

A. QUALIFICATIONS OF LANDSCAPE CONTRACTOR

ON THE LANDSCAPE PLANS, NOTES, AND DETAILS.

TRANSPORTATION AND INSTALLATION OF MATERIALS.

A. ALL MANUFACTURED PRODUCTS SHALL BE NEW.

B. CONTAINER AND BALLED-AND-BURLAPPED PLANTS:

REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.

SPECIALIZING IN LANDSCAPE PLANTING.

B. SCOPE OF WORK

ANY WORK.

PRODUCTS

DUTCH BROS. COFFEE - CO0907, COLORADO SPRINGS, CO

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 6 TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE 6TH PM CITY OF COLORADO SPRINGS, COUNTY OF FL PASO, COLORADO

PCD FILE NO PPR2413

SHOULD ANY CONFLICTS AND/OR DISCREPANCIES ARISE BETWEEN THE GRADING PLANS, GEOTECHNICAL REPORT, THESE NOTES AND PLANS, AND ACTUAL CONDITIONS, THE CONTRACTOR SHALL IMMEDIATELY BRING SUCH ITEMS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR, AND OWNER. 6. ONCE SOIL PREPARATION IS COMPLETE. THE LANDSCAPE CONTRACTOR SHALL ENSURE THAT THERE ARE NO DEBRIS, TRASH, OR STONES LARGER THAN 1" REMAINING IN THE TOP 6" OF SOIL.

ARCHITECT, AND RECEIVE APPROVAL IN WRITING FOR SUCH SUBMITTALS BEFORE WORK COMMENCES.

SUBMITTALS SHALL INCLUDE PHOTOS OF PLANTS WITH A RULER OR MEASURING STICK FOR SCALE,

THE CONTRACTOR SHALL PROVIDE SUBMITTALS AND SAMPLES, IF REQUIRED, TO THE LANDSCAPE

PHOTOS OR SAMPLES OF ANY REQUIRED MULCHES, AND SOIL TEST RESULTS AND PREPARATION RECOMMENDATIONS FROM THE TESTING LAB (INCLUDING COMPOST AND FERTILIZER RATES AND TYPES. AND OTHER AMENDMENTS FOR TREE/SHRUB, TURF, AND SEED AREAS AS MAY BE

3. SUBMITTALS SHALL ALSO INCLUDE MANUFACTURER CUT SHEETS FOR PLANTING ACCESSORIES SUCH AS TREE STAKES AND TIES, EDGING, AND LANDSCAPE FABRICS (IF ANY). 4. WHERE MULTIPLE ITEMS ARE SHOWN ON A PAGE, THE CONTRACTOR SHALL CLEARLY INDICATE THE

ITEM BEING CONSIDERED. GENERAL PLANTING

REMOVE ALL NURSERY TAGS AND STAKES FROM PLANTS.

EXCEPT IN AREAS TO BE PLANTED WITH ORNAMENTAL GRASSES. APPLY PRE-EMERGENT HERBICIDES AT THE MANUFACTURER'S RECOMMENDED RATE. TRENCHING NEAR EXISTING TREES:

CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).

b. ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ. c. ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP MOIST. CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS.

d. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.

TREE PLANTING TREE PLANTING HOLES SHALL BE EXCAVATED TO MINIMUM WIDTH OF TWO TIMES THE WIDTH OF THE ROOTBALL, AND TO A DEPTH EQUAL TO THE DEPTH OF THE ROOTBALL LESS TWO TO FOUR INCHES. 2. SCARIFY THE SIDES AND BOTTOM OF THE PLANTING HOLE PRIOR TO THE PLACEMENT OF THE TREE. REMOVE ANY GLAZING THAT MAY HAVE BEEN CAUSED DURING THE EXCAVATION OF THE HOLE. 3. FOR CONTAINER AND BOX TREES, TO REMOVE ANY POTENTIALLY GIRDLING ROOTS AND OTHER ROOT DEFECTS, THE CONTRACTOR SHALL SHAVE A 1" LAYER OFF OF THE SIDES AND BOTTOM OF THE ROOTBALL OF ALL TREES JUST BEFORE PLACING INTO THE PLANTING PIT. DO NOT "TEASE" ROOTS

OUT FROM THE ROOTBALL. INSTALL THE TREE ON UNDISTURBED SUBGRADE SO THAT THE TOP OF THE ROOTBALL IS TWO TO FOUR INCHES ABOVE THE SURROUNDING GRADE.

5. BACKFILL THE TREE HOLE UTILIZING THE EXISTING TOPSOIL FROM ON-SITE. ROCKS LARGER THAN 1" DIA. AND ALL OTHER DEBRIS SHALL BE REMOVED FROM THE SOIL PRIOR TO THE BACKFILL. SHOULD ADDITIONAL SOIL BE REQUIRED TO ACCOMPLISH THIS TASK, USE STORED TOPSOIL FROM ON-SITE OR IMPORT ADDITIONAL TOPSOIL FROM OFF-SITE AT NO ADDITIONAL COST TO THE OWNER. IMPORTED TOPSOIL SHALL BE OF SIMILAR TEXTURAL CLASS AND COMPOSITION IN THE ON-SITE SOIL. 6. TREES SHALL NOT BE STAKED UNLESS LOCAL CONDITIONS (SUCH AS HEAVY WINDS OR SLOPES) REQUIRE STAKES TO KEEP TREES UPRIGHT. SHOULD STAKING BE REQUIRED, THE TOTAL NUMBER OF TREE STAKES (BEYOND THE MINIMUMS LISTED BELOW) WILL BE LEFT TO THE LANDSCAPE CONTRACTOR'S DISCRETION. SHOULD ANY TREES FALL OR LEAN. THE LANDSCAPE CONTRACTOR

SHALL STRAIGHTEN THE TREE. OR REPLACE IT SHOULD IT BECOME DAMAGED. TREE STAKING SHALL ADHERE TO THE FOLLOWING GUIDELINES: a. #15 CONT. - 24" BOX TREES TWO STAKES PER TREE

b. 36"-48" BOX TREES THREE STAKES PER TREE

OVER 48" BOX TREES GUY AS NEEDED MULTI-TRUNK TREES THREE STAKES PER TREE MINIMUM, QUANTITY AND POSITIONS AS

NEEDED TO STABILIZE THE TREE 7. UPON COMPLETION OF PLANTING, CONSTRUCT AN EARTH WATERING BASIN AROUND THE TREE.

COVER THE INTERIOR OF THE TREE RING WITH MULCH (TYPE AND DEPTH PER PLANS). SHRUB, PERENNIAL, AND GROUNDCOVER PLANTING DIG THE PLANTING HOLES TWICE AS WIDE AND 2" LESS DEEP THAN EACH PLANT'S ROOTBALL. INSTALL

THE PLANT IN THE HOLE. BACKFILL AROUND THE PLANT WITH SOIL AMENDED PER SOIL TEST 2. WHEN PLANTING IS COMPLETE, INSTALL MULCH (TYPE AND DEPTH PER PLANS) OVER ALL PLANTING

BEDS, COVERING THE ENTIRE PLANTING AREA.

INSTALL MULCH TOPDRESSING, TYPE AND DEPTH PER MULCH NOTE, IN ALL PLANTING AREAS AND 2. DO NOT INSTALL MULCH WITHIN 6" OF TREE ROOT FLARE AND WITHIN 24" OF HABITABLE STRUCTURES, EXCEPT AS MAY BE NOTED ON THESE PLANS. MULCH COVER WITHIN 6" OF CONCRETE WALKS AND CURBS SHALL NOT PROTRUDE ABOVE THE FINISH SURFACE OF THE WALKS AND CURBS. MULCH

COVER WITHIN 12" OF WALLS SHALL BE AT LEAST 3" LOWER THAN THE TOP OF WALL. DURING LANDSCAPE PREPARATION AND PLANTING, KEEP ALL PAVEMENT CLEAN AND ALL WORK AREAS

IN A NEAT, ORDERLY CONDITION. DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.

INSPECTION AND ACCEPTANCE

UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY. 2. WHEN THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S

SATISFACTION WITHIN 24 HOURS. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.

K. LANDSCAPE MAINTENANCE THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK SHOWN ON THESE PLANS FOR 90 DAYS BEYOND FINAL ACCEPTANCE OF ALL LANDSCAPE WORK BY THE OWNER. LANDSCAPE MAINTENANCE SHALL INCLUDE WEEKLY SITE VISITS FOR THE FOLLOWING ACTIONS (AS APPROPRIATE): PROPER PRUNING, RESTAKING OF TREES, RESETTING OF PLANTS THAT HAVE SETTLED, WEEDING, TREATING FOR INSECTS AND DISEASES, REPLACEMENT OF MULCH, REMOVAL OF LITTER, REPAIRS TO THE IRRIGATION SYSTEM DUE TO FAULTY PARTS AND/OR WORKMANSHIP, AND THE APPROPRIATE WATERING OF ALL PLANTINGS. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN PROPER WORKING ORDER, WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION. 2. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING

CONDITIONS MUST OCCUR: a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.

ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.

WARRANTY PERIOD, PLANT GUARANTEE AND REPLACEMENTS THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL TREES, SHRUBS, PERENNIALS, AND IRRIGATION SYSTEMS FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE (90 DAYS FOR ANNUAL PLANTS). THE CONTRACTOR SHALL REPLACE, AT HIS OWN EXPENSE AND TO THE SATISFACTION OF THE OWNER, ANY PLANTS WHICH DIE IN THAT TIME, OR REPAIR ANY PORTIONS OF THE IRRIGATION SYSTEM WHICH OPERATE IMPROPERLY. 2. AFTER THE INITIAL MAINTENANCE PERIOD AND DURING THE GUARANTEE PERIOD, THE LANDSCAPE

CONTRACTOR SHALL ONLY BE RESPONSIBLE FOR REPLACEMENT OF PLANTS WHEN PLANT DEATH CANNOT BE ATTRIBUTED DIRECTLY TO OVERWATERING OR OTHER DAMAGE BY HUMAN ACTIONS M. PROVIDE A MINIMUM OF (2) COPIES OF RECORD DRAWINGS TO THE OWNER UPON COMPLETION OF WORK. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE

DOCUMENTED THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING MARKUPS.

FINISH GRADE AT -MULCH LAYER 4:1 SLOPE MAXIMUM - TOPSOIL AS SPECIFIED CURB PER CIVIL DRAWINGS (WALK FINISH GRADE AT SIMILAR) 3:1 SLOPE MAXIMUM 10:1 SLOPE MINIMUM - PREPARED SUBGRADE CLEAR MULCH CONDITION (CURB SIMILAR) PLANTER SECTION DETAIL

> SHRUB - PRUNE AS DIRECTED BY LANDSCAPE ARCHITECT HOLD MULCH FROM STEM MULCH LAYER 4" SAUCER FOR WATERING BACKFILL. SEE SOIL SPECIFICATIONS SCARIFY ROOTBALL ON CONTAINER MATERIAL. REMOVE TOP 1/3 OF BURLAP ON B&B MATERIAL ROOT GROWTH HORMONE 3x THE ROOTBALL DIAMETER

APPLY ADDITIONAL 4 OZ. 8-32-16 FERTILIZER INTO TOP 2" OF PLANTING MIX. PLANT SHRUB HIGH ENOUGH TO ALLOW POSITIVE DRAINAGE AWAY FROM ROOTBALL. ROUGHEN ALL SURFACES OF PIT.

SHRUB PLANTING DETAIL

NOT TO SCALE

NIL

.St. 58j. √A`

SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. ALL PLANTS WITHIN A SPECIES SHALL HAVE SIMILAR SIZE, AND SHALL BE OF A FORM TYPICAL FOR THE SPECIES. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE, AND WITH SIMILAR CLIMACTIC CONDITIONS. 2. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED ROOT SYSTEMS, NON-POT-BOUND, FREE

FURNISH NURSERY-GROWN PLANTS COMPLYING WITH ANSI Z60.1-2014. PROVIDE WELL-SHAPED, FULLY

FROM ENCIRCLING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DEFECTS (SUCH AS J-SHAPED ROOTS).

ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM

2. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE

1. WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES AND ANY OTHER ITEMS THAT ARE NECESSARY FOR

THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND / OR SHOWN

2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND

INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY,

REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL

(WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF

BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS

3. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES

3. TREES MAY BE PLANTED FROM CONTAINERS OR BALLED-AND-BURLAPPED (B&B), UNLESS SPECIFIED ON THE PLANTING LEGEND. BARE-ROOT TREES ARE NOT ACCEPTABLE.

4. ANY PLANT DEEMED UNACCEPTABLE BY THE LANDSCAPE ARCHITECT OR OWNER SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND SHALL BE REPLACED WITH AN ACCEPTBLE PLANT OF LIKE TYPE AND SIZE AT THE CONTRACTOR'S OWN EXPENSE. ANY PLANTS APPEARING TO BE UNHEALTHY, EVEN IF DETERMINED TO STILL BE ALIVE, SHALL NOT BE ACCEPTED. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE THE SOLE JUDGES AS TO THE ACCEPTABILITY OF PLANT MATERIAL

ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS 6. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES

ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER. 7. MULTI-TRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL. WHERE CALIPER MEASUREMENTS ARE USED, THE CALIPER SHALL BE CALCULATED

AS ONE-HALF OF THE SUM OF THE CALIPER OF THE THREE LARGEST TRUNKS 8. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.

C. TOPSOIL: SANDY TO CLAY LOAM TOPSOIL, FREE OF STONES LARGER THAN ½ INCH, FOREIGN MATTER

PLANTS, ROOTS, AND SEEDS. D. COMPOST: WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, pH RANGE OF 5.5 TO 8; MOISTURE CONTENT 35 TO 55 PERCENT BY WEIGHT; 100 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF 5 TO 10 DECISIEMENS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS. NO MANURE OR ANIMAL-BASED PRODUCTS SHALL BE

E. PLANTING MIX FOR POTS: AN EQUAL PART MIXTURE OF TOPSOIL, SAND AND COMPOST. INCORPORATE "GELSCAPE", AS MADE BY AMEREQ, INC., (800) 832-8788, AT THE RATE OF 3 LB. PER CUBIC YARD OF PLANTING

F. FERTILIZER: GRANULAR FERTILIZER CONSISTING OF NITROGEN, PHOSPHORUS, POTASSIUM, AND OTHER NUTRIENTS IN PROPORTIONS, AMOUNTS, AND RELEASE RATES RECOMMENDED IN A SOIL REPORT FROM A QUALIFIED SOIL-TESTING AGENCY (SEE BELOW).

G. MULCH: SIZE AND TYPE AS INDICATED ON PLANS, FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF TREES AND SHRUBS.

TREE STAKING AND GUYING

STAKES: 6' LONG GREEN METAL T-POSTS.

GUY AND TIE WIRE: ASTM A 641, CLASS 1, GALVANIZED-STEEL WIRE, 2-STRAND, TWISTED, 0.106 INCH 3. STRAP CHAFING GUARD: REINFORCED NYLON OR CANVAS AT LEAST 1-1/2 INCH WIDE, WITH

GROMMETS TO PROTECT TREE TRUNKS FROM DAMAGE. L. STEEL EDGING: PROFESSIONAL STEEL EDGING, 14 GAUGE THICK X 4 INCHES WIDE, FACTORY PAINTED DARK GREEN. ACCEPTABLE MANUFACTURERS INCLUDE COL-MET OR APPROVED EQUAL

M. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT HERBICIDES SHALL BE APPLIED PER THE MANUFACTURER'S LABELED RATES. METHODS

A. SOIL PREPARATION

BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE GRADE OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY SHOULD ANY DISCREPANCIES EXIST. SOIL TESTING:

a. AFTER FINISH GRADES HAVE BEEN ESTABLISHED, CONTRACTOR SHALL HAVE SOIL SAMPLES FROM THE PROJECT'S LANDSCAPE AREAS TESTED BY AN ESTABLISHED SOIL TESTING LABORATORY. EACH SAMPLE SUBMITTED TO THE LAB SHALL CONTAIN NO LESS THAN ONE QUART OF SOIL, TAKEN FROM BETWEEN THE SOIL SURFACE AND 6" DEPTH. IF NO SAMPLE LOCATIONS ARE INDICATED ON THE PLANS, THE CONTRACTOR SHALL TAKE A MINIMUM OF THREE SAMPLES FROM VARIOUS REPRESENTATIVE LOCATIONS FOR TESTING.

b. THE CONTRACTOR SHALL HAVE THE SOIL TESTING LABORATORY PROVIDE RESULTS FOR THE FOLLOWING: SOIL TEXTURAL CLASS, GENERAL SOIL FERTILITY, pH, ORGANIC MATTER CONTENT, SALT (CEC), LIME, SODIUM ADSORPTION RATIO (SAR) AND BORON CONTENT. c. THE CONTRACTOR SHALL ALSO SUBMIT THE PROJECT'S PLANT LIST TO THE LABORATORY ALONG

d. THE SOIL REPORT PRODUCED BY THE LABORATORY SHALL CONTAIN RECOMMENDATIONS FOR

THE FOLLOWING (AS APPROPRIATE): SEPARATE SOIL PREPARATION AND BACKFILL MIX RECOMMENDATIONS FOR GENERAL ORNAMENTAL PLANTS, XERIC PLANTS, TURF, AND NATIVE SEED, AS WELL AS PRE-PLANT FERTILIZER APPLICATIONS AND RECOMMENDATIONS FOR ANY OTHER SOIL RELATED ISSUES. THE REPORT SHALL ALSO PROVIDE A FERTILIZER PROGRAM FOR THE ESTABLISHMENT PERIOD AND FOR LONG-TERM MAINTENANCE.

