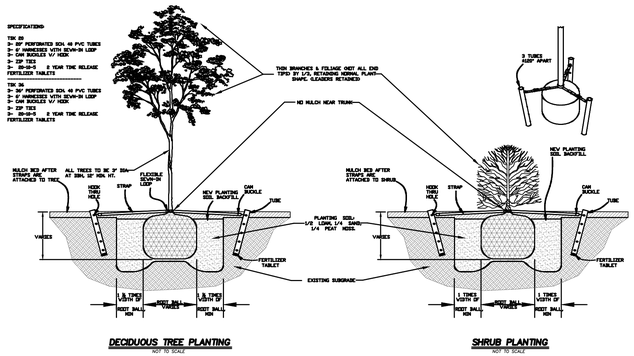
GRASS AND SLOPE COVER SPECIFICATIONS

1. All disturbed areas, including slopes and the detention basin, shall be graded and stabilized by planting or other method as shown or specified on the plans.
2. A minimum of 6" of loam shall be applied to all surfaces to be seeded. Loam shall be uniformly applied, shaped and smoothed.
3. Loam acidity shall be checked and adjusted to a pH of 6.5, apply lime at a minimum rate of 50 lbs per 1,000 square feet, if necessary. (If permitted by the Orders of Conditions only).
4. Organic–slow release fertilizer of a type 5–2–2 applied at a rate of 50 lbs per 500 square feet. (If permitted by the Orders of Conditions only).
5. Rake a seed bed using a york rake or hand raking to a minimum depth of 3" thoroughly incorporating lime and fertilizer.
6. Seeding may be performed by hand, mechanical or tractor mounted spreader. Hydroseeding is recommended.
7. Seeding before April 15 or after October 15, shall be reapplied between these dates if a minimum germination of 90%, determined by surface area coverage, has not occurred or if the surface area has eroded or become un–stabilized.
8. SEEDING:
   A. HAND SEEDING:
   1. Seed shall be applied by hand or broadcast spreader to provide a uniform distribution of seed.
   2. Seed shall be lightly raked into a depth of 1/2"–1", with all raking to be perpendicular to the slope.
   3. Seed is to be rolled with a water ballast roller to insure contact of seed with soil, do not compact soil.
   4. Area shall be mulched using seed–free straw to adequately cover the area to a depth of 1/2"–1", insuring a uniform cover of 75% of the surface area.
   5. Mulch shall be secured by means of secured landscape fabric, erosion control netting (3/4" – 1" mesh), or other biodegradable material which will insure adequate cover until the surface has grown to 90% germination, or according to the manufacturer's instructions.

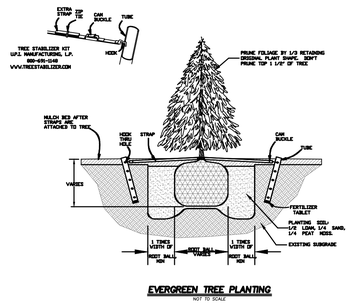
   B. HYDROSEEDING:
   1. Hydroseeding is encouraged for all areas, especially for large areas and steep slopes.
   2. Hydroseeding shall be performed in a single uniform layer.
   3. A track equipped machine shall travel perpendicular to any slope to provide shall compacted surface depressions for hydroseeding to catch. Such tracks shall be a minimum of three (3') feet on center for the total length of the slope.
   4. Application rates on slopes greater than 3:1 (horizontal to vertical) or greater shall have a minimum seeding rate of 4lbs/1000sf.
   5. A latex or fiber tackifier shall be used on all areas at the rate recommended by the manufacturer and on all slopes identified above (No. 4), a minimum rate of 50lbs of tackifier per 500gals of water shall be used.
   6. Fertilizer and lime may be incorporated into the hydroseed mixture in the quantities and type identified previously. (If permitted by the Orders of Conditions only).

9. SEED MIXTURE
   A. All seed shall be of the previous year's crop and shall have a quantified mixture analysis attached. No more than 10% of total mixture shall consist of weed seed species.
   B. SEED MIXTURE TYPE "A": Seed mixtures for lawn areas shall consist of a standard lawn mix containing a minimum of 80% perennial species, and shall conform to the following standards:
      Minimums (by total weight of mix):
      40% Kentucky Bluegrass
      20% Chewings Fescue
      20% Perennial Ryegrass
      20% Annual Rye or other annual species*
      * No more than 20% of the total mix, by weight, shall consist of annual rye or other annual species. Apply at a rate of 4 lbs per 1,000 square feet, or 170 lbs. per acre.
   C. SOD: See Specifications
   D. SEED MIXTURE TYPE "C": Seed mixtures for sloped areas shall consist of a standard Conservation Mix conforming to the recommendations of the U.S. Natural Resources Services Guidelines (formerly the Soil Conservation Service, SCS) and shall conform to the following standards:
      Minimums (by total weight of mix):
      20% Annual Rye
      15% Red Top Fescue
      10% White Clover .
      5% Ladino Clover
   No more than 40% of the total mix, by weight, shall consist of annual rye or other annual species. Apply at a rate of 4 lbs per 1,000 square feet.
   E. SEED MIXTURE TYPE "D": Basin Mix
   BASIN MIX SHALL BE AS MANUFACTURED BY NEW ENGLAND ENVIRONMENTAL, AMHERST, MA, WET MIX.



DECIDUOUS TREE PLANTING
NOT TO SCALE

SHRUB PLANTING
NOT TO SCALE



EVERGREEN TREE PLANTING
NOT TO SCALE

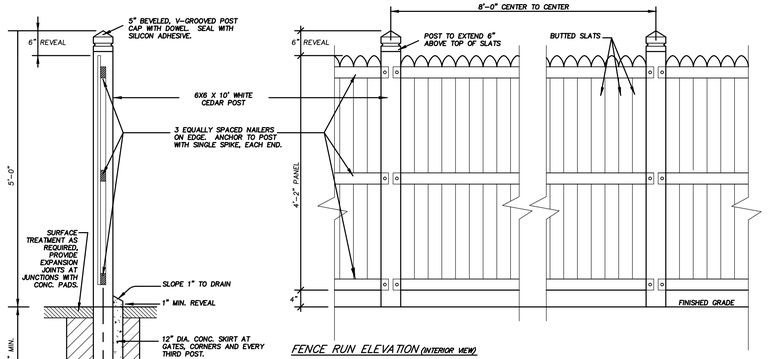
PLANT SCHEDULE

TREES	QTY	COMMON NAME / BOTANICAL NAME	CONT	CAL	SIZE	FIELD4
ACE MAR	11	Freeman Maple / Acer freemanii `Morton` TM	15 gal			
AK	4	Karpick Red Maple / Acer rubrum `Karpick`	B & B	1.5"Cal	12-15` Ht	Street/Shade Tree
PIC SPR	1	Hoopsi Blue Spruce / Picea pungens glauca `Hoopsi`	B & B		8` -10` Ht	Specimen
QUE RUB	6	Red Oak / Quercus rubra	B & B	3"Cal		Street/Shade Tree

SHRUBS	QTY	COMMON NAME / BOTANICAL NAME	CONT
AZA WE2	10	Western Lights Exbury Azalea / Azalea Exbury Hybrid `Western Lights`	5 gal
CAR BLU	4	Blue Mist Shrub / Caryopteris x clandonensis `Longwood Blue`	5 gal
COT GOL	1	Smoke Tree / Cotinus coggygria `Golden Spirit`	B & B
FOT BLU	6	Blue Mist Fothergilla / Fothergilla gardenii `Blue Mist`	5 gal
HYD END	12	Endless Summer / Hydrangea macrophylla `Bailmer` TM	B & B
HYD OAK	5	Snow Queen Oakleaf Hydrangea / Hydrangea quercifolia `Snow Queen`	B & B
ILE SP2	9	Winterberry / Ilex verticillata `Sparkleberry`	5 gal
ILE BL4	6	Blue Princess Holly / Ilex x meserveae `Blue Princess` TM	5 gal
ILE BL2	2	Blue Princess Holly / Ilex x meserveae `Blue Princess` TM	B & B
IN	20	Nellie Stevens Holly / Ilex x `Nellie R.Stevens` Hedge @ Specimen	5 gal
KK	6	Mountain Laurel / Kalmia latifolia `Keepsake`	5 gal
POT MCK	8	McKay`s White Bush Cinquefoil / Potentilla fruticosa `McKay`s White`	5 gal
RHO CAR	5	Carolina Rhododendron / Rhododendron carolinianum	B & B
RHO CU5	12	Catawba Rhododendron / Rhododendron catawbiense `Cunningham White` 4` Ht & Spr.	B & B
SPI GO4	6	Goldflame Spirea / Spiraea x bumalda `Goldflame`	5 gal
SYR ANG	5	Common Lilac / Syringa vulgaris `Angel White`	5 gal
SYR PRE	5	Donald Wyman Lilac / Syringa x prestoniae `Donald Wyman`	5 gal
TAX CAN	5	Amencan Yew / Taxus canadensis	5 gal
VIB AUR	3	Korean Spice Viburnum / Viburnum carlesii `Aurora` 3` Ht & Spr.	B & B
VIB FRA	5	Fragrant Snowball Viburnum / Viburnum x carlcephalum	36" ht. & spr.			

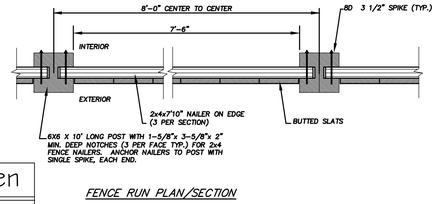
GROUND COVERS	QTY	COMMON NAME / BOTANICAL NAME	CONT	FIELD2	FIELD3	SPACING
	21	Blue Fescue / Festuca glauca `Elijah Blue`	1 gal	Ornamental Grass		12" o.c.
	144	Daylily / Hemerocallis x `Dark Eyed Magic` TM	flat			12" o.c.

MEDIUM GROUND COVERS	QTY	COMMON NAME / BOTANICAL NAME	CONT	FIELD2	FIELD3	SPACING
	56	Boulder Blue Fescue / Festuca glauca `Boulder Blue`	1 gal			12" o.c.
	31	Hidcote Supenor Lavender / Lavandula angustifolia `Hidcote Supenor`	flat			12" o.c.

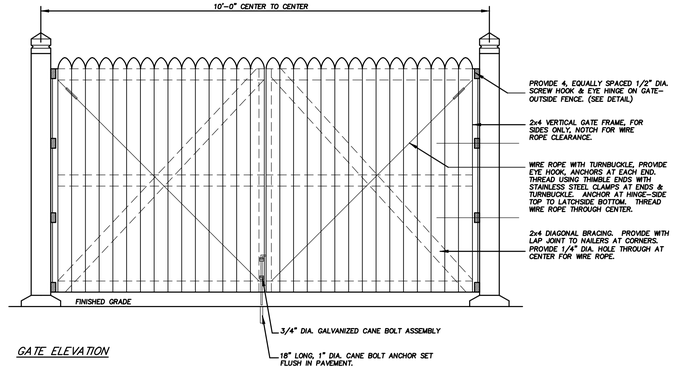


POST SECTION

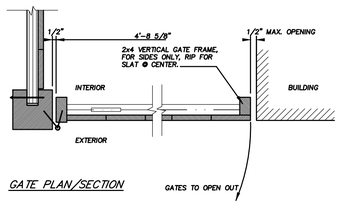
FENCE RUN ELEVATION (INTERIOR VIEW)



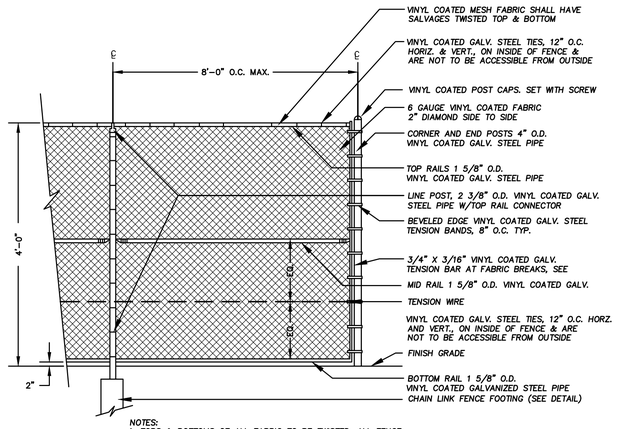
FENCE RUN PLAN/SECTION



GATE ELEVATION



GATE PLAN/SECTION



NOTES:
1. TOPS & BOTTOMS OF ALL FABRIC TO BE TWISTED. ALL FENCE FABRIC SHALL BE VINYL–COATED GALVANIZED STEEL AS PER SPEC., ALL POSTS AND HARDWARE TO BE VINYL–COATED GALVANIZED STEEL AS PER SPEC. VINYL COATING TO BE BLACK.
2. PROVIDE 4" OFFSET END POST TO ALL BUILDINGS AND/OR STRUCTURES.
3. IMPOUND YARD FENCE 8' TALL.

CHAIN LINK FENCE
NOT TO SCALE

FENCING DETAILS
NOT TO SCALE

Sudbury Board of Selectmen	
APPROVAL UNDER SITE PLAN REVIEW REQUIRED ☐ APPROVED ☐ APPROVED WITH CONDITIONS	
DATE OF APPROVAL:	
DATE OF ENDORSEMENT:	
TOWN ENGINEER/DPW DIRECTOR:	
PLANNING DIRECTOR:	
BUILDING INSPECTOR:	

the carell group

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REVISED:
1–22–14 GENERAL REVISION
1–31–14 DRAINAGE SYS. MOD.
2–10–14 DRAINAGE SYS. MOD.

PERMIT SET
January 3, 2014

SUDBURY POLICE HEADQUARTERS

SUDBURY, MASSACHUSETTS

LANDSCAPE DETAILS

scale	AS NOTED
date	JANUARY 3, 2014
drawn by	MAA
job no	13–7201
sheet	C–6

DRAINAGE SYSTEM OPERATIONS & MAINTENANCE PLAN

STORM WATER COLLECTION SYSTEM:

THE STORMWATER COLLECTION SYSTEM SERVING THIS SITE IS INTENDED TO BOTH COLLECT STORM WATER RUNOFF AND TO PROVIDE PARTIAL TREATMENT OF THE STORMWATER PRIOR TO ITS COLLECTION INTO THE ON-SITE DETENTION BASINS AND RECHARGE INTO THE GROUNDWATER. THIS SYSTEM COLLECTS RUNOFF GENERATED FROM THE SITE THROUGH THE USE OF DRAINAGE SWALES AND FOREBAYS. WHEN THESE TWO BASIC CONTROL MECHANISMS ARE FUNCTIONING PROPERLY THEY PROVIDE FOR A REDUCTION OF CONTAMINANTS AND DEBRIS ENTERING THE STORMWATER COLLECTION AND RECHARGE SYSTEMS, AND THEREFORE DOWNSTREAM RECEIVING WATERS/WETLANDS.

THIS SITE IS SERVED BY INFILTRATION SYSTEMS WHICH COLLECT THE GENERATED RUNOFF AND RECHARGE IT TO THE GROUND, THUS PROVIDING RECHARGE SIMILAR TO THAT OF THE PRE-DEVELOPMENT CONDITION AND FILTERING THE RUNOFF AS IT TRAVELS THROUGH THE EXISTING SOILS TO THE GROUNDWATER TABLE.

BOTH OF THE ABOVE-DESCRIBED SYSTEMS RELY UPON PROPER MONITORING, OPERATIONS AND MAINTENANCE TO FUNCTION AS DESIGNED AND INTENDED. A PROGRAM OF MONITORING, OPERATIONS AND MAINTENANCE MUST BE ONGOING THROUGHOUT THE LIFE AND USE OF THE SITE, AND IS THE OWNER'S RESPONSIBILITY SOLELY. THESE ACTIVITIES, AS DESCRIBED BELOW, ARE TO BE INITIATED AFTER COMPLETION OF THE PROJECT AND ARE NOT RELATED TO THE CONSTRUCTION OF THE SITE, EXCEPT AS SPECIFICALLY PROVIDED. THIS PLAN IS SPECIFICALLY FOR SITE-RELATED ACTIVITIES, NOT ACTIVITIES WHICH ARE INTERIOR TO BUILDINGS, THOUGH THERE ARE NECESSARY IMPLICATIONS AND CORRELATION'S BETWEEN THE TWO.

MONITORING:

THE DRAINAGE SYSTEMS ARE REQUIRED TO BE MONITORED BY THE POLICE CHIEF, WHO SHALL DIRECT AN INDIVIDUAL TO ACT AS THE SYSTEM'S MANAGER. THE NAME, ADDRESS AND DAY AND NIGHT (OR EMERGENCY) TELEPHONE NUMBER OF THIS PERSON OR ENTITY SHALL BE PROVIDED TO THE SUDBURY BUILDING INSPECTOR PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE OF CONSTRUCTION. THIS INDIVIDUAL SHALL BE REQUIRED TO KEEP A LOG OF ALL REQUIRED INSPECTIONS, OBSERVATIONS AND MAINTENANCE ACTIVITIES DRAINAGE SYSTEM COMPONENTS SHALL BE REFERRED TO BY SPECIFIC LOCATION OR THE DESIGN PLAN DESIGNATION, (E.G. CTB # 10) TO AVOID CONFUSION OR MISIDENTIFICATION THE LOG SHALL BE MADE AVAILABLE TO ANY MUNICIPAL OR STATE AGENCY HAVING JURISDICTION WITHIN TEN (10) DAYS OF A WRITTEN REQUEST BY THAT AGENCY.

MONITORING FOR THIS SITE SHALL CONSIST OF THE FOLLOWING:

1. ALL CATCHBASINS SHALL BE INSPECTED TO ENSURE THEY ARE WATER-TIGHT (HOLDING WATER), HAVE ADEQUATE SUMP CAPACITY, ALL OIL/GAS TRAPS ARE IN-PLACE, ALL GRATES AND FRAMES ARE FREE FROM STRUCTURAL DAMAGE, AND ARE DRAINING FREELY. THIS MONITORING SHALL OCCUR AT A MINIMUM OF FOUR (4) MONTH INTERVALS (QUARTERLY).
2. ALL DRAINAGE MANHOLES SHALL BE INSPECTED TO ENSURE THAT THEY ARE WATER-TIGHT, ALL LIDS AND FRAMES ARE FREE FROM STRUCTURAL DAMAGE, ARE DRAINING FREELY AND ARE NOT PONDING WATER. THIS MONITORING SHALL OCCUR A MINIMUM OF ONCE PER YEAR.
3. OTHER DRAINAGE SYSTEMS SHALL BE INSPECTED TO ENSURE THAT NO EROSION IS OCCURRING AT OUTLETS, ALL OUTLETS ARE FREE-FLOWING AND NO DAMAGE HAS OCCURRED AS PART OF SITE MAINTENANCE OR ACTIVITIES.

