Appendix O

Due Diligence Report

Kimley»Horn

HDG
HARRIDGE DEVELOPMENT GROUP

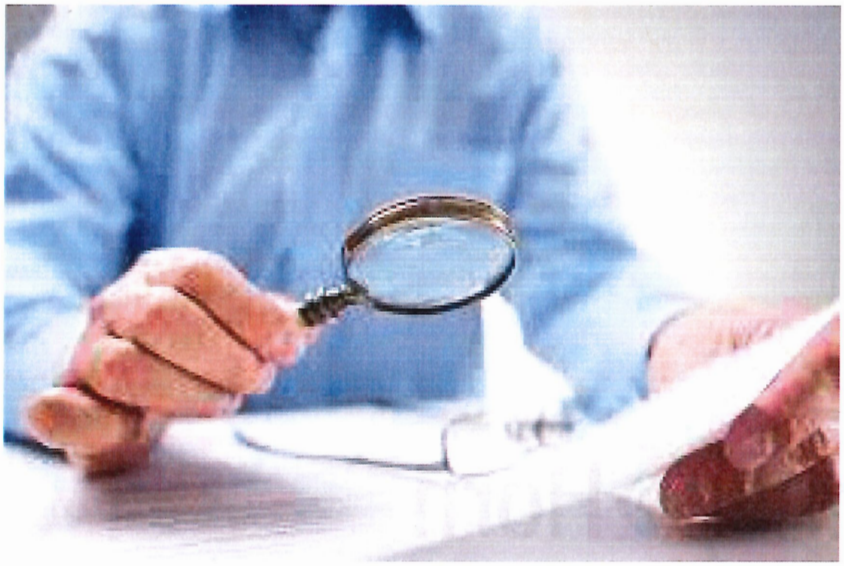
D & D ENGINEERING, INC.

MORNINGSIDE HS DEVELOPMENT – INGLEWOOD, CA

DUE DILIGENCE REPORT

April 22, 2022





D & D Engineering, Inc.

119 W. Hyde Park Blvd.
Inglewood, CA 90302

424-351-6800

175 E. Olive Avenue
Suite #401
Burbank CA 90502

Table of Contents

I. Introduction 2

II. Existing On-Site and Off-Site Infrastructure 2

III. Hydrology and Low Impact Development (LID) 4

IV. Grading and Earthwork 5

IV. Summary and Conclusion 6

FIGURES:

Figure 1 — Morningside Site Plan

Figure 2 — Existing Grading and Infrastructure Exhibit

APPENDICES:

Appendix A — Record As-Built Drawings

(Golden State Water Company Atlas Map, City of Inglewood Water As-builts, LACFCD Storm Drain, City of Inglewood Storm Drain Plans, LACSD Sewer Plans, City of Inglewood Sewer Plans)

Appendix B – Conceptual Hydrological Calculations

Appendix C – Fee schedule

I. Introduction

The purpose of this Due Diligence report is to evaluate the feasibility to develop an approximately 24-acre site as part of Morningside High School and Monroe Middle School project in Inglewood, California. This study will delineate the existing infrastructure on and surrounding the site based on the record plans and information available at the time or writing.

This project is located at the grass fields between the middle school and high school, 104th Street and 108th Street, please see Figure 1 attached. This project will have access to the site from the north and south on 104th Street and Lemoli Avenue, respectively. The property will be within three different APN numbers that are all owned by Inglewood Unified School District (IUSD).

The site is proposed for multiple residential townhomes includes amenity space for residents and additional guest parking spaces. Moreover, the site will include a new Child Development Center building with additional parking space specifically for this facility. Please see Figure 1 for the Morningside Site Plan for this project.

II. Existing On-Site and Off-Site Infrastructure

The existing utility infrastructure surrounding the project are located within the right-of-way of 104th Street, 108th Street, 10th Avenue and Lemoli Ave. Infrastructure includes sewer, water, storm drain, gas and electrical. Please refer to the attached Figure 2 - Existing Grading and Infrastructure Exhibit and as built drawings for reference.

Site topography, shown in Figure 2 shows runoff draining from the northeast corner of the site towards the southwest as noted in the preliminary conceptual plan and the drainage report.

Demolition:

There may be unknown existing infrastructure onsite that should be taken into consideration once ALTA plans are completed. Additionally, the Inglewood Unified School District plans for the project need to be obtained and reviewed to fully understand the existing site conditions. These infrastructures may include but are not limited to storm drain, water distribution, electrical, sewer and gas.

Storm Drain – The existing storm drain surrounding the site are maintained by either the City of Inglewood Public Works Department or Los Angeles County Flood Control District (LACFCD). Additionally, there is a private onsite storm drain within the project limits which the limits of it is not exactly known at this time.

On 104th Street, the City of Inglewood Public Works Department maintains an existing 42" RCP storm drain that flows to the west. It is possible to use this for some of the drainage at the northern part of the site if necessary. However, the city storm drain system will likely not be heavily utilized due to the grading of the site, which naturally flows to the south toward Lemoli Avenue.

On Lemoli Avenue, LACFCD maintains a 27" RCP storm drain that flows south on Lemoli Avenue. This existing storm drain terminates directly south of the site and would be an ideal connection point if the county line has the capacity for this project. To determine feasibility, D&D Engineering (D&D) has run preliminary hydraulic calculations and requested the $Q_{allowable}$ (allowable discharge to the storm drain system) from the county. At the time of writing, D&D has not heard back from the county.

Onsite existing storm drain will likely need to be demolished and may need to be relocated outside of the project limits. It is unlikely that this storm drain will be utilized due to the original sizing of this system and proposed site plan and building and driveways layout.

Storm drain record as-built drawings can be found in Appendix A.

Sanitary Sewer – The existing sewer mains adjacent to the site is owned by either the City of Inglewood Public Works Department or Los Angeles County Sanitation District (LACSD). The sewer systems adjacent to the property are either on 104th Street, 10th Avenue or 108th Street.

On 104th Street, north of our project, the City of Inglewood Public Works Department maintains an 8" V.C.P. public line that flows to the west toward Yukon Blvd. Due to the existing and proposed grading for this site, this system will likely not be utilized but it is possible to connect some of the northern residential units and/or child development center to this line if required. For the purposes of this report, this line is not under consideration.

On 10th Avenue, to the east of the project site, the City of Inglewood Public Works Department maintains an 8" V.C.P. public sewer that flows south. Based on existing sewer as-builts, it appears the existing Child Development Center is utilizing this sewer line. It is feasible to continue using this line for the proposed Child Development Center that will be placed in approximately the same location as the existing center.

On 108th Street, LACSD maintains a 12" V.C.P. that flows west toward Yukon Ave. Based on the grades to the site, it is assumed this project would utilize this southern sewer line on 108th Street. The most likely connection point will be at the existing manhole at Lemoli Avenue and 108th Street. D&D has run preliminary sewer load calculation for this site. Based on the 470 proposed residential units and daily average sewage flow factor of 156 gal/unit/day (337 townhomes) and 195 gal/unit/day (133 detached townhomes), the peak flow for this project will be 78,507 GPD. With an assumed peak flow factor of 2.5, the peak flow will be 196,267 GPD (0.304 CFS). This load will need to be placed into the existing county sewer system. Based on experience in this area, connecting to LACSD is very close to capacity and the main may need to be upsized. This additionally offsite improvement may be required for this project, however, after initial review of the as-built plans, it looks like the project will be acceptable.

Additionally, this project may be eligible to receive sewer connection fee credits for the existing building that will be demolished in this project which may also help with the additional load contributed to the existing sewer on 108th Street and Yukon Avenue.

D&D has placed a "will serve request" to the county and has not received a response at the time of writing. County estimate approximately 2-4 weeks turnaround time for all will serve requests.

Sewer record as-built drawings can be found in Appendix A.

Domestic Water – The existing water system surrounding the site are maintained by either the City of Inglewood Water Department or Golden State Water Company (GSWC). Water for the Inglewood Unified School District (IUSD) at the schools are currently maintained by the City of Inglewood Water Department.

On 104th Street and 10th Avenue, water is maintained by the City of Inglewood Water Department. As-Built drawing obtained from the city show both a 6" Asbestos Cement (A.C.) water line and an 8" A.C. water line on these streets. The 6" water line specifically serves IUSD and the 8" water line serves the residents in the surrounding neighborhood north of the project site. D&D coordinated with the city of Inglewood to verify the capacity and pressure for the water line on 104th Street.

According to the City of Inglewood, flow tests on 104th Street and Yukon Avenue show a **static pressure of 80 psi**. Although this number is not meant to be used for design purposes and is not directly abutting this project, it should give an idea of the pressure range to expect for the project. D&D has coordinated with the city for a new fire flow test directly in front of this project and should receive the results within a few weeks.

Golden State Water District (GSWD) is the water purveyor for the neighborhood south of the project site on 108th Street and does not serve IUSD at this site. Because the site is higher on the north end of the project site and therefore presumable a higher pressure, the existing water purveyor for the school district, and because we can

create a loop for the site from the north based on two access points, D&D believes it is most feasible to connect to the city water line north of the site.

Water record as-built drawings and atlas maps can be found in Appendix A.

Dry Utilities:

Gas: The current gas purveyor for the site is Southern California Gas Company (SCGC). According to as-built drawings for other utilities, there are currently a 30" gas transmission line and 3" gas line on 104th Street.

Electrical: There are currently power poles along 104th Street that are feeding the existing site. Additionally, there are power poles along 108th Street that serve the residential. It is presumable that power will be served from the north at 104th Street.

III. Hydrology and Low Impact Development (LID)

Hydrology - Based on D&D preliminary hydrological calculations, we estimate the need of approximately 3,870 cubic yards of detention basin to reduce the proposed runoff from pre-development levels. Unless LA County $Q_{allowable}$ is approved and allows higher runoff and connection to County line, this detention basin must be sized and designed within proposed site plan. Based on the LA County Department of Public Works (LACDPW) Hydrology Manual, the onsite facilities for the project should be designed for a 25-year storm event. D&D calculated the 10-year, 25-year, and 50-year peak storm runoff for the proposed and existing conditions using LACDWP HydroCalc software. See Table 1: Hydrological Condition Summary below for the 10, 25 and 15-year peak flow rates.

Table 1: Hydrological Condition Summary

	Tributary Area [Ac.]	*10-Year Peak Flow [CFS]*	*25-Year Peak Flow [CFS]*	*50-Year Peak Flow [CFS]*
Existing Condition	24.0	10.5	21.9	32.1
Proposed Condition	**24.0**	**16.2**	**26.7**	**34.2**

Due to the site size, development type, and jurisdiction, it is required to detain runoff within the project boundary. Based on experience, the 24.0-acre site will need to detain approximately 2.4 acre-feet of water, translates to approximately one 150 ft by 150 ft basin that is 5' deep. The best location for the basin based on the natural topography of the site would be in the southwest corner of the site. Another option would be to place two smaller detention basins in sequence within the site. This type of hydromodification may reduce the required volume to detain on the site.

Hydrological calculations can be found in Appendix B.

Low Impact Development (LID)

The Los Angeles County Low Impact Development Standards Manual categorizes stormwater control quality measures into the following types listed in level of priority:

1. Retention based BMPs (bioretention, infiltration basin, drywells, capture and reuse cisterns, green roof)
2. Biofiltration BMPs (biofiltration)
3. Vegetation-based BMPs (stormwater planters, vegetated swales, tree-well filter, etc.)
4. Treatment-based BMPs (Extended detention basin, constructed wetlands, wet pond, sand filters, proprietary devices)

Systems in a lower priority level may only be used if higher priority measures are deemed to be technically infeasible as set forth in the county's standard manual. BMP's must be evaluated for technical feasibility in sequential order, lower tier BMP's cannot be implemented until the higher tier BMP's have been deemed technically infeasible.

Until percolation tests have been performed by a licensed Geotechnical Engineer, we cannot fully evaluate BMP selection and feasibility. It is possible that percolation is required for this project and therefore dry wells will need to be installed. However, based on experience in this area, percolation rates are very low and therefore not suitable for infiltration.

For LID requirements in Los Angeles County, the 85th percentile storm volume is required to be captured and treated on site. Based on the data available and assumptions about percolation rates, it can be assumed that infiltration is deemed to be infeasible for the project site. Since reclaimed water is typically very difficult to implement for most projects, it is expected that capture and reuse may be deemed infeasible as well. Therefore, most likely a bio-filtration system of biofiltration swales, stormwater planter or proprietary units will be utilized to treat the site. A soil percolation test will be required to better understand the possibility of utilizing percolation BMPs if at all.

Because the site is approximately 24 acres of residential units, private park and a Child Development Center building, one possible option for the site could be to install approximately 30 proprietary units on the site. D&D has successfully installed proprietary biofiltration units in the City of Inglewood to mitigate storm water runoff and meet jurisdictional requirements. Proprietary units are typically 8'x14' biofiltration units that can be placed throughout the site to filter sediment, trash, and pollutant and help meet local LID regulations.

Another option would be to install a biofiltration basin onsite that would need to capture and treat 576 cubic yards of storm water. Please note that this is in addition to the required detention volume mentioned above. For a 5' deep biofiltration basin, the bottom dimensions would be approximately 60 ft by 60 ft placed directly upstream of the detention basin.

LID calculations can be found in Appendix B.

IV. Grading and Earthwork

Overall existing grades are draining towards the south and the west. Based on public grading records for this site, the highest elevation is 71 at the northeast corner of the site and lowest elevation is 40 at the southwest corner of the site.

Grades along 104th Street on the north side of the project site are relatively flat which will help eliminate any retaining wall along the right-of-way. We're expecting a retaining wall along the west and east edges of the site due to the approximate 30 elevation difference from the north to the south. Over excavation for the site will be based on the geotechnical report but we can typically expect 5' beyond the building footprint.

Based on adjacent projects, we are expecting the shrinkage to be approximately 10%. However, this needs to be confirmed with a geotechnical report.

At the writing of this report, we had not received our final ALTA but or general goal for all projects is to balance the site. With the existing grades and what we know, we believe this to be feasible.

IV. Summary and Conclusion

The project site spans across three different APN numbers and therefore there are property lines running directly through the site. This will not likely be a major problem, however, there may need to be a lot line adjustment to avoid any problems with buildings/setbacks/etc.

The proposed 470 units, private park and Child Development Center building project require coordination with various agencies and may require stormwater detention at the southwest corner of the site. This would mean that the site plan would need to be rearranged to place a basin in the southwest corner of the site. Additionally, an LID basin or proprietary units would need to be placed on this site to meet jurisdictional requirements.

Based on information from prior projects within the City of Inglewood, D&D has faced some problems with sewer capacity within the LACSD line close to this site. However, after initial review of the as-builts, it appears that there may not be the same problems on this site that there were on previous projects. D&D has placed a will serve letter into the sanitation district and will shortly find out if the sewer mains adjacent to the site need to be upsized from their current pipe sizes.

Assuming there are not problems with the sewer, there does not appear to be any major problem with wet utility design and capacities overall. All offsite utility work appears to be very close to the project and accessible.

Typically for a project like this, the city may require the adjacent streets to be revitalized and a traffic study may be required at each of the intersections. However, because this project is on IUSD property, the project may be exempt from entitlement conditions and environmental mitigation measures.

Additionally, there will likely need to be a retaining wall at the west and east side of the project due to the existing topography. Existing grading has abrupt changes in elevation because of the large flat areas for various sports like baseball, basketball, and tennis. Because of this, the retaining walls will need to be placed to maintain a constant grade from the north end to the south end of the site. Another option could be to work with the school district to grade the site at the east and west sides to eliminate the retaining walls.

There does not appear to be any major grading issue and the site will most likely be balanced with very little import or export depending on shrinkage factor.

The anticipated needs in terms of civil engineering can be supported by the existing infrastructure. However, existing utilities within the project site will likely need to be relocated to maintain the proposed site plan. It appears feasible that utilities can be readily provided. Grading and retaining wall considerations will need to be made during the design phase.

119 W. Hyde Park Blvd | Inglewood, CA| 424.351.6800

D & D ENGINEERING, INC.

FIGURES

SUMMARY

21x31 - SINGLE FAMILY RENTAL
- 140 UNITS

21x31 - SINGLE FAMILY TOWNHOME
- 105 UNITS

21x39 - SINGLE FAMILY TOWNHOME
- 90 UNITS

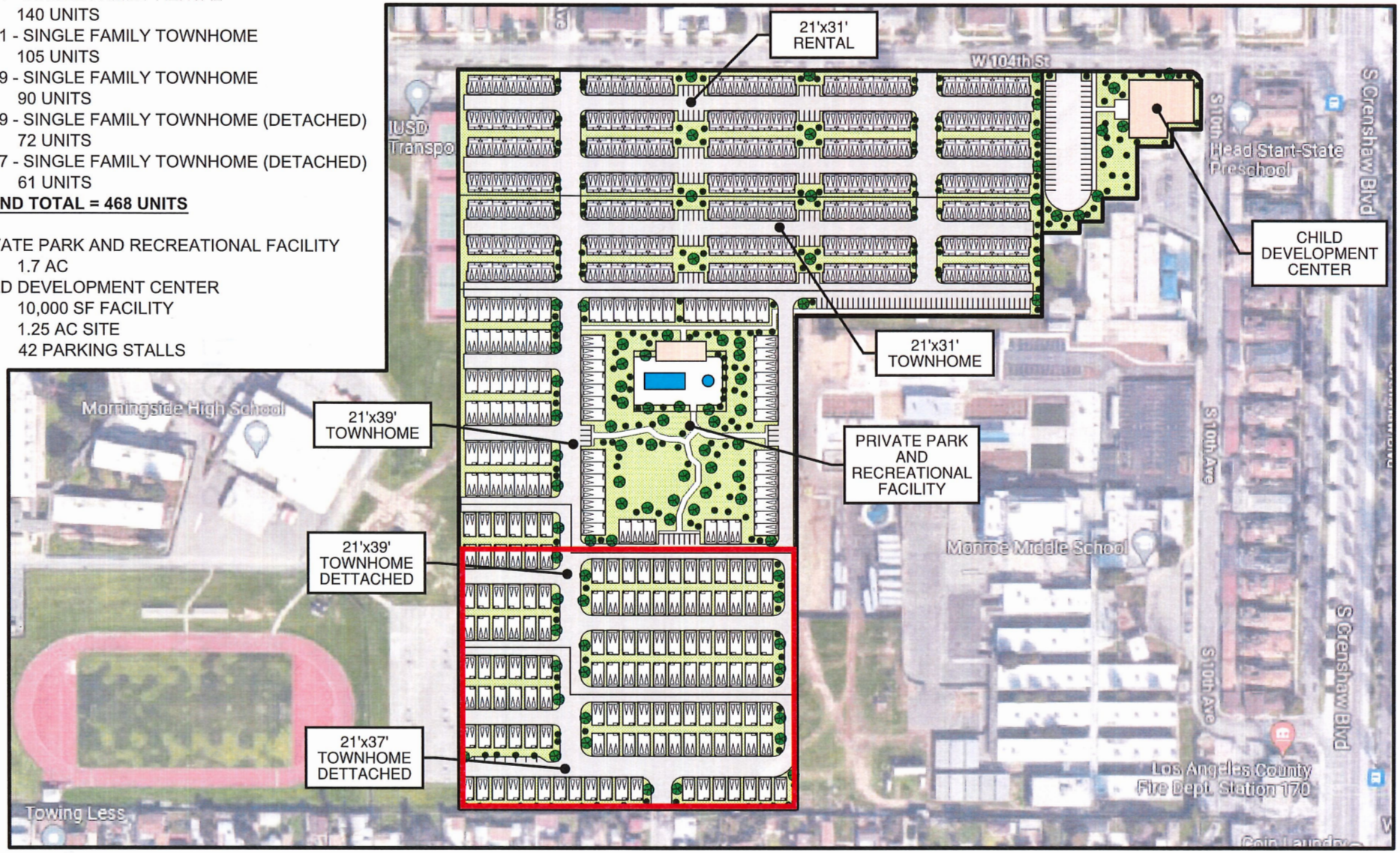
21x39 - SINGLE FAMILY TOWNHOME (DETACHED)
- 72 UNITS

21x37 - SINGLE FAMILY TOWNHOME (DETACHED)
- 61 UNITS

GRAND TOTAL = 468 UNITS

PRIVATE PARK AND RECREATIONAL FACILITY
- 1.7 AC

CHILD DEVELOPMENT CENTER
- 10,000 SF FACILITY
- 1.25 AC SITE
- 42 PARKING STALLS



MORNINGSIDE SITE PLAN
STUDY # 1

10/21/2021 REV 0



D & D ENGINEERING, INC.
110 W. HYDE PARK BLVD.
INGLEWOOD, CA 90302
Phone: 424-351-6800

MORNINGSIDE HIGH SCHOOL DEVELOPMENT

EXISTING GRADING AND INFRASTRUCTURE EXHIBIT

SCALE: AS SHOWN
DATE: 4/15/2022
SHT NO.: 01 of 01

LEGAL DESCRIPTION

THAT PORTION OF THE SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 3, TOWNSHIP 3 SOUTH, RANGE 14 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF INGLEWOOD, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SOUTH HALF OF THE NORTHEAST QUARTER OF SECTION 3, SAID CORNER ALSO BEING THE INTERSECTION OF THE CENTERLINES OF 104TH STREET AND CRENSHAW BOULEVARD; THENCE NORTH 89°56'20" WEST 246.95 FEET ALONG THE NORTH LINE OF SAID SOUTH HALF AND SAID CENTERLINE OF 104TH STREET TO THE NORTHWEST CORNER OF THE LAND DESCRIBED IN A DEED TO RAYOR'S INC. RECORDED APRIL 12, 1954 IN BOOK 44297, PAGE 2 OF OFFICIAL RECORDS, SAID CORNER ALSO BEING THE INTERSECTION OF SAID CENTERLINE OF 104TH STREET WITH THE CENTERLINE OF 10TH AVENUE (RUNNING SOUTHERLY); THENCE SOUTH 00°08'38" WEST 50.05 FEET ALONG SAID CENTERLINE OF 10TH AVENUE AND SAID THE WESTERLY LINE OF SAID RAYNOR'S PARCEL; THENCE PERPENDICULAR TO LAST SAID CENTERLINE, NORTH 89°51'22" WEST 23.00 FEET TO A POINT ON THE WEST LINE OF SAID 10TH AVENUE, PER INSTRUMENT NO. 3128, RECORDED MARCH 1, 1954 IN BOOK 43958, PAGE 29 OF OFFICIAL RECORDS, SAID 10TH AVENUE BEING 44 FEET WIDE (23.00 FEET WESTERLY AND 21.00 FEET EASTERLY, AS SHOWN ON THE MAP OF TRACT NO. 19820, FILED IN BOOK 512, PAGES 1 AND 2 OF MAPS, RECORDS OF SAID COUNTY), SAID POINT BEING THE POINT OF BEGINNING; THENCE SOUTH 00°08'38" WEST 84.98 FEET ALONG SAID WEST LINE OF 10TH AVENUE, BEING PARALLEL WITH AND DISTANT 23.00 WESTERLY, MEASURED AT RIGHT ANGLES FROM SAID CENTERLINE OF 10TH AVENUE; THENCE LEAVING SAID WEST LINE, PARALLEL TO SAID 104TH STREET, NORTH 89°56'20" WEST 50.00 FEET; THENCE PERPENDICULAR TO LAST SAID COURSE, SOUTH 00°03'40" WEST 30.00 FEET; THENCE PARALLEL TO SAID 104TH STREET, NORTH 89°56'20" WEST 60.00 FEET; THENCE PERPENDICULAR TO LAST SAID COURSE, SOUTH 00°03'40" WEST 90.00 FEET; THENCE PARALLEL TO SAID 104TH STREET, NORTH 89°56'20" WEST 60.00 FEET; THENCE PERPENDICULAR TO LAST SAID COURSE, SOUTH 00°03'40" WEST 40.00 FEET; THENCE PARALLEL TO SAID 104TH STREET, NORTH 89°56'20" WEST 40.00 FEET; THENCE PERPENDICULAR TO LAST SAID COURSE, SOUTH 00°03'40" WEST 20.00 FEET; THENCE PARALLEL TO SAID 104TH STREET, NORTH 89°56'20" WEST 65.00 FEET; THENCE PERPENDICULAR TO LAST SAID COURSE, SOUTH 00°03'40" WEST 45.00 FEET; THENCE PARALLEL TO SAID 104TH STREET, NORTH 89°56'20" WEST 425.00 FEET; THENCE PERPENDICULAR TO LAST SAID COURSE, SOUTH 00°03'40" WEST 857.99 FEET TO THE NORTHERLY LINE OF TRACT NO. 1631, AS SHOWN ON A MAP FILED IN BOOK 21, PAGES 66 AND 67 OF MAPS, RECORDS OF SAID COUNTY, SAID NORTHERLY LINE ALSO BEING THE SOUTHERLY LINE OF SAID NORTHEAST QUARTER OF SECTION 3; THENCE ALONG SAID SOUTHERLY LINE, NORTH 89°48'29" WEST 584.86 FEET; THENCE LEAVING SAID SOUTHERLY LINE, PERPENDICULAR TO SAID 104TH STREET, NORTH 00°03'40" EAST 1281.65 FEET TO A LINE THAT IS PARALLEL WITH AND DISTANT SOUTHERLY 35.00 FEET, MEASURED AT RIGHT ANGLE, FROM SAID NORTH LINE OF THE SOUTH HALF AND SAID CENTERLINE OF 104TH STREET, SAID PARALLEL LINE BEING THE SOUTHERLY LINE OF SAID 104TH STREET, AS PER INSTRUMENT NO. 3444, RECORDED MARCH 28, 1952 IN BOOK 39676, PAGE 355 OF OFFICIAL RECORDS; THENCE ALONG SAID SOUTHERLY LINE OF 104TH STREET, SOUTH 89°56'20" EAST 1269.98 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE SOUTHWESTERLY AND HAVING A RADIUS OF 15.00 FEET, SAID CURVE BEING TANGENT AT ITS SOUTHERLY TERMINUS TO SAID WEST LINE OF 10TH AVENUE; THENCE SOUTHEASTERLY ALONG SAID CURVE, THROUGH A CENTRAL ANGLE OF 90°04'58", AN ARC LENGTH OF 23.58 FEET TO SAID POINT OF BEGINNING.

HAVING AN AREA OF 22.6 ACRES

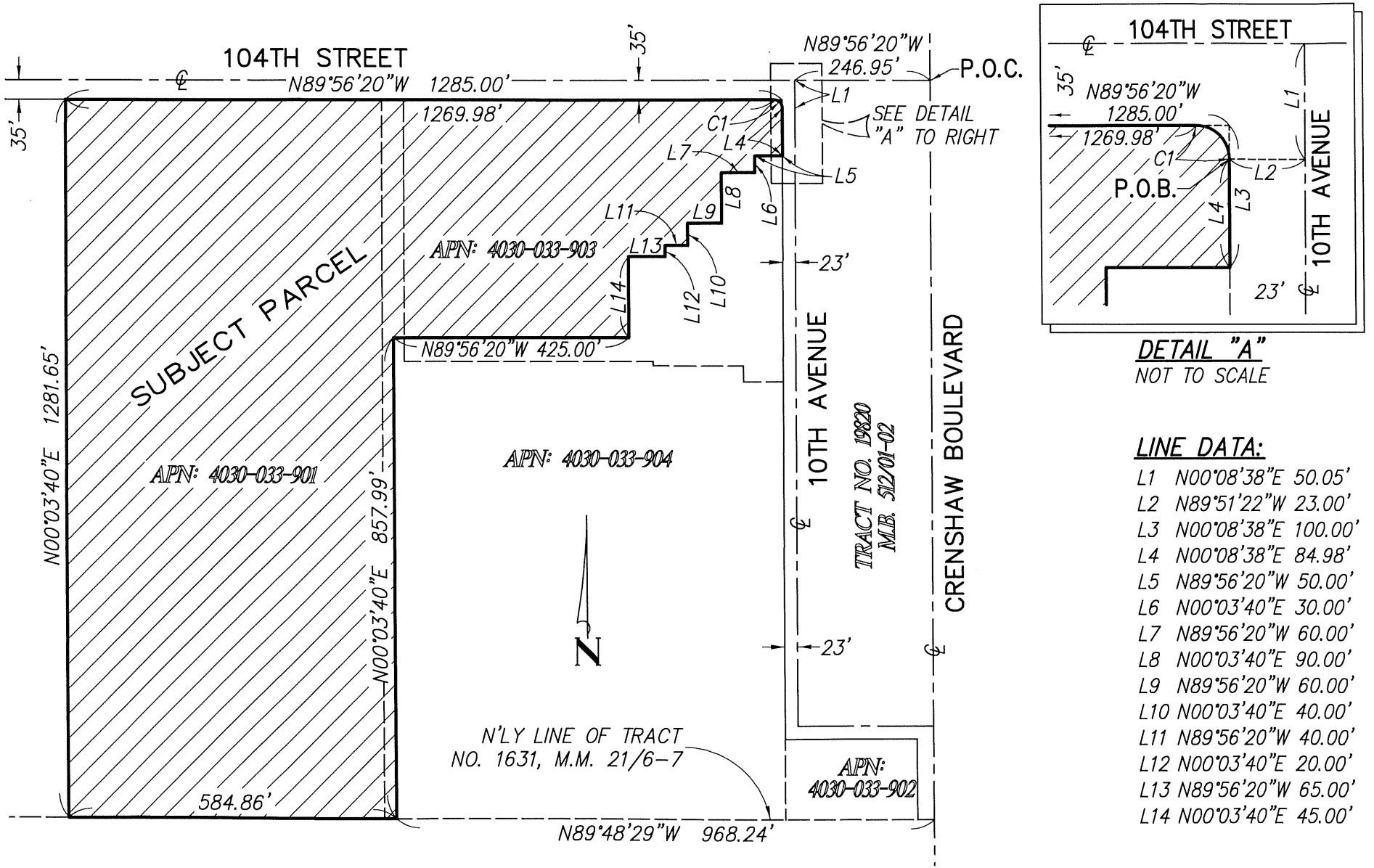
EXHIBIT "B" ATTACHED HERETO AND MADE A PART HEREOF.

THIS DESCRIPTION WAS PREPARED UNDER MY SUPERVISION:

MICHAEL NAVARRO, L.S. 7848
LICENSE EXPIRES 12/31/2022



THE ABOVE DESCRIPTION WAS PREPARED FOR LEASE PURPOSES ONLY AND ITS USE FOR SUBDIVISION PURPOSES CONSTITUES AN ILLEGAL SUBDIVISION



DETAIL "A"
NOT TO SCALE

LINE DATA:

L1	N00°08'38"E 50.05'
L2	N89°51'22"W 23.00'
L3	N00°08'38"E 100.00'
L4	N00°08'38"E 84.98'
L5	N89°56'20"W 50.00'
L6	N00°03'40"E 30.00'
L7	N89°56'20"W 60.00'
L8	N00°03'40"E 90.00'
L9	N89°56'20"W 60.00'
L10	N00°03'40"E 40.00'
L11	N89°56'20"W 40.00'
L12	N00°03'40"E 20.00'
L13	N89°56'20"W 65.00'
L14	N00°03'40"E 45.00'

LEGEND

PARCEL AREA:
22.6 ACRES

CURVE DATA:

C1 Δ=90°04'54"
R=15.00'
L=23.58'

GGI
1251 Pomona Road Ste 101
Corona, CA 92880
Phone: (951)340-0556

EXHIBIT "B"

MORNINGSIDE LEASE PARCEL
INGLEWOOD, CA

PROJECT NO	22019
SCALE	1" = 250'
DATE	04-07-2022
	SHEET 2 OF 2 SHEETS

119 W. Hyde Park Blvd | Inglewood, CA| 424.351.6800

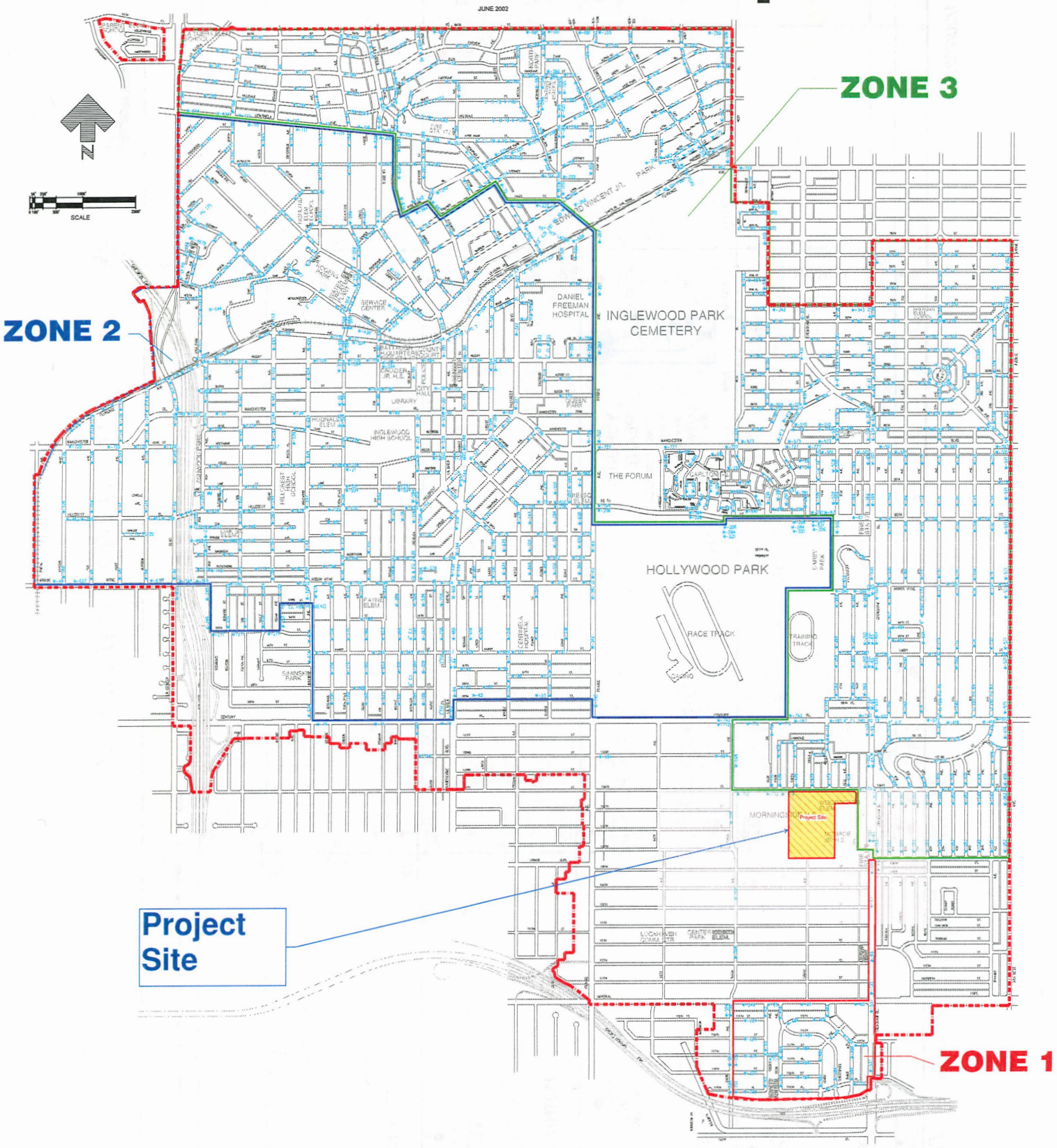
D & D ENGINEERING, INC.

