GENERAL NOTES

1. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE MOST CURRENT CITY OF BRENTWOOD STANDARD PLANS AND SPECIFICATIONS. IN CASE OF A CONFLICT BETWEEN THE CITY OF BRENTWOOD STANDARD PLANS AND SPECIFICATIONS AND THE PLANS AND SPECIFICATIONS SHOWN HERE, THE MORE STRINGENT PLANS SHALL GOVERN.

2. AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM THE CITY OF BRENTWOOD FOR ANY WORK TO BE PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY. (NOTE ALL OTHER PERMIT REQUIREMENTS FROM ANY OTHER AFFECTED AGENCIES.)

3. APPROVAL OF THESE PUBLIC IMPROVEMENTS PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.

4. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS.

   HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY WHETHER OR NOT IT IS SHOWN HEREON, AND IS RESPONSIBLE FOR CORRECTING ANY DAMAGE TO SAID FACILITIES.

5. LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (800-227-2600) TO OBTAIN A U.S.A. IDENTIFICATION NUMBER AND HAVE EXISTING UTILITIES LOCATED.

   CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO ACTUAL LOCATION OF EXISTING UTILITIES.

6. "CITY ENGINEER" SHALL MEAN THE CITY ENGINEER OR HIS/HER AUTHORIZED AGENT ACTING WITHIN THE SCOPE OF HIS/HER AUTHORITY.

7. THE CONTRACTOR SHALL TELEPHONE THE CITY OF BRENTWOOD PUBLIC WORKS DEPARTMENT, 925-516-5420, AT LEAST TWO (2) WORKING DAYS PRIOR TO STARTING CONSTRUCTION WORK.

8. THE CITY SHALL SCHEDULE A PRECONSTRUCTION CONFERENCE WITH THE CITY, CONTRACTOR, SUBCONTRACTOR AND OTHER AFFECTED AGENCIES AT LEAST TWO (2) WORKING DAYS PRIOR TO STARTING ANY CONSTRUCTION WORK.

9. TRAFFIC CONTROL SHALL BE PROVIDED IN CONFORMANCE WITH THE LATEST EDITION OF THE "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" ISSUED BY THE STATE OF CALIFORNIA, DEPARTMENT TRANSPORTATION AND AS REQUIRED BY THE CITY ENGINEER AND APPROVED BY THE CITY ENGINEER.

10. IF ANY CULTURAL FEATURES OR ARCHEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING, OR OTHER EXCAVATION WORK, ALL WORK WITHIN ONE HUNDRED FEET (100') OF THESE MATERIALS SHALL BE STOPPED UNTIL A PROFESSIONAL ARCHAEOLOGIST CERTIFIED BY THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SOPA) AND/OR THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SCA) HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE FIND AND APPROPRIATE MITIGATION MEASURES ARE DETERMINED AND IMPLEMENTED.

11. REGULAR HOURS OF WORK WILL BE LIMITED TO 7:00 A.M. TO 3:30 P.M., MONDAY THROUGH FRIDAY. THE OWNER OR DEVELOPER MUST SUBMIT A WRITTEN REQUEST FOR APPROVAL BY THE CITY ENGINEER AT LEAST TWO (2) WORKING DAYS IN ADVANCE TO WORK DURING ANY OTHER HOURS, WEEKENDS, OR HOLIDAYS.

    THE FOLLOWING SPECIAL HOURS OF WORK WILL BE ENFORCED FROM MONDAY THROUGH FRIDAY:

    A. WORK AFFECTING TRAFFIC ON BALFOUR ROAD, BRENTWOOD BOULEVARD, FAIRVIEW AVENUE, LONE TREE WAY, SAND CREEK ROAD, CENTRAL BOULEVARD OR WALNUT BOULEVARD WILL BE LIMITED TO 8:30 A.M. TO 2:30 P.M.

    B. WORK ADJACENT TO OR WITHIN FIFTEEN HUNDRED FEET (1500') OF ANY SCHOOL WHILE THE SCHOOL IS IN SESSION WILL BE LIMITED TO 8:30 A.M. TO 2:30 P.M.

    C. WORK WITHIN THREE HUNDRED FEET (300') OF OCCUPIED RESIDENTIAL UNITS AND NOT AFFECTING BALFOUR ROAD, BRENTWOOD BOULEVARD, FAIRVIEW AVENUE, LONE TREE WAY OR WALNUT BOULEVARD SOUTH OF BALFOUR ROAD WILL BE LIMITED TO 8:30 A.M. TO 4:30 P.M.

    D. WORK IN EXCESS OF THREE HUNDRED FEET (300') FROM OCCUPIED RESIDENTIAL UNITS AND NOT AFFECTING BALFOUR ROAD, BRENTWOOD BOULEVARD, FAIRVIEW AVENUE, LONE TREE WAY OR WALNUT BOULEVARD SOUTH OF BALFOUR ROAD, WILL BE LIMITED TO 7:00 A.M. TO 5:00 P.M.

    E. ALL SATURDAY WORK SHALL BE RESTRICTED TO 9:00 A.M. TO 5:00 P.M.

12. CONTRACTOR'S OPERATIONS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE STATE OF CALIFORNIA CONSTRUCTION SAFETY ORDERS PERTAINING TO TRENCHES AND EXCAVATIONS.

13. CONTRACTOR SHALL PROVIDE AT LEAST TWO (2) WORKING DAYS ADVANCE NOTICE TO THE CITY ENGINEER PRIOR TO CONNECTING TO EXISTING WATER FACILITIES. THE MANIPULATION OF EXISTING VALVES SHALL BE DONE UNDER THE DIRECTION OF THE CITY WATER DIVISION PERSONNEL.

14. THE INSTALLATION OF EROSION CONTROL FACILITIES AND MEASURES IS NECESSARY AT ALL TIMES. (EROSION CONTROL PLAN SHALL BE APPROVED BY THE CITY ENGINEER.)

15. MAILBOXES SHALL BE INSTALLED IN LOCATIONS APPROVED BY THE LOCAL POSTMASTER AND PER CITY OF BRENTWOOD STANDARD PLANS.

16. ALL DRIVEWAY LOCATIONS AND WIDTHS ARE APPROVED BASED ON THE INFORMATION PROVIDED BY THE DEVELOPER/OWNER. IF THERE IS A REQUIRED CHANGE IN THE FLOOR PLAN, THE DEVELOPER/OWNER SHALL WIDEN OR RELOCATE THE DRIVEWAY SOLELY AT HIS/HER OWN COST.

17. IF DRIVEWAY DEPRESSIONS ARE MADE IN ANY CURB, DRIVEWAY APPROACHES ARE THEN CONSIDERED TO BE PART OF THE IMPROVEMENT PLAN AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BRENTWOOD STANDARD PLANS.

18. MONUMENTS ARE TO BE SET AS SHOWN ON THE PLANS AND PER THE REQUIREMENTS OF THE SUBDIVISION MAP ACT, LAND SURVEYORS ACT, AND THE CITY SUBDIVISION ORDINANCE AND SHALL BE IN ACCORDANCE WITH THE RULES AND PROCEDURES APPROVED BY THE COUNTY SURVEYOR.

    ALL LOT CORNERS AND TRACT BOUNDARIES SHALL BE LOCATED AND MONUMENTED IN ACCORDANCE WITH THE RECORDED TRACT MAP. THE PROJECT CIVIL ENGINEER SHALL SUBMIT A WRITTEN CERTIFICATION TO THE CITY ENGINEER.

19. TREES SHALL NOT BE PLANTED WITHIN THE CITY OF BRENTWOOD RIGHT-OF-WAY UNLESS A PERMIT HAS BEEN OBTAINED FROM THE PARKS AND RECREATION DEPARTMENT, OR IF THE TRESS ARE PLANTED IN ACCORDANCE WITH A LANDSCAPE PLAN APPROVED BY THE CITY ENGINEER AND THE PARKS AND RECREATION DIRECTOR.

20. JOINTS BETWEEN NEW PAVEMENT AND EXISTING PAVEMENT SHALL BE MADE BY SAW-CUTTING EXISTING PAVEMENT TO EFFECT A NEAT BUTT JOINT AS DEPICTED ON THE CITY STANDARD PLANS. FEATHERING NEW ASPHALT PAVING OVER EXISTING PAVEMENT IS NOT ALLOWED.

21. THE CONTRACTOR SHALL NOTIFY THE CONTRA COSTA FLOOD CONTROL DISTRICT AND EAST CONTRA COSTA IRRIGATION DISTRICT PRIOR TO STARTING WORK NEAR DISTRICT'S FACILITIES AND SHALL COORDINATE ALL WORK WITH DISTRICT'S REPRESENTATIVES.

22. LOCATION AND HEIGHT OF ALL RETAINING WALLS SHALL BE SHOWN ON THESE PLANS. RETAINING WALLS HIGHER THAN ONE FOOT (1') SHALL BE STRUCTURALLY DESIGNED AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION (SEE STANDARD PLANS G-3A, G-3B, G-4A AND G-4B FOR DETAILS).

23. IT SHALL BE THE RESPONSIBILITY OF THE APPLICANT/ENGINEER TO CONTACT THE VARIOUS UTILITY AGENCIES, ADVISE THE AGENCIES OF THE PROPOSED IMPROVEMENTS, AND PAY FOR THE COST OF RELOCATION, IF NEEDED.

24. NO FINAL PAVING SHALL BE DONE UNTIL EXISTING POWER POLES AND OTHER EXISTING FACILITIES, ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.

25. SUBGRADE FOR ALL STREET, CURB AND GUTTER, AND CONCRETE FLATWORK SHALL BE COMPACTED TO NINETY-FIVE PERCENT (95%) RELATIVE COMPACTION.

26. ALL UNDERGROUND UTILITIES SHALL BE CONSTRUCTED PRIOR TO THE PLACEMENT OF BASEROCK UNLESS APPROVED BY THE CITY ENGINEER.

27. ALL PAVEMENT MARKINGS IN THE PUBLIC RIGHT-OF-WAY SHALL BE THERMOPLASTIC UNLESS SPECIFICALLY CALLED OUT AS PAINT. NO PERMANENT MARKINGS SHALL BE PLACED UNTIL THE CITY TRAFFIC ENGINEER, CITY ENGINEER OR HIS/HER REPRESENTATIVE APPROVES CAT TRACKING IN THE FILL.

28. BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED AT EACH FIRE HYDRANT LOCATION AS SHOWN ON THE CITY OF BRENTWOOD STANDARD PLANS.

29. ALL TRAFFIC SIGNS AND STREET NAME SIGNS SHALL BE HIGHLY REFLECTIVE GRADE MATERIALS.

30. THE IMPROVEMENT PLANS SHALL REFLECT THAT ALL ON-SITE/OFF-SITE STORM DRAIN INLETS SHALL BE "NO DUMPING DRAINS TO CREEK" STENCILED, USING A TWO-STEP THERMOPLASTIC ON THE FACE OF THE CURB ADJACENT TO THE INLET.

    THE PROJECT PLANS SHALL ALSO INCLUDE EROSION CONTROL MEASURES TO PREVENT SOIL, DIRT AND DEBRIS FROM ENTERING THE STORM DRAIN SYSTEM, IN ACCORDANCE WITH THE REGULATIONS OUTLINED IN THE ASSOCIATION OF BAY AREA GOVERNMENTS (ABAG) EROSION AND SEDIMENT CONTROL HANDBOOK.

31. PRIOR TO THE PLACEMENT OF CONCRETE THE CITY ENGINEER MUST APPROVE FORMS FOR CURBS, GUTTERS AND SIDEWALKS.

32. ALL STORM DRAIN STRUCTURES SHALL BE CONSTRUCTED TO CITY OF BRENTWOOD STANDARDS (WITH WEEP HOLES AT SUBGRADE ELEVATION) UNLESS OTHERWISE NOTED.

33. THE CONTRACTOR SHALL REVIEW THE CURRENT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PROVIDED BY THE OWNER. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY FOR CONDUCTING HIS/HER OPERATIONS IN ADHERENCE TO THE SWPPP. THE CONTRACTOR IS RESPONSIBLE FOR ANY FINES, DELAYS, AND/OR DAMAGE RESULTING FROM ANY STATE WATER QUALITY CONTROL BOARD SANCTIONS CAUSED BY THE OPERATION OF THE CONTRACTOR OR HIS/HER SUBCONTRACTORS.

34. MINIMUM SERVICE LINE SIZES TO DRINKING FOUNTAINS SHALL BE ONE INCH (1"). SERVICE LINES IN SIZES UP TO AND INCLUDING TWO INCHES (2") SHALL BE TYPE K SOFT COPPER TUBING. ZINC ANODES SHALL BE PROVIDED AND INSTALLED AT THE LOCATIONS SHOWN ON THE CITY OF BRENTWOOD STANDARD PLANS.

35. COVER REQUIREMENTS: WATER MAINS AND SERVICES SHALL BE INSTALLED AT A DEPTH WHICH WILL PROVIDE A MINIMUM OF THIRTY-SIX INCHES (36") COVER FROM THE TOP OF THE PIPE TO THE SUBGRADE. IN CASE OF UTILITY CONFLICT IN WHICH THE WATER MAIN IS REQUIRED TO GO OVER ANOTHER UTILITY, CITY STANDARD PLAN W-14, "CONCRETE CAP OVER WATER MAIN," APPLIES.

GRADING AND DRAINAGE NOTES

1. THE CONTRACTOR SHALL BRING GRADES TO WITHIN ONE-TENTH OF ONE FOOT (0.1') OF FINAL GRADES AND OBTAIN GRADE CERTIFICATION PRIOR TO PLACEMENT OF ANY HARDSCAPE, IRRIGATION PIPING, STORM DRAIN PIPING OR PLANTING. CERTIFICATION LETTER SHALL BE SUBMITTED TO CITY INSPECTOR.

2. GRADING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT AND SUPPLEMENTED BY THE SPECIFIC GEOTECHNICAL RECOMMENDATIONS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM THE GROUND ELEVATIONS AND OVERALL TOPOGRAPHY OF THE SITE PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IN WRITING IMMEDIATELY OF ANY DIFFERENCES IN TOPOGRAPHY FROM THAT SHOWN ON THIS PLAN WHICH MAY REQUIRE CHANGES IN DESIGN AND/OR EFFECT THE EARTHWORK QUANTITY.

4. CUT/FILL BALANCE: IF THE SITE GRADING GENERATES EXCESS MATERIAL, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR POSSIBLE ONSITE ADJUSTMENT OF GRADE. IF GRADES CANNOT BE ADJUSTED ONSITE, EXCESS MATERIALS SHALL BE DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE. ALL GRADE ADJUSTMENTS SHALL BE APPROVED BY CITY ENGINEER.
   IF THE SITE REQUIRES EXCESS FILL MATERIAL, THE OWNER SHALL FURNISH FILL MATERIAL AS REQUIRED FOR THE SITE. THE CONTRACTOR SHALL SPREAD THE MATERIAL AS NECESSARY TO ACHIEVE THE LINES AND GRADES SHOWN ON THE DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.

5. ACCEPTABLE MATERIAL: MATERIAL ACCEPTABLE FOR USE IN FILLS, EMBANKMENTS, BACKFILL, OR OTHER USES AS DIRECTED SHALL BE SUITABLE FOR COMPACTION, HAVE NO CEMENTED LUMPS AND/OR ROCKS LARGER THAN 3 INCHES (3") IN GREATEST DIMENSION. ALL FILL MATERIAL SHALL BE SUBJECT TO 'COMPLETE ANALYSIS' TESTING FOR UNACCEPTABLE COMPONENTS SUCH AS HEAVY METAL, HERBICIDES, NITRATES, BORON, HYDROCARBONS, ETC. PH RANGE TO BE BETWEEN 6.5 – 7.5.
   IT SHALL BE FREE OF TOPSOIL, ORGANIC AND OTHER DELETERIOUS SUBSTANCES WHICH MIGHT BE HARMFUL TO PLANT GROWTH. SEE PLANTING NOTES FOR ADDITIONAL REQUIREMENTS FOR IMPORT SOIL WITHIN THE ROOT AREA OF LANDSCAPE PLANTING.

6. FOR PUBLICLY MAINTAINED PIPES THE MINIMUM PIPE SLOPE FOR ANY STORM DRAINPIPE SHALL BE 0.2%. MINIMUM DEPTHS SHALL BE TWO FEET (2') BELOW STREET SUBGRADE. MAXIMUM MANHOLE SPACING SHALL BE THREE HUNDRED FEET (300'). THE CITY ENGINEER SHALL APPROVE ANY DEVIATION FROM THESE MINIMUM ALLOWED CRITERIA.

7. ALLOWABLE SEWER PIPE MATERIALS: ONLY VITRIFIED CLAY, SDR 35, AND DUCTILE IRON PIPE WILL BE ALLOWED. REFER TO SECTION 71, "SEWERS," AND SECTION 76, "STORM DRAIN FACILITIES," OF THE STANDARD PLANS AND SPECIFICATIONS.

8. PREPARATION: FOR AREAS TO RECEIVE FILL, ALL LOOSE SURFACE SOILS, EXISTING FILL AND VEGETATION SHOULD BE STRIPPED TO EXPOSE COMPACTED SUBGRADE.

9. ALL EXPLORATORY TRENCHES AND PITS SHALL BE EXCAVATED AND RECOMPACTED, UNDER THE TESTING AND OBSERVATION OF THE GEOTECHNICAL ENGINEER.

10. TRENCH BACKFILL: TRENCH BACKFILL SHALL COMPLY WITH THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER. PIPE ZONE BACKFILL (MATERIAL BENEATH AND IMMEDIATELY SURROUNDING PIPE) SHALL CONSIST OF A WELL-GRADED IMPORT OR NATIVE MATERIAL LESS THAN THREE-QUARTER INCH (3/4") MAXIMUM DIMENSION COMPACTED IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED FOR FILL COMPACTION.

    TRENCH ZONE BACKFILL (MATERIAL PLACED BETWEEN THE PIPE ZONE BACKFILL AND THE GROUND SURFACE) SHALL CONSIST OF NATIVE SOIL COMPACTED IN ACCORDANCE WITH RECOMMENDATIONS FOR FILL COMPACTION. WHERE IMPORT MATERIAL IS USED FOR PIPE ZONE BACKFILL, IT SHALL CONSIST OF FINE TO MEDIUM GRAINED SAND OR WELL GRADED SAND AND GRAVEL AND THIS MATERIAL SHALL NOT BE USED WITHIN TWO FEET (2') OF FINISH GRADE.

    UNIFORMLY GRADED GRAVEL SHOULD NOT BE USED FOR PIPE OR TRENCH ZONE BACKFILL. UTILITY TRENCHES ENTERING PAVED AREAS MUST BE PROVIDED WITH AN IMPERVIOUS SEAL CONSISTING OF NATIVE MATERIALS OR CONCRETE WHERE THE TRENCHES PASS UNDER PAVEMENT, EXTENDING AT LEAST THREE FEET (3') EITHER SIDE OF THE CROSSING.

