66	116.67	2.23
2020/10/27 03:08	2.68	122.64	2.33
2020/10/27 03:23	2.66	107.01	2.04
2020/10/27 03:38	2.68	107.78	2.04
2020/10/27 03:53	2.82	105.07	1.86
2020/10/27 04:08	2.90	105.21	1.79
2020/10/27 04:23	2.90	105.21	1.79
2020/10/27 04:38	2.93	110.90	1.86
2020/10/27 04:53	3.26	153.68	2.22
2020/10/27 05:08	3.29	155.49	2.22
2020/10/27 05:23	3.29	178.82	2.55

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/27 05:38	3.33	181.94	2.55
2020/10/27 05:53	3.40	177.85	2.42
2020/10/27 06:08	3.40	177.85	2.42
2020/10/27 06:23	3.59	191.87	2.42
2020/10/27 06:38	4.09	228.54	2.42
2020/10/27 06:53	4.15	267.85	2.79
2020/10/27 07:08	4.32	282.15	2.79
2020/10/27 07:23	4.34	279.30	2.74
2020/10/27 07:38	4.34	279.30	2.74
2020/10/27 07:53	4.34	269.30	2.64
2020/10/27 08:08	4.66	290.69	2.60
2020/10/27 08:23	4.73	296.25	2.60
2020/10/27 08:38	4.73	279.72	2.45
2020/10/27 08:53	4.68	296.60	2.64
2020/10/27 09:08	4.68	275.49	2.45
2020/10/27 09:23	4.65	273.40	2.45
2020/10/27 09:38	4.54	264.93	2.45
2020/10/27 09:53	4.65	312.50	2.80
2020/10/27 10:08	4.65	271.18	2.43
2020/10/27 10:23	4.65	312.50	2.80
2020/10/27 10:38	4.75	320.97	2.80
2020/10/27 10:53	4.82	283.82	2.43
2020/10/27 11:08	4.86	286.94	2.43
2020/10/27 11:23	4.87	291.80	2.46
2020/10/27 11:38	4.93	296.04	2.46
2020/10/27 11:53	4.93	296.04	2.46
2020/10/27 12:08	4.93	296.04	2.46
2020/10/27 12:23	4.93	325.21	2.71
2020/10/27 12:38	4.89	321.67	2.71
2020/10/27 12:53	4.65	257.92	2.31
2020/10/27 13:08	4.65	300.28	2.69
2020/10/27 13:23	4.65	301.80	2.71
2020/10/27 13:38	4.68	304.17	2.71
2020/10/27 13:53	4.69	303.75	2.69
2020/10/27 14:08	4.75	308.40	2.69
2020/10/27 14:23	4.82	337.01	2.89
2020/10/27 14:38	4.82	308.19	2.64
2020/10/27 14:53	4.82	308.19	2.64
2020/10/27 15:08	4.82	270.76	2.32
2020/10/27 15:23	4.61	320.83	2.91
2020/10/27 15:38	4.61	319.30	2.90
2020/10/27 15:53	4.58	316.80	2.90
2020/10/27 16:08	4.73	322.71	2.83
2020/10/27 16:23	4.73	330.55	2.90
2020/10/27 16:38	5.02	356.87	2.90

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/27 16:53	5.02	348.47	2.83
2020/10/27 17:08	5.02	352.78	2.86
2020/10/27 17:23	5.04	354.03	2.86
2020/10/27 17:38	5.04	327.57	2.65
2020/10/27 17:53	5.39	280.76	2.09
2020/10/27 18:08	5.48	287.08	2.09
2020/10/27 18:23	5.57	292.50	2.09
2020/10/27 18:38	5.61	320.21	2.27
2020/10/27 18:53	5.65	324.86	2.28
2020/10/27 19:08	5.65	327.43	2.30
2020/10/27 19:23	5.61	324.51	2.30
2020/10/27 19:38	5.61	324.51	2.30
2020/10/27 19:53	5.61	324.30	2.29
2020/10/27 20:08	5.48	300.90	2.19
2020/10/27 20:23	5.27	286.74	2.19
2020/10/27 20:38	5.27	286.11	2.19
2020/10/27 20:53	5.39	265.42	1.97
2020/10/27 21:08	5.39	265.42	1.97
2020/10/27 21:23	5.39	293.68	2.19
2020/10/27 21:38	5.39	293.68	2.19
2020/10/27 21:53	4.66	307.92	2.75
2020/10/27 22:08	4.66	307.92	2.75
2020/10/27 22:23	4.62	312.99	2.83
2020/10/27 22:38	4.55	298.40	2.75
2020/10/27 22:53	4.55	305.35	2.82
2020/10/27 23:08	4.55	305.35	2.82
2020/10/27 23:23	4.47	298.12	2.82
2020/10/27 23:38	4.04	260.76	2.82
2020/10/27 23:53	3.79	239.37	2.82
2020/10/28 00:08	3.72	222.99	2.69
2020/10/28 00:23	3.34	177.92	2.48
2020/10/28 00:38	3.32	175.90	2.48
2020/10/28 00:53	3.21	159.72	2.36
2020/10/28 01:08	3.15	152.29	2.30
2020/10/28 01:23	2.96	131.94	2.18
2020/10/28 01:38	2.65	113.26	2.18
2020/10/28 01:53	2.64	121.67	2.36
2020/10/28 02:08	2.64	112.43	2.18
2020/10/28 02:23	2.51	105.00	2.18
2020/10/28 02:38	2.58	106.67	2.13
2020/10/28 02:53	2.58	106.67	2.13
2020/10/28 03:08	2.53	103.47	2.13
2020/10/28 03:23	2.53	103.47	2.13
2020/10/28 03:38	2.53	100.35	2.07
2020/10/28 03:53	2.53	84.24	1.73

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/28 04:08	2.53	84.24	1.73
2020/10/28 04:23	2.73	94.10	1.73
2020/10/28 04:38	2.76	95.56	1.74
2020/10/28 04:53	3.01	124.93	2.01
2020/10/28 05:08	3.18	134.65	2.01
2020/10/28 05:23	3.34	150.21	2.09
2020/10/28 05:38	3.34	150.21	2.09
2020/10/28 05:53	3.40	173.61	2.37
2020/10/28 06:08	3.54	184.72	2.38
2020/10/28 06:23	3.80	219.03	2.56
2020/10/28 06:38	4.00	239.72	2.62
2020/10/28 06:53	4.05	245.35	2.64
2020/10/28 07:08	4.14	252.08	2.64
2020/10/28 07:23	4.55	286.04	2.64
2020/10/28 07:38	4.55	294.93	2.72
2020/10/28 07:53	4.61	317.64	2.88
2020/10/28 08:08	4.90	343.82	2.88
2020/10/28 08:23	4.90	343.82	2.88
2020/10/28 08:38	4.90	338.12	2.84
2020/10/28 08:53	4.91	321.46	2.69
2020/10/28 09:08	4.97	286.11	2.36
2020/10/28 09:23	4.97	286.11	2.36
2020/10/28 09:38	4.97	286.11	2.36
2020/10/28 09:53	4.97	301.87	2.49
2020/10/28 10:08	5.04	307.22	2.49
2020/10/28 10:23	4.80	293.19	2.52
2020/10/28 10:38	4.71	285.55	2.52
2020/10/28 10:53	4.71	285.55	2.52
2020/10/28 11:08	4.61	277.92	2.52
2020/10/28 11:23	4.61	289.58	2.63
2020/10/28 11:38	4.61	289.58	2.63
2020/10/28 11:53	4.83	283.75	2.42
2020/10/28 12:08	4.89	281.04	2.37
2020/10/28 12:23	4.89	254.03	2.14
2020/10/28 12:38	4.89	254.03	2.14
2020/10/28 12:53	4.87	253.12	2.14
2020/10/28 13:08	4.66	319.72	2.86
2020/10/28 13:23	4.59	313.54	2.86
2020/10/28 13:38	4.51	317.29	2.96
2020/10/28 13:53	4.51	314.30	2.93
2020/10/28 14:08	4.51	314.03	2.93
2020/10/28 14:23	4.51	314.03	2.93
2020/10/28 14:38	4.51	314.03	2.93
2020/10/28 14:53	4.51	314.03	2.93
2020/10/28 15:08	4.51	304.03	2.84

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/28 15:23	4.46	299.17	2.84
2020/10/28 15:38	4.30	288.96	2.87
2020/10/28 15:53	4.46	302.50	2.87
2020/10/28 16:08	4.55	311.18	2.87
2020/10/28 16:23	4.55	311.18	2.87
2020/10/28 16:38	4.55	304.51	2.81
2020/10/28 16:53	4.75	321.53	2.81
2020/10/28 17:08	4.76	296.94	2.58
2020/10/28 17:23	4.94	308.89	2.56
2020/10/28 17:38	4.94	308.89	2.56
2020/10/28 17:53	5.22	340.14	2.63
2020/10/28 18:08	5.22	328.12	2.54
2020/10/28 18:23	5.25	325.14	2.50
2020/10/28 18:38	5.29	272.43	2.07
2020/10/28 18:53	5.43	250.76	1.85
2020/10/28 19:08	5.43	248.26	1.83
2020/10/28 19:23	5.43	250.76	1.85
2020/10/28 19:38	5.43	281.39	2.07
2020/10/28 19:53	5.41	298.68	2.21
2020/10/28 20:08	5.36	294.86	2.21
2020/10/28 20:23	5.32	292.01	2.21
2020/10/28 20:38	5.36	294.44	2.20
2020/10/28 20:53	5.32	284.51	2.15
2020/10/28 21:08	5.32	284.51	2.15
2020/10/28 21:23	5.36	294.44	2.20
2020/10/28 21:38	5.36	315.07	2.36
2020/10/28 21:53	5.30	334.10	2.53
2020/10/28 22:08	5.14	321.11	2.54
2020/10/28 22:23	4.51	318.05	2.97
2020/10/28 22:38	4.47	323.12	3.05
2020/10/28 22:53	4.29	306.11	3.05
2020/10/28 23:08	4.16	286.25	2.97
2020/10/28 23:23	4.01	242.57	2.64
2020/10/28 23:38	3.79	220.83	2.60
2020/10/28 23:53	3.66	204.17	2.51
2020/10/29 00:08	3.58	194.93	2.48
2020/10/29 00:23	3.40	177.85	2.42
2020/10/29 00:38	3.25	166.94	2.42
2020/10/29 00:53	3.21	163.33	2.41
2020/10/29 01:08	2.89	141.81	2.42
2020/10/29 01:23	2.76	117.92	2.14
2020/10/29 01:38	2.66	105.97	2.02
2020/10/29 01:53	2.66	105.97	2.02
2020/10/29 02:08	2.66	112.08	2.14
2020/10/29 02:23	2.62	103.19	2.02

