



Florida Department of Environmental Protection

Southwest District Office
 13051 North Telecom Parkway
 Temple Terrace, Florida 33637-0926

Charlie Crist
 Governor

Jeff Kottkamp
 Lt. Governor

Michael W. Sole
 Secretary

DEC 24 2007

U.S. Army Corps of Engineers
 c/o Marie Burns, Chief of Environmental Branch
 P.O. Box 4970
 Jacksonville, FL 33232

Dear Ms. Burns:

Enclosed is the Environmental Resource Permit, DEP Project No. 52-0255101-002, issued pursuant to part IV of Chapter 373, Florida Statutes, and Title 62 Florida Administrative Code.

Appeal rights for you and for any affected third party are described in the text of the Permit along with conditions, which must be met when authorized activities are undertaken.

You, as the applicant, are responsible for all aspects of permit compliance. You should therefore review this permit document carefully to ensure compliance with the interagency cooperation agreement general conditions, and specific conditions contained herein.

Please be aware of permit specific conditions number 6 which requires a pre-construction conference with a representative of the Departments Environmental Resources Staff. Also, please be aware of the established permit timeframes. A table summarizing the permit timeframes is included below.

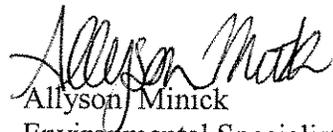
Specific Condition	Timeframe	Requirement
1	48 hours prior to construction commencement	submittal of Construction Commencement Notice
8	Every 3 months Beginning January 8, 2007	submittal of Progress reports even if work has not commenced.
11	within a reasonable time of construction completion	submittal of as-builts for Department review
28	60 days prior to commencement	submittal of drawings showing the location of proposed staging areas and pipeline corridors for dredging operations.
29	30 days after construction completion	areas impacted by installation of pipeline must be restored
31	prior to depositing spoil material	submit as-builts of the temporary disposal / dewatering site for Department review 14 days prior to depositing dredged material

32	within 60 days of completion of dredging/ dewatering activities	restoration of temporary disposal / dewatering site
33	30 days prior to initiation of a discharge from the treatment system	Submittal of the following information Name and MSDS for Polymer, schematic of treatment system, control measures, acute and chronic toxicity results
38	prior to placement of spoil at the permanent disposal site and prior to commencement of construction	submittal of letter authorizing the placement of spoil on lands in Hillsborough county from Hillsborough County.
41	within 7days/ 60 days	seed or sod exposed slopes/ establish vegetative cover that stabilizes soils
43	within 30 days of achieving final grade and prior to planting / within 60 days of receiving Department approval	submittal of survey for Department review and approval for mangrove creation areas / completion of mangrove plantings

If you have any questions about this document, please contact me at (813)632-7600, ext. 430

Thank you for your participation in the permit process and in managing the natural resources of the State of Florida.

Sincerely yours,



Allyson Minick
Environmental Specialist III
Environmental Resource Management

Enc: Environmental Resource Permit with attachments (78 pages)



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ENVIRONMENTAL RESOURCE PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE/AUTHORIZED ENTITY:
U.S. Army Corps of Engineers
c/o Marie Burns, Chief of Environmental
Branch
P.O. Box 4970
Jacksonville, FL 33232

City of Clearwater
c/o Michael Quillen, Engineering
Director
P.O. Box 4748
Clearwater, FL 33758

Permit/ Authorization Number:
52-0255101-002

Date of Issue: **DEC 24 2007**

Expiration Date of Construction Phase:

County: Pinellas **DEC 24 2012**

Project: Stevenson Creek Restoration

This permit is issued under the authority of Part IV of Chapter 373, F.S., and Title 62, Florida Administrative Code (F.A.C.). The activity is not exempt from the requirement to obtain an environmental resource permit. Pursuant to Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

This permit also constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Management Act.

This permit also constitutes certification compliance with water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

As staff to the Board of Trustees, the Department has reviewed the activity described above, and has determined that the ecosystem restoration activities qualify for a letter of consent to use sovereign, submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms

and conditions herein. Therefore, consent is hereby granted to the local sponsor (the City of Clearwater), pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

SPGP REVIEW - NOT APPROVED

A copy of this authorization has also been sent to the U.S. Army Corps of Engineers (USACOE) for review. The USACOE may require a separate permit. Failure to obtain this authorization prior to construction could subject you to enforcement action by that agency. You are hereby advised that authorizations also may be required by other federal, state, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

Authority for review - an agreement with the U.S. Army Corps of Engineers entitled "Coordination Agreement Between the U. S. Army Corps of Engineers (Jacksonville District) and the Florida Department of Environmental Protection State Programmatic General Permit, Section 10 of the Rivers and Harbor Act of 1899 and Section 404 of the Clean Water Act.

You are hereby advised that authorizations also may be required by other federal, state, and local entities. This authorization does not relieve you from the requirements to obtain all other required permits and authorizations.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof. This permit and authorization to use sovereign submerged lands is subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the attached one through 25 General Conditions and 52 Specific Conditions, which are a binding part of this permit and authorization. You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these drawings and conditions prior to commencing the authorized activities. Failure to comply with all drawings and conditions shall constitute grounds for revocation of the permit and appropriate enforcement action.

Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and with the general and specific conditions of this permit, as specifically described below.

ACTIVITY DESCRIPTION:

The project involves the dredging of 132,500 cubic yards of accumulated sediment and muck from Stevenson Creek to restore 29 acres located between North Fort Harrison Avenue and Douglas Avenue to mimic historic conditions. The restoration plan involves the removal of accumulated material, the retention and/or creation of 4.88 acres of littoral shelf along the existing bank, the creation of 3.24 acres of mangrove habitat, and the removal of an acre of Brazilian pepper.

The spoil material shall be temporarily stored/dewatered at the Wolfe and salvage yard properties located adjacent to Stevenson Creek on Overbrook Drive parcel number 03/29/15/00000/430/0500. The dewatering activities shall be hydrologically isolated to minimize impacts to an existing contaminated site and to prevent the escape or transport of dredged material and associated effluent into groundwater, surface water, or wetlands. The material shall be transported to the former City of Clearwater sludge upland disposal site for final disposal in Hillsborough County.

ACTIVITY LOCATION:

The project is located between North Fort Harrison and Douglas Avenue Bridges, within the Stevenson Creek, part of the Pinellas County Aquatic Preserve, a Class III Outstanding Florida Waterbody, Clearwater, Sections 3 & 4, Township 29 South, Range 15 East, Pinellas County.

INTERAGENCY COOPERATION AGREEMENT (ICA) GENERAL CONDITIONS:

1. This permit, including its general and specific conditions, must be construed in light of the February 28, 2006 Interagency Cooperative Agreement for Civil Works Projects (ICA) between the Department and the Corps. As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.
2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing of any anticipated changes in:
 - a) operational plans;
 - b) project dimensions, size or location;

- c) ability to adhere to permit conditions;
- d) project description included in the permit;
- e) monitoring plans.

If the Department determines that a modification to the permit is required then the Corps shall apply for and obtain the modification. Department approval of the modification shall be obtained prior to implementing the change, unless the change is determined by the Department to reduce the scope of work from that authorized under the original permit, and will not effect compliance with permit conditions or monitoring requirements.

3. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:

- a) a description of and cause of noncompliance;
- b) the period of noncompliance, including dates and times;
- c) impacts resulting or likely to result from the non-compliance;
- d) steps being taken to correct the non-compliance; and
- e) the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law with respect to any non-compliance.

4. The Corps shall obtain any applicable licenses, permits, or other authorizations which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.
5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.
6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting

documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.

7. Nothing herein authorizes any entrance upon or activities on property which is not owned or controlled by the Corps or local sponsor, or conveys any vested rights or any exclusive privileges.
8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.
9. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.
10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice of commencement of activities indicating the anticipated start date and the anticipated completion date.
11. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Corps shall immediately stop all activities in the immediate area which disturb the soil and notify the Department and the State Historic Preservation Officer. In the event that unmarked human remains are encountered during permitted activities, all work shall stop in the immediate area and the proper authorities notified in accordance with Section 872.05, Florida Statutes.
12. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the

actual work completed. The Department shall be provided, if requested, a copy of any as-built drawings required of the contractor or survey performed by the Corps.

SPECIFIC CONDITIONS:

1. The permittee shall notify the Department in writing at least 48 hours prior to commencing the work authorized in this permit (see ICA General Condition #10).

2. Submittals required herein shall be directed to:

Department of Environmental Protection
Environmental Administrator
Environmental Resource Management Program
Southwest District
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

hereafter referred to as "the Department". Submittals include, but are not limited to, record drawings, progress reports, mitigation monitoring reports and water quality monitoring reports. Submittals shall include the permittee's name and permit number.

3. The permittee shall be aware of and operate under #1 through #12 of the attached "Interagency cooperation Agreement General Conditions for Environmental Standard General and Individual Permits". General Permit Conditions are binding upon the permittee and enforceable pursuant to Chapter 403 of the Florida Statutes.
4. The permittee is hereby advised that Florida law states: "No person shall commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use." Pursuant to Rule 18-14.002(1), Florida Administrative Code, if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

5. The work authorized by this permit shall not be conducted on any property, other than that owned by the permittee, without the prior written approval of that property owner.
6. Subsequent to the selection of the contractor to perform the authorized activity and prior to the initiation of work authorized by this permit, the permittee, (or authorized agent) and the contractor, shall attend a pre-construction conference with a representative of the Department's Submerged Lands and Environmental Resources staff. The permittee shall notify the Department in writing subsequent to contractor selection to request scheduling of the subject conference.
7. If the approved permit, drawings, and the Specific Conditions contradict each other, then the Specific Conditions shall prevail.
8. Progress reports for the project shall be submitted to the Department beginning January 1, 2008, and shall continue to be submitted quarterly or biannually until construction of the permitted project and mitigation creation is completed. The cover page shall indicate the permit number, project name and the permittee name. Progress reports must be submitted to the Department if there is no ongoing construction. Reports shall include the current project status and the construction schedule for the following three or six months. The report shall include the following information:
 - a. Date permitted activity was begun; if work has not begun on-site, please indicate.
 - b. Brief description and extent of the work (i.e., dredge, construction, dewatering, mangrove creation areas, monitoring) completed since the previous report or since the permit was issued. Show on copies of the permit drawings those areas where work has been completed.
 - c. Brief description and extent of the work (i.e. dredge, construction, dewatering, mangrove creation areas, monitoring, mitigation) anticipated in the next three months. Indicate on copies of the permit drawings those areas where it is anticipated that work will be done.
 - d. The progress of the permitted mangrove creation areas. The reports shall include; photographs taken from the permanent stations, some of which must be in the vegetation sampling areas, a description of problems encountered and solutions undertaken, and anticipated work for the next three months.

- e. This report shall include on the first page, just below the title, the certification of the following statement by the individual who supervised preparation of the report: "This report represents a true and accurate description of the activities conducted during the three month period covered by this report."
- 9. The permittee is responsible for retaining a professional engineer registered in any state to certify the construction of the project is in compliance with the approved permit plans.
- 10. Drawings, record drawings, land surveys, and as-built surveys required herein shall be certified by a Professional Engineer or Registered Land Surveyor, as appropriate, registered in any state.
- 11. The permittee shall submit two copies of signed, as-built drawings to the Department for review for compliance with the permit conditions within a reasonable time of completion of construction. The as-built drawings shall be based on the Department permitted construction drawings, which should be revised to reflect changes made during construction. Both the original design and constructed elevation must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawings. Surveyed dimensions and elevations required shall be verified and signed, dated and sealed by a registered surveyor or engineer. *As-builts shall be submitted to the Department regardless of whether or not deviations are present. In addition to the "As-built Certification" for.* The following information shall be verified on the as-built drawings:

<u>Plan View/Cross-Section</u>	<u>Page Number</u>
Reach 1 - Plan View	2 of 8
Reach 2- Plan View	3 of 8
Upland Disposal Area	4A of 8
Typical Disposal Section	4B of 8

- 12. Storage or stockpiling of tools, materials (i.e., lumber, pilings, debris.) within wetlands, along the shoreline, within the littoral zone, or elsewhere within wetlands or other surface waters is prohibited.

EROSION AND SEDIMENT CONTROL CONDITIONS:

13. Areas of exposed soils shall be isolated from wetlands or other surface waters to prevent erosion and deposition of these soils into wetlands or other surface waters during permitted activities.
14. Best management practices for erosion control shall be implemented prior to construction commencement and shall be maintained at all times during construction to prevent siltation and turbid discharges in excess of State water quality standards pursuant to Rule 62-302, F.A.C. Methods shall include, but are not limited to the use of staked hay bales, staked filter cloth, sodding, seeding, staged construction and the installation of turbidity screens around the immediate project site.
15. The permittee shall be responsible for ensuring erosion control devices/procedures are inspected and maintained daily during all phases of construction authorized by this permit until areas disturbed during construction are sufficiently stabilized to prevent erosion, siltation, and turbid discharges.
16. The permittee shall be responsible for inspecting and maintaining turbidity control devices so no degradation of the ambient water quality of Outstanding Florida Waters outside of the turbidity screens occurs. Turbidity shall be monitored as described in the monitoring portion of this permit
17. The following measures shall be taken immediately by the permittee when turbidity levels within waters of the State surrounding the project site, exceed the ambient water quality levels of the Outstanding Florida Waters:
 - a. Immediately cease work contributing to the water quality violation.
 - b. Stabilize exposed soils contributing to the violation. Modify the work procedures responsible for the violation, install additional turbidity containment devices and repair non-functioning turbidity containment devices.
 - c. Notify the Department within 24 hours of the time the violation is first detected.
18. Wetland areas or water bodies, which are outside the specific limits of construction authorized by this permit, must be protected from erosion, siltation, scouring and/or dewatering. There shall be no discharge in

violation of the water quality standards in Chapter 62-302, Florida Administrative Code. Turbidity/erosion controls shall be installed prior to clearing, excavation or placement of fill material, shall be maintained until construction is completed, disturbed areas are stabilized, and turbidity levels have fallen to less than ambient background. The turbidity and erosion control devices shall be removed within 14 days once these conditions are met.

19. Staked filter cloth shall be positioned at the edge of the permitted fill slopes adjacent to wetlands to prevent turbid run-off and erosion.

TURBIDITY MONITORING CONDITIONS:

20. The permittee shall monitor for turbidity in accordance with Attachment E, "Turbidity and Disposal Monitoring Plan" and specific conditions 21 through 25 of the specific conditions included in this permit.
21. The turbidity monitoring plan shall include (at a minimum) the method of dredging, location and type of turbidity control devices, the location and duration of the mixing zone, the location of each turbidity sampling site, and method of sampling.
22. Monitoring for turbidity shall be conducted for the duration of the project at 4 hour intervals during construction hours until the dredging project is completed. Sampling will commence prior to, but no more than 24 hours before initiation of any dredging activities.
23. The permittee shall comply with the following QA/QC requirements for each sample collected:
 - a. Turbidity analysis shall be performed on instruments that produce results in Nephelometric measurements.
 - b. The instrument shall be calibrated each morning and each time the instrument is turned on, and recalibrated every four hours thereafter.
 - c. Calibrations shall be performed against a blank, and at least one formazin or gel-type standard. The standard value should be in the same range as the sample readings.
 - d. Calibration procedures shall be recorded in a permanent logbook, and copies must be submitted with the data.

24. Turbidity monitoring reports shall be submitted to the Department each Monday following project commencement; reports shall include the permittee name and permit number. When submitting this information to the Department, please include, at the top of each page or as a cover page to the submittal: "This information being provided in partial fulfillment of the monitoring requirements in Permit No. 52-0255101-002." Failure to submit reports in a timely manner constitutes a violation of the permit and may be grounds for revocation.

Monitoring data shall contain the following information:

- a. Permit number;
- b. Dates of sampling and analysis;
- c. A statement describing the methods used in collection and analysis of the samples;
- d. A map showing the sampling locations, along with indicating the latitude and longitude;
- e. Copies of the Quality Assurance/Quality Control log; and
- f. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision and accuracy of the data;

Monitoring reports shall also include the following information for each sample that is taken:

- a. Time of day samples taken;
- b. Depth of water body;
- c. Depth of sample;
- d. Tidal stage and direction of flow; and
- e. Antecedent weather conditions, including wind direction and velocity.

