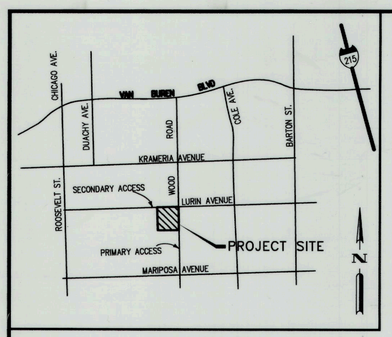
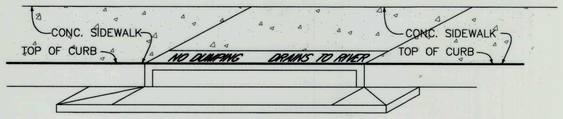
STORM DRAIN PLAN
TRACT NO. 32301
CITY OF RIVERSIDE, CALIFORNIA



SEC 30 OF T.3S, R.4W

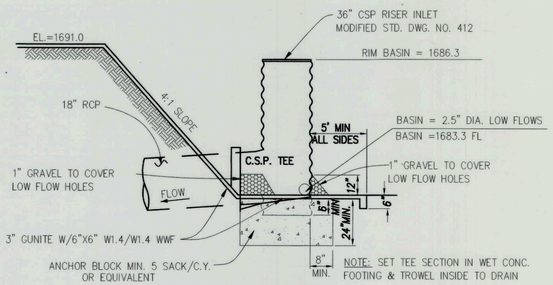
VICINITY MAP
N.T.S.

FLOW SCHEDULE		
NODE	Q10	Q100
1	5.78 CFS	10.06 CFS
2	11.73 CFS	20.45 CFS
3	5.49 CFS	8.68 CFS
4	6.98 CFS	11.05 CFS
5	1.39 CFS	2.25 CFS
6	0.27 CFS	9.45 CFS
7	4.69 CFS	7.51 CFS

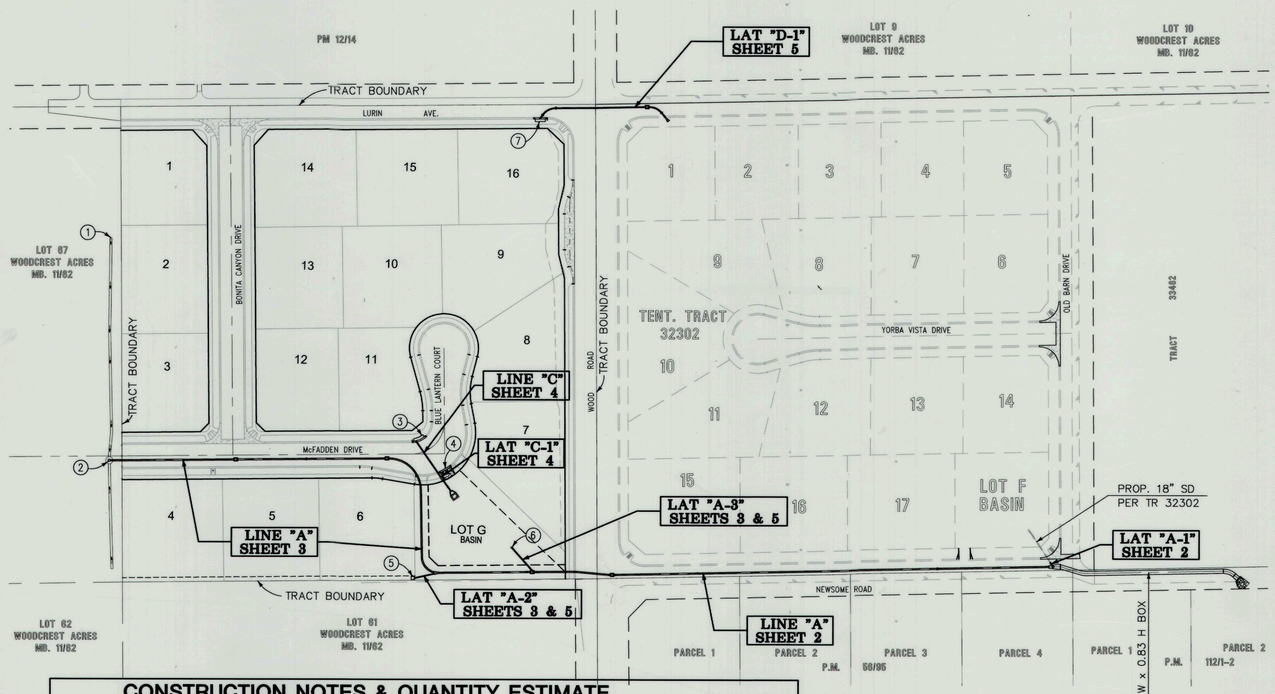


CATCH BASIN STENCILING DETAIL
N.T.S.

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



36" CSP BASIN OUTLET DETAIL
N.T.S.



INDEX MAP
SCALE: 1"=100'

GRAPHIC SCALE
100 0 50 100 150 200
(IN FEET)
1 inch = 100 ft.

CONSTRUCTION NOTES & QUANTITY ESTIMATE

NO.	ITEMS	QUANTITY	UNIT
1	INSTALL 18" R.C.P. (D-2000)	547	LF
2	INSTALL 24" R.C.P. (D-2000)	1,434	LF
3	INSTALL 36" DIA. CSP INLET PER CITY OF RIVERSIDE STD. DWG. NO. 412	2	EA
4	CONSTRUCT MANHOLE EZ PER CITY OF RIVERSIDE STD. DWG. NO 431	6	EA
5	CONSTRUCT JUNCTION STRUCTURE "B" PER CITY OF RIVERSIDE STD. DWG. NO. 421	2	EA
6	INSTALL RIP-RAP (SIZES AS PER PLAN)	10	CY
7	CONSTRUCT CONCRETE FLARED END SECTION PER CALTRANS STD. D94B, TYPE A (SEE DETAIL SHEET 5)	1	EA
8	CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405 (WIDTH AS INDICATED)	3	EA
9	TRENCH BACKFILL PER CITY OF RIVERSIDE STD. 453 & PIPE BEDDING PER CITY STD. 452 CASE II	2,560	LF
10	CONSTRUCT PIPE SWING GATE PER R.C.F.C. & W.C.D. STD. DWG. NO. M820	2	EA
11	INSTALL TRASH RACK PER APWA STD. DWG. NO. 361-1	1	EA
12	CONSTRUCT CONCRETE COLLAR PER CITY OF RIVERSIDE STD. DWG. NO. 424	5	EA
13	CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M801	310	LF
14	CONSTRUCT 15' W x 0.5' H CONCRETE SPILLWAY	180	SF
15	CONSTRUCT INFILTRATION TRENCH PER WQMP STUDY	1	EA
16	CONSTRUCT STRAIGHT HEADWALL PER DETAIL ON SHEET 2	1	EA
17	CONSTRUCT 6'W x 0.83'H RCB	254	LF
18	CONSTRUCT MODIFIED MANHOLE JM	1	EA
19	CONSTRUCT CONCRETE BULKHEAD PER R.C.F.C. & W.C.D. STD. DWG. NO. M816	1	EA
20	CONSTRUCT HEADWALL PER DETAIL ON SHEET 4 (SAN DIEGO STD. D-34)	1	EA.