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/29 02:38	2.55	77.36	1.57
2020/10/29 02:53	2.55	88.61	1.80
2020/10/29 03:08	2.55	99.37	2.02
2020/10/29 03:23	2.53	97.85	2.02
2020/10/29 03:38	2.51	86.60	1.80
2020/10/29 03:53	2.51	86.60	1.80
2020/10/29 04:08	2.51	84.03	1.74
2020/10/29 04:23	2.84	100.07	1.74
2020/10/29 04:38	2.93	104.17	1.74
2020/10/29 04:53	3.05	139.44	2.20
2020/10/29 05:08	3.19	159.37	2.37
2020/10/29 05:23	3.37	171.87	2.37
2020/10/29 05:38	3.48	169.93	2.24
2020/10/29 05:53	3.52	172.71	2.24
2020/10/29 06:08	3.55	174.58	2.24
2020/10/29 06:23	3.76	188.54	2.24
2020/10/29 06:38	3.93	199.86	2.24
2020/10/29 06:53	4.08	234.72	2.50
2020/10/29 07:08	4.30	283.89	2.82
2020/10/29 07:23	4.30	283.89	2.82
2020/10/29 07:38	4.69	327.15	2.90
2020/10/29 07:53	4.75	332.15	2.90
2020/10/29 08:08	4.75	332.15	2.90
2020/10/29 08:23	4.75	316.60	2.76
2020/10/29 08:38	4.75	316.60	2.76
2020/10/29 08:53	4.75	308.96	2.70
2020/10/29 09:08	4.86	318.26	2.70
2020/10/29 09:23	5.08	322.08	2.58
2020/10/29 09:38	4.96	312.01	2.58
2020/10/29 09:53	4.96	312.01	2.58
2020/10/29 10:08	4.96	312.01	2.58
2020/10/29 10:23	5.09	322.08	2.57
2020/10/29 10:38	4.96	297.29	2.46
2020/10/29 10:53	5.09	300.07	2.39
2020/10/29 11:08	5.09	300.07	2.39
2020/10/29 11:23	4.97	290.76	2.39
2020/10/29 11:38	4.97	290.76	2.39
2020/10/29 11:53	4.97	290.76	2.39
2020/10/29 12:08	4.97	302.99	2.49
2020/10/29 12:23	4.97	291.87	2.40
2020/10/29 12:38	4.86	322.92	2.74
2020/10/29 12:53	4.79	326.94	2.82
2020/10/29 13:08	4.71	309.93	2.74
2020/10/29 13:23	4.64	291.32	2.62
2020/10/29 13:38	4.64	291.32	2.62

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/29 13:53	4.55	281.53	2.60
2020/10/29 14:08	4.55	257.57	2.37
2020/10/29 14:23	4.59	260.62	2.37
2020/10/29 14:38	4.55	281.53	2.60
2020/10/29 14:53	4.55	296.94	2.74
2020/10/29 15:08	4.48	291.04	2.74
2020/10/29 15:23	4.41	285.14	2.74
2020/10/29 15:38	4.22	266.94	2.72
2020/10/29 15:53	4.41	274.17	2.63
2020/10/29 16:08	4.41	274.17	2.63
2020/10/29 16:23	4.80	316.11	2.72
2020/10/29 16:38	4.91	325.49	2.72
2020/10/29 16:53	4.93	306.32	2.55
2020/10/29 17:08	5.22	329.51	2.55
2020/10/29 17:23	5.25	305.49	2.35
2020/10/29 17:38	5.41	299.72	2.22
2020/10/29 17:53	5.41	295.76	2.19
2020/10/29 18:08	5.41	299.72	2.22
2020/10/29 18:23	5.59	328.47	2.33
2020/10/29 18:38	5.65	315.90	2.22
2020/10/29 18:53	5.50	286.32	2.08
2020/10/29 19:08	5.50	297.01	2.15
2020/10/29 19:23	5.69	310.00	2.15
2020/10/29 19:38	5.50	286.32	2.08
2020/10/29 19:53	5.50	297.01	2.15
2020/10/29 20:08	5.62	305.35	2.15
2020/10/29 20:23	5.62	328.47	2.32
2020/10/29 20:38	5.37	286.60	2.14
2020/10/29 20:53	5.22	299.51	2.32
2020/10/29 21:08	5.22	276.46	2.14
2020/10/29 21:23	5.18	319.58	2.50
2020/10/29 21:38	5.18	282.29	2.21
2020/10/29 21:53	5.02	310.69	2.52
2020/10/29 22:08	5.02	280.21	2.28
2020/10/29 22:23	4.79	292.08	2.52
2020/10/29 22:38	4.69	284.51	2.52
2020/10/29 22:53	4.32	259.93	2.57
2020/10/29 23:08	4.16	247.85	2.57
2020/10/29 23:23	4.04	246.04	2.66
2020/10/29 23:38	4.00	257.85	2.82
2020/10/29 23:53	3.77	238.82	2.82
2020/10/30 00:08	3.72	214.44	2.59
2020/10/30 00:23	3.30	182.43	2.59
2020/10/30 00:38	3.25	177.99	2.58
2020/10/30 00:53	3.22	174.86	2.57

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/30 01:08	3.15	167.50	2.53
2020/10/30 01:23	3.08	157.92	2.46
2020/10/30 01:38	2.91	145.97	2.46
2020/10/30 01:53	2.80	138.33	2.46
2020/10/30 02:08	2.76	122.15	2.22
2020/10/30 02:23	2.66	103.54	1.98
2020/10/30 02:38	2.59	108.75	2.16
2020/10/30 02:53	2.59	108.75	2.16
2020/10/30 03:08	2.59	99.79	1.98
2020/10/30 03:23	2.62	100.97	1.97
2020/10/30 03:38	2.62	110.35	2.16
2020/10/30 03:53	2.64	120.42	2.33
2020/10/30 04:08	2.64	120.42	2.33
2020/10/30 04:23	2.64	124.03	2.40
2020/10/30 04:38	2.82	136.04	2.40
2020/10/30 04:53	2.91	142.71	2.41
2020/10/30 05:08	3.08	154.10	2.40
2020/10/30 05:23	3.26	166.81	2.41
2020/10/30 05:38	3.48	183.96	2.42
2020/10/30 05:53	3.64	200.28	2.49
2020/10/30 06:08	3.72	206.53	2.49
2020/10/30 06:23	3.73	207.57	2.49
2020/10/30 06:38	3.91	230.00	2.59
2020/10/30 06:53	3.94	232.15	2.59
2020/10/30 07:08	4.26	264.51	2.66
2020/10/30 07:23	4.52	290.76	2.70
2020/10/30 07:38	4.52	314.93	2.93
2020/10/30 07:53	4.62	298.96	2.70
2020/10/30 08:08	4.69	314.24	2.79
2020/10/30 08:23	4.69	304.79	2.70
2020/10/30 08:38	4.83	297.36	2.54
2020/10/30 08:53	5.00	261.25	2.14
2020/10/30 09:08	5.01	311.67	2.54
2020/10/30 09:23	5.01	262.22	2.14
2020/10/30 09:38	5.01	237.85	1.94
2020/10/30 09:53	5.01	237.85	1.94
2020/10/30 10:08	4.98	313.33	2.57
2020/10/30 10:23	4.76	313.26	2.73
2020/10/30 10:38	4.98	332.15	2.73
2020/10/30 10:53	4.98	332.15	2.73
2020/10/30 11:08	5.01	320.83	2.61
2020/10/30 11:23	5.02	314.24	2.55
2020/10/30 11:38	5.02	310.83	2.52
2020/10/30 11:53	5.08	294.44	2.36
2020/10/30 12:08	5.08	315.21	2.52

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/30 12:23	5.08	315.21	2.52
2020/10/30 12:38	5.01	347.01	2.83
2020/10/30 12:53	4.93	339.72	2.83
2020/10/30 13:08	4.93	339.72	2.83
2020/10/30 13:23	4.89	330.42	2.78
2020/10/30 13:38	4.86	327.99	2.78
2020/10/30 13:53	4.84	326.80	2.78
2020/10/30 14:08	4.84	326.80	2.78
2020/10/30 14:23	4.84	317.29	2.70
2020/10/30 14:38	4.87	324.17	2.74
2020/10/30 14:53	4.87	324.17	2.74
2020/10/30 15:08	4.96	331.25	2.74
2020/10/30 15:23	4.87	340.55	2.88
2020/10/30 15:38	4.76	330.62	2.88
2020/10/30 15:53	4.66	321.94	2.88
2020/10/30 16:08	4.66	305.55	2.73
2020/10/30 16:23	4.66	305.55	2.73
2020/10/30 16:38	4.75	312.64	2.73
2020/10/30 16:53	4.84	330.00	2.81
2020/10/30 17:08	4.84	331.25	2.82
2020/10/30 17:23	4.84	331.25	2.82
2020/10/30 17:38	4.84	330.00	2.81
2020/10/30 17:53	5.14	330.21	2.61
2020/10/30 18:08	5.16	331.53	2.60
2020/10/30 18:23	5.21	329.93	2.56
2020/10/30 18:38	5.29	332.22	2.53
2020/10/30 18:53	5.29	295.90	2.25
2020/10/30 19:08	5.29	294.10	2.24
2020/10/30 19:23	5.26	292.15	2.24
2020/10/30 19:38	5.23	290.21	2.24
2020/10/30 19:53	5.21	288.33	2.24
2020/10/30 20:08	5.21	324.24	2.52
2020/10/30 20:23	5.15	325.55	2.56
2020/10/30 20:38	5.21	324.44	2.52
2020/10/30 20:53	5.07	313.54	2.52
2020/10/30 21:08	5.07	313.54	2.52
2020/10/30 21:23	5.05	310.00	2.50
2020/10/30 21:38	5.07	311.11	2.50
2020/10/30 21:53	5.05	279.37	2.25
2020/10/30 22:08	4.96	302.43	2.50
2020/10/30 22:23	4.94	320.28	2.66
2020/10/30 22:38	4.80	344.30	2.96
2020/10/30 22:53	4.76	340.42	2.96
2020/10/30 23:08	4.46	312.36	2.96
2020/10/30 23:23	4.37	282.22	2.74

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/30 23:38	4.18	264.65	2.73
2020/10/30 23:53	4.00	244.24	2.67
2020/10/31 00:08	3.76	225.07	2.67
2020/10/31 00:23	3.40	144.24	1.97
2020/10/31 00:38	3.40	144.24	1.97
2020/10/31 00:53	3.40	144.24	1.97
2020/10/31 01:08	3.40	161.39	2.20
2020/10/31 01:23	3.40	161.39	2.20
2020/10/31 01:38	3.25	151.53	2.20
2020/10/31 01:53	3.22	145.35	2.13
2020/10/31 02:08	3.19	143.68	2.13
2020/10/31 02:23	2.90	125.76	2.13
2020/10/31 02:38	2.80	112.43	2.00
2020/10/31 02:53	2.76	128.82	2.34
2020/10/31 03:08	2.59	118.06	2.34
2020/10/31 03:23	2.59	112.22	2.22
2020/10/31 03:38	2.58	110.83	2.21
2020/10/31 03:53	2.58	111.11	2.22
2020/10/31 04:08	2.53	107.78	2.22
2020/10/31 04:23	2.53	107.78	2.22
2020/10/31 04:38	2.53	99.24	2.04
2020/10/31 04:53	2.73	112.99	2.08
2020/10/31 05:08	2.87	121.11	2.08
2020/10/31 05:23	2.87	118.89	2.04
2020/10/31 05:38	2.97	124.51	2.04
2020/10/31 05:53	2.97	115.62	1.90
2020/10/31 06:08	3.01	117.85	1.90
2020/10/31 06:23	3.02	118.61	1.90
2020/10/31 06:38	3.05	137.78	2.18
2020/10/31 06:53	3.34	161.18	2.25
2020/10/31 07:08	3.69	203.54	2.48
2020/10/31 07:23	3.80	211.87	2.48
2020/10/31 07:38	4.05	238.54	2.56
2020/10/31 07:53	4.19	249.44	2.56
2020/10/31 08:08	4.52	247.64	2.30
2020/10/31 08:23	4.83	269.44	2.30
2020/10/31 08:38	4.86	271.46	2.30
2020/10/31 08:53	5.14	274.93	2.17
2020/10/31 09:08	5.26	283.40	2.17
2020/10/31 09:23	5.57	304.03	2.17
2020/10/31 09:38	5.64	291.94	2.05
2020/10/31 09:53	5.70	296.39	2.05
2020/10/31 10:08	5.70	296.39	2.05
2020/10/31 10:23	5.70	295.28	2.05
2020/10/31 10:38	5.90	308.68	2.05

