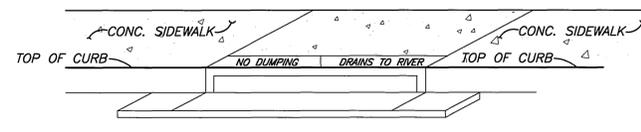
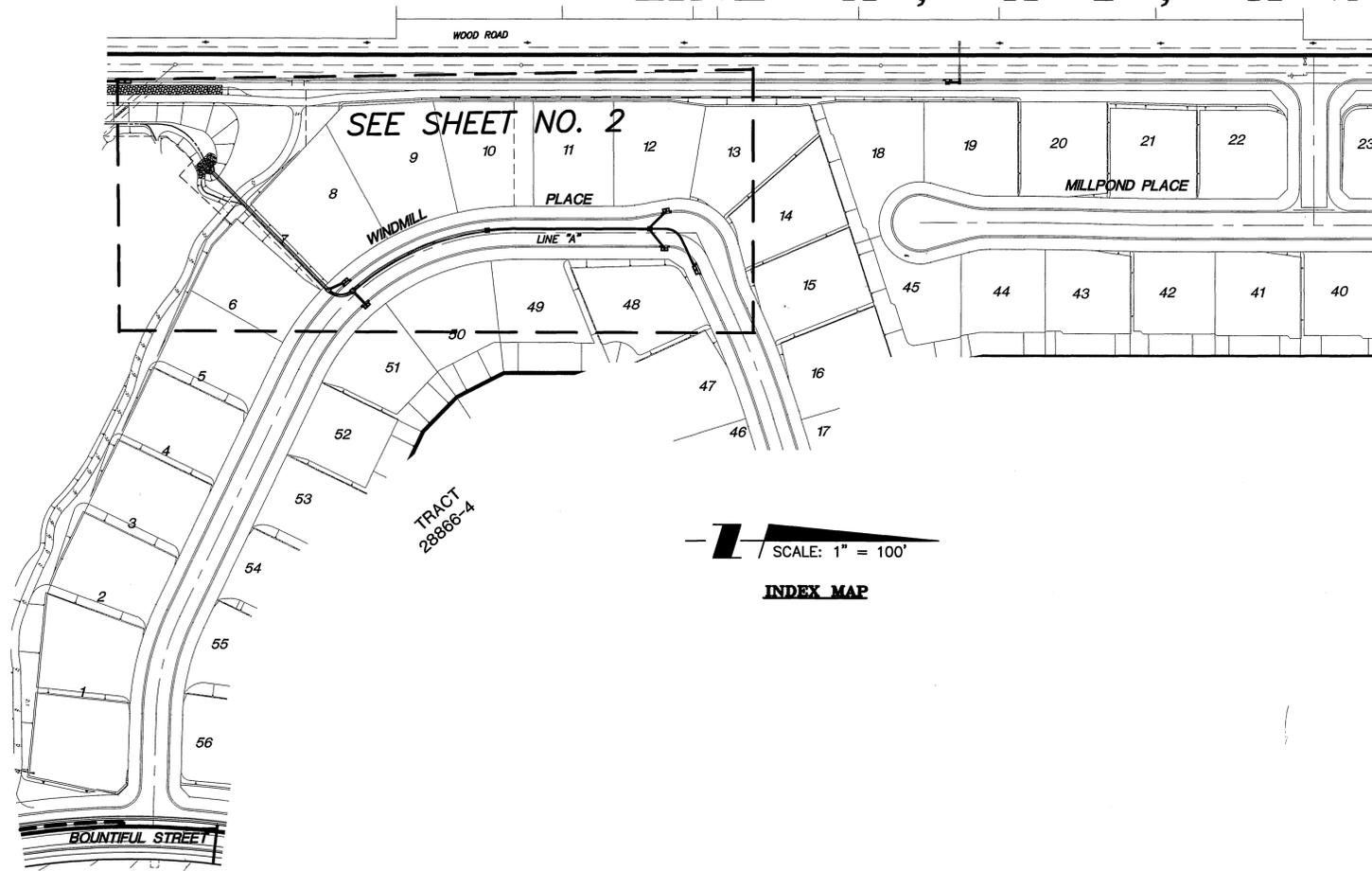
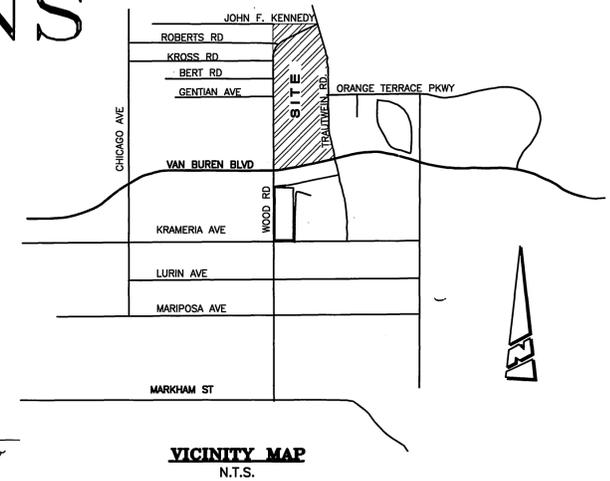


