# PARKING LOT UPGRADES CAMPO-KUMEYAAY HEAD START - CLOVER FLAT ES

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

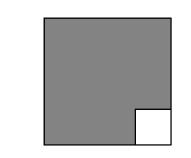
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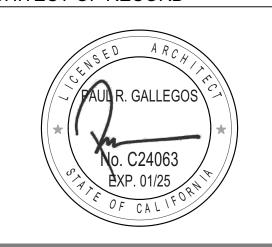
DATE: 03/08/2023

ALPHASTUDIO DESIGN GROUP



6152 INNOVATION WAY CARLSBAD, 92009 760-431-2444 www.alphastudio-design.com

ARCHITECT OF RECORD



ENGINEER OF RECORD

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SHEET TOTAL: 23

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# PROJECT SCOPE

PROJECT DIRECTORY

MOUNTAIN EMPIRE UNIFIED

3291 BUCKMAN SPRING RD

PASCO, LARET, SUITER, &

KDA LANSCAPE ARCHITECTS

27127 CALLE ARROYO SUITE 1904

SAN JUAN CAPISTRANO, CA 92675

SCHOOL DISTRICT

PINE VALLEY, CA

**ASSOCIATES** 

P: (949) 661-6695

LANDSCAPE:

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SAN DIEGO, CA 92101

ARCHITECT:

P: 760-431-2444

STRUCTURAL:

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WISEMAN AND ROHY

SAN DIEGO, CA 92131

P: (858) 536-5166

STRUCTURAL ENGINEERS

9915 MIRA MESA BLVD, SUITE 200

THE SCOPE OF THIS PROJECT INCLUDES (1) NEW PARKING LOT WITH DROP-OFF/LOADING ZONES AND ACCESSIBLE PARKING AS WELL AS THE REMOVAL OF A WOOD RETAINING WALL AND REPLACEMENT WITH A MASONRY RETAINING WALL. THE SCOPE IS ALSO TO INCLUDE NEW EV CHARGING INFRASTRUCTURE AS WELL AS LANDSCAPE AND IRRIGATION LIBERADES.

# **VICINITY MAP**



PARKING LOT UPGRAD
CAMPO-KUMEYAAY HEAD START - CLOVER FL

REVISIONS

MARK DATE DESCRIPTION

PROJECT NO: #PIn

PROJECT NO: #PIn

MODEL FILE:
Clover Flat ES Parking Lot.pln

PLOT DATE: 3/3/2023

SHEET TITLE

**COVER SHEET** 

T-001

# PARKING LOT UPGRADES CAMPO-KUMEYAAY HEAD START - CLOVER FLAT ES

#### GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE CODES LISTED ON THIS SHEET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILAR WITH ALL CODES AND ORDINANCES, CITY OR STATE AS REQUIRED FOR THE CONSTRUCTION OF THE FOLLOWING PROJECT. WHERE CONFLICTS OCCUR BETWEEN FEDERAL, STATE, AND LOCAL LAWS, CODES, ORDINANCES, AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
- ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE START OF WORK. THE EXISTING CONDITIONS SHALL INCLUDE, BUT NOT BE LIMITED TO: IRRIGATION, DRAINAGE, SITE MECHANICAL, PLUMBING, AND ELECTRICAL. THE CONTRACTOR SHALL NOTIFY THE ARCHTIECT OF ANY DISCREPANCIES IN SITE CONDITIONS AND CONTRACT DOCUMENTS. FAILURE TO NOTIFY WHILE PROCEEDING WITH WORK SHALL IMPLY ACCEPTANCE OF THE SITE CONDITIONS BY THE CONTRACTOR FOR THE WORK INTENDED.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE AND SAFE BRACING TO SUPPORT THE COMPONENTS OF THE STRUCTURE UNTIL THE STRUCTURE ITSELF, FLOOR AND ROOF DIAPHRAGMS ARE COMPLETE ENOUGH TO SUPPORT ITSELF. THE SAFETY AND ERECTION OF BRACING SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THERE ARE NO DISCREPENCIES BEWTEEN THE ARCHITECTURAL DRAWINGS AND THE CONSULTING ENGINEER'S DRAWINGS WHICH WOULD CAUSE A CONFLICT IN THE INSTALLATION OF THE SYSTEMS. IF SUCH A CONFLICT DOES OCCUR, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ALERT THE ARCHITECT TO THE SITUATION PRIOR TO INSTALLATION. ANY WORK INSTALLED IN CONFLICT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REMEDY WITH NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR A COMPLETE LIST OF GENERAL CONDITIONS, SPECIAL CONDITIONS, AND MATERIAL INSTALLATION METHODOLOGY.
- 7. TYPICAL NOTES AND DETAILS SHALL APPLY UNLESS SHOWN OTHERWISE, WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR A SIMILAR CONDITION.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS. SERVICES. POINTS OF CONNECTION, AND IRRIGATION LINES IN THE CONSTRUCTION AREA PRIOR TO COMMENCEMENT OF WORK. IF PROPER VERIFICATION IS NOT DONE PRIOR TO WORK COMMENCING, AND DAMAGE IS INCURRED THE CONTRACTOR SHALL REPAIR THE DAMAGE AT NO COST TO THE OWNER
- ALL DRAWINGS ARE FOR ILLUSTRATION ONLY, THE CONTRACTOR AND SUBCONTRACTORS, SHALL NOT LOCATE ITEMS BY SCALING. IF ITEMS ARE MISLOCATED DUE TO SCALING, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND CORRECTLY INSTALLING THE ITEMS AT NO EXPENSE TO THE OWNER.
- 10. IT IS THE INTENT OF THESE DRAWINGS TO INDICATE A COMPLETE AND FINISHED PRODUCT AND / OR ABUTING EXISTING CONDITION IN A FINSHED AND PROFESSIONAL
- 11. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP THE AREA AROUND THE WORK IN A CLEAN AND SAFE CONDITION. ALL TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER. AREA OF WORK SHALL BE COMPLETELY CLEANED AND READY FOR OCCUPANCY UPON COMPLETION OF
- 12. ALL WORK SHALL CONFORM TO 2019 TITLE 24 CA CODE OF REGULATIONS. A COPY OF TITLE 24, PARTS 1-5, SHALL BE AVAILABLE ON THE JOBSITE AT ALL TIMES.
- 13. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SEC. 4-338, PART 1, T-24, CCR. ALL ADDENDA AND CONSTRUCTION CHANGE DOCUMENTS SHALL BE SIGNED BY THE ARCHITECT.
- 14. A DSA CERTIFIED PROJECT INSPECTOR EMPLOYED BY THE OWNER AND APPROVED BY DSA, ARCHITECT OF RECORD & STRUCTURAL ENGINEER OF RECORD (WHERE APPLICABLE), SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342 PART 1, T-24 CCR. THE INSPECTOR SHALL BE A CLASS III.
- A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE OWNER SHALL CONDUCT ALL REQUIRED TESTING AND SPECIAL INSPECTIONS FOR THE PROJECT AS IDENTIFIED ON THE DSA 103 TESTING AND INSPECTION FORM.
- 16. THE PROJECT SHALL CONFORM TO CURRENT ADA STANDARDS 2019 CBC CHAPTER 11 B.
- 17. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OF NONCOMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TILE 24, CALIFORNIA CODE OF REGULATIONS, A CCD, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF STATEARCHITECT BEFORE PROCEEDING WITH THE WORK.
- 18. THE ARCHITECT AND OR ENGINEER SHALL MAKE PERIODIC SITE VISITS DURING CONSTRUCTION TO OBSERVE THE PROGRESS OF THE WORK AND VERIFY GENERAL CONFORMANCE TO THE PLANS AND SPECIFICATIONS IS BEING MET. THESE VISIT DO NOT CONSTITUTE A GUARANTEE OF THE CONTRACTOR'S WORK. A CONTRACTOR'S ERROR THAT GOES UNDETECTED DURING A PERIODIC VISIT DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR PROPERLY PERFORMING THE SCOPE OF THE PROJECT.
- 19. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ADJACENT STRUCTURES, PROPERTY, AND SITE FEATURES DURING CONSTRUCTION. ANY DAMAGE TO SUCH ITEMS SHALL BE PROMPTLY RESTORED TO THE SATISFACTION OF THE OWNER AND
- 20. CONTRACTORS AND SUBCONSTRATORS ARE REQUIRED TO SUBMIT THEIR BIDS BASED ON ALL DRAWINGS AND SPECIFICATIONS, NOT SOLELY THE SHEETS OR SECTIONS RELEVANT TO THEIR TRADE.
- 21. THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLIMENTARY IN NATURE, HOWEVER IF A DISCREPANCY OCCURS BETWEEN THE TWO DOCUMENTS, THE MORE STRINGENT REQUIREMENT AND HIGHEST LEVEL OF QUALITY SHALL TAKE PRECENDENCE.
- 22. ALL DETAILS PROVIDED IN THE CONSTRUCTION DOCUMENTS ARE A PART OF THE CONSTRUCTION SCOPE REGARDLESS OF WHETHER THEY ARE SPECIFICALLY REFERENCED.

#### GENERAL DEMOLITION NOTES

- DEMOLITION PLANS REFERENCE GENERAL ITEMS AND CONDITION VARIATIONS MAY OCCUR WITHIN AREA OF DEMOLITION AND SHALL BE TREATED AS SIMILAR.
- NOT ALL LOCATIONS FOR DEMOLITION MAY BE NOTED. CONTRACTOR SHALL REVIEW THE PROJECT REQURIEMENTS AND BE FAMLIAR WITH THE EXISTING SITE CONDITIONS FOR EVALUATION OF DEMOLITION WORK NECESSARY TO COMPLETE THE NEW WORK.
- KEY NOTES REFERENCE GENERAL ELEMENTS FOR DISPOSAL OR SALVAGE. VARIOUS ASSOCIATED ITEMS MAY OCCUR AND SHALL BE REMOVED ACCORDING TO THE NEEDS AND DESIGN INTENT OF THE NEW CONSTRUCTION.
- 4. THE CONTRACTOR SHALL NOT REMOVE OR ALTER ANY BUILDING ELEMENTS OR SYSTEMS NECESSARY FOR THE BUILDING'S STRUCTURAL INTERGRITY WITHOUT PRIOR AUTHORIZATION FROM THE ARCHITECT AND/OR STRUCTURAL ENGINEER OF
- AFTER THE DEMOLITION AND REMOVAL OF ELEMENTS, REPAIR AND RESTORE EXISTING FINISHES TO BE LEFT EXPOSED TO THEIR ORIGINAL CHARACTER. WHERE EXISTING FINISHES ARE TO BE HIDDEN WITH NEW MATERIALS, THOSE FINISHES SHALL BE RESTORED TO PROVIDE ADEQUATE SUITABILITY, STRENGTH, AND SUBSTRATE FOR NEW CONSTRUCTION AND FINISHES.
- CONTRACTOR SHALL COMPLY WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION:
  - 5-2 PROTECTION

CHAPTER 33 C.F.C.

- 5-3 REMOVAL 5-4 RELOCATION
- 7-8 PROJECT SITE MAINTENANCE
- 7-9 PROTECTION AND RESTORATION OF EXIST. IMPROVEMENTS 7-10 PUBLIC CONVENIENCE AND SAFETY
- SAFETY DURING CONSTRUCTION SHALL COMPLY WITH CHAPTER 33 C.B.C. AND
- THE CONTRACTOR SHALL DISPOSE OF DEMOLITION MATERIALS IN A LEGAL AND ACCEPTABLE MANNER.
- CONTRACTOR SHALL MAKE AVAILABLE TO OWNER ANY MATERIALS OR EQUIPMENT LISTED FOR DEMOLITION, DISPOSAL, REMOVAL, ETC. UPON OWNERS REQUEST. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGABLE ITEMS.
- 10. CONTRACTOR SHALL KEEP OPERATING EQUIPMENT OR MATERIALS INDICATED FOR REUSE, RELOCATION, OR OWNER RETENTION IN A SAFE MANNER TO PROTECT THE MATERIAL OR EQUIPMENT FROM DAMAGE.
- 11. THE CONTRACTOR IS RESPONSIBLE TO PERFORM ALL DEMOLITION WORK NECESSARY TO ALLOW EXECUTION OF ALL REQUIREMENTS OF THE NEW CONSTRUCTION UNDER THIS CONTRACT. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY ALL EXISTING CONDITIONS.
- 12. THE RECORD DRAWINGS FOR THE FACILITIES TO BE MODERNIZED MAY BE AVAILABLE FROM THE DISTRICT FOR REFERENCE. CONTRACTOR SHALL REQUEST DRAWINGS OR OTHER OWNER SUPPLIED DOCUMENTS PRIOR TO BEGINNING DEMOLITION OR CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL REVIEW THE RECORD DOCUMENTS TO DETERMINE ANY CONDITIONS WHERE CONFLICTS, HARDSHIPS, OR SIMILIAR ISSUES MAY ARISE. THE CONTRACTOR SHALL NOTIFY THE ARCHTIECT OF ANY CONDITIONS WHERE CONFLICTS MAY ARISE PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITIES.
- 13. AREA OF FLOOR SLAB OR PAVING DEMOLITION IS SHOWN AS AN APPROXIMATION ONLY TO DEFINE GENERAL SCOPE OF WORK. EXISTING CONDITIONS MAY REQUIRE A LARGER / DIFFERENTLY CONFIGURED AREA OF DEMOLITION. REMOVAL SHALL BE IN ACCORDANCE TO THE NEEDS AND DESIGN INTENT OF THE NEW CONSTRUCTION. COORDINATE DEMOLITION REQUIREMENTS WITH CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DESIGN AND DRAWINGS.
- 14. ALL FLOOR SLAB AND/OR PAVING SAWCUTS SHALL BE DONE IN A MANNER THAT CREATES A SHARP, STRAIGHT, AND SQUARE EDGE. SAW CUT EDGES EXPOSED FOR LONG DURATIONS DURING CONSTRUCTION SHALL BE PROTECTED BY THE CONTRACTOR IN ORDER TO LIMIT CHIPPING OF CONCRETE EDGE. IF CHIPPING OR OTHER DAMAGE OCCURS, CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ADDITIONAL FLOOR SLAB AND/OR PAVING TO NEXT AVAILABLE JOINT OR AS DETERMINED BY ARCHITECT AT THE CONTRACTOR'S OWN COST.
- 15. WHERE EQUIPMENT AND/OR FIXTURES ARE INDICATED TO BE REMOVED ALL RELATED EXPOSED PIPING, CONDUITS, AND ASSOCIATED ITEMS SHALL ALSO BE REMOVED AND/OR PROPERLY TERMINATED TO PROVIDE COMPLETE DEMOLITION.
- 16. WHERE EXISTING CONSTRUCTION ELEMENTS (FRAMING, FINISHES, PIPES, CONDUITS, DUCTWORK, EQUIPMENT, ETC.) INTERFERE WITH THE INTENDED NEW CONSTRUCTION OR WOULD BE EXPOSED IN OTHERWISE 'FINISHED' AREAS. THESE ITEMS SHALL ALSO BE REMOVED AND/OR RELOCATED.
- 17. REFER TO STRUCTURAL AND ELECTRICAL DRAWINGS FOR ALL DEMOLITION WORK SPECIFIC TO THOSE BUILDING SYSTEMS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST ANY HAZARDOUS ABATEMENT DOCUMENTS FOR THE SCOPE OF WORK TO FULLY UNDERSTAND THE EXTENT OF REMOVALAND DISPOSAL REQUIREMENTS FOR THOSE MATERIALS.
- 19. ALL ABATEMENT WORK SHALL BE COMPLETED BY THE CONTRACTOR PRIOR TO **DEMOLITION WORK.**

### GENERAL ACCESIBILITY NOTES

- ALL ACCESSIBLE GATES WITHIN THE PATH OF TRAVEL SHALL HAVE NON-GRIP HARDWARE MOUNTED BETWEEN 34" TO 44" ABOVE FINISH PAVING. THERE SHALL BE 24" MINIMUM CLEAR SPACE PROVIDED AT THE STRIKE SIDE OF THE GATE FOR ACCESSIBLE MANEUVERING CLEARANCES.
- ALL DIMENSIONS FOR ACCESSIBLE COMPONENTS, FEATURES, OR CLEAR FLOOR SPACE ARE TO FACE OF FINISH UNLESS OTHERWISE NOTED.
- ACCESSIBLE PATH OF TRAVEL (POT) SHALL BE A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED 1:2 MAX SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX. POT SHALL BE AT LEAST 48" IN WIDTH WITH A STABLE, FIRM, AND SLIP RESISTANT SURFACE. CROSS SLOPE SHALL NOT EXCEED 2% MAX AND THE SLOPE IN THE DIRECTION OF TRAVEL SHALL NOT EXCEED 5%. POT SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM ABOVE FINISHED SURFACE AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM THE WALL AND 27" ABOVE FINISHED SURFACE, BUT LESS THAN 80" ABOVE FINISHED SURFACE. REFERENCE CBC 11B-202.4.
- OPENINGS IN GRATINGS OR STRAINERS LOCATED IN THE PEDESTRIAN CIRCULATION PATHS OR PATH OF TRAVEL SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL IN COMPLIANCE WITH CBC 11B-302.
- GATES IN THE PATH OF TRAVEL SHALL COMPLY WITH EXIT DOOR REQUIREMENTS.

#### DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT

THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS ADDITIONS, AND STRUCTURAL REPAIRS AS PART OF THE DESIGN OF THIS PROJECT. THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS, OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT HAVE BEEN IDENTIFIED AND, THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT THROUGH DETAILS, DRAWINGS, AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS.

ANY NONCOMPLIANT ELEMENTS, COMPONENTS, OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINIDNG OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS COMPLIANT ARE FOUND TO BE NON-CONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE BY MEANS OF A CONSTRUCTION CHANGE CHANGE DOCUMENT (CCD).

#### **GENERAL FIRE NOTES**

- FIRE SAFETY AND EVACUATION PLANS SHALL BE MADE AVAILABLE IN THE WORKPLACE FOR REFERENCE AND REVIEW BY EMPLOYEES AND COPIES SHALL BE FURNISHED TO THE FIRE CODE OFFICIAL FOR REVIEW UPON REQUEST.
- ALL CONTRACTORS PERFORMING WORK ON THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS OF 2019 CFC 901.7, SPECIFICALLY 901.7.4 CHAPTER 11 AND 33 AS WELL AS NFPA 241 FIRE PREVENTION PROGRAM THROUGHOUT ALL PHASES OF CONSTRUCTION.
- CONTRACTOR OPERATIONS SHALL NOT BLOCK, HINDER, IMPEDE OR OTHERWISE INHIBIT THE USE OF REQUIRED EXITS AT ANY TIME. CONTRACTOR SHALL MAINTAIN UNOBSTRUCTED ACCESS TO FIRE EXTINGUISHERS, FIRE HYDRANTS, TEMPORARY FIRE PROTECTION FACILITIES, STAIRWAYSAND OTHER ACCESS ROUTES FOR FIRE-FIGHTING EQUIPMENT AND/OR PERSONNEL.

## APPLICABLE CODES/STANDARDS

2019 CALIFORNIA BUILDING CODE (C.B.C.) PART 2, TITLE 24, C.C.R. (2018 I.B.C., VOL I -2 AND

2019 CALIFORNIA ELECTRIC CODE (C.E.C.), PART 3, TITLE 24, C.C.R. (2017 N.E.C. AND 2019 CA

2019 CALIFORNIA MECHANICAL CODE (C.M.C.) PART 4, TITLE 24, C.C.R. (2018 U.M.C. AND 2019

2019 CALIFORNIA PLUMBING CODE (C.P.C.), PART 5, TITLE 24, C.C.R. (2018 U.P.C. AND 2019 CA AMENDMENTS)

2019 CALIFORNIA ENERGY CODE, PART 6, TITLE 24, C.C.R.

2016 ASME A 17.1 SAFETY CODE FOR ELEVATORS & ESCALATORS

2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24, C.C.R TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

NFPA 17 - DRY CHEMICAL EXTINGUISHING SYSTEMS 2017 ED.

NFPA 20 - STATIONARY PUMPS 2016 ED.

NFPA 24 - PRIVATE FIRE MAINS 2016 ED.

NFPA 25 - STANDARD FOR INSPECTION, TESTING, & MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS 2013 ED.

NFPA 72 - NATIONAL FIRE ALARM CODE (CA AMEND,) 2016 ED. (NOTE SEE UL STANDARD 1971

NFPA 80 - FIRE DOORS & OTHER OPENING PROTECTIVES 2016 ED.

NFPA 92 - STANDARD FOR SMOKE CONTROL SYSTEMS 2018 ED.

NFPA 253 - CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS 2019 ED.

UL 464 - AUDIBLE SIGNAL DEVICES 2003 ED.

REFERENCE CODE SECTION FOR NFPA STANDARDS 2019 C.B.C. (SFM) CHAPTER 35. SEE CHAPTER 35 FOR STATE OF CA AMENDMENTS TO NFPA STANDARDS.

2022 BUILDING STANDARDS ADMINISTRATIVE CODE PART 1, TITLE 24, C.C.R.

2019 CA AMENDMENTS)

2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24, C.C.R. (2018 I.F.C. AND 2019 CALIF

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART I I, TITLE 24, C.C.R.

NFPA 13 - AUTOMATIC SPRINKLER SYSTEMS 2016 ED.

NFPA 14 - STANDPIPE SYSTEMS 2016 ED.

NFPA 17A - WET CHEMICAL SYSTEMS 2017 ED.

NFPA 2001 - CLEAN AGENT FIRE EXTINGUISHING SYSTEMS 2018 ED.

UL 521 - HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS 1999 ED.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

APP: 04-121384 INC:

DATE: 03/08/2023

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CARLSBAD. 92009

760-431-2444

ARCHITECT OF RECORD

**ENGINEER OF RECORD** 

REVISI	ONS	
MARK	DATE	DESCRIPTION

PROJECT NO: #Pln MODEL FILE: Clover Flat ES Parking Lot.pln

PLOT DATE: 3/3/2023

SHEET TITLE

APPLICABLE CODES AND **GENERAL NOTES** 

T-002

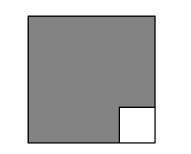
FUT.

**FUTURE** 

# PARKING LOT UPGRADES CAMPO-KUMEYAAY HEAD START - CLOVER FLAT ES

#### IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 04-121384 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

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ARCHITECT OF RECORD

**ENGINEER OF RECORD** 

TYPICAL SYMBOLS

**EXTERIOR ELEVATION NUMBER** 

ORIENTATION OF SECTION CUT

TYPICAL WHERE NOTED. TYPICAL ITEMS

WILL NOT BE NOTED AT ALL LOCATION.

BUILDING SECTION LETTER

'X' INDICATES CORRESPONDING **ELEVATION REFERENCE** X/4 < A-X.X **ROOM ELEVATION** NUMBER REFERENCES FINISH SCHEDULE ELEVATION CORRESPONDING SHEET NUMBER OF ELEVATION DETAIL NUMBER **DETAIL REFERENCE** A-X.X **CORRESPONDING SHEET** NUMBER OF DETAIL

EXTERIOR ELEVATION MARKER CORRESPONDING SHEET NUMBER OF ELEVATION

> CORRESPONDING SHEET NUMBER OF SECTION CORRESPONDING ROOM NUMBER

DOOR NUMBER WINDOW NUMBER

- REVISION NUMBEF REVISION KEYNOTE NUMBER KEYNOTE

г — — — ¬

L \_ \_ \_ J

**ROOM NAME** ROOM NAME/NUMBER MARKER **ROOM NUMBER** 

SECTION MARKER

DOOR IDENTIFICATION

WINDOW IDENTIFICATION

EXISTING ACCESSIBLE PATH OF TRAVEL (POT)  $\iff \iff \iff$ (WHERE OCCURS)

60" DIAMETER ACCESSIBLE CLEAR SPACE

NEW ACCESSIBLE PATH OF TRAVEL (POT)

30"X48" ACCESSIBLE CLEAR SPACE

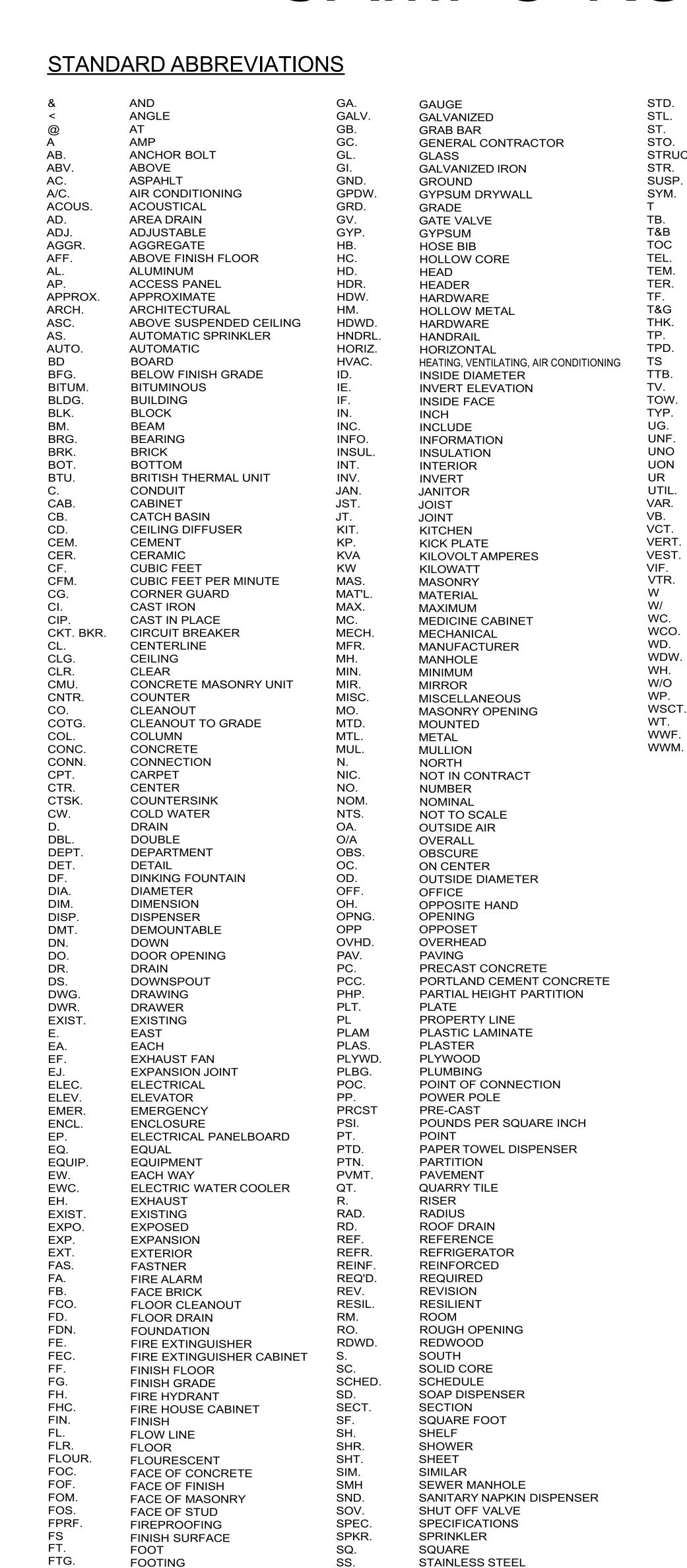
ARCHITECTURAL SPOT ELEVATION

REVISIONS |MARK| DATE |DESCRIPTION PROJECT NO: #PIn MODEL FILE: Clover Flat ES Parking Lot.pln PLOT DATE: 3/3/2023

**ABBREVIATIONS AND** TYPICAL SYMBOLS

SHEET TITLE

T-003



STA.

STATION

STANDARD STEEL STEEL STORAGE STRUCTURAL STRUCTURAL SUSPENDED SYMMETRICAL **TOWEL BAR** TOP AND BOTTOM TOP OF CURB TELEPHONE TEMPERED TERAZZO TOP OF FOOTING **TONGUE AND GROOVE** TOP OF PARAPET **TOILET PAPER DISPENSER** TOP OF STRUCTURE TELEPHONE TERMINAL BACKBOARD **TELEVISION** TOP OF WALL **TYPICAL** UNDERGROUND UNFINISHED UNLESS NOTED OTHERWISE UNLESS OTHERWISE NOTED UTILITY **VARIES VAPOR BARRIER** VINYL COMPOSITION TILE **VERTICAL** VESTIBULE **VERIFY IN FIELD** VENT THROUGH ROOF WEST WITH WATER CLOSET WALL CLEAN OUT WOOD WINDOW WATER HEATER WITHOUT WATERPROOF WAINSCOT WEIGHT WELDED WIRE FABRIC WELDED WIRE MESH

# MOUNTAIN EMPIRE UNIFIED SCHOOL DISTRICT

# CLOVER FLAT ELEMENTARY SCHOOL

BOULEVARD, CA

#### CIVIL ENGINEER'S NOTES TO CONTRACTOR

- 1. ALL LANDSCAPE AREAS SHALL BE GRADED TO SLOPE AWAY FROM STRUCTURES AND PROPERTY LINES TOWARD LANDSCAPE DRAINAGE SWALES AND OR SITE DRAIN INLETS AT 2% MINIMUM GRADIENT (1% WHERE FLOW IS CONCENTRATED). SMOOTH FINISH GRADES TO ELIMINATE PONDING OR STANDING
- 2. ALL LANDSCAPE DRAINS SHALL BE 4" MINIMUM CONSTRUCTED WITH RIGID BELOW GRADE PIPING WITH A 1% MINIMUM GRADIENT UNLESS OTHERWISE NOTED.
- 3. LANDSCAPE DRAINS, CATCH BASINS, INLETS, ETC. SHOWN HEREON ARE DIAGRAMMATIC. CONTRACTOR SHALL PROVIDE COMPLETE DRAINAGE SYSTEMS AND ADJUST THE LAYOUT AS REQUIRED TO MATCH SITE CONDITIONS AND OR MINOR DISCREPANCIES WITH THESE PLANS.
- 4. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO MAINTAIN PROPER DRAINAGE AND EROSION CONTROL DURING CONSTRUCTION.
- 5. CONTRACTOR SHALL NOTIFY ENGINEER UPON THE DISCOVERY OF AREAS WHICH DO NOT DRAIN PROPERLY OR ANY OTHER DISCREPANCY OR AREA WHICH HAS NOT BEEN ADEQUATELY ADDRESSED AS A RESULT OF A FIELD CONDITION OR ANOMALY IN THE TOPOGRAPHY.
- 6. HARDSCAPE GRADES SHALL BE 0.02' BELOW DRIP SCREED AT HIGHEST POINT NEAR STRUCTURE AND SHALL SLOPE AT A 1% MINIMUM GRADE TO DRAINS OR LANDSCAPE AREAS. HARDSCAPE SHALL SLOPE AND DRAIN AWAY FROM THE STRUCTURE UNLESS OTHERWISE NOTED.
- 7. THE HIGHEST ADJACENT GRADE AGAINST STRUCTURE FOOTINGS SHALL BE PER THE LATEST GREEN BOOK STANDARD.
- 8. DEEPENED FOOTINGS OR YARD DRAINS SHOULD BE CONSIDERED IF THE SIDE YARD CROSS SLOPES EXCEED 10%. CONTRACTOR TO VERIFY WITH OWNER OR DEVELOPER.
- 9. EARTHWORK QUANTITIES SHOWN HEREON ARE RAW QUANTITIES CALCULATED FOR PERMIT AND OR BONDING PURPOSES ONLY. UNLESS NOTED, THEY DO NOT INCLUDE POTENTIAL SHRINKAGE OR BULKING FACTORS, REMEDIAL GRADING, FOOTING SPOILS, UTILITY TRENCH SPOILS, ETC. THE CONTRACTOR SHALL VERIFY QUANTITIES TO THEIR OWN SATISFACTION.
- 10. THE LOCATIONS OF UNDERGROUND STRUCTURES AND UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS FOR THE BENEFIT OF THE CONTRACTOR. THE DEPICTION OF UTILITIES SHOWN ON THESE PLANS DOES NOT CONSTITUTE A GUARANTEE OF THEIR EXACT LOCATION, DEPTH, SIZE, OR TYPE. EXACT LOCATION, DEPTH, TYPE AND SIZE MAY BE VERIFIED BY POTHOLING PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT ALL UNDERGROUND AND/OR OVERHEAD STRUCTURES AND/OR UTILITIES WHETHER OR NOT THEY ARE SHOWN HEREON.
- 11. CONTRACTOR SHALL NOTIFY DIGALERT @ 800-227-2600 OR UNDERGROUND SERVICE ALERT (USA) @ 800-422-4133 AT LEAST TWO DAYS BEFORE START OF CONSTRUCTION.
- 12. CONTRACTOR IS RESPONSIBLE FOR POTHOLING PRIOR TO START OF CONSTRUCTION TO VERIFY ALL ELEVATIONS OF EXISTING UNDERGROUND UTILITIES.
- 13. MSE/ WALLS SHALL BE CONSTRUCTED WITH FULL SPECIAL INSPECTION BY OTHERS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
- 14. MSE/KEYSTONE RETAINING WALLS SHALL BE CERTIFIED BY THE SOILS ENGINEER OF WORK AS BEING

CONSTRUCTED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.

- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AGENCY APPROVAL OF THE ROUTE AND SITE LOCATION FOR EXPORT AND OR IMPORT MATERIALS.
- 16. FOOTING SUBGRADE MATERIAL SHALL BE INSPECTED BY GEOTECHNICAL ENGINEER PRIOR TO FORMING OR STEEL PLACEMENT FOR ALL EARTH RETAINING STRUCTURES.
- 17. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT TO BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR AGREES TO DEFEND, INDEMNIFY AND HOLD THE JURISDICTIONAL AGENCY AND THE DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE JURISDICTIONAL AGENCY OR DESIGN PROFESSIONAL.

#### AGENCY NOTIFICATIONS

NOTE: THE CONTRACTORS SHALL NOTIFY THE UNDERGROUND SERVICE ALERT FORTY-EIGHT (48) HOURS

PRIOR TO STARTING CONSTRUCTION OR EXCAVATION BY CONTACTING (800) 422-4133

#### GENERAL NOTES

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND SPECIFICATIONS AND THE LATEST EDITION OF THE CALIFORNIA BUILDING CODE (CBC). SEE PAGE CS FOR APPLICABLE
- 2. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND USA ALERT (1- 800-422-4133) 48 HOURS PRIOR TO GRADING.
- 3. DUST SHALL BE CONTROLLED BY WATERING OR OTHER METHODS APPROVED BY THE SCHOOL DISTRICT.
- 4. CUT SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL, UNLESS OTHERWISE APPROVED, AND SHALL BE SHOWN ON THE PLAN.
- 5. FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL, UNLESS OTHERWISE APPROVED, SHALL BE SHOWN ON PLAN, AND SHALL NOT HAVE LESS THAN 95% RELATIVE COMPACTION OUT TO THE FINISHED SURFACE.
- 6. FILL AREAS SHALL BE CLEANED OF ALL VEGETATION AND DEBRIS, SCARIFIED AND INSPECTED BY THE GRADING INSPECTOR AND APPROVED SOILS TESTING AGENCY PRIOR TO THE PLACING OF FILL.
- 7. ALL FILL MATERIAL SHALL BE CLEAN EARTH, NO FILL SHALL BE PLACED UNTIL PREPARATION OF GROUND IS APPROVED BY THE SOILS ENGINEER.
- 8. FINISH GRADE SHALL BE SLOPED AWAY FROM ALL EXTERIOR WALLS AT NOT LESS THAN  $\frac{1}{2}$  INCH PER FOOT FOR A MINIMUM OF 3 FEET, THEN 1% (MINIMUM) TO FLOW LINE OF EARTH SWALE.
- 9. NO OBSTRUCTION OF FLOOD PLAINS OR NATURAL WATERCOURSES SHALL BE PERMITTED.
- 10. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO
- PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT 11. APPROVED EROSION PREVENTIVE DEVICES SHALL BE PROVIDED AND MAINTAINED DURING THE RAINY
- SEASON AND SHALL BE IN PLACE AT THE END OF EACH DAYS WORK. 12. ALL WORK SHALL CONFORM TO THE CITY AND STATE CONSTRUCTION SAFETY ORDERS.
- 13. THE LOCATION AND PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
- 14. AN APPROVED SET OF GRADING PLANS SHALL BE ON THE JOB SITE AT ALL TIMES.
- 15. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE FROM BEGINNING TO COMPLETION OF GRADING
- 16. ALL SLOPES SHALL BE PLANTED AND IRRIGATION FACILITIES SHALL BE PROVIDED FOR ALL SLOPES IN
- EXCESS OF 3 FEET VERTICAL HEIGHT WITHIN 90 DAYS AFTER COMPLETION OF ROUGH GRADING. 17. ANY CONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR

INDIRECTLY FROM HIS OPERATIONS, WHETHER OR NOT SUCH FACILITIES ARE SHOWN ON THESE PLANS.

#### EROSION AND SEDIMENT CONTROL NOTES

- 1. FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.
- 2. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES, THE CONTRACTOR SHALL ENSURE THAT WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND THAT A MINIMUM OF 1.0' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS, THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL
- 3. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.
- 4. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES
- 5. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.
- 6. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY WATER EROSION AND SEDIMENT CONTROL DEVICES WHEN RAIN IS IMMINENT.
- 7. THE CONTRACTOR SHALL RESTORE ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE INSPECTOR OR AFTER EACH RUN-OFF PRODUCING RAINFALL.
- 8. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS MAY BE REQUIRED BY THE AGENCY PERSONNEL DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES, WHICH MAY ARISE.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.
- 10. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE INSPECTOR.
- 11. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
- 12. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.
- 13. THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING THE AREAS FOR WHICH THE CONTRACTOR OR A QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.
- 14. THE CONTRACTOR SHALL ARRANGE FOR WEEKLY MEETINGS DURING OCTOBER 1ST TO APRIL 30TH FOR PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER AND THE RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION/SEDIMENT CONTROL MEASURES AND OTHER RELATED CONSTRUCTION ACTIVITIES.

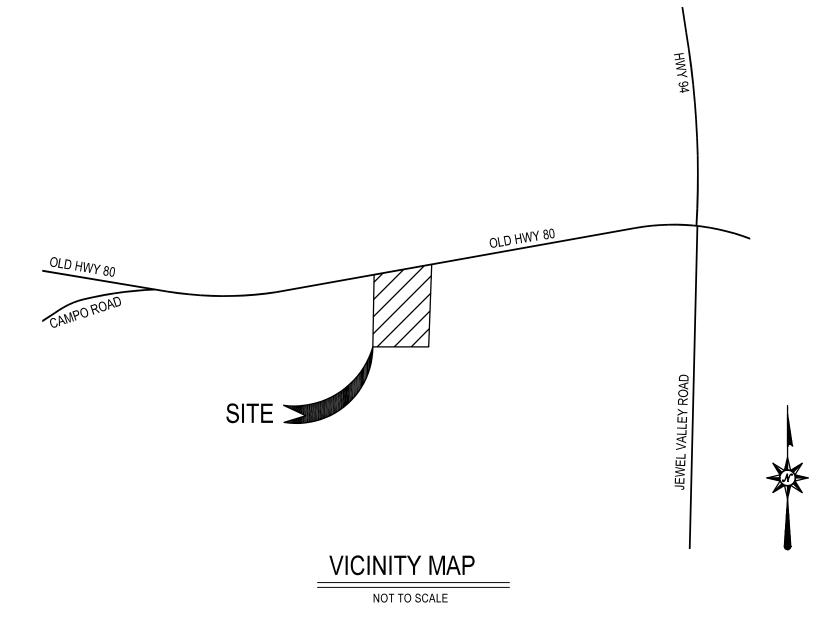
#### SPECIAL NOTES

THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTIONS TO THE CONTRACTOR BY THE ENGINEER OF

- NEITHER THE OWNER NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS, THE CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS.
- 2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; AND THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE ARCHITECT AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE ARCHITECT OR THE ENGINEER.
- 3. THE CONTRACTOR SHALL BE RESPONSIBLE TO INSURE THAT ALL SLOPES, STREETS, UTILITIES AND STORM DRAINS ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL SUBMIT AN RFI TO THE ARCHITECT FOR DISTRIBUTION TO AND RESPONSE BY THE CIVIL ENGINEER PRIOR TO PERFORMING ANY WORK RELATED TO THE AREA(S) IN QUESTION. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (GRAVEL BAGS, HAY BALES. TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER AGENCY OR ASSOCIATION IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.
- 4. BEFORE EXCAVATING FOR THIS CONTRACT, THE CONTRACTOR SHALL VERIFY LOCATION OF UNDERGROUND UTILITIES AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY.
- 5. LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.
- 6. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. 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 AT THE EXPENSE OF THE CONTRACTOR.
- 7. CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS & ELECTRIC COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. FOR LOCATION OF ELECTRICAL CABLES, GAS PIPING AND APPURTENANCES CONTACT THE SAN DIEGO GAS & ELECTRIC COMPANY. TELEPHONE: 800-422-4133.
- 8. CONTRACTOR SHALL NOTIFY THE TELEPHONE COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES FOR LOCATION OF CABLES AND APPURTENANCES.
- 9. WHERE TRENCHES ARE WITHIN EASEMENTS OR WITHIN 10' OF ANY BUILDING, A REPORT SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATES THAT TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER AND IN ACCORDANCE WITH THE ON-SITE EARTHWORK SPECIFICATIONS
- 10. ALL GRADING SHALL BE DONE UNDER THE OBSERVATION OF A QUALIFIED SOILS ENGINEER. ALL AREAS TO BE FILLED SHALL BE PREPARED TO BE FILLED AND ALL FILL SHALL BE PLACED IN ACCORDANCE WITH THE GRADING SPECIFICATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE, SPREAD, WATER AND COMPACT THE FILL IN STRICT ACCORDANCE WITH THE SPECIFICATIONS.

#### **ABBREVIATIONS**

AB AGGREGATE BASE IE INVERT ELEVA AC ASPHALT CONCRETE MH MANHOLE ADA AMERICAN WITH DISABILITIES ACT MIN MINIMUM BFD BACKFLOW DEVICE PA PLANTER AREA BLDG BUILDING PBOX PULL BOX BS BOTTOM OF STAIRS P/L PROPERTY LIN BW BOTTOM OF WALL POC POINT OF CON CB CATCH BASIN POT PATH OF TRAV CF CURB FACE PP POWER POLE CMP CORRUGATED METAL PIPE PROP PROPOSED CMU CONCRETE MASONRY UNIT PVC POLYVINYL CH CO CLEANOUT R/W RIGHT-OF-WAY COMM COMMUNICATIONS SCO SEWER CLEAN CONC CONCRETE SD STORM DRAIN DEMO DEMOLITION SDCO STORM DRAIN DS DOWNSPOUT SDMH STORM DRAIN EG EDGE OF GUTTER SL STREET LIGHT ELEC ELECTRICAL SMH SEWER MANHO EX EXISTING TC TOP OF CURB FF FINISH FLOOR TD TOP OF DECK FG FINISHED GRADE TG TOP OF STAIRS FM FORCE MAIN TW TOP OF WALL FS FINISHED SURFACE TYP TYPICAL GA GUY ANCHOR WAR WATER AIR RE GFF GARAGE FINISH FLOOR WW WATER METER GFF GARAGE FINISH FLOOR WW WATER VALVE GP GUY POLE GV GAS VALVE HP HIGH POINT HT HEIGHT	IE INECTION /EL ILORIIDE / IOUT CLEANOUT MANHOLE OLE S ELEASE R
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#### SOURCE OF TOPOGRAPHY

FIELD TOPOGRAPHIC SURVEY PREPARED BY PLSA, DATED JUNE 10, 2022.

GRADING CONSTRUCTION NOTES	<u>LEGEND</u>	QUANTITIES
(1) CONSTRUCT 6" CURB PER SDRSD G-1, SEE SHEET C4.0.		570 LF
(2) CONSTRUCT 6" CURB AND GUTTER PER SDRSD G-2, SEE SHEET C4.0.		350 LF
③ INSTALL COMPOSITE HEADER AT AC PAVEMENT EDGE.		110 LF
4 CONSTRUCT CONCRETE CROSS GUTTER PER SDRSD G-12, SEE SHEET C4.0.	· · · · · · · · · · · · · · · · · · ·	30 LF
5 CONSTRUCT 4" AC PAVEMENT OVER 12" CLASS II AGGREGATE BASE PER GEOTECHNICAL REPORT RECOMMENDATIONS.		12,000 SF
6 SAWCUT AND JOIN EXISTING AC PAVEMENT PER DETAIL ON SHEET C4.0.		210 LF
7) INSTALL TRUNCATED DOMES PER ARCHITECTURAL PLANS.		6
8 CONSTRUCT FIRE LANE PER ARCHITECTURAL PLANS, CONSTRUCT 4.5" AC PAVEMENT OVER 12" CLASS II AGGREGATE BASE PER GEOTECHNICAL REPORT RECOMMENDATIONS.		9,000 SF
CONSTRUCT SIDEWALK PER ARCHITECTURAL PLANS.		250 SF
(10) CONSTRUCT GRAVEL DRIVEWAY MIN. 12" CLASS II BASE		1,550 SF
STORM DRAIN CONSTRUCTION NOTES  (30) INSTALL 24" CMP STORM DRAINAGE PIPE. PIPE BEDDING AND TRENCH BACKFILL PER SDRSD D-60, SEE SHEET C4.0.	<u>LEGEND</u>	QUANTITIES 160 LF - 24" CM
31) INSTALL 12" PVC STORM DRAINAGE PIPE. PIPE BEDDING AND TRENCH BACKFILL PER SDRSD D-60, SEE SHEET C4.0.	=======================================	30 LF - 12" PV
32) INSTALL CONCRETE STRAIGHT HEADWALL (TYPE B) PER SDRSD D-32, SEE SHEET C4.0		1 EA
33) INSTALL CONCRETE WING-TYPE HEADWALL PER SDRSD D-34, SEE SHEET C4.0.		1 EA
(34) INSTALL 24"x24" BROOKS BOX (2424) OR APPROVED EQUAL, SEE SHEET C4.0		1 EA
(35) CONSTRUCT RIP-RAP DISSIPATOR (NO. 2 BACKING), L=10', W=6', T=1.1' PER		

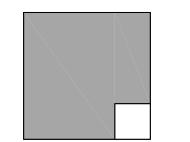
#### SHEET INDEX

SHEET NO.	DESCRIPTION
C1.0	TITLE SHEET
C2.0	PRECISE GRADING PLAN
C3.0	EROSION CONTROL PLAN
C4.0	DETAILS



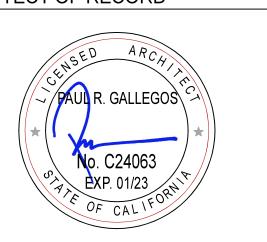
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC



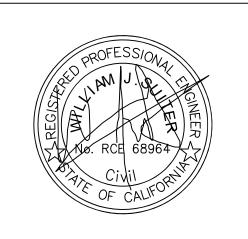


6152 INNOVATION WAY CARLSBAD, 92009 760-431-2444 www.alphastudio-design.com

ARCHITECT OF RECORD



**ENGINEER OF RECORD** 



PASCO LARET SUITER San Diego | Encinitas | Orange County Phone 949.661.6695 I www.plsaengineering.com

REVISIONS MARK DATE DESCRIPTION PROJECT NO: #PIn MODEL FILE: Clover Flat ES Parking Lot.pln PLOT DATE: 03/08/2023 SHEET TITLE

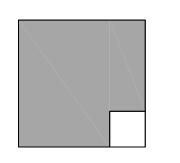
TITLE SHEET

BEFORE YOU DIG A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

CONTRACTOR TO POTHOLE AND VERIFY ALL UTILITY CONNECTIONS PRIOR TO CONSTRUCTION

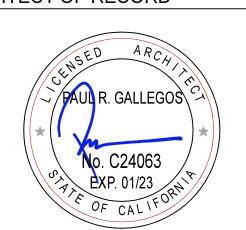
APP: 04-121384 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

ALPHASTUDIO DESIGN GROUP

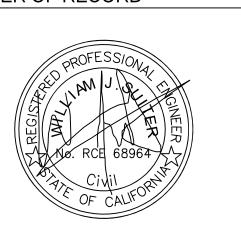


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# STORM DRAIN CONSTRUCTION NOTES

8 CONSTRUCT FIRE LANE PER ARCHITECTURAL PLANS, CONSTRUCT 4.5" AC PAVEMENT

(30) INSTALL 24" CMP STORM DRAINAGE PIPE. PIPE BEDDING AND TRENCH BACKFILL PER SDRSD D-60, SEE SHEET C4.0.

(3) INSTALL COMPOSITE HEADER AT AC PAVEMENT EDGE.

GEOTECHNICAL REPORT RECOMMENDATIONS.

7) INSTALL TRUNCATED DOMES PER ARCHITECTURAL PLANS.

