



**US Army Corps
of Engineers**[®]
New England District
696 Virginia Road
Concord, MA 01742-2751

PUBLIC NOTICE

Comment Period Begins: March 8, 2011
Comment Period Ends: April 8, 2011
File Number: NAE-2006-1052
In Reply Refer To: Kevin R. Kotelly, P.E.
Phone: (978) 318-8703
E-mail: kevin.r.kotelly@usace.army.mil

The District Engineer has received a permit application from the applicant below to conduct work in waters of the United States as described below.

APPLICANT

The Town of Winchester, Massachusetts

PROPOSED WORK AND PURPOSE

The work includes the discharge of dredged or fill material below the ordinary high water line of waters of the United States in order to perform Project 2 – the Aberjona River Widening of the Aberjona River Flood Mitigation Program. Project 2 involves widening and deepening the Aberjona River channel from Waterfield Road downstream to Bacon Street. Project 2 will occur in three phases.

Phase 1 of Project 2 will occur within the upper reach of the river and includes widening the Aberjona River from Waterfield Road to approximately 1,300 feet downstream from an existing bottom width of 15 to 20 feet to 35 feet wide. Dredging will also occur as described below. The existing granite revetment along the eastern bank of the river in this reach will be removed and replaced with a 1:1 engineered slope. The granite revetment on the western bank will remain in place; however, in areas where the revetment is failing, blocks will be reset. In this reach, the project will alter the curb line of a portion of the Mystic Valley Parkway, converting eight feet of the current shoulder to a five foot sidewalk and vegetated strip. The curb line modification will eliminate approximately 20 informal on-street parking spaces.

Phases 2 and 3 of Project 2 will occur downstream of the proposed reach to be widened, from approximately Manchester Road to Bacon Street. In this lower reach, it was determined that the channel had a sufficient width to achieve the required flood flows, but the channel bottom has an adverse slope in places which causes a backwater effect. Therefore, dredging will occur as described below. In this reach of the river, a concrete weir associated with a USGS gauging station will be removed and the gauging station replaced.

Approximately 2 acres of the river channel will be mechanically dredged along the entire length of Phases 1, 2, and 3 from Waterfield Road to Bacon Street in order to maintain a positive river slope and prevent backwater flows. The depth of dredging will vary between 2 and 6.5 feet depending on location. Approximately 6,000 cubic yards of dredged river sediments will be temporarily stockpiled in a dewatered section of the river prior to being loaded onto trucks for upland disposal.

A low flow channel will be constructed between Waterfield Road and Bacon Street within the width of the river to accommodate alewife during the spawning season (March through May) and provide a minimum flow depth during the low water season. The proposed low flow channel would be 8 feet wide and 2 feet deep.

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The riverbed dredging and bank excavation will take place in the dry. Two temporary cofferdams consisting of sheet piling will be installed to isolate and dewater the dredging areas. A temporary bypass pumping system will be constructed in the parking area along the western bank of the river to divert flows around the dredging areas. Remaining water will be pumped out of excavation areas as needed during construction to maintain a dry work area.

The project purpose is flood damage reduction by improving the flow and capacity of the Aberjona River. The proposed work area is outlined on the attached figure entitled, "Figure 1 Site Location Map, Aberjona River Flood Mitigation Program, Project 2." For a complete set of plans, contact the Corps of Engineers as described at the bottom of this public notice or visit the Corps of Engineers website at <http://www.nae.usace.army.mil/reg/pubnot2.asp> and click on this public notice.

MITIGATION

The proposed project alternative has been designed to avoid and minimize impacts as much as possible and still meet the project purpose. Existing vegetation along the banks of the Aberjona River will be preserved during construction to the maximum extent practicable. The proposed channel width of 35 feet is the narrowest of the alternatives that were studied. Proposed measures to decrease individual and cumulative impacts include: proper project sequencing; minimization of the limit of disturbance; proper use of silt fences, hay bales, coffer dams and turbidity curtains; proper equipment maintenance and decontamination; restoring in place all disturbed areas; and adequate restoration monitoring upon completion of construction.

WATERWAY AND LOCATION OF THE PROPOSED WORK

This work is proposed in the Aberjona River in Winchester, Massachusetts. The proposed location on the USGS Boston North quadrangle sheet is at Latitude 42°26'53.16" N and Longitude 71°8'17.81" E.

AUTHORITY

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
- Section 404 of the Clean Water Act
- Section 103 of the Marine Protection, Research and Sanctuaries Act).

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other

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public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 as amended.

ESSENTIAL FISH HABITAT

The Magnuson-Stevens Fishery Conservation and Management Act, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), requires all federal agencies to consult with the National Marine Fisheries Service on all actions, or proposed actions, permitted, funded, or undertaken by the agency, that may adversely affect Essential Fish Habitat (EFH).

This project will impact approximately 2.2 acres of Essential Fish Habitat (EFH) for Alewife. Loss of this habitat may adversely affect seasonal Alewife spawning. However, the District Engineer has made a preliminary determination that the site-specific adverse effect will not be substantial. Further consultation with the National Marine Fisheries Service regarding EFH conservation recommendations is being conducted and will be concluded prior to the final decision.

SECTION 106 COORDINATION

Based on his initial review, the District Engineer has determined that the proposed work may impact properties listed in, or eligible for listing in, the National Register of Historic Places. Additional review and consultation to fulfil requirements under Section 106 of the National Historic Preservation Act of 1966, as amended, will be ongoing as part of the permit review process.

ENDANGERED SPECIES CONSULTATION

The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the project site. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect any federally listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

The following authorizations have been applied for, or have been, or will be obtained:

- (X) Permit, License or Assent from State.
- (X) Permit from Local Wetland Agency or Conservation Commission.
- (X) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. **Comments should be submitted in writing by the above date.** If you have any

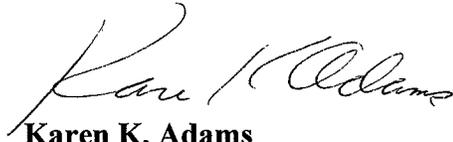
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questions, please contact Kevin Kotelly at (978) 318-8703, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.



Karen K. Adams
Chief, Permits and Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

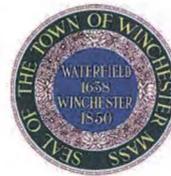
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ADDRESS: _____

ABERJONA RIVER FLOOD MITIGATION PROGRAM 'PROJECT 2' ABERJONA RIVER WIDENING



Prepared For:

The Town Of Winchester

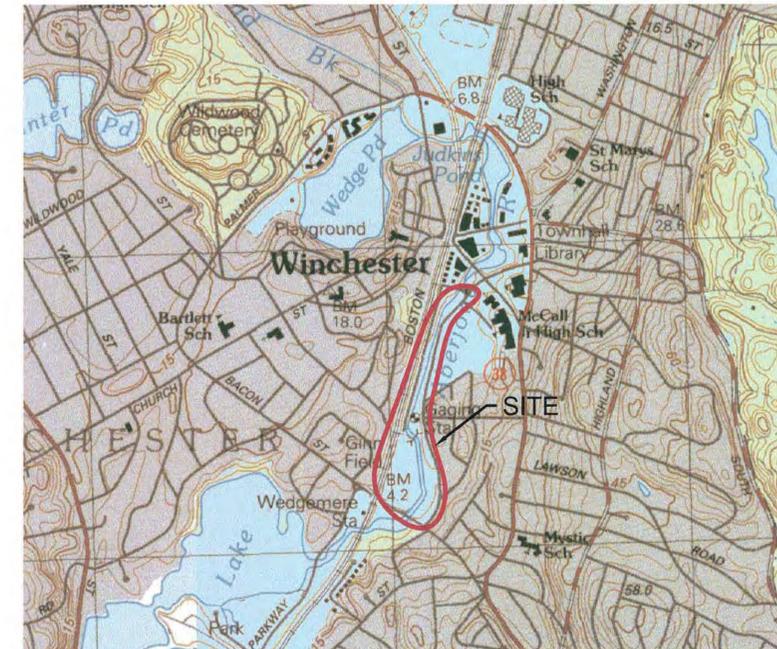


Board of Selectmen
2nd Floor, Town Hall
71 Mt. Vernon Street
Winchester, MA 01890

Mary Ellen Lannon, Acting Town Manager
2nd Floor Town Hall
71 Mt. Vernon Street
Winchester, MA 01890

Beth Rudolph, Town Engineer
Lower Level, Town Hall
71 Mt. Vernon Street
Winchester, MA 01890

Edward Grant, DPW Director
15 Lake Street
Winchester, MA 01890



Prepared By:

AECOM

AECOM Environment
2 Technology Park Drive
Westford, MA 01886
978.589.3000
www.aecom.com

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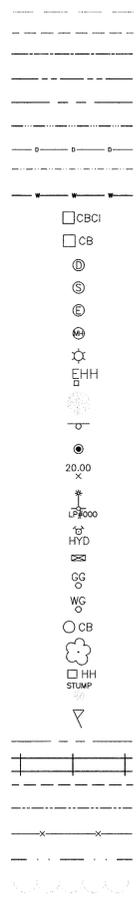
SHEET	SHEET TITLE	SHEET	SHEET TITLE	SHEET	SHEET TITLE
G-000	Title Sheet	C-300	Water Management Plan	L-103	Landscape Restoration Plan
G-001	Legend and General Notes	C-401	Final Grading	L-104	Landscape Restoration Plan
G-002	Construction and Traffic Sign Summary	C-402	Final Grading	L-105	Landscape Restoration Plan
G-100	Sheet Overview	C-403	Final Grading	L-106	Landscape Restoration Plan
G-101	Existing Conditions	C-404	Final Grading	L-107	Landscape Restoration Plan
G-102	Existing Conditions	C-405	Final Grading	L-108	Landscape Restoration Plan
G-103	Existing Conditions	C-503	Stormwater Utility Restoration Plan	L-200	Ginn Field Playground Restoration Plan
G-104	Existing Conditions	C-504	Stormwater Utility Restoration Plan	C-700	Cross Section Overview
G-105	Existing Conditions	C-505	Stormwater Utility Restoration Plan	C-701	Representative Cross Sections
T-100	Traffic Management Plan - Phase 1	C-601	Ginn Field Restoration Plan	C-702	Representative Cross Sections
T-101	Traffic Management Plan - Phase 2 & 3	C-602	Ginn Field Restoration Plan	C-703	Representative Cross Sections
C-100	Site Preparation and Erosion Control	T-200	Pavement Markings and Signs	D-100	Details
C-202	Site Clearing and Demolition	L-100	Landscape Restoration Plan	D-101	Details
C-203	Site Clearing and Demolition	L-101	Landscape Restoration Plan	D-102	Details
C-204	Site Clearing and Demolition	L-102	Landscape Restoration Plan		
C-205	Site Clearing and Demolition				

Current Date: FEBRUARY 2011

Drawing No.: G-000

LEGEND

EXISTING



Minor Contour
 Major Contour
 FEMA 100-Year Floodplain
 100-ft Riparian Buffer
 200-ft Riparian Buffer
 Edge of River
 Storm Drain Pipe
 Sewer Pipe
 Water Line
 Catch Basin With Inlet
 Catch Basin
 Drain Manhole
 Sewer Manhole
 Electric Manhole
 Manhole
 Light Pole
 Electric Handhole
 Deciduous Tree
 Sign
 Drill Hole
 Spot Elevation
 Utility Pole W/ Light
 Guy Wire Fire
 Hydrant
 Traffic Signal Control Box
 Gas Gate
 Water Gate
 Catch Basin Utility Pole
 Shrub
 Traffic Handhole
 Tree Stump
 Wetland Flag
 Property Line
 Railroad Tracks
 Underground Utility Line
 Easement Line
 Chain Link Fence
 Overhead Wires
 Treeline

PROPOSED



ABBREVIATIONS

BS	BOTTOM OF SLOPE
CL	CENTERLINE
GS	GROUND SHOT
INV	PIPE INVERT
OS	ON SLOPE
PL	PROPERTY LINE
SWB	BITUMINOUS SIDEWALK
SWC	CONCRETE SIDEWALK
TS	TOP OF SLOPE
TW	TOP OF WALL
T1	TRANSECT 1

EROSION CONTROL NOTES

- Contractor shall install and maintain erosion and sedimentation control measures in accordance with the standards for soil erosion and sediment control in Massachusetts (hereafter referred to as MA guidelines).
- Prior to the start of construction, hay bales and siltation fencing shall be staked across the slope(s), on the contour and at, or just below, the limits of potential disturbance, as shown on the plans.
- At a minimum, the hay bales and siltation fencing shall be inspected and repaired once a week or immediately following any significant rainfall or snow melt. Sediment trapped behind the barriers shall be excavated when the sediment reaches a depth of 6 inches. The removed sediment shall be regraded onto the site.
- If final seeding of the disturbed areas is not completed by August 15 of the year of the construction, the contractor shall grade and smooth these areas and plant them with temporary seeding, in accordance with MA guidelines.
- Following seed bed preparation, a premium grade grass seed mixture, approved by Owner, shall be applied to disturbed areas.
- Hay mulch shall be applied to the new seeding to hasten germination and to protect the new seedbeds from erosion during the establishment period. The mulch application rate shall be 1.5 to 2 tons per acre.
- Silt fence barriers shall remain in place until seedlings have become at least 75% established and then removed. The area disturbed by removal shall be fine graded, and seeded with permanent grass mixture as described above.
- Maintenance measures shall be applied as needed during the entire construction cycle. After each rainfall, a visual inspection shall be made of all installed erosion control measures and repairs shall be conducted to ensure their continuing function as designed. Following the final seeding, the site shall be inspected every thirty days until the seedlings have been 95% established. If erosion occurs before the seedlings have become established or if there are areas where growth is insufficient, these areas shall be regraded and reseeded as required, and follow-up inspections shall be made.

