



# landscape architectural drawings

## LA SIERRA PARK

CITY OF RIVERSIDE  
 PARK & RECREATION DEPARTMENT  
 (714) 782-5300

CITY PLAN NO. P-0609B

Revisions:

△	
△	
△	
△	
△	

**GENERAL NOTES**  
 BASE SHEETS WERE DERIVED FROM PLANS PREPARED BY \_\_\_\_\_ AND TITLED \_\_\_\_\_ TOPOGRAPHIC MAP DATED \_\_\_\_\_

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THE DRAWINGS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. APPROVAL OF THE DRAWINGS DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OR COMPLETENESS OF THE LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY INFORMATION RELATED TO EXISTING UTILITIES MAY OBTAINED FROM UNDERGROUND SERVICES ALERT AT 800-422-4133.

CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THE CONTRACTOR'S BEST SKILL AND ATTENTION. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK.

CONTRACTOR SHALL BE RESPONSIBLE TO THE OWNER FOR ACTS AND OMISSIONS OF THE CONTRACTOR'S EMPLOYEES, SUBCONTRACTORS AND THEIR AGENTS AND EMPLOYEES, AND OTHER PERSONS PERFORMING PORTIONS OF THE WORK UNDER A CONTRACT WITH CONTRACTOR.

CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE PERFORMANCE OF THE CONTRACT.

LANDSCAPE ARCHITECT WILL VISIT THE SITE AT INTERVALS APPROPRIATE TO THE STAGE OF CONSTRUCTION TO BECOME GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE COMPLETED WORK AND TO DETERMINE IN GENERAL IF THE WORK IS BEING PERFORMED IN A MANNER INDICATING THAT THE WORK, WHEN COMPLETED WILL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. HOWEVER, THE LANDSCAPE ARCHITECT WILL NOT BE REQUIRED TO MAKE EXHAUSTIVE OR CONTINUOUS ON-SITE INSPECTIONS TO CHECK QUALITY OR QUANTITY OF THE WORK. ON THE BASIS OF ON-SITE OBSERVATIONS AS A LANDSCAPE ARCHITECT, THE LANDSCAPE ARCHITECT WILL KEEP THE OWNER INFORMED OF PROGRESS OF THE WORK, AND WILL ENDEAVOR TO GUARD THE OWNER AGAINST DEFECTS AND DEFICIENCIES IN THE WORK.

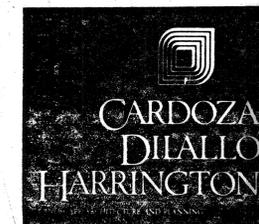
Client and Project  
**LA SIERRA PARK**  
 CITY OF RIVERSIDE

**CITY OF RIVERSIDE  
 PARK & RECREATION  
 DEPARTMENT**  
 3900 MAIN ST.  
 RIVERSIDE, CA 92522

Sheet Descriptions

**COVER SHEET**

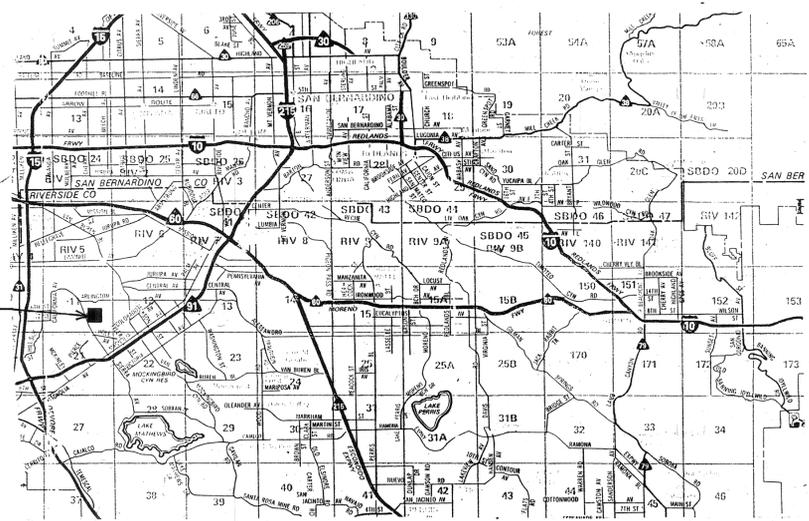
Date: 11/21/91  
 Scale: NONE  
 Drawn by: TM  
 Checked by: LAT



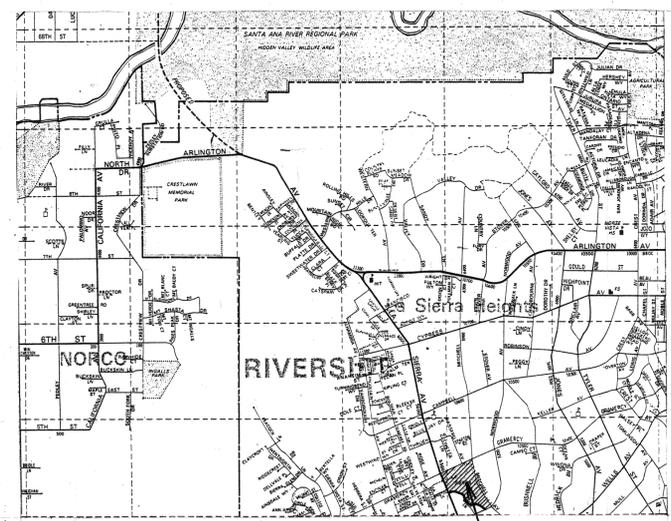
Sheet Number

1 of 9  
 File Number  
 88-500

location map



vicinity map



drawing index

1. COVER SHEET
2. IRRIGATION DEMOLITION PLAN
3. IRRIGATION DEMOLITION PLAN
4. IRRIGATION DEMOLITION PLAN
5. IRRIGATION DETAILS
6. IRRIGATION PLAN
7. IRRIGATION PLAN
8. IRRIGATION PLAN, NOTES & LEGEND
9. IRRIGATION NOTES & DETAILS

**APPROVALS**

PARK AND RECREATION DIRECTOR	DATE
PARK PLANNING COORDINATOR	DATE
PARK SUPERINTENDENT	DATE

**PLANS NEVER IMPLEMENTED**

PROJECT SITE



Revisions:

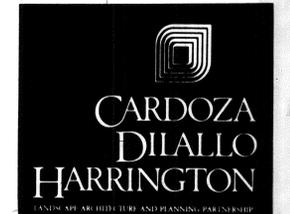
△	
△	
△	
△	
△	



Client and Project  
**LA SIERRA PARK**  
 CITY OF RIVERSIDE  
**CITY OF RIVERSIDE**  
**PARK & RECREATION**  
**DEPARTMENT**  
 3900 MAIN ST.  
 RIVERSIDE, CA. 92522

Sheet Descriptions  
**IRRIGATION DEMOLITION**  
**PLAN**

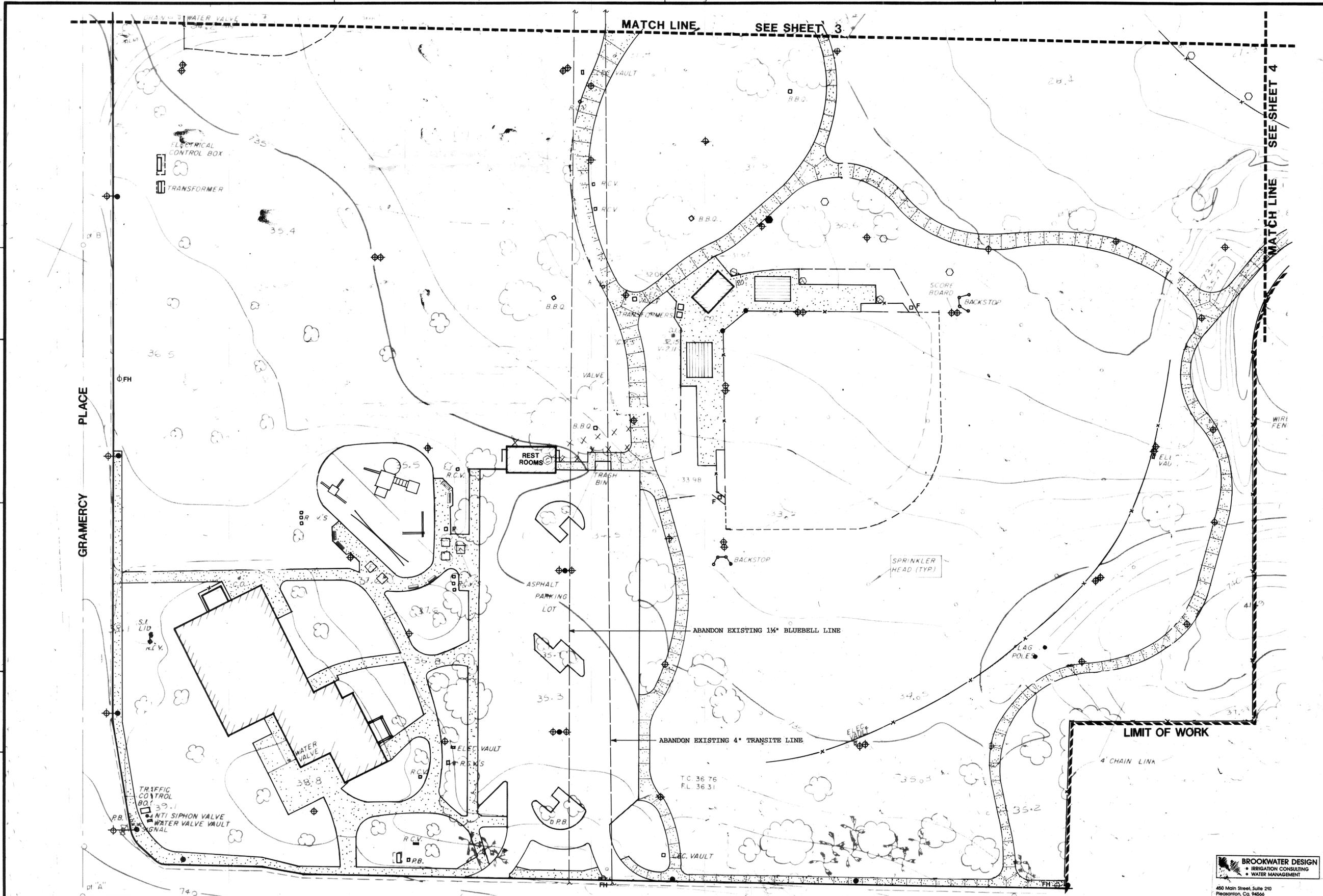
Date: 11-21-91  
 Scale: 1" = 30'-0"  
 Drawn by: BROOKWATER  
 Checked by: AR



