

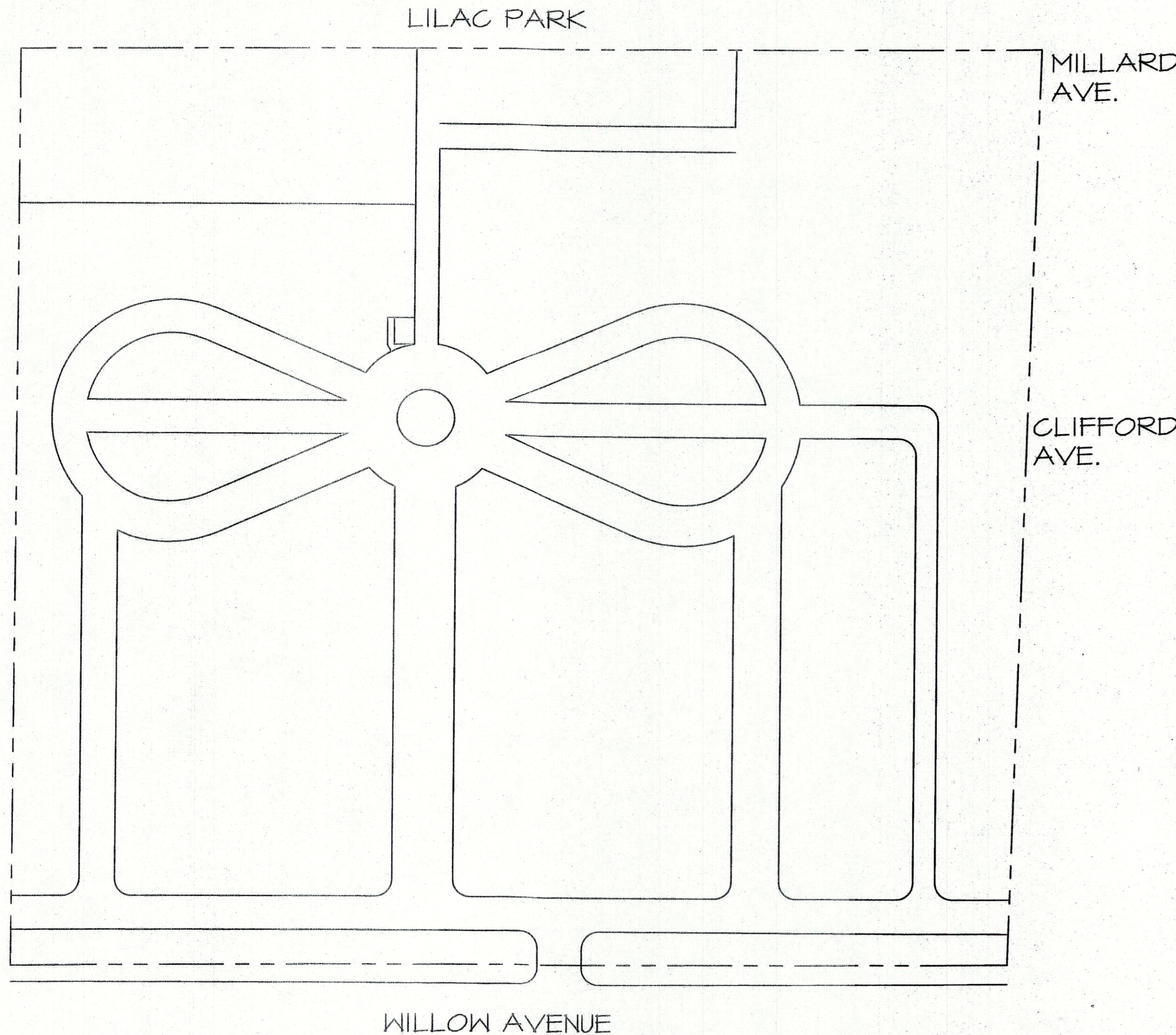
CITY OF RIALTO, STATE OF CALIFORNIA

# CONSTRUCTION PLANS

FOR

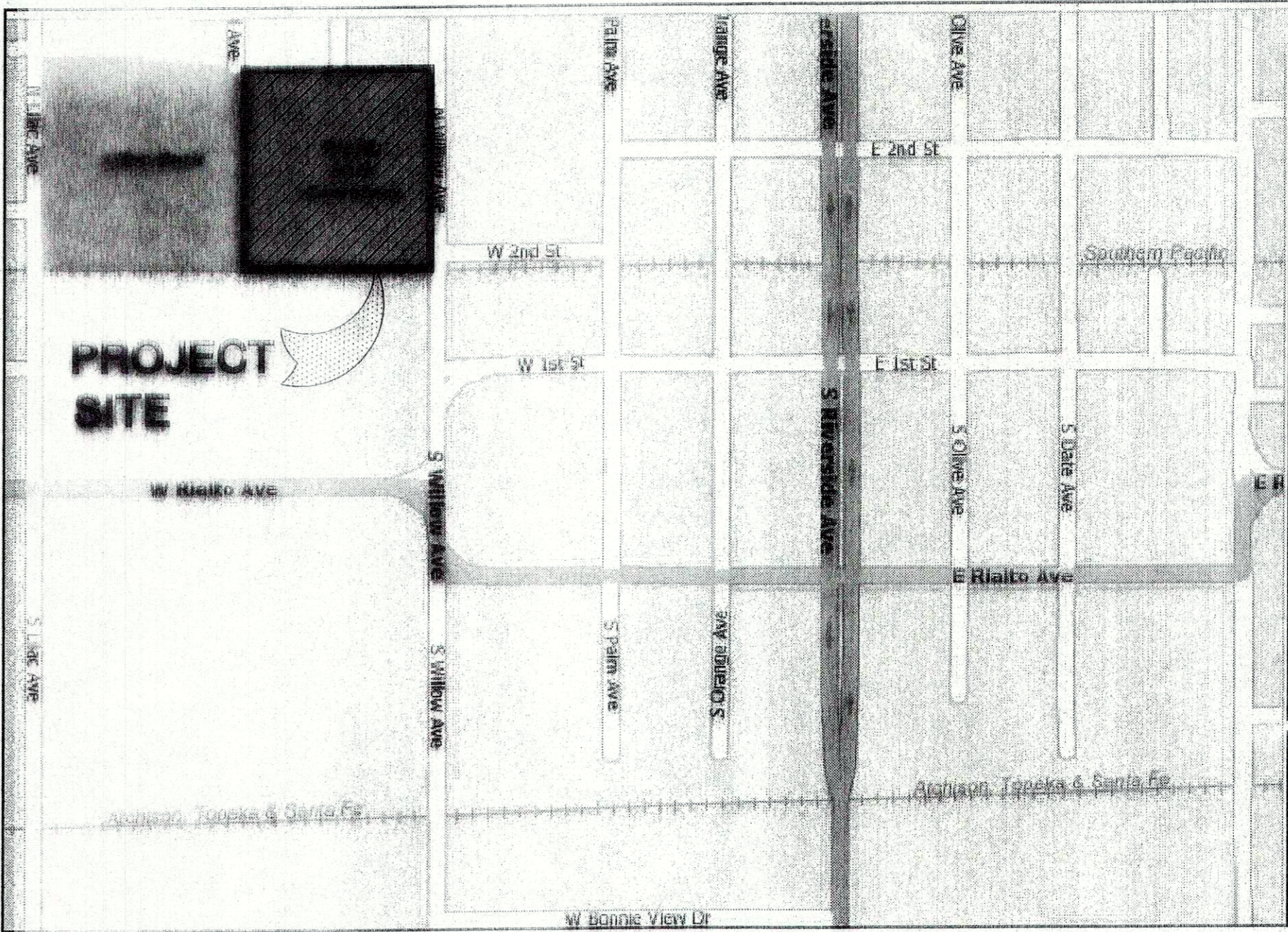
## PARK CEMETARY

200 N. WILLOW  
RIALTO, CA 92376-5826



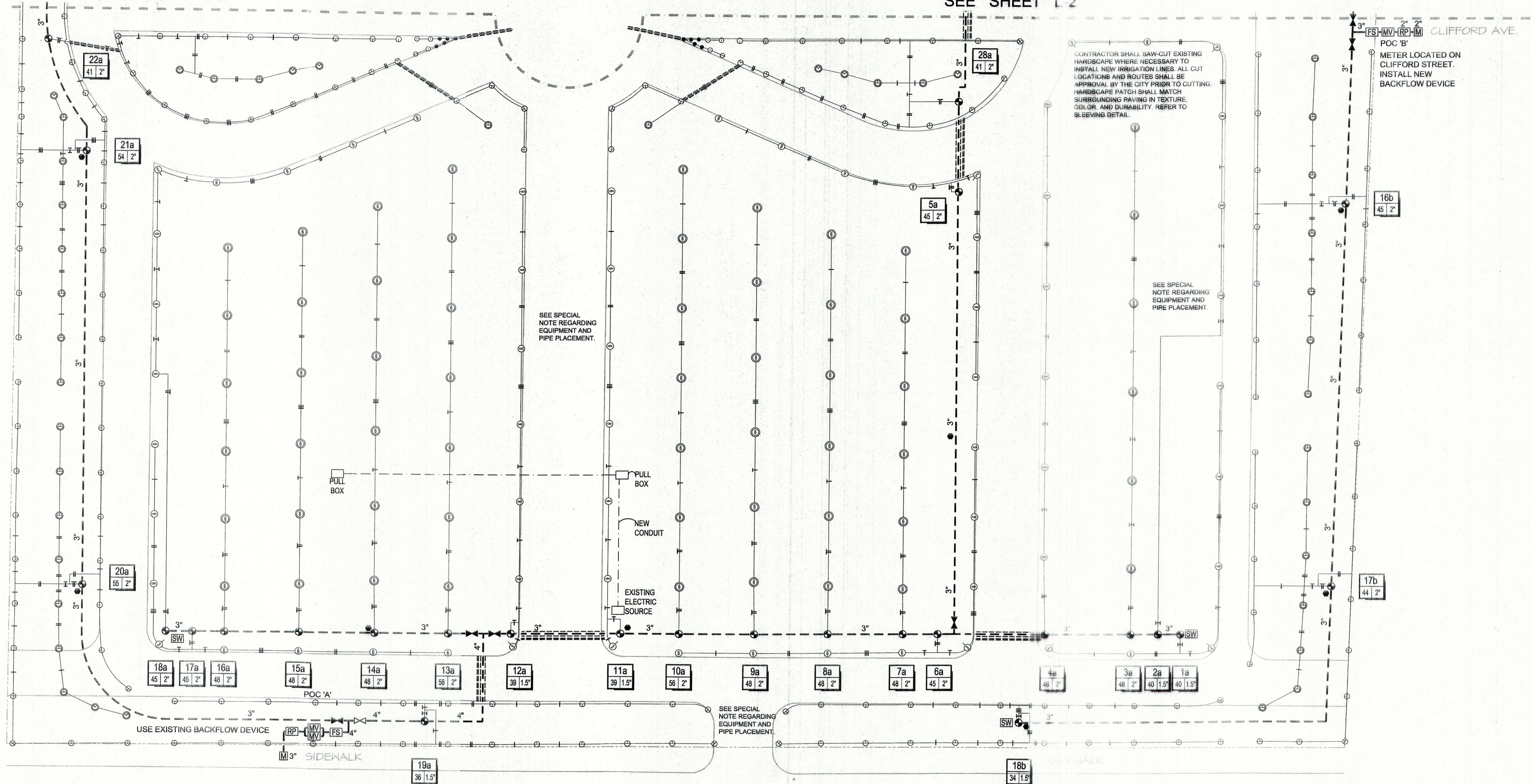
### GENERAL NOTES

1. REFER TO THE CITY STANDARD PLANS, THE 2007 UBC AND CURRENT GREENBOOK SPECIFICATIONS AS APPLICABLE.
2. CONTRACTOR TO VERIFY SITE INFORMATION INCLUDING PROPERTY LINES, TOP AND BOTTOMS OF SLOPES, ROADWAY CURB AND GUTTERS, UTILITIES AND OTHER INFORMATION AFFECTING THE SCOPE OF WORK INCLUDED ON THESE DRAWINGS. IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS SHOWN ON THE LANDSCAPE ARCHITECT'S PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR DIRECTION ON HOW TO PROCEED.
3. EXCAVATION IN THE VICINITY OF UTILITIES AND EXISTING MATERIALS SHALL BE UNDERTAKEN WITH GREAT CARE. THE CONTRACTOR BEARS FULL RESPONSIBILITY FOR THIS WORK. ANY DAMAGE CAUSED BY ANY PERSON, VEHICLE, EQUIPMENT, OR TOOL RELATED TO THE EXECUTION OF THE CONTRACT SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH ALL CONSTRUCTION OPERATIONS. ALL PIPING, CONDUIT, SLEEVES, ETC., SHALL BE SET IN PLACE PRIOR TO INSTALLATION OF CONSTRUCTION ITEMS.
5. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT UNKNOWN OBSTRUCTIONS, AREA DISCREPANCIES AND / OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS DUE TO FAILURE TO GIVE SUCH NOTIFICATIONS.
6. ALL ELECTRICAL JUNCTION BOXES FOR LIGHTS SHALL BE IN PLANTING AREAS. STAKE LOCATION PRIOR TO INSTALLATION.
7. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AT THE JOBSITE AND NOTIFY THE ENGINEER OF ANY DIMENSIONAL ERRORS, OMISSIONS OR DISCREPANCIES BEFORE BEGINNING OR FABRICATING ANY WORK. DO NOT SCALE DRAWINGS.
8. CONTRACTOR TO REMOVE ALL OVER EXCAVATED MATERIALS & DISPOSE OF OFFSITE IN AN APPROVED MANNER.



SEE SHEET L-2

SEE SHEET L-2