CONSTRUCT 4" AC PAVEMENT OVER 12" CLASS II AGGREGATE BASE PER

6 SAWCUT AND JOIN EXISTING AC PAVEMENT PER DETAIL ON SHEET C4.0.

- (31) INSTALL 12" PVC STORM DRAINAGE PIPE. PIPE BEDDING AND TRENCH BACKFILL PER SDRSD D-60, SEE SHEET C4.0.
- (32) INSTALL CONCRETE STRAIGHT HEADWALL (TYPE B) PER SDRSD D-32, SEE SHEET C4.0
- (33) INSTALL CONCRETE WING-TYPE HEADWALL PER SDRSD D-34, SEE SHEET C4.0.
- (34) INSTALL 24"x24" BROOKS BOX (2424) OR APPROVED EQUAL, SEE SHEET C4.0
- (35) CONSTRUCT RIP-RAP DISSIPATOR (NO. 2 BACKING), L=10', W=6', T=1.1' PER DETAIL ON SHEET C4.0.

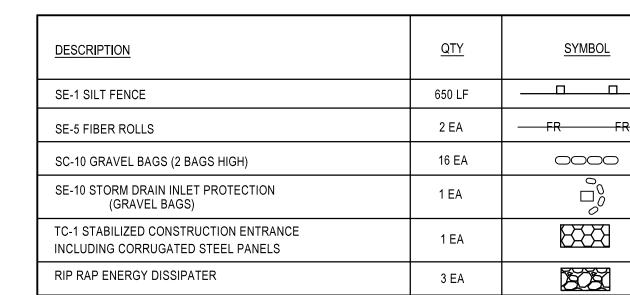
- 1. CONTRACTOR TO POTHOLE EXISTING UTILITIES AND VERIFY DEPTH AND LOCATION PRIOR TO THE START OF CONSTRUCTION.
- 2. THE LOCATIONS OF UNDERGROUND STRUCTURES AND UTILITIES SHOWN HEREON HAVE BEEN OBTAINED FROM AVAILABLE RECORDS FOR THE BENEFIT OF THE CONTRACTOR. THE DEPICTION OF UTILITIES SHOWN ON THESE PLANS DOES NOT CONSTITUTE A GUARANTEE OF THEIR EXACT LOCATION, DEPTH, SIZE OR TYPE. EXACT LOCATIONS, DEPTH, SIZE, AND/OR TYPE MAY BE VERIFIED BY POTHOLING PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT ALL UNDERGROUND AND/OR OVERHEAD STRUCTURES AND/OR UTILITIES WHETHER OR NOT THEY ARE SHOWN HEREON.
- 3. FOR PROPOSED AC PAVEMENT WITHIN AREAS OF EXISTING AC PAVEMENT, CONTRACTOR TO VERIFY DEPTH OF EXISTING PAVEMENT AND BASE TO ENSURE PROPOSED PAVEMENT SECTION MEETS REQUIRED DEPTHS. FOR CUT IN THESE AREAS, CONTRACTOR TO FULLY REMOVE EXISTING PAVEMENT SECTION PRIOR TO INSTALLING BASE AND AC PAVEMENT. FOR FILL IN THESE AREAS, CONTRACTOR MAY MILL AND OVERLAY NEW PAVEMENT IF EXISTING BASE AND PAVEMENT DEPTHS MEET PROPOSED AC PAVEMENT DEPTH.

REVIS	IONS	
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Clover	Flat ES Park	king Lot.pln
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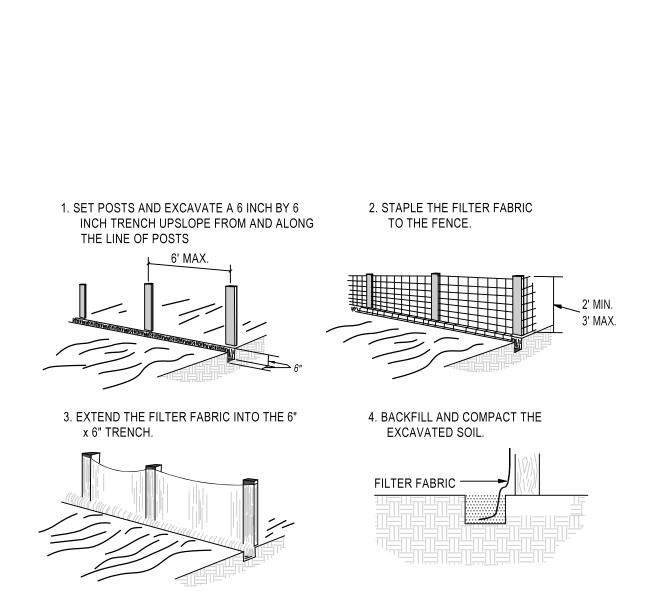
PRECISE GRADING PLAN

SHEET TITLE

DESCRIPTION	QTY	SYMBOL
SE-1 SILT FENCE	650 LF	
SE-5 FIBER ROLLS	2 EA	<del>FR FR</del>
SC-10 GRAVEL BAGS (2 BAGS HIGH)	16 EA	0000
SE-10 STORM DRAIN INLET PROTECTION (GRAVEL BAGS)	1 EA	
TC-1 STABILIZED CONSTRUCTION ENTRANCE INCLUDING CORRUGATED STEEL PANELS	1 EA	
RIP RAP ENERGY DISSIPATER	3 EA	

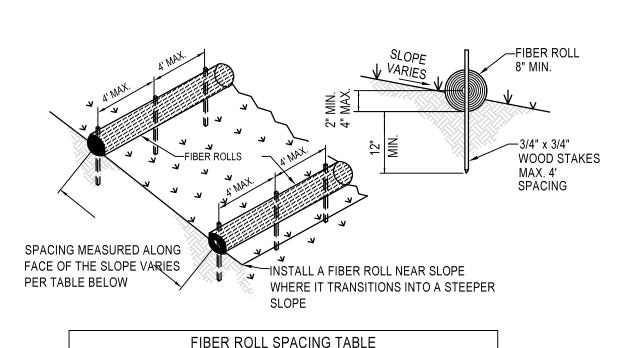






THE SILT FENCE SHOULD BE SUPPORTED BY A WIRE MESH IF THE FILTER FABRIC DOES NOT HAVE SUFFICIENT STRENGTH AND BURSTING STRENGTH CHARACTERISTICS (AS RECOMMENDED BY THE FABRIC MANUFACTURER)

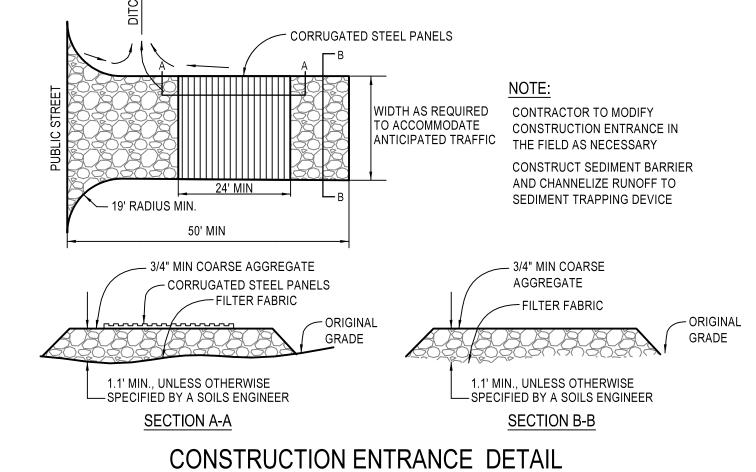
NOT TO SCALE



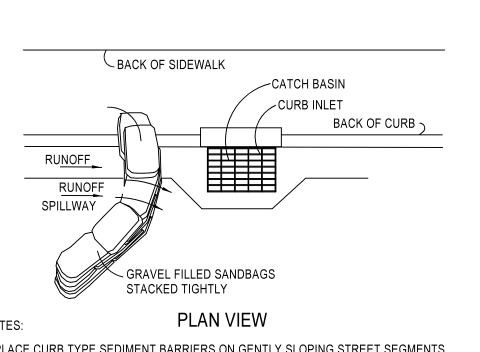
TIBELL TOLL OF MONEY TABLE					
(PLACED ON LEVEL CONTOURS)					
SLOPE INCLINATION	HORIZONTAL INTERVAL				
4:1 (H:V) OR FLATTER	20 FEET (MAXIMUM)				
BETWEEN 4:1 AND 2:1 (H:V)	15 FEET (MAXIMUM)				
2:1 (H:V) OR STEEPER	10 FEET (MAXIMUM)				

FIBER ROLL DETAIL

NOT TO SCALE



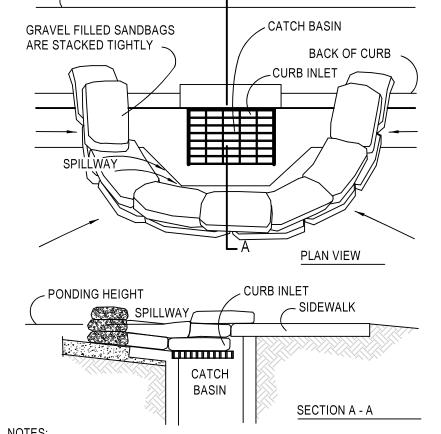
NOT TO SCALE



NOTES: 1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF. 2. SANDBAGS OF EITHER BURLAP OR WOVEN `GEOTEXTILE' FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.

3. LEAVE A ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW. 4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB AND GUTTER SEDIMENT BARRIER DETAIL NOT TO SCALE



BACK OF SIDEWALK

 PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.

2. SANDBAGS, OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.

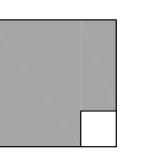
3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.

4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET SEDIMENT BARRIER DETAIL NOT TO SCALE

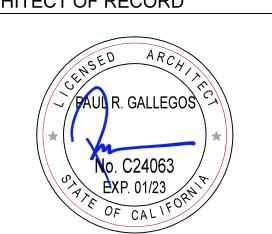


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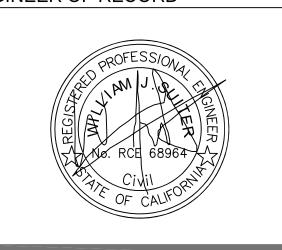


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ARCHITECT OF RECORD



ENGINEER OF RECORD

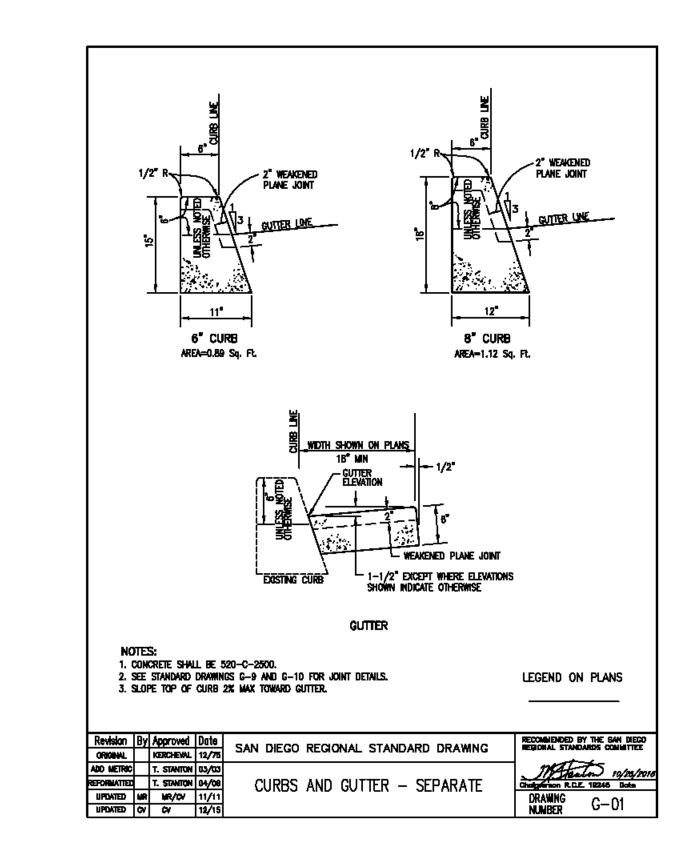


PASCO LARET SUITER San Diego | Encinitas | Orange County Phone 949.661.6695 | www.plsaengineering.com

REVISIONS MARK DATE DESCRIPTION PROJECT NO: #Pln MODEL FILE: Clover Flat ES Parking Lot.pln PLOT DATE: 03/08/2023 SHEET TITLE

**EROSION CONTROL PLAN** 





2424 CAST IRON GRATE

2424 STEEL GRATES

2424 STEEL COVER

1. GRATES AND COVERS AVAILABLE PAINTED BLACK OR GALVANIZED

4. A TOP SECTION WITH FRAME MUST BE USED IF BOLT DOWN REQUIRED

2424 T24 24" 870 (4) 14" x 14"

2424 L24 24" 870 (4) 14" x 14"

 2424 B30
 30"
 1595
 (4) 18" x 18"

 2424 B36
 36"
 1905
 (4) 18" x 18"

(4) 9" x 12"

2. "ADA" GRATES AVAILABLE IN PARKWAY & TRAFFIC .

3. "HEEL PROOF" GRATES AVAILABLE IN PARKWAY ONLY

PARKWAY TRAFFIC

PARKWAY

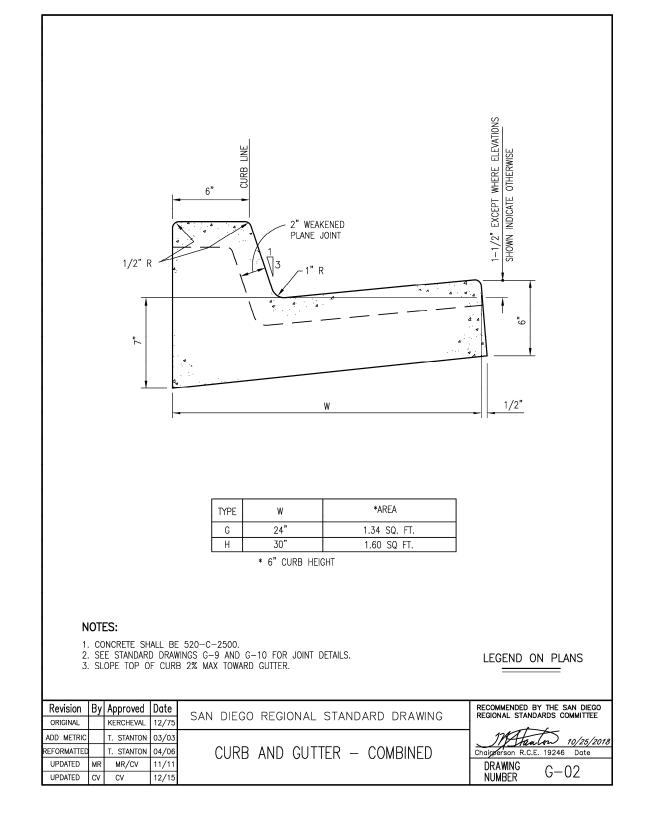
2424 TOP SECTION (WITH GALVANIZED FRAME)

2424 BOTTOM SECTION (WITH OR WITHOUT FRAME)

CATCH BASIN

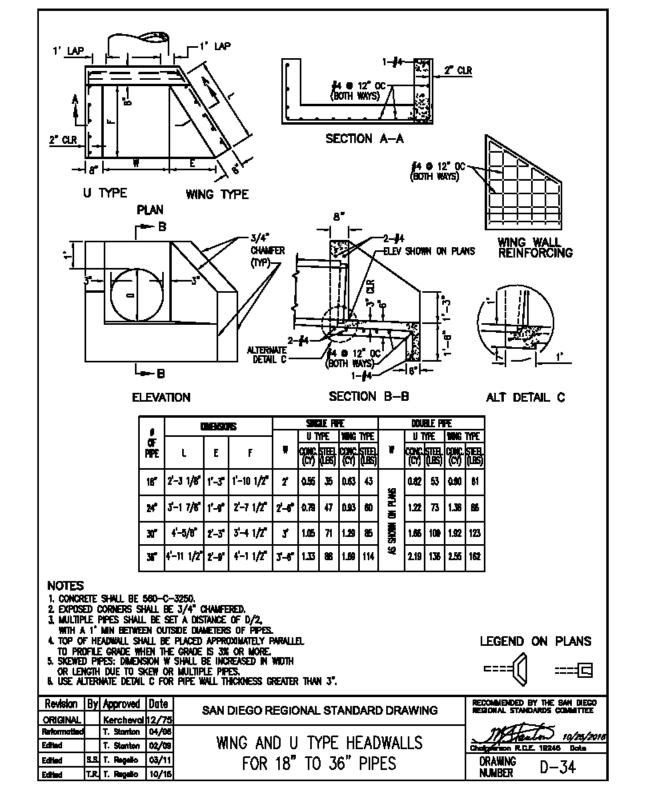
PRECAST E

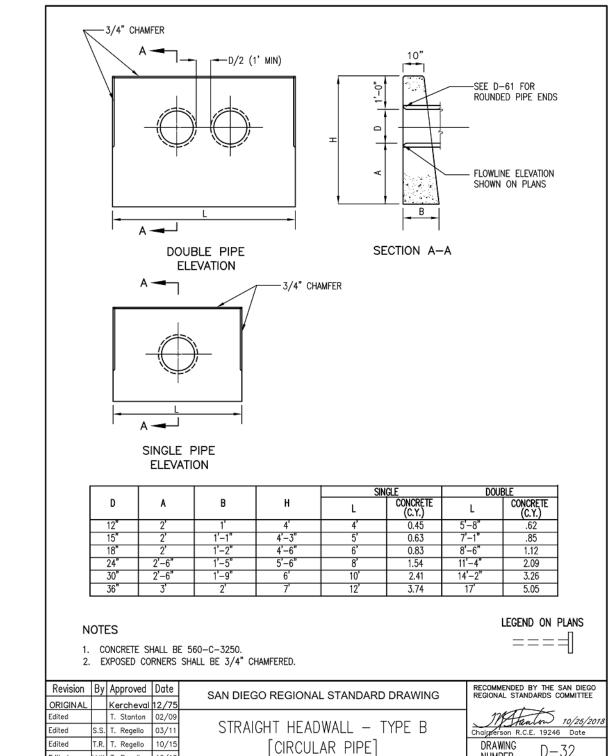
BROOKS 2424 CB

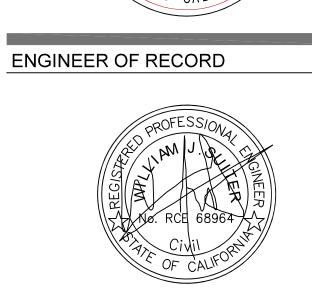


SEE ARCHITECTURAL PLANS

FOR TRUNCATED DOME DETAILS







IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITEC

APP: 04-121384 INC:

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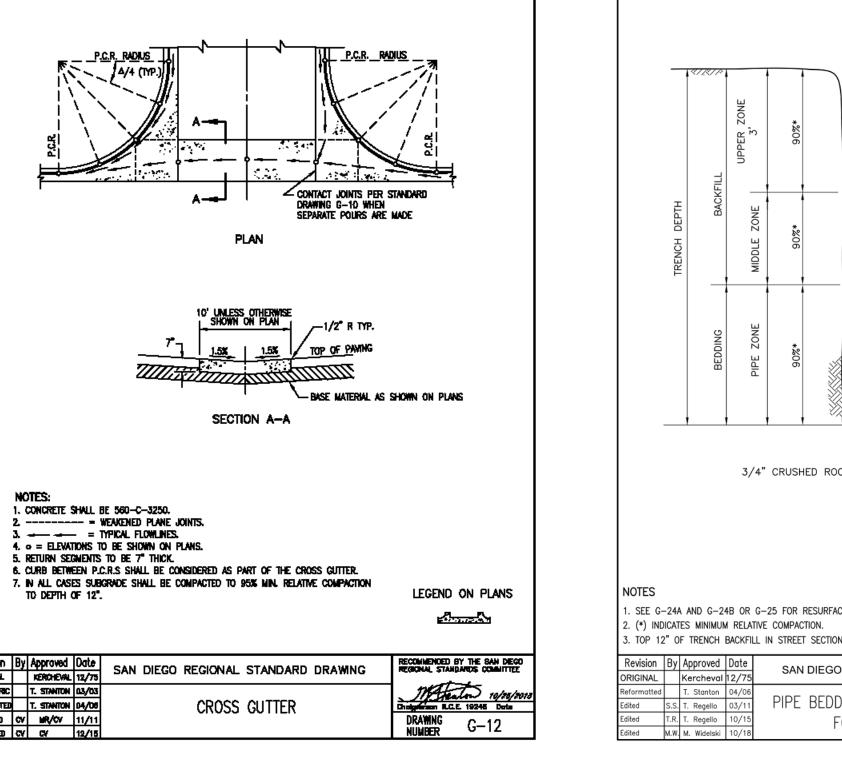


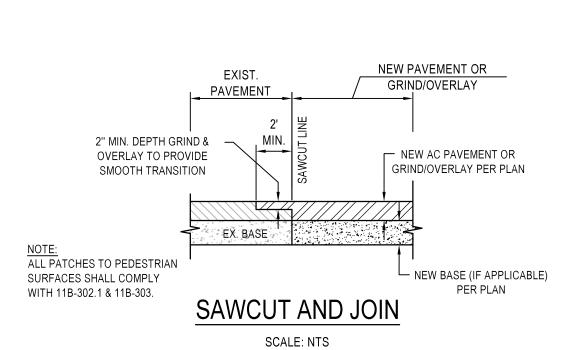
NOTES

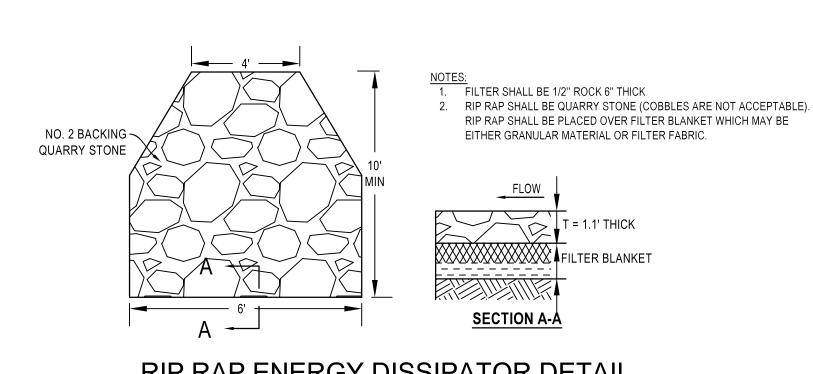
1. SEE G-24A AND G-24B OR G-25 FOR RESURFACING DETAILS ON IMPROVED STREETS.

2. (\*) INDICATES MINIMUM RELATINE COMPACTION UNLESS SPECIFIED OTHERWISE.

Revision By Approved Date
ORIGINAL Kerchevol 12/75
Edited S.S. 1. Regulo 03/15
Edited N.K. 1. Signato 03/15
Edited N.K. 1. T. Regulo 10/15
Edited N.K. M. Witchield 10/15
Edited N.K. M. Witchield 10/15
Edited N.K. 1. T. Regulo 10/15
Edited N.K. M. Witchield 10/15
Edited N.K. M. Witchield 10/15
Edited N.K. 1. T. Regulo 10/15
Edited N.K. 1. Regulo 10/15
Edited N.K. 1

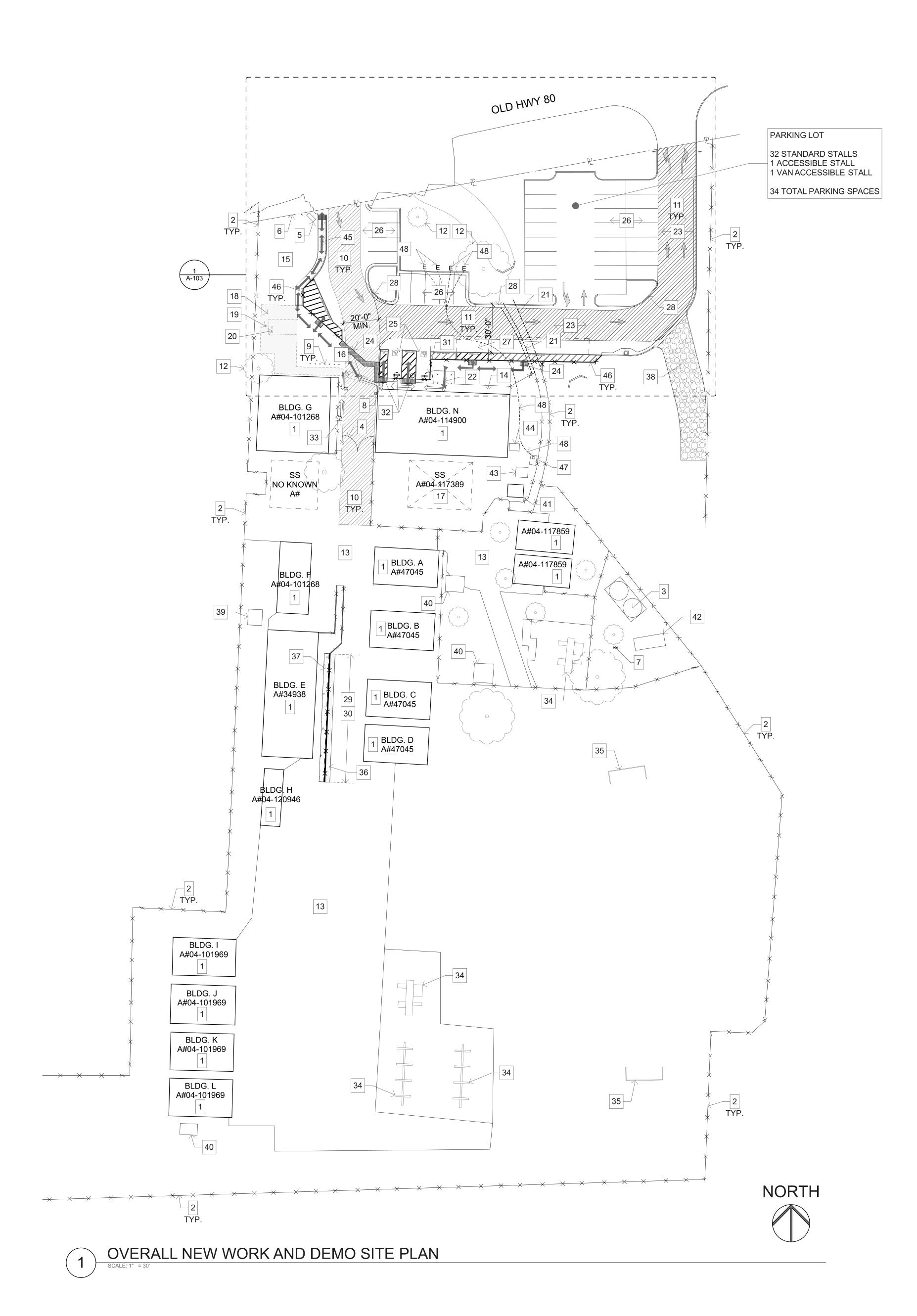






RIP RAP ENERGY DISSIPATOR DETAIL
SCALE: NTS



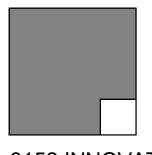


# **NOTES**

- EXISTING BUILDING TO REMAIN N.I.C.
- EXISTING CHAIN LINK FENCING TO REMAIN. EXISTING WATER TANKS WITH EXISTING FIRE DEPARTMENT
- CONNECTION TO REMAIN. EXISTING 20'-0" WIDE VEHICULAR GATE TO REMAIN.
- EXISTING MARQUEE SIGN TO REMAIN.
- LOCATION OF EXISTING TOW-AWAY SIGN TO REMAIN PER DSA APPROVED A#04-114900 AND DETAIL 10/A-104.
- EXISTING MUELLER 250 H/S HYDRANT. ONE WAY HYDRANT FOR 2 1/2" HOSE NOZZLE - TO REMAIN.
- DEMO AND REMOVE EXISTING TRUNCATED DOMES. EXISTING 4" DIA. STEEL BOLLARD (GALV.) 36" O.C. TO REMAIN.
- EXISTING FIRE LANE TO REMAIN.
- 11. FIRE ACCESS LANE, 20'-0" MIN. WIDE.
- 12. EXISTING TREE TO REMAIN.
- EXISTING AC PAVING TO REMAIN.
- EXISTING CONCRETE PAVING TO REMAIN. 15. EXISTING D.G. TO REMAIN.
- 16. EXISTING PATH OF TRAVEL PER DSA APPROVED A#04-114900. 17. LOCATION OF EXISTING SHADE SHELTER PER DSA APPROVED
- 18. SHADING INDICATES STRIPING TO BE BLACKED OUT.
- 19. DEMO AND REMOVE EXISTING ACCESSIBLE PARKING SIGNAGE.
- 20. DEMO AND REMOVE EXISTING WHEELSTOP.
- DEMO AND REMOVE EXISTING CHAIN LINK FENCING.
- 22. PROPOSED PATH OF TRAVEL.
- 23. NEW AC PAVING PER DETAILS 1, 2 & 3/A-105 AND CIVIL DRAWINGS. 24. NEW TRUNCATED DOMES PER DETAIL 6/A-104.
- 25. NEW ACCESSIBLE PARKING STALLS PER ENLARGED PARKING PLAN SHEET A-104.
- 26. NEW STANDARD PARKING STALLS PER NEW WORK PARKING PLAN 27. NEW ACCESSIBLE DROP-OFF ZONE PER ENLARGED PARKING PLAN
- SHEET A-104 AND DETAIL 14/A-104. 28. NEW 4" WIDE PAINTED RED STRIPING. STENCIL 4" HIGH WHITE LETTERING TO READ "NO PARKING-FIRE LANE" AT 30" O.C. AS REQUIRED BY FIRE MARSHAL. REFER TO CIVIL DRAWINGS FOR
- THICKENED PAVEMENTS AT ACCESS LANE. 29. REMOVE EXISTING 30" HIGH MAX. WOOD RETAINING WALL AND 5'-0" HIGH CHAIN LINK FENCE ABOVE.
- 30. NEW 30" HIGH MAX. CMU RETAINING WALL WITH 4'-0" HIGH CHAIN
- LINK FENCE AT TOP PER DETAILS 12/A-105 AND 12/S1.0. 31. REMOVE PRECAST CONCRETE PLANTER.
- 32. REMOVE PRE-CAST CONCRETE SPHERE BOLLARD.
- 33. EXISTING PEDESTRIAN GATE TO REMAIN PER DSA APPROVED A#04-
- 34. EXISTING PLAYGROUND EQUIPMENT TO REMAIN.
- 35. EXISTING PORTABLE SOCCER GOAL TO REMAIN.
- 36. SAWCUT. REMOVE AND REPLACE EXISTING 3" THICK ASPHALT PAVING FOR REMOVAL AND REPLACEMENT OF RETAINING WALL
- SAWCUT, REMOVE, AND REPLACE EXISTING 4" THICK CONCRETE WALK FOR REMOVAL AND REPLACEMENT OF RETAINING WALL. REFER TO DETAIL 4/A-105.
- 38. NEW GRAVEL PAVING PER CIVIL DRAWINGS.
- 39. EXISTING WELL ENCLOSURE TO REMAIN.
- 40. EXISTING MOBILE CANOPY TO REMAIN.
- 41. EXISTING PLAYGROUND PLAYHOUSE TO REMIAN. EXISTING PUMP HOUSE FOR STORAGE TANKS TO REMAIN.
- 43. EXISTING ELECTRICAL EQUIPMENT TO REMAIN.
- 44. EXISTING TRANSFORMER TO REMAIN.
- 45. NEW 4" RAISED CONCRETE WALK PER DETAIL 5/A-105 46. NEW 4'-0" HIGH CHAIN LINK FENCE PER DETAIL 6/A-105
- 47. EXISTING 3000A ELECTRICAL MAIN SWITCHBOARD (1500A EXISTING
- CONNECTED LOAD 200A REQUIRED CAPACITY FOR FUTURE EV CHARGING). 48. NEW (4) - 3" C. FOR FUTURE EV CHARGING STATIONS TERMINATED
- IN UNDERGROUND PULLBOXES AT PARKING STALLS AND AT COMMON PULLBOX ADJACENT TO EXISTING MAIN ELECTRICAL SWITCHBOARD PER KEYNOTE 47.

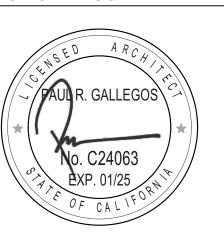
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# **GENERAL NOTES**

- ALL LANDSCAPE AREAS, PAVING, AND SURFACING DISTURBED BY THE WORK OF THIS CONTRACT SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR TO ORIGINAL INDUSTRY STANDARD OF QUALITY.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO ELECTRICAL SIGNAL, PLUMBING, ETC. THE CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING UTILITIES DURING CONSTRUCTION AND/OR
- TRENCHING. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

# SITE ACCESSIBILITY NOTES

- DASHED LINE INDICATES ACCESSIBLE PATH OF TRAVEL WHICH SHALL BE A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAX SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM, AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM THE WALL AND ABOVE 27" AND LESS THAN 80" PER CBC 11B-202.4.
  - PER DSA APPROVED A#04-114900

SEE: (E)

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS, AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND,

2) THE CORRECTIVE WORK NECCESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS.

ANY NONCOMPLIANT ELEMENT, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCOMFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

- 3. FOR ALL GRATINGS LOCATED IN THE SURFACE OF ANY PEDESTRIAN WAY IN THE PATH OF TRAVEL, THE GRID/OPENINGS IN THE GRATINGS SHALL BE LIMITED TO 1/2" MAXIMUM IN THE DIRECTION OF TRAFFIC FLOW.
- 4. GATES AT THE PATH OF TRAVEL SHALL COMPLY WITH EXIT DOOR REQUIREMENTS.
- 5. MANUAL CANE BOLTS, MANUALLY LOCKING HARDWARE, CHAINS, ETC. ARE NOT ALLOWED ON GATES WITH PANIC HARDWARE.

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_	PROJE	CT NO: #Plr	1			

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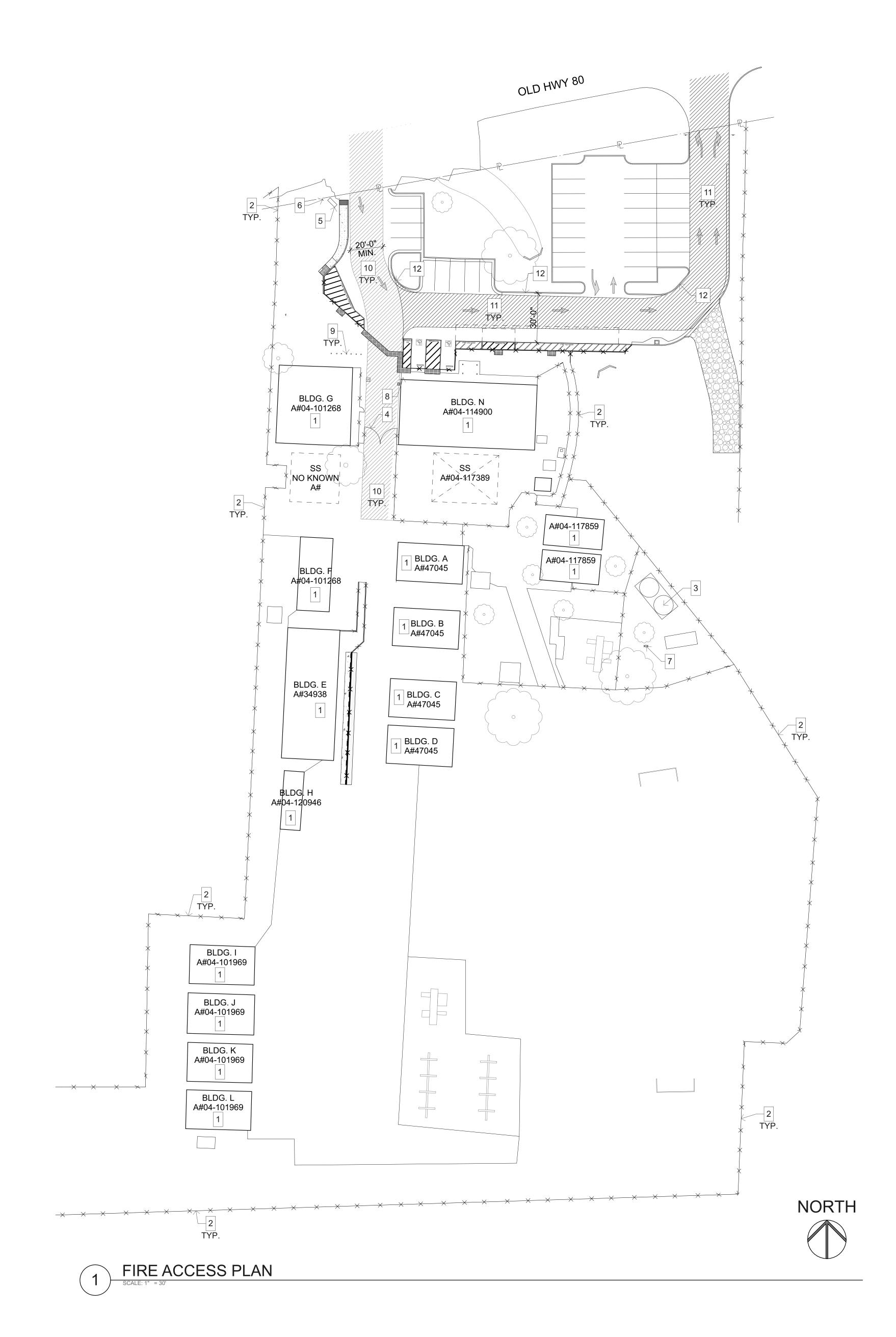
PLOT DATE:

Clover Flat ES Parking Lot.pln

3/3/2023

SHEET TITLE

**OVERALL SITE DEMO** AND NEW WORK PLAN



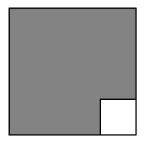
# NOTES

- EXISTING BUILDING TO REMAIN N.I.C.
- EXISTING CHAIN LINK FENCING TO REMAIN.EXISTING WATER TANKS WITH EXISTING FIRE DEPARTMENT
- CONNECTION TO REMAIN.
- 4. EXISTING 20'-0" WIDE VEHICULAR GATE TO REMAIN.
  5. EXISTING MONUMENT BOARD TO REMAIN
- 5. EXISTING MONUMENT BOARD TO REMAIN.6. LOCATION OF EXISTING TOW-AWAY SIGN TO REMAIN.
- 7. EXISTING MUELLER 250 H/S HYDRANT. ONE WAY HYDRANT FOR 2
- 1/2" HOSE NOZZLE TO REMAIN.8. EXISTING TRUNCATED DOMES TO REMAIN.
- 9. EXISTING 4" DIA. STEEL BOLLARD (GALV.) 36" O.C. TO REMAIN.10. EXISTING FIRE LANE TO REMAIN.
- 10. EXISTING FIRE LANE TO REMAIN.11. NEW FIRE DEPARTMENT ACCESS LANE INDICATED WITH CROSS
- HATCHING 20' MINIMUM WIDTH.

  12. NEW 4" WIDE PAINTED RED STRIPING. STENCIL 4" HIGH WHITE LETTERING TO READ "NO PARKING-FIRE LANE" AT 30" O.C. AS REQUIRED BY FIRE MARSHAL. REFER TO CIVIL DRAWINGS FOR THICKENED PAVEMENTS AT ACCESS LANE.



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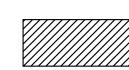
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LEGEND



FIRE ACCESS LANE 20'-0" MINIMUM UNOBSTRUCTED WIDTH AND UNOBSTRUCTED VERTICAL CLEARANCE OF NOT LESS THAN 13'-6".



FIRE HYDRANT

# GENERAL NOTES

FIRE APPARATUS ACCESS ROADS SHALL BE 7" OF CONCRETE PAVING OVER 6" OR MORE OF AGGREGATE BASE MATERIAL PER CIVIL DRAWINGS AS DESIGNED PER GEOTECHNICAL RECOMMENDATIONS TO SUPPORT THE IMPOSED LOADS OF FIRE APPARATUS (NOT LESS THAN 50,000 LBS.)

M DSA

810

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1–3 below is to be provided for all project types indicated above. Information associated with items 4–7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the local fire authority (LFA) is only required when an alternate design means is being requested.

Page 1 of the completed form must be imaged onto the fire access site plan. When an alternate design/means is proposed, completed pages 1 and 2 are to be imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and <a href="DSA Policy 09-01">DSA Policy 09-01</a>.

	OJECT INFORMA					
		MOUNTAIN EMPIRE UNIFIED SCHOOL DISTRICT				
Proj	ject Name/School:	CLOVER FLAT ES - PARKING LOT UPGRADES				
Proj	ject Address:	39639 OLD HWY 80, BOULEVARD, CA 91905				
FIR	E & LIFE SAFETY	INFOMATION				
1.		t flow test been performed within the past 12 months? copy of the test data.)	Yes □			No
2.	Was the fire hydr	ant water flow test performed as part of this LFA review?	Yes □			No
3.		ated within a designated fire hazard severity zone as al-Fire? (If yes, indicate fire hazard zone classification below)	Yes 🛚			No
		ving for fire hazard zone locations: ire prevention/fire prevention wildland zones maps	Modera		High □	Vei <b>⊠</b>
		e Area (WIFA) (If any designations are checked, project design CBC Chapter 7A.)	n must m	eet th	he	WII
СО	NDITION MEAN	S AND METHODS RESOLUTION	AL	TER	NATE	ACC
			Ye	s	No	N/A
4.	Emergency ve	hicle access roadways do not meet CFC requirements.				Х
	J,					-

		100	110	1 4// 1	14/11
4.	Emergency vehicle access roadways do not meet CFC requirements.			X	
4a.	Acceptable Alternate: Emergency vehicle and personnel access as				
	proposed by the project architect is acceptable for providing fire				
	suppression and protection of life and property.				
5.	Fire Hydrants: Number and spacing does not meet CFC requirements.			Х	
5a.	Acceptable Alternate: Number of fire hydrants and spacing as proposed				
	by the project architect is acceptable for fire suppression and protection				
	of life and property.				
6.	Fire Hydrants: Water flow and pressure are less than CFC minimum.			X	
6a.	Acceptable Alternate: The available flow and pressure is acceptable for				
	providing fire suppression and protection of life and property.				
7.	Location of fire department connection(s) serving fire sprinkler systems or			V	
	standpipe systems does not meet CFC requirements.			_ ^	
7a.	Acceptable Alternate: The location of fire department connection				
	serving the fire sprinkler system and/or standpipe system is acceptable				
	for providing fire suppression and protection of life and property.				

REVISIONS

MARK DATE DESCRIPTION

PROJECT NO: #PIn

PROJECT NO: #PIn

MODEL FILE:
Clover Flat ES Parking Lot.pln

PLOT DATE: 3/3/2023

SHEET TITLE

FIRE ACCESS PLAN

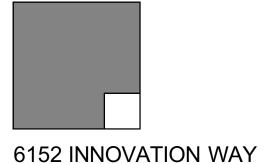
NEW WORK PARKING PLAN

# NOTES

- EXISTING BUILDING TO REMAIN N.I.C.
- 2. EXISTING CHAIN LINK FENCING TO REMAIN.
- EXISTING MONUMENT BOARD TO REMAIN. 4. LOCATION OF EXISTING TOW-AWAY SIGN TO REMAIN PER DSA APPROVED A#04-114900 AND DETAIL 10/A-104.
- NOT USED EXISTING 4" DIA. STEEL BOLLARD (GALV.) 36" O.C. TO REMAIN.
- EXISTING FIRE LANE TO REMAIN.
- FIRE ACCESS LANE, 20'-0" MIN. WIDE. 9. EXISTING TREE TO REMAIN.
- 10. EXISTING AC PAVING TO REMAIN.
- 11. EXISTING CONCRETE PAVING TO REMAIN.
- 12. EXISTING D.G. TO REMAIN. 13. EXISTING PATH OF TRAVEL PER DSA APPROVED A#04-117389. 14. PROPOSED PATH OF TRAVEL.
- 15. NEW AC PAVING PER DETAILS 1, 2 & 3/A-105 AND CIVIL DRAWINGS. 16. NEW TRUNCATED DOMES PER DETAIL 6/A-104.
- 17. NEW ACCESSIBLE PARKING STALLS PER ENLARGED PARKING PLAN SHEET A-104.
- 18. NEW STANDARD PARKING STALLS 4" WIDE WHITE PAINTED LINES. 19. NEW ACCESSIBLE DROP-OFF ZONE PER ENLARGED PARKING PLAN SHEET A-104 AND DETAIL 14/A-104.
- 20. NEW 4" WIDE PAINTED RED STRIPING. STENCIL 4" HIGH WHITE LETTERING TO READ "NO PARKING-FIRE LANE" AT 30" O.C. AS REQUIRED BY FIRE MARSHAL. REFER TO CIVIL DRAWINGS FOR
- THICKENED PAVEMENTS AT ACCESS LANE. 21. NEW DIRECTIONAL ARROWS PAINTED WHITE ON AC PAVING.
- 22. PROVIDE NEW WHITE STRIPES DIAGONAL 4" WIDE AT 36" O.C. 23. NEW 4" WIDE PAINTED WHITE STRIPING.
- 24. NEW 12" HIGH PAINTED WHITE "NO PARKING BUS LOADING ONLY".
- 25. NEW 12" HIGH PAINTED WHITE "DROP-OFF ONLY". 26. EXISTING DRAINAGE CONCRETE HEADWALL TO REMAIN.
- 27. NEW DRAINAGE CONCRETE HEADWALL PER CIVIL DRAWINGS. 28. CONCRETE CURB AND/OR CURB-GUTTER PER CIVIL DRAWINGS.
- 29. EDGE OF ASPHALT PAVING PER DETAIL 1/A-105.
- 30. NEW GRAVEL PAVING PER CIVIL DRAWINGS.
- 31. NEW STORM DRAIN INLET PER CIVIL DRAWINGS. 32. NEW "ONE-WAY ONLY - DO NOT ENTER" TRAFFIC SIGN ON STD. 2-7/8" O.D. ALUMINUM ALLOY POLE W/ 12" DIA. X 36" DEEP CONCRETE
- 33. NEW 4" RAISED CONCRETE WALK PER DETAIL 5/A-105 AND CIVIL
- DRAWINGS. 34. NEW 4'-0" HIGH CHAIN LINK FENCE PER DETAIL 6/A-105.
- 35. NEW (4) 3" C. FOR FUTURE EV CHARGING STATIONS TERMINATED IN UNDERGROUND PULLBOXES AT PARKING STALLS AND AT COMMON PULLBOX ADJACENT TO EXISTING MAIN ELECTRICAL SWITCHBOARD PER KEYNOTE 47.

