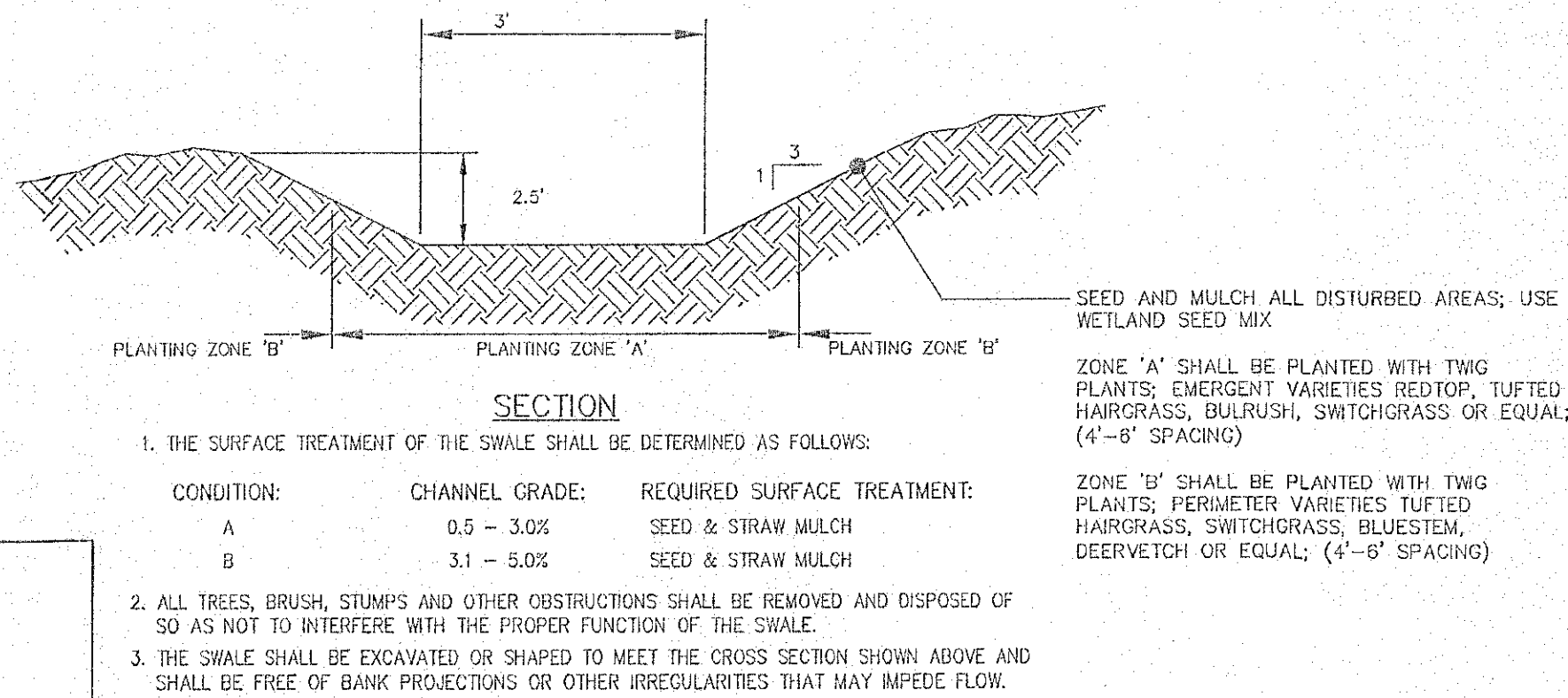
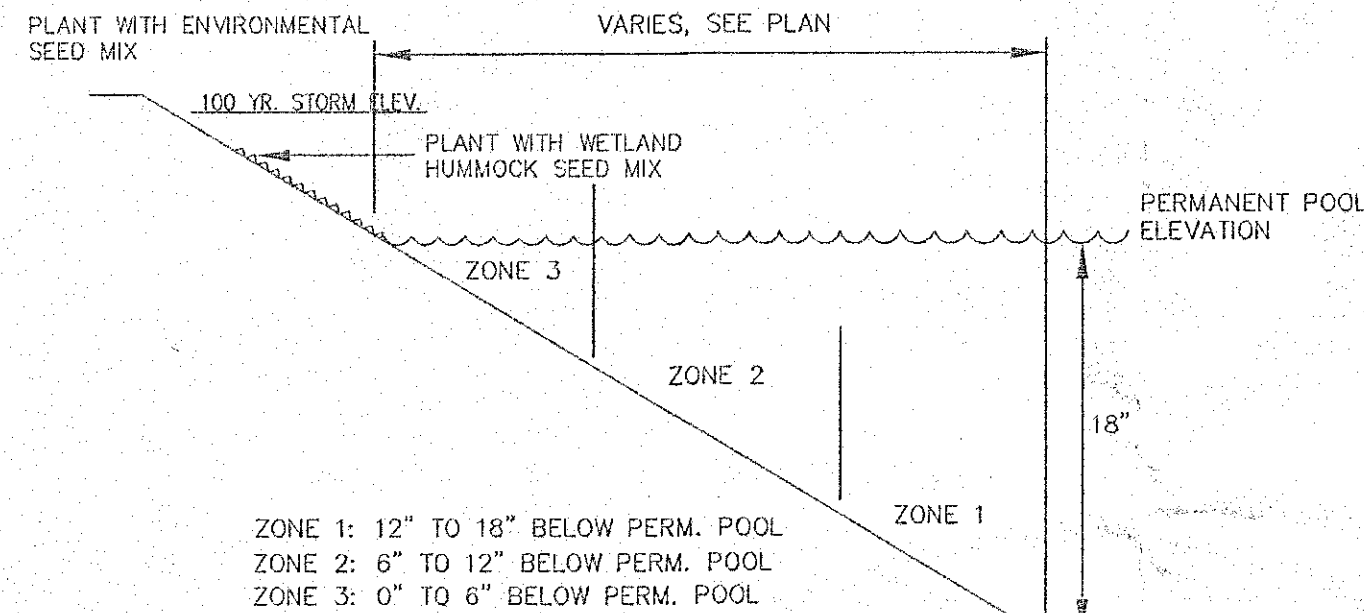
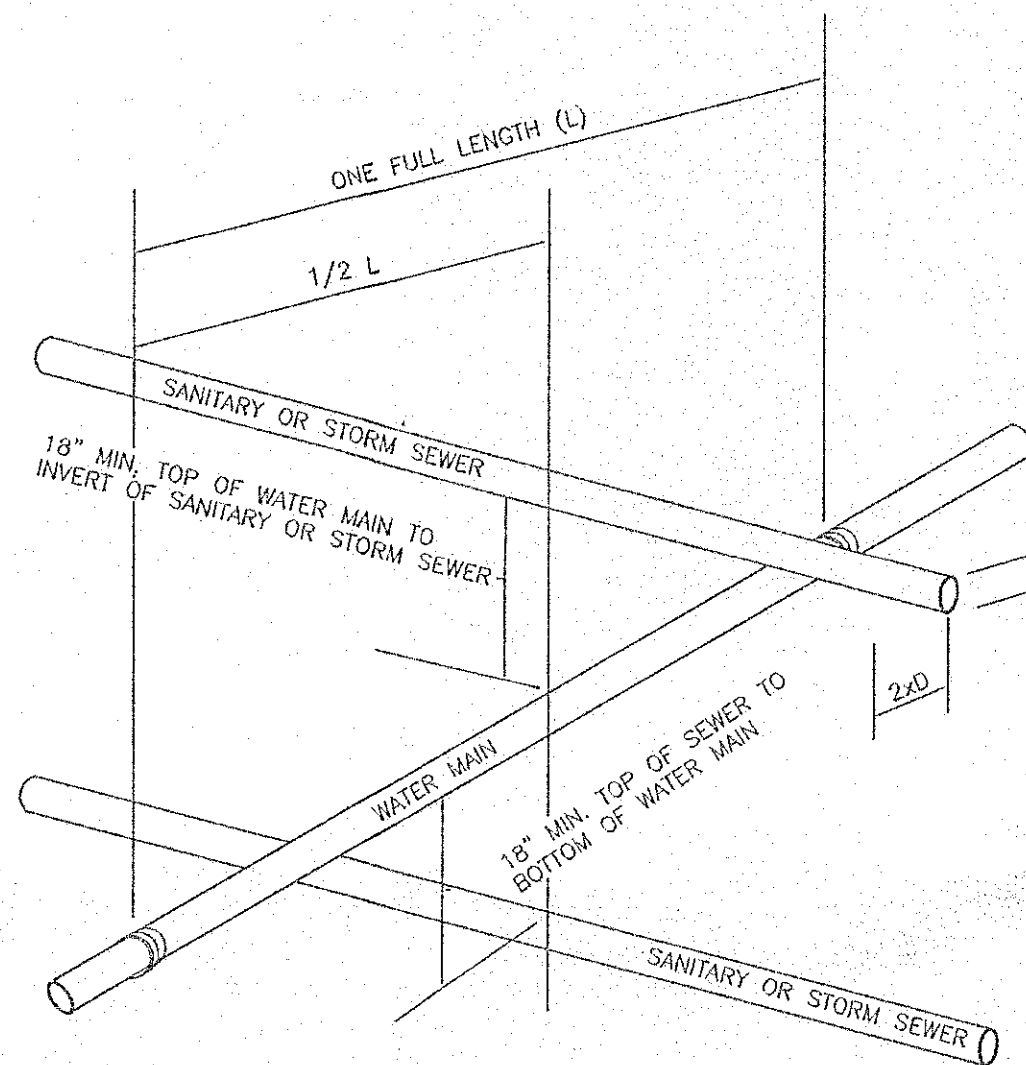