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/31 10:53	5.87	305.76	2.05
2020/10/31 11:08	5.75	261.25	1.79
2020/10/31 11:23	5.75	261.25	1.79
2020/10/31 11:38	5.87	268.12	1.79
2020/10/31 11:53	5.87	268.12	1.79
2020/10/31 12:08	5.75	261.25	1.79
2020/10/31 12:23	5.70	286.67	1.99
2020/10/31 12:38	5.70	302.08	2.09
2020/10/31 12:53	5.64	309.30	2.18
2020/10/31 13:08	5.52	309.65	2.23
2020/10/31 13:23	5.50	307.78	2.23
2020/10/31 13:38	5.26	291.39	2.23
2020/10/31 13:53	5.26	328.05	2.51
2020/10/31 14:08	5.32	264.93	2.00
2020/10/31 14:23	5.50	276.18	2.00
2020/10/31 14:38	5.32	269.79	2.04
2020/10/31 14:53	5.32	332.36	2.51
2020/10/31 15:08	5.02	263.89	2.14
2020/10/31 15:23	5.02	263.89	2.14
2020/10/31 15:38	5.02	298.82	2.43
2020/10/31 15:53	5.23	314.58	2.43
2020/10/31 16:08	5.23	314.58	2.43
2020/10/31 16:23	5.30	319.79	2.43
2020/10/31 16:38	5.29	318.75	2.43
2020/10/31 16:53	5.29	317.99	2.42
2020/10/31 17:08	5.29	264.24	2.01
2020/10/31 17:23	5.29	264.24	2.01
2020/10/31 17:38	5.21	283.75	2.20
2020/10/31 17:53	5.02	298.05	2.42
2020/10/31 18:08	5.02	304.30	2.47
2020/10/31 18:23	5.02	304.30	2.47
2020/10/31 18:38	4.86	318.47	2.70
2020/10/31 18:53	4.86	318.47	2.70
2020/10/31 19:08	4.93	323.40	2.69
2020/10/31 19:23	4.93	301.94	2.51
2020/10/31 19:38	4.72	285.62	2.51
2020/10/31 19:53	4.55	271.46	2.50
2020/10/31 20:08	4.55	242.78	2.24
2020/10/31 20:23	4.55	242.78	2.24
2020/10/31 20:38	4.59	245.69	2.24
2020/10/31 20:53	4.71	292.29	2.58
2020/10/31 21:08	4.71	302.50	2.67
2020/10/31 21:23	4.62	323.26	2.92
2020/10/31 21:38	4.59	320.76	2.92
2020/10/31 21:53	4.62	285.62	2.58

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/10/31 22:08	4.52	282.43	2.62
2020/10/31 22:23	4.52	267.64	2.49
2020/10/31 22:38	4.52	267.64	2.49
2020/10/31 22:53	4.52	268.96	2.50
2020/10/31 23:08	4.41	273.40	2.62
2020/10/31 23:23	4.14	263.19	2.75
2020/10/31 23:38	4.07	262.29	2.81
2020/10/31 23:53	3.83	242.08	2.81
2020/11/01 00:08	3.77	232.85	2.75
2020/11/01 00:23	3.69	205.42	2.50
2020/11/01 00:38	3.69	205.42	2.50
2020/11/01 00:53	3.69	199.30	2.43
2020/11/01 01:08	3.69	199.30	2.43
2020/11/01 01:23	3.57	187.22	2.39
2020/11/01 01:38	3.51	162.15	2.11
2020/11/01 01:53	3.39	154.37	2.11
2020/11/01 02:08	3.27	160.97	2.31
2020/11/01 02:23	3.05	135.56	2.14
2020/11/01 02:38	2.96	139.65	2.31
2020/11/01 02:53	2.91	140.90	2.38
2020/11/01 03:08	2.91	136.94	2.31
2020/11/01 03:23	2.91	136.04	2.29
2020/11/01 03:38	2.78	127.08	2.29
2020/11/01 03:53	2.73	117.71	2.17
2020/11/01 04:08	2.72	116.87	2.17
2020/11/01 04:23	2.68	112.99	2.14
2020/11/01 04:38	2.58	97.15	1.94
2020/11/01 04:53	2.55	105.69	2.14
2020/11/01 05:08	2.58	107.29	2.14
2020/11/01 05:23	2.68	112.99	2.14
2020/11/01 05:38	2.61	113.54	2.24
2020/11/01 05:53	2.78	123.89	2.24
2020/11/01 06:08	2.82	126.46	2.24
2020/11/01 06:23	2.82	126.67	2.24
2020/11/01 06:38	2.84	128.40	2.24
2020/11/01 06:53	3.09	157.92	2.45
2020/11/01 07:08	3.26	169.72	2.45
2020/11/01 07:23	3.32	169.10	2.38
2020/11/01 07:38	3.61	196.53	2.47
2020/11/01 07:53	3.65	192.64	2.38
2020/11/01 08:08	4.11	219.03	2.31
2020/11/01 08:23	4.11	219.03	2.31
2020/11/01 08:38	4.23	260.14	2.64
2020/11/01 08:53	4.29	274.58	2.74
2020/11/01 09:08	4.32	276.94	2.74

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/11/01 09:23	4.77	315.83	2.74
2020/11/01 09:38	5.22	322.78	2.50
2020/11/01 09:53	5.52	316.87	2.28
2020/11/01 10:08	5.57	309.79	2.21
2020/11/01 10:23	5.83	327.78	2.21
2020/11/01 10:38	5.83	295.90	2.00
2020/11/01 10:53	5.83	295.90	2.00
2020/11/01 11:08	5.79	293.33	2.00
2020/11/01 11:23	5.70	307.64	2.13
2020/11/01 11:38	5.65	303.96	2.13
2020/11/01 11:53	5.65	305.90	2.15
2020/11/01 12:08	5.69	308.68	2.15
2020/11/01 12:23	5.61	303.12	2.15
2020/11/01 12:38	5.65	306.80	2.15
2020/11/01 12:53	5.69	308.68	2.15
2020/11/01 13:08	5.65	306.80	2.15
2020/11/01 13:23	5.55	311.18	2.23
2020/11/01 13:38	5.55	311.18	2.23
2020/11/01 13:53	5.52	296.53	2.14
2020/11/01 14:08	5.52	309.24	2.23
2020/11/01 14:23	5.48	293.82	2.14
2020/11/01 14:38	5.52	296.53	2.14
2020/11/01 14:53	5.48	300.90	2.19
2020/11/01 15:08	5.48	301.32	2.19
2020/11/01 15:23	5.39	294.30	2.19
2020/11/01 15:38	5.48	300.90	2.19
2020/11/01 15:53	5.39	294.30	2.19
2020/11/01 16:08	4.96	269.79	2.23
2020/11/01 16:23	4.96	254.44	2.10
2020/11/01 16:38	4.90	311.39	2.61
2020/11/01 16:53	4.86	320.97	2.72
2020/11/01 17:08	4.90	311.39	2.61
2020/11/01 17:23	4.90	299.93	2.51
2020/11/01 17:38	4.86	296.67	2.51
2020/11/01 17:53	5.12	295.21	2.34
2020/11/01 18:08	5.19	300.28	2.34
2020/11/01 18:23	5.19	293.82	2.29
2020/11/01 18:38	5.46	312.57	2.29
2020/11/01 18:53	5.50	314.51	2.28
2020/11/01 19:08	5.59	321.32	2.28
2020/11/01 19:23	5.59	321.32	2.28
2020/11/01 19:38	5.59	324.17	2.30
2020/11/01 19:53	5.59	315.35	2.24
2020/11/01 20:08	5.59	310.62	2.20
2020/11/01 20:23	5.76	321.94	2.20

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/11/01 20:38	5.76	306.39	2.10
2020/11/01 20:53	5.76	284.30	1.95
2020/11/01 21:08	5.62	275.97	1.95
2020/11/01 21:23	5.59	283.12	2.01
2020/11/01 21:38	5.36	269.37	2.02
2020/11/01 21:53	5.36	269.37	2.02
2020/11/01 22:08	5.19	273.05	2.13
2020/11/01 22:23	5.18	297.08	2.32
2020/11/01 22:38	5.09	291.04	2.32
2020/11/01 22:53	4.94	284.10	2.36
2020/11/01 23:08	4.66	277.15	2.48
2020/11/01 23:23	4.51	265.42	2.48
2020/11/01 23:38	4.39	243.40	2.36
2020/11/01 23:53	4.23	273.33	2.77
2020/11/02 00:08	4.01	254.44	2.77
2020/11/02 00:23	3.97	214.72	2.37
2020/11/02 00:38	3.89	180.00	2.05
2020/11/02 00:53	3.58	186.87	2.37
2020/11/02 01:08	3.43	176.11	2.37
2020/11/02 01:23	3.29	167.43	2.39
2020/11/02 01:38	3.21	173.12	2.56
2020/11/02 01:53	3.09	164.86	2.56
2020/11/02 02:08	2.98	146.39	2.39
2020/11/02 02:23	2.89	136.67	2.33
2020/11/02 02:38	2.80	131.18	2.33
2020/11/02 02:53	2.73	126.60	2.33
2020/11/02 03:08	2.66	122.08	2.33
2020/11/02 03:23	2.66	122.15	2.33
2020/11/02 03:38	2.66	121.11	2.31
2020/11/02 03:53	2.61	117.64	2.31
2020/11/02 04:08	2.61	117.64	2.31
2020/11/02 04:23	2.61	117.64	2.31
2020/11/02 04:38	2.61	115.00	2.26
2020/11/02 04:53	2.61	106.11	2.09
2020/11/02 05:08	2.62	103.89	2.03
2020/11/02 05:23	2.75	110.90	2.03
2020/11/02 05:38	2.93	124.72	2.09
2020/11/02 05:53	3.27	141.46	2.03
2020/11/02 06:08	3.40	153.40	2.09
2020/11/02 06:23	3.52	203.05	2.63
2020/11/02 06:38	3.83	227.22	2.63
2020/11/02 06:53	4.00	240.55	2.63
2020/11/02 07:08	4.09	260.21	2.76
2020/11/02 07:23	4.47	305.69	2.89
2020/11/02 07:38	4.48	293.33	2.76

