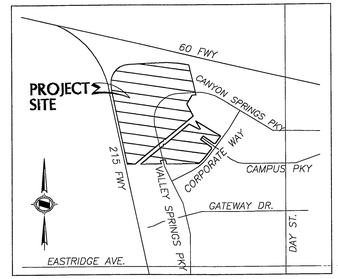
CITY OF RIVERSIDE
CANYON SPRINGS DEVELOPMENT - P.M. 31387
STORM DRAIN PLAN



VICINITY MAP
NOT TO SCALE

GENERAL NOTES

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RIVERSIDE DEPT. OF PUBLIC WORKS STANDARD DRAWINGS, IT'S SUPPLEMENTAL NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.

2. 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.

3. QUANTITIES SHOWN ARE FOR INFORMATION ONLY AND THE CITY OF RIVERSIDE IS NOT RESPONSIBLE FOR THEIR ACCURACY.

4. 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.

5. THE CONTRACTOR SHALL CALL IN A LOCATIONS 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 PUBLIC WORKS DEPARTMENT INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY U.S.A.

6. 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.

7. ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE PRIVATE ENGINEER.

8. BEFORE THE RIP-RAP AT THE OUTLET OF ANY DRAINAGE STRUCTURE IS ACCEPTED BY THE CITY, IT SHALL BE TESTED UNDER FLOWS AS CLOSE AS POSSIBLE TO DESIGN CONDITIONS WITH WATER OBTAINED FROM FIRE HYDRANTS IN THE IMMEDIATE AREA.

9. NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECT 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.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS:

1. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL JOIN CONDITIONS FOR GRADING AND DRAINAGE WORK. IF CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITIONS HAVE BEEN EVALUATED.

2. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITY INFORMATION SHOWN ON THESE PLANS HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA.

3. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. 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.

4. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS, THE SOILS AND/OR GEOLOGY REPORTS, AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK.

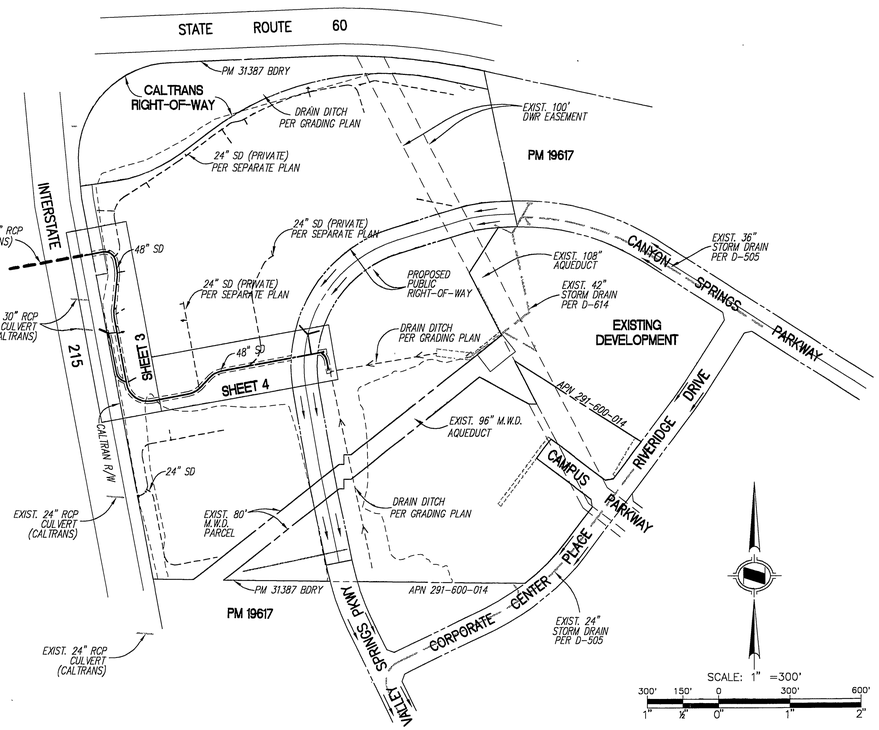
5. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE PROJECT ARCHITECT OR HUNSAKER & ASSOCIATES BEFORE PROCEEDING WITH THE WORK IN QUESTION.

6. THE CONTRACTOR SHALL OBTAIN AN O.S.H.A PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE 5 FEET OR DEEPER.

7. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE 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 PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

8. CONTRACTOR IS RESPONSIBLE FOR EROSION, DUST AND TEMPORARY DRAINAGE CONTROL DURING ALL PHASES OF CONSTRUCTION.

9. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND CHECK DAMS. SILT AND DEBRIS SHALL BE REMOVED FROM CITY OF RIVERSIDE STREETS. THIS REQUIREMENT SHALL REMAIN IN EFFECT UNTIL CITY ACCEPTANCE OF THIS PROJECT.



INDEX MAP
SCALE: 1"=300'

SHEET INDEX:

SHEET 1 – TITLE SHEET
SHEET 2 – GENERAL NOTES & DETAILS
SHEET 3 & 4 – STORM DRAIN PLAN & PROFILE
SHEET 5 – DIVERSION DRAIN PLAN PROFILE & DETAILS
SHEET 6 – CDS UNIT DETAILS

CONSTRUCTION KEY NOTES:

		QUANTITY:
1	INSTALL 54" RCP, 1900 D	86 LF
2	INSTALL 48" RCP, 1900 D	1,434 LF
3	INSTALL 42" RCP, 1000 D	5 LF
4	INSTALL 36" RCP, 1000 D	74 LF
5	INSTALL 24" RCP, 2000 D	239 LF
6	INSTALL 18" RCP, 1500 D	185 LF
7	CONSTRUCT JUNCTION STRUCTURE "C" PER CITY OF RIVERSIDE STD DWG NO. 422	1 EA
8	CONSTRUCT JUNCTION STRUCTURE NO. 4 PER CITY OF RIVERSIDE STD DWG NO. 423	3 EA
9	CONSTRUCT MANHOLE AX PER CITY OF RIVERSIDE STD DWG NO. 430	2 EA
10	CONSTRUCT MANHOLE JM PER CITY OF RIVERSIDE STD DWG NO. 432	3 EA
11	CONSTRUCT CONCRETE COLLAR PER CITY OF RIVERSIDE STD DWG NO. 424 L=1.5', T=10'	1 EA
12	PLUG RCP	5 EA
13	CONSTRUCT TIMBER BULKHEAD PER CITY OD RIVERSIDE STD DWG NO. 456	1 EA
14	~~CONSTRUCT HYDRODYNAMIC SEPARATOR PER CDS TECHNOLOGIES, SEE SHT. 6~~	~~1 EA~~
15	HIGH FLOW DIVERGENCE STRUCTURE, SEE SHEET 5	1 EA
16	CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405, V = 4', W = 7'	2 EA
17	INSTALL OUTLET STRUCTURE PER CALTRANS STD. PLAN NO. D-94B	1 EA

