

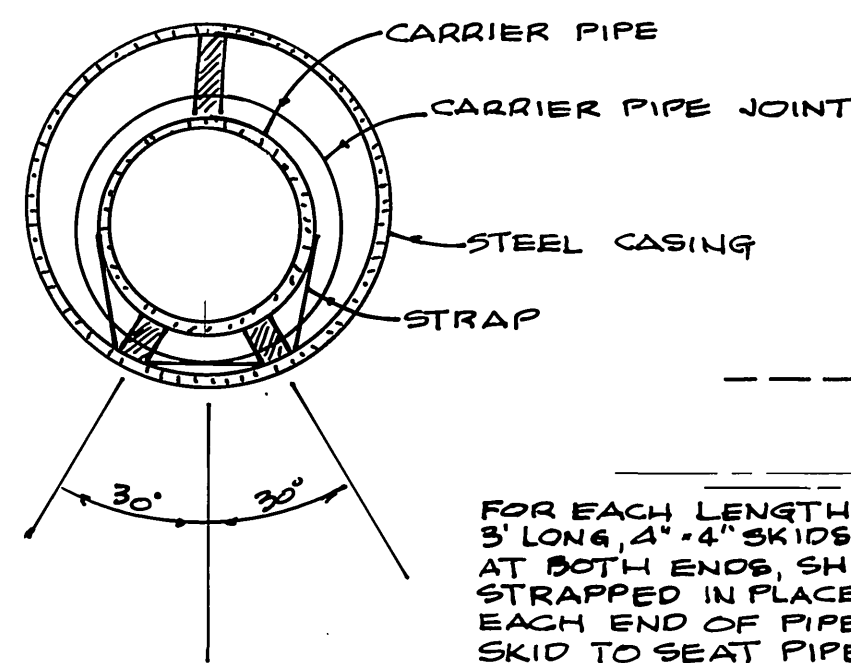
# CITY OF RIVERSIDE SEWER IMPROVEMENT PLAN TRACT 31014

## GENERAL NOTES

- NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECTS WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS OF THE CITY OF RIVERSIDE WITHOUT A VALID CONSTRUCTION PERMIT OR, A STREET OPENING PERMIT, OR AN ENCROACHMENT PERMIT ISSUED BY THE CITY'S PUBLIC WORKS DEPARTMENT.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE RIGHT OF WAY IN ACCORDANCE WITH THE PROVISIONS OF LAW AS IT AFFECTS EACH UTILITY INCLUDING IRRIGATION LINES AND APPURTENANCES AND AT NO COST TO THE CITY.
- CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE DEPARTMENT OF PUBLIC WORKS, STANDARD DRAWINGS, ITS SUPPLEMENTAL NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
- THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.
- QUANTITIES SHOWN ARE FOR INFORMATION ONLY AND THE CITY OF RIVERSIDE IS NOT RESPONSIBLE FOR THEIR ACCURACY.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR PRESERVING OR RE-ESTABLISHING AND REFERENCING SURVEY MONUMENTS DESTROYED, DISTURBED, OR BURIED AS A RESULT OF CONSTRUCTION SHOWN HEREON.
- ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE PRIVATE ENGINEER.
- THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA), PHONE # 1-800-227-2600, TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT WILL BE ISSUED BY THE PUBLIC WORKS DEPARTMENT INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY USA.
- CONTRACTOR IS TO VERIFY EXISTING SEWER ELEVATION PRIOR TO CONSTRUCTION.
- LOCATION OF LATERALS TO BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE OWNER. AVOID A CONFLICT WITH PROPOSED AND/OR EXISTING FACILITIES.
- NO FINISHED FLOOR ELEVATIONS SHALL BE LESS THAN 6" ABOVE THE UPPER MANHOLE RIM OF THE SEWER LINE SEGMENT BEING CONNECTED TO, WITHOUT HAVING A PROPER BACKWATER VALVE INSTALLED IN THE LATERAL.
- A PLUG SHALL BE INSTALLED AND WILL REMAIN IN PLACE WHERE THE NEW SEWER CONNECTS WITH THE EXISTING SEWER UNTIL THE NEW SEWER IS ACCEPTED BY THE CITY.
- THE SEWER CONTRACTOR SHALL ADJUST MANHOLES TO FINAL GRADE AFTER PAVING IS COMPLETED.
- PIPE BEDDING SHALL BE CASE I PER CITY STD DWG. NO. 452 UNLESS OTHERWISE SHOWN ON THE PLANS. IF GROUND WATER IS ENCOUNTERED, BEDDING SHALL BE CASE III IN ACCORDANCE WITH NOTE 2, CITY STD. DWG. NO. 452.
- ANY TRAFFIC CONTROL STRIPING OBLITERATED AND/OR BADLY WORN DURING CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR WITHIN FIVE DAYS AFTER NOTIFICATION FROM THE CITY INSPECTORS.
- TRENCH BACKFILL SHALL BE PER CITY STD. DWG. NO. 453 SHEETS 1 & 2 UNLESS OTHERWISE SHOWN ON PLANS.

