	PLANT SCHEDULE							
	TREES	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	CONT	F		
,		AM	9	ARBUTUS X 'MARINA' / MARINA STRAWBERRY TREE STANDARD	24" BOX	5		
Con Con	A CALL	AC	14	ARCHONTOPHOENIX CUNNINGHAMIANA / KING PALM	24" BOX	1		
		CA	36	CUPANIOPSIS ANACARDIOIDES / CARROT WOOD	24" BOX	е		
$\left( \begin{array}{c} \\ \end{array} \right)$		KP	16	KOELREUTERIA PANICULATA / GOLDEN RAIN TREE	24" BOX	6		
		LI	33	LAGERSTROEMIA INDICA / CRAPE MYRTLE	24" BOX	6		
		LX	8	LAURUS X 'SARATOGA' / SARATOGA HYBRID LAUREL	24" BOX	ę		
		LC	7	LOPHOSTEMON CONFERTUS / BRISBANE BOX	24" BOX	7		
		ME	36	METROSIDEROS EXCELSA / NEW ZEALAND CHRISTMAS TREE	24" BOX	6		
		UP	22	ULMUS PARVIFOLIA / LACEBARK ELM	24" BOX	7		
	<u>SHRUBS</u>	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME	CONT.	S		
	$\bigotimes$	AGA	322	AGAPANTHUS AFRICANUS / AFRICAN LILY	5 GAL.	1		
	$\ast$	AGW	349	AGAPANTHUS AFRICANUS 'ALBUS' / WHITE AFRICAN LILY	5 GAL.	1		
	$\otimes$	AP	198	ARTEMISIA X 'POWIS CASTLE' / POWIS CASTLE ARTEMISIA	5 GAL.	Z		
	$\sim$	CL	41	CALLISTEMON VIMINALIS 'LITTLE JOHN' / LITTLE JOHN WEEPING BOTTLEBRUSH	5 GAL.	6		
	$\odot$	COL	187	COLEONEMA PULCHELLUM 'SUNSET GOLD' / SUNSET GOLD BREATH OF HEAVEN	5 GAL.	2		
	$\bigotimes$	COP	160	COPROSMA REPENS 'MARBLE QUEEN' / MARBLE QUEEN MIRROR PLANT	5 GAL.	2		
	(#)	HEM	120	HEMEROCALLIS X / HYBRID DAYLILY	1 GAL.	2		
		LB	56	LANDSCAPE BOULDER	5 GAL.	ŀ		
		LEP	34	LEPTOSPERMUM SCOPARIUM 'RUBY GLOW' / RUBY GLOW TEA TREE	5 GAL.	2		
		LS2	282	LIGUSTRUM SINENSE 'SUNSHINE' / SUNSHINE CHINESE PRIVET	10 GAL.	3		
		LS	746	LOMANDRA LONGIFOLIA 'ROMA 13' TM / PLATINUM BEAUTY VARIEGATED MAT RUSH	5 GAL.	3		
	Juliu	LOR	300	LOROPETALUM CHINENSE RUBRUM 'BENI HIME' TM / JAZZ HANDS MINI FRINGE FLOWER	5 GAL.	3		
		MUH	582	MUHLENBERGIA CAPILLARIS 'LENCA' TM / REGAL MIST PINK MUHLY GRASS	1 GAL.	3		
	$\odot$	MUT	165	MUHLENBERGIA EMERSLEYI 'EL TORO' / BULLGRASS	1 GAL.	3		
	$(\cdot)$	MR	64	MUHLENBERGIA RIGENS / DEER GRASS	1 GAL.	3		
		NAN	182	NANDINA DOMESTICA `GULF STREAM` TM / GULF STREAM HEAVENLY BAMBOO	5 GAL.	3		
	×	PHO	231	PHORMIUM TENAX 'AMAZING RED' / DWARF RED FLAX	5 GAL.	3		
	$\odot$	PIT	27	PITTOSPORUM TENUIFOLIUM 'MARJORIE CHANNON' / MARJORIE CHANNON TAWHIWHI	5 GAL.	7		
	+	RHB	433	RHAPHIOLEPIS INDICA 'BALLERINA' / BALLERINA INDIAN HAWTHORN	5 GAL.	3		
	$(\cdot)$	RHC	6	RHAPHIOLEPIS INDICA 'CLARA' / CLARA INDIAN HAWTHORN	5 GAL.	3		
	$\bigotimes$	RHE	71	RHAPHIOLEPIS INDICA 'ENCHANTRESS' / ENCHANTRESS INDIAN HAWTHORN	5 GAL.	3		

HEIGHT/SPREAD	CAL.	WUC
5`-7- HT. X 4`-5` SPR.	-	LOW
15` BTH	-	MODE
6`-7` HT. X 4`-5` SPR.	-	MODE
6-8` HT. X 2-3` SPR.	-	LOW
6-7` HT. X 3-4` SPR.	-	MODE
9`-10` HT. X 3`-4` SPR.		LOW
7`-8` HT. X 4`-5` SPR,	-	MODE
6-7` HT. X 3-4` SPR.	-	MODE
7`-8` HT. X 4`-5` SPR,	-	MODE
SPACING	WUCOLS	
18" O.C.	MODERATE	
18" O.C.	MODERATE	
48" O.C.	MODERATE	
60" O.C.	LOW	
48" O.C.	MODERATE	
48" O.C.	MODERATE	
24" O.C.	MODERATE	
AS SHOWN		
48" O.C.	MODERATE	
36" O.C.	LOW	
36" O.C.	LOW	
36" O.C.	MODERATE	
36" O.C.	MODERATE	
36" O.C.	LOW	
72" O.C.	MODERATE	
36" O.C.	LOW	
36" O.C.	LOW	

' O.C.		
' O.C.		

36" O.C. LOW

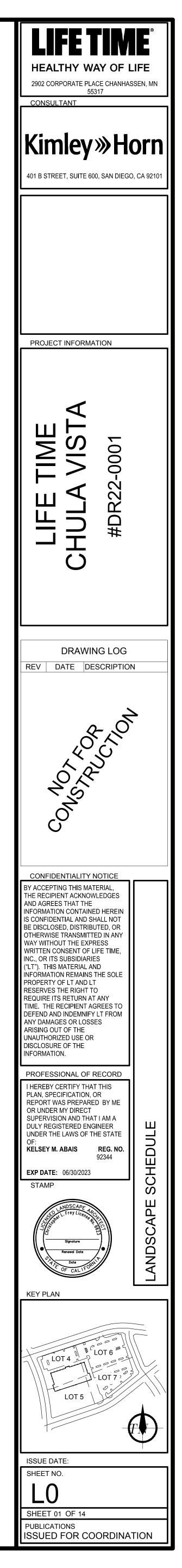
WUCOLS
LOW
MODERATE
MODERATE
LOW
MODERATE
LOW
MODERATE
MODERATE
MODERATE

GROUND COVERS	CODE	<u>QTY</u>	BOTANICAL / COMMON NAME
	AD	27	ACACIA REDOLENS `DESERT CARPET` TM / DESERT CARPET BANK CATCI
1 2 4 5 5 5 7 5 4 2 4 5 6 5 7 4 3 4 5 6 5 7 5 7 6 5 7 5 7 6 5 7 6 7 7 7 6 7 7 7 7 7 8 7 8 7 8 7 8 7 8 7 8	СН	19	CARISSA MACROCARPA 'HORIZONTALIS' / SPREADING NATAL PLUM
+++++++++ ++++++++++++++++++++++++++++	CEA	101	CEANOTHUS GRISEUS HORIZONTALIS 'YANKEE POINT' / YANKEE POINT C
	DEL	391	DELOSPERMA ALBA / WHITE ICE PLANT
	LE	319	LANTANA SELLOWIANA 'MONPUR' TM / PURPLE POTION TRAILING LANTAN
	LAN	240	LANTANA X 'NEW GOLD' / NEW GOLD LANTANA
	MP	275	MYOPORUM PARVIFOLIUM / TRAILING MYOPORUM
	TRA	161	TRACHELOSPERMUM ASIATICUM / ASIATIC JASMINE
	TJ	153	TRACHELOSPERMUM JASMINOIDES / CHINESE STAR JASMINE

## NOTE: THERE ARE NO EXISTING TREES ON SITE.

LANDSCAPE AREA CALCULATIONS: LANDSCAPE AREA: 64,307 SF SITE AREA: 327,105 SF LANDSCAPE AREA IS 19.6% OF SITE AREA PARKING AREA: 70,938 SF PARKING AREA LANDSCAPE: 11,784 LANDSCAPE AREA IS 16.6% OF PARKING AREA

	CONT.	SPACING	WUCOLS
NK CATCLAW	5 GAL.	72" O.C.	VERY LOW
LUM	5 GAL.	48" O.C.	LOW
E POINT CARMEL CREEPER	5 GAL.	60" O.C.	LOW
	5 GAL.	24" O.C.	LOW
G LANTANA	5 GAL.	36" O.C.	LOW
	5 GAL.	48" O.C.	VERY LOW
	5 GAL.	60" O.C.	LOW
	5 GAL.	36" O.C.	MODERATE
	5 GAL.	48" O.C.	MODERATE



## GENERAL LANDSCAPE NOTES

- 1. THE WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS AND THE MOST CURRENT EDITION OF THE APPLICABLE CITY AND/OR REGIONAL STANDARDS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF THESE STANDARDS, SPECIFICATIONS AND DRAWINGS, AS WELL AS ALL OTHER STANDARDS AND SPECIFICATIONS WHICH MAY BE NECESSARY TO COMPLETE AND ACCURATELY INTERPRET THESE PLANS.
- 2. ALL QUANTITIES LISTED IN THE LANDSCAPE SCHEDULE ARE FOR THE CONVENIENCE OF THE CONTRACTOR. IN THE CASE OF ANY DISCREPANCIES, PLANS SHALL OVERRIDE THE LANDSCAPE AND BID SCHEDULE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON THE PLANS AND BASE THEIR BID ACCORDINGLY.
- 3. RESPONSIBILITY FOR ESTABLISHING SUBGRADES IS NOT INCLUDED IN THIS WORK. INSPECT SUBGRADES PRIOR TO COMMENCING WORK TO CONFIRM SUBGRADE DEPTHS AND GRADES. ADVISE LANDSCAPE ARCHITECT OF DISCREPANCIES WITH DRAWINGS OR SPECIFICATIONS. ALL PLANTING AREAS SHALL BE LEFT FREE OF CONSTRUCTION DEBRIS AND/OR TOXIC MATERIAL AND GRADED TO A LEVEL TO PERMIT LANDSCAPE CONSTRUCTION. TRENCHES OR OTHER FILLED EXCAVATIONS SHALL BE COMPACTED PRIOR TO LANDSCAPE INSTALLATION.
- 4. SITE GRADING NECESSITATED BY THE WORK AS IT PROGRESSES AND NOT SPECIFICALLY CALLED OUT ON THE PLANS WILL BE CONSIDERED INCIDENTAL WORK.
- 5. ALL LANDSCAPE AREAS SHALL BE UNIFORMLY GRADED SO THAT FINISHED SURFACES CONFORM TO THE TYPICAL SECTIONS AND PROPOSED GRADES SHOWN. FINISHED SURFACES SHALL BE REASONABLY SMOOTH, COMPACTED, AND FREE FROM IRREGULAR SURFACE DRAINAGE. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE FINISH GRADE AND SHALL BEAR FINAL RESPONSIBILITY FOR PROPER SURFACE DRAINAGE OF PLANTED AREAS.
- 6. AFTER ROUGH GRADING HAS OCCURRED, CONTRACTOR SHALL OBTAIN AN AGRONOMIC SOILS REPORT AND SUBMIT TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO AMENDMENTS AND/OR PLANTING. CONTRACTOR SHALL APPLY RECOMMENDATIONS UNLESS OTHERWISE NOTED BY LANDSCAPE ARCHITECT
- 7. BACKFILL MIX SHALL BE PLACED IN 6" LIFTS AND TAMPED INTO PLACE AROUND THE PLANT. NO TRANSPLANTING SHALL BE DONE WHEN SOIL IS EXCESSIVELY WET. DO NOT COUNTERSINK AROUND CACTI OR SUCCULENTS. PROVIDE POSITIVE DRAINAGE AWAY FROM PLANT.
- 8. ALL TREES SHALL BE PLANTED A MINIMUM OF 5 FEET, ALL SHRUBS AND ACCENTS A MINIMUM OF 24", AND ALL GROUNDCOVERS 18" FROM EDGE OF CURBS, WALKS, WALLS, PADS, ETC., UNLESS DIRECTED OTHERWISE BY THE LANDSCAPE ARCHITECT.
- 9. EXCAVATE PITS, AS SHOWN ON DRAWINGS AND DETAILS. LOOSEN HARD SUBSOIL IN BOTTOM OF PIT. TEST DRAINAGE OF TREE, SHRUB AND PLANT PITS BY FILLING WITH WATER TWICE IN SUCCESSION. THE RETENTION OF WATER IN PLANTING PITS FOR MORE THAN TWENTY-FOUR (24) HOURS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. SUBMIT IN WRITING A PROPOSAL FOR THE CORRECTION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE PROCEEDING WITH WORK.
- 10. IF ROCK, UNDERGROUND CONSTRUCTION, ADVERSE DRAINAGE CONDITIONS, OR OTHER OBSTRUCTIONS ARE ENCOUNTERED IN EXCAVATION FOR PLANTING OF ANY PLANT MATERIAL, NOTIFY THE OWNER'S REPRESENTATIVE. NEW LOCATIONS MAY BE SELECTED BY THE OWNER'S REPRESENTATIVE, OR INSTRUCTIONS MAY BE ISSUED TO DIRECT REMOVAL OF OBSTRUCTION. PROCEED WITH WORK ONLY AFTER APPROVAL OF THE OWNER'S REPRESENTATIVE.
- 11. DO NOT MAKE SUBSTITUTIONS. IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY FROM AT LEAST FIVE SOURCES TO THE OWNER'S REPRESENTATIVE, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL FOR FINAL APPROVAL.
- 12. ALL PLANT MATERIAL AND SPECIFICATIONS TO CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK STANDARDS UNLESS OTHERWISE NOTED.
- 13. LAY OUT INDIVIDUAL TREE AND PLANT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS, STAKE LOCATIONS AND OUTLINE AREAS AND SECURE THE OWNER'S REPRESENTATIVE'S ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS DIRECTED.
- 14. ALL SHRUBS SHALL HAVE A FULL HEAD THAT COVERS THE CAN DIAMETER (CAN FULL) AND A MINIMUM OF THREE STEMS/BRANCHES.
- 15. FINISH GRADE FOR PLANTED AREAS SHALL BE 1" BELOW ALL CURBS, WALKS AND PAVING WITH SMOOTH EVEN LINES AT EDGES OF STRUCTURES. 16. FINISH LANDSCAPE GRADES SHALL SLOPE AT A 2% GRADE AWAY FROM CURBS, WALKS, AND WALLS.
- 17. ALL LANDSCAPE AREAS SHALL RECEIVE A 3" DEPTH OF MULCH, UNLESS OTHERWISE NOTED ON THESE PLANS. TREES TO HAVE A 6' DIAMETER RING AROUND TRUNK FREE OF MULCH. MULCH SHALL EXTEND UNDER ALL SHRUBS AND PLANTS.
- APPLY PRE-EMERGENT HERBICIDE PRIOR TO AND AFTER MULCH INSTALLATION. 18. PROVIDE SAMPLES OF PROPOSED MULCH SHOWING COLOR, GRADATION SIZE RANGE AND TEXTURE INCLUDING PROPOSED SOURCE. PROVIDE 1/2 CUBIC FOOT SAMPLE OF EACH.
- 19. ANY ROCK MULCH OR DECOMPOSED GRANITE SHALL NOT CONTAIN LUMPS OR BALLS OF CLAY, CALICHE, ORGANIC MATTER OR CALCAREOUS COATING. PROVIDE WEED BARRIER UNDER ALL DG AND/OR ROCK MULCH. THE CONTRACTOR SHALL ENSURE THAT SUFFICIENT QUANTITY IS AVAILABLE FROM A SINGLE SOURCE TO COMPLETE THE PROJECT. THE OWNER'S REPRESENTATIVE SHALL APPROVE SAMPLES PRIOR TO ORDERING.
- 20. NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL CURBS, PAVEMENT AND SIDEWALKS HAVE BEEN SWEPT CLEAN OF ALL DIRT AND DEBRIS ACCORDING TO PLANS.
- 21. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PERMITS REQUIRED. (SEE THE CITY GENERAL CONDITIONS)
- 22. ALL CONSTRUCTION ROADS AND COMPACTED AREAS DEVELOPED THROUGH CONSTRUCTION THAT ARE WITHIN THE LANDSCAPE AREAS SHALL BE SCARIFIED AND LOOSENED TO A DEPTH OF 12" PRIOR TO LANDSCAPE AND IRRIGATION WORK BEGINNING
- 23. PLANTINGS WITHIN THE SIGHT VISIBILITY TRIANGLE LINE SHALL BE MAINTAINED SO THAT NO LIMBS HANG LOWER THAN SEVEN (7) FEET AND SHRUBS OR OTHER PLANTS PLANTED WITHIN THE SIGHT VISIBILITY TRIANGLE LINE SHALL BE NO TALLER THAN TWO (2) FEET AT FULL GROWTH.

- WORKING HOURS.

- MAINTENANCE.

- THESE PLANS.

- BOTH.

## LANDSCAPE ARCHITECT NOTES

1. THE TERM "LANDSCAPE ARCHITECT" USED HEREIN SHALL MEAN THE LANDSCAPE ARCHITECT WHO HAS SIGNED AND SEALED THESE PLANS AND IS IN RESPONSIBLE CHARGE OF THE LANDSCAPE ARCHITECTURE DESIGN. THE TERM "CONTRACTOR" USED HEREIN SHALL MEAN ANY GENERAL CONTRACTOR OR SUBCONTRACTOR USING THESE PLANS. ANY AGENCY SIGNATURE OR APPROVAL ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY OF THESE NOTES.

2. THE LANDSCAPE ARCHITECT WILL NOT PROVIDE, OBSERVE, COMMENT ON NOR ENFORCE ANY SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY MEASURES AND SHALL BE SOLELY RESPONSIBLE FOR SAME AND COMPLYING WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR AGREES THAT SHE/HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL

3. THE LANDSCAPE ARCHITECT SHALL HAVE NO RESPONSIBILITY FOR ANY OF THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, TECHNIQUES, EQUIPMENT CHOICE AND USAGE, SEQUENCE, SCHEDULE, SAFETY PROGRAMS, OR SAFETY PRACTICES, NOR SHALL THE LANDSCAPE ARCHITECT HAVE ANY AUTHORITY OR RESPONSIBILITY TO STOP OR DIRECT THE WORK OF ANY CONTRACTOR.

4. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE LANDSCAPE ARCHITECT AND OWNER, THEIR AGENTS AND EMPLOYEES, HARMLESS FROM ANY AND ALL CLAIMS, DEMANDS, JUDGMENTS, LOSS, DAMAGES, COSTS, EXPENSES, FEES OR LIABILITY WHATSOEVER, REAL OR ALLEGED, IN CONNECTION WITH, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE LANDSCAPE ARCHITECT.

5. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS, THE CONTRACTOR SHALL REQUEST IN WRITING FROM THE LANDSCAPE ARCHITECT AND THE OWNER. AN INTERPRETATION BEFORE DOING ANY RELATED OR IMPACTED WORK.

6. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO PROTECT THE PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM CONTRACTOR OPERATIONS BY APPROPRIATE MEANS UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHOMEVER IS TO BE ULTIMATELY RESPONSIBLE FOR

7. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING WORK NEAR THEIR FACILITIES AND SHALL COORDINATE WORK WITH UTILITY COMPANY REPRESENTATIVES.

8. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF READILY AVAILABLE RECORDS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE SOLE EXPENSE OF THE CONTRACTOR.

9. THE LOCATION, ELEVATIONS, SIZE, TYPE AND CONDITION OF EXISTING IMPROVEMENTS ADJACENT TO THE PROPOSED WORK INDICATED ON THESE PLANS SHALL BE CONFIRMED BY THE CONTRACTOR BY FIELD MEASUREMENTS AND OBSERVATIONS PRIOR TO CONSTRUCTION OF NEW WORK. THE CONTRACTOR WILL IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT IN WRITING IF ANY DISCREPANCIES OR CONFLICTING INFORMATION IS FOUND.

10. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES AS NEEDED, SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO THE ACTUAL LOCATION, SIZE, TYPE, OR CONDITION OF EXISTING FACILITIES DIFFERING FROM WHAT IS SHOWN ON

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE OWNER.

12. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING IMMEDIATELY BEFORE PROCEEDING WITH THE WORK IN QUESTION.

13. ANYTHING MENTIONED IN THE SPECIFICATIONS, IF ANY, AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN

I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AB-1881 AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN.

