



**US Army Corps
of Engineers** ®
699 VIRGINIA ROAD
CONCORD, MA 01742-2751

**REAL ESTATE PLAN, FEASIBILITY PHASE
TEN MILE RIVER ECOSYSTEM RESTORATION
EAST PROVIDENCE, RHODE ISLAND**

PREPARED BY:

A handwritten signature in blue ink, reading "A. Mary Dunn", written over a horizontal line.

**A. MARY DUNN
STAFF APPRAISER**

JUNE 2004

1. PURPOSE: The purpose of this project is to restore anadromous fish passage at Omega Pond Dam, Hunt's Mill Dam, and Turner Reservoir Dam, all located on the lower Ten Mile River in the city of East Providence, Rhode Island. Historically, many of Rhode Island's coastal rivers supported runs of one or more anadromous fish species. However, many miles of habitat have been reduced or eliminated as a result of industrial development, floodplain encroachment, water pollution, dam construction, and river regulation. The Energy and Water Development Appropriation Bill for fiscal 1999 authorized the Corps of Engineers to do reconnaissance studies of the opportunities to restore degraded salt marshes, restore anadromous fisheries, restore degraded freshwater wetlands, and improve overall fish and wildlife habitats of the restoration sites identified during the study. The Rhode Island Department of Environmental Management (RI DEM) selected restoration of anadromous fish in the lower Ten Mile River for further feasibility scope study.

The following options were considered to restore fish passage at the three dams on the Ten Mile River; namely, Omega Pond Dam, Hunt's Mill Dam, and Turner Reservoir Dam:

Removal: Complete dam removal and, if necessary, removal of sediments that may have accumulated behind the dam. Existing usage, upstream wetlands, or accumulated sediment are factors that must be considered when removal is considered.

Fish Ladders or Fishways : A fish ladder or fishway allows fish to pass over or around a dam. Fish ladders may be feasible options for dams of all sizes. A ladder or fishway is an inclined water channel structure with a series of baffles, weirs or pools that interrupt and slow the flow of water.

The recommended plan for the aquatic ecosystem restoration at the three dams located on the Ten Mile River at Omega Pond, Hunt's Mill Pond, and Turner Reservoir, is to construct Denil-type fishways.

As the recommended improvements are within the cost limitations of Section 206 of the Water Resources Development Act of 1996, implementation is being recommended under this authority.

2.a. DESCRIPTION OF PROJECT AREAS: The three ponds where the fishways are proposed to be constructed to restore aquatic habitat areas are the Omega Pond, Hunt's Pond, and Turner Reservoir. The three ponds are located in East Providence, Rhode Island. East Providence was the first settlement of Roger Williams, Rhode Island's founder, in 1836. Maps showing the proposed fishways to be constructed are attached at the end of this report.

Omega Pond: Omega Pond is a 33-acre pond that discharges into the Seekonk River. It is located in an industrial zoned area of the City, off Bourne Avenue. A railroad bridge crosses the Ten Mile River immediately west of the dam (the bridge is over the dam and the Seekonk River and the railroad tracks on this bridge run in a north-south direction). The city of East Providence currently owns Omega Pond Dam and some of the abutting land located around the pond (three parcels of land abutting land were transferred from the GeoNova Development Company LLC to the City of East Providence). These three parcels are currently vacant but are improved with older, industrial buildings. The remaining land adjoining the pond where the fishway will be located is owned by state of Rhode Island (the railroad). Private homes or commercial properties surround the most easterly portion of the pond, however, these parcels are not impacted in any way by the construction of the fishway.

During construction, access to Omega Pond will from Dexter Road over a 15-foot wide right-of-way over a privately owned parcel of land (Parcel 304-1-1), owned by 3DR Associates, LLC. This parcel is improved with a very large warehouse, research and development, or office type building. At the time of inspection (6 October 2003), this building was being offered for lease.

The fishway will be Installed at the southerly end of the dam, just adjacent to the railroad property where Omega Pond and the Seekonk River meet. The proposal is to access the site through the 3DR Associates, LLC property. The contractor's staging area, used for storing supplies and equipment, will also be located on about 6,844 square feet of the 3DR Associates property. Also, a strip of land about 20 feet wide adjacent to the fishway will also be needed during the construction phase. This land is owned by the State of Rhode Island (railroad property).

Hunt's Mill Pond: Hunt's Mill Dam is located about two miles upstream of the mouth of the Ten Mile River. The pond is located on a 44.87 acre parcel (Parcel 505-1-1) of land owned by the city of East Providence, and is under the East Providence Water Department. The property is on Hunt's Mill Road, a private road, that is off Pleasant Street. This parcel is improved with the historic John Hunt House, a home built around 1750, an older house that is leased (but is currently vacant), a historic building used as a generator building, a park with picnic benches, and a paved parking lot. There is chain-link fencing separating the park area from Hunt's Mill Pond. The fishway will be located west of the dam, the area closest to the picnic benches.

The existing chain link fence will be removed to encompass the additional land needed for the construction of the fishway. A permanent easement will be required over 1,181 square feet of land located east of the dam and 2,090 square feet on the land west of the dam for the construction of the fishway and for future maintenance and access to the fish trap. Also, a temporary easement over 5,387 square feet of land will also be needed for the equipment and supply staging area at the rear of the generator building. Access to the construction site will be from the parking area in front of the generator building.

Turner Reservoir: The 297-acre James V. Turner Reservoir is located in East Providence near the Seekonk, Massachusetts, town line. Turner Reservoir is surrounded by residential neighborhoods, both in East Providence, RI, and in Seekonk, MA.

