Notice of Authorization

Permit Number 10-58-0011-P

Issued: 1/24/2012
Expiration Date: 1/24/2017

The Michigan Department of Environmental Quality, Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909-7958, under provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and specifically:

☒ Part 303, Wetlands Protection.

☒ Part 325, Great Lakes Submerged Lands.

Authorized activity:

Activities to be performed below the Ordinary High Water Mark of Lake Erie: Dredge approximately 19,793 cubic yards of material. Place approximately 2,700 cubic yards of stone or riprap fill and approximately 39 cubic yards of dredge spoils. Install a total of 540 linear feet of steel sheet pile shore protection. Place 280 linear feet of temporary coffer dam with 1,100 cubic yards of temporary fill material both of which shall be removed upon completion of water intake construction. Place 1,340 linear feet of a 48-inch diameter discharge pipe at an invert elevation of 558 feet IGLD 85. Place 120 linear feet of 24-inch diameter fish return pipe at an invert elevation of 572 feet IGLD 85.

Activities to be performed within 37.83 acres of regulated wetlands: Dredge approximately 156,347 cubic yards of material. Place approximately 272,359 cubic yards of fill. Place two 24-feet by 6-feet arched concrete culverts to convey water through 880 linear feet of emergent wetland in the South Canal. Place four 24-inch diameter RCP culverts, four 60-inch diameter RCP culverts and one 24-feet by 6 feet arched concrete culvert to convey water through filled portions of wetlands C, H, and U. Replace an existing bridge with a 22-feet by 7-feet box culvert, 50 feet long. Place four 12-inch diameter equalization culverts and five sediment traps. Construct eight transmission towers within wetland C.
Construct 107.31 acres of wetland mitigation.

All work is to facilitate construction of a nuclear electric generating facility.

To be conducted at property located in: Monroe County, Waterbody: Lake Erie
Section 28 29, Town 6S, Range 10E, Frenchtown Township.

Permittee: DTE Energy
Attn: Randall Westmoreland
One Energy Plaza, 337 WCB
Detroit, MI 48226

Katherine David
Water Resources Division
517-780-7690

This notice must be displayed at the site of work.
Laminating this notice or utilizing sheet protectors is recommended.

Please refer to the above Permit Number with any questions or concerns.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER RESOURCES DIVISION
PERMIT

ISSUED TO:

DTE Energy
Attn: Randall Westmoreland
One Energy Plaza, 337 WCB
Detroit, MI 48226

Permit No.	10-58-0011-P
Issued	January 24, 2012
Extended	
Revised	
Expires	January 24, 2017

This permit is being issued by the Michigan Department of Environmental Quality (MDEQ) under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), and specifically:

- ☐ **Part 301, Inland Lakes and Streams**
- ☒ **Part 325, Great Lakes Submerged Lands**
- ☒ **Part 303, Wetlands Protection**
- ☐ **Part 31, Floodplain/Water Resources Protection**
- ☐ **Part 315, Dam Safety**
- ☐ **Part 323, Shorelands Protection and Management**
- ☐ **Part 353, Sand Dunes Protection and Management**

Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:

Permitted Activity:

Activities to be performed below the Ordinary High Water Mark of Lake Erie: Dredge approximately 19,793 cubic yards of material. Place approximately 2,700 cubic yards of stone or riprap fill and approximately 39 cubic yards of dredge spoils. Install a total of 540 linear feet of steel sheet pile shore protection. Place 280 linear feet of temporary coffer dam with 1,100 cubic yards of temporary fill material both of which shall be removed upon completion of water intake construction. Place 1,340 linear feet of a 48-inch diameter discharge pipe at an invert elevation of 558 feet IGLD 85. Place 120 linear feet of 24-inch diameter fish return pipe at an invert elevation of 572 feet IGLD 85.

Activities to be performed within 37.83 acres of regulated wetlands: Dredge approximately 156,347 cubic yards of material. Place approximately 272,359 cubic yards of fill. Place two 24-feet by 6-feet arched concrete culverts to convey water through 880 linear feet of emergent wetland in the South Canal. Place four 24-inch diameter RCP culverts, four 60-inch diameter RCP culverts and one 24-feet by 6 feet arched concrete culvert to convey water through filled portions of wetlands C, H, and U. Replace an existing bridge with a 22-feet by 7-feet box culvert, 50 feet long. Place four 12-inch diameter equalization culverts and five sediment traps. Construct eight transmission towers within wetland C.
Construct 107.31 acres of wetland mitigation.

All work is to facilitate construction of a nuclear electric generating facility. All work shall be completed in accordance with the attached plans dated December 2, 2011 and the specifications of this permit.

Water Course Affected: Lake Erie
Property Location: Monroe **County,** Frenchtown Township, **Section** 28 29
Subdivision, Lot **Town/Range** 6S, 10E **Property Tax No.**

Authority granted by this permit is subject to the following limitations:

A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
D. All work shall be completed in accordance with the plans and specifications submitted with the application and/or plans and specifications attached hereto.
E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved herein except as otherwise necessary to comply with State and Federal requirements.
F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with Act 53 of the Public Act of 1974 and comply with each of the requirements of that act.
G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
I. Permittee shall notify the MDEQ within one week after the completion of the activity authorized by this permit, by completing and forwarding the attached preaddressed postcard to the office addressed thereon.
J. This permit shall not be assigned or transferred without the written approval of the MDEQ.
K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
L. Work to be done under authority of this permit is further subject to the following special instructions and specifications:

Final Mitigation Plan

1) The permittee is required to submit an acceptable Wetland Mitigation and Monitoring Plan to the MDEQ for the proposed mitigation site shown in the attached location map **within 6 months** of the issuance of this permit. The mitigation plan shall incorporate requirements described in Paragraph 41 of this permit. The applicant must receive approval of the wetland mitigation plan from the MDEQ before undertaking any permitted activity. The wetland mitigation plan must contain:

   a. Wetland mitigation goals and objectives, including the acreage to be restored, created, or preserved by ecological type and a description of the wetland to be impacted.

   b. Characterization of the existing conditions at the proposed wetland mitigation site including:
      i. A description of the topography, soils, hydrology, and vegetation.
      ii. A plan view that includes topographic information (at one (1) foot contour intervals), roads, trails, structures, property lines, directional arrows, scale, and the exact size and boundaries of existing wetlands, streams, and floodplain to the 100-year elevation.
      iii. Typical cross-sections.

   c. The proposed wetland mitigation design including:
      i. A description of the sources of hydrology, the source and type of soil amendments, wetland vegetation establishment, and wildlife structures.
      ii. A plan view showing all of the proposed conditions of the mitigation site including all contour elevations (at one (1) foot contour intervals), structures, the type and size of all proposed wetland areas, property lines, directional arrows, scale, and the conservation easement area.
      iii. Typical cross-sections.
      iv. A water budget of inputs and outputs to the proposed wetland (e.g., precipitation, groundwater, runoff, evapotranspiration).
      v. A vegetative establishment plan which includes a plan view, methods, and species list with scientific and common names, and source of any plant or seed stock.

   d. Location of vegetative sampling transects, photo points, monitoring wells, and staff gauges for monitoring should be shown on a plan view.

e. A schedule for completion of the mitigation site (e.g., initiation, planting, completion) and the site preparation and soil erosion/sedimentation control methods to be used during construction.

f. Long Term Management Plan described in Paragraph 41 e.

g. Invasive Species Management Plan described in Paragraph 41 f.

2) **Any work in regulated areas authorized by this permit is prohibited until a final mitigation plan is submitted by the permittee and accepted in writing by the MDEQ.**

3) A United States Army Corps of Engineers permit is required before this work can be conducted.

Decision to Construct

4) Activities authorized under this permit shall not commence until DTE Energy Board of Directors makes the Decision to Construct Fermi 3. DTE shall notify the MDEQ in writing within 30 days after the Decision to Construct. Within 6 months after the Decision to Construct, the following documents must be prepared and submitted to the MDEQ:

a. Financial Assurance described in Paragraph 41 c.

b. Conservation Easement described in Paragraph 41 d.

Construction Conditions

5) All work shall be completed in accordance with the attached plans and the terms and conditions of this permit.

6) Prior to initiating construction, authorized by this permit, the permittee is required to provide a copy of the permit to the contractor(s) for review.

7) The property owner, contractor(s), **and any agent involved in exercising this permit** are held responsible to ensure the project is constructed in accordance with all drawings and specifications contained in this permit. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by this permit.

8) Authority granted by this permit does not waive any jurisdiction of the United States Army Corps of Engineers (USACE) or the need for a federal permit, if required. For information on USACE jurisdiction, please contact Ms. Colette Luff at 313-226-7485.

9) Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the Monroe County Drain Commission.

10) A storm water discharge permit may be required under the Federal Clean Water Act for construction activities that disturb one or more acres of land and discharge to surface waters. For sites five (5) or more acres, the permit coverage may be obtained by a Part 91, Soil Erosion and Sedimentation Control (SESC) permit and filing a "Notice of Coverage" form to the MDEQ's Water Resources Division. Information on the storm water discharge permit is available from the Water Resource Division's Storm Water Permit Program at www.michigan.gov/deqwater. Select "surface water" and then select "storm water." You may also contact Mr. Ken Mroczkowski at 517-780-7693 or mroczkowskik@michigan.gov.

Threatened or Endangered Species

11) The proposed project is within the range of several federally listed species, including the endangered Indiana bat *(Myotis sodalist).* In addition, there are Bald Eagles *(Haliaetus leucocephalus)* that

regularly nest near the proposed project area. Please be advised that any activity that would cause harm to the Indiana bat or Bald Eagles may require a federal permit under the Endangered Species Act or other federal regulations. The permittee shall continue Endangered Species Act Consultation with the U.S. Fish and Wildlife Service, 2651 Coolidge Road, East Lansing, Michigan 48829.

12) The following State threatened or endangered species are known to occur on or near this project site and may be impacted by your activities: Eastern Fox Snake *(Pantherophis gloydi).* Issuance of this permit does not obviate the need to obtain approval under Part 365, Endangered Species, of the NREPA, from the Michigan Department of Natural Resources' (MDNR) Natural Heritage Program prior to commencement of construction activity. Please contact Mr. Chris Hoving, Wildlife Division, MDNR, P.O. Box 30180, Lansing, Michigan 48909-7944, at 517-373-3337.

Pre-Construction Meeting

13) Prior to initiation of construction authorized by this permit, a preconstruction meeting shall be held with the contractor, permittee or her/his representative(s), and representatives of the MDEQ. To arrange the required meeting, please contact Ms. Katherine David, MDEQ, Jackson District Office, 301 East Louis Glick Highway, Jackson, Michigan 49201, or by telephone at 517-780-7021.

Site Isolation

14) Prior to the initiation of any permitted construction activities, a siltation barrier shall be constructed immediately down gradient of the construction site. Siltation barriers shall be specifically designed to handle the sediment type, load, water depth, and flow conditions of each construction site throughout the anticipated time of construction and unstable site conditions. The siltation barrier shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland (non-wetland, non-floodplain) site. The siltation barrier shall then be removed in its entirety and the area restored to its original configuration and cover.

15) Prior to the initiation of any permitted construction activity, a silt fence shall be installed along the entire route of the disturbed wetland area and maintained in good working order until permanent stabilization and re-vegetation of all disturbed areas has occurred. The silt fence shall be removed after re-vegetation. All excess soil material shall be placed on an upland location and then seeded and mulched to prevent erosion into waters, floodplain, or wetlands.

16) IDENTIFICATION OF NON-WORK WETLAND AREAS
Prior to the start of construction, all non-work wetland areas shall be bounded by properly trenched filter fabric fence and orange construction fencing to prevent sediment from entering the wetland and to prohibit construction personnel from entering or performing work in these areas. Fence shall be maintained daily throughout the construction process. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site. The erosion barrier shall then be removed in its entirety and the area restored to its original configuration and cover.

Wetland Activities

17) Permittee shall employ appropriate Best Management Practices to areas of wetland impacts that are slated for restoration upon completion of the construction phase of Fermi 3. These BMPs shall be selected to minimize impacts to the wetland during construction and to aid restoration efforts upon completion of construction.

18) Excess soil materials from the project shall not be deposited in wetlands or surface water without first securing a permit under Part 303, Wetlands Protection, of the NREPA or other applicable statute.

19) Construction should be undertaken and completed during the dry period of the wetland when practicable.

20) If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.

21) No fill, excess soil, or other material shall be placed in any wetland or surface water area not specifically authorized by this permit, its plans, and specifications.

22) All fill shall consist of clean, washed rock or other clean inert material that will not cause siltation nor contain soluble chemicals, organic matter, pollutants, or contaminants. All fill shall be CONTAINED in such a manner so as not to erode into any surface water, floodplain, or wetland. All raw areas associated with the permitted activity shall be STABILIZED with sod and/or seed and mulch, riprap, or other technically effective methods as necessary to prevent erosion.

23) Equipment bog mats shall be utilized to provide access through wetland for construction of on-site transmission line towers. Upon completion of tower construction, bog mats shall be removed and the site restored to pre-construction grade with original soils and reseeded with appropriate native wetland seed mix.

Culverts

24) The culverts shall be installed to line up with the direction of flow at both the inlet and outlet ends, and must be bottomless or recessed 6 to 12 inches, unless otherwise indicated in the conditions of this permit.

25) Road fill side slopes shall not be steeper than 1-on-2 (1 vertical to 2 horizontal) except where headwalls of reinforced concrete, mortar masonry, dry masonry, or other acceptable methods are used.

26) Road fill side slopes and any raw banks resulting from this construction shall be riprapped to three (3) feet above the ordinary high water mark. All other raw areas draining directly to the wetland shall be protected with riprap over geotextile filter fabric, sod, and/or seed and mulch as necessary to provide effective erosion protection.

New Culverts

27) The placement of the new culvert and the initial placement of fill in the wetland shall be done in the dry or in such a manner that all flow is immediately passed through the culvert. The major placement of fill shall be done in the dry or in still water where erosion and siltation will be minimized. The fill material used in this initial placement shall be washed gravel, coarse aggregate, or rock and shall be placed at both ends of the culvert above normal water level before backfill material is placed.

Replacement Culverts

28) The existing structure shall be kept open to pass flow during removal of the existing road fill.

29) During removal of the existing structure, every precaution shall be taken to prevent debris from entering any watercourse. Any debris reaching the watercourse during the removal and/or reconstruction of the structure shall be immediately retrieved from the water. All material shall be disposed of in an acceptable manner consistent with local, state, and federal regulations.

30) The placement of the new culvert and the initial placement of fill in the wetland shall be done immediately after removal of the existing culvert. The placement shall be conducted in such a manner

that all flow is immediately passed through the new culverts, allowing the major placement of fill to be done in the dry or in still water where erosion and siltation will be minimized. The fill material used in this initial placement shall be washed gravel, coarse aggregate, or rock and shall be placed at both ends of the culvert to a level above normal water level before backfill material is placed.

Lake Erie Activities

Dredging

31) Prior to commencement of any dredging authorized by this permit, the entire dredged area shall be enclosed with a filter fabric sediment curtain to prevent off-site siltation. The sediment curtain shall be installed to extend from the bed of the waterbody to a point above the existing water's surface. The sediment curtain shall be maintained for the duration of the project and shall be left in place after completion of dredging until all disturbed sediments have settled.

32) All dredge/excavated spoils including organic and inorganic soils, vegetation, and other material removed may be used as backfill as indicated in the attached plans. Excess dredge spoils shall be placed in the on-site dredge spoils area or on upland (non-wetland, non-floodplain or non-bottomland), prepared for stabilization, and stabilized with sod and/or seed and mulch in such a manner to prevent and ensure against erosion of any material into any waterbody, wetland, or floodplain.

33) Placement of dredge/excavated material into open water, onto ice, or onto exposed bottomland is not authorized by this permit.

34) Sidecasting of spoils into open water of Lake Erie is not authorized by this permit.

Cofferdam

35) Prior to construction of the water intake structure, cofferdams of steel sheet piling shall be installed to isolate all construction activities from Lake Erie and the area between the existing groins. The cofferdam shall be maintained in good working order throughout the duration of the project. Upon project completion, the accumulated materials shall be removed and disposed of at an upland site. The cofferdam shall then be removed in its entirety.

36) All slurry resulting from any dewatering operation may be discharged into the area between the existing groins provided a silt curtain is placed to retain the sediment between the groins, or shall be discharged through a filter bag or pumped to a sump located away from wetlands and surface waters and allowed to filter through natural upland vegetation, gravel filters, or other engineered devices for a sufficient distance and/or period of time necessary to remove sediment or suspended particles.

37) Discharge of slurry into open water of Lake Erie is not authorized by this permit.

Bulkhead and Riprap

38) Unless authorized by the attached plans the bulkhead or revetment structure shall be placed at or above (landward) of the Ordinary High Water Mark in the location shown on the attached approved plans. Any variation from the approved location must be authorized in writing by the Water Resources Division prior to the initiation of these activities.

39) On a project requiring backfilling, the seawall shall be in place prior to placing any fill.

40) The riprap shall consist of clean stone or rock (free of paint, soil or other fines, asphalt, soluble chemicals, or organic material). The riprap shall be of appropriate weight and dimension necessary to achieve the intended shore protection.

Wetland Mitigation

41) The permittee shall, as a primary condition of this permit, mitigate the loss of 35.55 acres of wetland, consisting of 10.90 acres of Great Lakes Marsh, 3.15 acres of Southern Hardwood Swamp, 0.80 acre of coastal emergent, 4.89 acres of forested, 3.91 acres of coastal southern shrub carr, 1.37 acres scrub shrub, and 10.53 acres of emergent wetland. The authorization granted by this permit is contingent upon the completion of mitigation as follows:

a. A new 107.31 acre wetland area shall be created in accordance with final mitigation plans approved by the MDEQ as required in Paragraph 1 of this permit. If the permit conditions modify the mitigation plan, the permit conditions shall take precedence over the mitigation plan.

b. The mitigation grading, planting, and introduction of hydrology shall be constructed prior to or concurrent with initiating any other permitted activities.

c. The permittee shall provide a bond or letter of credit to the MDEQ in a form identical to the financial assurance models on the MDEQ's website at www.michigan.gov/deqwetlands in the amount of $7,500,000 to ensure that the replacement wetland is constructed, the conservation easement is recorded, monitoring is completed, and corrective actions are performed as required to comply with the mitigation requirements and conditions of this permit. The financial assurance document shall be provided to and accepted by the MDEQ within 6 months after the Decision to Construct as specified in Paragraph 4 a of this permit.

   Prior to the transfer of this permit to another person, the new person must obtain and provide a financial instrument acceptable to the MDEQ in the name of the new person and in the amount required by this permit.

   Upon request of the permittee and with the submittal of adequate proofs, the MDEQ may release portions of the financial instrument in accordance with the following guidelines:

   50 percent of the financial instrument may be released after the MDEQ concurs that the mitigation grading and planting have been completed, and that proper hydrology has been established for a minimum of 2 years after construction of the mitigation wetland.

   The remaining 50 percent of the financial instrument will be released upon all of the following:

   i. Submittal of all the required monitoring reports,
   ii. Substantial compliance with the performance standards as outlined in this permit, and
   iii. Final approval by the MDEQ as described in Paragraph 47.

d. The permittee shall execute a conservation easement over the mitigation area as shown on the permit plans in a form identical to the conservation easement model on the MDEQ's website at www.michigan.gov/deqwetlands. The original executed conservation easement and associated exhibits must be sent to the MDEQ for review and recording within six (6) months of the Decision to Construct as specified in Paragraph 4 b of this permit. Send to: Conservation Easement Coordinator, MDEQ, Water Resources Division, P.O. Box 30458, Lansing, Michigan, 48909, with a copy of the executed easement mailed to Ms. Katherine David, MDEQ, Jackson District Office, 301 East Louis Glick Highway, Jackson, Michigan 49201

   An acceptable executed conservation easement must be submitted to the MDEQ by the permittee prior to commencement of any permitted work within regulated areas.

The conservation easement boundary shall be demarcated by the placement of signs along the perimeter. The signs shall be placed at an adequate frequency, visibility, and height for viewing, made of a suitable material to withstand climatic conditions, and should be replaced as needed. The signs shall include the following language:

WETLAND CONSERVATION EASEMENT
NO CONSTRUCTION OR PLACEMENT OF STRUCTURES ALLOWED.
NO MOWING, CUTTING, FILLING, DREDGING OR
APPLICATION OF CHEMICALS ALLOWED.
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

Except as otherwise provided by this permit or approved in writing by the MDEQ, the following activities are prohibited in perpetuity within the mitigation area: alteration of topography, creation of paths, trails, or roads; placement of fill, dredging, or excavation; drainage of surface or groundwater; construction or placement of any structure; plowing, tilling, or cultivating the soils or vegetation; cutting, removal, or alteration of vegetation; including the planting of non-native plant species; construction of unauthorized utility or petroleum lines; storage or disposal of garbage, trash, debris, abandoned equipment; accumulation of machinery or other waste materials; use or storage of off-road vehicles; placement of billboards or signs; or the use of the wetland for the dumping of storm water (except as otherwise allowed in this permit).

e. The permittee shall submit a Long Term Management Plan for the mitigation site for MDEQ approval as required in Paragraph 1 f. The Long Term Management Plan shall provide for stewardship agreements and endowments for the entire wetland mitigation site and shall also include:

   i. Documentation of baseline conditions to include: background information on the site; documentation of existing site conditions using detailed maps, aerial photography, soil and topographic maps, wetland boundaries, and photo documentation; adjacent land uses; invasive species; community types; and rare and imperiled communities or species occurrences on the site.
   ii. Identification of immediate and long-term threats to the site (may include invasive species, habitat fragmentation, etc.)
   iii. List and prioritize management actions to address the threats.
   iv. Identify existing and proposed human uses and recreation activities of the site, and address the associated management issues.
   v. Proposed plan for long-term monitoring and periodic updates to the management plan.
   vi. Any other planned site-specific management practices.

f. The permittee shall submit an Invasive Species Management Plan for the mitigation site for MDEQ approval as required in Paragraph 1 g. The plan shall be incorporated into the Long Term Management Plan and Stewardship Plan. Invasive species shall not dominate the vegetation in any extensive area of the mitigation wetland. The Invasive Species Management Plan must include a list of the invasive plant species present or expected, an outline of control measures, and proposes a minimum percent cover of invasive species that can be achieved. Based on this information, the MDEQ will develop an invasive species performance standard to be incorporated into Paragraph 42 i.

g. The mitigation site shall not be fine graded, but shall be left in a rough grade state (allowing for the establishment of micro-topography). Any planting or seeding of the mitigation site must consist of native Michigan plant materials.

h. The permittee shall notify the MDEQ's District Office, in writing and within 20 days of completion of each of the following items:

   i. final grading
   ii. seeding and plant installation

i. In the event the permitted activity is begun but not completed, the permittee or owner of record shall remain responsible for completion of the mitigation wetland and associated conditions, as determined by the MDEQ. Such determinations shall be based upon the extent of the disturbance to the existing wetlands.

j. Should the mitigation wetland fail to become established after two complete growing seasons, or fail to progress satisfactorily towards a self-sustaining wetland system as required by this permit, the permittee shall:

   i. Assess the problem and its probable causes;
   ii. develop reasonable and necessary corrective measures as a revision to original plans;
   iii. submit proposed corrective measures to the MDEQ for confirmation and approval within 60 days of identification of the problem; and
   iv. upon MDEQ approval, implement corrective measures.

   Additional mitigation monitoring may be required to evaluate the success of the corrective measures.

Wetland Mitigation Performance Standards

42) Performance standards will be used to evaluate the mitigation wetland. The performance standards will be developed by the MDEQ in consultation with MDNR and will be based on the accepted mitigation plan. Once developed, the performance standards will be incorporated into a modified permit. The performance standards at minimum shall include a measure to review each of the following:

   a. Construction has been completed in accordance with the MDEQ's approved plans and specifications included in the permit and mitigation plan.

   b. The mitigation wetland is characterized by the presence of water at a frequency and duration sufficient to support a predominance of wetland vegetation and the wetland types specified at the end of the monitoring period.

   c. A layer of high-quality topsoil, from the A horizon of an organic or loamy surface texture soil, is placed (or exists) over the entire wetland mitigation area at a minimum thickness of six (6) inches.

   d. The mitigation wetland shall be free of oil, grease, debris, and all other contaminants.

   e. Identifiable and quantifiable fish and wildlife habitat rehabilitation mechanisms or structures.

   f. A minimum mean percent cover of native wetland species in the herbaceous layer at the end of the monitoring period.

   g. A minimum number of native wetland species in each wetland type, at the end of the monitoring period.

h. A minimum number of living individuals of each tree and shrub species per acre, as appropriate, at the end of the monitoring period.

i. The mean percent cover of invasive species within each wetland type as developed in Paragraph 41 f above.

43) If the mitigation wetland does not satisfactorily meet the approved performance standards by the end of the monitoring period, or is not satisfactorily progressing during the monitoring period, the permittee will be required to take steps described in Paragraph 41 j to develop corrective measures.

Wetland Mitigation Monitoring

44) The permittee shall monitor the wetland mitigation for a minimum of ten (10) years following grading, planting, and introduction of hydrology. A monitoring report, which compiles and summarizes all data collected during the monitoring period, shall be submitted annually by the permittee. Monitoring reports shall cover the period of January 1 through December 31 and be submitted to the MDEQ prior to January 31 of the following year. The permittee shall conduct the following activities and provide the information collected in the monitoring reports:

a. Measure inundation and saturation at all staff gauges, monitoring wells, and other stationary points shown in the mitigation plan monthly during the growing season. Hydrology data shall be measured and provided at sufficient sample points to accurately depict the water regime of each wetland type.

b. Sample vegetation in plots located along transects shown in the mitigation plan once between July 15 and August 31. The number of sample plots necessary within each wetland type shall be determined by use of a species-area curve or other approach approved by the MDEQ. The minimum number of sample plots for each wetland type shall be no fewer than five (5). Sample plots shall be located on the sample transect at evenly spaced intervals or by another approach acceptable to the MDEQ. If additional or alternative sample transects are needed to sufficiently evaluate each wetland type, they must be approved in advance in writing by the MDEQ.

The herbaceous layer (all non-woody plants and woody plants less than 3.2 feet in height) shall be sampled using a 3.28 foot by 3.28 foot (one square meter) sample plot. The shrub and tree layer shall be sampled using a 30-foot radius sample plot. The data recorded for each herbaceous layer sample plot shall include a list of all living plant species, and an estimate of percent cover in five (5) percent intervals for each species recorded, bare soil areas, and open water relative to the total area of the plot. The number and species of surviving, established, and free-to-grow trees and surviving, established, and free-to-grow shrubs shall be recorded for each 30-foot radius plot.

Provide plot data and a list of all the plant species identified in the plots and otherwise observed during monitoring. Data for each plant species must include common name, scientific name, wetland indicator category from the U.S. Fish and Wildlife Service's "National List of Plant Species That Occur in Wetlands" for Region 3, and whether the species is considered native according to the Michigan Floristic Quality Assessment (Michigan Department of Natural Resources, 2001). Nomenclature shall follow Voss (1972, 1985, and 1996) or Gleason and Cronquist (1991).

The location of sample transects and plots shall be identified in the monitoring report on a plan view showing the location of wetland types. Each transect shall be permanently staked at a frequency sufficient to locate the transect in the field.

c. Delineate any extensive (greater than 0.01 acre in size) open water areas, bare soil areas, areas dominated by invasive species, and areas without a predominance of wetland vegetation, and provide their location on a plan view.

d. Document any sightings or evidence of wading birds, songbirds, waterfowl, amphibians, reptiles, and other animal use (lodges, nests, tracks, scat, etc.) within the wetland noted during monitoring. Note the number, type, date, and hour of the sightings and evidence.

e. Inspect the site, during all monitoring visits and inspections, for oil, grease, man-made debris, and all other contaminants and report findings. Rate (e.g., poor, fair, good, excellent) and describe the water clarity in the mitigation wetland.

f. Provide annual photographic documentation of the development of the mitigation wetland during vegetation sampling from permanent photo stations located within the mitigation wetland. At a minimum, photo stations shall be located at both ends of each transect. Photos must be labeled with the location, date photographed, and direction.

g. Provide one-time photographic documentation during construction of the placement of at least six (6) inches of high quality soil, from the A horizon of an organic or loamy surface texture soil, across the site.

h. Provide a description of the type of habitat rehabilitation mechanism or structure and representative photographs of each.

i. Provide a written summary of data from previous monitoring periods and a discussion of changes or trends based on all monitoring results. This summary shall include a calculation of the acres of each wetland type established, a plan view drawing depicting each ecological type, and identification of all performance standards and whether each standard has been met.

j. Provide a written summary of all the problem areas that have been identified and potential corrective measures to address them.

45) A qualified individual able to identify plants to genus and species must conduct the wetland monitoring. The MDEQ reserves the right to reject reports with substandard monitoring data.

46) The MDEQ will determine if the performance standards have been met. If the performance standards have not been met, the permittee shall take corrective measures, and the MDEQ may require subsequent annual monitoring until final approval from the MDEQ can be granted.

47) Prior to final written approval of the mitigation by the MDEQ, the permittee shall complete all monitoring requirements including the submittal of all required monitoring reports and submit the following:

a. A written statement that the mitigation is complete and request for final approval of the mitigation.

b. A copy of the permit.

c. "As-built" plans and specifications signed and sealed by a registered surveyor or licensed engineer.

d. A surveyed boundary of the established wetland within the mitigation area, including the total acreage of the mitigation wetland and the acreage of each type of wetland created.

e. An adequate stewardship agreement with a land conservancy or other long-term management organization and the MDEQ, that is in compliance with the MDEQ approved long-term management plan, shall be established and recorded for the mitigation site. The Stewardship Agreement shall include the following:

i. Establish the agency responsible for stewardship obligations.
ii. Establish monitoring time periods, report criteria and reporting schedule.
iii. Long-term vegetation, management goals and actions.
iv. Long-term signage and fencing management plans.
v. Identify the financing mechanism secured to fund Steward to ensure long-term protection and management of the site, in accordance with the goals of the Conservation Easement.

General Conditions

48) In issuing this permit, the MDEQ has relied on the information and data that the permittee has provided in connection with the permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete, or inaccurate, the MDEQ may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.

49) The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state or federal approval or authorization, necessary to conduct the activity.

50) The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representatives of the permittee, undertaken in connection with this permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.

51) If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity and/or mitigation plan from the MDEQ. Such revision requests shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by the MDEQ prior to being implemented.

52) This permit may be transferred to another person upon written approval of the MDEQ. The permittee must submit a written request to the MDEQ to transfer the permit to the new owner. The new owner must also submit a written request to accept transfer of the permit. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties which includes all the above information may be provided to the MDEQ. The MDEQ will review the request and if approved, will provide written notification to the new owner.

53) This permit is being issued for the maximum time allowed under Part 303, Wetlands Protection and Part 325, Great Lakes Submerged Lands, of the Natural Resources and Environmental Protection Act, PA 451 of 1994, as amended, including all permit extensions allowed under the administrative rules R 281.923 and R322.1011(f) as determined by the MDEQ. Therefore, no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by the MDEQ, will be for a five-year period beginning at the date of issuance.

This permit shall become effective on the date of the MDEQ representative's signature. Upon signing by the permittee named herein, this permit must be returned to the MDEQ's Water Resources Division, Jackson District Office, 301 East Louis Glick Highway, Jackson, Michigan 49201 for final execution.

Permittee hereby accepts and agrees to comply with the terms and conditions of this permit.

