STRATFORD DEVELOPMENT COMPANY

Stratford Corporate Campus

Stratford (Fairfield County), Connecticut

TIDAL WETLAND RESTORATION ANNUAL MONITORING REPORT NUMBER 1

DEPARTMENT OF THE ARMY PERMIT NO.
CENAE-CO-R-199800335 and
CT DEPARTMENT OF ENVIRONMENTAL PROTECTION
PERMIT NOS.
199800774-SG, IW-98-102 & WQC-199800778

JANUARY 2007

Wetlands & Wildlife, Inc.

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1.0 INTRODUCTION

1.1 Overview of Tidal Wetland Restoration Plan

This *Tidal Wetland Restoration Annual Monitoring Report Number 1* pertains to the restoration of tidal wetlands adjacent to Lewis Gut/Johnson's Creek in the Town of Stratford (CT), as approved by both the U.S. Army Corps of Engineers (COE) and the CT Department of Environmental Protection (DEP) in April and August 1999, respectively. Besides adherence to Federal/State permit requirements, this *Annual Monitoring Report* has been prepared in accordance with COE Regulatory Guidance Letter (RGL) No. 06-03[1], to the extent feasible.

Federal and State permits in this regard were issued in response to applications filed by the Stratford Land Development Company Limited Partnership, dba the Stratford Development Company (SDC), for the placement of fill material on approximately 24.14 acres of wetlands subject to COE jurisdiction, 16.58 acres of State-regulated inland wetlands, and 0.26 acres of waterways in conjunction with the development of a corporate park (Stratford Corporate Campus) totaling 1.01 million square feet along and proximate to Lordship Boulevard (see Figure 1).

The wetland mitigation program approved by COE and DEP involved the proposed restoration of approximately 42.09 acres of tidal wetlands at four (4) sites, including the construction of approximately 2.15 miles (1.94 acres) of tidal creeks. Mitigation program implementation, in turn, involved modifications/disturbances to approximately 32.66 acres of inland wetlands dominated by *Phragmites australis* (*Phragmites*), 2.97 acres of inland wetlands, 0.02 acres of *Phragmites*-dominated tidal wetlands, 0.30 acres of waterways, and the conversion of approximately 6.14 acres of uplands to tidal wetlands. In conjunction with the connection of the proposed tidal creek system with existing tidal creeks, the tidal wetland restoration plan also necessitated impacts to approximately 850 square feet of tidal wetlands dominated by *Spartina alterniflora* (saltwater cordgrass) and 715 feet of *Phragmites*-dominated tidal wetlands.

Based on agreements with the U.S. Fish and Wildlife Service (FWS) and, as approved by the COE and DEP, tidal wetland restoration plan implementation occurred on lands within the Great Meadows Unit of the Stewart B. McKinney National Wildlife Refuge (the Refuge). The four approved tidal wetland restoration sites, referenced herein as Sites 1 through 4, are depicted in Figure 2 and Attachment A.

At each of the four restoration sites, existing ground surface elevations were lowered to elevation +4.0' mean sea level (msl) to facilitate the establishment and growth of *Spartina alterniflora*. A network of tidal creeks extending to elevation -2.0 MSL also was constructed at each site. It

[1] U.S. Army Corps of Engineers. August 3, 2006. *Regulatory Guidance Letter 06-03: Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving the Creation, Restoration, and/or Enhancement of Aquatic Resources*. Washington, DC.

PAGE RESERVED FOR FIGURE 1

STRATFORD CORPORATE CAMPUS LOCATION

PAGE RESERVED FOR FIGURE 2

SITE PLAN

should be noted that, following the completion of restoration site construction, no plantings of nursery or other plant stock were implemented. Rather, natural coastal processes such as tidal dynamics, water circulation, sediment/silt dispersal patterns, and seed/root/rhizome distribution were allowed to 'select' site restoration conditions.

A summary of the tidal wetland restoration sites relative to tidal wetland restoration acreages, tidal creek construction, and existing tidal elevations is provided in Tables I through III.

1.2 Monitoring Requirements and Permittee/Consultant Contact Information

Tidal wetland restoration monitoring requirements are set forth in the COE and DEP permits issued for the Stratford Corporate Campus. The COE requirements are stated in Special Condition #8 of COE Permit CENAE-CO-R-199800335. This condition further requires the tidal wetland restoration program to be conducted in accordance with the *Wetland Restoration Plan*[2] filed with COE in support of the *Consolidated Application for Permits – CT Department of Environmental Protection/U.S. Army Corps of Engineers* (*Volume II*). Specifically, Condition #8 of COE Permit states:

> Mitigation shall be performed in accordance with the attached mitigation plan prepared by "Wetlands & Wildlife, Inc." and entitled "Stratford Corporate Campus, WETLAND RESTORATION [PLAN], DEPARTMENT OF THE ARMY APPLICATION NO. CENAE-CO-R-199800335" DATED "MARCH 1999", except where modified by the Special Conditions of this permit.

