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# Appendix G

## Due Diligence Report of Existing Infrastructure

## **150 North Santa Anita Avenue**

### **Due Diligence Report of Existing Infrastructure**

**Psomas Project No: 1ARC040100**

**Prepared for:  
Trammel Crow Residential  
5780 Fleet Street, Suite 130  
Carlsbad, CA 92008**

**Project Site Location/Address:  
150 North Santa Anita Avenue  
Arcadia, CA 91006**

**Prepared by:  
David Martin, PE  
PSOMAS  
27220 Turnberry Lane, Suite 190  
Valencia, California 91355  
(661) 219-6000**

**Preparation Date:  
March 2021**

## 1.0 Introduction

The purpose of this report is to document the findings of an on- and off-site utility research effort regarding the proposed development at 150 N Santa Anita Avenue in the City of Arcadia, California. The existing project site consists of four APN's, namely; APN 5773-006-004, 005, 010 & 036. APN 5773-006-036 has existing a commercial building on the west, facing Santa Anita Avenue, which will remain and surface parking on the east. This lot will be subdivided to form part of the new residential apartment development, APN 5773-006-010 along Santa Clara Street has an existing 2 story building that will be demolished to form part of the new residential development. APN 5773-006-004 and 005, along Wheeler Avenue have single story buildings that will be demolished to form part of the new residential development. Refer Appendix 1 for Project Site Location.

The proposed development is a residential apartment with 5 stories above a two story parking structure and 1 level of subteranian parking.

We have assessed the site's available utilities to address limitations that may be expected if such a project is constructed.

Our findings are based on historical records collected from the City of Arcadia, interviews and correspondence with various officials at the City, and our experience with similar projects.

The report is organized into sections for each infrastructure item including a summary of potential impacts. Any items that would still require additional level of research, have been noted

## 2.0 Area Utility Providers

The following list is a breakdown of confirmed utility providers around the perimeter of the project:

- Storm Drain
  - City of Arcadia
- Sanitary Sewer
  - City of Arcadia & County Sanitation District of Los Angeles
- Water
  - City of Arcadia

- Electrical
  - Southern California Edison
- Telephone
  - AT&T
- Gas
  - The Gas Company
- Cable
  - Charter
- Communications/Data
  - A T&T and Charter
- Solid Waste
  - City of Arcadia Waste Management (collection) and County Sanitation District (landfill)

### 3.0 Storm Drainage

Currently the development site drains via surface runoff into the adjacent Wheeler Avenue to the south and then along Wheeler Avenue as gutter flow until it discharges into the street catch basin at the intersection with Santa Anita Avenue

Since the project site is currently either developed or covered in asphalt, the site imperviousness will not be increasing with development.

With the City's requirements for stormwater quality treatment and not allowing an increase in runoff with development, it can be assumed the existing City storm drain system in Santa Anita Avenue will have adequate capacity to carry the proposed development runoff.

The project site falls into Zone X (an area of minimal flooding) on FEMA Flood Panel 06037C1400F and is not in a flood hazard zone.

SUMMARY – No drainage issues are expected for site development.

## 4.0 Storm Water Quality

Per the City of Arcadia's Low Impact Development (LID) requirements for water quality, the project will be required to retain storm flows on-site, and either reuse or infiltrate the 0.75-inch rain event or 85<sup>th</sup> percentile 24 hour rain event, whichever volume is greater. The 85<sup>th</sup> percentile 24 hour rain event is the larger volume and storage required for this development should be approximately 7,800 cubic feet. Typical urban development LID is either infiltration of this treatment volume onsite or its capture and reuse. This storage must occur on-site and cannot be stored within adjacent rights-of-way. Storage may be accomplished in a variety of ways including underground pipes or tanks. Based on our experience on a nearby project the use of a deep dry wells for infiltration of the required treatment volume below the building foundation (roughly 50') will most likely be the preferred treatment method. This would be subject for further soils investigation.

SUMMARY – Storm water treatment in the form of capture and reuse or infiltration will be required for the project. Soils investigation is needed to confirm onsite infiltration.

## 5.0 Sanitary Sewer

From record drawings provided by the City of Arcadia and discussions with their engineering staff there are 8" sewer pipes along Wheeler Avenue and Santa Clara Street flowing east to 1<sup>st</sup> Avenue where they connect into a Sanitation District of Los Angeles sewer main. The 8" sewer along Wheeler currently follows the alley on the east side of the project site and enters the site along the alley proposed for vacation. This sewer serves as the main sewer connection for all buildings on the site.

For the proposed development this sewer will need to be realigned by extending it west along Wheeler Avenue and then northerly west of the proposed development to serve the existing commercial buildings on the Santa Anita Avenue frontage. (Refer to Appendix 1 for proposed sewer realignment)

In order to determine whether the existing City sewer systems have sufficient capacity to service the proposed development a formal sewer area study is needed as the City does not have a model of their sanitary sewer system to respond to a sewer capacity request. This sewer area study would only need to extend to the Sanitation District of Los Angeles sewer main in 1<sup>st</sup> Street. However, based on engineering judgment and the very short length of 8" sewer before connecting to the county sewer main we do not foresee any sewer capacity problems for the proposed development.

SUMMARY – The existing 8” public sewer on Wheeler Avenue will be used for the proposed development and realigned to serve existing commercial buildings to remain and is considered adequate for the proposed project. A sewer area study will be needed for City process.

## 6.0 Water

City of Arcadia record drawings indicate an 8” cast iron water main with 50 psi static pressure on Santa Clara St, an 8” cast iron water main with 54 psi static pressure on Wheeler St and a 30” welded steel water main with 55 psi static pressure on Santa Anita Ave. These three mains are available for domestic water and/or fire services. Refer Appendix 2 for record data and Appendix 3 for Fire Water Flow test results.

It is anticipated that new water meters will be required for the development.

With the two adjacent water mains, and the level of existing development in the area, it is anticipated that sufficient water volumes are available, however, the static and dynamic pressure on the public water system is low. A fire water flow test was requested from the City and the result is included as an attachment to this report. The required fire and domestic can be provided, however fire and domestic water booster pumps will be needed for the project.

It is also possible that additional on-site or off-site fire hydrants may be required in order to meet Fire Department regulations for building coverage.

SUMMARY - The public water lines have capacity, and a combination 8-inch firewater and 6-inch domestic water service can be provided by the City to serve the project. It is anticipated that fire and domestic water pressure booster pumps will be needed for the project

## 7.0 Electrical

Service to the area appears to be available within the adjacent streets which would mean only service sweeps are necessary for the on-site services. Pole mounted transformer units currently service the existing buildings on the east side of the project site. The portion of overhead power along the alley that is to be vacated will need to be demolished and a new power service feed will need to be established. As part of the project a new transfer location will need to be located onsite to service the new building.

SUMMARY – Power service linkages and the location of an onsite transformer will need to be negotiated with SCE.

## 8.0 Communications

The site is served by various communications service providers through existing off-site conduits within South Hill St. and 9<sup>th</sup> St. All demand issues should be assessed by each service provider through dry utility coordination once the project's development program becomes more finalized; but no service issues are expected. Refer Appendix 2 for record data.

SUMMARY – No issues are anticipated to provide service.

## 9.0 Gas

There is an existing 2-inch Gas Company gas line in Wheeler Avenue and Santa Clara Street as well as an 8" gas main along Santa Anita Avenue. It is considered that these lines will be adequate to provide gas service to the proposed development. The Gas Company provides service connections up to the proposed gas meters on site. Refer Appendix 2 for record data

SUMMARY - No issues are anticipated to provide service.

## 10.0 STREETS

The project site falls within the City of Arcadia and therefore must follow to City standard street design pertaining to items such as street lighting, sidewalks, and streetscape improvements to name a few.

