

LAKE IROQUOIS PUBLIC BEACH AREA BEEBE LANE WILLISTON, VT

ECOLOGICAL LANDSCAPE DESIGN, EROSION CONTROL, AND STORMWATER MANAGEMENT NOVEMBER, 2013

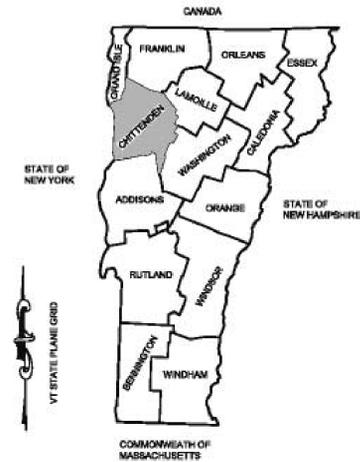
PROPOSED IMPROVEMENTS INCLUDE THE CONSTRUCTION OF A BIO-RETENTION STORMWATER TREATMENT AND GROUND WATER DIVERSION FACILITY, 18" CPEP OUTLET PIPE NETWORK, CRIB WALL RECONSTRUCTION, GRAVEL DRIVE CONSTRUCTION, AND ALL ASSOCIATED MISCELLANEOUS.

FUNDING FOR THIS PROJECT WAS PROVIDED BY THE VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION THROUGH ERP GRANT# 2013 ERP-1-16.