The compliance locations shall be considered the limits of the temporary mixing zone for turbidity allowed during construction.

25. If monitoring reveals turbidity levels outside the mixing zone exceeds the ambient water quality levels of the Outstanding Florida Waterbody, the permittee shall take the following measures:
 - a. Immediately cease all work contributing to the water quality violation. Work which may contribute to the violation shall not resume until corrective measures have been taken and turbidity levels have returned to acceptable levels; and
 - b. Stabilize exposed soils contributing to the violation. Modify work procedures responsible for the violation, install additional turbidity containment devices, repair non-functioning turbidity containment devices; and
 - c. Increase monitoring frequency to every 2 hours until turbidity levels no longer exceed ambient water quality within the Outstanding Florida Waterbody. Interim samples collected following the violation(s) shall be collected in the same manner and locations as the routine monitoring. Operations may not resume until the water quality standard for turbidity no longer exceeds the ambient water quality of the Outstanding Florida Waterbody.
 - d. The violation(s) shall be immediately reported to the Department. The report shall include the description of the corrective actions being taken or proposed to be taken. The report shall be made to the Department as soon as normal business hours resume if violation(s) are noted after normal business hours, on holidays, or on weekends. A copy of the monitoring data sheets, which indicate violation(s), shall be forwarded immediately to the Department.

Failure to report violation(s) or to follow correct procedures before resuming work shall constitute grounds for permit revocation and may subject the permittee to formal enforcement action.

DREDGING CONDITIONS:

26. Areas to be dredged shall be in accordance with the attached permit drawings and shall not exceed the areas and depths indicated on the permit drawings. If any structures are proposed to be removed that are not owned

by the permittee or local sponsor, the permittee shall obtain authorization from the owner prior to the removal of the structure. If the limits of the proposed project deviate from the attached permit drawings in order to avoid existing structures the revisions shall be reflected in the as-built drawings.

27. No portion of the dredge pipeline, nor any related equipment, shall be temporarily stored, anchored on, or laid on or over seagrass beds. Anchoring done to secure the dredge or equipment shall be done within the dredging areas or in areas where seagrass beds are not present during dredging and related activities.
28. The permittee shall provide to the Department a copy of the drawings, which show the locations of the proposed equipment staging areas and pipeline corridors, at least 60 days prior to dredging. The pipeline shall be a floating pipeline if the dredge pipeline is proposed to cross over seagrass beds.
29. No wetland impacts are authorized other than the placement of the pipeline to convey dredged material to the temporary disposal site. Areas impacted by the installation of the pipeline shall be restored to the pre-construction condition within 30 days of completion of construction.

TEMPORARY DISPOSAL SITE CONDITIONS:

30. The temporary disposal/dewatering area shall be constructed as outlined in the Stevenson's Creek Dewatering Site Specs (2 pages) attached hereto and incorporated herein as "Attachment D", to hydrologically isolate the dredging and dewatering activities from the dewatering site which contains contaminated soil and groundwater in the 3.77 acres of the eastern portion of the Wolf property and the western 2.9 acres of the Central Florida Used Auto Parts property (also known as the Green Space Property) illustrated in Sheet 4 of 8 of the attached permit drawings. The site shall be hydrologically isolated to minimize impacts to an existing contaminated site and to prevent the escape or transport of dredged material and associated effluent into groundwater, surface water, or wetlands.
31. The permittee shall submit as-built drawings of the construction plans approved in "Attachment D" for compliance review 14 days prior to the placement of any spoil material at the temporary disposal. Dewatering site. Drawings submitted shall include all information required in "Attachment D" of this permit and shall be signed by a professional engineer registered in any state.

32. The authorized spoil dewatering/disposal area shall be restored to pre-construction conditions within 60 days of the completion of dredge/dewatering activities. The permittee shall submit as-built drawings for Department review within 60 days of restoration.

DEWATERING/POLYMER CONDITONS:

33. The following information must be submitted by the contractor and received by the Department at least 30 days prior to initiation of a discharge from a treatment system utilizing polymer / flocculant.
- a. Name and MSDS for polymer / flocculant that will be used
 - b. Description / schematic of treatment system including maximum dosage rates
 - c. Description of control measures in place to ensure residual polymer is not being discharged. This should include descriptions of any testing methods in place to measure residual polymer and the frequency that these measurements will be conducted.
 - d. Acute and chronic toxicity test results following methods described below. In order for a polymer to be utilized in this treatment system, the conducted tests must result in an $LC_{50} > 100\%$ for acute testing and an $NOEC = 100\%$ for chronic testing.
34. If the contractor changes to a chemically different polymer / flocculant or adds an additional polymer / flocculant during the project, all of the above information must be re-submitted to the Department for the new / added polymer / flocculant at least 14 days prior to addition to the treatment system.

ACUTE ELUTRIATE TOXICITY TESTING:

35. The contractor shall comply with the elutriate toxicity testing requirements provided in Attachment "A" and initiate the series of tests described within to evaluate acute toxicity of elutriate discharge from dredged material dewatering operations using polymers or other flocculants. These tests shall be completed and the results submitted to and received by the Department at least 30 days prior to discharge to surface waters.

CHRONIC ELUTRIATE EFFLUENT TOXICITY TESTING:

36. The contractor shall comply with the chronic elutriate toxicity testing requirements provided in Attachment "B" and initiate the series of tests described within to evaluate chronic toxicity of elutriate discharge from dredged material dewatering operations using polymers or other flocculants. These tests shall be completed and the results submitted to and received by the Department at least 30 days prior to discharge to surface waters.

ON-GOING MONITORING REQUIREMENTS:

37. The contractor shall provide the Department the information included in Attachment "C" in order to evaluate the on-going operation of the dredge / dewatering system over the period of operation. The on-going monitoring shall be submitted to the Department in a monthly report.

PERMANENT DISPOSAL SITE CONDITIONS:

38. The City of Clearwater shall provide the Department with written approval from Hillsborough County, Planning and Growth Management Department, prior to the placement of spoil material at the permanent disposal site and prior to commencement of construction.
39. The permittee shall construct the upland disposal cell as shown on sheets 4A of 8 and 4B of 8 of the attached project drawings.
40. No wetland areas shall be impacted by the construction activities at the permanent disposal site. A minimum of a 50 foot buffer shall be maintained from the edge of any wetland areas as shown in sheet 5 of 8.
41. Grass seed, or sod shall be installed and maintained on exposed slopes and disturbed soil areas, including the permanent disposal cell, within 7 days of completing final grade, and at other times as necessary, to prevent erosion, sedimentation or turbid discharges into waters of the state and/or adjacent wetlands. A vegetative cover that stabilizes and prevents erosion of the fill material shall be established within 60 days of sodding or seeding. Turbidity barriers/erosion control devices shall be removed upon establishment of a substantial vegetative cover.

RESTORATION CONDITIONS:

42. Approximately one acre of invasive exotic species shall be removed by the City of Clearwater from city owned property adjacent to the North Fort Harrison Bridge, Pinellas Trail Bridge, and Douglas Avenue Bridge.
43. The Local Sponsor, the City of Clearwater, shall be responsible for the planting and monitoring of the mangrove restoration areas once the USACE has created the 3.24 acres of mangrove area and surveyed the creation areas to ensure that the creation areas are constructed at a proper elevation to support the establishment of mangroves.
44. The permittee shall submit an as-built survey of the mangrove restoration area(s) to the Department for review within 30 days of achieving final grades and prior to planting. The Department will review the survey to assess if grading is conducive to establishing mangrove habitat. The Department will notify the City of Clearwater to proceed with planting upon review for compliance. Planting shall be completed within 60 days upon Department's notification. The Department's notification to proceed does not constitute a finding by the Department the restoration will meet the success criteria. The survey shall include the following for each restoration area:
 - a. Surface area (total square footage or acreage).
 - b. Locations and elevations for each permanent benchmark.
 - c. Topographic survey on one-foot vertical intervals based on a 50 ft. grid.
45. The mangrove restoration areas shall be constructed as shown in Pages 2 of 8 and 3 of 8, of the attached permit drawings, and shall consist of the creation of 3.2 acres of mangrove creation.
46. A "Time Zero" Monitoring Report shall be submitted within 90 days of completion of planting of the mangrove restoration area(s) and shall include the following:
 - a. Date the planting was completed;
 - b. Color photographs to provide an accurate representation of each restoration area. The photographs shall be taken from fixed reference points and directions which are shown on a scaled plan view, and

- c. A table depicting numbers, spacing, and sizes (including tree height) of each species planted.
47. Restoration Monitoring Reports shall be submitted to the District office for a minimum of five years, semi-annually for the first and second year, and annually for years 3, 4, and 5, and shall include the following for each mangrove creation area: (Data shall be submitted in tabular form; subsample number and size shall be determined by a statistically valid method referenced in the Bibliography section of this permit).
- a. Color photographic prints taken from the reference points established in the Time Zero Monitoring Report.
 - b. Total percent cover by planted and recruited native species.
 - c. Plant species composition with estimates of the contribution of each planted species to percent cover.
 - d. Plan view depicting the locations of specimens replanted. (Indicate numbers of each species replanted).
 - e. Growth data for tree species. Data shall include measurements of height, diameter, at breast height (dbh) and mean annual growth rate to date.
 - f. Data documenting the hydrologic regime (seasonal high and normal pool; ordinary high; or mean high and low water elevations).
 - g. Photocopy of the field notes depicting the raw data collected.
48. Permittee shall meet the restoration success criteria, as defined in permit specific condition No. 52, if the permit has expired or if the Department fails to require the permittee to develop an alternative mitigation program as provided below.
49. The responsibility to assess if the restoration is meeting the permit-specified success criteria shall not fall solely on the Department. In the event the City of Clearwater becomes aware restoration is not meeting the success criteria (based on either site observations or review of monitoring reports), the City of Clearwater, no later than 6 months before the permit construction phase

expiration date, shall be responsible to submit an alternative restoration plan to the Department for review and approval;

50. The City of Clearwater shall implement the alternative restoration plan no later than 60 days after receiving Department approval.
51. Failure of the Department to notify the permittee of mitigation failure does not prevent the Department from requiring the permittee to meet mitigation success criteria as defined in permit specific condition No. 53.
52. The restoration shall be deemed successful when the following criteria has been continuously met for a period of at least one (1) year, without intervention in the form of irrigation, removal of undesirable vegetation, or replanting of desirable vegetation:
 - a. Planted and recruited mangrove species which exceed 8 feet in height have achieved a minimum of 60% canopy coverage.
 - b. Total contribution to percent cover by non-native wetland species and species not listed in 62-340.450, F.A.C. shall be maintained below 5%:
 - c. The restoration area has been inspected by Department personnel and it has been determined to be within the landward extent of surface waters and wetlands of the State pursuant to 62-340 F.A.C.

END OF SPECIFIC CONDITIONS

RIGHTS OF AFFECTED PARTIES

This permit is (are) hereby granted. This action is final and effective on the date filed with the Clerk of the Department unless a sufficient petition for an administrative hearing is timely filed under sections 120.569 and 120.57 of the Florida Statutes as provided below. If a sufficient petition for an administrative hearing is timely filed, this action automatically becomes only proposed agency action on the application, subject to the result of the administrative review process. Therefore, on the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because an administrative hearing may result in the reversal or substantial modification of this action, the applicant is advised not to commence construction or other activities until the deadlines noted below for filing a petition for an administrative hearing or request for an extension of time have expired.

Mediation is not available.

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Under rule 62-110.106(4) of the Florida Administrative Code, a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the Department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

If a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Intervention will be permitted only at the discretion of the presiding officer upon the filing of a motion in compliance with rule 28-106.205 of the Florida Administrative Code.

In accordance with rule 62-110.106(3), Florida Administrative Code, petitions for an administrative hearing by the applicant must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first. Under section 120.60(3) of the Florida Statutes, however, any person who has asked the Department for notice of agency action may file a petition within 14 days of receipt of such notice, regardless of the date of publication.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of

that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 of the Florida Statutes.

A petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301.

Under sections 120.569(2)(c) and (d) of the Florida Statutes, a petition for administrative hearing must be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

This permit constitutes an order of the Department. Subject to the provisions of paragraph 120.68(7)(a) of the Florida Statutes, which may require a remand for an administrative hearing, the applicant has the right to seek judicial review of the order under section 120.68 of the Florida Statutes, by the filing of a notice of appeal under rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida, 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal.

The notice of appeal must be filed within 30 days from the date when the order is filed with the Clerk of the Department. The applicant, or any party within the meaning of section 373.114(1)(a) or 373.4275 of the Florida Statutes, may also seek appellate review of the order before the Land and Water Adjudicatory Commission under section 373.114(1) or 373.4275 of the Florida Statutes. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when the order is filed with the Clerk of the Department.

Executed in Temple Terrace, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


Deborah A. Getzoff
Interim District Director
Southwest District

DAG/(am)

Copies furnished to:
DEP, Office of General Counsel
U.S. Army Corps of Engineers
Elliot Shoberg, City of Clearwater
FWC, Imperiled Species Management Section
Hillsborough County
File

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this permit and authorization to use sovereign submerged lands, including all copies, were mailed before the close of business on 12/24, 2007, to the above listed persons.

FILING AND ACKNOWLEDGMENT

FILED, on this date, under 120.52(7) of the Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

Date

E. Robinson 12/24/07

Attachments:

Joint ERP Application, 15 pages
Project Drawings, 22 pages
Project Location Map
Attachment A, 2 pages
Attachment B, 2 pages
Attachment C, 3 pages
Attachment D, Dewatering Site Condition Specs, 2 pages
Turbidity Monitoring Plan, 4 pages
Commencement notice/ 62-343.900(3)
Annual status report/62-343.900(4)
As-built certification/62-343.900(5)
Inspection certification/62-343.900(6)
Application for transfer of an ERP permit/62-343.900(8)

ENVIRONMENTAL RESOURCE PERMIT Construction Commencement Notice

Project:

Phase:

I hereby notify the Department of Environmental Protection that the construction of the surface water management system authorized by Environmental Resource Permit Number _____ has commenced / is expected to commence on _____ and will require a duration of approximately _____ months _____ weeks _____ days to complete. It is understood that should the construction term extend beyond one year, I am obligated to submit the Annual Status Report for surface Water Management System Construction.

PLEASE NOTE: If the actual construction commencement date is not known, Department staff should be so notified in writing in order to satisfy permit conditions.

Permittee or Authorized Agent

Title and Company

Date

Phone

Address

Environmental Resource Permit Annual Status Report

Florida Department of Environmental Protection

PERMIT NUMBER:

COUNTY:

PROJECT NAME:

PHASE:

The following activity has occurred at the above referenced porject during the past year, between June 1, and May 30, .

<u>Permit Condition/Activity</u>	<u>% of Completion</u>	<u>Date of Anticipated Completion</u>	<u>Date of Completion</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

(Use Additional Sheets As Necessary)

Benchmark Description (one per major control structure): _____

Print Name

Phone

Permittee's or Authorized Agent's Signature

Title and Company

Date

This form shall be submitted to the above referenced Department Office during June of each year for activities whose duration of construction exceeds one year.

ENVIRONMENTAL RESOURCE PERMIT
AS-BUILT CERTIFICATION BY A REGISTERED PROFESSIONAL

Permit Number:

Project Name:

I hereby certify that all components of this surface water management system have been built substantially in accordance with the approved plans and specifications and are ready for inspection. Any substantial deviations (noted below) from the approved plans and specifications will not prevent the system from functioning as designed when properly maintained and operated. These determinations are based upon on-site observation of the system conducted by me or by my designee under my direct supervision and/or my review of as-built plans certified by a registered professional or Land Surveyor licensed in the State of Florida.

