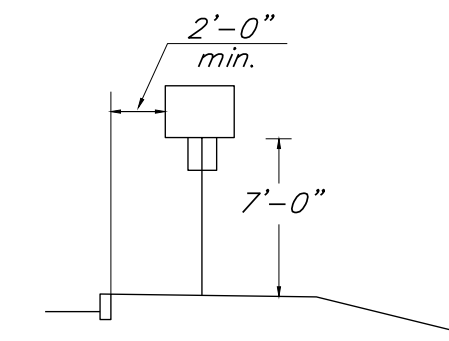


IF SUFFICIENT CLEARANCE IS NOT AVAILABLE BETWEEN CURB AND SIDEWALK MOUNT SIGN BEHIND SIDEWALK AS SHOWN AT TOP. CHECK FOR ADEQUATE R.O.W.

IF A SECONDARY SIGN IS MOUNTED BELOW ANOTHER SIGN, THE MINIMUM CLEARANCE MAY BE REDUCED BY ONE FOOT.



Sign Placement Detail

ALL PANELS SHALL HAVE RETROREFLECTIVE BACKGROUNDS

ALL SIGN POSTS SHALL BE 2" SQUARE TUBE GALVANIZED STEEL PLACED IN GALVANIZED STEEL ANCHOR SLEEVES.

SIGN POST NOTES

- ALL SQUARE TUBE STEEL POSTS AND ANCHORS SHALL BE FORMED INTO A SIZE AND SHAPE IN SUCH A MANNER THAT NEITHER FLASH NOR WELD SHALL INTERFERE WITH THE TELESCOPING PROPERTIES, NOR DAMAGE THE GALVANIZING.
- ANCHORS MAY BE DRIVEN OR SET INTO A DUG HOLE AND BACKFILLED. IF DRIVEN, A DRIVING CAP SHALL BE USED. THE DUG HOLE INSTALLATION METHOD SHALL BE UTILIZED IN AREAS WITH POOR SOIL CONDITIONS OR AS DIRECTED BY THE ENGINEER. BACKFILL SHALL BE COMPACTED AS DIRECTED BY THE ENGINEER.
- THE TOPS OF SIGN POSTS SHALL BE AT OR NEAR THE TOP OF SIGN. THE POST SHALL NOT EXTEND ABOVE THE TOP OF SIGN.
- SIGN POSTS SHALL BE INSTALLED A MINIMUM OF ONE FOOT BELOW GROUND, INSIDE THE ANCHOR. THE LENGTH OF ANCHOR EXPOSED ABOVE GROUND SHALL NOT EXCEED FOUR INCHES.

Pavement Marking Notes

- Typical UVM parking space is 8'-6" center of line to center of line marked with 4" wide Yellow Paint.
- ADA space is blue box, yellow stencil, yellow trim. Coordinate exact requirements with UVM Transportation and Parking Services.
- Paint for pavement markings shall be Hydrophast Waterborne Traffic Paint by Franklin Paint Company. It shall be reflective, VOC compliant fast drying, 100% acrylic waterborne traffic paint. Paint for stop bars and crosswalks shall be white all other line striping shall be yellow. Confirm paint color with UVM Transportation & Parking Services prior to application.
- Traffic paint shall be applied with a uniform thickness and at a rate such that no pavement is visible after drying. Additional paint application will be required if underlying pavement is visible.

AS-BUILT (RECORD) DRAWINGS

The Contractor shall be responsible for providing the Owner with an as-built (record) utility site drawing in both PDF and AutoCAD format that meets the specifications below:

- Drawing shall be in AutoCAD 2013 format. The civil design AutoCAD file drawing shall be used as the base for the as-built drawing. All information added to the base AutoCAD drawing shall be drafted in accordance with the Utility Record Drawing Drafting Standards shown on this plan.
- The Contractor shall continue to update as-built drawing throughout the project. The as-built drawing shall be updated so that at any time in the project, infrastructure installed is located, plotted and drafted in the as-built drawing within 2 weeks of installation.

The Contractor shall copy the as-built drawing to the Engineer weekly during construction. The drawing shall include as-built survey shots including elevation and description of shot. The as-built survey shots shall be placed on a separate layer from the line work and shall be designated by date as AB-SHOT-XX-XX-XX (date). (for example, an as-built waterline topo shot shall be on a layer titled (AB-SHOT-01-08-08)).

The Contractor shall utilize survey equipment able to locate infrastructure at the desired accuracy listed below. Flooding drains and underdrains are exempt from the as-built requirements if they are constructed in accordance with the plans. Stormwater collection pipes for flooding drains or underdrains must be survey located and included in the Record Drawing.