### 10.1-Santa Clara Street

Existing Santa Clara Street has an existing 63' wide street right-of-way of which 30' is on the project side of the centerline. Based on the City of Arcadia's General plan (November 2010), Santa Clara street is classified as an "Enhanced Collector" requiring a right of way (ROW) of between 64' and 72' Based on this, there is a possible need to dedicate 2' to 6' to meet the planned road classification. Based on further review current street right-of-way dedication of 3' and 5' has occurred on the northern side of Santa Clara Street.

Santa Clara Street is currently striped with 5' Class II bicycle lanes on either side. The General plan allocates Santa Clara Street with Class III which are shared vehicle and bicycle lanes.

In a discussion with Lisa Flores (Planning & Community Development Administrator) of the City of Arcadia, no dedications are currently envisioned however it was noted that the City is still reviewing dedication needs for Santa Clara Street.

It is expected that a dedication of between 2' and 6' may be requested by the City.

### **10.2-Wheeler Avenue**

The existing Wheeler Avenue has an existing 60' wide street right of way of which 30' is on the project side of the centerline. It must be noted that road improvement on the southern half of Wheeler Avenue has not incurred and site improvements encroach this right of way up to the centerline. Portions of the southerly property are owned by the city and used as public parking and, although not strictly an encroachment, do take up the southern half of the road right of way.

Based on the City of Arcadia's General plan (November 2010), Wheeler Avenue is classified as an "Local Street" requiring a right of way (ROW) of 60' Based on this, there is no need to dedicate land along this road frontage.

## **11.0 SIGNALIZATION**

Since no street widening is anticipated, no new signal installation is expected.

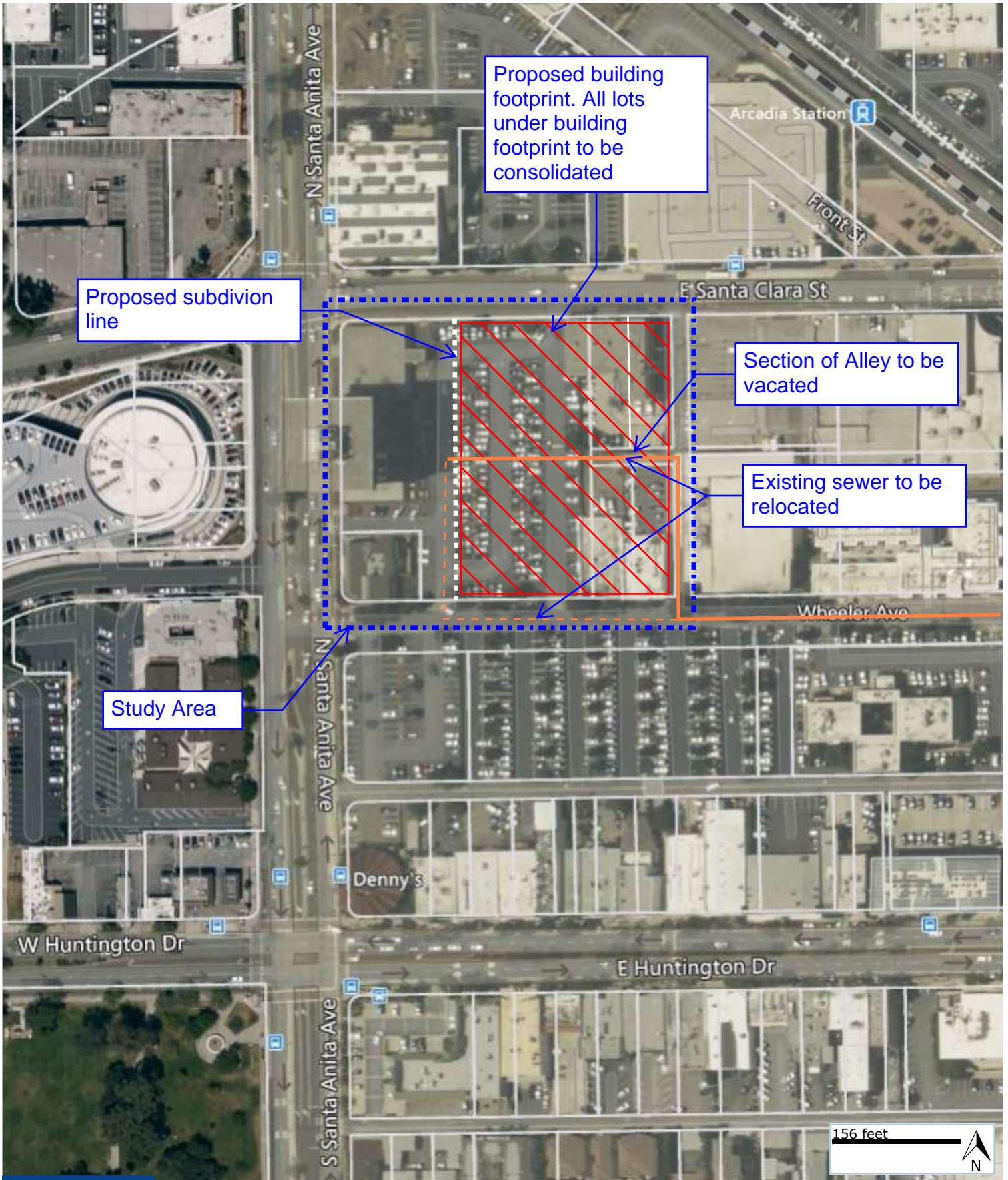
SUMMARY – No new signals are expected.

## **12.0 STREET TREES**

SUMMARY – New street trees may be required. Tree grates are required when within sidewalk area.



## **Appendix 1 - Project Site**



**Figure 1 - Project Site**

**Arcadia Apartments –150 N Santa Anita Ave. Arcadia**

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## **Appendix 2 - Record Data**