Name (please print)

Signature of Professional

Company Name

Florida Registration Number

Company Address

Date

City, State, Zip Code

Telephone Number

(Affix Seal)

Substantial deviations from the approved plans and specifications:

(Note: attach two copies of as-built plans when there are substantial deviations)

Within 30 days of completion of the system, submit two copies of the form to:

ENVIRONMENTAL RESOURCE PERMIT INSPECTION CERTIFICATION

Permit Number:

Project Number:

Inspection Date(s):

Inspection results: (check one)

I hereby certify that I or my designee under my direct supervision have inspected the system at the above referenced project and that the system appears to be functioning in accordance with the requirements of the permit and Chapter 373 F.S. (as applicable).

The following necessary maintenance was conducted:

I hereby certify that I or my designee under my direct supervision has inspected the system at the above referenced project and that the system does not appear to be functioning in accordance with the requirements of the permit and Chapter 373 F.S. (as applicable). I have informed the operation and maintenance entity of the following: (a) that the system does not appear to be functioning properly, (b) that maintenance is required to bring the system into compliance, and (c) if maintenance measures are not adequate to bring the system into compliance, the system may have to be replaced or an alternative design constructed subsequent to Department approval.

Name

Signature of Professional Engineer

Company Name

Florida Registration Number

Company Address

Date

City, State, Zip Code

Telephone Number

(affix seal)

Within 30 days of completion of the inspection, submit two copies of the form to the following Department Office:

Department of Environmental Protection

APPLICATION FOR TRANSFER OF ENVIRONMENTAL RESOURCE PERMIT AND NOTIFICATION
OF SALE OF A FACILITY OR SURFACE WATER MANAGEMENT SYSTEM

Permit No. _____ Date Issued _____ Date Expires _____

FROM (Name of Current Permit Holder) _____

Mailing Address _____

City _____ State _____ Zip Code _____

Telephone: (_____) _____

Identification or Name of Facility/Surface Water Management System: _____

Phase of Facility/Surface Water Management System (if applicable): _____

The undersigned hereby notifies the Department of the sale or legal transfer of this facility, or surface-water management system, and further agrees to assign all rights and obligations as permittee to the applicant in the event the Department agrees to the transfer of permit.

Signature of the current permittee: _____

Title (if any): _____ Date: _____

TO (Name of Proposed Permit Transferee): _____

Mailing Address: _____

City: _____ State: _____ Zip Code: _____

Telephone: (_____) _____

The undersigned hereby notifies the Department of having acquired the title to this facility, or surface-water management system. The undersigned also states he or she has examined the application and documents submitted by the current permittee, the basis of which the permit was issued by the Department, and states they accurately and completely describe the permitted activity or project. The undersigned further attests to being familiar with the permit, agrees to comply with its terms and with its conditions, and agrees to assume the rights and liabilities contained in the permit. The undersigned also agrees to promptly notify the Department of any future changes in ownership of, or responsibility for, the permitted activity or project.

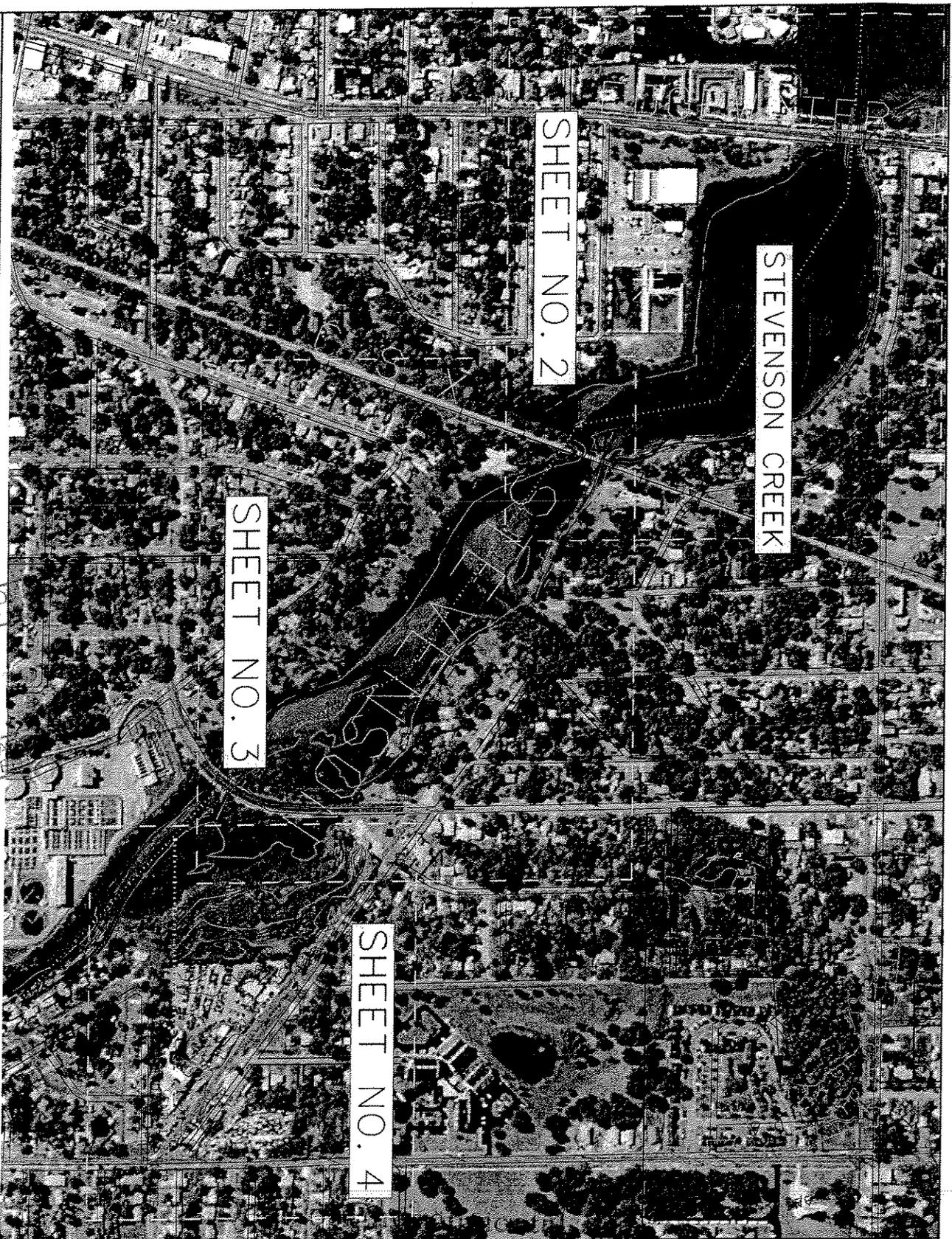
Signature of the applicant (Transferee): _____

Title (if any): _____ Date: _____

Project Engineer Name (if applicable) _____

Mailing Address: _____

Telephone: (_____) _____



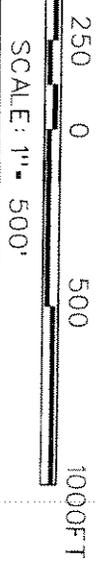
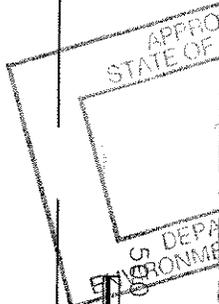
SHEET NO. 2

STEVENSON CREEK

SHEET NO. 3

SHEET NO. 4

SHEET NO.	INDEX OF SHEETS	DESCRIPTION
1	INDEX, LOCATION AND VICINITY MAP	
2-3	PLAN VIEW OF PROJECT	
4	PROPOSED DEWATERING SITE	
5	PROPOSED UPLAND DISPOSAL SITE	
6	TYPICAL DREDGING SECTION	



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 WATER QUALITY CERTIFICATION
 INDEX, LOCATION AND VICINITY MAP

APPLICANT: U.S. ARMY CORPS OF ENGINEERS
 PROJECT: STEVENSON CREEK ESTUARY RESTORATION
 CLEARWATER, FLORIDA
 DATE: FEBRUARY 2007 SHEET 1 OF 6

Southwest District



FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
WATER QUALITY CERTIFICATION
PROPOSED MANGROVE CREATION AREAS

APPLICANT: U.S. ARMY CORPS OF ENGINEERS
PROJECT: STEVENSON CREEK ESTUARY RESTORATION
CLEARWATER, FLORIDA
DATE: FEBRUARY 2007 SHEET 2 OF 8

Southwest District

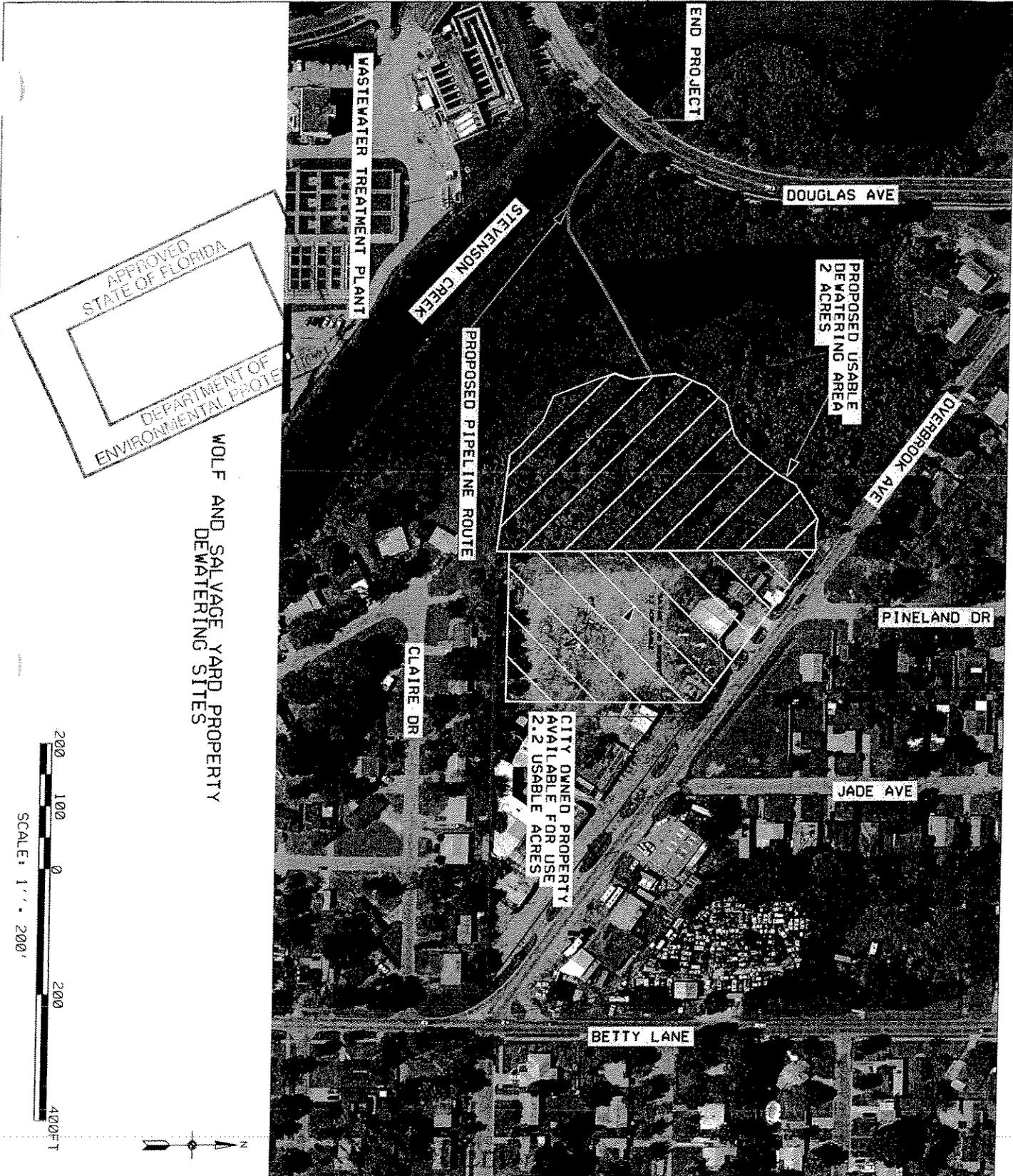


FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 WATER QUALITY CERTIFICATION
 REACH 2 DREDGE AREA

Protection

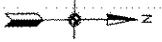
APPLICANT: U.S. ARMY CORPS OF ENGINEERS
 PROJECT: STEVENSON CREEK ESTUARY RESTORATION
 CLEARWATER, FLORIDA
 DATE: FEBRUARY 2007 SHEET 3 OF 8

Southwest District



APPROVED
STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

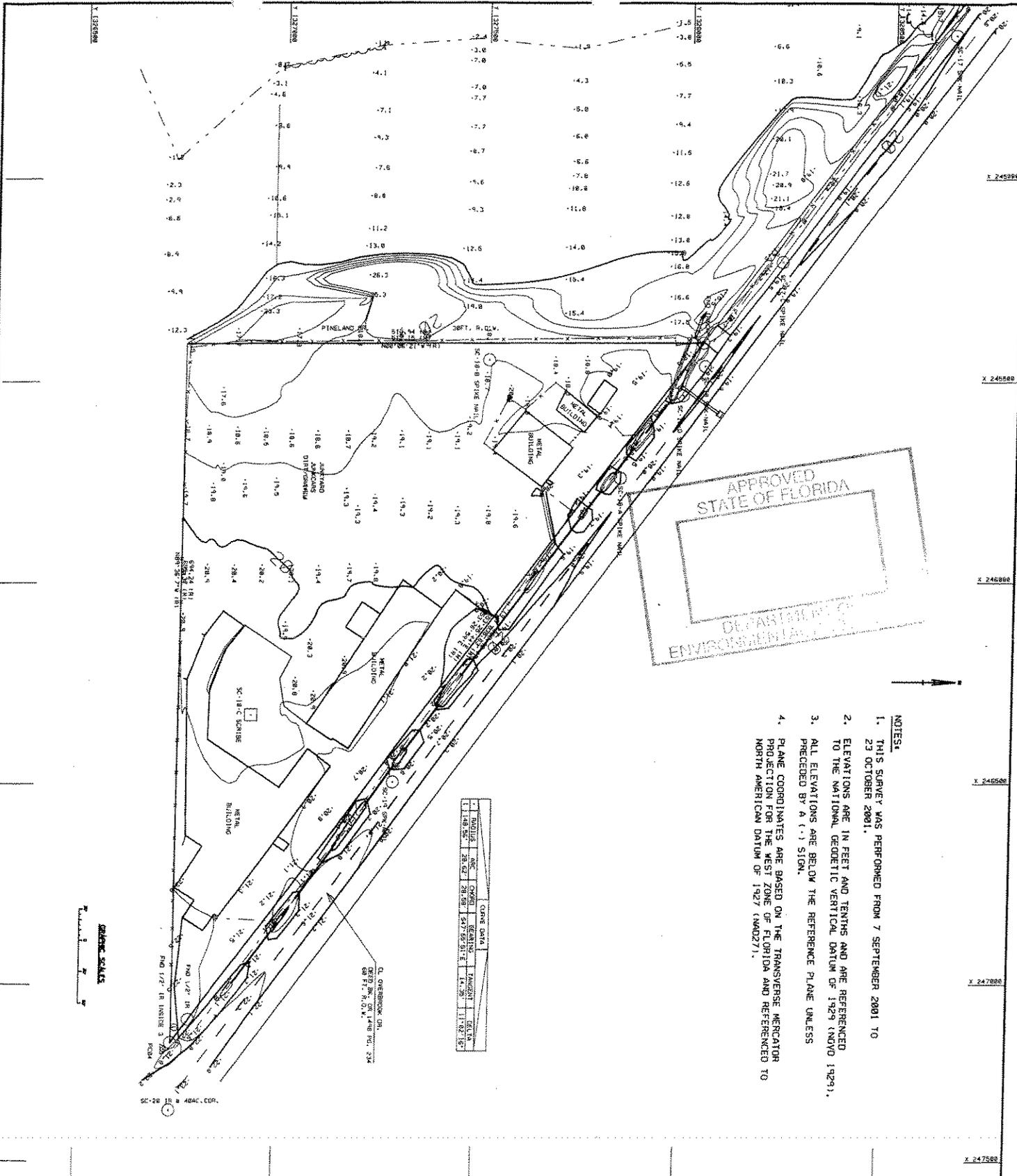
WOLF AND SALVAGE YARD PROPERTY
DEWATERING SITES



FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
WATER QUALITY CERTIFICATION
DEWATERING SITES

APPLICANT: U.S. ARMY CORPS OF ENGINEERS
PROJECT: STEVENSON CREEK ESTUARY RESTORATION
CLEARWATER, FLORIDA
DATE: FEBRUARY 2007 SHEET 4 OF 8

Southwest District



APPROVED
STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

- NOTES:
1. THIS SURVEY WAS PERFORMED FROM 7 SEPTEMBER 2001 TO 23 OCTOBER 2001.
 2. ELEVATIONS ARE IN FEET AND TENTHS AND ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NOV 1929).
 3. ALL ELEVATIONS ARE BELOW THE REFERENCE PLANE UNLESS PRECEDED BY A (+) SIGN.
 4. PLANE COORDINATES ARE BASED ON THE TRANSVERSE MERCATOR PROJECTION FOR THE WEST ZONE OF FLORIDA AND REFERENCED TO NORTH AMERICAN DATUM OF 1927 (NAD27).