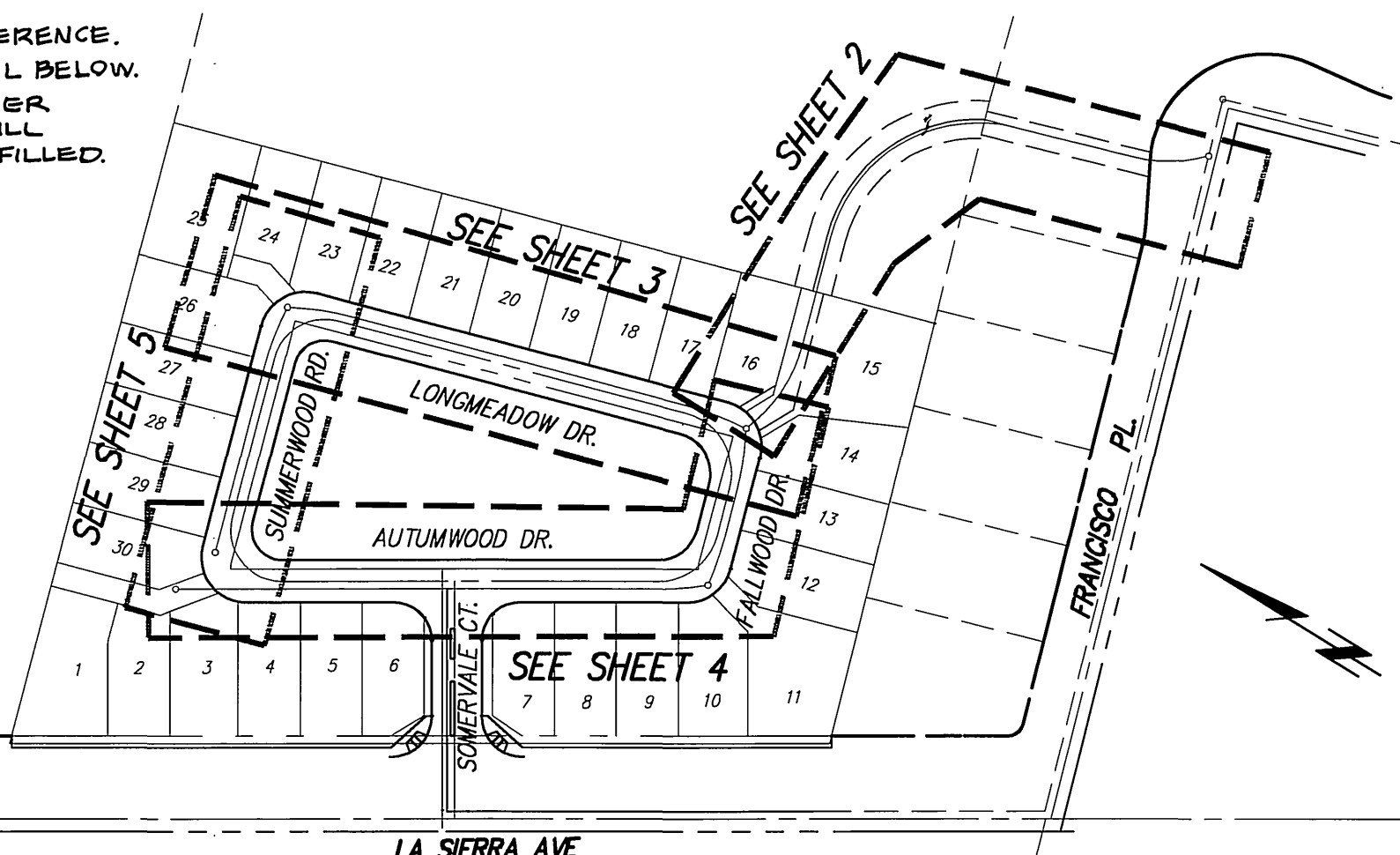
## CASING CONST. NOTES

- STEEL CASING WILL BE 24" x 0.315" WITH 8" VCP CARRIER PIPE SUPPORTED BY REDWOOD SKID METHOD PER DETAIL BELOW.
- ALL STEEL CASING JOINTS WILL BE WELDED FULL CIRCUMFERENCE.
- UNFINISHED REDWOOD SKIDS WILL BE PROVIDED PER DETAIL BELOW.
- CASING WILL VIDEO TAPED BY THE CITY PRIOR TO CARRIER PIPE BEING INSTALLED AFTER WHICH THE CARRIER PIPE WILL BE VIDEOED AND PRESSURE TESTED PRIOR TO BEING FILLED.
- EACH END OF THE CASING WILL BE SEALED WITH NEOPRENE CASING CAPS AND BLOWN SAND FILLED.
- ALIGNMENT WILL BE PER SHT. 2 WITH BORE PIT AT STA. 1+34 AND RECEIVING PIT AT STA. 0+51.



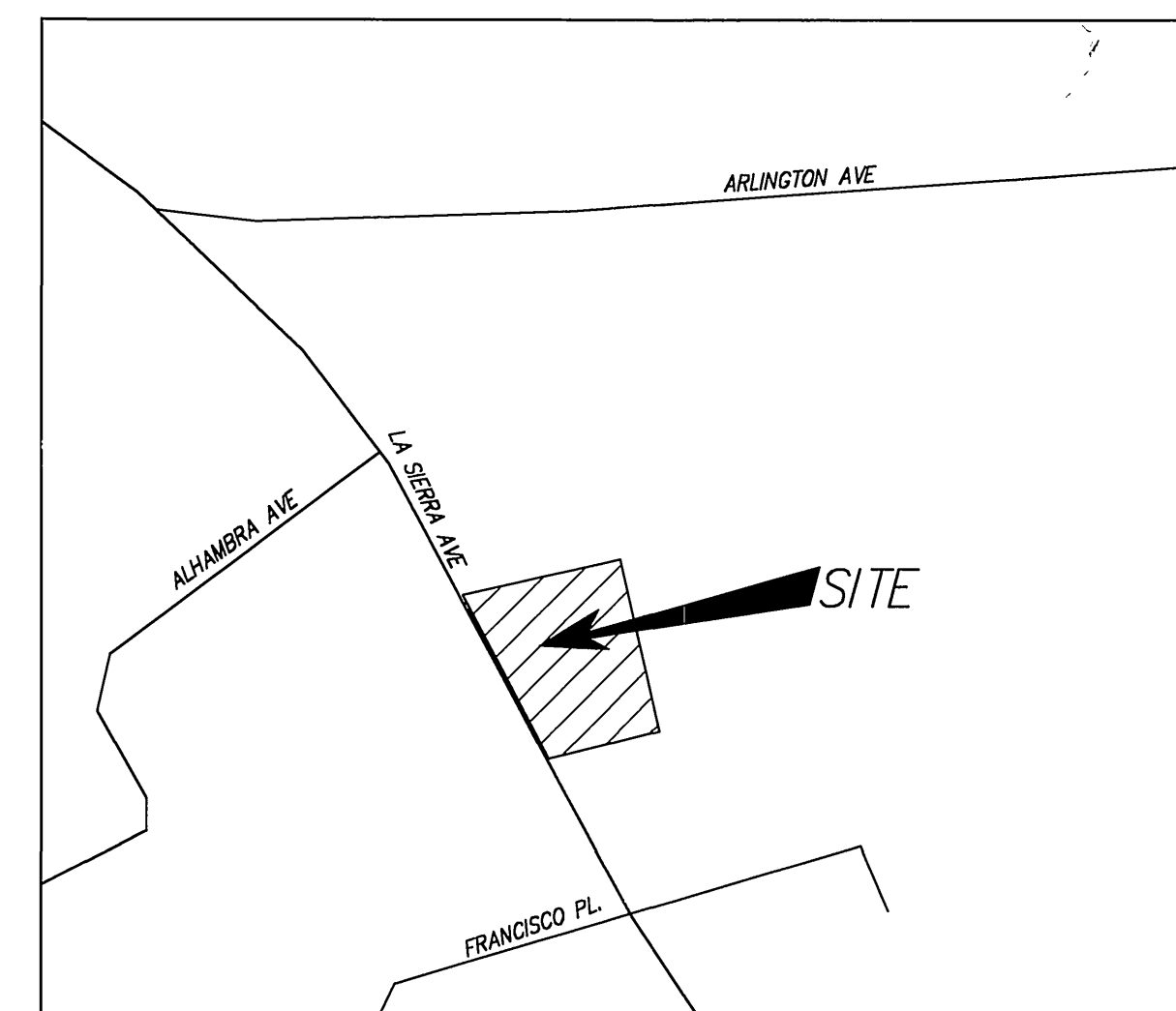
## CASING DETAIL

FOR EACH LENGTH OF PIPE, 3' LONG, 4" x 4" SKIDS, BEVELED AT BOTH ENDS, SHALL BE STRAPPED IN PLACE 3' FROM EACH END OF PIPE. NOTCH SKID TO SEAT PIPE. STRAP SHALL BE 316 STAINLESS STEEL.



## INDEX MAP

NOT TO SCALE



## VICINITY MAP

NOT TO SCALE

## RELATED PLANS

STREET PLANS.....R-3787  
SEWER PLANS.....S-1843  
STORM DRAIN PLANS.....D-753  
WATER PLANS.....D5-704222-2  
GRADING PLANS.....PW-03-0483

## SOILS ENGINEER & GEOLOGIST

EARTH TECHNICS  
P.O. BOX 891989  
TEMECULA, CALIFORNIA 92589  
PHONE: (909) 851-9864  
FAX: (909) 899-5451

## SOURCE OF TOPOGRAPHIC MAP

FIELD TOPOGRAPHY  
PERFORMED BY: DAWSON SURVEYING  
DATED: MARCH 2003

## CONSTRUCTION NOTES & QUANTITIES:

- CONSTRUCT SEWER MANHOLE PER CITY OF RIVERSIDE STD 500 5 EA
- INSTALL 8" VCP SEWER MAIN. 1365 L.F.
- INSTALL 4" SEWER LATERAL PER WITH CLEANOUT PER CITY OF RIVERSIDE STD. 562-A 423 L.F.
- BACKWATER VALVE 16 EA
- INSTALL STEEL CASING W/ SKIDS PER DETAIL, SHEET 1. 103 L.F.

