

**LANDSCAPE PLAN**

SCALE: 1" = 20'

**SITE CATEGORY REQUIREMENTS**

ROADWAY LANDSCAPING (or Double Frontage Lot Streetscapes)					
Street Name or Zone Boundary (elev.)	Street Classification	Setback Width Req. / Prov.	Linear Footage Required / Provided	Tree/Feet Req. / Prov.	
Woodmen Rd	Minor Arterial	20 / 20 +	224	1 / 25	
Maltese Pt	Non-arterial	10 / 10	224	1 / 30	
Shrub and Om. Grass Substitutes	Setback Plant Abbrev. Denoted on Plan	Percent Ground Plane Veg. Req. / Provided	High Water-use Turf %		
0 / 0	-	75% / 75%	0%		
20 / 20	-	75% / 80%	0%		
PARKING LOTS					
No. of Vehicle Spaces Provided	Shade Trees (1/15) Required / Provided	Vehicle Lot Frontage (s)	Length of Frontage (ft.) (excluding driveways)	2/3 Length of Frontage (ft.)	
43	3 / 3	Woodmen Rd	224	151	
Frontage Screening Provided (LF)	Evergreen LF Req. (50%) / Prov.	Length of Screening Wall or Berm Provided	Vehicle Lot Plant Abbr. on Plan	Percent Ground Plane Veg. Req. / Provided	
185	76 / 85	-	N/A	75% / 80%	
INTERNAL LANDSCAPING					
Net Site Area (SF) (less public R.O.W.)	Percent Min. Internal Area (%)	Internal Area (SF) Required / Provided	Internal Trees (1/500 SF) Required / Provided	Internal Trees (1/500 SF) Shrub Sub Req/Prov	
44,230	5%	2,212 / (2,766)	4 / 2	20 / 20	
Internal Plant Abbr. Denoted on Plan	Percent Ground Plane Veg. Req. / Provided				
IN	75% / 86%				
LANDSCAPE BUFFERS & SCREENS - N/A					
Street Name or Property Line (elev.)	Width (in. ft.) Req. / Prov.	Linear Footage	Buffer Trees (1/25) Required / Provided	Evergreen Trees Req. (50%) / Provided	Length of 6 ft. Opaque Structure Req. / Prov.

**PLAN NOTES:**

- NO SUBSTITUTIONS WITHOUT PREVIOUS APPROVAL OF LANDSCAPE ARCHITECT. UNAPPROVED DEVIATIONS FROM THIS PLAN WILL BE RECTIFIED AT CONTRACTORS EXPENSE.
- CONTRACTOR TO PROVIDE ANALYSIS OF ANY AMENDMENTS PROPOSED FOR PLANTING AREAS PRIOR TO INSTALLATION OF SUCH MATERIALS.
- NO FABRIC UNDER WOOD MULCH IN ANY AREAS. ALL PLANTS IN ROCK MULCH AREAS TO RECEIVE SHREDDED CEDAR MULCH RINGS EQUAL TO THE ROOTBALL OF THE PLANT. MASSING SHALL HAVE CONTINUOUS SHREDDED MULCH BANDS. SEE DETAILS SHEET L2.0.
- DRIFLINE TO BE PLACED OVER WEED BARRIER FABRIC AND STAKED ON TOP OF WEED BARRIER.
- WEED BARRIER CUTOUTS FOR PLANTS IN ROCK AREAS SHALL ACCOUNT FOR MATURE SIZE OF PLANTS, AND EQUAL AT LEAST THE DIAMETER OF THE ROOTBALL. SEE DETAILS SHEET L2.0
- ALL EMITTERS PER IRRIGATION PLAN.
- ALL EMITTERS TO BE PLACED AT THE APPROPRIATE LOCATIONS. ALL EMITTERS TO USE MICRO TUBING, STAKES, AND BUG CAPS.
- SEE LANDSCAPE DETAILS SHEET FOR ADDITIONAL NOTES AND DETAILS.
- RETAIN 10% OF ALL PLANT TAGS PER SPECIES FOR DURATION OF WARRANTY PERIOD.

**PROJECT ADDRESS:** LOT 2 & 3 ROLLING THUNDER BUSINESS PARK  
10634 & 10658 MALTESE POINT  
PEYTON, CO 80831

**LEGAL DESCRIPTION:** LOT 2 ROLLING THUNDER BUSINESS PARK & LOT 3 ROLLING THUNDER BUSINESS PARK

**COUNTY ZONING:** PUD (PLANNED UNIT DEVELOPMENT)

**LOT AREA:** 22,115 S.F. & 22,115 S.F. = 44,230 S.F. TOTAL

**BLDG. COVERAGE:** 7,500 S.F. x 44,230 S.F. / 100 = 17%

**BLDG. SETBACKS:** FRONT = 20' [repeat comment]  
REAR = 25'  
SIDE = 0'

**LANDSCAPE COVERAGE:** 13,227 SF

**HARDSCAPE COVERAGE:** 23,503 SF

**PLANT SCHEDULE**

QTY FOR REFERENCE ONLY. VERIFY ALL COUNTS PER PLAN.

TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER
	AH	2	Acer tataricum 'Hot Wings' / Hot Wings Tatarian Maple	B & B	1"Cal
	CO	2	Celtis occidentalis / Common Hackberry	B & B	1.5"Cal
	GTS	6	Gleditsia triacanthos inermis 'Shademaker' TM / Shademaker Locust	B & B	1.5"Cal
	PL	4	Pinus leucodermis 'Emerald Arrow' / Emerald Arrow Bosnian Pine	6" B&B	
	PCA	6	Pyrus calleryana 'Autumn Blaze' / Autumn Blaze Pear	B & B	1"Cal
SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	
	AC	25	Arctostaphylos x coloradoensis 'Chieftain' / Manzanita	5 gal	
	CD	15	Caryopteris x clandonensis 'Dark Knight' / Blue Mist Shrub	5 gal	
	CMF	17	Chamaebatiaria millefolium 'Fernbush' / Fernbush	5 gal	
	POD	12	Physocarpus opulifolius 'Diablo' / Diablo Ninebark	5 gal	
	POL	23	Physocarpus opulifolius 'Little Devil' / Dwarf Purple Ninebark	5 gal	
	PF	15	Potentilla fruticosa 'Goldfinger' / Goldfinger Potentilla	5 gal	
GRASSES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	
	BB	52	Bouteloua gracilis 'Blonde Ambition' / Blue Grama	1 gal	
	PVD	24	Panicum virgatum 'Dallas Blues' / Dallas Blues Switch Grass	1 gal	
	SW	21	Sporobolus wrightii / Big Sacaton	1 gal	
GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	
	NS	5,363 sf	NATIVE LAWN SEED MIX / PAWNEE BUTTES SEED CO NATIVE LAWN MIX 2-3 LBS PER 1000 SQUARE FEET. IRRIGATED SEED MIX.	seed	
MULCHES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	
	RM	6,968 sf	ROCK MULCH / RIVER ROCK 1"-2" PER OWNER APPROVAL. PLACE TO A UNIFORM DEPTH OF 3" OVER PERMEABLE WEED BARRIER FABRIC.	mulch	

**REFERENCE NOTES SCHEDULE**

SYMBOL	DESCRIPTION	QTY
[1]	PLACE SHREDDED CEDAR MULCH AROUND BASE OF ALL PERENNIALS AND GRASSES IN LARGE COBBLE AREAS. MASS PERENNIALS TO RECEIVE LARGE RING AROUND ENTIRE GROUP (TYP). WOOD MULCH NOT REQUIRED AROUND BASE OF PLANTS LOCATED IN PEA GRAVEL.	
[2]	PLACE PLANTS TO PROVIDE MIN. 2' CLEARANCE FROM BACK OF CURB AT MATURE SPREAD.	
SYMBOL	DESCRIPTION	QTY
[01-04]	SEED ALL DISTURBED AREAS WITH NATIVE LAWN MIX UNLESS OTHERWISE NOTED.	
SYMBOL	DESCRIPTION	QTY
[K-101]	GRANITE/MOSS ROCK BOULDER-DECORATIVE. 1/2 TON AVG SIZE	
SYMBOL	DESCRIPTION	QTY
[SM-101]	ALL SEEDED AREAS TO BE AMENDED AND HYDROSEEDED. PLACE EROSION CONTROL MAT ON ALL SLOPES EXCEEDING 4:1.	

SEED MAINTENANCE: MOW NATIVE LAWN MIX ABOUT 1/2 THE AMOUNT AS SODDED TURFGRASS OR AS NEEDED. MOW NATIVE/FOOTHILLS SEED AREAS ONCE A MONTH OR ONLY WHEN NEEDED TO CONTROL WEEDS OR AT END OF GROWING SEASON.

**Native Lawn Mix**  
(90%) Buffalograss  
(10%) Blue Grama  
Seed @ 2-3 lb / 1000 sf

DISTURBED AREAS TO BE RESEED WITH NATIVE LAWN MIX UNLESS OTHERWISE NOTED. RE: CIVIL PLANS

**Licensure Notes:**

This document is for City review and approval only.

This document is not a construction drawing unless stamped by the Landscape Architect of record. Projects require a stamped set of construction documents for landscape improvement installation.

REVISIONS:  
City Comments: 07.03.20

**NDS**  
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Landscape Architecture  
Land Planning - Irrigation Design  
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(303) 442-0066 - info@ndsofcolorado.com

**LOTS 2 & 3, ROLLING THUNDER BUSINESS PARK  
FALCON, CO**

**FINAL LANDSCAPE PLAN**

PROJ. NO.:  
DATE: 03.03.20  
SCALE: See Sheet  
DRAWN: JRO  
CHKD BY: NAM  
SHEET L10

PCD FILE NO: PPR 2010

# GENERAL NOTES

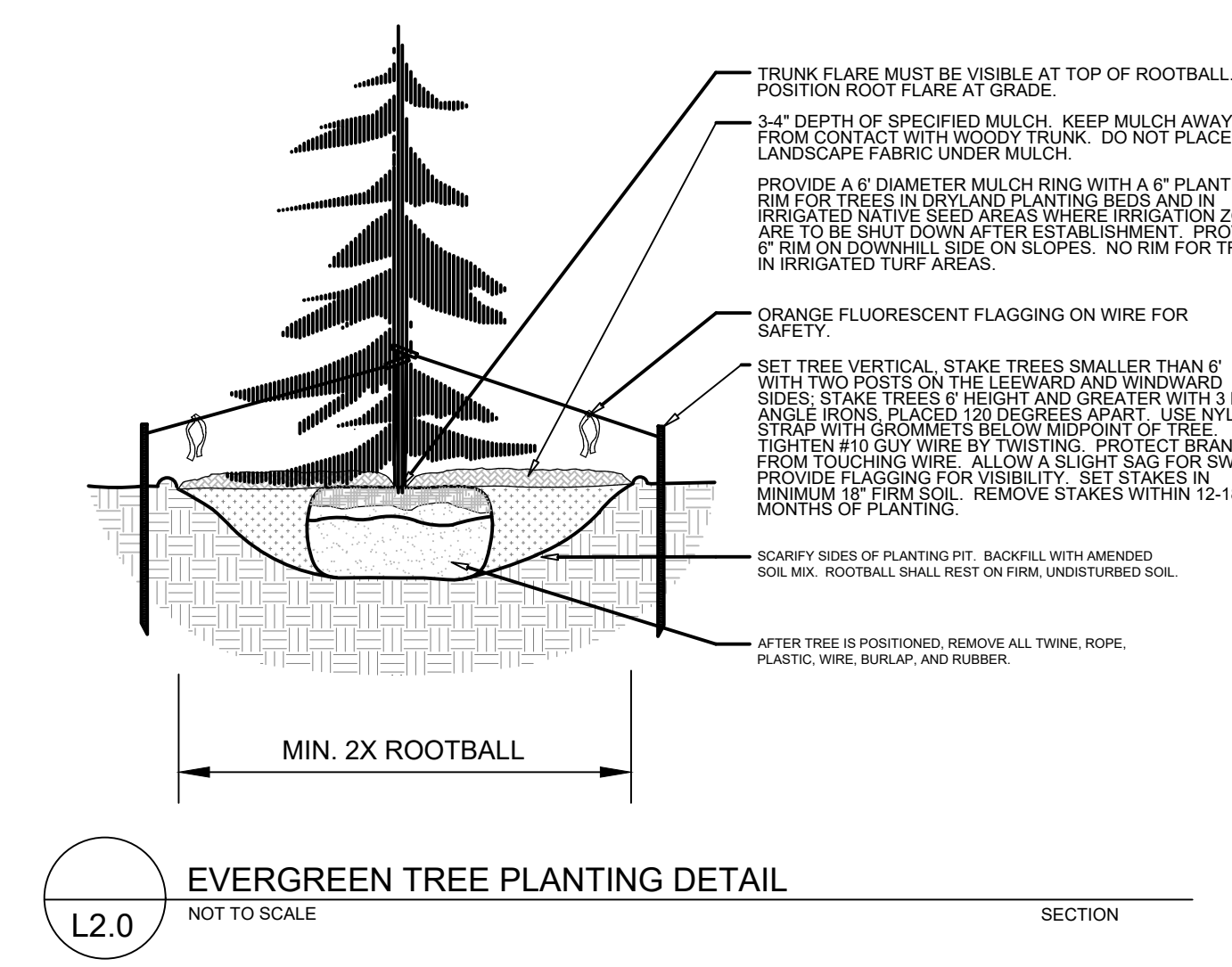
(Note: All references to "Contractor" are specific to "Landscape Contractor" unless notified as "General or other type of Contractor")

- CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF MATERIALS NEEDED TO COMPLETE THIS PLAN IN THE FIELD. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND CONDITIONS IN THE FIELD. SUBSTITUTIONS OF PLANT MATERIAL ARE NOT ALLOWED WITHOUT APPROVAL FROM LANDSCAPE ARCHITECT GIVEN PRIOR TO INSTALLATION. GRAPHIC QTY'S PREVAIL OVER WRITTEN QTY'S. PRIOR TO COMMENCEMENT OF WORK THE LANDSCAPE CONTRACTOR SHALL CONTACT OWNERS REPRESENTATIVE FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING AND SCOPE OF WORK.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL LANDSCAPE SHOWN ON THIS PLAN. ANY DEFICIENCIES OR DEVIATIONS FROM THIS PLAN ARE TO BE APPROVED BY OWNERS REPRESENTATIVE OR LANDSCAPE ARCHITECT. ANY CHANGES FROM THE APPROVED PLANS MAY REQUIRE APPROVAL FROM THE CITY OR COUNTY PLANNING DEPARTMENTS.  
  
LANDSCAPE CONTRACTOR TO PROVIDE ALL LABOR AND MATERIALS NECESSARY TO FURNISH SCOPE OF WORK AS SHOWN PER PLAN.
- EXISTING TOPSOIL IS TO BE STOCKPILED AND USED TO ESTABLISH FINAL GRADES WITHIN LANDSCAPE AREAS. ALL STOCKPILED SOIL MUST BE CLEAR OF WEEDS, ROCKS AND DEBRIS BEFORE REUSE. ALL BERMED PLANTING BEDS TO BE CREATED WITH IMPORTED TOPSOIL.
- GENERAL CONTRACTOR TO RE-SPREAD STOCKPILED SOIL AND ESTABLISH ROUGH GRADE CONDITIONS TO THE FOLLOWING SPECIFICATIONS:  
A. 1" BELOW CURB FOR ALL SEEDED AREAS.  
B. 2.5" BELOW CURB FOR ALL SODDED AREAS.  
C. 4" BELOW CURB FOR ALL PLANTING, ROCK AND MULCH BEDS.
- CONTRACTOR TO TILL PARKING LOT ISLANDS TO A DEPTH OF 30".
- AMEND ALL PLANTING BEDS WITH CLASS 1 COMPOST. APPLY AT RATE OF 3 CYDS. PER 1000 SQUARE FEET TO ALL PLANTING BEDS AND MANICURED LAWN AREAS, AND 2 CYDS. PER 1000 SQUARE FEET FOR SEEDED AREAS. TILL, MIXING THOROUGHLY, INTO THE UPPER 8" OF SOIL.
- FINE GRADE TO BE ESTABLISHED BY LANDSCAPE CONTRACTOR. FINE GRADE SHALL BE FREE OF ROCKS AND DEBRIS. FINE GRADE IN SEED AREAS SHALL BE FREE FROM ROCKS AND DEBRIS 1/2" AND GREATER. FINE GRADE IN SODDED AREAS SHALL BE FREE FROM ROCKS AND DEBRIS 1/2" AND GREATER. CONTRACTOR TO REPORT ANY POOR DRAINAGE CONDITIONS PRIOR TO CONSTRUCTION.
- CONTRACTOR IS TO PROVIDE VERIFICATION THAT ALL SOD IS OF THE SPECIES SHOWN ON THIS PLAN. NO SUBSTITUTIONS WILL BE ALLOWED. SOD TO BE LAID WITH TIGHT STAGGERED EDGES AND BE ROLLED AFTER INSTALLATION. SEEDED AREAS CANNOT BE SUBSTITUTED WITH SOD.
- MULCHS: ALL PLANTING BEDS THAT CALL FOR WOOD/ORGANIC MULCH TO RECEIVE 4" ORGANIC SHREDDED BARK MULCH. SHREDDED MULCH IS TO BE OF FIBROUS MATERIAL, NOT CHIPS OR CHUNKS. NO FABRIC IS TO BE PLACED UNDER WOOD/ORGANIC MULCH. TREES IN TURF AND NATIVE GRASS AREAS TO RECEIVE 4" DIAMETER OF WOOD MULCH, 3" DEPTH. SHRUBS AND GROUNDCOVERS IN NATIVE GRASS AREAS TO RECEIVE 3" DIAMETER OF WOOD MULCH, 3" DEEP. ALL MULCHED BEDS ARE TO BE SPRAYED WITH WATER AFTER INSTALLATION TO HELP MULCH TO MAT DOWN.  
  
TREES IN COBBLE/ROCK MULCH TO RECEIVE 4" DIAMETER OF WOOD MULCH, 3" DEEP. SHRUBS AND GROUNDCOVERS IN COBBLE/ROCK MULCH AREAS TO RECEIVE 3" DIAMETER OF WOOD MULCH, 3" DEEP. NO FABRIC UNDERLAYMENT IN WOOD MULCH AREAS.  
  
ALL PLANTING BEDS THAT CALL FOR COBBLE/ROCK MULCH TO RECEIVE MIN. 3" DEPTH OF MULCH USE PERMEABLE FABRIC UNDERLAYMENT FOR ALL COBBLE/AGGREGATE AREAS WITH SLOPES 3:1 AND LESS. USE QUICK RELEASE ORGANIC PRE-EMERGENT HERBICIDE FOR ALL MULCHED AND PERENNIAL PLANTING BEDS (AND FOR COBBLE/AGGREGATE AREAS WITH SLOPES EXCEEDING 3:1 GRADE.

