

Greening Richmond Public Libraries

IMPROVING THE HEALTH OF THE JAMES RIVER BY REDUCING STORMWATER POLLUTION

Broad Rock Branch Library

4820 Old Warwick Road, Richmond, 23224

NOTES

THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES IS SHOWN ON THIS PLAN, CONTRACTOR TO CONTACT MISS UTILITY AS WELL.

CONTRACTOR TO ASSUME ALL RESPONSIBILITY FOR CONSTRUCTION METHODS EMPLOYED AND FIELD VERIFY ALL DIMENSIONS. ISSUES AND CONCERNS SHALL BE REPORTED TO FOUR WINDS.

CONTRACTOR TO ENSURE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AT ALL TIMES DURING THE DEMOLITION AND BUILDING PROCESS.

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CONTRACTOR TO OBTAIN ALL BUILDING PERMITS, SOIL STUDIES, AND STRUCTURAL DETAILS AS REQUIRED BY THE MUNICIPALITY.

CONTRACTOR AND MASON AND/ OR PLANTING SUBCONTRACTORS IF APPLICABLE TO ATTEND A PRECONSTRUCTION MEETING WITH JRA REPRESENTATIVES AND FOUR WINDS DESIGN.

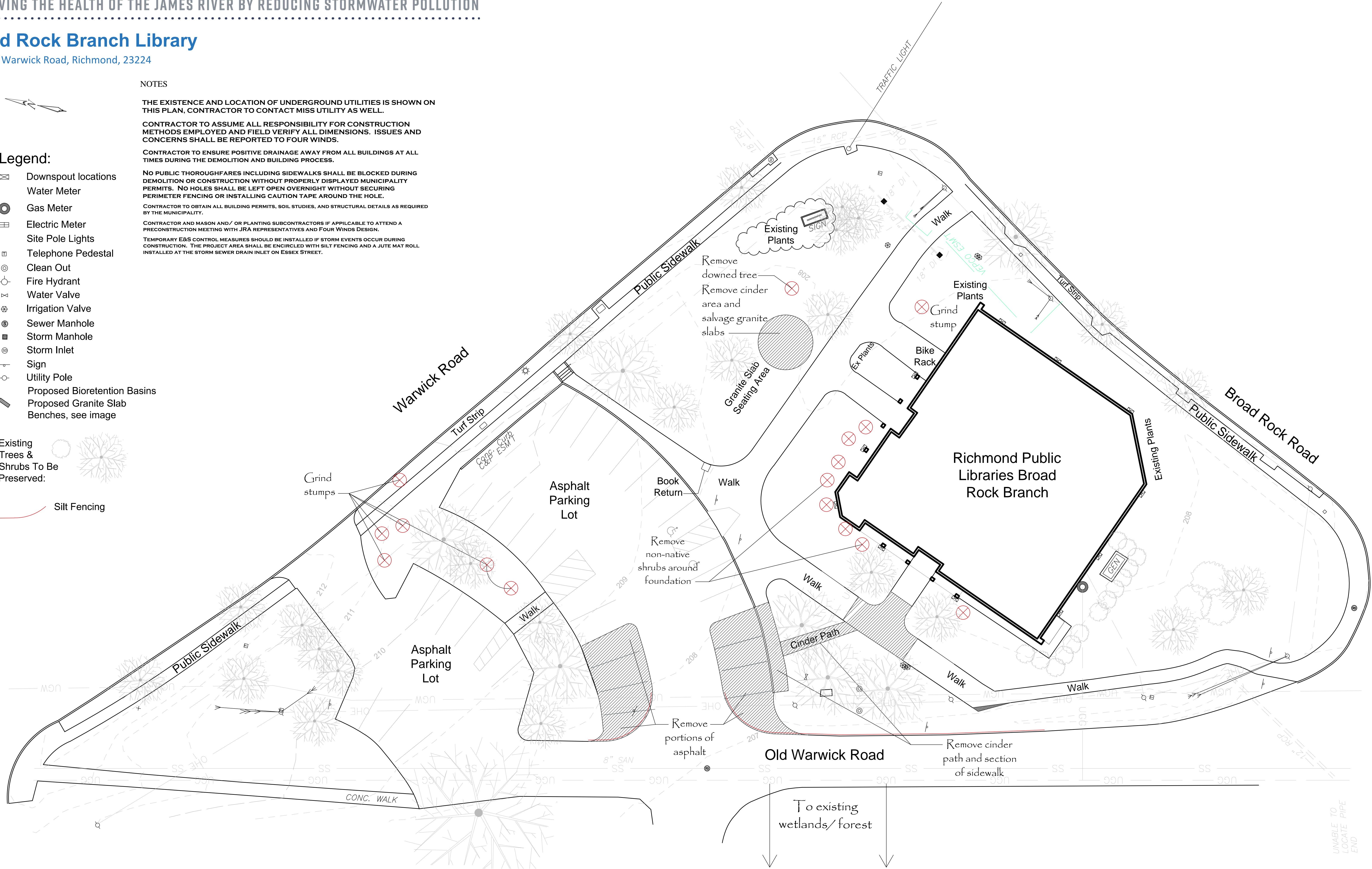
TEMPORARY E&S CONTROL MEASURES SHOULD BE INSTALLED IF STORM EVENTS OCCUR DURING CONSTRUCTION. THE PROJECT AREA SHALL BE ENCIRCLED WITH SILT FENCING AND A JUTE MAT ROLL INSTALLED AT THE STORM SEWER DRAIN INLET ON ESSEX STREET.