APPENDIX A - AS-BUILTS

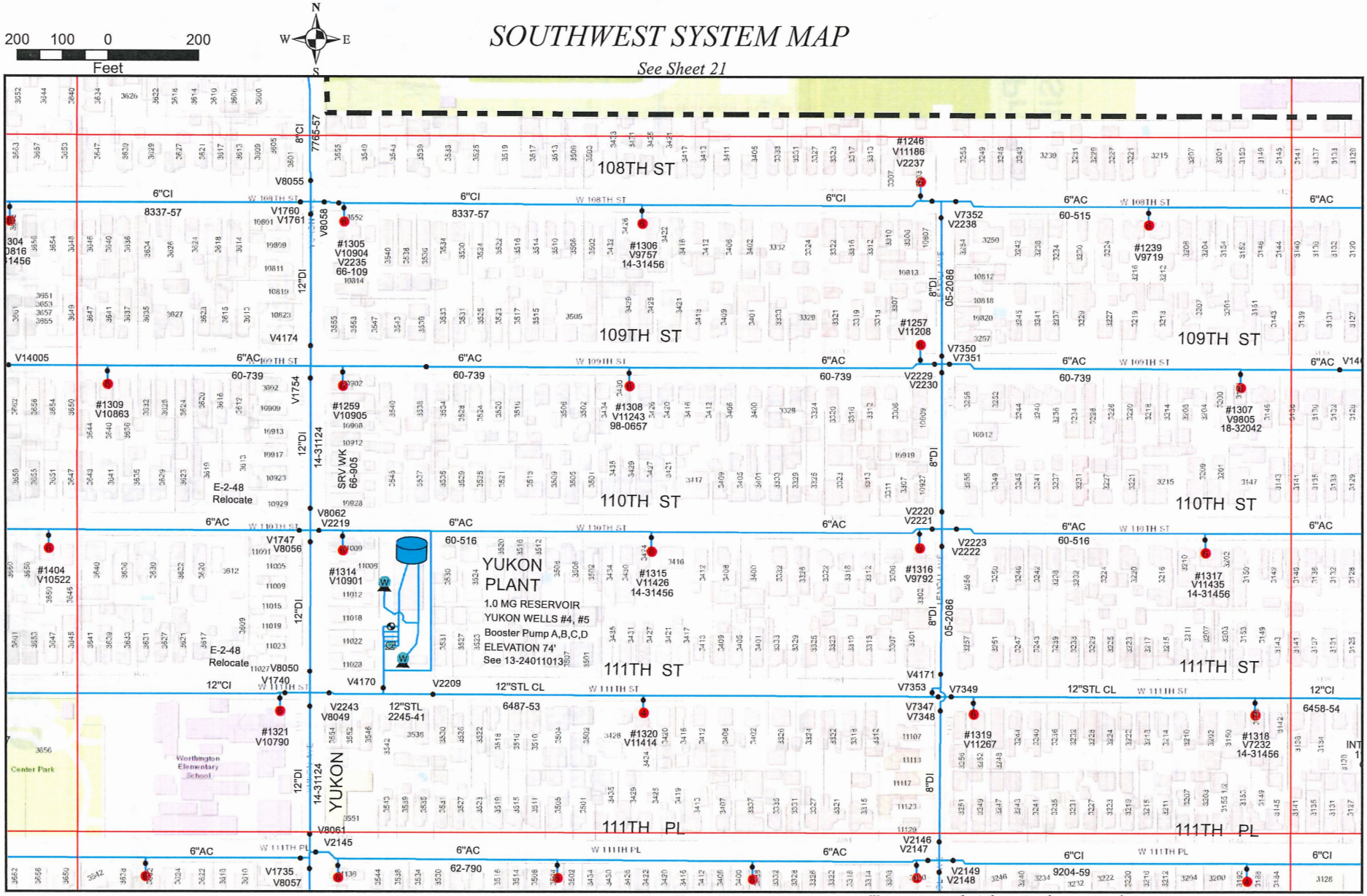
City of Inglewood

Water Index Map

JUNE 2002



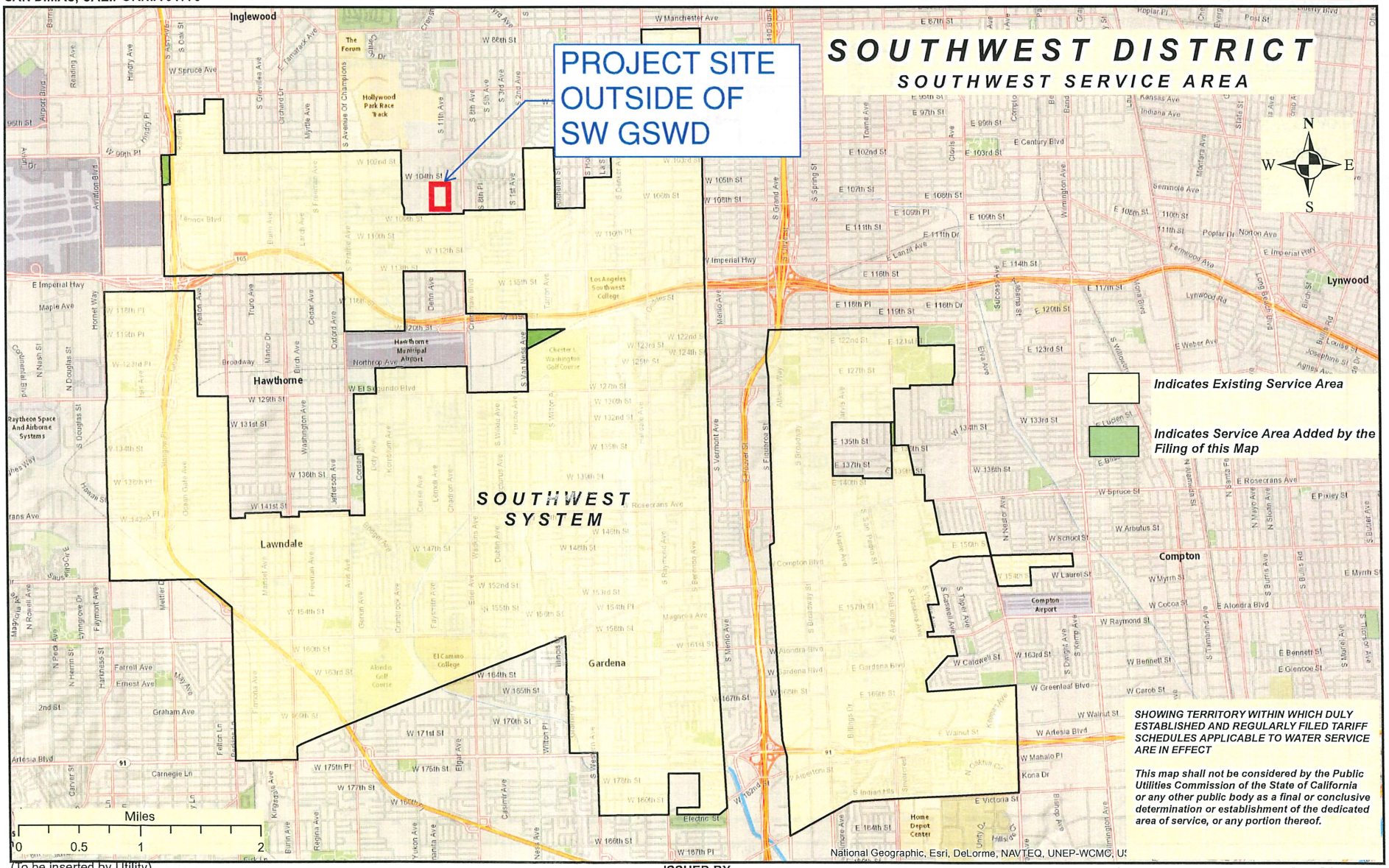
SOUTHWEST SYSTEM MAP



Water mains are for informational purposes only and should not be relied upon for exact quantities or locations.

GOLDEN STATE WATER COMPANY (U 133 W)
630 EAST FOOTHILL BOULEVARD
SAN DIMAS, CALIFORNIA 91773

Revised Cal. P.U.C. Sheet No. 6680-W
Cancelling Revised Cal. P.U.C. Sheet No. 3693-W / 2739-W

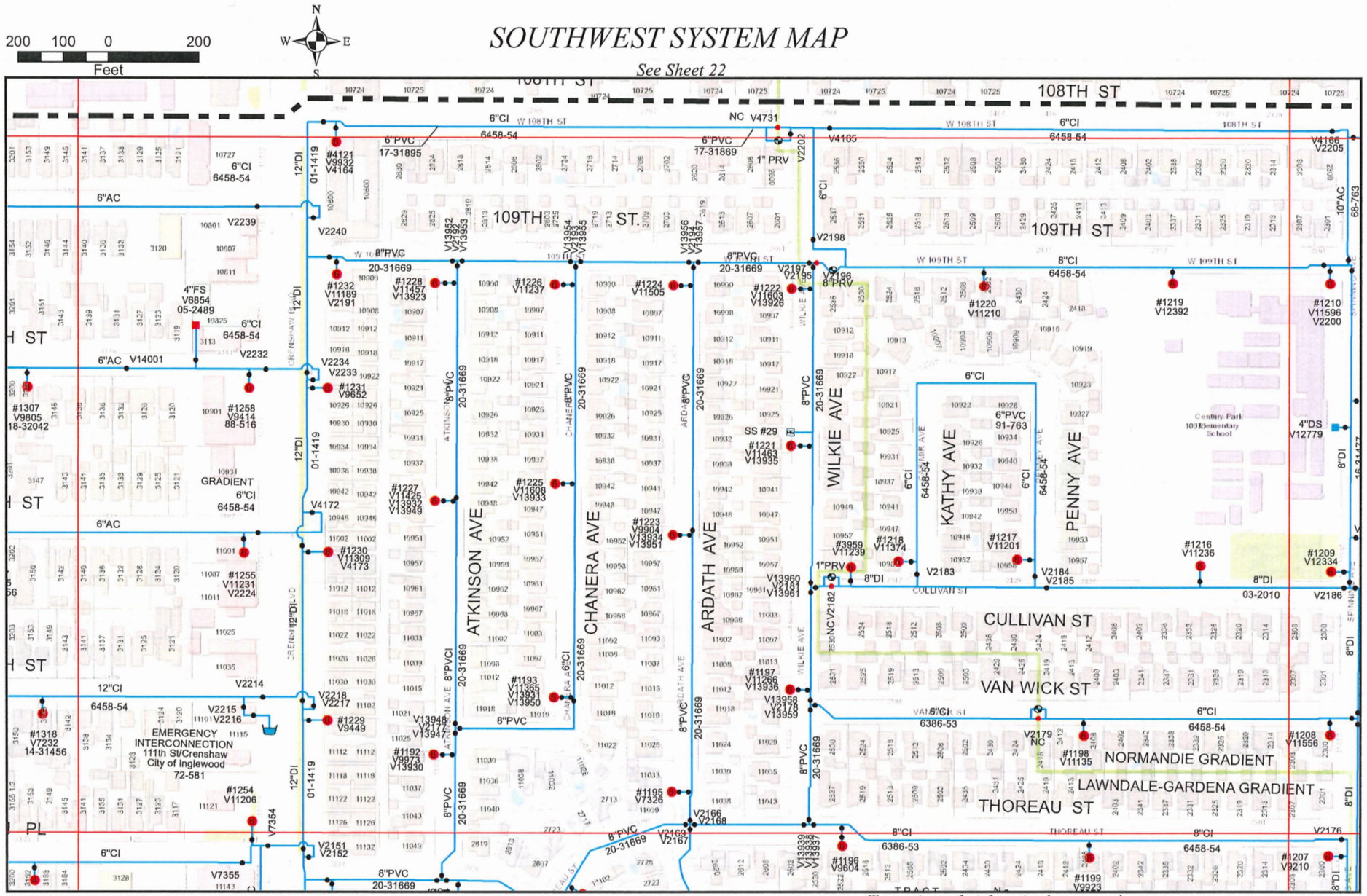


(To be inserted by Utility)
Advice Letter No. 1529-W
Decision No.

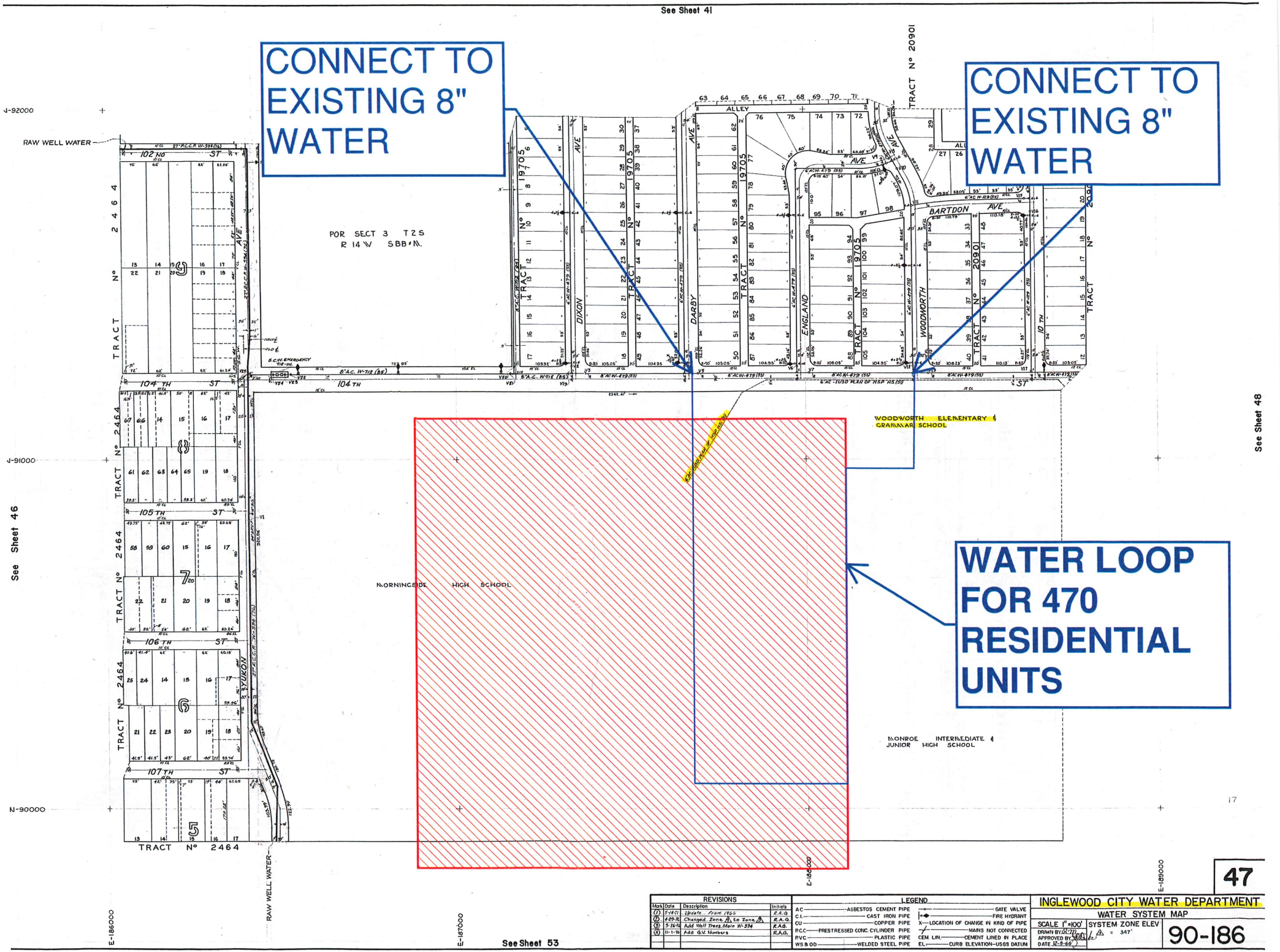
ISSUED BY
R.J. SPROWLS
PRESIDENT

Date Filed: July 30, 2013
Effective: July 30, 2013
Resolution No.

SOUTHWEST SYSTEM MAP



Water mains are for informational purposes only and should not be relied upon for exact quantities or locations.



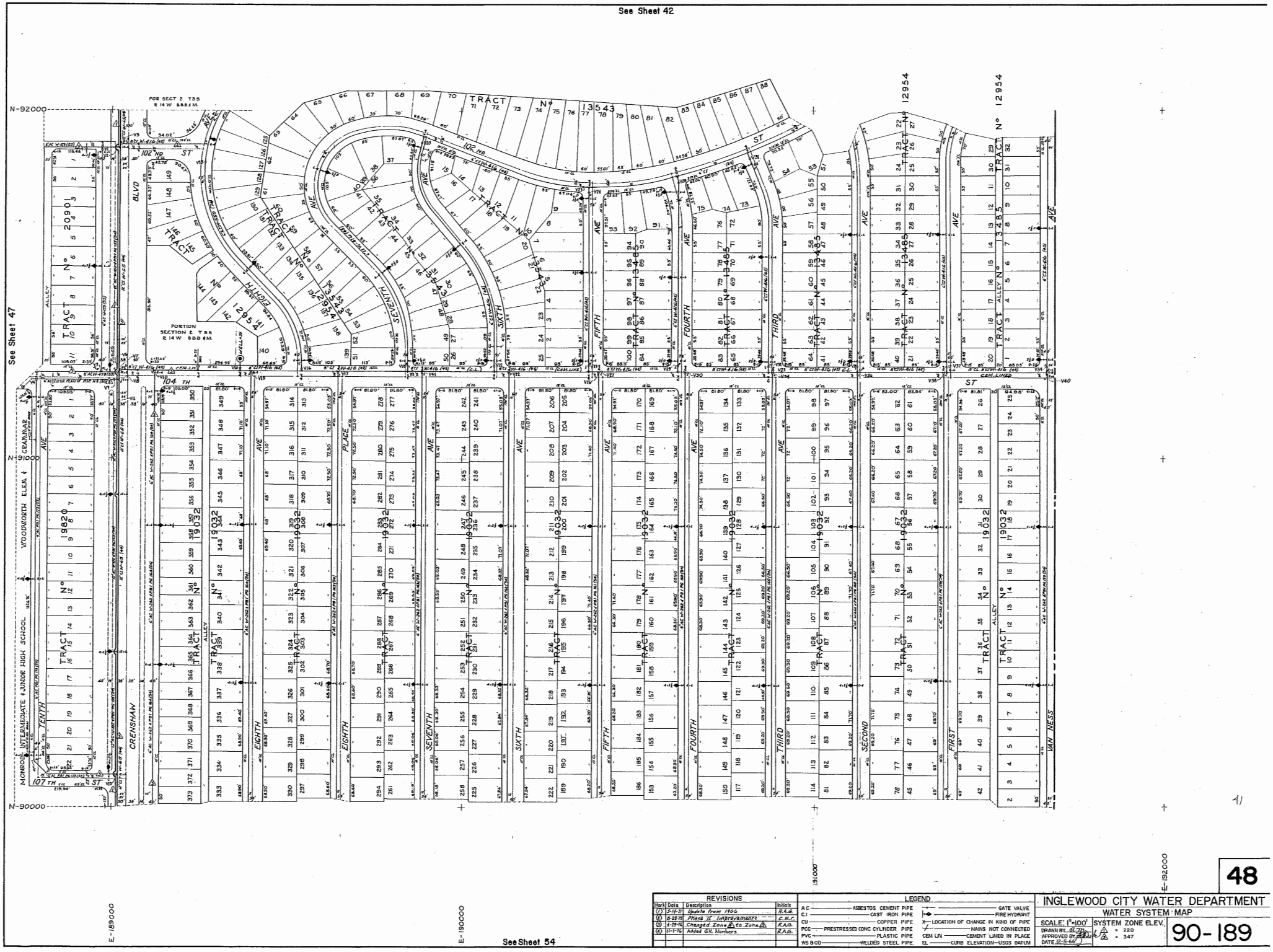
REVISIONS			
Mark	Date	Description	Initials
(1)	5-14-71	Update From 1965	R.A.G.
(2)	4-29-76	Changed Zone A to Zone A	R.A.G.
(3)	5-26-76	Add Well Trans. Main W-594	R.A.G.
(4)	11-1-76	Add G.V. Numbers	R.A.G.

LEGEND

AC	ASBESTOS CEMENT PIPE		GATE VALVE
C.I.	CAST IRON PIPE		FIRE HYDRANT
CU	COPPER PIPE	X	LOCATION OF CHANGE IN KIND OF PIPE
PCC	PRESTRESSED CONC. CYLINDER PIPE		MAINS NOT CONNECTED
PVC	PLASTIC PIPE	CEM. LIN.	CEMENT LINED IN PLACE
WS & OD	WELDED STEEL PIPE	EL.	CURB ELEVATION—USGS DATUM

INGLEWOOD CITY WATER DEPARTMENT
WATER SYSTEM MAP
SCALE 1" = 100' | SYSTEM ZONE ELEV
DRAWN BY: J.C.M.
APPROVED BY:
DATE 12-5-66
1 Δ = 347'
90-186

47



REVISIONS			
Mark	Date	Description	Initials
(D)	5-16-71	Update from 1966	R.A.S.
(C)	6-29-76	Phase II - Improvements	C.H.C.
(B)	4-29-76	Changed Zone A to Zone A	R.A.G.
(A)	11-1-76	Added G.V. Numbers	R.A.G.

LEGEND

AC	ASBESTOS CEMENT PIPE		GATE VALVE
CI	CAST IRON PIPE		FIRE HYDRANT
CU	COPPER PIPE	X	LOCATION OF CHANGE IN KIND OF PIPE
PCC	PRESTRESSED CONC CYLINDER PIPE		MAINS NOT CONNECTED
PVC	PLASTIC PIPE	CEM LN	CEMENT LINED IN PLACE
WS BOD	WELDED STEEL PIPE	EL	CURB ELEVATION—USGS DATUM

INGLEWOOD CITY WATER DEPARTMENT
WATER SYSTEM MAP

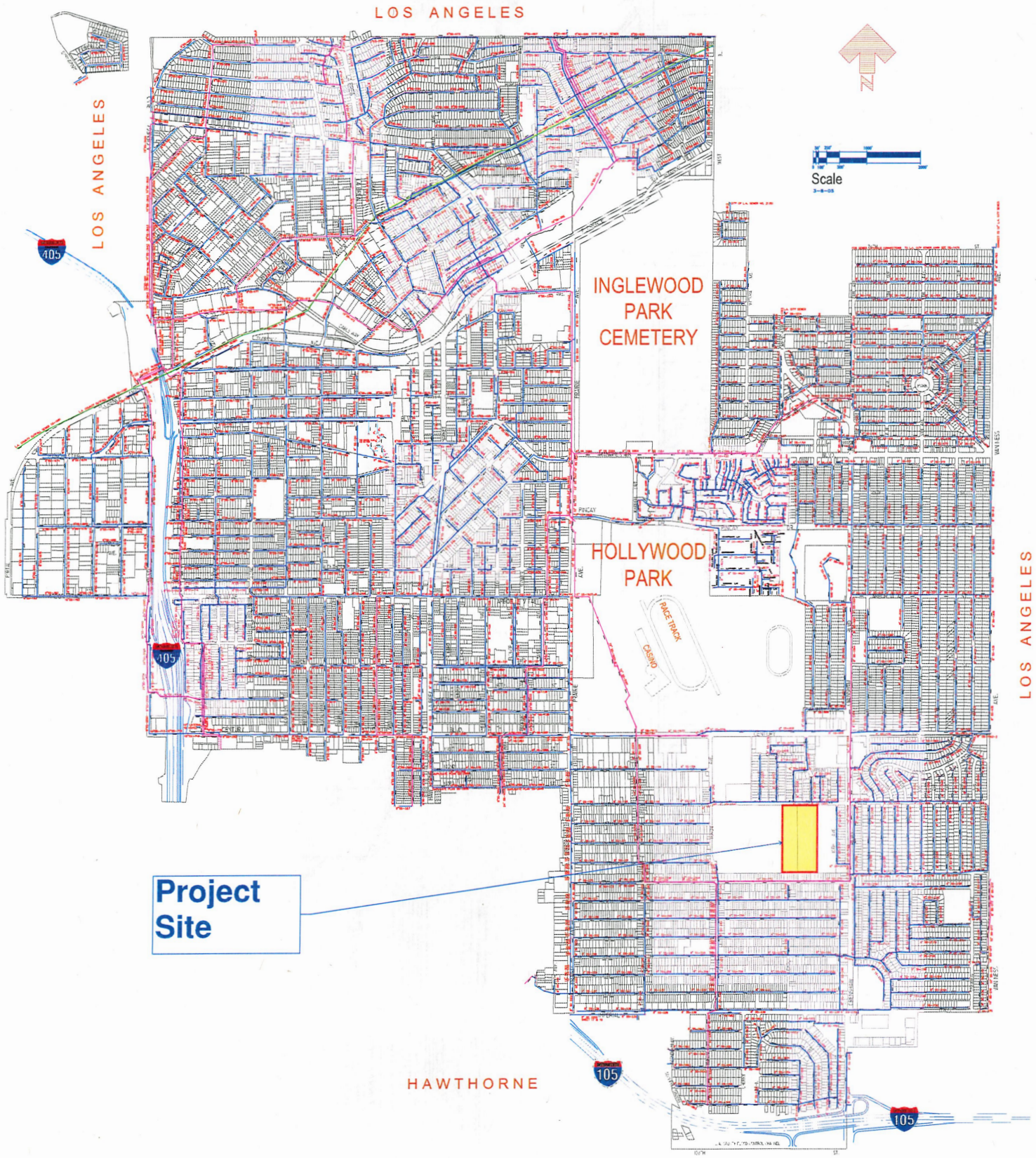
SCALE: 1"=100' | SYSTEM ZONE ELEV.
DRAWN BY: [illegible] | A = 220
APPROVED BY: [illegible] | B = 347
DATE: 12-5-66

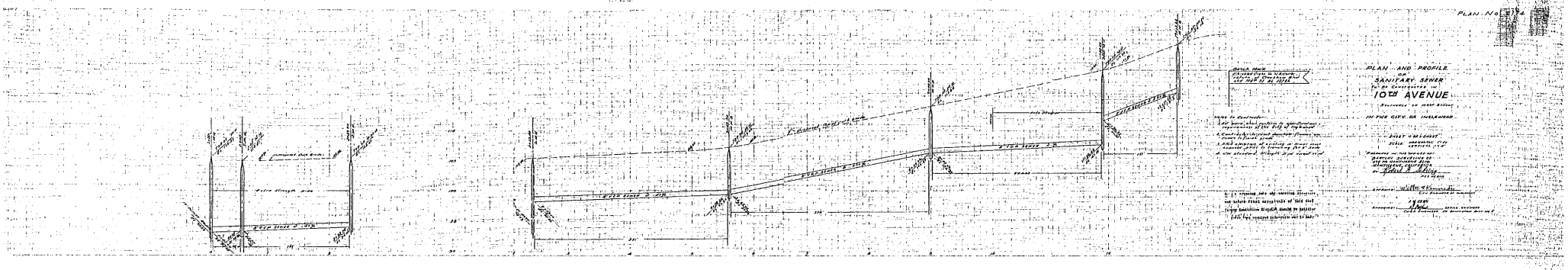
48

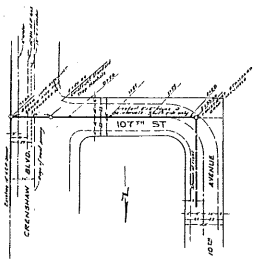
90-189

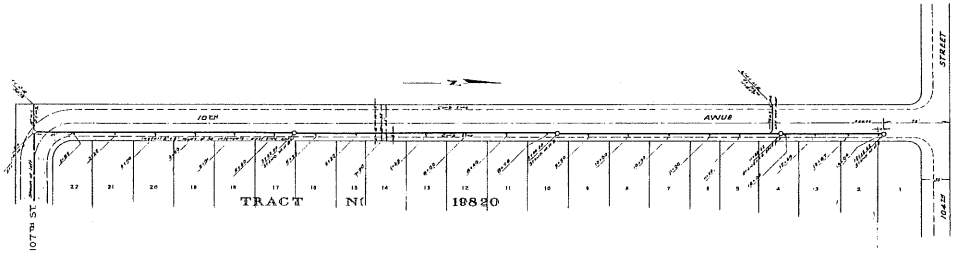
City of Inglewood

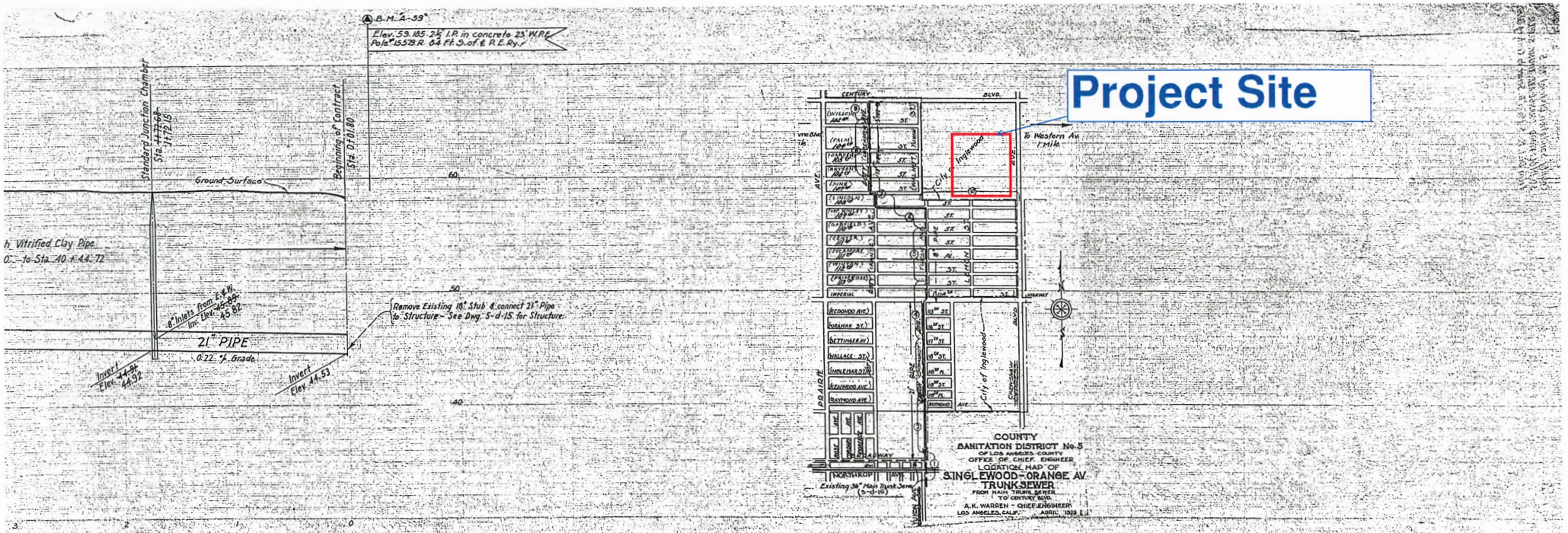
SEWER INDEX MAP




PLAN AND PROFILE
OF
SANITARY SEWER
TO BE CONSTRUCTED IN
10TH AVENUE
IN THE CITY OF INGLEWOOD


107TH ST
CRENSHAW BLVD
AVENUE


TRACT NO 19820
10TH AVENUE
107TH ST



COUNTY SANITATION DISTRICT No. 5

LOS ANGELES COUNTY, CAL.

OFFICE OF CHIEF ENGINEER

PLAN AND PROFILE

SHOWING

SO. INGLEWOOD-ORANGE AVE. TRUNK SEWER

FROM STA. 0+01.80 TO STA. 106+86.99

FROM DIST. No. 5 MAIN TRUNK SEWER

TO CENTURY BOULEVARD

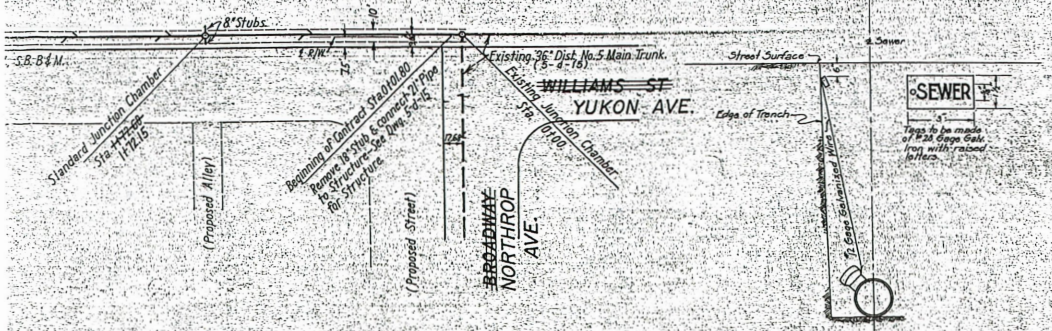
A.K. WARREN - CHIEF ENGINEER

LOS ANGELES, CAL. JULY 1932

SCALES

HORIZONTAL 1" = 40'

VERTICAL 1" = 4'



SEWER TAGS

To be attached to all Wyes and Tees.

NOTE:-

This drawing and the data hereon are hereby made a part of the specifications.

Elevations are in feet above U.S.G.S. or Mean Sea Level Datum.

All Pipe to be either Standard or Extra Strength Vitrified Clay.

All Wyes for House Connections are 6" and shown thus.

All Tees for House Connections are 6" and shown thus.

All Tees, Wyes, and Stubs to be capped.

PLAN No. 5-d-44

SUBMITTED C.C. Longden, OFFICE ENGINEER DATE July 12 1932

RECOMMENDED [signature], ASSISTANT CHIEF ENGINEER DATE July 12 1932

APPROVED [signature], CHIEF ENGINEER DATE July 12 1932

REFERENCES			
F.B. 291	DRAWN	F.N. Smith	March, 1929
	DESIGNED	F.N. Smith	" "
	TRACED	J.B. Ivey	July, 1932
	CHECKED	[signature]	" "
FINAL SURVEY F.B. № 349	DRAWN	E.O. Bugg	OCT. 1932
	CHECKED	[signature]	" "

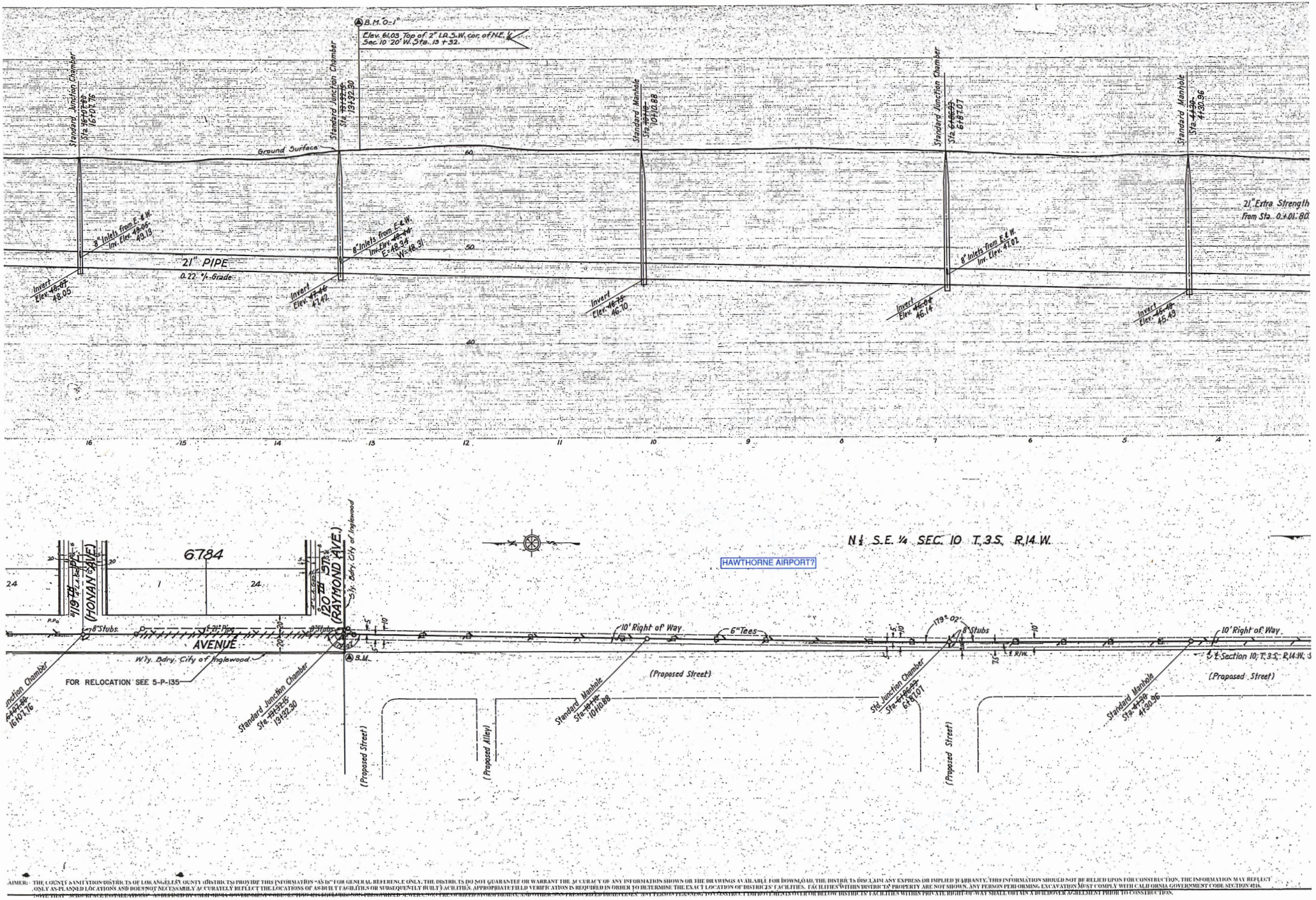
A.F.E. No. 65

No.	SHEET	REVISION	INITIAL	DATE
4		ADDED MANHOLE AND SEWER	GS	MT 9/16/16
3		ABANDONED MH	GS	MT 9/16/16
2		ADDED THREE NEW MANHOLES AND SIX PERMANENT SUPPORT DUE TO LACFCD. PROJ. No. 4401, UNIT 1, LINES A AND B	RA	2/5/16

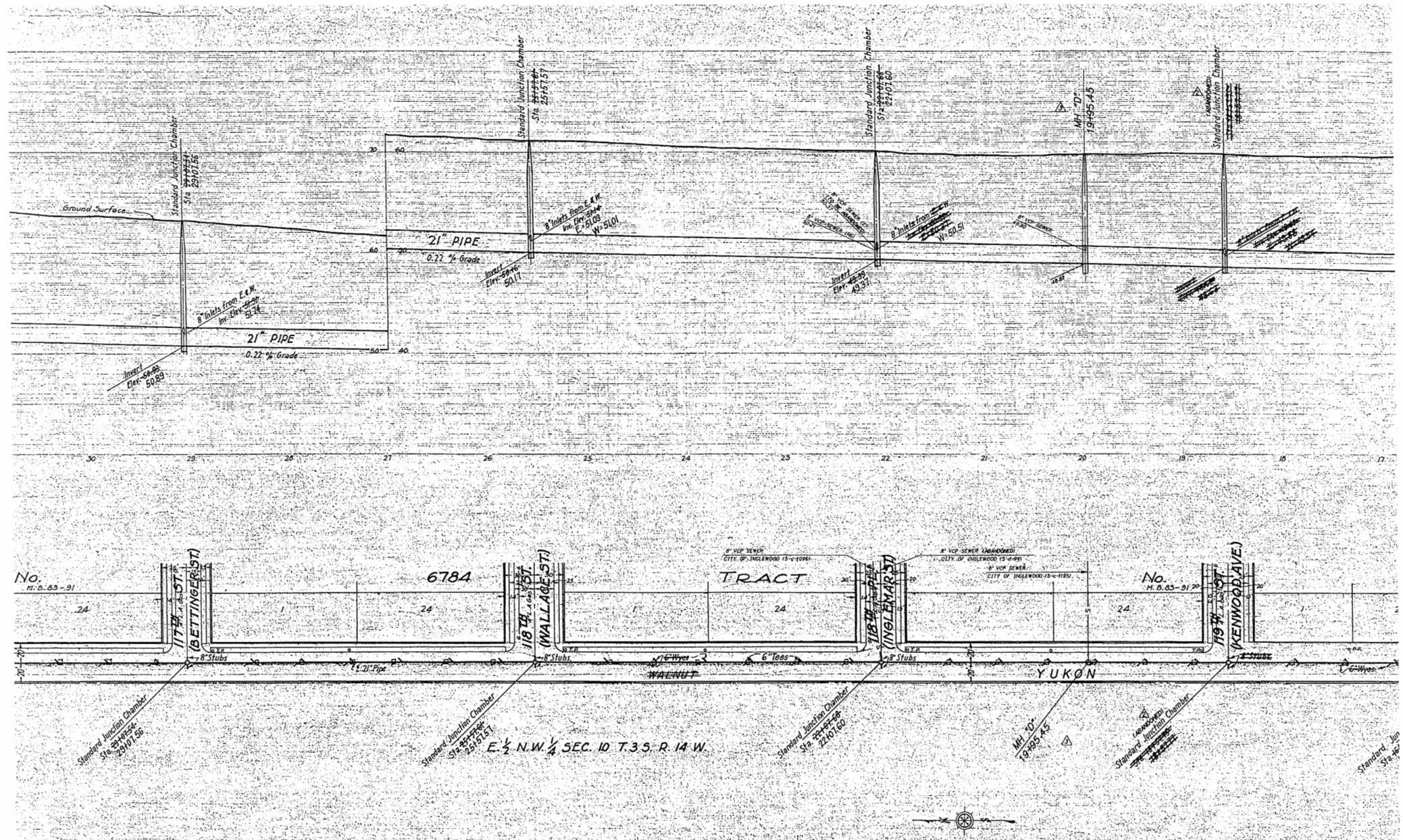
SHEET NO. 1 OF 10 SHEETS

DWG. NO. 5-d-44

DISCLAIMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216. NOTE THAT "SUBSURFACE INSTALLATIONS" AS DEFINED BY CALIFORNIA GOVERNMENT CODE SECTION 4216 EXCLUDES NON-PRESSURIZED SEWERS, NON-PRESSURIZED STORM DRAINS, AND OTHER NON-PRESSURIZED DRAIN LINES. ANY PERSON PLANNING TO CONSTRUCT IMPROVEMENTS OVER OR BELOW DISTRICTS' FACILITIES WITHIN PRIVATE RIGHT-OF-WAY SHALL OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION.