X _____ 1/23/2012

Permittee Date

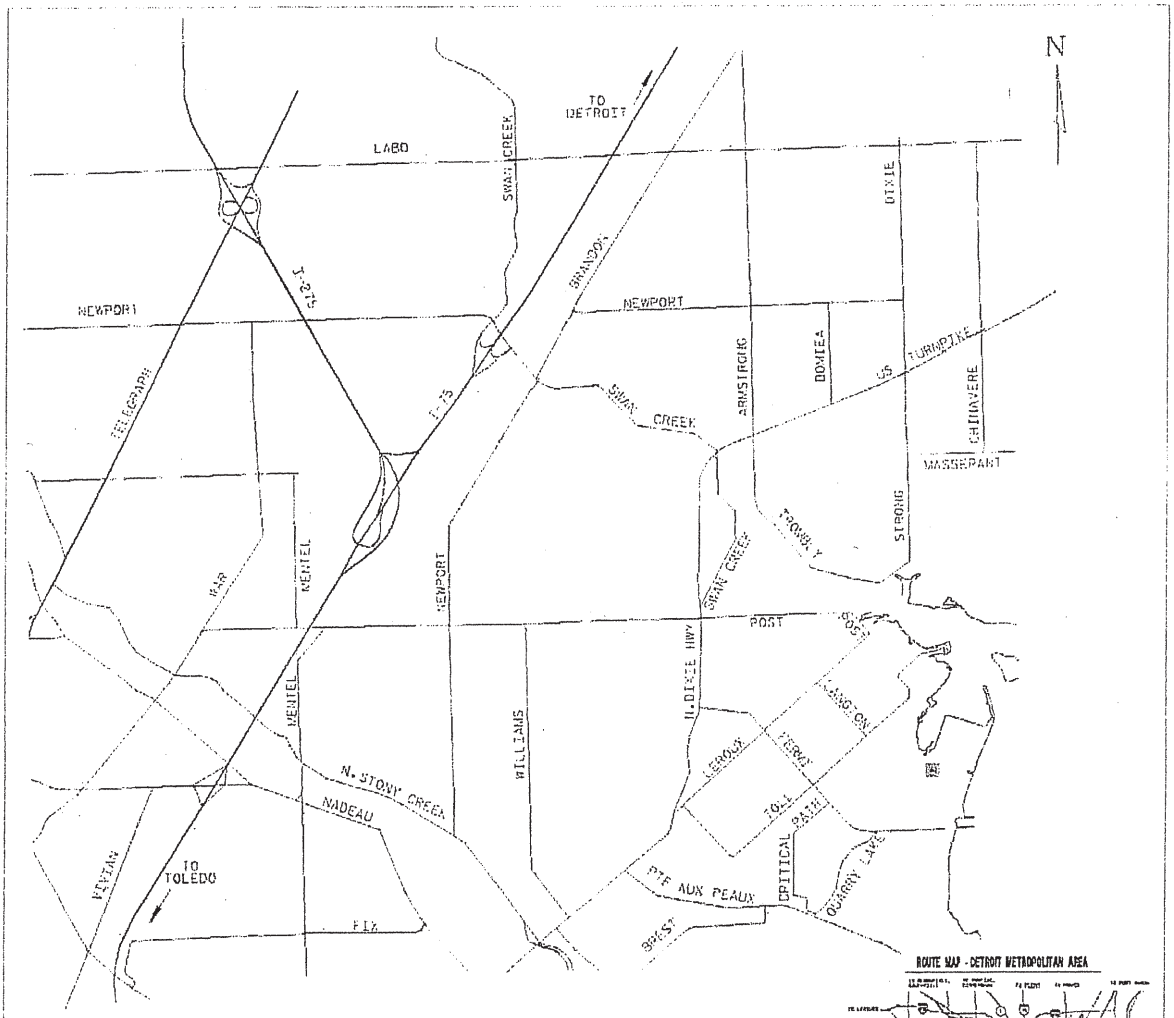
X PETER W SMITH, DIRECTOR - NUCLEAR DEVELOPMENT - LICENSING & ENGINEERING

Printed Name and Title of Permittee

By: _____

Katherine David
Water Resources Division
517-780-7021

cc: Monroe County Drain Commissioner
Monroe County SESC Officer
Frenchtown Township Clerk
Monroe Charter Township Clerk
Ms. Colette Luff, USACE
Ms. Melanie Haveman, USEPA
Mr. Burr Fisher, USFWS
Mr. Bruce Olson, USNRC
Ms. Sheila Hess, Conservation Connects
Ms. Lisa Matis, Tetra Tech
Mr. Chris Hoving, MDNR



DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 1 of 57
12/02/11

ENRICO FERMI
ENERGY CENTER
6400 DIXIE HWY
FRENCHTOWN TWP
NEWPORT, MI 48166-9726 PROPERTY LOCATION #0721

From the North (Detroit) on I-75, take Exit 21 (Newport Rd). Turn right and continue to the traffic light at Dixie Highway St. Charles Church and School will be on the right. Turn right onto Dixie Highway and continue about three (3) miles to the Enrico Fermi Energy Center sign. Turn left and follow Fermi Drive to the Security Gatehouse.

From Southbound I-275, exit onto Northbound I-75 Take the first exit, Exit 21 (Newport Rd) Follw the instructions for #1 listed above)

From the South (Toledo) on I-75 take Exit 15 (M-50,Dixie Highway) Turn right continue approximately six (6) miles to the Enrico Fermi Energy Center sign. Turn right and follow Fermi Drive to the Security Gatehouse.

Detroit Edison
An DTE Energy Company

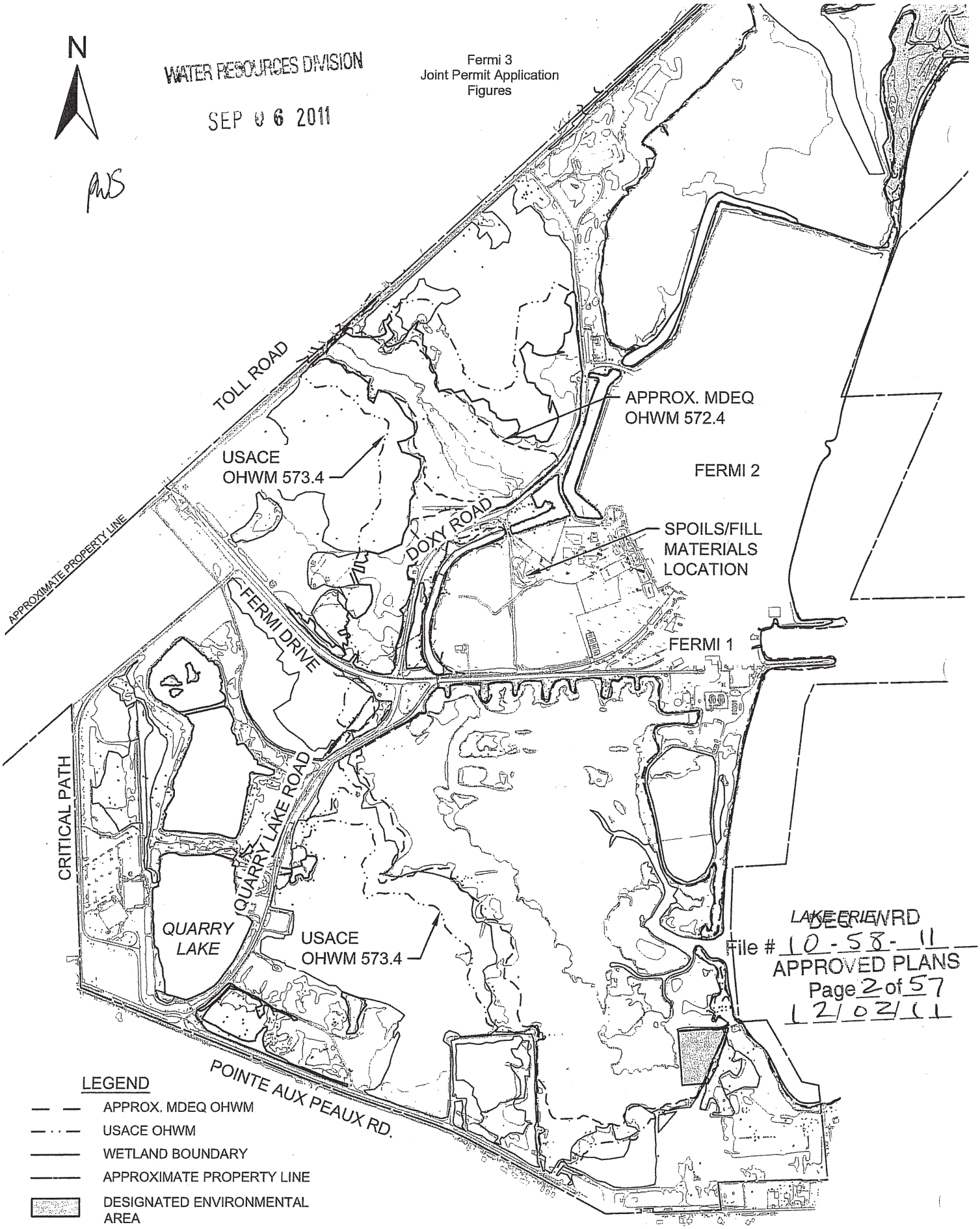


FIGURE 2-1 EXISTING SITE CONDITIONS

SCALE: 1"=1000'

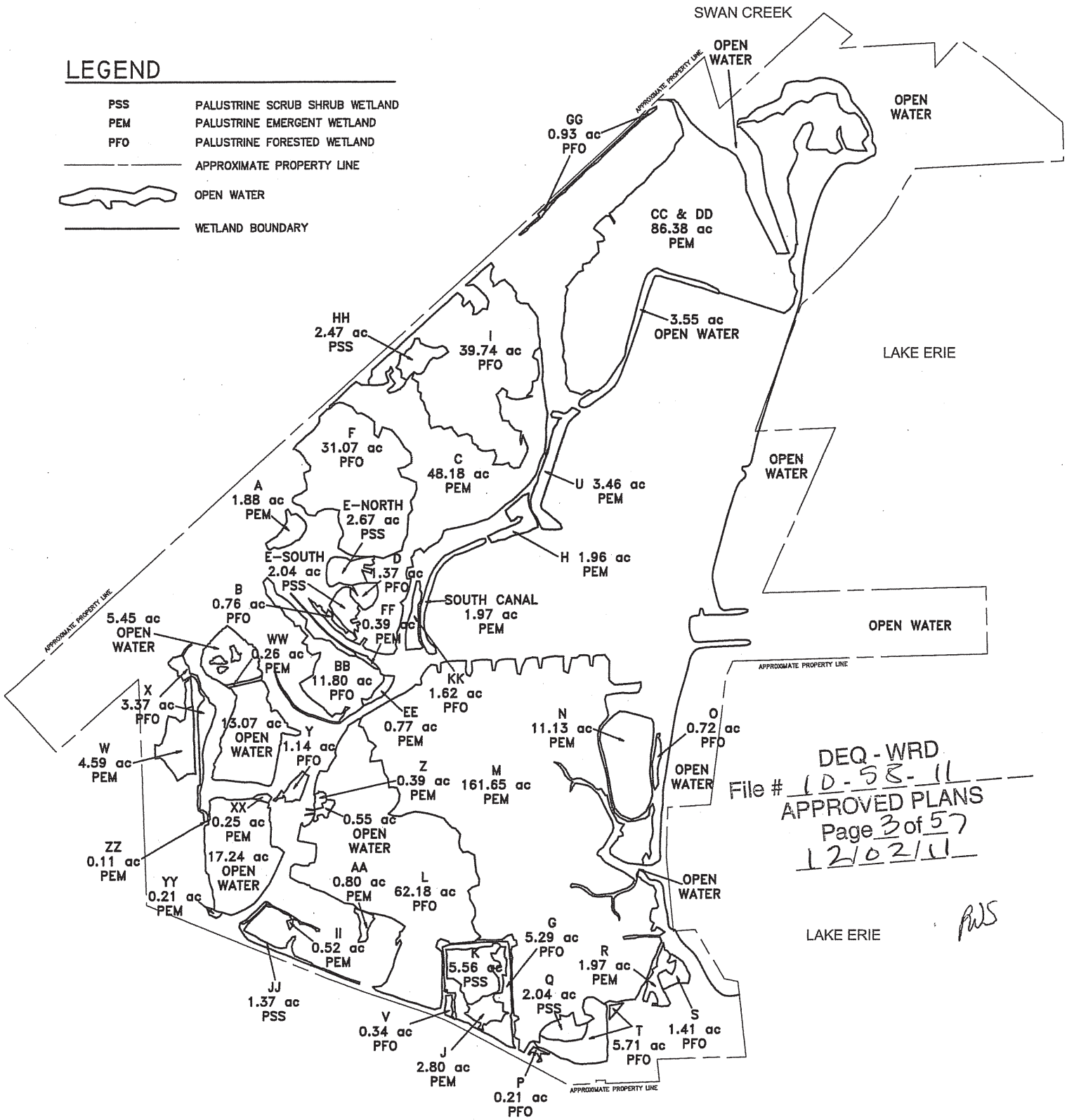


FIGURE 2-2 WETLAND DELINEATION MAP

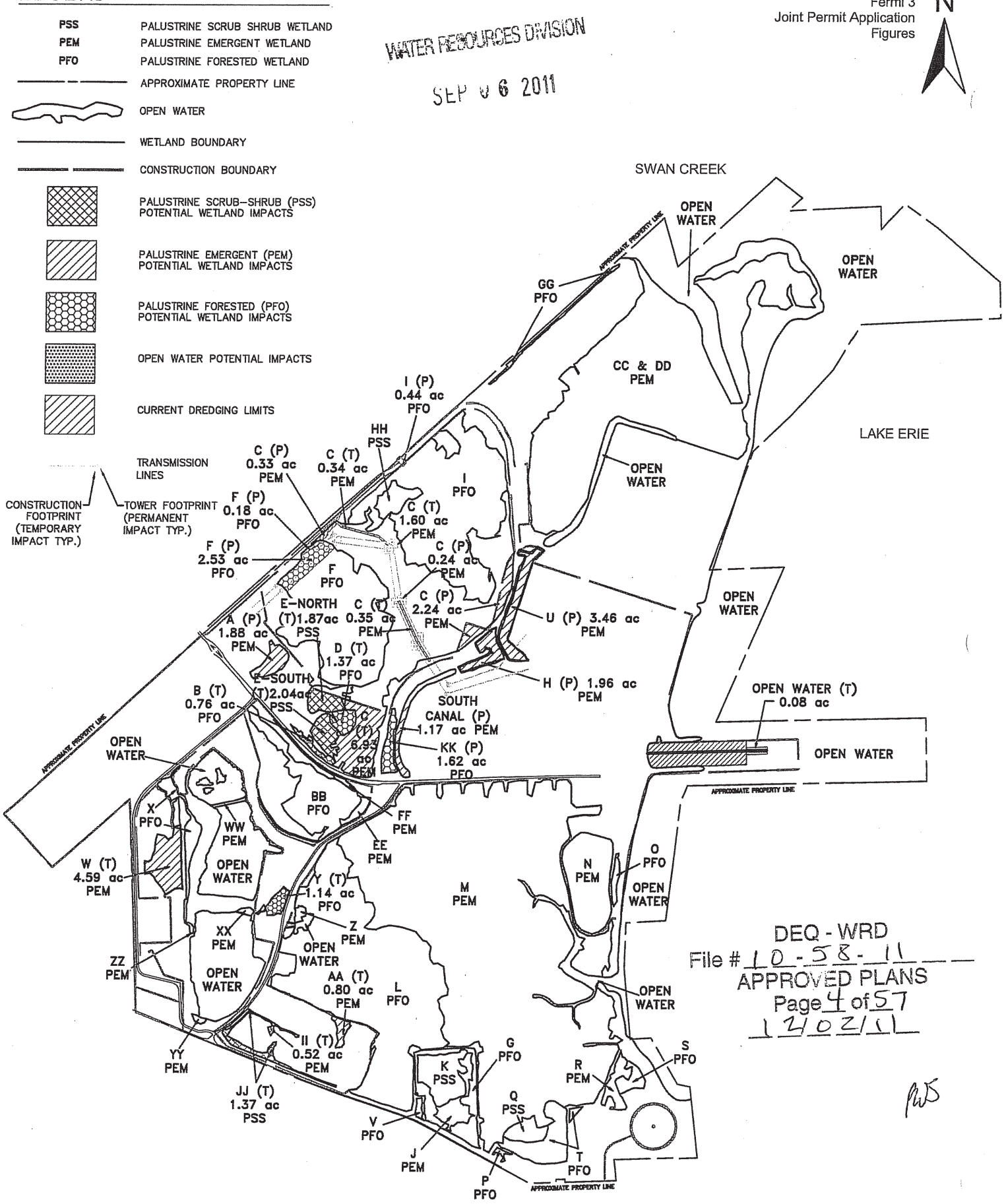


FIGURE 2-3 WETLAND IMPACT MAP

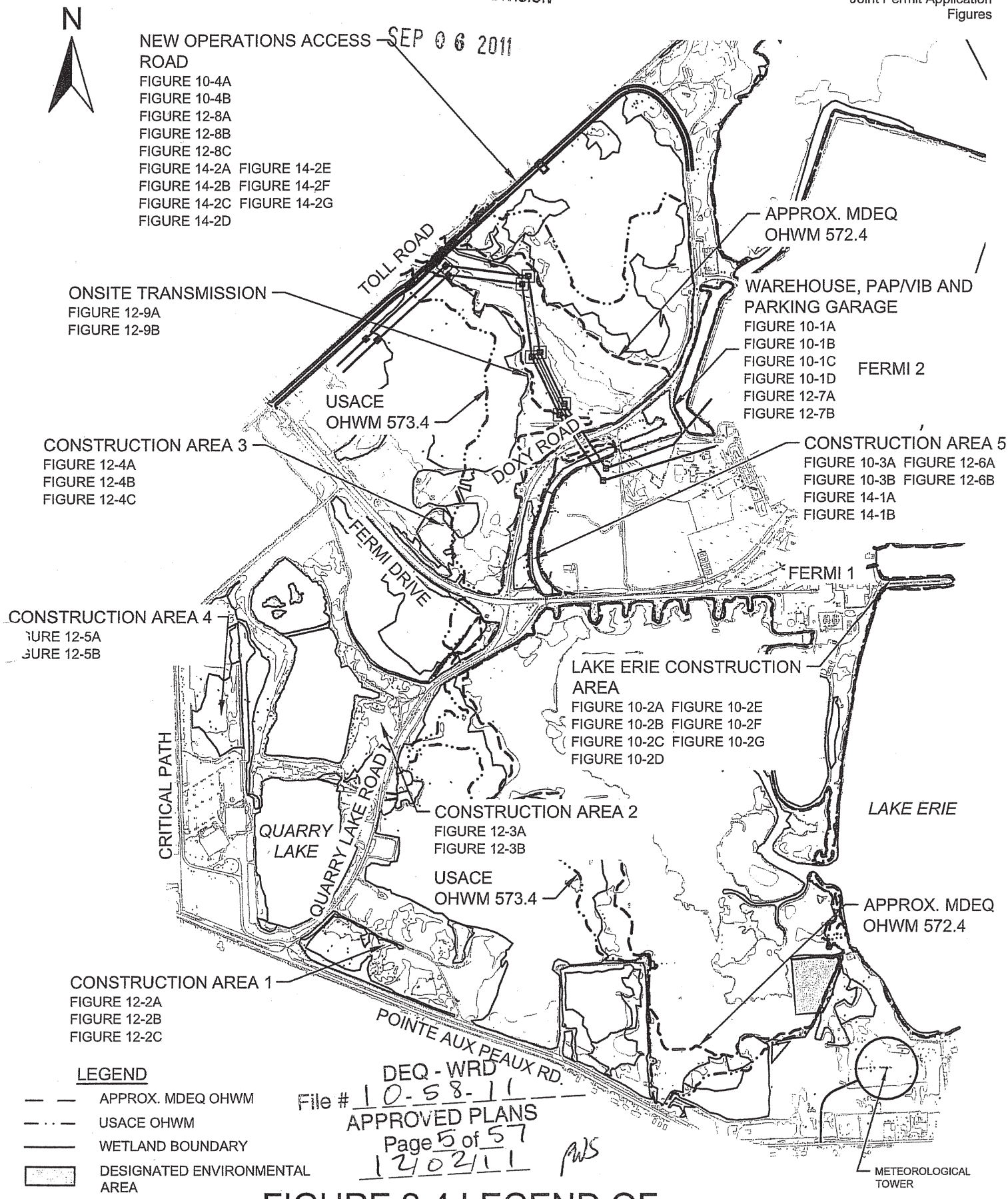
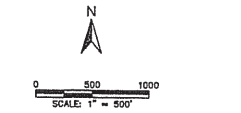


FIGURE 2-4 LEGEND OF CONSTRUCTION AREA LOCATIONS

FIGURE 2-5 SITE PLAN

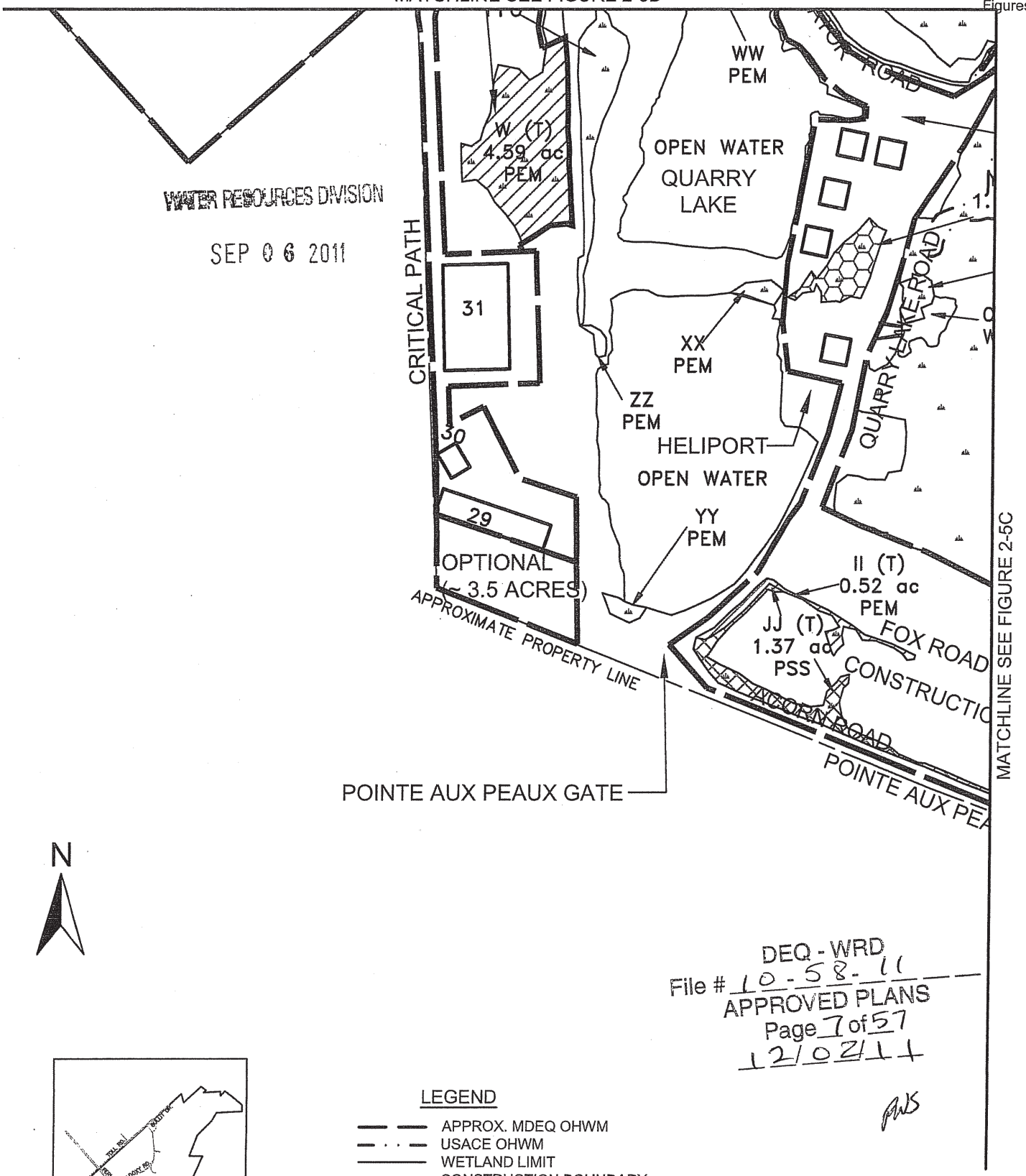
NO SCALE

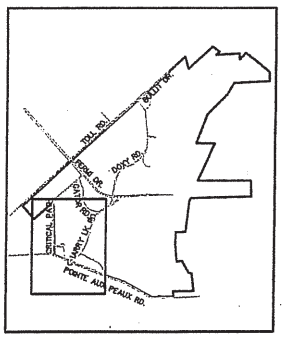


LEGEND

- PSS — PALUSTRINE SCRUB SHRUB WETLAND
- PEM — PALUSTRINE EMERGENT WETLAND
- PFO — PALUSTRINE FORESTED WETLAND
- APPROXIMATE PROPERTY LINE
- OPEN WATER
- WETLAND BOUNDARY
- HORIZONTAL & VERTICAL CONTROL
- CONSTRUCTION BOUNDARY
- USACE OHWM
- APPROX. MDEQ OHWM
- PALUSTRINE SCRUB-SHRUB (PSS) POTENTIAL WETLAND IMPACTS
- PALUSTRINE EMERGENT (PEM) POTENTIAL WETLAND IMPACTS
- PALUSTRINE FORESTED (PFO) POTENTIAL WETLAND IMPACTS
- OPEN WATER POTENTIAL IMPACTS
- DESIGNATED ENVIRONMENTAL AREA

	FACILITY LEGEND
01	REACTOR BUILDING
02	AUXILIARY BOILER
03	TURBINE BUILDING
04	CONTROL ROOM
05	ELECTRICAL BLDG/TECH SUPPORT CENTER
06	MAIN TRANSFORMERS
07	UNIT AUXILIARY TRANSFORMER
08	RESERVE AUXILIARY TRANSFORMER
09	SPARE TRANSFORMER
10	ADS
11	RADWASTE BUILDING
12	FUEL BUILDING
13	DIESEL FUEL OIL STORAGE TANK
14	WATER TREATMENT/SERVICE WATER BLDG
16	SERVICE WATER COOLING TOWER
17	FIRE WATER TANK AND PUMPS
18	WATER STORAGE TANKS
19	CONDENSATE STORAGE TANK
20	SERVICE BUILDING/OPERATION SUPPORT CENTER
21	HOT MACHINE SHOP AND STORAGE
22	WASH DOWN BAYS
23	NPHB COOLING TOWER
24	PUMPHOUSE
26	STATION WATER INTAKE
27	CRIC WATER OUTFALL
28	FERMI 3 SWITCHYARD
29	FERMI 3/FERMI 2 ADMIN BUILDING
30	FERMI 3 SIMULATOR
31	PARKING GARAGE
32	FERMI 2/FERMI 3 HAZARDOUS WASTE WAREHOUSE
33	BARGE SLIP
34	RAD MATERIAL WAREHOUSE
35	FERMI 2/FERMI 3 MAINTENANCE SHOPS
37	FERMI 2/FERMI 3 COMMON WAREHOUSE
38	PARKING GARAGE AND FERMI 2 SHOPS
39	ISFSI
40	PAPVID





LOCATION MAP

LEGEND

- APPROX. MDEQ OHWM
- USACE OHWM
- WETLAND LIMIT
- CONSTRUCTION BOUNDARY

FIGURE 2-5A SITE PLAN

SCALE: 1"=500'

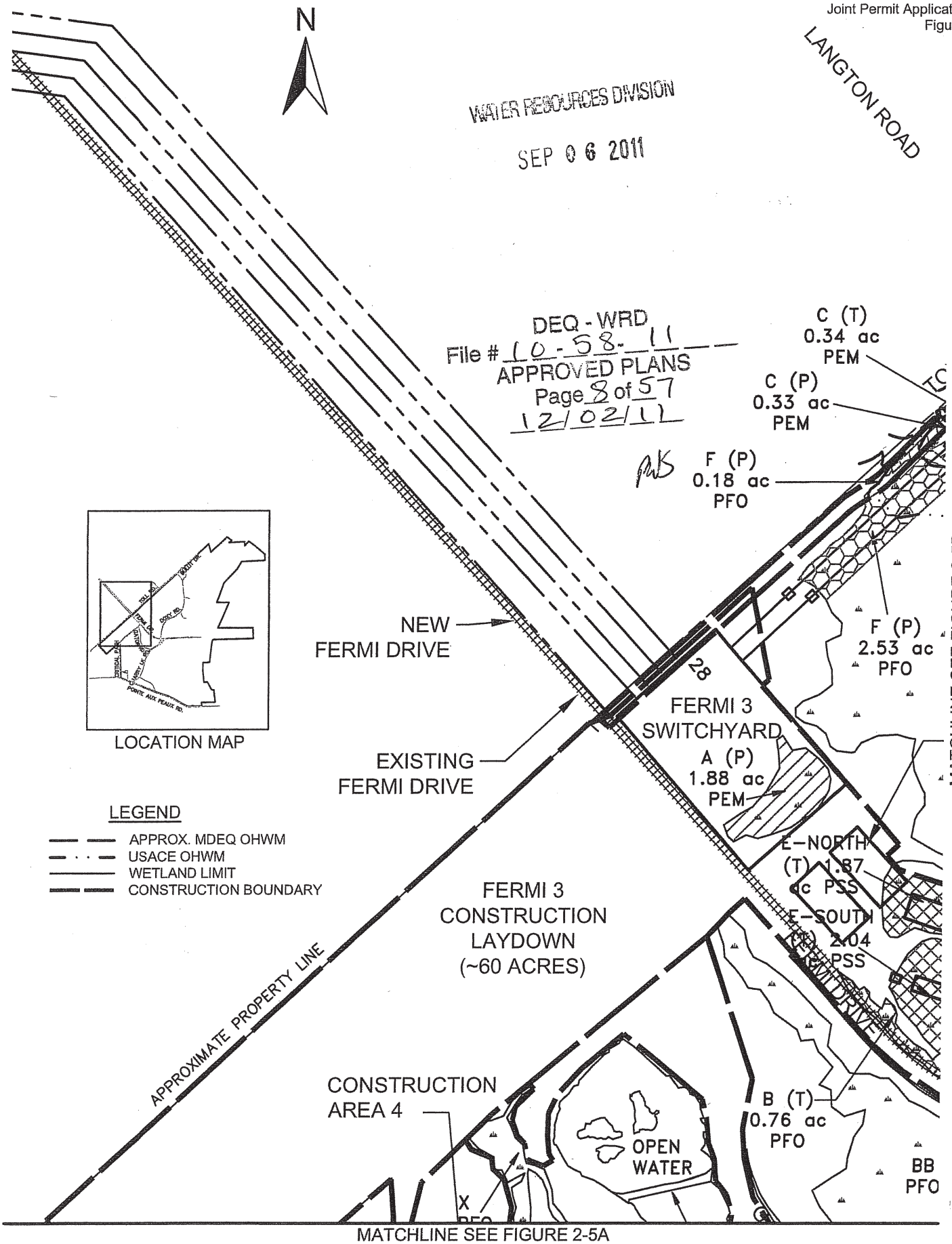
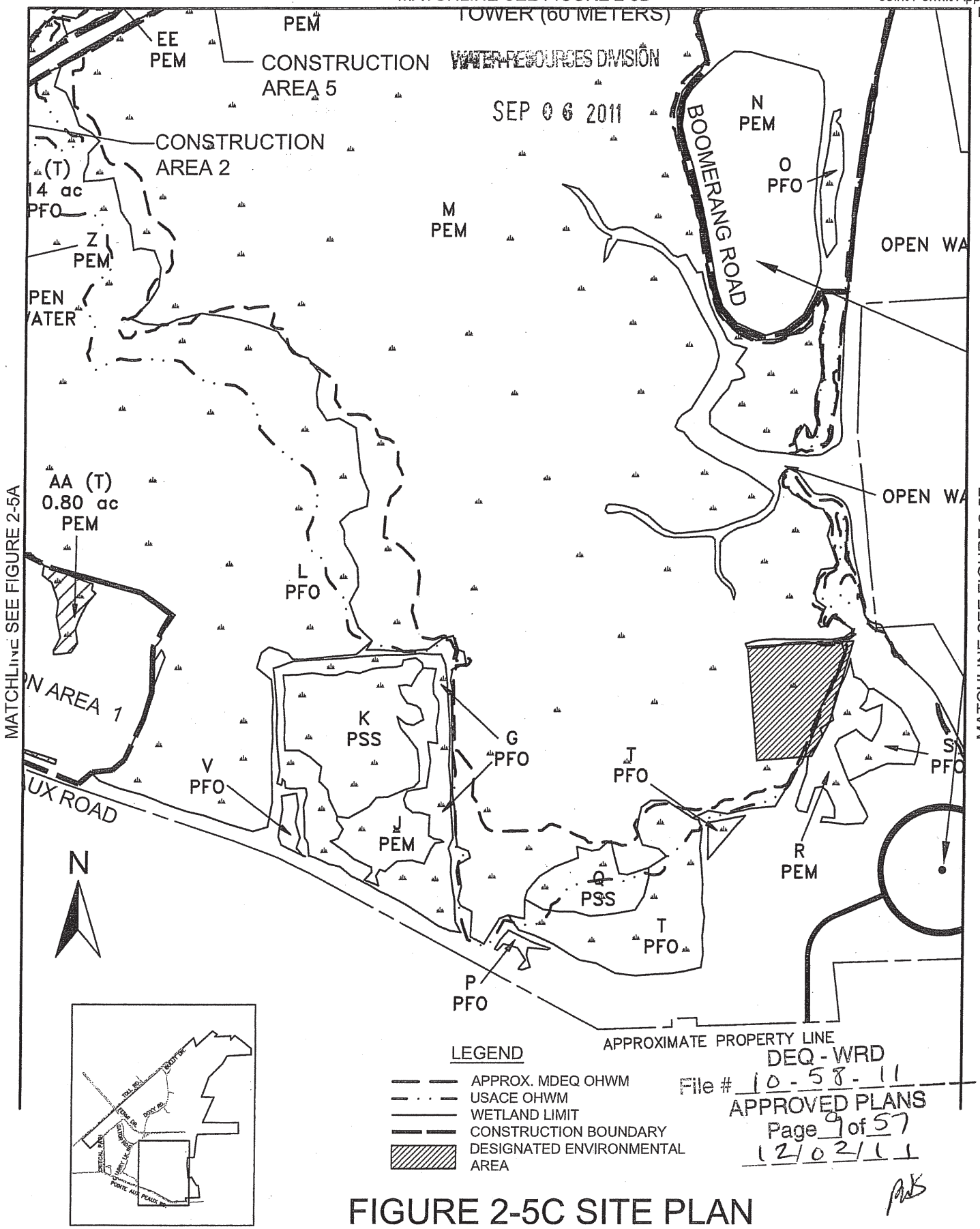