Utility	Horizontal Tolerance	Vertical Tolerance
Storm manhole/cb - rims/inverts/sumps Storm cleanout - invert Storm pipe - change slope/bend Storm pipe - building invert	1'	0.1'
PBX - top concrete (every 36' max.) PBX - trench x-section (number and type conduit, encasement detail, conduit length, run direction) PBX manhole - rim, inverts, sump	1'	0.1'
Electric-Primary - change slope/bend Electric-Primary - top concrete (every 36' max.) Electric-Primary - trench x-section (number and type conduit, encasement detail)	1'	0.1'
Electric-Secondary - change slope/bend Electric-Secondary - top concrete (every 36' max.) Electric-Secondary - trench x-section (number and type, encasement detail)	1'	0.1'
Other - EXISTING UTILITIES, ETC.	1'	0.1'

Contractor shall be responsible for locating and identifying all existing utilities that are exposed in the process of installing new utilities. Provide at least 2 shots on each utility found (every 36' max) as well as bends, fittings, and changes in slope.

Site Lighting - Contractor shall be responsible for providing to the Owner a "mark-up" plan showing the layout of the site lighting conduit from light pole to light pole. If unforeseen site conditions require site lighting conduits to deviate from a predictable light pole to light pole path, the Contractor shall be responsible for providing "as-built" topographic shots in accordance with the standards for Electric-Secondary above.

PLANT GUIDE FOR STORMWATER BIORETENTION AREAS

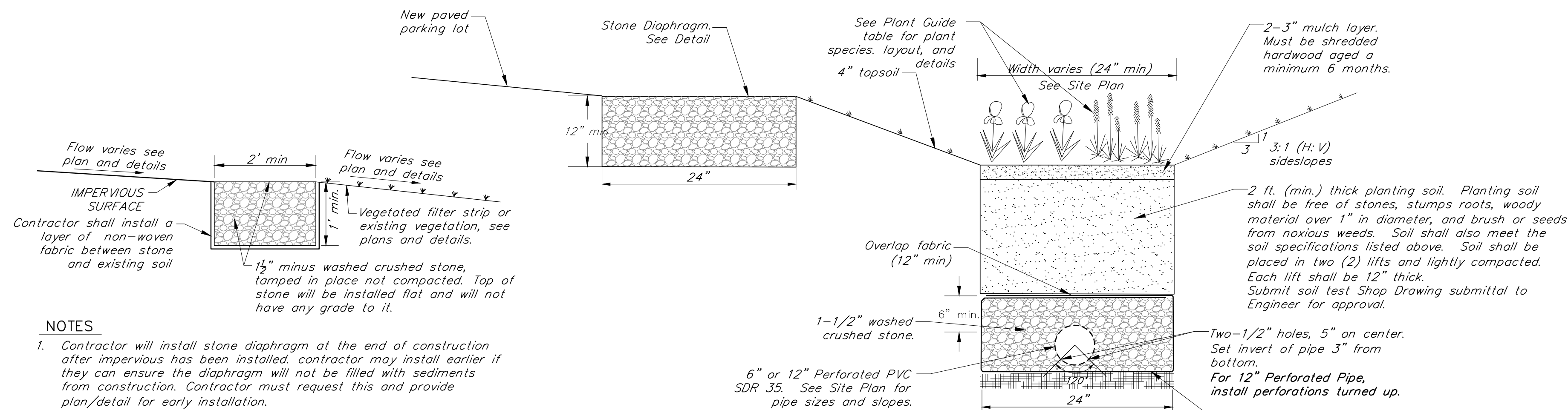
SHRUBS	HERBACEOUS SPECIES
Hamamelis virginiana (Witch Hazel)	Iris versicolor (Blue Flag)
Ilex verticillata (Winterberry)	Labelia cardinalis (Cardinal Flower)
Viburnum dentatum (Arrowhead)	Rudbeckia laciniata (Cutleaf Coneflower)
Alnus serrulata (Brook-side Alder)	Scirpus cyperinus (Woolgrass)
Cornus stolonifera (Redosier Dogwood)	Scirpus pungens (Three Square Bulrush)

- Shrubs and herbaceous species shall be plant within the area of the bioretention soils and shall have a spacing of five feet on center for shrubs and 2.5 feet on center for herbaceous vegetation.
- At least 3 different species of herbaceous perennials and shrubs shall be used.