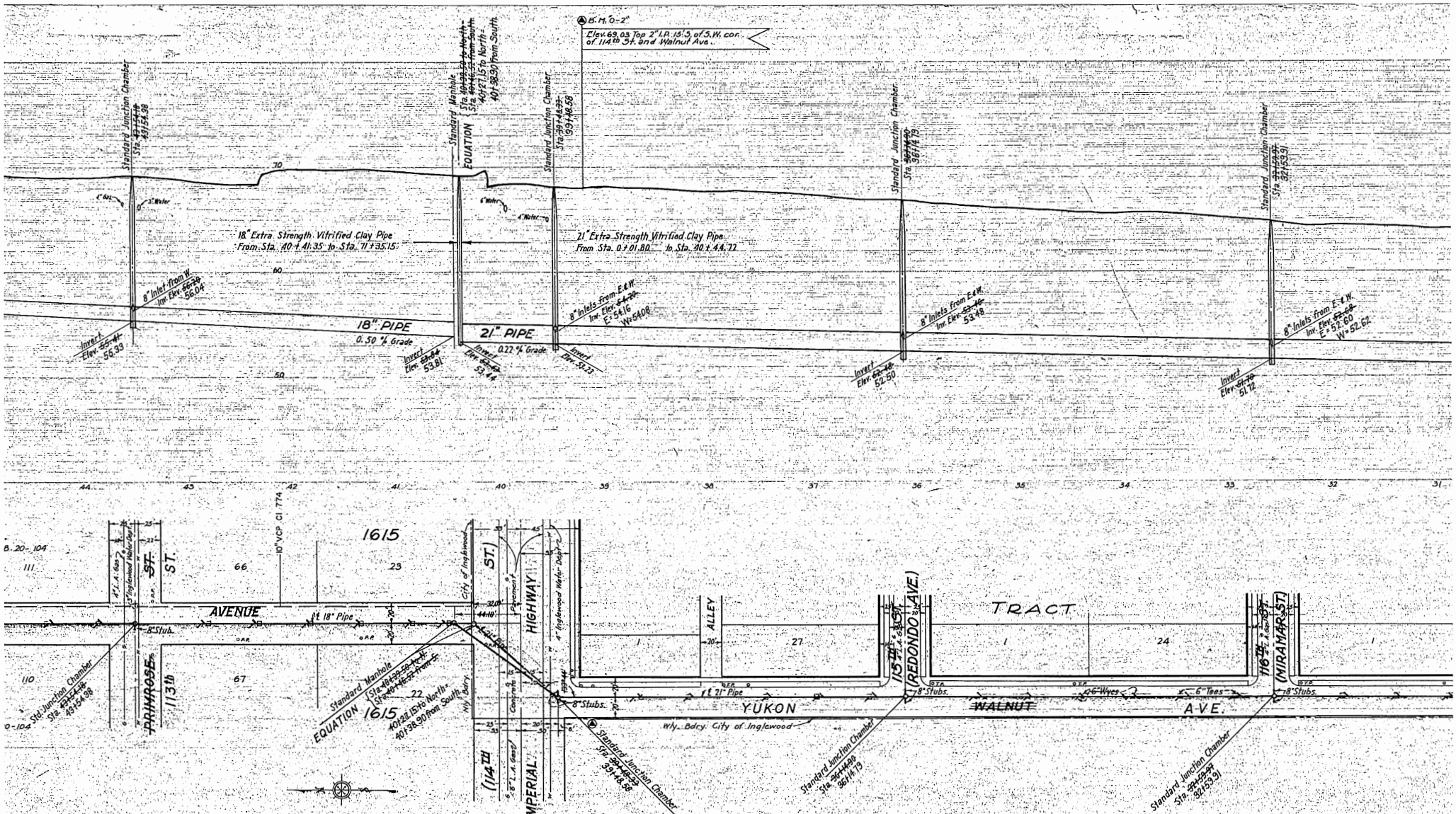
DISCLAIMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD, THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION, THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216.
NOTE THAT "SURFACE INSTALLATIONS" AS DEFINED BY CALIFORNIA GOVERNMENT CODE SECTION 4216 ARE NOT PRESENTED ON THESE DRAWINGS, AND VERIFICATION PROVIDED DURING USA INVESTIGATIONS. ANY PERSON PLANNING TO CONSTRUCT IMPROVEMENTS OVER OR BELOW DISTRICTS' FACILITIES WITHIN PRIVATE RIGHT-OF-WAY SHALL OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION.



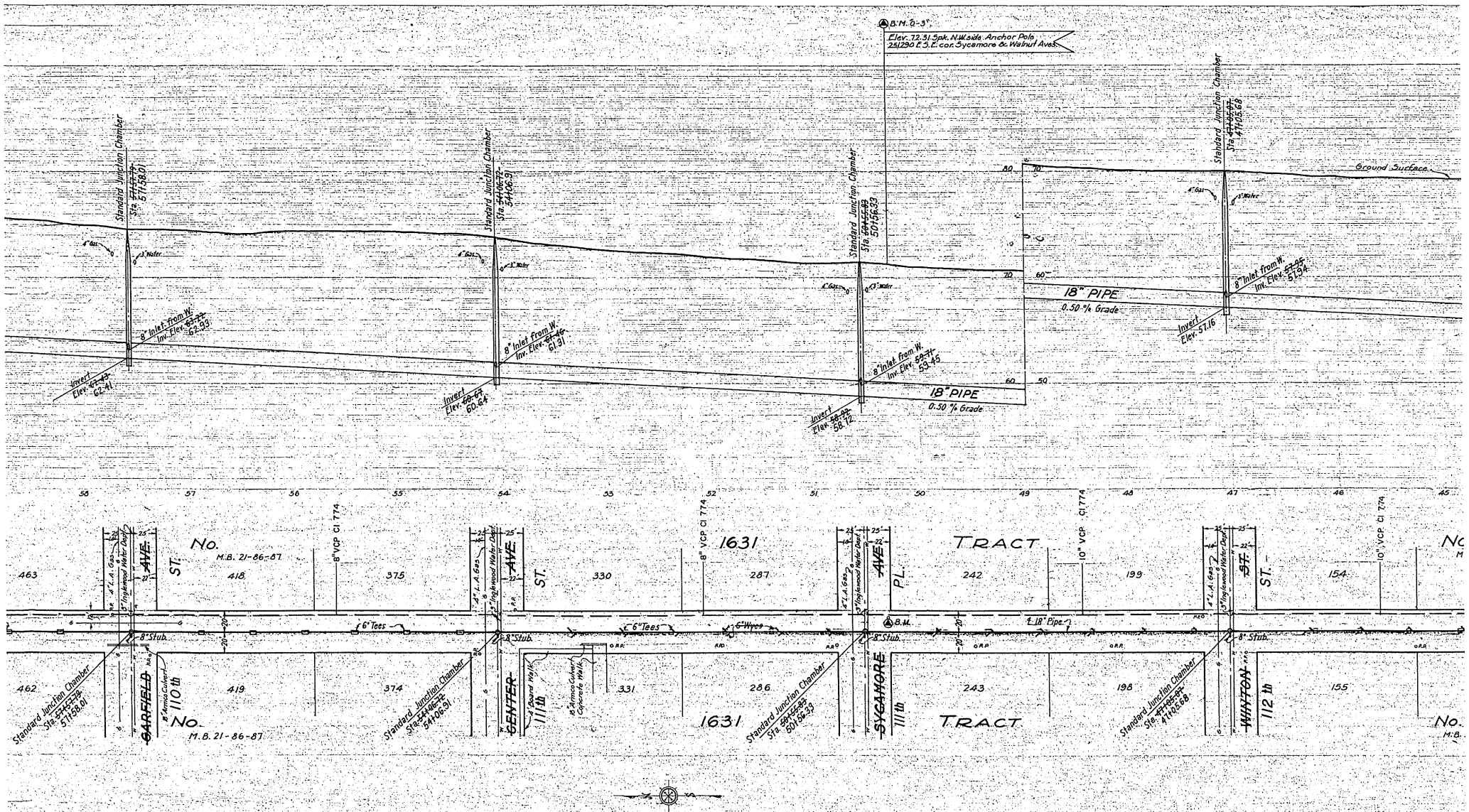
ADDED MANHOLE AND SEWER	A.F.	MT	4/6/6	
ABANDONED MH	A.F.	MT	11/22/6	DWG. NO.
No. REVISION	INITIAL	DATE		5 d 4

SHEET NO. 3
OF 10 SHEE

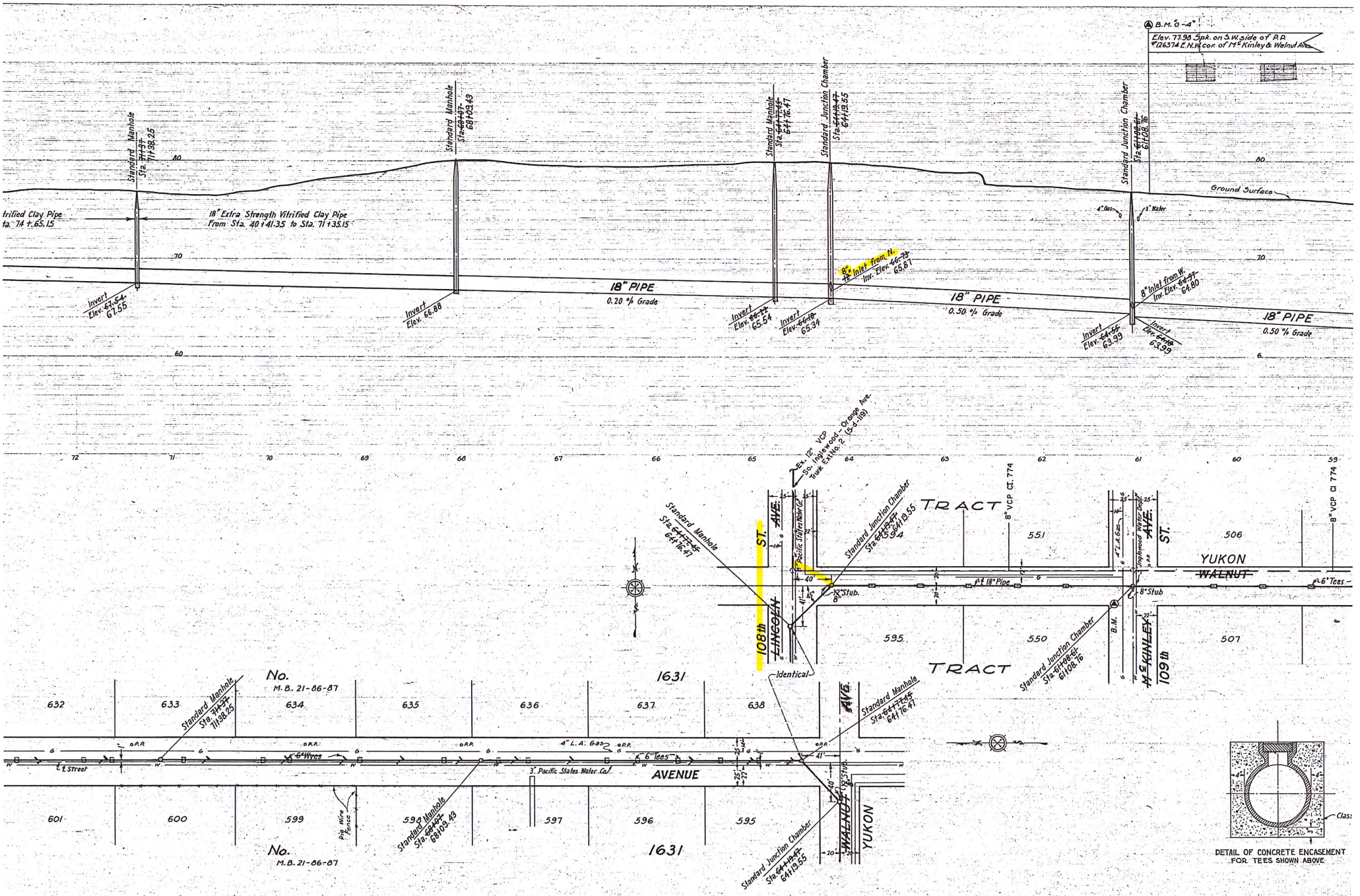
AIMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN ON THE DRAWINGS AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THE INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATIONS OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216. NOTE: THAT "SUBSURFACE INSTALLATIONS" AS DEFINED BY CALIFORNIA GOVERNMENT CODE SECTION 4216 EXCLUDES NON-PRESSURIZED SEWERS, NON-PRESSURIZED STORM DRAINS, AND OTHER NON-PRESSURIZED DRAIN LINES. ANY PERSON PLANNING TO CONSTRUCT IMPROVEMENTS OVER OR BELOW DISTRICTS' FACILITIES WITHIN PRIVATE RIGHT-OF-WAY SHALL OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION.



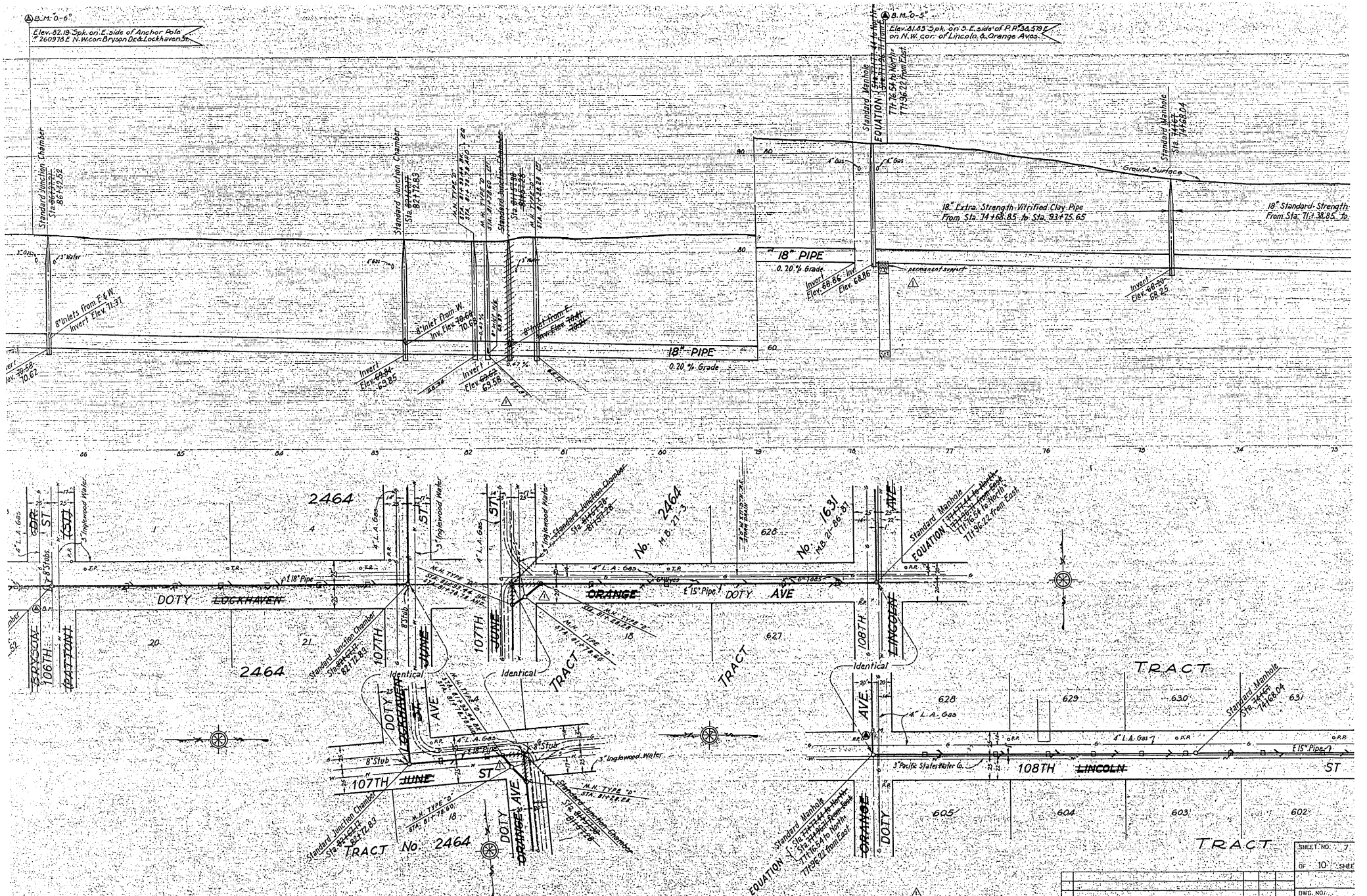
ADMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD, THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXISTENCE OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216.
ONLY AS-BUILT AND RECORD DRAWINGS WILL BE PROVIDED. ONE OR MORE PAGES OF THE DRAWINGS MAY BE MISSING. THE DISTRICTS RESERVE THE RIGHT TO CHARGE FOR ANY COPIES OF PRINTS THAT ARE REQUESTED.



DISCLAIMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216.



DISCLAIMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216.



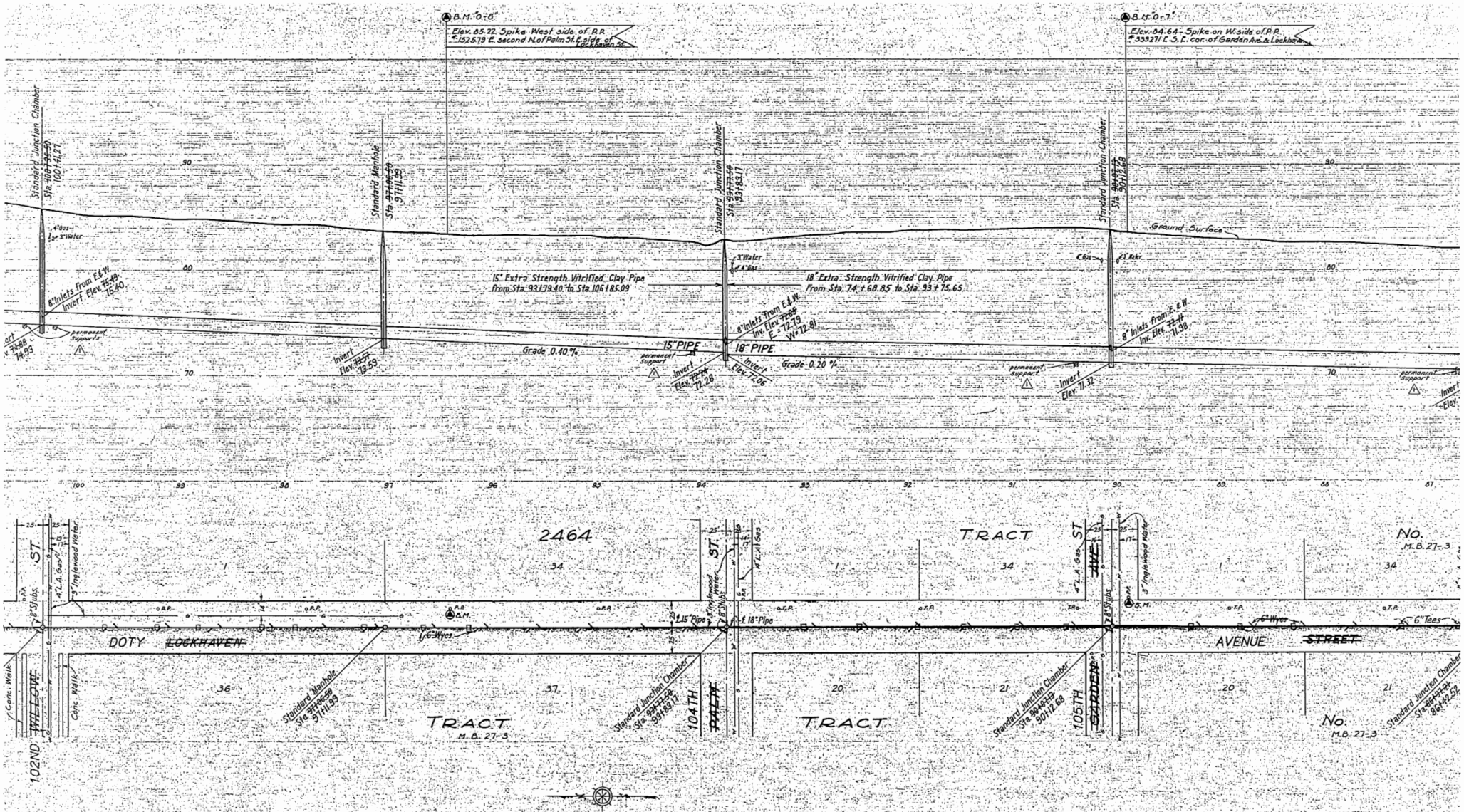
SHEET NO. 7
OF 10 SHEETS

DWG. NO.

No.	REVISION	INITIAL	DATE

5 - d - 44

AIMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216. NOTE THAT "SUBSURFACE INSTALLATIONS" AS DEFINED BY CALIFORNIA GOVERNMENT CODE SECTION 4216 EXCLUDES NON-PRESSURIZED SEWERS, NON-PRESSURIZED STORM DRAINS, AND OTHER NON-PRESSURIZED DRAIN LINES. ANY PERSON PLANNING TO CONSTRUCT IMPROVEMENTS OVER OR BELOW DISTRICTS' FACILITIES WITHIN PRIVATE RIGHT-OF-WAY SHALL OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION.



SHEET NO. 8
OF 10 SHEETS

NO.	REVISION	INITIAL	DATE

DWG. NO. 5-d-44

AIMER: "THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHEET NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216.
NOTE THAT "SUBSURFACE INSTALLATIONS" AS DEFINED BY CALIFORNIA GOVERNMENT CODE SECTION 4216 EXCLUDES NON-PRESSURIZED SEWERS, NON-PRESSURIZED STORM DRAINS, AND OTHER NON-PRESSURIZED DRAIN LINES. ANY PERSON PLANNING TO CONSTRUCT IMPROVEMENTS OVER OR BELOW DISTRICTS' FACILITIES WITHIN PRIVATE RIGHT-OF-WAY SHALL OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION.

COUNTY SANITATION DISTRICT No. 5

LOS ANGELES COUNTY, CAL.

OFFICE OF CHIEF ENGINEER

PLAN AND PROFILE

SHOWING

SO. INGLEWOOD-ORANGE AVE. TRUNK SEWER

FROM STA. 0+01.80 TO STA. 106+86.99

FROM DIST. No. 5 MAIN TRUNK SEWER

TO CENTURY BOULEVARD

A.K. WARREN - CHIEF ENGINEER

LOS ANGELES, CAL. JULY 1932

SCALES

HORIZONTAL 1" = 40'

VERTICAL 1" = 4'

NOTE:-

This drawing and the data hereon are hereby made a part of the specifications.

Elevations are in feet above U.S.C.&S. or Mean Sea Level Datum.

All Pipe to be either Standard or Extra Strength Vitrified Clay.

All Wyes for House Connections are 6" and shown thus.

All Tees for House Connections are 6" and shown thus.

All Tees, Wyes and Stubs to be capped.

PLAN No. 5-d-44

SUBMITTED C.L. Compton OFFICE ENGINEER DATE July 12, 1932

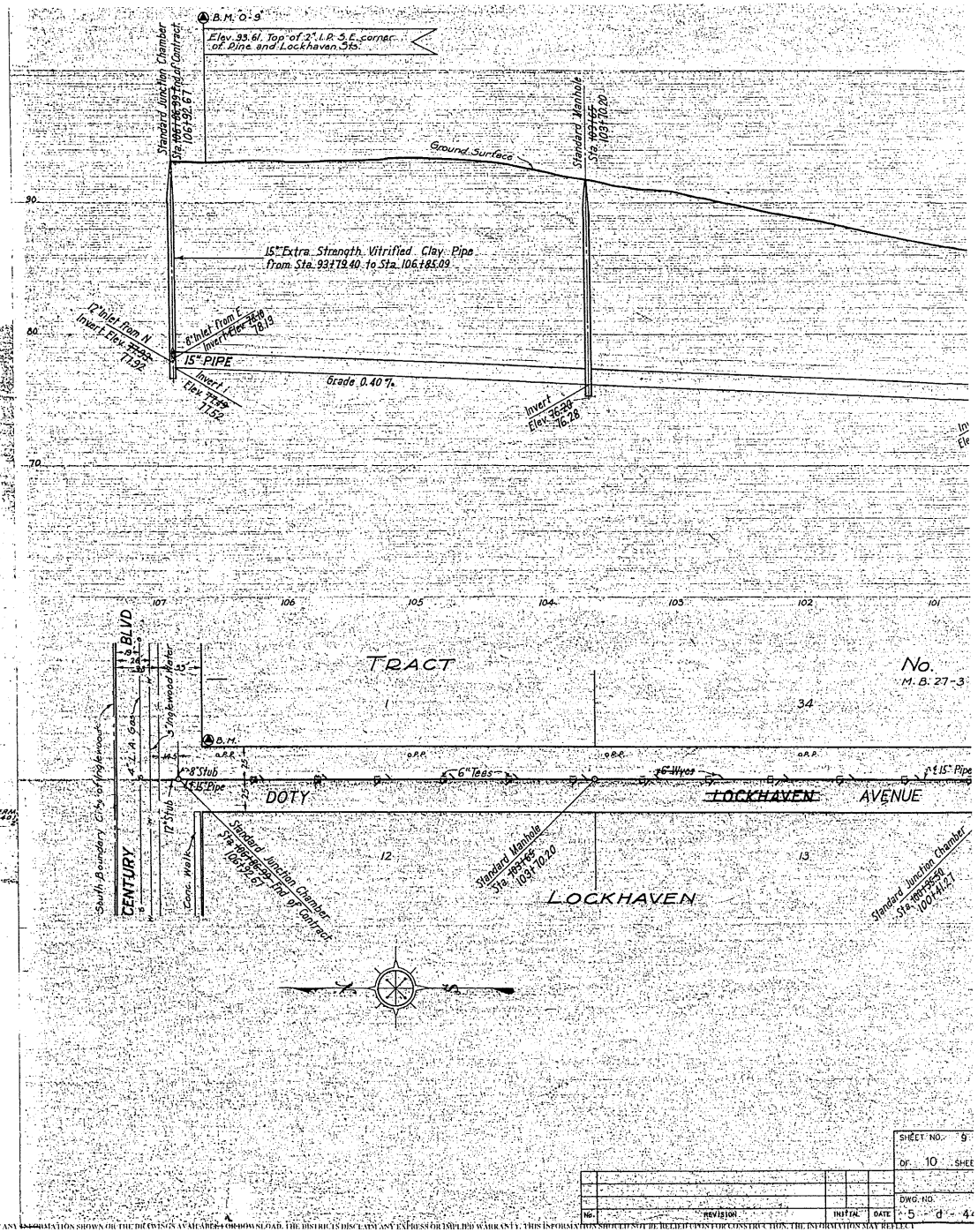
RECOMMENDED [signature] ASSISTANT CHIEF ENGINEER DATE July 12, 1932

APPROVED A.K. Warren CHIEF ENGINEER DATE July 12, 1932

REFERENCES			
F. B. 291	DRAWN	F.N. Smith	March, 1929
	DESIGNED	F.N. Smith	" "
	TRACED	A.B. Bailey	July, 1932
	CHECKED	A.T.A.	" "
FINAL SURVEY F.B. № 349	DRAWN	E.O. Bluhm	OCT. 1932
	CHECKED	[illegible]	" "

A.F.E. No. 65

⚠ ADDED THREE NEW MANHOLES AND SIX PROPOSED 8" STUBS TO L.A.C.F.C.D. PROJ. No. 4421, LINES A AND C. A.A. 2



SHEET NO. 9

OF 10 SHEETS

DWG. NO. 5-d-44

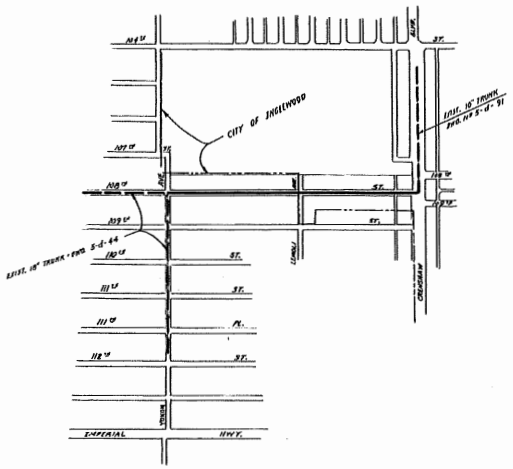
NO.	REVISION	INITIAL	DATE

DISCLAIMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DIGITAL DATA AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216. NOTE THAT "SUBSURFACE INSTALLATIONS" AS DEFINED BY CALIFORNIA GOVERNMENT CODE SECTION 4216 EXCLUDES NON-PRESSURIZED SEWERS, NON-PRESSURIZED STORM DRAINS, AND OTHER NON-PRESSURIZED DRAIN LINES. ANY PERSON PLANNING TO CONSTRUCT IMPROVEMENTS OVER OR BELOW DISTRICTS' FACILITIES WITHIN PRIVATE RIGHT-OF-WAY SHALL OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION.

SO. INGLEWOOD - ORANGE AVE. TRUNK SEWER

EXTENSION Nº 2

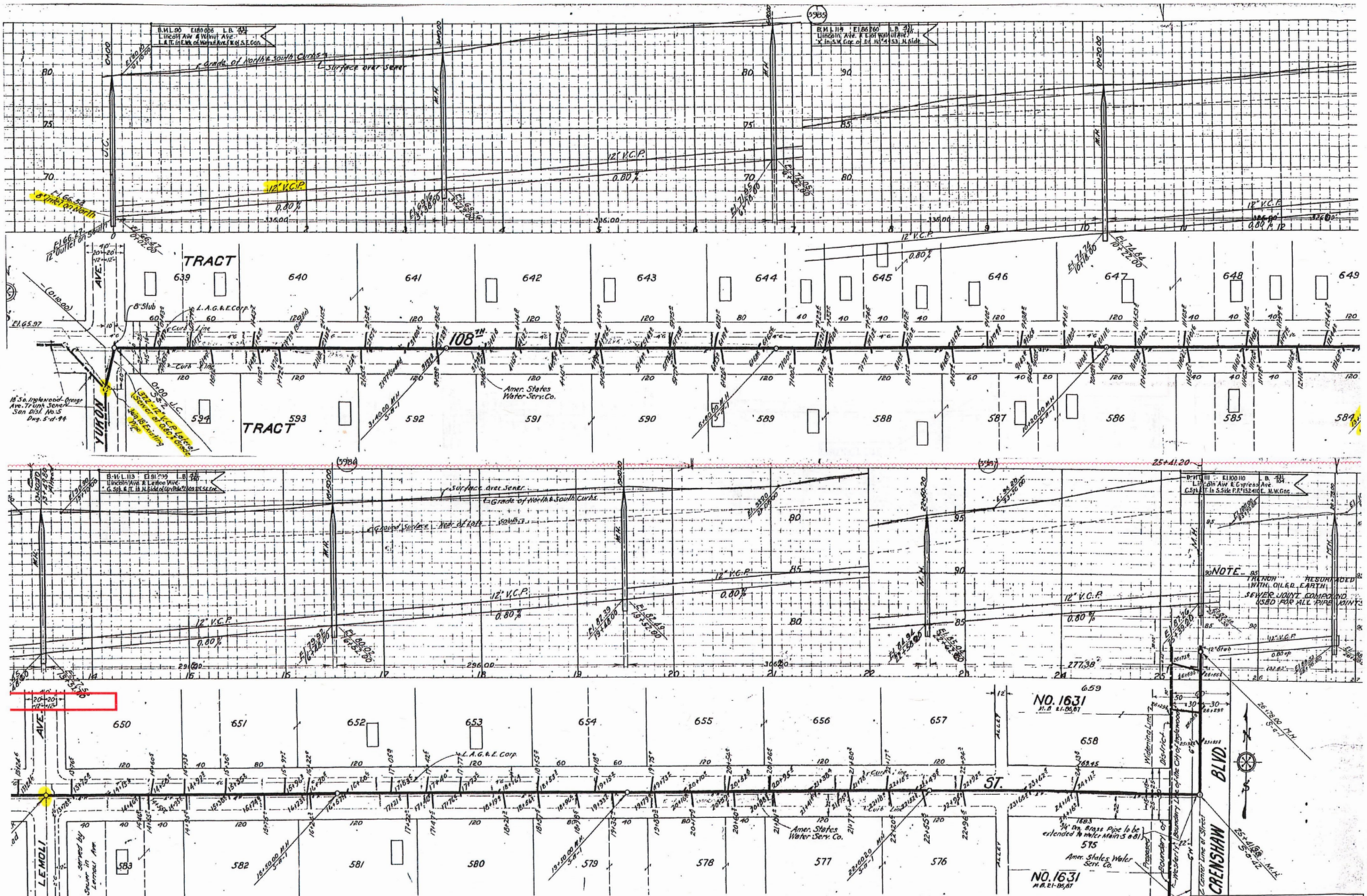
FROM YUKON AVE. & 108TH. STREET TO 137' NORTH
OF 108TH. STREET IN CRENSHAW BLVD.



LOCATION MAP

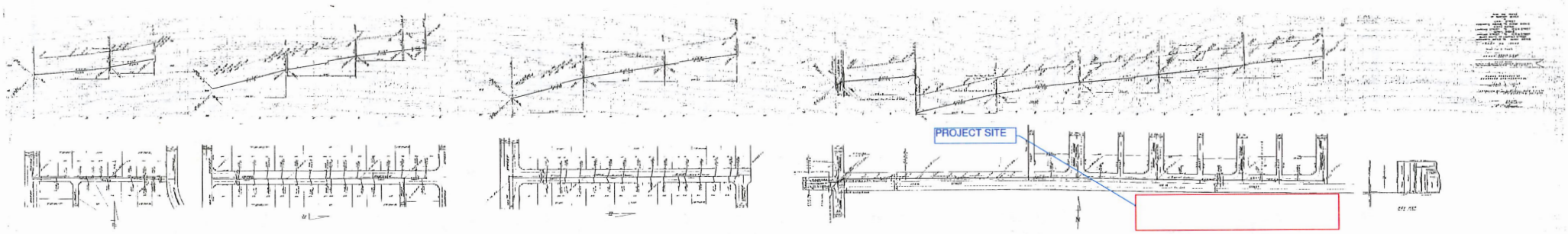
5 - d - 119
SHEET Nº 1
OF 2 SHEETS

NOTICE: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION. THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216. NOTE: THAT "SUBSURFACE INSTALLATIONS" AS DEFINED BY CALIFORNIA GOVERNMENT CODE SECTION 4216 EXCLUDES NON-PRESSURIZED SEWERS, NON-PRESSURIZED STORM DRAINS, AND OTHER NON-PRESSURIZED DRAIN LINES. ANY PERSON PLANNING TO CONSTRUCT IMPROVEMENTS OVER OR BELOW DISTRICTS' FACILITIES WITHIN PRIVATE RIGHT-OF-WAY SHALL OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION.