GENERAL NOTES

- These construction drawings are only a component of the contract documents for Project 2 - Aberjona River Widening. The contract documents for this project consists of the construction drawings, bid documents, issued permits, and technical specifications. The contractor is responsible for all requirements and for performing all activities as identified in any and all of the contract document components.
- Contours and elevations shown are based upon NAVD 1988. Basis of bearings is Massachusetts State Plane Coordinate System.
- The Contractor shall protect all areas disturbed by construction that are subject to erosion (either newly filled or excavated), all areas used for contractor staging and all soil stockpile areas with appropriate erosion control measures.
- The Contractor shall install temporary erosion and sediment control measures (hay bales and/or silt fences) prior to initiating any and all clearing/grubbing and excavation activities. These measures shall be inspected and maintained on a continual basis throughout construction and until the site is restored and becomes stabilized.
- The Contractor shall be responsible for securing the work area both during and after the hours of construction and until the site is restored. Security measures may include temporary construction fencing, signs and, if necessary, barricades to limit site access. Additional measures may be installed at the direction of the Owner in order to ensure a safe working environment.
- The Contractor shall coordinate all construction related activities with Town of Winchester Engineering Department.
- Underground utilities shown are based upon field observations and plans of record. These utilities are not warranted to be correct nor is it warranted that all underground utilities are shown.
- The Contractor shall be responsible for verifying all property lines, vertical datum, and locations of utilities, and other existing conditions in the field before beginning construction activities.
- The Contractor shall notify the Town of Winchester to mark all town-owned water, sewer, and drainage utilities prior to performing any excavation/regrading activities.
- The Contractor is responsible for the cost of any temporary utilities required to facilitate construction, including, but not limited to: electricity, water, telephone/fax, etc.
- The Contractor shall comply with the conditions of all environmental permits issued for this project.

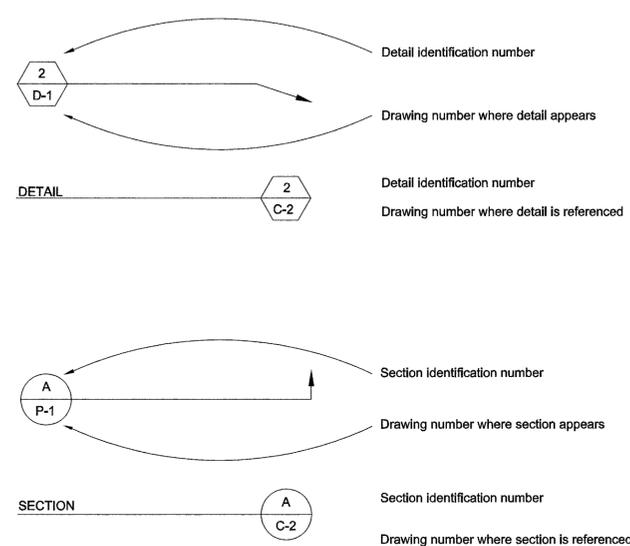
CONSTRUCTION NOTES

- The Contractor shall call Dig Safe at 1-888-344-7233 at least 72 hours, Saturdays, Sundays, and holidays excluded, prior to excavating at any location. A copy of the Dig Safe project reference number(s) shall be given to the owner prior to excavation.
- Locations of existing pipes, conduits, utilities, foundations and other underground objects are not warranted to be correct and the Contractor shall have no claim on that account should they be other than shown.
- Test pits to locate existing utilities may be ordered by the engineer.
- Stone walls, fences, mail boxes, signs, curbs, light poles, etc. shall be removed and replaced as necessary to perform the work, unless otherwise indicated, all such work shall be incidental to construction of the project.
- All pavement disturbed by the contractor's operations shall be replaced in accordance with the specifications and as shown on the drawings.
- All areas disturbed by the Contractor beyond payment limits shall be restored at no additional cost to the Owner.
- Form brick inverts in manholes with brick on edge to a depth of 0.8 inside diameter of pipe and form a 1 inch sloped bench with brick flat. Invert shall be sloped uniformly between inlet and outlet pipe and shall be formed and filled as required to direct the flow as indicated.
- In accordance with DEP regulations, all manholes within a 2,640 foot radius of a public well shall have watertight frames and covers.
- Calculation of pipe slopes is based on elevation changes divided by the distance between the outside edges of the manhole walls, for four foot diameter manholes, this distance was calculated as the centerline stationing minus five feet. For five foot diameter manholes, this distance was calculated as the centerline stationing minus six feet. "in" indicates upstream end of manhole, "out" indicates downstream end of manhole.
- All street excavations shall be completely closed at the end of each working day by backfilling or covering with steel plates
- During river bypass Contractor shall have capacity to pump minimum of 400 cfs, equivalent to the 2-year, 24-hour storm.
- Coffer dams shall be set to 2-year storm elevations.
- Contractor shall use turbidity curtains or similar measure approved by the Engineer for work performed in river, beyond the coffer dams, to prevent migration of sediment downstream.

REFERENCES

- The existing conditions shown on this plan are a compilation of survey from two sources. Areas to the west of the Aberjona River are the result of aerial photogrammetry from multiple sources, and areas to the east of the Aberjona River are the result of an instrument survey performed on the ground by Green International Affiliates, Inc. in June and July, 2008.
- The property lines shown on this plan are a compilation of assessor quality maps and are approximate only.
- Wetlands were delineated by others and located by Green International Affiliates in April to June, 2007.

VIEW MARKERS



OWNER

Town of Winchester
 71 Mount Vernon St.
 Winchester, MA

FLOOD CONTINGENCY PLAN

During construction the Contractor will be required to monitor the National Weather Service Forecast Office for weather updates. The Contractor will initiate a flood contingency plan when a "flood warning" has been issued for southeast Middlesex County. Warnings are issued by radio broadcast and are available via the internet at <http://www.nws.noaa.gov>. The Contractor will be required to have staff and materials available seven days per week to implement the flood contingency plan if needed. Once a "flood warning" has been issued, the plan includes:

- Removal of all construction vehicles and equipment from the flood plain area as soon as is reasonably possible.
- Securely staking geotextile or jute matting over areas of exposed / unstabilized soil within the channel.
- The Contractor will be required to have enough geotextile or jute matting on site to completely cover exposed / unstabilized soil within the channel.
- Areas of exposed / unstabilized soil outside of the active channel, but within the 100-year floodplain will be covered with six-millimeter plastic sheeting. Plastic sheeting should overlap at seams a minimum of three feet. The plastic sheeting around the perimeter shall be keyed into the surrounding soil six inches. The seams and perimeter of the plastic sheeting shall be covered with 3/4-inch crushed stone ballast.
- The Contractor will be required to have a minimum of 15,000 square feet of plastic sheeting and 150cubic yards of crushed stone available for ballast on site at all times.
- In the event of flooding no active work will be allowed to take place within the work zone until the floodwaters have receded, and any damage to erosion control measures have been repaired.



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AECOM
 2 Technology Park Drive, Westford, MA
 978.399.3000
 www.aecom.com

TOWN OF WINCHESTER,
 MASSACHUSETTS

DATE: 02 / 2011

PROJ. NO.: 60145116

**LEGEND AND
 GENERAL NOTES**

ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

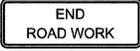
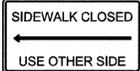
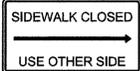
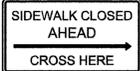
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CONSTRUCTION SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	NUMBER OF SIGNS REQUIRED	POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	TOTAL AREA IN SQUARE FEET
	WIDTH (FT-IN)	HEIGHT (FT-IN)					
G20-2	3'-0"	1'-6"		4	P-5 4	4.50	18.00
R7-1L	1'-0"	1'-6"		2	P-5 2	1.50	3.00
R7-1LR	1'-0"	1'-6"		2	P-5 2	1.50	3.00
R9-10L	2'-0"	1'-0"		1	0 1 MTD ON TYPE III BARRICADE	2.00	2.00
R9-10R	2'-0"	1'-0"		1	0 1 MTD ON TYPE III BARRICADE	2.00	2.00
R9-11R	2'-0"	1'-6"		1	0 1 MTD ON TYPE III BARRICADE	3.00	3.00
W5-1	3'-0"	3'-0"		2	1 1 MTD W/R7-1L	9.00	18.00
W20-1c	4'-0"	4'-0"		5	P-5 5	16.00	80.00

NOTES : 1. TEXT DIMENSIONS, SPACING AND COLORS SHALL BE PER 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND 1996 MASS HIGHWAY CONSTRUCTION AND TRAFFIC STANDARD DETAILS.
 2. UNLESS OTHERWISE NOTED, ALL SIGN SUPPORTS SHALL BE WOODEN BREAKAWAY POSTS PER MASSACHUSETTS HIGHWAY STANDARDS.
 * PER MASS HIGHWAY STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TEMPORARY TRAFFIC CONTROL PLANS

TRAFFIC SIGN SUMMARY

IDENTIFICATION NUMBER	SIZE OF SIGN		TEXT	NUMBER OF SIGNS REQUIRED	POST SIZE AND NUMBER REQUIRED	UNIT AREA IN SQUARE FEET	TOTAL AREA IN SQUARE FEET
	WIDTH (FT-IN)	HEIGHT (FT-IN)					
R7-1L	1'-0"	1'-6"		1	P-5 1	1.50	1.50
R7-1R	1'-0"	1'-6"		1	P-5 1	1.50	1.50
R7-1LR	1'-0"	1'-6"		1	P-5 1	1.50	1.50

NOTES : 1. TEXT DIMENSIONS, SPACING AND COLORS SHALL BE PER 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND 1996 MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD DRAWINGS FOR SIGNS AND SUPPORTS.
 2. UNLESS OTHERWISE NOTED, ALL POSTS TO BE P-5.

NOT FOR CONSTRUCTION



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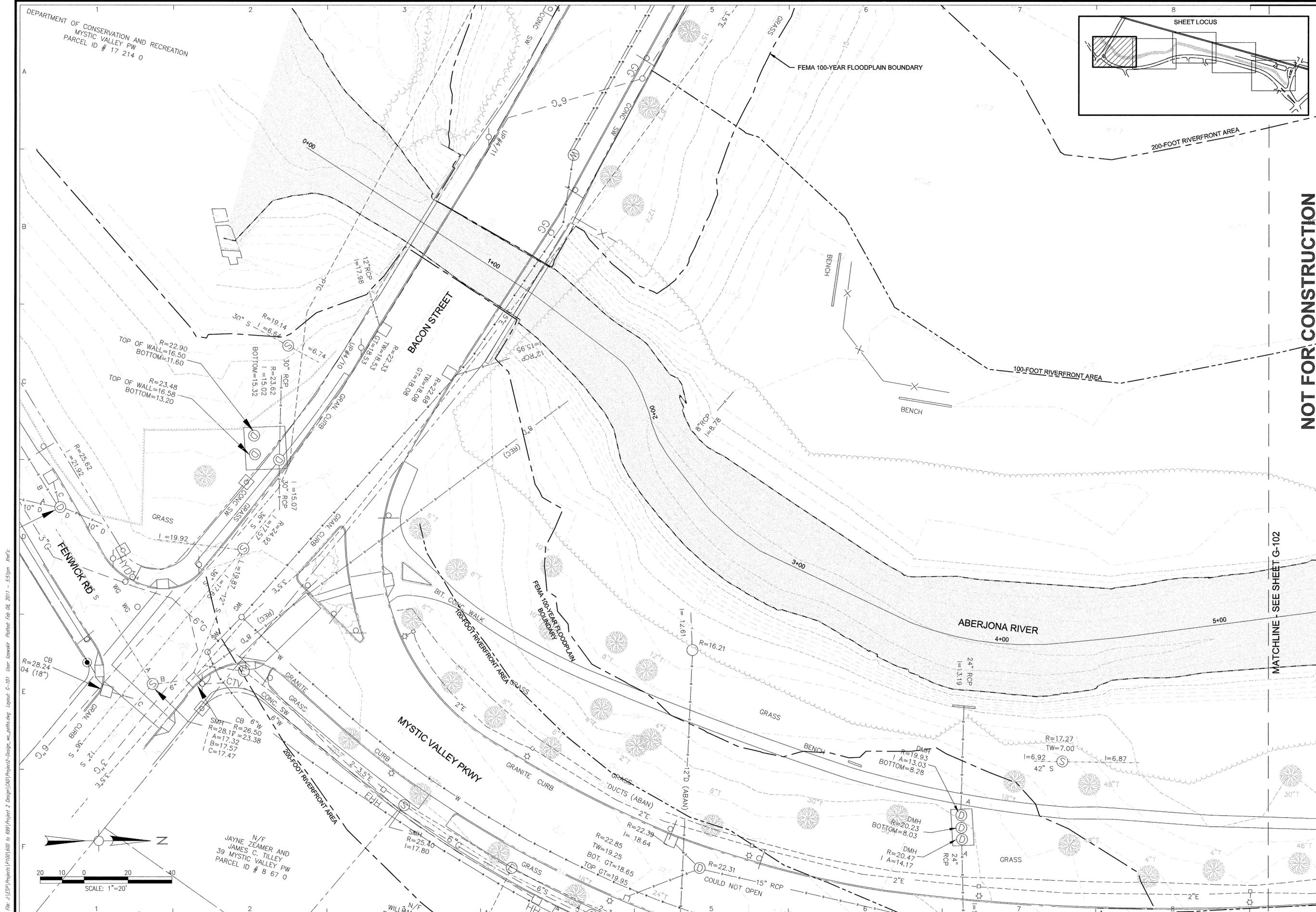
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TOWN OF WINCHESTER,
 MASSACHUSETTS
 PROJ. NO.: 60145116
 DATE: 02/2011