CHRISTOPHER L FREY, LLA 6623

## CITY OF CHULA VISTA GENERAL NOTES

- 1. CONTRACTOR SHALL VERIFY WITH OWNER'S REPRESENTATIVE THAT PLANS ARE CURRENT AND APPROVED.
- 2. LANDSCAPE IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF CHULA VISTA LANDSCAPE MANUAL, LANDSCAPE WATER CONSERVATION ORDINANCE AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK"). WHENEVER SPECIAL REQUIREMENTS CONFLICT ON ANY MATTER, A
- 3. THESE PLANS ARE BASED ON IMPROVEMENTS BY KIMLEY-HORN DATED 6/3/2022
- 4. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERING SOILS REPORT RECOMMENDATIONS AS THEY RELATE TO
- HIS WORK.
- TAXES REQUIRED TO INSTALL THE WORK ON THESE PLANS.
- 6. THE CONTRACTOR SHALL BE APPROPRIATELY LICENSED AS REQUIRED BY THE STATE OF CALIFORNIA.
- OR DISCREPANCIES IN EXISTING CONDITIONS OR WITH THE PLANS PRIOR TO BEGINNING THE WORK.
- 8. UNIT PRICES FOR ALL IMPROVEMENTS SHALL BE ESTABLISHED AS PART OF THE CONTRACT WITH THE PROJECT

9. DETERMINATION OF "EQUAL" SUBSTITUTIONS SHALL BE MADE ONLY BY THE LANDSCAPE ARCHITECT OF RECORD.

10.THE LANDSCAPE ARCHITECT OF RECORD, AND CITY REPRESENTATIVES SHALL BE NOTIFIED NO LESS THAN 48 HOURS IN ADVANCE OF THE START OF CONSTRUCTION, ANY SITE OBSERVATION, OR MEETINGS. SITE OBSERVATIONS SHALL INCLUDE, BUT NOT BE LIMITED TO:

- A. PRE-CONSTRUCTION MEETING
- B. LANDSCAPE GRADING AND SOIL AMENDING C. LANDSCAPE CONSTRUCTION
- D. SPOTTING OF SPECIMEN PLANTS
- E. IRRIGATION PRESSURE AND COVERAGE TEST
- F. PLANTING AND/OR HYDROSEEDING
- G. PRE-MAINTENANCE H. POST-MAINTENANCE (FINAL)
- DESIGNED BY THIS OFFICE.

11.SITE OBSERVATIONS BY THE LANDSCAPE ARCHITECT OF RECORD DURING ANY PHASE OF THIS PROJECT DO NOT RELIEVE CONTRACTOR OF HIS PRIMARY RESPONSIBILITY TO PERFORM ALL WORK IN ACCORDANCE WITH THE PLANS. SPECIFICATIONS AND GOVERNING CODES.

12. THE CONTRACTOR SHALL PROVIDE FULL MAINTENANCE OF ALL LANDSCAPE AREAS FOR A MINIMUM OF 90 DAYS AFTER INITIAL WRITTEN CITY APPROVAL.

13.PRIOR TO THE COMMENCEMENT OF THE LANDSCAPE AND IRRIGATION IMPROVEMENTS, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE INSPECTOR TO OBTAIN A LANDSCAPE INSPECTION PACKET, LANDSCAPE AND IRRIGATION BOND EXONERATION WORKSHEET (IF APPLICABLE), AND TO SCHEDULE AN INSPECTION OF THE IMPROVEMENTS.

14. MINIMUM TREE SEPARATION DISTANCE SHALL BE AS FOLLOWS: TRAFFIC SIGNALS/ STOP SIGNS - 20 FEET DRIVEWAY (ENTRIES) - 10 FEET

INTERSECTIONS (INTERSECTING CURB LINES OF TWO STREETS) - 25 FEET UTILITIES-UNDERGROUND - 5 FEET ABOVE GROUND - 10 FEET FIRE HYDRANTS - 10 FEET

LIGHT STANDARDS - 10 FEET SIDEWALK UNDERDRAINS - 3 FEET

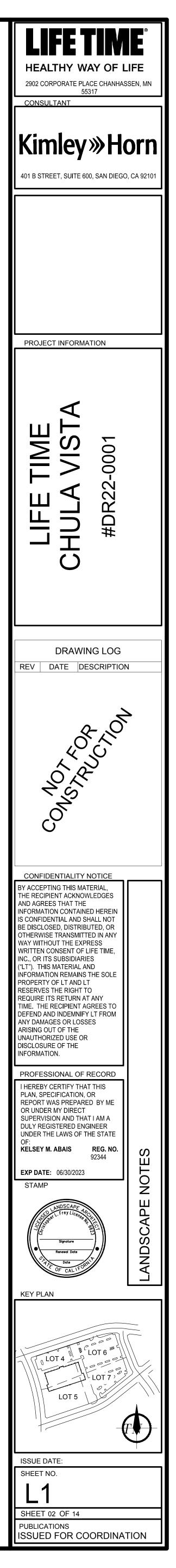
CITY OF CHULA VISTA REPRESENTATIVE SHALL DETERMINE WHICH SPECIAL CONDITION OR CODE SHALL GOVERN.

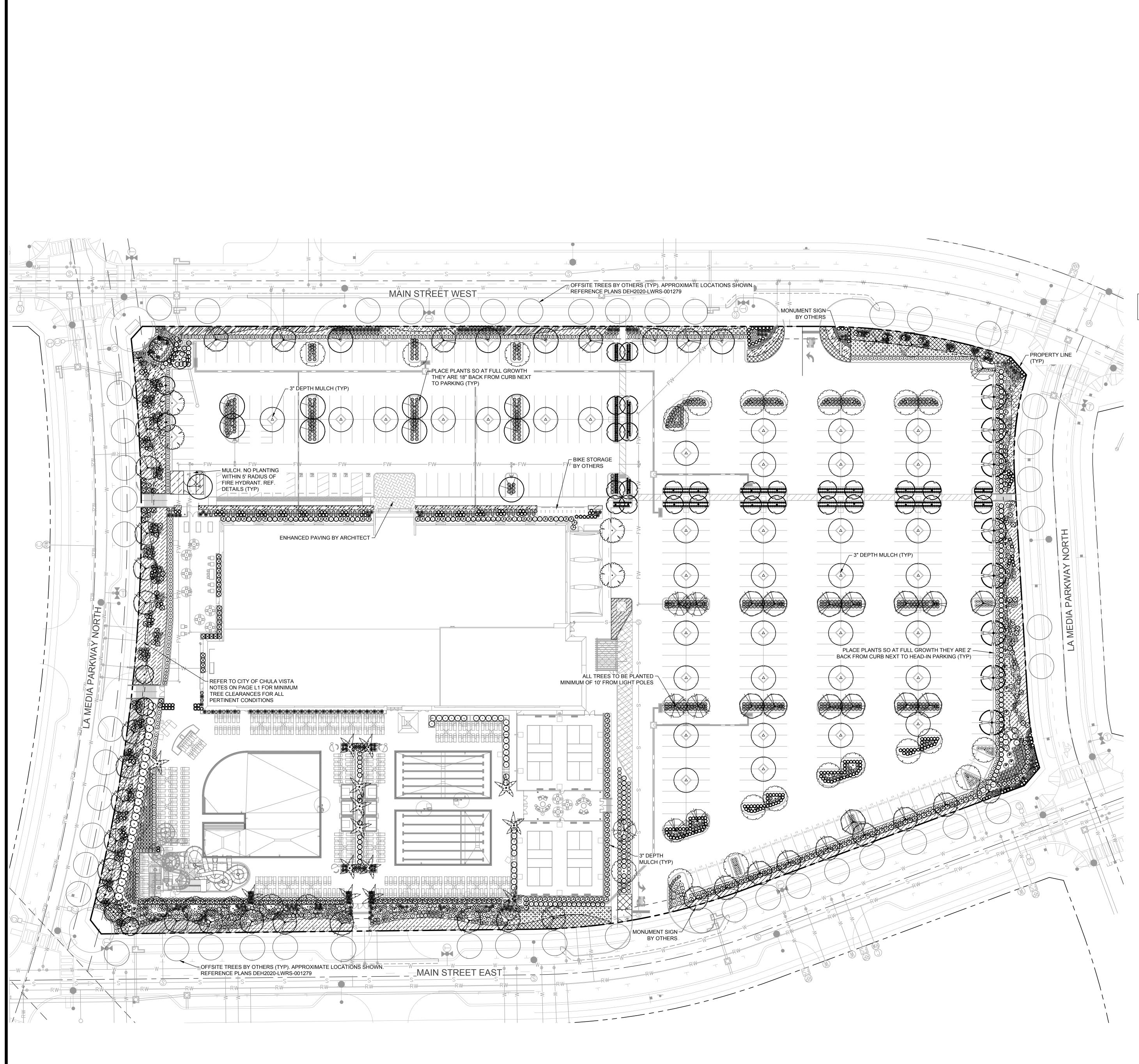
5. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY AND/OR REQUIRED PERMITS AND PAY ALL RELATED FEES AND/OR

7. THE CONTRACTOR SHALL NOTIFY A CITY OF CHULA VISTA REPRESENTATIVE IMMEDIATELY OF ANY ERRORS. OMISSIONS

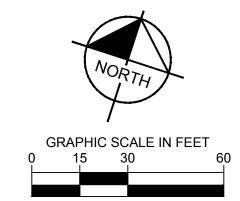
OWNER, PRIOR TO BEGINNING WORK, TO ACCOMMODATE ADDITIONS AND/OR DELETIONS OF MATERIAL AND/OR LABOR

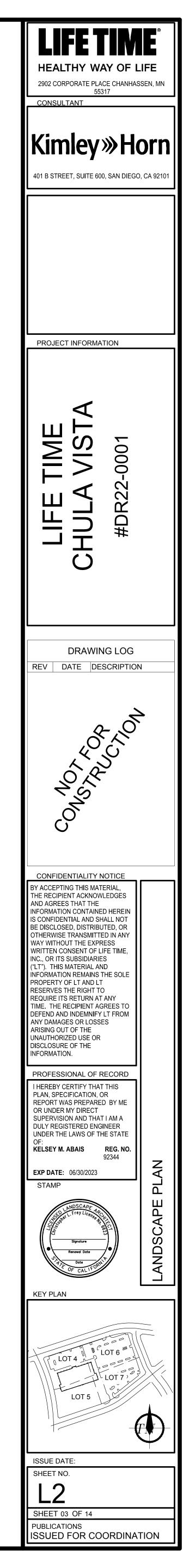
NOTE: "LANDSCAPE" SHALL REFER TO ALL IMPROVEMENTS WITHIN THIS SET OF DOCUMENTS THAT HAVE BEEN

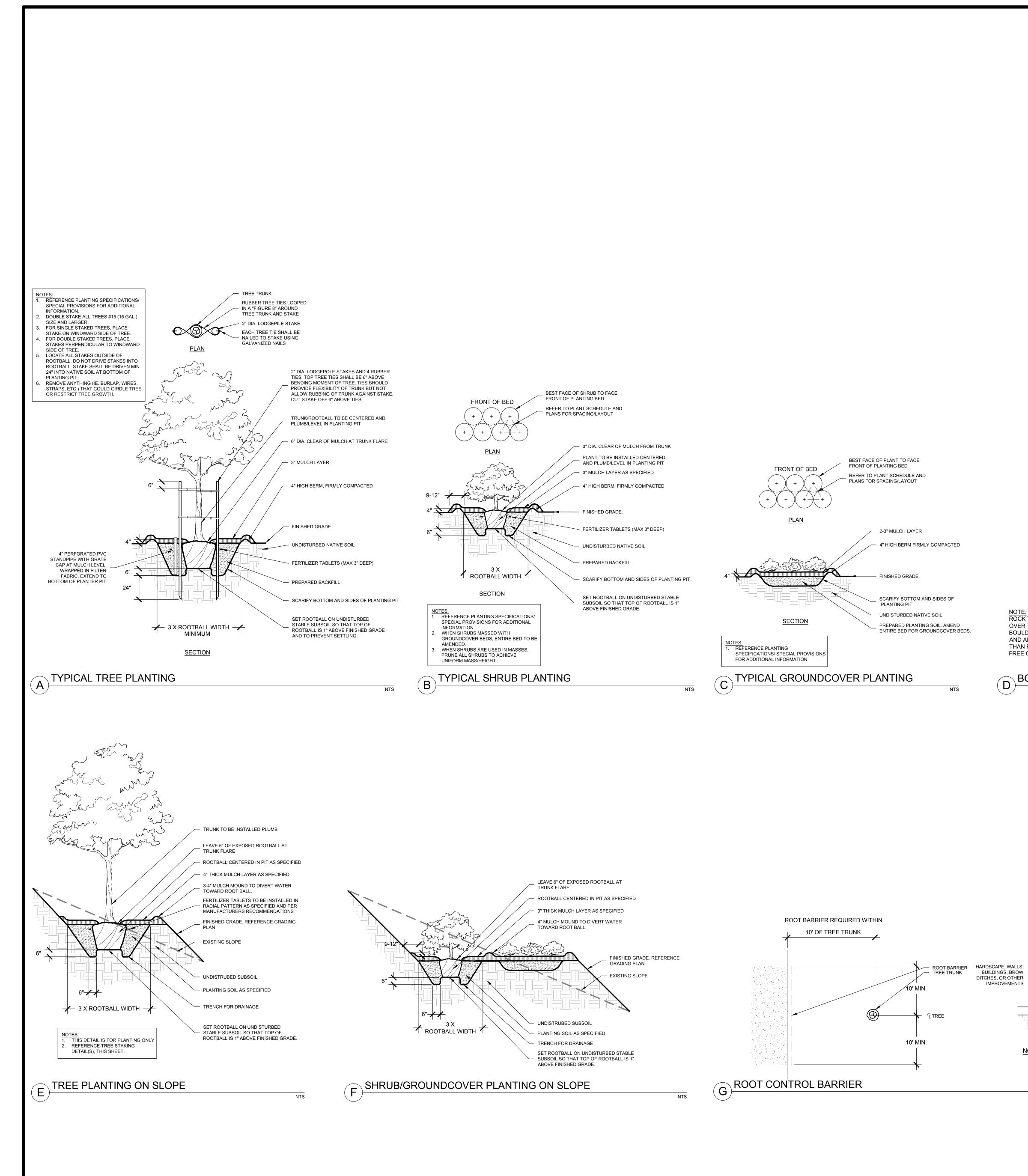


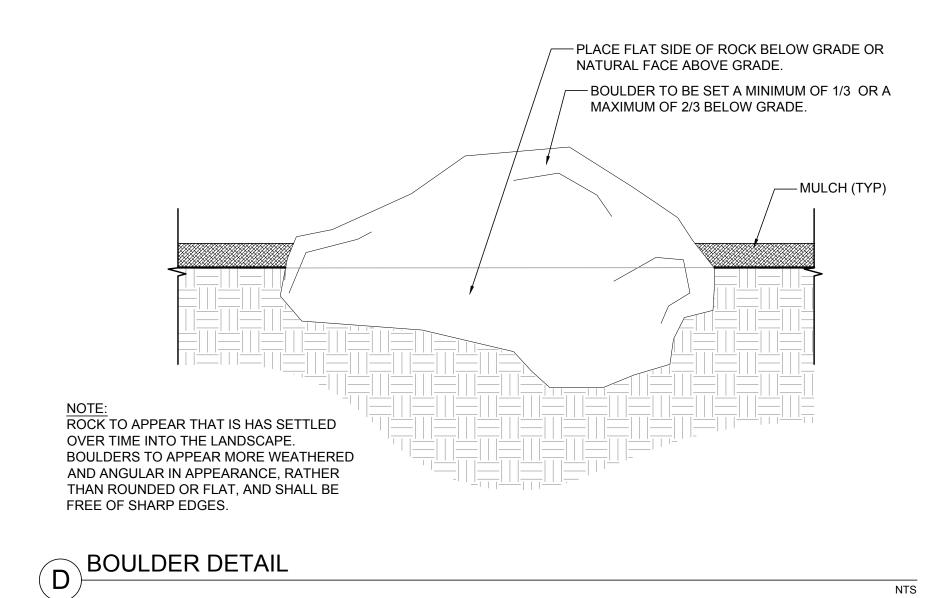


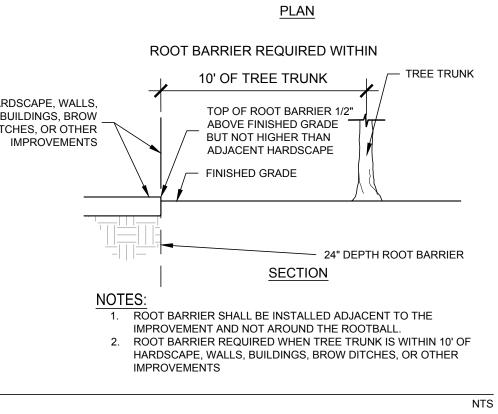
SEE SHEET L1 FOR LANDSCAPE SCHEDULE

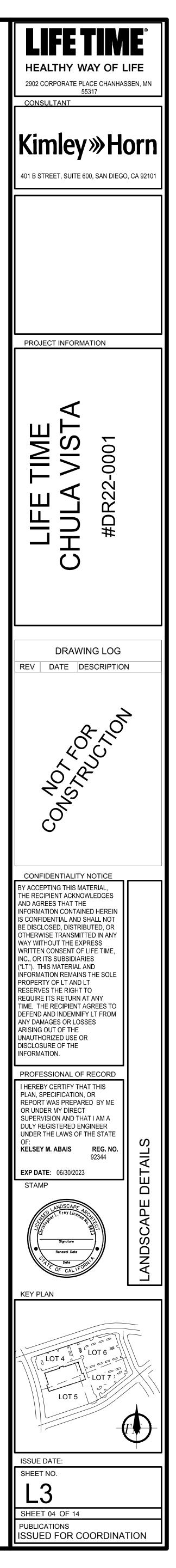


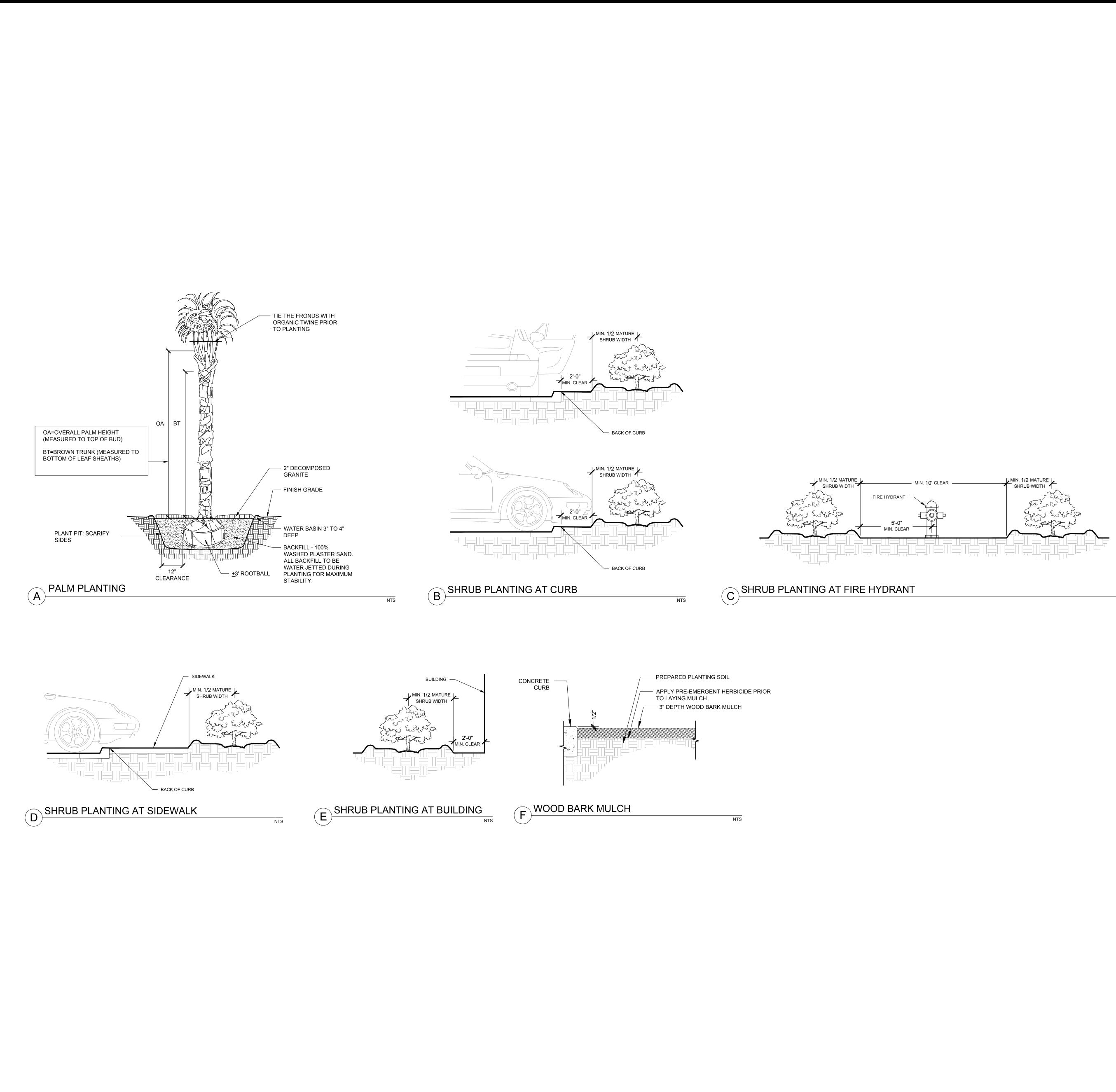




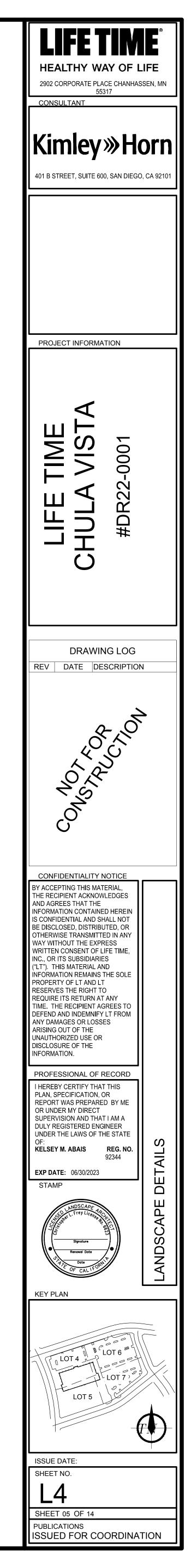








NTS



WATER MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND THE CURRENT 1. APPROVED WATER AGENCIES' STANDARDS. 2. OTAY DISTRICT INSPECTION SHALL RECEIVE THE CONSTRUCTION SCHEDULE AT LEAST FIVE (5) WORKING DAYS IN ADVANCE OF 2.