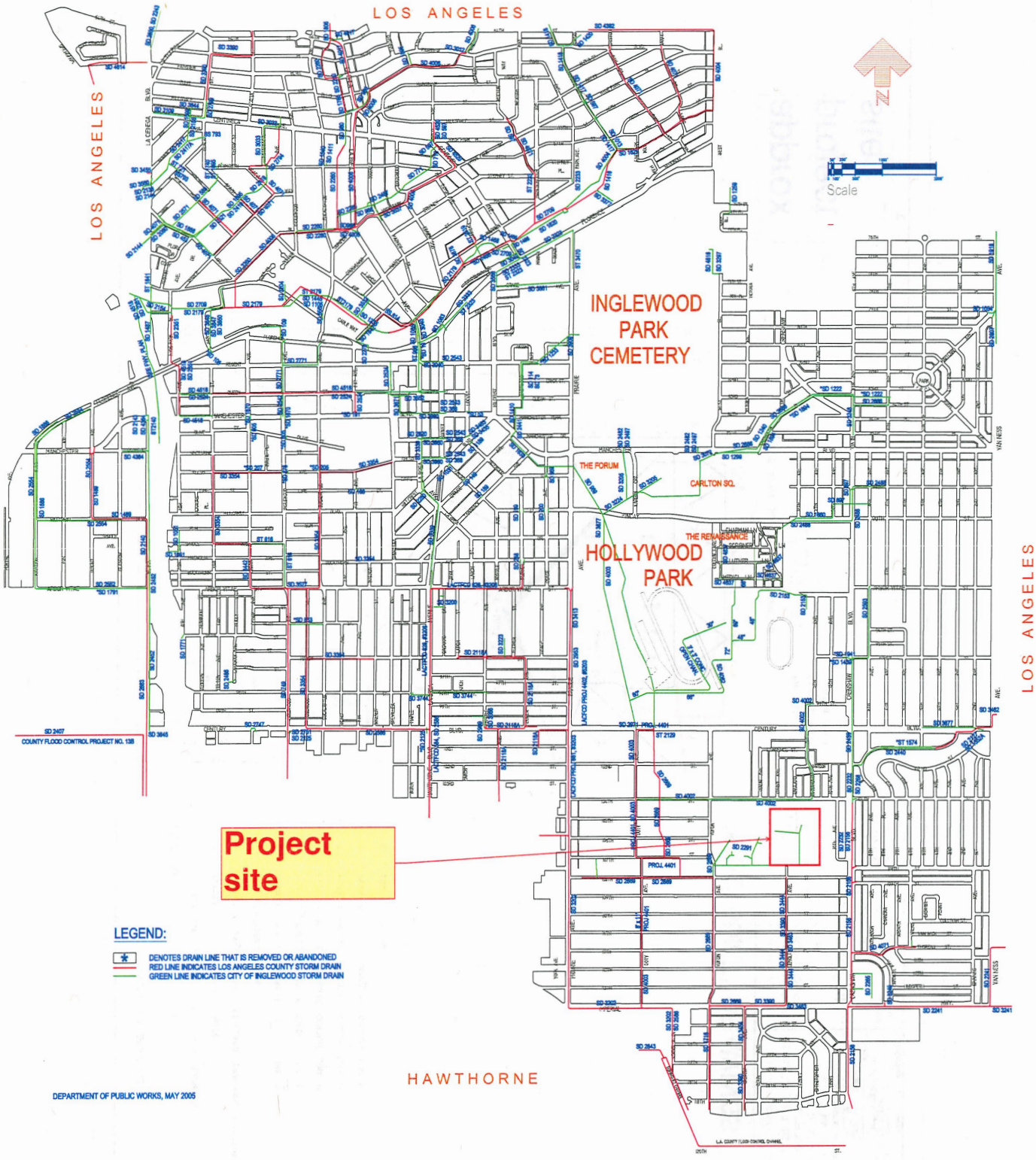
COUNTY SANITATION DISTRICT Nº5
OF LOS ANGELES COUNTY, CALIF.
SO. INGLEWOOD TO ORANGE AVE. TRUNK
TRK. Nº5-d-119 SHEET Nº 2 OF 2 SHEETS

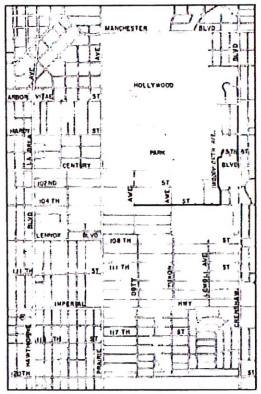
DISCLAIMER: THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY. THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN OR THE DRAWINGS AVAILABLE FOR DOWNLOAD. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE DRAWINGS ARE ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF AS-BUILT FACILITIES OR SUBSEQUENTLY BUILT FACILITIES. APPROPRIATE FIELD VERIFICATION IS REQUIRED IN ORDER TO DETERMINE THE EXACT LOCATION OF DISTRICTS' FACILITIES. FACILITIES WITHIN DISTRICTS' PROPERTY ARE NOT SHOWN. ANY PERSON PERFORMING EXCAVATION MUST COMPLY WITH CALIFORNIA GOVERNMENT CODE SECTION 4216. NOTE THAT "SUBSURFACE INSTALLATIONS" AS DEFINED BY CALIFORNIA GOVERNMENT CODE SECTION 4216 EXCLUDES NON-PRESSURIZED SEWERS, NON-PRESSURIZED STORM DRAINS, AND OTHER NON-PRESSURIZED DRAIN LINES. ANY PERSON PLANNING TO CONSTRUCT IMPROVEMENTS OVER OR BELOW DISTRICTS' FACILITIES WITHIN PRIVATE RIGHT-OF-WAY SHALL OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION.


PROJECT SITE

City of Inglewood

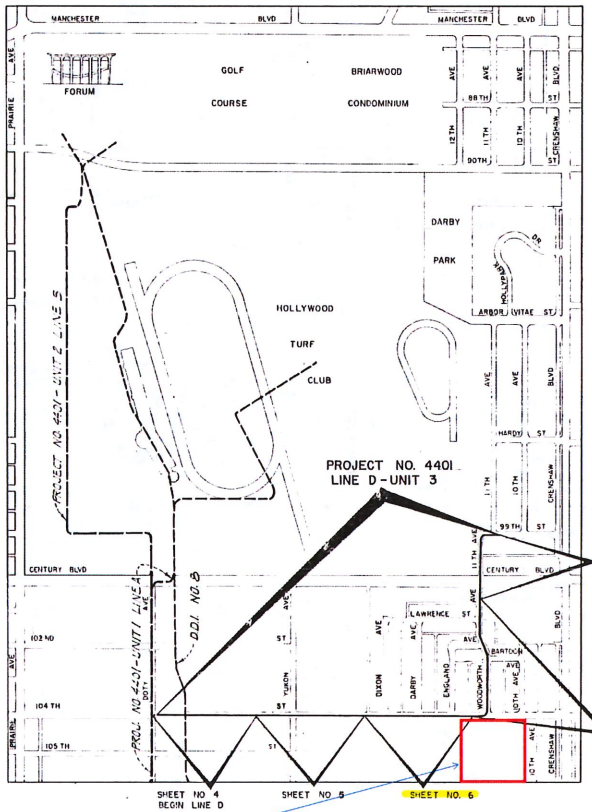
Storm Drain Index Map





VICINITY MAP

1000 0 1000 2000 3000 4000
GRAPHIC SCALE



LOCATION MAP OF LINE D UNIT 3

500 0 500 1000 1500
GRAPHIC SCALE

approx project site

LEGEND

Proposed Storm Drain (UNIT 3)
Existing Storm Drain (UNIT 1)
Existing Storm Drain

INDEX TO DRAWINGS

SHEET NO.	TITLE
1.	VICINITY MAP, LOCATION PLAN, INDEX TO DRAWINGS
2.	GENERAL NOTES, STRUCTURAL NOTES
3	LEGEND & ABBREVIATIONS, STANDARD DRAWINGS, STRUCTURAL NOTES, AND RESURFACING PLAN
4.	PLAN & PROFILE CONCRETE CONDUIT LINE D
5.	PLAN & PROFILE CONCRETE CONDUIT LINE D
6.	PLAN & PROFILE CONCRETE CONDUIT LINE D
7.	PLAN & PROFILE CONCRETE CONDUIT LINE D
8.	PLAN & PROFILE CONCRETE CONDUIT LINE D
9.	LOG OF BORINGS

■ "AS BUILT" DRAWINGS

REVISIONS		
MARK	DATE	DESCRIPTION

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: William J. Meher
ASSISTANT CITY ENGINEER RCE 17167

APPROVED BY: [signature] 1-21-74
CITY ENGINEER RCE 11237 DATE

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT 3
VICINITY MAP, LOCATION MAP
AND INDEX TO DRAWINGS

RECOMMENDED BY: [signature] DIVISION ENGINEER
APPROVED BY: [signature] CHIEF ENGINEER & GENERAL MANAGER No. 8318

SCALE AS SHOWN | DATE April 1977 | DWG. NO. 364-4401-D/3 | SHEET 1 | 9

AS BUILT DRAWN

GENERAL NOTES

1. NUMBERS IN CIRCLES INDICATE ITEM UNDER WHICH PAYMENT WILL BE MADE
2. ELEVATIONS SHOWN ARE IN FEET ABOVE THE U.S.G.S. MEAN SEA LEVEL DATUM.
3. STATIONS SHOWN ON DRAWINGS ARE ALONG CENTERLINE OF CONDUIT OR ON A LINE NORMAL TO CENTERLINE OF CONDUIT.
4. STATIONS AND INVERT ELEVATIONS OF PIPE INLETS SHOWN ON THE PROFILES ARE AT THE INSIDE FACE OF THE CONDUIT, UNLESS OTHERWISE SHOWN.
5. ALL FIELD BOOK REFERENCES ARE TO CITY OF INGLEWOOD FIELD BOOKS, UNLESS OTHERWISE NOTED.
6. LOCATIONS SHOWN ON THE PLANS FOR EXISTING SANITARY SEWER HOUSE CONNECTIONS ARE APPROXIMATE ONLY.
7. PIPE CONNECTIONS TO STORM DRAIN SHALL CONFORM TO STANDARD DRAWING 2-D191 & 2-D193 UNLESS OTHERWISE SHOWN.
8. TIES FOR CATCH BASINS AS SHOWN ON THE DRAWINGS ARE FROM CURB RETURN TO CENTER LINE OF CATCH BASINS, UNLESS OTHERWISE SHOWN.
9. LOCATIONS OF CATCH BASIN CONNECTOR PIPE JUNCTIONS WITH CATCH BASINS AS SHOWN ON THE DRAWINGS ARE SCHEMATIC. IT IS INTENDED THAT SUCH JUNCTIONS BE LOCATED AT THE DOWNSTREAM ENDS OF THE CATCH BASINS, UNLESS OTHERWISE SHOWN. IN ALL CASES THE EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER TO MEET FIELD CONDITIONS.
10. MONOLITHIC CATCH BASIN CONNECTIONS SHALL BE CONSTRUCTED, WHERE APPLICABLE, PER STANDARD DRAWINGS 2-D224.
11. "V_1" IS THE DEPTH OF INLET OF CATCH BASINS IN SERIES MEASURED FROM TOP OF CURB TO INVERT OF CONNECTOR PIPE. "V_2" IS THE SAME AS "V" ON THE VARIOUS CATCH BASIN STANDARD DRAWINGS.
12. ALL EXISTING SANITARY SEWERS SHOWN ON THE DRAWINGS ARE CITY OF INGLEWOOD SEWERS, UNLESS OTHERWISE NOTED.
13. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
14. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS TO DETERMINE THE DEPTH AND LOCATION OF EXISTING UTILITIES WHERE SO INDICATED BY THE SYMBOL △.
15. UTILITIES DESIGNATED BY THE SYMBOL "*" WILL BE ABANDONED IN PLACE AND THE OWNER WILL INSTALL A NEW SECTION OF THE AFFECTED UTILITY AT A LOCATION IN CLOSE PROXIMITY TO, BUT WHICH DOES NOT PHYSICALLY INTERFERE WITH, THE PROPOSED STORM DRAIN CONDUIT AND APPURTENANT STRUCTURES.
16. WHERE UTILITIES ARE INDICATED ON THE DRAWINGS TO BE SUPPORTED, SAID SUPPORTS SHALL BE IN ACCORDANCE WITH STANDARD DRAWING 2-D173.1, .2 OR .3, UNLESS OTHERWISE INDICATED.

GENERAL NOTES

17. SANITARY SEWER HOUSE CONNECTION RECONSTRUCTION AND RECONNECTION SHALL BE IN ACCORDANCE WITH STANDARD DRAWING 2-D250, UNLESS OTHERWISE SHOWN.
18. SANITARY SEWERS AND HOUSE CONNECTIONS CROSSING OVER THE STORM DRAIN TRENCH SHALL BE SUPPORTED IN ACCORDANCE WITH STANDARD DRAWING 2-D173.1 TO .3 AND ENCASED PER GENERAL NOTE 1 ON STANDARD DRAWING 2-D173.1.
19. WHEN INDICATED ON THE DRAWINGS, SANITARY SEWERS AND HOUSE CONNECTIONS SHALL BE ENCASED OR BLANKETED IN ACCORDANCE WITH STANDARD DRAWING 2-D251.
20. ALL OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES SHALL BE SEALED WITH 8 INCHES OF BRICK AND MORTAR OR 6 INCHES OF CONCRETE, UNLESS OTHERWISE SHOWN.
21. ALL RESURFACING, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER EXISTING IMPROVEMENTS TO BE RECONSTRUCTED SHALL BE CONSTRUCTED AT THE SAME ELEVATION AND LOCATION AS THE EXISTING IMPROVEMENTS, UNLESS OTHERWISE NOTED.
22. REFER TO SHEET 9 FOR TYPICAL CATCH BASIN CONNECTOR PIPE PROFILE.
23. STREET RESURFACING PLANS ARE SHOWN ON SHEET 3
24. SOIL TEST BORINGS FOR THIS PROJECT WERE MADE IN ~~AUGUST AND~~ SEPTEMBER, 1972 and JULY, 1974
25. DESIGN OF THE PIPE SHOWN HEREON IS BASED ON THE ASSUMPTION THE PIPE WILL BE INSTALLED IN ACCORDANCE WITH CASE III BEDDING AS SHOWN ON STANDARD DRAWING 2-D177 UNLESS OTHERWISE SHOWN. "W" VALUES SHALL BE AS SPECIFIED ON STANDARD DWG. 2-D177 FOR CASE III BEDDING, NOTES 3(a), 3(b) AND 3(c). IF THE "W" VALUE AT THE TOP OF THE PIPE IS EXCEEDED, THE BEDDING SHALL BE MODIFIED, AND/OR PIPE OF ADDITIONAL STRENGTH SHALL BE PROVIDED. THE PROPOSED MODIFICATION SHALL BE APPROVED BY THE DISTRICT.
26. CONCRETE BACKFILL SHALL BE PROVIDED AROUND PIPE 21" IN DIAMETER OR LESS WHERE THE COVER IS EQUAL TO OR LESS THAN 2'-0", AROUND PIPE GREATER THAN 21 INCHES IN DIAMETER BUT LESS THAN 39 INCHES WHERE THE COVER IS LESS THAN 1'-3", AND FOR PIPE 39" OR GREATER WHERE THE COVER IS LESS THAN 1'-0". THE CONCRETE BACKFILL SHALL BE AS SPECIFIED ON STANDARD DRAWING 2-D177, NOTE 3.
27. CURB FACE (C.F.) SHOWN ON THE GENERAL PLAN PERTAINS TO THE CURB FACE AT THE CATCH BASIN OPENING UNLESS OTHERWISE NOTED. FOR LOCAL DEPRESSION NO. 2, THE CURB FACE SHALL BE THE EXISTING PLUS 4", UNLESS OTHERWISE SPECIFIED.
28. ASBESTOS CEMENT PIPE MAY BE USED IN LIEU OF REINFORCED, ~~OR NON-REINFORCED~~ CONCRETE PIPE 42 INCHES OR LESS IN DIAMETER.
29. THE REQUIRED D-LOAD FOR THE ASBESTOS CEMENT PIPE SHALL BE 1.5 TIMES THAT SPECIFIED ON THE PLANS FOR REINFORCED CONCRETE PIPE EXCEPT FOR MAIN LINE ~~AND LATERAL~~ PIPE BETWEEN STATION 15+41.67 AND STATION 30+40, LINE D, ~~WHERE THE MAIN LINE VELOCITY EXCEEDS 10 FEET PER SECOND~~ *THE D-LOAD FOR THIS REACH* SHALL BE AS SPECIFIED ON STANDARD DRAWING 2-D 431. ~~WHERE NON-REINFORCED CONCRETE PIPE IS SPECIFIED, THE ASBESTOS CEMENT PIPE SHALL HAVE A CRUSHING STRENGTH EQUAL TO THAT REQUIRED IN THE PROJECT SPECIFICATIONS FOR NON-REINFORCED CONCRETE PIPE.~~
30. NUMBERS AND LETTERS IN BRACKETS, SUCH AS [3] OR [A-3], IDENTIFY STRUCTURES FOR CONTRACT ADMINISTRATION PURPOSES.

REVISIONS			
MARK	DATE	DESCRIPTION	

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: William J. Meher
ASSISTANT CITY ENGINEER R.C.E. 17167

APPROVED BY: [signature] 3-7-74
CITY ENGINEER R.C.E. 11237 DATE

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT 3

GENERAL NOTES & STRUCTURAL NOTES

RECOMMENDED BY: [signature]
ASSISTANT DIVISION ENGINEER (DESIGN)

SCALE	DATE	DWG. NO. 364-4401-D22
AS SHOWN	April 1977	SHEET 2 OF 9

LEGEND AND ABBREVIATIONS

RIGHT OF WAY (OR EASEMENT)	
PROPERTY LINE	
CURB	
GUTTER	
SIDE INLET CATCH BASIN	
EXISTING DRAINAGE STRUCTURES	
GRATING TYPE CATCH BASIN	G
DRIVEWAY	
LIMIT OF CONCRETE SURFACE	
WALK	
TRAFFIC SIGNAL	
DEAD MAN	
POWER, TELEPHONE OR GUY POLE	
FIRE HYDRANT	
ELECTROLIER	
WATER & GAS METER	
BENCH MARK	
TEST BORING	
TREE	
TREES TO BE REPLACED BY CONTRACTOR	
UNDER EXISTING UTILITY	
OVER EXISTING UTILITY	
TRAFFIC SIGNAL CONDUIT	TSC
TRANSITION STRUCTURE	TS
MANHOLE	MH
LOCAL DEPRESSION	LD
REINFORCED CONCRETE PIPE	RCP
TEST BORING	TB
JUNCTION STRUCTURE	JS
CATCH BASIN	CB
SANITARY SEWER	SS
TEMPORARY BENCH MARKS	TBM
SOUTHERN CALIFORNIA GAS CO	SCG
L A DEPT OF WATER & POWER WATER SYST	DWP WS
SOUTHERN CALIFORNIA WATER CO	SCW
INGLEWOOD CITY WATER DEPT	IWD
SOUTHERN CALIFORNIA EDISON CO	SCE
PACIFIC TELEPHONE & TELEGRAPH CO	PT&T
RICHFIELD OIL CO GAS LINE	RGL
HOLLYWOOD TURF CLUB WATER	H.T.C.W.
UNIFIED SCHOOL DISTRICT WATER	USDW.
BURRIED CABLE	BUR CA.
CRUSHED AGGREGATE BASE	CAB

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
STANDARD DRAWINGS

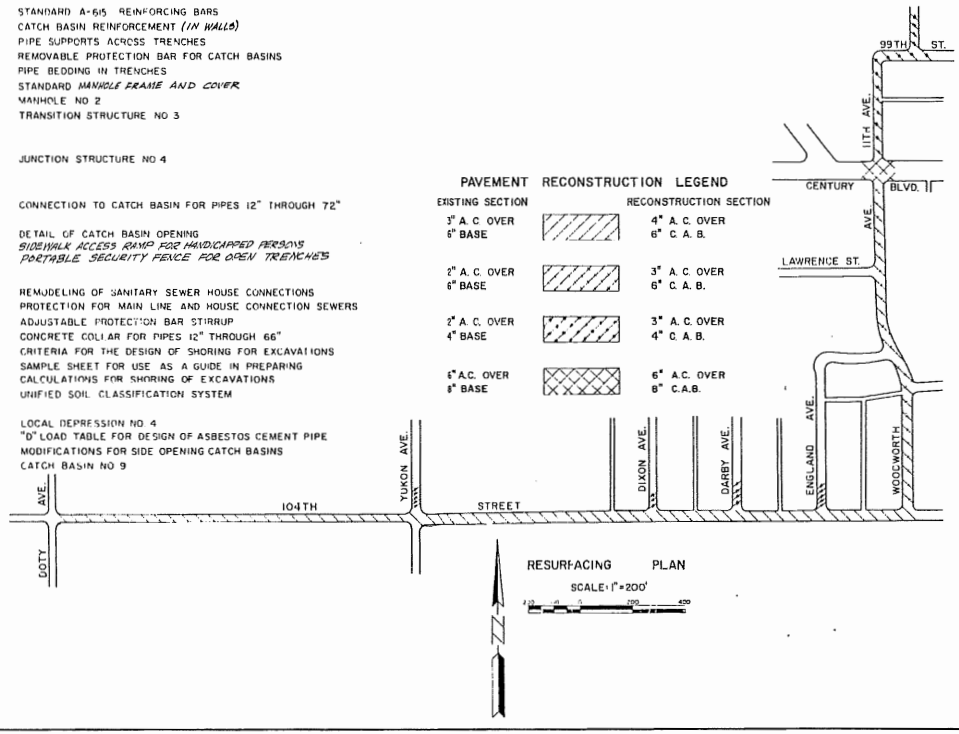
DRAWING NO.	TITLE
2-D88	LOCAL DEPRESSION NO. 2
2-D96	STANDARD DROP STEP
2-D102	*MANHOLE No. 1*
2-D107	CONCRETE RINGS, REDUCER AND PIPE FOR MANHOLE SHAFT
2-D112	JUNCTION STRUCTURE NO. 2
2-D113	MANHOLE NO 4
2-D156	MANHOLE FRAME AND COVER FOR CATCH BASINS
2-D157	CATCH BASIN REINFORCEMENT FOR ROUND MANHOLES
2-D160	CATCH BASIN NO. 1
2-D162	CATCH BASIN NO 2
2-D163	CATCH BASIN NO 3
2-D171	STANDARD A-615 REINFORCING BARS
2-D172	CATCH BASIN REINFORCEMENT *(IN WALLS)*
2-D173.1 TO .3	PIPE SUPPORTS ACROSS TRENCHES
2-D175	REMOVABLE PROTECTION BAR FOR CATCH BASINS
2-D177	PIPE BEDDING IN TRENCHES
2-D178	STANDARD *MANHOLE FRAME AND COVER*
2-D184	MANHOLE NO 2
2-D188	TRANSITION STRUCTURE NO 3
2-D193	JUNCTION STRUCTURE NO 4
2-D224	CONNECTION TO CATCH BASIN FOR PIPES 12" THROUGH 72"
2-D232	DETAIL OF CATCH BASIN OPENING
2-D475	*SIDEWALK ACCESS RAMP FOR HANDICAPPED PERSONS*
2-D476	*PORTABLE SECURITY FENCE FOR OPEN TRENCHES*
2-D250	REMODELING OF SANITARY SEWER HOUSE CONNECTIONS
2-D251	PROTECTION FOR MAIN LINE AND HOUSE CONNECTION SEWERS
2-D264	ADJUSTABLE PROTECTION BAR STIRRUP
2-D393	CONCRETE COLLAR FOR PIPES 12" THROUGH 66"
2-D466	CRITERIA FOR THE DESIGN OF SHORING FOR EXCAVATIONS
2-D400	SAMPLE SHEET FOR USE AS A GUIDE IN PREPARING CALCULATIONS FOR SHORING OF EXCAVATIONS
2-D413	UNIFIED SOIL CLASSIFICATION SYSTEM
2-D415	LOCAL DEPRESSION NO 4
2-D431	"D" LOAD TABLE FOR DESIGN OF ASBESTOS CEMENT PIPE
2-D461	MODIFICATIONS FOR SIDE OPENING CATCH BASINS
2-D471	CATCH BASIN NO 9

CITY OF INGLEWOOD
STANDARD DRAWINGS

DRAWING NO.	TITLE
G-1	STANDARD CURB & GUTTER
G-1	STANDARD CROSS GUTTER
G-4	STANDARD DRIVEWAY APPROACH
32-01	TYPICAL SIDEWALK DETAIL

PAVEMENT RECONSTRUCTION LEGEND

EXISTING SECTION	RECONSTRUCTION SECTION
3" A.C. OVER 6" BASE	4" A.C. OVER 6" C.A.B.
2" A.C. OVER 6" BASE	3" A.C. OVER 6" C.A.B.
2" A.C. OVER 4" BASE	3" A.C. OVER 4" C.A.B.
6" A.C. OVER 8" BASE	6" A.C. OVER 8" C.A.B.



RESURFACING PLAN

REVISIONS

MARK	DATE	DESCRIPTION

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: _____ ASSISTANT CITY ENGINEER R.C.E. _____

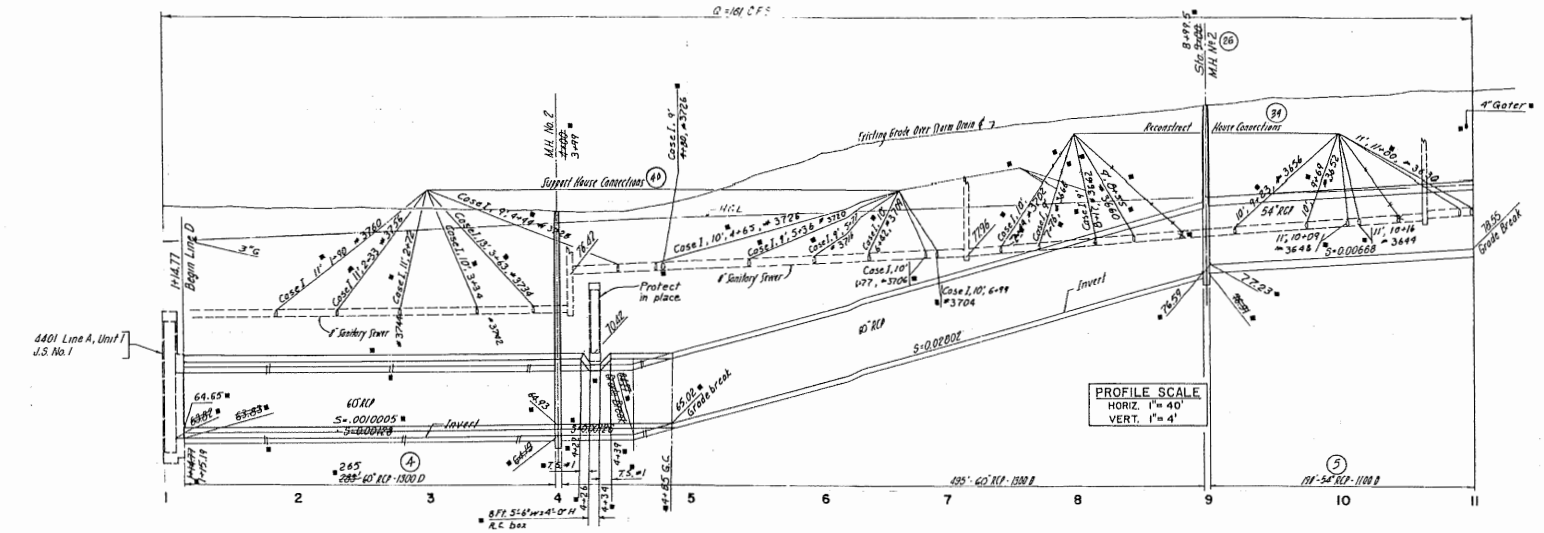
APPROVED BY: _____ CITY ENGINEER R.C.E. 11237 DATE 1-31-79

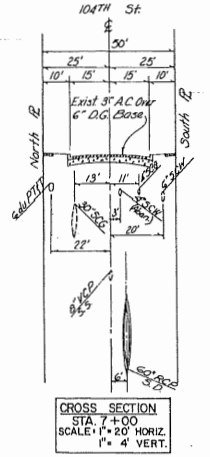
LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

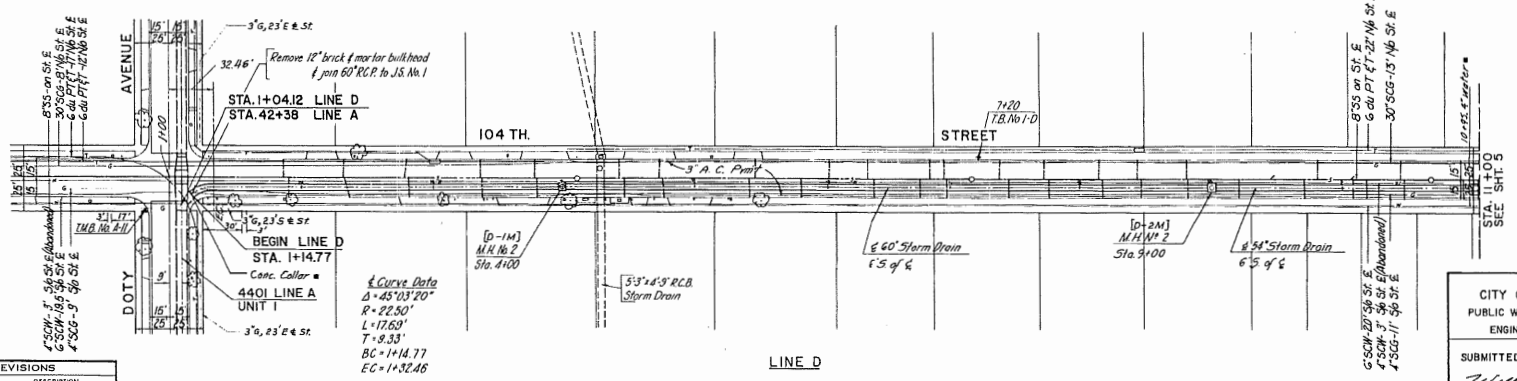
DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT 3
LEGEND AND ABBREVIATION, STANDARD DRAWINGS, STRUCTURAL NOTES, AND RESURFACING PLAN

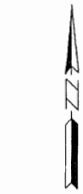
_____ CHIEF ENGINEER

SCALE AS SHOWN DATE April 1977 DWG. NO. 364-4401-D123 SHEET 3 OF 9









TBM No. A-11; L & PK in curb return S/W cor. of Doty Ave and 104 th. St. EL. 81.825

REVISIONS		
MARK	DATE	DESCRIPTION
■	12-9-81	"As Built"

DRAWN BY
CHECKED BY
DESIGNED BY
SUBMITTED BY

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY:
ASSISTANT CITY ENGINEER R.C.E. 17167

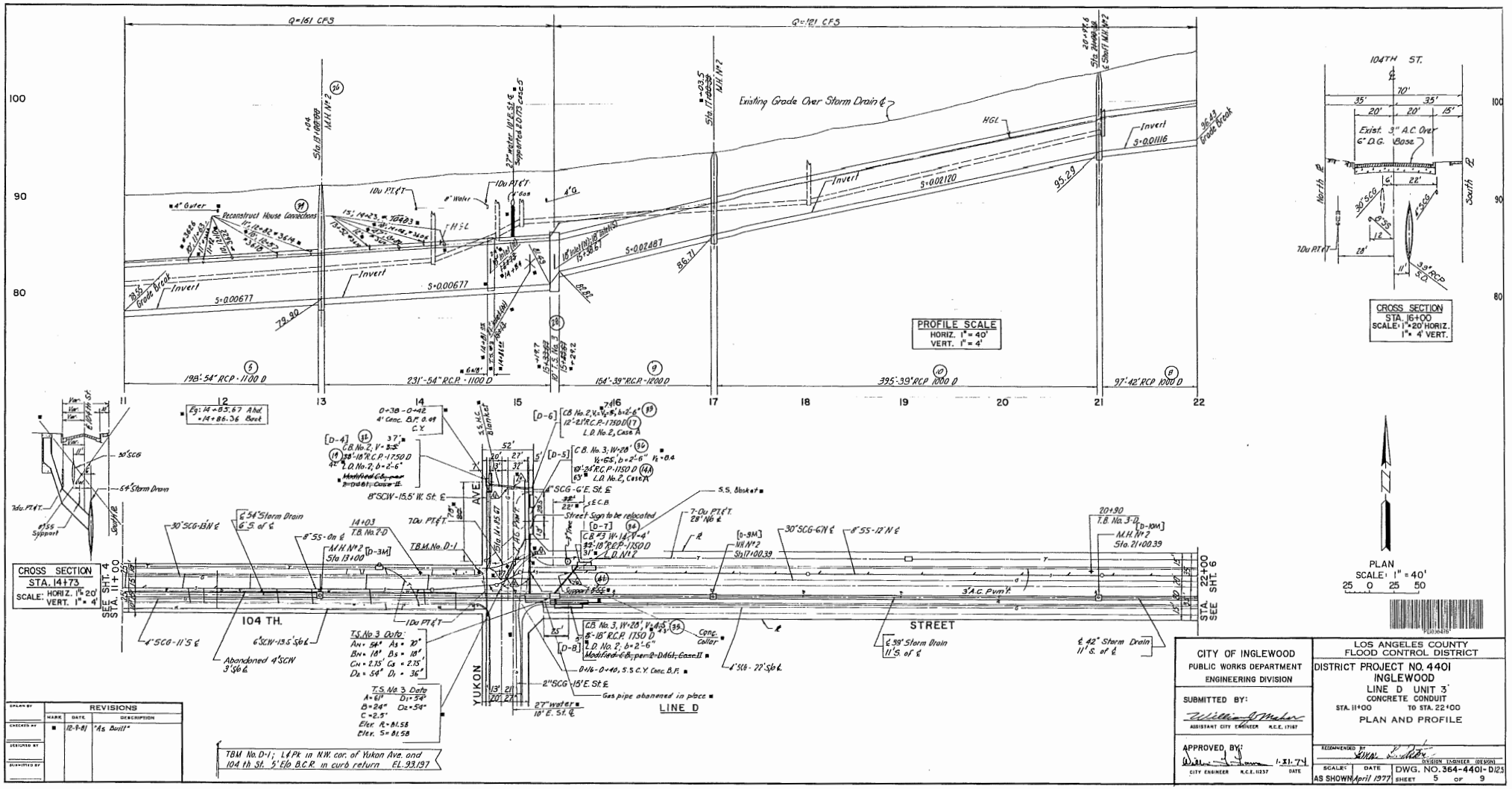
APPROVED BY:
CITY ENGINEER R.C.E. 11237 DATE 1-31-74

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT 3
CONCRETE CONDUIT
STA. 1+14.77 TO STA. 11+00
PLAN AND PROFILE

RECOMMENDED BY
DIVISION ENGINEER (DESIGN)

SCALE AS SHOWN | DATE April 1977 | DWG. NO. 364-4401-D/2A | SHEET 4 OF 9



REVISIONS		
MARK	DATE	DESCRIPTION
■	12-9-81	"As Built"

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY:
ASSISTANT CITY ENGINEER R.C.E. 17167