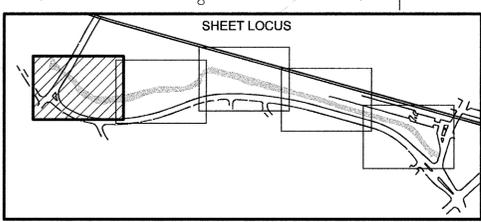
CONSTRUCTION AND TRAFFIC SIGN SUMMARY
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

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G-002
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DEPARTMENT OF CONSERVATION AND RECREATION
 MYSTIC VALLEY PW
 PARCEL ID # 17 214 0



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NOT FOR CONSTRUCTION

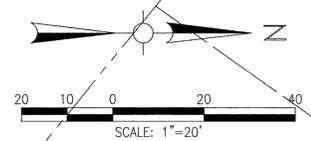
AECOM
 AECOM
 978.989.3000
 www.aecom.com

TOWN OF WINCHESTER,
 MASSACHUSETTS
 PROJ. NO.: 60145116
 DATE: 02/2011

EXISTING CONDITIONS
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

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N/F
 JAYNE ZEAMER AND
 JAMES C. TILLEY
 39 MYSTIC VALLEY PW
 PARCEL ID # 8 67 0

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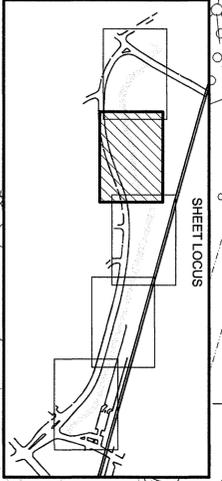


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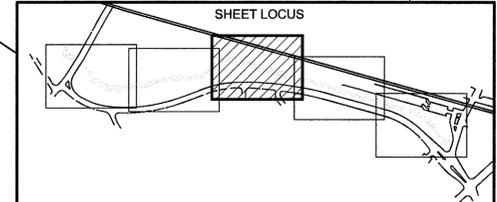
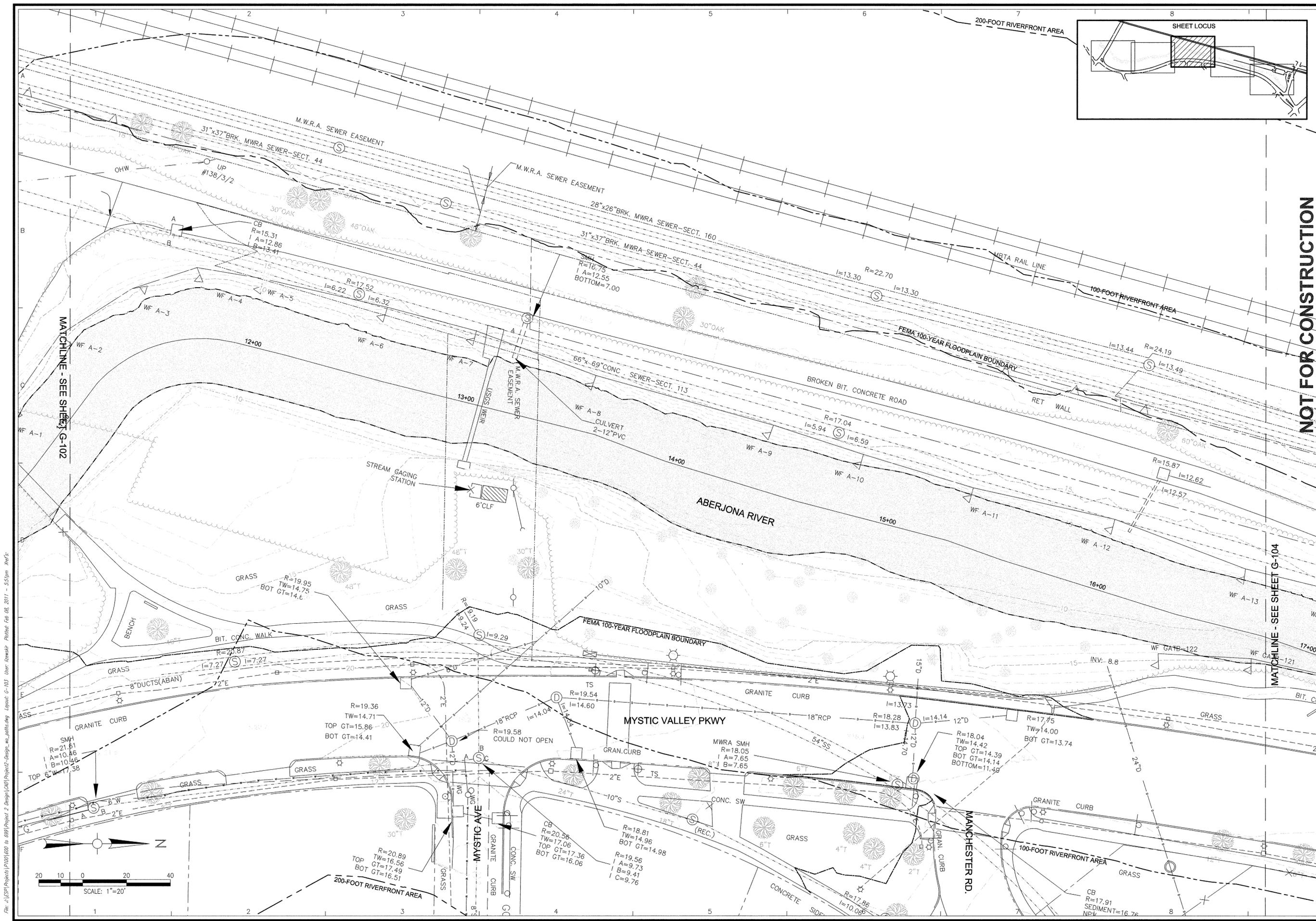
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DEPARTMENT OF CONSERVATION AND RECREATION

MATCHLINE - SEE SHEET G-103

NOT FOR CONSTRUCTION



DRAWING NUMBER: G-102	TOWNSHIP OF WINCHESTER, MASSACHUSETTS			NO. 7 6 5 4 3 2 1 0	NO. DRWN DATE REVISION CHKD DATE APPV DATE
	SHEET NUMBER: 6 OF 45	PROJ. NO.: 60145116			
EXISTING CONDITIONS	ABERJONA RIVER FMP PROJECT 2 - RIVER WIDENING	PROJ. NO.: 60145116	AECOM 2 Technology Park Drive, Westford, MA 978.599.3000 www.aecom.com		



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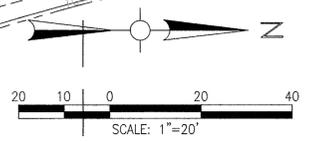
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 PROJ. NO.: 60145116
 DATE: 02/2011

EXISTING CONDITIONS
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
G-103
 SHEET NUMBER:
7 of 45
 REVISION 0

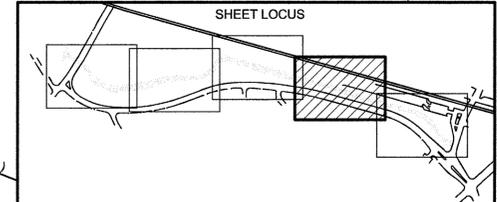
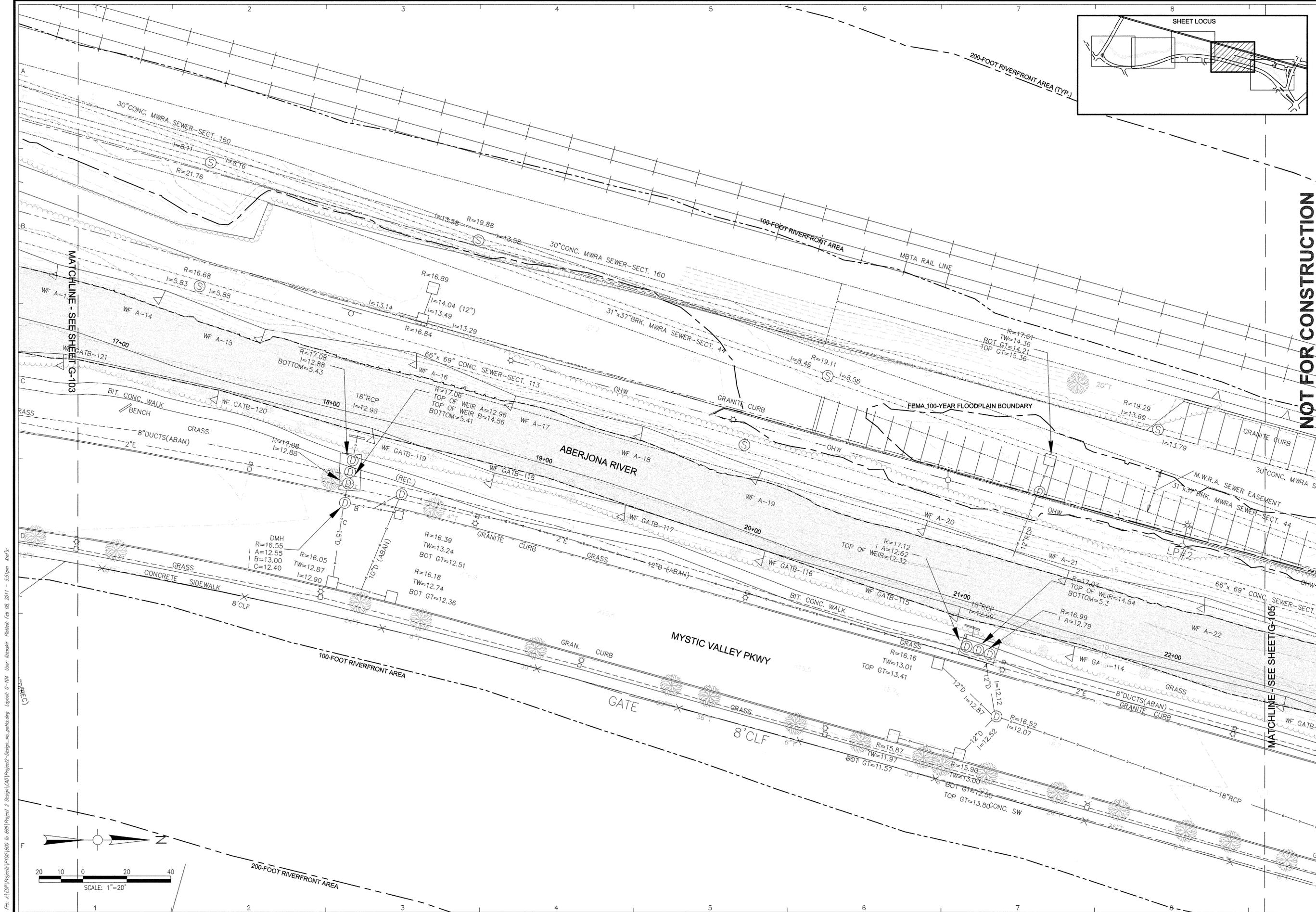
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MATCHLINE - SEE SHEET G-102

MATCHLINE - SEE SHEET G-104

NOT FOR CONSTRUCTION



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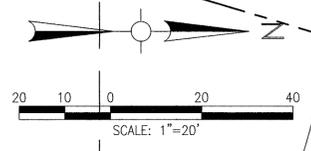
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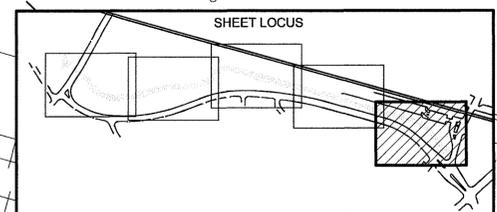
TOWN OF WINCHESTER,
 MASSACHUSETTS
 PROJ. NO.: 60145116
 DATE: 02/2011

EXISTING CONDITIONS
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

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G-104
 SHEET NUMBER:
8 of 45
 REVISION 0

File: J:\SPP\Projects\PI100\00 to 859\Project 2 Design\CD\Project2_Design_ma_paths.dwg Layout: C-104 User: bawaski Plotfile: Feb 08, 2011 - 5:51pm Xref's:





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TOWN OF WINCHESTER,
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PROJ. NO.: 60145116 DATE: 02/2011

EXISTING CONDITIONS

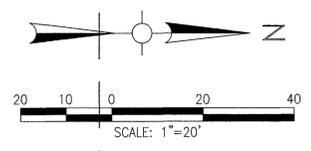
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 PROJECT 2 - RIVER WIDENING

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9 of 45

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NOT FOR CONSTRUCTION



GENERAL NOTES (ALL PHASES):

1. WORK IN ONE PHASE SHALL BE SUBSTANTIALLY COMPLETED PRIOR TO STARTING WORK ON ANOTHER PHASE. THESE TRAFFIC MANAGEMENT PLANS (TMP) SHOW THE SUGGESTED CONSTRUCTION PHASING WITH PERTINENT TRAFFIC CONTROLS.
2. EXISTING SIGNS THAT ARE NO LONGER APPLICABLE, WHICH MIGHT CREATE CONFUSION OR CONFLICT WITH DETOURS, SHALL EITHER BE COVERED OR REMOVED AS SOON AS PRACTICABLE.
3. FOR ADEQUATE VISIBILITY DURING HOURS OF DARKNESS, ALL SIGNS SHALL BE RETROREFLECTORIZED, WITH REFLECTIVE SHEETING CONFORMING TO M9.30.0 TYPE III OR TYPE IV.
4. SIGN AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY MUST PASS THE CRITERIA SET FORTH IN THE NCHRP 350 REPORT.
5. ALL DISTANCES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER, MINIMUM DISTANCES WHERE INDICATED, SHOULD BE MAINTAINED.
6. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED IMMEDIATELY WHEN NO LONGER NEEDED.
7. TRAVEL LANES DURING CONSTRUCTION SHALL HAVE A CLEAR WIDTH OF 12 FT. MINIMUM.
8. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND 1996 MASS HIGHWAY CONSTRUCTION AND TRAFFIC STANDARD DETAILS.
9. ACCESS TO ALL ROADWAYS AND PRIVATE DRIVEWAYS SHALL BE MAINTAINED DURING CONSTRUCTION.

