

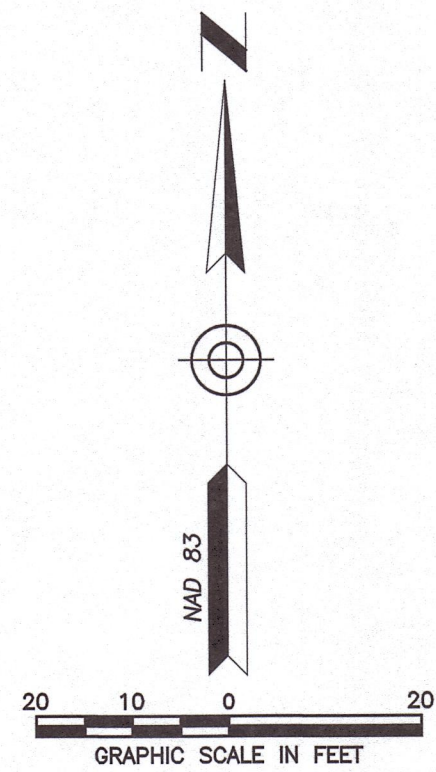
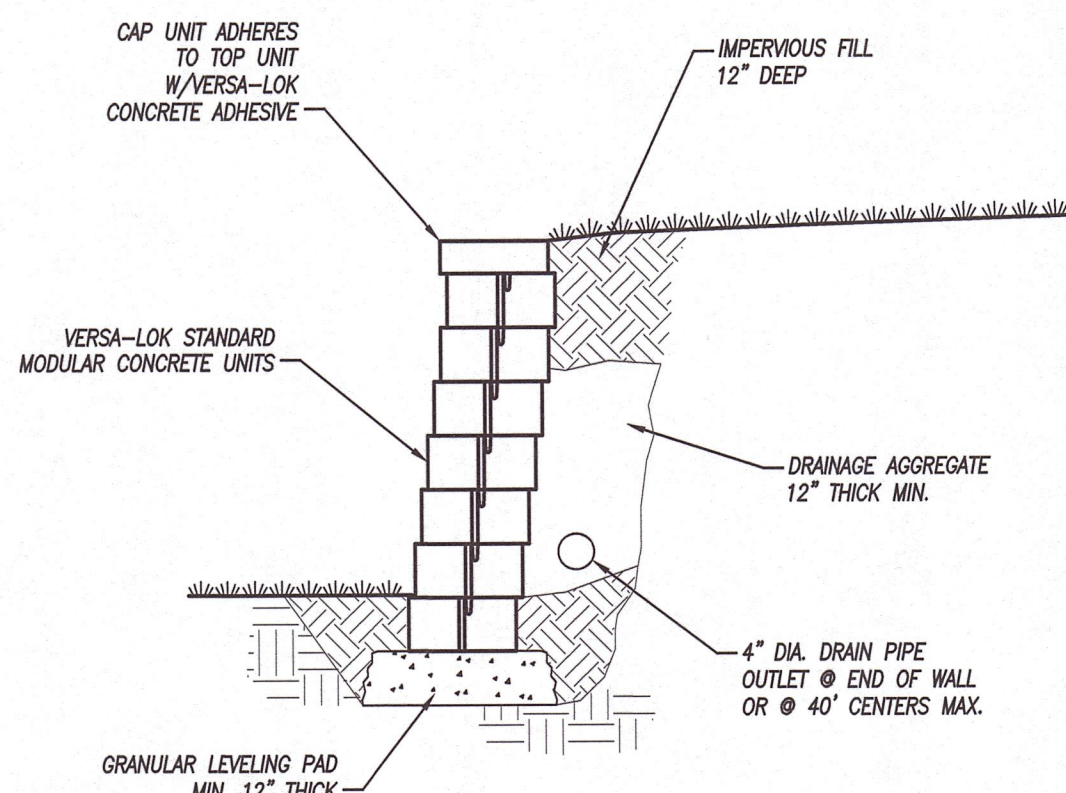


TABLE OF ZONING REQUIREMENTS		
ZONE = I-G		
	REQUIRED	PROVIDED
Lot Area	40,000 S.F.	63,050 S.F.
Front Yard Setback	75'	75'
Side Yard Setback	30'	*13.2'
Rear Yard Setback	50'	±450"
Lot Frontage	**125'/150'	*100'
Building Height	40' Max.	±30'
Building Coverage	40% Max.	8.7%

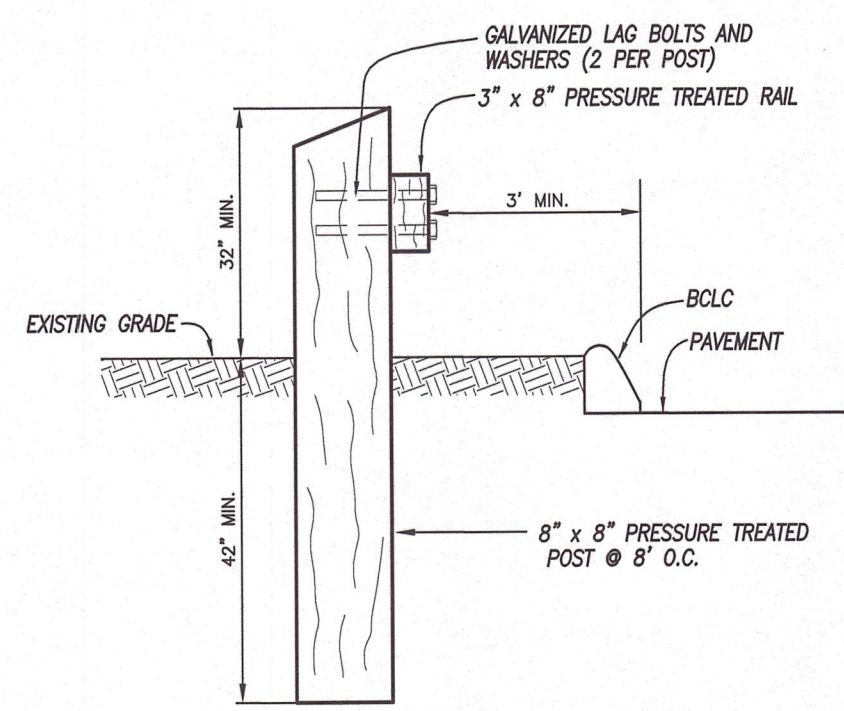
*Existing non-conforming condition (proposed = 31')
**Existing non-conforming condition