GENERAL NOTES

1. QUANTITIES ARE SHOWN FOR INFORMATION ONLY AND THE CITY OF RIVERSIDE IS NOT RESPONSIBLE FOR THEIR ACCURACY.
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RIVERSIDE DEPT. OF PUBLIC WORKS STANDARD DRAWINGS, ITS SUPPLEMENTAL NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
3. 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.
4. THE PRIVATE ENGINEER SIGNING THREES PLANS IS RESPONSIBLE FOR ASSUMING 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. 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.
8. NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECTS WITH IN 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.
9. ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE PRIVATE ENGINEER.
10. 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.
11. THE CONCRETE COATING ON THE INSIDE OF ALL REINFORCED CONCRETE PIPE MUST BE INCREASED TO PROVIDE A MINIMUM 1-1/2" OVER THE REINFORCING WHEN THE DESIGN VELOCITIES EXCEED 20 FEET PER SECOND. THE CONCRETE DESIGN STRENGTH IN THESE REACHES SHALL BE fc=5000 PSI FOR VELOCITIES EXCEEDING 20 FEET PER SECOND AND fc=6000 PSI FOR VELOCITIES EXCEEDING 30 FEET PER SECOND.

NOTICE TO CONTRACTOR

ACCORDING TO INFORMATION PROVIDED BY UNDERGROUND SERVICE ALERT (U.S.A.) DATED MARCH 3, 2004, THE FOLLOWING ORGANIZATIONS ARE U.S.A. MEMBERS WITHIN THE PROJECT AREA:

UTI FOR CHARTER COMMUNICATIONS
SBC / PACIFIC BELL
SOUTHERN CALIFORNIA GAS COMPANY
UTI FOR VERIZON - PERRIS
UTI FOR SC EDISON
WESTERN MUNICIPAL WATER DISTRICT
ADELPHIA - RIVERSIDE
UTI FOR CITY OF RIVERSIDE - ELECTRIC
CITY OF RIVERSIDE- TRAFFIC ENGINEERING
ATT OSP ENGINEERING
WILTEL COMMUNICATIONS

THE EXISTENCE AND LOCATIONS OF ALL UNDERGROUND UTILITIES (UTILITY PIPES, STRUCTURES, ETC.) SHOWN ON THESE PLANS (MAIN LINES ONLY - NO SERVICE LATERALS) WERE ASCERTAINED BY A REVIEW OF RECORDS PROVIDED BY THESE MEMBER AGENCIES AND ARE APPROXIMATE. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY FOR UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITIES SHOWN ON THESE PLANS AND / OR ANY OTHER UNDERGROUND UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

CALL UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-227-2600 AT LEAST TWO WORKING DAYS PRIOR EXCAVATION.

THE QUANTITY ESTIMATE SHOWN HEREON IS FOR THE USE OF GOVERNING AGENCIES IN DETERMINING BOND AMOUNTS AND / OR FEES AND IS NOT TO BE USED FOR BID PURPOSES.

ENGINEERS NOTE:

CONTRACTOR 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 CONTINOUSLY 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 LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A DILIGENT SEARCH OF AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONAY MEASURES TO PROTECT ALL THE UTILITIES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS AND IS RESPONSIBILITY FOR THE PROTECTION OF, AND ANY DAMAGE TO THESE LINES OR STRUCTURES.

INDEX OF SHEETS:

SHEET NO(S).	DESCRIPTION
1	TITLE SHEET, DETAIL
2 TO 5	PLAN & PROFILE

AS-BUILT A.G 05/11/23

CITY BUSINESS TAX CERTIFICATE NO.113295 EXP. 8-30-2009

PW07-0656

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

REVIEWED BY:
WESTERN MUNICIPAL WATER DISTRICT
FOR NON-INTERFERENCE COMPLIANCE
MECHANICAL ENGINEER 3.19.09 M26589
DATE: 3.19.09

NOTE: WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

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SEAL: REGISTERED PROFESSIONAL ENGINEER PETER J.C. CHAO No. 31538 Exp. 12-31-10 CIVIL STATE OF CALIFORNIA

PACIFIC COAST LAND CONSULTANTS, Inc.
Civil Engineering • Land Planning • Land Surveying
25096 Jefferson Avenue, Suite D, Murrieta, Ca. 92562
Tel: (951) 698-1350 Fax: (951) 698-8657
PREPARED BY: PETER J.C. CHAO
R.C.E. NO. 31538
DATE 3/16/09

BENCHMARK:
E8-G3 ELEVATION:1642.465 NAVD 1929
P.K. NAIL AND CITY ENGINEER TAG IN THE TOP OF THE SIDEWALK OVER THE EASTERLY WALL OF A CATCH BASIN ALONG THE SOUTHERLY CURB OF VAN BUREN BLVD AND 700 FEET EASTERLY OF WOOD ROAD.
PART OF THE ORANGECREST LEVEL CIRCUIT: MARCH 2000

DATE	BY	MARK	REVISIONS:	APPR	DATE
08/10/09	PCLC	1	AS-BUILT (SEE SHTS 3 & 5)	A.G	5/11/23

ENGINEER — CITY

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT
APPROVED BY: PRINCIPAL ENGINEER — BY: — DATE: 4/9/09
APPROVED BY: CITY ENGINEER — DATE 4/24/09

