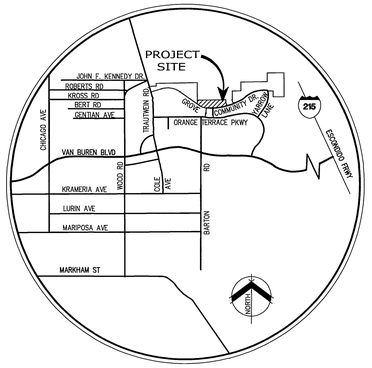
STORM DRAIN IMPROVEMENT PLANS

TRACT NO. 30718, IN THE CITY OF RIVERSIDE



VICINITY MAP
NOT TO SCALE

INDEX OF DRAWINGS

DRAWING/SHEET NO.	TITLE
SHEET 1	TITLE SHEET
SHEET 2–4	PLAN AND PROFILE

CONSTRUCTION NOTES & QUANTITY ESTIMATE

QUANTITY ESTIMATE IS FOR BONDING PREPOSSESS ONLY. CONTRACTOR SHALL VERIFY ALL QUANTITIES PRIOR TO CONSTRUCTION

1	CONSTRUCT 30" C.I.P.P.	878	LF
2	CONSTRUCT 24" RCP (D-LOAD PER PLAN)	513	LF
3	CONSTRUCT 18" RCP (D-LOAD PER PLAN)	690	LF
4	CONSTRUCT MANHOLE EZ PER CITY OF RIVERSIDE STD. DWG. NO. 431	4	EA
5	CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405	9	EA
6	CONSTRUCT CONCRETE COLLAR PER CITY STD. 424	3	EA
7	CONSTRUCT HEADWALL PER DETAIL ON SHEET 2	1	EA
8	CONSTRUCT GROUTED RIPRAP PER PLAN AND DETAIL ON SHEET 2	1	EA
9	CONSTRUCT SLOPED PROTECTION BARRIER PER A.P.W.A. STD. PLAN 360-0	1	EA
10	CONSTRUCT JUNCTION STRUCTURE B PER CITY OF RIVERSIDE STD. DWG. NO. 421	1	EA