11. GRADES, LINES AND LEVELS: ALL ELEVATIONS SHOWN ON THE DRAWINGS ARE FINISH GRADE UNLESS OTHERWISE NOTED. GRADES NOT OTHERWISE INDICATED SHALL BE UNIFORM LEVELS OR SLOPES BETWEEN TOP AND TOE OF SLOPES. FINISH GRADE SHALL BE A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE. ADJUSTMENTS OF FINISH GRADES SHALL BE MADE AT THE DIRECTION OF THE CITY INSPECTOR IF REQUIRED.

12. SURFACE DRAINAGE SHALL BE DIRECTED AS INDICATED ON THE DRAWINGS AND SHALL DIRECT WATER TO STREET CURBS, SWALES, OR EXISTING DRAINAGE STRUCTURES. SURFACES SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER AND SHALL CONFORM TO THE INTENT OF THE DRAWINGS AFTER THOROUGH SETTLEMENT AND COMPACTION OF THE SOILS.

    LOW SPOTS AND POCKETS SHALL BE GRADED TO DRAIN PROPERLY. SLOPES SHALL BE AS FOLLOWS, UNLESS OTHERWISE SHOWN ON THE PLANS:
    PAVEMENT - 1.5% MINIMUM, 4.9% MAXIMUM
    PLANTING AREAS - 2% MINIMUM, 2:1 MAXIMUM

13. THE OWNER SHALL BE RESPONSIBLE FOR LOCATING CONTROL POINTS AND BENCH MARKS. THE CONTRACTOR SHALL ESTABLISH ANY CONSTRUCTION STAKES NECESSARY TO ESTABLISH ALL LINES AND GRADES REQUIRED FOR THE COMPLETE LAYOUT AND EXECUTION OF THE WORK. SURVEYING SHALL BE PERFORMED USING A LASER TRANSIT OR METHOD APPROVED BY CITY REPRESENTATIVE. ALL BENCH MARKS, MONUMENTS, AND OTHER REFERENCE POINTS SHALL BE CAREFULLY MAINTAINED AND PROTECTED.

14. ALL ABANDONED UNDERGROUND PIPELINES EXPOSED DURING GRADING SHALL BE REMOVED FROM PROPOSED RIGHT-OF-WAY, BUILDING SITES AND PARK SITES AND SHALL BE BACKFILLED AND PROPERLY COMPACT THESE AREAS TO THE APPROVAL OF THE CITY ENGINEER.

15. PROTECTION OF PERSONS AND PROPERTY: BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND POST WITH WARNING LIGHTS. PROTECT EXISTING STRUCTURES, UTILITIES, PAVEMENT FENCES, PLANTING, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY GRADING OPERATIONS.

16. EXCAVATIONS: ALL EXCAVATIONS SHALL BE MADE TRUE TO THE GRADES AND ELEVATIONS SHOWN ON THE PLANS. THE EXCAVATED SURFACES SHALL BE PROPERLY GRADED TO PROVIDE GOOD DRAINAGE DURING CONSTRUCTION.

17. STABILITY OF EXCAVATIONS: SEE CONSTRUCTION NOTES.

18. DEWATERING: PREVENT SURFACE WATER AND SUBSURFACE OR GROUND WATER FROM FLOWING INTO EXCAVATIONS OR TRENCHES AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. ESTABLISH TEMPORARY DRAINAGE DITCHES AS REQUIRED.

19. MATERIAL STORAGE: STOCKPILE SATISFACTORY EXCAVATED MATERIALS UNTIL REQUIRED FOR BACKFILL OR FILL. PLACE, GRADE AND SHAPE STOCKPILES FOR PROPER DRAINAGE AND TO PREVENT EROSION. COVER AS NECESSARY TO PREVENT DUST. STOCKPILED MATERIALS ARE NOT TO EXCEED SIX FEET (6') IN HEIGHT AND SHALL BE A MINIMUM OF FIFTY FEET (50') FROM ANY BASIN INLET.

20. GRADE CERTIFICATION: OWNER/CONTRACTOR WILL OBTAIN GRADE CERTIFICATION FROM SUPERVISOR/ENGINEER FOR ALL HARDSCAPE. IMPROVEMENTS PRIOR TO CONSTRUCTION/PLACEMENT OF HARD SURFACES.

21. SCARIFICATION: PRIOR TO FINISH GRADING, ALL LANDSCAPE AREAS SHALL BE RIPPED AND SCARIFIED TO A MINIMUM TEN INCH (10") DEPTH IN FOUR DIRECTIONS, USING TRACK LAYING OR RUBBER TIRED VEHICLES EQUIPPED WITH SUITABLE RIPPING TEETH SPACED NOT MORE THAN 15 INCHES (15") APART ACROSS THE FULL WIDTH OF THE WHEEL BASE.

22. MAINTENANCE: PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION. KEEP FREE OF TRASH AND DEBRIS. REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS. WHERE SETTLING IS MEASURABLE OR OBSERVABLE AT EXCAVATED AREAS DURING GENERAL PROJECT WARRANTY PERIOD, REMOVE SURFACE (PAVEMENT, LAWN OR OTHER FINISH), ADD BACKFILL MATERIAL, COMPACT AND REPLACE SURFACE TREATMENT.

    RESTORE APPEARANCE, QUALITY AND CONDITION OF SURFACE OR FINISHES TO MATCH ADJACENT WORK AND ELIMINATE EVIDENCE OF RESTORATION TO GREATEST EXTENT POSSIBLE.

23. CLEANUP: THE CONTRACTOR SHALL DISPOSE OF UNACCEPTABLE SOIL AND EXCAVATED MATERIAL, TRASH AND DEBRIS OUTSIDE THE LIMITS OF THE PROPERTY IN A LEGAL MANNER AT NO ADDITIONAL COST TO THE OWNER. LOCATION OF DUMP AND LENGTH OF HAUL SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

CONSTRUCTION AND LAYOUT NOTES

1. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE MOST CURRENT CITY OF BRENTWOOD PLANS AND SPECIFICATIONS.

2. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO COMPLETE THE INSTALLATION OF THIS PROJECT AS SPECIFIED ON THE PLANS. THE CONSTRUCTION WORK SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO FULLY COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS.

3. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE CITY INSPECTOR.

4. CONTRACTOR SHALL VERIFY ALL DISTANCES AND DIMENSIONS IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PROCEEDING.

5. OBSERVE ALL SETBACKS SHOWN ON THE PLANS AND AS MAY OTHERWISE BE REQUIRED.

6. ALL WRITTEN DIMENSIONS SUPERSEDE ALL SCALED DISTANCES AND DIMENSIONS.

7. ALL CURVED PAVEMENT AND MOWBANDS SHALL BE SMOOTH AND CONTINUOUS.

8. ALL CONCRETE WORK SHALL BE IN CONFORMANCE WITH SOILS ENGINEERING RECOMMENDATIONS.

9. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE TO THE LANDSCAPE ARCHITECT AT THE TIME OF THE PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.

    THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CALL UNDERGROUND SERVICE ALERT (U.S.A.), AT 800-227-2600. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES.

    ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED AND MERGED IN THE CONTRACT UNIT PRICE.

10. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE CITY INSPECTOR, AT THE CONTRACTOR'S SOLE EXPENSE.

11. ANY RELOCATION OF PUBLIC UTILITIES SHALL BE CONDUCTED IN ACCORDANCE WITH ANY AND ALL REQUIREMENTS OF THE UTILITY COMPANY INCLUDING FEES, BONDS, PERMITS AND WORKING CONDITIONS, ETC. THIS WORK SHALL BE DONE AT NO EXPENSE TO THE UTILITY COMPANY. THE OWNER SHALL PAY THE COST OF ALL SUCH RELOCATION WORK INCLUDING FEES, BONDS, PERMITS, ETC.

12. THE CONTRACTOR SHALL TAKE EFFECTIVE ACTION TO PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM HIS FAILURE TO DO SO. DUST CONTROL MEASURES AS APPROVED BY THE CITY SHALL BE FOLLOWED AT ALL TIMES.

13. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN FOR CITY OF BRENTWOOD APPROVAL PRIOR TO START OF CONSTRUCTION.

14. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY AND TO MAINTAIN TRAFFIC CONTROL AT ALL TIMES.

15. THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR ANY PRIVATE PROPERTY ADJACENT TO THE WORK AREA THROUGHOUT THE PERIOD OF CONSTRUCTION.

16. EXCAVATIONS SHALL BE ADEQUATELY SHORED BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM LACK OF ADEQUATE SHORING, BRACING AND SHEETING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE.

    WHERE THE EXCAVATION FOR A CONDUIT TRENCH, STRUCTURE AND/OR BORING OR JACKING PIT IS FOUR FEET (4') DEEP OR MORE IN DEPTH THE CONTRACTOR SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.

17. UNDERGROUND UTILITIES: THE CONTRACTOR SHALL COORDINATE SANITARY SEWER, STORM DRAIN AND WATER CONSTRUCTION IN A MANNER TO PREVENT ANY CONFLICTS WHERE UTILITY LINES CROSS EACH OTHER. SUFFICIENT INFORMATION SHALL BE SHOWN TO ESTABLISH THE ELEVATION AND/OR PROFILE OF WATER SERVICES AND SEWER LATERALS AT CROSSINGS WITH OTHER UNDERGROUND UTILITIES (STORM DRAIN, JOINT TRENCH, ETC.).

    THE PLANS SHALL ENSURE THAT MINIMUM CLEARANCES AT PIPE CROSSINGS ARE MAINTAINED. MINIMUM CLEARANCE IS ONE FOOT (1') BETWEEN ALL OTHER UNDERGROUND PIPES AND FACILITIES IS SIX INCHES (6"). SERVICES AND LATERALS SHALL CROSS ABOVE OR BELOW THE CONDUIT BANK IN JOINT TRENCHES. SEE GENERAL NOTE #35.

18. ALL DEBRIS AND ACCUMULATION OF DEBRIS DURING CONSTRUCTION PERIOD SHALL BE REMOVED FROM THE SITE DAILY AND THE AREA SHALL BE LEFT CLEAN AND IN A CONDITION ACCEPTABLE TO THE CITY.

19. A 10' WIDE BENCH MUST BE PROVIDED AT THE TOP AND BOTTOM OF ALL SLOPES ADJACENT TO CITY OWNED OPEN SPACE OR PARK PROPERTY FOR MAINTENANCE REQUIREMENTS.

20. ANY FEES ASSOCIATED WITH SOIL COMPACTION, MOISTURE, CONCRETE, SUBGRADE OR SUB-BASE SOIL ANALYSIS TESTS SHALL BE THE RESPONSIBILITY OF THE CITY.

CONCRETE NOTES

1. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT TO PROVIDE ALL CAST-IN-PLACE CONCRETE AS SHOWN ON THE DRAWINGS, AND NOTED HEREIN, INCLUDING BUT NOT LIMITED TO EXTERIOR PAVING, FOOTINGS, MOWBANDS, BASE ROCK, REINFORCING AND CONCRETE FINISHES.

2. CONTRACTOR SHALL COMPLY WITH CITY OF BRENTWOOD STANDARD PLANS AND SPECIFICATIONS AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION 2006 STANDARD PLANS AND SPECIFICATIONS, WHERE REFERENCED.

3. SUBMITTALS: SUBMIT CONCRETE MIX DESIGNS, AND A 4'X4'X4" SAMPLE OF CONCRETE WITH FINISH TO CITY INSPECTOR FOR APPROVAL FIVE (5) WORKING DAYS PRIOR TO INSTALLATION.

4. INSPECTION: THE CONTRACTOR SHALL NOTIFY CITY TWO (2) WORKING DAYS PRIOR TO THE POURING OF THE CONCRETE PAVING AFTER ALL FORMWORK, REINFORCING, AND INSERTS ARE IN PLACE FOR INSPECTION.

5. PREPARATION: SUBGRADE PREPARATION, MOISTURE CONDITIONING, AND COMPACTION SHALL CONFORM TO THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE INSTALLED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF WORK.

   DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. ANY FEES ASSOCIATED WITH SOIL COMPACTION, MOISTURE, CONCRETE, SUB-GRADE OR SUB-

IRRIGATION NOTES

SYSTEM DEMAND AND DESIGN NOTES:

1. PROVIDE COMPLETED WATER EFFICIENT LANDSCAPE WORKSHEETS AND FORMS.

2. IF BOOSTER PUMP IS REQUIRED, CONFIRM THAT BOOSTER PUMP PROVIDES SPECIFIED OPERATING PRESSURE FOR IRRIGATION HEADS IN VALVE ZONES DURING TYPICAL OPERATING CYCLE. TYPICAL OPERATING CYCLE IS DETERMINED BY NUMBER OF VALVE ZONES REQUIRED TO OPERATE SIMULTANEOUSLY TO PROVIDE ADEQUATE IRRIGATION COVERAGE WITHIN THE WATERING WINDOW.

3. THE IRRIGATION SYSTEM IS DESIGNED TO IRRIGATE THE ENTIRE CONTRACT AREA WITHIN AN 8 HOUR WATERING TIME (10:00 P.M.-6:00 A.M.) WITH THE EXCEPTION OF THE BUBBLER CIRCUITS.

GENERAL:

4. PROVIDE INSTALLATION BY PERSONS FAMILIAR WITH IRRIGATION WORK AND UNDER THE SUPERVISION OF A QUALIFIED SUPERVISOR.

5. OBTAIN THE PERMITS REQUIRED AND PROVIDE LABOR AND MATERIALS NECESSARY TO FULLY COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS AND THE SPECIFICATIONS.

6. LOCATE AND PROTECT NEW AND EXISTING UTILITIES PRIOR TO EXCAVATION. CALL UNDERGROUND SERVICE ALERT (U.S.A.), AT 800-227-2600.

7. DO NOT DAMAGE EXISTING UTILITIES, PAVING OR STRUCTURES. PROVIDE THE NECESSARY REPAIRS WITH APPROVAL OF APPROPRIATE AGENCY BEFORE BACKFILLING AND AT NO ADDITIONAL COST TO THE CITY.

8. REMOVE DEBRIS AND ACCUMULATION OF DEBRIS AS A RESULT OF IRRIGATION CONSTRUCTION DAILY FROM THE SITE AND LEAVE AREA IN A CLEAN CONDITION ACCEPTABLE TO THE CITY ENGINEER.

9. FOLLOWING ACCEPTANCE OF WORK BY THE CITY MAINTAIN SITE AND MAKE CORRECTIONS OR REPAIRS TO THE IRRIGATION AS DIRECTED BY THE CITY ENGINEER AT THE COMPLETION OF THE MAINTENANCE PERIOD.

10. THE DRAWINGS ARE DIAGRAMMATIC. EQUIPMENT SHOWN IN PAVING IS FOR CLARITY ONLY - INSTALL IN PLANTING AREAS WHERE POSSIBLE DUE TO THE SCALE OF THE DRAWINGS, ALL OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED ARE NOT INDICATED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIFFERENCES, WHICH MAY HAVE NOT BEEN CONSIDERED IN THE ENGINEERING.

    WHERE FIELD CHANGES EXIST, COORDINATE THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE CITY ENGINEER AS PER THE CONTRACT SPECIFICATIONS. COORDINATE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT, OR SLEEVES OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS ROADWAYS, PAVING, STRUCTURE, ETC. BEFORE CONSTRUCTION. ASSUME FULL RESPONSIBILITY FOR REQUIRED REVISIONS IF THESE NOTIFICATIONS ARE NOT PERFORMED.

11. THE INTENT OF THIS IRRIGATION SYSTEM DESIGN IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

12. PLANTING IS NOT TO START UNTIL THE IRRIGATION SYSTEM IS FULLY OPERATIONAL AND HYDROSTATIC PRESSURE TEST, COVERAGE REVIEW, GRADING REVIEW, BACKFLOW CERTIFICATION, AND AUTOMATIC OPERATION OF CONTROLLER(S) IS COMPLETED, CERTIFIED BY THE VENDOR, AND APPROVED BY THE CITY ENGINEER.

13. SPRINKLER SYSTEM GUARANTEE SHALL BE ONE (1) YEAR INCLUDING MANUFACTURER'S WARRANTIES.

14. AT TIME OF AS-BUILT SUBMITTAL, PROVIDE ACTUAL FLOW RATE, PRECIPITATION RATE, CYCLE AND SOAK TIME, AND LANDSCAPE COEFFICIENT FOR EACH IRRIGATION VALVE ZONE.

15. PROVIDE A COVERAGE CHECK AND 14-DAY WATERING PERIOD BEFORE PLANTING. REMOVE WEEDS AND PERFORM FINAL GRADING AFTER 14-DAY PERIOD.

16. STRAINER AND SPOOL ASSEMBLY SHALL BE LINE SIZE OR AS APPROVED BY CITY OF BRENTWOOD.

17. INSTALL REGULATORS AFTER BACKFLOW VALVE ASSEMBLY FOR POTABLE IRRIGATION SYSTEMS AND AFTER BOOSTER PUMP FOR NON-POTABLE IRRIGATION SYSTEMS.

18. BOOSTER PUMP, ELECTRIC METER PEDESTAL, CONTROLLER AND ALL OTHER IRRIGATION ENCLOSURES SHALL HAVE A 5' OFFSET FROM ADJACENT PATH OR PAVED AREA SCREENED AND SHALL BE CLEARLY IDENTIFIED ON ALL PLANS. LOCATE IN UN-IRRIGATED AREAS.

19. ALL IRRIGATION ENCLOSURES, INCLUDING BACKFLOW ENCLOSURE, SHALL BE STAINLESS STEEL. ELECTRICAL METER PEDESTAL AND IRRIGATION CONTROLLER BOXES SHALL HAVE SLANT TOP LIDS. THE SLANT TOP ENCLOSURES MAY LIMIT CONFIGURATIONS REQUIRING MORE THAN ONE CONTROLLER OR DEVICE. ENCLOSURES TO BE ON A PAD 3" ABOVE FINISHED GRADE

CONTROLLER:

20. SEQUENCE VALVES TO OPERATE IN GEOGRAPHIC ORDER. TAG AND MARK (BY HEAT BRANDING) VALVE NUMBER ON LID OF VALVE BOX. (2-1/2" LETTERS AND NUMBERS) IN A PERMANENT FASHION, NOT PAINTED.

21. PROGRAM THE CONTROLLER TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. MAKE ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS AND SLOPES, SUN, SHADE, AND WIND EXPOSURES.

    INCLUDE A PEAK DEMAND IRRIGATION SCHEDULE BY STATION IN IRRIGATION PLAN AND A LAMINATED COPY OF SCHEDULE IN CONTROLLER ENCLOSURE.

22. 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO IRRIGATION CONTROLLER LOCATION(S) TO BE PROVIDED UNDER ELECTRICAL CONTRACT WORK. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL SUB-OUT TO CONTROLLER(S) AND PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS. ALL BREAKERS MUST BE LABELED.

23. PROVIDE ONE DEDICATED GROUND FOR CONTROLLER AS DETAILED. GROUND ROD: TEN FEET LONG BY 3/4" DIAMETER U.L. APPROVED COPPER CLAD ROD. NO MORE THAN 6" OF THE GROUND ROD TO BE ABOVE GRADE. CONNECT #8 AWG WIRE WITH A U.L. APPROVED GROUND ROD CLAMP TO ROD AND GROUND SCREW AT BASE OF CONTROLLER WITH APPROPRIATE CONNECTOR. PROVIDE WIRE AS SHORT AS POSSIBLE, AVOIDING ANY KINKS.

24. SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE PERSONNEL, THE CITY ENGINEER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER

25. SATELLITE IRRIGATION CONTROLLER LOCATION IS DIAGRAMMATIC. THE CITY ENGINEER WILL SET THE EXACT LOCATION IN THE FIELD. CONTACT CITY INSPECTOR ON FINAL LOCATION AND ORIENTATION OF THE IRRIGATION CONTROLLER AND ELECTRIC METER PEDESTAL.

26. ALL IRRIGATION CONTROLLERS SHALL INCLUDE A RAIN MASTER PRO MAX RECEIVER PMR-CAC. FURNISH ONE RAIN MASTER PRO MAX-RMR-RAC.

27. PRIOR TO THE START OF PLANTING, THE SATELLITE IRRIGATION CONTROLLERS ARE TO BE FULLY OPERATIONAL, CONNECTED TO THE FINAL ELECTRICAL SOURCE, CONNECTED TO THE PHONE LINE, AND ABLE TO COMMUNICATE TO THE CENTRAL CITY COMPUTER SYSTEM.

    'K' VALUES SHALL BE ENTERED INTO CONTROLLER PROGRAM AND AVAILABLE FOR UPLOADING TO CENTRAL IRRIGATION CONTROLLER.

BOOSTER PUMP:

28. BOOSTER PUMP SHALL INCLUDE THE FOLLOWING MINIMUM SPECIFICATIONS:
    - VARIABLE FREQUENCY DRIVE
    - BY-PASS ISOLATION VALVE
    - TEMPERATURE SENSOR
    - PRESSURE GAUGE
    - FLOW SENSOR
    - UPSTREAM PRESSURE REGULATOR
    - DIGITAL FAULT READOUT BY DATE
    - STATION DISCONNECT
    - PRESSURE SWITCH GAUGE
    - STATION ISOLATION VALVE
    - STATION FAN
    - PRESSURE TRANSDUCER
    - PRESSURE REGULATOR

29. BOOSTER PUMPS SHALL BE USED ON ANY JOB THAT WILL USE RECLAIMED WATER OR NON-POTABLE WATER AND/OR HAS LARGE TURF ROTORS. ALL OTHER SYSTEMS SHALL BE DESIGNED TO OPERATE AT 50 PSI, OR LESS, WITHOUT A BOOSTER PUMP. CITY RESERVE SHALL BE 20% HIGHER THAN DESIGN PRESSURE AS RECORDED ON CITY WATER CHART, OR BOOSTER PUMP REQUIRED.
30. BOOSTER PUMP AND EXTERNAL BREAKERS TO BE INSTALLED WITH STAINLESS STEEL ENCLOSURE AND CONCRETE BASE.
31. SELF FLUSHING WYE STRAINER WILL BE REQUIRED ON ALL NON-POTABLE PUMPS.

LOW VOLTAGE WIRE:

32. PROVIDE A DEDICATED COMMON GROUND WIRE PLUS ONE SPARE COMMON 12-GAUGE WIRE, WHITE IN COLOR, FOR EACH CONTROLLER (NOT USED). LOOP SPARE COMMON WIRE INTO ALL VALVES BOXES AND RUN ENTIRE LENGTH OF MAINLINE.

33. SPARE WIRES SHALL RUN ALONG ENTIRE LENGTH ON MAIN LINE AT A RATIO OF ONE (1) EXTRA WIRE PER SIX (6) STATIONS USED ON THE CLOCK. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES. WEATHERPROOF UNUSED WIRE ENDS AND INSTALL IN LAST VALVE BOX.

34. IRRIGATION CONTROL WIRES: SOLID STRAND COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND, SIZE AWG-UF #14-1. COMMON GROUND WIRE: #12 WITH WHITE INSULATING JACKET. CONTROL WIRE: INSULATING JACKET OF COLOR OTHER THAN WHITE. SPLICES: MADE WITH 3M-DBY SEAL PACKS.

    TRACER WIRE: INSULATED 10-GAUGE WIRE, BLACK IN COLOR, LOOPED INTO ALL ISOLATION VALVE CANS FOR ENTIRE LENGTH OF MAINLINE.

    MULTIPLE CONTROLLERS: COLOR CODE WIRES FOR EASE OF IDENTIFICATION BY PROVIDING DIFFERENT COLOR CONTROL WIRE FOR EACH CONTROLLER. REFER TO CITY DETAILS AND SPECIFICATIONS.

35. SPLICING OF 24-VOLT WIRES IS NOT PERMITTED EXCEPT AT RCV SOLENOIDS OR BEYOND 2500' OF WIRE LENGTH. PROVIDE A 36" LONG 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE. PROVIDE A 36" LONG 1" DIAMETER EXPANSION LOOP EVERY 100 FEET AND TAPE WIRES TOGETHER EVERY TEN FEET ALONG THE WIRE RUN. DO NOT TAPE WIRES TOGETHER INSIDE SLEEVES. ALL APPROVED SPLICES SHALL BE INSTALLED IN A LABELED SPLICE BOX AS DIRECTED BY CITY REPRESENTATIVE.

36. FOR EASE IN IDENTIFICATION COLOR CODE LOW VOLTAGE WIRE AS FOLLOWS:
    RED = TURF ZONES
    GREEN = TREE AND/OR SHRUB BUBBLER ZONES

MAIN LINE OR MANIFOLD ISOLATION VALVES:

37. MAIN LINE OR MANIFOLD ISOLATION VALVES ARE TO BE INSTALLED IN THE FULL OPEN POSITION UNLESS OTHERWISE NOTED.

MASTER CONTROL VALVE AND FLOW SENSOR:

38. INSTALL FLOW SENSOR CABLE IN 1.5" PVC CONDUIT FROM FLOW SENSOR TO CONTROLLER ENCLOSURE, WITH PULL BOXES EVERY 100', IF APPLICABLE. MAKE SPLICES ONLY IN CONTROLLER ENCLOSURES OR IN AN APPROVED PULL BOX.

39. DO NOT SPLICE FLOW SENSOR CABLE BETWEEN THE CONTROLLER AND FLOW SENSOR. DO NOT EXCEED A MAXIMUM OF 2000' OF SENSOR CABLE.

40. ALL IRRIGATION SYSTEMS SHALL INCLUDE FLOW SENSORS AND MASTER CONTROL VALVES. THESE SHALL WORK INTEGRALLY WITH THE CONTROLLER. THE FLOW SENSOR SHALL CONNECT TO SATELLITE COMPONENTS NECESSARY FOR OPERATION.

REMOTE CONTROL VALVE:

41. PROVIDE PLASTIC VALVE BOXES WITH BOLT DOWN (STAINLESS STEEL BOLTS AND WASHERS), NON-HINGED COVER HEAT BRANDED WITH THE WORD "IRRIGATION" AND THE IDENTITY OF THE BOX'S CONTENTS, SUCH AS QUICK COUPLING VALVE, REMOTE CONTROL VALVE (WITH VALVE ID#), ETC. BOX BODY SHALL HAVE KNOCK OUTS. MANUFACTURER: CARSON, NDS OR APPROVED EQUAL AS PER CITY DETAIL.

42. REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, LAWN, HEADER BOARD, BUILDING, OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE 12" APART. SHORT SIDE OF RECTANGULAR VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, LAWN, ETC., REFER TO BOX INSTALLATION DETAIL. REFER TO CITY DETAILS AND SPECIFICATIONS.

    REMOTE CONTROL VALVES PLACED IN GROUPS CAN BE PLACED ON A MANIFOLD WITH A BALL VALVE AT THE START OF THE MANIFOLD AND QUICK COUPLER AT THE END OF THE MANIFOLD.

43. VALVE LOCATIONS ON DRAWINGS ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE (NOT IN TURF AREA).

SPRINKLERS:

44. FLUSH AND ADJUST SPRINKLER HEADS FOR EFFICIENT PERFORMANCE. PREVENT OVERSPRAY ON THE WALKS, ROADWAYS, SIGNS, LIGHTS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL OR PRESSURE REGULATION DEVICE AT EACH VALVE TO OBTAIN THE BEST OPERATING PRESSURE FOR EACH SYSTEM.

45. SET SPRINKLER HEADS PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE NOTED ON THE DRAWINGS.

46. IRRIGATION HEAD LAYOUT AND PIPING AS SHOWN ON THE DRAWINGS IS INDICATIVE OF THE WORK TO BE INSTALLED. IRRIGATION HEADS, ARC OF SPRAY, RADIUS OF SPRAY AND PIPING AT CERTAIN LOCATIONS MAY BE REQUIRE FIELD ADJUSTMENT TO PREVENT HARM TO TREE ROOTS AND INTERFERENCE OF TREES TO IRRIGATION SPRAY. EXERCISE PARTICULAR ATTENTION AT ALL TREES TO ELIMINATE DIRECT SPRAY OF IRRIGATION HEADS ON TREE TRUNKS, ESPECIALLY OAK TREES.

47. IRRIGATION HEAD LAYOUT PARAMETERS:
    1. SPRAY HEADS: HEAD-TO-HEAD SPACING OR CLOSER
    2. NO SPRAY HEADS IN PLANTERS LESS THAN 8' WIDE
    3. NOZZLES HAVE MATCHED PRECIPITATION RATES, +/- 10%
    4. ROTORS ARE SPACED AT 45% OF THE DIAMETER OF THROW

48. LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE TO ALLOW THE FLOW OF WATER TO FLOW INTO THE ROOTBALL AREA.

49. BUBBLER SPRINKLER RATIO SHALL BE 1 PER SHRUB AND 2 PER TREE. IN LAWN AREAS ALL TREES SHALL HAVE 2 POP-UP BUBBLERS AND SHALL ALSO BE ON AN INDEPENDENT VALVE CIRCUIT. GALLONAGE PER SHRUB OR TREE SHOULD BE MATCHED TO OVERALL PLANT REQUIREMENT. SHRUB AND TREE BUBBLERS TO BE ON SEPARATE VALVE CIRCUITS.

50. PIPING TO BE NO CLOSER THAN 4" FROM WALKWAYS, FENCES, CURBS, DRIVEWAYS AND UTILITY PADS AND 8" FROM BUILDINGS OR OTHER PERMANENT STRUCTURES.

51. INSTALL TRIPLE SWING JOINTS ON ALL HEADS, NO MARLEX TO MARLEX FITTINGS.

PIPING:

52. PIPE THREAD SEALANT COMPOUND SHALL BE PERMATEX 51 OR RECTOR SEAL T+2.

53. 48 HOURS BEFORE COMMENCING WITH WORK UNDER THIS CONTRACT, NOTIFY UNDERGROUND SERVICE ALERT, U.S.A. 800-227-2600. DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES, PIPES, AND STRUCTURES. COSTS OF DAMAGES WHICH OCCUR FROM FAILURE TO ACCURATELY LOCATE AND PRESERVE THESE UTILITIES IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

54. PRESSURE CHECK SYSTEM AT 150 PSI FOR 2 HOURS ON MAIN LINE AND 75 PSI FOR I HOUR ON LATERAL LINES (SPRINKLERS ARE NOT INCLUDED).

55. SOLVENT WELD JOINTS: ALL CUTS ARE TO BE SQUARE. USE PRIMER PRIOR TO SOLVENT CEMENT APPLICATION.

56. PROVIDE SLEEVES UNDER ALL PAVEMENT AND MARK TOP OF CURB PER THE CITY ENGINEER'S DIRECTION. FOR MAIN LINE PIPING LOCATED INSIDE SLEEVES, USE SOLVENT WELDED SOCKET FITTINGS WITH PVC PLASTIC PIPE AS PER THE IRRIGATION LEGEND. DO NOT USE GASKETED COUPLINGS INSIDE SLEEVES. SLEEVES SHALL BE TWO PIPE DIAMETER USED IN SLEEVE AND 24-30" DEEP, 36" DEEP MAX. INSTALL BIO BARRIER FABRIC AT EACH END OF SLEEVE.

57. MAINLINES: SEE CITY DETAIL I2 FOR INSTALLATION DEPTH AND BACKFILL. EXCEPTIONS TO THIS DEPTH REQUIREMENT MUST BE PRE-APPROVED BY CITY OF BRENTWOOD PRIOR TO INSTALLATION.

CORROSION PROTECTION NOTE:

58. INSTALL CATHODIC PROTECTION ON ALL SUBSURFACE METALLIC PIPES (INCLUDING COPPER SERVICE LINES), VALVES, FITTINGS, RISERS, FIRE HYDRANTS, ETC. THE SIZE AND NUMBER OF ANODES PER LOCATION SHALL BE DETERMINED BY A REGISTERED CALIFORNIA CORROSION ENGINEER ONLY. A COPY OF THE CATHODIC PROTECTION DESIGN AND POST-INSTALLATION TEST RESULTS WITH REPORT IS AVAILABLE WITH THE CITY OF BRENTWOOD ENGINEERING DEPARTMENT FOR REVIEW AND USE.

    REFER TO THE CITY OF BRENTWOOD'S STANDARD PLANS AND SPECIFICATIONS, STANDARD PLANS CP-1 THROUGH CP-17 INCLUSIVE, FOR DETAILS OF CATHODIC PROTECTION AND CONSTRUCTION. INSTALLATION OF BARE ZINC ANODE IS PROHIBITED.

    PART OF THE CONTRACT WORK IS TO OBTAIN THE CITY OF BRENTWOOD'S STANDARD PLANS AND SPECIFICATIONS, AVAILABLE AT THE CITY ENGINEERING DEPT. FOR A CHARGE AT 150 CITY PARK WAY, BRENTWOOD, CA 94513 OR CALL 925-516-5420.

LABEL AND MARKING FOR RECYCLED WATER:

59. GENERAL SIGNAGE:
    CONSPICUOUS NOTIFICATION SIGNS MUST BE POSTED PER CITY OF BRENTWOOD USER MANUAL AROUND THE AREA AND MOUNTED ON THE SIGN AS DIRECTED BY THE CITY TO ENSURE PEOPLE KNOW RECYCLED WATER IS NOT POTABLE. SIGNS ARE TO STATE: "RECYCLED WATER" IN ENGLISH AND SPANISH. ADDITIONAL SIGNAGE SHALL BE PURCHASED FROM THE CITY OF BRENTWOOD WATER DEPARTMENT.

60. VALVES AND CONTROLLERS:
    CONTROLLERS ARE TO HAVE WARNING LABELS INSTALLED AS SUPPLIED BY THE WATER DEPARTMENT. VALVES (GATE, MANUAL CONTROL, ELECTRIC CONTROL, PRESSURE REDUCING, QUICK COUPLING) ARE TO BE INSTALLED IN PURPLE COLORED BOXES BELOW GRADE AND HAVE LABELS OR TAGS PERMANENTLY AFFIXED WITH THE WORDS "RECYCLED WATER".

61. BACKFLOW UNIT:
    LABEL BACKFLOW PREVENTION ASSEMBLY ENCLOSURE FOR RECLAIMED WATER AS FOLLOWS:

    A. USE A T. CHRISTY ENTERPRISES PART #4100 (NO KNOWN EQUAL) DECAL, 4-3/8"X3-1/2" SIZE, MANUFACTURED FROM A 3.5 MIL FLEXIBLE VINYL BASE, WHITE IN COLOR. PERMANENT ACRYLIC ADHESIVE BACKING, ON A #90 STAY-FLAT LINER, PURPLE (PMS 522C) BACKGROUND, PRINTED WITH UV CURED VINYL INK. DECAL IS CLEAR FLOOD OVERPRINTED FOR SUPERIOR WEATHERING AND UV PROTECTION. DECAL RELEASE PAPER SHALL BE SPLIT FOR EASE OF APPLICATION. DECAL STATES IN ENGLISH AND SPANISH "ATTENTION-UNIT FOR RECLAIMED WATER".

    B. ATTACH THE LABEL TO BACKFLOW PREVENTION ASSEMBLY ENCLOSURE.

    C. PAINT THE STRAINER AND SPOOL ASSEMBLY WITH PURPLE PAINT, T. CHRISTY ENTERPRISES ID-PNT-QT-300.

62. HORIZONTAL SEPARATION BETWEEN WATER, SEWER, AND RECYCLED WATER PIPES:
    FOR RECYCLED MAINS LOCATED IN A PUBLIC RIGHT-OF-WAY, PROVIDE A TEN FOOT (10') SEPARATION FOR EACH BETWEEN WATER, SEWER, AND RECYCLED

63. WATER MAINS: FOR A DESCRIPTION OF ALTERNATIVES, SEE WATER DEPARTMENT STANDARD DRAWING. ON-SITE SEPARATION REQUIRES RECYCLED PIPING TO BE FOUR FEET (4') AWAY FROM POTABLE PIPING WHEN PARALLEL AND ONE FOOT (1') LOWER THAN POTABLE WATER PIPING WITH A SLEEVE WHERE THEY CROSS.

64. ALLOWABLE WATERING WINDOW:
    IRRIGATION IS TO BE APPLIED AT NIGHT, BETWEEN THE HOURS OF 10:00 P.M. AND 6:00 A.M. ANY DAYTIME USE OF RECYCLED WATER (BETWEEN THE HOURS OF 6:00 A.M. AND 9:00 P.M.) IS TO BE UNDER DIRECT CONTROL AND OBSERVATION BY AN INDIVIDUAL FAMILIAR WITH THE CITY OF BRENTWOOD'S GUIDELINES FOR RECYCLED WATER USE WHICH IS AVAILABLE FROM THE CITY'S WATER DEPARTMENT.

PLANTING NOTES

1. NO PLANTING SHALL BE INSTALLED UNTIL:
    A. THE BACKFLOW PREVENTION DEVICE IS CERTIFIED BY A CITY APPROVED BACKFLOW INSPECTOR.
    B. A HYDROSTATIC PRESSURE TEST ON IRRIGATION MAINS AND LATERALS IS PERFORMED.
    C. IRRIGATION CONTROLLER SHALL BE FULLY OPERATIONAL AND CONNECTED TO FINAL ELECTRICAL SOURCE AND PHONE LINE OR OTHER COMMUNICATION AND SHALL BE ABLE TO COMMUNICATE WITH CENTRAL IRRIGATION COMPUTER.
    D. SOIL HAS BEEN AMENDED.
    E. 14-DAY WATERING PERIOD HAS BEEN COMPLETED.

2. ALL PLANTING SHALL CONFORM TO THE CITY OF BRENTWOOD STANDARDS. TREE SPECIES SHALL CONFORM TO THE CITY OF BRENTWOOD URBAN FOREST GUIDELINES.

3. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH PLANTING WORK AND UNDER THE SUPERVISION OF A QUALIFIED PLANT FOREMAN.

4. CONTRACTOR SHALL PROVIDE 1-YEAR GUARANTEE ON TREE AND SHRUBS FROM DATE OF ACCEPTANCE BY CITY COUNCIL.

5. CONTRACTOR SHALL INSPECT AND BE FAMILIAR WITH SITE CONDITIONS. ANY DISCREPANCIES WHICH EXIST BETWEEN OBSERVED SITE CONDITIONS AND THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.