OPERATIONS:

1. GOOD HOUSE KEEPING AND MATERIAL MANAGEMENT REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES TO STORMWATER RUNOFF. A POLLUTION PREVENTION PLAN SHALL BE DEVELOPED WHICH SHALL INCLUDE THE FOLLOWING AT A MINIMUM:
   A. ALL MATERIALS STORED ON-SITE WILL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
   B. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE ORIGINAL MANUFACTURER'S LABEL.
   C. SUBSTANCES SHOULD NOT BE MIXED WITH ONE ANOTHER, UNLESS RECOMMENDED BY THE MANUFACTURER.
   D. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF A CONTAINER.
   E. THE SYSTEM'S MANAGER SHALL INSPECT THE SITE DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ONSITE, DURING ALL CONSTRUCTION PHASES
   F. ORIGINAL MATERIALS LABELS AND MATERIAL SAFETY DATA SHEETS SHALL BE KEPT; THEY RETAIN IMPORTANT INFORMATION.
   G. PETROLEUM PRODUCTS:
      1) ALL ONSITE VEHICLES AND PARKING AREAS SHALL BE REGULARLY MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO PREVENT LEAKAGE.
      2) PETROLEUM PRODUCTS SHALL BE STORED UNDER COVER AND SHALL BE IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.
   H. FERTILIZERS:
      1) FERTILIZERS SHALL ONLY BE USED IN THE MINIMUM AMOUNTS AS RECOMMENDED BY THE MANUFACTURER.
      2) THE CONTENTS OF ANY UNUSED FERTILIZER SHALL BE TRANSFERRED TO A CLEARLY LABELED, SEALABLE PLASTIC BIN, TO AVOID SPILLAGE.
   I. PAINTS, SOLVENTS.
      1) ALL PAINTS AND SOLVENTS SHALL BE STORED IN ORIGINAL MANUFACTURER'S CONTAINERS IN A COVERED LOCATION.
      2) THE USE OF PAINTS AND SOLVENTS SHALL, WHENEVER POSSIBLE, BE LIMITED TO SERVICE OR STORAGE BAYS AND NOT IN PARKING OR ACCESS WAYS THAT ARE TRIBUTARY TO THE DRAINAGE SYSTEM.
2. SPILL CONTROL PRACTICES:
   A. MANUFACTURER'S RECOMMENDED METHODS SHALL BE CLEARLY POSTED FOR SPILL CLEANUP AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF CLEANUP INFORMATION AND SUPPLIES.
   B. MATERIAL AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT ON-SITE IN A DESIGNATED MATERIAL STORAGE AREA. EQUIPMENT WILL INCLUDE, BUT NOT BE LIMITED TO, BROOMS, DUST PANS , MOPS, RAGS, GLOVES, GOGGLES, ABSORBENT MATERIALS, SAND, SAWDUST AND PLASTIC & METAL TRASH CONTAINERS SPECIFICALLY KEPT AND LABELED FOR THIS PURPOSE.
   C. ALL SPILLS WILL BE CLEANED-UP IMMEDIATELY AFTER DISCOVERY.
   D. SPILLS OF TOXIC OR HAZARDOUS MATERIAL OR NATURE WILL BE REPORTED TO THE APPROPRIATE STATE, LOCAL OR FEDERAL AGENCY, AS REQUIRED BY-LAW.
   E. THE SPILL PREVENTION PLAN WILL INCLUDE PROVISIONS TO ADAPT THE PLAN TO ENSURE THAT SPILLS WILL NOT REOCCUR, AND HOW TO CLEANUP THE SPILL IF THERE IS ANOTHER ONE.
3. SITE OPERATIONS AND DAILY USE SHALL CONSIDER THE ULTIMATE DISPOSITION OF STORMWATER AND OTHER SITE-GENERATED FORMS OF RUNOFF. THE WASHING OF VEHICLES SHALL BE LIMITED AREAS WITHIN THE BUILDING, AS THEY ARE SERVED BY THE FLOOR DRAIN SYSTEM. WASH WATER WITH ITS COMBINATION OF SOLVENTS, DETERGENTS AND OIL/GREASES SHOULD NOT BE ALLOWED TO ENTER ANY PART OF THE ON-SITE DRAINAGE SYSTEM.
4. SNOW PLOWING - SNOW PLOWING OPERATIONS SHALL STOCKPILE SNOW, ICE AND ACCUMULATED MATERIALS IN AREAS WHERE SNOW MELT WILL FLOW INTO THE ON-SITE DRAINAGE SYSTEMS, INCLUDING DRAINAGE BASINS. NO PLOWING OR STORAGE OF SNOW INTO WETLANDS OR AREAS DRAINING TO WETLAND.
5. SALT USE SITE-WIDE SHALL BE APPLIED TO THE MINIMUM EXTENT POSSIBLE TO MAINTAIN SAFE CONDITIONS, AND ONLY IF NOT SPECIFICALLY EXCLUDED BY ANY SPECIAL CONDITIONS.

MAINTENANCE:

1. PARKING AREAS, ROAD AND ACCESS WAYS AND GUTTERS SHALL BE SWEPT CLEAN OF DEBRIS AND ACCUMULATION ON A REGULAR BASIS. AT A MINIMUM, A SPRING AND FALL CLEANING SCHEDULE IS RECOMMENDED.
2. ALL CATCHBASINS SHALL HAVE THE SUMPS CLEANED AT ANY TIME OF THE YEAR WHEN 2' OR LESS SPACE EXISTS BELOW THE OUTLET INVERT, OR A MINIMUM OF ONCE PER YEAR, REGARDLESS OF SUMP ACCUMULATION. ALL DEBRIS FROM THE CLEANING SHALL BE DISPOSED OF OFF-SITE AND IN A MANNER AS PROSCRIBED BY LAW.
3. ALL HYDROCARBON TRAPS SHALL BE CHECKED FOR PHYSICAL INTEGRITY AND SEALED IMMEDIATELY AFTER EACH CATCHBASIN CLEANING.
4. OIL ABSORBING "PILLOWS" OR OTHER MEANS SHALL BE USED TO REMOVE ACCUMULATIONS OF HYDROCARBONS (OIL/GREASE) IN CATCHBASINS THAT ARE REGULARLY OBSERVED TO CONTAIN HYDROCARBONS, WHICH DO NOT EVAPORATE BETWEEN INSPECTIONS.
5. ALL BROKEN, LEAKING OR OTHERWISE DAMAGED STRUCTURES SHALL BE REPAIRED PROMPTLY UPON DISCOVERY. CATCHBASIN GRATES OR MANHOLE LIDS SHALL BE REPLACED WITH SIMILAR WEIGHT AND LOADING CHARACTERISTIC REPLACEMENT PARTS.
6. ALL EROSION SHALL BE REPAIRED. THE REPLACEMENT OF ANY PIPE OR DRAINAGE STRUCTURE SHALL MATCH THE ORIGINAL DESIGN SPECIFICATIONS.

NPDES GENERAL NOTES:

1. THIS PLAN IS INTENDED TO BE UTILIZED AS PART OF THE INFORMATION REQUIRED TOWARD MEETING THE NATIONAL STORM WATER POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) OF SECTION 402 OF THE FEDERAL CLEAN WATER ACT. THE CONSTRUCTION OF DRIVEWAYS, PARKING AREAS, BUILDINGS AND APPURTENANT STRUCTURES WILL RESULT IN MORE THAN 1 ACRE OF TOTAL DISTURBED AREA, REQUIRING THE SUBMITTAL OF A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR THIS SITE.
2. IT IS ANTICIPATED THAT THE SITE AS DESIGNED WILL MEET THE CRITERIA FOR A NPDES GENERAL PERMIT. THE SUBMISSION OF THE NPDES NOTICE OF INTENT (NPDES NOI), THIS PLAN AND SUPPORTING DOCUMENTATION MUST BE POSTMARKED A MINIMUM OF TWO (2) WEEKS PRIOR TO THE INITIATION OF ANY SITE DISTURBANCE OR CONSTRUCTION, WHICH SHALL NOT COMMENCE UNTIL AN ORDER OF CONDITIONS HAS BEEN ISSUED.

NPDES RECORD REQUIREMENTS:

1. A COPY OF THE NPDES SUBMITTAL AND THIS PLAN MUST BE KEPT ON-SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE MADE AVAILABLE TO ALL INTERESTED PARTIES.

2. RECORDS MUST BE MAINTAINED BY THE PERMITEE FOR A PERIOD OF THREE (3) YEARS FROM THE DATE OF STABILIZATION OF THE SITE. STABILIZATION OCCURS WHEN THE SITE HAS OVER 70% VEGETATIVE GROWTH AND/OR MECHANICAL STABILIZATION THROUGHOUT FOR ONE COMPLETE GROWING SEASON.

NPDES INSPECTION REQUIREMENTS:

1. ALL INSPECTIONS SHALL BE CONDUCTED BY QUALIFIED PERSONNEL, WHO SHALL PRODUCE WRITTEN QUANTITATIVE AND QUALITATIVE REPORTS ON THE METHODS, SUITABILITY OF STRUCTURES AND THE GENERAL CONSTRUCTION.

2. INSPECTIONS ARE REQUIRED DURING SITE ALTERATIONS A MINIMUM OF ONCE EVERY SEVEN (7) DAYS WHILE SURFACES ARE UNSTABILIZED.

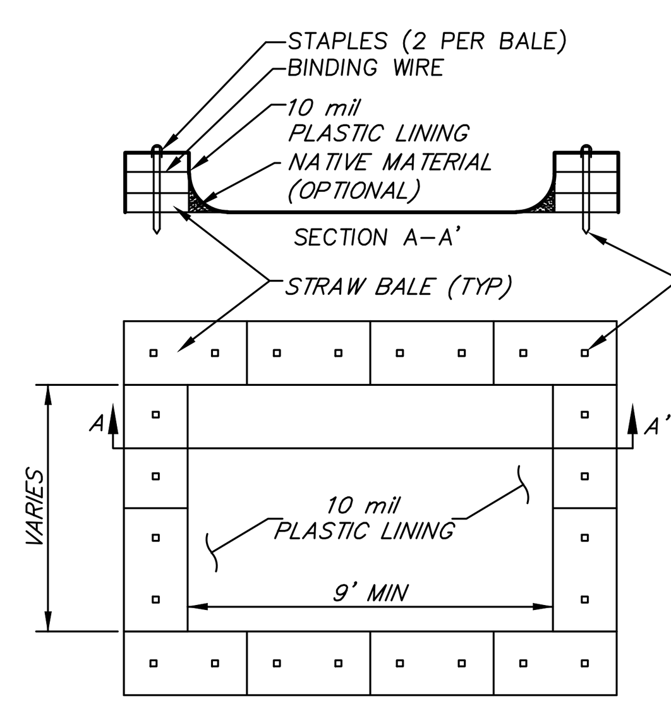
3. INSPECTIONS ARE REQUIRED WITHIN 24 HOURS OF STORMS WHICH PRODUCE 0.5" OF PRECIPITATION OR GREATER.

4. WHEN THE SITE IS FULLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT MONTHLY INTERVALS FOR A PERIOD OF 3 YEARS.

LOCAL PERMITTING:

1. THIS PLAN IS PART OF A SET OF DOCUMENTS WHICH INCLUDE LOCAL PERMITS, LOCAL REVIEW AND MODIFICATIONS TO PROPOSED SWPPP'S CREATED BY THE ABOVE LISTED CRITERIA.

2. CONTRACTORS SHALL ACCOMMODATE LOCAL REVIEW TIMELINES AS PART OF ALL SUBMISSIONS FOR SWPPP'S.



NOTES:
1. TO BE LOCATED OUTSIDE OF ALL WETLAND BUFFERS AND OFFSET ZONES.

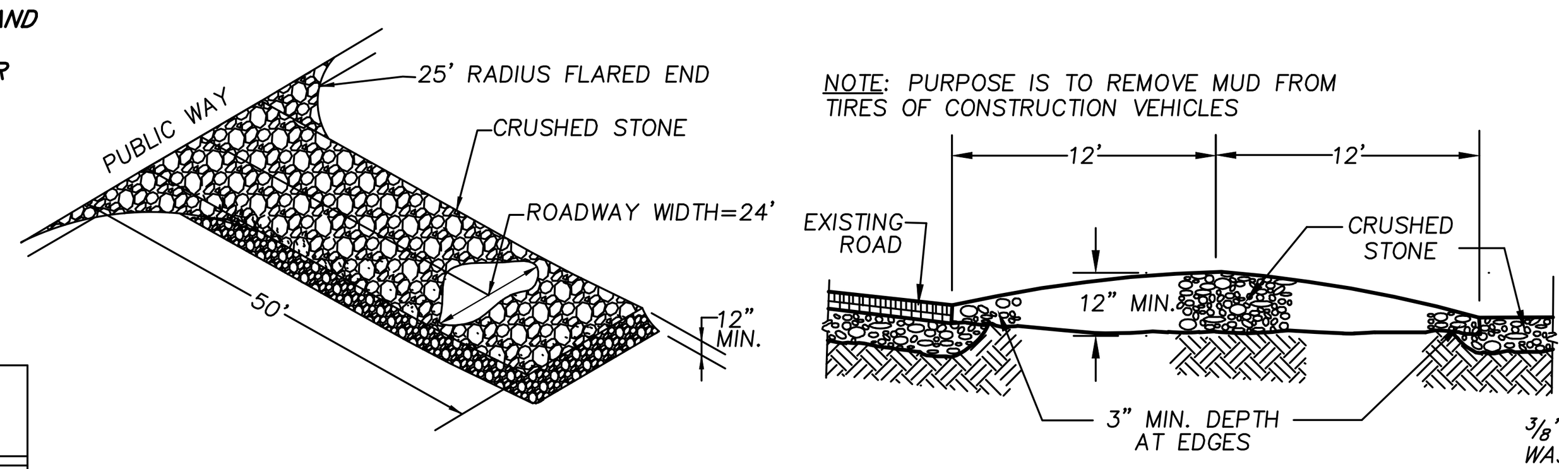
2. DO NOT PERMIT WASHOUT TO DRAIN TO GROUND SURFACE.

3. REMOVE ACCUMULATED AND PARTIALLT CURED CONCRETE TO MAINTAIN VOLUME.

4. PROTECT UPGRADIENT AREAS TO PREVENT SURFACE WATER FLOWS FROM ENTERING WASHOUT.

ABOVE GRADE CONCRETE WASHOUT

NOT TO SCALE



NOTES:
1. REPLACE STONE & ACCUMULATED DEBRIS, MUD & ENTRAPPED MATERIALS AS IS NECESSARY TO PREVENT TRACKING ON PUBLIC ROADWAYS. REPLACE MONTHLY AS A MINIMUM REQUIREMENT.

2. DISPOSE OF STONE & ENTRAPPED MATERIALS IN A NON SENSITIVE AREA OFF-SITE.

3. DO NOT REUSE STONE FOR SAME PURPOSE.

4. ALL TRAFFIC ENTERING / EXISTING SITE TO CROSS TEMPORARY CONSTRUCTION ENTRANCE

TEMPORARY CONSTRUCTION ENTRANCE

NOT TO SCALE

Sudbury Board of Selectmen

APPROVAL UNDER SITE PLAN REVIEW REQUIRED ☐ APPROVED ☐ APPROVED WITH CONDITIONS
DATE OF APPROVAL:
DATE OF ENDORSEMENT:
TOWN ENGINEER/DPW DIRECTOR:
PLANNING DIRECTOR:
BUILDING INSPECTOR:

EROSION & SEDIMENTATION CONTROL PLAN

GENERAL:

1. THIS PLAN IS PART OF A SET OF DOCUMENTS THAT ARE TO BE VIEWED AND REVIEWED IN THEIR ENTIRETY, SUCH DOCUMENTS INCLUDE THE CONSTRUCTION SPECIFICATIONS, CONSTRUCTION PLANS AND ANY PERMITS ISSUED BY THE TOWN OF SUDBURY, AGENTS OF THE TOWN OF SUDBURY OR OTHER REGULATORY AGENCIES.

2. THIS IS A PERFORMANCE SPECIFICATION WHICH THE CONTRACTOR SHALL APPLY APPROPRIATE MEANS AND METHODS TO ACHIEVE.

EROSION CONTROL MEASURES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EROSION AND SEDIMENTATION ARE CONTROLLED. THIS PLAN SHALL BE SHALL BE ADAPTED TO FIT THE CONTRACTOR'S EQUIPMENT, WEATHER CONDITIONS, AND ANY ORDERS OF CONDITIONS ISSUED BY THE BOARD OF HEALTH, CONSERVATION COMMISSION AND ANY SPECIAL CONDITIONS ISSUED BY ANY OTHER REGULATORY AGENCY OF THE TOWN OF SUDBURY.

2. THE MOST IMPORTANT ASPECTS OF CONTROLLING EROSION AND SEDIMENTATION ARE LIMITING THE EXTENT OF DISTURBANCE AND STABILIZING SURFACES AS SOON AS POSSIBLE. OF SECONDARY IMPORTANCE IN EROSION CONTROL IS THE LIMITING THE SIZE AND LENGTH OF THE TRIBUTARY DRAINAGE AREA WITHIN THE WORK SITE AND DRAINAGE STRUCTURES. THESE FUNDAMENTAL PRINCIPLES SHALL BE THE KEY FACTOR IN THE CONTRACTOR'S CONTROL OF EROSION ON THE SITE.

