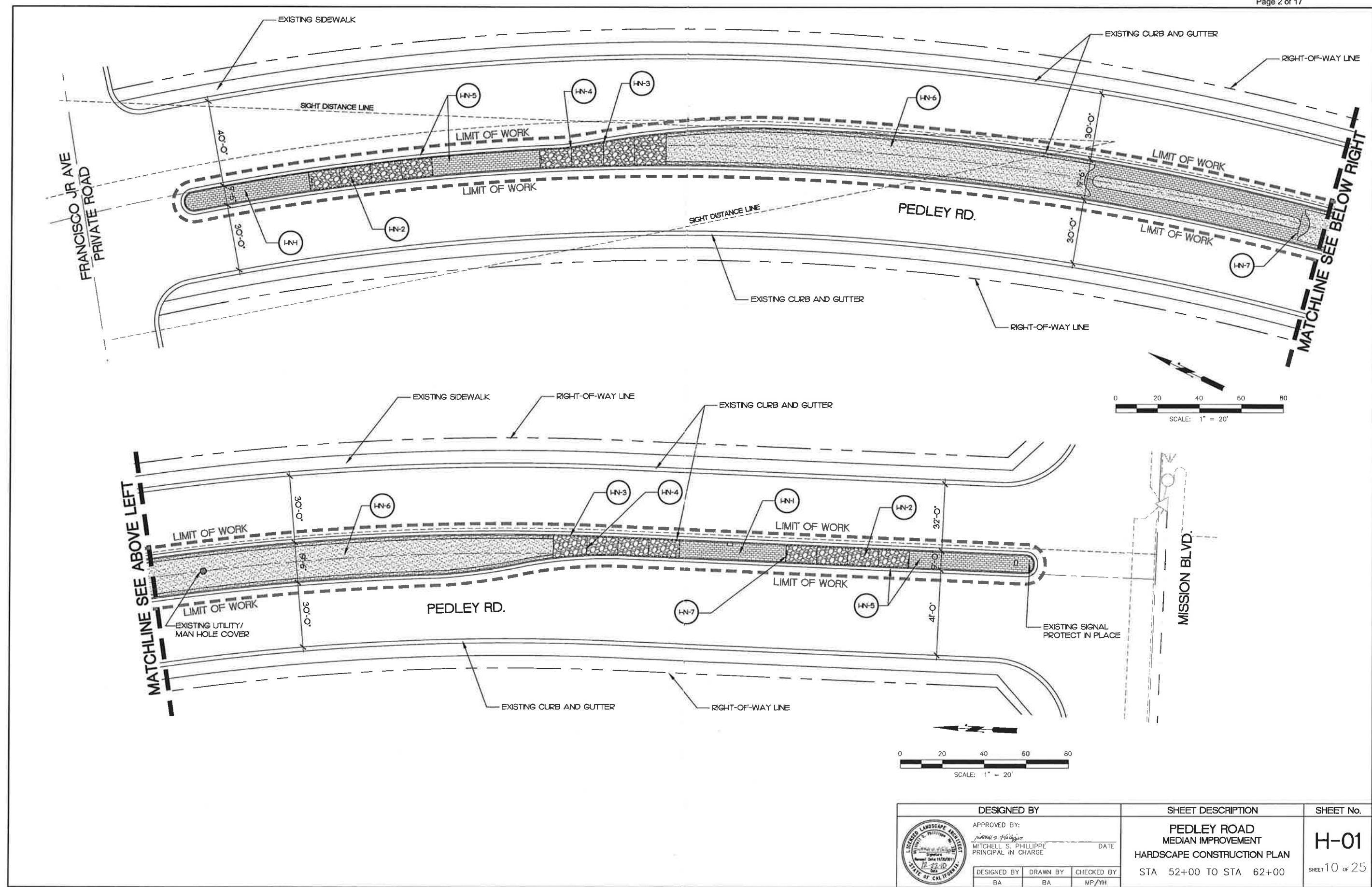

	DESIGNED BY	SHEET DESCRIPTION	SHEET No.
	APPROVED BY: <i>Mitchell S. Phillippe</i> MITCHELL S. PHILLIPPE PRINCIPAL IN CHARGE DATE: _____	PEDLEY ROAD MEDIAN IMPROVEMENT DEMOLITION PLAN STA 52+00 TO STA 62+00	D-01 SHEET 9 OF 25
	DESIGNED BY: BA DRAWN BY: BA CHECKED BY: MP/YH		

PROJECT No. CI-0528 ARCHIVE No. 954-99

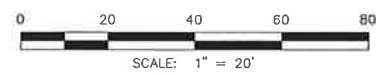
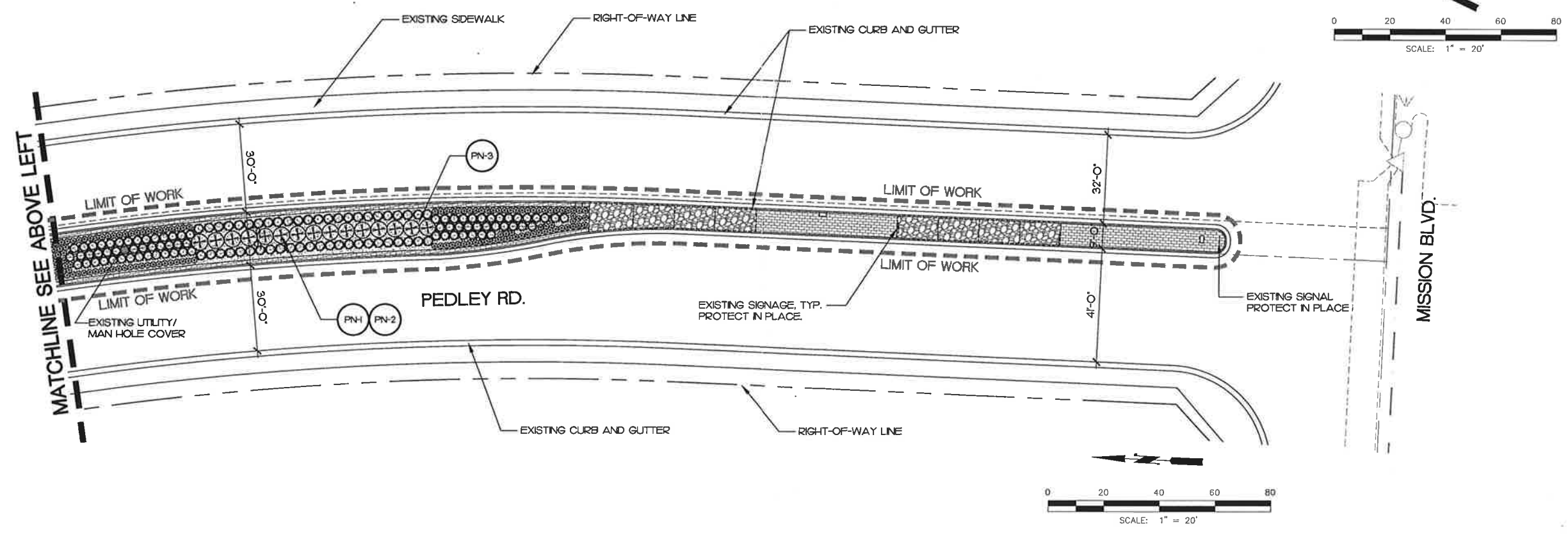
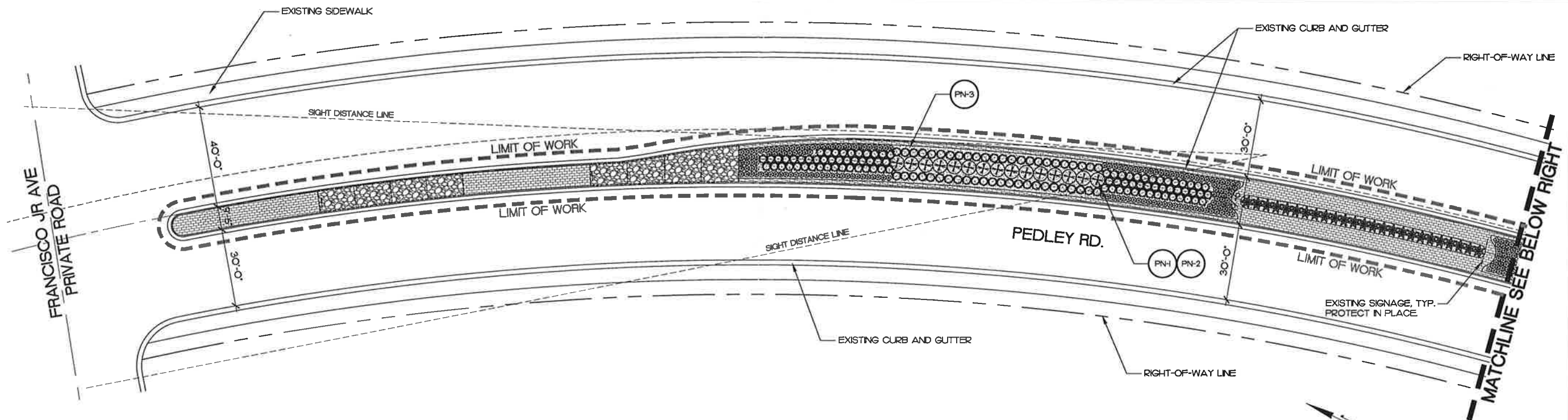
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	DESIGNED BY APPROVED BY: <i>Mitchell S. Philippe</i> MITCHELL S. PHILIPPE PRINCIPAL IN CHARGE	SHEET DESCRIPTION PEDLEY ROAD MEDIAN IMPROVEMENT HARDSCAPE CONSTRUCTION PLAN STA 52+00 TO STA 62+00	SHEET No. H-01 SHEET 10 of 25
	DATE _____ DESIGNED BY: BA DRAWN BY: BA CHECKED BY: MP/YH		

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DESIGNED BY APPROVED BY: <i>Mitchell S. Phillippe</i> DATE _____ MITCHELL S. PHILIPPE PRINCIPAL IN CHARGE			SHEET DESCRIPTION PEDLEY ROAD MEDIAN IMPROVEMENT PLANTING PLAN	SHEET No. P-01 SHEET 11 of 25
DESIGNED BY BA	DRAWN BY BA	CHECKED BY MP/YH	STA 52+00 TO STA 62+00	



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DEMOLITION / HARDSCAPE LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EXISTING STAMPED CONCRETE PAVING. PROTECT IN PLACE.		SAWCUT DEMOLITION JOINT
	EXISTING STAMPED CONCRETE PAVING. DEMOLISH AND REMOVE. APPROX. 775 S.F.		EXISTING CONCRETE HEADER TO BE REMOVED
	EXISTING TREES, SHRUBS AND TURF. DEMOLISH AND REMOVE. APPROX. 7,700 S.F.		EXPANSION JOINT IN NEW CONCRETE PAVING
	NEW INTEGRAL COLOR STAMPED CONCRETE PAVING. MATCH PATTERN STYLE AND DEPTH TO EXISTING. APPROX. 2,150 S.F.		TOOLED SCORE JOINT IN NEW CONCRETE PAVING
	MULCHED PLANTING AREA. SEE PLANTING PLAN. APPROX. 6,400 S.F.		EXISTING SIGNAL / SIGNAGE

DEMOLITION NOTES:

- DN-1 EXISTING SHRUBS, TREES AND TURF TO BE DEMOLISHED AND REMOVED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL OF LEAVES, STEMS, ROOTS ASSOCIATED WITH EXISTING PLANT MATERIALS TO A MINIMUM DEPTH OF 12" BELOW FINISH GRADE. SEE LEGEND.
- DN-2 EXISTING STAMPED CONCRETE PAVING TO BE REMOVED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL AND DISPOSAL OF DESIGNATED EXISTING CONCRETE AREAS PER THE PLAN AND LEGEND.
- DN-3 EXISTING CONCRETE HEADER TO BE REMOVED. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL AND DISPOSAL OF ALL EXISTING CONCRETE HEADER PER THE PLAN AND LEGEND.
- DN-4 EXISTING IRRIGATION SYSTEM (NOT SHOWN). CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REMOVAL OF THE ALL IRRIGATION SYSTEM COMPONENTS, INCLUDING BUT NOT LIMITED TO: SPRAY HEADS, LATERAL LINES, VALVE BOXES, QUICK COUPLERS, ISOLATION VALVES, PRESSURE SUPPLY LINE AND CONTROL / COMMON WIRING. CONTRACTOR SHALL NOT REMOVE EXISTING IRRIGATION CONTROLLER, ENCLOSURE OR ANY ASSOCIATED COMPONENTS. SEE IRRIGATION PLAN FOR ADDITIONAL NOTES.

HARDSCAPE NOTES:

- HN-1 EXISTING STAMPED CONCRETE PAVING. PROTECT IN PLACE.
- HN-2 NEW STAMPED CONCRETE PAVING. CONTRACTOR SHALL BE RESPONSIBLE FOR MATCHING STAMP PATTERN OF NEW CONCRETE PAVING WITH EXISTING. INSTALL PER LEGEND, SPECIFICATIONS AND DETAILS H-01 / H-02. CONTRACTOR SHALL PROVIDE 5' X 5' MOCK UP CONCRETE PAD FOR APPROVAL PRIOR TO INSTALLATION WITHIN THE MEDIAN.
- HN-3 EXPANSION JOINT BETWEEN EXISTING HARDSCAPE AND NEW HARDSCAPE AND WITHIN NEW HARDSCAPE PORTIONS. INSTALL PER LEGEND AND DETAILS H-01 / H-02.
- HN-4 TOOLED SCORE JOINT IN NEW HARDSCAPE. INSTALL PER LEGEND AND DETAIL H-03.
- HN-5 CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETELY POWER WASHING ALL EXISTING HARDSCAPE AREAS CURBING AND GUTTER AFTER THE INSTALLATION OF NEW CONCRETE AND PLANT MATERIALS, BUT PRIOR TO THE INSTALLATION OF BARK MULCH. ONCE ALL EXISTING CONCRETE AREAS HAVE BEEN PRESSURE WASHED AND ALLOWED TO COMPLETELY DRY, CONTRACTOR SHALL APPLY CONCRETE STAIN TO ALL HARDSCAPE AREA WITHIN THE CONCRETE CURB AND GUTTER. DO NOT PAINT CONCRETE CURBING OR GUTTER.

STAIN SAMPLE, COLOR AND SPECIFICATIONS SHALL BE SUBMITTED BY CONTRACTOR PRIOR TO APPLICATION. STAIN SHALL BE A REACTIVE WATER-BASED SOLUTION OF METALLIC SALTS WHICH REACT WITH THE CALCIUM HYDROXIDE IN THE CURED CONCRETE SUBSTRATE TO PRODUCE PERMANENT, VARIEGATED OR TRANSLUCENT COLOR EFFECTS.

SUBMIT STAIN COLORS IN THE FADED TERACOTTA / BROWN RANGE.
- HN-6 PLANTING / MULCHED AREA PER PLANTING PLAN.
- HN-7 WHERE EXISTING TRAFFIC SIGNAGE IS LOCATED IN AREAS TO BE DEMOLISHED AND BECOME PERMANENT HARDSCAPE, CONTRACTOR SHALL REMOVE THE SIGNS WITH THE APPROVAL OF THE COUNTY OF RIVERSIDE DEPARTMENT OF TRANSPORTATION AND INSTALL THE NEW CONCRETE LEAVING A 12" X 12" CUT-OUT IN THE CONCRETE FOR SIGN RE-INSTALLATION. SIGN SHALL BE RE-INSTALLED WITHIN THE 12" X 12" CUT OUT, AND BACKFILLED WITH 3/4" CRUSHED GRAVEL.