FIGURE 2-5B SITE PLAN

SCALE: 1"=500'



LOCATION MAP

FIGURE 2-5C SITE PLAN

SCALE: 1"=500'

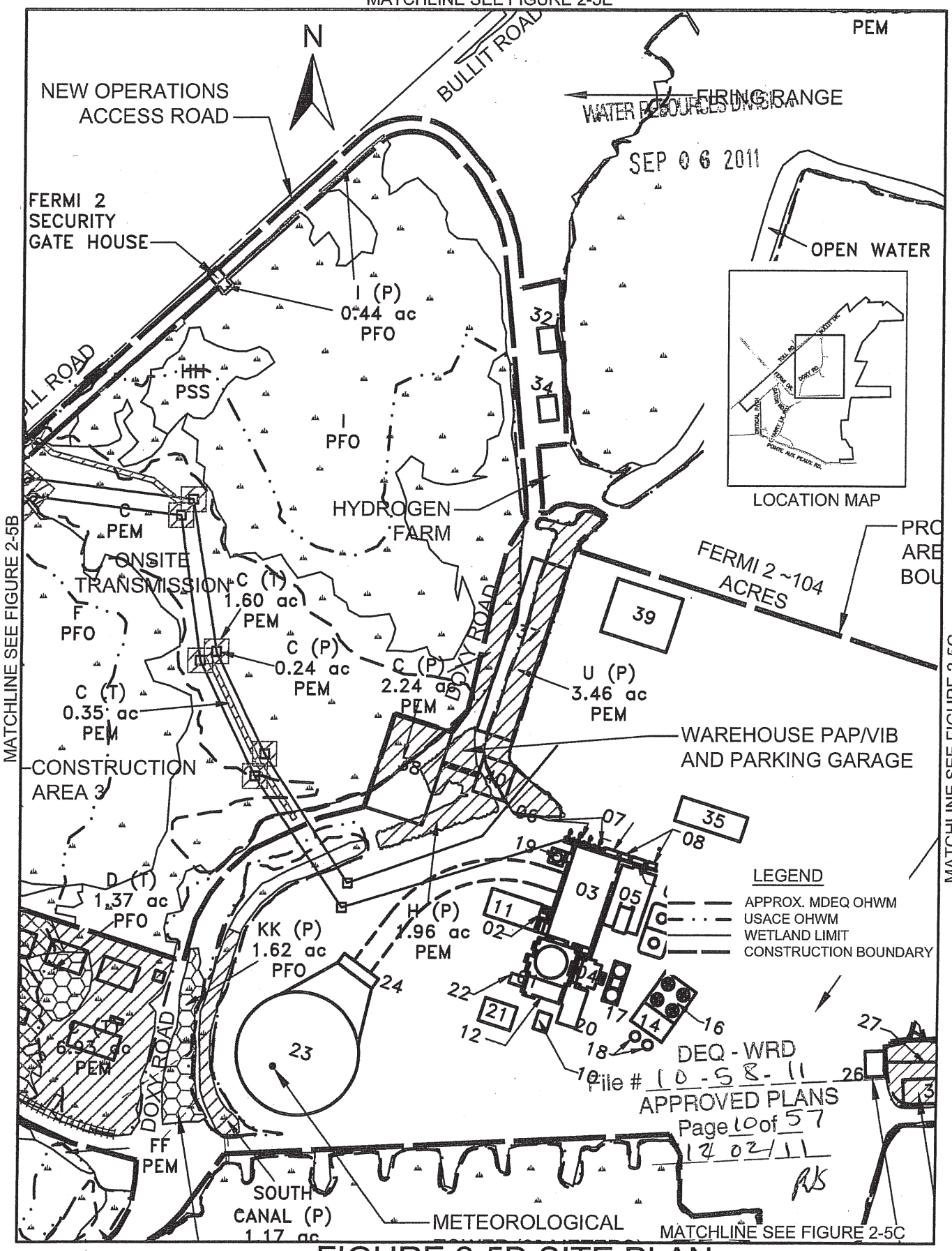
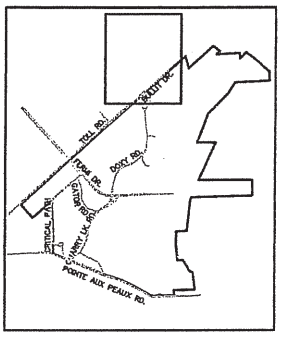


FIGURE 2-5D SITE PLAN

SCALE: 1"=500'

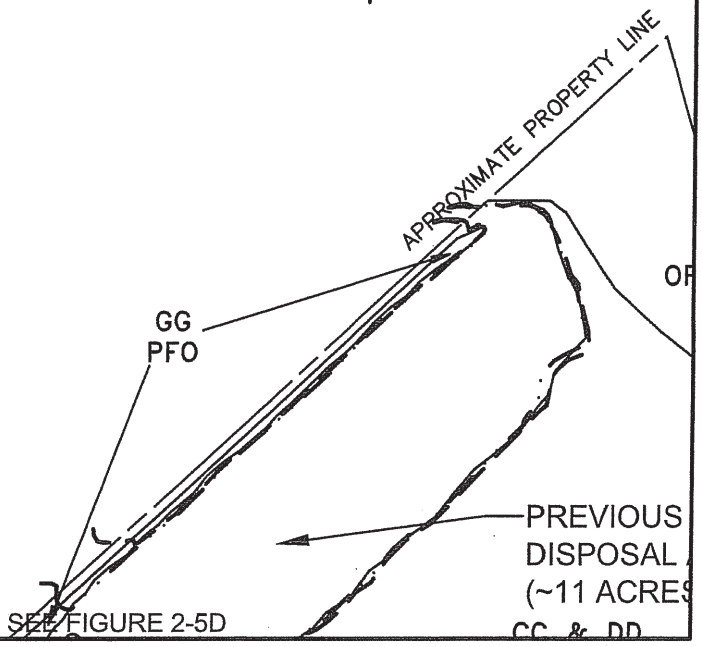
N



LOCATION MAP

LEGEND

- APPROX. MDEQ OHWM
- USACE OHWM
- WETLAND LIMIT
- CONSTRUCTION BOUNDARY



MATCHLINE SEE FIGURE 2-5H

FIGURE 2-5E SITE PLAN

SCALE: 1"=500'

MATCHLINE SEE FIGURE 2-5G

LAKE ERIE
CONSTRUCTION AREA

FERMI 3 WATER INTAKE

TER

CURRENT SPOILS
DISPOSAL AREA

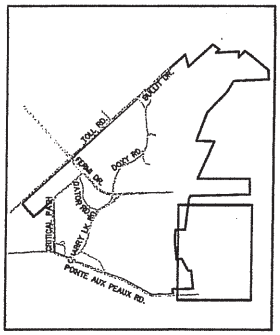
TER

MATCHLINE SEE FIGURE 2-5C

METEOROLOGICAL
TOWER NEW LOCATION
(60 METERS)

LONG ROAD

N



LOCATION MAP

LEGEND

- APPROX. MDEQ OHWM
- USACE OHWM
- WETLAND LIMIT
- CONSTRUCTION BOUNDARY

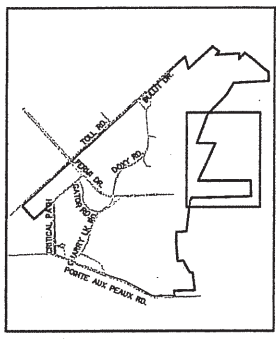
FIGURE 2-5F SITE PLAN

SCALE: 1"=500'

MATCHLINE SEE FIGURE 2-5H

N

BOUNDARY LINES ARE THE SAME AS PROPERTY LINES (~1260 ACRES)



LOCATION MAP

LEGEND

- APPROX. MDEQ OHWM
- USACE OHWM
- WETLAND LIMIT
- CONSTRUCTION BOUNDARY
- DESIGNATED ENVIRONMENTAL AREA

MATCHLINE SEE FIGURE 2-5D

TECTED A NDARY

OPEN WATER

FERMI 1 AREA

OPEN WATER (T)
0.08 AC.

OPEN WATER

CURRENT DREDGING LIMITS

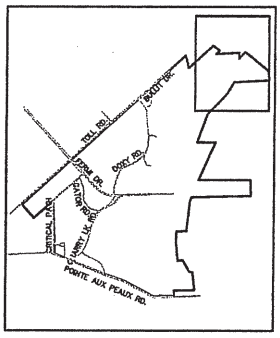
APPROXIMATE PROPERTY LINE

FERMI 3 OUTFALL

MATCHLINE SEE FIGURE 2-5F

FIGURE 2-5G SITE PLAN

SCALE: 1"=500'



LOCATION MAP

LEGEND

- APPROX. MDEQ OHWM
- USACE OHWM
- WETLAND LIMIT
- CONSTRUCTION BOUNDARY
- DESIGNATED ENVIRONMENTAL AREA

MATCHLINE SEE FIGURE 2-5E

OPEN WATER

EN WATER

OPEN WATER

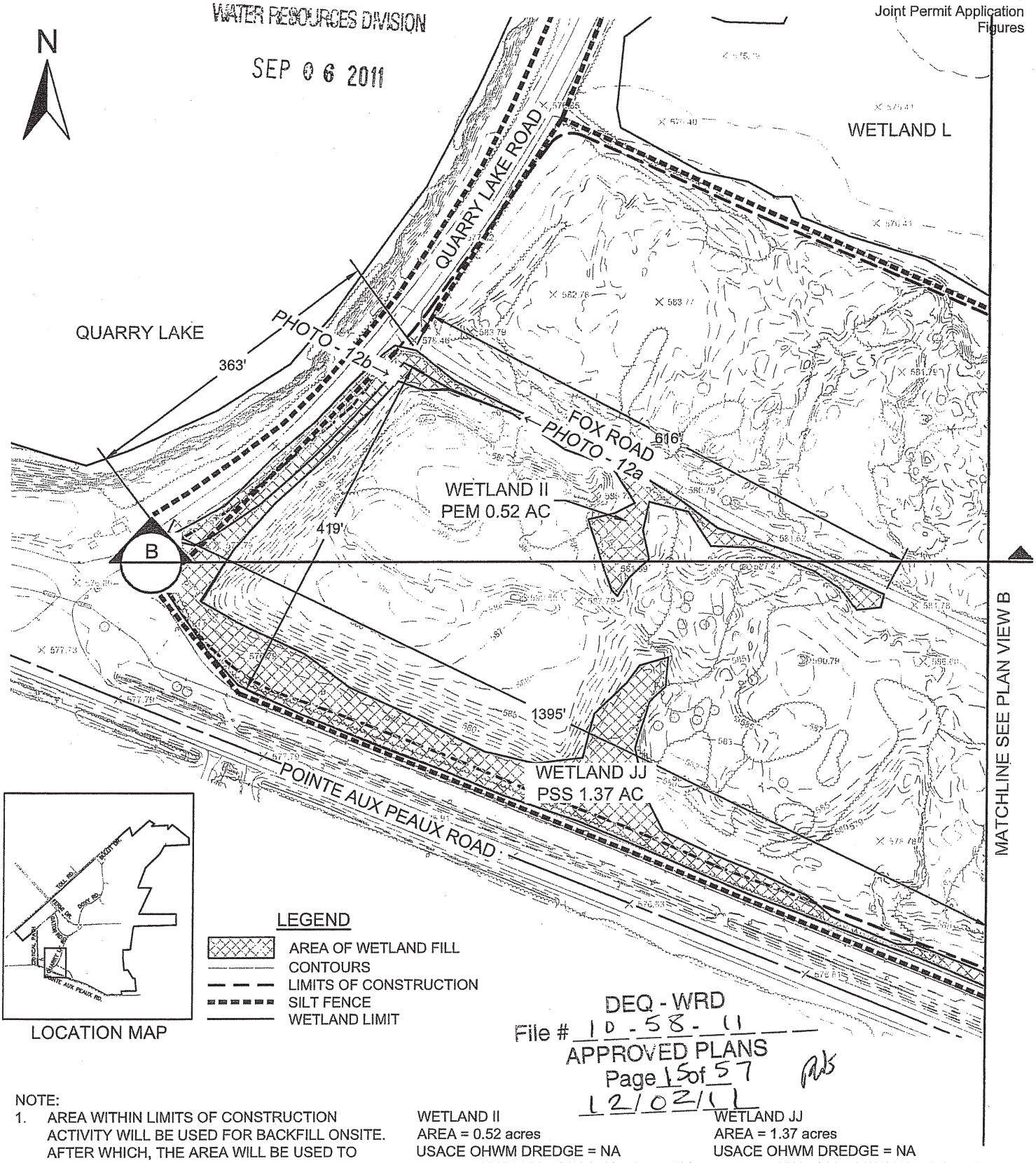
SPOILS
AREA
S)

OPEN WATER

MATCHLINE SEE FIGURE 2-5G

FIGURE 2-5H SITE PLAN

SCALE: 1"=500'



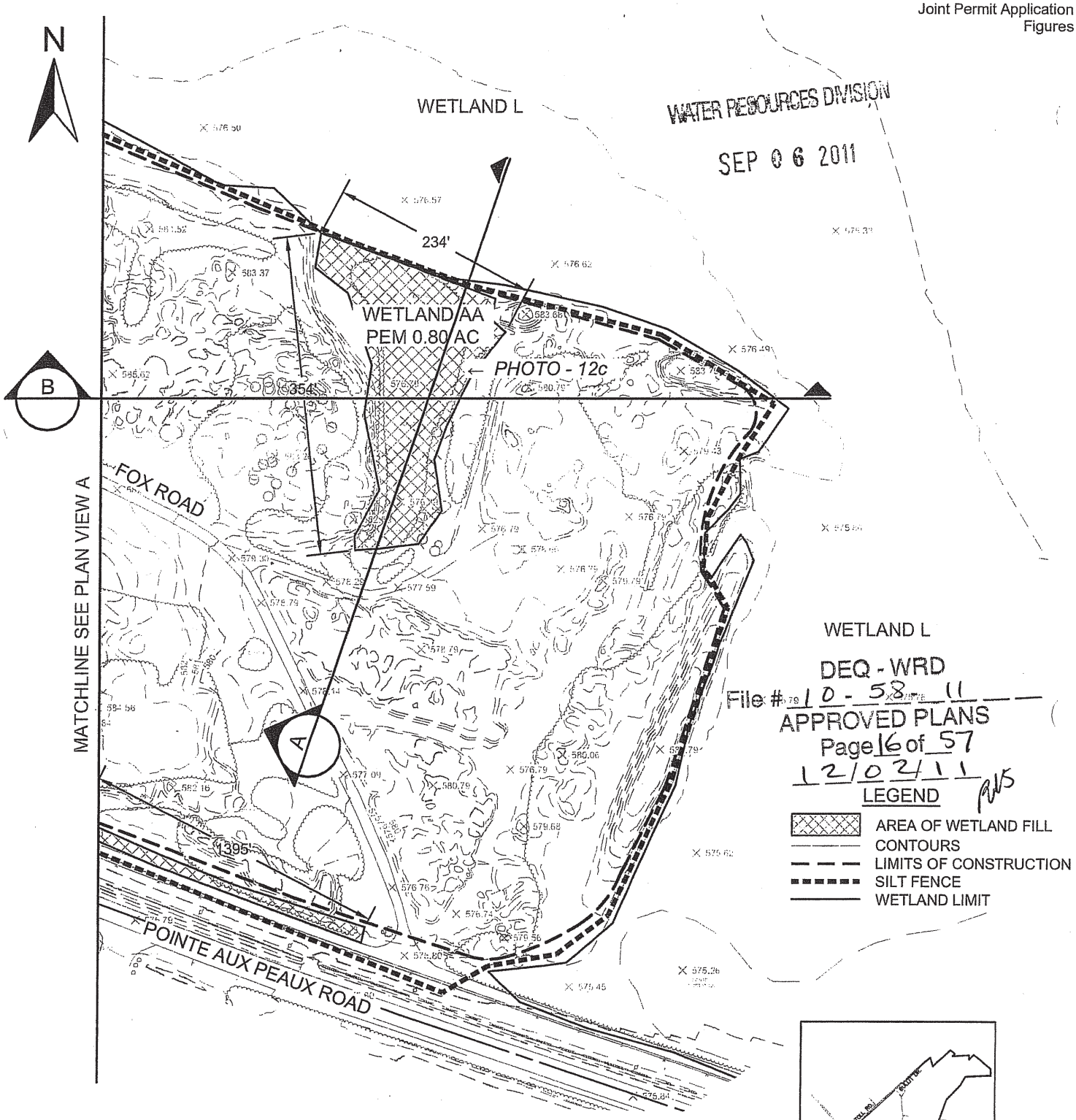
NOTE:
1. AREA WITHIN LIMITS OF CONSTRUCTION ACTIVITY WILL BE USED FOR BACKFILL ONSITE. AFTER WHICH, THE AREA WILL BE USED TO STOCKPILE SPOILS FROM LOCATIONS ONSITE.
2. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.

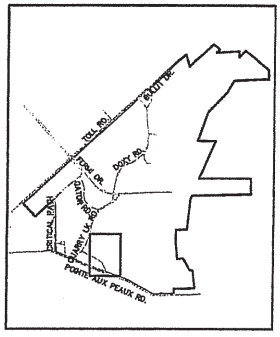
WETLAND II
AREA = 0.52 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = 1,675 CY
WETLAND EXCAVATION = 1,675 CY
WETLAND FILL = 1,746 CY

WETLAND JJ
AREA = 1.37 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = 4,437 CY
WETLAND EXCAVATION = 4,437 CY
WETLAND FILL = 5,784 CY

FIGURE 12-2A CONSTRUCTION AREA 1 PLAN VIEW A

SCALE: 1"=150'





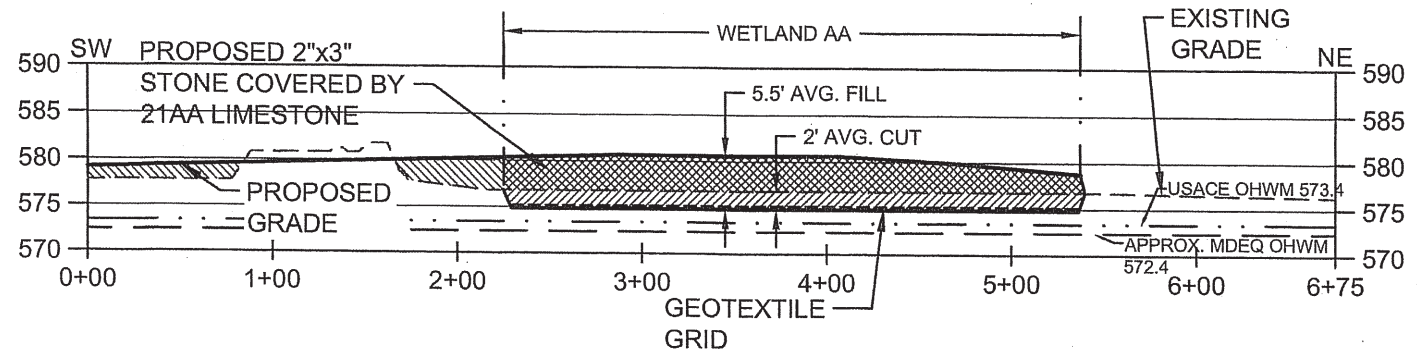
LOCATION MAP

NOTE:
1. AREA WITHIN LIMITS OF CONSTRUCTION ACTIVITY WILL BE USED FOR BACKFILL ONSITE. AFTER WHICH, THE AREA WILL BE USED TO STOCKPILE SPOILS FROM LOCATIONS ONSITE.
2. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.

WETLAND AA
AREA = 0.80 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = 2,568 CY
WETLAND EXCAVATION = 2,568 CY
WETLAND FILL = 6,593 CY

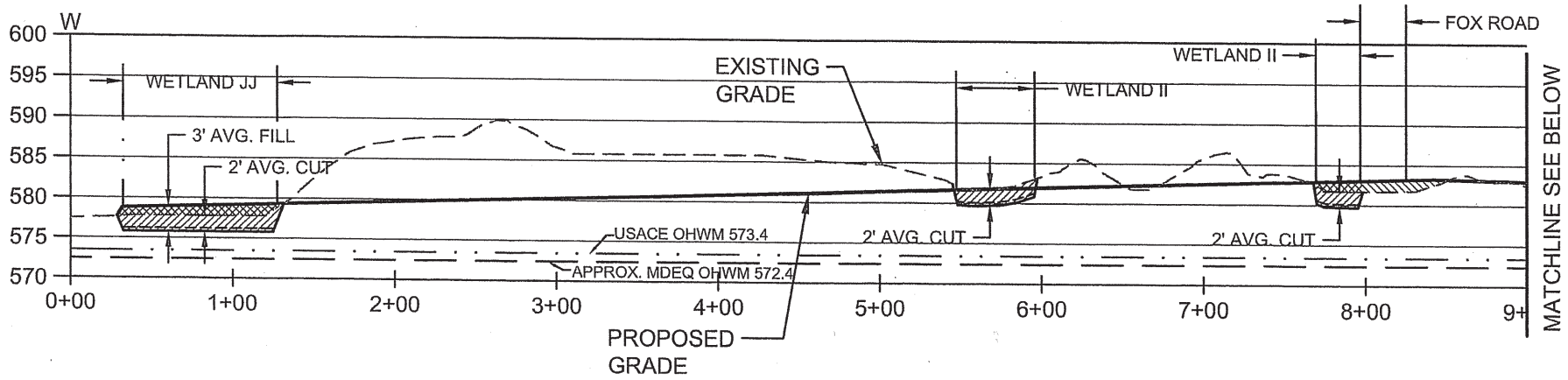
FIGURE 12-2B CONSTRUCTION AREA 1 PLAN VIEW B

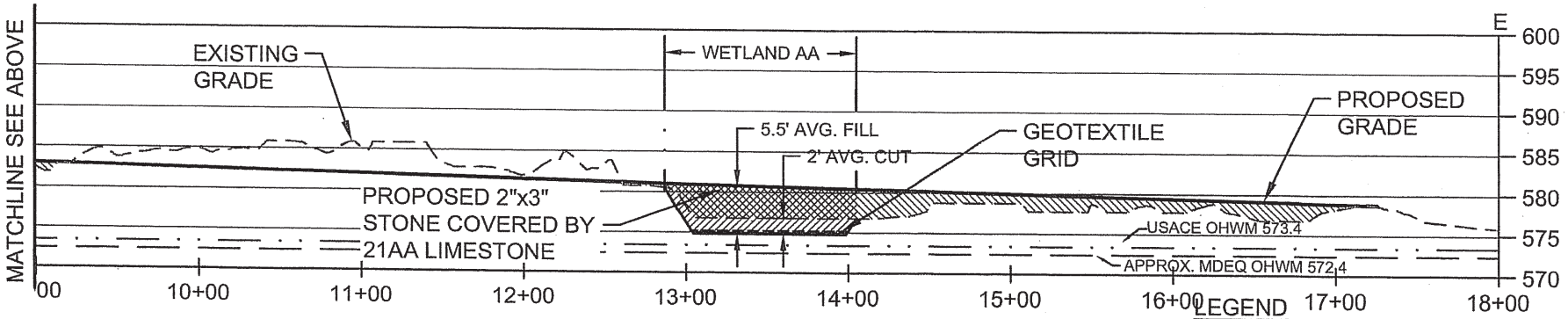
SCALE: 1"=150'
Revision 1



A CONSTRUCTION AREA 1 SECTION

SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)





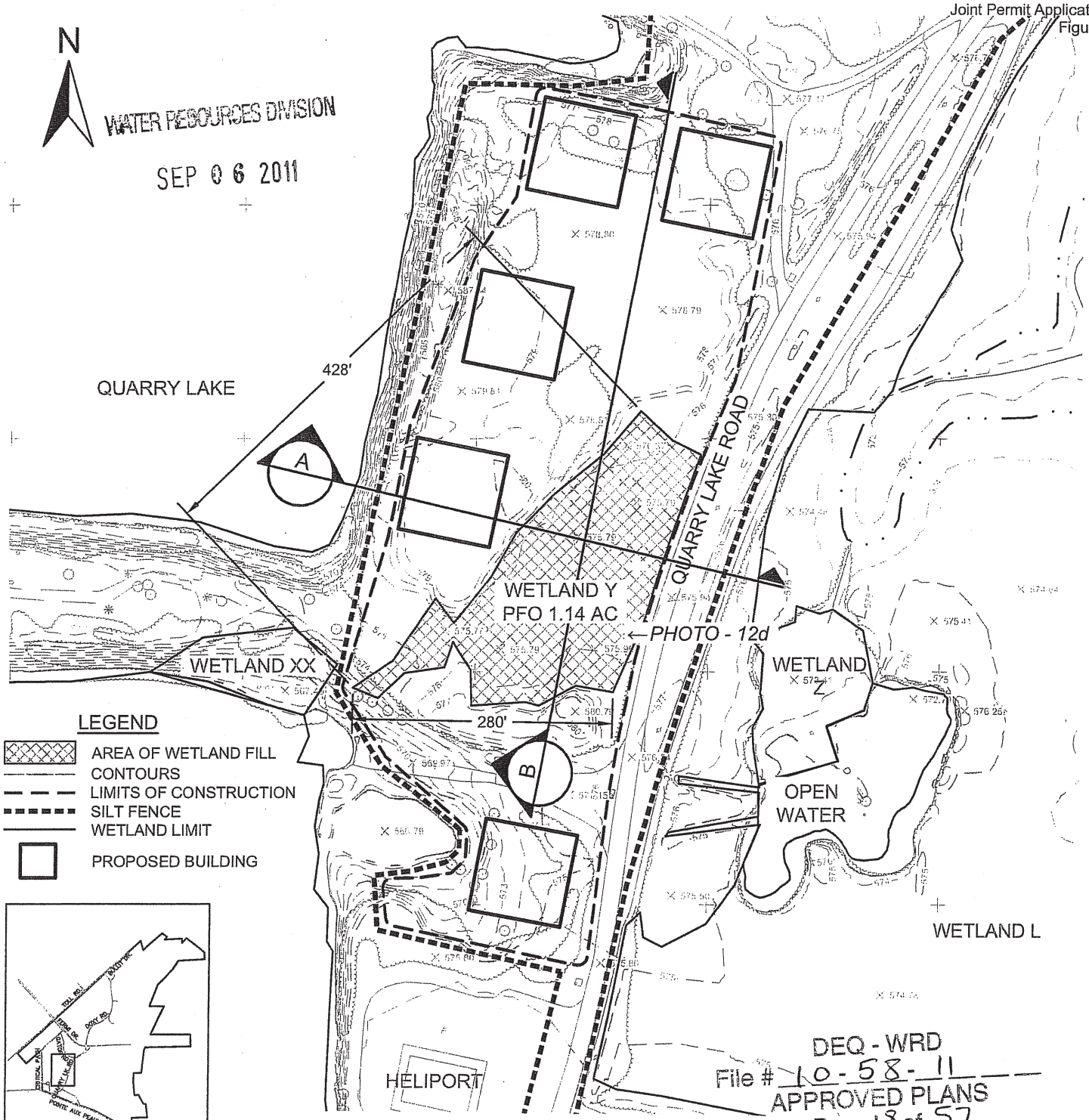
B CONSTRUCTION AREA 1 SECTION

SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)

LEGEND

- AREA OF EXCAVATION
- AREA OF UPLAND FILL
- AREA OF WETLAND FILL
- USACE OHWM
- APPROX. MDEQ OHWM

FIGURE 12-2C CONSTRUCTION AREA 1 SECTION DETAILS



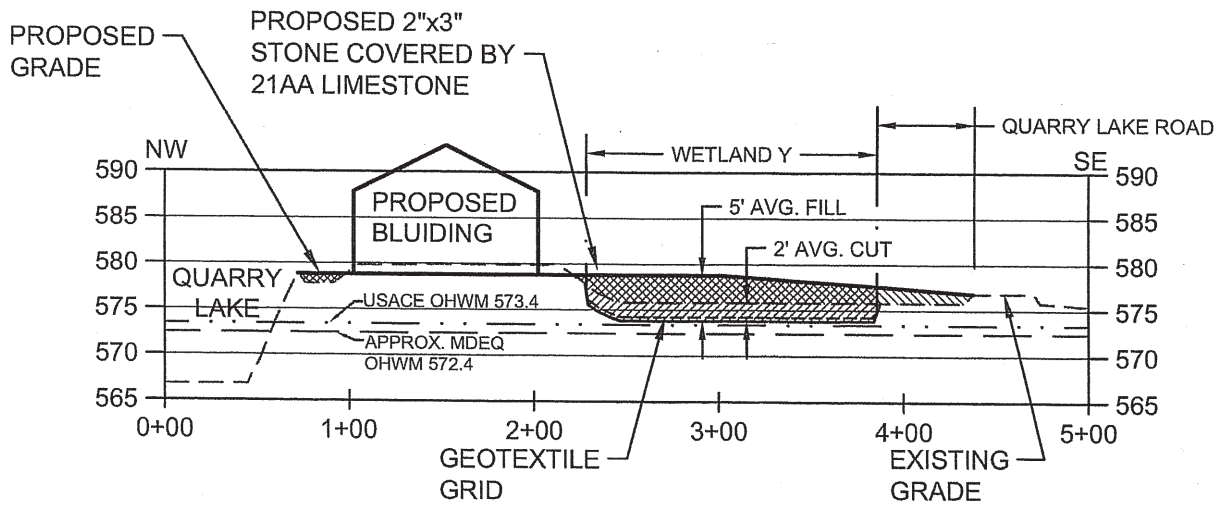
LOCATION MAP

NOTE:
1. AREA WITHIN LIMITS OF CONSTRUCTION ACTIVITIES WILL BE USED FOR SUBCONTRACTOR BUILDINGS AND GRAVEL PARKING.
2. UTILITIES SHALL BE PLACED IN UPLAND AREAS.
3. SPOILS FROM EXCAVATION WILL BE PLACED IN CONSTRUCTION AREA 1.
4. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.