Legend:

- Downspout locations
- Water Meter
- Gas Meter
- Electric Meter
- Site Pole Lights
- Telephone Pedestal
- Clean Out
- Fire Hydrant
- Water Valve
- Irrigation Valve
- Sewer Manhole
- Storm Manhole
- Storm Inlet
- Sign
- Utility Pole
- Proposed Bioretention Basins
- Proposed Granite Slab
- Benches, see image

Existing Trees & Shrubs To Be Preserved:

Silt Fencing



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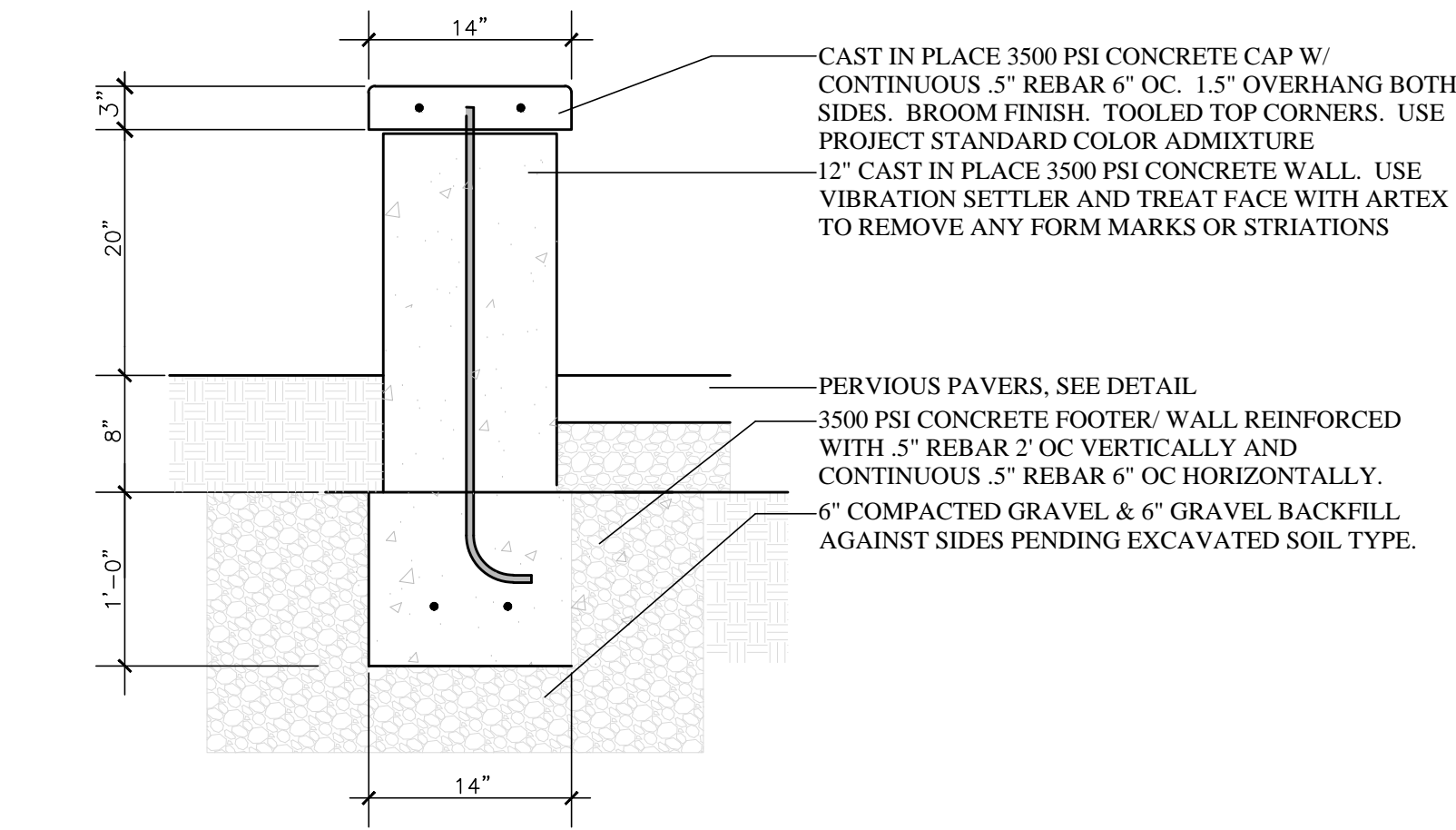