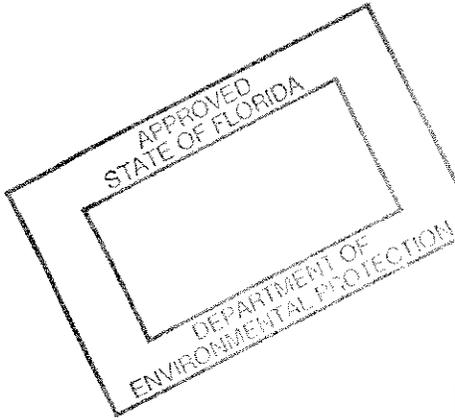
NO.	DATE	BY	REVISION
1	02/02/07	ABAC	ISSUED FOR CONSTRUCTION
2	02/02/07	ABAC	REVISED TO REFLECT FIELD CHANGES
3	02/02/07	ABAC	REVISED TO REFLECT FIELD CHANGES
4	02/02/07	ABAC	REVISED TO REFLECT FIELD CHANGES



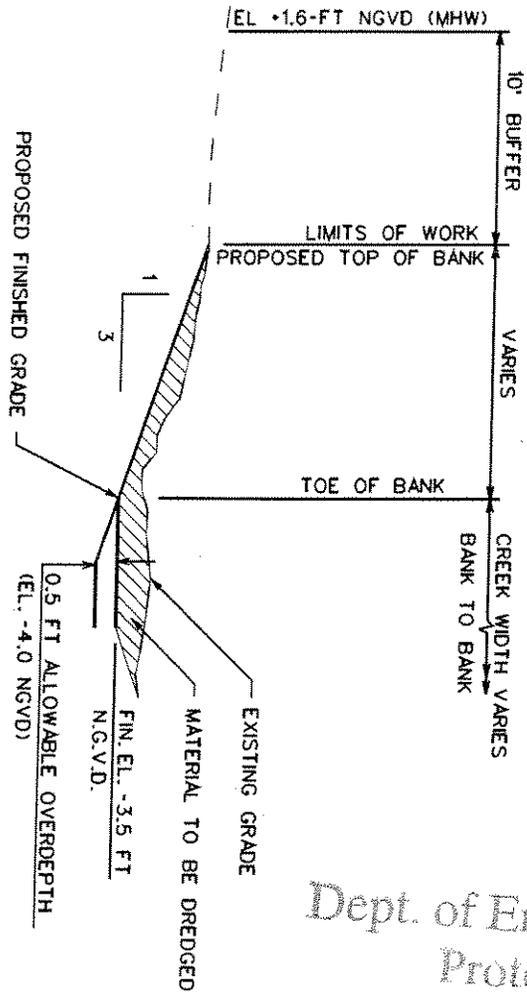
FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
WATER QUALITY CERTIFICATION
DEWATERING SITE TOPOGRAPHY

APPLICANT: U.S. ARMY CORPS OF ENGINEERS
PROJECT: STEVENSON CREEK ESTUARY RESTORATION
CLEARWATER, FLORIDA
DATE: FEBRUARY 2007 SHEET 4A OF 8





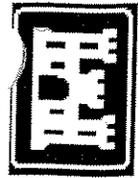
TYPICAL DREDGE SECTION DETAIL - REACH 1
N.T.S.



Dept. of Environmental Protection

MAY 04 2007

Southwest District

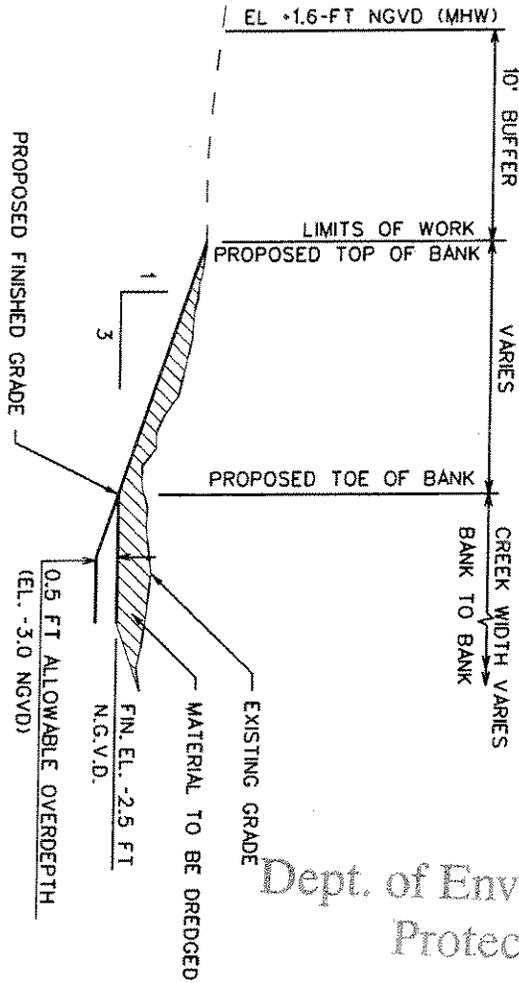


FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
WATER QUALITY CERTIFICATION
TYPICAL DREDGE SECTION

APPLICANT: U.S. ARMY CORPS OF ENGINEERS
PROJECT: STEVENSON CREEK ESTUARY RESTORATION
CLEARWATER, FLORIDA
DATE: FEBRUARY 2007 SHEET 6 OF 8

APPROVED
STATE OF FLORIDA
DEC 24 2007
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

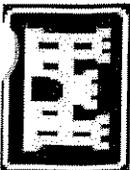
TYPICAL DREDGE SECTION DETAIL - REACH 2
N.T.S.



Dept. of Environmental
Protection

MAY 04 2007

Southwest District

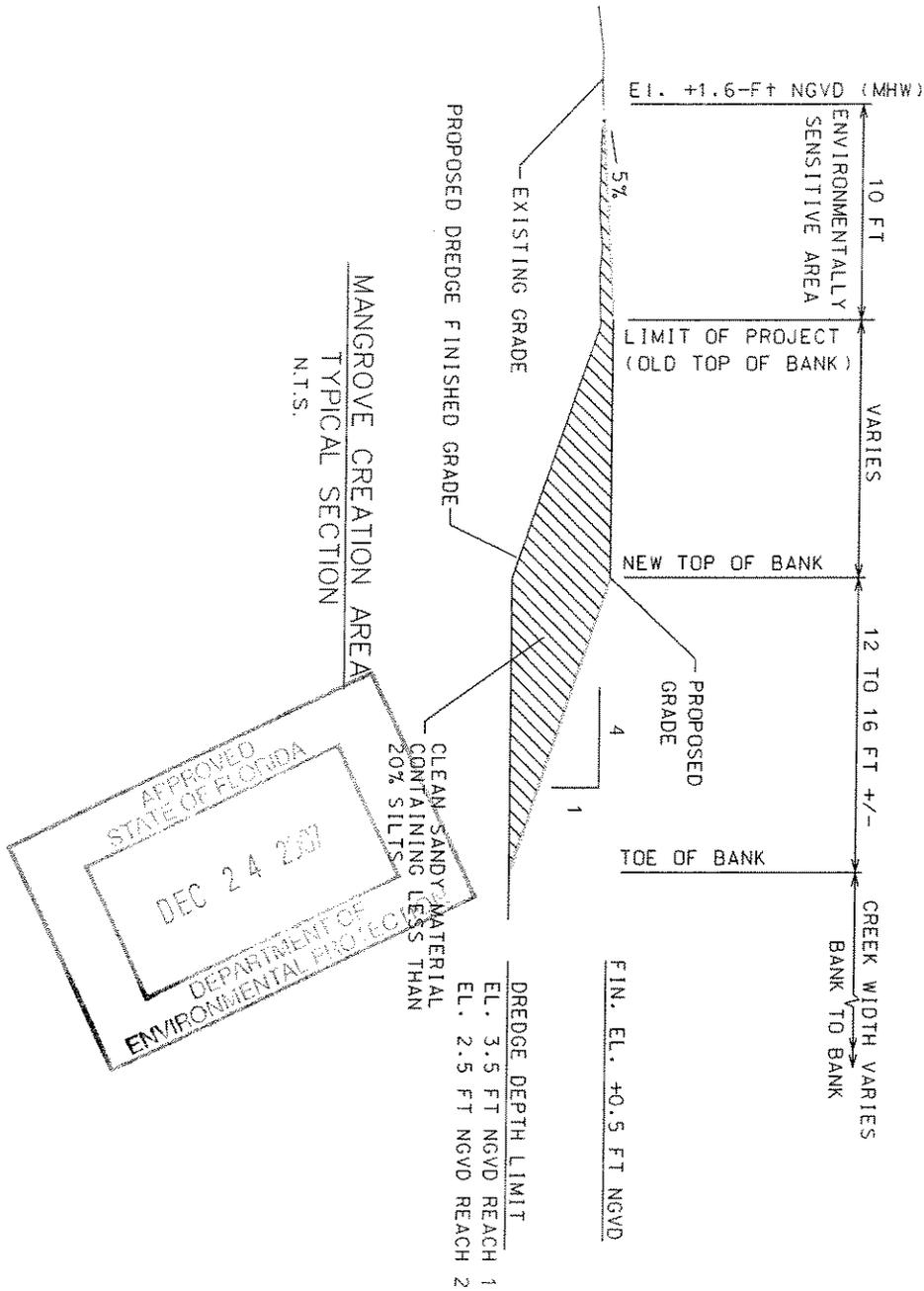


FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
WATER QUALITY CERTIFICATION
TYPICAL DREDGE SECTION

APPLICANT: U.S. ARMY CORPS OF ENGINEERS

PROJECT: STEVENS ON CREEK ESTUARY RESTORATION
CLEARWATER, FLORIDA

DATE: FEBRUARY 2007 SHEET 7 OF 8

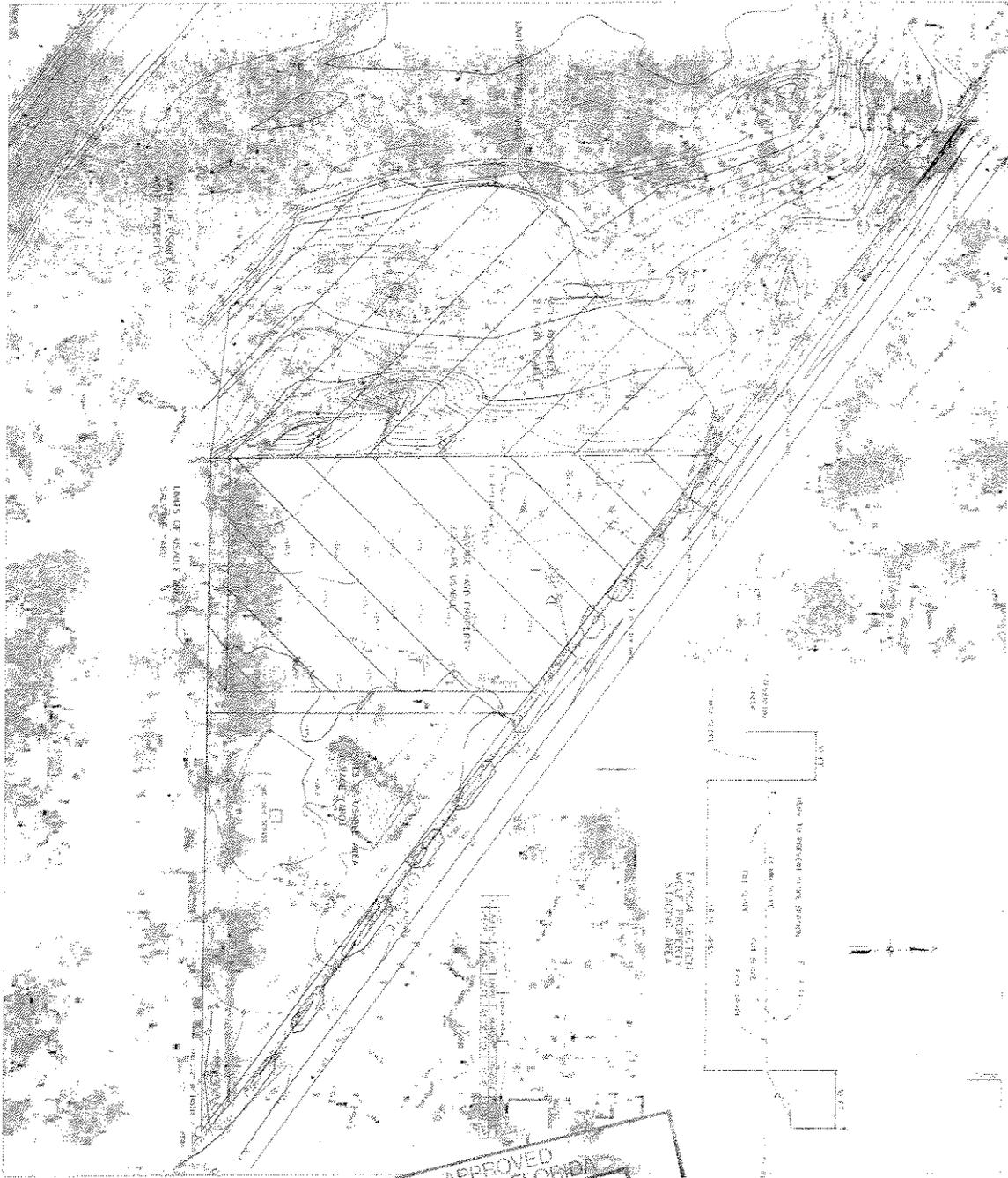


APPROVED
STATE OF FLORIDA
DEC 24 2007
DEPARTMENT OF
ENVIRONMENTAL PROTECTION



FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION
WATER QUALITY CERTIFICATION
TYPICAL MANGROVE SECTION

APPLICANT: U.S. ARMY CORPS OF ENGINEERS
 PROJECT: STEVENS ON CREEK ESTUARY RESTORATION
CLEARWATER, FLORIDA
 DATE: FEBRUARY 2007 SHEET 8 OF 8