WETLAND Y
AREA = 1.14 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = 3,570 CY
WETLAND EXCAVATION = 3,570 CY
WETLAND FILL = 7,905 CY

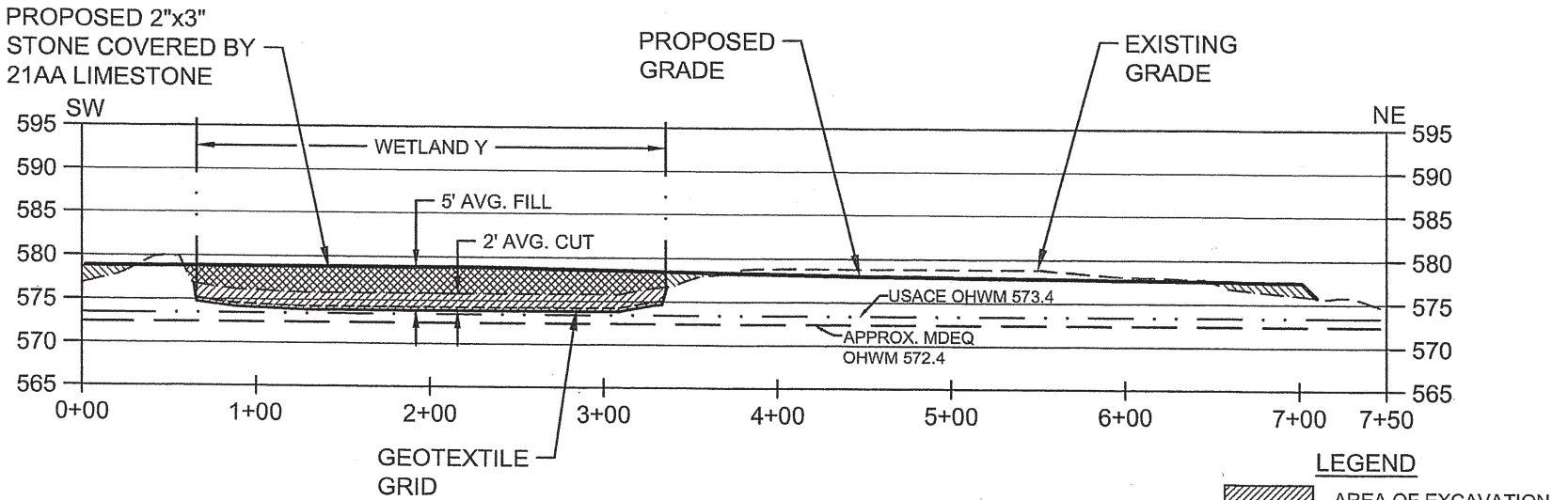
FIGURE 12-3A CONSTRUCTION AREA 2 PLAN VIEW

SCALE: 1"=150'



A CONSTRUCTION AREA 2 SECTION

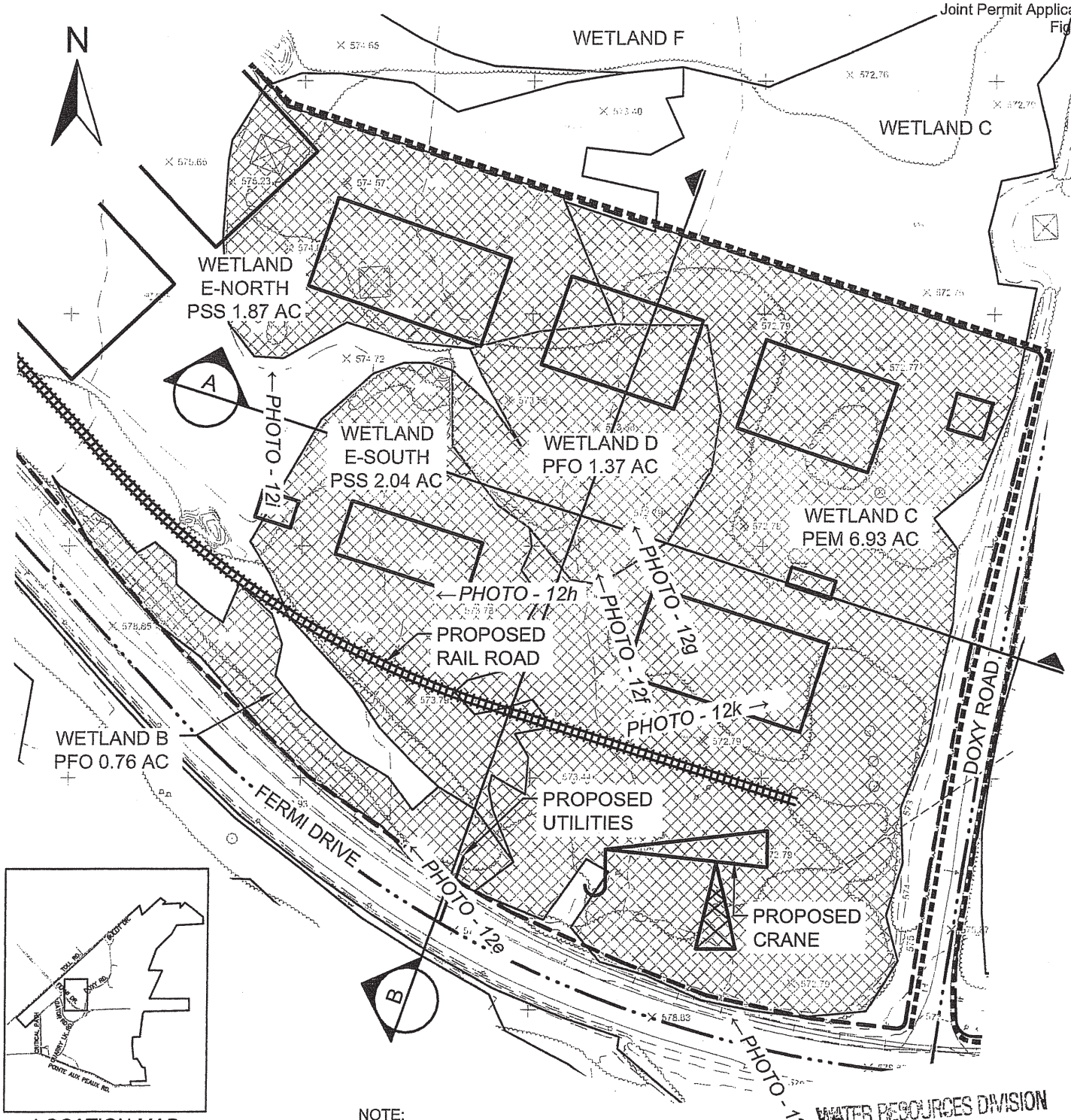
SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)



B CONSTRUCTION AREA 2 SECTION

SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)

FIGURE 12-3B CONSTRUCTION AREA 2 SECTION DETAILS



LOCATION MAP

LEGEND

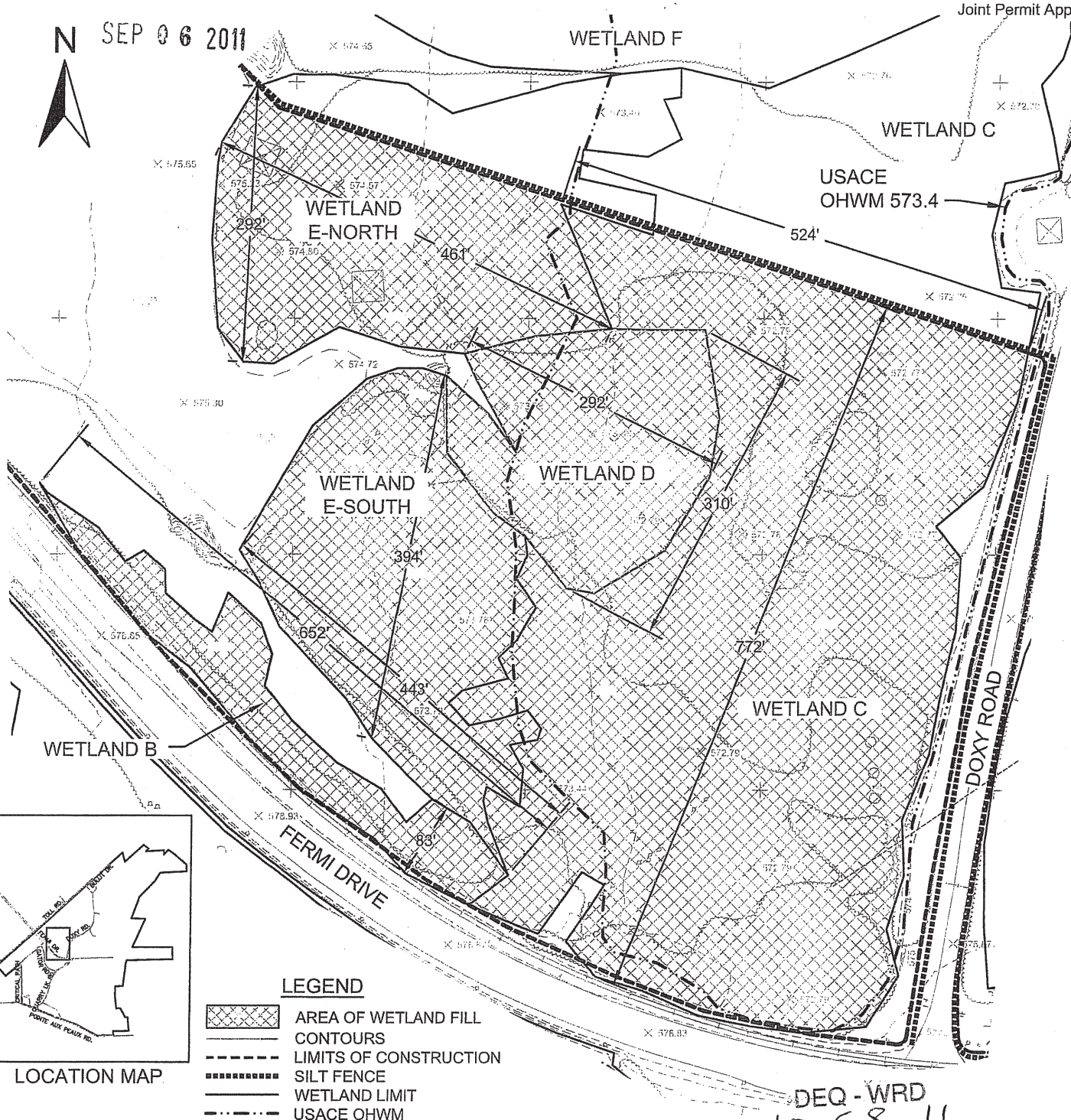
- AREA OF WETLAND FILL
- CONTOURS
- LIMITS OF CONSTRUCTION
- SILT FENCE
- WETLAND LIMIT
- PROPOSED BUILDING

NOTE:

1. AREA WITHIN LIMITS OF CONSTRUCTION ACTIVITY WILL BE USED FOR SUBCONTRACTOR BUILDINGS AND GRAVEL PARKING.
2. SPOILS FROM EXCAVATION WILL BE PLACED IN CONSTRUCTION AREA 1.
3. UTILITIES SHALL BE PLACED WITHIN EXISTING IMPACT AREAS.
4. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.
5. BUILDINGS WILL HAVE 8" THICK CONCRETE SLAB BASE.

FIGURE 12-4A CONSTRUCTION AREA 3 PLAN VIEW A

SCALE: 1"=150'
Revision 1



WETLAND B
AREA = 0.76 acres
USACE OHWM DREDGE = 4,276 CY
USACE OHWM EXCAVATION = 1,855 CY
WETLAND EXCAVATION = 6,131 CY
WETLAND FILL = 5,805 CY

WETLAND C
AREA = 6.93 acres
USACE OHWM DREDGE = 55,772 CY
USACE OHWM EXCAVATION = NA
WETLAND EXCAVATION = 55,772 CY
WETLAND FILL = 71,226 CY

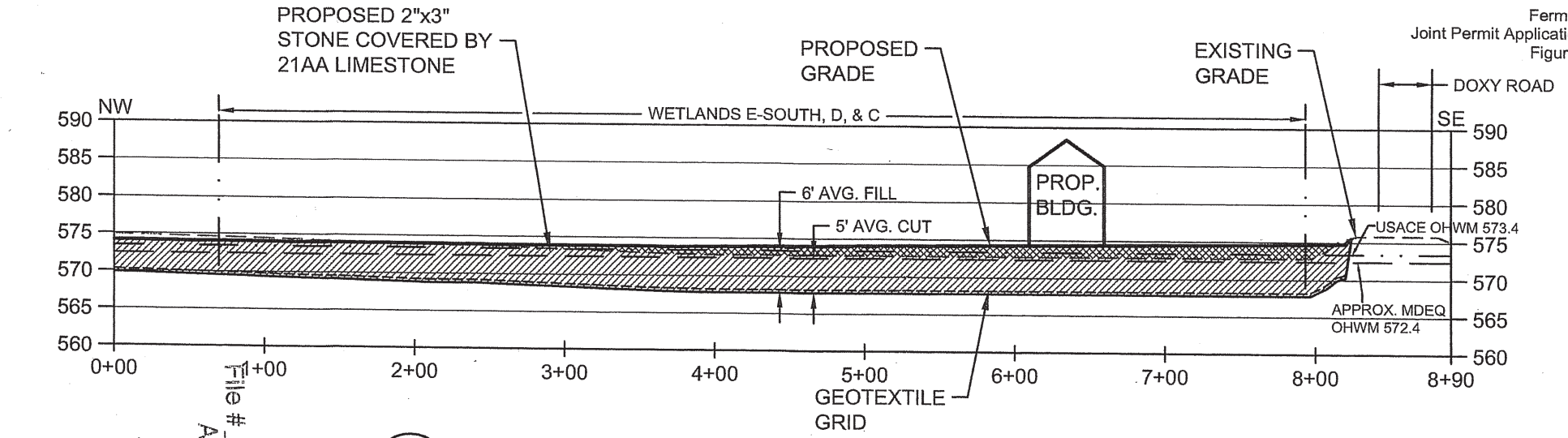
WETLAND D
AREA = 1.37 acres
USACE OHWM DREDGE = 11,039 CY
USACE OHWM EXCAVATION = NA
WETLAND EXCAVATION = 11,039 CY
WETLAND FILL = 12,341 CY

WETLAND E-NORTH
AREA = 1.87 acres
USACE OHWM DREDGE = 12,193 CY
USACE OHWM EXCAVATION = 2,885 CY
WETLAND EXCAVATION = 15,078 CY
WETLAND FILL = 15,465 CY

WETLAND E-SOUTH
AREA = 2.04 acres
USACE OHWM DREDGE = 14,361 CY
USACE OHWM EXCAVATION = 2,083 CY
WETLAND EXCAVATION = 16,444 CY
WETLAND FILL = 17,043 CY

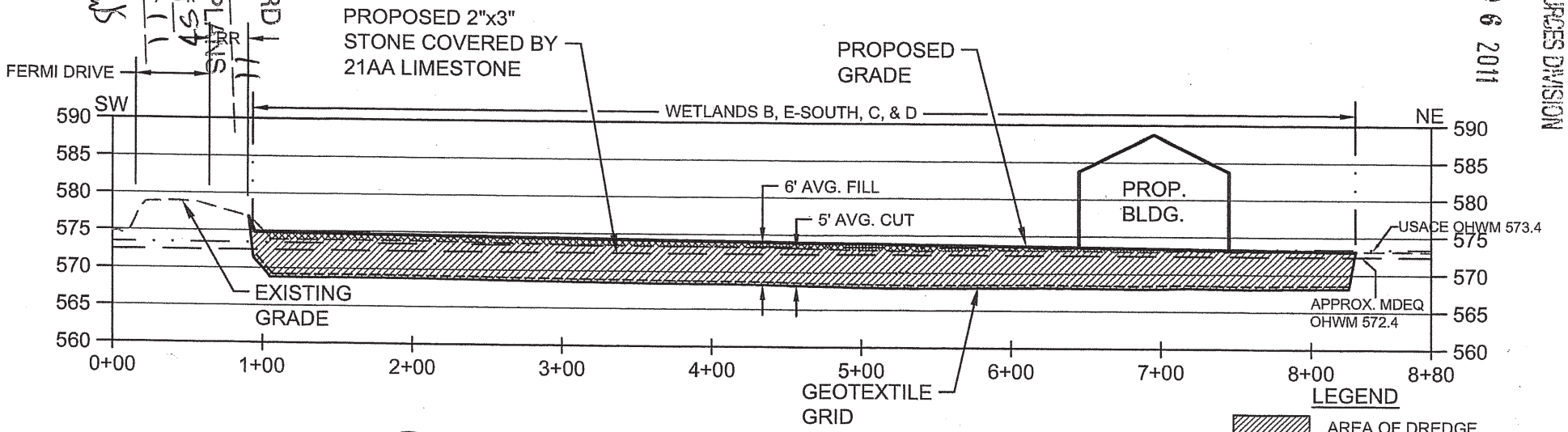
FIGURE 12-4B CONSTRUCTION AREA 3 PLAN VIEW B

SCALE: 1"=150'



A CONSTRUCTION AREA 3 SECTION

SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)

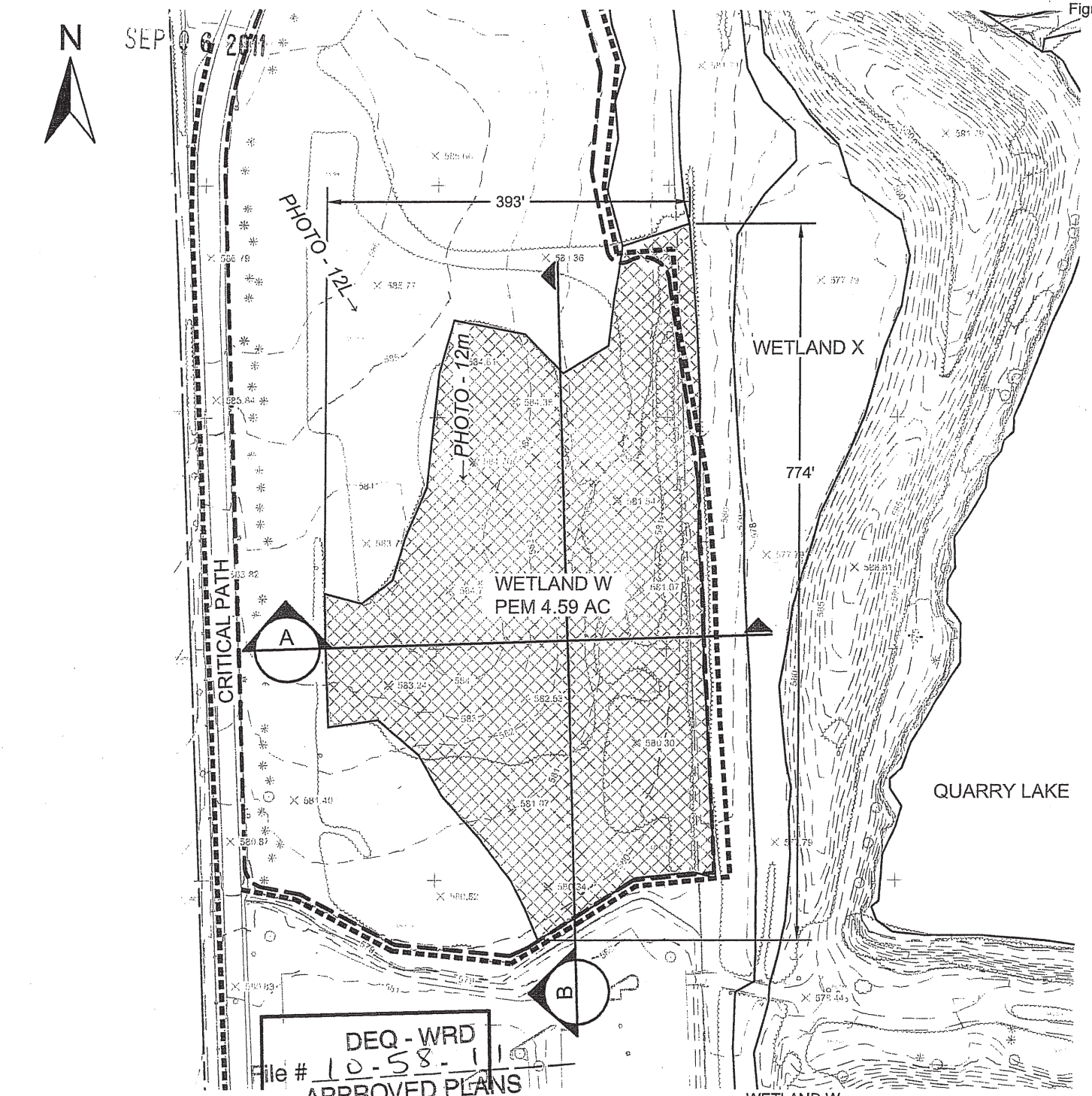


B CONSTRUCTION AREA 3 SECTION

SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)

NOTE: UTILITIES WILL BE ABOVE GEOTEXTILE FABRIC

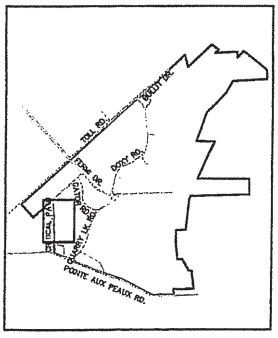
FIGURE 12-4C CONSTRUCTION AREA 3 SECTION DETAILS



NOTE:
1. AREA WITHIN LIMITS OF CONSTRUCTION ACTIVITY WILL BE USED FOR SUBCONTRACTOR GRAVEL PARKING.
2. UTILITIES SHALL BE PLACED IN UPLAND AREAS.
3. SPOILS FROM EXCAVATION WILL BE PLACED IN CONSTRUCTION AREA 1.
4. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.

WETLAND W
AREA = 4.59 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = 15,211 CY
WETLAND EXCAVATION = 15,211 CY
WETLAND FILL = 20,989 CY

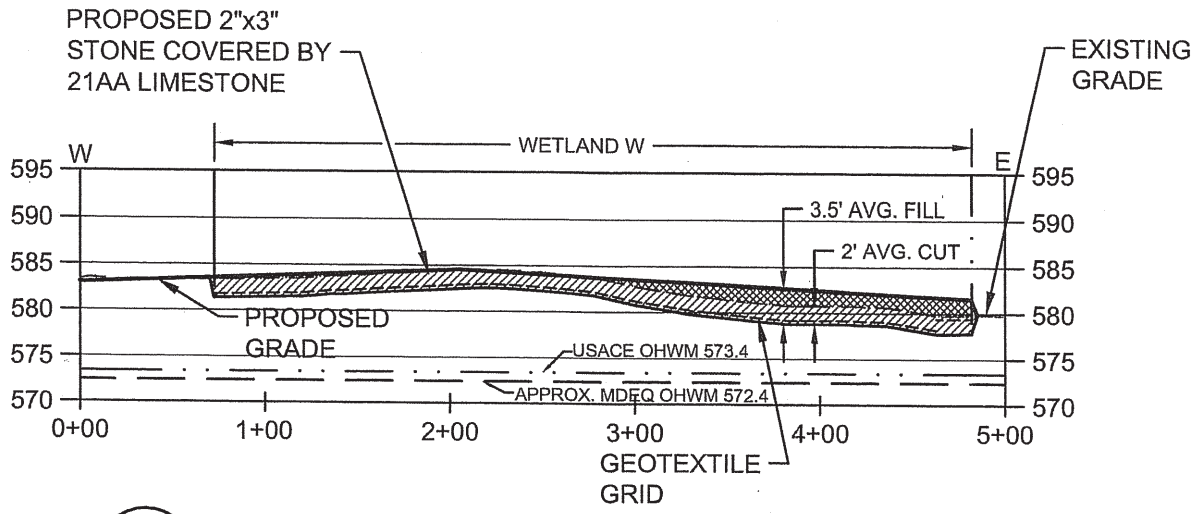
LEGEND
- AREA OF WETLAND FILL
- CONTOURS
- LIMITS OF CONSTRUCTION
- SILT FENCE
- WETLAND LIMIT
- PROPOSED BUILDING



LOCATION MAP

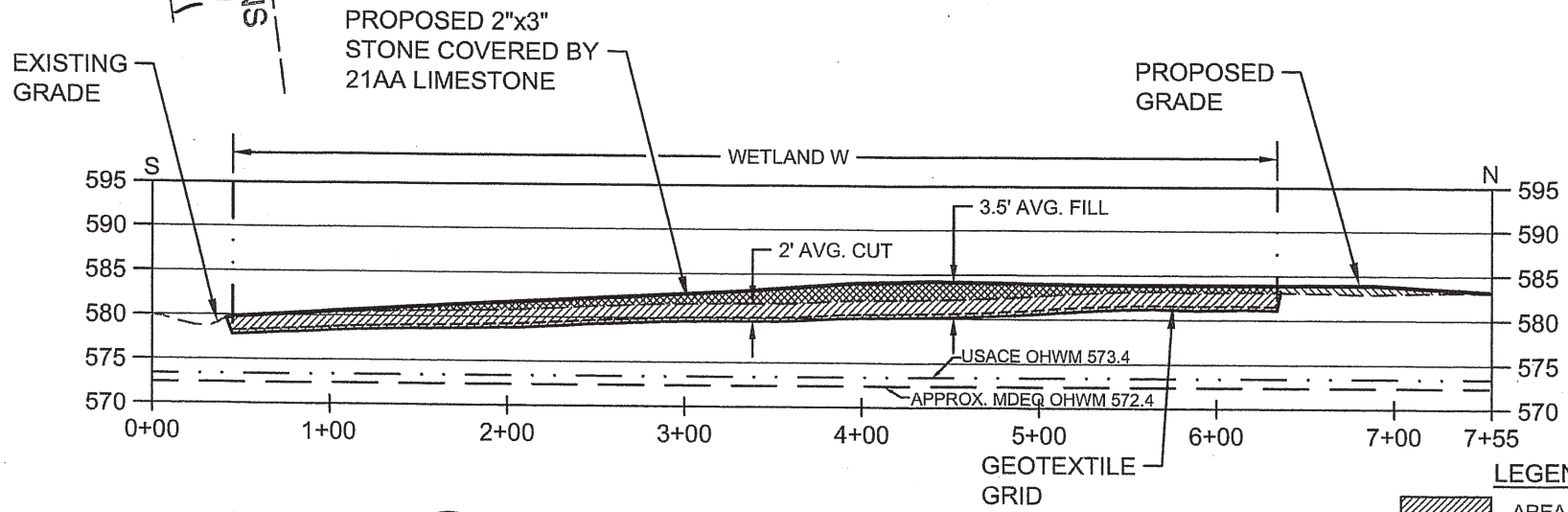
FIGURE 12-5A CONSTRUCTION AREA 4 PLAN VIEW

SCALE: 1"=150'



A CONSTRUCTION AREA 4 SECTION

SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)



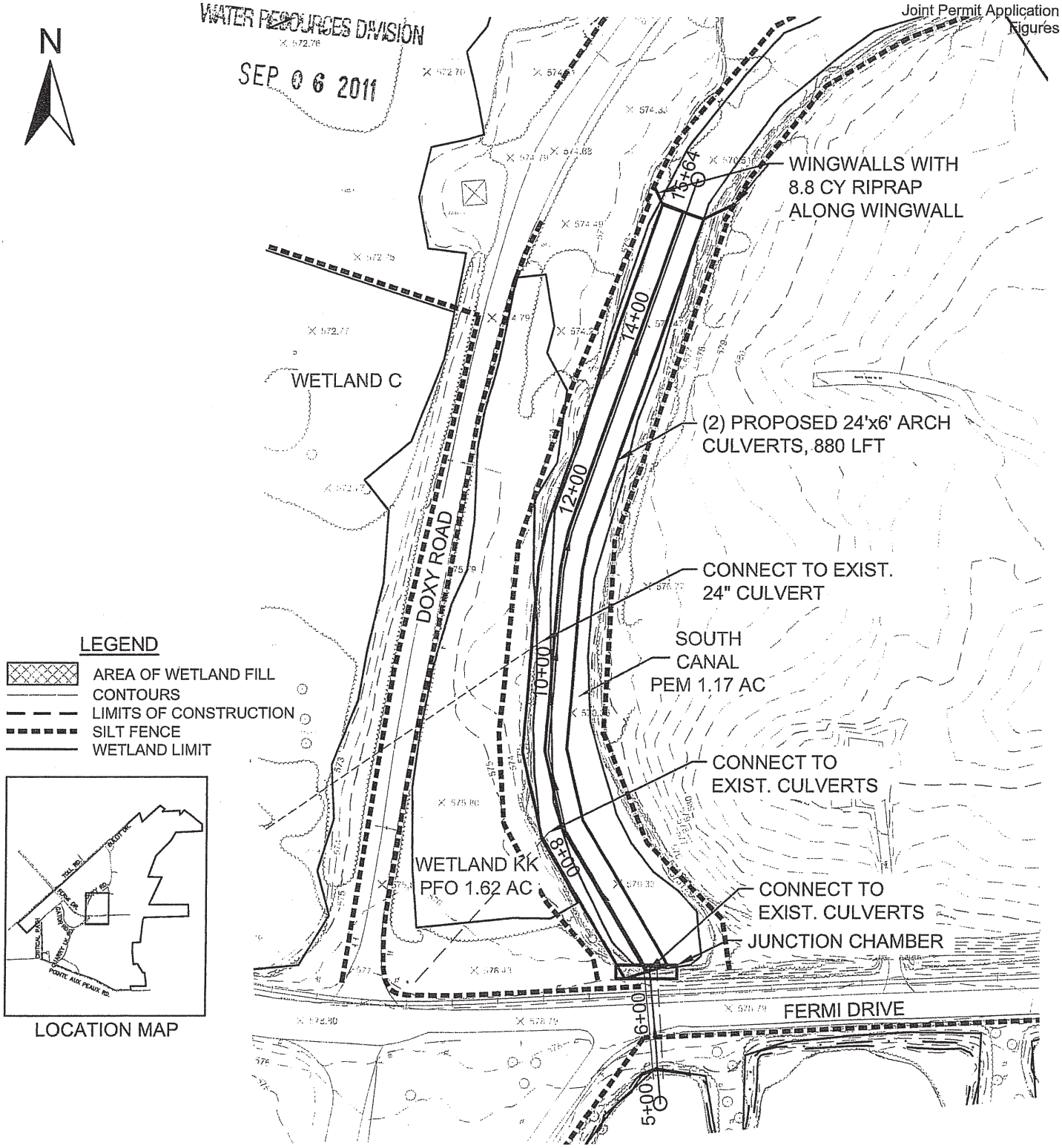
B CONSTRUCTION AREA 4 SECTION

SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)

LEGEND

- AREA OF EXCAVATION
- AREA OF UPLAND FILL
- AREA OF WETLAND FILL
- USACE OHWM
- APPROX. MDEQ OHWM

FIGURE 12-5B CONSTRUCTION AREA 4 SECTION DETAILS



DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 25 of 57
12/02/11

FIGURE 10-3A CONSTRUCTION AREA 5 PLAN VIEW

SCALE: 1"=150'

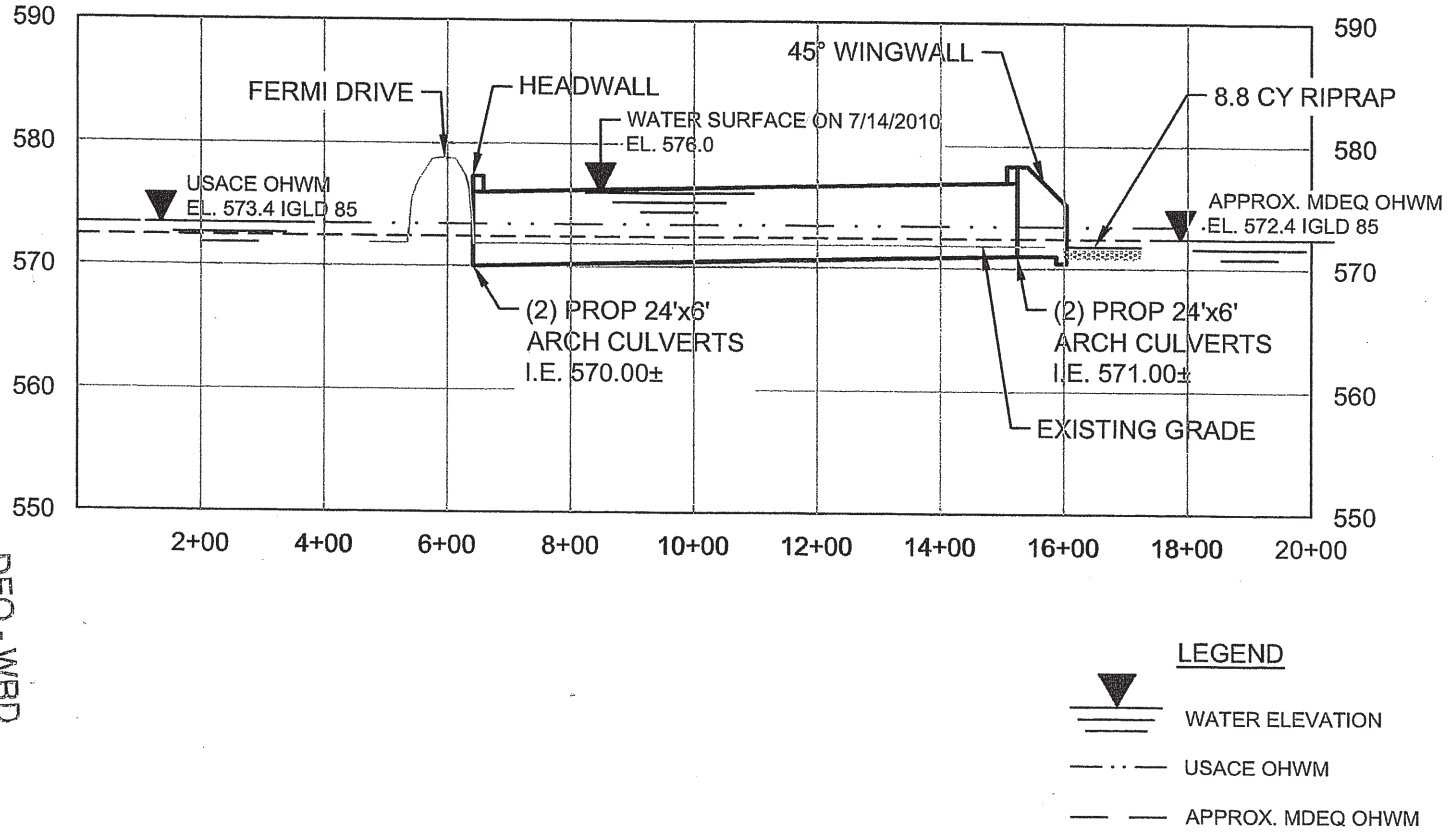
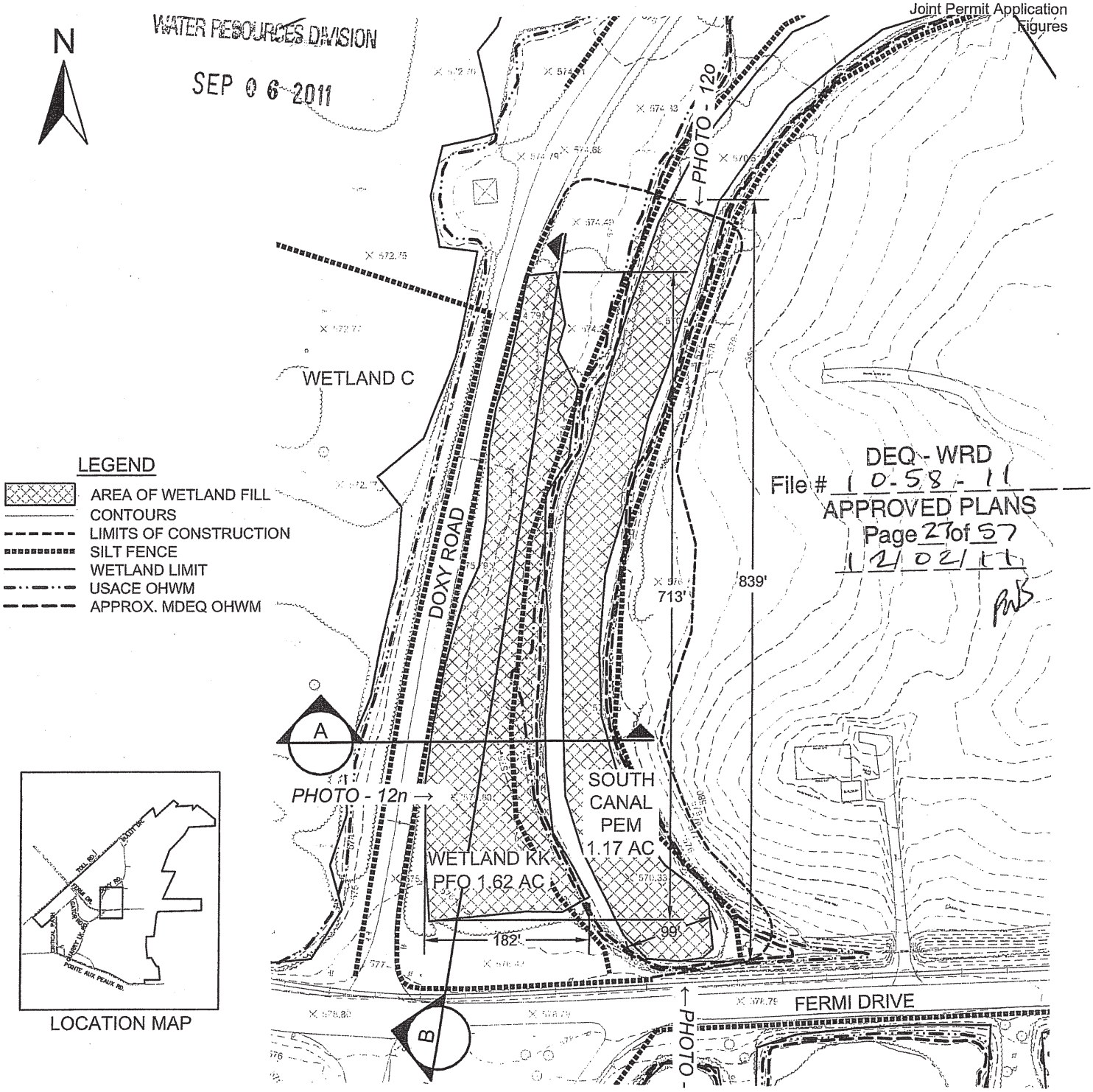