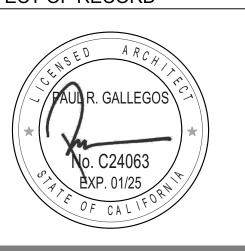
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 04-121384 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 03/08/2023

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# GENERAL NOTES

- WORK OF THIS CONTRACT SHALL BE REPAIRED AND/OR REPLACED BY THE CONTRACTOR TO ORIGINAL INDUSTRY STANDARD OF QUALITY. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO ELECTRICAL SIGNAL, PLUMBING, ETC. THE CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING UTILITIES DURING CONSTRUCTION AND/OR TRENCHING.
- GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

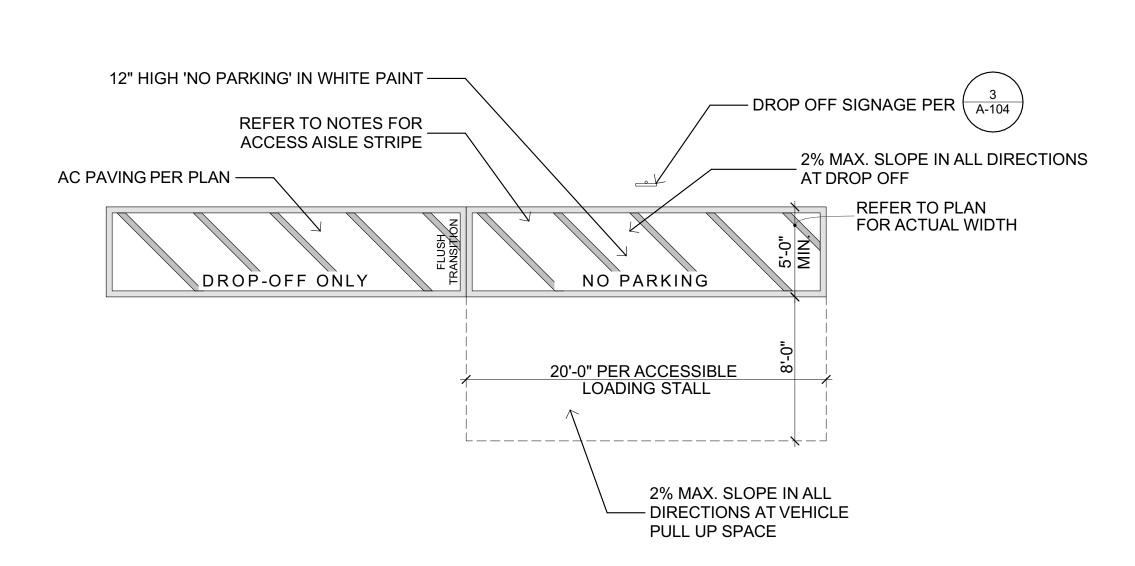
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PROJECT NO: #PIn MODEL FILE: Clover Flat ES Parking Lot.pln

PLOT DATE: 3/3/2023

SHEET TITLE

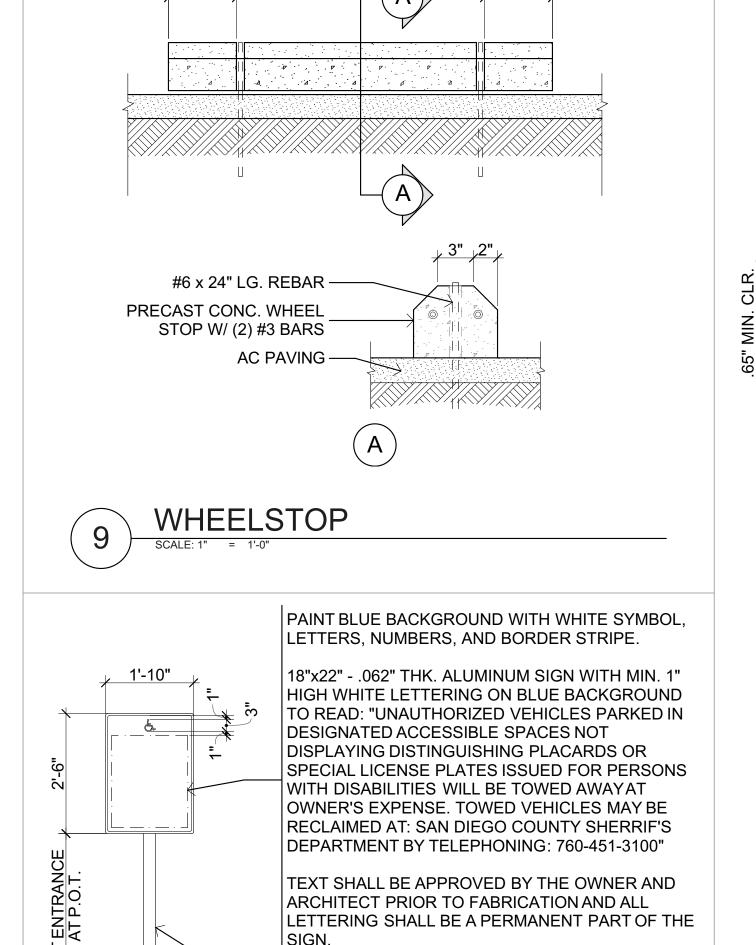
NEW WORK PARKING PLAN



#### **GENERAL DROP OFF NOTES**

- 1. VEHICLE PULL-UP SPACES SHALL BE 8'-0" X 20'-0" MINIMUM. 2. ACCESS AISLES SHALL HAVE 5'-0" WIDE MINIMUM BY FULL LENGTH OF VEHICLE PULL UP SPACES. THEY SHALL BE AT THE
- SAME LEVEL WITH EACH OTHER AND WITH SLOPES NOT STEEPER THAN 1:48 IN ANY DIRECTION. ACCESS AISLE SHALL ADJOIN AN ACCESSIBLE ROUTE AND SHALL NOT OVERLAP THE VEHICULAR WAY.
- 3. ACCESS AISLES FOR PASSENGER DROP-OFF AND LOADING ZONE SHALL BE MARKED WITH A PAINTED BORDERLINE AROUND THE PERIMETER. THE AREA WITHIN THE BORDERLINES SHALL BE MARKED WITH HATCHED LINES A MAX. OF 36" ON CENTER IN A COLOR CONTRASTING WITH THAT OF THE AISLE SURFACE. WHITE INTERIOR HATCH LINES SHALL BE PROVIDED FOR CONCRETE SURFACES AND WHITE INTERIOR HATCH LINES SHALL BE PROVIDED FOR ASPHALT SURFACES.

WHERE WHITE LINES ARE USED, HATCH SHALL BE INTERUPTED AT 12" HIGH 'NO PARKING' TEXT FOR LEGIBILITY. 4. A VERTICAL CLEARANCE OF 9'-0" MIN. SHALL BE PROVIDED FOR VEHICLE PULL-UP SPACES, ACCESS AISLES SERVING THEM, AND A VEHICULAR ROUTE CONNECTING A VEHICULAR ENTRANCE AND A VEHICULAR EXIT.



- 1-1/2" DIA. STEEL PIPE SIGN POST

1. ALL STEEL SHALL BE GALVANIZED.

2. SPACE BETWEEN TEXT LINES SHALL BE 5/16".

CONCRETE FOOTING

ACS TOW AWAY SIGN

SCALE: 1/2" = 1'-0"

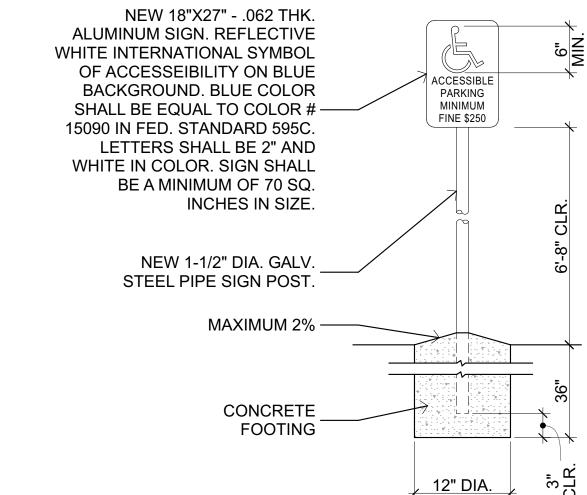
FIN. SURFACE — -.9" AT BASE **APART** SECTION A TAPERED EDGES WHERE EXPOSED FLUSH TRANSITION 0 MAINTAIN REQUIRED DIMENSIONS OVERALL WIDTH 3'-0" IN DIRECTION OF TRAVEL @ ADJACENT TILES (2.35") NOT TO SCALE

> 1) TRUNCATED DOMES DETECTABLE WARNING STRIP TO BE MANUFACTURED BY SAFETY STEP TD - SAFETY STEP TD, TRADITIONAL SSTD-MAT SYSTEM OR EQUAL. 2) COLOR TO BE YELLOW AND APPROXIMATE 33538 OF SAE AMS-STD-595A. 3) DETECTABLE WARNING SURFACES SHALL COMPLY WITH CBC

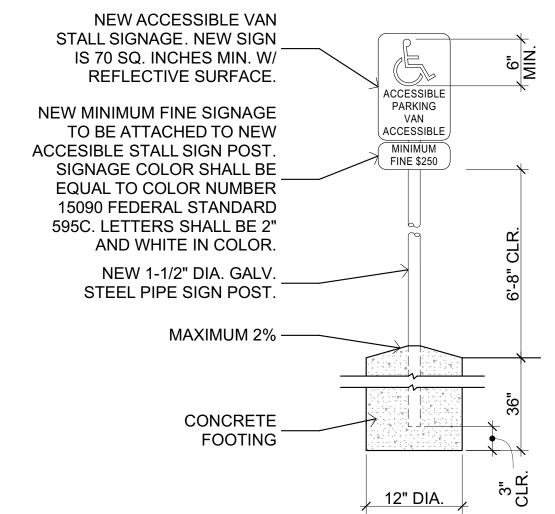
DSA WILL PROVISIONALLY ACCEPT A WRITTEN FIVE (5) YEAR PRODUCT WARRANTY PROVIDED BY THE MANUFACTURER OF DETECTABLE WARNING AND DIRECTIONAL SURFACE PRODUCTS AS EQUIVALENT TO THE EVALUATION AND PRODUCT APPROVAL PROGRAM. SUCH WARRANTY SHALL INDICATE COMPLIANCE WITH ARCHITECTURAL STANDARDS AS PUBLISHED IN THE CURRENT EDITION OF THE CALIFORNIA BUILDING STANDARDS CODE, AND ALSO INCLUDE DURABILITY CRITERIA WHICH INDICATES THAT THE SHAPE, COLOR, FASTNESS, CONFIRMATION, SOUND-ON-CANE ACOUSTIC QUALITY, RESILIENCE AND ATTACHMENT WILL NOT DEGRADE SIGNIFICANTLY FOR AT LEAST FIVE (5) YEARS AFTER INITIAL INSTALLATION. AS USED IN THIS BULLETIN, "DEGRADE SIGNIFICANTLY" MEANS THAT THE PRODUCT MAINTAINS AT LEAST 90 PERCENT OF ITS APPROVED DESIGN CHARACTERISTICS, AS DETERMINED BY THE ENFORCING AGENCY.

TRUNCATED DOMES

SCTION 11B-705.1.



ACS STD STALL SIGN



ACS VAN STALL SIGN

SCALE: 1" = 1'-0"

ALPHASTUDIO DESIGN GROUP 6152 INNOVATION WAY CARLSBAD, 92009 760-431-2444 www.alphastudio-design.com ARCHITECT OF RECORD , 12" DIA. **ENGINEER OF RECORD** 

# **NOTES**

1. EXISTING BUILDING TO REMAIN - N.I.C.

NOT USED.

EXISTING FIRE LANE TO REMAIN. FIRE ACCESS LANE, 20'-0" MIN. WIDE.

EXISTING AC PAVING TO REMAIN.

EXISTING CONCRETE PAVING TO REMAIN

ACCESSIBLE DROP OFF

EXISTING PATH OF TRAVEL PER DSA APPROVED A#04-117389. PROPOSED PATH OF TRAVEL.

NEW AC PAVING PER DETAILS 1, 2 & 3/A-105 AND CIVIL DRAWINGS.

NEW TRUNCATED DOMES PER DETAIL 6/A-104

NEW ACCESSIBLE DROP-OFF ZONE PER DETAIL 14/A-104

12. NEW DROP-OFF ZONE SIGNAGE PER DETAIL 3/A-104.

NEW CONCRETE WHEELSTOP PER DETAIL 9/A-104.

NEW ACCESS AISLE WITH 4" BLUE BORDERS AND 4" PAINTED

WHITE DIAGONAL STRIPES 36" O.C. TYP. ACCESS AISLES SHALL HAVE 2% MAX SLOPE IN ALL DIRECTIONS.

15. NEW 12" HIGH PAINTED WHITE "NO PARKING".

NEW 36" SQUARE ISA SYMBOL PER DETAIL 4/A-104.

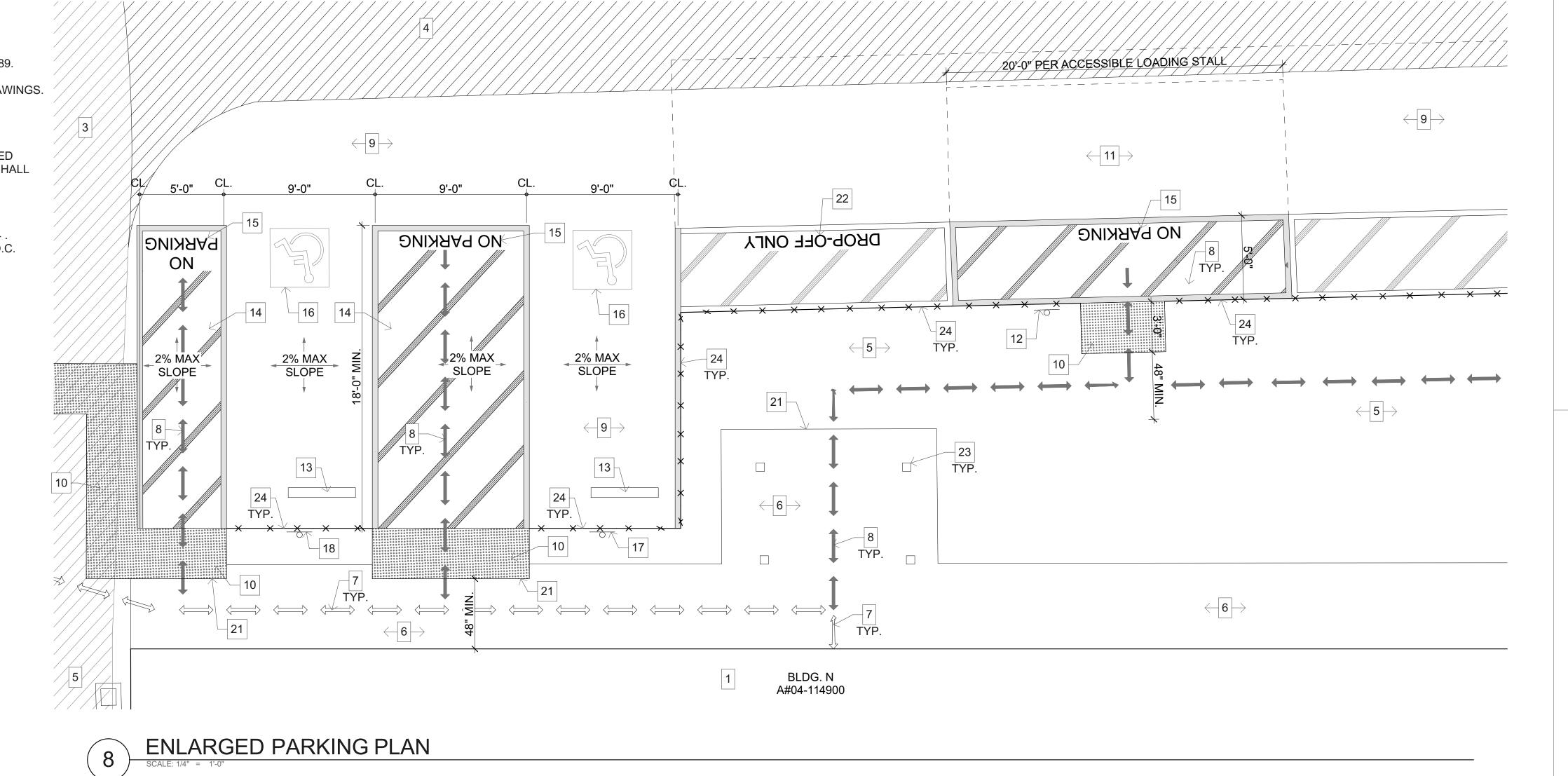
NEW ACCESSIBLE STALL SIGNAGE PER DETAIL 1/A-104. NEW VAN ACCESSIBLE STALL SIGNAGE PER DETAIL 2/A-104.

PROVIDE NEW WHITE STRIPES DIAGONAL 4" WIDE AT 36" O.C. NEW 4" WIDE PAINTED WHITE STRIPING.

21. FLUSH CONDITION.

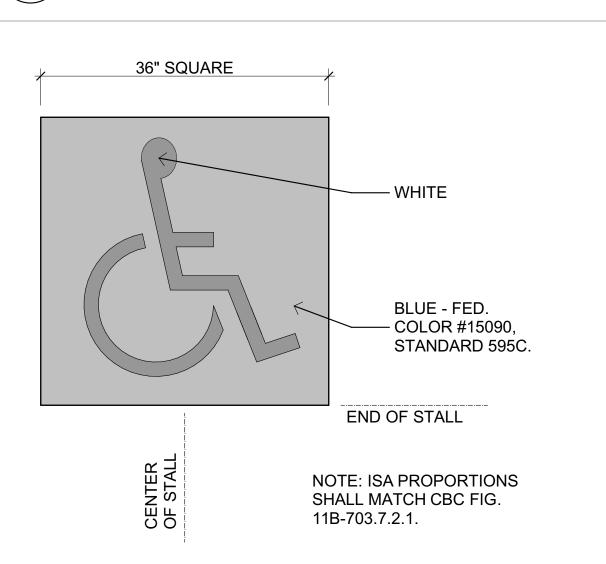
NEW 12" HIGH PAINTED WHITE "DROP-OFF ONLY".

EXISTING BUILDING ENTRY OVERHANG POST TO REMAIN. 24. NEW 4'-0" HIGH CHAIN LINK FENCE PER DETAIL 6/A-105



NEW 18"X27" - .062 THK ALUMINUM SIGN. REFLECTIVE WHITE INTERNATIONAL SYMBOL OF ACCESSEIBILITY ON BLUE BACKGROUND. BLUE COLOR DROP OFF SHALL BE EQUAL TO COLOR # -15090 IN FED. STANDARD 595C. LETTERS SHALL BE 2" AND WHITE IN COLOR. SIGN SHALL BE A MINIMUM OF 70 SQ. INCHES IN SIZE. NEW 1-1/2" DIA. GALV. STEEL PIPE SIGN POST. MAXIMUM 2% — CONCRETE FOOTING , 12" DIA.

DROP OFF SIGNAGE



4 ACS PAVEMENT MARKING

SCALE: 1" = 1'-0"

S ES

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC

REVIEWED FOR

SS 🗹 FLS 🗹 ACS 🗹

APP: 04-121384 INC:

DATE: 03/08/2023

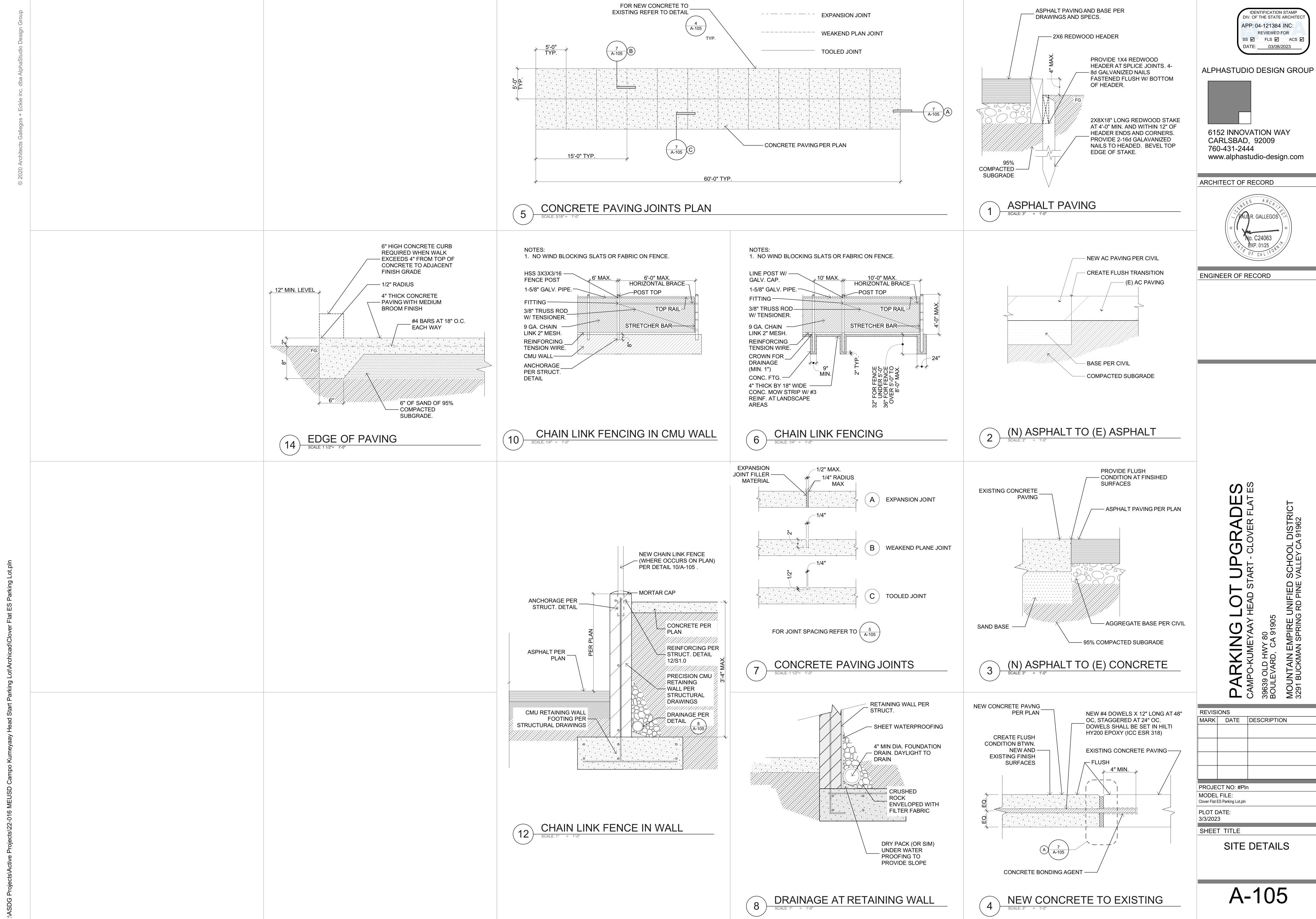
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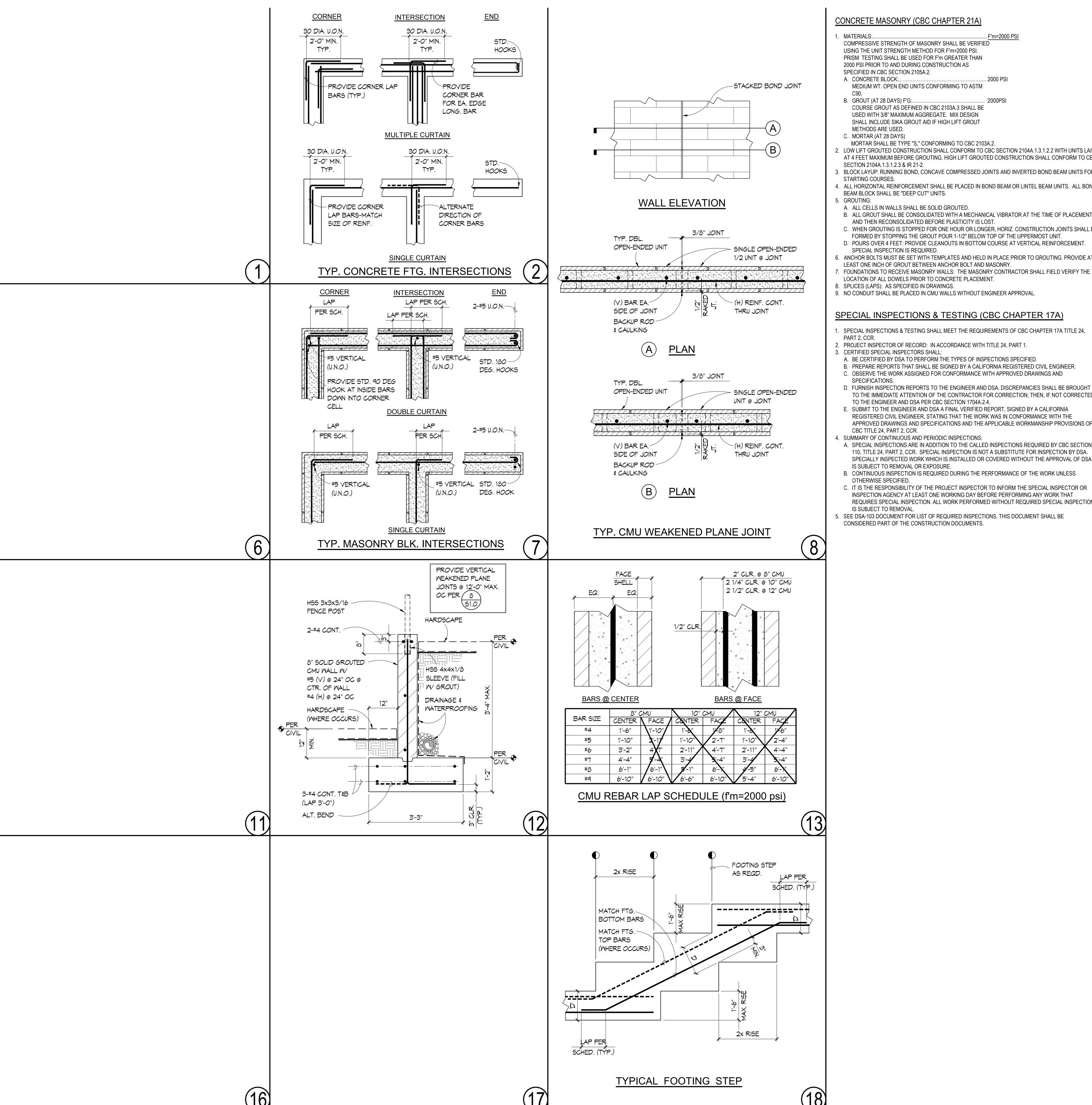
Clover Flat ES Parking Lot.pln

PLOT DATE: 3/3/2023

SHEET TITLE

SITE ACCESSIBILITY **DETAILS** 





#### **CONCRETE MASONRY (CBC CHAPTER 21A)**

- MATERIALS:... COMPRESSIVE STRENGTH OF MASONRY SHALL BE VERIFIED
- USING THE UNIT STRENGTH METHOD FOR F'm=2000 PSI. PRISM TESTING SHALL BE USED FOR F'm GREATER THAN 2000 PSI PRIOR TO AND DURING CONSTRUCTION AS SPECIFIED IN CBC SECTION 2105A.2.
- A. CONCRETE BLOCK:... MEDIUM WT. OPEN END UNITS CONFORMING TO ASTM
- B. GROUT (AT 28 DAYS) F'G:. COURSE GROUT AS DEFINED IN CBC 2103A.3 SHALL BE USED WITH 3/8" MAXIMUM AGGREGATE. MIX DESIGN SHALL INCLUDE SIKA GROUT AID IF HIGH LIFT GROUT
- METHODS ARE USED. C. MORTAR (AT 28 DAYS)
- MORTAR SHALL BE TYPE "S," CONFORMING TO CBC 2103A.2.
- 2. LOW LIFT GROUTED CONSTRUCTION SHALL CONFORM TO CBC SECTION 2104A.1.3.1.2.2 WITH UNITS LAID AT 4 FEET MAXIMUM BEFORE GROUTING. HIGH LIFT GROUTED CONSTRUCTION SHALL CONFORM TO CBC SECTION 2104A.1.3.1.2.3 & IR 21-2.
- BLOCK LAYUP: RUNNING BOND, CONCAVE COMPRESSED JOINTS AND INVERTED BOND BEAM UNITS FOR STARTING COURSES.
- 4. ALL HORIZONTAL REINFORCEMENT SHALL BE PLACED IN BOND BEAM OR LINTEL BEAM UNITS. ALL BOND BEAM BLOCK SHALL BE "DEEP CUT" UNITS.
- 5. GROUTING: A. ALL CELLS IN WALLS SHALL BE SOLID GROUTED.
- B. ALL GROUT SHALL BE CONSOLIDATED WITH A MECHANICAL VIBRATOR AT THE TIME OF PLACEMENT AND THEN RECONSOLIDATED BEFORE PLASTICITY IS LOST.
- C. WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER, HORIZ. CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE GROUT POUR 1-1/2" BELOW TOP OF THE UPPERMOST UNIT.
- D. POURS OVER 4 FEET: PROVIDE CLEANOUTS IN BOTTOM COURSE AT VERTICAL REINFORCEMENT. SPECIAL INSPECTION IS REQUIRED.
- ANCHOR BOLTS MUST BE SET WITH TEMPLATES AND HELD IN PLACE PRIOR TO GROUTING. PROVIDE AT LEAST ONE INCH OF GROUT BETWEEN ANCHOR BOLT AND MASONRY FOUNDATIONS TO RECEIVE MASONRY WALLS: THE MASONRY CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL DOWELS PRIOR TO CONCRETE PLACEMENT.
- 8. SPLICES (LAPS): AS SPECIFIED IN DRAWINGS. 9. NO CONDUIT SHALL BE PLACED IN CMU WALLS WITHOUT ENGINEER APPROVAL.

#### SPECIAL INSPECTIONS & TESTING (CBC CHAPTER 17A)

- . SPECIAL INSPECTIONS & TESTING SHALL MEET THE REQUIREMENTS OF CBC CHAPTER 17A TITLE 24,
- PROJECT INSPECTOR OF RECORD: IN ACCORDANCE WITH TITLE 24, PART 1. CERTIFIED SPECIAL INSPECTORS SHALL:
- A. BE CERTIFIED BY DSA TO PERFORM THE TYPES OF INSPECTIONS SPECIFIED.
- B. PREPARE REPORTS THAT SHALL BE SIGNED BY A CALIFORNIA REGISTERED CIVIL ENGINEER. C. OBSERVE THE WORK ASSIGNED FOR CONFORMANCE WITH APPROVED DRAWINGS AND SPECIFICATIONS.
- TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION: THEN, IF NOT CORRECTED TO THE ENGINEER AND DSA PER CBC SECTION 1704A.2.4. E. SUBMIT TO THE ENGINEER AND DSA A FINAL VERIFIED REPORT, SIGNED BY A CALIFORNIA
- REGISTERED CIVIL ENGINEER, STATING THAT THE WORK WAS IN CONFORMANCE WITH THE APPROVED DRAWINGS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF CBC TITLE 24, PART 2, CCR.
- SUMMARY OF CONTINUOUS AND PERIODIC INSPECTIONS: A. SPECIAL INSPECTIONS ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY CBC SECTION
- 110, TITLE 24, PART 2, CCR. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY DSA. SPECIALLY INSPECTED WORK WHICH IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF DSA IS SUBJECT TO REMOVAL OR EXPOSURE.
- B. CONTINUOUS INSPECTION IS REQUIRED DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED.
- C. IT IS THE RESPONSIBILITY OF THE PROJECT INSPECTOR TO INFORM THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY BEFORE PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION. ALL WORK PERFORMED WITHOUT REQUIRED SPECIAL INSPECTION IS SUBJECT TO REMOVAL.
- 5. SEE DSA-103 DOCUMENT FOR LIST OF REQUIRED INSPECTIONS. THIS DOCUMENT SHALL BE CONSIDERED PART OF THE CONSTRUCTION DOCUMENTS.

#### **GENERAL NOTES**

- 1. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THESE STANDARD STRUCTURAL NOTES. TYPICAL DETAILS SHALL BE USED WHENEVER APPLICABLE. REFER TO SPECIFICATIONS FOR INFORMATION NOT COVERED BY THESE NOTES OR DRAWINGS. THESE NOTES
- TAKE PRECEDENCE OVER ANY OTHER BOOK SPECIFICATIONS. P. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, AND SITE CONDITIONS BEFORE STARTING WORK, AND THE ENGINEER/ ARCHITECT SHALL BE IMMEDIATELY NOTIFIED, IN WRITING, OF ANY DISCREPANCIES. IN NO CASE SHALL DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS
- ON THE STRUCTURAL DRAWINGS. 3. ALL OMISSIONS AND CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE DRAWINGS AND/OR
- SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF, AND RESOLVED WITH, THE ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- 4. WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- 5. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN THE AREA TO BE EXCAVATED, BEFORE BEGINNING EXCAVATION.
- 6. NO PIPES, DUCTS, SLEEVES, CHASES, ETC. SHALL BE PLACED IN SLABS, BEAMS, OR WALLS, NOR SHALL ANY STRUCTURAL MEMBER BE CUT FOR PIPES, DUCTS, ETC. THE CONTRACTOR SHALL OBTAIN PRIOR
- APPROVAL FOR INSTALLATION OF ANY ADDITIONAL PIPES, DUCTS, ETC. 7. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE 2019 CALIFORNIA BUILDING CODE (CBC), TITLE 24, PART 2, CCR WITH CALIFORNIA AMENDMENTS
- 8. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE ENGINEER FREE AND
- THE PERFORMANCE OF WORK ON THIS PROJECT. RETAIN A CALIFORNIA REGISTERED CIVIL ENGINEER TO DESIGN ALL TEMPORARY BRACING, SHORING AND SUPPORT REQUIRED DURING CONSTRUCTION.

HARMLESS FROM ALL CLAIMS, DEMANDS AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH

- 10. INCLUDE ENGINEERING FEES, ENGINEERING DESIGN TIME AND DSA APPROVAL TIME IN THE COST OF PROPOSED MATERIAL ALTERNATES. CONTACT ENGINEER FOR FEE AMOUNT. SUBMIT MATERIAL
- ALTERNATE FOR REVIEW BEFORE CONSTRUCTION. 11. STRUCTURAL CAD DRAWINGS SHALL NOT BE USED FOR SHOP DRAWINGS UNLESS AN AGREEMENT
- BETWEEN THE STRUCTURAL ENGINEER AND CONTRACTOR HAS BEEN ESTABLISHED ACCORDING TO CASE DOCUMENT 11. CONTACT ENGINEER FOR FEE AMOUNT
- 12. ALL ADDENDA AND CONSTRUCTION CHANGE DOCUMENTS (CCD) SHALL BE SUBMITTED TO DSA FOR APPROVAL PRIOR TO COMPLETING WORK. 13. SHOP DRAWINGS: THE CONTRACTOR SHALL REVIEW SHOP DRAWINGS FOR COMPLETENESS AND
- COMPLIANCE WITH CONTRACT DOCUMENTS. CONTRACTOR SHALL STAMP SHOP DRAWINGS PRIOR TO SUBMISSION TO ARCHITECT/ENGINEER. THE ARCHITECT'S/ENGINEER'S REVIEW OF THE SHOP DRAWINGS SHALL NOT BE CONSTRUED AS AN AUTHORIZATION TO DEVIATE FROM THE CONTRACT DOCUMENTS. ALSO, SHOP DRAWINGS WILL NOT BE PROCESSED DUE TO INCOMPLETENESS, LACK OF COORDINATION WITH RELEVANT PORTIONS OF CONTRACT DOCUMENTS, LACK OF CALCULATIONS WHEN REQUIRED, OR WHERE DEVIATIONS, MODIFICATIONS, OR SUBSTITUTIONS ARE INDICATED WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT/ENGINEER.
- 14. ANY REFERENCE TO THE WORDS APPROVED, OR APPROVAL IN THESE DOCUMENTS SHALL BE HERE DEFINED TO MEAN GENERAL ACCEPTANCE OR REVIEW AND SHALL NOT RELIEVE THE CONTRACTOR AND/OR HIS SUB-CONTRACTORS OF ANY LIABILITY IN FURNISHING THE REQUIRED MATERIALS OR LABOR
- 15. CONNECTION OF ALL ITEMS SUPPORTED BY THE STRUCTURE ARE THE RESPONSIBILITY OF THE DISCIPLINES WHO ARE MAKING THESE ATTACHMENTS, THESE ATTACHMENTS SHALL BE DESIGNED TO RESIST ALL GRAVITY, WIND, SEISMIC, THERMAL LOADS, ETC. SPRINKLER PIPING SHALL BE SUPPORTED AND BRACED PER APPLICABLE STANDARDS, SUSPENDED CEILING SYSTEMS OF ACOUSTICAL TILE OR LAY-IN PANELS SHALL BE SUPPORTED AND BRACED PER CURRENT CODE REQUIREMENTS, SEE ARCHITECTURAL DRAWINGS.

#### FOUNDATION (CBC CHAPTER 18A)

- . THE SOILS REPORT RECOMMENDATIONS SHALL BE COMPLIED WITH BY THE CONTRACTOR. 2. SOILS INFORMATION:
- SEE SOILS REPORT BY: CBC TABLE 1806A.2 **SOIL DESIGN PARAMETERS:**
- ALLOWABLE BEARING PRESSURE 2000 PSF 35 PCF CANTILEVER ACTIVE (LEVEL). LATERAL BEARING (PASSIVE) PRESSURE.. . 150 PCF
- .. 0.25 COEFFICIENT OF FRICTION.. B. ALL FOUNDATION WORK SHALL BE FOUNDED ON FIRM UNDISTURBED NATURAL SOILS OR APPROVED COMPACTED SOILS.
- 4. ALL SITE SOIL WORK SHALL BE DONE UNDER THE DIRECT OBSERVATION OF THE SOILS ENGINEER AND PER SECTIONS 1803A AND 3304, TITLE 24, PART 2, CCR.
- 5. SOILS ENGINEER SHALL VERIFY IN WRITING TO THE ENGINEER AND DSA (FORM DSA-293) THAT SITE SOIL WORK COMPLIES WITH ALL OF THE RECOMMENDATIONS AND CONCLUSIONS OF THE SOILS REPORT.
- THE FINISH EXCAVATION FOR FOUNDATIONS SHALL BE NEAT & TRUE TO LINE. 7. FOUNDATION EXCAVATIONS SHALL BE KEPT FREE OF LOOSE MATERIAL AND STANDING WATER AND SHALL BE CHECKED AND APPROVED BY THE SOILS ENGINEER BEFORE THE PLACEMENT OF ANY
- 8. THE TESTING LAB SHALL SUBMIT COMPACTION REPORTS FOR ALL FILL TO THE ENGINEER AND DSA (FORM DSA-293) BEFORE REQUESTING FOUNDATION INSPECTION. ALL LOOSE SOIL AND FILL DIRT,
- INCLUDING BACKFILL BEHIND RETAINING WALLS, SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY, OR GREATER AS REQUIRED BY THE SOILS REPORT  $9.\;\;$  BACKFILL FOR ALL RETAINING WALLS SHALL BE NON-EXPANSIVE PERVIOUS MATERIAL APPROVED BY
- THE SOILS ENGINEER AND SHALL NOT BE PLACED UNTIL MASONRY OR CONCRETE RETAINING MEMBERS HAVE BEEN IN PLACE A MINIMUM OF 14 DAYS AND HAVE OBTAINED 75% OF THE DESIGN STRENGTH. 10. PROVIDE TEMPORARY SHORING FOR ALL WALLS RETAINING EARTH, PRIOR TO BACKFILLING.

#### REINFORCING STEEI

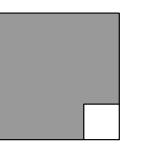
- BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60 DEFORMED BARS.
- . MINIMUM LAP SPLICES OF REINFORCING BARS SHALL BE AS SPECIFIED IN THE DRAWINGS. 3. VERTICAL BARS IN WALLS SHALL BE ACCURATELY POSITIONED AT THE CENTER OF THE WALL UNLESS
- OTHERWISE NOTED ON PLANS.
- 4. REINFORCING DETAILING, BENDING, AND PLACING SHALL BE IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT" 5. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS, HOLDOWN ANCHORS AND INSERTS SHALL BE WELL SECURED IN POSITION WITH WIRE POSITIONERS PRIOR TO FOUNDATION INSPECTION AND BEFORE
- PLACING CONCRETE OR GROUT. 6. DOWELS BETWEEN FOOTINGS AND WALLS SHALL BE THE SAME GRADE, SIZE, AND SPACING AS VERTICAL WALL REINFORCING UNLESS OTHERWISE NOTED ON PLANS.
- 7. FURNISH #3 SPACER TIES AT APPROXIMATELY 2'-6" ON CENTER IN ALL BEAMS AND FOOTINGS TO SECURE REINFORCING IN PLACE.

#### REINFORCED CONCRETE (CBC CHAPTER 19A)

- 1. CEMENT SHALL CONFORM TO ASTM C150, TYPE II.
- AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 AND SECTION 1903A.5, TITLE 24, PART 2, CCR. 3. READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN ACCORDANCE WITH ASTM C94.
- 4. CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301, "SPECIFICATIONS FOR
- STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THESE NOTES. 5. CONCRETE SHALL BE STANDARD WEIGHT CONCRETE (145 PCF) AND HAVE A MINIMUM COMPRESSIVE
- STRENGTH AT 28 DAYS AS FOLLOWS: CONTINUOUS FOOTINGS & GRADE BEAMS 6. CONCRETE SHALL BE PROPORTIONED SUCH THAT THE 7 DAY STRENGTHS ARE A MINIMUM OF SEVENT
- PERCENT OF THE SPECIFIED 28 DAY STRENGTH FOR ANY CONCRETE CONSTRUCTION REQUIRING SHORING, BRACING OR TO RECEIVE CONSTRUCTION LOADS. ALSO, SLABS ON GRADE SHALL HAVE A COMPRESSION STRENGTH OF 1800 PSI MINIMUM AT 3 DAYS IF SUBJECT TO CONSTRUCTION TRAFFIC . ADMIXTURES MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER AND DSA. ADMIXTURES SHALL COMPLY WITH ASTM C494 & C1017 AND BE OF A TYPE THAT INCREASES THE WORKABILITY OF THE
- CONCRETE, BUT SHALL NOT BE CONSIDERED TO REDUCE THE SPECIFIED MINIMUM CEMENT CONTENT (CALCIUM CHLORIDE SHALL NOT BE USED). 8. ALL CONSTRUCTION JOINTS IN WALLS OR OTHER ELEMENTS NOT HAVING PREFORMED KEYS, SHALL BE
- WIRE BRUSHED, AND ROUGHENED TO A MINIMUM AMPLITUDE OF 1/4 INCH, CLEANED AND MOISTENED IMMEDIATELY PRIOR TO PLACEMENT OF NEW CONCRETE.
- 9. FOUNDATIONS TO RECEIVE CONCRETE OR MASONRY WALLS: ROUGHEN TOPS OF FOOTINGS TO A
- MINIMUM AMPLITUDE OF 1/4 INCH AND ABRASIVELY CLEAN.
- 10. CONTRACTOR SHALL SUBMIT MIX DESIGNS FOR REVIEW BEFORE FABRICATION AND INSTALLATION. MIX
- DESIGNS SHALL BE DESIGNED AND SIGNED BY A CALIFORNIA REGISTERED PROFESSIONAL ENGINEER.
- 11. CONCRETE TESTING SHALL CONFORM TO SECTION 1903A, TITLE 24, PART 2, CCR.

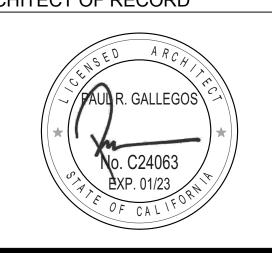
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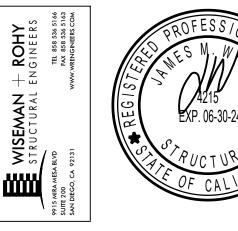


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ARCHITECT OF RECORD



ENGINEER OF RECORD



RKINEY.

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REVISI	ONS				
MARK	DATE	DES	SCRIPTION	NC	

PROJECT NO: 21057.00

MODEL FILE: Clover Flat ES Parking Lot.pln

PLOT DATE: 8/24/2022

SHEET TITLE STRUCTURAL NOTES & TYPICAL DETAILS

# WATER CONSERVATION PLAN

#### IRRIGATION:

KDA'S WATER CONSERVATION STARTS AT THE SEPARATE IRRIGATION METER AND POINT OF CONNECTION WHERE WE WILL BE UTILIZING A MASTER VALVE AND FLOW SENSOR TO DETECT, ISOLATE AND SHUT DOWN THE INDIVIDUAL OR WHOLE SYSTEM TO ELIMINATE RUNOFF FROM CATASTROPHIC BREAKS IN THE MAINLINE, LOSS OF IRRIGATION NOZZLES, OR VALVE THAT ARE STUCK ON. WE HAVE ISOLATED SECTIONS OF THE MAINLINE FOR EASE OF REPAIRING EQUIPMENT DURING MAINTENANCE OR EMERGENCIES.

OUR SMART IRRIGATION CONTROLLER HAS BEEN TESTED BY THE EPA AND CERTIFIED AS WATERSENSE SMART, HAS BUILT-IN WATER SAVING FEATURES SUCH AS REAL-TIME WEATHER SENSING AND RAIN CUP/SHUT OFF TO ADJUST THE SYSTEM RUN TIMES TO ACTUAL WEATHER CONDITIONS VERSUS ESTIMATED. WE WILL PROVIDE THE CONTRACTOR WITH IRRIGATION WATERING SCHEDULES FOR THE ESTABLISHMENT PERIOD AND FOR LONG TERM MAINTENANCE THAT WILL TAKE INTO ACCOUNT, SOILS TYPES, ASPECT, TOPOGRAPHY, PLANT MATERIAL, IRRIGATION EFFICIENCY AND WATERING DURING COOLER HOURS OF THE NIGHT/MORNINGS.

OUR METHODS OF WATERING THE PLANT MATERIAL WILL UTILIZE PRESSURE COMPENSATING HIGH EFFICIENCY BUBBLERS WITH CHECK VALVES FOR TREES AND POINT SOURCE DRIP WITH AUTO FLUSH VALVES FOR LOW WATER PLANT HYDROZONES. TREES WILL BE SEPARATELY VALVED TO PROVIDE ADEQUATE DEEP WATERING FOR TREE ROOTS DURING THE WARMER MONTHS TO ASSURE THEY THRIVE AND ARE READY TO TAKE UP STORM WATER IN THE WINTER MONTHS.

#### SOILS MANAGEMENT REPORT

KDA WILL MANAGE THE SOIL PRODUCTIVITY BY FIRST SCALPING THE TOP 6" OF TOP SOIL AND STORING ONSITE FOR REUSE AFTER MAJOR GRADING IS COMPLETE AND HARDSCAPE IS INSTALLED, THEN CONDUCTING AN AGRONOMIC SOILS ANALYSIS WHICH WILL IDENTIFY DEFICIENCIES THAT NEED TO BE ADDRESSED AND CONSTRAINTS IN THE SOIL THAT ARE NOT CORRECTABLE. THE PLANT PALETTE WILL BE REVISITED ONCE THE SOILS ANALYSIS REPORT IS REVIEWED AND PLANT MATERIAL WILL BE SUBSTITUTED WHEN THERE ARE SEVERE MINERAL CONFLICTS. KDA UTILIZES ORGANIC MEANS OF TREATING SOILS AND PLANT PITS WHENEVER POSSIBLE TO INCREASE THE HEALTHY ORGANISMS IN THE SOILS VERSUS ONLY APPLYING SOMETHING THAT WILL LEACH AWAY.

#### PLANTING:

THE PLANT PALETTE CHOSEN IS ON THE LOW END FOR WATER NEEDS AND ACCLIMATED TO CALIFORNIA CLIMATES. THE PLANTS HAVE BEEN CLUSTERED FOR SIMILAR WATER REQUIREMENTS, SUN EXPOSURE, TOPOGRAPHY AND SIZE OF PLANTER. MEDIUM CANOPY TREES WILL PROVIDE SHADE FOR THE CARS AND WILL BRING DOWN THE HEAT ISLAND EFFECT FOR THE PARKING LOT.

#### MULCH:

A 3" LAYER OF MULCH WILL BE APPLIED TO ALL PLANTING AREAS TO KEEP THE SOILS MOISTURE IN, CONTROL THE AMOUNT OF WEEDS, AND WHEN BREAKING DOWN OVER TIME IT WILL REPLENISH NUTRIENTS BACK INTO THE SOIL. REFER TO PLANTING PLAN SHEET L2.0.

#### MAINTENANCE:

MAINTENANCE IS AN IMPORTANT PART OF THE LANDSCAPE PROCESS FOR WITHOUT GOOD MAINTENANCE THE BEST DESIGNED LANDSCAPE WILL SUFFER AND/OR BECOME INEFFICIENT. KDA HAS DESIGNED THE PLANTING AND IRRIGATION TO MINIMIZE CONFLICTS BETWEEN PLANTS AND SPRAY WHERE USED AND PLANT MATERIAL IS PLACED SO THAT THE MATURE GROWTH WILL REMAIN 2' FROM HARDSCAPE AREAS TO MINIMIZE THE URGE TO TRIM PLANTS. WE HAVE DESIGNED THE PLANTING SO THAT TRIMMING/FORMING OF PLANTS IS NOT INTENDED BUT THEY ARE TO GROW AS THEIR NATURAL HABIT AND FORM.

AS PART OF OUR SPECIFICATIONS BOOKLET, KDA PROVIDES THE CONTRACTOR WITH A LIST OF MAINTENANCE NEEDS TO BE DONE BOTH SHORT AND LONG TERM FOR THE SUCCESS OF THE EVER EVOLVING LANDSCAPE. ITEMS INCLUDE MONTHLY CHECKS OF THE IRRIGATION SYSTEM, IMMEDIATE REPLACEMENT OF PLANT MATERIAL WHEN NECESSARY, FERTILIZING SCHEDULES, REPLENISHMENT OF MULCH ON A YEARLY BASIS AND YEARLY IRRIGATION SYSTEM AUDITS, REPAIRS, ADJUSTMENTS. REFER TO PROJECT SPECIFICATIONS BOOK.

