



Water Efficient Landscape Permit

Design Templates for Right-of-Ways

March 07, 2024

Prepared for:

City of Bend

Prepared by:

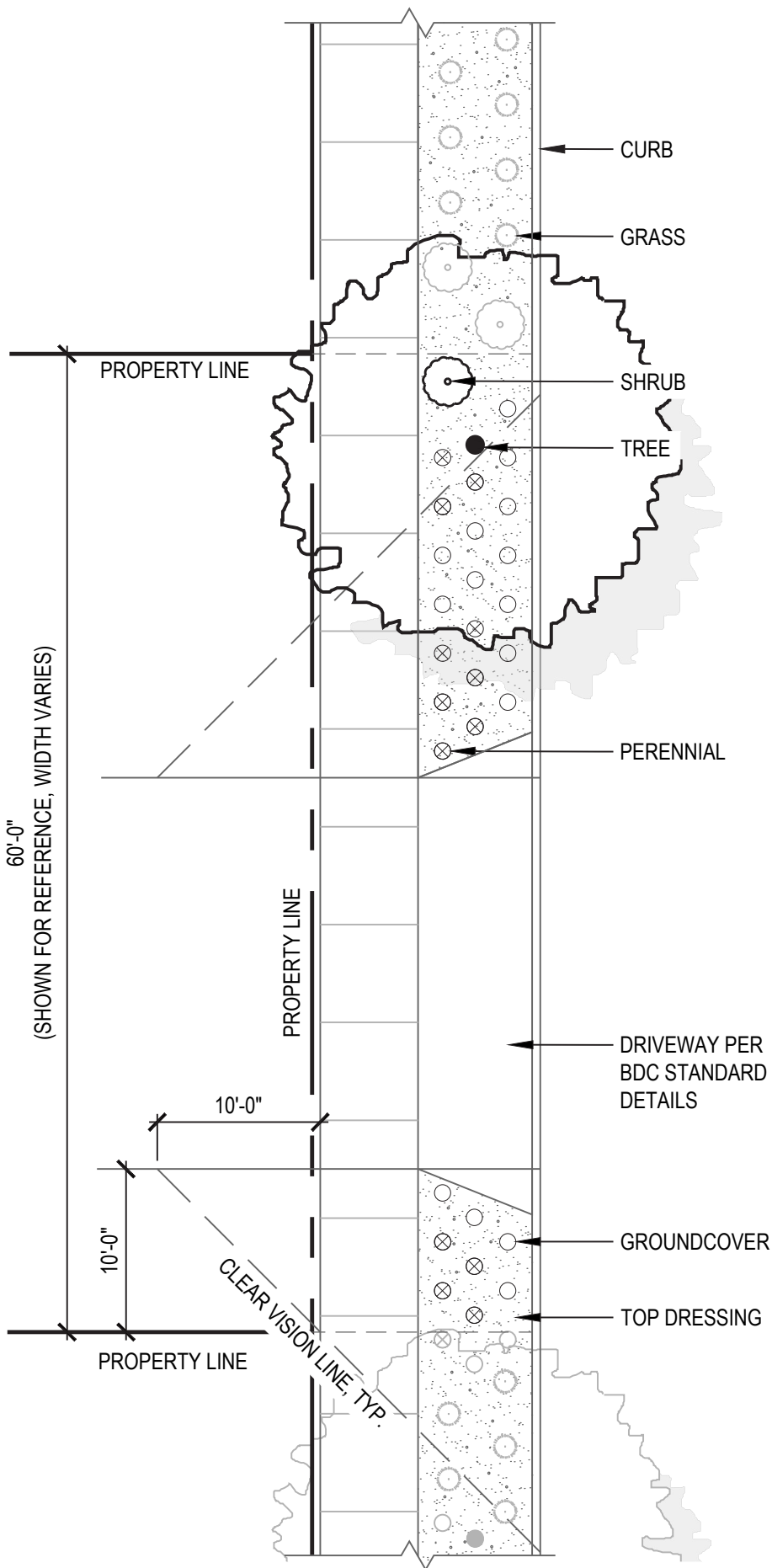
SZABO LANDSCAPE
ARCHITECTURE

1000 nw wall st., suite 205 | bend, or 97703 | www.szabo-la.com



Narrow Planting Strip Templates

Right-of-Way Planting Strips
8' or Less in Width



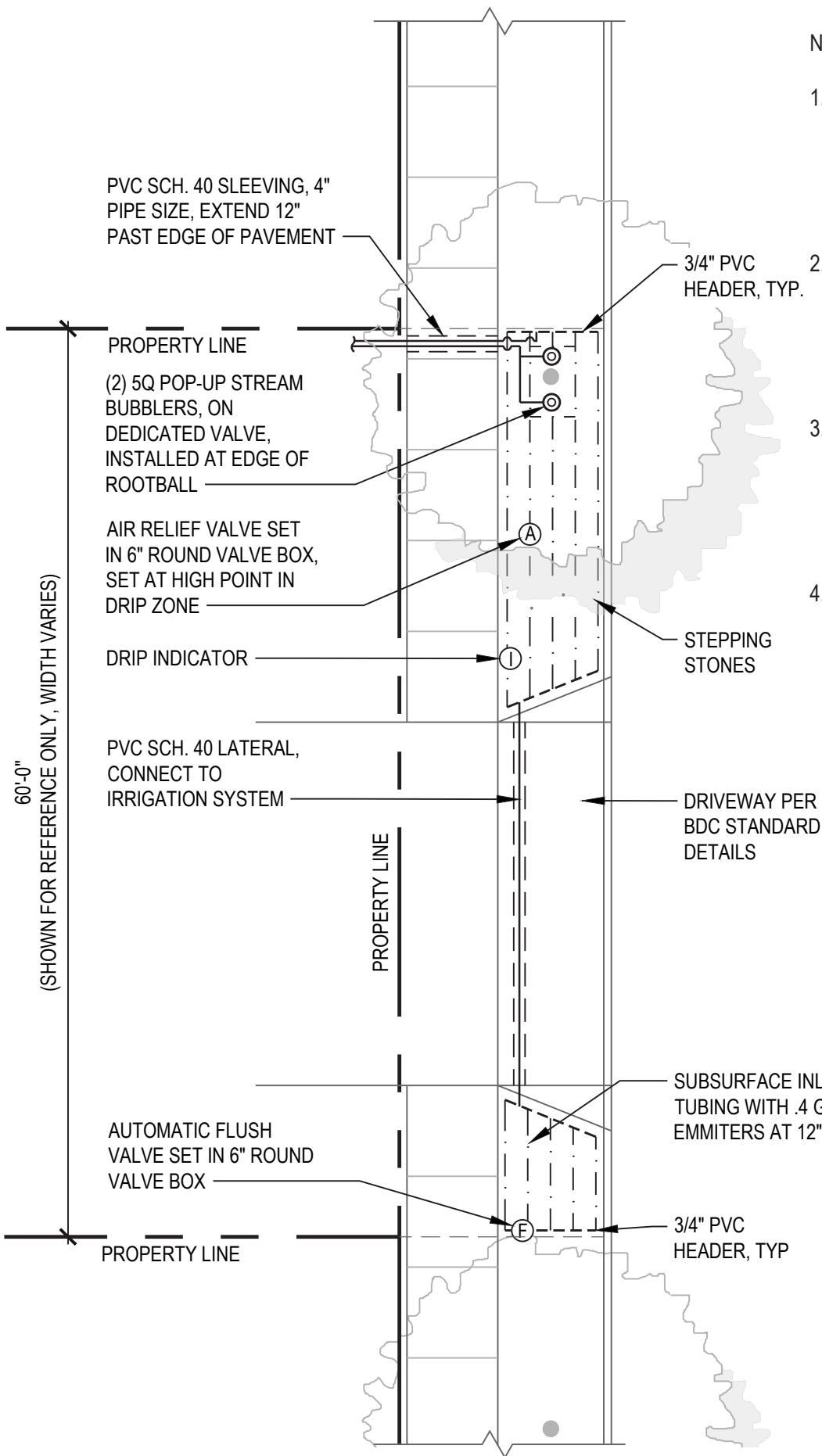
NOTES:

1. ALL PLANT MATERIAL IN CLEAR VISION AREA MUST STAY UNDER 24" HEIGHT
2. SOIL SHALL BE AMENDED PER C.O.B. STANDARD SPECIFICATIONS PART II, CHAPTER 12.2.4.2
3. TREE SPACING VARIES, REFER TO STANDARDS AND SPECIFICATIONS CHAPTER 12.2.3.5
4. ALL PLANTING & IRRIGATION SHALL BE INSTALLED PER C.O.B. STANDARDS & SPECIFICATIONS PART II, CHAPTER 12
5. PLANT QUANTITY DEPENDENT ON PARKWAY WIDTH AND DESIGN VARIATIONS. MINIMUM 50% COVERAGE AT MATURITY. APPROX. 10 PLANTS/ 100 SQFT.
6. ANY PLANT SUBSTITUTIONS SHALL BE SUBMITTED TO THE CITY OF BEND FOR APPROVAL. APPROVED PLANTS ARE AVAILABLE ON THE CITY OF BEND APPROVED PLANT LIST.
7. PLANT SPECIES MAY NOT EXCEED MORE THAN 25% ORNAMENTAL / BUNCH GRASS.
8. LAWN IS PROHIBITED WITHIN THE PUBLIC RIGHT-OF-WAY
9. PLANTING AREA SHALL BE TOP-DRESSED WITH MINIMUM 2" THICK LAYER OF SHREDDED BARK OR ROCK MULCH

TYPICAL PLANT LAYOUT FOR NARROW STRIPS

SCALE: 1" = 10'-0"





NOTES:

1. DRIPLINE SHALL BE BURIED 2" BELOW FINISH SOILGRADE AND ANCHORED WITH LANDSCAPE STAPLES 5' ON CENTER, SEE DETAIL
2. ALL PLANTING AND IRRIGATION SHALL BE INSTALLED PER C.O.B. STANDARDS & SPECIFICATIONS, PART II CHAPTER 12
3. ONLY DRIP IRRIGATION OR PC MSBN MULTI STREAM BUBBLER NOZZLE ON A POP UP MAY BE USED IN RIGHT OF WAYS OF 8FT OR LESS
4. TREES SHALL BE IRRIGATED ON SEPARATE VALVE/ZONE FROM UNDERSTORY PLANTING

TYPICAL DRIP IRRIGATION LAYOUT FOR NARROW STRIPS

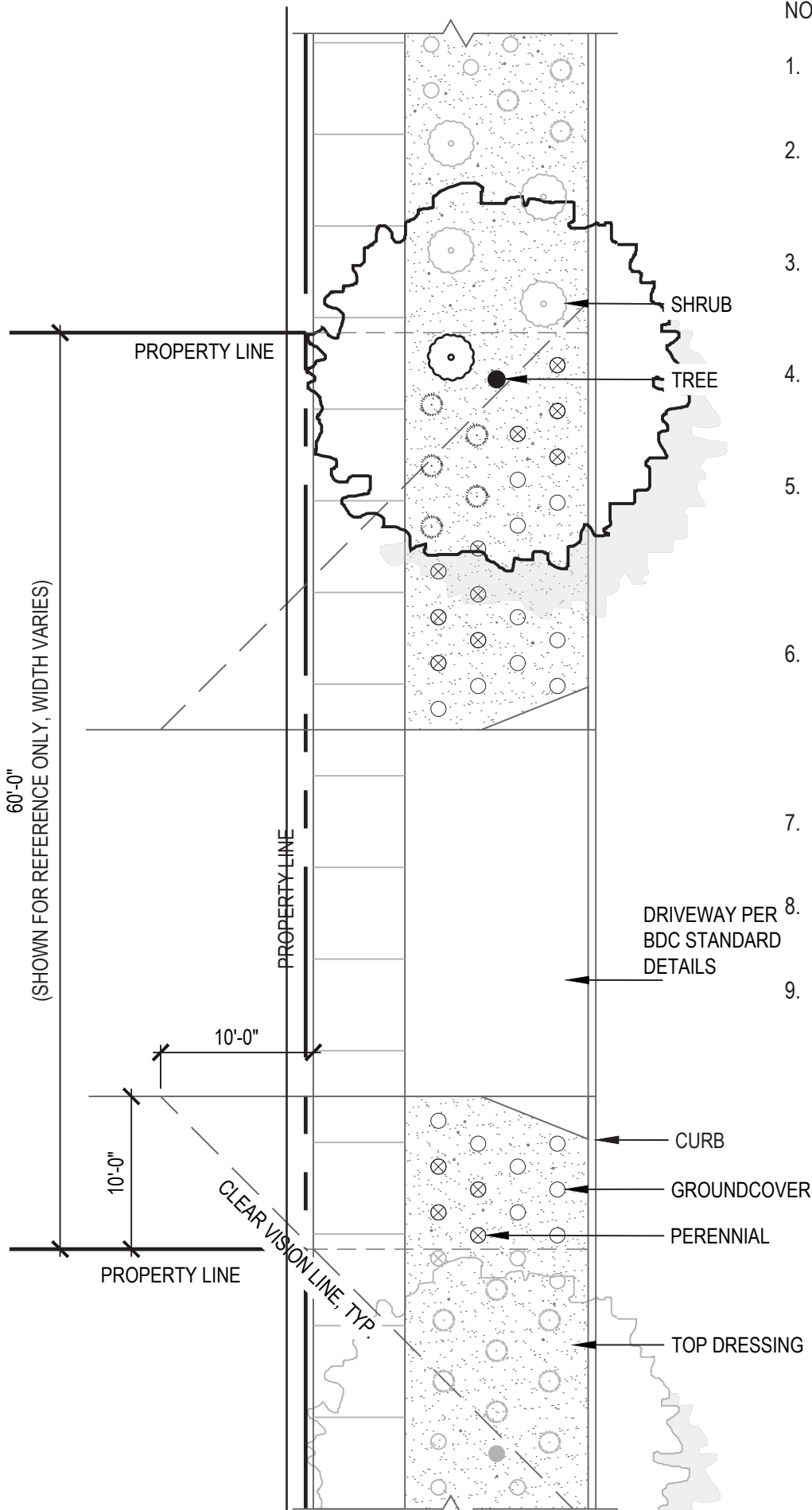
SCALE: 1" = 10'-0"





Wide Planting Strip Templates

Right-of-Way Planting Strips
Greater than 8' in Width



NOTES:

1. ALL PLANT MATERIAL IN CLEAR VISION AREA MUST STAY UNDER 24" HEIGHT
2. SOIL SHALL BE AMENDED PER C.O.B. STANDARD SPECIFICATIONS PART II CHAPTER 12.2.4.2
3. TREE SPACING VARIES, REFER TO STANDARDS AND SPECIFICATIONS CHAPTER 12.2.3.5
4. ALL PLANTING & IRRIGATION SHALL BE INSTALLED PER C.O.B. STANDARDS & SPECIFICATIONS PART II CHAPTER 12
5. PLANT QUANTITY DEPENDENT ON PARKWAY WIDTH AND DESIGN VARIATIONS. MINIMUM 50% PLANT COVERAGE AT MATURITY. APPROX. 10 PLANTS/100 SQ. FT
6. ANY PLAN SUBSTITUTIONS SHALL BE SUBMITTED TO THE CITY OF BEND FOR APPROVAL. APPROVED PLANTS ARE AVAILABLE ON THE CITY OF BEND APPROVED PLANT LIST.
7. PLANT SPECIES MAY NOT EXCEED MORE THAN 25% ORNAMENTAL / BUNCH GRASS.
8. LAWN IS PROHIBITED WITHIN THE PUBLIC RIGHT-OF-WAY
9. PLANTING AREA SHALL BE TOP-DRESSED WITH MINIMUM 2" THICK LAYER OF SHREDDED BARK OR ROCK MULCH