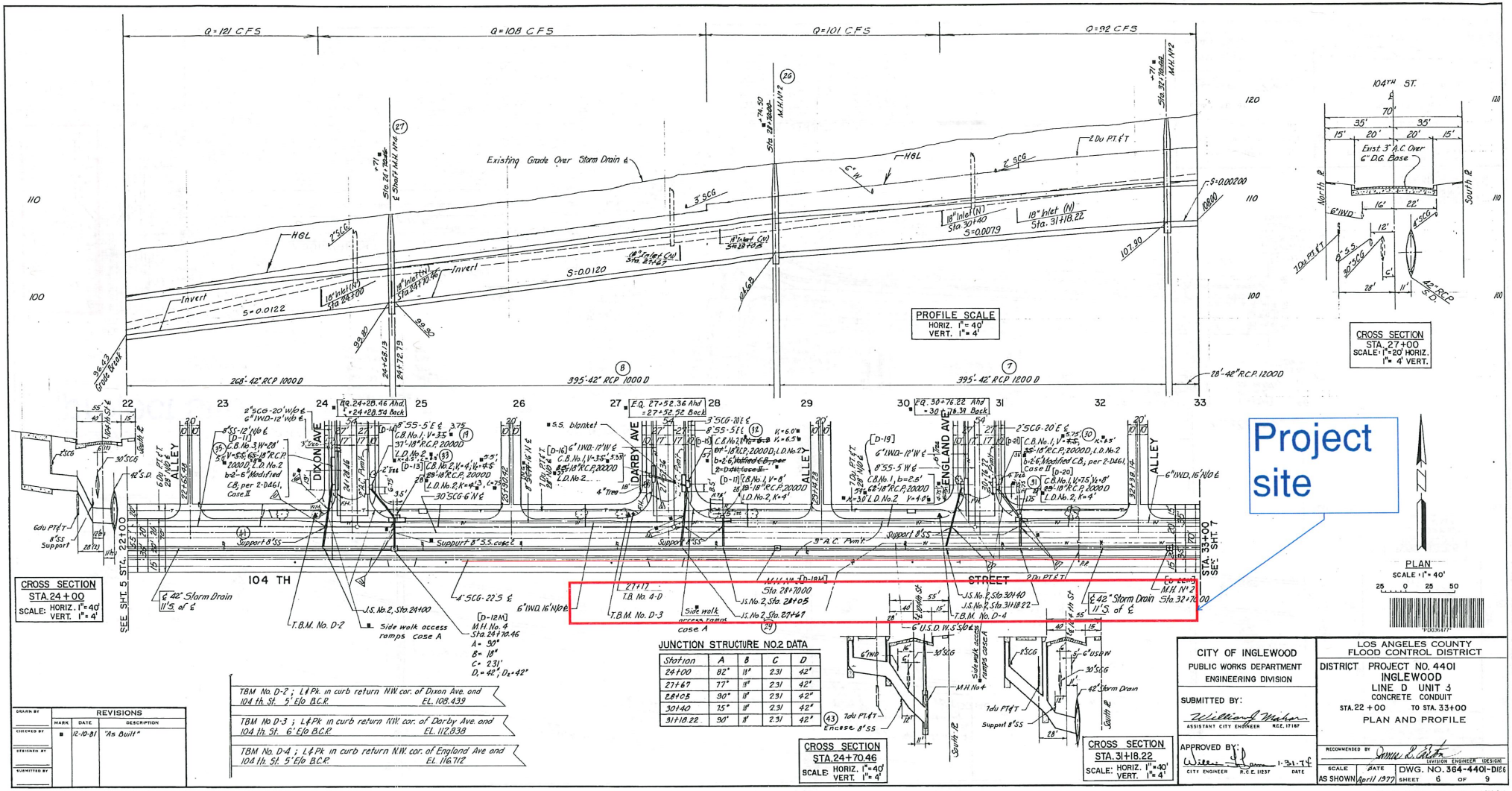
APPROVED BY:
CITY ENGINEER R.C.E. 11237 DATE 1-31-74

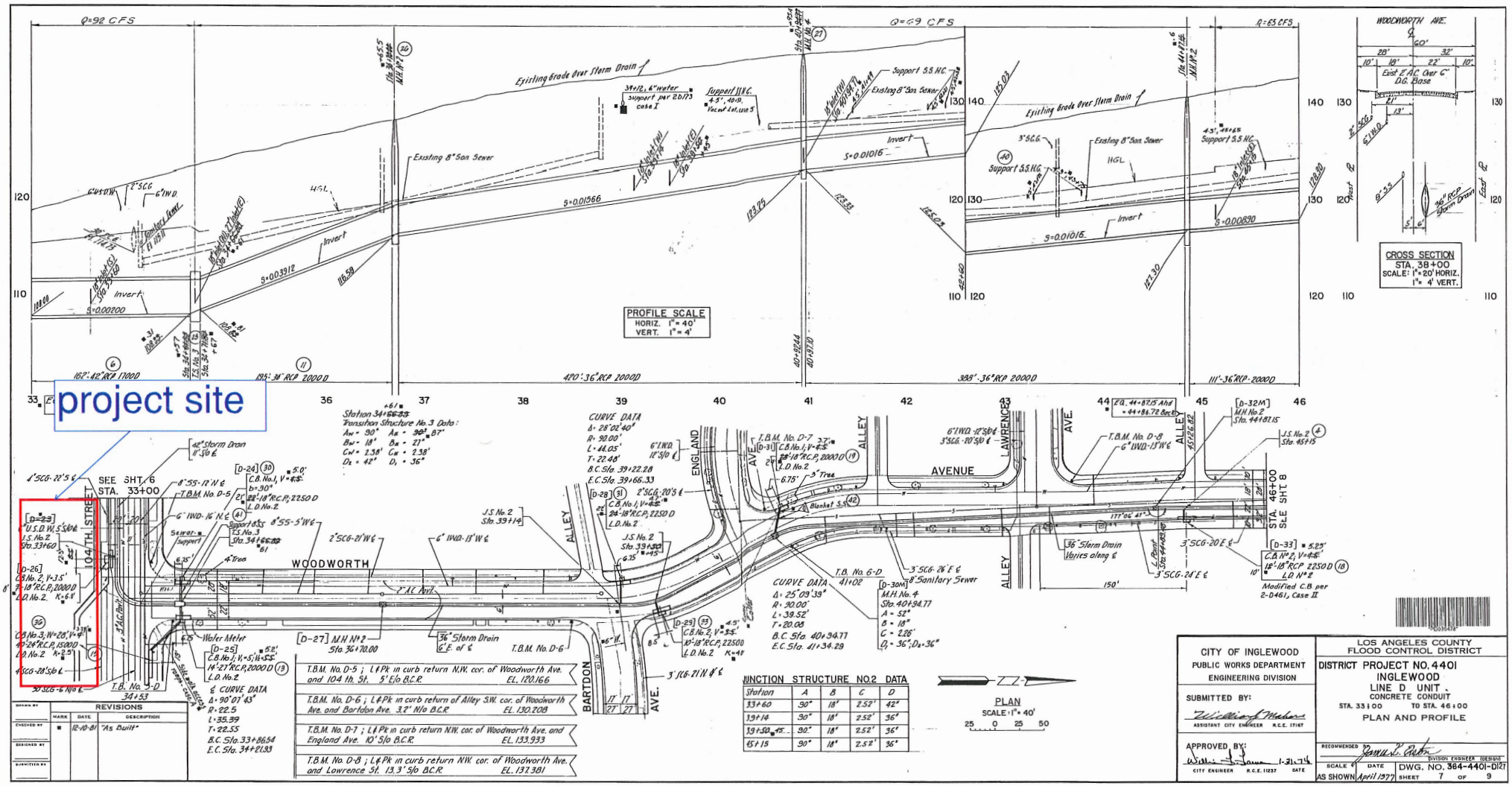
LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

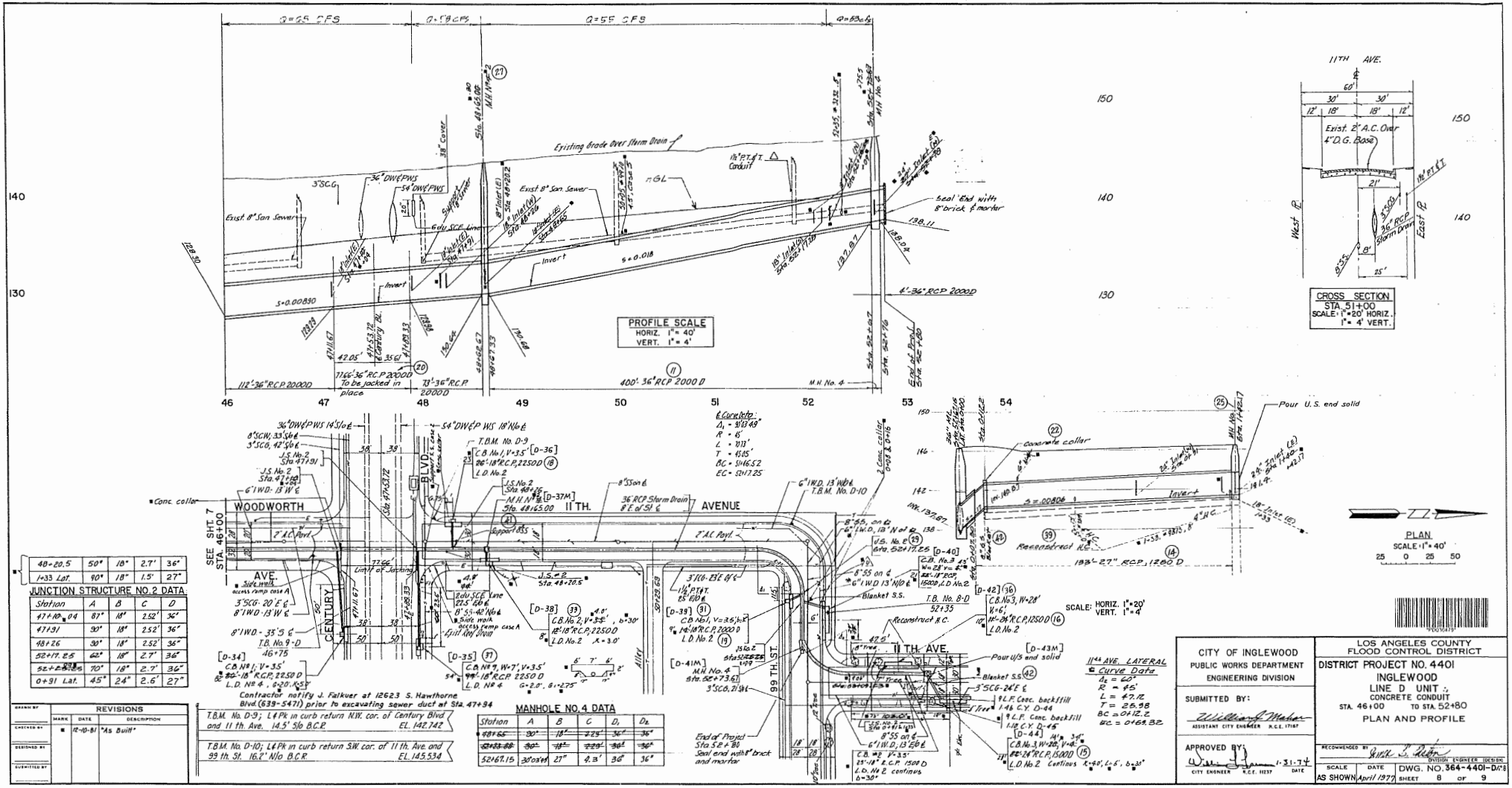
DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT 3
CONCRETE CONDUIT
STA. 11+00 TO STA. 22+00
PLAN AND PROFILE

RECOMMENDED BY
DIVISION ENGINEER (DESIGN)

SCALE: AS SHOWN | DATE: April 1977 | DWG. NO. 364-4401-D123 | SHEET 5 OF 9


Q=121 CFS
Q=108 CFS
Q=101 CFS
Q=92 CFS
Existing Grade Over Storm Drain ℄
HGL
Invert
S=0.0122
S=0.0120
S=0.00200
S=0.0079
18" Inlet (N) Sta 24+00
18" Inlet (N) Sta 27+67
18" Inlet (N) Sta 30+40
18" Inlet (N) Sta. 31+18.22
Sta 24+28.13
Sta 24+72.79
Sta 27+52.36
Sta 30+76.22
Sta 31+18.22
268'-42" RCP 1000 D
395'-42" RCP 1000 D
395'-42" RCP 1200 D
28'-42" R.C.P. 1200 D
PROFILE SCALE
HORIZ. 1"= 40'
VERT. 1"= 4'
104TH ST.
Exist 3" A.C. Over 6" D.G. Base
CROSS SECTION STA. 27+00
SCALE: 1"=20' HORIZ.
1"= 4' VERT.
DIXON AVE
DARBY AVE
ENGLAND AVE
ALLEY
104 TH
STREET
Project site
PLAN
SCALE 1"= 40'
CROSS SECTION STA 24+00
SCALE: HORIZ. 1"= 40'
VERT. 1"= 4'
SEE SHT. 5 STA. 22+00
SEE SHT. STA. 33+00
℄ 42" Storm Drain 11'S of ℄
T.B.M. No. D-2
T.B.M. No. D-3
T.B.M. No. D-4
J.S. No. 2, Sta. 24+00
J.S. No. 2, Sta. 27+67
J.S. No. 2, Sta. 28+05
J.S. No. 2, Sta. 30+40
J.S. No. 2, Sta. 31+18.22
Side walk access ramps case A
Support 8"SS
Encase 8"SS
9" A.C. Pvmt
M.H. No. 4
Sta. 24+70.46
A= 90°
B= 18"
C= 2.31'
D= 42", D2= 42"
JUNCTION STRUCTURE NO.2 DATA
Station | A | B | C | D
24+00 | 82° | 11" | 2.31 | 42"
27+67 | 77° | 11" | 2.31 | 42"
28+05 | 90° | 11" | 2.31 | 42"
30+40 | 75° | 11" | 2.31 | 42"
31+18.22 | 90° | 11" | 2.31 | 42"
CROSS SECTION STA. 24+70.46
SCALE: HORIZ. 1"=40' VERT. 1"= 4'
CROSS SECTION STA. 31+18.22
SCALE: HORIZ. 1"=40' VERT. 1"= 4'
TBM No. D-2 ; L℄Pk. in curb return N.W. cor. of Dixon Ave. and 104 th. St. 5' E/o B.C.R. EL. 108.439
TBM No D-3 ; L℄Pk. in curb return N.W. cor. of Darby Ave. and 104 th. St. 6' E/o B.C.R. EL. 112.838
TBM No. D-4 ; L℄Pk. in curb return N.W. cor. of England Ave and 104 th. St. 5' E/o B.C.R. EL. 116.712
REVISIONS
MARK | DATE | DESCRIPTION
■ | 12-10-81 | "As Built"
CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
SUBMITTED BY:
ASSISTANT CITY ENGINEER R.C.E. 17187
APPROVED BY:
CITY ENGINEER R.C.E. 11237 DATE 1-31-74
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT 3
CONCRETE CONDUIT
STA. 22+00 TO STA. 33+00
PLAN AND PROFILE
RECOMMENDED BY
DIVISION ENGINEER DESIGN
SCALE AS SHOWN
DATE April 1977
DWG. NO. 364-4401-D126
SHEET 6 OF 9


project site
PROFILE SCALE
HORIZ. 1" = 40'
VERT. 1" = 4'
CROSS SECTION
STA. 38+00
SCALE: 1" = 20' HORIZ.
1" = 4' VERT.
WOODWORTH AVE.
PLAN
SCALE 1" = 40'
SEE SHT. 6
STA. 33+00
STA. 46+00
SEE SHT. 8
104TH STREET
WOODWORTH
ENGLAND AVE.
BARTDON AVE.
ALLEY
AVENUE
LAWRENCE AVE.
T.B.M. No. D-5 ; L & Pk in curb return N.W. cor. of Woodworth Ave. and 104 th. St. 5' E/o B.C.R. EL. 120.166
T.B.M. No. D-6 ; L & Pk in curb return of Alley S.W. cor. of Woodworth Ave. and Bartdon Ave. 3.2' N/o B.C.R EL. 130.208
T.B.M. No. D-7 ; L & Pk in curb return N.W. cor. of Woodworth Ave. and England Ave. 10' S/o B.C.R. EL. 133.933
T.B.M. No. D-8 ; L & Pk in curb return N.W. cor. of Woodworth Ave. and Lawrence St. 13.3' S/o B.C.R EL. 137.381
JUNCTION STRUCTURE NO.2 DATA
Station | A | B | C | D
33+60 | 90° | 18" | 2.52' | 42"
19+16 | 30° | 18' | 2.52' | 36'
19+50.45 | 90° | 18' | 2.52' | 36'
65+15 | 90° | 18' | 2.52' | 36'
REVISIONS
MARK | DATE | DESCRIPTION
■ | 12-10-81 | "As Built"
CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
SUBMITTED BY:
ASSISTANT CITY ENGINEER R.C.E. 17167
APPROVED BY:
CITY ENGINEER R.C.E. 11237 DATE
LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT -
CONCRETE CONDUIT
STA. 33+00 TO STA. 46+00
PLAN AND PROFILE
RECOMMENDED
DIVISION ENGINEER (DESIGN)
SCALE AS SHOWN
DATE April 1977
DWG. NO. 364-4401-D127
SHEET 7 OF 9
"AS BUILT" DRAWING



48+20.5	50°	18"	2.7'	36"
1+33 Lat.	90°	18"	1.5'	27"

JUNCTION STRUCTURE NO. 2 DATA

Station	A	B	C	D
47+10.04	87°	18"	2.52'	36"
47+91	90°	18"	2.52'	36"
48+26	90°	18"	2.52'	36"
52+17.25	62°	18"	2.7'	36"
52+[illegible]	70°	18"	2.7'	36"
0+91 Lat.	45°	24"	2.6'	27"

MANHOLE NO. 4 DATA

Station	A	B	C	D	D_2
48+65	30°	18"	22.5°	36"	36"
52+67.15	30°0'49"	27"	4.3°	36"	36"

T.B.M. No. D-9; L℄ Pk in curb return N.W. cor. of Century Blvd and 11 th. Ave. 14.5' S/o B.C.R. EL. 142.742

T.B.M. No. D-10; L℄ Pk in curb return S.W. cor. of 11 th. Ave. and 99 th. St. 16.2' N/o B.C.R. EL. 145.534

REVISIONS		
MARK	DATE	DESCRIPTION
■	12-10-81	"As Built"

DRAWN BY
CHECKED BY
DESIGNED BY
SUBMITTED BY

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: William J. Maher
ASSISTANT CITY ENGINEER R.C.E. 17187

APPROVED BY: [signature] 1-31-74
CITY ENGINEER R.C.E. 11237 DATE

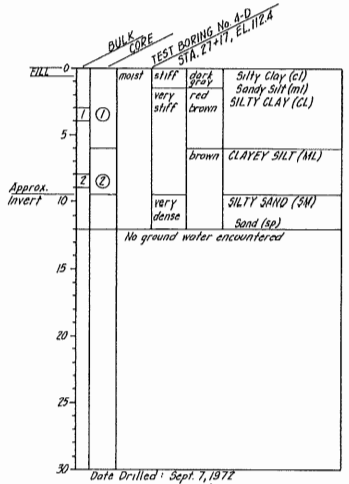
LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

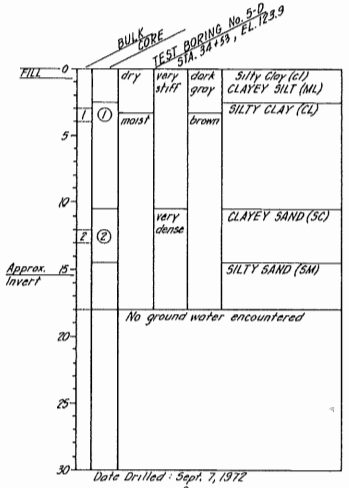
DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT :-
CONCRETE CONDUIT
STA. 46+00 TO STA. 52+80

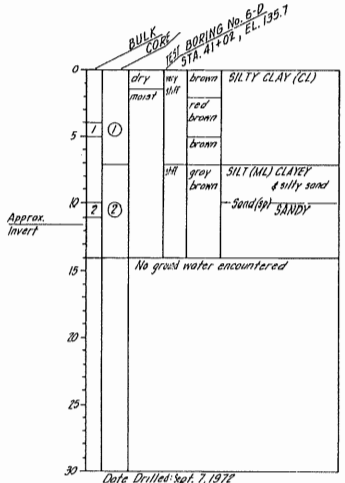
PLAN AND PROFILE

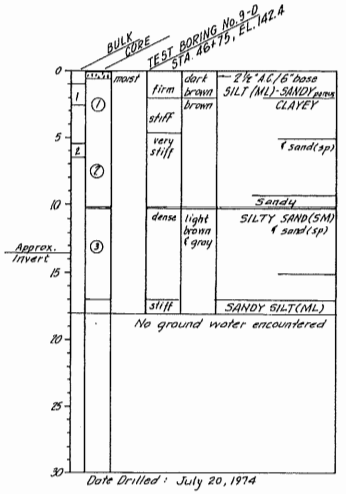
RECOMMENDED BY: [signature]
DIVISION ENGINEER (DESIGN)

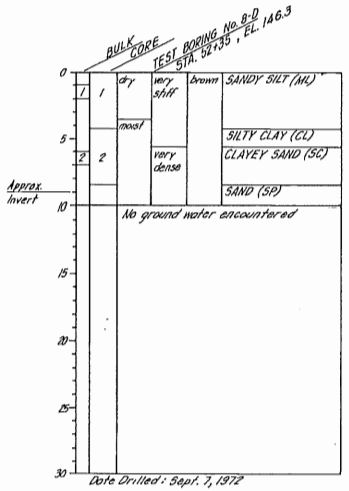
SCALE: AS SHOWN
DATE: April 1977
DWG. NO. 364-4401-D-8
SHEET 8 OF 9

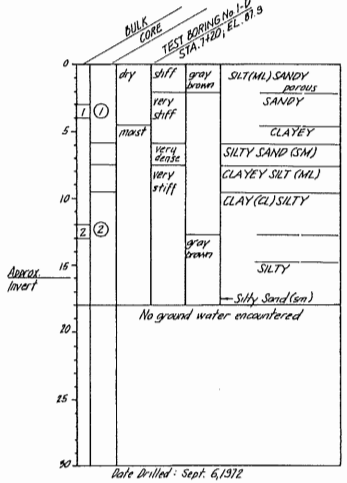


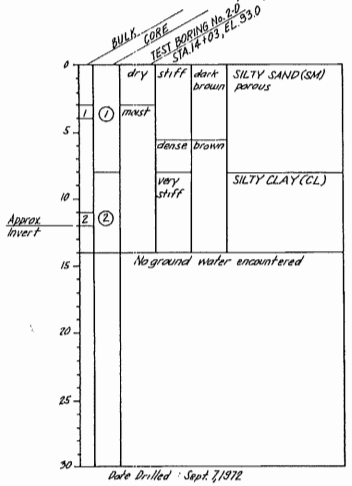


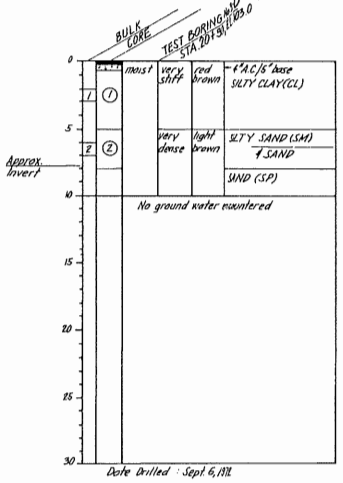






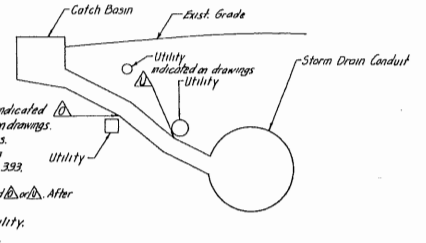






NOTES:

1. The change in grade of the connector pipe may occur either over or under an existing utility. The utilities at which the grade change occur are shown on the project drawings. At locations where utility crossings are marked Ⓐ, the connector pipe grade will break over the utility. At locations where the utility crossings are marked Ⓑ, the connector pipe grade will break under the utility.
2. On those connector pipes where change of grade is not indicated, it is assumed that the connector pipe can be laid on a straight grade from the catch basin to the storm drain without interference with utilities.
3. Where connector pipe has a change of grade exceeding ⅞"/Ft. or differs in diameter from that of existing pipe, use concrete collar per std. 2-D 393.
4. The Contractor shall make exploratory excavation to determine the exact location and depth of utilities, except sanitary sewers which are marked Ⓐ or Ⓑ. After the exact location of a utility has been determined, the grade and alignment of the connector pipe will be staked so as to clear the utility.



TYPICAL CONNECTOR PIPE PROFILE
NO SCALE

NOTES:

1. Soil classification was made in accordance with the Unified Soil Classification System shown on Std. Dwg. No. 2-D 413.
2. Borings were drilled with an 18" diameter Truck-Mounted Rotary Bucket Auger.
3. Approximate invert depths shown above supersede Soil Report.

REVISIONS		
NO.	DATE	DESCRIPTION

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY:
William J. Mahon
ASSISTANT CITY ENGINEER R.C.E. 17187

APPROVED BY:
CITY ENGINEER R.C.E. 11351 DATE 1-31-74

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

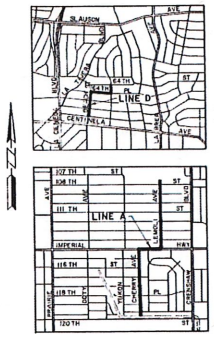
DISTRICT PROJECT NO. 4401
INGLEWOOD
LINE D UNIT 3
LOG OF BORINGS

RECOMMENDED BY
Samuel P. Paxton
DIVISION ENGINEER (CIVIL/SAN)

DATE Nov. 76 SCALE AS SHOWN
NO. 364-4401-D12.9
SHEET 9 OF 9

LEGEND & ABBREVIATIONS

PROPERTY LINE
CURB
GUTTER
SIDE INLET CATCH BASIN
EXISTING DRAINAGE STRUCTURES
GRATING TYPE CATCH BASIN
DRIVEWAY
LIMIT OF CONCRETE SURFACE
WALK
TRAFFIC SIGNAL
DEAD MAN
POWER, TELEPHONE OR GUY POLE
FIRE HYDRANT
ELECTROLIER
WATER & GAS METER
BENCH MARK
TEST BORING
TREE
TREES TO BE REPLACED BY CONTRACTOR
UNDER EXISTING UTILITY
OVER EXISTING UTILITY
TRAFFIC SIGNAL CONDUIT — T.S.C.
TRANSITION STRUCTURE — T.S.
MANHOLE — M.H.
LOCAL DEPRESSION — L.D.
REINFORCED CONCRETE PIPE — R.C.P.
TEST BORING — T.B.
JUNCTION STRUCTURE — J.S.
CATCH BASIN — C.B.
SANITARY SEWER — S.S.
TEMPORARY BENCH MARKS — T.B.M.
SOUTHERN CALIFORNIA GAS CO. — S.C.G.
L. A. DEPT. OF WATER & POWER WATER SYST. — DW.&P.W.S.
SOUTHERN CALIFORNIA WATER CO. — S.C.W.
INGLEWOOD CITY WATER DEPT. — I.W.D.
SOUTHERN CALIFORNIA EDISON CO. — S.C.E.
PACIFIC TELEPHONE & TELEGRAPH CO. — P.T. & T.



VICINITY MAPS

1000' 0 1000' 2000' 3000' 4000' 5000'
GRAPHIC SCALE

DRAWN BY	REVISIONS		
R.W.S. & R.M.	MARK	DATE	DESCRIPTION
CHECKED BY			
T.M.M.			
ENGINEER BY			
U.F.B.G.I.			
SUBMITTED BY			
C.W.H.			

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
STANDARD DRAWINGS

DRAWING NO.	TITLE
2-D 88	LOCAL DEPRESSION NO. 2
2-D 96	STANDARD DROP STEP
2-D 107	CONCRETE RINGS, REDUCER AND PIPE FOR MANHOLE SHAFT
2-D 109	CATCH BASIN NO. 6
2-D 112	JUNCTION STRUCTURE NO. 2
2-D 113	MANHOLE NO. 4
2-D 156	MANHOLE FRAME AND COVER FOR CATCH BASINS
2-D 160	CATCH BASIN NO. 1
2-D 249, 18.2	CATCH BASIN NO. 8
2-D 162	CATCH BASIN NO. 2
2-D 163	CATCH BASIN NO. 3
2-D 171	STANDARD A-305 REINFORCING BARS
2-D 172	CATCH BASIN REINFORCEMENT
2-D 173.1 TO .3	PIPE SUPPORTS ACROSS TRENCHES
2-D 175	REMOVABLE PROTECTION BAR FOR CATCH BASINS
2-D 177	PIPE BEDDING IN TRENCHES
2-D 181	STANDARD NON-ROCKING MANHOLE FRAME AND COVER
2-D 184	MANHOLE NO. 2
2-D 188	TRANSITION STRUCTURE NO. 3
2-D 193	JUNCTION STRUCTURE NO. 4
2-D 213.1 & .2	"D" LOAD TABLE FOR DESIGN OF REINFORCED CONCRETE PIPE CONNECTION TO CATCH BASIN FOR PIPES 12" THROUGH 72"
2-D 224	FRAME AND GRATING FOR CATCH BASINS
2-D 227	DETAIL OF CATCH BASIN OPENING
2-D 232	LOCAL DEPRESSION NO. 3
2-D 248	REMODELING OF SANITARY SEWER HOUSE CONNECTIONS
2-D 250	PROTECTION FOR MAIN LINE AND HOUSE CONNECTION SEWER
2-D 251	ADJUSTABLE PROTECTION BAR STIRRUP
2-D 264	CONCRETE COLLAR FOR PIPES 12" THROUGH 66"
2-D 393	CRITERIA FOR THE DESIGN OF SHORING FOR EXCAVATION
2-D 399	SAMPLE SHEET FOR USE AS A GUIDE IN PREPARING CALCULATIONS FOR SHORING OF EXCAVATIONS
2-D 400	UNIFIED SOIL CLASSIFICATION SYSTEM
2-D 413	LOCAL DEPRESSION NO. 4
2-D 415	JUNCTION STRUCTURE NO. 1
2-D 189	

INDEX TO DRAWINGS

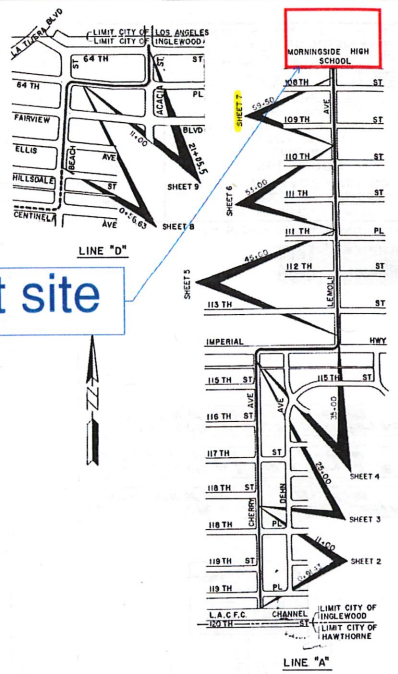
SHEET NO.	TITLE
1.	LOCATION MAP, GENERAL NOTES, INDEX TO DRAWINGS, STANDARD DRAWINGS, LEGEND AND ABBREVIATIONS.
2.	LINE A, PLAN, PROFILE AND SECTION STA. 0+91.43 TO STA. 11+00
3.	LINE A, PLAN, PROFILE AND SECTION STA. 11+00 TO STA. 25+00
4.	LINE A, PLAN, PROFILE AND SECTION STA. 25+00 TO STA. 35+00
5.	LINE A, PLAN, PROFILE AND SECTION STA. 35+00 TO STA. 45+00
6.	LINE A, PLAN, PROFILE AND SECTION STA. 45+00 TO STA. 53+00
7.	LINE A, PLAN, PROFILE AND SECTION STA. 53+00 TO STA. 59+50
8.	LINE D, PLAN, PROFILE AND SECTION STA. 0+56.63 TO STA. 10+00
9.	LINE D, PLAN, PROFILE AND SECTION STA. 10+00 TO STA. 21+04
10.	LINE A, LOG OF BORINGS, RESURFACING PLAN, AND MISC. DETAILS.
11.	LINE D, LOG OF BORINGS, RESURFACING PLAN, AND MISC. DETAILS.
12.	LINE A, MODIFIED JUNCTION STRUCTURE NO. 1, DETAILS

GENERAL NOTES

1. NUMBERS IN CIRCLES INDICATE ITEMS UNDER WHICH PAYMENT WILL BE MADE.
2. ELEVATIONS SHOWN ARE IN FEET ABOVE THE U.S.G.S. MEAN SEA LEVEL DATUM.
3. STATIONS SHOWN ON DRAWINGS ARE ALONG CENTERLINE OF CONDUIT OR ON A LINE NORMAL TO CENTER LINE OF CONDUIT.
4. STATIONS AND INVERT ELEVATIONS OF PIPE INLETS SHOWN ON THE PROFILES ARE AT THE INSIDE FACE OF THE CONDUIT, UNLESS OTHERWISE SHOWN.
5. ALL FIELD BOOK REFERENCES ARE TO CITY OF INGLEWOOD FIELD BOOKS, UNLESS OTHERWISE NOTED.
6. ALL PIPE IN OPEN TRENCH SHALL BE BEDDED ACCORDING TO STANDARD DRAWING 2-D177, CASE III, UNLESS OTHERWISE SHOWN OR MODIFIED IN THE SPECIFICATIONS.
7. PIPE CONNECTIONS TO STORM DRAIN SHALL CONFORM TO STANDARD DRAWING 2-D193, UNLESS OTHERWISE SHOWN.
8. TIES FOR CATCH BASINS AS SHOWN ON THE DRAWINGS ARE FROM CURB RETURN TO CENTER LINE OF CATCH BASIN, UNLESS OTHERWISE SHOWN.
9. LOCATIONS OF CATCH BASIN CONNECTOR PIPE JUNCTIONS WITH CATCH BASINS AS SHOWN ON THE DRAWINGS ARE SCHEMATIC. IT IS INTENDED THAT SUCH JUNCTIONS BE LOCATED AT THE DOWNSTREAM E CATCH BASINS. IN ALL CASES THE EXACT LOCATION WILL BE DETERMINED IN THE FIELD BY T TO MEET FIELD CONDITIONS.
10. MONOLITHIC CATCH BASIN CONNECTIONS SHALL BE CONSTRUCTED, WHERE APPLICABLE PER STAND 2-D224.
11. "V_i" IS THE DEPTH OF INLET OF CATCH BASINS IN SERIES MEASURED FROM TOP OF CURB TO INVERT OF CONNECTOR PIPE.
12. ALL EXISTING SANITARY SEWERS SHOWN ON THE DRAWINGS ARE CITY OF INGLEWOOD SEWERS.
13. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
14. WHERE UTILITIES ARE INDICATED ON THE DRAWINGS TO BE SUPPORTED, SAID SUPPORTS SHALL BE IN ACCORDANCE WITH STANDARD DRAWING 2-D173.1, .2 OR .3, UNLESS OTHERWISE INDICATED.
15. LOCATIONS SHOWN ON THE PLANS FOR EXISTING SANITARY SEWER HOUSE CONNECTIONS ARE APPROXIMATE ONLY.
16. SANITARY SEWER HOUSE CONNECTION RECONSTRUCTION AND RECONNECTION SHALL BE IN ACCORDANCE WITH STANDARD DRAWING 2-D250, UNLESS OTHERWISE SHOWN.
17. SANITARY SEWERS AND HOUSE CONNECTIONS CROSSING OVER THE STORM DRAIN TRENCH SHALL BE SUPPORTED IN ACCORDANCE WITH STANDARD DRAWINGS 2-D173.1 TO .3 AND ENCASED PER GENERAL NOTE 1 ON STANDARD DRAWING 2-D173.1.
18. WHEN INDICATED ON THE DRAWINGS, SANITARY SEWERS AND HOUSE CONNECTIONS SHALL BE ENCASED OR BLANKETED IN ACCORDANCE WITH STANDARD DRAWING 2-D251.
19. ALL RESURFACING, CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER EXISTING IMPROVEMENTS TO BE RECONSTRUCTED SHALL BE CONSTRUCTED AT THE SAME ELEVATION AND LOCATION AS THE EXISTING IMPROVEMENTS, UNLESS NOTED.
20. SOIL TEST BORINGS FOR THIS PROJECT WERE MADE IN AUGUST AND OCTOBER, 1965.
21. UTILITIES DESIGNATED BY THE SYMBOL ≠ WILL BE ABANDONED IN PLACE AND THE OWNER WILL INSTALL A NEW SECTION OF THE AFFECTED UTILITY AT A LOCATION IN CLOSE PROXIMITY TO, BUT WHICH DOES NOT PHYSICALLY INTERFERE WITH, THE PROPOSED STORM DRAIN CONDUIT AND APPURTENANT STRUCTURES.
22. REFER TO SHEET 10 FOR TYPICAL CATCH BASIN CONNECTOR PIPE PROFILE.
23. ALL OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING PIPES, CULVERTS, OR SIMILAR STRUCTURES SHALL BE SEALED WITH 8 INCHES OF BRICK AND MORTAR OR 6 INCHES OF CONCRETE.
24. WHERE REQUIRED BY STANDARD DRAWING 2-D213.1, CONCRETE BACKFILL SHALL BE USED AROUND CONNECTOR PIPES 36 INCHES OR LESS IN DIAMETER. CONCRETE BACKFILL FOR MAIN LINE PIPE SHALL BE USED ONLY WHEN DIRECTED BY THE ENGINEER.
25. ALL SIDE OPENNG CATCH BASINS SHALL BE IN ACCORDANCE WITH STANDARD DRAWING 2-D232.
26. STREET RESURFACING PLANS ARE SHOWN ON SHEETS 10 AND 11.
27. UTILITIES DESIGNATED BY THE SYMBOL ≠ WILL BE REMOVED BY THE OWNER AND THE OWNER WILL REINSTALL A NEW SECTION OF THE AFFECTED UTILITY AT A LOCATION IN CLOSE PROXIMITY TO, BUT WHICH DOES NOT PHYSICALLY INTERFER WITH, THE PROPOSED STORM DRAIN CONDUIT AND APPURTENANT STRUCTURES.