- CONTRACTOR'S EXPENSE. THE TELEPHONE NUMBER OF OTAY WATER DISTRICT INSPECTION IS (619) 670-2203 3. CONSTRUCTION SHALL NOT START UNTIL THE SUBDIVISION AGREEMENT HAS BEEN EXECUTED BETWEEN THE OTAY WATER 4. OTAY WATER DISTRICT INSPECTION SHALL BE NOTIFIED FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) DISTRICT AND THE DEVELOPER AND A PRE CONSTRUCTION MEETING HAS BEEN HELD WITH THE OTAY WATER DISTRICT'S
- INSPECTION DEPARTMENT. 4. THE CONTRACTOR SHALL POTHOLE ALL TIE-IN LOCATIONS BEFORE PIPE INSTALLATION TO DETERMINE PIPE SIZE AND MATERIAL, ELEVATION, AND IF TIE-IN CAN BE MADE AT THE LOCATION INDICATED. THE CONTRACTOR SHALL ALSO POTHOLE ALL EXISTING 6. ALL ON-SITE RECYCLED WATER IRRIGATION PIPING AND ON-SITE POTABLE WATER PIPING INSTALLED UNDER THIS DESIGN SHALL BE UTILITIES THAT MAY INTERFERE WITH THE TIE-IN LOCATION AND EXPOSE PIPE A MINIMUM OF 3-FEET ON EACH SIDE OF THE CONNECTION POINT TO ASSURE THAT NO COLLARS ARE IN THE TAP AREA. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OTAY WATER DISTRICT'S ENGINEERING DEPARTMENT, PUBLIC SERVICES PRIOR TO PROCEEDING.
- 5. WATER PRESSURE REGULATORS WILL BE REQUIRED. THE INSTALLATION AND MAINTENANCE OF REGULATORS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER. 6. APPROVAL OF THE PLANS BY THE OTAY WATER DISTRICT DOES NOT CONSTITUTE RESPONSIBILITY FOR ACCURACY OF INFORMATION NOR LOCATIONS OF EXISTING FACILITIES.
- 7. DEVELOPER/CUSTOMER AGREES THAT IF IT, ITS EMPLOYEES, AGENTS, OR ANY INDEPENDENT CONTRACTORS OR SUBCONTRACTORS SHOULD MAKE AN UNAUTHORIZED CONNECTION TO THE DISTRICT WATER SYSTEM, CUSTOMER IS SUBJECT TO THE FINES SET FORTH IN SECTION 72 OF THE DISTRICT'S CODE OF ORDINANCES INCLUDING, BUT NOT LIMITED TO, SECTION 72.03, "CERTAIN SPECIFIC OPERATIONAL VIOLATIONS". CUSTOMER ACKNOWLEDGES AND AGREES THAT PAYMENT OF FINES MAY BE DEDUCTED FROM ANY DEPOSIT CUSTOMER HAS WITH
- 8. THE DISTRICT. NO PERSON, OTHER THAN AN EMPLOYEE OR AGENT OF THE DISTRICT, SHALL HAVE ANY RIGHT TO OPERATE ANY PART OF A DISTRICT WATER DISTRIBUTION SYTEM. ANY PERSON WHO TAMPERS OR INTERFERES WITH ANY PART OR 12. HOSE BIBS ARE STRICTLY PROHIBITED ON RECYCLED WATER SYSTEMS. COMPONENT OF SAID SYSTEM, OR CAUSES OR PERMITS ANY ACT OF TAMPERING OR INTERFERING WITH THE SYSTEM, SHALL BE 13. ALL SPRAY HEADS, VALVE BOXES, AND QUICK COUPLER VALVES SHALL BE CLEARLY COLOR CODED (PURPLE) TO INDICATE THE USE OF LIABLE FOR ANY INJURY OR DAMAGE CAUSED THEREBY OR RESULTING THEREFROM. IN ADDITION, THE FINES SET FORTH IN SECTION 72 OF THE DISTRICT'S CODE OF ORDINANCES INCLUDING, BUT NOT LIMITED TO, SECTION 72.03, "CERTAIN SPECIFIC 14. RECYCLED WATER LINES SHALL NOT CROSS ROADS, STREETS, OR EASEMENTS UNLESS SPECIFICALLY SHOWN ON THESE PLANS. OPERATIONAL VIOLATIONS", WILL BE IMPOSED ON ANY PERSON OR COMPANY WHO OPERATES ANY PART OF THE DISTRICT
- WATER SYSTEM WITHOUT PROPER AUTHORIZATION NO MORE THAN 70 EQUIVALENT DWELLING UNITS CAN BE ON AN UNLOOPED SYSTEM. 10. NO MORE THAN 1,320 FEET OF MAIN SHALL BE IN USE WITHOUT LOOPING TO A SECOND SOURCE. THE WATER MAIN SHALL BE 16. ALL SIGNAGE SHALL BE APPROVED AND INSTALLED PRIOR TO ENERGIZING THE SYSTEM WITH WATER. A SIGNAGE PLAN INDICATING DESIGNED AND INSTALLED SO THAT IT TERMINATES AT A LOT LINE AND NOT WITHIN A LOT OR OTHERWISE APPROVED BY THE USE OF RECYCLED WATER SHALL BE SUBMITTED TO THE DISTRICT FOR APPROVAL PRIOR TO INSTALLATION. AS A MINIMUM, SIGNS
- OTAY WATER DISTRICT. 11. THRUST BLOCK SIZING ASSUMES A SOIL BEARING CAPACITY OF 1,500 PSF. SHOULD FIELD CONDITIONS INDICATE A LESSER SOIL BEARING CAPACITY, NOTIFY THE OTAY WATER DISTRICT'S ENGINEERING DEPARTMENT, PUBLIC SERVICES. TOP OF RECYCLED WATER MAINS 12-INCHES IN DIAMETER AND SMALLER MUST BE AT LEAST 4.5 FEET BELOW FINISHED GRADE.
- 12. THE TOP OF POTABLE WATER MAINS 12-INCHES IN DIAMETER AND SMALLER MUST BE 3.5 FEET BELOW FINISHED GRADE. THE ALL WATER MAINS 16-INCHES IN DIAMETER AND LARGER MUST HAVE AN ADDITIONAL 1-FOOT OF COVER. THE TOP OF PIPE
- ELEVATIONS SHALL BE PROVIDED ON THE PROFILE EVERY 100 FEET. PIPELINES MUST BE THE CLASS AS SHOWN AND CONSTRUCTED ACCORDING TO THE APPROVED PLANS WITH A HORIZONTAL TOLERANCE OF 0.15 FEET AND A VERTICAL 20. EACH AUTOMATIC CONTROLLER AND ITS ASSOCIATED EQUIPMENT SHALL BE IDENTIFIED WITH A SIGN BEARING THE WORDS "RECYCLED TOLERANCE OF 0.10 FEET.
- 13. EVERY RESIDENTIAL LOT MUST BE SERVED BY A 1-INCH COPPER SERVICE (WAS DWG WS-01). ALL OTHER LOTS MUST BE SERVED WITH A MINIMUM 2-INCH COPPER SERVICE (WAS DWG WS-02). CATHODIC PROTECTION WILL BE REQUIRED ON ALL NEW COPPER 21. SERVICES (WAS DWG WC-17), ADDITIONALLY, ALL SACRIFICIAL ANODES SHALL BE TESTED FOR OPERATION AND A REPORT ISSUED BY THE DEVELOPER'S CORROSION ENGINEER. SERVICE SADDLES SHALL BE A MINIMUM 2.0 FEET AWAY FROM OTHER SADDLES AND OR JOINTS. MULTIPLE SADDLES ON THE SAME PIPE LENGTH SHALL BE ALTERNATELY STAGGERED 10 TO 30 22. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO AND SHALL BE OPERATED BETWEEN THE HOURS OF 9:00 P.M. AND 6:00 A.M. UNLESS DEGREES TO PREVENT A WEAK PLANE IN THE PIPE.
- 14. FOR CONNECTIONS TO EXISTING WATER MAINS, ALL WET TAP CONNECTIONS TO EXISTING PIPELINES, WHETHER FOR MAINLINE EXTENSION OR SERVICE LATERALS, SHALL BE PERFORMED BY THE DISTRICT. THE CONTRACTOR SHALL FURNISH THE TAPPING 24. AN INITIAL CROSS-CONNECTION INSPECTION WILL BE DONE AT SITES WITH BOTH POTABLE AND RECYCLED WATER SERVICES BY THE SLEEVE OR TEE, VALVES AND ALL OTHER MATERIALS AS CALLED FOR IN THE WATER AGENCIES' STANDARDS, http://www.sdwas.org/, STANDARD SPECIFICATIONS SECTION, IN ACCORDANCE WITH THE APPROVED MATERIALS LIST. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, LABOR AND TRAFFIC CONTROL REQUIRED FOR THE EXCAVATION AND 25. FAILURE TO COMPLY WITH THE DISTRICT'S RULES AND REGULATIONS IS A VIOLATION AND COULD RESULT IN SUSPENSION OF SERVICE INSTALLATION OF THE CONNECTION INCLUDING BUT NOT LIMITED TO EXCAVATION BY HAND OR MACHINE. POURING OF THRUST AND ANCHOR BLOCKS, INSTALLATION OF GATE CASING, PAINTING AND WRAPPING OF FITTINGS, BACKFILL AND COMPACTION OF 26. WHEN RECYCLED WATER BECOMES AVAILABLE, AN ON-SITE CERTIFIED RECYCLED WATER SITE SUPERVISOR SHALL BE DESIGNATED IN TRENCH AREA AND PAVEMENT REPLACEMENT. 15. A MINIMUM OF 24-INCHES OF PERMANENT BACKFILL SHALL BE INSTALLED OVER THE WATER MAIN PRIOR TO ANY TESTING.
- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE OTAY WATER DISTRICT'S RULES AND REGULATIONS. 2. DRINKING WATER FOUNTAINS AND DESIGNATED OUTDOOR EATING AREAS SHALL BE PROTECTED AGAINST CONTACT WITH
- RECYCLED WATER SPRAY, MIST, OR RUNOFF. 3. BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT POSSIBLE PONDING, RUN-OFF, OVER-SPRAY AND MISTING.
- HOSE BIBS ARE STRICTLY PROHIBITED. 5. CROSS-CONNECTIONS BETWEEN RECYCLED WATERLINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED.
- 6. NO SUBSTITUTIONS OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE OTAY WATER DISTRICT. 7. ALL MAINLINE PIPES SHALL HAVE WARNING TAPE PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.
- 8. HOURS FOR IRRIGATION WITH RECYCLED WATER ARE FROM 9:00P.M. TO 6:00 A.M. THE HOURS FOR IRRIGATION WITH DISINFECTED TERTIARY RECYCLED WATER MAY BE MODIFIED BY THE LOCAL AUTHORITY. IRRIGATION DURING PUBLIC USE PERIODS WITH DISINFECTED TERTIARY RECYCLED WATER SHALL BE UNDER THE SUPERVISION OF THE DESIGNATED USER SUPERVISOR. IRRIGATION WITH WATER OF A LESSER QUALITY THAN DISINFECTED TERTIARY RECYCLED WATER SHALL BE BETWEEN THE HOURS OF 9:00P.M. AND 6:00 A.M.
- 9. BURIAL OF ALL WIRING AND PIPING SHALL MEET OTAY WATER DISTRICT'S RULES AND REGULATIONS. 10. NON-DESIGNATED USE AREAS SHALL BE PROTECTED FROM CONTACT WITH RECYCLED WATER, WHETHER BY WINDBLOWN SPRAY OR BY DIRECT APPLICATION THROUGH IRRIGATION OR OTHER USE. LACK OF PROTECTION, WHETHER BY DESIGN,
- CONSTRUCTION PRACTICE OR SYSTEM OPERATION, IS STRICTLY PROHIBITED. 11. IRRIGATION HEADS SHALL BE RELOCATED OR ADJUSTED TO MINIMIZE OR ELIMINATE OVER-SPRAYING ON SIDEWALKS, STREETS
- AND NON-DESIGNATED USE AREAS. 12. RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNED FOR THE USE ON RECYCLED WATER DISTRIBUTION
- SYSTEMS PER OTAY WATER DISTRICT'S RULES AND REGULATIONS. 13. ON RECYCLED WATER SYSTEMS, ALL APPURTENANCES (SPRINKLER HEADS, VALVE BOXES, ETC.) SHALL BE COLOR-CODED
- PURPLE PER AWWA GUIDELINES AND SECTION 116815 OF THE CALIFORNIA HEALTH AND SAFETY CODE. 14. ALL IRRIGATION PIPES SHALL BE STENCILED WITH THE WARNING, "NON- POTABLE OR RECYCLED WATER," COLOR-CODED (PURPLE) AND LAID WITH WARNING TAPE AND STENCILING ORIENTED TOWARD THE TOP OF THE TRENCH PER OTAY WATER DISTRICT'S RULES AND REGULATIONS.
- 15. ON NEW ON-SITE SYSTEMS (POST-METER), POTABLE WATER, CONSTANT PRESSURE RECYCLED WATER AND SEWER LINES SHOULDBE PLACED A MINIMUM OF FOUR FEET APART OR AS DIRECTED BY THE PROJECT ENGINEER AND /OR REGULATORY AGENCY. MEASUREMENTS SHALL BE BETWEEN FACING SURFACES, NOT PIPE CENTERLINES. 16. CONSTANT PRESSURE RECYCLED WATERLINES SHALL CROSS AT LEAST TWELVE INCHES BELOW POTABLE WATERLINES AND
- MAINTAIN AT LEAST TWELVE INCHES CROSSING SEPARATION BETWEEN OTHER UTILITIES. 17. IF A CONSTANT PRESSURE RECYCLED WATER LINE MUST BE INSTALLED ABOVE A
- 18. POTABLE WATER LINE OR LESS THAN TWELVE INCHES BELOW A POTABLE WATER LINE, THEN THE RECYCLED WATER LINE SHALL BE INSTALLED WITHIN AN APPROVED PROTECTIVE SLEEVE AS PER OTAY WATER DISTRICT'S RULES AND REGULATIONS. 19. DEVELOPER/CONTRACTOR SHALL CONDUCT A CROSS-CONNECTION TEST AND COVERAGE TEST AS DIRECTED BY THE OTAY WATER DISTRICT AND THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH PRIOR TO ANY USE OF RECYCLED WATER
- 20. THE REQUIRED CROSS-CONNECTION INSPECTION SHALL BE DONE BY EITHER THE OTAY WATER DISTRICT AND/OR THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH. COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY.
- 21. THE DESIGN AND LOCATIONS PROPOSED FOR RECYCLED WATER "DO NOT DRINK SIGNS SHALL BE CALLED OUT ON THE PLANS. 22. WHEN RECYCLED WATER BECOMES AVAILABLE, AN ON-SITE USER SUPERVISOR SHALL BE DESIGNATED IN WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS-CONNECTION PROTECTION, THE RECYCLED PURVEYOR'S RULES AND REGULATIONS AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM, COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO THE OTAY WATER DISTRICT AND THE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

IN CASE OF EMERGENCY, CONTACT PHONE NO.

OR AFTER HOURS, CONTACT PHONE NO. NAME

- 23. ALL PUBLIC AND PRIVATE POTABLE WATER MAINS INCLUDING FIRE MAINS AND ANY WATER WELLS AND WATER COURSES WITHIN THE RECYCLED WATER PROJECT SHALL BE SHOWN ON THE PLANS. 24. CALL OUT ON THE PLANS IF THERE ARE OR ARE NOT DRINKING FOUNTAINS AND/OR DESIGNATED OUTDOOR EATING AREAS ON
- THIS SITE. 25. EDUCATE ALL MAINTENANCE PERSONNEL ON A CONTINUOUS BASIS OF THE PRESENCE OF RECYCLED WATER. PERSONNEL MUST BE INFORMED THAT RECYCLED WATER IS MEANT FOR IRRIGATION PURPOSES ONLY, AND IS NOT APPROVED FORDRINKING
- PURPOSES, HAND WASHING, CLEANING OF TOOLS, ETC. GIVEN THE HIGH TURNOVER RATE OF EMPLOYEES IN THE LANDSCAPE INDUSTRY IT IS IMPORTANT THIS INFORMATION BE DISSEMINATED ON AN ALMOST DAILY BASIS. 26. A PHYSICAL SEPARATION SHALL BE PROVIDED BETWEEN ADJACENT AREAS IRRIGATED WITH RECYCLED WATER AND POTABLE
- WATER. SEPARATION SHALL BE PROVIDED BY DISTANCE, CONCRETE MOW STRIPS OR OTHER APPROVED METHODS.

REGULATIONS. ALL BOX LIDS SHALL BE BRANDED.

PARKWAYS

10

SIGNATURE

**REGISTRATION NO.** 

ALL SCREENED FACILITIES, EXISTING OR PROPOSED, WERE OBTAINED FROM CIVIL PLAN [INSERT CITY OF CHULA VISTA DRAWING NO. AND OTAY WATER DISTRICT PROJECT NO.]. ACTUAL SIZE AND LOCATION OF FACILITIES SHALL BE VERIFIED. CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES TO VERIFY TIE IN LOCATIONS, PIPE SIZE AND TYPE PRIOR TO ANY WORK BEING PERFORMED. TO THE BEST OF OUR KNOWLEDGE THE FACILITIES EXIST OR WILL EXIST AS SHOWN. THE OTAY WATER DISTRICT AND [LANDSCAPE ARCHITECT FIRM] SHALL NOT BE HELD RESPONSIBLE FOR ACTUAL SIZE OR LOCATION. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OTAY WATER DISTRICT ENGINEER.

ALL ON-SITE IRRIGATION IMPROVEMENTS SHOWN ON THESE PLANS ARE PART OF A RECYCLED WATER DISTRIBUTION SYSTEM. NO CONSTRUCTION WILL BE ALLOWED UNTIL ALL APPROVALS HAVE BEEN OBTAINED. CROSS CONNECTIONS BETWEEN RECYCLED WATER LINES AND POTABLE WATER LINES ARE STRICTLY PROHIBITED. THE START OF CONSTRUCTION. WORK DONE WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REMOVAL AT THE 3. USE OF RECYCLED WATER SHALL ADHERE TO TITLE 22, DIVISION 4, CHAPTER 3 OF THE CALIFORNIA CODE OF REGULATIONS AND THE CURRENT RULES, REGULATIONS AND SPECIFICATIONS OF THE DISTRICT. 670-2241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL 5. PUBLIC FACILITIES, SUCH AS DRINKING AND DECORATIVE FOUNTAINS, COMFORT STATIONS, PLAYGROUND EQUIPMENT, ETC., DO/DO

> NOT (CHOOSE ONE) EXIST ON THIS PROJECT. IDENTIFIED IN ACCORDANCE WITH THE DISTRICT STANDARD SPECIFICATIONS. ALL ON-SITE RECYCLED WATER PIPING SHALL BE PURPLE COLORED PVC, CONTINUOUSLY STENCILED ON OPPOSITE SIDES OF THE PIPE WITH THE WORDS "CAUTION - RECYCLED WATER". APPROVED MANUFACTURERS OF THIS PIPE CAN BE FOUND IN THE DISTRICTS' "APPROVED MATERIALS LIST". ALL ON-SITE POTABLE WATER LINES SHALL BE WHITE OR BLUE UNLESS OTHERWISE APPROVED BY THE DISTRICT.

9. UNLESS OTHERWISE DIRECTED BY THE DISTRICT, A 10-FOOT HORIZONTAL AND 1FOOT VERTICAL SEPARATION BETWEEN POTABLE WATER AND CONSTANT PRESSURE RECYCLED WATER LINES SHALL BE MAINTAINED AT ALL TIMES. THE POTABLE LINES SHALL BE INSTALLED ABOVE THE RECYCLED LINES UNLESS OTHERWISE APPROVED BY THE DISTRICT OR DEHQ. WHERE POTABLE LINES AND CONSTANT PRESSURE RECYCLED WATER LINES CROSS, THE RECYCLED WATER LINE SHOULD BE INSTALLED BELOW THE POTABLE WATER LINE IN A SCHEDULE 40 PURPLE COLORED PVC SLEEVE. THE SLEEVE SHALL EXTEND 10FEET

ON EITHER SIDE OF THE POTABLE LINE, FOR A TOTAL OF 20-FEET. 11. A MINIMUM VERTICAL SEPARATION OF 12 INCHES SHALL BE MAINTAINED BETWEEN UTILITIES AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE DISTRICT.

RECYCLED WATER.

15. ALL CONSTANT PRESSURE LINES SHALL BE TESTED WITH HYDROSTATIC PRESSURE AS REQUIRED IN THE DISTRICT STANDARD SPECIFICATIONS. NO LEAKS SHALL BE ALLOWED. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT FOR HYDROSTATIC TESTS. THESE TESTS SHALL BE WITNESSED BY A REPRESENTATIVE OF THE DISTRICT.