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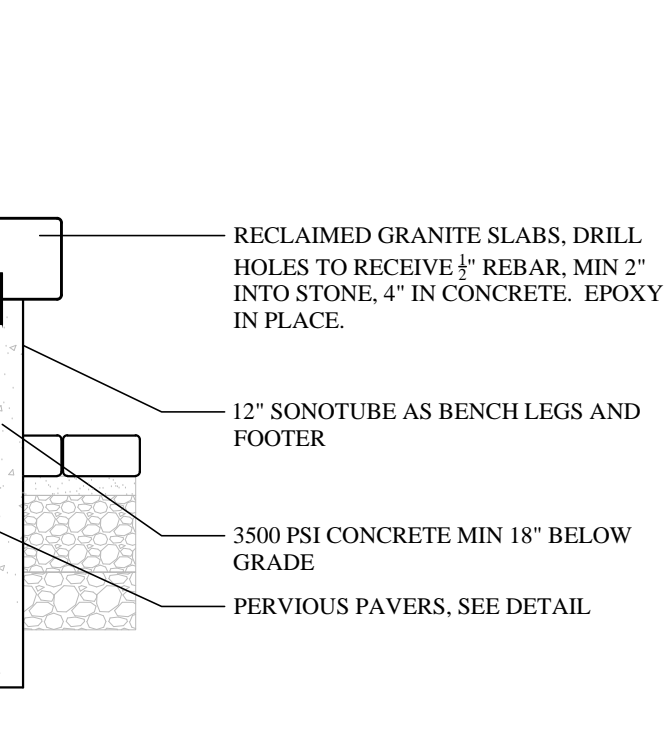
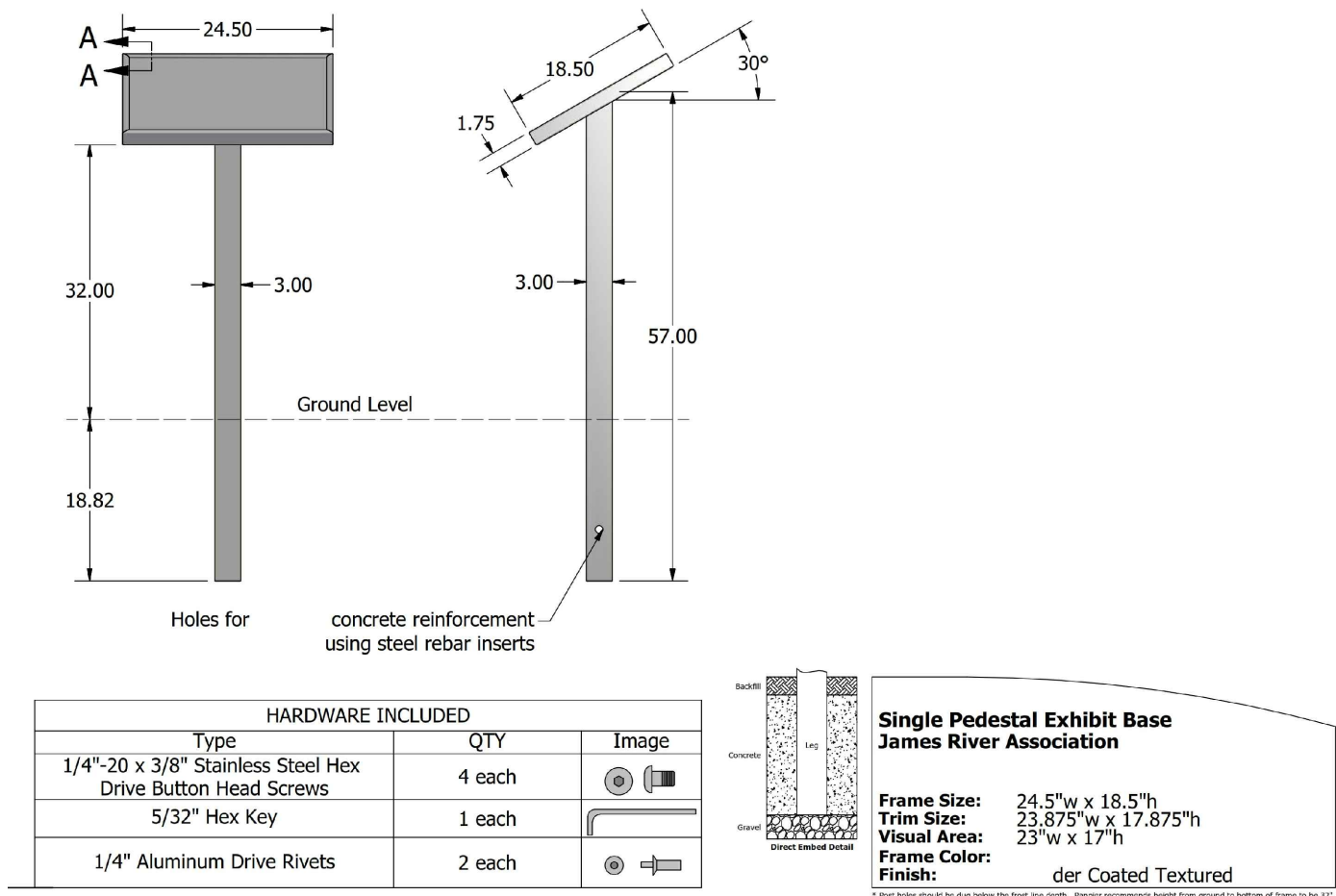
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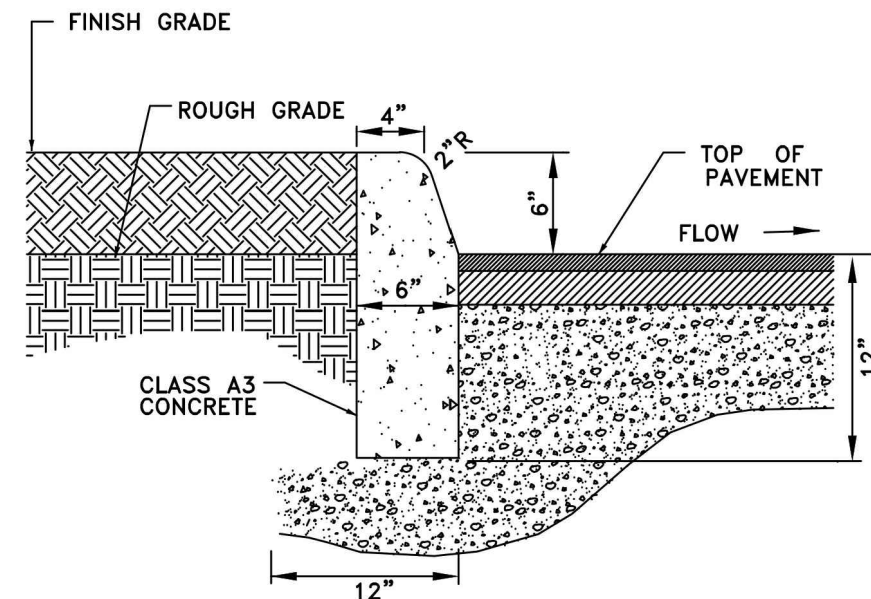
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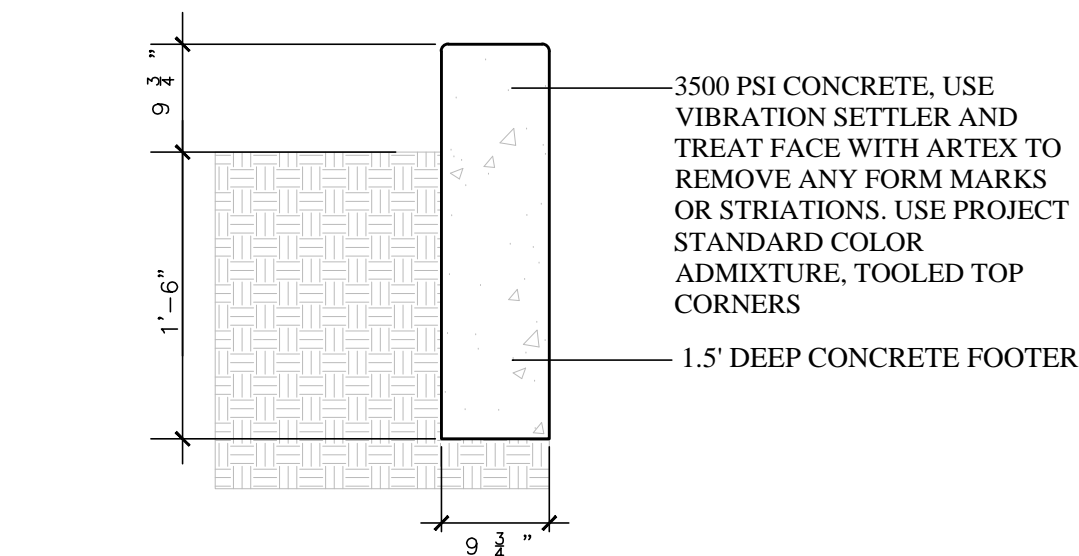
CONCRETE SEATWALLS
NO SCALE