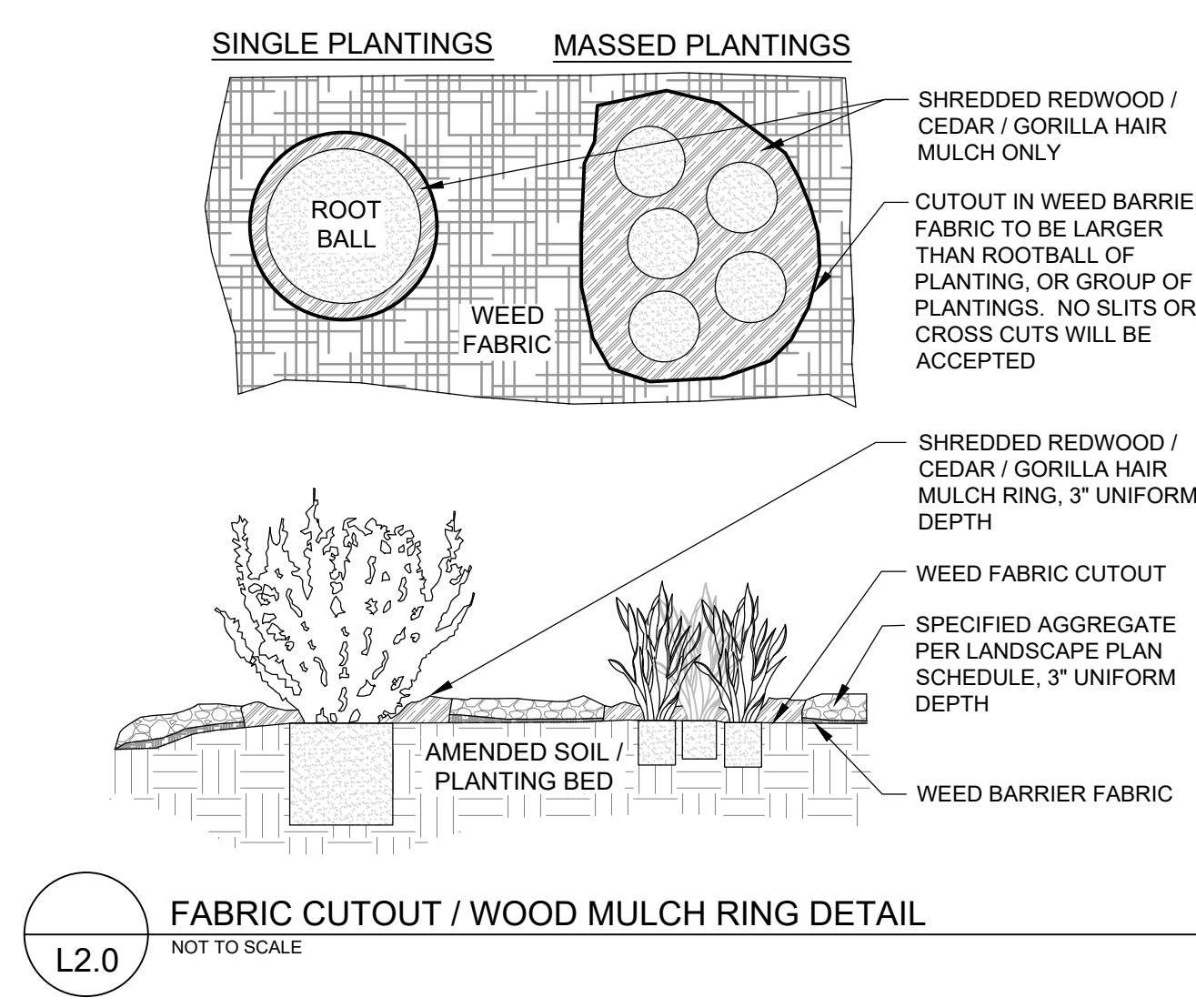
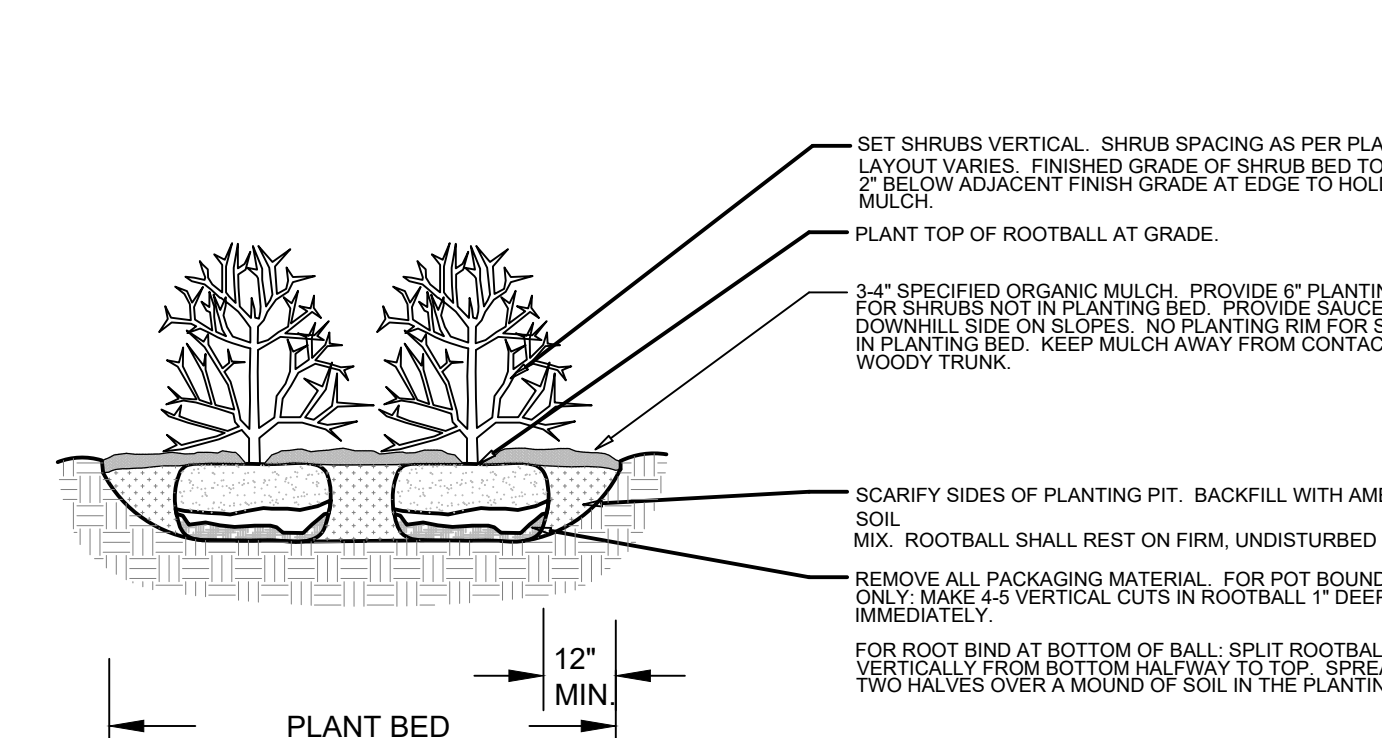
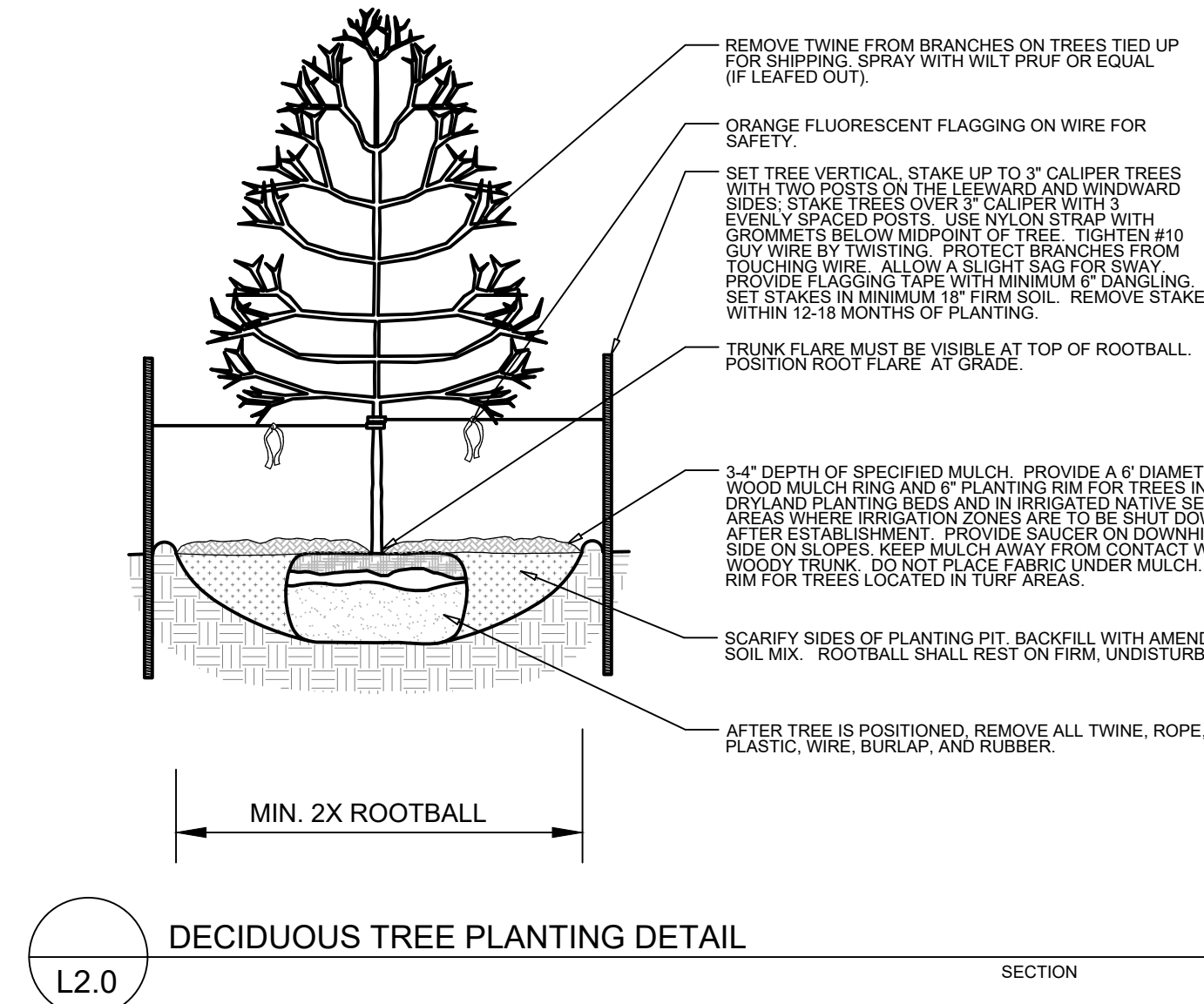
- SEED MIX INSTALLATION: CONTRACTOR TO DRILL SEED WITH BRILLION TYPE APPLICATOR AND APPLY 'SOIL GUARD' BONDED FIBER MATRIX (BFM), WHERE INDICATED PER PLAN AND SCHEDULES. APPLY SEED IN TWO DIRECTIONS (PERPENDICULAR OF THE OTHER) ADD SOIL GUARD BFM FOR DRILL SEEDING WHERE NOTED PER PLAN AND ON ALL SLOPES 5:1 TO 3:1. FOR AREAS WITH 3:1 SLOPES OR GREATER CONTRACTOR TO USE SOIL GUARD APPLICATION ONLY (IN LIEU OF HYDROMULCH). CONTRACTOR TO SPOT SEED NON-GERMINATING AREAS (3) MONTHS AFTER INITIAL SEED APPLICATION. CONTRACTOR TO RE-SEED ALL BARE AREAS (6"x6") AND GREATER AFTER (6) MONTHS FROM SEED GERMINATION OR AT THE BEGINNING OF THE FOLLOWING GROWING SEASON. PRIOR TO THE 11-MONTH WARRANTY INSPECTION RE-APPLY SOIL GUARD AND SEED MIX TO ALL BARE AREAS (6"x6" OR GREATER) AND TO ALL BARE AREAS (4"x4" OR GREATER) ON ALL SLOPES 3:1 AND GREATER.
- REMOVED DEAD TWIGS AND BRANCHES FROM ALL NEW AND EXISTING PLANT MATERIAL IN A MANNER THAT DOES NOT CHANGE THE NATURAL HABIT OF THE PLANT MATERIAL. SCARES OF 1" OR MORE SHALL BE PAINTED WITH ORGANIC TREE PAINT. CENTRAL LEADERS SHALL NOT BE REMOVED AT ANY TIME. NEWLY PLANTED TREES WITHOUT CENTRAL LEADERS WILL BE REJECTED.
- CONTRACTOR TO APPLY FERTILIZER IN SPRING & LATE SEPTEMBER. WATER THOROUGHLY AFTER APPLICATION OF FERTILIZERS.  
  
ALL SEEDED AND SODDED AREAS TO HAVE RECOMMEND FERTILIZER APPLICATIONS ADDED 2 TO 3 WEEKS AFTER SEEDLING EMERGENCE. AND ONCE IN MID TO LATE JUNE, IN EARLY TO MID AUGUST, AND ONCE IN LATE SEPTEMBER. SEEDED AND SODDED AREAS ARE ALSO TO RECEIVE .5 LB. OF ELEMENTAL SULFUR (OR EQUIVALENT MATERIAL) PER 1,000 S.F. APPLIED IN LATE SEPTEMBER. WATER THOROUGHLY AFTER APPLICATION OF FERTILIZERS.
- ALL PLANT MATERIALS AND UTILITIES ARE SHOWN AT AN APPROXIMATE LOCATIONS. THE CONTRACTOR MAY NEED TO ADJUST LOCATIONS OF PLANT MATERIAL TO ADHERE TO SPECIFIC ON-SITE CONDITIONS AND CODE REQUIREMENTS. ALL TREES AND SHRUBS TO BE PLACED AT 2' MINIMUM BACK OF CURB. CONTRACTOR TO CALL FOR UTILITY LOCATES BEFORE PLANTING (TYP.) 1-800-922-1987, OR CALL 811 BEFORE YOU DIG!
- STEEL EDGING TO BE USED TO SEPARATE ALL TURF AND/OR SEEDED AREAS FROM PLANTING BEDS. USE PERFORATED EDGING SEGMENTS TO OBTAIN POSITIVE DRAINAGE FOR ALL DRAINAGE SWALES OR AREAS OF STANDING WATER.
- CONTRACTOR TO PROVIDE COBBLE & UNDERLAYMENT FOR BUILDING DRAINS AND SWALES THROUGH LANDSCAPED AREAS.
- ALL REQUIRED LANDSCAPING TO BE INSTALLED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.
- ALL NURSERY STOCK TO CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI z60.1) AND THE COLORADO NURSERY ACT.
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING LANDSCAPE ARCHITECT FOR ALL REQUIRED INSPECTIONS. PROVIDE AT LEAST 48 HOURS NOTICE TO SCHEDULE AN INSPECTION. REQUIRED INSPECTIONS INCLUDE A LANDSCAPE LAYOUT AND PLANT MATERIAL VERIFICATION AND PLACEMENT INSPECTION, IRRIGATION MAIN LINE INSPECTION, LANDSCAPE AND IRRIGATION PUNCH LIST INSPECTION, AND A LANDSCAPE AND IRRIGATION FINAL INSPECTION.
- CONTRACTOR IS TO PROVIDE A ONE YEAR WARRANTY ON ALL PLANT MATERIAL, TURF, IRRIGATION COMPONENTS, AND WORKMANSHIP. REPLACEMENT PLANT MATERIALS SHALL BE OF THE SAME SPECIES AND SIZE AS THE DECAYED OR DEAD PLANT MATERIAL. WARRANTY IS VOID IF PLANT MATERIAL ARE UNDER OR OVER-WATERED/FERTILIZED, DAMAGED BY VANDALISM OR NEGLECTED BY OWNER AFTER FINAL MAINTENANCE PERIOD AND FINAL ACCEPTANCE IS PROVIDED.  
  