PLANTING LEGEND FOR SHRUBS

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QUANTITY	MATURE SIZE	WATER USE	DETAIL
	WESTRINGIA FRUTICOSA WES 05	COAST ROSEMARY 'MUNDI'	5 GAL.	AS SHOWN	30	2' H X 4' W	L	P-01
	CISTUS SALVIFOLIUS	SAGELEAF ROCKROSE	5 GAL.	AS SHOWN	160	2' H X 4' W	L	P-01
	HESPERALOE PARVIFLORA	RED YUCCA	5 GAL.	AS SHOWN	25	3' - 4' H X 3' - 4' W	L	P-01
	LANTANA HYBRID 'GOLD RUSH'	GOLD RUSH LANTANA	1 GAL.	AS SHOWN	96	1' - 2' H X 4' - 6' W	L	P-01
	CAREX TUMICOLA	BERKELY SEDGE	1 GAL.	AS SHOWN	309	1' - 2' H X 1' - 2' W	M	P-01

PLANTING NOTES:

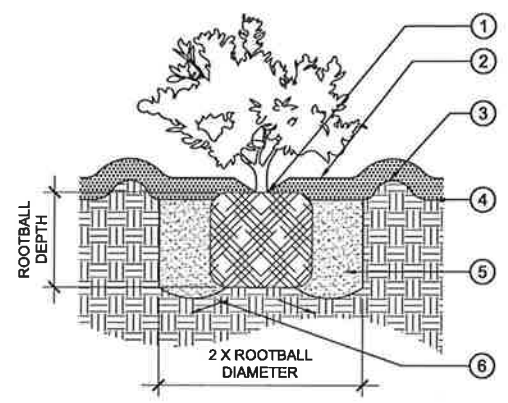
- PN-1 FOR THE SHRUB INSTALLATION
 - A. PRIOR TO PROCEEDING WITH SHRUB INSTALLATION, THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY MARKING THE SHRUB AREA BOUNDARIES AND INDIVIDUAL SHRUB LOCATIONS WITH MARKING PAINT. PRIOR TO BEGINNING SHRUB INSTALLATION, THE CONTRACTOR SHALL REQUEST A WALK THROUGH WITH THE OWNER AND/OR OWNER'S REPRESENTATIVE TO VERIFY THE SHRUB AREA BOUNDARIES AND INDIVIDUAL SHRUB LOCATIONS.
 - B. UPON SUCCESSFUL WALK THROUGH OF SHRUB AREA BOUNDARIES AND INDIVIDUAL SHRUB LOCATIONS, THE CONTRACTOR SHALL PROCEED WITH SHRUB INSTALLATION. ONCE THE SHRUB INSTALLATION IS COMPLETE, THE INSTALLING CONTRACTOR SHALL REQUEST A WALK THROUGH FOR SUBSTANTIAL COMPLETION WITH THE OWNER AND/OR OWNER'S REPRESENTATIVE. THE OWNER AND/OR OWNER'S REPRESENTATIVE WILL PROVIDE WRITTEN DOCUMENTATION OF THE SUBSTANTIAL COMPLETION WALK THROUGH TO THE CONTRACTOR AND THE OWNER IN THE FORM OF A PUNCH LIST NOTING ANY OUTSTANDING CONSTRUCTION ITEMS. THIS WALK THROUGH AND ANY RESULTING OUTSTANDING ITEMS SHALL BE COMPLETED AND/OR ADDRESSED PRIOR TO REQUESTING A FINAL WALK THROUGH OR CONTINUING WITH FURTHER CONSTRUCTION.
 - C. ONCE THE SUBSTANTIAL COMPLETION PUNCH LIST HAS BEEN COMPLETELY ADDRESSED, THE INSTALLING CONTRACTOR SHALL REQUEST A FINAL WALK THROUGH WITH THE OWNER AND/OR OWNER'S REPRESENTATIVE. THE OWNER AND/OR OWNER'S REPRESENTATIVE WILL PROVIDE WRITTEN DOCUMENTATION OF THE FINAL WALK THROUGH TO THE CONTRACTOR AND THE OWNER BY COMPARING THE PUNCH LIST WITH FIELD CONDITIONS. AFTER SUCCESSFULLY COMPLETING A FINAL WALK THROUGH FOR SHRUB PLANTING THE CONTRACTOR MAY BEGIN THE MAINTENANCE PERIOD AS DESCRIBED IN THE SPECIFICATIONS. SUCCESSFUL COMPLETION OF A FINAL WALK THROUGH MEANS THAT THERE ARE NO OUTSTANDING ITEMS ON THE PUNCH LIST THAT HAVE NOT BEEN RESOLVED TO THE SATISFACTION OF THE OWNER AND/OR OWNER'S REPRESENTATIVE.
- PN-2 SHRUB PLANTING SHALL BE INSTALLED PER SPECIFICATIONS AND RCLTMA STANDARD DETAIL P-01.
- PN-3 BARK MULCH INSTALL 3" OF APPROVED BARK MULCH MATERIAL OVER ALL NEWLY PLANTED AREAS ONCE IRRIGATION AND PLANTING INSTALLATIONS HAVE BEEN APPROVED. INSTALL BARK MULCH PER RCLTMA STANDARD DETAIL P-02.

GENERAL PLANTING NOTES:

1. THESE PLANS WERE PREPARED USING BASE INFORMATION PROVIDED BY THE COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE ACCURACY OF THIS BASE COMPARED TO ACTUAL FIELD CONDITIONS PRIOR TO ORDERING MATERIALS AND/OR BEGINNING WORK AND IMMEDIATELY NOTIFYING THE OWNER AND/OR OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES. IN THE EVENT THAT THE CONTRACTOR FAILS TO VERIFY THE ACCURACY OF THE BASE INFORMATION AND/OR FAILS TO IMMEDIATELY NOTIFY THE OWNER AND/OR OWNER'S REPRESENTATIVE OF DISCREPANCIES PRIOR TO ORDERING MATERIALS AND/OR BEGINNING WORK, THEN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY AND ALL ADDITIONAL LABOR AND MATERIALS AS DIRECTED BY THE OWNER AND/OR OWNER'S REPRESENTATIVE TO RESOLVE SUCH DISCREPANCIES AT NO ADDITIONAL COST TO THE OWNER.
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR REPLACING ANY EQUIPMENT AND/OR MATERIALS OUTSIDE OF THE LIMIT OF WORK, WHICH ARE DAMAGED DURING CONSTRUCTION WITH MATERIALS IN-KIND, AT NO ADDITIONAL COST TO THE OWNER.
4. REFER TO THE PLANTING DETAILS AND SPECIFICATIONS FOR INSTALLATION AND EXECUTION PROCEDURES AND FOR MAINTENANCE REQUIREMENTS.
5. THE PLANTING PLAN IS DIAGRAMMATIC. ALL PLANT LOCATIONS ARE APPROXIMATE. QUANTITIES SHOWN ON THE PLANTING PLAN ARE APPROXIMATE AND ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY. CONTRACTOR SHALL VERIFY IN THE FIELD QUANTITIES NEEDED TO CONVEY THE INTENT OF THE PLANTING PLAN AND NOTIFY THE OWNER AND/OR OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN QUANTITIES AND SYMBOLS SHOWN.
6. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING A SOIL TEST, AND AMENDING THE PROJECT SITE SOIL PER THE RECOMMENDATIONS OF THE SOIL TEST RESULTS.
7. EXISTING TRAFFIC SIGNAL AND SIGNAGE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXACT LOCATION AND CONDITION OF EACH SIGNAL / SIGN PRIOR BEGINNING CONSTRUCTION. IF IT IS FOUND THAT TRAFFIC SIGNAGE MUST BE REMOVED / MOVED TO COMPLETE CONSTRUCTION OF NEW HARDSCAPE, IRRIGATION OR PLANTING, CONTRACTOR MUST FIRST COORDINATE AND RECEIVE APPROVAL FOR SIGNAGE REMOVAL AND REPLACEMENT WITH COUNTY OF RIVERSIDE DEPARTMENT OF TRANSPORTATION REPRESENTATIVE.

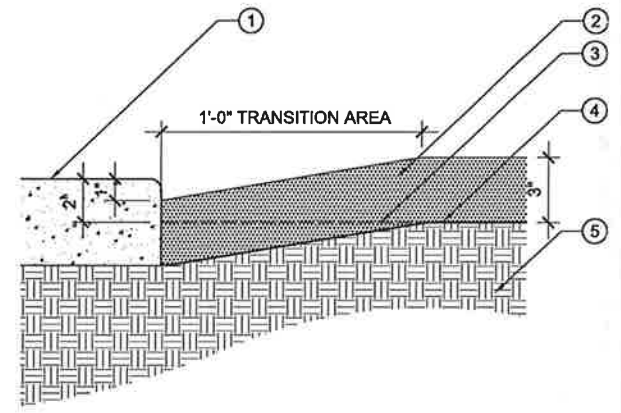
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APPROVED BY: MITCHELL S. PHILIPPE PRINCIPAL IN CHARGE		PEDLEY ROAD MEDIAN IMPROVEMENT PLANTING LEGEND AND PLANTING NOTES		P-02 SHEET 12 OF 25	
DESIGNED BY	DRAWN BY	CHECKED BY			
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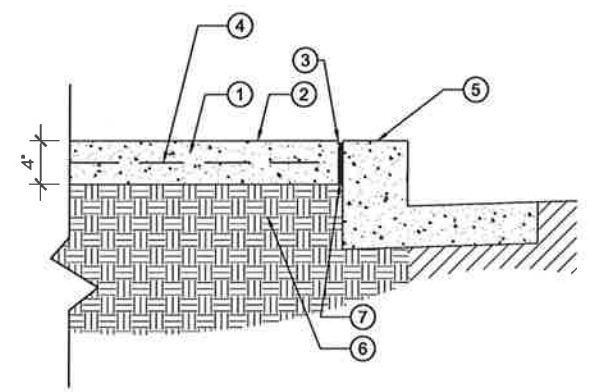
- ① SET TOP OF ROOTBALL 1" ABOVE FINISH GRADE
- ② 3" LAYER MULCH MATERIAL (SEE SPECS)
- ③ 3" HIGH WATERING BERM
- ④ FINISH GRADE
- ⑤ PLANTING BACKFILL (SEE SPECS)
- ⑥ SLOPE PLANTING HOLE TO CORNERS

P-01 COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY
SHRUB ON LEVEL GRADE
 APPROVED BY: _____ DATE: 10-08-09
 STD. P-015 1" = 1'-0" REV. FILE: P-015_SHRUB.LVL.DWG



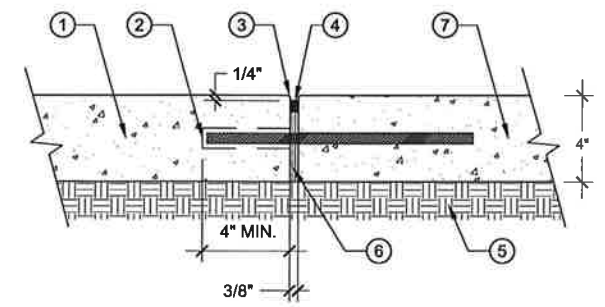
- ① HARDSCAPE
- ② MULCH
- ③ ROUGH GRADE
- ④ FINISH GRADE
- ⑤ PLANTING AREA

P-02 COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY
MULCH
 TRANSITION AT HARDSCAPE
 APPROVED BY: _____ DATE: 10-08-09
 STD. P-024 3" = 1'-0" REV. FILE: P-024_MULCH.DWG



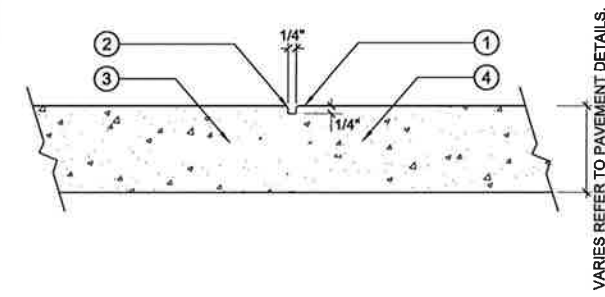
- ① NEW 4" THICK STAMPED CONCRETE SLAB
 - ② FINISH PER PLANS
 - ③ 1/8" RADIUS
 - ④ 6 X 6 10/10 WELDED WIRE MESH
 - ⑤ EXISTING CURB AND GUTTER PER PLANS
 - ⑥ 90% COMPACT SUBGRADE OR PER GEOTECHNICAL REPORT
 - ⑦ EXPANSION JOINT PER DETAIL H-2 (WITHOUT STEEL DOWEL)
- GENERAL NOTES:
 LOCATE NEW EXPANSION JOINTS PER PLAN.
 LOCATE EXPANSION JOINTS WHERE NEW SLAB MEET EXISTING SLAB.

H-01 COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY
4" CONCRETE PAD
 WITH EXPANSION JOINT
 APPROVED BY: _____ DATE: 10-08-09
 1-1/2" = 1'-0" REV.



- ① EXISTING 4" THICK CONCRETE SLAB
- ② 1/2" X 12" STEEL DOWEL @ 24" O.C. SLEEVE ONE SIDE. CENTER IN SLAB. NOTE: DRILL AND SET STEEL DOWEL IN EXISTING CONCRETE WHEN CONNECTING TO NEW CONCRETE
- ③ 1/8" RADIUS
- ④ TWO PART POLYURETHANE SEALANT MATCH COLOR OF ADJACENT SURFACE
- ⑤ 90% COMPACT SUBGRADE OR PER GEOTECHNICAL REPORT
- ⑥ EXPANSION JOINT FILLER
- ⑦ NEW 4" THICK CONCRETE SLAB

H-02 COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY
EXPANSION JOINT
 ON EXISTING CONCRETE PAD
 APPROVED BY: _____ DATE: 10-08-09
 3" = 1'-0" REV.



- ① FINISH SURFACE
- ② TOOLED SCORE JOINT 1/4" RADIUS, TYP. JOINT SHALL BE STRAIGHT AND TRUE, TYP.
- ③ NEW 4" THICK CONCRETE SLAB
- ④ DEPTH OF TOOLED SCORE JOINT TO BE 1/4"

H-03 COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY
TOOLED SCORE JOINT
 APPROVED BY: _____ DATE: 10-08-09
 3" = 1'-0" REV.