LEGEND:

	PROJECT BOUNDARY	SMH	SANITARY SEWER MANHOLE	SHT.	SHEET
	PROPOSED RIGHT OF WAY	P.P.	POWER POLE	NO.	NUMBER
	EXISTING RIGHT OF WAY	C.L.	CENTER LINE	G.B.	GRADE BREAK
	PROPOSED LOT LINE	T.C.	TOP OF CURB	O	VEHICLE DETECTOR
	EXISTING LOT LINE	F.S.	FINISH SURFACE		FIRE HYDRANT
	PHASING LIMIT	F.L.	FLOW LINE		STREET SIGN
	EXISTING EASEMENT	E.P.	EDGE OF PAVEMENT	⊗WV	WATER VALVE
	EXISTING CHAIN LINK FENCE	( )	EXISTING ELEVATION	⊗GV	GAS VALVE
1560	PROPOSED CONTOUR	EX.	EXISTING	o	POWER POLE
1560	EXISTING CONTOUR	EXIST.	EXISTING	P	PAVEMENT ELEVATION
	GRADING SLOPE	P.C.C.	PORTLAND CONCRETE CEMENT		
SD	PROPOSED STORM DRAIN PER SEPARATE PLANS	C.F.	CURB FACE		
SS	PROPOSED SANITARY SEWER PER SEPARATE PLANS	PT.	POINT		
W	PROPOSED WATER PER SEPARATE PLANS	O.C.	ON CURVE		
SD	EXISTING STORM DRAIN	STA.	STATION		
SS	EXISTING SANITARY SEWER	CONST.	CONSTRUCTION		
W	EXISTING WATER	SIGL.	SIGNAL		
		D.R.	HANDICAP RAMP		
		B.C.R.	BEGIN CURB RETURN		
		E.C.R.	END CURB RETURN		
		A.P.W.A.	AMERICAN PUBLIC WORKS ASSOCIATION		
		L.A.C.R.D.	LOS ANGELES COUNTY ROAD DEPARTMENT STANDARD PLANS		

PW04-0168

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

OWNER / DEVELOPER
TRANSCAN DEVELOPMENT, LLC
3189 DANVILLE BLVD., SUITE 245,
ALAMO, CA 94507
PH: 925-552-9742 FAX: 925-552-9748

BENCHMARK:
CITY OF RIVERSIDE B.M. GPS-66
ELEVATION: 1594.281 DATUM: 1929
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2 1/2" BRASS DISK STAMPED "CITY OF RIVERSIDE GPS STATION 66 1991 CADME" SET IN THE TOP OF A CATCH BASIN ALONG THE NORTHERLY SIDE OF CANYON SPRINGS PKWY 0.3 MILES WEST OF DAY STREET.
ADJUSTED ELEV. PER NAVD 88: 1596.679

CITY OF RIVERSIDE BUSINESS TAX CERTIFICATE # 115576 EXP: 04/01/05

HUNSAKER & ASSOCIATES LOS ANGELES, INC.
PLANNING • ENGINEERING • SURVEYING • GOVERNMENT RELATIONS
26074 AVENUE HALL, SUITE 22
VALENCIA, CA 91355
(661) 294-2211 FAX (661) 294-9890
JOHN J. ALAJOV RCE# C56393 8-17-04 DATE

REGISTERED PROFESSIONAL ENGINEER J. J. ALAJOV No. C56393 EXP. 6-30-05 CIVIL State of California

MARK	REVISIONS	APPR.	DATE
	PERMIT SET		8/13/04

DESIGNED BY J.J.A. DRAWN BY STAFF CHECKED BY J.H.F.

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
~~DEPUTY P.W. DIRECTOR~~		
PRINCIPAL ENGINEER		
~~STREET SERVICES SUPERVISOR~~		
~~TRAFFIC DIVISION~~		
~~PARKS DEPARTMENT~~		

APPROVED BY: PUBLIC WORKS DIRECTOR/CITY ENGINEER
DATE 9/24/04

CANYON CROSSINGS
PARCEL MAP NO. 31387
STORM DRAIN PLAN
PHASE I
TITLE SHEET

HORIZ. SCALE: AS SHOWN VERT. SCALE:

WDID# 8 33C326646

D-760

SHEET 1 OF 5

RVZ

INDEXED 9-23-04 HT

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS:

10. A PERMIT SHALL BE OBTAINED AND ALL FEES AND DEPOSITS FOR CONSTRUCTION INSPECTION SHALL BE PAID TO THE CITY OF RIVERSIDE DEPARTMENT OF PUBLIC WORK AT THE PERMIT COUNTER, 3900 MAIN ST., RIVERSIDE, CA 92522 AT LEAST 72 HOURS PRIOR TO STARTING WORK UNDER THIS CONTRACT. ALSO, ALL OTHER REQUIRED PERMITS, SUCH AS ROAD EXCAVATION PERMITS AND CITY CONSTRUCTION PERMIT MUST BE OBTAINED PRIOR TO STARTING WORK.

11. THE CONTRACTOR SHALL CONTACT THE CITY OFFICE LISTED ON THE "APPLICATION FOR STORM DRAIN CONSTRUCTION INSPECTION FORM" TO ARRANGE FOR AN ACCEPTABLE CONSTRUCTION START DATE.

12. APPROVAL OF THIS PLAN BY THE CITY OF RIVERSIDE DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION, OR THE EXISTENCE OR NONEXISTENCE OF ANY UNDERGROUND UTILITY, PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL SHEETS.

13. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", INCLUDING SUPPLEMENTS AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE DIRECTOR OF PUBLIC WORKS.

14. THE CONTRACTORS' ATTENTION IS DIRECTED TO SECTION 7-10.41 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARD TO SAFETY ORDERS.

15. ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. MEAN SEA LEVEL DATUM OF 1988, UNLESS OTHERWISE INDICATED.

16. NO CONCRETE SHALL BE PLACED UNTIL THE FORMS AND REINFORCING STEEL HAVE BEEN PLACED, INSPECTED AND APPROVED.

17. ALL STRUCTURAL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH AN ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 4000 P.S.I. UNLESS OTHER NOTED.

18. TRANSVERSE REINFORCEMENT AND TRANSVERSE JOINTS SHALL BE PLACED AT RIGHT ANGLES OR RADIAL) TO THE CONDUIT CENTERLINE EXCEPT AS OTHERWISE SHOWN ON DRAWINGS.

19. ALL STEEL ADJACENT TO FACE OF CONCRETE SHALL HAVE 2 1/2" CLEARANCE UNLESS OTHERWISE SPECIFIED.

20. REINFORCEMENT SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE STEEL, PER A.S.T.M. A-615-GRADE 60.

21. ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE "MANUAL OF STANDARD PRACTICE".