THE CONTRACTOR SHALL INSTALL SOIL AMENDMENTS AND FERTILIZERS PER THE SOILS REPORT RECOMMENDATIONS. ANY CHANGE IN COST DUE TO THE SOIL REPORT RECOMMENDATIONS, EITHER INCREASE OR DECREASE, SHALL BE SUBMITTED TO THE OWNER WITH THE REPORT. 4. FOR BIDDING PURPOSES ONLY, THE SOIL PREPARATION SHALL CONSIST OF THE FOLLOWING:

TREES, SHRUBS, AND PERENNIALS: INCORPORATE THE FOLLOWING AMENDMENTS INTO THE TOP 8" OF SOIL BY MEANS OF ROTOTILLING AFTER CROSS-RIPPING.

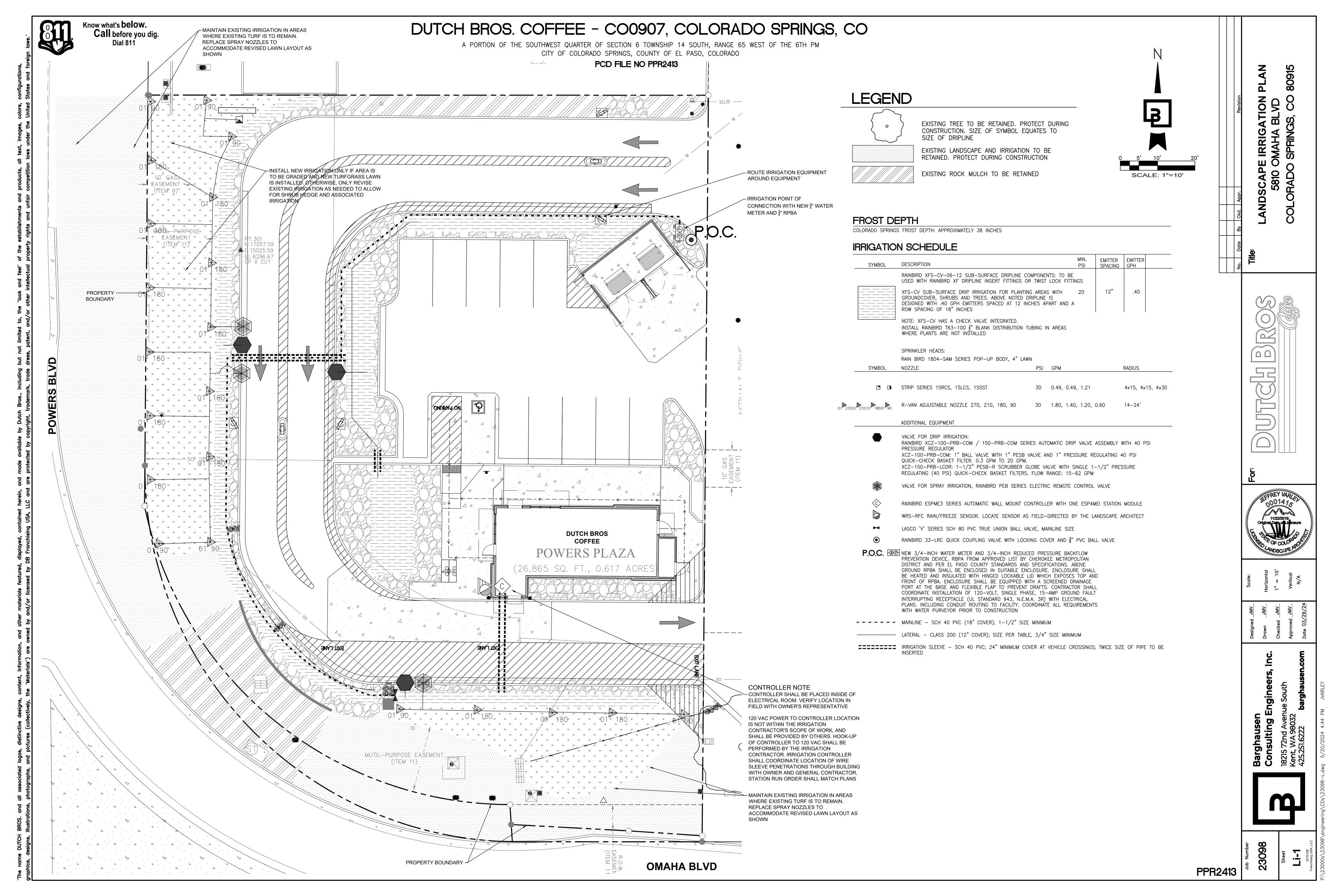
i. NITROGEN STABILIZED ORGANIC AMENDMENT: 4 CU. YDS. PER 1,000 S.F. ii. 12-12-12 FERTILIZER (OR SIMILAR ORGANIC SLOW-RELEASE) 10 LBS. PER CU. YD. iii. 'CLAY BUSTER' OR EQUAL. USE MANUFACTURER'S RECOMMENDED RATE.

iv. IRON SULFATE. 2 LBS. PER CU. YD. 5. IN THE CONTEXT OF THESE PLANS, NOTES, AND SPECIFICATIONS, "FINISH GRADE" REFERS TO THE FINAL ELEVATION OF THE SOIL SURFACE (NOT TOP OF MULCH) AS INDICATED ON THE GRADING PLANS. a. BEFORE STARTING WORK, THE LANDSCAPE CONTRACTOR SHALL VERIFY THAT THE ROUGH GRADES OF ALL LANDSCAPE AREAS ARE WITHIN +/-0.1' OF FINISH GRADE. SEE SPECIFICATIONS FOR MORE DETAILED INSTRUCTION ON TURF AREA AND PLANTING BED PREPARATION.

b. CONSTRUCT AND MAINTAIN FINISH GRADES AS SHOWN ON GRADING PLANS, AND CONSTRUCT AND MAINTAIN SLOPES AS RECOMMENDED BY THE GEOTECHNICAL REPORT. ALL LANDSCAPE AREAS SHALL HAVE POSITIVE DRAINAGE AWAY FROM STRUCTURES AT THE MINIMUM SLOPE SPECIFIED IN THE REPORT AND ON THE GRADING PLANS, AND AREAS OF POTENTIAL PONDING SHALL BE REGRADED TO BLEND IN WITH THE SURROUNDING GRADES AND ELIMINATE PONDING

c. THE LANDSCAPE CONTRACTOR SHALL DETERMINE WHETHER OR NOT THE EXPORT OF ANY SOIL WILL BE NEEDED, TAKING INTO ACCOUNT THE ROUGH GRADE PROVIDED, THE AMOUNT OF SOIL AMENDMENTS TO BE ADDED (BASED ON A SOIL TEST, PER SPECIFICATIONS), AND THE FINISH GRADES TO BE ESTABLISHED.

d. ENSURE THAT THE FINISH GRADE IN SHRUB AREAS IMMEDIATELY ADJACENT TO WALKS AND OTHER WALKING SURFACES, AFTER INSTALLING SOIL AMENDMENTS, IS 3" BELOW THE ADJACENT FINISH SURFACE, IN ORDER TO ALLOW FOR PROPER MULCH DEPTH. TAPER THE SOIL SURFACE TO MEET FINISH GRADE, AS SPECIFIED ON THE GRADING PLANS, AT APPROXIMATELY 18" AWAY FROM THE WALKS.



DUTCH BROS. COFFEE - CO0907, COLORADO SPRINGS, CO

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 6 TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE 6TH PM CITY OF COLORADO SPRINGS. COUNTY OF EL PASO. COLORADO

PCD FILE NO PPR2413

IRRIGATION SPECIFICATIONS

A. QUALIFICATIONS OF IRRIGATION CONTRACTOR

ALL WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE IRRIGATION CONTRACTING FIRM SPECIALIZING IN IRRIGATION SYSTEMS. SEE THE IRRIGATION PLAN FOR SPECIFIC EQUIPMENT AND SYSTEM LAYOUT.