3. THE EXISTING SOIL CONDITIONS PROVIDE THE POTENTIAL OF RUNOFF TO OFF-SITE AREAS WITH EROSION POTENTIAL.

4. THE CONTRACTOR SHALL CONSTRUCT TEMPORARY DIVERSION SWALES AND SETTLING BASINS IN AREAS OF FUTURE CONSTRUCTION. CONSTRUCTION IS PERMITTED BEYOND THE LIMIT OF DISTURBANCE ONLY WHEN ADDITIONAL DRAINAGE MEASURES OR STABILIZATION MEASURES ARE NEEDED, AND SHALL BE SUBJECT TO APPROVAL BY THE TOWN OF SUDBURY. PRIOR TO WORK OUTSIDE OF DESIGNATED LIMIT OF DISTURBANCE LINE. THE LIMIT OF DISTURBANCE LINE SHALL BE THE EROSION CONTROL BARRIER.

5. ALL DISTURBED SURFACES SHALL BE STABILIZED A MINIMUM OF 14 DAYS AFTER CONSTRUCTION IN ANY PORTION OF THE SITE HAS CEASED OR IS TEMPORARILY HALTED UNLESS ADDITIONAL CONSTRUCTION IS INTENDED TO BE INITIATED WITHIN 21 DAYS.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF ALL EROSION CONTROL DEVICES ON-SITE. ALL EROSION CONTROL DEVICES SHALL BE REGULARLY INSPECTED. ANY SEDIMENTS REMOVED FROM THE CONTROL DEVICES SHALL BE DISPOSED OF OUTSIDE OF THE 100' WETLANDS BUFFER ZONE.

7. AT NO TIME SHALL SILT-LADEN WATER BE ALLOWED TO ENTER SENSITIVE AREAS (WETLANDS, OFF-SITE AREAS AND DRAINAGE SYSTEMS). ANY RUNOFF FROM DISTURBED SURFACES SHALL BE DIRECTED THROUGH SETTLING BASINS AND EROSION CONTROL BARRIERS PRIOR TO ENTERING ANY SENSITIVE AREAS.

PRELIMINARY SITE WORK:

1. MATERIAL REMOVED SHOULD BE STOCKPILED, SEPARATING THE TOPSOIL FOR FUTURE USE ON THE SITE. EROSION CONTROLS SHALL BE UTILIZED ALONG THE DOWNSLOPE SIDE OF THE PILES IF THE PILES ARE TO REMAIN MORE THAN THREE WEEKS OR SUBJECT TO EROSIVE CONDITIONS SUCH AS INTENSE RAIN, WIND OR OTHER EXPOSURE.

2. STOCKPILES SHALL BE LOCATED AS SPECIFIED HEREIN AND AS REQUIRED. SHOULD ADDITIONAL AREAS BE NEEDED THEY SHALL BE LOCATED WITHIN THE LIMITS OF DISTURBANCE, IN AREAS OF MINIMAL IMPACT. IF A STOCKPILE IS LOCATED ON A SLOPE, THE RUNOFF SHALL BE DIRECTED AWAY FROM THE PILE.

3. IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL HAYBALE DIKES, SILT FENCES, OR ARMORED DIKES SHALL BE UTILIZED.

4. IF THE SITE CONSTRUCTION OCCURS AT ANY TIME OTHER THAN THE MAY - NOVEMBER CONSTRUCTION SEASON, THE SITE DRAINAGE SYSTEM SHALL BE INSTALLED, MAINTAINING HYDRAULIC CAPACITY, PRIOR TO ANY ROUGH GRADING IN THE BUFFER ZONE.

DRAINAGE SYSTEM:

1. THE DRAINAGE SYSTEM SHALL BE INSTALLED FROM THE DOWNSTREAM END UP.

2. A SILT FENCE SHALL BE INSTALLED AT THE OUTFALL OF ALL TEMPORARY BASINS AND SWALES. IT SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED.

3. WATER SHALL NOT BE ALLOWED TO ENTER PIPES FROM UN-STABILIZED SURFACES. SILT FENCE SHALL BE MONITORED, CLEANED & REPLACED AS NEEDED ON A REGULAR BASIS. SEE NPDES SWPPP REQUIREMENTS, IF APPLICABLE.

4. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY PIPE INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE. THE ENDS OF PIPES SHALL BE CLOSED NIGHTLY WITH PLYWOOD AND BACKER BOARD.

5. IF UNSTABLE AREAS ARE ENCOUNTERED DUE TO NATURAL SPRINGS OR GROUNDWATER BREAKOUT, INTERCEPTOR DRAINS SHALL BE INSTALLED TO DIRECT THE RUNOFF INTO THE DRAINAGE SYSTEM, SEE DETAILS.

6. IT IS IMPORTANT THAT THE BINDER COURSE, WITH BERMS, BE INSTALLED ON THE LIMITS OF THE PARKING LOT AND ACCESS ROADS AS SOON AS FEASIBLE AS THESE AREAS WILL FUNCTION AS A CONDUIT FOR RUNOFF.

INSTALLATION OF UTILITIES:

1. CARE SHALL BE TAKEN TO ASSURE THAT THE UTILITY TRENCHES DO NOT CHANNELIZE RUNOFF TOWARDS EXISTING STREETS OR OTHER OFF-SITE AREAS.

2. THE INSTALLATION OF SUBSURFACE UTILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.

3. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY UTILITY INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE.

LANDSCAPING:

1. LANDSCAPING SHALL OCCUR AS SOON AS POSSIBLE TO PROVIDE PERMANENT STABILIZATION OF DISTURBED SURFACES.

2. CONTRACTOR SHALL UTILIZE A VARIETY OF SLOPE STABILIZATION METHODS AND MATERIALS WHICH SHALL BE ADJUSTED TO THE SITE CONDITIONS. EROSION CONTROL BLANKETS OR MIRAFI MIRAMAT (OR SIMILAR PRODUCTS) SHALL BE AVAILABLE ON SITE.

3. IF THE SEASON OR ADVERSE WEATHER CONDITIONS DO NOT ALLOW THE ESTABLISHMENT OF VEGETATION, TEMPORARY MULCHING WITH HAY, TACKIFIED WOOD CHIPS OR OTHER METHODS SHALL BE PROVIDED.

4. A MINIMUM OF 6" TOPSOIL SHALL BE PLACED AND ITS SURFACE SMOOTHED TO THE SPECIFIED GRADES.

5. SEED APPLICATIONS SHALL BE IN ACCORDANCE WITH THE GRASS AND SLOPE COVER SPECIFICATIONS.

PRE-CONSTRUCTION:

1. AN EROSION CONTROL BARRIER (SEE SHEET C-7) SHALL BE INSTALLED AS DEPICTED ON THE SITE PLAN, BETWEEN THE AREAS TO BE DISTURBED AND WETLAND AREAS. THIS BARRIER SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY SURFACES HAVE BEEN FULLY STABILIZED. THE EROSION CONTROL BARRIERS AS SHOWN ON THE SITE PLAN ARE THE MINIMUM REQUIRED TO PROTECT THE ON & OFF SITE DRAINAGE SYSTEMS.

2. PHOTOGRAPHS AND/OR VIDEO IMAGES OF THE PRE-CONSTRUCTION CONDITION OF THE SITE AND SURROUNDING AREAS, ESPECIALLY THE ADJACENT STREETS SHALL BE TAKEN, DEVELOPED AND DATED. A COPY OF THESE MATERIALS SHALL BE SUBMITTED TO THE COMMISSION AND OWNER FOR THEIR FILES. THESE PICTURES AND IMAGES SHALL REFERENCE EXISTING SITE CONDITIONS AND PERMANENT REFERENCE MARKS TO ENABLE RECOGNITION OF THE AREA BEING PHOTOGRAPHED, AND SHALL REPRESENT A COMPREHENSIVE VIEW OF THE SITE PRIOR TO DEVELOPMENT.

3. THE CONTRACTOR SHALL ESTABLISH A STAGING AREA ON A PORTION OF THE AREA TO BE DISTURBED FOR THE OVERNIGHT STORAGE OF EQUIPMENT AND STOCKPILING OF MATERIALS. THE STAGING AREA SHALL BE OUTSIDE OF THE 100' WETLANDS BUFFER ZONE.

4. IN THE STAGING AREA, THE CONTRACTOR SHALL HAVE A STOCKPILE OF MATERIALS REQUIRED TO CONTROL EROSION ON-SITE TO BE USED TO SUPPLEMENT OR REPAIR EROSION CONTROL DEVICES. THESE MATERIALS SHALL INCLUDE, BUT ARE NOT LIMITED TO: HAYBALES, SILT FENCE AND CRUSHED STONE.

5. A TEMPORARY STONE CONSTRUCTION ENTRANCE IS REQUIRED TO PREVENT TRACKING OF SILT, MUD, ETC. ONTO EXISTING ROADS. THE STONE SHALL BE REPLACED REGULARLY AS WELL AS WHEN THE STONE IS SILT LADEN OR EQUIPMENT IS OBSERVED TO BE TRACKING SOIL ONTO THE ROADWAYS.

6. THE CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL ON SITE AND SHALL UTILIZE EROSION CONTROL MEASURES WHERE NEEDED, REGARDLESS OF WHETHER THE MEASURES ARE SPECIFIED HEREIN, ON THE PLAN OR IN ANY ORDER OF CONDITIONS.

GENERAL CONSTRUCTION REQUIREMENTS:

1. ANY REFUELING OF CONSTRUCTION VEHICLES AND EQUIPMENT SHALL TAKE PLACE OUTSIDE OF THE 100 FOOT BUFFER ZONE TO THE ENTRANCE TO THE DRAINAGE SYSTEM AND SHALL NOT BE CONDUCTED IN PROXIMITY TO SEDIMENTATION BASINS OR DIVERSION SWALES, AND BE PERFORMED OFF-SITE IF POSSIBLE.

2. NO ON-SITE DISPOSAL OF SOLID WASTE, INCLUDING BUILDING MATERIALS IS ALLOWED IN THE 100 FOOT BUFFER ZONE. THE BURIAL OF STUMPS, CONSTRUCTION DEBRIS OR OTHER MATERIALS SHALL NOT BE ALLOWED ANYWHERE ON-SITE.

3. NO MATERIALS SHALL BE DISPOSED OF INTO THE WETLANDS OR EXISTING OR PROPOSED DRAINAGE SYSTEMS. ALL CONTRACTORS INCLUDING: CONCRETE SUPPLIERS, PAINTERS AND PLASTERERS, SHALL BE INFORMED THAT THE CLEANING OF EQUIPMENT IS PROHIBITED IN AREAS WHERE THE WASH-WATER WILL DRAIN DIRECTLY TO THE SITE DRAINAGE SYSTEMS.

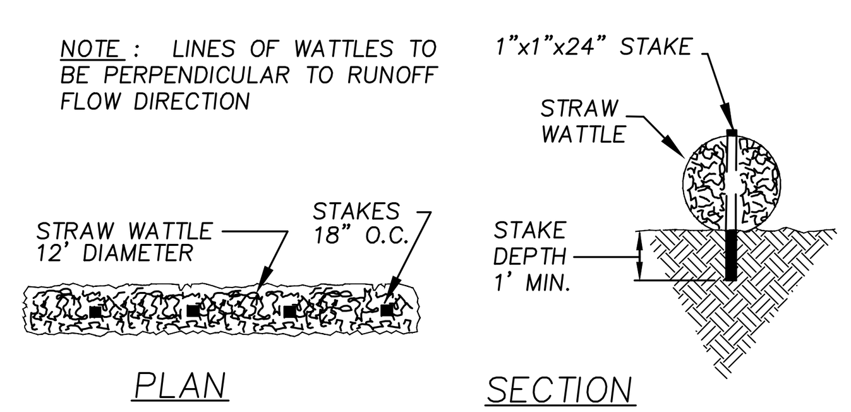
4. CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL WHICH SHALL INCLUDE STREET SWEEPING OF ALL PAVED SURFACES WITHIN THE SITE AND OFF-SITE AREAS THAT ARE IMPACTED BY SITE CONSTRUCTION ON A REGULAR BASIS, AS NEEDED.

5. ALL SUBCONTRACTORS SHALL BE NOTIFIED THAT CLEANING OF EQUIPMENT WITHIN THE 100' WETLAND BUFFER IS NOT PERMITTED. INCLUDING, BUT NOT LIMITED TO, CONCRETE TRUCKS, PAINTERS, PLASTERERS, ETC.

LOCAL PERMITTING:

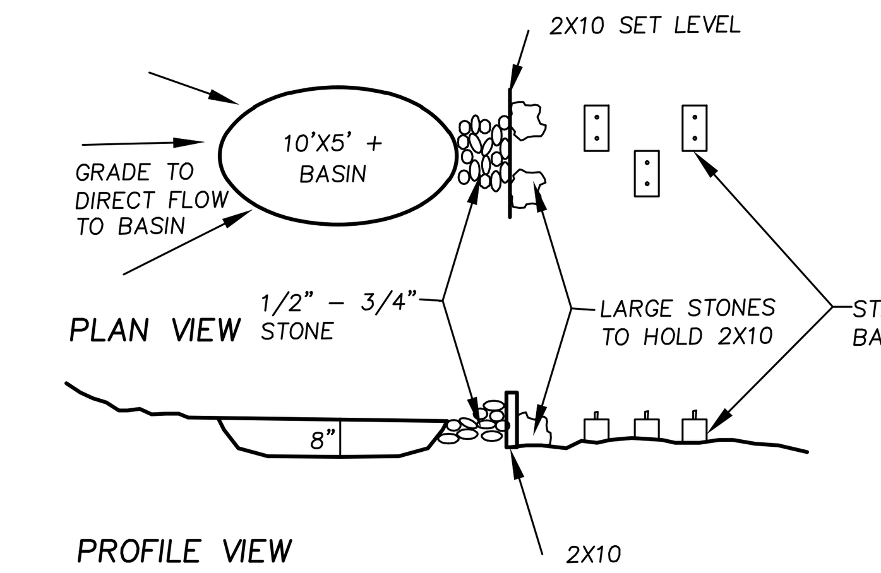
1. THIS PLAN IS PART OF A SET OF DOCUMENTS WHICH INCLUDE LOCAL PERMITS, LOCAL REVIEW AND MODIFICATIONS TO PROPOSED CONSTRUCTION E&S CREATED BY THE ABOVE LISTED CRITERIA.

2. CONTRACTORS SHALL ACCOMMODATE LOCAL REVIEW TIMELINES AS PART OF ALL SUBMISSIONS FOR CONSTRUCTION E&S.



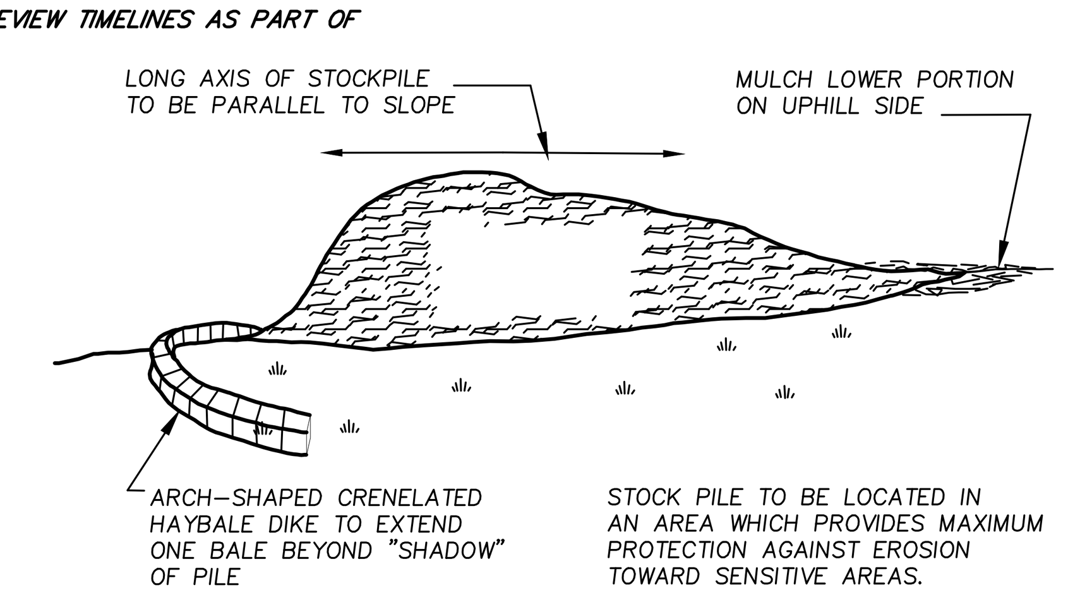
STRAW WATTLES

NOT TO SCALE



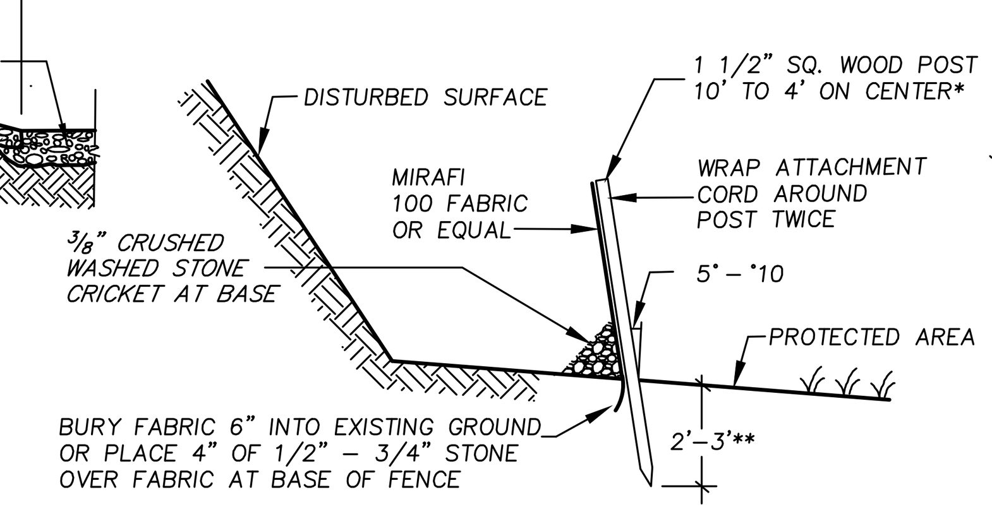
TEMPORARY DEWATERING AREA

NOT TO SCALE



TEMPORARY STOCKPILE

NOT TO SCALE

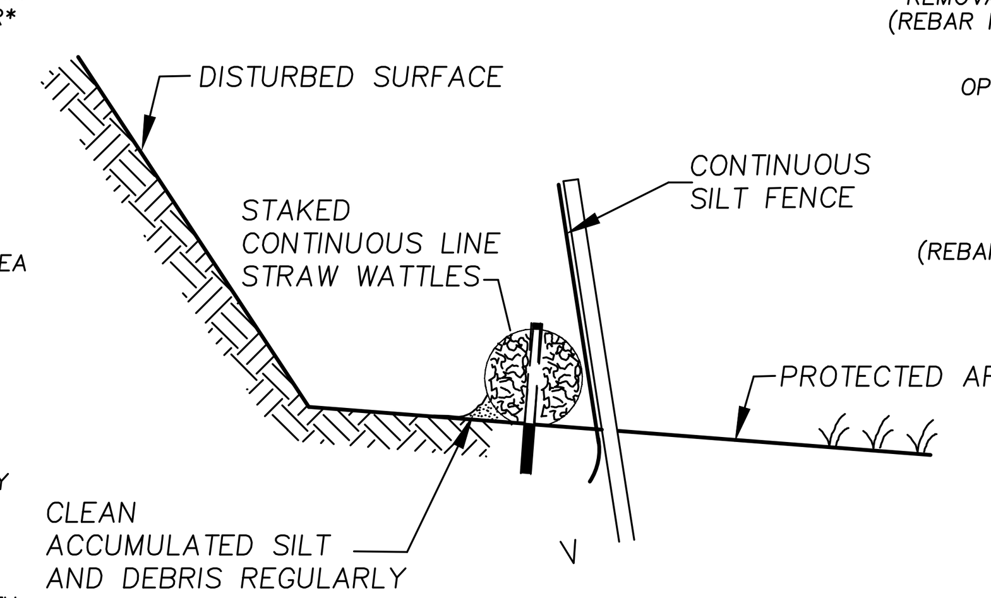


* STEEL POST MAY BE SUBSTITUTED. DISTANCE BETWEEN POSTS TO VARY AS REQUIRED BY TRIBUTARY AREA: 10' FOR 100 SF/LF FENCE 6' FOR 500 SF/LF FENCE