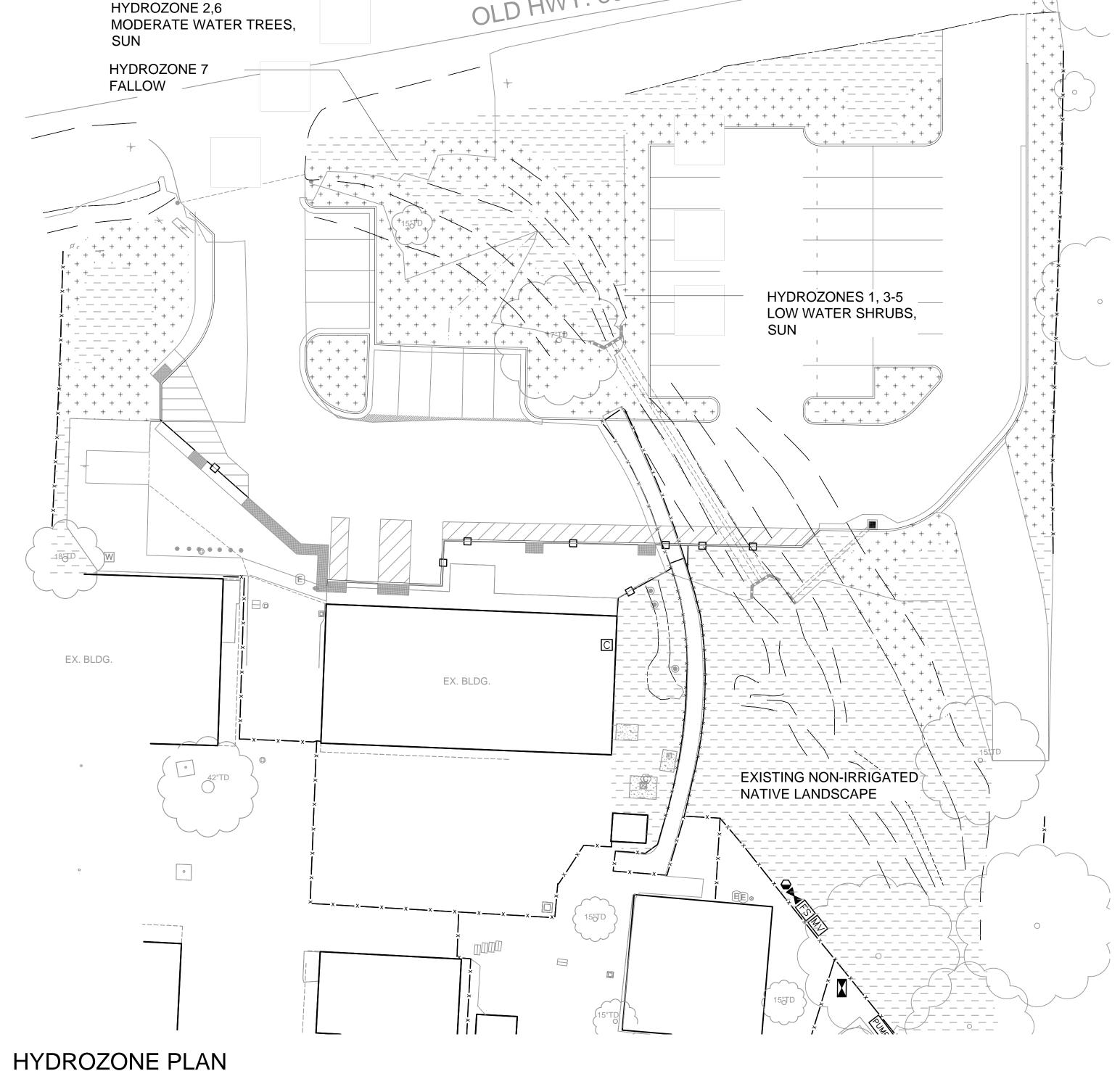
LANDSCAPE SQ FOOTAGES

SQ FT OF SITE: 107,690 SQ FT.

2.5 ACRES

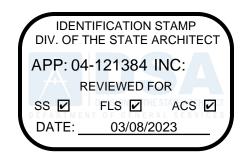
SQ FT OF LANDSCAPE:

24,547 SQ FT 23% LANDSCAPE

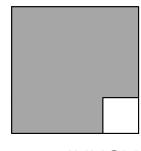


	Hydrozone Information Worksheet								
Controller	Station Number	Area (sq. ft.)	Percent of Area	Plant Type/ Description	Water Use (WUCOLS)	Irrigation Type	Zone Flow (GPM)	Precipitation Rate (in./hr.)	Zone Pressure (psi)
Α	1	2,604	11%	very low plants/sun	0.2	drip	2	0.9134	40
	2	560	2%	low water trees/ sun	0.4	bubbler	10	1.8268	40
	3	2,417	10%	very low plants/sun	0.2	drip	3	0.9134	40
	4	3,278	13%	very low plants/sun	0.2	drip	3	0.9134	40
	5	1,268	5%	very low plants/sun	0.2	drip	1	0.9134	40
	6	280	1%	low water trees/ sun	0.4	bubbler	5	1.8268	40
	7	14,140	58%	Fallow-Naturalized	0	-	0	0	0
TOTA	L =	24,547	100%			Peak Flow =	10 GPM		
						Eto average=	4.567	inches/mo	

	Californ	ia Water E	fficient Lanc	lscape V	Vorksheet		
Project:	Clover Fla						
Date:	3/2/2023						
Reference Evapotranspiration	(ET <sub>a</sub> )	54.8	Pro	oject Type	Non-Resid	ential	0.45
Hydrozone # / Planting	Plant Factor	Irrigation	Irrigation	ETAF	Landscape	ETAF x	Estimated Total
Description <sup>a</sup>	(PF)	Me thod <sup>b</sup>	Efficiency (IE) <sup>c</sup>	(PF/IE)	Area (Sq. Ft.)	Area	Water Use (ETWU) <sup>d</sup>
Regular Landscape Area	15	1	,			-	-
A1, very low h2o shrubs	0.2	Drip	0.81	0.25	2604	643	21845
A2, low water trees	0.4	Bubblers	0.81	0.49	560	277	9396
A3, very low h2o shrubs	0.2	Drip	0.81	0.25	2417	597	20277
A4, very low h2o shrubs		Drip	0.81	0.25	3278	809	27500
A5, very low h2o shrubs		Drip	0.81	0.25	1268	313	10637
A6, low water trees		Bubblers	0.81	0.49			4698
Fallow-Naturalized		Drip	0.81	0.00			0
Tallott Hacaratizad			0.01	Totals	24547	2777	94353
Special Landscape Areas	 S						
				1		0	0
				1		0	0
				1		0	0
				1		0	0
				Totals	0	0	0
					ETV	VU Total	94353
		М	aximum Allov	ved Wate	er Allowance (	MAWA) <sup>e</sup>	375304
ETAF Calculations							
Regular Landscape Areas			_	_	ular Landscap		
Total ETAF x Area	2777				v for residentia	-	
Total Area	24547		and 0.45 or b	elow tor	non-residentia	ıl areas.	
Average ETAF	0.11						
All Landscape Areas							
Total ETAF x Area	2777						
Total Area	24547						
Average ETAF	0.11						

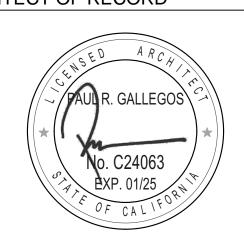


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ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECORD



619.840.5174
kda-landscapearchitects.com

, 60°

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ARKING LOT I

S E S

**က** 

REVISIONS

MARK DATE DESCRIPTION

PROJECT NO: 20-020

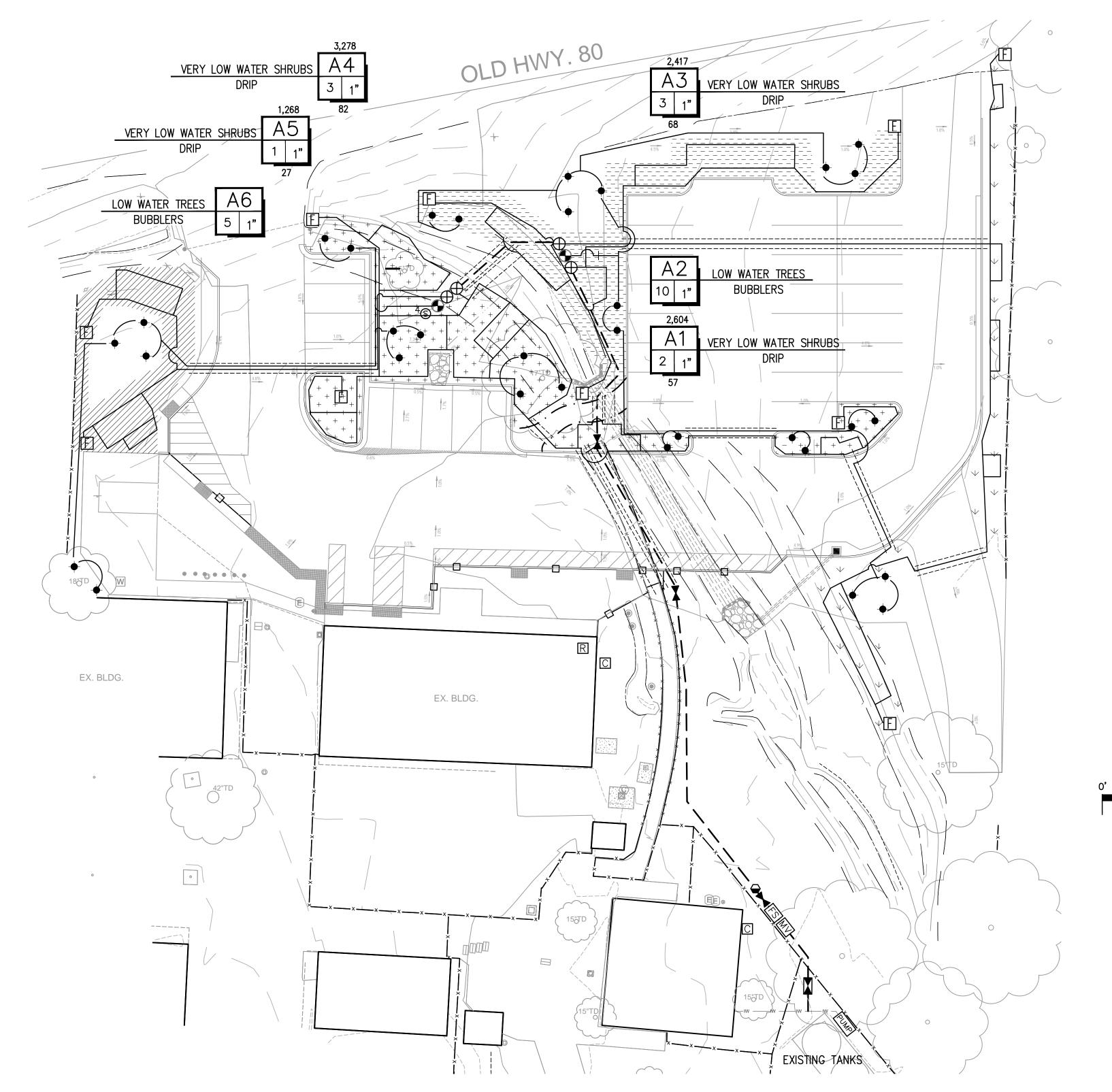
MODEL FILE:
CLOVER FLAT E.S. PARKING LOT UPGRADE

PLOT DATE: 03/02/23

SHEET TITLE

WATER CONSERVATION PLAN

110



DETAIL

'E'/L1.2

'G,H,I'/L1.2

'G,H,J'/L1.2

'N'/L1.3

'D'/L1.2

'F'/L1.2

'F'/L1.2

'A,B'/L1.2

'A,B'/L1.2

'A,B'/L1.2

LINE SIZE

LINE SIZE

6 ST.

1 1/4"

PLAN SIZE

SEE CHART

12/14 GA | 'A,B'/L1.2

EQUIPMENT LEGEND

WILKINS 975XL2SEU LEAD FREE, REDUCED PRESSURE, SMALL FOOTPRINT

RAINBIRD XCZLF-100-PRF CONTROL ZONE KIT ON MANIFOLD .2-10 GPM

SUPERIOR 3200 NORMALLY CLOSED MASTER VALVE (FLOW 0-320 GPM)

SPARE COMMON AND PILOT WIRES, COLOR TO DIFFER FROM SITE WIRING

UF RATED CONTROL WIRE, 12 GA COMMON, 14 GA PILOT — 18" MIN. COVER

(2) ALL MAINLINE TEES AND 90'S ARE TO BE SCH 80 PVC AND SHALL BE THE SAME SIZE AS THE MAINLINE, REDUCING

(5) THE RAIN CLIK INTERRUPT SWITCH SHALL BE INSTALLED ON THE SOUTH OR SOUTHWESTERN FACING AREA OF A

ROOF. THE AREA SELECTED SHALL BE IN A CLEAR OPEN AREA OF THE ROOF, NOT EFFECTED BY SHADE FROM

ANOTHER BUILDING OR TREE. ALL WIRING SHALL BE CONCEALED EITHER WITHIN PVC CONDUIT OR OTHER MEANS

AND TO BE FIELD VERIFIED PRIOR TO DEMO AND CONSTRUCTION.

SCH 40 PVC NON-PRESSURE LATERAL LINE - 12" MIN. COVER

SCH 40 PVC IRRIGATION PIPE / WIRE SLEEVE - 24" MIN. COVER

FLOMEX QS200-15 FLOWMETER. 18 AWG WIRE IN CONDUIT ONLY BETWEEN FS

EXISTING 1  $\frac{1}{4}$ " MAINLINE FROM PUMP TO BUILDINGS TO BE PROTECTED IN PLACE. APPROX. ROUTE ONLY

BACKFLOW PREVENTER ASSEMBLY WITH POLAR PARKA BACKFLOW PROTECTOR.

MANUFACTURER/MODEL #

RAINBIRD PESB SERIES ELECTRIC CONTROL VALVE

RAINBIRD 44LRC QUICK COUPLING VALVE

SCH 40 PVC MAINLINE - 18" MINIMUM COVER

(1) PIPES AND VALVES ARE SHOWN IN HARDSCAPE FOR CLARITY ONLY.

(3) COORDINATE ELEC. POINT OF CONNECTION WITH ELECTRICAL CONTRACTOR.

(4) COORDINATE CONTROLLER LOCATION IN CONJUNCTION WITH CAMPUS WIFI.

(6) ALL VALVE BOX COVERS TO BE CARSON/BROOKS GREEN VALVE BOXES OR EQUAL.

HUNTER PRO-HC-600 W/ WR-CLIK AND FREEZE CLIK

NIBCO T585 BALL VALVE

ROUTER PER ARCHITECT

EXISTING PUMP - 76 PSI

AND CONTROLLER

WHEN NECESSARY JUST BEFORE THE VALVES.

AS DIRECTED BY THE LANDSCAPE ARCHITECT.

SYMBOL

MV

\_\_\_\_

	IRRIGATION LEG	END			
SYMBOL	MANUFACTURER/MODEL #	RAD.	PSI	FLOW (GPM)  Q H F Van	DETAIL
DRIP SYSTEM					
<b>+</b>	RAINBIRD 1402 SERIES BUBBLER		30	.5	'K' / L1.3
E	FLUSH VALVE ASSEMBLY				'M' / L1.3
AS SHOWN ON PLAN	HATCH PATTERN REFLECTS INDIVIDUAL VALVE ZONES TO BE WATERED VIA POINT TO POINT DRIP W/ BOWSMITH SL.200. 1 EMITTER PER PLANT.		2 GPH	'L' / L1.3	

1. MINOR ADJUSTMENTS IN THE FIELD MAY BE NECESSARY TO AVOID VERTICAL OBJECTS.

SCH 40 PVC	SLEEVING	CHART
1 1/2" SLEEVE 2" SLEEVE 2 1/2" SLEEVE 3" SLEEVE 4" SLEEVE 6" SLEEVE	11-20 WIRES 21-30 WIRES	1 1/2" PIPE 2" PIPE

— I 2 1/2" PIPE — Ⅲ 3" PIPE — Ⅱ 4" PIPE
---

# PLANTS

		" PIPE " PIPE " PIPE	LOSS THRU 1" MASTER VALVE LOSS THRU 1 1/2" FLOW METER LOSS THRU 1 1/4" R/P DEVICE LOSS THRU 10' OF 1 1/4" (E) MAIN	12.0 .02	PSI PSI PSI
<u> </u>	- 2 1/2 - 3		LOSS THRU 309' OF 1 1/4" MAIN LOSS THRU 3 BALL VALVES LOSS THRU 1" VALVE LOSS THRU LATERAL LINES ELEVATION GAIN MISC. LOSS THRU FITTINGS	.59 3.0 1.7 1.49 2.04 1.9	PSI PSI PSI PSI
SQ	FT	-	TOTAL SYSTEM LOSSES	22.94	PSI
STA <sup>*</sup> NUM			PRESSURE REQUIRED AT HEAD BOOSTED STATIC PRESSURE		PSI PSI
			RESIDUAL PRESSURE	13.06	PSI
FLOW (GPM)	VALVE SIZE				

PRESSURE LOSS CALCULATIONS

(VALVE A6 @ 5 GPM)

METER ELEV. 3566

VALVE ELEV. 3570.7

IRRIGATION KEYNOTES

1) 5 VALVES AND MAINLINE ARE TO BE REMOVED AND MAINLINE LOOP CREATED PRIOR TO DEMO. REUSE EXISTING VALVE WIRES FOR STATIONS 21-23 FOR NEW VALVES LOCATED IN THE FIELD.

(2) MODIFY VALVES B18 & B20 TO NEW LAYOUT AND TO ACHIEVE 125% COVERAGE, PRIOR TO DEMO

(3) REUSE VALVE A23 TO NEW LAYOUT AND TO ACHIEVE 125% COVERAGE.

REUSE VALVE B19 FOR NEW LAYOUT AS SHOWN. WIRING IS TO BE PROTECTED IN PLACE DURING DEMO AND REUSED WHEN THIS VALVE IS CONSTRUCTED. 125% COVERAGE TO BE ACHIEVED.

(5) VALVES B22 & 23 ARE TO BE MODIFED TO NEW LAYOUT PRIOR TO CONSTRUCTION.

6 SOIL MOISTURE SENSOR TO BE RELOCATED INTO NEW LAYOUT OF FIELD PRIOR TO DEMO.

7 IRRIGATION TO BE MODIFIED TO SEPARATE TURF AREAS AS DELINEATED BY NEW FENCE LINE AND TO MINIMIZE OVERSPRAY ONTO NEW FENCING.

8 HAND DIGGING ONLY WITHIN THE DRIPLINE OF EXISTING TREES. NO ROOTS OVER 1\" ARE TO BE REMOVED DURING DEMO OR CONSTRUCTION. LANDSCAPE ARCHITECT IS TO BE NOTIFED IMMEDIATELY IF LARGER ROOTS ARE PRESENT WITHIN THE SCOPE OF WORK.

9 LOG RECEIVED FROM EADER E.S. DEMO WORK IS NOT TO BE IRRIGATED. SPRAY NOZZLES ARE TO BE MODIFED TO SHORTER RANGE OR LOWER ANGLE TO AVOID OVERSPRAY ONTO LOG.

VALVE AND WIRES TO REMAIN IN PLACE. VALVE DESIGNATIONS ARE TO BE REWIRED AS SHOWN.

REMOVE ALL HEADS AND LATERALS AND CAPILATERAL TO VALVE WITHIN VALVE BOX. FOR VALVE REMOVE ALL HEADS AND LATERALS AND CAP LATERAL TO VALVE WITHIN VALVE BOX. FOR VALVES TO REMAIN IN NEW D.G. AREAS, THEY ARE TO BE REPLACED WITH TAN BOXES.

(11) ABANDON VALVE A23, REUSE VALVE WIRES AND SET NEW VALVE FOR KINDERGARDEN TURF AREA.

(12) NEW STABILIZED DECOMPOSED GRANITE

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IRRIGATION NOTES: 1. REFER TO IRRIGATION DETAILS AND SPECIFICATIONS SHEETS L1.2-L1.5.

2. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCEMENT OF WORK. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY OF ANY FIELD CONDITIONS THAT VARY FROM THE

3. LOCATE ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT AND PROTECT THEM FROM DAMAGE. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DAMAGE AND ASSUME FULL RESPONSIBILITY FOR REPAIRS/ REPLACEMENT/ COSTS INCURRED DUE TO DAMAGED UTILITIES.

4. LANDSCAPE CONTRACTOR IS TO FIELD VERIFY ENTIRE EXISTING SYSTEM FOR FUNCTIONALITY AND TO COORDINATE WITH LANDSCAPE MAINTENANCE COMPANY ON ISSUES OR CONSTRAINTS OF BURIED COMPONENTS.

5. MAKE IRRIGATION POINTS OF CONNECTION INTO EXISTING MAINLINES AS NOTED ON THE PLANS. VERIFY CONDITIONS AND LOCATIONS IN THE FIELD AND ADJUST AS NECESSARY.

6. ALL PRESSURE LINES SHALL BE TESTED FOR 2 HOURS UNDER HYDROSTATIC PRESSURE OF 150 PSI AND BE PROVEN WATER TIGHT PRIOR TO BACKFILLING. CONTRACT SHALL NOTIFY LANDSCAPE ARCHITECT OF VERIFICATION AND BY

7. THE SPRINKLER SYSTEM IS BASED ON THE MINIMUM OPERATING PRESSURE AND MAXIMUM FLOW DEMAND SHOWN ON THE PRESSURE LOSS CALCULATION. THE IRRIGATION CONTRACTOR SHALL VERIFY EXISTING STATIC WATER PRESSURE PRIOR TO CONSTRUCTION. NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY ANY DIFFERENCE BETWEEN WATER PRESSURE SHOWN ON DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISION NECESSARY IF DIFFERENCES ARE NOT REPORTED PRIOR TO INSTALLATION OF

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

9. THE FINAL LOCATION OF THE CONTROLLER SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. 120 VOLT ELECTRICAL POWER AT THE CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS AND IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO COORDINATE AND MAKE THE FINAL HOOK-UP FROM ELECTRICAL OUTLET TO THE CONTROLLER PER LOCAL

10. ALL POP UP SPRINKLER HEADS IN SHRUB/ GROUNDCOVER AREAS TO BE INSTALLED FOR THAT THE TOP OF THE SPRINKLER IS 1" ABOVE FINISH GRADE.

11. ALL SPRINKLER HEADS TO BE INSTALLED PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATION UNLESS OTHERWISE NOTED.

12. LOW HEAD DRAINAGE WILL NOT BE ALLOWED AND ALL HEADS SHALL RECEIVE CHECK VALVES EVEN IF NOT SHOWN ON THE PLANS.

13. ALL POINT SOURCE EMITTERS ARE TO BE LOCATED AWAY FROM SEAT WALLS AND WALKWAYS TO MINIMIZE CONFLICT WITH PEDESTRIANS.

14. THE IRRIGATION SYSTEM SHALL BE FLUSHED AND ADJUSTED FOR OPTIMUM PERFORMANCE. ELIMINATE OVER SPRAY ONTO HARDSCAPE IN ALL SHRUB AREAS AND IN TURF AREAS PRIOR TO END OF MAINTENANCE PERIOD. IF LOW

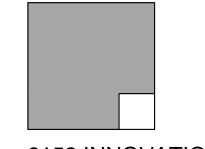
TRAJECTORY HEADS NEED TO BE USES THEY SHALL BE SUBSTITUTED.

15. INSTALL A PIPE MATERIALS AND EQUIPMENT PER DETAILS. USE TEFLON TAPE OR TEFLON PIPE DOPE ON ALL PVC MALE PIPE THREADS ON SWING JOINTS AND VALVE ASSEMBLIES.

16. DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR SITE DIMENSION DIFFERENCES EXIST. IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT OF SUCH CONDITIONS.

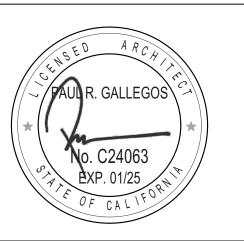
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ALPHASTUDIO DESIGN GROUP



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ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECORD



REVISIONS MARK DATE DESCRIPTION

**PROJECT NO: 20-020** MODEL FILE: CLOVER FLAT E.S. PARKING LOT UPGRADE

PLOT DATE:

SHEET TITLE

03/02/23

**IRRIGATION PLAN** 

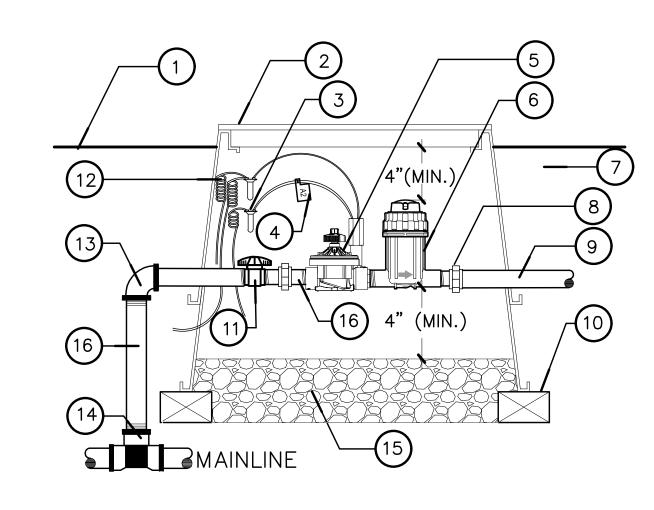
- 1. FINISH GRADE 1\2" IN TURF, 3" IN SHRUB AREAS.
- 2. RECTANGULAR VALVE BOX W/ LOCKING LID, COLOR GREEN, BRAND STATION ID ON LID
- 3. WATER PROOF WIRE CONNECTOR
- 4. CHRISTY ID TAG W/ STATION NUMBER
- REMOTE CONTROL
- VALVE PER LEGEND 6. NATIVE SOIL
- 7. SCH 40 PVC FEMALE **ADAPTOR**

- 8. PVC PIPE TO SYSTEM
- 9. BRICK SUPPORT 4 REQ.
- 10. SCH 40 PVC MALE

ADAPTOR

- 11. 18-24" COILED COMMON & CONTROL WIRES
- 12. PVC ELL
- 13. MAINLINE WITH TEE OR ELL, SLIPXSLIPXFIPT
- 14. FILL BOX W/ PEA GRAVEL
- 15. SCH 80 PVC NIPPLE

# REMOTE CONTROL VALVE



- 1. FINISH GRADE 1/2" IN TURF, 3" IN SHRUB AREAS.
- 2. RECTANGULAR VALVE BOX W/ LOCKING LID, COLOR GREEN, BRAND 'DZ' AND STATION ID
- WATER PROOF WIRE

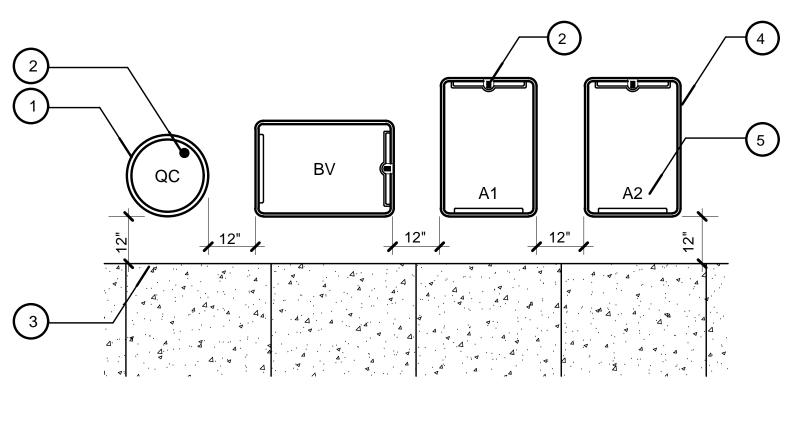
ON LID

- CONNECTOR
- 4. CHRISTY ID TAG 5. REMOTE CONTROL
- VALVE PER LEGEND

6. PRESSURE REGULATOR

FILTER 7. NATIVE SOIL

- 8. PVC SLIP UNION (BOTH SIDES)
- 9. PVC PIPE TO SYSTEM 10. BRICK SUPPORT 4 REQ.
- 11. SHUT OFF VALVE PER LEGEND
- 12. 18-24" COILED WIRES
- 13. PVC ELL
- 14. MAINLINE WITH TEE OR ELL, SLIPXSLIPXFIPT
- 15. FILL BOX W/ PEA
- GRAVEL
  - 16. SCH 80 PVC NIPPLE

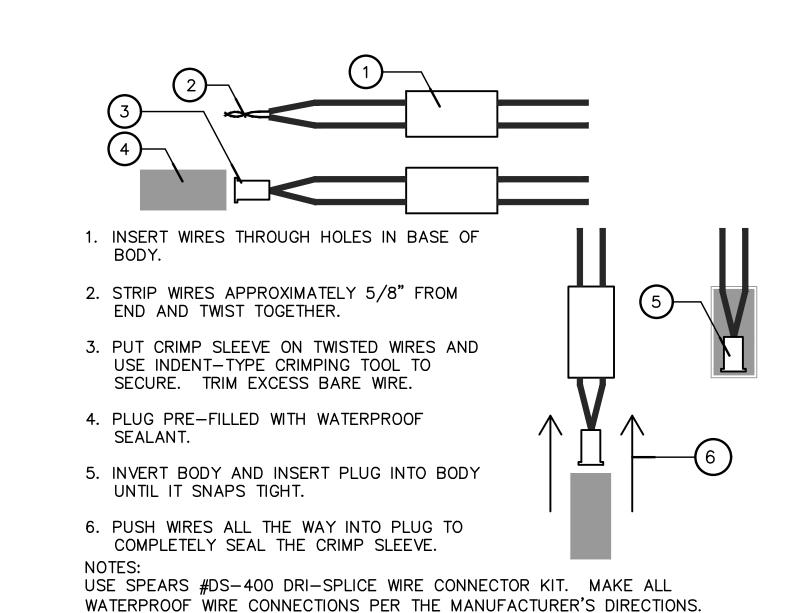


- 1. QUICK COUPLER BOX
- 4. RECTANGULAR VALVE BOX 5. HEAT BRAND LETTERS
- 2. STAINLESS STEEL BOLT, WASHER, AND NUMBERS AND NUT TO SECURE BOX LID
- 3. PAVING EDGE WHERE APPLICABLE

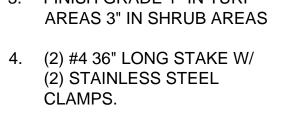
CENTER VALVE BOX OVER REMOTE CONTROL VALVE FOR MAINTENANCE. INSTALL VALVE BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO PAVING EDGES WHERE APPLICABLE

AVOID HEAVY COMPACTION OF SOIL AROUND VALVE BOXES, AND PLANTS WITHIN 2' OF VALVE BOXES

# VALVE MANIFOLD



# PER LEGEND. 3. FINISH GRADE 1" IN TURF



1. 10" ROUND PLASTIC VALVE BOX W/ 'QC' BRANDED ON

QUICK COUPLER VALVE

- 5. 1"x6" SCH 80 PVC NIPPLE
- 6. 6" OF PEA GRAVEL
- 7. BRICK SUPPORTS (3)
- 1" SCH 40 PVC STREET ELL

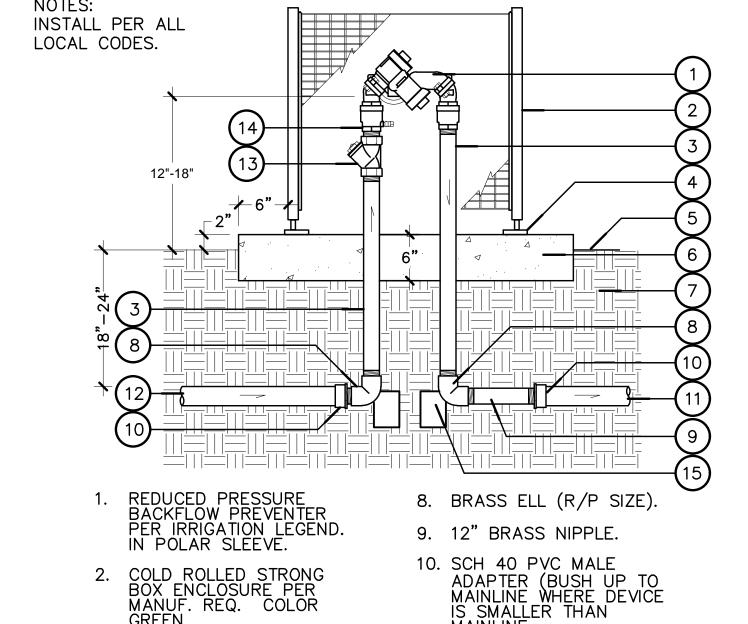
(3) 1"x12" SCH 80 PVC

10. 1" SCH 40 PVC ELL (SxT)

**OUTLET TO MAINLINE.** 

11. 1" SCH 40 PVC MAINLINE, W/ SCH 40 PVC FITTING (TEE OR ELL) W/ 1" SLIP

# QUICK COUPLING VALVE



- 2. COLD ROLLED STRONG BOX ENCLOSURE PER MANUF. REQ. COLOR
- 5. FINISH GRAD.
- 6. 6" THICK CONCRETE PAD 7. NATIVE SOIL.
- IRRIGATION LEGEND (TO SYSTEM).
- 12. MAINLINE PIPING PER IRRIGATION LEGEND (FROM POC).
- 13. WILKINS SXL WYE STRAINER (R/P SIZE).

11. MAINLINE PIPING PER

14. BRASS CLOSE NIPPLE (R/P SIZE). 15. THRUST BLOCK.

# AND G MIN. 2 SMALL

TRENCHING

- 1. FINISH GRADE
- 2. BACKFILL 90% COMPACTION (TYP.)
- CONTROL AND NEUTRAL CONDUCTORS
- 4. LATERAL LINE
- 5. MAIN LINE (PRESSURIZED)

NOTE: CONTROL AND NEUTRAL CONDUCTORS SHALL BE INSTALLED WITH A MINIMUM OF 18" EARTH COVER IRRIGATION PIPE TO BE SLEEVED UNDER ALL HARDSCAPE AREAS W/ A

MIN. 24" COVER

# ALPHASTUDIO DESIGN GROUP 6152 INNOVATION WAY

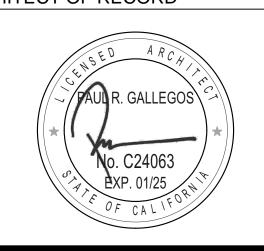
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APP: 04-121384 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

DATE: 03/08/2023

#### ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECORD



S ES

2. 90% COMPACTED NATIVE SOIL

SLEEVE 4. SPRINKLER LATERAL

. FINISH GRADE

- 5. MAINLINE SLEEVE
- 6. MAIN SUPPLY LINE
- CONTROL AND NEUTRAL WIRES

# WIRE CONNECTORS

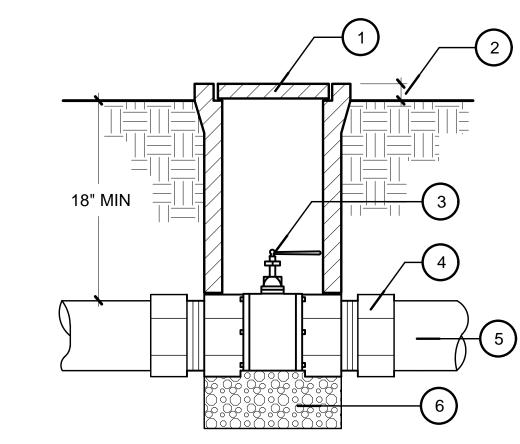
# BACKFLOW PREVENTER

# SLEEVING

MIN.

# CONTROLLER PER PLAN \_BLACK WIRE HARNESS 2" IN SHRUB AREAS LOCKING LID 3. PVC MALE ADAPTORS CONNECTORS FLOW MAINLINE 7. 3/4" CRUSHED ROCK SLUMP, 12" DEEP FROM BOTTOM OF VALVE BOX MINIMUM\_ - 8. 2"X2" CONCRETE BLOCKS UPSTREAM DISTANCE 10 X FLOW METER SIZE DOWNSTREAM DISTANCE 5 X FLOW METER SIZE 9. FLOW SENSING CABLE TO BE

- 1. FINISH GRADE 1" IN TURF AREAS
- 2. RECTANGULAR PLASTIC W/
- 4. MASTER VALVE PER PLAN
- 5. WATERPROOF ELECTRICAL
- 6. FLOW METER PER PLAN. INSTALL
- FLOEMEC AT A 45° ANGLE.
- HOUSED IN AN 1|" ELECTRICAL CONDUIT SWEEP ELBOW W/ CONDUIT BUSHING.



- 1. PLASTIC VALVE BOX W/ LOCKABLE TOP **EXTENSIONS AS** NECESSARY 2. FINISH GRADE
- 1/2" IN TURF, 2" IN GROUND COVER AREAS
- 3. BALL VALVE
- 4. ADAPT TO MAIN LINE 5. MAIN LINE
- 6. 8" PEA GRAVEL SUMP
  - PROJECT NO: 20-020 MODEL FILE: CLOVER FLAT E.S. PARKING LOT UPGRADE

PLOT DATE: 03/02/23

SHEET TITLE

REVISIONS

MARK DATE

**IRRIGATION DETAILS** 

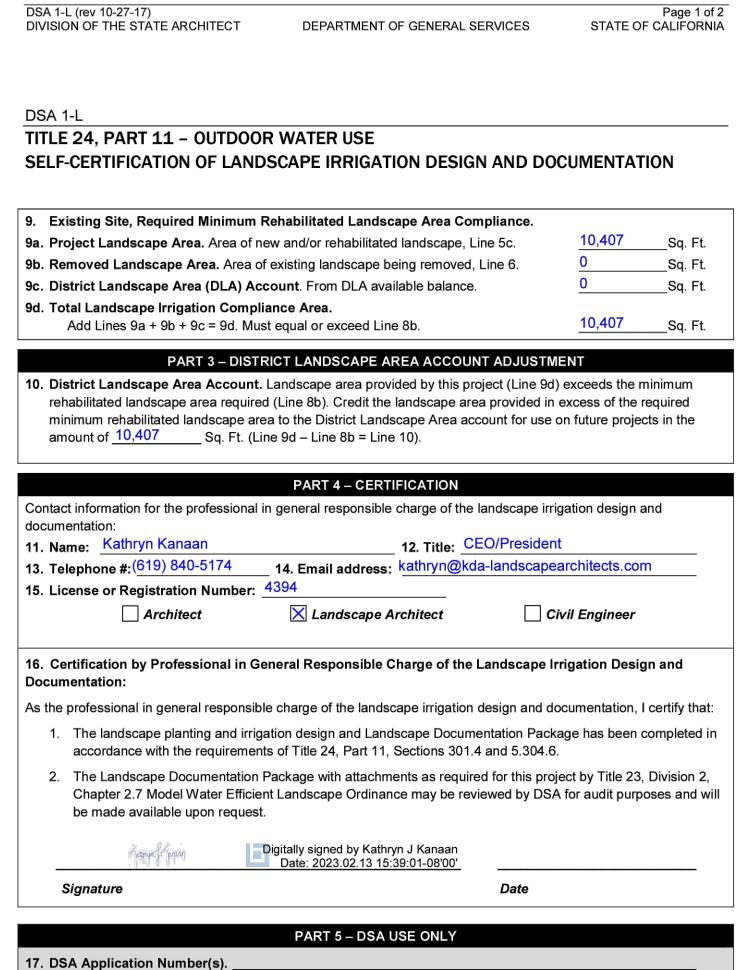
L1.2

DESCRIPTION

MASTER VALVE / FLOW SENSOR

ADSA		1-L
TITLE 24, PART 11 – OUTDOOR WATER USE SELF-CERTIFICATION OF LANDSCAPE IRRIGATION DOCUMENTATION	N DESIGN	AND
PART 1 – PROJECT INFORMATION		
1. School or Community College District: Mountain Empire Unified School Dis	strict	
Name of Facility: Clover Flat Elementary     Project Name: Parking Lot Upgrade		
4. Project Type(s):		
4a. New Campus: Landscape irrigation work on a new site or campus; proceed to		
4b. Existing MWELO Compliant Site: Building construction and/or landscape irrig where all existing landscape areas in compliance with Title 24, Part 11, Section	•	xisting site
4c. Elective Landscape Irrigation Work on an Existing Site: Landscape irrigation required by the Minimum Rehabilitated Landscape Area provisions of Title 24, Elective landscape work may be either 1) a stand-alone landscape installation building construction project.	Part 11, Section 30	01.4.1.
Ad. Required Minimum Rehabilitated Landscape Area Work on an Existing Sit an existing site required by the construction of a new building or an addition to with Title 24, Part 11, Section 301.4.1 when the aggregate area of the new building building is 1,600 square feet or greater; complete Lines 8a, 8b and 9a	an existing building	g. Comply dition to an
PART 2 – LANDSCAPE INSTALLATION INFORMATIO	N	
<ol> <li>Landscape Irrigation Areas To Be Installed By This Project</li> <li>New. New landscape area not previously irrigated on an existing site.</li> </ol>	10,407	Sq. Ft.
<b>5b. Existing.</b> Existing irrigated landscape area being rehabilitated to current requirements.	0	Sq. Ft.
<b>5c. Total:</b> Aggregate area of irrigated landscape of this project (5a + 5b = 5c).	10,337	Sq. Ft.
6. Area of Existing Landscape Irrigation Being Removed. Aggregate area of exist by 1) a new building, 2) an addition to an existing building, 3) paving, 4) site hardso from service by this project:		-
7. Required Attachment, Site Landscape Area Location Plan. Provide a campus-location, extent and area of the landscape irrigation to be installed. The plan shall in name, school district, buildings and landscape areas (new, rehabilitated and /or rer For a sample of this document, refer to PR 15-03 Attachment 1.	ndicate the site add	dress, facility
8. Existing Site, Required Minimum Rehabilitated Landscape Area Calculation:		
8a. Foot Print Area: Total foot print area of new buildings and/or building additions.	0	Sq. Ft.
8b. Required Minimum Rehabilitated Landscape Area: (75% of footprint area on Lir	ne 8a). <u>U</u>	Sq. Ft.
DSA 1-L (rev 10-27-17) DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES	STATE OF	Page 1 of 2 CALIFORNIA
DSA 1-L		
TITLE 24, PART 11 – OUTDOOR WATER USE SELF-CERTIFICATION OF LANDSCAPE IRRIGATION DESIGN AND I	DOCUMENTAT	ION
9. Existing Site, Required Minimum Rehabilitated Landscape Area Compliance.	10,407	Ca Et
<ol> <li>Project Landscape Area. Area of new and/or rehabilitated landscape, Line 5c.</li> <li>Removed Landscape Area. Area of existing landscape being removed, Line 6.</li> </ol>	0	Sq. Ft. Sq. Ft.
9c. District Landscape Area (DLA) Account. From DLA available balance.	0	Sq. Ft.
9d. Total Landscape Irrigation Compliance Area.  Add Lines 9a + 9b + 9c = 9d. Must equal or exceed Line 8b.	10,407	Sq. Ft.
PART 3 – DISTRICT LANDSCAPE AREA ACCOUNT ADJUS	TMENT	
10. District Landscape Area Account. Landscape area provided by this project (Line rehabilitated landscape area required (Line 8b). Credit the landscape area provided minimum rehabilitated landscape area to the District Landscape Area account for u amount of 10,407 Sq. Ft. (Line 9d – Line 8b = Line 10).	d in excess of the re	equired
PART 4 – CERTIFICATION		
Contact information for the professional in general responsible charge of the landscape documentation:	e irrigation design a	nd

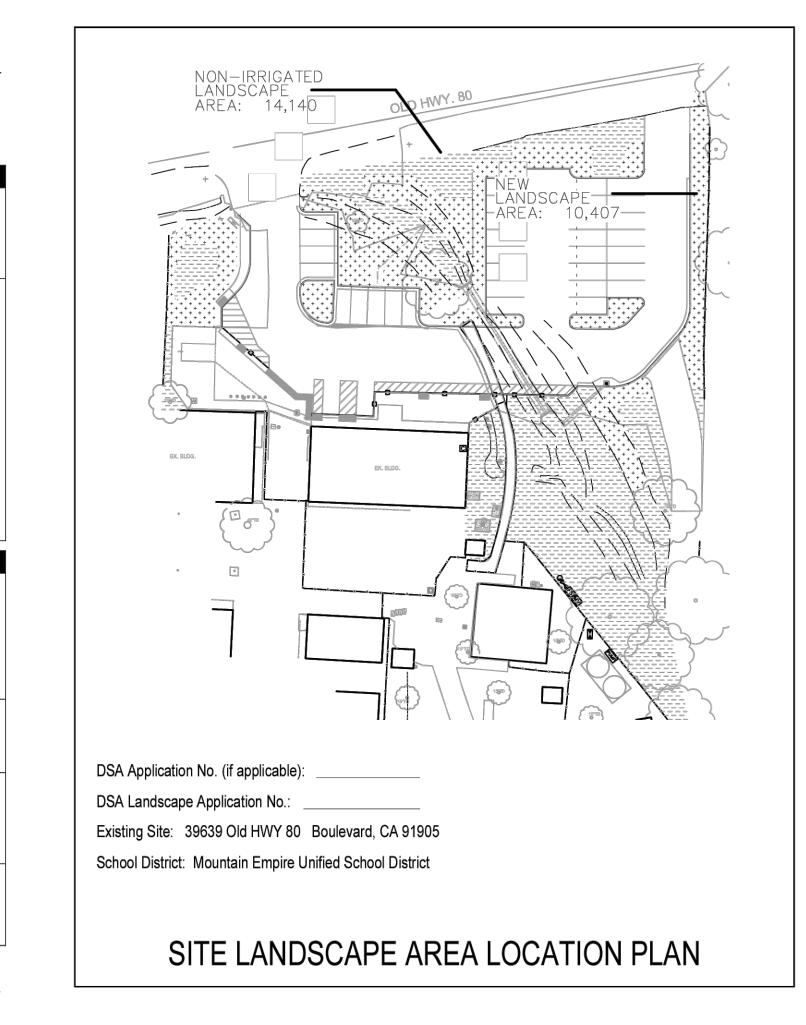
Page 2 of 2 STATE OF CALIFORNIA

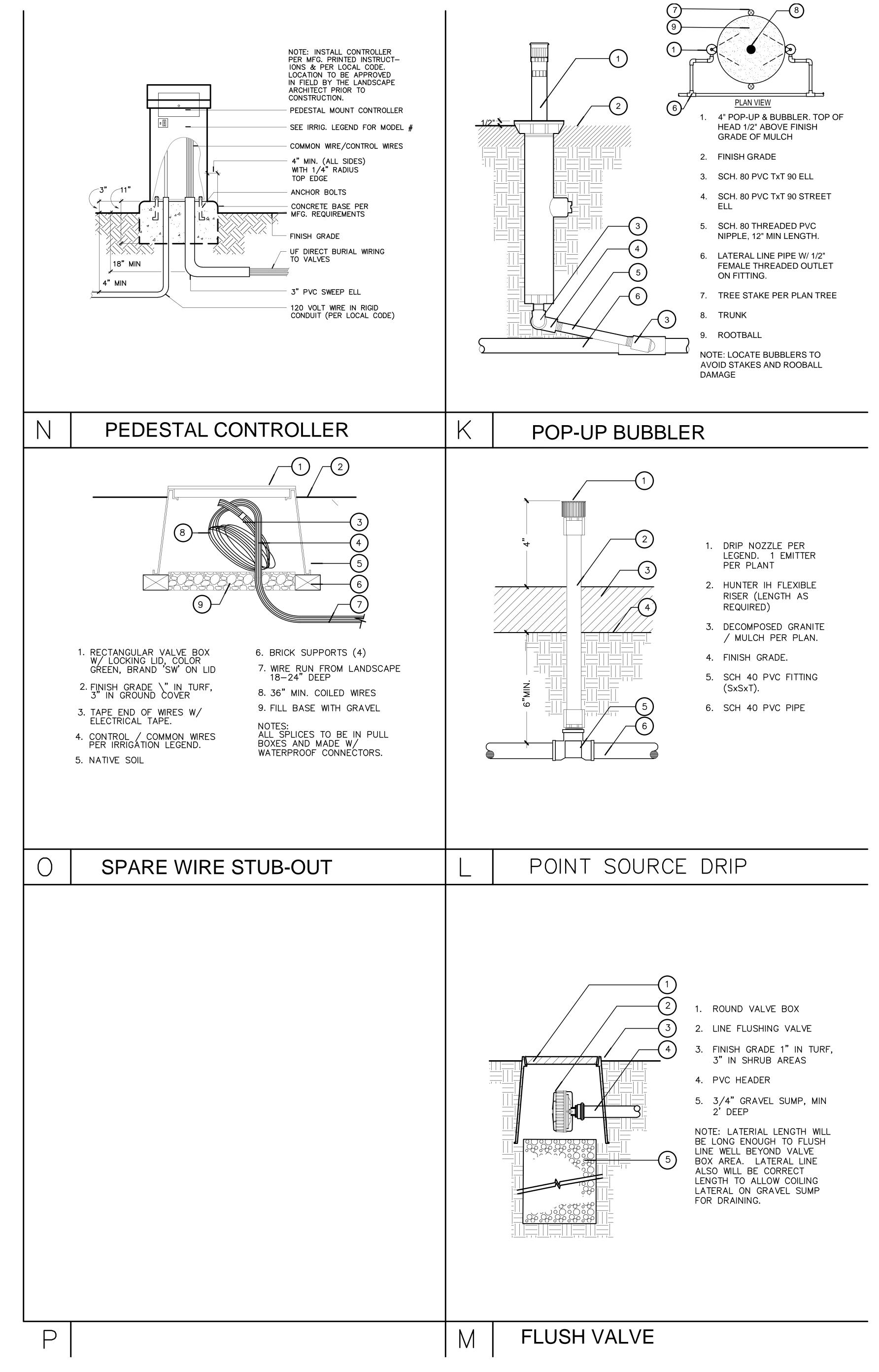


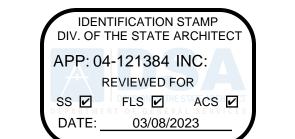
DEPARTMENT OF GENERAL SERVICES

18. Landscape Installation No. \_\_\_\_\_

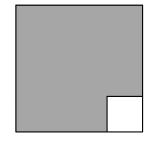
DIVISION OF THE STATE ARCHITECT







ALPHASTUDIO DESIGN GROUP



6152 INNOVATION WAY CARLSBAD, 92009 760-431-2444 www.alphastudio-design.com

ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECORD



PROJECT NO: 20-020

UPGRADES

-ART - CLOVER FLAT ES

MODEL FILE: CLOVER FLAT E.S. PARKING LOT UPGRADE

PLOT DATE: 03/02/23 SHEET TITLE

REVISIONS

MARK DATE

IRRIGATION DETAILS TITLE 24- PART 11

DESCRIPTION

#### D. FLUSHING

- OPENINGS IN PIPING SYSTEM DURING INSTALLATION ARE TO BE CAPPED OR PLUGGED TO PREVENT DIRT AND DEBRIS FROM ENTERING PIPE AND EQUIPMENT. REMOVE PLUGS WHEN NECESSARY TO FLUSH OR COMPLETE SYSTEM.
- 2. AFTER COMPLETION AND PRIOR TO THE INSTALLATION OF ANY TERMINAL FITTINGS, THE ENTIRE PIPELINE SYSTEM SHALL BE THOROUGHLY FLUSHED TO REMOVE DIRT, DEBRIS OR OTHER MATERIAL.
- E. HYDROSTATIC PRESSURE TESTING 1. AFTER FLUSHING, AND THE INSTALLATION OF VALVES THE FOLLOWING TESTS SHALL BE CONDUCTED IN THE SEQUENCE LISTED BELOW. THE CONTRACTOR SHALL FURNISH ALL EQUIPMENT: MATERIALS AND LABOR NECESSARY TO PERFORM THE
- TESTS AND ALL TESTS SHALL BE CONDUCTED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. 2. WATER PRESSURE TESTS SHALL BE PERFORMED ON ALL PRESSURE MAIN LINES BEFORE ANY COUPLINGS, FITTINGS,
- 3 IMMEDIATELY PRIOR TO TESTING ALL IRRIGATION LINES SHALL BE PURGED OF ALL ENTRAPPED AIR OR DEBRIS BY ADJUSTING CONTROL VALVES AND INSTALLING TEMPORARY CAPS FORCING WATER AND DEBRIS TO BE DISCHARGED FROM A SINGLE OUTLET.
- 4. TEST ALL PRESSURE MAIN LINE AT 150 PSI. FOR A MINIMUM OF FOUR (4) HOURS WITH AN ALLOWABLE LOSS OF 5 PSI PRESSURE AND GAUGES SHALL BE READ IN PSI, AND CALIBRATED SUCH THAT ACCURATE DETERMINATION OF POTENTIAL
- PRESSURE LOSS CAN BE ASCERTAINED. 5. RETEST AS REQUIRED UNTIL THE SYSTEM MEETS THE REQUIREMENTS. ANY LEAKS, WHICH OCCUR DURING TEST PERIOD,
- WILL BE REPAIRED IMMEDIATELY FOLLOWING THE TEST. ALL PIPE SHALL BE RE\_TESTED UNTIL FINAL WRITTEN 6. THE CONTRACTOR IS RESPONSIBLE FOR PROVING DOCUMENTATION STATING THE WEATHER CONDITIONS, DATE, THE

START TIME AND INITIAL WATER PRESSURE READINGS. THE FINISH TIME AND FINAL WATER PRESSURE READINGS AND THE

- TYPE OF EQUIPMENT USED TO PERFORM THE TEST. THE DOCUMENTATION MUST BE SIGNED BY A WITNESS ACCEPTABLE TO THE OWNER, VERIFYING ALL OF THE ABOVE-MENTIONED CONDITIONS.
- 7. SUBMIT A WRITTEN REPORT OF THE PRESSURE TESTING RESULTS WITH THE OTHER ABOVE REQUIRED INFORMATION TO THE OWNER'S REPRESENTATIVE FOR APPROVAL.

