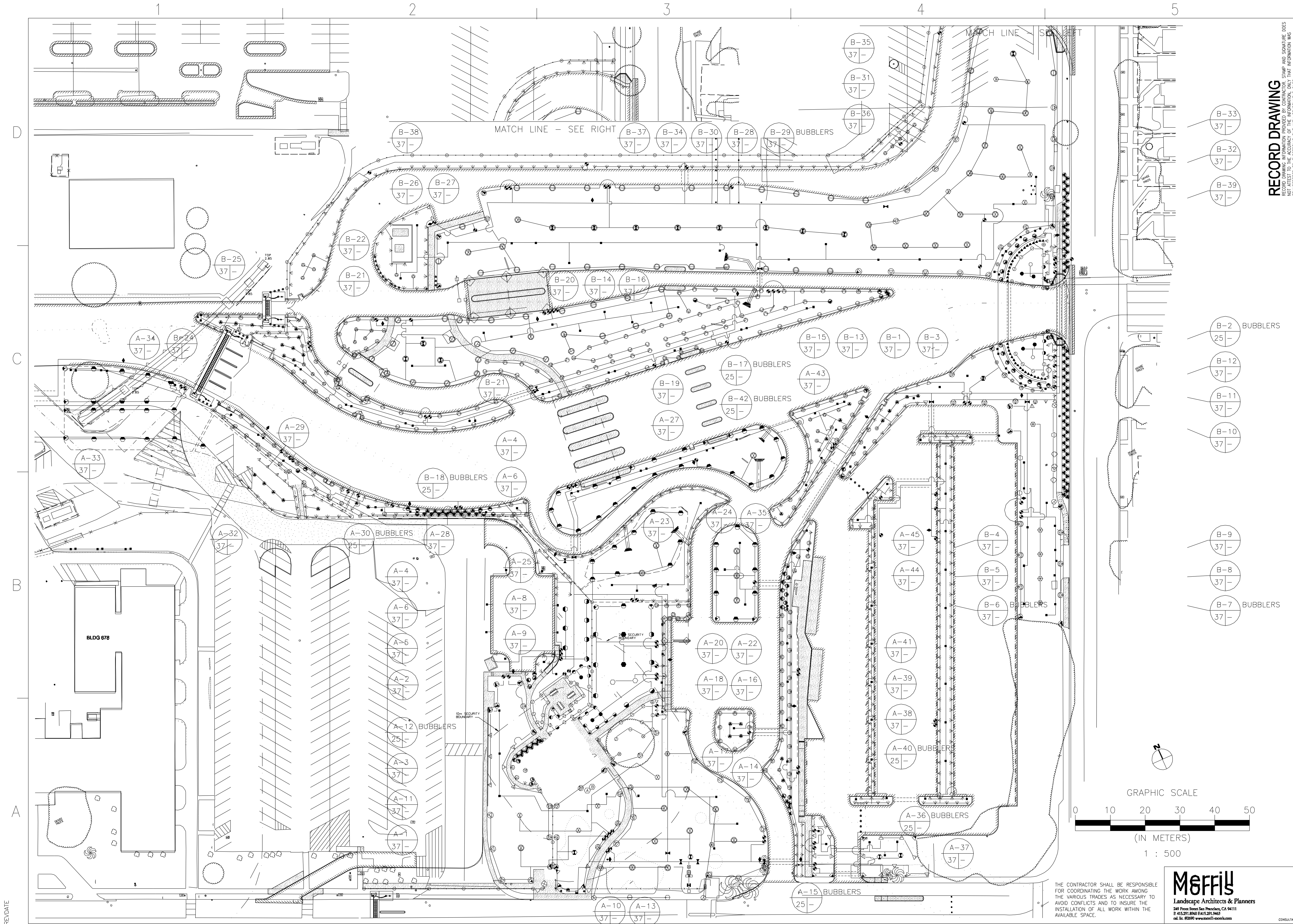


THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

Merrill
 Landscape Architects & Planners
 249 First Street San Francisco, CA 94111
 P. 415.291.8900 F. 415.291.9463
 www.merrill-landscape.com

RECORD DRAWING
 RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION OR INFORMATION NOT TRANSFERRED TO ELECTRONIC FILE WITH REASONABLE CARE.

DATE	DESCRIPTION	DATE	APPROVED
07/07/08			
R. A. Burch Construction Co., Inc. P.O. Box 1590 Ramona, CA 92065			
WILDMAN & MORRIS ARCHITECTS - ENGINEERS 100 BROAD ST. SAN FRANCISCO, CA 94103			
SUBMITTED BY			
ACTIVITY - SATISFACTORY TO			
DATE APPROVED			
FOR EFD FOR COMMANDER NAVFAC			
DATE			
A/E	DESIGN	EFD	
	DRAWN		
	REVIEW		
	OC		
	CHIEF ARCH/DIR		
PROJECT MANAGER			
FIRE PROTECTION			
BRANCH MANAGER			
DESIGN DIRECTOR			
DEPARTMENT OF THE NAVY NAVFAC SOUTHWEST SAN DIEGO SAN FRANCISCO SAN JOSE SAN DIEGO SAN NORTH ISLAND CORONADO, CALIFORNIA			
P-759 BASE MAIN GATE AND ENTRANCE NAVAL AIR STATION, NORTH ISLAND			
LANDSCAPE PLAN			
CODE # NO 80991 SIZE D SCALE: EFD NO. STA. PROJ. NO. SPEC. NO. 11028065-002 CONSTR. CONTR. NO. N68711-02-D-8065-002 NAVFAC DRAWING NO. 8225751 SHEET OF L-101			
CONSULTANT			

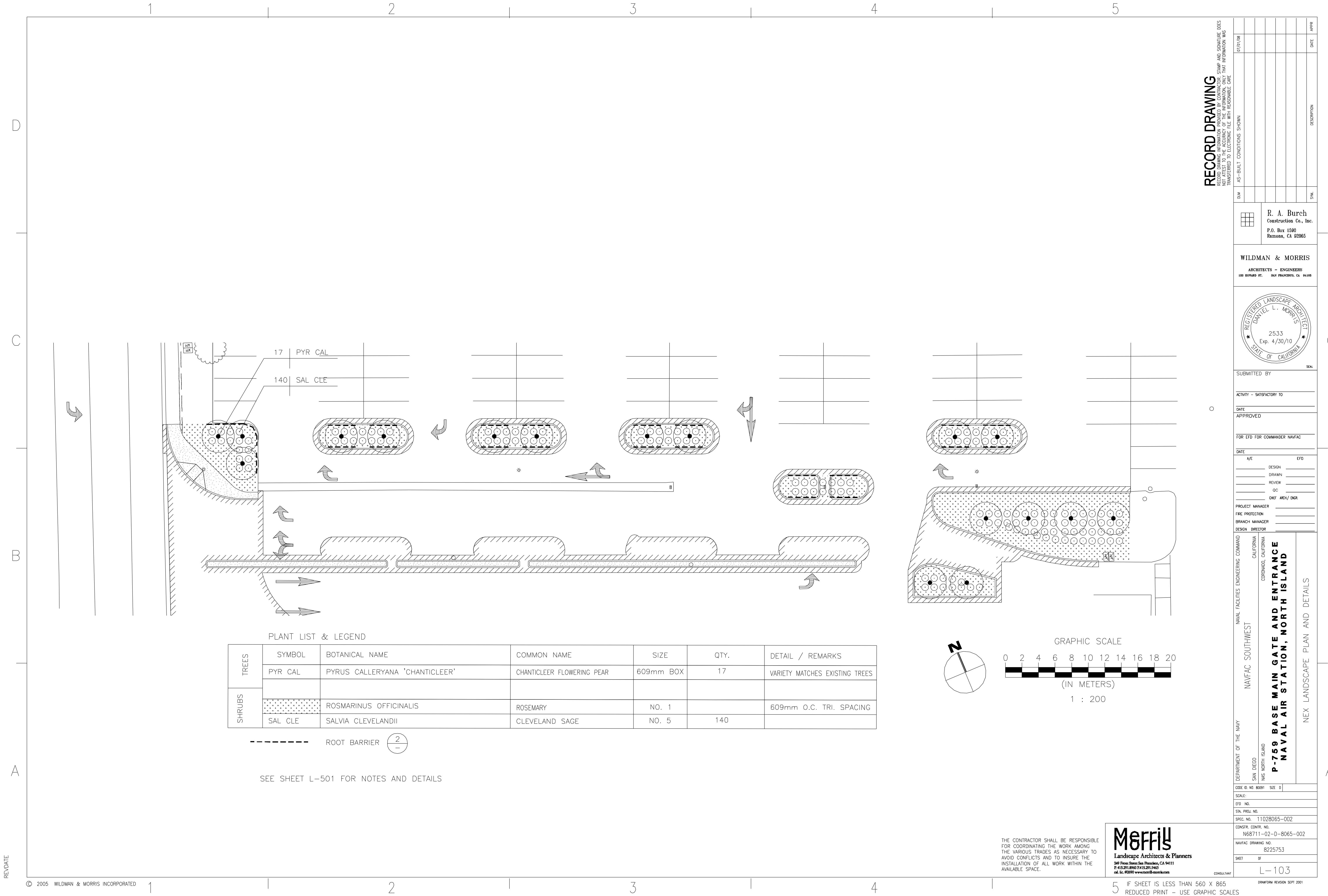


THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

Merrill
 Landscape Architects & Planners
 249 First Street San Francisco, CA 94111
 P: 415.291.8900 F: 415.291.9463
 www.merrill-morris.com

RECORD DRAWING
 RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE A GUARANTEE OF ACCURACY. INFORMATION WAS TRANSFERRED TO ELECTRONIC FILE WITH REASONABLE CARE.

DATE	DESCRIPTION	DATE	APPROVED
07/07/08			
<p>AS-BUILT CONDITIONS SHOWN</p>			
<p>R. A. Burch Construction Co., Inc. P.O. Box 1590 Ramona, CA 92065</p>			
<p>WILDMAN & MORRIS ARCHITECTS - ENGINEERS 120 HOWARD ST. SAN FRANCISCO, CA 94102</p>			
<p>REGISTERED LANDSCAPE ARCHITECT DANIEL L. MORRIS 2533 Exp. 4/30/10 STATE OF CALIFORNIA</p>			
SUBMITTED BY			
ACTIVITY - SATISFACTORY TO			
DATE APPROVED			
FOR EFD FOR COMMANDER NAVFAC			
DATE	A/E	EFD	
	DESIGN		
	DRAWN		
	REVIEW		
	OC		
	CHK ARCH/ENGR		
PROJECT MANAGER			
FIRE PROTECTION			
BRANCH MANAGER			
DESIGN DIRECTOR			
DEPARTMENT OF THE NAVY SAN DIEGO SAN NORTH ISLAND NAVFAC SOUTHWEST CORONADO, CALIFORNIA			
P-759 BASE MAIN GATE AND ENTRANCE NAVAL AIR STATION, NORTH ISLAND			
IRRIGATION PLAN			
CODE D. NO.	80091	SIZE	D
SCALE:			
EFD NO.			
STA. PROJ. NO.			
SPEC. NO.	11028065-002		
CONSTR. CONTR. NO.	N68711-02-D-8065-002		
NAVFAC DRAWING NO.	8225752		
SHEET	OF		
			L-102
CONSULTANT			
DRAWING REVISION SEPT 2001			

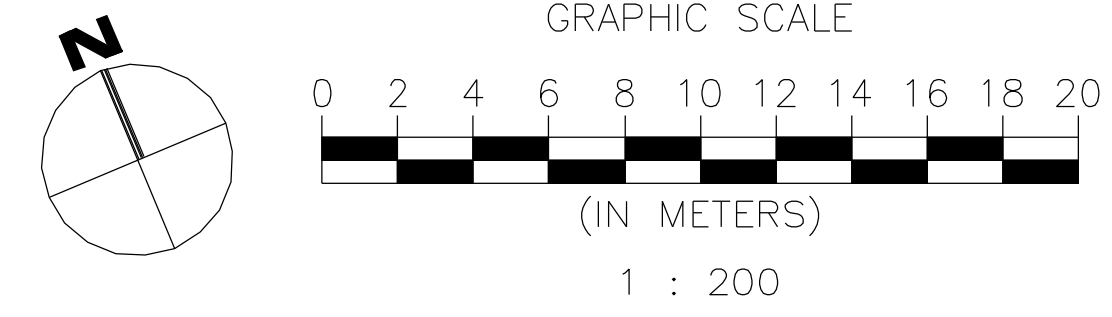


PLANT LIST & LEGEND

TREES	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	DETAIL / REMARKS
	PYR CAL	PYRUS CALLERYANA 'CHANTICLEER'	CHANTICLEER FLOWERING PEAR	609mm BOX	17	VARIETY MATCHES EXISTING TREES
SHRUBS		ROSMARINUS OFFICINALIS	ROSEMARY	NO. 1		609mm O.C. TRI. SPACING
	SAL CLE	SALVIA CLEVELANDII	CLEVELAND SAGE	NO. 5	140	



SEE SHEET L-501 FOR NOTES AND DETAILS

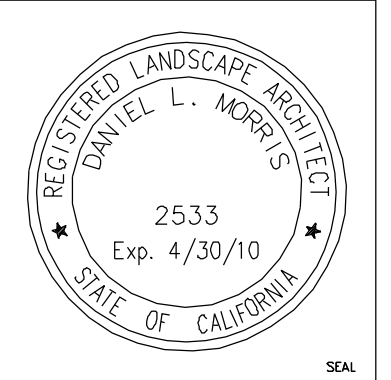


RECORD DRAWING
 RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION SHOWN.
 TRANSFERRED TO ELECTRONIC FILE WITH REASONABLE CARE.

DATE	DESCRIPTION	APPR.
07/07/08		

R. A. Burch
 Construction Co., Inc.
 P.O. Box 1590
 Ramona, CA 92065

WILDMAN & MORRIS
 ARCHITECTS - ENGINEERS
 100 HOWARD ST. SAN FRANCISCO, CA 94105



SUBMITTED BY _____

ACTIVITY - SATISFACTORY TO _____

DATE APPROVED _____

FOR EFD FOR COMMANDER NAVFAC _____

DATE	A/E	EFD
DESIGN	_____	_____
DRAWN	_____	_____
REVIEW	_____	_____
OC	_____	_____
CHEF ARCH/ ENCR	_____	_____
PROJECT MANAGER	_____	_____
FIRE PROTECTION	_____	_____
BRANCH MANAGER	_____	_____
DESIGN DIRECTOR	_____	_____

DEPARTMENT OF THE NAVY
 SAN DIEGO
 NAS NORTH ISLAND
 NAVFAC SOUTHWEST
 CALIFORNIA
 CORONADO, CALIFORNIA

**P-759 BASE MAIN GATE AND ENTRANCE
 NAVAL AIR STATION, NORTH ISLAND**

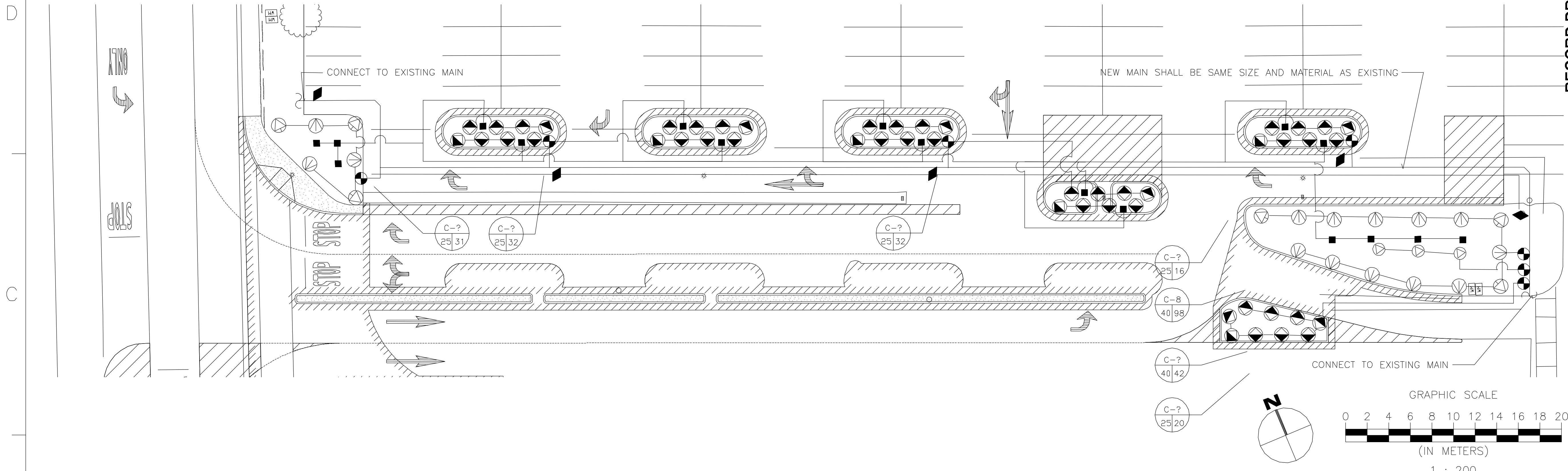
NEX LANDSCAPE PLAN AND DETAILS

CODE D NO. 8001	SIZE D
SCALE:	
EFD NO.	
STA. PROJ. NO.	
SPEC. NO. 11028065-002	
CONSTR. CONTR. NO. N68711-02-D-8065-002	
NAVFAC DRAWING NO. 8225753	
SHEET OF L-103	

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

Merrill
 Landscape Architects & Planners
 249 Pine Street San Francisco, CA 94111
 P. 415.291.8900 F. 415.291.9463
 cal.ec. #5290 www.merrill-morrill.com

REV/DATE



IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MODEL NUMBER	MANUFACTURER DESCRIPTION	KPa	LPM	MAX. RADIUS	MAX. SPACING	NOTES
	4.5m F, H, Q	1812-15 F,H,Q-SAM-PRS	RAIN BIRD 300mm POP-UP SHRUB SPRAY	207	14,0,7,0,3,5	4.5m	4.3m	SEE SHEET L-503 FOR NOTES AND DETAILS
	2.4m H, Q	1812-8 H,Q-SAM-PRS	RAIN BIRD 300mm POP-UP SHRUB SPRAY	207	2,0,1,0	2.4m	2.2m	SEE SHEET L-503 FOR NOTES AND DETAILS
	TREE BUBBLER	1402	RAIN BIRD PRESSURE COMPENSATING BUBBLER	207	1.9	-	-	SEE SHEET L-503 FOR NOTES AND DETAILS
	VALVE	PESB SERIES	RAIN BIRD PLASTIC REMOTE CONTROL VALVE WITH SOLENOID ACTIVATION AND EXTERNAL FLOW CONTROL					SEE SHEET L-503 FOR NOTES AND DETAILS
	20mm	33DNP	RAIN BIRD QUICK COUPLING VALVE					SEE SHEET L-503 FOR NOTES AND DETAILS
	C-1 25 15		CONTROLLER AND STATION NUMBER APPROXIMATE LITERS PER MINUTE REMOTE CONTROL VALVE SIZE (mm)					SEE SHEET L-503 FOR NOTES AND DETAILS SEE SHEET L-503 FOR NOTES AND DETAILS SEE SHEET L-503 FOR NOTES AND DETAILS
			MAIN LINE: 1120-SCHEDULE 40 PVC SOLVENT WELD PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 900mm COVER.					SEE SHEET L-503 FOR NOTES AND DETAILS
			LATERAL LINE: 1120-200 PSI PVC SOLVENT WELD PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 300mm COVER.					SEE SHEET L-503 FOR NOTES AND DETAILS
			SLEEVE (SL): 1120-200 PSI PVC PLASTIC PIPE. 450mm COVER.					SEE SHEET L-503 FOR NOTES AND DETAILS

IRRIGATION CONTRACTOR TO VERIFY PRESSURE BEFORE START OF WORK. IF PRESSURE AT POINT OF CONNECTION IS 448 KPA (65 PSI) OR LESS, CONTACT THE IRRIGATION CONSULTANT.
 CONTRACTOR TO VERIFY LOCATION AND OPERATION OF EXISTING IRRIGATION SYSTEM. NOTIFY OWNER OF CONDITIONS THAT PREVENT MODIFICATION TO THE EXISTING SYSTEM.
 SEE SHEET L-506 FOR NOTES AND DETAILS

RECORD DRAWING
 RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION OR A GUARANTEE OF THE INFORMATION. THIS DRAWING IS TO BE TRANSFERRED TO ELECTRONIC FILE WITH REASONABLE CARE.