STORM DRAIN IMPROVEMENT PLANS

TRACT 28866-3 IN THE CITY OF RIVERSIDE

AREA "A-3"

LINE "A", "A-1", "A-2", "A-3", & "A-4"



- CONSTRUCTION NOTES AND QUANTITY ESTIMATE**
- (A) STENCILS TO HAVE 2" LETTERS AS FOLLOWS :
NO DUMPING
DRAINS TO RIVER
 - (B) PLACE BOTH STENCILS CENTERED WITHIN THE CATCHBASIN OPENING AND WITHIN THE TOP OF CURB.
 - (C) SPRAY BOTH STENCILS WITH WHITE PAINT.
 - (D) REMOVE STENCILS WHEN PAINT IS DRY.

CONSTRUCTION NOTES AND QUANTITY ESTIMATE

ITEM DESCRIPTION	UNIT	QUANTITY
(1) CONSTRUCT 24" RCP (D-LOAD PER PLAN)	L.F.	236
(2) CONSTRUCT 36" RCP (D-LOAD PER PLAN)	L.F.	211
(3) CONSTRUCT 18" RCP (D-LOAD PER PLAN)	L.F.	135
(4) CONSTRUCT 42" RCP (D-LOAD PER PLAN)	L.F.	204
(5) CONSTRUCT JUNCTION STRUCTURE C PER STD. DWG. 422	EA.	1
(6) CONSTRUCT MANHOLE EZ PER STD. DWG. 431	EA.	3
(7) CONSTRUCT CATCH BASIN PER STD. DWG. 405 W & V PER PLAN	EA.	5
(8) INSTALL GROUTED RIPRAP (DSO=50LB, 10" THICK)	-	-
(9) CONSTRUCT HEADWALL WING-TYPE PER SAN BERNARDINO COUNTY ROAD DEPARTMENT STD. DWG. 209 (SEE SHEET 3)	EA.	1
(10) CONSTRUCT TRASH RACK PER APWA STD. 361-0 CASE A (SEE SHEET 3)	EA.	1

GENERAL NOTES

1. 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.
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE DEPARTMENT OF PUBLIC WORKS, STD. DWGS., IT'S SUPPLEMENTAL NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
3. 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.
4. QUANTITIES SHOWN ARE FOR INFORMATION ONLY AND THE CITY OF RIVERSIDE IS NOT RESPONSIBLE FOR THEIR ACCURACY.
5. 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.
6. ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE PRIVATE ENGINEER.
7. ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE NOTED. STATIONING FOR LATERALS AND CONNECTOR PIPES REFER TO THE CENTERLINE-CENTERLINE INTERSECTION.
8. HOURS OF OPERATION ARE 7 A.M. TO 6 P.M. MONDAY THROUGH FRIDAY. DUST SHALL BE CONTROLLED BY WATERING OF OTHER APPROVED METHODS.
9. 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.
10. 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.
11. THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA), PHONE NO. 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 PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY USA.
12. ALL CROSS SECTIONS ARE TAKEN LOOKING UPSTREAM
13. CONTRACTOR TO VERIFY EXISTING STORM DRAIN ELEVATIONS PRIOR TO CONSTRUCTION.
14. PIPE BEDDING SHALL BE PER CITY OF RIVERSIDE STD. DWG. NO. 452, CASE 1, UNLESS OTHERWISE SPECIFIED.
15. THE STORM DRAIN CONTRACTOR SHALL ADJUST STORM DRAIN MANHOLES TO FINAL GRADE AFTER PAVING IS COMPLETED.
16. PIPE SECTIONS TO BE BEVELED AT ONE OR BOTH ENDS AS NEEDED TO MEET SYSTEM DESIGN PARAMETERS. SECTIONS BEVELED IN THIS MANNER NORMALLY FIT TOGETHER ON A 90-, 45-, OR 22.5-FOOT RADIUS CURVE.

