

Appendix M2 Sewer Study

Appendices

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SEWER AREA STUDY

-FOR-

IRWINDALE GATEWAY PROJECT

APN(S): 8532-002-035,8532-002-036, 8532-002-042, 8532-002-043
PROPERTY ADDRESS: 13620 Live Oak Lane, Irwindale, CA
PLANNING APPLICATION #: DA NO. 01-2022
GRADING PERMIT #: TBD
BUILDING PERMIT #: TBD

PREPARED FOR: KP IRWINDALE OWNER, LLC
1875 Century Park East, Ste 380
Los Angeles, CA 90067
Contact: Steven Hillgren
(310)-203-1861

PREPARED BY: Oscar Rivera
DAVID EVANS & ASSOCIATES, INC
17542 17th Street, Suite 150
Tustin, CA 92780
orivera@deainc.com
510-862-1907

DATE PREPARED: 6/30/2022





This report has been prepared by or under the direction of the following registered civil engineer who attests to the technical information contained herein. The registered civil engineer has also judged the qualifications of any technical specialists providing engineering data upon which recommendations, conclusions, and decisions are based.

Signature: _____

Print: Oscar Edgardo Rivera

Date: 3/20/2023





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SECTION I. INTRODUCTION AND PURPOSE

The purpose of this report is to analyze the capacity of the existing sewer line on Center Street, for the purpose of discharging the onsite sewer loads for the Irwindale Gateway project, henceforth referred to as the project. The project is located in the City of Irwindale in the County of Los Angeles, bound by the 605 Interstate Freeway on the **project's** westerly boundary, Live Oak Ln on the north and east and Live Oak Avenue on the south.

The report estimates peak sewer flows based on the expected zoning designation, which is classified as M-2 Heavy Manufacturing. Specifically, three buildings are proposed, with two being Warehouses and one being designated as Office Space. This report will confirm that the contributing flow to the existing sewer system has adequate capacity to accept the additional flow from the proposed project. The proposed development refers to Option 1 in the city's Draft Specific Plan, which effectively addresses the design for Option 2, which is Battery Energy Storage System (BESS). Option 1 has a larger contributing area than Option 2 and therefore, is conservative. The BESS development will not require a sewer lateral and will not produce any sewer flows.

SECTION II. PROJECT SITE DESCRIPTION

II.1 EXISTING CONDITIONS

The project is located in the City of Irwindale in the County of Los Angeles, bound by the 605 Interstate Freeway on the **project's** westerly boundary, Live Oak Ln on the north and east and Live Oak Avenue on the south. There is no infrastructure, including sewer, within the project boundaries at this time.

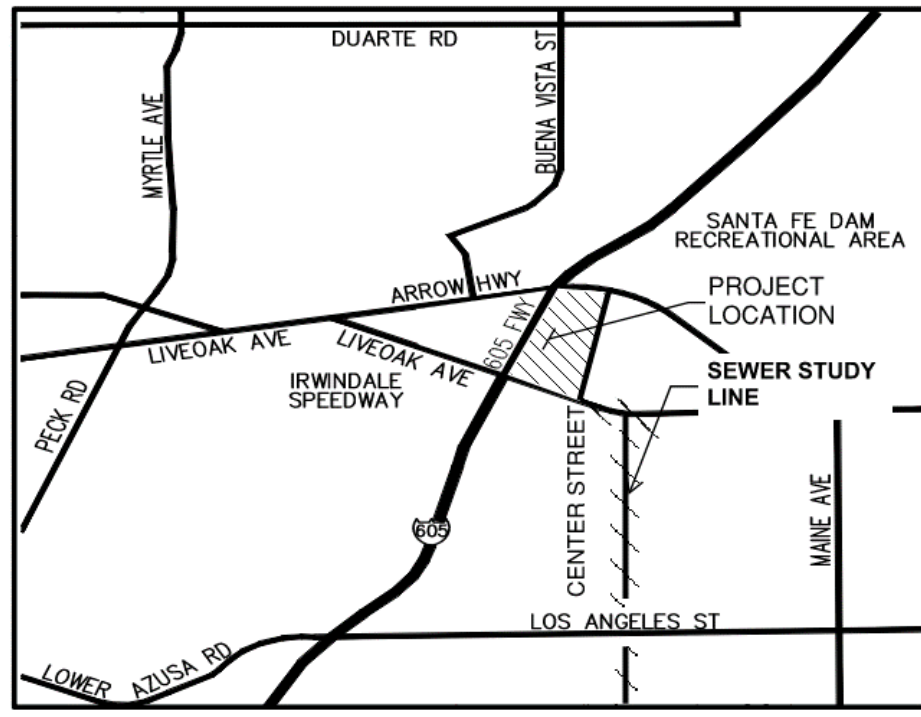


Figure 1: Vicinity Map



II.2 EXISTING SEWER SYSTEM

An existing 10" sewer line and 15" sewer line is located along Live Oak Avenue and Commerce Drive/Center Street, respectively, on the east side of the project. This sewer line is designed to drain south to the main trunk line on Ramona Parkway, conveying the sewer load from the existing commercial/industrial developments located on the northeast corner of Live Oak Avenue and Rivergrade Road, as well as the commercial/industrial development on the north side of Rivergrade Road. The 10" VCP sewer line on Live Oak Avenue is under the jurisdiction of the City of Irwindale, while the 15" sewer main on Commerce Drive and Center Street is under the jurisdiction of the City of Baldwin Park.

II.3 PROPOSED SEWER DESIGN AND ESTIMATED FLOW

Referring to the Sewer Area Map located in Appendix B, the sewer production includes the 3 proposed buildings, which encompasses a total service area of 997,796 SQFT. The sewer production is to be conveyed to a proposed 6" force main sewer line that drains east on Live Oak Avenue to the existing 10" VCP sewer line (Line C) on Live Oak Avenue and Rivergrade Road.

Referring to Table 2: Zoning Coefficients in Appendix B, based on the Sewer Area Study Web page from the Los Angeles County Public Works, the loading factors used for the analysis come from cross-referencing the City of Irwindale Zoning Map, which shows most of the study area under a Heavy Manufacturing and a small portion under Commercial Manufacturing.

For the onsite project area, it is expected to be designated as M-2, Heavy Manufacturing. The following summary shows the total area and expected generated flows under Heavy Manufacturing vs Commercial Manufacturing:

Sewer Capacity Summary Table based on Land Use			
Land-Use	cfs/acre	Area (acres)	Flow (cfs)
Heavy Manufacturing (M-1 to M-4)	0.021	60.570	1.272
Commercial Manufacturing (C1 to C4)	0.015	0.230	0.003



SECTION III. ANALYSIS

III.1 SEWER CAPACITY ANALYSIS

Based on the Los Angeles County Policy for Managing Available Sewer Capacity and Sewage Discharging Excess of Design capacity, sewer line capacities are defined as follows:

<15" Diameter ½ Full = 100% Capacity (d/D)

>15" Diameter ¾ Full = 100% Capacity (d/D)

Comparing the total tributary flow to the existing 15" & 10" VCP capacities, based on the controlling slope segments and/or change in sewer load, the table below demonstrates that the existing lines can handle the additional flows from the proposed project, in accordance with the above design criteria. It should be noted that there is 1 segment that deviates from the above criteria, where the existing capacity of sewer line C-1 conveys flows beyond 100% capacity. However, based on design criteria, bullet point 3 of memorandum dated Oct 12, 2005 Policies for Managing Available Sewer Capacity and Sewage Discharge in Excess of Design Capacity, the existing sewer line has sufficient capacity acceptable by the County of Los Angeles, based discharges falling between 101% and 150%.

Offsite Sewer Capacity for Controlling Segment - Summary Table				
Line ID	Pipe Size (inches)	Min. Pipe Slope (%)	50%/75% Capacity (cfs)	Project Flow Calculated (cfs)
Line A	6	0.01	n/a	0.48
Line C-1	10	0.64	0.824	0.85
Line D	15	0.28	3.07	1.28

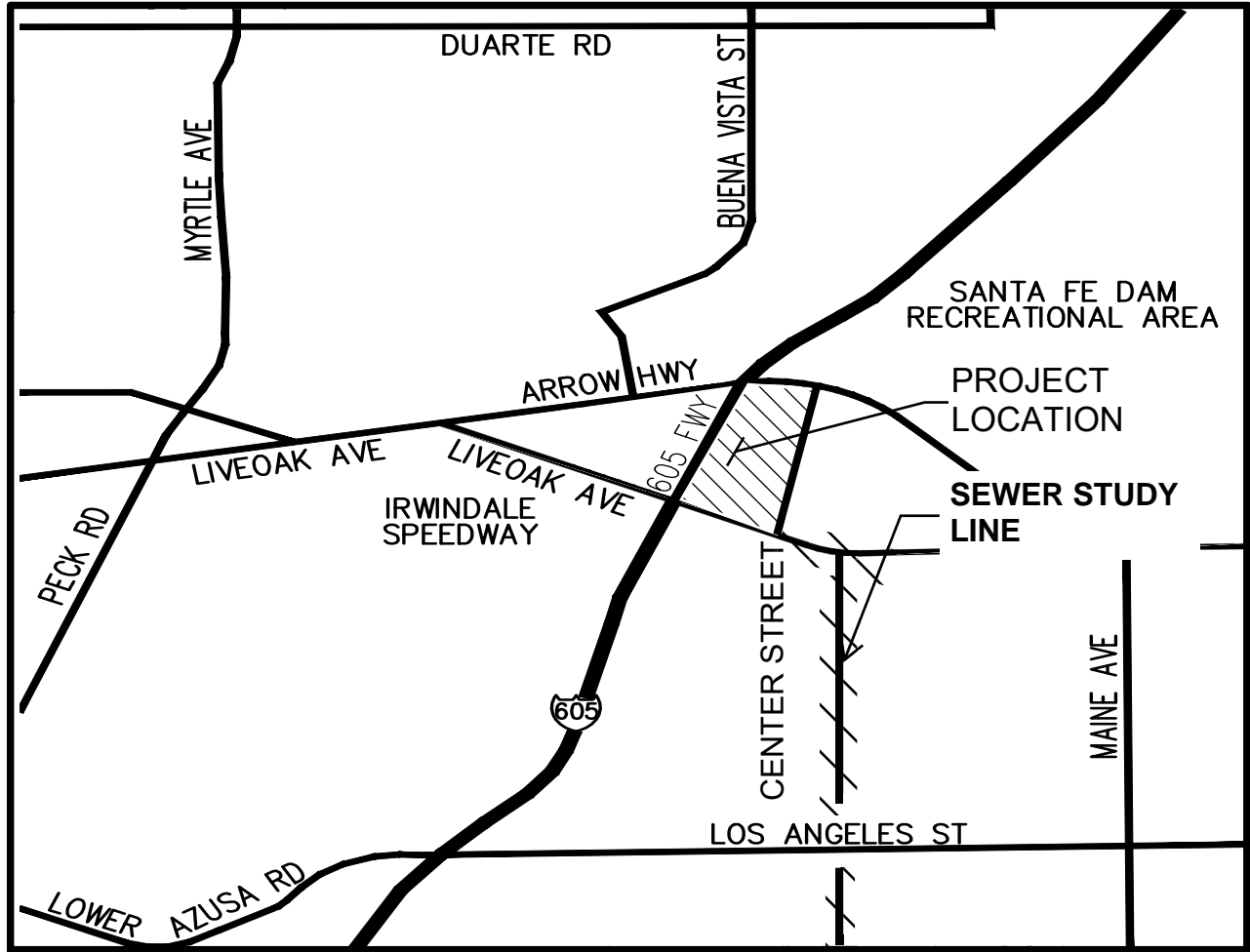
SECTION IV. CONCLUSION

Based on the above table and previously stated criteria, the proposed site is expected to produce a total of peak flow of 0.48 cfs, which will drain towards the existing sewer line on Live Oak Avenue and Rivergrade Road. The table demonstrates that the sewer has sufficient capacity to accept the sewer production from the site, which will ultimately drain to Line C-1 and D along Center Street and finally, to the main trunk line on Ramona Parkway. Based on the Will Serve letter in Appendix C, the trunk line has a capacity of 7.43 cfs (4.8 mgd), with a current loading of 3.25 cfs (2.1 mgd). This amounts to a 17% increase from the current production load and a total conveyed flow of 4.53 cfs, demonstrating that the main line has sufficient capacity to accept the projects sewer production. Please refer to the enclosed report for additional details that support the projects sewer design.



APPENDIX A: SEWER AREA EXHIBIT

- Vicinity Map
- Sewer Area Exhibit



VICINITY MAP

NOT TO SCALE



**DAVID EVANS
AND ASSOCIATES INC.**

41951 Remington Ave. Suite 220
Temecula, California 92590
Phone: 951.294.9300 Fax: 951.294.9301

VICINITY MAP

IRWINDALE GATEWAY
DEVELOPMENT



IRVINDALE ZONING CODES

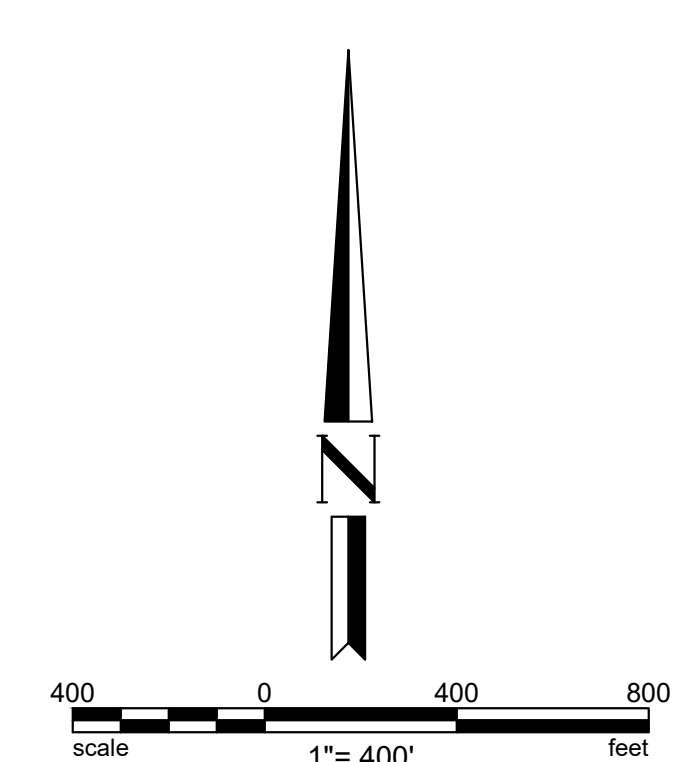
- M2 - HEAVY MANUFACTURING
- CM - COMMERCIAL MANUFACTURING

AREA SUMMARY TABLE

Street Name/Building Type	Area ID Contributing to Sewer Segment (Acres)	Segment Line ID	Area (Acres)
Live Oak Avenue (Warehouse) MH 1 to MH 399, Zoning M-2	A1	Prop. Line A	22.70
Rivergrade Road (Office) MH 37 to MH 178, Zoning M1-M4	A2	Ex. Line B-1	0.44
Rivergrade Road (Warehouse) MH 37 to MH 178, Zoning M1-M4	A2	Ex. Line B-1	16.55
Rivergrade Road (Autosales/Repair) MH 178 To MH 215	A3	Ex. Line B-2	0.42
Rivergrade Road (Carwash-Recycling) MH 215 To MH 399, Zoning C1-C4	A4	Ex. Line B-3	0.03
Rivergrade Road (Service Station) MH 215 To MH 399, Zoning C1-C4	A4	Ex. Line B-3	0.08
Live Oak Avenue (Restaurants, 35 Seats) MH 399 to MH 401, Zoning C1-C4	A5	Ex. Line C-1	0.12
Parcel 8535-001-039 Planned Athens Facility MH 692 To MH 691, Zoning M1-M4	A6	Ex. Line C-3	17.22
Live Oak Avenue (Office) MH 692 To MH 691, Zoning M1-M4	A6	Ex. Line C-3	0.65
Live Oak Avenue (Warehouse) MH 691 To MH 401, Zoning M1-M4	A7	Ex. Line C-2	2.59
Commerce Drive/Center Street (All the above developments) MH 401 to MH 693, Zoning Mixed, See Above	ALL	Line D	60.80

LEGEND

- EX. SEWER TRUNK LINE
- EX. SEWER MAIN OF STUDY
- EX. SEWER SYSTEM
- POINT OF CONNECTION
- LOADING AREA





APPENDIX B: SEWER CAPACITY ANALYSIS

- Table 2 - Zoning Coefficients
- Policies for Managing Available Sewer Capacity
- Sewer Area Study Table
- Formula Table

Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow
Apartment Buildings:		
Bachelor or Single dwelling units	Apt	150 gal/D.U.
1 bedroom dwelling units	Apt	200 gal/D.U.
2 bedroom dwelling units	Apt	250 gal/D.U.
3 bedroom or more dwelling units	Apt	300 gal/D.U.
Auditoriums, churches, etc.	Aud	5 gal/seat
Automobile parking	P	25 gal/1000 sq ft gross floor area
Bars, cocktails lounges, etc.	Bar	20 gal/seat
Commercial Shops & Stores	CS	100 gal/1000 sq ft gross floor area
Hospitals (surgical)	HS	500 gal/bed
Hospitals (convalescent)	HC	85 gal/bed
Hotels	H	150 gal/room
Medical Buildings	MB	300 gal/1000 sq ft gross floor area
Motels	MB	150 gal/unit
Office Buildings	Off	200 gal/1000 sq ft gross floor area
Restaurants, cafeterias, etc.	R	50 gal/seat
Schools:		
Elementary or Jr. High	S	10 gal/student
High Schools	HS	15 gal/student
Universities or Colleges	U	20 gal/student
College Dormitories	CD	85 gal/student

*Multiply the average daily flow by 2.5 to obtain the peak flow

Table 2: Zoning Coefficients

Zone	Coefficient (cfs/Acre)
Agriculture -----	0.001
Residential*:	
R-1 -----	0.004
R-2 -----	0.008
R-3 -----	0.012
R-4 -----	0.016*
Commercial:	
C-1 through C-4 -----	0.015*
Heavy Industrial:	
M-1 through M-4 -----	0.021*

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

* Use 0.001 (cfs/unit) for condominiums only

Source:

<https://pw.lacounty.gov/idd/iddservices/sewerAreaStudy/sewerAreaStudy.shtml>

Steve Borge

October 12, 2005

Dean D. Efstathiou
Approved

TO: Dean Efstathiou
FROM: Dennis Hunter *DH*
Land Development Division

POLICIES FOR MANAGING AVAILABLE SEWER CAPACITY AND SEWAGE DISCHARGE IN EXCESS OF DESIGN CAPACITY

The following will set forth Public Works' policies related to managing sewer infrastructure capacity. Design capacity of the sewer mainline is defined as follows:

- < 15" diameter ½ full = 100% capacity (d/D)
- ≥ 15" diameter ¾ full = 100% capacity (d/D)

When Public Works determines there is available capacity in a mainline sewer for infill and redevelopment projects, the remaining available capacity shall be allocated on a first come – first serve basis.

Sewer Advisory Committee

A Sewer Advisory Committee (SAC) will be formed for the purpose of recommending courses of action to address proposed development connecting to existing sewers that will cause them to be operating beyond their design capacity. The SAC will make their recommendations to Dean Efstathiou, Assistant Director. The SAC will be chaired by Waterworks and Sewer Maintenance Division and will have representatives from Design and Land Development Divisions. Each Division will appoint a Principal Engineer or Senior Civil Engineer as a representative to the SAC and will convene whenever sewer decisions are required to address developmental impacts. Sewer Maintenance will maintain records of SAC meetings and will prepare recommendations to Administration for approval. The SAC may require other Division representatives to participate on a case-by-case basis when necessary, such as Building and Safety and Programs Development.