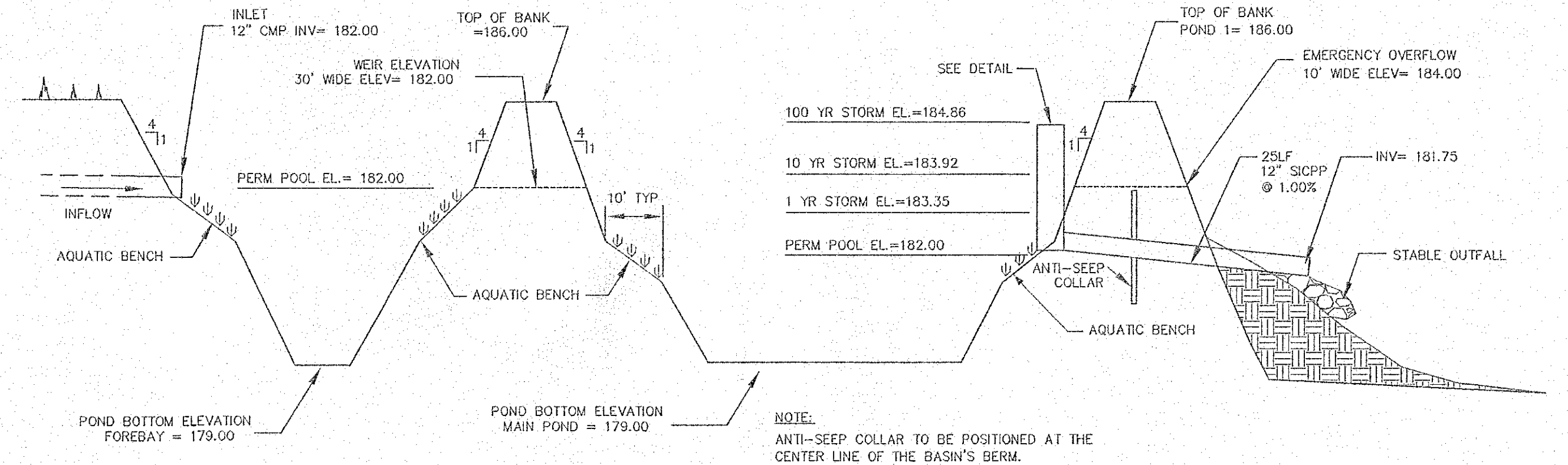
WATER QUALITY (WEI) SWALE DETAIL
(NOT TO SCALE)
(NYSDEC STORMWATER DESIGN MANUAL TYPE 0-2)