2. THE IRRIGATION CONTRACTOR MUST HAVE ON ITS STAFF A LICENSED IRRIGATION INSTALLER, AS REGULATED BY THE APPROPRIATE LOCAL JURISDICTION. A LICENSED IRRIGATION INSTALLER SHALL BE PRESENT AT THE PROJECT SITE AT ALL TIMES AS WORK IS IN PROGRESS. THE OWNER MAY DEMAND THAT WORK STOP UNTIL THE CONTRACTOR PROVIDES FOR A LICENSED IRRIGATION INSTALLER TO BE PRESENT AT THE PROJECT SITE AND SUPERVISING ALL IRRIGATION WORK.

3. A LIST OF SUCCESSFULLY COMPLETED PROJECTS OF THIS TYPE, SIZE AND NATURE MAY BE REQUESTED BY THE OWNER FOR FURTHER QUALIFICATION MEASURES.

B. SCOPE OF WORK WORK COVERED BY THESE SECTIONS INCLUDES THE FURNISHING AND PAYMENT OF ALL MATERIALS, LABOR, SERVICES, EQUIPMENT, LICENSES, TAXES, FEES, AND ANY OTHER ITEMS THAT ARE NECESSARY FOR THE EXECUTION, INSTALLATION AND COMPLETION OF ALL WORK, SPECIFIED HEREIN AND/OR SHOWN ON THE IRRIGATION PLANS. NOTES. AND DETAILS 2. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS. IN CASE OF CONFLICT BETWEEN THESE PLANS AND LOCAL AND/OR STATE CODES, CODES SHALL PREVAIL

THE INTENT OF THE IRRIGATION SYSTEM IS TO PROVIDE 100% COVERAGE OF ALL LANDSCAPE AREAS. THE IRRIGATION PLAN IS GENERALLY DIAGRAMMATIC; COORDINATE IRRIGATION INSTALLATION WITH UTILITY INSTALLATIONS. ACTUAL LOCATION OF CONTROLLER, BACKFLOW DEVICE, PIPING, VALVES, SPRAY HEADS, DRIP IRRIGATION, AND RELATED EQUIPMENT MAY NEED TO BE ADJUSTED BASED ON ACTUAL SITE CONDITIONS. 4. FOR CLARITY PURPOSES, SOME IRRIGATION LINES AND EQUIPMENT ARE SHOWN IN HARDSCAPE AREAS WITHOUT ACCESS SLEEVES: THESE LINES SHALL BE INSTALLED IN A COMMON TRENCH OR AT THE BACK OF CURB IN LANDSCAPE AREAS. MINOR FIELD ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.

A. ALL MATERIALS SHALL BE NEW AND WITHOUT FLAWS OR DEFECTS OF ANY TYPE AND SHALL BE THE BEST OF THEIR CLASS AND KIND. ALL MATERIALS SHALL HAVE A MINIMUM GUARANTEE OF ONE YEAR AGAINST MATERIAL DEFECTS OR DEFECTIVE WORKMANSHIP. ALL MATERIALS SHALL BE OF THE BRANDS AND TYPES NOTED ON THE DRAWINGS OR AS SPECIFIED HEREIN, OR APPROVED EQUAL. THE CONTRACTOR MUST FIRST OBTAIN APPROVAL FROM THE IRRIGATION DESIGNER FOR AN 'APPROVED EQUAL' BEFORE INSTALLING SUCH MATERIALS IN THE FIELD, OR THE CONTRACTOR

MAY BE REQUIRED TO REPLACE SUCH MATERIALS AT HIS OWN COST. B. BACKFLOW PREVENTION DEVICES SHALL BE OF THE SIZE AND TYPE INDICATED ON THE DRAWINGS. INSTALL BACKFLOW PREVENTION UNITS IN ACCORDANCE WITH IRRIGATION CONSTRUCTION DETAILS AND ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES.

- PRESSURE SUPPLY LINES, DOWNSTREAM OF THE POINT-OF-CONNECTION:
- SCHEDULE 40 PVC FOR ALL PIPE 1-1/2" OR LESS
- CLASS 315 PVC FOR ALL PIPE 2" TO 2-1/2"
- CLASS 200 PVC, GASKETED, FOR ALL PIPE 3" AND LARGER

STATION NUMBER HEAT-BRANDED INTO THE LID WITH 2" HIGH LETTERS.

SLEEVING AND NON-PRESSURE LATERAL LINES (DOWNSTREAM FROM VALVES): CLASS 200 PVC

FITTINGS: SCH. 40 PVC, EXCEPT AS NOTED OTHERWISE.

- VALVES AND DRIP VALVE ASSEMBLIES: TYPE AND SIZE AS NOTED ON PLANS. EACH VALVE SHALL BEAR A PRE-MANUFACTURED, NUMBERED WATERPROOF TAG BEARING A NUMBER CORRESPONDING TO ITS VALVE SEQUENCE OF OPERATION ON THE CONTROLLER. THE OPERATION SEQUENCE SHALL MATCH THAT AS SHOWN ON THE PLANS.
- QUICK COUPLERS, BALL VALVES, AND GATE VALVES: TYPE AND SIZE PER PLANS VALVE BOXES: TYPE AND SIZE AS NOTED ON DETAILS. ALL VALVES BOXES SHALL BE LOCKING BOLT-DOWN TYPE, FURNISHED WITH LIDS AND BOLTS. BOXES SHALL BE OF A SIZE TO CONTAIN THE ENTIRE VALVE AND/OR VALVE ASSEMBLY. THE VALVE BOX LID SHALL HAVE THE VALVE

G. FIXED SPRAY HEADS AND ROTORS: PLASTIC BODY POP-UP, WITH A REMOVABLE PLASTIC SPRAY NOZZLE. EXACT TYPE, MODEL, AND NOZZLE SHALL BE AS INDICATED ON PLANS. H. INTEGRAL EMITTER DRIP TUBING: TUBING MODEL AND FLOW RATE AS NOTED ON PLANS, WITH INTEGRAL EMITTERS WELDED TO THE INSIDE WALL OF THE TUBING AS AN INTEGRAL PART OF THE TUBING ASSEMBLY.

AUTOMATIC CONTROLLER: TYPE AND MODEL PER PLANS. PROVIDE VANDAL-PROOF ENCLOSURE FOR ALL EXTERIOR INSTALLATIONS. PROVIDE LINE-VOLTAGE DISCONNECT SWITCH WITH GROUND FAULT PROTECTION.

J. 24 VOLT VALVE WIRE SHALL BE A MINIMUM OF #14 GAUGE, U.F. APPROVED FOR DIRECT BURIAL SINGLE CONDUCTOR IRRIGATION WIRE. EACH CONTROLLER SHALL HAVE A DIFFERENT COLOR STATION AND COMMON WIRE

- STATION WIRE ANY COLOR EXCEPT WHITE OR BLUE
- COMMON WIRE WHITE
- EXTRA COMMON WIRES BLUE
- WIRE SPLICES SHALL BE ENCASED IN A WATERPROOF COMPOUND OR GEL. ALL FIELD SPLICES SHALL BE LOCATED IN A 6 INCH ROUND VALVE BOX. RAIN SENSOR: TYPE AND MODEL PER PLANS.

A. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQURED TO MOVE SUCH ITEMS AT HIS OWN COST. ENSURE FIELD COORDINATION IS MADE EARLY ON IN THE CONSTRUCTION PHASE SO PLACEMENT LOCATION IS CORRECT.

B. THE IRRIGATION CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK, AND SHALL OBTAIN ALL ENGINEERING, LANDSCAPE, AND OTHER APPLICABLE PLANS & DOCUMENTS. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE PLANS AND REPORT ANY CONFLICTS OR DISCREPANCIES TO THE LANDSCAPE ARCHITECT AND OWNER'S REPRESENTATIVE IMMEDIATELY.

C. THE IRRIGATION CONTRACTOR SHALL NOT WILFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADES OR DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE IRRIGATION DESIGNER. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS AND NECESSARY COSTS. D. THE IRRIGATION CONTRACTOR SHALL PAY ANY AND ALL FEES AND PERMITS ASSOCIATED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM.

E. AT LEAST SEVEN DAYS BEFORE BEGINNING WORK, CONFIRM THE STATIC WATER PRESSURE IS AT LEAST 65 PSI. IF STATIC WATER PRESSURE IS OUTSIDE OF THE STATED RANGE, DO NOT PROCEED WITHOUT FIRST NOTIFYING THE IRRIGATION DESIGNER AND OWNER IN WRITING, AND OBTAINING SUBSEQUENT DIRECTION FOR CORRECTIONAL MEASURES. SHOULD THE IRRIGATION CONTRACTOR CHOOSE TO BEGIN THE INSTALLATION WITHOUT SUCH NOTIFICATION, THE IRRIGATION CONTRACTOR WILL ASSUME THE RESPONSIBILITY FOR ALL COSTS INCURRED TO ENSURE THE SYSTEM IS WORKING PROPERLY. NO CHANGE ORDERS WILL BE AUTHORIZED IN SUCH CIRCUMSTANCES.

F. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK. THE CONTRACTOR SHALL BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATIONS OF WALLS, STRUCTURES AND UTILITIES.

G. COORDINATE WITH THE OWNER THE PROPOSED LOCATIONS OF THE AUTOMATIC CONTROLLER AND ANY REQUIRED SLEEVES THROUGH THE BUILDING FOR CONTROL WIRES. H. TRENCHING NEAR EXISTING TREES:

CONTRACTOR SHALL NOT DISTURB ROOTS 1-1/2" AND LARGER IN DIAMETER WITHIN THE CRITICAL ROOT ZONE (CRZ) OF EXISTING TREES, AND SHALL EXERCISE ALL POSSIBLE CARE AND PRECAUTIONS TO AVOID INJURY TO TREE ROOTS, TRUNKS, AND BRANCHES. THE CRZ IS DEFINED AS A CIRCULAR AREA EXTENDING OUTWARD FROM THE TREE TRUNK, WITH A RADIUS EQUAL TO 1' FOR EVERY 1" OF TRUNK DIAMETER-AT-BREAST-HEIGHT (4.5' ABOVE THE AVERAGE GRADE AT THE TRUNK).

ALL EXCAVATION WITHIN THE CRZ SHALL BE PERFORMED USING HAND TOOLS. NO MACHINE EXCAVATION OR TRENCHING OF ANY KIND SHALL BE ALLOWED WITHIN THE CRZ ALTER ALIGNMENT OF PIPE TO AVOID TREE ROOTS 1-1/2" AND LARGER IN DIAMETER. WHERE TREE ROOTS 1-1/2" AND LARGER IN DIAMETER ARE ENCOUNTERED IN THE FIELD, TUNNEL UNDER SUCH ROOTS. WRAP EXPOSED ROOTS WITH SEVERAL LAYERS OF BURLAP AND KEEP CLOSE ALL TRENCHES WITHIN THE CANOPY DRIP LINES WITHIN 24 HOURS. 4. ALL SEVERED ROOTS SHALL BE HAND PRUNED WITH SHARP TOOLS AND ALLOWED TO AIR-DRY. DO NOT USE ANY SORT OF SEALERS OR WOUND PAINTS.

ALL BACKFILL MATERIAL SHALL BE SUBJECT TO APPROVAL BY THE OWNER. BACKFILL MATERIAL SHALL BE FREE FROM RUBBISH, ROCK LARGER THAN 1", LARGE STONES, BRUSH, SOD, FROZEN MATERIAL OR OTHER UNSUITABLE SUBSTANCES THAT MAY DAMAGE PIPE DURING THE BACKFILLING OPERATIONS. SEPARATE OUT ROCKS LARGER THAN 1 INCH IN ANY DIRECTION FROM EXCAVATED MATERIAL, AND REMOVE FROM AREAS TO RECEIVE LANDSCAPING. COVER FOR BOTH TOP AND SIDES OF PIPE SHALL BE A MINIMUM OF 2 INCHES OF ROCK-FREE SOIL, SAND, OR OTHER APPROVED MATERIAL

2. IN THE EVENT THAT THE MATERIAL FROM THE EXCAVATION OR TRENCHING IS FOUND TO BE UNSUITABLE FOR USE IN BACKFILL, IT SHALL BE REMOVED FROM THE SITE AND PROPERLY AND LEGALLY DISPOSED OF BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL THEN PURCHASE AND AND FURNISH SUITABLE BACKFILL MATERIAL CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS FREE OF DEBRIS.

J. BACKFLOW PREVENTER INSTALLATION: CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING WATER SOURCES AT LOCATION SHOWN ON PLANS AND AS APPROVED BY THE OWNER, AND SHALL MAKE ANY MINOR CHANGES IN LOCATION AS MAY BE NECESSARY DUE TO ACTUAL SITE CONDITIONS. BACKFLOW PREVENTER HEIGHT SHALL BE AS PER LOCAL CODES AND IRRIGATION DETAILS. INSTALL A BRASS BALL VALVE IMMEDIATELY UPSTREAM OF THE BACKFLOW DEVICE TO SERVE AS AN ISOLATION VALVE. TO EVERY EXTENT POSSIBLE, INSTALL BACKFLOW PREVENTER ION A LOCATION SCREENED FROM PUBLIC VIEW (SUCH AS BEHIND A SHRUB ROW).

PIPE SIZE SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS FOR LARGER SIZES MAY BE

2. MAINLINE PIPE AND WIRES SHALL BE INSTALLED WITH A MINIMUM COVER OF 18 INCHES (24" FOR MAINLINE 3"-5", AND 30" FOR MAINLINE 6" AND GREATER). LATERAL PIPE SHALL BE INSTALLED WITH A MINIMUM COVER OF 12 INCHES. 3. ASSEMBLE ALL THREADED FITTINGS WITH TEFLON TAPE, WHICH SHALL BE APPLIED TO MALE

4. ALL SOLVENT-WELD CONNECTIONS SHALL BE MADE WITH APPROVED SOLVENT-WELD PRIMER

AND GLUE. 5. PIPE SHALL BE INSTALLED WITH A MINIMUM OF 4" HORIZONTAL CLEARANCE FROM ANY OTHER PIPE AND 2" VERTICAL CLEARANCE FROM ANY PIPES THAT CROSS OVER OR UNDER.

VALVES SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND THE IRRIGATION DETAILS.

VALVE BOXES SHALL BE INSTALLED FLUSH WITH THE GRADE, WITH CLEAN PEA GRAVEL LOCATED BELOW THE VALVE AS NOTED ON THE DETAILS. LOCATE BOXES WITHIN 12 TO 24" OF SIDEWALKS OR LANDSCAPE EDGES, WITH TOPS OF BOXES 1" ABOVE FINISH GRADE IN TURF, AND 3" ABOVE FINISH GRADE IN SHRUB AREAS (TO AVOID BEING COVERED BY MULCH). 3. EACH VALVE BOX COVER SHALL BE HEAT-BRANDED WITH THE CONTROLLER STATION NUMBER

DO NOT INSTALL MORE THAN TWO VALVES IN A JUMBO BOX. DRIP IRRIGATION EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S DIRECTIONS AND THE

SUBSURFACE DRIP LINES SHALL BE BURIED NO MORE THAN 2" BELOW FINISH GRADE. DRIP LINES MOUNTED ON GRADE SHALL BE LOCATED BENEATH LANDSCAPE FABRIC, AND SECURED IN PLACE WITH WIRE STAPLES AT A MAXIMUM OF 24"-36" ON CENTER. N. SPRAY, ROTOR, AND BUBBLER HEADS:

ALL SPRAY AND ROTOR HEAD LOCATIONS SHALL BE STAKED, FLAGGED AND/OR OTHERWISE CLEARLY MARKED ON THE GROUND PRIOR TO INSTALLATION. SPRINKLER HEAD STAKING SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE BEFORE INSTALLATION.

2. ALL SPRAY HEADS SHALL BE CONNECTED WITH A 12 INCH MINIMUM LENGTH OF 12 INCH FLEX THE FLEX PVC SHALL BE SOLVENT WELDED TO SCHEDULE 40 PVC FITTINGS WITH WELD-ON #795 SOLVENT AND #P-70 PRIMER. ALL ROTORS SHALL BE CONNECTED TO LATERAL LINES WITH PRE-MANUFACTURED SWING JOINTS.

ALL ROTOR, SPRAY AND BUBBLER HEADS SHALL BE SET PERPENDICULAR AND FLUSH TO FINISH GRADE AND WITH A CLEARANCE OF FOUR INCHES (MINIMUM) FROM THE EDGE OF ANY BUILDINGS, WALLS, BOULDERS, AND HARDSCAPE, WITH A CLEARANCE OF TWELVE INCHES (MINIMUM) FROM BUILDINGS, UNLESS OTHERWISE SPECIFIED. ALL ROTOR. SPRRAY AND BUBBLER HEADS AND VALVES SHALL BE FLUSHED AND ADJUSTED

FOR OPTIMUM COVERAGE WITH MINIMUM OVERSPRAY ON WALKS, STREETS, WALLS, ETC. LATERAL PIPE TO TREE STREAM BUBBLER HEADS IS OMITTED FOR GRAPHIC CLARITY. CONNECT TREE BUBBLER HEADS TO VALVES AS SHOWN WITH CLASS 200 PVC PIPE SIZED TO ALLOW A MAXIMUM FLOW VELOCITY OF 5 FEET PER SECOND

O. AUTOMATIC CONTROLLER: INSTALL THE CONTROLLER AT THE LOCATION INDICATED BY THE OWNER. INSTALL CONTROLLER WITH A BACKUP BATTERY AS RECOMMENDED BY THE MANUFACTURER. THE IRRIGATION CONTRACTOR SHALL COORDINATE 120 V.A.C. ELECTRICAL POWER TO CONTROLLER AND DEDICATE ONE (1) 20-AMP BREAKER FOR EACH CONTROLLER. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MAKE THE FINAL HOOK-UP FROM THE ELECTRICAL SOURCE TO THE CONTROLLER UNIT ONLY.