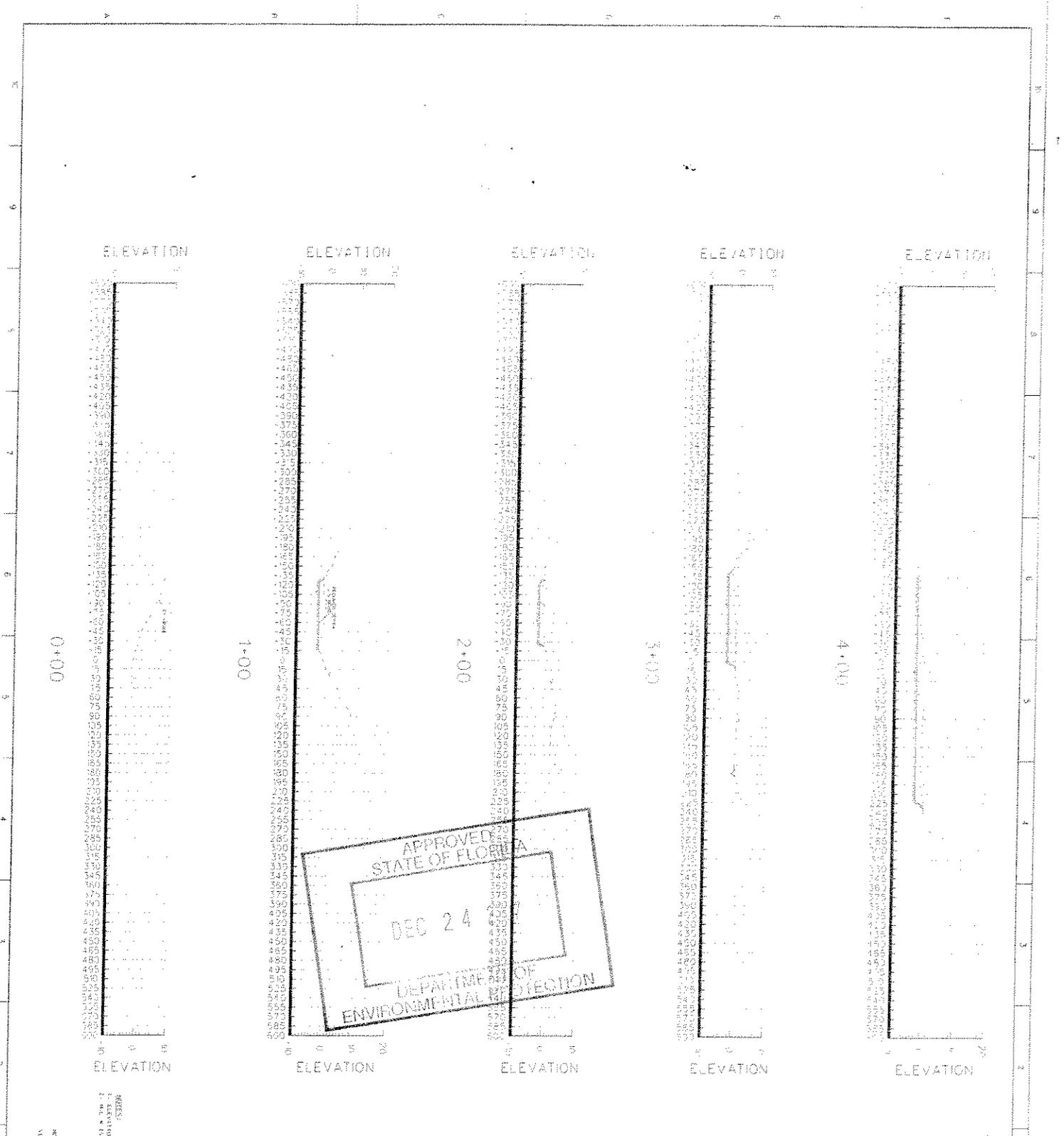


APPROVED
STATE OF FLORIDA
 DEC 24 2007
DEPARTMENT OF
WATER PROTECTION

- NOTES:
1. SEE SHEET C-103 FOR PLANS AND EXISTING AREAS.
 2. SEE SHEET C-104 FOR EXISTING AND EXISTING AREAS.
 3. SEE SHEET C-105 FOR EXISTING AND EXISTING AREAS.
 4. SEE SHEET C-106 FOR EXISTING AND EXISTING AREAS.
 5. SEE SHEET C-107 FOR EXISTING AND EXISTING AREAS.
 6. SEE SHEET C-108 FOR EXISTING AND EXISTING AREAS.
 7. SEE SHEET C-109 FOR EXISTING AND EXISTING AREAS.
 8. SEE SHEET C-110 FOR EXISTING AND EXISTING AREAS.
 9. SEE SHEET C-111 FOR EXISTING AND EXISTING AREAS.
 10. SEE SHEET C-112 FOR EXISTING AND EXISTING AREAS.

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C-103 ESTUARY RESTORATION PROJECT DEWATERING SHEET	DEPARTMENT OF THE ARMY WASHINGTON FIELD OFFICE OF ENGINEERING WASHINGTON, D.C.	DATE: 12/24/07 DRAWN BY: [Name] CHECKED BY: [Name]	SHEET NO. 103 OF 103
	DEPARTMENT OF THE ARMY WASHINGTON FIELD OFFICE OF ENGINEERING WASHINGTON, D.C.	DATE: 12/24/07 DRAWN BY: [Name] CHECKED BY: [Name]	SHEET NO. 103 OF 103

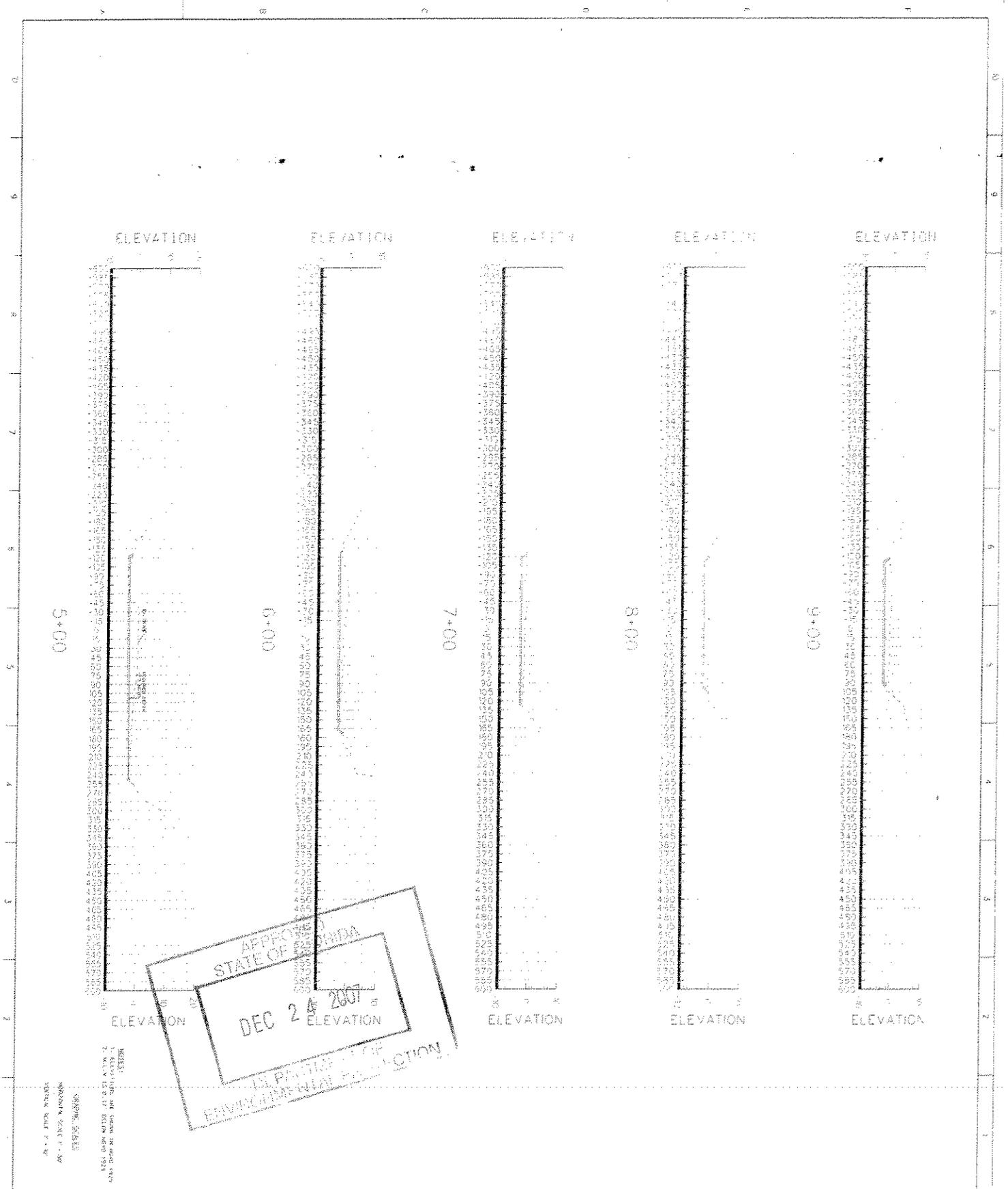


APPROVED
 STATE OF FLORIDA
 DEC 24
 DEPARTMENT OF
 ENVIRONMENTAL PROTECTION

NOTES:
 1. ELEVATIONS ARE SHOWN IN FEET.
 2. ALL ELEVATIONS ARE FROM MGS 1985.

DRAWING SCALES:
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 20'

C-106 ESTUARY RESTORATION PROJECT SECTION 206 DEPARTMENT OF ENVIRONMENTAL PROTECTION PROJECT NO. 11-0000 SHEET NO. 2 STA 0+00 TO STA 4+00	DATE: 11/20/11 DRAWN BY: J. CAMPBELL	CHECKED BY: J. CAMPBELL DATE: 11/20/11	APPROVED BY: J. CAMPBELL DATE: 11/20/11	DEPARTMENT OF THE ARMY APPROVED BY: J. CAMPBELL DATE: 11/20/11	PROJECT NO. 11-0000 SHEET NO. 2 STA 0+00 TO STA 4+00
	TITLE: ESTUARY RESTORATION PROJECT DRAWING NO.: C-106 SHEET NO.: 2 STA 0+00 TO STA 4+00	DATE: 11/20/11 DRAWN BY: J. CAMPBELL	CHECKED BY: J. CAMPBELL DATE: 11/20/11	APPROVED BY: J. CAMPBELL DATE: 11/20/11	DEPARTMENT OF THE ARMY APPROVED BY: J. CAMPBELL DATE: 11/20/11



APPROVED
STATE OF FLORIDA
DEC 24 2007
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTES:
1. ELEVATIONS ARE GIVEN IN FEET.
2. STATIONING IS IN STATIONING SYSTEM.

GENERAL NOTES
SHEET NO. 1 OF 1
SCALE 1" = 10'

CLEARWATER FLORIDA
ESTUARY RESTORATION PROJECT
STEVENSON CREEK
ORDER NUMBER
28-020-2
STA 5400 TO STA 8900

PROJECT NO.
DATE
DRAWN BY
CHECKED BY

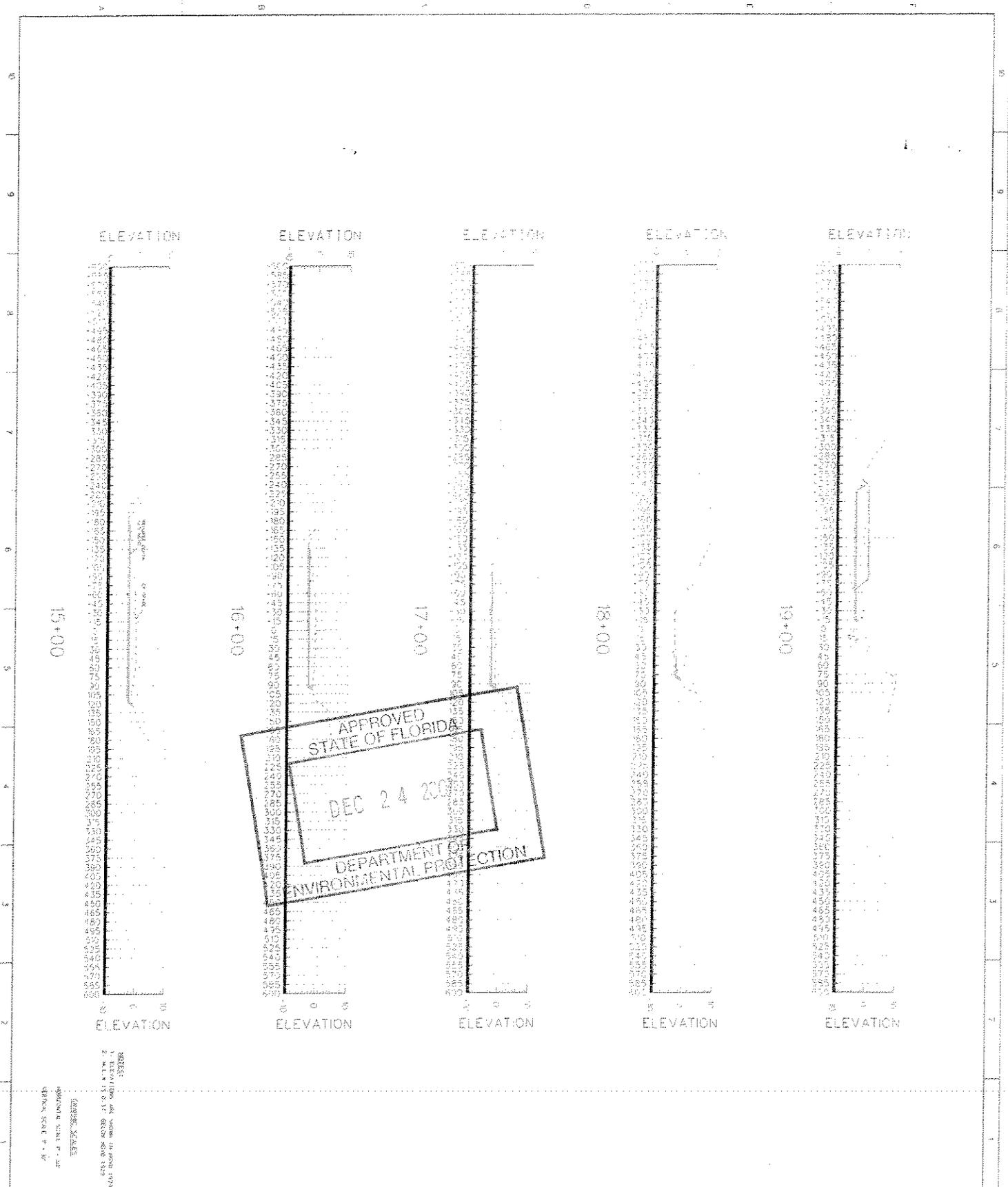
DATE REVISION
BY
DESCRIPTION

DEPARTMENT OF THE ENVIRONMENT
ADVISOR TO THE DIRECTOR OF ENVIROMENT
PROTECTION

DATE	BY	DESCRIPTION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
1905 N.W. 11th Street
Tallahassee, Florida 32304-3000
TEL: 904.487.3000
WWW.FLORIDA.GOV

