## WATER UTILITY NOTES

1. ALL MATERIAL AND WORK SHALL BE IN ACCORDANCE WITH THE AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARDS; AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), 2009 EDITION (SSPWC).

2. ALL MATERIAL INSTALLED BY THE CONTRACTOR SHALL BE INSPECTED AND APPROVED BY OWNER OR HIS REPRESENTITIVE PRIOR TO BACKFILL OPERATIONS.

3. THE CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS IN OR ADJACENT TO THE WORK AREA. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE. ALL IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S ACTIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE OWNER'S SATISFACTION AT THE CONTRACTORS EXPENSE WITH NO ADDITIONAL COMPENSATION.

4. CONCRETE FOR WATER IMPROVEMENTS SHALL BE CLASS 450-C-2000 UNLESS NOTED OTHERWISE AND ALL CONCRETE WORK SHALL BE PER THE GREENBOOK. REINFORCING STEEL SHALL BE DEFORMED STEEL BARS OR COLD-DRAWN STEEL WIRE MEETING THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT" ASTM A615 GRADE 60.

5. SURPLUS AND UNUSABLE MATERIAL WHICH IS NOT SUITABLE FOR USE IN THIS PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AWAY FROM THE JOB SITE IN A MANNER AND AT A LOCATION ACCEPTABLE TO ALL APPLICABLE AGENCIES.

6. ALL OPEN TRENCH OPERATIONS SHALL BE IN ACCORDANCE WITH SECTION 306-1 OF SSPWC. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING, SHORING AND BRACING OR EQUIVALENT METHOD, FOR THE PROTECTION OF LIFE OR LIMB, WHICH SHALL CONFORM TO APPLICABLE SAFETY ORDERS, INCLUDING CAL-OSHA SAFETY ORDERS, ARTICLE 6. THE CONTRACTOR SHALL SUBMIT TO THE OWNER A DETAILED PLAN SHOWING THE DESIGN OF SHORING, BRACING, SLOPING, OR OTHER PROVISIONS TO BE MADE FOR WORKER PROTECTION FROM THE HAZARD OF CAVING GROUND DURING THE EXCAVATION OF SUCH TRENCH OR TRENCHES. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY FOR ALL NECESSARY EXCAVATIONS PRIOR TO THE START OF WORK, IN ACCORDANCE WITH THE CALIFORNIA CODE OF REGULATIONS, TITLE 8, CHAPTER 3.2, ARTICLE 2, SECTION 341 AND SSPWC SECTION 7-10.4.1.

7. ELEVATIONS NOTED ARE EXPRESSED IN FEET ABOVE MEAN SEA LEVEL (MSL) AND DISTANCES ARE EXPRESSED IN FEET.

8. DIMENSIONED DISTANCES SHALL TAKE PRECEDENCE OVER SCALED DISTANCES.

9. THE CONTRACTOR SHALL COMPLY WITH THE STATE DEPARTMENT OF HEALTH SERVICES CRITERIA FOR THE SEPARATION OF WATER MAINS AND SANITARY SEWERS AS SET FORTH IN TITLE 22, SECTION 64630 OF THE CALIFORNIA ADMINISTRATIVE CODE.

10. THE CONTRACTOR SHALL NOT OPERATE VALVES ON THE EXISTING SYSTEM. ONLY WATER PURVEYOR PERSONNEL ARE PERMITTED TO OPERATE VALVES ON THE EXISTING SYSTEM.

11. CONNECTIONS TO EXISTING WATER LINES SHALL BE DONE ONLY IN THE PRESENCE OF THE THE WATER PURVEYOR INSPECTOR.

12. MINIMUM COVER OVER PIPELINES SHALL BE 2.5-FEET AS MEASURED FROM THE FINISHED SURFACE.

13. PIPES SHALL HAVE CONSTANT SLOPES BETWEEN NOTED INVERT ELEVATIONS AND SHALL BE CONNECTED SUCH THAT A SMOOTH, CONTINUOUS FLOW PATH IS MAINTAINED.

14. PIPE FITTINGS AND APPURTENANCES ARE NOT CALLED OUT BUT ARE REQUIRED TO BE PROVIDED BY THE CONTRACTOR TO PROVIDE A COMPLETE AND OPERATIONAL PIPING SYSTEM.