CATCH BASIN STENCILING DETAIL

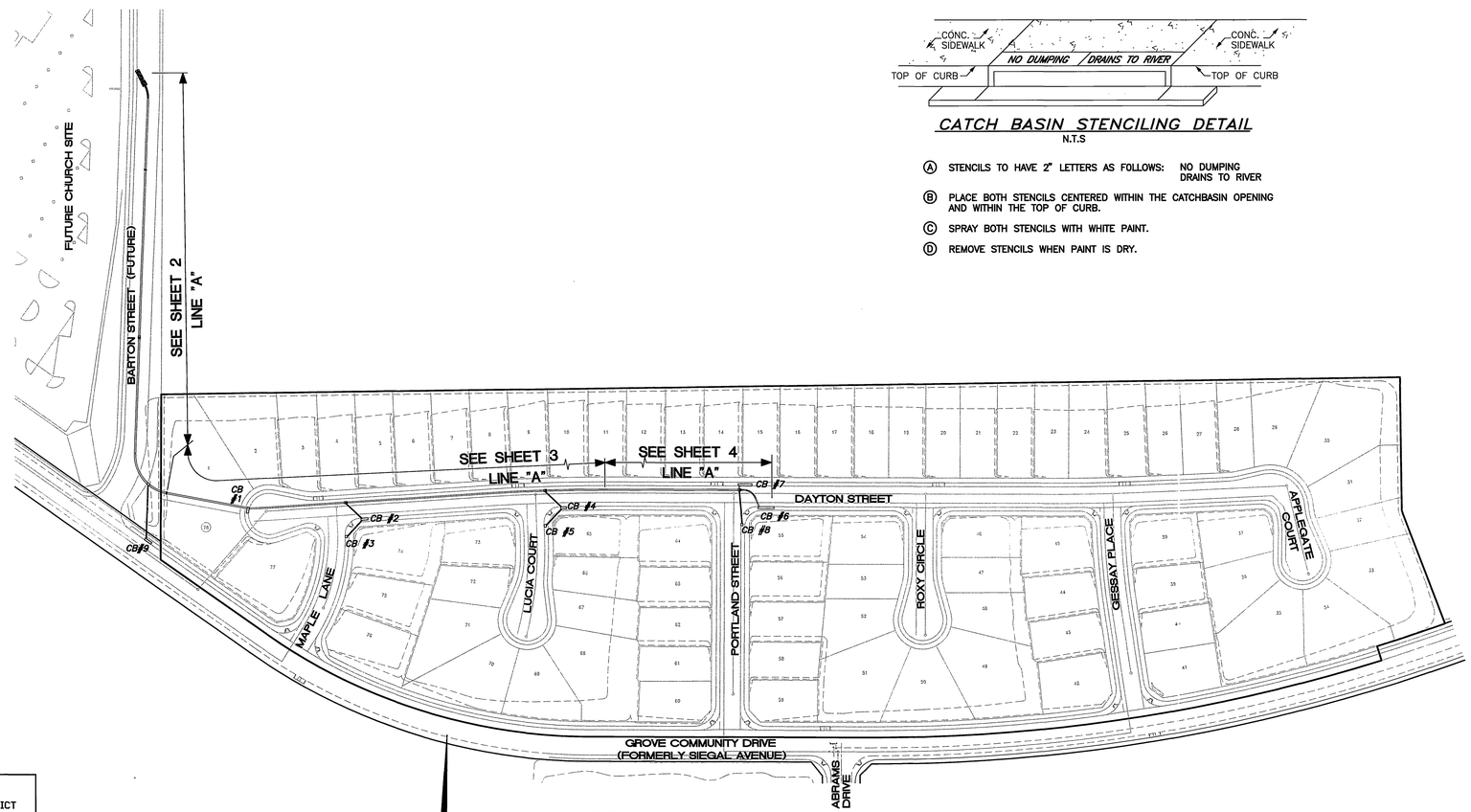
N.T.S

Ⓐ STENCILS TO HAVE 2" LETTERS AS FOLLOWS: NO DUMPING / DRAINS TO RIVER

Ⓑ PLACE BOTH STENCILS CENTERED WITHIN THE CATCHBASIN OPENING AND WITHIN THE TOP OF CURB.

Ⓒ SPRAY BOTH STENCILS WITH WHITE PAINT.

Ⓓ REMOVE STENCILS WHEN PAINT IS DRY.



INDEX MAP

SCALE: 1"=120'

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 DEPT. OF PUBLIC WORKS STANDARD DRAWINGS, 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 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 OR OTHER APPROVED METHODS.
9. NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECTS WITHIN THE PUBLIC RIGHTS-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 (U.S.A.), 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 BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY U.S.A.
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 NOTED.
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.
17. BEFORE THE RIP-RAP AT THE OUTLET OF ANY DRAINAGE STRUCTURE IS ACCEPTED BY THE CITY, IT SHALL BE TESTED UNDER FLOW AS CLOSE AS POSSIBLE TO DESIGN CONDITIONS WITH WATER OBTAINED FROM FIRE HYDRANTS IN THE IMMEDIATE AREA.

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.

C.I.P.P. NOTES

1. CAST-IN-PLACE CONCRETE PIPE CONSTRUCTION SHALL BE IN ACCORDANCE WITH 306-4 OF THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION.
2. FULL-TIME INSPECTION SHALL BE PROVIDED AT NO COST TO THE CITY BY A CITY APPROVED INSPECTOR. TWO WEEKS PRIOR TO CONSTRUCTION THE RESUME OF THE PROPOSED INSPECTOR SHALL BE SUBMITTED TO THE CITY FOR APPROVAL.
3. TRENCHING SHALL BE COMPLETED WITH A CURVED BUCKET TO CREATE A SEMI-CIRCULAR TRENCH.
4. MATERIAL TESTING IN ACCORDANCE WITH SECTION 306-4.7 OF THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION SHALL BE AT NO COST TO THE CITY.
5. REINFORCED CONCRETE PIPE SHALL BE USED 10-FEET ON EACH SIDE OF ALL CUT-FILL TRANSITION.
6. UPON COMPLETION OF CONSTRUCTION, A REPORT COVERING CONSTRUCTION OF THE PIPE SHALL BE PREPARED AND SUBMITTED TO THE CITY. THE REPORT SHALL INCLUDE A STANDARD VHS VIDEO INSPECTION OF THE PIPE, DAILY LOGS COVERING THE METHOD OF PIPE CONSTRUCTION, A SUMMARY OF THE MATERIAL TESTS, PROBLEMS ENCOUNTER AND DOCUMENTATION OF ALL REPAIRS. APPROVAL OF THE REPORT AND RELEASE OF THE IMPROVEMENT BOND IS CONTINGENT UPON RECEIPT AND APPROVAL OF THE REPORT BY THE CITY.

REVIEWED BY:
APPROVED BY: WESTERN MUNICIPAL WATER DISTRICT
FOR NON-INTERFERENCE COMPLIANCE
SHEET 1 THROUGH 4
CIVIL ENGINEER RCE 46212
DATE: 6/23/03

CITY BUSINESS TAX CERTIFICATION NO. 104442 EXP. DATE 5/25/2004

CALL BEFORE YOU DIG
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

E8-F3 ELEV. 1665.160 DATE: 1997
P.K. NAIL AND CITY ENGINEER TAG ON THE SIDEWALK OVER THE W'LY WALL OF A CATCH BASIN ALONG THE S'LY, CURB OF ORANGE TERRACE PKWY., 100 FEET E'LY OF TRAUTWEIN ROAD. THE MARK IS 2 FEET S'LY OF THE FACE OF CURB.