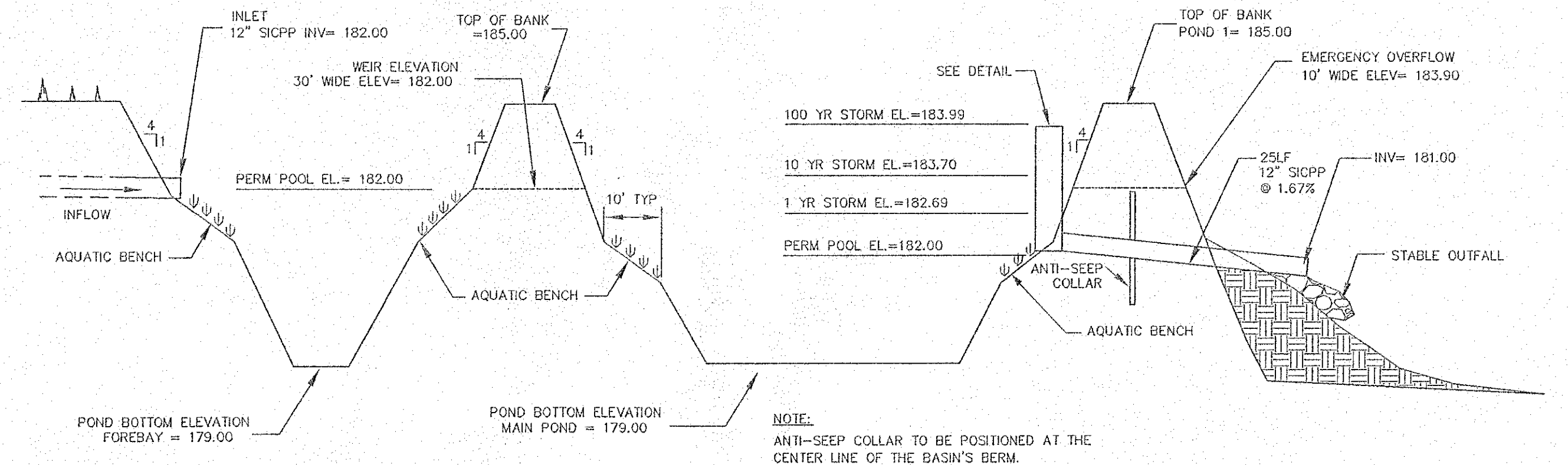
AQUATIC BENCH SECTION
(NOT TO SCALE)