22. DIMENSIONS FROM FACE OF CONCRETE TO STEEL ARE TO CENTER LINE OF STEEL UNLESS OTHERWISE NOTED.

23. ALL STEEL THAT IS TO BE CONTINUOUS SHALL HAVE A MINIMUM LAP OF 30 BAR DIAMETERS OR 18", WHICHEVER IS GREATER.

24. ALL CONSTRUCTION JOINTS IN THE FOOTING OF SLABS AND WALLS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED.

25. ALL EXPOSED EDGES SHALL BE FINISHED WITH A 3/4" CHAMFER.

26. UNLESS OTHERWISE SHOWN, CONCRETE DIMENSIONS SHALL BE MEASURED VERTICALLY OR HORIZONTALLY AND PARALLEL OR AT RIGHT ANGLE (OR RADIAL) THE THE CENTERLINE OF CONSTRUCTION.

27. THE INSPECTOR SHALL HAVE THE OPTION TO REQUIRE CONCRETE BACKFILL DURING CONSTRUCTION WHEN THE PIPE HAS LESS THAN ONE FOOT OF COVER. THE CONCRETE BACKFILL SHALL CONSIST OF 1:3:5 MIX, PORTLAND CEMENT CONCRETE POURED FROM WALL TO WALL OF TRENCH AND FROM BOTTOM OF TRENCH TO A MINIMUM OF 4 INCHES OVER THE TOP OF THE PIPE.

28. ALL PIPE SHALL BE PLACED IN TRENCH IN NATURAL GROUND AND/OR COMPACTED FILL. THE GROUND LEVEL BEFORE THE TRENCHING SHALL BE AT LEAST 3 FEET ABOVE THE TOP OF THE PIPE ELEVATION, OR AT FINISH SURFACE ELEVATION, WHICHEVER IS LESS.

29. ALL BACKFILL AND FILLS OUTSIDE OF STREET RIGHT OF WAY SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM SOIL COMPACTION TEST D 1557-78 METHOD "D" UNLESS OTHERWISE SPECIFIED. THIS SHALL BE CERTIFIED BY A GEOTECHNICAL ENGINEER. THIS CERTIFICATION SHALL BE SUBMITTED TO THE CITY ENGINEER PRIOR TO ACCEPTANCE OF THE WORK BY THE CITY.

30. DEVELOPER AND/OR CONTRACTOR TO GIVE ~~RCFC~~ CITY 5-DAYS WRITTEN NOTICE PRIOR TO STARTING WORK ON STORM DRAIN ~~(OR DOING ANY WORK WITHIN RCFC EASEMENTS). RCFC ENCROACHMENT PERMIT NO.~~ _____

31. PIPE BEDDING SHALL BE ACCORDING TO STANDARD DRAWING NO. 452, CASE II, EXCEPT BELL AND SPIGOT PIPE WHICH SHALL BE CASE II BEDDING, UNLESS OTHERWISE SHOWN. "W" VALUES SHALL BE AS SPECIFIED ON STANDARD DRAWING NO. 452 FOR CASE II BEDDING, NOTES 1,2,3 & 4. IF THE "W" VALUE AT THE TIP OF PIPE IS EXCEEDED, THE BEDDING SHALL BE MODIFIED, AND/OR PIPE OF ADDITIONAL STRENGTH SHALL BE PROVIDED. THE PROPOSED MODIFICATION SHALL BE APPROVED BY THE DEPARTMENT.

32. PIPE SHALL BE EMBEDDED 5 INCHES INTO ALL STRUCTURES INCLUDING INLET AND OUTLET HEADWALLS, UNLESS OTHERWISE SPECIFIED.

33. PIPE, AS SPECIFIED IN PROFILE ON THESE PLANS, SHALL BE CONSTRUCTED PER CITY OF RIVERSIDE, PUBLIC WORKS STANDARD DRAWINGS.

34. ALL CATCH BASINS WITHIN THE DEDICATED STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED PER AMERICAN PUBLIC WORKS ASSOCIATION (APWA) STANDARD DRAWINGS.

35. THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTAL DRAINAGE PLAN DESIGNED BY A CIVIL ENGINEER AND SHALL PROVIDE TO THE SATISFACTION OF THE CITY ENGINEER, A SYSTEM FOR CONTRIBUTORY DRAINAGE TO BE OPERABLE AT ALL TIMES UNTIL THIS STORM DRAIN SYSTEM IS ACCEPTED.

36. BEFORE THE RIP-RAP AT THE OUTLET OF ANY DRAINAGE STRUCTURE IS ACCEPTED BY THE CITY, IT SHALL BE TESTED UNDER FLOWS AS CLOSE AS POSSIBLE TO DESIGN CONDITIONS WITH WATER OBTAINED FROM FIRE HYDRANTS IN THE IMMEDIATE AREA.

37. EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.

38. WHERE THE UTILITIES ARE INDICATED IN THE DRAWINGS TO BE SUPPORTED, SAID SUPPORTS SHALL BE IN ACCORDANCE WITH STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION No. 224-1, UNLESS OTHERWISE INDICATED.

39. ALL OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES SHALL BE SEALED WITH 8 INCHES OF BRICK AND MORTAR OR 6 INCHES OF CONCRETE, UNLESS OTHERWISE SHOWN.

40. MANHOLES SHALL USE THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION 630-2 FOR THE "24" MANHOLE FRAME AND COVER" AND 635-2 FOR THE "STEEL STEP".

41. THIS STORM DRAIN WILL NOT BE ACCEPTED FOR MAINTENANCE UNTIL THE STREETS HAVE BEEN PAVED, MANHOLES BROUGHT TO GRADE AND THE SYSTEM CLEANED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.

42. FLOORS OF ALL CATCH BASINS SHALL BE SLOPED 1:12 IN ALL DIRECTIONS.

43. ALL GRADING WORK SHALL BE COMPLETED PRIOR TO START OF STORM DRAIN INSTALLATION.

44. FINAL MANHOLE RIM ELEVATIONS SHALL BE ADJUSTED TO MEET FINAL GRADES.

45. ALL EXISTING UTILITIES AND IMPROVEMENTS SHALL BE SURVEYED PRIOR TO CONSTRUCTION.

46. THE LATEST REVISED STANDARD PLAN OR DRAWING SHALL BE USED, UNLESS OTHERWISE NOTED.

RIPRAP NOTES

1. ROCKS FOR GROUTED RIPRAP SHALL BE GOOD QUALITY BROKEN CONCRETE AND/OR RIVER RUN ROCK. THE SMALLEST DIMENSIONS SHALL EXCEED 6 INCHES AND THE LARGEST DIMENSION SHALL NOT EXCEED 24 INCHES. THE LARGEST DIMENSION SHALL NOT EXCEED 4 TIMES THE SMALLEST DIMENSION.