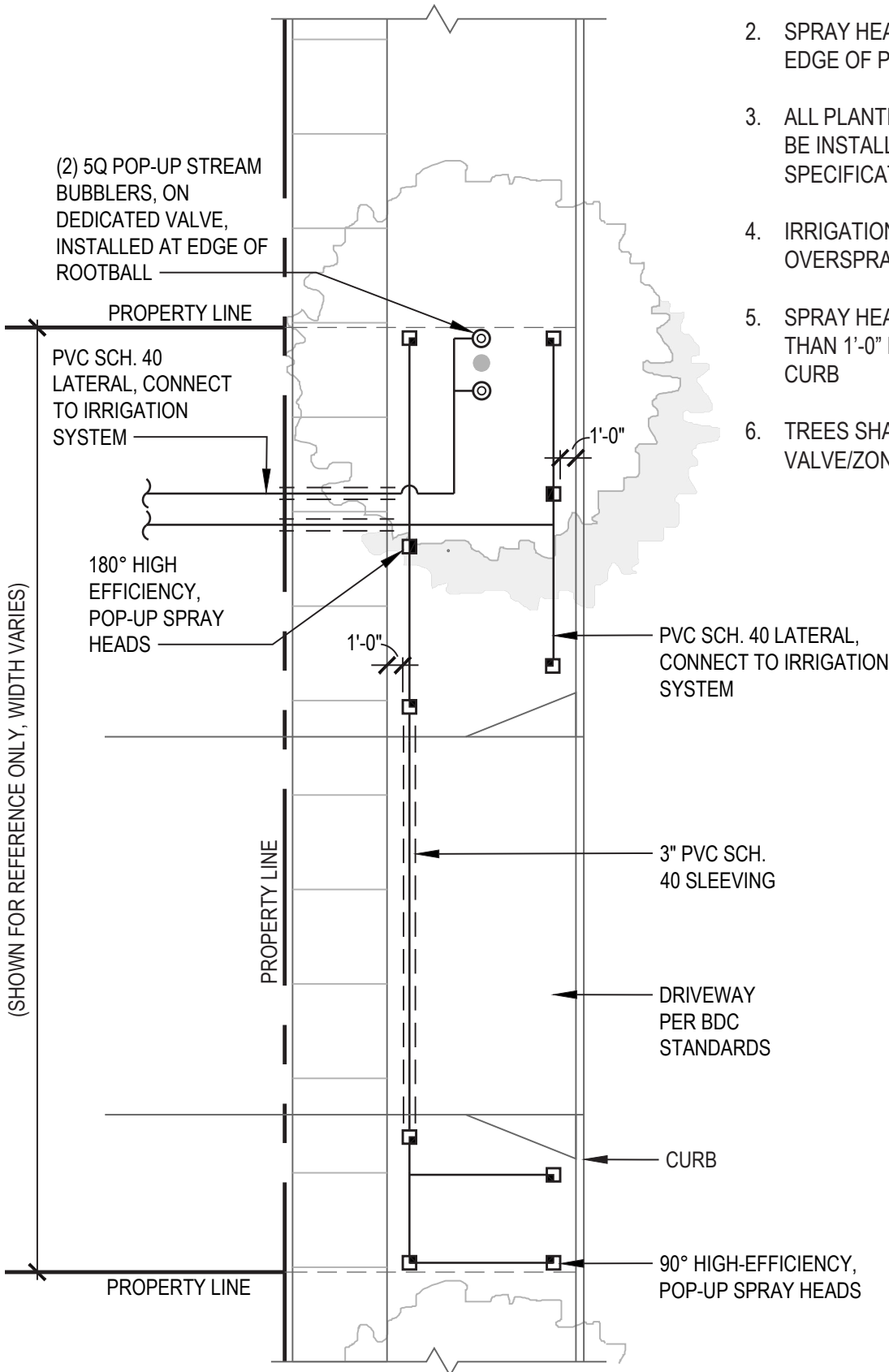
TYPICAL PLANT LAYOUT FOR WIDE STRIPS

SCALE: 1" = 10'-0"



NOTES:

1. HIGH EFFICIENCY NOZZLES USED IN AREAS GREATER THAN 8FT IN SMALLEST DIMENSION
2. SPRAY HEADS SHALL BE OFFSET 12" FROM EDGE OF PAVEMENT
3. ALL PLANTING AND IRRIGATION SHALL BE INSTALLED PER C.O.B. STANDARDS & SPECIFICATIONS PART II CHAPTER 12
4. IRRIGATION MAY NOT RESULT IN ANY OVERSPRAY OUTSIDE OF PLANTER AREA
5. SPRAY HEADS SHALL BE LOCATED NO CLOSER THAN 1'-0" FROM ADJACENT HARDSCAPE OR CURB
6. TREES SHALL BE IRRIGATED ON SEPARATE VALVE/ZONE FROM UNDERSTORY PLANTING



TYPICAL SPRAY IRRIGATION LAYOUT FOR WIDE STRIPS

SCALE: 1" = 10'-0"





Plant Palettes

PRE-APPROVED VERY LOW WATER-USE PALETTE

WOODY SHRUBS



ARCTOSTAPHYLOS C. 'PANCHITO'
(PANCHITO MANZANITA)
HT: 1'-2' / W: 5'-6'



CHAMAEBATIARIA MILLEFOLIUM
(FERNBUSH)
HT: 3'-6' / W: 3'-6'



RIBES CEREUM
(WAX CURRENT)
HT: 4'-6' / W: 4'-6'



SALVIA DORII
(PURPLE SAGE)
HT: 2'-3' / W: 2'-3'

ORNAMENTAL GRASSES



ACHNATHERUM HYMENOIDES
(INDIAN RICEGRASS)
HT: 1'-2' / W: 1'-2'



PSEUDOROEGNERIA SPICATA
(BLUEBUNCH WHEATGRASS)
HT: 1'-2' / W: 1'-2'



FESTUCA IDAHOENSIS
(IDAHO FESCUE)
HT: 2'-3' / W: 2'



KOELERIA MACRANTHA
(PRAIRIE JUNEGRASS)
HT: 1'-3' / W: 1'-3'

PERENNIALS



ACHILLEA MILLEFOLIUM
(YARROW)
HT: 2'-3' / W: 1'-2'



LINUM LEWISII
(BLUE FLAX)
HT: 1'-3' / W: 2'-3'



ARTEMESIA A. 'POWIS CASTLE'
(POWIS CASTLE SILVER SAGE)
HT: 2' / W: 1'-2'



PENSTEMON PINIFOLIUS
(PINELEAF PENSTEMON)
HT: 1' / W: 2'

GROUNDCOVERS



ANTENNARIA ROSEA
(ROSY PUSSYTOES)
HT: 1' / W: 1'



ERIOGONUM UMBELLATUM
(SULPHUR BUCKWHEAT)
HT: 1' / W: 1'



ERIOPHYLLUM LANATUM
(OREGON SUNSHINE)
HT: 1'-2' / W: 1'-2'



PENSTEMON DAVIDSONII
(DAVIDSON'S PENSTEMON)
HT: 1' / W: 1'-2'

NOTES:

1. DEVIATION FROM APPROVED PLANT LIST REQUIRES APPROVAL FROM THE CITY OF BEND CONSERVATION DEPARTMENT
2. TREES SHALL BE SELECTED FROM THE CITY OF BEND PRE-APPROVED STREET TREE LIST PER BEND DESIGN STANDARDS AND SPECIFICATIONS PART II, CHAPTER 12



VERY LOW WATER-USE RENDERINGS



NOTES:

1. TOP IMAGE DEPICTS A 7' WIDE PLANTING STRIP, BOTTOM IMAGES DEPICTS A 12' WIDE PLANTING STRIP.
2. RENDERINGS ARE SHOWN FOR REFERENCE ONLY TO CONVEY DESIGN AESTHETIC FOR DIFFERENT PLANT PALETTES.



CITY OF BEND
WATER CONSERVATION

PRE-APPROVED LOW WATER-USE PALETTE

WOODY SHRUBS



CARYOPTERIS X CLANODENSIS
(BLUEBEARD)
HT: 2'-3' / W: 2'-3'



PEROVSKIA ATRIPLICIFOLIA
(RUSSIAN SAGE)
HT: 2'-3' / W: 2'-3'



POTENTILLA FRUTICOSA
(CINQUEFOIL)
HT: 2'-4' / W: 3'-5'



RHUS AROMATICA 'GRO-LOW'
(GRO-LOW SUMAC)
HT: 2'-3' / W: 6'-8'

ORNAMENTAL GRASSES



CALAMAGROSTIS A. 'K. FOERSTER'
(K.F. FEATHER REED GRASS)
HT: 2'-3' / W: 3'-5'



PANICUM VIRGATUM
(SWITCHGRASS)
HT: 3'-6' / W: 3'-6'



FESTUCA OVINA GLAUCA
(BLUE FESCUE)
HT: 1'-2' / W: 1'-2'



SCHIZACHYRIUM SCOPARIUM
(LITTLE BLUESTEM)
HT: 1'-3' / W: 1'-2'

PERENNIALS



HEMEROCALIS SPP.
(DAYLILY)
HT: 1'-2' / W: 1'-2'



LAVANDULA ANGUSTIFOLIA
(ENGLISH LAVANDER)
HT: 2'-3' / W: 2'-4'



NEPETA RACEMOSA
(CATMINT)
HT: 1'-2' / W: 1'-3'



PENSTEMON STRICTUS
(ROCKY MOUNTAIN PENSTEMON)
HT: 1'-2' / W: 1'-2'

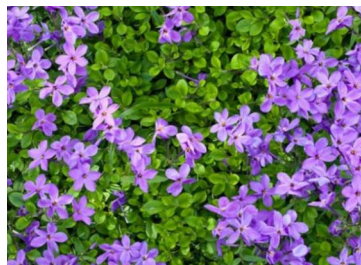
GROUNDCOVERS



ARCTOSTAPHYLOS UVA-URSI
(KINNIKINNICK)
HT: 1' W: 2'-4'



ARMERIA MARITIMA
(SEA THRIFT)
HT: 1' / W: 1'



PHLOX STOLONIFERA
(CREEPING PHLOX)
HT: 1' / W: 1'-2'



THYMUS SERPYLLUM
(CREEPING THYME)
HT: 6" / W: 1'

NOTES:

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LOW WATER-USE RENDERINGS



NOTES:

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2. RENDERINGS ARE SHOWN FOR REFERENCE ONLY TO CONVEY DESIGN AESTHETIC FOR DIFFERENT PLANT PALETTES.