Divisional Responsibilities

Design Division

1. Support activities of the SAC.
2. Prepare sewer area studies when required.

3. Maintain records/archive of all approved sewer area studies and flow measurements.

Land Development Division

1. Support activities of the SAC.
2. Impose sewer area study requirements for private developments if necessary and review/approve all submittals.
3. Refer cases to SAC when both sewer area studies and flow measurements indicate that a potential overload situation exists or will exist based on criteria described below.
4. Provide copies of all approved sewer area studies and flow measurements to Design Division for archiving.

Waterworks and Sewer Maintenance Division

1. Chair the SAC, maintain meeting records and prepare position papers to Administration.
2. Advise the SAC when an overload condition is observed during maintenance activities.
3. Initiate effort to track and map all overload areas within the Consolidated Maintenance District.
4. Keep database of all flow measurement results.

Design Criteria

1. Capacity of sewer mainlines less than 15" in diameter are considered full (100 percent) when the ratio of the depth of flow (d) over the pipe diameter (D) is equal to 0.5, expressed as $d/D = 0.5$.
2. Capacity of sewer mainlines equal to or greater than 15" in diameter are considered full (100 percent) when the ratio of the depth of flow (d) over the pipe diameter (D) is equal to 0.75, expressed as $d/D = 0.75$.

Dean Efstathiou
August 25, 2005
Page 3

3. When an area study indicates that flow conditions based on calculated discharges is between 101 percent to 150 percent of capacity, no flow measurements and no mitigation will be required. If maintenance records warrant, a flow test may be required.
4. When an area study for a development that proposes to increase the density or change the zoning indicates that flow conditions are between 151 to 200 percent of capacity, flow measurements shall be required. If the flow test indicates that the actual flow condition is below 151 percent, no mitigation will be required. If the flow test results indicate the actual flow is above 151 percent, the case shall be referred to the SAC to evaluate options and make recommendations to Administration for approval. These options may include, but are not limited to: requiring full mitigation from the development, assessing pro-rata shares, creation of a reimbursement district, or establishing a County Improvement (CI) district.

AHN:ca

P:\LD\PUB\SUBPCHECK\SEWER\MISCELLANEOUS\SEWER INFRASTRUCTURE MANAGEMENT

cc: Administration (Kelly)
Building and Safety (Patel)
Design (Kumar)
Land Development (D'Antonio, Burger, ~~Ruiz~~ Pachan's, Chong, Witler, Narag)
Programs Development (Afshari)
Waterworks and Sewer Maintenance (Del Real, Lehto)

Sewer Area Study Table

* Calculated using Kutter's Formula with n=0.013
 ** Value Based on building footprint shown in Sewer Area Study Exhibit
 *** Based on current land use and coefficients per LA County. (Attach supporting calculations)
 Design capacity keeps three decimal places at least
 For pipes < 15", design capacity of the sewer mainline is defined as 1/2 full = 100% capacity (d/D)
 For pipes ≥ 15", design capacity of the sewer mainline is defined as 3/4 full = 100% capacity (d/D)

Kutter's Formula

$$C = \frac{41.65 + \frac{0.00281}{s} + \frac{1.811}{n}}{1 + \frac{n}{\sqrt{R}} \left(41.65 + \frac{0.00281}{s} \right)} \quad V = C\sqrt{RS}$$

$$Q = CA\sqrt{RS}$$

Street Name/Building Type	Area ID Contributing to Sewer Segment (Acres)	Segment Line ID	Pipe			*Design Capacity			Area (Acres)	Area (sqft)	Flow (cfs/acre) 0.015 for C1-C4 0.021 for M1-M4	Calculated Flow (cfs)	***Cumulative Calculated Flow (cfs)	PC or CI Construction Plan #	%Full Cumulative Flow / Capacity	Comment	Jurisdiction	Notes
			Size (in.)	Slope (%)	1/2 Full(<15")	3/4 Full(≥15")	100% Full(≥15")											
Live Oak Avenue (Warehouse) MH 1 to MH 399, Zoning M-2	A1	Prop. Line A (Force main)	6	0.005	N/A	N/A	N/A	22.70	988,812.00	0.0210	0.477	0.477	TBD	N/A	N/A	LA County	Prop. Line A is a Forcemain. Forcemain and Pump station will be analyzed during final engineering	
Riverridge Road (Office) MH 37 to MH 178, Zoning M1-M4	A2	Ex. Line B-1	10	0.0048	0.711		1.421	0.44	19,166.40	0.0210	0.009	0.009	FB 245	1.30%	OK	LA County	Refer to As built ID# FB 245 and Appendix D of this report.	
Riverridge Road (Warehouse) MH 37 TO MH 178, Zoning M1-M4	A2	Ex. Line B-1	10	0.0048	0.711		1.421	16.55	720,918.00	0.0210	0.348	0.357	FB 246	50.20%	OK	LA County	Refer to As built ID# FB 245 and Appendix D of this report.	
Rivergrade Road (Autosales/Repair) MH 178 To MH 215	A3	Ex. Line B-2	10	0.0064	0.822		1.643	0.42	18,295.20	0.0210	0.009	0.366	FB 245	44.50%	OK	LA County	Refer to As built ID# FB 245 and Appendix D of this report.	
Rivergrade Road (Carwash-Recycling) MH 215 To MH 399, Zoning C1-C4	A4	Ex. Line B-3	10	0.0064	0.822		1.643	0.03	1,306.80	0.0150	0.000	0.366	FB 245	44.56%	OK	LA County	Refer to As built ID# FB 245 and Appendix D of this report.	
Rivergrade Road (Service Station) MH 215 To MH 399, Zoning C1-C4	A4	Ex. Line B-3	10	0.0064	0.822		1.643	0.08	3,484.80	0.0150	0.001	0.367	FB 246	44.70%	OK	LA County	Refer to As built ID# FB 245 and Appendix D of this report.	
Live Oak Avenue (Restaurants, 35 Seats) MH 399 to MH 401, Zoning C1-C4	A5	Ex. Line C-1	10	0.0064	0.822		1.643	0.12	5,052.96	0.0150	0.002	0.846	FB 245	102.94%	Over Capacity	LA County	Refer to As built ID# FB 245 and Appendix D of this report. Based on memorandum dated Oct 12, 2005 Policies for Managing Available Sewer Capacity and Sewage Discharge in Excess of Design Capacity, the ex sewer line has sufficient capacity acceptable by the County of Los Angeles	
Parcel 8535-001-039 Planned Athens Facility MH 692 To MH 691, Zoning M1-M4	A6	Ex. Line C-3	10	0.0053	0.747	1.388	1.494	17.22	750,103.20	0.0210	0.362	0.362	None	48.40%	OK	LA County	Per Zoning Coefficient Table based on Land-Use	
Live Oak Avenue (Office) MH 692 To MH 691, Zoning M1-M4	A6	Ex. Line C-3	10	0.0053	0.747		1.494	0.65	28,314.00	0.0210	0.014	0.375	FB 245	50.23%	OK	LA County	Refer to As built ID# FB 256 and Appendix D of this report.	
Live Oak Avenue (Warehouse) MH 691 To MH 401, Zoning M1-M4	A7	Ex. Line C-2	10	0.0046	0.696		1.391	2.59	112,820.40	0.0210	0.054	0.430	FB 245	61.77%	OK	LA County		
Commerce Drive/Center Street (All the above developments) MH 401 to MH 693, Zoning Mixed. See Above	ALL	Line D	15	0.0028		3.068	3.316	60.80	2,648,273.76	See above	None	1.275	FB 256	41.58%	OK	LA County	Refer to As built ID# FB 256 and Appendix D of this report.	

Excerpt from Memorandum for Over capacity Pipes. Full text found in Appendix D

- When an area study indicates that flow conditions based on calculated discharges is between 101 percent to 150 percent of capacity, no flow measurements and no mitigation will be required. If maintenance records warrant, a flow test may be required.

	A	B	C	D	E	F	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI
1	Formula Table																
2																	<div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Kutter's Formula</p> $C = \frac{41.65 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{n}{\sqrt{R}} \left(41.65 + \frac{0.00281}{S} \right)}$ $V = C\sqrt{RS}$ $Q = CA\sqrt{RS}$ </div>
3																	
4																	
5																	
6																	
7																	
8	Street Name/Building Type	Area ID Contributing to Sewer Segment (Acres)	Segment Line ID	Pipe Size (in.)	Slope (%)	*Design Capacity			Area (Acres)	Area (sqft)	Flow (cfs/acre) 0.015 for C1-C4 0.021 for M1-M4	Calculated Flow (cfs)	Cumulative Calculated Flow (cfs)	PC or CI Construction Plan #	%Full Cumulative Flow / Capacity	Comment	
9						1/2 Full(<15")	3/4 Full(<15")	100% Full(<15")									
12	Live Oak Avenue (Warehouse) MH 1 to MH 399, Zoning M-2 Riverridge Road (Office)	A1	Prop. Line A	10	0.005				22.7	=AB12*43560	0.021	=AD12*AB12	=AE12	FB 245	=AF12		
13	MH 37 to MH 178, Zoning M1-M4 Riverridge Road (Warehouse)	A2	Ex. Line B-1	10	0.0048	=IF(E13<15,L13*(K13*SF13)^0.5)*I13,"")	=IF(E13>=15,R13*((Q13*SF13)^0.5)*O13,"")	=X13*((W13*SF13)^0.5)*U13	0.44	=AB13*43560	0.021	=AD13*AB13	=AE13	FB 245	=IF(E13<15,AF13/Y13,AF13/Z13)	=IF(AND(E13<15,AH13<=1),"OK",IF(AND(E13>=15,AH13<=1),"OK","Over Capacity"))	
14	MH 37 To MH 178, Zoning M1-M4 Rivergrade Road (Autosales/Repair)	A2	Ex. Line B-1	10	0.0048	=IF(E14<15,L14*(K14*SF14)^0.5)*I14,"")	=IF(E14>=15,R14*((Q14*SF14)^0.5)*O14,"")	=X14*((W14*SF14)^0.5)*U14	16.55	=AB14*43560	0.021	=AD14*AB14	=AE14+AF13	FB 246	=IF(E14<15,AF14/Y14,AF14/Z14)	=IF(AND(E14<15,AH14<=1),"OK",IF(AND(E14>=15,AH14<=1),"OK","Over Capacity"))	
15	MH 178 To MH 215 Rivergrade Road (Carwash-Recycling)	A3	Ex. Line B-2	10	0.0064	=IF(E15<15,L15*(K15*SF15)^0.5)*I15,"")	=IF(E15>=15,R15*((Q15*SF15)^0.5)*O15,"")	=X15*((W15*SF15)^0.5)*U15	0.42	=AB15*43560	0.021	=AD15*AB15	=AE15+AF14	FB 245	=IF(E15<15,AF15/Y15,AF15/Z15)	=IF(AND(E15<15,AH15<=1),"OK",IF(AND(E15>=15,AH15<=1),"OK","Over Capacity"))	
16	MH 215 To MH 399, Zoning C1-C4 Rivergrade Road (Service Station)	A4	Ex. Line B-3	10	0.0064	=IF(E16<15,L16*(K16*SF16)^0.5)*I16,"")	=IF(E16>=15,R16*((Q16*SF16)^0.5)*O16,"")	=X16*((W16*SF16)^0.5)*U16	0.03	=AB16*43560	0.015	=AD16*AB16	=AE16+AF15	FB 245	=IF(E16<15,AF16/Y16,AF16/Z16)	=IF(AND(E16<15,AH16<=1),"OK",IF(AND(E16>=15,AH16<=1),"OK","Over Capacity"))	
17	MH 215 To MH 399, Zoning C1-C4 Live Oak Avenue (Restaurants, 35 Seats) MH 399 to MH 401, Zoning C1-C4	A4	Ex. Line B-3	10	0.0064	=IF(E17<15,L17*(K17*SF17)^0.5)*I17,"")	=IF(E17>=15,R17*((Q17*SF17)^0.5)*O17,"")	=X17*((W17*SF17)^0.5)*U17	0.08	=AB17*43560	0.015	=AD17*AB17	=AE17+AF16	FB 246	=IF(E17<15,AF17/Y17,AF17/Z17)	=IF(AND(E17<15,AH17<=1),"OK",IF(AND(E17>=15,AH17<=1),"OK","Over Capacity"))	
18	Parcel 8535-001-039 Planned Athens Facility MH 692 To MH 691, Zoning M1-M4	A5	Ex. Line C-1	10	0.0064	=IF(E18<15,L18*(K18*SF18)^0.5)*I18,"")	=IF(E18>=15,R18*((Q18*SF18)^0.5)*O18,"")	=X18*((W18*SF18)^0.5)*U18	0.116	=AB18*43560	0.015	=AD18*AB18	=AF17+AF12+AE18	FB 245	=IF(E18<15,AF18/Y18,AF18/Z18)	=IF(AND(E18<15,AH18<=1),"OK",IF(AND(E18>=15,AH18<=1),"OK","Over Capacity"))	
19	Live Oak Avenue (Office) MH 692 To MH 691, Zoning M1-M4	A6	Ex. Line C-3	10	0.0053	=IF(E19<15,L19*(K19*SF19)^0.5)*I19,"")	=R19*((Q19*SF19)^0.5)*O19	=X19*((W19*SF19)^0.5)*U19	17.22	=AB19*43560	0.021	=AD19*AB19	=AE19	None	=IF(E19<15,AF19/Y19,AF19/Z19)	=IF(AND(E19<15,AH19<=1),"OK",IF(AND(E19>=15,AH19<=1),"OK","Over Capacity"))	
20	Live Oak Avenue (Warehouse) MH 691 To MH 401, Zoning M1-M4	A6	Ex. Line C-3	10	0.0053	=IF(E20<15,L20*(K20*SF20)^0.5)*I20,"")	=IF(E20>=15,R20*((Q20*SF20)^0.5)*O20,"")	=X20*((W20*SF20)^0.5)*U20	0.65	=AB20*43560	0.021	=AD20*AB20	=AF19+AE20	FB 245	=IF(E20<15,AF20/Y20,AF20/Z20)	=IF(AND(E20<15,AH20<=1),"OK",IF(AND(E20>=15,AH20<=1),"OK","Over Capacity"))	
21	Commerce Drive/Center Street (All the above developments) MH 401 to MH 693, Zoning Mixed. See Above	A7	Ex. Line C-2	10	0.0046	=IF(E21<15,L21*(K21*SF21)^0.5)*I21,"")	=IF(E21>=15,R21*((Q21*SF21)^0.5)*O21,"")	=X21*((W21*SF21)^0.5)*U21	=0.92+0.66+0.45+0.56	=AB21*43560	0.021	=AD21*AB21	=AF20+AE21	FB 245	=IF(E21<15,AF21/Y21,AF21/Z21)	=IF(AND(E21<15,AH21<=1),"OK",IF(AND(E21>=15,AH21<=1),"OK","Over Capacity"))	
22		ALL	Line D	15	0.0028	=IF(E22<15,L22*(K22*SF22)^0.5)*I22,"")	=IF(E22>=15,R22*((Q22*SF22)^0.5)*O22,"")	=X22*((W22*SF22)^0.5)*U22	=SUM(AB12:AB21)	=AB22*43560	See above	None	=AF21+AF18	FB 256	=IF(E22<15,AF22/Y22,AF22/Z22)	=IF(AND(E22<15,AH22<=1),"OK",IF(AND(E22>=15,AH22<=1),"OK","Over Capacity"))	



APPENDIX C: WILL SERVE LETTER

- Will Serve Letter



March 7, 2022

Ref. DOC 6469812

Mr. Oscar Rivera, Project Manager
David Evans and Associates, Inc.
17782 17th Street, Suite 200
Tustin, CA 92780

Dear Mr. Rivera:

Will Serve Letter for Irwindale Gateway Industrial Project

The Los Angeles County Sanitation Districts (Districts) received your will serve letter request for the subject project on February 18, 2022. The proposed project is located within the jurisdictional boundary of District No. 22. We offer the following comments regarding sewerage service:

1. The wastewater flow originating from the proposed project will discharge to a local sewer line, which is not maintained by the Districts, for conveyance to the Districts' Baldwin Park Trunk Sewer, located in Ramona Parkway at Grace Avenue. The Districts' 18-inch diameter trunk sewer has a capacity of 4.8 million gallons per day (mgd) and conveyed a peak flow of 2.1 mgd when last measured in 2013.
2. The wastewater generated by the proposed project will be treated at the San Jose Creek Water Reclamation Plant (WRP) located adjacent to the City of Industry, which has a capacity of 100 mgd and currently processes an average flow of 61.2 mgd. All biosolids and wastewater flows that exceed the capacity of the San Jose Creek WRP are diverted to and treated at the Joint Water Pollution Control Plant in the City of Carson.
3. The expected increase in average wastewater flow from the project, described in the application as 1,000,000 square feet of warehouse structures, is 24,833 gallons per day, after all structures on the project site are demolished. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and click on the [Table 1, Loadings for Each Class of Land Use](#) link.
4. The Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is used by the Districts for its capital facilities. Payment of a connection fee may be required before this project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining the impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more specific information regarding the connection fee application procedure and fees, the developer should contact the Districts' Wastewater Fee Public Counter at (562) 908-4288, extension 2727.

5. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise the developer that the Districts intend to provide this service up to the levels that are legally permitted and to inform the developer of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2708 or at dcurry@lacsdc.org.

Very truly yours,



Donna J. Curry
Customer Service Specialist
Facilities Planning Department

DC:dc

cc: A. Schmidt
A. Howard



APPENDIX D: SUPPORTING PLANS

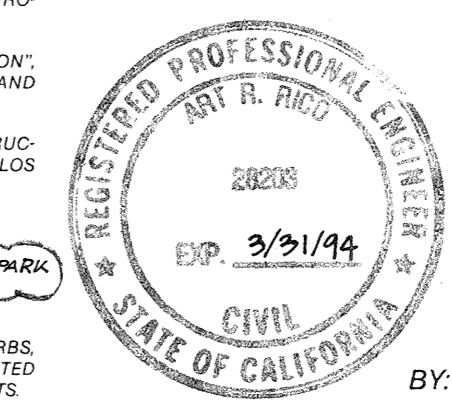
- Private Contract No. FB 25505 Sewer Plans on Live Oak Avenue
- Private Contract No. FB 256 Sewer Plans on Center Street
- As-built E-2168
- As-built E-2169
- Assessors Map for Athens Development
- City of Irwindale Zoning Map

SANITARY SEWERS

TO BE CONSTRUCTED IN
PARCEL MAP NO. 22505
CITY OF IRWINDALE
AND
CITY OF BALDWIN PARK

PRIVATE CONTRACT NO.