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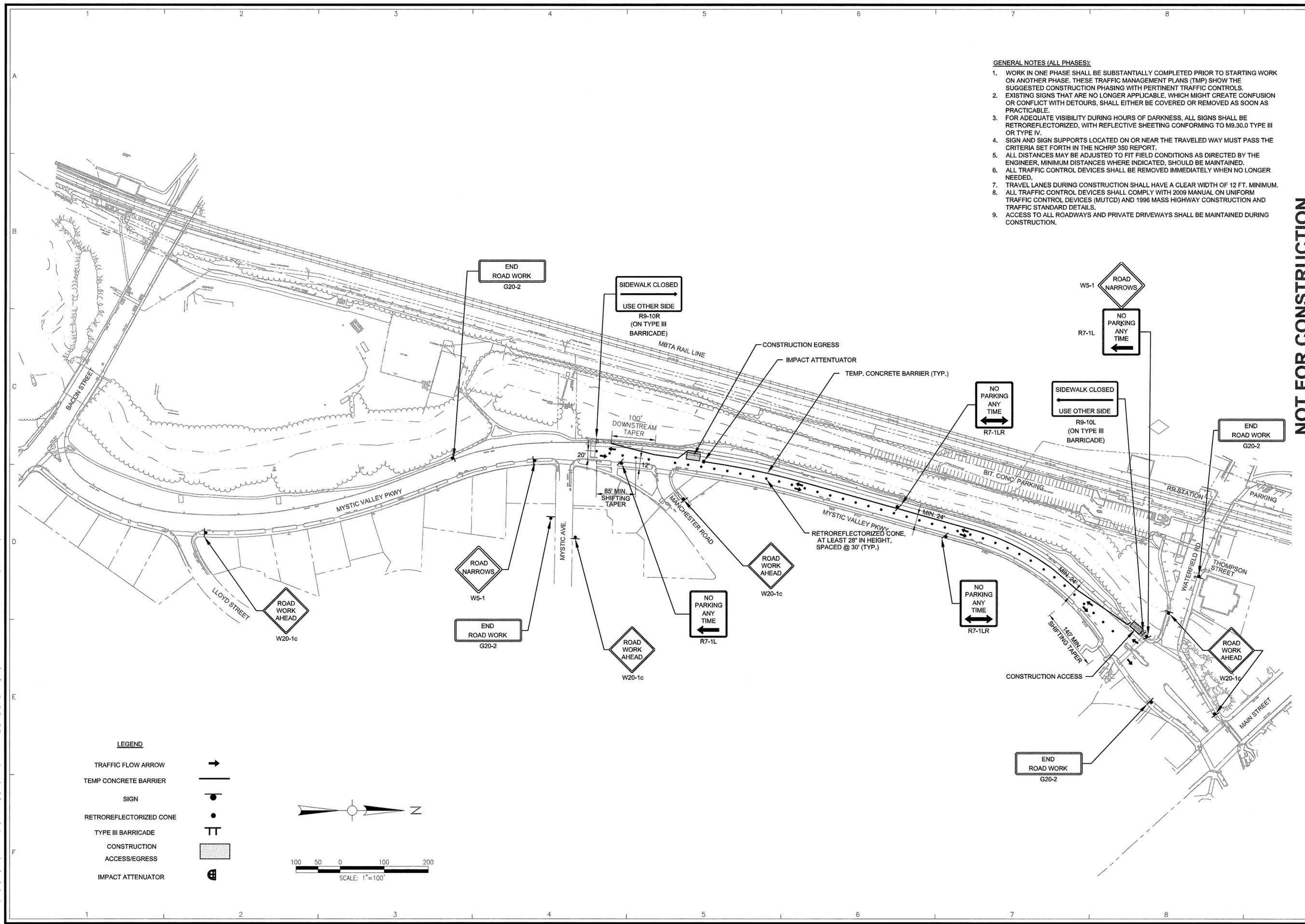
DATE: 02 / 2011

PROJ. NO.: 60145116

**TRAFFIC MANAGEMENT
PLAN - PHASE 1**

ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
T-100
SHEET NUMBER:
10 of 45
REVISION | 0



File: J:\ESP\Projects\T100 to 600 to 600\Project 2 Design\CAD\Traffic\B0145116-TMP_&PMS_&S&S_WD01.dwg Layout: T-100 User: borenak Plotfile: Feb 08, 2011 - 6:33pm Xref's:



- GENERAL NOTES (ALL PHASES):**
1. WORK IN ONE PHASE SHALL BE SUBSTANTIALLY COMPLETED PRIOR TO STARTING WORK ON ANOTHER PHASE. THESE TRAFFIC MANAGEMENT PLANS (TMP) SHOW THE SUGGESTED CONSTRUCTION PHASING WITH PERTINENT TRAFFIC CONTROLS.
 2. EXISTING SIGNS THAT ARE NO LONGER APPLICABLE, WHICH MIGHT CREATE CONFUSION OR CONFLICT WITH DETOURS, SHALL EITHER BE COVERED OR REMOVED AS SOON AS PRACTICABLE.
 3. FOR ADEQUATE VISIBILITY DURING HOURS OF DARKNESS, ALL SIGNS SHALL BE RETROREFLECTORIZED, WITH REFLECTIVE SHEETING CONFORMING TO M9.30.0 TYPE III OR TYPE IV.
 4. SIGN AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY MUST PASS THE CRITERIA SET FORTH IN THE NCHRP 350 REPORT.
 5. ALL DISTANCES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER, MINIMUM DISTANCES WHERE INDICATED, SHOULD BE MAINTAINED.
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 9. ACCESS TO ALL ROADWAYS AND PRIVATE DRIVEWAYS SHALL BE MAINTAINED DURING CONSTRUCTION.

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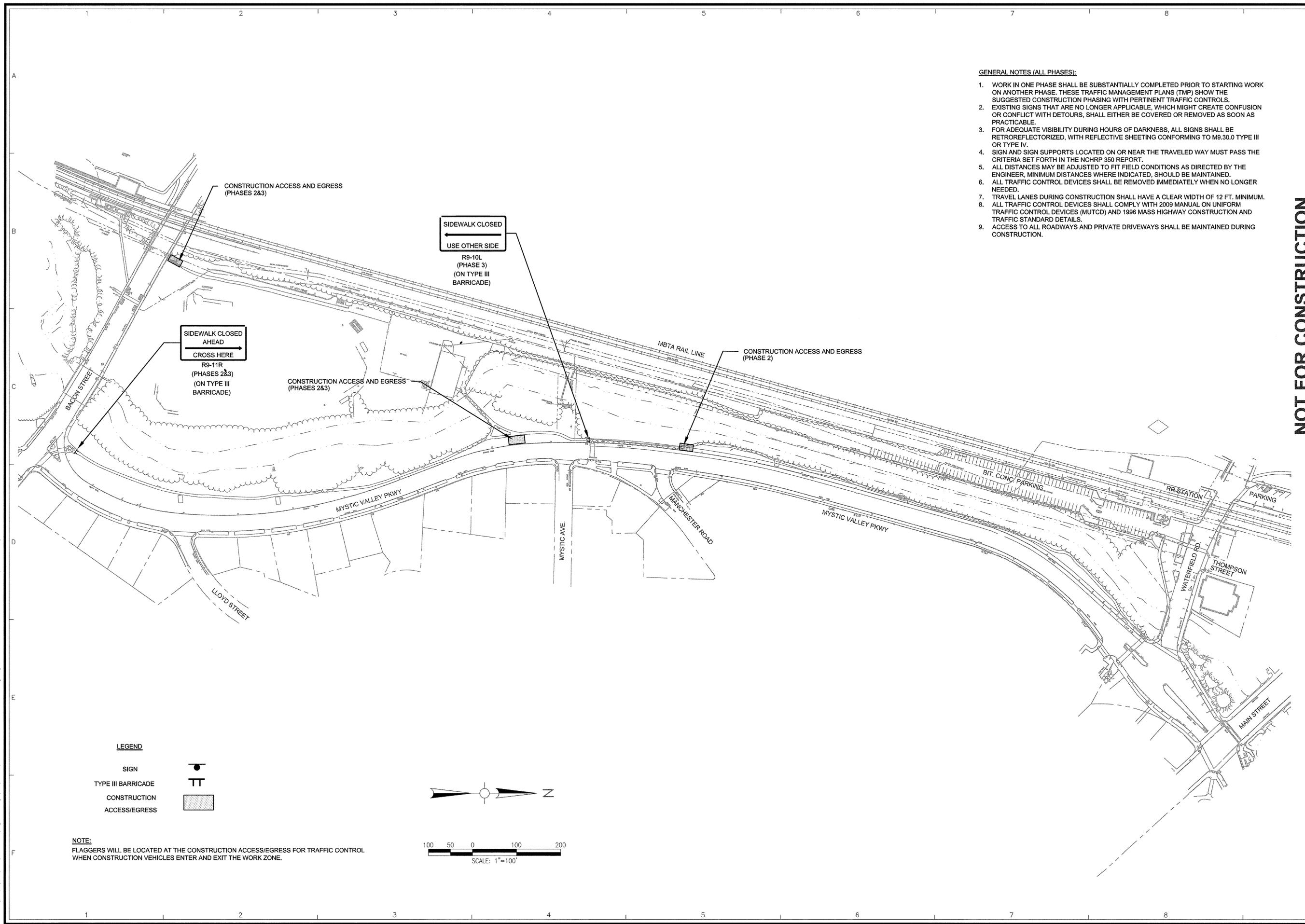
**TRAFFIC MANAGEMENT
PLAN - PHASES 2 AND 3**

ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING

PROJ. NO.: 60145116

DRAWING NUMBER:
T-101
SHEET NUMBER:
11 of 45
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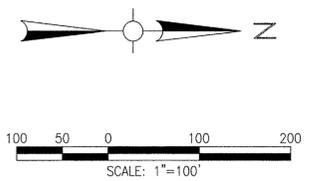
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LEGEND

- SIGN
- TYPE III BARRICADE
- CONSTRUCTION ACCESS/EGRESS

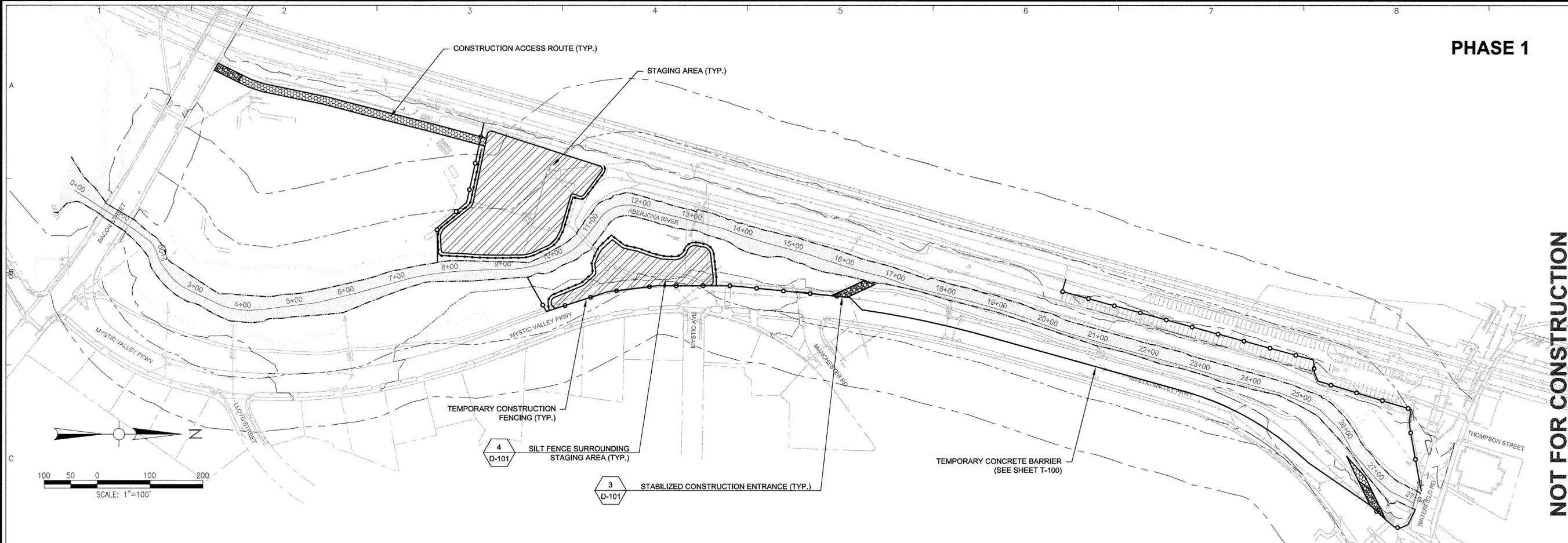
NOTE:
FLAGGERS WILL BE LOCATED AT THE CONSTRUCTION ACCESS/EGRESS FOR TRAFFIC CONTROL WHEN CONSTRUCTION VEHICLES ENTER AND EXIT THE WORK ZONE.



