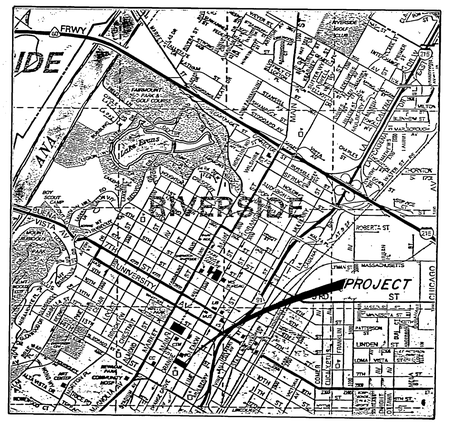
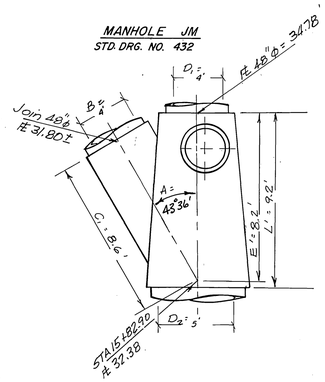


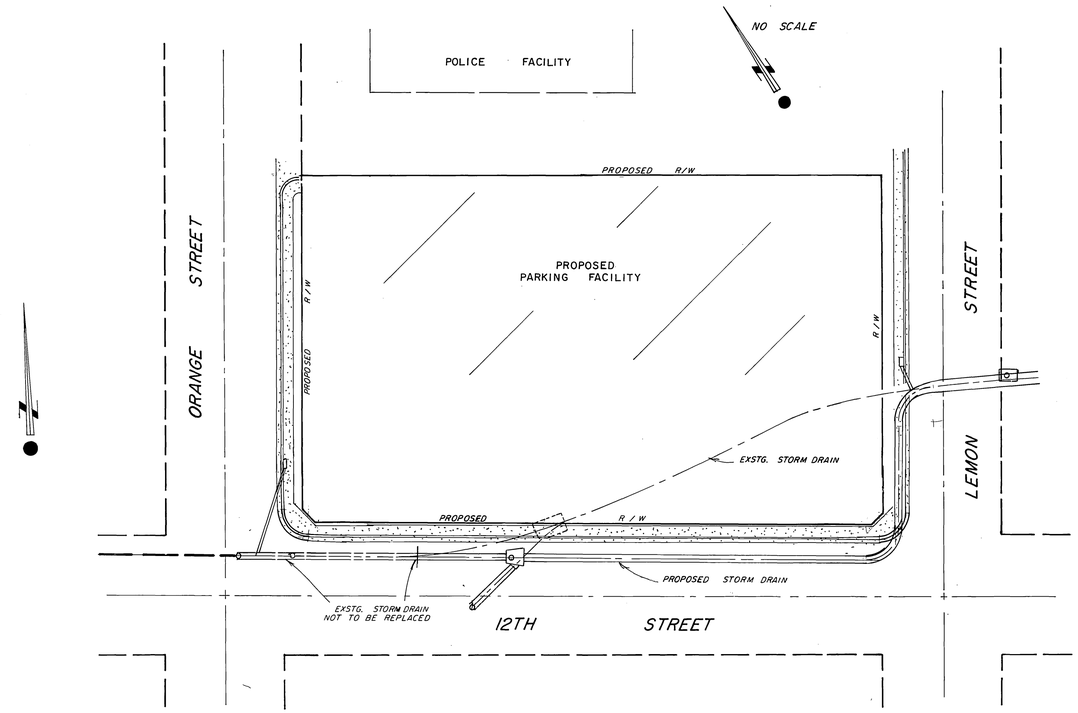

VICINITY MAP
NO SCALE

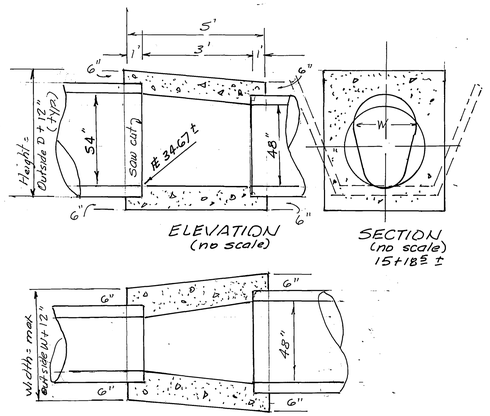
**HOLD HARMLESS & INDEMNIFICATION CLAUSE:**

THE CONTRACTOR AGREES HE SHALL ASSUME SOLE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS 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 OWNER & THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCES OF WORKING ON HIS (THE CONTRACTOR) PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, OR THE ENGINEER.