**SPECIAL NOTE:**

CONTRACTOR SHALL INSTALL ALL EQUIPMENT, MATERIALS, AND PIPES ALONG CEMETERY PLOT BORDERS ONLY. IN NO CASE SHALL CONTRACTOR TRENCH OR DIG WITHIN OR ACROSS PLOT BOUNDARIES. SPECIAL CARE SHALL BE TAKEN TO VERIFY EXACT BOUNDARY LINES, AND ALL PROPOSED ROUTING OF PIPES AND PROPOSED PLACEMENT OF EQUIPMENT SHALL BE MARKED AND APPROVED BY THE CITY PROJECT COORDINATOR AND THE PERSON IN CHARGE OF THE CEMETERY PRIOR TO ANY WORK.

**ELECTRICAL CONDUIT INSTALLATION**

CONTRACTOR SHALL INSTALL NON-METALLIC CONDUIT AND PULL BOXES AS SHOWN ON PLANS AND SIZED AS DIRECTED BY THE CITY PROJECT COORDINATOR. CONDUIT SHALL BE INSTALLED PER NATIONAL ELECTRIC CODE, CITY CODES, AND PER THE DIRECTION OF THE CITY PROJECT COORDINATOR.

**SHEET REFERENCES**

1. SEE SHEETS L1.1 & L1.2 FOR IRRIGATION PLANS.
2. SEE SHEETS L1.3 & L1.4 FOR IRRIGATION DETAILS.
3. SEE SHEET L1.4 FOR LEGEND, IRRIGATION NOTES, AND PRESSURE LOSS CALCULATIONS.

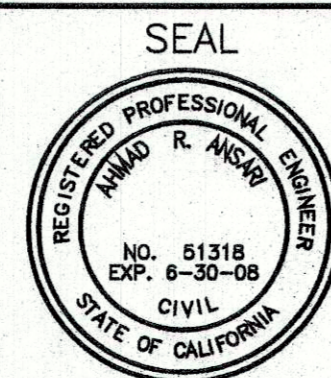


40' 30' 20' 10' 0' 20' 40'  
SCALE 1"=20'

**UNDERGROUND SERVICE ALERT**

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

MARK	REVISIONS	APPR.	DATE
DESIGNED BY: _____	DRAWN BY: _____	CHECKED BY: _____	

**RECOMMENDED BY:**

IAN DAVIDSON RLA # 2651 EXP. 6-30-08, LANDSCAPE ARCHITECT DATE: \_\_\_\_\_

**PLANNING DEPARTMENT APPROVED BY:**

AHMAD R. ANSARI, RCE 51318, EXP. 6-30-08, DIRECTOR OF PUBLIC WORKS/INTERIM CITY ENGINEER DATE: \_\_\_\_\_



**I.D.L.A.**  
Ian Davidson  
Landscape Architect

5744 CENTER STREET, SUITE 200  
RIVERSIDE, CA 92501  
P: 951.888.1888  
F: 951.888.8888  
EMAIL: IDAVIDSON@IDLAING.COM

SCALE: AS NOTED

DATE: 9-11-08

BENCH MARK:

DESCRIPTION:

B.M. No.

ELEVATION=

**CITY OF RIALTO**  
CEMETERY PARK  
IRRIGATION RENOVATION  
IRRIGATION PLAN

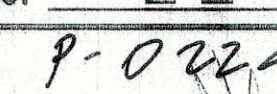
FOR: CITY OF RIALTO, PUBLIC WORKS DEPT. 335 W. RIALTO AVE, RIALTO, CA 92376