** DEPTH TO VARY WITH TRIBUTARY AREA: 2' FOR 100 SF ETC. IF POST IS TO BE SET IN PEAT OR UNSTABLE SOILS, THEN 3' OR DEPTH NECESSARY TO PROVIDE A STABLE POST FOR LOADED FENCE CONDITIONS

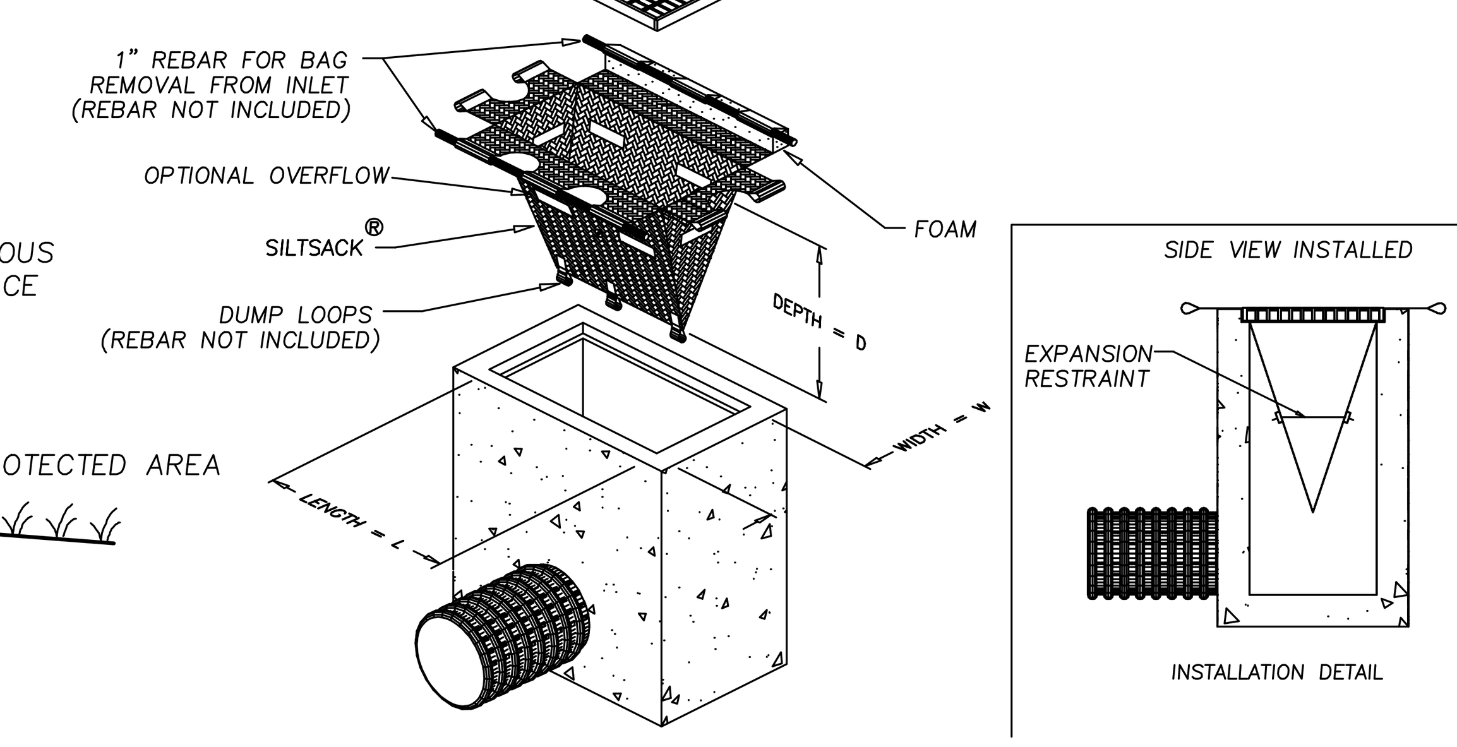
SILT FENCE DETAIL

NOT TO SCALE



EROSION CONTROL BARRIER

NOT TO SCALE



INLET SEDIMENT CONTROL DEVICE

NOT TO SCALE

NOTE: ALL SITE CONSTRUCTION METHODS & MATERIALS SHALL COMPLY TO THE REQUIREMENTS OF THE SUDBURY DEPARTMENT OF PUBLIC WORKS, AND ANY ISSUED ORDER OF CONDITIONS

the carell group

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REVISED:
1-22-14 GENERAL REVISION
1-31-14 DRAINAGE SYS. MOD.
2-10-14 DRAINAGE SYS. MOD.

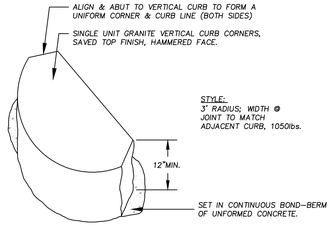
PERMIT SET
January 3, 2014

SUDBURY POLICE HEADQUARTERS

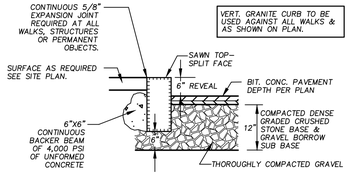
SUDBURY, MASSACHUSETTS

EROSION AND SEDIMENTATION CONTROL PLAN

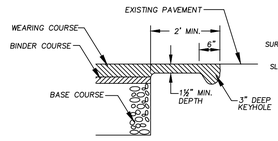
scale	AS NOTED
date	JANUARY 3, 2014
drawn by	MAA
job no	13-7201
sheet	C-7



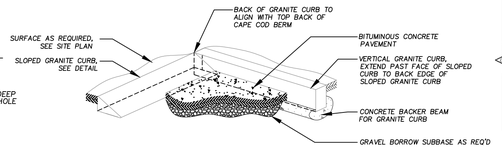
VERTICAL CURB CORNERS
NOT TO SCALE



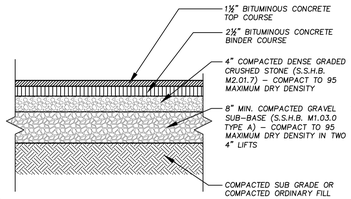
VERTICAL GRANITE CURB
NOT TO SCALE



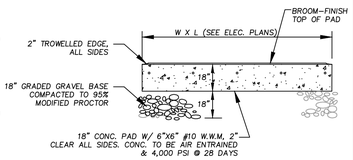
TRANSITION TO EXISTING PAVEMENT
NOT TO SCALE



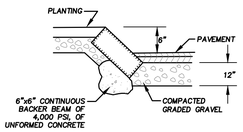
BERM TO VERTICAL GRANITE CURBING JUNCTION
NOT TO SCALE



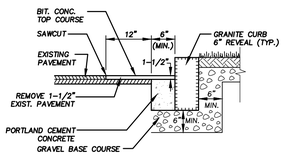
TYPICAL PAVING DETAIL
NOT TO SCALE



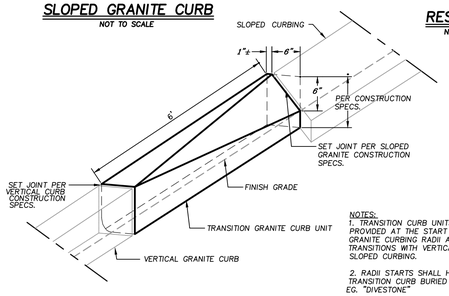
CONCRETE GENERATOR PAD
NOT TO SCALE



SLOPED GRANITE CURB
NOT TO SCALE

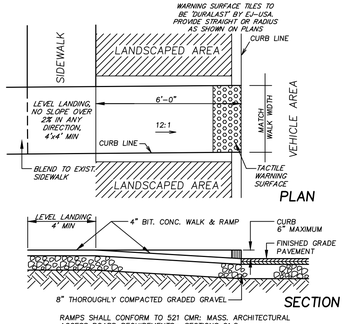


RESET CURB
NOT TO SCALE



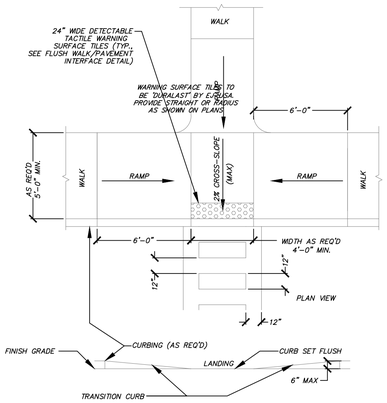
NOTES:
1. TRANSITION CURB UNITS TO BE PROVIDED AT THE START OF ALL GRANITE CURBING RADII AND AT ALL TRANSITIONS WITH VERTICAL TO SLOPED CURBING.
2. RADII STARTS SHALL HAVE TRANSITION CURB BURIED AT START. EG. "DIVESTONE"

SLOPED TO VERTICAL TRANSITION CURBING
NOT TO SCALE

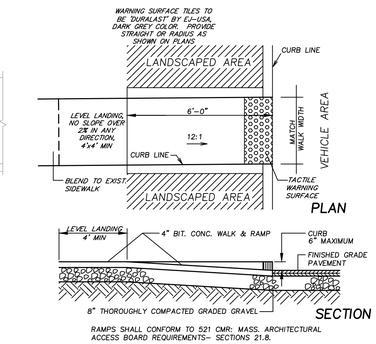


RAMPS SHALL CONFORM TO 521 CMR: MASS. ARCHITECTURAL ACCESS BOARD REQUIREMENTS– SECTIONS 21.8.

TYPE 1 ACCESSIBLE RAMP
NOT TO SCALE

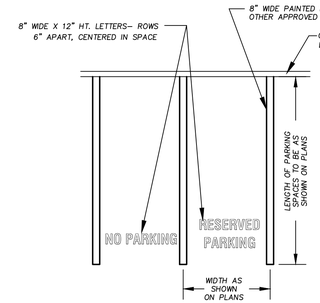


TYPE 2 ACCESSIBLE RAMP
NOT TO SCALE

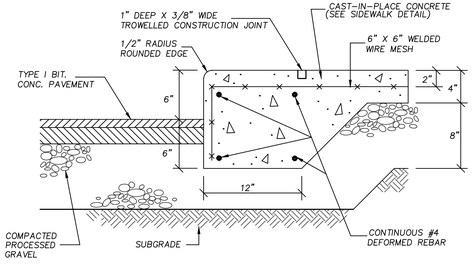


RAMPS SHALL CONFORM TO 521 CMR: MASS. ARCHITECTURAL ACCESS BOARD REQUIREMENTS– SECTIONS 21.8.

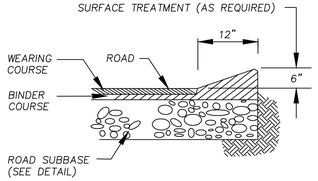
TYPE 3 ACCESSIBLE RAMP
NOT TO SCALE



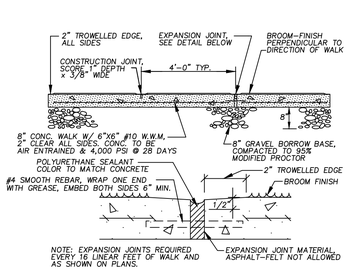
PARKING SPACE TEXT LAYOUT
NOT TO SCALE



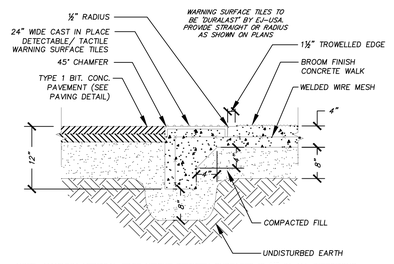
INTEGRAL CURB/WALK DETAIL
NOT TO SCALE



CAPE COD BERM
NOT TO SCALE



CONCRETE WALK & PADS
NOT TO SCALE

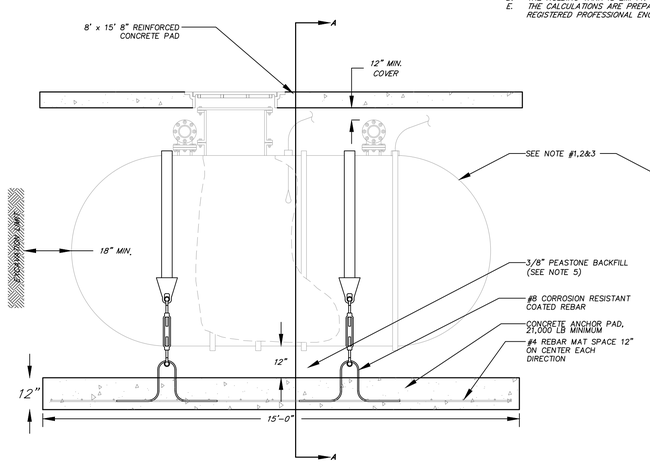


NOTE: MAXIMUM VERTICAL EDGE HEIGHT BETWEEN SURFACES IS ¼" IN ALL DIRECTIONS.

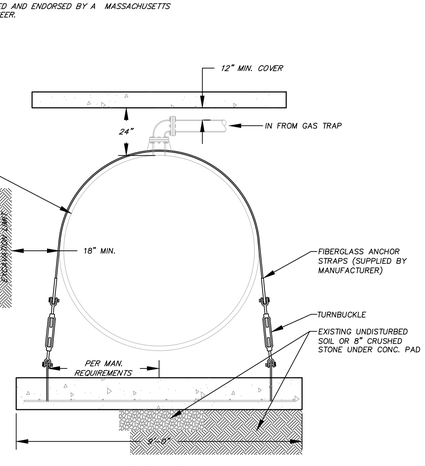
FLUSH WALK/PAVEMENT INTERFACE
NOT TO SCALE

NOTES:

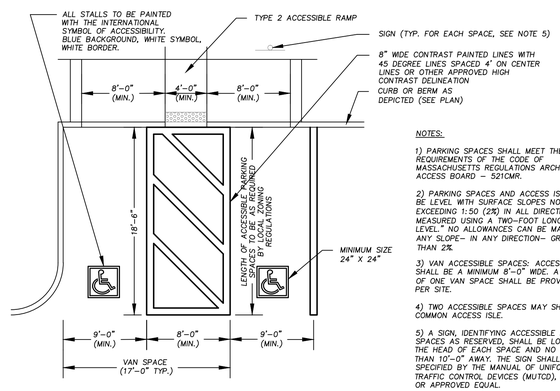
1. FLOOR DRAIN HOLDING TANK, PIPING, ALARM AND FLOATS SUPPLIED BY PLUMBING.
2. TANK, PIPING AND VENTING, INSTALLATION AND TESTING BY PLUMBING.
3. WIRING, CONDUIT AND ALARM BY ELECTRICAL.
4. EXCAVATION, TRENCHING, REINFORCED BALLAST PAD, HOLD DOWNS AND BACKFILL BY GENERAL CONTRACTOR.
5. OTHER METHODS OF PROVIDING ANTI FLOATATION BALLAST SUCH AS PINNING TO LEDGE, OR OTHER METHODS ARE ACCEPTABLE SUBJECT TO REVIEW & APPROVAL BY THE DESIGN ENGINEER PROVIDED THE FOLLOWING ALTERNATIVE DESIGN CRITERIA IS MET:
   - A. THE CALCULATIONS ASSUME THAT GROUNDWATER IS AT FINISH GRADE
   - B. THE CALCULATIONS ASSUME THAT THE TOP OF THE TANK HAS BEEN EXPOSED (I.E. NO COVER) FOR MAINTENANCE OR REPAIR PURPOSES.
   - C. THE RESISTING SHEAR STRESS ALONG THE EXCAVATION WALLS IS NEGLIGIBLE
   - D. THE HOLDING TANK IS EMPTY.
   - E. THE CALCULATIONS ARE PREPARED AND ENDORSED BY A MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER.



FLOOR DRAIN HOLDING TANK ANCHORING DETAIL
NOT TO SCALE



SECTION A–A



NOTES:

1) PARKING SPACES SHALL MEET THE REQUIREMENTS OF THE CODE OF MASSACHUSETTS REGULATIONS ARCHITECTURAL ACCESS BOARD – 521CMR.