STORM DRAIN PLAN & PROFILE
TRACT NO. 32301
TITLE SHEET
SCALE: HORIZ.: 1"=100' VERT.: N/A

D-825
SHEET 1 OF 5

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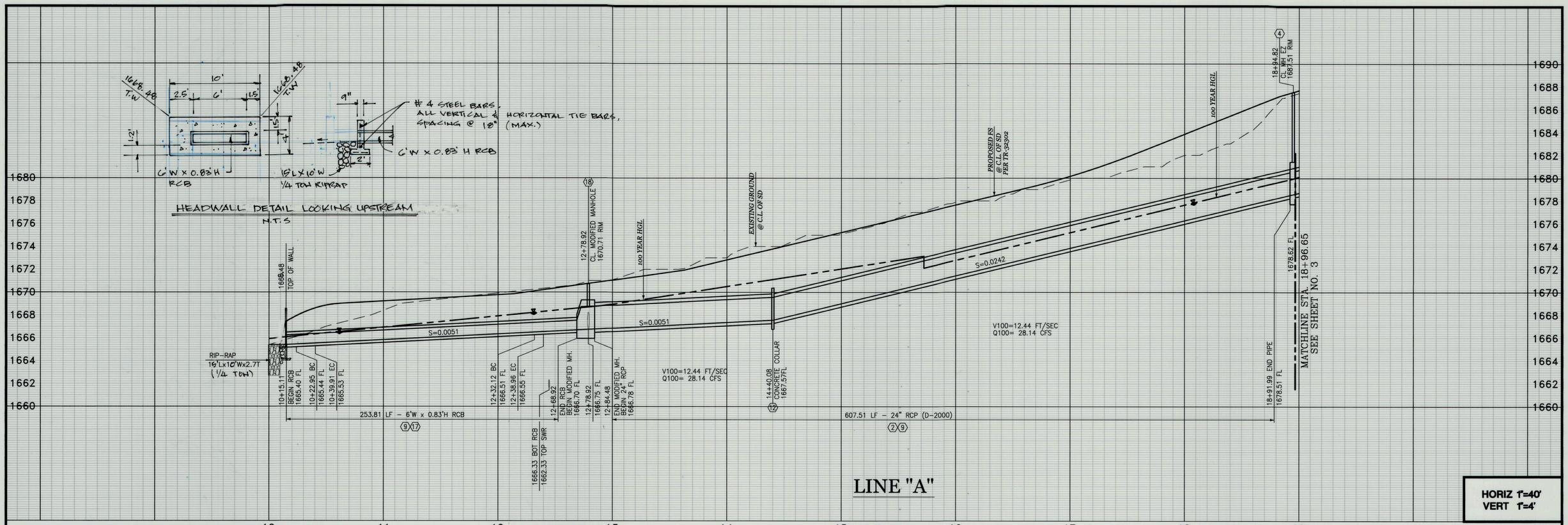
Indexed 4/16/10 - S.E.



NOTE:

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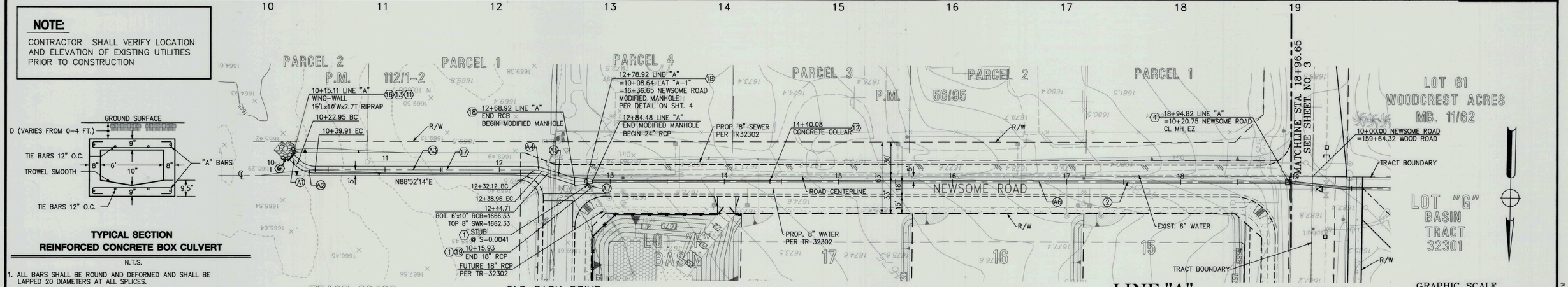

TYPICAL SECTION
REINFORCED CONCRETE BOX CULVERT

N.T.S.

1. ALL BARS SHALL BE ROUND AND DEFORMED AND SHALL BE LAPPED 20 DIAMETERS AT ALL SPLICES.
2. TIE BARS TO BE #5.
3. DIMENSIONS "S" AND "V" ARE SPECIFIED ON PLAN.
4. BARS SHALL BE COVERED AT ALL PARTS WITH 1" OF CONCRETE UNLESS OTHERWISE SPECIFIED HEREON.
5. FORM SURFACE (SF PER FT) = S+4V+2.92 ("S" IN FEET, "V" IN INCHES)
6. CONCRETE SHALL BE CLASS B, MINIMUM 3250 PSI

STANDARD REINFORCING

SPAN (S)	A-BARS SIZE	CTR'S	L	LENGTH
2'-6"	#5	7 1/2"	3'-8"	5'-3"
3'-0"	#5	6 1/2"	4'-2"	5'-9"
3'-6"	#5	6"	4'-8"	6'-3"
4'-0"	#5	5 1/2"	5'-2"	6'-9"
4'-6"	#5	5"	5'-8"	7'-3"
5'-0"	#5	5"	6'-2"	7'-9"
5'-6"	#5	4 1/2"	6'-8"	8'-3"
6'-0"	#5	4"	7'-2"	8'-9"

QUANTITIES PER 10FT. LENGTH

SPAN (S)	CONCRETE CY FOR VARYING DEPTHS (V) 8"	9"	10"	11"	12"	14"	16"	18"	STEEL POUNDS
2'-6"	2.48	2.52	2.56	2.60	2.64	2.72	2.80	2.88	270
3'-0"	2.76	2.80	2.84	2.88	2.92	3.00	3.08	3.16	332
3'-6"	3.05	3.09	3.13	3.17	3.21	3.29	3.37	3.45	378
4'-0"	3.32	3.36	3.40	3.44	3.48	3.56	3.64	3.73	435
4'-6"	3.60	3.64	3.68	3.72	3.76	3.84	3.92	4.01	503
5'-0"	3.88	3.92	3.96	4.00	4.04	4.12	4.20	4.28	550
5'-6"	4.16	4.20	4.24	4.28	4.32	4.40	4.48	4.56	611
6'-0"	4.44	4.48	4.52	4.56	4.60	4.68	4.76	4.84	733

CONSTRUCTION NOTES:

1. INSTALL 18" R.C.P. (D-2000)
2. INSTALL 24" R.C.P. (D-2000)
4. CONSTRUCT MANHOLE EZ PER CITY OF RIVERSIDE STD. DWG. NO 431
9. TRENCH BACKFILL PER CITY OF RIVERSIDE STD. 453 & PIPE BEDDING PER CITY STD. 452 CASE II
11. CONSTRUCT TRASH RACK PER APWA STD. DWG. NO. 361-1
12. CONSTRUCT CONCRETE COLLAR PER CITY OF RIVERSIDE STD. DWG. NO. 424
13. CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M801
16. CONSTRUCT STRAIGHT HEADWALL PER DETAIL HEREON
17. CONSTRUCT 6'W x 0.83'H RCB PER DETAIL HEREON
18. CONSTRUCT MODIFIED MANHOLE JM PER DETAIL ON SHEET 4
19. CONSTRUCT CONCRETE BULKHEAD PER R.C.F.C. & W.C.D. STD. DWG. NO. M816
G. INSTALL RIPRAP (SIZES AS PER PLAN)