SITE LOCATION BASE MAP OBTAINED FROM GOOGLE MAPS



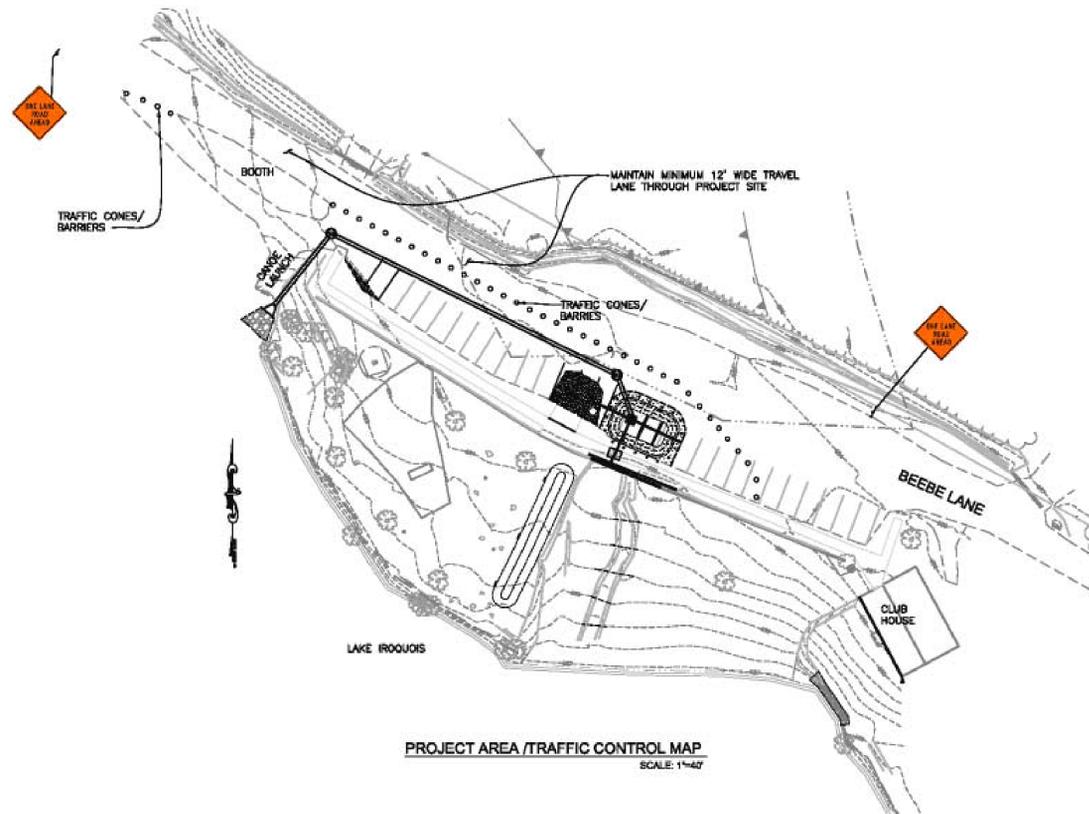
SITE LOCATION MAP
SCALE: NTS



VERMONT COUNTY MAP
SCALE: NTS

GENERAL CONSTRUCTION NOTES

- 1) CONTRACTOR SHALL CONTACT DIG SAFE AND WILLISTON PUBLIC WORKS DEPARTMENT AT LEAST 72 HOURS PRIOR TO ANY SUBGRADE CONSTRUCTION.
- 2) WHERE DISCREPANCIES EXIST BETWEEN BUILDING CODES, STATE LAWS, LOCAL ORDINANCES, UTILITY COMPANY REGULATIONS, MANUFACTURER RECOMMENDATIONS, AND THESE PLANS, THE MOST STRINGENT SHALL APPLY.
- 3) LOCATIONS OF UNDERGROUND UTILITIES ARE NOT BASED ON "DIG SAFE" MARKINGS AND ARE NOT WARRANTED TO BE EXACT OR COMPLETE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS OF EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE.
- 4) PRIOR TO ORDERING MATERIALS OR BREAKING GROUND, THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL CONTRACT DOCUMENTS INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, DESIGN PLANS, TECHNICAL SPECIFICATIONS AND OTHER RELATED DOCUMENTS TO VERIFY AND COORDINATE DIMENSIONS, LAYOUTS, PLACEMENT, AND APPLICABILITY. THE CONTRACTOR SHALL CONDUCT FIELD CHECKS TO VERIFY THE ACCURACY OF DIMENSIONS, TOPOGRAPHY, AND EXISTING CONDITIONS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN THE INFORMATION SHOWN ON THESE PLANS AND THE CONDITIONS EXISTING IN THE FIELD. IF THE CONTRACTOR FAILS TO REPORT ANY DISCREPANCIES DISCOVERED TO THE PROJECT ENGINEER, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ERRORS WHICH MIGHT HAVE BEEN AVOIDED THEREBY.
- 5) JOB-SITE SAFETY CONDITIONS SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR IS RESPONSIBLE FOR THE ADEQUATE BRACING AND/OR SHORING OF STRUCTURAL AND NON-STRUCTURAL ITEMS DURING CONSTRUCTION. THE CONTRACTOR SHALL CONSTRUCT APPROPRIATE FENCES AND BARRIERS AROUND ALL CONSTRUCTION SITES, STORAGE SITES, AND EXCAVATIONS TO SAFE GUARD THE PUBLIC. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE OSHA REGULATIONS.
- 6) THE CONTRACTOR SHALL MAINTAIN AS-BUILT PLANS WITH TIES AND ELEVATIONS FOR ALL UNDERGROUND UTILITIES. AS-BUILT PLANS SHALL BE SUBMITTED TO THE TOWN OF WILLISTON AT THE COMPLETION OF THE PROJECT.
- 7) THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY FOR COMPLETE AND OPERABLE FACILITIES AND UTILITIES.
- 8) THIS PLAN IS NOT INTENDED TO BE A BOUNDARY SURVEY. THE APPROXIMATE PROPERTY LINES ARE BASED ON FIELD WORK AND TAX MAPS FROM THE TOWN OF WILLISTON.
- 9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION AND REMOVAL OF STRUCTURES, VEGETATION, AND PAVEMENT NECESSARY TO CONSTRUCT THE PROJECT, UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL REMOVE ALL EXCESS MATERIAL, DEBRIS, AND TRASH FROM THE SITE UPON COMPLETION OF CONSTRUCTION, UNLESS OTHERWISE DIRECTED BY THE TOWN.
- 10) ANY DE-WATERING THAT IS NECESSARY FOR THE COMPLETION OF SITE WORK SHALL BE CONSIDERED AS PART OF THE CONTRACT AND SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- 11) ANY CONFLICTS OR INCONSISTENCIES WITH THE PLANS OR SPECIFICATIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- 12) ENGINEER ASSUMES NO RESPONSIBILITY FOR THE CONTINUED PROPER USE OR MAINTENANCE OF THE SYSTEM.



PROJECT AREA /TRAFFIC CONTROL MAP
SCALE: 1"=40'

SHEET INDEX

- 1) CV-1: COVER SHEET AND NOTES
- 2) SP-1: CIVIL SITE PLAN AND DETAILS
- 3) SP-2: DETAILS AND NOTES
- 4) L-1: LANDSCAPING PLAN

TRAFFIC CONTROL NOTES:

- 1) BEEBE LANE SHALL REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION PER THE PROJECT AREA /TRAFFIC CONTROL MAP. THE CONTRACTOR SHALL MAINTAIN TWO WAY TRAFFIC ON A SINGLE 12' WIDE TRAFFIC LANE THROUGH THE PROJECT SITE AT ALL TIMES. DUE TO THE LOW TRAFFIC VOLUME ON BEEBE LANE, DESIGNATED FLAGGERS ARE NOT ANTICIPATED.
- 2) THE CONTRACTOR SHALL POST TRAFFIC CONTROL SIGNS AT LEAST 48 HOURS PRIOR TO PROJECT START.
- 3) ALL TEMPORARY TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH LATEST EDITION OF THE MUTCD.
- 4) MAINTAIN ACCESS TO ALL PRIVATE DRIVES AT ALL TIMES.