REMOVE ALL TREE STAKING MATERIALS AT END OF WARRANTY, PRIOR TO FINAL ACCEPTANCE

- MAINTENANCE: THE OWNER OF THIS PROPERTY AND ANY FUTURE OWNERS SHALL BE RESPONSIBLE FOR THE PROPER LANDSCAPE AND IRRIGATION MAINTENANCE OF THIS SITE AND ANY RIGHT OF WAY AREAS BETWEEN THE CURB AND PROPERTY LINES OF THIS SITE. MAINTENANCE OF THIS SITE INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION INSPECTIONS AND ADJUSTMENTS, IRRIGATION SYSTEM SHUT DOWN AND START UP, IRRIGATION LEAK REPAIR, LANDSCAPE WEEDING, MOWING, SEEDING, FERTILIZATION, WOOD MULCH AND ROCK COVER REPLACEMENT, PRUNING, AND PLANT MATERIAL REPLACEMENT (INCLUDING ANNUAL BEDS). ALL MAINTENANCE SHOULD BE IN ACCORDANCE WITH STANDARDS SPECIFIED WITHIN THE "ALCC SPECIFICATIONS HANDBOOK" REVISED EDITION- 1996. OWNER SHOULD CONTACT LANDSCAPE CONTRACTOR OR LANDSCAPE ARCHITECT REGARDING ANY QUESTIONS RELATING TO THE LANDSCAPE OR IRRIGATION MAINTENANCE OF THIS SITE.

- NOTES:
- DO NOT REMOVE OR CUT LEADER.
  - PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
  - DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
  - KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
  - AMENDED BACKFILL SHALL BE AS STATED ON THIS SHEET.
  - MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
  - PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
  - ALL TREES TO BE DEEP WATERED AT TIME OF PLANTING.



- NOTES:
- MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE WHENEVER POSSIBLE.
  - AT TIME OF PLANTING, DO NOT REMOVE OR CUT LEADER AND PRUNE ONLY DEAD OR BROKEN BRANCHES, CROSS OVER BRANCHES, AND WEAK OR NARROW CROTCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED. HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.
  - STRUCTURAL PRUNING SHOULD NOT BEGIN UNTIL AFTER ESTABLISHMENT PERIOD, USUALLY TWO GROWING SEASONS.
  - KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
  - DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
  - AMENDED BACKFILL SHALL BE AS STATED ON THIS SHEET.
  - WRAP TRUNK ON EXPOSED SITES AND SPECIES WITH THIN BARK. USE ELECTRICAL OR DUCT TAPE, NOT TWINE.
  - COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
  - DEEP WATER ALL PLANTS AT TIME OF PLANTING.

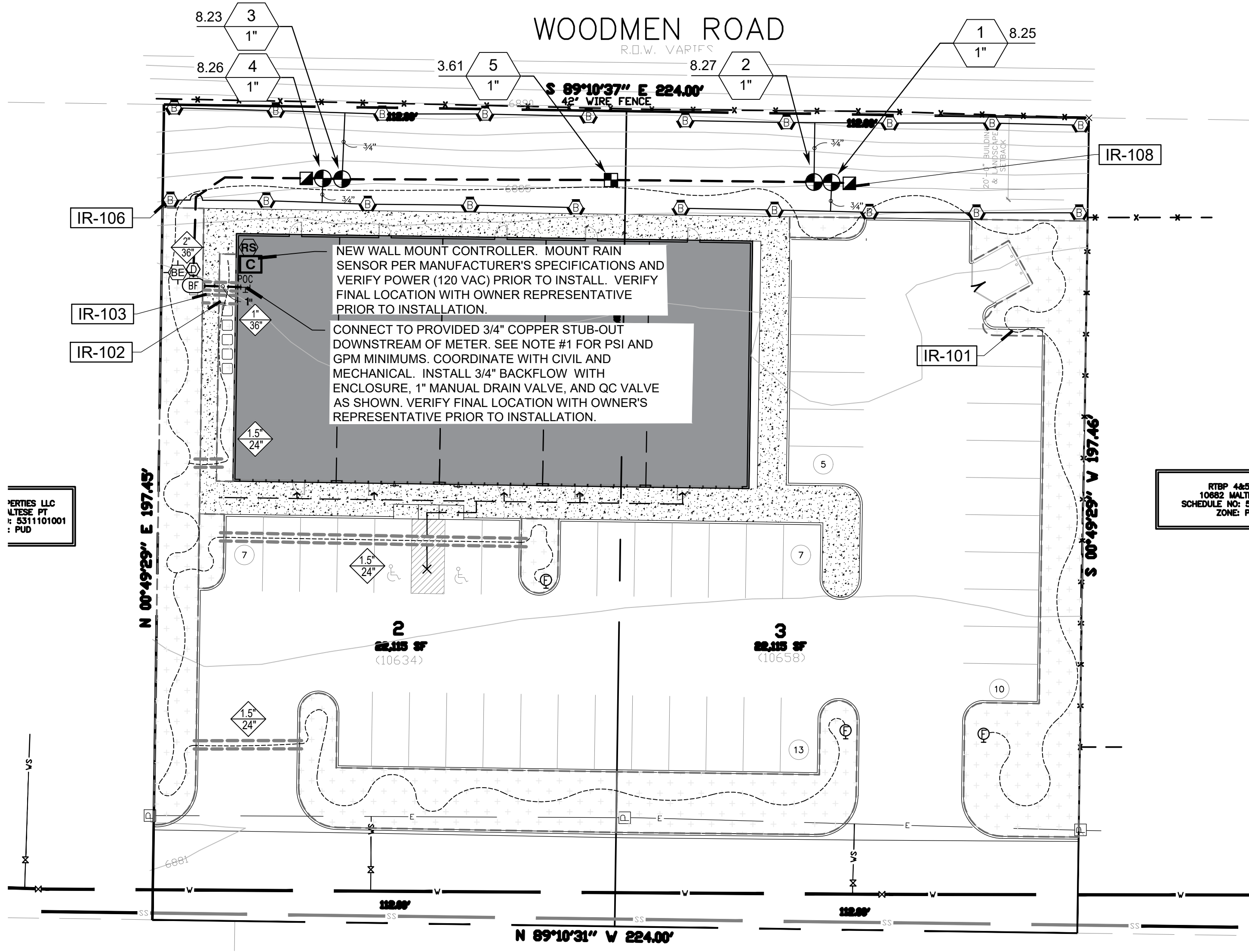


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City Comments: 07.03.20

NATURAL DESIGN SOLUTIONS  
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Land Planning - Irrigation Design  
5639 East Drive, Longmont, CO 80503  
(303) 449-0566 - nei@ndesignsolutions.com

LOTS 2 & 3, ROLLING THUNDER BUSINESS PARK  
FALCON, CO  
FINAL LANDSCAPE PLAN DETAILS & NOTES

PROJ. NO.:  
DATE: 03.03.20  
SCALE: See Sheet  
DRAWN: JRO  
CHKD BY: NAM  
SHEET L2.0



**IRRIGATION SCHEDULE**

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	HUNTER MP3000 PROS-06-CV TURF ROTATOR, 6" (15.24 CM) POP-UP WITH FACTORY INSTALLED CHECK VALVE, PRESSURE REGULATED TO 40 PSI (2.76 BAR), MP ROTATOR NOZZLE ON PRS40 BODY, B=BLUE ADJ ARC 90-210, Y=YELLOW ADJ ARC 210-270, A=GRAY 360 ARC.	20	40
	RAIN BIRD XCZ-100-PRF MEDIUM FLOW DRIP CONTROL KIT, 1" DV VALVE, 1" PRESSURE REGULATING FILTER, 40PSI PRESSURE REGULATOR, 3GPM - 15GPM. USE LOW FLOW MODEL FOR FLOWS UNDER 3 GPM	1	
	FLUSH VALVE 3/4" PVC BALL VALVE IN 10" VALVE BOX.	3	
	AREA TO RECEIVE DRIP EMITTERS RAIN BIRD X8-PC SINGLE OUTLET, PRESSURE COMPENSATING DRIP EMITTERS. FLOW RATES OF 0.5GPH-BLUE, 1.0GPH-BLACK, AND 2.0GPH-RED. COMES WITH A SELF-PIERCING BARB INLET X BARB OUTLET. Emitter Notes: 0.5 GPH emitters (1 assigned to each 4" pot plant) 1.0 GPH emitters (2 assigned to each 4" HT plant) 1.0 GPH emitters (2 assigned to each 2 gal plant) 1.0 GPH emitters (2 assigned to each 5 gal plant) 1.0 GPH emitters (1 assigned to each 1 gal plant)	6,437 S.F.	
	RAIN BIRD PEB 1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	4	
	RAIN BIRD S-LRC 1" BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, AND 1-PIECE BODY.	2	
	MANUAL DRAIN VALVE PROVIDE 10" ROUND BOX WITH 2" VALVE MARKER, PVC ACCESS SLEEVE, AND MINIMUM 6" DEPTH 3/4" WASHED RIVER ROCK SUMP FOR DRAINAGE. PROVIDE 3/4" MXF SCH 40 PVC 90 ELL AND 3/4" X 4" SCH 80 PVC NIPPLE TO SUMP FOR DRAINAGE. USE TEFLON TAPE ON ALL MALE THREADED PVC AND ALL AND ALL NIPPLES	1	
	FEBCO 825YA 3/4" REDUCED PRESSURE BACKFLOW PREVENTER	1	
	RAIN BIRD ESP4-SMTE WITH (1) ESP-SM3 7" STATION INDOOR SMART MODULAR CONTROL SYSTEM FOR RESIDENTIAL AND LIGHT COMMERCIAL USE. WALL MOUNT, TIPPING BUCKET RAIN SENSOR THAT MEASURES RAINFALL.	1	
	RAIN BIRD WR2-RFS WIRELESS RAIN/FREEZE SENSOR.	1	
	GUARDSHACK EC-2 GUARDSHACK ECONOCAGE, WITH EP-1 AND FG-1. INSTALL PER MANUFACTURER REQUIREMENTS AND VERIFY LOCKING HARDWARE PRIOR TO TURNOVER.	1	
	WATER METER 1" PROVIDE SEPARATE 1" WATER METER IN GENERAL LOCATION SHOWN. COORDINATE WITH CIVIL/MECHANICAL	1	
	IRRIGATION LATERAL LINE: PVC CLASS 160 SDR 26	441.2 L.F.	
	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21	197.0 L.F.	
	PIPE SLEEVE: PVC SCHEDULE 40 PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING AND THEIR RELATED COUPLINGS TO EASILY SLIDE THROUGH SLEEVING MATERIAL. SLEEVES TO BE MINIMUM 2X PIPE DIAMETER UNLESS OTHERWISE NOTED. EXTEND SLEEVES 18 INCHES BEYOND EDGES OF PAVING OR CONSTRUCTION.	116.2 L.F.	