MUST BE POSTED AND WRITTEN IN ENGLISH AND SPANISH WITH THE INTERNATIONAL SYMBOL (DO NOT DRINK). 17. ALL METER SIZES SHALL BE VERIFIED BY THE DISTRICT. FINAL DETERMINATION OF METER SIZES IS RESERVED BY THE DISTRICT 18. ALL RECYCLED WATER SERVICES REQUIRE BACKFLOW PREVENTION AS SHOWN IN THE POINT OF CONNECTION (POC) DETAIL IRRIGATION SYSTEMS BEING SUPPLIED WITH RECYCLED WATER SHALL INSTALL BACKFLOW PREVENTION AND A WYE STRAINER PER DISTRICT STANDARD DRAWING WR-03, WR-04, WR-05, WR-06, AND WR-08

19. PRIOR TO ENERGIZING THE ON-SITE SYSTEM WITH WATER, ONE (1) COMPLETE SET OF LAMINATED CONTROLLER CHARTS AND ONE (1) ELECTRONIC COPY CREATED FROM THE FINAL APPROVED AS-BUILT SHALL BE PROVIDED TO THE DISTRICT. WATER USED FOR IRRIGATION" IN ENGLISH AND SPANISH. WITH WHITE LETTERS AT LEAST 1 INCH HIGH ON A PURPLE. PANTONE 512. BACKGROUND. THE SIGN SHALL BE PLACED AS TO BE READILY SEEN BY ANY OPERATIONS PERSONNEL UTILIZING THE EQUIPMENT. THE CONTRACTOR SHALL ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE. THIS SHALL INCLUDE THROTTLING THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. CONDITIONS THAT CAUSE OVERSPRAYS, PONDING, OR RUNOFF SHALL BE ELIMINATED. ADJUST SYSTEM TO AVOID THESE CONDITIONS.

OTHERWISE APPROVED BY THE DISTRICT. 23. NO SUBSTITUTION OF PIPE MATERIALS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE DISTRICT. DISTRICT AND/OR THE SAN DIEGO COUNTY ENVIRONMENTAL HEALTH (DEHQ). COPIES OF INSPECTION REPORTS WILL BE FORWARDED TO THE NON-INSPECTING PARTY, ANNUAL INSPECTIONS OR CROSSCONNECTION TESTING WILL BE PERFORMED THEREAFTER.

UNTIL THE APPROPRIATE CORRECTIVE STEPS HAVE BEEN TAKEN. WRITING. THIS INDIVIDUAL SHALL BE FAMILIAR WITH PLUMBING SYSTEMS WITHIN THE PROPERTY, WITH THE BASIC CONCEPTS OF BACKFLOW/CROSS CONNECTION PROTECTION, THE RECYCLED PURVEYOR'S RULES AND REGULATIONS, AND THE SPECIFIC REQUIREMENTS OF A RECYCLED WATER SYSTEM. COPIES OF THE DESIGNATION, WITH CONTACT PHONE NUMBERS SHALL BE PROVIDED TO THE OTAY WATER DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

IN CASE OF EMERGENCY, CONTACT NAME PHONE NO.

OR AFTER HOURS, CONTACT NAME PHONE NO.

27. BEST MANAGEMENT PRACTICES SHALL BE USED TO ELIMINATE OR CONTROL TO THE BEST EXTENT POSSIBLE PONDING, RUN-OFF OVER-SPRAY AND MISTING

28. AT THE DESCRETION OF OTAY WATER DISTRICT, RECYCLED WATER QUICK COUPLERS MAY BE ALLOWED WITHIN SLOPES AND 29. RECYCLED WATER QUICK COUPLING VALVES SHALL BE OF A TYPE DESIGNED FOR USE ON RECYCLED WATER DISTRIBUTION SYSTEMS

(SPIKES NOT INTERCHANGEABLE WITH POTABLE WATER QUICK COUPLER SPIKES) PER OTAY WATER DISTRICT'S RULES AND 30. ALL BUILDINGS SHALL HAVE INDIVIDUAL POTABLE WATER SHUT-OFF VALVES INSTALLED ON THE EXTERIOR OF EACH BUILDING AND SHALL BE MAINTAINED IN WORKING ORDER FOR THE PURPOSE OF THE CROSS-CONNECTION SHUTDOWN TEST. A DETAIL OF POTABLE WATER SHUT-OFF VALVE INSTALLATION MUST BE INCLUDED ON PLANS FOR DISTRICT APPROVAL.

32. A 10-FOOT SEPARATION BETWEEN RECYCLED WATER IRRIGATION MAIN LINE TIE IN POINT AND PROJECT POINT OF CONNECTION (POC) IS TO BE MAINTAINED DURING THE CONSTRUCTION PROCESS AND IS TO BE TIED IN AT THE INSPECTIONS DIRECTION, AFTER DEH APPROVALS AND METER(S) SET(S) HAVE TAKEN PLACE.

33. RECYCLED WATER IRRIGATION PROJECTS THAT REQUIRE PHASING OF CONSTRUCTION SHALL REQUIRE A DETAILED PHASING PLAN BE SUBMITTED BY THE PROJECT ARCHITECT TO THE DISTRICT FOR REVIEW. UPON APPROVAL OF THE PHASING PLAN BY THE DISTRICT, A COPY OF THE APPROVED PHASING PLAN SHALL BE INCORPORATED INTO THE APPROVED PLAN SET(S) BY THE PROJECT ARCHITECT. 34. ALL DUAL SOURCED RECYCLED WATER USE SITES SHALL BE DESIGNED AND BUILT TO UTILIZE SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH APPROVED TEST METHOD 1, UTILIZING PRESSURE RECORDERS FOR THE RECYCLED AND POTABLE CROSS-CONNECTION TESTING. PROPOSED ALTERNATIVE TEST METHODS MUST BE APPROVED BY THE OTAY WATER DISTRICT AND SAN DIEGO COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

I HEREBY DECLARE THAT I AM THE LANDSCAPE ARCHITECT OF WORK FOR THIS PROJECT. THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF THE PROJECT DRAWINGS AND

SPECIFICATIONS BY THE CITY OF CHULA VISTA, THE OTAY WATER DISTRICT AND THE COUNTY OF SAN DIEGO DEPARTMENT OF ENVIRONMENTAL HEALTH IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS THE LANDSCAPE ARCHITECT OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

KIMLEY-HORN 401 B ST SAN DIEGO, CA 92101 FIRM NAME & ADDRESS

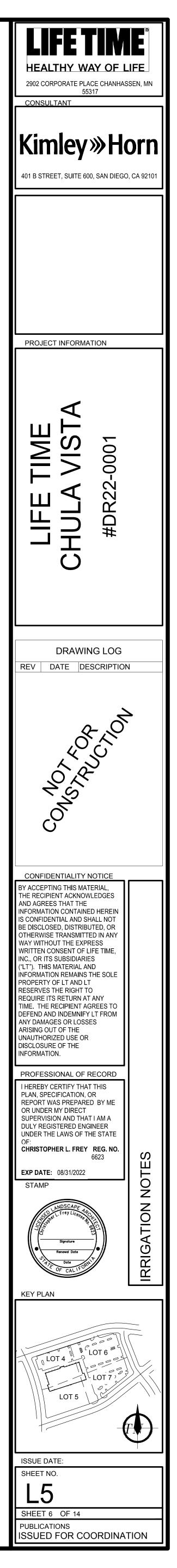
> 6/3/2022 DATE

Note: this "Declaration of Responsible Charge" shall be included (with the requested information completed) on the project design plans title page only.

OTAY WATER DISTRICT INSPECTION SHALL BE NOTIFIED FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AT (619) 6702241. ALL WORK PERFORMED WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REJECTION AND REMOVAL.

POC ID	POC STA.	IRRIGATED AREA (SF)	DEMAND (GPM)	ANNUAL USAGE (AC-FT)	LATERAL SI
	TOTAL:				
0	TAY WATER DISTRIC	г			
Project No PZ	RPZ				
Brandon DiPietro: F	ield Services Manager	DATE:		OWD AS BUILT	
Juan Tamayo: Recycled		DATE:	Field Sei	Signature and Date rvices Mngr. Brandon DiP	ietro
REVIEWED BY Note: Signature exp	pires 1 year after date.	DATE:		OWD Revision	
COUNTY OF SAN DIE Department of Environme Land and Water Quality I	ental Health				
Environmental Health Special	list	DATE:			

METER INFORMATION								
Ā.	IRRIGATED AREA (SF)	DEMAND (GPM)	ANNUAL USAGE (AC-FT)	LATERAL SIZE (IN)	METER SIZE (IN)			
TOTAL:								



## IRRIGATION SCHEDULE

′ #-# ∖ # •\_\_\_\_\_

\_#" **⊷**∕

Valve Flow

Valve Size

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>	<u>PSI</u>
✓ ¥ ✓ ¥ ¥ ♀ 25Q 50Q 50H 10H 10F 20F	HUNTER PROS-PRS30-06-CV-R-MSBN 10F MULTI-STREAM BUBBLER, 6" POP-UP, FACTORY INSTALLED DRAIN CHECK VALVE, RECLAIMED BODY CAP, 25=.25GPM, 50=0.5GPM, 10=1.0GPM, 20=2.0GPM.	356	30
<ul><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li><li>◆</li>&lt;</ul>	HUNTER RZWS-SLEEVE-18 25 18" LONG RZWS WITH FILTER FABRIC SLEEVE, .25 GPM OR .50 GPM BUBBLER OPTIONS, 1/2" SWING JOINT FOR CONNECTION TO 1/2" PIPE, PURPLE CAP	28	30
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>	
	HUNTER ICZ-101-25 DRIP CONTROL ZONE KIT. 1" ICV GLOBE VALVE WITH 1" HY100 FILTER SYSTEM. PRESSURE REGULATION: 25PSI. FLOW RANGE: 2 GPM TO 20 GPM. 150 MESH STAINLESS STEEL SCREEN. CONTRACTOR TO INCLUDE DECODER WITH VALVE	35	
¢	NETAFIM TLSOV NETAFIM TLSOV- 1/2" MANUAL FLUSH VALVE, BARBED INSERT. INSTALL IN 10" BOX, WITH ADEQUATE BLANK OR "COBRA" TUBING TO EXTEND VALVE OUT OF VALVE BOX. 2/3 IN FITS TECHLINE HCVXR, HCVXR-RW/RWP, CV, DL, RW AND RWP DRIPLINES, AND PE IRRIGATION HOSE	35	
Ą	NETAFIM 65ARIA100 1" MALE PIPE THREAD GUARDIAN AIR/VACUUM RELIEF VENT. INSTALL IN SUBSURFACE SYSTEMS. ON SLOPING TERRAIN TO PREVENT COLLAPSING OF PIPES. UV RESISTANT. MAXIMUM PRESSURE: 150 PSI.	35	
	HUNTER ECO-ID ECO-ID: 1/2" FPT CONNECTION WITH 12-60 PSI OPERATING PRESSURE. SPECIFY WITH HUNTER SJ SWING JOINT.	35	
	AREA TO RECEIVE DRIPLINE NETAFIM TLRW-06-18-NP TECHLINE RW LANDSCAPE DRIPLINE WITH PURPLE STRIPE FOR NON-POTABLE WATER APPLICATIONS. 0.6 GPH EMITTERS AT 18" O.C. DRIPLINE LATERALS SPACED AT 18" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. DESIGNED FOR RECLAIMED WATER USE ONLY.	64,050 S.F.	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>	
	HUNTER ICV-G-R 1", 1-1/2" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH RECLAIMED WATER ID, PURPLE HANDLE.CONTRACTOR TO INCLUDE DECODER WITH VALVE	18	
	HUNTER HQ-44LRC-R QUICK COUPLER VALVE, PURPLE RUBBER LOCKING COVER FOR RECLAIMED WATER USE, RED BRASS AND STAINLESS STEEL, WITH 1" NPT INLET, 2-PIECE BODY.	12	
×	HAYWARD TRUE UNION TB SERIES SHUT OFF VALVE. SIZE TO MATCH MAINLINE DIA.	35	
	HUNTER ICV-G-DC-R 1-1/2" 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC MASTER VALVE, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH DC LATCHING SOLENOID FACTORY INSTALLED OPTION. RECLAIMED WATER ID, PURPLE HANDLE.	1	
BF	BACKFLOW 1-1/2" SEE CIVIL PLANS	1	
С	HUNTER A2C-5400-M 54-STATION CONTROLLER WITH SEVEN (7) A2M-600 MODULES IN AN OUTDOOR GRAY STEEL WALL MOUNT ENCLOSURE.	1	
Ś	HUNTER SOLAR-SYNC SOLAR, RAIN FREEZE SENSOR WITH OUTDOOR INTERFACE, CONNECTS TO HUNTER PCC, PRO-C, AND I-CORE CONTROLLERS, INSTALL AS NOTED. INCLUDES 10 YEAR LITHIUM BATTERY AND RUBBER MODULE COVER, AND GUTTER MOUNT BRACKET. WIRED.	1	
(FS)	HUNTER HFS-100 FLOW SENSOR FOR USE WITH ACC CONTROLLER, 1" SCHEDULE 40 SENSOR BODY, 24 VAC, 2 AMP.	1	
Μ	WATER METER 1-1/2" RECYCLED WATER METER	1	
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40	14,563 L.F.	
	IRRIGATION MAINLINE: PVC SCHEDULE 40	2,844 L.F.	
	PIPE SLEEVE: PVC SCHEDULE 40	2,543 L.F.	
	Valve Callout ——— Valve Number		
	Controller Letter		
/ #=# ∖ # ●			

# IRRIGATION NOTES

1.	THE SYSTEM HAS BEEN DESIG DUE TO FIELD CONDITIONS SCHEDULE ARE ESTIMATED. P	SHALL E
2.	ALL IRRIGATION LINES AND A	
3.	CONTRACTOR TO FIELD LOCA LANDSCAPE ARCHITECT PRICE EXISTING CONDITIONS ARE FC	OR TO S
4.	LOCATE ALL VALVES INSIDE LA HIDING THEM FROM PUBLIC VI	
5.	ALL PRESSURE MAINLINES UN WHERE ELECTRIC VALVE COI LINES THEY SHALL BE CONTAIL	NTROL L
6.	CONTRACTOR SHALL PROVIDE SUBSTANTIAL COMPLETION BE	
7.	ALL SLEEVES UTILIZED BY TH BE LOCATED ON THE "AS-BUIL OF EACH END OF EACH SLE DRAWINGS. ALL SLEEVES SHA	T" DRAW
8.	ALL DRIP ZONES SHALL BE INS	TALLED
9.	IRRIGATION CONTRACTOR SHA COMMENCEMENT OF HIS OP OWNER/GENERAL CONTRACT SPECIFICATIONS OF LOCAL AN	ERATION OR. WOF
10.	VERIFY CONTROLLER AND RA SITE WITH OWNER.	IN SENS
11.	ELECTRIC SERVICE TO CONTR	OLLER S
12.	ALL 24 VAC WIRING SHALL BE CONTROL WIRES - #14 COMMON WIRES - #12	OF DIREC
13.	INSTALLATION OF WORK SHAL TO ALLOW FOR A SPEEDY ANI	
14.	COORDINATE WITH PLANTING	PLAN FO
15.	PRIOR TO THE START OF CC OPERATING PARAMETERS OF MASTER SYSTEM CANNOT PRO THE DESIGN BY ADDING CONT EQUIPMENT, AS NECESSAR' REPRESENTATIVE FOR APPRO	Master Ovide Th Rol Val Y. Coi
16.	A FINAL REPORT FOR THE TES TO FINAL APPROVAL BY THE RESPONSIBLE FOR PERFORMI	FIELD I
17.	A LAMINATED DIAGRAM OF T IRRIGATION CONTROLLER FOR	
18.	A CERTIFICATE OF COMPLETI LANDSCAPE PLANS, THE S CONTRACTOR FOR THE PROJE	IGNER (
19.	AN IRRIGATION AUDIT REPORT	SHALL E
Cl	RITICAL ANALYSIS	
Ge	enerated:	2022-05-
	O.C. NUMBER: 01 ater Source Information:	RECYCL
W	OW AVAILABLE ater Meter Size: ow Available	1-1/2" 75 GPM
St El Se <u>Le</u>	RESSURE AVAILABLE atic Pressure at POC: evation Change: ervice Line Size: ength of Service Line: essure Available:	93.00 PS 5.00 ft 3" <u>20 ft</u> 91.00 psi
Ma Fle	ESIGN ANALYSIS aximum Multi-valve Flow: ow Available at POC: esidual Flow Available:	30 GPM <u>75 GPM</u> 45 GPM
E F E Pr La La La	itical Station: Design Pressure: Friction Loss: Elevation Loss: Loss through Valve: essure Req. at Critical Station: loss for Fittings: loss for Main Line: loss for POC to Valve Elevation: loss for Backflow: loss for Master Valve:	54 20 PSI 2.36 PSI 0.24 PSI 0 PSI 29.14 PSI 51.45 PS 0.04 PSI 0.44 PSI 0 PSI 12.13 PS 1.5 PSI

GNED TO PROVIDE 100% COVERAGE. ANY CHANGES MADE IN THE LAYOUT SHALL BE IN ACCORDANCE WITH THESE STANDARDS. QUANTITIES IN AN SHALL TAKE PRECEDENCE.

ALVES ARE SHOWN DIAGRAMMATICALLY. ALL LINES AND VALVES TO BE S WHERE POSSIBLE.

TE ALL PROPOSED IRRIGATION WATER MAIN LINE LOCATIONS. CONTACT OR TO START OF WORK IF DISCREPANCIES BETWEEN THIS PLAN AND UND.

NDSCAPE AREAS, ALLOWING ACCESS FOR MAINTENANCE PURPOSES, BUT EW WHENEVER POSSIBLE.

IDER ASPHALT PAVEMENT SHALL BE PLACED WITHIN SLEEVES AS NOTED. TROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL NED WITHIN A SEPARATE, SMALLER CONDUIT.

FORE RECEIVING FINAL PAYMENT.

E IRRIGATION CONTRACTOR, WHETHER INSTALLED BY HIM OR NOT, SHALL " DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT EVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" L BE SIZED TWO PIPE SIZES GREATER THAN PIPE IT CARRIES.

TALLED WITH A SELF-FLUSHING DISC FILTER, OR APPROVED EQUAL

ALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO ERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OR. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND D/OR STATE HIGHWAY JURISDICTION.

IN SENSOR LOCATION AND MAINLINE POINT OF CONNECTION AT PROJECT AS NEEDED.

OLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. OF DIRECT BURIAL COPPER WIRE AS FOLLOWS:

BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS ORDERLY COMPLETION OF ALL WORK ON THE SITE.

PLAN FOR PLANTER BED LOCATIONS AND TREE LOCATIONS.

NSTRUCTION, CONTRACTOR SHALL COORDINATE WITH DEVELOPER FOR MASTER SYSTEM. THIS DESIGN REQUIRES 70 PSI TO OPERATE. IF THE OVIDE THESE PARAMETERS, CONTRACTOR SHALL MAKE ADJUSTMENTS TO IROL VALVES, A BOOSTER PUMP, PRESSURE REDUCING VALVE, OR OTHER CONTRACTOR SHALL SUBMIT DESIGN REVISIONS TO OWNER'S VAL PRIOR TO SUBMITTING BID.

TING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR FIELD INSPECTOR. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL NG THESES SERVICES.

IE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE SUBSEQUENT MANAGEMENT PURPOSES.

ON SHALL BE FILLED OUT AND CERTIFIED BY EITHER THE SIGNER OF THE GNER OF THE IRRIGATION PLANS, OR THE LICENSED LANDSCAPE

SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION.

2022-05-17 14:08

RECYCLED WATER METER

1-1/2" 75 GPM

93.00 PSI

20 ft 91.00 psi

<u>′5 GPM</u> 45 GPM

20 PSI 2.36 PSI ).24 PSI ) PSI 29.14 PSI 51.45 PSI 0.04 PSI ).44 PSI PSI 12.13 PSI

1.5 PSI 1.8 PSI Critical Station Pressure at POC: 67.36 PSI Pressure Available:91 PSIResidual Pressure Available:23.64 PSI

Loss for Water Meter:

## **IRRIGATION MAINTENANCE SCHEDULE:**

THE IRRIGATION MAINTENANCE SCHEDULE TASKS LISTED BELOW ARE INTENDED A S MINIMUM STANDARI AND MORE FREQUENT ATTENTION MAY BE REQUIRED DEPENDING ON THE PARTICULAR SITE CONDITION MAINTENANCE SHALL BE DONE TO ENSURE WATER EFFICIENCY. REPAIR OF IRRIGATION EQUIPMENT SHALL DONE WITH THE ORIGINALLY SPECIFIED MATERIALS OR APPROVED EQUIVALENTS.

FREQUENCY - QUARTERLY

TASK - CONTROLLER CABINET : OPEN CABINET AND CLEAN OUT DEBRIS AND REPLACE BATTERY NECESSARY.CHECK WIRING AND REPAIR AS NEEDED AND CHECK CLOCK AND RESET IF NECESSARY. FREQUENCY - MONTHLY

TASK - IRRIGATION SCHEDULE: ADJUST SCHEDULE FOR SEASONAL VARIATIONS AND OTHER CONDITION WHICH MAY AFFECT THE AMOUNT OF WATER NEEDED TO MAINTAIN PLANT HEALTH. ADJUST AS NECESSARY. FREQUENCY - QUARTERLY

E "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT TASK - POC: VISUALLY INSPECT COMPONENTS FOR LEAKS, PRESSURE SETTINGS, SETTLEMENT OR OTHER DAMAGE AFFECTING THE OPERATION OF A COMPONENT. REPAIR AS NEEDED. FREQUENCY - QUARTERLY

TASK - REMOTE CONTROL VALVES : ISOLATION VALVES AND QUICK COUPLER VALVES: VISUALLY INSPECT FO LEAKS, SETTLEMENTS, WIRE CONNECTIONS AND PRESSURE SETTINGS. REPAIR AS NEEDED.