SURVEY NOTES (BUTTON PROFESSIONAL LAND SURVEYORS):

1. NORTH ORIENTATION IS BASED ON SURVEY GRADE RTK (REAL TIME KINEMATIC) GPS OBSERVATIONS MADE ON 05/02/13. THE TRANSMITTING BASE STATION USED WAS RICHMOND CORS (CONTINUOUSLY OPERATING REFERENCE STATION). THE RESULTANT HORIZONTAL DATUM IS NAD 83 (CORS).
2. THE VERTICAL DATUM IS NAVD88 USING THE GEOID MODEL G12AU5.
3. THE PROPERTY LINES, EASEMENTS, AND OTHER REAL PROPERTY DESCRIPTIONS PROVIDED ON THIS PLAN ARE FOR THE USE OF THE APPLICANT ONLY. THEY DO NOT DEFINE LEGAL RIGHTS OR MEET LEGAL REQUIREMENTS FOR A LAND SURVEY AS DESCRIBED IN 26 V.S.A. SECTION 2502(4), AND SHALL NOT BE USED IN LIEU OF A SURVEY AS THE BASIS OF ANY LAND TRANSFER OR ESTABLISHMENT OF ANY PROPERTY RIGHT.
4. THE EXISTING SITE FEATURES AND TOPOGRAPHY SHOWN HEREON WERE COLLECTED FROM A GROUND SURVEY PERFORMED ON 05/02/13 AS DIRECTED BY AN ON-SITE MEETING WITH STEVE DIGLIO OF KAS CONSULTING ENGINEERS.



FINAL DESIGN

ENGINEER:



368 Avenue D, Suite 15
PO Box 787
Williston, VT 05495
www.kas-consulting.com

802 383.0486 p
802 383.0490 f

CONSTRUCTION NOTES

- 1) ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH CONSTRUCTION SPECIFICATIONS PROVIDED AND THE MOST RECENT VTRANS STANDARD SPECIFICATIONS. IN CASE OF CONFLICT OF SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY. ALL WORK SHALL BE COMPLETED IN A WORKMANLIKE MANNER AND SHALL BE COMPLETED IN THE TIME SPECIFIED BY THE OWNER.
- 2) METHODS FOR PREPARATION OF SUBGRADE SHALL CONFORM TO THE MOST RECENT VERMONT AGENCY OF TRANSPORTATION SPECIFICATIONS SECTION 203.12.
- 3) ANY SUBGRADE DISTURBED BY THE CONTRACTOR, OR RENDERED UNSUITABLE BY CONSTRUCTION MACHINERY SHALL BE REMOVED AND REPLACED WITH APPROVED GRANULAR BACKFILL AT THE CONTRACTORS EXPENSE.
- 4) SUBGRADE SHALL BE COMPACTED TO 95% OF THE MAXIMUM COMPACTION DENSITY (STANDARD PROCTOR) FOR SIDEWALK, PAVEMENT AND GRAVEL ROAD CONSTRUCTION.
- 5) FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER. FILL SHALL BE PLACED IN 6" LIFTS, WETTED AND COMPACTED WITH SATISFACTORY COMPACTION EQUIPMENT. FILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM COMPACTION DENSITY.
- 6) GRAVEL SUBBASE SHALL CONFORM TO THE MOST RECENT VERMONT AGENCY OF TRANSPORTATION SPECIFICATIONS SECTION 704.05A COARSE AND FINE, AND PLACEMENT SHALL CONFORM TO SECTION 301.
- 7) ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO CONDITIONS EQUAL TO OR BETTER THAN THOSE EXISTING AT THE START OF CONSTRUCTION, OR AS OTHERWISE SPECIFIED. SHOULD THE CONTRACTOR DISTURB AREAS BEYOND THE CONSTRUCTION LIMITS, EASEMENTS, OR RIGHT OF WAYS, THIS RESTORATION WILL BE AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL EXISTING UTILITIES AND THEIR UNINTERRUPTED SERVICE. ALL OFF-SITE BACKFILL, SHEETING, SHORING, DE-WATERING, EROSION CONTROL, CLEARING, GRUBBING, DUST CONTROL, TRAFFIC CONTROL, GRADING, AND INCIDENTALS TO MAKE THE WORK COMPLETE SHALL BE INCLUDED AS PART OF THE REQUIRED WORK.

GENERAL LANDSCAPING NOTES:

- 1) ORGANIC MATERIAL-TOPSOIL, COMPOST AND NATIVE EXISTING SOIL SHALL BE TESTED AT AN APPROVED LAB PRIOR TO DELIVERY ON SITE AND INSTALLATION. ORGANIC MATTER SHALL BE A MINIMUM OF 5%.
- 2) WATERING-SHRUBS TO RECEIVE A MINIMUM OF 5 GALLONS AT EACH WATERING, TREES TO RECEIVE A MINIMUM OF 10 GALLONS AT EACH WATERING. BOTH WILL BE WATERED TWICE A WEEK DURING ESTABLISHMENT PERIODS.
- 3) CONTRACTOR SHALL MAINTAIN AND PROVIDE A LOG TO THE ENGINEER SHOWING AMOUNTS AND DATES OF WATERING FOR ALL PLANTINGS AND NOTING NATURAL RAINFALL EVENTS. WATERING SCHEDULE MAY BE ADJUSTED AS APPROVED BY THE ENGINEER.

