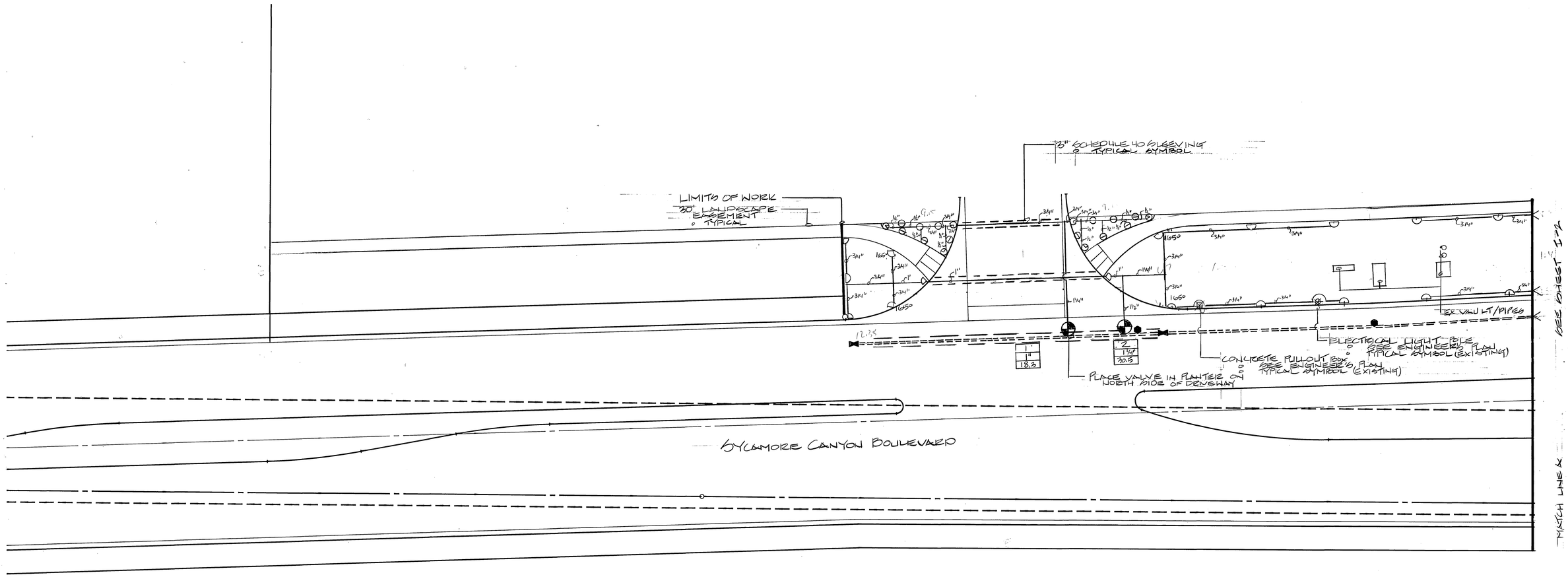

SCALE: 1" = 20'

IRRIGATION SCHEDULE

SYM	MANUFACTURER	MODEL	DESCRIPTION	NOZ	HEAD	GPM	PSI	PAT	DET
D	TORO	XP-300	STREAM ROTOR SPRAY HEAD 4" LAWN-POPUPS	-07	360'	1.43	35	90	4040
D 115°						1.82		115°	
D 165°						2.62		165°	
D						2.85		180°	
	TORO	570Z W/CHECK VALVE	SPRAYHEAD LOW GALLONAGE	12-Q	12.5'	.85	35	90	4040
				12-120°		.95		120°	
				12-H		1.1		180°	
				12-240°		1.4		240°	
				12-270°		1.55		270°	
				12-F		2.2		360°	

SYM	DESCRIPTION	MANUFACTURER	MODEL/COMMENTS	DET
	POINT OF CONNECTION WATER METER	TYPE PER WMWD STANDARDS & REQUIREMENTS	1½" METER - INSTALLATION PER WMWD REQUIREMENTS	—
	REDUCED PRESSURE BACKFLOW PREVENTER	FEBCO	825Y, 1½"	4011
	MANUAL GATE VALVE	NIBCO	T-113, 2"	4020
	ELECTRIC CONTROLLER W/ LOCKING LID	RAINBIRD - 24 STATION	ISC-24 W/ WALL MOUNT & LOCKING LID	4070
	RAIN SHUTOFF DEVICE	WSI, INC.	RAINGUARD	1-11
	AUTOMATIC VALVE SCHEDULE 40 PIPE ON PRESSURE SIDE TO MATCH PIPE SIZE ON NON-PRESSURE SIDE	RAINBIRD (EFA-CP)	SIZE AS INDICATED — STATION # — VALVE SIZE — GPM	4030
	QUICK COUPLER - LOCATE APPROX. 100' O.C. PER CITY OF RIV. REQ.. PLACE IN VALVE BOX.	RAINBIRD	44 LRC - 1"	4050
	ELECTRIC METER (POLE)	PER CITY OF RIVERSIDE REQUIREMENTS	SERVICE PEDESTAL ENCLOSED METER	3008

PIPING SCHEDULE

SYMBOL	DESCRIPTION	RATING
═══	PRESSURE LINE - 2", USE 1" TO CONNECT QUICK COUPLERS TO MAIN LINE	SCHEDULE 40
6 1½"	½" NON-PRESSURE LINE	CLASS 200
6 3/4"	3/4"	
6 1"	1"	
6 1¼"	1¼"	
6 1½"	1½"	

NOTES:

- MAXIMUM DEMAND SHALL BE 30.9 GPM AT 35 PSI HEAD PRESSURE W/ 60 PSI AT POINT OF CONNECTION.
- ALL IRRIGATION PIPES UNDER PAVED AREAS SHALL BE SCHEDULE 40 AND IN SCHEDULE 40 SLEEVING.
- THIS SYSTEM IS DIAGRAMMATIC. ALL PIPES, VALVES, ETC. SHOWN IN PAVED AREAS OR AREAS OTHER THAN DESIGN. VEGETATION ONLY, SHALL BE INSTALLED IN PLANTING AREAS. PLACE BACKFLOW PREVENTERS BEHIND SHRUBS TO SCREEN FROM VIEW. (TO BE INSTALLED BY WMWD)
- ANY DEVIATION FROM THE DESIGNED IRRIGATION SYSTEM OR ANY MATERIALS SUBSTITUTION WILL VOID SYSTEM INTEGRITY OF LANDSCAPE ARCHITECTS DESIGN.
- ANY MATERIALS SUBSTITUTION SHALL BE OF EQUAL TYPE & QUALITY & WILL REQUIRE WRITTEN CITY APPROVAL.
- APPROPRIATE SPRAY PATTERNS & HEADS SHALL BE USED IN ALL LOCATIONS.
- USE 6" POP-UPS IN TURF & 12" POP-UPS IN GC/SHRUBS.
- LOCATE VALVES & CONTROLLER - PER OWNER.
- ELECTRIC POWER FOR CONTROLLER - INSTALL UNDERGROUND FEED W/ PEDESTAL & METER ADJACENT TO ELECTRIC CONTROLLER W/ STANDARD VOLTAGE PER CITY STANDARD DETAIL #3008 & 4060.
- PROVIDE, BUNDLE, LABEL AND INSTALL IN VALVE BOX W/ TWO (2) EXTRA CONTROLLER WIRES AND ONE (1) COMMON WIRE AT EACH END OF MAINLINE RUN.