File: J:\ESP\Projects\1100 to 699\Project 2 Design\CAD\TMPTIC\01145116-TMP-2-P146.dwg User: brennek Plot: Feb 08, 2011 - 6:51pm Xref: s



PHASE 1

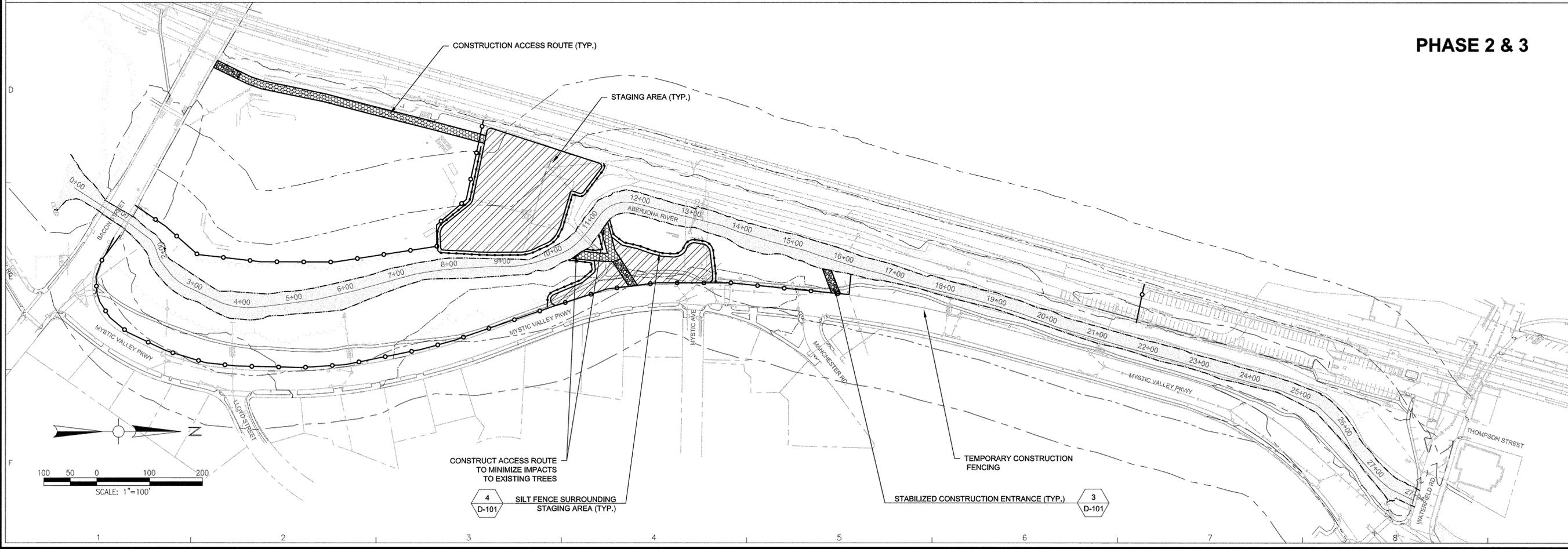


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PHASE 2 & 3



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PROJ. NO.: 60145116 DATE: 02/2011

**EROSION CONTROL AND
 SITE PREPARATION PLAN**

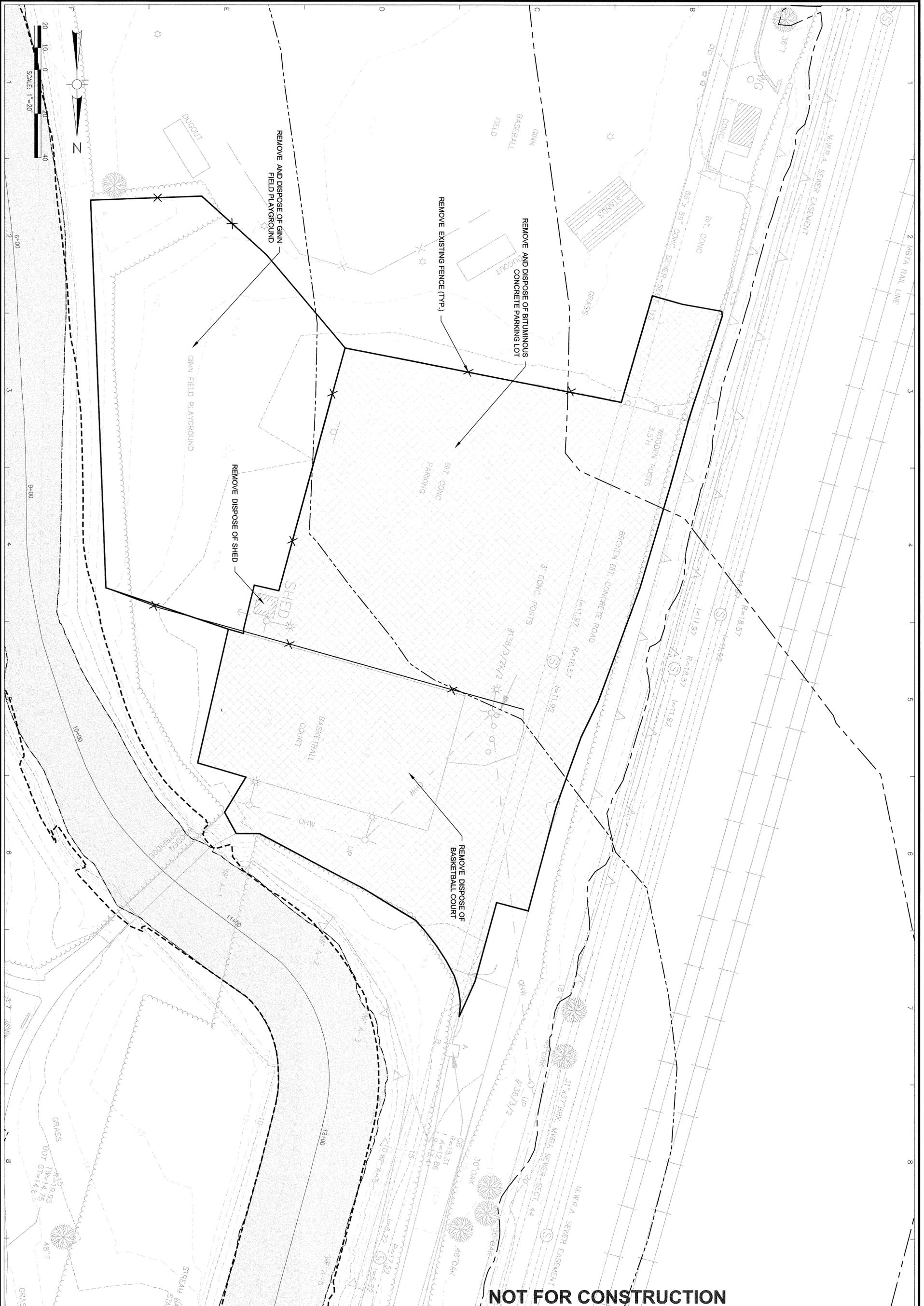
ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
C-100

SHEET NUMBER:
12 of 45

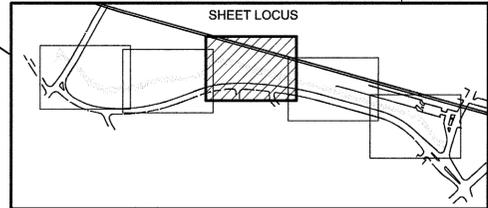
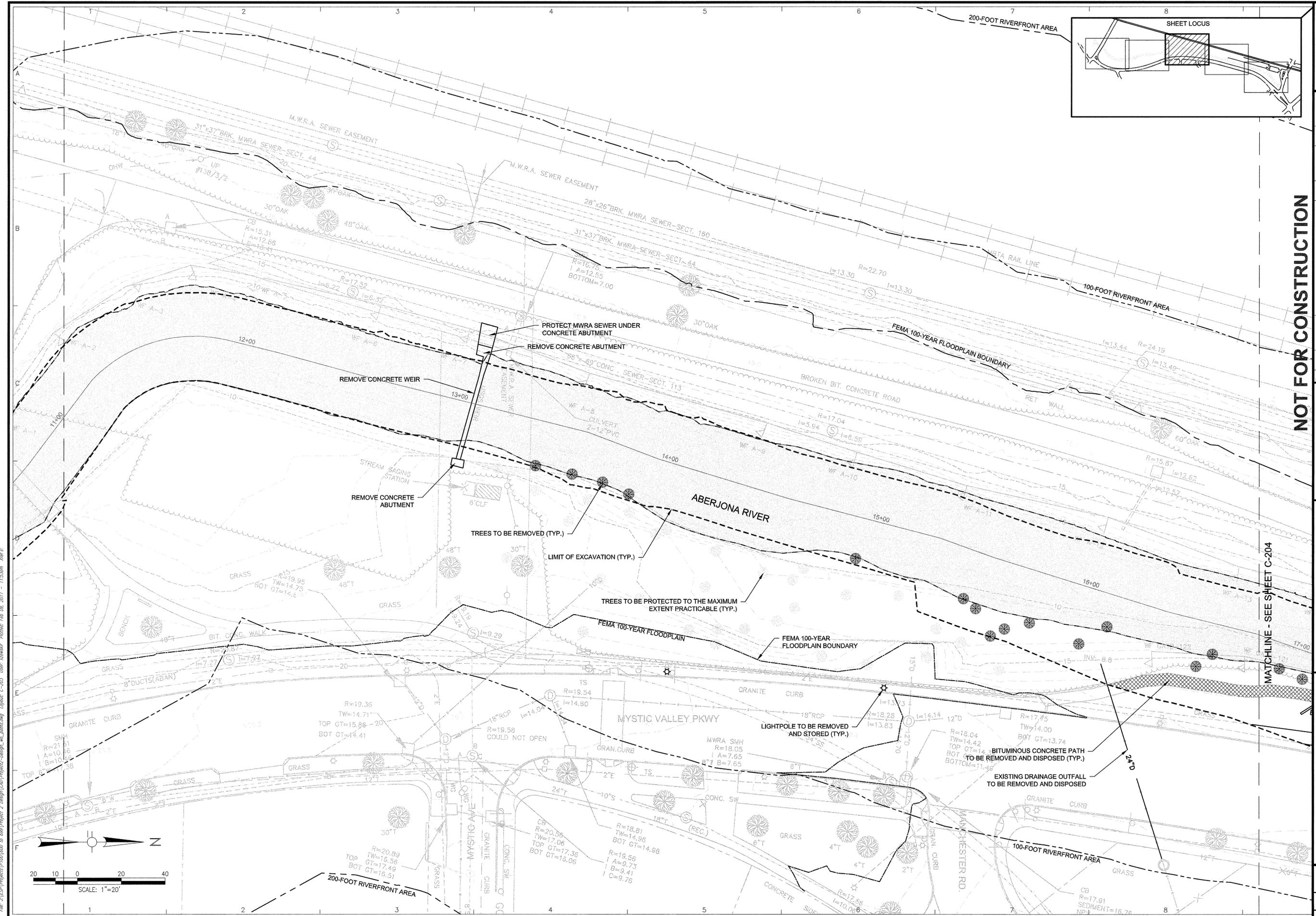
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NOT FOR CONSTRUCTION

SHEET NUMBER: 13 OF 45 REVISION: 10	DRAWING NUMBER: C-202	SITE CLEARING AND DEMOLITION		TOWN OF WINCHESTER, MASSACHUSETTS			NO DRWDATE REVISION CHKD DATE APPVDATE	
		ABERJONA RIVER FMP PROJECT 2 - RIVER WIDENING		PROJ. NO.: 60145116	DATE: 02/2011			



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 PROJECT NO.: 60145116
 DATE: 02/2011