TYPICAL SECTION-UNREINFORCED RETAINING WALL



WOOD GUIDE RAIL

NOT TO SCALE



AREA = 1.447 ACRES
(63,050 S.F.)

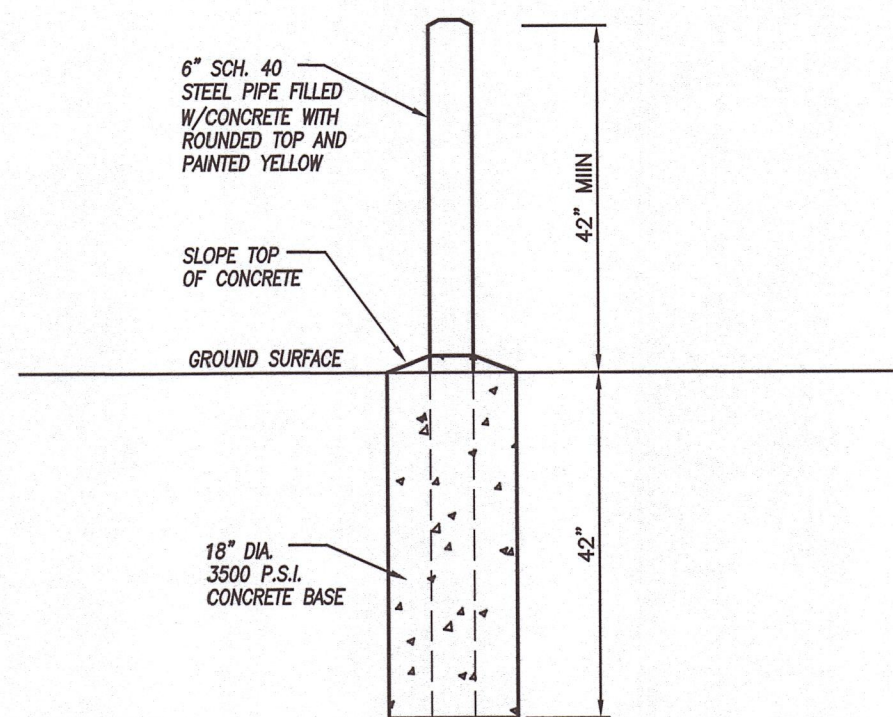
WETLANDS

LEGEND

- F.F. FINISHED FLOOR
○ IRON PIN FOUND
□ CHD CONCRETE MONUMENT FOUND
Ø UTILITY POLE
○ WG WATER GATE
○ HYD FIRE HYDRANT
○ CB CATCH BASIN
○ DMH DRAINAGE MANHOLE
○ SMH SANITARY SEWER MANHOLE
--- 100 --- EXISTING CONTOURS
--- 100 --- PROPOSED CONTOURS
INLAND WETLANDS FLAG
BUILDING SETBACK LINE
ELECTRIC LINE
SANITARY SEWER LINE
GAS LINE
WATER LINE
--- SILT FENCE

STEEL BOLLARD DETAIL

NOT TO SCALE



New England Erosion Control/Restoration Mix For Detention Basins

The New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites contains a selection of native grasses and wildflowers designed to colonize generally moist, recently disturbed sites where quick growth of vegetation is desired to stabilize the soil surface. It is an appropriate seed mix for ecologically sensitive restorations that require stabilization as well as long-term establishment of native vegetation.

This mix is particularly appropriate for detention basins that do not hold standing water. Many of the plants in this mix can tolerate infrequent inundation, but not constant flooding. The mix may be applied by hand, by mechanical spreader, or by hydro-seeder. After sowing, lightly rake, roll or cultipack to insure good seed-to-soil contact. Best results are obtained with a Spring or late Summer seeding. Late Fall and Winter dormant seeding requires an increase in the application rate. A light mulching of clean, weed-free straw is recommended.

APPLICATION RATE: 35 lbs/acre | 1250 sq ft/lb

SPECIES: Virginia Wild Rye, (*Elymus virginicus*), Creeping Red Fescue, (*Festuca rubra*), Little Bluestem, (*Schizachyrium scoparium*), Big Bluestem, (*Andropogon gerardii*), Fox Sedge, (*Carex vulpinoidea*), Switch Grass, (*Panicum virgatum*), Rough Bentgrass, (*Agrostis scabra*), New England Aster, (*Aster novae-angliae*), Boneset, (*Eupatorium perfoliatum*), Grass Leaved Goldenrod, (*Euthamia graminifolia*), Green Bulrush, (*Scirpus atrovirens*), Blue Vervain, (*Verbena hastata*), Soft Rush, (*Juncus effusus*), Wool Grass, (*Scirpus cyperinus*).