HOLD HARMLESS INDEMNIFICATION CLAUSE

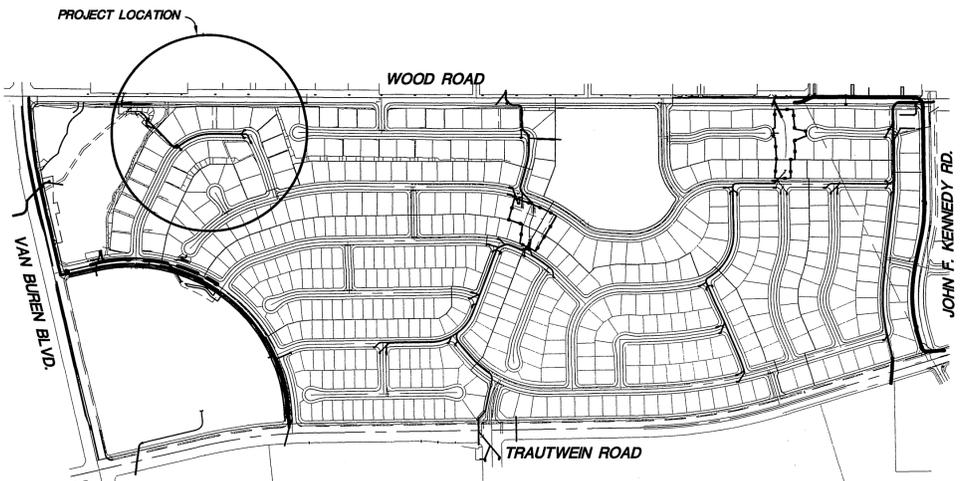
THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY OF RIVERSIDE, THE OWNER, AND THE PRIVATE ENGINEERS HARMLESS FOR ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

EXISTING UNDERGROUND STRUCTURES

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPE STRUCTURES OR CONDUITS SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK. CONTRACTOR FURTHER ASSUMES ALL LIABILITY AND RESPONSIBILITY FOR THE UNDERGROUND UTILITY PIPES, CONDUITS OR STRUCTURES SHOWN OR NOT SHOWN ON THESE PLANS.

NOTICE TO CONTRACTOR

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.



IW Consulting Engineers, Inc.
AS-BUILT
SIGNATURE: [Signature] DATE: 6/2/05
R.C.E. NO. 60874 EXP. 12/31/06



REVIEW BY:
WESTERN MUNICIPAL WATER DISTRICT
for Non-Interference Compliance

SHEET 1 THROUGH 3

CIVIL ENGINEER: [Signature] R.C.E. 40212
DATE: 11/21/00

CITY BUSINESS TAX CERTIFICATION NO. 033595 EXP. DATE 4/2/00

CHARTER COMMUNICATIONS [Signature] APPROVED BY DATE: 2-1-00	CITY OF RIVERSIDE OVERHEAD & UNDERGROUND [Signature] APPROVED BY DATE: 2-1-00	TELEPHONE [Signature] APPROVED BY DATE: 02-01-00	SOUTHERN CALIFORNIA GAS COMPANY [Signature] APPROVED BY DATE: 2-1-00
---	--	--	---

Underground Service Alert
Call: TOLL FREE 1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

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 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
RIVERSIDE COUNTY BENCHMARK, STAMPED VBS-04 AT SOUTHWEST CORNER OF PLUMMER ROAD AND VAN BUREN BOULEVARD, 258.0 FEET SOUTH OF VAN BUREN BOULEVARD, 205.0 FEET WEST OF PLUMMER ROAD, ON THE TOP OF A 4.0 FOOT x 10.0 FOOT GRANITE BOULDER A BRASS DISK FLUSH AND MARKED. ELEV. 1638.14