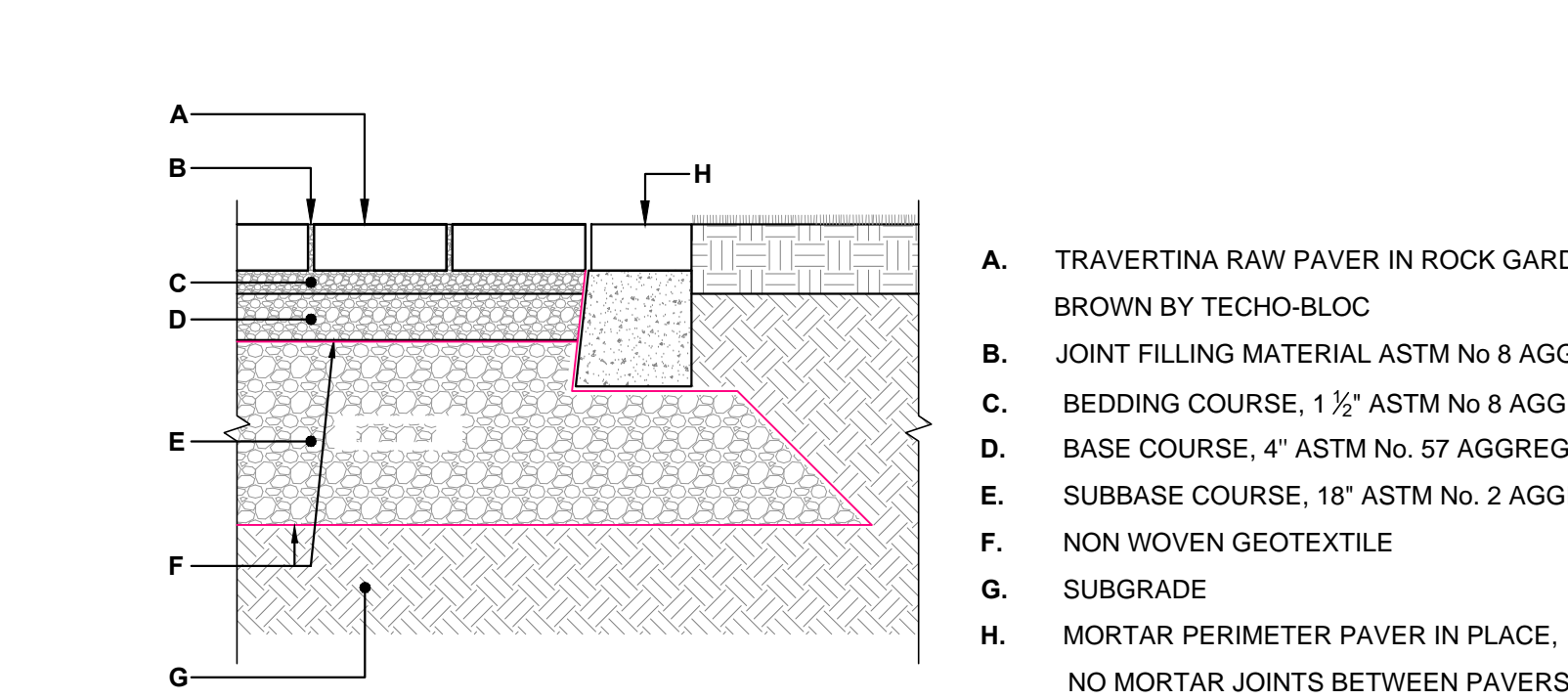
RECLAIMED GRANITE BENCHES
NO SCALE



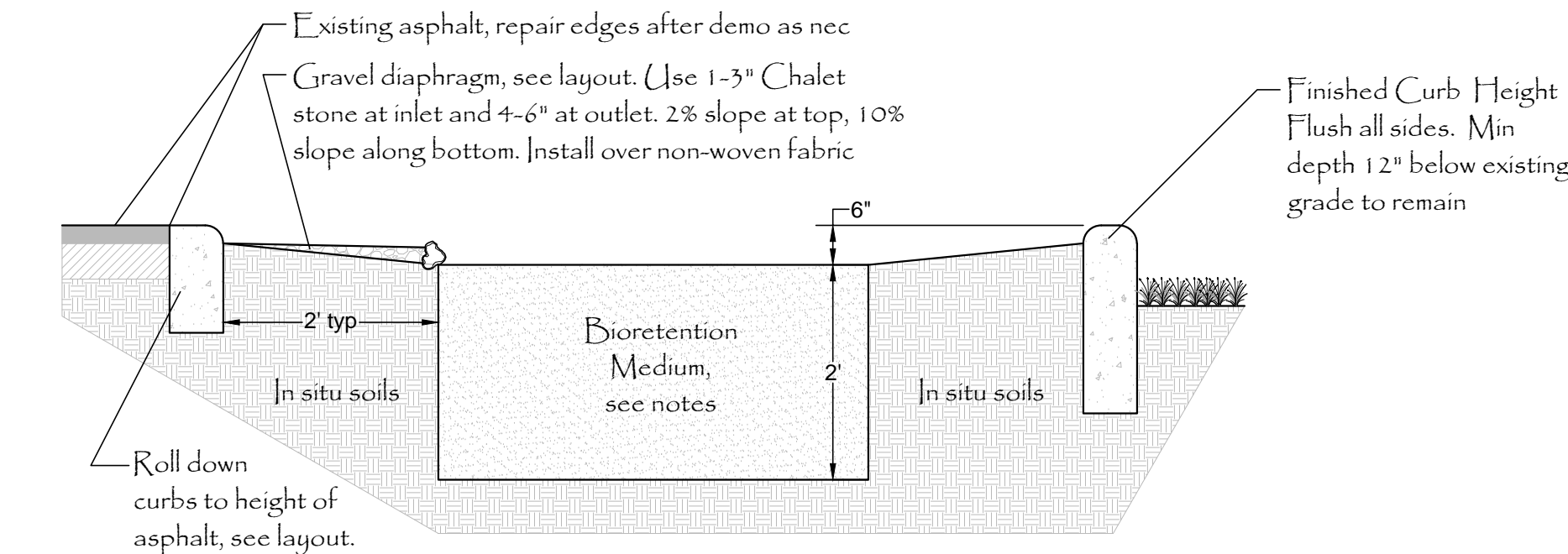
CURBS
NO SCALE



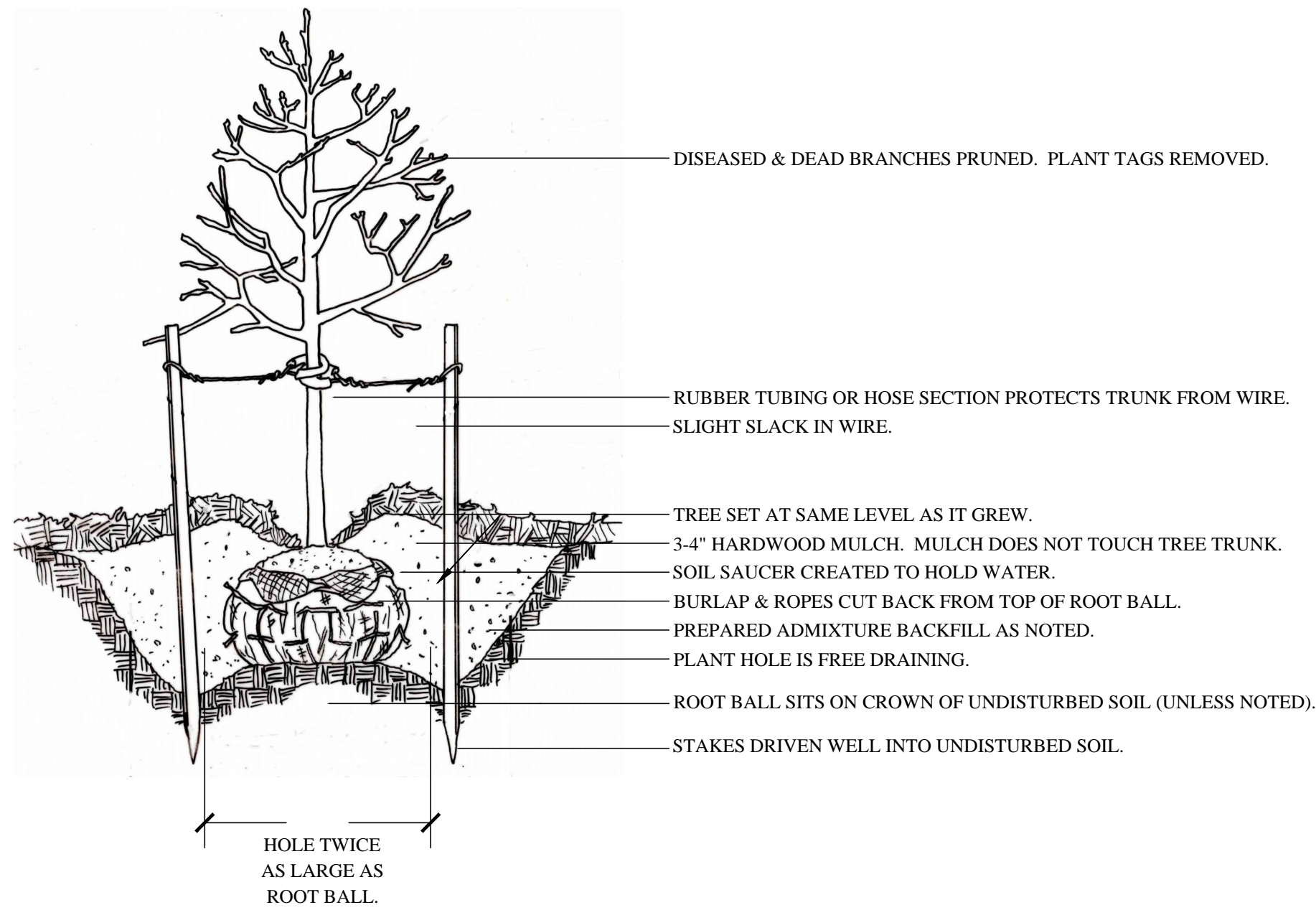
BEE ZONE BOUNDARY MARKERS
NO SCALE



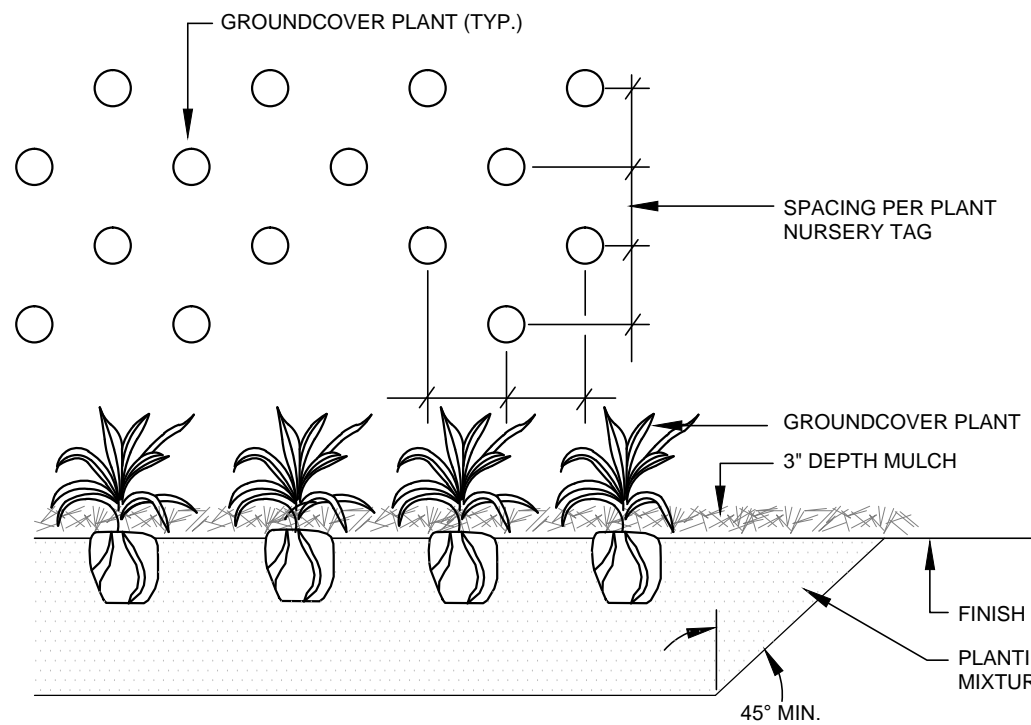
PERVIOUS PAVERS
NO SCALE



BIORETENTION BASINS A-B
NO SCALE

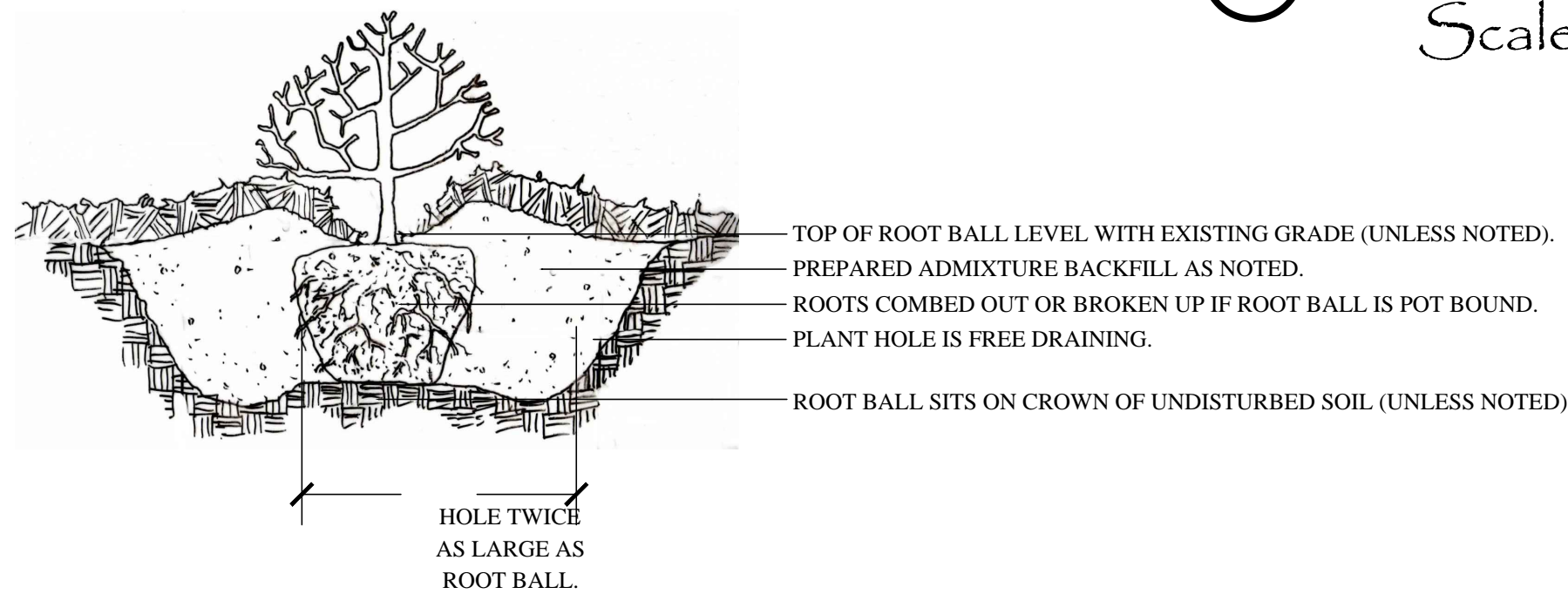


Tree Planting
Scale: none

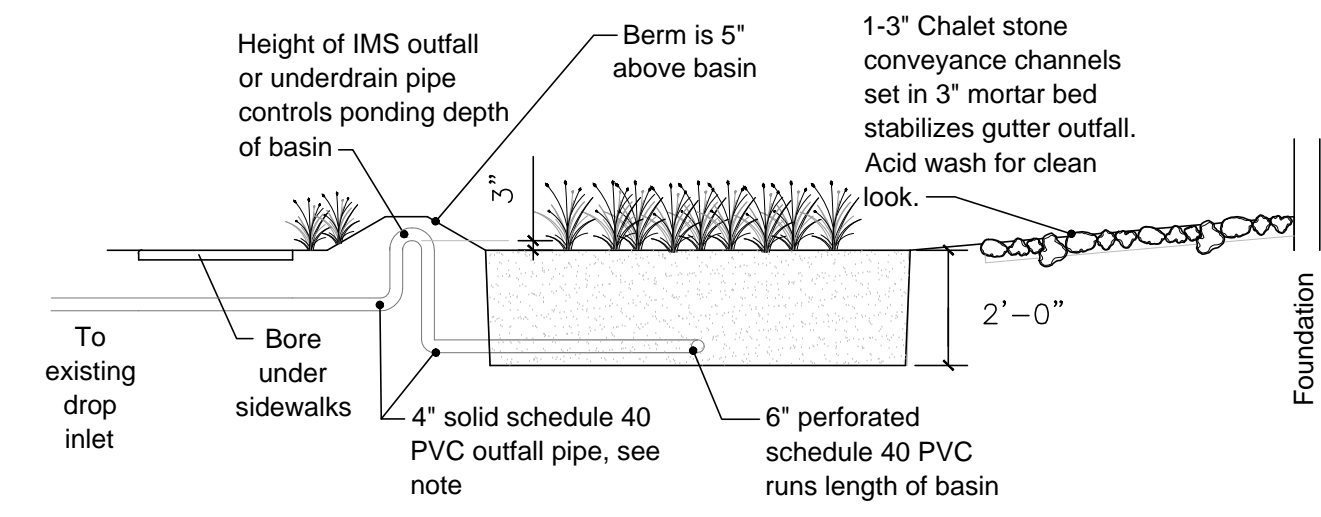


GENERAL NOTES:
1. THOROUGHLY TILL IN PLANTING SOIL MIXTURE AMENDMENTS TO DEPTH OF 8" IN ENTIRE GROUNDCOVER BED AREA.
2. WORK SOIL TO LOOSE, UNIFORM FINE TEXTURE.
3. HAND-TAMP BACKFILL TO REMOVE VOIDS AND AIR POCKETS.