## GENERAL NOTES:

- NO WORK WHATSOEVER SHALL BE STARTED WITHOUT NOTIFYING THE CITY OF RIVERSIDE 48 HOURS PRIOR TO BEGINNING WORK.
- THE DESIGN ENGINEER SHALL EXERCISE SUFFICIENT SUPERVISORY CONTROL DURING GRADING AND CONSTRUCTION TO ENSURE COMPLIANCE WITH THE APPROVED PLANS WITHIN HIS AREA OF TECHNICAL SPECIALTY.
- ALL DIRT, SAND, MUD, OR DEBRIS DEPOSITED OR SPILLED UPON PUBLIC STREETS DURING ANY GRADING, HAULING, OR EXPORT OPERATIONS SHALL IMMEDIATELY BE CLEANED UP BY DEVELOPER, HIS CONTRACTOR OR SUBCONTRACTOR.
- CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON PLANS PRIOR TO START OF GRADING OPERATIONS. ANY DISCREPANCIES BETWEEN THE QUANTITIES SHOWN ON PLANS AND THE CONTRACTOR'S QUANTITIES SHALL BE REPORTED TO THE ENGINEER.
- PLANTED SLOPES SHALL BE WATERED AND MAINTAINED.
- APPROVED EROSION PROTECTION DEVICES SHALL BE PROVIDED AND MAINTAINED DURING THE RAINY SEASON AND SHALL BE IN PLACE AT THE END OF EACH DAY'S WORK AND BEFORE FORECASTED RAINY WEATHER.
- THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITEE.

## TELEPHONE NUMBERS

**EMERGENCY**  
RIVERSIDE POLICE DEPARTMENT ..... (951) 787-7911  
RIVERSIDE FIRE DEPARTMENT ..... (951) 826-6321  
GOODHEW AMBULANCE ..... (951) 684-5520  
RIVERSIDE COMMUNITY HOSPITAL ..... (951) 788-3000  
RIVERSIDE GENERAL HOSPITAL ..... (951) 351-0925

**UTILITIES**  
UNDERGROUND SERVICE ALERT ..... (800) 227-2600  
CITY OF RIV. ELEC. OPERATIONS CONTROL CTR. ... (951) 687-0791  
SOUTHERN CALIFORNIA GAS (DISTRIBUTION) ..... (800) 422-4133  
CITY OF RIV. ELEC. ENGINEERING ..... (951) 826-5421  
PACIFIC BELL ..... (800) 422-4133  
AMERICAN TELEPHONE & TELEGRAPH ..... (951) 381-7380  
CHARTER COMMUNICATION CABLE ..... (951) 688-9012  
CITY OF RIV. WATER OPERATIONS EMERGENCIES... (951) 688-9012

**OTHERS**  
RIVERSIDE PUBLIC WORKS DEPARTMENT ..... (951) 826-5341  
R.F. DICKSON STREET SWEEPING ..... (800) 841-7994  
WESTERN WASTE ..... (951) 737-0343  
RIVERSIDE DIAL-A-RIDE (SUPERVISOR) ..... (951) 275-9820  
US POSTAL SERVICE ..... (951) 737-0451  
RIVERSIDE UNIFIED SCHOOL DISTRICT ..... (951) 788-7134  
RIVERSIDE TRANSIT AGENCY ..... (951) 684-0850

## ATTENTION CONTRACTORS:

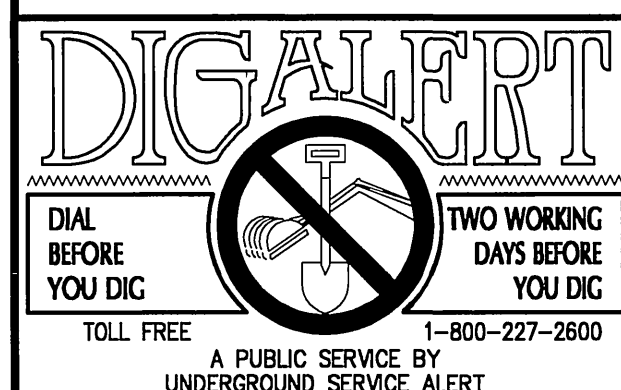
GRADES ARE GIVEN FROM TOP OF STAKES AND NAILS UNLESS OTHERWISE NOTED HEREIN. IN THE CASE OF A PIPE OR FLUME, GRADES GIVEN REFER TO THE HEIGHT OF THE BOTTOM OF THE INVERT OR INSIDE BOTTOM. CONTRACTORS ARE CAUTIONED TO OBSERVE THE FOLLOWING RULE IN USING THE GRADE STAKES GIVEN BY THIS OFFICE FOR PUTTING IN CURBS, WALKS, SEWER, FLUMES, AND ALL OTHER WORK. THREE CONSECUTIVE POINTS THAT ARE SHOWN TO BE ON THE SAME RATE OF SLOPE MUST BE USED IN COMMON IN ORDER THAT ANY VARIATION OUT OF A PERFECT STRAIGHT GRADE MAY BE DETECTED, AND IN CASE ANY SUCH DISCREPANCY IS FOUND, THE SAME MUST BE REPORTED. OTHERWISE THIS OFFICE WILL NOT BE RESPONSIBLE FOR ANY ERROR IN THE GRADE OF THE FINISHED WORK. IN ANY CASE, ALL STAKES, NAILS, ETC., VOID IN THREE (3) DAYS.

## PRIVATE ENGINEER'S NOTICE TO CONTRACTOR:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THESE LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENTS CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PREVENT ANY UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

CARE SHOULD BE TAKEN TO PREVENT GRADED DITCHES AND SWALES FROM UNDERMINING STREET IMPROVEMENTS. UPON INSPECTION OF THE SITE, THE CITY ENGINEER MAY REQUIRE TEMPORARY GUNITE SWALES, ENTERING OR LEAVING IMPROVEMENTS.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