3151 Airway Avenue, Suite J-3  
 Costa Mesa, California 92626

Sheet Number  
**2** of 9  
 File Number  
**88-500**

© NOT PUBLISHED, ALL RIGHTS RESERVED



LA SIERRA AVENUE

GRAMERCY PLACE

MATCH LINE SEE SHEET 3

MATCH LINE SEE SHEET 4

LIMIT OF WORK

**SYMBOL LEGEND**

- |    |                            |     |                        |
|----|----------------------------|-----|------------------------|
| F  | EXISTING DRINKING FOUNTAIN | -x- | EXISTING FENCE         |
| FH | EXISTING FIRE HYDRANT      | --- | EXISTING CONTOURS      |
| ⊕  | EXISTING LIGHT FIXTURE     | ▨   | EXISTING CONCRETE      |
| ●  | EXISTING POLES             | ▤   | FUTURE CONCRETE PAVING |

NOTES  
 • UNLESS STATED OTHERWISE, ALL EXISTING ITEMS SHALL REMAIN & BE PROTECTED  
 • SEE SHEET 3 FOR DETAILS ON UTILITIES

**PLANS NEVER IMPLEMENTED**

**BROOKWATER DESIGN**  
 • IRRIGATION CONSULTING  
 • WATER MANAGEMENT  
 450 Main Street, Suite 210  
 Pleasanton, Ca. 94566  
 (415) 484-1370 FAX (415) 484-3291



Not yet constructed - as shown



- Revisions:
- △ \_\_\_\_\_
  - △ \_\_\_\_\_
  - △ \_\_\_\_\_
  - △ \_\_\_\_\_
  - △ \_\_\_\_\_



Client and Project  
**LA SIERRA PARK**  
 CITY OF RIVERSIDE  
**CITY OF RIVERSIDE**  
**PARK & RECREATION**  
**DEPARTMENT**  
 3900 MAIN ST.  
 RIVERSIDE, CA. 92522

Sheet Descriptions  
**IRRIGATION DEMOLITION**  
**PLAN**

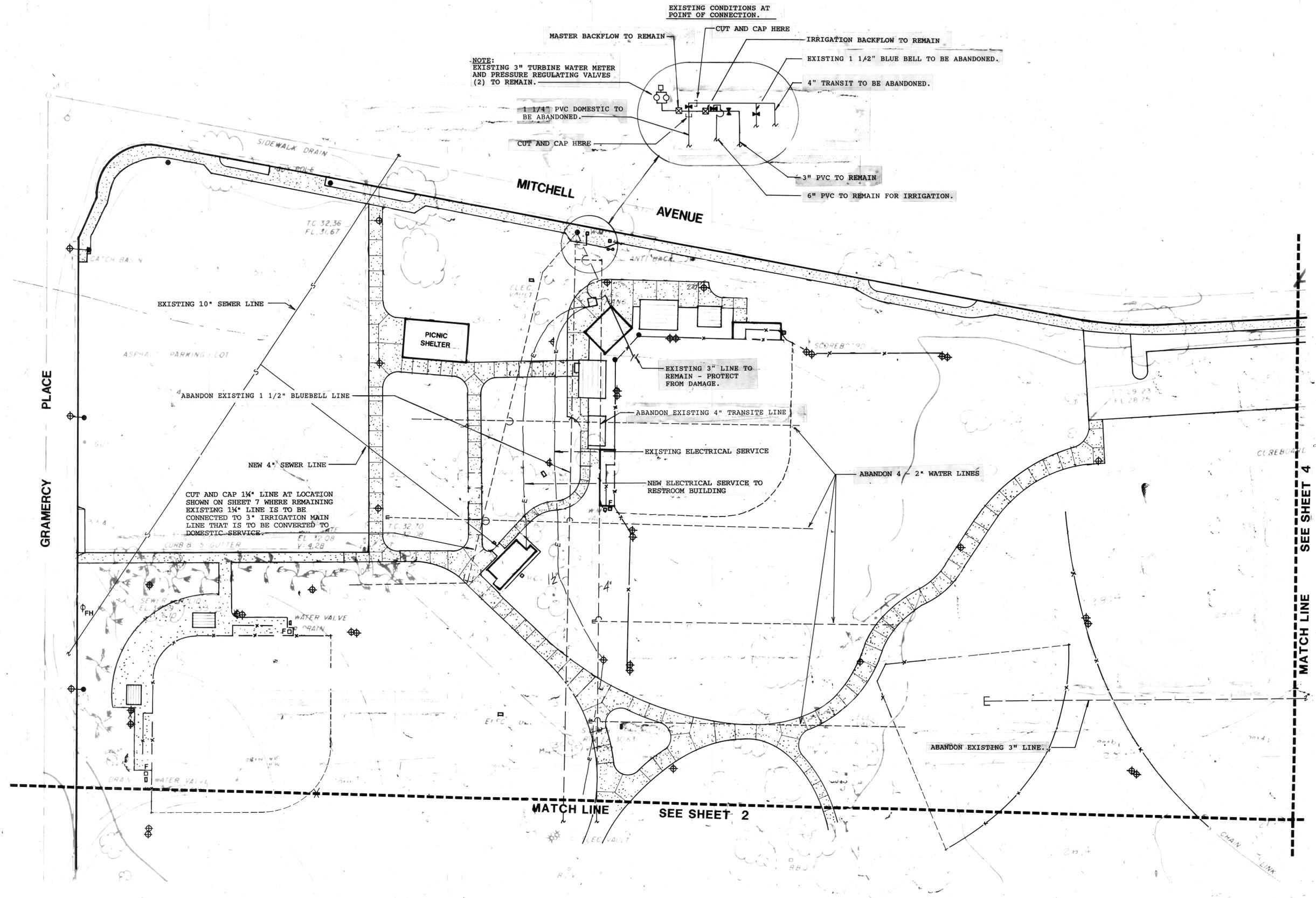
Date: 11-21-91  
 Scale: 1" = 30'-0"  
 Drawn by: *BRK WATER*  
 Checked by: *AE*



3151 Airway Avenue, Suite 1-3  
 Costa Mesa, California 92626

Sheet Number  
**3** of 9  
 File Number  
**88-500**

NOT PUBLISHED, ALL RIGHTS RESERVED



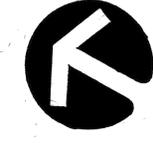
**SYMBOL LEGEND**

F	EXISTING DRINKING FOUNTAIN	-x-	EXISTING FENCE
FH	EXISTING FIRE HYDRANT	920	EXISTING CONTOURS
⊕	EXISTING LIGHT FIXTURE	[stippled]	EXISTING CONCRETE
●	EXISTING POLES	[dotted]	FUTURE CONCRETE PAVING

NOTES  
 UNLESS STATED OTHERWISE, ALL EXISTING ITEMS SHALL REMAIN AS SHOWN.

**PLANS NEVER IMPLEMENTED**

**BROOKWATER DESIGN**  
 IRRIGATION CONSULTING  
 WATER MANAGEMENT  
 450 Main Street, Suite 210  
 Pleasanton, Ca. 94566  
 (415) 484-1370 FAX (415) 484-3291





Revisions:

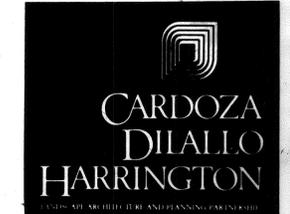
- △
- △
- △
- △
- △



Client and Project  
**LA SIERRA PARK**  
 CITY OF RIVERSIDE  
**CITY OF RIVERSIDE**  
**PARK & RECREATION**  
**DEPARTMENT**  
 3900 MAIN ST.  
 RIVERSIDE, CA. 92522