FIGURE 10-3B
CONSTRUCTION AREA 5 PROFILE OF PROPOSED SOUTH CANAL CULVERTS

SCALE: 1"=300' HORZ.; 1"=20' VERT. (IGLD 85 DATUM)



LOCATION MAP

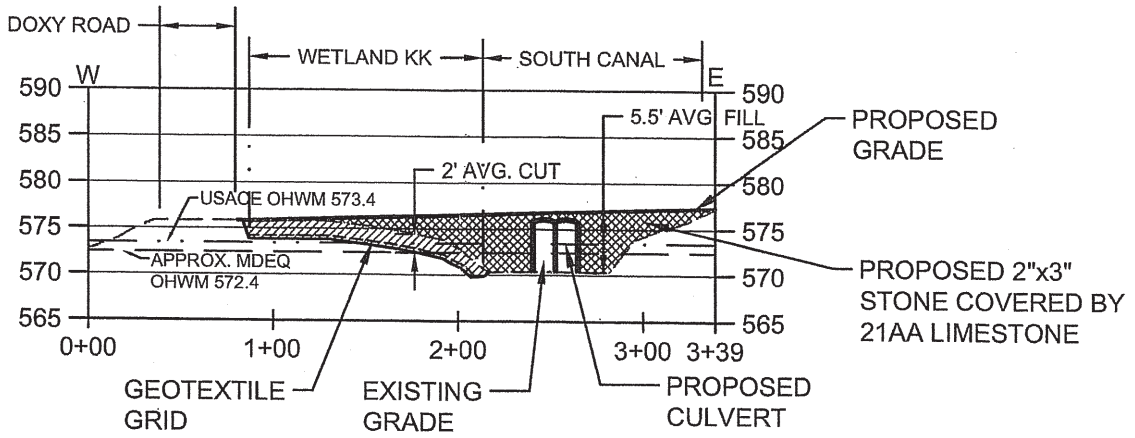
NOTE:
1. AREA WITHIN LIMITS OF CONSTRUCTION ACTIVITY WILL BE USED FOR LAYDOWN.
2. SPOILS FROM EXCAVATION WILL BE PLACED IN CONSTRUCTION AREA 1.
3. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.

WETLAND KK
AREA = 1.62 acres
USACE OHWM DREDGE = 2,065 CY
USACE OHWM EXCAVATION = 3,120 CY
WETLAND EXCAVATION = 5,185 CY
WETLAND FILL = 8,884 CY

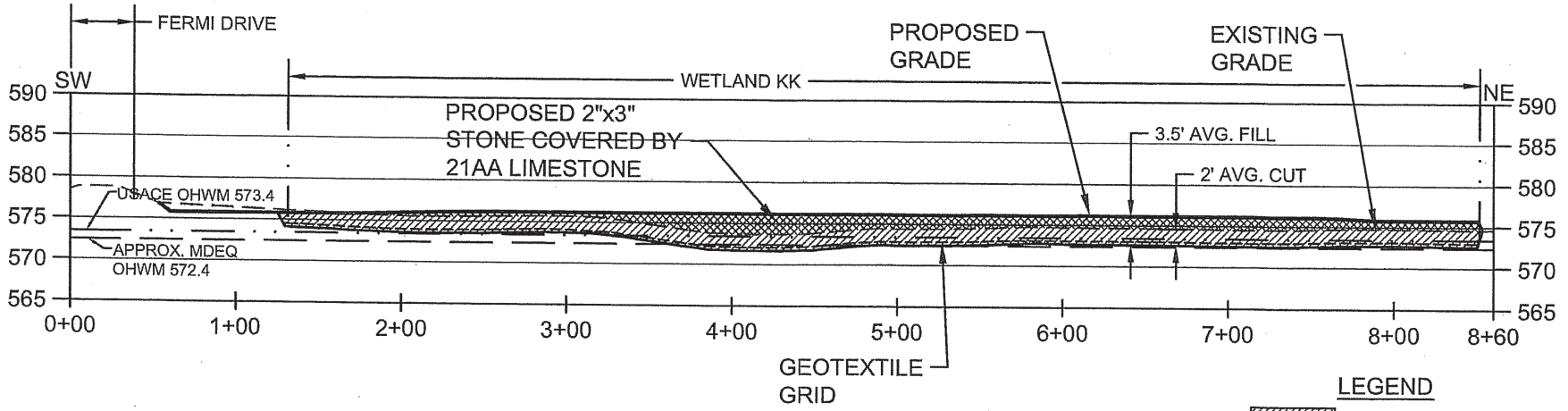
SOUTH CANAL
AREA = 1.17 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = NA
WETLAND EXCAVATION = NA
WETLAND FILL = 11,342 CY

FIGURE 12-6A CONSTRUCTION AREA 5 PLAN VIEW

SCALE: 1"=150'



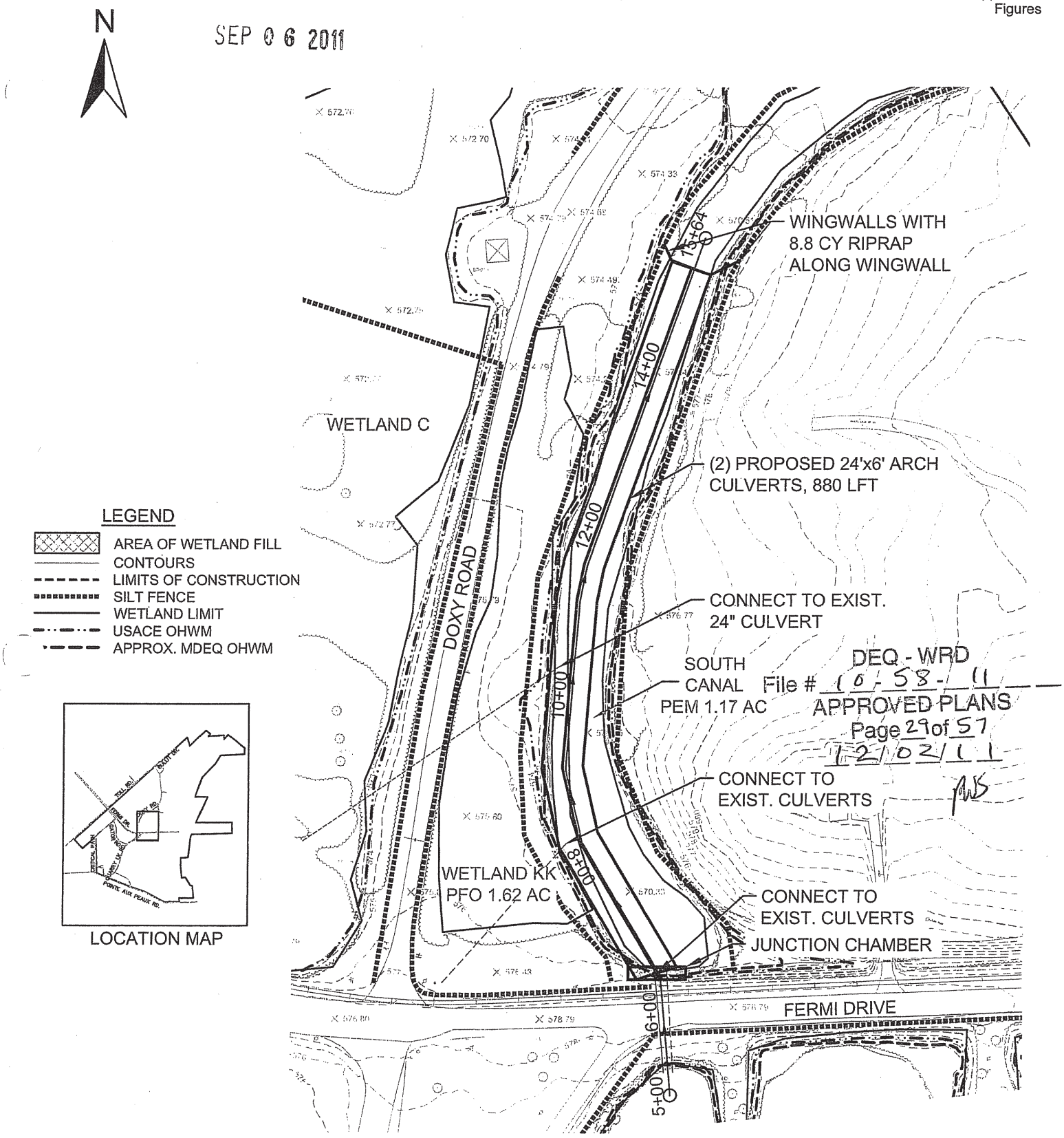
A CONSTRUCTION AREA 5 SECTION
SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)



B CONSTRUCTION AREA 5 SECTION
SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)

LEGEND
- AREA OF EXCAVATION
- AREA OF UPLAND FILL
- AREA OF WETLAND FILL
- USACE OHWM
- APPROX. MDEQ OHWM

FIGURE 12-6B CONSTRUCTION AREA 5 SECTION DETAILS



DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 29 of 57
12/02/11
MS

FIGURE 14-1A CONSTRUCTION AREA 5 PLAN VIEW

SCALE: 1"=150'

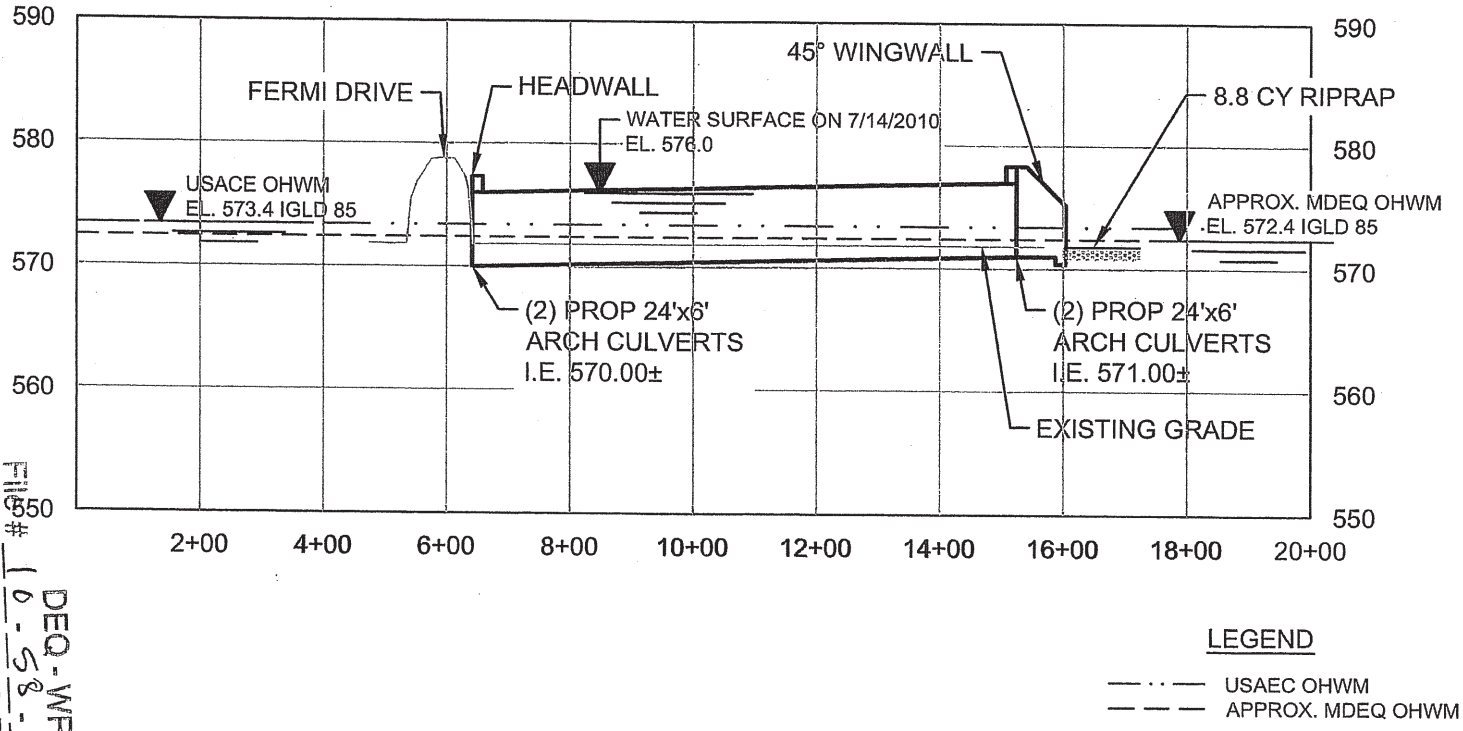
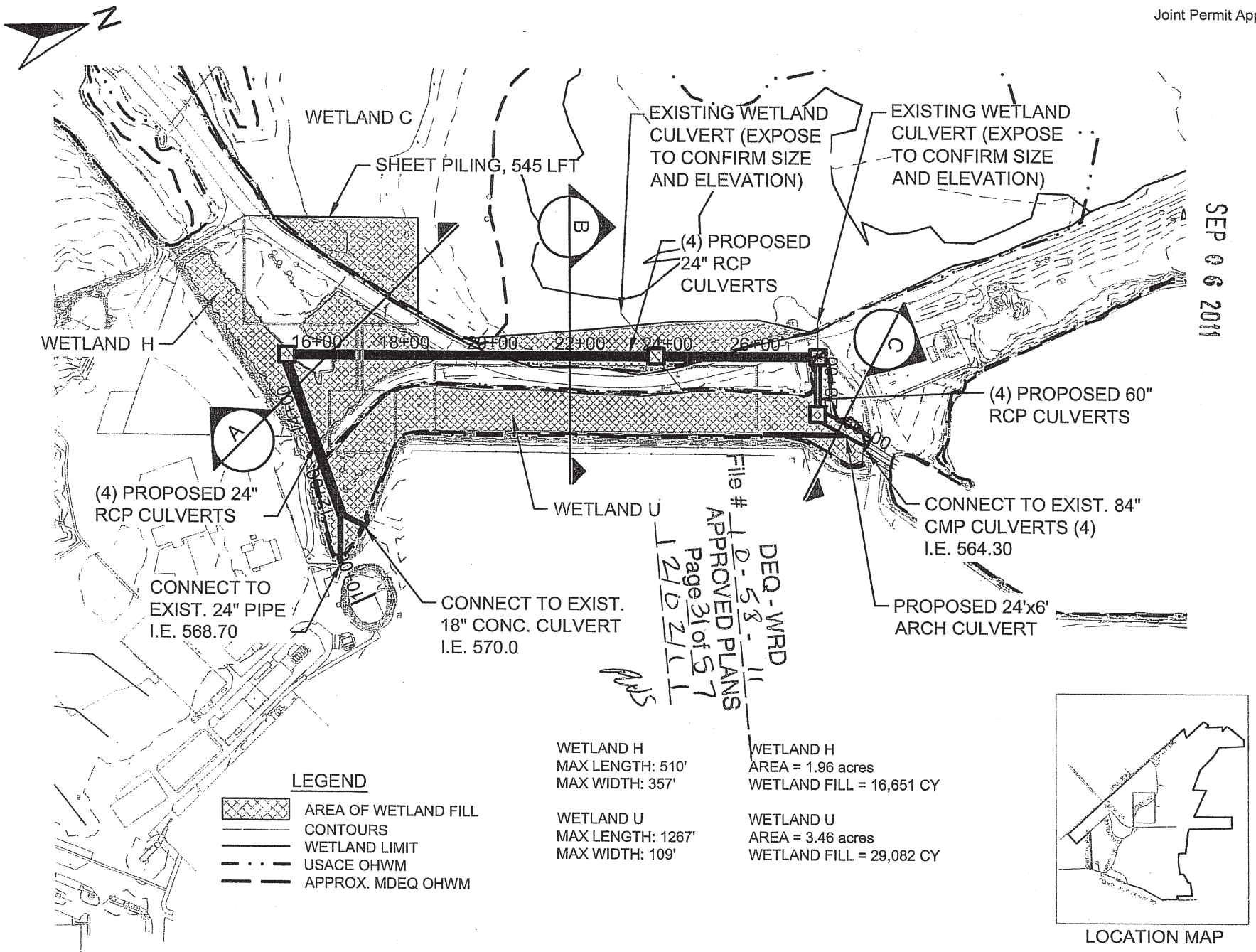


FIGURE 14-1B
CONSTRUCTION AREA 5 PROFILE OF PROPOSED SOUTH CANAL CULVERTS

SCALE: 1"=300' HORZ.; 1"=20' VERT. (IGLD 85 DATUM)



WATER RESOURCES DIVISION
SEP 06 2011

File # 10-58-11
APPROVED PLANS
Page 31 of 57
DEQ - WRD

FIGURE 10-1A
WAREHOUSE, PAP/VIB PARKING GARAGE PLAN VIEW OF CULVERTS AT DOXY ROAD

SCALE: 1"=300'

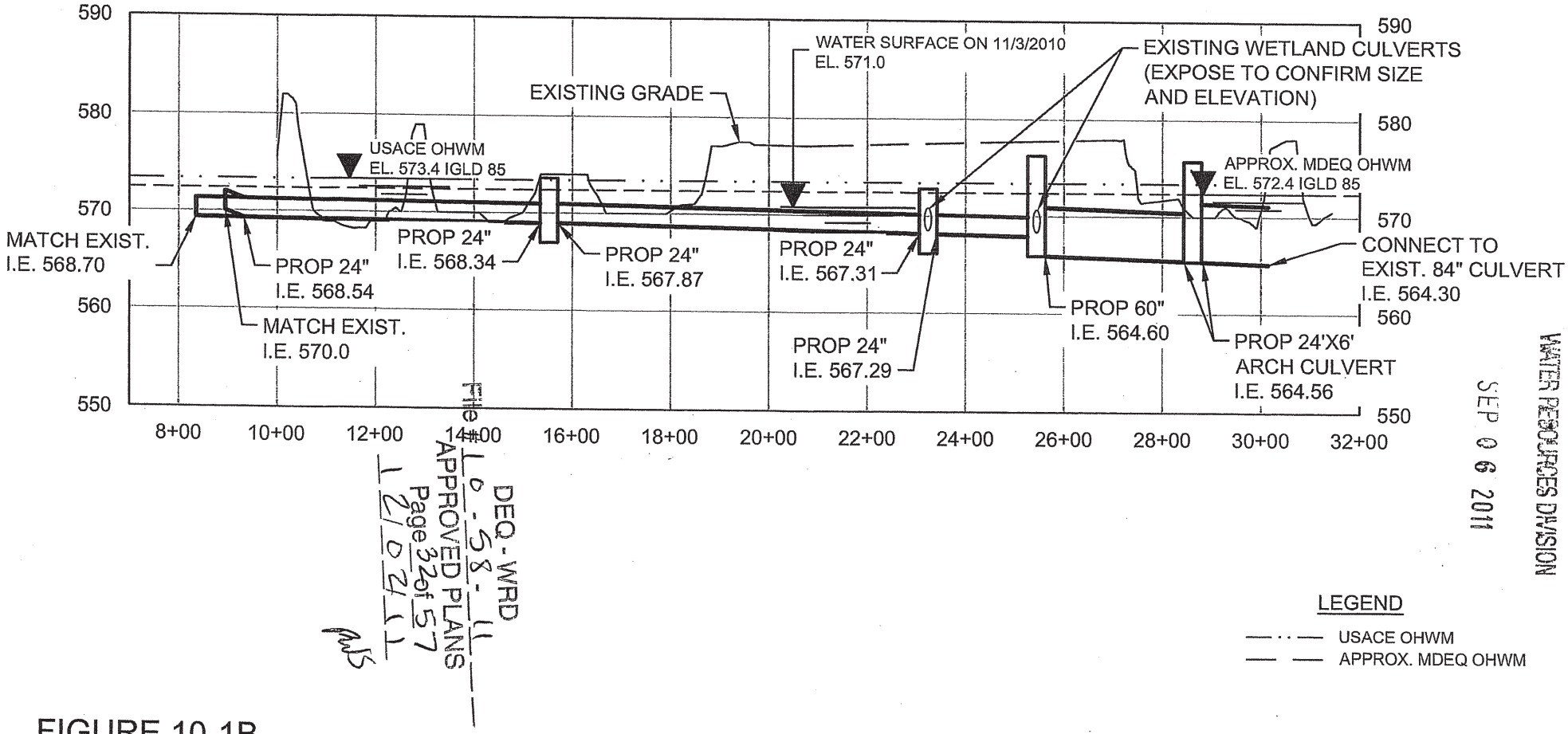
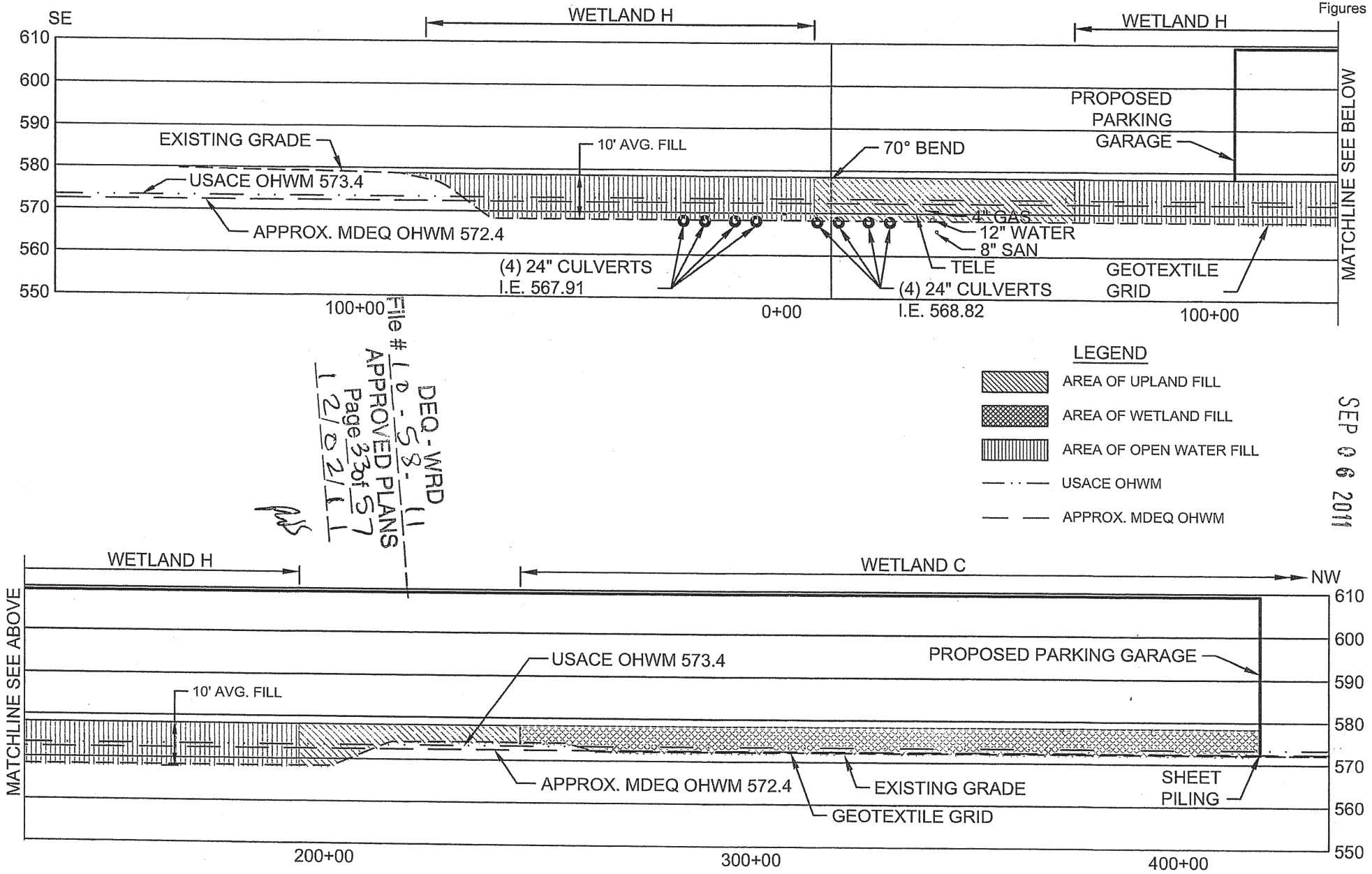


FIGURE 10-1B
WAREHOUSE, PAP/VIB PARKING GARAGE PROFILE OF PROPOSED CULVERTS AT DOXY ROAD

SCALE: 1"=300' HORZ.;1"=20' VERT. (IGLD 85 DATUM)



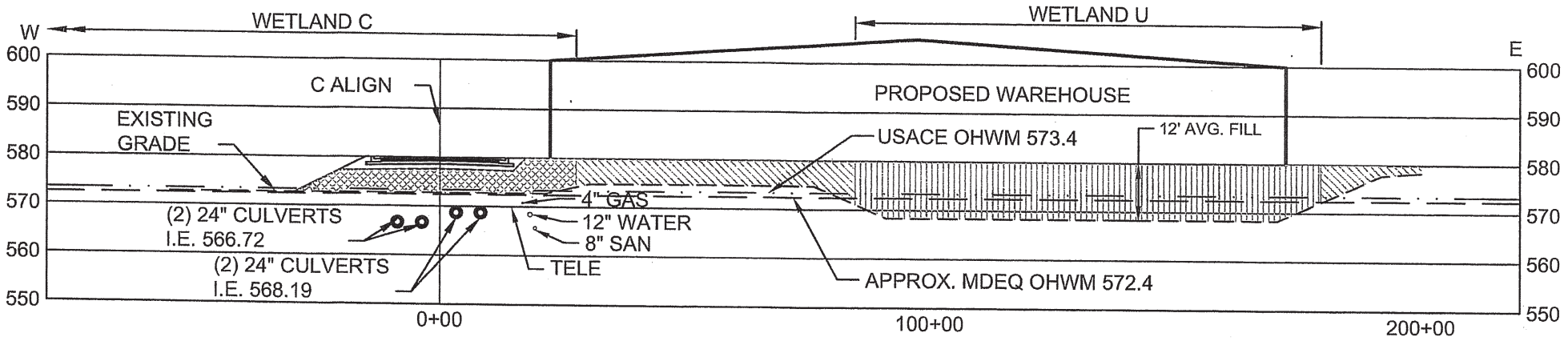
DEQ - WRD
File # L0-S8-11
APPROVED PLANS
Page 33 of 57
12/02/11

SEP 06 2011
WATER RESOURCES DIVISION

A CROSS SECTION OF PROPOSED (4) 24" CULVERTS AT DOXY ROAD STA 14+97.87

SCALE: 1"=30' (IGLD 85 DATUM)

FIGURE 10-1C WAREHOUSE, PAP/VIB PARKING GARAGE SECTION 'A' DETAILS



B

CROSS SECTION OF PROPOSED (4) 24" CULVERTS AT DOXY ROAD STA 22+00

SCALE: 1"=30' (IGLD 85 DATUM)

LEGEND

- AREA OF UPLAND FILL
- AREA OF WETLAND FILL
- AREA OF OPEN WATER FILL
- USACE OHWM
- APPROX. MDEQ OHWM

FIGURE 10-1D WAREHOUSE, PAP/VIB PARKING GARAGE SECTION 'B' DETAILS

NOTE:
1. AREA WITHIN LIMITS OF CONSTRUCTION ACTIVITY WILL BE USED FOR SUBCONTRACTOR BUILDINGS AND GRAVEL PARKING.
2. SPOILS FROM EXCAVATION WILL BE PLACED IN CONSTRUCTION AREA 1.
3. UTILITIES SHALL BE PLACED WITHIN EXISTING IMPACT AREAS.
4. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.