**MANHOLE JM**
STD. DRG. NO. 432




**BENCHMARK:**

C/R B.M. 16-I P.K. nail in top of curb 12' SE'ly of curb return at the most S'ly cor. of 10th. St. & Market St.
C.R.E.B. 975/10 Elev. = 840.914

**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 AT NO COST TO THE CITY.
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE, DEPARTMENT OF PUBLIC WORKS, STANDARD DRAWING NO. 10 AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.- & City of Riverside Standard Drawings
3. THE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE DESIGN, HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.
4. THE CONTRACTOR // DEVELOPER SHALL BE RESPONSIBLE FOR PRESERVING OR REESTABLISHING AND REFERENCING SURVEY MONUMENTS AND BENCHMARKS DESTROYED, DISTURBED OR BURIED AS A RESULT OF COUNSTRUCTION SHOWN HEREON.
5. ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE ~~ENGINEER~~. PRIVATE ENGINEER
6. THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA) AT 1-800-422-4133, TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT WILL BE ISSUED BY THE PUBLIC WORKS DEPT. INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS BEEN PROVIDED WITH AN INQUIRY IDENTIFICATION NUMBER BY USA.
7. CONTRACTOR SHALL NOTIFY CITY OF RIVERSIDE POLICE DEPT, 24 HOURS IN ADVANCE OF ANY PERMITTED ROAD CLOSURES. CONTRACTOR SHALL PROVIDE ACCESS FOR EMERGENCY VEHICLES ON ALL CLOSED ROADS.
8. ENGINEER HAS SEARCHED AVAILABLE KNOWN RECORDS FOR INFORMATION ABOUT UNDERGROUND FACILITIES. THOSE UNDERGROUND FACILITIES WHICH MAY AFFECT THE WORK ARE SHOWN ON THESE DRAWINGS.

   WHERE UNDERGROUND MAIN CONDUCTORS OR CONDUITS SUCH AS WATER, GAS, SEWER, ELECTRIC POWER, TELEPHONE, OR CABLE TELEVISION ARE SHOWN ON THESE DRAWINGS, CONTRACTOR SHALL ASSUME THAT A SERVICE LATERAL FROM EACH UTILITY FACILITY EXTENDS TO EVERY PARCEL OR PROPERTY WHETHER OR NOT A SERVICE LATERAL IS SHOWN.

   AT LEAST THREE WORKING DAYS BEFORE COMMENCING ANY EXCAVATION, CONTRACTOR SHALL REQUEST UNDERGROUND SERVICE ALERT (USA) 1-800-422-4133 AND NON-MEMBER COMPANIES, OR UTILITIES TO MARK OR OTHERWISE INDICATE THE LOCATION(S) OF THIER SUBSURFACE FACILITIES INCLUDING, BUT NOT LIMITED TO, STRUCTURES INCLUDING VAULTS, MAIN CONDUCTORS OR CONDUITS, AND SERVICE CONNECTIONS.

   CONTRACTOR SHALL EXCAVATE, EXPOSE, AND DETERMINE (POTHOLE) THE LOCATION AND DEPTH OF EACH AND EVERY POTENTIAL INTERFERENCE, INCLUDING, BUT NOT LIMITED TO, ALL FACILITIES SHOWN SPECIFICALLY (DEPTH AND LOCATION) ON THESE DRAWINGS, OR WHICH HAVE BEEN MARKED BY THEIR RESPECTIVE OWNERS. THOSE FACILITIES WHICH CONFLICT WITH CONSTRUCTION SHALL BE RELOCATED AT CONTRACTOR'S EXPENSE.
   UPON LEARNING OF THE EXISTENCE OR LOCATION OF ANY UTILITY OMITTED FROM OR SHOWN INCORRECTLY ON THESE DRAWINGS, OR IMPROPERLY MARKED OR OTHERWISE INDICATED, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER, PROVIDING FULL DETAILS AS TO DEPTH, LOCATION, SIZE, AND FUNCTION.