Sheet Descriptions  
**IRRIGATION DEMOLITION**  
**PLAN**

Date: 11-21-91  
 Scale: 1" = 30'-0"  
 Drawn by: BROOKWATER  
 Checked by: AR



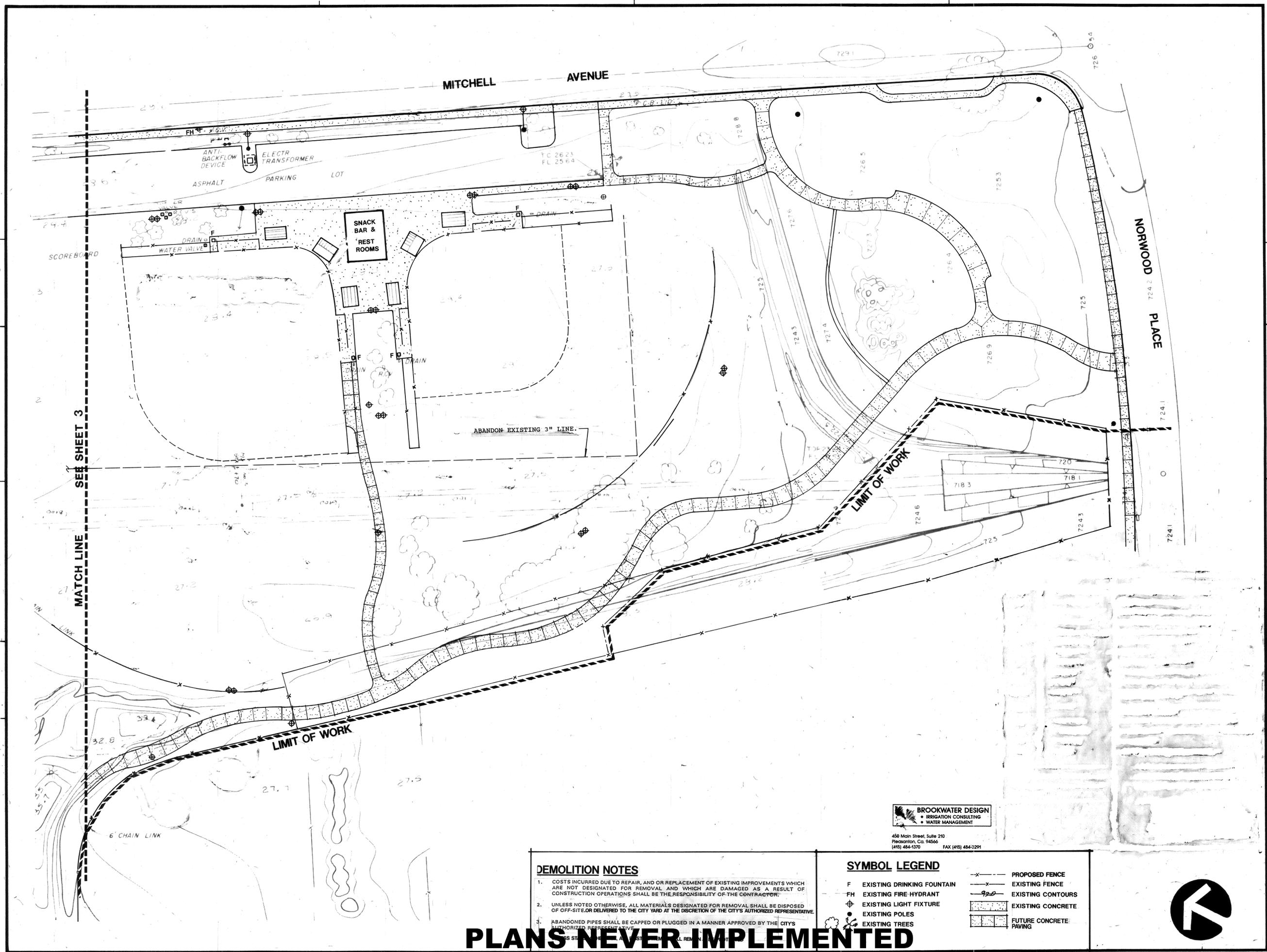
3151 Airway Avenue, Suite J-3  
 Costa Mesa, California 92626

Sheet Number

**4** of 9

File Number  
**88-500**

© NOT PUBLISHED, ALL RIGHTS RESERVED



**BROOKWATER DESIGN**  
 • IRRIGATION CONSULTING  
 • WATER MANAGEMENT  
 456 Main Street, Suite 210  
 Pleasanton, Ca. 94566  
 (415) 484-1370 FAX (415) 484-3291