BIORETENTION SOIL CHARACTERISTICS

Parameter	Value
pH range	5.2 to 7.00
Organic matter	2.5% to 8.0% by volume
Soil (loamy sand, sandy loam, or loam)	
Sand	60% to 85% passing by weight
Silt	0% to 20% passing by weight
Clay	0% to 5% passing by weight
Mulch	Bark Mulch - Submit sample for approval
Available Phosphorus	0.2%

A dense and vigorous vegetative cover shall be established over all pervious drainage areas upslope of the bioretention areas.



Stone Diaphragm Detail

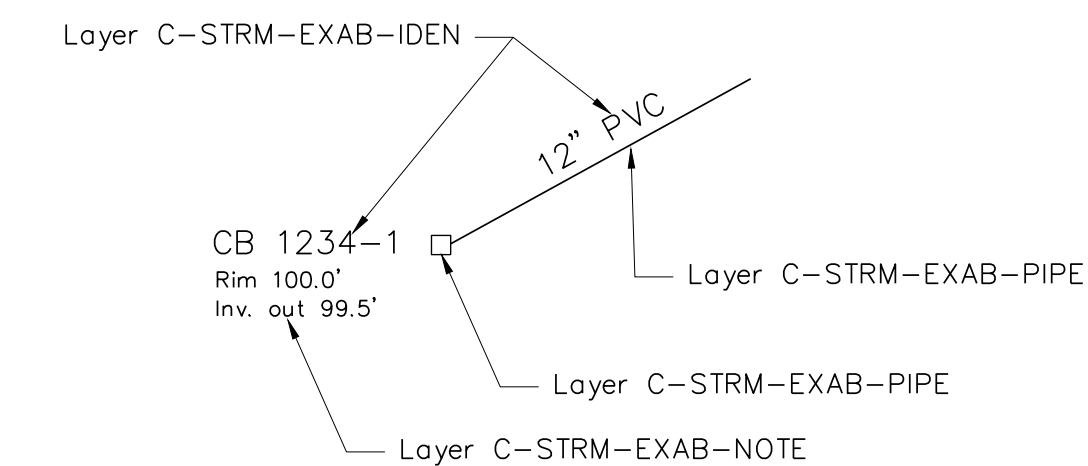
Bioretention Planting Soil Bed Detail

ACAD Layer Naming Convention

X-XXXX-XXXX-XXXX
 | | | | Identifier
 | | Minor Group
 | Major Group
 Discipline Code

Discipline Codes:
 B - Background (x-ref) (by WM Group only)
 C - Civil
 E - Electrical
 M - Mechanical
 S - Site
 T - Telecommunications
 U - Controls
 X - Other

Major Group Codes:
 B - Background (x-ref) (by WM Group only)
 BASE Roads, parking lots, walks, general
 BLDG Building
 C - Civil
 NGAS Natural Gas
 SSWR Sanitary Sewer
 STRM Storm Sewer
 WATR Domestic Water



DRAFTING EXAMPLE

Minor Group Codes:
 - Street names, etc.
 IDEN Parking Spaces
 PKNG Streams, Ponds (Spear St. Only)
 WATER UVM building
 UVM1 Non UVM building
 NUVN Existing Approximate (Typical for all Utilities)
 EXAP Existing "AS-BUILT" (Typical for all Utilities)

UTILITY	IDENTIFIER	COLOR CODE
STORM WATER	STRM	47
SANITARY SEWER	SSWR	94
NATURAL GAS	NGAS	20
WATER	WATR	170
STEAM/CONDENSATE	HPS,LPS PCR,HPR	10
CHILLED WATER	CHW,CW	130
FUEL OIL PIPING/TANKS	FO	210
PRIMARY POWER DISTRIB.	PPOW	10
SECONDARY POWER DISTRIB.	SPOW	10
EMERGENCY POWER	EPOW	210
LIGHTING	LITE	130
EMERGENCY COMMUNICATION	EMCM	170
BUILDING CONTROLS	BC	94
SECURITY/FIRE	SEC	90
PBX	PBX	20
COGEN CONDUITS	COG	48
TELEPHONE	TELE	130