6. PLANT MATERIAL LOCATIONS ARE DIAGRAMMATIC, UNLESS OTHERWISE NOTED, AND ARE SUBJECT TO CHANGE IN THE FIELD BY THE OWNER'S REPRESENTATIVE. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO MAKE SUBSTITUTIONS, ADDITIONS AND DELETIONS IN THE PLANTING SCHEME AFTER CONSULTING WITH THE LANDSCAPE ARCHITECT, AND IF APPROVED BY THE CITY OF BRENTWOOD, WHILE WORK IS IN PROGRESS.

7. CONTRACTOR SHALL PROVIDE A CITY APPROVED ROOT BARRIER FOR ALL TREES PLANTED WITHIN FIVE FEET (5') OF CURB OR PAVING, PER CITY OF BRENTWOOD DETAIL. INSTALL LINEAL PANELS PARALLEL AND ADJACENT TO EDGE OF PAVEMENT, 12' TOTAL LENGTH, 6' ON EITHER SIDE OF TREE. SEE CITY DETAIL L-3.

8. PLANTING AREAS SHALL BE EXCAVATED TO A MINIMUM DEPTH OF THREE FEET (3') OR DOWN TO NATIVE SOIL IN AREAS WHERE COMPACTION HAS PREVIOUSLY OCCURRED SUCH AS IN MEDIANS AND PARKING LOTS, ESPECIALLY IF ROAD BASE WAS INSTALLED IN THE PLANTING LOCATION. ALL ROAD BASE WILL BE REMOVED AT CONTRACTOR'S EXPENSE.

SOIL PREPARATION:

9. ALL CONSTRUCTION MATERIAL AND DEBRIS SHALL BE REMOVED PRIOR TO SOIL PREPARATION.

10. CITY SHALL COLLECT SOIL SAMPLES FROM POST-GRADED LANDSCAPE AREAS FOR ANALYSIS BY APPROVED TESTING LABORATORY. CONTRACTOR SHALL COORDINATE AND PAY FOR TESTS. SOIL SAMPLES SHALL BE TAKEN AT APPROXIMATELY SIX INCH (6") DEPTHS AS PER THE CITY OF BRENTWOOD.

11. SOIL TEST/RECOMMENDATION RESULTS IS AVAILABLE TO THE CONTRACTOR FOR REVIEW AND USE. THE CITY, LANDSCAPE ARCHITECT AND PROJECT HORTICULTURALIST SHALL PROVIDE A COPY.

12. A REVISED SOIL AMENDMENT AND PLANT PIT BACKFILL SPECIFICATION SHALL BE DEVELOPED BY THE CITY STAFF IN COOPERATION WITH LANDSCAPE ARCHITECT AND HORTICULTURIST BASED ON SOILS TEST. CONTRACT ADJUSTMENT MAY BE REQUIRED AS A RESULT OF SOILS TEST.

13. PLANT SPECIES LIST SHALL BE EVALUATED BY HORTICULTURIST IN TERMS OF APPROPRIATENESS TO THE SOILS TEST AND SHALL BE REVISED ACCORDINGLY TO LEVELS OF BORON OR SODIUM PRESENT IN THE SOILS.

14. SOIL AMENDMENTS SHALL MEET CITY STANDARDS AND SPECIFICATIONS, AND SHALL CONFORM TO THE RECOMMENDATIONS OF THE SOILS REPORT.

15. CONTRACTOR SHALL PAY FOR SUBSEQUENT POST-AMENDMENT SOIL TESTING AS DIRECTED BY THE CITY PRIOR TO PLANTING TO VERIFY COMPLIANCE OF RECOMMENDATIONS.

16. THE FOLLOWING RECOMMENDATIONS ARE FOR BID PURPOSES ONLY. CONTRACTOR SHALL FOLLOW RECOMMENDATIONS OF SOIL TESTING LAB.
    FOR ALL PLANTING AREAS:
    1. TILL SOIL THOROUGHLY TO 8" DEPTH.
    2. INCORPORATE THE FOLLOWING MATERIAL INTO SOIL PER 1000 SQ. FT.
        - SIX CUBIC YARDS NITROGEN FORTIFIED ORGANIC AMENDMENT

17. SPECIFICATIONS AND SAMPLE OF NITROGEN FORTIFIED ORGANIC AMENDMENT SHALL BE SUBMITTED TO CITY FOR APPROVAL PRIOR TO USE.

18. AMENDMENTS SHALL BE ADDED WHEN GRADING IS AT PLUS OR MINUS 1/10 FOOT OF FINISH GRADE.

19. CITY SHALL BE NOTIFIED 3 DAYS PRIOR TO AMENDING OR FERTILIZING PLANTING AREAS FOR INSPECTION DURING WORK.

FOR TREES AND SHRUBS:

20. ALL TREES PLANTING HOLES SHALL BE SCARIFIED ON SIDES AND BOTTOM TO REMOVE AND GLAZING.

21. DRAIN TUBES, AS PER CITY OF BRENTWOOD STANDARD DETAIL L-1, MAY NOT BE NECESSARY. CONSULT SOILS REPORT FOR SUITABILITY OF SOIL.

22. NO PLANTING OR HARDSCAPE WILL BE INSTALLED UNTIL GRADE IS CERTIFIED TO BE WITHIN PLUS OR MINUS 1/10 FOOT OF FINISH GRADE. FINISH GRADE WILL BE CERTIFIED AT CONTRACTOR'S EXPENSE.

23. FOR 24-INCH BOX AND LARGER MATERIAL, PLANT PIT BACKFILL TO BE PLACED AROUND THE SIDES OF THE ROOTBALL BELOW A ONE FOOT (1') DEPTH SHOULD NOT CONTAIN THE ORGANIC AMENDMENT BUT SHOULD BE NUTRITIONALLY IMPROVED BY BLENDING 2 POUNDS GYPSUM PER CUBIC YARD OF PULVERIZED SITE SOIL.

24. SOIL AMENDED ON THE SITE OR THE FOLLOWING BACKFILL MIX IS RECOMMENDED FOR PLACEMENT AS THE TOP 12 INCHES (12") OF BACKFILL AROUND THE SIDES OF THE ROOTBALL FOR CONTAINER GROWN PLANTS:
    - 2 PARTS PULVERIZED SITE SOIL
    - 1 PART ORGANIC AMENDMENT
    - 2 POUNDS GYPSUM PER CUBIC YARD OF BACKFILL MIX

25. ALL PLANT MATERIAL TO BE INSPECTED BY CITY PRIOR TO INSTALLATION. NOTIFY CITY TWO (2) WORKING DAYS PRIOR TO INSPECTIONT.

26. CITY HAS THE RIGHT TO REJECT PLANT MATERIAL IF IT DOES NOT MEET MINIMUM PLANT SIZE REQUIREMENTS. ALL PLANT MATERIAL MUST BE IN HEALTHY CONDITION AND WITHOUT KINKED, GIRDLED OR ENCIRCLING ROOTS.

27. APPLY PRE-EMERGENT HERBICIDE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO ALL GROUNDCOVER AND NON-PLANTED AREAS PRIOR TO SAND AND BARK INSTALLATIONS. CONTACT CITY 24 HOURS PRIOR TO APPLICATION. AREAS SHALL BE WATERED-IN IMMEDIATELY AFTER APPLICATION.

28. FERTILIZER TABLETS SHALL BE BEST PAKS (20-10-5) TABLETS INSTALLED AT MANUFACTURER'S RECOMMENDED RATES UNDER ALL TREES AND SHRUBS.

29. FERTILIZER SHALL BE CITY APPROVED PRODUCT, AT A RECOMMENDED RATE BASED ON SOILS ANALYSIS.

30. REFER TO CITY OF BRENTWOOD STANDARD DETAILS L-1, L-2, L-4 FOR TREE AND SHRUB PLANTING AND GROUNDCOVER SPACING. LODGE POLES WITH FOUR TIES SHALL BE USED ON ALL PARK PROJECTS.

31. STREET TREE PLANTING SHALL NOT INTERFERE WITH CITY OF BRENTWOOD REQUIRED LINE OF SIGHTS. REFER TO CITY OF BRENTWOOD STANDARD DETAIL ST-11 FOR NECESSARY CLEARANCES.

32. MINIMUM CONTAINER PLANT SIZE:
    1 GALLON SHRUB: 1' HEIGHT X 1' DIAMETER
    5 GALLON SHRUB: 1-1/2' HEIGHT X 1-1/2' DIAMETER
    15 GALLON TREE: 6' HEIGHT X 4' CROWN DIAMETER
    24" BOX TREES: 8' HEIGHT X 5' CROWN DIAMETER

33. FOR TREES WITH SELF-SUPPORTING CENTRAL LEADERS, REMOVE NURSERY STAKES AT TIME OF PLANTING. FOR TREES WITHOUT SELF-SUPPORTING CENTRAL LEADERS OR FLOPPY CROWNS, RETAIN NURSERY STAKE FOR A 3 MONTH PERIOD OR AT THE END OF THE MAINTENANCE PERIOD, WHICHEVER IS SHORTER.

34. MULCH PLANTING AREAS WITH A 3" LAYER OF 1/2"-3/4" DIAMETER "WALK-ON" TYPE FIR BARK MULCH. DO NOT ALLOW BARK MULCH TO COME WITHIN 2" OF THE PLANT'S PARENT TRUNK. TREE WEL

SUBMITTALS/RECORD PLANS/REDLINES

1. THE CONTRACTOR SHALL MAINTAIN IN GOOD ORDER IN THE FIELD OFFICE, ONE (1) COMPLETE SET OF ALL PLANS INCLUDED IN THIS CONTRACT. WHEN ANY WORK IS NOT INSTALLED AS INDICATED ON THE PLANS OR IN THE SPECIFICATIONS, SUCH WORK SHALL BE INDICATED AND DIMENSIONED ACCURATELY ON THESE REDLINE (AS-BUILT) DRAWINGS.

2. THESE PLANS SHALL ALSO SERVE AS WORK PROGRESS SHEETS. THE CONTRACTOR SHALL MAKE NEAT, LEGIBLE ANNOTATION THEREON DAILY AS THE WORK PROCEEDS, SHOWING THE WORK, INCLUDING THE EXACT LOCATIONS, SIZES, AND KINDS OF EQUIPMENT AS ACTUALLY INSTALLED. THESE PLANS SHALL BE AVAILABLE AT ALL TIMES FOR THE INSPECTION BY THE CITY.

3. ON OR BEFORE THE DATE OF THE PRE-MAINTENANCE FINAL INSPECTION, THE CONTRACTOR SHALL DELIVER TO THE CITY, A CORRECTED, NEATLY DRAFTED, COMPLETE SET OF THESE REDLINE DRAWINGS. THESE PLANS SHALL BE FIRST SUBMITTED TO THE CITY AT FULL SIZE. THE CITY REPRESENTATIVE WILL REVIEW THE PLANS, MAKE ANNOTATIONS IF NECESSARY, AND RETURN TO THE CONTRACTOR.

4. TWO (2) SETS OF SUBMITTALS IN INDIVIDUAL THREE-RING BINDERS SHALL BE GIVEN TO THE CITY BY THE PRE-CONSTRUCTION MEETING.

PARKING LOTS/PATHWAYS/TRAILS/SIGNAGE

GENERAL:

1. FOR PURPOSES OF GEOMETRIC AND STRUCTURAL DESIGN, STREETS SHALL BE CLASSIFIED ACCORDING TO THE CITY OF BRENTWOOD GENERAL PLAN. ANY DEVIATION FROM THE STANDARD SHALL REQUIRE THE APPROVAL OF THE CITY ENGINEER.

   STREET SECTIONS SHALL BE CALCULATED BASED ON "R" VALUES OBTAINED FROM MATERIAL GATHERED FROM THE LEVEL OF THE PROPOSED SUBGRADE USING THE STATE OF CALIFORNIA DIVISION OF HIGHWAYS DESIGN METHOD. IF SUBGRADE HAS AN "R" VALUE OF 10 OR LESS, GEOGRID SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION ON SUBGRADE PRIOR TO PLACEMENT OF AB MATERIAL.

   NO STRUCTURAL ALLOWANCE WILL BE MADE FOR THE GEOGRID. THE MINIMUM STREET SECTION SHALL NOT BE LESS THAN FOUR INCHES (4") OF ASPHALT CONCRETE AND EIGHT INCHES (8") OF AGGREGATE BASE. AGGREGATE BASE AND SUBBASE SHALL CONFORM TO THE STATE STANDARD SPECIFICATIONS, SECTIONS 25 AND 26. THE USE OF "SIERRACRETE" MANUFACTURED BY DUPONT IS NOT PERMITTED.

   PRIVATE STREETS, PARKING LOTS, AND COMMERCIAL DEVELOPMENTS SHALL USE LOCAL RESIDENTIAL REQUIREMENTS AS A MINIMUM. OFF-STREET PARKING SHALL BE PROVIDED, DESIGNED, AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL ORDINANCE AND AS REQUIRED BY THE CITY ENGINEER.

   DEVELOPERS TO PROVIDE AND INSTALL STANDARD CITY PARK NAME SIGNS AS PER CITY DETAIL. COLOR FOR PARK SIGN CONCRETE FOOTING SHALL MATCH PARK SIGN.

PAVING:

2. PAVING FOR PARKS AND TRAILS SHALL BE CONCRETE, UNLESS OTHERWISE APPROVED BY THE CITY OF BRENTWOOD.

3. MAIN ACCESS PATH SHALL BE A TEN-FOOT (10') WIDTH PAVING, SIX INCHES (6") THICK CONCRETE WITH #4 REBAR AT 24" O.C. AND 1-1/2 LBS. OF FIBER MESH PER CUBIC YARD ON 6" COMPACTED AGGREGATE PER CITY SPECIFICATIONS.

4. TURF PAVERS SHALL BE TUFFTRACK GRASS PAVERS BY NDS OR APPROVED EQUAL.

5. PROVIDE A 24" WIDE CONCRETE MOWBAND AT THE BASE OF A FENCE. PROVIDE A 12" WIDE MOWBAND ALONG ALL TURF INTERFACE AREAS.

6. SEPARATE CITY LANDSCAPE AREAS ADJACENT TO PRIVATE OR COMMERCIALLY OWNED LANDSCPAPE WITH A 12" WIDE CONCRETE MOWBAND.

CLOSE OUT AND SIGN-OFF CHECKLIST

CIP PROJECT:_____DATE:_____

All items on this list must be provided to the City Inspector prior to the start of the 90 day plant establishment appointment.

Received	Not Applicable	Documentation:
☐	☑	One complete set of 4mm mylar landscape as-built or record drawings, with architect's signature and date.
☐	☐	Three full sets of as-built landscaping and irrigation plans, that reflect as-built conditions, noted plant substitutions, plant relocation, irrigation main, and lateral and sprinkler head locations, and show actual flow rates for each controller zone, and actual pressure must be submitted.
☐	☐	Two sets of irrigation plans, reduced to (11x17), showing color-coded and numbered irrigation circuits. One set to be plastic laminated.
☐	☐	Installation of irrigation controllers shall be certified by the manufacturer's representative to be fully operational, including telemetry line. Controller manual and signed certificate shall be turned in to the City Inspector.
☐	☐	Two copies of current backflow certification report. Include meter size, serial number, transponder number, and location.
☐	☐	Copy of Bac-t test for drinking fountains.
☐	☐	Two sets of instruction manuals for operation and maintenance of all equipment items.
☐	☐	Two sets of parts manuals showing views for each piece of equipment. Manuals should include applicable parts catalog numbers.
☐	☐	Written manufacturer's warranty statement for all components.
☐	☐	Booster Pump Certification by manufacturer representative.
☐	☐	A copy of Playground Installation Certification must be submitted to the City Inspector certifying that all equipment meets current ASTM Standards. Certification shall be by a current Certified Playground Safety Inspector, after installation of playground equipment.
☐	☐	A maintenance kit for the playground equipment.
☐	☐	Provide the City of Brentwood with a written record of the type of chemical used for pre-emergent applications with amounts applied and dates of application.
☐	☐	Two copies of asset inventory of irrigation, plants, trees, and square footage for turf and planter area (form attached).
☐	☐	Two copies of final inspection of electric meter pedestal from building inspector. Meter number for electrical meter. Also, two copies each of utility bills for water, power, & phones.
☐	☑	CD with Auto-Cad files of all sheets.
☐	☐	Tree database - GPS locations of all trees planted on project and all fields entered per City of Brentwood format.
☐	☐	Water audit performed by a certified irrigation water auditor verifying compliance of uniformity and distribution in accordance with (MWELO) Model Water Efficient Landscape Ordinance.
		Equipment:
☐	☐	Two quick coupler top cap lock keys.
☐	☐	Two quick coupler keys with hose swivels.
☐	☐	Two sets of special tools for each piece of equipment (if needed).
☐	☐	Any other equipment noted on plans.
☐	☐	One value key for 2" square nut.
☐	☐	Two sets of keys for all enclosures.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE MOST CURRENT CITY OF BRENTWOOD STANDARD PLANS AND SPECIFICATIONS. IN CASE OF A CONFLICT BETWEEN THE CITY OF BRENTWOOD STANDARD PLANS AND SPECIFICATIONS AND THE PLANS AND SPECIFICATIONS SHOWN HERE, THE MORE STRINGENT PLANS SHALL GOVERN.

2. AN ENCROACHMENT PERMIT SHALL BE OBTAINED FROM THE CITY OF BRENTWOOD FOR ANY WORK TO BE PERFORMED WITHIN THE PUBLIC RIGHT-OF-WAY. (NOTE ALL OTHER PERMIT REQUIREMENTS FROM ANY OTHER AFFECTED AGENCIES.)

3. APPROVAL OF THESE PUBLIC IMPROVEMENTS PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.

4. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS.

   HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY WHETHER OR NOT IT IS SHOWN HEREON, AND IS RESPONSIBLE FOR CORRECTING ANY DAMAGE TO SAID FACILITIES.

5. LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (800-227-2600) TO OBTAIN A U.S.A. IDENTIFICATION NUMBER AND HAVE EXISTING UTILITIES LOCATED.

   CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO ACTUAL LOCATION OF EXISTING UTILITIES.

6. "CITY ENGINEER" SHALL MEAN THE CITY ENGINEER OR HIS/HER AUTHORIZED AGENT ACTING WITHIN THE SCOPE OF HIS/HER AUTHORITY.

7. THE CONTRACTOR/DEVELOPER SHALL TELEPHONE THE CITY OF BRENTWOOD BUILDING DEPARTMENT, 925-516-5405, AT LEAST TWO (2) WORKING DAYS PRIOR TO STARTING CONSTRUCTION WORK.

8. THE CONTRACTOR/DEVELOPER SHALL CALL 925-516-5405 TO SCHEDULE A PRECONSTRUCTION CONFERENCE AT THE JOB SITE WITH THE CITY, DEVELOPER, SUBCONTRACTOR AND OTHER AFFECTED AGENCIES AT LEAST TWO (2) WORKING DAYS PRIOR TO STARTING ANY CONSTRUCTION WORK.

9. TRAFFIC CONTROL SHALL BE PROVIDED IN CONFORMANCE WITH THE LATEST EDITION OF THE "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" ISSUED BY THE STATE OF CALIFORNIA, DEPARTMENT TRANSPORTATION AND AS REQUIRED BY THE CITY ENGINEER AND APPROVED BY THE CITY ENGINEER.