**DEMOLITION NOTES**

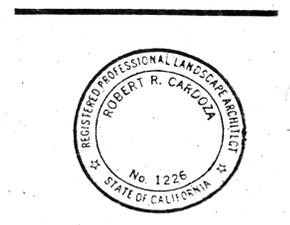
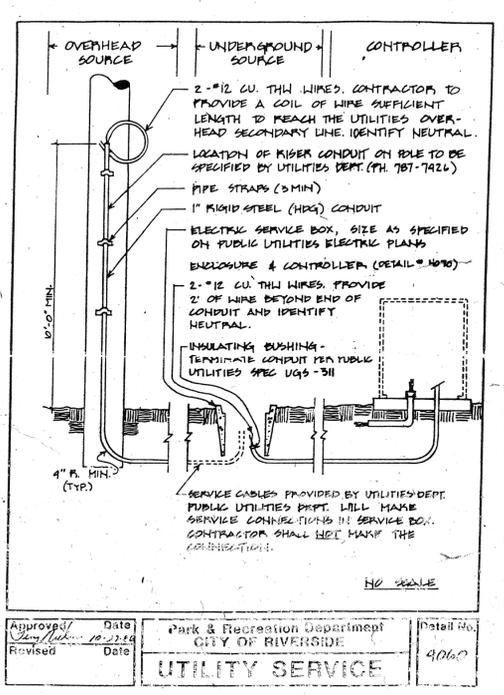
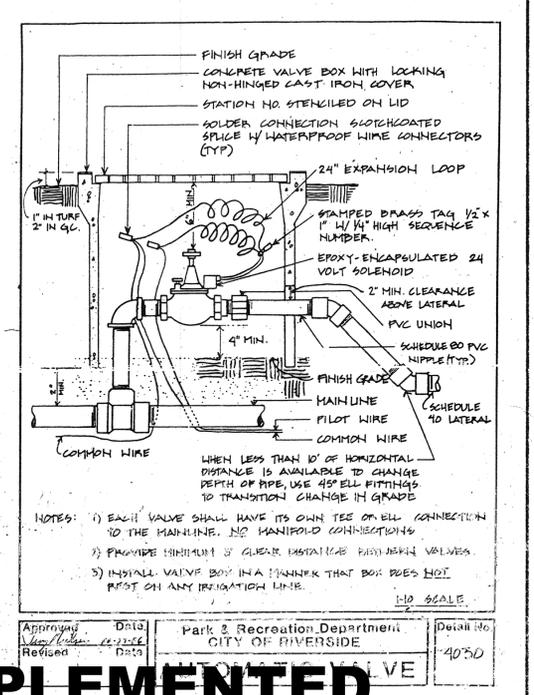
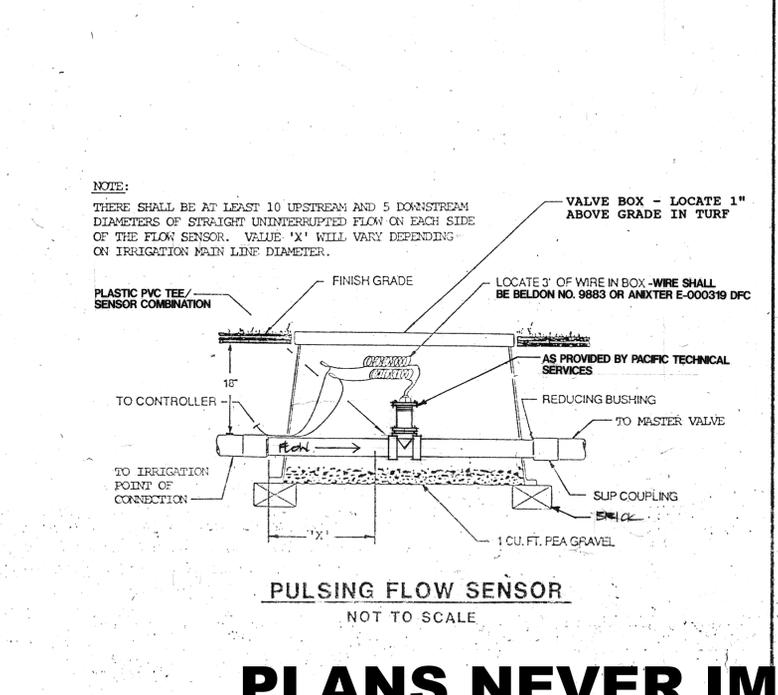
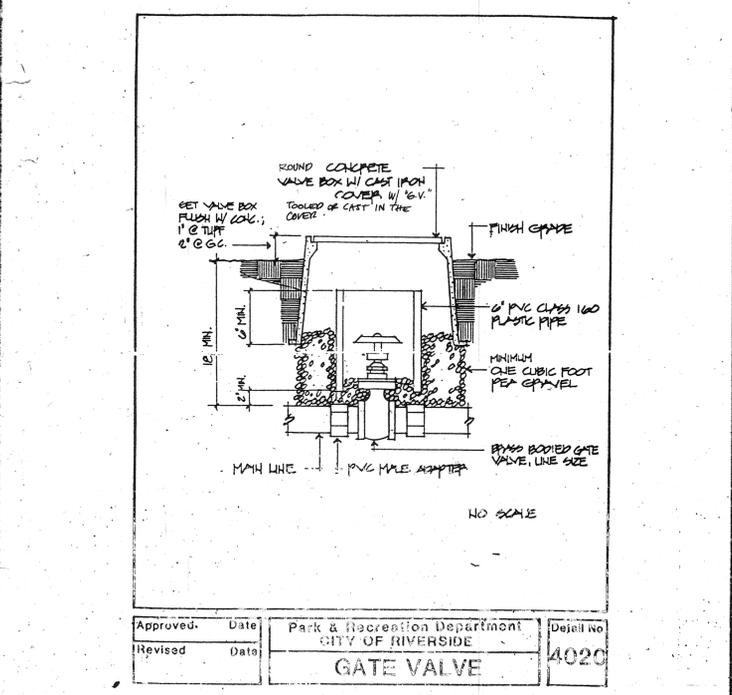
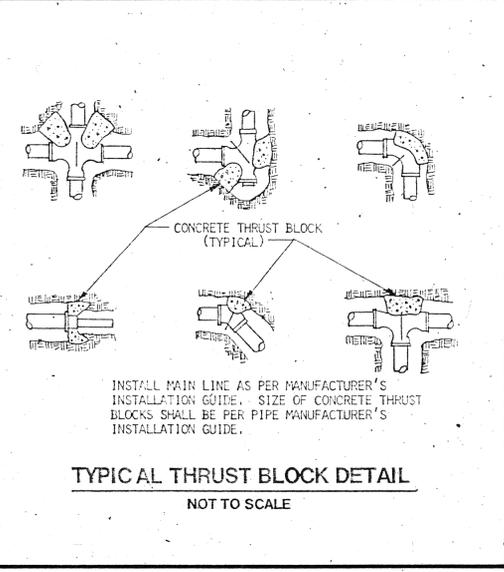
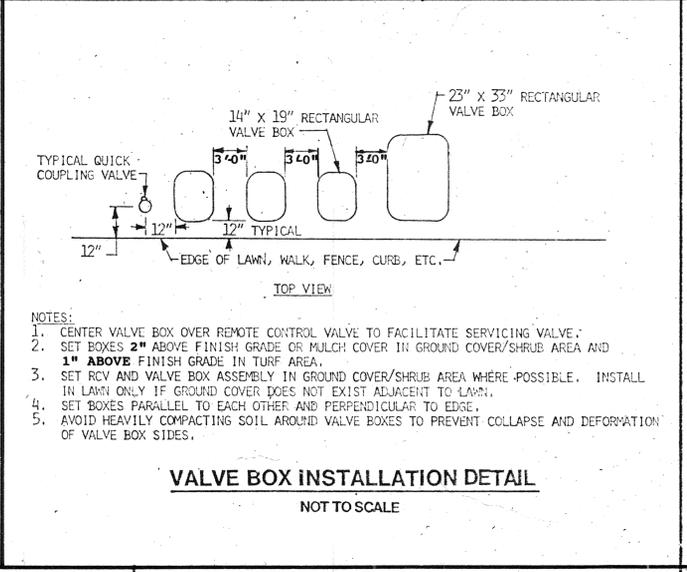
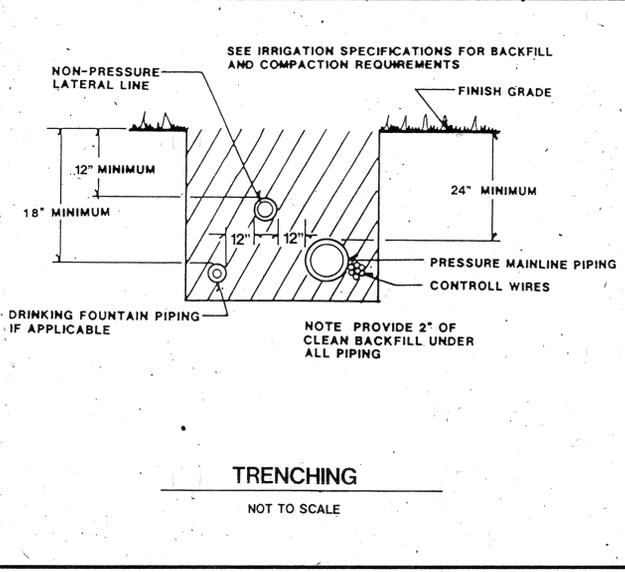
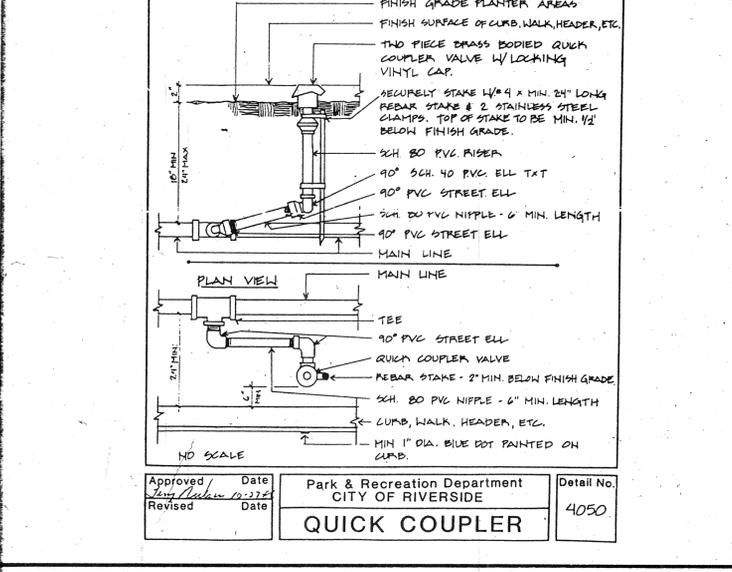
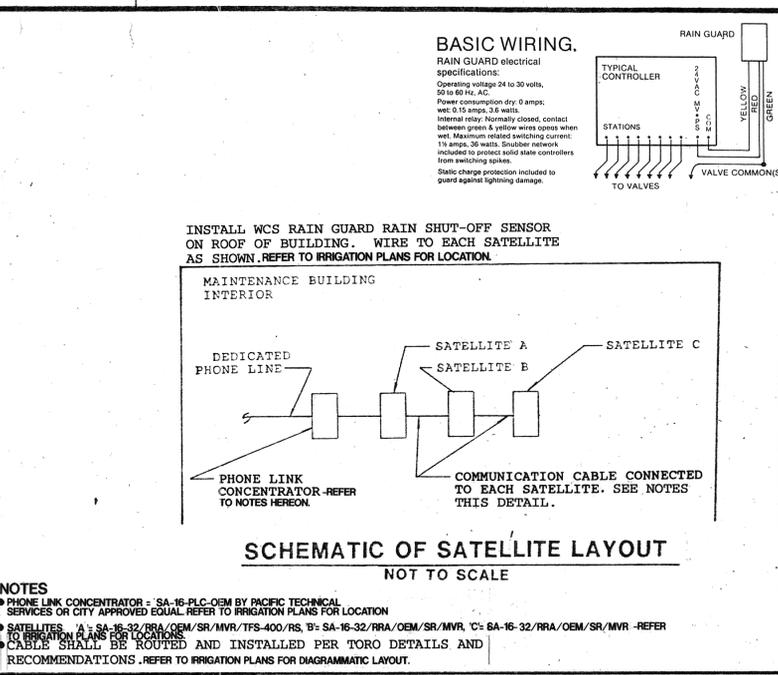
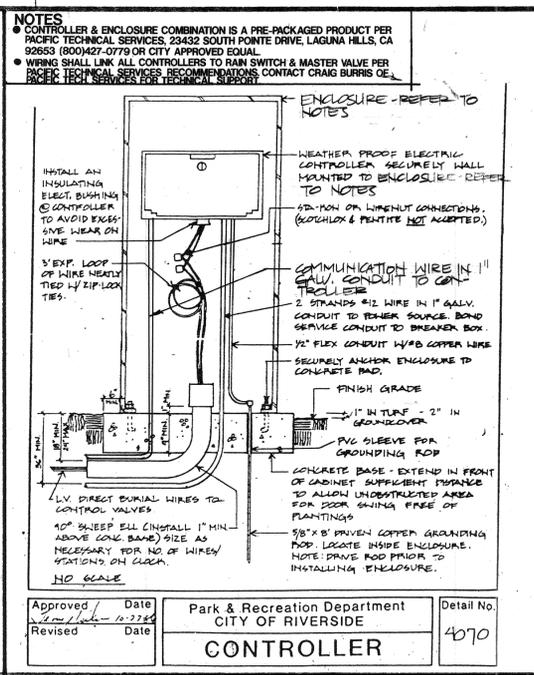
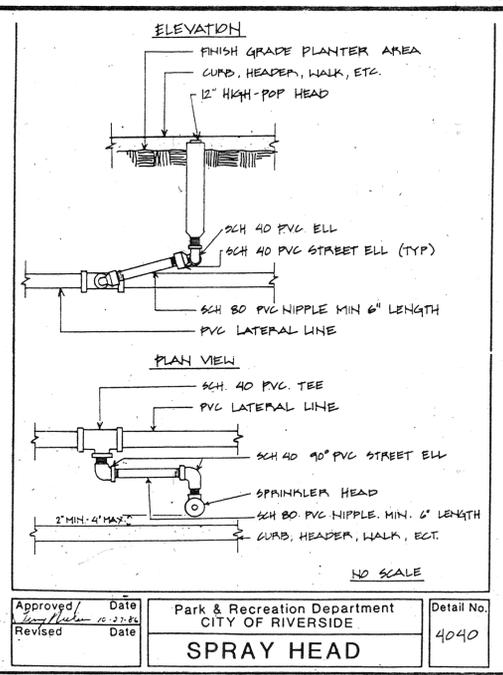
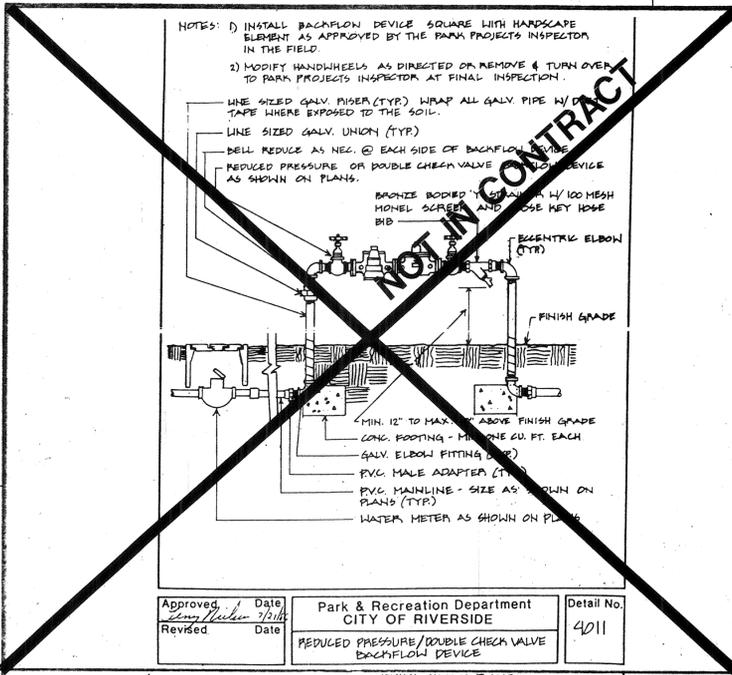
- COSTS INCURRED DUE TO REPAIR, AND OR REPLACEMENT OF EXISTING IMPROVEMENTS WHICH ARE NOT DESIGNATED FOR REMOVAL AND WHICH ARE DAMAGED AS A RESULT OF CONSTRUCTION OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- UNLESS NOTED OTHERWISE, ALL MATERIALS DESIGNATED FOR REMOVAL SHALL BE DISPOSED OF OFF-SITE OR DELIVERED TO THE CITY YARD AT THE DISCRETION OF THE CITY'S AUTHORIZED REPRESENTATIVE.
- ABANDONED PIPES SHALL BE CAPPED OR PLUGGED IN A MANNER APPROVED BY THE CITY'S AUTHORIZED REPRESENTATIVE.