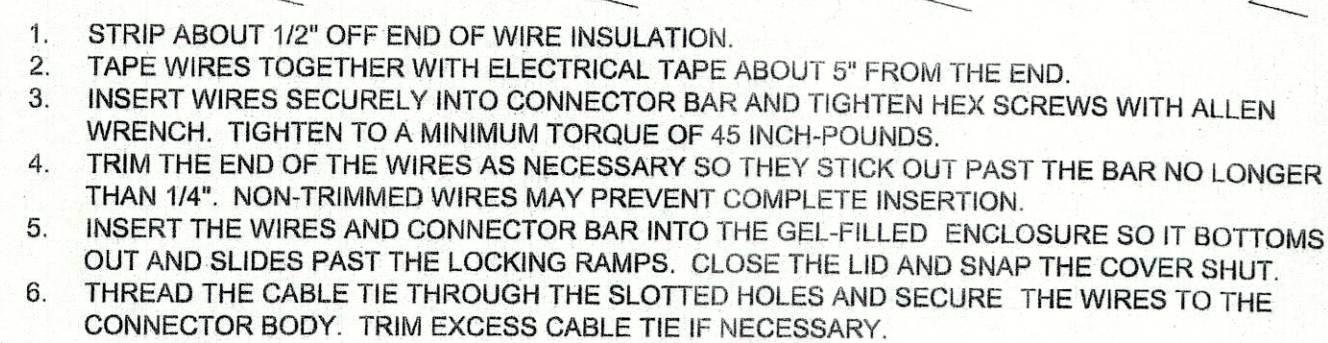
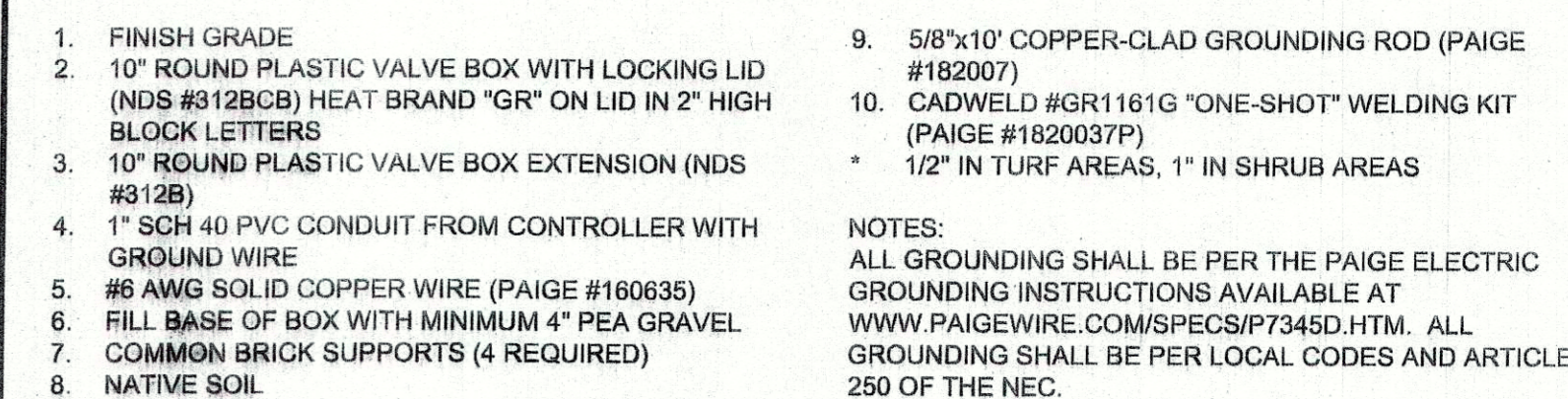
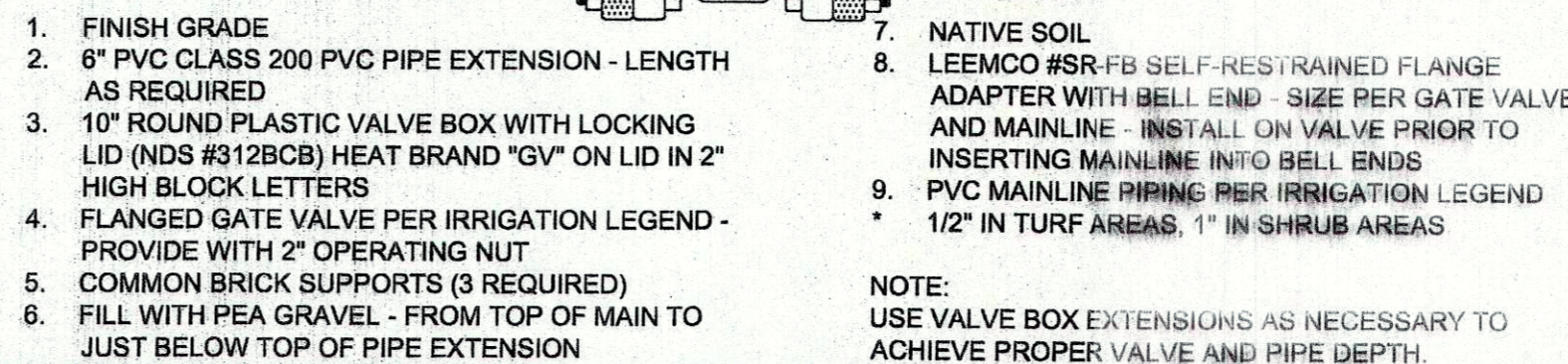
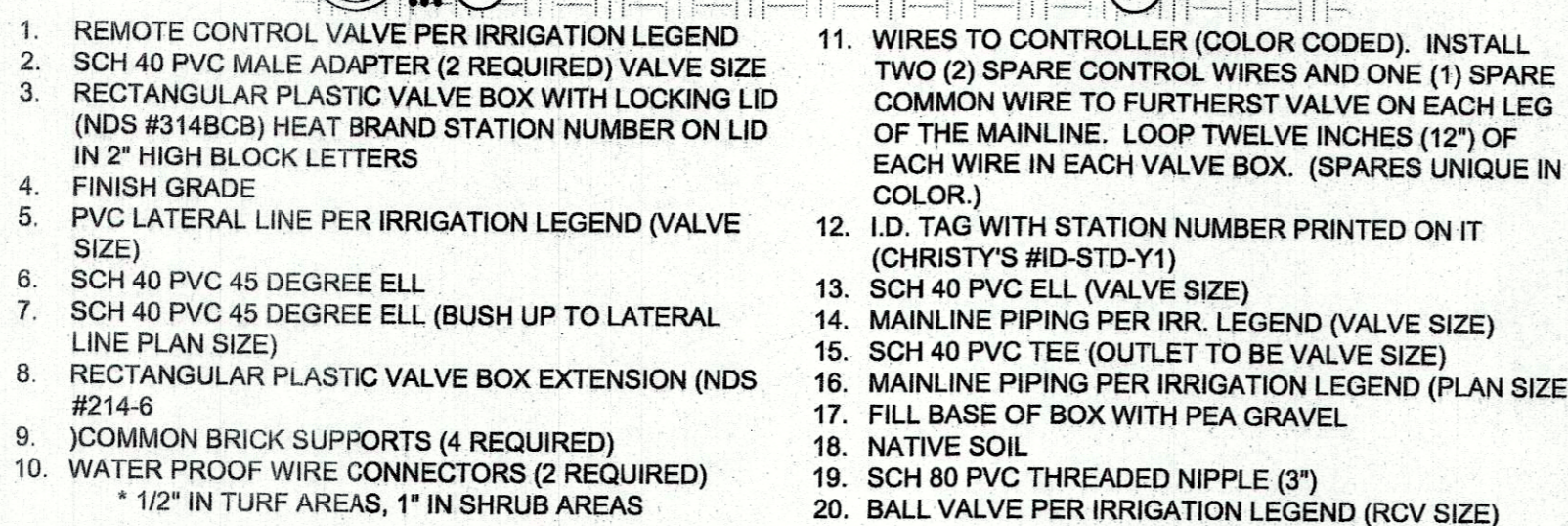
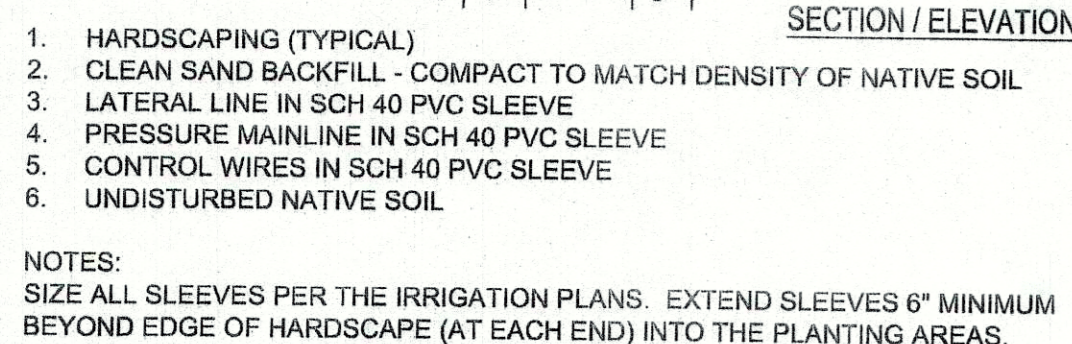
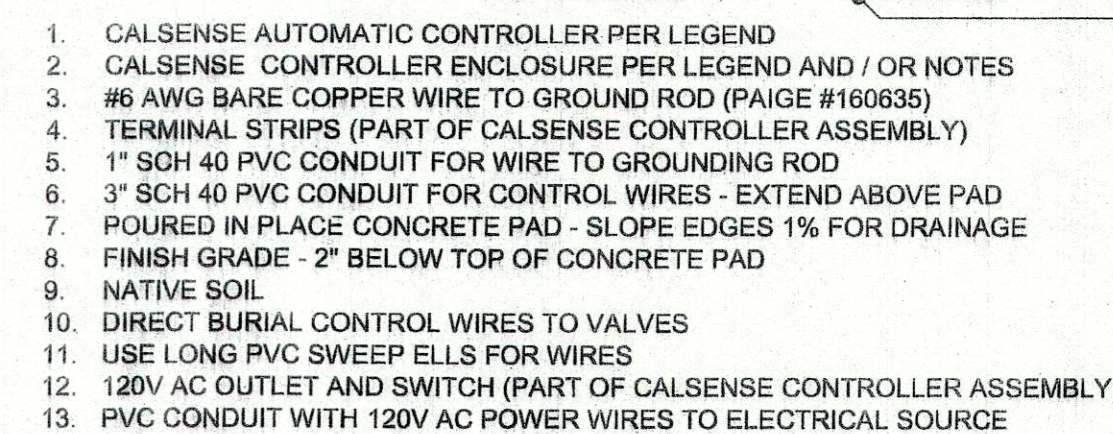
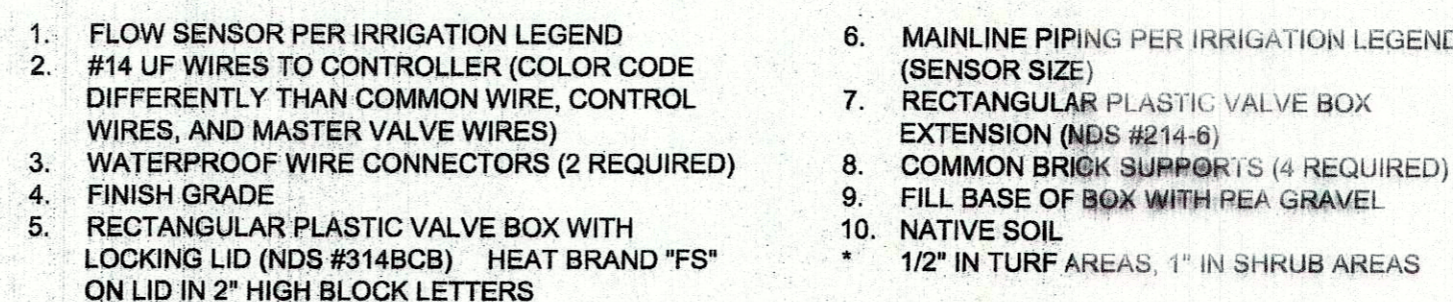
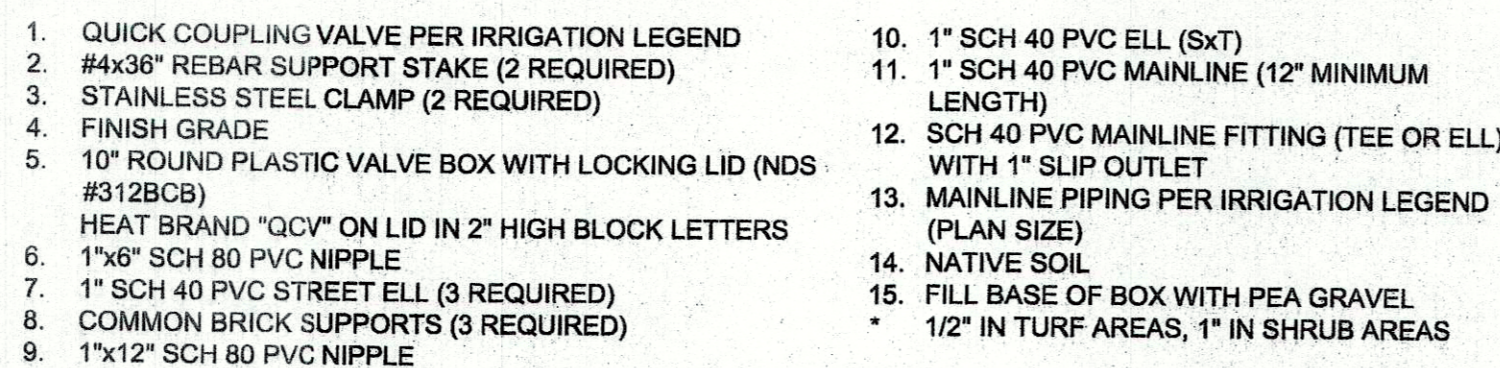
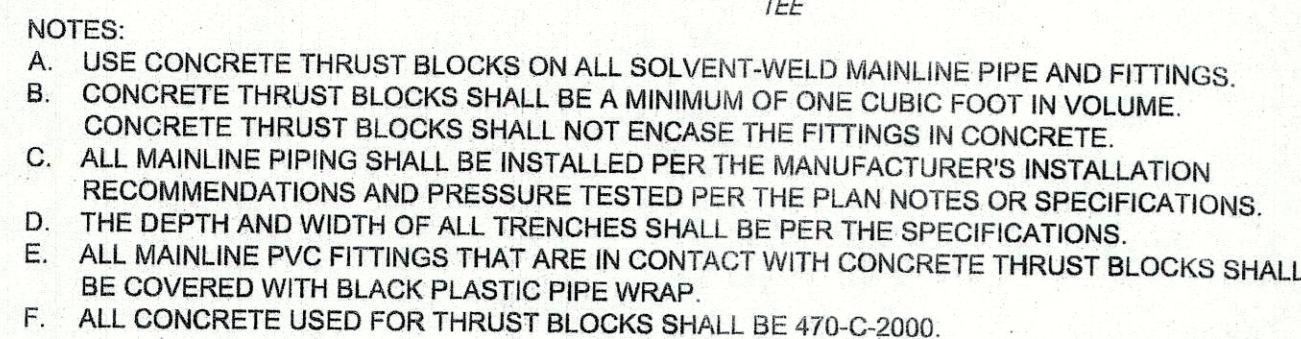
PLAN No. L-1