ADJUSTED AND ENTERED: JUNE 1997

REGISTERED PROFESSIONAL ENGINEER TREVOR S. DODSON No. 42029 Exp. 3-31-2004 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
MDS CONSULTING
PLANNERS ENGINEERS SURVEYORS
MORSE DOKICH SCHULTZ
17320 Redhill Ave. Suite 350 Irvine, CA 92614 Voice: 949-251-8821 FAX: 949-251-0516

PLANS PREPARED UNDER THE SUPERVISION OF:
TREVOR S. DODSON R.C.E. NO.42029 DATE 6-16-03

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: FE DRAWN BY: WS CHECKED BY: TD

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

	DATE	BY
APPROVED BY		
PRINCIPAL ENGINEER	9/10/03	
PARK DEPARTMENT		
TRAFFIC DIVISION		
STREET SERVICES	6-20-03	

CITY ENGINEER
DATE 9/10/03

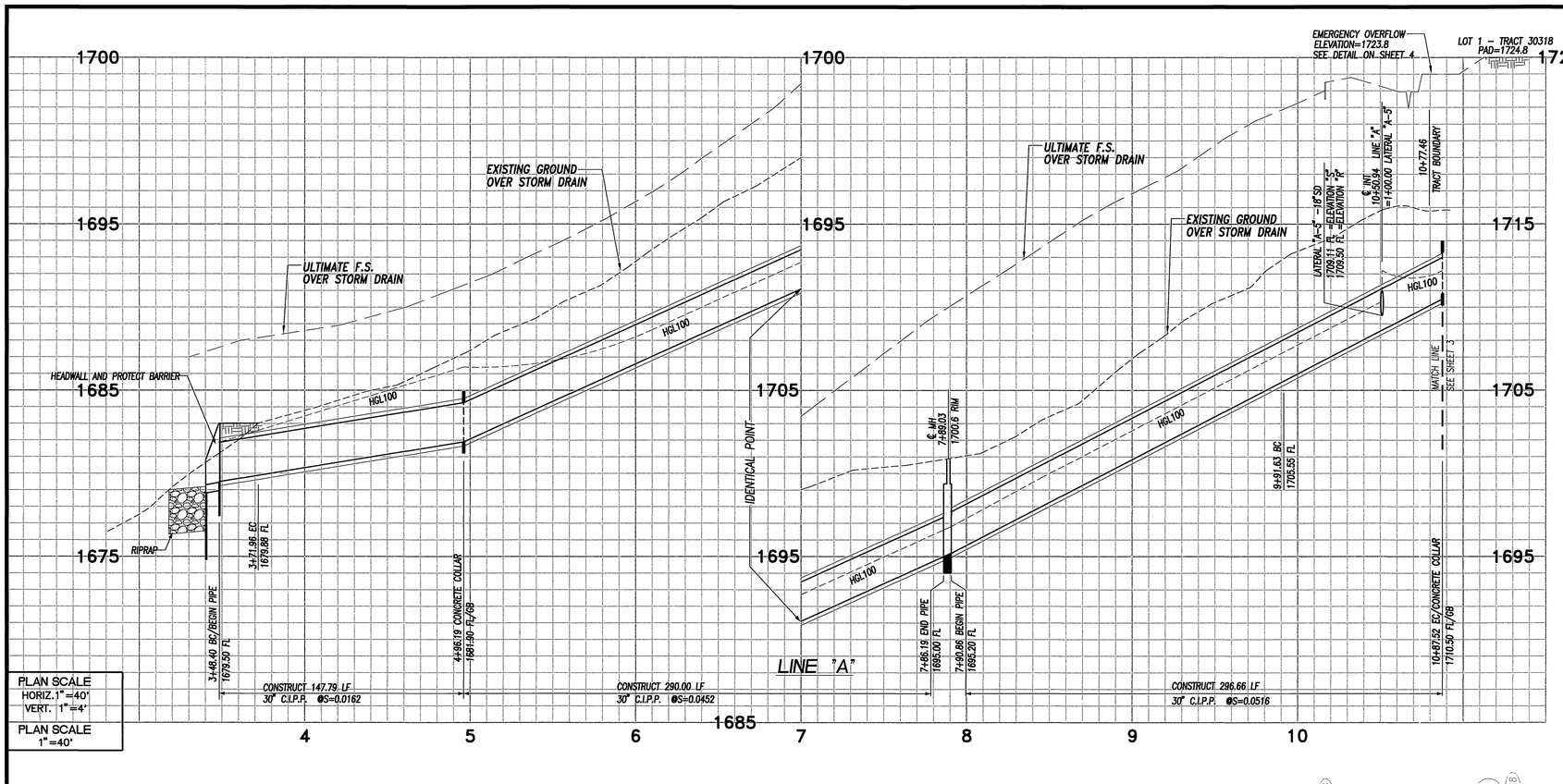
STORM DRAIN IMPROVEMENT PLANS
TRACT 30718
ORANGECREST - PA4
TITLE SHEET