INDEX
3 SHEETS; 5 PAGES



SCALE: VERT. 1" = 4'
HORIZ. 1" = 40' APRIL 15, 1991

PREPARED IN THE OFFICES OF
WILLIAMSON & SCHMID
1500 Red Hill Ave., Tustin, California 92680
BY: *M. R. Rico* TEL. NO. (714) 259-7900
REG. C.E. No. 28203 EXP. DATE 03-31-94

THE FOLLOWING LATEST REVISED STANDARD PLANS ON FILE IN THE OFFICE OF THE DEPARTMENT OF PUBLIC WORKS SHALL APPLY IN THE CONSTRUCTION OF THIS PROJECT:

LEGEND	..... S-1
MINIMUM PUBLIC SAFETY REQUIREMENTS	..... S-2
BRICK MANHOLE	..... S-3
REINFORCED PRECAST CONCRETE MANHOLE	..... S-6
STANDARD MANHOLE STEP	..... S-17
BEDDING FOR SEWER PIPE	..... S-21
CRADLING AND ENCASUREMENT	..... S-23
WYE OR TEE SUPPORT	..... S-26
ALLOWABLE TRENCH WIDTHS	..... S-33
LOCKING MANHOLE FRAME AND COVER	..... S-35
NON-REINFORCED PRECAST CONCRETE MANHOLE	..... S-38

COUNTY OF LOS ANGELES, CALIFORNIA

CARLOS ALVARADO CHIEF ENGINEER, CITY OF IRWINDALE
CHARLES W. CARRY CHIEF ENGINEER, CITY OF BALDWIN PARK

APPROVED: *Carlos Alvarado* (DATE) REVIEWED BY: *Charles W. Carry* (DATE)

CITY ENGINEER, CITY OF BALDWIN PARK LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
CONSOLIDATED SEWER MAINTENANCE DISTRICT
REVIEWED FOR MAINTENANCE

APPROVED: *Charles W. Carry* (DATE) REVIEWED BY: *Charles W. Carry* (DATE)

B.M. CG 4480 ELEV. 408.193
FC BR MON @ SE COR BRIDGE NO. 813/4
44 FT S C/L LIVE OAK AVE +119 FT W/O
C/L INT RIVERGRADE RD MKD
(BM 079 - C3442 - 1974)
COVINA QUAD. 1975

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

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

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

The existence and location of any underground utility pipes or structures shown on this plan are obtained by a search of available records. To the best of our knowledge there are no existing utilities except as shown on these plans. The contractor is required to take due precautionary measures to protect the utilities shown and any other lines or structures not shown on these plans.

All contractors and subcontractors performing work shown on or related to these plans shall conduct their operations so that all employees are provided a safe place to work and the public is protected. All contractors and subcontractors shall comply with the "Occupational Safety and Health Regulation" of the U.S. Department of Labor, and with the State of California Department of Industrial Relations' "Construction Safety Orders."

The civil engineer shall not be responsible in any way for the contractors' and subcontractors' compliance with the "Occupational Safety and Health Regulations" of the U.S. Department of Labor or with the State of California Department of Industrial Relations' "Construction Safety Orders."

Contractor further agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify and hold the owner and engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

- GENERAL NOTES:**
- A SEWER CONSTRUCTION PERMIT SHALL BE OBTAINED AND A FEE PAID FOR CONSTRUCTION INSPECTION AND RECORD PLANS TO THE CITY OF IRWINDALE AND THE CITY OF BALDWIN PARK AT THE PERMIT COUNTER 800 SOUTH FREMONT AVENUE, 8TH FLOOR ALHAMBRA, AT LEAST 72 HOURS PRIOR TO STARTING WORK UNDER THIS CONTRACT. COPIES OF ALL OTHER REQUIRED PERMITS, SUCH AS ROAD EXCAVATION, CALTRANS, ETC. MUST BE FILED WITH THE PERMIT APPLICATION.
 - PRIOR TO ISSUANCE OF ANY PERMIT, THE CONTRACTOR SHALL FILE A PERMIT FOR EXCAVATIONS AND TRENCHES FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND A CERTIFICATE OF WORKERS COMPENSATION INSURANCE WITH THE CITY OF IRWINDALE AND THE CITY OF BALDWIN PARK, NAMED AS THE CERTIFICATE HOLDER TO BE NOTIFIED 30 DAYS PRIOR TO CANCELLATION OF POLICY.
 - IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.
 - WHEN WORK IS WITHIN CONTRACT LIMITS, THE CONTRACTOR MUST CONTACT THE DIRECTOR OF PUBLIC WORKS OF THOSE CITIES, TO DETERMINE THE LOCATION TO PAY THE INSPECTION FEES.
 - THE CONTRACTOR SHALL CONTACT THE CITY OF IRWINDALE (818) 962-3381 AND THE CITY OF BALDWIN PARK (818) 819-5255 TO ARRANGE FOR AN ACCEPTABLE CONSTRUCTION START DATE, AND SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE (818) 488-3129 AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
 - APPROVAL OF THIS PLAN BY THE CITY OF IRWINDALE AND THE CITY OF BALDWIN PARK DOES NOT CONSTITUTE A REPRESENTATION AS TO ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.
 - ALL WORK SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1988 EDITION", INCLUDING SUPPLEMENTS AND THE SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWERS, DATED JULY 31, 1988, AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE CITY OF IRWINDALE AND THE CITY OF BALDWIN PARK.
 - THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7104.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARD TO SAFETY ORDERS AND SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENTS" AS SHOWN ON LOS ANGELES DEPARTMENT OF PUBLIC WORKS STANDARD S-2.
 - ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.
 - NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE CITY ENGINEERS OF IRWINDALE & BALDWIN PARK.
 - NO REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
 - GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTERLINE OF STREETS, OR CENTERLINE OF ALLEYS, ARE SHOWN BY CIRCLES ON PROFILES AT ALL POINTS BETWEEN DESIGNATED POINTS. THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
 - THE PRIVATE ENGINEER SHALL FURNISH THE DEPARTMENT OF PUBLIC WORKS WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND "Y" OR "T" BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHIMNEYS SHALL NOT HAVE AN ANGLE LESS THAN 45° WITH THE M.L. SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
 - THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.

GENERAL NOTES: (CONT'D)

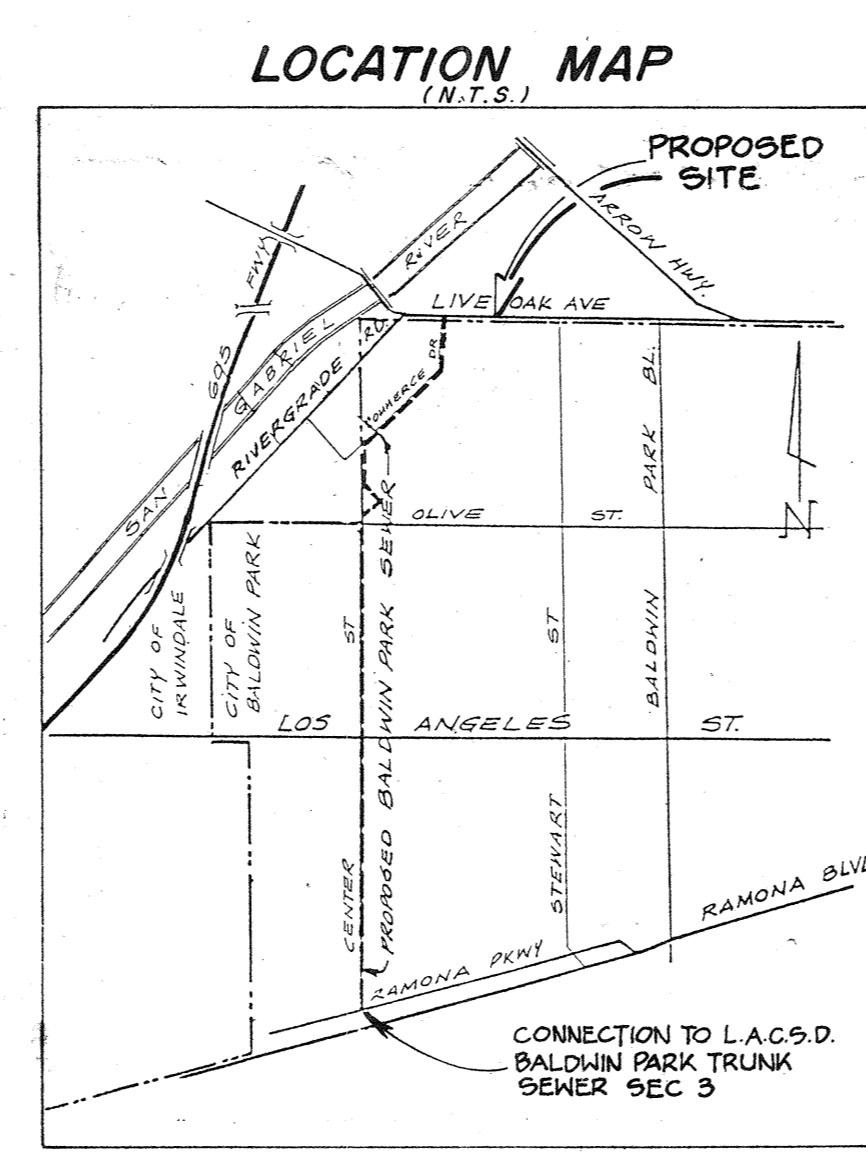
13. THIS SUBJECT SANITARY SEWER PROJECT WILL NOT BE ACCEPTED FOR MAINTENANCE UNTIL SUCH TIME THE OUTLET SEWER FB 256 HAS BEEN CONSTRUCTED AND ACCEPTED BY THE CITY OF IRWINDALE FOR PUBLIC USE.

CONSTRUCTION NOTES: (CONT'D)

14. BACKFILL TRENCH AND REPLACE OTHER EARTH REMOVED, SO AS TO ACHIEVE THE NATURAL OR FINISHED GRADES AND SLOPES SHOWN ON THE GRADING PLAN APPROVED FOR THIS PARCEL MAP BY THE CITY OF IRWINDALE.

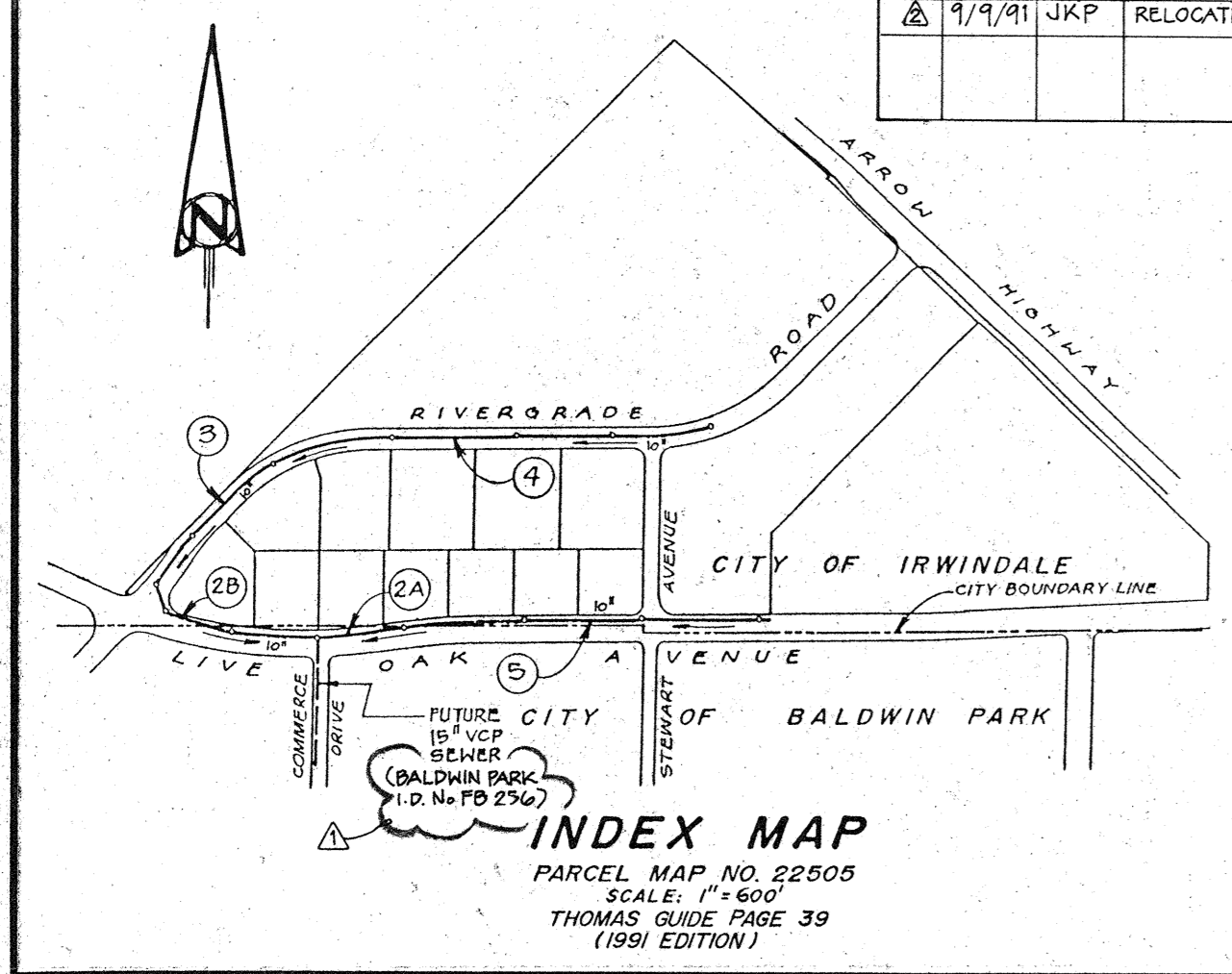
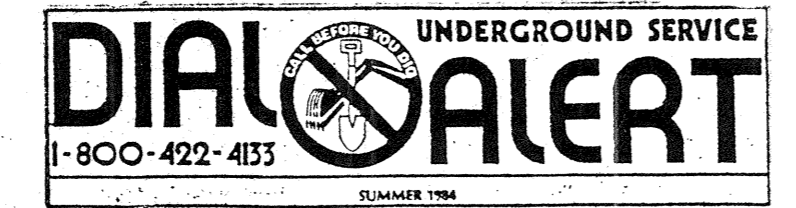
REVISIONS

REV.	DATE	INITIALS	DESCRIPTION	APP'D
1	7/16/91	J.K.P.	ADD NOTES, CHANGE L.A. COUNTY TO CITY OF IRWINDALE, ADD SIGNATURE BLOCKS; ADD B.C. & E.C.; CROSS-OUT PAGE 6; ADD 9' STUB @ COMMERC.	C.A.
2	9/9/91	J.K.P.	RELOCATE 10' ENCASING AND ADD ANOTHER ON PAGE 4.	C.A.



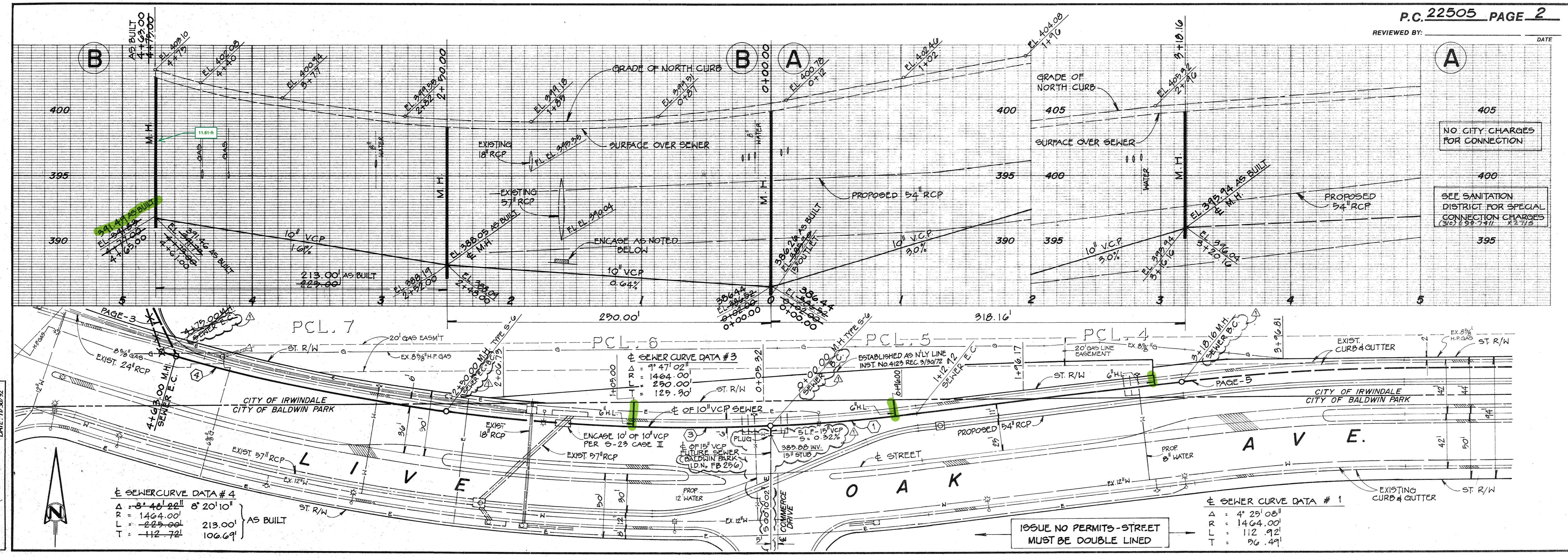
IMPORTANT NOTICE

Section 4216/4217 of the Government Code Requires a Dig-Alert Identification Number be Issued Before a "PERMIT TO EXCAVATE" WILL BE Valid. For your Dig Alert ID, Number call Underground Service Alert TOLL FREE 1 800 422 4133 Two working days before you dig.