**IRRIGATION NOTES**

- Note: QUANTITIES ARE LISTED FOR REFERENCE ONLY. CONTRACTOR TO USE GRAPHIC QUANTITIES TOTAL EQUIPMENT TYPES AND QUANTITIES. (SEE PLAN GRAPHIC AND EQUIPMENT SCHEDULE). PROVIDE ADDITIONAL IRRIGATION LABOR & COMPONENTS TO PROVIDE HEAD TO HEAD COVERAGE IN THE FIELD FOR ALL SODDED IRRIGATION ZONES AND (80%) OF HEAD TO HEAD COVERAGE FOR SEEDED TURFGRASS AND DRIP TO ALL PLANTINGS.
- THE IRRIGATION SYSTEM P.O.C. TO BE LOCATED IN THE LANDSCAPE OFF OF THE EXISTING WATER SUPPLY OR IN SEPARATE METER PIT AS SHOWN PER PLAN. CONNECT TO 3/4" POINT OF CONNECTION (w/WATTS 223-HP PRV VALVE for Meter Pits Only) AND MINIMUM STATIC WATER PRESSURE OF 70 PSI. CONNECTION IS ASSUMED TO PROVIDE MINIMUM 10 GPM. COORDINATE WITH OWNER'S REPRESENTATIVE AND OTHER TRADES TO ESTABLISH WATER CONNECTION AT LOCATION SHOWN AND ALL SLEEVING INSTALLED. NOTIFY DESIGN OF ANY DEVIATIONS IN PRESSURE OR GPM. FAILURE TO NOTIFY LANDSCAPE ARCHITECT WILL RESULT IN CONTRACTOR ASSUMING LIABILITY FOR ANY UNAUTHORIZED CHANGES MADE.
  - THE SYSTEM CONTROLLER IS TO BE A WALL MOUNT IN GENERAL LOCATION SHOWN. COORDINATE LOCATION OF CONTROLLER AND WEATHER STATION WITH OWNER. CONNECT CONTROLLER TO POWER SUPPLY (COORDINATE WITH OWNER), ZONE VALVE WIRES, RAIN SENSOR, AND GROUNDING. INSTALL AS PER MANUFACTURER'S INSTRUCTIONS. PROVIDE LIGHTNING PROTECTION FOR ALL CONTROLLERS (TYPICAL).
  - COORDINATE ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY DIGGING ON SITE. ALL MATERIALS AND INSTALLATION PRACTICES ARE TO BE IN COMPLIANCE WITH LOCAL CODES.
  - CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ALL IRRIGATION SLEEVING REQUIRED TO PERFORM WORK AS SHOWN PER PLAN. SLEEVING FOR LATERAL LINES IS TO BE 24" UNDERGROUND. MAINLINE SLEEVING TO BE 36" UNDERGROUND. ALL SLEEVING IS TO EXTEND 18" BEYOND EDGE OF CONCRETE OR ASPHALT. ENDS OF SLEEVING ARE TO BE SECURELY COVERED AFTER INSTALLATION. SLEEVE LOCATIONS ARE TO BE CLEARLY MARKED/STAMPED. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SLEEVING LOCATIONS PRIOR TO CONSTRUCTION AND INSTALL ANY MISSING SLEEVES, IF NECESSARY.
  - IRRIGATION PLAN IS DIAGRAMMATIC. ANY COMPONENTS SHOWN ON PLAN OUTSIDE OF LANDSCAPE ARE SHOWN FOR CLARITY ONLY. USE ONLY STANDARD FITTINGS. MAINLINE PIPING DEPTH IS TO BE 24". LATERAL LINE DEPTH IS TO BE 12". POLY DRIP LINE IS TO BE SECURED AT FINAL SOIL GRADE. POLY LINE SHALL BE COMPLETELY COVERED WITH MULCH WITH NO LINE EXPOSED. GRAPHIC QTY'S. PREVAIL OVER WRITTEN QTY'S. INSTALL MAINLINE AND LATERALS AS CLOSE TO CURBS AND SIDEWALKS AS POSSIBLE TO ALLOW FOR MORE PLANTING ROOM.
  - CONTRACTOR IS TO INSTALL #14 UF IRRIGATION WIRE BETWEEN CONTROLLER AND ELECTRIC VALVES.
  - INSTALL THREE EXTRA WIRES FROM THE CONTROLLER ALONG THE MAINLINE IN EACH DIRECTION FROM THE CONTROLLER FOR TROUBLE SHOOTING AND FUTURE ADDITIONS. ADDITIONAL WIRES TO BE IN A 6" VALVE BOX FOR EASY FUTURE ACCESS.
  - NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES BETWEEN PLAN DRAWINGS AND CONDITIONS IN THE FIELD PRIOR TO INSTALLATION OF ANY IRRIGATION COMPONENTS.
  - CONTRACTOR TO KEEP ALL PRESSURIZED IRRIGATION SUPPLY PIPE, (INCLUDING MAIN LINE, LATERALS, AND DRIP SUPPLY TUBING) AS WELL AS POP-UP SPRAY OR GEAR DRIVE HEADS A MIN. OF 5' AWAY FROM THE BUILDING OR AS NOTED BY THE SOILS ENGINEERS REPORT. THE MOST STRINGENT REQUIREMENT SHALL PREVAIL. ENSURE THAT POSITIVE DRAINAGE IS PROVIDED AND THAT NO IRRIGATION COMPONENTS NEGATIVELY IMPACT HARD SURFACES AND/OR BUILDING FOUNDATIONS. CONTRACTOR TO PROVIDE A ONE YEAR WARRANTY ON ALL IRRIGATION PARTS AND WORKMANSHIP. CONTRACTOR IS TO PROVIDE AS-BUILT DRAWINGS TO OWNER ALONG WITH QUICK-COUPLER KEYS WITHIN 30 DAY OF FINAL ACCEPTANCE FROM OWNER OR LANDSCAPE ARCHITECT.
  - THE OWNER OF THIS PROPERTY AND ANY FUTURE OWNERS SHALL BE RESPONSIBLE FOR THE PROPER IRRIGATION MAINTENANCE OF THIS SITE. MAINTENANCE OF THIS SITE INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION INSPECTIONS AND ADJUSTMENTS, IRRIGATION SYSTEM SHUT DOWN AND START UP, IRRIGATION LEAK REPAIR, IRRIGATION HEAD REPLACEMENT, RAIN SENSOR ADJUSTMENT, IRRIGATION CONTROLLER ADJUSTMENTS, DRIP IRRIGATION MAINTENANCE AND VERIFICATION THAT ALL LANDSCAPE AREAS ARE NOT OVER-WATERED OR UNDER-WATERED. ALL MAINTENANCE SHOULD BE IN ACCORDANCE WITH STANDARDS SPECIFIED WITHIN THE "ALCC SPECIFICATIONS HANDBOOK" REVISED EDITION- 1996. OWNER SHOULD CONTACT THE LANDSCAPE MAINTENANCE CONTRACTOR, LANDSCAPE CONSTRUCTION CONTRACTOR, OR LANDSCAPE ARCHITECT REGARDING ANY QUESTIONS RELATING TO THE LANDSCAPE OR IRRIGATION MAINTENANCE OF THIS SITE.
  - SHOULD LOCAL UTILITIES, WATER OR SPECIAL DISTRICTS DESIGNATE SPECIFIC WATER CONTROLS, IRRIGATION SCHEDULES SHALL BE ADJUSTED PURSUANT TO JURISDICTION REQUIREMENTS.
  - ADJUST IRRIGATION ZONE RUN TIMES WITH SEASONAL CONDITIONS. REDUCE RUN TIMES ACCORDING TO SEASONAL ADJUSTMENT SCHEDULE AND BASED ON SMART CONTROLLER ADJUSTMENTS (EXCEPT FOR NEW INSTALLATIONS DURING THE FIRST GROWING SEASON).
  - DRIP ZONES REQUIRE PRESSURE REGULATORS AND FILTERS WITH A MIN. 150 MESH SCREEN OR APPROVED EQUAL.
  - PRESSURE COMPENSATING EMITTER OR APPROVED EQUAL MAY BE USED WITH MICRO-TUBING AND INSECT CAPS TO DIRECT WATER TO AREAS THAT REQUIRE SPOT IRRIGATION.
  - LINE FLUSHING VALVES ARE TO BE LOCATED AT THE END OF EACH DRIP ZONE. INSTALL IN A 6" VALVE BOX W/ FILTER FABRIC & 4" OF CLEAN GRAVE BELOW EACH VALVE.
  - US HARCO SCH 40 RATED FITTINGS FOR ALL SYSTEMS. USE EPOXY DUCTILE IRON FITTINGS AND ADJUSTABLE PIPE CLAMPS FOR SYSTEMS USING OVER 80 PSI AT POINT.

**CRITICAL ANALYSIS**

Generated: 2020-07-01 08:29

P.O.C. NUMBER: 01  
Water Source Information: PROVIDE SEPARATE 1" WATER METER IN GENERAL LOCATION SHOWN. COORDINATE WITH CIVIL/MECHANICAL

FLOW AVAILABLE  
Water Meter Size: 1"  
Flow Available: 23.66 gpm

PRESSURE AVAILABLE  
Static Pressure at POC: 75.00 psi  
Elevation Change: 2.50 ft  
Service Line Size: 1"  
Length of Service Line: 20.00 ft  
Pressure Available: 70.00 psi

DESIGN ANALYSIS  
Maximum Station Flow: 8.27 gpm  
Flow Available at POC: 23.66 gpm  
Residual Flow Available: 15.39 gpm

Critical Station: 2  
Design Pressure: 40.00 psi  
Friction Loss: 1.71 psi  
Fittings Loss: 0.17 psi  
Elevation Loss: 0.00 psi  
Loss through Valve: 1.77 psi  
Pressure Req. at Critical Station: 43.65 psi  
Loss for Fittings: 0.00 psi  
Loss for Main Line: 1.73 psi  
Loss for POC to Valve Elevation: 0.00 psi  
Loss for Backflow: 11.23 psi  
Loss for Water Meter: 0.53 psi  
Critical Station Pressure at POC: 57.14 psi  
Pressure Available: 70.00 psi  
Residual Pressure Available: 12.86 psi

**Licensure Notes:**

This document is for City review and approval only.

This document is not a construction drawing unless stamped by the Landscape Architect of record. Projects require a stamped set of construction documents for landscape improvement installation.

CONFIRM MINIMUM PRESSURE OF 70 PSI PRIOR TO COMMENCING WORK

**IRRIGATION PLAN**  
SCALE: 1" = 20'

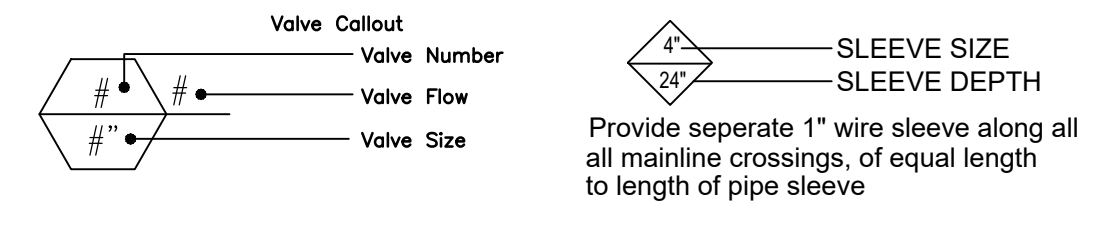
**VALVE SCHEDULE**

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PEB	1"	TURF ROTARY	8.25	42.99	56.51	0.22 in/h
2	RAIN BIRD PEB	1"	TURF ROTARY	8.27	43.65	57.14	0.22 in/h
3	RAIN BIRD PEB	1"	TURF ROTARY	8.23	43.91	56.33	0.21 in/h
4	RAIN BIRD PEB	1"	TURF ROTARY	8.26	43.66	56.06	0.21 in/h
5	RAIN BIRD XCZ-100-PRF	1"	TURF ROTARY	3.61	25.15	36.89	0.21 in/h