CITY OF BEND
WATER CONSERVATION

PRE-APPROVED MODERATE WATER-USE PALETTE

WOODY SHRUBS



BUDDLEJA x 'BLUE CHIP'
(BLUE CHIP BUTTERFLY BUSH)
HT: 2'-3' / W: 3'-4'



EUONYMUS ALATUS 'COMPACTUS'
(COMPACT BURNING BUSH)
HT: 5'-6' / W: 5'-6'



SPIREA JAPONICA VARIETIES
(SPIREA)
HT: 4'-6' / W: 4'-6'



VIBURNUM T. 'COMPACTUM'
(COMPACT CRANBERRY BUSH)
HT: 3'-6' / W: 3'-6'

ORNAMENTAL GRASSES



DESCHAMPSIA CESPITOSA
(TUFTED HAIR GRASS)
HT: 2'-3' / W: 2'-3'



PENSTEMON ALOPECUR. 'HA MELN'
(HA MELN FOUNTAIN GRASS)
HT: 2'-3' / W: 2'-3'



HELICOTRITON SEMPERVIRENS
(BLUE OAT GRASS)
HT: 2'-3' / W: 2'-3'



SESLERIA AUTUMNALIS
(AUTUMN MOORE GRASS)
HT: 1'-2' / W: 1'-2'

PERENNIALS



AGASTACHE 'BLUE FORTUNE'
(BLUE FORTUNE HYSSOP)
HT: 2'-3' / W: 2'-3'



IRIS SPP.
(BEARDED IRIS)
HT: 18" / W: 18"

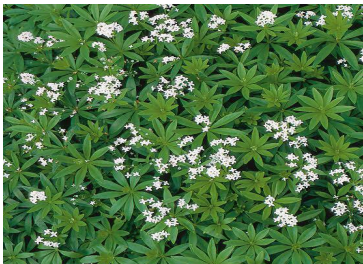


LEUCANTHEMUM
(SHASTA DAISY)
HT: 1'-3' / W: 1'-2'



ECHINACEA SPP.
(CONEFLOWER)
HT: 2'-3' / W: 1'-2'

GROUNDCOVERS



GALIAM ODORATUM
(SWEET WOODRUFF)
HT: 1' / W: 1'-2'



GERANIUM 'TINY MONSTER'
(HARDY GERANIUM)
HT: 1' / W: 1'-2'



IRIS SEMPERVIRENS
(EVERGREEN CANDYTUFT)
HT: 6"-1' / W: 1'-2'



SYMPHYOTRICHUM 'WOOD'S BLUE'
(WOODS BLUE ASTER)
HT: 1' / W: 1'-2'

NOTES:

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MODERATE WATER-USE RENDERINGS



NOTES:

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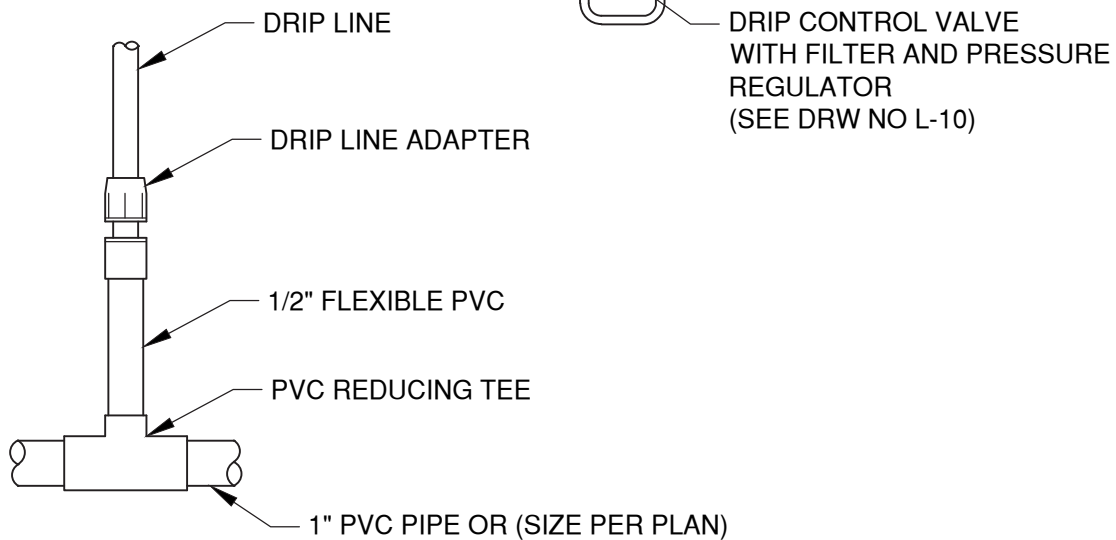
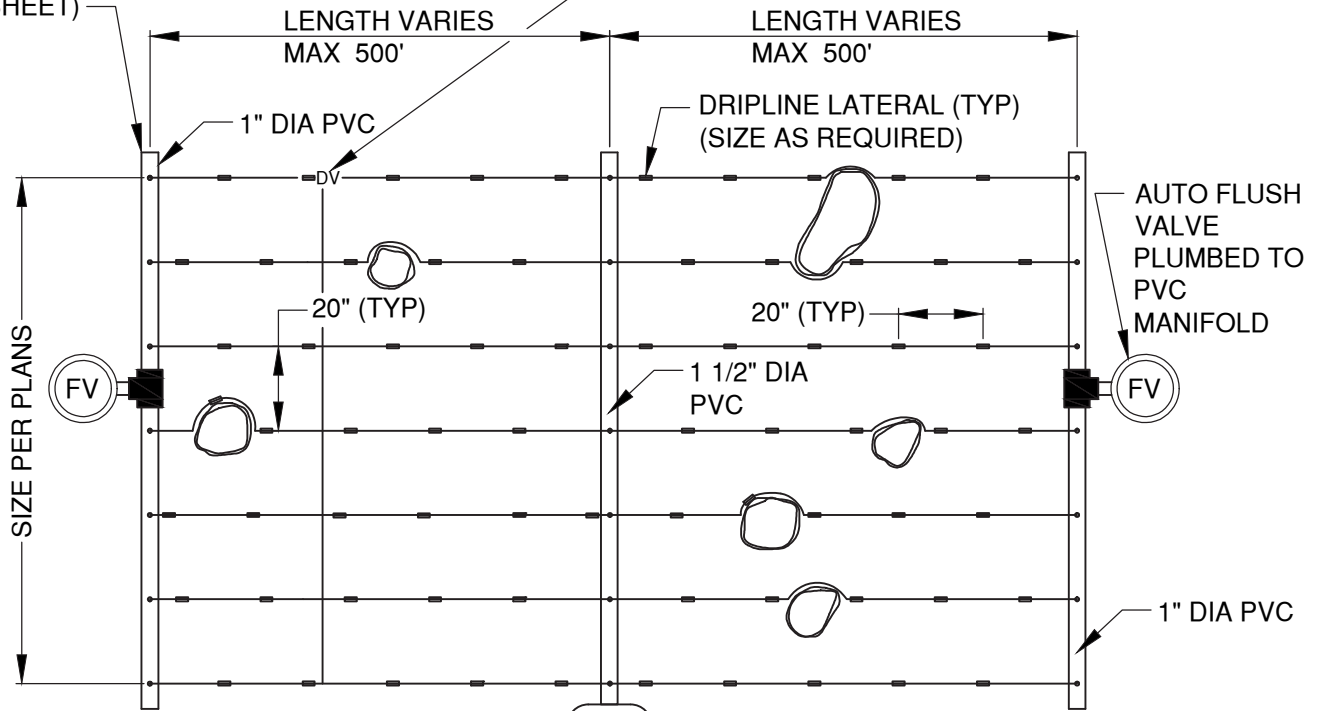
CITY OF BEND
WATER CONSERVATION



STANDARD DETAILS

PVC DRIPLINE FEEDER MANIFOLD (SEE DETAIL THIS SHEET)

AIR/VACUUM RELIEF VALVE (PLUMBED TO DRIPLINE AT EACH HIGH POINT)



TYPICAL PVC DRIPLINE MANIFOLD CONNECTION

NOTES:

- 1. RELOCATE DRIP LINES AROUND OBSTACLES AS NEEDED

DRAWN LJC	
DIV LNDSCP	
REV	DATE



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STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