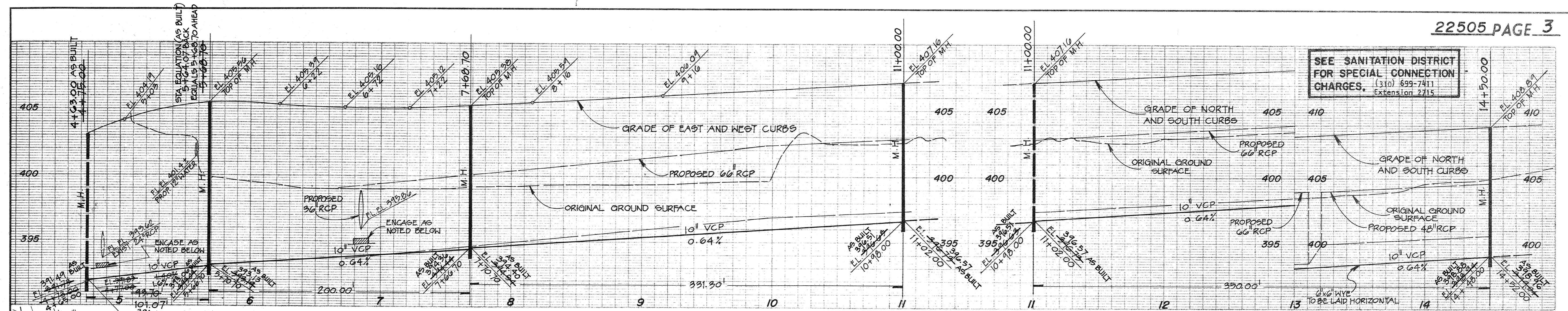
"RECORD DRAWINGS"
THESE "RECORD DRAWINGS" WERE PREPARED BY WILLIAMSON & SCHMID BASED ON SURVEY INFORMATION PROVIDED BY WILLIAMSON & SCHMID, UNLESS NOTED OTHERWISE. DATE: 11/20/92

DATE: 12/1/92
3/31/94 EXPIRES
28203 R.C.E.
ART RICO



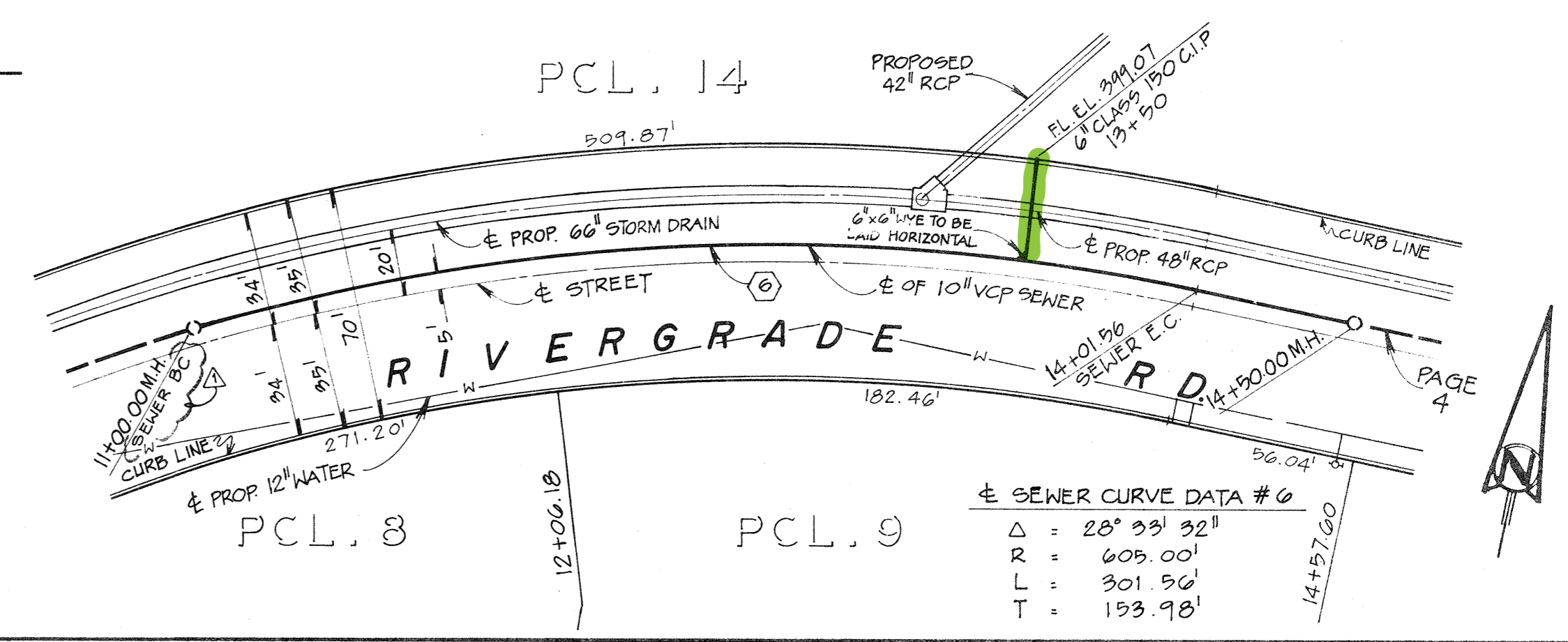
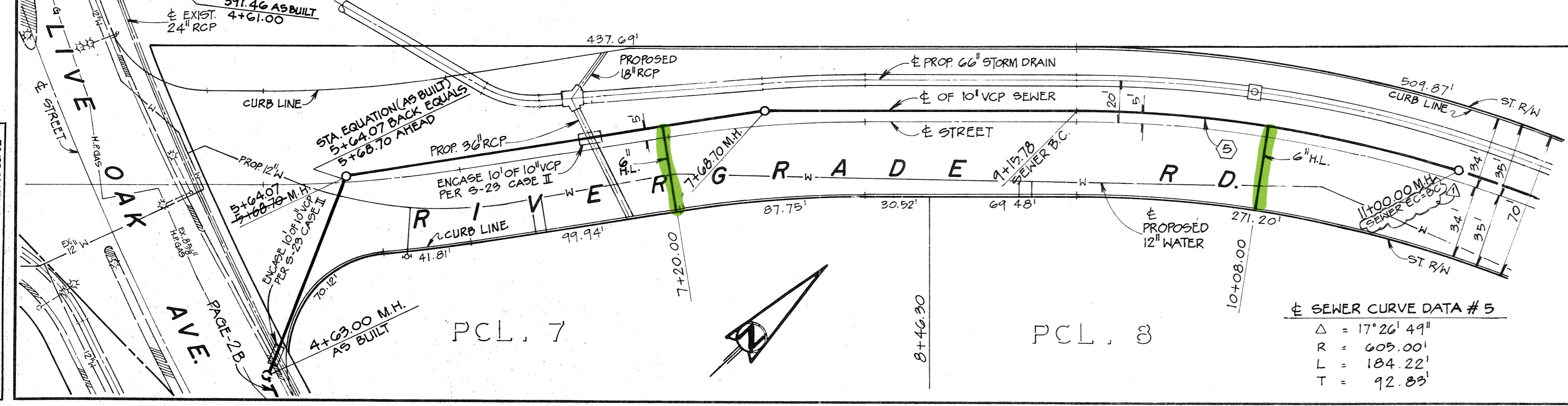
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SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES. (310) 699-7411 Extension 2715

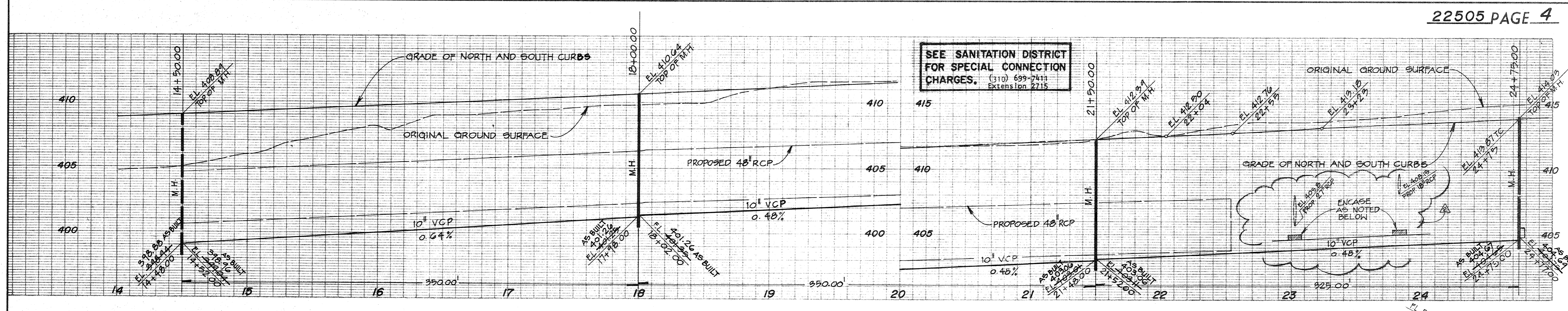


DATE: 12/1/92
EXPIRES: 9/3/94
R.C.E.: 26203
AET: RICO

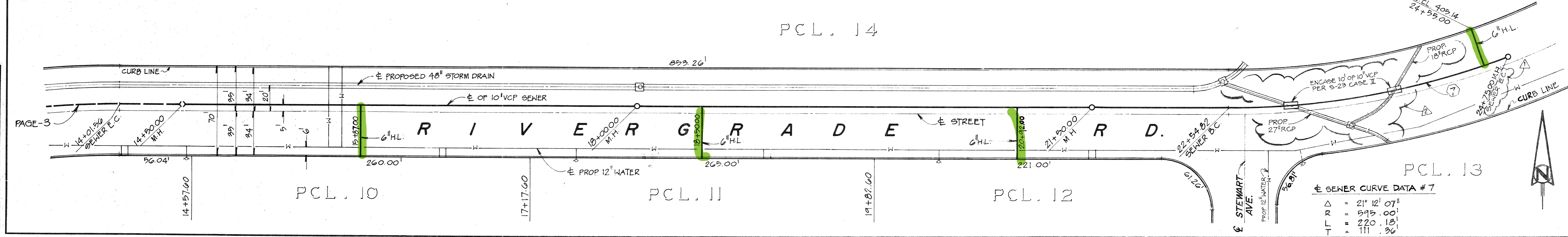
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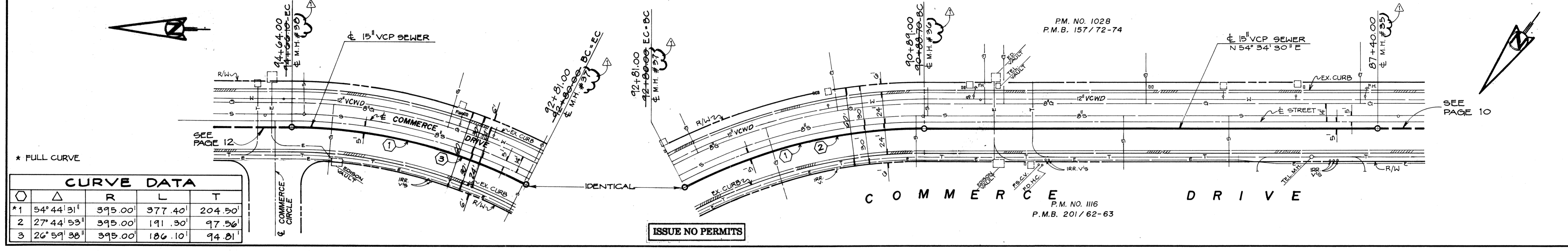
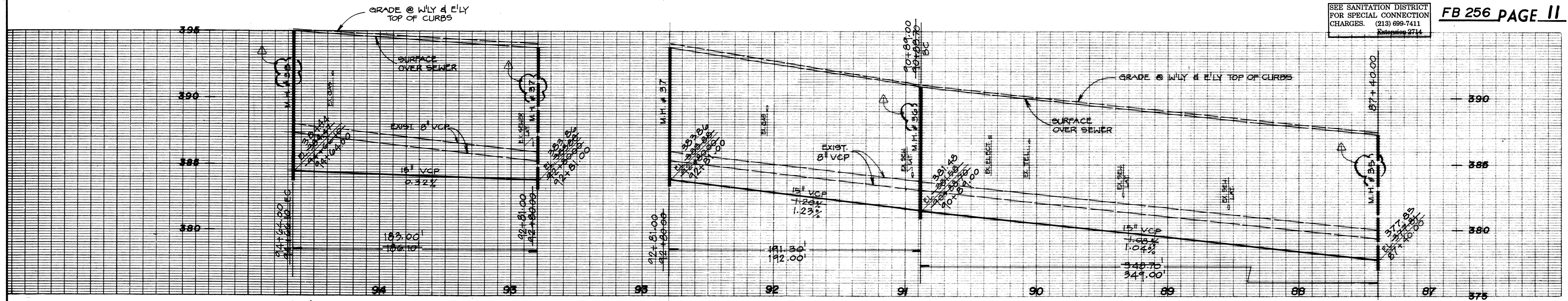
SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES. (310) 699-7411 Extension 2715



"RECORD DRAWINGS"
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SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES. (213) 699-7411 Extension 2714

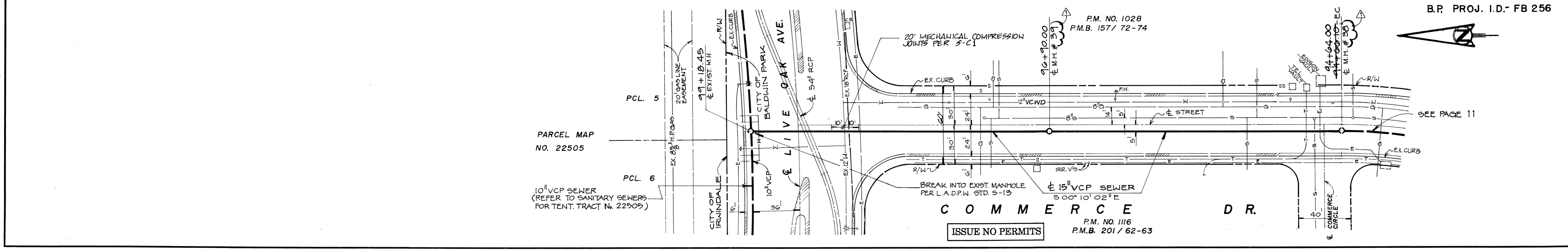
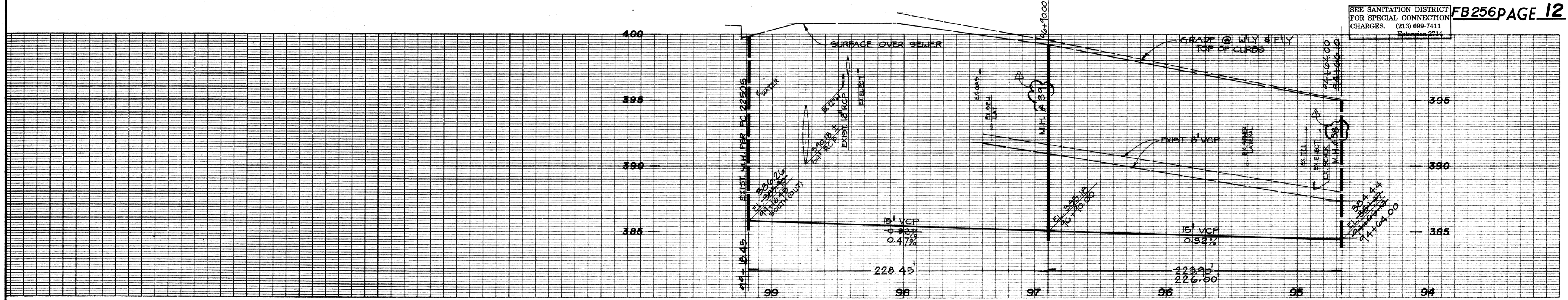


* FULL CURVE

CURVE DATA				
Δ	R	L	T	
*1 54°44'31"	395.00'	377.40'	204.50'	
2 27°44'53"	395.00'	191.30'	97.56'	
3 26°59'38"	395.00'	186.10'	94.81'	

ISSUE NO PERMITS

SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES. (213) 699-7411 Extension 2714



PARCEL MAP NO. 22505

10" VCP SEWER (REFER TO SANITARY SEWERS FOR TENT. TRACT No. 22505)

20' MECHANICAL COMPRESSION JOINTS PER 5'-11"

BREAK INTO EXIST MANHOLE PER L.A.D.P.W. STD. 5-13

COMMERCIE DR.

ISSUE NO PERMITS

SEE PAGE 11

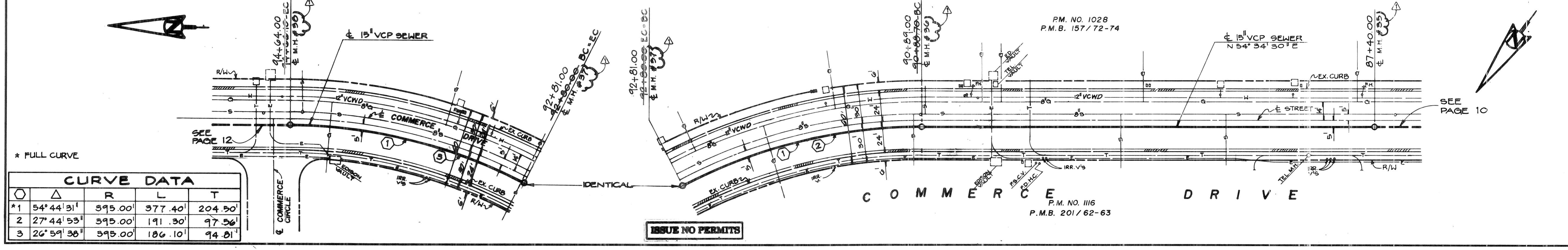
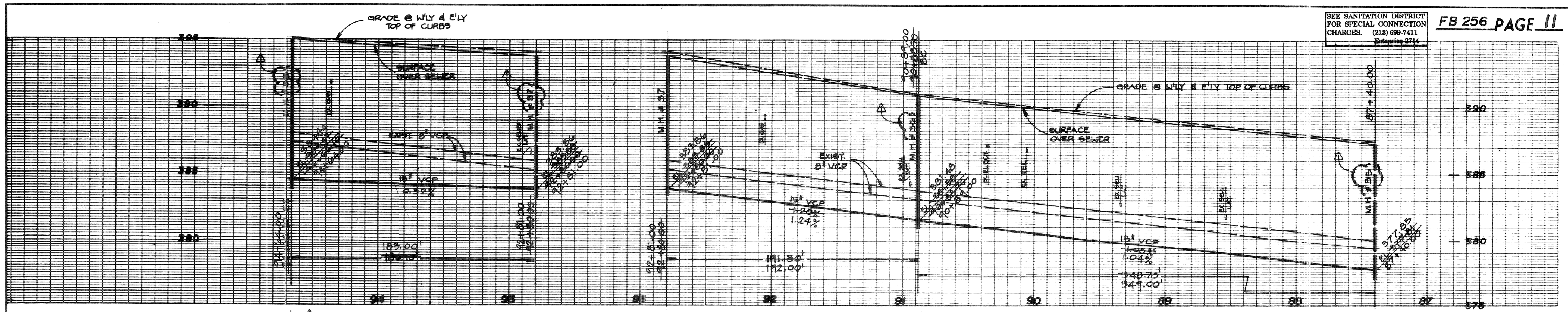
ART RICO
 26203 R.C.E.
 5/31/94 EXPIRES
 12/1/92 DATE

ART RICO
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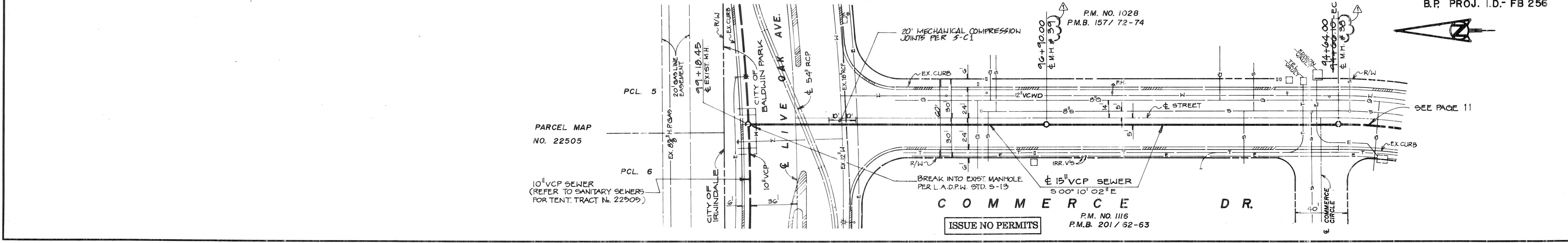
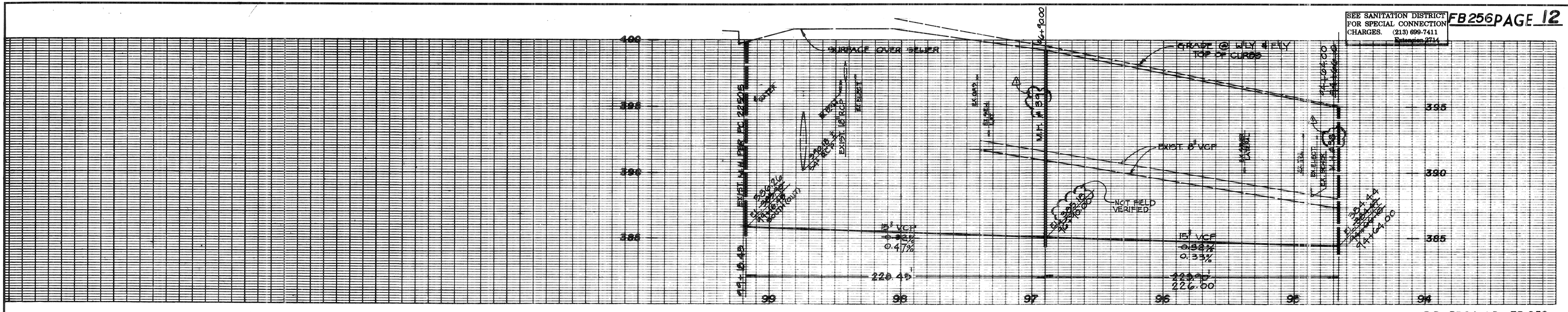
SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES. (213) 699-7411