The DEP monitoring requirements are contained in Special Terms and Conditions #15 of DEP Permit #'s 199800774-SG, IW-98-102 and WQC-199800778. This DEP condition states:

> The permittee shall conduct tidal wetland restoration monitoring and prepare monitoring reports in accordance with Section 6.5.4.4 of the Consolidated Application for Permits, Volume II, and shall include documentation of the individual and collective success of tidal wetlands work at restoration areas 1 through 4 for a period of not less than five consecutive years from the date of completion of each area. For each of the four tidal wetlands restoration areas, as-built plans shall be submitted to the Commissioner for his review and written approval within six (6) months of the completion of excavation at each area. Said plans shall include an appropriate number of cross-sections to demonstrate that the excavation conforms to the approved tidal wetlands restoration plan. The permittee shall submit to the Commissioner for his review and written approval, annual progress reports and a final report which summarizes the results of all surveys at the end of the five-year monitoring program and shall include annual plant and wildlife surveys conducted during summer months, a record of the final elevation, restoration of tidal flow, and an evaluation of the success in establishing native salt marsh plants. In

[2] Wetlands & Wildlife, Inc. March 1999. *Wetland Restoration Plan – Department of the Army Application No. CENAE-CO-R-199800335*. Prepared for the Stratford Development Company. Stratford, CT.

addition, such monitoring shall specify remedial actions necessary to ensure the success of the tidal wetlands restoration plan. The permittee shall implement any remedial actions approved in writing by the Commissioner.

It should be noted, however, that the COE monitoring requirements set forth in the *Wetland Restoration Plan* are more specific and comprehensive than the generalized monitoring procedures outlined in the *Consolidated Application*, such that adherence to the Federal requirements incorporates all State-mandated monitoring procedures. Regardless, the precise monitoring-related wording contained in the Federal/State permits differs. Thus, the monitoring requirements contained in Attachment B constitute a consolidation of Federal/State monitoring protocols/procedures.

Lastly, in compliance with RGL 06-03, the following contact information is provided:

Permittee:

Stratford Development Company
300 Long Beach Boulevard
Stratford, CT 06615
ATTN: James R. Caissy
203-375-2322

Consultant/Restoration Monitor:

Wetlands & Wildlife, Inc.
233 Russell Hill Road
Ashburnham, MA 01430
ATTN: Marshall W. Dennis
978-827-5800

TABLE I
SUMMARY OF PROPOSED TIDAL WETLAND RESTORATION AREAS

TIDAL WETLAND RESTORATION SITE	AREA (ACRES)
1	5.79
2	21.38
3	5.01
4	9.91
TOTAL	**42.09**

TABLE II
SUMMARY OF PROPOSED TIDAL CREEK AREAS

TIDAL WETLAND RESTORATION SITE	TIDAL CREEK AREA (LINEAR FEET)	TIDAL CREEK AREA (SQUARE FEET)
1	1,055	5,275
2	5,575	48,180
3	1,820	9,100
4	2,905	22,025
TOTAL	**11,355 (2.15 miles)**	**84,580 (1.94 acres)**

TABLE III
EXISTING TIDAL ELEVATIONS
(FEET MEAN SEA LEVEL)

TIDE LEVEL	ELEVATION
High Tide Line	+5.4
Mean High Water	+4.1
Mean Tide	+0.7
NGVD	0.0
Mean Low Water	-2.7

2.0 TIDAL WETLAND RESTORATION PLAN IMPLEMENTATION

As indicated in Table IV, construction of the tidal wetland restoration sites occurred between September 2003 and March 2006. As this table notes and, based upon 'as-built' restoration plans prepared by Rose•Tiso & Co. LLC, the acreage of tidal wetlands actually restored exceeds the proposed restoration acreage by approximately 0.15 acres. Signed and stamped 'as-built' plans for each restoration site previously have been forwarded to the COE, DEP and FWS.

TABLE IV
SUMMARY OF TIDAL WETLAND RESTORATION CONSTRUCTION

SITE	START DATE	FINISH DATE	PROPOSED RESTORATION SITE (ACRES)	ACTUAL RESTORATION SITE (ACRES)
1	9/6/2005	1/17/2006	5.79	5.35
2	3/1/2005	10/20/2005[3]	21.38	21.32
3	11/15/2004	2/15/2005	5.01	5.77
4	9/2/2003	3/17/2006	9.91	9.80
TOTAL			**42.09**	**42.24**

The majority of site construction was conducted by Great Meadow Farm (Dan McHugh, Principal; Rowley, MA), with the DEP Wetlands Habitat & Mosquito Management Unit (WHAMM – Paul Capotosto, Restoration Biologist; North Franklin, CT) being primarily responsible for Site 4 construction. The DEP/WHAMM staff also was responsible for restoration site preparation prior to restoration site construction. These construction activities generally involved the following sequential tasks:

- Placement of Temporary Fill, if required
- Application of Glyphosate to *Phragmites australis*
- Cutting/Mulching of *Phragmites australis*
- Installation of Soil Erosion and Sediment Controls
- Site Excavation/Grading and Tidal Creek Construction
- Breaching of the Dike/Reestablishment of Tidal Flows

Overall restoration activities at Sites 1 through 3 and Site 4 were conducted under Special Use Permits (SUP; dated September 21, 2004 and May 21, 2003, respectively) issued to the SDC by the FWS for tidal wetland restoration efforts on FWS-owned lands. Applications of glyphosate were conducted by or under the direction of the DEP/WHAMM Unit under Pesticide Use Permits (PUP) also issued by the FWS.

[3] The northeastern 'corner' of Restoration Site 2, proximate to the southern portion of Restoration Site 1, was completed on 12 January 2006.

Phragmites australis (common reed) at each restoration site initially was treated with a 3% solution of Dow Agroscience Glypro® (EPA Registration # 62719-324) containing 53.8% glyphosate [N-(phosphonomethyl) glycine] as the active ingredient. The glyphosate also contained a 0.005% solution of CWC (CWC Chemical Company, Inc.) Surfactant 90 as a wetter/spreader adjuvant. The herbicide was applied/sprayed onto the *Phragmites* from a herbicide container-mounted low ground pressure tracked vehicle, such as the Marsh Master II Amphibious vehicle pictured at right.