DATA TABLE

	BEARING	RADIUS	LENGTH	TANGENT	REMARKS
A1	N47°57'07"W	–	7.84'	–	6'W x 0.83'H RCB
A2	Δ=43°10'40"	22.50'	16.96'	8.90'	6'W x 0.83'H RCB
A3	N88°52'14"E	–	192.21'	–	6'W x 0.83'H RCB
A4	Δ=17°25'08"	22.50'	6.84'	3.45'	6'W x 0.83'H RCB
A5	N73°42'38"W	–	29.96'	–	6'W x 0.83'H RCB
A6	N88°52'14"E	–	610.34'	–	24" RCP
A7	N33°38'19"W	–	7.29'	–	18" RCP

PW07-0656

Underground Service Alert

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

REVIEWED BY:
WESTERN MUNICIPAL WATER DISTRICT
FOR NON-INTERFERENCE COMPLIANCE
MECHANICAL ENGINEER 3.19.09 M26589
DATE: 3.19.09

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PART OF THE ORANGECREST LEVEL CIRCUIT: MARCH 2000

DATE	BY	MARK	REVISIONS:	APPR	DATE

ENGINEER CITY

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY:	BY:	DATE	APPROVED BY:
PRINCIPAL ENGINEER			CITY ENGINEER 4/24/09 DATE

STORM DRAIN PLAN & PROFILE
TRACT NO. 32301
LINE "A"

SCALE: HORIZ.: 1"=40D' VERT.: N/A4'

D-825
SHEET 2 OF 5

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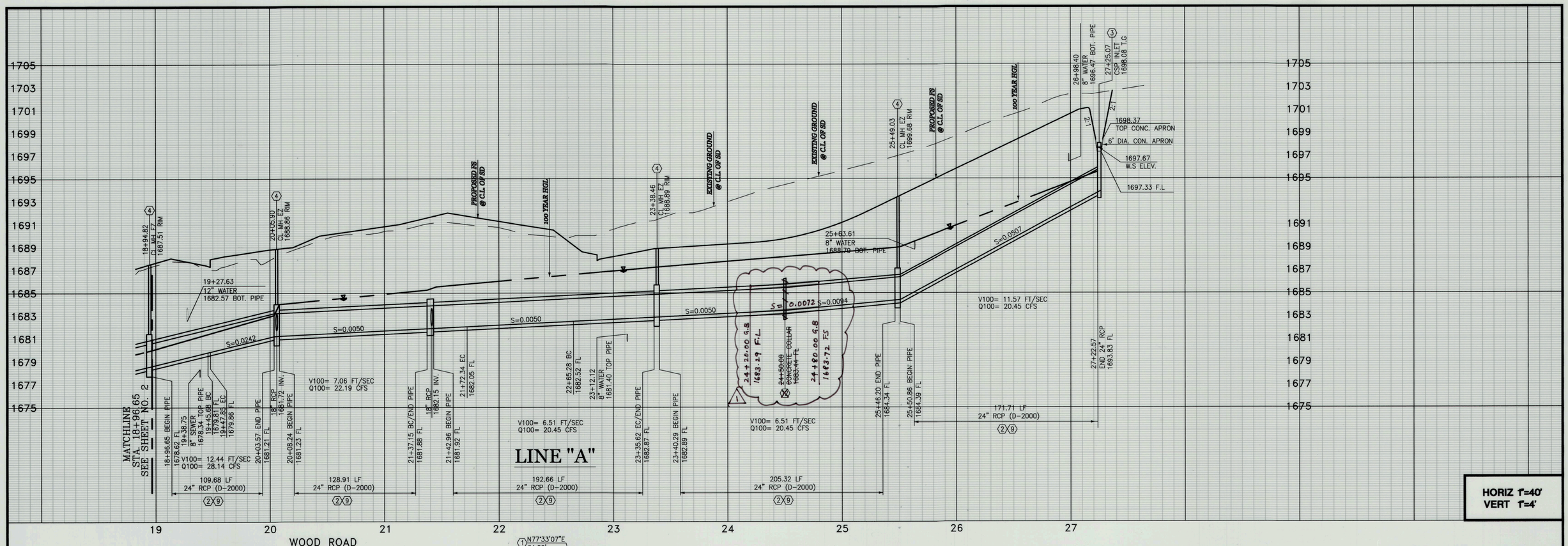

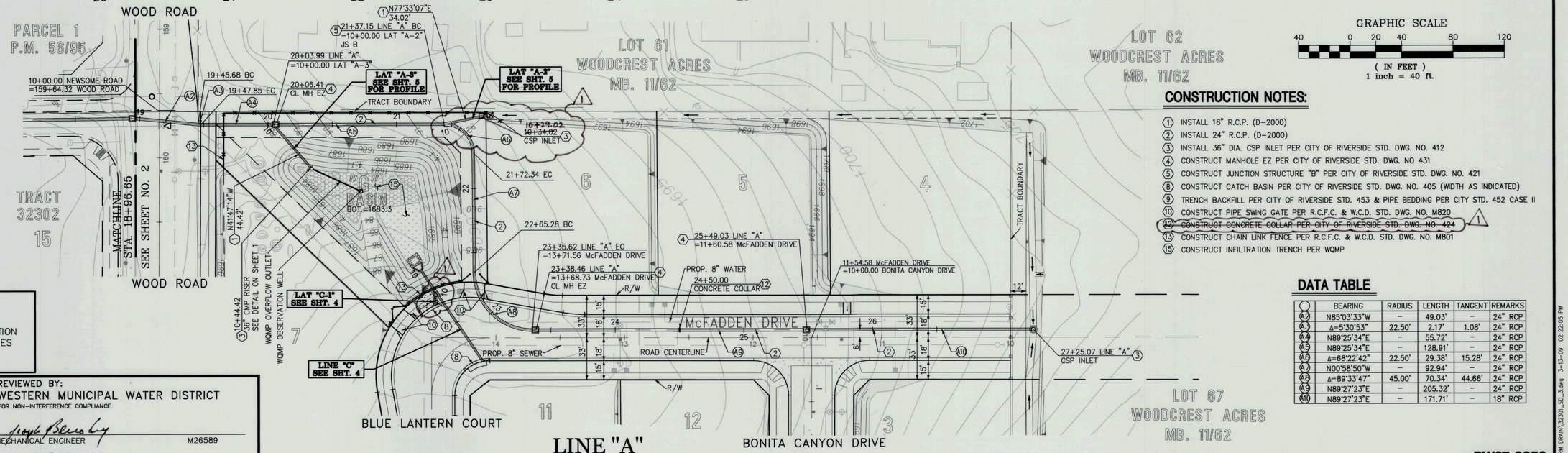

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13. CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M801
15. CONSTRUCT INFILTRATION TRENCH PER WQMP