FREQUENCY - QUARTERLY TASK - MAINLINE AND LATERALS: VISUALLY INSPECT FOR LEAKS OR SETTLEMENTS OF TRENCH. FREQUENCY - WEEKLY

TASK - FILTERS AND STRAINERS - VISUALLY CHECK FOR ANY BROKEN MALIGNED OR CLOGGED HEADS, HEADS WITH INCORRECT ARC, INADEQUATE COVERAGE OR OVERSPRAY AND LOW HEAD DRAINAGE. REPAIL

FREQUENCY - MONTHLY TASK - FILTERS AND STRAINERS: VISUALLY CHECK FOR LEAKS, BROKEN FITTINGS. CLEAN AND FLUS SCREENS.

I HAVE COMPLIED WITH THE CRITERIA OF THE WATER EFFICIENT LANDSCAPE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE AND IRRIGATION DESIGN PLAN.

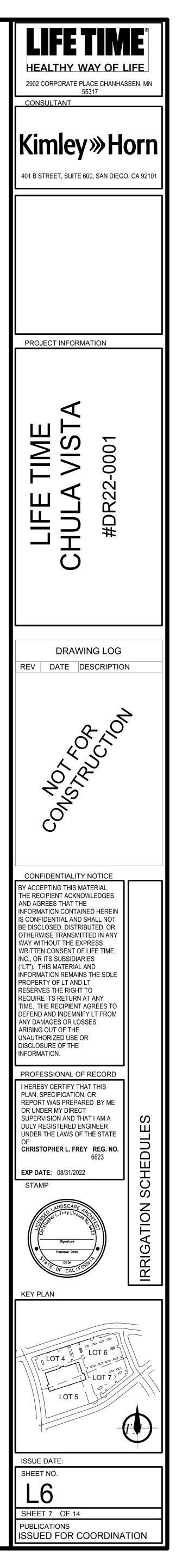
Muhal P. Macher

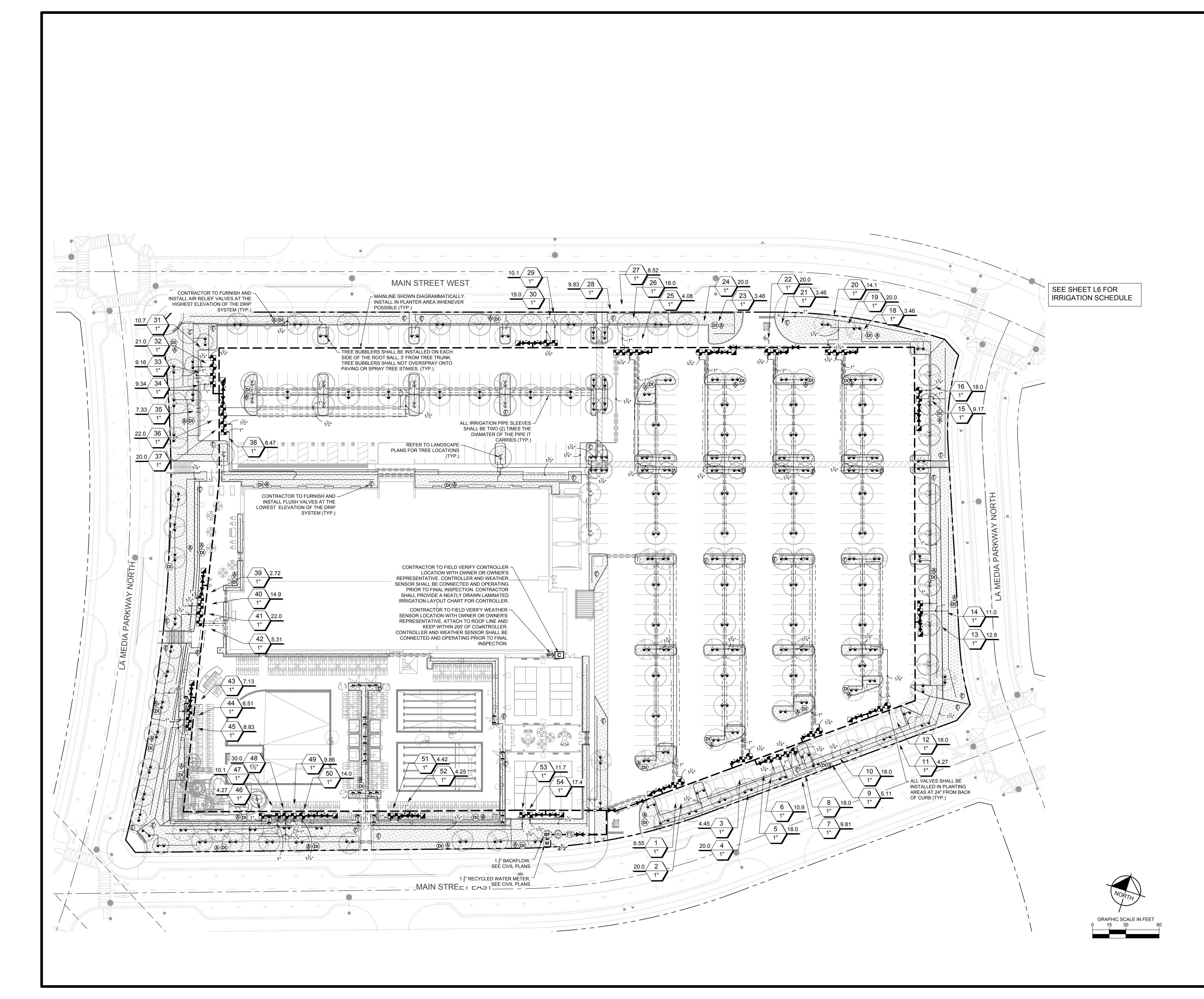
MICHAEL P. MADSEN, LLA 5798

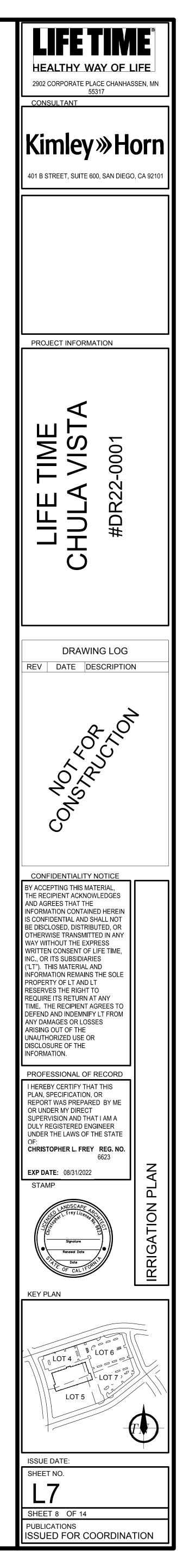
VALVE SCHEDULE

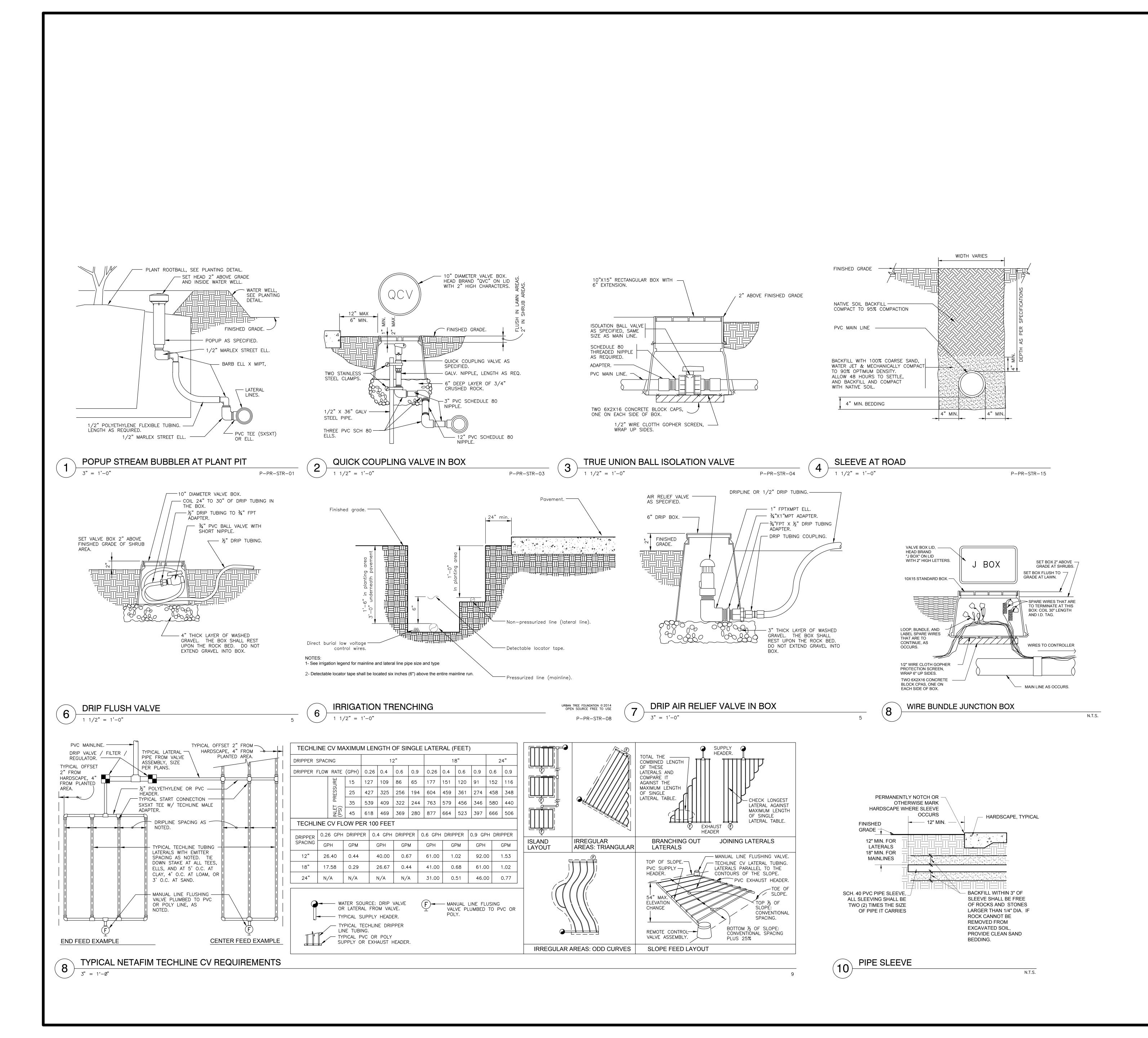
NUMBER	MODEL	SIZE	TYPE	GPM	PSI
	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	6.55	32.94
2	HUNTER ICV-G-R	1"	BUBBLER	20.00	37.78
3	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	4.45	30.49
1	HUNTER ICV-G-R	1"	BUBBLER	20.00	37.06
5	HUNTER ICV-G-R	1"	BUBBLER	18.00	36.44
5	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	10.86	38.38
7	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	9.81	36.06
3	HUNTER ICV-G-R	1"	BUBBLER	18.00	37.03
2	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	5.11	30.62
0	HUNTER ICV-G-R	1"	BUBBLER	18.00	36.04
1	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	4.27	30.3
2	HUNTER ICV-G-R	1"	BUBBLER	18.00	35.51
3	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	12.82	41.7
4	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	11.00	38.11
5	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	9.17	35.09
6	HUNTER ICV-G-R	1"	BUBBLER	18.00	35.54
8	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	3.46	30.2
9	HUNTER ICV-G-R	1"	BUBBLER	20.00	37.47
20	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	14.05	43.18
21	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	3.46	30.22
22	HUNTER ICV-G-R	1"	BUBBLER	20.00	37.47
23	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	3.46	30.22
<u>2</u> 4	HUNTER ICV-G-R	1"	BUBBLER	20.00	37.45
25	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	4.08	30.32
26	HUNTER ICV-G-R	1"	BUBBLER	18.00	36.47
27	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	8.52	37.06
28	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	9.83	38.04
<u>29</u>	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	9.83 10.06	39.04 39.05
30	HUNTER ICZ-101-25 HUNTER ICV-G-R	י 1"	BUBBLER	19.00	39.05 34.85
30 31	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	19.00	34.85 37.86
32	HUNTER ICV-G-R	1"	BUBBLER	21.00	37.80
33	HUNTER ICZ-101-25	י 1"	AREA FOR DRIPLINE	21.00 9.16	35.75
34	HUNTER ICZ-101-25	י 1"	AREA FOR DRIPLINE	9.10 9.34	36.34
	HUNTER ICZ-101-25	י 1"	AREA FOR DRIPLINE	9.34 7.33	36.34 35.47
35	HUNTER ICZ-101-25 HUNTER ICV-G-R	י 1"			35.47 39.0
36 37	HUNTER ICV-G-R	י 1"	BUBBLER BUBBLER	22.00 20.00	
		י 1"	AREA FOR DRIPLINE		38.65
38 39	HUNTER ICZ-101-25 HUNTER ICZ-101-25	י 1"	AREA FOR DRIPLINE	8.47 2.72	36.1 30.27
	HUNTER ICZ-101-25	י 1"	AREA FOR DRIPLINE	2.72 14.93	30.27 45.14
10 1 1	HUNTER ICZ-101-25			22.00	
11 12		1" 1"			39.94
12	HUNTER ICZ-101-25		AREA FOR DRIPLINE	5.31	31.38
13	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	7.13	32.69
14	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	6.51	32.27
45	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	8.83	35.38
<del>1</del> 6	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	4.27	30.16
47 1 2	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	10.05	38.45
18	HUNTER ICV-G-R	1-1/2"	BUBBLER	30.00	42.12
19	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	9.86	35.8
50	HUNTER ICV-G-R	1"	BUBBLER	14.00	36.14
51	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	4.42	30.91
52	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	4.25	30.88
53	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	11.72	39.21
54	HUNTER ICZ-101-25	1"	AREA FOR DRIPLINE	17.36	51.73

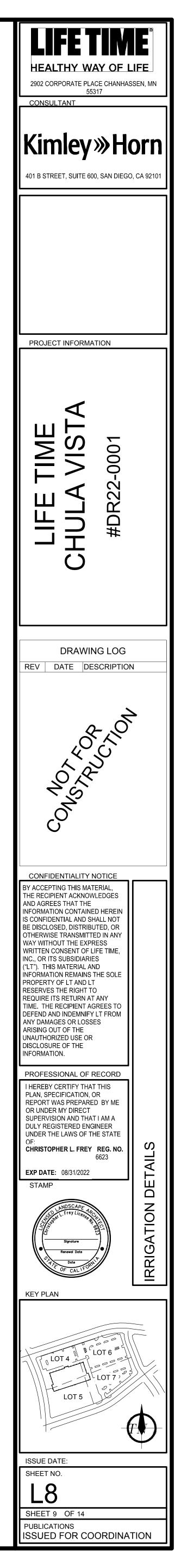
DS	S	STATE OF CALIFORNIA ESTIMATED WATER USE								
NS. BE		TOTAL WATER USE IS CALCULATED BY SUMMING THE AMOUNT OF WATER ESTIMATED FOR EACH HYDROZONE. WATER USE FOR EACH HYDROZONE IS ESTIMATED WITH THE FOLLOWING FORMULA:								
AS	HA = HYDROZONE AREA (S.F.) .62 = CONVERSION FACTOR IE = IRRIGATION EFFICIENCY SLA = SPECIAL LANDSCAPE AREA (S.F.)									
ER			(HYRDROZONE) = (	ETO ^ PF ^ HA ^ .62	) / (IE)					
	HIDROZC	DNE A (DRIP	<b>'</b> )							
OR	ETO	PF	НА	IE	CONVERSION FACTOR	EWU GAL/YEAR				
	44.2	.3	64050	.81	.62	650084				
	HYDROZC	ONE B (LOW	WATER BU	IBBLER)						
	ETO	PF	НА	IE	CONVERSION FACTOR	EWU GAL/YEAR				
AIR	44.2	.2	924	.75	.62	6752				
	HYDROZC	ONE C (MOD	WATER BL	JBBLER)						
SH	ETO	PF	НА	IE	CONVERSION FACTOR	EWU GAL/YEAR				
М	44.2	.4	5696	.75	.62	83250				
		ESTIMATED TOTAL WATER USE (ETWU) 740086								
	MAWA (M/	MAWA (MAXIMUM APPLIED WATER ALLOWANCE)								
	ETO	ET ADJUSTN	IENT FACTOR	TOTAL HA	CONVERSION FACTOR	MAWA				
	44.2		45	70670	.62	871488				
		ESTIMATED ANNUAL WATER USE (% OF MAWA)								