The lands below the dam on either side of the Ten Mile River (Parcel 604-1-39 on the northwestern side and Parcels 604-1-43, 604-1-44, and 604-1-45 on the southeastern side) are owned by the City of East Providence, E. Providence Water Department. The fishway will be constructed on the southeasterly end of the spillway.

Current access for maintenance of the dam is from Quarry Street, Seekonk, Massachusetts. During construction, this 15-foot wide by 600-foot long access way will also be used. The contractor's staging area will be over 10,000 square feet of the town-owned land and an additional 1,688 square feet will be needed adjacent to the dam during construction.

2.b. RECOMMENDED PLAN:

The recommended plan is to install fishways at the previously stated locations at Omega Pond, Hunt's Mill Pond, and Turner Reservoir. The construction is expected to take one year.

2.c. OWNERSHIPS: The lands needed are owned by the City of Providence, a private owner, and the state of Rhode Island. Attached aerial photographs, with the City of Providence assessor's parcel numbers shown, indicate the lands needed for the construction of the fishways. Below are areas needed for the construction of the fishways and future maintenance and access:

Omega Pond:

Temporary Easement:

Access, private land, 15 feet by 1,534 feet =	23,014 SF
Contractor's staging area, private owner =	6,844 SF
Land needed during construction, state of RI =	<u>6,109 SF</u>
Total	35,967 SF

Hunt's Mill Pond:**Permanent Easement:**

For Fishway, city owned, maintenance & access to fish trap = 3,271 SF

Temporary Easement:

Contractor's staging area, city owned = 5,387 SF

Turner Reservoir:**Temporary Easement:**

Access, city owned, 15 feet by 600 feet =	9,000 SF
Land needed during construction, city owned =	1,688 SF
Contractor's staging area, city owned =	<u>10,000 SF</u>
Total	20,688 SF

3. DESCRIPTION OF NON-FEDERAL SPONSOR'S EXISTING OWNERSHIP:

The non-federal sponsor is the Rhode Island Department of Environmental Management (RI DEM). The city of East Providence owns the lands required for the project at Hunt's Mills Pond and Turner Reservoir. The City of East Providence owns the dam and most of the land surrounding the dam at Omega Pond. The State of Rhode Island, Department of Transportation, owns the land under the railroad that will be used for access and during the construction phase and the land required for the construction staging area is under private ownership.

4. RECOMMENDED ESTATES:

Estates are as stated in "Estates" ER 405-1-12 of the Real Estate Handbook, Chapter 5. The estate that will be utilized for this project is Estate No. 15 – Temporary Work Area Easement and the Fishway Restrictive Easement (on page 9 of the report).

5. EXISTING FEDERAL PROJECTS:

There are no current projects in the project area.

6. EXISTING FEDERAL OWNERSHIPS:

An inspection of the area indicated no Government-owned facilities are affected by this project.

7. NAVIGATION SERVITUDE:

Navigation servitude does not apply.

8. REAL ESTATE MAPPING:

The maps showing the areas to be acquired are attached.

9. INDUCED FLOODING:

No induced flooding is anticipated as a result of the proposed project.

10. BASELINE COST ESTIMATE FOR REAL ESTATE:

Fee Value: No fee acquisition is anticipated.

Permanent Easement Area: A permanent easement will be required over 3,271 square feet (SF) of land (1,181 SF of the easterly side and 2,090 SF of the westerly side of the dam), located at Hunt's Mill Pond for the construction of the fishway and for future maintenance and access to the fish trap. The chain link fence will be replaced. This land is owned by the City of East Providence and will continue to be owned by the City of East Providence.

Temporary Easement Areas: Temporary easements will be required for a term of one year adjacent to the three dams during the construction phase at the following three locations:

1. At Omega Pond, privately owned land will be needed for a temporary 15-foot wide, 23,014 SF, access easement and an additional 6,844 SF will be needed for the contractor's staging area. Also, 6,109 square feet of land, owned by the sponsor (State of Rhode Island, Department of Transportation) will be used during the construction of the fishway for access. They will be given credit as if it were a temporary easement.

2. At Turner Reservoir, a temporary easement will be required over 20,688 SF of land that is owned by the City of East Providence, 10,000 SF for the contractor's staging area, 1,688 SF of land adjacent to the proposed fishway for construction purposes, and 9,000 SF (15 feet wide by 600 feet long) for access.

3. A temporary easement over 5,387 SF of land will be required in the parking area of Hunt's Mills Dam on land owned by the City (in the rear of the historical generator building) for a contractor's storage area.

Administrative Costs: There will be administrative costs associated with these acquisitions such as title work, mapping, and closing. These costs are estimated to be \$5,000 per parcel or \$20,000.

The cost estimate for real estate will be as follows:

Fee Acquisition	\$0
Permanent Easements, 3,271 SF	\$ 4,000
Temporary Easements, 62,042 SF	<u>\$14,000</u>
Total	\$18,000
Contingency, 25%	<u>\$ 4,500</u>
Total Estimated Easement Costs	\$22,500
Acquisition Costs, 4 areas @ \$5,000	<u>\$20,000</u>
Total Estimated Real Estate Costs, \$42,500, rounded	\$50,000

11. PUBLIC LAW 91-646 RELOCATIONS:

The local sponsor supports the project and has been advised that the requirements of PL 91-646 **must** be followed in the acquisition of real estate for project purposes and has also been informed about Corps acquisition policies and procedures, LERRD crediting procedures, and HTRW responsibilities for land acquisition. There are no potential Public Law 91-646 relocations required in connection with this project.