2  
OF 5 SHEETS

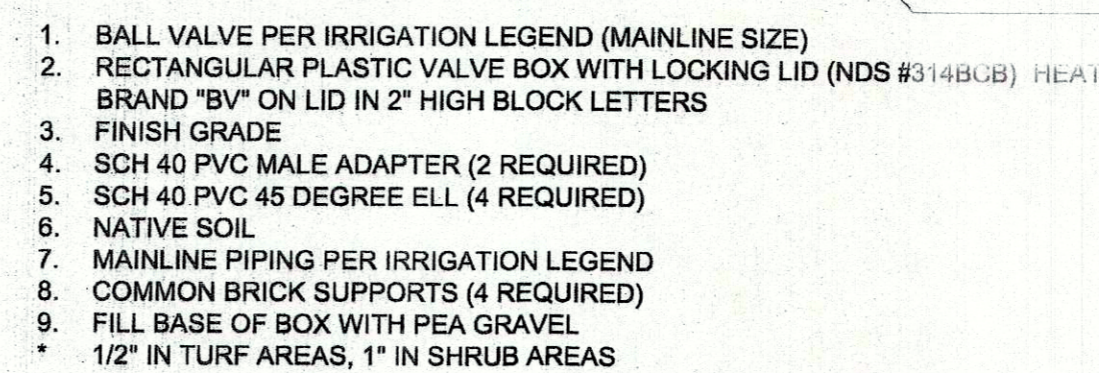
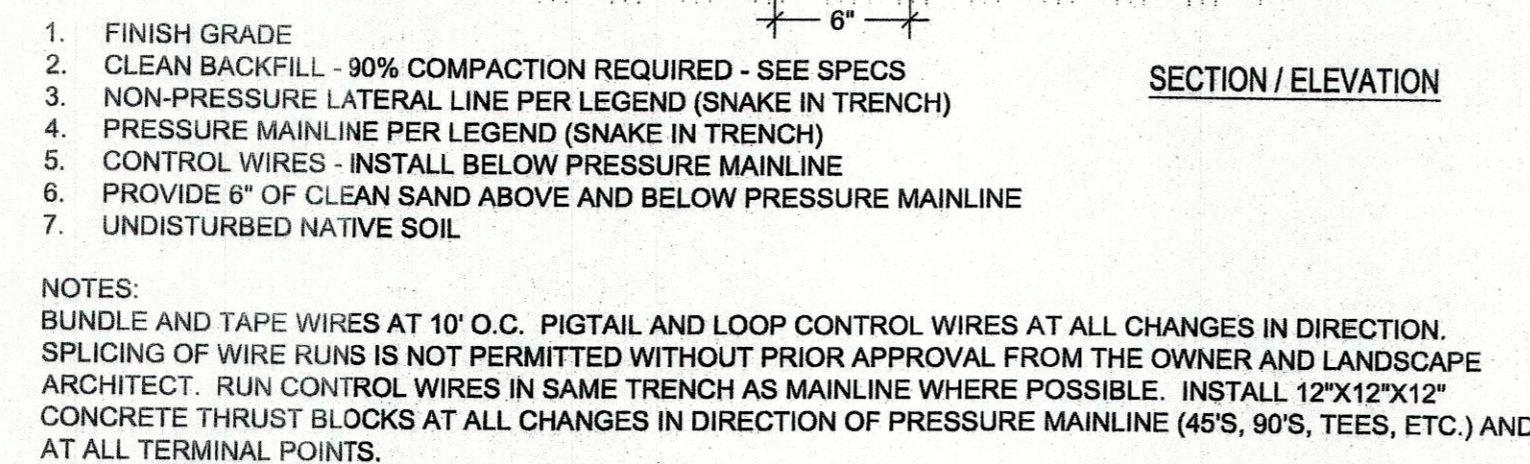
P-0224

**ELECTRICAL CONDUIT INSTALLATION**  
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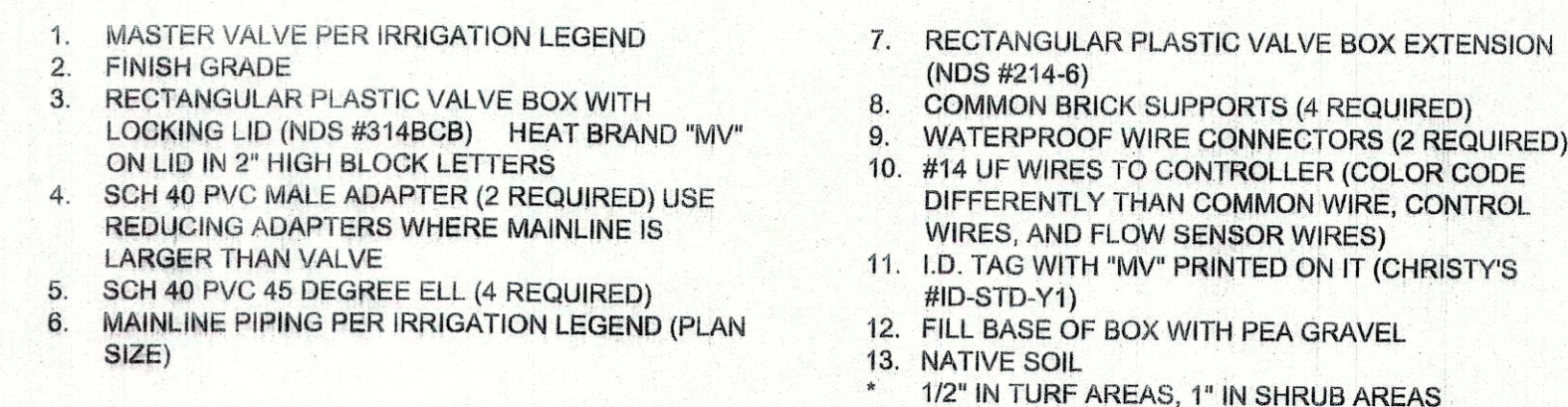




NOTES:  
USE THE PAIGE #DB14-4 DIRECT BURIAL CONNECTOR KIT. MAKE ALL WATERPROOF WIRE CONNECTIONS PER THE MANUFACTURER'S DIRECTIONS.



NOTES:  
OFF-SET VALVE BOX AROUND BALL VALVE TO ALLOW SPACE FOR FULL MOVEMENT OF  
THE BALL VALVE HANDLE.



ING DAYS BEFORE YOU DIG

MARK	REVISIONS	APPR.	DATE
DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: _____			

RECOMMENDED BY:

PLANNING DEPARTMENT  
APPROVED BY:

---

AHMAD R. ANSARI, RCE 51318, EXP 6-30-08,  
DIRECTOR OF PUBLIC WORKS/INTERIM CITY ENGINEER

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P. 951. 888. 1888  
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WWW.DAVIDSONDAIRING.COM

SCALE: AS NOTED	BENCH MARK: B.M. No.	ELEVATION:
DATE: 9-11-08	DESCRIPTION:	





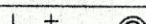







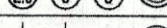
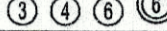
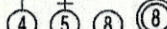
# CITY OF RIALTO CEMETERY PARK IRRIGATION RENOVATION IRRIGATION DETAILS