DATE	DESCRIPTION	BY	DATE
07/07/08	AS-BUILT CONDITIONS SHOWN		

R. A. Burch
 Construction Co., Inc.
 P.O. Box 1590
 Ramona, CA 92065

WILDMAN & MORRIS
 ARCHITECTS - ENGINEERS
 100 HOWARD ST. SAN FRANCISCO, CA 94105



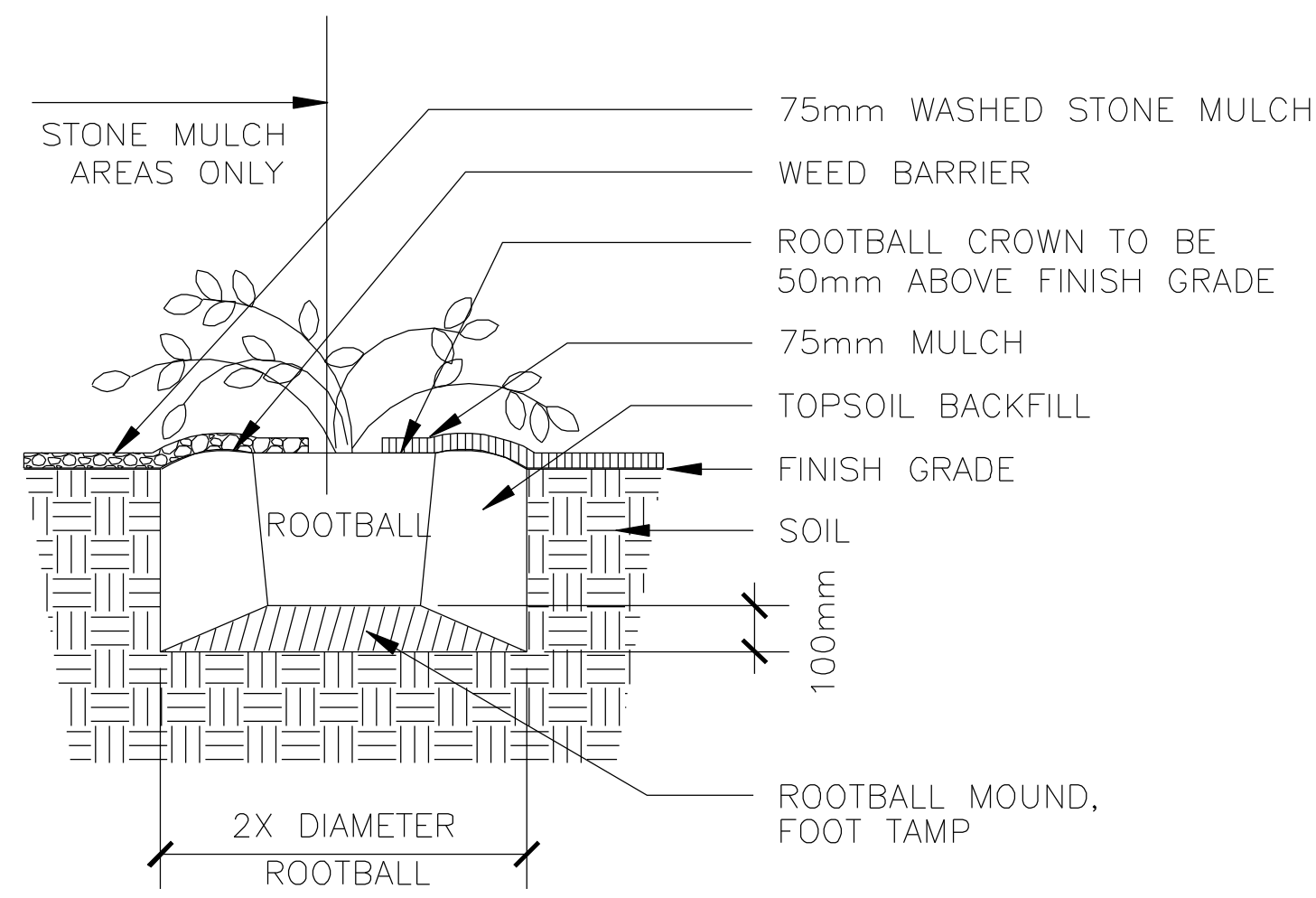
SUBMITTED BY	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
DESIGN	
DRAWN	
REVIEW	
OC	
CHIEF ARCH/ ENGR	
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
 SAN DIEGO
 NAS NORTH ISLAND
 NAVFAC SOUTHWEST
 CALIFORNIA
 CORONADO, CALIFORNIA
**P-759 BASE MAIN GATE AND ENTRANCE
 NAVAL AIR STATION, NORTH ISLAND**
 NEX IRRIGATION PLAN AND LEGEND

CODE D NO	8001	SIZE	D
SCALE:			
EFD NO.			
STA. PROJ. NO.			
SPEC. NO.	11028065-002		
CONSTR. CONTR. NO.	N68711-02-D-8065-002		
NAVFAC DRAWING NO.	8225754		
SHEET	OF		
		L-104	

Merrill
 Landscape Architects & Planners
 249 Pine Street San Francisco, CA 94111
 P. 415.291.8900 F. 415.291.9463
 cal. lic. #5290 www.merrill-morris.com

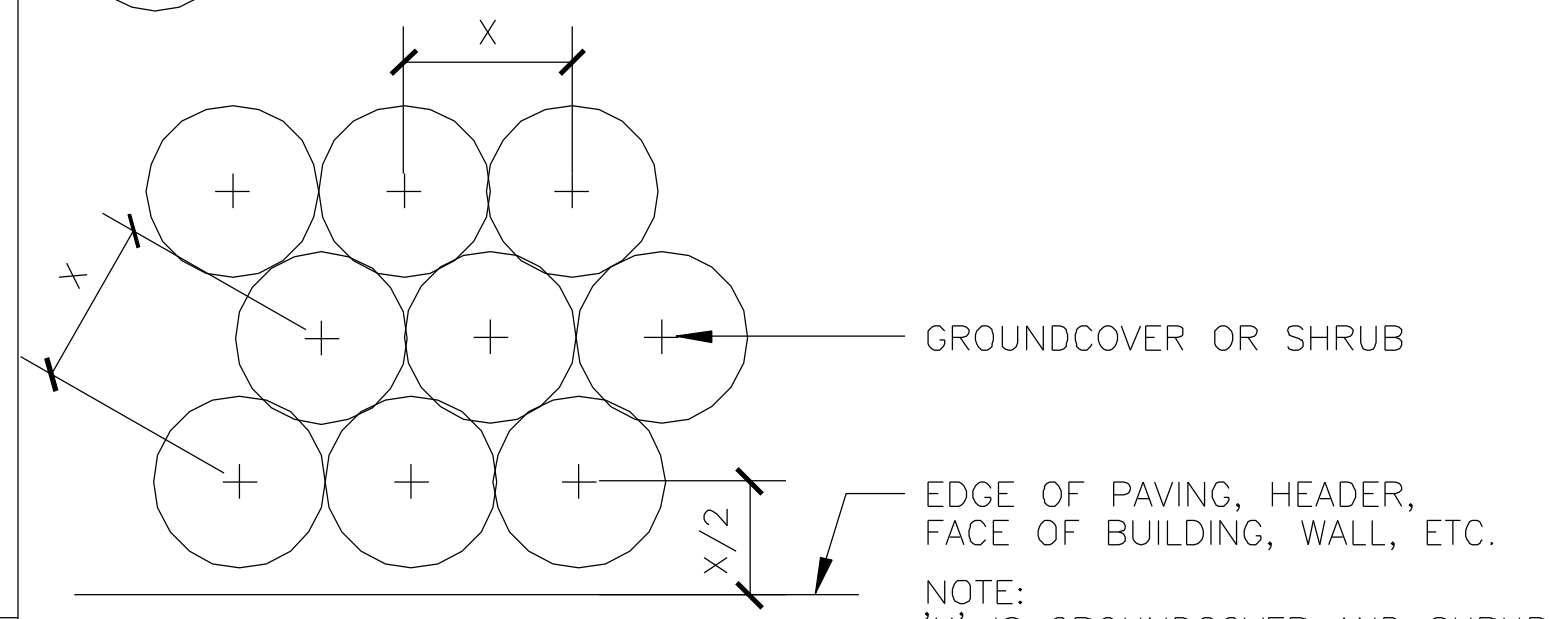
THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.



SECTION
NTS

1 PLANTING

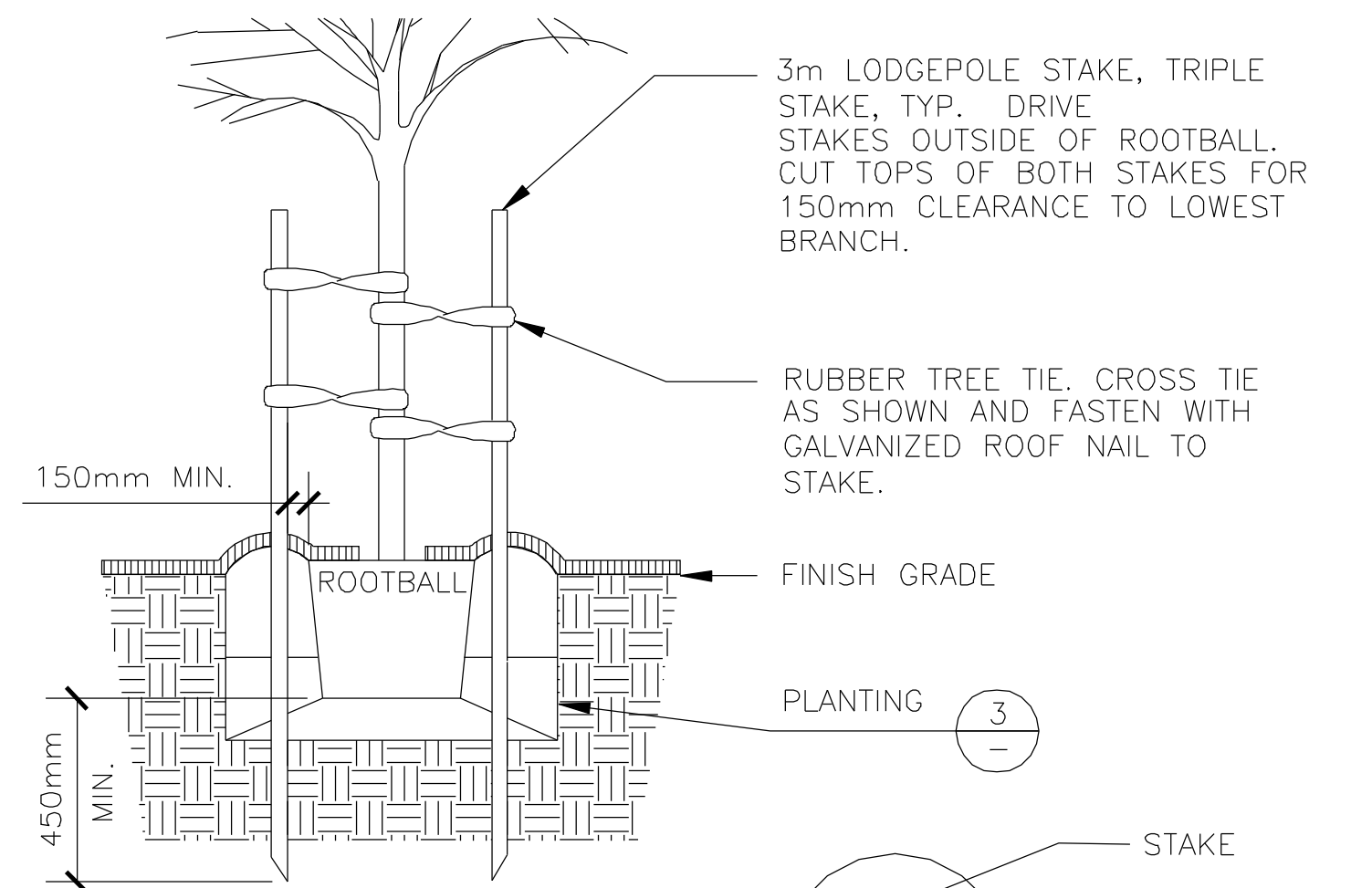
P_PLTG01M



PLAN
NTS

2 GROUND COVER AND SHRUB SPACING

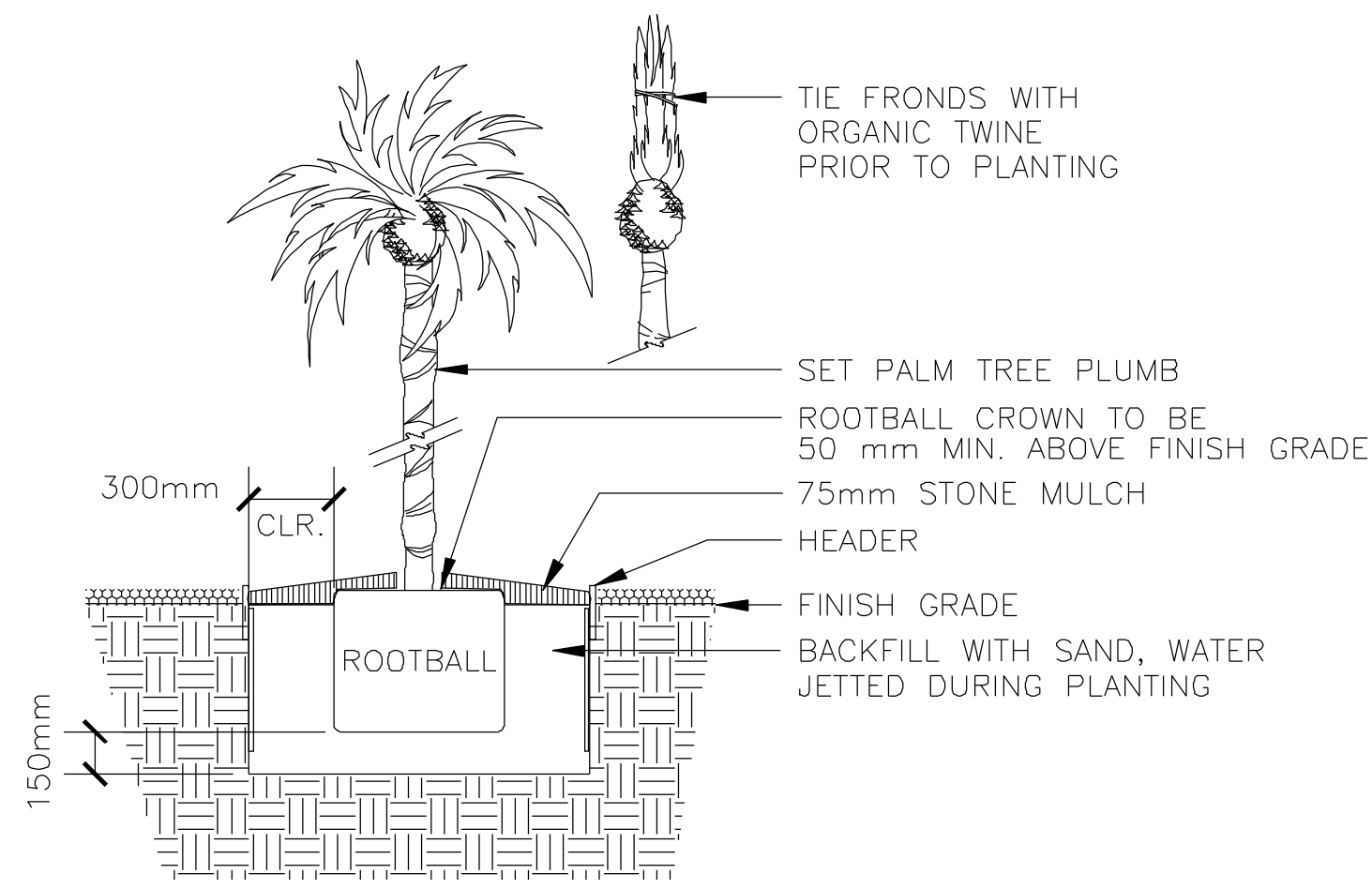
P_GCSGP1



SECTION
N.T.S.

3 TREE STAKING

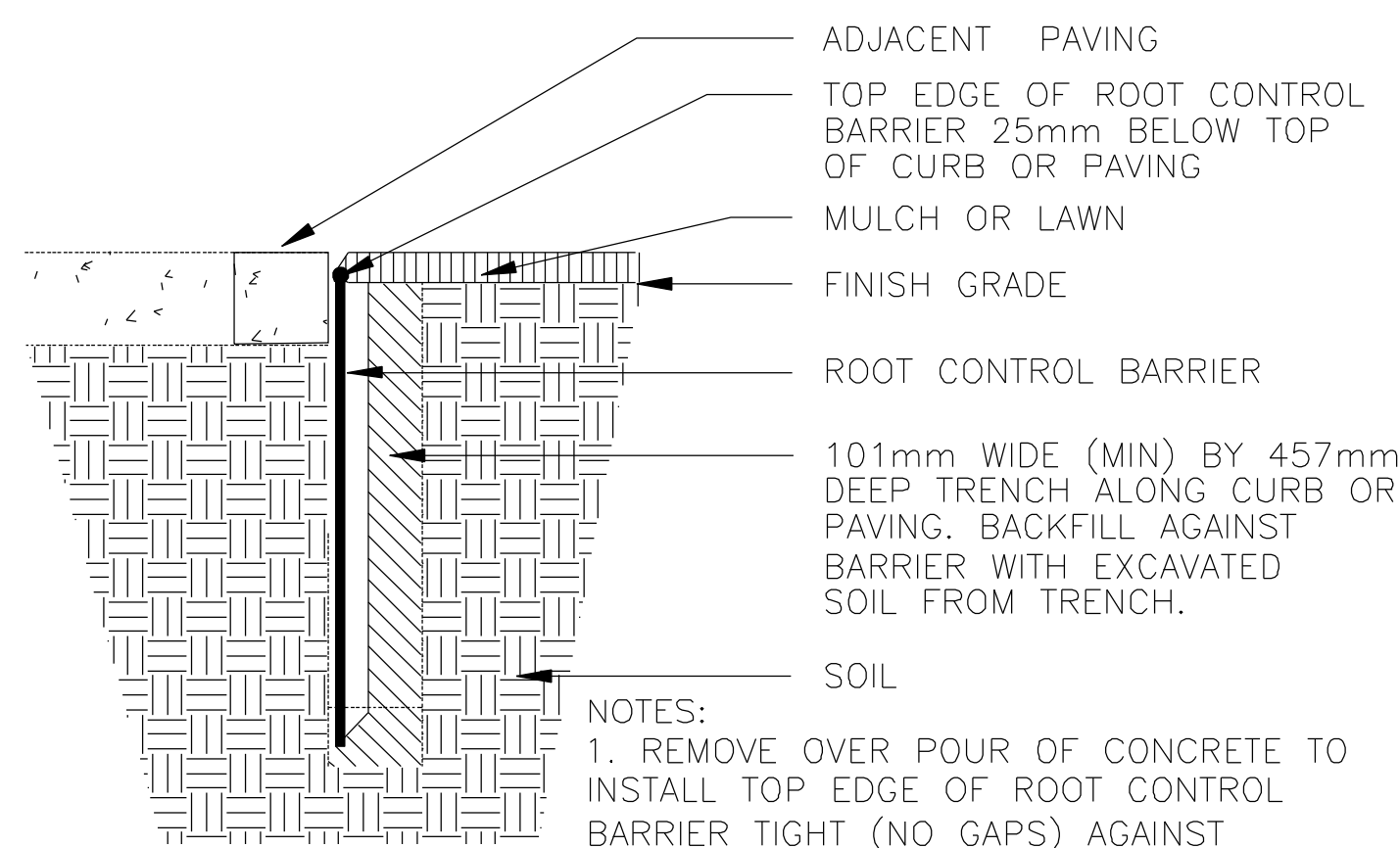
P_TSTK01M



SECTION
NTS

3 PALM TREE

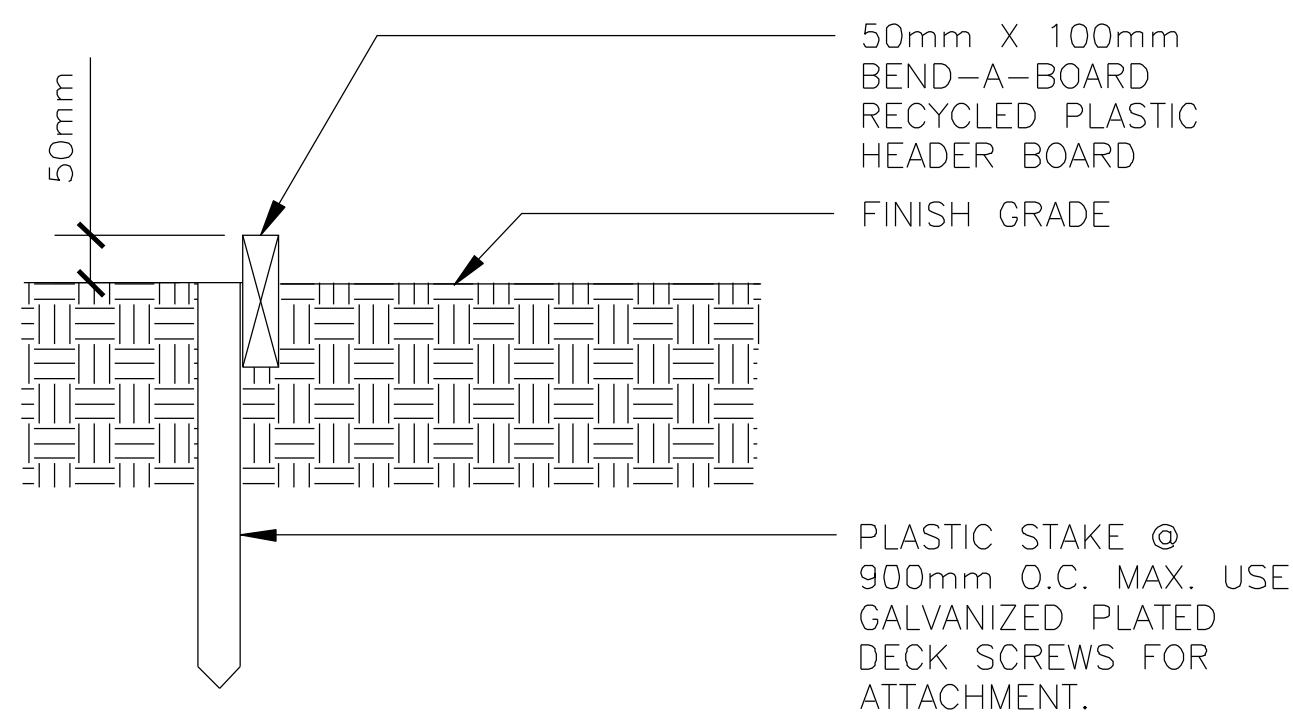
P_PALM01M



SECTION
NTS

4 ROOT CONTROL BARRIER - LINEAR

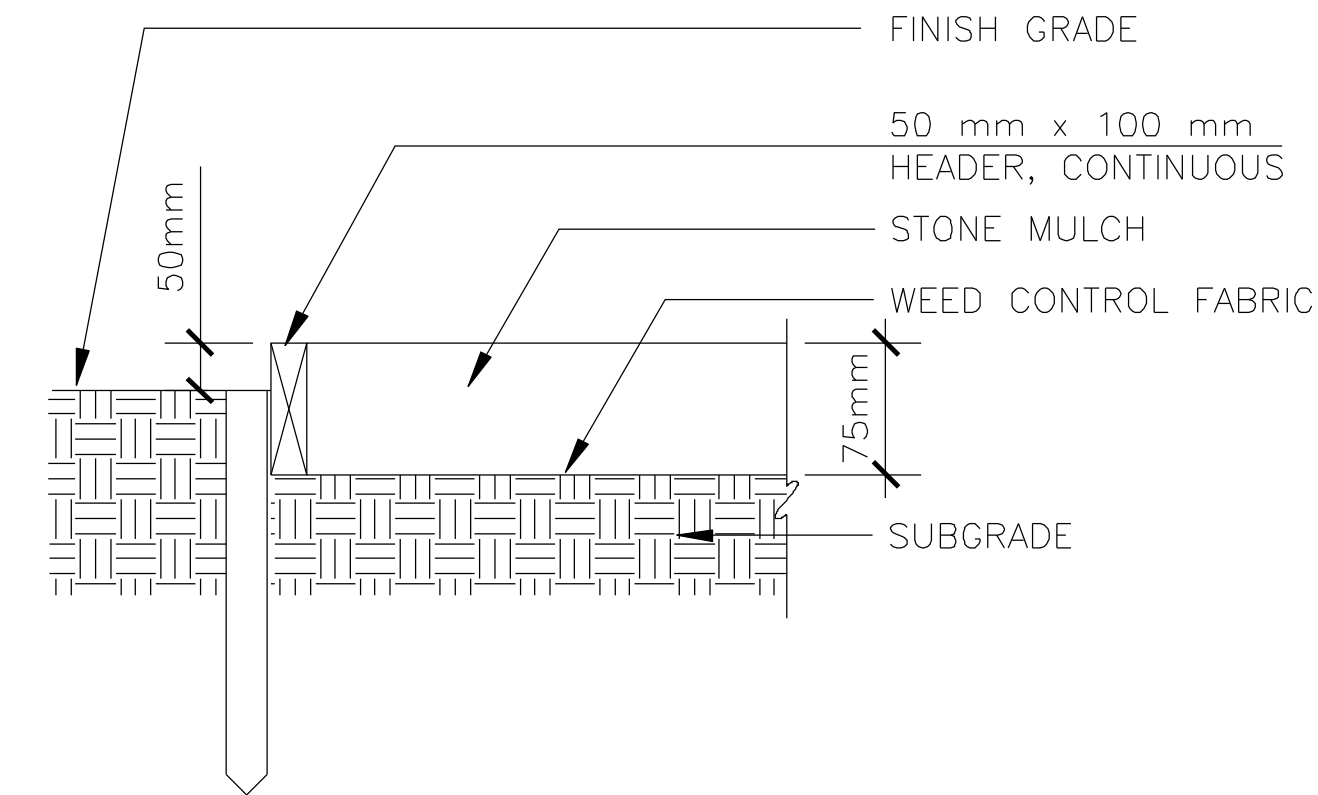
P_RTBAR01M



SECTION
NTS

5 HEADER

P_HDR01M



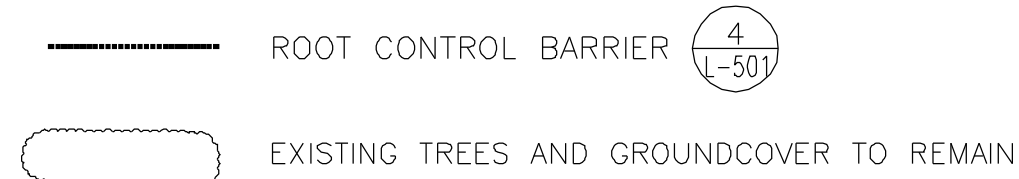
SECTION
N.T.S.