10. IF ANY CULTURAL FEATURES OR ARCHEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING, OR OTHER EXCAVATION WORK, ALL WORK WITHIN ONE HUNDRED FEET (100') OF THESE MATERIALS SHALL BE STOPPED UNTIL A PROFESSIONAL ARCHAEOLOGIST CERTIFIED BY THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SOPA) AND/OR THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SCA) HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE FIND AND APPROPRIATE MITIGATION MEASURES ARE DETERMINED AND IMPLEMENTED.

11. REGULAR HOURS OF WORK WILL BE LIMITED TO 7:00 A.M. TO 3:30 P.M., MONDAY THROUGH FRIDAY. THE OWNER OR DEVELOPER MUST SUBMIT A WRITTEN REQUEST FOR APPROVAL BY THE CITY ENGINEER AT LEAST TWO (2) WORKING DAYS IN ADVANCE TO WORK DURING ANY OTHER HOURS, WEEKENDS, OR HOLIDAYS.

    THE FOLLOWING SPECIAL HOURS OF WORK WILL BE ENFORCED FROM MONDAY THROUGH FRIDAY:

    A. WORK AFFECTING TRAFFIC ON BALFOUR ROAD, BRENTWOOD BOULEVARD, FAIRVIEW AVENUE, LONE TREE WAY, SAND CREEK ROAD, CENTRAL BOULEVARD OR WALNUT BOULEVARD WILL BE LIMITED TO 8:30 A.M. TO 2:30 P.M.

    B. WORK ADJACENT TO OR WITHIN FIFTEEN HUNDRED FEET (1500') OF ANY SCHOOL WHILE THE SCHOOL IS IN SESSION WILL BE LIMITED TO 8:30 A.M. TO 2:30 P.M.

    C. WORK WITHIN THREE HUNDRED FEET (300') OF OCCUPIED RESIDENTIAL UNITS AND NOT AFFECTING BALFOUR ROAD, BRENTWOOD BOULEVARD, FAIRVIEW AVENUE, LONE TREE WAY OR WALNUT BOULEVARD SOUTH OF BALFOUR ROAD WILL BE LIMITED TO 8:30 A.M. TO 4:30 P.M.

    D. WORK IN EXCESS OF THREE HUNDRED FEET (300') FROM OCCUPIED RESIDENTIAL UNITS AND NOT AFFECTING BALFOUR ROAD, BRENTWOOD BOULEVARD, FAIRVIEW AVENUE, LONE TREE WAY OR WALNUT BOULEVARD SOUTH OF BALFOUR ROAD, WILL BE LIMITED TO 7:00 A.M. TO 5:00 P.M.

    E. ALL SATURDAY WORK SHALL BE RESTRICTED TO 9:00 A.M. TO 5:00 P.M.

12. CONTRACTOR'S OPERATIONS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE STATE OF CALIFORNIA CONSTRUCTION SAFETY ORDERS PERTAINING TO TRENCHES AND EXCAVATIONS.

13. CONTRACTOR SHALL PROVIDE AT LEAST TWO (2) WORKING DAYS ADVANCE NOTICE TO THE CITY ENGINEER PRIOR TO CONNECTING TO EXISTING WATER FACILITIES. THE MANIPULATION OF EXISTING VALVES SHALL BE DONE UNDER THE DIRECTION OF THE CITY WATER DIVISION PERSONNEL.

14. THE INSTALLATION OF EROSION CONTROL FACILITIES AND MEASURES IS NECESSARY AT ALL TIMES. (EROSION CONTROL PLAN SHALL BE APPROVED BY THE CITY ENGINEER.)

15. MAILBOXES SHALL BE INSTALLED IN LOCATIONS APPROVED BY THE LOCAL POSTMASTER AND PER CITY OF BRENTWOOD STANDARD PLANS.

16. ALL DRIVEWAY LOCATIONS AND WIDTHS ARE APPROVED BASED ON THE INFORMATION PROVIDED BY THE DEVELOPER/OWNER. IF THERE IS A REQUIRED CHANGE IN THE FLOOR PLAN, THE DEVELOPER/OWNER SHALL WIDEN OR RELOCATE THE DRIVEWAY SOLELY AT HIS/HER OWN COST.

17. IF DRIVEWAY DEPRESSIONS ARE MADE IN ANY CURB, DRIVEWAY APPROACHES ARE THEN CONSIDERED TO BE PART OF THE IMPROVEMENT PLAN AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF BRENTWOOD STANDARD PLANS.

18. MONUMENTS ARE TO BE SET AS SHOWN ON THE PLANS AND PER THE REQUIREMENTS OF THE SUBDIVISION MAP ACT, LAND SURVEYORS ACT, AND THE CITY SUBDIVISION ORDINANCE AND SHALL BE IN ACCORDANCE WITH THE RULES AND PROCEDURES APPROVED BY THE COUNTY SURVEYOR.

    ALL LOT CORNERS AND TRACT BOUNDARIES SHALL BE LOCATED AND MONUMENTED IN ACCORDANCE WITH THE RECORDED TRACT MAP. THE PROJECT CIVIL ENGINEER SHALL SUBMIT A WRITTEN CERTIFICATION TO THE CITY ENGINEER.

19. TREES SHALL NOT BE PLANTED WITHIN THE CITY OF BRENTWOOD RIGHT-OF-WAY UNLESS A PERMIT HAS BEEN OBTAINED FROM THE PARKS AND RECREATION DEPARTMENT, OR IF THE TRESS ARE PLANTED IN ACCORDANCE WITH A LANDSCAPE PLAN APPROVED BY THE CITY ENGINEER AND THE PARKS AND RECREATION DIRECTOR.

20. JOINTS BETWEEN NEW PAVEMENT AND EXISTING PAVEMENT SHALL BE MADE BY SAW-CUTTING EXISTING PAVEMENT TO EFFECT A NEAT BUTT JOINT AS DEPICTED ON THE CITY STANDARD PLANS. FEATHERING NEW ASPHALT PAVING OVER EXISTING PAVEMENT IS NOT ALLOWED.

21. THE CONTRACTOR SHALL NOTIFY THE CONTRA COSTA FLOOD CONTROL DISTRICT AND EAST CONTRA COSTA IRRIGATION DISTRICT PRIOR TO STARTING WORK NEAR DISTRICT'S FACILITIES AND SHALL COORDINATE ALL WORK WITH DISTRICT'S REPRESENTATIVES.

22. LOCATION AND HEIGHT OF ALL RETAINING WALLS SHALL BE SHOWN ON THESE PLANS. RETAINING WALLS HIGHER THAN ONE FOOT (1') SHALL BE STRUCTURALLY DESIGNED AND APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION (SEE STANDARD PLANS G-3A, G-3B, G-4A AND G-4B FOR DETAILS).

23. IT SHALL BE THE RESPONSIBILITY OF THE APPLICANT/ENGINEER TO CONTACT THE VARIOUS UTILITY AGENCIES, ADVISE THE AGENCIES OF THE PROPOSED IMPROVEMENTS, AND PAY FOR THE COST OF RELOCATION, IF NEEDED.

24. NO FINAL PAVING SHALL BE DONE UNTIL EXISTING POWER POLES AND OTHER EXISTING FACILITIES, ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.

25. SUBGRADE FOR ALL STREET, CURB AND GUTTER, AND CONCRETE FLATWORK SHALL BE COMPACTED TO NINETY-FIVE PERCENT (95%) RELATIVE COMPACTION.

26. ALL UNDERGROUND UTILITIES SHALL BE CONSTRUCTED PRIOR TO THE PLACEMENT OF BASEROCK UNLESS APPROVED BY THE CITY ENGINEER.

27. ALL PAVEMENT MARKINGS IN THE PUBLIC RIGHT-OF-WAY SHALL BE THERMOPLASTIC UNLESS SPECIFICALLY CALLED OUT AS PAINT. NO PERMANENT MARKINGS SHALL BE PLACED UNTIL THE CITY TRAFFIC ENGINEER, CITY ENGINEER OR HIS/HER REPRESENTATIVE APPROVES CAT TRACKING IN THE FILL.

28. BLUE REFLECTIVE PAVEMENT MARKERS SHALL BE INSTALLED AT EACH FIRE HYDRANT LOCATION AS SHOWN ON THE CITY OF BRENTWOOD STANDARD PLANS.

29. ALL TRAFFIC SIGNS AND STREET NAME SIGNS SHALL BE HIGHLY REFLECTIVE GRADE MATERIALS.

30. THE IMPROVEMENT PLANS SHALL REFLECT THAT ALL ON-SITE/OFF-SITE STORM DRAIN INLETS SHALL BE "NO DUMPING DRAINS TO CREEK" STENCILED, USING A TWO-STEP THERMOPLASTIC ON THE FACE OF THE CURB ADJACENT TO THE INLET.

    THE PROJECT PLANS SHALL ALSO INCLUDE EROSION CONTROL MEASURES TO PREVENT SOIL, DIRT AND DEBRIS FROM ENTERING THE STORM DRAIN SYSTEM, IN ACCORDANCE WITH THE REGULATIONS OUTLINED IN THE ASSOCIATION OF BAY AREA GOVERNMENTS (ABAG) EROSION AND SEDIMENT CONTROL HANDBOOK.

31. PRIOR TO THE PLACEMENT OF CONCRETE THE CITY ENGINEER MUST APPROVE FORMS FOR CURBS, GUTTERS AND SIDEWALKS.

32. ALL STORM DRAIN STRUCTURES SHALL BE CONSTRUCTED TO CITY OF BRENTWOOD STANDARDS (WITH WEEP HOLES AT SUBGRADE ELEVATION) UNLESS OTHERWISE NOTED.

33. THE CONTRACTOR SHALL REVIEW THE CURRENT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PROVIDED BY THE OWNER. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY FOR CONDUCTING HIS/HER OPERATIONS IN ADHERENCE TO THE SWPPP. THE CONTRACTOR IS RESPONSIBLE FOR ANY FINES, DELAYS, AND/OR DAMAGE RESULTING FROM ANY STATE WATER QUALITY CONTROL BOARD SANCTIONS CAUSED BY THE OPERATION OF THE CONTRACTOR OR HIS/HER SUBCONTRACTORS.

34. MINIMUM SERVICE LINE SIZES TO DRINKING FOUNTAINS SHALL BE ONE INCH (1"). SERVICE LINES IN SIZES UP TO AND INCLUDING TWO INCHES (2") SHALL BE TYPE K SOFT COPPER TUBING. ZINC ANODES SHALL BE PROVIDED AND INSTALLED AT THE LOCATIONS SHOWN ON THE CITY OF BRENTWOOD STANDARD PLANS.

35. COVER REQUIREMENTS: WATER MAINS AND SERVICES SHALL BE INSTALLED AT A DEPTH WHICH WILL PROVIDE A MINIMUM OF THIRTY-SIX INCHES (36") COVER FROM THE TOP OF THE PIPE TO THE SUBGRADE. IN CASE OF UTILITY CONFLICT IN WHICH THE WATER MAIN IS REQUIRED TO GO OVER ANOTHER UTILITY, CITY STANDARD PLAN W-14, "CONCRETE CAP OVER WATER MAIN," APPLIES.

GRADING AND DRAINAGE NOTES

1. THE CONTRACTOR SHALL BRING GRADES TO WITHIN ONE-TENTH OF ONE FOOT (0.1') OF FINAL GRADES AND OBTAIN GRADE CERTIFICATION PRIOR TO PLACEMENT OF ANY HARDSCAPE, IRRIGATION PIPING, STORM DRAIN PIPING OR PLANTING. CERTIFICATION LETTER SHALL BE SUBMITTED TO CITY INSPECTOR.

2. GRADING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT AND SUPPLEMENTED BY THE SPECIFIC GEOTECHNICAL RECOMMENDATIONS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM THE GROUND ELEVATIONS AND OVERALL TOPOGRAPHY OF THE SITE PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IN WRITING IMMEDIATELY OF ANY DIFFERENCES IN TOPOGRAPHY FROM THAT SHOWN ON THIS PLAN WHICH MAY REQUIRE CHANGES IN DESIGN AND/OR EFFECT THE EARTHWORK QUANTITY.

4. CUT/FILL BALANCE: IF THE SITE GRADING GENERATES EXCESS MATERIAL, CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR POSSIBLE ONSITE ADJUSTMENT OF GRADE. IF GRADES CANNOT BE ADJUSTED ONSITE, EXCESS MATERIALS SHALL BE DISPOSED OF OFFSITE AT THE CONTRACTOR'S EXPENSE. ALL GRADE ADJUSTMENTS SHALL BE APPROVED BY CITY ENGINEER.
   IF THE SITE REQUIRES EXCESS FILL MATERIAL, THE OWNER SHALL FURNISH FILL MATERIAL AS REQUIRED FOR THE SITE. THE CONTRACTOR SHALL SPREAD THE MATERIAL AS NECESSARY TO ACHIEVE THE LINES AND GRADES SHOWN ON THE DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.

5. ACCEPTABLE MATERIAL: MATERIAL ACCEPTABLE FOR USE IN FILLS, EMBANKMENTS, BACKFILL, OR OTHER USES AS DIRECTED SHALL BE SUITABLE FOR COMPACTION, HAVE NO CEMENTED LUMPS AND/OR ROCKS LARGER THAN 3 INCHES (3") IN GREATEST DIMENSION. ALL FILL MATERIAL SHALL BE SUBJECT TO 'COMPLETE ANALYSIS' TESTING FOR UNACCEPTABLE COMPONENTS SUCH AS HEAVY METAL, HERBICIDES, NITRATES, BORON, HYDROCARBONS, ETC. PH RANGE TO BE BETWEEN 6.5 – 7.5.
   IT SHALL BE FREE OF TOPSOIL, ORGANIC AND OTHER DELETERIOUS SUBSTANCES WHICH MIGHT BE HARMFUL TO PLANT GROWTH. SEE PLANTING NOTES FOR ADDITIONAL REQUIREMENTS FOR IMPORT SOIL WITHIN THE ROOT AREA OF LANDSCAPE PLANTING.

6. FOR PUBLICLY MAINTAINED PIPES THE MINIMUM PIPE SLOPE FOR ANY STORM DRAINPIPE SHALL BE 0.2%. MINIMUM DEPTHS SHALL BE TWO FEET (2') BELOW STREET SUBGRADE. MAXIMUM MANHOLE SPACING SHALL BE THREE HUNDRED FEET (300'). THE CITY ENGINEER SHALL APPROVE ANY DEVIATION FROM THESE MINIMUM ALLOWED CRITERIA.

7. ALLOWABLE SEWER PIPE MATERIALS: ONLY VITRIFIED CLAY, SDR 35, AND DUCTILE IRON PIPE WILL BE ALLOWED. REFER TO SECTION 71, "SEWERS," AND SECTION 76, "STORM DRAIN FACILITIES," OF THE STANDARD PLANS AND SPECIFICATIONS.

8. PREPARATION: FOR AREAS TO RECEIVE FILL, ALL LOOSE SURFACE SOILS, EXISTING FILL AND VEGETATION SHOULD BE STRIPPED TO EXPOSE COMPACTED SUBGRADE.

9. ALL EXPLORATORY TRENCHES AND PITS SHALL BE EXCAVATED AND RECOMPACTED, UNDER THE TESTING AND OBSERVATION OF THE GEOTECHNICAL ENGINEER.

10. TRENCH BACKFILL: TRENCH BACKFILL SHALL COMPLY WITH THE REQUIREMENTS OF THE GEOTECHNICAL ENGINEER. PIPE ZONE BACKFILL (MATERIAL BENEATH AND IMMEDIATELY SURROUNDING PIPE) SHALL CONSIST OF A WELL-GRADED IMPORT OR NATIVE MATERIAL LESS THAN THREE-QUARTER INCH (3/4") MAXIMUM DIMENSION COMPACTED IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED FOR FILL COMPACTION.

    TRENCH ZONE BACKFILL (MATERIAL PLACED BETWEEN THE PIPE ZONE BACKFILL AND THE GROUND SURFACE) SHALL CONSIST OF NATIVE SOIL COMPACTED IN ACCORDANCE WITH RECOMMENDATIONS FOR FILL COMPACTION. WHERE IMPORT MATERIAL IS USED FOR PIPE ZONE BACKFILL, IT SHALL CONSIST OF FINE TO MEDIUM GRAINED SAND OR WELL GRADED SAND AND GRAVEL AND THIS MATERIAL SHALL NOT BE USED WITHIN TWO FEET (2') OF FINISH GRADE.

    UNIFORMLY GRADED GRAVEL SHOULD NOT BE USED FOR PIPE OR TRENCH ZONE BACKFILL. UTILITY TRENCHES ENTERING PAVED AREAS MUST BE PROVIDED WITH AN IMPERVIOUS SEAL CONSISTING OF NATIVE MATERIALS OR CONCRETE WHERE THE TRENCHES PASS UNDER PAVEMENT, EXTENDING AT LEAST THREE FEET (3') EITHER SIDE OF THE CROSSING.

11. GRADES, LINES AND LEVELS: ALL ELEVATIONS SHOWN ON THE DRAWINGS ARE FINISH GRADE UNLESS OTHERWISE NOTED. GRADES NOT OTHERWISE INDICATED SHALL BE UNIFORM LEVELS OR SLOPES BETWEEN TOP AND TOE OF SLOPES. FINISH GRADE SHALL BE A SMOOTH, EVEN AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE. ADJUSTMENTS OF FINISH GRADES SHALL BE MADE AT THE DIRECTION OF THE CITY INSPECTOR IF REQUIRED.

12. SURFACE DRAINAGE SHALL BE DIRECTED AS INDICATED ON THE DRAWINGS AND SHALL DIRECT WATER TO STREET CURBS, SWALES, OR EXISTING DRAINAGE STRUCTURES. SURFACES SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER AND SHALL CONFORM TO THE INTENT OF THE DRAWINGS AFTER THOROUGH SETTLEMENT AND COMPACTION OF THE SOILS.

    LOW SPOTS AND POCKETS SHALL BE GRADED TO DRAIN PROPERLY. SLOPES SHALL BE AS FOLLOWS, UNLESS OTHERWISE SHOWN ON THE PLANS:
    PAVEMENT - 1.5% MINIMUM, 4.9% MAXIMUM
    PLANTING AREAS - 2% MINIMUM, 2:1 MAXIMUM

13. THE OWNER SHALL BE RESPONSIBLE FOR LOCATING CONTROL POINTS AND BENCH MARKS. THE CONTRACTOR SHALL ESTABLISH ANY CONSTRUCTION STAKES NECESSARY TO ESTABLISH ALL LINES AND GRADES REQUIRED FOR THE COMPLETE LAYOUT AND EXECUTION OF THE WORK. SURVEYING SHALL BE PERFORMED USING A LASER TRANSIT OR METHOD APPROVED BY CITY REPRESENTATIVE. ALL BENCH MARKS, MONUMENTS, AND OTHER REFERENCE POINTS SHALL BE CAREFULLY MAINTAINED AND PROTECTED.

14. ALL ABANDONED UNDERGROUND PIPELINES EXPOSED DURING GRADING SHALL BE REMOVED FROM PROPOSED RIGHT-OF-WAY, BUILDING SITES AND PARK SITES AND SHALL BE BACKFILLED AND PROPERLY COMPACT THESE AREAS TO THE APPROVAL OF THE CITY ENGINEER.