FOR: CITY OF RIALTO, PUBLIC WORKS DEPT. 335 W. RIALTO AVE,  
RIALTO, CA 92376

PLAN No. L-3

4  
OF 5 SHEET

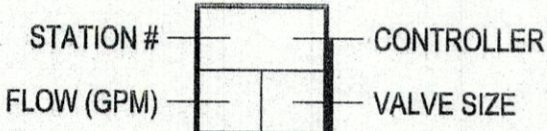
P-0224

SPRINKLER LEGEND												
SYMBOL	MANUFACTURER / MODEL NUMBER	NOZZLE	RAD	PSI	FLOW - GPM						DETAIL	
					Q	T	H	TQ	F			
TURF POP-UP SPRAY HEADS WITH CHECK VALVE AND PRESSURE REGULATION												
	RAIN BIRD 1806-SAM-PRS-5' SERIES	Q/T/H/F	5'	30	0.10	0.13	0.20				1.41	N
	RAIN BIRD 1806-SAM-PRS	6-VAN	6'	30	0.37	0.40	0.80	0.80	1.10			
	RAIN BIRD 1806-SAM-PRS-8' SERIES	Q/T/H/F	8'	30	0.26	0.35	0.52				1.05	
	RAIN BIRD 1806-SAM-PRS	8-VAN	8'	30	0.72	0.79	1.19	1.59	1.55			
	RAIN BIRD 1806-SAM-PRS-10' SERIES	Q/T/H/F	10'	30	0.39	0.53	0.79				1.58	
	RAIN BIRD 1806-SAM-PRS	10-VAN	10'	30	0.75	0.87	1.45	1.73	2.10	2.60		
TURF POP-UP SPRAY HEADS WITH HUNTER MP ROTATOR NOZZLE, CHECK VALVE AND PRESSURE REGULATION												
	HUNTER INST-06-CV	MP1000-90-210	12'	30	0.16	0.21	0.32	0.37				N
	HUNTER INST-06-CV	MP1000-360	12'	30							0.85	
	HUNTER INST-08-CV	MP2000-90-210	17'	30	0.33	0.42	0.63	0.74				
	HUNTER INST-06-CV	MP2000-360	17'	30							1.27	
	HUNTER INST-08-CV	MP3000-90-210	27'	30	0.74	1.05	1.58	1.84				
	HUNTER INST-06-CV	MP3000-360	27'	30							3.15	
TURF POP-UP ROTOR HEADS WITH CHECK VALVE (FULL CIRCLE TO BE I-20-6P-36S-XX SERIES)												
	HUNTER I-20-6P-ADS-XX SERIES	2.5 / 3.0 / 5.0 / 5.0	30'	45	2.5	3.0	5.0				5.0	O
	HUNTER I-20-6P-ADS-XX SERIES	3.0 / 4.0 / 6.0 / 6.0	35'	45	3.0	4.0	6.0				6.0	
	HUNTER I-20-6P-ADS-XX SERIES	4.0 / 5.0 / 8.0 / 8.0	40'	45	4.0	5.0	8.0				8.0	

EQUIPMENT LEGEND				
SYMBOL	MANUFACTURER / MODEL NUMBER	SIZE	DETAIL	
	EXISTING WATER METER - SEE POINT OF CONNECTION NOTE ON PLANS	2" / 3" EXISTING	N/A	
	CALSENSE ET2000e-32-LR-M-RRE-SSDR CONTROLLER (CONTROLLERS IN COMMON ENCLOSURE)	32 STATION	A / B	
	CALSENSE ET2000e-24-M-RRE-RRETRAN CONTROLLER (CONTROLLERS IN COMMON ENCLOSURE)	24 STATION	A / B	
	FEBCO 825YA BACKFLOW PREVENTER - SEE PLAN NOTES - VERIFY LOCATION IN THE FIELD	2" / EXISTING	N/A	
	RAN BIRD EFB-CP BRASS MASTER CONTROL VALVE	2"	C	
	CALSENSE FM-2 FLOW SENSOR IN SCH 80 PVC TEE	2"	D	
	NIBCO F-619-SON SERIES FLANGED IRON GATE VALVE	4"	E	
	NIBCO T-580-70 BRONZE BALL VALVE	3"	F	
	RAIN BIRD 44LRC QUICK COUPLING VALVE WITH LOCKING VINYL COVER	1"	G	
	RAN BIRD EFB-CP BRASS REMOTE CONTROL VALVE	PLAN SIZE	H	
	CLASS 315 PVC IRRIGATION PRESSURE MAINLINE - 18" MINIMUM COVER	PLAN SIZE	I, J, K	
	CLASS 200 PVC NON-PRESSURE LATERAL LINE - 12" MINIMUM COVER	PLAN SIZE	I, K	
	SCH 40 PVC IRRIGATION PIPE / CONTROL WIRE SLEEVE - 18" MINIMUM COVER	PLAN SIZE	K	
	SCH 40 PVC GREY ELECTRICAL CONDUIT	2"	I, K, M	
	UF DIRECT BURIAL CONTROL WIRE WITH WATERPROOF CONNECTIONS (12 GA COMMON WIRE)	12 / 14 GA	I, K, L, M	
	SPARE CONTROL WIRES (TWO EACH), AND ONE SPARE COMMON WIRE (12 GA COMMON WIRE)	12 / 14 GA	I, K, L, M	

\* CONTRACTOR SHALL LOOP TWELVE INCHES (12") OF EACH WIRE IN EACH VALVE BOX. EACH SPARE WIRE SHALL BE UNIQUE IN COLOR.

PIPE SIZING		SCH 40 PVC SLEEVING CHART	
	3/4" PIPE	1 1/4" SLEEVE	1-8 WIRES
	1" PIPE	1 1/2" SLEEVE	9-16 WIRES
	1 1/4" PIPE	2" SLEEVE	17-28 WIRES
	1 1/2" PIPE	2 1/2" SLEEVE	27-38 WIRES
	2" PIPE	3" SLEEVE	39-54 WIRES
	2 1/2" PIPE	4" SLEEVE	55-100 WIRES
	3" PIPE	6" SLEEVE	100+ WIRES
	4" PIPE	8" SLEEVE	N/A
	6" PIPE	N/A	N/A
	8" PIPE	N/A	N/A



**POINT OF CONNECTION**  
MAKE IRRIGATION POINT OF CONNECTION INTO EXISTING WATER METER AND BACKFLOW PREVENTER. CONNECT IMMEDIATELY DOWNSTREAM OF BACKFLOW DEVICE. VERIFY EXACT LOCATION IN THE FIELD AND ADJUST AS NECESSARY. CONTRACTOR SHALL VERIFY WITH THE CITY THAT THE EXISTING BACKFLOW PREVENTER IS IN 100% PROPER WORKING ORDER WITH CURRENT CERTIFICATION ON FILE WITH THE CITY. CONTRACTOR SHALL VERIFY EXISTING BACKFLOW DEVICE IS INSTALLED PER ALL LOCAL CODES. INSTALL EACH MASTER VALVE DOWNSTREAM OF EACH BACKFLOW DEVICE AND WIRE TO CONTROLLER PER MANUFACTURER'S DIRECTIONS. INSTALL EACH FLOW SENSOR DOWNSTREAM OF MASTER VALVE AND WIRE TO CONTROLLER PER MANUFACTURER'S DIRECTIONS. MAXIMUM DEMAND IS ABOUT 116 GPM FOR THE 'A' SYSTEM AND ABOUT 58 GPM FOR THE 'B' SYSTEM. STATIC PRESSURE AT METER IS 77 PSI, MEASURED AT SITE. CONTRACTOR SHALL VERIFY STATIC PRESSURE AT METER PRIOR TO START OF WORK AND NOTIFY THE LANDSCAPE ARCHITECT IN WRITING IMMEDIATELY IF A DISCREPANCY IS FOUND.

**CONTROLLERS**  
INSTALL IRRIGATION CONTROLLERS ADJACENT TO BUILDING AS SHOWN ON THE PLANS. INSTALL IN CALSENSE DOUBLE ENCLOSURE AS SPECIFIED. FINAL CONTROLLER LOCATION TO BE APPROVED IN THE FIELD BY THE OWNER OR AUTHORIZED REPRESENTATIVE. THE OWNER IS TO PROVIDE 120V AC POWER TO THE FINAL CONTROLLER LOCATION. THE IRRIGATION CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS PER LOCAL CODES. MOUNT, GROUND, AND WIRE ALL THE CONTROL EQUIPMENT PER THE MANUFACTURER'S DIRECTIONS, THESE PLANS, AND PER ALL LOCAL CODES.

**SLEEVING**  
MAINLINE AND VALVES SHOWN OUTSIDE OF PLANTED AREAS FOR CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT IN ADJACENT PLANTED AREAS EXCEPT WHERE SLEEVING IS SHOWN ON THE PLANS. ALL PIPES AND WIRES THAT MUST RUN UNDER HARDSCAPE TO BE SLEEVED IN SCH 40 PVC SLEEVES ACCORDING TO THE SLEEVING CHART. INSTALL PULL BOXES ON BOTH SIDES OF PAVEMENT CROSSINGS.

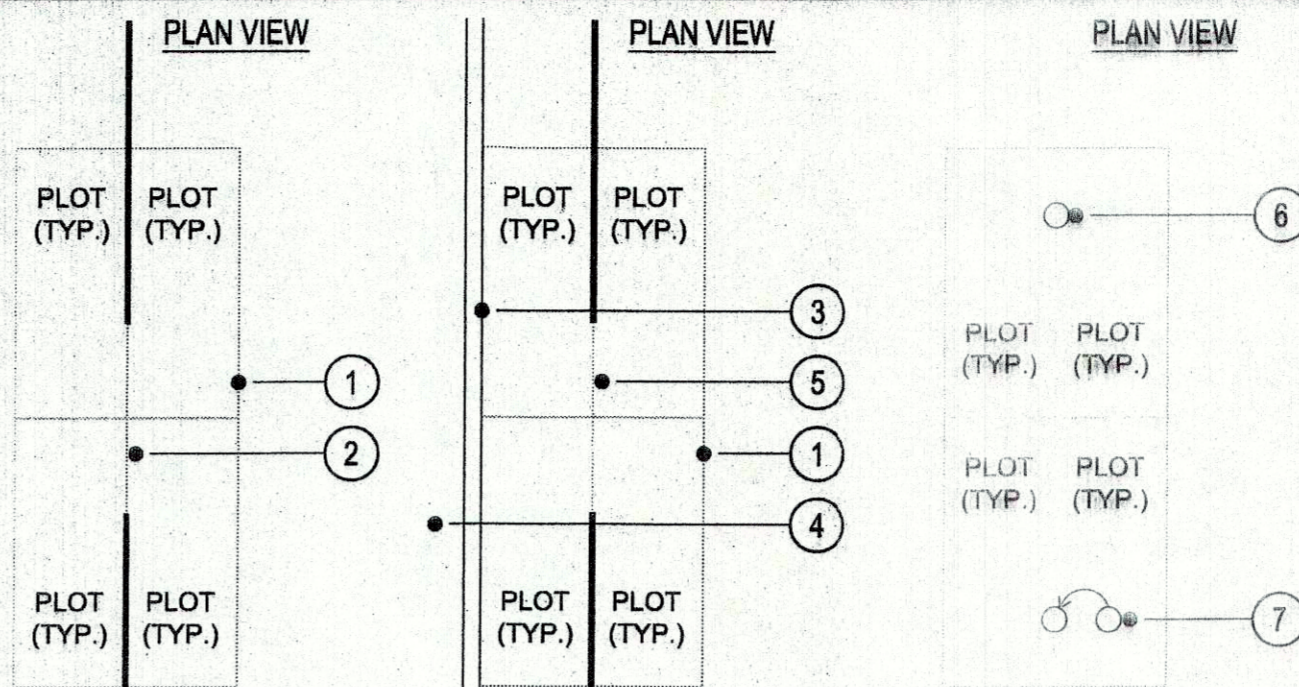
**INSPECTIONS**  
INSPECTIONS WILL BE REQUIRED FOR MAIN LINE PRESSURE TEST, COVERAGE TEST, START OF MAINTENANCE, AND FINAL ACCEPTANCE. CONTRACTOR SHALL NOTIFY THE CITY PROJECTS INSPECTOR 48 HOURS (TWO WORKING DAYS) IN ADVANCE FOR REQUESTING ALL INSPECTIONS. NO INSPECTION IS TO COMMENCE WITHOUT "RECORD" PRINTS AVAILABLE ON THE SITE. IN THE EVENT CONTRACTOR CALLS FOR AN INSPECTION WITHOUT UP TO DATE "RECORD" PRINTS, WITHOUT COMPLETING PREVIOUSLY NOTED CORRECTIONS, OR WITHOUT PREPARING THE SYSTEM FOR INSPECTION, THE INSPECTION MAY BE CANCELLED AND CONTRACTOR BACK CHARGED FOR THE DIRECT COSTS OF ALL CITY PERSONNEL TIME AND CONSULTANT TIME LOST, AT THE DISCRETION OF THE CITY REPRESENTATIVE.