Approximately 15 – 30 days following the glyphosate applications, the *Phragmites* was cut and mulched with a rotary mower, such as the front-mounted mower pictured at left. As pictured in the photograph below, soil erosion/sediment controls then were installed, with an emphasis on sites designated for the stockpiling of excavated material proximate to the Refuge.

Next, restoration site/tidal creek construction proceeded, with Site 3 being the first to be completed in February 2005, followed by Sites 2 and 1 and, finally, by Site 4 in March 2006. Some of the heavy equipment used during restoration site construction is illustrated in Figures 3 and 4.

PAGE RESERVED FOR FIGURE 3

CONSTRUCTION EQUIPMENT FOR TIDAL WETLAND/SALT MARSH RESTORATION

PAGE RESERVED FOR FIGURE 4

CT WILDLIFE

In each instance, the final step in the construction process involved breaching the existing dike, roadway and/or tide gate that isolated the restoration sites from tidal influence, as shown in the photographs, below.

Dike Breach at Restoration Site 4 and Tidal Connection to Johnson's Creek

Dike Breach at Restoration Site 3 and Connection to Tidal Creek

Other representative photographs of each restoration site are presented in the following sections.

3.0 TIDAL WETLAND RESTORATION SITE MONITORING

As indicated in Table V, the restoration sites were monitored on multiple occasions between October 2003 and October 2006. During each of these monitoring events, observations were made and photographs were taken to record existing site conditions. Wildlife observations also were recorded during the monitoring events and salinity measurements were taken on a periodic basis.

3.1 Site 1

The construction of Restoration Site 1 was completed on 17 January 2006. As evidenced by the post cutting & mulching photograph at left (looking south towards Lewis Gut), Site 1 formerly consisted exclusively of *Phragmites australis*.

TABLE V
SUMMARY OF RESTORATION SITE MONITORING

RESTORATION SITE	MONITORING DATE(S)	SALINITY	OVERALL WILDLIFE OBSERVATIONS
1	October 11, 2006	--	Northern Harrier
2	October 11, 2006; April 26, 2005; February 24, 2005	-- -- 26 ppt	Killdeer, Great White Heron, Canada Goose, Woodcock, Northern Harrier, White-tailed Deer
3	October 11, 2006; April 26, 2005; February 24, 2005; December 13, 2004; December 7, 2004	-- -- -- 26 ppt --	Northern Harrier
4	October 11, 2006; April 26, 2005; February 24, 2005; December 13, 2004; December 7, 2004; September 17, 2004; January 13, 2004; October 13, 2003	-- 12 ppt 15 – 20 ppt -- -- 28 ppt -- 26 – 30 ppt	Belted Kingfisher, Double-crested Cormorant, Canada Goose, Black Duck, Wild Turkey, White-tailed Deer

To date, tidal influence has been restored to the site, as evidenced by observations made on 11 October 2006 and the photograph at right (looking south towards Lewis Gut). In as much as the site was observed during high tide, no estimate of the vegetative coverage accrued since project completion was feasible.

3.2 Site 2

As indicated in the pre-construction photograph below (looking west), the 21+ acre Site 2 also consisted exclusively of *Phragmites australis* prior to restoration.

This *Phragmites*-dominated wetland also was isolated from tidal influence by a tide gate located in the northeastern portion of the site, as well as an unpaved road, as illustrated in the photographs below.

Upon the completion of site construction in October 2005, however, tidal influence to Site 2 was restored and *Spartina alterniflora* began to colonize the area during the 2006 growing season, as indicated in the photographs below.

Site 2 Northeast from Observation Deck

Site 2 Southeast from Observation Deck

Site 2 West/Northwest from Observation Deck

Based on observations made during the 11 October 2006 monitoring event, Site 2 coverage with *S. alterniflora* presently is estimated to be approximately 5 – 10%.

3.3 Site 3

On 15 February 2005, Site 3 became the first restoration area to be completed. Like each of the other restoration sites, Site 3 formerly was dominated by *Phragmites australis* (see photograph at right, looking northeast towards Sikorsky Airport).

Again, based on observations made during the 11 October 2006 monitoring event and following two (2) growing seasons, Site 3 vegetative coverage presently is estimated at approximately ±10% (see photographs below).

Site 3 East/Southeast

Site 3 West/Southwest

3.4 Site 4

While the first site at which restoration construction commenced, Site 4 was the last site to be completed (see Table IV). Once again and, as indicated in the photographs below (looking southeast and south, left to right, towards Lewis Gut), *Phragmites australis* dominated pre-construction site conditions.

As evidenced by the photograph at right, Site 4 remains sparsely vegetated (< 5% coverage) after one (1) growing season. Some *Phragmites australis* also persists, primarily in the western portion of the site. However, it is anticipated that the daily influx of tidal waters over time, facilitated by the network of tidal creeks associated with this (see photographs below) and all other restoration sites, will elevate salinities and generate conditions favorable to the elimination of *Phragmites* and the establishment of salt marsh plant species, most notably *S. alterniflora*. This expectation will be addressed in Monitoring Report No. 2.

Site 4 Southwest

Site 4 Tidal Creek

Site 4 Tidal Creek Connection to Lewis Gut

4.0 SUMMARY

In accordance with Federal/State permits, the Stratford Development Company (SDC) has restored approximately 42.24 acres of tidal wetlands at four sites within the Great Meadows Unit of the Stewart B. McKinney National Wildlife Refuge. At each of the four restoration sites, existing ground surface elevations were lowered to elevation +4.0' mean sea level (msl) to facilitate the establishment and growth of *Spartina alterniflora*. A network of tidal creeks extending to elevation -2.0 MSL also was constructed at each site. Based on monitoring events conducted to date, all restoration sites are presently subject to tidal influence.