15. ALL PVC PIPE, INSTALLATION AND PRESSURE TESTING SHALL MEET THE REQUIREMENTS OF AWWA C-605 AND C-900 (CLASS 200), AS APPLICABLE.

16. WATER LINES SHALL BE HYDROSTATICALLY TESTED AFTER INSTALLATION, BACK FILLING, AND COMPACTION. ALL TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE WATER PURVEYOR INSPECTOR.

17. ALL NEW SECTIONS OF WATER LINE MUST BE PRESSURE-TESTED AND CHLORINATED SEPARATELY BEFORE ANY CONNECTIONS WILL BE ALLOWED TO THE EXISTING SYSTEM. AFTER TESTING, CHLORINATION, AND BACTERIOLOGICAL RESULTS ARE ACCEPTED BY THE WATER PURVEYOR, LINES MUST BE FLUSHED OF EXCESS CHLORINE IN COMPLIANCE WITH APPLICABLE WATER DISCHARGE REGULATIONS. ONLY THEN WILL CONNECTION BE ALLOWED TO EXISTING LINES.

18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ISOLATING DISSIMILAR METALS THAT HAVE THE POTENTIAL FOR GALVANIC CORROSION WHETHER OR NOT THE ISOLATOR IS SPECIFICALLY CALLED OUT ON THE PLANS.

## GRADING SUPERVISION NOTES

GRADING SUPERVISION REQUIREMENTS SHALL BE COMPLIED WITH AS FOLLOWS:

1. THE PROJECT ENGINEER SHALL BE A REPRESENTATIVE OF PENFIELD & SMITH.

2. LINE AND GRADE STAKES SHALL BE SET BY SURVEYORS UNDER THE GENERAL SUPERVISION OF THE PROJECT ENGINEER. THE PROJECT ENGINEER SHALL PROVIDE GENERAL CONSTRUCTION REVIEW.

3. THE SOILS ENGINEER SHALL PROVIDE GENERAL REVIEW OF THE GRADING AND SUBGRADE PREPARATION AND PERFORM COMPACTION TESTING AS NECESSARY TO ENSURE QUALITY CONSTRUCTION AND COMPLY WITH THE GRADING ORDINANCE.

4. UPON COMPLETION OF CONSTRUCTION, THE PROJECT ENGINEER SHALL PREPARE RECORD DRAWINGS AND SUBMIT A REPORT INDICATING THAT THE IMPROVEMENTS HAVE BEEN COMPLETED IN SUBSTANTIAL CONFORMANCE WTH THE APPROVED PLANS AND SPECIFICATIONS.

5. THE SOILS ENGINEER SHALL PROVIDE GENERAL REVIEW OF THE GRADING AND SUBGRADE PREPARATION, PERFORM COMPACTION TESTING, PERFORM "R" VALUE TESTING, RECOMMEND THE STRUCTURAL SECTION FOR PRIVATE STREET CONSTRUCTION, MEASURE THE THICKNESS OF PAVEMENT AND BASE DURING CONSTRUCTION, TEST AND REVIEW THE QUALITY OF PAVEMENT AND BASE, ETC. SPECIAL INSPECTIONS AND CERTIFICATIONS BY THE PROJECT SOILS ENGINEER SHALL BE REQUIRED DURING THE PLACEMENT OF ENGINEERED FILL MATERIAL ON RESIDENTIAL BUILDING PADS, ON SLOPES GREATER THAN 5:1 (HORIZONTAL TO VERTICAL), IN KEYWAYS, AND DURING SUBDRAIN INSTALLATIONS. ENGINEERED FILL SHALL BE TESTED FOR COMPACTION AT THE MINIMUM RATE OF (1) TEST PER 250 CUBIC YARDS OF MATERIAL PLACED OR EVERY 18 VERTICAL INCHES OF COMPACTED FILL PLACED, WHICHEVER IS LESS. THE SOILS ENGINEER SHALL HAVE THE DISCRETION TO INCREASE COMPACTION TESTING AS DEEMED NECESSARY.

## GENERAL GRADING NOTES

1. UNDERGROUND SERVICE ALERT (U.S.A.) SHALL BE CONTACTED AT (800) 422-4133, FORTY-EIGHT (48) HOURS PRIOR TO START OF ANY GRADING OPERATIONS.