**SYSTEM OPERATION**  
IRRIGATION SYSTEM 'A' IS DESIGNED FOR TWO VALVES TO OPERATE AT THE SAME TIME (CONCURRENTLY).

PRESSURE LOSS CALCULATIONS - POC "A"		
(STATIONS 13a & 25a - HIGHEST FLOW 116 GPM)		
EQUIPMENT	SIZE	LOSS
WATER METER - 116 GPM	3"	3.4
BACKFLOW PREVENTER - 116 GPM	3"	12.0
MASTER VALVES - 116 GPM	2"	1.8
FLOW SENSOR - 116 GPM	2"	0.5
MAINLINE - 580' CL 315 - 60 GPM	3"	2.4
CONTROL VALVE - 60 GPM	2"	1.8
LATERAL LINES	VAR.	1.7
SUBTOTAL PRESSURE LOSSES		23.6
MISC. LOSSES THRU SYSTEM (10%)		2.4
ELEVATION GAIN (FT)	0	0.0
TOTAL PRESSURE LOSSES		26.0
PRESSURE REQUIRED AT HEAD		45.0
TOTAL PRESSURE REQUIRED		71.0
STATIC PRESSURE AVAILABLE		77.0
RESIDUAL PRESSURE		6.0

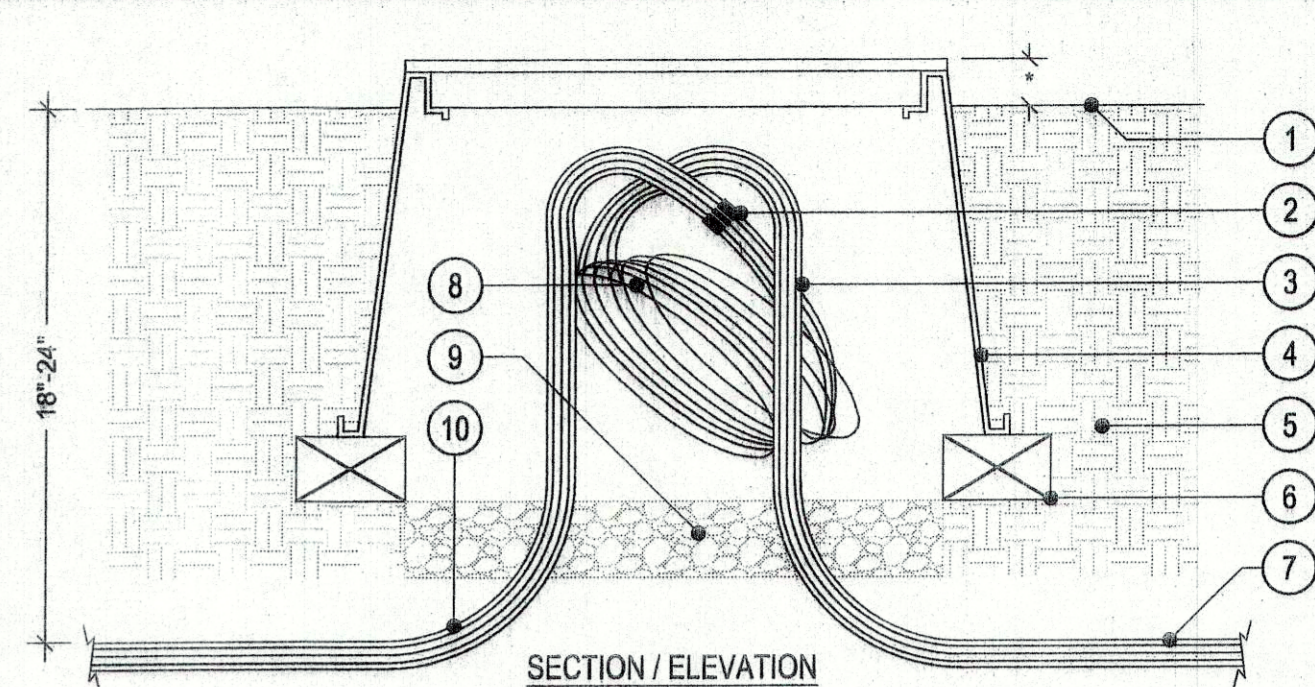
PRESSURE LOSS CALCULATIONS - POC "B"		
(STATION 8b - HIGHEST FLOW / FURTHERST 58 GPM)		
EQUIPMENT	SIZE	LOSS
WATER METER	2"	2.7
BACKFLOW PREVENTER	2"	12.0
MASTER VALVE	2"	1.8
FLOW SENSOR	2"	0.5
MAINLINE - 660' CL 315	3"	2.7
CONTROL VALVE	2"	1.8
LATERAL LINES	VAR.	1.9
SUBTOTAL PRESSURE LOSSES		23.4
MISC. LOSSES THRU SYSTEM (10%)		2.3
ELEVATION GAIN (FT)	0	0.0
TOTAL PRESSURE LOSSES		25.7
PRESSURE REQUIRED AT HEAD		45.0
TOTAL PRESSURE REQUIRED		70.7
STATIC PRESSURE AVAILABLE		77.0
RESIDUAL PRESSURE		6.3

**SPECIAL NOTE:**  
CONTRACTOR SHALL INSTALL ALL EQUIPMENT, MATERIALS, AND PIPES ALONG CEMETERY PLOT BORDERS ONLY. IN NO CASE SHALL CONTRACTOR TRENCH OR DIG WITHIN OR ACROSS PLOT BOUNDARIES. SPECIAL CARE SHALL BE TAKEN TO VERIFY EXACT BOUNDARY LINES, AND ALL PROPOSED ROUTING OF PIPES AND PROPOSED PLACEMENT OF EQUIPMENT SHALL BE MARKED AND APPROVED BY THE CITY PROJECT COORDINATOR AND THE PERSON IN CHARGE OF THE CEMETERY PRIOR TO ANY WORK.



- TYPICAL CEMETERY PLOT - VERIFY SIZE, LOCATION, AND ORIENTATION IN THE FIELD AND ADJUST IRRIGATION SYSTEMS AS NECESSARY PER THESE GUIDELINES
- TYPICAL IRRIGATION PIPE / CONDUIT - RUN PARALLEL TO LONG AXIS OF PLOTS WHERE POSSIBLE OR PERPENDICULAR TO PLOTS WHERE NECESSARY - LOCATE ON PLOT BOUNDARY
- TYPICAL CURB AND GUTTER
- TYPICAL ASPHALT DRIVE / TYPICAL CONCRETE WALK
- TYPICAL IRRIGATION PIPE / CONDUIT - WHERE IRRIGATION LINES ARE TO RUN ALONG THE PERIMETER OF AN AREA, RUN LINES ON FIRST PLOT BOUNDARY INSIDE THE CURB LINE
- IDEAL LOCATION OF SPRINKLER HEAD ON PLOT BOUNDARY
- WHERE SPRINKLER HEAD MEASURES OUT TO BE WITHIN A PLOT, RELOCATE SPRINKLER HEAD TO NEAREST ADJACENT PLOT BOUNDARY
- SEE SPECIAL NOTE