   CONTRACTOR SHALL NOT INTERRUPT OR DISTURB ANY UTILITY FACILITY WITHOUT AUTHORITY FROM THE UTILITY OR OTHER OWNER. WHERE PROTECTION IS REQUIRED TO ENSURE INTEGRITY OF UTILITY FACILITIES (INCLUDING CITY OWNED UTILITIES) LOCATED AS SHOWN ON THE DRAWINGS OR VISIBLE TO CONTRACTOR OR MARKED OR OTHERWISE INDICATED AS STATED HEREIN, CONTRACTOR SHALL, UNLESS OTHERWISE PROVIDED, FURNISH AND PLACE ALL NECESSARY PROTECTION.
9. CONTRACTOR IS ADVISED THAT ROCK OR UNACCEPTABLE TRENCH BACKFILL MATERIAL MAY BE ENCOUNTERED DURING TRENCHING OPERATIONS WHICH INCLUDES REMOVING THE EXISTING STORM DRAIN. WHERE SUCH MATERIAL IS ENCOUNTERED, CONTRACTOR SHALL FURNISH AND INSTALL SUITABLE BEDDING AND BACKFILL MATERIAL.

   BEDDING AND BACKFILL MATERIAL SHALL BE EITHER COMMERCIAL IMPORTED MATERIAL OR SELECT NATIVE MATERIAL (SCREENED OR WASHED) ALL ROCK OR UNACCEPTIBLE TRENCH BACKFILL MATERIAL INCLUDING EXISTING STORM DRAIN REMNANTS SHALL BE HAULED TO AND DISCARDED AT A LEGAL DISPOSAL SITE. CONTRACTOR SHALL NOT DISPOSE OF SUCH MATERIAL ON VACANT PRIVATE OR PUBLIC PROPERTY WITH OR WITHOUT PERMISSION.

   AT THE END OF EACH WORK DAY AND BY 5:00 P.M., ALL EXCAVATION SHALL BE COMPLETELY BACKFILLED AND COMPACTED TO SUPPORT TRAFFIC.
10. TRENCH BACKFILL, INCLUDING PIPE ZONE BACKFILL, SHALL BE COMPACTED TO 90% RELATIVE COMPACTION MINIMUM AFTER ALL SHEETING, SHORING, OR SHIELDS HAVE BEEN REMOVED. UPPER 12" OF SUBGRADE SHALL BE COMPACTED TO 95% RELATIVE COMPACTION MINIMUM.

    CONTRACTOR SHALL PROVIDE COMPACTION TESTING RESULTS TO CITY. COMPACTION TEST LOCATIONS SHALL BE DETERMINED BY CITY.
11. CONTRACTOR SHALL GIVE CITY WATER DIVISION FIVE (5) WORKING DAYS WRITTEN NOTICE PRIOR TO START OF CONSTRUCTION AND ALLOW CITY WATER DIVISION TEN (10) WORKING DAYS FOR COMPLETION OF WORK. (714) 351-6168
12. REFER TO IMPROVEMENT PLAN R-3272 FOR UTILITY LOCATIONS.

AS BUILT 11/16/94 RM

| | | |
|---|---|---|
| | City of Riverside, Electric<br>Appr. by: W. White Date 2-11-92 | City of Riverside, Water<br>Appr. by Richard L. Dadisk Date 2-11-92 |
| Cencom Cable TV<br>Appr. by Robert J. Hollibaugh Date 1/9/92 | Pacific Telephone<br>Appr. by: Mike Brandhorst Date 1/8/92 | So. Cal. Gas Co.<br>Appr. by: H.D. Sachs Date 1-15-92 |

**ROBERT L. TAYLOR** · Civil Engineer
R.C.E. 10470
5830 Magnolia Ave.
Riverside, CA 92506 (714)683-0617
Robert L. Taylor 12/20/91
Robert L. Taylor, R.C.E. 10470
Exp. Date 12/31/92