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/11/02 07:53	4.79	334.37	2.89
2020/11/02 08:08	4.84	339.37	2.89
2020/11/02 08:23	5.07	285.83	2.30
2020/11/02 08:38	5.15	291.80	2.30
2020/11/02 08:53	5.15	319.51	2.51
2020/11/02 09:08	5.21	256.67	1.99
2020/11/02 09:23	5.23	280.76	2.17
2020/11/02 09:38	5.26	282.64	2.17
2020/11/02 09:53	5.26	282.64	2.17
2020/11/02 10:08	5.26	282.64	2.17
2020/11/02 10:23	5.26	286.18	2.19
2020/11/02 10:38	5.26	286.18	2.19
2020/11/02 10:53	5.19	298.33	2.32
2020/11/02 11:08	5.05	307.71	2.48
2020/11/02 11:23	4.89	297.78	2.51
2020/11/02 11:38	4.89	297.78	2.51
2020/11/02 11:53	4.89	297.78	2.51
2020/11/02 12:08	4.89	292.71	2.46
2020/11/02 12:23	5.18	315.07	2.46
2020/11/02 12:38	5.18	315.07	2.46
2020/11/02 12:53	5.11	318.75	2.53
2020/11/02 13:08	5.11	318.75	2.53
2020/11/02 13:23	5.11	318.75	2.53
2020/11/02 13:38	4.90	302.29	2.53
2020/11/02 13:53	4.90	299.93	2.51
2020/11/02 14:08	4.90	299.93	2.51
2020/11/02 14:23	4.83	335.07	2.86
2020/11/02 14:38	4.90	341.25	2.86
2020/11/02 14:53	4.83	335.07	2.86
2020/11/02 15:08	4.83	335.07	2.86
2020/11/02 15:23	4.97	323.33	2.66
2020/11/02 15:38	5.18	337.92	2.64
2020/11/02 15:53	5.18	337.92	2.64
2020/11/02 16:08	5.18	337.92	2.64
2020/11/02 16:23	4.76	316.04	2.75
2020/11/02 16:38	4.72	312.50	2.75
2020/11/02 16:53	4.72	312.50	2.75
2020/11/02 17:08	4.72	312.50	2.75
2020/11/02 17:23	4.93	325.76	2.71
2020/11/02 17:38	4.96	308.19	2.55
2020/11/02 17:53	5.41	344.51	2.55
2020/11/02 18:08	5.07	319.24	2.57
2020/11/02 18:23	5.36	312.78	2.34
2020/11/02 18:38	5.36	281.80	2.11
2020/11/02 18:53	5.30	280.97	2.13

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/11/02 19:08	5.30	278.19	2.11
2020/11/02 19:23	5.36	278.33	2.08
2020/11/02 19:38	5.47	289.10	2.11
2020/11/02 19:53	5.54	296.60	2.13
2020/11/02 20:08	5.54	319.10	2.29
2020/11/02 20:23	5.52	318.12	2.29
2020/11/02 20:38	5.52	318.12	2.29
2020/11/02 20:53	5.52	323.61	2.33
2020/11/02 21:08	5.50	321.67	2.33
2020/11/02 21:23	5.50	321.67	2.33
2020/11/02 21:38	5.62	330.69	2.33
2020/11/02 21:53	5.62	335.00	2.36
2020/11/02 22:08	5.21	335.28	2.60
2020/11/02 22:23	5.02	320.62	2.60
2020/11/02 22:38	4.84	305.97	2.60
2020/11/02 22:53	4.77	300.35	2.60
2020/11/02 23:08	4.57	308.05	2.83
2020/11/02 23:23	4.34	287.08	2.81
2020/11/02 23:38	4.30	228.89	2.27
2020/11/02 23:53	4.22	223.05	2.27
2020/11/03 00:08	4.05	258.12	2.77
2020/11/03 00:23	3.98	252.22	2.77
2020/11/03 00:38	3.97	213.47	2.36
2020/11/03 00:53	3.73	196.60	2.36
2020/11/03 01:08	3.54	182.85	2.36
2020/11/03 01:23	3.51	180.90	2.36
2020/11/03 01:38	3.43	175.07	2.36
2020/11/03 01:53	3.39	172.36	2.36
2020/11/03 02:08	3.36	170.76	2.37
2020/11/03 02:23	2.97	147.22	2.42
2020/11/03 02:38	2.94	145.28	2.42
2020/11/03 02:53	2.94	145.28	2.42
2020/11/03 03:08	2.78	132.08	2.38
2020/11/03 03:23	2.78	120.07	2.17
2020/11/03 03:38	2.78	110.69	2.00
2020/11/03 03:53	2.78	110.69	2.00
2020/11/03 04:08	2.72	116.74	2.17
2020/11/03 04:23	2.83	133.89	2.35
2020/11/03 04:38	2.83	134.58	2.36
2020/11/03 04:53	2.93	141.53	2.37
2020/11/03 05:08	2.93	141.04	2.36
2020/11/03 05:23	2.97	146.74	2.41
2020/11/03 05:38	2.97	146.74	2.41
2020/11/03 05:53	2.98	147.71	2.41
2020/11/03 06:08	3.18	161.18	2.41

TimeStamp	Level (in)	Flow (gpm)	Velocity (fps)
2020/11/03 06:23	3.34	188.40	2.63
2020/11/03 06:38	3.46	197.08	2.63
2020/11/03 06:53	3.59	207.92	2.63
2020/11/03 07:08	3.69	215.55	2.63
2020/11/03 07:23	3.83	226.60	2.63
2020/11/03 07:38	4.47	252.85	2.39
2020/11/03 07:53	4.47	298.40	2.82
2020/11/03 08:08	4.57	306.94	2.82
2020/11/03 08:23	4.65	291.11	2.61
2020/11/03 08:38	4.61	287.71	2.61

Methods & Procedures & Equipment

Methods and Procedures

Utility Systems Science & Software provided Hunsaker and Associates with an off the shelf, non-proprietary flow monitoring solution that included one state of the art Hach Flo-Dar® AV Sensor system. The project course of action is listed below. The US^3 team:

- Assessed traffic control at the site on Southview Pl in Pomona, CA.
- Validated the site for suitability for sewer flow monitoring for the Elephant Hill Project.
- Installed and calibrated the flow monitoring equipment per manufacturer recommendations.
- Removed the equipment, validated the data and prepared the data reports.
  - The data shows that the depth for the peak flows observed during this study exceeded the d/D limit of 0.50 on a daily basis.
  - Mission MH G201838: max d/D = ~0.60 & peak flow = ~0.514 mgd (~0.795 cfs).

Equipment

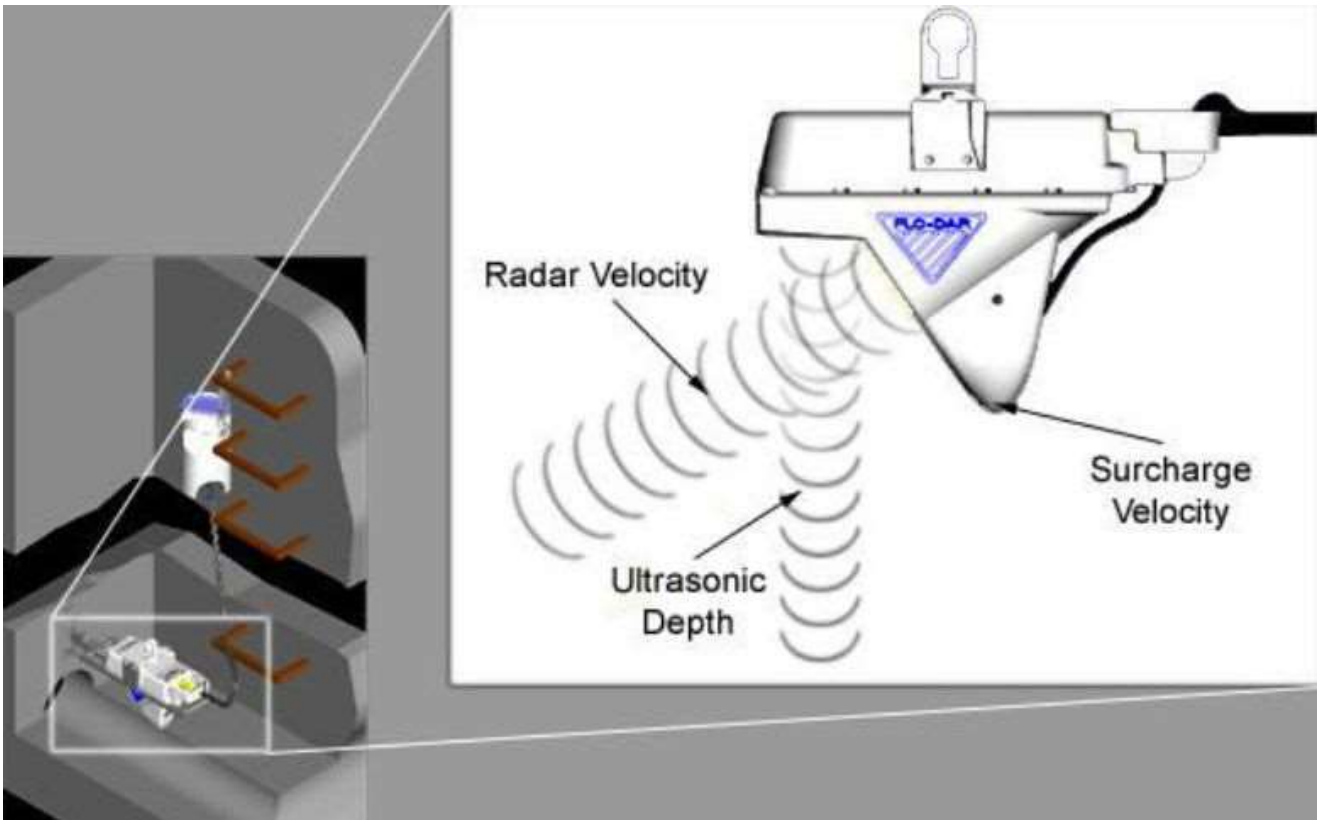


Figure: Equipment installed for the Sewer Flow Monitoring Study



Figure: Web-Enabled Flo-Dar® AV Sensor, Radar-Based Velocity/Area Flow Meter

SPECIFICATIONS

- **Enclosure**
  - IP68 Waterproof rating, Polystyrene
- **Dimensions**
  - 160.5 W x 432.2 L x 297 D mm (6.32 x 16.66 x 11.7 in.),
  - With SVS, D = 387 mm (15.2 in.)
- **Weight**
  - 4.8 kg (10.5 lbs.)
- **Operating Temperature**
  - -10 to 50°C (14 to 122°F)
- **Storage Temperature**
  - -40 to 60°C (-40 to 140°F)
- **Power Requirements**
  - Supplied by FL900 Flow Logger, Flo-Logger, or Flo-Station

- **Interconnecting Cable**
  - Disconnect available at both sensor and logger or Flo-Station
  - Polyurethane, 0.400 (±0.015) in. diameter; IP68
  - Standard length 9 m (30 ft), maximum 305 m (1000 ft)
- **Cables – available in two styles:**
  - connectors at both ends
  - connector from sensor with open leads to desiccant hub, desiccant hub with connector to logger. A potting/sealant kit will be included. This can be used to run the cable through conduit.
- **Certification**
  - Certified to: FCC Part 15.245: FCC ID: VIC-FLODAR24
  - Industry Canada Spec. RSS210. v7: IC No.: 6149A-FLODAR24

SURCHARGE DEPTH MEASUREMENT

  - Auto zero function maintains zero error below 0.5 cm (0.2 in.)
- **Method**
  - Piezo-resistive pressure transducer with stainless steel diaphragm
- **Range**
  - 3.5 m (138 in.), overpressure rating 2.5 x full scale

VELOCITY MEASUREMENT

- **Method**
  - Radar
- **Range**
  - 0.23 to 6.10 m/s (0.75 to 20 ft/s)
- **Frequency Range**
  - 24.075 to 24.175 GHz, 15.2 mW (max.)
- **Accuracy**
  - ±0.5%; ±0.03 m/s (±0.1 ft/s)

DEPTH MEASUREMENT

- **Method**
  - Ultrasonic
- **Standard Operating Range from Flo-Dar® Housing to Liquid**
  - 0 to 152.4 cm (0 to 60 in.)
- **Optional Extended Level Operating Range from Transducer Face to Liquid**
  - 0 to 6.1 m (0 to 20 ft.) with 43.18 cm (17 in.) dead band, temperature compensated.
- **Accuracy**
  - ±1%; ±0.25 cm (±0.1 in.)