Since the completion of site construction, the reestablishment of vegetation at the restoration sites has varied, with Sites 2 and 3 yielding the most, and Sites 1 and 4 yielding the least coverage. Regardless, newly formed stands of *S. alternifora* have been observed at each restoration site, while only de minimus stands of *Phragmites australis* have been observed. To date, restoration goals/objectives are being met and no remedial actions or measures relative to any of the restoration sites have been required.

Future monitoring activities will continue to track the tidal wetland status of the restoration sites with respect to soil formation and vegetation coverage, as well as wildlife usage.

Egrets at Restoration Site 2 – August 2006

Attachment A

Approved Tidal Wetland Restoration Plans

Attachment B

Federal/State Tidal Wetland Restoration Monitoring Requirements

MONITORING/MAINTENANCE PROTOCOL/PROCEDURES

A monitoring and maintenance program will be implemented to document the establishment of low marsh tidal wetlands at each of the restoration sites and to ensure the success of overall restoration efforts. Additionally, monitoring activities will aid in the identification of potential remedial measures, thereby further ensuring the ultimate success of the restoration plan.

With respect to monitoring and maintenance activities at the tidal wetland restoration sites, the following procedures will be implemented:

1. No vehicles or other heavy equipment will be permitted on the wetland restoration sites once final grading has been completed.

2. Upon the completion of restoration site construction, control locations to be used for monitoring purposes will be identified. At these locations, a photographic record will be established and maintained to document the establishment of low marsh vegetation and other conditions, including those potentially requiring remediation. Photographs also will be taken before and during site preparation. Each photograph will note the date, time, weather, and other relevant observations. Additionally, vegetation cover percentages will be determined. These visual estimates will encompass the total percent cover for each wetland restoration site and the percent cover of invasive plant species including, but not necessarily limited to, *Phragmites australis*. Fish and wildlife observations within the restoration sites will be noted, as well.

3. During the overall monitoring and maintenance period, the wetland restoration sites will be monitored and photographed at least once annually during the late summer, with visual estimates of vegetation cover percentages also being performed. Fish and wildlife usage of the tidal wetland restoration sites will be noted, as will any other fish and wildlife observations. In addition, general observations will be made relative to the accumulation of debris, if any, and any other factors potentially affecting the wetland restoration sites, such as invasion by *Phragmites australis*. Following consultation with the Corps [and DEP], debris accumulation determined to be significantly detrimental to wetland restoration efforts will be removed.

   If necessary, a remedial action plan to control *Phragmites australis* and other invasive plant species in the restoration sites shall be developed. Prior to implementation, this plan shall be submitted to the Corps [and DEP] for review and written approval.

   Modifications to the above-referenced schedule are expected to allow for intervening monitoring inspections following storm events, for example, when potential storm damage likely will be more pronounced.

4. Lastly, for the first three full years following tidal wetland restoration site construction, annual monitoring reports will be prepared. These annual reports will be provided to the Corps [and DEP] no later than December 15 of the year being monitored. The Permit Number(s) shall be referenced on all submissions.

   At a minimum, the annual tidal wetland restoration monitoring reports will contain summary discussions of the following:

   a) Monitoring inspections that occurred since the last report

   b) Vegetation Cover Percentages, including:

      1) A visual estimate of total percent cover for each wetland restoration site.
      2) A visual estimate of the percent cover of invasive plant species in each restoration site including, but not necessarily limited to, *Phragmites australis*

   c) Fish/wildlife observations & site usage (e.g. nesting, feeding, cover, etc.).

   d) Remedial actions conducted during the monitoring year, including those conducted to improve the success potential of the restoration sites. These activities may include, but are not limited to: access restrictions; removal of debris; biological, herbicidal, or mechanical control of invasive plant species; re-grading of the sites; application of topsoil or soil amendments; or adjustments to the hydrology of the sites.

   e) Recommendations for future remedial activities.

   Annual monitoring reports also will contain Appendices, as follows:

Appendix A	A copy of the Mitigation Special Conditions
Appendix B	An “as-built” plan indicating the location and extent of plant communities with the wetland restoration sites
Appendix C	Representative photographs of the wetland mitigation sites taken from the same locations for each monitoring event

5. A post-construction assessment will be conducted and submitted to the Corps [and DEP] by December 15 of the fifth year after completion of construction of all the tidal wetland restoration sites. This assessment report will consider the condition of the wetland restoration sites after the first five full growing seasons following the completion of construction of the restoration sites.

The post-construction assessment will include at least the following components:

a) GOALS: A summary the original or modified mitigation goals and discussion of the level of attainment of these goals at each restoration site.

b) LESSONS LEARNED: A summary of any significant problems that were encountered or solutions that were developed during the construction and maintenance periods.

c) IMPEDIMENTS: A summary of any departmental or agency procedures or policies that may have encumbered the implementation of the restoration designs. Specifically, procedures or policies that contributed to less success or less effectiveness than anticipated in the restoration plan for the project will be noted.

d) RECOMMENDATIONS: A listing of recommendations shall be provided that are directed at improving the efficiency, reducing the cost, or improving the effectiveness of similar projects in the future.