6 STONE MULCH/ DECOMPOSED GRANITE

F_DGP02M

PLANT LIST & LEGEND

	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	DETAIL / REMARKS
TREES	CAL DEC	CALOCEDRUS DECURRENS	INCENSE CEDAR	15 GC	19	
	CED DEO	CEDRUS DEODARA	DEODAR CEDAR	15 GC	18	
	JAC MIM	JACARANDA MIMOSIFOLIA	BLUE JACARANDA	24" BOX	6	
	MAG GRA	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	36" BOX	24	STANDARD/MATCHED
	PHO DAC	PHOENIX DACTYLIFERA 'MEDJOO'	MEDJOO DATE PALM	20' CT	8	CT=CLEAR TRUNK (ALT: PHO CAN 10' CT)
	PLA RAC	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	15 GC	8	
	PLA RAC	PLATANUS RACEMOSA	CALIFORNIA SYCAMORE	24" BOX	33	STANDARD
	PIN TOR	PINUS TORREYANA	TORREY PINE	24" BOX	12	
	QUE AGR	QUERCUS AGRIFOLIA	COAST LIVE OAK	24" BOX	19	
	WAS PHI	WASHINGTONIA FILIFERA	CALIFORNIA FAN PALM	6' CT	21	CT=CLEAR TRUNK
SHRUBS	BAC PIL	BACCHARIS PILULARIS	COYOTE BUSH	1 G.C.	648	2.0M ON CENTER
	CEA DS	CEANOTHUS 'DARK STAR'	WILD LILAC	1 G.C.	-	-
	JUN SAR	JUNIPERUS CHINENSIS	SAN JOSE JUNIPER	1 G.C.	123	2.4M ON CENTER
	LAV DEN	LAVANDULA DENTATA	FRENCH LAVENDER	1 G.C.	-	-
	MUH RIC	MUHLENBERGIA RIGENS	DEER GRASS	1 G.C.	262	1.2M ON CENTER
	PHO AR	PHORMIUM TENAX 'AMAZING-RED'	AMAZING RED FLAX	5 G.C.	-	1M ON CENTER
	PHO CRE	PHORMIUM TENAX 'CREAM DELIGHT'	CREAM DELIGHT FLAX	5 G.C.	57	1M ON CENTER
	RHA CAL	RHAMNUS CALIFORNICA 'EVE CASE'	COFFEE BERRY	1 G.C.	122	
SAL CLE	SALVIA GREGGII	AUTUMN SAGE	5 G.C.	191	1M ON CENTER	
VINES/GROUND COVERS		ACAGIA REDOLENS 'DESERT CARPET'	NCN	1 G.C.	-	2.4M ON CENTER
		CEANOTHUS GRISEUS HORIZONTALIS 'YANKEE POINT'	YANKEE POINT WILD LILAC	1 G.C.	-	-
		HEMEROCALIS HYBRID	EVERGREEN DAYLILY	5 G.C.	-	1M ON CENTER
		HYPERICUM CALYCINUM	CREeping ST. JOHN SWORT	FLATS	-	0.45M ON CENTER
		JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP JUNIPER	1 G.C.	-	2M ON CENTER
		LANTANA MONTEVIDENSIS 'GOLD'	NCN	1 G.C.	-	1.5M ON CENTER
		MAHONIA REPENS	CREeping MAHONIA	1 G.C.	-	-
LAWN		PELERGONIUM PELTATUM	IVY GERANIUM	1 G.C.	-	1.2M ON CENTER
		TRACHELOSPERMUM JASMINOIDES	STAR JASMINE	1 G.C.	-	1.5M ON CENTER
		DWARF SHEEP AND HARD FESCUE	SODDED LAWN	-	-	-
	D.B.	DETENTION POND PLANTING	SEE SPECIFICATIONS	-	-	-



THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

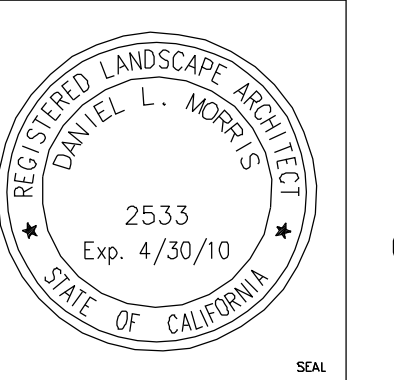
Merrill
Landscape Architects & Planners
249 First Street San Francisco, CA 94111
P: 415.291.8900 F: 415.291.9463
cell: 415.492.9595 www.merrill-landscape.com

RECORD DRAWING
RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE DRAWING OR THE INFORMATION HEREIN. INFORMATION TRANSFERRED TO ELECTRONIC FILE WITH REASONABLE CARE.

DATE	DESCRIPTION	BY	CHK
07/27/08			

R. A. Burch
Construction Co., Inc.
P.O. Box 1590
Ramona, CA 92065

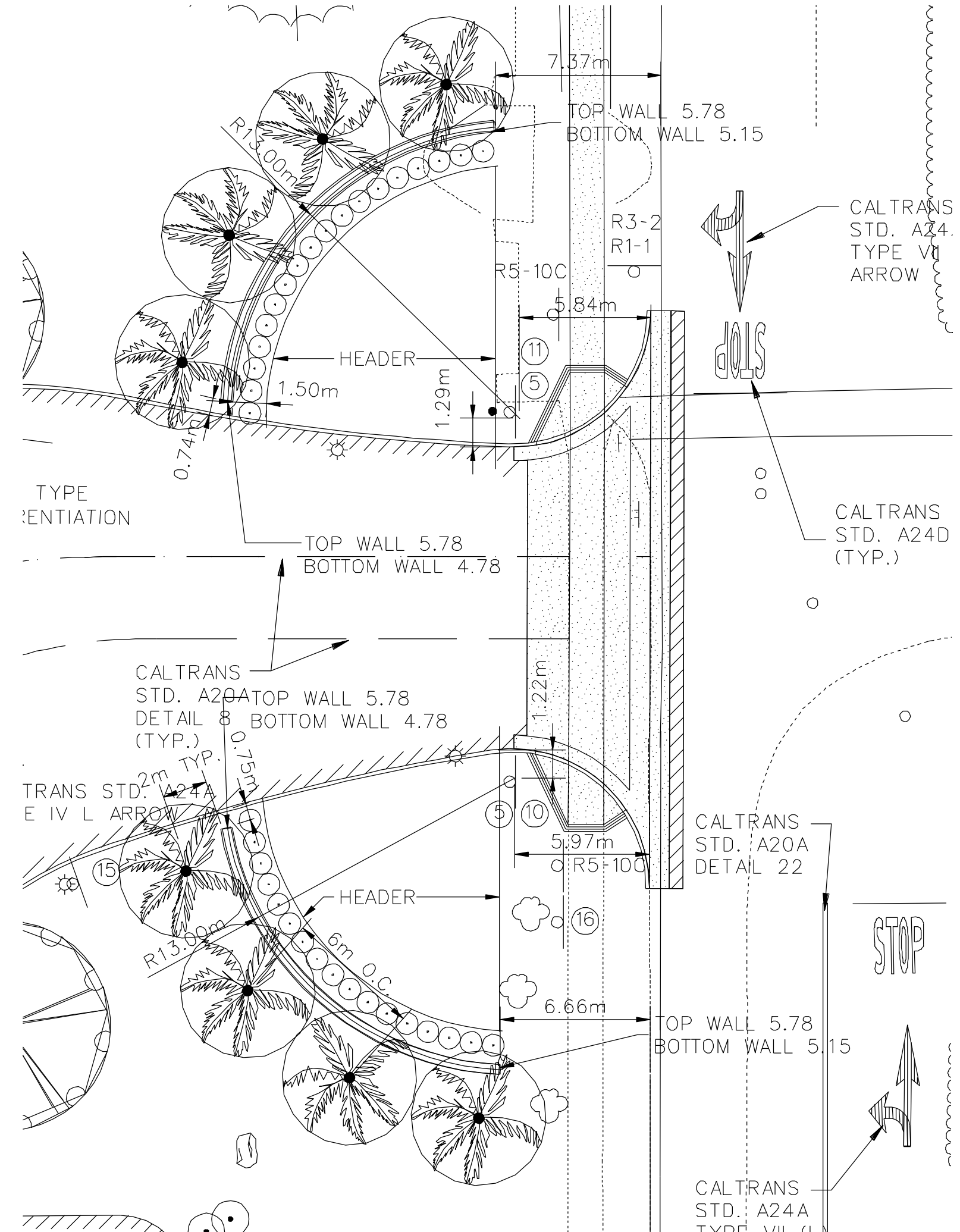
WILDMAN & MORRIS
ARCHITECTS - ENGINEERS
100 HOBARD ST. SAN FRANCISCO, CA 94105



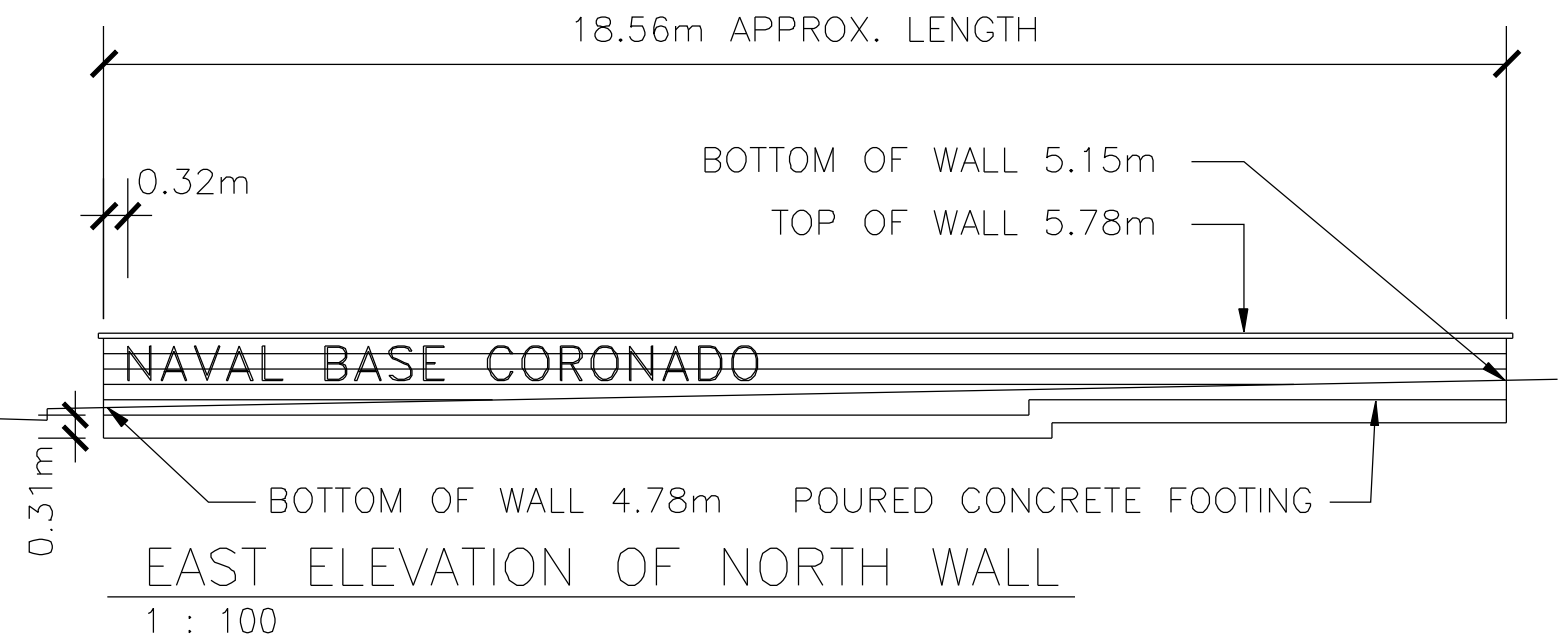
SUBMITTED BY _____
ACTIVITY - SATISFACTORY TO _____
DATE APPROVED _____
FOR EFD FOR COMMANDER NAVFAC _____
DATE _____
AVE _____ EFD _____
DESIGN _____
DRAWN _____
REVIEW _____
OC _____
CHK ARCH/DGR _____
PROJECT MANAGER _____
FIRE PROTECTION _____
BRANCH MANAGER _____
DESIGN DIRECTOR _____

NAVAL FACILITIES ENGINEERING COMMAND
CALIFORNIA
CORONA, CALIFORNIA
NAVFAC SOUTHWEST
SAN DIEGO
SAN NORTH ISLAND
P-759 BASE MAIN GATE AND ENTRANCE
NAVAL AIR STATION, NORTH ISLAND
LANDSCAPE LEGEND AND DETAILS

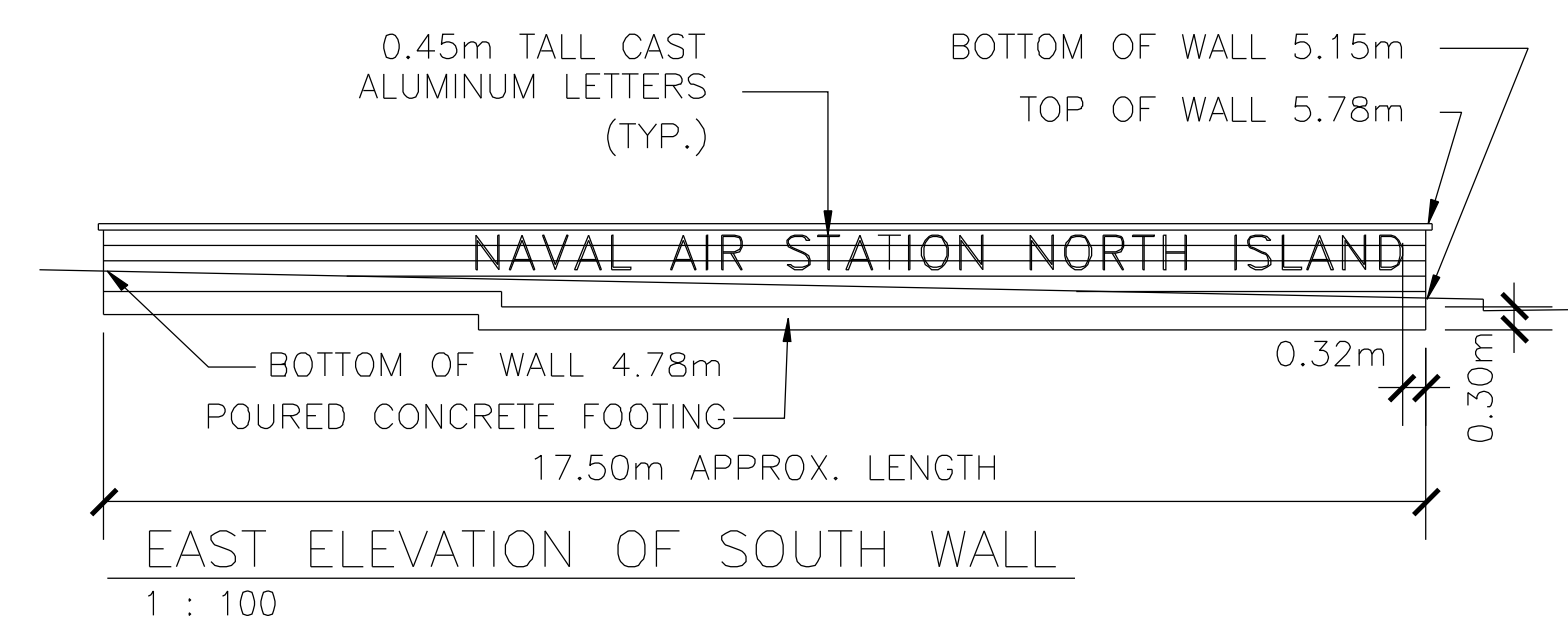
DEPARTMENT OF THE NAVY
CODE ID: NO 80891 SIZE: 0
SCALE: _____
EFD NO. _____
STA. PROJ. NO. _____
SPEC. NO. 11028065-002
CONSTR. CONTR. NO. N68711-02-D-8065-002
NAVFAC DRAWING NO. 8225756
SHEET OF L-501



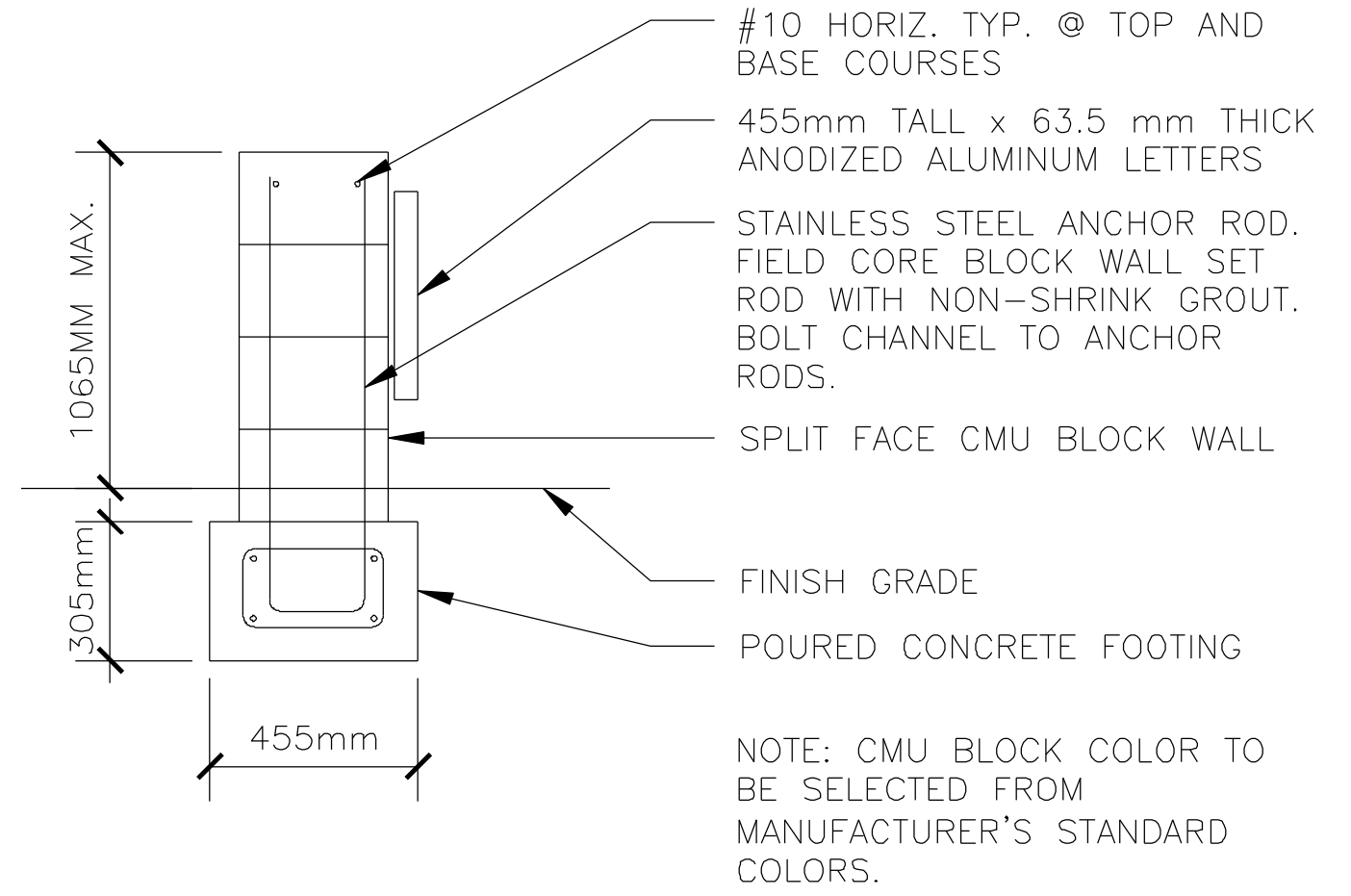
1 ENTRANCE WALL DETAIL PLAN
1:200



EAST ELEVATION OF NORTH WALL
1:100



2 ENTRANCE WALL ELEVATIONS
WALLS ARE DEPICTED WITH CURVE "FLATTENED"
1:100



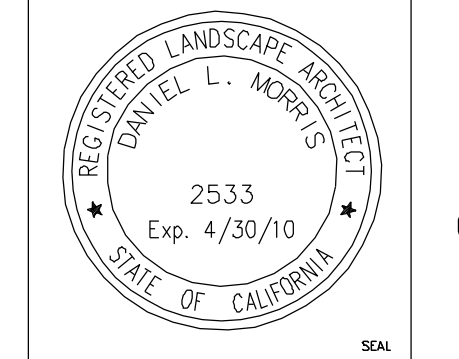
3 WALL SECTION

RECORD DRAWING
RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION PROVIDED. INFORMATION WAS TRANSFERRED TO ELECTRONIC FILE WITH REASONABLE CARE.