3. ALL VALVE CONTROL WIRE SHALL BE AWG 14 TYPE UF, 600 VOLT TEST, DIRECT BURIAL. NO SPLICES SHALL BE ALLOWED EXCEPT AT VALVES AND CONTROLLER. WHERE SPLICES MAY BE NECESSARY DUE TO EXCESSIVELY LONG WIRE RUNS, THE CONTRACTOR SHALL MAKE ALL SPLICES IN 6" ROUND VALVE BOXES WITH 3M'S "DBY-DIRECT BURIAL SPLICE KIT". THE CONTRACTOR SHALL LABEL ALL WIRES WITH WATERPROOF TAGS AND MARKERS AT ALL SPLICES AND VALVE MANIFOLDS, AND SHALL LEAVE A 24" COIL OF EXCESS WIRE AT EACH

PROVIDE #10 COMMON WIRE, DIRECT BURIAL, TO ALL REMOTE CONTROL VALVES. CONNECT ALL DIRECT BURIAL WIRES TO VALVES USING 3M'S "DBY-DIRECT BURIAL SPLICE KIT" (UNLESS OTHERWISE SPECIFIED).

PROVIDE THREE ADDITIONAL IRRIGATION CONTROL WIRES ALONG EACH BRANCH OF MAINLINE FOR FUTURE EXPANSION. STUB ADDITIONAL CONTROL WIRES INTO BACK OF IRRIGATION CONTROLLERS. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL CONTROL WIRE

SLEEVES AND PIPE SLEEVES UNDER PAVED AREAS PRIOR TO PAVING - SEE SLEEVING NOTES. P. INSTALL THE RAIN SENSOR IN THE VICINITY OF THE CONTROLLER, AND COORDINATE LOCATION WITH THE OWNER. PROVIDE MINIMUM 5' CLEARANCE FROM OTHER OUTDOOR EQUIPMENT, FREE AND CLEAR OF ANY TREE CANOPY OR OTHER OVERHEAD OBSTRUCTIONS, AND ABOVE THE HEIGHT OF THE SPRINKLER COVERAGE. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THE RAIN SENSOR IS PLACED IN A LOCATION WHERE IT CAN RECEIVE ADEQUATE RAINFALL WITHOUT OBSTRUCTIONS. IF IT IS PLACED IN AN INADEQUATE LOCATION, THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO RELOCATE IT AT NO ADDITIONAL COST TO THE

Q. ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS. R. QUALITY CONTROL

PERFORM COVERAGE TESTS AFTER IRRIGATION SYSTEM IS COMPLETED, BUT PRIOR TO ANY PLANTING AND PERFORM TESTING IN THE PRESENCE OF THE IRRIGATION DESIGNER AND THE CONSTRUCTION MANAGER.

TEST SYSTEM TO ASSURE THAT ALL LAWN AND PLANTING AREAS ARE WATERED COMPLETELY AND UNIFORMLY. MAKE ALL NECESSARY ADJUSTMENTS TO PROVIDE COMPLETE COVERAGE, INCLUDING

REALIGNMENT OF HEADS AND REPLACEMENT OF NOZZLES. DURING IRRIGATION EXCAVATION AND INSTALLATION, KEEP ALL PAVEMENT CLEAN AND ALL

WORK AREAS IN A NEAT, ORDERLY CONDITION. DISPOSED LEGALLY OF ALL EXCAVATED MATERIALS OFF THE PROJECT SITE.

INSPECTION AND ACCEPTANCE

UPON COMPLETION OF THE WORK, THE IRRIGATION CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF DEBRIS AND TRASH, AND SUITABLE FOR USE AS INTENDED. THE IRRIGATION CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.

2. WHEN THE INSPECTED WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNER'S SATISFACTION WITHIN 24 HOURS.

THE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE WORK HAS BEEN RE-INSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE

4. CONTROLLER CHART: THE IRRIGATION CONTRACTOR SHALL PROVIDE A 11" X 17" COLOR-CODED, LAMINATED COPY OF THE IRRIGATION LAYOUT AND PLACE IT IN THE CONTROLLER'S COVER. THE CONTROLLER CHART SHALL CLEARLY DELINEATE THE AREAS COVERED BY EACH VALVE, USING A SEPARATE COLOR FOR EACH ZONE.

5. TURN THE FOLLOWING ITEMS IN TO THE OWNER UPON COMPLETION OF THE INSTALLATION:

a. QUICK COUPLER KEYS (2) b. CONTROLLER MANUAL (1)

PERIODS WILL COMMENCE

d. A MINIMUM OF (2) COPIES OF RECORD DRAWINGS. A RECORD DRAWING IS A RECORD OF ALL CHANGES THAT OCCURRED IN THE FIELD AND THAT ARE DOCUMENTED

THROUGH CHANGE ORDERS, ADDENDA, OR CONTRACTOR/CONSULTANT DRAWING

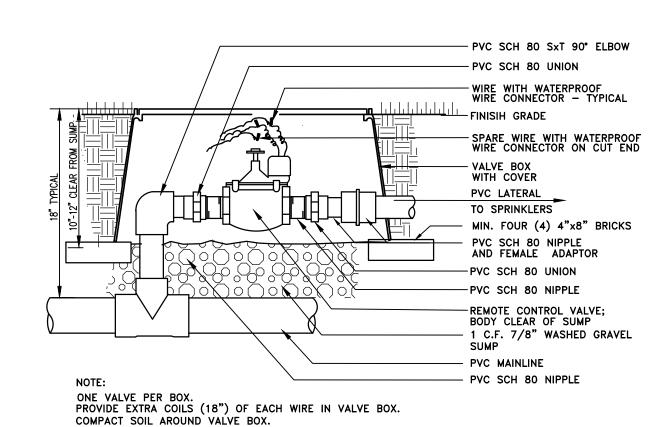
V. REFER TO THE PLANTING SPECIFICATIONS FOR ADDITIONAL CONDITIONS OF FINAL ACCEPTANCE AND START OF THE MAINTENANCE PERIOD.

W. WARRANTY 1. THE IRRIGATION SYSTEM SUPPLIED AND INSTALLED SHALL BE WARRANTED (LABOR AND MATERIALS) TO REMAIN OPERATIONAL FOR A PERIOD OF 12 MONTHS AFTER THE DATE OF

FINAL ACCEPTANCE. DURING THIS PERIOD. THE CONTRACTOR SHALL ALSO REPAIR ANY SETTLEMENT OF THE IRRIGATION TRENCHES. 2. BY THE END OF THE WARRANTY PERIOD, ANY IRRIGATION PART THAT IS EITHER

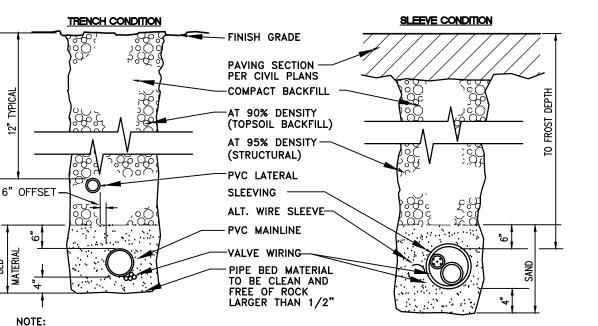
NON-OPERATIONAL OR THAT IS OPERATING BELOW STANDARDS AS DETERMINED BY THE OWNER, SHALL BE REMOVED FROM THE SITE AND SHALL BE REPLACED. REPLACEMENTS SHALL BE OF THE SAME KIND AS SPECIFIED IN THE IRRIGATION LEGEND, AND SHALL BE INSTALLED AS ORIGINALLY SPECIFIED.