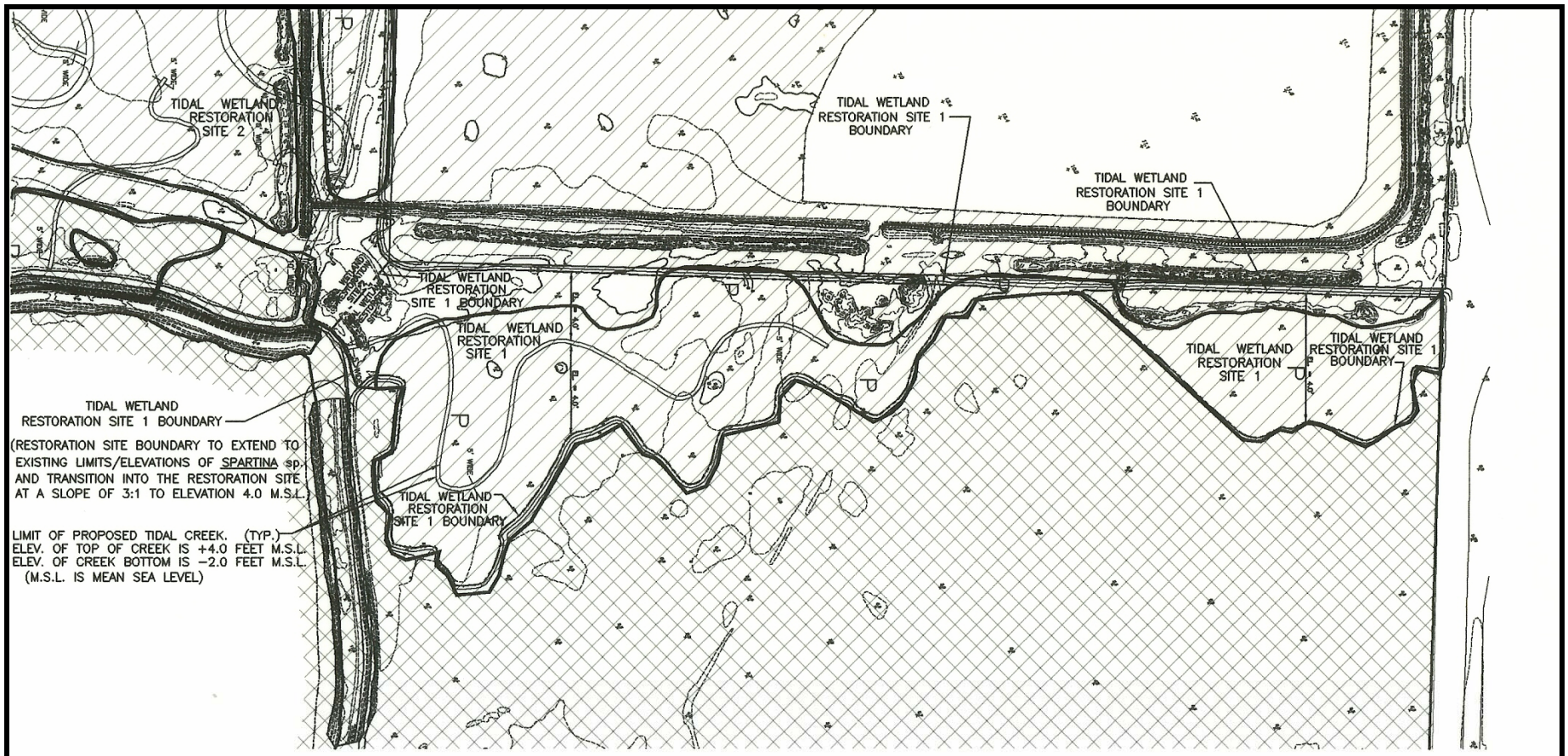
The final assessment report also will contain Appendices, as follows:

Appendix A Summary of the results of a functions and values assessment of the restoration sites, using the same methodology as was used to determine the functions and values for the impacted wetlands.

Appendix B Calculation of the area of wetlands in each restoration site using the delineation method employed by the Corps [and DEP]. Supporting documents will include: a scaled drawing illustrating the wetland boundaries and at least two representative transects with corresponding data points where Wetland Delineation data sheets are prepared.

Appendix C Comparison of the measured areas of the delineated wetland areas within each tidal wetland restoration site with the areas proposed in the restoration plan. This comparison will be made on a scaled drawing or as an overlay to the as-built plan. This plan also will illustrate the major vegetation community types. Representative cross sections of each restoration site indicating site elevations also will be provided.

Appendix D Photographs of the wetland mitigation sites taken from the same fixed locations as the monitoring photographs.



SCALE: 1" = 19

COASTAL RESOURCES
- TIDAL WETLAND
- SALT MARSH
- DUNE
- BEACH
- INTERTIDAL FLAT
- B — BRACKISH WETLAND

INLAND WETLANDS
- WETLANDS
- WATERCOURSES
- REVISED WETLAND BOUNDARY (per CT DEP confirmation of 11/18/94)
- REVISED WETLAND BOUNDARY (per ACOE Field Inspection of May 5, 1992)
- P — PHRAGMITES DOMINATED AREA