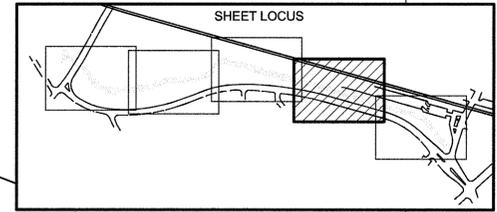
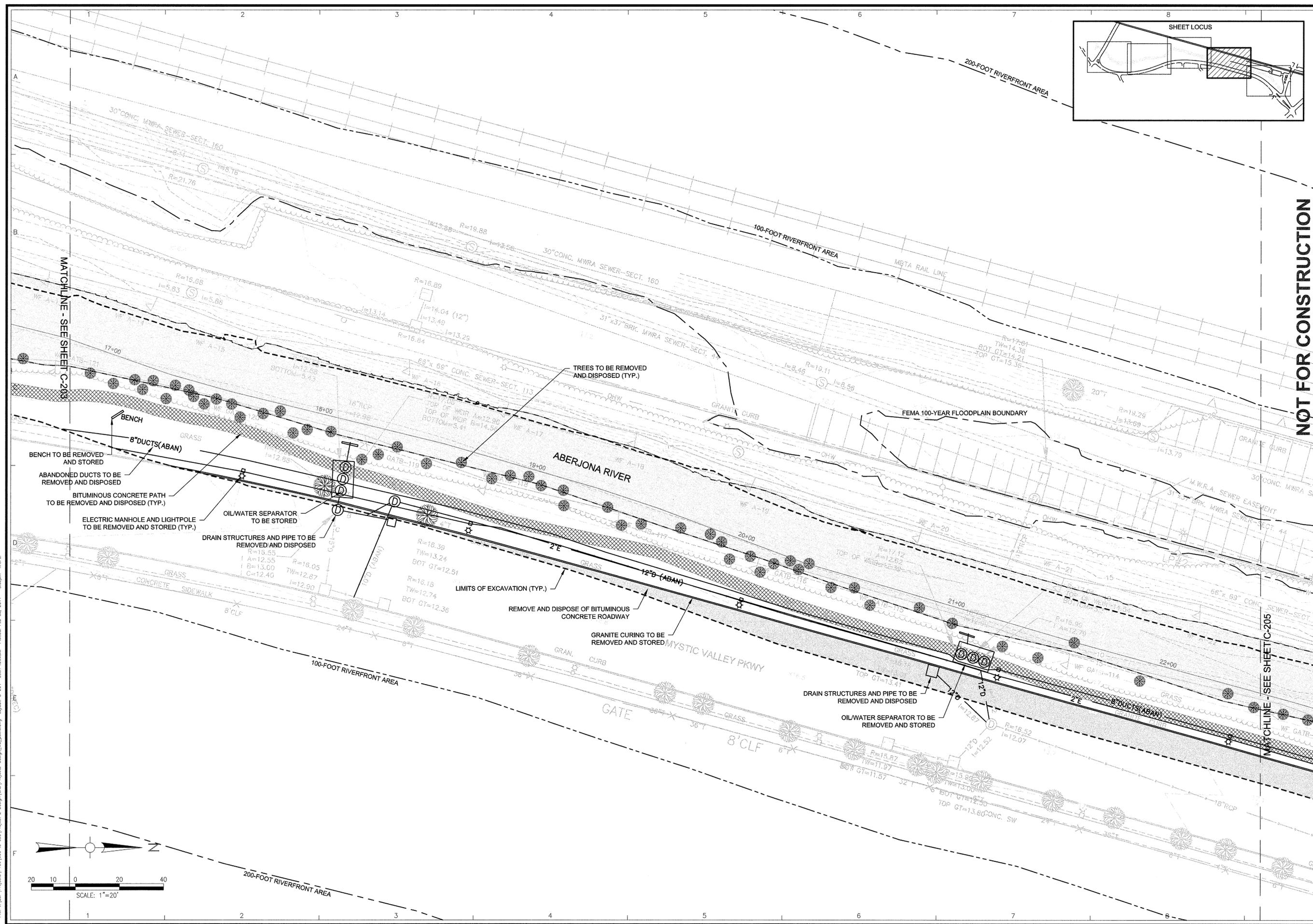
SITE CLEARING AND DEMOLITION
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING
 DRAWING NUMBER:
C-203
 SHEET NUMBER:
14 of 45
 REVISION 0

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MATCHLINE - SEE SHEET C-204

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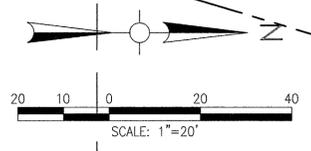
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 PROJ. NO.: 60145116
 DATE: 02/2011

**SITE CLEARING AND
 DEMOLITION**
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

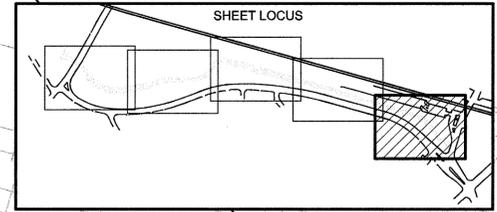
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 SHEET NUMBER:
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MATCHLINE - SEE SHEET C-203

MATCHLINE - SEE SHEET C-205



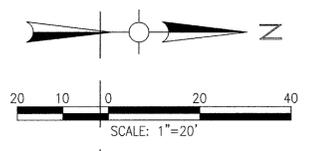
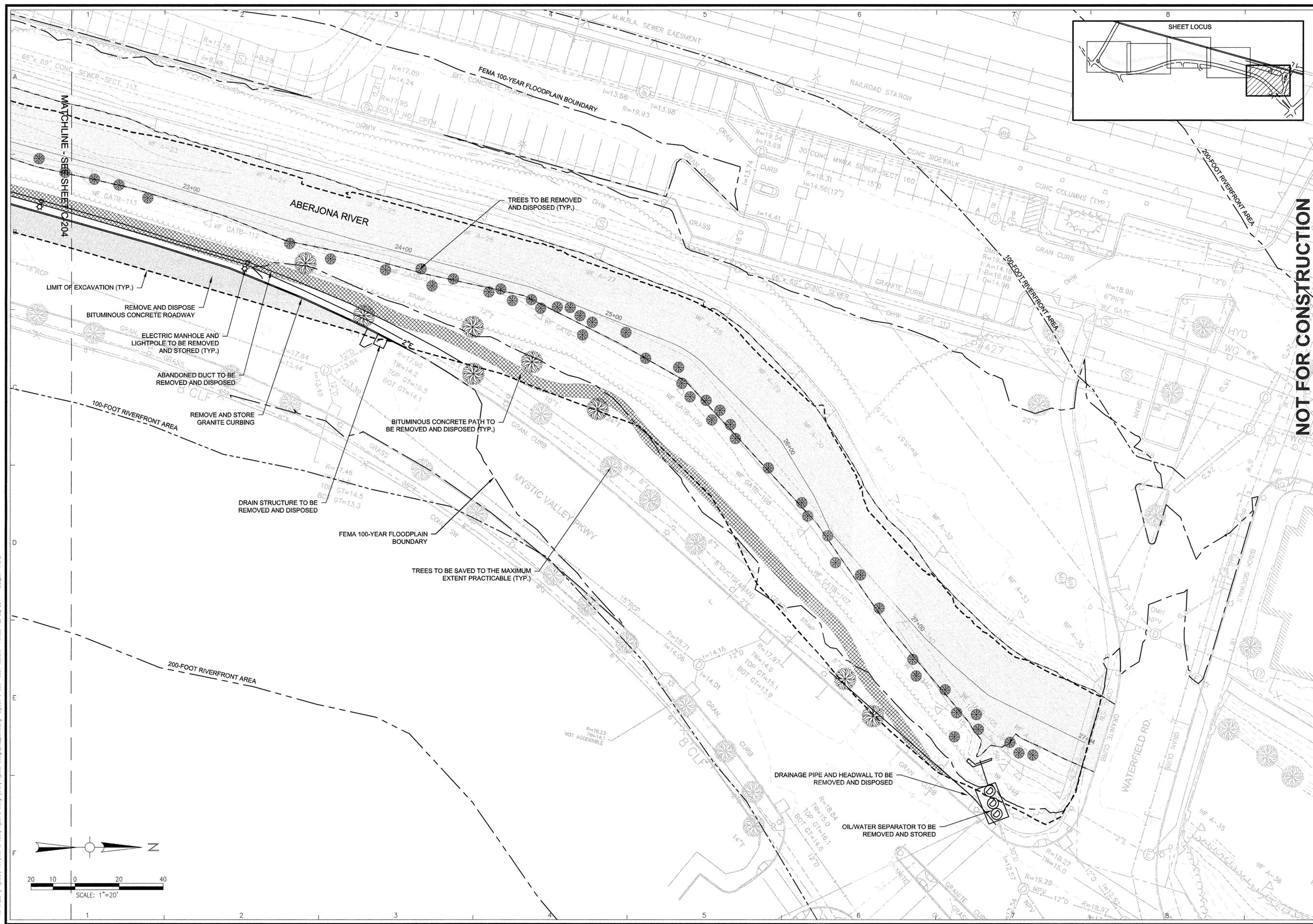
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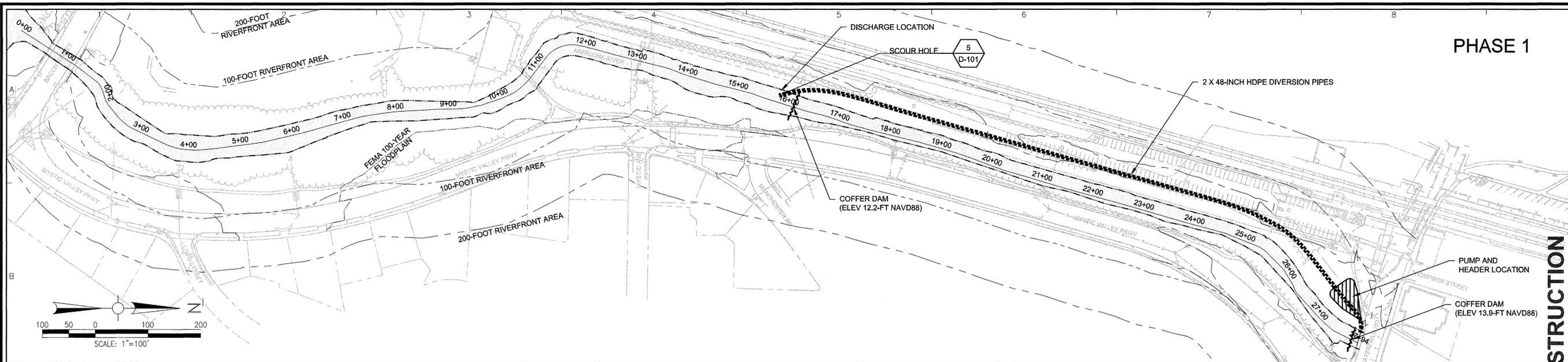
TOWN OF WINCHESTER,
 MASSACHUSETTS
 PROJ. NO.: 60145116
 DATE: 02/2011

**SITE CLEARING AND
 DEMOLITION**
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
C-205
 SHEET NUMBER:
16 of 45
 REVISION: 0



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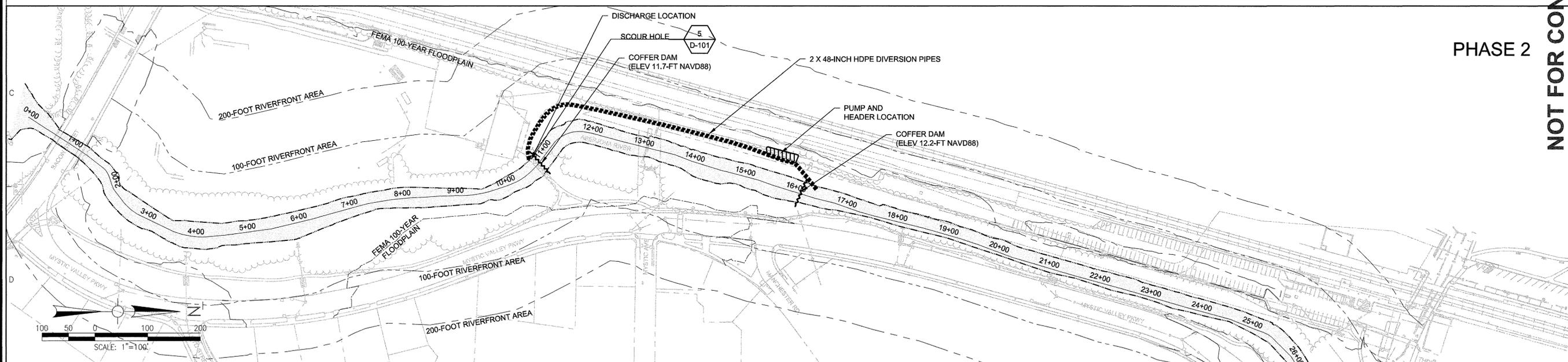


PHASE 1



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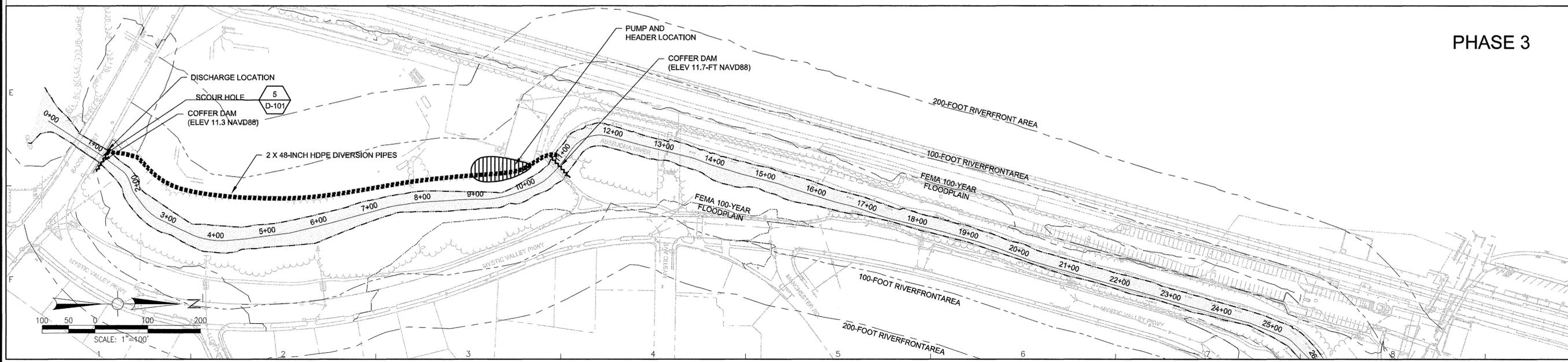