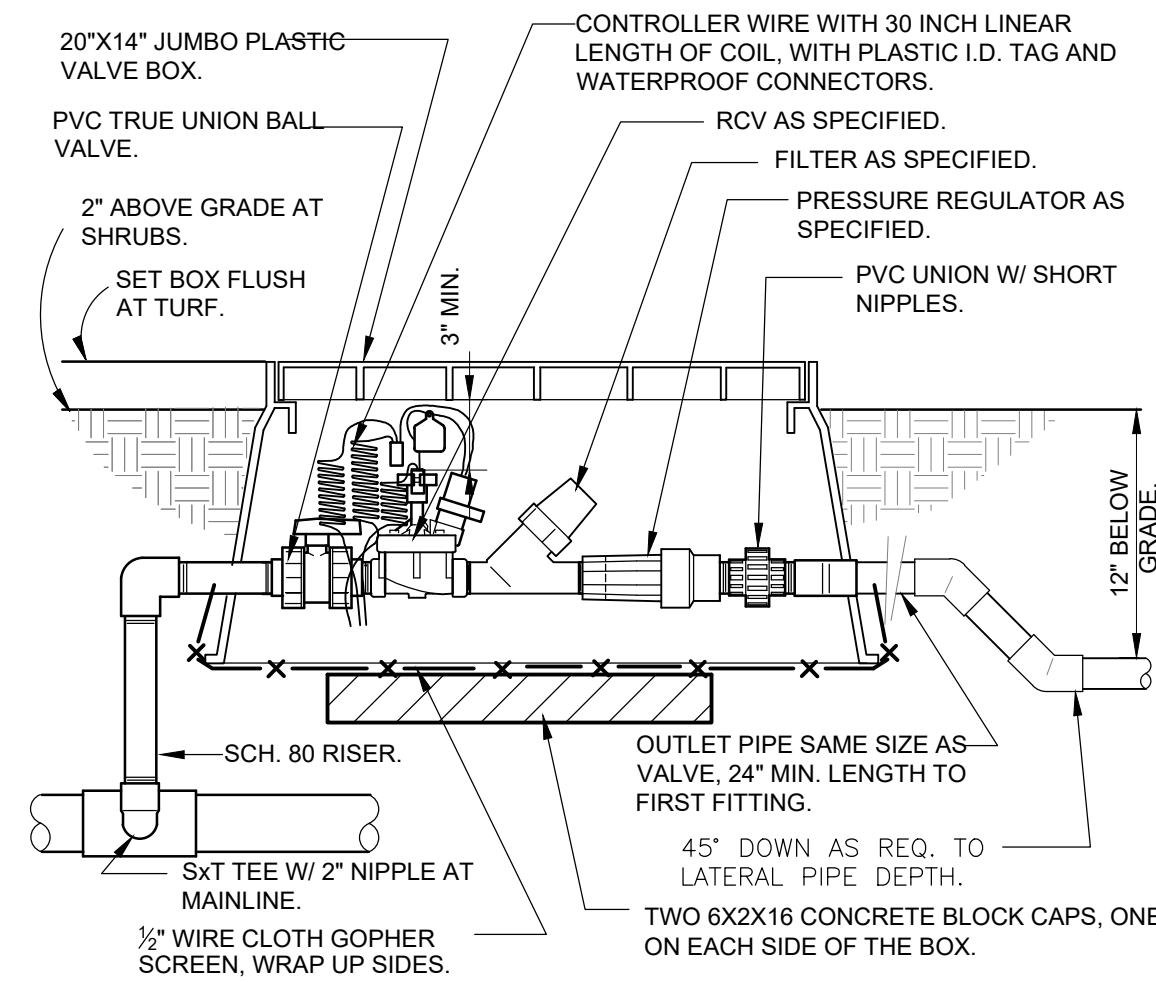
Brand all appropriate box lids with 1" minimum letters with the following abbreviations and provide purple box lids for non-potable system:  
QC Quick Coupler  
GV Gate Valve  
SV# Section Valve & Corresponding Controller Station #  
MCV Master Control Valve  
FS Flow Sensor  
FP Drip Flush Point

**REFERENCE NOTES SCHEDULE**

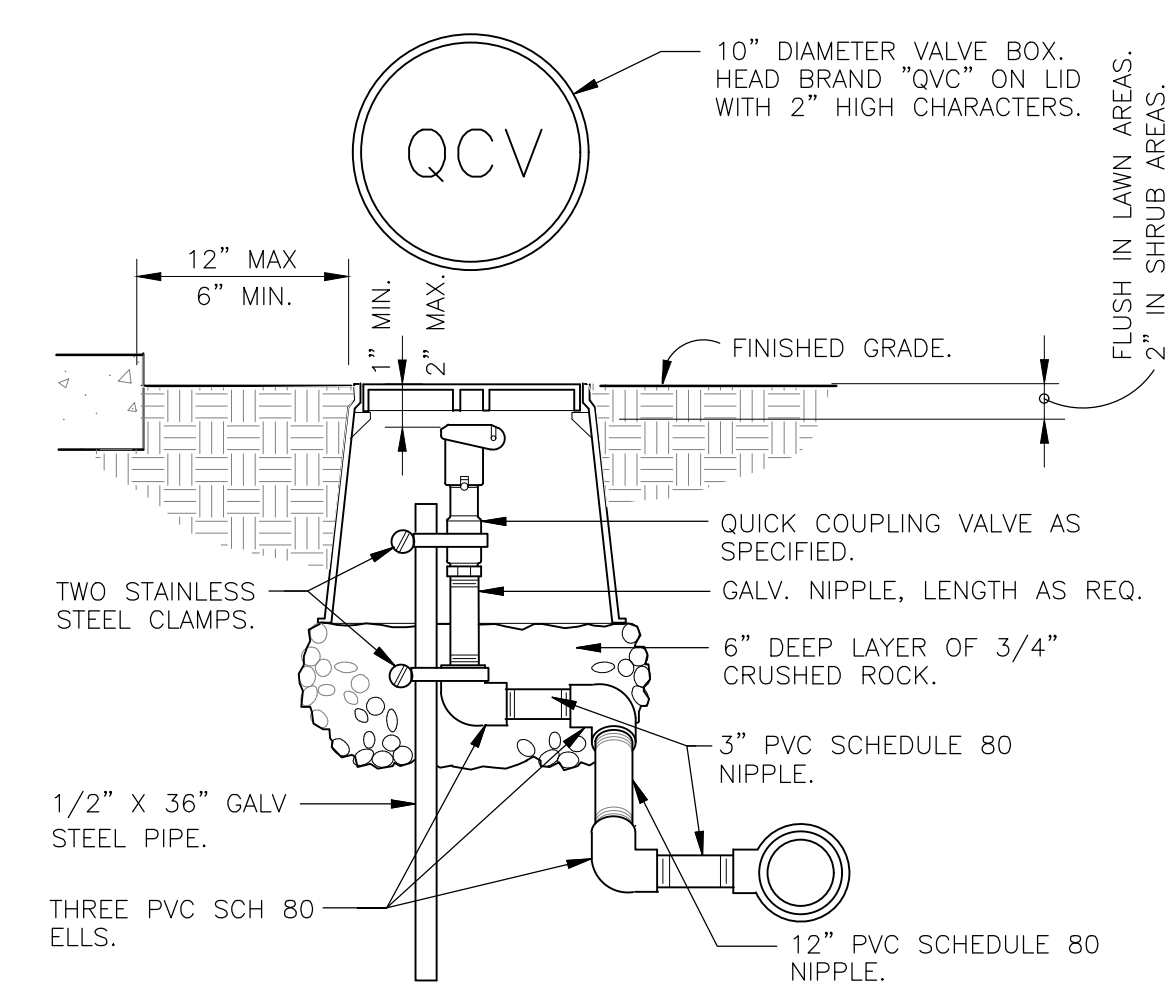
SYMBOL	DESCRIPTION
	IR-101 DIAGRAMMATIC DRIPLINE. ROUTE AS NECESSARY IN FIELD. QUANTITIES WILL VARY FROM THOSE SHOWN ON PLAN.
	IR-102 PROVIDE TWO (2) SLEEVES AT ALL MAINLINE CROSSINGS—ONE FOR PIPE AND ONE FOR WIRING.
	IR-103 ALL LOCATIONS DIAGRAMMATIC FOR CLARITY. LOCATE IN LANDSCAPE BEDS. FIELD ADJUST AS NECESSARY AND PROVIDE RECORD VIA AS-BUILTS. SEE NOTES.
	IR-106 ADJUST HEADS AS NECESSARY TO AVOID OVERSPRAY WHILE MAINTAINING PROPER COVERAGE. RADII MUST BE ADJUSTED PRIOR TO INSPECTION. RADII MAY BE ADJUSTED UP TO 25%. PROVIDE ADDITIONAL HEADS IF REQUIRED. ADJUST LOCATIONS TO AVOID TREE CONFLICTS, ETC.
	IR-108 EXTEND TWO SPARE CONTROL WIRES WITH COMMON FROM CONTROLLER TO GENERAL LOCATION SHOWN. PLACE IN QUICK COUPLING VALVE BOX WITH QC VALVE FOR FUTURE EXPANSION.



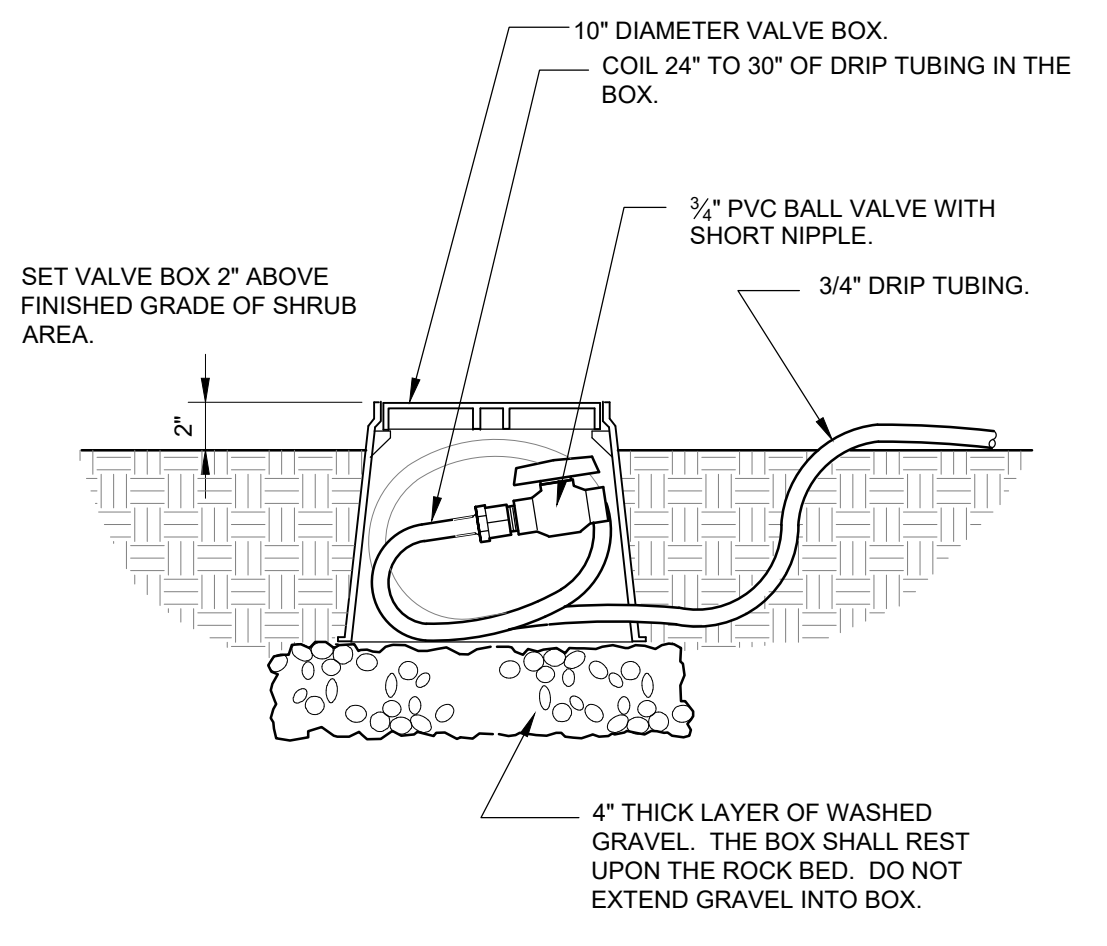
REVISIONS: City Comments: 07.03.20  
 THIS PLAN SHALL NOT BE CONSIDERED WITHOUT THE PROFESSIONAL SEAL OF THE ARCHITECT.  
**NDS** NATURAL DESIGN SOLUTIONS  
 Landscape Architecture  
 Land Planning - Irrigation Design  
 9539 East Drive, Longmont, CO 80503  
 (303) 449-0066 - nrd@naturaldesigns.com  
**LOTS 2 & 3, ROLLING THUNDER BUSINESS PARK**  
**FALCON, CO**  
**IRRIGATION PLAN**  
 PROJ. NO.:  
 DATE: 03.03.20  
 SCALE: See Sheet  
 DRAWN: JRO  
 CHKD BY: NAM  
 SHEET IRI.10  
 PCDFILE NO: PPR 2010