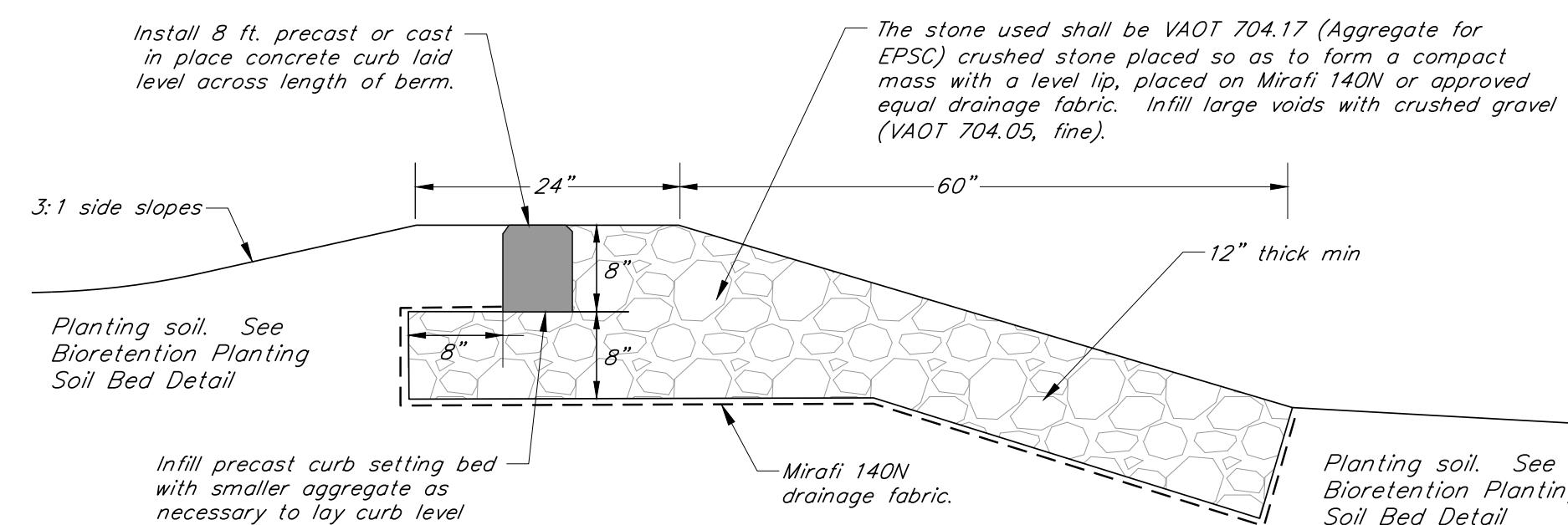
Identifier Codes:
 PIPE Pipe (Actual pipe either active or abandoned)
 CNDT Conduit (Actual conduit/bank either active or abandoned)
 IDEN Identification (Manhole/pipe/conduit labels)
 NOTE Notes (Notes as required - 1"=30' scale)
 HTCH Hatching (UVM & non-UVM building hatching) (Background ONLY)

Symbols (i.e. manholes, hydrants, handholes, valves, etc.) should appear on PIPE/CNDT layer. (Others as needed)

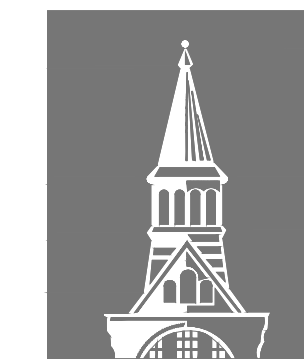
2.) ACAD Standards

A) TEXT STYLE:
 FOR GENERAL TEXT USE: "UVM-GENTEXT" STYLE
 FONT: SIMPLEX
 FONT SIZE (IDENTIFIER LAYER): 3.50 (MODEL SPACE)
 FONT SIZE (NOTES LAYER ONLY): 2.50 (MODEL SPACE)
 JUSTIFY: BOTTOM OR TOP CENTER
 ORIENTATION: LEFT TO RIGHT
 OR BOTTOM TO TOP
 FORMAT: ENGINEERING

B) LINE STYLE:
 EXISTING - ACTIVE:
 LINETYPE: CONTINUOUS
 LINETYPE SCALE: 1.000
 (examples) 8'HPS
 EXISTING - ABANDONED:
 LINETYPE: DASHED2
 LINETYPE SCALE: 0.35
 (examples) 4'NG-abon



Curb Weir Overflow Detail



The UNIVERSITY of VERMONT UVM

University of Vermont

Physical Plant Department
 284 EAST AVENUE
 BURLINGTON, VERMONT 05405
 Project Manager: Scott Goodwin

CIVIL ENGINEER



164 Main Street, Suite 201 Colchester, Vermont 05446 P: (802) 878-0375 www.krebsandlansing.com

Project:

University of Vermont
 Jeffords East
 Lower Lot

Project No. 19249

Scale not to scale

Drawn by DMR

Checked by

Date 9/26/2019

Revisions
 No. Date

Drawing Title

Civil Details

Drawing No.

C-5.2