2. THERE SHALL BE A GROUT BED OF AT LEAST 2 INCHES BENEATH THE FIRST LAYER OF ROCKS. ALL THE VOIDS BETWEEN THE ROCKS SHALL BE FILLED WITH GROUT. MAXIMUM SPACING BETWEEN ROCKS SHALL BE 2 INCHES.

3. SURFACE ROCKS SHALL BE IMBEDED FROM 1/2 TO 2/3 OF THEIR MAXIMUM DIMENSION.

NOTE: CONCRETE MAY BE SUBSTITUTED FOR GROUT

UTILITY CONTACTS

TELEPHONE . . . . . VERIZON WIRELESS - TOM DRISKILL, (909) 929-9412

COMMUNICATIONS . . . . . CHARTER COMMUNICATIONS - BILL MORENO, (909) 343-5169

ELECTRICAL POWER SUPPLY . . . . RIVERSIDE PUBLIC UTILITY - JULIAN CARDENAS, (909) 826-5937

PUBLIC SEWER . . . . . CITY OF RIVERSIDE

GAS SUPPLY . . . . . SOUTHERN CALIFORNIA GAS - JOHN ROMO, (909) 335-7607

WATER SUPPLY . . . . . EASTERN MUNICIPAL WATER DISTRICT, (909) 928-3777

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CITY OF RIVERSIDE

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STORM DRAIN CONSTRUCTION

STORMWATER POLLUTION CONTROL REQUIREMENTS FOR STORM DRAIN CONSTRUCTION

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CA002 - PAVING OPERATIONS
CA010 - MATERIAL DELIVERY AND STORAGE
CA012 - SPILL PREVENTION AND CONTROL
CA020 - SOLID WASTE MANAGEMENT
CA021 - HAZARDOUS WASTE MANAGEMENT
CA023 - CONCRETE WASTE MANAGEMENT
CA030 - VEHICLE AND EQUIPMENT CLEANING
CA031 - VEHICLE AND EQUIPMENT FUELING
CA032 - VEHICLE AND EQUIPMENT MAINTENANCE
CA040 - EMPLOYEE/SUBCONTRACTOR TRAINING
ESC01 - SCHEDULING
ESC21 - DUST CONTROLS
ESC30 - EARTH DIKE
ESC31 - TEMPORARY DRAINS AND SWALES
ESC40 - OUTLET PROTECTION
ESC41 - CHECK DAMS
ESC52 - SAND BAG BARRIER
ESC53 - BRUSH OR ROCK FILTER
ESC54 - STORM DRAIN INLET PROTECTION
*SC30 - STORM DRAIN SYSTEM SIGNS

NOTE: ADD STENCIL WITH PHRASE "NO DUMPING - ONLY RAIN IN THE DRAIN" TO CATCH BASINS.

CDS TECHNOLOGIES STORM WATER/ CSO POLLUTION CONTROL

CDS MODEL P5W70-70 TYPICAL ASSEMBLY
CDS MODEL PMSU30_20 TYPICAL ASSEMBLY

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OWNER / DEVELOPER

TRANSCAN DEVELOPMENT, LLC
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ALAMO, CA 94507
PH: 925-552-9742 FAX: 925-552-9748

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H&A
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PLANNING • ENGINEERING • SURVEYING • GOVERNMENT RELATIONS
26074 AVENUE HALL, SUITE 22
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(661) 294-2211 FAX (661) 294-9890
JOHN J. ALAJOV RCE# C56393 8-17-04 DATE

REGISTERED PROFESSIONAL ENGINEER J. J. ALAJOV No.C56393 EXP. 6-30-05 CIVIL State of California

MARK	REVISIONS	APPR.	DATE
	PERMIT SET		8/13/04

DESIGNED BY J.J.A. DRAWN BY STAFF CHECKED BY J.H.F.

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
DEPUTY P.W. DIRECTOR		
PRINCIPAL ENGINEER	RH	9/21/04
STREET SERVICES		
SURVEYOR		
TRAFFIC DIVISION		
~~PARKS DEPARTMENT~~		

APPROVED BY
~~PUBLIC WORKS DIRECTOR~~
CITY ENGINEER
DATE 9/24/04

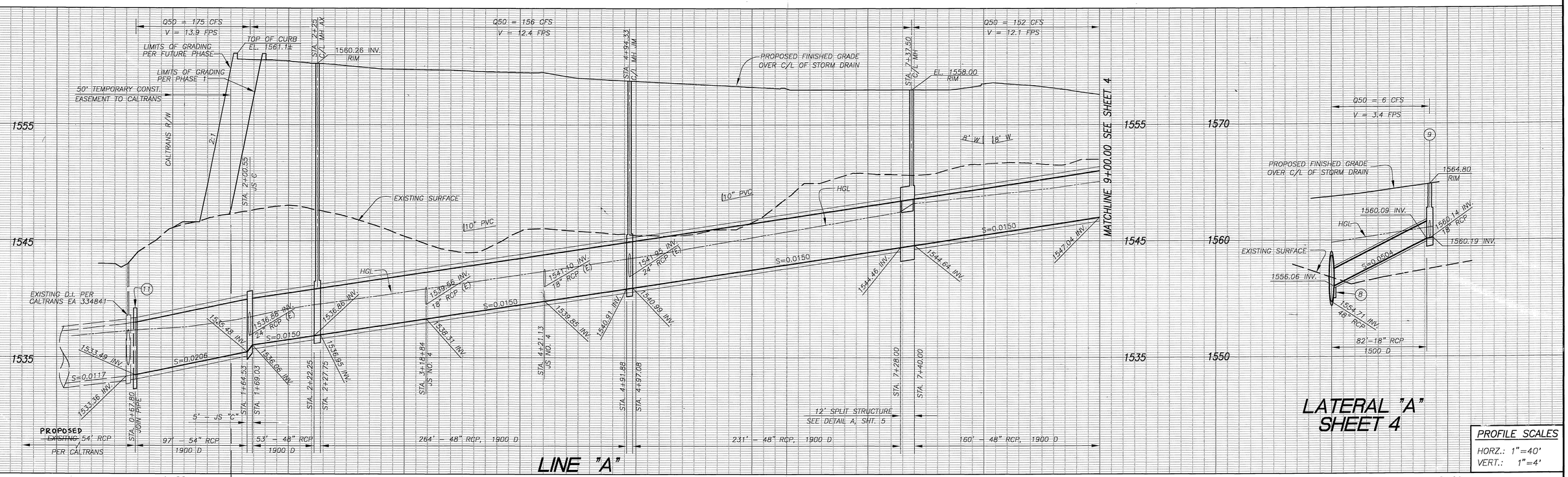
CANYON CROSSINGS
PARCEL MAP NO. 31387
STORM DRAIN PLAN
PHASE I
GENERAL NOTES

HORIZ. SCALE: AS SHOWN VERT. SCALE:

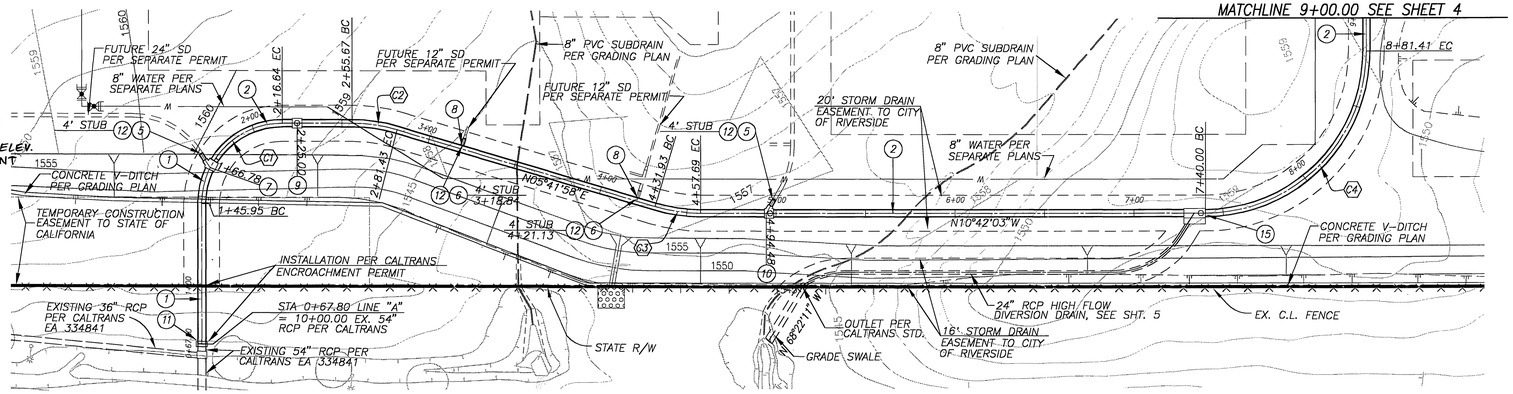
WDID# 8 33C326646

D-760
SHEET 2 OF 5

INDEXED 9-23-04 LH



* PHASE II CONSTRUCTION SHALL NOT COMENCE UNTIL CALTRANS COMPLETES INSTALLATION OF 54"RCP, PIPE ALIGNMENT AND ELEV. ARE VERIFIED, AND AN ENCROACHMENT PERMIT IS ISSUED.



CONSTRUCTION KEY NOTES:

1. INSTALL 54" RCP, 1900 D
2. INSTALL 48" RCP, 1900 D
5. INSTALL 24" RCP, 2000 D
6. INSTALL 18" RCP, 1500 D
7. CONSTRUCT JUNCTION STRUCTURE "C" PER CITY OF RIVERSIDE STD DWG NO. 422
8. CONSTRUCT JUNCTION STRUCTURE NO. 4 PER CITY OF RIVERSIDE STD DWG NO. 423
9. CONSTRUCT MANHOLE AX PER CITY OF RIVERSIDE STD DWG NO. 430
10. CONSTRUCT MANHOLE JM PER CITY OF RIVERSIDE STD DWG NO. 432
11. CONSTRUCT CONCRETE COLLAR PER CITY OF RIVERSIDE STD DWG NO. 424 L=1.5', T=10'
12. PLUG RCP
15. HIGH FLOW DIVERGENCE STRUCTURE, SEE SHEET 5

CURVE DATA TABLE				
MARK	DELTA/BEARING	RADIUS	LENGTH	TANGENT
C1	90°00'00"	45.00'	70.69'	45.00'
C2	16°24'02"	90.00'	25.76'	12.97'
C3	16°24'02"	90.00'	25.76'	12.97'
C4	90°01'33"	90.00'	141.41'	90.04'

STRUCTURE DATA TABLE										
STRUCTURE	STATION	A	B	C'	D1	D2	E'	L	EL. S	EL. R
JS "C"	1+66.78	60°00'00"	24"	5.3'	48"	54"	4.4'	5.4'	1537.54	/
MANHOLE "JM"	4+94.48	60°00'00"	24"	4.9'	48"	/	4.2'	5.2'	1536.88	1536.93

SCALE: 1" = 40'
40' 20' 0 40' 80'
1" ½" 0" 1" 2"

Don't Dig...Until You Call U.S.A. Toll Free 1-800-227-2600 for the location of buried utility lines. Don't disrupt vital services.
TWO WORKING DAYS BEFORE YOU DIG

OWNER / DEVELOPER
TRANSCAN DEVELOPMENT, LLC
3189 DANVILLE BLVD., SUITE 245,
ALAMO, CA 94507
PH: 925-552-9742 FAX: 925-552-9748

BENCHMARK:
CITY OF RIVERSIDE B.M. GPS-66
ELEVATION: 1594.281 DATE LVLD: 1991
DATUM: 1929 ADJUSTMENT YEAR: 1971
DESCRIPTION:
2 1/2" BRASS DISK STAMPED "CITY OF RIVERSIDE GPS STATION 66 1991 CADME" SET IN THE TOP OF A CATCH BASIN ALONG THE NORTHERLY SIDE OF CANYON SPRINGS PKWY 0.3 MILES WEST OF DAY STREET.
ADJUSTED ELEV. PER NAVD 88: 1596.679

CITY OF RIVERSIDE BUSINESS TAX CERTIFICATE # 115576 EXP: 04/01/05

H&A
HUNSAKER & ASSOCIATES LOS ANGELES, INC.
PLANNING • ENGINEERING • SURVEYING • GOVERNMENT RELATIONS
26074 AVENUE HALL, SUITE 22
VALENCIA, CA 91355
(661) 294-2211 FAX (661) 294-9890
JOHN J. ALAJOV RCE# C56393 8-17-04 DATE

REGISTERED PROFESSIONAL ENGINEER J. J. ALAJOV No. C56393 EXP. 6-30-05 CIVIL State of California

MARK	REVISIONS	APPR.	DATE
	PERMIT SET		8/13/04

DESIGNED BY J.J.A. DRAWN BY STAFF CHECKED BY J.H.F.