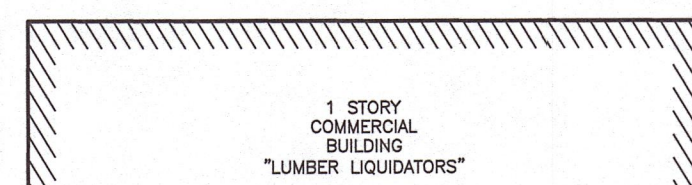
Basin Substrate

The stormwater basin shall be constructed by over excavating and installing 6" of ASTM C-33 sand topped with filter fabric and finished 6" of a topsoil and organic media mix before over seeding. Basin shall be maintained in accordance with the procedures outlined on sheet 2 of the plans.

I have delineated the wetlands and watercourses as shown on the subject site plans in accordance with the standards and definitions found in the Connecticut General Statutes, Chapter 440, Sections 22a-36 through 22a-45 as amended

Ian T. Cole
Ian T. Cole, P.W.S. #2006, Registered Soil Scientist

**BEFORE YOU DIG
CALL BEFORE YOU DIG**
AT LEAST TWO FULL BUSINESS DAYS
BEFORE DIGGING OR DISTURBING EARTH
DIAL 811 OR 1-800-922-4455

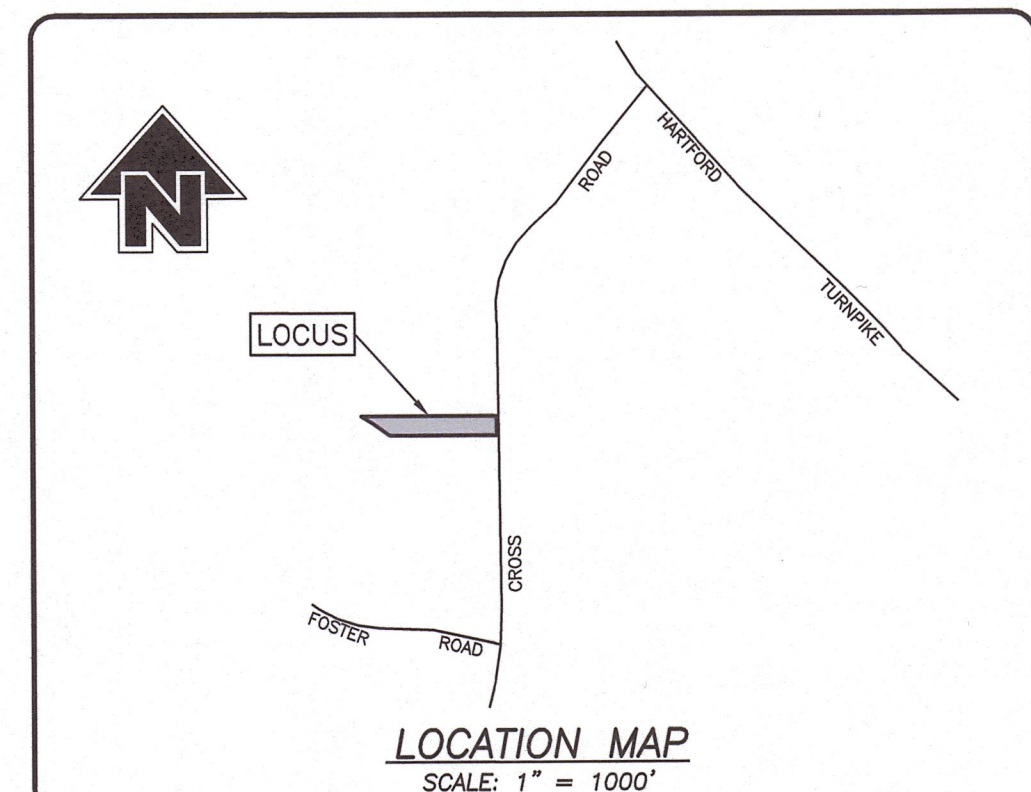


Norman E. Thibault, Jr.
NORMAN E. THIBAUT, JR., P.E.
LIC #PEN 0022834

TO MY KNOWLEDGE AND BELIEF, THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

Greg A. Glaupe
GREG A. GLAUPE, L.S. LIC. NO. 70191 DATE 9/17/2025

NO CERTIFICATION IS EXPRESSED OR IMPLIED UNLESS THIS MAP BEARS THE ORIGINAL SEAL AND SIGNATURE OF THE LAND SURVEYOR.



NOTES:

- This survey has been prepared pursuant to the Regulations of Connecticut State Agencies Sections 20-300b-1 through 20-300b-20 and the "Standards for Surveys and Maps in the State of Connecticut" as adopted by the Connecticut Association of Land Surveyors, Inc. on September 26, 1996, Amended October 26, 2018;
 - This survey conforms to a Class "A-2" horizontal accuracy.
 - Field surveyed topographic features conform to a Class "T-2", "V-2" vertical accuracy.
 - LIDAR topographic features conform to a Class "T-D" vertical accuracy.
 - Survey Type: Improvement Location Survey.
 - Boundary Determination Category: Resurvey
- Zone = I-G.
- Owner of record: Eagle AAM, LLC.
PO Box 105
Waterford, CT 06385
See Volume 100, Page 563
- Parcel is shown as Lot #1721 on Assessors Map #90.
- Parcel lies within Flood Hazard Zone 'X' (areas of minimal flooding) as shown on FIRM Map # 09011C Panel 0343G Effective Date: 7/18/2011.
- Elevations shown are based on North American Vertical Datum of 1988 (NAVD 88). Contours shown are taken from Connecticut statewide LIDAR and supplemented with actual field survey. Contour interval = 2'.
- Wetlands shown were delineated in the field by Ian Cole, Certified Soil Scientist, in August 2024.
- North orientation, bearings and coordinate values shown are based on North American Datum of 1983 (NAD 83) and are taken from GPS observations using the "Superior" statewide GPS network and RTK correction system.
- Before any construction is to commence contact "CALL BEFORE YOU DIG" at 1-800-922-4455 or 811.