FLOW MEASUREMENT

- **Method**
  - Based on Continuity Equation
- **Accuracy**
  - ±5% of reading typical where flow is in a channel with uniform flow conditions and is not surcharged, ±1% full scale max.

SURCHARGE CONDITIONS DEPTH/VELOCITY DEPTH (Std with Flo-Dar® Sensor)

- **Surcharge depth supplied by Flo-Dar® sensor.**

VELOCITY (Optional Surcharge Velocity Sensor)

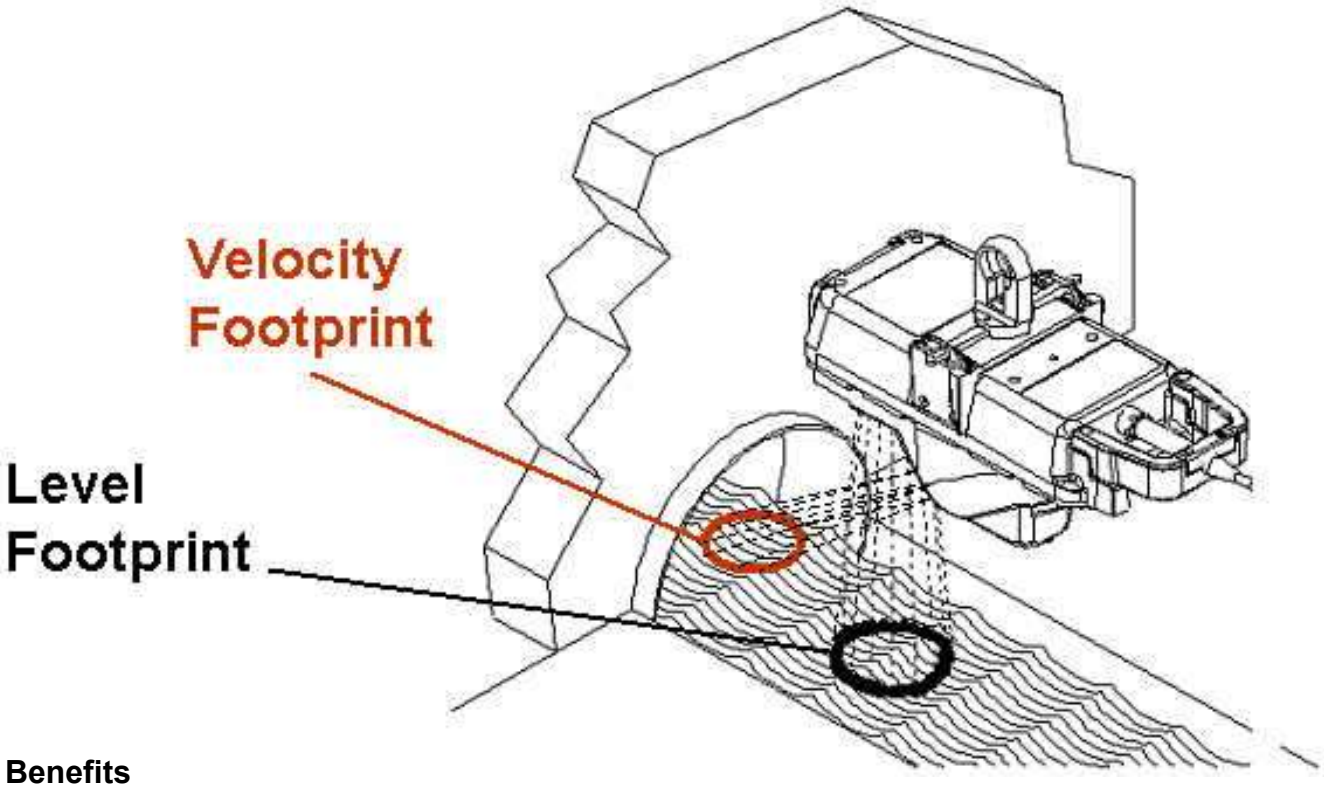
- **Method**
  - Electromagnetic
- **Range**
  - ±4.8 m/s (±16 ft/s)
- **Accuracy**
  - ±0.15 ft/s or 4% of reading, whichever is greater.
- **Zero Stability**
  - ±0.05 ft/s

The Flo-Dar® Open Channel Flow Meters provide an innovative approach to open channel flow monitoring. Combining digital Doppler radar velocity sensing with ultrasonic pulse echo level sensing Flo-Dar® provides accurate open channel flow monitoring without the fouling problems associated with submerged sensors.

Perfect Solution for Difficult Flow Conditions:

- Flows with High Solids Content
- High Temperature Flows
- Caustic Flows
- Large Man-Made Channel
- High Velocities
- Shallow Flows





Benefits

1. Personnel have no contact with the flow during installation.
2. Maintenance caused by sensor fouling is eliminated
3. Field Replaceable/Interchangeable Sensors and Monitors

How It Works

Flo-Dar® transmits a digital Doppler radar beam that interacts with the fluid and reflects back signals at a different frequency than that which was transmitted. These reflected signals are compared with the transmitted frequency. The resulting frequency shift provides an accurate measure of the velocity and the direction of the flow. Level is detected by ultrasonic pulse echo. Flow is then calculated based on the Continuity Equation:

Q = V x A, Where Q = Flow, V = Average Velocity and A = Area

Accurate Flow Measurements

Flo-Dar® provides the user with highly accurate flow measurements under a wide range of flows and site conditions. By measuring the velocity of the fluid from above, Flo-Dar® eliminates accuracy problems inherent with submerged sensors including sensor disturbances, high solids content and distribution of reflectors.

US³ Company Information

US³ is a California Corporation **Federal ID No. 33-0729605** and qualifies as a Minority Business Enterprise. US³ has certified as an MBE with the California Public Utility Commission's authorized clearinghouse, **Verification Number: 97ES0008.**

US³ is a specialty service company for the Water & Waste Water industry, providing monitoring and control for Utilities since 1996. US³ is in the forefront of this industry by taking the proven technological approaches developed in other high-tech industries and applying them to protect one of our most precious natural resources - our water.

US³ engineers and technical personnel have applied advanced instrumentation system technology to water/wastewater open channel flow monitoring, pipeline evaluation, engineering, and data analysis, all coupled to the power of the Internet. This unique integrated systems approach allows the company to bring greater insight and intelligence to gathering information about water/wastewater system performance of our clients, and in turn, to support the fulfillment of their commitments to manage and cost effectively design, operate, and maintain these systems.

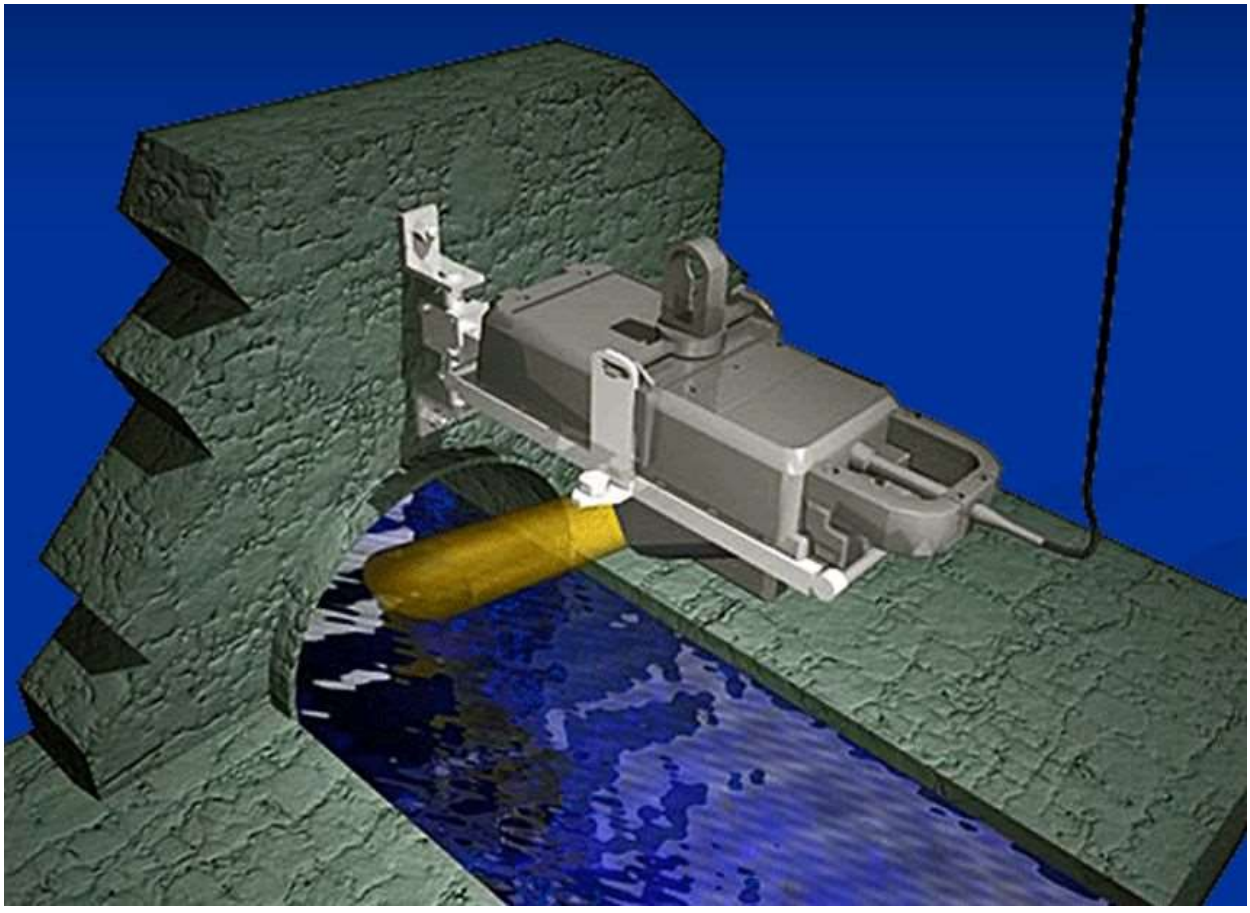


Figure: US³ utilizes exclusively Hach March-McBirney Flo-Dar® Meters

Moreover, ***US³*** supports Municipalities, Consulting Engineering firms and other water/waste water systems integrators by providing temporary technical services for engineering, software programming and technical site maintenance and calibration site support work, primarily in the Water and Waste Water industries.