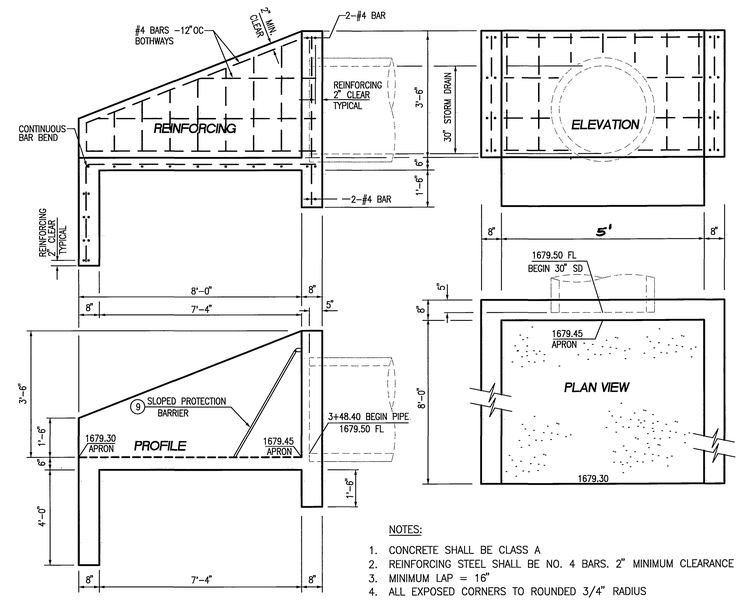
ACCOUNT NO.....
D-727
SHEET 1 OF 4

HORIZ. SCALE: AS SHOWN VERT. SCALE:

I:\52807\IMPLANS\S1-01.dwn 6/16/03

INDEXED 10-02-03 LH



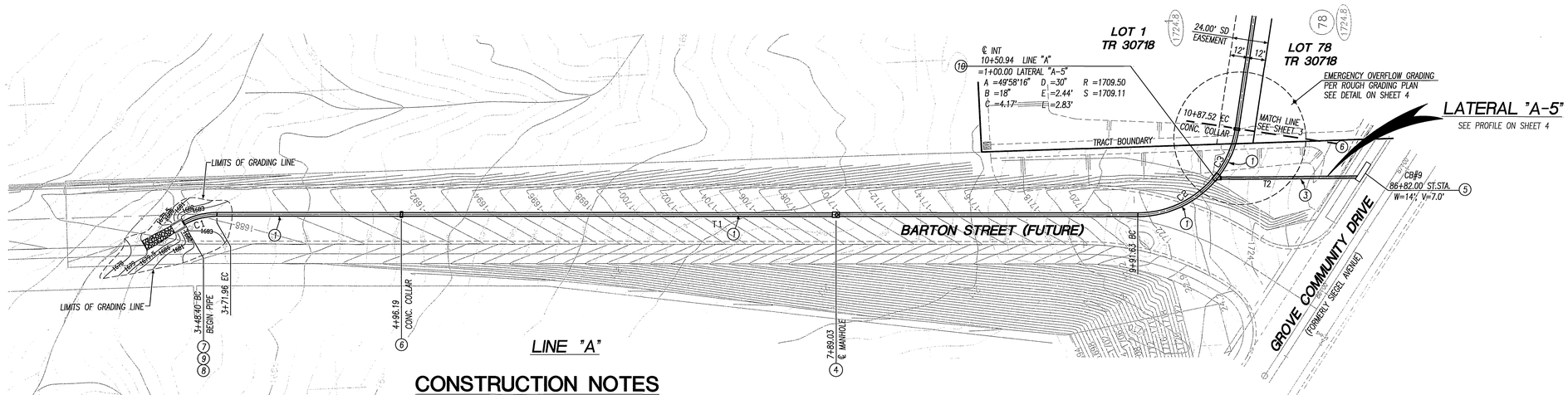


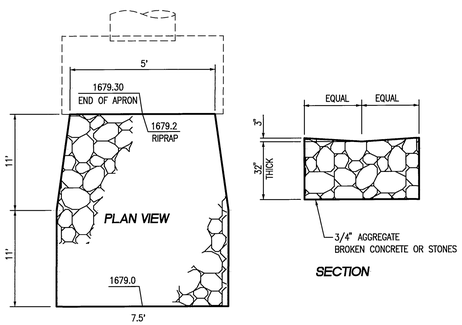
NOTES:

1. CONCRETE SHALL BE CLASS A
2. REINFORCING STEEL SHALL BE NO. 4 BARS. 2" MINIMUM CLEARANCE
3. MINIMUM LAP = 16"
4. ALL EXPOSED CORNERS TO ROUNDED 3/4" RADIUS

HEADWALL DETAIL

NOT TO SCALE





RIPRAP DETAIL
1/4 TON

NOT TO SCALE

CONSTRUCTION NOTES

1. CONSTRUCT 30" C.I.P.P.
3. CONSTRUCT 18" RCP (D-LOAD PER) PLAN
4. CONSTRUCT MANHOLE EZ PER CITY OF RIVERSIDE STD. DWG. NO. 431
5. CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405
6. CONSTRUCT CONCRETE COLLAR PER CITY STD. 424
7. CONSTRUCT HEADWALL PER DETAIL ON SHEET 2
8. CONSTRUCT GROUTED RIPRAP PER DETAIL ON SHEET 2
9. CONSTRUCT SLOPED PROTECTION BARRIER PER A.P.W.D. STD. PLAN 360-0
10. CONSTRUCT JUNCTION STRUCTURE B PER CITY OF RIVERSIDE STD. DWG. NO. 421

COURSE DATA		
LINE	BEARING	DISTANCE
T1	N02°04'18"E	619.67'
T2	N1°42'14"E	95.34'