MAP REFERENCES:

- "Property of Martin Olson, Inc. - Waterford, Conn. - Scale: 1" = 200' - Date: Sept. 1959 - Prepared by: Chas. H. Miller". On file in the Waterford Land Records as Book 12, Pg. 25.
- "Proposed Fill Plan - Kleven Property - 152 Cross Road - Waterford, Connecticut - Scale: 1" = 40' - Date: May 1984 - Prepared by: Wayne A. Morse".
- "Property Survey - Land Belonging to - Eagle AAM, LLC - 152 Cross Road - Waterford, Connecticut - Scale: 1" = 20' - Date: April 15, 2023 - Prepared by: Brian D. Florek".

DATE	PER STAFF REVIEW COMMENTS
9/17/2025	DATE DESCRIPTION
	REVISIONS

SITE PLAN

PREPARED FOR

EAGLE ELECTRIC SERVICES

152 CROSS ROAD
WATERFORD, CONNECTICUT



Killingly Engineering Associates
Civil Engineering & Surveying

114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

DATE: 8/3/2025	DRAWN: RGS
SCALE: 1" = 20'	DESIGN: NET
SHEET: 1 OF 2	CHK BY: GG
DWG. No: CLIENT FILE	JOB No: 24032

DEVELOPMENT SCHEDULE:

- Prior to any work on site, the limits of disturbance shall be clearly flagged in the field by a Land Surveyor, licensed in the State of Connecticut. Once the limits of clearing are flagged, they shall be reviewed and approved by an agent of the Town.
- Install and maintain erosion and sedimentation control devices as shown on these plans. All erosion control devices shall be inspected by an agent of the Town. Any additional erosion control devices required by the Town's Agent shall be installed and inspected prior to any construction on site. (See silt fence installation notes.)
- Construction will begin with clearing, grubbing and rough grading of the proposed site. The work will be confined to areas adjacent to the proposed building and driveway. Topsoil will be stockpiled on site and utilized during final grading.
- Excavate stormwater basin and utilize for temporary sediment trap during construction. Plug outlet pipe until all areas on site have been stabilized.
- Begin excavation for foundation of the proposed building.
- When foundation has been completed, begin building construction and install piping for sanitary & water service.
- When building has been substantially completed, sawcut existing pavement as shown and install proposed catch basins & piping; install geotextile under catch basin grates. Fine grade and compact pavement base.
- Install first course of pavement.
- Remove accumulated sediment from basin, apply loam and specified seed mix.
- Fine grade perimeter areas to be loamed and seeded. Disturbed areas shall be seeded and stabilized as soon as possible to prevent erosion.
- Install final course of pavement.
- When building is complete, sweep pavement and clean catch basin sumps prior to discharging to the stormwater basin.

DEVELOPMENT CONTROL PLAN:

- Development of the site will be performed by the contractor, who will be responsible for the installation and maintenance of erosion and sediment control measures required throughout construction.
- The sedimentation control mechanisms shall remain in place from start of construction until permanent vegetation has been established. The representative for the Town of Waterford will be notified when sediment and erosion control structures are initially in place. Any additional soil & erosion control measures requested by the Town or its agent, shall be installed immediately. Once the proposed development, seeding and planting have been completed, the representative shall again be notified to inspect the site. The control measures will not be removed until this inspection is complete.
- All stripping is to be confined to the immediate construction area. Topsoil shall be stockpiled so that slopes do not exceed 2 to 1. A hay bale sediment barrier is to surround each stockpile and a temporary vegetative cover shall be provided.
- Dust control will be accomplished by spraying with water and if necessary, the application of calcium chloride.
- Final stabilization of the site is to follow the procedures outlined in "Permanent Vegetative Cover". If necessary a temporary vegetative cover is to be provided until a permanent cover can be applied.

SILT FENCE INSTALLATION AND MAINTENANCE:

- Dig a 6" deep trench on the uphill side of the barrier location.
- Position the posts on the downhill side of the barrier and drive the posts 1.5 feet into the ground.
- Lay the bottom 6" of the fabric in the trench to prevent undermining and backfill.
- Inspect and repair barrier after heavy rainfall.
- Inspections will be made at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater to determine maintenance needs.
- Sediment deposits are to be removed when they reach a height of 1 foot behind the barrier or half the height of the barrier and are to be deposited in an area which is not regulated by the Inland wetlands commission.
- Replace or repair the fence within 24 hours of observed failure. Failure of the fence has occurred when sediment fails to be retained by the fence because:
 - the fence has been overtopped, undercut or bypassed by runoff water,
 - the fence has been moved out of position (knocked over), or
 - the geotextile has decomposed or been damaged.

HAY BALE INSTALLATION AND MAINTENANCE:

- Bales shall be placed as shown on the plans with the ends of the bales tightly abutting each other.
- Each bale shall be securely anchored with at least 2 stakes and gaps between bales shall be wedged with straw to prevent water from passing between the bales.
- Install bales at least once per week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inches or greater to determine maintenance needs.
- Remove sediment behind the bales when it reaches half the height of the bale and deposit in an area which is not regulated by the Inland Wetlands Commission.
- Replace or repair the barrier within 24 hours of observed failure. Failure of the barrier has occurred when sediment fails to be retained by the barrier because:
 - the barrier has been overtopped, undercut or bypassed by runoff water,
 - the barrier has been moved out of position, or
 - the hay bales have deteriorated or been damaged.

SEEDBED PREPARATION

Loosen the soil to a depth of 3-4 inches with a slightly roughened surface. If the area has been recently loosened or disturbed, no further roughening is required. Soil preparation can be accomplished by tracking with a bulldozer, raking, harrowing, raking or dragging with a section of chain link fence. Avoid excessive compaction of the surface by equipment traveling back and forth over the surface. If the slope is tracked, the cleat marks shall be perpendicular to the anticipated direction of the flow of surface water.