LOS ANGELES COUNTY ROAD DEPARTMENT
STANDARD DRAWINGS

DRAWING NO.	TITLE
M57-39R	PARTIAL CONCRETE REPLACEMENT FOR CROSS GUTTERS AND SPANDRELS
40-01	SPECIFICATIONS FOR REPAIRS OF CUTS IN CONCRETE PAVEMENT



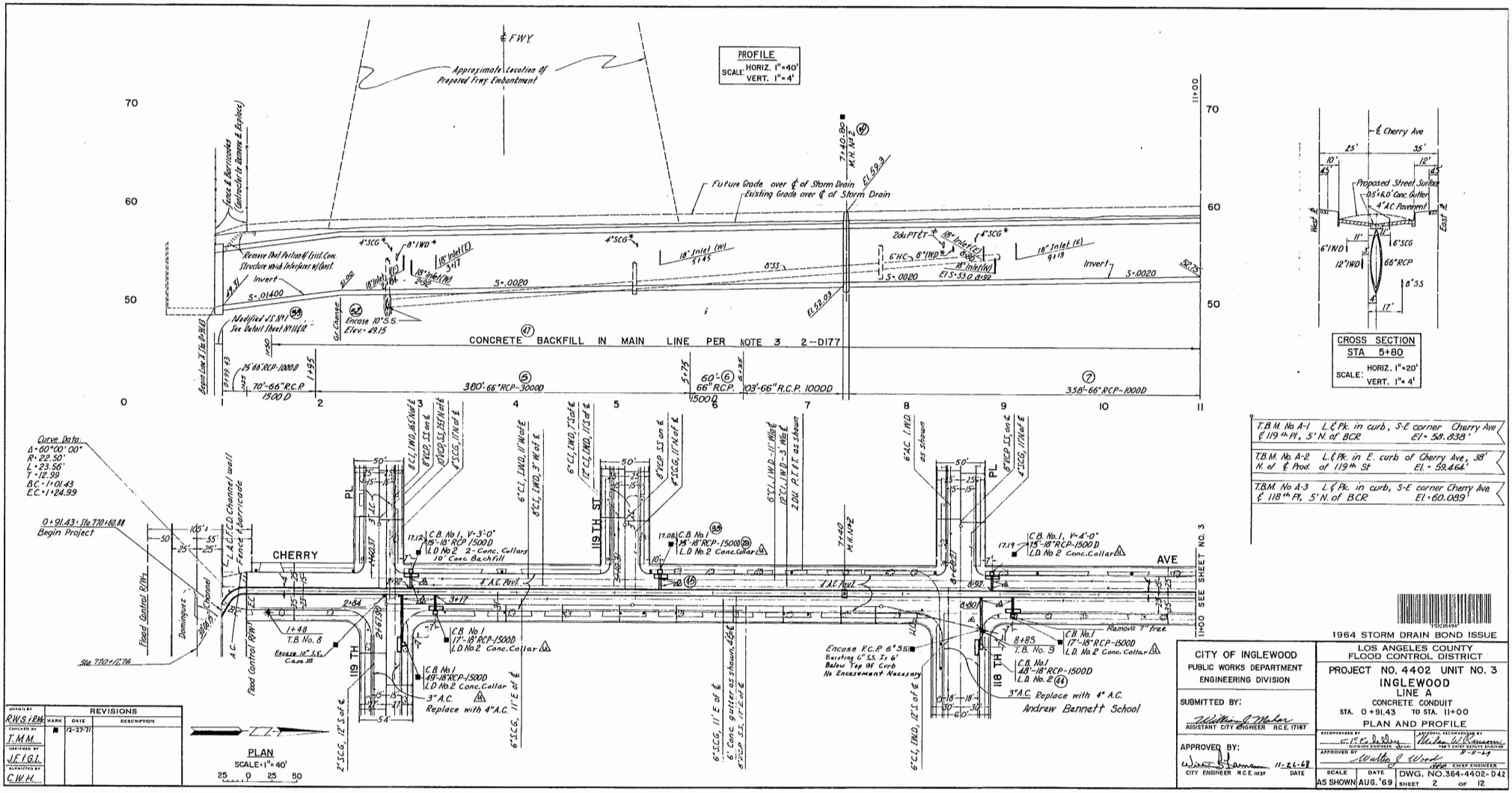
Project site

LOCATION MAPS

1000' 500' 0 500' 1000' 1500' 2000'
GRAPHIC SCALE

1964 STORM DRAIN BOND ISSUE

CITY OF INGLEWOOD PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
SUBMITTED BY: William J. Maher, ASSISTANT CITY ENGINEER R.C.E. 17167	PROJECT NO. 4402 INGLEWOOD, UNIT NO. 3 LINE A & D LOCATION MAP, GENERAL NOTES, INDEX TO DRAWINGS, STANDARD DRAWINGS, LEGEND AND ABBREVIATIONS.
APPROVED BY: CITY ENGINEER R.C.E. 11237, DATE 11-26-69	RECOMMENDED BY: C.F. Caldwell, DIVISION ENGINEER H&H; APPROVAL RECOMMENDED BY: Milton W. Ransom, ASST. CHIEF DEPUTY ENGINEER APPROVED BY: Walter J. Wood, CHIEF ENGINEER
	SCALE: AS SHOWN; DATE: AUG. '69; DWG. NO. 364-4402-D4.1; SHEET 1 OF 12



T.B.M. No A-1 L℄ Pk. in curb, S-E corner Cherry Ave ℄ 119th Pl, 5' N. of BCR El. = 58.938'

T.B.M. No. A-2 L℄ Pk. in E. curb of Cherry Ave, 38' N. of ℄ Prod. of 119th St El. = 59.464'

T.B.M. No A-3 L℄ Pk. in curb, S-E corner Cherry Ave ℄ 118th Pl, 5' N. of BCR El. = 60.089'

1964 STORM DRAIN BOND ISSUE

DRAWN BY	REVISIONS		
RWS / RM	MARK	DATE	DESCRIPTION
CHECKED BY	■	12-27-71	
T.M.M.			
OBSERVED BY			
J.F.G.L.			
SUBMITTED BY			
C.W.H.			

PLAN
SCALE: 1"=40'
25 0 25 50

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY:
ASSISTANT CITY ENGINEER R.C.E. 17167

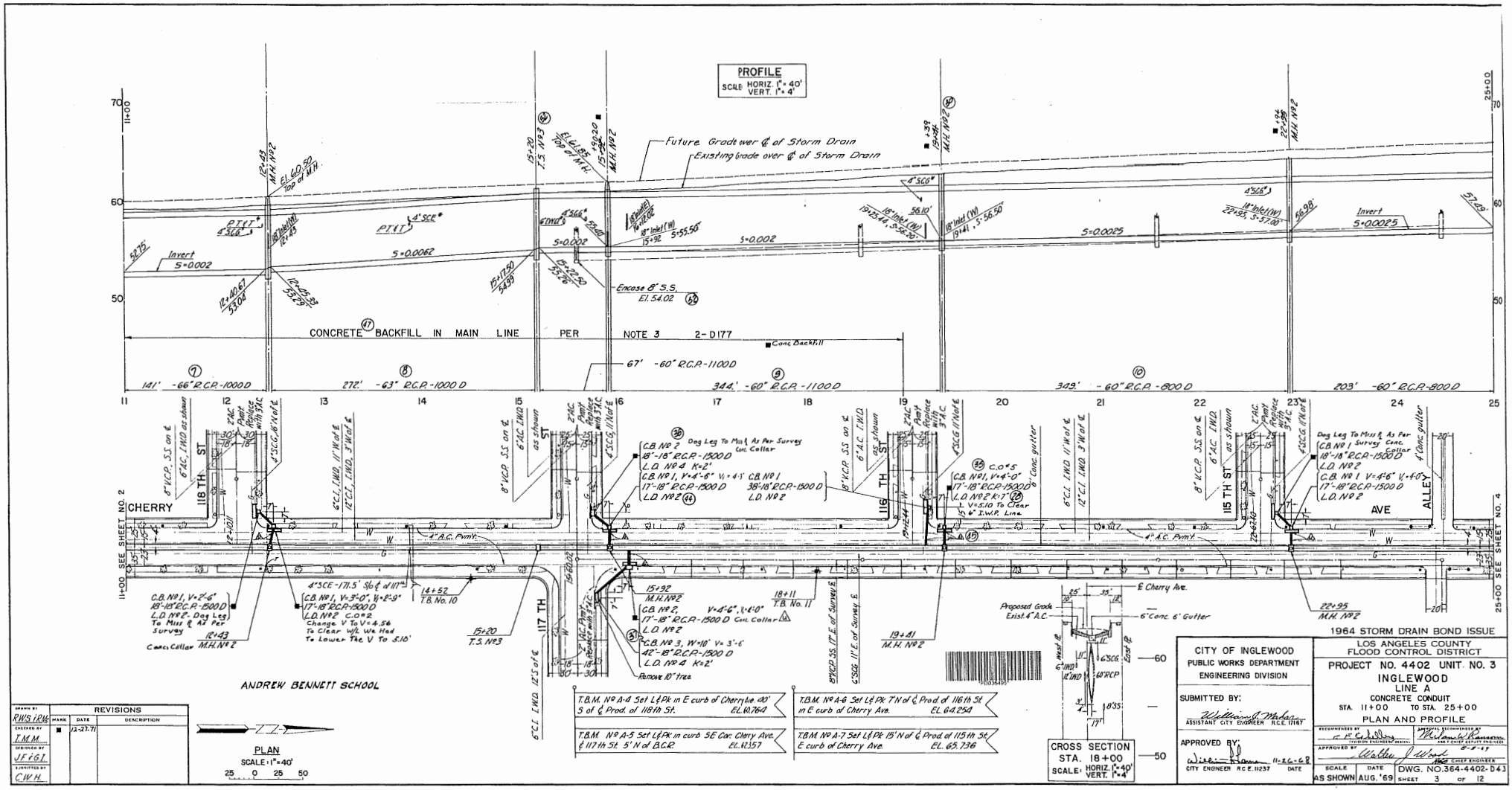
APPROVED BY:
CITY ENGINEER R.C.E. 14637 — DATE 11-26-69

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3
INGLEWOOD
LINE A
CONCRETE CONDUIT
STA. 0+91.43 TO STA. 11+00
PLAN AND PROFILE

RECOMMENDED BY: C.E.C. Nolan, DIVISION ENGINEER, (ACTING)
APPROVED AS RECOMMENDED BY: Walter A. Kaessner, ASST. CHIEF DEPUTY ENGINEER, 5-8-69
APPROVED BY: Willis H. Wood, ASST. CHIEF ENGINEER

SCALE	DATE	DWG. NO. 364-4402-D42
AS SHOWN	AUG. '69	SHEET 2 OF 12



DRAWN BY	REVISIONS		
RWS IRM	MARK	DATE	DESCRIPTION
CHECKED BY	■	12-27-71	
T.M.M.			
DESIGNED BY			
J.F.G.T.			
SUBMITTED BY			
C.W.H.			

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: William J. Mahan
ASSISTANT CITY ENGINEER R.C.E. 11167

APPROVED BY: Willis Hamm 11-26-68
CITY ENGINEER R.C.E. 11237 DATE

1964 STORM DRAIN BOND ISSUE

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

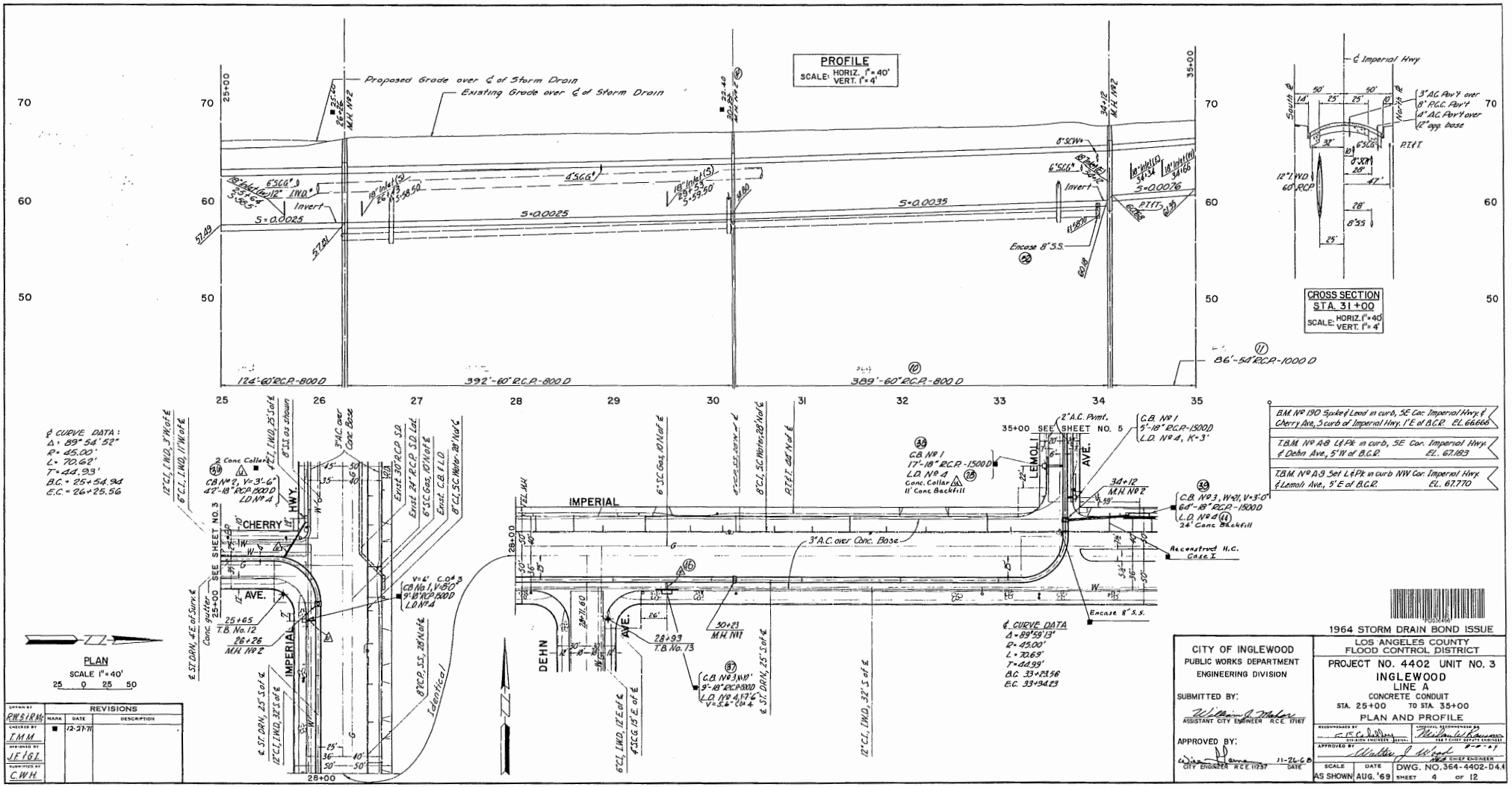
PROJECT NO. 4402 UNIT NO. 3

INGLEWOOD
LINE A
CONCRETE CONDUIT
STA. 11+00 TO STA. 25+00

PLAN AND PROFILE

RECOMMENDED BY: J. F. Caldwell, DIVISION ENGINEER, SEWERS
APPROVED BY: William J. Mahan, ASST. CHIEF ASSISTANT ENGINEER
APPROVED BY: Walter J. Wood, CHIEF ENGINEER

SCALE	DATE	DWG. NO. 364-4402-D43
AS SHOWN	AUG. '69	SHEET 3 OF 12



1964 STORM DRAIN BOND ISSUE

REVISIONS		
MARK	DATE	DESCRIPTION
■	12-27-71	

DRAWN BY RWS & R.M.
CHECKED BY T.M.M.
DESIGNED BY J.F.I.G.I.
SUBMITTED BY C.W.H.

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: William J. Maher
ASSISTANT CITY ENGINEER R.C.E. 17167

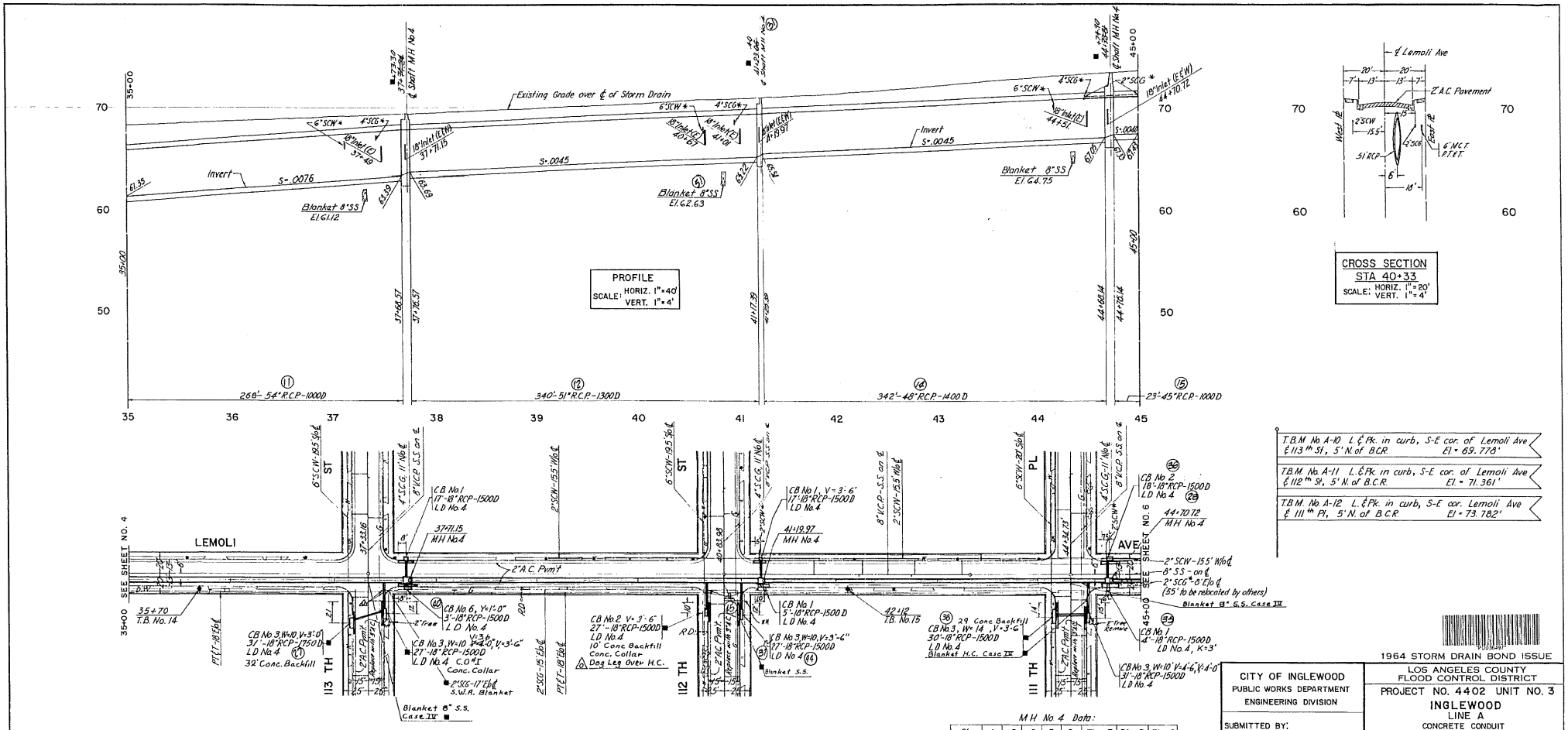
APPROVED BY: Vincent Bono 11-26-69
CITY ENGINEER R.C.E. 11237 DATE

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3
INGLEWOOD
LINE A
CONCRETE CONDUIT
STA. 25+00 TO STA. 35+00
PLAN AND PROFILE

RECOMMENDED BY: [illegible] DIVISION ENGINEER
APPROVED BY: [illegible] CHIEF ENGINEER
RECOMMENDED BY: William N. Rawson CHIEF DEPUTY ENGINEER
8-5-69

SCALE AS SHOWN | DATE AUG. '69 | DWG. NO. 364-4402-D4.4 | SHEET 4 OF 12



MH No. 4 Data:

Sta.	Δ	B	C	D_1	D_2	Elev. R_1	Elev. R_2	Elev. S
37+71.15	90°	18"	1.3'	51"	54"	67.12'	67.41'	64.95'
41+19.97	90°	18"	1.3'	48"	51"	66.81'	67.16'	66.64'
44+70.72	90°	18"	1.3'	45"	48"	68.58'	68.97'	68.35'

1964 STORM DRAIN BOND ISSUE

DRAWN BY	REVISIONS		
R.W.S. (P.W.)	MARK	DATE	DESCRIPTION
CHECKED BY T.M.M.	■	12-27-71	
DESIGNED BY J.F.&G.L.			
SUBMITTED BY C.W.H.			

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

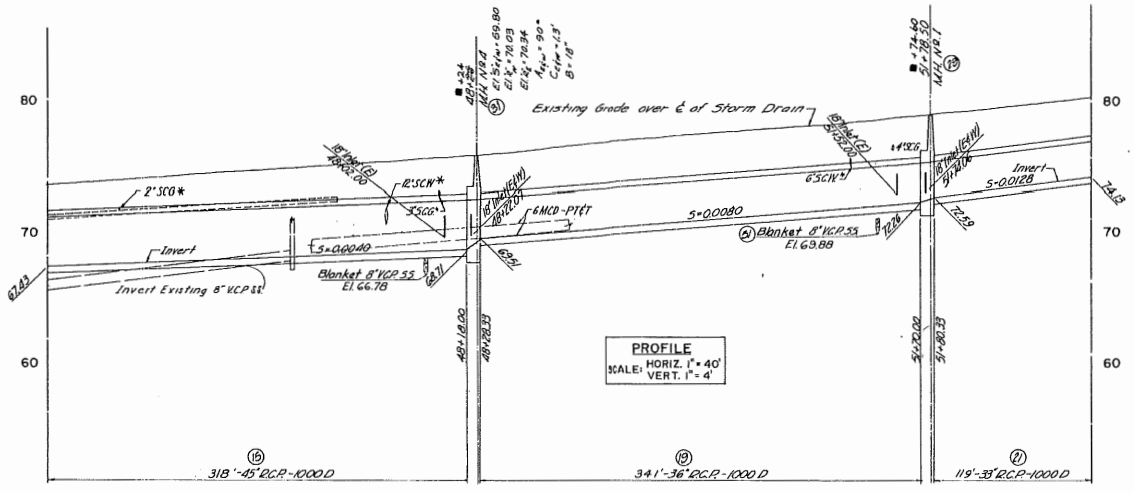
SUBMITTED BY: William J. Maher
ASSISTANT CITY ENGINEER R.C.E. 17167

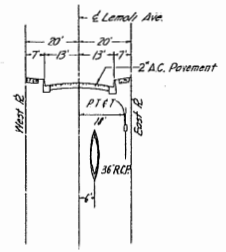
APPROVED BY: William J. Maher 11-26-68
CITY ENGINEER R.C.E. 11237 DATE

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT
PROJECT NO. 4402 UNIT NO. 3
INGLEWOOD
LINE A
CONCRETE CONDUIT
STA. 35+00 TO STA. 45+00
PLAN AND PROFILE

RECOMMENDED BY: G. F. Caldwell, DIVISION ENGINEER
APPROVED BY: William W. Krumme, ASST. CHIEF DEPUTY ENGINEER 8-2-67
APPROVED BY: Walter J. Wood, CHIEF ENGINEER

SCALE: AS SHOWN | DATE: AUG. '69 | DWG. NO. 364-4402-D43 | SHEET 5 OF 12

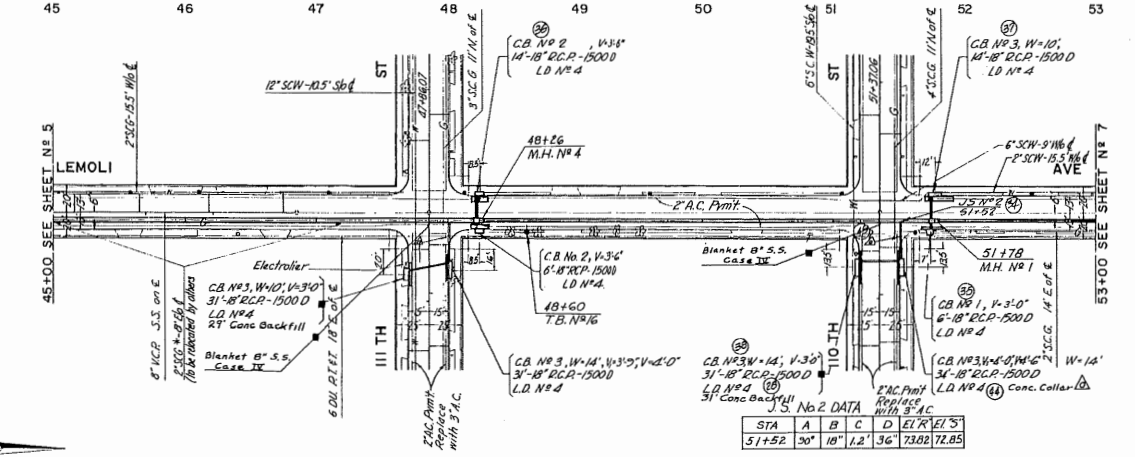




CROSS SECTION
STA. 50+50
SCALE: HORIZ. 1" = 20'
VERT. 1" = 4'

T.B.M. No A-13 Set L & P.K. in curb S.E. Cor. of Lemoli Ave. & 111th St. 10' N of B.C.R. EL. 76.199

T.B.M. No A-14 Set L & P.K. in curb S.E. Cor. of Lemoli Ave. & 110th St. 5' N of B.C.R. EL. 79.248



S. No 2 DATA

STA	A	B	C	D	El R	El S
51+52	30°	18"	1.2'	36"	73.82	72.85

1964 STORM DRAIN BOND ISSUE

DRAWN BY	REVISIONS		
RWS 12/16	MARK	DATE	DESCRIPTION
CHECKED BY	■	12-27-71	
T.M.M.			
DESIGNED BY			
J.E.I.G.I.			
SUBMITTED BY			
C.W.H.			

PLAN
SCALE 1" = 40'
25 0 25 50

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY:
William J. Modes
ASSISTANT CITY ENGINEER R.C.E. 17167

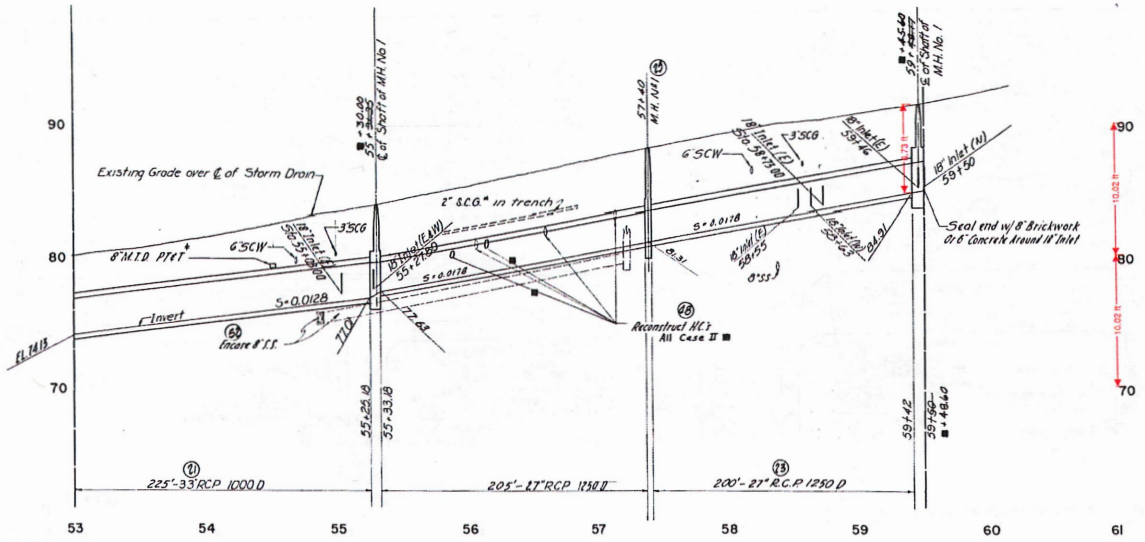
APPROVED BY:
Wier Hamm 11-21-69
CITY ENGINEER R.C.E. 11237 DATE

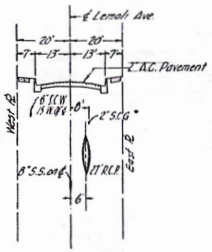
LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3
INGLEWOOD
LINE A
CONCRETE CONDUIT
STA. 45+00 TO STA. 53+00
PLAN AND PROFILE

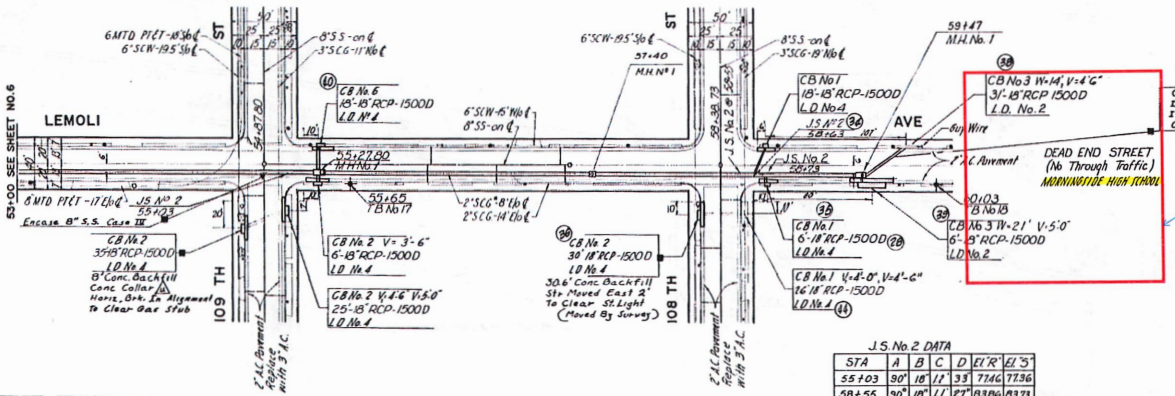
RECOMMENDED BY: C. H. Diettrich, DIVISION ENGINEER, MAINT.
APPROVED BY: Walter J. Woolf, CHIEF ENGINEER
APPROVED AS TO FORM: William W. Hannawalt, DEP'T CHIEF SERVICE ENGINEER
8-9-69

SCALE	DATE	DWG. NO. 364-4402-D46
AS SHOWN	AUG. '69	SHEET 6 OF 12





CROSS SECTION
STA 56+00
SCALE: HORIZ. 1"= 20'
VERT. 1"= 4'



NOTE
Contractor Dug Out The Fill In This Trench, & Refilled It With Con Rock, & Compacted It.

Project Site

J.S. No.2 DATA

STA	A	B	C	D	E1'R'	E1'S'
55+03	90°	18"	11"	35"	77.46	77.36
58+55	90°	18"	11"	27"	83.86	83.73
58+63	66°	18"	16"	27"	84.09	83.87
58+73	90°	18"	11"	27"	84.62	83.94

PLAN
SCALE: 1"= 40'
25 0 25 50

DRAWN BY	REVISIONS		
RMK & RWS	MARK	DATE	DESCRIPTION
CHECKED BY	■	12-27-71	
TMM			
DESIGNED BY			
J.F.G.I.			
SUBMITTED BY			
C.W.H.			

1964 STORM DRAIN BOND ISSUE

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY:
William J. Maher
ASSISTANT CITY ENGINEER R.C.E. 17167

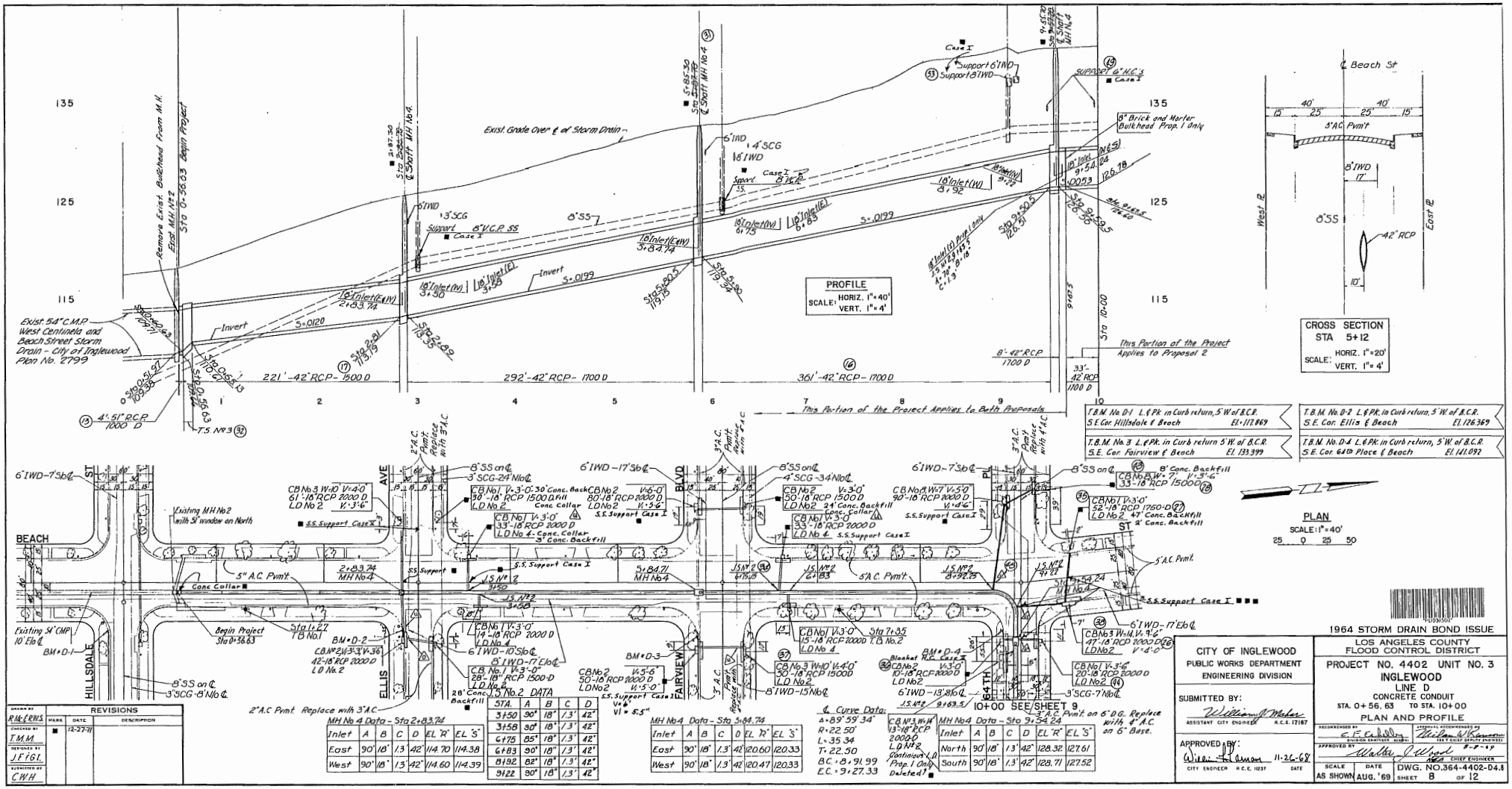
APPROVED BY:
William Hamm 11-26-68
CITY ENGINEER R.C.E. 11237 DATE

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3
INGLEWOOD
LINE A
CONCRETE CONDUIT
STA. 53+00 TO STA. 59+50
PLAN AND PROFILE

RECOMMENDED BY: C. V. E. Wilson, DIVISION ENGINEER
APPROVED RECOMMENDED BY: William M. Ransom, ASST. CHIEF ASSIST. ENGINEER 8-21-69
APPROVED BY: Walter J. Woods, CHIEF ENGINEER 8-21-69

SCALE: AS SHOWN | DATE: AUG. '69 | DWG. NO. 364-4402-D4.7 | SHEET 7 OF 12



REVISIONS			
MARK	DATE	DESCRIPTION
■	12-27-71	

DRAWN BY R.W.&R.W.S.
CHECKED BY T.M.M.
DESIGNED BY J.F.G.T.
SUBMITTED BY C.W.H.