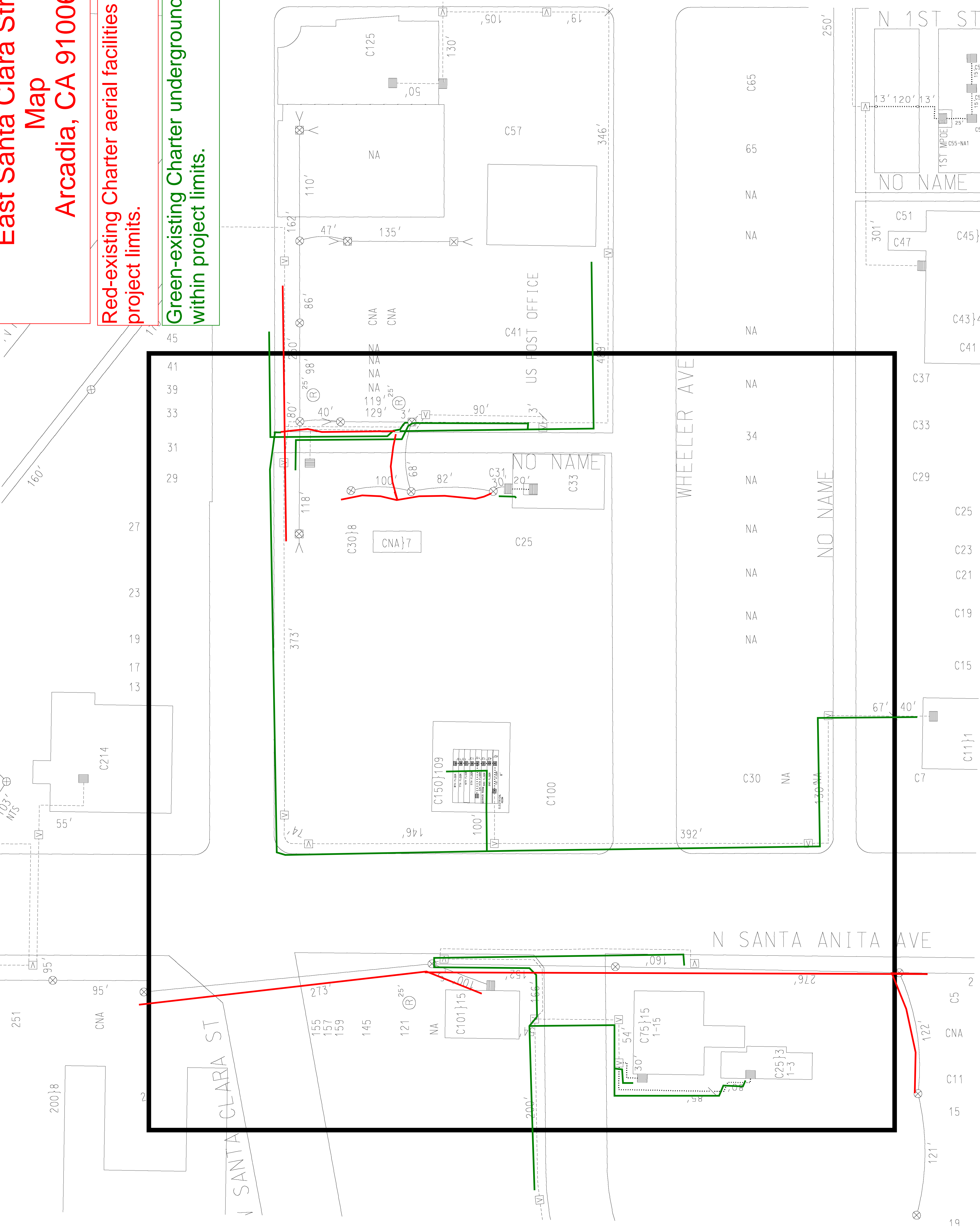
East Santa Clara Street

Map

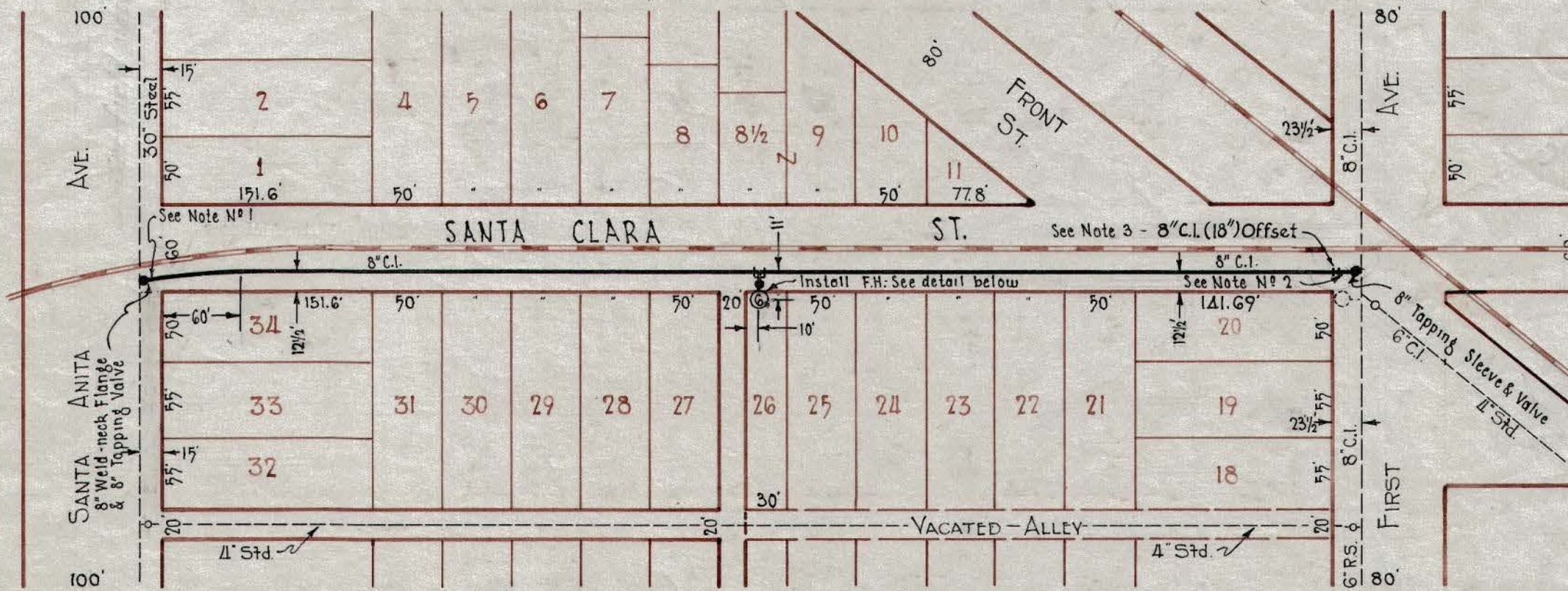
Arcadia, CA 91006

Red-existing Charter aerial facilities within project limits.

Green-existing Charter underground facilities within project limits.

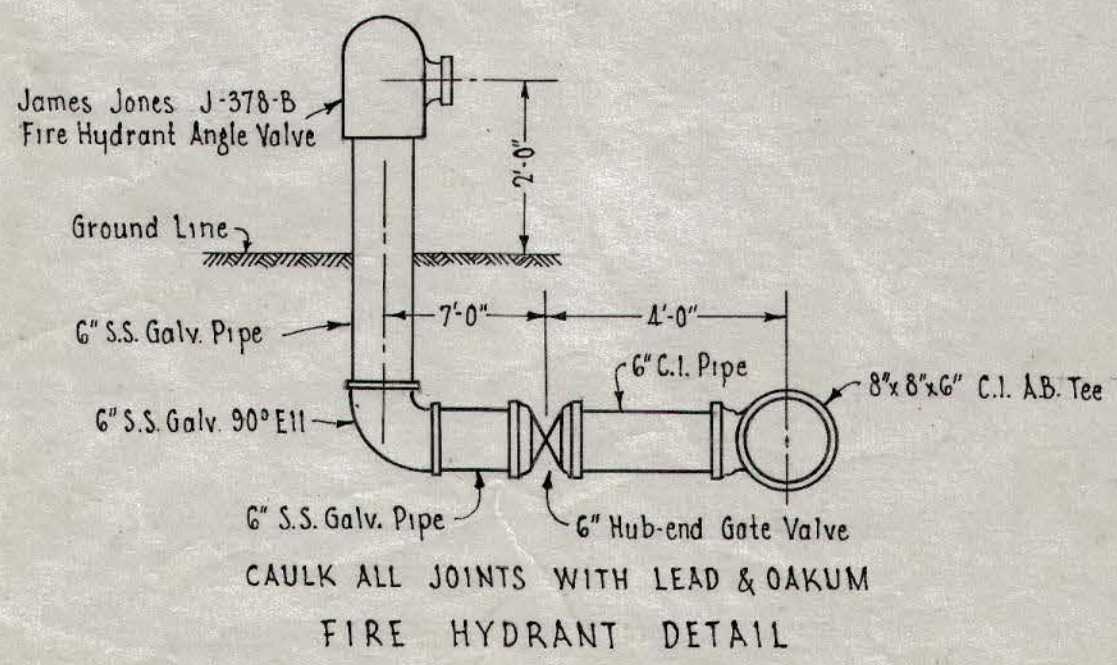






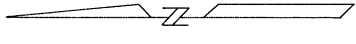
NOTES:

1. Maintain depth of existing 30" Main to the east R. of Santa Anita Ave to avoid interference with proposed drainage structures.
2. Maintain depth of existing 8" C.I. Main to the west R. of First Ave to avoid future drainage structures
3. All joints beginning at the existing mains and through the 45° bends to be caulked with lead and Oakum, also Fire Hydrant tee and joints.