* FULL CURVE

Δ	R	L	T
*1 54°44'31"	395.00'	377.40'	204.50'
2 27°44'53"	395.00'	191.30'	97.56'
3 26°59'36"	395.00'	186.10'	94.81'

SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES. (213) 699-7411



ART RICO
 28203 P.C.E.
 3/31/94 EXPIRES
 12/1/92 DATE

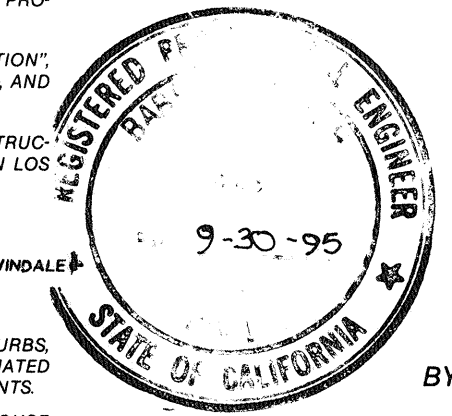
"RECORD DRAWINGS"
 THESE RECORD DRAWINGS WERE PREPARED BY WILLIAMSON & SCHMID BASED ON SURVEY INFORMATION PROVIDED BY WILLIAMSON & SCHMID. UNLESS NOTED OTHERWISE, DATE: 11/30/92

PARCEL MAP NO. 22505
 10" VCP SEWER (REFER TO SANITARY SEWERS FOR TENT. TRACT N. 22505)

ISSUE NO PERMITS
 P.M. NO. 1028 P.M.B. 157/72-74
 P.M. NO. 1116 P.M.B. 201/62-63

SANITARY SEWERS

TO BE CONSTRUCTED IN
CENTER ST. & COMMERCE DR.
CITY OF BALDWIN PARK
AND CITY OF IRWINDALE
PRIVATE CONTRACT NO. FB 256



INDEX
7 SHEETS; 13 PAGES

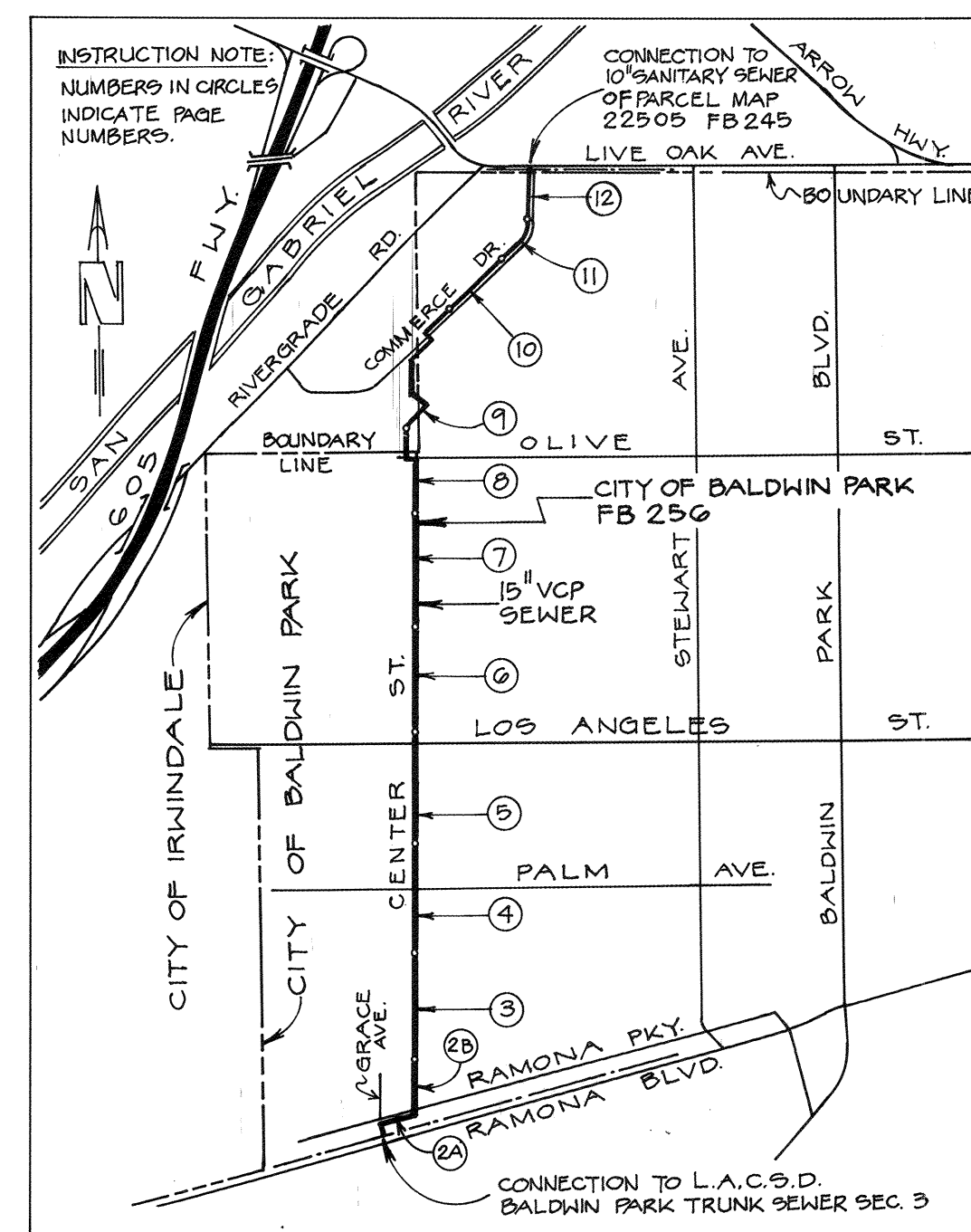
SCALE: VERT. 1"=4'
HORIZ. 1"=40'

MAY 1, 1991

PREPARED IN THE OFFICES OF
WILLIAMSON & SCHMID
1501 Redhill Ave., Tustin, California 92680
TEL. NO. (714) 259-7900

BY: *B.L. Beach*
REG. C.E. No. 34328 EXP. DATE 09/30/95

B.M. C.G. 3288 ELEV. 336.646
R.D.B.M. TAG IN N. CB 40FT. N.+105FT.
E. C/L INT. RAMONA BLVD. AND FOSTER
AVE.
COVINA QUAD. 1975



INDEX MAP
SCALE: 1"=100'
THOMAS GUIDE, PAGE 39 (1991 EDITION)

SEE SHEET 7, PAGE 13
FOR 600' SCALE
INDEX MAP.

CONSTRUCTION NOTES & QUANTITIES:

1 - SAWCUT & REMOVE AC PAVEMENT (GUTTER TO GUTTER)	14,616 S.F.
2 - CONSTRUCT 4" AC PAVEMENT (GUTTER TO GUTTER)	14,616 S.F.
3 - COLD PLANE 8" WIDE - ADJACENT TO GUTTERS ON EAST & WEST SIDE OF STREET	28,930 S.F.
4 - LAY ENGINEERING FABRIC (GUTTER TO GUTTER)	104,148 S.F.
5 - CONSTRUCT 1 1/2" AC OVERLAY (GUTTER TO GUTTER)	104,148 S.F.
6 - SEAL & SLURRY CRACKS AS REQUIRED	1 L.S.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

The existence and location of any underground utility pipes or structures shown on this plan are obtained by a search of available records. To the best of our knowledge there are no existing utilities except as shown on these plans. The contractor is required to take due precautionary measures to protect the utilities shown and any other lines or structures not shown on these plans.

All contractors and subcontractors performing work shown on or related to these plans shall conduct their operations so that all employees are provided a safe place to work and the public is protected. All contractors and subcontractors shall comply with the "Occupational Safety and Health Regulation" of the U.S. Department of Labor, and with the State of California Department of Industrial Relations' "Construction Safety Orders."

The civil engineer shall not be responsible in any way for the contractors' and subcontractors' compliance with the "Occupational Safety and Health Regulations" of the U.S. Department of Labor or with the State of California Department of Industrial Relations' "Construction Safety Orders."

Contractor further agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property, that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

- GENERAL NOTES:**
- A SEWER CONSTRUCTION PERMIT SHALL BE OBTAINED AND A FEE PAID FOR CONSTRUCTION INSPECTION AND RECORD PLANS TO THE CITY OF BALDWIN PARK AT 1400 E. INGRAM BLVD. BALDWIN PARK, CA 91706 PRIOR TO STARTING WORK UNDER THIS CONTRACT. COPIES OF ALL OTHER REQUIRED PERMITS, SUCH AS ROAD EXCAVATION, CALTRANS, ETC., MUST BE FILED WITH THE PERMIT APPLICATION.
 - PRIOR TO ISSUANCE OF ANY PERMIT, THE CONTRACTOR SHALL FILE A PERMIT FOR EXCAVATIONS AND TRENCHES FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY AND A CERTIFICATE OF WORKERS COMPENSATION INSURANCE WITH THE DEPARTMENT OF PUBLIC WORKS NAMED AS THE CERTIFICATE HOLDER TO BE NOTIFIED 30 DAYS PRIOR TO CANCELLATION OF POLICY.
 - IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.
 - WHEN WORK IS WITHIN A CONTRACT CITY, THE CONTRACTOR MUST CONTACT THE DIRECTOR OF PUBLIC WORKS OF THAT CITY, TO DETERMINE THE LOCATION TO PAY THE INSPECTION FEE.
 - THE CONTRACTOR SHALL CONTACT THE CITY OF BALDWIN PARK AND IRWINDALE TO ARRANGE FOR AN ACCEPTABLE CONSTRUCTION START DATE, AND SHALL NOTIFY THE CITY ENGINEERS OF BALDWIN PARK AND IRWINDALE AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
 - APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION AS TO ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.
 - ALL WORK SHALL BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1988 EDITION," INCLUDING SUPPLEMENTS AND THE SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWERS, DATED JULY 31, 1989, AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE CITY OF BALDWIN PARK AND IRWINDALE.
 - THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10.4.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARD TO SAFETY ORDERS AND SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENTS" AS SHOWN ON LOS ANGELES DEPARTMENT OF PUBLIC WORKS STANDARD S-2.
 - ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.
 - NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE CITY ENGINEERS OF BALDWIN PARK AND IRWINDALE.
 - NO REPRESENTATIVE OF THE DEPARTMENT OF PUBLIC WORKS WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
 - GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTERLINE OF STREETS, OR CENTERLINE OF ALLEYS, ARE SHOWN BY CIRCLES ON PROFILES AT ALL POINTS BETWEEN DESIGNATED POINTS. THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
 - THE PRIVATE ENGINEER SHALL FURNISH THE DEPARTMENT OF PUBLIC WORKS WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND "Y" OR "T" BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHIMNEYS SHALL NOT HAVE AN ANGLE OF LESS THAN 45° WITH THE M.L. SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
 - THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.

- LEGEND:**
- EX. 8" WATER VALVE (UNLESS OTHERWISE NOTED)
 - EX. WATER METER
 - EX. FIRE HYDRANT
 - EX. SEWER MANHOLE (UNLESS OTHERWISE NOTED)
 - C.B. EX. CATCH BASIN
 - VVMM - VALLEY VIEW MUTUAL WATER FACILITY
 - VWDM - VALLEY COUNTY WATER DISTRICT FACILITY
- NO CONNECTION FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS UNLESS A PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE HAS BEEN ISSUED BY THE SANITATION DISTRICT FOR SAID CONNECTION.
- BEFORE BREAKING INTO OR CONSTRUCTION ON A COUNTY SANITATION DISTRICT SEWER AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, SANITATION DISTRICT INSPECTOR SHALL BE NOTIFIED BY PHONE (818) 982-8905 SO THAT REQUIRED INSPECTION CAN BE MADE.

IMPORTANT NOTICE

Section 42164217 of the Government Code Requires a Dig-Alert Identification Number be Issued Before a "PERMIT TO EXCAVATE" WILL BE Valid. For your Dig Alert I.D. Number call Underground Service Alert TOLL FREE 1 800 422 4133 Two working days before you dig.

1-800-422-4133

REVISIONS

REV.	DATE	INITIALS	DESCRIPTION	APP'VD.
1	1/14/91	J.K.P.	MODIFY SEWER @ STA. 64+14.72 - RENUMBER MANHOLES. ADD EXISTING UTILITY FACILITIES.	C.A.
2	10/30/91	BLB	REDUCED LENGTH OF JACKED PIPE AT STA. 63+50 BY 3 FEET.	C.A.
3	12/30/91	BLB	CHANGED M.H. NO. 2 FROM 90" TO 45", ADDED REF TO LICENSE AGREEMENT, REVISED R.C.E. EXP. DATE.	C.A.
4	4/13/92	BLB	CHANGED CONST. NOTE 3 FROM COLD PLANE 8" WIDE - ADJACENT TO GUTTERS ON EAST & WEST SIDES	C.A.

- CONSTRUCTION NOTES (CONTD):**
- SEWER TRENCH BACKFILL WITHIN EASEMENT: BACKFILL TRENCH AND REPLACE OTHER EARTH REMOVED, SO AS TO ACHIEVE THE NATURAL OR FINISHED GRADES AND SLOPES SHOWN ON THE GRADING PLAN APPROVED FOR THIS TRACT/PARCEL MAP BY THE CITY OF BALDWIN PARK.

"RECORD DRAWINGS"
THESE "RECORD DRAWINGS" WERE PREPARED BY WILLIAMSON & SCHMID BASED ON SURVEY INFORMATION PROVIDED BY WILLIAMSON & SCHMID. UNLESS NOTED OTHERWISE, DATE: 11/30/92

THE FOLLOWING LATEST REVISED STANDARD PLANS ON FILE IN THE OFFICE OF THE DEPARTMENT OF PUBLIC WORKS SHALL APPLY IN THE CONSTRUCTION OF THIS PROJECT:

LEGEND	S-1
MINIMUM PUBLIC SAFETY REQUIREMENTS	S-2
BRICK MANHOLE	S-3
REINFORCED PRECAST CONCRETE MANHOLE	S-4
STANDARD MANHOLE STEP	S-17
BEDDING FOR SEWER PIPE	S-21
GRADING AND ENCASUREMENT	S-23
WYE OR TEE SUPPORT	S-28
ALLOWABLE TRENCH WIDTHS	S-33
LOCKING MANHOLE FRAME AND COVER	S-35
NON-REINFORCED PRECAST CONCRETE MANHOLE	S-36
DESIGN REQUIREMENT FOR SANITARY SEWER NEAR WATER MAIN	S-37
BREAKING INTO AN EXISTING MANHOLE	S-13
JACKING PIPE	S-37

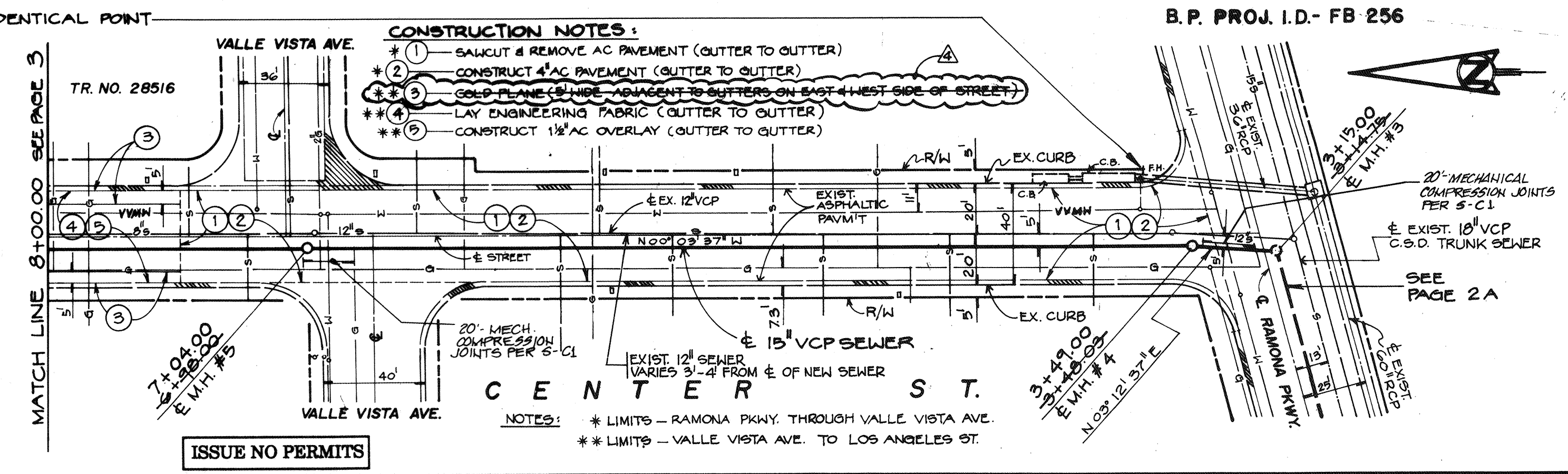
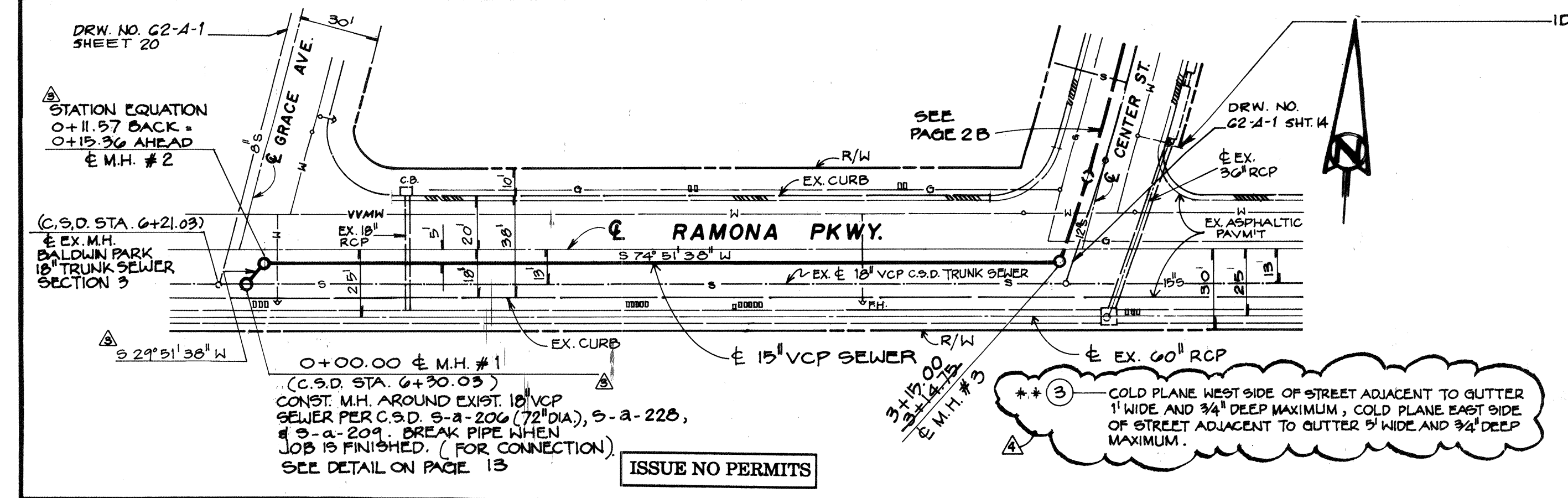
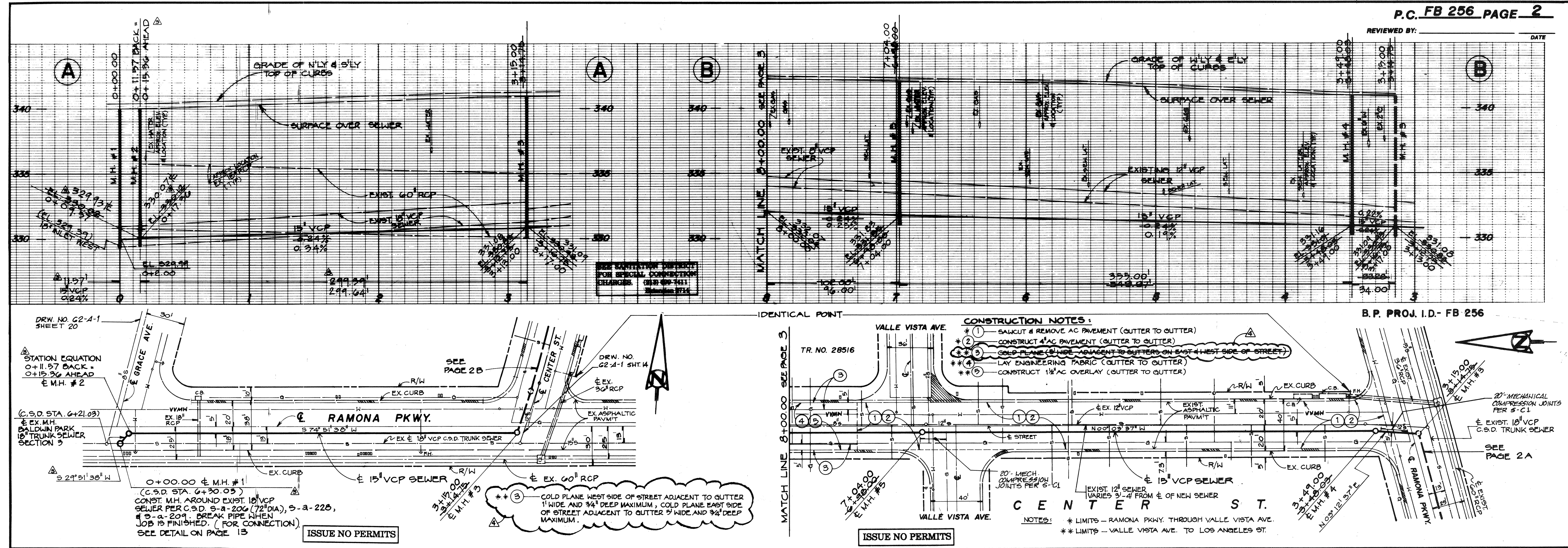
PROJECT I.D. NO. FB 256 (BALDWIN PARK)
CITY OF IRWINDALE SEWER PER SEWER LICENSE AGREEMENT
DATED: JANUARY 2, 1991