Figure: All technicians are certified for Confined Space Entry.

Name, Title, Address and Telephone numbers of persons to contact concerning this report.

Darlene Szczublewski, PE
Senior Civil Engineer
darlene.szczublewski@uscubed.com

9314 Bond Av, Suite A
El Cajon, CA 92021
619-546-4281 (work)
619-246-5304 (cell)

Tom Williams
Engineering Manager
tom.williams@uscubed.com

9314 Bond Av, Suite A
El Cajon, CA 92021
619-546-4281 (work)
619-398-7799 (cell)

GENERAL NOTES:

1. ALL MANHOLE FRAMES AND COVERS ARE TO BE 4" BELOW ELEVATION SHOWN ON PLANS UNLESS OTHERWISE NOTED.
2. HOUSE LATERALS ARE TO BE CONSTRUCTED WITH INVERTS 5.5' BELOW CURB GRADE UNLESS OTHERWISE NOTED.
3. BEFORE WORK IS STARTED, THE CONTRACTOR MUST OBTAIN A PERMIT TO EXCAVATE IN CITY STREETS FROM THE OFFICE OF THE CITY ENGINEER.
4. THE CONTRACTOR MUST SECURE APPROVAL FROM THE INSPECTOR BEFORE BACKFILLING OVER ANY WYES.
5. WYES MUST BE CONSTRUCTED WITHIN ONE PIPE LENGTH OF THE STATION SHOWN ON THE PLANS AND ALL LATERALS LAID 90 TO THE MAIN, EXCEPT IN CUL-DE-SACS, WHERE LATERALS SHALL BE LAID AT 90 OR 45 TO THE MAIN LINE.
6. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF POMONA STANDARDS AND SPECIFICATIONS AND THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", LATEST EDITION.
7. VERIFY BY FIELD SURVEY ALL ELEVATIONS USED FOR BASIS OF DESIGN.
8. SEWER PIPE SHALL BE EXTRA STRENGTH V.C.P. WITH TYPE "D" OR "G" JOINTS.
9. NO WASTE SHALL BE DISCHARGED INTO THE SEWER UNTIL AN APPROVED SUITABLE OUTLET IS CONNECTED.
10. TRENCHING PERMITS WILL BE REQUIRED FROM THE DIVISION OF INDUSTRIAL SAFETY, STATE OF CALIFORNIA, PER SECTION 7-10-41, FOR TRENCHING IN EXCESS OF FIVE (5) FEET.

ENGINEERS NOTE

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABLITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION AS A RESULT OF ERRORS OR OMISSIONS THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.

NOTICE TO CONTRACTOR

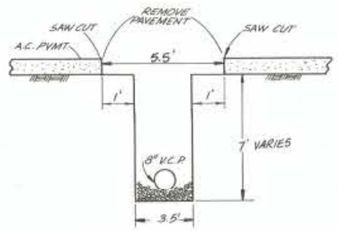
1. THE EXISTENCE AND LOCATIONS OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THESE PLANS BY THE "CITY OF POMONA" DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEANS TO PROTECT THE UTILITY LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
2. THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (U.S.A.), TELEPHONE NO. 1-800-422-4133 TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT ISSUED BY THE PUBLIC WORKS DEPARTMENT INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES WILL BE VALID UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY U.S.A.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE NATURE OF EXISTING GROUND AND/OR THE FINISHED GRADE IN THE VICINITY OF THE PROPOSED CONSTRUCTION AREA IMMEDIATELY PRIOR TO CONSTRUCTION.

NO CONNECTION FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS UNTIL A PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE HAS BEEN ISSUED BY THE SANITATION DISTRICTS FOR SAID CONNECTION.

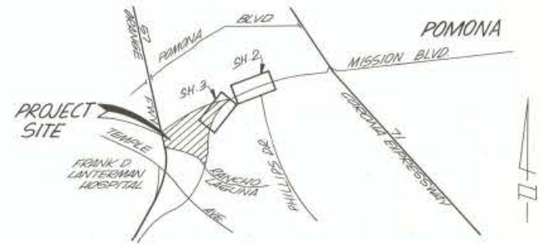
BEFORE BREAKING INTO OR CONSTRUCTION ON A COUNTY SANITATION DISTRICT SEWER AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, SANITATION DISTRICT INSPECTOR SHALL BE NOTIFIED BY PHONE 818 - 962-8605 SO THAT REQUIRED INSPECTION CAN BE MADE.

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR:

1. ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS, AND THOSE SHOWN ON THE RECORDS EXAMINED ARE SHOWN WITH THEIR APPROXIMATE LOCATION AND EXTENT.
2. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE NATURE OF EXISTING GROUND AND/OR THE FINISHED GRADE IN THE VICINITY OF THE PROPOSED CONSTRUCTION AREA IMMEDIATELY PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.
4. THE CONTRACTOR SHALL UNCOVER ALL UTILITIES THAT HE MAY BE JOINING, CROSSING OR PARALLELING PRIOR TO ANY CONSTRUCTION TO VERIFY BOTH HORIZONTAL AND VERTICAL LOCATIONS. ANY CONFLICT OR DISCREPANCY SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO CONSTRUCTION OTHERWISE THE CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR ANY COSTS OF RELOCATION OR ADDITIONAL COSTS OF CONSTRUCTION.
5. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.



TYPICAL PAVEMENT REMOVAL SECTION NTS



INDEX MAP
SCALE: 1"=2000'

CONSTRUCTION NOTES & ESTIMATED QUANTITIES

1. CONSTRUCT 8" V.C.P. SEWER. ____ 1089.88 L.F.
2. CONSTRUCT 48" MANHOLE PER CITY OF POMONA STANDARD PLAN NUMBER B-11-83. ____ 4 EA.
3. CONSTRUCT SEWER TERMINAL CLEANOUT PER CITY OF POMONA STANDARD NUMBER B-10-81. ____ 1 EA.
4. SAWCUT, REMOVE, AND REPLACE EXISTING A.C. PAVEMENT TO THE SATISFACTION OF THE CITY INSPECTOR. ____ 6061 S.F.
5. ENCASE SEWER PER L.A. COUNTY ENGINEER STANDARD S23, CASE IV. ____ 12 L.F.
6. BREAK INTO EXISTING MANHOLE, RECONSTRUCT CHANNEL & CONNECT SEWER. ____ 1 EA.

REGISTERED PROFESSIONAL ENGINEER — DANIEL R. RAINEY — 5/31/90 — No. 26361 — CIVIL — STATE OF CALIFORNIA

APPROVED BY:
CHIEF ENGINEER L.A. COUNTY SANITATION DIST 21
BY: [signature] 12/17/86
OFFICE ENGINEER DATE

RECOMMEND APPROVAL:
[signature] 9-24-86
COMMUNITY ENGINEERING SERVICES, INC. DATE

OWNER/DEVELOPER
WILMORE CITY DEVELOPMENT
3700 SOUTH SUSAN ST. #200
SANTA ANA, CALIFORNIA
TEL. (714) 641-8810

BENCH MARK
L.A.C.R.D. CG 3751
RD DEPT. BMTAG IN N. EDGE CONC. HEADWALL 155'S. & 47' E/O ℄ INT 2ND ST. & HWY. 71 ELEV. 809.929

BASIS OF BEARINGS
℄ OF MISSION BLVD N18°06'50"E N. OF TEMPLE PER PARCEL MAP 8528 PMB 92 SHEETS 28-39

NO	BY	REVISION	APP	DATE
11				
10				
9				
8				
7				
6				
5				
4				
3				
2				
1				

PLANS PREPARED BY: VAN DELL & ASSOCIATES, INC.
EXPIRATION DATE 3/31/90
[signature] 4/22/86
DANIEL R. RAINEY R.C.E. NO. 26361 DATE

CITY OF POMONA

PLAN AND PROFILE OF SEWER IMPROVEMENTS FOR:

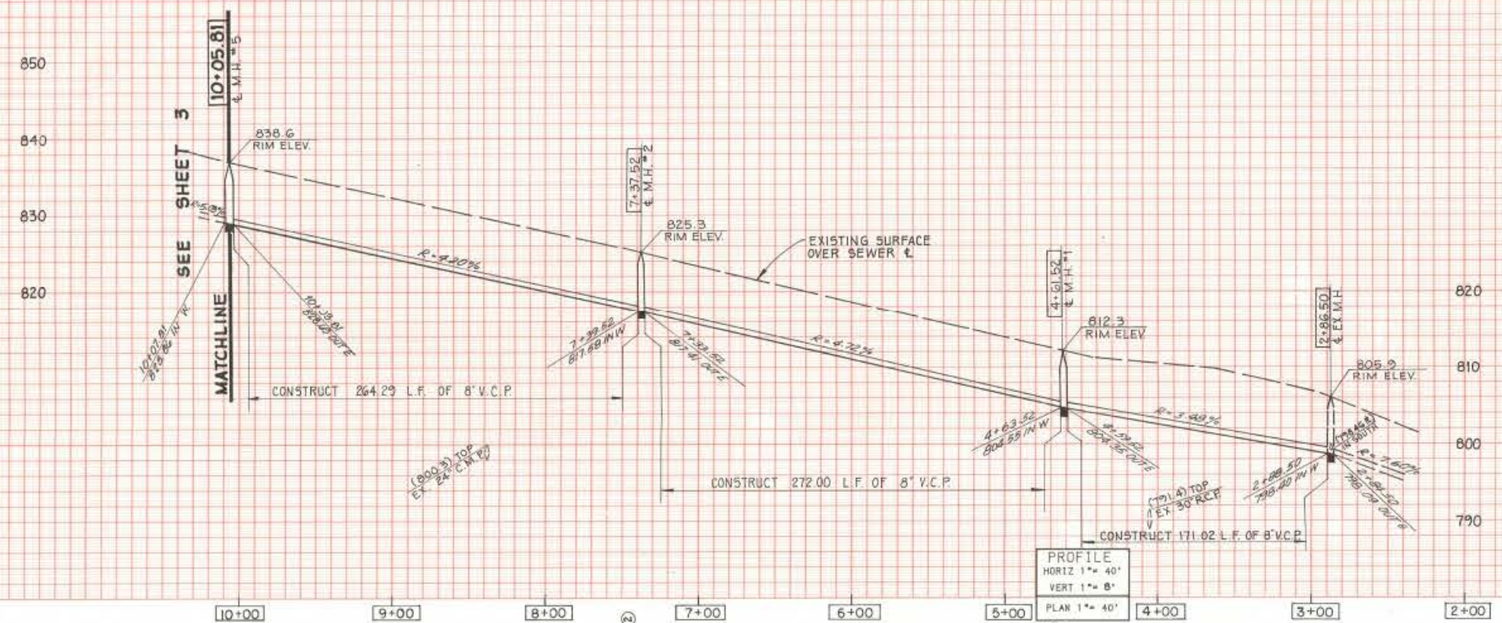
MISSION BOULEVARD
FROM PHILLIPS DRIVE TO LOT 1 OF TRACT 35167