15. PROTECTION OF PERSONS AND PROPERTY: BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND POST WITH WARNING LIGHTS. PROTECT EXISTING STRUCTURES, UTILITIES, PAVEMENT FENCES, PLANTING, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT AND OTHER HAZARDS CREATED BY GRADING OPERATIONS.

16. EXCAVATIONS: ALL EXCAVATIONS SHALL BE MADE TRUE TO THE GRADES AND ELEVATIONS SHOWN ON THE PLANS. THE EXCAVATED SURFACES SHALL BE PROPERLY GRADED TO PROVIDE GOOD DRAINAGE DURING CONSTRUCTION.

17. STABILITY OF EXCAVATIONS: SEE CONSTRUCTION NOTES.

18. DEWATERING: PREVENT SURFACE WATER AND SUBSURFACE OR GROUND WATER FROM FLOWING INTO EXCAVATIONS OR TRENCHES AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. ESTABLISH TEMPORARY DRAINAGE DITCHES AS REQUIRED.

19. MATERIAL STORAGE: STOCKPILE SATISFACTORY EXCAVATED MATERIALS UNTIL REQUIRED FOR BACKFILL OR FILL. PLACE, GRADE AND SHAPE STOCKPILES FOR PROPER DRAINAGE AND TO PREVENT EROSION. COVER AS NECESSARY TO PREVENT DUST. STOCKPILED MATERIALS ARE NOT TO EXCEED SIX FEET (6') IN HEIGHT AND SHALL BE A MINIMUM OF FIFTY FEET (50') FROM ANY BASIN INLET.

20. GRADE CERTIFICATION: OWNER/CONTRACTOR WILL OBTAIN GRADE CERTIFICATION FROM SUPERVISOR/ENGINEER FOR ALL HARDSCAPE. IMPROVEMENTS PRIOR TO CONSTRUCTION/PLACEMENT OF HARD SURFACES.

21. SCARIFICATION: PRIOR TO FINISH GRADING, ALL LANDSCAPE AREAS SHALL BE RIPPED AND SCARIFIED TO A MINIMUM TEN INCH (10") DEPTH IN FOUR DIRECTIONS, USING TRACK LAYING OR RUBBER TIRED VEHICLES EQUIPPED WITH SUITABLE RIPPING TEETH SPACED NOT MORE THAN 15 INCHES (15") APART ACROSS THE FULL WIDTH OF THE WHEEL BASE.

22. MAINTENANCE: PROTECT NEWLY GRADED AREAS FROM TRAFFIC AND EROSION. KEEP FREE OF TRASH AND DEBRIS. REPAIR AND RE-ESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS. WHERE SETTLING IS MEASURABLE OR OBSERVABLE AT EXCAVATED AREAS DURING GENERAL PROJECT WARRANTY PERIOD, REMOVE SURFACE (PAVEMENT, LAWN OR OTHER FINISH), ADD BACKFILL MATERIAL, COMPACT AND REPLACE SURFACE TREATMENT.

    RESTORE APPEARANCE, QUALITY AND CONDITION OF SURFACE OR FINISHES TO MATCH ADJACENT WORK AND ELIMINATE EVIDENCE OF RESTORATION TO GREATEST EXTENT POSSIBLE.

23. CLEANUP: THE CONTRACTOR SHALL DISPOSE OF UNACCEPTABLE SOIL AND EXCAVATED MATERIAL, TRASH AND DEBRIS OUTSIDE THE LIMITS OF THE PROPERTY IN A LEGAL MANNER AT NO ADDITIONAL COST TO THE OWNER. LOCATION OF DUMP AND LENGTH OF HAUL SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

CONSTRUCTION AND LAYOUT NOTES

1. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE MOST CURRENT CITY OF BRENTWOOD PLANS AND SPECIFICATIONS.

2. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO COMPLETE THE INSTALLATION OF THIS PROJECT AS SPECIFIED ON THE PLANS. THE CONSTRUCTION WORK SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY TO FULLY COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS.

3. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE CITY INSPECTOR.

4. CONTRACTOR SHALL VERIFY ALL DISTANCES AND DIMENSIONS IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT BEFORE PROCEEDING.

5. OBSERVE ALL SETBACKS SHOWN ON THE PLANS AND AS MAY OTHERWISE BE REQUIRED.

6. ALL WRITTEN DIMENSIONS SUPERSEDE ALL SCALED DISTANCES AND DIMENSIONS.

7. ALL CURVED PAVEMENT AND MOWBANDS SHALL BE SMOOTH AND CONTINUOUS.

8. ALL CONCRETE WORK SHALL BE IN CONFORMANCE WITH SOILS ENGINEERING RECOMMENDATIONS.

9. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE TO THE LANDSCAPE ARCHITECT AT THE TIME OF THE PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN.

    THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CALL UNDERGROUND SERVICE ALERT (U.S.A.), AT 800-227-2600. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES.

    ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED AND MERGED IN THE CONTRACT UNIT PRICE.

10. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE CITY INSPECTOR, AT THE CONTRACTOR'S SOLE EXPENSE.

11. ANY RELOCATION OF PUBLIC UTILITIES SHALL BE CONDUCTED IN ACCORDANCE WITH ANY AND ALL REQUIREMENTS OF THE UTILITY COMPANY INCLUDING FEES, BONDS, PERMITS AND WORKING CONDITIONS, ETC. THIS WORK SHALL BE DONE AT NO EXPENSE TO THE UTILITY COMPANY. THE OWNER SHAHALL PAY THE COST OF ALL SUCH RELOCATION WORK INCLUDING FEES, BONDS, PERMITS, ETC.

12. THE CONTRACTOR SHALL TAKE EFFECTIVE ACTION TO PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM HIS FAILURE TO DO SO. DUST CONTROL MEASURES AS APPROVED BY THE CITY SHALL BE FOLLOWED AT ALL TIMES.

13. THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN FOR CITY OF BRENTWOOD APPROVAL PRIOR TO START OF CONSTRUCTION.

14. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY AND TO MAINTAIN TRAFFIC CONTROL AT ALL TIMES.

15. THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR ANY PRIVATE PROPERTY ADJACENT TO THE WORK AREA THROUGHOUT THE PERIOD OF CONSTRUCTION.

16. EXCAVATIONS SHALL BE ADEQUATELY SHORED BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM LACK OF ADEQUATE SHORING, BRACING AND SHEETING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE.

    WHERE THE EXCAVATION FOR A CONDUIT TRENCH, STRUCTURE AND/OR BORING OR JACKING PIT IS FOUR FEET (4') DEEP OR MORE IN DEPTH THE CONTRACTOR SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.

17. UNDERGROUND UTILITIES: THE CONTRACTOR SHALL COORDINATE SANITARY SEWER, STORM DRAIN AND WATER CONSTRUCTION IN A MANNER TO PREVENT ANY CONFLICTS WHERE UTILITY LINES CROSS EACH OTHER. SUFFICIENT INFORMATION SHALL BE SHOWN TO ESTABLISH THE ELEVATION AND/OR PROFILE OF WATER SERVICES AND SEWER LATERALS AT CROSSINGS WITH OTHER UNDERGROUND UTILITIES (STORM DRAIN, JOINT TRENCH, ETC.).

    THE PLANS SHALL ENSURE THAT MINIMUM CLEARANCES AT PIPE CROSSINGS ARE MAINTAINED. MINIMUM CLEARANCE IS ONE FOOT (1') BETWEEN ALL OTHER UNDERGROUND PIPES AND FACILITIES IS SIX INCHES (6"). SERVICES AND LATERALS SHALL CROSS ABOVE OR BELOW THE CONDUIT BANK IN JOINT TRENCHES. SEE GENERAL NOTE #35.

18. ALL DEBRIS AND ACCUMULATION OF DEBRIS DURING CONSTRUCTION PERIOD SHALL BE REMOVED FROM THE SITE DAILY AND THE AREA SHALL BE LEFT CLEAN AND IN A CONDITION ACCEPTABLE TO THE CITY.

19. A 10' WIDE BENCH MUST BE PROVIDED AT THE TOP AND BOTTOM OF ALL SLOPES ADJACENT TO CITY OWNED OPEN SPACE OR PARK PROPERTY FOR MAINTENANCE REQUIREMENTS.

20. ANY FEES ASSOCIATED WITH SOIL COMPACTION, MOISTURE, CONCRETE, SUBGRADE OR SUB-BASE SOIL ANALYSIS TESTS SHALL BE THE RESPONSIBILITY OF THE CITY.

CONCRETE NOTES

1. CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT TO PROVIDE ALL CAST-IN-PLACE CONCRETE AS SHOWN ON THE DRAWINGS, AND NOTED HEREIN, INCLUDING BUT NOT LIMITED TO EXTERIOR PAVING, FOOTINGS, MOWBANDS, BASE ROCK, REINFORCING AND CONCRETE FINISHES.

2. CONTRACTOR SHALL COMPLY WITH CITY OF BRENTWOOD STANDARD PLANS AND SPECIFICATIONS AND THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION 2006 STANDARD PLANS AND SPECIFICATIONS, WHERE REFERENCED.

3. SUBMITTALS: SUBMIT CONCRETE MIX DESIGNS, AND A 4'X4'X4" SAMPLE OF CONCRETE WITH FINISH TO CITY INSPECTOR FOR APPROVAL FIVE (5) WORKING DAYS PRIOR TO INSTALLATION.

4. INSPECTION: THE CONTRACTOR SHALL NOTIFY CITY TWO (2) WORKING DAYS PRIOR TO THE POURING OF THE CONCRETE PAVING AFTER ALL FORMWORK, REINFORCING, AND INSERTS ARE IN PLACE FOR INSPECTION.

5. PREPARATION: SUBGRADE PREPARATION, MOISTURE CONDITIONING, AND COMPACTION SHALL CONFORM TO THE REQUIREMENTS OF THE GEOTECHNICAL REPORT. EXAMINE THE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION WILL BE INSTALLED. CORRECT CONDITIONS DETRIMENTAL TO TIMELY AND PROPER COMPLETION OF WORK.

   DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. ANY FEES ASSOCIATED WIT

IRRIGATION NOTES

SYSTEM DEMAND AND DESIGN NOTES:

1. PROVIDE COMPLETED WATER EFFICIENT LANDSCAPE WORKSHEETS AND FORMS.

2. IF BOOSTER PUMP IS REQUIRED, CONFIRM THAT BOOSTER PUMP PROVIDES SPECIFIED OPERATING PRESSURE FOR IRRIGATION HEADS IN VALVE ZONES DURING TYPICAL OPERATING CYCLE. TYPICAL OPERATING CYCLE IS DETERMINED BY NUMBER OF VALVE ZONES REQUIRED TO OPERATE SIMULTANEOUSLY TO PROVIDE ADEQUATE IRRIGATION COVERAGE WITHIN THE WATERING WINDOW.

3. THE IRRIGATION SYSTEM IS DESIGNED TO IRRIGATE THE ENTIRE CONTRACT AREA WITHIN AN 8 HOUR WATERING TIME (10:00 P.M.-6:00 A.M.) WITH THE EXCEPTION OF THE BUBBLER CIRCUITS.

GENERAL:

4. PROVIDE INSTALLATION BY PERSONS FAMILIAR WITH IRRIGATION WORK AND UNDER THE SUPERVISION OF A QUALIFIED SUPERVISOR.

5. OBTAIN THE PERMITS REQUIRED AND PROVIDE LABOR AND MATERIALS NECESSARY TO FULLY COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS AND THE SPECIFICATIONS.

6. LOCATE AND PROTECT NEW AND EXISTING UTILITIES PRIOR TO EXCAVATION. CALL UNDERGROUND SERVICE ALERT (U.S.A.), AT 800-227-2600.

7. DO NOT DAMAGE EXISTING UTILITIES, PAVING OR STRUCTURES. PROVIDE THE NECESSARY REPAIRS WITH APPROVAL OF APPROPRIATE AGENCY BEFORE BACKFILLING AND AT NO ADDITIONAL COST TO THE CITY.

8. REMOVE DEBRIS AND ACCUMULATION OF DEBRIS AS A RESULT OF IRRIGATION CONSTRUCTION DAILY FROM THE SITE AND LEAVE AREA IN A CLEAN CONDITION ACCEPTABLE TO THE CITY ENGINEER.

9. FOLLOWING ACCEPTANCE OF WORK BY THE CITY MAINTAIN SITE AND MAKE CORRECTIONS OR REPAIRS TO THE IRRIGATION AS DIRECTED BY THE CITY ENGINEER AT THE COMPLETION OF THE MAINTENANCE PERIOD.

10. THE DRAWINGS ARE DIAGRAMMATIC. EQUIPMENT SHOWN IN PAVING IS FOR CLARITY ONLY - INSTALL IN PLANTING AREAS WHERE POSSIBLE DUE TO THE SCALE OF THE DRAWINGS, ALL OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED ARE NOT INDICATED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIFFERENCES, WHICH MAY HAVE NOT BEEN CONSIDERED IN THE ENGINEERING.

    WHERE FIELD CHANGES EXIST, COORDINATE THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE CITY ENGINEER AS PER THE CONTRACT SPECIFICATIONS. COORDINATE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT, OR SLEEVES OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS ROADWAYS, PAVING, STRUCTURE, ETC. BEFORE CONSTRUCTION. ASSUME FULL RESPONSIBILITY FOR REQUIRED REVISIONS IF THESE NOTIFICATIONS ARE NOT PERFORMED.

11. THE INTENT OF THIS IRRIGATION SYSTEM DESIGN IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

12. PLANTING IS NOT TO START UNTIL THE IRRIGATION SYSTEM IS FULLY OPERATIONAL AND HYDROSTATIC PRESSURE TEST, COVERAGE REVIEW, GRADING REVIEW, BACKFLOW CERTIFICATION, AND AUTOMATIC OPERATION OF CONTROLLER(S) IS COMPLETED, CERTIFIED BY THE VENDOR, AND APPROVED BY THE CITY ENGINEER.

13. SPRINKLER SYSTEM GUARANTEE SHALL BE ONE (1) YEAR INCLUDING MANUFACTURER'S WARRANTIES.

14. AT TIME OF AS-BUILT SUBMITTAL, PROVIDE ACTUAL FLOW RATE, PRECIPITATION RATE, CYCLE AND SOAK TIME, AND LANDSCAPE COEFFICIENT FOR EACH IRRIGATION VALVE ZONE.

15. PROVIDE A COVERAGE CHECK AND 14-DAY WATERING PERIOD BEFORE PLANTING. REMOVE WEEDS AND PERFORM FINAL GRADING AFTER 14-DAY PERIOD.

16. STRAINER AND SPOOL ASSEMBLY SHALL BE LINE SIZE OR AS APPROVED BY CITY OF BRENTWOOD.

17. INSTALL REGULATORS AFTER BACKFLOW VALVE ASSEMBLY FOR POTABLE IRRIGATION SYSTEMS AND AFTER BOOSTER PUMP FOR NON-POTABLE IRRIGATION SYSTEMS.

18. BOOSTER PUMP, ELECTRIC METER PEDESTAL, CONTROLLER AND ALL OTHER IRRIGATION ENCLOSURES SHALL HAVE A 5' OFFSET FROM ADJACENT PATH OR PAVED AREA SCREENED AND SHALL BE CLEARLY IDENTIFIED ON ALL PLANS. LOCATE IN UN-IRRIGATED AREAS.

19. ALL IRRIGATION ENCLOSURES, INCLUDING BACKFLOW ENCLOSURE, SHALL BE STAINLESS STEEL. ELECTRICAL METER PEDESTAL AND IRRIGATION CONTROLLER BOXES SHALL HAVE SLANT TOP LIDS. THE SLANT TOP ENCLOSURES MAY LIMIT CONFIGURATIONS REQUIRING MORE THAN ONE CONTROLLER OR DEVICE. ENCLOSURES TO BE ON A PAD 3" ABOVE FINISHED GRADE

CONTROLLER:

20. SEQUENCE VALVES TO OPERATE IN GEOGRAPHIC ORDER. TAG AND MARK (BY HEAT BRANDING) VALVE NUMBER ON LID OF VALVE BOX. (2-1/2" LETTERS AND NUMBERS) IN A PERMANENT FASHION, NOT PAINTED.

21. PROGRAM THE CONTROLLER TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. MAKE ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS AND SLOPES, SUN, SHADE, AND WIND EXPOSURES.

    INCLUDE A PEAK DEMAND IRRIGATION SCHEDULE BY STATION IN IRRIGATION PLAN AND A LAMINATED COPY OF SCHEDULE IN CONTROLLER ENCLOSURE.

22. 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO IRRIGATION CONTROLLER LOCATION(S) TO BE PROVIDED UNDER ELECTRICAL CONTRACT WORK. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL SUB-OUT TO CONTROLLER(S) AND PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS. ALL BREAKERS MUST BE LABELED.

23. PROVIDE ONE DEDICATED GROUND FOR CONTROLLER AS DETAILED. GROUND ROD: TEN FEET LONG BY 3/4" DIAMETER U.L. APPROVED COPPER CLAD ROD. NO MORE THAN 6" OF THE GROUND ROD TO BE ABOVE GRADE. CONNECT #8 AWG WIRE WITH A U.L. APPROVED GROUND ROD CLAMP TO ROD AND GROUND SCREW AT BASE OF CONTROLLER WITH APPROPRIATE CONNECTOR. PROVIDE WIRE AS SHORT AS POSSIBLE, AVOIDING ANY KINKS.

24. SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE PERSONNEL, THE CITY ENGINEER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER

25. SATELLITE IRRIGATION CONTROLLER LOCATION IS DIAGRAMMATIC. THE CITY ENGINEER WILL SET THE EXACT LOCATION IN THE FIELD. CONTACT CITY INSPECTOR ON FINAL LOCATION AND ORIENTATION OF THE IRRIGATION CONTROLLER AND ELECTRIC METER PEDESTAL.

26. ALL IRRIGATION CONTROLLERS SHALL INCLUDE A RAIN MASTER PRO MAX RECEIVER PMR-CAC. FURNISH ONE RAIN MASTER PRO MAX-RMR-RAC.

27. PRIOR TO THE START OF PLANTING, THE SATELLITE IRRIGATION CONTROLLERS ARE TO BE FULLY OPERATIONAL, CONNECTED TO THE FINAL ELECTRICAL SOURCE, CONNECTED TO THE PHONE LINE, AND ABLE TO COMMUNICATE TO THE CENTRAL CITY COMPUTER SYSTEM.

    'K' VALUES SHALL BE ENTERED INTO CONTROLLER PROGRAM AND AVAILABLE FOR UPLOADING TO CENTRAL IRRIGATION CONTROLLER.