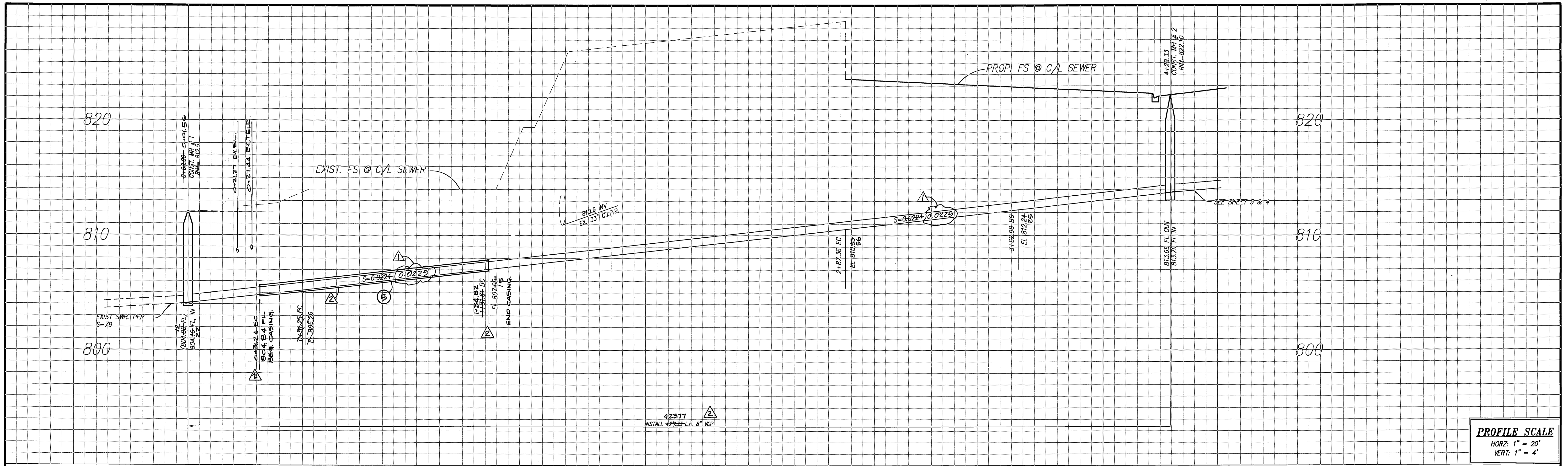


## RELATED PLANS

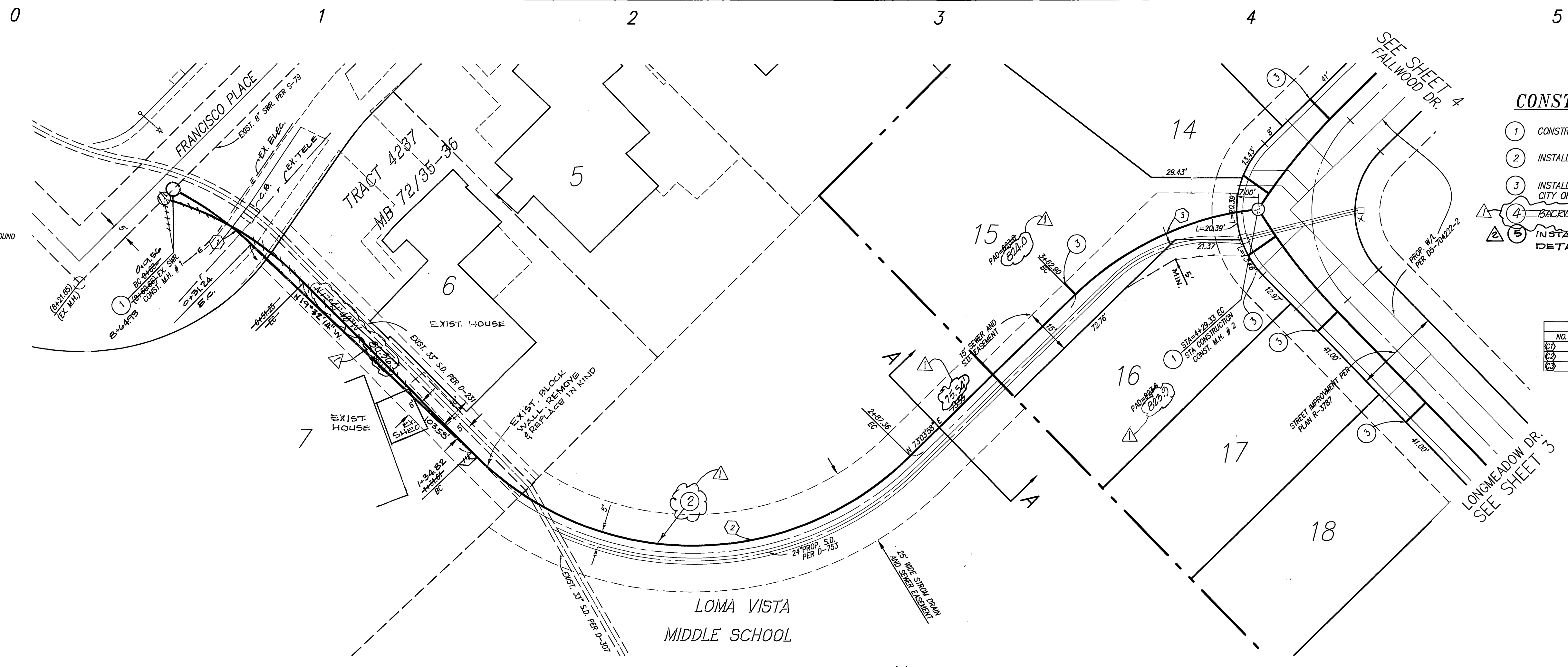
STREET PLANS.....R-3787  
STORM DRAIN PLANS...D-753  
WATER PLANS.....D5-704222-2

RIVERSIDE CITY BUSINESS TAX CERTIFICATE # 106198, EXP. 1/1/06

<p><b>PRIVATE ENGINEERING NOTE</b></p> <p>CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.</p>	<p><b>BENCHMARK:</b> CITY OF RIVERSIDE</p> <p><b>BENCHMARK:</b> POINT I.D. G3-Y3 ELEV. 859.915 FD. NAIL CITY ENG. TAG SET IN BASE OF CONCRETE LT. STD. EAST SIDE OF LA SIERRA AVE. 200' SLY OF ARLINGTON AVE.</p>	<p><b>CITY OF RIVERSIDE PUBLIC UTILITIES-ELECTRIC DIVISION</b></p> <p>APPROVED BY: <i>[Signature]</i> ELECTRICAL ENGINEERING</p>	<p><b>CITY OF RIVERSIDE PUBLIC UTILITIES-WATER DIVISION</b></p> <p>APPROVED BY: <i>[Signature]</i> WATER ENGINEERING</p>	<p><b>IW Consulting Engineers, Inc.</b> Civil Engineering Surveying Land Planning</p> <p>3544 University Avenue Riverside, CA 92501 Tel: 951.687.2929 Fax: 951.687.2999</p> <p>R.C.E. NO. 60874 DATE: 3/15/05</p>	<p><b>CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT</b></p> <p>APPROVED BY: <i>[Signature]</i> DATE: 2/25/05</p> <p>PRINCIPAL ENGINEER: <i>[Signature]</i> STREET SERVICES: <i>[Signature]</i> TRAFFIC DIVISION: <i>[Signature]</i> PARKS DEPARTMENT: <i>[Signature]</i></p>	<p><b>SEWER IMPROVEMENTS PLANS</b></p> <p>TRACT NO. 31014</p> <p>TITLE SHEET</p> <p>SCALE: 1"=20' JOB NO: 185.002</p>	<p>PW 04-0173</p> <p>S-1843</p> <p>SHEET 1 OF 5</p>
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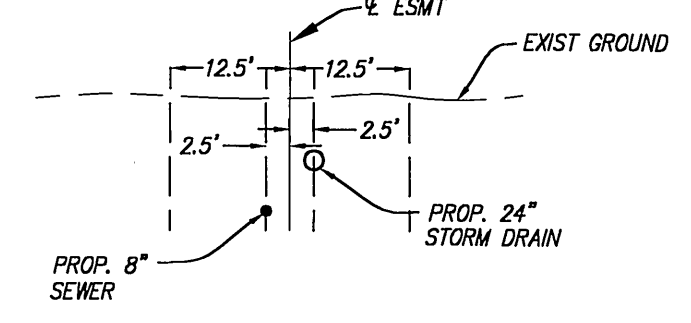
**PROFILE SCALE**  
 HORZ: 1" = 20'  
 VERT: 1" = 4'



- CONSTRUCTION NOTES:**
- 1. CONSTRUCT SEWER MANHOLE PER CITY OF RIVERSIDE STD 500
  - 2. INSTALL 8" VCP SEWER MAIN.
  - 3. INSTALL 4" SEWER LATERAL PER WITH CLEANOUT PER CITY OF RIVERSIDE STD. 562-A
  - 4. BACKWATER VALVE
  - 5. INSTALL STEEL CASING W/SKIDS PER DETAIL, SHEET 1.

NO.	DELTA	CURVE TABLE			L=17'00"10" L=29.68'
		RADIUS	LENGTH	TANGENT	
1	-28°22'54"	100.00'	51.25'	96.69'	L=17'00"10" L=29.68' L=87'23"48" L=152.54'
2	-89°44'14"	100.00'	156.75'	96.69'	
3	38°31'27"	100.00'	67.24'	34.95'	

**SECTION A-A**



RIVERSIDE CITY BUSINESS TAX CERTIFICATE # 106198, EXP. 1/1/05

**PRIVATE ENGINEERING NOTE**  
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**BENCHMARK:**  
 CITY OF RIVERSIDE  
 BENCHMARK:  
 POINT I.D. G3-Y3 ELEV. 859.915  
 F.D. NAIL CITY ENG. TAG SET IN BASE OF CONCRETE LT. STD. EAST SIDE OF LA SIERRA AVE. 200' SLY OF ARLINGTON AVE.