COUNTY OF LOS ANGELES, CALIFORNIA
CARLOS ALVARADO
CITY ENGINEER, CITY OF IRWINDALE

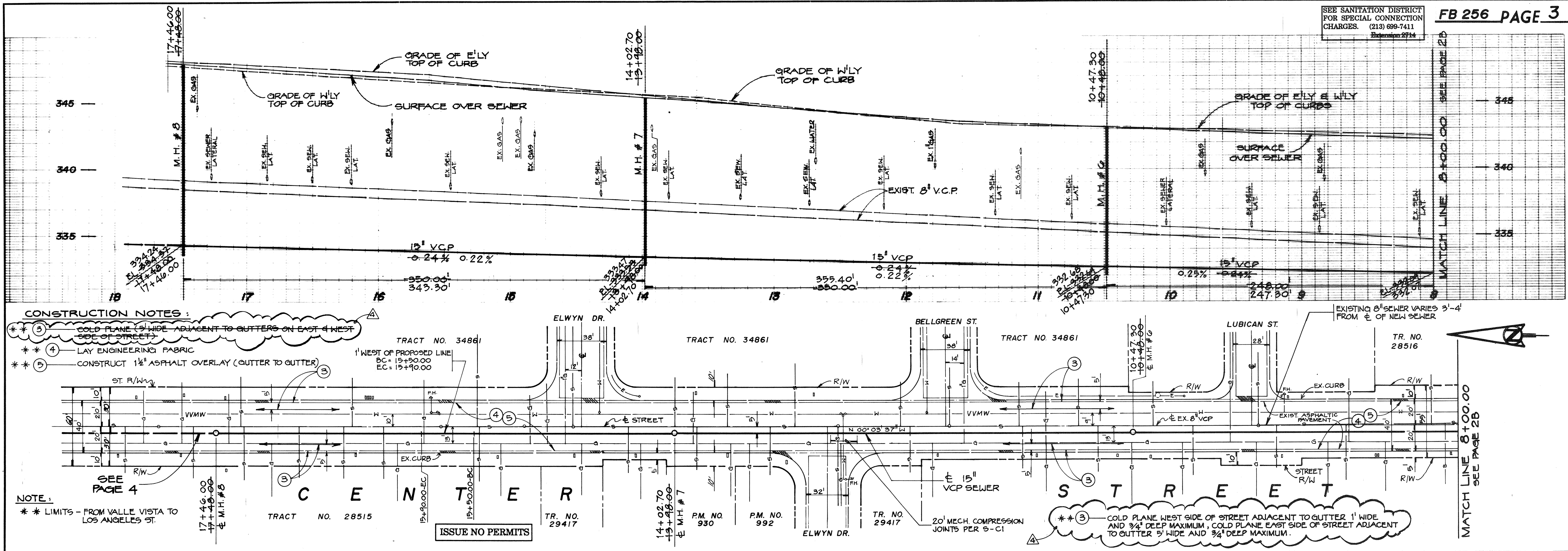
CITY ENGINEER, CITY OF BALDWIN PARK
APPROVED *Carlos Alvarado* 9/14/91 APPROVED *Charles W. Carry* 9/6/91
(DATE) (DATE)

DEPARTMENT OF PUBLIC WORKS
CONSOLIDATED SEWER MAINTENANCE DISTRICT
REVIEWED FOR MAINTENANCE

CHARLES W. CARRY
CHIEF ENGINEER
C.O.D. SANITATION DISTRICT NO. 15
APPROVED *Charles W. Carry* 12/1/91
(DATE) OFFICE ENGINEER



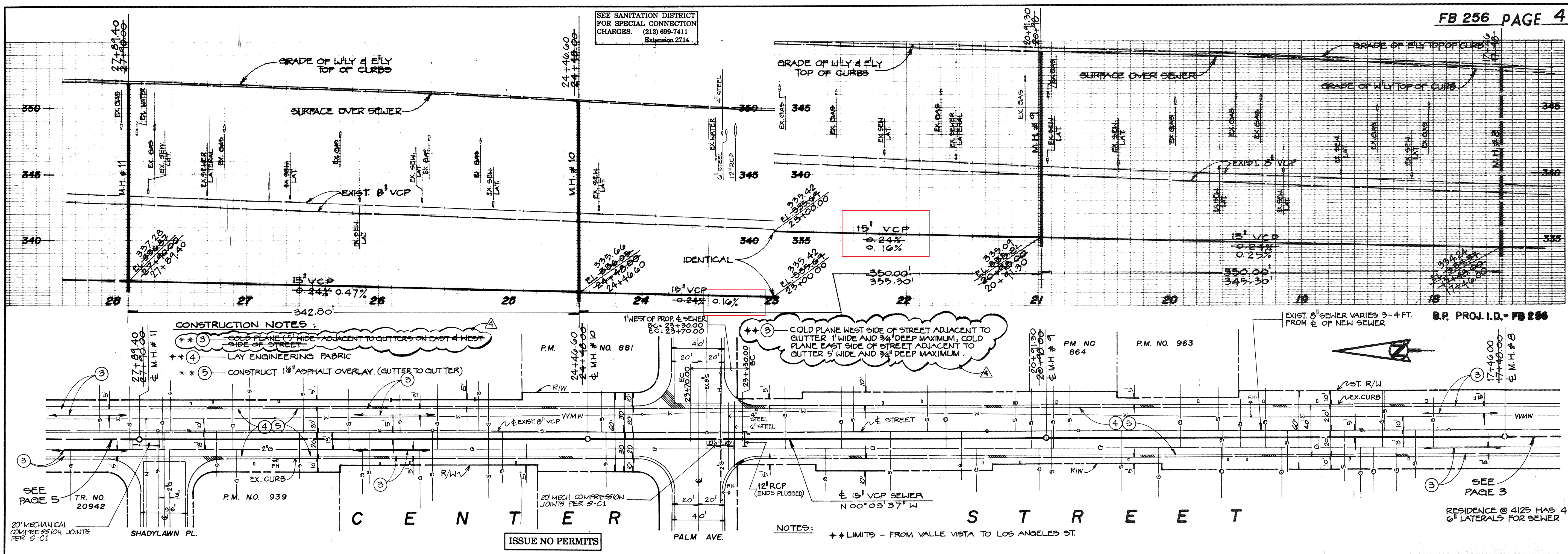
PC NO. FB 256



CONSTRUCTION NOTES:
 ** (3) COLD PLANE 5' WIDE ADJACENT TO GUTTERS ON EAST & WEST SIDE OF STREET
 ** (4) LAY ENGINEERING FABRIC
 ** (5) CONSTRUCT 1 1/2\"/>

NOTE:
 ** LIMITS - FROM VALLE VISTA TO LOS ANGELES ST.

RECORD DRAWINGS
 THESE RECORD DRAWINGS WERE PREPARED BY WILLIAMSON & SCHMID BASED ON SURVEY INFORMATION PROVIDED BY WILLIAMSON & SCHMID UNLESS NOTED OTHERWISE
 DATE: 11/30/92
 28203 R.C.E.
 3/9/94 EXPIRES
 12/1/92 DATE



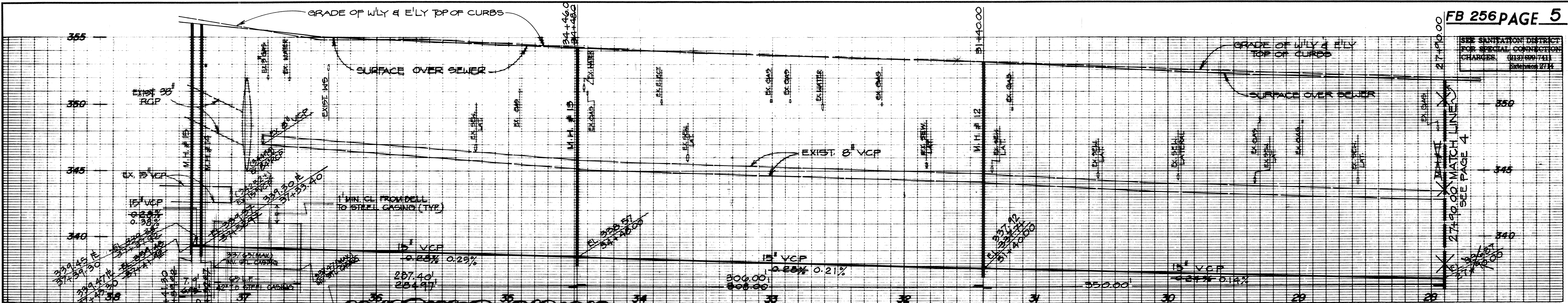
CONSTRUCTION NOTES:
 ** (3) COLD PLANE 5' WIDE ADJACENT TO GUTTERS ON EAST & WEST SIDE OF STREET
 ** (4) LAY ENGINEERING FABRIC
 ** (5) CONSTRUCT 1 1/2\"/>

NOTE:
 ** LIMITS - FROM VALLE VISTA TO LOS ANGELES ST.

RESIDENCE @ 4125 HAS 4EA. 6\"/>

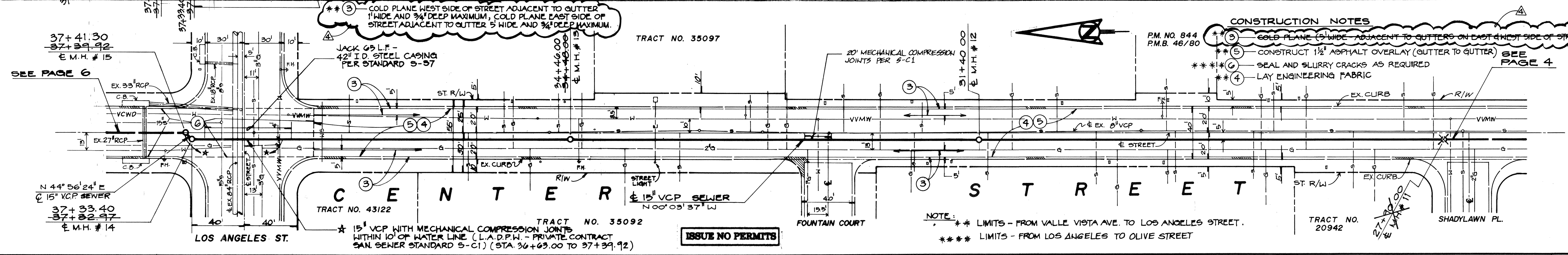
IRWINDALE SEWER AS-BUILTS - CENTER STREET
PC NO. FB 256

SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES (213) 899-7411 Extension 2714



DATE 12/11/92
EXPIRES 8/31/94
R.C.E. 28203
ART. RICO

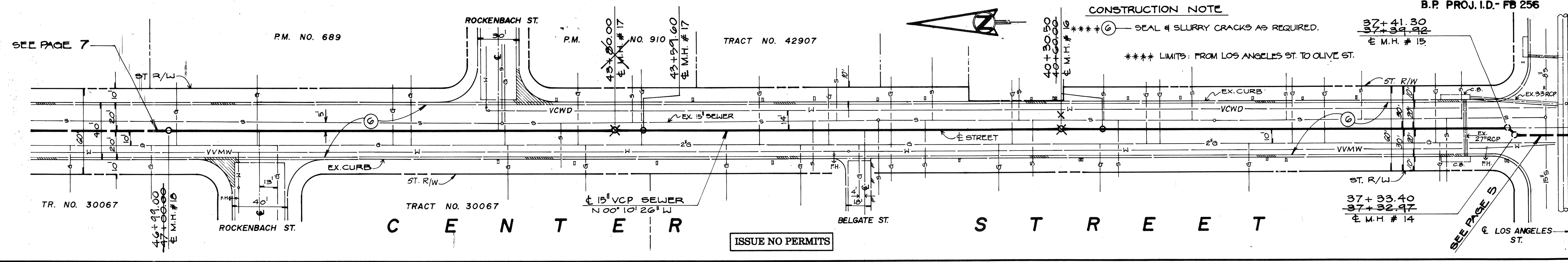
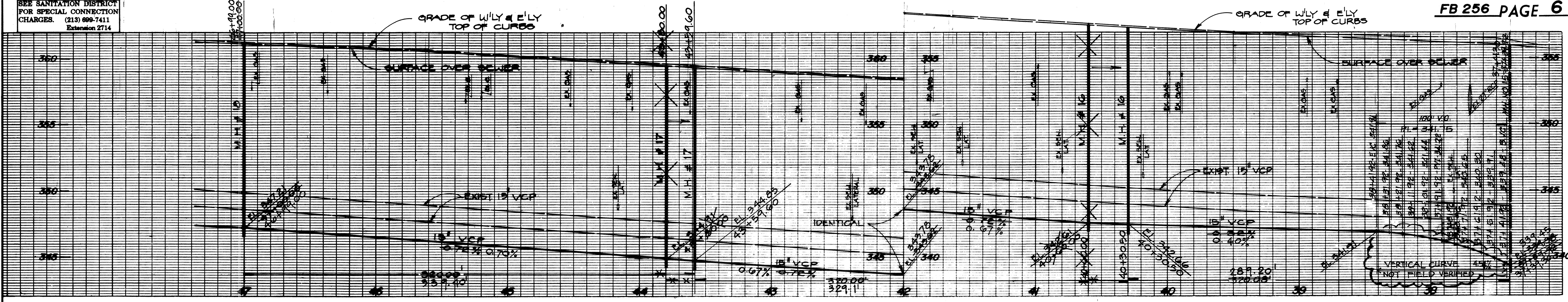
"RECORD DRAWINGS"
THESE "RECORD DRAWINGS" WERE PREPARED BY WILLIAMSON & SCHMID BASED ON SURVEY INFORMATION PROVIDED BY WILLIAMSON & SCHMID, UNLESS NOTED OTHERWISE. DATE: 11/30/92



CONSTRUCTION NOTES
1. COLD PLANE (3" WIDE) ADJACENT TO GUTTERS ON EAST (WEST) SIDE OF STREET
2. CONSTRUCT 1 1/2" ASPHALT OVERLAY (GUTTER TO GUTTER) SEE PAGE 4
3. SEAL AND SLURRY CRACKS AS REQUIRED
4. LAY ENGINEERING FABRIC

NOTE: ** LIMITS - FROM VALLE VISTA AVE. TO LOS ANGELES STREET.
*** LIMITS - FROM LOS ANGELES TO OLIVE STREET

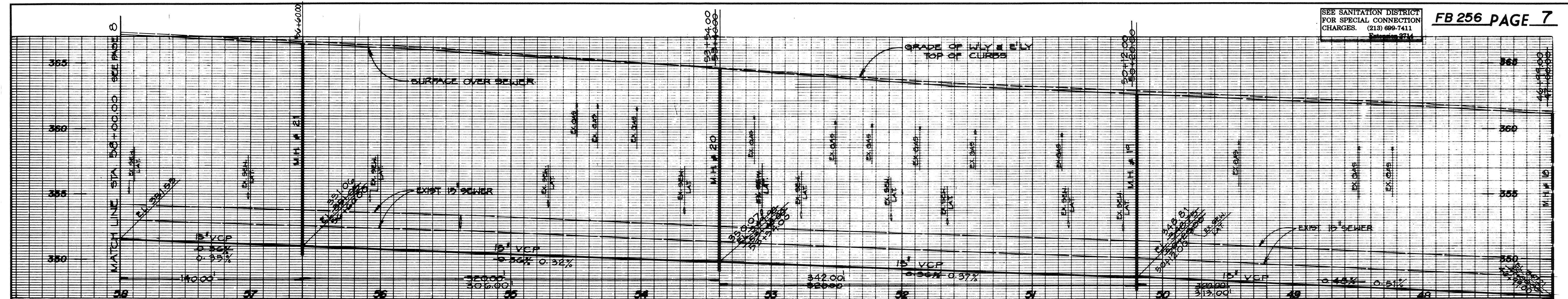
SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES (213) 899-7411 Extension 2714



CONSTRUCTION NOTE
1. SEAL & SLURRY CRACKS AS REQUIRED.
*** LIMITS - FROM LOS ANGELES ST. TO OLIVE ST.