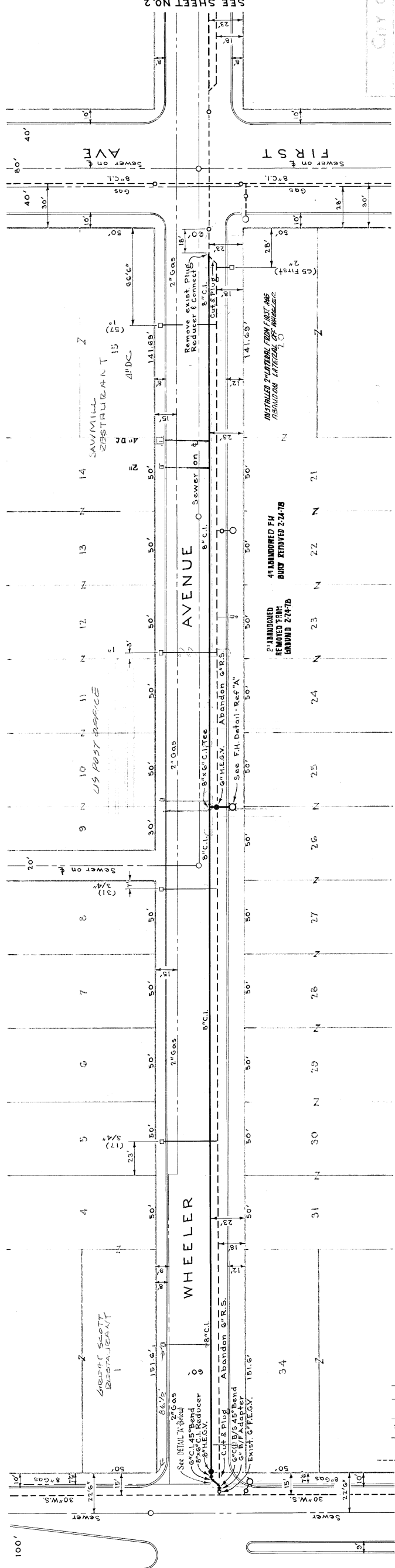


<b>CITY OF ARCADIA</b>	
<b>WATER DEPARTMENT</b>	
PIPE LINE INSTALLATION IN SANTA CLARA STREET FROM SANTA ANITA AVE. TO FIRST AVE.	
DATE 10-28-32	SCALE 1"=100'
DRAWN BY W <sup>m</sup> SON & R.G.H.	SHEET NO. 1 OF 1 SHEETS
APPROVED BY _____	<b>W.O. No. 33</b>
REVISED AS INSTALLED R.J.W.	





MORLAN PLACE  
SANTA ANITA AVE  
WHEELER AVENUE

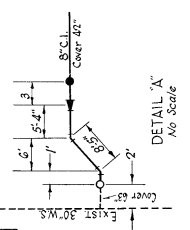


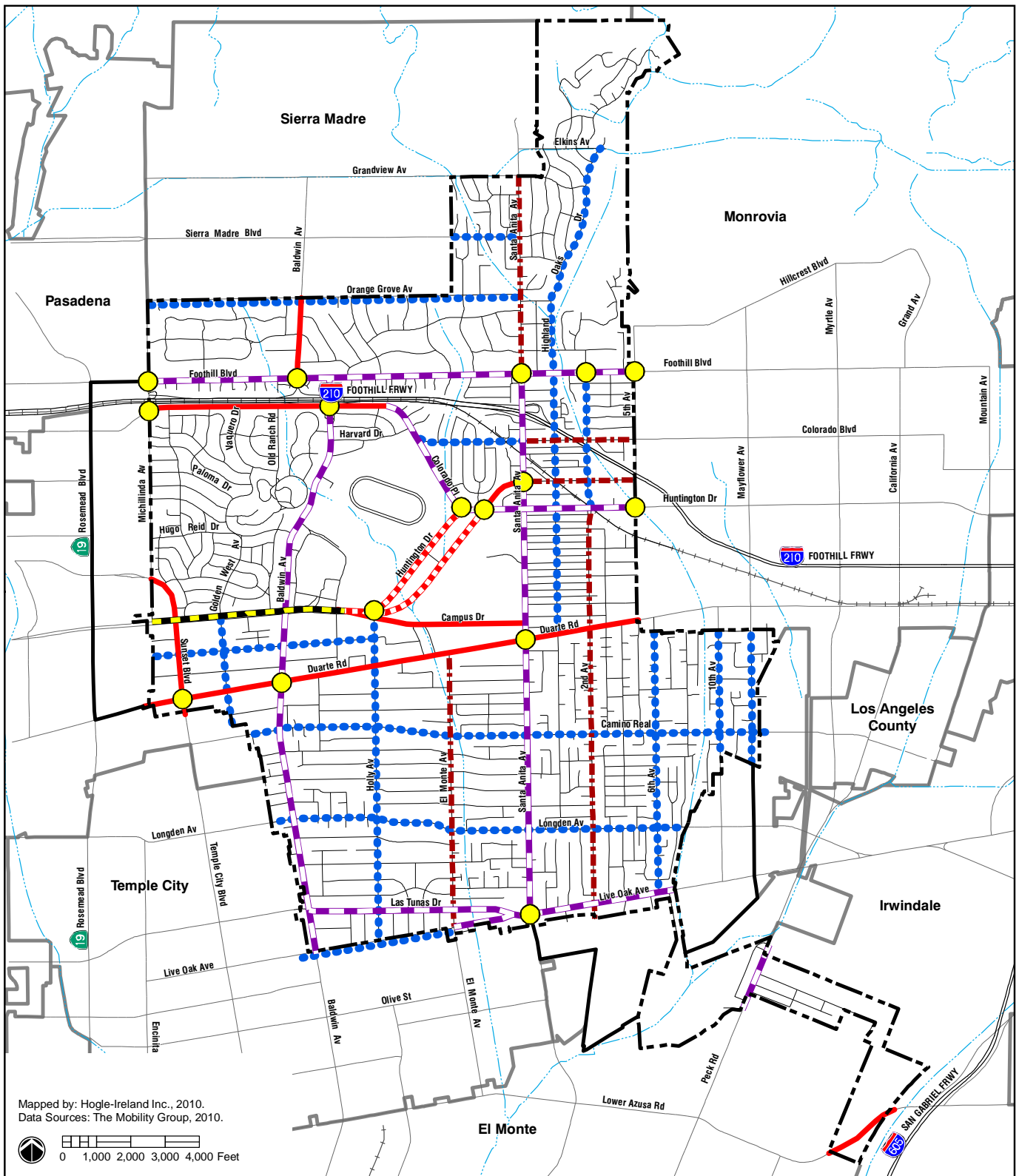
SEE SHEET NO. 2

CITY OF ARIZONA  
WATER DEPARTMENT

PIPE LINE INSTALLATION IN  
WHEELER AVENUE AND INDIANA STRE  
AS SHOWN

DATE: 7-12-60  
DRAWN BY: R.K.A.  
APPROVED BY: [Signature]  
REVISED: B.J.S. 103560





Mapped by: Hogle-Ireland Inc., 2010.  
 Data Sources: The Mobility Group, 2010.