#### F. BACKFLOW PREVENTER TESTING

VALVES AND THE LIKE ARE CONCEALED.

- THE BACKFLOW PREVENTER SHALL BE TESTED ACCORDING TO PROCEDURES AND RESULTS PER THE REQUIREMENTS OF THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIVERSITY OF SOUTHERN CALIFORNIA OR AMERICAN WATER WORKS ASSOCIATION WHICHEVER IS MORE STRINGENT.
- TESTING SHALL BE PERFORMED BY A BACKFLOW PREVENTION ASSEMBLY TESTER WITH A CURRENT CERTIFICATION FROM THE AMERICAN BACKFLOW PREVENTER ASSOCIATION OR WATER PURVEYOR.
- G. BACKFILLING AND COMPACTING
- IRRIGATION TRENCHES SHALL BE CAREFULLY BACKFILLED WITH MATERIAL APPROVED FOR BACKFILLING AND FREE OF ROCKS AND DEBRIS ONE (1) INCH IN DIAMETER AND LARGER. WHEN BACK FILLING TRENCHES IN AREAS OF IMPORTED OR MODIFIED PLANTING SOIL, REPLACE ANY EXCAVATED SUBSOIL AT THE BOTTOM AND THE IMPORTED SOIL OR MODIFIED PLANTING SOIL AT THE TOP OF THE TRENCH.
- 2. BACKFILL SHALL BE COMPACTED WITH APPROVED EQUIPMENT TO THE FOLLOWING DENSITIES

DISPOSE OF EXCESS SOIL OR DEBRIS OFF SITE AT CONTRACTOR'S EXPENSE.

- BACKFILL UNDER PAVEMENT AND WITHIN 2 FEET OF THE EDGE OF PAVEMENT: COMPACT TO 95% OR GREATER OF MAXIMUM DRY DENSITY STANDARD PROCTOR.
- BACKFILL OF SUBSOIL UNDER IMPORTED PLANTING MIXES OR MODIFIED EXISTING PLANTING SOIL: BETWEEN 85 AND 90% OF MAXIMUM DRY DENSITY STANDARD PROCTOR.
- c. BACKFILL OF IMPORTED PLANTING MIXES OR MODIFIED EXISTING PLANTING SOIL: COMPACT TO THE REQUIREMENTS OF THE ADJACENT PLANTING MIX OR PLANTING SOIL AS SPECIFIED IN SECTION "PLANTING SOIL". FINISH GRADE OF ALL TRENCHES SHALL CONFORM TO ADJACENT GRADES WITHOUT DIPS OR OTHER IRREGULARITIES.
- 4. ANY SETTLING OF BACKFILL MATERIAL DURING THE MAINTENANCE OR WARRANTY PERIOD SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, INCLUDING ANY REPLACEMENT OR REPAIR OF SOIL, LAWN, AND PLANT MATERIAL OR PAVING PART I - GENERAL REQUIREMENTS

#### C. DESCRIPTION

- 1. WORK INCLUDED: UNLESS OTHERWISE SPECIFIED, THE CONSTRUCTION OF IRRIGATION SYSTEMS SHALL INCLUDE THE FURNISHING, INSTALLING AND TESTING OF MAINS, LATERALS, RISERS AND FITTINGS, QUICK COUPLERS, BALL VALVES. BACKFLOW PREVENTERS, FURNISHING AND INSTALLATION OF IRRIGATION CONTROLLERS, BOOSTER PUMPS, EXCAVATION AND BACKFILL, AND ALL OTHER WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS FOR A COMPLETE
- THE INTENT OF THE DRAWINGS AND SPECIFICATION IS TO INDICATE AND SPECIFY A COMPLETE AND EFFICIENT IRRIGATION SYSTEM READY FOR USE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND MEETING THE RECOMMENDED APPROVAL OF THE LANDSCAPE ARCHITECT. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CITY AND COUNTY CODES, AND THESE PLANS/SPECIFICATIONS
- IRRIGATION SYSTEMS SHALL BE CONSTRUCTED TO THE SIZES AND GRADES AND AT THE LOCATION SHOWN ON THE DRAWINGS. LINES SHOWN ON THE PLANS ARE ESSENTIALLY DIAGRAMMATIC. LOCATIONS OF ALL HEADS. VALVES. ETC., SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT AT THE TIME OF CONSTRUCTION. DO NOT EXCEED SPACING OF THE HEADS AS SHOWN ON PLANS.
- THE APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS AND THE SPECIAL CONDITIONS OF THESE SPECIFICATIONS SHALL GOVERN THE WORK OF THIS SECTION AS IF HEREIN WRITTEN IN FULL.
- THE CONTRACTOR SHALL MAINTAIN, CONTINUOUSLY, A COMPETENT SUPERINTENDENT OR FOREMAN, SATISFACTORY TO THE OWNER, DURING THE PROGRESS OF WORK, WITH AUTHORITY TO ACT FOR HIM IN ALL MATTERS PERTAINING
- WORK NOTED AS "N.I.C.", "EXISTING" OR "TO BE SUPPLIED AND/OR INSTALLED BY OTHERS" IS NOT A PART OF THIS
- THE WORK IN THIS SECTION SHALL BE COORDINATED WITH ALL UNDERGROUND UTILITIES AND TRADES RESPONSIBLE FOR THEIR INSTALLATION. ANY DISCREPANCIES IN LOCATION FROM WHAT IS SHOWN ON THE PLANS ARE TO BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
- 2. FIELD CONDITIONS: VERIEY DRAWING DIMENSIONS WITH ACTUAL FIELD CONDITIONS. INSPECT RELATED WORK AND ADJACENT SURFACES. REPORT TO THE LANDSCAPE ARCHITECT ALL CONDITIONS WHICH PREVENT PROPER EXECUTION OF
- THE CONTRACTOR SHALL ADEQUATELY PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC, AND SHALL BE RESPONSIBLE FOR ANY DAMAGES OR INJURY DUE TO THE CONTRACTOR'S ACTIONS.
- PERMITS AND FEES: THE CONTRACTOR SHALL APPLY AND PAY FOR ALL NECESSARY FEES AND PERMITS REQUIRED IN THE PURSUIT OF HIS WORK AS REQUIRED BY GOVERNING CODES. IF THE CONTRACTOR OBSERVES THAT A CONFLICT EXISTS BETWEEN PERMIT REQUIREMENTS AND THE WORK OUTLINED IN THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING WITH A DESCRIPTION OF THE NECESSARY CHANGES TO THE DOCUMENTS AND THE CONTRACT PRICE DIFFERENCE.
- 4. ALL ASSEMBLIES SPECIFIED HEREIN SHALL BE INSTALLED IN ACCORDANCE WITH THE RESPECTIVE DETAILS. IN THE ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS PERTAINING TO THE SPECIFIC ITEMS REQUIRED TO COMPLETE THE WORK, THE CONTRACTOR SHALL PERFORM SUCH WORK IN ACCORDANCE WITH THE BEST STANDARD PRACTICE AND TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT.
- 5. IRRIGATION CONTRACTOR IS RESPONSIBLE FOR REPLACING OR REPAIRING ANY ACTS OF THEFT OR VANDALISM DURING CONSTRUCTION, ESTABLISHMENT, AND MAINTENANCE PERIODS.
- 6. PERMISSION TO SHUT OFF ANY WATER LINES MUST BE OBTAINED FROM THE OWNER. DISRUPTION OF EXISTING SYSTEMS SHALL BE KEPT TO A MINIMUM.
- 7. CONTRACTOR SHALL MAINTAIN IRRIGATION SYSTEM THROUGHOUT PLANT ESTABLISHMENT AND MAINTENANCE PERIOD. 8. CONTRACTOR SHALL PROVIDE ONE YEAR GUARANTEE.
- B. RELATED WORK DESCRIBED ELSEWHERE

#### PLANTING: NOTES

#### C. QUALITY ASSURANCE

- 1. CODES AND STANDARDS: IN ADDITION TO COMPLYING WITH ALL PERTINENT CODES AND REGULATIONS, COMPLY WITH THE LATEST RULES OF THE NATIONAL ELECTRICAL CODE AND THE ELECTRICAL SAFETY ORDERS OF THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY, FOR ALL ELECTRICAL WORK AND MATERIALS. 2. IT IS THE INTENTION OF THIS SPECIFICATION TO ACCOMPLISH THE WORK OF INSTALLING AN AUTOMATIC IRRIGATION
- SYSTEM, WHICH WILL OPERATE IN AN EFFICIENT AND SATISFACTORY MANNER. THE IRRIGATION SYSTEM SHALL BE INSTALLED AND MADE OPERATIONAL ACCORDING TO THE WORKMANLIKE STANDARDS ESTABLISHED FOR LANDSCAPE INSTALLATION AND SPRINKLER IRRIGATION OPERATION AS SET FORTH BY THE MOST RECENT BEST MANAGEMENT PRACTICES (BMP) OF THE IRRIGATION ASSOCIATION.
- THE SPECIFICATION CAN ONLY INDICATE THE INTENT OF THE WORK TO BE PERFORMED RATHER THAN A DETAILED DESCRIPTION OF THE PERFORMANCE OF THE WORK, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL SAID MATERIALS AND EQUIPMENT IN SUCH A MANNER THAT THEY SHALL OPERATE EFFICIENTLY AND EVENLY AND SUPPORT OPTIMUM PLANT GROWTH AND HEALTH.
- 4. THE OWNER'S REPRESENTATIVE SHALL BE THE SOLE JUDGE OF THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS

AND OF THE QUALITY OF ALL MATERIALS FURNISHED IN PERFORMANCE OF THE CONTRACT.

- 5. THE CONTRACTOR SHALL KEEP ONE COPY OF ALL DRAWINGS AND SPECIFICATIONS ON THE WORK SITE, IN GOOD ORDER. THE CONTRACTOR SHALL MAKE THESE DOCUMENTS AVAILABLE TO THE OWNER'S REPRESENTATIVE WHEN REQUESTED.
- 6. IN THE EVENT OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE SPECIFICATION, THE FINAL DECISION AS TO WHICH SHALL BE FOLLOWED, SHALL BE MADE BY THE OWNER'S REPRESENTATIVE.
- IN THE EVENT THE INSTALLATION IS CONTRADICTORY TO THE DIRECTION OF THE OWNER'S REPRESENTATIVE, THE INSTALLATION SHALL BE RECTIFIED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR
- SHALL IMMEDIATELY BRING ANY SUCH DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. 8. IT SHALL BE DISTINCTLY UNDERSTOOD THAT NO ORAL STATEMENT OF ANY PERSON SHALL BE ALLOWED IN ANY MANNER TO MODIFY ANY OF THE CONTRACT PROVISIONS. CHANGES SHALL BE MADE ONLY ON WRITTEN AUTHORIZATION OF THE OWNER'S REPRESENTATIVE.
- 9. INSTALLER QUALIFICATIONS: THE INSTALLER SHALL BE A FIRM HAVING AT LEAST 5 YEARS OF SUCCESSFUL EXPERIENCE OF A SCOPE SIMILAR TO THAT REQUIRED FOR THE WORK.
- INSTALLER FIELD SUPERVISION: THE INSTALLER SHALL MAINTAIN ON SITE AN EXPERIENCED FULL-TIME SUPERVISOR WHO CAN COMMUNICATE IN ENGLISH WITH THE OWNER'S REPRESENTATIVE.

#### b. SUBMIT THE INSTALLER'S QUALIFICATIONS FOR APPROVAL. D. CHANGES IN THE WORK

- 1. THE OWNER'S REPRESENTATIVE MAY ORDER CHANGES IN THE WORK, AND THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY, ALL SUCH ORDERS AND ADJUSTMENTS PLUS CLAIMS BY THE CONTRACTOR FOR EXTRA COMPENSATION MUST BE MADE AND APPROVED IN WRITING BEFORE EXECUTING THE WORK INVOLVED.
- 2. ALL CHANGES IN THE WORK, NOTIFICATIONS AND CONTRACTOR'S REQUEST FOR INFORMATION (RFI) SHALL CONFORM TO THE CONTRACT GENERAL CONDITION REQUIREMENTS.
- E. CORRECTION OF WORK
- 1. THE CONTRACTOR SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO THE REQUIREMENTS OF THE CONTRACT AND SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP UPON WRITTEN NOTICE FROM THE OWNER'S REPRESENTATIVE, AT THE SOONEST AS POSSIBLE TIME THAT CAN BE COORDINATED WITH OTHER WORK, AND SEASONAL WEATHER DEMANDS. BUT NOT MORE THAN 90 (NINETY) DAYS AFTER NOTIFICATION.

1. GENERAL: COMPLY WITH THE PROVISIONS OF THE GENERAL CONDITIONS FOR POLICY PROCEDURES RELATED TO

- . MATERIALS LISTS: WITHIN FORTY\_FIVE (45) DAYS AFTER AWARD OF THE CONTRACT, SUBMIT VIA ELECTRONIC DELIVERY A COMPLETE LIST OF ALL MATERIALS PROPOSED TO BE FURNISHED AND INSTALLED UNDER THIS SECTION, DEMONSTRATING COMPLETE CONFORMANCE WITH THE REQUIREMENTS SPECIFIED.
- a. MATERIALS LIST SHALL INCLUDE BACKFLOWS, VALVES, PIPING, GLUE, HEADS, NOZZLES, CONTROLLER ETC.
- MATERIALS AND SAMPLES: IF MATERIALS ARE TO BE EMPLOYED. OTHER THAN DESIGNATED ON THE PLANS. THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY IRRIGATION WORK, SUBMIT FOR RECOMMENDED APPROVAL BY THE LANDSCAPE ARCHITECT, A LIST OF MATERIALS AND EQUIPMENT HE PROPOSES TO USE. SAMPLES SHALL BE SUBMITTED A SUFFICIENT TIME IN ADVANCE OF THE START OF CONSTRUCTION TO ALLOW A PERIOD OF NOT LESS THAN SEVEN (7) DAYS FOR TESTING AND RECOMMENDED APPROVAL. THE MATERIAL AND EQUIPMENT LIST SHALL INCLUDE, BUT NOT BE LIMITED TO, POLYVINYL CHLORIDE PIPE, AUTOMATIC CONTROLLERS, CONTROL VALVES, QUICK COUPLING VALVES AND IRRIGATION HEADS/NOZZLES.
- a. RECOMMENDED APPROVAL OF IRRIGATION EQUIPMENT AND MATERIALS SHALL DEPEND ON THE FOLLOWING:
- b. CONFORMANCE TO SPECIFICATION REQUIREMENTS. c. ACCEPTABLE TEST RESULTS AND/OR FIELD PERFORMANCE.
- d. DURABILITY AND LOW MAINTENANCE.
- e. AVAILABILITY OF PARTS AND SERVICE.

#### f. COMPATIBILITY WITH OWNER'S MATERIALS INVENTORIES 4. AS BUILT RECORD SET OF DRAWINGS:

- THE CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE, A COMPLETE RECORD SET OF BLACK LINE PRINTS WHICH SHALL BE CORRECTED DAILY AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS AND SPECIFICATIONS AND THE EXACT LOCATIONS, SIZES AND KINDS OF EQUIPMENT. PRINTS FOR THIS PURPOSE MAY BE OBTAINED FROM THE LANDSCAPE ARCHITECT.
- THE DRAWINGS SHALL ALSO SERVE AS WORK PROGRESS SHEETS, AND THE CONTRACTOR SHALL MAKE NEAT AND LEGIBLE ANNOTATIONS THEREON DAILY AS THE WORK PROCEEDS, SHOWING THE WORK AS ACTUALLY INSTALLED. HESE DRAWINGS SHALL BE AVAILABLE AT ALL TIMES FOR INSPECTIONS AND SHALL BE KEPT IN A LOCATION DESIGNATED BY THE OWNER'S REP.
- IN ORDER TO COMPLETE THE RECORD DRAWINGS IN A NEAT, LEGIBLE MANNER, THE CONTRACTOR SHALL EMPLOY A COMPETENT DRAFTSMAN, SATISFACTORY TO THE OWNER'S REP., TO INDICATE THE NECESSARY CHANGES ON BLACK LINE PRINTS PROCURED FROM THE OWNER. THE DRAWINGS SHALL BE TRANSMITTED TO THE OWNER'S REPRESENTATIVE IN PAPER FORMAT AND AS A PDF FILE OF EACH DOCUMENT ON COMPACT DISK OR FLASH DRIVE
- THE CONTRACTOR SHALL DIMENSION FROM TWO (2) PERMANENT POINTS OF REFERENCE, BUILDING CORNERS, SIDEWALKS, OR ROAD INTERSECTIONS, ETC., THE LOCATION OF:
- § THE ROUTING OF THE SPRINKLER MAIN LINES, SLEEVING,
- § CONNECTIONS TO THE EXISTING WATER LINES § CONTROL VALVES, SHUT-OFF VALVES, QUICK COUPLING VALVES § BACKFLOW PREVENTERS
- § ANY OTHER PERTINENT UNDERGROUND ITEM, IF SO DEEMED BY THE LANDSCAPE ARCHITECT.  $\S$  ALL VALVES SHALL BE NUMBERED BY STATION AND CORRESPONDING NUMBERS SHALL BE SHOWN ON THE AS
- BUILT RECORD SET OF DRAWINGS. § CONTROLLER LOCATIONS WITH GROUNDING RODS § WIRE RUNS, RAIN SENSORS, WIRE SPLICE LOCATIONS

TWO WEEKS PRIOR TO FINAL ACCEPTANCE.

- § ALL CHANGES IN DIRECTION AND DEPTH OF MAIN LINE PIPE SHALL BE NOTED EXACTLY AS INSTALLED. DIMENSIONS FOR PIPES SHALL BE SHOWN AT NO GREATER THAN A 50 FT. MAXIMUM INTERVAL.
- AS BUILT RECORD SET OF DRAWINGS SHALL BE SIGNED AND DATED BY THE CONTRACTOR ATTESTING TO ANI CERTIFYING THE ACCURACY OF THE AS BUILT RECORD SET OF DRAWINGS. IT SHALL HAVE "AS BUILT RECORD SET OF DRAWINGS", COMPANY NAME, ADDRESS, PHONE NUMBER AND THE NAME OF THE PERSON WHO CREATED THE DRAWING AND THE CONTACT NAME. (IF DIFFERENT).
- TESTING DATA FROM REQUIRED PRESSURE TESTING.
- 6. BACKFLOW PREVENTION DEVICE CERTIFICATION FROM THE WATER PURVEYOR, VERIFYING CORRECT INSTALLATION IN ACCORDANCE TO THEIR REQUIREMENTS.

#### G. PRODUCT HANDLING

- PROTECTION: USE ALL MEANS NECESSARY TO PROTECT THE MATERIALS OF THIS SECTION BEFORE, DURING, AND AFTER INSTALLATION AND TO PROTECT THE WORK AND MATERIALS OF ALL OTHER TRADES.
- 2. DELIVERY: POLYVINYL CHLORIDE PIPE SHALL BE DELIVERED TO THE WORK SITE IN UNBROKEN BUNDLES OR ROLLS PACKAGED IN SUCH A MANNER AS TO PROVIDE ADEQUATE PROTECTION FOR THE PIPE ENDS, THREADED OR PLAIN.
- 3. REPLACEMENTS: IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE RECOMMENDED APPROVAL OF THE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.

- THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN AREQUATE PROTECTION OF ALL THEIR WORK FROM DAMAGE DESTRUCTION, OR LOSS, AND SHALL PROTECT THE OWNER'S PROPERTY FROM DAMAGE ARISING IN CONNECTION WITH HIS CONTRACT. CONTRACTOR SHALL MAKE GOOD ANY SUCH DAMAGE, DESTRUCTION, LOSS OR INJURY. CONTRACTOR SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS PROVIDED BY LAW AND THE CONTRACT DOCUMENTS.
- 2. THE CONTRACTOR SHALL MAINTAIN SUFFICIENT SAFEGUARDS, SUCH AS RAILINGS, TEMPORARY WALKS, LIGHTS, ETC., AGAINST THE OCCURRENCE OF ACCIDENTS, INJURIES OR DAMAGE TO ANY PERSON OR PROPERTY RESULTING FROM THEIR WORK, AND SHALL ALONE BE RESPONSIBLE FOR THE SAME IF SUCH OCCURS.
- 3. ALL EXISTING PAVING, STRUCTURES, EQUIPMENT OR PLANT MATERIAL SHALL BE PROTECTED AT ALL TIMES, INCLUDING HE IRRIGATION SYSTEM RELATED TO PLANTS, FROM DAMAGE BY WORKERS AND EQUIPMENT. THE CONTRACTOR SHALL FOLLOW ALL PROTECTION REQUIREMENTS INCLUDING PLANT PROTECTION PROVISION OF THE GENERAL CONTRACT DOCUMENTS. ALL DAMAGES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. REPAIRS AND OR REPLACEMENT SHALL BE TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE, INCLUDING THE SELECTION OF A CONTRACTOR TO UNDERTAKE THE REPAIR OR MAINTENANCE. REPAIRS SHALL BE AT NO COST TO THE OWNER.
- 4. FOR TREES DAMAGED TO THE POINT WHERE THEY WILL NOT BE EXPECTED TO SURVIVE OR WHICH ARE SEVERELYDISFIGURED AND THAT ARE TOO LARGE TO REPLACE, THE COST OF DAMAGES SHALL BE AS DETERMINED BY THE OWNER'S ARBORIST USING ACCEPTED TREE VALUE EVALUATION METHODS.
- 5. THE CONTRACTOR SHALL REFRAIN FROM TRENCHING WITHIN THE DRIP LINE OF ANY EXISTING TREE TO REMAIN. THEOWNER'S REPRESENTATIVE MAY REQUIRE THE CONTRACTOR TO RELOCATE PROPOSED IRRIGATION WORK, BORE LINES BENEATH ROOTS OR USE AIR-SPADE TECHNOLOGY TO DIG TRENCHES THROUGH AND UNDER THE ROOT SYSTEM TO AVOID DAMAGE TO EXISTING TREE ROOT AREAS.
- I. EXCAVATING AROUND UTILITIES
  - 1. CONTRACTOR SHALL CAREFULLY EXAMINE THE CIVIL, RECORD, AND SURVEY DRAWINGS TO BECOME FAMILIAR WITH THE EXISTING UNDERGROUND CONDITIONS BEFORE DIGGING.
- a. DO NOT BEGIN ANY EXCAVATION UNTIL ALL UNDERGROUND UTILITIES HAVE BEEN LOCATED AND MARKED.
- DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER THAT WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED. MAINTAIN STAKES AND OR MARKINGS SET BY OTHERS UNTIL PARTIES CONCERNED MUTUALLY AGREE TO THEIR REMOVAL. 2. SECTION 4216/4217 OF THE GOVERNMENT CODE REQUIRES A DIG-ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A

PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG-ALERT IDENTIFICATION NUMBER CALL UNDERGROUND SERVICE

#### ALERT TOLL FREE 1-800-422-4133 TWO WORKING DAYS BEFORE BEGINNING CONSTRUCTION. J. TEMPORARY UTILITIES

- 1. ALL TEMPORARY PIPING, WIRING, METERS, PANELS AND OTHER RELATED APPURTENANCES REQUIRED BETWEEN SOURCE OF SUPPLY AND POINT OF USE SHALL BE PROVIDED BY THE CONTRACTOR AND COORDINATED WITH THE OWNER'S REPRESENTATIVE. EXISTING UTILITIES MAY BE USED WITH THE WRITTEN PERMISSION OF THE OWNER.
- K. CUTTING, PATCHING, TRENCHING AND DIGGING
- 1. THE CONTRACTOR SHALL DO ALL CUTTING, FITTING, TRENCHING OR PATCHING OF THEIR WORK THAT MAY BE REQUIRED TO MAKE ITS SEVERAL PARTS COME TOGETHER AS SHOWN UPON, OR IMPLIED BY, THE DRAWINGS AND SPECIFICATIONS
- 2. DIGGING AND TRENCHING OPERATIONS SHALL BE SUSPENDED WHEN THE SOIL MOISTURE IS ABOVE FIELD CAPACITY.

#### PART II - PRODUCTS A. RECLAIMED WATER SYSTEM DESIGNATION

 WHERE IRRIGATION SYSTEMS USE RECLAIMED WATER, ALL PRODUCTS INCLUDING VALVE BOXES, LATERAL AND MAIN LINE PIPE, ETC. WHERE APPLICABLE AND/OR REQUIRED BY LOCAL CODE SHALL HAVE THE RECLAIMED WATER PURPLE COLOR DESIGNATION.

- a. UNLESS OTHERWISE SPECIFIED, THE CONSTRUCTION OF LATERAL LINES AND MAIN LINES SHALL INCLUDE EXCAVATION AND BACKFILL, THE FURNISHING, INSTALLING AND TESTING OF PIPE, TUBE AND FITTINGS, THE URNISHING AND INSTALLING OF ANCHORS, THRUST BLOCKS AND LOCATION WIRE, THE IMPROVEMENTS, LINE FLUSHING AND TESTING, AND ALL OTHER WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
- b. MAIN SUPPLY PRESSURE LINES SHALL BE PVC; 4" AND LARGER CLASS 200, 2" 3" CLASS 315, 1 1/2" AND SMALLER

SCHEDULE 40. AS MANUFACTURED BY LASCO INDUSTRIES, OR APPROVED FOUAL

- 1) SAND SHALL CONSIST OF NATURAL OR MANUFACTURED GRANULAR MATERIAL, FREE OF ORGANIC MATERIAL, MICA, LOAM, CLAY OR OTHER SUBSTANCES NOT SUITABLE FOR THE INTENDED PURPOSE. 2) SAND SHALL BE MASONRY SAND ASTM C 144 OR COARSE CONCRETE SAND, ASTM C 33.
- LATERAL NON-PRESSURE LINES SHALL BE PVC. SCHEDULE 40 POLYVINYL CHLORIDE, AS MANUFACTURED BY LASCO INDUSTRIES, OR APPROVED EQUAL.
- INDUSTRIES, OR APPROVED EQUAL.

IRRIGATION LINE SLEEVES SHALL BE PVC. SCHEDULE 40 POLYVINYL CHLORIDE, AS MANUFACTURED BY LASCO

LOW VOLTAGE CONTROL WIRE SLEEVES (VALVE WIRES) SHALL BE PVC SCHEDULE 40 POLYVINYL CHLORIDE, AS MANUFACTURED BY LASCO INDUSTRIES, OR APPROVED EQUAL. ALL EXPOSED WIRES SHALL BE SLEEVED IN PVC SCHEDULE 40 ULV ELECTRICAL CONDUIT WITH ULV SCHEDULE 40 FITTINGS. 2. IDENTIFICATION: ALL PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION:

RATING AT 73.4 DEGREES F., THE MANUFACTURER'S NAME OR TRADE MARK, AND THE NATIONAL SANITATION FOUNDATION

THE NORMAL PIPE SIZE, THE TYPE AND SCHEDULE OR CLASS OF MATERIAL, THE WORKING PRESSURE OR PRESSUI

- (N.S.F.) SEAL OF APPROVAL. 3. POLYVINYL CHLORIDE PIPE FITTINGS AND CONNECTIONS:
- CHLORIDE, TYPE II, GRADE I, SCHEDULE 40, HIGH IMPACT MOLDED FITTINGS, MANUFACTURED FROM VIRGIN b. THE SCHEDULE 40 FITTINGS SHALL BE TAPERED SOCKET TYPE, OR MOLDED THREAD TYPE, SUITABLE FOR EITHER

a. POLYVINYL CHLORIDE PIPE FITTINGS AND CONNECTIONS APPROVED FOR IRRIGATION SYSTEMS SHALL BE POLYVINYL

- SOLVENT WELD OR SCREWED CONNECTIONS. MACHINE THREADED FITTINGS WILL BE ACCEPTABLE ONLY IF THREAD\_STRIPPING RESISTANCE TEST RESULTS ARE
- d. IN LINE FITTINGS, SUCH AS COUPLINGS, UNIONS AND BUSHINGS MAY BE MACHINED FROM EXTRUDED STOCK.
- e. PLASTIC SADDLE AND FLANGE FITTINGS WILL NOT BE ACCEPTABLE.
- ALL FITTINGS SHALL BE PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION: THE NORMAL PIPE SIZE, THE TYPE AND SCHEDULE OF MATERIAL, AND THE NATIONAL SANITATION FOUNDATION (N.S.F.) SEAL OF APPROVAL.

#### 4. GALVANIZED PIPE AND FITTINGS:

D. BACKFLOW PREVENTION DEVICES

E. PRESSURE REGULATOR

- a. ALL GALVANIZED STEEL PIPE SHALL BE SCHEDULE 40, THREADED, COUPLED AND HOT\_DIP GALVANIZED, AND SHALL
- b. ALL FITTINGS FOR GALVANIZED STEEL PIPE SHALL BE 150 PSI RATED GALVANIZED MALLEABLE IRON, BANDED
- c. PIPE SIZES INDICATED ON THE DRAWINGS ARE NOMINAL INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 5. BRASS PIPE FITTINGS, UNIONS AND CONNECTIONS:
- a. STANDARD 125 POUND CLASS 85% RED BRASS FITTINGS AND CONNECTIONS, IPS THREADED.
- 6. PVC SCHEDULE 80 THREADED RISERS AND NIPPLES:

COMPLY WITH ASTM A120 AND A53.

- a. TYPE I, GRADE 1, SCHEDULE 80, HIGH IMPACT MOLDED, MANUFACTURED FROM VIRGIN COMPOUNDS AS SPECIFIED FOR PIPING AND CONFORMING TO ASTM D-2464.
- ). THREADED ENDS SHALL BE MOLDED THREADS ONLY. MACHINED THREADS ARE NOT ACCEPTABLE.

#### C. SOLVENT CEMENTS AND THREAD LUBRICANT

- 1. SOLVENT CEMENTS SHALL COMPLY WITH ASTM D2564. SOCKET JOINTS SHALL BE MADE PER RECOMMENDED PROCEDURES FOR JOINING PVC PLASTIC PIPE AND FITTINGS WITH PVC SOLVENT CEMENT AND PRIMER BY THE PIPE AND FITTING MANUFACTURER AND PROCEDURES OUTLINED IN THE APPENDIX OF ASTM D2564.
- 2. THREAD LUBRICANT SHALL BE TEFLON RIBBON-TYPE, OR APPROVED EQUAL, SUITABLE FOR THREADED INSTALLATIONS AS PER MANUFACTURER'S RECOMMENDATIONS.
- 3. PIPE JOINT COMPOUND (PIPE DOPE) SHALL BE USED ON ALL GALVANIZED THREADED CONNECTIONS. PIPE JOINT COMPOUND IS A WHITE COLORED, NON-SEPARATING THREAD SEALANT COMPOUND DESIGNED TO SEAL THREADED CONNECTIONS AGAINST LEAKAGE DUE TO INTERNAL PRESSURE. IT SHALL CONTAIN PTFE (POLYTETRAFLUOROETHYLENE) TO PERMIT A TIGHTER ASSEMBLY WITH LOWER TORQUE, SECURE PERMANENT SEALING OF ALL THREADED CONNECTIONS AND ALLOW FOR EASY DISASSEMBLY WITHOUT STRIPPING OR DAMAGING THREADS.
- 1. THE BACKFLOW PREVENTION DEVICE SHALL BE CERTIFIED TO NSF/ANSI 372 SHALL BE ASSE LISTED 1013, RATED TO 180 DEGREE F, AND SUPPLIED WITH FULL PORT BALL VALVES.
- 2. THE MAIN BODY AND ACCESS COVERS SHALL BE LOW LEAD BRONZE (ASTM B 584)
- 3. THE SEAT RING AND ALL INTERNAL POLYMERS SHALL BE NSF LISTED NORYL AND THE SEAT DISC ELASTOMERS SHALL BE
- 4. BACKFLOW PREVENTER SHALL BE AS INDICATED ON THE DRAWINGS.
- 1. PRESSURE REGULATOR SHALL CERTIFIED TO NSF/ANSI 372, CONSISTING OF LOW LEAD BRONZE BODY BELL HOUSING. A SEPARATE ACCESS CAP SHALL BE THREADED TO THE BODY AND SHALL NOT REQUIRE THE USE OF FERROUS SCREWS.
- 2. THE MAIN VALVE BODY SHALL BE CAST BRONZE (ASTM B 584).
- 3. THE ACCESS COVERS SHALL BE BRONZE (ASTM B 584 OR BRASS ASTM B 16)
- 4. THE ASSEMBLY SHALL BE OF THE BALANCED PISTON DESIGN AND SHALL REDUCE THE PRESSURE IN BOTH FLOW AND NO

1. STRAINER SHALL CONFORM TO MIL -S-16293, AND BE ANSI 3RD PARTY CERTIFIED TO COMPLY WITH THE STATES LEAD

5. PRESSURE REGULATOR SHALL BE AS INDICATED ON THE DRAWINGS. E. WYE STRAINER

PLUMBING LAW 0.25% MAXIMUM WEIGHTED AVERAGE LEAD CONTENT.

- 2. THE MAIN BODY SHALL BE LOW LEAD BRONZE (ASTM B 584)
- 3. THE ACCESS COVERS SHALL BE YELLOW BRASS OR CAST BRONZE (ASTM B 16 OR ASTM B 584) 4. STRAINER SCREEN SHALL BE 300 SERIES STAINLESS STEEL AVAILABLE IN 20, 40, 60, 80, OR 100

#### 5. WYE STRAINER SHALL BE AS INDICATED ON THE PLANS. F. BACKFLOW PREVENTER CAGE

- 1. A HEAVY-DUTY STEEL MESH CAGE WITH RUST PROOF FINISH. THE CAGING SHALL BE SIZED TO ALLOW SPACE FOR THE ENTIRE PIPING ASSEMBLY ASSOCIATED WITH THE BACKFLOW PREVENTER UNIT, AND ALL ASSOCIATED EQUIPMENT.
- 2. THE CAGE SHALL INCLUDE THE MANUFACTURERS' STANDARD TAMPER PROOF LOCKING MECHANISM
- 3. PROVIDE A CONCRETE BASE AS DETAILED ON THE DRAWINGS.
- 4. BACKFLOW PREVENTER CAGE TYPE, MANUFACTURER AND COLOR SHALL BE AS INDICATED ON THE PLANS.
- BALL VALVES:
- a. ALL BALL VALVES SHALL BE ALL BRONZE CONSTRUCTION FULL PORT; 1/2" THRU 2", NIBCO T585. b. WORKING PRESSURE RATED: 150 PSI STEM, 400 PSI W.O.G.
- c. BALL VALVES INSTALLED UNDERGROUND SHALL BE HOUSED IN A CARSON/BROOKS PLASTIC TURF BOX.
- a. SWING CHECK VALVES 2 INCH AND SMALLER SHALL BE 200 LBS., W.O.G., BRONZE CONSTRUCTION WITH REPLACEABLE COMPOSITION, NEOPRENE OR RUBBER DISC AND SHALL MEET OR EXCEED FEDERAL SPECIFICATION WW-V\_5LD,
- b. ANTI DRAIN VALVES SHALL BE OF HEAVY DUTY VIRGIN PVC CONSTRUCTION WITH FEMALE IRON PIPE THREAD INLET NAND OUTLET. INTERNAL PARTS SHALL BE STAINLESS STEEL AND NEOPRENE. ANTI\_DRAIN VALVES SHALL BE FIELD
- c. CHECK VALVES SHALL BE AS INDICATED ON THE DRAWINGS.

ADJUSTABLE AGAINST DRAW OUT FROM 5 TO 40 FEET OF HEAD.

3. REMOTE CONTROL VALVES

G. VALVES

- a. REMOTE CONTROL VALVES SHALL BE ELECTRICALLY OPERATED, SINGLE SEAT, NORMALLY CLOSED CONFIGURATION, EQUIPPED WITH FLOW CONTROL ADJUSTMENT AND CAPABILITY FOR MANUAL OPERATION.
- b. VALVES SHALL BE ACTUATED BY A NORMALLY CLOSED LOW WATTAGE SOLENOID USING 24 VOLTS, 50/60 CYCLE SOLENOID POWER REQUIREMENT. SOLENOID SHALL BE EPOXY ENCASED. A UNION SHALL BE INSTALLED ON THE
- c. REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SAME NUMERICAL SEQUENCE AS INDICATED ON
- d. REMOTE CONTROL VALVES SHALL BE AS INDICATED ON THE DRAWINGS. e. ALL VALVES SHALL HAVE A T.C. CHRISTY VALVE MARKING PLASTIC TAG.
- 4. MASTER CONTROL VALVES a. ALL MASTER VALVES SHALL BE ELECTRICALLY CONTROLLED, HYDRAULICALLY OPERATED, SINGLE SEAT, NORMALLY
- FLOW SENSOR
- a. FLOW SENSOR SHALL BE COMPATIBLE WITH THE IRRIGATION CONTROLLER. b. FLOW SENSOR SHALL BE AS INDICATED ON THE DRAWINGS.

CLOSED NO EQUIVALENTS OR EQUALS.

QUICK COUPLER VALVES

a. QUICK COUPLER VALVES SHALL BE A ONE OR TWO PIECE, HEAVY-DUTY BRASS CONSTRUCTION WITH A WORKING

- RESSURE OF 150 PSI WITH A BUILT IN FLOW CONTROL AND A SELF\_CLOSING VALVE. QUICK COUPLER SHALL BE EQUIPPED WITH LOCKING RED BRASS CAP COVERED WITH DURABLE YELLOW THERMO-PLASTIC RUBBER COVER. KEY SIZE SHALL BE COMPATIBLE WITH QUICK COUPLER AND OF SAME
- c. QUICK COUPLER VALVES SHALL BE AS INDICATED ON THE DRAWINGS.
- a. VALVE BOXES SHALL BE CONSTRUCTED OF ABS (ACRYLONITRILE BUTADIENE STYRENE) PLASTIC, GREEN IN COLOR,
- WITH RIGID BASE AND SIDES AND SHALL BE SUPPLIED WITH BOLT LOCK COVER SECURED WITH STAINLESS STEEL BOLTS. COVER SHALL BE IDENTIFIED AS SHOWN ON DRAWINGS. PROVIDE BOX EXTENSIONS AS REQUIRED.
- b. MASTER VALVES, FLOW SENSORS, REMOTE CONTROL IRRIGATION VALVES, GATE VALVES, AND BALL VALVES 3 INCH OR LESS IN SIZE SHALL USE A 14 INCH X 19 INCH X 12 INCH RECTANGULAR BOX.
- c. QUICK COUPLER VALVES, WIRE SPLICES, AND GROUNDING RODS SHALL USE A 10 INCH CIRCULAR BOX.
- H. AUTOMATIC CONTROLLERS (ELECTRIC): 1. CONTROLLER SHALL BE HOUSED IN A STURDY, LOCKING, WEATHER\_RESISTANT CASE, FURNISHED FOR MAXIMUM
- EXTERIOR PROTECTION. 2. CONTROLLER SHALL BE EQUIPPED WITH EVAPO-TRANSPIRATION (ET) SENSOR, WHICH ADJUSTS THE CONTROLLER PROGRAMMING BASED ON LOCAL CLIMATIC CONDITIONS. THE SENSOR SHALL ALSO HAVE A RAIN SENSING SHUT-OFF
- SWITCH, WIND SENSING SHUT OFF SWITCH, AND FREEZE SENSING SHUT-OFF OF SWITCH. a. IF A MOISTURE SENSOR IS USED IN LIEU OF AN EVAPO-TRANSPIRATION SENSOR AN ADDITIONAL SENSOR, WHICH HAS A RAIN-SENSING SHUT-OFF SWITCH, WIND SENSING SHUT-OFF SWITCH, AND FREEZE SENSING SHUT-OFF SWITCH
- 3. AUTOMATIC CONTROLLER SHALL BE AS INDICATED ON THE DRAWINGS CONTROLLER DECODERS

& 10, AND 62 MILS FOR AWG #8.

#### 1. ALL DECODERS SHALL BE PER THE CONTROLLER MANUFACTURER'S SPECIFICATIONS. 2. DECODER MODEL NUMBER SHALL BE AS SHOWN ON THE DRAWINGS.

- J. CONTROL WIRE 8. ALL CONTROL WIRE SHALL BE OF THE UNDERWRITER'S LABORATORY TYPE UF (UNDERGROUND FEEDER). SINGLE CONDUCTOR, SOLID COPPER, PLASTIC INSULATED, 600 VOLT RATED, FOR DIRECT BURIAL APPLICATIONS, MAXIMUM
- a. CONDUCTOR- THE CONDUCTORS SHALL BE SOLID ANNEALED UNCOATED COPPER MEETING THE APPLICABLE REQUIREMENTS OF THE LATEST REVISIONS OF A.S.T.M. B 3. b. INSULATION \_ THE INSULATION SHALL BE COLORED PLASTIC WHICH MEETS THE TEST REQUIREMENTS OF I.P.C.E.A. (THE INSULATED POWER CABLE ENGINEER'S ASSOCIATION) PUB. NO. S. 61, 402, DATED JULY 1961, SECTION 3.7 FOR 60

DEGREES C. POLYVINYL CHLORIDE INSULATION. THE INSULATION SHALL BE FLAME RETARDANT, RESISTANT TO FUNGUS. RESISTANT TO CORROSIVE FUMES. SUITABLE FOR WET LOCATIONS AND FURNISH SOME DEGREE OF

INHERENT PROTECTIONS AGAINST MECHANICAL ABUSE. INSULATION THICKNESS SHALL BE 47 MILS FOR AWG #14, 12

CONDUCTOR OPERATING TEMPERATURE. 60 DEGREES C. FOR BOTH WET AND DRY LOCATIONS. WIRE COMPOSITION IS AS

- c. COLOR CODING \_ THE CONDUCTOR INSULATION SHALL BE COLOR CODED AS FOLLOWS:
- 1) ALL COMMON GROUND WIRE SHALL BE WHITE.
- 2) ALL PILOT (VALVE CONTROL) WIRE SHALL BE COLOR CODED PER VALVE. (SPARE WIRING TO BE DIFFERENT

#### COLOR PATTERN FROM ORIGINAL WIRING) K. SPRINKLER HEADS:

- 1. ALL SPRINKLER HEADS SHALL HAVE CHECK VALVES INSTALLED.
- ALL SPRINKLER HEADS SHALL BE AS INDICATED ON THE DRAWINGS.
- 3. RISER NIPPLES FOR ALL SPRINKLER HEADS SHALL BE THE SAME SIZE AS THE RISER OPENING IN THE SPRINKLER BODY AND FABRICATED AS SHOWN ON THE DRAWINGS

- 1. FLEXIBLE RISERS: HUNTER IH RISERS FROM PVC LATERAL TO THE ROOTBALL OF THE PLANT.
- 2. MANUAL FLUSH VALVE: PER PLAN.

#### PART III- EXECUTION

INSPECTION:

#### A. SURFACE CONDITIONS

3. DRIP EMITTERS: PER PLAN.

- a. PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE.
- b. VERIFY THAT IRRIGATION SYSTEM MAY BE INSTALLED IN STRICT ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS, THE ORIGINAL DESIGN, THE REFERENCE STANDARDS AND THE MANUFACTURER'S

#### RECOMMENDATIONS. DISCREPANCIES:

- a. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT.
- b. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

#### B. TRENCHING/SLEEVING MEASUREMENTS

- TRENCHES AND OTHER EXCAVATIONS FOR IRRIGATION PIPE AND APPURTENANCES SHALL BE EXCAVATED TRUE TO ALIGNMENT AND GRADE, AND SHALL BE OF AMPLE SIZE FOR THE PROPER PERFORMANCE OF INSTALLATION WORK,
- REVIEW, TESTING AND BACKFILL. b. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE
- CARE TO AVOID INJURY TO TREES AND TREE ROOTS.
- CARE TO AVOID INJURY TO TREES AND TREE ROOTS BY HAND DIGGING WITHIN THE DRIP LINE. GENERALLY, PIPING UNDER CONCRETE SHALL BE INSTALLED BY JACKING, BORING OR HYDRAULIC DRIVING. WHERE ANY CUTTING OR BREAKING OF SIDEWALKS AND/OR CONCRETE WORK IS NECESSARY, IT SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR. PERMISSION TO CUT OR BREAK SIDEWALKS AND/OR CONCRETE SHALL BE

OBTAINED FROM THE ARCHITECT. NO HYDRAULIC DRIVING WILL BE PERMITTED UNDER ASPHALTIC CONCRETE

c. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE

- e. COORDINATE WITH PLANTING OPERATIONS, AS 10" DEEP CROSS-RIPPING IS REQUIRED PRIOR TO IRRIGATION SYSTEMS INSTALLATION. (CROSS-RIPPING IS PART OF THE PLANTING WORK).
- 2. PLASTIC PIPE TRENCHES:
- a. MINIMUM TRENCH WIDTH SHALL BE SIX (6) INCHES.
- b. MINIMUM TRENCH DEPTH BELOW BOTTOM OF PIPE SHALL BE TWO (2) INCHES.
- c. MINIMUM COVER SHALL BE BASED ON FINISHED GRADES, UNLESS OTHERWISE NOTED ON DRAWINGS. 1) <u>LATERAL LINE MINIMUM COVER SHALL BE TWELVE (12) INCHES.</u>
- INCHES FOR PIPE 3" AND LARGER. 3) PIPE AND WIRE SLEEVES MINIMUM COVER SHALL BE TWENTY\_FOUR (24) INCHES.

4) RECLAIMED WATER CONSTANT PRESSURE MAIN LINES SHALL CROSS AT LEAST TWELVE (12) INCHES BELOW

2) MAIN LINE MINIMUM COVER SHALL BE EIGHTEEN (18) INCHES FOR PIPE 2 ½" AND SMALLER, TWENTY-FOUR (24)

- a) IF A CONSTANT PRESSURE RECLAIMED WATER MAIN LINE MUST BE INSTALLED ABOVE A POTABLE WATER LINE OR LESS THAN TWELVE (12) INCHES BELOW A POTABLE WATER LINE, THEN RECLAIMED WATER LINE SHALL BE INSTALLED WITHIN AN APPROVED PROTECTIVE SLEEVE. THE SLEEVE SHALL EXTEND TEN (10) FEET FROM EACH SIDE OF THE CENTER OF THE POTABLE LINE, FOR A TOTAL OF TWENTY (20) FEET. THE SLEEVE
- d. ON NEW ON-SITE SYSTEMS (POST-METER), THE REQUIRED HORIZONTAL SEPARATION BETWEEN POTABLE WATER LINES, RECLAIMED WATER CONSTANT PRESSURE MAIN LINES AND SEWER LINES SHALL BE A MINIMUM OF FOUR (4) FEET APART AS DIRECTED BY THE PROJECT ENGINEER AND/ OR REGULATORY AGENCY. MEASUREMENTS SHALL BE

SHALL BE COLOR-CODED (PURPLE) FOR USE WITH RECLAIMED WATER

ALL PLASTIC PIPE SHALL BE BEDDED AND ENCASED WITH APPROVED BACKFILL MATERIAL FREE OF ROCKS AND CLODS AS INDICATED IN THE FOLLOWING TABLE AND/OR SHOWN ON THE PLANS

THICKNESS ABOVE

BETWEEN FACING SURFACES, NOT PIPE CENTERLINES.