IRRIGATION PARTS DAMAGED OR IMPAIRED DUE TO ACTS OF GOD, VANDALISM, AND/OR THE OWNER'S IMPROPER MAINTENANCE SHALL NOT BE COVERED BY THIS WARRANTY. X. SHOULD THE PERMITTING JURISDICTION REQUIRE AN IRRIGATION AUDIT, THE IRRIGATION CONTRACTOR SHALL RETAIN THE SERVICES OF A THIRD-PARTY CERTIFIED LANDSCAPE IRRIGATION



USE TEFLON OR FLOWABLE SEALANT IN ALL THREADED FITTINGS, PER MANUFACTURES SPEC'S. REMOTE CONTROL VALVE ASSEMBLY

NOT TO SCALE

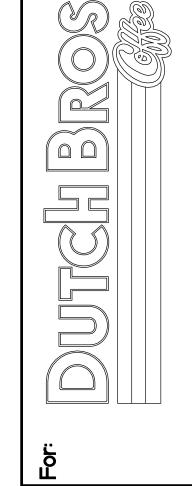


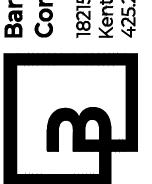
DIMENSIONS ARE MIN. CLEARANCES. ALL IRRIGATION SLEEVING TRENCH BACKFILL MATERIAL SHALL
BE CLASS "B" OR BETTER (MAX. OF 10% PASSING NO.40 SCREEN) AND BE
COMPACTED TO MIN. 95% OPTIMUM DENSITY PER ASTM D-1557-70

SLEEVE/TRENCHING DETAIL

NOT TO SCALE

0 CA 58

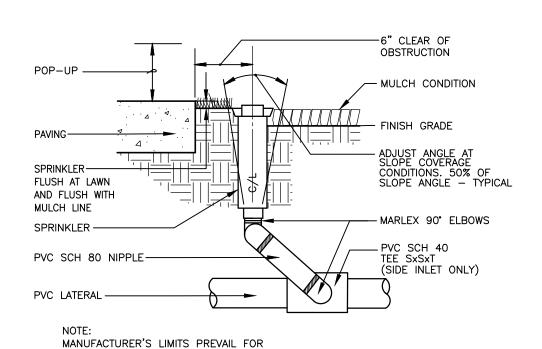




DUTCH BROS. COFFEE - CO0907, COLORADO SPRINGS, CO

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 6 TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE 6TH PM CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, COLORADO

PCD FILE NO PPR2413

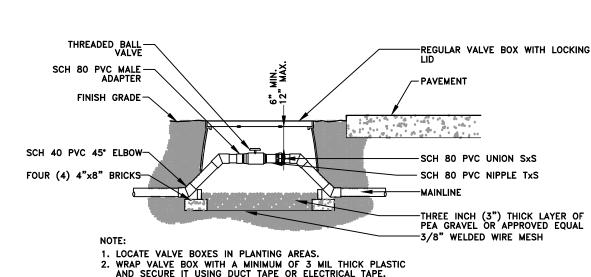


PROVIDE SWING JOINT RISERS AT WALKS AND CURBS 24" FLEXIBLE RISERS ACCEPTABLE ELSEWHERE. POP-UP RISER ASSEMBLY

INSTALLATION AND ADJUSTMENTS.

NOT TO SCALE

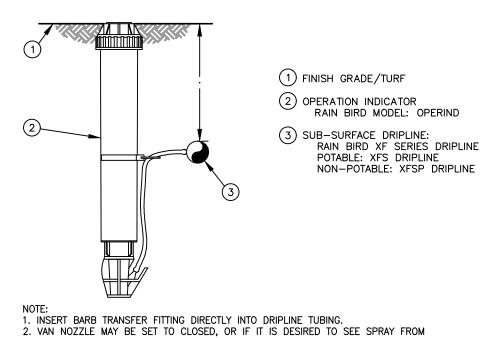
NOT TO SCALE



2. WRAP VALVE BOX WITH A MINIMUM OF 3 MIL THICK PLASTIC AND SECURE IT USING DUCT TAPE OR ELECTRICAL TAPE. 4. ALL CHANGES IN ELEVATION SHALL BE MADE USING SCH 40 PVC 45° ELBOWS.

NOT TO SCALE

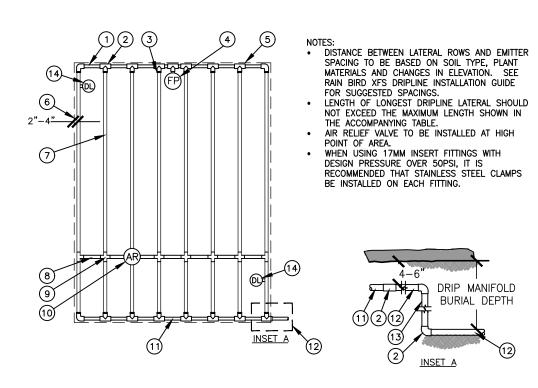
BALL VALVE DETAIL



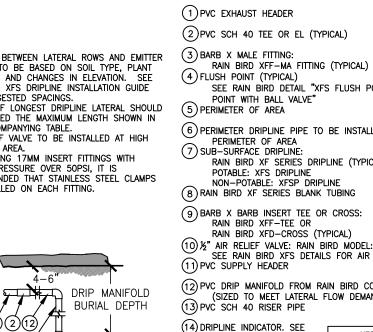
THE NOZZLE, SET THE ARC TO $\mbox{\ensuremath{\upolinity{\mathcal{L}}}}$ PATTERN. THE FLOW FROM THE NOZZLE, 0.3 GPM, SHOULD BE ACCOUNTED FOR IN THE SYSTEM DESIGN.

DRIP IRRIGATION DRIPLINE INDICATOR

NOT TO SCALE



DRIPLINE END FEED LAYOUT

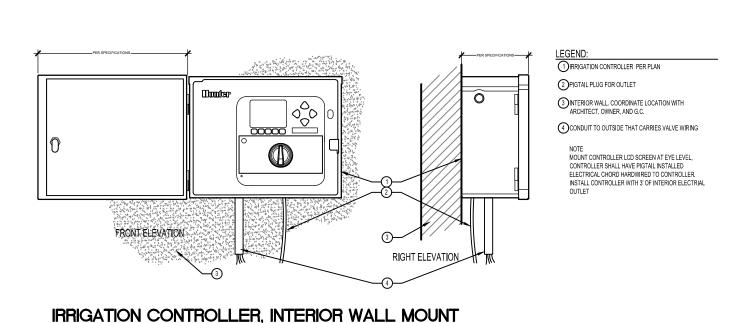


SEE RAIN BIRD DETAIL "XFS FLUSH POINT" OR "XFS FLUSH PERIMETER OF AREA PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
7) SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL) POTABLE: XFS DRIPLINE
NON-POTABLE: XFSP DRIPLINE

(B) RAIN BIRD XF SERIES BLANK TUBING (9) BARB X BARB INSERT TEE OR CROSS:

RAIN BIRD XFD-CROSS (TYPICAL) 10 ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARVO50
SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION (11) PVC SUPPLY HEADER

(2) PVC DRIP MANIFOLD FROM RAIN BIRD CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND) (13) PVC SCH 40 RISER PIPE



1) FINISH GRADE

(4) VALVE ID TAG

(8) LATERAL PIPE

2 STANDARD VALVE BOX WITH COVER: RAIN BIRD VB-STD (3) WATERPROOF CONNECTION:

RAIN BIRD DB SERIES

(6) 1" X 34" REDUCING COUPLING

(10) REMOTE CONTROL VALVE:

WASHED GRAVEL

(13) MANIFOLD PIPE AND FITTINGS

(14) MINIMUM FOUR (4) 4"x8" BRICKS

PRESSURE REGULATING FILTER:

XCZ-LF-100-PRF KIT)

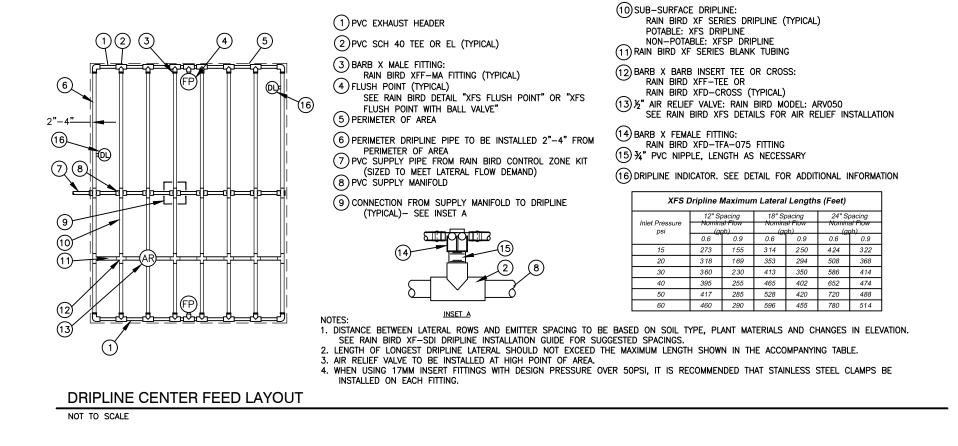
XCZ-LF-100-PRF KIT)