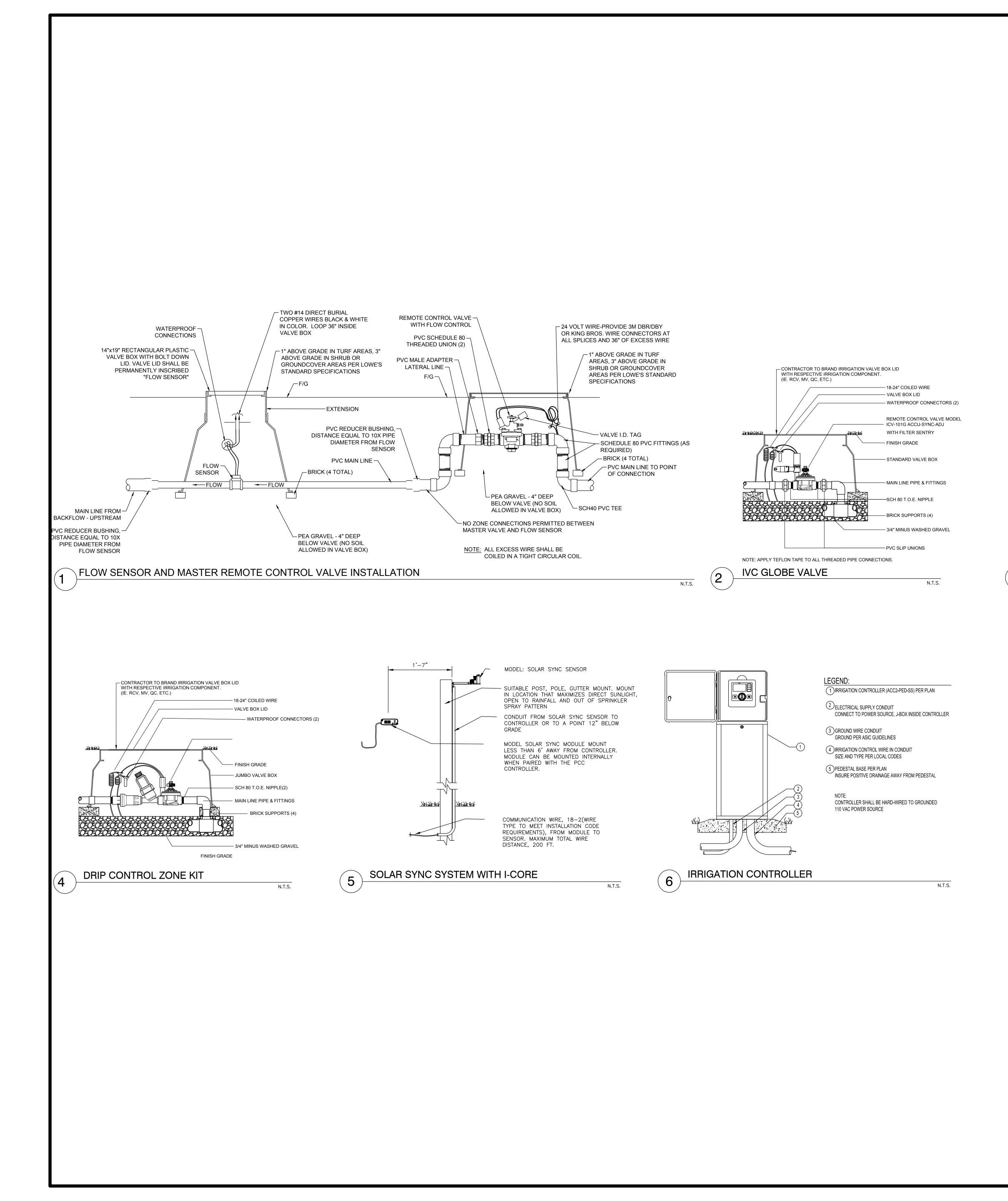


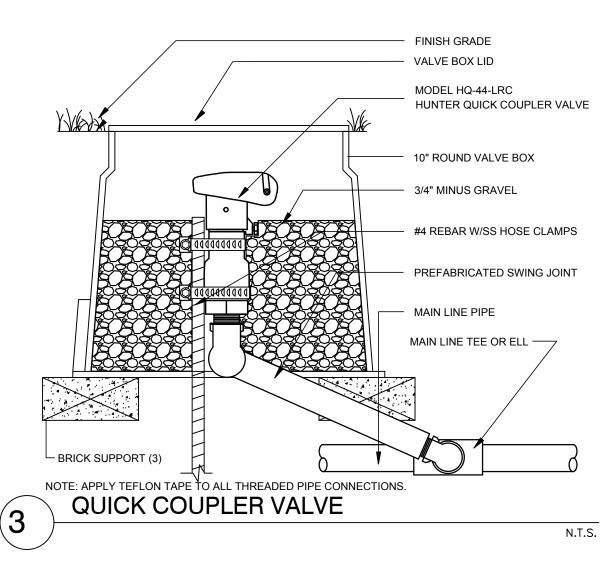


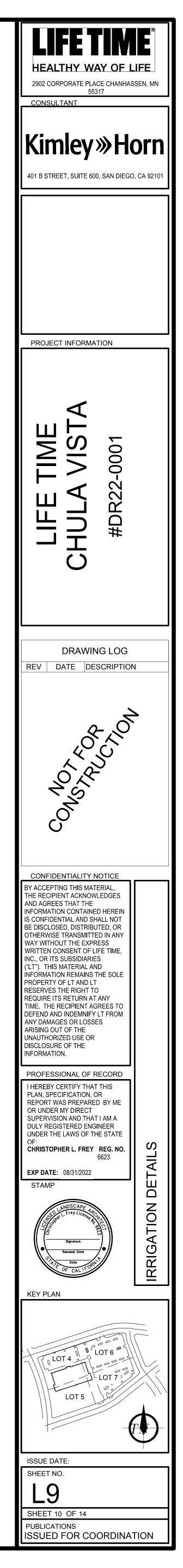


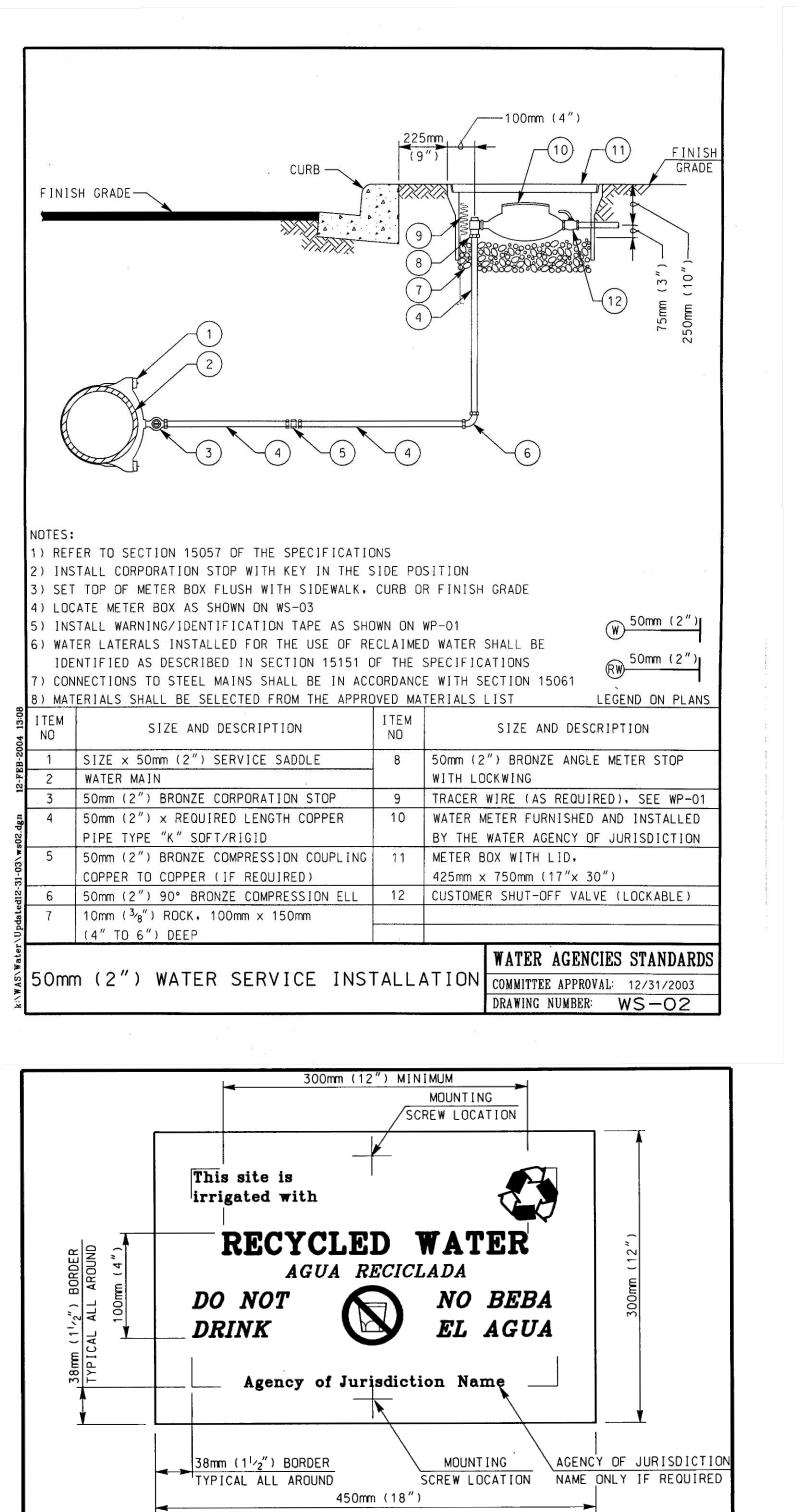


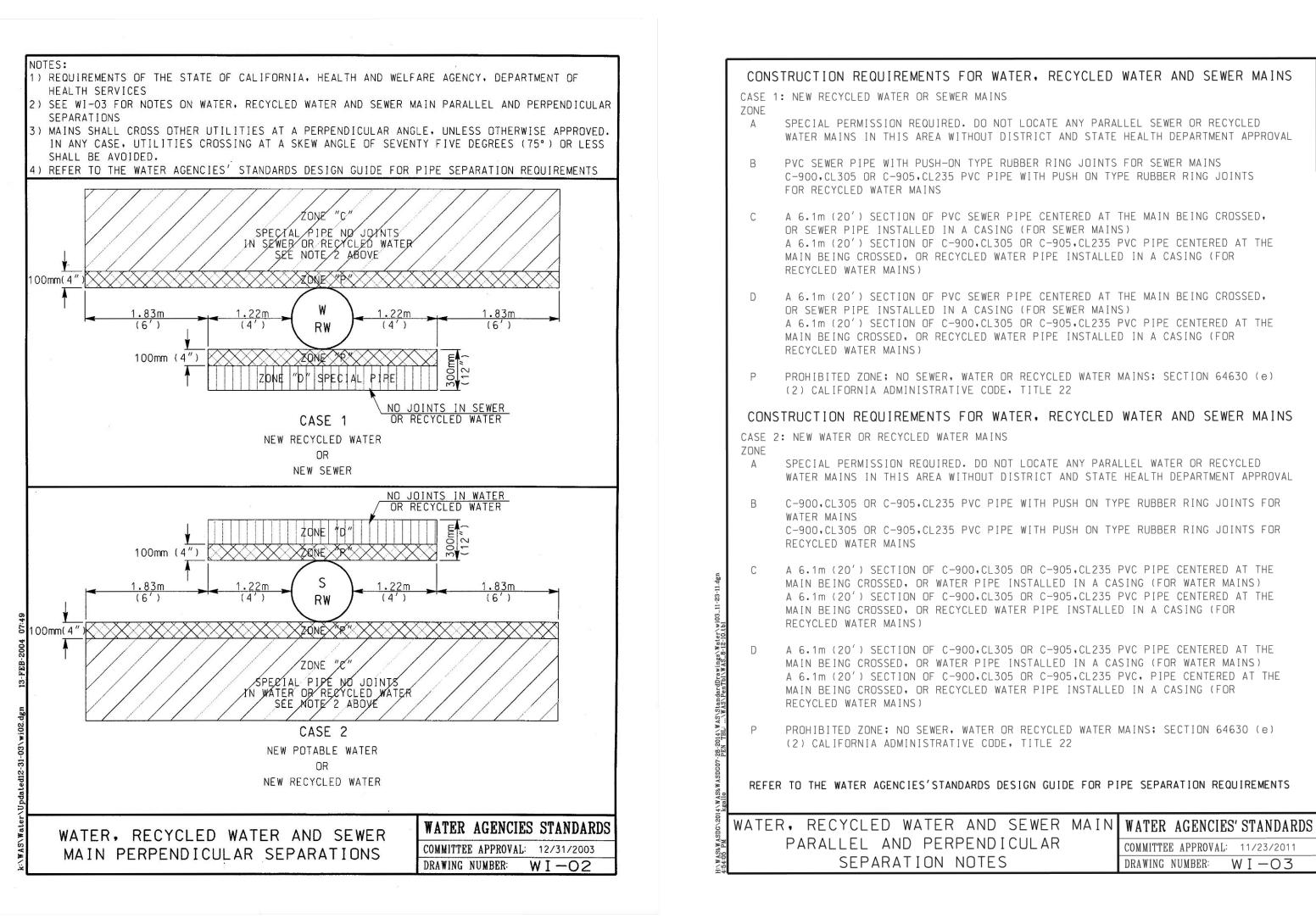


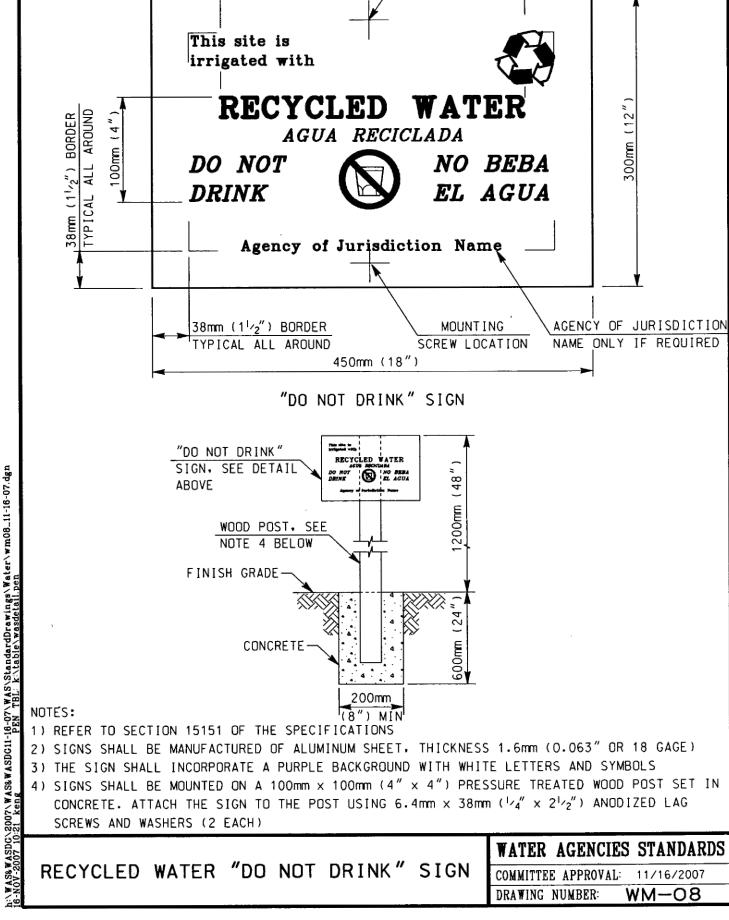




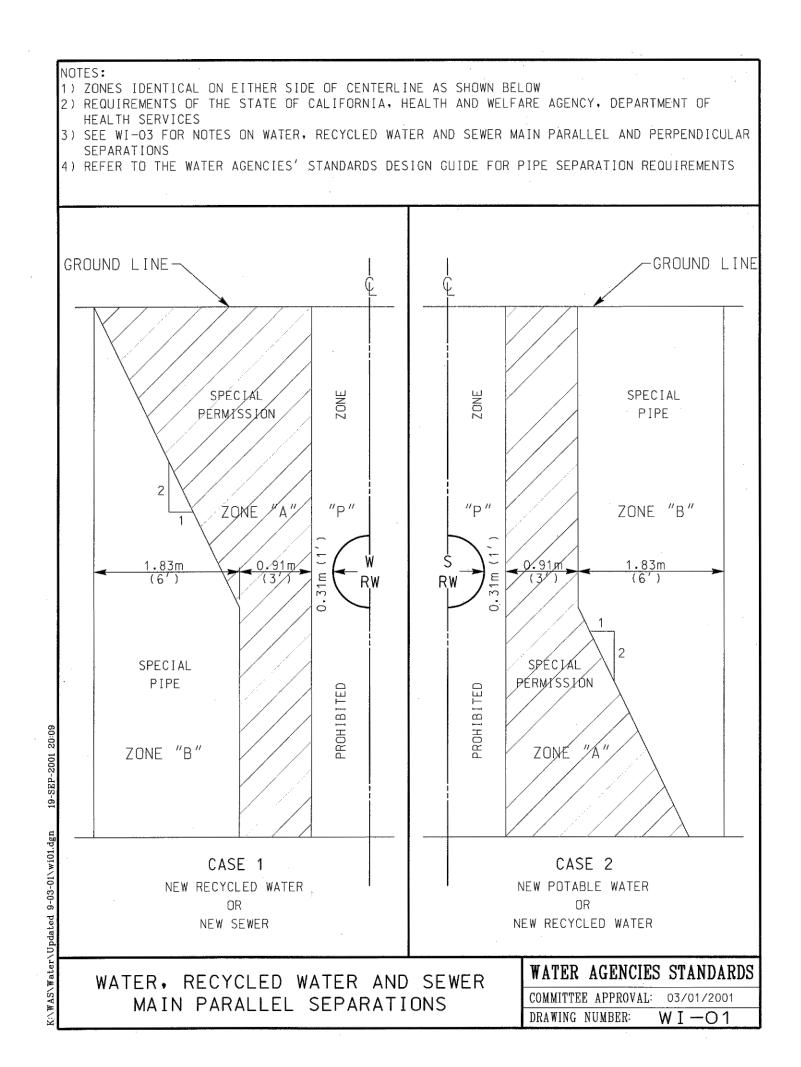


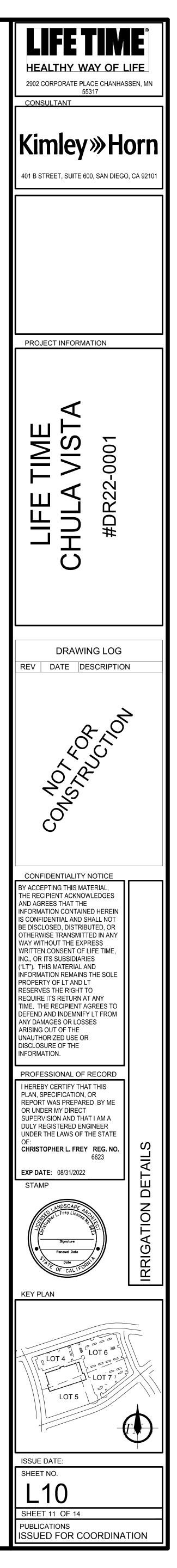


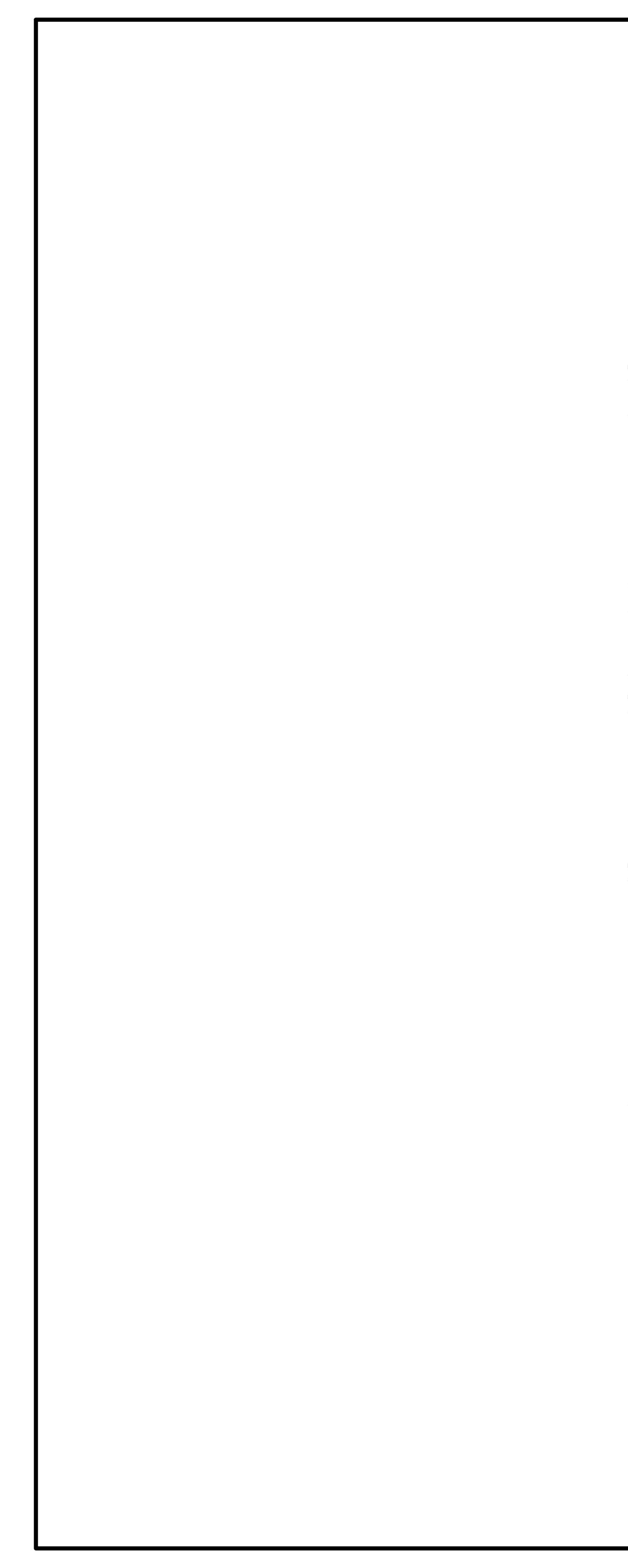












- SECTION 02700 Part 1.00 General **IRRIGATION SYSTEM**
- 1.01 SCOPE OF WORK A. This Section shall govern the furnishing of all labor, materials and equipment for a complete operating system for irrigation as specified herein and shown on the applicable drawings.
- 1.02 SUBMITTALS A. Material List: Submit list of all materials for irrigation system.
- B. Maintenance Items: Provide the following 1. Two sets of sprinkler wrenches for adjusting, cleaning or
- disassembling each type of sprinkler. 2. Two service manuals for all equipment installed. Manuals shall be
- loose leaf and show drawings or exploded views of equipment and catalog numbers and current prices 3. Operating instructions for all equipment installed. One set of guick coupling keys to operate the guick coupling valves
- C. Project Record Documents: Correct daily to indicate changes from Contract Documents. 1. Horizontally at 90 degree angles, dimension the location of the
- following items from two permanent points of reference; i.e. curb iunctures. light standards, building corners, survey hub points, or coordinates with a tolerance of 12 inch maximum
- a. Sprinkler main lines routing. b. Connections to the existing water supply lines.
- c. Sprinkler control valves. d. Gate valves.
- e. Electrical control wire path diagrammatically. 2. Vertical dimensions shall be given for mains when site conditions require installation deeper than 24 inches.
- 1.03 PRODUCT HANDLING A. Exercise care in handling, loading, unloading and storing irrigation system materials to avoid damage. Store under cover.
- 1.04 PRODUCT CONDITIONS A. The Contractor shall make all temporary repairs as necessary to keep the irrigation system in operating condition. This exercise shall not affect the 3.06 requirements to be performed under the Contract Documents. B. Coordinate work with that of other trades, all underground improvements.
- the location and planting of specimen trees and all other planting. ocation of all planting requiring excavations 24 inch in diameter and larger shall be verified with Owner prior to installation of main lines.
- 1.05 INSPECTION A. Verify dimensions and grades at job site.
- Part 2.00 Products
- 2.01 MATERIALS
- A. Plastic pipe: Extruded from 100% Virgin Polyvinyl Chloride (PVC). 1. Plastic pipe installed on pressure side of valves: (PVC) ASTM D1785, Schedule 40. 2. Plastic pipe installed on non-pressure side of valves: (PVC) ASTM
- D2241 Class 160. B. Plastic fittings: (PVC) ASTM D1785, Type 2, IPS, Schedule 40, NSF. C. Solvent & Cleaner: As recommended by pipe manufacturer.
- D Automatic Controller: Refer to Drawings E. Sprinkler Heads: Refer to Drawings F. Wire: Copper, UL approved direct burial wire. Minimum of 14 gauge or
- as specified on the drawings. G. Remote Control Valve Boxes: Brooks #3 or Ametek VP-10. Box lids shall be marked 'R.C.V.'.
- 1. Valve boxes for gate valves 3" and smaller: Ametek. 2. Gate valve boxes shall be marked 'Irrigation' or 'Water'. H. Conduit for Control Wires (if shown on drawings): (PVC) ASTM D1785, END OF SECTION Schedule 40 in locations as indicated.
- I. Miscellaneous Materials: As hereinafter specified and as necessary to complete this work and as shown on Drawings.