**SYMBOL LEGEND**

- F EXISTING DRINKING FOUNTAIN
- FH EXISTING FIRE HYDRANT
- ⊕ EXISTING LIGHT FIXTURE
- ⊙ EXISTING POLES
- ⊗ EXISTING TREES
- x- PROPOSED FENCE
- x- EXISTING FENCE
- 92.0- EXISTING CONTOURS
- [Pattern] EXISTING CONCRETE
- [Pattern] FUTURE CONCRETE PAVING

**PLANS NEVER IMPLEMENTED**





Revisions:

△	
△	
△	
△	
△	

Client and Project  
**LA SIERRA PARK**  
CITY OF RIVERSIDE

CITY OF RIVERSIDE  
PARK & RECREATION DEPARTMENT  
3900 MAIN ST.  
RIVERSIDE, CA 92522

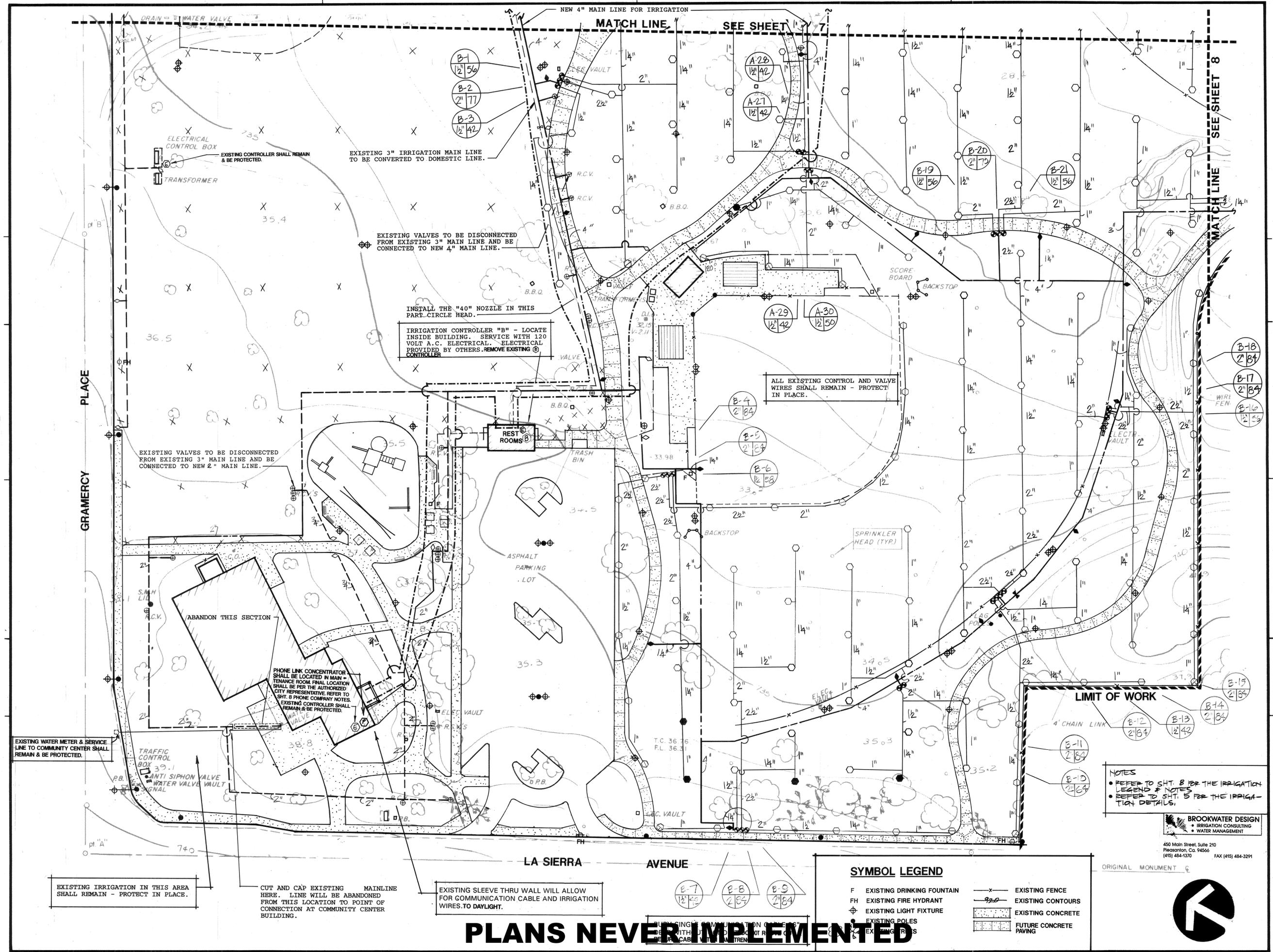
Sheet Descriptions

**IRRIGATION DETAILS**

Date: 11/21/91  
Scale: AS SHOWN  
Drawn by: BROOKWATER DESIGN  
Checked by: AR



**PLANS NEVER IMPLEMENTED**



- Revisions:
- △
  - △
  - △
  - △
  - △



Client and Project  
**LA SIERRA PARK**  
 CITY OF RIVERSIDE  
**CITY OF RIVERSIDE  
 PARK & RECREATION  
 DEPARTMENT**  
 3900 MAIN ST.  
 RIVERSIDE, CA. 92522

Sheet Descriptions  
**IRRIGATION PLAN**

Date: 11-21-91  
 Scale: 1" = 30'-0"  
 Drawn by: BROOKWATER  
 Checked by: AR

**CARDOZA  
 DILALLO  
 HARRINGTON**  
 LANDSCAPE ARCHITECTS AND PLANNING PARTNERSHIP

3151 Airway Avenue, Suite J-3  
 Costa Mesa, California 92626

Sheet Number  
**6** of 9  
 File Number  
**88-500**

© NOT PUBLISHED, ALL RIGHTS RESERVED

**SYMBOL LEGEND**

F	EXISTING DRINKING FOUNTAIN	-x-	EXISTING FENCE
FH	EXISTING FIRE HYDRANT	-9-9-	EXISTING CONTOURS
⊕	EXISTING LIGHT FIXTURE	▨	EXISTING CONCRETE
⊕	EXISTING POLES	▨	FUTURE CONCRETE PAVING
⊕	EXISTING TREES		

**NOTES**

- REFER TO SHT. 8 FOR THE IRRIGATION LEGEND & NOTES.
- REFER TO SHT. 5 FOR THE IRRIGATION DETAILS.

**BROOKWATER DESIGN**  
 IRRIGATION CONSULTING  
 WATER MANAGEMENT

450 Main Street, Suite 210  
 Placentian, Ca. 94566  
 (415) 484-1370 FAX (415) 484-3291

ORIGINAL MONUMENT

**PLANS NEVER IMPLEMENTED**

Designed... not built



Revisions:

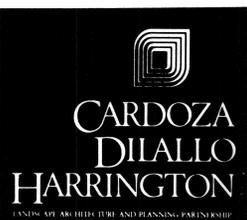
- △ \_\_\_\_\_
- △ \_\_\_\_\_
- △ \_\_\_\_\_
- △ \_\_\_\_\_
- △ \_\_\_\_\_



Client and Project  
**LA SIERRA PARK**  
 CITY OF RIVERSIDE  
**CITY OF RIVERSIDE  
 PARK & RECREATION  
 DEPARTMENT**  
 3900 MAIN ST.  
 RIVERSIDE, CA. 92522

Sheet Descriptions  
**IRRIGATION PLAN**

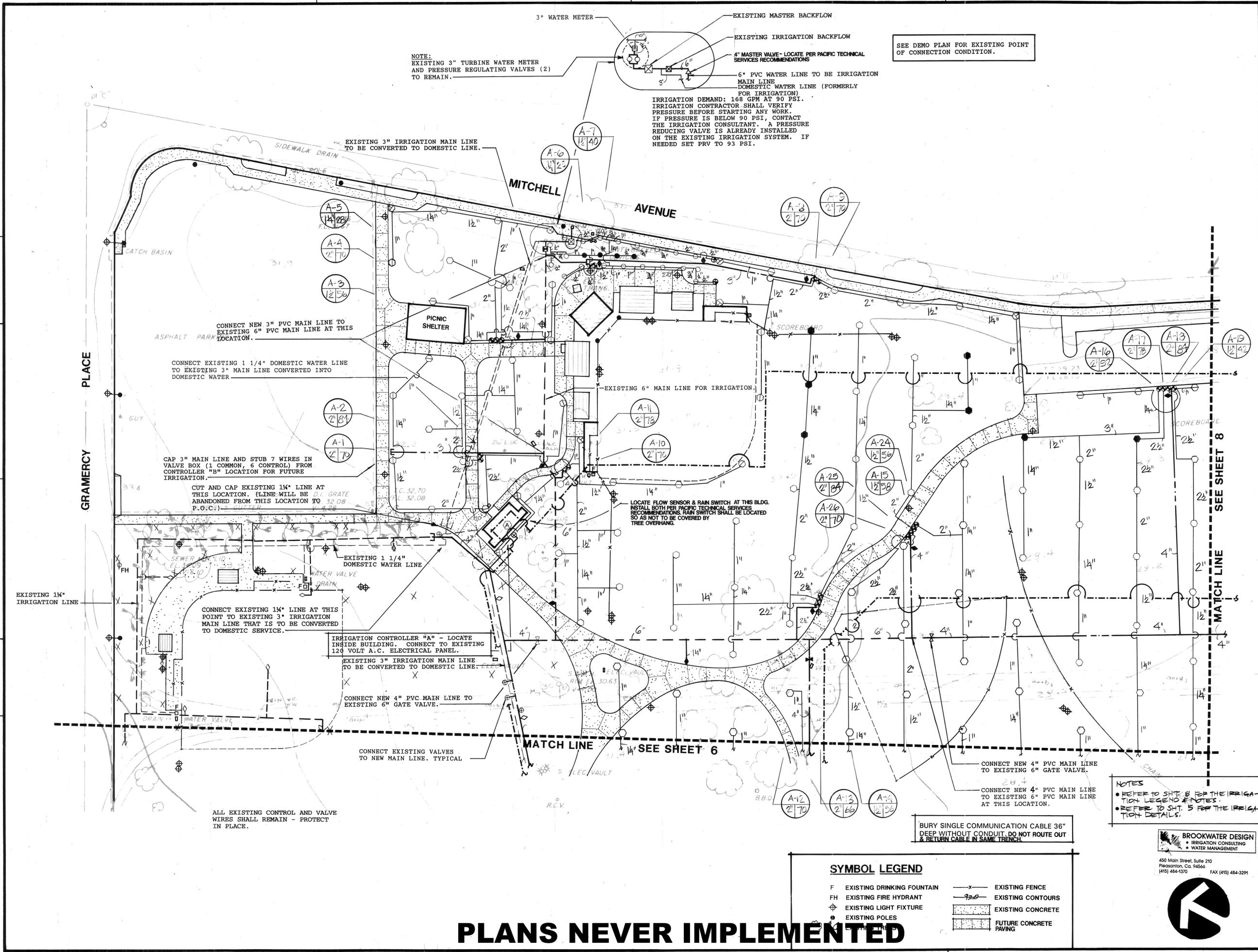
Date: 11-21-91  
 Scale: 1" = 30'-0"  
 Drawn by: BROOKWATER  
 Checked by: AE