VERTICAL PIPE CROSSING DETAIL
(NOT TO SCALE)



TOWN POND DETAIL
(NOT TO SCALE)



PRIVATE POND DETAIL
(NOT TO SCALE)

POND EMBANKMENT NOTES:

1. THE GROUND SURFACE LOCATED BELOW THE EMBANKMENT SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC, AND OTHERWISE OBJECTIONABLE MATERIALS.
2. AFTER STRIPPING, THE IN-PLACE MATERIAL SHOULD BE MOISTENED, IF DRY, AND COMPACTED BEFORE PLACEMENT OF THE FIRST LAYER OF EMBANKMENT MATERIAL.
3. INCLUSION OF VEGETATION, ORGANIC MATERIALS, OR FROZEN SOIL IN THE EMBANKMENT IS PROHIBITED.
4. THE EMBANKMENT MATERIAL SHALL BE PLACED IN 1" MAXIMUM LIFTS.
5. EACH LIFT WILL BE COMPACTED TO 90% OF THE MAXIMUM DRY DENSITY AS ESTABLISHED BY A MODIFIED PROCTOR COMPACTION TEST.
6. THE MATERIAL BEING USED FOR THE EMBANKMENT SHALL BE FREE OF ROOTS, WOODY VEGETATION, OVERSIZED STONES, ROCKS, OR OTHER OBJECTIONABLE MATERIALS.
7. RELATIVELY PERVIOUS MATERIALS SUCH AS GRAVEL (I.E. UNIFIED SOIL CLASSES GW, GP, SW, & SP) SHALL NOT BE PLACED IN THE EMBANKMENT.
8. BACKFILL AROUND CONDUITS WITHIN THE EMBANKMENT SHALL BE PLACED IN 4" LIFTS AND SHALL HAVE A MAXIMUM PARTICLE SIZE OF 3". IT SHALL ALSO MEET 90% COMPACTION.
9. THE SLOPES OF THE EMBANKMENT SHALL NEVER EXCEED 1(V):3(H).
10. A TRASH RACK SHALL BE INSTALLED AT THE OUTLET STRUCTURE IN ORDER TO PROTECT THE VERTICAL ORIFICES FROM CLOGGING.