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
DEPUTY P.W. DIRECTOR		
PRINCIPAL ENGINEER STREET SERVICES		
SURVEYOR		
TRAFFIC DIVISION		
PARKS DEPARTMENT		

APPROVED BY [signature] PUBLIC WORKS DIRECTOR/ CITY ENGINEER
DATE 9/21/04

CANYON CROSSINGS
PARCEL MAP NO. 31387
STORM DRAIN PLAN–PHASE 1
LINE "A"
STA. 0+67.80 TO STA. 9+00.00

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

WDID# 8 33C326646

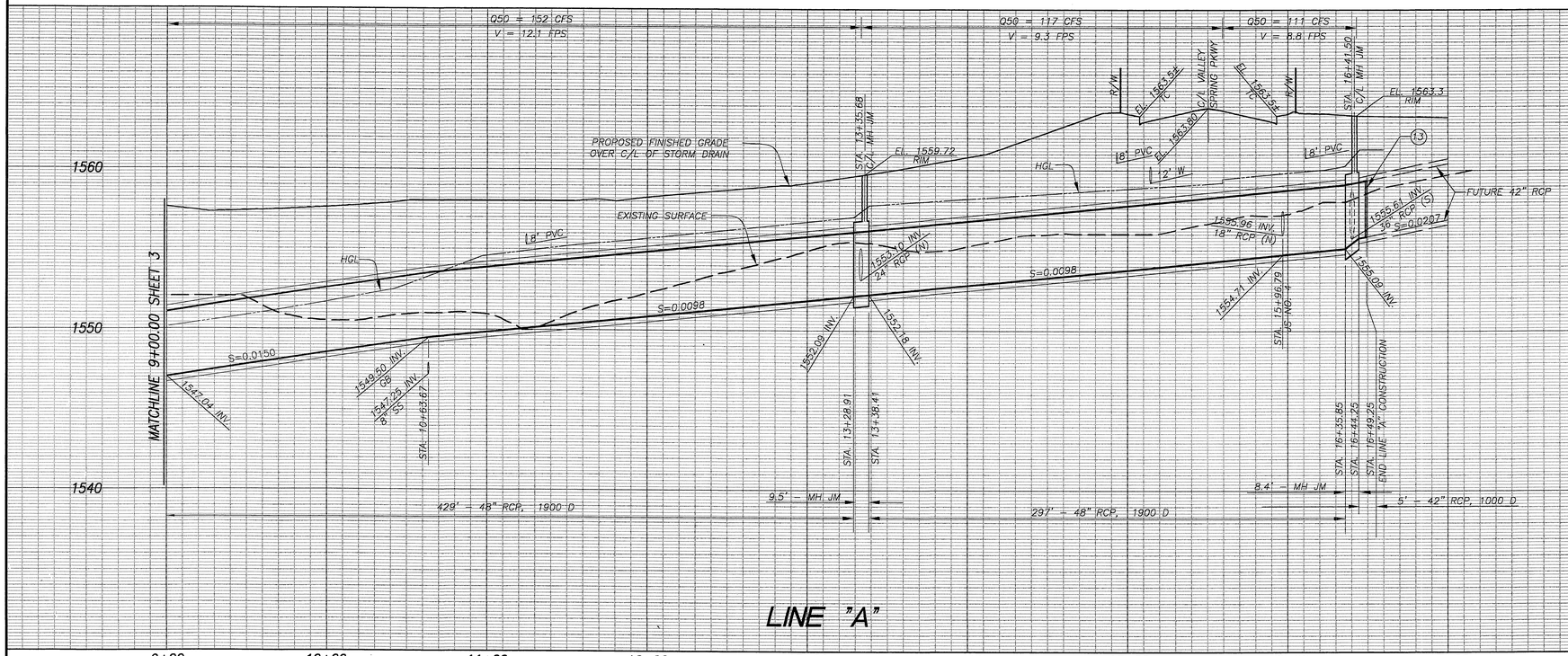
D-760

SHEET 3 OF 5

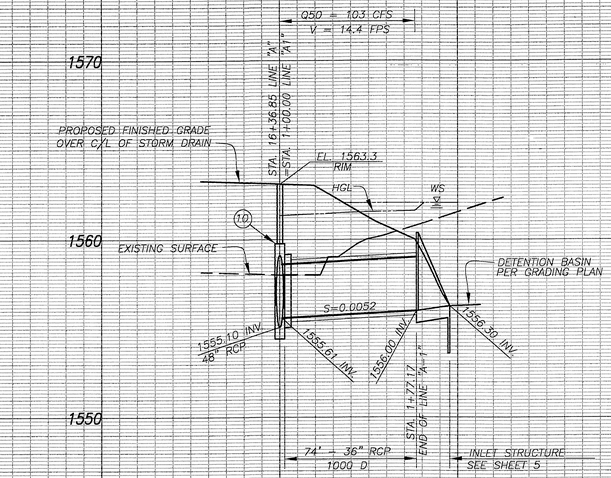
F:\00366\Engineering\Phase1\mp_Storm\SD-SHT03.dwg Plotted On Sep 08, 2004-8:34am by crlondom

BJZ

INDEXED 9-23-04 GH



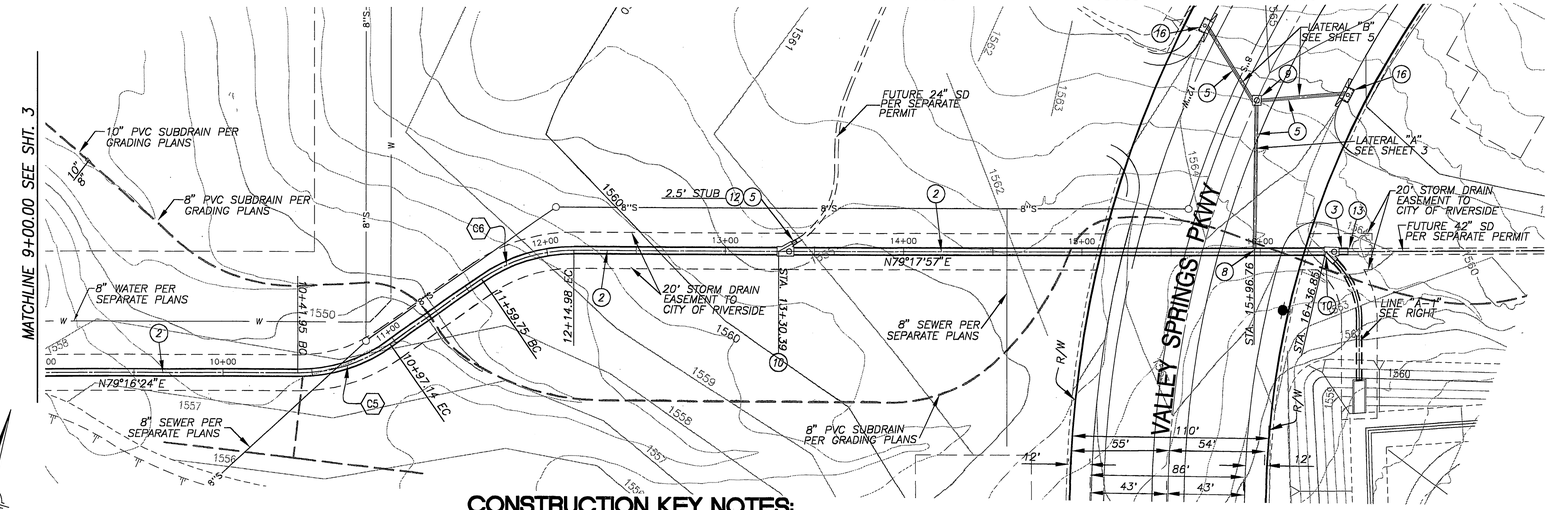
LINE "A"