C-107

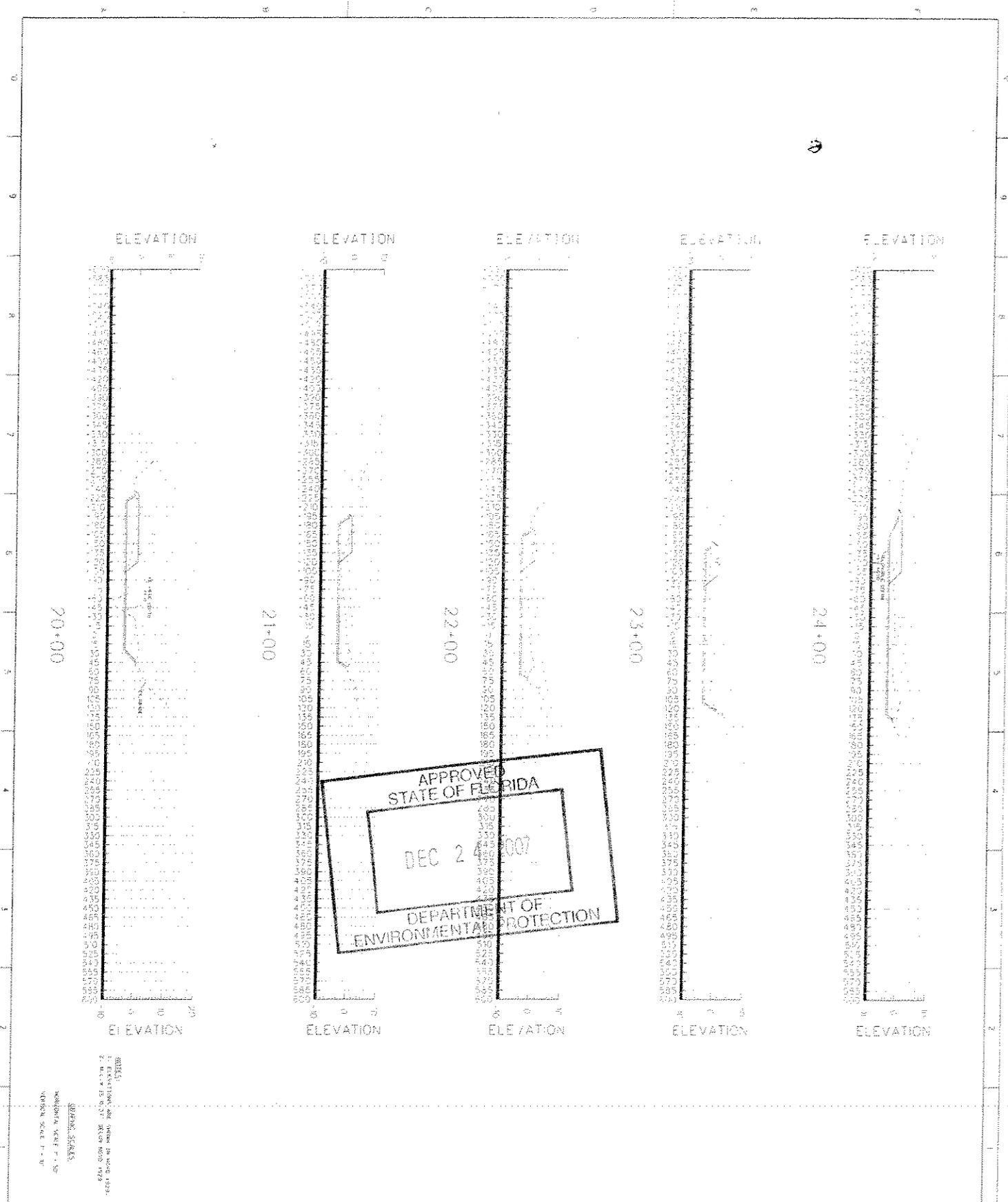


APPROVED
 STATE OF FLORIDA
 DEC 24 2009
 DEPARTMENT OF
 ENVIRONMENTAL PROTECTION

NOTES:
 1. ELEVATION DATA WAS OBTAINED FROM GPS SURVEY
 2. M.T.L. IS 1.5' TO 2.0' BELOW SEA LEVEL

GEOMETRIC SCHEDULE
 HORIZONTAL SCALE 1" = 20'
 VERTICAL SCALE 1" = 5'

C-109 <small>PROJECT NO.</small>	<small>CLIENT</small> CLEARWATER F. DPOA SECTION 308 ESTUARINE RESTORATION PROJECT CR 2000000000 2010 METHOD REACH 2 AND REACH 1 STA 5+00 TO STA 19+00	<small>DATE</small> 12/24/09	<small>SCALE</small> HORIZONTAL SCALE 1" = 20' VERTICAL SCALE 1" = 5'	<small>DESIGNER</small> D. J. FLECK, P.E. D. J. FLECK CONSULTING GROUP 10000 W. UNIVERSITY BLVD. SUITE 200 TAMPA, FL 33613	<small>APPROVED BY</small> DEPARTMENT OF THE ANCHERS ENVIRONMENTAL PROTECTION TALLAHASSEE, FLORIDA	<small>NO.</small> 109	<small>DATE</small> 12/24/09	<small>SCALE</small> HORIZONTAL SCALE 1" = 20' VERTICAL SCALE 1" = 5'	<small>DESIGNER</small> D. J. FLECK, P.E. D. J. FLECK CONSULTING GROUP 10000 W. UNIVERSITY BLVD. SUITE 200 TAMPA, FL 33613	<small>APPROVED BY</small> DEPARTMENT OF THE ANCHERS ENVIRONMENTAL PROTECTION TALLAHASSEE, FLORIDA
						<small>NO.</small> 109	<small>DATE</small> 12/24/09	<small>SCALE</small> HORIZONTAL SCALE 1" = 20' VERTICAL SCALE 1" = 5'	<small>DESIGNER</small> D. J. FLECK, P.E. D. J. FLECK CONSULTING GROUP 10000 W. UNIVERSITY BLVD. SUITE 200 TAMPA, FL 33613	<small>APPROVED BY</small> DEPARTMENT OF THE ANCHERS ENVIRONMENTAL PROTECTION TALLAHASSEE, FLORIDA

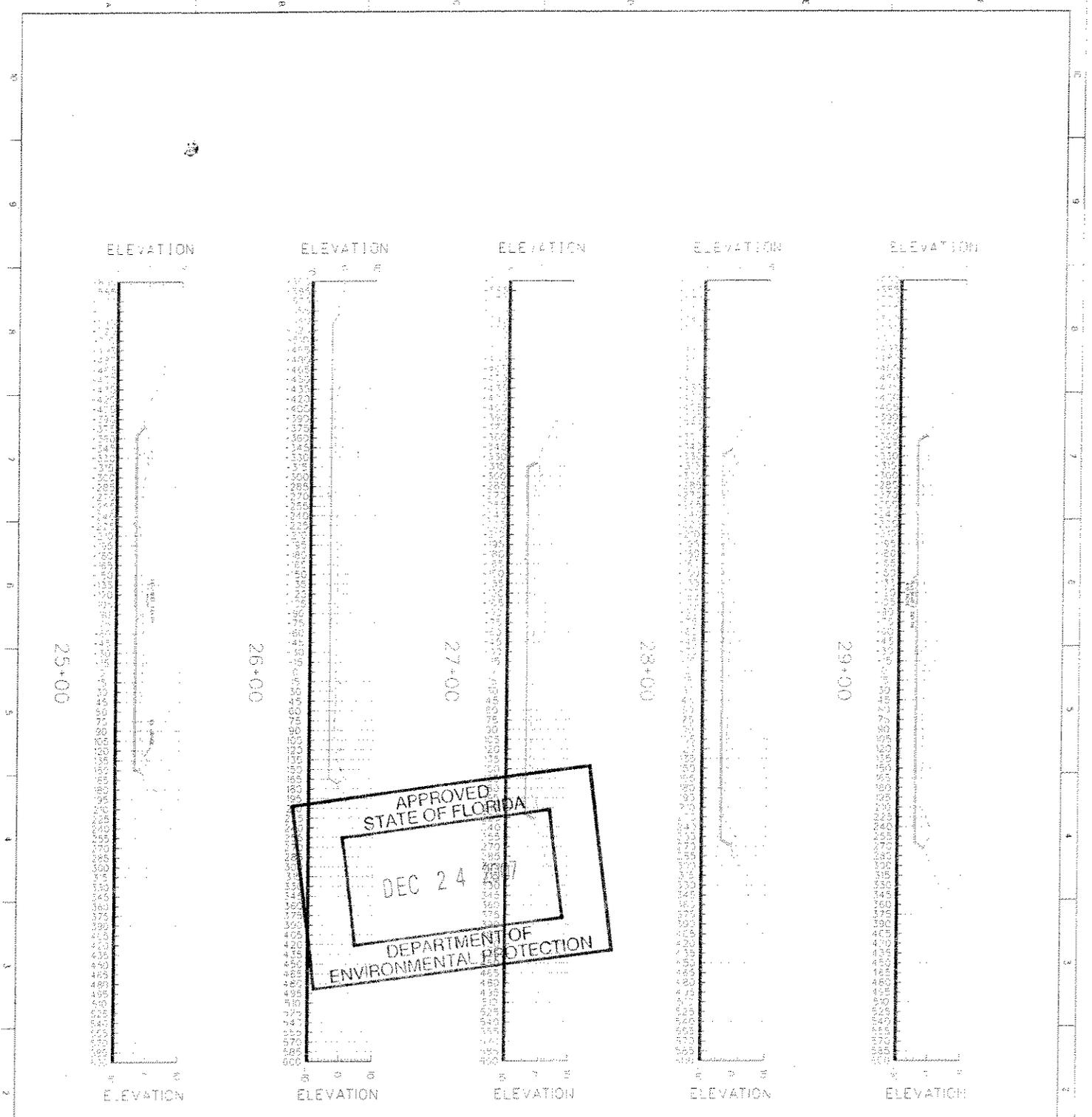


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REVISIONS
1. 11/15/07
2. 11/15/07
3. 11/15/07

GENERAL NOTES
1. SEE SHEET C-10 FOR
2. SEE SHEET C-11 FOR
3. SEE SHEET C-12 FOR

<p>C-110</p>	<p>CLEARWATER FLORIDA SECTOR 205 ESTUARY RESTORATION PROJECT REVISION 0002</p>	<p>DATE: 11/15/07</p>	<p>PROJECT: ESTUARY RESTORATION PROJECT</p>	<p>DEPARTMENT OF THE ARMY CORPORATE DISTRICT, CORPS OF ENGINEERS JACKSONVILLE, FLORIDA</p>	<p>SCALE: 1" = 10'</p>
		<p>DESIGNER: [Name]</p>	<p>CHECKER: [Name]</p>		<p>DATE: 11/15/07</p>



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 DEC 24 2007
DEPARTMENT OF
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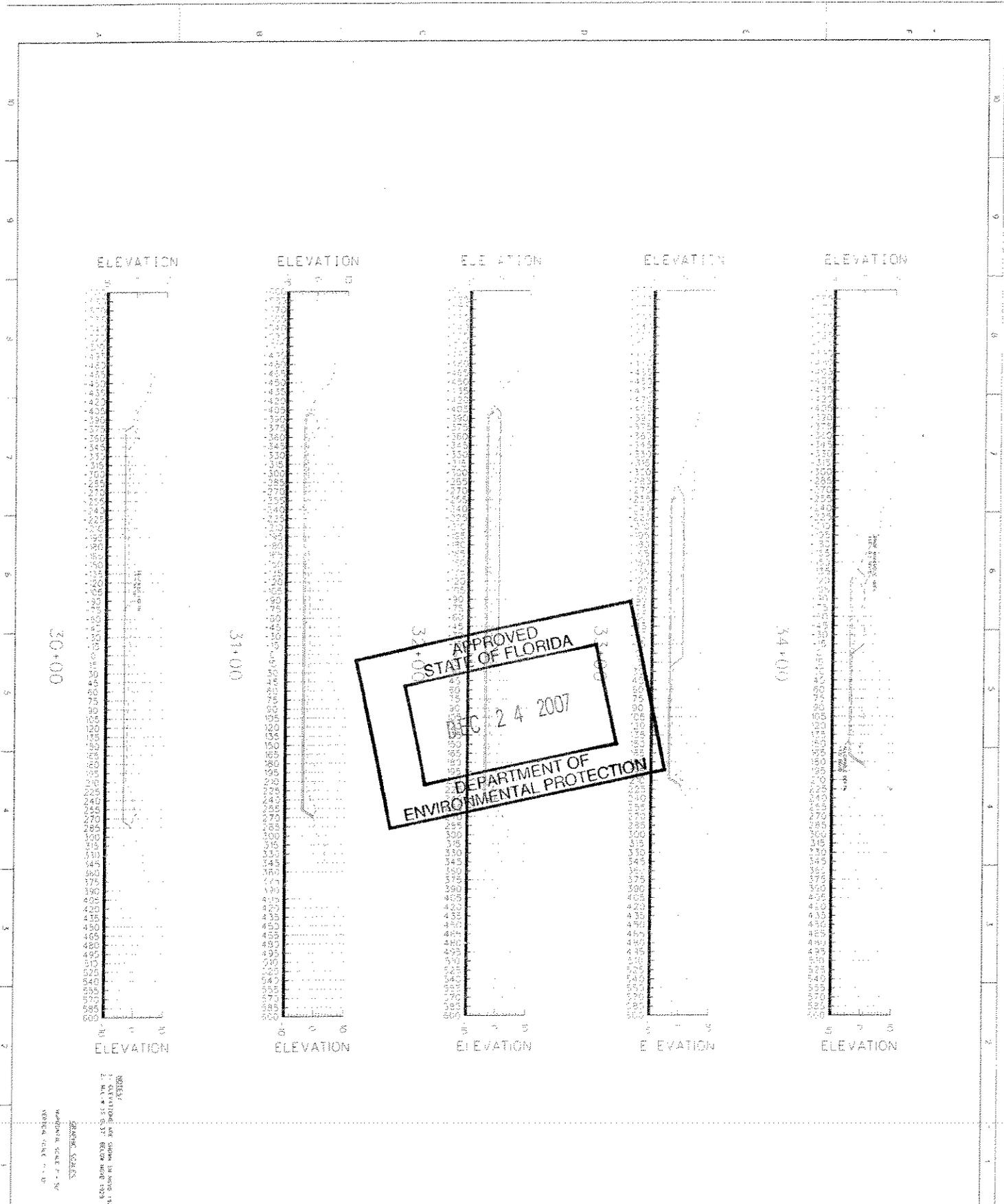
NOTES:
 1. ELEVATIONS ARE SHOWN IN FEET.
 2. ALL ELEVATIONS ARE TO THE CENTERLINE OF THE CHANNEL UNLESS NOTED OTHERWISE.

SHEET NO. 1
 PROJECT NO. 03-0000000-00
 DATE: 11/10/03

CLEARWATER FLOREDA ESTUARY RESTORATION PROJECT STEVENSON CREEK TRUSS RESTORATION SHEET STA 25+00 TO 31+00	PROJECT NO. 03-0000000-00	SHEET NO. 1	DATE 11/10/03	DRAWN BY J. W. BROWN	CHECKED BY J. W. BROWN	APPROVED BY J. W. BROWN	TITLE ESTUARY RESTORATION PROJECT
	PROJECT NO. 03-0000000-00	SHEET NO. 1	DATE 11/10/03	DRAWN BY J. W. BROWN	CHECKED BY J. W. BROWN	APPROVED BY J. W. BROWN	TITLE ESTUARY RESTORATION PROJECT

C-111



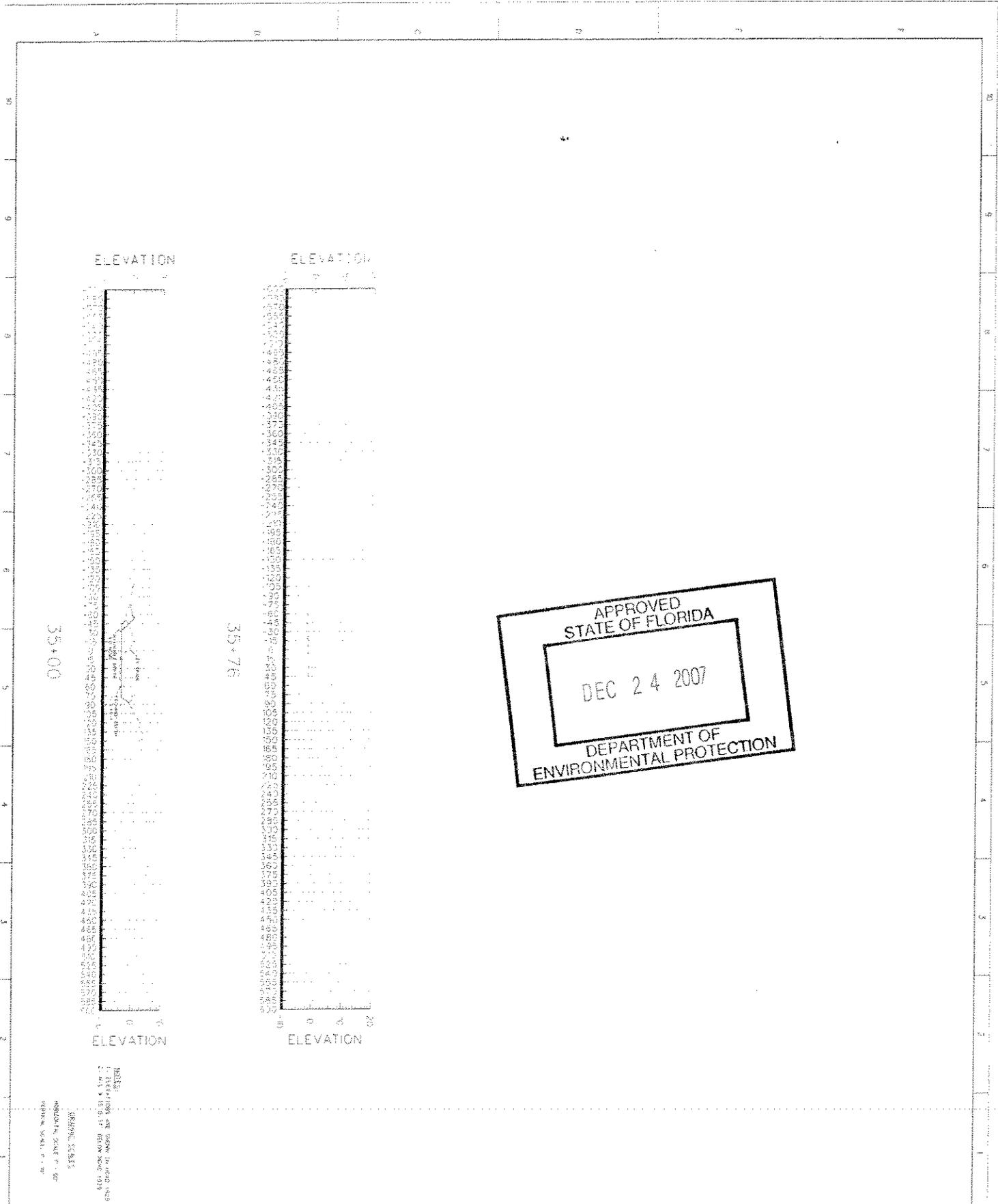


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VERTICAL SCALE - 1" = 10'
HORIZONTAL SCALE - 1" = 100'
GENERAL NOTES:
1. SEE BIDDING DOCUMENTS FOR ALL NOTES.
2. ALL ELEVATIONS ARE UNLESS OTHERWISE NOTED.
3. SEE STATIONING AND BEACH INFORMATION SHEET FOR STATIONING AND BEACH INFORMATION.