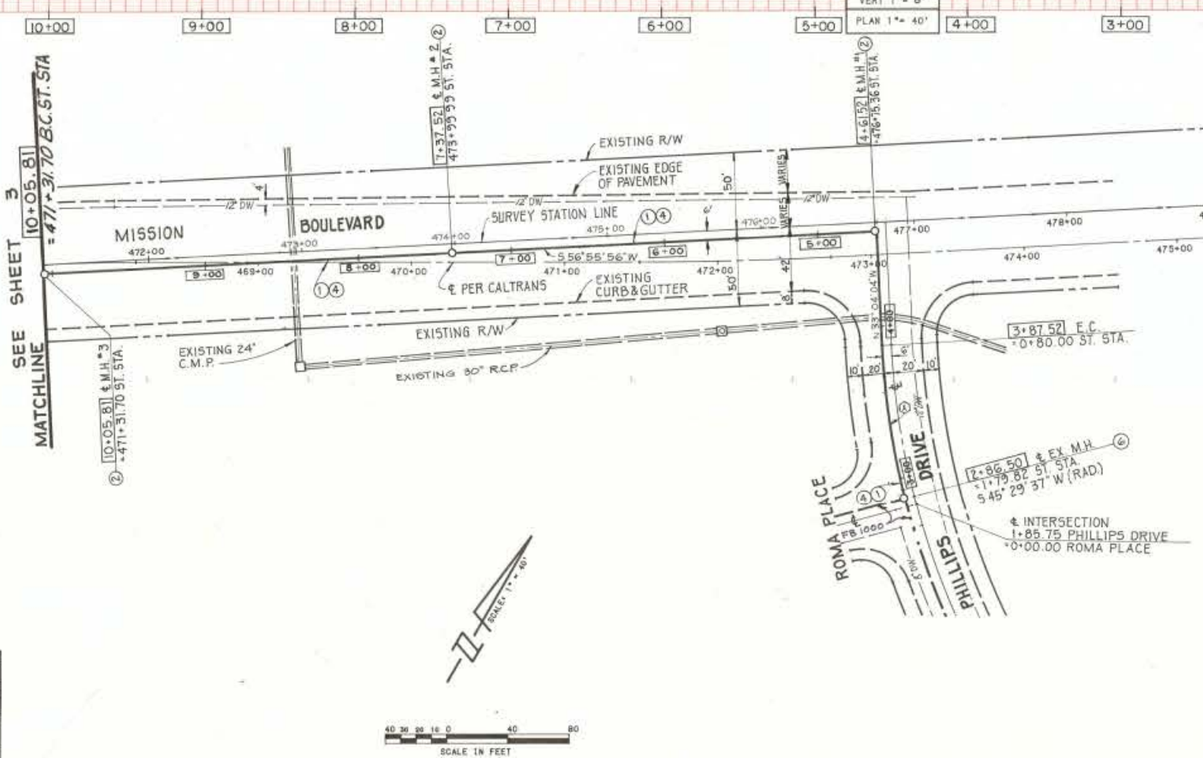
RECOMMENDED: [signature]
APPROVED: [signature] 10-2-86
CITY ENGINEER CE 24941
CHECKED: R.J.A.
DESIGNED: J.H.F.
DRAWN: K.C.
PLANS PREPARED BY:
VAN DELL AND ASSOCIATES, INC.
SURVEYORS CIVIL ENGINEERS LAND PLANNERS
12661 EAST WHITTIER ROAD WHITTIER, CA. 90602 (714) 474-1400
SHEET 1 OF 3

SEWER TITLE SHEET - 270C20,187JPF+ 47501 455 17-Feb-86 09:53 / 475-01-1

FB 982 A

BENCHMARK:
L.A.C.R.D. C.G. 3751
RD. DEPT. BM TAG IN N. EDGE CONC. HEADWALL 155' S. & 47' E/O C.L. INT. 2ND ST. AND HWY. 71. ELEV. 809.929





SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES

CONSTRUCTION NOTES

1. CONSTRUCT 8" V.C.P. SEWER.
2. CONSTRUCT 48" MANHOLE PER CITY OF POMONA STANDARD PLAN NUMBER B-11-83.
4. SAWCUT, REMOVE, AND REPLACE EXISTING A.C. PAVEMENT TO THE SATISFACTION OF THE CITY INSPECTOR.
5. ENCASE SEWER PER L.A. COUNTY ENGINEER STANDARD S23, CASE IV.
6. BREAK INTO EXISTING MANHOLE, RECONSTRUCT CHANNEL & CONNECT SEWER.

CURVE DATA

	DELTA	RADIUS	LENGTH	TANGENT
Ⓐ	11°26'19"	506.00	101.02	50.68

REGISTERED PROFESSIONAL ENGINEER — DANIEL R. RAINEY — 3/31/90 — No. 26361 — CIVIL — STATE OF CALIFORNIA

NO	BY	REVISION	APP	DATE
11				
10				
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2				
1				

CITY OF POMONA

PLAN AND PROFILE OF SEWER IMPROVEMENTS FOR:

MISSION BOULEVARD
FROM PHILLIPS DRIVE TO LOT 1 OF TRACT 35167

RECOMMENDED: T. Nissenwaltz — APPROVED: Jamile H. Noorbakhsh 10-2-86 — CITY ENGINEER CE 24941

PLANS PREPARED BY: VAN DELL & ASSOCIATES, INC.
EXPIRATION DATE: 4/22/86
DANIEL R. RAINEY R.C.E. NO. 26361 DATE

CHECKED: R.J.A.
DESIGNED: JHF
DRAWN: KC

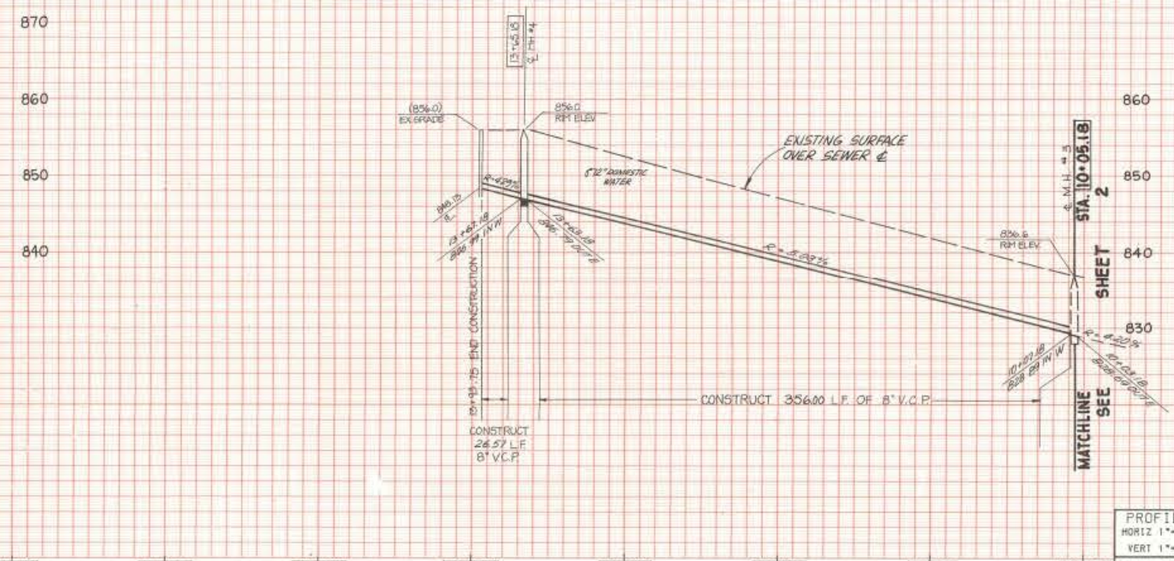
PLANS PREPARED BY: VAN DELL AND ASSOCIATES, INC. CIVIL ENGINEERS — LAND PLANNERS — 17301 GOTHARD ROAD, SUITE 'A', SUITE 'B' 90714 — (714) 474-1400

SHEET 2 OF 3

OFFSITE SEW: FROM PHILLIPS ON MISSION - 270C26.187.3FF: 47501 457 17-Apr-86 10:40 / 475.01-1

FB 982 B

BENCHMARK:
L.A.C.R.D. C.G. 3751
RD. DEPT. BM TAG IN N. EDGE CONC. HEADWALL 155' S. & 47' E/O C.L. INT. 2ND ST. AND HWY. 71. ELEV. 809.929



PROFILE
HORIZ 1"= 40'
VERT 1"= 8'
PLAN 1"= 40'

SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES



CONSTRUCTION NOTES

1. CONSTRUCT 8" V.C.P. SEWER.
2. CONSTRUCT 48" MANHOLE PER CITY OF POMONA STANDARD PLAN NUMBER B-11-83.
3. CONSTRUCT SEWER TERMINAL CLEANOUT PER CITY OF POMONA STANDARD NUMBER B-10-61.
4. SAWCUT, REMOVE, AND REPLACE EXISTING A.C. PAVEMENT TO THE SATISFACTION OF THE CITY INSPECTOR.
5. ENCASE SEWER PER L.A. COUNTY ENGINEER STANDARD S23, CASE IV.

CURVE DATA

○	DELTA	RADIUS	LENGTH	TANGENT

NO	BY	REVISION	APP	DATE
11				
10				
9				
8				
7				
6				
5				
4				
3				
2				
1				

REGISTERED PROFESSIONAL ENGINEER — DANIEL R. RAINEY — 3/31/90 — No. 26361 — CIVIL — STATE OF CALIFORNIA

PLANS PREPARED BY: VAN DELL & ASSOCIATES, INC.
EXPIRATION DATE:
D. J R. 4/22/86
DANIEL R. RAINEY R.C.E. NO. 26361 DATE

CITY OF POMONA

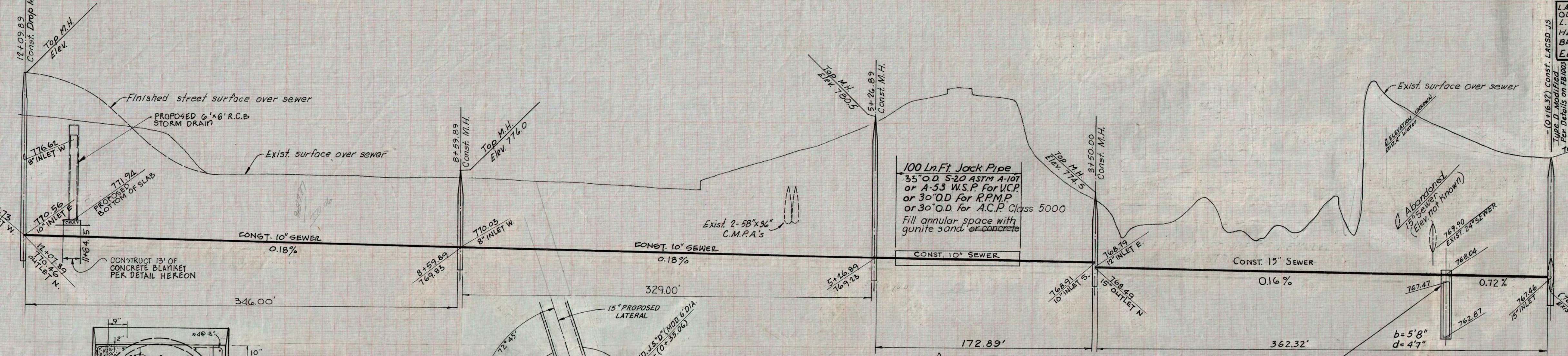
PLAN AND PROFILE OF SEWER IMPROVEMENTS FOR:

MISSION BOULEVARD
FROM PHILLIPS DRIVE TO LOT 1 OF TRACT 35167

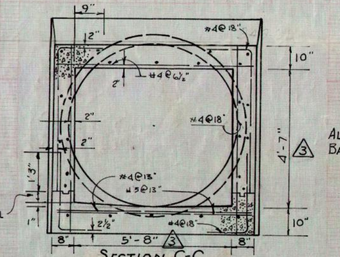
RECOMMENDED: R. Fitzgerald
APPROVED: Jamie H. Moorehead 10-2-86
CHECKED: RJA
CITY ENGINEER CE 24961
PLANS PREPARED BY:
DESIGNED: JHF
DRAWN: KC
VAN DELL AND ASSOCIATES, INC. CIVIL ENGINEERS LAND PLANNERS
17301 RANCHERO ROAD CHINO, CA. 91710 (714) 974-1400
SHEET 3 OF 3

PHILLIPS RANCH OFFSITE SEWER SHT 2 - 270(26.187)PF: 47501 458 17-Apr-86 10:42 / 475-01-1

FB 982 C

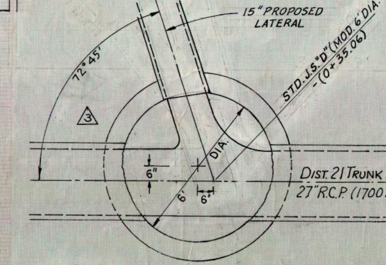


PROFILE SCALES
HORIZONTAL: 1" = 40'
VERTICAL: 1" = 4'



SECTION C-C
SCALE: 3/8" = 1'-0"

All Longitudinal Bars #4@18" ± O.C.