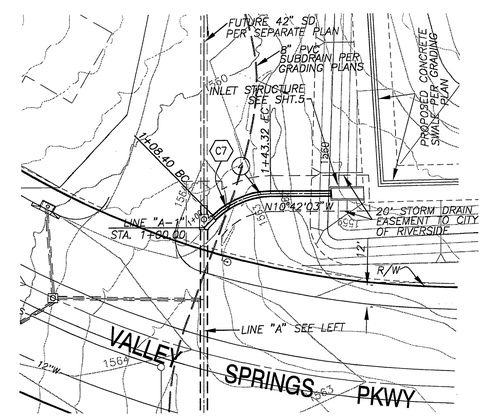


LINE "A-1"

PROFILE SCALES

HORZ.: 1"=40'
VERT.: 1"=4'





LINE "A-1"

CONSTRUCTION KEY NOTES:

(2) INSTALL 48" RCP, 1900 D
(3) INSTALL 42" RCP, 1000 D
(4) INSTALL 36" RCP, 1000 D
(5) INSTALL 24" RCP, 2000 D
(6) INSTALL 18" RCP 1500 D
(8) CONSTRUCT JUNCTION STRUCTURE NO. 4 PER CITY OF RIVERSIDE STD DWG NO. 423
(9) CONSTRUCT MANHOLE AX PER CITY OF RIVERSIDE STD DWG NO. 430
(10) CONSTRUCT MANHOLE JM PER CITY OF RIVERSIDE ST DWG NO. 432
(12) PLUG RCP
(13) CONSTRUCT TIMBER BULKHEAD PER CITY OF RIVERSIDE STD DWG NO. 456
(16) CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405, V = 4', W = 7'

DATA TABLE				
MARK	DELTA/BEARING	RADIUS	LENGTH	TANGENT
C5	35°08'03"	90.00'	55.19'	28.49'
C6	36°09'36"	90.00'	55.23'	28.52'
C7	44°27'32"	45.00'	34.92'	18.39'

STRUCTURE DATA									
STRUCTURE	STATION	A	B	C'	D	E'	L'	EL. R	EL. S
MANHOLE JM	13+30.39	30°00'00"	24"	8.8'	48"	8.5'	9.5'	1553.10	1553.18
MANHOLE JM	16+36.85	46°00'00"	36"	7.5'	48"	7.4'	8.4'	1555.61	1555.69

SCALE:1'=40'
40' 20' 0 40' 80'
1" ½" 0" 1" 2"

SCALE:1'=40'
40' 20' 0 40' 80'
1" ½" 0" 1" 2"

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BENCHMARK:
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JOHN J. ALAJOV RCE# C56393 8-17-04 DATE

REGISTERED PROFESSIONAL ENGINEER J. J. ALAJOV No.C56393 EXP. 6-30-05 CIVIL State of California

MARK	REVISIONS	APPR.	DATE
	PERMIT SET		8/13/04

DESIGNED BY J.J.A. DRAWN BY STAFF CHECKED BY J.J.A.

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
DEPUTY P.W. DIRECTOR		
PRINCIPAL ENGINEER		
STREET SERVICES		
SURVEYOR		
TRAFFIC DIVISION		
PARKS DEPARTMENT		

APPROVED BY
PUBLIC WORKS DIRECTOR
CITY ENGINEER
DATE 9/21/04

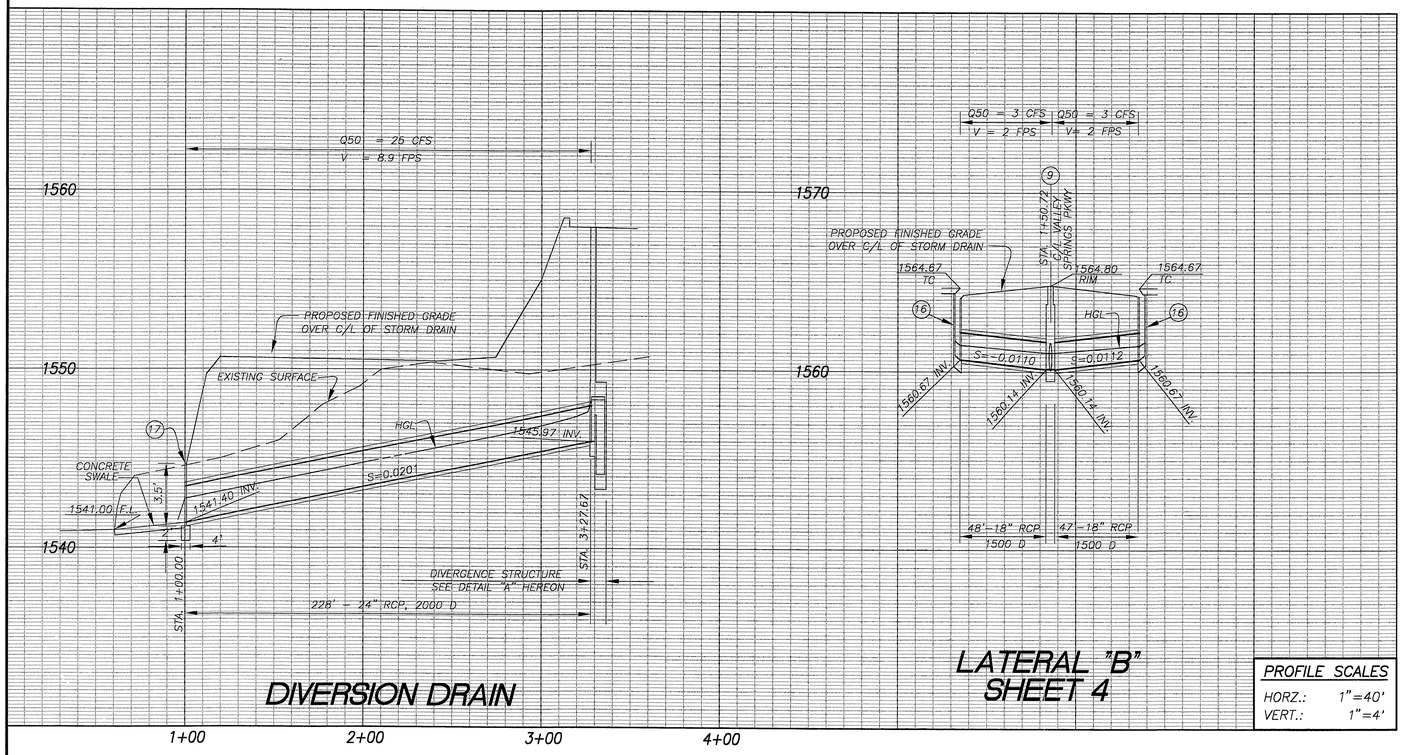
CANYON CROSSINGS
PARCEL MAP NO. 31387
STORM DRAIN PLAN-PHASE 1
LINE "A"
STA. 9+00.00 TO STA. 16+49.25
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