CLEARWATER FLORIDA SECTION 206 ESTUARY RESTORATION PROJECT STATION 206A BEACH STA 30+00 TO STA 34+00	PROJECT NO. CONTRACT NO. DRAWING NO.	DATE: 11/20/07 BY: JMM CHECKED: JMM APPROVED: JMM	DEPARTMENT OF THE ARMY ATLANTIC DISTRICT CORPS OF ENGINEERS WASHINGTON, D.C.
		DRAWN BY: JMM SCALE: AS SHOWN	





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DEC 24 2007
DEPARTMENT OF
ENVIRONMENTAL PROTECTION

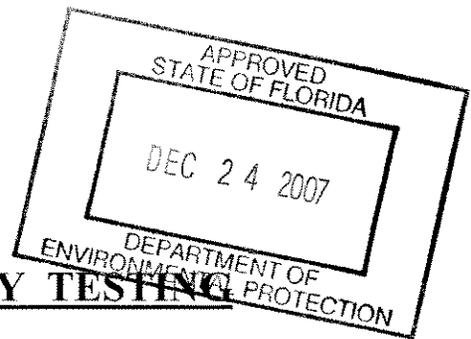
NOTE:
1. ALL ELEVATIONS ARE REFERRED TO THE MEAN SEA LEVEL DATUM OF 1985.
2. ALL ELEVATIONS ARE REFERRED TO THE MEAN SEA LEVEL DATUM OF 1985.

DESIGNED BY: [Name]
CHECKED BY: [Name]
APPROVED BY: [Name]

C-113 SHEET NO. 113 OF 113	ESTUARY RESTORATION PROJECT SECTION 205 STATIONING 35+00 TO 35+76	PROJECT NO.	SHEET NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	TITLE
		PROJECT NO.	SHEET NO.	DATE	DRAWN BY	CHECKED BY	APPROVED BY	TITLE



ATTACHMENT "A"
ACUTE ELUTRIATE TOXICITY TESTING
REQUIREMENTS



The contractor shall comply with the following elutriate toxicity testing requirements and initiate the series of tests described below to evaluate acute toxicity of elutriate discharge from dredged material dewatering operations using polymers or other flocculants. These tests shall be completed and the results submitted to and received by the Department at least 30 days prior to discharge to surface waters.

a. Effluent Limitation

Whole effluent acute toxicity shall not exceed in any test an LC50 of less than 100% effluent. [Rule 62-302.200(1), Rule 62-302.500(1)(a)4., and Rule 62-4.244(3)(a), F.A.C.]

b. Monitoring

The toxicity tests specified shall be conducted and the results submitted to the Department at least 30 days prior to any discharge of effluent from dredged material dewatering operations.

c. Test Requirements

- (1) Tests: All tests shall be conducted using a control (0% effluent) and a minimum of five dilutions: **100%, 50%, 25%, 12.5%** and **6.25%** effluent. Effluent shall be produced as described below in Sampling and Elutriate Preparation Requirements.
- (2) If the toxicity test does not meet the effluent limitation described above, it is considered a failing test. In this case the contractor must revise its polymer / flocculant configuration and/or select a different polymer / flocculant and retest following the same procedures until a passing test is achieved.
- (3) The permittee shall conduct 96-hour acute static renewal toxicity tests using the mysid, **Americamysis (Mysidopsis) bahia**, and the inland silverside, **Menidia beryllina**, concurrently.
- (4) All test species, procedures and quality assurance criteria used shall be in accordance with **Methods for Measuring Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms**, EPA-821-R-02-012. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct acute toxicity testing in accordance with the revised method.
- (5) The control water and dilution water used shall be artificial seawater and diluted to the test salinity as described in EPA-821-R-02-012, Table 7.2.4 The test salinity shall be determined as follows:
 - (a) When the salinity of the effluent is between 1 and 7 parts per thousand (ppt), the following salinity adjustment shall be used in the test of 100% effluent. For the **Mysidopsis bahia** bioassays, the effluent and the control (0% effluent) shall be adjusted to a salinity of 6-7 ppt for the 100% effluent test using artificial sea salts. No salinity adjustment shall be done for the **Menidia beryllina** bioassay test of the 100% effluent.
 - (b) When the salinity of the effluent is greater than 7 ppt, no salinity adjustment shall be made and the test shall be run at the effluent salinity.

d. Sampling and Elutriate Preparation Requirements

1. The elutriate is prepared by sub-sampling approximately 1 L of the homogenized dredged-material sample that has been treated with the proposed polymer at the maximum dosage rate proposed for the system. The dredged material and unfiltered dredging-site water are then combined in a sediment-to-water ratio of 1:4 on a volume basis at room temperature (22° +/- 2°C). Water used to achieve this ratio should be from the dredging site. This is best accomplished by volumetric displacement. After the correct ratio is achieved, the mixture is stirred vigorously for 30 min with a magnetic stirrer. At 10-min intervals, the mixture is also stirred manually to ensure complete mixing.
2. After the 30-min mixing period, the mixture is allowed to settle for 1 h. The liquid plus the material remaining in suspension after the settling period represents the 100% liquid plus suspended particulate phase. The supernatant is then carefully siphoned off, with out disturbing the settled material, and immediately used for testing. With some very fine-grained dredged materials, it may be necessary to centrifuge the supernatant until the suspension is clear enough at the first observation time for the organisms to be visible in the testing chamber.
3. The resulting liquid will constitute the effluent referenced in I.c.(1) at 100%.

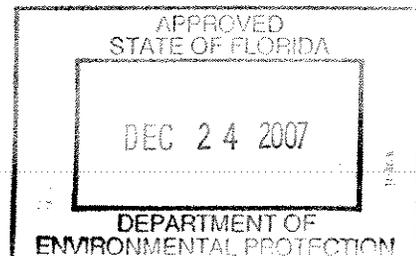
e. Quality Assurance Requirements

1. A standard reference toxicant quality assurance acute toxicity test (SRT-QA) shall be conducted with each species used in the required toxicity tests either concurrently or no greater than 30 days before the date of the test conducted. The SRT-QA data shall be submitted with each companion routine or additional test required.
2. A test will be considered valid only if the control mortality does not exceed 10% for either test species and all test acceptability criteria are met as described in 3 and 5.
3. If the mortality in the control (0% effluent) exceeds 10% for either species in any test, the test(s) for that species (including the control) shall be repeated. The results of any invalid test shall be submitted to the Department in conjunction with the results of the repeat test.
4. If, in any sample test, 100% mortality occurs prior to the end of the test, and control mortality is less than 10% at that time, that test (including the control) shall be terminated and considered a failing test.
5. Tests shall be evaluated for acceptability based on the concentration-response relationship, as required and described by EPA-821-R-02-012, Section 12.2.6.2.

f. Reporting Requirements

1. A toxicity laboratory report for the test shall be prepared according to EPA-821-R-02-012, Section 12, Report Preparation and Test Review (or the most current edition) and mailed to the Department at the address below for receipt at least 30 days prior to beginning of discharge.
2. All toxicity laboratory reports shall be submitted to:

Department of Environmental Protection
Southwest District Office
Attn: Environmental Resource Permitting
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone No.: (813) 632-7600



ATTACHMENT "B"

CHRONIC ELUTRIATE EFFLUENT TOXICITY TESTING REQUIREMENTS



Chronic Elutriate Effluent Toxicity Testing

The contractor shall comply with the following elutriate toxicity testing requirements and initiate the series of tests described below to evaluate chronic toxicity of elutriate discharge from dredged material dewatering operations using polymers or other flocculants. These tests shall be completed and the results submitted to and received by the Department at least 30 days prior to discharge to surface waters.

a. Effluent Limitation

Whole effluent chronic toxicity shall not exceed a No Observed Effect Concentration (NOEC) of less than 100% effluent in any test. [Rule 62-302.530(62), F.A.C.]

b. Monitoring

The "routine" toxicity tests specified shall be conducted and the results submitted to the Department at least 30 days prior to any discharge of effluent from dredged material dewatering operations.

c. Test Requirements

- (1) Tests: All tests shall be conducted using a control (0% effluent) and a minimum of five test concentrations: **100%, 50%, 25%, 12.5%, and 6.25%** final effluent. Effluent shall be produced as described below in Sampling and Elutriate Preparation Requirements.
- (2) If the toxicity test does not meet the effluent limitation described above, it is considered a failing test. In this case the contractor must revise its polymer / flocculant configuration and / or select a different polymer / flocculant and retest following the same procedures until a passing test is achieved.
- (3) The permittee shall conduct 7-day chronic toxicity test with a mysid shrimp, **Americamysis (Mysidopsis) bahia**, Survival and Growth Test, and an inland silverside, **Menidia beryllina**, Larval Survival and Growth Test, concurrently.
- (4) All test species, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Saltwater Organisms, 4th ed., EPA-821-R-02-014. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.
- (5) The control water and dilution water used shall be adjusted to a salinity of 20 ppt (parts per thousand) using artificial sea salts as described in EPA-821-R-02-014, Section 7.2. If the effluent salinity is less than 20 ppt, adjust salinity to 20 ppt using artificial sea salts. Prepare a salinity adjustment control by diluting the control/dilution water to the salinity of the effluent and then adjusting the salinity adjustment control to 20 ppt using artificial sea salts.

d. Sampling and Elutriate Preparation Requirements

1. The elutriate is prepared by sub-sampling approximately 1 L of the homogenized dredged-material sample that has been treated with the proposed polymer at the maximum dosage rate proposed for the system. The dredged material and unfiltered dredging-site water are then combined in a sediment-to-water ratio of 1:4 on a volume basis at room temperature (22° +/- 2°C). Water used to achieve this ratio should

be from the dredging site. This is best accomplished by volumetric displacement. After the correct ratio is achieved, the mixture is stirred vigorously for 30 min with a magnetic stirrer. At 10-min intervals, the mixture is also stirred manually to ensure complete mixing.

2. After the 30-min mixing period, the mixture is allowed to settle for 1 h. The liquid plus the material remaining in suspension after the settling period represents the 100% liquid plus suspended particulate phase. The supernatant is then carefully siphoned off, with out disturbing the settled material, and immediately used for testing. With some very fine-grained dredged materials, it may be necessary to centrifuge the supernatant until the suspension is clear enough at the first observation time for the organisms to be visible in the testing chamber.

3. The resulting liquid will constitute the effluent referenced in II.c.(1) at 100%.

d. Quality Assurance Requirements

1. A standard reference toxicant quality assurance chronic toxicity test (SRT-QA) shall be conducted with each species used in the required toxicity tests, either concurrently or started no more than 30 days before the date of each routine or additional follow-up test conducted. The SRT-QA data shall be submitted with each companion routine or additional test required.

2. A test will be considered valid only if the control mortality does not exceed 20% for either species and all test acceptability criteria are met as described in e.3 and e.6. The results of any invalid test shall be submitted to the Department in conjunction with the results of the complete repeat test.

3. Test acceptability criteria for each species are defined in EPA-821-R-02-014, Section 14.12 (*A. bahia*) and Section 13.12 (*M. beryllina*) or the most current edition. If the mortality in the control (0% effluent) exceeds 20% for either species in any test, the test for that species (including the control) shall be invalidated and the test repeated.

4. If, in any test, 100% mortality occurs in any test concentration prior to the seven days, and the control mortality is less than 20% at that time, that test (including the control) shall be terminated with the conclusion that the test failed.

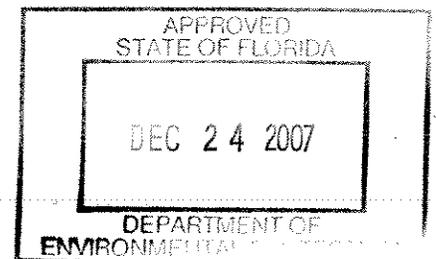
5. Tests shall be evaluated for acceptability based on the observed dose-response relationship and the percent minimum significant difference (PMSD), as required by EPA-821-R-02-014, Sections 10.2.6 and 10.2.8, respectively.

f. Reporting Requirements

1. A toxicity laboratory report for each test shall be prepared according to EPA-821-R-02-014, Section 10, Report Preparation and Test Review (or the most current edition), and submitted to the Department for receipt at least 30 days prior to beginning of discharge.

2. All toxicity reports shall be sent to:

Department of Environmental Protection
Southwest District Office
Attn: Environmental Resource Permitting
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
Telephone No.: (813) 632-7600



ATTACHMENT "C"

ON-GOING MONITORING REQUIREMENTS

APPROVED
STATE OF FLORIDA

DEC 24 2007

DEPARTMENT OF
ENVIRONMENTAL PROTECTION

In order to evaluate the on-going operation of the dredge / dewatering system over the period of operation, the following monitoring shall be conducted as specified and submitted to the Department in a monthly report.

1. Turbidity - Daily during first month, weekly thereafter until shutdown
 - a. Point of discharge
 - b. Background location upstream of dischargeApplicable Limit: Discharge cannot exceed ambient water quality in an Outstanding Florida Waterbody. If the discharge exceeds ambient water quality, the discharge shall be ceased immediately and efforts to control the turbidity implemented. If this condition occurs, once the problem has been corrected and the discharge restarted, turbidity monitoring shall return to daily for the first two weeks following restart and monthly thereafter.
2. Chronic toxicity testing – Tests shall be conducted monthly for the first three months and every three months thereafter, following the protocol outlined below. If the any of the initial (3) tests result in unacceptable toxicity, the permittee shall investigate the potential cause of this toxicity. If acute toxicity (exhibited in the chronic toxicity test) is equivalent to an $LC_{50} < 100\%$ in any test, the permittee shall cease discharge from the treatment system and immediately investigate the potential cause(s) of the toxicity.

Chronic Toxicity Testing Protocol

The permittee shall comply with the following requirements to evaluate chronic whole effluent toxicity of the discharge from the spoil dewatering operation.