PHASE 2



TOWN OF WINCHESTER, MASSACHUSETTS	DATE: 02/2011
PROJ. NO.: 60145116	

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PHASE 3

**WATER MANAGEMENT
PLAN - PHASE 1**

ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING

DRAWING NUMBER: C-300
SHEET NUMBER: 17 of 45
REVISION: 0

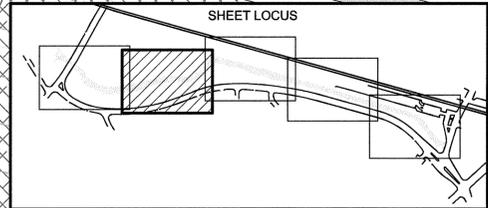
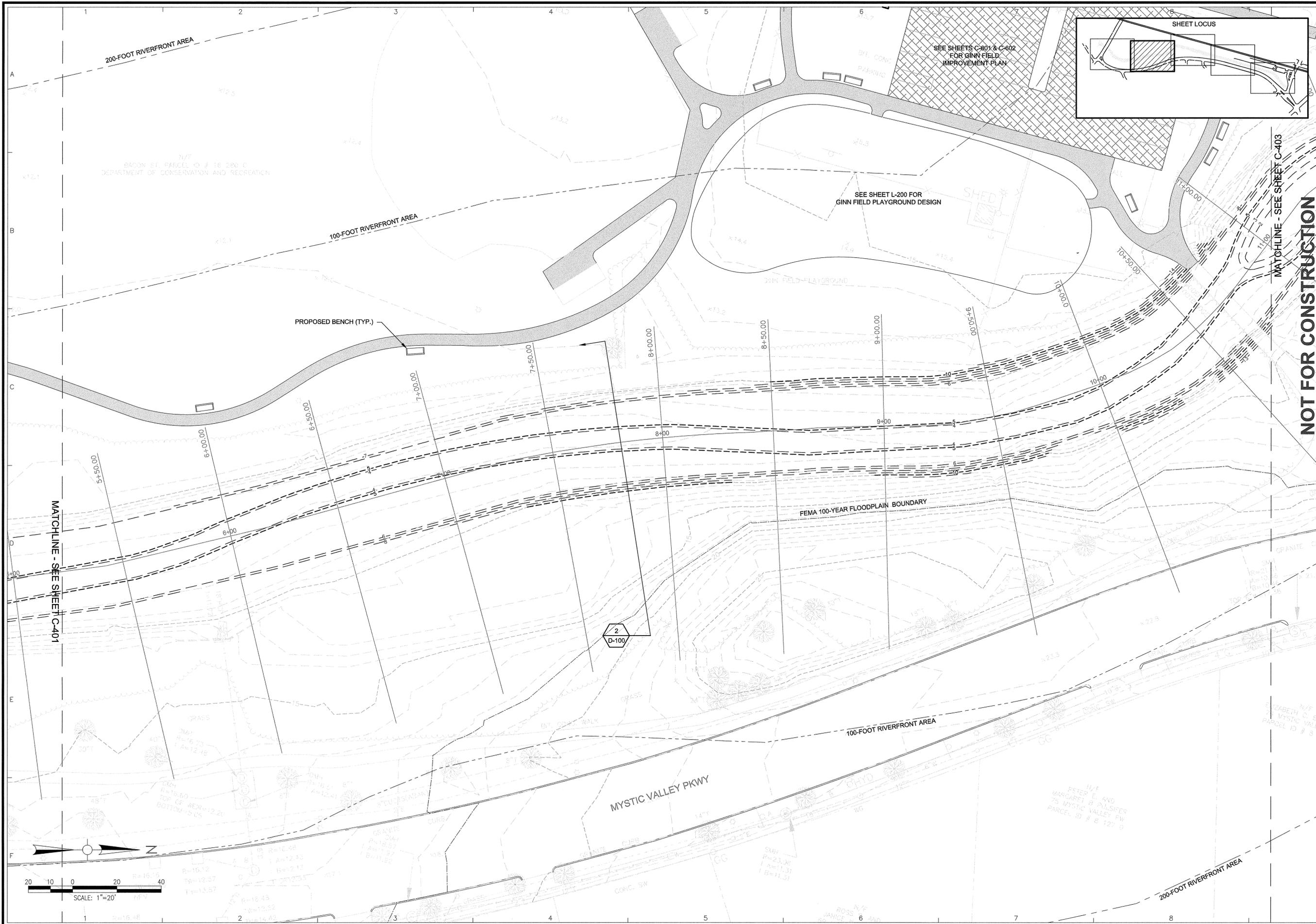
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DRAWING NUMBER: C-401 SHEET NUMBER: 18 OF 45 REVISION: 0	FINAL GRADING PLAN		TOWN OF WINCHESTER, MASSACHUSETTS		<p>AECOM 2 Technology Park Drive, Westford, MA 978.589.3000 www.aecom.com</p>	<table border="1"> <tr><td>7</td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td></td><td></td><td></td><td></td></tr> <tr><td>0</td><td>NO DRWN</td><td>DATE</td><td>REVISION</td><td>CHKD DATE</td><td>APPV DATE</td></tr> </table>	7					6					5					4					3					2					1					0	NO DRWN	DATE	REVISION	CHKD DATE	APPV DATE	
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SEE SHEETS C-601 & C-602 FOR GINN FIELD IMPROVEMENT PLAN