WETLAND C
AREA = 2.24 acres
USACE OHWM DREDGE = 17,991 CY
USACE OHWM EXCAVATION = NA
WETLAND EXCAVATION = 17,991 CY
WETLAND FILL = 38,172 CY

WETLAND H
AREA = 1.96 acres
WETLAND FILL = 16,651 CY

WETLAND U
AREA = 3.46 acres
WETLAND FILL = 29,082 CY

SEE FIGURE 10-1D SECTION 10 FOR DETAIL

DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 35 of 57
12/02/11

PHOTO - 12s
PHOTO - 12q
PHOTO - 12t
PHOTO - 12r
PHOTO - 12u

WETLAND C
DOXY ROAD
WETLAND U
PEM 3.46 AC
WETLAND C
PEM 2.24 AC
WETLAND H
PEM 1.96 AC
DOXY ROAD

801'
115'
1267'
226'
109'
331'
357'
510'

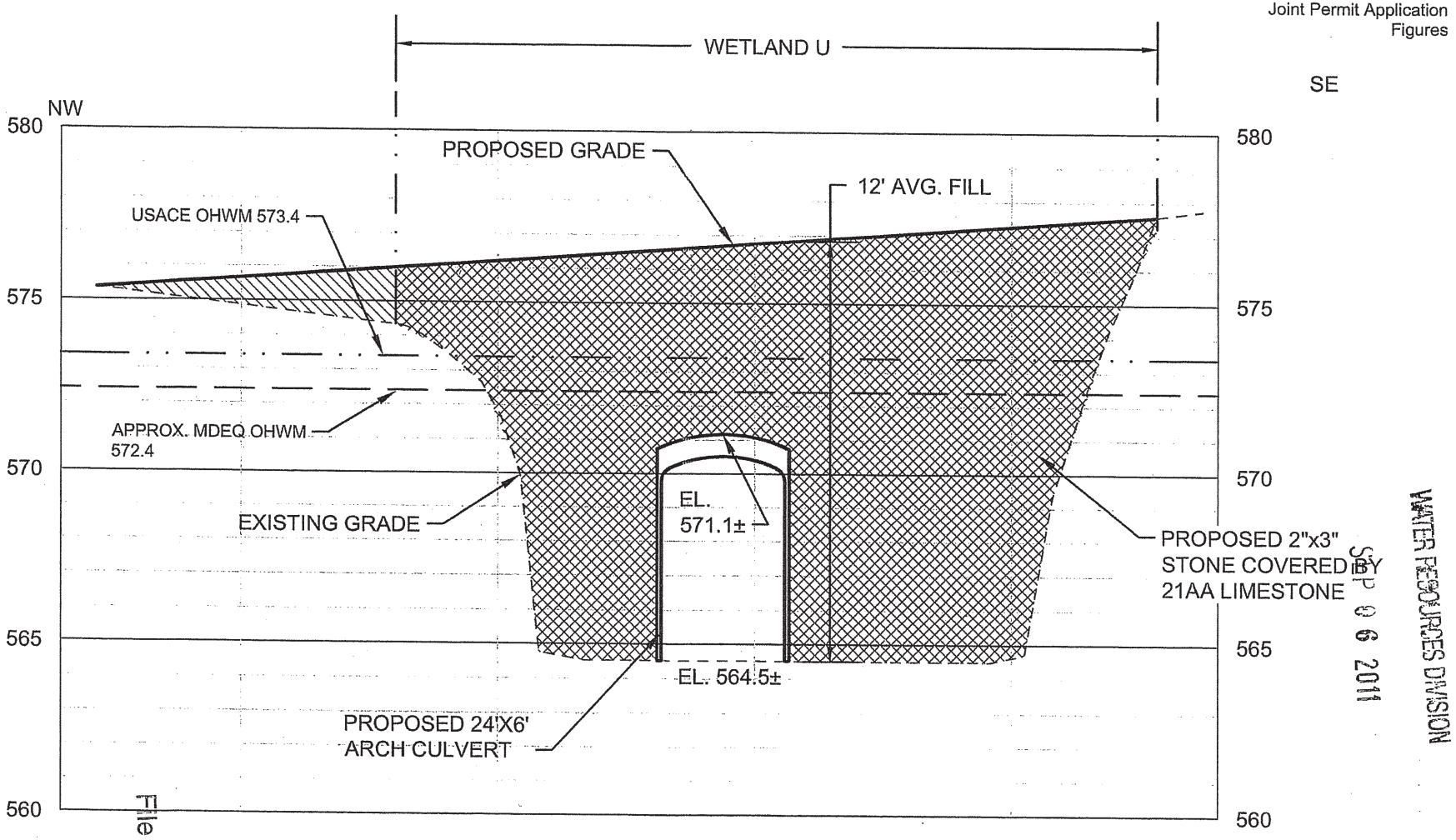
LOCATION MAP

SEE FIGURE 10-1C SECTION 10 FOR DETAIL

LEGEND
- AREA OF WETLAND FILL
- CONTOURS
- LIMITS OF CONSTRUCTION
- SILT FENCE
- WETLAND LIMIT
- USACE OHWM
- APPROX. MDEQ OHWM
- PROPOSED BUILDING

FIGURE 12-7A
WAREHOUSE, PAP/VIB AND PARKING GARAGE PLAN VIEW

SCALE: 1"=150'
Revision 1



C

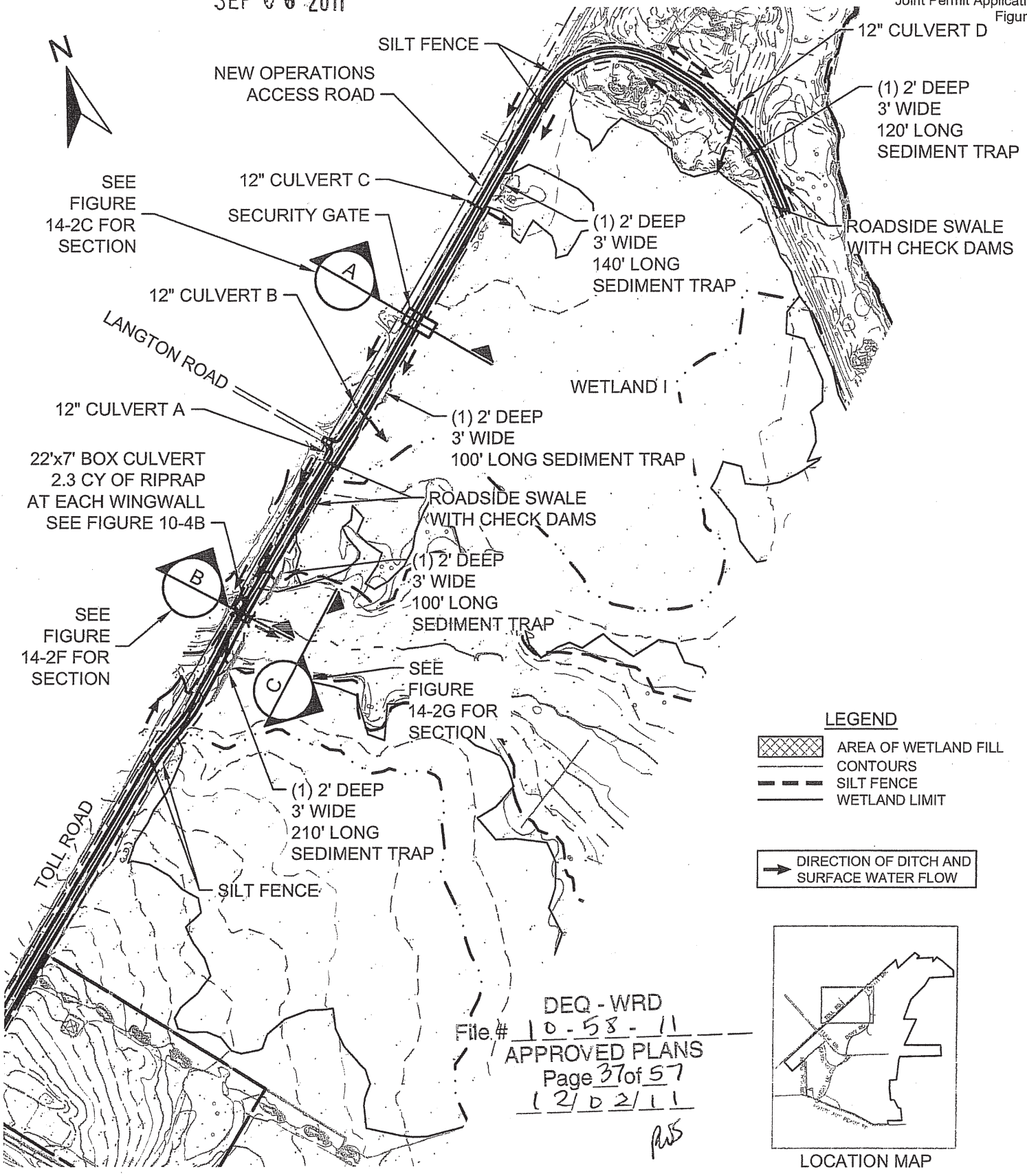
CROSS SECTION OF PROPOSED 24'X6' CULVERT AT DOXY ROAD STA 29+75

SCALE: 1"=30' HORZ. 1"=3' VERT. (IGLD 85 DATUM)

LEGEND

- AREA OF EXCAVATION
- AREA OF UPLAND FILL
- AREA OF WETLAND FILL
- USACE OHWM
- APPROX. MDEQ OHWM

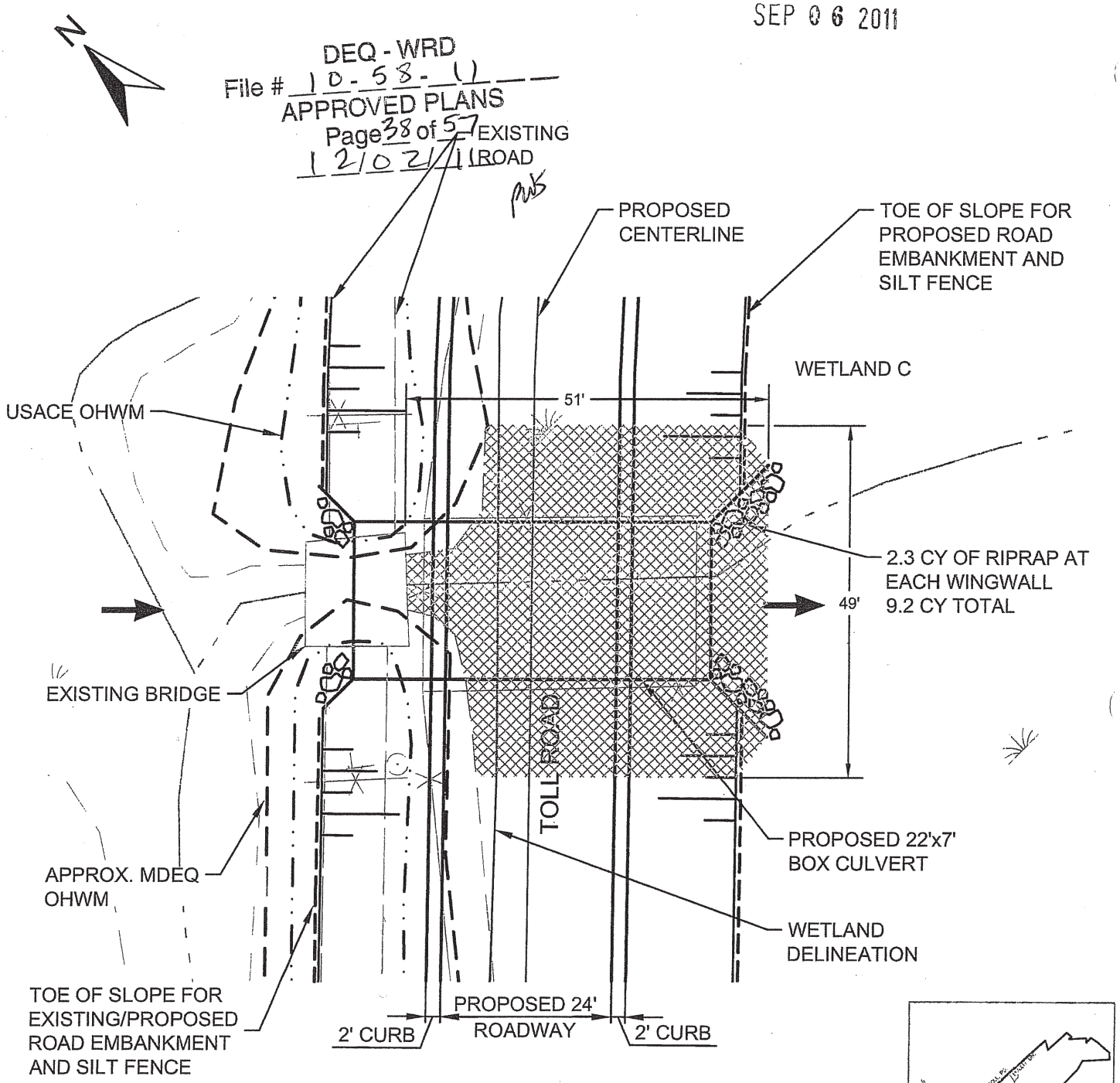
FIGURE 12-7B WAREHOUSE, PAP/VIB PARKING GARAGE SECTION 'C' DETAILS



DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 37 of 57
12/02/11

FIGURE 10-4A NEW OPERATIONS ACCESS ROAD PLAN VIEW

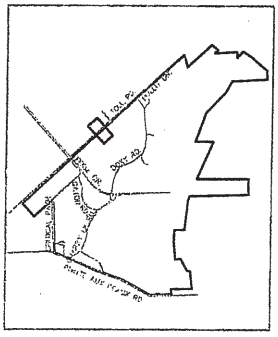
SCALE: 1"=500'



DIRECTION OF DITCH AND SURFACE WATER FLOW

LEGEND

- AREA OF WETLAND FILL
- CONTOURS
- SILT FENCE
- WETLAND LIMIT
- USACE OHWM
- APPROX. MDEQ OHWM



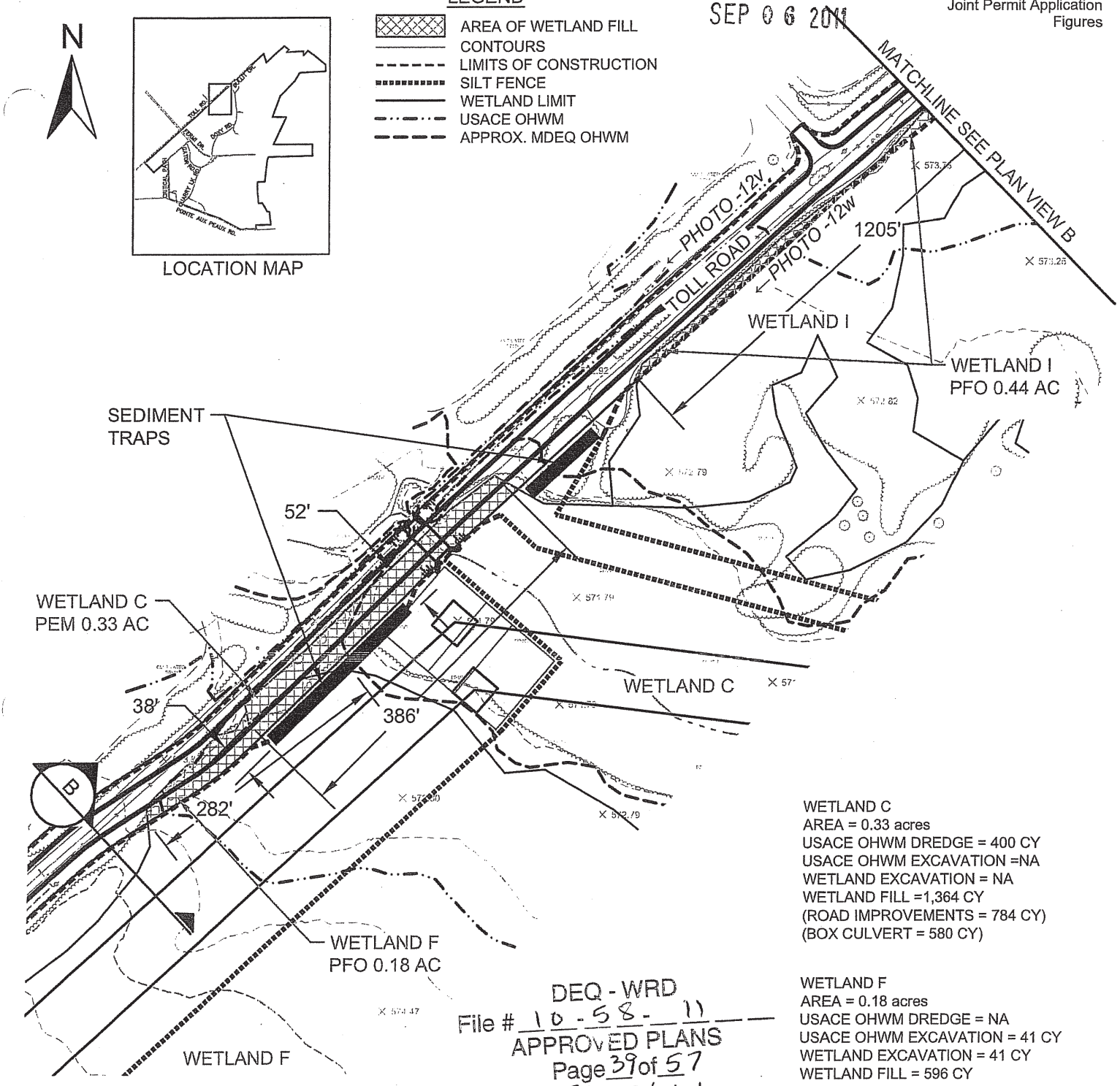
LOCATION MAP

NOTE:
NO PROPOSED WETLAND IMPACTS ALONG NORTHWESTERLY EDGE OF ROAD.

WETLAND C IMPACTS, BOX CULVERT ONLY
USACE OHWM DREDGE = 400 CY
USACE WETLAND FILL = 580 CY
APPROX. MDEQ OHWM DREDGE = 340 CY
APPROX. MDEQ OHWM FILL = 580 CY

FIGURE 10-4B
NEW OPERATIONS ACCESS ROAD 22'x7' BOX CULVERT PLAN VIEW

SCALE: 1"=20'



WETLAND C
AREA = 0.33 acres
USACE OHWM DREDGE = 400 CY
USACE OHWM EXCAVATION =NA
WETLAND EXCAVATION = NA
WETLAND FILL =1,364 CY
(ROAD IMPROVEMENTS = 784 CY)
(BOX CULVERT = 580 CY)

WETLAND F
AREA = 0.18 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = 41 CY
WETLAND EXCAVATION = 41 CY
WETLAND FILL = 596 CY

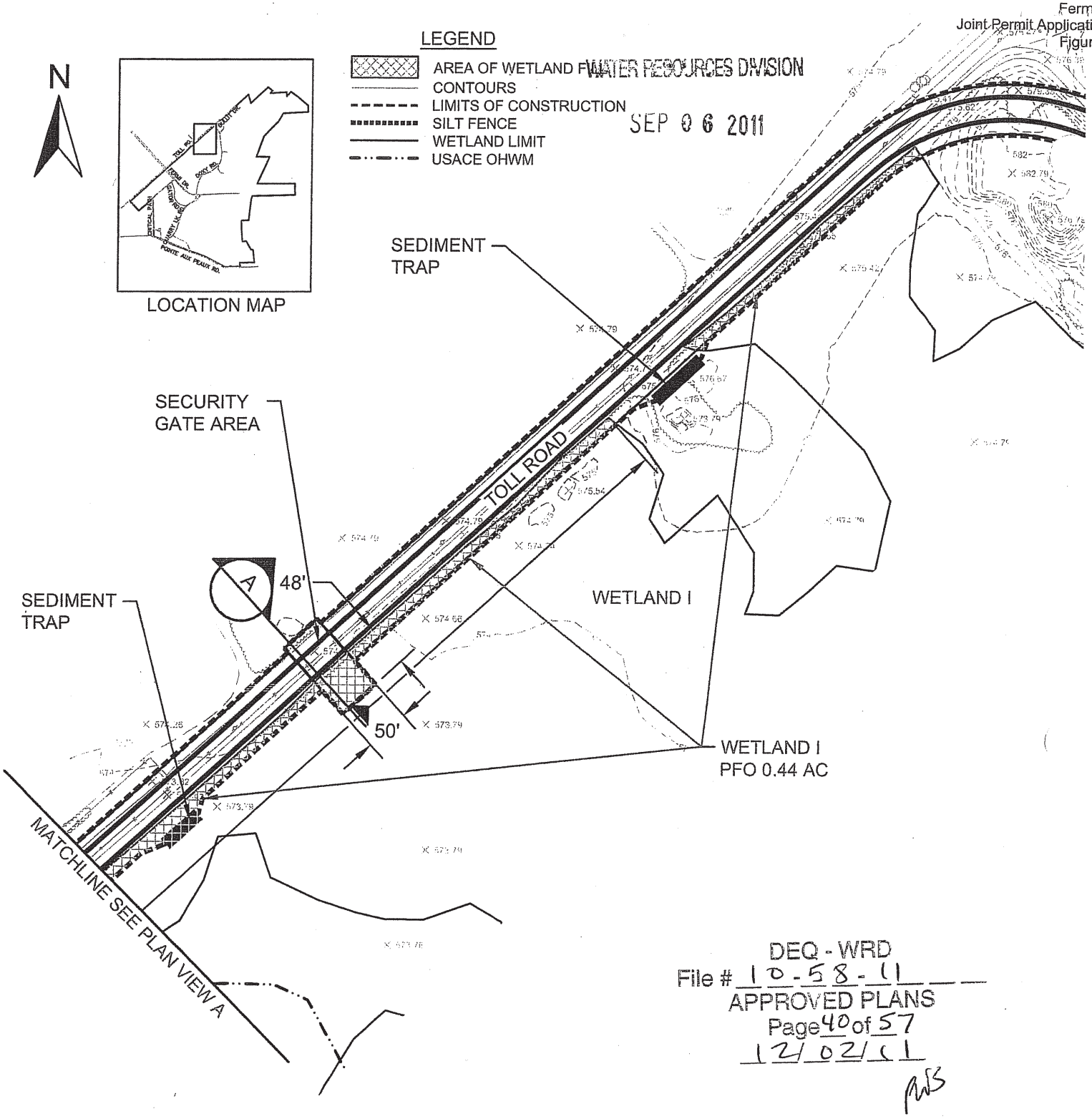
WETLAND I
AREA = 0.44 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = 37 CY
WETLAND EXCAVATION = 37 CY
WETLAND FILL = 603 CY

DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 39 of 57
12/02/11

NOTE:
1. SPOILS FROM EXCAVATION WILL BE PLACED IN CONSTRUCTION AREA 1.
2. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.
3. WETLAND C IMPACTS ARE FROM THE ROAD IMPROVEMENTS AND BOX CULVERT. (FIGURE 14-2E)

FIGURE 12-8A NEW OPERATIONS ACCESS ROAD PLAN VIEW A

SCALE: 1"=150'



WATER RESOURCES DIVISION
SEP 0 6 2011

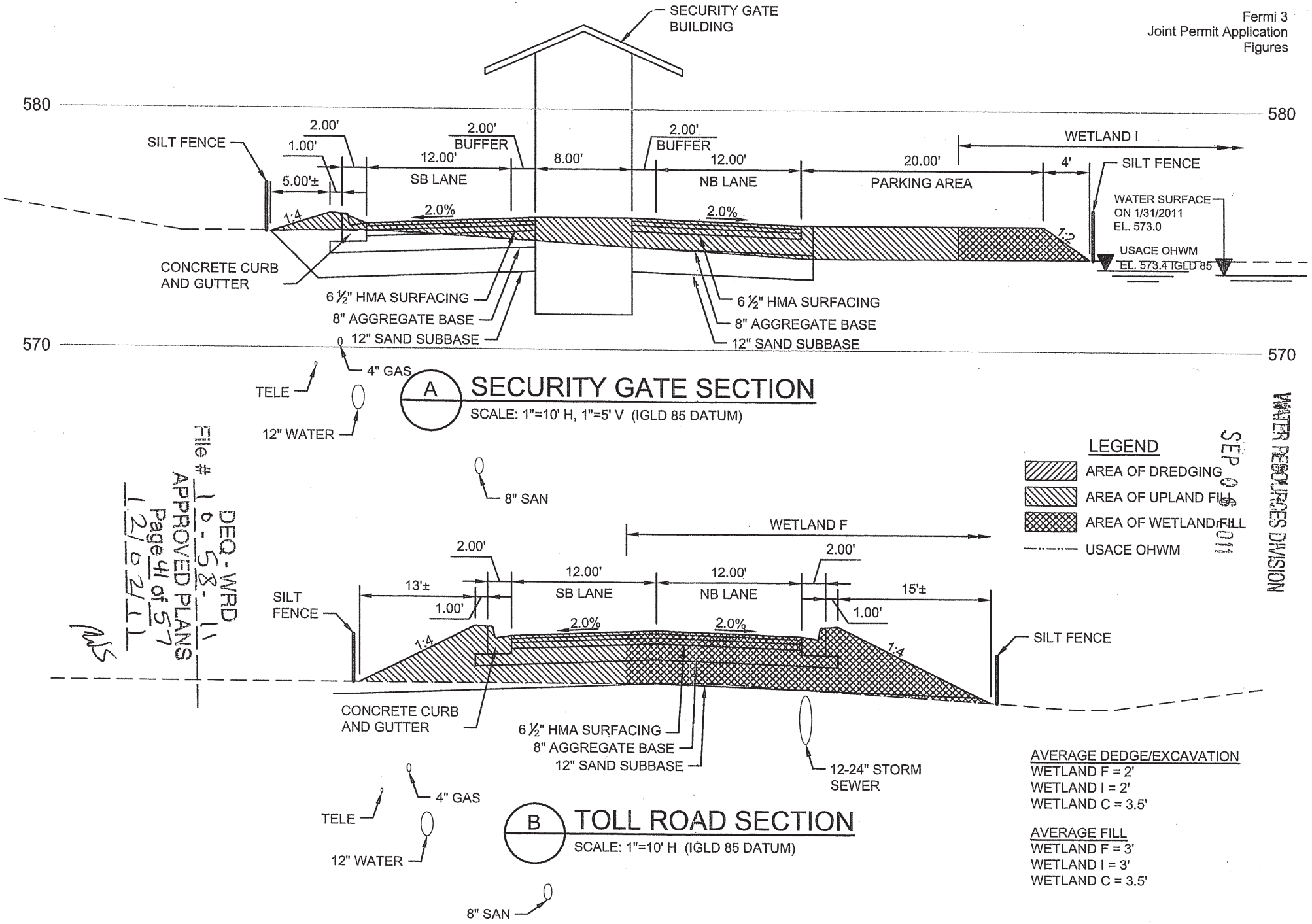
DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 40 of 57
12/02/11

NOTE:
1. SPOILS FROM EXCAVATION WILL BE PLACED IN CONSTRUCTION AREA 1.
2. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.

WETLAND I
AREA = 0.44 acres
USACE OHWM DREDGE = NA
USACE OHWM EXCAVATION = 37 CY
WETLAND EXCAVATION = 37 CY
WETLAND FILL = 603 CY

FIGURE 12-8B NEW OPERATIONS ACCESS ROAD PLAN VIEW B

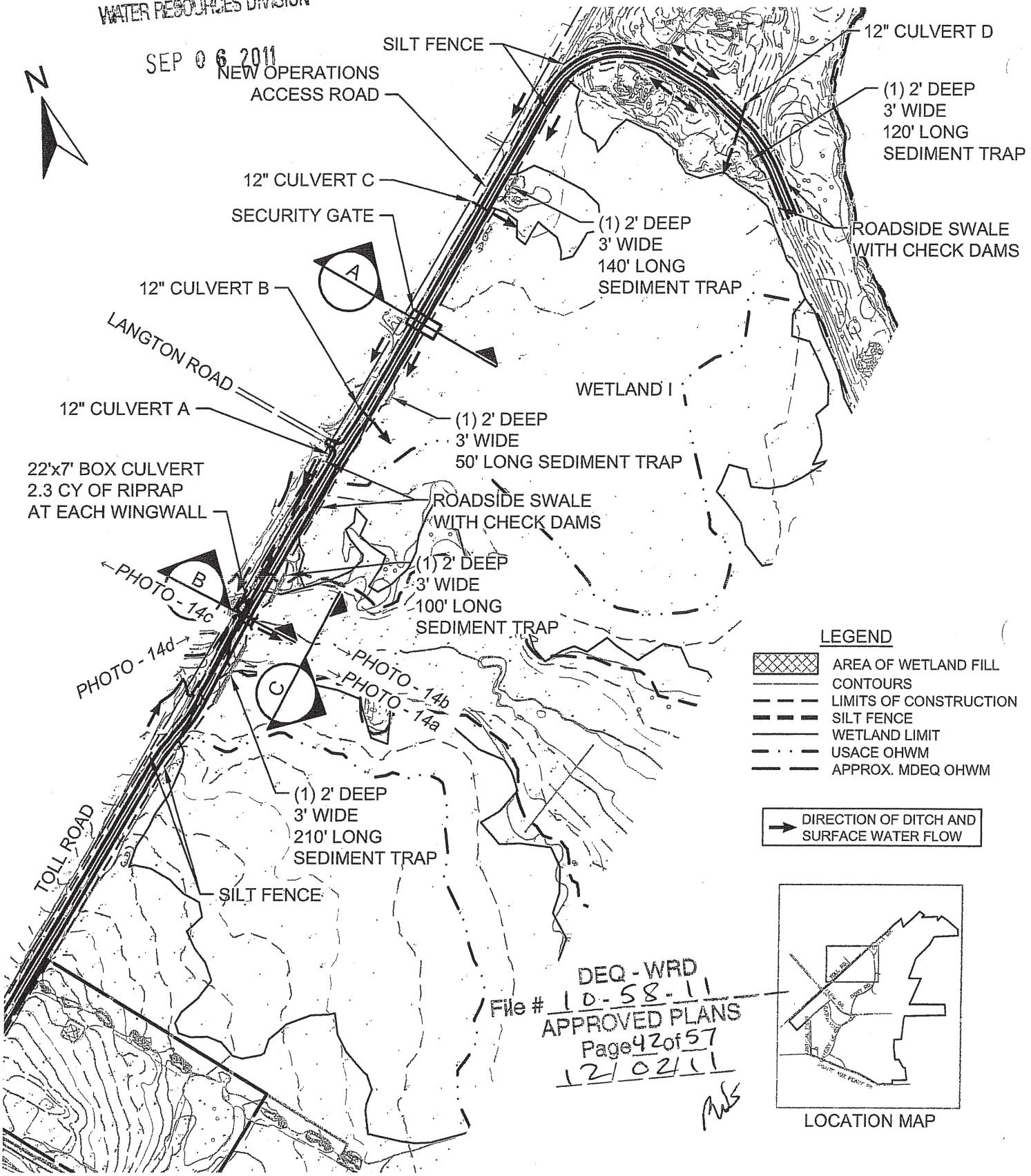
SCALE: 1"=150'



DEQ - WRD
File # 1 0 - 58 - 11
APPROVED PLANS
Page 41 of 57
12/02/2011

WATER RESOURCES DIVISION
SEP 0 8 2011

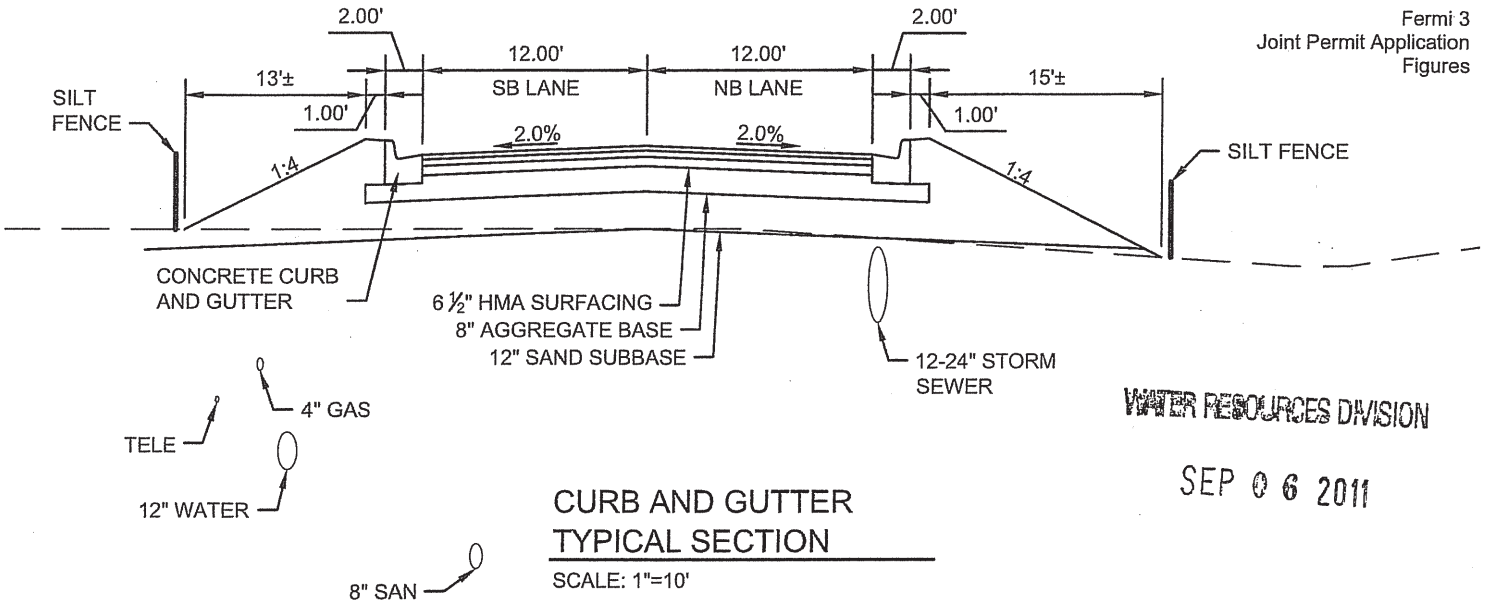
FIGURE 12-8C NEW OPERATIONS ACCESS ROAD SECTION DETAILS