HYDRAULIC CALCULATIONS

PRESSURE LOSS FOR CONTROL VALVE		A-2
1"	Water Meter @ 30.9 GPM	6.4
1½"	Backflow Preventer	9.0
710	ft of 2" PVC (315) Main Line	5.5
20	ft of 1½" PVC ____ Class 200	.41
100	ft of 1" PVC ____ Class 200	3.86
40	ft of 3/4" PVC ____ Class 200	1.72
—	ft of — PVC — Class 200	0.0
—	ft of — PVC — Class 200	0.0
1¼"	Electric Control Valve	6.0
Lateral Line Loss (Fixed @ 5.0)		N/A
Fittings (20% of Main Line Loss)		1.1
Sprinkler Head Operating Pressure		35
Elevation (Loss or Gain)		-3.03
Miscellaneous (Fixed @ 5.0)		5.0
Operating Pressure		69.96
STATIC PRESSURE		80.0
RESIDUAL PSI		= 10.09

Underground Service Alert
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TWO WORKING DAYS BEFORE YOU DIG

REGISTERED PROFESSIONAL ENGINEER MATTHEW E. WEBB No. 37385 Exp. 6-30-92 CIVIL STATE OF CALIFORNIA

BENCH MARK

U.S.C.& G.S. DESIGNATION Z 749, RIVERSIDE COUNTY DESIGNATION 600-47-68, STANDARD BRASS DISK STAMPED Z 749 1945 ESTABLISHED BY C.& G.S. 1.7 MILES NORTHWEST ALONG THE ATCHISON, TOPEKA AND SANTA FE RAILWAY FROM THE STATION AT MARCH FIELD, SET BETWEEN THE TRACK AND U.S. HIGHWAY NO. 395 (I 215) 64.5 FEET SOUTHWEST OF THE SOUTHWEST EDGE OF THE HIGHWAY, 43.6 FEET NORTHEAST OF THE NORTHEAST RAIL OF TRACT, 20 FEET SOUTHWEST OF POST, IRON BENCH MARK DISK SET IN TOP OF A CONCRETE POST 0.4 FEET ABOVE GROUND.

DATE 1970 ELEVATION: 1536.119

A. JAMES MONTGOMERY AND ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
4515 Central Avenue, Suite 204
Riverside, California

REGISTERED LANDSCAPE ARCHITECT A. James Montgomery III Signature 11-8-89 Date STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
RIVERSIDE, CALIFORNIA

APPROVED BY Matthew E. Webb DATE 3/8/90
R.E. No. 37385

W.O. 85-105 FOR: F.B. 1034

MARK	REVISIONS	APPR.	DATE
1-9-90	PER PARKWAY/IRRIGATION DEPT		
2-9-90	PER PARKS & RECREATION DEPT		

DESIGNED BY ____ DRAWN BY ____ CHECKED BY ____

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		3/6/90
PARK DEPARTMENT		3/6/90
~~TRAFFIC DIVISION~~		
~~CHIEF PUB.WKS.ENGR.~~		

APPROVED BY Barry Paul
DIRECTOR OF PUBLIC WORKS
DATE 3/6/90

PEPSI-COLA FACILITY
Parkway Landscape Design
Sycamore Canyon Business Park
Riverside, California

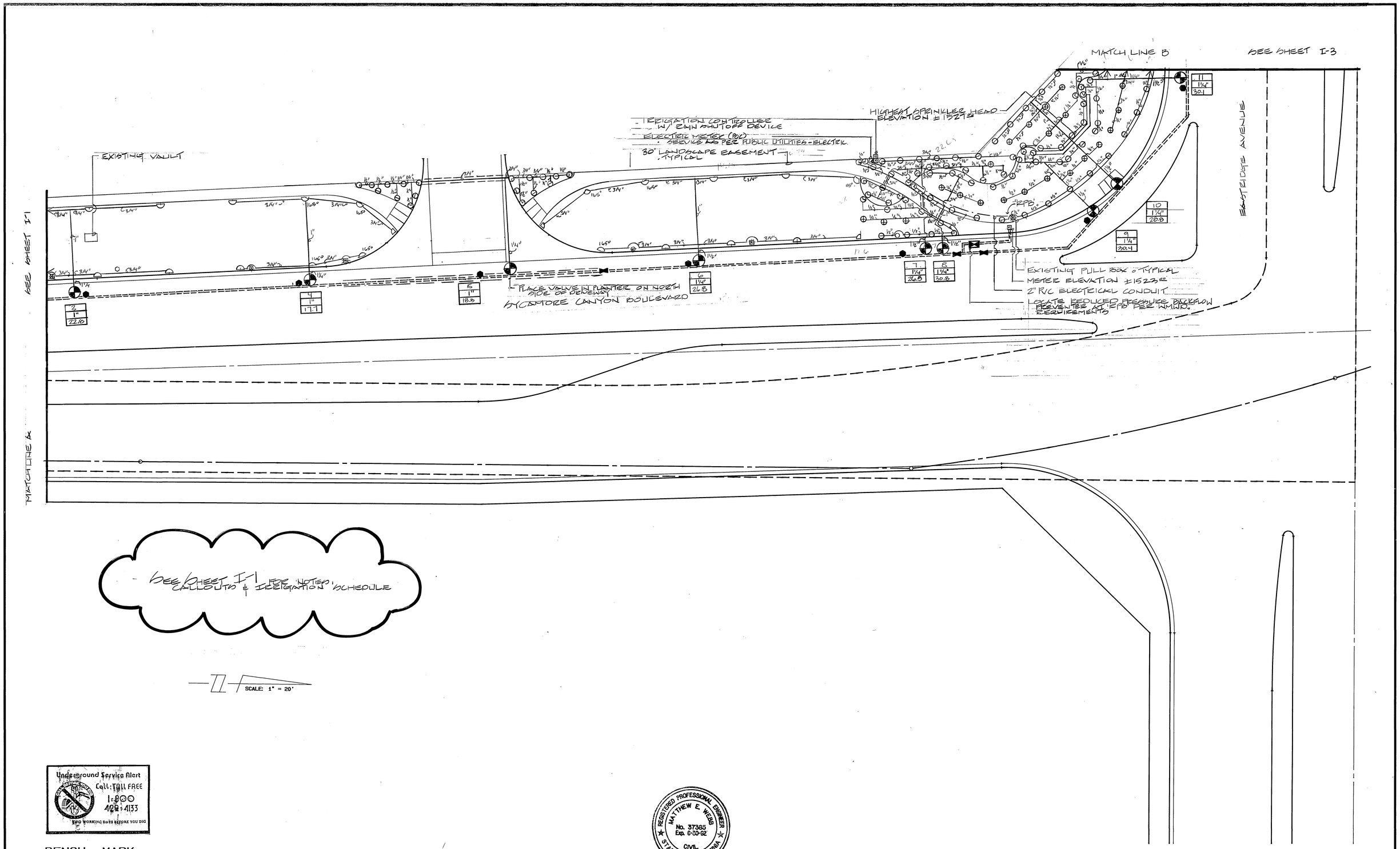
IRRIGATION PLAN

SCALE: 1" = 20'-0"

ACCOUNT No. FN 9017
DRAWING NUMBER
R-3028-A
SHEET I-1 OF I-5
89-3009 JBM

PC-3037

SHEET 19 - 23 [0, 34] PF: 85105 4619 02-Nov-89 03:44 PM / 85-105-1
INDEXED 8-28-90. 4H



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DATE 1970 ELEVATION: 1536.119

REGISTERED PROFESSIONAL ENGINEER MATTHEW E. WEBB No. 37385 Exp. 6-30-92 CIVIL STATE OF CALIFORNIA

A. JAMES MONTGOMERY AND ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
4515 Central Avenue, Suite 204
Riverside, California

REGISTERED LANDSCAPE ARCHITECT A. James Montgomery 1342 Signature 11-29 Date STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
RIVERSIDE, CALIFORNIA

APPROVED BY Matthew E. Webb DATE 3/8/90
R.E. No. 37385

W.O. 85-105 FOR: F.B. 1034

MARK	REVISIONS	APPR.	DATE
1-90	PER PARK & RECREATION DEPT		
3-90	PER PARK & RECREATION DEPT.		