PIPE MINIMUM OF PIPE PIPE MINIMUM MINIMUM TWO (2) INCHES FOUR (4) INCHES TWO (2) INCHES b. THE BALANCE OF BACKFILL MATERIAL SHALL BE APPROVED SOIL. UNSUITABLE MATERIAL, INCLUDING CLODS AND ROCKS OVER 2 TO 2\_1/2 INCHES IN SIZE, SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF LEGALLY AT NO COST TO THE OWNER

c. BACKFILL MATERIAL SHALL BE SUFFICIENTLY COMPACTED UNDER AND ON EACH SIDE OF THE PIPE TO PROVIDE

THICKNESS AT SIDE

- SUPPORT FREE OF VOIDS. ON SLOPE AREAS OVER 3:1 GRADIENT COMPACTION SHALL BE 85% (MIN) OR EQUAL TO THE REQUIREMENTS OF THE GRADING PLANS, WHICH EVER IS GREATER. PIPE JOINTS SHALL REMAIN EXPOSED UNTIL THE COMPLETION OF PRESSURE AND LEAKAGE TEST, UNLESS AUTHORIZED BY THE ARCHITECT. THE TOP SIX (6) INCHES OF BACKFILL SHALL BE FREE OF ROCKS OVER ONE (1) INCH, SUBSOIL, RUBBISH AND DEBRIS.
- d. THE REMAINDER OF THE BACKFILL MATERIAL SHALL CONTAIN NO LUMPS OR ROCKS LARGER THAN TWO AND ONE\_HALF (2\_1/2) INCHES, NOR CONTAIN RUBBISH AND DEBRIS. e. BACKFILL SHALL BE TAMPED OR PUDDLED TO THE DRY DENSITY OF ADJACENT SOIL. BACKFILL WITHIN AREAS OF

STRUCTURALLY COMPACTED SOILS SHALL BE RETURNED TO THE ORIGINAL RELATIVE DENSITY AS BEFORE

#### a. LOCATION WIRE SHALL BE PLACED ON TOP OF THE FOUR\_INCH SELECT BACKFILL OVER ALL MAINLINE (PRESSURE BEARING) PIPES, EXCEPT COPPER PIPE. WIRE SHALL BE NO. 12 GAUGE COPPER, NEW OR USED OR AN APPROVED SUBSTITUTE, AND SHALL PROVIDE A CONTINUOUS ELECTRICAL CONDUCTOR BETWEEN GATE VALVES AND CONTROL

4. LOCATION WIRE:

BACKFILL MATERIAL:

THICKNESS UNDER

TRENCH BESIDE THE VALVE BODY. THIS LOCATION WIRE MAY BE OMITTED WHERE COPPER HYDRAULIC CONTROL TUBING OR ELECTRIC CONTROL WIRE FOLLOWS THE WATER MAIN.

VALVES. EACH END SHALL BE BROUGHT TO THE VALVE SLEEVE AND TWO FEET OF WIRE LOOPED FREE IN THE

C. PIPE INSTALLATION 1. UNDER NO CIRCUMSTANCE IS PIPE TO REST ON CONCRETE, ROCK, WOOD BLOCKS, CONSTRUCTION DEBRIS OR SIMILAR

2. NO WATER SHALL BE PERMITTED IN THE PIPE UNTIL A PERIOD OF AT LEAST 24 HOURS HAS ELAPSED FOR SOLVENT WELD

- SETTING AND CURING. 3. INSTALL ASSEMBLIES AND PIPE TO CONFORM TO RESPECTIVE DETAILS AND WHERE SHOWN DIAGRAMMATICALLY ON DRAWINGS, USING FIRST CLASS WORKMANSHIP AND BEST STANDARD PRACTICES AS APPROVED. ALL FITTINGS THAT ARE
- NECESSARY FOR PROPER CONNECTIONS SUCH AS SWING JOINTS, OFFSETS, AND REDUCING BUSHINGS THAT ARE NOT SHOWN ON DETAILS SHALL BE INSTALLED AS NECESSARY AND DIRECTED AS PART OF THE WORK.

MANUFACTURER'S SPECIFICATIONS.

5. SOLVENT WELD OR THREADED PLASTIC PIPE:

a. INSTALLATION OF ALL PIPE AND FITTINGS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S

SHALL BE BEVELED TO REMOVE BURRS AND EXCESS BEFORE GLUING.

4. GASKETED PLASTIC PIPE: PIPE-TO-PIPE JOINTS OR PIPE TO FITTINGS SHALL BE MADE IN ACCORDANCE WITH

d. PLASTIC TO METAL CONNECTIONS SHALL BE MADE WITH PLASTIC ADAPTERS AND IF NECESSARY, SHORT (NOT CLOSE) BRASS THREADED\_NIPPLES. CONNECTION SHALL BE MADE WITH TWO (2) WRAPS OF TEFLON TAPE AND HAND TIGHTENED PLUS ONE TURN WITH A STRAP WRENCH.

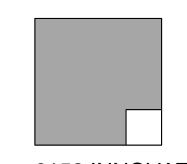
b. PIPE SHALL BE CUT USING APPROVED PVC PIPE CUTTERS ONLY. SAWED JOINTS ARE DISALLOWED. ALL FIELD CUTS

WELDED JOINTS SHALL BE GIVEN A MINIMUM OF 15 MINUTES TO SET BEFORE MOVING OR HANDLING. EXCESS

SOLVENT ON THE EXTERIOR OF THE JOINT SHALL BE WIPED CLEAN IMMEDIATELY AFTER ASSEMBLY.

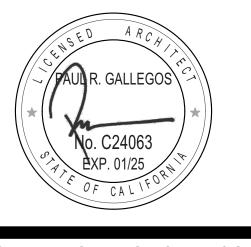
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ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECO



REVISIONS |MARK|DATE DESCRIPTION

PROJECT NO: 20-020

CLOVER FLAT E.S. PARKING LOT UPGRADE

MODEL FILE:

PLOT DATE:

SHEET TITLE

03/02/23

- e. SNAKE PIPE HORIZONTALLY IN TRENCH TO ALLOW ONE (1) FOOT OF EXPANSION AND CONTRACTION PER 100 FEET OF
- f. THREADED PIPE JOINTS SHALL BE MADE USING TEFLON TAPE. SOLVENT SHALL NOT BE USED WITH THREADED JOINTS. PIPE SHALL BE PROTECTED FROM TOOL DAMAGE DURING ASSEMBLY. ALL DAMAGED PIPE SHALL BE REMOVED AND REPLACED. TAKE UP THREADED JOINTS WITH LIGHT WRENCH PRESSURE.
- g. NO CLOSE NIPPLES OR RISERS ARE ALLOWED. CROSS CONNECTIONS IN PIPING IS DISALLOWED.
- h. CENTER LOAD PIPE AT 10 FEET ON CENTER INTERVALS WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING AND SLIPPING UNDER PRESSURE. OTHER THAN THIS PRELIMINARY BACKFILL ALL PIPE JOINTS, FITTINGS AND CONNECTIONS ARE TO REMAIN UNCOVERED UNTIL SUCCESSFUL COMPLETION OF HYDROSTATIC TESTING AND WRITTEN APPROVAL
- i. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED BEHIND ALL PIPE FITTINGS 1-1/2 INCH DIAMETER AND LARGER AT ALL CHANGES OF DIRECTION OF 45 DEGREES OR MORE. 6. GALVANIZED PIPE INSTALLATION
- a. ALL JOINTS SHALL BE THREADED WITH PIPE JOINT COMPOUND USED ON ALL THREADS.

DIELECTRIC BUSHINGS SHALL BE USED IN ANY CONNECTIONS OF DISSIMILAR METALS.

I. RESURFACING PAVING OVER TRENCHES NOTE TO SPECIFIER: IN SOME PROJECTS PAVING RESTORATION MAY BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. COORDINATE WITH OTHER SPECIFICATION SECTIONS AND AMEND THIS PARAGRAPH AS NEEDED.

- 1. RESTORE ALL SURFACES AND REPAIR EXISTING UNDERGROUND INSTALLATIONS DAMAGED OR CUT AS A RESULT OF THE EXCAVATION TO THEIR ORIGINAL CONDITION, SATISFACTORY TO THE OWNER'S REPRESENTATIVE.
- 2. TRENCHES THROUGH PAVED AREAS SHALL BE RESURFACED WITH SAME MATERIALS QUALITY AND THICKNESS AS EXISTING MATERIAL. PAVING RESTORATION SHALL BE PERFORMED BY THE PROJECT PAVING SUB-CONTRACTOR OR AN APPROVED
- 3. THE COST OF ALL PAVING RESTORATION WORK SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR UNLESS THE TRENCHING THRU THE PAVING WAS, BY PREVIOUS AGREEMENT, PART OF THE GENERAL PROJECT RELATED
- J. INSTALLATION OF CONTROL WIRE (TIE INTO EXISTING SYSTEM? NEW MV/FS?)

THEIR COLORS SHALL DIFFER FROM VALVE WIRES USED.

CONTRACTOR SKILLED IN PAVING WORK.

- 1. UNLESS OTHERWISE SPECIFIED, THE INSTALLATION OF CONTROL WIRE SHALL INCLUDE EXCAVATION AND BACKFILL, THE FURNISHING, INSTALLING AND TESTING OF THE WIRES, THE REMOVAL AND/OR RESTORATION OF EXISTING IMPROVEMENTS AND ALL OTHER WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
- 2. UNLESS OTHERWISE SPECIFIED ALL NEUTRAL (COMMON GROUND) WIRE SHALL BE AWG #12 AND ALL PILOT (VALVE
- CONTROL) WIRE SHALL BE AWG #14.

3. SPARE WIRES SHALL BE INSTALLED FROM THE CONTROLLER CLOCK TO THE MOST DISTANT VALVES AS NOTED ON PLANS.

WHEN WIRE RUNS GO IN DIFFERENT DIRECTIONS FROM THE CONTROLLER CLOCK, SEPARATE SPARE WIRES SHALL BE INSTALLED FROM THE CONTROLLER CLOCK TO THE MOST DISTANT VALVE IN EACH DIFFERENT WIRE RUN DIRECTION.

- 4. TAPE AND BUNDLE ALL CONTROL WIRES AT 10' O/C MAXIMUM; PLACE WIRING WITH 18" MINIMUM COVER. WHEN WIRING IS
- PLACED IN COMMON TRENCHES WITH PIPING, SET WIRING 2" FROM ANY PIPING. 5. ALL WIRE SPLICING SHALL TAKE PLACE IN THE VALVE BOXES AND/OR PULL BOXES. ALL SPLICES SHALL BE MADE WITH A

MECHANICAL CONNECTOR ENCASED IN A SELF\_CURING EPOXY RESIN WHICH PROVIDES A PERMANENT WATERTIGHT

- 6. ALL DIRECT BURIAL CONTROL WIRES SHALL BE IDENTIFIED AS TO THEIR RESPECTIVE VALVE NUMBER AND CONTROLLER CLOCK LETTER IN ALL PULL BOXES AND AT ALL WIRE TERMINATION. SPARE WIRES AND "FUTURE VALVE" WIRES, IF ANY, SHALL ALSO BE IDENTIFIED. LABELS AND TAGS SHALL BE USED FOR IDENTIFICATION WHICH ARE NOT AFFECTED BY MOISTURE OR TEMPERATURES BETWEEN MINUS 30 DEGREES F. AND PLUS 200 DEGREES F. THE LABELS AND TAGS SHALL BE RESISTANT TO ABRASION, DIRT, GREASE, AND CHEMICALS USED IN LAWN FERTILIZERS AND CONDITIONERS. THE
- 7. THE FINAL OPERATING SEQUENCE OF THE REMOTE CONTROL VALVES, WITHIN EACH INDIVIDUAL CONTROLLER CLOCK, SHALL BE AS CALLED OUT ON DRAWINGS. 8. TESTING:
- a. ALL DIRECT BURIAL CONTROL WIRE INSTALLED SHALL BE TESTED IN THE FOLLOWING MANNER.

LABELS AND TAGS SHALL BE FIRMLY ATTACHED TO THE WIRE IN EVERY CASE.

- -BEFORE ANY BACKFILL MATERIAL IS PLACED OVER THE CONTROL WIRES IN THE TRENCH, THE WIRES SHALL BE TESTED WITH A METER FOR INSULATION RESISTANCE. MINIMUM INSULATION RESISTANCE TO GROUND SHALL BE FIFTY (50) MEGOHMS. ANY CONDUCTOR NOT MEETING THIS REQUIREMENT SHALL BE REPLACED.
- -AFTER BACKFILL ENCASEMENT, THE WIRES SHALL AGAIN BE TESTED WITH A METER. THE MINIMUM ACCEPTABLE INSULATION RESISTANCE TO GROUND ON THIS TEST SHALL BE ONE (1) MEGOHM. ANY CONDUCTOR NOT MEETING THIS REQUIREMENT SHALL BE REPLACED.
- 9. PROVIDE SEPARATE COMMON WIRE FOR EACH CONTROLLER INSTALLED.

#### K. INSTALLATION OF VALVES

- GENERAL:
- a. ALL EQUIPMENT SHALL BE INSTALLED TO MEET ALL INSTALLATION REQUIREMENTS OF THE PRODUCT MANUFACTURER. IN THE EVENT THAT THE MANUFACTURES REQUIREMENTS CANNOT BE IMPLEMENTED DUE TO PARTICULAR CONDITION AT THE SITE OR WITH OTHER PARTS OF THE DESIGN, OBTAIN THE OWNER'S REPRESENTATIVE'S WRITTEN AUTHORIZATION AND APPROVAL FOR ANY MODIFICATIONS.
- b. INSTALL ALL EQUIPMENT AT THE APPROXIMATELY AT THE LOCATION(S) AND AS DESIGNATED AND DETAILED ON THE DRAWINGS. VERIFY ALL LOCATIONS WITH THE OWNER'S REPRESENTATIVE.
- c. INSTALL ALL VALVES WITHIN A VALVE BOX OF SUFFICIENT SIZE TO ACCOMMODATE THE INSTALLATION AND SERVICING OF THE EQUIPMENT. GROUP VALVES TOGETHER WHERE PRACTICAL AND LOCATE IN SHRUB PLANTING AREAS.
- d. ALL SPRINKLER IRRIGATION SYSTEMS THAT ARE USING WATER FROM POTABLE WATER SYSTEMS SHALL REQUIRE BACKFLOW PREVENTION. ALL BACKFLOW PREVENTION DEVICES SHALL MEET AND BE INSTALLED IN ACCORDANCE WITH REQUIREMENTS SET FORTH BY LOCAL CODES AND THE HEALTH DEPARTMENT.
- 2. BALL / BUTTERFLY VALVES: VALVES INSTALLED UNDERGROUND SHALL BE HOUSED IN A CARSON/BROOKS PLASTIC TURF BOX. THE CONTRACTOR SHALL BRAND, BV ON THE OUTSIDE COVER OF THE BOX.
- 3. AUTOMATIC CONTROL VALVES: AUTOMATIC CONTROL VALVES SHALL BE SET UPRIGHT AND HOUSED IN PLASTIC CARSON/BROOKS TURF BOX, WITH A LOCKABLE, TOP. THE CONTRACTOR SHALL BRAND, THE IDENTIFICATION NUMBER OF THE VALVE AND CLOCK ON THE INSIDE AND OUTSIDE COVER OF THE BOX.
- 4. QUICK COUPLERS: QUICK COUPLERS SHALL BE INSTALLED ON GALVANIZED RISERS AND HOUSED IN PLASTIC CARSON/BROOKS TURF BOX, WITH A LOCKABLE TOP. THE CONTRACTOR SHALL BRAND, QC ON THE OUTSIDE COVER OF
- 5. PRESSURE REDUCING VALVES: PRESSURE REDUCING VALVES SHALL BE SET UPRIGHT AND HOUSED IN PLASTIC CARSON/BROOKS TURF BOX, WITH A HINGED, LOCKABLE, TOP. THE CONTRACTOR SHALL BRAND, PR ON THE OUTSIDE
- L. INSTALLATION OF AUTOMATIC CONTROLLERS
- 1. UNLESS OTHERWISE SPECIFIED, THE INSTALLATION OF <u>AUTOMATIC CONTROLLERS</u> SHALL INCLUDE THE FURNISHING, THE INSTALLING, MAKING NECESSARY ELECTRICAL CONNECTIONS, THE TESTING OF CONTROLLERS AND CONNECTION, AND ALL OTHER WORK AS CALLED FOR ON THE PLANS AND/OR IN THE SPECIFICATIONS.
- 2. ALL ELECTRICAL CONDUIT SHALL BE P.V.C. SUNSTOP ULV SCHEDULE 40 PIPE & FITTINGS.
- 3. INSTALL CONTROLLERS AT 5' MIN. AWAY FROM 3 PHASE POWER.
- 4. UNLESS OTHERWISE SPECIFIED THE INSTALLATION OF CONTROLLERS SHALL BE AS DETAILED ON PLAN. 5. CONTROLLERS SHALL BE TESTED FOR FOURTEEN (14) CALENDAR DAYS AFTER COMPLETE INSTALLATION OF THE
- SPRINKLER SYSTEM. SYSTEM SHALL OPERATE AUTOMATICALLY IN THE MANNER SHOWN ON THE DRAWINGS AND/OR
- M. INSTALLATION OF SPRINKLER HEADS
- 1. UNLESS OTHERWISE SPECIFIED, THE INSTALLATION OF SPRINKLER HEADS SHALL INCLUDE EXCAVATION AND BACKFILL, THE FURNISHING, INSTALLING AND TESTING OF RISERS, FITTINGS AND HEADS, THE FURNISHING AND INSTALLING OF ANCHORS AND THRUST BLOCKS, THE FURNISHING AND INSTALLING OF CONE SHAPED SCREENS AT BASE OF EACH HEAD, THE REMOVAL AND/OR RESTORATION OF EXISTING IMPROVEMENTS AND ALL OTHER WORK SHALL BE IN ACCORDANCE
- 2. FLUSHING: ALL WATER LINES SHALL BE THOROUGHLY OUT BEFORE HEADS ARE INSTALLED.
- 3. LOCATION AND ARC OF HEADS SHALL BE ADJUSTED, IF REQUIRED TO ELIMINATE ANY DRY SPOTS, OVER WATER OR
- 4. ALL SEEDED AREA SPRINKLER HEADS SHALL BE INSTALLED ADJACENT TO EXISTING WALKS, CURBS, OR OTHER PAVED AREAS, SHALL BE SET TO THE GRADE OF THE IMPROVEMENTS. SPRINKLER HEADS WHICH ARE TO BE INSTALLED IN AREAS WHERE THE TURF HAS NOT YET BEEN ESTABLISHED SHALL BE SET TWO (2) INCHES ABOVE THE PROPOSED FINISHED GRADE. HEADS INSTALLED IN THIS MANNER SHALL BE LOWERED BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE. IN ESTABLISHED LAWN AREAS THE SPRINKLER HEADS SHALL BE SET TO EXISTING GRADE.
- 5. ALL SHRUBBERY HEADS TO BE INSTALLED WITHIN THREE (3) FEET OF CURBS SHALL BE SET TO A MAXIMUM HEIGHT OF SIX (6) INCHES ABOVE THE GRADE OF THE CURB. SHRUBBERY HEADS INSTALLED IN ALL OTHER AREAS SHALL BE TWELVE (12) NCHES ABOVE FINISHED GRADES UNLESS OTHERWISE INDICATED ON THE PLANS. POP\_UP SHRUB HEADS SHALL BE INSTALLED AS DETAILED.

#### N. DRIP INSTALLATION:

1. CLAMP FITTINGS WITH OETIKER CLAMPS OR APPROVED EQUAL WHEN OPERATING PRESSURE EXCEEDS SPECIFIC DRIP TUBING FITTING REQUIREMENTS.

- 2. WHEN INSTALLING DRIP TUBING, INSTALL SOIL STAPLES AS LISTED BELOW:
- a. SANDY SOIL ONE STAPLE EVERY THREE (3') FEET AND TWO (2) STAPLES ON EACH CHANGE OF DIRECTION (TEE,
- b. LOAM SOIL ONE STAPLE EVERY FOUR (4') FEET AND TWO (2) STAPLES ON EACH CHANGE OF DIRECTION (TEE, ELBOW,
- c. CLAY SOIL ONE STAPLE EVERY FIVE (5') FEET AND TWO (2) STAPLES ON EACH CHANGE OF DIRECTION (TEE, ELBOW,
- 3. CAP OR PLUG ALL OPENINGS AS SOON AS LINES HAVE BEEN INSTALLED TO PREVENT THE INTRUSION OF MATERIALS THAT WOULD OBSTRUCT THE PIPE. LEAVE IN PLACE UNTIL REMOVAL IS NECESSARY FOR COMPLETION OF INSTALLATION.
- 4. THOROUGHLY FLUSH ALL WATER LINES BEFORE INSTALLING VALVES AND OTHER HYDRANTS.
- N. TURNOVER ITEMS
- 1. OPERATION AND MAINTENANCE MANUALS

- a. PREPARE AND DELIVER TO THE OWNER'S REPRESENTATIVE WITHIN TEN CALENDAR DAYS PRIOR TO COMPLETION OF CONSTRUCTION. TWO 3-RING HARD COVER BINDERS CONTAINING THE FOLLOWING INFORMATION: § INDEX SHEET STATING CONTRACTOR'S ADDRESS AND TELEPHONE NUMBER, LIST OF
- FOUIPMENT WITH NAME AND ADDRESSES OF LOCAL MANUFACTURERS' REPRESENTATIVES.
- § COMPLETE OPERATING AND MAINTENANCE INSTRUCTION FOR ALL MAJOR EQUIPMENT. IRRIGATION PRODUCT MANUFACTURERS WARRANTEES. IN ADDITION TO THE ABOVE-MENTIONED MAINTENANCE MANUALS, PROVIDE THE OWNER'SMAINTENANCE
- PERSONNEL WITH INSTRUCTIONS FOR MAINTAINING MAJOR EQUIPMENT AND SHOW EVIDENCE IN WRITING TO THE OWNER'S REPRESENTATIVE AT THE CONCLUSION OF THE PROJECT THAT THIS HAS BEEN RENDERED.

#### 2. CONTROLLER CHARTS:

a. PROVIDE ONE CONTROLLER CHART FOR EACH CONTROLLER SUPPLIED.

§ CATALOG AND PARTS SHEETS ON ALL MATERIAL AND EQUIPMENT.

- b. RECORD DRAWINGS SHALL BE RECOMMENDED FOR APPROVAL BY THE LANDSCAPE ARCHITECT BEFORE CHARTS ARE
- c. THESE CHARTS SHALL BE COMPLETED AND REVIEWED PRIOR TO FINAL OBSERVATION OF THE IRRIGATION SYSTEM, AND PRIOR TO FINAL PAYMENT.
- d. THE CHART SHALL SHOW THE AREA CONTROLLED BY AUTOMATIC CONTROLLER AND SHALL BE NO LARGER THAN THE 24" X 36" ORIGINAL.
- e. THE CHART IS TO BE A REDUCED DRAWING OF THE ACTUAL SYSTEM. HOWEVER, THE CHART SHALL ONLY BE REDUCED TO A SIZE WHICH IS COMPLETELY LEGIBLE.
- f. CHART SHALL BE BLACK LINE PRINT AND SHALL BE COLORED WITH A DIFFERENT COLOR MARKER OR COMPUTER INK
- g. THE CHART SHALL BE MOUNTED USING VELCRO, OR AN APPROVED EQUAL TYPE OF TAPE.
- h. WHEN COMPLETED AND RECOMMENDED FOR APPROVAL, THE CHART SHALL BE HERMETICALLY SEALED BETWEEN TWO
- PIECES OF PLASTIC, EACH PIECE BEING A MINIMUM 20 MILS THICK.
- 3. TURNOVER ITEMS: SUPPLY AS PART OF THIS CONTRACT THE FOLLOWING ITEMS:
- a. FOUR (4) ADDITIONAL SPRINKLER HEADS/ NOZZLES OF EACH TYPE AND PATTERN SHOWN ON PLANS.
- b. TWO (2) WRENCHES FOR DISASSEMBLY AND ADJUSTMENT OF EACH TYPE OF SPRINKLER HEAD SHOWN ON PLANS. c. TWO (2) KEYS FOR EACH AUTOMATIC CONTROLLER.
- d. TWO (2) QUICK COUPLERS WITH A 3/4" BRONZE HOSE BIB, BENT NOSE TYPE WITH HAND WHEEL AND TWO (2) QUICK COUPLER KEYS TO MATCH QUICK COUPLERS SHOWN ON PLAN.
- e. TWO (2) VALVE BOX COVER KEYS OR WRENCHES.
- f. ONE (1) 5-FOOT TEE WRENCH FOR OPERATING BUTTERFLY VALVES 3 INCHES OR LARGER.
- g. BACKFLOW DEVICE VALVE HANDLES AND WATER DEPARTMENT INSPECTION DOCUMENTATION.

#### PRESSURE TESTS:

2. ALL PRESSURE LINES SHALL BE TESTED UNDER HYDROSTATIC PRESSURE OF 125 POUNDS PER SQUARE INCH, AND ALL NON\_PRESSURE LINES SHALL BE TESTED UNDER THE EXISTING STATIC PRESSURE AND BOTH BE PROVED WATERTIGHT.

CONTRACTOR SHALL PROVIDE ALL EQUIPMENT FOR HYDROSTATIC TESTS AT NO COST TO THE OWNER.

- 3. PRESSURE SHALL BE SUSTAINED IN THE LINES FOR NOT LESS THAN TWO (2) HOURS. IF LEAKS DEVELOP, THE JOINTS
- SHALL BE REPLACED AND THE TEST REPEATED UNTIL THE ENTIRE SYSTEM IS PROVED WATERTIGHT.
- 4. TESTS SHALL BE OBSERVED AND RECOMMENDED FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO BACKFILL. COVERAGE TEST:

REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE DISCLOSED ARISING FROM HIS WORK.

- a. WHEN THE IRRIGATION SYSTEM IS COMPLETED, THE CONTRACTOR, IN THE PRESENCE OF THE ARCHITECT, SHALL PERFORM A TEST COVERAGE OF WATER AFFORDED THE PLANTING AREAS, COMPLETE AND ADEQUATE, 125% COVERAGE FOR ALL TURF AREAS. THE CONTRACTOR SHALL FURNISH ALL MATERIALS AND PERFORM ALL WORK
- b. CONTRACTOR SHALL INFORM THE LANDSCAPE ARCHITECT OF ANY DEVIATION FROM THE PLAN REQUIRED DUE TO WIND. PLANTING, SOIL OR SITE CONDITIONS THAT BEAR ON PROPER COVERAGE; AND UPON APPROVAL, PERFORM CHANGES TO PROVIDE FOR PROPER COVERAGE AT NO ADDITIONAL COST TO THE OWNER.

#### P. REVIEWS

NORMAL PROGRESS REVIEWS: NORMAL PROGRESS REVIEWS SHALL BE REQUESTED FROM THE ARCHITECT AT LEAST 48 HOURS IN ADVANCE OF ANY ANTICIPATED REVIEW. A REVIEW WILL BE MADE BY THE ARCHITECT ON EACH OF THE STEPS LISTED BELOW. THE CONTRACTOR WILL NOT BE PERMITTED TO INITIATE THE SUCCEEDING STEPS OF WORK UNTIL HE HAS RECEIVED WRITTEN APPROVAL TO PROCEED BY THE INSPECTOR.

- a. IRRIGATION MATERIALS AND EQUIPMENT TO BE USED, BY L.A.
- b. AFTER TRENCHING AND BEFORE BACKFILL BY SITE IOR. EMAIL OR LETTER TO BE SENT TO LA CONFIRMING TRENCH

c. COMPLETION OF LINE TESTING, TEST TO BE MADE PRIOR TO BACKFILL BY SITE IOR. EMAIL OR LETTER TO BE SENT TO

- LA CONFIRMING TEST RESULTS. d. AFTER PLACEMENT OF ALL HEADS, VALVES AND CONTROLLERS FOR COVERAGE BY L.A.
- e. FINAL REVIEW AND RECEIPT OF "RECORD DRAWINGS"/"CONTROLLER CHARTS" BY DISTRICT REP.
- f. FINAL ACCEPTANCE OF PROJECT BY L.A.
- g. IN NO EVENT SHALL THE CONTRACTOR COVER UP OR OTHERWISE REMOVE FROM VIEW ANY WORK UNDER THIS CONTRACT WITHOUT PRIOR APPROVAL. ANY WORK COVERED PRIOR TO REVIEW SHALL BE OPENED TO VIEW BY THE
- UNPREPARED REVIEW REQUESTS: IN THE EVENT THE CONTRACTOR REQUESTS REVIEW OF WORK AND SAID WORK IS INCOMPLETE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEW COST.
- 3. COMPLETION: THE WORK WILL BE ACCEPTED, IN WRITING, WHEN THE WHOLE SHALL HAVE BEEN COMPLETED
- SATISFACTORILY TO THE OWNER AND THE ARCHITECT. IN JUDGING THE WORK, NO ALLOWANCE FOR DEVIATION FROM THE ORIGINAL PLANS AND SPECIFICATIONS WILL BE MADE UNLESS ALREADY APPROVED BY OWNER, IN WRITING, AT THE
- a. LEAVE THE ENTIRE INSTALLATION IN COMPLETE OPERATING ORDER, FREE FROM ANY AND ALL DEFECTS IN MATERIAL, WORKMANSHIP OR FINISH, REGARDLESS OF ANY DISCREPANCIES AND/OR OMISSIONS IN PLANS OR SPECIFICATIONS.
- Q. MAINTENANCE PERIOD MAINTENANCE OF IRRIGATION SYSTEM PRIOR TO JOB COMPLETION, AND DURING THE LANDSCAPE MAINTENANCE PERIOD,
  - SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING: CLEANING OF PLUGGED IRRIGATION HEADS.
  - IRRIGATION HEADS ADJUSTMENTS. VOLUME OF WATER BEING APPLIED (COORDINATE WITH LANDSCAPE MAINTENANCE.) PROGRAMMING OF THE CONTROLLER (COORDINATE WITH LANDSCAPE MAINTENANCE.)
  - ANY OTHER PROBLEM AREAS WHICH OCCUR AFTER INSTALLATION ATTRIBUTED TO THE IRRIGATION SYSTEM. REPAIR OR REPLACE EQUIPMENT DUE TO ACTS OF VANDALISM, THEFT OR PEST DAMAGE. LOWER ALL SEEDED AREA HEADS TO FINAL GRADES PRIOR TO FINAL ACCEPTANCE BY OWNER.

#### R. LONG TERM MAINTENANCE

**END OF SECTION** 

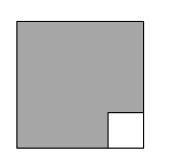
1. ALL AREAS SHALL BE KEPT FREE OF DEBRIS.

REPAIRING LEAKING VALVES, ETC.

- THE IRRIGATION SYSTEM IS TO BE MAINTAINED IN SUCH A MANNER AS TO ENSURE THE INTENDED WATER EFFICIENCY DESIGNED. MAINTENANCE CONTRACTOR IS TO CHECK, ADJUST, AND REPAIR IRRIGATION EQUIPMENT WITH LIKE MATERIAL ON A WEEKLY BASIS TO AVOID OVERSPRAY, RUNOFF, AND/OR BROKEN COMPONENTS.
- 3. THE CONTROLLER IS SCHEDULED TO ADJUST ITSELF DURING THE VARIOUS SEASONS, EXCESSIVE RAINS, EXCESSIVE HEAT, BUT WILL NEED FINE TUNING AS THE PLANT MATERIAL ESTABLISHES AND AGAIN WHEN MATURE. REFER TO SCHEDULES
- 4. A COPY OF THE WATER SCHEDULES ARE TO BE GIVEN TO ALL NEW AND EXISTING MAINTENANCE CREWS AND THE CONTROLLER MANUFACTURER IS TO BE CONTACTED FOR INSTRUCTION ON THE OPERATION AND MAINTENANCE OF THE
- 5. IRRIGATION WATER AUDITS SHALL BE PERFORMED EVERY FIVE (5) YEARS BY A LICENSED WATER AUDITOR IN GOOD STANDING. ANY FINDINGS ARE TO BE ADDRESSED AT THE TIME OF THE AUDIT.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 04-121384 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹

ALPHASTUDIO DESIGN GROUP



6152 INNOVATION WAY CARLSBAD, 92009 760-431-2444 www.alphastudio-design.com

ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECOR



REVISIONS DESCRIPTION |MARK|DATE

**PROJECT NO: 20-020** 

CLOVER FLAT E.S. PARKING LOT UPGRADE PLOT DATE:

03/02/23 SHEET TITLE

MODEL FILE:

**IRRIGATION NOTES** 



#### WUCOLS BOTANICAL NAME/ QTY PF COMMON NAME REMARKS/ SIZE SPACING CALIPERS DETAIL EXISTING TREE TO BE PROTECTED IN PLACE. HAND DIGGING ONLY WITHIN THE DRIPLINE OF THE TREE CANOPY. NO ROOTS OVER 1\" IN DIAMETER ARE TO BE REMOVED. IF NOT POSSIBLE TO SAVE ALL ROOTS, MANUALLY CUT ROOT WITH A SHARP PRUNING INSTRUMENT ONLY. REDIRECT MAIN OR TAP ROOTS ONLY AND GIVE TEMPORARY SUPPORT AND MOISTURE UNTIL REROUTED. ARBUTUS UNEDO 24" BOX REFER TO PLAN STANDARD 'A, B'/ L2.1 STRAWBERRY TREE 'A, B'/ L2.1 QUERCUS AGRIFOLIA REFER TO PLAN STANDARD COAST LIVE OAK 24" BOX ALL TREES LOCATED WITHIN 10' OF ANY UTILITY, LIGHT STANDARD, OR HARDSCAPE TO 'A, B'/ L2.1 RECEIVE A LINEAR ROOT BARRIER 5 GAL 'C, D'/ L2.1 ABUTILON PALMERI 5' O.C. 32 PALMER'S MALLOW 'C, D'/ L2.1 14 .3 LOROPETALUM CRIMSON FIRE 5 GAL 5' O.C. CHINESE FRINGE FLOWER 5 GAL. 4' O.C. JUNIPERUS SQ. 'BLUE STAR' 'C, D'/ L2.1 BLUE STAR JUNIPER 15 .2 KNIPHOFIA 'SUNSET' 5 GAL. 3' O.C. 'C, D'/ L2.1 POCO SUNSET RED HOT POKER 23 .2 BUDDLEIA 'MISS MOLLY' 5 GAL. 5' O.C. 'C, D'/ L2.1 MISS MOLLY BUTTERFLY BUSH 'C, D'/ L2.1 4' O.C. 74 .2 MUHLENBERGIA CAPILLARIS REGAL MIST 5 GAL. PINK MUHLY 'C, D'/ L2.1 37 .2 PEROVSKIA ATRIPLICIFOLIA **RUSSIAN SAGE** 'C, D'/ L2.1 SALVIA LEUC. 'SANTA BARBARA' 5 GAL. 3' O.C. BANTA BARBARA MEXICAN BUSH SAGE MISCELLANEOUS NOT SHOWN ALL PLANTER AREAS TO RECEIVE A 4" THICK LAYER OF MEDIUM GRIND ORGANIC WOOD CHIPS. CONTRACTOR TO SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL. 3" LIFT OF GRANITECRETE, COLOR: CARMEL COAST. AVAILABLE FROM KRC ROCK POWAY. HTTPS://WWW.GRANITECRETE.COM/INSTALLATION/ PER MANUF.

6x6" CONCRETE MOWCURB

# NOTE: 1. REFER TO PLANTING DETAILS AND SPECIFICATIONS SHEETS L2.1-2.3

- 2. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS PRIOR TO COMMENCEMENT OF WORK.
  NOTIFY THE LANDSCAPE ARCHITECT IMMEDIATELY OF ANY FIELD CONDITIONS THAT VARY FROM THE PLANS.
- 3. LOCATE ALL EXISTING UTILITIES WHETHER SHOWN ON THE PLANS OR NOT AND PROTECT THEM FROM DAMAGE. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DAMAGE AND ASSUME FULL RESPONSIBILITY FOR REPAIRS/ REPLACEMENT/ COSTS INCURRED DUE TO DAMAGED UTILITIES.
- 4. PRIOR TO GRADING OF SOILS BUT AFTER REMOVAL OF PLANT MATERIAL, TOPSOIL IS TO BE REMOVED AND STOCKPILED FOR REUSE AFTER GRADING HAS OCCURRED. REFER TO SPECIFICATIONS.
- 5. PRIOR TO GRADING OF SOILS BUT AFTER REMOVAL OF PLANT MATERIAL, A WEED ABATEMENT SHALL OCCUR TO REMOVE ALL SURFACE WEEDS.
- 6. ON CENTER SPACING REQUIREMENTS FOR SHRUB INSTALLATION MAY ADD ADDITIONAL QUANTITIES OF SHRUBS BEYOND THE AMOUNT SHOWN ON THE PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE ACTUAL AMOUNT REQUIRED ON SITE.
- 7. ALL PLANT MATERIAL SHALL BE PLANTED TO MAINTAIN 1' CLEAR FROM WALKWAYS OR DRIVES TO THE EDGE OF THE MATURE PLANT. I.E. A 3' WIDE PLANT SHALL BE PLANTED 2 1/2' FROM THE BACK OF WALK.
- 8. THE LANDSCAPE ARCHITECT SHALL RETAIN THE OPTION TO TAG BOXED TREE MATERIAL AT A WHOLESALE NURSERY OF THEIR CHOICE AFTER THE BID HAS BEEN AWARDED.
- 9. PLANT MATERIAL IS SUBJECT TO INSPECTION AND APPROVAL/REJECTION BY THE LANDSCAPE ARCHITECT BOTH PRIOR TO DELIVERY AND UPON DELIVERY TO THE SITE.
- 10. BUDS, BLOOMS AND LARGE SURFACE LEAVES ON ALL PLANT MATERIAL MUST BE PROTECTED AT ALL TIMES, INCLUDING DURING TRANSPORTATION AND INSTALLATION.
- 11. NO TRIMMING OR SHAPING OF PLANT MATERIAL MAY OCCUR UNLESS DIRECTED BY THE LANDSCAPE ARCHITECT.
- 12. THE CONTRACTOR SHALL GUARANTEE THE PLANT MATERIAL FOR THE PERIOD NOTED IN THE SPECIFICATIONS.
- 13. PROVIDE AND INSTALL JUTE NETTING ON ALL SLOPES 2:1 AND GREATER.
- 14. THE LANDSCAPE CONTRACTOR SHALL PROVIDE AN AGRONOMIC SOILS TEST AFTER GRADING HAS OCCURRED AND SUBSEQUENT AMENDING PER SUCH TEST. REFER TO SPECIFICATIONS.

#### PLANTING KEYNOTES

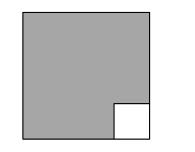
'E'/ L2.1

- 1 REMOVE DEAD TREE, GRIND STUMP AND ROOTS TO 18" BELOW GRADE.
- 2 ALL PLANT MATERIAL PITS TO BE HAND DUG WITHIN THE DRIPLINE OF THE TREE. NO ROOTS OVER 1  $\frac{1}{2}$ " TO BE CUT OR REMOVED.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 04-121384 INC:

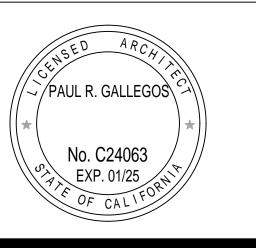
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SS FLS ACS DATE: 03/08/2023

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#### ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECORD



RKING LOT UPGRADES
PO-KUMEYAAY HEAD START - CLOVER FLAT E

REVISIONS
MARK DATE DESCRIPTION

PROJECT NO: 20-020

MODEL FILE: CLOVER FLAT E.S. PARKING LOT UPGRADE

PLOT DATE: 03/02/23

SHEET TITLE

PLANTING PLAN

2. 2" LAYER OF COMPOST MULCH 3. 3" WATER BASIN 4. FINISH GRADE SEE SOILS REPORT

2 X DIAMETER OF ROOT BALL

1. 1, 5, OR 15 GAL. SHRUB

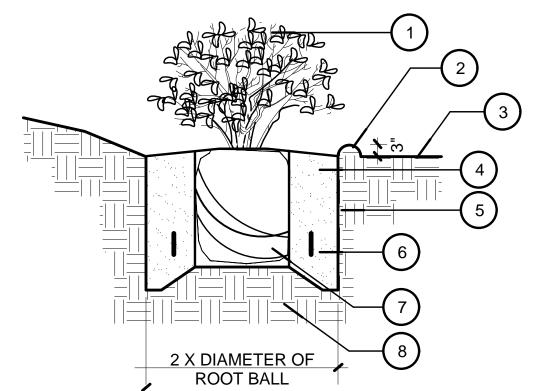
6. PLANT PIT EXCAVATION

8. ROOTBALL

7. NUTRI-PAK FERTILIZER PACKETS. 2 PER 1 GAL., 3 PER 5 GAL., 5 PER 15 GAL.

5. AMENDED SOIL FOR PLANTING -9. NATIVE SUBGRADE

SHRUB PLANTING



1. 1, 5, OR 15 GALLON SHRUB 2. 3" WATER BASIN

3. FINISH GRADE

8. NATIVE SUBGRADE 4. AMENDED SOIL- SEE SOILS

5. PLANT PIT EXCAVATION

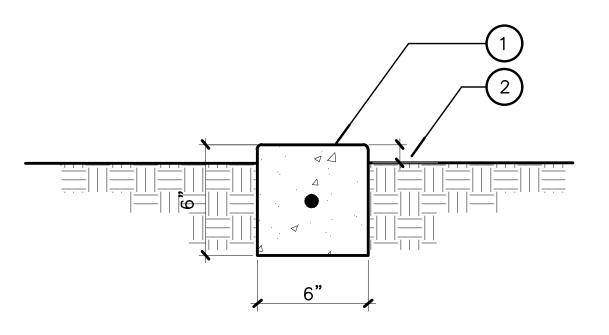
7. ROOTBALL

6. NUTRI-PAK FERTILIZER

5 GAL., 5 PER 15 GAL.

PACKETS. 2 PER 1 GAL., 3 PER

SHRUB ON SLOPE



1. 2000 PSI CONCRETE MOW STRIP. SMOOTH TROWEL FINISH, NATURAL GREY, 1/4" RAD. TO ALL EDGES.

INSTALL 1/2" PREFORMED EXPANSION JOINTS @ 15' O.C. MAX., AND AT BEGINNING AND END OF RADIUS.

2. FINISH GRADE, 2" AT GROUND COVER 1" AT TURF AREAS.

1. 'CINCH-TIE' BY V.I.T. CO. (619) 673-1760

2. LODGEPOLE PINE STAKE 3" X 12' LONG.

(1) 8" 'ARBOR GUARD' FOR EACH TREE IN TURF. MFG. BY DEEP

ROOT CORP. (714) 898-0563

4. ROOT BALL. TOP TO BE 1" ABOVE FINISH GRADE REMOVE ALL CIRCLING ROOTS FROM PREVIOUS CONTAINERS WITHIN THE ROOTBALL AND ABOVE STRUCTURAL ROOTS SHAVE OUTER CIRCLING ROOTS A MINIMUM OF 1" DEEP INTO ROOT BALL ON ALL SIDES 3" HIGH

5. WATER BASIN

6. NUTRI-PAK FERTILIZER PACKETS 3 PER 5 GAL., 5 PER 15 GAL., 7 PER 24" BOX, 9 PER 36" BOX, 12 PER 48" BOX.

FINISH GRADE

REPORT

TIE INTO POLE.

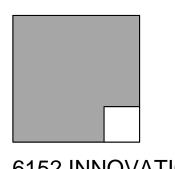
8. BACKFILL MIX - SEE SOILS

9. NATIVE SUBGRADE

MIN. TWO TIES (TOP & BOTTOM) REQUIRED. USÈ THIRD TIE WHÉN NECESSARY TO HOLD TREE IN UPRIGHT POSITION. TIES TO BE SECURED TO AVOID SLIPPAGE (WRAP STAKE TO FORM FIGURE EIGHT. NAIL W/ (1) WOOD SCREW THROUGH EACH

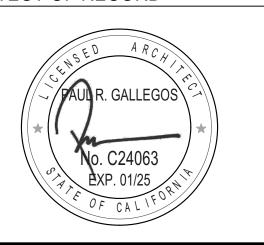
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 04-121384 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 03/08/2023

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ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECORD



# TREE PLANTING

# Linear Style Planting with DeepRoot Barriers

Determine the correct number of panels to be used.

Depending upon the actual planting plan and the number of trees involved the length of linear barrier will vary, but as a general rule of thumb take the anticipated mature canopy diameter of the tree and add 2 feet (61cm). This will be the number of feet necessary for a Linear style planting application. (See chart below.)

A. Choose the barrier that best suits the application.

B. Dig the trench to the depth based upon the

particular barrier chosen. Install the barrier. When using DeepRoot Linear Barriers simply pull the appropriate number of panels out of the box (they come preassembled) and separate the joiner at the correct length. When installing DeepRoot Universal Barriers in a linear fashion you will need to join the appropriate number

D. Next place the barrier in the trench with the vertical ribs facing toward the tree and align in a straight fashion. It is helpful to place the barrier against the hardscape. Use the hardscape as a guide and backfill

where requiring protection.

top edge at least 1/2" (13mm) above grade to ensure roots do not grow over the top.