DATA TABLE

	BEARING	RADIUS	LENGTH	TANGENT	REMARKS
A2	N85°03'33"W	–	49.03'	–	24" RCP
A3	Δ=5°30'53"	22.50'	2.17'	1.08'	24" RCP
A4	N89°25'34"E	–	55.72'	–	24" RCP
A5	N89°25'34"E	–	128.91'	–	24" RCP
A6	Δ=68°22'42"	22.50'	29.38'	15.28'	24" RCP
A7	N00°58'50"W	–	92.94'	–	24" RCP
A8	Δ=89°33'47"	45.00'	70.34'	44.66'	24" RCP
A9	N89°27'23"E	–	205.32'	–	24" RCP
A10	N89°27'23"E	–	171.71'	–	18" RCP

NOTE:
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PART OF THE ORANGECREST LEVEL CIRCUIT: MARCH 2000

DATE	BY	MARK	REVISIONS:	APPR	DATE
08/10/09	PCLC	1	AS-BUILT, ELIMINATE CONC. COLLAR	A.G	5/17/23
			ADJUST INLET BOX LOC. 5' EAST FOR LAT "A-2". LAT "C-1" PR. 18" TO 24"		
ENGINEER				CITY	

AS-BUILT A.G 05/17/23

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT
APPROVED BY: PRINCIPAL ENGINEER — DATE: 4/15/09
APPROVED BY: CITY ENGINEER — DATE 4/24/09

STORM DRAIN PLAN & PROFILE
TRACT NO. 32301
LINE "A", LAT "A-2" & LAT "A-3"
SCALE: HORIZ.: 1"=40' VERT.: 1"=4'

PW07-0656

D-825
SHEET 3 OF 5

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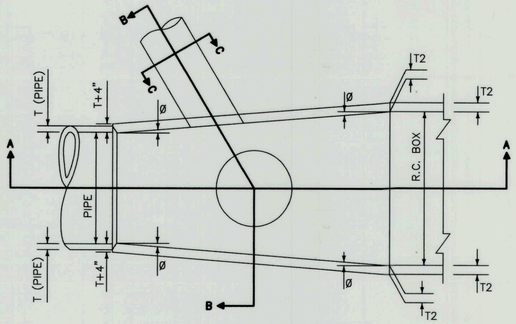
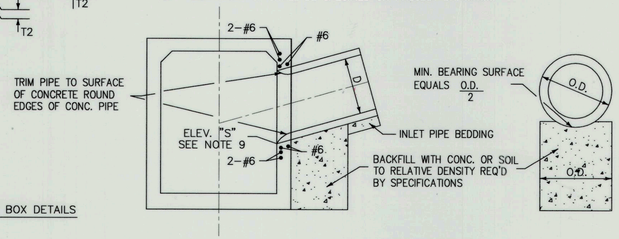


PLAN VIEW

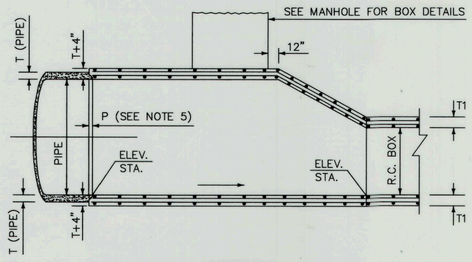
NOTE:

1. THE HORIZONTAL ANGLE OF DIVERGENCE OR CONVERGENCE, Ø, SHALL NOT EXCEED 5° 45'.
2. REINFORCING STEEL BAR SIZES, SPACING PATTERN AND COVER OVER THE STEEL SHALL BE THAT OF THE BOX SECTION. THE BAR LEGNTHS SHALL VARY UNIFORMLY THROUGHOUT THE TRANSITION.
3. THE CONCRETE THICKNESS SHALL BE THAT OF THE BOX SECTION UNLESS THE WALL THICKNESS OF THE PIPE PLUS 4" IS GREATER, IN WHICH CASE THE CONCRETE THICKNESS SHALL VARY UNIFORMLY FROM THAT OF THE BOX SECTION TO THAT OF THE PIPE WALL PLUS 4".
4. THE INTERIOR SURFACE SHALL BE SMOOTH AND VARY UNIFORMLY BETWEEN THE TWO ADJOINING SECTIONS.
5. THE PIPE JUNCTURE, EMBEDMENT P SHALL BE 5" FOR PIPE SIZES OF 96" OR LESS AND 8" FOR PIPE OVER 96".
6. CONSTRUCTION JOINTS OF THE SAME DIMENSIONS AS THOSE OF THE BOX MAY BE CARRIED THROUGH THE TRANSITION STRUCTURE AT CONTRACTOR'S OPTION. SEE SECTION D.
7. THE TRANSITION STRUCTURE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE GENERAL STRUCTURAL NOTES APPLYING TO BOX AS SHOWN ON THE PROJECT DRAWINGS.
8. STRUCTURAL CONCRETE SHALL BE CLASS "A"
9. ELEVATION "S" SHALL BE SPECIFIED ON PROJECT DRAWINGS.

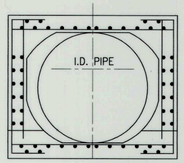


SECTION B-B

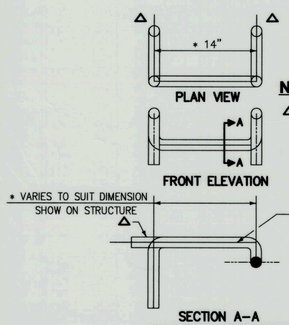
SECTION C-C



SECTION A-A



SECTION D



NOTE:

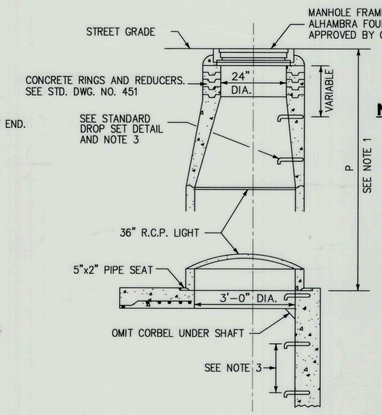
△= WHEN STEEL FORMS ARE USED ELIMINATE HOOK AND USE UPSET END.