4. WATER IMMEDIATELY AFTER PLANTING UNTIL NO MORE WATER IS ABSORBED.

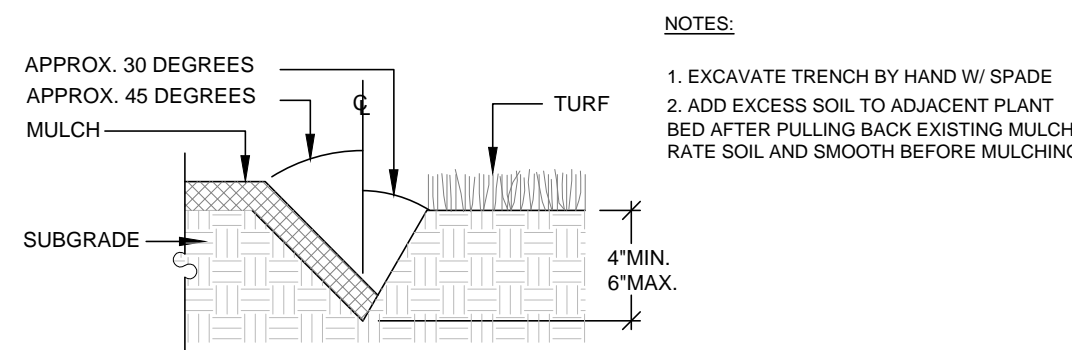
Perennial Planting
Scale: none



Shrub Planting
Scale: none



BIORETENTION BASINS C-E
NO SCALE



Planting Bed Edge
Scale: none

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- EXCAVATORS OR BACKHOES SHOULD WORK FROM THE SIDES TO EXCAVATE THE BIORETENTION AREA TO ITS APPROPRIATE DESIGN DEPTH AND DIMENSIONS. EXCAVATING EQUIPMENT SHOULD HAVE SCOOPS WITH ADEQUATE REACH SO THEY DO NOT HAVE TO SIT INSIDE THE FOOTPRINT OF THE BIORETENTION AREA. CONTRACTORS SHOULD USE A CELL