CURVE DATA				
#	Δ	R	L	T
C1	29°59'52"	45.00'	23.56'	12.06'
C2	50°20'20"	67.50'	59.31'	31.72'
C3	31°03'14"	67.50'	36.58'	18.75'

HYDRAULIC DATA

LINE	STATION TO STATION	DIA. (in)	Q100 (cfs)	n	SLOPE (ft/ft)	dn (ft)	Vn (fps)	Vcr (fps)	dcr (ft)	sf (ft/ft)	V (fps)
"A"	3+48.40 – 4+96.19	30	59.0	0.015	0.0162	PRESSURE FLOW				0.028	12.0
"A"	4+66.19 – 7+86.19	30	59.0	0.015	0.0452	1.7	17.0	12.2	2.4	–	–
"A"	7+90.86 – 10+50.94	30	59.0	0.015	0.0516	1.6	18.0	12.2	2.4	–	–
"A"	10+50.94 – 10.87.52	30	52.1	0.015	0.0516	1.5	17.5	11.0	2.3	–	–

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PRIVATE ENGINEERING NOTE

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BENCHMARK

P.K. NAIL AND CITY ENGINEER TAG ON THE SIDEWALK OVER THE W'LY WALL OF A CATCH BASIN ALONG THE S'LY, CURB OF ORANGE TERRACE PKWY., 100 FEET E'LY OF TRAUTWEIN ROAD. THE MARK IS 2 FEET S'LY OF THE FACE OF CURB.

ADJUSTED AND ENTERED: JUNE 1997

REGISTERED PROFESSIONAL ENGINEER TREVOR S. DODSON No. 42029 Exp. 3-31-2004 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
MDS CONSULTING
MORSE DOKICH SCHULTZ
17320 Redhill Ave. Suite 350 Irvine, CA 92614 Voice: 949-251-8821 FAX: 949-251-0516
PLANNERS ENGINEERS SURVEYORS

PLANS PREPARED UNDER THE SUPERVISION OF:
TREVOR S. DODSON R.C.E. NO.42029 DATE 7-8-03

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: FE DRAWN BY: WS CHECKED BY: TD

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	9/9/03	DLA
PARK DEPARTMENT	–	–
TRAFFIC DIVISION	–	–
STREET SERVICES	7-14-03	DDG

CITY ENGINEER
DATE 9/10/03

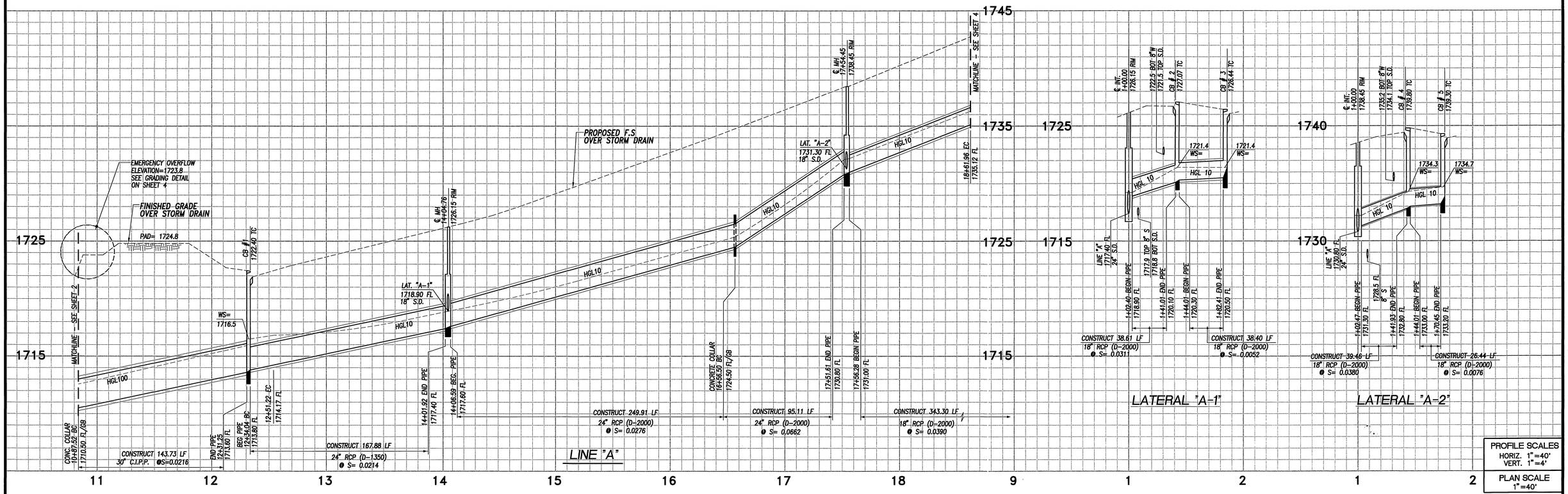
STORM DRAIN IMPROVEMENT PLANS
TRACT 30718
LINE "A" 3+48.40-10+87.52
PLAN & PROFILE