### Part 3.00 Execution 3.01 EXCAVATION AND BACKFILLING

- A. Trenching General: Dig trenches straight 2. Provide continuous support of the pipe by the bottom of trench. Lay pipe to even grade. Bottom of trench shall be free from rocks or other
- sharp edge objects. Trenching shall follow layout indicated
- Minimum cover: Pressure Lines: 24 inches Non-Pressure Lines: 12 inches.
- 5. All lines shall have a 6" minimum clearance from each other and from lines of other crafts. Do not install lines directly over another line.
- 6. Maintain 1' minimum between lines which cross at angles of 45 degrees to 50 degrees
- 7. Exercise care in excavating, trenching and working near existing
- B. Backfilling: 1. Compact to dry density equal to adjacent undisturbed soils. 2. Conform to adjacent grades without dips, sunken areas, humps or other irregularities
- 3. Initial backfill on plastic lines shall be pulverized native soil no larger than 2" in diameter and free of foreign matter. 4. Restore grades and repair damage where settling occurs.
- C. Routing of Piping: 1. Pressure and non-pressure piping lines are routed diagrammatically on
- 2. Coordinate specimen trees and shrubs with routing of lines. Planting shall take precedence over sprinkler and piping location. Report any major deviation from routing indicated to landscape architect or owner
- prior to line installation 3. Install lines in such manner as to conform with drawings without offsetting the various assemblies from the pressure supply line.
- 3.02 INSTALLATION
- A. Water Supply: Refer to drawings. B. Quick coupling valves: Installed at intervals so that not more than 150 feet of hose will be required to reach any plant or tree (if a pressurized
- main system is being used). C. Assemblies: 1. No multiple assemblies shall be installed on pressure lines.
- Provide each assembly with its own outlet. D. Cathodic Protection: Provide in the piping systems where required by
- installing insulating couplings, flanges or unions between copper or brass pipe or tubing and steel or cast iron pipe. E. Plastic Pipe: Install plastic pipe in accord with manufacturer's recommendations. Install sprinkler head on plastic pipe as indicated.
- 1. All welded joints shall be cleaned with manufacturer's cleaner prior to applying solvent. a. Welded joints shall be given at least 15 minutes set-up curing time before moving or handling b. Pipe shall be partially center loaded to prevent arching and shifting
- under pressure. c. No water shall be permitted in pipe until a period of at least four Part 2.00 Non-Plant Materials hours has elapsed for solvent weld setting or curing or as required
- by solvent manufacturer. 2. Backfilling shall be done when pipe is not in expanded condition due to Cooling of pipe can be accomplished by operating the system for a
- short time before backfill, or by backfilling in the early part of the morning before the heat of the day. 3. Curing: When the temperature is above 80 F. soluble weld joints shall
- be given at least 24 hours curing time before water is introduced under F. Automatic Controller: 1. Contractor shall be responsible for making control wire and electric
- power connections to the automatic controller. G. Remote Control Valves: 1. Install at sufficient depth to provide not more than 6" nor less than 4"
- cover from the top of the valve to finish grade. 2. Install valves in a plumb position with 24" minimum clearance from other equipment for proper maintenance 3. All valves shall be installed in appropriate sized valve boxes with
- H. Wire Connections: All underground wire connections to electric remote control valves shall be made by using waterproof wire connectors as manufactured by King Technology Inc.
- I. Gate Valves: 1. Line size and install where indicated and sufficient clearance from other materials for proper maintenance. 2 Equip valves sizes 3' and smaller with standard operating wheel for operation. Valve bonnet packing shall be checked and tightened before backfill. All valves shall be 150 psi rated.

- 3. All valves shall be installed in appropriate sized valve boxes with cover
- J. Drip Irrigation: 1. Provide drip irrigation in all sidewalk planters, parking field islands, and other non-turf locations as a means to mitigate water and energy usage for environmental purposes.
- Drip Irrigation must be: a. Self-flushing
- b. Pressure Compensating c. Root Deterrent
- d. Equipped with appropriate filtration device e. Stapled down to prevent movement according to the manufacturer's guide.
- K. Thrust Blocks: Install thrust blocks on all main irrigation lines 4' or larger at all changes of direction, as detailed in manufacturer's recommendations
- on pipe installation or as shown on the drawings. ... Flushing of System: 1. Flush main and lateral systems to clean out all debris and sediment 2.03 PRE-EMERGENCE WEED CONTROL
- prior to installation of heads. 2. This does not relieve requirements of future adjustments of system or reflushing system.
- ELECTRICAL A. Be responsible for making wire connections from remote control valves to 2.04 WATER controllers. All wiring shall be in accord with applicable codes. 3.04 PRESSSURE TEST
- A. Test all pressure lines under hydrostatic pressure of 100 lbs. per square inch, 150 lbs, per square inch for mainline, and all non-pressure lines shall be tested under the existing static pressure and both be proven watertight.
- B. Pressure shall be sustained in the lines for not less than four hours. If 2.05 ANTIDESICCANT leaks develop, the joints shall be replaced and the test repeated until the entire system is proven watertight
- Perform tests prior to backfill. 3.05
- ADJUST AND CLEAN A. Installations and Operations: Make such adjustments and repairs as requested as necessary for acceptance at no additional cost to the owner COMPLETE AND ACCEPTANCE
- A. Completion of work shall mean the full and exact compliance and conformity with provisions expressed or implied in the drawings and specifications.
- B. All work under this contract shall not be finally accepted until expiration of the guarantee period. C. The irrigation contractor shall demonstrate and fully acquaint the owner 2.08 GUYING AND STAKING MATERIAL and/or owner's representative with the entire system proving that all
- remote control valves are properly balanced, that all heads are properly adjusted for radius and arc of coverage, and that the system is workable, clean and efficient, and that the controller has been programmed and is operational. This shall be a requirement for acceptance of the work. D. Contractor shall upon receipt for final payment, give owner a set on CD of as-built irrigation system with all valves, tees and heads indicated as
- GUARANTEE AND REPLACEMENT A. The irrigation contractor shall furnish warranties in writing certifying that the quality and workmanship of all materials and installation furnished is in
- accordance with these specifications and in accordance with original manufacturer's warranties. Irrigation contractor shall further see to the fulfillment of all manufacturer's warranties. Irrigation contractor shall warrant the installation workmanship for a period of one (1) year from date 2.10 SOIL SEPARATION MATS of completion or acceptance of the job. or any accepted portion of the job.
- B. Should the irrigation contractor be notified that work or replacements are warranteed under these conditions, he shall provide the required service and/or replacements promptly within three (3) days.

#### SECTION 02800 LANDSCAPE

- Part 1.00 General
- 1.01 SCOPE OF WORK A. This section covers furnishing and installing all landscape plants and nonplant materials covered by the drawings and these specifications. The work shall include materials, labor, equipment and services as described herein and indicated on the drawings. Also, the work shall include the maintenance of all plants and planting areas until acceptance by the

Owner, and the fulfillment of all guarantee provisions as herein specified.

- 1.02 PLANTING LAYOUT
- A. Before beginning work, the contractor shall investigate and verify, in the field, the existence and location of all underground utilities and irrigation piping, and take precautions to prevent their disturbance. It shall be the responsibility of the contractor to obtain all such information as it is made available. Plans and specifications of related work may be obtained from B. The contractor shall locate all general reference points, take precautions
- to prevent their disturbance, perform the layout work, be responsible for all 3.02 SIZE AND MEASUREMENTS lines, elevations and measurements of work executed under the contract, exercise proper precaution to verify figures on drawings before laying out work and be responsible for any error resulting from failure to exercise such precaution. The contractor shall make field measurements for his own work and be responsible for its accuracy.
- C. Discrepancies between conditions existing on the site and conditions indicated on the drawings shall be called to the attention of the owner before or at the time plant locations are staked out.
- D. In the event of a variation between the plant list and the actual number of plants shown on the plans, the plans shall control. HORTICULTURAL STANDARDS
- A. Unless otherwise noted, plant material, including collected materials, shall be grade No. 1 or better as outlined under Grades and Standards for Nursery Plants, and shall also conform to American Standard for Nursery 3.03 LABEL Stock, ANSI (American National Standards Institute, Inc.) Z60.1-1996 as approved by the American Association of Nurserymen.
- B. All plant names shall conform to the names given in Standardized Plant Names, 1942 Edition, prepared by the American Joint Committee on Horticultural Nomenclature. Names of varieties not included therein shall conform generally with names accepted in the nursery trade. All plant materials shall be true to botanical, common and variety names. Botanical
- name shall have precedence over common name. C. The landscape architect shall have the right, at any stage of the operations, to reject any and all work and materials which, in his opinion, 3.04 COLLECTED PLANTS do not meet with the requirements of these specifications. Such rejected material shall be removed from the site and acceptable material substituted in its place
- 1.04 CERTIFICATES OF INSPECTION A. All plant material shall be inspected by the Department of Agriculture, as required by state law. Plants of a grade less than that specified in the article titled HORTICULTURE STANDARDS will not be accepted.
- 2.01 SOIL BACKEILI
- A. Soil for backfilling planting areas and plant pits shall be the existing surface soil, free from subsoil, objectionable weeds, litter, sods, stiff clay, stones stumps roots trash toxic substances mortar cement or any other material which may be harmful to plant growth or hinder planting operations. Poorly drained soil shall not be used.
- B. After rough grading and prior to top soil installation, the contractor shall obtain current agronomic soils report, send to the Landscape Architect for 3.06 SPECIMEN PLANTS review and include soil amendment recommendations on these plans. C. Soil amendments shall be added to the soil in the amount and manner
- prescribed by soil analysis to obtain a pH of 5.5 to 6.5. Results from soil analysis and a list of the prescribed amendments shall be presented to the owner and verified by the landscape architect prior to being incorporated into the soil. D. If additional soil is required; it shall be furnished by the contractor and
- shall be a natural, friable soil representative of productive, well-drained soils in the vicinity. It shall be obtained from well drained areas which 3.07 SUBSTITUTIONS have never been stripped before + and shall be free of admixture of subsoil and foreign matter, stones, toxic substances and any material or substance that may be harmful to plant growth .
- E. The contractor shall provide the following information on imported topsoil: 1. Specific location from which topsoil will be (or was) stripped. Present owner of that property. 3. Approximate amount of topsoil available.
- 4. Test results showing topsoil composition and analysis. F. Soil test shall be performed by a qualified soils laboratory, in accordance with "Methods of Soils Analysis - Agronomy '9' as published by the American Society of Agronomy and shall be performed at the Contractor's

- G. Planting soil backfill for raised architectural planters, if applicable, shall consist of 40% potting soil, 40% coarse washed builders sand and 20% horticultural perlite
- H. Areas designated to be planted with flowering annuals, if applicable, shall be excavated to a depth of 87 and backfilled with a mixture consisting of 40% peat, 40% D.O.T. (coarse) sand, 10% pine bark (decomposed) and Part 4.00 Delivery, Storage and Handling 10% cypress chips
- I. Planting soil backfill for tree wells, if applicable, shall be 2/3 approved topsoil and 1/3 coarse washed builder's sand. 2.02 FERTILIZER
- A. Commercial fertilizer shall be 14-14-14 formulation of Osmocote brand, 3-4 month release of which 60% of the nitrogen is in urea-formaldehyde form and shall conform to the applicable state fertilizer laws. Fertilizer shall be uniform in composition, dry and free flowing
- A. Weed control shall be Ronstar 2G as manufactured by Rhodia, Inc., Monmouth Junction, New Jersey 08852 or Princap (Simazine) as manufactured by Gelgy Agricultural Chemicals, Ardsley, New York 10502, or an approved equal.
- A. Water will be available for use on site during the landscape installation at no cost to the contractor. Care shall be exercised to assure that water is kept free of harmful chemicals, acids, alkalis, or any substance, which might be harmful to plant growth
- A. Antidesiccant shall be an emulsion type; film-forming agent designed to permit transpiration but retard excessive loss of moisture from plants such as Dowax by Dow Chemical Co., or Wilt-Pruf by Nursery Specialty Products, Inc., or an acceptable equal. The antidesiccant shall be delivered in the manufacturer's fully identified containers and shall be mixed in accordance with manufacturer's instructions.
- 2.06 BORICIDE A. Boricide shall be Lindane as manufactured by Platt, or an approved equal.
- 2.07 MULCH A. Wood Bark Mulch shall be premium organic, natural, non-stained 3" or less in length and be clean/free of leaves, rubbish and debris
- A. Stakes for supporting trees shall be as detailed on the drawings. Wire for fastening trees to duckbill and turnbuckle shall be galvanized aircraft grade guying cable as specified in the detail. Wires in contact with trees shall be encased in two-ply reinforced garden hose. Material for wrapping tree trunks shall be burlap, heavy crepe paper, or other acceptable material in strips 6 to 10 inches wide.
- 2.09 DRAINAGE GRAVEL A. Where indicated on the drawings, or where soil conditions deem it necessary, the contractor shall install gravel subdrains beneath trees and/or planting areas to aid in soil drainage and percolation. The subdrain shall be constructed as detailed on the drawings, or as directed by the landscape architect. Drainage gravel shall consist of washed, clean gravel 3/4 inch to 2 inches in size.
- A. Soil separation mats, if indicated on the drawings, shall be Bidim (gray felt) as manufactured by Monsanto Co., 800 North Lindbergh Road, St. Louis, MO 63166 or approved equal. Mats shall be installed as indicated on the drawings, and edges overlapped a minimum of 4 inches. Care Part 5.00 Installation shall be taken to prevent tearing or excessive crushing during the

A. During inspection, as set forth hereinafter, all plant material will be judged,

and rejections shall be based upon these standards. All plants shall

comply with federal and state law requiring inspection for plant diseases

and infestations. Inspection certificates required by law shall be made

B. In determining the quality of plant material, the following elements will be

A deficiency in one or more of these areas will be sufficient reason to

operations, to reject any and all work and materials which, in his opinion

do not meet with the requirements of these specifications. Such rejected

The landscape architect shall have the right, at any stage of the

material shall be removed from the site and acceptable material

A. Plants shall be measured when branches are in their normal position

Heights and spread dimensions specified refer to the main body of the

plant and not to extreme branch tip to tip. The measurements specified

are the minimum size acceptable and where pruning is required, these are

Caliper of trees shall be taken 36 inches above the ground level and shall

not be acceptable. Plants larger than specified may be used if approved

measurements after pruning. When sizes are indicated as a range, the

plant shall have the proper proportion as outlined in Department of

Agriculture, Grades and Standards for Nursery Plants Part 1 and 11.

B. Plants, which have been headed back to conform to the size specified, will

by the owner; however, the use of such plants shall not increase the

A. Plant materials shall have durable, legible labels stating, in weather

resistant ink, the correct botanical and common names and size as

samples of each delivered shipment, shall have labels securely attached

in a fashion that will not interfere with normal plant growth. Plant materials

which have (or will have) a seasonal bloom shall be tagged with labels

indicating the specific variety of that species' botanical and common

A. All plant material shall be nursery grown. Collected plants shall have been

grown under climatic conditions similar to those in the locality of the

A. All container grown plants shall be well rooted and established in the

size one third greater than nursery grown plants.

project. All collected plants shall meet the requirements as specified and

shall meet all specified grades and standards, unless otherwise qualified

in the Plant List or these specifications. Root balls shall be increased in

container in which they are delivered to the site. The plants shall have

been in that container sufficiently long for the fibrous roots to hold the soil

Containerized trees have a tendency to dry out quickly. The contractor

the time of final acceptance at a rate consistent with the nursery watering

A After receiving the Notice to Proceed the contractor shall locate all plants

specified as specimen. The contractor shall notify the owner so they may

agree on a time to mutually inspect the selected plants. The owner will

incurred by the owner for any subsequent inspection of specimen plants,

inspect and tag those plants, which are acceptable for use. Expenses

A. The use of materials differing in kind, quality or size from those specified

B. Where it is indicated that the contractor may furnish or use a substitute

to furnish or use a proposed substitute, he shall, after the award of the

that is equal to the material or equipment specified and if the contractor is

contract, make written application to the owner for acceptance of such a

all respects to the specified product or method, shall perform adequately

other elements of the job, and shall be sufficient to complete the job. The

the duties imposed by the general design shall be compatible with all

substitute. The substituted product or method shall be equal or superior in

will be allowed only after the owner is convinced that all means of

obtaining the specified materials have been exhausted.

at any time, in addition to the mutually agreed time shall be the

responsibility of the contractor.

shall be responsible for hand watering the trees at time of delivery through

plants found to be root-bound during planting will not be acceptable.

schedule to assure that the tree does not go into shock

indicated in the Plant List. Each plant, or sufficient representative

available to the owner or owner's representative at his/her request.

Part 3.00 Plant Material 3.01 QUALITY OF PLANT MATERIAL

valued:

1. Root condition.

2. Plant size (above ground).

reject selectively or by lot.

substituted in its place.

contract price.

3.05 CONTAINERIZED PLANTS

3. Insect and disease free condition.

4. General appearance (color, shape, pruning).

be the determining measurement for trees.

installation process.

### accept a substitute of a quality less than specified the unit price shall be used to adjust the contract price downward accordingly. No substitution shall be ordered or installed without the written permission of the owner and governing municipality 4.01 PLANT MATERIAL

substitution shall not add cost to the contract. Should it be necessary to

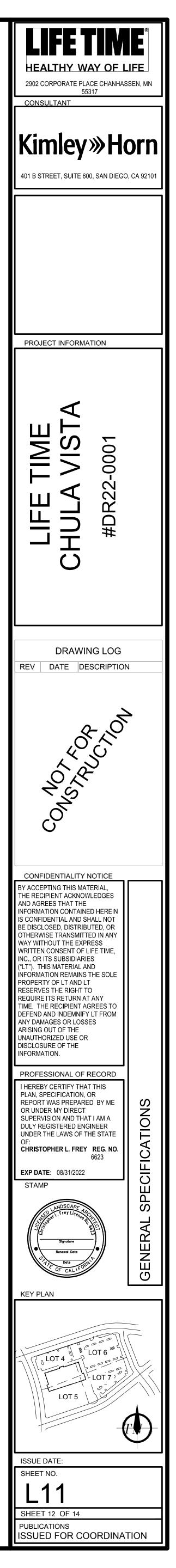
- A. The contractor shall exercise care in handling, loading and unloading, storage and transporting all plant material and allied materials to prevent damage. The contractor shall assume full responsibility for protection and safekeeping of products stored on the job. B. The contractor shall dig and prepare plant material for shipment in a manner that will not damage roots, branches, shape and future development after planting.
- C. Trees indicated on the plans where size, soil conditions and distance of transport to the site would warrant, shall be wireballed. Bottom wired baskets manufactured specifically for use in tree handling may be used. 5.05 FERTILIZING D. The contractor shall handle all plants so that roots and branches are protected at all times from drying out, heating and from other injury. All
- plants shall be handled by the ball or container. E. Before moving plants from the nursery or storage area to the site; they 5.06 STAKING, GUYING AND WRAPPING shall be thoroughly sprayed with a solution of antidesiccant. Antidesiccant shall be applied to all collected pines, oaks and myrtles. Two weeks after planting or as specified by the product manufacturer; the material shall be
- sprayed again with the antidesiccant. The antidesiccant shall be applied using power spray to provide an adequate film over trunks, branches, stems, twigs and foliage. F. When transporting plants to and at the site, the contractor shall make provisions to protect plants from wind damage by avoiding high-speed
- highways, transporting in enclosed or partially enclosed vehicles, or covering the plants with burlap or other suitable material. Plants severely damaged by wind will be rejected G. Any plant with signs of insects, their eggs or larvae or disease will be rejected and shall be removed from the project site. H. Only the nursery stock intended for planting on a particular day shall be
- delivered and stored on the site during the day unless otherwise 5 08 acceptable to the owner. All plants shall be stored in one location as designated by the owner, protected from wind and kept moist. The roots of all plants that cannot be planted immediately in soil shall be covered with mulch and other suitable material. No plants shall be taken from the emporary storage area for planting on the project until after the tree pits or holes for the plants in the section to be planted have been properly
- excavated and prepared ready to receive the trees and shrubs. Trees moved by winch or crane shall be thoroughly protected from chain marks, girdling or other bark slippage by means of burlap, wood battens or other acceptable method. 4.02 NONPLANT MATERIAL
- A. Fertilizer shall be delivered to the site in original, unopened containers
- bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark and conformance to state law. In lieu of containers and provided that it is to be applied at the time of delivery, fertilizer may be furnished in bulk and a certificate indicating the above information shall accompany each delivery. B. Pesticide and herbicide materials shall be delivered to the site in the
- original, unopened containers. Containers that do not have a legible label that identifies the Environmental Protection Agency registration number and the manufacturer's registered uses will be rejected. C. Storage of materials shall be in the area designated for use by the owner. All materials shall be kept in dry storage and away from contaminants.
- 5.01 PREPARATION BEFORE PLANTING
- A. The contractor shall verify that all final grades have been established prior 6.01 GUARANTEED PROVING PERIOD to beginning planting operations. All unsatisfactory grading shall be reported to the owner, and the contractor shall not proceed with this work until the unsatisfactory conditions have been corrected. When conditions detrimental to plant growth are encountered, such as rubble, fill or adverse drainage conditions, the contractor shall notify the owner for directions. B. Should undesirable existing vegetation be present on the site at the time of installation, the contractor shall prepare the site for planting by use of chemicals, when used as recommended by the manufacturer, and/or mechanical means acceptable to the owner. Care shall be exercised to avoid any misuse of chemicals, which would create detrimental residual
- been established or cause damage to previously established turf areas. 5.02 SITE PREPARATION
- A. If so called for by the owner, all plant locations and the areas of all planting beds shall be staked out on the ground, for acceptance by the owner, before planting operations begin. The contractor shall stake the location of the center of each tree and paint the outline of each shrub and groundcover bed. The stakes shall be oriented in a vertical manner so that they can be viewed and read from one direction. The contractor shall give the owner notice 24 hours prior to the completion staking described B. The contractor shall verify the location of underground utilities, and