	DESIGNED BY	SHEET DESCRIPTION	SHEET No.
	APPROVED BY: _____ DATE: _____ MITCHELL S. PHILIPPE PRINCIPAL IN CHARGE	PEDLEY ROAD MEDIAN IMPROVEMENT HARDSCAPE AND LANDSCAPE CONSTRUCTION DETAILS STA 52+00 TO STA 62+00	P-03 SHEET 13 OF 25
	DESIGNED BY: BA DRAWN BY: BA CHECKED BY: MP/TH		

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PART 3 - EXECUTION

3.01 LEACHING, SOIL CONDITIONING, ROTOTILLING AND FERTILIZING:

E. DEEP WATER LEACHING:

1. AFTER COMPLETE INSTALLATION AND TESTING OF THE IRRIGATION SYSTEM, ALL AREAS SHALL BE DEEP WATER LEACHED AND COMPACTED AND SETTLED BY CONTINUOUS APPLICATION OF IRRIGATION WATER UNTIL THE SOIL HAS RECEIVED A MINIMUM OF 12" OF WATER.
2. AFTER LEACHING OPERATION, SOIL SAMPLES SHALL BE TAKEN BY CONTRACTOR PER LANDSCAPE ARCHITECT'S DIRECTION AND GIVEN TO THE OWNER'S SOIL LABORATORY FOR TESTING. SOIL TEST SHALL MEET THE FOLLOWING REQUIREMENTS:
 ECE - MAXIMUM 3.0
 PH - MAXIMUM 7.50
 - MINIMUM 6.00
3. DEEP WATER LEACHING SHALL BE DONE PRIOR TO THE APPLICATION OF THE COMMERCIAL FERTILIZER.
4. CARE SHALL BE TAKEN THAT THE RATE OF APPLICATION OF WATER DOES NOT CAUSE EROSION OR SLUFFING OF SOILS. DO NOT UNDERTAKE LEACHING OPERATIONS IN EXPANSIVE SOILS.
5. ALL DEPRESSIONS, VOIDS, EROSION SCARS AND SETTLED TRENCHES GENERATED BY THE DEEP WATERING SHALL BE FILLED WITH CONDITIONED TOPSOIL AND BROUGHT TO FINISH GRADE PRIOR TO DIGGING PLANTING PITS.

- B. AFTER LEACHING OPERATIONS AND AFTER THE AREAS HAVE BEEN GRADED, FOLLOW THE SOIL PREPARATION CONFORMANCE PROCEDURES PER SECTION 109. AFTER APPROVAL BY THE LANDSCAPE ARCHITECT OF THE REQUIREMENTS IN SECTION 109, THE SOIL CONDITIONING AND AMENDMENT MATERIALS SHALL BE EVENLY SPREAD OVER ALL PLANTING AREAS AND SHALL BE THOROUGHLY SCARIFIED TO AN AVERAGE DEPTH OF SIX (6) INCHES BY ROTOTILLING A MINIMUM OF TWO (2) ALTERNATING PASSES:

THE FOLLOWING MATERIALS AND QUANTITIES ARE TO BE USED AS A BASIS FOR BIDDING, AND MAY BE MODIFIED BASED ON SOIL ANALYSIS RESULTS.

SOIL CONDITIONER:	4 CU. YD. PER 1000 SQ. FT.
SOIL SULPHUR:	20 LBS/PER 1000 SQ. FT.
IRON SULPHATE:	20 LBS/PER 1000 SQ. FT.
GYPSUM:	100 LBS/PER 1000 SQ. FT.
PRE-PLANT FERTILIZER:	20 LBS/PER 1000 SQ. FT.

1. FERTILIZER SHALL BE INCORPORATED INTO THE TOP SIX (6) INCHES OF FINISH GRADE. FERTILIZER SHALL BE APPLIED AFTER LEACHING OPERATION.
2. THE THOROUGHNESS AND COMPLETENESS OF THE ROTOTILLING AND INCORPORATION OF THE SOIL CONDITIONERS/AMENDMENTS SHALL BE ACCEPTED BY THE LANDSCAPE ARCHITECT IN WRITING, PRIOR TO DIGGING PLANTING PITS. FOR SLOPES 2:1 AND STEEPER, OR AS PER THE DRAWINGS, OMIT SOIL CONDITIONER APPLICATION AND ROTOTILLING.

3.02 FINISH GRADING:

- A. FINISH GRADES SHALL BE AS INDICATED ON LANDSCAPE AND CIVIL DRAWINGS. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT FOR A DECISION SHOULD ANY DISCREPANCIES EXIST BETWEEN THE DRAWINGS AND SITE CONDITIONS.
- B. MOLDING AND ROUNDING OF THE GRADES SHALL BE PROVIDED AT ALL CHANGES IN SLOPE.
- C. ALL UNDULATIONS AND IRREGULARITIES IN THE PLANTING SURFACES RESULTING FROM TILLAGE, ROTOTILLING AND ALL OTHER OPERATIONS SHALL BE LEVELED AND FLOATED OUT BEFORE PLANTING OPERATIONS ARE INITIATED.
- D. TAKE EVERY PRECAUTION TO PROTECT AND AVOID DAMAGE TO EROSION CONTROL MATERIALS, SPRINKLER HEADS, IRRIGATION LINES, AND OTHER UNDERGROUND UTILITIES DURING GRADING AND CONDITIONING OPERATIONS.
- E. FINAL FINISH GRADES SHALL INSURE POSITIVE DRAINAGE OF THE SITE WITH ALL SURFACE DRAINAGE AWAY FROM BUILDINGS, WALLS, AND TOWARD ROADWAYS, DRAINS AND CATCH BASINS.
- F. FINAL GRADES SHALL BE ACCEPTED BY THE LANDSCAPE ARCHITECT/OWNER'S REPRESENTATIVE IN WRITING ON COMPANY LETTERHEAD PRIOR TO DIGGING PLANTING PITS AND/OR BEFORE PLANTING OPERATIONS WILL BE ALLOWED TO BEGIN.
- G. PLANTING SURFACES SHALL BE GRADED WITH NO LESS THAN 2 PERCENT SURFACE SLOPE FOR POSITIVE DRAINAGE.

3.03 PLANTING:

- A. THE LAYOUT OF LOCATIONS FOR PLANTS AND OUTLINES OF GROUNDCOVER BEDS TO BE PLANTED SHALL BE ACCEPTED BY THE LANDSCAPE ARCHITECT IN WRITING PRIOR TO DIGGING PLANT PITS FOR PLANTING. ALL SUCH LOCATIONS SHALL BE CHECKED BY THE CONTRACTOR FOR POSSIBLE INTERFERENCE WITH EXISTING UNDERGROUND PIPING PRIOR TO EXCAVATION OF HOLES. IF UNDERGROUND CONSTRUCTION OR UTILITY LINES ARE ENCOUNTERED IN THE EXCAVATION OF PLANTING AREAS, OTHER LOCATIONS FOR THE PLANTING MAY BE SELECTED BY THE LANDSCAPE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER. DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

A. PLANTING SHRUBS:

1. ALL EXCAVATED HOLES SHALL HAVE VERTICAL SIDES WITH ROUGHENED SURFACES AND SHALL BE OF THE MINIMUM SIZES INDICATED ON DRAWINGS. HOLES SHALL BE, IN ALL CASES, LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY OR BREAKAGE OF ROOT BALLS OR ROOTS.
2. EXCAVATION SHALL INCLUDE THE STRIPPING AND STACKING OF ALL ACCEPTABLE SOIL ENCOUNTERED WITHIN THE AREAS TO BE EXCAVATED FOR PLANT PITS AND PLANTING BEDS. PROTECT ALL AREAS THAT ARE TO BE TRUCKED OVER AND UPON WHICH SOIL IS TO BE TEMPORARILY STACKED PENDING ITS RE-USE FOR THE FILLING OF HOLES, PITS AND BEDS.
3. EXCESS SOIL, GENERATED FROM THE PLANTING HOLES SHALL BE SPREAD EVENLY ON THE SITE WITHIN THE TOLERANCES INDICATED IN SECTION 3.02, OR AS DIRECTED BY THE LANDSCAPE ARCHITECT.
4. THE PLANTS SHALL BE PLANTED AT APPROVED LOCATIONS WITH THE HERETOFORE SPECIFIED PLANT PIT FERTILIZER AND SOIL PLANTING BACKFILL. PLACE PLANT PIT FERTILIZER AFTER TWO THIRDS OF BACKFILL MATERIAL IS INSTALLED AT THE RATES SPECIFIED BY THE MANUFACTURER AND SOILS REPORT.
5. THE PLANTS SHALL BE PLACED IN THE PLANTING PITS, WHICH HAVE BEEN HAND-TAMPED, AND WATER SETTLED TO THE ROOTBALL BASE LEVELS PRIOR TO THE PLACEMENT OF THE PLANTS. AFTER SETTING THE PLANTS, THE REMAINING BACKFILL MATERIAL SHALL BE CAREFULLY TAMPED AND SETTLED AROUND EACH ROOTBALL TO FILL ALL VOIDS.
6. EACH SHRUB SHALL BE PLACED IN THE CENTER OF THE HOLE AND SHALL BE SET PLUMB AND HELD RIGIDLY IN POSITION UNTIL THE PLANTING BACKFILL HAS BEEN TAMPED AROUND EACH ROOTBALL.
7. ALL PLANTS SHALL BE SET AT SUCH A LEVEL THAT AFTER SETTLING THEY BEAR THE SAME RELATIONSHIP TO THE SURROUNDING FINISH GRADE AS THEY BORE TO THE SOIL LINE GRADE IN THE CONTAINER, UNLESS OTHERWISE NOTED.
8. NO PLANT WILL BE ACCEPTED IF THE ROOTBALL IS BROKEN OR CRACKED, EITHER BEFORE, DURING, OR AFTER THE PROCESS OF INSTALLATION.
9. PLANTS SHALL BE THOROUGHLY WATERED INTO THE FULL DEPTH OF EACH PLANTING HOLE IMMEDIATELY AFTER PLANTING.
10. INSTALL SHRUBS AS SHOWN ON THE DRAWINGS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SURFACE AND SUBSURFACE DRAINAGE REQUIRED WHICH MAY AFFECT HIS GUARANTEE OF THE SHRUB.
12. PRUNING AFTER PLANTING SHALL BE REQUIRED ON ALL TREES, SHRUBS, AND VINES WHEN NECESSARY TO PROVIDE THE SPECIFIED OR APPROVED STANDARD SHAPES, FORM AND/OR SIZES CHARACTERISTIC TO EACH PLANT. PRUNING MAY INCLUDE THINNING, AND/OR CUTTING AND SHALL BE UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT OR CERTIFIED ARBORIST.

3.04 HERBICIDE APPLICATION:

- C. HERBICIDE OR PESTICIDE APPLICATIONS SHALL BE PERFORMED ONLY BY PERSONNEL LICENSED FOR SUCH WORK BY THE STATE OF CALIFORNIA

3.05 RODENT REPELLENT:

- A. ONCE PLANTS HAVE BEEN PLANTED AND WATERED IN, APPLY RODENT REPELLENT FOR PLANTS INDICATED ON PLANT LEGENDS ON THE DRAWINGS AROUND THE ENTIRE PERIMETER OF THE PLANTING AREA AT APPLICATION RATES AND WITH METHODS AS SPECIFIED BY THE MANUFACTURER.

3.06 MULCHING:

- A. LANDSCAPE AREAS SHALL BE COVERED WITH THE SPECIFIED MULCHING MATERIAL TO THE MINIMUM DEPTH INDICATED ON THE DRAWINGS.

3.07 CLEAN-UP:

- A. AS THE PROJECT PROGRESSES ON A DAILY BASIS, THE CONTRACTOR SHALL MAINTAIN ALL AREAS IN A NEAT MANNER AND REMOVE UNSIGHTLY DEBRIS AS NECESSARY, REMOVE ALL DEBRIS AND CONTAINERS USED IN ACCOMPLISHING WORK AND SWEEP AND CLEAN ALL SIDEWALKS, ASPHALT, AND CONCRETE AREAS ADJACENT TO PLANTINGS.

3.08 SITE OBSERVATION & WALK-THROUGHS FOR SUBSTANTIAL COMPLETION:

- A. GENERAL OBSERVATION: THE LANDSCAPE ARCHITECT WILL VISIT THE CONSTRUCTION SITE AT INTERIM TIMES DURING THE CONSTRUCTION PROCESS TO ACCESS CONSTRUCTION PROGRESS REGARDING INSTALLATION OF LANDSCAPE MATERIAL TO BE IN COMPLIANCE WITH THE DRAWINGS, DETAILS, SPECIFICATIONS AND SITE CONDITIONS. THE LANDSCAPE ARCHITECT WILL PREPARE A SITE REPORT AFTER EACH VISIT NOTING PROGRESS OF INSTALLATION, VERBAL COMMUNICATION WITH THE CONTRACTOR AND IDENTIFYING ANY FIELD ADJUSTMENTS NECESSARY THAT REQUIRE MODIFICATIONS TO THE DESIGNED LANDSCAPE. A COPY OF THIS SITE REPORT WILL BE DELIVERED TO BOTH THE OWNER AND THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO IMMEDIATELY ADDRESS EACH ITEM ON THE SITE REPORT BEFORE PROCEEDING WITH FURTHER CONSTRUCTION.

B. WALK THROUGH FOR SUBSTANTIAL COMPLETION (PUNCH LIST #1):

1. BEFORE REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION THE FOLLOWING REQUIREMENTS MUST BE ENTIRELY SATISFIED:
 - a. THE ENTIRE PLANTING AREA IS COMPLETELY INSTALLED, AND WHEN LETTERS OF ACCEPTANCE AS DESCRIBED ABOVE HAVE BEEN OBTAINED FROM THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE. IF THE CONTRACTOR FAILED TO NOTIFY THE LANDSCAPE ARCHITECT FOR ANY OF THE ABOVE ITEMS AS LISTED ABOVE THAN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY DESIGN MODIFICATIONS DIRECTED BY THE LANDSCAPE ARCHITECT DURING THE WALK THROUGH FOR SUBSTANTIAL COMPLETION ANY OF THESE ISSUES AT NO ADDITIONAL COST TO THE OWNER.
 - b. ALL INVOICES, PINTO TAGS AND RECEIPTS HAVE BEEN DELIVERED TO THE LANDSCAPE ARCHITECT AND/OR OWNER'S REPRESENTATIVE.
2. ONCE THE ABOVE REQUIREMENTS HAVE BEEN MET A WALK THROUGH FOR SUBSTANTIAL COMPLETION MAY BE REQUESTED. THE FOLLOWING PROCEDURES WILL BE USED DURING THE WALK THROUGH:
 - a. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
 - b. A VISUAL WALK THROUGH OF THE ENTIRE SITE WILL TAKE PLACE CONSISTING OF AN EXAMINATION OF PLANTING AREAS AS COMPARED TO THE DRAWINGS, AND INSTALLATION PROCEDURES AS SHOWN ON THE DETAILS AND SPECIFICATIONS. A PUNCH LIST WILL BE ESTABLISHED OF DEFICIENCIES IN THE CONSTRUCTION AND WORKMANSHIP OF THE LANDSCAPED AREA AS COMPARED TO THE CONSTRUCTION DRAWINGS, DETAILS, AND SPECIFICATIONS.
3. ONCE THE WALK THROUGH FOR SUBSTANTIAL COMPLETION HAS BEEN COMPLETED THE LANDSCAPE ARCHITECT WILL PROVIDE A COPY OF ALL PUNCH LIST ITEMS TO THE OWNER FOR REVIEW AND DISTRIBUTION TO THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, REPLACE, AND ADJUST ALL ITEMS ON THE PUNCH PRIOR TO REQUESTING A FINAL WALK THROUGH.