- a. Effluent Limitation
 - (1) Whole effluent chronic toxicity shall not exceed a No Observed Effect Concentration (NOEC) of less than 100% effluent in any test. [Rule 62-302.530(62), F.A.C.]
- b. Monitoring Frequency
 - (1) "Routine" toxicity tests shall be conducted monthly for the first three months and every three months thereafter.
 - (2) Upon completion of four consecutive, valid "routine" tests that demonstrate compliance with the effluent limitation in 1.a. (1) above, the permittee may submit a written request to the Department for a reduction in monitoring frequency. The Department shall review this request within 45 days of receipt and approve or deny the request in writing. Requested reductions in monitoring shall only become effective upon Department approval.
 - (3) If a test within the sequence of the four is deemed invalid, but is replaced by a repeat valid test initiated within seven days of the invalidation, the invalid test will not be counted against the requirement for six consecutive valid tests for the purpose of evaluating the reduction of monitoring frequency. If two or more invalidations occur, this provision does not apply.
- c. Test Requirements
 - (1) Routine Tests: All routine tests shall be conducted using a control (0% effluent) and a minimum of five test concentrations: **100%, 50%, 25%, 12.5%, and 6.25%** final effluent.
 - (2) Additional Follow-up Testing Requirements, if required:
 - (a) If a routine test does not meet the chronic toxicity limitation in 1.a.(1) above, the permittee shall conduct two additional follow-up tests on each species that failed the test.
 - (b) Each additional follow-up test shall be conducted using a control (0% effluent) and a minimum of five dilutions: 100%, 50%, 25%, 12.5% and 6.25% effluent. The dilution

Attachment "C"

On-going Monitoring Requirements

File No.: 52-0255101-002

series may be modified in the second test to more accurately bracket the toxicity, such that at least two dilutions above (not to exceed 100% effluent) and two dilutions below the target concentration and a control (0% effluent) are run. All test results shall be statistically analyzed according to the Appendices in EPA-821-R-02-013.

(c) The first test shall be initiated within two weeks of the end of the failed routine test and weekly thereafter until a total of two valid additional follow-up tests are completed.

(3) The permittee shall conduct 7-day chronic toxicity test with a mysid shrimp, **Americamysis (Mysidopsis) bahia**, Survival and Growth Test, and an inland silverside, **Menidia beryllina**, Larval Survival and Growth Test, concurrently.

(4) All test species, procedures and quality assurance criteria used shall be in accordance with Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Saltwater Organisms, 4th ed., EPA-821-R-02-014. Any deviation of the bioassay procedures outlined herein shall be submitted in writing to the Department for review and approval prior to use. In the event the above method is revised, the permittee shall conduct chronic toxicity testing in accordance with the revised method.

(5) The control water and dilution water used shall be adjusted to a salinity of 20 ppt (parts per thousand) using artificial sea salts as described in EPA-821-R-02-014, Section 7.2. If the effluent salinity is less than 20 ppt, adjust salinity to 20 ppt using artificial sea salts. Prepare a salinity adjustment control by diluting the control/dilution water to the salinity of the effluent and then adjusting the salinity adjustment control to 20 ppt using artificial sea salts.

d. Sampling Requirements

(1) For each routine or additional follow-up test conducted, a total of three 24-hour composite samples of final effluent shall be collected and used per the sampling protocol discussed in EPA-821-R-02-014, Section 8.3.

(2) The first sample shall be used to initiate the test. The remaining two samples shall be collected according to the protocol and used as renewal solutions on Day 3 (48 hours) and Day 5 (96 hours) of the test.

e. Quality Assurance Requirements

(1) A standard reference toxicant (SRT) quality assurance (QA) chronic toxicity test shall be conducted with each species used in the required toxicity tests either concurrently or no more than 30 days before the date of each routine or additional follow-up test conducted. The SRT-QA data shall be submitted with each companion routine or additional test required.

(2) If the mortality in the control (0% effluent) exceeds 20% for either species in any test, the test for that species (including the control) shall be invalidated and the test repeated. Test acceptability criteria for each species are defined in EPA-821-R-02-014, Section 14.12 (A. bahia) and Section 13.12 (M. beryllina).

(3) If during any test, 100% mortality occurs in the any test concentration prior to the end of the test, and control mortality is less than 20% at that time, that test (including the control) shall be terminated with the conclusion that the test fails and constitutes non-compliance.

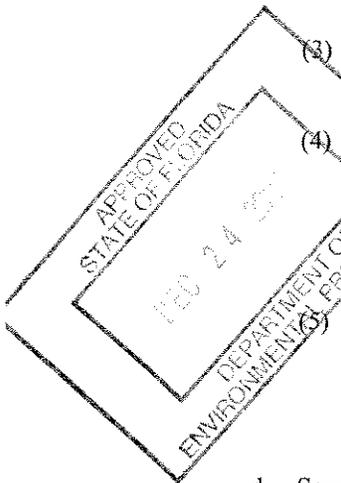
(4) Additional follow-up tests shall be evaluated for acceptability based on the observed dose-response relationship and the percent minimum significant difference (PMSD) as required by EPA-821-R-02-014, Sections 10.2.6 and 10.2.8, respectively. Results from these evaluations shall be included with the submitted bioassay reports.

f. Reporting Requirements

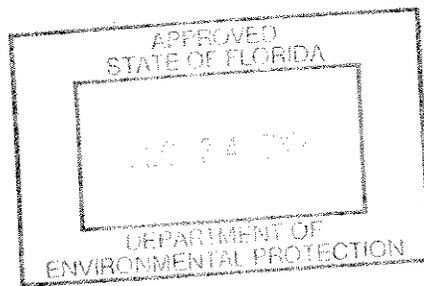
(1) A bioassay laboratory report for each routine test shall be prepared according to EPA-821-R-02-013, Section 10, Report Preparation and Test Review and mailed to the Department at the address below within 30 days of the completion of the test.

(2) For additional follow-up tests, a single bioassay laboratory report shall be prepared according to EPA-821-R-02-013, Section 10 and mailed within 45 days of completion of the second valid additional follow-up test. If any additional follow-up test, or two consecutive routine tests do not meet the effluent limitation specified in a.(1) above, the permittee shall contact the Department within 30 days of the report submittal to discuss the appropriate corrective actions necessary to remedy the observed chronic toxicity.

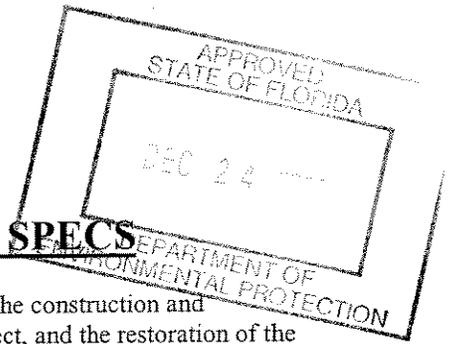
(3) All bioassay reports shall be submitted to:



Florida Department of Environmental Protection
Southwest District
Environmental Resource Program
13051 N. Telecom Parkway
Temple Terrace, FL 33637



ATTACHMENT D
DEWATERING SITE CONDITION SPECS



The Permittee shall, at a minimum, institute the following measures as part of the construction and operation of any dredge material dewatering site (staging area) during the project, and the restoration of the site after use. The contractor shall include but is not limited to the following:

1. Preparation of the site for use as a staging area:
 - a. The contractor shall provide a detailed site construction plan to the project engineer and Department prior to construction of the facility. Construction shall not commence prior to approval of the site construction plan by the Department.
 - b. The general area desired for use as a disposal area shall be carefully inspected prior to selection of the exact location of dikes and areas for spoil deposition. Areas of uneven natural subsidence, sink-holes, pockets of organic matter, or other unstable soils shall be avoided, unless special provisions are made for their correction.
 - c. Pave, line, or use other methods to prevent percolation of decant and runoff water into local ground water system or offsite uplands.
 - d. Provide curbing or berms, sufficient to contain potential storm water and any spillage within the dewatering site.
 - e. Construct the site such that there is no uncontrolled discharge of storm or decant water from the site to offsite uplands, to waters of the state, or to ground water.
 - f. Provide appropriate treatment facilities for runoff and decant water sufficient to ensure compliance with applicable Florida Water Quality Criteria. Prior to construction, provide the engineer and the Department calculations demonstrating reasonable assurance that water quality standards will be met at the discharge of the facility. This can be accomplished by providing calculations similar to those in Chapter 4 of the COE Manual and those in Appendix C of the Manual. In addition, the COE may propose alternative methods for achieving turbidity standards such as detailed operational controls for dredge material dewatering site. In consideration of the various ways to calculate capacity, if the above calculations are not performed the corps should describe how the size of the dewatering site is calculated, and how compliance with the turbidity standards will be achieved.
2. Information to be included in the construction plan submittal required in condition 1(a) above shall include the following:
 - a. Topographic information for the site
 - b. Existing grade of the site prior to any site improvements
 - c. Detailed statement of all activities included in the staging area (fueling facilities, maintenance areas, etc.)
 - d. Erosion and sediment control BMP's
 - e. Assurances that flooding offsite will not occur as a result of construction activities
3. Management of site water and dredged material
 - a. The contractor shall provide a detailed site management plan to the project engineer prior to construction of the facility.
 - b. All water from the site including storm water will be controlled and returned to waters of the state meeting, at a minimum class III water quality standards as defined by Florida Admin. Code 62-302.

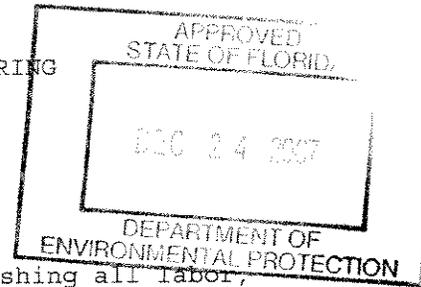
- c. Under no circumstances will an uncontrolled release of water back into Stevenson Creek, other local bodies of water, or uplands located offsite be allowed.
4. Management of traffic at the site
- a. Contractor shall control traffic into and out of the site as to minimize disruption of normal traffic patterns in the area.
 - b. BMP's shall be provided to minimize truck tracking mud offsite
5. Restoration of site after use
- a. The contractor shall provide a detailed site closure plan to the project engineer prior to construction of the facility.
 - b. All equipment, supplies and dredged material shall be removed from the site at the conclusion of the project.
 - c. The site shall be returned to pre-project condition at the conclusion of operations.
 - d. The contractor shall provide an as-built topographic survey demonstrating that the site elevations have been restored to the pre-project conditions.



ATTACHMENT E

SECTION 01 57 25

TURBIDITY AND DISPOSAL MONITORING
12/07



PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all work required to obtain, analyze, and report the results of turbidity and disposal monitoring.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Calibration Standard

The Contractor shall furnish to the Contracting Officer a copy of the operating instructions and standards used in calibrating equipment used in collecting samples for turbidity.

SD-06 Test Reports

Turbidity Monitoring

All required turbidity test reports shall be submitted (by electronic mail in Excel format) to the Contracting Officer, the Environmental Branch (CESAJ-PD-E), and the Florida Department of Environmental Protection (FDEP) within 7 days after completion of each test.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 MONITORING REQUIREMENTS

3.1.1 General

Nearshore or inland water samples shall be obtained and analyzed for turbidity. Sampling shall be conducted in accordance with techniques described in the latest edition of "Standard Methods" published by the American Public Health Association (APHA), American Waterworks Association (AWWA), and Water Pollution Control Federation (WPCF), and other current techniques recognized by the scientific community and approved by the Jacksonville District, Corps of Engineers. Samples obtained for turbidity

analysis shall be analyzed within 30 minutes of collection. Samples shall be taken with a sampler obtaining samples uncontaminated by water from any other depth.

3.1.1.1 Turbidity Monitoring Equipment

Monitoring required for turbidity shall be measured in Nephelometric Turbidity Units (NTU) using a standard Nephelometer. Global Positioning System (GPS) is also required to record sampling stations. The Contractor shall provide the Government with a certification, attesting to the accuracy of his testing equipment and procedure. The Contractor shall also provide the Contracting Officer with a duplicate of the standard used to calibrate his testing instrument as well as a complete set of operating instructions for the turbidity testing equipment. The Contractor and the Contracting Officer will use this standard throughout the project to maintain the calibration of the equipment.

3.1.2 Dredging and Disposal Locations

Routine monitoring shall occur at the following locations:

3.1.2.1 Station Descriptions

a. Station 1 (Compliance Turbidity): No more than 150 meters downcurrent of the dredge or point of discharge and in the direction of any visible plume.

b. Station 2 (Background Turbidity): At least 200 meters upcurrent from the dredge or point of discharge and outside of any turbidity generated by the project.

3.1.2.2 Turbidity

Samples to be analyzed for turbidity shall be taken every 4 hours (during construction activities) at surface and mid-depth at the following locations. Additional sampling shall be performed when the Contracting Officer determines that there may be non-compliance with water quality standards.

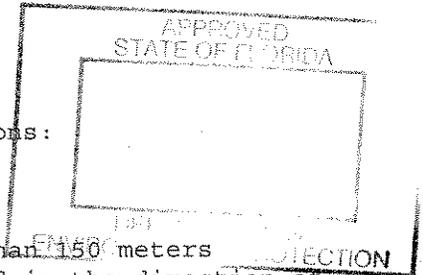
- a. Dredging Site Compliance at Station 1
- b. Dredging Site Background at Station 2
- c. Disposal Site Compliance at Station 1
- d. Disposal Site Background at Station 2

3.2 TURBIDITY TESTS

3.2.1 Testing

Whenever there is doubt as to the adequacy of the testing or validity of the results, the Contracting Officer may direct that additional tests be performed at no additional cost to the Government.

3.2.2 Reporting



The monitoring data shall be recorded on summary forms that contain the pertinent information in the following paragraphs. Example forms are on the web site indicated in paragraph CONSTRUCTION FORMS AND DETAILS below. Other data shall be submitted in the form supplied by the laboratory chosen to do the analysis. All data shall be forwarded (electronically) to the Contracting Officer, Environmental Branch (CESAJ-PD-E), and FDEP within 7 days of collection. Electronic mail addresses of the Corps and FDEP personnel to receive these reports are provided below. Reports shall be provided in Excel Spreadsheet (.xls) files.

NAME	ORGANIZATION	E-MAIL ADDRESS
Frank Mohr	USACE COR	frank.m.mohr@usace.army.mil
Paul Karch	USACE	<u>paul.j.karch@usace.army.mil</u>
Allyson Minick	FDEP	allyson.minick@dep.state.fl.us
JCP Compliance Officer	FDEP	jcpcompliance@dep.state.fl.us

3.2.2.1 Report Contents

- a. Permit application number.
- b. Dates of sampling and analysis.
- c. A statement describing the methods used in collection, handling, storage, and quality control methods used in the analysis of the samples.
- d. A map indicating the sampling location and plume configuration
- e. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, and accuracy of the data.
- f. Results of the analyses.
- g. A description of any factors influencing the dredging or disposal operation or the sampling program. Reports shall be furnished daily even when no sampling is conducted. When sampling is not conducted, a brief statement shall be given in the report explaining the reason for not conducting the sampling, such as "dredge not working due to mechanical problems" or "no sampling taken due to high seas".
- h. State plane coordinates (x and y) shall be provided for all sampling stations along with the coordinates of the dredge and discharge pipe and the distance between the sampling station and dredge/discharge pipe for each sampling event to demonstrate compliance with the stated sampling distances.

3.2.2.2 Monitoring Reports

Monitoring reports shall also include the following information for each day that samples are taken:

- a. Time of day and date samples were taken.
- b. Depth of water body.
- c. Depth of sample.
- d. Antecedent weather conditions.
- e. Tidal stage and direction of flow.
- f. Dredge or disposal location (station location and map).
- g. Water sample location.
- h. Wind direction and velocity.

3.2.2.3 Notification

If turbidity exceeds background levels by more than 29 NTU, the Contractor shall immediately notify Chief, Environmental Branch at 904-232-3943 and the Contracting Officer, or on the morning of the following work day if it occurs after normal work hours. In addition, all dredging or disposal activity shall cease immediately and all measures to reduce turbidity shall be taken. Dredging or disposal shall not resume until corrective measures have been taken and turbidity has returned to acceptable levels as determined by proper testing described in subparagraph "Dredging and Disposal Locations" above.

3.3 WORK DELAY

Delays in work due to the fault or negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable. Any adjustments to the contract performance period or price that are required as a result of compliance with this section shall be made in accordance with the provisions of the Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES in Volume 1.

3.4 CONSTRUCTION FORMS AND DETAILS

From the Jacksonville District Home Page, click the links ORGANIZATIONS, ENGINEERING, then CONSTRUCTION FORMS AND DETAILS. See web site address www.saj.usace.army.mil/cadd/end/construction_forms_and_details.htm.

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