**CITY OF RIVERSIDE PUBLIC UTILITIES-ELECTRIC DIVISION**  
 APPROVED BY: [Signature]  
 ELECTRICAL ENGINEERING

**CITY OF RIVERSIDE PUBLIC UTILITIES-WATER DIVISION**  
 APPROVED BY: [Signature]  
 WATER ENGINEERING



**IW Consulting Engineers, Inc.**  
 • Civil Engineering  
 • Surveying  
 • Land Planning  
 3544 University Avenue Tel: 951.687.2929  
 Riverside, CA 92501 Fax: 951.687.2999  
 PREPARED BY: [Signature] R.C.E. NO. 60874  
 DATE: 3/15/05

REV'D ALIGNMENT, ADD CASING.	RIZ 2-8-06
REVISED P.E./BEARING, DISTANCE	RIZ 2-8-06
MARK	REVISIONS
DESIGNED BY	FI
DRAWN BY	NH
CHECKED BY	FI

**CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT**  
 APPROVED BY: [Signature]  
 PRINCIPAL ENGINEER  
 STREET SERVICES  
 TRAFFIC DIVISION  
 PARKS DEPARTMENT  
 DATE: 2/25/05

**SEWER IMPROVEMENTS PLANS**  
 TRACT NO. 31014  
 FRANCISCO PL.  
 SCALE: 1"=20' JOB NO: 185.002

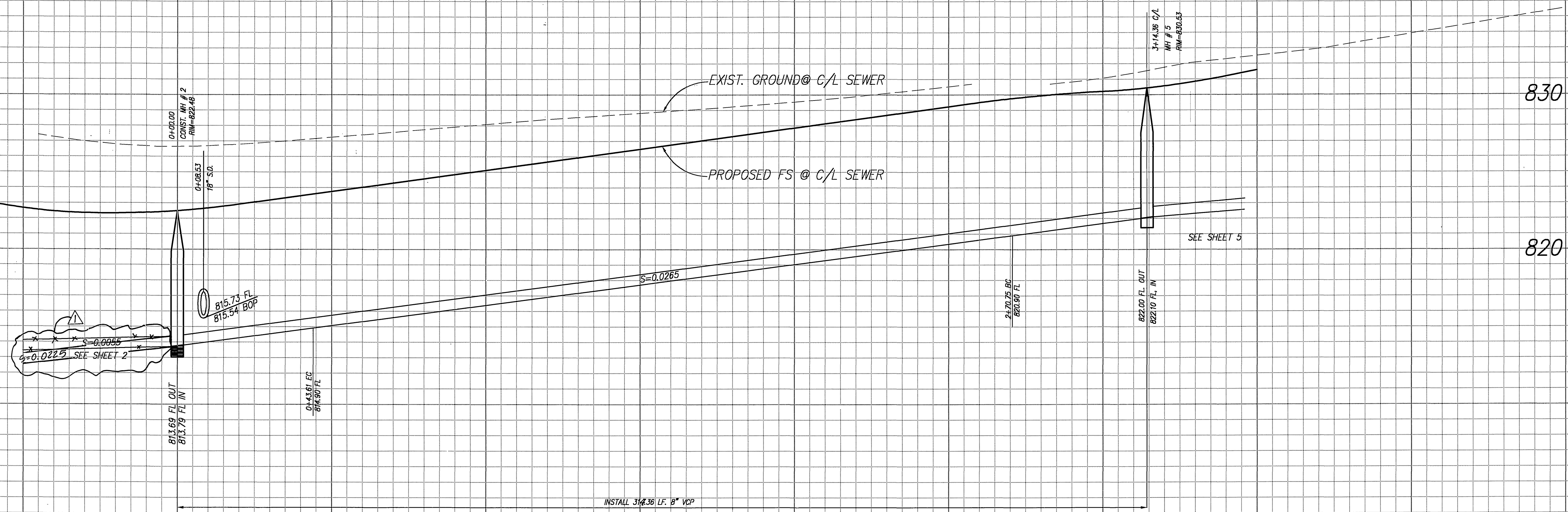
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 S-1843  
 SHEET 2 OF 5

830

820

830

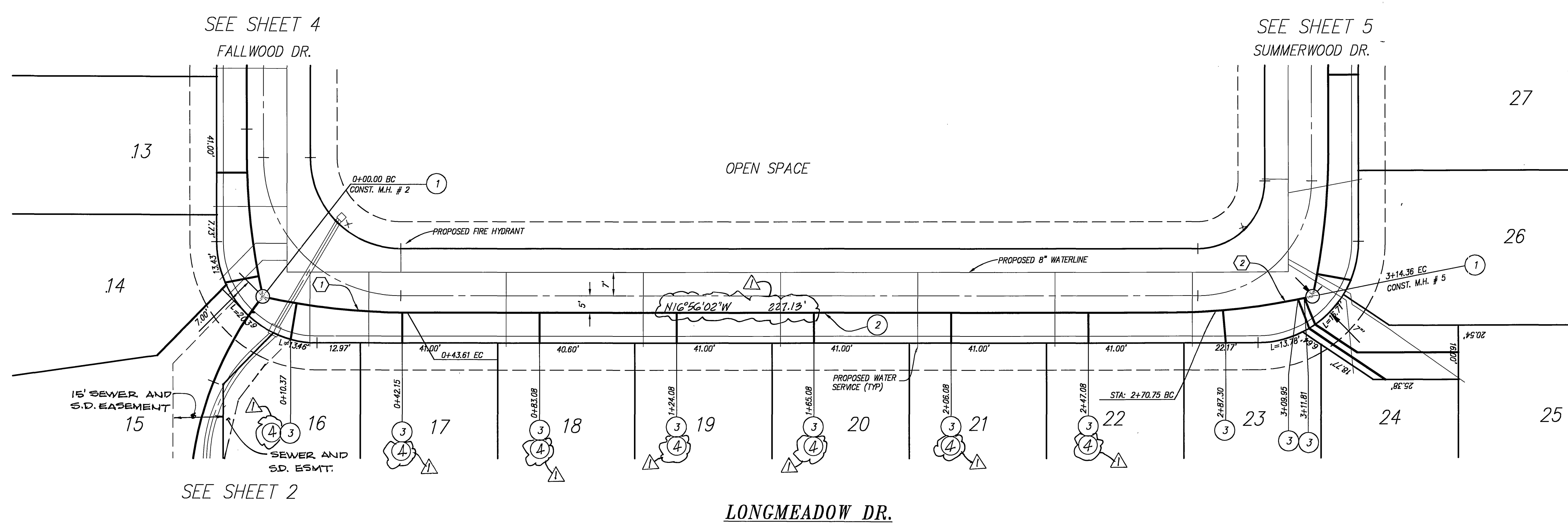
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**PROFILE SCALE**  
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**CONSTRUCTION NOTES:**

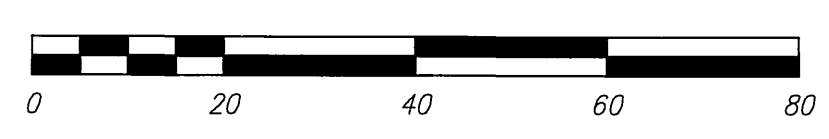
- 1 CONSTRUCT SEWER MANHOLE PER CITY OF RIVERSIDE STD 500
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- 3 INSTALL 4" SEWER LATERAL PER WITH CLEANOUT PER CITY OF RIVERSIDE STD. 562-A
- 4 **BACKWATER VALVE**



**CURVE TABLE**

NO.	DELTA	RADIUS	LENGTH	TANGENT
(1)	122°40'	200.00'	43.61'	21.89'
(2)	89°14'	-106.00'	-155.79'	-88.68'

**DIG ALERT**  
 DIAL BEFORE YOU DIG  
 TWO WORKING DAYS BEFORE YOU DIG  
 TOLL FREE 1-800-227-2600  
 A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT



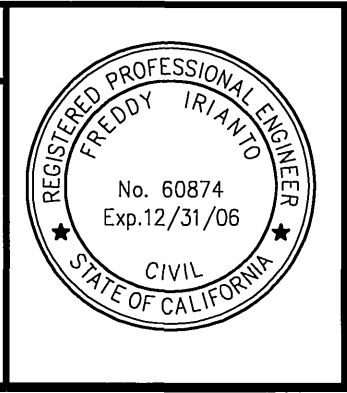
RIVERSIDE CITY BUSINESS TAX CERTIFICATE # 106198, EXP. 1/1/04

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**BENCHMARK:**  
 CITY OF RIVERSIDE  
 BENCHMARK:  
 POINT I.D. C3-Y3 ELEV. 859.815  
 F.D. MAIL CITY ENG. TAG SET IN BASE OF CONCRETE LT.STD. EAST SIDE OF LA SIERRA AVE. 200' SLY OF ARLINGTON AVE.