TOPSOIL

- 1) WHENEVER POSSIBLE, STOCKPILE AND REAPPLY TOPSOIL TO THE AREAS THAT ARE TO BE VEGETATED.
- 2) BACKFILL WITH PLANTING MIX OF 1/2 SCREENED TOPSOIL, 1/4 COMPOST AND 1/4 NATIVE MATERIAL AS APPROVED BY THE ENGINEER. UNSUITABLE NATIVE MATERIAL SHALL BE REPLACED WITH IMPORTED APPROVED TOPSOIL AS DIRECTED BY ENGINEER.
- 3) TOPSOIL SHALL HAVE NOT LESS THAN 20 PERCENT FINE TEXTURED MATERIAL (PASSING THE NO. 200 SIEVE) AND NOT MORE THAN 15 PERCENT CLAY.
- 4) TOPSOIL TREATED WITH SOIL STIMULANTS OR HERBICIDES SHALL BE SO IDENTIFIED TO THE PURCHASER.
- 5) TOPSOIL SHALL BE RELATIVELY FREE OF STONES OVER 1 1/2-INCH DIAMETER, TRASH, NOXIOUS WEEDS SUCH AS NUTSEDGE AND QUACK GRASS, AND WILL HAVE LESS THAN 10 PERCENT GRAVEL BY VOLUME.
- 6) TOPSOIL CONTAINING SOLUBLE SALTS GREATER THAN 500 PPM SHALL NOT BE USED.
- 7) TOPSOIL SHALL BE DISTRIBUTED TO A UNIFORM DEPTH OVER THE AREA. IT SHALL NOT BE PLACED WHEN IT IS PARTLY FROZEN, MUDDY, OR ON FROZEN SLOPES OR OVER ICE, SNOW, OR STANDING WATER PUDDLES.

SEEDING

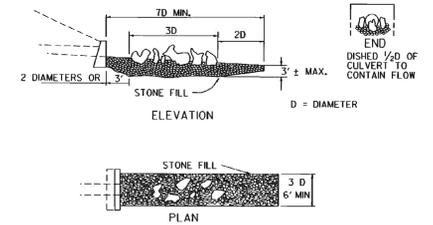
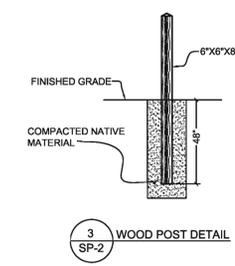
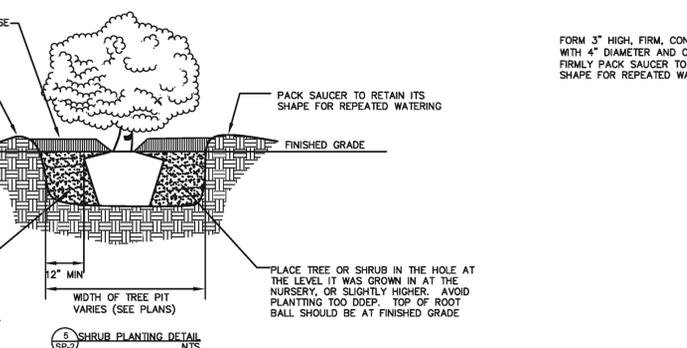
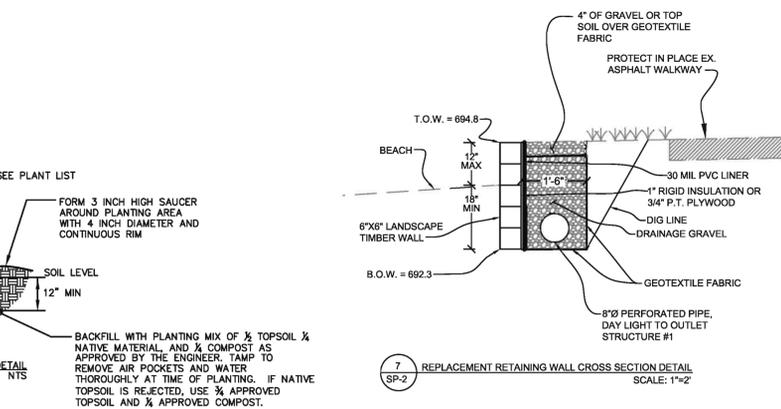
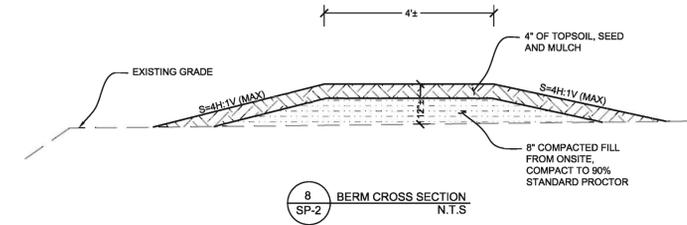
- 1) SOIL AMENDMENTS -
A. LIME TO PH OF 6.0
B. FERTILIZE WITH 600 LBS. OF 5-10-10 OR EQUIVALENT PER ACRE (14 LBS./1,000 SQ.FT.)
- 2) THE SEED MIXTURE SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.4% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS WEED SEED.
- 3) WATERING MAY BE ESSENTIAL TO ESTABLISH A NEW SEEDING. WEATHER CONDITIONS AND THE INTENDED WATER. IRRIGATION IS A SPECIALIZED PRACTICE AND CARE NEEDS USE OF THE AREA WILL DICTATE WHEN TO BE TAKEN NOT TO EXCEED THE APPLICATION RATE / INFILTRATION RATE OF ANY GIVEN SOIL. EACH APPLICATION MUST BE UNIFORMLY APPLIED AND TWO INCHES OF WATER SHOULD BE APPLIED PER APPLICATION SETUP.