BOOSTER PUMP:

28. BOOSTER PUMP SHALL INCLUDE THE FOLLOWING MINIMUM SPECIFICATIONS:
    - VARIABLE FREQUENCY DRIVE
    - BY-PASS ISOLATION VALVE
    - TEMPERATURE SENSOR
    - PRESSURE GAUGE
    - FLOW SENSOR
    - UPSTREAM PRESSURE REGULATOR
    - DIGITAL FAULT READOUT BY DATE
    - STATION DISCONNECT
    - PRESSURE SWITCH GAUGE
    - STATION ISOLATION VALVE
    - STATION FAN
    - PRESSURE TRANSDUCER
    - PRESSURE REGULATOR

29. BOOSTER PUMPS SHALL BE USED ON ANY JOB THAT WILL USE RECLAIMED WATER OR NON-POTABLE WATER AND/OR HAS LARGE TURF ROTORS. ALL OTHER SYSTEMS SHALL BE DESIGNED TO OPERATE AT 50 PSI, OR LESS, WITHOUT A BOOSTER PUMP. CITY RESERVE SHALL BE 20% HIGHER THAN DESIGN PRESSURE AS RECORDED ON CITY WATER CHART, OR BOOSTER PUMP REQUIRED.
30. BOOSTER PUMP AND EXTERNAL BREAKERS TO BE INSTALLED WITH STAINLESS STEEL ENCLOSURE AND CONCRETE BASE.
31. SELF FLUSHING WYE STRAINER WILL BE REQUIRED ON ALL NON-POTABLE PUMPS.

LOW VOLTAGE WIRE:

32. PROVIDE A DEDICATED COMMON GROUND WIRE PLUS ONE SPARE COMMON 12-GAUGE WIRE, WHITE IN COLOR, FOR EACH CONTROLLER (NOT USED). LOOP SPARE COMMON WIRE INTO ALL VALVES BOXES AND RUN ENTIRE LENGTH OF MAINLINE.

33. SPARE WIRES SHALL RUN ALONG ENTIRE LENGTH ON MAIN LINE AT A RATIO OF ONE (1) EXTRA WIRE PER SIX (6) STATIONS USED ON THE CLOCK. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES. WEATHERPROOF UNUSED WIRE ENDS AND INSTALL IN LAST VALVE BOX.

34. IRRIGATION CONTROL WIRES: SOLID STRAND COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND, SIZE AWG-UF #14-1. COMMON GROUND WIRE: #12 WITH WHITE INSULATING JACKET. CONTROL WIRE: INSULATING JACKET OF COLOR OTHER THAN WHITE. SPLICES: MADE WITH 3M-DBY SEAL PACKS.

    TRACER WIRE: INSULATED 10-GAUGE WIRE, BLACK IN COLOR, LOOPED INTO ALL ISOLATION VALVE CANS FOR ENTIRE LENGTH OF MAINLINE.

    MULTIPLE CONTROLLERS: COLOR CODE WIRES FOR EASE OF IDENTIFICATION BY PROVIDING DIFFERENT COLOR CONTROL WIRE FOR EACH CONTROLLER. REFER TO CITY DETAILS AND SPECIFICATIONS.

35. SPLICING OF 24-VOLT WIRES IS NOT PERMITTED EXCEPT AT RCV SOLENOIDS OR BEYOND 2500' OF WIRE LENGTH. PROVIDE A 36" LONG 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE. PROVIDE A 36" LONG 1" DIAMETER EXPANSION LOOP EVERY 100 FEET AND TAPE WIRES TOGETHER EVERY TEN FEET ALONG THE WIRE RUN. DO NOT TAPE WIRES TOGETHER INSIDE SLEEVES. ALL APPROVED SPLICES SHALL BE INSTALLED IN A LABELED SPLICE BOX AS DIRECTED BY CITY REPRESENTATIVE.

36. FOR EASE IN IDENTIFICATION COLOR CODE LOW VOLTAGE WIRE AS FOLLOWS:
    RED = TURF ZONES
    GREEN = TREE AND/OR SHRUB BUBBLER ZONES

MAIN LINE OR MANIFOLD ISOLATION VALVES:

37. MAIN LINE OR MANIFOLD ISOLATION VALVES ARE TO BE INSTALLED IN THE FULL OPEN POSITION UNLESS OTHERWISE NOTED.

MASTER CONTROL VALVE AND FLOW SENSOR:

38. INSTALL FLOW SENSOR CABLE IN 1.5" PVC CONDUIT FROM FLOW SENSOR TO CONTROLLER ENCLOSURE, WITH PULL BOXES EVERY 100', IF APPLICABLE. MAKE SPLICES ONLY IN CONTROLLER ENCLOSURES OR IN AN APPROVED PULL BOX.

39. DO NOT SPLICE FLOW SENSOR CABLE BETWEEN THE CONTROLLER AND FLOW SENSOR. DO NOT EXCEED A MAXIMUM OF 2000' OF SENSOR CABLE.

40. ALL IRRIGATION SYSTEMS SHALL INCLUDE FLOW SENSORS AND MASTER CONTROL VALVES. THESE SHALL WORK INTEGRALLY WITH THE CONTROLLER. THE FLOW SENSOR SHALL CONNECT TO SATELLITE COMPONENTS NECESSARY FOR OPERATION.

REMOTE CONTROL VALVE:

41. PROVIDE PLASTIC VALVE BOXES WITH BOLT DOWN (STAINLESS STEEL BOLTS AND WASHERS), NON-HINGED COVER HEAT BRANDED WITH THE WORD "IRRIGATION" AND THE IDENTITY OF THE BOX'S CONTENTS, SUCH AS QUICK COUPLING VALVE, REMOTE CONTROL VALVE (WITH VALVE ID#), ETC. BOX BODY SHALL HAVE KNOCK OUTS. MANUFACTURER: CARSON, NDS OR APPROVED EQUAL AS PER CITY DETAIL.

42. REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, LAWN, HEADER BOARD, BUILDING, OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE 12" APART. SHORT SIDE OF RECTANGULAR VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, LAWN, ETC., REFER TO BOX INSTALLATION DETAIL. REFER TO CITY DETAILS AND SPECIFICATIONS.

    REMOTE CONTROL VALVES PLACED IN GROUPS CAN BE PLACED ON A MANIFOLD WITH A BALL VALVE AT THE START OF THE MANIFOLD AND QUICK COUPLER AT THE END OF THE MANIFOLD.

43. VALVE LOCATIONS ON DRAWINGS ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE (NOT IN TURF AREA).

SPRINKLERS:

44. FLUSH AND ADJUST SPRINKLER HEADS FOR EFFICIENT PERFORMANCE. PREVENT OVERSPRAY ON THE WALKS, ROADWAYS, SIGNS, LIGHTS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL OR PRESSURE REGULATION DEVICE AT EACH VALVE TO OBTAIN THE BEST OPERATING PRESSURE FOR EACH SYSTEM.

45. SET SPRINKLER HEADS PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE NOTED ON THE DRAWINGS.

46. IRRIGATION HEAD LAYOUT AND PIPING AS SHOWN ON THE DRAWINGS IS INDICATIVE OF THE WORK TO BE INSTALLED. IRRIGATION HEADS, ARC OF SPRAY, RADIUS OF SPRAY AND PIPING AT CERTAIN LOCATIONS MAY BE REQUIRE FIELD ADJUSTMENT TO PREVENT HARM TO TREE ROOTS AND INTERFERENCE OF TREES TO IRRIGATION SPRAY. EXERCISE PARTICULAR ATTENTION AT ALL TREES TO ELIMINATE DIRECT SPRAY OF IRRIGATION HEADS ON TREE TRUNKS, ESPECIALLY OAK TREES.

47. IRRIGATION HEAD LAYOUT PARAMETERS:
    1. SPRAY HEADS: HEAD-TO-HEAD SPACING OR CLOSER
    2. NO SPRAY HEADS IN PLANTERS LESS THAN 8' WIDE
    3. NOZZLES HAVE MATCHED PRECIPITATION RATES, +/- 10%
    4. ROTORS ARE SPACED AT 45% OF THE DIAMETER OF THROW

48. LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE TO ALLOW THE FLOW OF WATER TO FLOW INTO THE ROOTBALL AREA.

49. BUBBLER SPRINKLER RATIO SHALL BE 1 PER SHRUB AND 2 PER TREE. IN LAWN AREAS ALL TREES SHALL HAVE 2 POP-UP BUBBLERS AND SHALL ALSO BE ON AN INDEPENDENT VALVE CIRCUIT. GALLONAGE PER SHRUB OR TREE SHOULD BE MATCHED TO OVERALL PLANT REQUIREMENT. SHRUB AND TREE BUBBLERS TO BE ON SEPARATE VALVE CIRCUITS.

50. PIPING TO BE NO CLOSER THAN 4" FROM WALKWAYS, FENCES, CURBS, DRIVEWAYS AND UTILITY PADS AND 8" FROM BUILDINGS OR OTHER PERMANENT STRUCTURES.

51. INSTALL TRIPLE SWING JOINTS ON ALL HEADS, NO MARLEX TO MARLEX FITTINGS.

PIPING:

52. PIPE THREAD SEALANT COMPOUND SHALL BE PERMATEX 51 OR RECTOR SEAL T+2.

53. 48 HOURS BEFORE COMMENCING WITH WORK UNDER THIS CONTRACT, NOTIFY UNDERGROUND SERVICE ALERT, U.S.A. 800-227-2600. DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES, PIPES, AND STRUCTURES. COSTS OF DAMAGES WHICH OCCUR FROM FAILURE TO ACCURATELY LOCATE AND PRESERVE THESE UTILITIES IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

54. PRESSURE CHECK SYSTEM AT 150 PSI FOR 2 HOURS ON MAIN LINE AND 75 PSI FOR I HOUR ON LATERAL LINES (SPRINKLERS ARE NOT INCLUDED).

55. SOLVENT WELD JOINTS: ALL CUTS ARE TO BE SQUARE. USE PRIMER PRIOR TO SOLVENT CEMENT APPLICATION.

56. PROVIDE SLEEVES UNDER ALL PAVEMENT AND MARK TOP OF CURB PER THE CITY ENGINEER'S DIRECTION. FOR MAIN LINE PIPING LOCATED INSIDE SLEEVES, USE SOLVENT WELDED SOCKET FITTINGS WITH PVC PLASTIC PIPE AS PER THE IRRIGATION LEGEND. DO NOT USE GASKETED COUPLINGS INSIDE SLEEVES. SLEEVES SHALL BE TWO PIPE DIAMETER USED IN SLEEVE AND 24-30" DEEP, 36" DEEP MAX. INSTALL BIO BARRIER FABRIC AT EACH END OF SLEEVE.

57. MAINLINES: SEE CITY DETAIL I2 FOR INSTALLATION DEPTH AND BACKFILL. EXCEPTIONS TO THIS DEPTH REQUIREMENT MUST BE PRE-APPROVED BY CITY OF BRENTWOOD PRIOR TO INSTALLATION.

CORROSION PROTECTION NOTE:

58. INSTALL CATHODIC PROTECTION ON ALL SUBSURFACE METALLIC PIPES (INCLUDING COPPER SERVICE LINES), VALVES, FITTINGS, RISERS, FIRE HYDRANTS, ETC. THE SIZE AND NUMBER OF ANODES PER LOCATION SHALL BE DETERMINED BY A REGISTERED CALIFORNIA CORROSION ENGINEER ONLY. SUBMIT A COPY OF THE CATHODIC PROTECTION DESIGN AND POST-INSTALLATION TEST RESULTS WITH REPORT TO THE CITY OF BRENTWOOD ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL.

    REFER TO THE CITY OF BRENTWOOD'S STANDARD PLANS AND SPECIFICATIONS, STANDARD PLANS CP-1 THROUGH CP-17 INCLUSIVE, FOR DETAILS OF CATHODIC PROTECTION AND CONSTRUCTION. INSTALLATION OF BARE ZINC ANODE IS PROHIBITED.

    PART OF THE CONTRACT WORK IS TO OBTAIN THE CITY OF BRENTWOOD'S STANDARD PLANS AND SPECIFICATIONS, AVAILABLE AT THE CITY ENGINEERING DEPT. FOR A CHARGE AT 150 CITY PARK WAY, BRENTWOOD, CA 94513 OR CALL 925-516-5420.

LABEL AND MARKING FOR RECYCLED WATER:

59. GENERAL SIGNAGE:
    CONSPICUOUS NOTIFICATION SIGNS MUST BE POSTED PER CITY OF BRENTWOOD USER MANUAL AROUND THE AREA AND MOUNTED ON THE SIGN AS DIRECTED BY THE CITY TO ENSURE PEOPLE KNOW RECYCLED WATER IS NOT POTABLE. SIGNS ARE TO STATE: "RECYCLED WATER" IN ENGLISH AND SPANISH. ADDITIONAL SIGNAGE SHALL BE PURCHASED FROM THE CITY OF BRENTWOOD WATER DEPARTMENT.

60. VALVES AND CONTROLLERS:
    CONTROLLERS ARE TO HAVE WARNING LABELS INSTALLED AS SUPPLIED BY THE WATER DEPARTMENT. VALVES (GATE, MANUAL CONTROL, ELECTRIC CONTROL, PRESSURE REDUCING, QUICK COUPLING) ARE TO BE INSTALLED IN PURPLE COLORED BOXES BELOW GRADE AND HAVE LABELS OR TAGS PERMANENTLY AFFIXED WITH THE WORDS "RECYCLED WATER".

61. BACKFLOW UNIT:
    LABEL BACKFLOW PREVENTION ASSEMBLY ENCLOSURE FOR RECLAIMED WATER AS FOLLOWS:

    A. USE A T. CHRISTY ENTERPRISES PART #4100 (NO KNOWN EQUAL) DECAL, 4-3/8"X3-1/2" SIZE, MANUFACTURED FROM A 3.5 MIL FLEXIBLE VINYL BASE, WHITE IN COLOR. PERMANENT ACRYLIC ADHESIVE BACKING, ON A #90 STAY-FLAT LINER, PURPLE (PMS 522C) BACKGROUND, PRINTED WITH UV CURED VINYL INK. DECAL IS CLEAR FLOOD OVERPRINTED FOR SUPERIOR WEATHERING AND UV PROTECTION. DECAL RELEASE PAPER SHALL BE SPLIT FOR EASE OF APPLICATION. DECAL STATES IN ENGLISH AND SPANISH "ATTENTION-UNIT FOR RECLAIMED WATER".

    B. ATTACH THE LABEL TO BACKFLOW PREVENTION ASSEMBLY ENCLOSURE.

    C. PAINT THE STRAINER AND SPOOL ASSEMBLY WITH PURPLE PAINT, T. CHRISTY ENTERPRISES ID-PNT-QT-300.

62. HORIZONTAL SEPARATION BETWEEN WATER, SEWER, AND RECYCLED WATER PIPES:
    FOR RECYCLED MAINS LOCATED IN A PUBLIC RIGHT-OF-WAY, PROVIDE A TEN FOOT (10') SEPARATION FOR EACH BETWEEN WATER, SEWER, AND RECYCLED

63. WATER MAINS: FOR A DESCRIPTION OF ALTERNATIVES, SEE WATER DEPARTMENT STANDARD DRAWING. ON-SITE SEPARATION REQUIRES RECYCLED PIPING TO BE FOUR FEET (4') AWAY FROM POTABLE PIPING WHEN PARALLEL AND ONE FOOT (1') LOWER THAN POTABLE WATER PIPING WITH A SLEEVE WHERE THEY CROSS.

64. ALLOWABLE WATERING WINDOW:
    IRRIGATION IS TO BE APPLIED AT NIGHT, BETWEEN THE HOURS OF 10:00 P.M. AND 6:00 A.M. ANY DAYTIME USE OF RECYCLED WATER (BETWEEN THE HOURS OF 6:00 A.M. AND 9:00 P.M.) IS TO BE UNDER DIRECT CONTROL AND OBSERVATION BY AN INDIVIDUAL FAMILIAR WITH THE CITY OF BRENTWOOD'S GUIDELINES FOR RECYCLED WATER USE WHICH IS AVAILABLE FROM THE CITY'S WATER DEPARTMENT.

PLANTING NOTES

1. NO PLANTING SHALL BE INSTALLED UNTIL:
    A. THE BACKFLOW PREVENTION DEVICE IS CERTIFIED BY A CITY APPROVED BACKFLOW INSPECTOR.
    B. A HYDROSTATIC PRESSURE TEST ON IRRIGATION MAINS AND LATERALS IS PERFORMED.
    C. IRRIGATION CONTROLLER SHALL BE FULLY OPERATIONAL AND CONNECTED TO FINAL ELECTRICAL SOURCE AND PHONE LINE OR OTHER COMMUNICATION AND SHALL BE ABLE TO COMMUNICATE WITH CENTRAL IRRIGATION COMPUTER.
    D. SOIL HAS BEEN AMENDED.
    E. 14-DAY WATERING PERIOD HAS BEEN COMPLETED.

2. ALL PLANTING SHALL CONFORM TO THE CITY OF BRENTWOOD STANDARDS. TREE SPECIES SHALL CONFORM TO THE CITY OF BRENTWOOD URBAN FOREST GUIDELINES.

3. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH PLANTING WORK AND UNDER THE SUPERVISION OF A QUALIFIED PLANT FOREMAN.

4. CONTRACTOR SHALL PROVIDE 1-YEAR GUARANTEE ON TREE AND SHRUBS FROM DATE OF ACCEPTANCE BY CITY COUNCIL.

5. CONTRACTOR SHALL INSPECT AND BE FAMILIAR WITH SITE CONDITIONS. ANY DISCREPANCIES WHICH EXIST BETWEEN OBSERVED SITE CONDITIONS AND THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.

6. PLANT MATERIAL LOCATIONS ARE DIAGRAMMATIC, UNLESS OTHERWISE NOTED, AND ARE SUBJECT TO CHANGE IN THE FIELD BY THE OWNER'S REPRESENTATIVE. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO MAKE SUBSTITUTIONS, ADDITIONS AND DELETIONS IN THE PLANTING SCHEME AFTER CONSULTING WITH THE LANDSCAPE ARCHITECT, AND IF APPROVED BY THE CITY OF BRENTWOOD, WHILE WORK IS IN PROGRESS.

7. CONTRACTOR SHALL PROVIDE A CITY APPROVED ROOT BARRIER FOR ALL TREES PLANTED WITHIN FIVE FEET (5') OF CURB OR PAVING, PER CITY OF BRENTWOOD DETAIL. INSTALL LINEAL PANELS PARALLEL AND ADJACENT TO EDGE OF PAVEMENT, 12' TOTAL LENGTH, 6' ON EITHER SIDE OF TREE. SEE CITY DETAIL L-3.

8. PLANTING AREAS SHALL BE EXCAVATED TO A MINIMUM DEPTH OF THREE FEET (3') OR DOWN TO NATIVE SOIL IN AREAS WHERE COMPACTION HAS PREVIOUSLY OCCURRED SUCH AS IN MEDIANS AND PARKING LOTS, ESPECIALLY IF ROAD BASE WAS INSTALLED IN THE PLANTING LOCATION. ALL ROAD BASE WILL BE REMOVED AT CONTRACTOR'S EXPENSE.

SOIL PREPARATION:

9. ALL CONSTRUCTION MATERIAL AND DEBRIS SHALL BE REMOVED PRIOR TO SOIL PREPARATION.

10. CITY SHALL COLLECT SOIL SAMPLES FROM POST-GRADED LANDSCAPE AREAS FOR ANALYSIS BY APPROVED TESTING LABORATORY. CONTRACTOR SHALL COORDINATE AND PAY FOR TESTS. SOIL SAMPLES SHALL BE TAKEN AT APPROXIMATELY SIX INCH (6") DEPTHS AS PER THE CITY OF BRENTWOOD.