PLANTING OR TURF BED DRIP LAYOUT

SCALE NTS

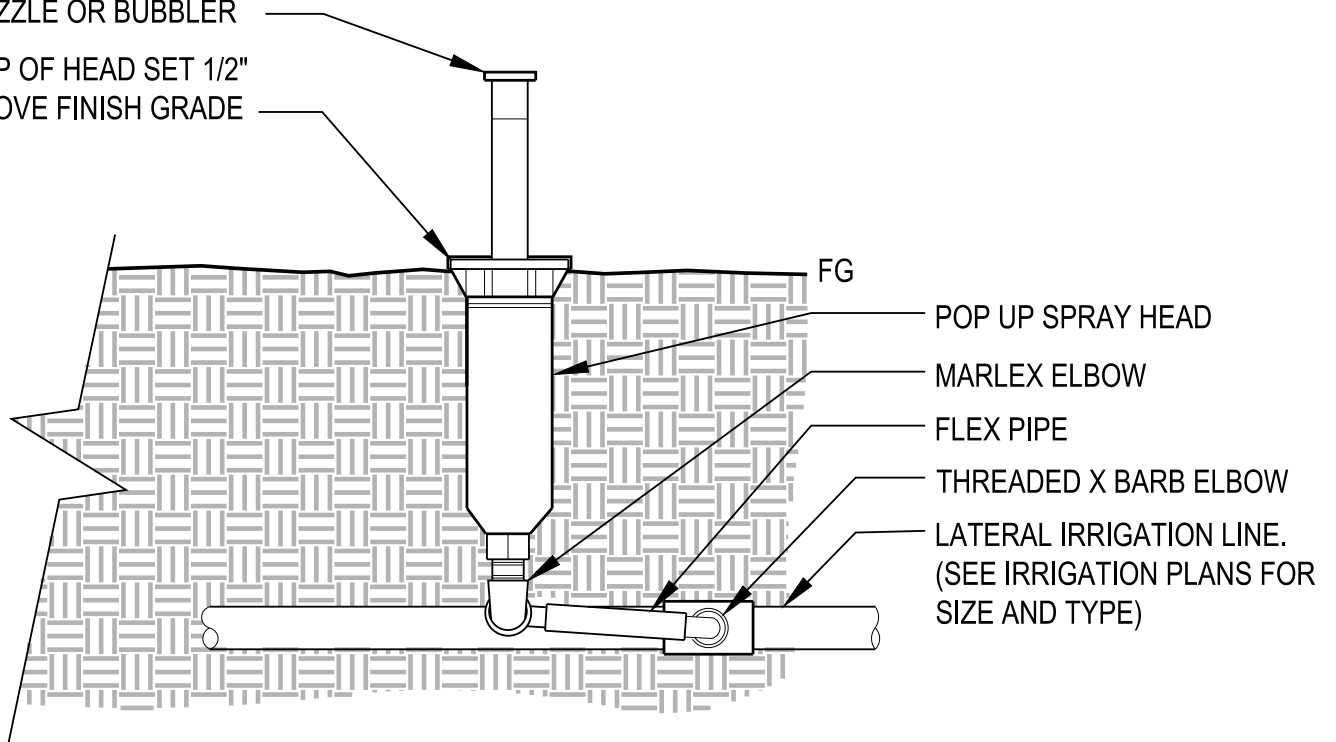
DATE 12/1/17

APPR

STD DWG L-1

HIGH EFFICIENCY SPRAY
NOZZLE OR BUBBLER

TOP OF HEAD SET 1/2"
ABOVE FINISH GRADE



NOTES:

1. CONTRACTOR SHALL SETTLE SOIL AROUND SPRAY HEAD AFTER INSTALLATION.
2. ALL SPRAY HEADS SHALL HAVE CHECK VALVES.
3. ALL SCH. 40 TO SCH. 80 PVC CONNECTIONS SAHLL BE MADE USING TEFLON TAPE.

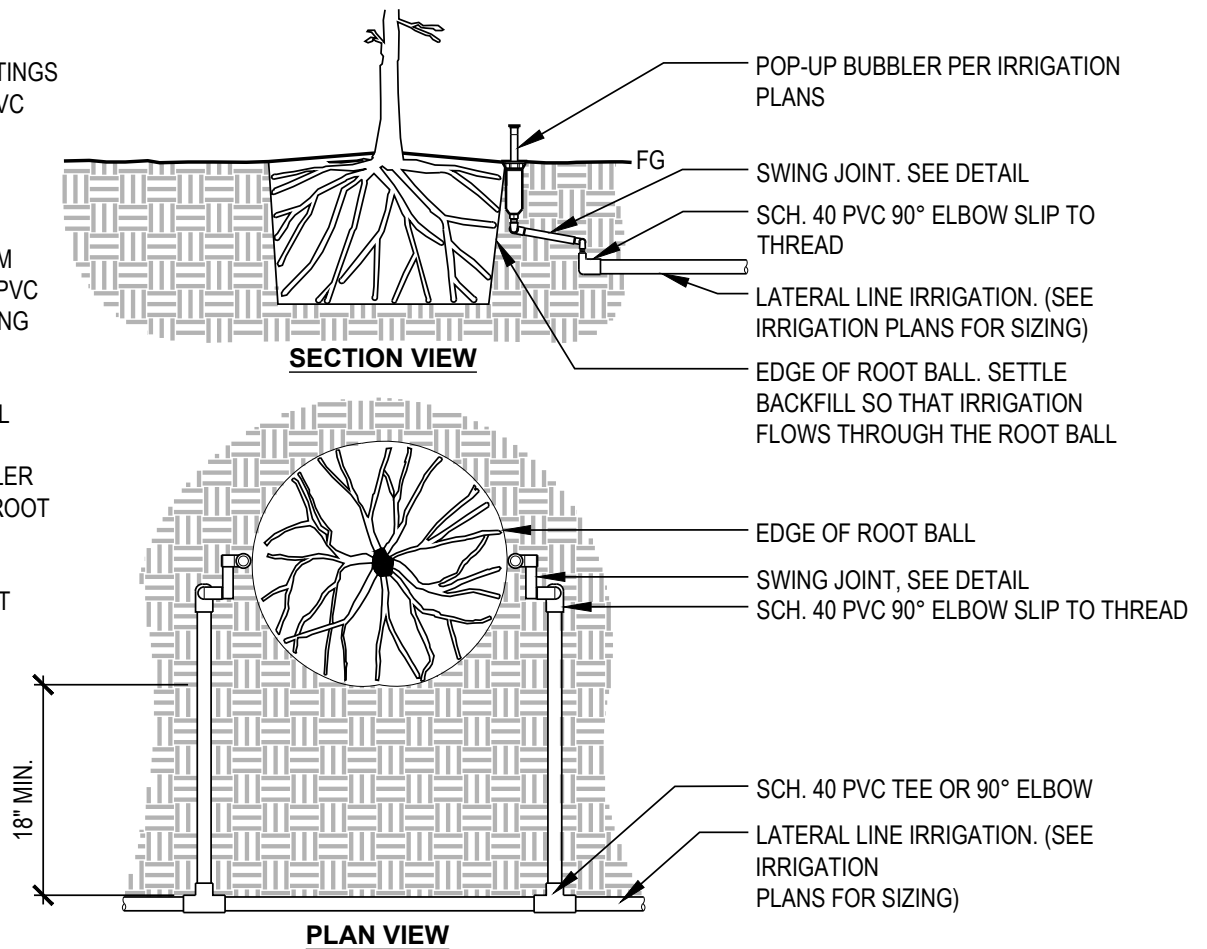
POP UP SPRAY HEAD

NOT TO SCALE

DETAIL COURTESY OF SZABO LANDSCAPE
ARCHITECTURE, ALL RIGHTS RESERVED

Notes:

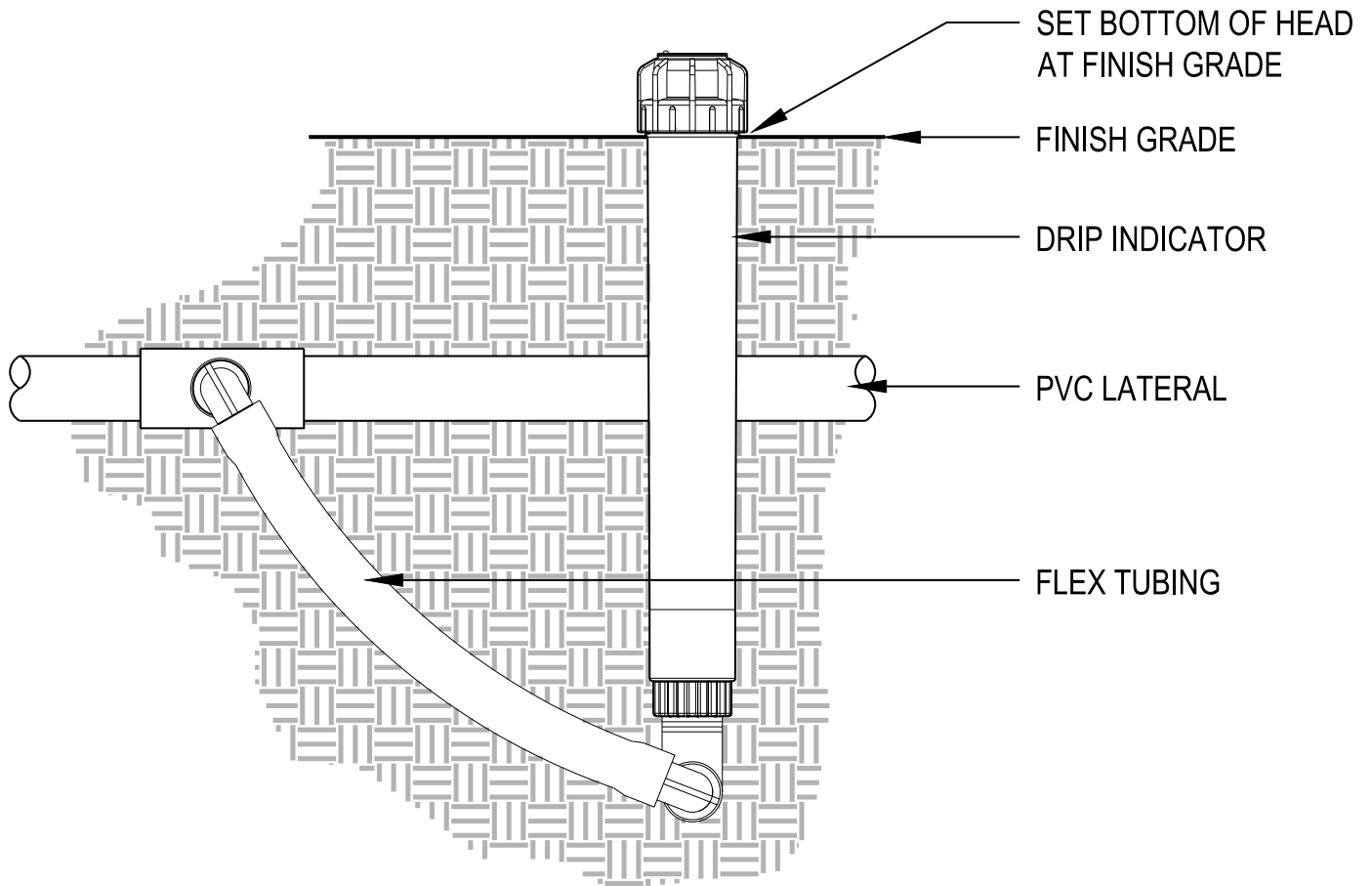
1. ALL IRRIGATION FITTINGS SHALL BE SCH. 40 PVC UNLESS SPECIFIED OTHERWISE.
2. ALL THREADED CONNECTIONS FROM SCH. 40 TO SCH. 80 PVC SHALL BE MADE USING TEFLON TAPE.
3. CONTRACTOR SHALL SETTLE THE AREA AROUND THE BUBBLER AND EDGE OF THE ROOT BALL SO THAT ALL IRRIGATION FLOWS THROUGH THE ROOT BALL.



TREE BUBBLERS

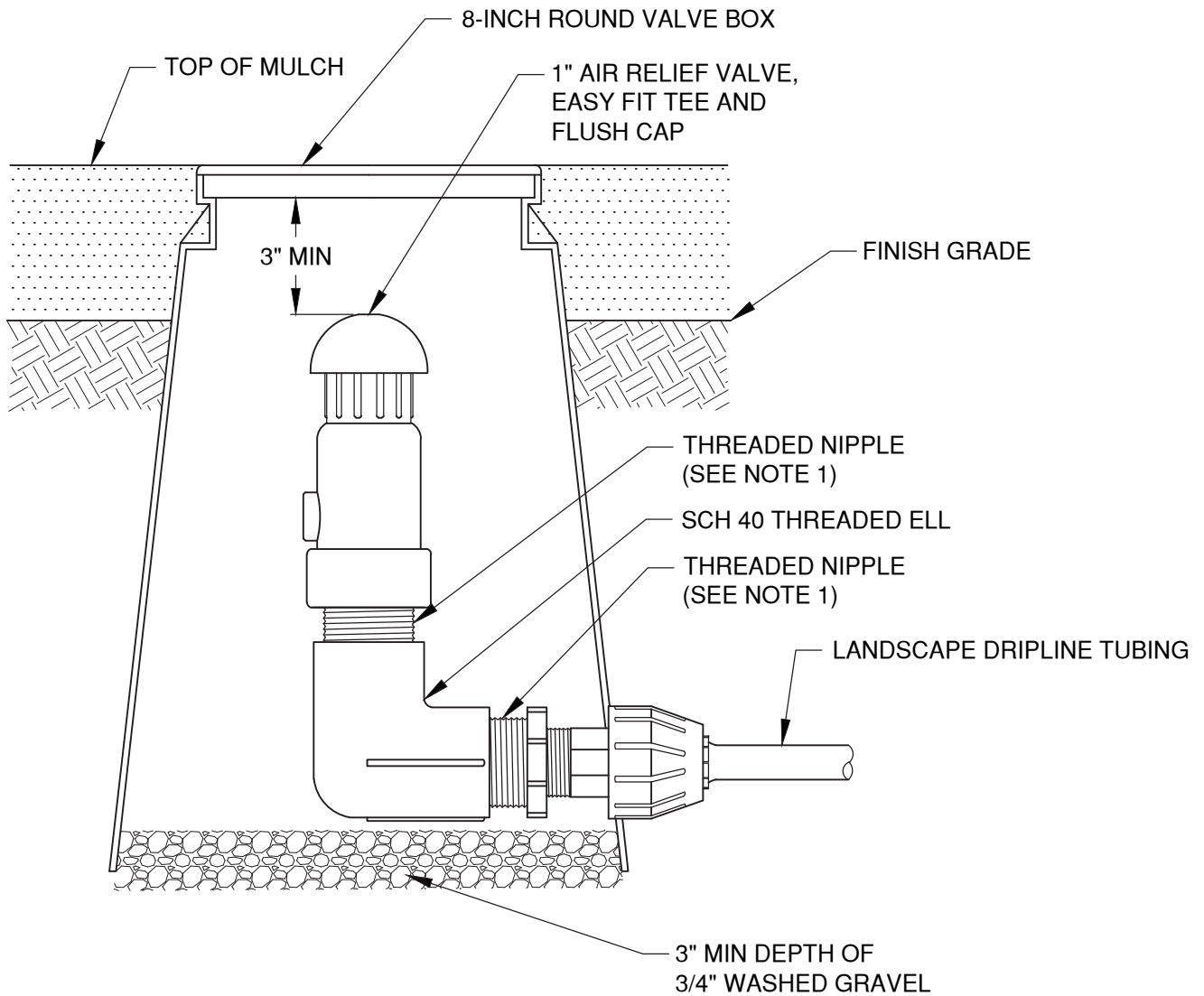
NOT TO SCALE

DETAIL COURTESY OF SZABO LANDSCAPE ARCHITECTURE, ALL RIGHTS RESERVED



DRIP INDICATOR
 NOT TO SCALE

DETAIL COURTESY OF SZABO LANDSCAPE
 ARCHITECTURE, ALL RIGHTS RESERVED



NOTES:

1. PROVIDE ALL THREADED CONNECTIONS WITH A NON-HARDENING, JOINT COMPOUND, COMPATIBLE WITH MANUFACTURERS RECOMMENDATIONS

DRAWN LJC	
DIV LNDSCP	
REV	DATE



CITY OF BEND

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STANDARD DRAWING

710 NW WALL ST., BEND, OREGON 97701

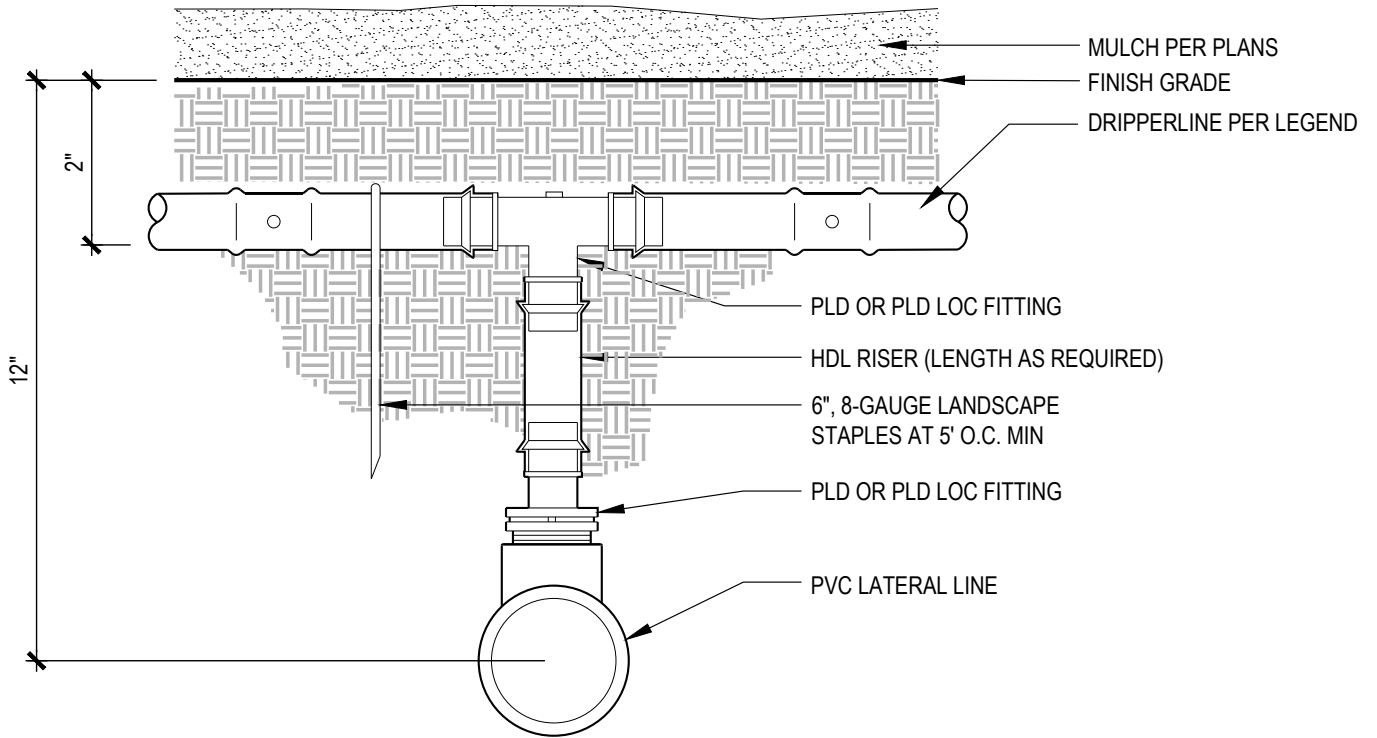
AIR RELIEF VALVE IN KIT - AR VALVE KIT

SCALE NTS

DATE 12/1/17

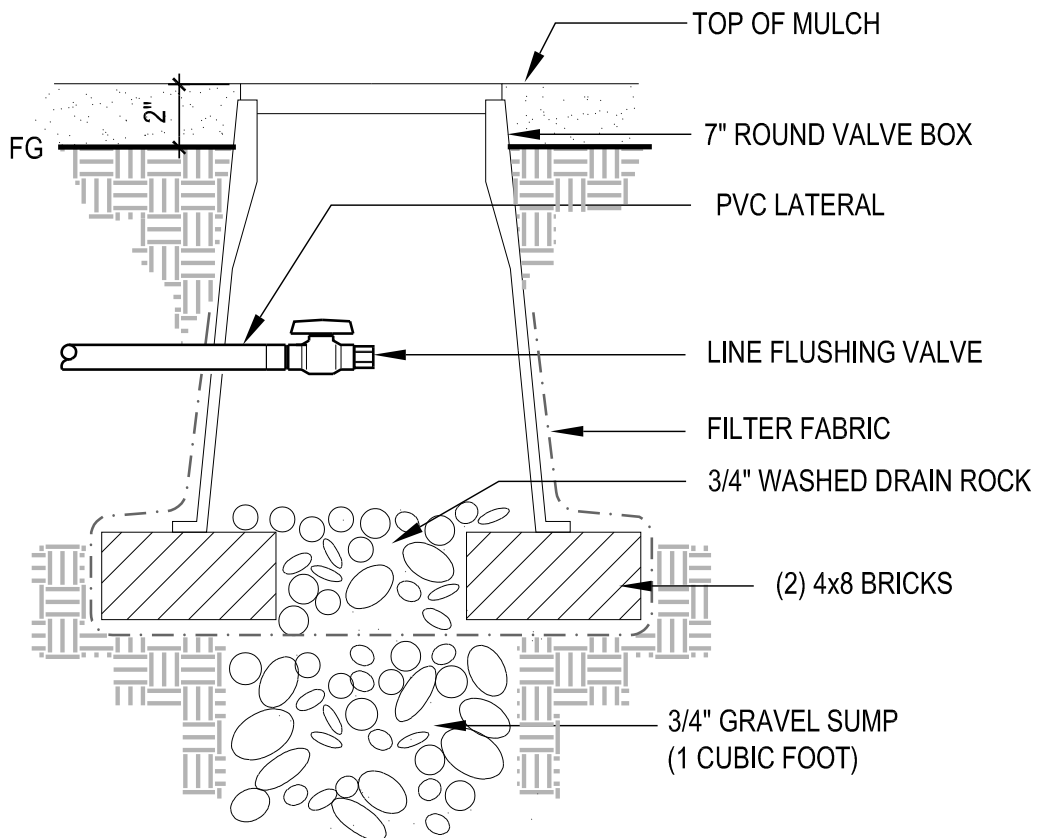
APPR

STD DWG L-13



DRIP LINE INSTALLATION

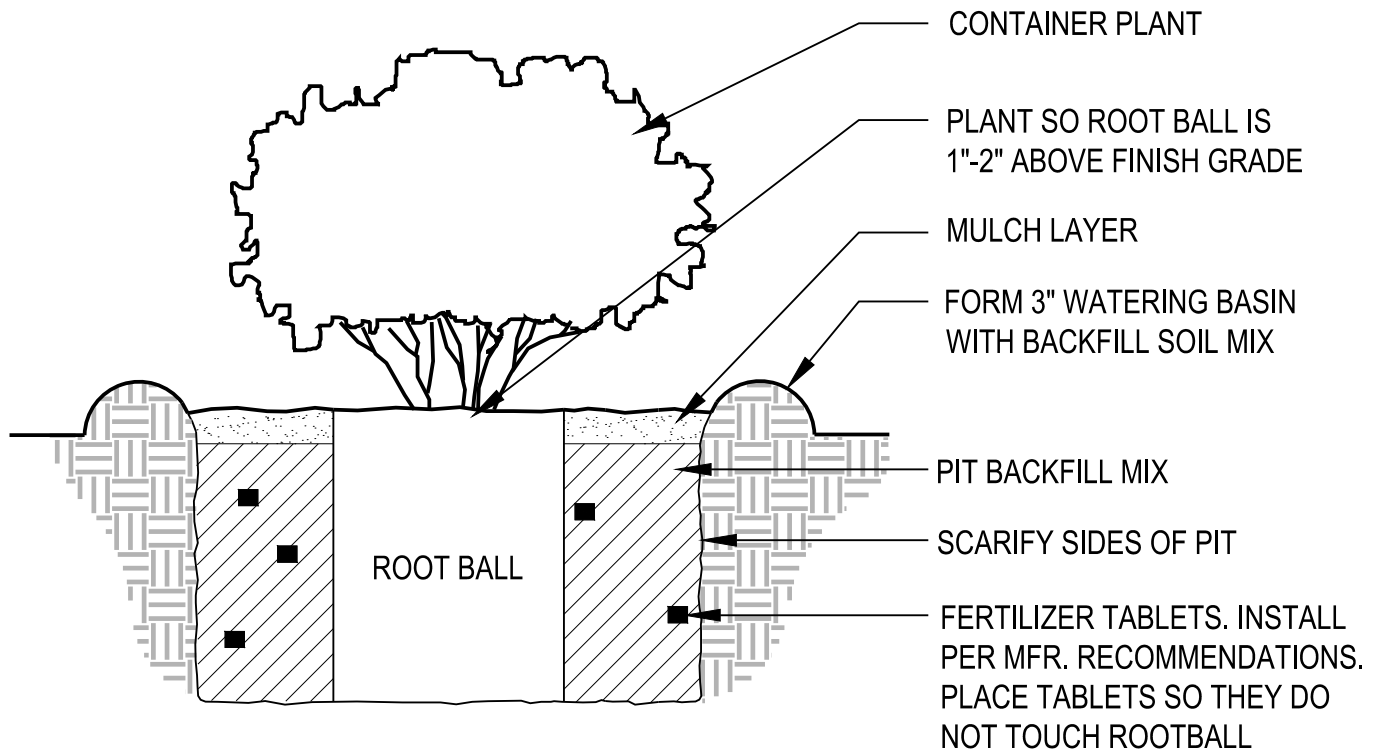
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LINE FLUSHING VALVE