C. FINAL WALK THROUGH:

1. BEFORE COMMENCEMENT OF A FINAL WALK THROUGH IS REQUESTED, EACH ITEM ON THE WALK THROUGH FOR SUBSTANTIAL COMPLETION (PUNCH LIST #1) MUST BE THOROUGHLY SATISFIED, ADDRESSED, AND RESOLVED BY THE CONTRACTOR.
2. ONCE THE ABOVE REQUIREMENT HAS BEEN MET A FINAL WALK THROUGH MAY BE REQUESTED. THE FOLLOWING PROCEDURES WILL BE USED:
 - a. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
 - b. UNLESS NEW ISSUES ARISE BETWEEN WALK THROUGHS, ONLY THOSE ITEMS AS INDICATED ON THE WALK THROUGH FOR SUBSTANTIAL COMPLETION PUNCH LIST WILL BE ADDRESSED. THIS VISUAL WALK THROUGH WILL CONSIST OF WALKING THROUGH THE PUNCH LIST ITEMS CREATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION, AND EXAMINING OUTSTANDING ITEMS. ANY REMAINING DEFICIENCIES IN THE CONSTRUCTION AND WORKMANSHIP OF THE LANDSCAPE AS COMPARED TO THE PUNCH LIST GENERATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION, CONSTRUCTION DRAWINGS, DETAILS AND SPECIFICATIONS WILL BE NOTED.
1. ONCE THE FINAL WALK THROUGH IS COMPLETED AND ALL ITEMS CREATED ON THE FINAL PUNCH LIST HAVE BEEN ADDRESSED, THE MAINTENANCE PERIOD MAY BEGIN. ANY ADDITIONAL WALK THROUGHS REQUIRED DUE TO CONTRACTORS' INABILITY TO ADDRESS ALL ISSUES ON THE PUNCH LISTS DESCRIBED ABOVE WILL BE PROVIDED AT THE CONTRACTORS EXPENSE.

3.09 MAINTENANCE PERIOD:

- A. THE MAINTENANCE PERIOD SHALL LAST FOR THIRTY (30) DAYS AFTER NOTIFICATION FROM THE LANDSCAPE ARCHITECT OF A SUCCESSFUL FINAL WALK THROUGH AND WILL BEGIN ONCE ALL ITEMS ON THE FINAL WALK THROUGH PUNCH LIST HAVE BEEN SATISFACTORILY ADDRESSED BY A WRITTEN STATEMENT INDICATING SUCH FROM THE LANDSCAPE ARCHITECT TO THE OWNER.
1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FOLLOWING ANY MAINTENANCE MANUALS CREATED SPECIFICALLY FOR THE PROJECT FROM THE OWNER AT THE BEGINNING OF THE MAINTENANCE PERIOD.
 2. ONCE THE CONTRACTOR HAS FULFILLED ALL MAINTENANCE AGREEMENT OBLIGATIONS THE MAINTENANCE PERIOD WILL END. SEE SECTION 320533 LANDSCAPE MAINTENANCE, FOR MAINTENANCE RESPONSIBILITIES.

END OF SECTION 329300

DESIGNED BY			SHEET DESCRIPTION		SHEET No.	
APPROVED BY:  MITCHELL S. PHILIPPE PRINCIPAL IN CHARGE			PEDLEY ROAD MEDIAN IMPROVEMENT LANDSCAPE SPECIFICATIONS		P-05 SHEET 15 OF 25	
DESIGNED BY	DRAWN BY	CHECKED BY	STA 52+00 TO STA 62+00			
BA	BA	MP/YH				

G. EROSION CONTROL:

1. THE CONTRACTOR IS RESPONSIBLE FOR DAILY VISUAL INSPECTION OF SLOPES AND IMMEDIATELY REPORTING AREAS EXPERIENCING EROSION TO THE LANDSCAPE ARCHITECT AND/OR OWNERS REPRESENTATIVE ON THE SAME DAY NOTICED. IF THE CONTRACTOR FAILS TO NOTIFY THE LANDSCAPE ARCHITECT AND/OR OWNERS REPRESENTATIVE OF AREAS EXPERIENCING EROSION ON THE SAME DAY NOTICED, THEN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY EROSION CONTROL MEASURES AND/OR REPAIRS AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNERS REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.
2. UPON NOTIFICATION AND AGREEMENT OF THE APPLICABLE EROSION CONTROL MEASURE BY THE LANDSCAPE ARCHITECT, THE OWNER AND THE CONTRACTOR, THE CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY REPAIRING AND CORRECTING ANY PROGRESSIVE HILLING THAT MAY OCCUR.
3. EROSION CONTROL MEASURES MAY INCLUDE BUT NOT BE LIMITED TO:
 - a. FILLING
 - b. RAKING
 - c. REDIRECTING RUNOFF
 - d. PROPERLY PROGRAMMING IRRIGATION OPERATIONS
 - e. REPLANTING
 - f. PROVIDING ADDITIONAL EROSION CONTROL MATERIALS SUCH AS:
 - 1) JUT MATTING
 - 2) FILTER FABRIC
 - 3) HAY BALES
 - 4) HAY ROLLS
 - 5) SILT FENCING
 - 6) SAND BAGS
 - 7) AND/OR OTHER EROSION CONTROL ITEMS AS REQUIRED TO MAINTAIN HEALTHY PLANT MATERIAL AND STABLE SLOPES.
4. ADDITIONAL EROSION CONTROL MEASURES REQUIRED DUE TO IRRIGATION OPERATIONS PROGRAMMED BY THE CONTRACTOR THAT DID NOT TAKE INTO ACCOUNT CYCLE AND SOAK FUNCTIONS OF THE CONTROLLER WILL BE INSTALLED AND/OR REPAIRED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND/OR OWNERS REPRESENTATIVE AT NO ADDITIONAL COST TO THE OWNER.

H. FREQUENCY OF MAINTENANCE OPERATIONS:

TASK:	FREQUENCY:
SHRUB AND VINE RESTORATION AND REPLACEMENT:	AS REQUIRED
WEEDING:	DAILY
PRUNING:	AS REQUIRED
TREE REPLACEMENT:	AS REQUIRED
TREE STAKING:	AS REQUIRED
PESTICIDE APPLICATIONS:	AS REQUIRED
DEBRIS REMOVAL & DISPOSAL:	AS REQUIRED
IRRIGATION SYSTEM MAINTENANCE:	AS REQUIRED
FERTILIZER APPLICATION:	AS REQUIRED
FALLEN VEGETATION AND DEBRIS REMOVAL:	TWICE WEEKLY
REMOVAL OF DEAD ANIMALS:	AS REQUIRED
RE-MULCHING (MAINTAINED AT 3 INCHES):	AS REQUIRED
EROSION CONTROL:	AS REQUIRED


L. AT THE END OF THE THIRTY (30) DAY MAINTENANCE PERIOD, THE CONTRACTOR SHALL REQUEST A POST-MAINTENANCE WALK THROUGH WITH THE LANDSCAPE ARCHITECT. PRIOR TO REQUESTING THIS WALK THROUGH THE FOLLOWING REQUIREMENTS MUST BE ENTIRELY SATISFIED:

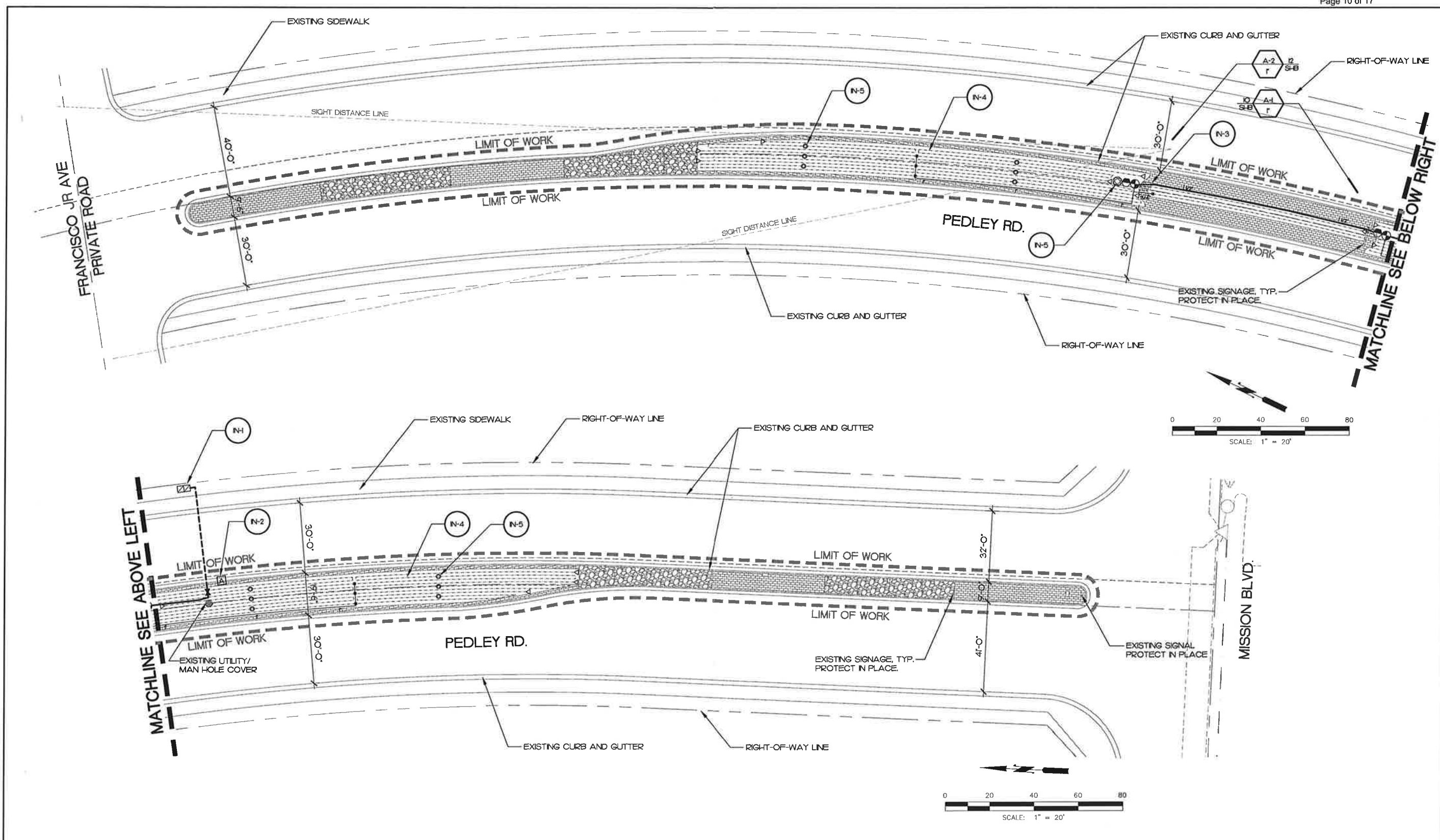
1. ANY OUTSTANDING MAINTENANCE ITEMS THAT WERE PREVIOUSLY DIRECTED TO BE COMPLETED BY THE RESTORATION SPECIALIST.
- J. PRELIMINARY POST MAINTENANCE WALK THROUGH: ONCE THE ABOVE REQUIREMENTS HAVE BEEN MET A PRELIMINARY POST MAINTENANCE WALK THROUGH MAY BE SCHEDULED. AT THE PRELIMINARY POST MAINTENANCE WALK THROUGH, THE FOLLOWING PROCEDURES WILL BE USED:**
1. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
 2. A VISUAL WALK THROUGH OF THE ENTIRE LANDSCAPE AREA WILL TAKE PLACE CONSISTING OF AN EXAMINATION OF PLANTING AREAS AND NOTING ANY REMAINING MAINTENANCE ITEMS TO BE COMPLETED.
 3. ONCE THE PRELIMINARY POST MAINTENANCE WALK THROUGH HAS BEEN COMPLETED, THE LANDSCAPE ARCHITECT SHALL PREPARE A PUNCH LIST OF OUTSTANDING ITEMS TO BE COMPLETED AND WILL PROVIDE A COPY OF THIS LIST TO THE OWNER AND CONTRACTOR FOR REVIEW AND USE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, REPLACE, AND ADJUST ALL ITEMS ON THE PUNCH LIST PRIOR TO REQUESTING A FINAL POST MAINTENANCE WALK THROUGH.


K. FINAL POST MAINTENANCE WALK THROUGH: BEFORE COMMENCEMENT OF A FINAL POST MAINTENANCE WALK THROUGH, EACH ITEM ON THE PRELIMINARY POST MAINTENANCE WALK THROUGH PUNCH LIST MUST BE THOROUGHLY SATISFIED, ADDRESSED, AND RESOLVED BY THE CONTRACTOR. ONCE THE ABOVE REQUIREMENT HAS BEEN MET A FINAL POST MAINTENANCE WALK THROUGH MAY BE REQUESTED. AT THE FINAL POST MAINTENANCE WALK THROUGH, THE FOLLOWING PROCEDURES WILL BE USED:

1. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
2. ONLY THOSE ITEMS AS INDICATED ON THE PRELIMINARY POST MAINTENANCE WALK THROUGH PUNCH LIST WILL BE ADDRESSED. THIS VISUAL WALK THROUGH WILL CONSIST OF WALKING THROUGH THE PUNCH LIST ITEMS CREATED AT THE TIME OF THE PRELIMINARY POST MAINTENANCE WALK THROUGH, AND EXAMINING OUTSTANDING ITEMS. ANY REMAINING DEFICIENCIES IN THE MAINTENANCE OF THE WETLANDS MITIGATION WILL BE NOTED.
3. ONCE THE FINAL POST MAINTENANCE WALK THROUGH IS COMPLETED AND ANY OUTSTANDING ITEMS CREATED ON THE FINAL PUNCH LIST HAVE BEEN ADDRESSED THE MAINTENANCE PERIOD MAY END. ANY ADDITIONAL WALK THROUGHS REQUIRED DUE TO CONTRACTORS' INABILITY TO ADDRESS ALL ISSUES ON THE PUNCH LISTS DESCRIBED ABOVE WILL BE PROVIDED AT THE CONTRACTORS' EXPENSE.