3151 Airway Avenue, Suite J-3  
 Costa Mesa, California 92626

Sheet Number  
**7** of 9  
 File Number  
**88-500**

© NOT PUBLISHED. ALL RIGHTS RESERVED



NOTE:  
 EXISTING 3" TURBINE WATER METER  
 AND PRESSURE REGULATING VALVES (2)  
 TO REMAIN.

IRRIGATION DEMAND: 168 GPM AT 90 PSI.  
 IRRIGATION CONTRACTOR SHALL VERIFY  
 PRESSURE BEFORE STARTING ANY WORK.  
 IF PRESSURE IS BELOW 90 PSI, CONTACT  
 THE IRRIGATION CONSULTANT. A PRESSURE  
 REDUCING VALVE IS ALREADY INSTALLED  
 ON THE EXISTING IRRIGATION SYSTEM. IF  
 NEEDED SET PRV TO 93 PSI.

SEE DEMO PLAN FOR EXISTING POINT  
 OF CONNECTION CONDITION.

CONNECT NEW 3" PVC MAIN LINE TO  
 EXISTING 6" PVC MAIN LINE AT THIS  
 LOCATION.

CONNECT EXISTING 1 1/4" DOMESTIC WATER LINE  
 TO EXISTING 3" MAIN LINE CONVERTED INTO  
 DOMESTIC WATER

CAP 3" MAIN LINE AND STUB 7 WIRES IN  
 VALVE BOX (1 COMMON, 6 CONTROL) FROM  
 CONTROLLER "B" LOCATION FOR FUTURE  
 IRRIGATION

CUT AND CAP EXISTING 1 1/4" LINE AT  
 THIS LOCATION. (LINE WILL BE  
 ABANDONED FROM THIS LOCATION TO  
 P.O.C.)

CONNECT EXISTING 1 1/4" LINE AT THIS  
 POINT TO EXISTING 3" IRRIGATION  
 MAIN LINE THAT IS TO BE CONVERTED  
 TO DOMESTIC SERVICE.

IRRIGATION CONTROLLER "A" - LOCATE  
 INSIDE BUILDING. CONNECT TO EXISTING  
 120 VOLT A.C. ELECTRICAL PANEL.

EXISTING 3" IRRIGATION MAIN LINE  
 TO BE CONVERTED TO DOMESTIC LINE.

CONNECT NEW 4" PVC MAIN LINE TO  
 EXISTING 6" GATE VALVE.

CONNECT EXISTING VALVES  
 TO NEW MAIN LINE. TYPICAL

ALL EXISTING CONTROL AND VALVE  
 WIRES SHALL REMAIN - PROTECT  
 IN PLACE.

LOCATE FLOW SENSOR & RAIN SWITCH AT THIS BLDG.  
 INSTALL BOTH PER PACIFIC TECHNICAL SERVICES  
 RECOMMENDATIONS. RAIN SWITCH SHALL BE LOCATED  
 SO AS NOT TO BE COVERED BY  
 TREE OVERHANG.

BURY SINGLE COMMUNICATION CABLE 36"  
 DEEP WITHOUT CONDUIT. DO NOT ROUTE OUT  
 & RETURN CABLE IN SAME TRENCH.

NOTES  
 • REFER TO SHT. 8 FOR THE IRRIGA-  
 TION LEGEND & NOTES.  
 • REFER TO SHT. 5 FOR THE IRRIGA-  
 TION DETAILS.

BROOKWATER DESIGN  
 IRRIGATION CONSULTING  
 WATER MANAGEMENT  
 450 Main Street, Suite 210  
 Pleasanton, Ca. 94566  
 (415) 484-1370 FAX (415) 484-3291

**SYMBOL LEGEND**

- F EXISTING DRINKING FOUNTAIN
- FH EXISTING FIRE HYDRANT
- ⊕ EXISTING LIGHT FIXTURE
- EXISTING POLES
- EXISTING FENCE
- EXISTING CONTOURS
- ▨ EXISTING CONCRETE
- ▨ FUTURE CONCRETE PAVING

**PLANS NEVER IMPLEMENTED**

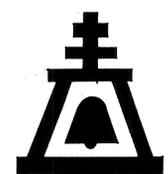
Pat - this design has not been installed

10/7/02



Revisions:

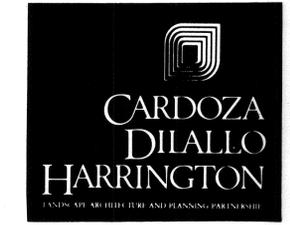
- △
- △
- △
- △
- △



Client and Project  
**LA SIERRA PARK**  
 CITY OF RIVERSIDE  
**CITY OF RIVERSIDE**  
**PARK & RECREATION**  
**DEPARTMENT**  
 3900 MAIN ST.  
 RIVERSIDE, CA. 92522

Sheet Descriptions  
**IRRIGATION PLAN,**  
**NOTES & LEGEND**

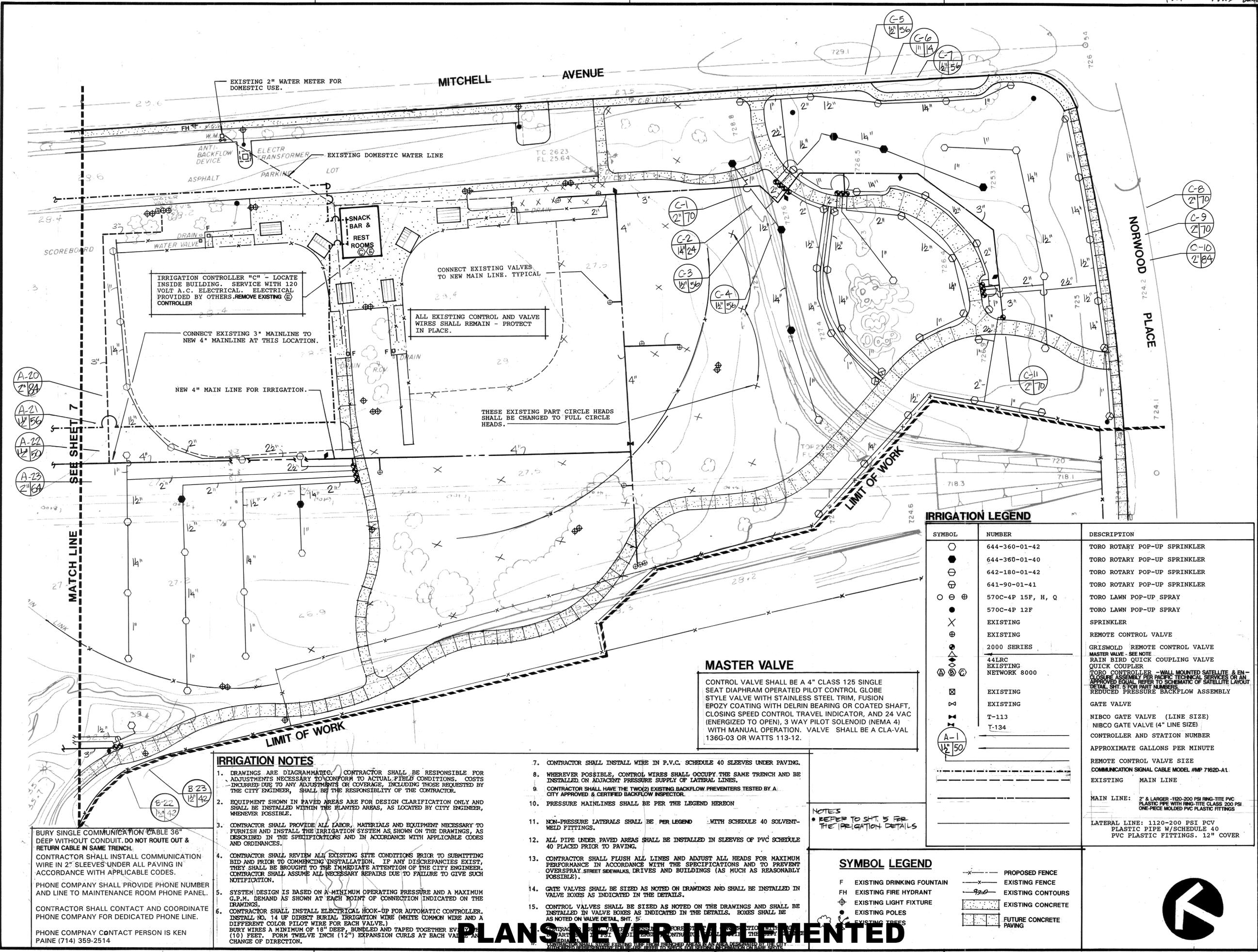
Date: 11-21-91  
 Scale: 1" = 30'-0"  
 Drawn by: BROOK WATER  
 Checked by: AR



3151 Airway Avenue, Suite J-3  
 Costa Mesa, California 92626

Sheet Number  
**8 of 9**  
 File Number  
**88-500**

NOT PUBLISHED. ALL RIGHTS RESERVED



IRRIGATION CONTROLLER "C" - LOCATE INSIDE BUILDING. SERVICE WITH 120 VOLT A.C. ELECTRICAL. ELECTRICAL PROVIDED BY OTHERS. REMOVE EXISTING CONTROLLER

CONNECT EXISTING 3" MAINLINE TO NEW 4" MAINLINE AT THIS LOCATION.