2) PARKING SPACES AND ACCESS ISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS, AS MEASURED USING A TWO-FOOT LONG "SMART LEVEL." NO ALLOWANCES CAN BE MADE FOR ANY SLOPE– IN ANY DIRECTION– GREATER THAN 2%.

3) VAN ACCESSIBLE SPACES: ACCESS AISLES SHALL BE A MINIMUM 8'-0" WIDE. A MINIMUM OF ONE VAN SPACE SHALL BE PROVIDED PER SITE.

4) TWO ACCESSIBLE SPACES MAY SHARE A COMMON ACCESS ISLE.

5) A SIGN, IDENTIFYING ACCESSIBLE PARKING SPACES AS RESERVED, SHALL BE LOCATED AT THE HEAD OF EACH SPACE AND NO MORE THAN 10'-0" AWAY. THE SIGN SHALL BE AS SPECIFIED BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), R7-8 OR APPROVED EQUAL.

6) SIGNS AT THE HEAD OF VAN ACCESSIBLE SPACES SHALL INCLUDE THE WORDS "VAN ACCESSIBLE," R7-8A

ACCESSIBLE PARKING SPACES
NOT TO SCALE

Sudbury Board of Selectmen
APPROVAL UNDER SITE PLAN REVIEW REQUIRED ☐ APPROVED ☐ APPROVED WITH CONDITIONS
DATE OF APPROVAL:
DATE OF ENDORSEMENT:
TOWN ENGINEER/DPW DIRECTOR:
PLANNING DIRECTOR:
BUILDING INSPECTOR:

the carell group

85 main street
hopkinton, massachusetts

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REVISED:
1–22–14 GENERAL REVISION
1–31–14 DRAINAGE SYS. MOD.
2–10–14 DRAINAGE SYS. MOD.

PERMIT SET
January 3, 2014

SUDBURY POLICE HEADQUARTERS

SUDBURY, MASSACHUSETTS

CONSTRUCTION DETAILS

scale	AS NOTED
date	JANUARY 3, 2014
drawn by	MAA
job no	13–7201
sheet	

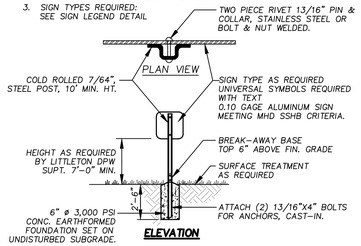
C–8

SIGN	LEGEND	DIMENSIONS	SPECIFICATIONS
STOP	R1-1	24" OCTAGONAL	MUTCD
AUTHORIZED VEHICLES ONLY	AT-VO	24" X 8"	N/A
DO NOT ENTER	R5-1	24"	MUTCD
NO PARKING ANY TIME	R7-1	12" X 18"	MUTCD

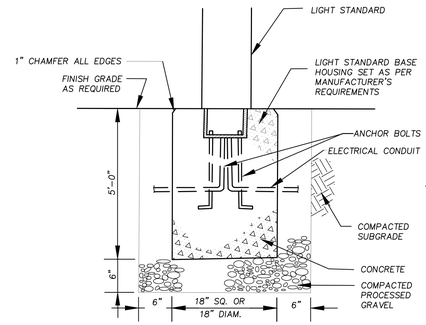
SIGN	LEGEND	DIMENSIONS	SPECIFICATIONS
RESERVED PARKING	R7-1B	12" X 18"	MUTCD
RESERVED PARKING	R7-8	12" X 18"	MUTCD
	R7-8B	12" X 6"	MUTCD
	W11-8	24"	MUTCD
POLICE PARKING ONLY	R7	12" X 18"	MUTCD

SIGN LEGEND
NOT TO SCALE

1. ALL SURFACES TO BE PRIMED & PAINTED MEETING MASS. HIGHWAY DEPT. STANDARDS
2. SIGN CONSTRUCTION & MATERIALS TO CONFORM TO MHD SSHB, SECTION 840, AND M8.18.5.
3. SIGN TYPES REQUIRED: SEE SIGN LEGEND DETAIL



TYPICAL SITE SIGN
NOT TO SCALE

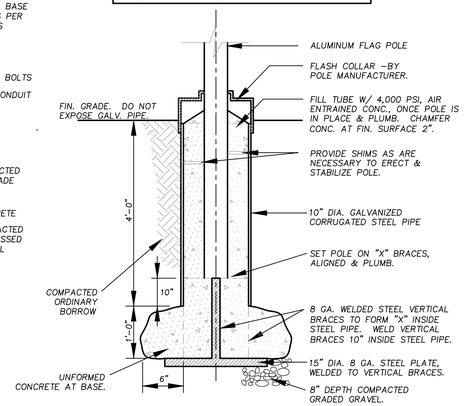


LIGHT STANDARD BASE
NOT TO SCALE

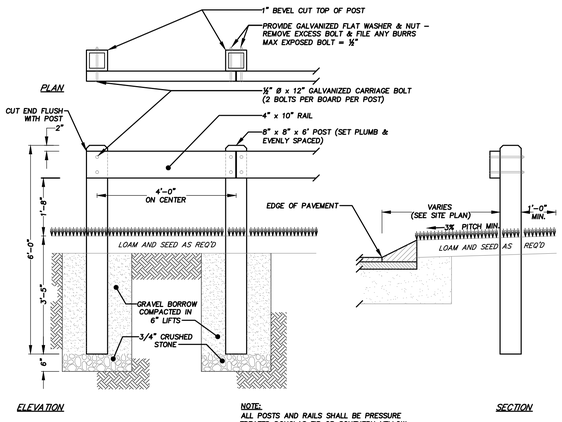
ENTIRE ASSEMBLY TO BE PREFABRICATED, PRIMED & SEAL COATED BEFORE DELIVERY TO SITE.

ALL WELDS TO BE CONTINUOUS BEADS.

MANUFACTURER'S STANDARD BASE SHALL BE PROVIDED & SIZED FOR FLAG POLE HEIGHT AND WINDLOADS.

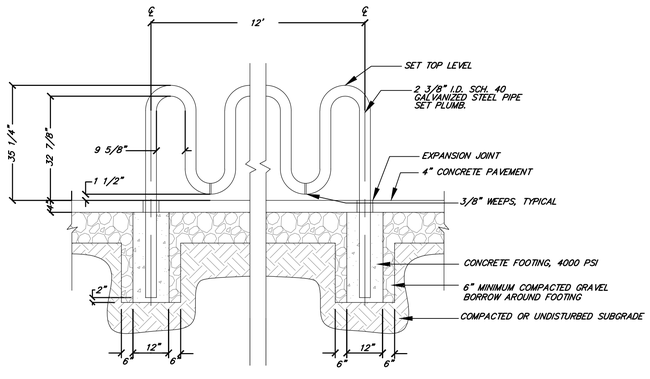


FLAG POLE BASE
NOT TO SCALE

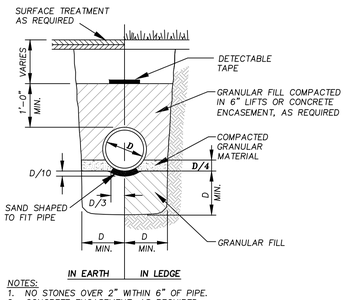


NOTE:
ALL POSTS AND RAILS SHALL BE PRESSURE TREATED DOUGLAS FIR OR SOUTHERN YELLOW PINE TREATED TO A MINIMUM OF 0.40 CCA

WOOD GUIDE RAIL
NOT TO SCALE



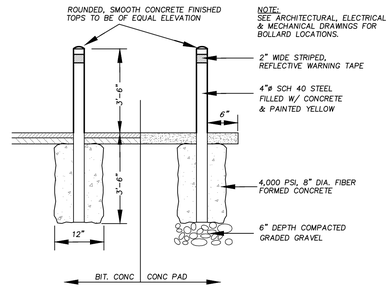
BIKE RACK
NOT TO SCALE



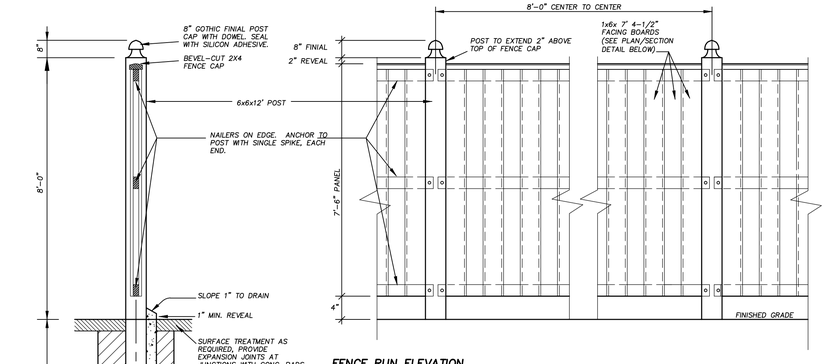
NOTES:
1. NO STONES OVER 2" WITHIN 6" OF PIPE.
2. CONCRETE ENCASEMENT, AS REQUIRED

UTILITY TRENCH DETAIL
NOT TO SCALE

OR AS REQUIRED BY APPROPRIATE UTILITY

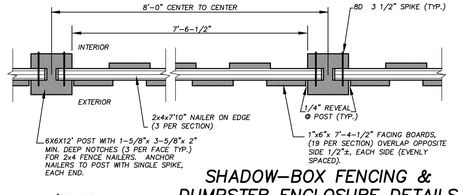


BOLLARD GUARD
NOT TO SCALE



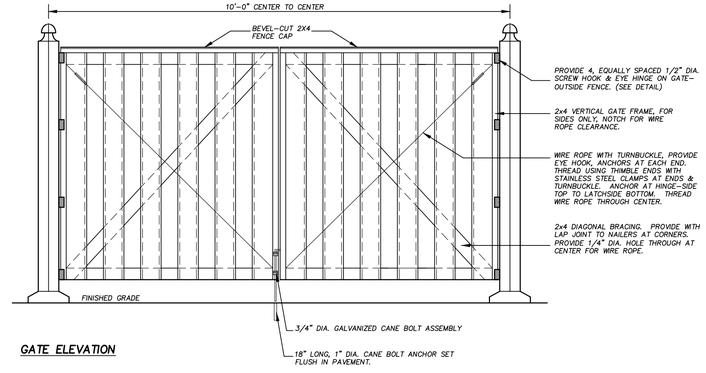
POST SECTION

FENCE RUN ELEVATION

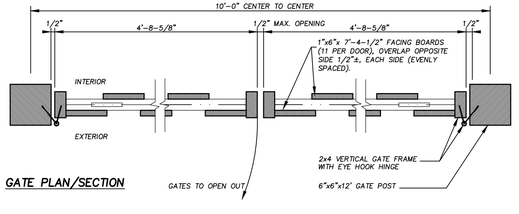


FENCE RUN PLAN/SECTION

SHADOW-BOX FENCING & DUMPSTER ENCLOSURE DETAILS
NOT TO SCALE



GATE ELEVATION



GATE PLAN/SECTION

Sudbury Board of Selectmen	
APPROVAL UNDER SITE PLAN REVIEW REQUIRED ☐ APPROVED ☐ APPROVED WITH CONDITIONS	
DATE OF APPROVAL:	
DATE OF ENDORSEMENT:	
TOWN ENGINEER/DPW DIRECTOR:	
PLANNING DIRECTOR:	
BUILDING INSPECTOR:	

the carell group

85 main street
hopkinton, massachusetts

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REVISED:
1-22-14 GENERAL REVISION
1-31-14 DRAINAGE SYS. MOD.
2-10-14 DRAINAGE SYS. MOD.

PERMIT SET
January 3, 2014

SUDBURY POLICE HEADQUARTERS

SUDBURY, MASSACHUSETTS

CONSTRUCTION DETAILS

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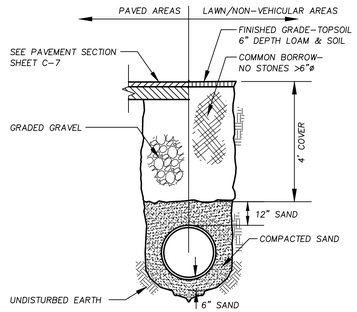
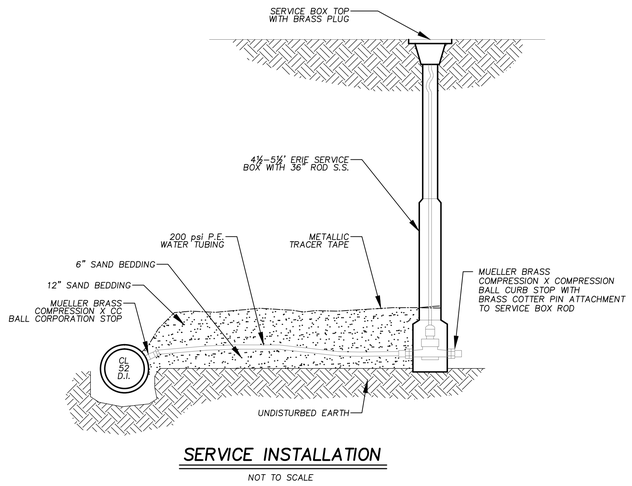


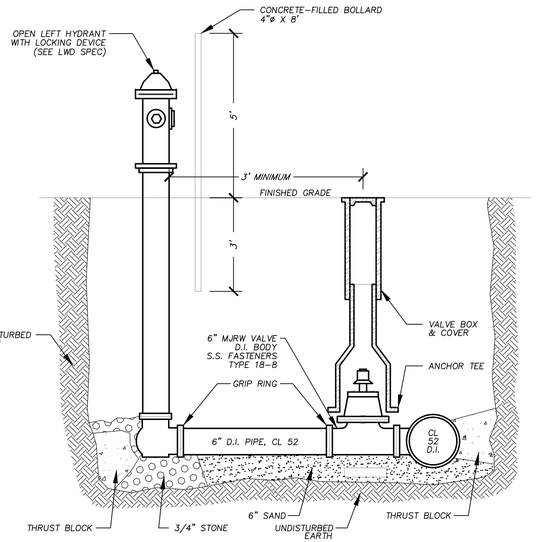
WATER MAIN INSTALLATION

NOT TO SCALE



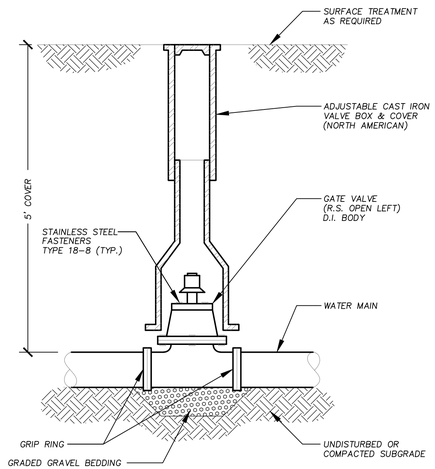
SERVICE INSTALLATION

NOT TO SCALE



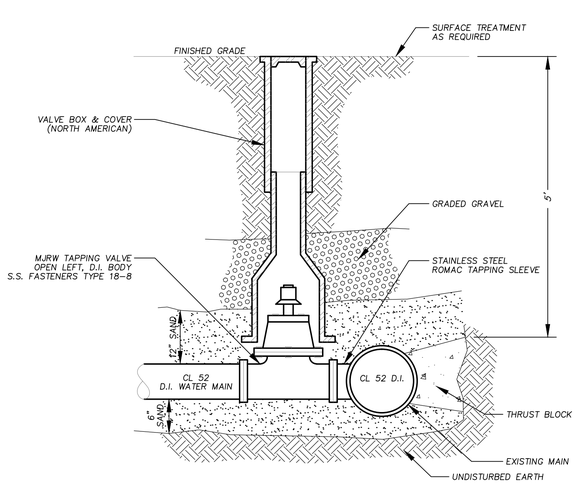
HYDRANT ASSEMBLY
THREE-WAY GATED ANCHOR TEE WITH FOSTER ADAPTER

NOT TO SCALE



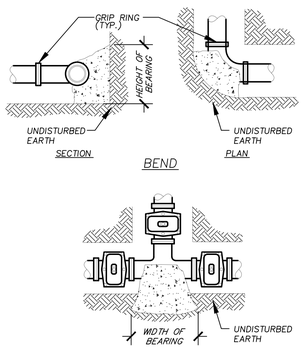
GATE VALVE AND BOX

NOT TO SCALE



TAPPING SLEEVE & VALVE ASSEMBLY

NOT TO SCALE



THRUST BLOCK DETAILS

NOT TO SCALE

Sudbury Board of Selectmen
APPROVAL UNDER SITE PLAN REVIEW REQUIRED ☐ APPROVED ☐ APPROVED WITH CONDITIONS
DATE OF APPROVAL:
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TOWN ENGINEER/DPW DIRECTOR:
PLANNING DIRECTOR:
BUILDING INSPECTOR:

WATER SYSTEM NOTE: ALL MATERIALS, METHODS, AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE SUDBURY WATER DISTRICT. TECHNICAL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE. CHECK WITH THE SUDBURY WATER DISTRICT PRIOR TO INSTALLATION OF ANY PIPE OR APPURTENANCES.