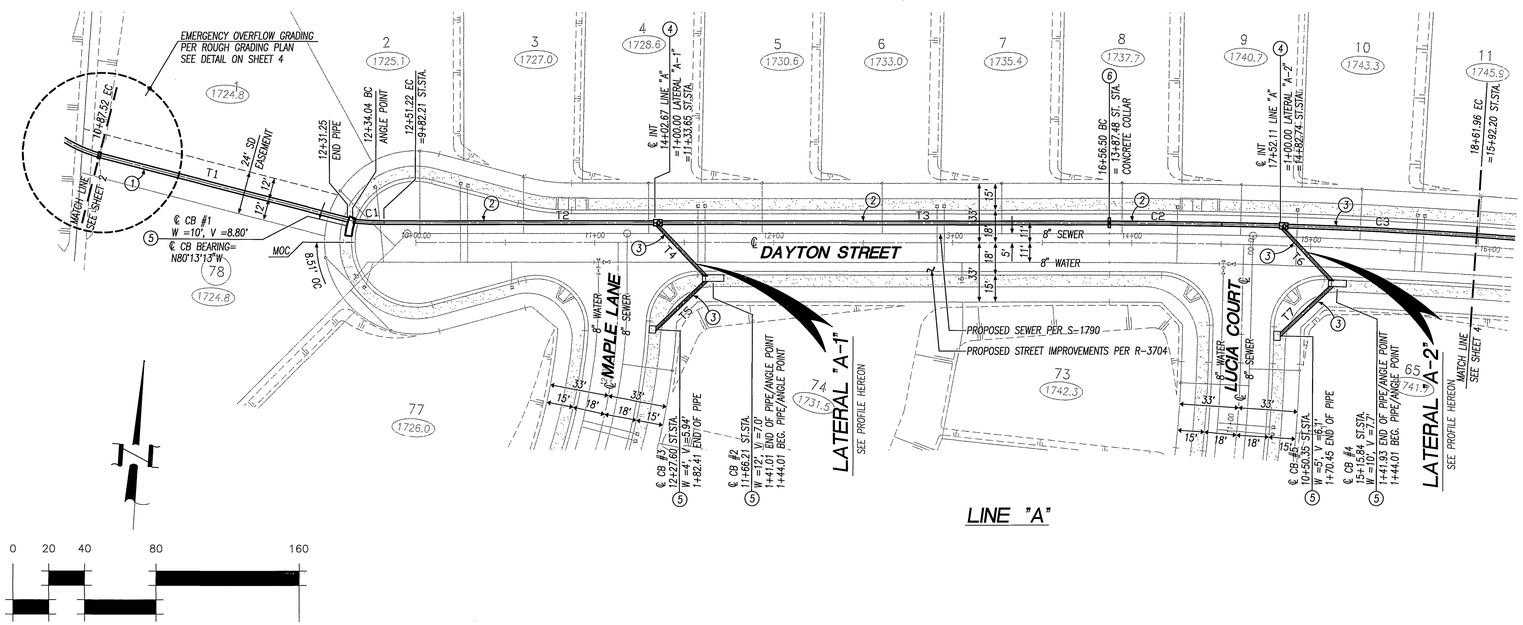
HORIZ. SCALE: AS SHOWN VERT. SCALE: AS SHOWN

ACCOUNT NO.....
D-727
SHEET 2 OF 4

H:\36003\IMPLANS\S4-02.dwg 7/08/03

INDEXED 10-02-03 GH





CONSTRUCTION NOTES

1. CONSTRUCT 30" C.I.P.P.
2. CONSTRUCT 24" RCP (D-LOAD PER PLAN)
3. CONSTRUCT 18" RCP (D-LOAD PER PLAN)
4. CONSTRUCT MANHOLE EZ PER CITY OF RIVERSIDE STD. DWG. NO. 431
5. CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405
6. CONSTRUCT CONCRETE COLLAR PER CITY STD. 424

CURVE DATA				
#	Δ	R	L	T
C1	05°28'11'	180.00'	17.18'	8.60'
C2	01°49'10'	3011.00'	95.61'	47.81'
C3	02°05'25'	3011.00'	109.85'	54.93'

COURSE DATA		
LINE	BEARING	DISTANCE
T1	N79°19'16"W	146.52'
T2	N86°14'25"E	151.45'
T3	N86°14'25"E	253.83'
T4	N47°24'57"W	41.01'
T5	N42°35'03"E	38.40'
T6	N47°33'44"W	27.23'
T7	N02°19'29"W	7.69'

HYDRAULIC DATA												
LINE	STATION TO STATION	DIA. (in)	Q 10 (cfs)	n	SLOPE (ft/ft)	dn (ft)	Vn (fps)	Vcr (fps)	dcr (ft)	sf (ft/ft)	V (fps)
"A"	10+87.52 – 12+31.25	30	*52.1	0.015	0.0216	2.0	12.1	11.0	2.3	–	–
"A"	12+34.04 – 14+01.92	24	27.3	0.013	0.0214	1.4	11.8	9.1	1.8	–	–
"A"	14+06.59 – 16+56.50	24	24.0	0.013	0.0387	1.1	14.4	8.3	1.7	–	–
"A"	16+56.50 – 17+51.61	24	24.0	0.013	0.0662	0.9	17.6	8.3	1.7	–	–
"A"	17+56.28 – 20+99.58	18	20.0	0.013	0.0390	1.2	13.4	11.4	1.5	–	–
LAT. "A-1"	1+02.40 – 1+41.01	18	4.0	0.013	0.0311	8.4	4.4	0.8	–	–	–
LAT. "A-1"	1+44.01 – 1+82.41	18	2.4	0.013	0.0052	3.8	3.8	0.6	–	–	–
LAT. "A-2"	1+02.47 – 1+41.93	18	5.0	0.013	0.0380	9.6	4.8	0.9	–	–	–
LAT. "A-2"	1+44.01 – 1+70.45	18	3.9	0.013	0.0076	5.0	4.4	0.8	–	–	–