2. PRIOR TO ANY CONSTRUCTION, A GRADING PERMIT SHALL BE OBTAINED.

3. NOISE GENERATING CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE HOURS OF 7:00 AM TO 7:00 PM, MONDAY THROUGH FRIDAY. CONSTRUCTION EQUIPMENT MAINTENANCE SHALL BE LIMITED TO THE SAME HOURS. STATIONARY CONSTRUCTION EQUIPMENT THAT GENERATES NOISE WHICH EXCEEDS 65 dBA AT THE PROJECT BOUNDARIES SHALL BE SHIELDED TO THE COUNTY'S SATISFACTION AND SHALL BE LOCATED AT A MINIMUM OF 50 FEET FROM OCCUPIED RESIDENCES.

4. ALL GRADING SHALL CONFORM TO THESE CONSTRUCTION DOCUMENTS, ANY CONSTRUCTION RECOMMENDATIONS BY THE PROJECT SOILS ENGINEER OR ENGINEERING GEOLOGIST, THE CONDITIONS OF APPROVAL AND THE PERMIT CONDITIONS.

5. CONTRACTOR SHALL NOTIFY THE COUNTY GRADING INSPECTOR AND THE PROJECT ENGINEER AT LEAST 48 HOURS BEFORE START OF ANY GRADING WORK. THEY SHALL BE NOTIFIED OF THE TIME AND LOCATION OF THE PRE-CONSTRUCTION CONFERENCE.

6. THE CONTRACTOR SHALL EMPLOY ALL LABOR, EQUIPMENT AND METHODS REQUIRED TO PREVENT HIS OPERATIONS FROM PRODUCING DUST IN AMOUNTS DAMAGING TO ADJACENT PROPERTY, CULTIVATED VEGETATION AND DOMESTIC ANIMALS OR CAUSING A NUISANCE TO PERSONS OCCUPYING BUILDINGS IN THE VICINITY OF THE JOB SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY DUST RESULTING FROM GRADING OPERATIONS.

7. BEFORE BEGINNING WORK REQUIRING EXPORTING OR IMPORTING OF MATERIALS, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM PUBLIC WORKS ROAD DIVISION FOR HAUL ROUTES USED AND METHODS PROVIDED TO MINIMIZE DEPOSIT OF SOILS ON ROADS. GRADING/ROAD INSPECTORS SHALL MONITOR THIS REQUIREMENT WITH THE CONTRACTOR.

8. THE PROJECT SOILS ENGINEER SHALL PROVIDE OBSERVATION AND TESTING DURING GRADING OPERATIONS IN THE FIELD AND SHALL SUBMIT A FINAL REPORT TO THE PUBLIC WORKS INSPECTOR STATING THAT ALL EARTHWORK WAS PROPERLY COMPLETED AND IS IN SUBSTANTIAL CONFORMANCE WITH THE REQUIREMENTS OF THE GRADING ORDINANCE. SOIL TESTS SHALL BE CONDUCTED AT NOT LESS THAN ONE TEST FOR EACH 18-INCHES OF FILL AND/OR FOR EACH 250 CUBIC YARDS OF FILL.

9. AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION, INCLUDING ROOTS AND ROOT STRUCTURES, AND OTHER UNSUITABLE MATERIAL FOR A STRUCTURAL FILL, THEN SCARIFIED TO A DEPTH OF 6" PRIOR TO PLACING OF ANY FILL. ALL UNSUITABLE MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE AND TRANSPORTED TO A SUITABLE DISPOSAL AREA. PRIOR TO PLACING ANY FILL MATERIAL, THE AREA SHALL BE INSPECTED BY THE PUBLIC WORKS INSPECTOR (ALLOW 48 HOUR MINIMUM ADVANCED NOTICE).