FOREBAY AQUATIC BENCH PLANTINGS

HERBACEOUS COMMUNITY (EW - EMERGENT WETLAND)				
PLANT BARE ROOT HERBACEOUS PLANTS IN AT 2' SPACING STAGGERED PATTERN				
ZONE	BOT. NAME	COMMON NAME	SIZE	SPACING
1	POTAMOGETON NODOSUS	LONG-LEAVED POND WEED	BR	48"
1	ELODEA CANADENSIS	BROAD WATER WEED	BR	48"
2	SCIRPUS PUNGENS	COMMON THREE-SQUARE SEDGE	SEED 0.25 LBS PER AC	
2	SCIRPUS VALIDUS	SOFT-STEM BULRUSH	SEED 0.25 LBS PER AC	
3	SCIRPUS CYPERINUS	WOOL GRASS	SEED 10-15 LBS PER AC	
3	POLYGONUM SPP.	SMART WEED	SEED 10-15 LBS PER AC	

MAIN POND AQUATIC BENCH PLANTINGS

HERBACEOUS COMMUNITY (EW - EMERGENT WETLAND)				
PLANT BARE ROOT HERBACEOUS PLANTS IN AT 2' SPACING STAGGERED PATTERN				
ZONE	BOT. NAME	COMMON NAME	SIZE	SPACING
1	POTAMOGETON NODOSUS	LONG-LEAVED POND WEED	BR	48"
1	ELODEA CANADENSIS	BROAD WATER WEED	BR	48"
2	SCIRPUS PUNGENS	COMMON THREE-SQUARE SEDGE	SEED 0.25 LBS PER AC	
2	SCIRPUS VALIDUS	SOFT-STEM BULRUSH	SEED 0.25 LBS PER AC	
3	SCIRPUS CYPERINUS	WOOL GRASS	SEED 10-15 LBS PER AC	
3	POLYGONUM SPP.	SMART WEED	SEED 10-15 LBS PER AC	

STORMWATER POND LANDSCAPING DETAIL
(NOT TO SCALE)

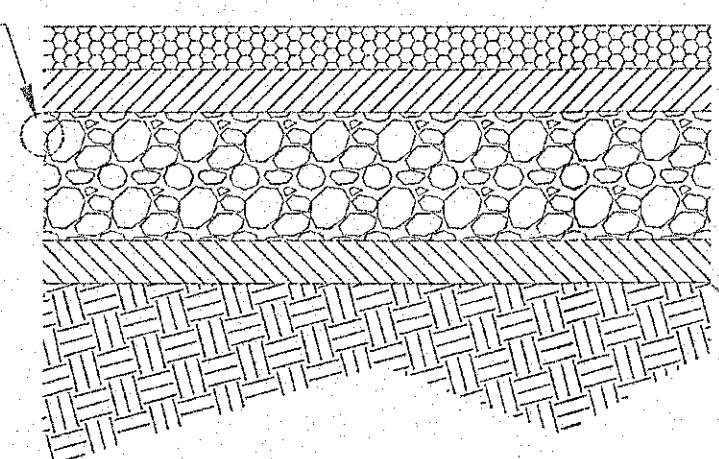
WHM - WETLAND HUMMOCK SEED MIX		
(SOUTHERN TIER CONSULTING, INC.)		
CAREX VULPINOIDEA	FOX SEDGE	20%
LEERSIA ORYZOIDES	RICE CUT GRASS	15%
CAREX LURIDA/CRINITA	SEDGE	15%
JUNCUS EFFUSUS	SOFT RUSH	20%
SCIRPUS ATROVIRENS/CYPERINUS	BULRUSH	15%
CAREX COMOSA/INTUMESCENTS	SEDGE	15%

SEED AT 4 LBS/ACRE ON SATURATED GROUND BETWEEN THE PERM. POOL EL. AND THE 100 YR. STORM EL.