WDID# 8 33C326646

D-760
SHEET 4 OF 5

RVZ

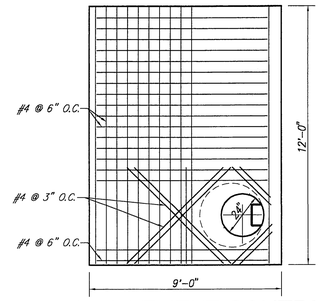
INDEXED 9-23-04 LH



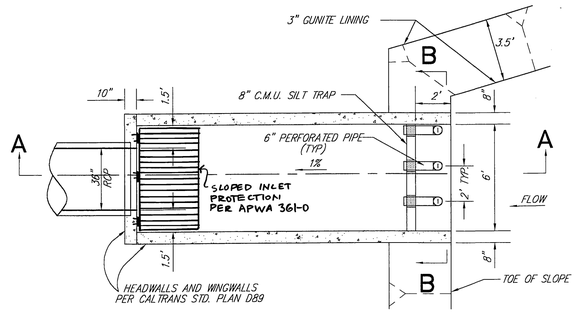
DIVERSION DRAIN

LATERAL "B" SHEET 4

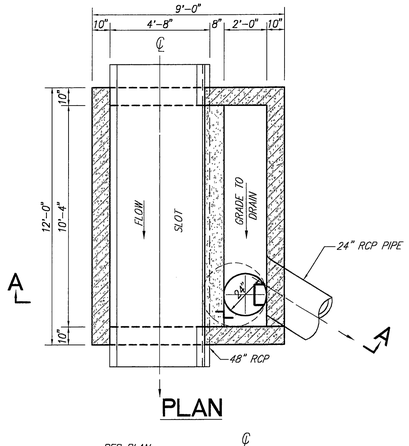
PROFILE SCALES	
HORZ.:	1"=40'
VERT.:	1"=4'



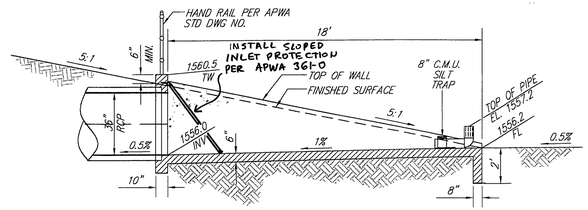
REINFORCEMENT SCHEDULE (TOP)



PLAN

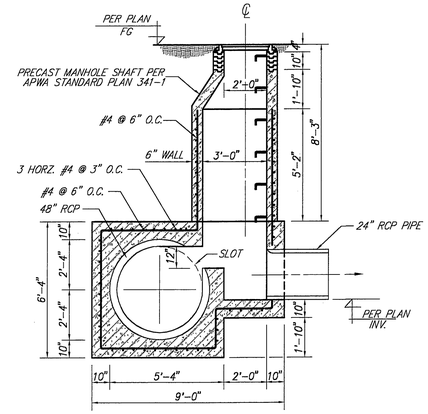


PLAN



SECTION A-A

NOT TO SCALE



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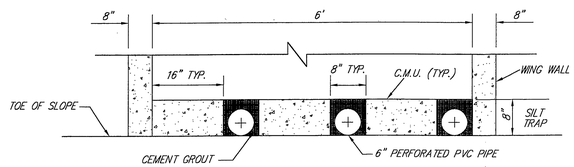
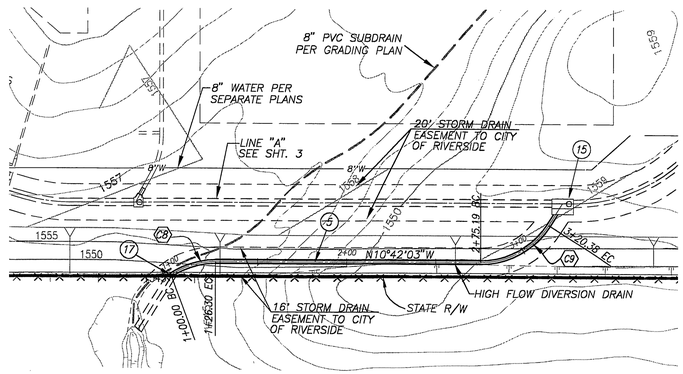


SECTION B-B

NOT TO SCALE



CONSTRUCTION KEY NOTES:

(5) INSTALL 24" RCP, 2000 D

(9) CONSTRUCT MANHOLE AX PER CITY OF RIVERSIDE STD. DWG. NO. 430

(15) HIGH FLOW DIVERGENCE STRUCTURE, SEE SHEET 5

(16) CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405, V = 4', W = 7'

(17) INSTALL OUTLET STRUCTURE PER C ALTRANS STD PLAN D-94B

CURVE DATA TABLE				
MARK	DELTA/BEARING	RADIUS	LENGTH	TANGENT
C8	33°29'23"	45.00'	26.30'	13.54'
C9	57°32'15"	45.00'	45.19'	24.71'

SCALE: 1" = 40'

40' 20' 0 40' 80'

1" ½" 0" 1" 2"

DIVERSION (SPLIT PEAK) STRUCTURE

NOT TO SCALE — SEE SHT. 3 AND 5 — (A)

DRAIN INLET DETAIL

NOT TO SCALE
SEE SHT. 4

(B)

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JOHN J. ALAJOV RCE# C56393 8-17-04 DATE

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MARK	REVISIONS	APPR.	DATE
	PERMIT SET		8/13/04

DESIGNED BY J.J.A. DRAWN BY STAFF CHECKED BY J.H.F.

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
DEPUTY P.W. DIRECTOR		
PRINCIPAL ENGINEER		
STREET SERVICES		
~~DIRECTOR~~		
TRAFFIC DIVISION		
PARKS DEPARTMENT		

APPROVED BY ~~PUBLIC WORKS DIRECTOR~~ CITY ENGINEER
DATE 9/21/04

CANYON CROSSINGS
PARCEL MAP NO. 31387
STORM DRAIN PLAN-PHASE 1
RELIEF DRAIN
STA. 1+00.00 TO STA. 3+27.67

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

WDID# 8 33C326646

D-760

SHEET 5 OF 5

RVZ

INDEXED 9-23-04 LH