**CITY OF RIVERSIDE PUBLIC UTILITIES-ELECTRIC DIVISION**  
 APPROVED BY  
 ELECTRICAL ENGINEERING

**CITY OF RIVERSIDE PUBLIC UTILITIES-WATER DIVISION**  
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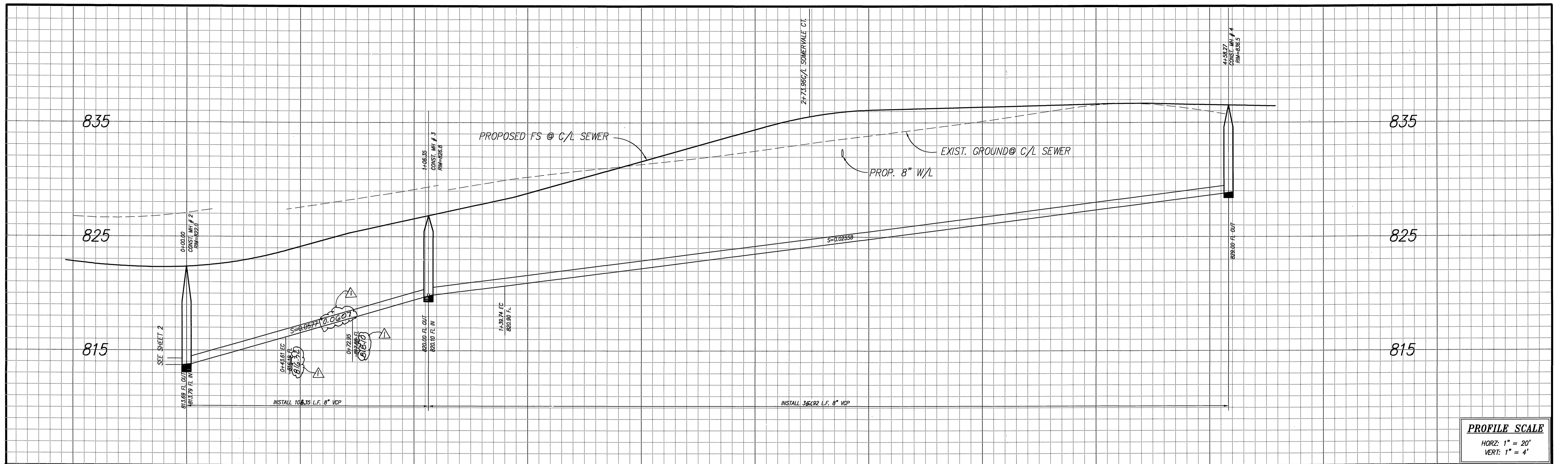
**IW Consulting Engineers, Inc.**  
 • Civil Engineering  
 • Surveying  
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 3544 University Avenue  
 Riverside, CA 92501  
 Tel: 951.687.2929  
 Fax: 951.687.2999  
 PREPARED BY: [Signature]  
 R.C.E. NO.: 60874  
 DATE: 3/15/05

APPROVED BY: [Signature]  
 DATE: 2/25/05  
 PRINCIPAL ENGINEER  
 STREET SERVICES  
 TRAFFIC DIVISION  
 PARKS DEPARTMENT

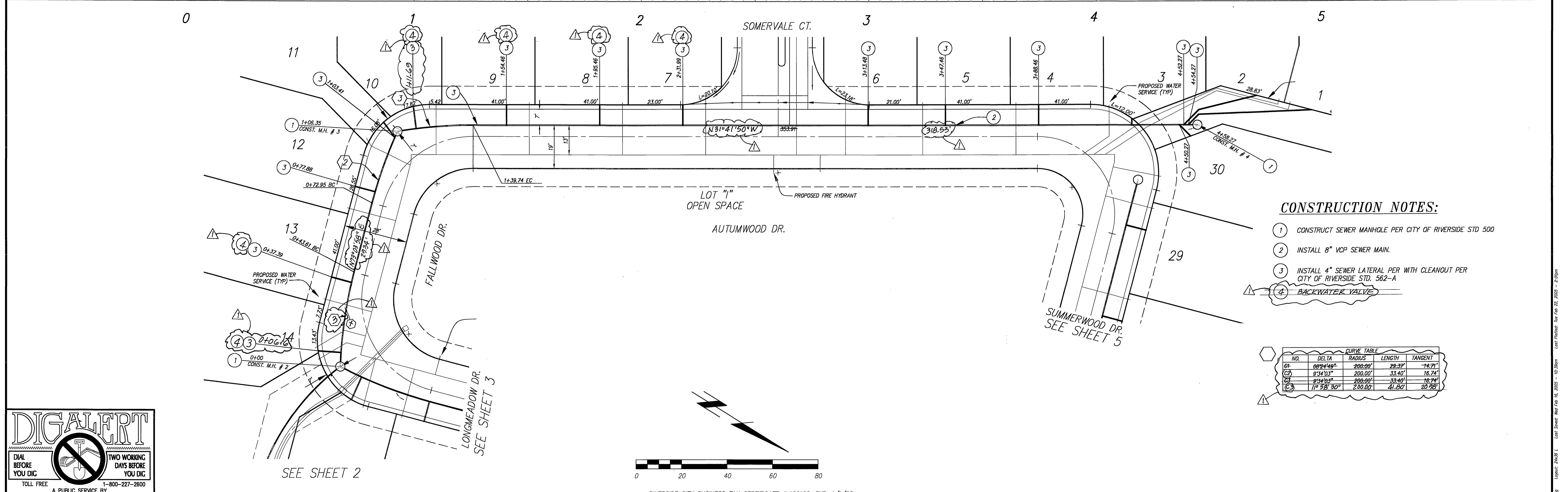
**CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT**  
 APPROVED BY: [Signature]  
 DATE: 2/25/05  
 TRACT NO. 31014  
 LONGMEADOW DR.