**Roadway Plan**

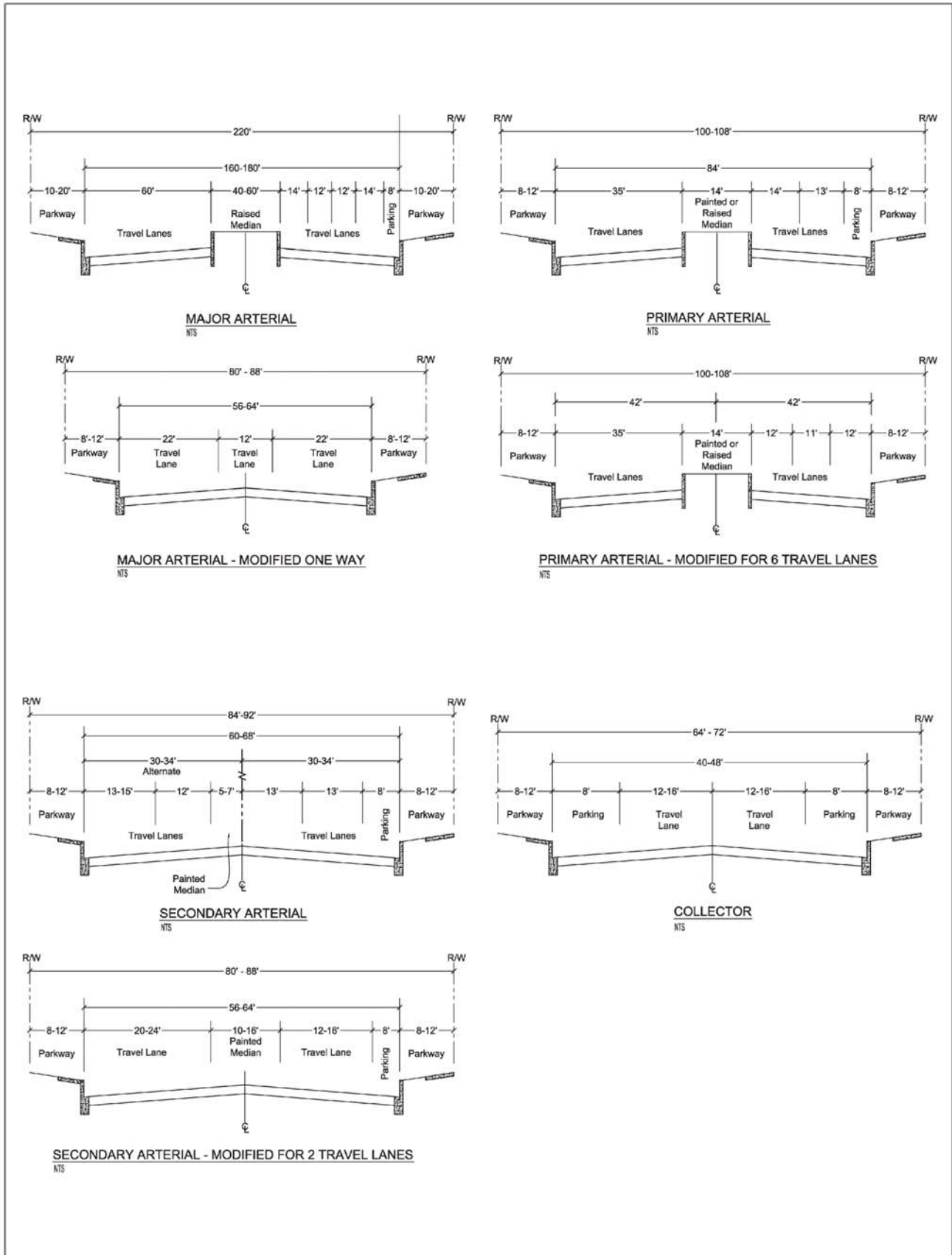
- Major Arterial
- Major Arterial 1-Way
- Primary Arterial
- Secondary Arterial

- Enhanced Collector
- Collector
- Enhanced Intersection Location

**Base Map Features**

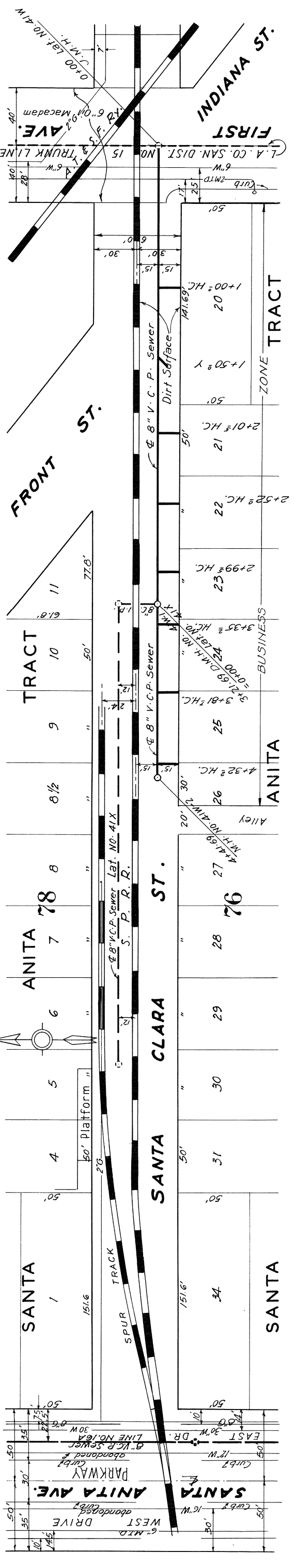
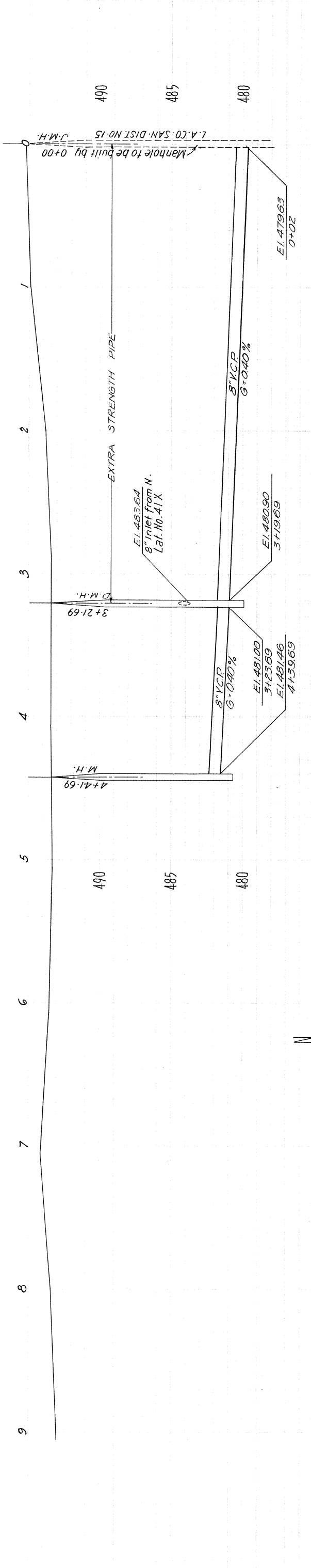
- City Boundary
- Sphere of Influence
- Freeway
- Local Road
- Railroad
- Water Feature