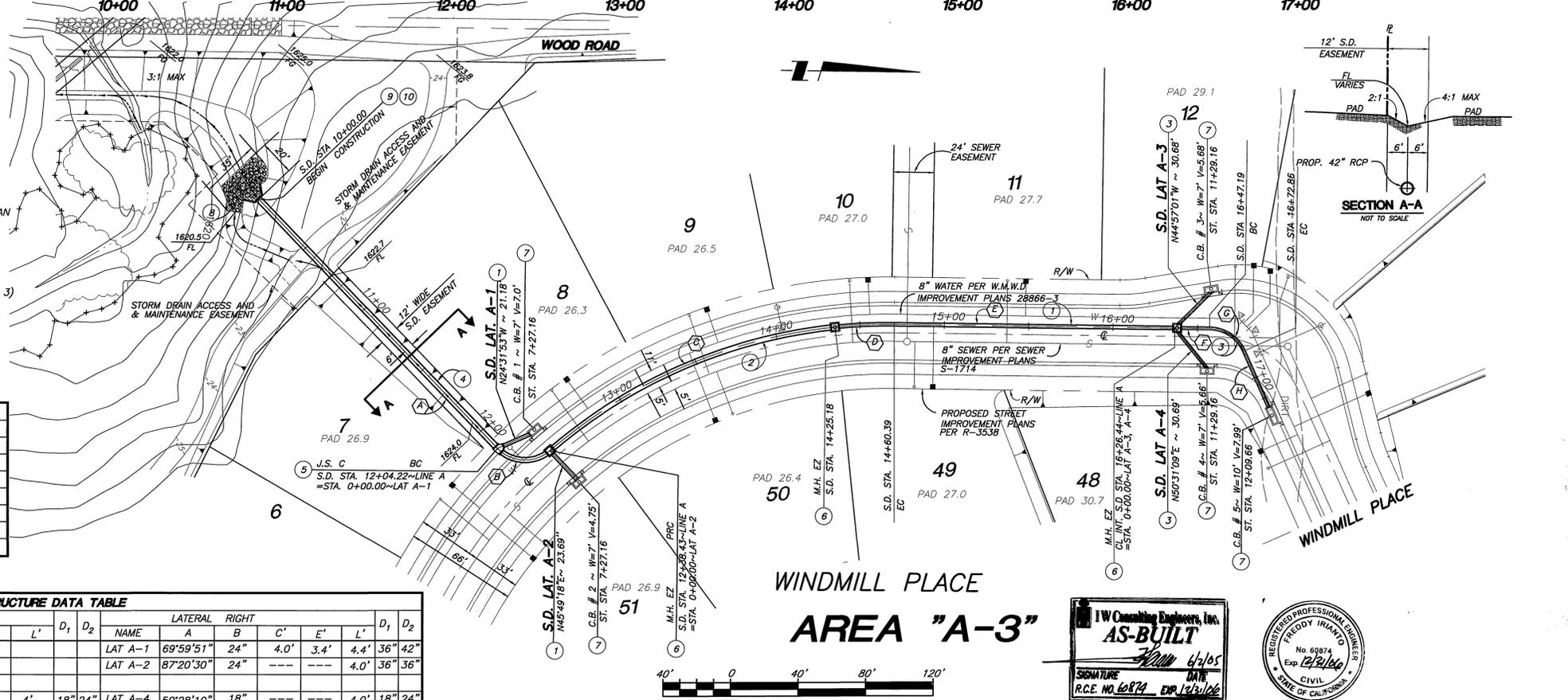
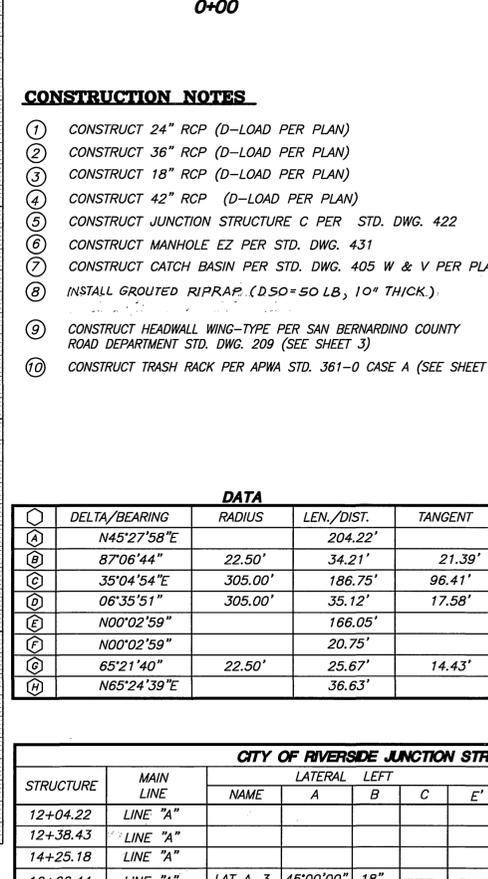
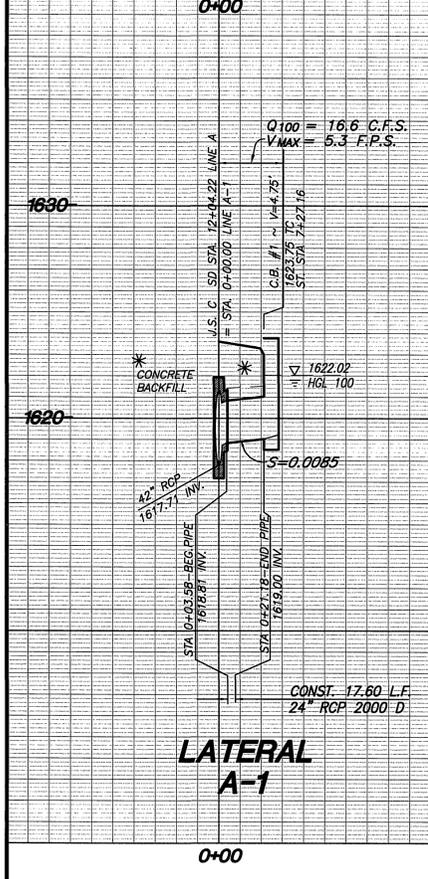
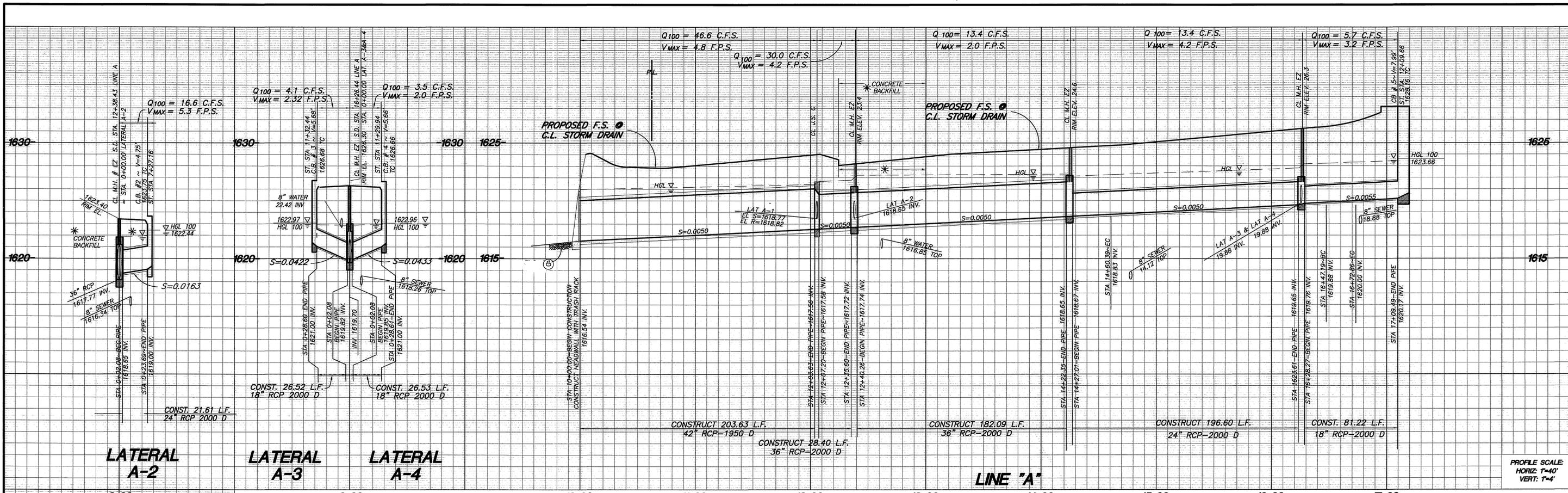
KEITH INTERNATIONAL, INC.
Planning • Civil Engineering • Environmental Services • Land Surveying • Public Works • Water Resources •
Inland Empire Division
22690 Cactus Ave., Ste. 300, Moreno Valley, CA 92553 (909) 653-0254
APPROVED BY: [Signature]
DATE: 11/21/00
NED J. ARAUJO R.C.E. NO. 57835
REGISTRATION EXPIRES 6-30-02

CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT

APPROVED BY: [Signature] DATE: 4/19/00
PRINCIPAL ENGINEER: [Signature]
PARK DEPARTMENT: [Signature]
TRAFFIC DIVISION: [Signature]
P.W. ENGR. MANAGER: [Signature] DATE: 4/19/00
STREET SERVICES: [Signature] DATE: 4-19-00

STORM DRAIN IMPROVEMENT PLANS
TRACT 28866-3
AREA "A-3" STORM DRAIN
TITLE SHEET

ACCOUNT NO. 31447
D-676
SHEET 1 OF 3
HORIZ. SCALE: AS SHOWN VERT. SCALE:



- CONSTRUCTION NOTES**
- CONSTRUCT 24" RCP (D-LOAD PER PLAN)
 - CONSTRUCT 36" RCP (D-LOAD PER PLAN)
 - CONSTRUCT 18" RCP (D-LOAD PER PLAN)
 - CONSTRUCT 42" RCP (D-LOAD PER PLAN)
 - CONSTRUCT JUNCTION STRUCTURE C PER STD. DWG. 422
 - CONSTRUCT MANHOLE EZ PER STD. DWG. 431
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 - INSTALL GROUTED RIPRAP (DSO=50 LB, 10" THICK.)
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 - CONSTRUCT TRASH RACK PER APWA STD. 361-0 CASE A (SEE SHEET 3)

DATA

DELTA/BEARING	RADIUS	LEN./DIST.	TANGENT
(A) N45°27'58"E		204.22'	
(B) 87°06'44"	22.50'	34.21'	21.39'
(C) 35°04'54"E	305.00'	186.75'	96.41'
(D) 06°35'51"	305.00'	35.12'	17.58'
(E) N00°02'59"		166.05'	
(F) N00°02'59"		20.75'	
(G) 65°21'40"	22.50'	25.67'	14.43'
(H) N65°24'39"E		36.63'	

QTY OF RIVERSIDE JUNCTION STRUCTURE DATA TABLE

STRUCTURE	MAIN LINE	LATERAL LEFT				LATERAL RIGHT			
		NAME	A	B	C	E'	L'	D ₁	D ₂
12+04.22	LINE "A"								
12+38.43	LINE "A"	LAT A-1	69°59'51"	24"	4.0'	3.4'	4.4'	36"	42"
14+25.18	LINE "A"	LAT A-2	87°20'30"	24"	---	---	4.0'	36"	36"
16+26.44	LINE "A"	LAT A-3	45°00'00"	18"	---	---	4'	18"	24"

BEFORE YOU START
Underground Service Alert
Call: TOLL FREE
1-800-227-2600
TWO WORKING DAYS BEFORE YOU DIG

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BENCHMARK
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REGISTERED PROFESSIONAL ENGINEER
Civil
Ned J Araujo
No. 057635
Exp. 6-30-02
STATE OF CALIFORNIA

KEITH INTERNATIONAL, INC.
Civil
Planning • Civil Engineering • Environmental Services •
Land Surveying • Public Works • Water Resources •
Inland Empire Division
28800 Chatham Ave., Ste. 200, Norwalk, CA 92553 (951) 652-5254
APPROVED BY: [Signature]
NED J. ARAUJO R.C.E. NO. 57635
REGISTRATION EXPIRES 06-30-02
DATE: 2/24/00

CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT
APPROVED BY: [Signature]
DATE: 4-19-00
REVISIONS: [Table]
DESIGNED BY: K.Y. DRAWN BY: A.B. CHECKED BY: N.J.A.

CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT
APPROVED BY: [Signature]
DATE: 4-19-00
REVISIONS: [Table]
DESIGNED BY: K.Y. DRAWN BY: A.B. CHECKED BY: N.J.A.

STORM DRAIN IMPROVEMENT PLANS
TRACT 28866-3
AREA "A-3" STORM DRAIN
ACCOUNT NO. 31447
D-676
SHEET 2 OF 3
HORIZ. SCALE: 1" = 40'
VERT. SCALE: 1" = 4'
INDEXED 7-17-2000