DATE	DESCRIPTION	APPROVED
07/27/08	AS-BUILT CONDITIONS SHOWN	

R. A. Burch
Construction Co., Inc.
P.O. Box 1590
Ramona, CA 92065

WILDMAN & MORRIS
ARCHITECTS - ENGINEERS
100 BROAD ST. SAN FRANCISCO, CA 94105



SUBMITTED BY	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
DESIGN	
DRAWN	
REVIEW	
QC	
CHIEF ARCH/ENGR	
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

NAVY FACILITIES ENGINEERING COMMAND
CORONADO, CALIFORNIA
NAVFAC SOUTHWEST
SAN DIEGO
SAN DIEGO
NAS NORTH ISLAND
P-759 BASE MAIN GATE AND ENTRANCE
NAVAL AIR STATION, NORTH ISLAND
LANDSCAPE DETAILS

CODE NO. 80091	SIZE D
SCALE:	
EFD NO.	
STA. PROJ. NO.	
SPEC. NO. 11028065-002	
CONSTR. CONTR. NO. N68711-02-D-8065-002	
NAVFAC DRAWING NO. 8225757	
SHEET OF	
L-502	

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

Merrill
Landscape Architects & Planners
249 First Street San Francisco, CA 94111
P. 415.291.8960 F. 415.291.9463
www.merrill-landscape.com

IRRIGATION NOTES

- THE CONTRACTOR SHALL REVIEW RELATED DRAWINGS AND SHALL ENSURE COORDINATION WITH ALL APPLICABLE TRADES PRIOR TO SUBMITTING BID.
- THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKMEN. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO HIS WORK.
- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER.
- DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. HE SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
- DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.
- ELECTRICAL CONTRACTOR TO SUPPLY 120 VAC (2.5 AMP) SERVICE TO CONTROLLER LOCATION. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER. IRRIGATION CONTROL WIRE SHALL BE #14, U.L. APPROVED FOR DIRECT BURIAL. COMMON WIRE SHALL BE #12 U.L. APPROVED AND SHALL BE WHITE IN COLOR. WIRING TO INDIVIDUAL REMOTE CONTROL VALVES SHALL BE COLOR OTHER THAN WHITE.
- EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.
- REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN WIRE FROM EACH RCV TO THE CONTROLLER. SPLICING WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED.
- SPLICING OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 900mm COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 3m ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.
- INSTALL ONE (1) SPARE CONTROL WIRE FOR EVERY 6 (SIX) STATIONS ON THE CONTROLLER ALONG THE ENTIRE MAIN LINE. SPARE WIRES SHALL BE THE SAME COLOR (ONE WITH A WHITE STRIPE) AND OF A DIFFERENT COLOR THAN OTHER CONTROL WIRES. LOOP 900mm EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.
- VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE (NOT IN LAWN AREA.)
- INSTALL VALVE BOXES MINIMUM 300mm FROM AND PERPENDICULAR TO WALK, CURB, LAWN, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, LAWN, ETC. AND EACH BOX SHALL BE MINIMUM 300mm APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, LAWN, ETC.
- LOCATE QUICK COUPLING VALVE 300mm FROM HARDSCAPE AREA.
- ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE DESIGNATED ON THE PLANS.
- IN LOCATIONS WHERE LOW HEAD DRAINAGE WILL CAUSE EROSION AND EXCESS WATER, USE POP-UP SPRINKLER MODELS WITH INTEGRAL CHECK VALVE.
- THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF FIXED ARC (OR AN ADJUSTABLE ARC IF FIXED ARC DOES NOT MATCH THE ARC TO BE IRRIGATED) TO FIT THE SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION HEADS. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.
- WHEN VERTICAL OBSTRUCTIONS (STREET LIGHTS, TREES, FIRE HYDRANTS, ETC.) INTERFERE WITH THE SPRAY PATTERN OF THE HEADS SO AS TO PREVENT PROPER COVERAGE, THE IRRIGATION CONTRACTOR SHALL FIELD ADJUST THE SPRINKLER SYSTEM BY INSTALLING A QUARTER, THIRD OR HALF CIRCLE HEAD AT THE SIDES OF THE OBSTRUCTION SO AS TO PROVIDE PROPER COVERAGE. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
- NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT THAT WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS INSTRUCTIONS ARE OBTAINED.
- LOCATE BUBBLERS ON UPHILL SIDE OF TREES.
- IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.
- ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. CONTRACTOR TO REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK. ADDITIONALLY, CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.
- THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.
- IRRIGATION DEMAND: REFER TO IRRIGATION POINTS OF CONNECTION.
- CONNECT FLOW SENSOR TO CONTROLLER WITH DIRECT BURIAL SHIELDED CABLE (PE-39.) INSTALL EACH CABLE IN A SEPARATE 1" PVC SCHEDULE 40 CONDUIT.
- GREEN TECH CONTROLLER ENCLOSURE ASSEMBLIES MUST BE CERTIFIED BY GREEN TECH PRIOR TO FINAL APPROVAL OF IRRIGATION. CONTACT MIKE PALUMBO (909-772-4759) FOR PRE-CONSTRUCTION MEETING AND CERTIFICATION REQUIREMENTS. ONLY MAXICOM CERTIFIED PERSONNEL ARE TO INSTALL MAXICOM COMPONENTS.
- OPERATE IRRIGATION CONTROLLER(S) BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.
- IRRIGATION CONTRACTOR TO NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.
- PRIOR TO TRENCHING, CALL UNDERGROUND SERVICE ALERT, (1-800) 227-2600 FOR NORTHERN CALIFORNIA.

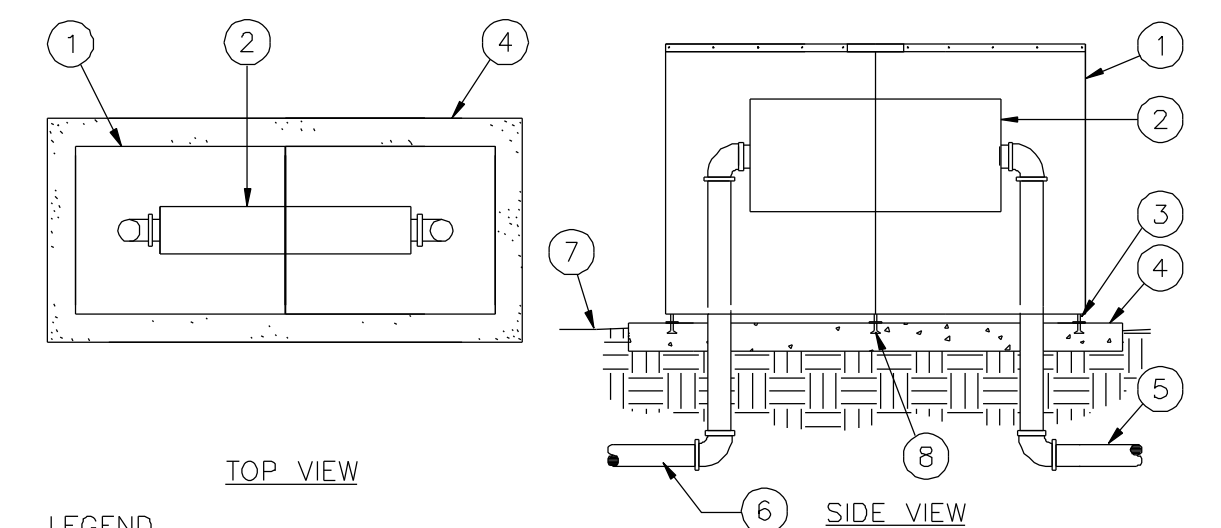
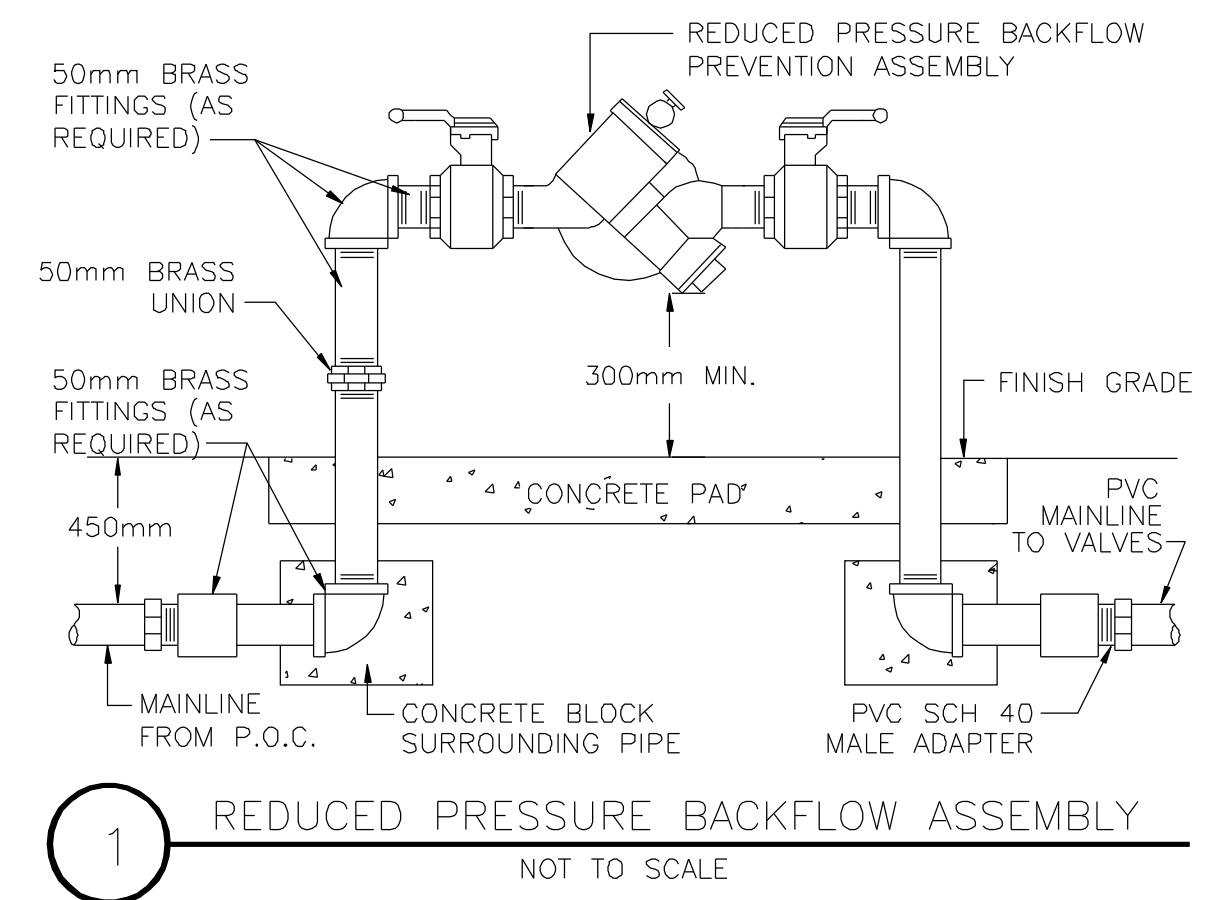
IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	kPa	LPM	MAX. RADIUS	MAX. SPACING
●	5006-PL-FC-SAM-2.5	RAIN BIRD 150mm POP-UP ROTARY SPRINKLER	310	9.5	11.3m	8.8m
◐	5006-PL-PC-SAM-2.5	RAIN BIRD 150mm POP-UP ROTARY SPRINKLER	310	9.5	11.3m	8.8m
◑	5006-PL-PC-SAM-1.5	RAIN BIRD 150mm POP-UP ROTARY SPRINKLER	310	5.8	10.7m	8.8m
○	5006-PL-FC-SAM-1.0LA	RAIN BIRD 150mm POP-UP ROTARY SPRINKLER	310	4.0	8.6m	5.8m
⊕	5012-PL-PC-SAM-5.0	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	19.26	13.7m	11m
⊖	5012-PL-PC-SAM-3.0	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	11.7	12m	11m
⊗	5012-PL-FC-SAM-2.5	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	9.5	11.3m	9m
⊙	5012-PL-PC-SAM-2.5	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	9.5	11.3m	9m
⊚	5012-PL-PC-SAM-1.5	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	5.8	10.7m	9m
▽	5012-PL-PC-SAM-3.0LA	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	11.6	10.7m	8m
▽	5012-PL-PC-SAM-1.5LA	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	6	9.4m	8m
▽	5012-PL-FC-SAM-2.0LA	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	7.6	9.8m	7m
▽	5012-PL-FC-SAM-1.0LA	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	4	8.8m	6m
▽	5012-PL-PC-SAM-1.0LA(H)	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	4	8.8m	6m
▽	5012-PL-PC-SAM-1.0LA(Q)	RAIN BIRD 300mm POP-UP ROTARY SPRINKLER	310	4	8.8m	6m
⊙	1806-SAM-PRS-15F,H,Q	RAIN BIRD POP-UP LAWN SPRAY	207	14.0,7.0,3.5	4.5m	4.3m
●	1806-SAM-PRS-12F,H,Q	RAIN BIRD POP-UP LAWN SPRAY	207	9.8,4.9,2.5	3.7m	3.4m
⊕	1806-SAM-PRS-10H,Q	RAIN BIRD POP-UP LAWN SPRAY	207	3.0,1.5	3.1m	2.8m
▽	1812-SAM-PRS-12H,Q	RAIN BIRD POP-UP SHRUB SPRAY	207	4.9,2.5	3.7m	3.4m
■	RWS-BCG02	RAIN BIRD ROOT WATERING SYSTEM (SYMBOL REPRESENTS TWO BUBBLERS)	207	1.9	-	-
▲	XBD-81	RAIN BIRD XERI-BIRD MULTI OUTLET EMITTER	207	3.8 LPH	-	-
⊕	MDFCOUP/MDFCOUP	RAIN BIRD EASY FIT COUPLER AND END PLUG				
⊙	PEB SERIES	RAIN BIRD REMOTE CONTROL VALVE				
		SEE CHART BELOW FOR SIZES BASED ON FLOW RATE				
◆	33DNP	RAIN BIRD QUICK COUPLING VALVE				
⊕	8000 SERIES	HAMMOND BALL VALVE (LINE SIZE)				
⊕	825Y-50mm/SBBC-45AL	FEBCO REDUCED PRESSURE BACKFLOW PREVENTER IN STRONG BOX ENCLOSURE				
⊕	3300 - 40mm	SUPERIOR NORMALLY OPEN MASTER REMOTE CONTROL VALVE				
⊕	-	GREEN TECH FLOW SENSOR (INCLUDED IN ASSEMBLY BELOW)				
⊕	SA13-RB2-40/LPP/LFS-150/RMLP/EMP16LD/TRC-RCA	GREEN TECH RAINBIRD MAXICOM CONTROLLER ASSEMBLY - FOR MORE INFORMATION CALL MIKE PALUMBO AT GREEN TECH 909-772-4759 (MAKE SURE RADIO FREQUENCY IS BETWEEN 148-152)				
⊕	SA13-RB2-28/LPP/LFS-150/RMLP/EMP16LD/TRC-RCA	GREEN TECH RAINBIRD MAXICOM CONTROLLER ASSEMBLY - FOR MORE INFORMATION CALL MIKE PALUMBO AT GREEN TECH 909-772-4759 (MAKE SURE RADIO FREQUENCY IS BETWEEN 148-152)				
⊕		CONTROLLER AND STATION NUMBER				
⊕		APPROXIMATE LITERS PER MINUTE				
⊕		REMOTE CONTROL VALVE SIZE				
⊕		MAIN LINE: 65mm TO 100mm: 1120-200 PSI RING TITE PVC PIPE WITH RING-TITE FITTINGS. 50mm AND SMALLER: 1120- SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 450mm COVER.				
⊕		LATERAL LINE: 1120-200 PSI PVC SOLVENT WELD PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 300mm COVER.				
⊕		DRIP BUBBLER CIRCUITS: RAIN BIRD XERI-BIRD MULTI OUTLET EMITTERS. SPACE AT 450mm. 100mm COVER. (THIS SYMBOL DESIGNATES WHAT AREA IS TO BE COVERED BY DRIP IRRIGATION AND IS DIVIDED BY VALVE)				
⊕		SHOWS LATERAL LINE FROM REMOTE CONTROL VALVE TO DRIP IRRIGATED AREA COVERED BY THAT VALVE				
⊕		SLEEVE (SL): 150mm 1120-200 PSI PVC PLASTIC PIPE. 600mm COVER.				

MODELS NUMBERS FOR DRIP ZONES BASED ON FLOW RATE

FLOW RATE	ZONE TYPE	MODEL NUMBER	DESCRIPTION
.75-10 LPM	MULTI-OUTLET	XCZ-LF-075-BFF	RAIN BIRD LOW FLOW KIT WITH SELF-CLEANING BACK FLUSH FILTER
11-75 LPM	MULTI-OUTLET	XCZ-100-B-COM	RAIN BIRD MEDIUM FLOW CONTROL ZONE KIT WITH BASKET FILTER

NOTE: EVENLY COAT METAL FITTINGS EXPOSED TO SOIL AND CONCRETE WITH 3M SCOTCHRAP PIPE PRIMER AND THEN WRAP WITH 3M SCOTCHRAP NO. 51 BLACK TAPE (20mm OVERLAP).



TOP VIEW

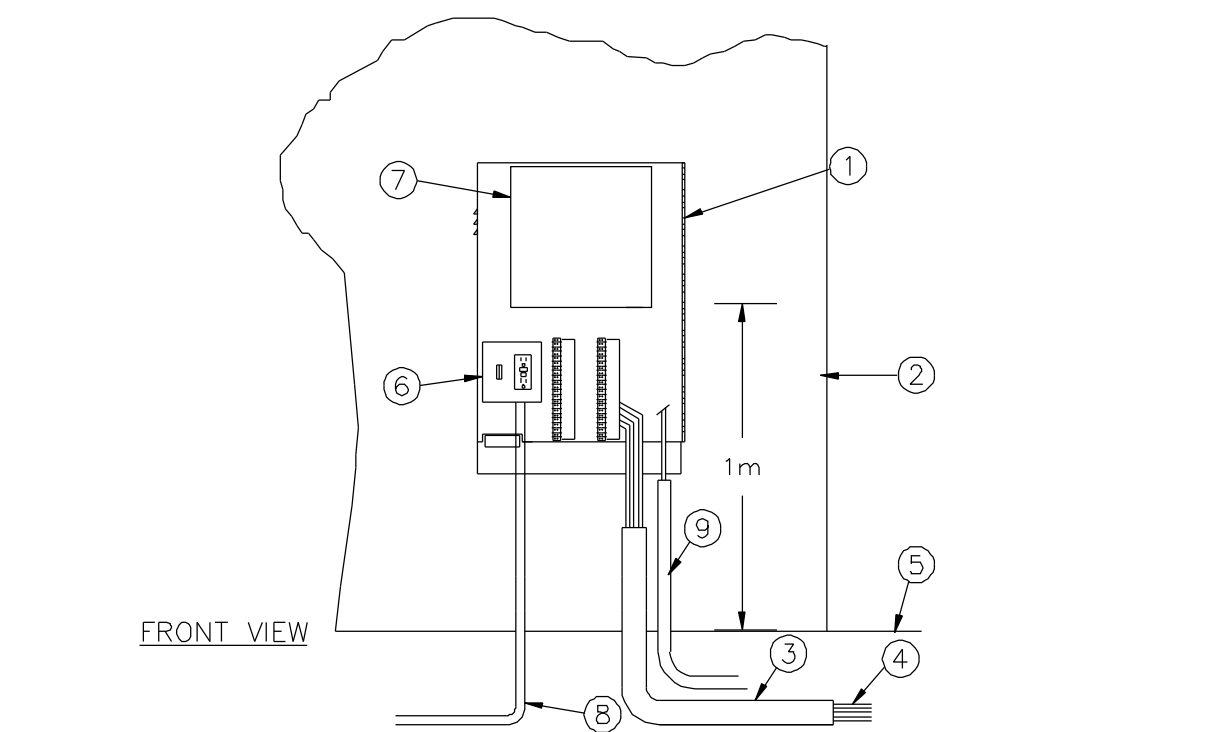
SIDE VIEW

FRONT VIEW

LEGEND

- ALUMINUM BACKFLOW ENCLOSURE.
- BACKFLOW PREVENTER.
- ANCHOR ROD (TYPICAL).
- POURED CONCRETE BASE. - 150mm MINIMUM THICKNESS. EXTEND 100mm BEYOND OUTSIDE DIMENSIONS OF ENCLOSURE.
- MAINLINE TO VALVES.
- MAINLINE FROM POINT OF CONNECTION OR WATER METER.
- FINISH GRADE.
- SUPPORT ROD (TYPICAL).

STRONG BOX BACKFLOW ENCLOSURE NOT TO SCALE



LEGEND

- CONTROLLER ENCLOSURE.
- OUTSIDE WALL.
- 300mm PVC LONG SWEEP ELL - USE ONE SWEEP ELL PER CONTROLLER.
- DIRECT BURIAL CONTROL WIRES TO CONTROL VALVES.
- FINISH GRADE.
- CONTROLLER SUB-ASSEMBLY (CSA) INCLUDES GFI & TERMINAL STRIPS WITH PLACARDS.
- AUTOMATIC CONTROLLER.
- 120-VOLT SERVICE.
- 25mm PVC CONDUIT FOR FLOW SENSOR CABLE (IF APPLICABLE)

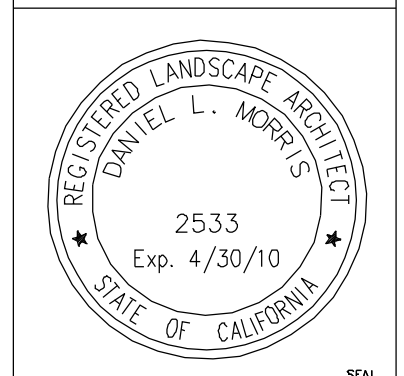
CONTROLLER ENCLOSURE - WALL MOUNT NOT TO SCALE

RECORD DRAWING
 RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION OR ASSURE ACCURACY. INFORMATION TRANSFERRED TO ELECTRONIC FILE WITH REASONABLE CARE.