12. MINERAL/TIMBER ACTIVITY:

There is no present or anticipated mineral or timber harvesting activity in the vicinity of the project.

13. ASSESSMENT OF NON-FEDERAL SPONSOR'S REAL ESTATE ACQUISITION CAPABILITIES:

The sponsor must provide all lands, easements, rights of way and relocations (LERRs) **required** for construction and maintenance of the project at no cost to the Federal Government. The non-federal sponsor is the Rhode Island Department of Environmental Management (RI DEM).

The *Assessment of Non-Federal Sponsor's Real Estate Acquisition Capability* is attached.

14. ZONING CHANGES: No zoning changes are proposed in lieu of, or to facilitate, *real estate* acquisitions.

15. ACQUISITION SCHEDULE:

The RI DEM has the capability to complete the project within the designated milestone time period, anticipated to be one (1) year. The Real Estate Acquisition schedule:

a. PCA Execution	February 2005
b. Forward maps to sponsor	February 2005
c. Survey	March 2005
d. Title	May 2005
e. Appraisals	May 2005
f. Closings	May 2005
g. Possession	May 2005
h. LER Certification -	June 2005

16. FACILITIES AND UTILITIES RELOCATIONS:

The proposed project will not require any utility and/or facility relocations.

17. HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE:

There is no known on-site contamination and the real estate estimates contained in this report do not reflect the presence of contamination.

18. LANDOWNER SENTIMENT:

This project is strongly supported by the sponsor, the RI DEM, and the City of East Providence. Other agencies and groups including the Rhode Island Coastal Resources Management Council (RI CRMC), Save the Bay, and the Federal Coastal America Partners, an interagency program (federal and state partners) formed to address coast ecosystem problems and management issues by focusing existing program and funding on common projects, also support this project.

FISHWAY OR FISH LADDER EASEMENT

A perpetual and assignable right and easement to construct, maintain, repair, rehabilitate, operate, patrol, replace, and remove a fishway, including all appurtenances thereto, in connection with the _____ Project; reserving, however, to the owners, their heirs and assigns, all such rights and privileges in the land as may be used without interfering with or abridging the rights and easement hereby granted.

TEMPORARY WORK AREA EASEMENT - #15

A temporary easement and right-of-way in, on, over and across (the land described in Schedule A) (Tracts Nos. ____ and ____), for a period not to exceed _____, beginning with date possession of the land is granted to the United States, for use by the United States, its representatives, agents, and contractors as a (borrow area) (work area), including the right to (borrow and/or deposit fill, spoil and waste material thereon) (move, store and remove equipment and supplies, and erect and remove temporary structures on the land and to perform any other work necessary and incident to the construction of the _____ Project, together with the right to trim, cut, fell and remove therefrom all trees, underbrush, obstructions, and any other vegetation, structures, or obstacles within the limits of the right-of-way; reserving, however, to the landowners, their heirs and assigns, all such rights and privileges as may be used without interfering with or abridging the rights and easement hereby acquired; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

PHOTOGRAPH OF OMEGA POND TAKEN OCTOBER 16, 2003
BY A. MARY DUNN, STAFF APPRAISER



Looking northerly at Railroad Bridge crossing Ten Mile River, Dam visible on right side (westerly)



Standing on bridge, looking southerly along Dam at Omega Pond



Looking southerly along Dam at Omega Pond, Fishway to be at far end of spillway, bridge on right



Looking across Omega Pond at property located on Dexter Road



North end of spillway at Omega Pond, stairs used by fishermen to lift the fish over the Dam



Dam and set of stairs on the southerly end of the spillway, location of future Fishway



Upland area that will be used to access Omega Dam; Narragansett Bay Commission pumping station located on right side of photo

PHOTOGRAPH TAKEN ON OCTOBER 28, 2003, BY PATRICK HANNER,
PLANNER 1, EAST PROVIDENCE PLANNING DEPARTMENT



Portion of Map 304, Parcel 1, Lot 1, the proposed staging area, located adjacent to Omega Pond and Narragansett Commission Pumping Station

PHOTOGRAPH OF HUNT'S MILLS TAKEN OCTOBER 16, 2003
BY A. MARY DUNN, STAFF APPRAISER



View of Dam at Hunt's Mill. Fishway to be constructed in area adjacent to fence



View of small portion of land outside fence that will be used for construction of a Fishway at Hunt's Mill Dam



Historical building that is located adjacent to Hunt's Mill Dam on Hunt's Lane, owned by city of East Providence. Staging area to be located behind this building.



View of Historic Hunt House and parkland owned by city of East Providence, located on Hunt's Lane adjacent to Hunt's Mills Dam.

PHOTOGRAPH OF TURNER RESERVOIR TAKEN OCTOBER 16, 2003
BY A. MARY DUNN, STAFF APPRAISER



View of grassy area at the southeastern end of Turner Reservoir Dam; flat portion to be utilized for staging area during construction of fishway.



View of the land adjacent to Turner Reservoir Dam, located off Reservoir Avenue, E. Providence



Looking southeasterly at Turner Reservoir Dam. Proposed Fishway on far end of spillway



Looking southeasterly across dam on Turner Reservoir toward location of Fishway and grassed area proposed for a staging area. Access to the staging area is from public roadway in Seekonk, MA



Upper portion of Turner Reservoir (above Dam) showing wild ducks, geese, and swans.