**FIGURE CI-3: ROADWAY PLAN**

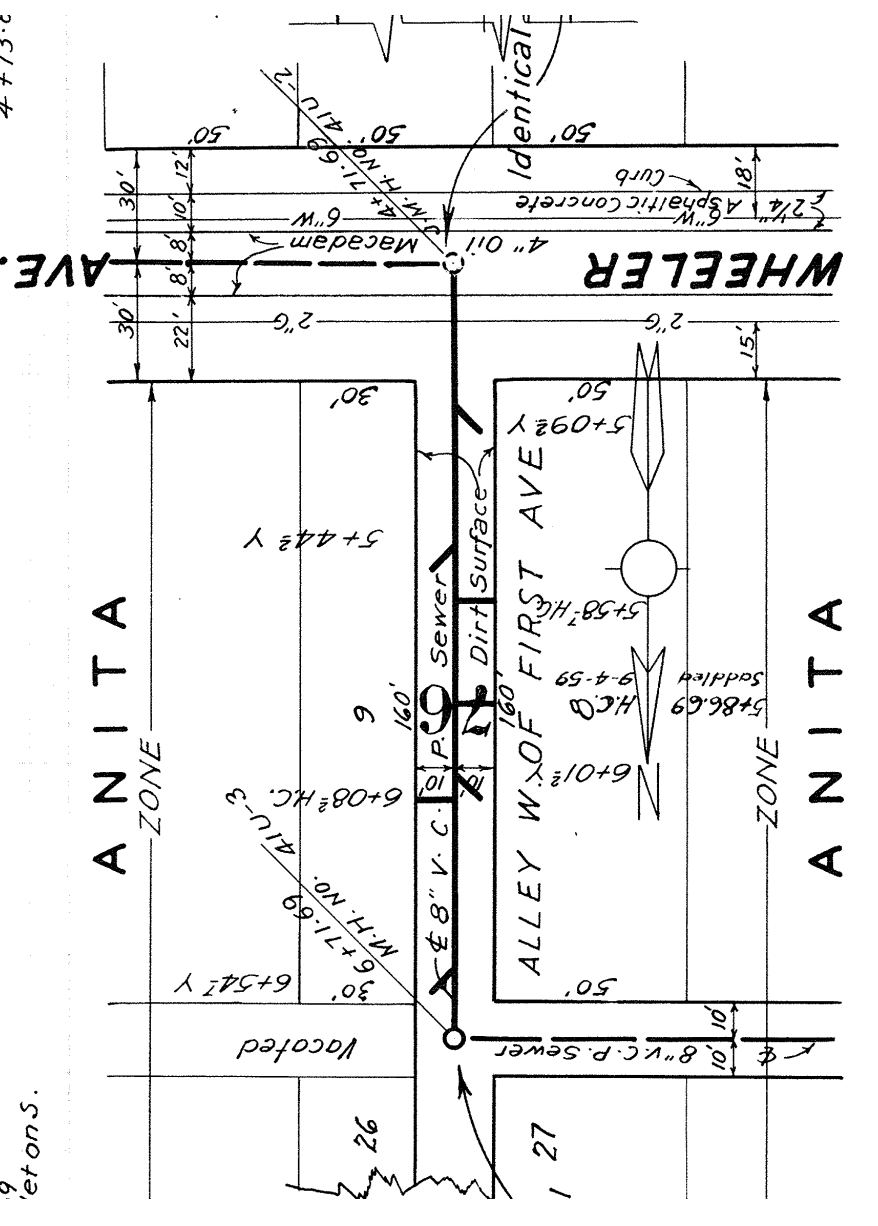
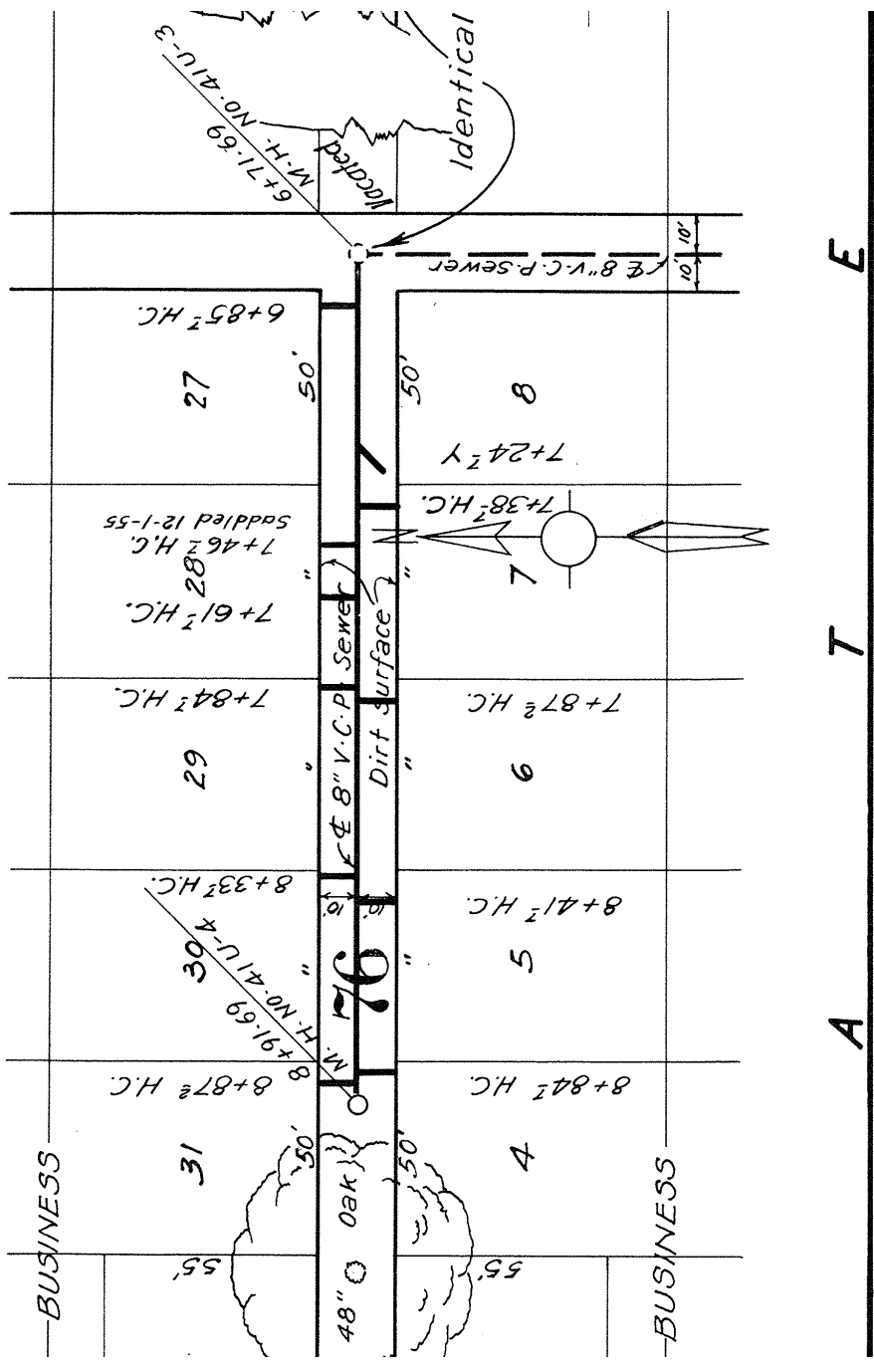
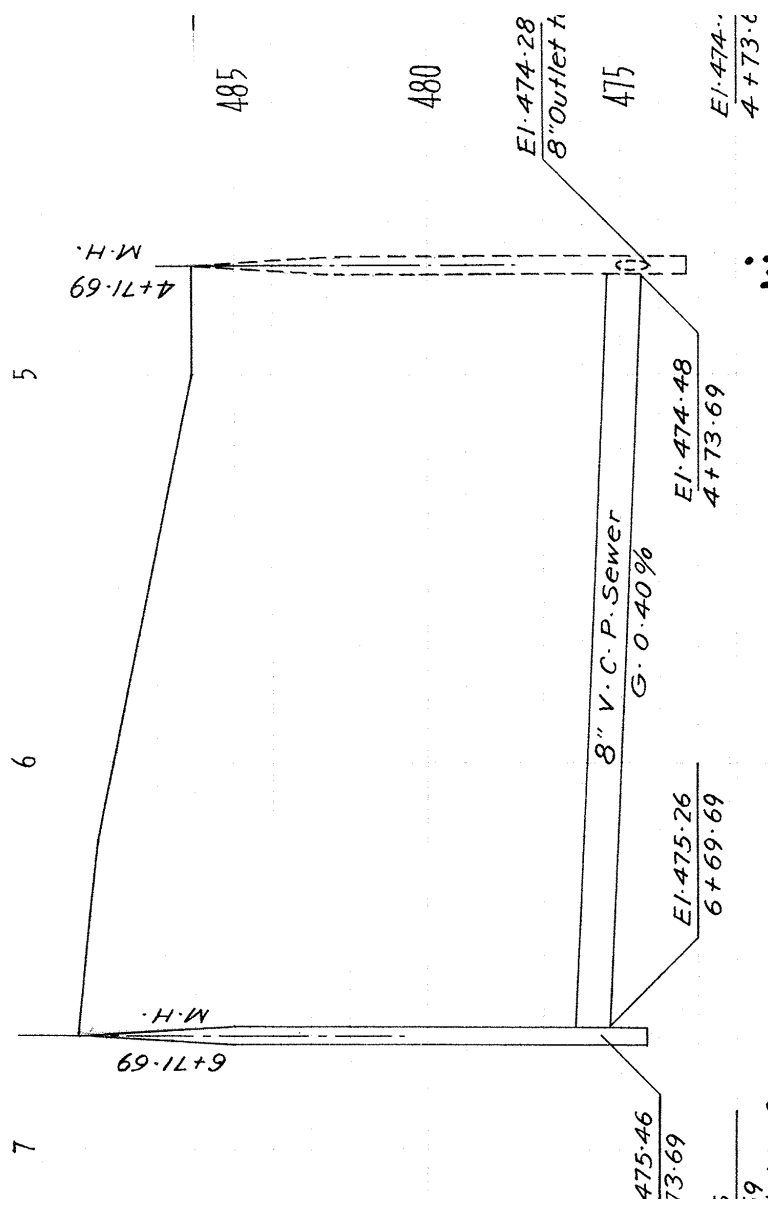
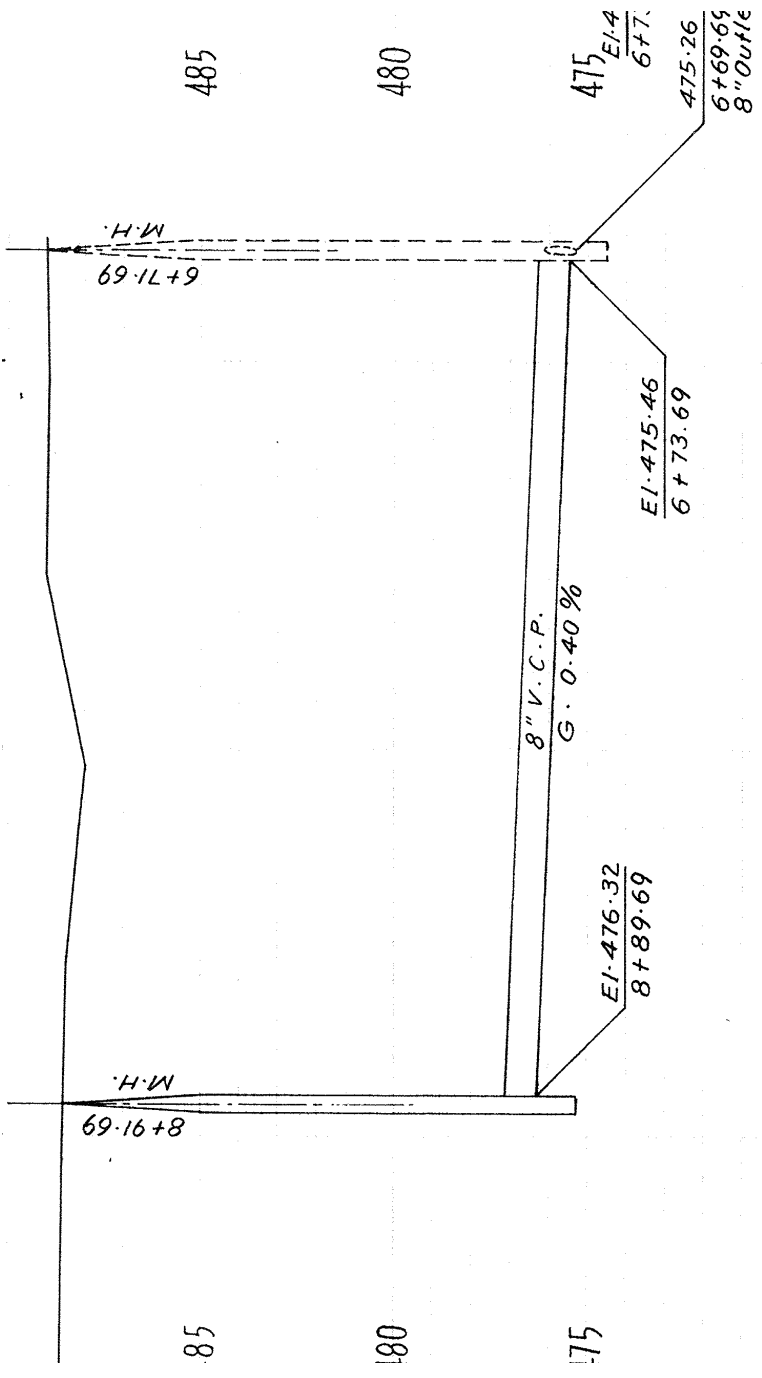