B.P. PROJ. I.D. FB 256

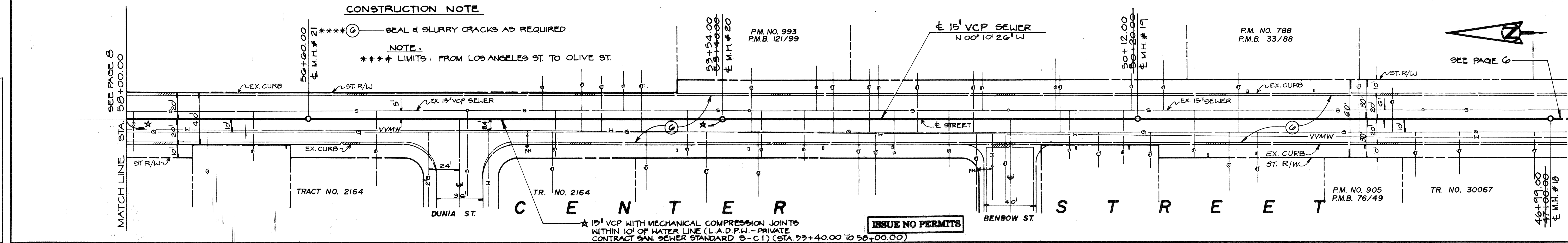
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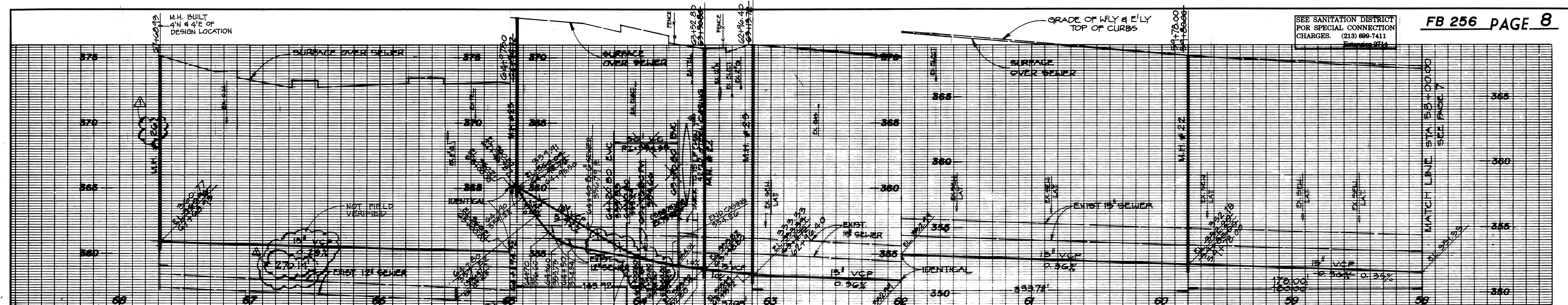
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 EXPIRES: 9/31/94
 R.C.E.: 28203
 ART. RICO

"RECORD DRAWINGS"
 THESE "RECORD DRAWINGS" WERE PREPARED BY WILLIAMSON & SCHEIDT BASED ON SURVEY BY WILLIAMSON & SCHEIDT FOR WILLIAMSON & SCHEIDT, UNLESS NOTED OTHERWISE. DATE: 11/30/92

CONSTRUCTION NOTE
 SEAL & SLURRY CRACKS AS REQUIRED.
NOTE:
 **** LIMITS: FROM LOS ANGELES ST. TO OLIVE ST.



★ 15" VCP WITH MECHANICAL COMPRESSION JOINTS WITHIN 10' OF WATER LINE (L.A.D.P.W. - PRIVATE CONTRACT SAN. SEWER STANDARD S-C1) (STA. 53+40.00 TO 58+00.00) **ISSUE NO PERMITS**



NOTE: CONTRACTOR TO LOCATE ALL FACILITIES WITH HOME SAVINGS OF AMERICA REPRESENTATIVE PER SPECIAL PROVISIONS BEFORE STARTING ANY EXCAVATION.

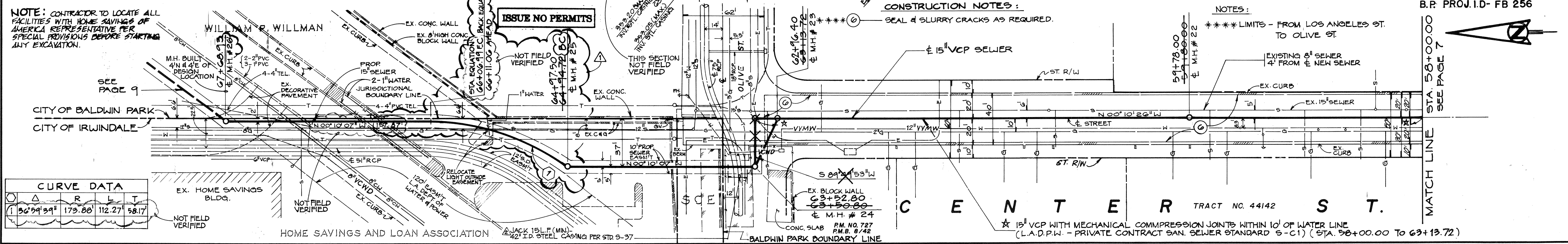
ISSUE NO PERMITS

CONSTRUCTION NOTES:
 SEAL & SLURRY CRACKS AS REQUIRED.

NOTES:
 **** LIMITS - FROM LOS ANGELES ST. TO OLIVE ST.

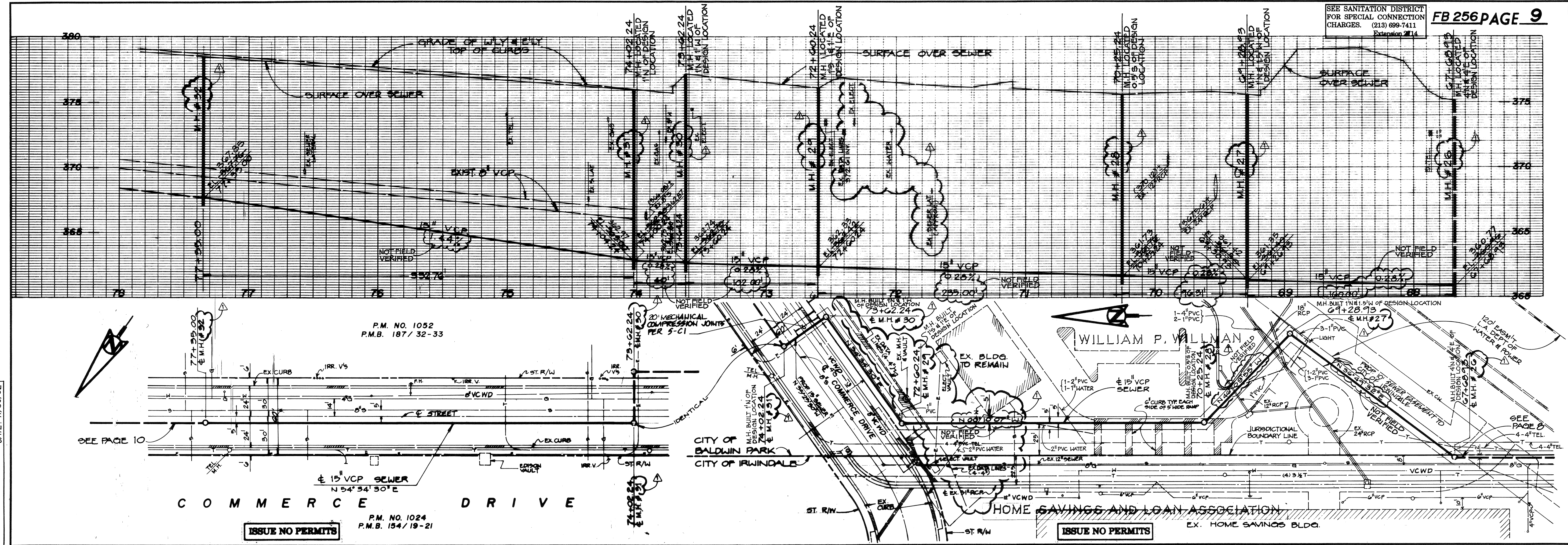
CURVE DATA

STATION	RIGHT	LEFT
156+94.99	179.00	112.27
58.17		



★ 15" VCP WITH MECHANICAL COMPRESSION JOINTS WITHIN 10' OF WATER LINE (L.A.D.P.W. - PRIVATE CONTRACT SAN. SEWER STANDARD S-C1) (STA. 58+00.00 TO 63+13.72) **ISSUE NO PERMITS**

PC NO. FB256



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ART. RICO
 DATE: 12/1/92
 EXPIRES: 8/31/94
 R.C.E.: 22203

P.M. NO. 1052
 P.M.B. 187 / 32-33

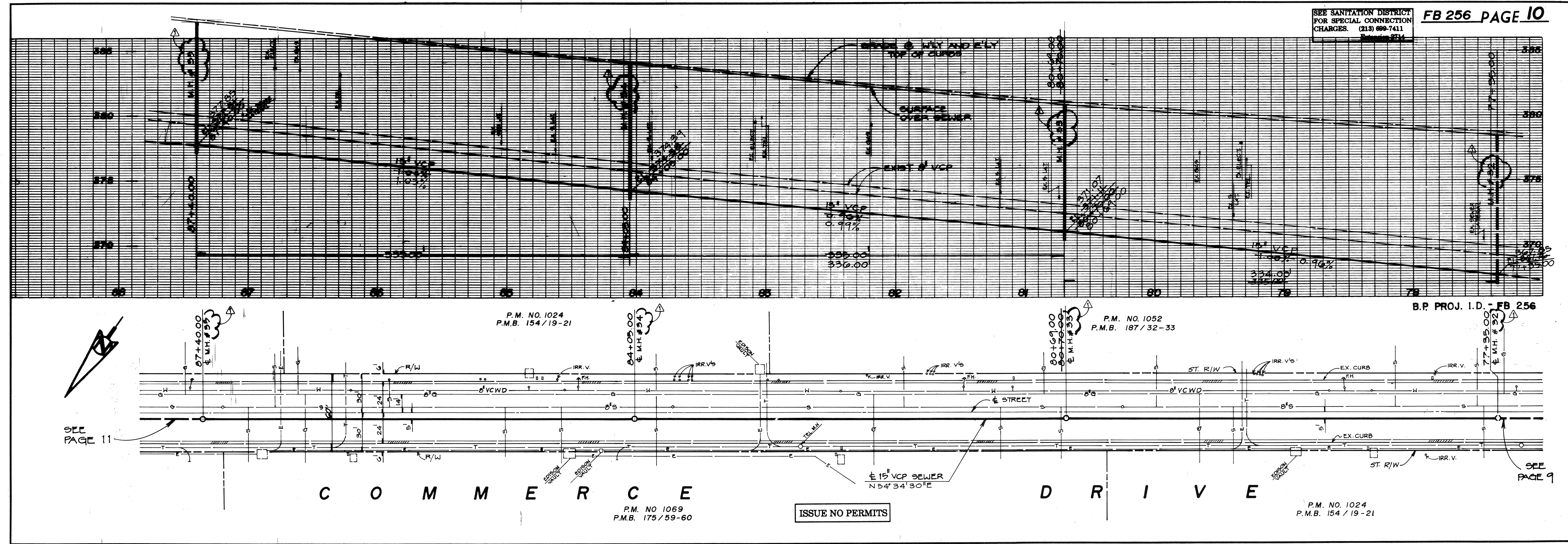
SEE PAGE 10

COMMERCE DRIVE

15" VCP SEWER
 N 54° 34' 30" E

ISSUE NO PERMITS

P.M. NO. 1024
 P.M.B. 154 / 19-21



P.M. NO. 1024
 P.M.B. 154 / 19-21

P.M. NO. 1052
 P.M.B. 187 / 32-33

SEE PAGE 11

COMMERCE DRIVE

15" VCP SEWER
 N 54° 34' 30" E

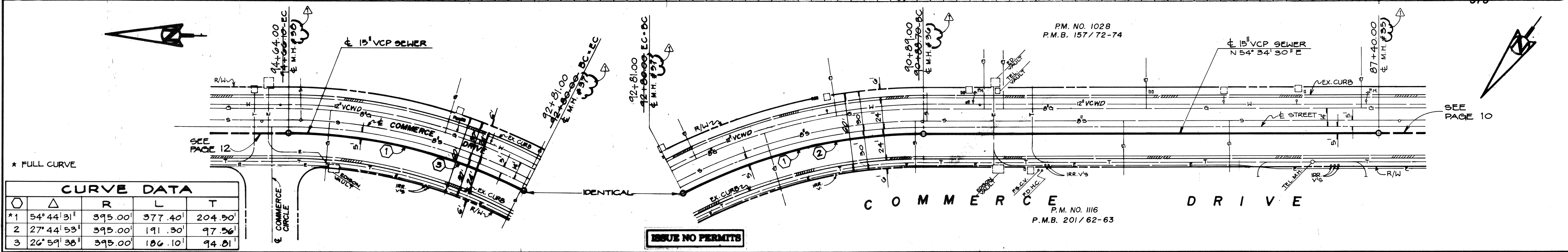
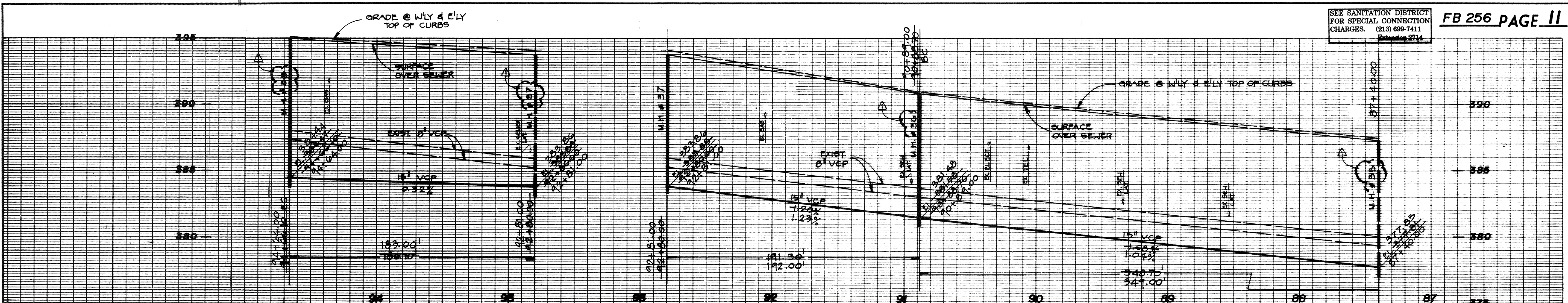
ISSUE NO PERMITS

P.M. NO. 1024
 P.M.B. 154 / 19-21

P.M. NO. 1069
 P.M.B. 175 / 59-60

PC NO. FB256

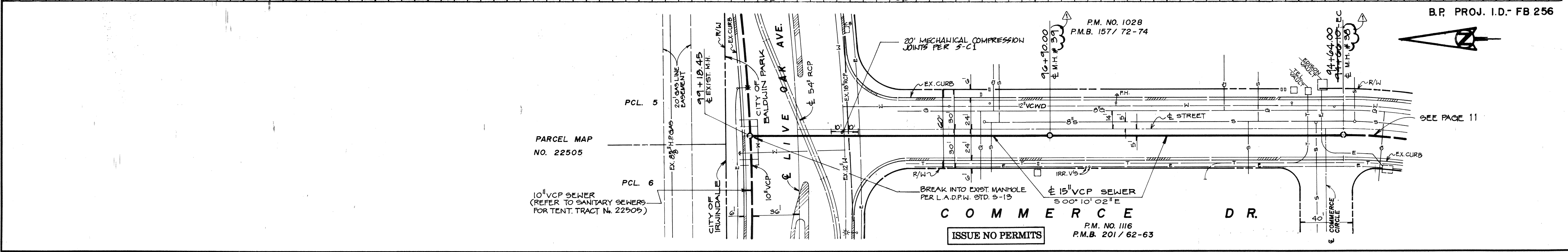
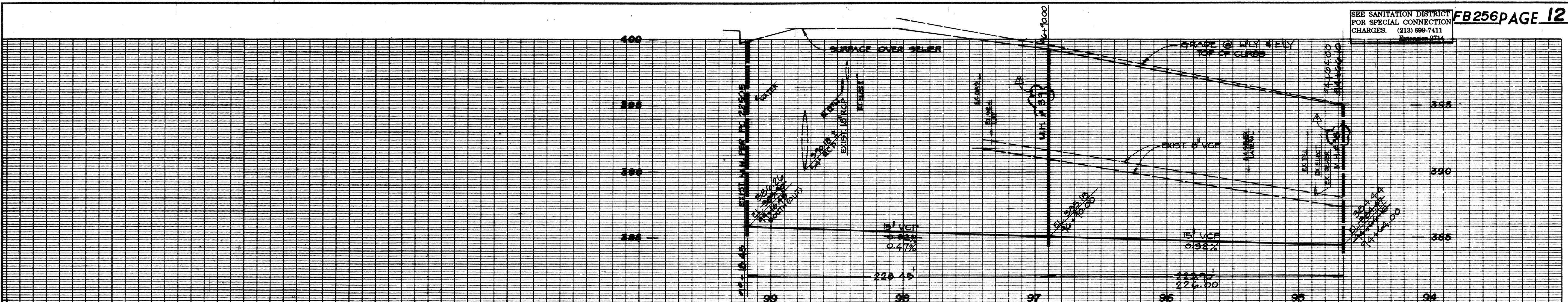
SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES. (213) 699-7411



* FULL CURVE

Δ	R	L	T
*1 54° 44' 31"	395.00'	377.40'	204.90'
2 27° 44' 53"	395.00'	191.30'	97.56'
3 26° 59' 38"	395.00'	106.10'	94.81'