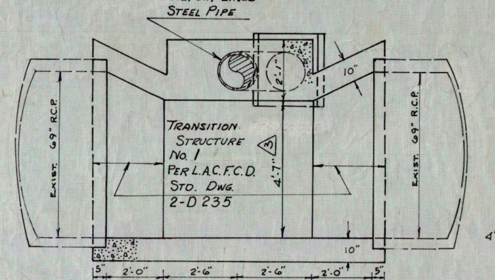


PLAN OF MOD. J.S. TYPE "D"
SCALE: 3/8" = 1'

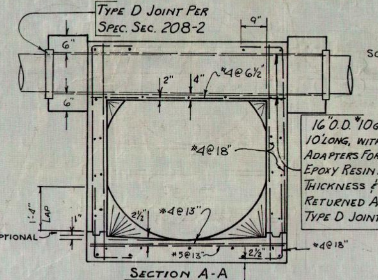
NOTE:
SEE DETAILS OF JUNCTION STRUCTURE AND PRE-CAST CHANNEL ON FB-1003

△ **NOTES FOR JACKING CASING:**

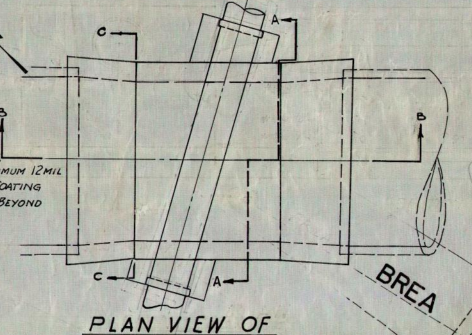
1. Steel casing shall be installed by jacking & tunneling methods (3/8" min. thickness). Pilot tunneling methods not authorized.
2. Jacking pit shall be tight sheeted & shall not be closer than 5' from the shoulder.
3. Event ground water or sand are encounter during jacking operations, the entire length of casing shall be installed on a 24 hour per day basis until all jacking operations are completed.
4. Fill casing with sand & plug each end with brick & mortar ~~or concrete plugs~~



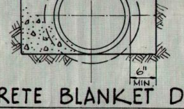
SECTION B-B
SCALE: 3/8" = 1'-0"



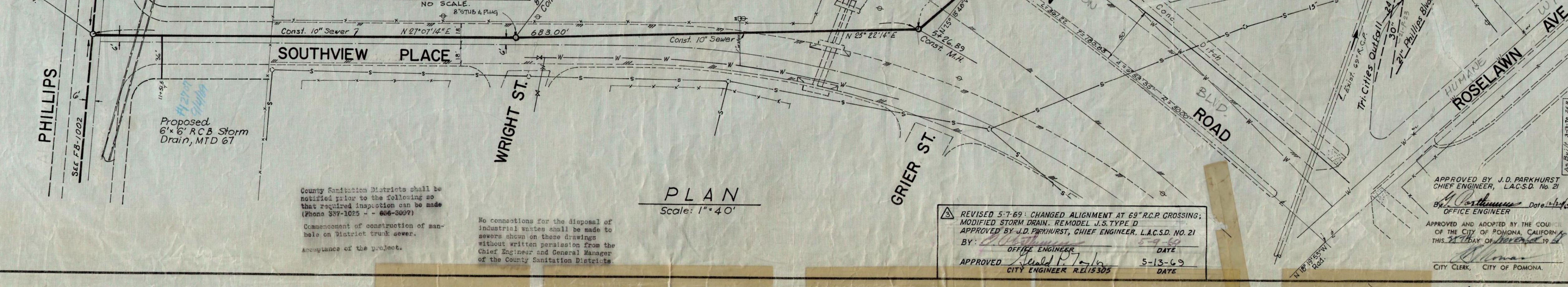
SECTION A-A
SCALE: 3/8" = 1'-0"



PLAN VIEW OF 69" R.C.P. STORM DRAIN REMODEL
Scale: 3/8" = 1'-0"



CONCRETE BLANKET DETAIL
NO SCALE.



PLAN
Scale: 1" = 40'

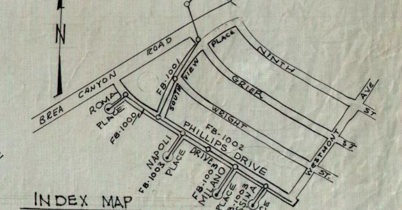
L.A.C.R.D. B.M. № B.G. 2072 OTTERBEIN QUAD. 1965 ADJ. = CITY OF POMONA B.M. 431 L. & P.K. 6 IN S. OF N. END OF CONC. HEADWALL 75 FT. N. AND 19 FT. E. ℄ INT. BREA CANYON RD. & ROSELAWN AVE.	L.A.C.R.D. B.M. № B.G. 2073 OTTERBEIN QUAD. 1965 ADJ. = CITY OF POMONA B.M. № 433A R.D.B.M. TAG 1 FT. N. OF S. END CONCRETE HEADWALL @ N.W. COR. 162 FT. W. & 71 FT. N. OF ℄ INT. BELLEVUE AVE. & BREA CANYON ROAD
ELEVATION = 778.374	ELEVATION = 794.245

ESTIMATE OF QUANTITIES

NO.	ITEM	UNIT	QUAN.
1.	15" Dia. Sewer Pipe	L.F.	362
2.	16" O.D. Steel Pipe	L.F.	10
3.	8" STUB & PLUG	Ea	2
4.	10" Dia. Sewer Pipe	L.F.	2003
5.	8" Dia. Sewer Pipe	L.F.	690
6.	4" Dia. Sewer Pipe	L.F.	1523
7.	Manholes, Std. B-1-61	Ea.	3
8.	LACSD JUNCTION STRUCTURE TYPE D MODIFIED	Ea.	1
9.	Junction Manhole, Standard B-1-61	Ea.	6
10.	Sewer Terminal Cleanout, 8" Std. B-10-61	Ea	2
11.	Remodel Exist. 69" ⌀ R.C.P. Storm Drain	L.S.	L.S.
12.	10" Sewer in 1-jacked 30" or 33" Conductor Pipe	L.F.	100
13.	Drop Manhole Std. B-1-61	Ea.	1
14.	12" STUB & PLUG	Ea.	1

GENERAL NOTES

1. All manhole frame & covers are to be set 4" below elevations shown on plans unless otherwise noted.
2. House laterals are to be constructed with inverts 5½ feet below curb grade unless otherwise noted.
3. Before work is started the contractor must obtain a permit to excavate in City Streets from the office of the City Engineer.
4. The contractor must secure approval from the inspector before backfilling over any wyes.
5. Wyes must be constructed within one pipe length of the station shown on the plans and all laterals laid 90° to main, except in cul-de-sacs, where laterals shall be laid at 90° or 45° to the main line.
6. All work shall be in accordance with City of Pomona Standards and Specifications.
7. Verify by field survey all elevations used for basis of design.
8. No wastes shall be discharged to the sewer until a suitable outlet is constructed.
9. Sewer Pipe shall be extra strength V.C.P., expoxy lined Class 2400 A.C.P., or Reinforced Plastic Mortar Pipe
10. Work in State Hwy R/W shall be in conformance with Encroachment Permit № ______
11. Storm drain remodelling shall be in conformance with Permit from Los Angeles County Flood Control District.
12. If the bottom of the trench excavation is in rock, the trench shall be excavated one inch below the bells or couplings, and re-filled to grade with compacted clean sand or pea gravel.



INDEX MAP
SCALE: 1" = 600'

County Sanitation Districts shall be notified prior to the following so that required inspection can be made (Phone 337-1025 - - 686-3097)

Commencement of construction of manhole on District trunk sewer.

Acceptance of the project.

No connections for the disposal of industrial wastes shall be made to sewers shown on these drawings without written permission from the Chief Engineer and General Manager of the County Sanitation Districts.

△3 REVISED 5-7-69: CHANGED ALIGNMENT AT 69" R.C.P. CROSSING; MODIFIED STORM DRAIN. REMODEL J.S. TYPE D
APPROVED BY J.D. PARKHURST, CHIEF ENGINEER, L.A.C.S.D. NO. 21
BY: [signature] OFFICE ENGINEER 5-9-69 DATE
APPROVED Gerald P. Taylor CITY ENGINEER R.E. 15305 5-13-69 DATE

△1 4-4-69 - Revised: Added Notes for Jacking Casing
Approved: Gerald P. Taylor City Engineer RE 15305 4-8-69 Date
Ch'd R. Barrera 4-7-69

APPROVED BY J.D. PARKHURST CHIEF ENGINEER, L.A.C.S.D. No. 21
By [signature] Date 12/2/68
OFFICE ENGINEER

APPROVED AND ADOPTED BY THE COUNCIL OF THE CITY OF POMONA, CALIFORNIA THIS 25TH DAY OF November 1968
[signature]
CITY CLERK, CITY OF POMONA.

As Built 3-13-70 J.E.B.
Revised 12-12-68 Resized 848' of 15" line to 10" Ch'd R.B. 12-18-68
Approved: Gerald P. Taylor CITY ENGINEER R.E. 15305 12-19-68 DATE

CITY OF POMONA

PLAN AND PROFILE OF SEWERS IN
SOUTHVIEW PLACE
PHILLIPS DRIVE TO ROSELAWN AVE.
TRACT No. 29203

RECOMMENDED	APPROVED Gerald P. Taylor CITY ENGINEER R.E. 15305	11-25-68 DATE
CHECKED		
CHECKED R. Barrera 11-22-68	PREPARED BY: C-S-T ENGINEERING CO. Ralph E. Bolles RALPH E. BOLLES, R.C.E. 8332	SHEET 1 OF 3
DRAWN R.G. ~ R.L.N.		

△3

G-20

FB-1001