4) USE THE FOLLOWING SEED MIXTURE:

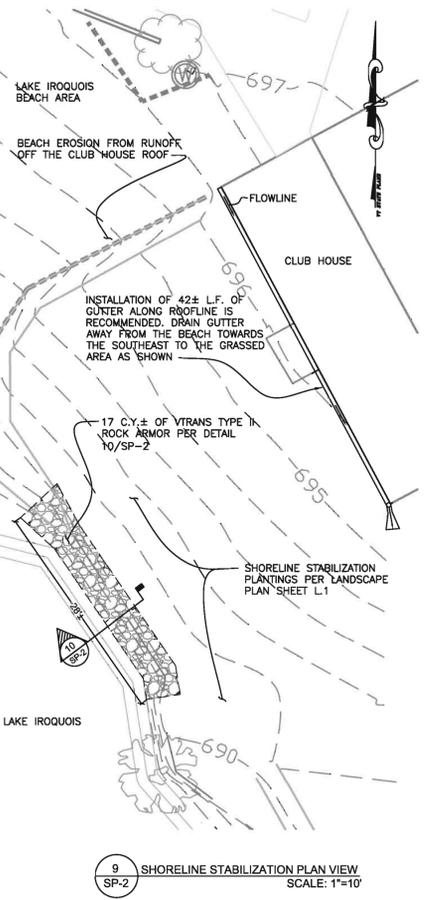
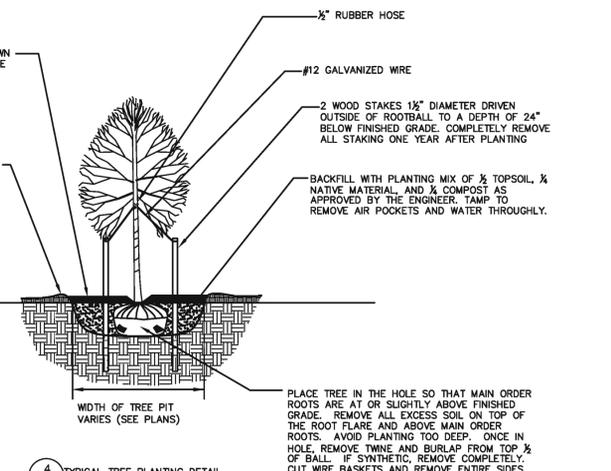
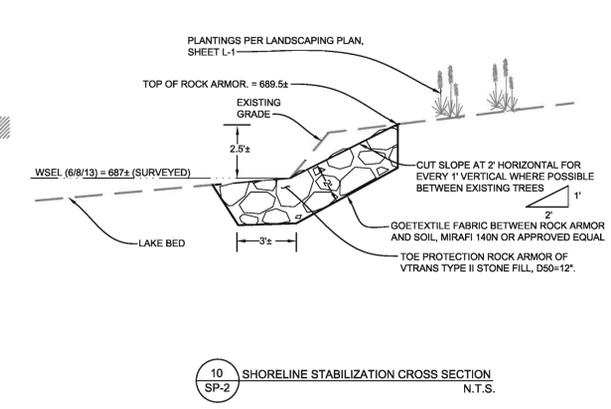
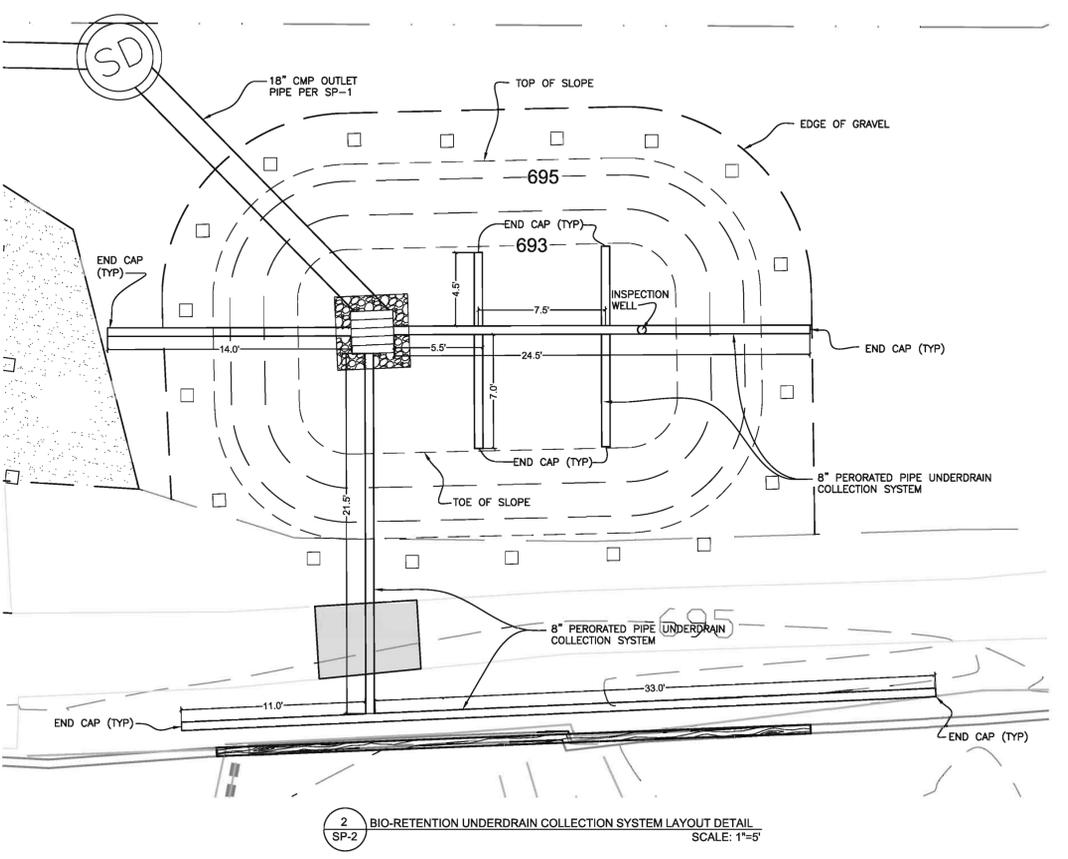
NAME	%WEIGHT	LBS/ACRE	PUR%	GERM%
CREeping RED FESCUE	42.5	34.0	98	85
PERENNIAL RYE GRASS	10.0	8.0	95	90
KENTUCKY BLUE GRASS	42.5	34.0	85	85
ANNUAL RYE GRASS	5.0	4.0	95	95
	100.0	80.0		