DATE	DESCRIPTION	DATE
07/09/08		

R. A. Burch
 Construction Co., Inc.
 P.O. Box 1590
 Ramona, CA 92065

WILDMAN & MORRIS
 ARCHITECTS - ENGINEERS
 100 HURD RD. SAN FRANCISCO, CA 94105



SUBMITTED BY	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
DESIGN	
DRAWN	
REVIEW	
OC	
CHK ARCH/DGR	
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

NAVAL FACILITIES ENGINEERING COMMAND
 CALIFORNIA
 CORONA, CALIFORNIA
 NAVFAC SOUTHWEST
 SAN DIEGO
 NAS NORTH ISLAND
P-759 BASE MAIN GATE AND ENTRANCE NAVAL AIR STATION, NORTH ISLAND
 IRRIGATION DETAILS, LEGEND, AND NOTES

CODE ID NO 80091	SIZE D
SCALE:	
EFD NO.	
STA. PROJ. NO.	
SPEC. NO. 11028065-002	
CONSTR. CONTR. NO. N68711-02-D-8065-002	
NAVFAC DRAWING NO. 8225758	
SHEET OF	
L-503	

BROOK WATER
 IRRIGATION CONSULTANTS
 FIVE CROW CANYON COURT, SUITE 209
 SAN RAMON, CALIFORNIA 94583
 TEL 925 855 0417 FAX 925 855 0357
 E-MAIL: BROOKWATER@BROOKWATER.COM

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

Merrill
 Landscape Architects & Planners
 240 First Street San Francisco, CA 94111
 P: 415.291.8900 F: 415.291.9463
 cell: 415.492.0000 www.merrillca.com

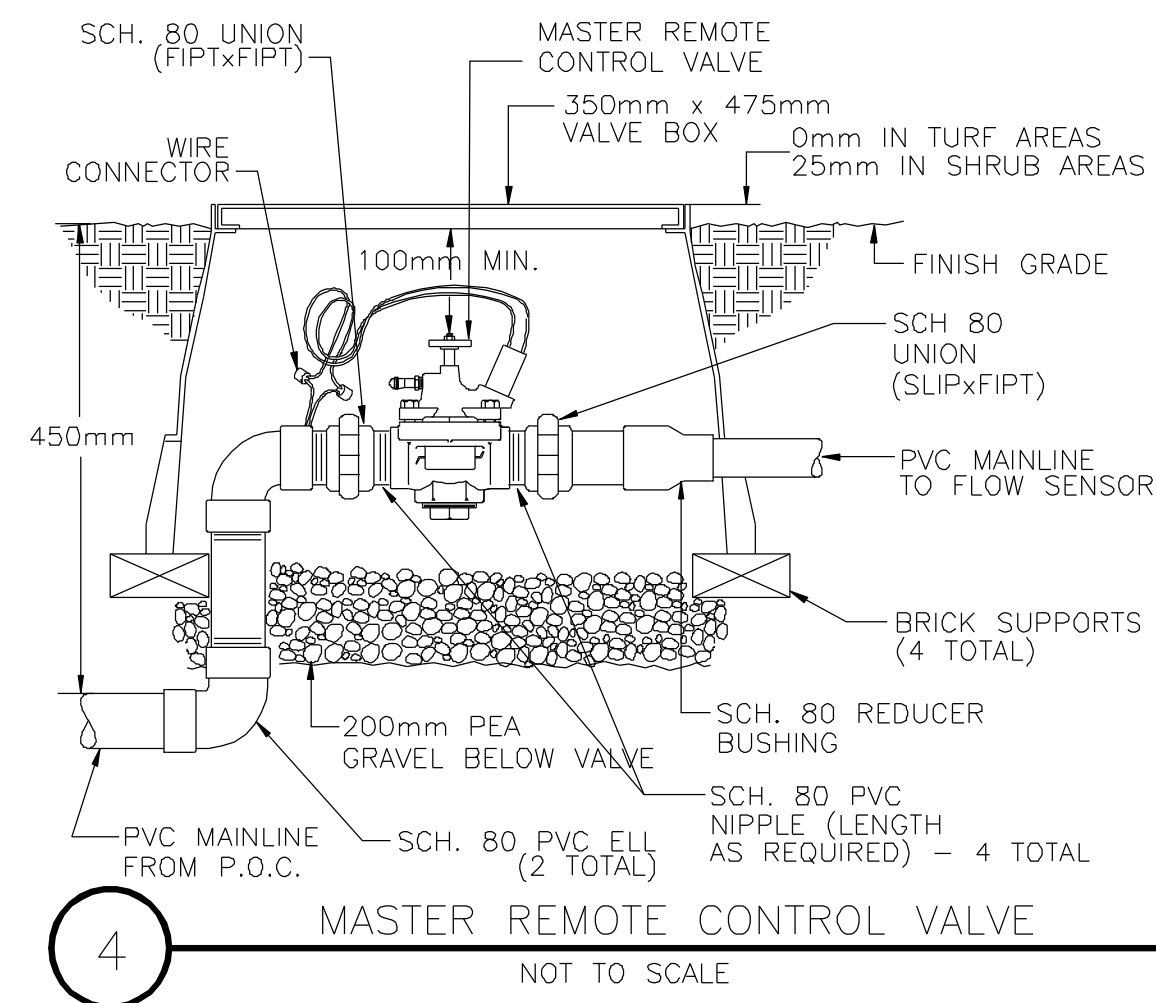
CONSULTANT

DRAWING REVISION SEPT 2001

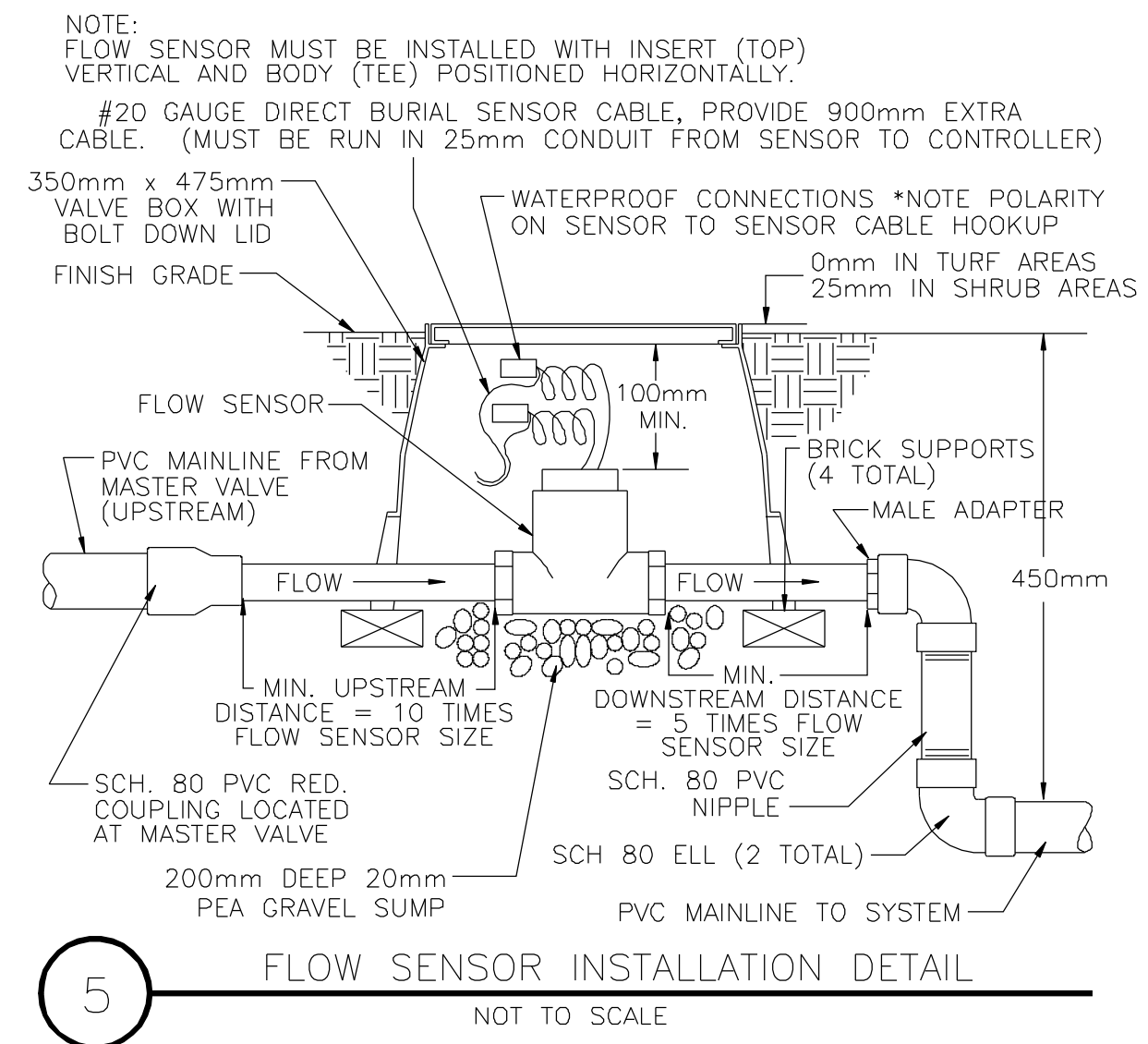
5 IF SHEET IS LESS THAN 560 X 865
 REDUCED PRINT - USE GRAPHIC SCALES

REV/DAT

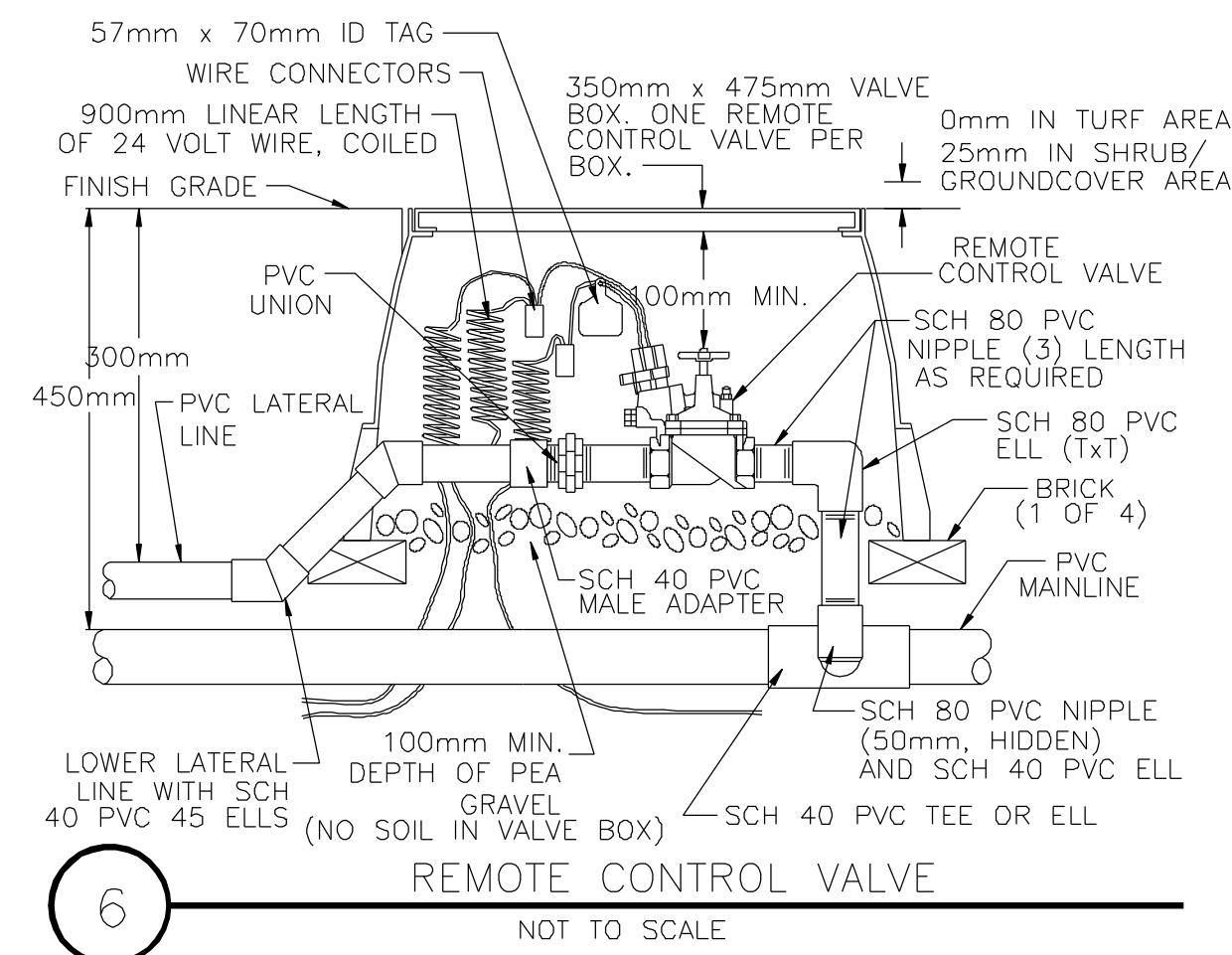
© 2005 WILDMAN & MORRIS INCORPORATED



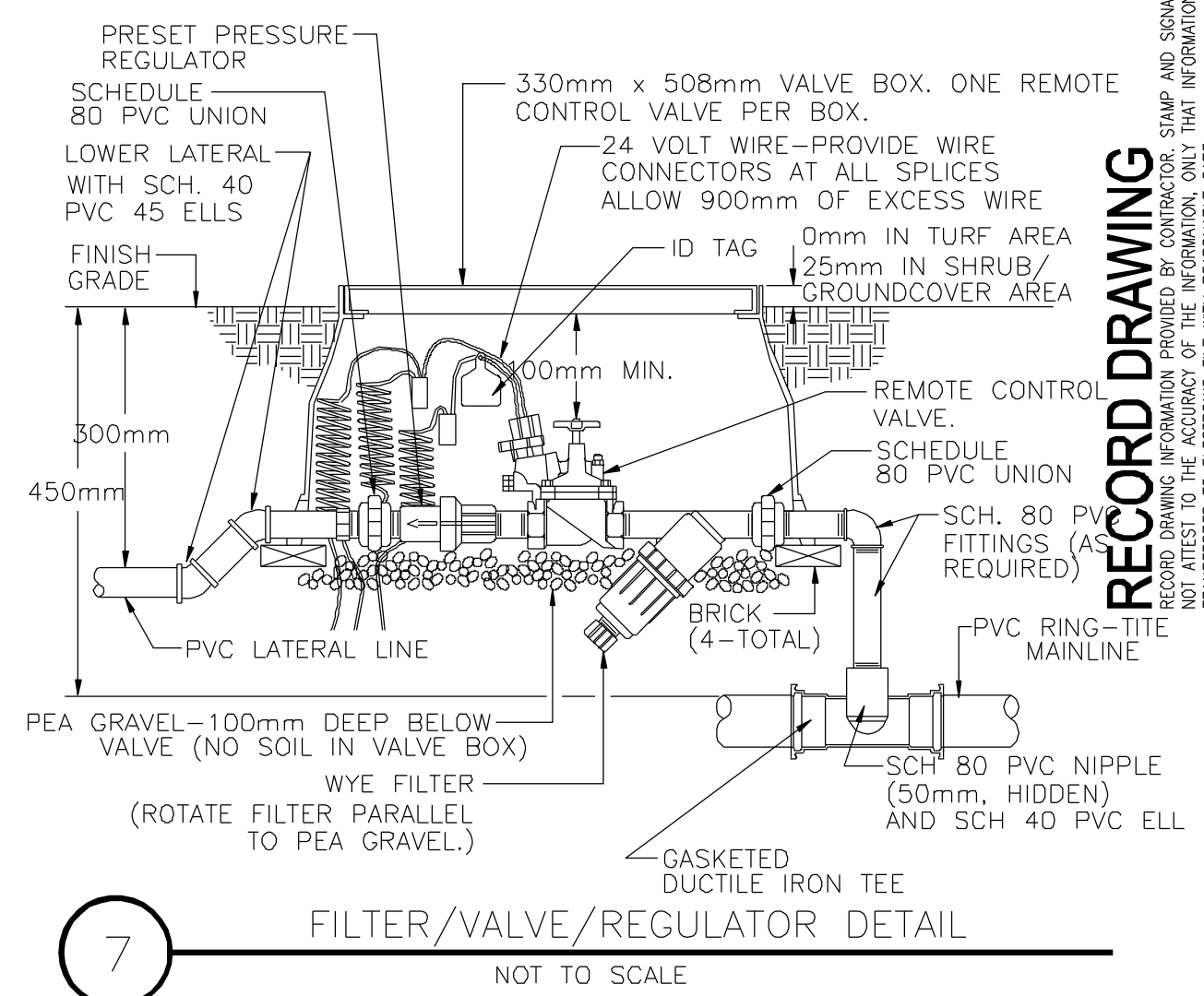
4 MASTER REMOTE CONTROL VALVE
NOT TO SCALE



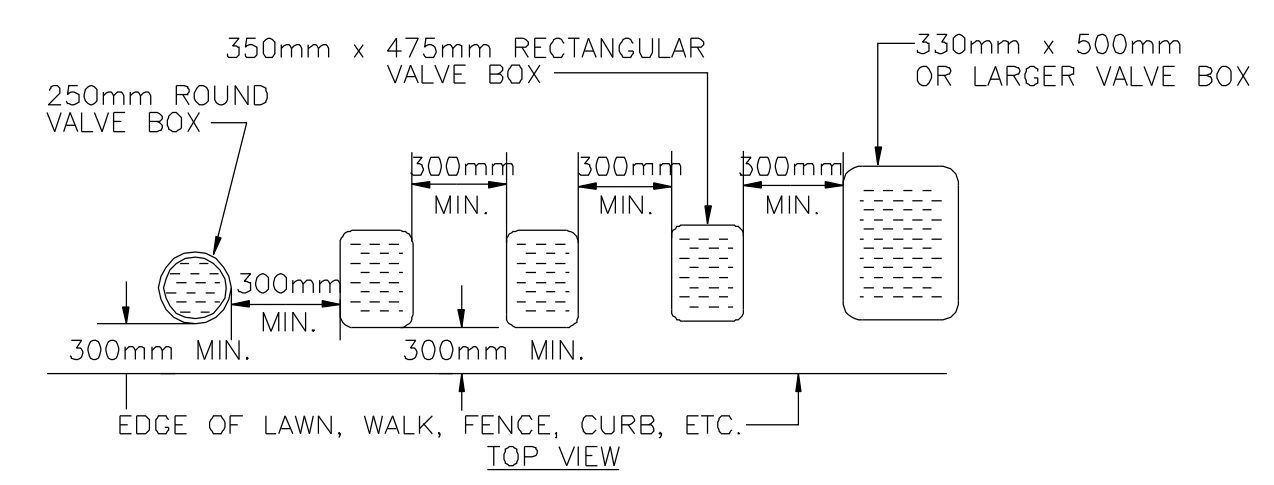
5 FLOW SENSOR INSTALLATION DETAIL
NOT TO SCALE



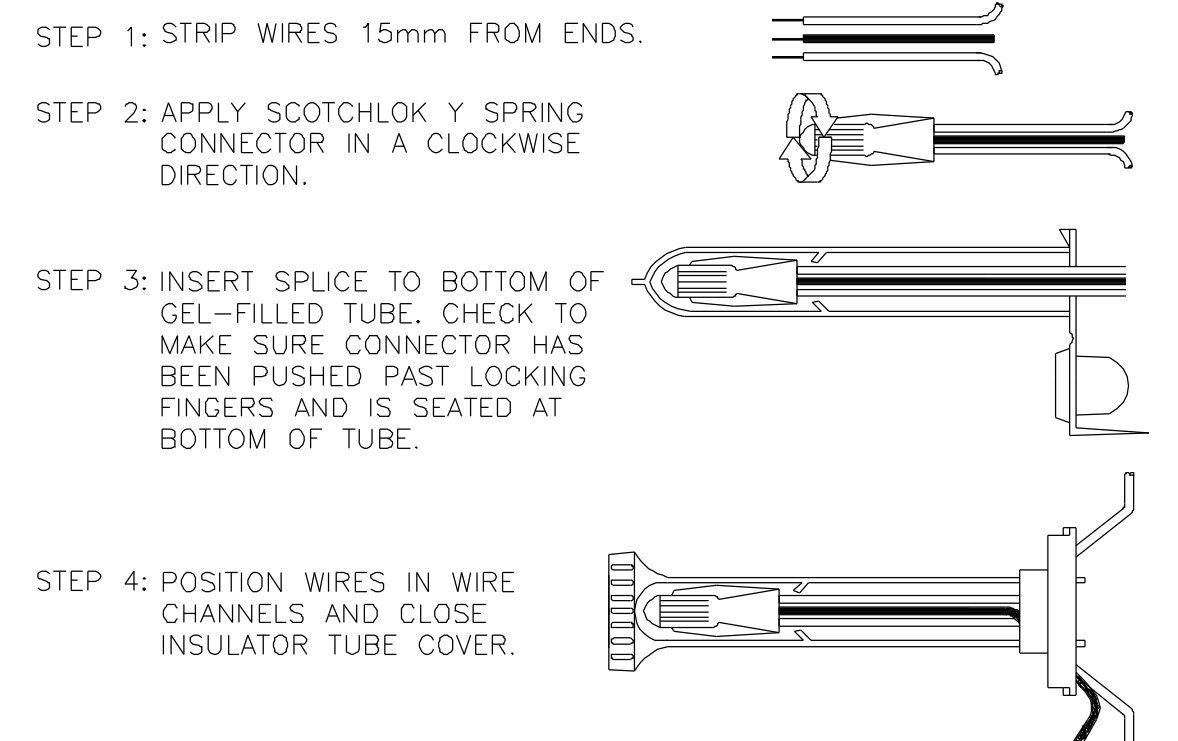
6 REMOTE CONTROL VALVE
NOT TO SCALE



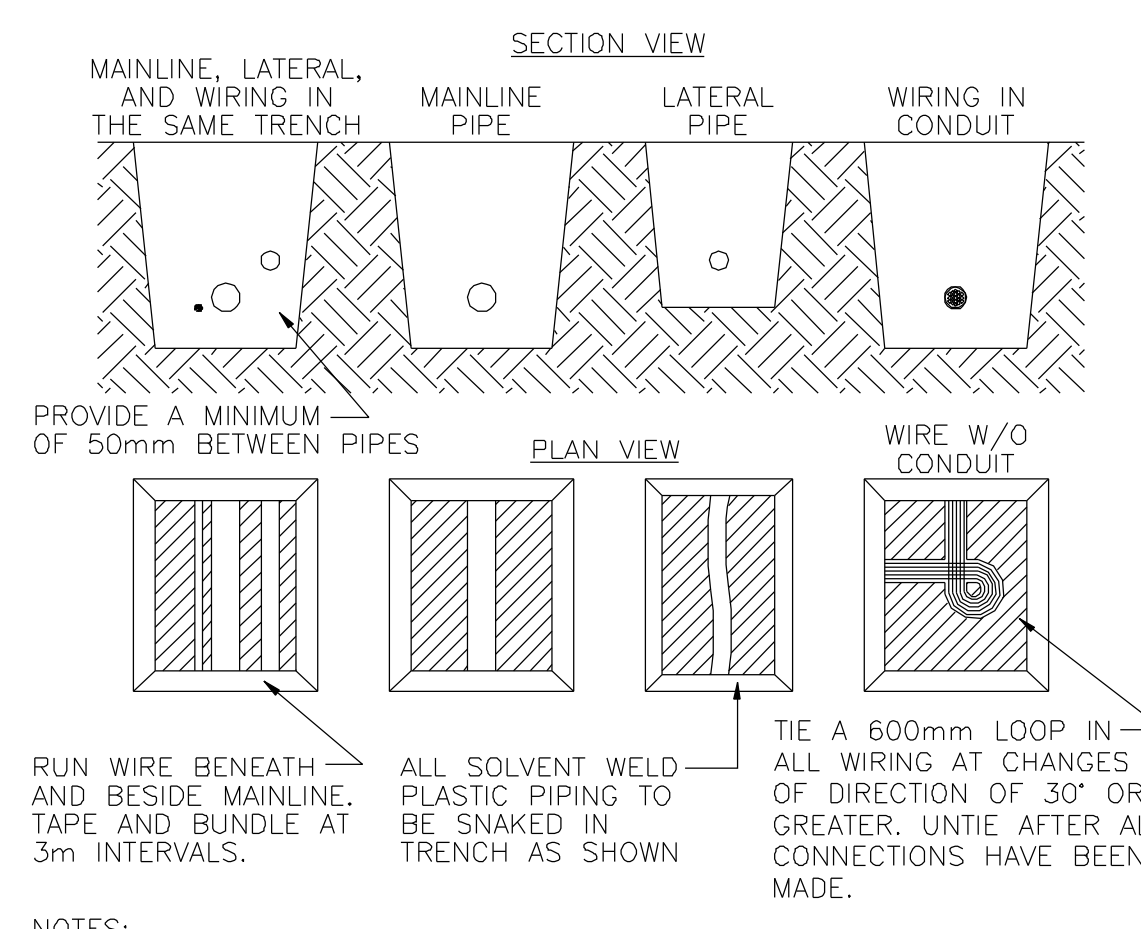
7 FILTER/VALVE/REGULATOR DETAIL
NOT TO SCALE