DESIGNED BY ____ DRAWN BY ____ CHECKED B ____

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER	MC	3-6-90
PARK DEPARTMENT	[illegible]	3-6-90
~~TRAFFIC DIVISION~~		
~~CHIEF PUB.WKS.ENGR.~~		
~~MC~~	~~3/6/90~~	

APPROVED BY [signature]
DIRECTOR OF PUBLIC WORKS
DATE 3/6/90

PEPSI-COLA FACILITY
Parkway Landscape Design
Sycamore Canyon Business Park
Riverside, California

IRRIGATION PLAN

SCALE: 1" = 20'-0"

ACCOUNT No. 9017
DRAWING NUMBER
R-3028-A
SHEET I-2 OF I-5
89-3009 JRM

PC-3037

SHEET 44 - 23[0.34]PF: 85105 4644 02-Nov-89 03:51 PM / 85-105-1
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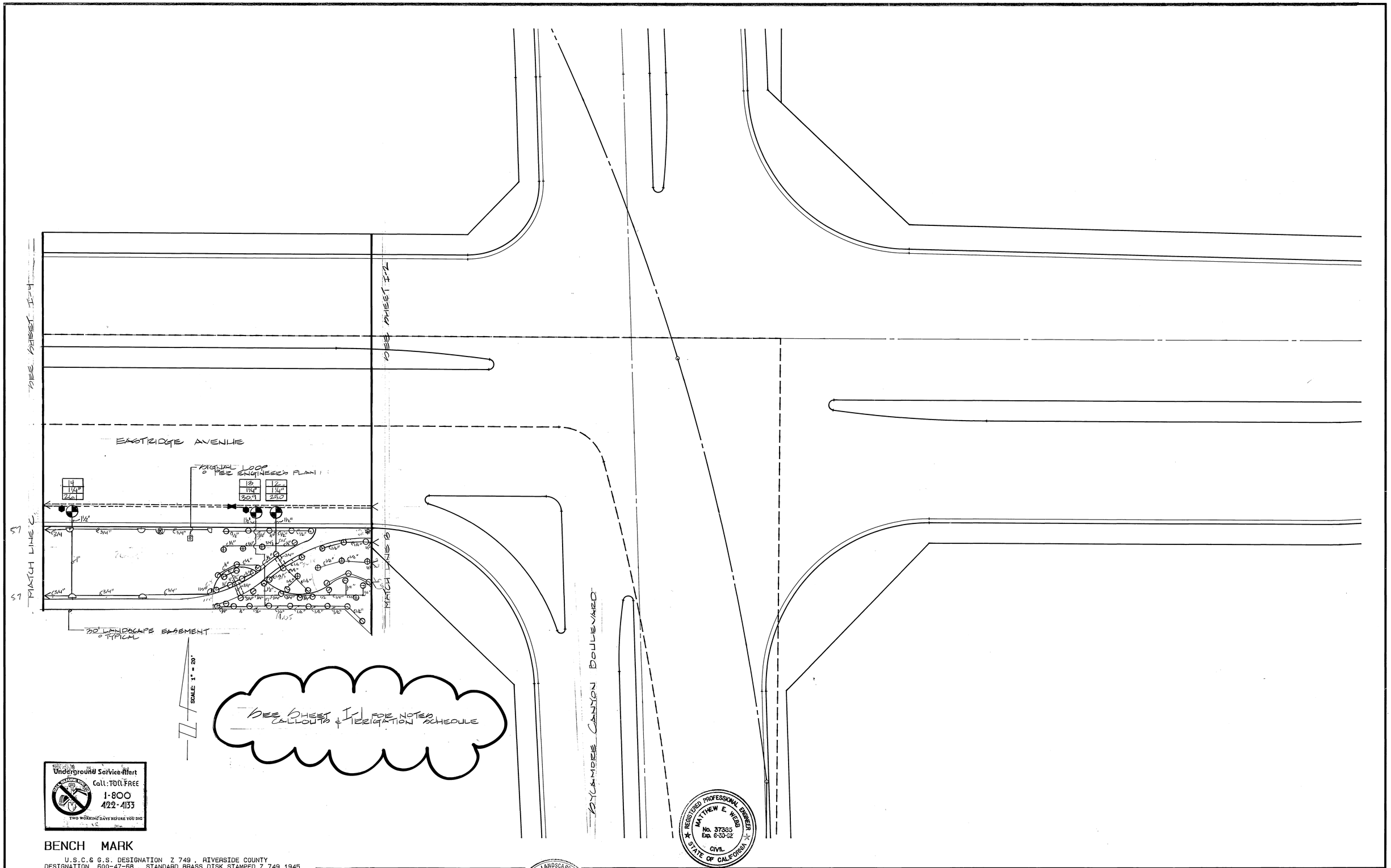

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DATE 1970 ELEVATION: 1536.119

A. JAMES MONTGOMERY AND ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
4515 Central Avenue, Suite 204
Riverside, California

REGISTERED LANDSCAPE ARCHITECT
A. James Montgomery
Signature
Date
STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
RIVERSIDE, CALIFORNIA

APPROVED BY Matthew E. Webb DATE 3/8/90
R.E. No. 37385

W.O. 85-105 FOR: F.B. 1034

MARK	REVISIONS	APPR.	DATE
1	PER PARK & RECREATION DEPT		3/90
2	PER PARK & RECREATION DEPT		3/90

DESIGNED BY ____ DRAWN BY ____ CHECKED BY ____

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		3/6/90
PARK DEPARTMENT		3/6/90
~~TRAFFIC DIVISION~~		
~~CHIEF PUB. WKS. ENGR.~~		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/6/90

PEPSI-COLA FACILITY
Parkway Landscape Design
Sycamore Canyon Business Park
Riverside, California