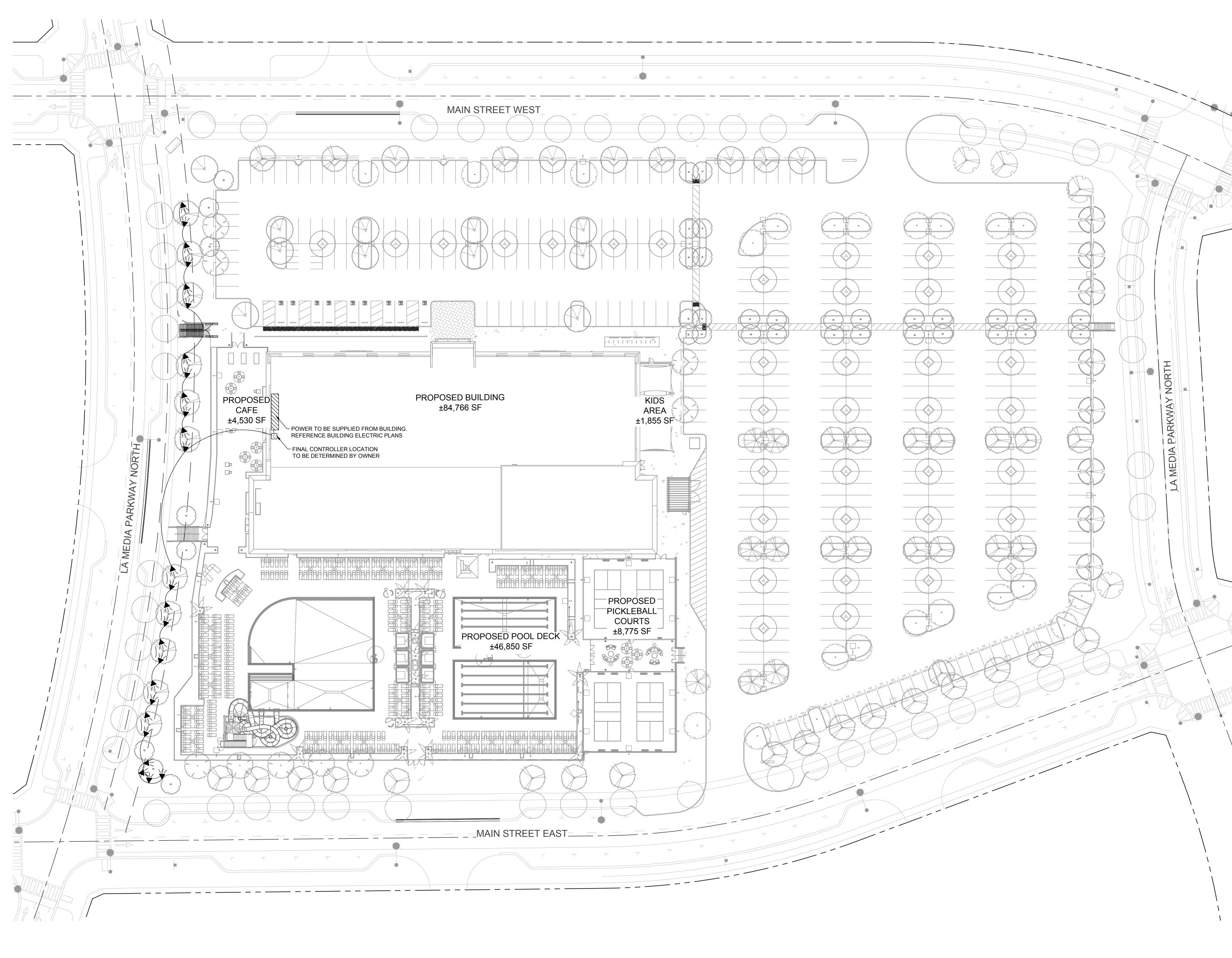
conditions. Care must also be used not to alter final grades, which have

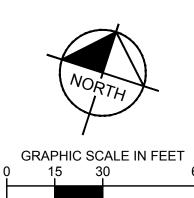
- irrigation heads and valves, and provide markers or other suitable protection, where necessary, to prevent damage. 5.03 EXCAVATION OF PLANTING AREAS A. No tree or shrub pit shall be dug or prepared until their location is
- acceptable to the owner. Reasonable care shall be exercised to have pits dug and soil prepared prior to moving plants to respective locations for planting to ensure that they will not be unnecessarily exposed to drying elements or to physical damage. B. Circular pits with vertical sides shall be excavated for all plants. The depth
- of all plant pits shall be enough to accommodate the ball or roots and the 6.03 prepared soil in the bottom of the pit. Diameter of pits for trees shall be at least 1 foot greater than the diameter of the ball. C. Plant beds and pits shall be tested for proper drainage by filling with water twice succession. Conditions permitting the retention of more than 6 inches of water in 1 hour shall be brought to the attention of the owner. A written proposal and cost estimate for correction of such conditions shall be submitted to the owner for acceptance, before proceeding with the
- D. All tree pits curbed planting islands, tree wells, or in areas, in which the soil has been compacted to an undesirable density, shall be excavated to a depth at least two feet greater than the measured depth and diameter of the ball. The minimum depth and diameter of excavation shall be four feet. Soil backfill in areas of densely compacted soil must meet specification 6.04 201-C unsuitable soil to an approved location.
- E. In shrub and groundcover beds where soils have been compacted to a density, which is detrimental to plant growth, the contractor shall loosen soils to a depth of 18" minimum to allow root penetration beyond the planting pit. F. If acceptable for use, existing topsoil in shrub and groundcover beds shall be treated with the specified soil amendments, at rates determined by soil tests. Amendments shall be incorporated into the soil to a depth of 12
- inches. Where soil is not acceptable as determined by soil tests, the soil in the entire area shall be removed to a depth of 8 inches and replaced with the specified planting soil. together when the plant is removed from the container. Container grown 5.04 PLANTING A. All plants, except as otherwise specified, shall be centered in their pits, faced for best effect and set plumb for backfilling.
  - B. All synthetic strings, straps, and wire cages shall be removed from the top of third of the root ball. Synthetic burlap shall be removed completely. C. Plants shall be removed from cans by cutting two sides of a container with an acceptable can cutter. Sides shall not be cut with a spade. Sides of knockout cans shall not be cut. Plastic containers with slanted sides shall not require cutting. Plants shall be removed from the container carefull without injury or damage to the plant and root system. D. Bottom of plant boxes shall be removed before planting. Sides of the box shall be removed, without damage to the root ball, after positioning the plant and partially backfilling around it. The contractor shall hand water-containerized trees from the time of delivery until the time of the final acceptance at a rate consistent with the nursery conditions from
  - which the trees were obtained. Trees, which go into shock due to nsufficient water, may be rejected. E. Plants shall be set in the center of the pits and shall be plumb and straight and at such a level that after settlement the root crown will be level with the surrounding grade. F. Plant holes shall be backfilled with the specified planting mixture placed in layers around the roots or ball. Each layer shall be carefully tamped in place in manner to avoid injury to the roots or ball or disturbing the position of the plant. When approximately two thirds of the plant hole has been backfilled, the hole shall be filled with water and the soil allowed to
  - settle around the roots. Balled and burlapped plants shall have the burlap cut away or folded back from the top of the ball before applying water. After the water has been absorbed, the plant hole shall be filled and

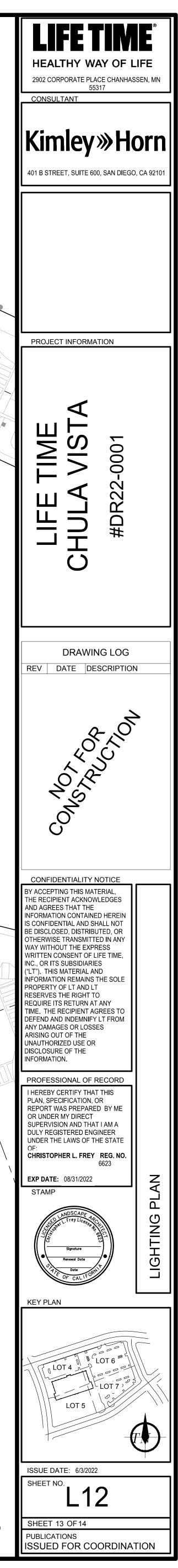
- tamped lightly to grade. Any subsequent settlement shall be brought to G. Immediately after each tree pit is backfilled, a shallow basin slightly larger than the pit shall be formed with a ridge of topsoil to facilitate watering.
- This soil saucer shall be formed in a circle and tamped around each tree so that the saucer will retain water. Where curbing occurs around plant pits, the saucer shall be omitted. H. The contractor shall include adding a water retentive additive Terra-Sorb AG for all shrubs, groundcovers, annuals and trees at the manufacturers suggested rates.
- DFPA Plyform, Exterior B-B, edge sealed. 1. Plastic Fiber:
- Special forms of molded fiber, if required. Cardboard: Beam void forms "VOIDCO" or equal, as required under pier supported grade beams.
- Metal: Commercial standard, or as noted on drawings.
- A. Each tree and shrub shall be fertilized by placing the manufacturer's recommended amount around the base of the ball before backfilling.
- A. Staking or guying and wrapping of trees shall be done immediately after they are planted. Each plant shall stand plumb after staking or guying has
- been completed. It shall be the Contractor's responsibility to ensure that all trees are plumb and secure after planting. Staking of trees of a 10 foot height or less shall be at the discretion of the Owner. All other trees shall be staked. MULCHING
- A. Immediately after planting operations are completed, all tree and shrub saucers, and shrub and groundcover beds shall be covered with a 3 inch layer of wood bark mulch. 3 Inch depth shall be provided throughout all landscape beds as indicated on the drawings. Limits of the mulch shall be as indicated on the drawings.
- PRUNING A. Each tree and shrub shall be pruned in accordance with standard horticultural practice to preserve the natural character of the plant and in the manner fitting its use in the landscape design. Pruning shall be done with clean, sharp tools and as indicated on the drawings. B. Approximately one third of the growth of large deciduous trees (those with
- 2 inch caliper or larger) shall be pruned by removal of superfluous branches. Main leaders of trees shall not be cut back. Branches shall be thinned out and not merely cut back. Long side branches may be shortened. Shrubbery with extremely heavy tops shall have one fourth to one third of the weaker growth removed by thinning. 5.09 CLEANUP
- A. During the course of planting, excess and waste materials shall be continuously and promptly removed daily, lawns kept clear, and all reasonable precautions taken to avoid damage to existing structures plants and grass. After completion of the work, the entire site shall be cleared of excess soils, waste material, debris and all objects that may hinder maintenance and affect the visual appearance of the site. The Contractor shall clean all roads and walks of dirt film and soil clods The Contractor shall also pressure clean and broom sweep all asphalt pavement prior to the final lift of asphalt to be laid.
- DISTURBED AREAS A. All areas outside of the limits of work that are disturbed by the Contractor's construction activities shall be repaired and replanted to its original condition
- Part 6.00 Guarantees
- A. There shall be a guarantee period of 1 year for trees and specimen material and 1 year for shrubs. This guarantee period shall start at the final acceptance date. Contractor shall replace any and all plant material, which die during this guarantee proving period. Replacement of plants necessary during the guarantee period shall be the responsibility of the Contractor, except for possible replacements of plants resulting from removal, vandalism, acts of neglect on the part of others, or acts of God. All replacement material shall have the same guarantee time (1 year from
- installation of replacement for trees and specimen material and 1 year for shrubs) B. Planting maintenance shall include all necessary watering, cultivation, weeding, pruning and spraying, wrapping and mulching, straightening of plants which lean or sag and which develop more than a normal amount of settlement such adjustments to include excavating around and leveling or raising the ball when so directed and all other incidental work
- necessary for proper maintenance as directed by the Owner until substantial completion and written release. 2. Transplanted material (if applicable) shall not be guaranteed, however, good horticultural practices should be used before, during and after the material is transplanted. Good horticultural practices should include but not be limited to, all necessary watering, pruning and spraying, wrapping and mulching, fertilizing, moving, maintaining the same orientation and grade level from the original location, and all other incidental work necessary for proper transplanting.
- 6.02 FINAL INSPECTION AND ACCEPTANCE A. The Contractor shall notify the Owner in writing when the work has been completed in accordance with this Contract and request an inspection. The Owner will make the inspection of the work and report findings as to acceptability and completeness. Any work remaining to be done shall be subject to reinspection before final acceptance. The Contractor will be notified in writing by the Owner of the final acceptance of the work.
- CONTRACTOR'S RESPONSIBILITY AFTER ACCEPTANCE A. The Owner may elect to assume maintenance of all work, at the time of acceptance, or may elect to contract for maintenance by others for a specified period. Should maintenance after final acceptance be the responsibility of those other than the Contractor, the Contractor shall monitor all work for which he is responsible by guarantee, to assure that maintenance being performed will not jeopardize the condition and quality of the work and materials guaranteed by the Contractor. Any inadeguate or damaging maintenance practices shall be reported immediately in writing to the Owner so that appropriate measures may be taken to correct the condition. Failure to so notify the Owner will invalidate any later claim of negligence or malpractice in maintenance.
- ACCEPTANCE AND REPLACEMENT OF PLANT MATERIAL A. At the expiration of the proving period, an inspection of the plantings will be made by the Owner Only those plants that are alive and normally healthy will be accepted. Unaccepted material shall be removed and replaced by the Contractor at his own expense, during the next planting season. Material and method of replacement planting shall be the same as specified for the original planting unless otherwise directed. The Contractor shall continue to make replacements until a plant shows vigorous and healthy growth for a period of 1 year from the date of acceptance by the Owner. All such replacements will be inspected for acceptance at the end of the proving period by the Owner.
- A. Landscape contractor shall be responsible for the maintenance and upkeep for 90 days past the final inspection. At that point contact the general manager of the store and determine if the landscape contractor will remain on. If yes, contractor will be responsible for the maintenance and warrantee of all landscaping for one full year. If no, the landscape contractor is to walk the site with the general manager, manager, the facilities manager and the new landscaper and they shall agree that all planting is in good shape prior to the new landscaper taking over. END OF SECTION

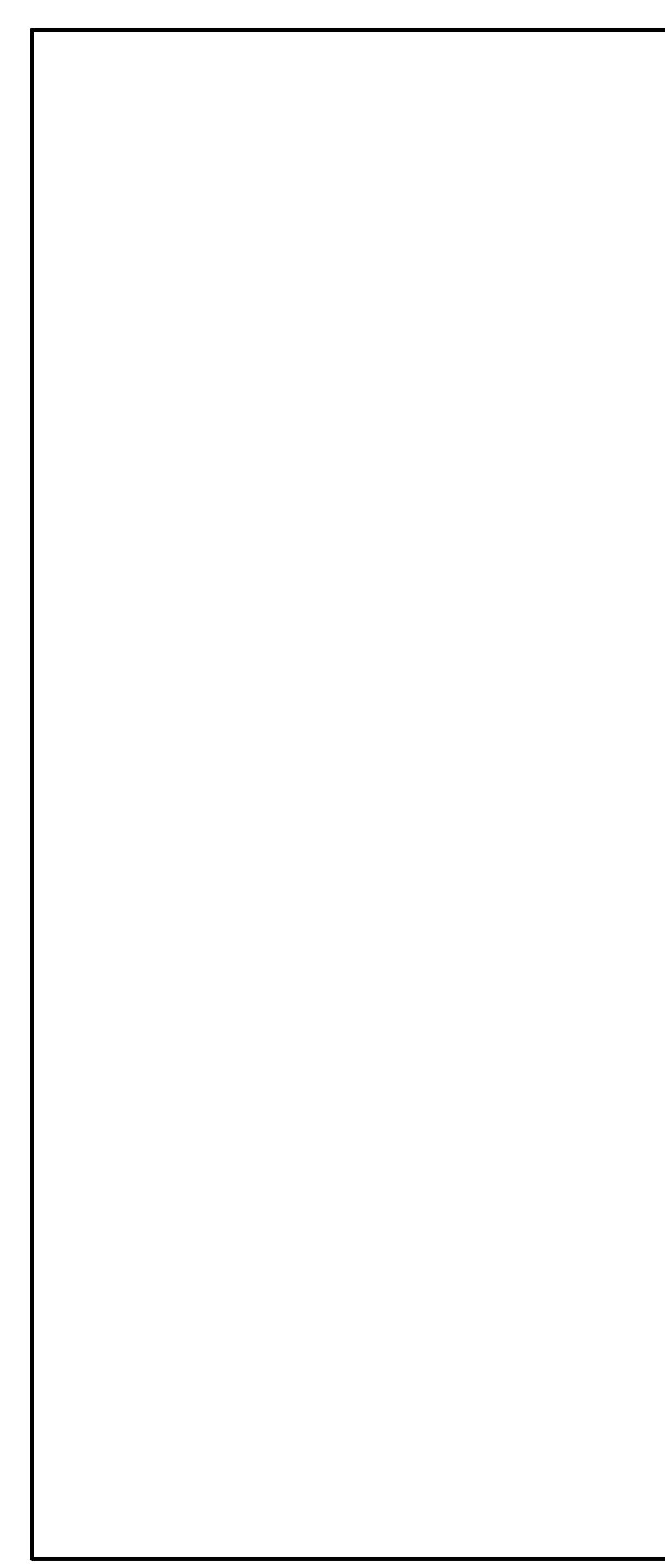
6.05 REQUIRED MAINTENANCE

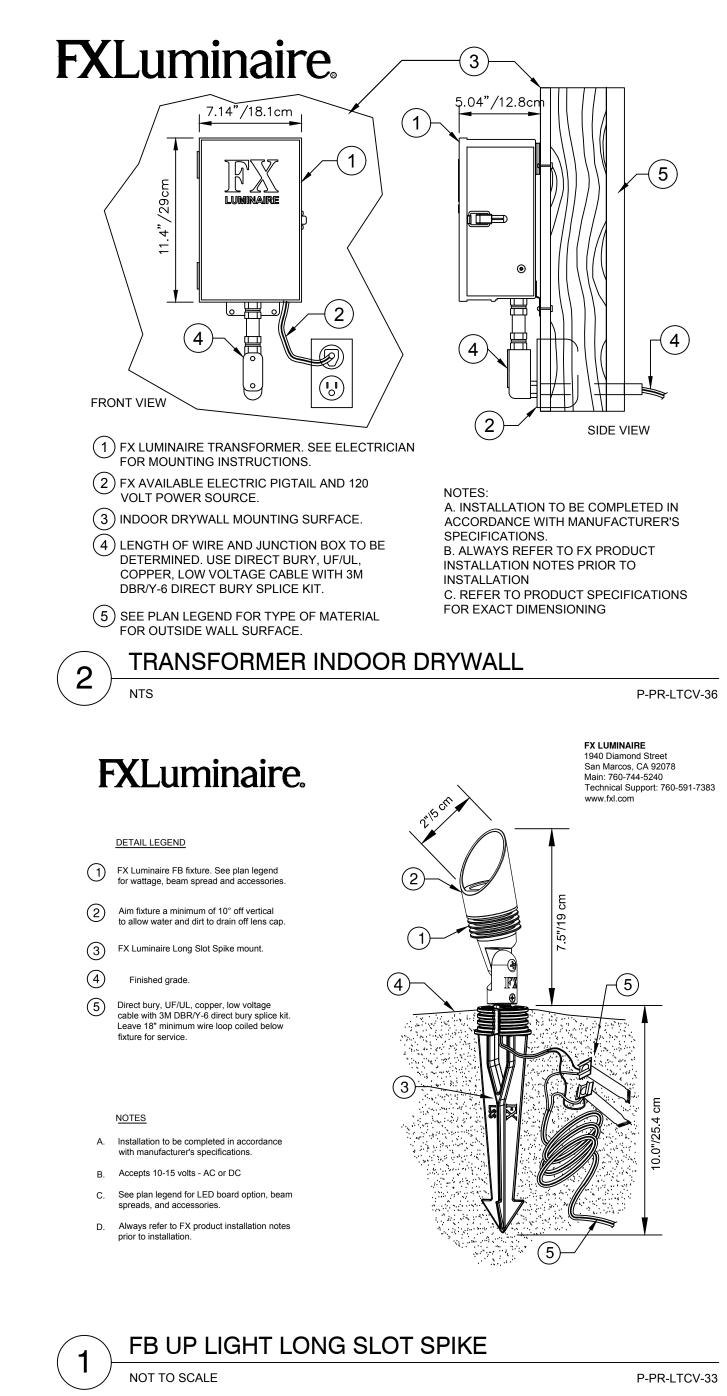












## LIGHTING SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>
С	FX LUMINAIRE LUX-300-M	1
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>
	SPJ-12VAC STRIP PVC CHANNEL. 4.4 WATTS PER LF. PVC, WHITE LAMP: LED, 24DC, 4500K, BEAMSPREAD: 120	20
¥	FX LUMINAIRE FB FITS WELL INTO TIGHT SPACES. 7.5" H X 2.0" DIA. ORDER CODE: FB, ALUMINUM ALLOY, (FB) FLAT BLACK, 3-PRONG SPIKE LAMP: FB-1LED, 2W 2.4VA, 5200K, BEAMSPREAD: SPOT	26
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>
(//////////////////////////////////////	LIGHTING POWER SOURCE REFERENCE BUILDING ELECTRIC PLANS	1
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	<u>QTY</u>
	#18 - COPPER AWG - SPT-3	585 LF