If soil testing is not practical or feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 300 pounds per acre or 7.5 pounds per 1,000 square feet of 10-10-10 or equivalent. Additionally, lime may be applied using rates given in Figure TS-1 in the 2002 Guidelines.

SEEDING

Apply seed uniformly by hand cyclone seeder, drill, cultipacker type seeder or hydroseeder at a minimum rate for the selected species. Increase seeding rates by 10% when hydroseeding.

MULCHING

Temporary seedings made during optimum seeding dates shall be mulched according to the recommendations in the 2002 Guidelines. When seeding outside of the recommended dates, increase the application of mulch to provide 95%-100% coverage.

MAINTENANCE

Inspect seeded area at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for seed and mulch movement and rill erosion.

Where seed has moved or where soil erosion has occurred, determine the cause of the failure. Repair eroded areas and install additional controls if required to prevent recurrence of erosion.

Continue inspections until the grasses are firmly established. Grasses shall not be considered established until a ground cover is achieved which is mature enough to control soil erosion and to survive severe weather conditions (approximately 80% vegetative cover).

PERMANENT VEGETATIVE COVER:

Refer to Permanent Seeding Measure in the 2002 Guidelines for specific applications and details related to the installation and maintenance of a permanent vegetative cover. In general, the following sequence of operations shall apply:

- Topsoil will be replaced once the excavation and grading has been completed. Topsoil will be spread at a minimum compacted depth of 4".
- Once the topsoil has been spread, all stones 2" or larger in any dimension will be removed as well as debris.
- Apply agricultural ground limestone at a rate of 2 tons per acre or 100 lbs. per 1000 s.f. Apply 10-10-10 fertilizer or equivalent at a rate of 300 lbs. per acre or 7.5 lbs. per 1000 s.f. Work lime and fertilizer into the soil to a depth of 4".
- Inspect seedbed before seeding. If traffic has compacted the soil, retille compacted areas.
- Apply the chosen grass seed mix. The recommended seeding dates are: April 1 to June 15 & August 15 - October 1.
- Following seeding, firm seedbed with a roller. Mulch immediately following seeding. If a permanent vegetative stand cannot be established by September 30, apply a temporary cover on the topsoil such as netting, mat or organic mulch.

EROSION AND SEDIMENT CONTROL NARRATIVE:

PRINCIPLES OF EROSION AND SEDIMENT CONTROL

The primary function of erosion and sediment controls is to absorb erosional energies and reduce runoff velocities that force the detachment and transport of soil and/or encourage the deposition of eroded soil particles before they reach any sensitive area.

KEEP LAND DISTURBANCE TO A MINIMUM

The more land that is in vegetative cover, the more surface water will infiltrate into the soil, thus minimizing stormwater runoff and potential erosion. Keeping land disturbance to a minimum not only involves minimizing the extent of exposure at any one time, but also the duration of exposure. Phasing, sequencing and construction scheduling are interrelated. Phasing divides a large project into distinct periods of construction work over a specific area occurs over distinct periods of time and each phase is not dependent upon a subsequent phase in order to be functional. A sequence is the order in which construction activities are to occur during any particular phase. A sequence should be developed on the premise of "first things first" and "last things last" with proper attention given to the inclusion of adequate erosion and sediment control measures. A construction schedule is a sequence with time lines applied to it and should address the potential overlap of actions in a sequence which may be in conflict with each other.

- Limit areas of clearing and grading. Protect natural vegetation from construction equipment with fencing, tree armoring, and retaining walls or tree wells.
- Route traffic patterns within the site to avoid existing or newly planted vegetation.
- Phase construction so that areas which are actively being developed at any one time are minimized and only that area under construction is exposed. Clear only those areas essential for construction.
- Sequence the construction of storm drainage systems so that they are operational as soon as possible during construction. Ensure all outlets are stable before outletting storm drainage flow into them.
- Schedule construction so that final grading and stabilization is completed as soon as possible.

SLOW THE FLOW

Detachment and transport of eroded soil must be kept to a minimum by absorbing and reducing the erosive energy of water. The erosive energy of water increases as the volume and velocity of runoff increases. The volume and velocity of runoff increases during development as a result of reduced infiltration rates caused by the removal of existing vegetation, removal of topsoil, compaction of soil and the construction of impervious surfaces.

- Use diversions, stone dikes, silt fences and similar measures to break flow lines and dissipate storm water energy.
- Avoid diverting one drainage system into another without calculating the potential for downstream flooding or erosion.