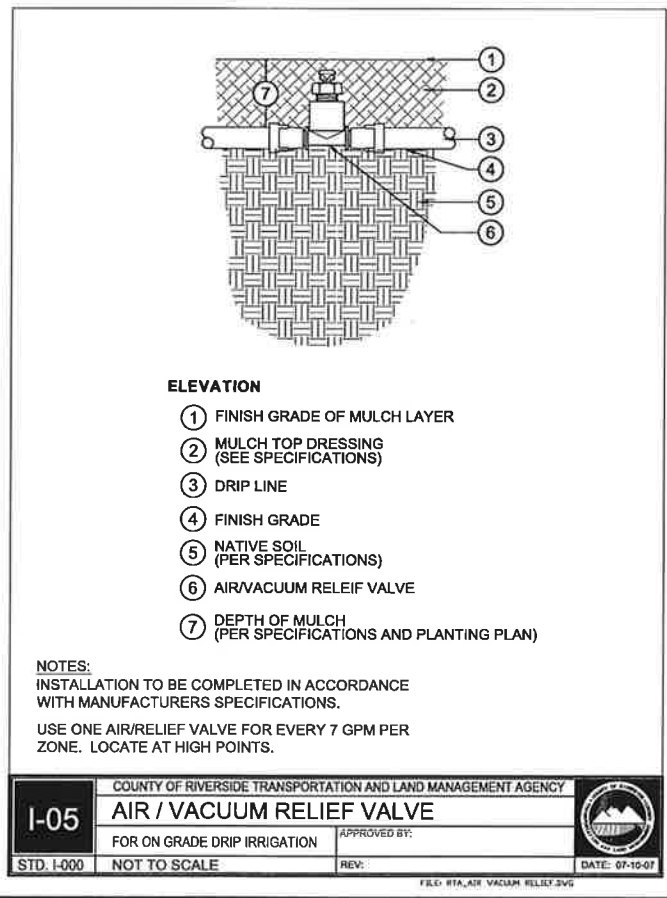
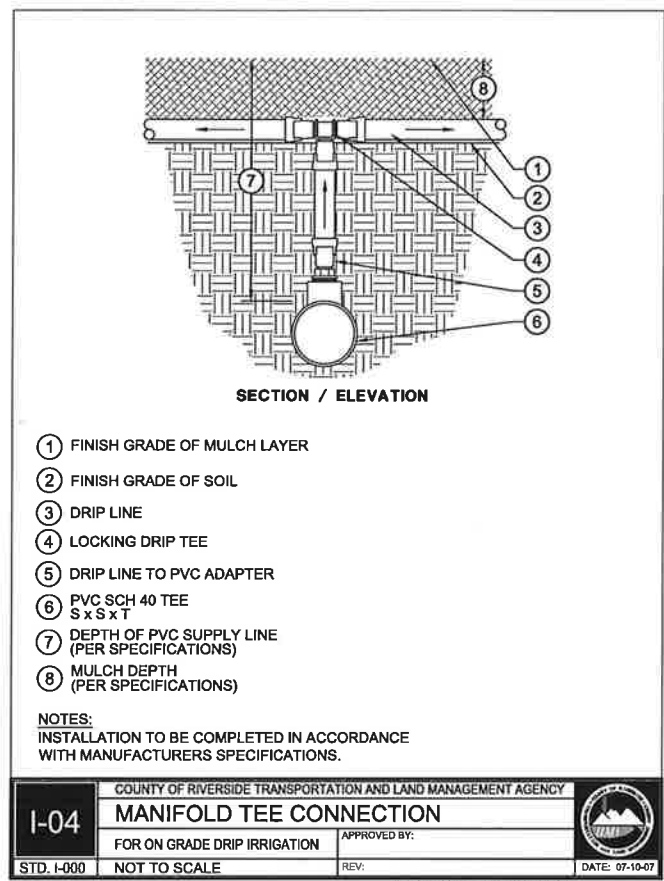
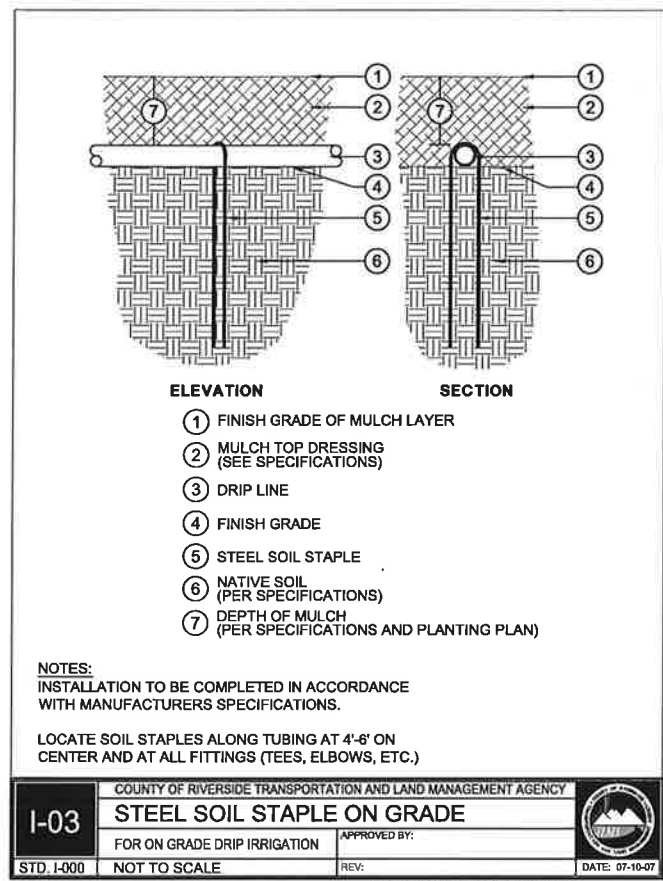
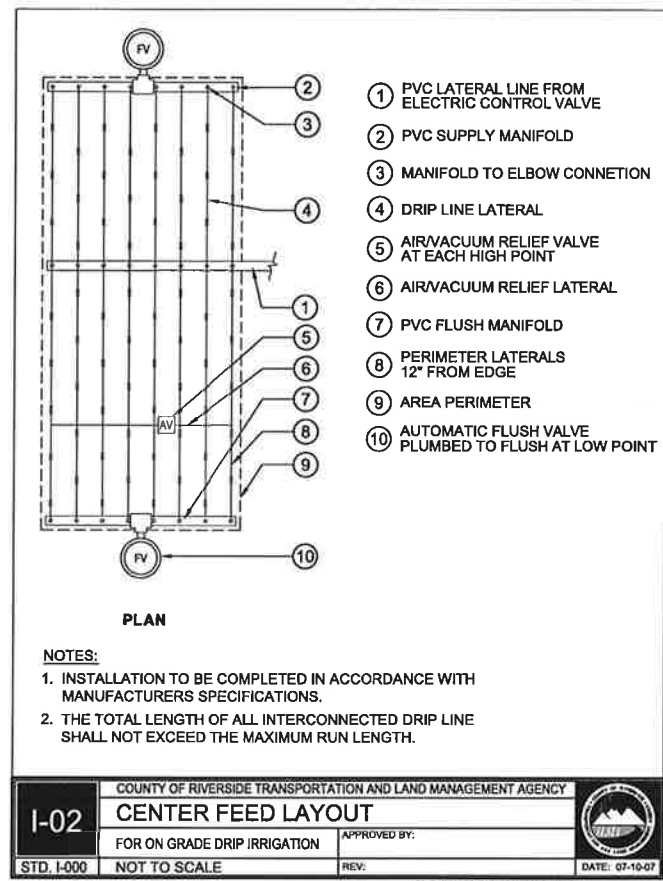
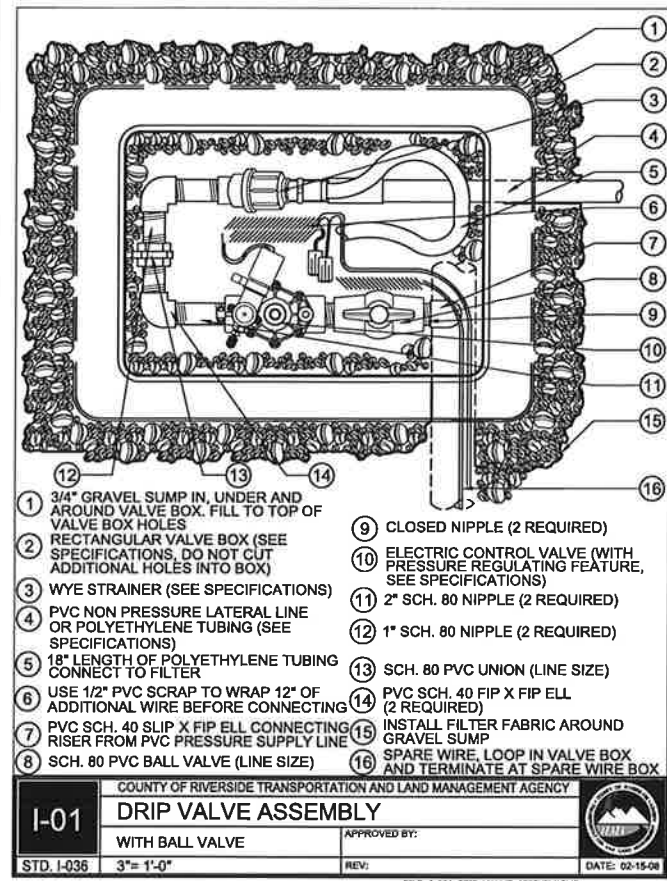
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	DESIGNED BY			SHEET DESCRIPTION	SHEET No.
	APPROVED BY: <i>Mitchell S. Phillippe</i> MITCHELL S. PHILLIPPE PRINCIPAL IN CHARGE			PEDLEY ROAD MEDIAN IMPROVEMENT LANDSCAPE SPECIFICATIONS STA 52+00 TO STA 62+00	P-07 SHEET 17 of 25
	DESIGNED BY	DRAWN BY	CHECKED BY		
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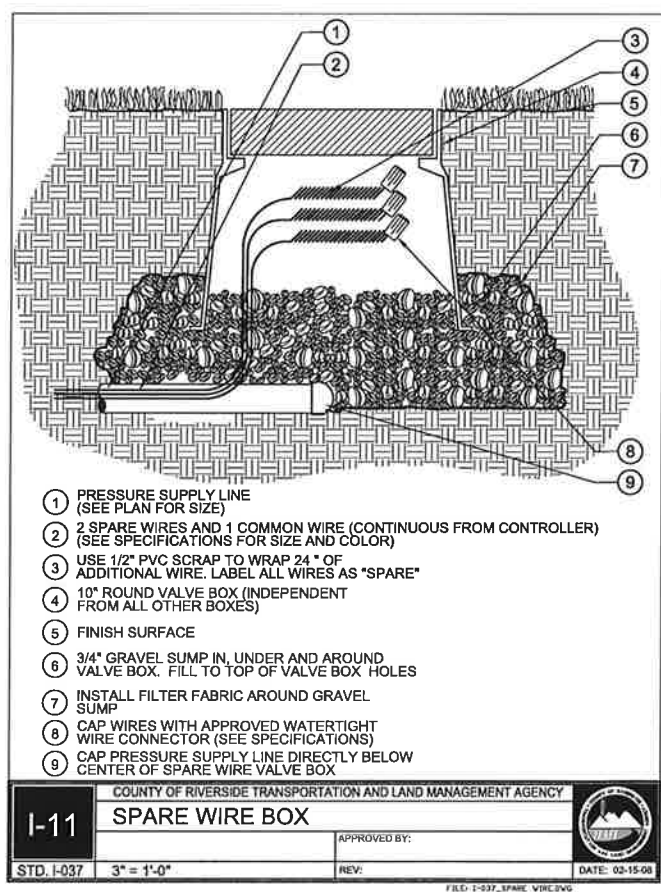
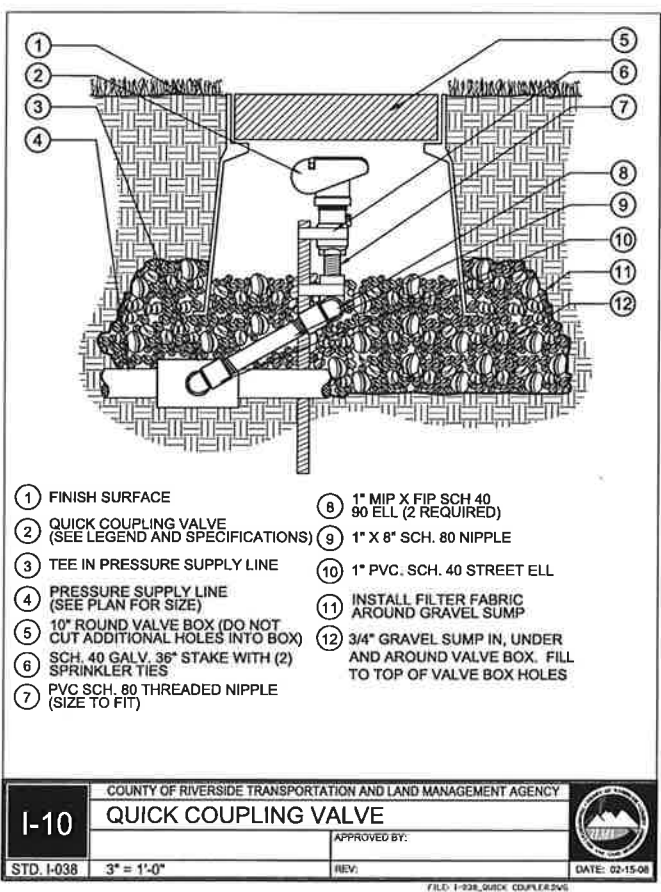
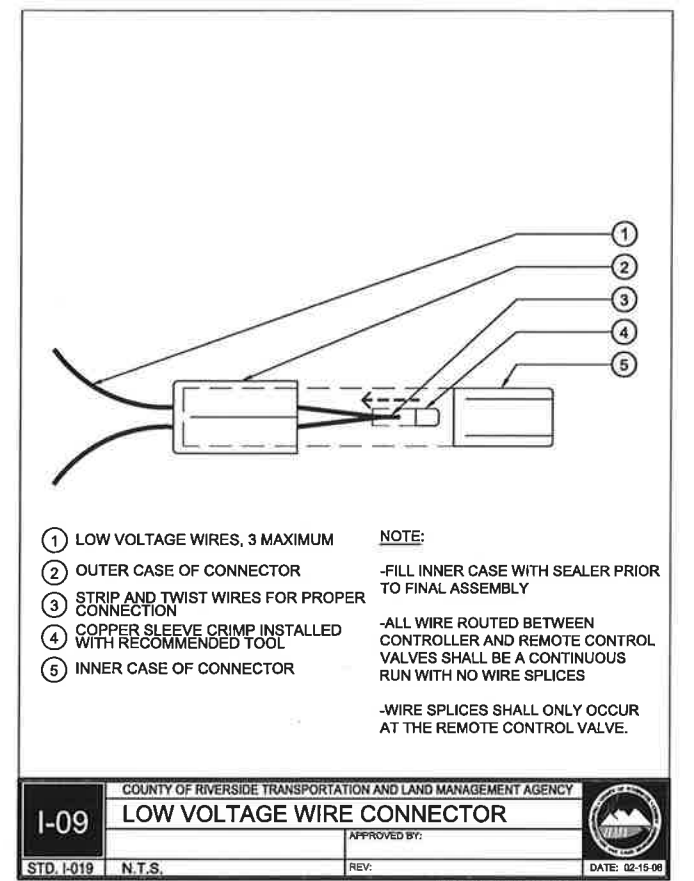
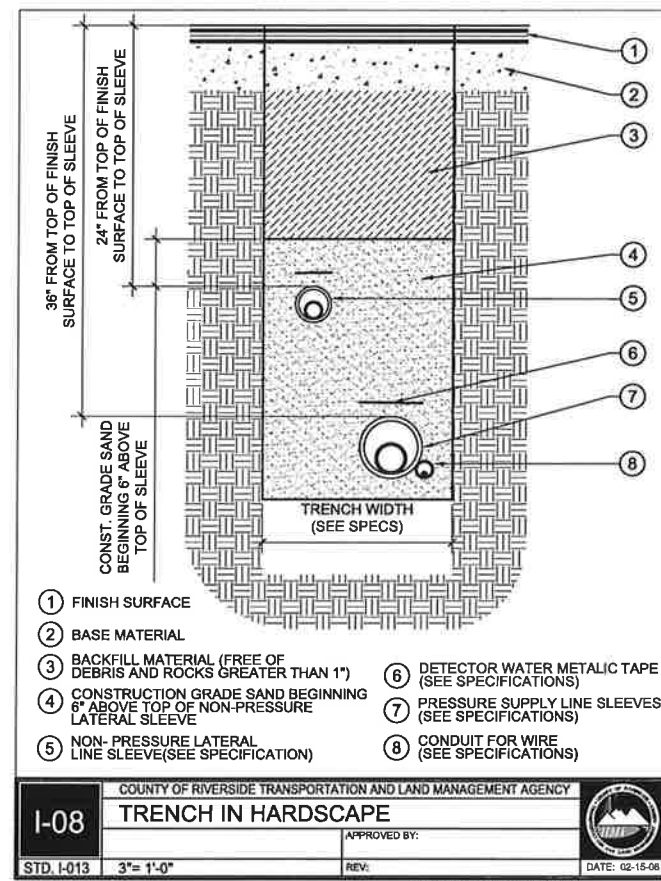
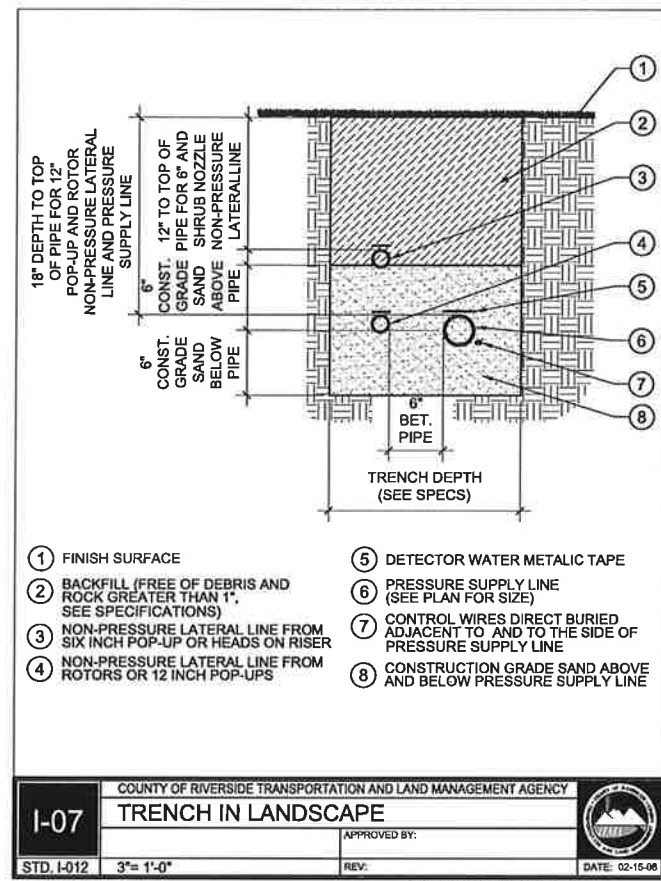
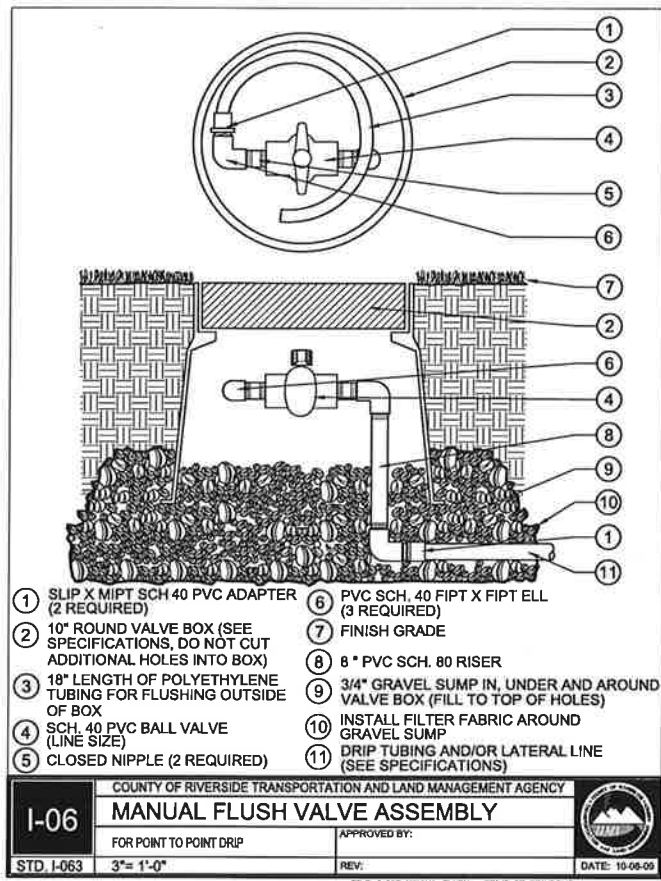
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	APPROVED BY: Mitchell S. Phillippe MITCHELL S. PHILIPPE PRINCIPAL IN CHARGE	PEDLEY ROAD MEDIAN IMPROVEMENT IRRIGATION PLAN STA 52+00 TO STA 62+00	I-01 SHEET 18 OF 25
	DATE _____ DESIGNED BY: BA DRAWN BY: BA CHECKED BY: MP/YH		