CONSTRUCTION APPROACH IN LARGER BIORETENTION BASINS, WHEREBY THE BASIN IS SPLIT INTO 500 TO 1,000 SQ. FT. TEMPORARY CELLS WITH A 10-15 FOOT EARTH BRIDGE IN BETWEEN, SO THAT CELLS CAN BE EXCAVATED FROM THE SIDE.
- THE BOTTOM OF THE BIORETENTION BASIN SHALL BE SCARIFIED BEFORE INSTALLATION OF SOIL IF THE BASIN HAS RECEIVED ANY FOOT TRAFFIC OR COMPACTION. MAINTAIN SOIL DEPTH AS NOTED.
- CONTRACTOR TO DOCUMENT DEPTH OF BIORETENTION LAYER DEPTH WITH PHOTOGRAPHS OF A TAPE MEASURE IN THE FULLY EXCAVATED HOLE AND AT EACH SUCCESSIVE LAYER FOR SUBMISSION TO JRA. DELIVER THE SOIL MEDIA FROM AN APPROVED VENDOR, AND STORE IT ON AN ADJACENT IMPERVIOUS AREA OR PLASTIC SHEETING. APPLY THE MEDIA IN 12-INCH LIFTS UNTIL THE DESIRED TOP ELEVATION OF THE BIORETENTION AREA IS ACHIEVED.
- THE BIORETENTION SOIL SHALL BE 85% COARSE (MORTAR) SAND, 10% HIGH GRADE TOPSOIL, AND 5% LEAF OR MUSHROOM COMPOST.
- SOIL TESTING: CONTRACTOR TO PROVIDE TESTING OF THE BIORETENTION SOIL MIX FOR ACCEPTABLE PHOSPHOROUS LEVELS. THE MIX SHALL HAVE A P-INDEX BETWEEN 10 AND 30 OR BETWEEN 7 AND 21 MG/ KG OF PHOSPHOROUS TOTAL IN THE SOIL MIX.

THE BEE ZONE SHALL BE COLORED WITH THE FOLLOWING:



PVC OUTFALL PIPES SHALL INCREASE TO 8" AT FIRST JUNCTION AND 12" AT SECOND JUNCTION.