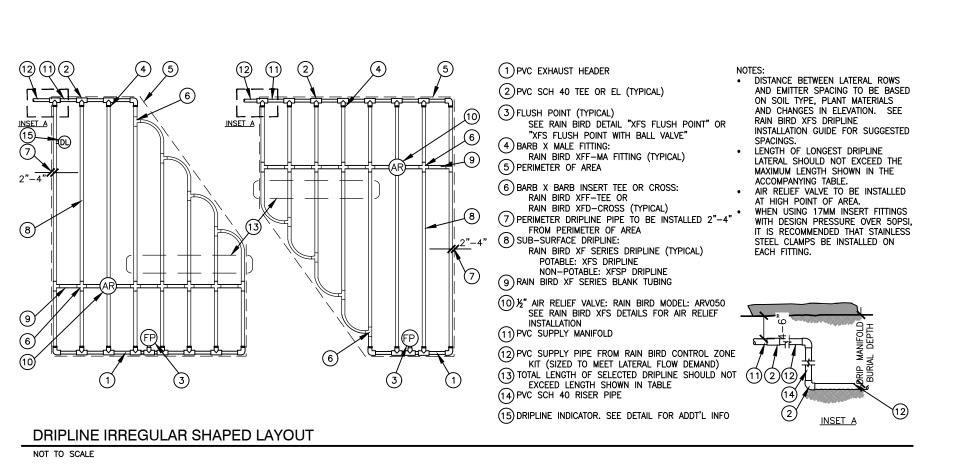
(11) PVC SCH 40 TEE OR ELL TO MANIFOLD

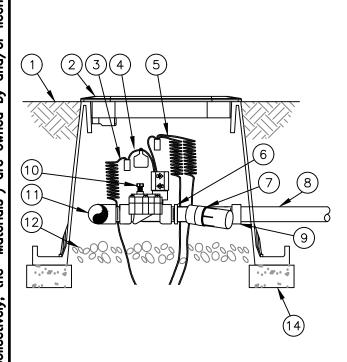
(12) 3-INCH MINIMUM DEPTH OF 3/4-INCH

(INCLUDED IN XCZ-LF-100-PRF KIT)

RAIN BIRD LFV-100 (INCLUDED IN

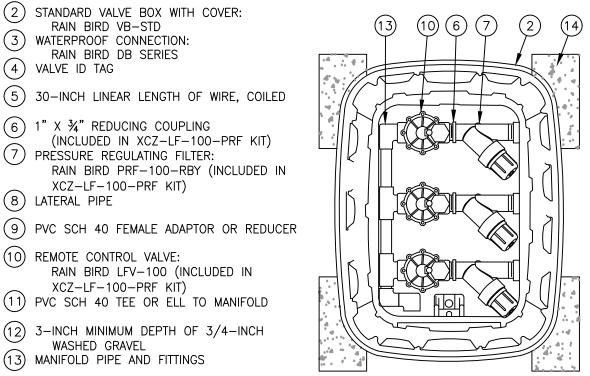






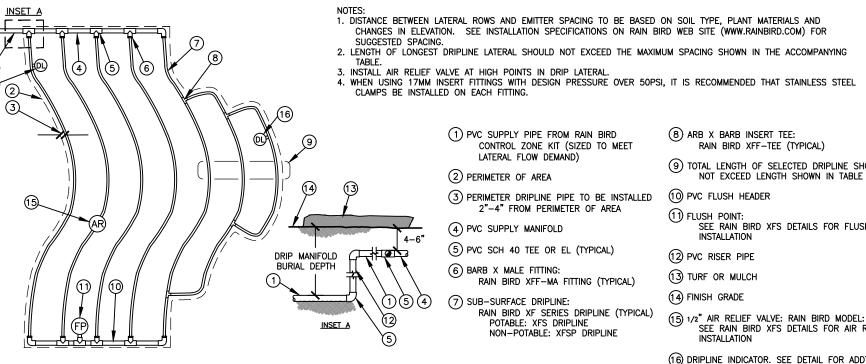
DRIP IRRIGATION VALVE NOT TO SCALE

SIDE VIEW



TOP VIEW

DRIPLINE ODD CURVES LAYOUT

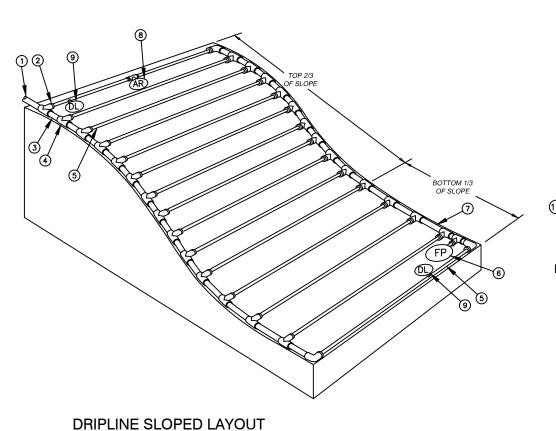


(2) PERIMETER OF AREA 2"-4" FROM PERIMETER OF AREA (5) PVC SCH 40 TEE OR EL (TYPICAL) (6) BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL) (7) SUB-SURFACE DRIPLINE: RAIN BIRD XF SERIES DRIPLINE (TYPICAL)

9 TOTAL LENGTH OF SELECTED DRIPLINE SHOULD NOT EXCEED LENGTH SHOWN IN TABLE (3) PERIMETER DRIPLINE PIPE TO BE INSTALLED (10) PVC FLUSH HEADER SEE RAIN BIRD XFS DETAILS FOR FLUSH POINT (12) PVC RISER PIPE (13) TURF OR MULCH (14) FINISH GRADE (5) 1/2" AIR RELIEF VALVE: RAIN BIRD MODEL: ARVO50 SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE (16) DRIPLINE INDICATOR. SEE DETAIL FOR ADDT'L INFO

(8) ARB X BARB INSERT TEE:

RAIN BIRD XFF-TEE (TYPICAL)



NOTES:

DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. DISTANCE BETWEEN LATERAL ROWS FOR BOTTOM 1/3 OF SLOPE TO BE SPACED GREATER THAN OPTIMAL ROW DISTANCE. SEE RAIN BIRD XFD DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACING.

LENGTH OF LONGEST DRIPLINE LATERAL SHOULD NOT EXCEED THE MAXIMUM LENGTH SHOWN IN THE ACCOMPANYING TABLE.

WHEN ELEVATION CHANGE EXCEEDS 8 FEET IT IS RECOMMENDED THAT A NEW DRIPLINE ZONE BE CREATED.

INSTALL AIR RELIEF VALVE AT HIGH POINTS IN DRIP LATERAL.

WHEN USING 17MM INSERT FITTINGS WITH DESIGN PRESSURE OVER 50PSI, IT IS RECOMMENDED THAT STAINLESS STEEL CLAMPS BE INSTALLED ON EACH FITTING.

1) PVC DRIP MANIFOLD FROM RAIN BIRD CONTROL ZONE VALVE KIT (SIZED TO MEET LATERAL FLOW DEMAND) 2) BARB X MALE FITTING: RAIN BIRD XFF-MA FITTING (TYPICAL) 3) PVC SUPPLY HEADER DRIP MANIFOLD 4 PVC SCH 40 TEE OR EL (TYPICAL) BURIAL DEPTH

5 SUB-SURFACE DRIPLINE:
RAIN BIRD XF SERIES DRIPLINE (TYPICAL) POTABLE: XFS DRIPLINE NON-POTABLE: XFSP DRIPLINE 6 FLUSH POINT: SEE RAIN BIRD XFS DETAILS FOR FLUSH POINT

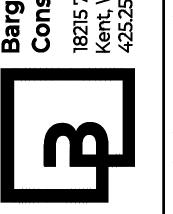
(7) PVC FLUSH HEADER 8 ½" AIR RELIEF VALVE: RAIN BIRD MODEL: ARVO50 SEE RAIN BIRD XFS DETAILS FOR AIR RELIEF INSTALLATION (9) DRIPLINE INDICATOR. SEE DETAIL FOR ADDITIONAL INFORMATION

IRRIGATION OMAHA BLVD

S

N

Barghausen Consulting Engine



(10) PVC RISER PIPE

(12) FINISH GRADE

(11) TURF OR MULCH