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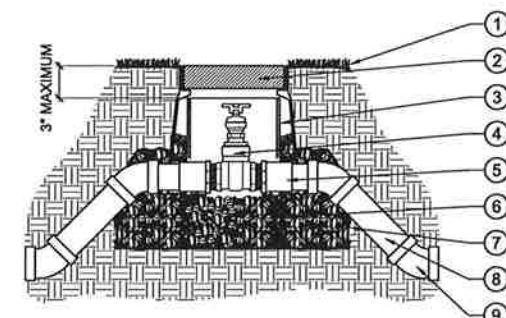
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	APPROVED BY: MITCHELL S. PHILLIPPE PRINCIPAL IN CHARGE DATE: 12-23-10	PEDLEY ROAD MEDIAN IMPROVEMENT IRRIGATION DETAILS STA 52+00 TO STA 62+00	1-03 SHEET 20 OF 25
	DESIGNED BY: BA DRAWN BY: BA CHECKED BY: MP/TH		

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DESIGNED BY BA	DRAWN BY BA	CHECKED BY MP/YH	

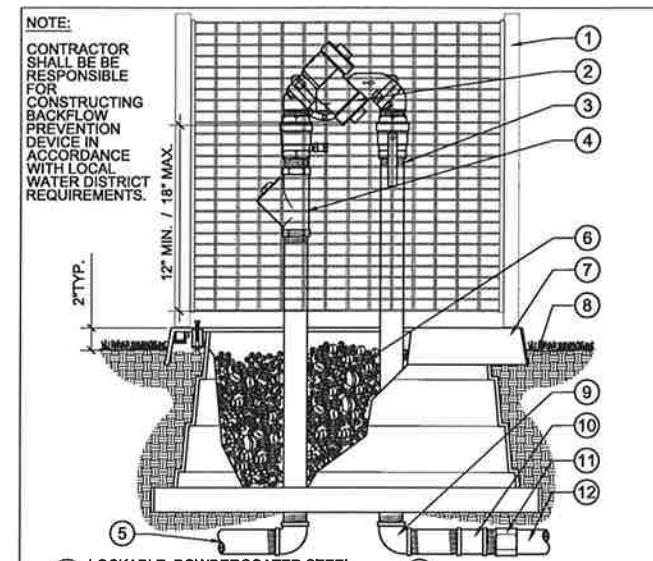
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- ① FINISH GRADE
- ② 10" ROUND VALVE BOX (SEE SPECIFICATIONS, DO NOT CUT ADDITIONAL HOLES INTO BOX)
- ③ 8" DIAMETER CL 160 PVC SLEEVE (TO REST ON TOP EDGE OF ISOLATION GATE VALVE)
- ④ ISOLATION GATE VALVE (WITH CROSS HANDLE, SEE SPECIFICATIONS)
- ⑤ SLIP X MIPT SCH 80 PVC ADAPTER (2 REQUIRED)
- ⑥ 3/4" GRAVEL SUMP IN, UNDER AND AROUND VALVE BOX, FILL TO TOP OF VALVE BOX HOLES
- ⑦ INSTALL FILTER FABRIC AROUND GRAVEL SUMP
- ⑧ PRESSURE SUPPLY LINE (REFER TO PLAN FOR SIZE)
- ⑨ SLIP X SLIP 45 DEGREE ELL (4 REQUIRED)

COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY		
I-12	ISOLATION GATE VALVE	
FOR UP TO 2 1/2" PRESSURE SUPPLY LINE	APPROVED BY:	
STD. I-031 1 1/2" = 1'-0"	REV:	DATE: 10-08-09

FILE: I-031_ISOLATION_GATE_VALVE.dwg



- NOTE:**
 CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING BACKFLOW PREVENTION DEVICE IN ACCORDANCE WITH LOCAL WATER DISTRICT REQUIREMENTS.
- ① LOCKABLE, POWDERCOATED STEEL BACKFLOW ENCLOSURE, COLOR: FOREST GREEN (SEE SPECIFICATIONS)
 - ② REDUCED PRESSURE BACKFLOW PREVENTION DEVICE, SEE SPECS PAINT FOREST GREEN (AVOID HANDLES AND TEST COCKS)
 - ③ BRASS THREADED RISER/NIPPLE (LINE SIZE) (4 REQUIRED, LENGTH VARIES)
 - ④ BRASS WYE STRAINER AND CLOSE BRASS NIPPLE (LINE SIZE)
 - ⑤ BRASS / COPPER PIPE FROM WATER SOURCE
 - ⑥ PEA GRAVEL
 - ⑦ PRE-FABRICATED QUICKPAD AND MOUNTING HARDWARE
 - ⑧ FINISH SURFACE
 - ⑨ BRASS THREADED ELBOW (LINE SIZE) (2 REQUIRED)
 - ⑩ BRASS THREADED COUPLER (LINE SIZE) (1 REQUIRED)
 - ⑪ PVC SCH. 80 MALE ADAPTER (LINE SIZE) (1 REQUIRED)
 - ⑫ PVC PRESSURE SUPPLY LINE EXTEND AS SHOWN ON PLAN

COUNTY OF RIVERSIDE TRANSPORTATION AND LAND MANAGEMENT AGENCY		
I-13	BACKFLOW PREVENTION DEVICE	
UP TO 2"	APPROVED BY:	
STD. I-024 3" = 1'-0"	REV:	DATE: 10-08-09

FILE: I-024_BACKFLOW_PREVENTION_DEVICE.dwg

	DESIGNED BY	SHEET DESCRIPTION	SHEET No.
	APPROVED BY: MITCHELL S. PHILLIPPE PRINCIPAL IN CHARGE	PEDLEY ROAD MEDIAN IMPROVEMENT IRRIGATION DETAILS	I-05
DESIGNED BY BA	DRAWN BY BA	CHECKED BY MP/YH	STA 52+00 TO STA 62+00

12/21/10 5:35:00 PM BALLE P:\PEDLEY ROAD IMPROVEMENTS\05

- 208 VALVE BOXES:
- A. RECTANGULAR VALVE BOXES SHALL BE 9-1/2 INCH WIDE BY 16 INCH LONG AND 11 INCH HIGH. ROUND VALVE BOXES SHALL BE 10-INCH DIAMETER AND 10 1/4 INCH. ALL VALVE BOXES SHALL BE CONSTRUCTED OF RIGID POLYOLEFIN.
 - B. VALVE BOXES SHALL HAVE LOCKING COVERS SECURE WITH A 3/8-INCH STAINLESS STEEL BOLT AND WASHER.
 - C. RECTANGLE VALVE BOXES SHALL BE USED FOR DRIP CONTROL VALVES.
 - D. ROUND VALVE BOXES SHALL BE USED FOR GATE VALVES QUICK COUPLER VALVES, FLUSH VALVE ASSEMBLIES AND SPARE WIRES.
 - E. ALL VALVE BOXES TO BE GREEN IN COLOR UNLESS OTHERWISE SPECIFIED FOR USE OF RECLAIMED WATER.
 - F. HEAT BRAND ALL BOX LIDS WITH THE APPROPRIATE TWO-INCH HIGH IDENTIFICATION LETTERS AND/OR NUMBERS.
 - G. ALL VALVE BOXES SHALL RECEIVE LANDSCAPE FABRIC. LANDSCAPE FABRIC SHALL BE CONSTRUCTED OF 5.0 OZ. WEIGHT PROVEN POLYPROPYLENE WEED BARRIER WITH BURST STRENGTH OF 225 P.S.I. AND CAPABLE OF 12 GALLONS PER MINUTE OF WATER FLOW AND PUNCTURE STRENGTH OF 60 LBS. DEWITT PRO, MIRIFY OR APPROVED EQUAL.
 - H. ALL VALVE BOXES SHALL RECEIVE 2 CUBIC FEET OF 3/4-INCH GRAVEL.
 - I. VALVE TAG: MANUFACTURED FROM UV STABILIZED PLASTIC WITH 180LBS PULL OUT RESISTANCE AND HOT STAMPED FOR MAXIMUM VISIBILITY. TOP HOLE SHALL BE DESIGNED TO PASS A 16 GAUGE OR SMALLER SOLENOID PIGTAIL OR ATTACH WITH A NYLON TIE.

209 IRRIGATION SYSTEM CONTROLLER

- A. AS SPECIFIED ON IRRIGATION LEGEND

210 ELECTRIC CONTROL VALVE WIRE

- A. LOW VOLTAGE:
 - 1. AWG UF UL APPROVED NO. 14 DIRECT BURIAL COPPER WIRE FOR ALL CONTROL WIRES AND NO. 14 DIRECT BURIAL COPPER WIRE FOR ALL COMMON WIRES.
 - 2. WIRE COLORS:
 - a. CONTROL WIRES- AS SPECIFIED ON DRAWINGS
 - b. COMMON WIRES- AS SPECIFIED ON DRAWINGS.
 - c. SPARE WIRES- GREEN / WHITE (LABELED AT TERMINATION)
 - 3. WIRE SPLICE CONNECTORS: 3M DBY DIRECT BURY SPLICE KITS.

211 SAND BEDDING

- A. SAND BEDDING SHALL BE CONSTRUCTION GRADE.