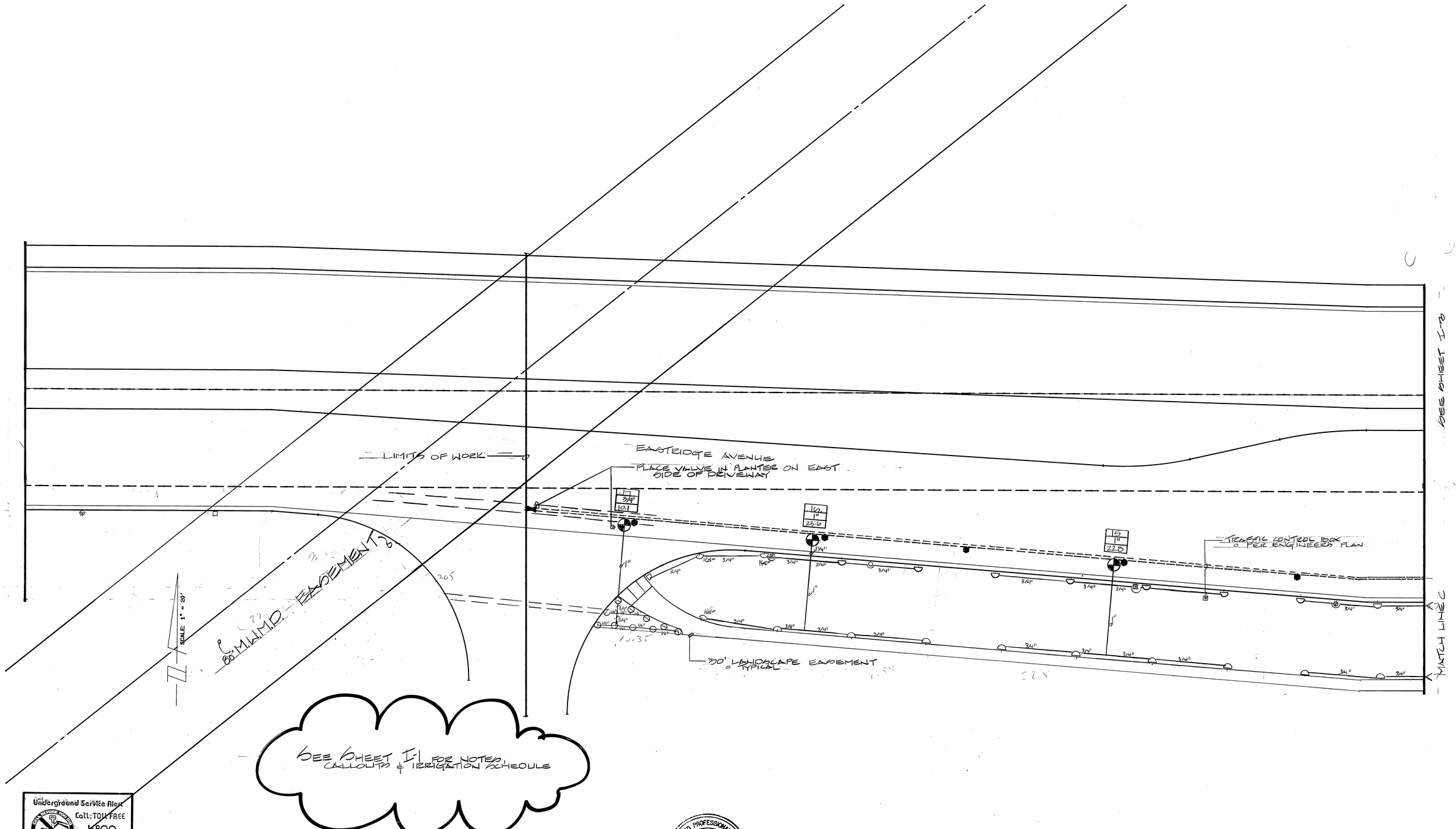
IRRIGATION PLAN

SCALE: 1" = 20'-0"

ACCOUNT No. R9017
DRAWING NUMBER
R-3028-A
SHEET I-3 OF I-5
89-3009 JEM

PC-3037

SHEET 23 - 23[0,34]PF: 85105 4623 02-Nov-89 03:46 PM / 85-105-1
INDEXED 8-28-90 KH



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TWO WORKING DAYS BEFORE YOU DIG

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DATE 1970 ELEVATION: 1536.119

REGISTERED PROFESSIONAL ENGINEER MATTHEW E. WEBB No. 37385 Exp. 6-30-92 CIVIL STATE OF CALIFORNIA

A. JAMES MONTGOMERY AND ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
4515 Central Avenue, Suite 204
Riverside, California

REGISTERED LANDSCAPE ARCHITECT A. James Montgomery 1982 Signature 11-29 Date STATE OF CALIFORNIA

ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
RIVERSIDE, CALIFORNIA

APPROVED BY Matthew E. Webb DATE 3/8/90
R.E. No. 37385

W.O. 85-105 FOR: F.B. 1034

MARK	REVISIONS	APPR.	DATE
1.90	PER PARK & RECREATION DEPT		
3.5.90	PER PARK & RECREATION DEPT.		

DESIGNED BY ____ DRAWN BY ____ CHECKED B. ____

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		3/6/90
PARK DEPARTMENT		3/6/90
~~TRAFFIC DIVISION~~		
~~CHIEF PUB.WKS.ENGR.~~		

APPROVED BY
DIRECTOR OF PUBLIC WORKS
DATE 3/6/90

PEPSI-COLA FACILITY
Parkway Landscape Design
Sycamore Canyon Business Park
Riverside, California

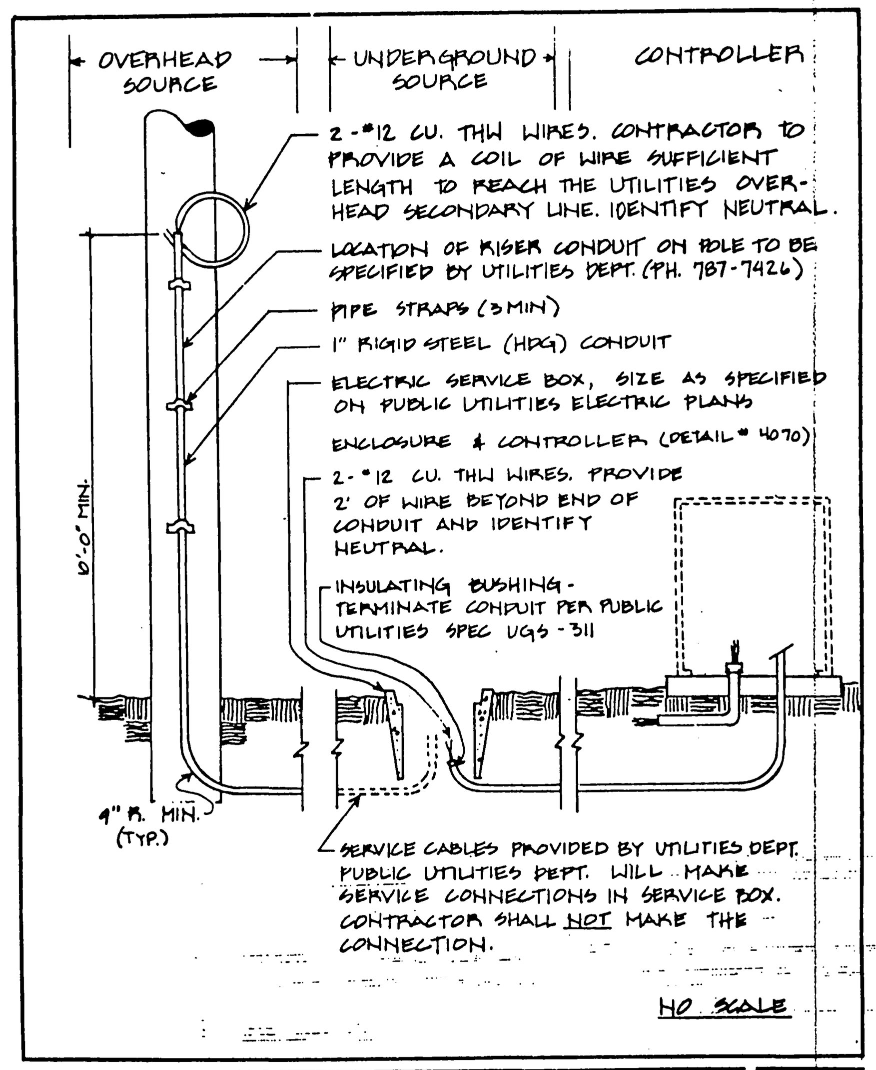
IRRIGATION PLAN

SCALE: 1"=20'-0"