*Q100

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PRIVATE ENGINEERING NOTE

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BENCHMARK

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ADJUSTED AND ENTERED: JUNE 1997

REGISTERED PROFESSIONAL ENGINEER TREVOR S. DODSON No. 42029 Exp. 3-31-2004 CIVIL STATE OF CALIFORNIA

PLANS PREPARED BY:
MDS CONSULTING
MORSE DOKICH SCHULTZ
17320 Redhill Ave. Suite 330 Irvine, CA 92614 Voice: 949-251-8821 FAX: 949-251-0516
PLANNERS ENGINEERS SURVEYORS

PLANS PREPARED UNDER THE SUPERVISION OF:
TREVOR S. DODSON R.C.E. NO.42029 — DATE 6/16/03

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: FE DRAWN BY: WS CHECKED BY: TD

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	9/9/03	
PARK DEPARTMENT	–	–
TRAFFIC DIVISION	–	–
STREET SERVICES	6-30-3	

CITY ENGINEER
DATE 9/9/03

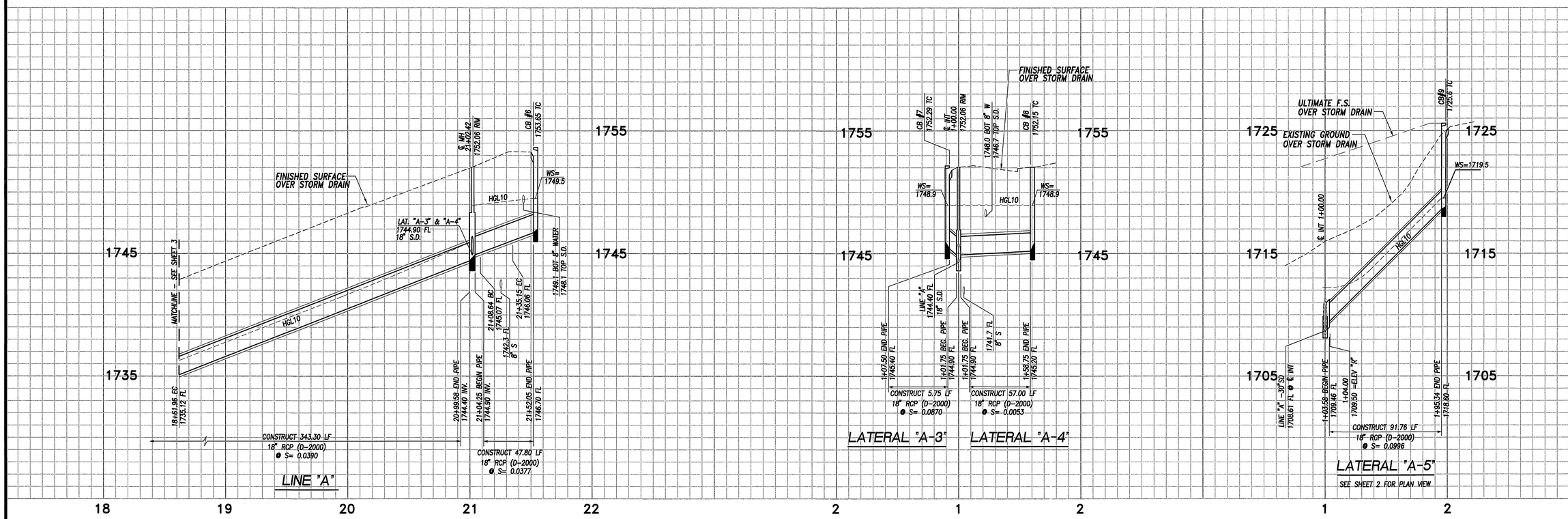
STORM DRAIN IMPROVEMENT PLANS
TRACT 30718
LINE "A" 10+87.52 - 18+61.96
LATERALS "A-1" & "A-2"
PLAN & PROFILE