PART 3 - EXECUTION

3.01 PREPARATION

- A. EXAMINE FIELD CONDITIONS PRIOR TO BEGINNING WORK DESCRIBED IN THIS SECTION. GRADING OPERATIONS SHALL BE COMPLETED AND APPROVED PRIOR TO BEGINNING WORK.
- B. VERIFY ALL SLEEVE LOCATIONS BELOW FUTURE HARDSCAPE PRIOR TO BEGINNING WORK IN THIS SECTION. FLAG ALL EXISTING SLEEVES AND CONDUITS INSTALLED BY OTHER TRADES. REPORT ANY CONFLICTS AND DISCREPANCIES TO THE COUNTY REPRESENTATIVE IMMEDIATELY.
- C. IRRIGATION SYSTEM SHALL BE CONSTRUCTED TO THE SIZES AND GRADES AT THE LOCATIONS SHOWN ON THE DRAWINGS. MARK WITH POWDERED LIME OR MARKING PAINT ROUTING OF PRESSURE SUPPLY LINE AND STAKE THE LOCATION OF EACH ELECTRIC CONTROL VALVE AND OTHER RELATED EQUIPMENT FOR THE FIRST ZONE. ARCHITECT SHALL REVIEW STAKING AND DIRECT ANY NECESSARY CHANGES WITH THE CONTRACTOR PRIOR TO PROCEEDING TO OTHER ZONE. THIS REVIEW DOES NOT IN ANY WAY ALLEVIATE THE CONTRACTOR FROM THE RESPONSIBILITIES ASSOCIATED WITH PROPER UNIFORMITY AND DISTRIBUTION OF HEAD PLACEMENT AFTER STAKING.
- D. INSTALL SLEEVES, TO ACCOMMODATE PIPES AND WIRES, UNDER PAVING, HARDSCAPE AREAS, SIDEWALKS, AND PATHS PRIOR TO ASPHALT AND CONCRETE OPERATIONS. COMPACT BACKFILL AROUND SLEEVES TO 95% MODIFIED PROCTOR DENSITY WITHIN 2% OF OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D1557.

3.02 EXCAVATION AND BACKFILLING OF TRENCHES

- A. TRENCH EXCAVATION SHALL AS MUCH AS POSSIBLE FOLLOW THE LAYOUT SHOWN ON THE DRAWINGS. TRENCHES SHALL BE STRAIGHT IN ALIGNMENT AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE ROCKS AND DEBRIS GREATER THAN 1" IN DIAMETER. OVER EXCAVATE AS REQUIRED FOR BEDDING MATERIAL.
- B. DEPTH OF TRENCH (IN LANDSCAPE AREAS):
 PRESSURE SUPPLY LINE (3" AND SMALLER): 18" FROM TOP OF PIPE TO FINISH GRADE.
 NON-PRESSURE LINE: 12" FROM TOP OF PIPE TO FINISH GRADE.
 CONTROL WIRING: DIRECTLY AT SIDE AND BOTTOM OF PRESSURE SUPPLY LINE.
 PRESSURE SUPPLY LINE LOCATOR TAPE: 6" ABOVE TOP OF PIPE.
- C. DEPTH OF TRENCH (UNDER ASPHALT PAVING OR CONCRETE):
 PRESSURE SUPPLY LINE (3" AND SMALLER): 24" FROM TOP OF PIPE TO AGGREGATE BASE.
 NON-PRESSURE LINE: 24" FROM TOP OF PIPE TO AGGREGATE BASE.
 CONTROL WIRING: DIRECTLY AT SIDE AND BOTTOM OF PRESSURE SUPPLY LINE.
 PRESSURE SUPPLY LINE LOCATOR TAPE: 6" ABOVE TOP OF PIPE.
 - 1. PIPING LOCATED UNDER ASPHALT PAVING OR CONCRETE SHALL BE INSTALLED WITH THE APPROPRIATE SIZED SLEEVE AND BACKFILLED WITH SAND BEDDING (6" BELOW PIPE AND 6" ABOVE PIPE).
 - 2. COMPACT BACKFILL MATERIAL IN 6" LIFTS AT 90% MAXIMUM DENSITY DETERMINED IN ACCORDANCE WITH ASTM D1557 USING MANUAL OR MECHANICAL TAMPING DEVICE.
 - 3. SET IN PLACE, CAP, AND PRESSURE TEST PIPING IN THE PRESENCE OF THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO BACKFILLING.
- D. WIDTH OF TRENCH:
 PIPE LESS THAN 3": 7" MINIMUM.
- E. WIDTH BETWEEN TRENCHES:
 IRRIGATION TRENCH TO IRRIGATION TRENCH: 6" MINIMUM.
 IRRIGATION TRENCH AND OTHER TRADE TRENCHES: 12" MINIMUM.
- F. BORING: BORING WILL ONLY BE PERMITTED WHERE PIPE MUST PASS UNDER AN OBSTRUCTION THAT CANNOT BE AVOIDED OR REMOVED. BACKFILL SHALL MATCH SURROUNDING SOIL DENSITY AND GRAIN. BORING UNDER EXISTING PAVING, SIDEWALKS, OR HARDSCAPE MAY BE PERMITTED AT CONTRACTOR'S OWN RISK. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS OR DAMAGE TO SUCH ITEMS AT THEIR OWN EXPENSE.
- G. BACKFILLING: BACKFILLING OF TRENCHES MAY NOT BE DONE UNTIL ALL REQUIRED TESTING FOR THE IRRIGATION SYSTEM HAS BEEN COMPLETED.
 - 1. MATERIAL: EXCAVATED MATERIAL IS GENERALLY CONSIDERED TO BE ADEQUATE FOR BACKFILLING OPERATIONS. BEFORE BEGINNING THE BACKFILLING OPERATION, INSURE THAT BACKFILL MATERIAL IS FREE FROM DEBRIS AND ROCKS GREATER THAN 1" IN DIAMETER, AND IS NOT MIXED WITH TOPSOIL. THESE MATERIALS AFTER SEPARATED FROM BACKFILL, SHALL BE LEGALLY DISPOSED OF AT CONTRACTOR'S EXPENSE.
 - 2. BEDDING: BED PRESSURE SUPPLY LINE WITH CONSTRUCTION GRADE SAND 6" ABOVE AND 6" BELOW PIPE AS SHOWN ON DETAILS. REMAINING BACKFILL MAY BE AS DESCRIBED ABOVE.
 - 3. BED ALL ELECTRICAL CONTROL WIRE TRENCHED SEPARATE FROM PRESSURE SUPPLY LINE, WITH CONSTRUCTION GRADE SAND 6" ABOVE AND 6" BELOW WIRES.
 - 4. WHEN BACKFILLING, SLIGHTLY MOUND FILLED TRENCHES FOR SETTLEMENT AFTER BACKFILLING IS COMPLETED. COMPACT BACKFILL TO A 90% MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D1557 WITH A MECHANICAL TAMPER. DO NOT LEAVE TRENCHES OPEN FOR A PERIOD GREATER THAN 48 HOURS. OPEN TRENCHES SHALL BE PROTECTED IN ACCORDANCE WITH CURRENT OSHA REGULATIONS.
 - 5. SMOOTH TRENCHES TO FINISH GRADE PRIOR TO REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION WITH THE ARCHITECT.

3.03 POINT OF CONNECTION(S)

- A. POINT OF CONNECTION SHALL BE APPROXIMATELY AS SHOWN ON DRAWINGS. CONNECT NEW UNDERGROUND PIPING AND VALVES AND PROVIDE ALL FLANGES, ADAPTERS, OR OTHER NECESSARY FITTINGS.

3.04 INSTALLATION OF SOLVENT WELD POLYVINYL CHLORIDE PIPE (PVC)

- A. POLYVINYL CHLORIDE PIPE SHALL BE CUT WITH AN APPROVED PVC PIPE CUTTER DESIGNED ONLY FOR THAT PURPOSE.
- B. ALL PLASTIC-TO-PLASTIC SOLVENT WELD JOINTS SHALL USE ONLY THE SOLVENT RECOMMENDED BY THE PIPE MANUFACTURER. DO NOT INSTALL SOLVENT WELD JOINT WHEN TEMPERATURE IS BELOW 40 F.
- C. PIPE ENDS AND FITTINGS SHALL BE WIPED WITH MEK, OR APPROVED EQUAL, BEFORE WELDING SOLVENT IS APPLIED. WELDED JOINTS SHALL BE GIVEN A MINIMUM OF 15 MINUTES TO SET BEFORE MOVING OR HANDLING.
- D. PIPE SHALL BE SNAKED FROM SIDE-TO-SIDE ON TRENCH BOTTOM TO ALLOW FOR EXPANSION AND CONTRACTIONS.
- E. ALL CHANGES OF DIRECTION OVER 15 DEGREES SHALL BE MADE WITH APPROPRIATE FITTINGS.
- F. WHEN PIPE LAYING IS NOT IN PROGRESS AT THE END OF EACH WORKING DAY, CLOSE PIPE ENDS WITH TIGHT PLUG OR CAP.
- G. INSTALL PRESSURE SUPPLY LINE LOCATING TAPE ALONG THE ENTIRE LENGTH OF PRESSURE SUPPLY LINE.
- H. COORDINATE PRESSURE SUPPLY LINE WITH SAND BEDDING OPERATIONS.
- I. NO WATER SHALL BE PERMITTED IN THE PIPE UNTIL INSPECTIONS HAVE BEEN COMPLETED AND A PERIOD OF AT LEAST 24 HOURS HAS ELAPSED FOR SOLVENT WELD SETTING AND CURING.
- J. CENTER LOAD PIPE WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING AND SLIPPING UNDER PRESSURE. LEAVE JOINTS EXPOSED FOR INSPECTION DURING TESTING.

3.05 INSTALLATION OF BRASS PIPE:

- A. BRASS PIPING SHALL BE CUT BY A POWER HACKSAW, A CIRCULAR CUTTING MACHINE USING AN ABRASIVE WHEEL, OR BY MEANS OF A HAND HACKSAW. ALL PIPE SHALL BE REAMED AND ROUGH EDGES OR BURRS REMOVED SO THAT A SMOOTH AND UNOBSTRUCTED FLOW IS OBTAINED.
- B. ECCENTRIC REDUCING FITTINGS SHALL BE USED WHERE ANY CHANGE IN PIPE SIZE OCCURS. BUSHINGS SHALL NOT BE USED UNLESS SPECIFICALLY AUTHORIZED BY THE ARCHITECT.
- C. JOINT COMPOUND SHALL BE CAREFULLY AND SMOOTHLY PLACED ON THE MALE THREAD ONLY. ALL SCREWED JOINTS MUST BE TIGHTENED WITH TONGS OR WRENCHES. CAULKING OF ANY KIND WILL NOT BE PERMITTED.
- D. ALL EXPOSED PIPING UNDER STRUCTURAL SLABS SHALL BE STENCILED WITH "IRRIGATION MAIN" OR "IRRIGATION LATERAL" AS REQUIRED, AT TEN FOOT (10') INTERVALS IN BLACK LETTERING, 3/4" MINIMUM HIGH.

3.06 BACKFLOW PREVENTION DEVICE

- A. INSTALL BACKFLOW PREVENTION DEVICE, ENCLOSURE AND ASSOCIATED EQUIPMENT AT THE LOCATION AS SPECIFIED ON DRAWINGS.
- B. COORDINATE INSTALLATION WITH LOCAL GOVERNING CODES AND ORDINANCES.

3.07 ISOLATION GATE VALVES

- A. INSTALL ISOLATION GATE VALVES IN SEPARATE VALVE BOXES AS SPECIFIED ON THE DRAWINGS.

3.08 QUICK COUPLING VALVES

- A. INSTALL QUICK COUPLING VALVES IN SEPARATE VALVE BOX AS SPECIFIED ON THE DETAIL DRAWINGS.
- B. ANGLED NIPPLE RELATIVE TO PRESSURE SUPPLY LINE SHALL BE NO GREATER THAN 45 AND NO LESS THAN 10.

3.09 DRIP ELECTRIC CONTROL VALVES

- A. INSTALL EACH ELECTRIC CONTROL VALVE IN A SEPARATE VALVE BOX SO THAT CROSS HANDLE IS 3" MIN. BELOW VALVE BOX COVER AS SPECIFIED ON THE DETAIL DRAWINGS.
- B. GROUP ELECTRIC CONTROL VALVES TOGETHER AS SPECIFIED ON THE DRAWINGS ALLOWING A MAXIMUM OF 12" BETWEEN EACH VALVE BOX. INSTALL VALVE BOXES IN THE SAME DIRECTION AND PARALLEL WITH ONE ANOTHER AND PERPENDICULAR TO PAVING, HARDSCAPE, SIDEWALKS AND PATHS.

3.10 VALVE BOXES


- A. INSTALL VALVE BOXES WITH EACH TYPE OF IRRIGATION EQUIPMENT SO THAT TOP OF VALVE BOX IS ABOVE FINISH GRADE AS SPECIFIED ON THE DETAIL DRAWINGS. VALVE BOX EXTENSIONS ARE NOT ACCEPTABLE.
- B. PLACE GRAVEL SUMP BELOW AND AROUND EACH VALVE BOX PRIOR TO INSTALLING VALVE BOX AS SPECIFIED ON THE DRAWINGS. PLACE REMAINING PORTION OF GRAVEL INSIDE VALVE BOX ALLOWING FULL ACCESS IN AND AROUND ALL FITTINGS. VALVE BOX SHALL BE FULLY SUPPORTED BY GRAVEL SUMP. NO BRICK OR WOOD SUPPORTS ARE ALLOWED.
- C. BRAND VALVE BOX LID OF ASSOCIATED EQUIPMENT AS FOLLOWS:
 ELECTRIC CONTROL VALVE BOX LID WITH "CONTROLLER LETTER AND STATION NUMBER".
 QUICK COUPLING VALVE BOX LID WITH THE LETTERS "QC".
 ISOLATION GATE VALVE BOX LID WITH THE LETTERS "GV".
 SPARE WIRE BOX LIDS WITH THE LETTERS "SW".
 WIRE SPLICE BOX LID WITH THE LETTERS "WS".
 LETTER AND NUMBER SIZE OF BRAND SHALL BE NO LESS THAN 1" AND NO GREATER THAN 1 1/2" IN HEIGHT AND SHALL BE 1/8" MAXIMUM IN DEPTH. PROVIDE SAMPLE BRANDING TO THE OWNER OR OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.
- D. WALK THROUGH FOR SUBSTANTIAL COMPLETION WILL NOT BE ALLOWED UNTIL ALL BRANDING IS COMPLETE.

3.11 AUTOMATIC CONTROLLER UNIT

- A. INSTALL AUTOMATIC CONTROLLER UNIT WHERE SHOWN ON DRAWINGS PER MANUFACTURER'S SPECIFICATIONS.

3.12 ELECTRICAL WIRE

- A. LOW VOLTAGE WIRING:
 - 1. BURY CONTROL WIRING IN SAME TRENCH AS PRESSURE SUPPLY LINE AS SPECIFIED.
 - 2. BUNDLE ALL 24 VOLT WIRES AT 20' INTERVALS WITH ELECTRICAL TAPE.
 - 3. PROVIDE EXPANSION LOOPS AT EVERY PRESSURE SUPPLY LINE ANGLE FITTING, INSIDE EACH ELECTRIC REMOTE CONTROL VALVE BOX, AND AT 250' LENGTH INTERVALS ALONG ROUTING. FORM EXPANSION LOOP BY WRAPPING WIRE A MINIMUM OF 10 TIMES AROUND A 3/4" PIPE AND WITHDRAWING PIPE AS SPECIFIED ON THE DRAWINGS.
 - 4. LIMIT SPLICING OF ELECTRICAL WIRING. PROVIDE EACH SPLICE MADE AT INTERVALS OR IN ELECTRIC CONTROL VALVE AND DRIP VALVE ASSEMBLY VALVE BOXES WITH 3M DBY DIRECT BURY SPLICE KITS.
 - 5. WIRE SPLICES OCCURRING AT INTERVALS OUTSIDE ELECTRIC CONTROL VALVE BOXES SHALL BE INSTALLED IN A SEPARATE VALVE BOX.
 - 6. PROVIDE (1) ONE ELECTRICAL CONTROL WIRE FOR EVERY ELECTRIC CONTROL VALVE. PIGGY BACKING LIKE ZONES ON THE SAME ELECTRICAL CONTROL WIRE IS NOT ALLOWED.
 - 7. INSTALL (3) THREE SPARE #14-1 ELECTRICAL CONTROL WIRES FROM THE AUTOMATIC CONTROLLER UNIT PEDESTAL TO THE LAST ELECTRIC CONTROL VALVE ON EACH LEG OF PRESSURE SUPPLY LINE. LOCATE THE SPARE WIRES IN THEIR OWN VALVE BOX AS SPECIFIED ON THE DRAWINGS. IN ADDITION TO THESE SPARE WIRES, CHECK THE DRAWINGS FOR ANY ADDITIONAL WIRES THAT MAY BE REQUIRED AND LOCATE THEM IN THE SAME VALVE BOX AS THE SPARE WIRES.