NEW 4" MAIN LINE FOR IRRIGATION.

CONNECT EXISTING VALVES TO NEW MAIN LINE. TYPICAL

ALL EXISTING CONTROL AND VALVE WIRES SHALL REMAIN - PROTECT IN PLACE.

THESE EXISTING PART CIRCLE HEADS SHALL BE CHANGED TO FULL CIRCLE HEADS.

**MASTER VALVE**  
 CONTROL VALVE SHALL BE A 4" CLASS 125 SINGLE SEAT DIAPHRAM OPERATED PILOT CONTROL GLOBE STYLE VALVE WITH STAINLESS STEEL TRIM, FUSION EPOXY COATING WITH DELRIN BEARING OR COATED SHAFT, CLOSING SPEED CONTROL TRAVEL INDICATOR, AND 24 VAC (ENERGIZED TO OPEN), 3 WAY PILOT SOLENOID (NEMA 4) WITH MANUAL OPERATION. VALVE SHALL BE A CLA-VAL 136G-03 OR WATTS 113-12.

IRRIGATION LEGEND		
SYMBOL	NUMBER	DESCRIPTION
○	644-360-01-42	TORO ROTARY POP-UP SPRINKLER
●	644-360-01-40	TORO ROTARY POP-UP SPRINKLER
⊖	642-180-01-42	TORO ROTARY POP-UP SPRINKLER
⊕	641-90-01-41	TORO ROTARY POP-UP SPRINKLER
○ ⊕ ⊖	570C-4P 15F, H, Q	TORO LAWN POP-UP SPRAY
●	570C-4P 12F	TORO LAWN POP-UP SPRAY
X		EXISTING SPRINKLER
⊕		EXISTING REMOTE CONTROL VALVE
⊖	2000 SERIES	GRISWOLD REMOTE CONTROL VALVE
⊕		MASTER VALVE - SEE NOTE
⊖	44LRC	RAIN BIRD QUICK COUPLING VALVE
⊕ ⊖	EXISTING NETWORK 8000	QUICK COUPLER
⊕ ⊖		TORO CONTROLLER - WALL MOUNTED SATELLITE & EN-CLOSURE ASSEMBLY PER PACIFIC TECHNICAL SERVICES OR AN APPROVED EQUAL REFER TO SCHEMATIC OF SATELLITE LAYOUT DETAIL SHT. 5 FOR PART NUMBERS
⊕ ⊖		REDUCED PRESSURE BACKFLOW ASSEMBLY
⊕		EXISTING GATE VALVE
⊖		EXISTING NIBCO GATE VALVE (LINE SIZE)
⊕		EXISTING NIBCO GATE VALVE (4" LINE SIZE)
⊕		EXISTING CONTROLLER AND STATION NUMBER
⊕		EXISTING APPROXIMATE GALLONS PER MINUTE
⊕		EXISTING REMOTE CONTROL VALVE SIZE
⊕		EXISTING COMMUNICATION SIGNAL CABLE MODEL #MP 7162D-A1
⊕		EXISTING MAIN LINE
⊕		MAIN LINE: 2" & LARGER - 1120-200 PSI RING-TITE PVC PLASTIC PIPE WITH RING-TITE CLASS 200 PSI ONE-PIECE MOLDED PVC PLASTIC FITTINGS
⊕		LATERAL LINE: 1120-200 PSI PCV PLASTIC PIPE W/SCHEDULE 40 PVC PLASTIC FITTINGS. 12" COVER

BURY SINGLE COMMUNICATION CABLE 36" DEEP WITHOUT CONDUIT. DO NOT ROUTE OUT & RETURN CABLE IN SAME TRENCH.  
 CONTRACTOR SHALL INSTALL COMMUNICATION WIRE IN 2" SLEEVES UNDER ALL PAVING IN ACCORDANCE WITH APPLICABLE CODES.  
 PHONE COMPANY SHALL PROVIDE PHONE NUMBER AND LINE TO MAINTENANCE ROOM PHONE PANEL.  
 CONTRACTOR SHALL CONTACT AND COORDINATE PHONE COMPANY FOR DEDICATED PHONE LINE.  
 PHONE COMPANY CONTACT PERSON IS KEN PAINE (714) 359-2514

- IRRIGATION NOTES**
- DRAWINGS ARE DIAGNOMATIC. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTMENTS NECESSARY TO CONFORM TO ACTUAL FIELD CONDITIONS. COSTS INCURRED DUE TO ANY ADJUSTMENTS OR COVERAGE, INCLUDING THOSE REQUESTED BY THE CITY ENGINEER, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - EQUIPMENT SHOWN IN PAVED AREAS ARE FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED WITHIN THE UNPAVED AREAS, AS LOCATED BY CITY ENGINEER, WHENEVER POSSIBLE.
  - CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS, AS DESCRIBED IN THE SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE CODES AND ORDINANCES.
  - CONTRACTOR SHALL REVIEW ALL EXISTING SITE CONDITIONS PRIOR TO SUBMITTING BID AND PRIOR TO COMMENCING INSTALLATION. IF ANY DISCREPANCIES EXIST, THEY SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CITY ENGINEER. CONTRACTOR SHALL ASSUME ALL NECESSARY REPAIRS DUE TO FAILURE TO GIVE SUCH NOTIFICATION.
  - SYSTEM DESIGN IS BASED ON A MINIMUM OPERATING PRESSURE AND A MAXIMUM G.P.M. DEMAND AS SHOWN AT EACH POINT OF CONNECTION INDICATED ON THE DRAWINGS.
  - CONTRACTOR SHALL INSTALL ELECTRICAL HOOK-UP FOR AUTOMATIC CONTROLLER. INSTALL NO. 14 UF DIRECT BURIAL IRRIGATION WIRE (WHITE COMMON WIRE AND A DIFFERENT COLOR PILOT WIRE FOR EACH VALVE.) BURY WIRES A MINIMUM OF 18" DEEP, BUNDLED AND TAPED TOGETHER EVERY (10) FEET. FORM TWELVE INCH (12") EXPANSION CURLS AT EACH VALVE AND CHANGE OF DIRECTION.

- CONTRACTOR SHALL INSTALL WIRE IN P.V.C. SCHEDULE 40 SLEEVES UNDER PAVING.
- WHEREVER POSSIBLE, CONTROL WIRES SHALL OCCUPY THE SAME TRENCH AND BE INSTALLED ON ADJACENT PRESSURE SUPPLY OF LATERAL LINES.
- CONTRACTOR SHALL HAVE THE TWO(2) EXISTING BACKFLOW PREVENTERS TESTED BY A CITY APPROVED & CERTIFIED BACKFLOW INSPECTOR.
- PRESSURE MAINLINES SHALL BE PER THE LEGEND HEREBON
- NON-PRESSURE LATERALS SHALL BE PER LEGEND WITH SCHEDULE 40 SOLVENT-WELD FITTINGS.
- ALL PIPE UNDER PAVED AREAS SHALL BE INSTALLED IN SLEEVES OF PVC SCHEDULE 40 PLACED PRIOR TO PAVING.
- CONTRACTOR SHALL FLUSH ALL LINES AND ADJUST ALL HEADS FOR MAXIMUM PERFORMANCE IN ACCORDANCE WITH THE SPECIFICATIONS AND TO PREVENT OVERSPRAY STREET SIDEWALKS, DRIVES AND BUILDINGS (AS MUCH AS REASONABLY POSSIBLE).
- GATE VALVES SHALL BE SIZED AS NOTED ON DRAWINGS AND SHALL BE INSTALLED IN VALVE BOXES AS INDICATED IN THE DETAILS.
- CONTROL VALVES SHALL BE SIZED AS NOTED ON THE DRAWINGS AND SHALL BE INSTALLED IN VALVE BOXES AS INDICATED IN THE DETAILS. BOXES SHALL BE AS NOTED ON VALVE DETAIL SHT. 5

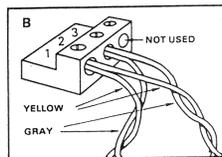
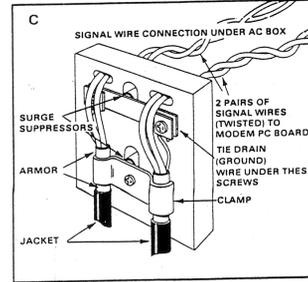
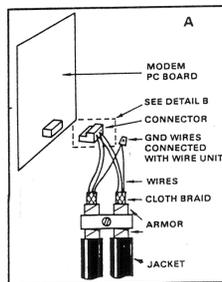
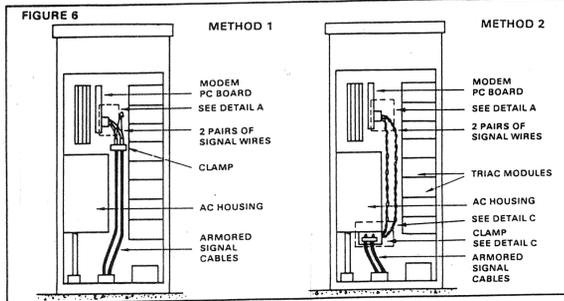
NOTES  
 REFER TO SHT. 5 FOR THE IRRIGATION DETAILS