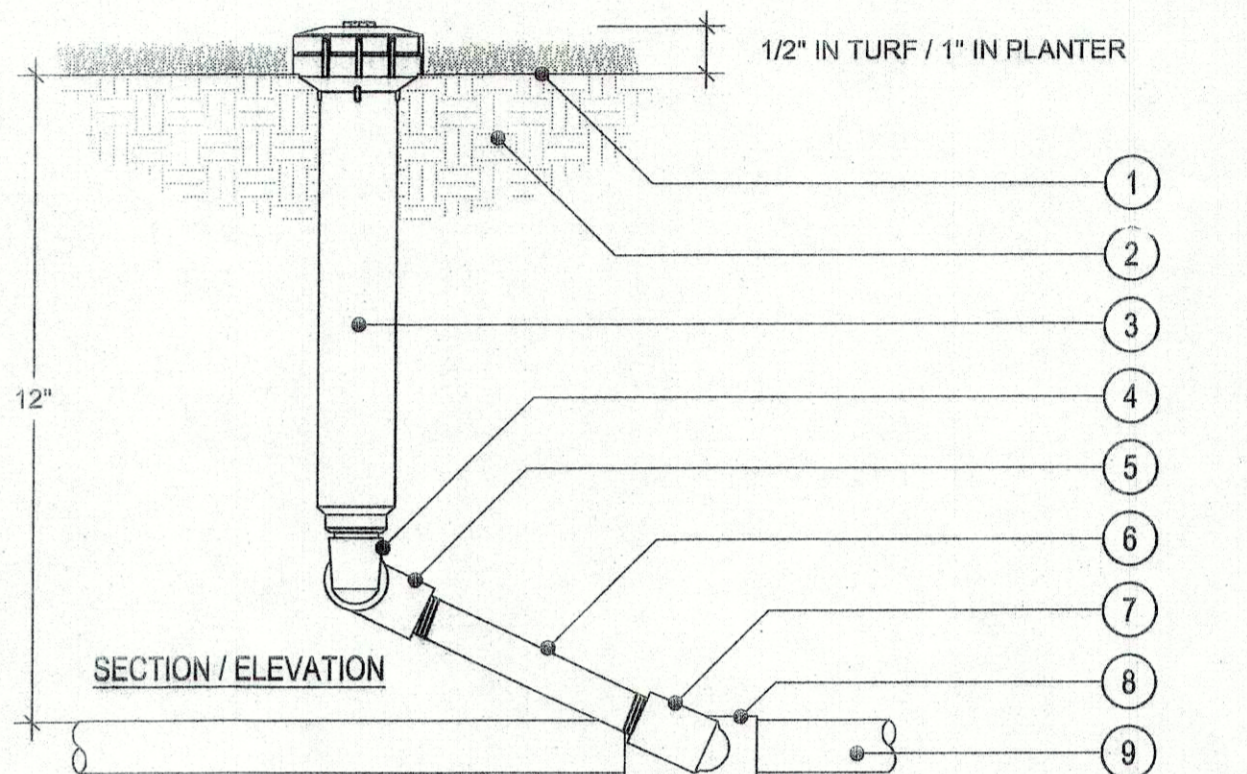
## P CEMETERY TRENCHING / LINE PLACEMENT



- FINISH GRADE
- WATER PROOF WIRE CONNECTORS (ONE FOR EACH SPLICE)
- CONTROL WIRES / COMMON WIRES PER IRRIGATION LEGEND
- RECTANGULAR PLASTIC VALVE BOX WITH LOCKING LID (NDS #314BCB) HEAT BRAND "PB" ON LID IN 2" HIGH BLOCK LETTERS
- NATIVE SOIL
- COMMON BRICK SUPPORTS (4 REQUIRED)
- WIRES TO / FROM LANDSCAPED AREAS
- COIL WIRES IN BOX - MINIMUM 24" COIL
- FILL BASE OF BOX WITH PEA GRAVEL - 2 CU. FT. MIN.
- WIRES TO / FROM CONTROLLER(S) \* 1/2" IN TURF AREAS, 1" IN SHRUB AREAS

NOTES:  
WIRE SPLICES ARE ONLY ALLOWED WITH PRE APPROVAL FROM LANDSCAPE ARCHITECT AND / OR OWNER. ALL CONTROL WIRE SPLICES SHALL BE INSTALLED IN PULL BOXES. ALL SPLICES SHALL BE MADE WITH WATERPROOF WIRE CONNECTORS.

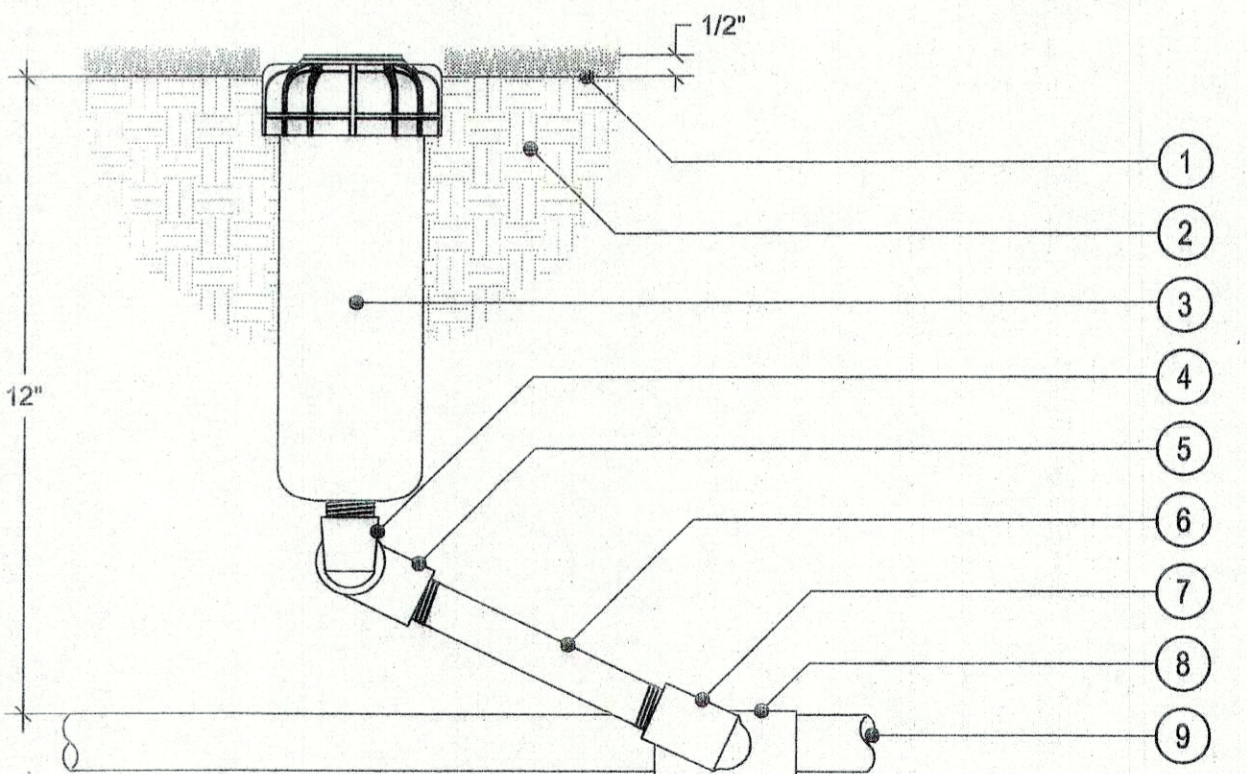
## M PULL BOX



- FINISH GRADE
- NATIVE SOIL / BACKFILL PER SPECIFICATIONS
- 6" POP-UP SPRAY HEAD & NOZZLE PER LEGEND
- 1/2" MARLEX STREET ELL
- 1/2" SCH 40 PVC STREET ELL T&T
- 1/2" x 12" MIN. SCH 80 PVC THREADED NIPPLE
- 1/2" MARLEX STREET ELL
- SCH 40 PVC LATERAL LINE FITTING WITH 1/2" FEMALE THREADED OUTLET
- LATERAL LINE PIPING PER LEGEND

NOTES:  
USE TEFLON TAPE ON ALL PVC TO PVC CONNECTIONS; NO PIPE DOPE ALLOWED. SET PERIMETER HEADS 4"-6" FROM CURBS AND WALKS AND 8"-12" FROM VERTICAL OBJECTS SUCH AS FENCES AND WALLS, ETC. ONLY USE BOTTOM INLET OF HEAD.

## N TURF POP-UP SPRAY HEAD



- FINISH GRADE
- NATIVE SOIL / BACKFILL PER SPECIFICATIONS
- POP-UP ROTOR HEAD & NOZZLE PER LEGEND
- 3/4" MARLEX STREET ELL
- 3/4" SCH 40 PVC STREET ELL T&T
- 3/4" x 12" MIN. SCH 80 PVC THREADED NIPPLE
- 3/4" MARLEX STREET ELL
- SCH 40 PVC LATERAL LINE FITTING WITH 3/4" FEMALE THREADED OUTLET
- LATERAL LINE PIPING PER LEGEND

NOTES:  
USE TEFLON TAPE ON ALL PVC TO PVC CONNECTIONS; NO PIPE DOPE ALLOWED. SET SET PERIMETER HEADS 4"-6" FROM CURBS AND WALKS AND 8"-12" FROM VERTICAL OBJECTS SUCH AS FENCES AND WALLS, ETC. INSTALL HEADS +/- 1/2" ABOVE FINISH GRADE.