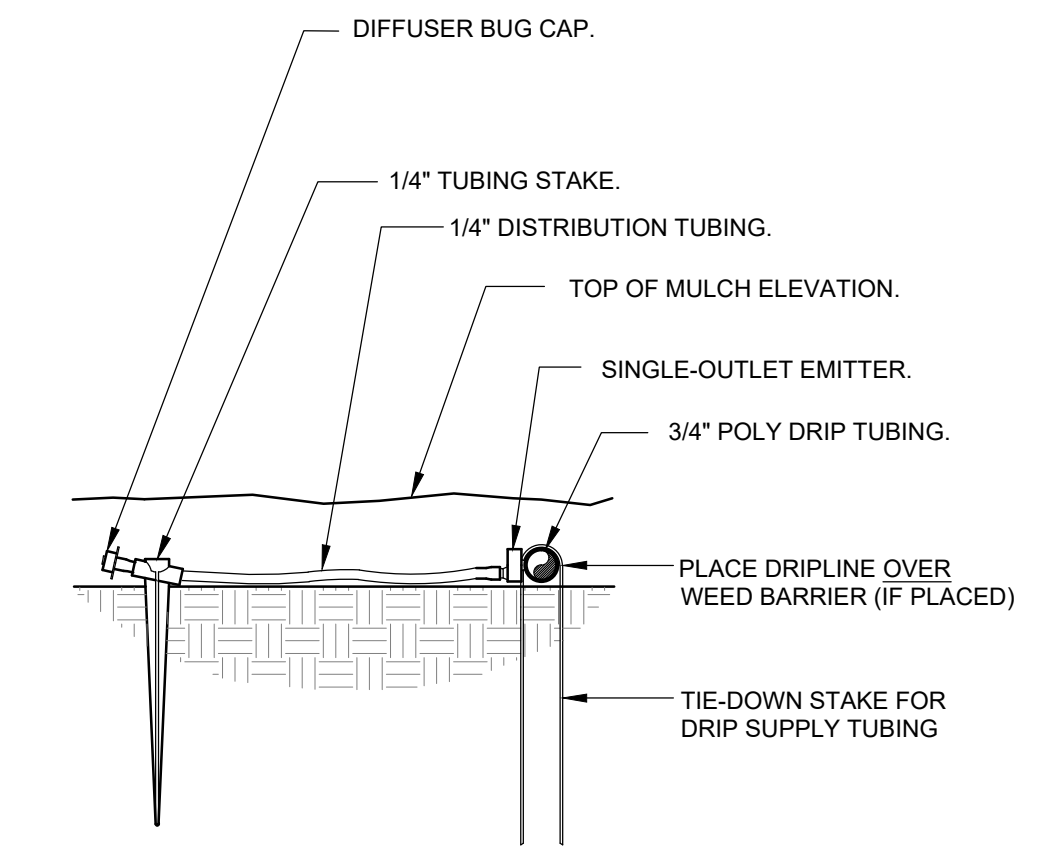
**1 1" DRIP VALVE/FILTER/REGULATOR**  
 1 1/2" = 1'-0" 32 8413.76-23



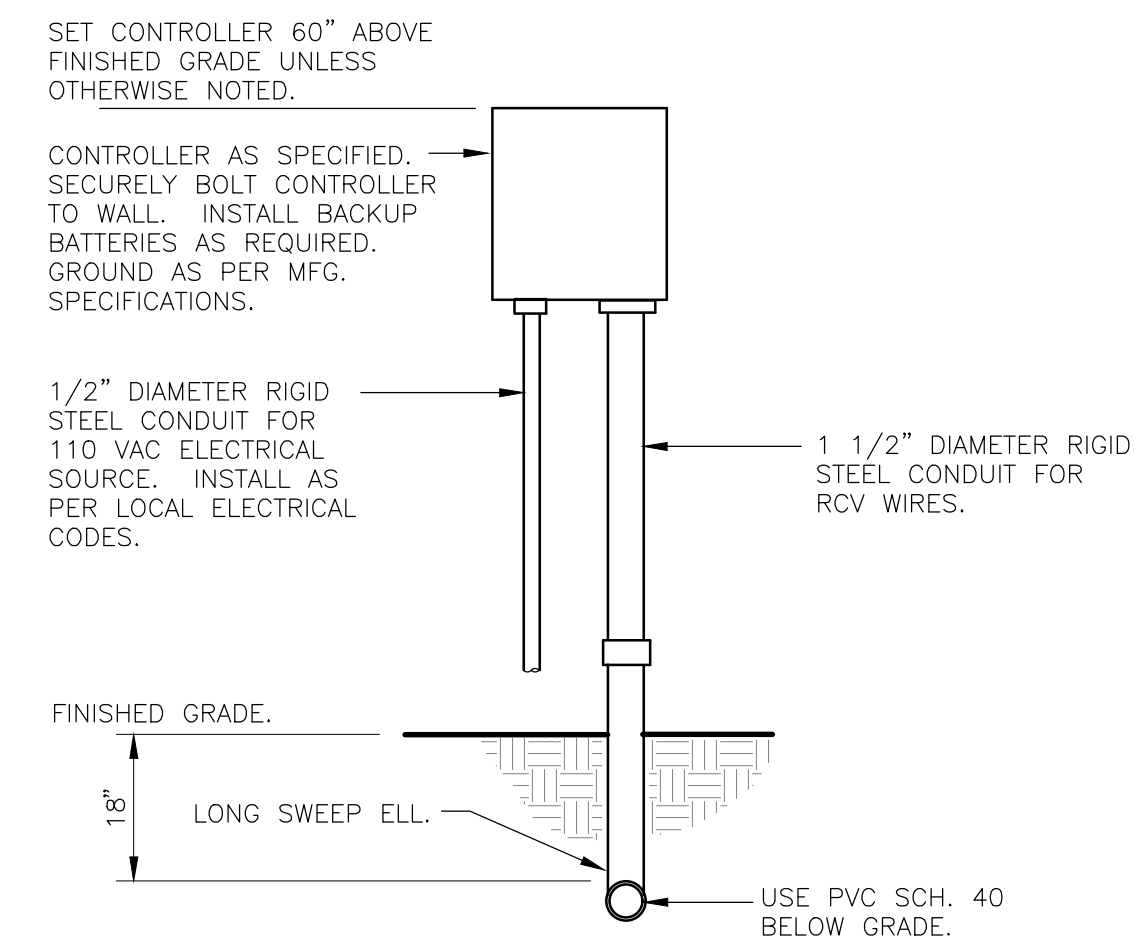
**2 QUICK COUPLING VALVE IN BOX**  
 1 1/2" = 1'-0" 328406.43-02



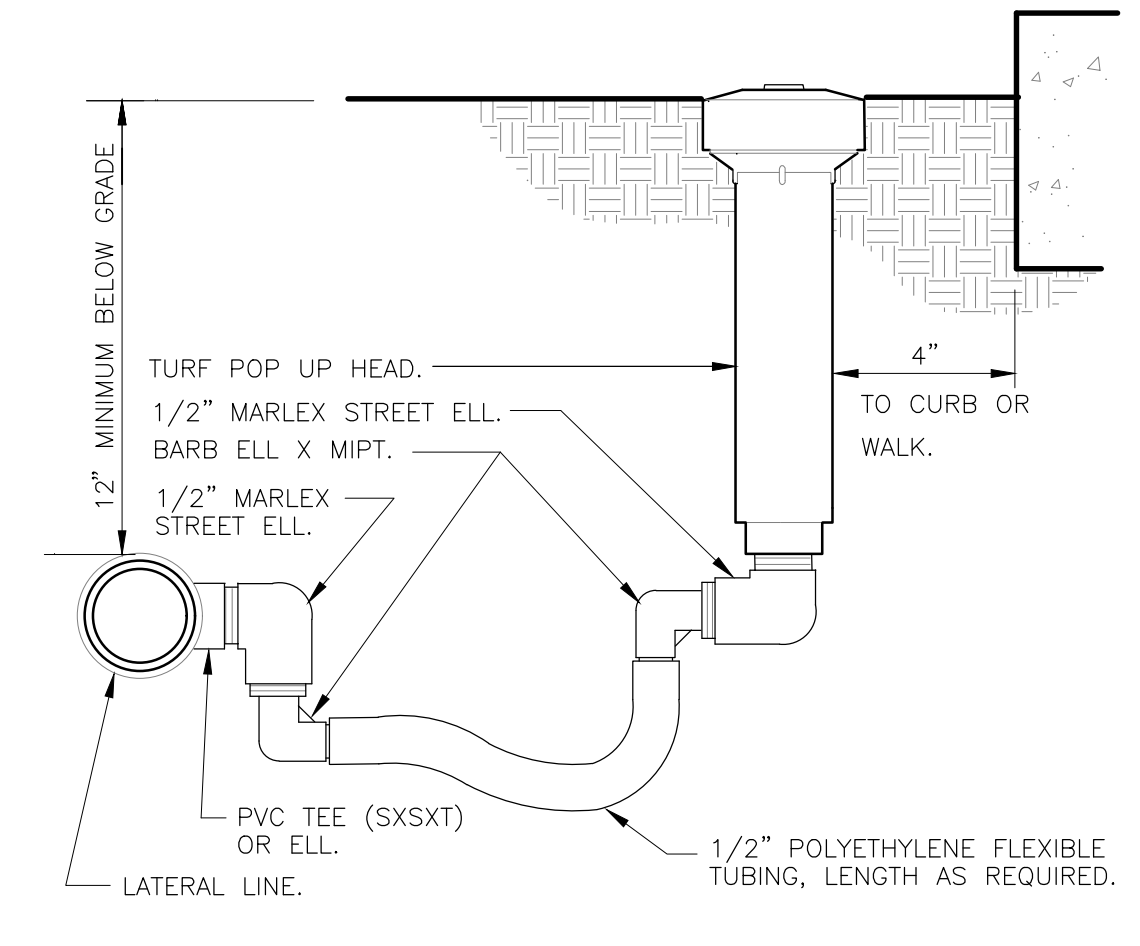
**3 DRIP FLUSH VALVE**  
 1 1/2" = 1'-0" 32 8413.49-03