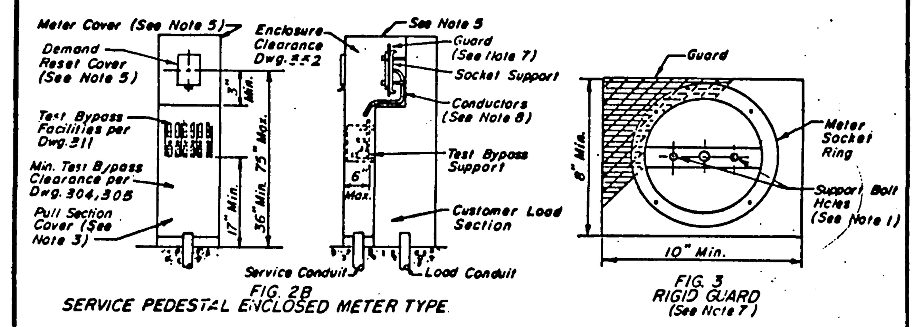
ACCOUNT No. 9017
DRAWING NUMBER
R-3028-A
SHEET I-4 OF I-15
89-3009 JRM

SHEET 26 - 23[0,34]PF: 85105 4626 02-Nov-89 03:48 PM 85-105-1
INDEXED 8-28-90 FH

PC-3037



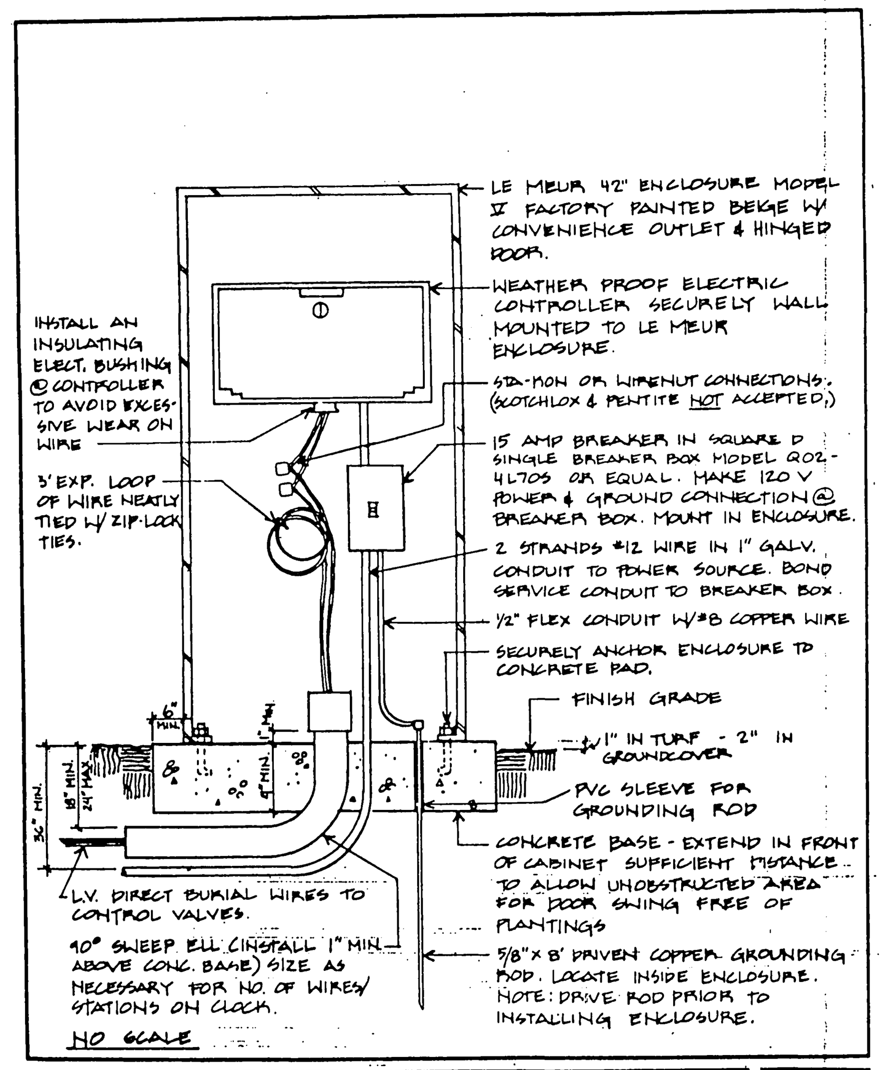
Approved / Date	Park & Recreation Department CITY OF RIVERSIDE	Detail No.
Revised / Date	UTILITY SERVICE	4060



NOTES:
1. Meter socket shall be securely attached to the meter socket support by more than one bolt.
2. Meter socket configuration requirements are listed on Dwg. 202.
3. Wireways shall have minimum dimensions of 3-1/2 inches wide opening, 18 inches high, and 2-3/4 inches deep and shall be accessible from the front, side or rear through a removable, sealable, full-length cover. The bottom of all wireways shall have provisions for accepting a minimum 2 inch conduit. A suitable alternate construction for a wireway is conduit which permits pull and termination of the service conductors directly into the test-bypass facilities (fig 5 not included).
4. Service conductors are to be terminated on the test-bypass facilities (or landing lug when provided). If landing lugs are provided, insulated cable or bus shall be installed between the landing lugs and the test-bypass facilities (see Fig. 4).
5. If the meter is enclosed, the enclosing cover (top and front) shall be removable for test and inspection of the meters by the serving agency. The metering cover shall have a demand reset cover which shall be hinged, lockable and constructed of steel with minimum dimensions of 6 inches wide by 6 inches high.
6. The meter socket shall be provided with a full socket rim for securing the meter in place.
7. When a meter socket panel is not used, a rigid non-conductive or grounded metallic guard shall be mounted behind and attached to the meter socket rim to prevent accidental contact with energized parts. See Fig. 3.
8. Insulated cable or bus conductor shall be installed between the test-bypass facilities and the meter socket.
9. Internal equipment shall be secured in place without screws or nuts on the outer surface of the enclosure that may be loosened from the outside.
10. For structural mounting and support of the pedestal, refer to the requirements of the serving agency.
11. For service conduits, refer to the reqirements of the serving agency.
12. Maximum radial distance from edge of pull section that is closest to furthest line terminal shall not be greater than 2-1/2 inches. (See Section Z-Z, Fig. 5)
13. Figure 5 neutral lug permitted on wireway side of pedestal only. (See Section Z-Z).
14. Refer to Dwg. 304 or 305 and Table 1 for Figure 5 test-bypass facilities enclosure clearances.