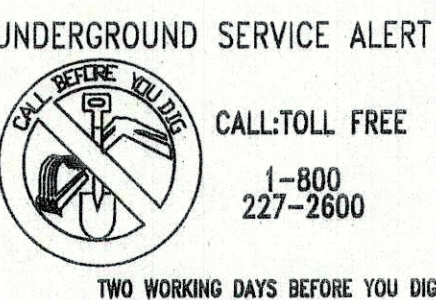
## O TURF POP-UP ROTOR HEAD

### IRRIGATION NOTES

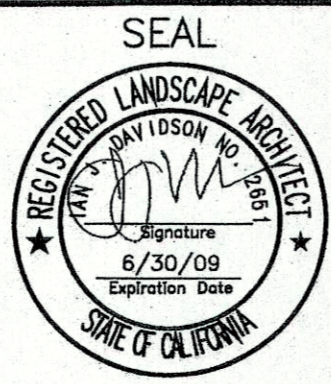
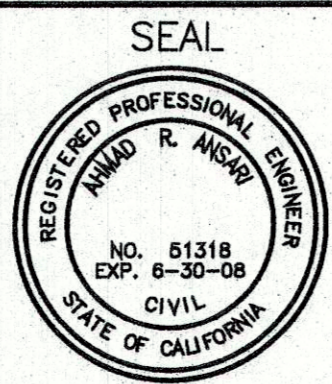
- GENERAL - ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AND THESE PLANS. THE CONTRACTOR SHALL APPLY FOR ALL PERMITS AND PAY SAME.
  - THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS SHOWN ON THE PLANS AT THE SITE PRIOR TO COMMENCEMENT OF ANY WORK UNDER THIS CONTRACT.
  - THE CONTRACTOR SHALL CARRY ALL WORKERS COMPENSATION, PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE, AS REQUIRED BY THE CITY AND/OR OWNER.
- SCOPE OF WORK - UNLESS OTHERWISE SPECIFIED, THE CONSTRUCTION OF IRRIGATION SYSTEMS SHALL INCLUDE THE FURNISHING, INSTALLING AND TESTING OF ALL MAINLINE, POINT OF CONNECTION, LATERAL LINES, RISERS AND FITTINGS; AND THE FURNISHING AND INSTALLING OF SPRINKLER HEADS, CONTROLLER, ELECTRIC CONTROL VALVES, EXCAVATION AND BACKFILL AND ALL OTHER WORK IN ACCORDANCE WITH THESE PLANS, DETAILS, AND NOTES. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIAL, EQUIPMENT PROPERTY, TRANSPORTATION, AND PERFORM ALL OPERATIONS REQUIRED FOR A COMPLETE AND OPERABLE IRRIGATION SYSTEM AS INDICATED ON, OR REASONABLY IMPLIED BY THE DRAWINGS, DETAILS, AND NOTES. INCLUDED AS A PART OF THE IRRIGATION WORK, BUT NOT LIMITED BY IT, ARE THE FOLLOWING:
  - INSTALL COMPLETE OPERABLE INDEPENDENT IRRIGATION SYSTEMS PER THE PLANS, DETAILS, LEGENDS, AND NOTES.
  - ALL IRRIGATION WORK SHALL BE GUARANTEED BY THE CONTRACTOR AS TO MATERIAL AND WORKMANSHIP, INCLUDING SETTTLING OF BACKFILLED TRENCHES BELOW GRADE FOR A PERIOD OF ONE YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE OF THE WORK.
- THE LANDSCAPE ARCHITECT SHALL DECIDE ALL QUESTIONS RELATING TO THE INTERPRETATION OF THE DRAWINGS AND THE ACCEPTABLE FULFILLMENT OF THE CONTRACT.
- PIPING SHOWN ON THE PLANS IS ESSENTIALLY DIAGRAMMATIC. CONTRACTOR SHALL ROUTE PIPING TO AVOID CONFLICT WITH STATIONARY ELEMENTS AND IN SUCH A MANNER AS TO CONFORM WITH THE VARIOUS DETAILS AND DESIGN INTENT OF THESE PLANS.
- THE CONTRACTOR SHALL AT ALL TIMES PROTECT HIS WORK FROM DAMAGE AND THEFT AND REPLACE ALL DAMAGED OR STOLEN PARTS AT HIS EXPENSE UNTIL THE WORK IS ACCEPTED IN WRITING BY THE OWNERS/CITY.
- EXTREME CARE SHALL BE EXERCISED IN EXCAVATING AND WORKING NEAR EXISTING UTILITIES. CONTRACTOR SHALL VERIFY THE LOCATION AND CONDITION OF ALL UTILITIES AND BE RESPONSIBLE FOR ANY DAMAGE. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT A MINIMUM OF TWO WORKING DAYS PRIOR TO DIGGING.

- THE CONTRACTOR SHALL KEEP THE PREMISES CLEAN AND FREE OF EXCESS EQUIPMENT, MATERIALS, AND RUBBISH INCIDENTAL TO HIS WORK.
- THE IRRIGATION DESIGN IS BASED ON THE METER SIZE AND WATER PRESSURE INDICATED ON THE WATER SOURCE / POINT OF CONNECTION NOTE ON THE PLANS. CONTRACTOR SHALL VERIFY THE PRESSURE PRIOR TO CONSTRUCTION. SHOULD A DISCREPANCY EXIST, NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL MAKE POINT(S) OF CONNECTION (POC) AS NOTED ON THE PLANS. ALL FEES AND LOCAL REQUIREMENTS SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR.
- IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR CONNECTING 120 VOLT SERVICE TO THE CONTROLLER. ELECTRICAL POWER WILL BE PROVIDED BY THE OWNER AT THE CONTROLLER LOCATION SHOWN ON THE PLAN.
- CONTRACTOR SHALL PROVIDE ALL EQUIPMENT REQUIRED TO PERFORM A MAINLINE PRESSURE TEST. THE HYDROSTATIC TEST SHALL HOLD A MINIMUM OF 150 PSI FOR 3 HOURS OR MORE. CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE A MINIMUM OF 48 HOURS IN ADVANCE OF THE TEST FOR CERTIFICATION.
- ALL WIRES SHALL BE SOLID COPPER, PLASTIC INSULATED, U.F. DIRECT BURIAL WIRE. ALL COMMON WIRE SHALL BE AWG #12 WHITE; ALL CONTROL WIRES SHALL BE AWG #14 RED OR BLACK. CONTROLLERS SHALL HAVE SEPARATE COLOR CODED COMMON WIRES AND CONTROL WIRES WHEN TWO OR MORE CONTROLLERS ARE ON THE PROJECT.
- ALL CONTROL WIRES AND IRRIGATION PIPING THAT RUNS UNDER HARDSCAPE / PAVING SHALL BE ENCASED IN SCH 40 PVC SLEEVES. SLEEVES SHALL BE SIZED ACCORDING TO THE SLEEVING CHART ON THE PLANS.
- THE FINAL LOCATION FOR CONTROL VALVES SHALL BE APPROVED IN THE FIELD BY THE LANDSCAPE ARCHITECT OR THE OWNER'S AUTHORIZED REPRESENTATIVE. ALL VALVES SHALL BE LOCATED IN SHRUB AREAS WHEREVER POSSIBLE.
- THE CONTRACTOR SHALL HEAT BRAND VALVE NUMBERS ON INSIDE AND OUTSIDE OF ALL VALVE BOX LIDS.
- ALL BRASS OR GALVANIZED CONNECTIONS SHALL BE COATED WITH TEFLON TAPE OR APPROPRIATE PIPE JOINT COMPOUND. ALL PVC TO PVC THREADED CONNECTIONS SHALL BE COATED WITH TEFLON TAPE. NO PIPE DOPE IS ALLOWED AT VALVE OR SPRINKLER HEAD CONNECTIONS.
- ALL PVC SOLVENT-WELD CONNECTIONS SHALL BE MADE WITH SOLVENT-WELD MATERIALS AS RECOMMENDED BY THE PIPE MANUFACTURER. SOLVENT-WELD PRIMER SHALL BE APPLIED AT ALL CONNECTIONS.

- LOW HEAD DRAINAGE WILL NOT BE ALLOWED. CONTRACTOR TO DETERMINE IN THE FIELD WHICH HEADS DRAIN AFTER THE VALVE IS SHUT OFF. CONTRACTOR SHALL PROVIDE AND INSTALL ADDITIONAL IN-LINE CHECK VALVES AS NEEDED AT NO ADDITIONAL COST TO THE OWNER.
- ALL PRESSURE SUPPLY LINES AND CONTROL WIRES TO HAVE 18"-24" MINIMUM COVER PER THE DETAIL. LATERAL LINES TO HAVE 12" MIN. COVER. SLEEVING IS TO HAVE 24" MIN. COVER.
- THE RADIUS OF EACH HEAD IS TO BE ADJUSTED SO THAT HEAD-TO-HEAD COVERAGE IS MAINTAINED, BUT OVERSPRAY ON BUILDINGS, WALKS, WALLS, AND OTHER HARD SURFACES IS MINIMIZED.
- CONTRACTOR SHALL INSTALL 2 EXTRA WIRES FROM CONTROLLER(S) TO EACH END OF THE MAINLINE. WIRES SHALL COME UP INTO ALL VALVE BOXES ALONG THE MAINLINE PATH WITH 36" EXPANSION COILS IN EACH BOX. SPARE WIRES SHALL BE COLOR-CODED DIFFERENTLY THAN OTHER CONTROL WIRES FOR EACH CONTROLLER.
- UPON COMPLETION OF THE PROJECT, THE CONTRACTOR IS TO TURN OVER TO THE OWNER THE FOLLOWING:
  - REPRODUCIBLE SET OF "AS-BUILT" DRAWINGS AND CONTROLLER CHART.
  - 2 KEYS FOR EACH CONTROLLER / CONTROLLER ENCLOSURE (AS APPLICABLE).
  - 2 QUICK COUPLER KEYS AND MATCHING HOSE SWIVELS.
  - 4 OF EACH SPRINKLER HEAD SPECIFIED.
- RECORD DRAWINGS - THE CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE A COMPLETE RECORD SET OF PRINTS WHICH SHALL BE CORRECTED DAILY AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS. PRIOR TO FINAL INSPECTION, THE CONTRACTOR SHALL TRANSCRIBE ALL INFORMATION FROM THE RECORD SET TO A BLACK-LINE PRINT PROCURED FROM THE OWNER. ALL WORK SHALL BE NEAT AND LEGIBLE. LOCATING THE FOLLOWING ITEMS FROM PERMANENT POINTS OF REFERENCE: SHUT-OFF VALVES, MAINLINE AND CONTROL WIRE ROUTING, POC, BACKFLOW DEVICE, CONTROL VALVES, CONTROLLER, QUICK COUPLING VALVES, AND OTHER PERTINENT UNDERGROUND ITEMS.
- "CONTROLLER CHART" - UPON APPROVAL OF THE FINAL RECORD DRAWINGS, PROVIDE ONE CHART FOR EACH CONTROLLER INSTALLED.
  - THE CHART IS TO BE A REDUCED COPY OF THE APPROVED RECORD DRAWING (A BLACK-LINE PRINT REDUCED TO THE MAXIMUM SIZE THE CONTROLLER DOOR WILL ALLOW, COLORED WITH A DIFFERENT COLOR FOR EACH VALVE STATION'S AREA OF COVERAGE).
  - WHEN COMPLETED AND APPROVED, THE CHART SHALL BE LAMINATED BETWEEN TWO (2) PIECES OF 20 MIL. CLEAR PLASTIC AND MOUNTED ON THE INSIDE OF THE CONTROLLER DOOR USING VELCRO TAPE OR EQUAL.



MARK	REVISIONS	APPR. DATE
DESIGNED BY: _____	DRAWN BY: _____	CHECKED BY: _____



RECOMMENDED BY:  
IAN DAVIDSON RLA # 2651 EXP. 6-30-08, LANDSCAPE ARCHITECT DATE: \_\_\_\_\_  
PLANNING DEPARTMENT  
APPROVED BY:  
AHMAD R. ANSARI, RCE #1318, EXP. 6-30-08, DIRECTOR OF PUBLIC WORKS/INTERIM CITY ENGINEER DATE: \_\_\_\_\_



**I.D.L.A.**  
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SCALE: AS NOTED	BENCH MARK: B.M. No.	ELEVATION=
DATE: 9-11-08	DESCRIPTION:	

FOR: CITY OF RIALTO, PUBLIC WORKS DEPT. 335 W. RIALTO AVE, RIALTO, CA 92376

PLAN No. L-4

5  
OF 5 SHEETS

P-0224