REGISTERED PROFESSIONAL ENGINEER ROBERT L. TAYLOR NO. 10470 CIVIL STATE OF CALIFORNIA

C/R Bus. Tax. No. 002994 Expires: 12/31/92

| MARK | REVISIONS | APPR. | DATE |
|---|---|---|---|
| | | | |

DESIGNED BY RLT DRAWN BY MZ CHECKED BY RLT

FRED

**CITY OF RIVERSIDE**
PUBLIC WORKS DEPARTMENT

| APPROVED BY | DATE | BY |
|---|---|---|
| PRINCIPAL ENGINEER | 3/23/92 | SD |
| PARK DEPARTMENT | — | — |
| TRAFFIC DIVISION | — | — |
| CHIEF P.W. ENGINEER | 4/2/92<br>3/31/92 | RLW<br>WA |

APPROVED BY
PUBLIC WORKS DIRECTOR
DATE 4-3-92.

STORM DRAIN IMPROVEMENT PLAN
12TH STREET
LEMON STREET
BUILDING PERMIT 4192 LEMON ST.

HORIZ. SCALE: 1" = 20' VERT. SCALE: 1" = 4'

ACCOUNT NO.
D-612
SHEET 1 OF 2
0-14

INDEXED 5-4-92 HH

Proposed Top of Pavement over ℄ of pipeline.

Proposed top of curb over ℄ of pipeline

Connect to existing

Proposed F.L. gutter 17' rt. Lemon St. *PER R-3272

*AS BUILT 12/5/94 RM

existg. canal lining - remove conflicting portions

Q10 = 6 c.f.s.
Q100 = 9 c.f.s.

DETAIL "A"

DETAIL "B"

DETAIL "C"

51.0 L.F. of 18" R.C.P. (2000 D) @ S = .03039

Join 18" R.C.P. to Junction structure per Detail shown in C/R Std. Dwg. No. 423

16.0 L.F. of 18" R.C.P. (2000 D) @ S = 0.2125

NOTE: nominal thickness of channel lining = 6" ± Actual thickness is unknown.

Construct J.S. # 4 per Std. Dwg. # 423

20' of C.S.P. Aluminized Steel Pipe, Type 2, 14 ga.

18" C.S.P. slotted

Use fitting for a total of deflection of 30°

Provide 10# paper barrier between 18" C.S.P. and concrete.

SECTION A-A No Scale
18" Slotted C.S.P. Alum. Steel

EXISTING ℄

PROPOSED 1/4 GRADE, 24' LEFT

EXISTING FINISH SURFACE OVER ℄ PIPE

Remove exstg. 54" RCP

Join 54" S.D.

Existing Egg Shaped (Protect in place)

Storm Drain

50.7 L.F. R.C.P. Q = 80 CFS S = 0.0050

48" DIA (1250 D) V = 6.4'/sec.

216.4 LF 60" DIA. RCP (1250 D) Q = 200 CFS V = 10.2'/sec. S = 0.0050

Constr. Pipe Bedding per City Std. Dwg. No. 452 (Case II)

Q = 120 CFS V = 9.5'/sec. exstg. 48"-dia. RCP (29' Right) (Plan 977)

JOIN EXSTG. 48"-dia. RCP

Construct City of Riverside STD. No. 432 MH (See Detail Sht. 1)

77.3 LF (1250 D) 60" DIA. RCP

Pull joints through G.C. as very curve

existing inlet - 48"□

12" Water line per C/R Water Dept. F.B. 30 pg. 20 Contractor to verify location before commencing construction. Protect in place. If relocation is required, the work shall be done by City Forces & billed to the Developer.

Contractor to assure watertight seal

Use conc. fill to mold smooth transition entrance; L = 15'±

Constr. 7' x 12' x 12' p.c.c. headwall w/ #4 @ 12" E.W.

Detail existing channel @ 18+76.62

remove as required

extent of old canal lining uncertain

℄ Grade Lemon St.