REV.	DATE	DESCRIPTION
1	10/87	Corrected typing

SCALE	NON-RESIDENTIAL SERVICE PEDESTALS 0-200 AMPERES 0-600 VOLTS	SH 2 OF SH 2	
DATE 10/87	ELECTRIC UTILITY SERVICE EQUIPMENT REQUIREMENTS COMMITTEE	DWG. NO. 308	REV. 1



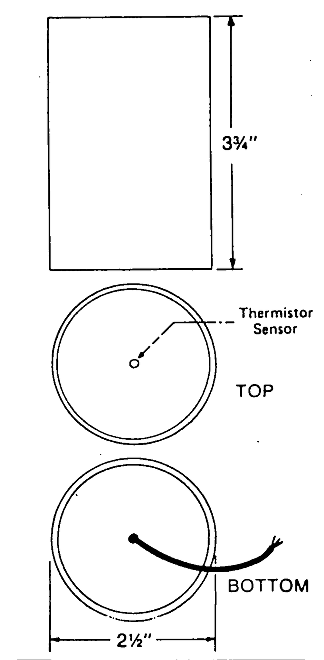
Approved / Date 10-27-86	Park & Recreation Department CITY OF RIVERSIDE	Detail No.
Revised / Date	CONTROLLER	4070

RAIN GUARD™ SPECIFICATIONS

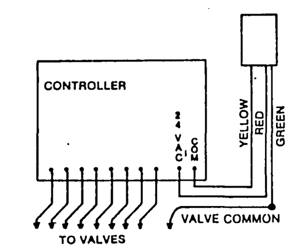
1. RAIN GUARD™ is a patented solid-state rain shutoff device which may be installed on any commercially available controller operating on 24 to 30 VAC.

RAIN GUARD™ automatically interrupts the valve common after approximately 1/4 of an inch of rain has fallen. It in no way affects the normal continuation of the clock's cycle. By interrupting the valve common during a rain it simply prevents power from getting to the valves.

Normal operation is automatically restored when the collected rainfall evaporates from the collection cup.



WIRING



1. Disconnect valve common from controller and connect to green wire on RAIN GUARD™.
2. Connect yellow wire on RAIN GUARD™ to the valve common post on controller.
3. Connect red wire from RAIN GUARD™ to 24-30 volt AC power source post on controller. This is usually labeled "Master Valve", "Pump Start", or "24 VAC".

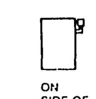
SPECIFICATIONS

Operating voltage 24 to 30 volts, AC
Maximum switching current 1 amp
Minimum switching current 0.1 amp or less
Static charge protected

LOCATION

RAIN GUARD™ must be installed in "clear space" where it is exposed to unobstructed rainfall and which is clear of irrigation spray.

RAIN GUARD™ is designed to fit over an appropriate length of 1-1/2 inch standard PVC pipe or it may be installed with brackets to a suitable location (a bracket installation kit is available from your dealer).



ON SIDE OF CONTROLLER USING PIPE ELBOW.

TESTING

1. Set controller to irrigate a section you can see. Place a wet cloth into the collection cup so that it makes contact with the sensor (green "button" in the middle), or add water to the cup. Irrigation should shutdown within one minute. (An audible click will be heard prior to shutdown).

TROUBLE SHOOTING

If unit fails to operate —
1. Check 24-30 volt AC port on controller to be sure it is providing power.
2. Check all other connections described under "Wiring" section above.

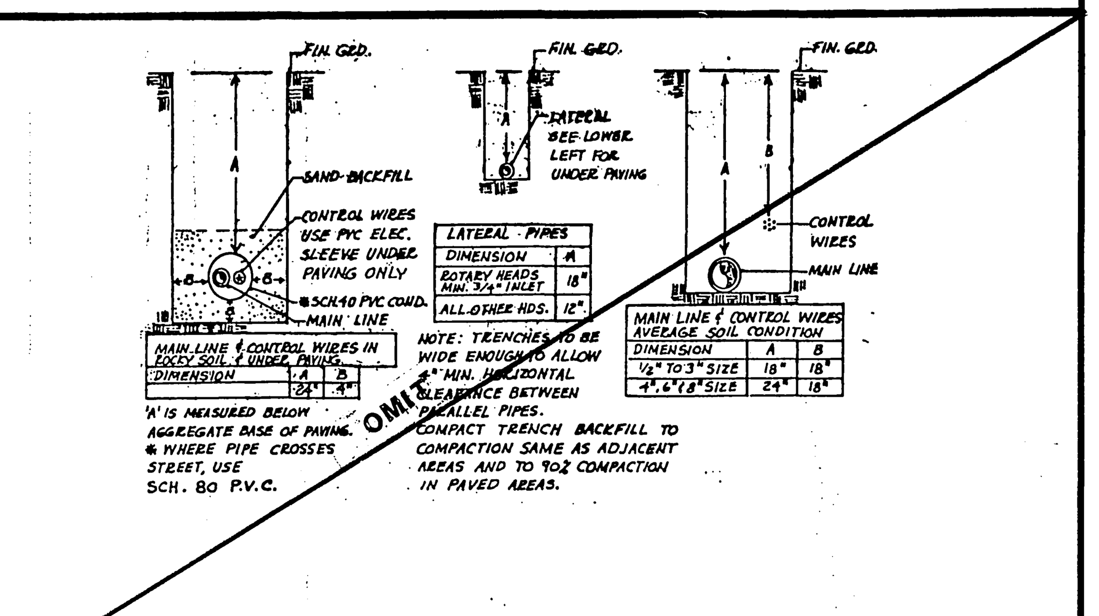
HELP LINE:

If you need assistance call Water Conservation Systems, Inc. collect at (714) 621-5805.