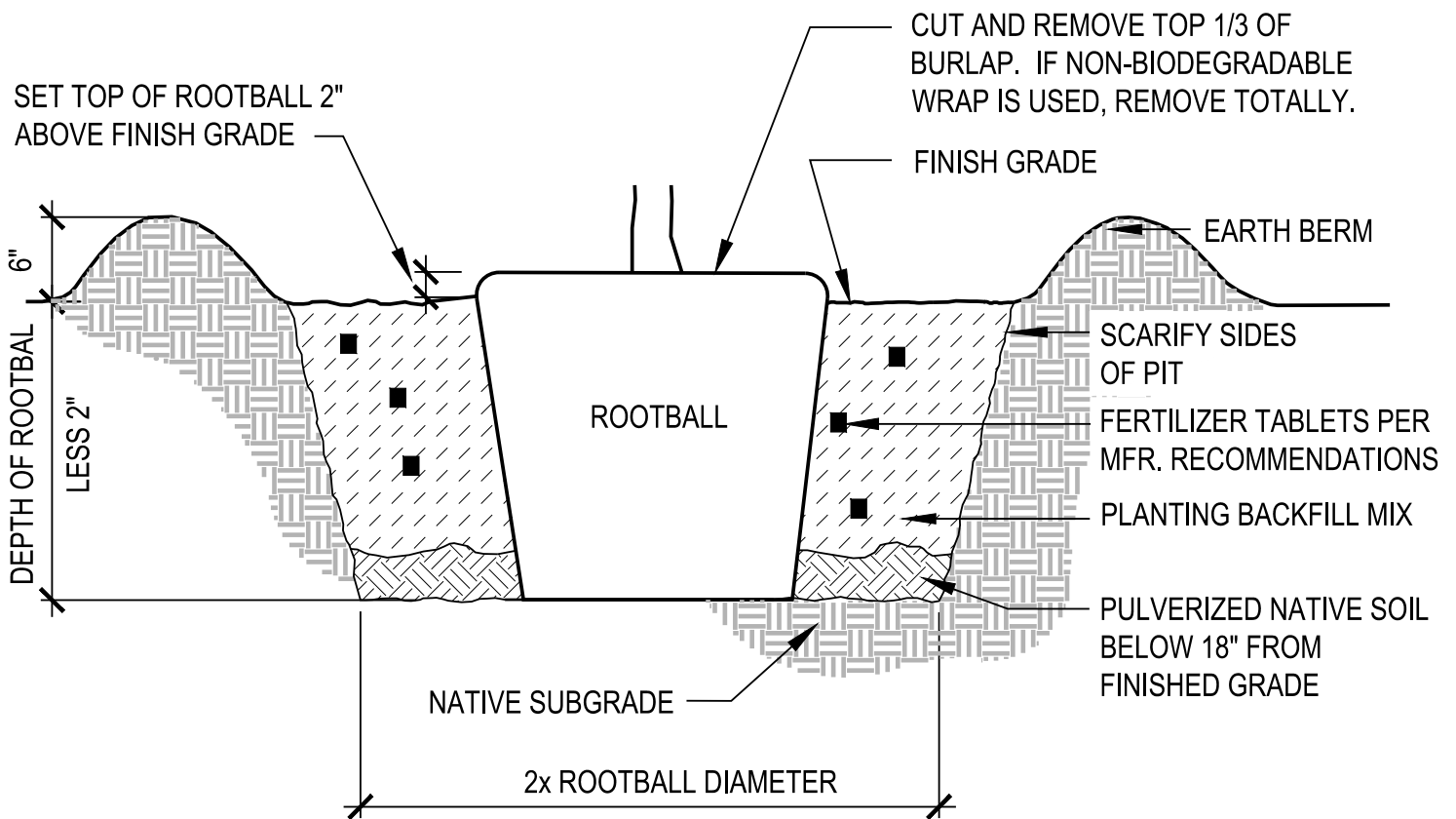
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TYPICAL SHRUB PLANTING

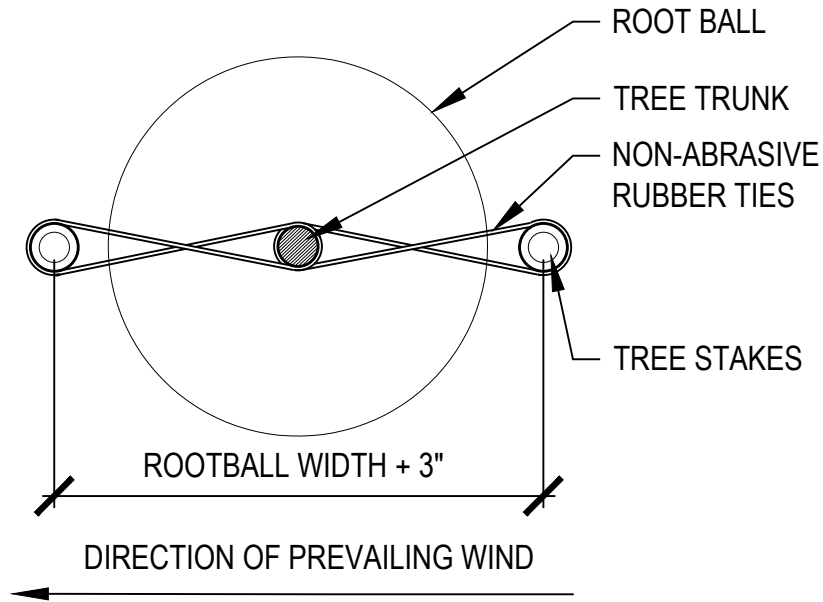
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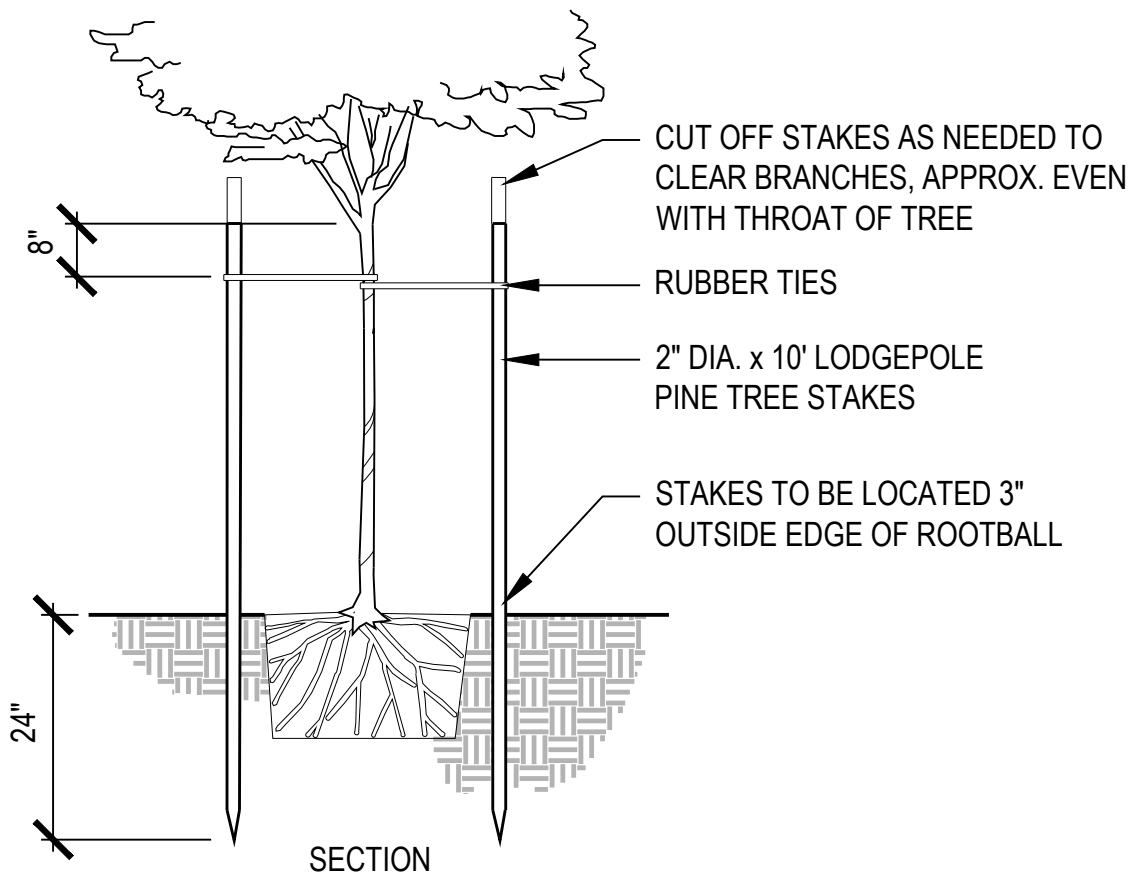
TYPICAL TREE PLANTING

NOT TO SCALE

DETAILS COURTESY OF SZABO LANDSCAPE ARCHITECTURE, ALL RIGHTS RESERVED



PLAN



SECTION

TYPICAL TREE STAKING

NOT TO SCALE

DETAIL COURTESY OF SZABO LANDSCAPE ARCHITECTURE, ALL RIGHTS RESERVED