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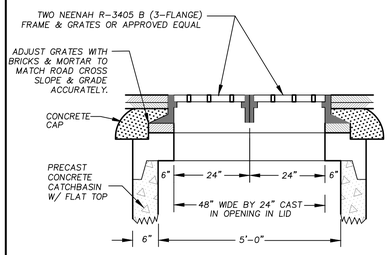
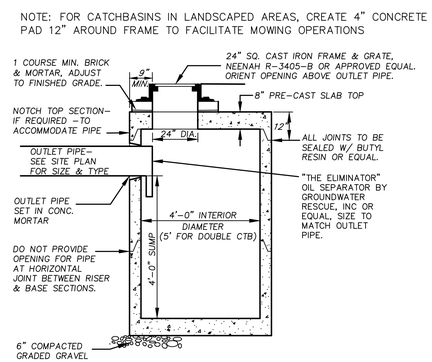


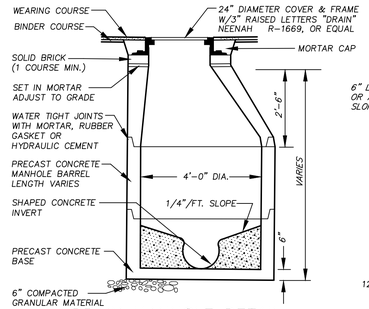
DOUBLE CATCHBASIN DETAIL

NOT TO SCALE



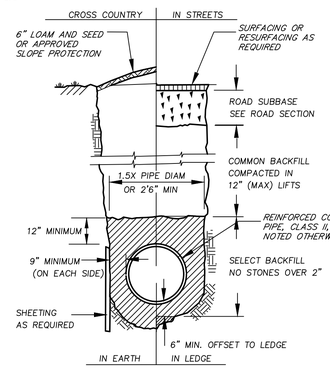
PRECAST FLAT TOP CATCHBASIN

NOT TO SCALE



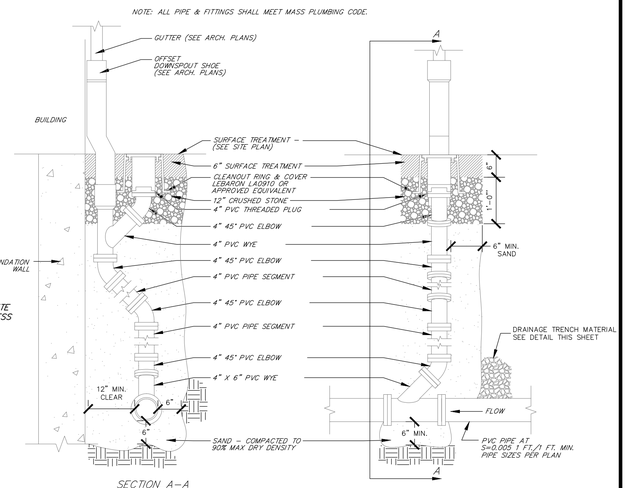
DRAIN MANHOLE DETAIL

NOT TO SCALE



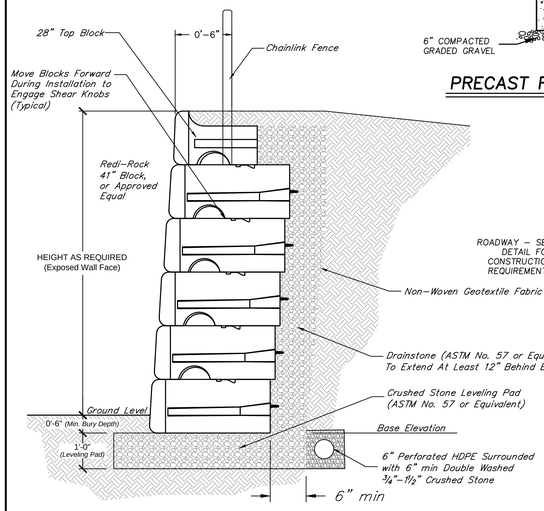
DRAINAGE TRENCH

NOT TO SCALE



ROOF DRAIN CONNECTION

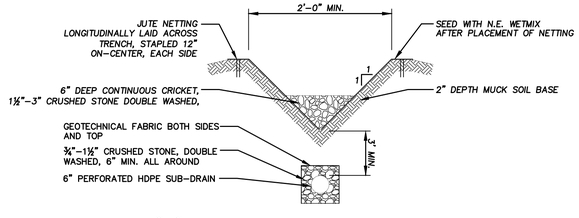
NOT TO SCALE



SHALL BE DESIGNED AND CERTIFIED BY A STRUCTURAL ENGINEER

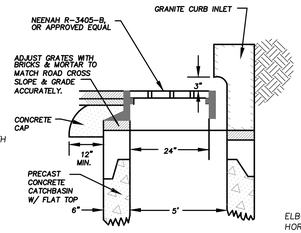
BLOCK RETAINING WALL SECTION

NOT TO SCALE



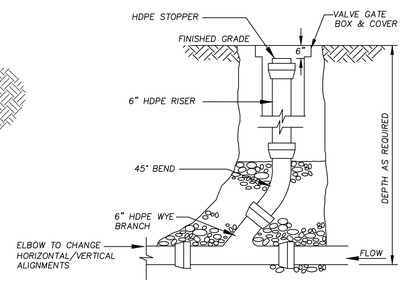
CURB INLET CATCHBASIN

NOT TO SCALE



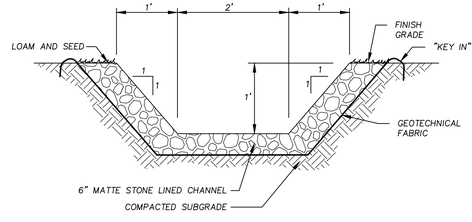
CATCHBASIN WITH GRANITE CURB DETAIL

NOT TO SCALE



ROOF DRAIN CLEANOUT

NOT TO SCALE



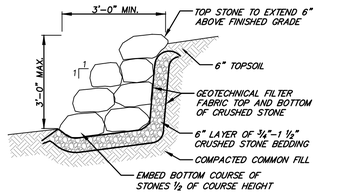
REINFORCED SWALE

NOT TO SCALE

SHALL BE DESIGNED AND CERTIFIED BY A STRUCTURAL ENGINEER

BLOCK RETAINING WALL SECTION

NOT TO SCALE



NOTES:
1. STONES FROM ON-SITE SOURCES.
2. STONES TO BE PLACED IN A GRADUATED FASHION.
3. ONCE PLACED, STONES SHALL BE CHINKED TO PREVENT ROCKING OR SETTLEMENT.
4. NO STONES TO BE LESS THAN 100 LB.
5. BUILD 4' LONG SAMPLE WALL FOR APPROVAL BY THE LANDSCAPE ARCHITECT.
6. SINGLE BOULDERS OR STONES ARE ACCEPTABLE FOR USE AS GRADE BREAKS.
7. BLAST ROCK OR BROKEN STONE MAY ONLY BE USED IF DETERMINED ACCEPTABLE AS PART OF SAMPLE WALL.
8. ONCE PLACED, THE WALL SHALL HAVE A UNIFORM LINE ALONG TOP AND BOTTOM COURSE, AND ALL STONES SHALL BE STABLE IN PLACE.

STONE GRADE BREAK

NOT TO SCALE

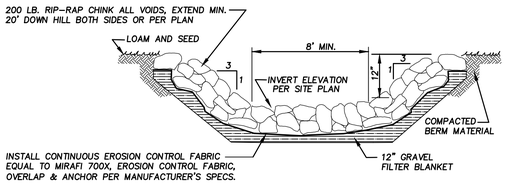
200LB. RIP-RAP SPECIFICATIONS:

1. ALL STONE SHALL BE CLEAN DURABLE ANGULAR STONE MEETING THE FOLLOWING SPECIFICATIONS:

STONE SIZE	% OF WEIGHT SMALLER THAN GIVEN SIZE
200 LB.	100%
100 LB.	75%
75 LB.	50%
50 LB.	25%
10 LB.	10%

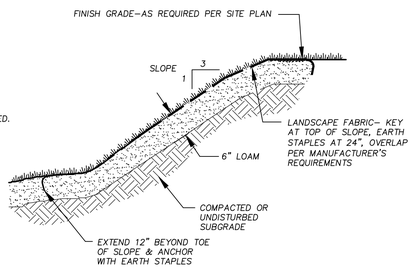
ROUNDED STONES, BOULDERS, SANDSTONE OR SIMILAR STONE OR RELATIVELY THIN SLAB SHALL NOT BE ACCEPTABLE.

2. THE RIP-RAP SHALL BE UNDERLAIN WITH A FILTER BLANKET CONSISTING OF CLEAN, COARSE GRAVEL WITH NO STONES OVER 4" IN LONGEST DIMENSION AND NO FEWER THAN 10% OF TOTAL VOLUME PASSING A 200# SIEVE.
3. THE FILTER BLANKET NEED NOT BE COMPACTED, BUT SHALL BE GRADED TO A UNIFORM THICKNESS OF 12".
4. THE FILTER BLANKET SHALL BE OVERLAYED WITH A STRUCTURAL/EROSION CONTROL FABRIC OF THE TYPE SPECIFIED. SUCH FABRIC SHALL BE CONTINUOUS IN LENGTHS, EITHER PARALLEL OR PERPENDICULAR TO THE SLOPE AND MUST BE UNDER ALL RIP-RAPPED SURFACES.



REINFORCED OVERFLOW BROAD-CRESTED WEIR

NOT TO SCALE

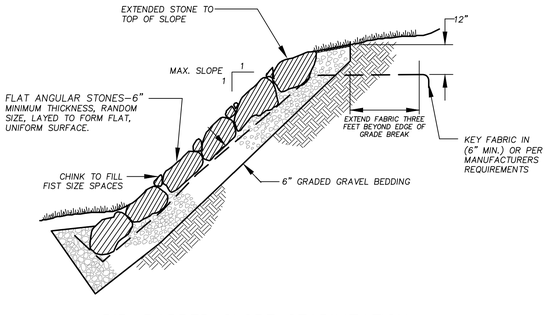


STABILIZED SLOPE

NOT TO SCALE

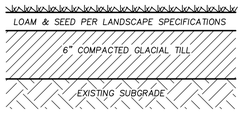
"V" SHAPED SWALE CROSS SECTION

NOT TO SCALE



RIP-RAPPED SLOPE STABILIZATION

NOT TO SCALE

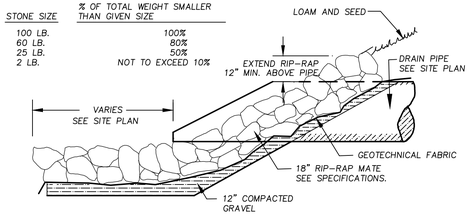


FOREBAY LINER

NOT TO SCALE

RIP-RAP SPECIFICATIONS

STONE SIZE	% OF TOTAL WEIGHT SMALLER THAN GIVEN SIZE
100 LB.	100%
60 LB.	80%
25 LB.	50%
2 LB.	NOT TO EXCEED 10%



FLARED END RIP-RAP INLET/OUTLET

NOT TO SCALE

Sudbury Board of Selectmen

APPROVAL UNDER SITE PLAN REVIEW REQUIRED
☐ APPROVED ☐ APPROVED WITH CONDITIONS

DATE OF APPROVAL:

DATE OF ENDORSEMENT:

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SUDBURY POLICE HEADQUARTERS

SUDBURY, MASSACHUSETTS

CONSTRUCTION DETAILS

scale	AS NOTED
date	JANUARY 3, 2014
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PLAN NOTES:

1. THE ESTIMATED SEASONAL HIGH GROUND WATER ELEVATIONS ARE BASED UPON THE 2013 SOIL EVALUATION RESULTS. THE HISTORIC TESTING FROM 1989–90 WAS PERFORMED BEFORE EXTENSIVE SITE WORK, INCLUDING INTERCEPTOR DRAINS, IN CONJUNCTION WITH CONSTRUCTION OF THE FIRE STATION AND ALSO PRE–DATES CURRENT EVALUATION CRITERIA ESTABLISHED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION.

2. PRIOR TO INITIATION OF CONSTRUCTION BOTH ENDS OF ALL EXISTING TRENCHES SHALL BE EXCAVATED TO CONFIRM THE ALIGNMENT AND WIDTH. THE DESIGN ENGINEER SHALL BE NOTIFIED IF THE DISTANCE BETWEEN TRENCHES IS 10 FEET OR LESS. AN AS–BUILT SURVEY PLAN PROVIDED BY THE CONTRACTOR SHALL PROVIDE LOCATION AND ELEVATION OF ALL SYSTEM COMPONENTS, INCLUDING THE EXISTING TRENCHES.

3. FOR THE RESERVE AREA SHOWN TO BE TITLE V COMPLIANT THE EXISTING HYDRANT AND SERVICE LINE SHALL BE RELOCATED TO GREATER THAN 10 FEET DISTANT FROM ANY SEPTIC COMPONENT.

4. EXISTING SOIL ABSORPTION SYSTEM EXCEEDS TITLE V MAXIMUM COVER OF 36". A MAXIMUM GRADE ELEVATION OF 171.38 SHALL OCCUR OVER ANY PORTION OF THE SOIL ABSORPTION SYSTEM.

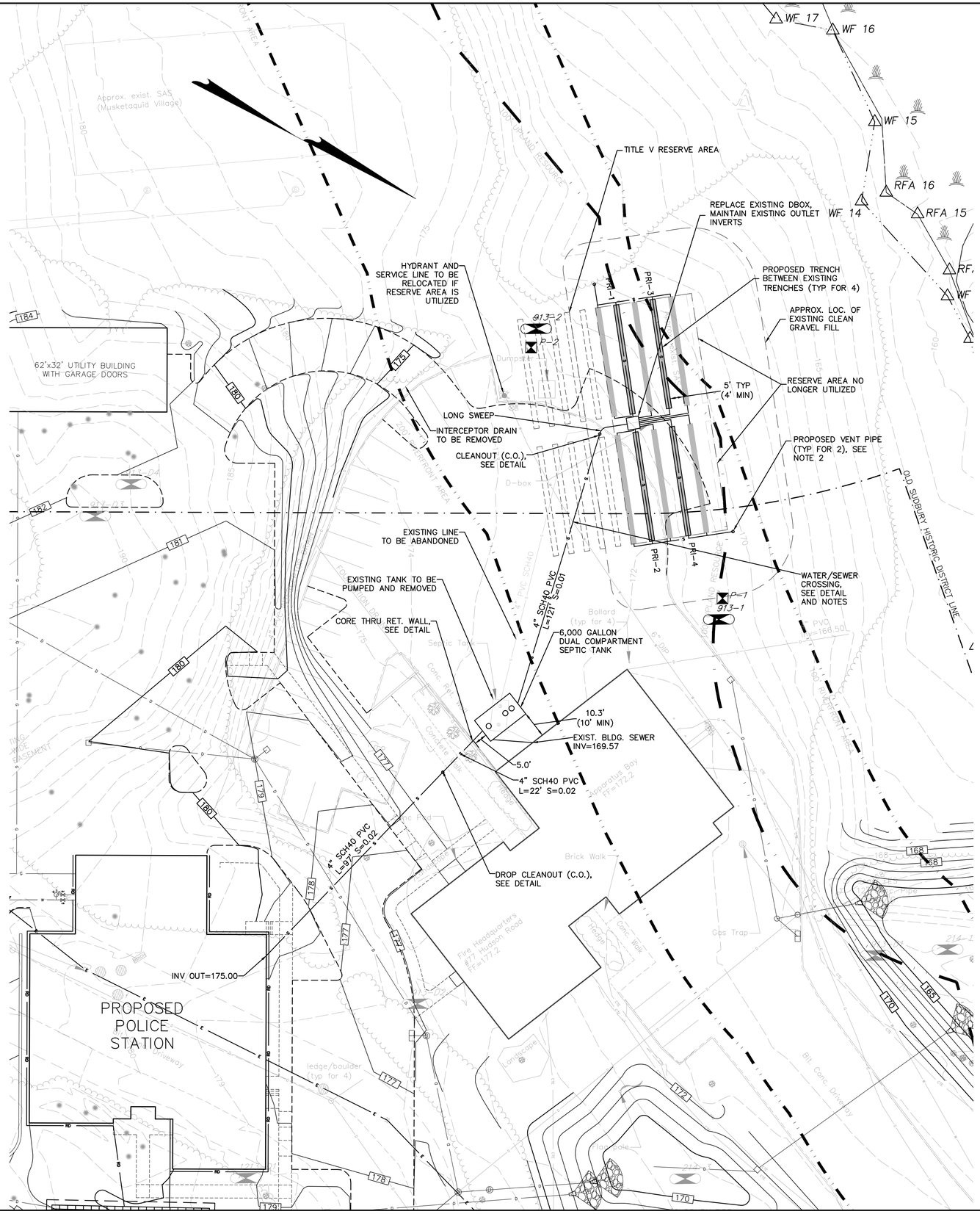
5. CONSTRUCTION OF THE RESERVE SYSTEM WILL REQUIRE A PUMP CHAMBER TO BE INSTALLED.

6. END CAPS SHALL BE REMOVED FROM THE EXISTING DISTRIBUTION LATERALS AND SYSTEM VENTING SHALL BE PROVIDED IN ACCORDANCE WITH CMR 15.241 FOR SYSTEMS PARTIALLY UNDER PAVEMENT. THE ABOVE GRADE LOCATIONS OF VENTS SHALL BE AT THE DISCRETION OF THE SUDBURY FIRE CHIEF.

7. SEE NOTES 13 & 14, SHEET C–1

8. CONTRACTOR TO VERIFY LOCATION OF WATERLINE PRIOR TO INSTALLATION OF THE SEWER LINE. SEE 'SEWER LINE CROSSING WATER LINE' DETAIL.

9. THE PROPOSED S.A.S. EXPANSION PRESENTED HERE IS THE UTILIZATION OF 4 OF THE 6 RESERVE TRENCHES FOR THE EXISTING FIRE STATION S.A.S. AS SHOWN ON "NOTICE OF INTENT SUBSURFACE DISPOSAL SYSTEM DESIGN" PREPARED BY TOWN OF SUDBURY ENGINEERING DEPARTMENT, REVISED NOVEMBER 29, 1990.



SOIL PROFILE and PERCOLATION TEST DATA

WITNESSED BY: Robert Leupold, RS – Sudbury BOH
PERFORMED BY: William Murray, SE#1723, PLACES Associates, Inc.