REVISIONS		
NO.	DESCRIPTION	DATE
1.	ADD NOTE RE: BOUNDARY LIMITS	8-6-98

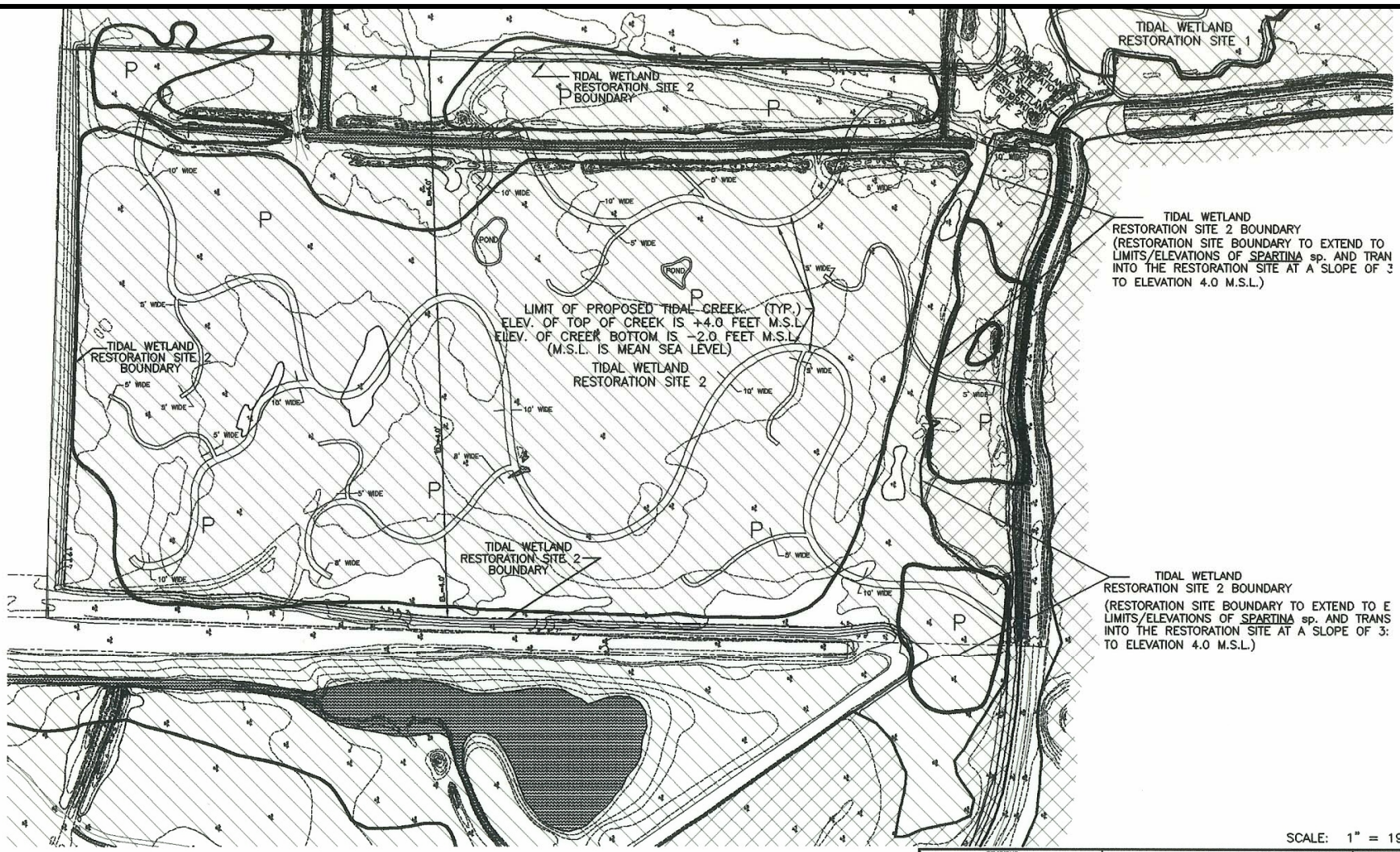
ATTACHMENT N-1

SUPPLEMENTAL PLAN
"TIDAL RESTORATION SITE 1"

PREPARED FOR
STRATFORD DEVELOPMENT CO.

KASPER GROUP INC. BRIDGEPORT, CONNECTICUT
ENGINEERS, ARCHITECTS, SURVEYORS

SCALE: 1" = 6
DATE: APR. 8, 19
SHEET 1 OF 4
PREPARED BY: LJ
DRAWN BY: LJC
CHECKED BY: PLT
DWG. NAME: N60-01CE



SCALE: 1" = 195'

COASTAL RESOURCES

- TIDAL WETLAND
- SALT MARSH
- DUNE
- BEACH
- INTERTIDAL FLAT
- B — BRACKISH WETLAND

INLAND WETLANDS

- WETLANDS
- WATERCOURSES
- REVISED WETLAND BOUNDARY (per CT DEP conformation of 11/18/94)
- REVISED WETLAND BOUNDARY (per ACOE Field Inspection of May 5, 1992)
- P — PHRAGMITES DOMINATED AREA