**SEWER IMPROVEMENTS PLANS**  
 TRACT NO. 31014  
 LONGMEADOW DR.  
 SCALE: 1"=20' JOB NO: 185.002

PW 04-0173  
 S-1843  
 SHEET 3 OF 5  
 INDEXED 10-03-05 LFT



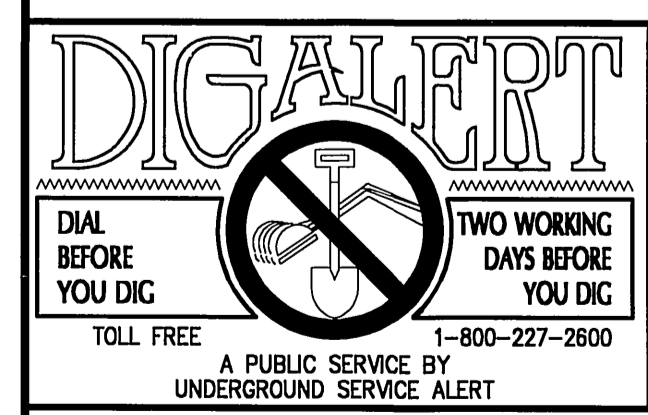
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- 4 BACKWATER VALVE

NO.	DELTA	RADIUS	LENGTH	TANGENT
C1	89°24'48"	200.00'	28.37'	14.71'
C2	93°44'03"	200.00'	33.40'	16.74'
C3	93°44'03"	200.00'	33.40'	16.74'
C4	11°58'30"	2.0000'	41.24'	20.28'

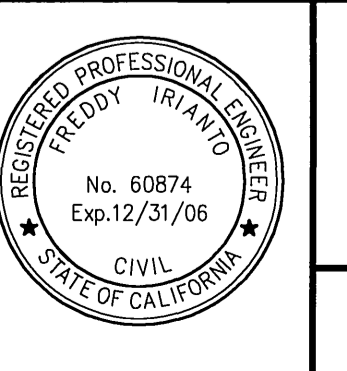


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**CITY OF RIVERSIDE PUBLIC UTILITIES-ELECTRIC DIVISION**  
 APPROVED BY: [Signature] 3/16/05  
 ELECTRICAL ENGINEERING

**CITY OF RIVERSIDE PUBLIC UTILITIES-WATER DIVISION**  
 APPROVED BY: [Signature] 3/16/05  
 WATER ENGINEERING



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 Fax: 951.687.2999

PREPARED BY: [Signature] R.C.E. NO. 60874  
 DATE: 3/15/05

**CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT**

APPROVED BY: [Signature] DATE: 7/26/05  
 PRINCIPAL ENGINEER: Ken Shiff  
 CITY ENGINEER

TRAFFIC DIVISION: [Signature]  
 PARKS DEPARTMENT: [Signature]

**SEWER IMPROVEMENTS PLANS**  
 TRACT NO. 31014  
 FALLWOOD DR. - AUTUMWOOD DR.  
 SCALE: 1"=20' JOB NO: 185.002

PW 04-0173  
 S-1843  
 SHEET 4 OF 5  
 INDEXED 10-03-05 LFL

RIVERSIDE CITY BUSINESS TAX CERTIFICATE # 106198, EXP. 1/1/05

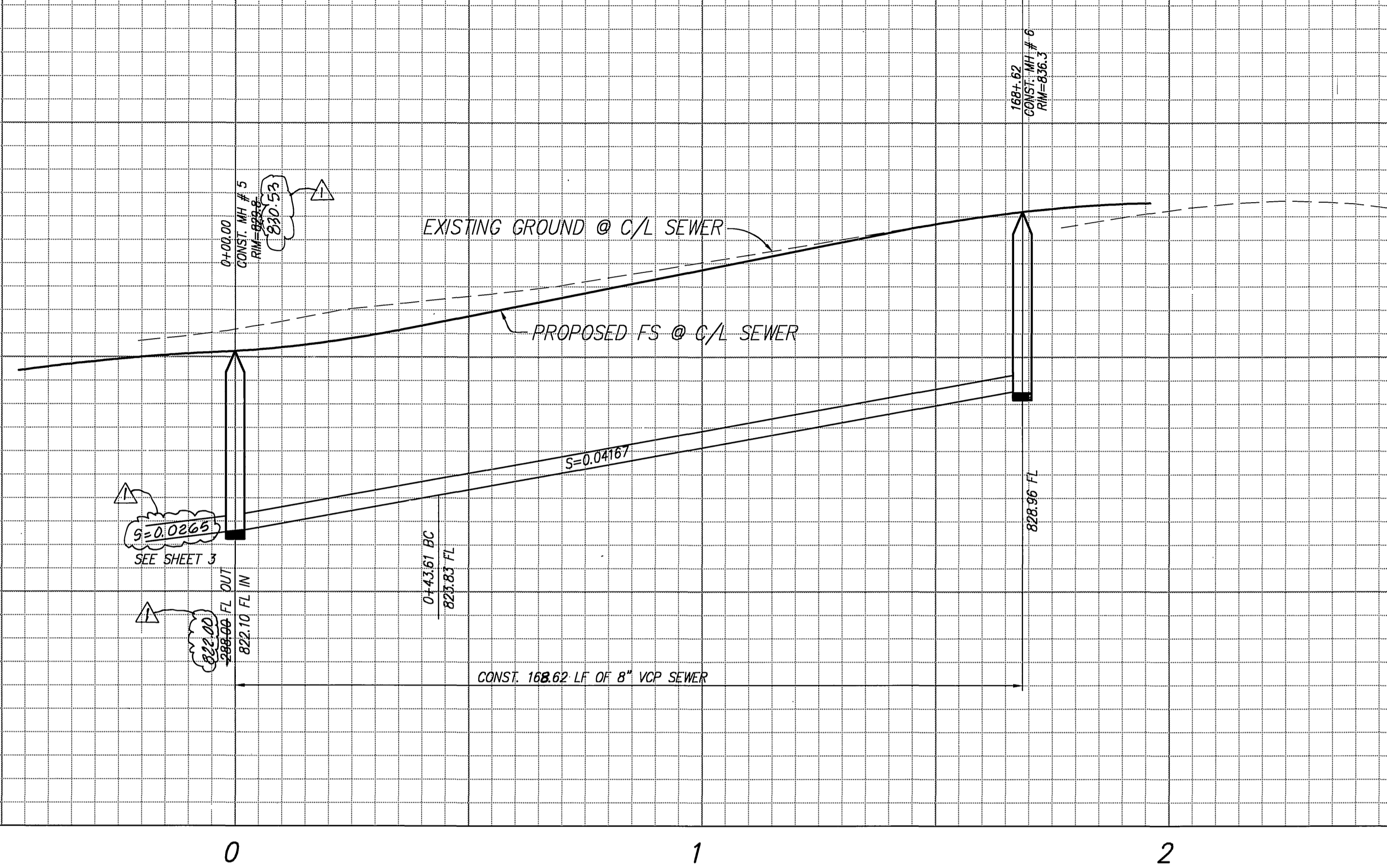
Log: 04-1843-1  
 Date: 03/15/05  
 User: gregory.ireland  
 Title: Professional Engineer  
 License No.: 60874  
 Exp. Date: 12/31/06  
 State: California