Testhole # 913–1 DATE: 9/26/13 Elevation: 171.5

Depth from Surface (inches)	Soil Horizon	Soil texture (USDA)	Soil Color (Munsel)	Soil Mottling	Other
0–54"	FILL	–	–		–
54–120"	C	MEDIUM SAND	10YR 6/4		5% GRAVEL

Groundwater Observed: Refusal @ N/A
Estimated Seasonal High Groundwater: B.O. HOLE Elevation: <161.5

Testhole # 913–2 DATE: 9/26/13 Elevation: 172.0

Depth from Surface (inches)	Soil Horizon	Soil texture (USDA)	Soil Color (Munsel)	Soil Mottling	Other
0–30"	FILL	–	–		–
30–36"	REM. A	–	–		–
36–40"	REM. B	–	–		–
40–118"	C	MEDIUM SAND	10YR6/3		5% GRAVEL

Groundwater Observed: Refusal @ N/A
Estimated Seasonal High Groundwater: B.O. HOLE Elevation: 162.2

PERCOLATION TESTING

WITNESSED BY: Robert Leupold, RS – Sudbury BOH
PERFORMED BY: William Murray, SE#1723, PLACES Associates, Inc.
DATE: 9/18/07

PERC: P–1
DEPTH: 84" RATE: 4 MPI

PERC: P–2
DEPTH: 60" RATE: 2 MPI

DESIGN CRITERIA:

THIS SYSTEM IS NOT DESIGNED FOR GARBAGE GRINDERS.

EXISTING FIRE STATION
OFFICE SPACE(1ST FLR.) 2,400 SF @ 75 GAL/1,000 SF = 180 GPD
BUNKS (BEDROOMS) (2ND FLR.) 5 @ 110/BED = 550 GPD
SUB–TOTAL=730 GPD

PROPOSED POLICE STATION
OFFICE SPACE (1ST FLR.) 2,200 SF @75 GAL/1,000 SF = 355 GPD
OFFICE SPACE (2ND FLR.) 4,725 SF @75 GAL/1,000 SF = 165 GPD
CELLS 4 CELLS @ 55 GAL/CELL (½ BDRM) = 220 GPD
EMPLOYEES PER SHIFT 12 EMP @ 15 GAL/PERSON = 180 GPD
MEETING ROOM 49 SEATS @ 3 GAL/SEAT = 147 GPD
SUB–TOTAL = 1,067 GPD
TOTAL = 1,797 GPD

EXISTING SOIL ABSORPTION SYSTEM (SEE NOTE 9)
EXISTING CAPACITY FROM 6 TRENCHES @ 2'x2'x42'
[42 LF X 6 SF/LF] X 6 TRENCHES = 1,512 SF LEACHING AREA
TYPE I SOIL LTAR = 0.74 GPD/SF, 1,512 X 0.74 = 1,118 GPD

PROPOSED EXPANSION
1,797 – 1,118 = 679 GPD ADDITIONAL CAPACITY REQUIRED
679 GPD / 0.74 GPD/SF = 918 SF LEACHING AREA REQUIRED
4 TRENCHES @ 2'x2'x42' = [42 LF X 6 SF/LF] X 4 = 1,008 SF

EXISTING RESERVE AREA BETWEEN EXISTING TRENCHES IS TO BE UTILIZED FOR THE SYSTEM EXPANSION. PROPOSED TITLE V COMPLIANT RESERVE AREA CONSISTS OF 10 TRENCHES @ 42'x2'x2' WITH 4' SEPARATION BETWEEN TRENCHES

PROPOSED SEPTIC TANK:

PROVIDE TWO COMPARMENT SEPTIC TANK, WITH H20 LOADING; SEPTIC TANK TO BE:
COMPARTMENT 1: 1,797 *GPD x 2.0 =* 3,596 *GALLON MIN.*
COMPARTMENT 2: 1,797 *GPD x 1.0 =* 1,797 *GALLON MIN.*
PROVIDE: 6,000 *GALLON TANK (4,000/2,000)*

ELEVATION SCHEDULE

	Proposed	As–Built
TOP OF CONC. POLICE	181.00	
INVERT AT FND. POLICE	175.00	
INVERT IN DROP C.O.	173.00	
INVERT OUT DROP C.O.	170.05	
TOP OF CONC. FIRE	172.20	
INVERT AT FND. FIRE	169.57	
TOP OF SEPTIC TANK	170.87	
INVERT IN SEPTIC TANK	169.37	
INVERT OUT SEPTIC TANK	169.20	
INVERT IN DBOX	167.88	
INVERT OUT DBOX	167.71	
GROUND WATER OFFSET	REQ'D 4'	PROVIDED 4'

SCHEDULE OF LEACHING TRENCH GRADES

NO.	TOP STONE	HIGH INVERT	LOW INVERT	BOTTOM STONE
PRI–1	168.21	167.71	167.50	165.50
PRI–2	168.21	167.71	167.50	165.50
PRI–3	168.21	167.71	167.50	165.50
PRI–4	168.21	167.71	167.50	165.50
EXP	169.75	169.25	169.04	167.04

AS–BUILT ELEVATIONS

NO.	TOP STONE	HIGH INVERT	LOW INVERT	BOTTOM STONE
PRI–1				
PRI–2				
PRI–3				
PRI–4				

Sudbury Board of Selectmen

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☐ APPROVED ☐ APPROVED WITH CONDITIONS

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DATE OF ENDORSEMENT:

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PLANNING DIRECTOR:
BUILDING INSPECTOR:

the carell group

85 main street
hopkinton, massachusetts

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REVISED:
1–22–14 GENERAL REVISION
1–31–14 DRAINAGE SYS. MOD.
2–10–14 DRAINAGE SYS. MOD.

PERMIT SET
January 3, 2014

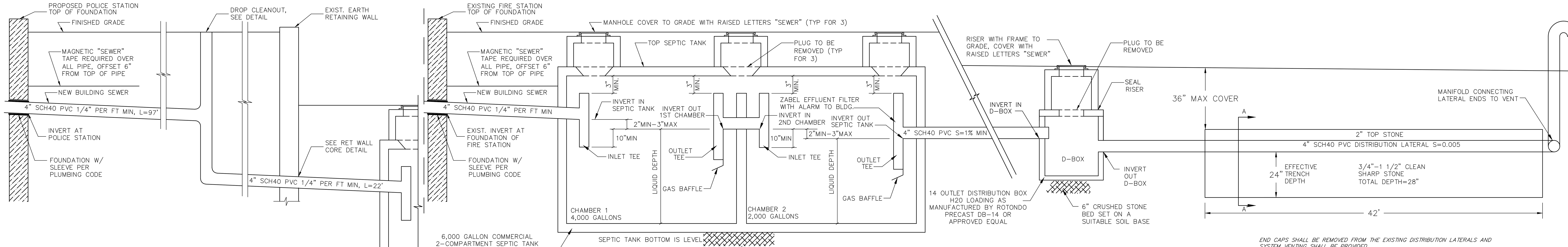
SCALE: 1 INCH = 20 FEET
FEET 0 10 20 40
METERS 0 10
GRAPHIC SCALE

SUDBURY POLICE HEADQUARTERS

SUDBURY, MASSACHUSETTS

SEWAGE DISPOSAL PLAN

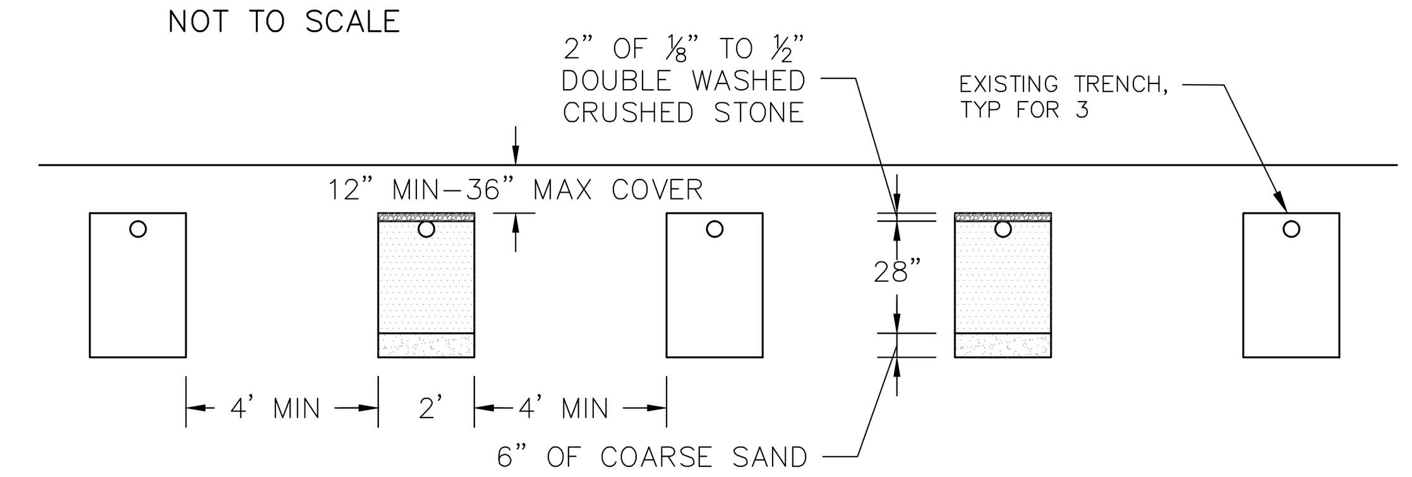
scale	1" = 20'
date	JANUARY 3, 2014
drawn by	MAA
job no	13–7201
sheet	C–12



SYSTEM DIAGRAM

NOT TO SCALE

END CAPS SHALL BE REMOVED FROM THE EXISTING DISTRIBUTION LATERALS AND SYSTEM VENTING SHALL BE PROVIDED.



S.A.S. SECTION A-A'

NOT TO SCALE

PRE CONSTRUCTION:

THE CONTRACTOR SHALL NOTIFY "DIG-SAFE" PRIOR TO ANY ON SITE EXCAVATION.

PRIOR TO INITIATION OF CONSTRUCTION BOTH ENDS OF ALL EXISTING TRENCHES SHALL BE EXCAVATED TO CONFIRM THE ALIGNMENT AND WIDTH. THE DESIGN ENGINEER SHALL BE NOTIFIED IF THE DISTANCE BETWEEN TRENCHES IS 10 FEET OR LESS. AN AS-BUILT SHALL PROVIDE LOCATION AND ELEVATION OF ALL SYSTEM COMPONENTS, INCLUDING THE EXISTING TRENCHES.

THE OWNER SHALL VERIFY ZONING REGULATIONS PRIOR TO CONSTRUCTION.

THE TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN ARE A RESULT OF AN ON THE GROUND TOPOGRAPHIC SURVEY PERFORMED BY PLACES ASSOCIATES, INC. THIS PLAN SHOWS ONLY THOSE FEATURES THAT WERE VISUALLY APPARENT ON THE DATE OF TOPOGRAPHY. PROPERTY LINE INFORMATION WAS TAKEN FROM THE RECORD PLAN.

THE ABSENCE OF SUBSURFACE STRUCTURES, UTILITIES, ETC. IS NOT INTENDED NOR IS IT IMPLIED. THE LOCATION OF ANY INDICATED SUBSURFACE UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL OBTAIN ADEQUATE LOCATION INFORMATION FROM THE APPLICABLE UTILITY COMPANY PRIOR TO ANY CONSTRUCTION,

A TEMPORARY BENCHMARK SHALL BE SET WITHIN 50' TO 75' OF THE PROPOSED CONSTRUCTION AREA.

THIS SITE IS WITHIN 100' OF WETLANDS AND WITHIN 200' OF RIVER BANK. A NOTICE OF INTENT MUST BE FILED WITH THE SUDBURY CONSERVATION COMMISSION.

THERE ARE NO EXISTING PRIVATE WELLS WITHIN 100' OF THE PROPOSED SEWAGE DISPOSAL SYSTEM COMPONENTS, ALL KNOWN WELLS WITHIN 150' OF THE EXISTING PRIMARY AND EXPANSION SOIL ABSORPTION AREAS ARE SHOWN.

THE CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER PROMPTLY OF ANY PLAN DEFICIENCIES OR OTHER UNFORESEEN CONDITIONS WHICH MAY IMPACT THE FUNCTION OF THE COMPLETED SYSTEM PRIOR TO CONSTRUCTION.

DEVIATIONS FROM THE PLAN REQUIREMENTS OR DESIGN DURING CONSTRUCTION AND OPERATION OF THE PROPOSED SYSTEM SHALL VOID ANY CERTIFICATION OR REPRESENTATIONS MADE RELATIVE TO THE SUBSURFACE SEWAGE DISPOSAL SYSTEM.

MATERIAL SPECIFICATIONS:

THE SOIL ABSORPTION SYSTEM IS DESIGNED TO ACCOMMODATE SANITARY SEWAGE DERIVED FROM DOMESTIC USAGE THAT IS COMPRISED OF WATER CARRIED PUTRESIBLE WASTES ONLY.

ALL TANKS AND MANHOLES SHALL BE WATERTIGHT THROUGH THE MANUFACTURER'S WARRANTY.

ALL TANKS, CHAMBERS AND TRAPS SHALL BE EQUIPPED WITH TWENTY INCH MINIMUM DIAMETER WATERTIGHT ACCESS MANHOLE(S).

ALL TANKS, D-BOXES, CHAMBERS, TRAPS, COVERS, ACCESS MANHOLE AND PIPING SHALL BE ABLE TO WITHSTAND AN H-20 LOAD. IF VEHICLE TRAFFIC IS ANTICIPATED, H-20 LOADING CERTIFICATION FROM THE COMPONENT MANUFACTURER IS REQUIRED.

ALL TANKS, D-BOXES, CHAMBERS AND TRAPS SHALL BE PRECAST REINFORCED CONCRETE ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.

CEMENT SHALL BE PORTLAND TYPE I OR III PER ASTM C150-81.

ALL CONCRETE ADMIXTURES SHALL BE PER ASTM C233-82.

ALL CONCRETE REINFORCEMENT SHALL BE WIRE FABRIC, GRADE 40/60 R'D PER ASTM A615.

THE SEPTIC TANK SHALL BE EMBOSSED WITH A SEAL STATING COMPLIANCE WITH ASTM C1227093.

THE MINIMUM REINFORCED CONCRETE WALL THICKNESS IS THREE INCHES.

ALL SYSTEM COMPONENTS SHALL BE CONSTRUCTED WITH CORROSION RESISTANT MATERIAL.

ALL PIPING SHALL BE POLYVINYL CHLORIDE (PVC) ASTM 26655 SCHEDULE 40 NSF.

THE BUILDING SEWER SHALL COMPLY WITH THE STATE PLUMBING CODE, 248 CMR 2.00.

ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS TO LOCATE THEM WHEN BURIED.

CONSTRUCTION NOTES:

ALL LOAM, SUBSOIL, LARGE BOULDERS AND FOREIGN MATERIAL ENCOUNTERED DURING EXCAVATION SHALL BE REMOVED.

IF THE REMOVAL OF STONES OR BOULDERS RESULTS IN LOCAL DEPRESSIONS, FILLING TO GRADE WITH SUITABLE EXCAVATED PARENT MATERIAL IS ACCEPTABLE.

AN OFFSET OF AT LEAST TEN FEET TO ANY EXISTING OR PROPOSED WATER LINE SHALL BE PROVIDED FROM ALL SYSTEM COMPONENTS. SEE WATER/SEWER CROSSING DETAIL.

THE BUILDING SEWER LINE SHALL BE CONSTRUCTED WITH WATER TIGHT JOINTS.

THE BUILDING SEWER SHALL BE LAID WITH A 2 PERCENT MINIMUM SLOPE (1/4 INCH PER FOOT PITCH). THE BUILDING SEWER SHALL BE LAID ON A CONTINUOUS LINE AND GRADE OR A MANHOLE SHALL BE PROVIDED.

CLEANOUTS SHALL BE PROVIDED FOR ANY PIPE LENGTH IN EXCESS OF 100 FEET.

THE BUILDING SEWER SHALL BE VENTED THROUGH THE BUILDING'S VENT STACK.

ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED TO PREVENT EROSION, UNLESS UNDER PAVEMENT.

MAX. COVER ABOVE ANY SYSTEM COMPONENT IS 36", EXCEPT WHERE MANHOLE TO GRADE.

EXISTING SYSTEM NOTES

THE EXISTING SEPTIC TANK AT THE FIRE STATION SHALL BE PUMPED AND REMOVED.

THE NEW SEPTIC TANK SHALL BE INSTALLED UPON REMOVAL OF EXISTING AND SHALL FUNCTION AS A TEMPORARY HOLDING TANK UNTIL THE CONSTRUCTION OF DOWN GRADIENT COMPONENTS IS COMPLETED AND CERTIFIED FOR USE. A TEMPORARY HIGH WATER ALARM SHALL BE INSTALLED AND SET TO THE ELEVATION OF THE INVERT OUT. SEPTIC TO BE MONITORED AND PUMPED AS NEEDED WHILE COMPONENTS UNDER CONSTRUCTION.

SEPTIC TANK NOTES:

THE INLET AND OUTLET TEES SHALL BE LOCATED ON THE CENTER LINE OF THE TANK, DIRECTLY UNDER THE TEE ACCESS MANHOLES.

THE TOP OF THE INLET AND OUTLET TEES SHALL BE AT LEAST THREE INCHES BELOW THE INSIDE TOP OF TANK.

THE OUTLET TEE SHALL BE FITTED WITH AN EFFLUENT FILTER, ZABEL P-122 OR EQUAL, WITH AN ALARM TO FIRE STATION CONTROL PANEL.

THE INLET PIPE INVERT SHALL BE AT LEAST TWO INCHES BUT NOT MORE THAN THREE INCHES ABOVE THE OUTLET PIPE INVERT.

THE INLET TEE SHALL EXTEND TEN INCHES BELOW THE OUTLET PIPE INVERT.

THE OUTLET TEE SHALL EXTEND 14 INCHES BELOW THE OUTLET PIPE INVERT PLUS 5 ADDITIONAL INCHES FOR EVERY FOOT OF TANK DEPTH IN EXCESS OF FOUR FEET.

SEPTIC TANKS SHALL HAVE AT LEAST NINE INCHES OF EARTHEN COVER.

THE DEPTH OF LIQUID BELOW THE INVERT OF THE OUTLET TEE SHALL BE FOUR FEET MINIMUM.

AT LEAST THREE 20-INCH MINIMUM DIAMETER ACCESS MANHOLES SHALL BE PROVIDED IN THE TANK COVER. ACCESS MANHOLES SHALL BE LOCATED ON THE CENTER LINE ABOVE EACH INLET AND OUTLET TEE AND AT THE TANK CENTER. H20 LOADING IS REQUIRED.