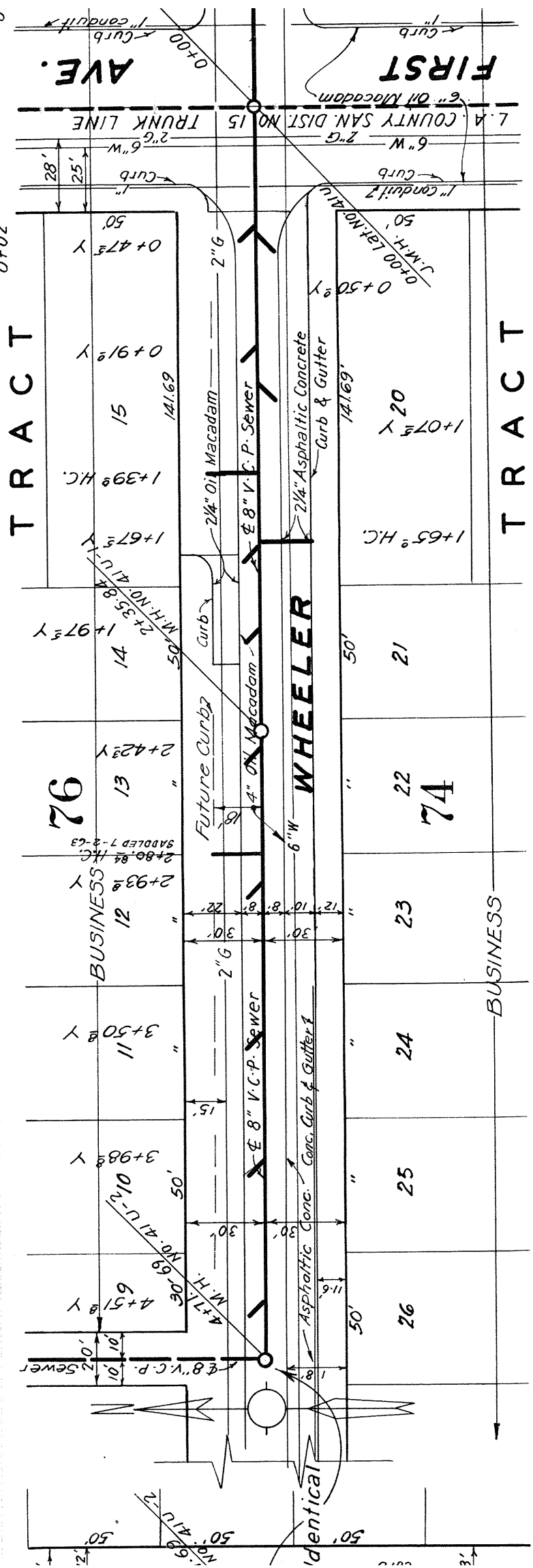
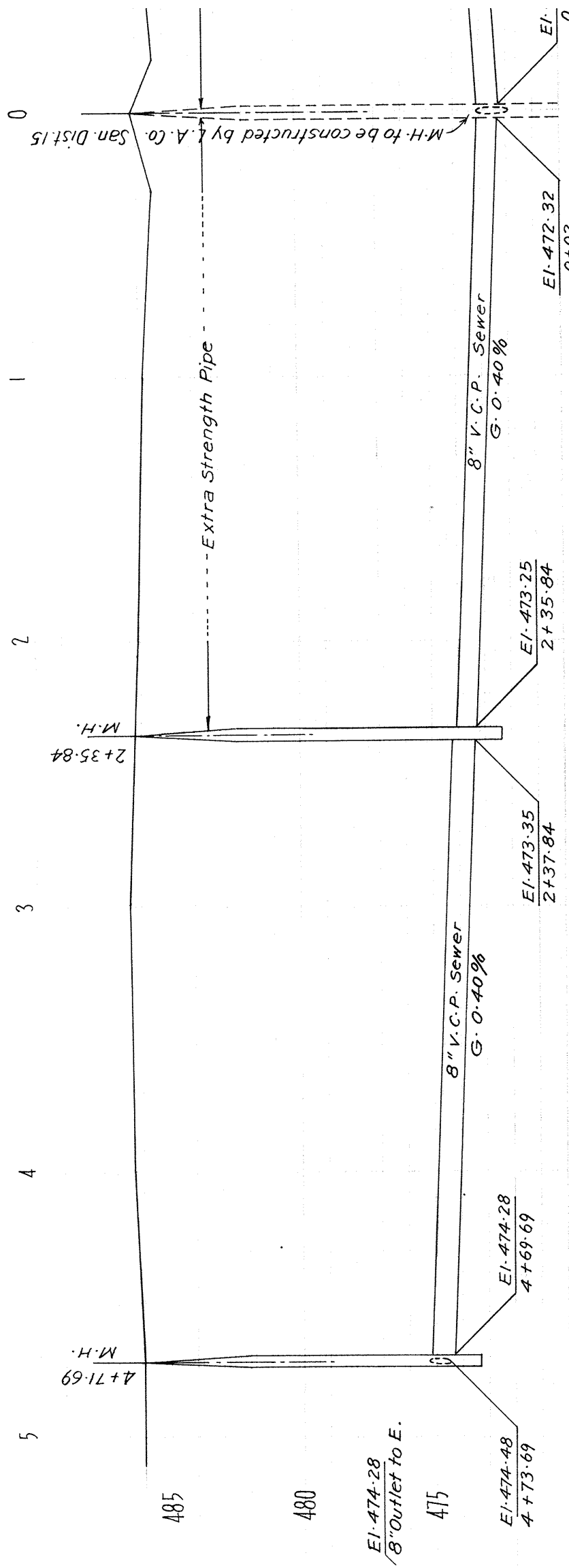
**FIGURE CI-4: STREET CROSS SECTIONS**