KEEP CLEAN RUNOFF SEPARATED

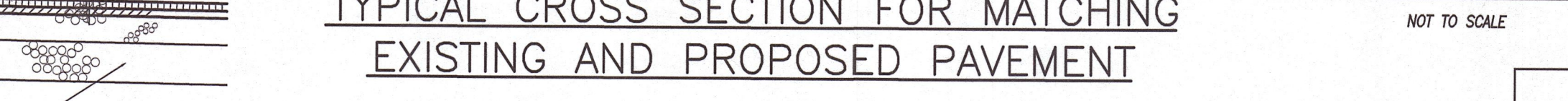
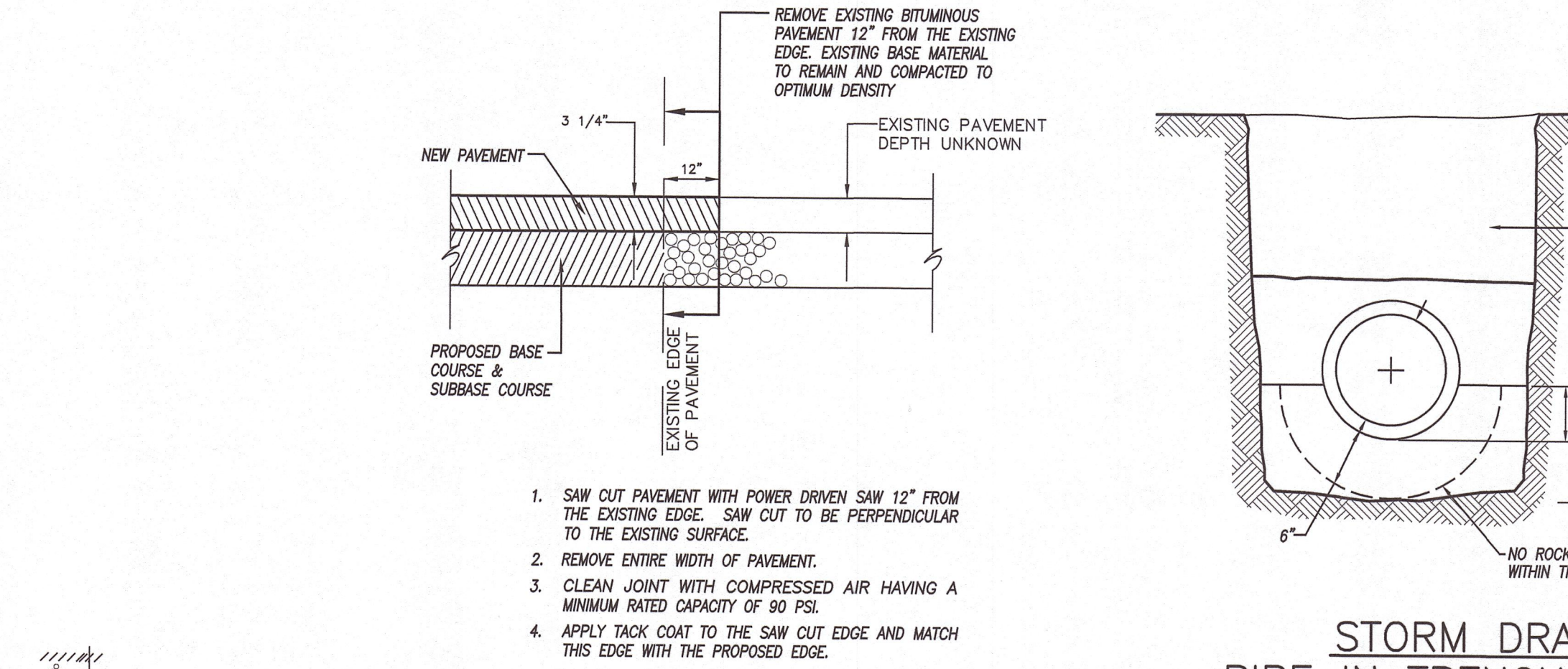
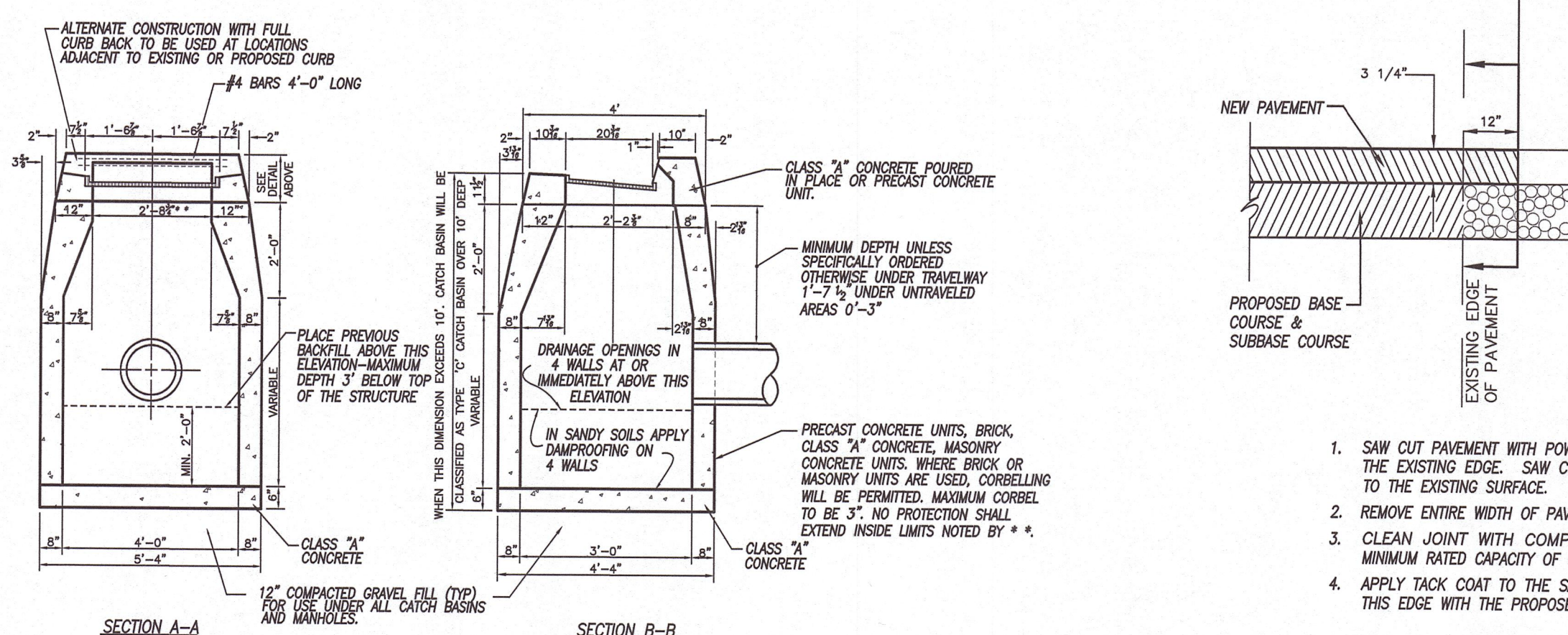
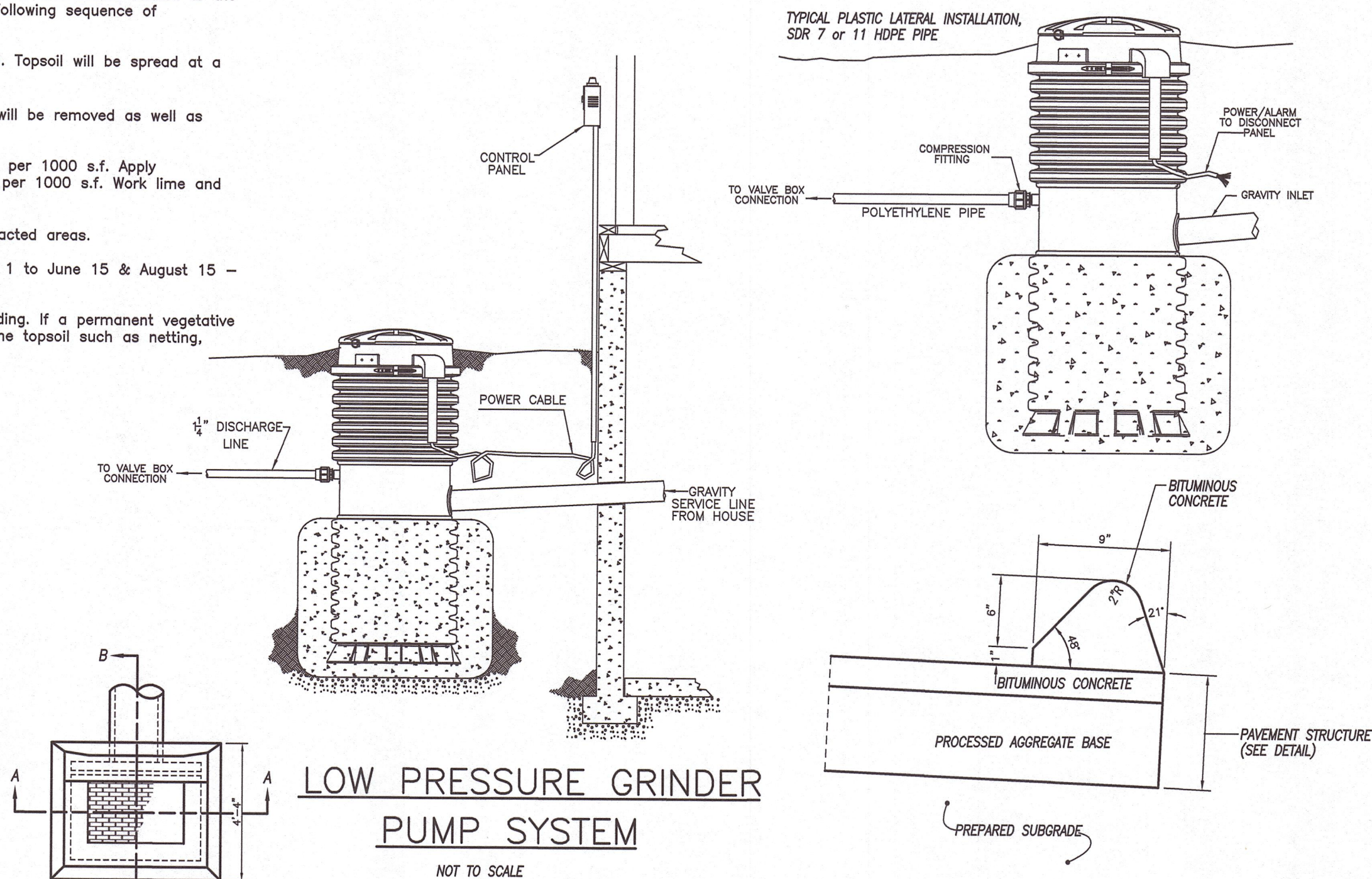
Clean runoff should be kept separated from sediment laden water and should not be directed over disturbed areas without additional controls. Additionally, prevent the mixing of clean off-site generated runoff with sediment laden runoff generated on-site until adequate filtration of on-site waters has occurred.