ALL ACCESS MANHOLES SHALL BE BROUGHT TO FINISHED GRADE. MANHOLES BROUGHT TO FINISHED GRADE SHALL BE MADE SECURE TO PREVENT UNAUTHORIZED ACCESS.

NO STRUCTURES OR OTHER FEATURE SHALL BE LOCATED OVER OR NEAR THE TANK SO AS TO ALLOW REQUIRED INSPECTION AND MAINTENANCE.

EVERY SEPTIC TANK SHALL BE PUMPED WHENEVER NECESSARY TO ENSURE PROPER SYSTEM FUNCTION, A MINIMUM OF EVERY TWO YEARS.

THE SEPTIC TANK SHALL BE PUMPED WHEN THE TOP OF THE SLUDGE LAYER IS WITHIN TWELVE INCHES OF THE BOTTOM OF THE OUTLET TEE.

THE SEPTIC TANK SHALL BE PUMPED WHEN THE TOP OF THE SCUM LAYER IS WITHIN TWO INCHES OF THE TOP OF THE OUTLET TEE OR WHEN THE BOTTOM OF THE SCUM LAYER IS WITHIN TWO INCHES OF THE BOTTOM OF THE OUTLET TEE.

ALL SYSTEMS ARE DIFFERENT, THEREFORE IT IS RECOMMENDED THAT THE PUMPING FREQUENCY BE ADJUSTED TO OCCUR WHEN THE SLUDGE DEPTH IS NOT MORE THAN ONE QUARTER THE DESIGN LIQUID DEPTH. PUMPING SHALL OCCUR NOT MORE THAN THREE YEARS APART.

THE CONTRACTOR PERFORMING THE PUMPING SHALL BE MADE AWARE OF THE OUTLET FILTER AND THE FILTER SHALL BE CLEANED, INSPECTED AND REPLACED IF NECESSARY UPON EACH PUMPING.

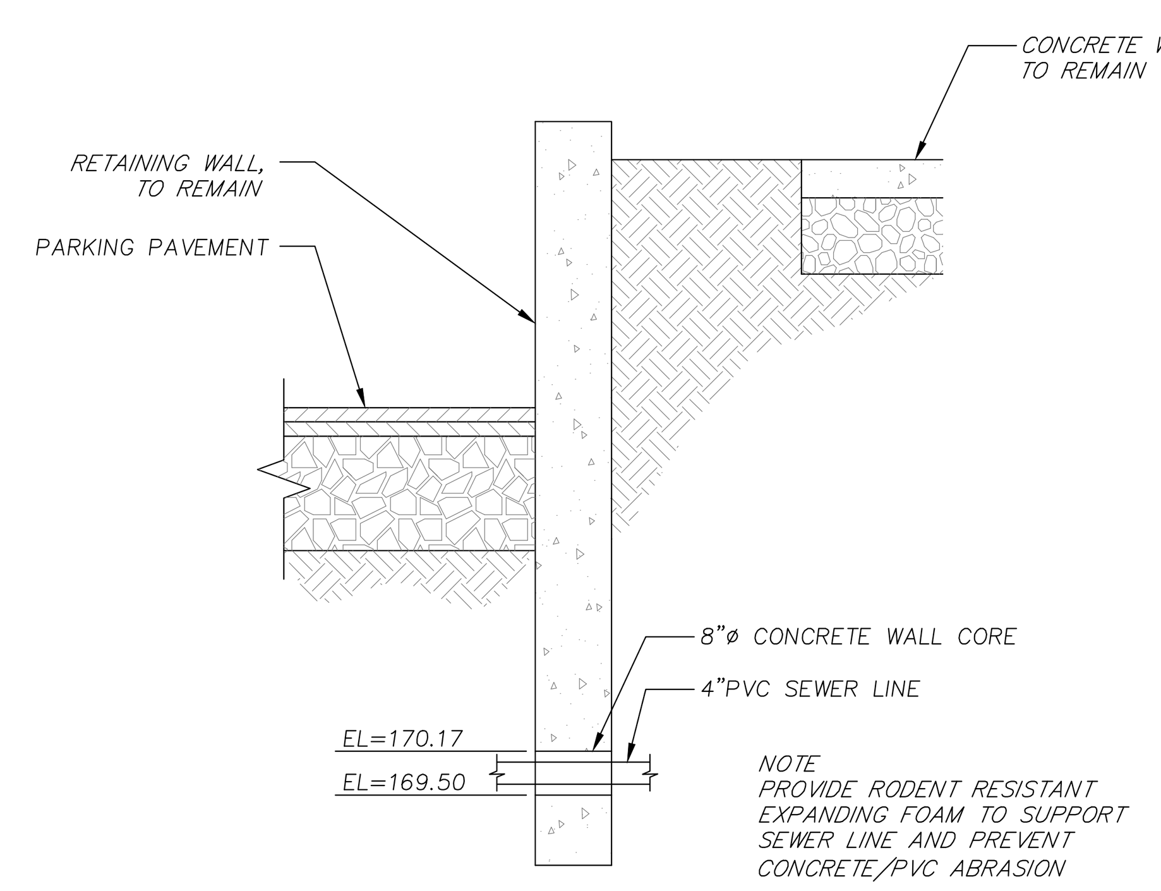
SYSTEM VENT NOTES:

THE SYSTEM SHALL BE VENTED THROUGH THE BUILDING STACK VENT WHERE POSSIBLE. WHEN ADDITIONAL SYSTEM VENTS ARE INDICATED OR REQUIRED, THEY SHALL BE CONSTRUCTED WITH THE SAME PIPING SIZE AND MATERIAL, LOCATED SO AS TO PREVENT THE ENTRANCE OF ANIMALS OR PRECIPITATION AND BACKFILLED TIGHTLY TO PREVENT THE MIGRATION OF SURFACE WATER INTO THE SOIL ABSORPTION SYSTEM

SYSTEM OPERATION & MAINTENANCE:

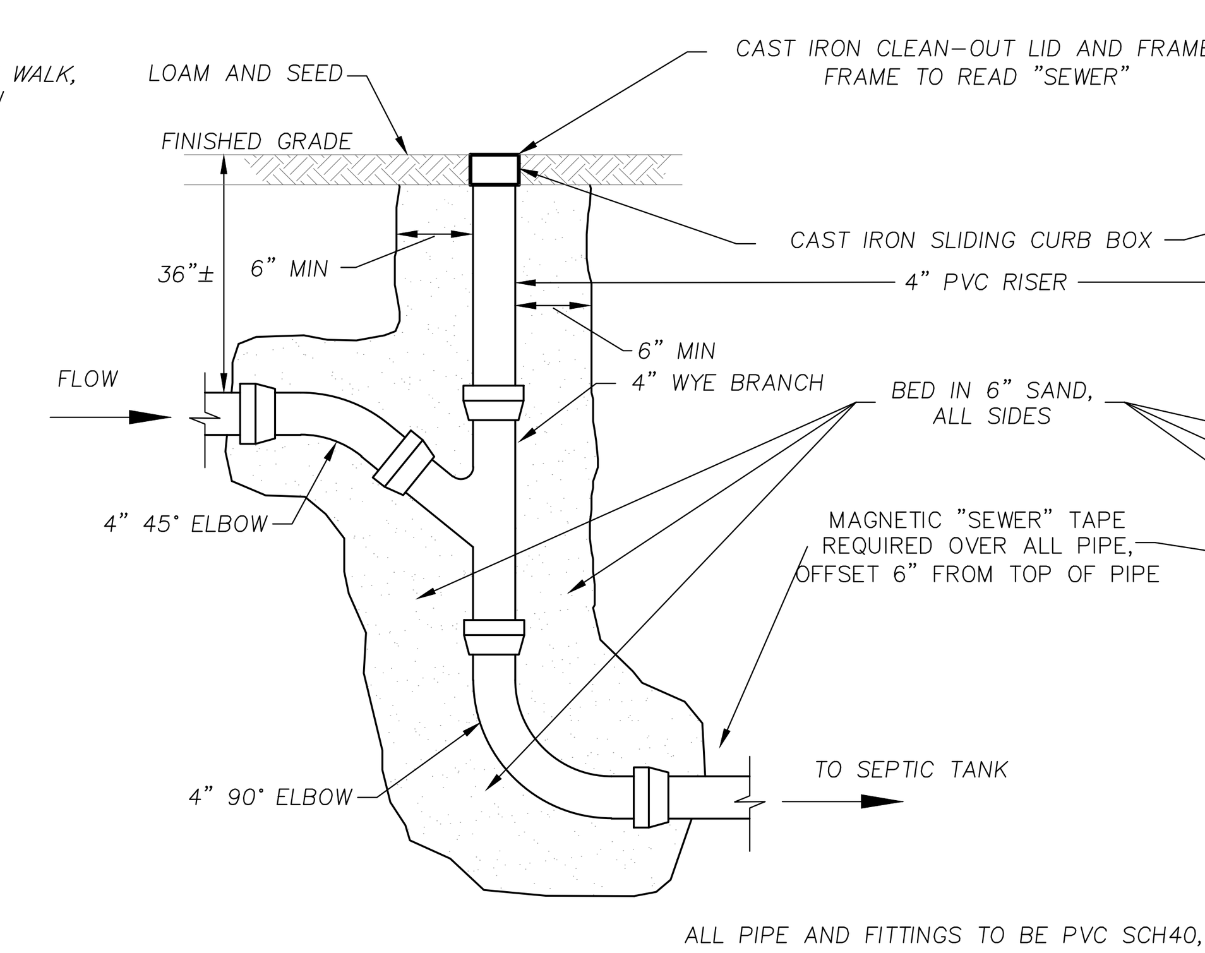
PROPER OPERATION AND MAINTENANCE IS ESSENTIAL TO THE LONG TERM FUNCTION OF SUBSURFACE SEWAGE DISPOSAL SYSTEMS.

THE OWNER OR OPERATOR OF THE SEWAGE DISPOSAL SYSTEM IS RESPONSIBLE FOR THE INSPECTION AND MAINTENANCE OF, AND ANY UPGRADES TO, THE SYSTEM.



RET. WALL CORE DETAIL

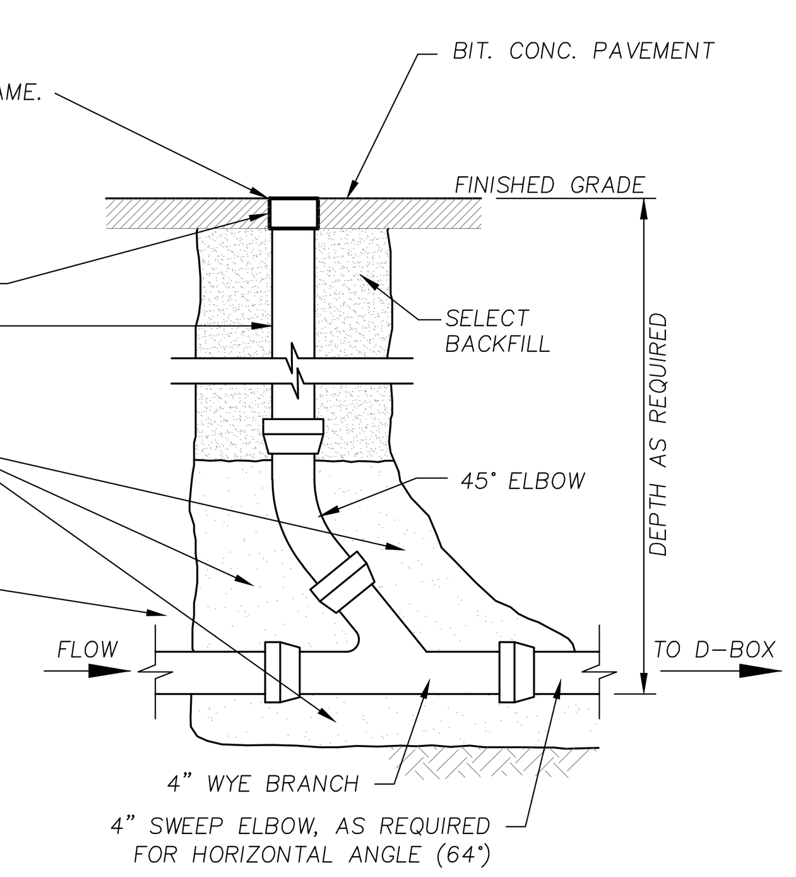
NOT TO SCALE



ALL PIPE AND FITTINGS TO BE PVC SCH40, SOLVENT WELD

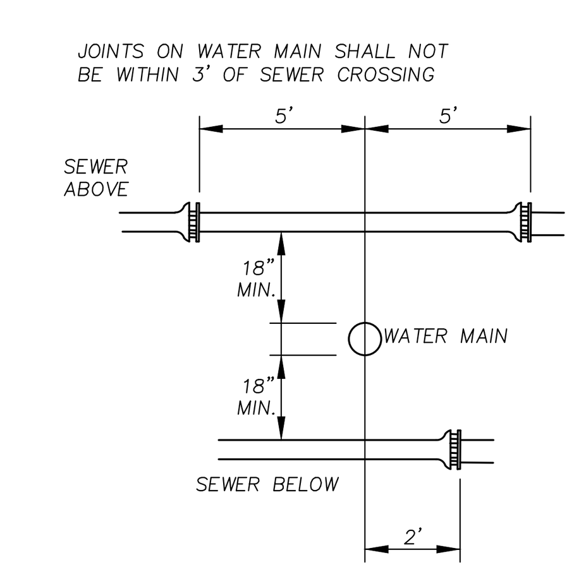
DROP CLEANOUT DETAIL

NOT TO SCALE



CLEANOUT DETAIL

NOT TO SCALE



SEWER LINE CROSSING-WATER LINE

NOT TO SCALE

NOTES:

THE SEPARATION OF WATER MAINS AND SEWERS SHALL COMPLY WITH THE FOLLOWING GENERAL REQUIREMENTS.

A. PARALLEL INSTALLATION:

1. NORMAL CONDITIONS: THE INSIDE EDGE OF A WATER MAIN SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE INSIDE EDGE OF ANY SANITARY SEWER, STORM SEWER OR SEWER MANHOLE.
2. WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, ONE OF TWO METHODS MAY BE EMPLOYED. IN BOTH CASES THE INVERT OF THE WATER LINE MUST BE AT LEAST 18" ABOVE THE CROWN OF THE SEWER LINE.

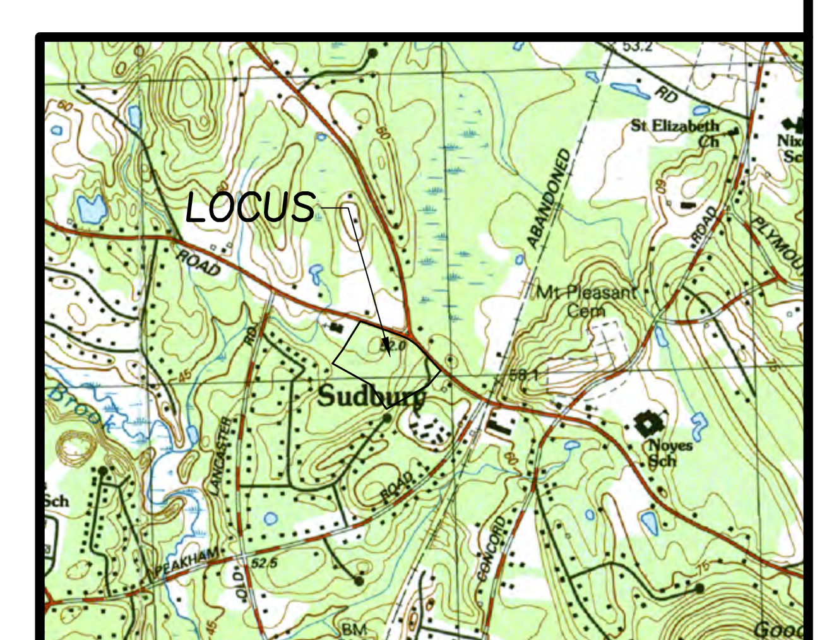
(a) LAY WATER AND SEWER IN SEPARATE TRENCHES

(b) LAY THE WATER AND SEWER IN THE SAME TRENCH WITH THE WATER MAIN AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH WITH A MINIMUM HORIZONTAL SEPARATION FROM INSIDE PIPE TO INSIDE PIPE OF 36"

B. CROSSINGS:

1. WHEN SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER LAID SUCH THAT THE INVERT OF THE WATER LINE IS AT LEAST 18 INCHES ABOVE THE CROWN OF THE SEWER LINE.
2. WHEN THE SEWER ELEVATION CANNOT BE VARIED TO MEET THE REQUIREMENT, THE WATER LINE MUST BE RELOCATED OR RECONSTRUCTED WITH MECHANICAL JOINT CEMENT LINED DUCTILE IRON PIPE FOR A DISTANCE OF 10 ft ON EACH SIDE OF THE SEWER.
3. WHEN IT IS IMPOSSIBLE TO OBTAIN EITHER OR BOTH OF THE ABOVE REQUIREMENTS, BOTH THE WATER AND SEWER LINES SHALL BE CONSTRUCTED OF MECHANICAL JOINT CEMENT LINED DUCTILE IRON PIPE OR OTHER EQUIVALENT MATERIAL. BOTH PIPES SHALL BE PRESSURE TESTED BY AN APPROVED METHOD TO ASSURE WATER TIGHTNESS OR BOTH PIPES SHALL BE ENCASED IN CONCRETE.

OWNER:
TOWN OF SUDBURY
MAP: G08
PARCEL: 0008



LOCATION MAP

EXCERPT FROM: USGS QUADRANGLE
SCALE: 1" = 2083'

Sudbury Board of Selectmen

APPROVAL UNDER SITE PLAN REVIEW REQUIRED
☐ APPROVED ☐ APPROVED WITH CONDITIONS

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DATE OF ENDORSEMENT:

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1-22-14 GENERAL REVISION
1-31-14 DRAINAGE SYS. MOD.
2-10-14 DRAINAGE SYS. MOD.

PERMIT SET
January 3, 2014

SUDBURY POLICE HEADQUARTERS

SUDBURY, MASSACHUSETTS

SEWAGE DISPOSAL PLAN AND DETAILS

scale	AS NOTED
date	JANUARY 3, 2014
drawn by	MAA
job no	13-7201
sheet	C-13