PROFILE
HORIZ. 1" = 20'
VERT. 1" = 4'

15+00 16+00 17+00 18+00 18+00 19+00

CONSTRUCT CONCRETE COLLAR PER DETAIL SHEET 1

Construct C/R Std. No. 432 M.H. (See Detail Sht 1)

CONSTRUCT 48" DIA. R.C.P. (1250D)

CONSTRUCT 60" DIA. R.C.P. (1250D)

② ℄ R = 22.50' Δ = 90°00'47" T = 22.50' L = 35.35'

① ℄ R = 22.50' Δ = 83°15'00" T = 19.99' L = 32.69'

CONSTRUCT 60" DIA. R.C.P. (1250D)

PROPOSED STREET IMPROVEMENTS PER R-3272

Catch Basin see Plan R-3272 SEE DETAIL "A"

Construct 18" dia. R.C.P. 2000D

Proposed SL Conduit see SL Plan L5-13783

Constr. 6" thk x 6'wide pcc slab W/6x6x10x10 WWF OVER EXSTG. 54" EGG SHAPED

STA. 14+51 (exstg. M.H.) adjust to grade

STA. 15+74.70 R. 48" R.C.P. = 34.78

STA. 15+82.90 Begin 60" dia. R.C.P.

Begin 54" S.D. Removal

15" dia. Drain

Remove existing Junction Structure as directed by Engineer

per C/R plan #708

Proposed SL Conduit see SL Plan L5-13783

PROPOSED STREET IMPROVEMENTS PER R-3272

PROPOSED R/W

Exstg. 54" STORM DRAIN To be removed

3" S.L.P. GAS ABANDONED

S.L. CONDUIT

ELEC. VAULT

S.L. CONDUIT, PER CITY RIV. SEE DW. E, NO. L5-4787

Exstg. 36" Water line

N 60°14'53" W

STREET

Exstg. ℄ 48" dia. R.C.P.

Abandoned 48" R.C.P. Storm Drain Remove portions conflicting with construction as directed by Engineer.

Join exstg. 48" dia. R.C.P.

Shape channel to Springline (1/2 dia) Var. 60" dia. to 48" dia.

Construct Junction Structure per Std. Dwg

STA. 14+33.40

Cover = 4'

STA. 14+13.37 12TH ST.
STA. 10+00.00 ORANGE ST.

ORANGE ST.

BENCHMARK:
C/R B.M. 16-1 P.K. nail in top of curb 12' SE'ly of curb return at the most S'ly cor. of 10th St. & Market St.
C.R.F.B. 975/10 Elev. = 840.914

4-3 1/2" ELEC., PER CITY RIV. SEE SHEET 50-A

36" WATER, PER CITY RIV. SEE 05-1291

4" WATER, PER CITY RIV. SEE CW.D. SHEET 50

2" G.M. SEE SO. CAL. GAS. ATLAS R-27

STA. 18+10.47 12TH ST.
STA. 10+00.00 LEMON ST.

LEMON ST.

12TH ST.

℄ LEMON ST.

Construct J.S. # 4 per Std. 423

N 29°44'20" E

N 68°00'40" W

existing channel

TWO WORKING DAYS BEFORE YOU DIG
CALL U.S.A. TOLL FREE
800-422-4133

| | | |
|---|---|---|
| | City of Riverside, Electric<br>Appr. by W. M. Walter Date 2-14-92 | City of Riverside, Water<br>Appr. by Richard L. Dyke Date 2-11-92 |
| Cencom Cable TV<br>Appr. by Robert L. Taylor Date 1/9/92 | Pacific Telephone<br>Appr. by: Mike Clendenin Date 1/9/92 | So. Cal. Gas Co.<br>Appr. by: H. D. Cooley Date 1-15-92 |

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| MARK | REVISIONS | APPR. | DATE |
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| | | | |

DESIGNED BY RLT DRAWN BY MZ CHECKED BY RLT

# CITY OF RIVERSIDE
## PUBLIC WORKS DEPARTMENT

| | APPROVED BY | DATE | BY |
|---|---|---|---|
| | PRINCIPAL ENGINEER | 3/23/92 | |
| | PARK DEPARTMENT | | |
| | TRAFFIC DIVISION | | |
| | CHIEF P. W. ENGINEER | 4/2/92<br>5/21/92 | RH.C.<br>C.C. |

APPROVED BY _____
PUBLIC WORKS DIRECTOR
DATE 4-3-92

STORM DRAIN IMPROVEMENT PLAN
12TH ST. & LEMON ST.
BUILDING PERMIT 4192 LEMON ST.

ACCOUNT NO.
D-612
SHEET 2 OF 2
0-14

HORIZ. SCALE: 1" = 20' VERT. SCALE: 1" = 4'

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