REVISIONS		
NO.	DESCRIPTION	DATE
1.	ADD NOTE RE: WETLAND LIMITS	8-6-98

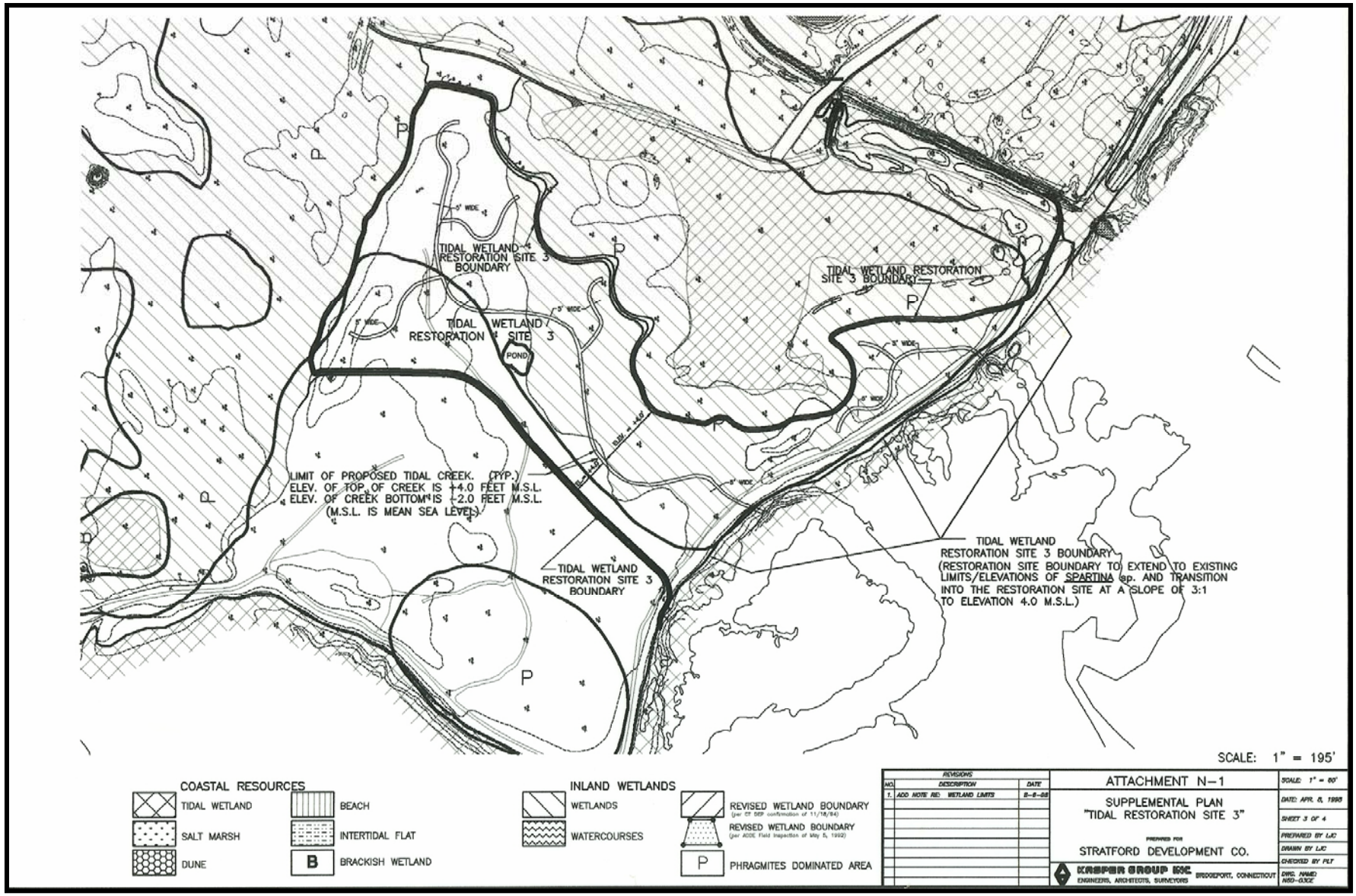
ATTACHMENT N-1

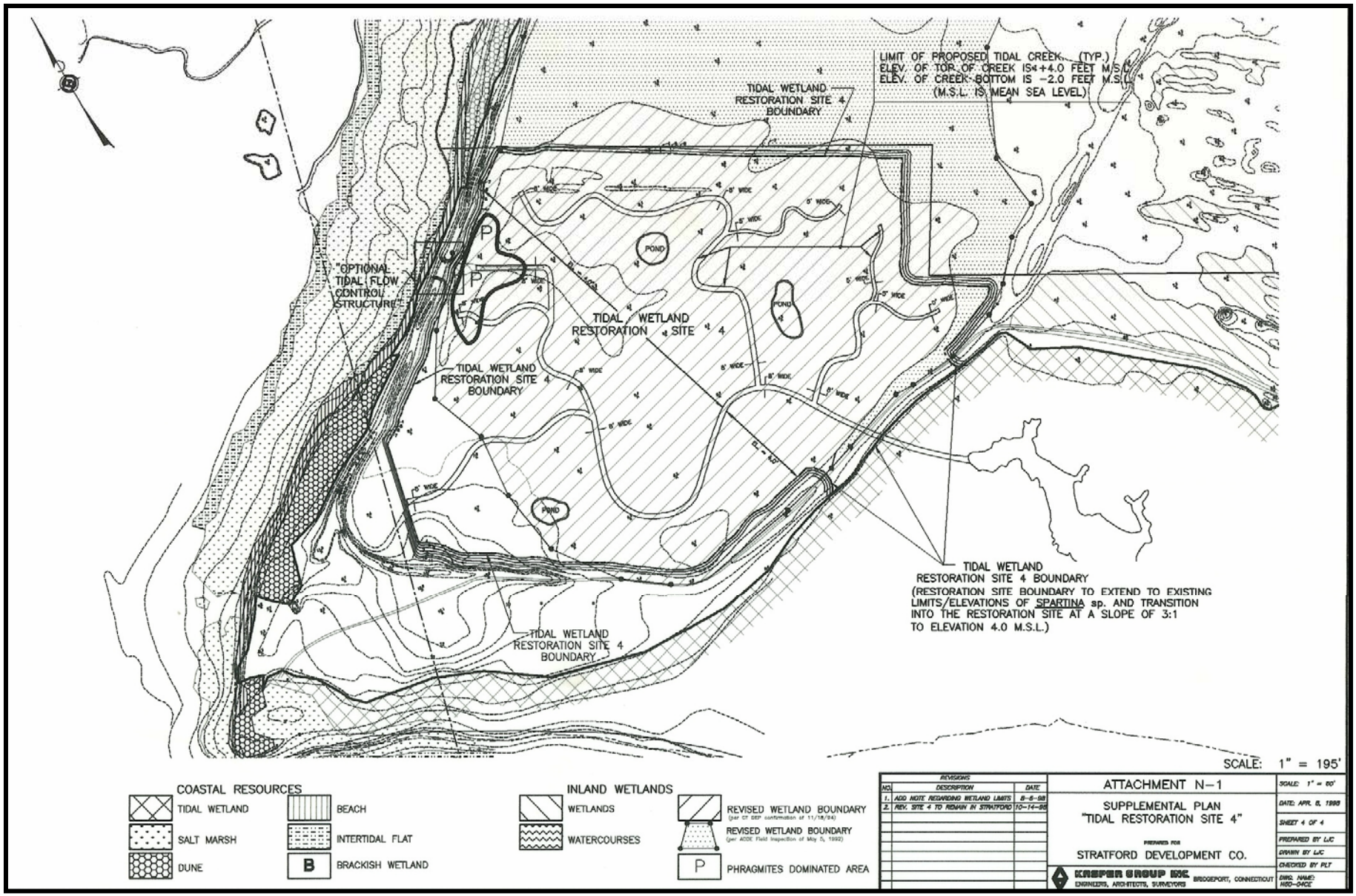
SUPPLEMENTAL PLAN
"TIDAL RESTORATION SITE 2"