- Segregate construction waters from clean water.
- Divert site runoff to keep it isolated from wetlands, watercourses and drainage ways that flow through or near the development until the sediment in that runoff is trapped or detained.

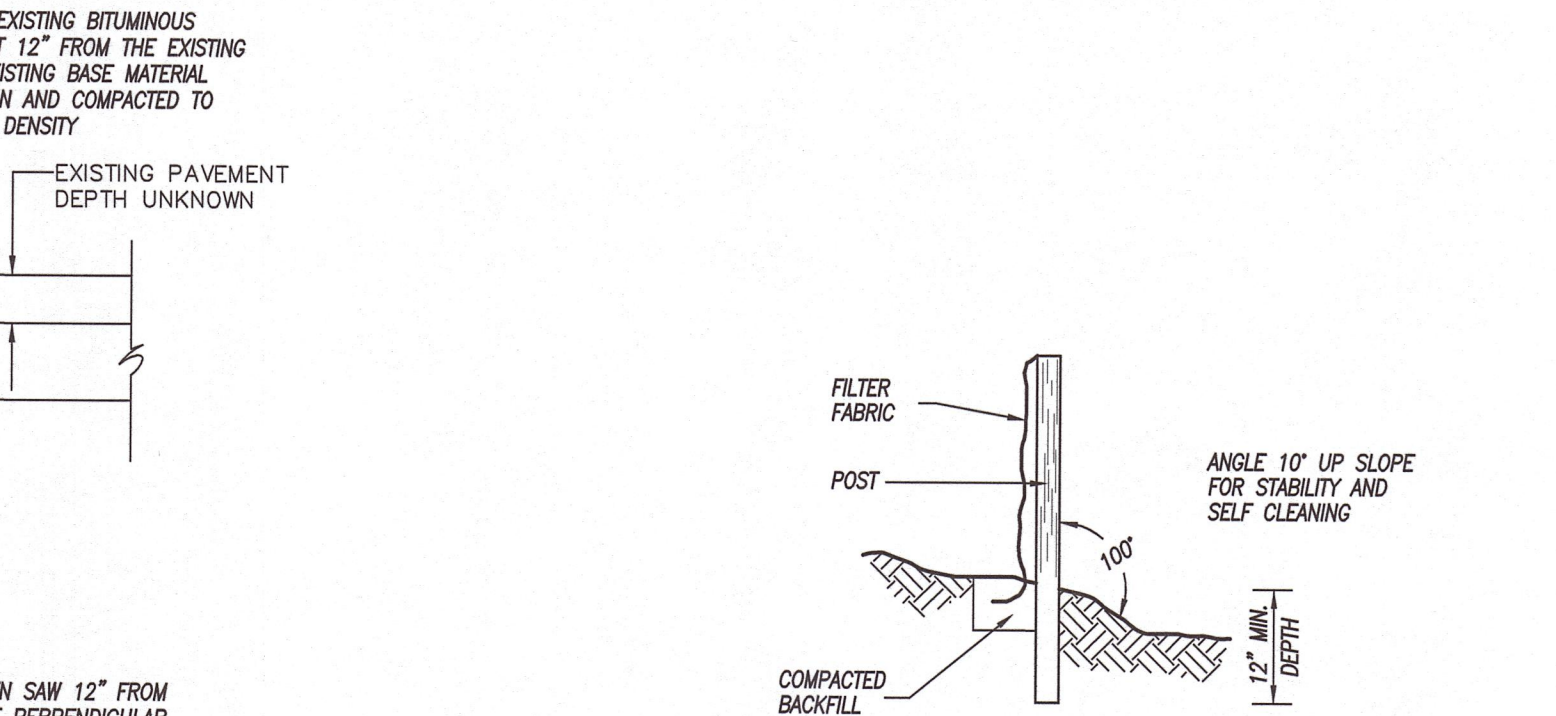
REDUCE ON SITE POTENTIAL INTERNALLY AND INSTALL PERIMETER CONTROLS

While it may seem less complicated to collect all waters to one point of discharge for treatment and just install a perimeter control, it can be more effective to apply internal controls to many small sub-drainage basins within the site. By reducing sediment loading from within the site, the chance of perimeter control failure and the potential off-site damage that it can cause is reduced. It is generally more expensive to correct off-site damage than it is to install proper internal controls.

- Control erosion and sedimentation in the smallest drainage area possible. It is easier to control erosion than to contend with sediment after it has been carried downstream and deposited in unwanted areas.
- Direct runoff from small disturbed areas to adjoining undisturbed vegetated areas to reduce the potential for concentrated flows and increase settlement and filtering of sediments.
- Concentrated runoff from development should be safely conveyed to stable outlets using rip rapped channels, waterways, diversions, storm drains or similar measures.
- Determine the need for sediment basins. Sediment basins are required on larger developments where major grading is planned and where it is impossible or impractical to control erosion at the source. Sediment basins are needed on large and small sites when sensitive areas such as wetlands, watercourses, and streets would be impacted by off-site sediment deposition. Do not locate sediment basins in wetlands or permanent or intermittent watercourses. Sediment basins should be located to intercept runoff prior to its entry into the wetland or watercourse.
- Grade and landscape around buildings and septic systems to divert water away from them.



Activity	Frequency	Maintenance Notes
Pruning	1 to 2 times per year	Vegetation often grows vigorously during rainy seasons. Prune vegetation to maintain capacity and flow rates.
Mowing	2 to 12 times per year	Frequency depends on location and desired aesthetic appeal. Providing clarity as to the timing is important so that maintenance staff do not include these areas as part of more regular mowing procedures.
Watering	Once every 2 to 3 days for first 1 to 2 months; sporadically after establishment	If drought conditions exist, plants may need watering after the initial year. Native vegetation may flourish without watering.
Fertilization	Once initially	One-time spot fertilization for <i>first-year</i> vegetation.
Dead plant removal and replacement	Once per year	Within the first year, 10 percent of plants can die. Survival rates increase with time. Removing dead plants also removes nutrients that would otherwise enter the system.
Inlet inspection	Once after first rain of the season, then monthly during the rainy season	Check for sediment accumulation to ensure that flow into the bioretention practice is as designed. Remove any accumulated sediment.
Outlet inspection	Once after first rain of the season, then monthly during the rainy season	Check for erosion at the outlet, and remove any accumulated mulch or sediment.
Miscellaneous upkeep	Once per month	Tasks include collecting trash, checking plant health, spot weeding, removing invasive species and removing mulch from the overflow device.
Replacement of top few inches of filter media	If ponding occurs for more than 48 hours	Replace top few inches of filter media. Sediment accumulation reduces the bioretention practice's performance and the facility's ability to drain.



9/17/2025	PER STAFF REVIEW COMMENTS
DATE	DESCRIPTION
	REVISIONS

DETAIL SHEET
PREPARED FOR

EAGLE ELECTRIC SERVICES

152 CROSS ROAD
WATERFORD, CONNECTICUT

Killingly Engineering Associates
Civil Engineering & Surveying

114 Westcott Road
P.O. Box 421
Killingly, Connecticut 06241
(860) 779-7299
www.killinglyengineering.com

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