APPENDIX 12-E

ASSESSMENT OF NON-FEDERAL SPONSOR'S
REAL ESTATE ACQUISITION CAPABILITY

I. Legal Authority:

- a. Does the sponsor have legal authority to acquire and hold title to real property for project purposes? (yes/no)
- b. Does the sponsor have the power of eminent domain for this project? (yes/no)
- c. Does the sponsor have "quick-take" authority for this project? (yes/no)
- d. Are any of the lands/interests in land required for the project located outside the sponsor's political boundary? (yes/no)
- e. Are any of the lands/interests in land required for the project owned by an entity whose property the sponsor cannot condemn? (yes/no)

II. Human Resource Requirements:

- a. Will the sponsor's in-house staff require training to become familiar with the real estate requirements of Federal projects including P.L. 91-646, as amended? (yes/no)
- b. If the answer to II.a. is "yes," has a reasonable plan been developed to provide such training? (yes/no)
- c. Does the sponsor's in-house staff have sufficient real estate acquisition experience to meet its responsibilities for the project? (yes/no)
- d. Is the sponsor's projected in-house staffing level sufficient considering its other work load, if any, and the project schedule? (yes/no)
- e. Can the sponsor obtain contractor support, if required in a timely fashion? (yes/no)
- f. Will the sponsor likely request USACE assistance in acquiring real estate? (yes/no) (If "yes," provide description)

III. Other Project Variables:

- a. Will the sponsor's staff be located within reasonable proximity to the project site? (yes/no)
- b. Has the sponsor approved the project/real estate schedule/milestones? (yes/no) *N/A*

IV. Overall Assessment:

- a. Has the sponsor performed satisfactorily on other USACE projects? (yes/no/not applicable)
- b. With regard to this project, the sponsor is anticipated to be: highly capable/fully capable/moderately capable/marginally capable/insufficiently capable. (If sponsor is believed to be "insufficiently capable," provide explanation)

TEN MILE RIVER PROJECT
EAST PROVIDENCE, RHODE ISLAND

V. Coordination:

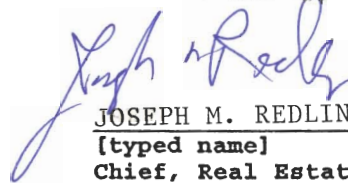
- a. Has this assessment been coordinated with the sponsor? (yes/no)
b. Does the sponsor concur with this assessment? (yes/no) (If "no," provide explanation)

Prepared by:

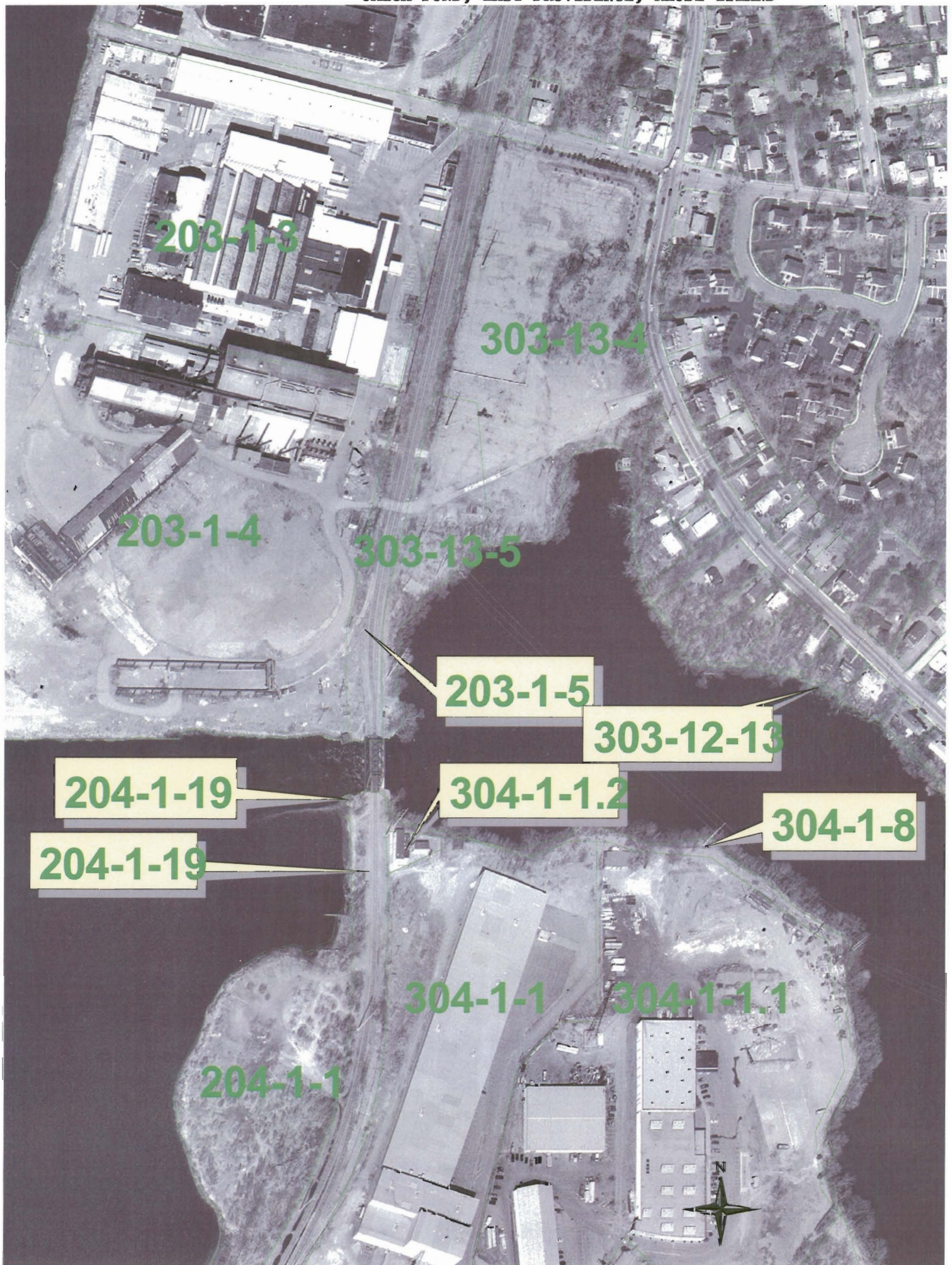


A. MARY DUNN, STAFF APPRAISER
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[title]

Reviewed and approved by:



JOSEPH M. REDLINGER
[typed name]
Chief, Real Estate Division



HUNT'S MILLS POND, EAST PROVIDENCE, RHODE ISLAND

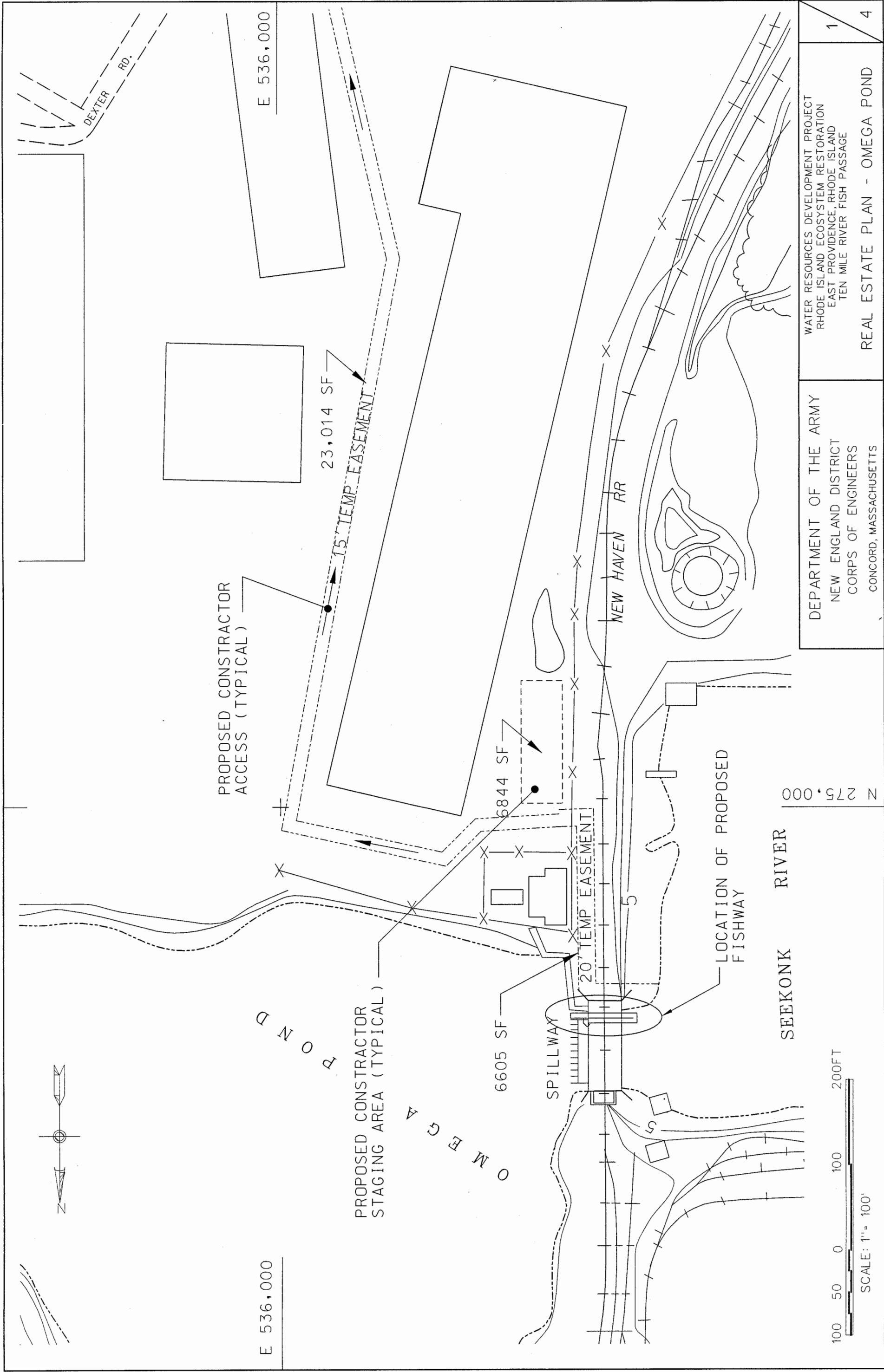


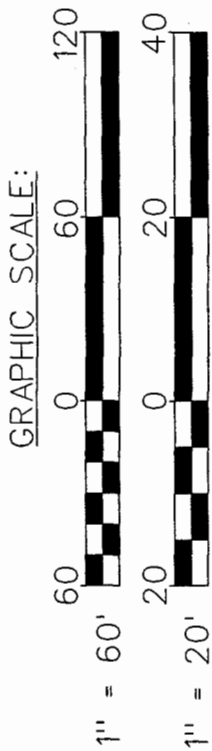
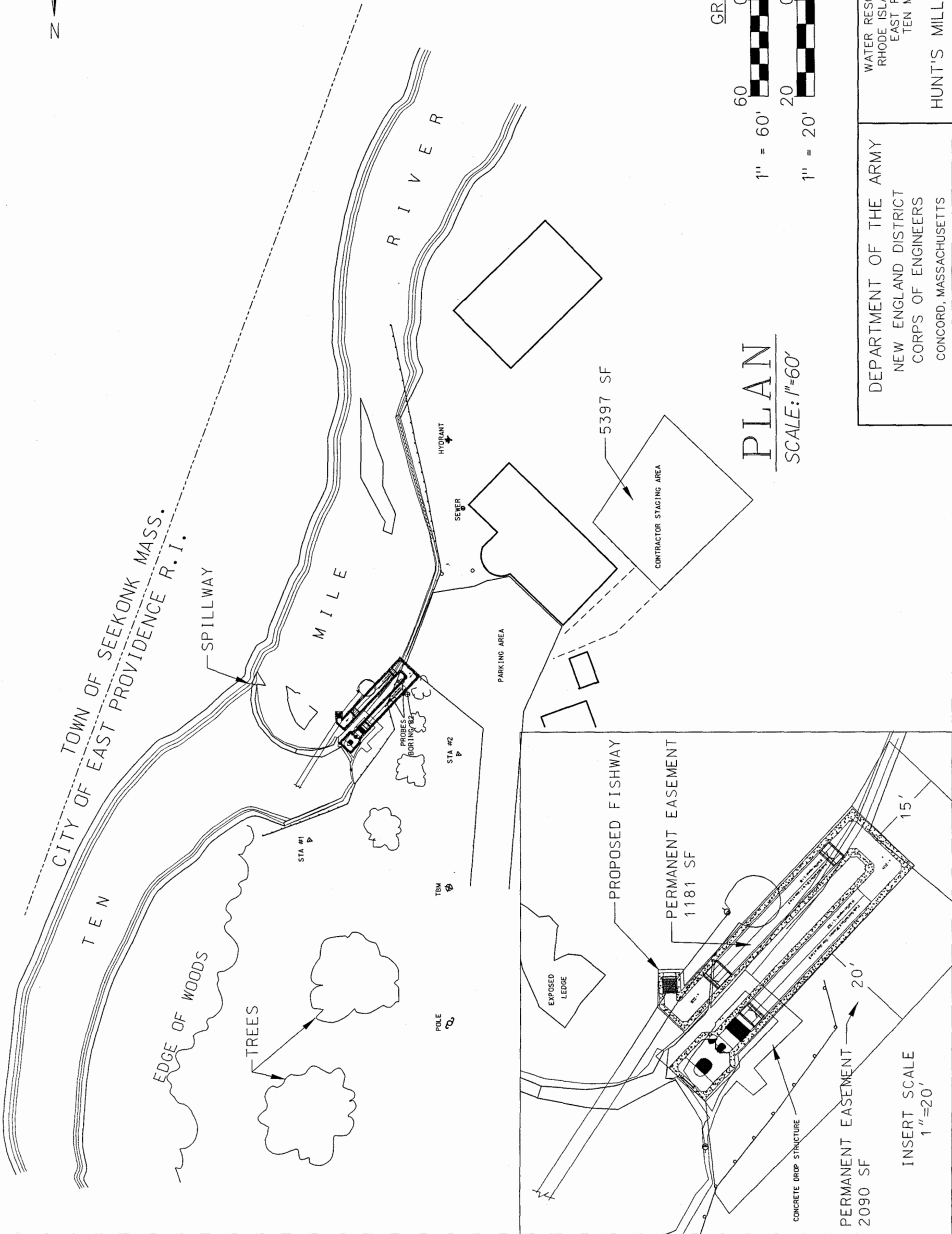
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TURNER RESERVOIR, EAST PROVIDENCE, RHODE ISLAND