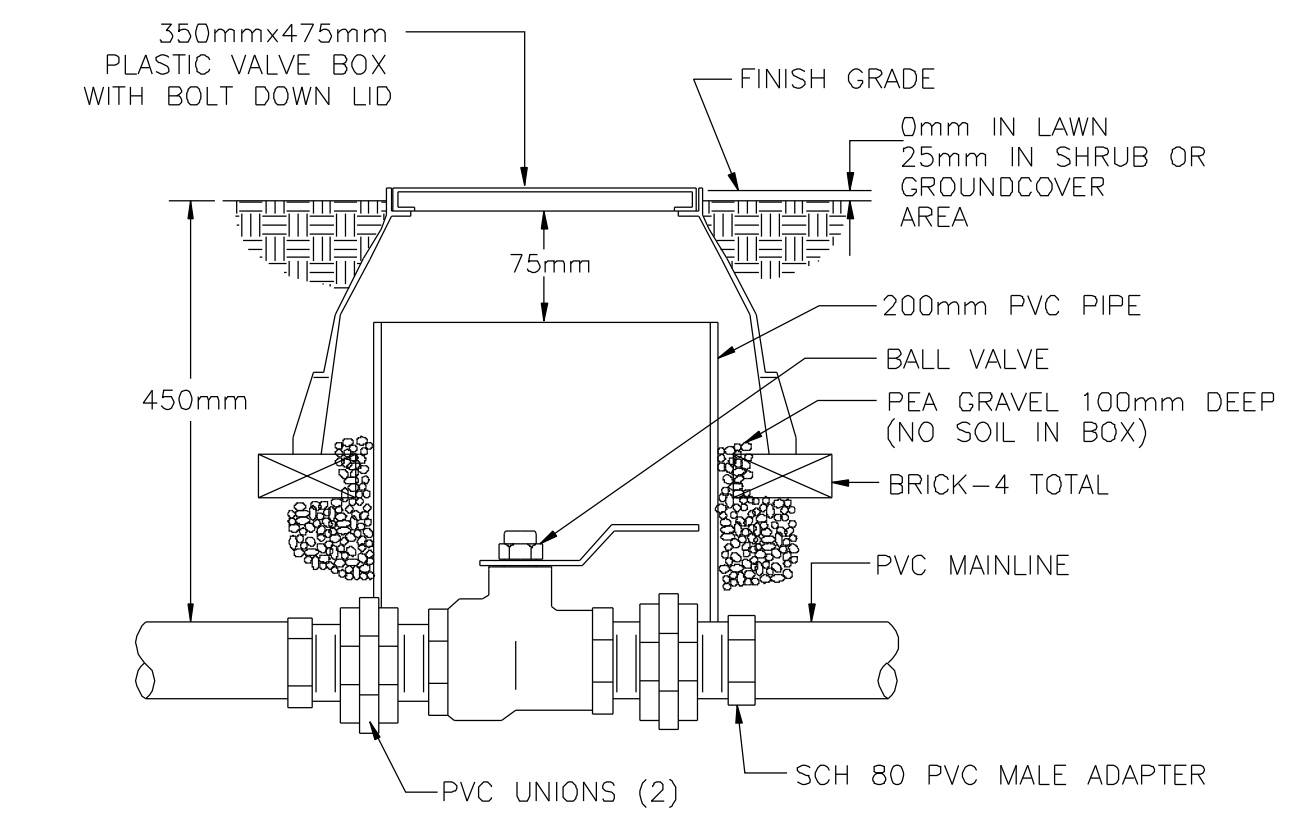
8 VALVE BOX INSTALLATION DETAIL
NOT TO SCALE



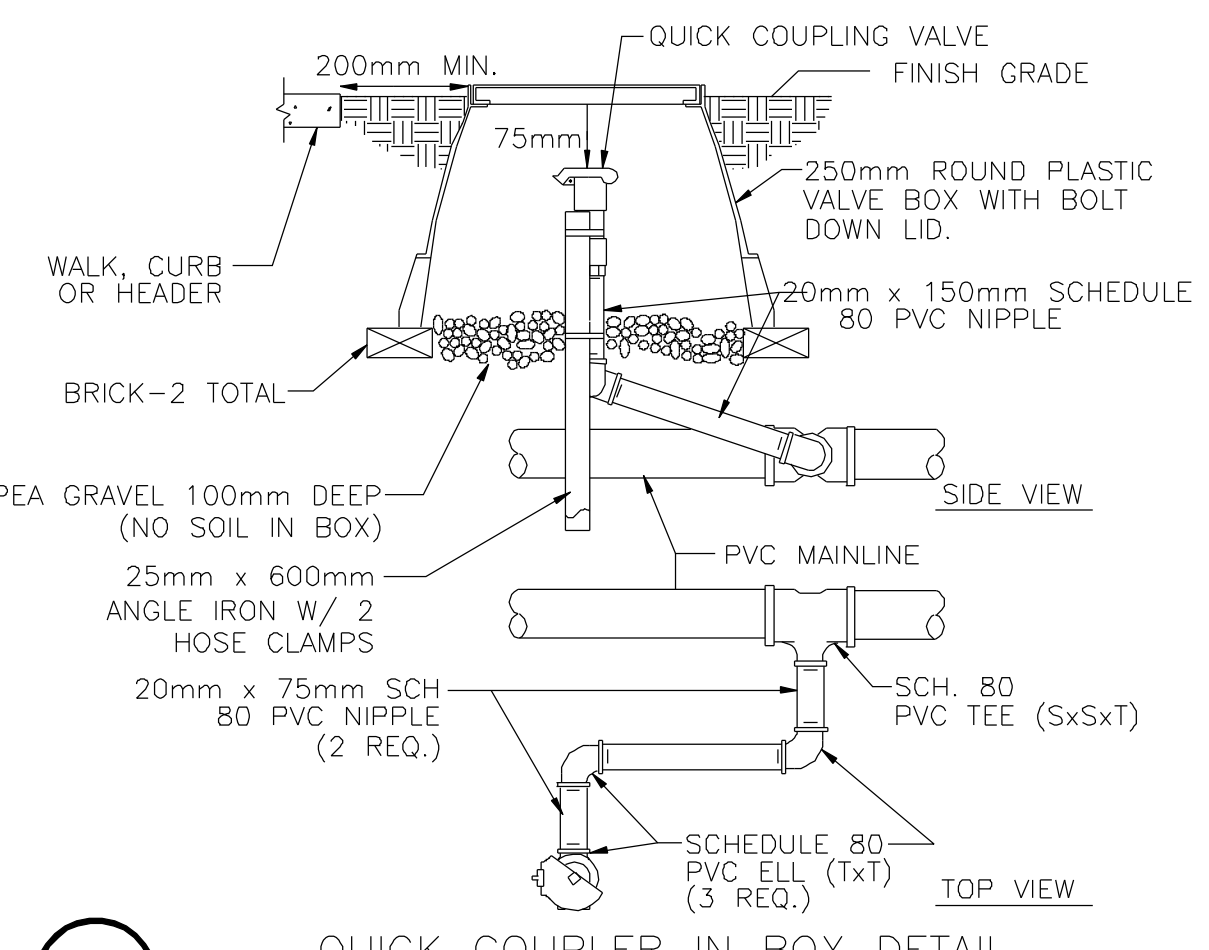
9 WIRE CONNECTION DETAIL
NOT TO SCALE



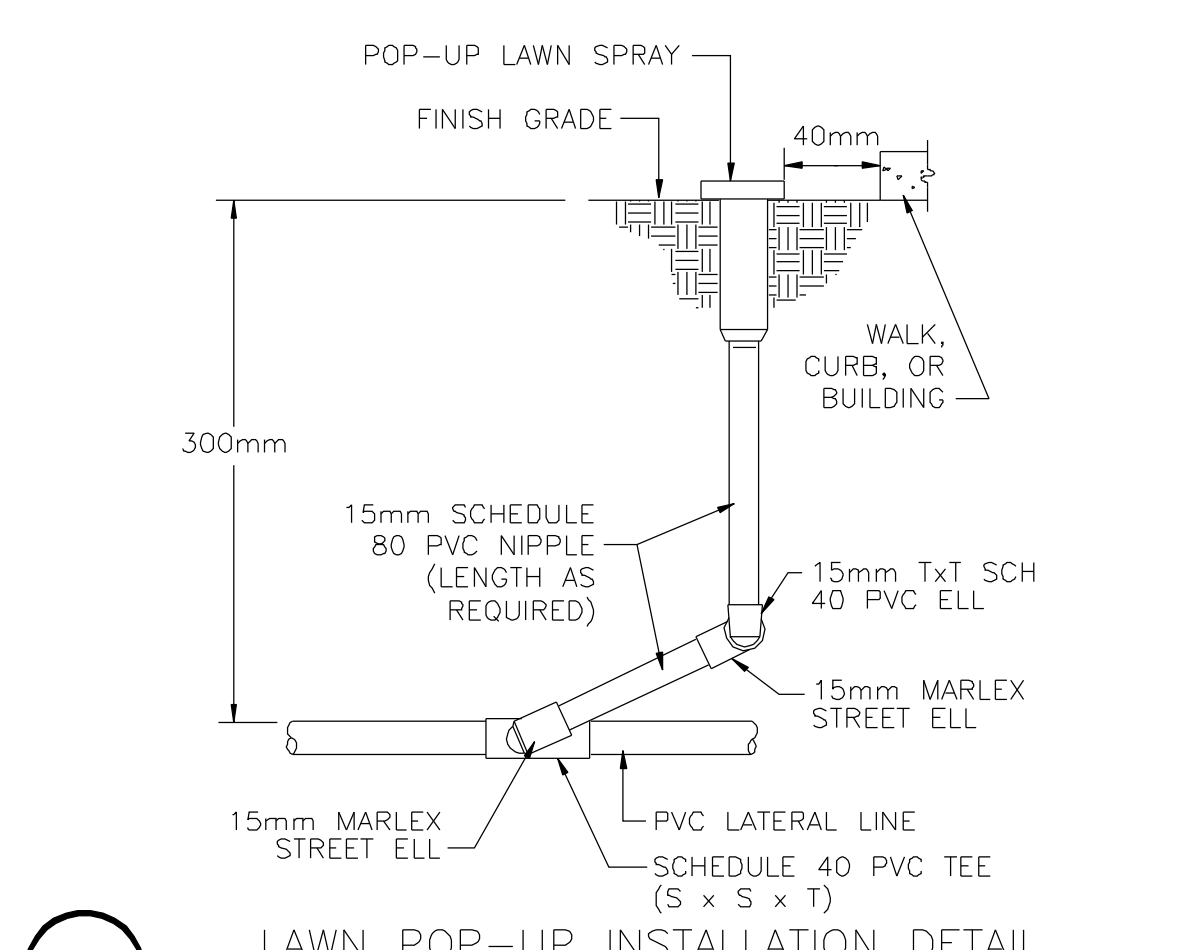
10 PIPE AND WIRE TRENCHING
NOT TO SCALE



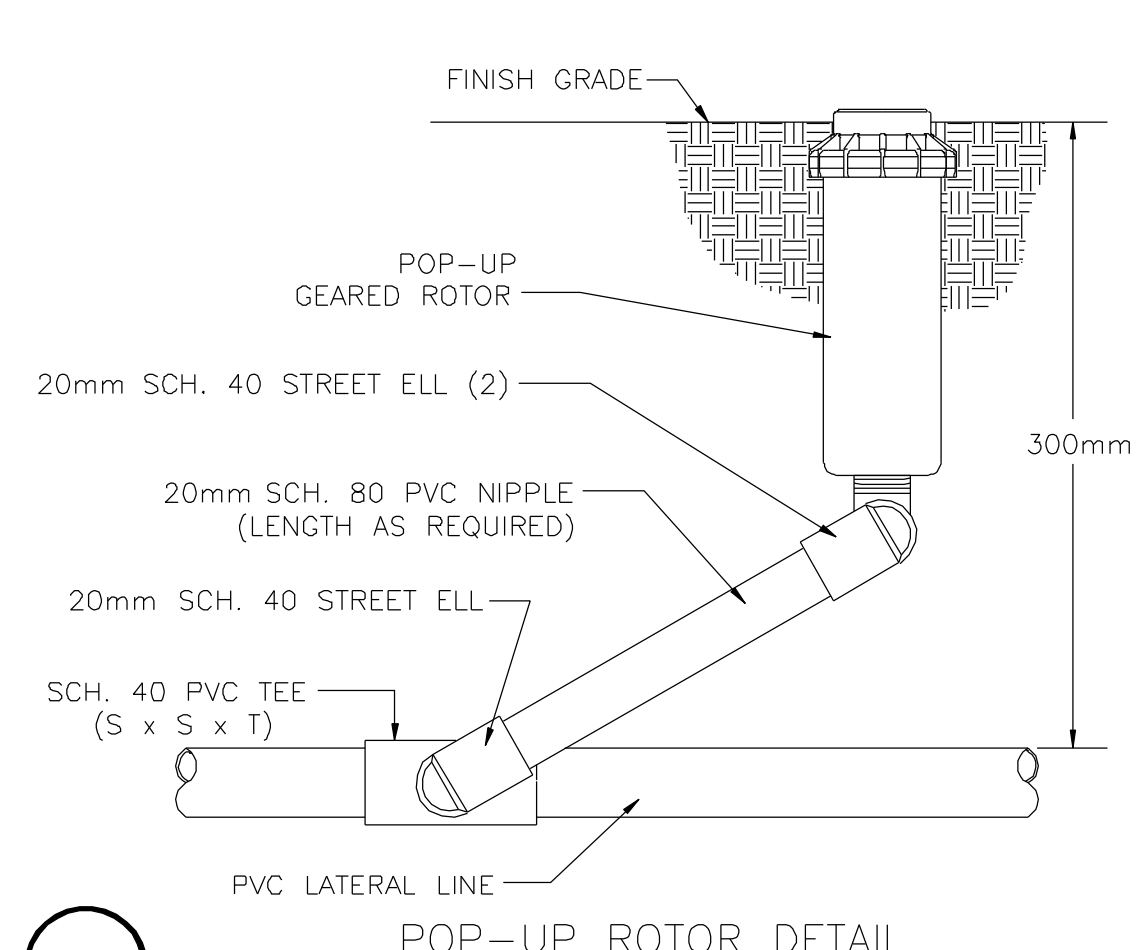
11 BALL VALVE DETAIL
NOT TO SCALE



12 QUICK COUPLER IN BOX DETAIL
NOT TO SCALE



13 LAWN POP-UP INSTALLATION DETAIL
NOT TO SCALE



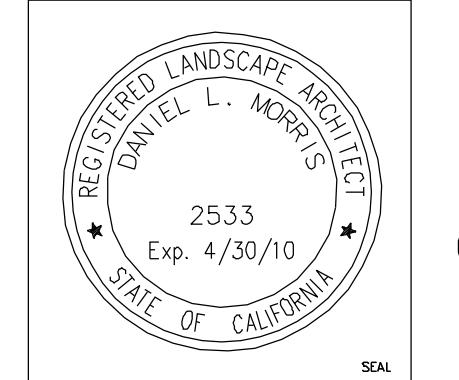
14 POP-UP ROTOR DETAIL
NOT TO SCALE

RECORD DRAWING
THIS DRAWING IS THE PROPERTY OF WILDMAN & MORRIS ARCHITECTS - ENGINEERS. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS TO BE RETURNED TO WILDMAN & MORRIS ARCHITECTS - ENGINEERS UPON COMPLETION OF THE PROJECT. ANY REUSE OR MODIFICATION OF THIS DRAWING WITHOUT THE WRITTEN CONSENT OF WILDMAN & MORRIS ARCHITECTS - ENGINEERS IS STRICTLY PROHIBITED.

NO.	DATE	DESCRIPTION	BY	CHKD	APPD

R. A. Burch
Construction Co., Inc.
P.O. Box 1590
Ramona, CA 92065

WILDMAN & MORRIS
ARCHITECTS - ENGINEERS
100 BROAD ST. SAN FRANCISCO, CA 94105



SUBMITTED BY	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
DESIGN	
DRAWN	
REVIEW	
OC	
CHKD	ARCH/DCR

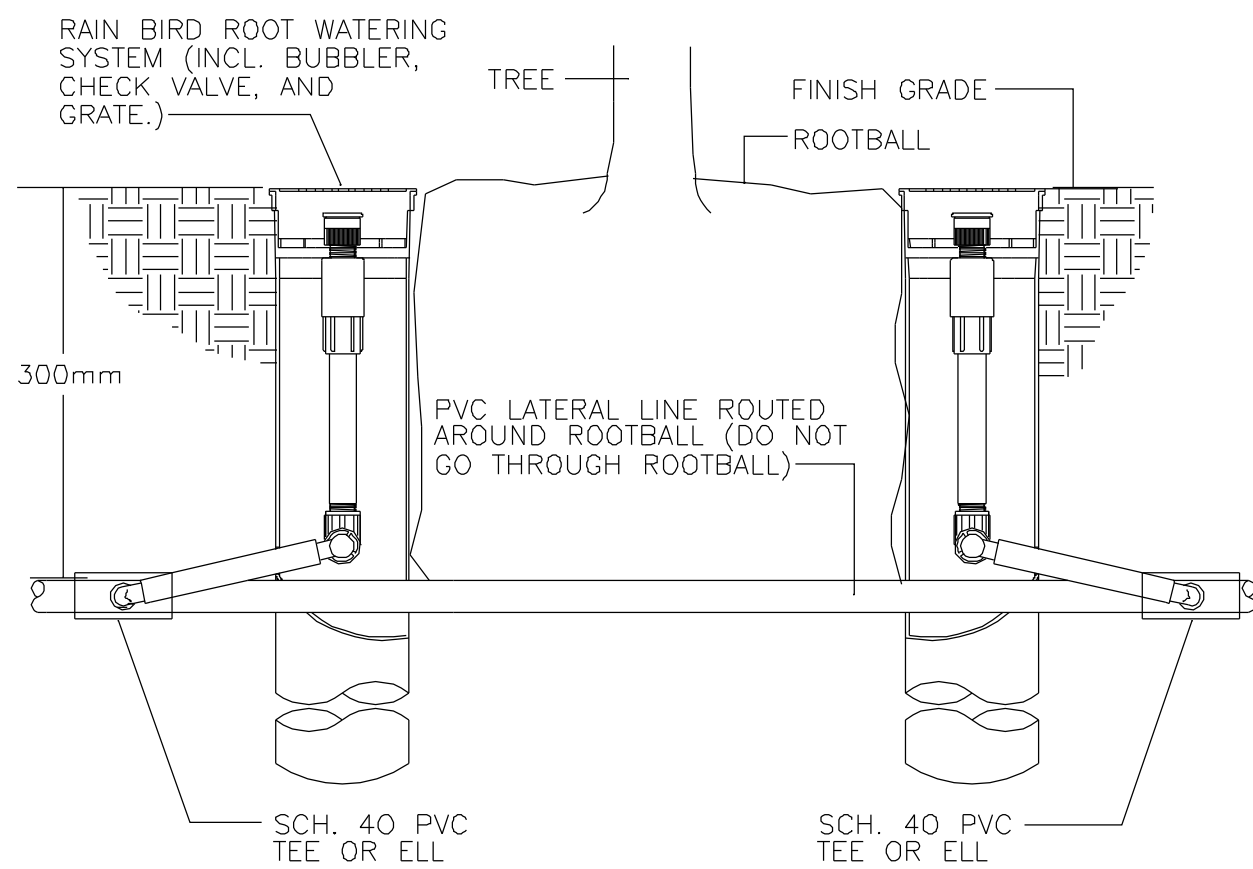
NAVY FACILITIES ENGINEERING COMMAND
CORONADO, CALIFORNIA
SAN DIEGO
SAN NORTH ISLAND
NAVFAC SOUTHWEST
P-759 BASE MAIN GATE AND ENTRANCE
NAVAL AIR STATION, NORTH ISLAND
IRRIIGATION DETAILS

BROOKWATER
IRRIGATION CONSULTANTS
FIVE CROW CANYON COURT, SUITE 209
SAN RAMON, CALIFORNIA 94583
TEL 925-855-0417 FAX 925-855-0357
E-MAIL: BROOKWATER@BROOKWATER.COM

Merrill
Landscape Architects & Planners
249 First Street San Francisco, CA 94111
P. 415.391.8900 F. 415.391.9463
cell. 415.462.9595 www.merrill-landscape.com

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

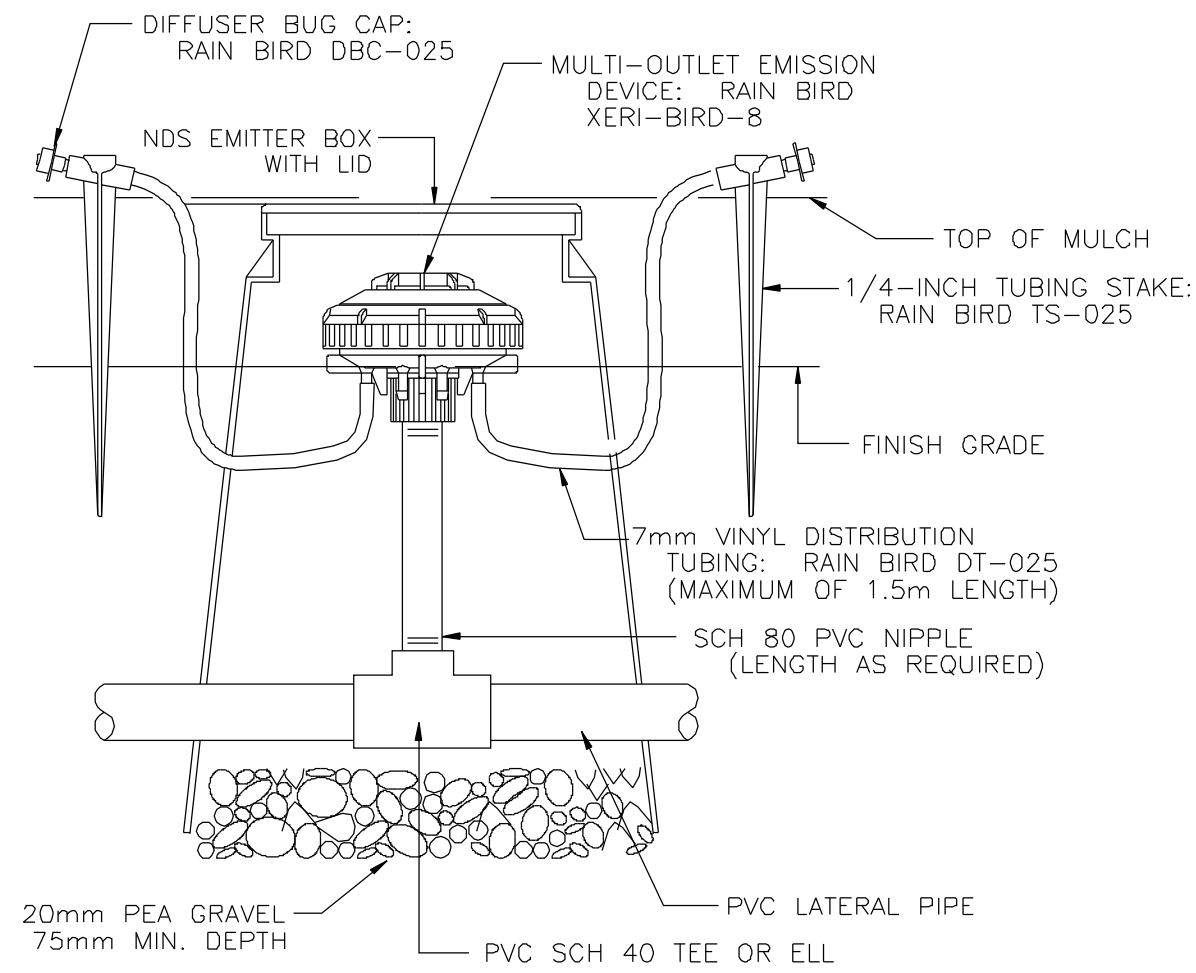
REV/DATE



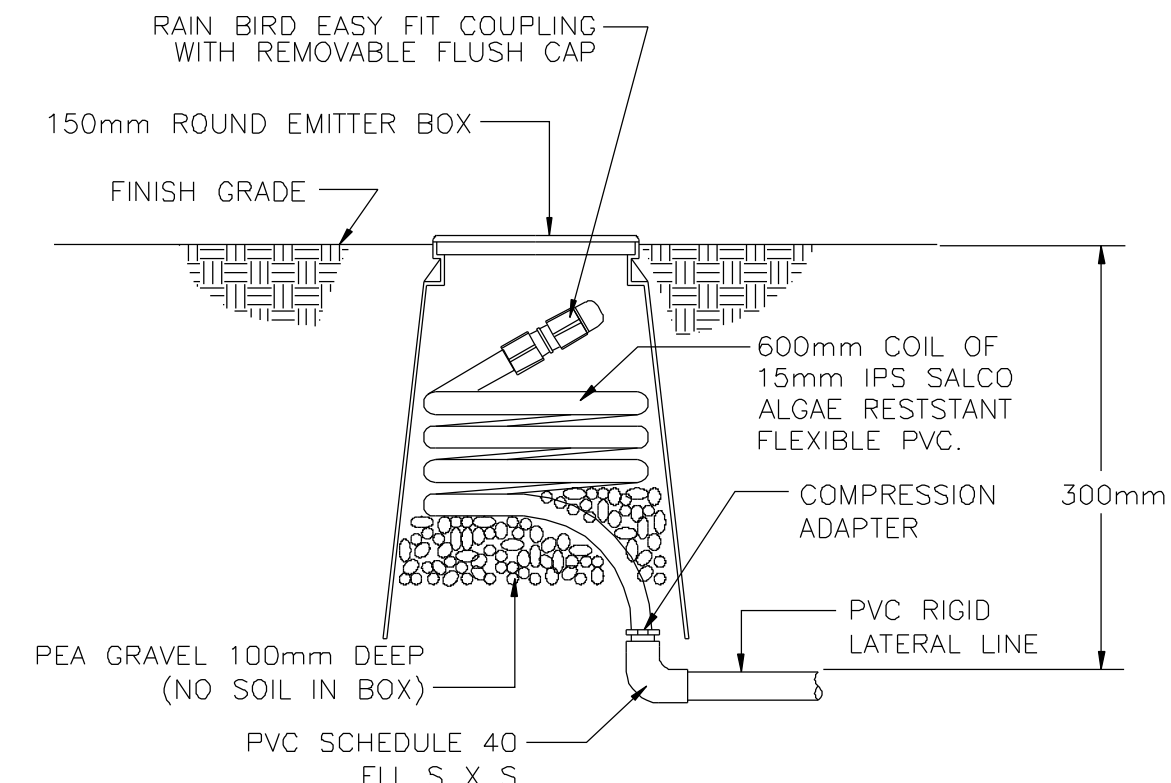
NOTES:

1. INSTALL TWO RWS PER TREE
2. INSTALL FOUR RWS PER PALM TREE. DISTRIBUTE EVENLY AROUND BASE OF PALM.

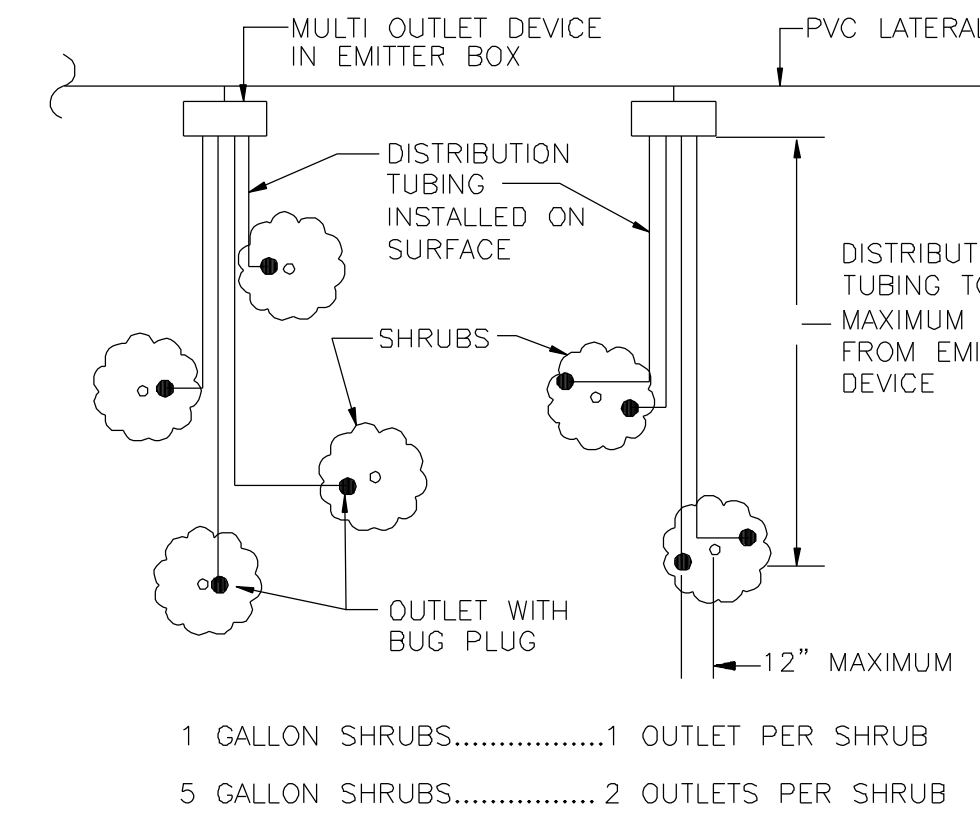
15 RAIN BIRD ROOT WATERING SYSTEM (RWS)
NOT TO SCALE



16 XERI BIRD MULTI-OUTLET EMITTER
NOT TO SCALE



17 FLUSHING END PLUG INSTALLATION DETAIL
NOT TO SCALE



18 TYPICAL DRIP BUBBLER LAYOUT
NOT TO SCALE

DRIP IRRIGATION NOTES:

1. THE CONTRACTOR SHALL PROVIDE A DRIP EMITTER SYSTEM FOR ALL TREES, SHRUBS, AND GROUNDCOVER AS INDICATED ON THE IRRIGATION PLAN AND DETAILS.
2. ACTUAL LAYOUT OF EMITTER SYSTEM SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD USING THE IRRIGATION PLAN AND THE DRIP IRRIGATION DETAILS AS A GUIDE, WHILE USING THE PLANTING PLAN FOR THE LOCATION AND QUANTITIES OF EMITTERS. LEAVE ONE TO TWO UNUSED OUTLETS PER MULTI-OUTLET EMITTER.
3. INSTALL ALL DRIP EMITTERS BELOW GRADE INSIDE OF A SUBTERRANEAN EMITTER BOX. REFER TO DRIP IRRIGATION DETAILS FOR MORE INFORMATION.
4. EACH 5 GALLON SHRUB SHALL RECEIVE TWO EMISSION POINTS, ONE EACH ON OPPOSITE SIDES OF THE BASE OF THE PLANT, VIA DISTRIBUTION TUBING. REFER TO THE PLANTING PLAN FOR THE LOCATION AND QUANTITY OF SHRUBS.
5. EACH 1 GALLON SHRUB SHALL RECEIVE ONE EMISSION POINT, VIA DISTRIBUTION TUBING. REFER TO THE PLANTING PLAN FOR THE LOCATION AND QUANTITY OF SHRUBS.
6. DISTRIBUTION TUBING SHALL BE A MAXIMUM OF 1.5m IN LENGTH FROM EMITTER TO PLANT.
7. INSTALL FLUSH PLUGS AT THE ENDS OF EACH CIRCUIT.
8. THE DRIP EMITTER SYSTEM LAYOUT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING CONSTRUCTION AND AFTER PLANTING HAS BEEN COMPLETED.

RECORD DRAWING
RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION OR INFORMATION TRANSFERRED TO ELECTRONIC FILE WITH RESPONSIBLE CARE.

DATE	DESCRIPTION	BY
07/27/08		

R. A. Burch
Construction Co., Inc.
P.O. Box 1590
Ramona, CA 92065

WILDMAN & MORRIS
ARCHITECTS - ENGINEERS
100 BROAD ST. SAN FRANCISCO, CA 94103



SUBMITTED BY	
ACTIVITY - SATISFACTORY TO	
DATE	APPROVED
FOR EFD FOR COMMANDER NAVFAC	
DATE	A/E
DESIGN	EFD
DRAWN	
REVIEW	
QC	
CHIEF ARCH/DIR	
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY	NAVFAC SOUTHWEST	NAVFAC SOUTHWEST
SAN DIEGO	SAN NORTH ISLAND	CORONADO, CALIFORNIA
P-759 BASE MAIN GATE AND ENTRANCE		
NAVAL AIR STATION, NORTH ISLAND		
IRRIGATION DETAILS		
CODE ID: NO 80091	SIZE: D	
SCALE:		
EFD NO.		
STA. PROJ. NO.		
SPEC. NO.	11028065-002	
CONSTR. CONTR. NO.	N68711-02-D-8065-002	
NAVFAC DRAWING NO.	8225760	
SHEET	OF	
	L-505	

BROOKWATER
IRRIGATION CONSULTANTS
FIVE CROW CANYON COURT, SUITE 209
SAN RAMON, CALIFORNIA 94583
TEL 925-855-0417 FAX 925-855-0357
E-MAIL: BROOKWATER@BROOKWATER.COM

Merrill
Landscape Architects & Planners
249 First Street San Francisco, CA 94111
P: 415.291.8900 F: 415.291.9463
cell: 415.462.0000 www.merrill-landscape.com

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

REV/DATE

D

C

B

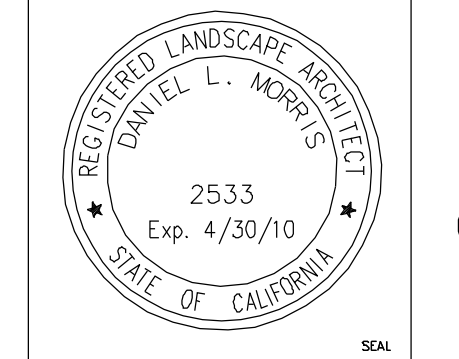
A

RECORD DRAWING
RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION SHOWN.
AS-BUILT CONDITIONS SHOWN

DATE	DESCRIPTION	BY	CHK

R. A. Burch
Construction Co., Inc.
P.O. Box 1590
Ramona, CA 92065

WILDMAN & MORRIS
ARCHITECTS - ENGINEERS
100 BURNARD ST. SAN FRANCISCO, CA 94109



SUBMITTED BY	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
DESIGN	
DRAWN	
REVIEW	
OC	
CHIEF ARCH/DCR	
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

NAVAL FACILITIES ENGINEERING COMMAND
SAN DIEGO
SAN DIEGO
NAFAC SOUTHWEST
CORONA, CALIFORNIA
CALIFORNIA
**P-759 BASE MAIN GATE AND ENTRANCE
NAVAL AIR STATION, NORTH ISLAND**
NEX IRRIGATION NOTES AND DETAILS

CODE NO. 80091 SIZE D

SCALE:

EFD NO.

STA. PROJ. NO.

SPEC. NO. 11028065-002

CONSTR. CONTR. NO. N68711-02-D-8065-002

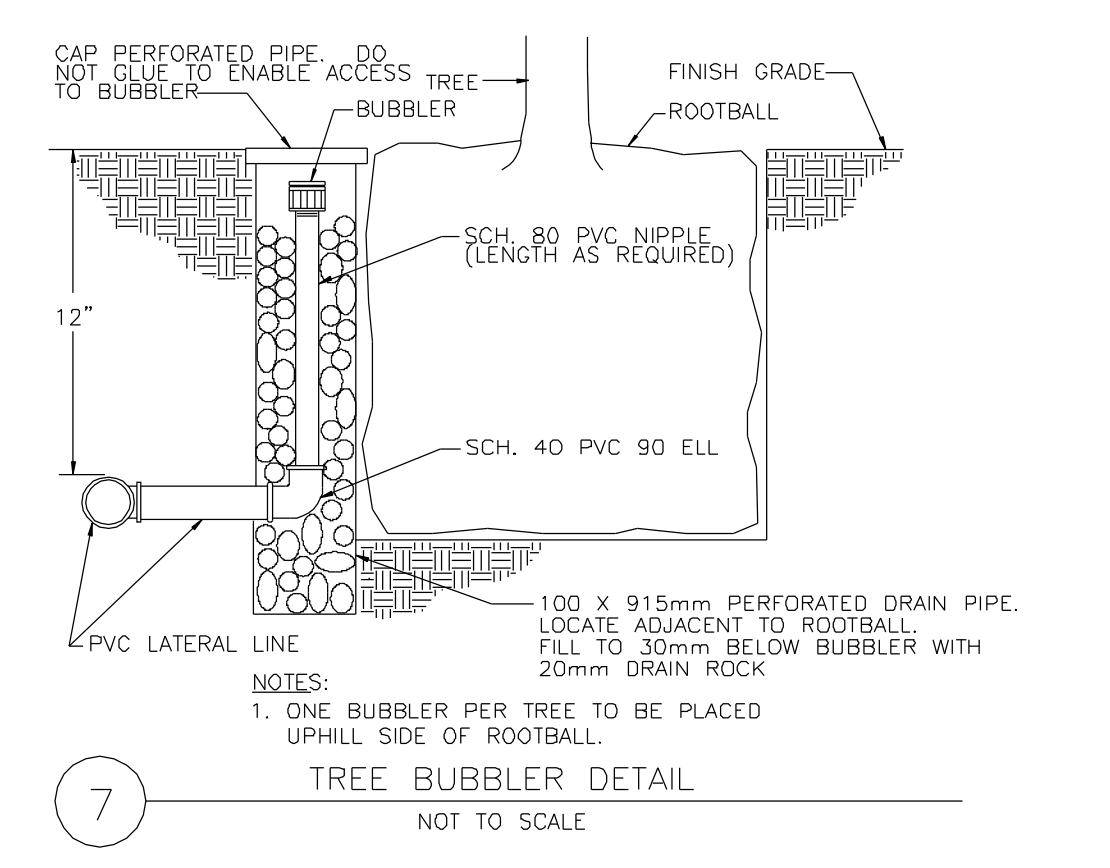
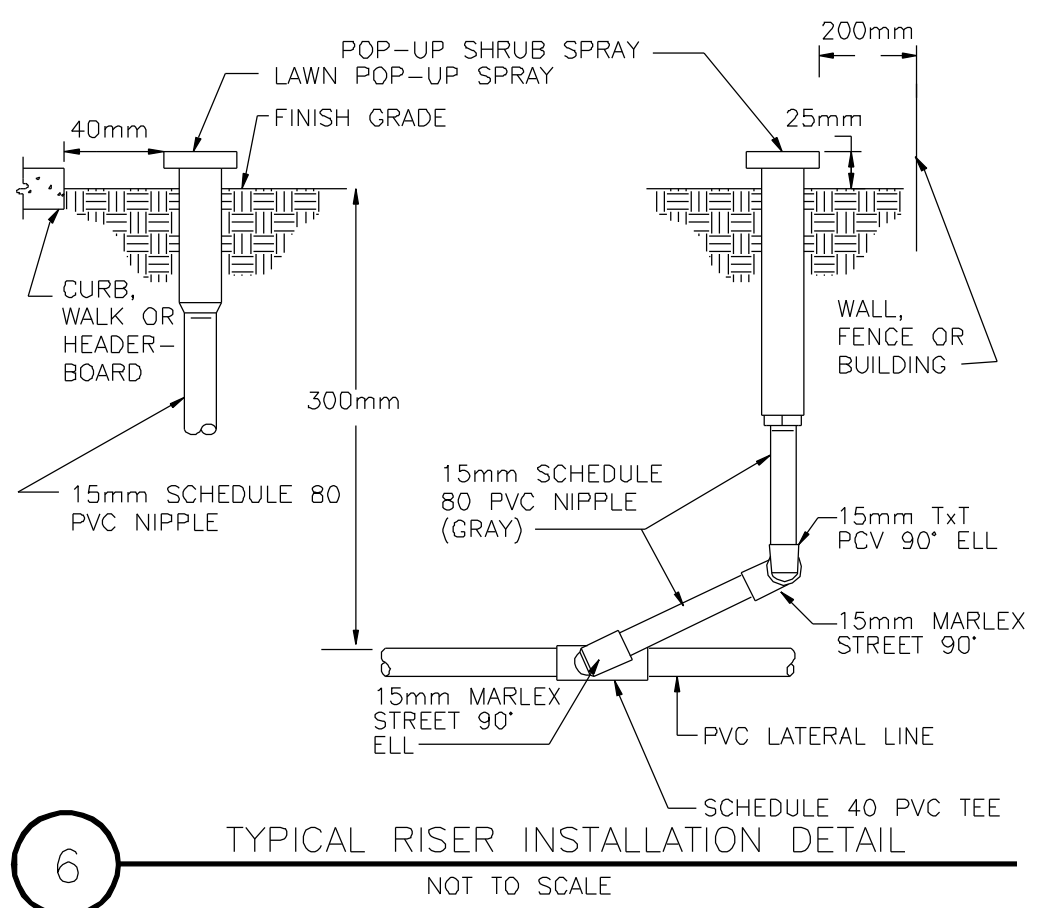
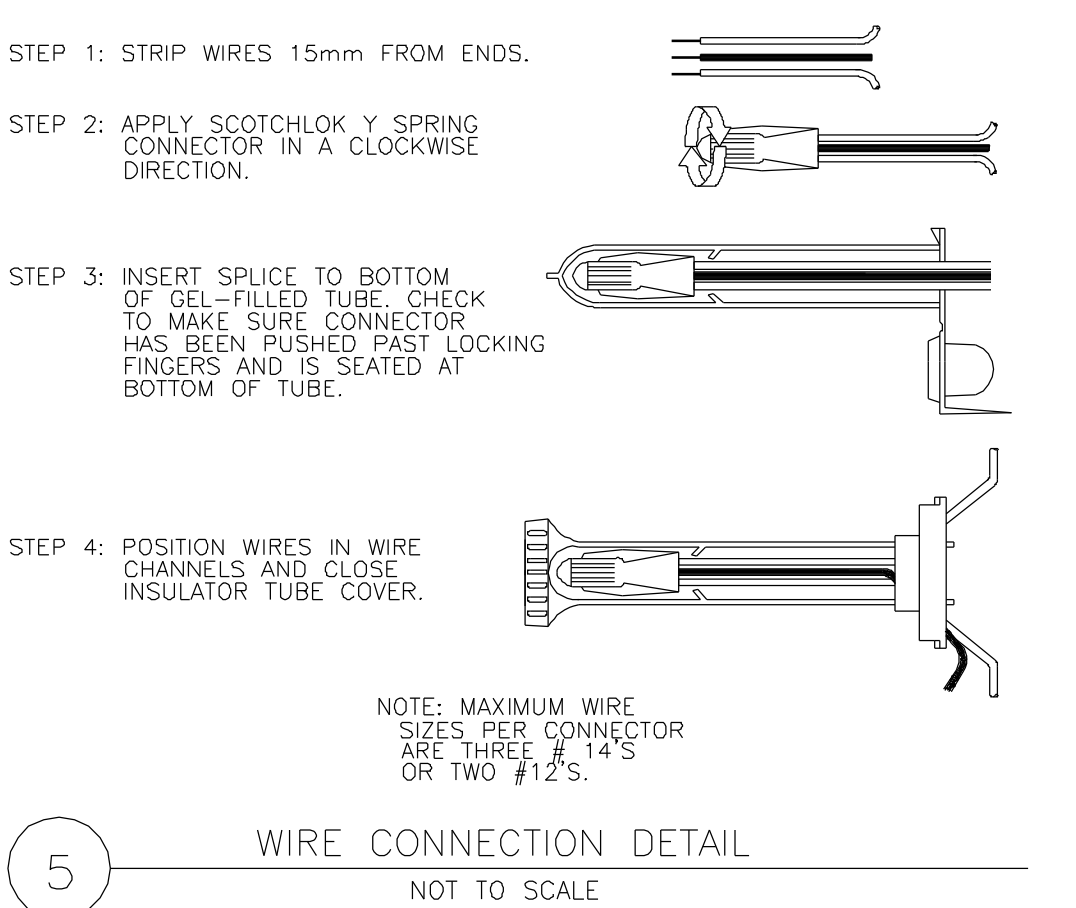
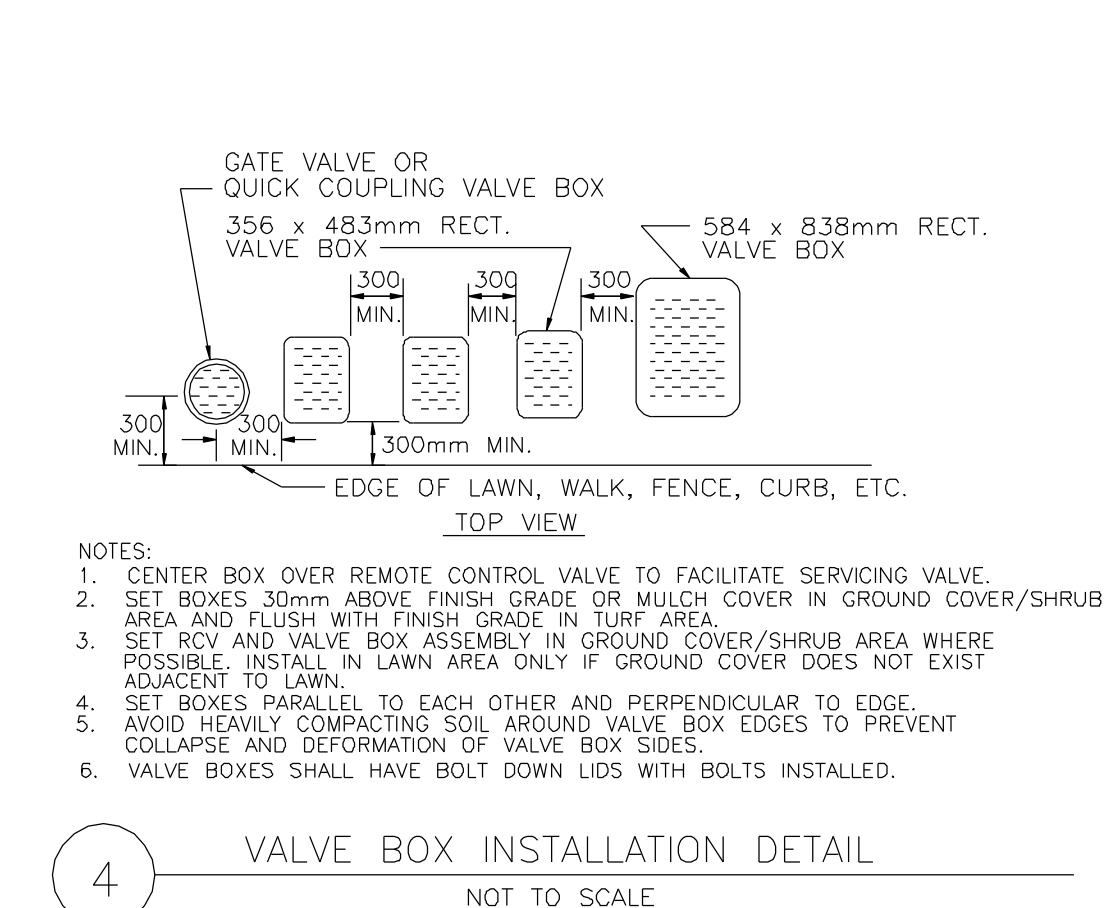
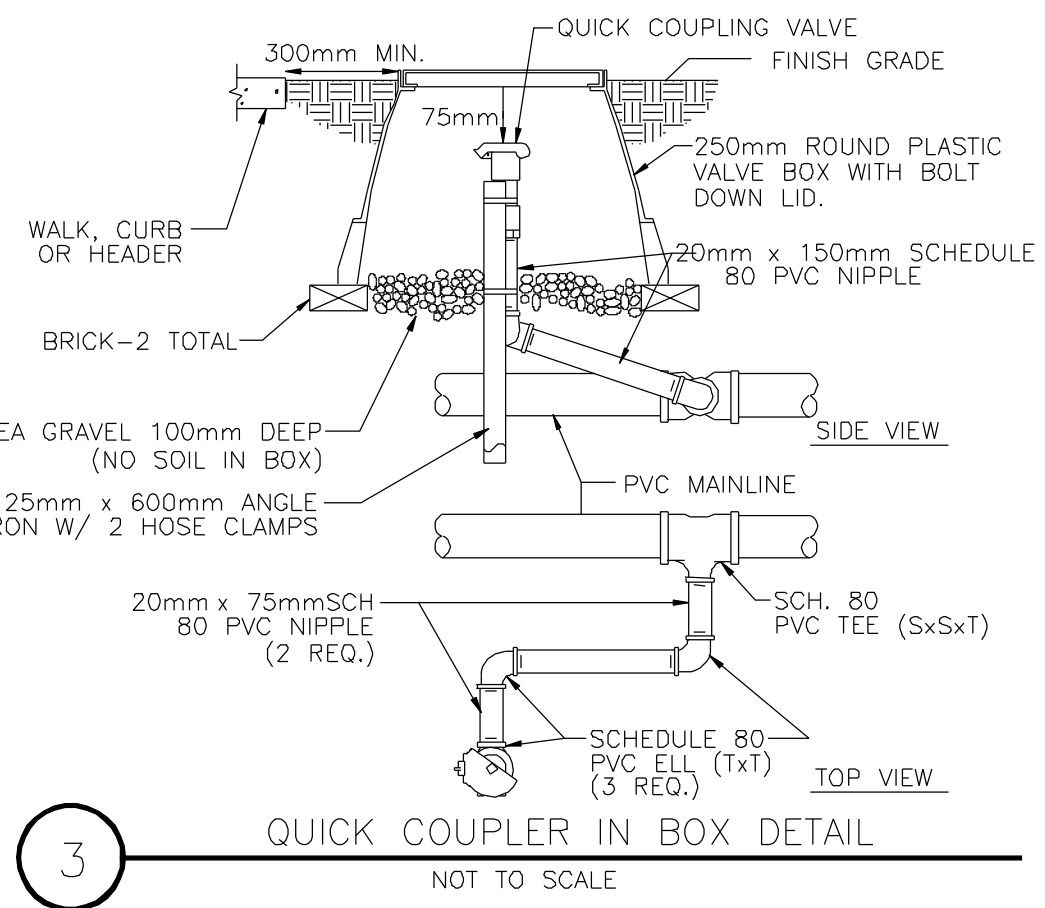
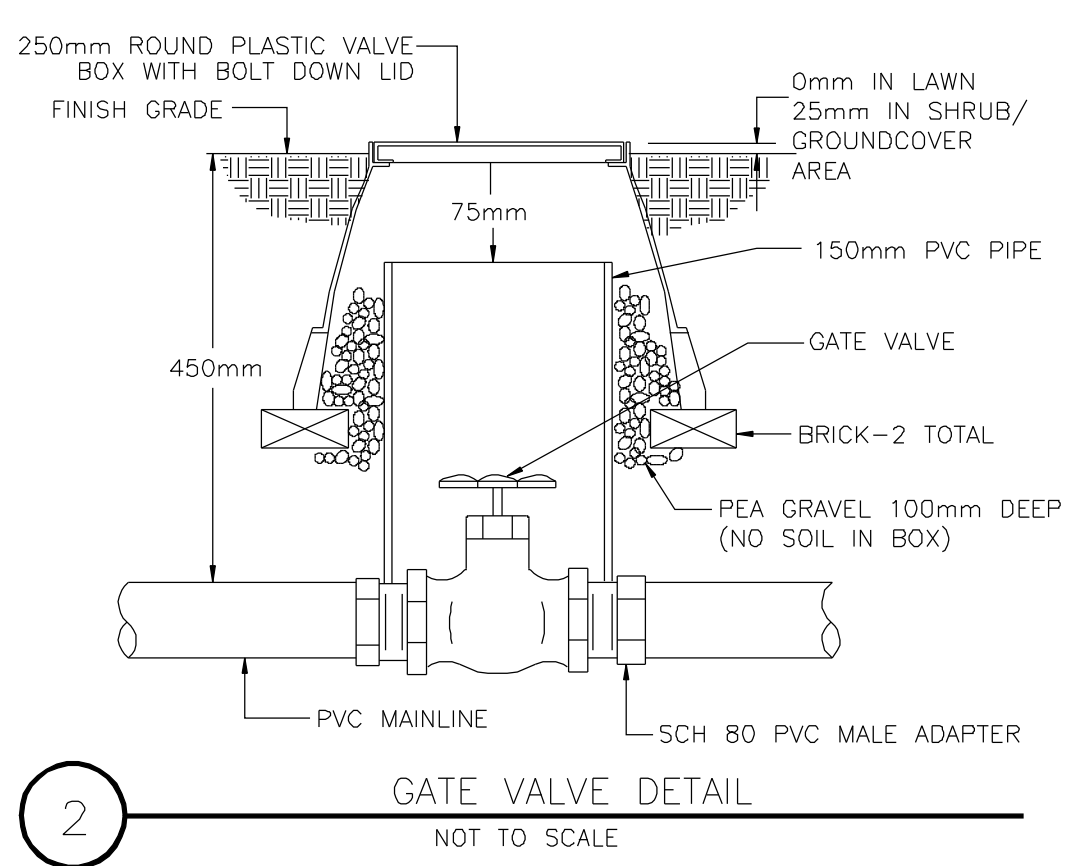
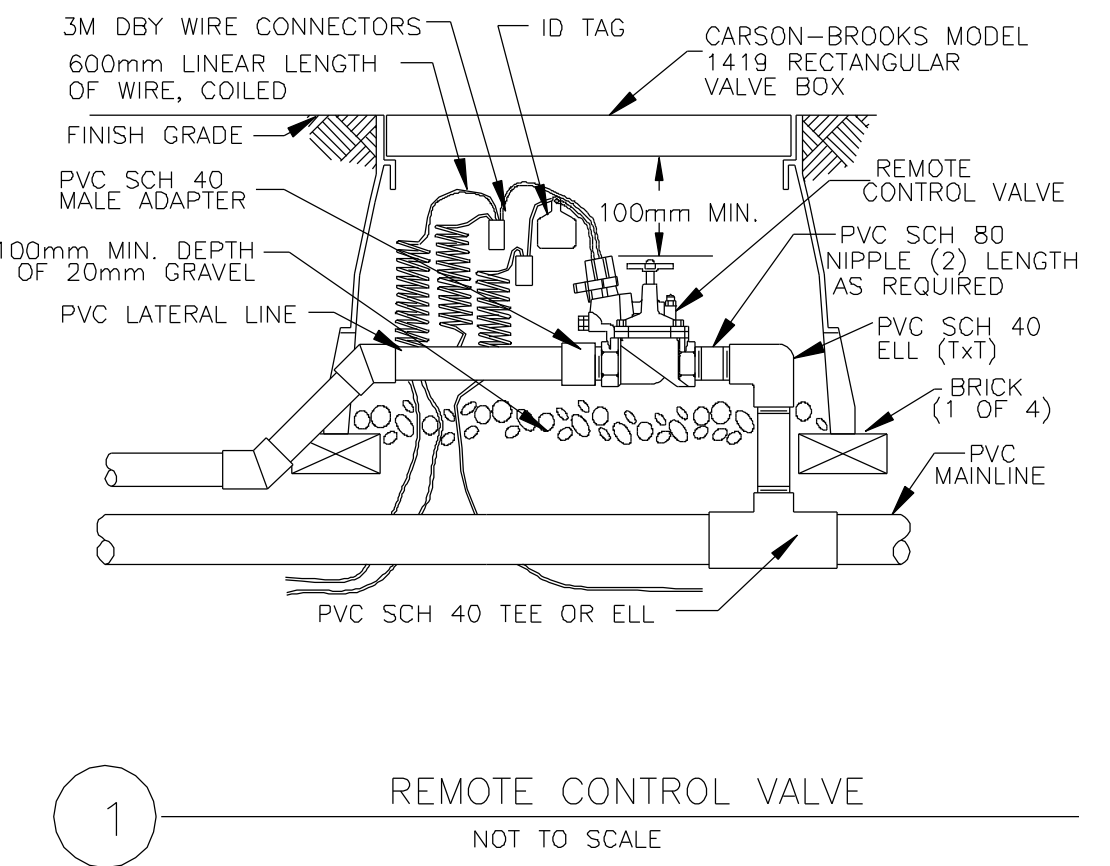
NAVFAC DRAWING NO. 8225761