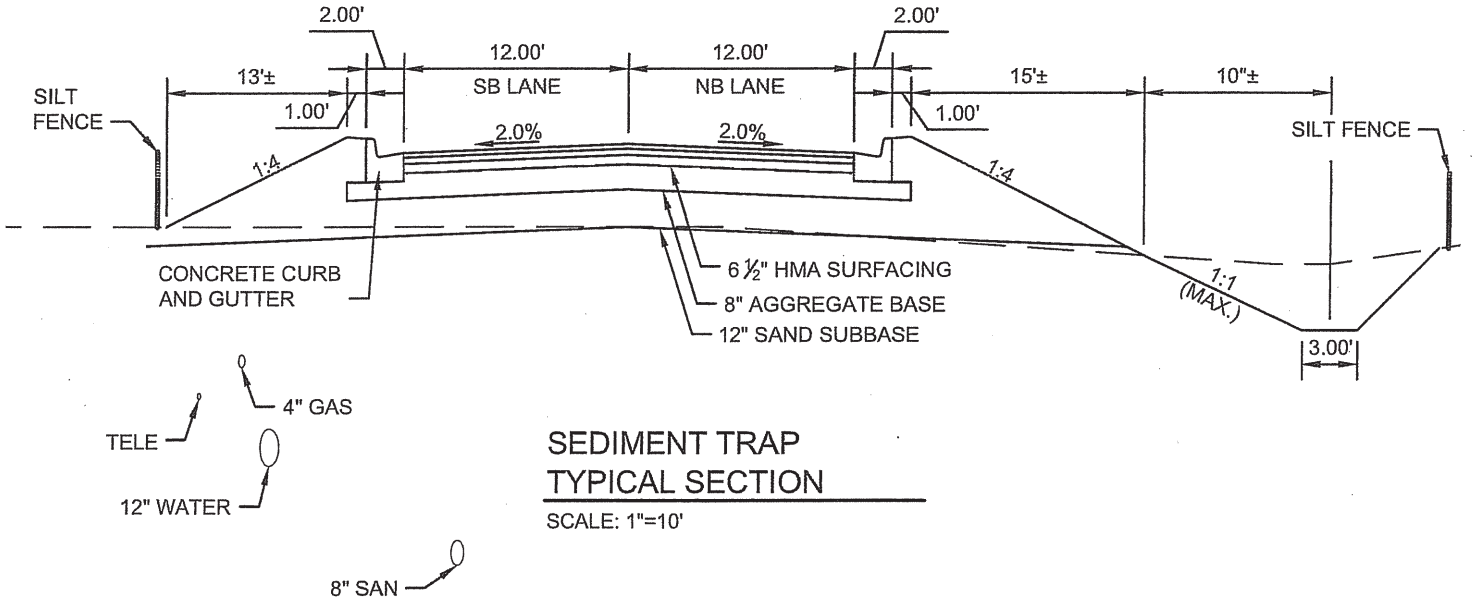
DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 42 of 57
12/02/11

FIGURE 14-2A NEW OPERATIONS ACCESS ROAD PLAN VIEW

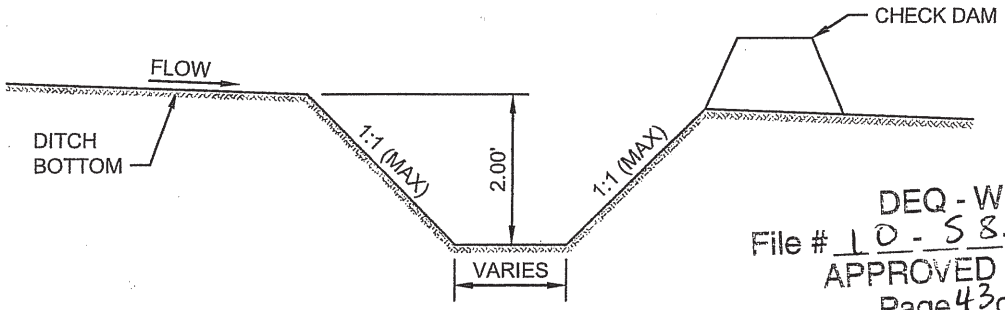
SCALE: 1"=500'



CURB AND GUTTER
TYPICAL SECTION
SCALE: 1"=10'

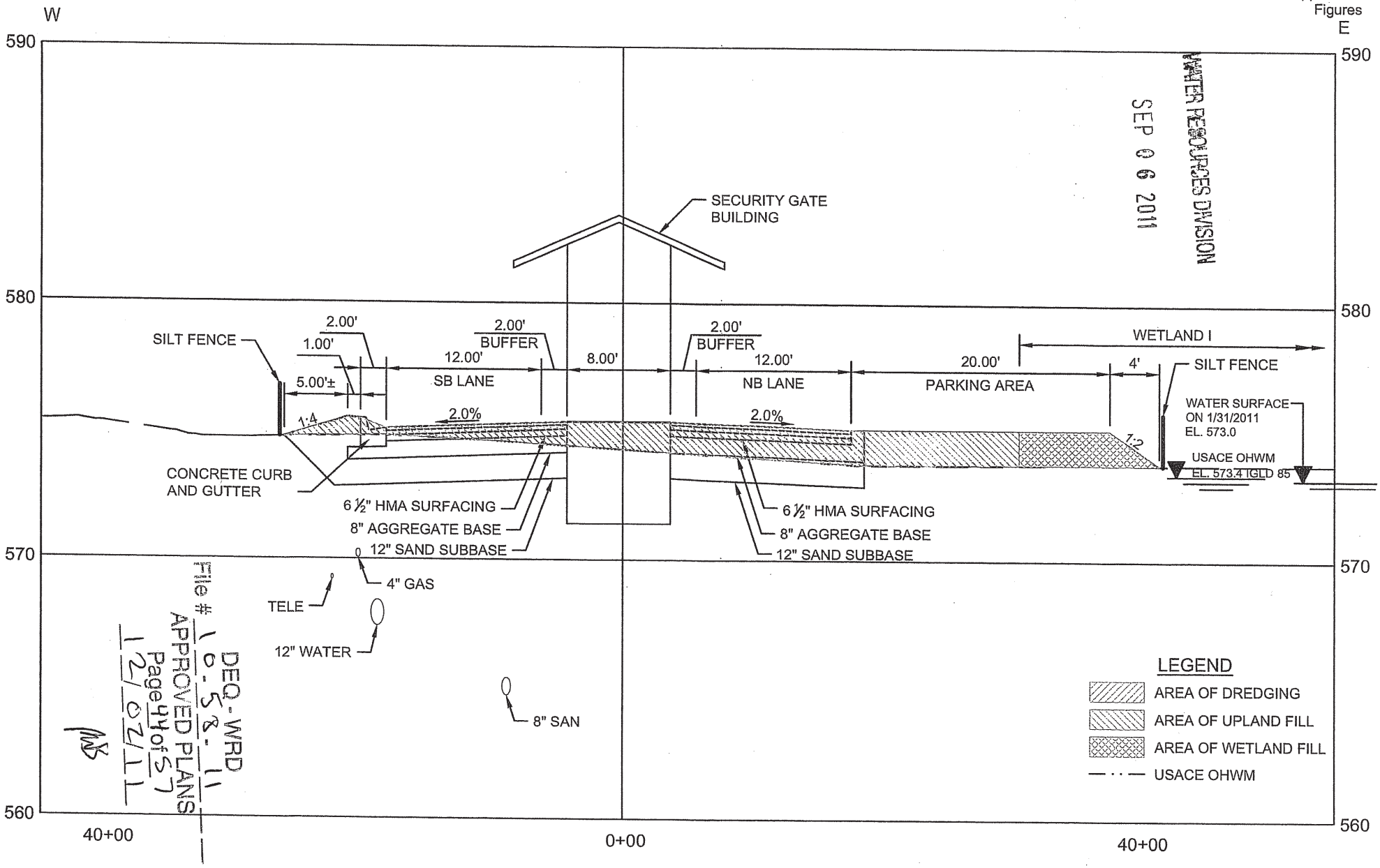


SEDIMENT TRAP
TYPICAL SECTION
SCALE: 1"=10'



TYPICAL SEDIMENT TRAP
DETAIL PROFILE
SCALE: 1"=5'

FIGURE 14-2B NEW OPERATIONS ACCESS ROAD TYPICAL SECTION FOR CURB AND GUTTER TYPICAL SECTION AND DETAIL PROFILE SEDIMENT TRAP

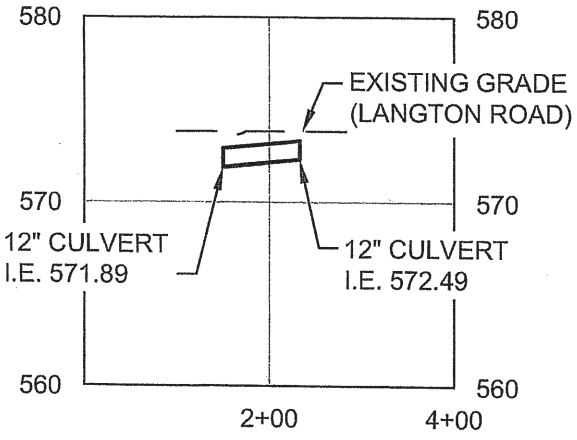


WATER RESOURCES DIVISION
SEP 06 2011

DEQ - WRD
File # 16-58-11
APPROVED PLANS
Page 44 of 57
12/02/11

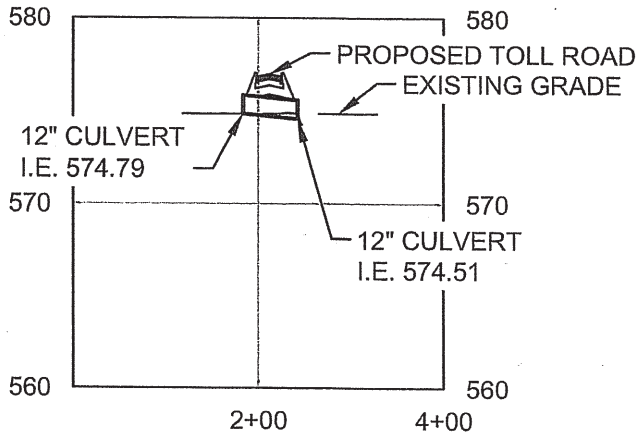
A SECURITY GATE SECTION
SCALE: 1"=10' HORZ.; 1"=5' VERT. (IGLD 85 DATUM)

FIGURE 14-2C NEW OPERATIONS ACCESS ROAD SECURITY GATE SECTION 'A' DETAILS



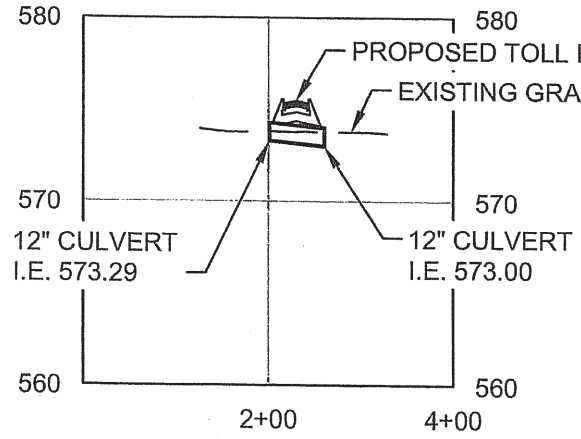
PROFILE OF PROPOSED CULVERT A (LOOKING NORTHWEST)

SCALE: 1"=200' HORZ.;1"=20' VERT. (IGLD 85 DATUM)



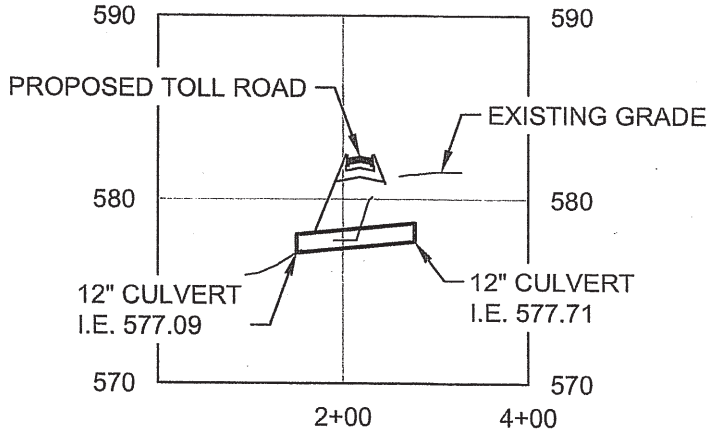
PROFILE OF PROPOSED CULVERT C (LOOKING EAST)

SCALE: 1"=200' HORZ.;1"=20' VERT. (IGLD 85 DATUM)



PROFILE OF PROPOSED CULVERT B (LOOKING EAST)

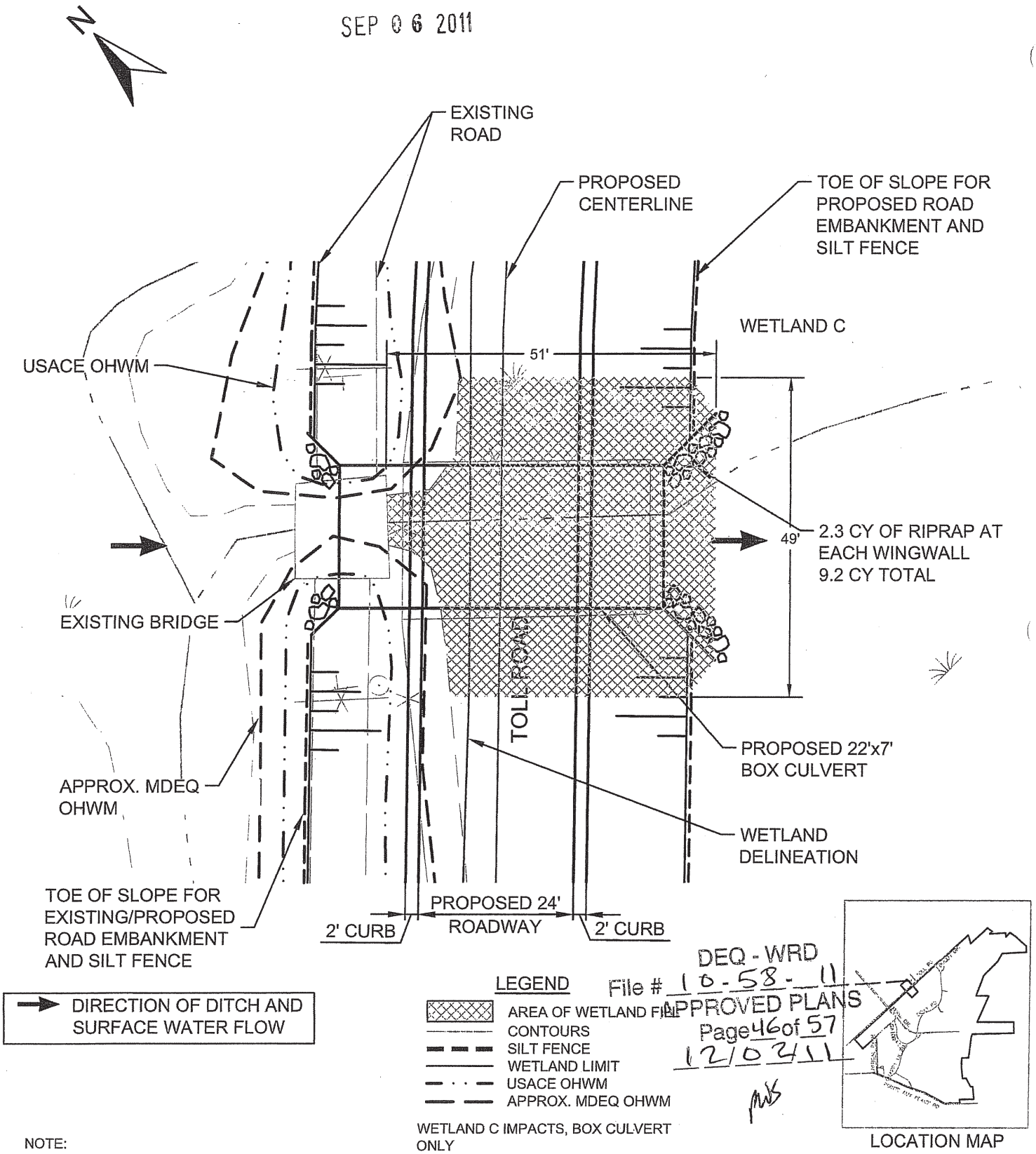
SCALE: 1"=200' HORZ.;1"=20' VERT. (IGLD 85 DATUM)



PROFILE OF PROPOSED CULVERT D (LOOKING NORTHWEST)

SCALE: 1"=200' HORZ.;1"=20' VERT. (IGLD 85 DATUM)

FIGURE 14-2D NEW OPERATIONS ACCESS ROAD PROFILE OF PROPOSED CULVERTS A - D

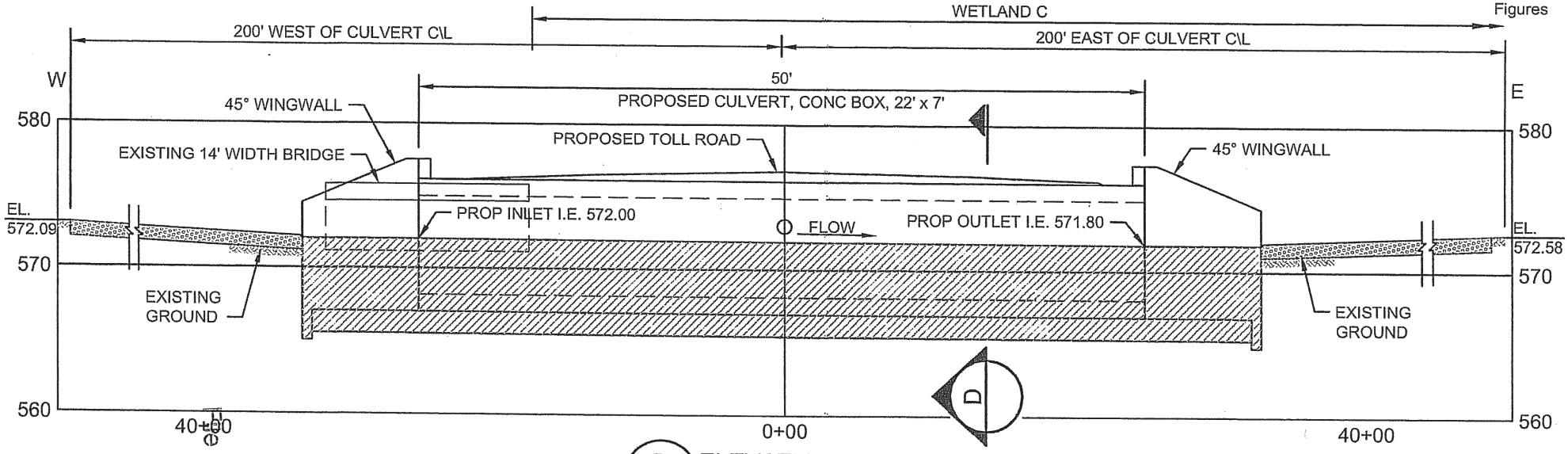


NOTE:
NO PROPOSED WETLAND IMPACTS ALONG NORTHWESTERLY EDGE OF ROAD.

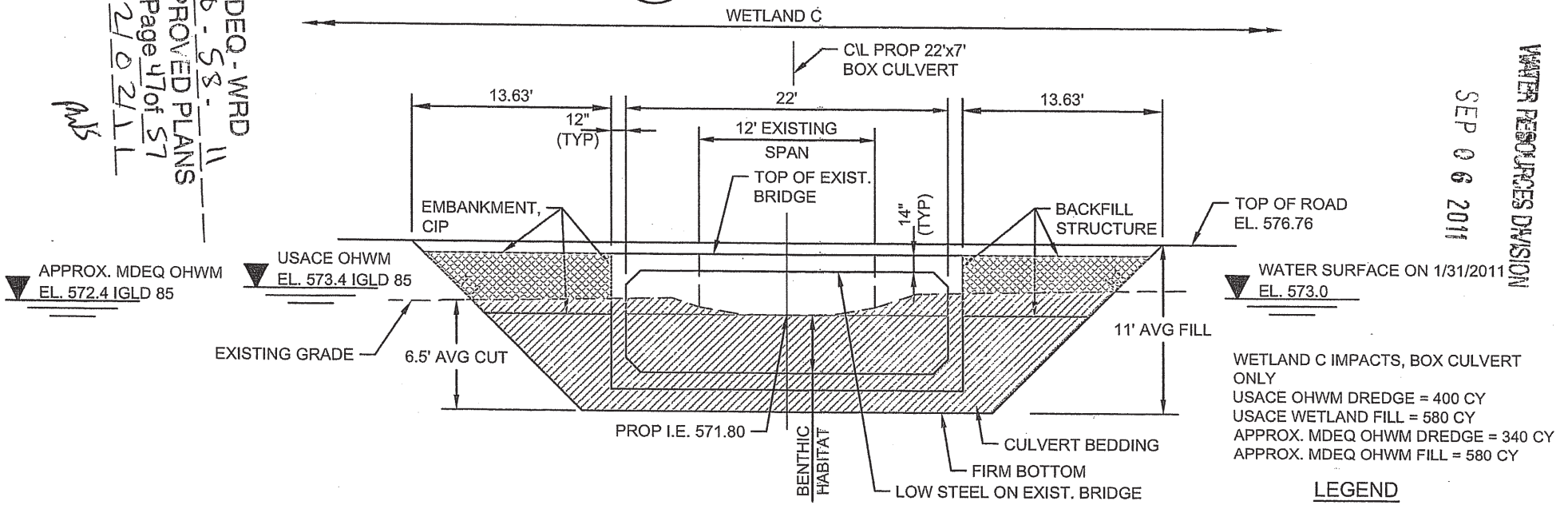
WETLAND C IMPACTS, BOX CULVERT ONLY
USACE OHWM DREDGE = 400 CY
USACE WETLAND FILL = 580 CY
APPROX. MDEQ OHWM DREDGE = 340 CY
APPROX. MDEQ OHWM FILL = 580 CY

FIGURE 14-2E
NEW OPERATIONS ACCESS ROAD 22'x7' BOX CULVERT PLAN VIEW

SCALE: 1"=20'



B ELEVATION
SCALE: 1"=10' (IGLD 85 DATUM)



WETLAND C IMPACTS, BOX CULVERT ONLY
USACE OHWM DREDGE = 400 CY
USACE WETLAND FILL = 580 CY
APPROX. MDEQ OHWM DREDGE = 340 CY
APPROX. MDEQ OHWM FILL = 580 CY

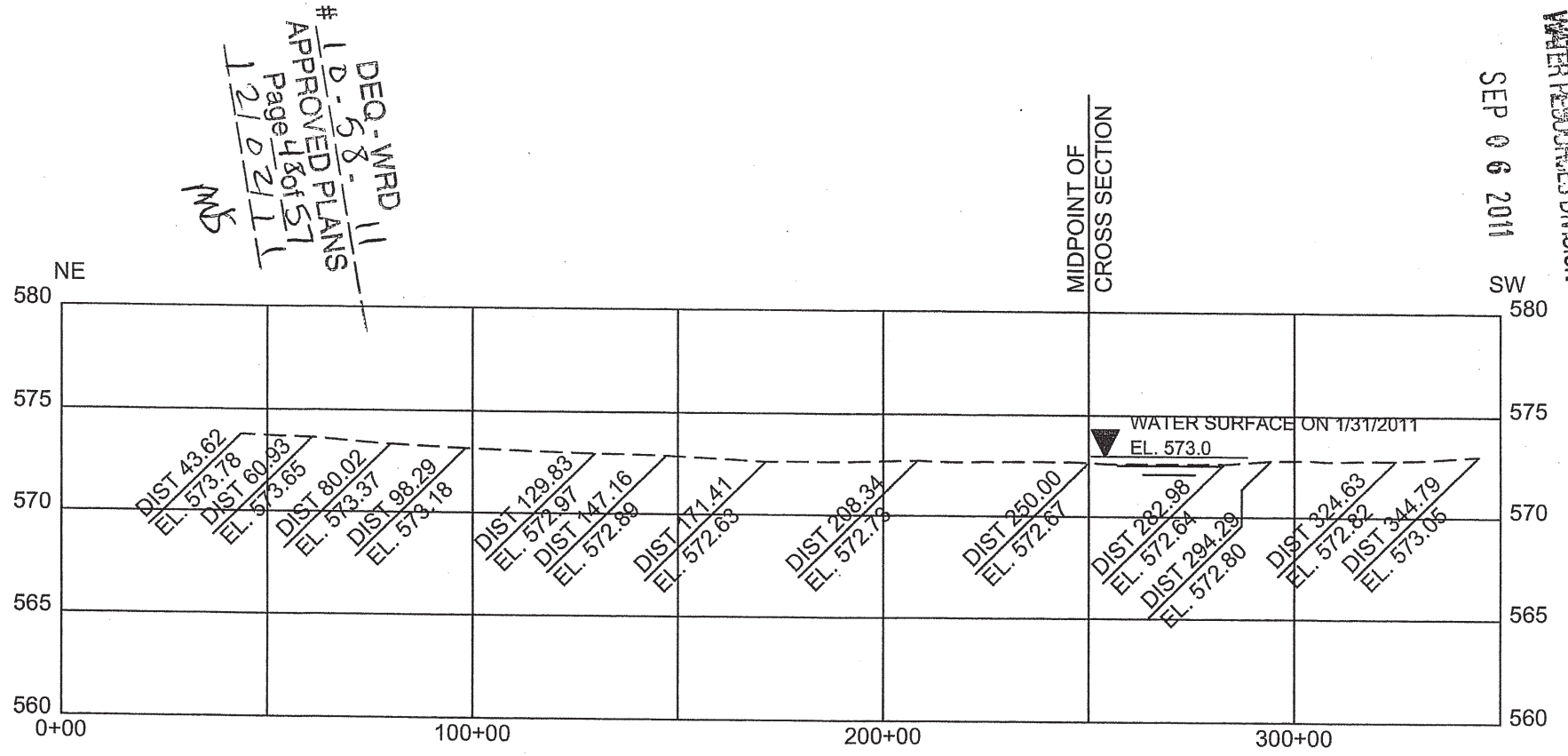
LEGEND
AREA OF DREDGE
AREA OF WETLAND FILL

D SECTION VIEW (LOOKING WEST)
SCALE: 1"=10' (IGLD 85 DATUM)

DEQ - WRD
File # 16-58-11
APPROVED PLANS
Page 47 of 57
12/02/11
AWS

WATER RESOURCES DIVISION
SEP 09 2011

FIGURE 14-2F NEW OPERATIONS ACCESS ROAD ELEVATION 'B' AND SECTION 'D' DETAILS

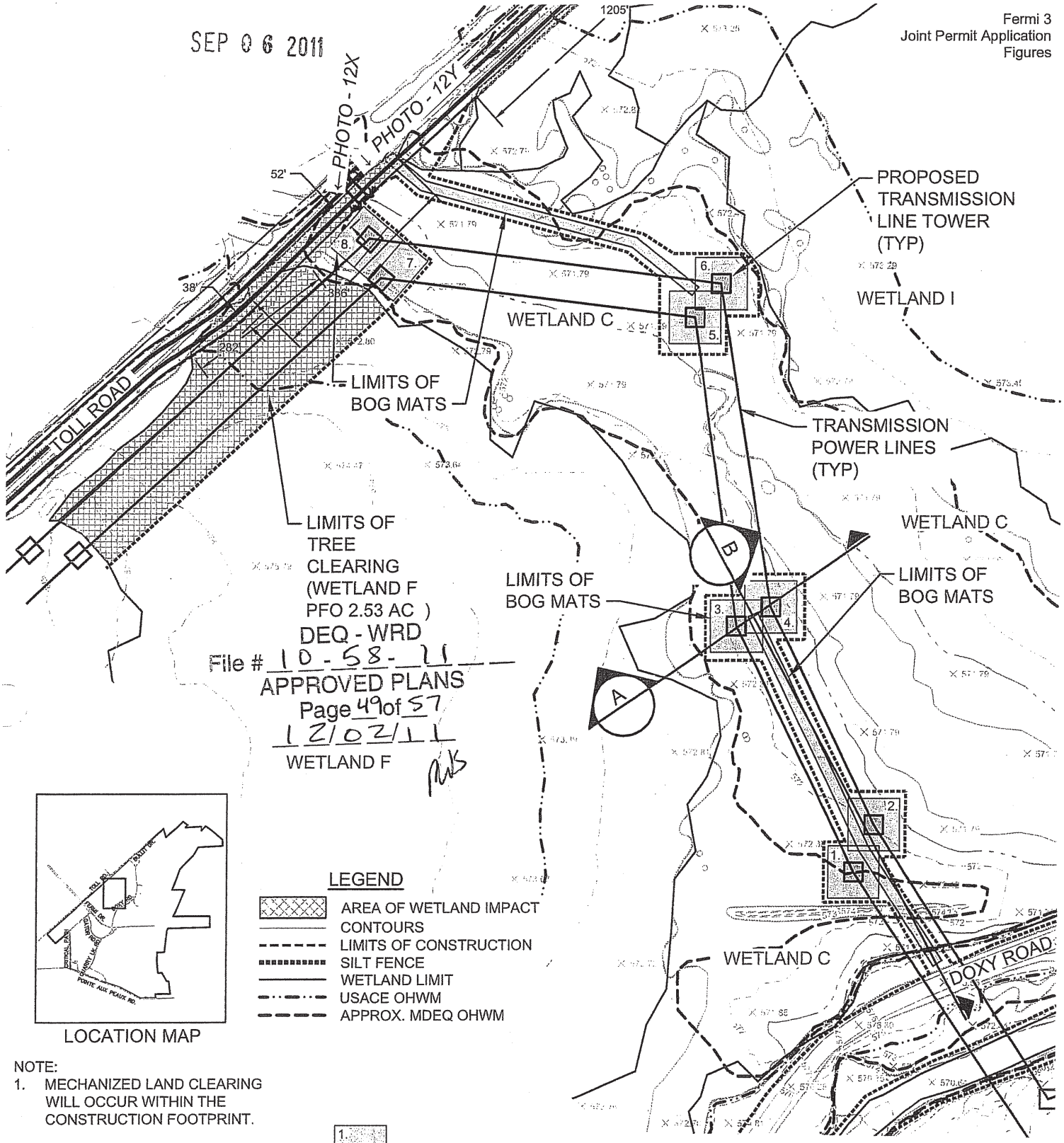


C

STREAM CROSS SECTION
200 FEET DOWNSTREAM OF PROPOSED TOLL ROAD (LOOKING DOWNSTREAM)

SCALE: 1"=40' HORZ.; 1"=5' VERT. (IGLD 85 DATUM)

FIGURE 14-2G NEW OPERATIONS ACCESS ROAD SECTION 'C' DETAILS



DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 49 of 57
12/02/11

LOCATION MAP

LEGEND

- AREA OF WETLAND IMPACT
- CONTOURS
- LIMITS OF CONSTRUCTION
- SILT FENCE
- WETLAND LIMIT
- USACE OHWM
- APPROX. MDEQ OHWM

NOTE:
1. MECHANIZED LAND CLEARING WILL OCCUR WITHIN THE CONSTRUCTION FOOTPRINT.