STA.	A	B	C	D
3+50	90°	18"	1.3'	42"
3+58	90°	18"	1.3'	42"
4+75	85°	18"	1.3'	42"
6+83	90°	18"	1.3'	42"
8+92	82°	18"	1.3'	42"
9+22	90°	18"	1.3'	42"

MH No 4 Data - Sta 2+83.74						
Inlet	A	B	C	D	EL 'R'	EL 'S'
East	90°	18"	1.3'	42"	114.70	114.38
West	90°	18"	1.3'	42"	114.60	114.39

MH No 4 Data - Sta 5+84.74						
Inlet	A	B	C	D	EL 'R'	EL 'S'
East	90°	18"	1.3'	42"	120.60	120.33
West	90°	18"	1.3'	42"	120.47	120.33

MH No 4 Data - Sta 9+54.24						
Inlet	A	B	C	D	EL 'R'	EL 'S'
North	90°	18"	1.3'	42"	128.32	127.61
South	90°	18"	1.3'	42"	128.11	127.52

1964 STORM DRAIN BOND ISSUE

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: William J. Maher
ASSISTANT CITY ENGINEER R.C.E. 17187

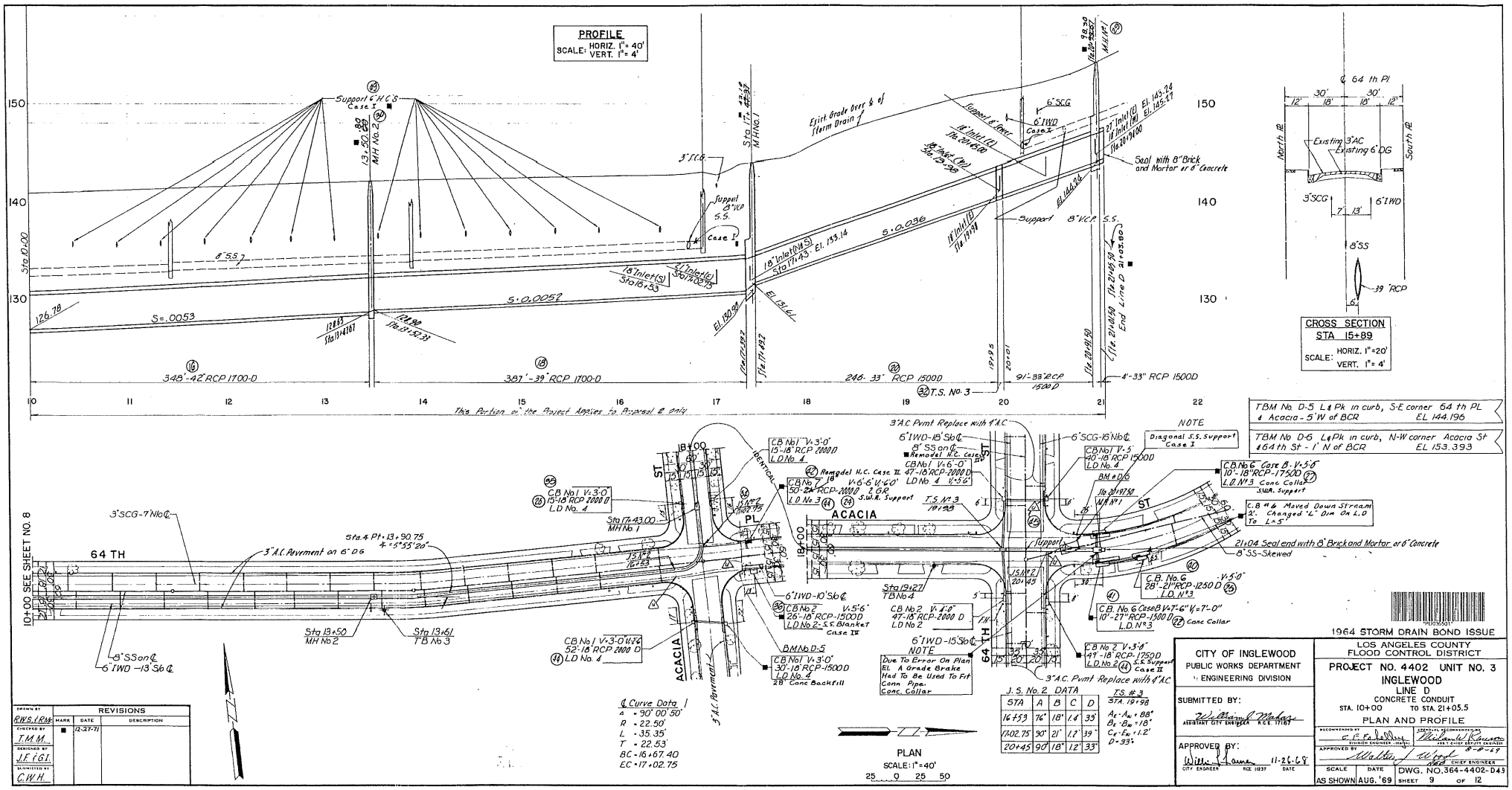
APPROVED BY: [signature] 11-26-68
CITY ENGINEER R.C.E. 11237 DATE

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3
INGLEWOOD
LINE D
CONCRETE CONDUIT
STA. 0+56.63 TO STA. 10+00
PLAN AND PROFILE

RECOMMENDED BY: C.F. Ealand, DIVISION ENGINEER HYDRAULIC
APPROVED BY: Walter J. Wood, CHIEF ENGINEER
APPROVED RECOMMENDED BY: William N. Warren, CHIEF DEPUTY ENGINEER
APPROVED BY: Walter J. Wood, CHIEF ENGINEER
8-5-69

SCALE AS SHOWN | DATE AUG. '69 | DWG. NO. 364-4402-D4.8 | SHEET 8 OF 12



DRAWN BY	REVISIONS		
R.W.S. & R.M.	MARK	DATE	DESCRIPTION
CHECKED BY	■	12-27-71	
T.M.M.			
DESIGNED BY			
J.F. & G.I.			
SUBMITTED BY			
C.W.H.			

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY:
William R. Mahan
ASSISTANT CITY ENGINEER R.C.E. 17167

APPROVED BY:
William Lamar 11-26-69
CITY ENGINEER R.C.E. 19237 DATE

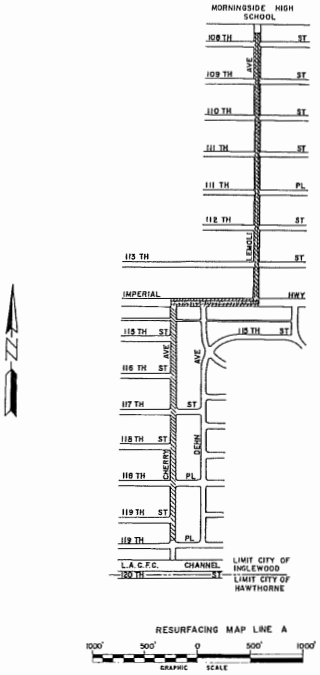
LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3
INGLEWOOD
LINE D
CONCRETE CONDUIT
STA. 10+00 TO STA. 21+05.5

PLAN AND PROFILE

RECOMMENDED BY: C.E. Faddis, DIVISION ENGINEER - HYDRAULICS
APPROVED AS RECOMMENDED BY: Milan W. Kruse, CHIEF DEPUTY ENGINEER
APPROVED BY: Walter J. Wyatt, CHIEF ENGINEER 8-5-69

SCALE	DATE	DWG. NO. 364-4402-D43
AS SHOWN	AUG. '69	SHEET 9 OF 12



RESURFACING MAP LINE A

1000' 500' 0 500' 1000'

GRAPHIC SCALE

EXISITING SURFACE

6" THICK CONC. GUTTER 6' WIDE AND 4" A.C. PAVEMENT

3" A.C. PAVEMENT ON 8" P.C.C. AND 4" A.C. ON 12" AGGREGATE BASE

2" A.C. PAVEMENT

CHERRY AVE.

IMPERIAL AVE.

LEMOLI AVE.

PROPOSED RESURFACING

1" TEMP. A.C. PAVEMENT

5" A.C. PAVEMENT ON 12" AGGREGATE BASE

1" TEMP. AC. PAVEMENT

Test Boring No.8
Sta 1+40
Elev: 60'
A B C
0
CL
SANDY SILT brown; damp
4
5
SM
SILTY FINE SAND brown, some gravel; damp
7 121 11
16
10.0'
10
13 122 19

Test Boring No.9
Sta 8+83
Elev: 61'
A B C
0
CL
CLAYEY SANDY SILT brown; dry
5 111 36
5
30
8.7'
SM
SILTY SAND brown; damp
13 116 14
10
16

Test Boring No.10
Sta 14+52
Elev: 63'
A B C
0
CL
CLAYEY FINE SANDY SILT brown; dry
16 94 10
5
13 117 25
8.4'
SM
SILTY SAND brown, medium to coarse grained; damp
4 118 14
10
10 123 18

Test Boring No.11
Sta 18+11
Elev: 65'
A B C
0
CL
CLAYEY SANDY SILT brown; dry
7 122 35
5
20
SM
SILTY SAND brown; damp
12 117 10
9.2'
10
23

Test Boring No.12
Sta 25+65
Elev: 68'
A B C
0
CL
CLAYEY SANDY SILT brown; dry
9
5
4 106 12
SM
SILTY SAND brown and red, medium to coarse grained, some gravel.
34
10.3'
10
6 112 32

Test Boring No.13
Sta 28+93
Elev: 68'
A B C
0
SC
CLAYEY SANDY SILT brown, some roots; damp
6 103 9
5
17
SM
SILTY FINE SAND red-brown; damp
7 114 16
9.6'
10
17

Test Boring No.14
Sta 35+70
Elev: 70'
A B C
0
SC
CLAYEY SANDY SILT brown, some roots; dry
24 102 22
5
17
SM
SILTY FINE SAND brown, some gravel; damp
13 121 16
8.2'
10
17

Test Boring No.15
Sta 42+12
Elev: 73'
A B C
0
SC
CLAYEY FINE SILTY SAND brown; damp; fill
9 116 11
5
12 119 7
SM
SILTY FINE SAND brown, some gravel; damp
7.1'
12 121 18
10

Test Boring No.16
Sta 48+60
Elev: 78'
A B C
0
SC
CLAYEY SANDY SILT brown; dry
4 116 19
5
29
SM
SILTY FINE SAND red brown; damp
8.0'
10
14 120 31

Test Boring No.17
Sta 55+65
Elev: 85'
A B C
0
SC
CLAYEY SANDY SILT dark brown; damp; fill
17 112 8
5
19
7.0'
SM
SILTY FINE SAND brown; damp
13 121 18
10
10

Test Boring No.18
Sta 60+03
Elev: 93'
A B C
0
SC
CLAYEY FINE SANDY SILT brown; damp
12
5
11 115 22
8.4'
SM
SILTY FINE SAND red brown; damp
11 122 33
10
32
15

LEGEND AND NOTES:

VERTICAL SCALE: 1" = 4'

A MOISTURE CONTENT IN PERCENTAGE

B DRY DENSITY IN LBS PER CUBIC FOOT

C STANDARD PENETRATION; NO. OF BLOWS PER FOOT

■ DEPTH AT WHICH UNDISTURBED SAMPLE WAS TAKEN

BORINGS WERE TAKEN ON AUG 27 AND AUG. 30, 1965.

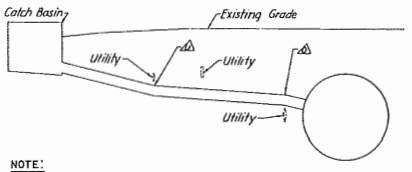
NO GROUND WATER OR CAVING WAS ENCOUNTERED IN ANY BORINGS.

INVERT OF STORM DRAIN SHOWN ON THIS SHEET SUPERSEDES THAT SHOWN IN THE SOIL REPORT AND IS DENOTED BY ARROW SYMBOL (⟶).

SOIL CLASSIFICATIONS WERE MADE IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM SHOWN ON STANDARD DRAWING NO. 2-D413.

TYPICAL CONNECTOR PIPE PROFILE

NO SCALE



NOTE:

1. The change in grade of the connector pipe may occur either over or under an existing utility. The particular utility at which the change occurs is noted on the project drawings. At locations where utility crossings are ⚠ the connector pipe grade will break over the utility. At locations where utility crossings are marked ⚠ the connector pipe grade will break under the utility.
2. On those connector pipes where change in grade is not indicated, it is assumed that the connector pipe can be laid on a straight grade from the catch basin to the storm drain without interference with utilities.
3. Where connector pipe has a change of grade exceeding .10 per ft, or differs in diameter from that of the existing pipe, use concrete collar per standard dwg. 2-D393.
4. The contractor shall make exploratory excavations to determine the exact location and depth of utilities* which are marked 2⚠ or 3⚠. After the exact location of a utility has been determined, the grade and alignment of the connector pipe will be staked so as to clear the utility.

*Exploratory excavations not required for Sanitary Sewers

REVISIONS			
MARK	DATE	DESCRIPTION	

DRAWN BY R.W.S. & P.M.
CHECKED BY T.M.M.
DESIGNED BY J.F.F.G.I.
SUBMITTED BY C.W.H.

1964 STORM DRAIN BOND ISSUE

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY:
William J. Maher
ASSISTANT CITY ENGINEER RCE 17167

APPROVED BY:
William J. Lamson 11-26-68
CITY ENGINEER R.C.E. 11237 DATE

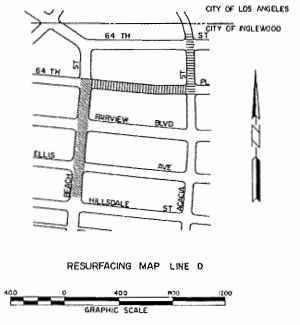
LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3
INGLEWOOD
LINE A

LOG OF BORINGS, RESURFACING PLAN AND MISCELLANEOUS DETAILS

RECOMMENDED BY: C. F. Caldwell, DIVISION ENGINEER
APPROVED RECOMMENDED BY: William N. Ramsey, DEP'T CHIEF DEPUTY ENGINEER
APPROVED BY: Walter J. Wheat, CHIEF ENGINEER 8-5-69

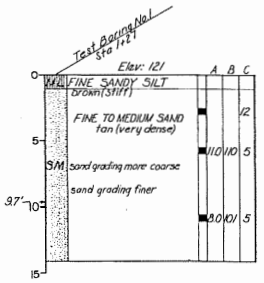
SCALE	DATE	DWG. NO. 364-4402-D4.10
AS SHOWN	AUG. '69	SHEET 10 OF 12

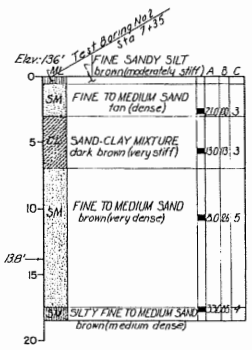


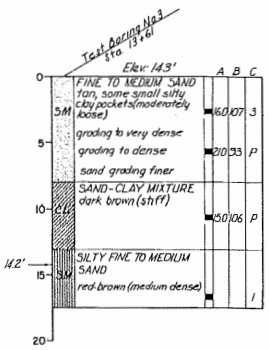
RESURFACING MAP LINE D

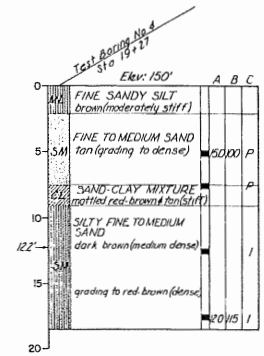
GRAPHIC SCALE 400 0 400 800 1200

EXISTING SURFACE		PROPOSED RESURFACING
5" A.C. PAVEMENT		1" TEMP. A.C. PAVEMENT
3" A.C. SURFACE ON 6" D.G.		4" A.C. SURFACE ON 6" ROCK BASE









LEGEND AND NOTES:

SCALE: (VERTICAL) 1" = 4'

A MOISTURE CONTENT IN PERCENTAGE

B DRY DENSITY IN LBS PER CUBIC FOOT

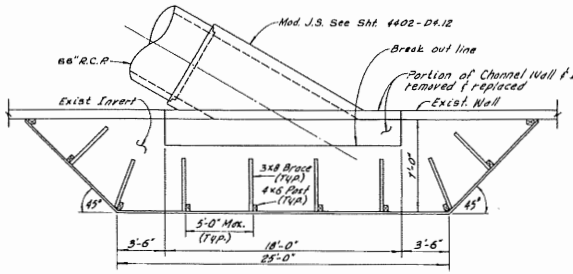
C STANDARD PENETRATION; NO. OF BLOWS PER FOOT DEPTH AT WHICH UNDISTURBED SAMPLE WAS TAKEN

BORINGS WERE TAKEN 10-14-65

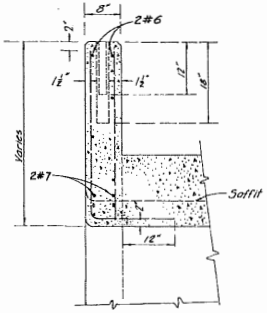
NO GROUND WATER OR CAVING WAS ENCOUNTERED IN ANY BORING

INVERT OF STORM DRAIN SHOWN ON THIS SHEET SUPERSEDES THAT SHOWN IN THE SOIL REPORT AND IS DENOTED BY ARROW SYMBOL (——).

SOIL CLASSIFICATIONS WERE MADE IN ACCORDANCE WITH THE UNIFIED SOIL CLASSIFICATION SYSTEM SHOWN ON STANDARD DRAWING NO. 2-D413.

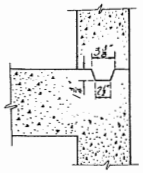


PLAN DETAIL
1/4" = 1'-0"



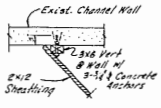
SECTION D-D SHEET 12

SCALE: 1" = 1'-0"

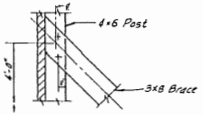


CHANNEL WALL KEYWAY DETAIL

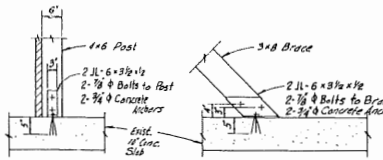
NO SCALE



PLAN DETAIL AT WALL
1½" = 1'-0"

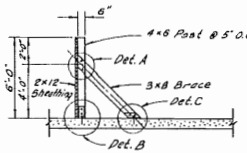


DETAIL "A"
3/4" = 1'-0"



DETAIL "B"
3/4" = 1'-0"

DETAIL "C"
3/4" = 1'-0"



BRACE DETAIL
1/4" = 1'-0"

BULKHEAD DETAIL

Scale: As Noted

Notes:
1. All timber to be structural grade Douglas Fir.
2. Nail planking with 3-20d nails to post. Predrill nailholes at end of sheeting.

REVISIONS			
MARK	DATE	DESCRIPTION	

DRAWN BY R.W.S.R.K.
CHECKED BY T.M.M.
DESIGNED BY J.F.E.G.I.
SUBMITTED BY C.W.H.

1964 STORM DRAIN BOND ISSUE

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: William J. Maher
ASSISTANT CITY ENGINEER R.C.E. 17167

APPROVED BY: William J. Hansen 11-26-68
CITY ENGINEER R.C.E. 11237 DATE

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3

INGLEWOOD

LINE D

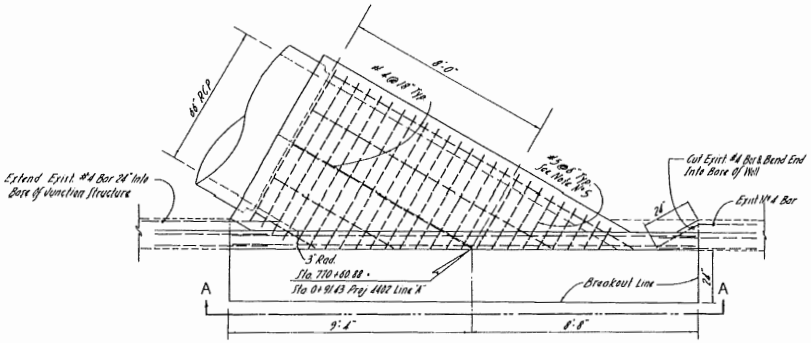
LOG OF BORINGS, RESURFACING PLAN AND MISCELLANEOUS DETAILS

RECOMMENDED BY: C.15 Collins DIVISION ENGINEER (ACTING)

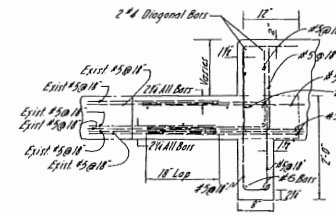
APPROVED BY: Walter J. Woe CHIEF ENGINEER

RECOMMENDED BY: William J. Hansen ASST. CHIEF DEPUTY ENGINEER

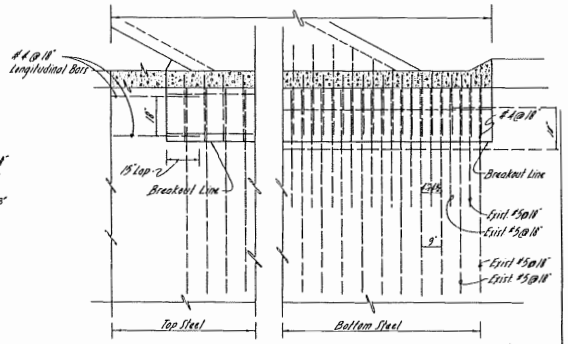
SCALE AS SHOWN | DATE AUG. '69 | DWG. NO. 364-4402-D4.11 | SHEET 11 OF 12



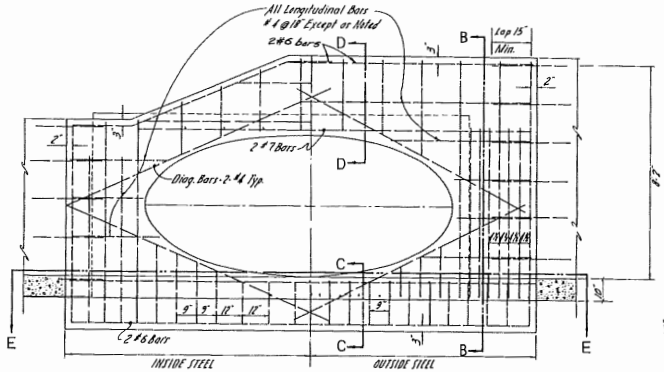
PLAN
SCALE: 1/2" = 1'-0"



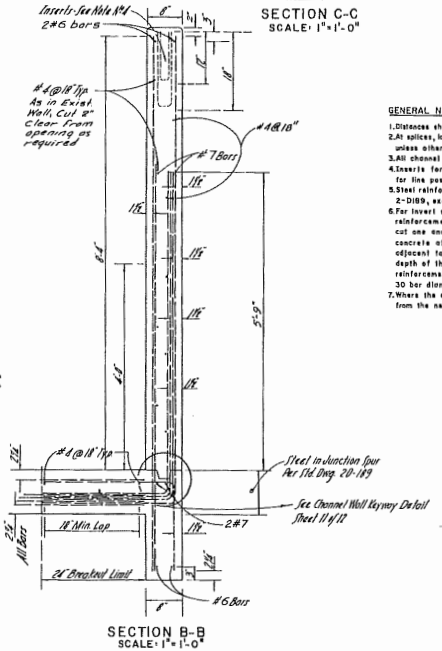
SECTION C-C
SCALE: 1"=1'-0"



SECTION E-E
SCALE: 1/2" = 1'-0"



SECTION A-A
SCALE: 1/2" = 1'-0"



SECTION B-B
SCALE: 1"=1'-0"

GENERAL NOTES:

1. Distances shown from face of concrete to steel are to center of bar.
2. At splices, lap all bars a minimum distance of 30 bar diameters, unless otherwise noted.
3. All channel cross-sections are shown looking upstream.
4. Inserts for Chain-Link-Fence use light weight inserts, $2\frac{1}{2}$" x 12" for line posts and 3" x 18" for anchor posts.
5. Steel reinforcement in junction structure spur per Std. Dwg. 2-D189, except as modified hereon.
6. For invert slab, slope slab, wall or wall footing removal, where reinforcement is to be retained through the joint, make a saw cut one and one-half inches deep on the exposed faces of the concrete at the removal limits. Cut a groove in the concrete adjacent to the saw cut, on the side to be removed to the depth of the saw cut, with a chipping hammer. Existing reinforcement shall be restored and retained or cut and lapped 30 bar diameters with new reinforcement.
7. Where the entire height of an existing wall is to be separated from the new structure, and the reinforcement is to be cut at the point of separation, the contractor shall saw through the wall with an approved concrete saw. Any saw cuts or irregularities in the surface of the remaining wall or joint shall be filled with an epoxy grout mixture to obtain a smooth plane surface. The ends of the exposed reinforcement shall be painted with an epoxy coating to inhibit the formation of rust. Epoxy shall be a commercial quality, two component mixture specially manufactured for the intended purpose, and be applied in accordance with the manufacture's directions. One-half inch thick premolded expansion joint material shall be used to separate the faces of the existing and new wall.
8. Care shall be exercised in sawing at the removal limits so as not to cut the reinforcement in the remaining wall. After making saw cuts the concrete shall be removed with hand-operated equipment. Use of explosives, wrecking ball, stampers or other equipment, which would cause damage to the existing facility remaining in place, will not be permitted within the channel right of way. The engineer shall be the sole judge of the usage of any equipment for the concrete removal operation.

1964 STORM DRAIN BOND ISSUE

DRAWN BY	REVISIONS		
RWS/RMS	MARK	DATE	DESCRIPTION
CHECKED BY			
T.M.M.			
DESIGNED BY			
J.E.G.			
SUBMITTED BY			
C.W.H.			

CITY OF INGLEWOOD
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

SUBMITTED BY: William J. Maher
ASSISTANT CITY ENGINEER R.C.E. 17187

APPROVED BY: [signature] 4-15-69
CITY ENGINEER R.C.E. 11237 DATE

LOS ANGELES COUNTY
FLOOD CONTROL DISTRICT

PROJECT NO. 4402 UNIT NO. 3

INGLEWOOD
LINE A

MODIFIED JUNCTION STRUCTURE
NO. 1

RECOMMENDED BY: [signature] DIVISION ENGINEER - HYDRAULIC
RECOMMENDED BY: [signature] HEAD CHIEF DEPUTY ENGINEER
APPROVED BY: [signature] CHIEF ENGINEER 2-2-69

SCALE	DATE	DWG. NO. 364-4402-D4.12
AS SHOWN	AUG. '69	SHEET 12 OF 12

119 W. Hyde Park Blvd | Inglewood, CA| 424.351.6800

D & D ENGINEERING, INC.

APPENDIX B
CIVIL ENGINEER'S CALCULATIONS

Peak Flow Hydrologic Analysis

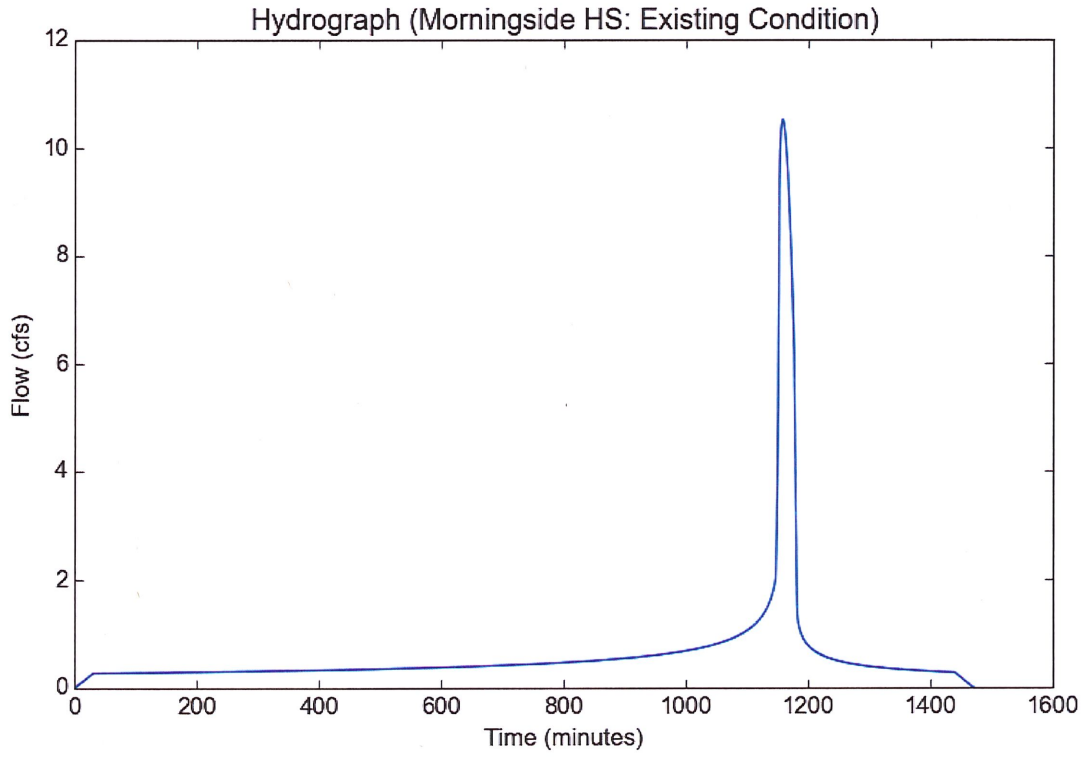
File location: C:/Users/User/Desktop/Morningside HS - Existing Condition 10 YR.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Morningside HS
Subarea ID	Existing Condition
Area (ac)	24.0
Flow Path Length (ft)	1800.0
Flow Path Slope (vft/hft)	0.0166
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.05
Soil Type	13
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7128
Peak Intensity (in/hr)	0.9543
Undeveloped Runoff Coefficient (Cu)	0.4361
Developed Runoff Coefficient (Cd)	0.4593
Time of Concentration (min)	30.0
Clear Peak Flow Rate (cfs)	10.5197
Burned Peak Flow Rate (cfs)	10.5197
24-Hr Clear Runoff Volume (ac-ft)	1.2671
24-Hr Clear Runoff Volume (cu-ft)	55194.3793



Peak Flow Hydrologic Analysis

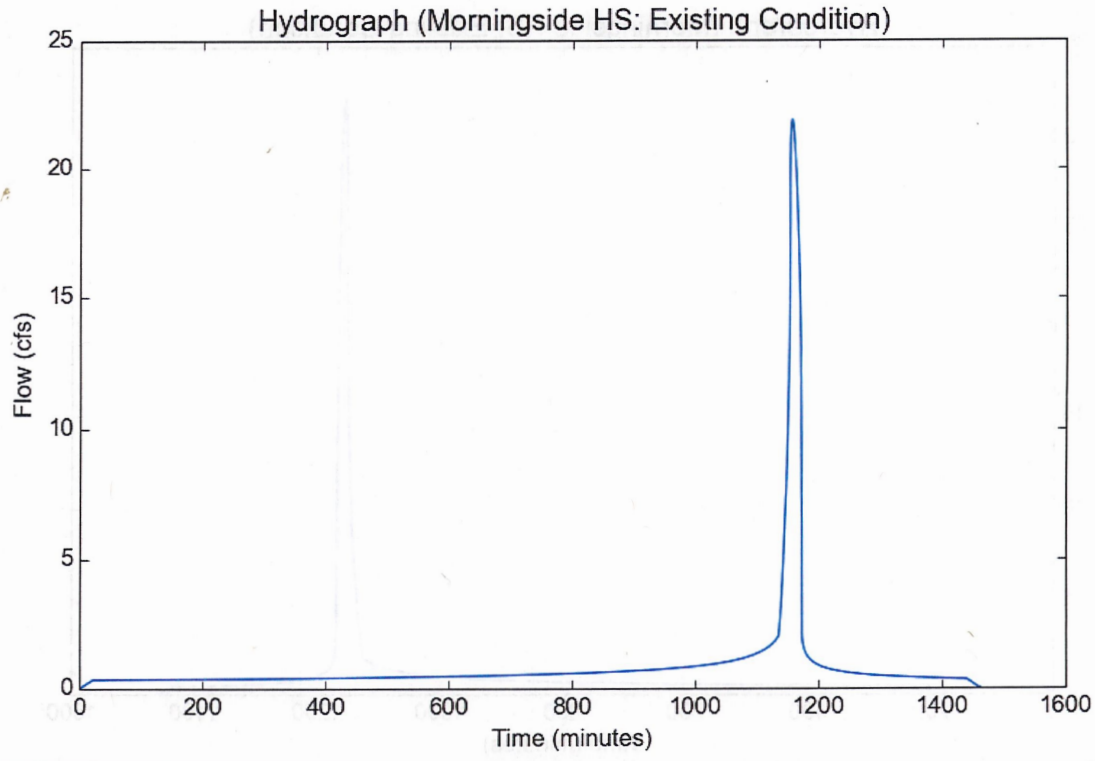
File location: C:/Users/User/Desktop/Morningside HS - Existing Condition 25 YR.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Morningside HS
Subarea ID	Existing Condition
Area (ac)	24.0
Flow Path Length (ft)	1800.0
Flow Path Slope (vft/hft)	0.0166
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.05
Soil Type	13
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5656
Peak Intensity (in/hr)	1.3876
Undeveloped Runoff Coefficient (Cu)	0.6451
Developed Runoff Coefficient (Cd)	0.6579
Time of Concentration (min)	21.0
Clear Peak Flow Rate (cfs)	21.9088
Burned Peak Flow Rate (cfs)	21.9088
24-Hr Clear Runoff Volume (ac-ft)	1.7474
24-Hr Clear Runoff Volume (cu-ft)	76117.5566



Peak Flow Hydrologic Analysis

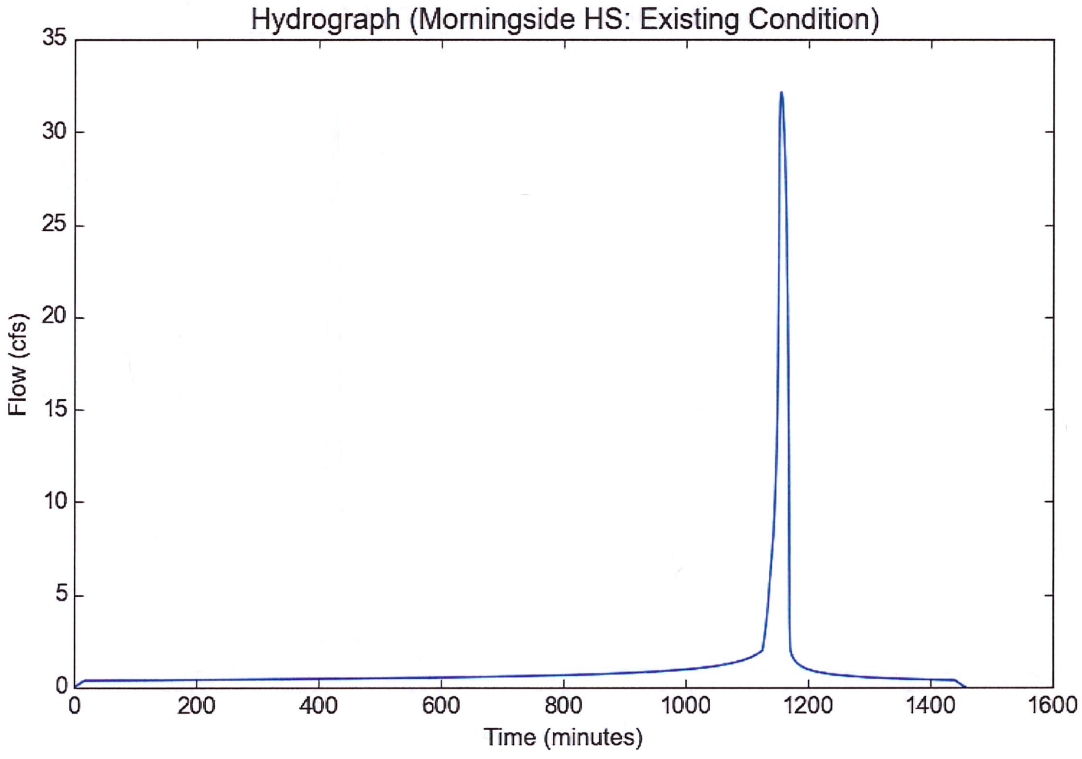
File location: C:/Users/User/Desktop/Morningside HS - Existing Condition - 50 YR.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Morningside HS
Subarea ID	Existing Condition
Area (ac)	24.0
Flow Path Length (ft)	1800.0
Flow Path Slope (vft/hft)	0.0166
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.05
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.2
Peak Intensity (in/hr)	1.7455
Undeveloped Runoff Coefficient (Cu)	0.7605
Developed Runoff Coefficient (Cd)	0.7675
Time of Concentration (min)	17.0
Clear Peak Flow Rate (cfs)	32.1494
Burned Peak Flow Rate (cfs)	32.1494
24-Hr Clear Runoff Volume (ac-ft)	2.1275
24-Hr Clear Runoff Volume (cu-ft)	92672.5916



Peak Flow Hydrologic Analysis

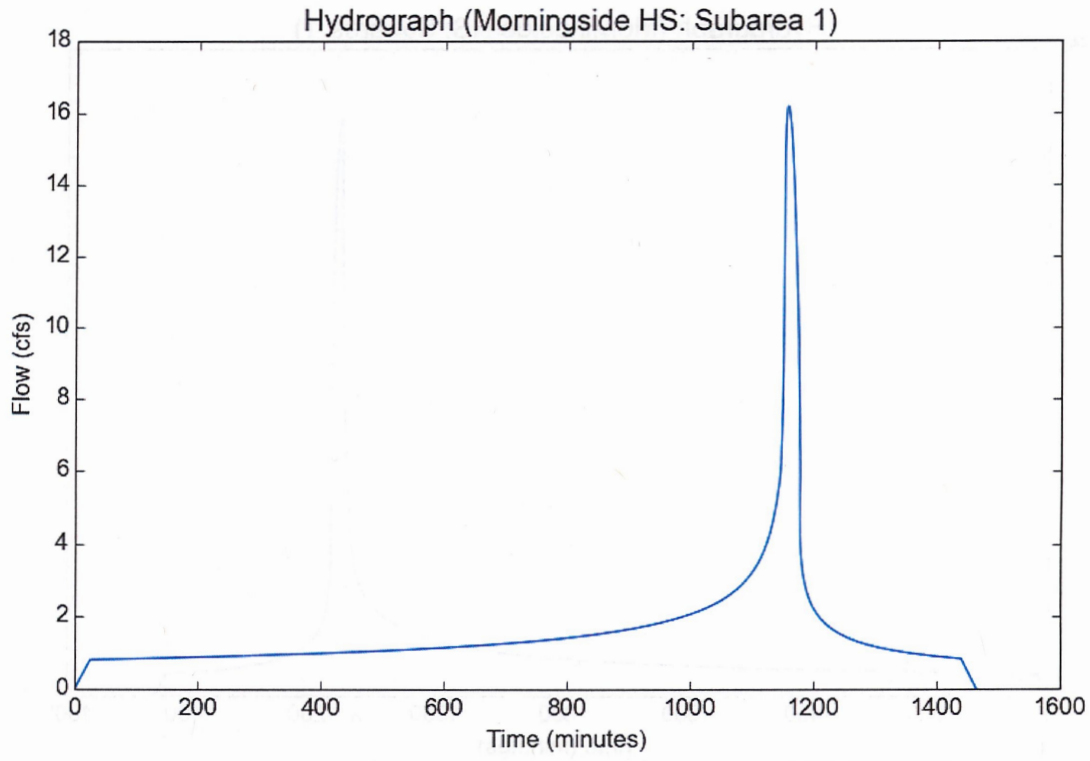
File location: C:/Users/User/Desktop/Morningside HS - Subarea 1 -10 yr.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Morningside HS
Subarea ID	Subarea 1
Area (ac)	24.0
Flow Path Length (ft)	1800.0
Flow Path Slope (vft/hft)	0.0166
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.4
Soil Type	13
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.7128
Peak Intensity (in/hr)	1.0397
Undeveloped Runoff Coefficient (Cu)	0.4813
Developed Runoff Coefficient (Cd)	0.6488
Time of Concentration (min)	25.0
Clear Peak Flow Rate (cfs)	16.1888
Burned Peak Flow Rate (cfs)	16.1888
24-Hr Clear Runoff Volume (ac-ft)	3.2559
24-Hr Clear Runoff Volume (cu-ft)	141824.9518