THIS DETAIL SHALL BE USED WHENEVER STEPS ARE REQUIRED.

SECTION A-A
GALVANIZE AFTER BENDING

STANDARD DROP SET

NTS



NOTE:

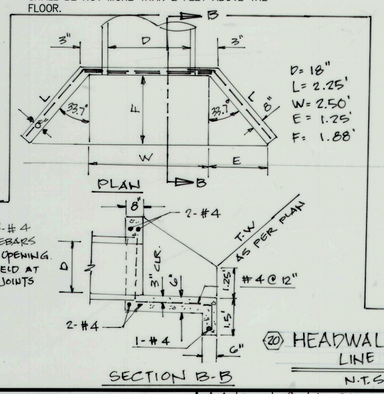
1. DEPTH P: WHEN DEPTH P FROM STREET GRADE TO TOP OF PIPE SEAT IS LESS THAN 2'-10 1/2" IN PAVED STREETS OR 3'-6" IN UNPAVED STREETS, CONSTRUCT 2 FT DIAMETER SHAFT, USING CONCRETE RINGS AS PER STANDARD PLAN FOR CONCRETE RINGS; OTHERWISE, CONSTRUCT 3 FT SHAFT AS SHOWN ON THIS PLAN.
2. STATIONS SHOWN ON IMPROVEMENT PLAN REFER TO CENTERLINE OF SHAFT.
3. STEPS SHALL BE 3/4" ROUND GALVANIZED STEEL ANCHORED NOT LESS THAN 4" IN WALLS OF STRUCTURE AND UNLESS OTHERWISE SHOWN SHALL BE SPACED 16" ON CENTERS. THE LOWEST STEP SHALL BE NOT MORE THAN 2 FEET ABOVE THE FLOOR.

MODIFIED MANHOLE JM
RCP TO RCB CONNECTION

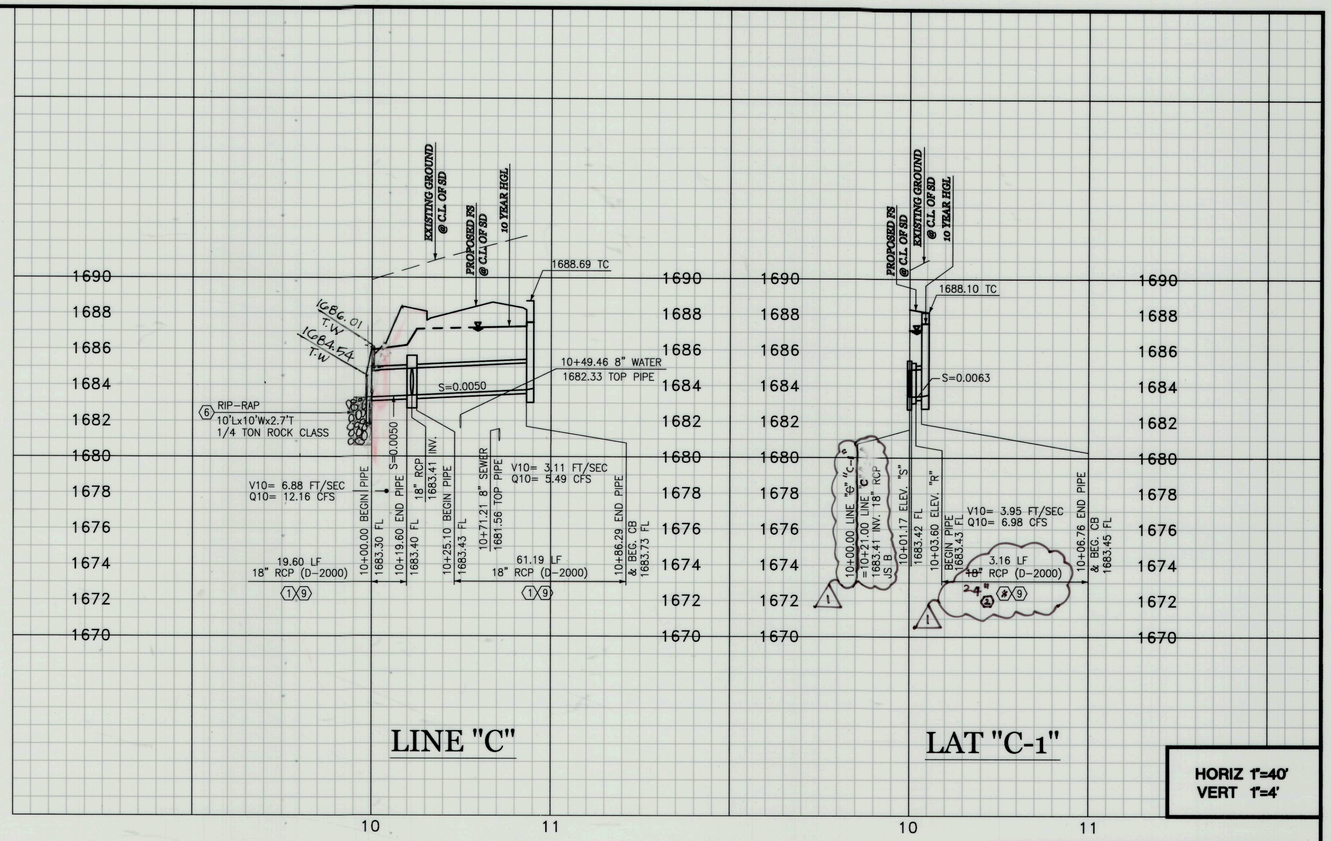
NTS

MANHOLE FOR BOX
SECTION STORM DRAIN

NTS



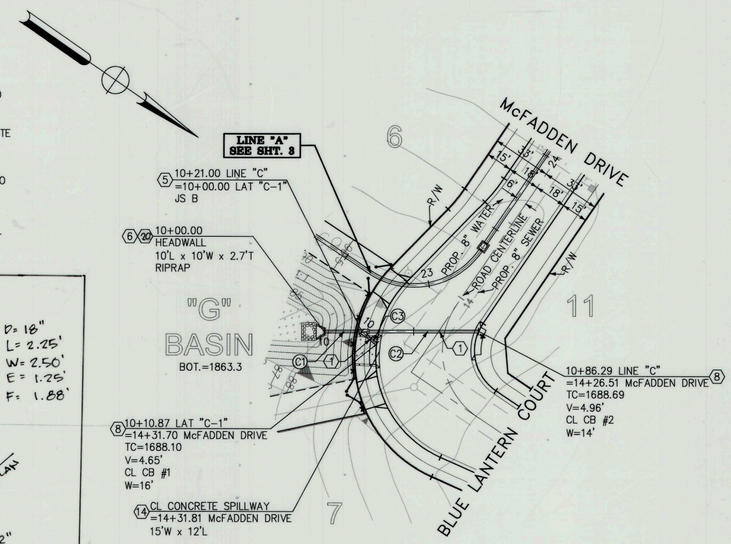
⑳ HEADWALL DETAIL
LINE "C"
N.T.S.