PREPARED FOR
STRATFORD DEVELOPMENT CO.

KASPER GROUP INC.
ENGINEERS, ARCHITECTS, SURVEYORS
BRIDGEPORT, CONNECTICUT

SCALE:	1" = 80'
DATE:	APR. 6, 1998
SHEET	2 OF 4
PREPARED BY	LJC
DRAWN BY	LJC
CHECKED BY	PLT
DWG. NAME:	N60-02CE


TIDAL WETLAND RESTORATION SITE 3 BOUNDARY
TIDAL WETLAND RESTORATION SITE 3
POND
TIDAL WETLAND RESTORATION SITE 3 BOUNDARY
LIMIT OF PROPOSED TIDAL CREEK. (TYP.)
ELEV. OF TOP OF CREEK IS +4.0 FEET M.S.L.
ELEV. OF CREEK BOTTOM IS -2.0 FEET M.S.L.
(M.S.L. IS MEAN SEA LEVEL)
TIDAL WETLAND RESTORATION SITE 3 BOUNDARY
TIDAL WETLAND
RESTORATION SITE 3 BOUNDARY
(RESTORATION SITE BOUNDARY TO EXTEND TO EXISTING LIMITS/ELEVATIONS OF SPARTINA sp. AND TRANSITION INTO THE RESTORATION SITE AT A SLOPE OF 3:1 TO ELEVATION 4.0 M.S.L.)
SCALE: 1" = 195'
COASTAL RESOURCES
TIDAL WETLAND
SALT MARSH
DUNE
BEACH
INTERTIDAL FLAT
B BRACKISH WETLAND
INLAND WETLANDS
WETLANDS
WATERCOURSES
REVISED WETLAND BOUNDARY (per CT DEP confirmation of 11/18/94)
REVISED WETLAND BOUNDARY (per ACOE Field Inspection of May 5, 1992)
P PHRAGMITES DOMINATED AREA
REVISIONS
NO. DESCRIPTION DATE
1. ADD NOTE RE: WETLAND LIMITS 8-8-95
ATTACHMENT N-1
SUPPLEMENTAL PLAN
"TIDAL RESTORATION SITE 3"
PREPARED FOR
STRATFORD DEVELOPMENT CO.
KASPER GROUP INC. ENGINEERS, ARCHITECTS, SURVEYORS BRIDGEPORT, CONNECTICUT
SCALE: 1" = 60'
DATE: APR. 6, 1995
SHEET 3 OF 4
PREPARED BY LJC
DRAWN BY LJC
CHECKED BY PLT
DWG. NAME: N60-03CE


LIMIT OF PROPOSED TIDAL CREEK (TYP.)
ELEV. OF TOP OF CREEK IS +4.0 FEET M.S.L.
ELEV. OF CREEK BOTTOM IS −2.0 FEET M.S.L.
(M.S.L. IS MEAN SEA LEVEL)
TIDAL WETLAND RESTORATION SITE 4 BOUNDARY
"OPTIONAL TIDAL FLOW CONTROL STRUCTURE"
TIDAL WETLAND RESTORATION SITE 4
POND
TIDAL WETLAND RESTORATION SITE 4 BOUNDARY
TIDAL WETLAND RESTORATION SITE 4 BOUNDARY
(RESTORATION SITE BOUNDARY TO EXTEND TO EXISTING LIMITS/ELEVATIONS OF SPARTINA sp. AND TRANSITION INTO THE RESTORATION SITE AT A SLOPE OF 3:1 TO ELEVATION 4.0 M.S.L.)
TIDAL WETLAND RESTORATION SITE 4 BOUNDARY
5' WIDE
P
B
SCALE: 1" = 195'
COASTAL RESOURCES
TIDAL WETLAND
SALT MARSH
DUNE
BEACH
INTERTIDAL FLAT
BRACKISH WETLAND
INLAND WETLANDS
WETLANDS
WATERCOURSES
REVISED WETLAND BOUNDARY (per CT DEP conformation of 11/18/94)
REVISED WETLAND BOUNDARY (per ACOE Field Inspection of May 5, 1992)
PHRAGMITES DOMINATED AREA
REVISIONS
NO. DESCRIPTION DATE
1. ADD NOTE REGARDING WETLAND LIMITS 8-6-98
2. REV. SITE 4 TO REMAIN IN STRATFORD 10-14-98
ATTACHMENT N-1
SUPPLEMENTAL PLAN
"TIDAL RESTORATION SITE 4"
PREPARED FOR
STRATFORD DEVELOPMENT CO.
KASPER GROUP INC. ENGINEERS, ARCHITECTS, SURVEYORS BRIDGEPORT, CONNECTICUT
SCALE: 1" = 60'
DATE: APR. 8, 1998
SHEET 4 OF 4
PREPARED BY LJC
DRAWN BY LJC
CHECKED BY PLT
DWG. NAME: MID-DADE