SHEET OF L-506

CONTRACTOR

IRRIGATION NOTES

- This design is diagrammatic. All piping, valves, etc. shown within paved areas is for design clarification only and shall be installed in planting areas where possible. Avoid any conflicts between the sprinkler system, planting and architectural features.
- Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that obstructions, grade differences or differences in the area dimensions exist that might not have been considered in the engineering. Such obstructions or differences should be brought to the attention of the Owner's authorized representative. In the event that this notification is not performed, the Irrigation Contractor shall assume full responsibility for any revisions necessary.
- It is the responsibility of the Irrigation Contractor to familiarize himself with all grade differences, location of walls, retaining walls, etc. He shall coordinate his work with the General Contractor and other Subcontractors for the location and the installation of pipe sleeves through walls, under roadways, paving, structures, etc.
- Due to the scale of the drawings, it is not possible to indicate all offsets, fittings, sleeves, etc., which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all of his work and plan his work accordingly, furnishing such fittings, etc., as may be required to meet such conditions. Drawings are generally diagrammatic and indicative of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between irrigation systems, planting, and architectural features.
- Remote control valves shall be wired to controller in sequence as shown on plans. Run wire from each RCV to the controller. Splicing wires together outside of valve boxes will not be permitted.
- Splicing of 24-volt wires will not be permitted except in valve boxes. Leave a 36" coil of excess wire at each splice and 100 feet on center along wire run. Tape wire in bundles 10 feet on center. No taping permitted inside sleeves.
- Install two (2) spare control wires along the entire main line. Spare wires shall be the same color (one with a white stripe) and of a different color than other control wires. Loop 36" excess wire into each single valve box and into one valve box in each group of valves.
- Valve locations shown are diagrammatic. Install in ground cover/shrub areas where possible (not in lawn area.)
- Install valve boxes minimum 12" from and perpendicular to walk, curb, lawn, building or landscape feature. At multiple valve box groups, each box shall be an equal distance from the walk, curb, lawn, etc. and each box shall be minimum 12" apart. Short side of valve boxes shall be parallel to walk, curb, lawn, etc.
- Locate quick coupling valve 12" from hardscape area.
- All sprinkler heads shall be set perpendicular to finish grade of the area to be irrigated unless otherwise designated on the plans.
- The Irrigation Contractor shall flush and adjust all sprinkler heads for optimum performance and to prevent overspray onto walks, roadways and/or buildings as much as possible. This shall include selecting the best degree of arc to fit the existing site conditions and to throttle the flow control at each valve to obtain the optimum operating pressure for each system.
- When vertical obstructions (street lights, trees, fire hydrants, etc.) interfere with the spray pattern of the heads so as to prevent proper coverage, the Irrigation Contractor shall field adjust the sprinkler system by installing a quarter, third or half circle head at the sides of the obstruction so as to provide proper coverage. All adjustments shall be made at no additional cost to the owner.
- Notify Architect of any aspects of layout that will provide incomplete or insufficient water coverage of plant material and do not proceed until his instructions are obtained.
- Locate bubblers on uphill side of trees.
- In addition to the sleeves and conduits shown on the drawings, the Irrigation Contractor shall be responsible for the installation of sleeves and conduits of sufficient size under all paved areas.
- The sprinkler system design is based on the minimum operating pressure shown on the irrigation drawings. The Irrigation Contractor shall verify water pressure prior to construction. Report any difference between the water pressure indicated on the drawings and the actual pressure reading at the irrigation point of connection to the Owner's authorized representative.
- Irrigation demand: This portion of work, 140 liters/minute.
- Prior to trenching, call Underground Service Alert, (1-800) 227-2600 for Northern California.



THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.

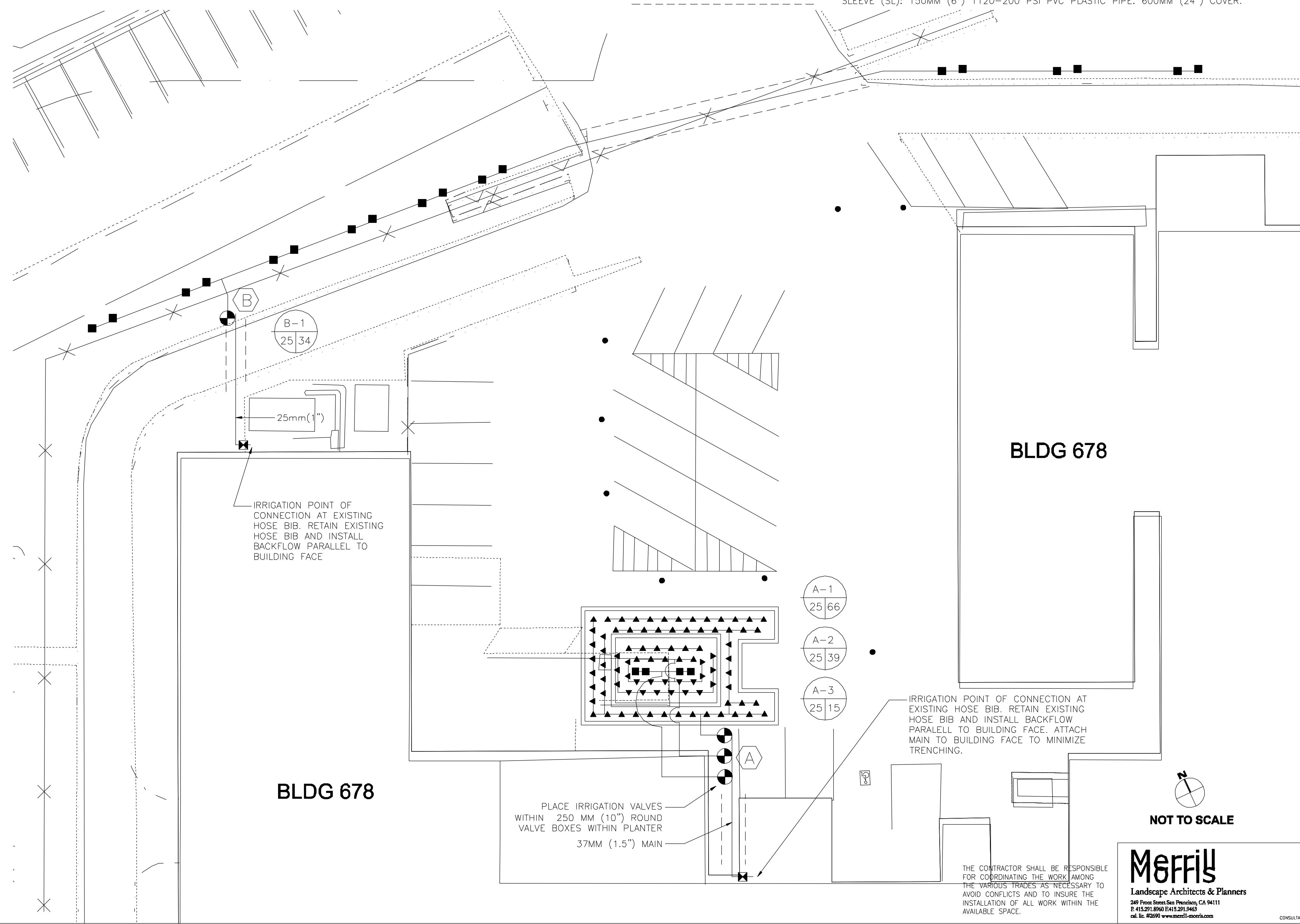
Merrill
Landscape Architects & Planners
249 First Street San Francisco, CA 94111
P. 415.291.8900 F. 415.291.0463
cell. 415.462.0050 www.merrill-landscape.com

IRRIGATION NOTES

1. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKMEN. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO HIS WORK.
2. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER.
3. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
4. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. HE SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
5. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.
6. REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN WIRE FROM EACH RCV TO THE CONTROLLER. SPlicing WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED. INSTALL ONE EXTRA WIRE FROM CONTROLLER TO EACH VALVE.
7. SPlicing OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 900MM COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 3M ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.
8. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE (NOT IN LAWN AREA.)
9. INSTALL VALVE BOXES MINIMUM 300MM FROM AND PERPENDICULAR TO WALK, CURB, LAWN, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, LAWN, ETC. AND EACH BOX SHALL BE MINIMUM 300MM APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, LAWN, ETC.
10. IN LOCATIONS WHERE LOW HEAD DRAINAGE WILL CAUSE EROSION AND EXCESS WATER, USE POP-UP SPRINKLER MODELS WITH INTEGRAL CHECK VALVE.
11. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF FIXED ARC (OR AN ADJUSTABLE ARC IF FIXED ARC DOES NOT MATCH THE ARC TO BE IRRIGATED) TO FIT THE SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION HEADS. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.
12. NOTIFY ARCHITECT OF ANY ASPECTS OF LAYOUT THAT WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS INSTRUCTIONS ARE OBTAINED.
13. IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND CONDUITS AT LEAST TWICE THE SIZE OF THE WATER LINE UNDER ALL PAVED AREAS.
14. ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. CONTRACTOR TO REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK. ADDITIONALLY, CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.
15. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.
16. IRRIGATION DEMAND: CONTROLLER A: 105 LPM (27 GPM) @ 45 PSI. CONTROLLER B: 34 LPM (9 GPM) @ 45 PSI.
17. PROGRAM IRRIGATION SYSTEM TO OPERATE BETWEEN THE HOURS OF 10:00 PM AND 7:00 AM.
18. IRRIGATION CONTRACTOR TO NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.
19. PRIOR TO TRENCHING, CALL UNDERGROUND SERVICE ALERT, (1-800) 227-2600 FOR NORTHERN CALIFORNIA.
20. WHERE MAIN LINE RUNS WITHIN TRENCH DRAINS STRAP MAIN LINE TO SIDE OF TRENCH DRAIN. DO NOT OBSTRUCT FLOW LINE OF TRENCH DRAIN.
21. ANY WATER OUTAGES TO BUILDING 678 WILL BE COORDINATED WITH PWC VIA THE FEAD REPRESENTATIVE.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	kPa	LPM	MAX. RADIUS	MAX. SPACING
■	RWS-BCG02	RAIN BIRD ROOT WATERING SYSTEM	207	1.9	-	-
▲	1401	RAIN BIRD SHRUB BUBBLER ON FLEX HOSE	207	1.2	-	-
⊙	PEB SERIES	25mm (1") RAIN BIRD REMOTE CONTROL VALVE				
◆	33DNP	RAIN BIRD QUICK COUPLING VALVE				
⊠	825Y-20MM (3/4")	FEBCO REDUCED PRESSURE BACKFLOW PREVENTER ATTACHED TO EXISTING HOSE BIB				
ⓐ ⓑ	LEIT 4004 MODEL (4 STATION) SOLAR POWERED CONTROLLERS	INSTALL AND WIRE CONTROLLERS PER MANUFACTURER				
ⓐ		CONTROLLER AND STATION NUMBER				
ⓑ		APPROXIMATE LITERS PER MINUTE - [TO CONVERT TO GPM, DIVIDE BY 3.785]				
ⓐ		REMOTE CONTROL VALVE SIZE IN MM				
---		MAIN LINE: 1120- SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 450MM (18") COVER. WHERE MAIN IS ABOVE GRADE USE SCHEDULE 40 GALVANIZED STEEL PIPE AND FITTINGS.				
---		LATERAL LINE: 25MM (1") 1120-200 PSI PVC SOLVENT WELD PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 300MM (12") COVER.				
---		SLEEVE (SL): 150MM (6") 1120-200 PSI PVC PLASTIC PIPE. 600MM (24") COVER.				

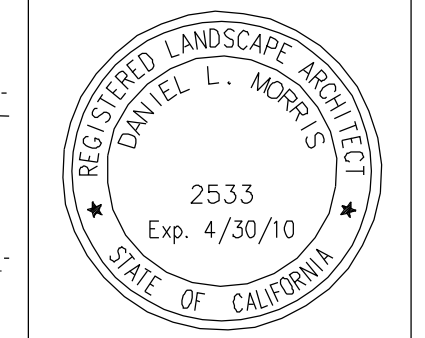


RECORD DRAWING
 RECORD DRAWING INFORMATION PROVIDED BY CONTRACTOR. STAMP AND SIGNATURE DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION OR INFORMATION NOT TRANSFERRED TO ELECTRONIC FILE WITH REASONABLE CARE

DATE	DESCRIPTION	APPROVED

R. A. Burch
 Construction Co., Inc.
 P.O. Box 1590
 Ramona, CA 92065

WILDMAN & MORRIS
 ARCHITECTS - ENGINEERS
 100 HURDAN ST. SAN FRANCISCO, CA 94105



SUBMITTED BY _____

ACTIVITY - SATISFACTORY TO _____

DATE APPROVED _____

FOR EFD FOR COMMANDER NAVFAC _____

DATE _____

A/E	EFD
DESIGN	_____
DRAWN	_____
REVIEW	_____
OC	_____
CHIEF ARCH/ENGR	_____

PROJECT MANAGER _____

FIRE PROTECTION _____

BRANCH MANAGER _____

DESIGN DIRECTOR _____

DEPARTMENT OF THE NAVY
 SAN DIEGO
 NAVS NORTH ISLAND
 NAVFAC SOUTHWEST
 CALIFORNIA
 CORONADO, CALIFORNIA
P-759 BASE MAIN GATE AND ENTRANCE NAVAL AIR STATION, NORTH ISLAND
 BUILDING 678 IRRIGATION PLAN

CODE D NO 80891	SIZE D
SCALE:	
EFD NO.	
STA. PROJ. NO.	
SPEC. NO. 11028065-002	
CONSTR. CONTR. NO. N68711-02-D-8065-002	
NAVFAC DRAWING NO. 8225762	
SHEET OF	
L-678	

NOT TO SCALE

Merrill
 Landscape Architects & Planners
 249 First Street San Francisco, CA 94111
 P. 415.291.8900 F. 415.291.9463
 cell. 415.462.0100 www.merrill-landscape.com

CONTRACTOR

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK AMONG THE VARIOUS TRADES AS NECESSARY TO AVOID CONFLICTS AND TO INSURE THE INSTALLATION OF ALL WORK WITHIN THE AVAILABLE SPACE.