E. plant the tree(s). the linear style offers a more expansive rooting growth area, however adverse soil and drainage conditions may exist in the actual planting area. take steps to ensure healthy growth of the tree at planting. consult with a local arborist for

planting tips and recommendations. F. if the tree(s) will be subject to maintenance work such as lawn mowing or weed trimming we strongly recommend the installation of arborgard+ tree trunk protectors which is placed around the base of young trees to protect them from damage by weed trimmers, lawn mowers and small rodents. for additional information please consult the 16 page deeproot product selection and installation guidelines for information regarding distributors please call: 1 800 ilv root (458.7668). for help with difficult drainage or other difficult installation questions please call deeproot technical support at: 1 800 root tek

7 Panels 10 Panels

against the barriers to promote a clean smooth fit to the hardscape. be sure to keep the barrier's double

For a simple formula to determine the quantity of panels required for a Linear application use:

Estimated Diameter of the Tree Canopy at Maturity + 2' (61cm) = Length of Barrier per Side. As little as one side of the tree may need barrier for root direction as there may be no hardscape else-

13 Panels

TO BE 24" DEEP ON ALL SIDES

REVISIONS MARK DATE DESCRIPTION PROJECT NO: 20-020

MODEL FILE: CLOVER FLAT E.S. PARKING LOT UPGRADE

PLOT DATE: 03/02/23

SHEET TITLE PLANTING DETAILS

#### PART I — GENERAL REQUIREMENTS

- 1. WORK OF THIS SECTION INCLUDES ALL MATERIAL, EQUIPMENT, APPLIANCES, TOOLS, FACILITIES, TRANSPORTATION AND LABOR NECESSARY FOR AND INCIDENTAL TO COMPLETING ALL LANDSCAPE PLANTING WORK AS INDICATED ON THE DRAWINGS, OR AS REASONABLY IMPLIED OR AS DESIGNATED HEREIN, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
- a. PROTECTION OF ALL EXISTING PLANT MATERIAL TO REMAIN. b. SOIL TESTING / APPROVALS
- c. WEED ABATEMÊNT d. SOIL PREPARATION
- e. FINISH GRADING PREPARATION OF ALL PLATING HOLES FURNISHING AND INSTALLATION OF ALL PLANT MATERIAL
- . HYDROSEEDING OF DISTURBED SLOPE FURNISHING AND INSTALLATION OF ALL REQUIRED FERTILIZERS, PLANT BACKFILL TOP
- DRESSING AND MISCELLANEOUS MATERIALS WATERING OF ALL LANDSCAPE AREAS
- k. PROVIDING PLANT ESTABLISHMENT (30 DAYS) PROVIDING LANDSCAPE MAINTENANCE (90 DAYS) m. CLEAN UP AND WEEDING OF ALL LANDSCAPE AREAS

#### B. CONTRACT DOCUMENTS

- SHALL CONSIST OF SPECIFICATIONS, GENERAL CONDITIONS AND THE CONSTRUCTION DRAWINGS. THE INTENT OF THESE DOCUMENTS IS TO INCLUDE ALL LABOR, MATERIALS AND SERVICES NECESSARY FOR THE PROPER EXECUTION OF THE WORK. THE DOCUMENTS ARE TO BE CONSIDERED AS ONE. WHATEVER IS CALLED FOR BY ANY PARTS SHALL BE AS BINDING AS IF CALLED FOR IN ALL PARTS.
- C. RELATED WORK SPECIFIED ELSEWHERE
- 1. EARTHWORK: PER CIVIL SPECIFICATION 2. IRRIGATION SYSTEM NOTES
- D. QUALITY ASSURANCE
- 1. THE CONTRACTOR SHALL PROVIDE AT LEAST ONE PERSON WHO SHALL PRESENT AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK, WHO SHALL BE THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE PROPER MATERIALS AND METHODS FOR THE INSTALLATION, AND WHO SHALL DIRECT ALL WORK PERFORMED UNDER THIS SECTION. THE INSTALLING CREW SHALL HAVE A MINIMUM OF 3 YEARS OF EXPERIENCE, FIELD SUPERVISORS A MINIMUM OF
- 2. ALL PLANTS AND PLANTING MATERIAL SHALL MEET OR EXCEED THE SPECS. OF FEDERAL STATE, AND COUNTY LAWS REQUIRING INSPECTION FOR PLANT DISEASE AND INSECT CONTROL.
- 3. QUALITY AND SIZE SHALL CONFORM WITH THE CURRENT EDITION OF "HORTICULTURAL STANDARDS" FOR NUMBER ONE GRADE NURSERY STOCK AS ADOPTED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, AND CALIFORNIA DEPARTMENT OF AGRICULTURE REGULATIONS
- 4. THE APPLICATOR OF ALL WEED CONTROL MATERIALS SHALL BE LICENSED BY THE STATE OF CALIFORNIA AS A PEST CONTROL OPERATOR AND A PEST CONTROL ADVISOR IN ADDITION TO ANY SUBCONTRACTOR LICENSES THAT ARE REQUIRED.
- 5. ALL MATERIALS AND METHODS USED FOR WEED ABATEMENT MUST CONFORM TO FEDERAL, STATE, N. TESTING AND LOCAL REGULATIONS.
- E. VERIFICATION OF FIELD CONDITIONS
- 1. ALL SCALED DIMENSIONS ON THE DRAWINGS ARE APPROXIMATE. BEFORE PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CAREFULLY CHECK AND VERIFY ACTUAL GRADE ELEVATIONS, SERVICE AND UTILITY LOCATIONS, IRRIGATION SYSTEM COMPONENTS, AND DIMENSIONS OF PLANTINGS AND CONSTRUCTION CONTIGUOUS WITH NEW PLANTINGS BY FIELD MEASUREMENTS BEFORE PROCEEDING WITH PLANTING WORK AND SHALL IMMEDIATELY INFORM THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE INFORMATION ON THE DRAWINGS AND THE ACTUAL CONDITIONS, REFRAINING FROM DOING ANY WORK IN SAID AREAS UNTIL GIVEN APPROVAL TO DO SO BY THE LANDSCAPE ARCHITECT.
- . INTERRUPTION OF EXISTING WATER SERVICE: DO NOT INTERRUPT WATER SERVICE TO FACILITIES OCCUPIED BY DISTRICT OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY WATER SERVICE ACCORDING TO REQUIREMENTS INDICATED:
- a. NOTIFY DISTRICT CONSTRUCTION MANAGER NO FEWER THAN SEVEN BUSINESS DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF WATER SERVICE.
- b. DO NOT PROCEED WITH INTERRUPTION OF WATER SERVICE WITHOUT DISTRICT CONSTRUCTION MANAGER'S WRITTEN PERMISSION.
- c. OBTAIN DISTRICT CONSTRUCTION MANAGER'S WRITTEN APPROVAL OF EXACT LENGTH OF TIME FOR EACH P. PRODUCT HANDLING SHUT-OFF OR WORK SESSION.
- WEATHER LIMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHERCONDITIONS PERMIT PLANTING TO BE PERFORMED WHEN BENEFICIAL AND OPTIMUM RESULTS MAY BE OBTAINED. APPLY PRODUCTS DURING FAVORABLE WEATHER CONDITIONS ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS. COORDINATION WITH TURF AREAS (LAWNS): PLANT TREES, SHRUBS, AND OTHER PLANTS AFTER FINISH GRADES ARE ESTABLISHED AND BEFORE PLANTING TURF AREAS UNLESS OTHERWISE INDICATED:
- 4. WHEN IT IS NECESSARY TO PLANT TREES, SHRUBS, AND OTHER PLANTS AFTER PLANTING TURF AREAS, PROTECT TURF AREAS, AND PROMPTLY REPAIR DAMAGE CAUSED BY PLANTING OPERATIONS.
- F. PERMITS AND REGULATION
- 1. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS RELATED TO THIS SECTION OF THE WORK UNLESS PREVIOUSLY EXCLUDED UNDER PROVISION OF THE CONTRACT OR GENERAL CONDITIONS. T CONTRACTOR SHALL COMPLY WITH ALL LAWS AND ORDINANCES BEARING ON THE OPERATION OR CONDUCT OF THE WORK AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT A CONFLICT EXISTS BETWEEN PERMIT REQUIREMENTS AND THE WORK OUTLINED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE LANDSCAPE ARCHITECT IN WRITING INCLUDING A DESCRIPTION OF ANY NECESSARY CHANGES AND CHANGES TO THE CONTRACT PRICE RESULTING FROM CHANGES IN THE
- 2. WHEREVER REFERENCES ARE MADE TO STANDARDS OR CODES IN ACCORDANCE WITH WHICH WORK IS TO BE PERFORMED OR TESTED, THE EDITION OR REVISION OF THE STANDARDS AND CODES CURRENT ON THE EFFECTIVE DATE OF THIS CONTRACT SHALL APPLY, UNLESS OTHERWISE EXPRESSLY SET FORTH.
- 3. IN CASE OF CONFLICT AMONG ANY REFERENCED STANDARDS OR CODES OR BETWEEN ANY REFERENCED STANDARDS AND CODES AND THE SPECIFICATIONS, THE MORE RESTRICTIVE STANDARD SHALL APPLY OR OWNER'S REPRESENTATIVE SHALL DETERMINE WHICH SHALL GOVERN. G. COORDINATION
- COORDINATION WITH TURF AREAS (LAWNS): PLANT TREES, SHRUBS, AND OTHER PLANTS AFTER FINISH GRADES ARE ESTABLISHED AND BEFORE PLANTING TURF AREAS UNLESS OTHERWISE INDICATED.
- a. WHEN PLANTING TREES, SHRUBS, AND OTHER PLANTS AFTER PLANTING TURF AREAS, PROTECT TURF AREAS, AND PROMPTLY REPAIR DAMAGE CAUSED BY PLANTING OPERATIONS.
- H. PROTECTION OF WORK, PROPERTY AND PERSON
- 1. THE CONTRACTOR SHALL ADEQUATELY PROTECT THE WORK, ADJACENT PROPERTY, AND THE PUBLIC, AND SHALL BE RESPONSIBLE FOR ANY DAMAGES OR INJURY DUE TO HIS/HER ACTIONS.
- . MATERIALS LISTS: WITHIN FORTY\_FIVE (45) DAYS AFTER AWARD OF THE CONTRACT, SUBMIT VIA FLECTRONIC DELIVERY A COMPLETE LIST OF ALL MATERIALS PROPOSED TO BE FURNISHED AND INSTALLED UNDER THIS SECTION, DEMONSTRATING COMPLETE CONFORMANCE WITH THE REQUIREMENTS SPECIFIED. a. MATERIALS LIST SHALL INCLUDE THE WEED CONTROL MATERIALS AND QUANTITIES PER ACRE INTENDED
- FOR USE IN CONTROLLING THE WEED TYPES PREVALENT AND EXPECTED ON THE SITE. b. PLANT MATERIAL:
- 1) THE OWNER'S REPRESENTATIVE MAY REVIEW ALL PLANTS SUBJECT TO APPROVAL OF SIZE, HEALTH, QUALITY, CHARACTER, ETC. REVIEW OR APPROVAL OF ANY PLANT DURING THE PROCESS OF SELECTION, DELIVERY, INSTALLATION AND ESTABLISHMENT PERIOD SHALL NOT PREVENT THAT PLANT FROM LATER REJECTION IN THE EVENT THAT THE PLANT QUALITY CHANGES OR PREVIOUSLY EXISTING DEFECTS BECOME APPARENT THAT WERE NOT OBSERVED.
- 2) PLANT SELECTION: THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO SELECT AND OBSERVE ALL PLANTS AT THE NURSERY PRIOR TO DELIVERY AND TO REJECT PLANTS THAT DO NOT MEET SPECIFICATIONS AS SET FORTH IN THIS SPECIFICATION. IF A PARTICULAR DEFECT OR SUBSTANDARD ELEMENT CAN BE CORRECTED AT THE NURSERY, AS DETERMINED BY THE OWNER'S REPRESENTATIVE, THE AGREED UPON REMEDY MAY BE APPLIED BY THE NURSERY OR THE CONTRACTOR PROVIDED THAT THE CORRECTION ALLOWS THE PLANT TO MEET THE REQUIREMENTS SET FORTH IN THIS SPECIFICATION. ANY WORK TO CORRECT PLANT DEFECTS SHALL BE AT THE CONTRACTOR'S EXPENSE.
- 3) THE OWNER'S REPRESENTATIVE MAY MAKE INVASIVE OBSERVATION OF THE PLANT'S ROOT SYSTEM IN THE AREA OF THE ROOT COLLAR AND THE TOP OF THE ROOT BALL IN GENERAL IN ORDER TO DETERMINE THAT THE PLANT MEETS THE QUALITY REQUIREMENTS FOR DEPTH OF THE ROOT COLLAR AND PRESENCE OF ROOTS ABOVE THE ROOT COLLAR. SUCH OBSERVATIONS WILL NOT HARM THE
- 4) CORRECTIONS ARE TO BE UNDERTAKEN AT THE NURSERY PRIOR TO SHIPPING.
- 5) THE CONTRACTOR SHALL BEAR ALL COST RELATED TO PLANT CORRECTIONS.
- 6) ALL PLANTS THAT ARE REJECTED SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND ACCEPTABLE REPLACEMENT PLANTS PROVIDED AT NO COST TO THE OWNER.
- 7) SUBMIT TO THE OWNER'S REPRESENTATIVE, FOR APPROVAL, PLANT SOURCES INCLUDING THE NAMES AND LOCATIONS OF NURSERIES PROPOSED AS SOURCES OF ACCEPTABLE PLANTS, AND A LIST OF THE PLANTS THEY WILL PROVIDE. THE PLANT LIST SHALL INCLUDE THE BOTANICAL AND COMMON NAME AND THE SIZE AT THE TIME OF SELECTION. OBSERVE ALL NURSERY MATERIALS TO DETERMINE THAT THE MATERIALS MEET THE REQUIREMENTS OF THIS SECTION.
- 8) TREES SHALL BE PURCHASED FROM THE GROWING NURSERY. RE-WHOLESALE PLANT SUPPLIERS SHALL NOT BE USED AS SOURCES UNLESS THE CONTRACTOR CAN CERTIFY THAT THE REQUIRED TREES ARE NOT DIRECTLY AVAILABLE FROM A GROWING NURSERY. WHEN RE-WHOLESALE SUPPLIERS ARE UTILIZED, THE CONTRACTOR SHALL SUBMIT THE NAME AND LOCATION OF THE GROWING NURSERY FROM WHERE THE TREES WERE OBTAINED BY THE RE-WHOLESALE SELLER. THE RE-WHOLESALE NURSERY SHALL BE RESPONSIBLE FOR ANY REQUIRED PLANT QUALITY
- 9) PLANT PHOTOGRAPHS: INCLUDE CLEAR COLOR PHOTOGRAPHS IN DIGITAL FORMAT OF EACH REQUIRED SPECIES AND SIZE OF PLANT MATERIAL AS IT WILL BE FURNISHED TO PROJECT. STOCK PHOTOS OF PLANT MATERIALS WILL NOT BE ACCEPTABLE FOR SUBMITTALS, PHOTOS MUST BE OF ACTUAL PLANT MATERIALS AT THE NURSERY. TAKE PHOTOGRAPHS FROM AN ANGLE DEPICTING TRUE SIZE AND CONDITION OF THE TYPICAL PLANT TO BE FURNISHED. INCLUDE A SCALE ROD OR OTHER MEASURING DEVICE IN EACH PHOTOGRAPH. FOR SPECIES WHERE MORE THAN 20 PLANTS ARE REQUIRED, INCLUDE A MINIMUM OF THREE PHOTOGRAPHS SHOWING THE AVERAGE PLANT, THE BEST QUALITY PLANT, AND THE WORST QUALITY PLANT TO BE FURNISHED. IDENTIFY EACH PHOTOGRAPH WITH THE FULL SCIENTIFIC NAME OF THE PLANT PLANT SIZE, AND NAME OF THE
- 10) THE CONTRACTOR SHALL REQUIRE THE GROWER OR RE-WHOLESALE SUPPLIER TO PERMIT THE OWNER'S REPRESENTATIVE TO OBSERVE THE ROOT SYSTEM OF ALL PLANTS AT THE NURSERY OR JOB SITE PRIOR TO PLANTING INCLUDING RANDOM REMOVAL OF SOIL OR SUBSTRATE AROUND THE BASE OF THE PLANT. OBSERVATION MAY BE AS FREQUENT AND AS EXTENSIVE AS NEEDED TO VERIFY THAT THE PLANTS MEET THE REQUIREMENTS OF THE SPECIFICATIONS AND CONFORM TO REQUIREMENTS.
- c. PLANT SUBSTITUTIONS FOR PLANTS NOT AVAILABLE:
- SUBMIT ALL REQUESTS FOR SUBSTITUTIONS OF PLANT SPECIES, OR SIZE TO THE LANDSCAPE ARCHITECT, FOR APPROVAL, PRIOR TO PURCHASING THE PROPOSED SUBSTITUTION, REQUEST FOR SUBSTITUTION SHALL BE ACCOMPANIED WITH A LIST OF NURSERIES CONTACTED IN THE SEARCH FOR

- THE REQUIRED PLANT AND A RECORD OF OTHER ATTEMPTS TO LOCATE THE REQUIRED MATERIAL. REQUESTS SHALL ALSO INCLUDE SOURCES OF PLANTS FOUND THAT MAY BE OF A SMALLER OR LARGER SIZE, OR A DIFFERENT SHAPE OR HABIT THAN SPECIFIED, OR PLANTS OF THE SAME GENUS AND SPECIES BUT DIFFERENT CULTIVAR ORIGIN, OR WHICH MAY OTHERWISE NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS, BUT WHICH MAY BE AVAILABLE FOR SUBSTITUTION.
- d. SAMPLES OF EACH PRODUCT AND/OR MATERIAL WHERE REQUIRED BY THE SPECIFICATION OR LEGEND FOR LANDSCAPE ARCHITECT REVIEW AND APPROVAL.
- 2. CERTIFICATES: DELIVER ALL CERTIFICATES VIA EMAIL TO THE LANDSCAPE ARCHITECT UPON DELIVERY TO JOB SITE. INCLUDE:
- a. ORGANIC MULCH: 1-QUART VOLUME OF EACH ORGANIC MULCH REQUIRED; IN SEALED PLASTIC BAGS LABELED WITH COMPOSITION OF MATERIALS BY PERCENTAGE OF WEIGHT AND SOURCE OFMULCH. EACH SAMPLE SHALL BE TYPICAL OF THE LOT OF MATERIAL TO BE FURNISHED; PROVIDE AN ACCURATE REPRESENTATION OF COLOR, TEXTURE, AND ORGANIC MAKEUP.
- b. MINERAL MULCH: 2 LB OF EACH MINERAL MULCH REQUIRED, IN SEALED PLASTIC BAGS LABELED WITH SOURCE OF MULCH. SAMPLE SHALL BE TYPICAL OF THE LOT OF MATERIAL TO BE DELIVEREDAND INSTALLED ON-SITE; PROVIDE AN ACCURATE INDICATION OF COLOR, TEXTURE, AND MAKEUP OF THE
- c. QUANTITY OF SEED.
- d. QUANTITY OF PLANT MATERIAL
- j. PRE-CONSTRUCTION CONFERENCE
- SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE LANDSCAPE ARCHITECT AT LEAST SEVEN (7) DAYS BEFORE BEGINNING WORK TO REVIEW ANY QUESTIONS THE CONTRACTOR MAY HAVE REGARDING THE WORK, ADMINISTRATIVE PROCEDURES DURING CONSTRUCTION AND PROJECT WORK SCHEDULE.

ADJUSTED ACCORDINGLY. ALL SUCH ORDERS AND ADJUSTMENTS PLUS CLAIMS BY THE

J. CHANGES IN THE WORK

1. THE OWNER'S REPRESENTATIVE MAY ORDER CHANGES IN THE WORK, AND THE CONTRACT SUM SHOULD BE

CONTRACTOR FOR EXTRA COMPENSATION MUST BE MADE AND APPROVED IN WRITING BEFORE EXECUTING

- 2. ALL CHANGES IN THE WORK, NOTIFICATIONS AND CONTRACTOR'S REQUEST FOR INFORMATION (RFI) SHALL CONFORM TO THE CONTRACT GENERAL CONDITION REQUIREMENTS.
- L. CORRECTION OF WORK THE CONTRACTOR, AT THEIR OWN COST, SHALL RE-EXECUTE ANY WORK THAT FAILS TO CONFORM TO THE REQUIREMENTS OF THE CONTRACT AND SHALL REMEDY DEFECTS DUE TO FAULTY MATERIALS OR WORKMANSHIP UPON WRITTEN NOTICE FROM THE OWNER'S REPRESENTATIVE, AT THE SOONEST AS POSSIBLE TIME THAT CAN BE COORDINATED WITH OTHER WORK AND SEASONAL WEATHER DEMANDS.
- ALL IRRIGATION SYSTEM WORK SHALL BE INSPECTED FOR APPROVAL BY THE LANDSCAPE
- ARCHITECT AND/OR CITY PRIOR TO START OF ANY WORK IN THIS SECTION.
- 1. AN AGRICULTURAL SOIL SUITABILITY REPORT FOR ALL PLANTING AREAS SHALL BE OBTAINED BY THE CONTRACTOR, AFTER COMPLETION OF ROUGH GRADING, AND PRIOR TO START OF SOIL PREPARATION WORK. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL SUBMIT AT LEAST FOUR (4) SITE SOIL SAMPLES TO A SOIL LABORATORY RECOMMENDED BY THE LANDSCAPE ARCHITECT. SAMPLES ARE TO BE TAKEN FROM THE TOP SIX (6) INCHES OF SOIL IN AREAS TO RECEIVE PLANTING. ALL TEST RESULTS AND RECOMMENDATIONS SHALL BE PROVIDED TO THE LANDSCAPE ARCHITECT AND/OR CITY. THE REQUIREMENTS FOR FERTILIZATION AND AMENDMENTS AS SPECIFIED HEREIN MAY BE MODIFIED AS NECESSARY PRIOR TO START OF WORK IN THIS SECTION.
- . MATERIALS LISTS: WITHIN FORTY FIVE (45) DAYS AFTER AWARD OF CONTRACT, SUBMIT A COMPLETE LIST OF ALL MATERIALS PROPOSED TO BE FURNISHED AND INSTALLED UNDER THIS SECTION, DEMONSTRATING COMPLETE CONFORMANCE WITH THE REQUIREMENTS SPECIFIED.
- a. CERTIFICATED: DELIVER ALL CERTIFICATES TO THE LANDSCAPE ARCHITECT UPON DELIVERY TO THE JOB SITE. INCLUDE: (1) QUANTITY OF COMMERCIAL FERTILIZERS USED (2) QUANTITY OF SOIL AMENDMENTS (3) QUANTITY OF SEED (4) QUANTITY OF PLANT MATERIAL

- 1. DELIVERY AND STORAGE: a. DELIVER ALL ITEMS TO THE JOB SITE IN THEIR ORIGINAL CONTAINERS WITH ALL LABELS INTACT
- AND LEGIBLE AT TIME OF REVIEW 6. IMMEDIATELY REMOVE FROM THE SITE ALL PLANTS WHICH ARE NOT TRUE TO NAME, AND ALL
- c. USE ALL MEANS NECESSARY TO PROTECT PLANT MATERIALS BEFORE, DURING, AND AFTER INSTALLATION AND TO PROTECT THE WORK AND MATERIALS OF ALL OTHER TRADES.

MATERIALS WHICH DO NOT COMPLY WITH THE SPEC. REQUIREMENTS.

- 1) DO NOT DUMP OR STORE BULK MATERIALS NEAR STRUCTURES, UTILITIES, WALKWAYS AND PAVEMENTS, OR ON EXISTING TURF AREAS OR PLANTS.
- 2) PROVIDE EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF BULK MATERIALS: DISCHARGE OF SOIL-BEARING WATER RUNOFF; AND AIRBORNE DUST REACHING ADJACENT PROPERTIES, WATER CONVEYANCE SYSTEMS, OR WALKWAYS.
- 3) DO NOT MOVE OR HANDLE MATERIALS IF THEY ARE WET.
- 4) ACCOMPANY EACH DELIVERY OF BULK MATERIALS WITH APPROPRIATE CERTIFICATES.
- 5) DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DYING, WIND BURN, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR FIND-TIE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY THEIR NATURAL SHAPE. PROVIDE PROTECTIVE COVERING OF PLANTS DURING SHIPPING AND DELIVERY. DO NOT DROP PLANTS DURING DELIVERY AND
- 6) HANDLE PLANTING STOCK BY ROOTBALL.
- 7) STORE BULBS, CORMS AND TUBERS IN A DRY PLACE AT 60 TO 65 DEG F UNTIL PLANTING. 8) APPLY ANTIDESICCANT TO TREES AND SHRUBS USING POWER SPRAY TO PROVIDE AN ADEQUATE FILM OVER TRUNKS (BEFORE WRAPPING), BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT DURING DIGGING, HANDLING, AND TRANSPORTATION.
- a. IF DECIDUOUS TREES OR SHRUBS ARE MOVED IN FULL LEAF, SPRAY WITH ANTIDESICCANT AT NURSERY BEFORE MOVING AND AGAIN TWO WEEKS AFTER PLANTING. (9) WRAP TREES AND SHRUBS WITH BURLAP FABRIC OVER TRUNKS, BRANCHES, STEMS, TWIGS, AND FOLIAGE TO PROTECT FROM WIND AND OTHER DAMAGE DURING DIGGING, HANDLING, AND
- TRANSPORTATION. (10) DELIVER PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED, AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET PLANTS AND TREES IN THEIR APPROPRIATE ASPECT (SUN, FILTERED SUN, OR SHADE), PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.
  - a. SET BALLED STOCK ON GROUND AND COVER BALL WITH SOIL, PEAT MOSS, SAWDUST, OR OTHER
  - b. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING.
  - c. WATER ROOT SYSTEMS OF PLANTS STORED ON-SITE DEEPLY AND THOROUGHLY WITH A FINE-MIST SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN A MOIST, BUT NOT OVERLY
  - 2. REPLACEMENTS: IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF THE LANDSCAPE ARCHITECT AND AT NO ADDITIONAL COST TO THE OWNER.
- Q. RESPONSIBILITY AND COORDINATION DURING WEED ABATEMENT
- 1. DURING WEED ABATEMENT PROCEDURES, THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR THE ERECTION OF ALL SIGNS AND BARRIERS REQUIRED TO PREVENT INTRUSION INTO THE TREATED AREAS AND TO NOTIFY THE PUBLIC.
- 2. NO MATERIAL OR METHODS USED FOR WEED ABATEMENT SHALL AFFECT THE LANDSCAPE PLANTING OR HYDROSEED GERMINATION. NO MATERIAL OR METHOD SHALL RENDER THE JOB SITE UNUSABLE FOR MORE THAN TEN (10) DAYS FROM DATE OF APPLICATION. R. PLANTING AROUND UTILITIES
- 1. CONTRACTOR SHALL CAREFULLY EXAMINE THE CIVIL, RECORD, AND SURVEY DRAWINGS TO BECOME FAMILIAR WITH THE EXISTING UNDERGROUND CONDITIONS BEFORE DIGGING.
- 2. DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER THAT WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED. MAINTAIN GRADE STAKES SET BY OTHERS UNTIL PARTIES CONCERNED MUTUALLY AGREE UPON REMOVAL.
- 3. NOTIFICATION OF DIG—ALERT IS REQUIRED FOR ALL PLANTING AREAS. THE CONTRACTOR IS RESPONSIBLE FOR KNOWING THE LOCATION AND AVOIDING UTILITIES. FOR DIG-ALERT CALL UNDERGROUND SERVICE ALERT TOLL FREE 1-800-422-4133 TWO WORKING DAYS BEFORE BEGINNING CONSTRUCTION.

#### PART II - MATERIALS

- A. LANDSCAPE FINISH GRADING
- 4. SITE TOPSOIL MATERIAL NO IMPORT SOIL
- B. TREE PROTECTION FENCING / SIGNAGE:
- 1. PLASTIC MESH FENCE: HEAVY DUTY ORANGE PLASTIC MESH FENCING FABRIC 48 INCHES FENCING SHALL BE ATTACHED TO METAL "U"OR "T"POST DRIVEN INTO THE GROUND OF SUFFICIENT DEPTH TO HOLD THE FABRIC SOLIDLY IN PLACE WITHOUT SAGGING. THE FABRIC SHALL BE ATTACHED TO THE POST USING ATTACHMENT TIES OF SUFFICIENT NUMBER AND STRENGTH TO HOLD UP THE FABRIC WITHOUT SAGGING. THE OWNER'S REPRESENTATIVE MAY REQUEST, AT ANY TIME, ADDITIONAL POST, DEEPER POST DEPTHS AND OR ADDITIONAL FABRIC ATTACHMENTS IF THE FABRIC BEGINS TO SAG, LEAN OR OTHERWISE NOT PRESENT A SUFFICIENT BARRIER TO ACCESS.
- 2. CHAIN LINK FENCE: 6 FEET TALL METAL CHAIN LINK FENCE SET IN METAL FRAME PANELS ON MOVABLE CORE DRILLED CONCRETE BLOCKS OF SUFFICIENT SIZE TO HOLD THE FENCE ERECT IN AREAS OF EXISTING
- 3. GATES: FOR EACH FENCE TYPE AND IN EACH SEPARATE FENCED AREA, PROVIDE A MINIMUM OF ONE 3 FOOT WIDE GATE. GATES SHALL BE LOCKABLE. THE LOCATION OF THE GATES SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE.
- 4. SUBMIT SUPPLIERS PRODUCT DATA THAT PRODUCT MEETS THE REQUIREMENTS FOR APPROVAL. 5. TREE GROWTH REGULATOR (TGR) CAMBISTAT 25C.

- C. NON SELECTIVE HERBICIDES
- 1. NON SELECTIVE CONTACT HERBICIDE AND/OR NON SELECTIVE SYSTEMIC HERBICIDES (AS RECOMMENDED BY THE PEST CONTROL ADVISOR).
- D. SELECTIVE HERBICIDES

# 1. SELECTIVE PRE\_EMERGENT HERBICIDES (AS RECOMMENDED BY THE PEST CONTROL ADVISOR).

#### E. SOIL CONDITIONERS AND FERTILIZERS

- 1. SOIL CONDITIONERS MAY INCLUDE ANY OR ALL OF THE CONDITIONERS HEREIN SPECIFIED AND SHALL BE APPLIED AT RATES INDICATED ON THE PLANS OR AS DETERMINED BY THE AGRONOMIC
- a. SHAVINGS: NITROGEN STABILIZED ORGANIC AMENDMENTS DERIVED FROM REDWOOD SAWDUST, FIR SAWDUST, OR FINELY GROUND BARK OF FIR OR PINE, CONTAINING THE FOLLOWING PHYSICAL PROPERTIES: PERCENT PASSING SIEVE SIZE 95-100 6.33 MM (1/4 INCH) 80-100 2.38 MM (NO. 8, 8 MESH) 0-30 500 MICRON (NO 35, 32 MESH) NITROGEN CONTENT - DRY WEIGHT .56% - .84% IRON CONTENT - MINIMUM .08% DILUTE ACID SOLUBLE Fe. ON DRY WEIGHT BASIS SOLUBLE SALTS - 2.5 MILLIMOHOS/CENTIMETER AT 25 DEGREES C. AS DETERMINED BY MAXIMUM SATURATION EXTRACT METHOD. ASH - DRY WEIGHT 0-6%
- 2. FERTILIZER: COMMERCIAL FERTILIZERS WITH AN ANALYSIS OF 5-3-1 GRO-POWER PLUS. 16-20-0, AND 12-8-8 GRO-POWER CONTROLLED RELEASE NITROGEN, AS DESIGNATED HEREIN, OR APPROVED SUBSTITUTE AS REQUIRED BY THE AGRONOMIC SOILS REPORT.
- a. FERTILIZER SHALL BE DELIVERED TO THE SIRE IN THE ORIGINAL UNOPENED CONTAINERS BEARING THE MANUFACTURER'S GUARANTEE ANALYSIS. ANY FERTILIZER THAT BECOMES CAKED OR DAMAGED, MAKING IT UNSUITABLE FOR USE WILL NOT BE ACCEPTED.
- 3. GYPSUM: TO BE AGRICULTURAL GRADE GYPSUM AND SHALL CONFORM TO SECTION 212-1.2 OF STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.

4. IRON SULFATE: PELLET OR GRANULAR FORM CONTAINING NOT LESS THAN 18.5% EXPRESSED

- METALLIC IRON AND SHALL BE REGISTERED AS AN AGRICULTURAL MINERAL, WITH THE STATE DEPARTMENT OF AGRICULTURE IN COMPLIANCE WITH ARTICLE 2 — "FERTILIZER MATERIALS" SECTION 1030 OF THE AGRICULTURAL CODE.
- 5. AMMONIUM SULFATE: GRANULAR FORM CONTAINING NOT LESS THAN 21% NITROGEN AND 24% SULFUR AND SHALL BE REGISTERED AS AN AGRICULTURAL MINERAL WITH THE STATE DEPARTMENT OF AGRICULTURE IN COMPLIANCE WITH ARTICLE 2 - "FERTILIZER MATERIALS" SECTION 1030 OF THE AGRICULTURAL CODE.
- F. PLANTING PACKETS
- 1. FERTILIZER PACKETS SHALL BE SLOW RELEASE PLASTIC PACKAGE WITH MICO-PORES THAT ALLOW THE FERTILIZER TO BE RELEASE INTO THE SOIL OVER TIME. AVAILABLE FROM NUTRI PAK. THE PACKETS SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UPOPENED CONTAINER BEARING THE MANUFACTURER'S GUARANTEE ANALYSIS. ANY DAMAGED PACKETS WILL NOT BE ACCEPTED.
- G. PLANT MATERIAL
- 1. NOMENCLATURE: THE SCIENTIFIC AND COMMON NAMES OF PLANTS HEREIN SPECIFIED CONFORM TO INDUSTRY STANDARDS. (REFER TO LIST OF PLANT MATERIALS ON DRAWINGS).
- 2. LABELING: EACH GROUP OF PLANT MATERIALS DELIVERED TO THE SITE SHALL BE CLEARLY LABELED AS TO SPECIES AND VARIETY AND NURSERY SOURCE.
- 3. QUALITY AND SIZE:
- a. PLANTS SHALL BE IN ACCORDANCE WITH THE CALIFORNIA STATE DEPARTMENT OF AGRICULTURE'S REGULATION FOR NURSERY INSPECTIONS, RULES AND GRADING. ALL PLANTS SHALL HAVE A NORMAL HABIT OF GROWTH AND SHALL BE SOUND, HEALTHY, VIGOROUS, AND FREE OF INSECT INFESTATIONS, PLANT DISEASES, SUN SCALDS, FRESH ABRASIONS OF THE BARK, EXCESSIVE ABRASIONS, OR OTHER OBJECTIONABLE DISFIGUREMENTS. ALL PLANTS SHALL HAVE NORMALLY WELL\_DEVELOPED BRANCH SYSTEM, WITH VIGOROUS AND FIBROUS ROOT SYSTEMS WHICH ARE NOT ROOT, POT BOUND, OR HAVE GIRDLING ROOTS. CONTAINERS WILL BE INSPECTED BY REMOVAL OF EARTH FROM THE ROOTS OF NOT LESS THAN TWO PLANTS OR MORE THAN 2% OF THE TOTAL NUMBER OF PLANTS OF EACH SPECIES OR VARIETY. WHERE CONTAINER GROWN PLANTS ARE FROM SEVERAL SOURCES, THE ROOTS OF NOT LESS THAN TWO PLANTS OF EACH SPECIES OR VARIETY FROM EACH SOURCE WILL BE INSPECTED. IN CASE THE SAMPLE PLANTS REVIEWED ARE FOUND TO BE DEFECTIVE. THE LANDSCAPE ARCHITECT MAY JUDGE ACCEPTABILITY. ANY PLANTS RENDERED UNSUITABLE FOR PLANTING BECAUSE OF THIS REVIEW WILL BE CONSIDERED AS SAMPLES AND WILL BE PROVIDED AT THE EXPENSE OF THE CONTRACTOR.
- b. THE SIZE OF THE PLANTS WILL CORRESPOND WITH THAT NORMALLY EXPECTED FOR SPECIES AND OR DRAWINGS. THE MINIMUM ACCEPTABLE SIZE OF ALL PLANTS MEASURED BEFORE PRUNING WITH THI BRANCHES IN NORMAL POSITION, SHALL CONFORM TO THE MEASUREMENTS, IF ANY, SPECIFIED ON THE DRAWINGS IN THE LIST OF PLANTS TO BE FURNISHED. PLANTS LARGER IN SIZE THAN SPECIFIED MAY BE USED WITH THE RECOMMENDED APPROVAL OF THE LANDSCAPE ARCHITECT, BUT THE USE OF LARGER PLANTS WILL MAKE NO CHANGE IN CONTRACT PRICE. IF THE USE OF LARGER PLANTS IS RECOMMENDED FOR APPROVAL, THE BALL OF EARTH OR SPREAD OF ROOTS FOR EACH PLANT SHALL BE INCREASED PROPORTIONATELY.
- 1) PLANTS SHALL BE HEALTHY WITH THE COLOR, SHAPE, SIZE AND DISTRIBUTION OF TRUNK, STEMS, BRANCHES, BUDS AND LEAVES NORMAL TO THE PLANT TYPE SPECIFIED. TREE QUALITY ABOVE THE SOIL LINE SHALL COMPLY WITH THE PROJECT CROWN ACCEPTANCE DETAILS AND THE FOLLOWING:
- a) CROWN: THE FORM AND DENSITY OF THE CROWN SHALL BE TYPICAL FOR A YOUNG SPECIMEN OF THE SPECIES OR CULTIVAR PRUNED TO A CENTRAL AND DOMINANT LEADER. 1.) CROWN SPECIFICATIONS DO NOT APPLY TO PLANTS THAT HAVE BEEN SPECIFICALLY TRAINED IN THE NURSERY AS TOPIARY, ESPALIER, MULTI-STEM, CLUMP, OR UNIQUE SELECTIONS SUCH AS CONTORTED OR WEEPING CULTIVARS.
- 2) LEAVES: THE SIZE, COLOR, AND APPEARANCE OF LEAVES SHALL BE TYPICAL FOR THE TIME OF YEAR AND STAGE OF GROWTH OF THE SPECIES OR CULTIVAR. TREES SHALL NOT SHOW SIGNS OF PROLONGED MOISTURE STRESS OR OVER WATERING AS INDICATED BY WILTED, SHRIVELED, OR DEAD
- 3) BRANCHES: SHOOT GROWTH (LENGTH AND DIAMETER) THROUGHOUT THE CROWN SHOULD BE APPROPRIATE FOR THE AGE AND SIZE OF THE SPECIES OR CULTIVAR. TREES SHALL NOT HAVE DEAD, DISEASED, BROKEN, DISTORTED, OR OTHERWISE INJURED BRANCHES.
- a) MAIN BRANCHES SHALL BE DISTRIBUTED ALONG THE CENTRAL LEADER NOT CLUSTERED TOGETHER. THEY SHALL FORM A BALANCED CROWN APPROPRIATE FOR THE CULTIVAR/SPECIES.
- b) BRANCH DIAMETER SHALL BE NO LARGER THAN TWO-THIRDS (ONE-HALF IS PREFERRED) THE DIAMETER OF THE CENTRAL LEADER MEASURED 1 INCH ABOVE THE BRANCH UNION. c) THE ATTACHMENT OF THE LARGEST BRANCHES (SCAFFOLD BRANCHES) SHALL BE FREE OF INCLUDED BARK.

4) TRUNK: THE TREE TRUNK SHALL BE RELATIVELY STRAIGHT, VERTICAL, AND FREE OF WOUNDS THAT

PENETRATE TO THE WOOD (PROPERLY MADE PRUNING CUTS, CLOSED OR NOT, ARE ACCEPTABLE AND ARE NOT CONSIDERED WOUNDS), SUNBURNED AREAS, CONKS (FUNGAL FRUITING BODIES), WOOD CRACKS, SAP LEAKAGE, SIGNS OF BORING INSECTS, GALLS, CANKERS, GIRDLING TIES, OR LESIONS (MECHANICAL INJURY).

c. TREES SHALL HAVE ONE CENTRAL LEADER, DEPENDING ON SPECIES. IF THE LEADER WAS HEADED, A

- NEW LEADER (WITH A LIVE TERMINAL BUD) AT LEAST ONE-HALF THE DIAMETER OF THE PRUNING CUT SHALL BE PRESENT. ALL TREES ARE ASSUMED TO HAVE ONE CENTRAL LEADER TREES UNLESS A DIFFERENT FORM IS SPECIFIED IN THE PLANT LIST OR DRAWINGS. ALL GRAFT UNIONS, WHERE APPLICABLE, SHALL BE COMPLETELY CLOSED WITHOUT VISIBLE SIGN OF
- GRAFT REJECTION. ALL GRAFTS SHALL BE VISIBLE ABOVE THE SOIL LINE. TRUNK CALIPER AND TAPER SHALL BE SUFFICIENT SO THAT THE LOWER FIVE FEET OF THE TRUNK REMAINS VERTICAL WITHOUT A STAKE. AUXILIARY STAKE MAY BE USED TO MAINTAIN A STRAIGHT
- LEADER IN THE UPPER HALF OF THE TREE.

(J ROOTS) SHALL BE REJECTED.

- 1) PLANT QUALITY AT OR BELOW THE SOIL LINE: a.) PLANT ROOTS SHALL BE NORMAL TO THE PLANT TYPE SPECIFIED. ROOT OBSERVATIONS SHALL TAKE PLACE WITHOUT IMPACTING TREE HEALTH, ROOT QUALITY AT OR BELOW THE SOIL LINE
- SHALL COMPLY WITH THE PROJECT ROOT ACCEPTANCE DETAILS AND THE FOLLOWING:
- b.) THE ROOTS SHALL BE REASONABLY FREE OF SCRAPES, BROKEN OR SPLIT WOOD. c.) THE ROOT SYSTEM SHALL BE REASONABLY FREE OF INJURY FROM BIOTIC
- SYSTEM ARE NOT CONSIDERED INJURIES. d.) A MINIMUM OF THREE STRUCTURAL ROOTS REASONABLY DISTRIBUTED AROUND THE TRUNK (NOT CLUSTERED ON ONE SIDE) SHALL BE FOUND IN EACH PLANT. ROOT DISTRIBUTION SHALL BE UNIFORM THROUGHOUT THE ROOT BALL, AND GROWTH SHALL BE APPROPRIATE FOR THE

(INSECTS AND PATHOGENS) AND ABIOTIC (E.G., HERBICIDE TOXICITY AND SALT INJURY)

AGENTS. WOUNDS RESULTING FROM ROOT PRUNING USED TO PRODUCE A HIGH QUALITY ROOT

- 2) PLANTS WITH STRUCTURAL ROOTS ON ONLY ONE SIDE OF THE TRUNK
- d. THE ROOT COLLAR SHALL BE WITHIN THE UPPER 2 INCHES OF THE SUBSTRATE/SOIL. TWO STRUCTURAL ROOTS SHALL REACH THE SIDE OF THE ROOT BALL NEAR THE TOP SURFACE OF THE ROOT BALL. THE GROWER MAY REQUEST A MODIFICATION TO THIS REQUIREMENT FOR SPECIES WITH ROOTS THAT RAPIDLY DESCEND, PROVIDED THAT THE GROWER REMOVES ALL STEM GIRDLING ROOTS ABOVE THE STRUCTURAL
- ROOTS ACROSS THE TOP OF THE ROOT BALL. e. THE ROOT SYSTEM SHALL BE REASONABLY FREE OF STEM GIRDLING ROOTS OVER THE ROOT COLLAR OR KINKED ROOTS FROM NURSERY PRODUCTION PRACTICES.
- 1) PLANT GROWER CERTIFICATION: THE FINAL PLANT GROWER SHALL BE RESPONSIBLE TO HAVE DETERMINED THAT THE PLANTS HAVE BEEN ROOT PRUNED AT EACH STEP IN THE PLANT PRODUCTION PROCESS TO REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS, OR THAT THE PREVIOUS PRODUCTION SYSTEM USED PRACTICES THAT PRODUCE A ROOT SYSTEM THROUGHOUT THE ROOT BALL THAT MEETS THESE SPECIFICATIONS. REGARDLESS OF THE WORK OF PREVIOUS GROWERS, THE PLANT'S ROOT SYSTEM SHALL BE MODIFIED AT THE FINAL PRODUCTION STAGE, IF NEEDED, TO PRODUCE THE REQUIRED PLANT ROOT QUALITY, THE FINAL GROWER SHALL CERTIFY IN WRITING THAT ALL PLANTS ARE REASONABLY FREE OF STEM GIRDLING AND KINKED ROOTS AS DEFINED IN THIS SPECIFICATION, AND THAT THE TREE HAS BEEN GROWN AND HARVESTED TO PRODUCE A PLANT THAT MEETS THESE SPECIFICATIONS.
- f. AT TIME OF OBSERVATIONS AND DELIVERY, THE ROOT BALL SHALL BE MOIST THROUGHOUT. ROOTS SHALL NOT SHOW SIGNS OF EXCESS SOIL MOISTURE CONDITIONS AS INDICATED BY STUNTED, DISCOLORED, DISTORTED, OR DEAD ROOTS.
- 4. REJECTION OR SUBSTITUTION: ALL PLANTS NOT CONFORMING TO THE REQUIREMENTS HEREIN SPECIFIED SHALL BE CONSIDERED DEFECTIVE. AND SUCH PLANTS, WHETHER IN PLACE OR NOT, SHALL BE MARKED AS REJECTED AND IMMEDIATELY REMOVED FROM THE SITE OF THE WORK AND REPLACED WITH NEW PLANTS AT THE CONTRACTOR'S EXPENSE. THE PLANTS SHALL BE OF THE SPECIES, VARIETY, SIZE AND CONDITION SPECIFIED HEREIN OR SHOWN ON THE DRAWINGS. UNDER NO CONDITION WILL THERE BE ANY SUBSTITUTION OF PLANTS OR SIZES FOR THOSE LISTED ON THE ACCOMPANYING PLANS, EXCEPT WITH THE EXPRESSED CONSENT OF THE LANDSCAPE ARCHITECT.
- 5. PRUNING: AT NO TIME SHALL THE TREE OR PLANT MATERIALS BE PRUNED, TRIMMED OR TOPPED PRIOR TO DELIVERY, AND ANY ALTERATION OF THEIR SHAPE SHALL BE CONDUCTED ONLY WITH THE RECOMMENDED APPROVAL AND WHEN IN THE PRESENCE OF THE LANDSCAPE ARCHITECT.
- ADEQUATELY PROTECTED FROM DRYING OUT, FROM WIND BURN, OR FROM ANY OTHER INJURY.

6. PROTECTION: ALL PLANTS AT ALL TIMES SHALL BE HANDLED AND STORED SO THAT THEY ARE

- 7. RIGHT OF REVIEW: THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO RECOMMEND APPROVAL OR REJECTION AT ANY TIME UPON DELIVERY OR DURING THE WORK, ANY OR ALL PLANT MATERIAL REGARDING SIZE. VARIETY OR CONDITION.
- IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF PLANTS IS INDICATED ON THE DRAWINGS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD AND NUMBER THE LABELS TO ASSURE SYMMETRY IN PLANTING.ROOTBALL PACKAGE OPTIONS
- 1. SPADE HARVESTED AND TRANSPLANTED
- g. SPADE HARVESTED AND TRANSPLANTED PLANTS SHALL MEET ALL THE REQUIREMENTS FOR FIELD GROWN TREES. ROOT BALL DIAMETERS SHALL BE OF SIMILAR SIZE AS THE ANSI Z60.1 REQUIREMENTS FOR BALLED AND BURLAPPED PLANTS.
- h. TREES SHALL BE HARVESTED PRIOR TO LEAFING OUT (BUD BREAK) IN THE SPRING OR DURING THE FALL PLANTING PERIOD EXCEPT FOR PLANTS KNOW TO BE CONSIDERED AS FALL PLANTING HAZARDS. PLANTS THAT ARE FALL PLANTING HAZARDS SHALL ONLY BE HARVESTED PRIOR TO LEAFING OUT IN
- TREES SHALL BE MOVED AND PLANTED WITHIN 48 HOURS OF THE INITIAL HARVESTING AND SHALL REMAIN IN THE SPADE MACHINE UNTIL PLANTED.
- 2. CONTAINER (INCLUDING ABOVE-GROUND FABRIC CONTAINERS AND BOXES) PLANTS
- a. CONTAINER PLANTS MAY BE PERMITTED ONLY WHEN INDICATED ON THE DRAWING, IN THIS SPECIFICATION, OR APPROVED BY THE OWNER'S REPRESENTATIVE.
- b. PROVIDE PLANTS SHALL BE ESTABLISHED AND WELL ROOTED IN REMOVABLE CONTAINERS. c. CONTAINER CLASS SIZE SHALL CONFORM TO ANSI Z60.1 FOR CONTAINER PLANTS FOR EACH SIZE AND
- 1. ORGANIC BARK MULCH: LOCAL GROUND WOOD PRODUCT SHALL BE "WALK ON" GRADE, COARSE, GROUND, FROM TREE AND WOODY BRUSH SOURCES. SUBMIT SUPPLIER PRODUCT SPECIFICATION DATA SHEET AND A ONE GALLON SAMPLE FOR APPROVAL.
- 2. MINERAL MULCH: HARD, DURABLE STONE, WASHED FREE OF LOAM, SAND, CLAY, AND OTHER FOREIGN SUBSTANCES, IN ACCORDANCE WITH THE TYPE, SIZE RANGE, AND COLOR RANGE ON THE DRAWINGS:
- 1. NONWOVEN GEOTEXTILE FILTER FABRIC: POLYPROPYLENE OR POLYESTER FABRIC, 3 OZ./SQ. YD. MINIMUM, COMPOSED OF FIBERS FORMED INTO A STABLE NETWORK SO THAT FIBERS RETAIN THEIR RELATIVE POSITION. FABRIC SHALL BE INERT TO BIOLOGICAL DEGRADATION AND RESIST NATURALLY ENCOUNTERED CHEMICALS,
- a. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY TENGATE GEOSYNTHETICS AMERICA, US FABRICS, PROPEX, OR EQUAL. 2. COMPOSITE FABRIC: WOVEN, NEEDLE-PUNCHED POLYPROPYLENE SUBSTRATE BONDED TO A NONWOVEN
- POLYPROPYLENE FABRIC, 4.8 OZ./SQ. YD. a. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY MIRAFI, US FABRICS, PROPEX, OR EQUAL.

1. GENERAL: PESTICIDE REGISTERED AND APPROVED BY THE EPA, ACCEPTABLE TO AUTHORITIES HAVING

#### JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE RESTRICTED PESTICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.

#### K. TREE SUPPORTS

J. PESTICIDES

- 1. TRUNK-STABILIZATION MATERIALS: a. UPRIGHT STAKES: ROUGH-SAWN, SOUND, NEW LODGEPOLE PINE OR DOUGLAS FIR CORES WITH ALKALINE COPPER QUATERNARY (ACQ) WOOD PRESSURE-PRESERVATIVE TREATMENT, NO CHROMATED COPPER ARSENATE (CCA) TREATMENT, FREE OF KNOTS, HOLES, CROSS GRAIN, AND OTHER DEFECTS,
- 2-BY-2-INCH NOMINAL BY LENGTH INDICATED, POINTED AT ONE END. b. RIGID TWIST BRACES: ROUND THREADED METAL ROD, 1/2-INCH SIZE, ENCASED IN U.V. BLACK VINYL TUBING PLACED AT CENTER PORTION OF THE ROD. ROD SHALL BE BENT IN A 360 DEGREE CIRCLE.
- c. FLEXIBLE TIES: MANUFACTURED OF VIRGIN FLEXIBLE VINYL MEETING ASTM D-412 STANDARDS FOR ISH E AND FLONGATION STRENGTH. BLACK FOR ULTRAVIOLET DOUBLE BACK LOCKING CONFIGURATION. FLEXIBLE TIES SHALL ELONGATE WITH TREE GROWTH WHILE PREVENTING DAMAGE TO THE TREE.

d. PROPRIETARY STAKING-AND-GUYING DEVICES: PROPRIETARY STAKE OR ANCHOR AND ADJUSTABLE TIE

- SYSTEMS TO SECURE EACH NEW PLANTING BY PLANT STEM; SIZED AS INDICATED AND ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS. 1) MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY
- 2. PALM BRACING: BATTENS OR BLOCKS, STRUTS, STRAPS, AND PROTECTIVE PADDING. a. BATTENS OR BLOCKS AND STRUTS: ROUGH-SAWN, SOUND, NEW HARDWOOD OR SOFTWOOD, FREE OF

ARBORBRACE., J. R. PARTNERS, VILLA ROOT BARRIER, OR EQUAL.