Peak Flow Hydrologic Analysis

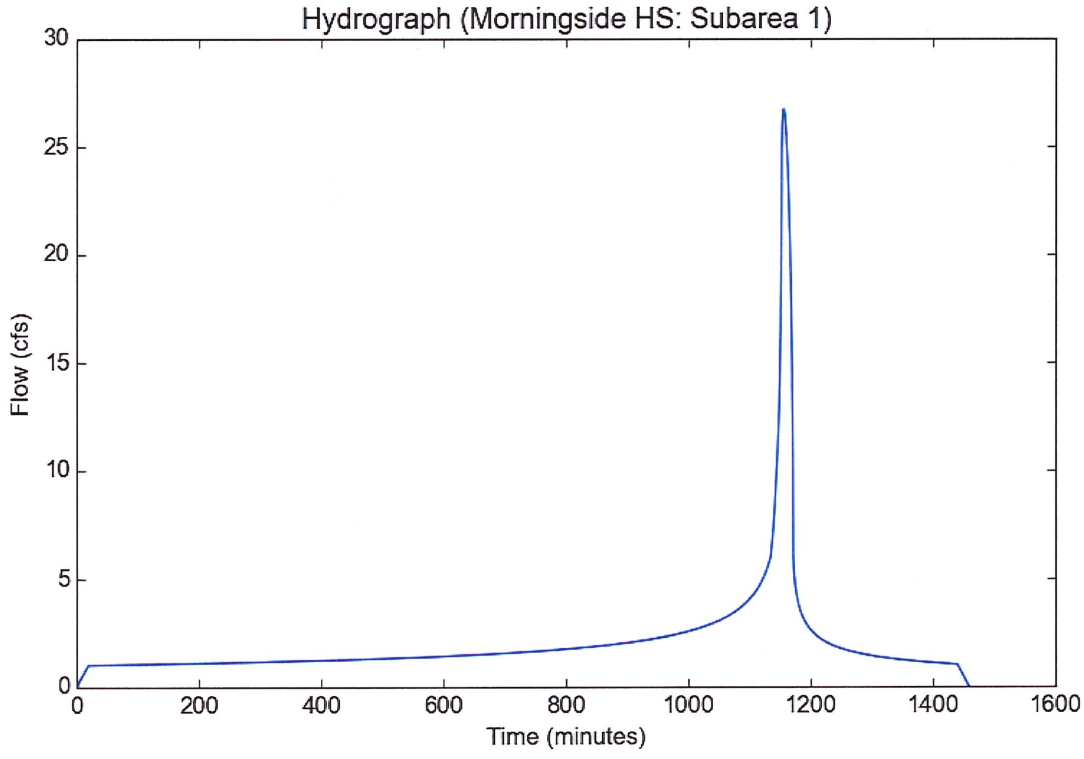
File location: C:/Users/User/Desktop/Morningside HS - Subarea 1 -25 yr.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Morningside HS
Subarea ID	Subarea 1
Area (ac)	24.0
Flow Path Length (ft)	1800.0
Flow Path Slope (vft/hft)	0.0166
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.4
Soil Type	13
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.5656
Peak Intensity (in/hr)	1.4545
Undeveloped Runoff Coefficient (Cu)	0.6766
Developed Runoff Coefficient (Cd)	0.7659
Time of Concentration (min)	19.0
Clear Peak Flow Rate (cfs)	26.7368
Burned Peak Flow Rate (cfs)	26.7368
24-Hr Clear Runoff Volume (ac-ft)	4.1136
24-Hr Clear Runoff Volume (cu-ft)	179189.6996



Peak Flow Hydrologic Analysis

File location: C:/Users/User/Desktop/Morningside HS - Subarea 1 -50 yr.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Morningside HS
Subarea ID	Subarea 1
Area (ac)	24.0
Flow Path Length (ft)	1800.0
Flow Path Slope (vft/hft)	0.0166
50-yr Rainfall Depth (in)	5.2
Percent Impervious	0.4
Soil Type	13
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.2
Peak Intensity (in/hr)	1.7455
Undeveloped Runoff Coefficient (Cu)	0.7605
Developed Runoff Coefficient (Cd)	0.8163
Time of Concentration (min)	17.0
Clear Peak Flow Rate (cfs)	34.1951
Burned Peak Flow Rate (cfs)	34.1951
24-Hr Clear Runoff Volume (ac-ft)	4.7636
24-Hr Clear Runoff Volume (cu-ft)	207502.3919

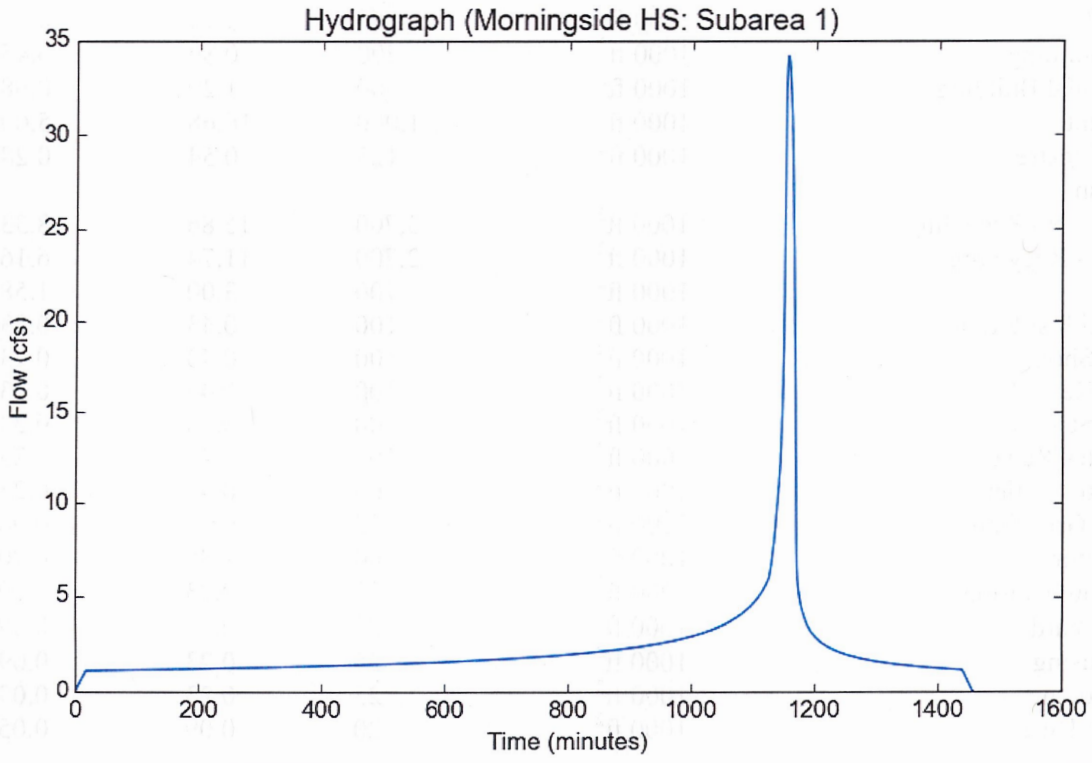


TABLE 1

LOADINGS FOR EACH CLASS OF LAND USE

DESCRIPTION	UNIT OF MEASURE	FLOW (Gallons Per Day)	COD (Pounds Per Day)	SUSPENDED SOLIDS (Pounds Per Day)
RESIDENTIAL				
Single Family Home	Parcel	260	1.22	0.59
Duplex	Parcel	312	1.46	0.70
Triplex	Parcel	468	2.19	1.05
Fourplex	Parcel	624	2.92	1.40
Condominiums	Parcel	195	0.92	0.44
Single Family Home (reduced rate)	Parcel	156	0.73	0.35
Five Units or More	No. of Dwlg. Units	156	0.73	0.35
Mobile Home Parks	No. of Spaces	156	0.73	0.35
COMMERCIAL				
Hotel/Motel/Rooming House	Room	125	0.54	0.28
Store	1000 ft^2	100	0.43	0.23
Supermarket	1000 ft^2	150	2.00	1.00
Shopping Center	1000 ft^2	325	3.00	1.17
Regional Mall	1000 ft^2	150	2.10	0.77
Office Building	1000 ft^2	200	0.86	0.45
Professional Building	1000 ft^2	300	1.29	0.68
Restaurant	1000 ft^2	1,000	16.68	5.00
Indoor Theatre	1000 ft^2	125	0.54	0.28
Car Wash				
Tunnel - No Recycling	1000 ft^2	3,700	15.86	8.33
Tunnel - Recycling	1000 ft^2	2,700	11.74	6.16
Wand	1000 ft^2	700	3.00	1.58
Financial Institution	1000 ft^2	100	0.43	0.23
Service Shop	1000 ft^2	100	0.43	0.23
Animal Kennels	1000 ft^2	100	0.43	0.23
Service Station	1000 ft^2	100	0.43	0.23
Auto Sales/Repair	1000 ft^2	100	0.43	0.23
Wholesale Outlet	1000 ft^2	100	0.43	0.23
Nursery/Greenhouse	1000 ft^2	25	0.11	0.06
Manufacturing	1000 ft^2	200	1.86	0.70
Dry Manufacturing	1000 ft^2	25	0.23	0.09
Lumber Yard	1000 ft^2	25	0.23	0.09
Warehousing	1000 ft^2	25	0.23	0.09
Open Storage	1000 ft^2	25	0.23	0.09
Drive-in Theatre	1000 ft^2	20	0.09	0.05

TABLE 1
(continued)
LOADINGS FOR EACH CLASS OF LAND USE

DESCRIPTION	UNIT OF MEASURE	FLOW (Gallons Per Day)	COD (Pounds Per Day)	SUSPENDED SOLIDS (Pounds Per Day)
COMMERCIAL				
Night Club	1000 ft^2	350	1.50	0.79
Bowling/Skating	1000 ft^2	150	1.76	0.55
Club	1000 ft^2	125	0.54	0.27
Auditorium, Amusement	1000 ft^2	350	1.50	0.79
Golf Course, Camp, and Park (Structures and Improvements	1000 ft^2	100	0.43	0.23
Recreational Vehicle Park	No. of Spaces	55	0.34	0.14
Convalescent Home	Bed	125	0.54	0.28
Laundry	1000 ft^2	3,825	16.40	8.61
Mortuary/Cemetery	1000 ft^2	100	1.33	0.67
Health Spa, Gymnasium				
With Showers	1000 ft^2	600	2.58	1.35
Without Showers	1000 ft^2	300	1.29	0.68
Convention Center, Fairground, Racetrack, Sports Stadium/Arena	Average Daily Attendance	10	0.04	0.02
INSTITUTIONAL				
College/University	Student	20	0.09	0.05
Private School	1000 ft^2	200	0.86	0.45
Church	1000 ft^2	50	0.21	0.11

Peak Flow Hydrologic Analysis

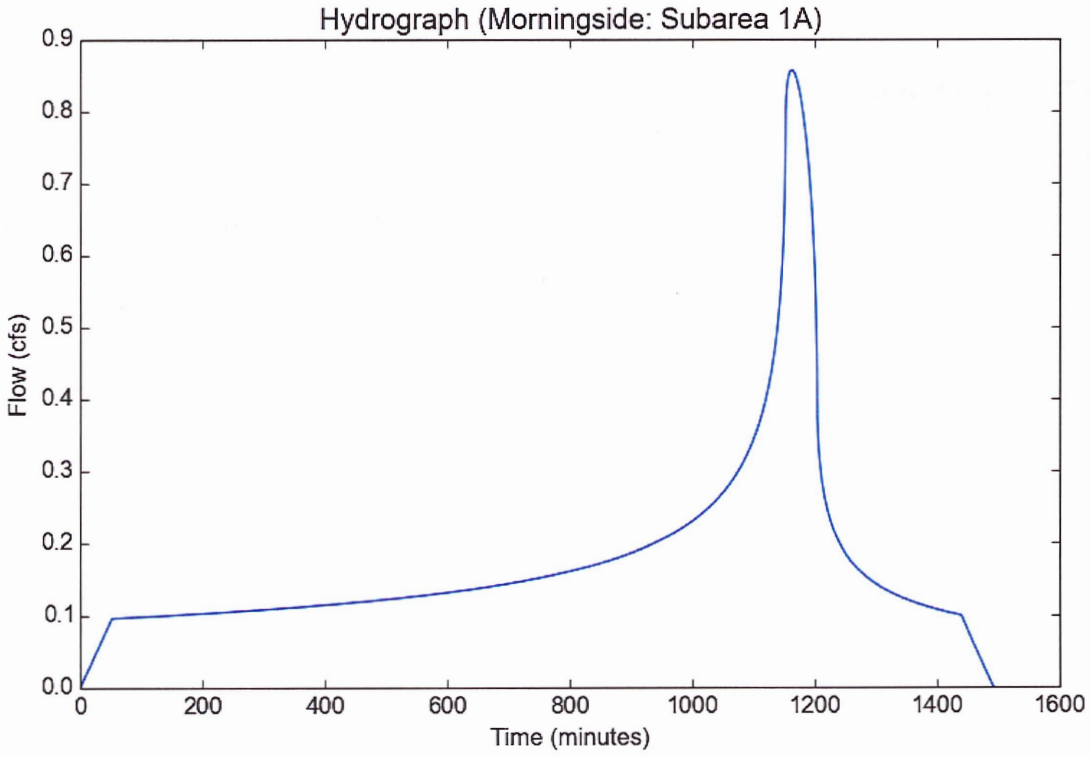
File location: M:/22009/Eng/22009/Reports/Due Diligence/Morningside - Subarea 1A.pdf
Version: HydroCalc 1.0.3

Input Parameters

Project Name	Morningside
Subarea ID	Subarea 1A LID
Area (ac)	8.0
Flow Path Length (ft)	1000.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	1.0
Percent Impervious	0.55
Soil Type	13
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	1.0
Peak Intensity (in/hr)	0.1985
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.54
Time of Concentration (min)	52.0
Clear Peak Flow Rate (cfs)	0.8574
Burned Peak Flow Rate (cfs)	0.8574
24-Hr Clear Runoff Volume (ac-ft)	0.357
24-Hr Clear Runoff Volume (cu-ft)	15552.5443



Proportion Impervious Data

Code	Land Use Description	% Impervious
1111	High-Density Single Family Residential	42
1112	Low-Density Single Family Residential	21
1121	Mixed Multi-Family Residential	74
1122	Duplexes, Triplexes and 2-or 3-Unit Condominiums and Townhouses	55
1123	Low-Rise Apartments, Condominiums, and Townhouses	86
1124	Medium-Rise Apartments and Condominiums	86
1125	High-Rise Apartments and Condominiums	90
1131	Trailer Parks and Mobile Home Courts, High-Density	91
1132	Mobile Home Courts and Subdivisions, Low-Density	42
1140	Mixed Residential	59
1151	Rural Residential, High-Density	15
1152	Rural Residential, Low-Density	10
1211	Low- and Medium-Rise Major Office Use	91
1212	High-Rise Major Office Use	91
1213	Skyscrapers	91
1221	Regional Shopping Center	95
1222	Retail Centers (Non-Strip With Contiguous Interconnected Off-Street	96
1223	Modern Strip Development	96
1224	Older Strip Development	97
1231	Commercial Storage	90
1232	Commercial Recreation	90
1233	Hotels and Motels	96
1234	Attended Pay Public Parking Facilities	91
1241	Government Offices	91
1242	Police and Sheriff Stations	91
1243	Fire Stations	91
1244	Major Medical Health Care Facilities	74
1245	Religious Facilities	82
1246	Other Public Facilities	91
1247	Non-Attended Public Parking Facilities	91
1251	Correctional Facilities	91
1252	Special Care Facilities	74
1253	Other Special Use Facilities	86
1261	Pre-Schools/Day Care Centers	68
1262	Elementary Schools	82
1263	Junior or Intermediate High Schools	82
1264	Senior High Schools	82
1265	Colleges and Universities	47
1266	Trade Schools and Professional Training Facilities	91
1271	Base (Built-up Area)	65
1271.01	Base High-Density Single Family Residential	42
1271.02	Base Duplexes, Triplexes and 2-or 3-Unit Condominiums and T	55

Code	Land Use Description	% Impervious
1271.03	Base Government Offices	91
1271.04	Base Fire Stations	91
1271.05	Base Non-Attended Public Parking Facilities	91
1271.06	Base Air Field	45
1271.07	Base Petroleum Refining and Processing	91
1271.08	Base Mineral Extraction - Oil and Gas	10
1271.09	Base Harbor Facilities	91
1271.10	Base Navigation Aids	47
1271.11	Base Developed Local Parks and Recreation	10
1271.12	Base Vacant Undifferentiated	1
1272	Vacant Area	2
1273	Air Field	45
1274	Former Base (Built-up Area)	65
1275	Former Base Vacant Area	2
1276	Former Base Air Field	91
1311	Manufacturing, Assembly, and Industrial Services	91
1312	Motion Picture and Television Studio Lots	82
1313	Packing Houses and Grain Elevators	96
1314	Research and Development	91
1321	Manufacturing	91
1322	Petroleum Refining and Processing	91
1323	Open Storage	66
1324	Major Metal Processing	91
1325	Chemical Processing	91
1331	Mineral Extraction - Other Than Oil and Gas	10
1332	Mineral Extraction - Oil and Gas	10
1340	Wholesaling and Warehousing	91
1411	Airports	91
1411.01	Airstrip	10
1412	Railroads	15
1412.01	Railroads-Attended Pay Public Parking Facilities	91
1412.02	Railroads-Non-Attended Public Parking Facilities	91
1412.03	Railroads-Manufacturing, Assembly, and Industrial Services	91
1412.04	Railroads-Petroleum Refining and Processing	91
1412.05	Railroads-Open Storage	66
1412.06	Railroads-Truck Terminals	91
1413	Freeways and Major Roads	91
1414	Park-and-Ride Lots	91
1415	Bus Terminals and Yards	91
1416	Truck Terminals	91
1417	Harbor Facilities	91
1418	Navigation Aids	47
1420	Communication Facilities	82
1420.01	Communication Facilities-Antenna	2

Code	Land Use Description	% Impervious
1431	Electrical Power Facilities	47
1431.01	Electrical Power Facilities-Powerlines (Urban)	2
1431.02	Electrical Power Facilities-Powerlines (Rural)	1
1432	Solid Waste Disposal Facilities	15
1433	Liquid Waste Disposal Facilities	96
1434	Water Storage Facilities	91
1435	Natural Gas and Petroleum Facilities	91
1435.01	Natural Gas and Petroleum Facilities-Manufacturing, Assembly, and In	91
1435.02	Natural Gas and Petroleum Facilities-Petroleum Refining and Processing	91
1435.03	Natural Gas and Petroleum Facilities-Mineral Extraction – Oil and Gas	10
1435.04	Natural Gas and Petroleum Facilities-Vacant Undifferentiated	1
1436	Water Transfer Facilities	96
1437	Improved Flood Waterways and Structures	100
1440	Maintenance Yards	91
1450	Mixed Transportation	90
1460	Mixed Transportation and Utility	91
1460.01	Mixed Utility and Transportation-Improved Flood Waterways and Structures	100
1460.02	Mixed Utility and Transportation-Railroads	15
1460.03	Mixed Utility and Transportation-Freeways and Major Roads	91
1500	Mixed Commercial and Industrial	91
1600	Mixed Urban	89
1700	Under Construction (Use appropriate value)	91
1810	Golf Courses	3
1821	Developed Local Parks and Recreation	10
1822	Undeveloped Local Parks and Recreation	2
1831	Developed Regional Parks and Recreation	2
1832	Undeveloped Regional Parks and Recreation	1
1840	Cemeteries	10
1850	Wildlife Preserves and Sanctuaries	2
1850.01	Wildlife-Commercial Recreation	90
1850.02	Wildlife-Other Special Use Facilities	86
1850.03	Wildlife-Developed Local Parks and Recreation	10
1860	Specimen Gardens and Arboreta	15
1870	Beach Parks	10
1880	Other Open Space and Recreation	10
2110	Irrigated Cropland and Improved Pasture Land	2
2120	Non-Irrigated Cropland and Improved Pasture Land	2
2200	Orchards and Vineyards	2
2300	Nurseries	15
2400	Dairy, Intensive Livestock, and Associated Facilities	42
2500	Poultry Operations	62
2600	Other Agriculture	42
2700	Horse Ranches	42

Code	Land Use Description	% Impervious
3100	Vacant Undifferentiated	1
3200	Abandoned Orchards and Vineyards	2
3300	Vacant With Limited Improvements (Use appropriate value)	42
3400	Beaches (Vacant)	1
4100	Water, Undifferentiated	100
4200	Harbor Water Facilities	100
4300	Marina Water Facilities	100
4400	Water Within a Military Installation	100

119 W. Hyde Park Blvd | Inglewood, CA| 424.351.6800

D & D ENGINEERING, INC.

APPENDIX C - FEE SCHEDULE

DEVELOPMENT FEES

Fees levied by CVUHSD & Lennox School District

Centinela Valley Union High School District
14901 S. Inglewood Avenue
Lawndale, CA 90260
Telephone: (310) 263-3227
Hours: 8:30 AM - 4:30 PM Monday through Friday

CERTIFICATION ON COMPLIANCE WITH FEE PROVISIONS OF GOVERNMENT CODE SECTION 65995

FEE SCHEDULE: The development fees collected by the Centinela Valley Union High School District under provision of Section 65995 of the Government Code are:

Residential Development	**$3.48 / Sq. Ft.**
Commercial/Industrial Development	**$0.56 / Sq. Ft.**

The District will only accept Money Orders or a Cashier's check for developer fees.

_____
Signature of Applicant

The person signing represents that he/she is authorized to sign on behalf of the owner/developer and that the information provided is true and accurate to the best of his/her knowledge.

Developer _____
Address _____
_____
_____
Telephone _____

Tract/Project Address _____
Number of Buildings in Project _____
Building Permit Application No. _____

Lot/Address	Use of Building	Area (Sq. Ft.)	Fee
1.			$
2.			$
3.			$

Subtotal (Attached Sheets) $ _____
Total Fees Due $ _____

This is to certify that the square footage is true and accurate

_____
City/County Building Department

INFORMATION BELOW THIS LINE TO BE COMPLETED BY SCHOOL DISTRICT ONLY

TOTAL DUE $ _____ RECEIPT NO. _____

☐ This is to certify that all fees due to the Centinela Valley Union High School District, under provision of Government Code Section 65995 as a representative to the issuance of a Building Permit by the Department of Public Works, have been received. Based on the above information presented, this Certification of Completion is hereby executed.

☐ This is to certify that the above described development has been determined to be exempt from the development fees of Government Code Section 65995 and Building Permits may be issued therefor.

_____
Centinela Valley Union High School District Representative

Form Revised: 082017

INGLEWOOD UNIFIED SCHOOL DISTRICT
CERTIFICATION OF PAYMENT OF DEVELOPER FEES"

I. APPLICANT (Complete) Date: _____

Developer/Owner _____

DBA: _____

Project Address(es): _____
Address Street

_____
City State Zip

Or if no street address

_____
Site Legal Description

Note: If multiple addresses are included in application, please attach list of project addresses.

Building Permit Application No(s): _____

Construction Type: (Complete as appropriate as per approved plan check).
PLEASE SPECIFY THE TYPE OF BUILDING

*Please check one (**Residential**):

_____	$3.10	Per square foot of assessable space for **new single family detached residential construction** within the District.
_____	$3.79	Per square foot of assessable space for **new multi-family attached residential construction** within the District.

*Fill in the following (**Commercial/Industrial**):

_____	$0.61	Per square of chargeable covered and enclosed space within the District for **office development and senior housing.**
_____	$0.407	Per square foot of chargeable covered and enclosed space within the District for **retail and services development only.**
_____	$0.548	Per square foot of chargeable covered and enclosed space within the District for **research and development study.**

Procedure approved: March 13, 1991
Procedure revised: June 24, 1998; March 27, 2002; June 8, 2005; March 14, 2007; February 11, 2009; June 29, 2011

_____	$0.409	Per square foot of chargeable covered and enclosed space within the District for **industrial/warehouse/manufacturing development only.**
_____	$0.507	Per square foot of chargeable covered and enclosed space within the District for **hospital development only.**
_____	$0.206	Per square foot of chargeable covered and enclosed space within the District for **hotel/motel development only.**
_____	$0.008	Per square foot of chargeable covered and enclosed space within the District for **self-storage development only.**

The undersigned certifies under penalty of perjury that:

1. The above information is correct and true to the best of my knowledge and that I will file an amended certification of payment and pay the additional fee if I request an increase in the square footage after the building permit has been issued or if the initial determination of square footage is found to be incorrect.

2. I am the developer/owner of the above described project(s) or am authorized to sign on their behalf.

_____ _____
Signature of Developer/Owner/Designee Telephone Number
*Less than 30 days staying time.

II. BUILDING DEPARTMENT (Complete)

I state that to the best of my knowledge and understanding of applicable laws, in regards to the Application for Building Permit submitted herewith that the square footage of the proposed project is:

_____Square Footage
Residential Assessable Space*

_____Square Footage
Commercial or Industrial
Covered or Enclosed Space

_____ _____
Agent for Building Department Date

_____ ( )_____
County/City Telephone Number

*IF THE REMODEL CREATES A NET INCREASE OF GREATER THAN 500 SQUARE FEET, THE FEE IS CHARGED ON THE ENTIRE NET INCREASE IN SQUARE FOOTAGE. THE EARLIER EXEMPTION HAS BEEN REPLACED PER GOVERNMENT CODE SECTION 53080(a).

Procedure approved: March 13, 1991
Procedure revised: June 24, 1998; March 27, 2002; June 8, 2005; March 14, 2007; February 11, 2009; June 29, 2011

In accordance with Government Code Sections 65995.5 and 65995.6

The Developer Fee Rates Within

The Los Angeles Unified School District

Are As Follows:

Construction Project Type	Rate Per Square Foot	
Residential	$3.79	per square foot of assessable space
Commercial / Industrial	$0.61	per square foot of chargeable and enclosed space
Self-Storage	$0.28	per square foot
Parking Structure	$0.39	per square foot

Developer Fee Program Office
Tel: (213) 241-0715 / Fax (213) 241-8022

Public Works Fees

Fee Type/ Name	Unit Fee or Calculation Methodology	Fee
Permit Issuance Per Permit	Each	$106.00
Plan Check Fee	Per hour	$132.00
Research Fee	Per hour	$85.00

Excavation

First 100 square feet	Minimum fee	$317.00
Every 100 square feet thereafter	fixed	$106.00

Work Inspection

Sidewalk	Per sq. ft.	$2.00
Curb and Gutter	Per sq. ft.	$5.50
Driveway Approach	Per sq. ft.	$5.50
Abandon Driveway Approach	Per sq. ft.	$5.50
Asphalt/ Concrete Pavement	Per sq. ft.	$2.00
Wheelchair Pedestrian Ramp	Each	$317.00
Roof Drain Running Under Sidewalk	Each	$106.00
Street Tree Planting	Each	$159.00
Miscellaneous Inspection	Per hour	$106.00

Encroachment

Per Day, Per Lane, Per Block	Each	$53
"No Parking" Signs Installation Residential, Per 50 Foot Lot	Per week	$212.00
"No Parking" Signs Installation Business/ Utility Company	Per week	$264.00

Trash Bin (Dumpster Parked Curbside)

Residential, Per Week	Each	$212.00

Commercial, Per Week	Each	$212.00

Residential Water Capacity Charges

Water Capacity Charge by Meter Size (New Construction)

Meter Size	Proposed Capacity Charge	Meter Size Upgrade
¾"	$8,133	
1"	13,555	$5,422
1 ½"	$27,110	13,555
2"	$43,375	$16,265
3"	$81,329	$37,954
4"	$135,548	$54, 219
6"	$271,097	$135,549
8"	$433,755	$162,658
10"	$623,523	$189,768

Building Expansion, Redevelopment or Renovation (same meter)

Residential- Used Potable Water Only: $2.30 per Sq. Ft.
Residential- Used both Potable & Recycled Water: $1.15 per Sq. Ft.
*For additional footage from old building to new building

Accessory Dwelling Units (ADU- New Construction)

ADU with 750 Sq. Ft. or less: No Charge
ADU with more than 750 Sq. Ft.: $1.15 per Sq. Ft.

Non-Residential Water Capacity Charges

Customer Class	Estimated GPD	Service Unit	Water Capacity Charge
Retail	205	Per 1,000 Sq. Ft.	$5,439
Office	60	Per 1,000 Sq. Ft.	$1,592
Hotel	125	Per Room	$3,316
Casino	40	Per 1,000 Sq. Ft.	$1,061
Civic	1680	Per Acre	$44,571
Community Service Center	220	Per 1,000 Sq. Ft.	$5,837
Potable Lake	1540	Per Acre	$40,857
Stadium or Performance Venue	8.5	Per Seat	$226

Examples for water capacity charge:

a. *Non-residential project expansion changes total number of Service Units & does not require meter upgrade: Performance venue adds 30 seats, the water capacity charge is $6,780. (30 seats multiplied by $226=$6,780)*
b. *Changes in commercial use of property is the difference between estimated GPD of previous usage and current usage: Example, 1,000 square foot office space converted to retail space. The water capacity charge is $3,847. ($5,439 minus $1,592= $3,847)*
c. *There is no credit for higher-rate class/ meter size going down to lower-rate class/ meter size, or removing/ discounting water service.*

Water Service Fees (Installation)

Fee Type/ Name	Unit Fee or Calculation Methodology	Fee
Domestic		
¾" and 1" (Abandonment)	Fixed	$1,700.00
3"	Fixed	$3,174.00
1" (Short side)	Fixed	$2,000.00
1" (Long side)	Fixed	$5,000.00
1.5"	Fixed	$4,760.00
1.5" and 2" (Abandonment)	Fixed	$2,000.00
8"	Fixed	$5,000.00
3"	Est. Fee (Minimum)	$10,579.00
6"	Est. Fee (Minimum)	$13,224.00
Fire Service		
2"	Est. Fee (Minimum)	$4,760.00
3"	Est. Fee (Minimum)	$9,521.00
6"	Est. Fee (Minimum)	$12,695.00
8"	Est. Fee (Minimum)	$15,869.00
10"	Est. Fee (Minimum)	$17,984.00
Water/Sewer/Storm Drain Plan Check Fee	Per hour	$132.00
Water/Sewer/ Storm Drain Inspection Fee	Per hour	$90.00
Fire Hydrants Service/ Water Services		
Fire Construction Meter Deposit		$1,058.00
Fire Flow Test	Fixed	$349.00
Turning On/Off of Water Service (Minimum of Two (2) Hours)	Fixed/ Per hour	$74.00
Water Meter Test (if Broken by Property Owner)	Fixed/ Per hour	$90.00

Backflow Device/ Cross Connection Inspection (New Installation)	Fixed/ Per hour	$90.00

Sewer Connection Fees (See attached page*)

Standard Urban Storm Water Mitigation Plan

Plan Check Fee	Maximum	$450.00

Storm Water Pollution Prevention Plan (SWPPP)

A. Under 1 Acre Exempt from Plan Review	Minimum	$450.00
Plan Check Fee	Maximum	$90.00
B. Less Than 1 Acre	Minimum	$317.00
Plan Check Fee	Maximum	$540.00
C. Over 1 Acre, but Less than 5 Acres	Minimum	$476.00
Plan Check Fee	Maximum	$720.00
D. More Than 5 Acres	Minimum	$635.00
Plan Check Fee	Maximum	$900.00
E. Non-residential Sites <10,000 Square feet Requiring Plan Review	Minimum	$317.00
Plan Check Fee	Maximum	$450.00

Storm Drain Connection

A. Plan Check Fees

8" Pipe Diameter		$450.00
8" to 24" Pipe Diameter		$270.00

B. Inspection Fees

</-8" Pipe Diameter		$238.00
> 8" to 24" Pipe Diameter		$317.00

Fats, Oils and Grease (FOG)

Initial Permit Fee	Each	$360.00
Annual Inspection Fee, Small Food Service Establishments	Each	$282.50
Annual Inspection Fee, Large Food Service Establishments	Each	$437.00

Transportation Impact Fee

Land Use Category	**Transportation Impact Fees**
Single Family (Per Unit)	$8,177
Multi- Family (Per Unit)	$4,626
Commercial (Per 1,000 Sq. Ft.)	$31,996
Office (Per 1,000 Sq. Ft.)	$12,348
Industrial (Per Sq. Ft.)	$3,903
Other (Per Sq. Ft.)	$20,877

SANITATION DISTRICT NO. 5

CONNECTION FEE LOADINGS, CAPACITY UNITS, AND UNIT RATES
EFFECTIVE JULY 1, 2020

CATEGORY	UNIT OF USAGE	CAPACITY UNITS	CHARGE
Single Family Home	Parcel	1.00	1,527.00
Condominiun	No. of Units	0.75	1,145.25
Multi-Unit Residential	No. of Units	0.60	916.20
Mobile Home Park	Spaces	0.60	916.20
Hotel/Motel/Rooming House	Rooms	0.47	717.69
Store	1000 Sq.Ft.	0.38	580.26
Supermarket	1000 Sq.Ft.	0.93	1,420.11
Shopping Center	1000 Sq.Ft.	1.54	2,351.58
Regional Mall	1000 Sq.Ft.	0.86	1,313.22
Office Building	1000 Sq.Ft.	0.76	1,160.52
Medical, Dental, Veterinary Clinic	1000 Sq.Ft.	1.14	1,740.78
Restaurant	1000 Sq.Ft.	5.97	9,116.19
Indoor Theatre	1000 Sq.Ft.	0.47	717.69
Car Wash - Tunnel, No Recycling	1000 Sq.Ft.	14.06	21,469.62
Car Wash - Tunnel, Recycling	1000 Sq.Ft.	10.30	15,728.10
Car Wash - Wand	1000 Sq.Ft.	2.66	4,061.82
Bank, Credit Union	1000 Sq.Ft.	0.38	580.26
Service Shop, Auto Maint/Repair	1000 Sq.Ft.	0.38	580.26
Animal Kennel	1000 Sq.Ft.	0.38	580.26
Gas Station	1000 Sq.Ft.	0.38	580.26
Auto Sales	1000 Sq.Ft.	0.38	580.26
Wholesale Outlet	1000 Sq.Ft.	0.38	580.26
Nursery/Greenery	1000 Sq.Ft.	0.10	152.70
Light Manufacturing	1000 Sq.Ft.	0.12	183.24
Lumber Yard	1000 Sq.Ft.	0.12	183.24
Warehousing	1000 Sq.Ft.	0.12	183.24
Open Storage	1000 Sq.Ft.	0.12	183.24
Drive-In Theatre	1000 Sq.Ft.	0.08	122.16
Night Club	1000 Sq.Ft.	1.33	2,030.91
Bowling/Skating	1000 Sq.Ft.	0.75	1,145.25
Club & Lodge Halls	1000 Sq.Ft.	0.47	717.69
Auditorium/Amusement	1000 Sq.Ft.	1.33	2,030.91
Golf Course & Park	1000 Sq.Ft.	0.38	580.26
Campground, Marina, RV Park	Spaces	0.22	335.94
Convalescent Home	Beds	0.47	717.69
Laundromat	1000 Sq.Ft.	14.53	22,187.31
Mortuary/Funeral Home	1000 Sq.Ft.	0.62	946.74
Health Spa without Showers	1000 Sq.Ft.	1.14	1,740.78
Health Spa with Showers	1000 Sq.Ft.	2.28	3,481.56
Special Event Center*	Attendance	0.04	61.08
College/University	Students	0.08	122.16
Private School	1000 Sq.Ft.	0.76	1,160.52
Library/Museum	1000 Sq.Ft.	0.38	580.26
Post Office (Local)	1000 Sq.Ft.	0.38	580.26
Post Office (Regional)	1000 Sq.Ft.	0.12	183.24
Church	1000 Sq.Ft.	0.19	290.13

X = 0.6783 Y = 0.1222 Z = 0.1995

Doc 5705732

* Including, but not limited to, Convention Center, Fairground, Racetrack, Sports Stadium/Arena