L A T E R A L NO. 41W





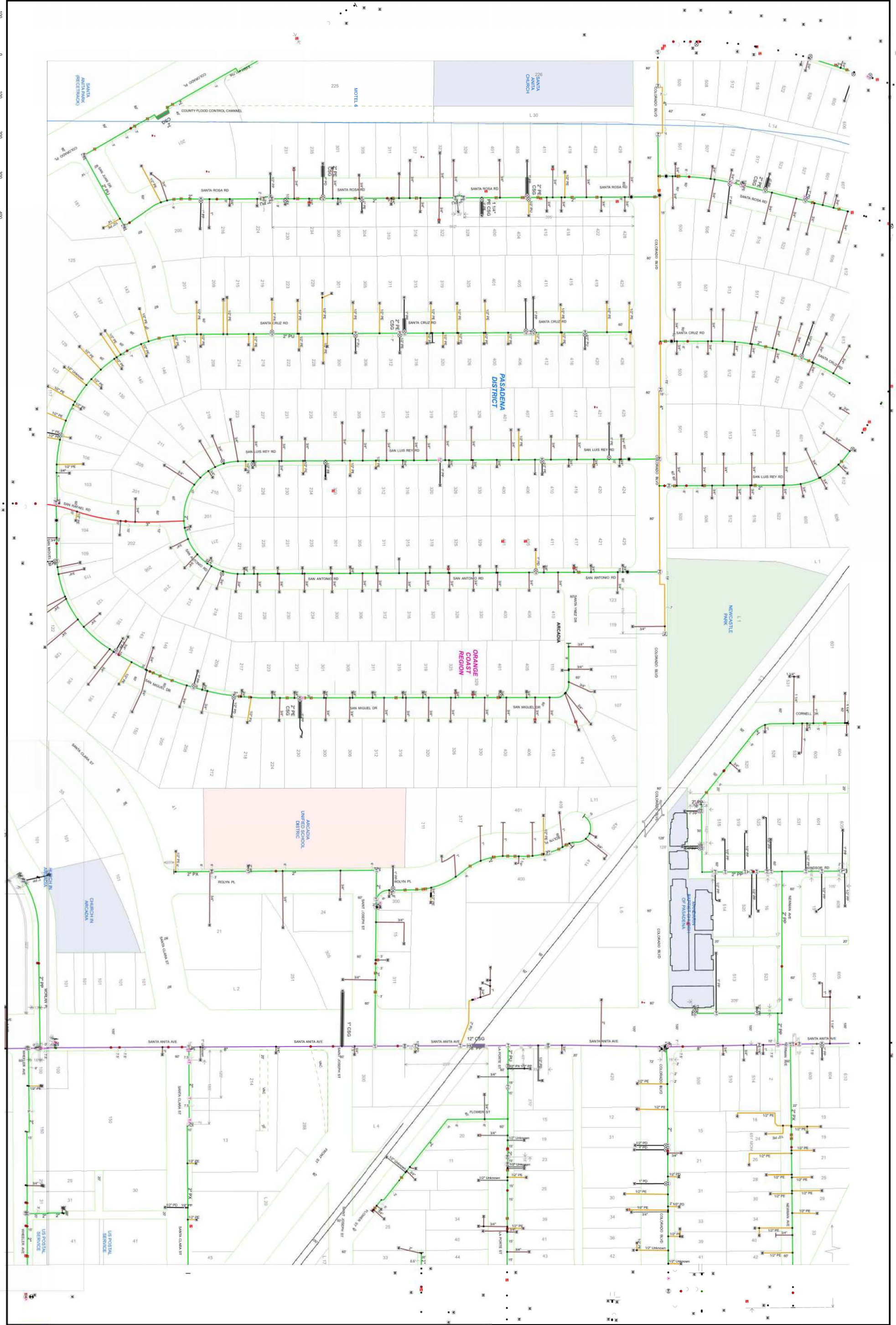
5 4 3 2 1 0

TRACT

TRACT

N.O.

41U



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Map Number:	
Map Type:	<b>Gas Asset Map</b>
Printed By:	agott
Printed Date:	2/3/2021

1 inch = 100 feet



## **Appendix 3 - Fire Flow Test Result**



City of Arcadia  
Public Works Services Department

**Hydraulic Flow Test Summary**

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PROJECT: **30 E Santa Clara St** DATE: **3/12/2021**  
LOCATION: **30 E Santa Clara St** MAIN SIZE: **8" CI**  
TESTED BY: **Tiffany Lee** TIME: **1:49 P.M.**  
WATER ATLAS PRESSURE: **50**

**FLOW TEST RESULTS**

	<b>GAUGE</b>	<b>FLOW FIRE HYDRANT</b>
	JUNCTION #	507FH038
	J2336	
ORIFACE DIAMETER: (in)		
STATIC PRESSURE: (psi)	54.62	
RESIDUAL PRESSURE: (psi)	48.46	
CALCULATED FLOW		2,000.00
FLOW @ 20 PSI (gpm)		5,384.49

**REMARKS:**

**SIMULATED FLOW TEST FROM WATER MODEL.**

**Disclaimer:**

This information is furnished as a courtesy and shall not constitute any obligation on the part of the City of Arcadia to supply water at any specific pressure, or in any specific quantity for domestic or fire protection use.