EROSION CONTROL NOTES

1. THE LIMIT OF DISTURBANCE SHALL BE CLEARLY DEFINED BY THE CONTRACTOR PRIOR TO CLEARING. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE ESTABLISHED TO TRAP SEDIMENT ON SITE.
2. THE SITE SHALL THEN BE CLEARED AND GRUBBED IN ACCORDANCE WITH SECTION 201.
3. ALL EROSION CONTROLS SHALL BE INSTALLED AS DETAILED IN THE PUBLICATION VERMONT HANDBOOK FOR SOIL EROSION AND SEDIMENT CONTROL ON CONSTRUCTION SITES AND IN ACCORDANCE WITH THE LOW RISK HANDBOOK FOR EROSION PREVENTION AND SEDIMENT CONTROL.
4. THE CONTRACTOR SHALL MAINTAIN THE EROSION CONTROL MEASURES UNTIL THE ENGINEER IS SATISFIED THAT PERMANENT GROUND COVER IS ESTABLISHED AND THAT FURTHER MEASURES ARE NOT REQUIRED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO EMPLOY APPROPRIATE EROSION CONTROL AS SHOWN ON THESE DRAWINGS AND ANY OTHER MEASURES AS NECESSARY TO TRAP SEDIMENT ON SITE.
5. THE EROSION CONTROLS SHALL BE CHECKED REGULARLY BY THE OWNER'S REPRESENTATIVE AND/OR THE ENGINEER. ANY NECESSARY REPAIRS OR MODIFICATIONS SHALL BE IMMEDIATELY COMPLETED BY THE CONTRACTOR.
6. ALL EXCESS MATERIAL AND TOPSOIL TO BE RE-USED ON-SITE SHALL BE STOCKPILED IN AREAS APPROVED BY THE OWNER'S REPRESENTATIVE AND/OR ENGINEER. THE STOCKPILES SHALL BE SURROUNDED BY SILT FENCE AND SHALL BE SEEDED AND TEMPORARILY STABILIZED TO MINIMIZE WIND AND STORMWATER EROSION POTENTIAL. TEMPORARY STABILIZATION SHALL BE OBTAINED WITH MULCH AND NETTING OR NORTH AMERICAN GREEN EROSION CONTROL MATTING.
7. ALL AREAS OF DISTURBANCE SHALL BE PERMANENTLY OR TEMPORARILY STABILIZED AS SOON AS POSSIBLE AND WITHIN 48 HOURS OF FINAL GRADING. ANY AREA OF DISTURBANCE SHALL BE AT LEAST TEMPORARILY STABILIZED WITHIN 14 DAYS OF INITIAL DISTURBANCE. ANY DISTURBANCE AFTER 14 CONSECUTIVE DAYS OF EXPOSED SOIL SHALL BE STABILIZED DAILY OR WITH THE FOLLOWING EXCEPTIONS:
A) STABILIZATION IS NOT REQUIRED IF EARTHWORK IS TO CONTINUE IN THE AREA IN THE NEXT 24 HOURS AND THERE IS NO PRECIPITATION FORECAST IN THE NEXT 24 HOURS.
B) STABILIZATION IS NOT REQUIRED IF THE WORK IS OCCURRING IN A SELF-CONTAINED EXCAVATION (I.E., NO OUTLET) WITH A DEPTH OF 2 FT. OR GREATER (E.G. HOUSE FOUNDATION EXCAVATION, UTILITY TRENCHES). STABILIZATION MEASURES SHALL INCLUDE MULCH AND NETTING, EROSION CONTROL MATTING, CRUSHED STONE, GRAVEL, OR PAVEMENT.
8. ACCEPTABLE METHODS OF STABILIZATION SHALL INCLUDE: MULCHING (WITH NETTING) (1.5-2 TONS PER ACRE), EROSION CONTROL MATTING, CRUSHED STONE, CRUSHED GRAVEL, ALL PAVING SURFACES (CONCRETE, ASPHALT, ETC.), WEIGHTED IMPERMEABLE BARRIERS, AND OTHER MATERIALS AS APPROVED BY THE ENGINEER.
9. ANY DRAINAGE SWALES WITH A SLOPE GREATER THAN 5% SHALL USE STONE LINING FOR STABILIZATION.
10. WHEN THE ENGINEER DETERMINES EROSION CONTROL MEASURES ARE DEEMED NO LONGER NECESSARY, ALL MATERIALS DETAINED, INCLUDING SILTS AND CONSTRUCTION RUNOFF DEBRIS, SHALL BE COLLECTED AND DISPOSED OF IN A MANNER ACCEPTABLE TO THE OWNER'S REPRESENTATIVE OR ENGINEER.
11. THE CONTRACTOR SHALL USE WATER FOR DUST CONTROL.
12. THE CONTRACTOR SHALL PROVIDE INLET PROTECTION AROUND ALL CATCH BASINS (EXISTING OR NEW) THAT COLLECT CONSTRUCTION SITE STORMWATER RUNOFF.
13. THE CONTRACTOR SHALL SWEEP AND WATER ALL EXISTING ROADWAYS AND NEW PAVEMENT AS NECESSARY TO MAINTAIN DUST CONTROL. SITE CONTRACTOR SHALL EMPLOY ALL MEASURES NECESSARY TO PREVENT SEDIMENT FROM TRACKING OFF-SITE.
14. ADDITIONAL EROSION CONTROLS MAY BE DEEMED NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE AND SHALL BE INSTALLED AS DIRECTED BY THE OWNER'S REPRESENTATIVE, THE OWNER OR THE ENGINEER.
15. THE OWNER'S REPRESENTATIVE WILL REGULARLY INSPECT THE EROSION CONTROLS IN PLACE TO ENSURE THEIR PROPER INSTALLATION.