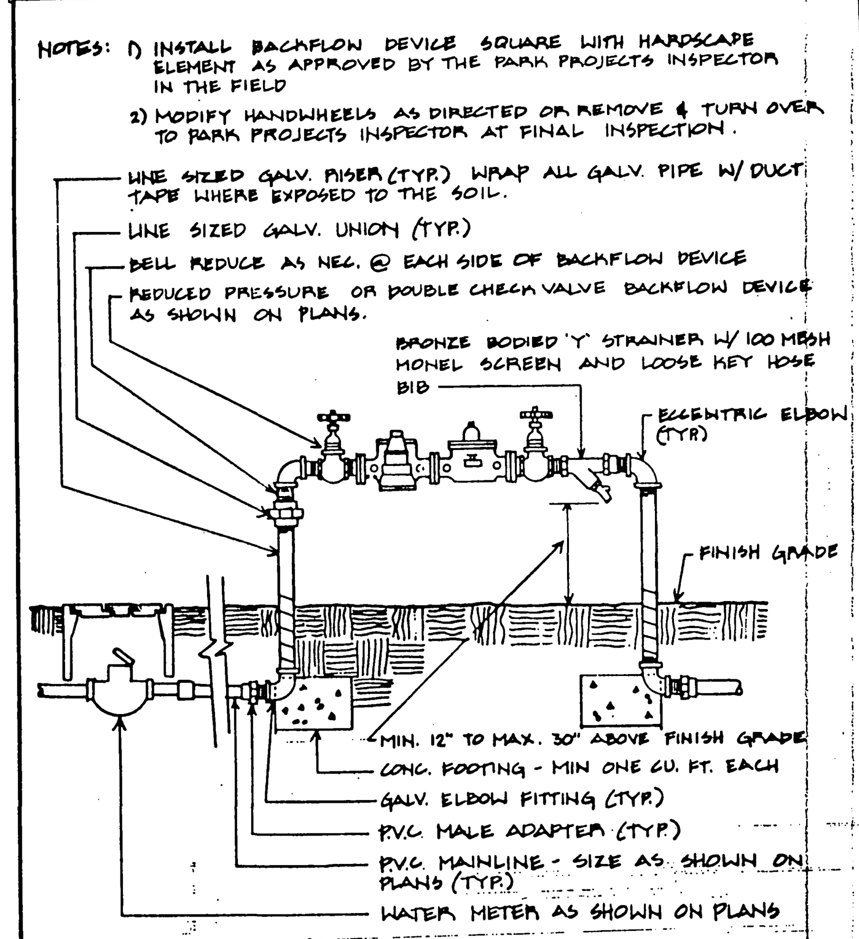
I-11 Rain Guard

IRRIGATION NOTES

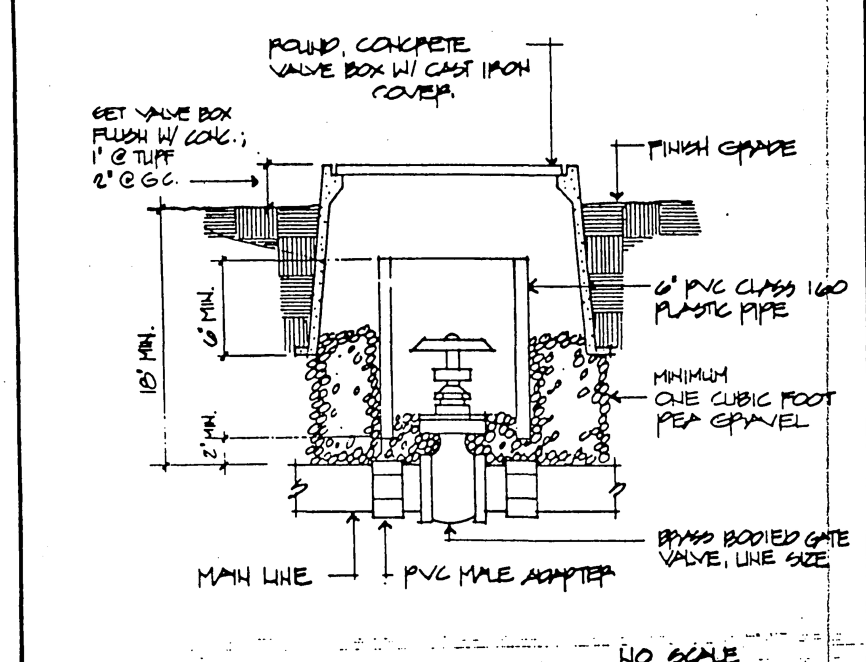
- For irrigation procedures i.e. (general, materials, workmanship, installation and clean-up), see specifications.



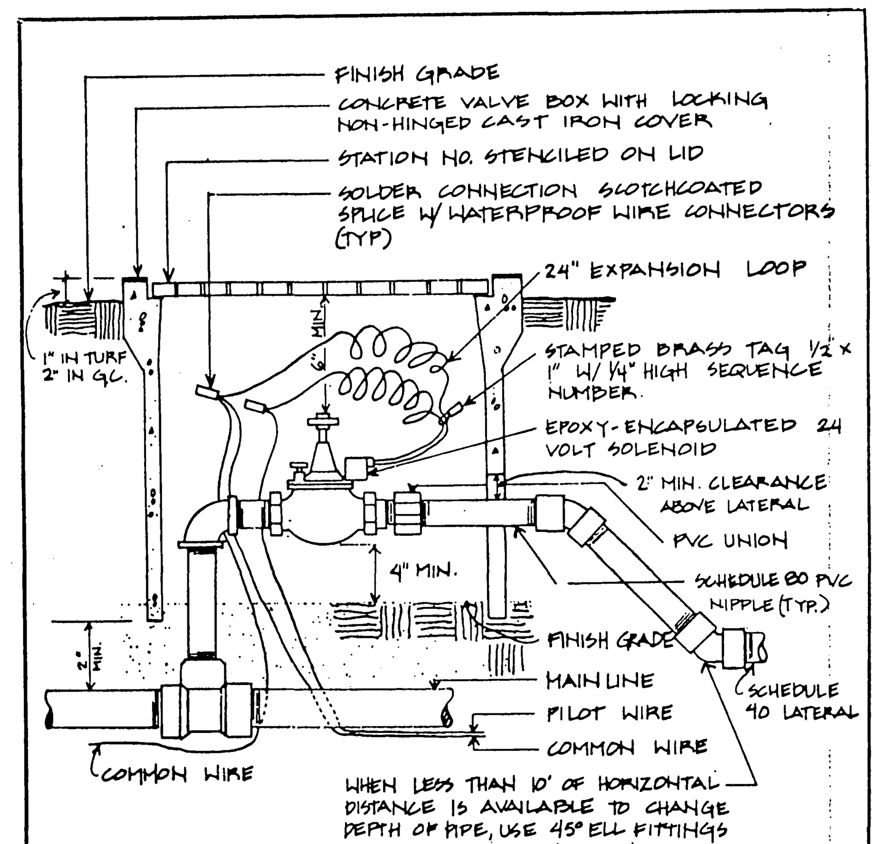
Standard Trenching For Irrigation



Approved / Date 7/21/86	Park & Recreation Department CITY OF RIVERSIDE	Detail No.
Revised / Date	REDUCED PRESSURE/DOUBLE CHECK VALVE BACKFLOW DEVICE	4011



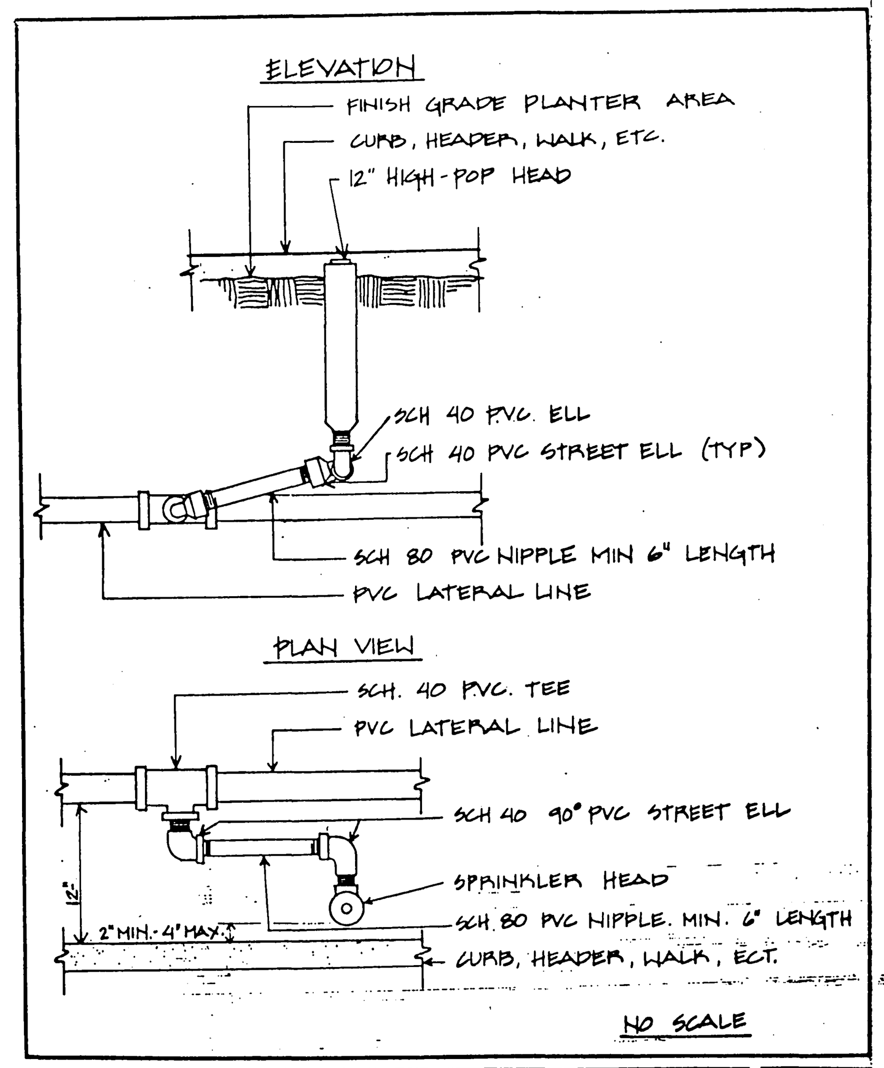
Approved / Date	Park & Recreation Department CITY OF RIVERSIDE	Detail No.
Revised / Date	GATE VALVE	4020