SEE SANITATION DISTRICT FOR SPECIAL CONNECTION CHARGES. (213) 699-7411

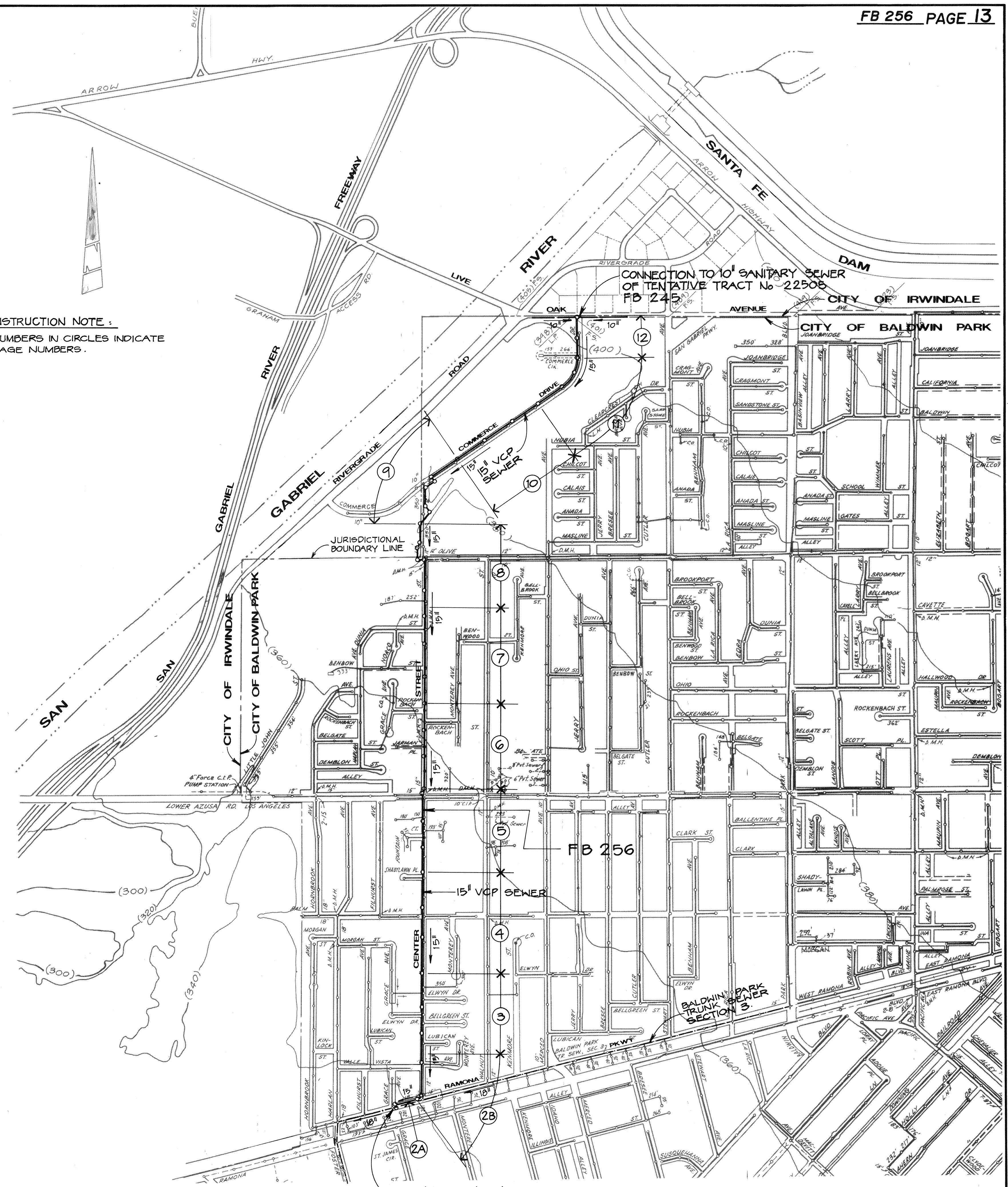
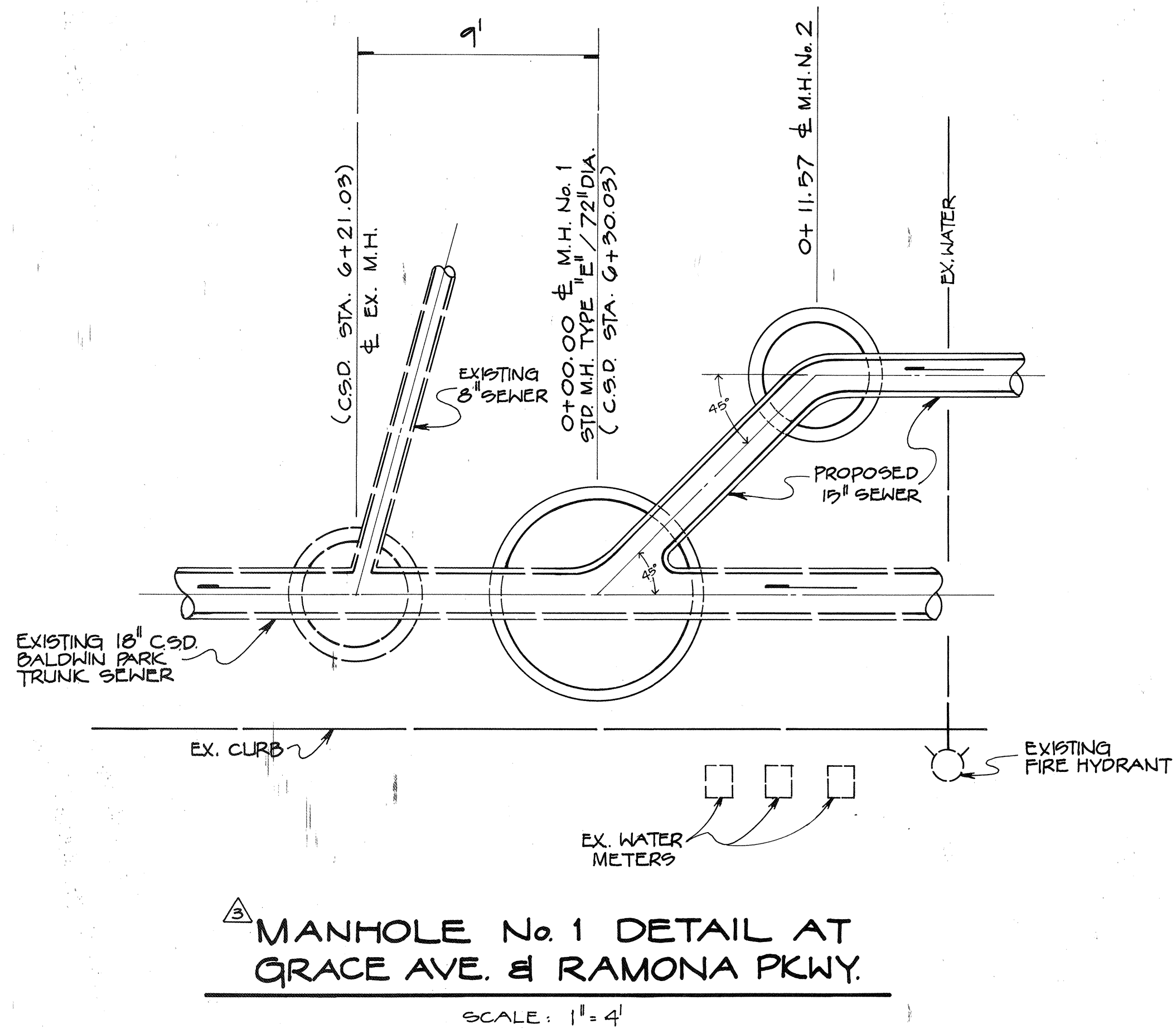


ART RICO
 28203 R.C.E.
 8/31/94 EXPIRES
 12/1/92 DATE

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PC NO. FB 256

INSTRUCTION NOTE:
NUMBERS IN CIRCLES INDICATE
PAGE NUMBERS.



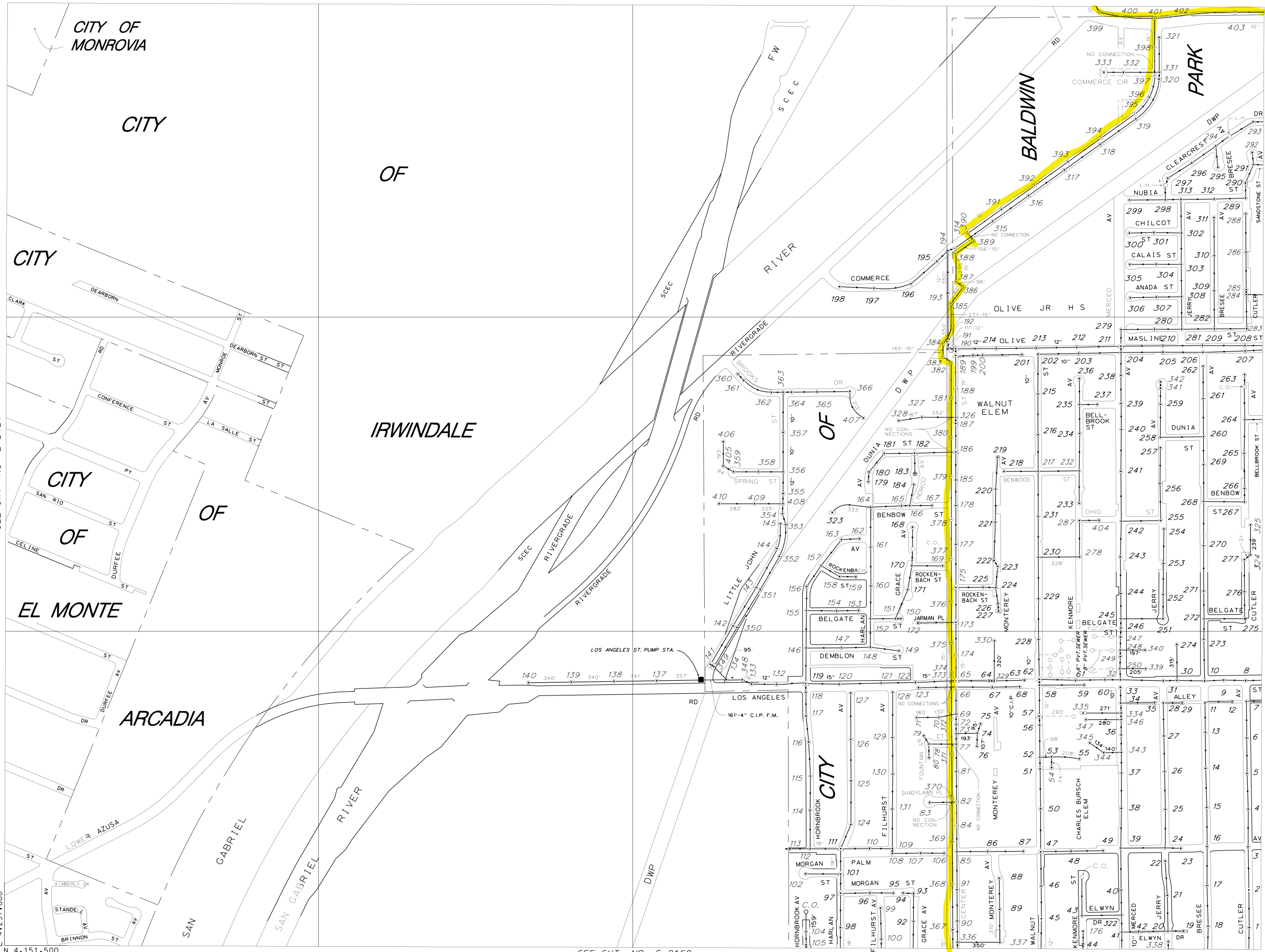
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 DATE: 11/30/92

ART R. RICO
 ART R. RICO 28203 3/31/94 12/1/92
 R.C.E. EXPIRES DATE

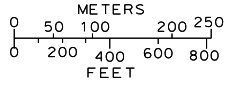
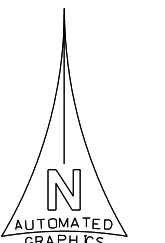
PC NO. FB 256

SEE SHT. NO. E-2167

U-67
U-68



THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.



LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- - - SEWERS NOT MAINTAINED BY SMD
- - - TRUNK SEWERS
- - - CITY BOUNDARY
- STANDARD MANHOLE
- △ DROP MANHOLE
- SHALLOW MANHOLE
- ◇ TRAP MANHOLE
- ⊕ WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 407

SEE SHT. NO. E-2121

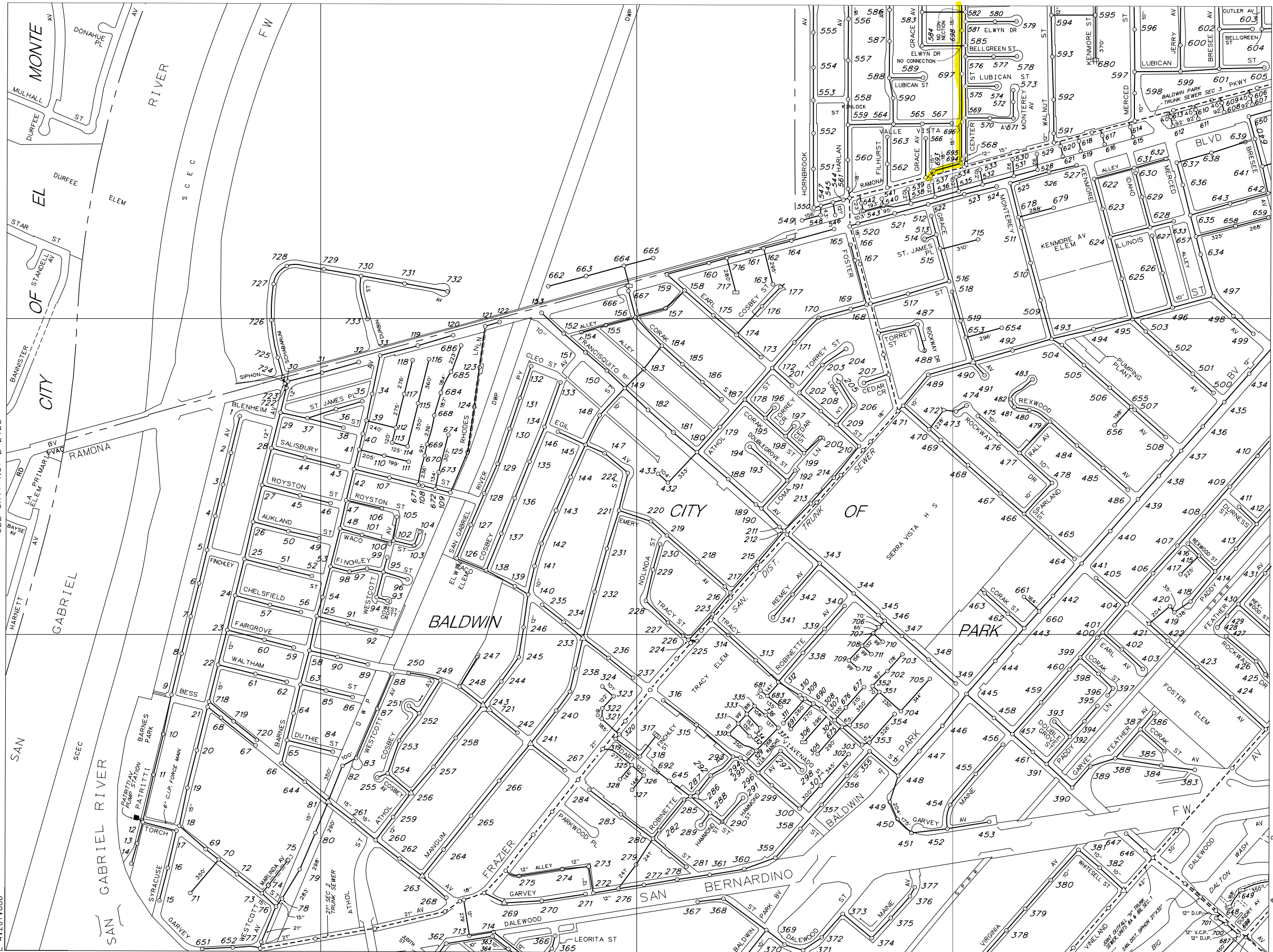
SEE SHT. NO. E-2214

SEE SHT. NO. E-2169

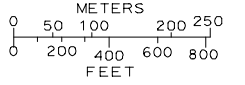
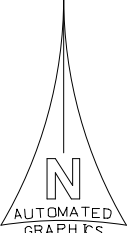
MAP REV
06-23-10
DATA BASE REV
01-25-89

SEE SHT. NO. E-2169

U-68
U-77
U-78



THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.



LEGEND

- CLAY SEWERS MAINTAINED BY SMD, 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- - - SEWERS NOT MAINTAINED BY SMD
- - - TRUNK SEWERS
- - - CITY BOUNDARY
- STANDARD MANHOLE
- △ DROP MANHOLE
- SHALLOW MANHOLE
- ◇ TRAP MANHOLE
- ⊕ WEIR MANHOLE
- CLEANOUT
- LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 731

L. A. COUNTY

SEE SHT. NO. E-2122

E 4-287-000
N 4-136-500

SEE SHT. NO. E-2170

SEE SHT. NO. E-2215

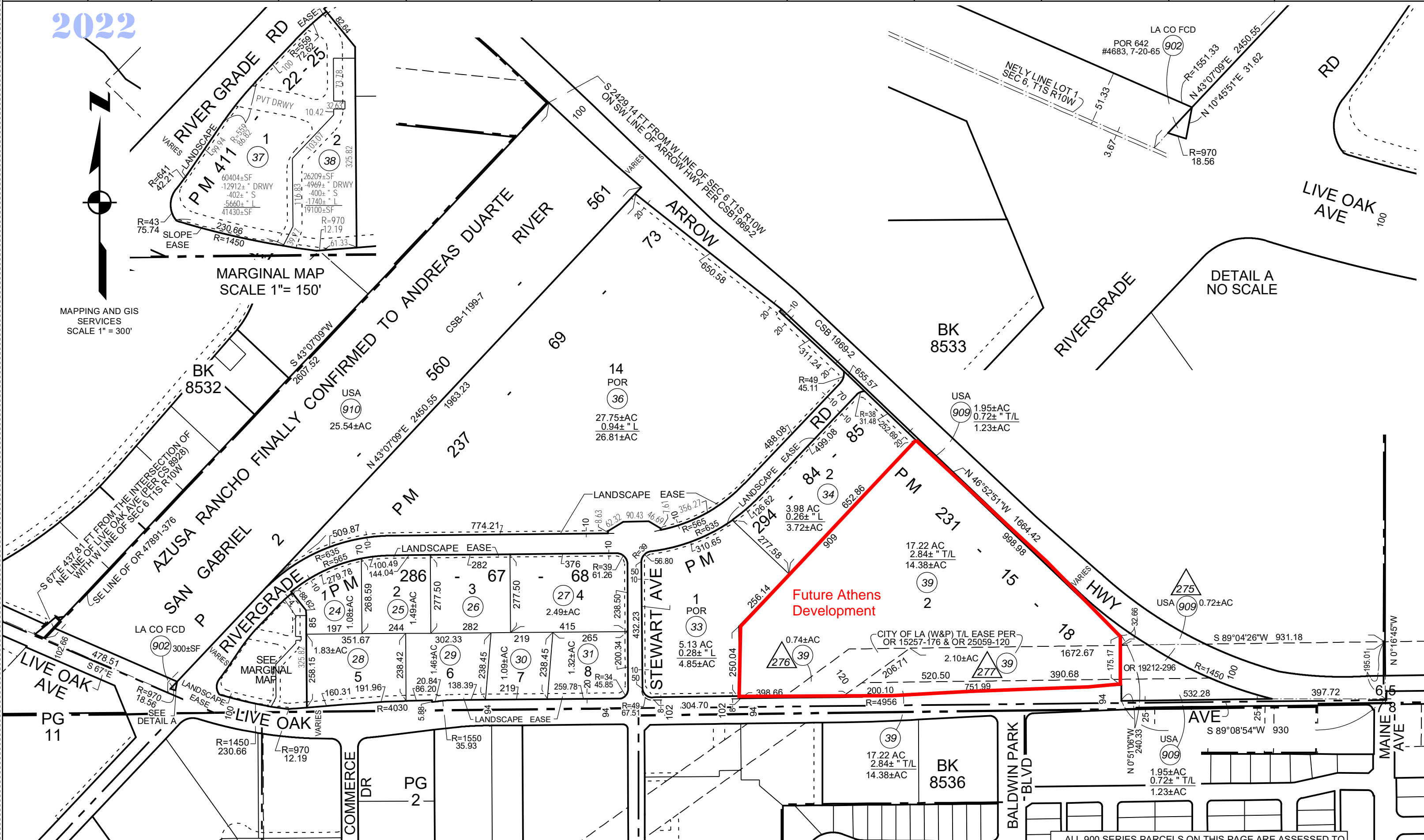
2022



MAPPING AND GIS SERVICES SCALE 1" = 300'

MARGINAL MAP SCALE 1" = 150'

DETAIL A NO SCALE



CITY OF IRWINDALE - ZONING MAP (2018)



- Legend**
- Irwindale Zoning Code**
- Zones**
- A1 - Agricultural
 - R1 - Single Family Residential
 - R2 - Light-Multiple Residential
 - R3 - Heavy-Multiple Residential
 - C1 - Neighborhood Commercial
 - C2 - Heavy Commercial
 - C3 - Heavy Commercial-Residential
 - CM - Commercial Manufacturing
 - M1 - Light Manufacturing
 - M2 - Heavy Manufacturing
 - M2/AO - Auto Dismantling Overlay
 - Q - Quarry
 - OS - Open Space
 - COH - City of Hope Specific Plan
 - RII - Reliance II Specific Plan