10. A THOROUGH SEARCH SHALL BE MADE FOR ALL ABANDONED MAN-MADE FACILITIES SUCH AS SEPTIC TANK SYSTEMS, FUEL OR WATER STORAGE TANKS, AND PIPELINES OR CONDUITS. ANY SUCH FACILITIES ENCOUNTERED SHALL BE REMOVED UNLESS OTHERWISE ALLOWED BY THE PROJECT ENGINEER AND THE SOILS ENGINEER. PIPELINES OR CONDUITS ALLOWED TO BE ABANDONED-IN-PLACE SHALL BE CRUSHED OR SHALL HAVE ALL EXPOSED OPENINGS PLUGGED WITH STIFF CONCRETE RODDED TO REMOVE VOIDS WITHIN THE PIPELINE/CONDUIT TO A MINIMUM OF 5 LINEAL FEET BEYOND THE OPENING, UNDER THE OBSERVATION OF THE SOILS ENGINEER. IF THE ABANDONED FACILITIES ARE REMOVED THEN THE DEPRESSIONS SHALL BE PROPERLY FILLED AND COMPACTED UNDER OBSERVATION OF THE SOILS ENGINEER.

11. AREAS WITH EXISTING SLOPES WHICH ARE TO RECEIVE FILL MATERIAL SHALL BE KEYED AND BENCHED. THE DESIGN AND INSTALLATION OF THE KEYWAY SHALL BE PER THE DETAILS PROVIDED IN THESE PLANS AS MODIFIED BY THE GEOTECHNICAL ENGINEER.

12. FILL MATERIAL SHALL BE SPREAD IN LIFTS NOT EXCEEDING 8-INCHES IN COMPACTED THICKNESS, MOISTENED OR DRIED AS NECESSARY TO NEAR OPTIMUM MOISTURE CONTENT AND COMPACTED BY AN APPROVED METHOD. FILL MATERIAL NEAR OR BELOW STRUCTURES SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DRY DENSITY AS DETERMINED BY A.S.T.M. D-1557-91 MODIFIED PROCTOR (AASHO) TEST OR SIMILAR APPROVED METHODS. SOME FILL AREAS MAY REQUIRE COMPACTION TO A GREATER DENSITY AS CALLED FOR IN CONSTRUCTION DOCUMENTS. NUMBER OF SOIL TESTS REQUIRED: 1 TEST PER EACH 18 INCHES OF FILL, BUT NOT LESS THAN 1 TEST PER 250 CUBIC YARDS OF FILL AND AT LEAST 1 TEST EACH AREA RECEIVING FILL.

13. CUT SLOPES SHALL NOT EXCEED A GRADE OF 2 HORIZONTAL TO 1 VERTICAL. FILL AND COMBINATION FILL AND CUT SLOPES SHALL NOT EXCEED 2 HORIZONTAL TO 1 VERTICAL. SLOPES OVER 3 FEET IN VERTICAL HEIGHT SHALL BE PLANTED WITH APPROVED PERENNIAL VEGETATION TO BE DENSE AND GROWING PRIOR TO FINAL INSPECTION OR TREATED WITH EQUALLY APPROVED EROSION CONTROL MEASURES PRIOR TO FINAL INSPECTION.

14. SURFACE DRAINAGE SHALL NOT BE LESS THAN 1% EXCEPT FOR PAVED SURFACES. A MINIMUM OF 2% FOR FIVE (5) FEET AWAY FROM THE FOUNDATION LINE OF ANY BUILDING OR STRUCTURE IS REQUIRED.

15. ALL TREES NOT DESIGNATED TO BE REMOVED AND TO REMAIN ON SITE SHALL BE PROTECTED FROM DAMAGE BY TEMPORARY FENCING AROUND THE DRIPLINE DURING GRADING OPERATION.

16. PRIOR TO PLACEMENT OF COMPACTED FILL, LOOSE SURFICIAL NATIVE SOILS, SHALL BE COMPLETELY REMOVED DOWN TO COMPETENT MATERIAL, AS APPROVED BY THE SOILS ENGINEER. OVER-EXCAVATION AND RECOMPACTION ACTIVITIES IN AREAS OTHER THAN BELOW STRUCTURES SHALL EXTEND A MINIMUM OF 30 INCHES BELOW FINISH GRADE OR TO COMPETENT MATERIAL, AS DETERMINED BY THE SOILS ENGINEER.

17. ANY PREVIOUSLY PLACED, UNDOCUMENTED ARTIFICIAL FILL MATERIAL ENCOUNTERED DURING GRADING OPERATIONS SHALL BE REMOVED UNDER THE DIRECTION OF THE SOILS ENGINEER PRIOR TO PLACEMENT OF ENGINEERED FILL MATERIAL.