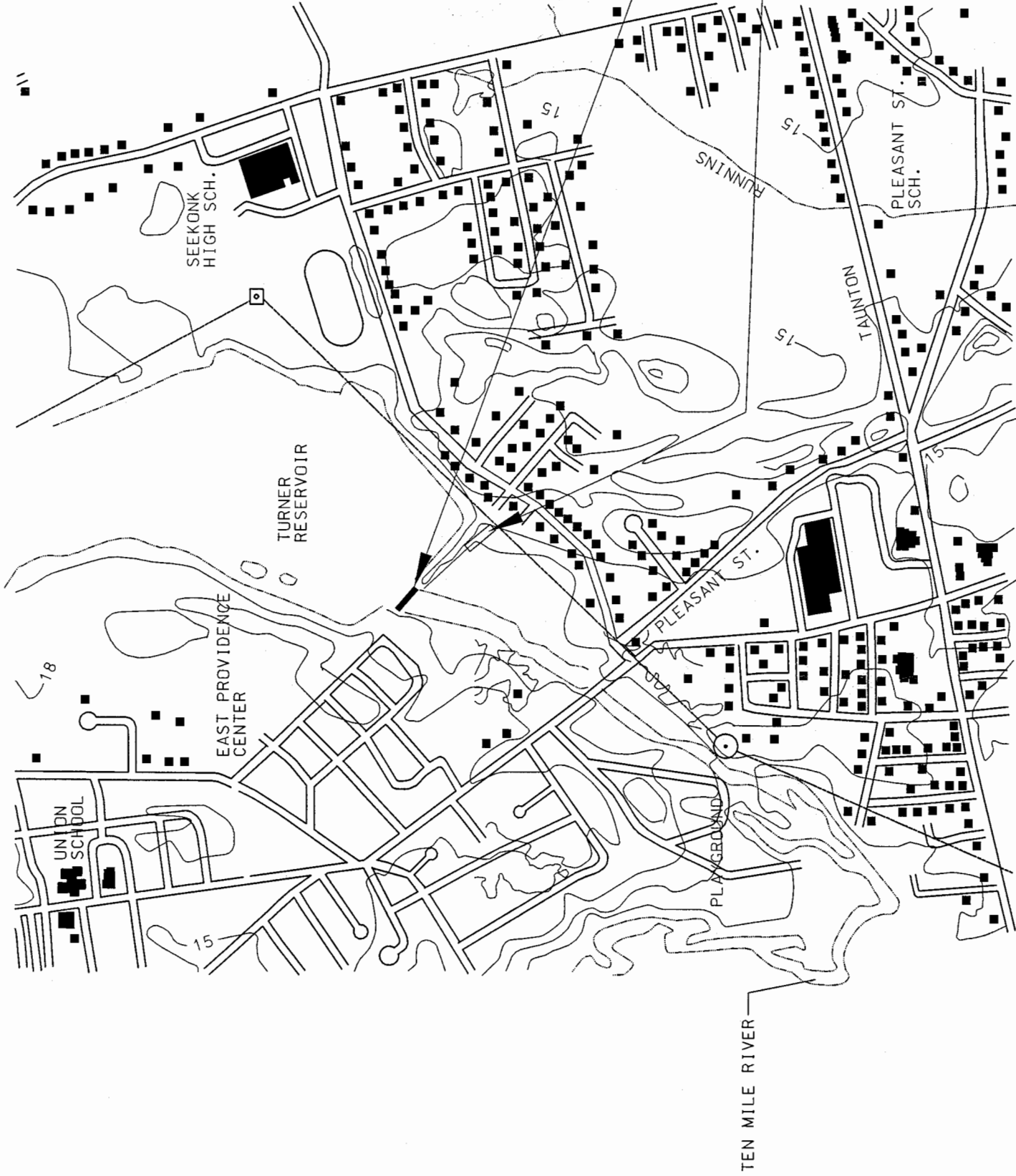




PLAN
SCALE: 1"=60'

DEPARTMENT OF THE ARMY NEW ENGLAND DISTRICT CORPS OF ENGINEERS CONCORD, MASSACHUSETTS	WATER RESOURCES DEVELOPMENT PROJECT RHODE ISLAND ECOSYSTEM RESTORATION EAST PROVIDENCE, RHODE ISLAND TEN MILE RIVER FISH PASSAGE	2	4
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HUNT'S MILL DAM - REAL ESTATE PLAN