FOR USE ONLY AT LOCATIONS OF VERY HIGH DISCHARGE AND ERODABLE SOIL CONDITIONS. IRREGULAR COBBLES APPROXIMATING THE MAXIMUM SIZE FOR TYPE OF SPECIFIED STONE FILL TO BE PLACED IN GENERAL PATTERN AS SHOWN. NO STONE TO BE CLOSER THAN 2D TO OUTLET OF PIPE. STONES SHOULD NOT BE PLACED TO DAM FLOW, BUT TO INDUCE TURBULENCE AND REDUCE VELOCITY. PLAN MAY BE ADAPTED TO FIELD CONDITIONS PREVAILING AT OUTLET, WHERE FLOW IS TO ULTIMATELY FOLLOW TOE OF SLOPE. DESIGN MAY BE SHORTENED OR WIDENED TO ACT AS A STILLING BASIN, AND DIRECT FLOW INTO DITCH. STONES FORMING BREAK SHOULD PROJECT ABOVE AND BELOW SURFACE OF STONE FILL APPROXIMATELY 1/4 THE DIAMETER OF THE PIPE. STONE FILL TYPE TO BE SPECIFIED ON PLANS.



REVISIONS	BY

Environmental Science & Engineering
368 Avenue D, Suite 15
PO Box 787
Williston, VT 05495
www.kas-engineering.com
802 363 0486 P
802 363 0490 F



LAKE IROQUOIS RECREATION DISTRICT
DETAILS AND NOTES
ECOLOGICAL LANDSCAPE DESIGN
AND STORMWATER MANAGEMENT
LAKE IROQUOIS PUBLIC BEACH, WILLISTON, VT