ESM - ENVIRONMENTAL SEED MIX	
(ENVIRONMENTAL SEED MIX IS NOT TO BE USED IN ANY WETLAND AREAS)	
GRASS NAMES	PERCENT BY WEIGHT
KENTUCKY BLUE GRASS	15%
PERENNIAL RYE GRASS	20%
TIMOTHY	15%
ORCHARD GRASS	10%
BIROFOOT TREFOIL	15%
RED CLOVER	10%
TALL FESCUE	10%
REED CANARY GRASS	05%

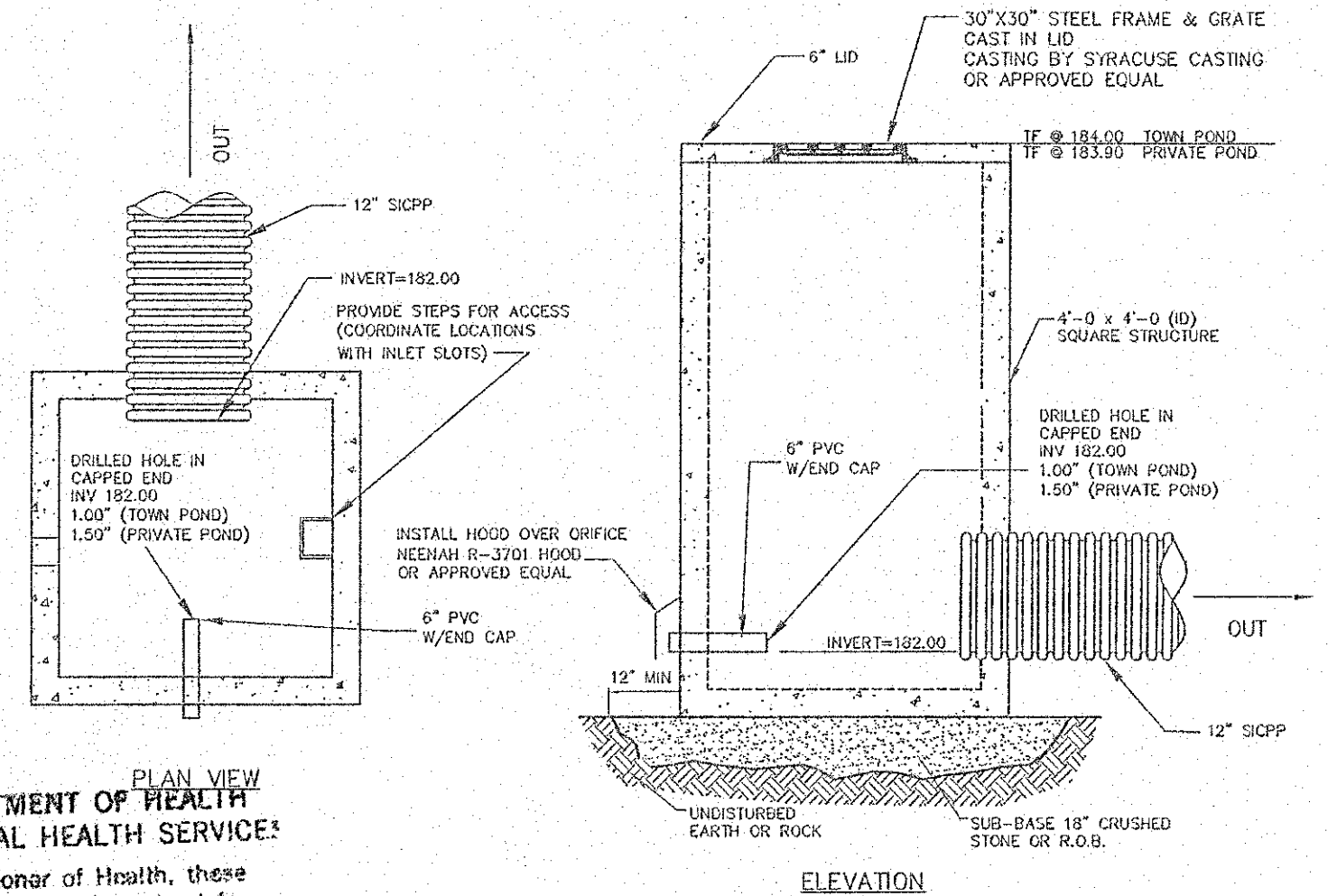
SEED AT 20 LBS/ACRE ABOVE 100 YR. STORM EL.