HORIZ 1"=40'
VERT 1"=4'

NOTE:

CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION



LINE "C" & LAT "C-1"

DATA TABLE

	BEARING	RADIUS	LENGTH	TANGENT	REMARKS
C1	N34°42'47"W	–	19.60'	–	18" RCP
C2	N34°42'47"W	–	61.19'	–	18" RCP
C3	N05°07'26"E	–	3.16'	–	18" RCP

CONSTRUCTION NOTES:

1. INSTALL 18" R.C.P. (D-2000)
3. INSTALL 36" DIA. CSP INLET PER CITY OF RIVERSIDE STD. DWG. NO 412
4. CONSTRUCT MANHOLE EZ PER CITY OF RIVERSIDE STD. DWG. NO 431
5. CONSTRUCT JUNCTION STRUCT "B" PER CITY OF RIVERSIDE STD. DWG. NO. 421
6. INSTALL RIP-RAP (SIZES AS PER PLAN)
20. CONSTRUCT HEADWALL PER DETAIL HEREON (SAN DIEGO STD. DWG. D-34)
8. CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405 (WIDTH AS INDICATED)
9. TRENCH BACKFILL PER CITY OF RIVERSIDE STD. 453 & PIPE BEDDING PER CITY STD. 452 CASE II
11. INSTALL TRASH RACK PER APWA STD. DWG. NO. 361-1
12. CONSTRUCT CONCRETE COLLAR PER CITY OF RIVERSIDE STD. DWG. NO. 424
14. CONSTRUCT 15' W x 1' H CONCRETE SPILLWAY

GRAPHIC SCALE

40 0 20 40 80 120

(IN FEET)
1 inch = 40 ft.

AS-BUILT A.G 03/17/23

PW07-0656

Underground Service Alert

Call: TOLL FREE
1-800
227-2600

TWO WORKING DAYS BEFORE YOU DIG

REVIEWED BY:
WESTERN MUNICIPAL WATER DISTRICT
FOR NON-INTERFERENCE COMPLIANCE

MECHANICAL ENGINEER M26589

DATE: 3/9/09

NOTE: WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY OF DESIGN & ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING AFTER CITY APPROVAL OR DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.

SEAL: REGISTERED PROFESSIONAL ENGINEER — PETER J.C. CHAO — No. 31538 — Exp. 12-31-10 — CIVIL — STATE OF CALIFORNIA

PACIFIC COAST LAND CONSULTANTS, Inc.
Civil Engineering • Land Planning • Land Surveying
25096 Jefferson Avenue, Suite D, Murrieta, Ca. 92562
Tel: (951) 698-1350 Fax: (951) 698-8657

PREPARED BY:
PETER J.C. CHAO
R.C.E. NO. 31538
DATE 3/16/09

BENCHMARK:
E8-G3 ELEVATION:1642.465 NAVD 1929

P.K. NAIL AND CITY ENGINEER TAG IN THE TOP OF THE SIDEWALK OVER THE EASTERLY WALL OF A CATCH BASIN ALONG THE SOUTHERLY CURB OF VAN BUREN BLVD AND 700 FEET EASTERLY OF WOOD ROAD.
PART OF THE ORANGECREST LEVEL CIRCUIT: MARCH 2000

DATE	BY	MARK	REVISIONS:	APPR	DATE
08/16/09	P.C.L.C.	△	AS-BUILT, CHANGE PIPE SIZE OF LAT C-1 FR. 18" TO 24"	A.G	5/17/23

ENGINEER — CITY

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY: PRINCIPAL ENGINEER — BY: — DATE: 4/15/09
APPROVED BY: CITY ENGINEER — DATE 4/29/09

STORM DRAIN PLAN & PROFILE
TRACT NO. 32301
LINE "B", LINE "C" & LAT "C-1"