**SYMBOL LEGEND**

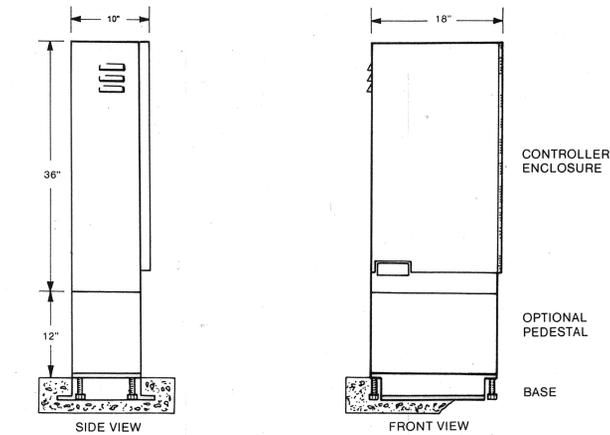
F	EXISTING DRINKING FOUNTAIN	- - -	PROPOSED FENCE
FH	EXISTING FIRE HYDRANT	- - -	EXISTING FENCE
⊕	EXISTING LIGHT FIXTURE	- - -	EXISTING CONTOURS
●	EXISTING POLES	▨	EXISTING CONCRETE
○	EXISTING TREES	▨	FUTURE CONCRETE PAVING

**PLANS NEVER IMPLEMENTED**

2. Make signal cable connections to controllers per method 1 or 2 as shown in Figure 6.

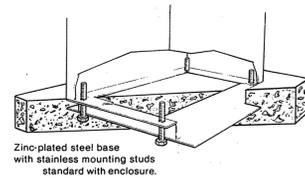


Note: Allow enough extra wire length to facilitate one cut-off and reconnection.



### Stainless Steel Controller Enclosure

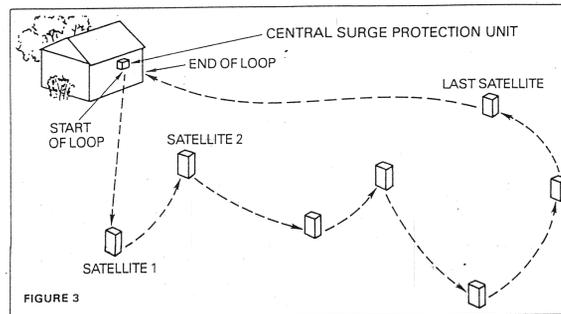
SPECIFICATION DRAWING FOR CONTROLLER ENCLOSURE	
ENCLOSURE AND BASE	MODEL NO. SB-18 SS
OPTIONAL PEDESTAL	PART NO. PED-18 SS



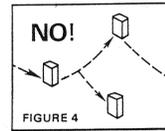
**NOTE: TORO NETWORK 8000 CONTROLLER ENCLOSURE SHALL BE INSTALLED IN A LEMUER ENCLOSURE**

### Connecting Signal Cable Continuity MODEL # MP 7162D-A1

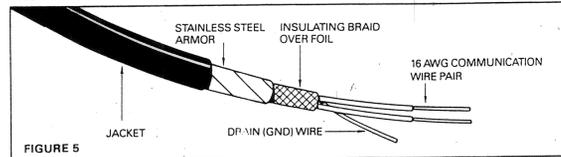
1. Route and connect armored signal cable from Central Surge Protection Unit (SPU) to satellite controllers. Cable must be installed to provide a complete communications loop returning uninterrupted to SPU as shown in illustration (see Figure 3).



Note: Never install signal cable to controllers as shown in Figure 4. Satellite malfunction will occur.



**WARNING:** STAINLESS STEEL ARMOR COMPONENT OF SIGNAL WIRE CABLE IS EXTREMELY SHARP ON EDGES AND CAN BE HAZARDOUS IF NOT HANDLED PROPERLY. WEARING PROTECTIVE GLOVES WHEN WORKING WITH ARMORED CABLE IS RECOMMENDED TO HELP PREVENT INJURY.



## TORO NETWORK 8000

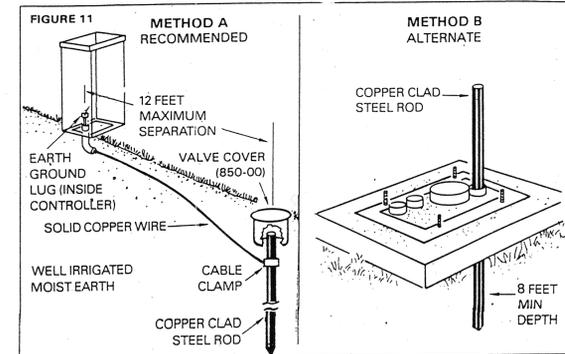
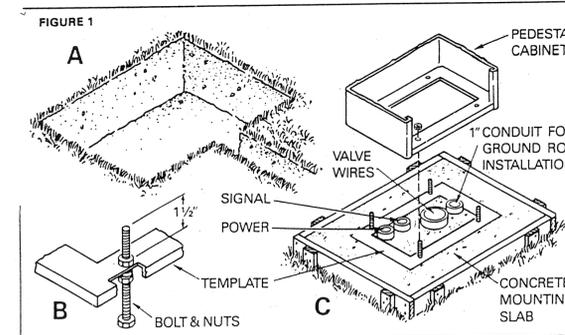
### Installation Procedure

The Network 8000 Satellite has a metal pedestal mount housing designed for outdoor installation on a concrete slab. Mounting hardware and template are provided for proper mounting stud placement.

1. Choose a location such that the Satellite Controller is not the highest object in the general vicinity. (Satellite will be susceptible to lightning strikes if it is the highest object.) If this cannot be avoided, drive a steel rod into the earth a safe distance from the Satellite to take any strikes.
2. Dig a rectangular hole for mounting slab approximately 18" x 24" x 12" deep, and a connecting trench 6" wide x 12" deep (see Figure 1A).
3. Position a 3" diameter PVC sweep elbow into hole and trench to provide an access passage for valve control wiring.
4. Position two (2) 1" diameter PVC sweep elbows adjacent to the 3" elbow into the hole and trench to provide an access passage for power, signal cable, and grounding.

Note: If ground rod installation method "B" (as shown in Figure 11, page 8) is preferred, install a 12" length of 1" diameter PVC pipe as shown in Figure 1C.

5. Backfill around pipes to provide an even 4" deep floor for concrete.
6. Construct a level wooden form around rectangular hole and fill with concrete.
7. Prepare mounting template with mounting hardware as shown in Figure 1B and press template into soft concrete until flush with finished surface.
8. When concrete has completely hardened, remove nuts from mounting studs, position Satellite cabinet on studs, and secure with four (4) nuts (see Figure 1C).



### Earth Ground Resistance

The earth ground resistance must not exceed ten (10) OHMS as measured after installation using a BIDDLE MEGGER #63220 ground tester or an ASSOCIATE RESEARCH Vibroground Instrument used in accordance with the specific instrument manufacturer's instructions.

For proper grounding methods review Grounding Specifications for Irrigation Systems form no 364-0038 supplied with this brochure.

**WARNING:** A PERIODIC CHECK OF THE ADEQUACY OF YOUR EARTH GROUND(S) IS NECESSARY FOR SAFE OPERATION. LOCAL WEATHER CONDITIONS OR SETTLING OF THE EARTH COULD AFFECT THE GROUND AND CAUSE THE RESISTANCE TO EXCEED TEN (10) OHMS, IN WHICH CASE A SERIOUS HAZARD TO EQUIPMENT AND/OR PERSONNEL COULD EXIST. RECHECK ALL ELECTRICAL AND MECHANICAL CONDITIONS FOR TIGHTNESS.

Note: If you are unsure of your ground or the test method, or if you cannot achieve a resistance of ten (10) OHMS or less, contact an authorized Toro service technician for assistance.

A good ground source is a mandatory component of overall surge protection for Toro Irrigation Control Systems. Grounding electrode(s) should be placed at each automatic controller or controller group location. The resistance to the grounding electrode must not exceed 10 Ohms when measured with a Megger Earth Resistance Testing Instrument or equivalent. One or more of the following grounding methods should enable 10 Ohms or less resistance to be accomplished.

- a. A 5/8 inch diameter by 8 foot long (minimum) copper clad steel rod driven into the earth at a distance not to exceed 12 feet from the controller. Additional lengths may be required to achieve the required resistance reading.
- b. If soil conditions (i.e., ledge rock) prevent copper clad rod installation, one or more copper plates measuring 1/8 inch thick by 12 inches wide by 18 inches long can be buried under well compacted soil.
- c. A No. 6 gauge, solid conductor, non-insulated copper wire at least 150 feet long can be buried in an area moistened by the irrigation system. A trench for the grounding wire, measuring 8 inches wide (minimum) by 12 inches deep (maximum) should be positioned as far as possible from other buried wires. The trench should be backfilled with well compacted soil for maximum contact with wire.

Note: Vibratory plowing or pulling to install ground wire is not recommended. Compaction of soil around wire is difficult or impossible to achieve.



Revisions:

- △
- △
- △
- △
- △

Client and Project  
**LA SIERRA PARK**  
CITY OF RIVERSIDE

**CITY OF RIVERSIDE  
PARK & RECREATION  
DEPARTMENT**  
3900 MAIN ST.  
RIVERSIDE, CA. 92522

Sheet Descriptions

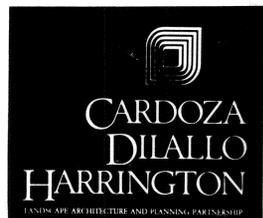
**IRRIGATION NOTES & DETAILS**

Date:

Scale: NTS

Drawn by: BH

Checked by: LAT



3151 Airway Avenue, Suite J-3  
Costa Mesa, California 92626

Sheet Number

**9** OF 9

File Number

88-500

NOT PUBLISHED, ALL RIGHTS RESERVED

**PLANS NEVER IMPLEMENTED**