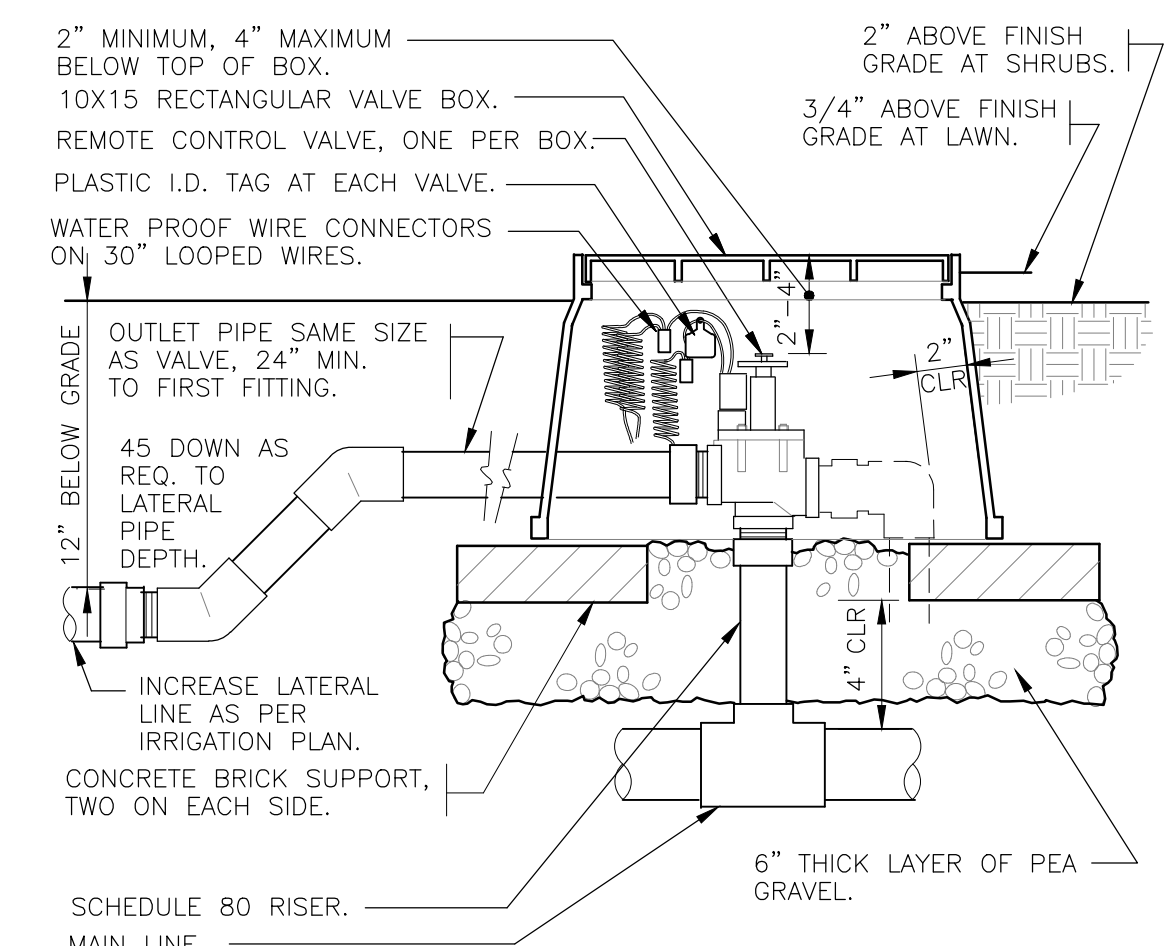
**4 DRIP EMITTER DETAIL**  
 3" = 1'-0" 32 8413.13-03



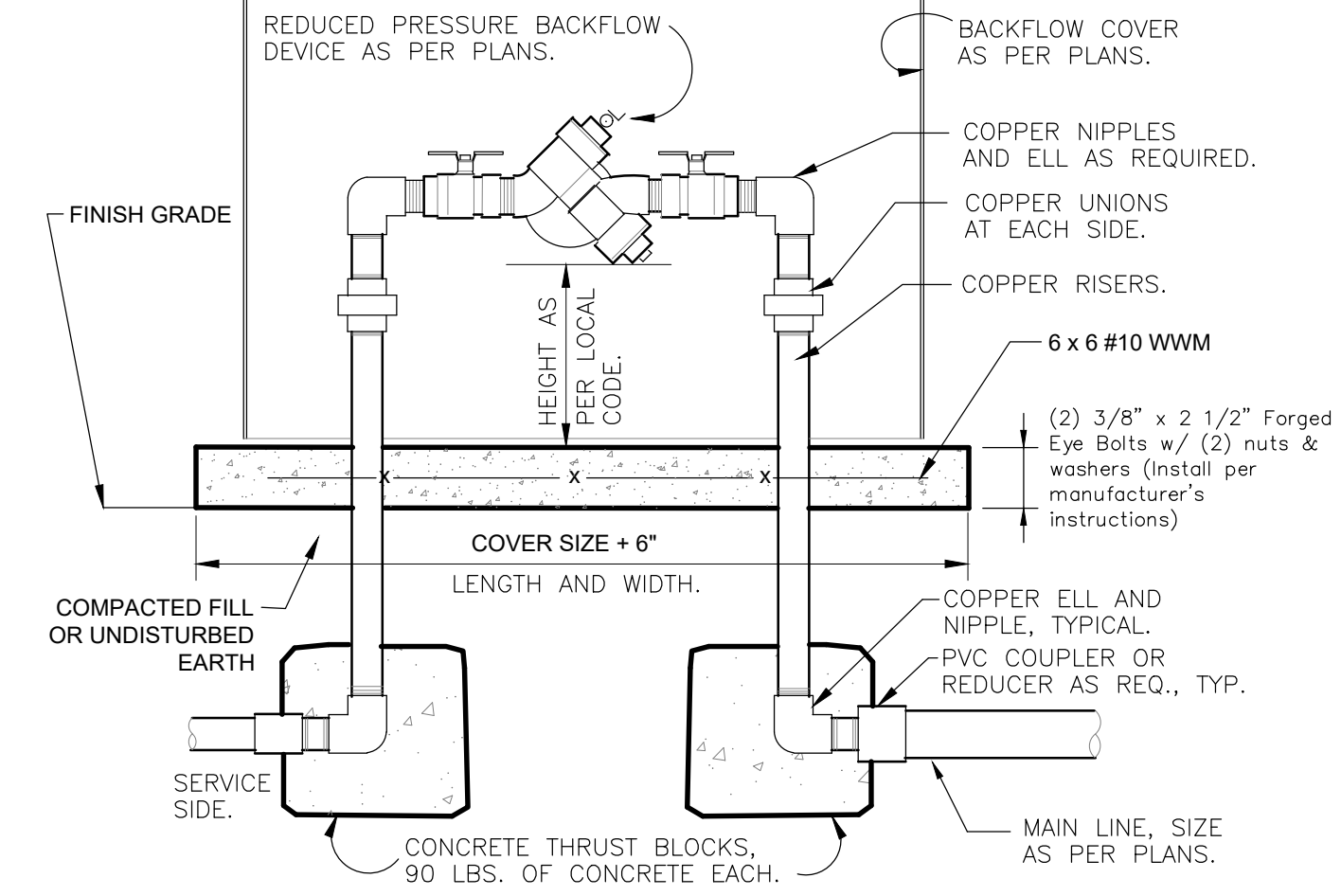
**5 WALL MOUNT CONTROLLER**  
 1" = 1'-0" 32 8409.13-01



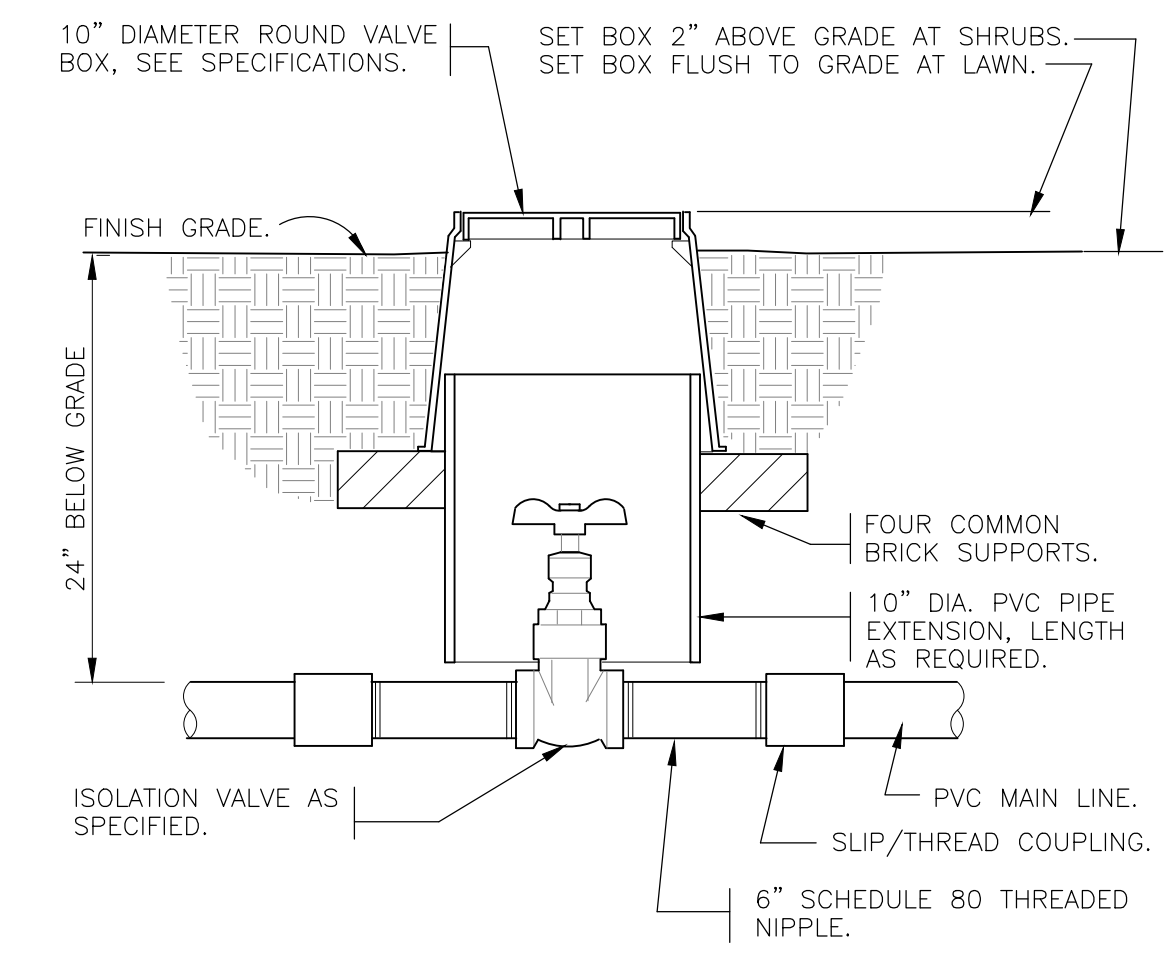
**6 TURF SPRAY FLEX ASSEMBLY**  
 3" = 1'-0" 328403.13-02



**7 ELECTRIC REMOTE CONTROL VALVE**  
 1 1/2" = 1'-0" 32 8406.13-01



**8 RP BACKFLOW W/ ENCLOSURE**  
 1" = 1'-0" 328409.46-03



**9 BRASS ISOLATION VALVE**  
 1 1/2" = 1'-0" 328406.33-01

REVISIONS:

City	Comments:

**NATURAL DESIGN SOLUTIONS**  
 Landscape Architecture  
 Land Planning - Irrigation Design  
 5539 Calt Drive, Longmont, CO 80503  
 (303) 449-0366 - info@ndesignsolutions.com

**LOTS 2 & 3, ROLLING THUNDER BUSINESS PARK  
 FALCON, CO  
 IRRIGATION PLAN DETAILS**

PROJ. NO.:	
DATE:	03.03.20
SCALE:	See Sheet
DRAWN:	JRO
CHKD BY:	NAM
SHEET	IR2.0

# Landscape\_v3.pdf Markup Summary

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12/30/2020 11:23:25 AM (1)

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(PLANNED UNIT DEVELOPMENT)  
15 S.F. & 22,115 S.F. = 44,230 S.F. TO  
0 S.F. x 44,230 S.F. / 100 = 17%  
NT = 20' [repeat comment]  
R = 25'  
E = 0'  
27 SF

**Subject:** Text Box

**Page Label:** [1] Falcon Retail\_FLP\_2nd Submittal-DP L1.0

20' [repeat comment]

**Author:** Sophie Kiepe

**Date:** 12/30/2020 11:23:25 AM

**Status:**

**Color:** ■

**Layer:**

**Space:**