THERE SHALL BE A 2-4" DROP FROM ALL DOWNSPOUT, SPLASH BLOCK, OR CURB INLET INTO BIORETENTION DRAINAGE AREAS.

UPON COMPLETION OF ALL WORK SHOWN IN PAGES 1-3, AND LARGER TREES AS NOTED (SEE PAGE 4) A VOLUNTEER CREW WILL INSTALL THE REMAINDER OF THE PLANTS. AFTER THE VOLUNTEER WORK IS COMPLETE CONTRACTOR SHALL CHECK FINISHED GRADES OF THE BIORETENTION AREA, LOOSEN ANY COMPACTED SOIL, INSTALL MULCH, AND FULLY CLEAN UP THE SITE INCLUDING POWER WASHING MASONRY SURFACES.

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- Sign
- Utility Pole
- Proposed Bioretention Basins
- Proposed Granite Slab Benches, see image

PLANTING NOTES

AN IRRIGATION SYSTEM IS TO BE INSTALLED THROUGHOUT THE BEE ZONE AND ARRIVAL COURT/ SEATING AREAS AND WITHIN THE BED WEST OF THE BIKE RACK. MISTER HEADS ARE TO BE USED IN ALL AREAS WITH NO THROWS REACHING MASONRY SURFACES. LOCATE CONTROL BOX IN THE BUILDING. CONTRACTOR TO SUBMIT AN IRRIGATION SCHEMATIC TO FOUR WINDS AND HOMEOWNER FOR APPROVAL UPON BID AWARD. UPON COMPLETION CONTRACTOR SHALL FILL OUT THE ZONE LABELS IN THE CONTROL BOX AND PROVIDE A MARKED UP AND LAMINATED IRRIGATION SCHEMATIC SHOWING ZONE LOCATIONS AT 8.5" X 11".

ALL TREES AND SHRUBS SHALL CONFORM TO THE MOST RECENT EDITION OF THE AMERICAN STANDARDS FOR NURSERY STOCK, PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. LOCALLY GROWN NURSERY STOCK SHALL BE USED FOR THE B&B VARIETIES.

THE QUALITY OF THE PLANT MATERIAL MUST BE OF A HIGH STANDARD. NO PLANTS ARE TO BE STORED ON SITE FOR LONGER THAN 48 HRS, AND ALL STORED PLANTS MUST BE KEPT IN FULL SHADE AND WATERED DAILY. CONTRACTOR SHALL PROVIDE A GUARANTEE AGAINST PLANT MORTALITY FOR A PERIOD OF ONE YEAR.

ALL PLANTING BEDS SHALL BE TREATED WITH THREE TO FOUR INCHES OF HARDWOOD DOUBLE SHREDDED MULCH DYED BROWN.

COMPOST OR A BEDDING MIX SHALL BE TILLED INTO THE SOIL A DEPTH OF 4" IN ALL PLANTING AREAS EXCEPT WHERE SOIL IS TO BE REMOVED (SEE BELOW). FINISHED GRADE OF ALL TOPSOIL SHALL BE 3" BELOW HARDSCAPE ELEVATIONS.

ALL DEBRIS SHALL BE REMOVED FROM THE SOIL IN ALL PLANTING AREAS.

PLANT SUBSTITUTIONS MUST BE APPROVED BY FOUR WINDS. ONLY EASTERN NORTH AMERICAN NATIVE PLANTS MAY BE USED.

PLEASE SEE UDC APPLICATION ATTACHMENTS FOR LANDSCAPE MAINTENANCE ANALYSIS.

Plant Schedule				
Code	Botanical Name	Common Name	Quantity	Size
AA	Amelanchier arborea*	Serviceberry	2	6-8'
AR	Acer rubrum 'Red Sunset' *	Red Maple	3	2.5" Cal
AN	Aster novi-belgii 'Wood's Purple'	Aster	19	1 Gal
BN	Betula nigra 'Dura Heat' *	Riverbirch	5	8-10'
CF	Carex flaccosperma	Sedge	42	3 Qrt
CC	Cercis canadensis 'Hearts of Gold' *	Golden Redbud	3	2.5" Cal
CA	Coreopsis auriculata 'Nana'	Tickseed	16	1 Gal
DI	Dryopteris intermedia	Fancy Fern	28	1 Gal
HA	Hydrangea arborescens 'Incrediball'	Smooth Hydrangea	11	5 Gal
IV	Ilex vomitoria 'Bordeaux'	Dwarf Yaupon Holly	6	5 Gal
IC	Iris cristata	Iris	42	1 Gal
MV	Magnolia virginiana (standard form) *	Sweetbay Magnolia	7	15 Gal
NS	Nyssa sylvatica	Tupelo	3	2" Cal
PH	Panicum virgatum 'Heavy Metal'	Switch Grass	8	3 Gal
PV	Panicum virgatum 'Shenandoah'	Switch Grass	9	3 Gal
PS	Penstemon sp 'Red Rocks'	Beard Tongue	38	1 Gal
PO	Platanus occidentalis *	Sycamore	3	2.5" Cal
PU	Phlox subulata 'Emerald Blue'	Creeping Phlox	15	1 Gal
QC	Quercus coccinea *	Scarlet Oak	5	2.5" Cal
SS	Schizachyrium scoparium 'Prairie Blues'	Little Bluestem	14	1 Gal
TV	Tradescantia virginiana	Spiderwort	42	1 Gal
TS	Tradescantia sp 'Good Luck'	Spiderwort	42	1 Gal
VD	Viburnum dentatum 'Blue Muffin'	Arrowwood Viburnum	4	10 Gal

* Installed by contractor

Bee Zone Perennial Key

- A 38 Penstemon mexicali
- B 15 Phlox subulata
- C 19 Aster novi-belgii
- D 36 Tradescantia sp
- 36 Carex flaccosperma
- 36 Iris cristata
- E 18 Coreopsis auriculata
- F 6 Tradescantia sp
- 6 Carex flaccosperma
- 6 Iris cristata
- G 28 Dryopteris intermedia