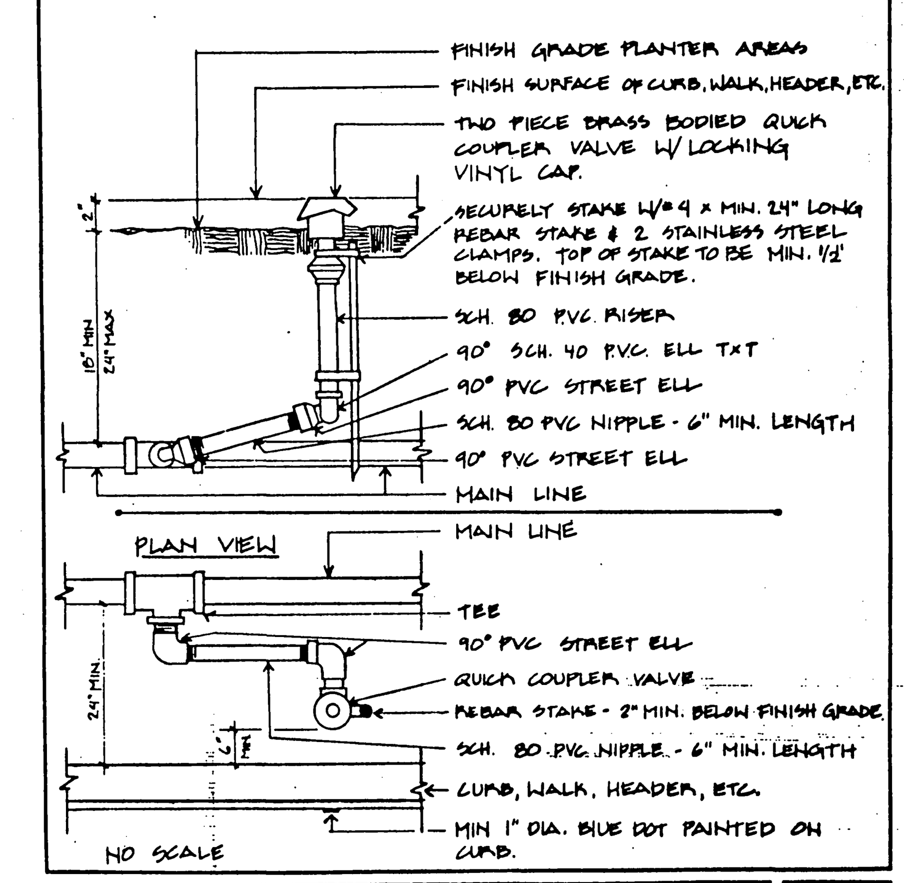
NOTES: 1) EACH VALVE SHALL HAVE ITS OWN TEE OR ELL CONNECTION TO THE MAINLINE. NO MANIFOLD CONNECTIONS
2) PROVIDE MINIMUM 3' CLEAR DISTANCE BETWEEN VALVES.
3) INSTALL VALVE BOX IN A MANNER THAT BOX DOES NOT REST ON ANY IRRIGATION LINE.

NO SCALE

Approved / Date 10-27-86	Park & Recreation Department CITY OF RIVERSIDE	Detail No.
Revised / Date	AUTOMATIC VALVE	4030



Approved / Date 10-27-86	Park & Recreation Department CITY OF RIVERSIDE	Detail No.
Revised / Date	SPRAY HEAD	4040



Approved / Date 10-27-86	Park & Recreation Department CITY OF RIVERSIDE	Detail No.
Revised / Date	QUICK COUPLER	4050

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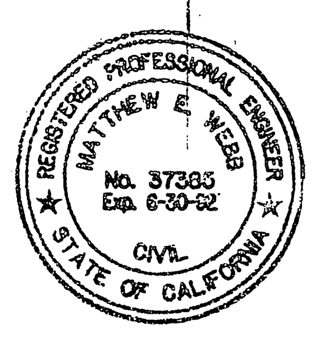
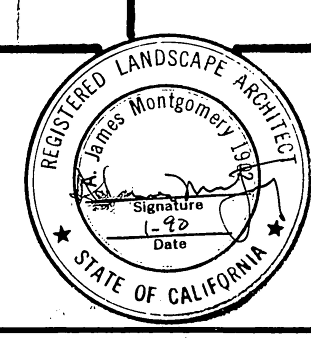
422-4133
TWO WORKING DAYS BEFORE YOU DIG



A. JAMES MONTGOMERY AND ASSOCIATES, INC.
LANDSCAPE ARCHITECTS
4515 Central Avenue, Suite 204
Riverside, California



ALBERT A. WEBB ASSOCIATES
CIVIL ENGINEERS
RIVERSIDE, CALIFORNIA
APPROVED BY Matthew E. Webb DATE 3/8/90
R.E. No. 37385
W.O. FOR: CITY OF RIVERSIDE F.B. 1034

MARK	REVISIONS	APPR.	DATE
1-90	PER PARK & RECREATION DEPT		
3-5-96	PER PARK & RECREATION DEPT		

DESIGNED BY ___ DRAWN BY ___ CHECKED BY ___

CITY OF RIVERSIDE, CALIFORNIA
PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE
PRINCIPAL ENGINEER		3/6/90
PARK DEPARTMENT		3-6-90
~~TRAFFIC DIVISION~~		
~~CHIEF PUB. WKS. ENGR.~~		3/6/90

APPROVED BY [signature]
DIRECTOR OF PUBLIC WORKS
DATE 3/6/90

PEPSI-COLA FACILITY
Parkway Landscape Design
Sycamore Canyon Business Park
Riverside, California
Irrigation Details and Specifications
SCALE: 1"=20'-0"

ACCOUNT No. 9017
DRAWING NUMBER
R-3028-A
SHEET I-5 OF I-5
89-3009 JRM
PC-3037

GRADING PLANS - 111 [0, 34] PF: 85105 1251 17-Jul-89 04:29 PM / 85-105-1
INDEXED 8-28-90 FH