18. STONES LARGER THAN 6 INCHES IN DIAMETER SHALL NOT BE PLACED IN THE FILL, AND NO STONES LARGER THAN 3 INCHES IN DIAMETER BEING PLACED IN THE UPPER THREE FEET OF FILL. STONES LESS THAN 6 INCHES IN DIAMETER SHALL BE THOROUGHLY MIXED WITH THE SOIL, IN SUCH A MANNER THAT NO VOIDS IN THE FILL ARE CREATED.

19. EARTH MOVING AND WORKING OPERATIONS SHALL BE CONTROLLED TO PREVENT WATER FROM RUNNING INTO EXCAVATED AREAS. EXCESS WATER SHALL BE PROMPTLY REMOVED AND THE SITE KEPT DRY. FILL MATERIAL SHALL NOT BE PLACED, SPREAD, OR ROLLED DURING UNFAVORABLE WEATHER CONDITIONS. WHEN THE WORK IS INTERRUPTED BY HEAVY RAIN, FILL OPERATIONS SHALL NOT BE RESUMED UNTIL FIELD TESTS BY THE SOILS ENGINEER INDICATE THAT THE MOISTURE CONTENT AND DENSITY OF THE FILL ARE ABLE TO BE PLACED AND MEET THE REQUIRED COMPACTION.

20. FILL SLOPES SHALL BE OVERFILLED AND TRIMMED BACK TO EXPOSE A COMPACTED CORE IN ORDER TO ENSURE PROPER COMPACTION AT THE FACE OF THE SLOPE. ALTERNATIVELY, THE SLOPE FACES MAY BE COMPACTED BY SHEEPSFOOT, OR OTHER APPROPRIATE METHOD TO ACHIEVE 90% RELATIVE COMPACTION AT THE EXPOSED SLOPE FACE.

21. ALL FILL MATERIAL TO BE PLACED ON SLOPES GREATER THAN FIVE (5) HORIZONTAL TO ONE (1) VERTICAL SHALL BE KEYED, BENCHED, AND PLACED AS AN ENGINEERED FILL. ALL BENCHING SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL GRADING ORDINANCES AND INDUSTRY STANDARDS.

## GENERAL GRADING NOTES (CONT.)

22. A KEYWAY SHALL BE PROVIDED AT THE TOE OF ALL FILL SLOPES PLACED ON EXISTING SLOPES GREATER THAN FIVE (5) HORIZONTAL TO ONE (1) VERTICAL. THE KEYWAY SHALL EXTEND A MINIMUM OF 30 INCHES INTO COMPETENT MATERIAL, AS MEASURED ON THE OUTSIDE OF THE KEYWAY. THE KEYWAY SHALL BE A MINIMUM OF 14 FEET IN WIDTH AND SHALL EXTEND A MINIMUM OF 4 FEET BEYOND THE TOE OF THE SLOPE. ALL KEYWAYS SHALL HAVE A MINIMUM 5% INCLINE INTO THE SLOPE. ALL KEYWAYS SHALL HAVE A SUBDRAIN INSTALLED ALONG THE LENGTH AND BACK OF THE KEYWAY. ALL KEYWAYS SHALL BE INSPECTED BY THE SOILS ENGINEER PRIOR TO PLACEMENT OF FILL MATERIAL. THE COUNTY BUILDING OFFICIAL SHALL BE NOTIFIED OF ALL KEYWAY EXCAVATIONS AND SHALL BE ALLOWED ADEQUATE TIME TO INSPECT THE KEYWAY PRIOR TO PLACEMENT OF FILL MATERIAL.

23. A KEYWAY SUBDRAIN CONSISTING OF 4-INCH DIAMETER PERFORATED PVC PIPE, SURROUNDED BY ¾-INCH DRAIN ROCK AND FILTER FABRIC SHALL BE INSTALLED ALONG THE LENGTH AND THE BACK OF THE KEYWAY. THE SUBDRAIN SHALL BE SURROUNDED BY 4 CUBIC FEET PER LINEAL FOOT OF ¾-INCH DRAIN ROCK. THE SUBDRAIN SHALL BE PROVIDED WITH A SOLID OUTLET PIPE SLOPING A MINIMUM 2% TO DAYLIGHT. A SUBDRAIN WITH THE ABOVE MINIMUM SPECIFICATIONS SHALL ALSO BE INSTALLED INTO A BENCH OUT OF EVERY FIFTEEN (15) VERTICAL FEET ABOVE THE KEYWAY SUBDRAIN.