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

D-825

SHEET 4 OF 5

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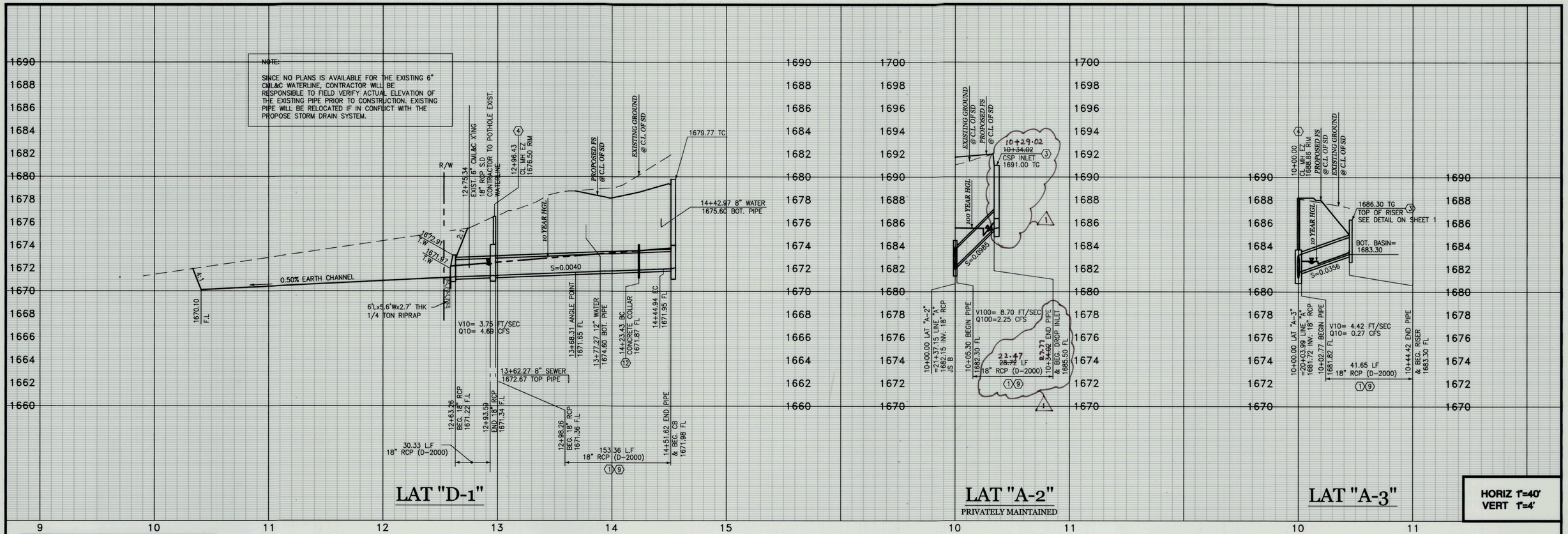
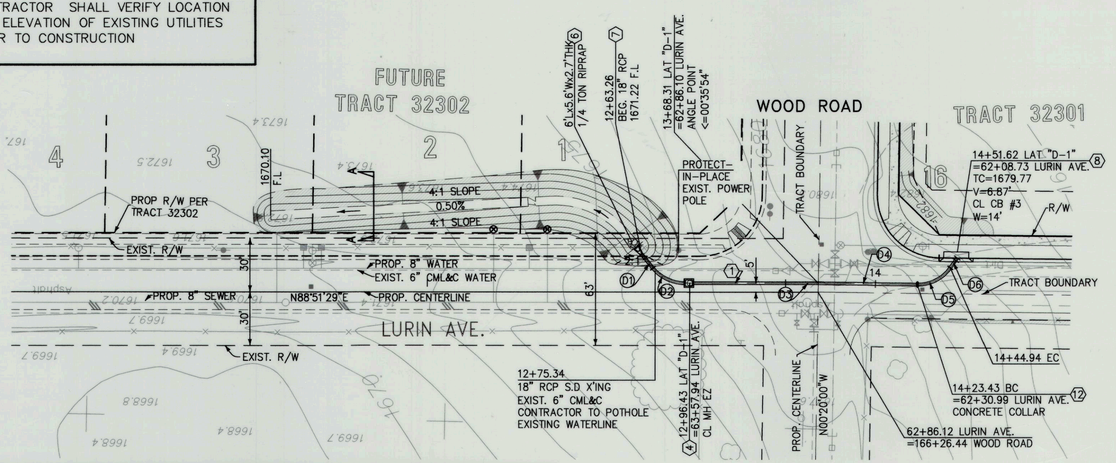
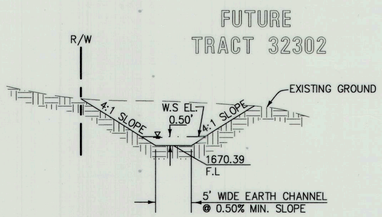


NOTE:

CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION





SECTION "A-A"

SCALE: HOR: 1"=10'
SCALE: VERT: 1"=4'

DATA TABLE

	BEARING	RADIUS	LENGTH	TANGENT
D1	N40°03'24"W	–	10.27'	–
D2	Δ=51°42'02"	22.50'	20.08'	10.78'
D3	N88°51'29"E	–	74.67'	–
D4	N89°27'23"E	–	55.16'	–
D5	Δ=54°46'15"	22.50'	21.51'	11.66'
D6	N34°41'08"E	–	6.68'	–

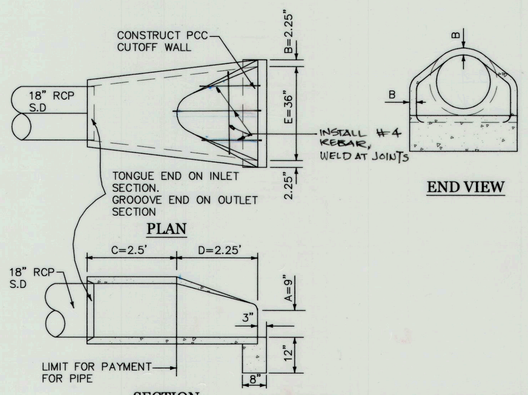
GRAPHIC SCALE

40 0 20 40 80 120

(IN FEET)
1 inch = 40 ft.

CONSTRUCTION NOTES:

1. INSTALL 18" R.C.P. (D-2000)
3. INSTALL 30" DIA. CSP INLET PER CITY OF RIVERSIDE STD. DWG. NO. 412
4. CONSTRUCT MANHOLE EZ PER CITY OF RIVERSIDE STD. DWG. NO 431
6. INSTALL RIPRAP (SIZES AS PER PLAN)
7. CONSTRUCT CONCRETE FLARED END SECTION PER CALTRANS STD. D94B, TYPE A (SEE DETAIL HEREON)
8. CONSTRUCT CATCH BASIN PER CITY OF RIVERSIDE STD. DWG. NO. 405 (WIDTH AS INDICATED)
9. TRENCH BACKFILL PER CITY OF RIVERSIDE STD. 453 & PIPE BEDDING PER CITY STD. 452 CASE II
12. CONSTRUCT CONCRETE COLLAR PER CITY OF RIVERSIDE STD. DWG. NO. 424



CONCRETE FLARED END DETAIL

SCALE: HOR: 1"=2'

PW07-0656

AS-BUILT A.G 05/17/23

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TWO WORKING DAYS BEFORE YOU DIG

REVIEWED BY:
WESTERN MUNICIPAL WATER DISTRICT
FOR NON-INTERFERENCE COMPLIANCE

MECHANICAL ENGINEER M26589

DATE: 3.19.09

NOTE: WORK CONTAINED WITHIN THESE PLANS SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT AND/OR A GRADING PERMIT HAS BEEN ISSUED.

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SEAL: REGISTERED PROFESSIONAL ENGINEER PETER J.C. CHAO No. 31538 Exp. 12-31-10 CIVIL STATE OF CALIFORNIA

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PREPARED BY: PETER J.C. CHAO

R.C.E. NO. 31538
DATE 3/16/09

BENCHMARK:
E8-G3 ELEVATION:1642.465 NAVD 1929
P.K. NAIL AND CITY ENGINEER TAG IN THE TOP OF THE SIDEWALK OVER THE EASTERLY WALL OF A CATCH BASIN ALONG THE SOUTHERLY CURB OF VAN BUREN BLVD AND 700 FEET EASTERLY OF WOOD ROAD.
PART OF THE ORANGECREST LEVEL CIRCUIT: MARCH 2000

DATE	BY	MARK	REVISIONS:	APPR	DATE
02/10/09	PCLC	1	MOVE CSP INLET 5' EAST, AS-BUILT	A.G	5/17/23

ENGINEER CITY

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY: PRINCIPAL ENGINEER — BY: — DATE: 2/12/09
APPROVED BY: CITY ENGINEER — DATE 2/25/09

STORM DRAIN PLAN & PROFILE
TRACT NO. 32301
LATS "A-2", "A-3" & "D-1"

SCALE: HORIZ.: 1"=40' VERT.: N/A

D-825
SHEET 5 OF 5

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