	DESIGNED BY		SHEET DESCRIPTION		SHEET No.	
	APPROVED BY: Mitchell S. Philippe MITCHELL S. PHILIPPE PRINCIPAL IN CHARGE		PEDLEY ROAD MEDIAN IMPROVEMENT IRRIGATION SPECIFICATIONS		1-07	
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3.13 QUALITY CONTROL

- A. PRECONSTRUCTION MEETING:** THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE ARCHITECT PRIOR TO BEGINNING CONSTRUCTION AND/OR ORDERING MATERIALS TO ESTABLISH A MEETING TO REVIEW AND DISCUSS PROJECT OBJECTIVES, CONCERNS AND TO REVIEW THE CONSTRUCTION DOCUMENTS TO INSURE A COMPLETE UNDERSTANDING OF REQUIRED INSTALLATION PROCEDURES.
- B. GENERAL OBSERVATION:** THE COUNTY REPRESENTATIVE WILL VISIT THE CONSTRUCTION SITE AT INTERIM TIMES DURING THE CONSTRUCTION PROCESS TO ACCESS CONSTRUCTION PROGRESS REGARDING INSTALLATION OF IRRIGATION EQUIPMENT TO BE IN COMPLIANCE WITH THE DRAWINGS, DETAILS, SPECIFICATIONS AND SITE CONDITIONS. THE COUNTY REPRESENTATIVE WILL PREPARE A SITE REPORT AFTER EACH VISIT NOTING PROGRESS OF INSTALLATION, VERBAL COMMUNICATION WITH THE CONTRACTOR AND IDENTIFYING ANY FIELD ADJUSTMENTS NECESSARY WHICH REQUIRE MODIFICATIONS TO THE DESIGNED IRRIGATION SYSTEM. A COPY OF THIS SITE REPORT WILL BE DELIVERED TO BOTH THE OWNER AND THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO IMMEDIATELY ADDRESS EACH ITEM ON THE SITE REPORT BEFORE PROCEEDING WITH FURTHER CONSTRUCTION.
- C. PRESSURE TESTING THE PRESSURE SUPPLY LINE:** AFTER BACKFILLING, FLUSHING, AND PRIOR TO THE INSTALLATION OF EACH ELECTRIC CONTROL VALVE, ISOLATION BALL VALVE AND QUICK COUPLING VALVE THE IRRIGATION SYSTEM SHALL BE PRESSURE TESTED.
1. PRESSURE TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE ARCHITECT AND OWNER OR OWNERS REPRESENTATIVE UTILIZING THE FOLLOWING PROCEDURE:
 - a. PRESSURIZE THE IRRIGATION SYSTEM TO 40 PSI GREATER THAN THE DESIGNATED STATIC PRESSURE OR 150 PSI WHICHEVER IS GREATER FOR A PERIOD OF NO LESS THAN 4 HOURS. THE PRESSURE GAUGE USED FOR THE PRESSURE TEST SHALL NOT EXCEED READINGS GREATER THAN 300PSI. PRESSURE PUMP AND OTHER EQUIPMENT NECESSARY FOR THE TEST SHALL BE FURNISHED BY THE CONTRACTOR.
 - b. TEST IS ACCEPTABLE IF NO LEAKAGE OCCURS WITHIN THE SYSTEM FOR THE DURATION OF THE TESTING PERIOD.
 - c. IF LEAKS OCCUR, REPAIR SAID LEAKS AND BEGIN PRESSURE TEST AGAIN. REPEAT THIS OPERATION UNTIL NO LEAKS OCCUR IN THE IRRIGATION SYSTEM.
 - d. BEFORE REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION, THE ENTIRE IRRIGATION SYSTEM SHALL REMAIN UNDER PRESSURE FOR A PERIOD OF NO LESS THAN 48 HOURS.
 2. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE ARCHITECT ONE DAY IN ADVANCE OF THE PRESSURE TEST.
- D. FLUSHING:** CENTER LOAD ALL PIPING PRIOR TO FLUSHING. AFTER ALL NEW IRRIGATION PIPING AND RISERS ARE IN PLACE AND CONNECTED AND ALL NECESSARY DIVERSION WORK HAS BEEN COMPLETED AND PRIOR TO THE INSTALLATION OF SPRINKLER HEADS, ROTORS AND QUICK COUPLING VALVES, THOROUGHLY FLUSH PIPING SYSTEM UNDER FULL HEAD OF PRESSURE. AFTER THE FURTHEMOST RISER FROM THE POINT OF CONNECTION BEGINS TO FLUSH, CONTINUE FLUSHING FOR A DURATION OF FIVE MINUTES. AFTER THE SYSTEM IS THOROUGHLY FLUSHED, CAP ALL RISERS.
- E. WALK THROUGH FOR SUBSTANTIAL COMPLETION:**
1. BEFORE REQUESTING A WALK THROUGH FOR SUBSTANTIAL COMPLETION THE FOLLOWING REQUIREMENTS MUST BE ENTIRELY SATISFIED:
 - a. THE ENTIRE IRRIGATION SYSTEM IS COMPLETELY INSTALLED, FLUSHED AND SATISFACTORILY PRESSURE TESTED. IF THE CONTRACTOR FAILED TO NOTIFY THE COUNTY REPRESENTATIVE FOR THE PRESSURE TEST AND FLUSHING PROCEDURES STATED ABOVE THAN THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ANY DESIGN MODIFICATIONS DIRECTED BY THE ARCHITECT DURING THE WALK THROUGH FOR SUBSTANTIAL COMPLETION REGARDING PRESSURE AND FLUSHING ISSUES.
 - b. ALL VALVE BOXES HAVE BEEN BRANDED.
 - c. ALL AUTOMATIC CONTROLLERS ARE FULLY OPERABLE.
 - d. RECORD AS-BUILT DRAWINGS HAVE BEEN SUBMITTED TO THE ARCHITECT FOR REVIEW AS TO COMPLETENESS.
 - e. (4) FOUR SERVICES MANUALS HAVE BEEN DELIVERED TO THE OWNER OR OWNERS REPRESENTATIVE.
 2. ONCE THE ABOVE REQUIREMENTS HAVE BEEN MET A WALK THROUGH FOR SUBSTANTIAL COMPLETION MAY BE REQUESTED. THE FOLLOWING PROCEDURES WILL BE USED DURING THE WALK THROUGH:
 - a. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
 - b. ALL VALVE BOX LIDS SHALL BE REMOVED FROM VALVE BOXES AND PLACED FACE UP ADJACENT TO THE VALVE BOX PRIOR TO BEGINNING THE WALK THROUGH.
 - c. THE WALK THROUGH WILL BE DIVIDED INTO (2) TWO SECTIONS AND PROCEED AS FOLLOWS:
 1. VISUAL WALK THROUGH: THIS WILL CONSIST OF WALKING THROUGH THE ENTIRE IRRIGATION SYSTEM AND EXAMINING ALL COMPONENTS OF THE SYSTEM WITHOUT TURNING ON ZONES. A PUNCH LIST WILL BE ESTABLISHED OF DEFICIENCIES IN THE CONSTRUCTION AND WORKMANSHIP OF THE IRRIGATION SYSTEM AS COMPARED TO THE CONSTRUCTION DRAWINGS, DETAILS, AND SPECIFICATIONS.
 2. OPERATIONAL WALK THROUGH: THIS WILL CONSIST OF WALKING THROUGH THE ENTIRE IRRIGATION SYSTEM OBSERVING EACH ZONE IN A FULLY OPERABLE CONDITION. VALVES MUST BE ACTIVATED FROM THE AUTOMATIC CONTROLLER UNIT (MANUAL BLEEDING OF INDIVIDUAL ELECTRIC CONTROL VALVES WILL NOT BE ACCEPTABLE). A PUNCH LIST WILL BE ESTABLISHED OF DEFICIENCIES IN THE OPERATION OF EACH ZONE IN THE IRRIGATION SYSTEM EVALUATING BUT NOT LIMITED TO HEAD SPACING, ROW SPACING, NOZZLE SIZING, CORRECT RADIUS OF THROW, CORRECT STATIONING AS COMPARED TO THE CONSTRUCTION DRAWINGS, DETAILS, AND SPECIFICATIONS.

3. ONCE THE WALK THROUGH FOR SUBSTANTIAL COMPLETION HAS BEEN COMPLETED THE ARCHITECT WILL PROVIDE A COPY OF ALL PUNCH LIST ITEMS TO THE OWNER FOR REVIEW AND DISTRIBUTION TO THE CONTRACTOR. IT IS THE CONTRACTORS RESPONSIBILITY TO REPAIR, REPLACE, AND ADJUST ALL ITEMS ON THE PUNCH PRIOR TO REQUESTING A FINAL WALK THROUGH.


F. FINAL WALK THROUGH:

1. BEFORE COMMENCEMENT OF A FINAL WALK THROUGH IS REQUESTED, THE FOLLOWING REQUIREMENTS MUST BE ENTIRELY SATISFIED:
 - a. EACH ITEM ON THE WALK THROUGH FOR SUBSTANTIAL COMPLETION HAS BEEN THOROUGHLY ADDRESSED AND RESOLVED BY THE CONTRACTOR.
 - b. ALL FINAL RECORD AS-BUILT DRAWINGS AND CONTROLLER CHARTS HAVE BEEN PRODUCED BY THE ARCHITECT FOR REVIEW BY THE ARCHITECT AND CONTRACTOR AT THE FINAL WALK THROUGH.
2. ONCE THE ABOVE REQUIREMENTS HAVE BEEN MET A FINAL WALK THROUGH MAY BE REQUESTED. THE FOLLOWING PROCEDURES WILL BE USED:
 - a. CONTRACTOR MUST HAVE (2) TWO PERSONNEL AVAILABLE WITH RADIO COMMUNICATION FOR THE ENTIRE LENGTH OF THE WALK THROUGH.
 - b. ONLY THOSE VALVE BOX LIDS SHALL BE REMOVED FROM VALVE BOXES AS INDICATED ON THE WALK THROUGH FOR SUBSTANTIAL COMPLETION PUNCH LIST. THE VALVE BOX LIDS SHALL BE PLACED FACED UP ADJACENT TO THE VALVE BOX PRIOR TO BEGINNING THE FINAL WALK THROUGH.
 - c. THE FINAL WALK THROUGH WILL BE DIVIDED INTO (2) TWO SECTIONS AND PROCEED AS FOLLOWS:
 1. VISUAL WALK THROUGH: THIS WILL CONSIST OF WALKING THROUGH THE PUNCH LIST ITEMS CREATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION, EXAMINING ALL COMPONENTS OF THE SYSTEM WITHOUT TURNING ON ZONES. ANY REMAINING DEFICIENCIES IN THE CONSTRUCTION AND WORKMANSHIP OF THE IRRIGATION SYSTEM AS COMPARED TO THE PUNCH LIST GENERATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION, CONSTRUCTION DRAWINGS, DETAILS AND SPECIFICATIONS WILL BE NOTED.
 2. OPERATIONAL WALK THROUGH: THIS WILL CONSIST OF WALKING THROUGH THE PUNCH LIST ITEMS CREATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION AND OBSERVING EACH ZONE IN A FULLY OPERABLE CONDITION. VALVES MUST BE ACTIVATED FROM THE AUTOMATIC CONTROLLER UNIT (MANUAL BLEEDING OF INDIVIDUAL ELECTRIC CONTROL VALVES WILL NOT BE ACCEPTABLE). ANY REMAINING DEFICIENCIES IN THE OPERATION OF EACH ZONE IN THE IRRIGATION SYSTEM INCLUDING BUT NOT LIMITED TO HEAD SPACING, ROW SPACING, NOZZLE SIZING, CORRECT RADIUS OF THROW, CORRECT STATIONING AS COMPARED TO THE PUNCH LIST GENERATED AT THE TIME OF THE WALK THROUGH FOR SUBSTANTIAL COMPLETION CONSTRUCTION DRAWINGS, DETAILS, AND SPECIFICATIONS.
3. ONCE THE FINAL WALK THROUGH IS COMPLETED AND ALL ITEMS CREATED ON THE FINAL PUNCH LIST HAVE BEEN ADDRESSED THE MAINTENANCE PERIOD MAY BEGIN. ANY ADDITIONAL WALK THROUGHS REQUIRED DUE TO CONTRACTORS' INABILITY TO ADDRESS ALL ISSUES ON THE PUNCH LISTS DESCRIBED ABOVE WILL BE PROVIDED AT THE CONTRACTORS EXPENSE.

3.14 MAINTENANCE PERIOD

- A. THE MAINTENANCE PERIOD SHALL BE FOR THIRTY (30) DAYS AFTER NOTIFICATION FROM THE ARCHITECT OF A SUCCESSFUL FINAL WALK THROUGH AND WILL BEGIN ONCE ALL ITEMS ON THE FINAL WALK THROUGH PUNCH LIST HAVE BEEN SATISFACTORILY ADDRESSED BY A WRITTEN STATEMENT INDICATING SUCH FROM THE ARCHITECT TO THE OWNER.**
1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FOLLOWING ANY MAINTENANCE MANUALS CREATED SPECIFICALLY FOR THE PROJECT FROM THE OWNER AT THE BEGINNING OF THE MAINTENANCE PERIOD.
 2. AT THE END OF THE MAINTENANCE PERIOD AND PRIOR TO TURNING THE PROJECT OVER TO THE OWNER, THE CONTRACTOR SHALL DELIVER THE FOLLOWING TO THE OWNER:
 - a. FOUR (4) CONTROLLER ACTIVATION KEYS. (PER LEGEND)
 - b. TWO (2) QUICK COUPLER KEYS AND HOSE SWIVELS. (PER LEGEND)
 3. ONCE THE CONTRACTOR HAS FULFILLED ALL MAINTENANCE AGREEMENT OBLIGATIONS AN HAS PROVIDED THE ABOVE ITEMS TO THE OWNER, THE MAINTENANCE PERIOD WILL END SEE SECTION 320533 LANDSCAPE MAINTENANCE, FOR MAINTENANCE RESPONSIBILITIES.

END OF SECTION 328400

	DESIGNED BY	SHEET DESCRIPTION	SHEET No.
	APPROVED BY: MITCHELL S. PHILLIPPE PRINCIPAL IN CHARGE	PEDLEY ROAD MEDIAN IMPROVEMENT IRRIGATION SPECIFICATIONS STA 52+00 TO STA 62+00	I-08 SHEET 25 of 25
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