- B. STRAPS: ADJUSTABLE STEEL OR PLASTIC PACKAGE BANDING.
- c. PADDING: BURLAP. d. PROPRIETARY PALM-BRACING DEVICES: PROPRIETARY SYSTEMS TO SECURE EACH NEW PLANTING BY TRUNK; SIZED ACCORDING TO MANUFACTURER'S WRITTEN RECOMMENDATIONS UNLESS OTHERWISE

KNOTS, HOLES, CROSS GRAIN, AND OTHER DEFECTS, 2-BY-4-INCH NOMINAL BY LENGTHS INDICATED.

1) MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY

#### ARBORBRACE, VILLA ROOT BARRIER, TREE FROG ENVIRONMENTAL, OR EQUAL.

L. MISCELLANEOUS PRODUCTS 1. ROOT BARRIER: BLACK, MOLDED, MODULAR PANELS 24 INCHES HIGH (DEEP), 85 MILS THICK, AND WITH VERTICAL ROOT DEFLECTING RIBS PROTRUDING 3/4-INCH OUT FROM PANEL SURFACE; MANUFACTURED WITH MINIMUM 50 PERCENT RECYCLED POLYETHYLENE PLASTIC WITH UV INHIBITORS. PANELS SHALL HAVE AN

2. ANTIDESICCANT: WATER-INSOLUBLE EMULSION, PERMEABLE MOISTURE RETARDER, FILM FORMING, FOR TREES

AND SHRUBS. DELIVER IN ORIGINAL, SEALED, AND FULLY LABELED CONTAINERS AND MIX ACCORDING TO

a. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY DEEPROOT GREEN INFRASTRUCTURE, LLC, NDS INC, VILLA ROOT BARRIER, OR EQUAL.

INTEGRATED, SELF—INTERLOCKING JOINING SYSTEM THAT SLIDE INTO EACH OTHER.

- MANUFACTURER'S WRITTEN INSTRUCTIONS. 3. BURLAP: NON-SYNTHETIC, BIODEGRADABLE.
- 4. PLANTER DRAINAGE GRAVEL: WASHED, SOUND CRUSHED STONE OR GRAVEL COMPLYING WITH (ASTM D 448 FOR SIZE NO. 8) (INSERT REQUIREMENTS). 5. PLANTER FILTER FABRIC: NONWOVEN GEOTEXTILE MANUFACTURED FOR SEPARATION APPLICATIONS AND
- a. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY TENGATE GEOSYNTHETICS AMERICA, US FABRICS, PROPEX, OR EQUAL.

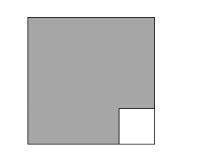
MADE OF POLYPROPYLENE OR POLYESTER FABRIC, 3 OZ./SQ. YD. MINIMUM, COMPOSED OF FIBERS FORMED

INTO A STABLE NETWORK SO THAT FIBERS RETAIN THEIR RELATIVE POSITION. FABRIC SHALL BE INERT TO

BIOLOGICAL DEGRADATION AND RESIST NATURALLY ENCOUNTERED CHEMICALS, ALKALIS, AND ACIDS.

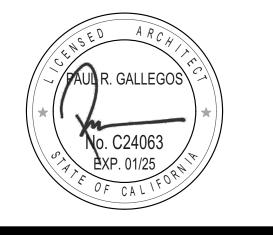
#### IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 04-121384 INC: REVIEWED FOR SS 🗹 FLS 🗹 ACS 🗹 DATE: 03/08/2023

ALPHASTUDIO DESIGN GROUP



6152 INNOVATION WAY CARLSBAD, 92009 760-431-2444 www.alphastudio-design.com

#### ARCHITECT OF RECORD



LANDSCAPE ARCHITECT OF RECOR



REVISIONS MARK DATE DESCRIPTION

SHEET TITLE

PROJECT NO: 20-020

CLOVER FLAT E.S. PARKING LOT UPGRADE

MODEL FILE:

PLOT DATE:

03/02/23

#### PART III - EXECUTION

#### A. GENERAL

- 1. EXAMINE AREAS TO RECEIVE PLANTS, WITH INSTALLER PRESENT, FOR COMPLIANCE WITH REQUIREMENTS AND CONDITIONS AFFECTING INSTALLATION AND PERFORMANCE OF THE WORK.
- a. VERIFY THAT NO FOREIGN OR DELETERIOUS MATERIAL OR LIQUID SUCH AS PAINT, PAINT WASHOUT, CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, OR ACID HAS BEEN DEPOSITED IN SOIL WITHIN A
- b. VERIFY THAT PLANTS AND VEHICLES LOADED WITH PLANTS CAN TRAVEL TO PLANTING LOCATIONS WITH ADEQUATE OVERHEAD CLEARANCE.
- c. SUSPEND PLANTING OPERATIONS DURING PERIODS OF EXCESSIVE SOIL MOISTURE UNTIL THE MOISTURE CONTENT REACHES ACCEPTABLE LEVELS TO ATTAIN THE REQUIRED RESULTS.
- d. UNIFORMLY MOISTEN EXCESSIVELY DRY SOIL THAT IS NOT WORKABLE OR WHICH IS DUSTY.
- 2. IF CONTAMINATION BY FOREIGN OR DELETERIOUS MATERIAL OR LIQUID IS PRESENT IN SOIL WITHIN A PLANTING AREA, REMOVE THE SOIL AND CONTAMINATION AS DIRECTED BY DISTRICT CONSTRUCTION MANAGER AND REPLACE WITH NEW PLANTING SOIL.
- 3. PROCEED WITH INSTALLATION ONLY AFTER UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- 4. LOCATE ALL EXISTING UNDERGROUND UTILITIES AND OBSTRUCTIONS PRIOR TO EXCAVATING. BRING TO THE ATTENTION OF THE DISTRICT CONSTRUCTION MANAGER ANY INTERFERENCES FOUND.

#### B. PREPARATION

- 1. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES AND TURF AREAS AND EXISTING PLANTS FROM DAMAGE CAUSED BY PLANTING OPERATIONS.
- a. PROTECT ADJACENT AND ADJOINING AREAS FROM HYDROSEEDING AND HYDROMULCHING OVERSPRAY
- b. PROTECT GRADE STAKES SET BY OTHERS UNTIL DIRECTED TO REMOVE THEM.
- 2. INSTALL EROSION-CONTROL MEASURES TO PREVENT EROSION OR DISPLACEMENT OF SOILS AND DISCHARGE OF SOIL-BEARING WATER RUNOFF OR AIRBORNE DUST TO ADJACENT PROPERTIES AND WALKWAYS.
- 3. UNACCEPTABLE MATERIALS: REMOVE FROM SOIL ALL CONCRETE SLURRY, CONCRETE LAYERS OR CHUNKS, CEMENT, PLASTER, BUILDING DEBRIS, OILS, GASOLINE, DIESEL FUEL, PAINT THINNER, TURPENTINE, TAR, ROOFING COMPOUND, ACID, AND OTHER EXTRANEOUS MATERIALS THAT ARE HARMFUL TO PLANT GROWTH.
- 4. LAY OUT INDIVIDUAL TREE AND SHRUB LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS. STAKE LOCATIONS, OUTLINE AREAS, ADJUST LOCATIONS WHEN REQUESTED, AND OBTAIN LANDSCAPE ARCHITECTS ACCEPTANCE OF LAYOUT BEFORE EXCAVATING OR PLANTING. MAKE MINOR ADJUSTMENTS AS REQUIRED.
- 5. PRIOR TO EXCAVATING PLANTING HOLES, LOCATE UNDERGROUND UTILITIES AND STRUCTURES IN THE AREA OF EXCAVATIONS. DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

#### C. ADVERSE WEATHER CONDITIONS

NO PLANTING SHALL TAKE PLACE DURING EXTREMELY HOT, DRY, WINDY, OR FREEZING WEATHER.

#### D. WEED ERADICATION

- 1. PRIOR TO THE INSTALLATION OF THE IRRIGATION SYSTEM, ALL WEED GROWTH SHALL BE REMOVED WITHIN THE AREAS DESIGNATED TO BE CLEARED AND GRUBBED. REFER TO PLANS FOR LIMIT OF WORK.
- a. IF IN THE OPINION OF THE PEST CONTROL ADVISOR, PERENNIAL GRASSES AND WEEDS EXISTING IN THE PLANTING AREAS WILL REQUIRE CONTROL PRIOR TO REMOVAL, SPRAY THESE AREAS PER PEST CONTROL ADVISER'S RECOMMENDATIONS. ALLOW HERBICIDE TO KILL ALL WEEDS. RAKE OR HOE OFF ALL DEAD WEEDS TO A DEPTH OF ONE TO TWO INCHES (1" TO 2") BELOW THE SURFACE OF THE SOIL. PHYSICALLY REMOVE ALL WEEDS FROM THE SITE.
- 2. UPON COMPLETION OF THE IRRIGATION SYSTEM AND ROTOTILLING OF SOIL AMENDMENTS INTO THE SOIL AND MMEDIATELY PRECEDING THE INSTALLATION OF PLANT MATERIAL, PERFORM WEED ABATEMENT AS FOLLOWS, AND PER PEST CONTROL ADVISORS RECOMMENDATION.
- a. APPLY SULFATE OF AMMONIA AT THE RATE OF FIVE POUNDS (5 LBS.) PER ONE THOUSAND SQUARE FEET (1.000 SF.) TO ALL PLANTING AREAS.
- b. IRRIGATE AREA FOR FOURTEEN (14) CONSECUTIVE DAYS, TO GERMINATE EXISTING WEED SEEDS.
- c. APPLY BY SPRAY A NON\_SELECTIVE HERBICIDE TO ERADICATE ALL EXISTING WEEDS. DO NOT IRRIGATE FOR SEVEN (7) DAYS AFTER APPLICATION.
- d. REMOVE WEEDS AFTER HERBICIDE HAS HAD TIME TO SUFFICIENTLY KILL. REMOVE ALL DEAD WEEDS BY RAKE OR HOE TO A DEPTH OF ONE TO TWO INCHES (1" TO 2") BELOW THE SURFACE OF THE SOIL. REMOVE ALL WEED RESIDUE AND TOP GROWTH AND DISPOSE OF IN A LEGAL MANNER.

#### E. TREE AND SHRUB INSTALLATION

- 1. TREE AND PLANT PROTECTION AREA: THE TREE AND PLANT PROTECTION AREA IS DEFINED AS ALL AREAS INDICATED ON THE TREE PROTECTION PLAN. WHERE NO LIMIT OF THE TREE AND PLANT PROTECTION AREA IS DEFINED ON THE DRAWINGS, THE LIMIT SHALL BE THE DRIP LINE (OUTER EDGE OF THE BRANCH CROWN) OF
- a. ROOT PRUNING PRIOR TO ANY EXCAVATING INTO THE EXISTING SOIL GRADE WITHIN 25 FEET OF THE LIMIT OF THE TREE AND PLANT PROTECTION AREA OR TREES TO REMAIN. ROOT PRUNE ALL EXISTING TREES TO A DEPTH OF 24 INCHES BELOW EXISTING GRADE IN ALIGNMENTS FOLLOWING THE EDGES OF THE TREE AND PLANT PROTECTION AREA OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ROOT PRUNING SHALL BE IN CONFORMANCE WITH ANSI A300 (PART 8) LATEST EDITION.
- 1) USING A ROCK SAW, CHAIN TRENCHER OR SIMILAR TRENCHING DEVICE, MAKE A VERTICAL CUT WITHIN 2 FEET OF THE LIMIT OF GRADING.
- 2) AFTER COMPLETION OF THE CUT, MAKE CLEAN CUTS WITH A LOPPER, SAW OR PRUNER TO REMOVE ALL TORN ROOT ENDS ON THE TREE SIDE OF THE EXCAVATION, AND BACKFILL THE TRENCH IMMEDIATELY WITH EXISTING SOIL, FILLING ALL VOIDS.
- b. TREE GROWTH REGULATOR AT THE START OF THE CONSTRUCTION CONTRACT PERIOD, TREAT ALL TREES, INDICATED ON THE PLAN, WITH TREE GROWTH REGULATOR AT RECOMMENDED RATES, TIME OF YEAR AND METHODS INDICATED BY THE PRODUCT DISTRIBUTOR
- c. ANY TREES OR PLANTS DESIGNATED TO REMAIN AND WHICH ARE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT THEIR OWN EXPENSE. TREES SHALL BE REPLACED WITH A TREE OF SIMILAR SPECIES AND OF EQUAL SIZE OR 6 INCH CALIPER WHICHEVER IS LESS. SHRUBS SHALL BE REPLACED WITH A PLANT OF SIMILAR SPECIES AND EQUAL SIZE OR THE LARGEST SIZE PLANTS REASONABLY AVAILABLE WHICHEVER IS LESS. WHERE REPLACEMENT PLANTS ARE TO BE LESS THAN THE SIZE OF THE PLANT THAT IS DAMAGED, THE OWNER'S REPRESENTATIVE SHALL APPROVE THE SIZE AND QUALITY OF THE REPLACEMENT PLANT.
- 1) ALL TREES AND PLANTS SHALL BE INSTALLED PER THE REQUIREMENTS OF SPECIFICATION SECTION
- I. PLANTS THAT ARE DAMAGED SHALL BE CONSIDERED AS REQUIRING REPLACEMENT OR APPRAISAL IN THE EVENT THAT THE DAMAGE AFFECTS MORE THAN 25% OF THE CROWN, 25% OF THE TRUNK CIRCUMFERENCE, OR ROOT PROTECTION AREA, OR THE TREE IS DAMAGED IN SUCH A MANNER THAT THE TREE COULD DEVELOP INTO A POTENTIAL HAZARD. TREES AND SHRUBS TO BE REPLACED SHALL BE REMOVED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- 1) THE OWNER'S REPRESENTATIVE MAY ENGAGE AN INDEPENDENT ARBORIST TO ASSESS ANY TREE OR PLANT THAT APPEARS TO HAVE BEEN DAMAGED TO DETERMINE THEIR HEALTH OR CONDITION.
- e. ANY TREE THAT IS DETERMINED TO BE DEAD, DAMAGED OR POTENTIALLY HAZARDOUS BY THE OWNER'S ARBORIST AND UPON THE REQUEST OF THE OWNER'S REPRESENTATIVE SHALL BE IMMEDIATELY REMOVED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. TREE REMOVAL SHALL INCLUDE ALL CLEAN-UP OF ALL WOOD PARTS AND GRINDING OF THE STUMP TO A DEPTH SUFFICIENT TO PLANT THE REPLACEMENT TREE OR PLANT, REMOVAL OF ALL CHIPS FROM THE STUMP SITE AND FILLING THE RESULTING HOLE WITH TOPSOIL.
- ANY REMEDIAL WORK ON DAMAGED EXISTING PLANTS RECOMMENDED BY THE CONSULTING ARBORIST SHALL BE COMPLETED BY THE CONTRACTOR AT NO COST TO THE OWNER. REMEDIAL WORK SHALL INCLUDE BUT IS NOT LIMITED TO: SOIL COMPACTION REMEDIATION AND VERTICAL MULCHING, PRUNING AND OR CABLING, INSECT AND DISEASE CONTROL INCLUDING INJECTIONS, COMPENSATORY WATERING, ADDITIONAL MULCHING, AND COULD INCLUDE APPLICATION TREE GROWTH REGULATORS (TGR).
- g. REMEDIAL WORK MAY EXTEND UP TO TWO YEARS FOLLOWING THE COMPLETION OF CONSTRUCTION TO ALLOW FOR ANY REQUIREMENTS OF MULTIPLE APPLICATIONS OR THE NEED TO UNDERTAKE APPLICATIONS AT REQUIRED SEASONS OF THE YEAR.
- 2. ALL IRRIGATION WORK SHALL HAVE BEEN REVIEWED BY THE LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY PLANTING.
- 3. INSTALLATION OF ALL PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE DETAILS ON THE PLANTING
- 4. LOCATIONS FOR PLANTS AND OUTLINES OF AREAS TO BE PLANTED SHALL BE MARKED ON THE GROUND BY THE CONTRACTOR BEFORE ANY PLANT PITS ARE DUG. ALL SUCH LOCATIONS SHALL BE REVIEWED BY THE LANDSCAPE ARCHITECT AND OWNER/AGENT. IF AN UNDERGROUND CONSTRUCTION OR UTILITY LINE IS ENCOUNTERED IN THE EXCAVATION OF PLANTING AREAS. NOTIFY LANDSCAPE ARCHITECT SO THAT OTHER LOCATIONS FOR PLANTING MAY BE SELECTED.

#### 5. EXCAVATION FOR PLANTING:

- a. EXCAVATION FOR PLANTING SHALL INCLUDE THE STRIPPING AND STACKING OF ALL ACCEPTABLE TOPSOIL ENCOUNTERED WITHIN THE AREAS TO BE EXCAVATED FOR TRENCHES, TREE HOLES, PLANT PITS AND PLANTING BEDS.
- b. PROTECT ALL AREAS FROM EXCESSIVE COMPACTION WHEN TRUCKING PLANTS OR OTHER MATERIAL TO THE PLANTING SITE.
- c. ALL EXCAVATED HOLES SHALL HAVE VERTICAL SIDES WITH ROUGHENED SURFACES AND SHALL BE OF A SIZE THAT IS AT LEAST TWO TIMES THE WIDTH AND DEPTH OF THE ORIGINAL PLANT CONTAINER. THE HOLES SHALL BE, IN ALL CASES, LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY OR BREAKAGE TO THE ROOTS OR ROOT BALL.
- d. HARDPAN LAYER: DRILL 6-INCH-DIAMETER HOLES, 24 INCHES APART, INTO FREE-DRAINING STRATA OR TO A DEPTH OF 10 FEET, WHICHEVER IS LESS, AND BACKFILL WITH FREE-DRAINING MATERIAL.
- e. DRAINAGE: NOTIFY DISTRICT CONSTRUCTION MANAGER IF SUBSOIL CONDITIONS EVIDENCE WATER

SEEPAGE OR RETENTION IN TREE OR SHRUB PLANTING PITS.

#### 6. PERCOLATION TEST PITS

- a. LOCATE AND PREPARE FIVE (5) MINIMUM PERCOLATION TEST PITS WHERE INDICATED ON THE DRAWINGS, AND AS DESCRIBED HEREIN.
- b. EXCAVATE THE PITS AS DESCRIBED IN PART 2: TREE AND SHRUB EXCAVATION, REMOVE ALL LOOSE MATERIAL, AND FILL THE PITS WITH SIX INCHES (6") OF WATER. AFTER 12 HOURS REFILL WITH THE SAME

AMOUNT OF WATER. SIX HOURS AFTER THE SECOND FILLING, INSPECT THE PITS WITH THE DISTRICT CONSTRUCTION MANAGER AND DOCUMENT LOCATIONS WHERE WATER REMAINS IN THE PIT.

- c. IF PERCOLATION PROBLEMS OCCUR, PROVIDE MEANS AND METHODS FOR CORRECTING SAID PROBLEMS. PLANTING OPERATIONS AT THE LOCATIONS IDENTIFIED SHALL BE SUSPENDED AS NECESSARY OR AS DIRECTED BY THE DISTRICT CONSTRUCTION MANAGER.
- PLANTING:
- a. NO PLANTING SHALL BE DONE IN ANY AREA UNTIL THE AREA CONCERNED HAS BEEN SATISFACTORILY PREPARED IN ACCORDANCE WITH THESE SPECIFICATIONS.
- b. NO MORE PLANTS SHALL BE DISTRIBUTED IN THE PLANTING AREA ON ANY DAY THAN CAN BE PLANTED AND WATERED ON THAT DAY.
- c. INSPECTION: AT TIME OF PLANTING, VERIFY THAT ROOT FLARE IS VISIBLE AT TOP OF ROOT BALL ACCORDING TO ANSI Z60.1. IF ROOT FLARE IS NOT VISIBLE, REMOVE SOIL IN A LEVEL MANNER FROM THE ROOT BALL TO WHERE THE TOP-MOST ROOT EMERGES FROM THE TRUNK. AFTER SOIL REMOVAL TO
- d. ROOTS: REMOVE STEM GIRDLING ROOTS AND KINKED ROOTS. REMOVE INJURED ROOTS BY CUTTING CLEANLY; DO NOT BREAK. PLANT WILL NOT BE ACCEPTED IF THE ROOTBALL IS BROKEN OR CRACKED, EITHER BEFORE, DURING OR AFTER THE INSTALLATION PROCESS.

EXPOSE THE ROOT FLARE, VERIFY THAT ROOT BALL STILL MEETS SIZE REQUIREMENTS.

- e. PERMITTED ROOT BALL PACKAGES AND SPECIAL PLANTING REQUIREMENTS
- 1) BALLED AND BURLAPPED PLANTS
  - a) AFTER THE ROOT BALL HAS BEEN BACKFILLED, REMOVE ALL TWINE AND BURLAP FROM THE TOP OF THE ROOT BALL. CUT THE BURLAP AWAY; DO NOT FOLD DOWN ONTO THE PLANTING SOIL.
- b) IF THE PLANT IS SHIPPED WITH A WIRE BASKET THAT DOES NOT MEET THE REQUIREMENTS OF A "LOW RISE" BASKET, REMOVE THE TOP 6 - 8 INCHES OF THE BASKET WIRES JUST BEFORE THE
- c) EARTH ROOT BALLS SHALL BE KEPT INTACT EXCEPT FOR ANY MODIFICATIONS REQUIRED BY THE OWNER'S REPRESENTATIVE TO MAKE ROOT PACKAGE COMPLY WITH THE REQUIREMENT IN PART
- 2) SPADE HARVESTED AND TRANSPLANTED PLANTS
- a) AFTER INSTALLING THE TREE, LOOSEN THE SOIL ALONG THE SEAM BETWEEN THE ROOT BALL AND THE SURROUNDING SOIL OUT TO A RADIUS FROM THE ROOT BALL EDGE EQUAL TO THE DIAMETER OF THE ROOT BALL TO A DEPTH OF 8 - 10 INCHES BY HAND DIGGING TO DISTURB THE SOIL
- b) FILL ANY GAPS BELOW THIS LEVEL WITH LOOSE SOIL
- 3) CONTAINER (INCLUDES BOXED AND ABOVE-GROUND FABRIC CONTAINERS) PLANTS
- a) THIS SPECIFICATION ASSUMES THAT MOST CONTAINER PLANTS HAVE SIGNIFICANT STEM GIRDLING AND CIRCLING ROOTS, AND THAT THE ROOT COLLAR IS TOO LOW IN THE ROOT BALL.
- b) REMOVE THE CONTAINER.
- c) PERFORM ROOT BALL SHAVING AS DEFINED IN INSTALLATION OF PLANTS: GENERAL ABOVE.
- d) REMOVE ALL ROOTS AND SUBSTRATE ABOVE THE ROOT COLLAR AND THE MAIN STRUCTURAL ROOTS ACCORDING TO ROOT CORRECTION DETAILS SO ROOT SYSTEM CONFORMS TO ROOT
- e) REMOVE ALL SUBSTRATE AT THE BOTTOM OF THE ROOT BALL THAT DOES NOT CONTAIN ROOTS.
- f) USING A HOSE, POWER WASHER OR AIR EXCAVATION DEVICE, WASH OUT THE SUBSTRATE FROM AROUND THE TRUNK AND TOP OF THE REMAINING ROOT BALL AND FIND AND REMOVE ALL STEM GIRDLING ROOTS WITHIN THE ROOT BALL ABOVE THE TOP OF THE STRUCTURAL ROOTS.
- 4) BARE ROOT PLANTS
- a) DIG THE PLANTING HOLE TO THE DIAMETER OF THE SPREAD OF THE ROOTS TO A DEPTH IN THE CENTER THAT MAINTAINS THE ROOT COLLAR AT THE ELEVATION OF THE SURROUNDING FINISHED GRADE AND SLIGHTLY DEEPER ALONG THE EDGES OF THE HOLE.
- b) SPREAD ALL ROOTS OUT RADIAL TO THE TRUNK IN THE PREPARED HOLE MAKING THE HOLE WIDER WHERE NEEDED TO ACCOMMODATE LONG ROOTS, ROOT TIPS SHALL BE DIRECTED AWAY ROM THE TRUNK. PRUNE ANY BROKEN ROOTS REMOVING THE LEAST AMOUNT OF TISSUE
- c) MAINTAIN THE TRUNK PLUMB WHILE BACKFILLING SOIL AROUND THE ROOTS.
- d) LIGHTLY TAMP THE SOIL AROUND THE ROOTS TO ELIMINATE VOIDS AND REDUCE SETTLEMENT.
- 5) THE AMENDED SURFACE SOIL CAN BE USED FOR BACKFILL AROUND TREES AND SHRUBS; HERE ADDITIONAL QUANTITIES ARE REQUIRED, USE THE FOLLOWING FORMULA (THOROUGHLY BLENDED):

NATIVE ON-SITE SOIL (NO ROCK LARGER THAN 1") 6 PARTS NITROLIZED WOOD SHAVINGS 4 PARTS COMMERCIAL FERTILIZER GRO-POWER PLUS, 5-3-1 15 LBS/CY

FOR ACID LOVING PLANTS 80% COURSE PEAT MOSS

IRON SULFATE

SOILS TEST.

20% SPONGE ROCK OR LIGHT SOIL MIX \*\* MIX TO BE USED FOR BIDDING PURPOSES ONLY, TO BE VERIFIED WITH AGRONOMICAL

e) MAINTAIN ALL PLANTS IN A PLUMB POSITION THROUGHOUT THE WARRANTY PERIOD. STRAIGHTEN ALL TREES THAT MOVE OUT OF PLUMB INCLUDING THOSE NOT STAKED. PLANTS TO BE STRAIGHTENED SHALL BE EXCAVATED AND THE ROOT BALL MOVED TO A PLUMB POSITION, AND THEN RE-BACKFILLED. DO NOT STRAIGHTEN PLANTS BY PULLING THE TRUNK WITH GUYS.

2 LBS/CY

- AFTER THE WATER SETTLING OF THE PLANT HAS COMPLETELY DRAINED, NUTI-PAK FERTILIZER PACKETS SHALL BE PLACED AS INDICATED BELOW. SET THE PACKETS TO BE USED WITH EACH PLANT ON THE TOP OF THE ROOT BALL WHILE THE PLANTS ARE STILL IN THEIR CONTAINERS SO THE REQUIRED NUMBER OF TABLETS TO BE USED IN EACH HOLE CAN BE EASILY VERIFIED:
- 2 TABLETS PER ONE GALLON CONTAINER. 3 TABLETS PER FIVE GALLON CONTAINER.
- 5 TABLETS PER FIFTEEN GALLON CONTAINER. 7 TABLETS PER 24" BOX CONTAINER. 9 TABLETS PER 36" BOX CONTAINER.
- 12 TABLETS PER 48" BOX CONTAINER THE REMAINDER OF THE HOLE SHALL THEN BE BACKFILLED.
- a) AFTER BACKFILLING, AN EARTHEN BASIN SHALL BE CONSTRUCTED AROUND EACH PLANT. EACH BASIN SHALL BE OF A DEPTH SUFFICIENT TO HOLD AT LEAST TWO INCHES (2") OF WATER. BASINS SHALL BE OF A SIZE SUITABLE FOR THE INDIVIDUAL PLANT. IN NO CASE, SHALL THE BASIN FOR A FIFTEEN (15) GALLON PLANT BE LESS THAN FOUR FEET (4') IN DIAMETER; A FIVE (5) GALLON PLANT LESS THAN THREE FEET (3') IN DIAMETER; AND A ONE (1) GALLON PLANT LESS THAN TWO FEET (2') IN DIAMETER. THE BASINS SHALL BE CONSTRUCTED OF AMENDED BACKFILL MATERIAL. RAKE OUT BASINS PRIOR TO PLANTING LAWN AREAS OR GROUNDCOVER AREAS.
- 8. PRUNING: PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE INJURED TWIGS AND BRANCHES, AND TO COMPENSATE FOR LOSS OF ROOTS DURING TRANSPLANTING, BUT NEVER TO EXCEED ONE-THIRD (1/3) OF THE BRANCHING STRUCTURE. UPON RECOMMENDED APPROVAL OF THE LANDSCAPE ARCHITECT, PRUNING MAY BE DONE BEFORE DELIVERY OF PLANTS, BUT NOT BEFORE PLANTS HAVE BEEN REVIEWED AND RECOMMENDED FOR APPROVAL. CUTS OVER THREE QUARTERS OF AN INCH (3/4") IN DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE WOUND PAINT.

#### 9. STAKING AND TYING:

- a. SUPPORT STAKES TALL ENOUGH TO SUPPORT THE PARTICULAR TREE SHALL BE DRIVEN THIRTY\_SIX INCHES (36") INTO THE SOIL. STAKE SHALL BE PLACED ON THE LEEWARD SIDE OF THE TREE FROM THE MOST TROUBLESOME DIRECTION. REFER TO DETAILS ON DRAWINGS.
- b. TIES SHALL BE PLACED AS LOW ON THE TRUNK AS POSSIBLE BUT HIGH ENOUGH SO THE TREE WILL RETURN TO UPRIGHT AFTER DEFLECTION.
- c. TO FIND THE PROPER HEIGHT FOR TIE LOCATIONS, HOLD THE TRUNK IN ONE HAND, PULL THE TOP TO ONE SIDE AND RELEASE. THE HEIGHT AT WHICH THE TRUNK WILL JUST RETURN TO THE UPRIGHT WHEN THE TOP IS RELEASED IS THE HEIGHT AT WHICH TO ATTACH THE TIES.
- d. TIES ARE TO FORM A LOOSE LOOP AROUND THE TREE TRUNK SO THAT THE TRUNK CANNOT WORK TOWARDS THE SUPPORT STAKES.

#### 10. ROOT-BARRIER INSTALLATION

- a. INSTALL ROOT BARRIER WHERE TREES ARE PLANTED WITHIN 120 INCHES (10 FEET) OF PAVING OR OTHER HARDSCAPE ELEMENTS, SUCH AS WALLS, CURBS, AND WALKWAYS, UNLESS OTHERWISE INDICATED ON
- HARDSCAPE ELEMENTS TO BE PROTECTED FROM INVASIVE ROOTS. c. INSTALL ROOT BARRIER CONTINUOUSLY FOR A DISTANCE OF I10 FEETI <INSERT DIMENSION> IN EACH

b. ALIGN ROOT BARRIER VERTICALLY WITH BOTTOM EDGE ANGLED AT 20 DEGREES AWAY FROM THE PAVING

OR OTHER HARDSCAPE ELEMENT, AND RUN IT LINEARLY ALONG AND ADJACENT TO THE PAVING OR OTHER

- DIRECTION FROM THE TREE TRUNK, FOR A TOTAL DISTANCE OF [20 FEET] <INSERT DIMENSION> PER TREE. IF TREES ARE SPACED CLOSER, USE A SINGLE CONTINUOUS PIECE OF ROOT BARRIER.
- 1) POSITION TOP OF ROOT BARRIER 1/2-INCH ABOVE ADJACENT FINISH GRADE. 2) OVERLAP ROOT BARRIER A MINIMUM OF 12 INCHES AT JOINTS.
- 3) DO NOT DISTORT OR BEND ROOT BARRIER DURING CONSTRUCTION ACTIVITIES.
- 4) DO NOT INSTALL ROOT BARRIER SURROUNDING THE ROOT BALL OF TREE
- APPLY WATER TO ALL PLANTED AREAS DURING OPERATIONS AND THEREAFTER, UNTIL ACCEPTANCE OF THE

#### IMMEDIATELY AFTER PLANTING, APPLY WATER TO EACH SHRUB BY MEANS OF A HOSE. APPLY WATER IN A MODERATE STREAM IN THE PLANTING HOLE UNTIL THE MATERIAL ABOUT THE ROOTS ARE COMPLETELY

SATURATED FROM THE BOTTOM OF THE HOLE TO THE TOP OF THE GROUND. APPLY WATER IN SUFFICIENT QUANTITIES AND AS OFTEN AS SEASONAL CONDITIONS REQUIRE TO KEEP THE PLANTED AREAS SUFFICIENTLY MOIST AT ALL TIMES, WELL BELOW THE ROOT SYSTEM OF GRASS AND PLANTS.

ALL TURF AND GROUNDCOVER AREAS SHALL BE KEPT DAMP AT ALL TIMES AND IRRIGATION SHOULD BE ADJUSTED

ACCORDINGLY. THIS NORMALLY WOULD INVOLVE FOUR (4) TO SIX (6) WATERING PERIODS DAILY, EACH WATERING PERIOD (ON) REGULATED TO JUST DAMPEN THE MULCH WITHOUT CREATING RUN OFF.

#### G. PLANTING AREA MULCHING

- 1. INSTALL WEED-CONTROL BARRIERS BEFORE MULCHING ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. COMPLETELY COVER AREA TO BE MULCHED, OVERLAPPING EDGES A MINIMUM OF 12 INCHES
- AND SECURE SEAMS WITH GALVANIZED PINS.
- 2. MULCH BACKFILLED SURFACES OF PLANTING AREAS AND OTHER AREAS INDICATED.
- a. ORGANIC MULCH IN PLANTING AREAS: APPLY 3-INCH AVERAGE THICKNESS OF ORGANIC MULCH OVER
- WHOLE SURFACE OF PLANTING AREA, AND FINISH LEVEL WITH ADJACENT FINISH GRADES. DO NOT PLACE MULCH WITHIN 2 INCHES OF TRUNKS OR STEMS.
- b. DO NOT APPLY ORGANIC MULCH IN PLANTER AREAS THAT EXCEED 3:1 SLOPE.
- c. MINERAL MULCH IN PLANTING AREAS: APPLY THICKNESS PER DRAWINGS. DO NOT PLACE MULCH WITHIN [3 INCHES (75 MM)] [6 INCHES (150 MM)] <INSERT DISTANCE> OF TRUNKS OR STEMS.

## H. TREE GRATE INSTALLATION

a. TREE GRATES: INSTALL ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. SET GRATE SEGMENTS FLUSH WITH ADJOINING SURFACES. SHIM FROM SUPPORTING SUBSTRATE WITH SOIL-RESISTANT PLASTIC. MAINTAIN A 3-INCH-MINIMUM GROWTH RADIUS AROUND BASE OF TREE; BREAK AWAY PORTIONS OF CASTING, IF NECESSARY, ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS.

#### I. ESTABLISHMENT AND MAINTENANCE PERIOD

- THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL AREAS INVOLVED IN THIS CONTRACT DURING THE PROGRESS OF THE WORK AND DURING THE ESTABLISHMENT AND MAINTENANCE PERIOD UNTIL FINAL ACCEPTANCE OF THE WORK BY THE CITY.
- 1. PLANT ESTABLISHMENT PERIOD: THE CONTRACTUAL ESTABLISHMENT PERIOD SHALL BE FOR NO LESS THAN THIRTY (30) CONTINUOUS CALENDAR DAYS. THE CONTRACTUAL ESTABLISHMENT PERIOD BEGINS ON THE FIRST DAY AFTER ALL PLANTING IN THIS PROJECT IS COMPLETED AND ACCEPTED AND THE PLANTED AREAS ARE BROUGHT TO A NEAT, CLEAN AND WEED FREE CONDITION.
- a. ANY DAY UPON WHICH NO WORK WILL BE REQUIRED, AS DETERMINED BY THE LANDSCAPE ARCHITECT, WILL BE CREDITED AS ONE OF THE PLANT ESTABLISHMENT WORKING DAYS REGARDLESS OF WHETHER OR NOT THE CONTRACTOR PERFORMS PLANT ESTABLISHMENT WORK.
- b. ANY DAY WHEN THE CONTRACTOR FAILS TO ADEQUATELY MAINTAIN PLANTINGS, REPLACE UNSUITABLE PLANTS OR DO WEED CONTROL OR OTHER WORK. AS DETERMINED NECESSARY BY THE LANDSCAPE ARCHITECT, WILL NOT BE CREDITED AS ONE OF THE PLANT ESTABLISHMENT WORKING DAYS.
- c. IN ORDER TO CARRY OUT THE PLANT ESTABLISHMENT WORK, THE CONTRACTOR SHALL FURNISH SUFFICIENT MEN AND ADEQUATE EQUIPMENT TO PERFORM THE WORK DURING THE PLANT ESTABLISHMENT PERIOD.
- d. IMPROPER MAINTENANCE OR POSSIBLE POOR CONDITION OF ANY PLANTING AT THE TERMINATION OF THE SCHEDULED ESTABLISHMENT PERIOD MAY CAUSE POSTPONEMENT OF THE FINAL ACCEPTANCE OF PLANT ESTABLISHMENT. CONTRACTOR SHALL BEAR ALL COSTS FOR EXTENSION OF THE PLANT ESTABLISHMENT
- 2. PLANT MAINTENANCE PERIOD: THE CONTRACTUAL MAINTENANCE PERIOD SHALL BE NO LESS THAN NINETY (90) CONTINUOUS CALENDAR DAYS AND, SHALL BEGIN AT THE ACCEPTANCE OF THE PLANT ESTABLISHMENT PERIOD.
- a. ALL AREAS SHALL BE KEPT FREE OF DEBRIS, AND ALL PLANTED AREAS SHALL BE WEEDED AT INTERVALS OF NOT MORE THAN TEN (10) DAYS. WATERING, TRIMMING, FERTILIZATION, SPRAYING AND PEST CONTROL, AS MAY BE REQUIRED, SHALL BE INCLUDED IN THE MAINTENANCE PERIOD. MAINTENANCE SHALL INCLUDE GOPHER CONTROL.
- b. POST FERTILIZE ALL TURF AREAS AT THE END OF EVERY 30 DAYS (OF MAINTENANCE) AT THE RATE OF FIVE POUNDS (5 LBS.) PER ONE THOUSAND SQUARE FEET (1,000 S.F.) USING AMMONIUM SULFATE, EVENLY APPLIED AND THOROUGHLY WATERED IN. POST FERTILIZE ALL GROUNDCOVER AREAS AT THE END OF EVERY THIRTY (30) DAYS (OF MAINTENANCE) AT THE RATE OF THIRTY POUNDS (30 LBS.) PER ONE THOUSAND SQUARE FEET (1,000 S.F.), USING 5-3-1 GRO POWER, FOR THE FINAL FEEDING OF ALL AREAS. USE 12\_8\_8 GRO\_POWER CONTROLLED RELEASE NITROGEN AT THE RATE OF THIRTY POUNDS (30 LBS.) PER ONE THOUSAND SQUARE FEET (1,000 S.F.).
- c. MOWING OF TURF WILL COMMENCE WHEN TURF GRASS HAS REACHED A HEIGHT OF TWO INCHES (2"). THE HEIGHT OF CUT WILL BE ONE AND ONE\_HALF INCHES TO TWO INCHES (1\_1/2" TO 2"). MOWING WILL BE AT LEAST WEEKLY AFTER THE FIRST CUT. TURF MUST BE WELL ESTABLISHED AND FREE OF BARE SPOTS AND WEEDS TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT PRIOR TO FINAL ACCEPTANCE BY THE CITY. EXCESS GRASS CLIPPINGS, AS DETERMINED BY THE LANDSCAPE ARCHITECT, SHALL BE PICKED UP AND
- d. THE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEMS IN A LIKE NEW OPERATING CONDITION; ADJUSTING HEAD HEIGHTS AND SPRAY ARCS AS NECESSARY. THE CONTRACTOR IS RESPONSIBLE FOR PROPER WATERING OF ALL PLANTING AREAS, FOR PROVIDING ANY NECESSARY SUPPLEMENTAL WATER AS MAY BE REQUIRED, AND SHALL REPLACE ANY MATERIAL DAMAGED DUE TO IMPROPER MOISTURE.
- e. DURING THE MAINTENANCE PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE PROTECTION FOR ALL PLANTING AREAS. ANY DAMAGED AREAS SHALL BE REPAIRED AND ANY PLANT MATERIALS REPLACED AT THE CONTRACTOR'S EXPENSE.
- f. THE CONTRACTOR'S MAINTENANCE PERIOD WILL BE EXTENDED PAST NINETY (90) DAYS IF THESE

#### J. GUARANTEE AND REPLACEMENT 1. GENERAL: REPAIR OR REPLACE EXISTING OR NEW TREES AND OTHER PLANTS THAT ARE DAMAGED BY

a. SUBMIT DETAILS OF PROPOSED PRUNING AND REPAIRS.

CONSTRUCTION OPERATIONS, IN A MANNER APPROVED BY DISTRICT CONSTRUCTION MANAGER.

- b. PERFORM REPAIRS OF DAMAGED TRUNKS, BRANCHES, AND ROOTS WITHIN 24 HOURS, IF APPROVED.
- c. REPLACE PLANT MATERIALS THAT CANNOT BE REPAIRED AND RESTORED TO HEALTHY, LONG TERM FULL-GROWTH STATUS, AS DETERMINED BY DISTRICT CONSTRUCTION MANAGER, WITHIN 14 DAYS AFTER NOTIFICATION, AT NO ADDITIONAL COST TO THE DISTRICT.

#### 2. REMOVE AND REPLACE PLANT MATERIALS THAT ARE MORE THAN 25 PERCENT DEAD OR IN AN UNHEALTHY CONDITION BEFORE THE END OF THE MAINTENANCE PERIOD OR ARE DAMAGED DURING CONSTRUCTION OPERATIONS THAT DISTRICT CONSTRUCTION MANAGER DETERMINES ARE INCAPABLE OF RESTORING TO NORMAL

- GROWTH PATTERN, AT NO ADDITIONAL COST TO THE DISTRICT. a. PROVIDE NEW PLANT MATERIALS OF SAME SIZE AS THOSE BEING REPLACED.
- b. SPECIES OF REPLACEMENT PLANT MATERIALS: SAME SPECIES, VARIETY, AND/OR CULTIVAR BEING

#### K. REVIEWS

- 1. NORMAL PROGRESS REVIEWS SHALL BE REQUESTED FROM THE LANDSCAPE ARCHITECT AT LEAST FORTY EIGHT (48) HOURS IN ADVANCE OF AN ANTICIPATED INSPECTION. A REVIEW WILL BE MADE BY THE LANDSCAPE ARCHITECT ON EACH OF THE STEPS LISTED BELOW. THE CONTRACTOR WILL NOT BE PERMITTED TO INITIATE THE SUCCEEDING STEPS OF WORK UNTIL HE HAS RECEIVED WRITTEN RECOMMENDATION OF APPROVAL TO PROCEED BY THE LANDSCAPE ARCHITECT.
- a. SPOTTING OF ALL TREES AND PALMS, AND MINOR ADJUSTMENTS PRIOR TO PLANTING.
- b. ALL PLANT MATERIAL PRIOR TO INSTALLATION FOR PLANT AND ROOT STRUCTURE.
- c. REVIEW AND START OF ESTABLISHMENT PERIOD. d. FINAL ACCEPTANCE OF PROJECT/NINETY (90) DAY MAINTENANCE.

LICENSED ARBORIST.

## L. LONG TERM MAINTENANCE

- a. ALL AREAS SHALL BE KEPT FREE OF DEBRIS AND WEEDED AT INTERVALS OF NOT MORE THAN 10 DAYS. WATERING, TRIMMING, FERTILIZING, SPRAYING AND PEST CONTROL, AS MAY BE REQUIRED SHALL BE
- INCLUDED IN THE MAINTENANCE CONTRACT. b. POST FERTILIZE ALL TURF AREAS AT THE END OF EVERY 30 DAYS AT A RATE OF 5 LBS./1,000 SQ. FT. USING AMMONIUM SULFATE. EVENLY AND THOROUGHLY WATER IN. POST FERTILIZE ALL GROUND COVER AREAS AT THE END OF EVERY 30 DAYS AT A RATE OF 30 LBS./1,000 SQ FT USING 5-3-1 GRO-POWER. GREVILLEA

#### PLANTS ARE THE EXCEPTION WHERE THEY SHALL RECEIVE NO PHOSPHORUS.

a. SOIL SURFACE AROUND THE DRIP LINE OF ALL TREES IS TO BE PROTECTED FROM COMPACTION FROM

VEHICULAR TRAFFIC AND PEDESTRIAN OVERUSE.

- b. INJURY AROUND THE DRIP LINE OF THE TREE CANOPY IS TO BE AVOIDED. NO DIGGING, GRADING, SOIL FILLING, ADDITION OF CONCRETE WILL OCCUR IN THIS AREA. THE FIRST FOUR (4) YEARS AFTER PLANTING, MULCH SHOULD BE MAINTAINED AROUND THE ROOTBALL TO CREATE A HEALTHY ROOT ENVIRONMENT. FERTILIZATION SHOULD BE MAINTAINED TO AID IN THE HEALTHY GROWTH OF THE TREES, AND IF NECESSARY, PRUNING SHOULD OCCUR IN LATER WINTER OR EARLY SPRING (BEFORE TREE BUDS) BY A
- c. FROM YEAR FIVE (5) AND BEYOND, MULCHING AT THE TREE BASE SHOULD BE MAINTAINED, HEAVY PRUNING SHOULD BE AVOIDED (EXCEPT TO REMOVE DEAD OR DISEASED BRANCHES). AND PEST MANAGEMENT SHOULD BE CONDUCTED BY A LICENSED ARBORIST.
- SHRUBS / VINES a. ALL SHRUBS ARE TO BE LEFT IN THEIR NATURAL FORM, NO PRUNING OR SHEARING SHALL OCCUR (EXCEPT

WHEN PLANTS ARE LABELED AS A HEDGE ON THE ORIGINAL DESIGN PLANS). ALL DEAD LIMBS OR FLOWER

d. AFTER ONE (1) YEAR OF WATERING, BUBBLERS ON ALL OAKS TRANSPLANTED FROM WILD ARE TO BE

#### HEADS ARE TO BE REMOVED VIA HAND CLIPPERS. b. DEAD PLANT MATERIAL IS TO BE REPLACED WITH LIKE MATERIAL WITHIN A MONTH, MINIMUM SIZE 5

- c. ALL ORNAMENTAL GRASSES AND DIETES THAT BECOME UNSIGHTLY DUE TO BROWN BLADES ARE TO BE TRIMMED IN LATER WINTER OR EARLY SPRING (FEB-MAR) TO A HEIGHT OF ABOUT TWELVE (12) INCHES. LOMANDRA ARE THE EXCEPTION, NO PRUNING OF THIS PLANT IS TO OCCUR.
- GROUND COVERS

TURNED OFF

a. ALL GROUND COVER IS TO BE MAINTAINED ONE FOOT (1') FROM ANY HARDSCAPE VIA HAND PRUNING IN A NATURAL PATTERN/FORM. NO WEED WACKERS ARE TO BE USED AS A MEANS OF EDGING GROUND COVER.

b. DEAD PLANT MATERIAL IS TO BE REPLACED WITH LIKE MATERIAL VIA ROOTED CUTTINGS ON A QUARTERLY

c. MULCH IS TO BE REPLENISHED EVERY SIX (6) MONTHS WITH LIKE MATERIAL TO ACHIEVE A THREE INCH (3") LAYER. NO DEBRIS OR CONSTRUCTION MATERIAL IS TO BE PART OF THE ORGANIC MULCH.

END OF SECTION

a. AERATION OF BERMUDA GRASSES

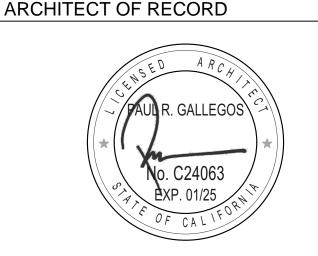
- b. BERMUDA TURF AREAS SHOULD BE AERATED EVERY YEAR DEPENDING ON THE SOIL TYPE AND TURF TYPE. CLAY SOILS WILL REQUIRE AERATION 2X PER YEAR, SANDY SOILS 1X PER YEAR.
- c. AERATION TIMES SHOULD BE EARLY FALL OR LATE SPRING TO GIVE THE TURF TIME TO REGENERATE
- d. WATER TURF AREA WELL BEFORE AERATING AND MAKE SURE NO WEED PROBLEMS ARE PRESENT.
- 6. DETHATCHING OF TURF GRASS

WHILE THE WEATHER IS STILL WARM

- a. DETHATCHING SHOULD BE DONE WHEN THE THATCH HAS REACHED ½" OR GREATER. THATCH IS THE BROWN LAYER BETWEEN THE SOIL AND GRASS BLADES.
- b. BERMUDA GRASSES MAY NEED IT YEARLY DEPENDING ON WATERING, FERTILIZING SCHEDULES, AND WEATHER. FESCUES AND BLUES MAY NEED IT EVERY FEW YEARS.
- c. MOW THE TURF ONE INCH (1") SHORTER THAN YOU NORMALLY WOULD BEFORE RUNNING A DETHATCHER

d. DETHATCHING SHOULD BE DONE IN EARLY FALL OR LATER SPRING TO ALL THE TURF TIME TO REGENERATE WHILE THE WEATHER IS STILL WARM.

760-431-2444



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CARLSBAD, 92009

LANDSCAPE ARCHITECT OF RECOF



REVISIONS DESCRIPTION MARK DATE

PROJECT NO: 20-020

CLOVER FLAT E.S. PARKING LOT UPGRADE

MODEL FILE:

PLOT DATE:

SHEET TITLE

03/02/23