WETLAND C
AREA = 0.24 acres
USACE OHWM DREDGE = 768 CY
USACE OHWM EXCAVATION = NA
WETLAND EXCAVATION = 768 CY
WETLAND FILL = 768 CY

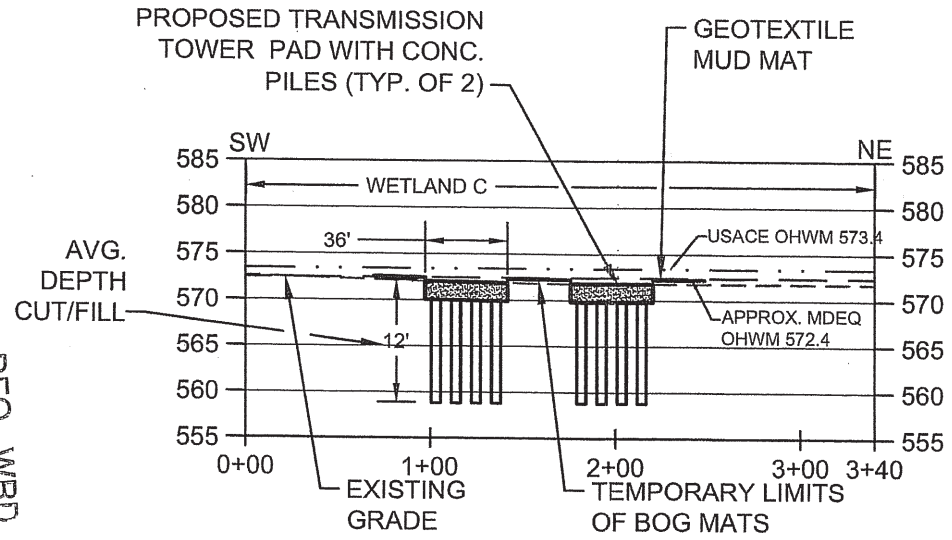
1. TEMPORARY (T) TOWER FOOTPRINT = 0.2 X 8 TOWERS = 1.60 ACRES
(T) LIMITS OF BOG MATS FOOTPRINT = 0.34 ACRES
(T) LIMITS OF BOG MATS FOOTPRINT = 0.35 ACRES
TOTAL TEMPORARY IMPACTS = 2.29 ACRES

36' / 36' PERMANENT (P) TOWER FOOTPRINT = 0.03 X 8 TOWERS = 0.24 ACRES
(P) OVERHEAD TRANSMISSION LINE CLEARANCE FOOTPRINT = 2.53 ACRES

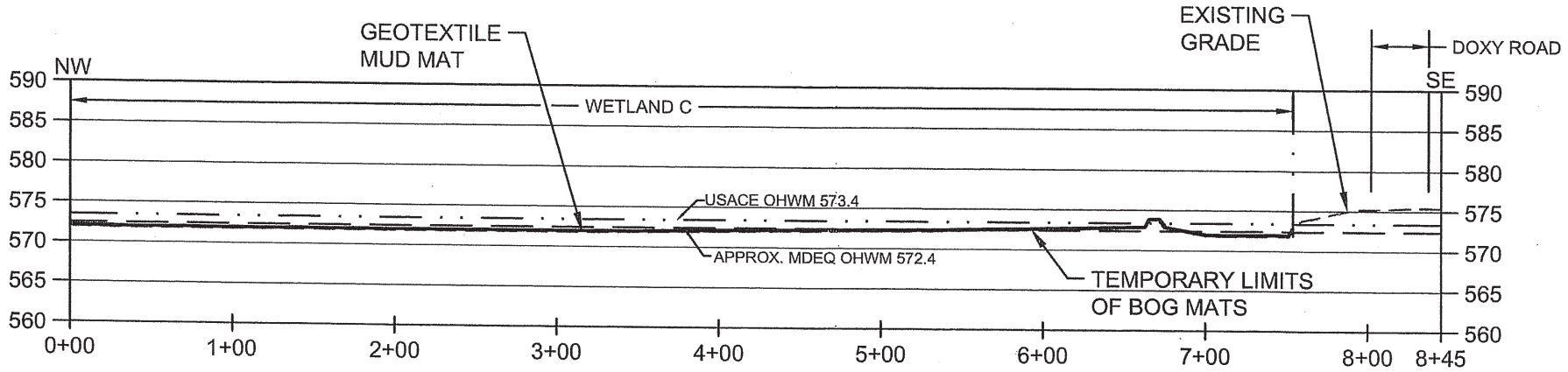
N

FIGURE 12-9A ONSITE TRANSMISSION PLAN VIEW

SCALE: 1"=250'



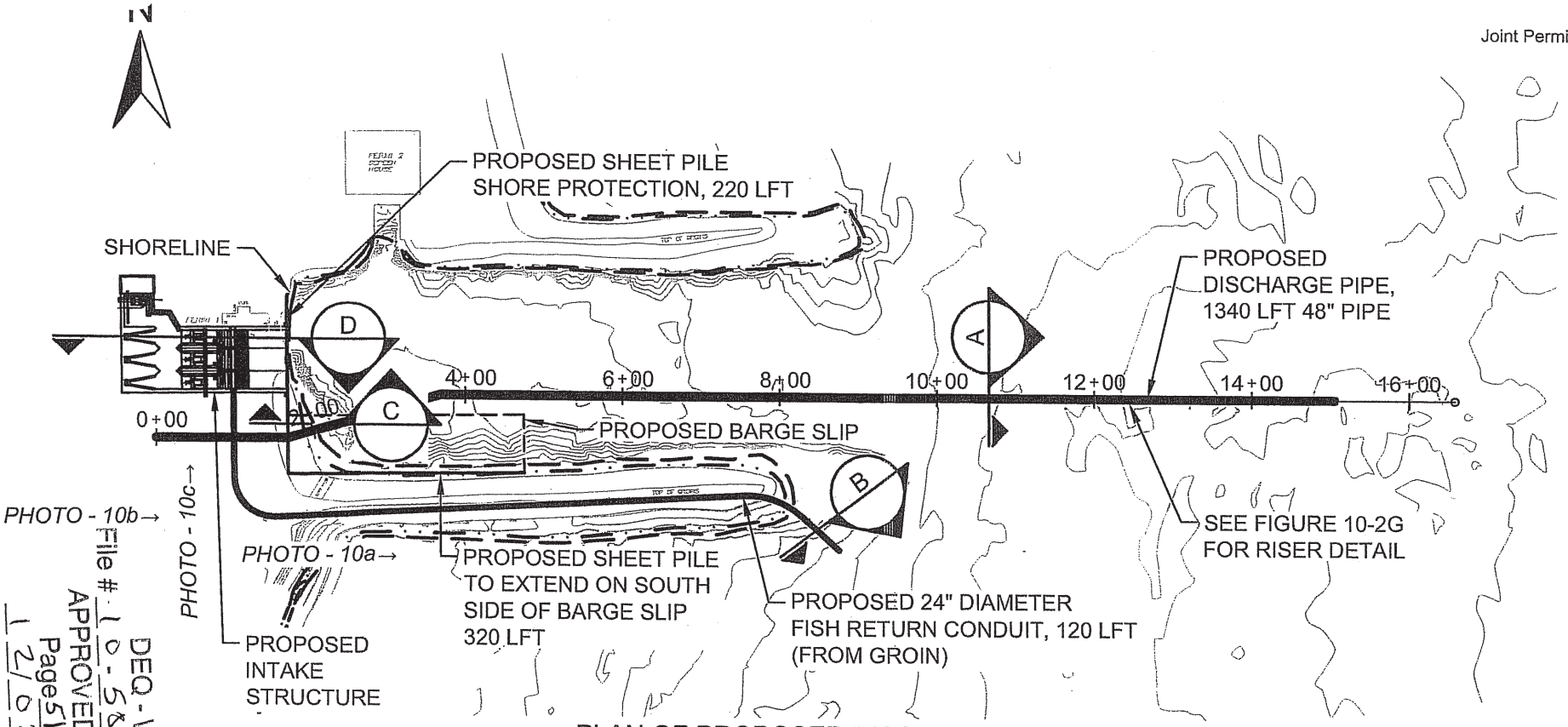
A ONSITE TRANSMISSION SECTION
SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)



B ONSITE TRANSMISSION SECTION
SCALE: 1"=100' H, 1"=20' V (IGLD 85 DATUM)

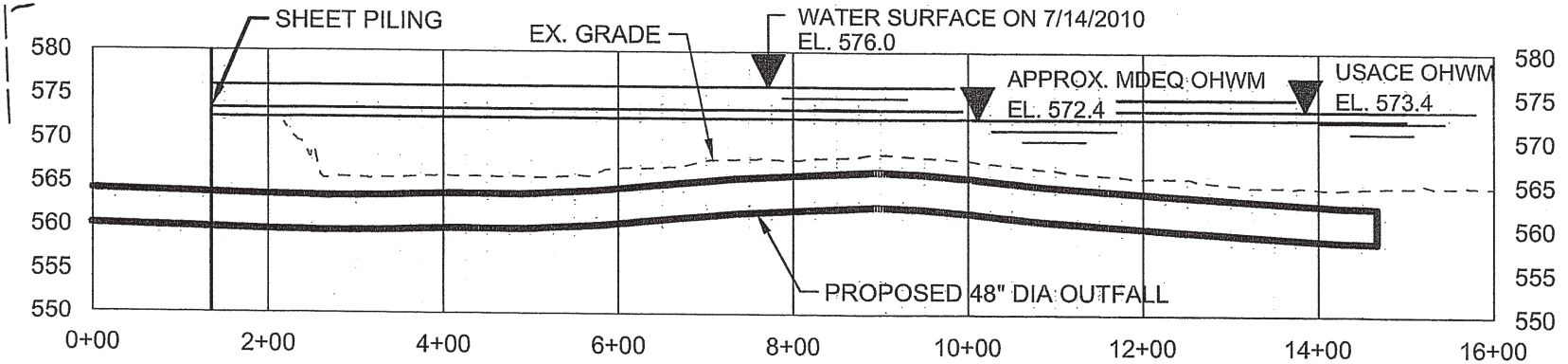
LEGEND
USACE OHWM
APPROX. MDEQ OHWM

FIGURE 12-9B ONSITE TRANSMISSION SECTION DETAILS



PLAN OF PROPOSED DISCHARGE PIPE

SCALE: 1"=200'



PROFILE OF PROPOSED FERMI 3 DISCHARGE PIPE

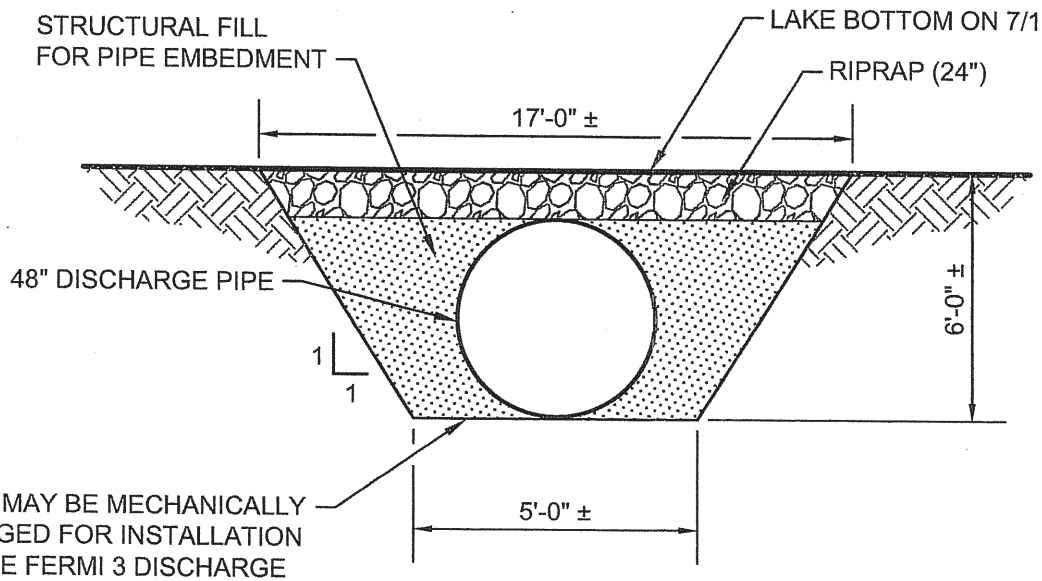
SCALE: 1"=200' HORZ.; 1"=20' VERT. (IGLD 85 DATUM)

LEGEND

- USACE OHWM
- APPROX. MDEQ OHWM
- PROPOSED BARGE SLIP LIMITS

DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 51 of 57
12/02/11

FIGURE 10-2A LAKE ERIE CONSTRUCTION AREA PLAN AND PROFILE OF PROPOSED DISCHARGE PIPE



LEGEND
- RIPRAP
- UNDISTURBED EARTH
- STRUCTURAL FILL

DREDGE VOLUME:	3,300 CY
SIDECAST VOLUME:	3,300 CY
STONE BACKFILL VOLUME:	970 CY
RIPRAP VOLUME:	1,690 CY
PIPE LENGTH:	1,340 LFT

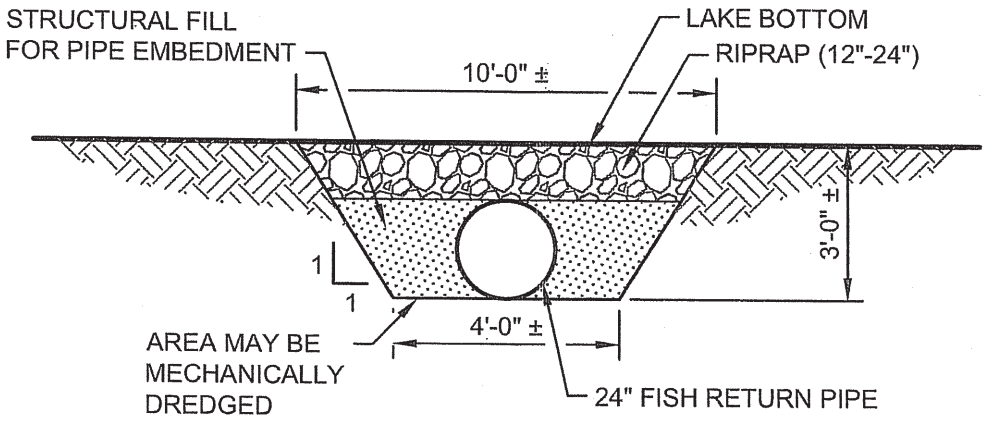
NOTE:
1. ONLY OUTSIDE MATERIALS WILL BE THE PIPE, RIPRAP AND STONE.
2. ALL WORK BELOW MDEQ AND USACE OHWM.

A DISCHARGE PIPE DREDGING CROSS SECTION
SCALE: NONE

DEQ - WRD
File # 10-58-11
APPROVED PLANS
Page 52 of 57
12/02/11

WATER RESOURCES DIVISION
SEP 06 2011

FIGURE 10-2B LAKE ERIE CONSTRUCTION AREA DISCHARGE PIPE DREDGING SECTION 'A' DETAILS



LEGEND
- RIPRAP
- UNDISTURBED EARTH
- STRUCTURAL FILL

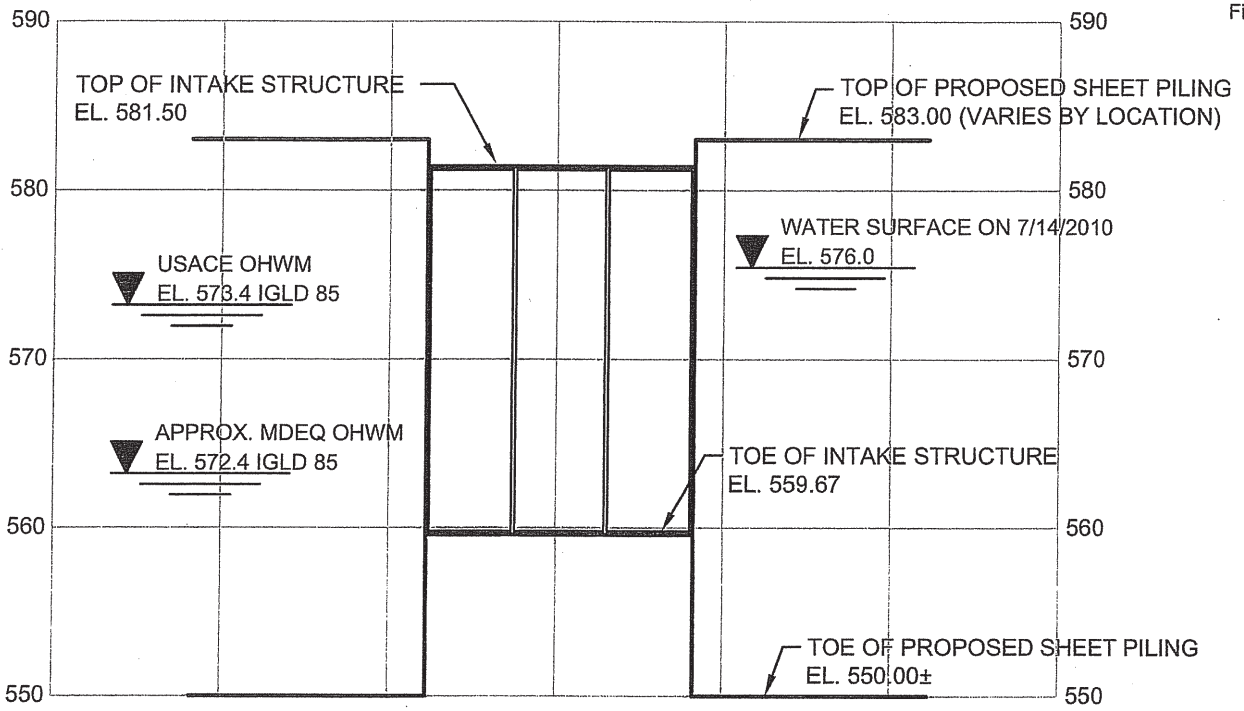
DREDGE VOLUME:	93 CY
SIDECAST VOLUME:	93 CY (39 CY TO BE USED TO BACKFILL TRENCH)
RIPRAP VOLUME:	40 CY
PIPE LENGTH:	120 LFT

NOTE:
1. ONLY OUTSIDE MATERIALS WILL BE THE PIPE AND RIPRAP.
2. ALL WORK BELOW APPROX. MDEQ AND USACE OHWM.

B PIPE DREDGING CROSS SECTION (AT FISH RETURN LOCATION)
SCALE: NONE

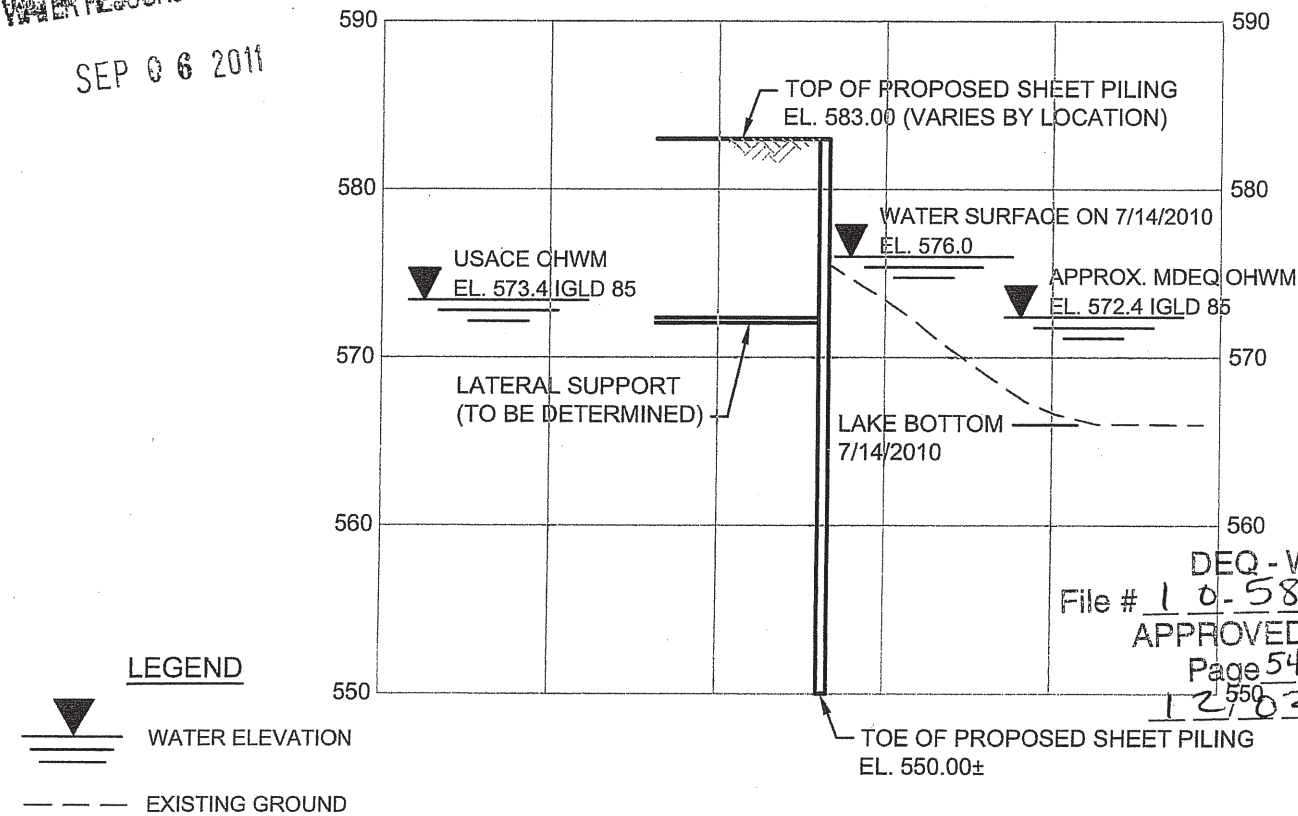
DEQ - WRD
File # 1® - 58 - 11
APPROVED PLANS
Page 53 of 57
12/02/11

FIGURE 10-2C LAKE ERIE CONSTRUCTION AREA PIPE DREDGING SECTION 'B' DETAILS



INTAKE CROSS SECTION ALONG SHORELINE

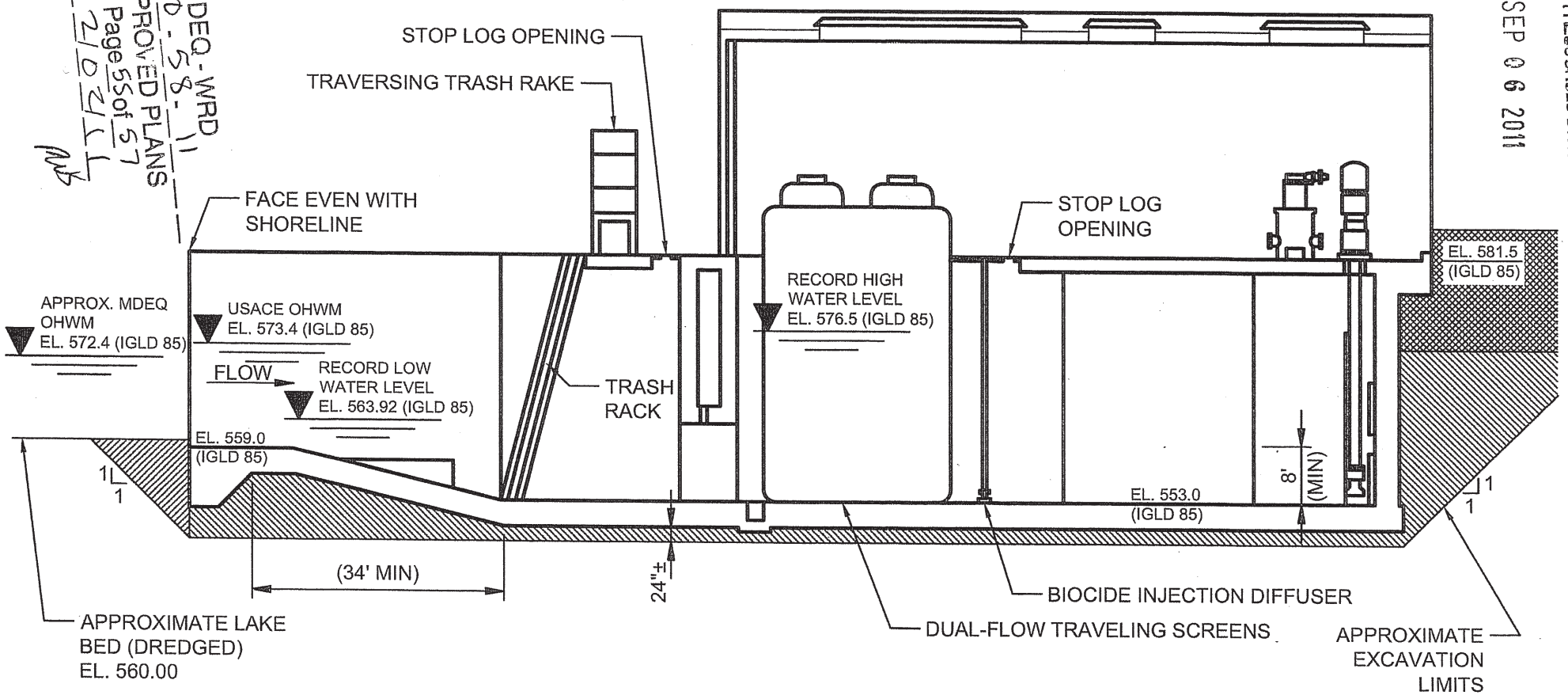
SCALE: 1"=60' HORZ.; 1"=10' VERT. (IGLD 85 DATUM)



C CROSS SECTION OF PROPOSED SHEET PILING

SCALE: 1"=10' VERT. (IGLD 85 DATUM)

FIGURE 10-2D LAKE ERIE CONSTRUCTION AREA INTAKE AND PROPOSED SHEET PILING SECTION DETAILS



LEGEND

- LAKE AREA DREDGE
- DREDGE
- UPLAND BACKFILL

D PROPOSED INTAKE STRUCTURE (LOOKING SOUTH)

SCALE: 1"=20' (IGLD 85 DATUM)

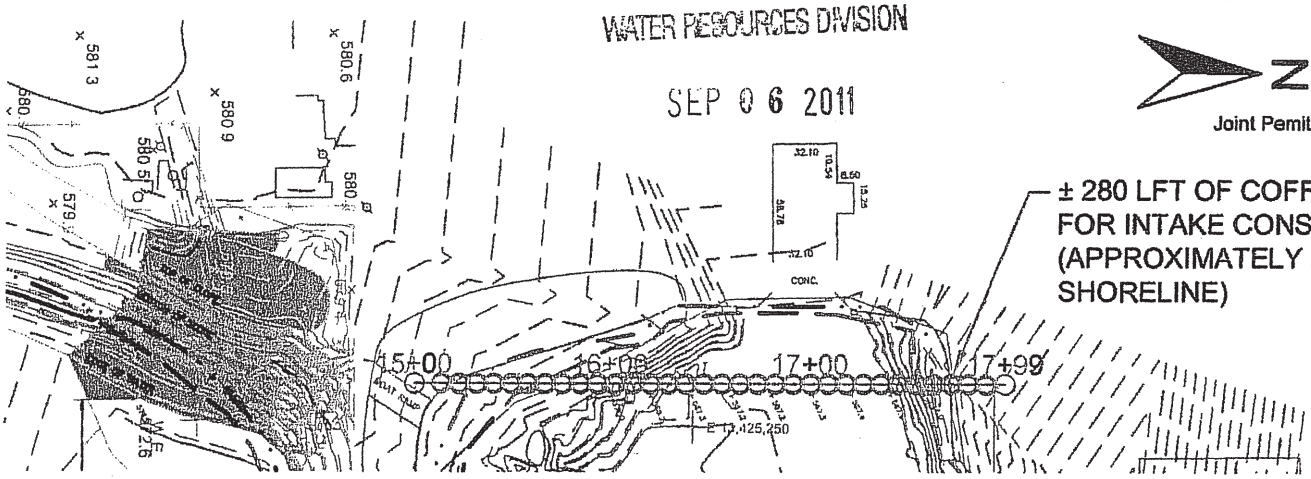
VOLUMES BELOW APPROX. MDEQ OHWM

DREDGE VOLUME:	16,100 CY
LAKE AREA DREDGE VOLUME:	300 CY
STRUCTURE VOLUME:	10,900 CY
BACKFILL VOLUME:	5,500 CY

VOLUMES BELOW USACE OHWM

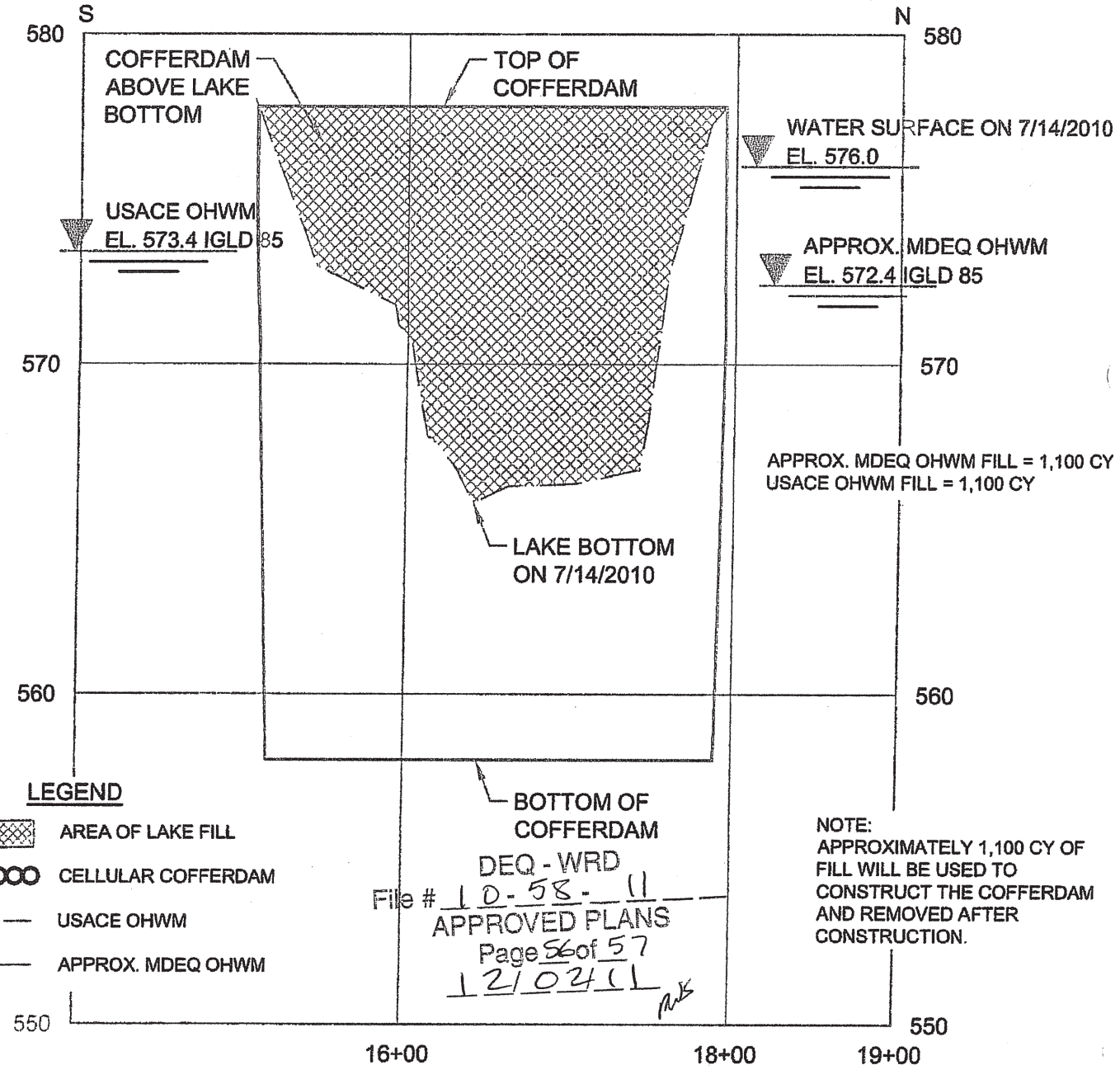
DREDGE VOLUME:	16,600 CY
LAKE AREA DREDGE VOLUME:	300 CY
STRUCTURE VOLUME:	11,300 CY
BACKFILL VOLUME:	5,600 CY

FIGURE 10-2E LAKE ERIE CONSTRUCTION AREA PROPOSED INTAKE STRUCTURE SECTION 'D' DETAILS



PROPOSED TEMPORARY COFFERDAM AT INTAKE STRUCTURE

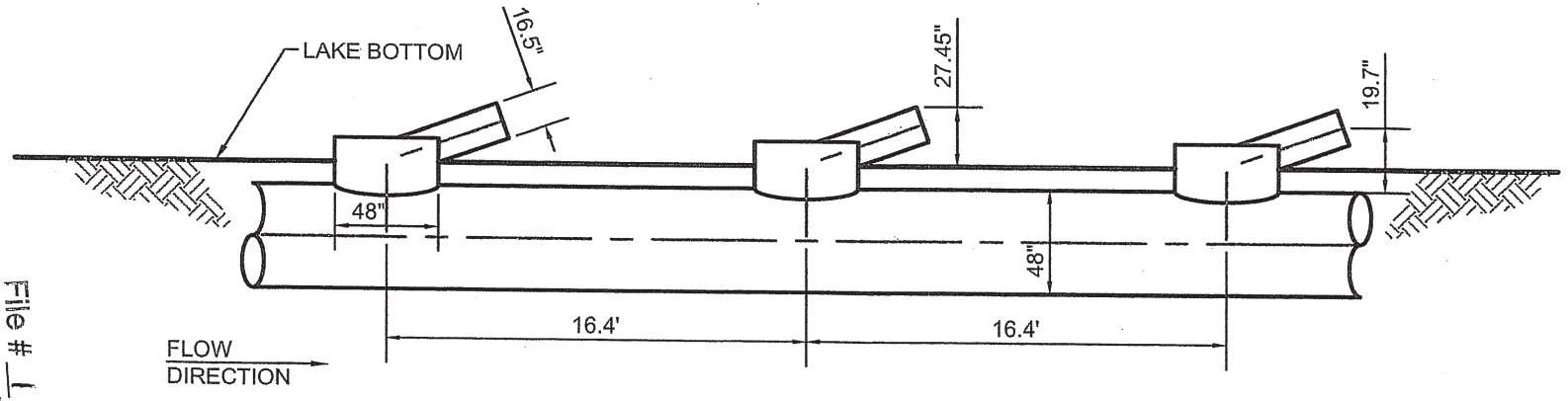
SCALE: 1"=100'



PROFILE OF TEMPORARY COFFERDAM

SCALE: 1"=100' HORZ.; 1"=5' VERT. (IGLD 85 DATUM)

FIGURE 10-2F LAKE ERIE CONSTRUCTION AREA PROPOSED COFFERDAM



NOTE:
TYPICAL RISER DETAIL ALONG DISCHARGE PIPE

10-2G LAKE ERIE CONSTRUCTION AREA PROPOSED DISCHARGE PIPE RISER DETAIL

SCALE: NONE