PROPOSED FISHWAY
TURNER RESERVOIR

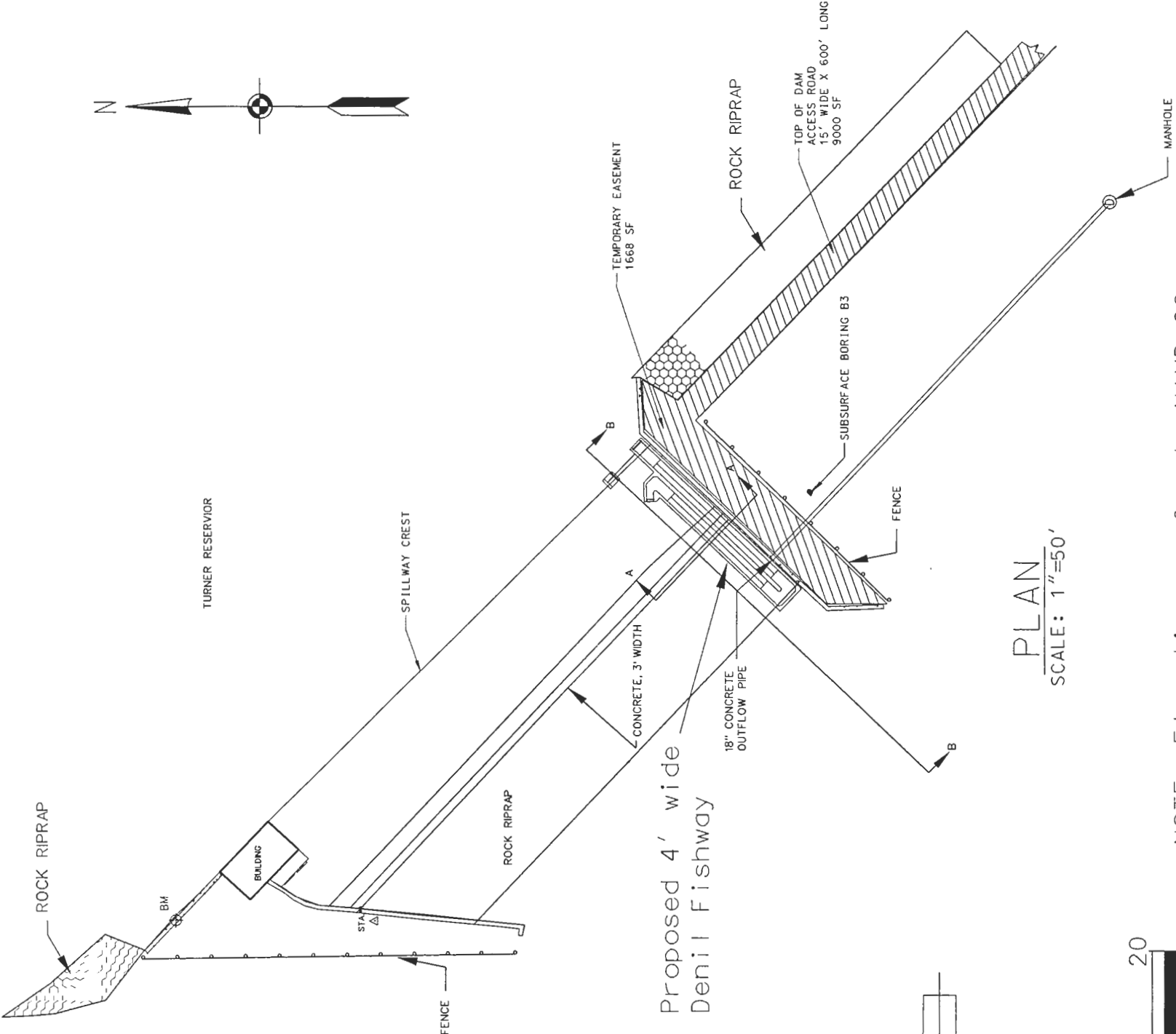
CONTRACTOR'S STAGING AREA
10,000 SF

GRAPHIC SCALE:



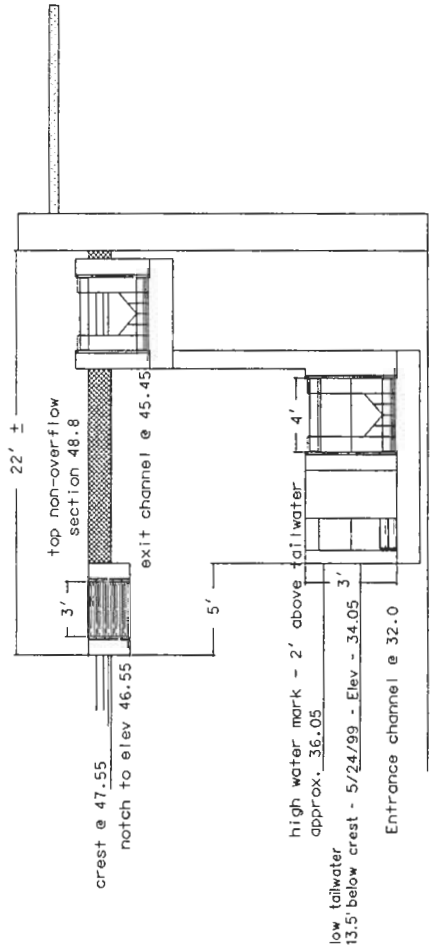
DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

WATER RESOURCES DEVELOPMENT PROJECT
RHODE ISLAND ECOSYSTEM RESTORATION
EAST PROVIDENCE, RHODE ISLAND
TEN MILE RIVER FISH PASSAGE

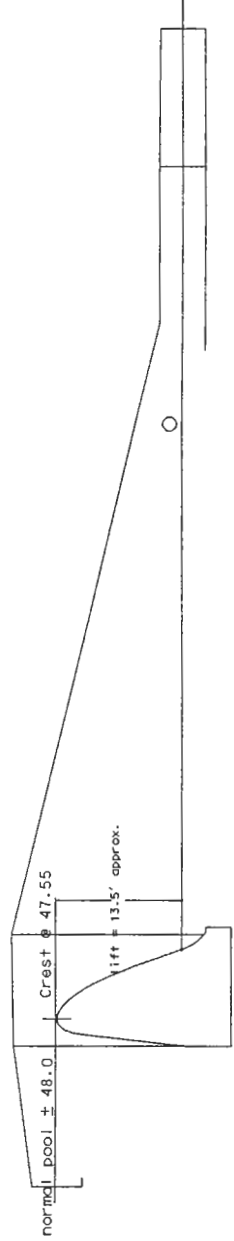


PLAN
SCALE: 1"=50'

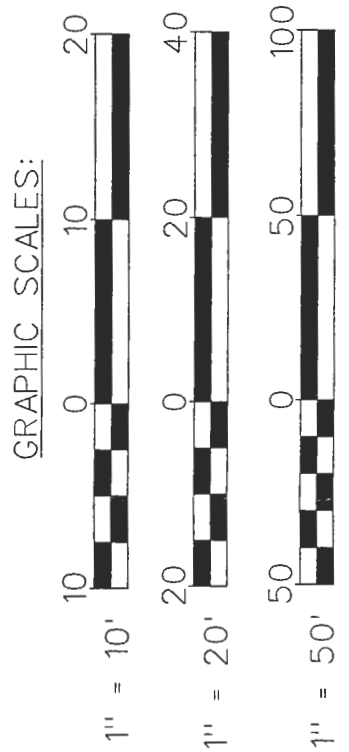
NOTE: Elevations refer to NAVD 88



SECTION A-A
Scale: 1"=10'



SECTION B-B
Scale: 1"=20'



DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT
CORPS OF ENGINEERS
CONCORD, MASSACHUSETTS

WATER RESOURCES DEVELOPMENT PROJECT
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