DRAWN	SJD
CHECKED	SJD/ES
DATE	11/12/13
SCALE	AS SHOWN
JOB NO.	804130094
SHEET	

SP-2

FINAL DESIGN

REVISIONS	BY

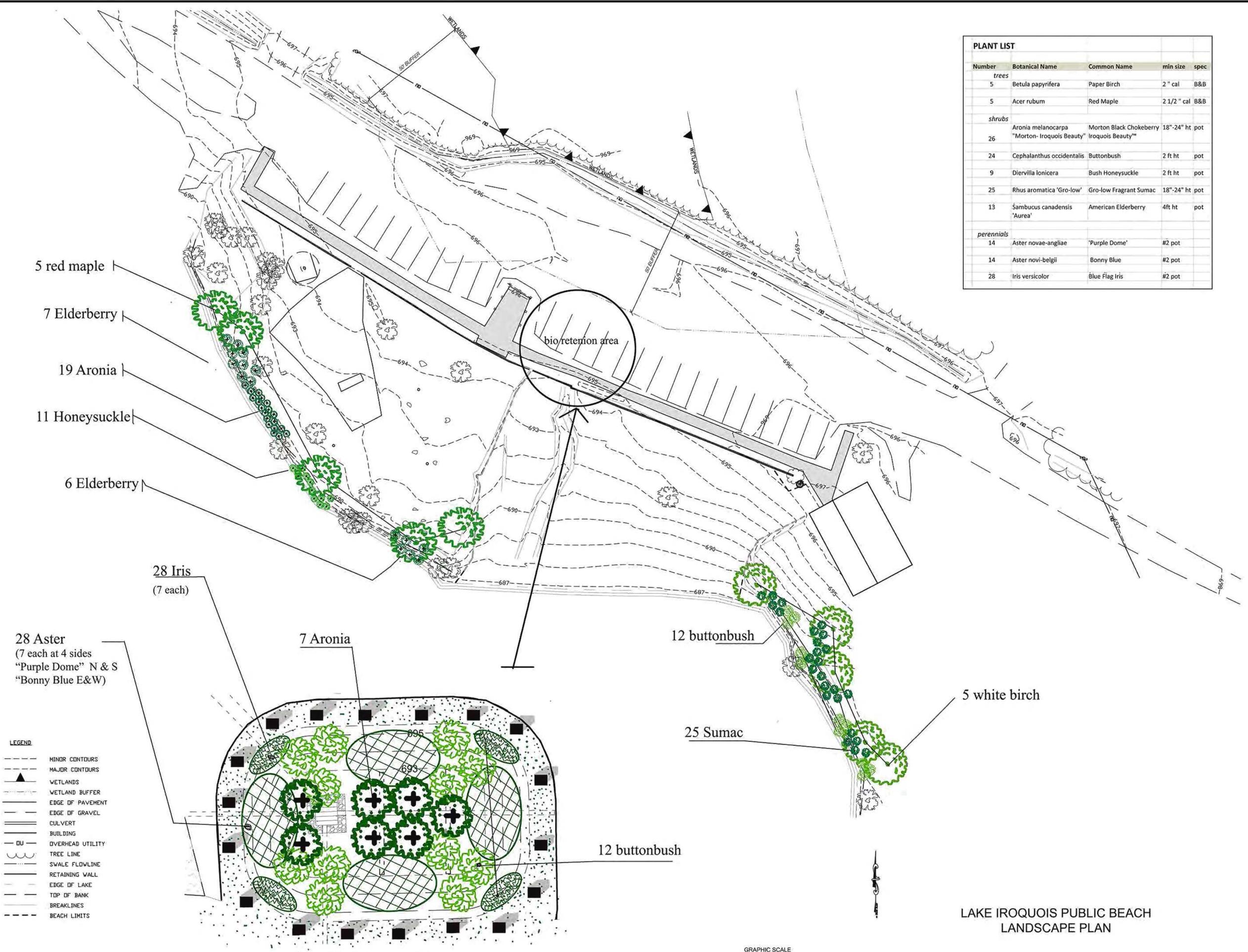
Kathleen Ryan Landscape Architect
 274 Maple Street
 Burlington, Vermont 05401
 802.863.4091
 kr.la@burlingtontelecom.net

LAKE IROQUOIS RECREATION DISTRICT
LANDSCAPE PLAN
 ECOLOGICAL LANDSCAPE DESIGN
 AND STORMWATER MANAGEMENT
LAKE IROQUOIS PUBLIC BEACH, WILLISTON, VT

DRAWN	SJD
CHECKED	SJD/ES
DATE	6/7/13
SCALE	1"=20'
JOB NO.	804130094
SHEET	

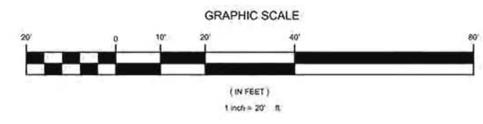
L.1

Number	Botanical Name	Common Name	min size	spec
<i>trees</i>				
5	<i>Betula papyrifera</i>	Paper Birch	2" cal	B&B
5	<i>Acer rubrum</i>	Red Maple	2 1/2" cal	B&B
<i>shrubs</i>				
26	<i>Aronia melanocarpa</i> "Morton-Iroquois Beauty"	Morton Black Chokeberry "Iroquois Beauty™"	18"-24" ht	pot
24	<i>Cephalanthus occidentalis</i>	Buttonbush	2 ft ht	pot
9	<i>Diervilla lonicera</i>	Bush Honeysuckle	2 ft ht	pot
25	<i>Rhus aromatica</i> 'Gro-low'	'Gro-low' Fragrant Sumac	18"-24" ht	pot
13	<i>Sambucus canadensis</i> 'Aurea'	American Elderberry	4ft ht	pot
<i>perennials</i>				
14	<i>Aster novae-angliae</i>	'Purple Dome'	#2 pot	
14	<i>Aster novi-belgii</i>	Bonny Blue	#2 pot	
28	<i>Iris versicolor</i>	Blue Flag Iris	#2 pot	



- LEGEND**
- MINOR CONTOURS
 - - - MAJOR CONTOURS
 - ▲ WETLANDS
 - ▬ WETLAND BUFFER
 - ▬ EDGE OF PAVEMENT
 - ▬ EDGE OF GRAVEL
 - ▬ CULVERT
 - ▬ BUILDING
 - OU OVERHEAD UTILITY
 - TREE LINE
 - SWALE FLOWLINE
 - RETAINING WALL
 - EDGE OF LAKE
 - TOP OF BANK
 - BREAKLINES
 - - - BEACH LIMITS

BIO-RETENTION LANDSCAPE PLAN
 SCALE: 1"=5'



LAKE IROQUOIS PUBLIC BEACH
 LANDSCAPE PLAN