4" PERF HDPE (AS SHOWN ON PLANS)



POROUS PAVEMENT CROSS SECTION
(NOT TO SCALE)

NOTES:
1. SEE SITE PLAN FOR PAVEMENT LOCATION
2. THE MAINTENANCE REQUIREMENTS FOR THE POROUS PAVEMENT ARE DETAILED IN THE STORMWATER O&M MANUAL, WHICH WILL BE RECORDED AS PART OF RESTRICTIVE COVENANTS AND WILL BE A LEGALLY BINDING, ENFORCEABLE DOCUMENT.

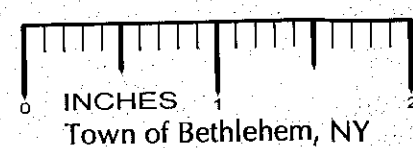


POND OUTLET STRUCTURE DETAILS
(NOT TO SCALE)

ALBANY COUNTY DEPARTMENT OF HEALTH
DIVISION OF ENVIRONMENTAL HEALTH SERVICES

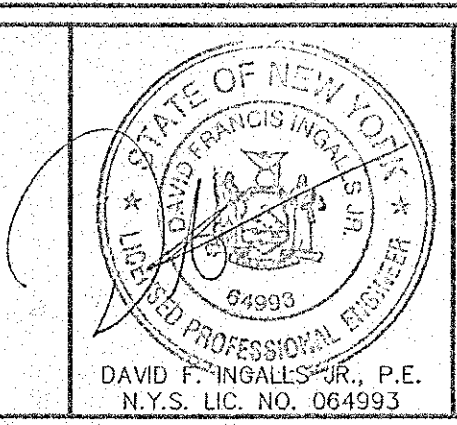
By direction of the Commissioner of Health, these plans are hereby approved. See first sheet for date and signature.

Town of Bethlehem Planning Board
By direction of the Chairman these plans are hereby Approved.
See first sheet for date & signature.



NOTE: 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONTACT DIG SAFELY NEW YORK TO LOCATE ALL UNDERGROUND UTILITIES. 1-800-962-7962

NO.	DATE	REVISIONS	BY
1	9/27/12	FINAL SUBMISSION	PJT
2	9/28/12	FINAL SUBMISSION	PJT
3	10/10/12	REVISIONS PER 7/3/12 TDE COMMENT LETTER	PJT
4	5/14/12	REVISED PER TOWN ENG. & PLANNING COMMENTS	PJT
5	5/30/12	REVISED PER TOWN COMMENT LETTER DATED 5/29/12	PJT
6	5/15/12	REVISIONS PER TOWN COMMENTS	PJT
7	3/13/12	REVISIONS PER TOWN AND TDE COMMENTS	PJT
8	1/27/12	REVISIONS PER TOWN AND TDE COMMENTS	PJT



ingalls
ingalls & associates, LLP
2000 GUILDERLAND AVENUE
SCHENECTADY, N.Y. 12308
PHONE: (518) 393-7725
FAX: (518) 393-2324

STORMWATER DETAILS			
32 UNIT MULTI-FAMILY DEVELOPMENT 605 FEURA BUSH ROAD			
TOWN OF BETHLEHEM COUNTY OF ALBANY STATE OF NEW YORK			
DATE: SEPTEMBER 20, 2011	CHECKED BY: D.F.I.	JOB NO. 11-090	SCALE: NTS
DRAWN BY: P.J.Y.	CADD FILE: 110900DF		SHEET 10 OF 12