24. WHEN THE MOISTURE CONTENT OF THE FILL MATERIAL IS NOT SUFFICIENT TO ACHIEVE REQUIRED COMPACTION, WATER SHALL BE ADDED UNTIL THE SOILS ATTAIN A MOISTURE CONTENT SO THAT THOROUGH BONDING IS ACHIEVED DURING THE COMPACTING PROCESS. WHEN THE MOISTURE CONTENT OF THE FILL MATERIAL IS EXCESSIVE, THE FILL MATERIAL SHALL BE AERATED BY BLADING OR OTHER SATISFACTORY METHODS UNTIL THE MOISTURE CONTENT IS REDUCED TO AN ACCEPTABLE CONTENT TO ACHIEVE PROPER COMPACTION.

25. IMPORT SOILS SHALL BE GRANULAR NON-EXPANSIVE SOILS WHICH ARE EQUAL TO OR SUPERIOR IN QUALITY TO THE ON SITE SOILS AS DETERMINED BY THE SOILS ENGINEER PRIOR TO IMPORTATION OF THE FILL MATERIAL TO THE SITE. THE SOILS SHALL HAVE A MINIMUM 'R' VALUE OF 20 WHEN PROPOSED FOR ROADWAY SUPPORT.

26. IMPORT OR ON-SITE SOILS USED IN FILL OPERATIONS SHALL BE FREE FROM ORGANIC MATERIAL AND OTHER DELETERIOUS MATERIALS. DURING GRADING OPERATIONS THE SOILS ENGINEER SHALL PERIODICALLY EXAMINE THE SOILS FOR ORGANIC CONTENT; AND IF AN EXCESS ORGANIC CONTENT IS FOUND IN THE FILL SOIL THEY MAY ISSUE A WRITTEN NOTICE OF NONCOMPLIANCE AND NOTIFY THE PERMITTING AGENCY.

27. COMPRESSIBLE SURFICIAL SOILS SHOULD BE REMOVED AND RECOMPACTED WHERE WALLS ARE PLANNED FOR THE PROJECT. THE REMOVAL AND RECOMPACTION SHOULD EXTEND TO A MINIMUM DEPTH OF TWO FEET BELOW THE BOTTOM OF THE WALL FOOTING. THE SOILS ENGINEER SHALL APPROVE THE SUBGRADE PRIOR TO CONSTRUCTION OF THE FOOTING.

28. THE COMPACTION STANDARD SHALL BE THE ASTM D 1557-78 METHOD OF COMPACTION.

29. REMOVED SOIL, IF FREE FROM DELETERIOUS MATERIAL MAY BE PLACED IN LIFTS NOT EXCEEDING 8 INCHES IN DEPTH, BROUGHT TO NEAR OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION.

30. IN WALKWAY AREAS, THE TOP 4 INCHES OF SUBGRADE SOILS SHALL BE COMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION PRIOR TO FILL PLACEMENT.

31. IN DRIVEWAYS AND/OR PARKING AREAS, THE TOP 12 INCHES OF SUBGRADE SOILS SHALL BE REMOVED AND COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION.

**CONCEPT - MODIFIED REDESIGN ALTERNATIVE**

FOR REDUCED PLANS
ORIGINAL SCALE IN INCHES
0 1 2 3

DUDEK
621 CHAPALA STREET
SANTA BARBARA, CA 93101
(805) 963-0651

| NO. | DATE | REVISIONS | APPD. |
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DESIGN JHC CHECKED BEF
BRET FOSTER DATE:
PROJECT ENGINEER
R.C.E. 48,267 (EXP. 06-30-12 )

GENERAL CONSTRUCTION AND UTILITY NOTES
–
SANTA MONICA MOUNTAINS CONSERVANCY
MALIBU, CALIFORNIA

P&S PROJECT NO. 13638.05
SHEET 3 OF 63
PLAN DATE JUNE 25, 2010

34-ENG SAVE DATE:6/27/2010 4:33:07 PM PLOT BY:Bret Foster PLOT DATE:6/27/2010 5:33:38 PM PLOT SCALE:1:10
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