11. SOIL TEST/RECOMMENDATION RESULTS SHALL BE DISTRIBUTED BY THE CONTRACTOR TO THE CITY, OWNER, LANDSCAPE ARCHITECT AND PROJECT HORTICULTURALIST.

12. A REVISED SOIL AMENDMENT AND PLANT PIT BACKFILL SPECIFICATION SHALL BE DEVELOPED BY THE CITY STAFF IN COOPERATION WITH LANDSCAPE ARCHITECT AND HORTICULTURIST BASED ON SOILS TEST. CONTRACT ADJUSTMENT MAY BE REQUIRED AS A RESULT OF SOILS TEST.

13. PLANT SPECIES LIST SHALL BE EVALUATED BY HORTICULTURIST IN TERMS OF APPROPRIATENESS TO THE SOILS TEST AND SHALL BE REVISED ACCORDINGLY TO LEVELS OF BORON OR SODIUM PRESENT IN THE SOILS.

14. SOIL AMENDMENTS SHALL MEET CITY STANDARDS AND SPECIFICATIONS, AND SHALL CONFORM TO THE RECOMMENDATIONS OF THE SOILS REPORT.

15. CONTRACTOR SHALL PAY FOR SUBSEQUENT POST-AMENDMENT SOIL TESTING AS DIRECTED BY THE CITY PRIOR TO PLANTING TO VERIFY COMPLIANCE OF RECOMMENDATIONS.

16. THE FOLLOWING RECOMMENDATIONS ARE FOR BID PURPOSES ONLY. CONTRACTOR SHALL FOLLOW RECOMMENDATIONS OF SOIL TESTING LAB.
    FOR ALL PLANTING AREAS:
    1. TILL SOIL THOROUGHLY TO 8" DEPTH.
    2. INCORPORATE THE FOLLOWING MATERIAL INTO SOIL PER 1000 SQ. FT.
        - SIX CUBIC YARDS NITROGEN FORTIFIED ORGANIC AMENDMENT

17. SPECIFICATIONS AND SAMPLE OF NITROGEN FORTIFIED ORGANIC AMENDMENT SHALL BE SUBMITTED TO CITY FOR APPROVAL PRIOR TO USE.

18. AMENDMENTS SHALL BE ADDED WHEN GRADING IS AT PLUS OR MINUS 1/10 FOOT OF FINISH GRADE.

19. CITY SHALL BE NOTIFIED 3 DAYS PRIOR TO AMENDING OR FERTILIZING PLANTING AREAS FOR INSPECTION DURING WORK.

FOR TREES AND SHRUBS:

20. ALL TREES PLANTING HOLES SHALL BE SCARIFIED ON SIDES AND BOTTOM TO REMOVE AND GLAZING.

21. DRAIN TUBES, AS PER CITY OF BRENTWOOD STANDARD DETAIL L-1, MAY NOT BE NECESSARY. CONSULT SOILS REPORT FOR SUITABILITY OF SOIL.

22. NO PLANTING OR HARDSCAPE WILL BE INSTALLED UNTIL GRADE IS CERTIFIED TO BE WITHIN PLUS OR MINUS 1/10 FOOT OF FINISH GRADE. FINISH GRADE WILL BE CERTIFIED AT CONTRACTOR'S EXPENSE.

23. FOR 24-INCH BOX AND LARGER MATERIAL, PLANT PIT BACKFILL TO BE PLACED AROUND THE SIDES OF THE ROOTBALL BELOW A ONE FOOT (1') DEPTH SHOULD NOT CONTAIN THE ORGANIC AMENDMENT BUT SHOULD BE NUTRITIONALLY IMPROVED BY BLENDING 2 POUNDS GYPSUM PER CUBIC YARD OF PULVERIZED SITE SOIL.

24. SOIL AMENDED ON THE SITE OR THE FOLLOWING BACKFILL MIX IS RECOMMENDED FOR PLACEMENT AS THE TOP 12 INCHES (12") OF BACKFILL AROUND THE SIDES OF THE ROOTBALL FOR CONTAINER GROWN PLANTS:
    - 2 PARTS PULVERIZED SITE SOIL
    - 1 PART ORGANIC AMENDMENT
    - 2 POUNDS GYPSUM PER CUBIC YARD OF BACKFILL MIX

25. ALL PLANT MATERIAL TO BE INSPECTED BY CITY PRIOR TO INSTALLATION. NOTIFY CITY TWO (2) WORKING DAYS PRIOR TO INSPECTIONT.

26. CITY HAS THE RIGHT TO REJECT PLANT MATERIAL IF IT DOES NOT MEET MINIMUM PLANT SIZE REQUIREMENTS. ALL PLANT MATERIAL MUST BE IN HEALTHY CONDITION AND WITHOUT KINKED, GIRDLED OR ENCIRCLING ROOTS.

27. APPLY PRE-EMERGENT HERBICIDE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO ALL GROUNDCOVER AND NON-PLANTED AREAS PRIOR TO SAND AND BARK INSTALLATIONS. CONTACT CITY 24 HOURS PRIOR TO APPLICATION. AREAS SHALL BE WATERED-IN IMMEDIATELY AFTER APPLICATION.

28. FERTILIZER TABLETS SHALL BE BEST PAKS (20-10-5) TABLETS INSTALLED AT MANUFACTURER'S RECOMMENDED RATES UNDER ALL TREES AND SHRUBS.

29. FERTILIZER SHALL BE CITY APPROVED PRODUCT, AT A RECOMMENDED RATE BASED ON SOILS ANALYSIS.

30. REFER TO CITY OF BRENTWOOD STANDARD DETAILS L-1, L-2, L-4 FOR TREE AND SHRUB PLANTING AND GROUNDCOVER SPACING. LODGE POLES WITH FOUR TIES SHALL BE USED ON ALL PARK PROJECTS.

31. STREET TREE PLANTING SHALL NOT INTERFERE WITH CITY OF BRENTWOOD REQUIRED LINE OF SIGHTS. REFER TO CITY OF BRENTWOOD STANDARD DETAIL ST-11 FOR NECESSARY CLEARANCES.

32. MINIMUM CONTAINER PLANT SIZE:
    1 GALLON SHRUB: 1' HEIGHT X 1' DIAMETER
    5 GALLON SHRUB: 1-1/2' HEIGHT X 1-1/2' DIAMETER
    15 GALLON TREE: 6' HEIGHT X 4' CROWN DIAMETER
    24" BOX TREES: 8' HEIGHT X 5' CROWN DIAMETER

33. FOR TREES WITH SELF-SUPPORTING CENTRAL LEADERS, REMOVE NURSERY STAKES AT TIME OF PLANTING. FOR TREES WITHOUT SELF-SUPPORTING CENTRAL LEADERS OR FLOPPY CROWNS, RETAIN NURSERY STAKE FOR A 3 MONTH PERIOD OR AT THE END OF THE MAINTENANCE PERIOD, WHICHEVER IS SHORTER.

34. MULCH PLANTING AREAS WITH A 3" LAYER OF 1/2"-3/4" DIAMETER "WALK-ON" TYPE FIR BARK MULCH. DO NOT ALLOW BARK MULCH TO COME WITHIN 2" OF THE PLANT'S PARENT TRUNK. TREE WELLS IN TURF OR GROUND

SUBMITTALS/RECORD PLANS/REDLINES

1. THE CONTRACTOR SHALL MAINTAIN IN GOOD ORDER IN THE FIELD OFFICE, ONE (1) COMPLETE SET OF ALL PLANS INCLUDED IN THIS CONTRACT. WHEN ANY WORK IS NOT INSTALLED AS INDICATED ON THE PLANS OR IN THE SPECIFICATIONS, SUCH WORK SHALL BE INDICATED AND DIMENSIONED ACCURATELY ON THESE REDLINE (AS-BUILT) DRAWINGS.

2. THESE PLANS SHALL ALSO SERVE AS WORK PROGRESS SHEETS. THE CONTRACTOR SHALL MAKE NEAT, LEGIBLE ANNOTATION THEREON DAILY AS THE WORK PROCEEDS, SHOWING THE WORK, INCLUDING THE EXACT LOCATIONS, SIZES, AND KINDS OF EQUIPMENT AS ACTUALLY INSTALLED. THESE PLANS SHALL BE AVAILABLE AT ALL TIMES FOR THE INSPECTION BY THE CITY.

3. ON OR BEFORE THE DATE OF THE PRE-MAINTENANCE FINAL INSPECTION, THE CONTRACTOR SHALL DELIVER TO THE CITY, A CORRECTED, NEATLY DRAFTED, COMPLETE SET OF THESE REDLINE DRAWINGS. THESE PLANS SHALL BE FIRST SUBMITTED TO THE CITY AT FULL SIZE. THE CITY REPRESENTATIVE WILL REVIEW THE PLANS, MAKE ANNOTATIONS IF NECESSARY, AND RETURN TO THE CONTRACTOR.

4. TWO (2) SETS OF SUBMITTALS IN INDIVIDUAL THREE-RING BINDERS SHALL BE GIVEN TO THE CITY BY THE PRE-CONSTRUCTION MEETING.

PARKING LOTS/PATHWAYS/TRAILS/SIGNAGE

GENERAL:

1. FOR PURPOSES OF GEOMETRIC AND STRUCTURAL DESIGN, STREETS SHALL BE CLASSIFIED ACCORDING TO THE CITY OF BRENTWOOD GENERAL PLAN. ANY DEVIATION FROM THE STANDARD SHALL REQUIRE THE APPROVAL OF THE CITY ENGINEER.

   STREET SECTIONS SHALL BE CALCULATED BASED ON "R" VALUES OBTAINED FROM MATERIAL GATHERED FROM THE LEVEL OF THE PROPOSED SUBGRADE USING THE STATE OF CALIFORNIA DIVISION OF HIGHWAYS DESIGN METHOD. IF SUBGRADE HAS AN "R" VALUE OF 10 OR LESS, GEOGRID SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATION ON SUBGRADE PRIOR TO PLACEMENT OF AB MATERIAL.

   NO STRUCTURAL ALLOWANCE WILL BE MADE FOR THE GEOGRID. THE MINIMUM STREET SECTION SHALL NOT BE LESS THAN FOUR INCHES (4") OF ASPHALT CONCRETE AND EIGHT INCHES (8") OF AGGREGATE BASE. AGGREGATE BASE AND SUBBASE SHALL CONFORM TO THE STATE STANDARD SPECIFICATIONS, SECTIONS 25 AND 26. THE USE OF "SIERRACRETE" MANUFACTURED BY DUPONT IS NOT PERMITTED.

   PRIVATE STREETS, PARKING LOTS, AND COMMERCIAL DEVELOPMENTS SHALL USE LOCAL RESIDENTIAL REQUIREMENTS AS A MINIMUM. OFF-STREET PARKING SHALL BE PROVIDED, DESIGNED, AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL ORDINANCE AND AS REQUIRED BY THE CITY ENGINEER.

   DEVELOPERS TO PROVIDE AND INSTALL STANDARD CITY PARK NAME SIGNS AS PER CITY DETAIL. COLOR FOR PARK SIGN CONCRETE FOOTING SHALL MATCH PARK SIGN.

PAVING:

2. PAVING FOR PARKS AND TRAILS SHALL BE CONCRETE, UNLESS OTHERWISE APPROVED BY THE CITY OF BRENTWOOD.

3. MAIN ACCESS PATH SHALL BE A TEN-FOOT (10') WIDTH PAVING, SIX INCHES (6") THICK CONCRETE WITH #4 REBAR AT 24" O.C. AND 1-1/2 LBS. OF FIBER MESH PER CUBIC YARD ON 6" COMPACTED AGGREGATE PER CITY SPECIFICATIONS.

4. TURF PAVERS SHALL BE TUFFTRACK GRASS PAVERS BY NDS OR APPROVED EQUAL.

5. PROVIDE A 24" WIDE CONCRETE MOWBAND AT THE BASE OF A FENCE. PROVIDE A 12" WIDE MOWBAND ALONG ALL TURF INTERFACE AREAS.

6. SEPARATE CITY LANDSCAPE AREAS ADJACENT TO PRIVATE OR COMMERCIALLY OWNED LANDSCPAPE WITH A 12" WIDE CONCRETE MOWBAND.

CLOSE OUT AND SIGN-OFF CHECKLIST

CIP PROJECT:_____DATE:_____

All items on this list must be provided to the City Inspector prior to the start of the 90 day plant establishment appointment.

Received	Not Applicable	Documentation:
☐	☐	One complete set of 4mm mylar landscape as-built or record drawings, with architect's signature and date.
☐	☐	Three full sets of as-built landscaping and irrigation plans, that reflect as-built conditions, noted plant substitutions, plant relocation, irrigation main, and lateral and sprinkler head locations, and show actual flow rates for each controller zone, and actual pressure must be submitted.
☐	☐	Two sets of irrigation plans, reduced to (11x17), showing color-coded and numbered irrigation circuits. One set to be plastic laminated.
☐	☐	Installation of irrigation controllers shall be certified by the manufacturer's representative to be fully operational, including telemetry line. Controller manual and signed certificate shall be turned in to the City Inspector.
☐	☐	Two copies of current backflow certification report. Include meter size, serial number, transponder number, and location.
☐	☐	Copy of Bac-t test for drinking fountains.
☐	☐	Two sets of instruction manuals for operation and maintenance of all equipment items.
☐	☐	Two sets of parts manuals showing views for each piece of equipment. Manuals should include applicable parts catalog numbers.
☐	☐	Written manufacturer's warranty statement for all components.
☐	☐	Booster Pump Certification by manufacturer representative.
☐	☐	A copy of Playground Installation Certification must be submitted to the City Inspector certifying that all equipment meets current ASTM Standards. Certification shall be by a current Certified Playground Safety Inspector, after installation of playground equipment.
☐	☐	A maintenance kit for the playground equipment.
☐	☐	Provide the City of Brentwood with a written record of the type of chemical used for pre-emergent applications with amounts applied and dates of application.
☐	☐	Two copies of asset inventory of irrigation, plants, trees, and square footage for turf and planter area (form attached).
☐	☐	Two copies of final inspection of electric meter pedestal from building inspector. Meter number for electrical meter. Also, two copies each of utility bills for water, power, & phones.
☐	☐	CD with Auto-Cad files of all sheets.
☐	☐	Tree database - GPS locations of all trees planted on project and all fields entered per City of Brentwood format.
☐	☐	Water audit performed by a certified irrigation water auditor verifying compliance of uniformity and distribution in accordance with (MWELO) Model Water Efficient Landscape Ordinance.
		Equipment:
☐	☐	Two quick coupler top cap lock keys.
☐	☐	Two quick coupler keys with hose swivels.
☐	☐	Two sets of special tools for each piece of equipment (if needed).
☐	☐	Any other equipment noted on plans.
☐	☐	One value key for 2" square nut.
☐	☐	Two sets of keys for all enclosures.

Sample Plan and Profile Sheet

THE CITY OF BRENTWOOD

PUBLIC WORKS DEPARTMENT

150 City Park Way, Brentwood, CA 94513
Ph: (925) 516-5420 - FAX: (925) 516-5421
www.brentwoodca.gov

Consultant Logo Here

NO.	REVISIONS	BY	APP	DATE

IMPROVEMENT PLAN

BRENTWOOD **CALIFORNIA**

DESIGNED UNDER THE DIRECTION OF:

XXXXXXXXXXXXXXX DATE
R.C.E. No. XXXXX REGISTRATION EXPIRES XX-XX-XX

DESIGN: XXX	DATE: XX-XX-XX
DRAWN: XXX	DATE: XX-XX-XX
CHECKED: XXX	DATE: XX-XX-XX

STAMP

SHEET

XXX

xxx OF xxx SHEETS

Sample Title Sheet

REVIEWED FOR CONFORMANCE WITH THE CITY OF BRENTWOOD STANDARDS AND REQUIREMENTS. APPROVAL FOR CONSTRUCTION IS SUBJECT TO THE INFORMATION SHOWN HEREIN. CITY OF BRENTWOOD AND THE UNDERSIGNED ARE NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY EXIST ON THESE PLANS.

MIKI TSUBOTA — DATE
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER
R.C.E. No. 61648 — EXPIRES 6-30-17

CCC FIRE PROTECTION DISTRICT

XXXXXXXXXXXXXXX, CHIEF INSPECTOR — DATE

THE CITY OF BRENTWOOD

PUBLIC WORKS DEPARTMENT
150 City Park Way, Brentwood, CA 94513
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NO.	REVISIONS	BY	APP	DATE

IMPROVEMENT PLAN

BRENTWOOD CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:
XXXXXXXXXXXXXXX — DATE
R.C.E. No. XXXXX REGISTRATION EXPIRES XX-XX-XX

DESIGN: XXX — DATE: XX-XX-XX
DRAWN: XXX — DATE: XX-XX-XX
CHECKED: XXX — DATE: XX-XX-XX

STAMP

SHEET XXX
xxx OF xxx SHEETS

Sample Title Sheet

REVIEWED FOR CONFORMANCE WITH THE CITY OF BRENTWOOD STANDARDS AND REQUIREMENTS. APPROVAL FOR CONSTRUCTION IS SUBJECT TO THE INFORMATION SHOWN HEREIN. CITY OF BRENTWOOD AND THE UNDERSIGNED ARE NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY EXIST ON THESE PLANS.

MIKI TSUBOTA — DATE
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER
R.C.E. No. 61648 — EXPIRES 6-30-17

COMMUNITY DEVELOPMENT DIRECTOR

CASEY MCCANN — DATE

THE CITY OF BRENTWOOD
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NO.	REVISIONS	BY	APP	DATE

GRADING PLAN

BRENTWOOD CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:
XXXXXXXXXXXXXXX — DATE
R.C.E. No. XXXXX REGISTRATION EXPIRES XX-XX-XX

DESIGN: XXX — DATE: XX-XX-XX
DRAWN: XXX — DATE: XX-XX-XX
CHECKED: XXX — DATE: XX-XX-XX

STAMP

SHEET XXX
xxx OF xxx SHEETS

Sample Title Sheet

REVIEWED FOR CONFORMANCE WITH THE CITY OF BRENTWOOD STANDARDS AND REQUIREMENTS. APPROVAL FOR CONSTRUCTION IS SUBJECT TO THE INFORMATION SHOWN HEREIN. CITY OF BRENTWOOD AND THE UNDERSIGNED ARE NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS THAT MAY EXIST ON THESE PLANS.

MIKI TSUBOTA — DATE
DIRECTOR OF PUBLIC WORKS/CITY ENGINEER
R.C.E. No. 61648 — EXPIRES 6-30-17

COMMUNITY DEVELOPMENT DIRECTOR

CASEY MCCANN — DATE

PARKS AND RECREATION DIRECTOR

BRUCE MULDER — DATE

THE CITY OF BRENTWOOD

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NO.	REVISIONS	BY	APP	DATE

LANDSCAPE IMPROVEMENT PLAN

BRENTWOOD CALIFORNIA

DESIGNED UNDER THE DIRECTION OF:
XXXXXXXXXXXXXXX — DATE
R.C.E. No. XXXXX REGISTRATION EXPIRES XX-XX-XX

DESIGN: XXX — DATE: XX-XX-XX
DRAWN: XXX — DATE: XX-XX-XX
CHECKED: XXX — DATE: XX-XX-XX

STAMP

SHEET XXX
xxx OF xxx SHEETS