HORIZ. SCALE: AS SHOWN VERT. SCALE: AS SHOWN

ACCOUNT NO.....
D-727
SHEET 3 OF 4

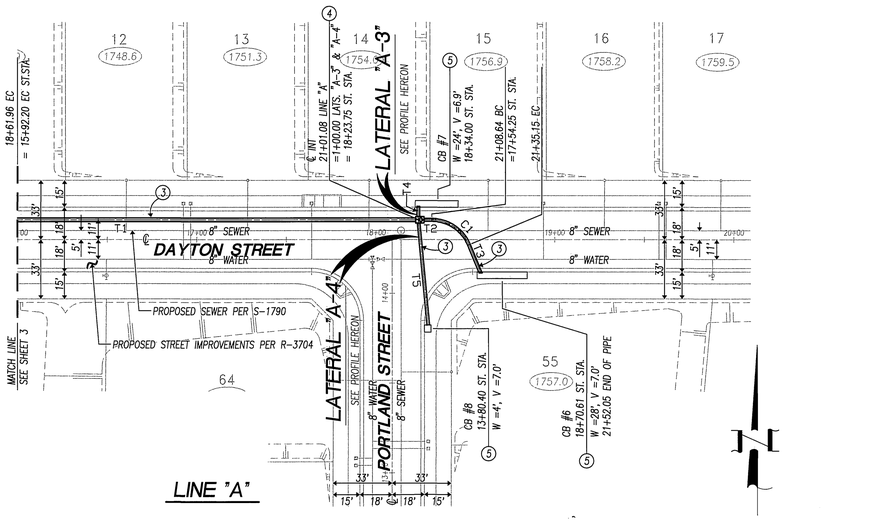
H:\59809\IMPLANS\S4-03.dwg 6/16/03

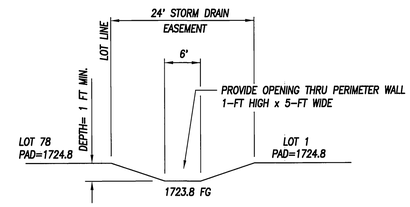
INDEXED 10-02-03



PROFILE SCALES
HORIZ. 1"=40'
VERT. 1"=4'

PLAN SCALE
1"=40'





EMERGENCY OVERFLOW GRADING DETAIL
@LOT 1
N.T.S.

CONSTRUCTION NOTES

3. CONSTRUCT 18" RCP (D-LOAD PER PLAN)
4. CONSTRUCT MANHOLE EZ PER CITY OF RIVERSIDE STD. DWG. NO. 431
5. CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405

HYDRAULIC DATA

LINE	STATION TO STATION	DIA. (in)	Q 10 (cfs)	n	SLOPE (ft/ft)	dn (ft)	Vn (fps)	Vcr (fps)	dcr (ft)	sf (ft/ft)	V (fps)
"A"	17+56.28 - 20+99.58	18	20.0	0.013	0.0390	1.2	13.4	11.4	1.5	–	–
"A"	21+04.25 - 21+52.05	18	10.3	0.013	0.0377		PRESSURE FLOW			0.01	5.8
LAT. "A-3"	1+01.75 - 1+07.50	18	8.1	0.013	0.0870		PRESSURE FLOW			0.006	4.6
LAT. "A-4"	1+01.75 - 1+58.75	18	2.3	0.013	0.0053		PRESSURE FLOW			0.0005	1.3
LAT. "A-5"	1+03.58 - 1+95.34	18	5.8	0.013	0.0996	0.4	14.1	5.4	0.9	–	–

CURVE DATA

#	Δ	R	L	T
C1	67°30'00"	22.50'	26.51'	15.03'

COURSE DATA

LINE	BEARING	DISTANCE
T1	N 89°51'00" W	231.56'
T2	N 89°51'00" W	7.56'
T3	N 22°21'00" W	16.90'
T4	N 00°09'00" E	7.50'
T5	N 05°14'37" W	58.76'

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

P.K. NAIL AND CITY ENGINEER TAG ON THE SIDEWALK OVER THE W'LY WALL OF A CATCH BASIN ALONG THE S'LY, CURB OF ORANGE TERRACE PKWY., 100 FEET E'LY OF TRAUTWEIN ROAD, THE MARK IS 2 FEET S'LY OF THE FACE OF CURB.

ADJUSTED AND ENTERED: JUNE 1997

REGISTERED PROFESSIONAL ENGINEER
TREVOR S. DODSON
No. 42029
Exp. 3-31-2004
CIVIL
STATE OF CALIFORNIA

PLANS PREPARED BY:
MDS CONSULTING
MORSE DOKICH SCHULTZ
17320 Redhill Ave. Suite 350 Irvine, CA 92614 Voice: 949-251-8821 FAX: 949-251-0516
PLANNERS ENGINEERS SURVEYORS

PLANS PREPARED UNDER THE SUPERVISION OF:
TREVOR S. DODSON R.C.E. NO.42029 — DATE 7-8-03

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: FE DRAWN BY: VS CHECKED BY: TD

CITY OF RIVERSIDE
PUBLIC WORKS DEPARTMENT

APPROVED BY	DATE	BY
PRINCIPAL ENGINEER	9-8-03	
PARK DEPARTMENT	-	-
TRAFFIC DIVISION	-	-
STREET SERVICES	7-14-03	

CITY ENGINEER
DATE 9/10/03

STORM DRAIN IMPROVEMENT PLANS
TRACT 30718
LINE "A" 18+61.96 - 21+52.05
LATERALS "A-3", "A-4" & "A-5"
PLAN & PROFILE

HORIZ. SCALE: AS SHOWN VERT. SCALE: AS SHOWN

ACCOUNT NO.....
D-727
SHEET 4 OF 4

I:\52602\IMPLANS\Sd-04.dwg 7/08/03

INDEXED 10-02-03 LH