830

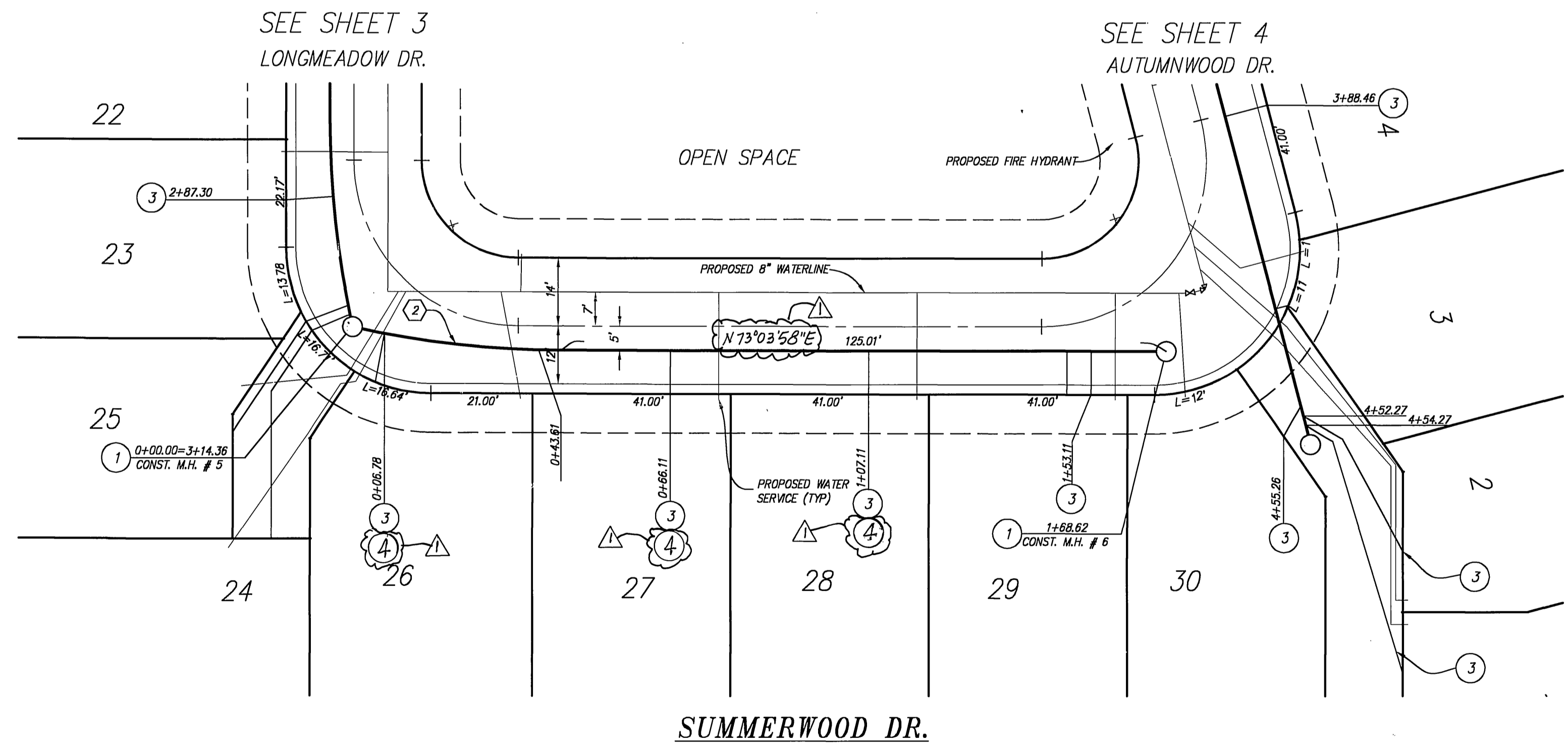
820

830

820

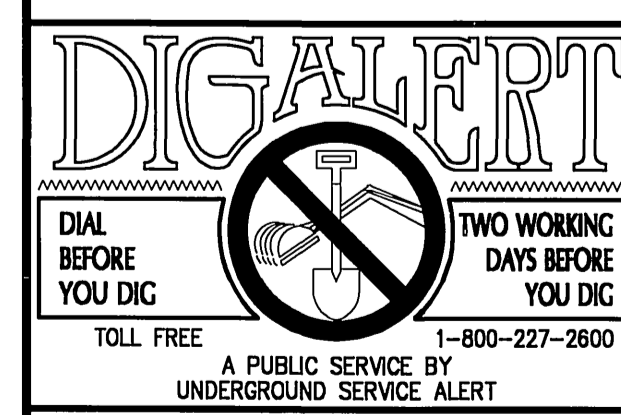
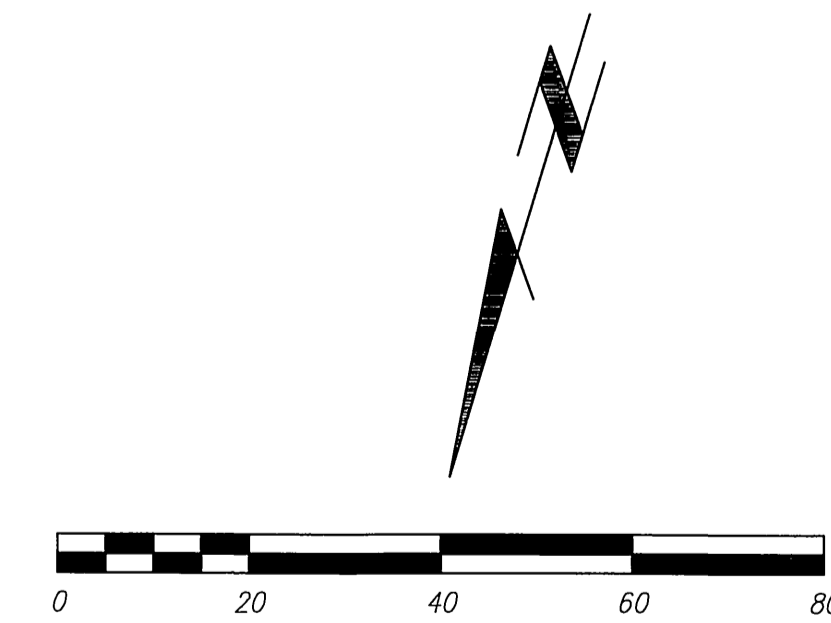


**PROFILE SCALE**  
 HORZ: 1" = 20'  
 VERT: 1" = 4'



- CONSTRUCTION NOTES:**
- 1 CONSTRUCT SEWER MANHOLE PER CITY OF RIVERSIDE STD 500
  - 2 INSTALL 8" VCP SEWER MAIN.
  - 3 INSTALL 4" SEWER LATERAL PER WITH CLEANOUT PER CITY OF RIVERSIDE STD. 562-A
  - 4 BACKWATER VALVE

CURVE TABLE				
NO.	DELTA	RADIUS	LENGTH	TANGENT
G2	82°4'49"	200.00'	29.37'	14.71'



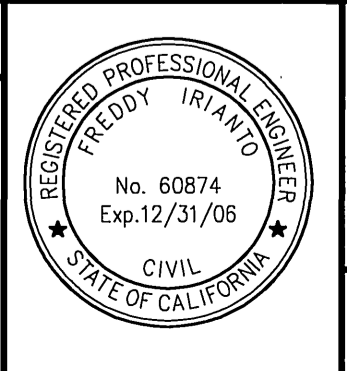
RIVERSIDE CITY BUSINESS TAX CERTIFICATE # 106198, EXP. 1/1/05

**PRIVATE ENGINEERING NOTE**  
 CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

**BENCHMARK:**  
 CITY OF RIVERSIDE  
 BENCHMARK:  
 POINT I.D. G3-Y3 ELEV. 859.915  
 FD. NAIL CITY ENG. TAG SET IN BASE OF CONCRETE LT.STD. EAST SIDE OF LA SIERRA AVE. 200' SLY OF ARLINGTON AVE.

**CITY OF RIVERSIDE PUBLIC UTILITIES-ELECTRIC DIVISION**  
 APPROVED BY: [Signature] DATE: 2/15/05

**CITY OF RIVERSIDE PUBLIC UTILITIES-WATER DIVISION**  
 APPROVED BY: [Signature] DATE: 2/15/05



**IW Consulting Engineers, Inc.**  
 Civil Engineering  
 Surveying  
 Land Planning  
 3544 University Avenue Tel: 951.687.2929  
 Riverside, CA 92501 Fax: 951.687.2999  
 PREPARED BY: [Signature] R.C.E. NO. 60874  
 DATE: 2/15/05

REVISIONS  
 1. ADD BACKWATER VALVE BEARING, SLOPE, R/L 2-B-06  
 MARK REVISIONS APPR. DATE  
 DESIGNED BY: FI DRAWN BY: NH CHECKED BY: FI

**CITY OF RIVERSIDE, CALIFORNIA PUBLIC WORKS DEPARTMENT**  
 APPROVED BY: [Signature] DATE: 2/15/05  
 PRINCIPAL ENGINEER: [Signature]  
 STREET SERVICES: [Signature]  
 TRAFFIC DIVISION: [Signature]  
 PARKS DEPARTMENT: [Signature]

**SEWER IMPROVEMENTS PLANS**  
 TRACT NO. 31014  
 SUMMERWOOD DR.  
 SCALE: 1"=20' JOB NO: 185.002

PW 04-0173  
 S-1843  
 SHEET 5 OF 5