SEE SHEET L-200 FOR GINN FIELD PLAYGROUND DESIGN

MATCHLINE - SEE SHEET C-403

MATCHLINE - SEE SHEET C-401

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PROJ. NO.: 60145116

DATE: 02/2011

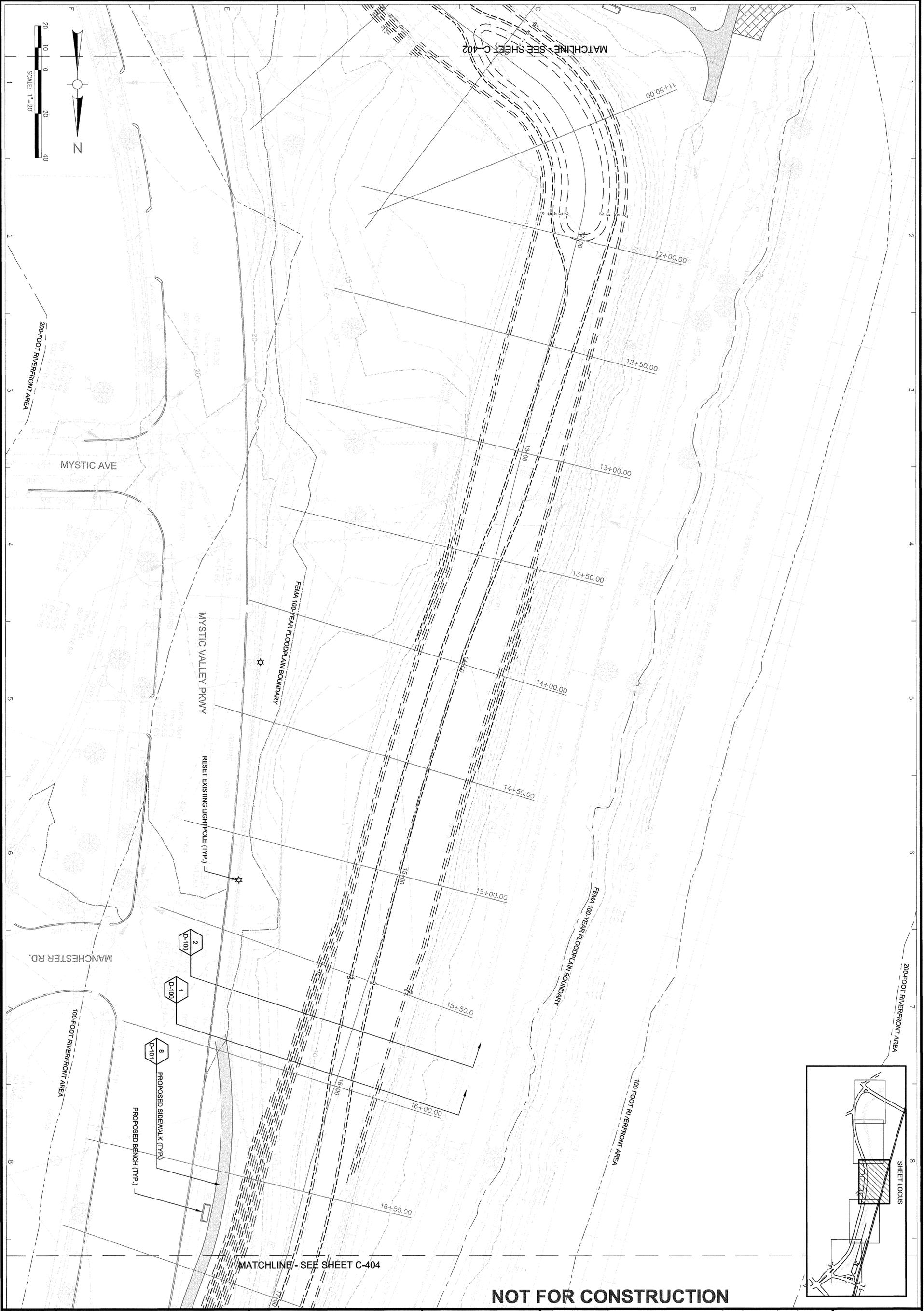
FINAL GRADING PLAN

ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
C-402

SHEET NUMBER:
19 of 45

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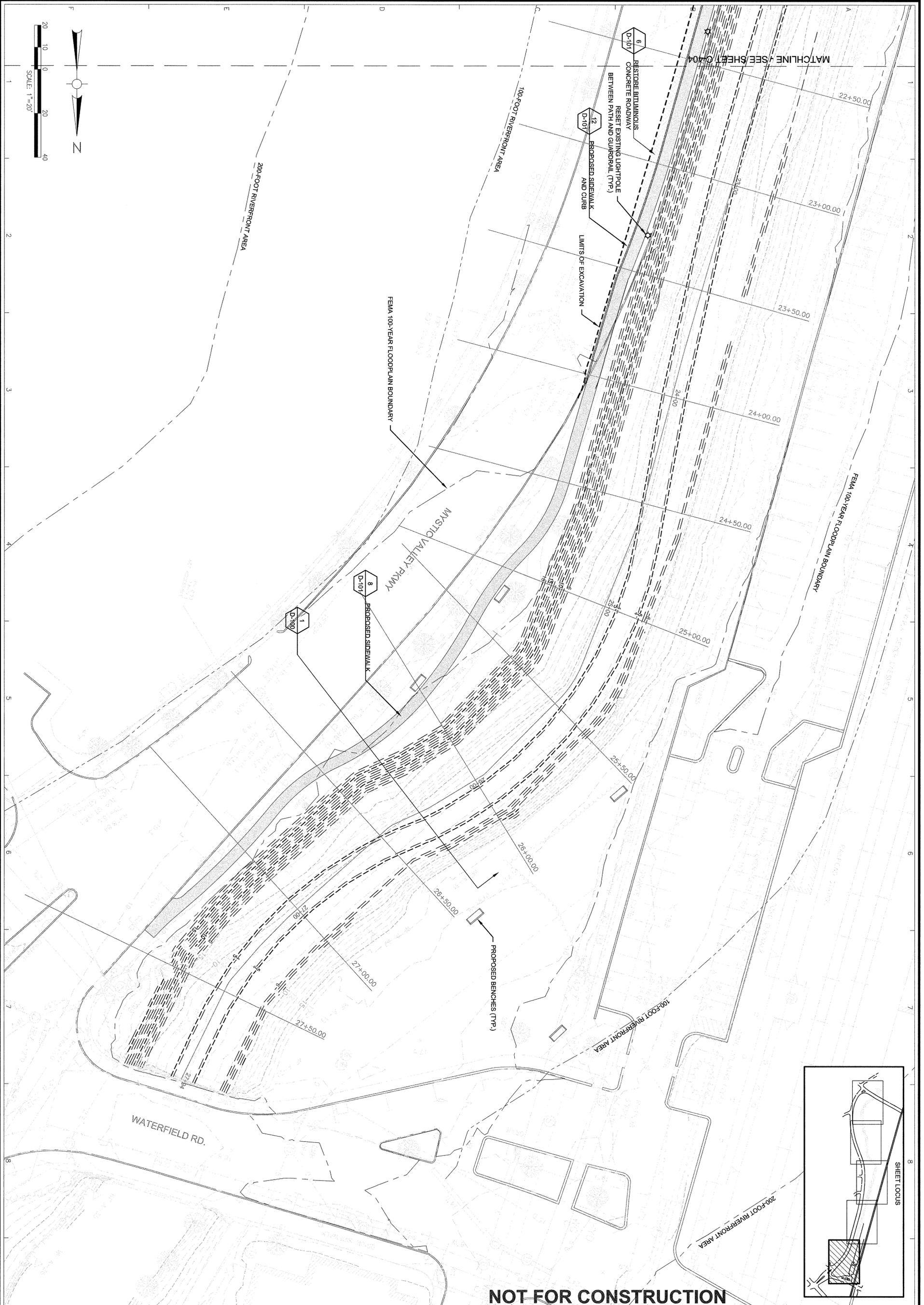
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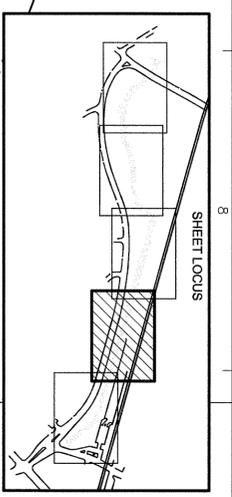
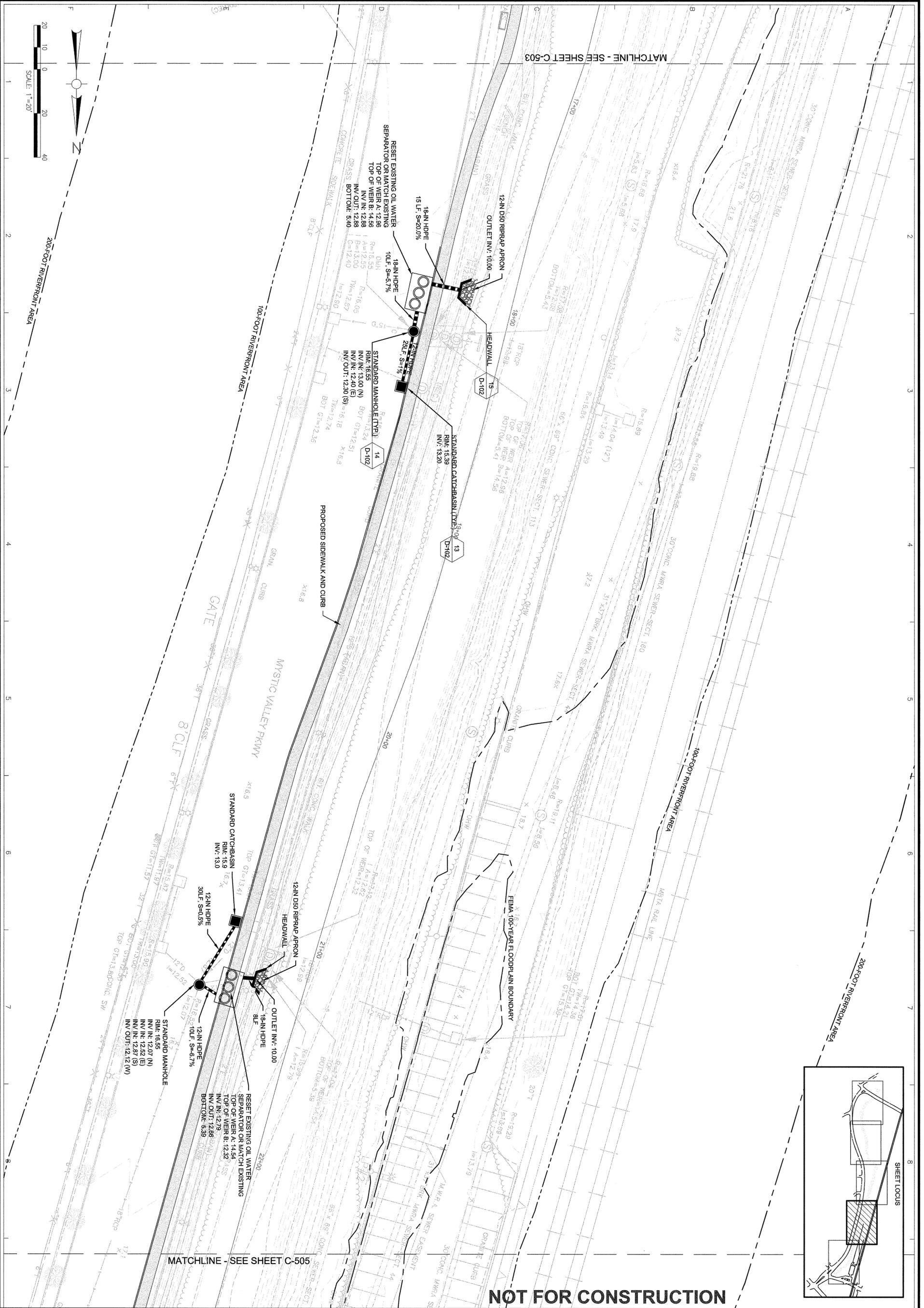
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DRAWING NUMBER: C-405 SHEET NUMBER: 22 OF 45 REVISION: 0	FINAL GRADING PLAN		TOWN OF WINCHESTER, MASSACHUSETTS			NO DRWN DATE REVISION CHKD DATE APPV DATE	
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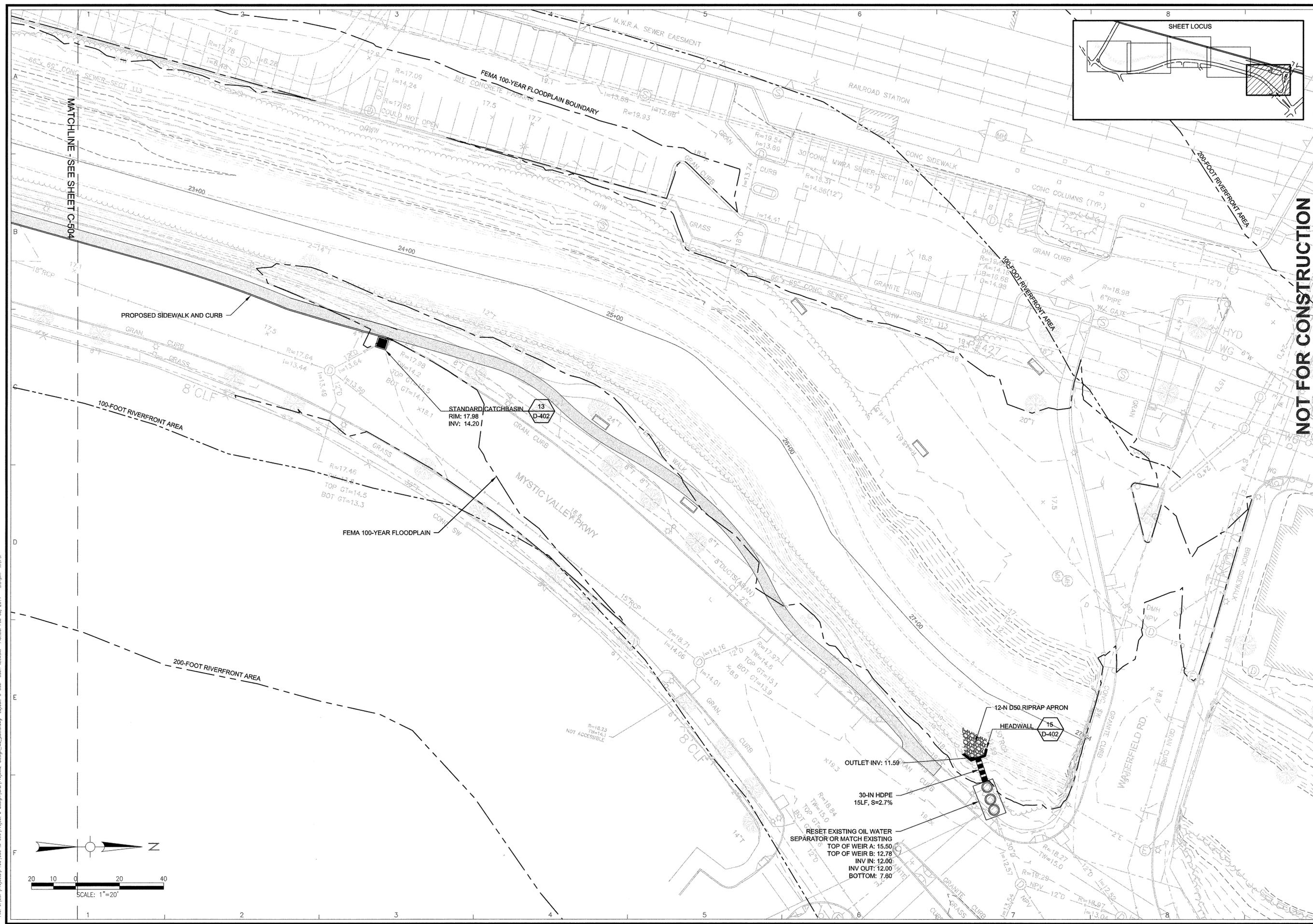


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DRAWING NUMBER: C-504 SHEET NUMBER: 24 OF 45 REVISION: 0	STORMWATER UTILITY RESTORATION PLAN		TOWN OF WINCHESTER, MASSACHUSETTS		AECOM AECOM 978.589.3000 www.aecom.com	NO DRWDATE REVISION CHKD DATE APPVDATE
	ABERJONA RIVER FMP PROJECT 2 - RIVER WIDENING		PROJ. NO.: 60145116	DATE: 02/2011		



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 DATE: 02 / 2011

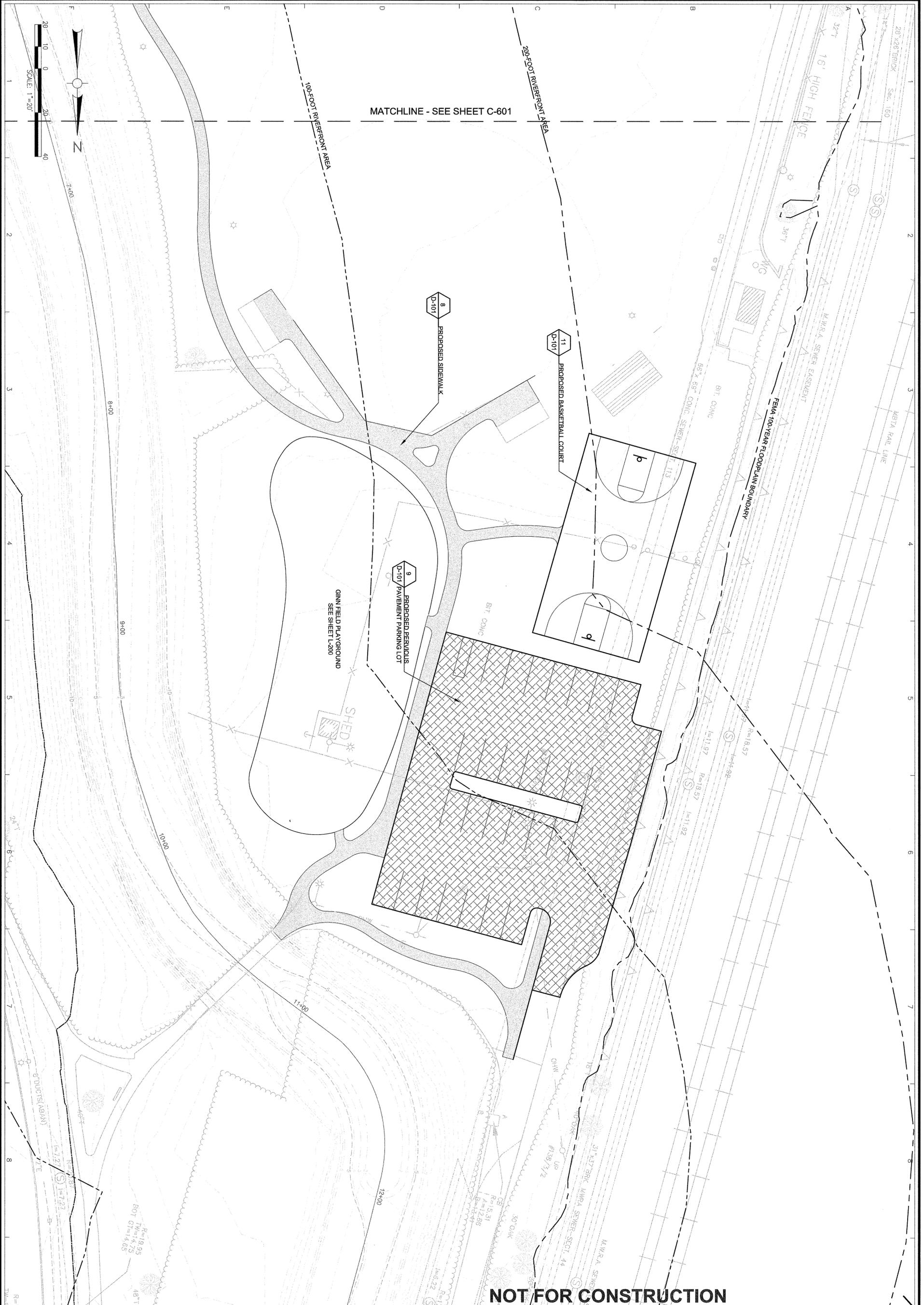
**STORMWATER UTILITY
 RESTORATION PLAN**
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

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C-505
 SHEET NUMBER:
25 of 45
 REVISION **0**



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DRAWING NUMBER: C-601 SHEET NUMBER: 26 of 48 REVISION: 0	GINN FIELD RESTORATION PLAN ABERJONA RIVER FMP PROJECT 2 - RIVER WIDENING		TOWN OF WINCHESTER, MASSACHUSETTS PROJ. NO.: 60145116 DATE: 02/2011		 AECOM 978.589.3000 www.aecom.com	<table border="1"> <tr><td>7</td><td></td><td></td><td></td><td></td></tr> <tr><td>6</td><td></td><td></td><td></td><td></td></tr> <tr><td>5</td><td></td><td></td><td></td><td></td></tr> <tr><td>4</td><td></td><td></td><td></td><td></td></tr> <tr><td>3</td><td></td><td></td><td></td><td></td></tr> <tr><td>2</td><td></td><td></td><td></td><td></td></tr> <tr><td>1</td><td></td><td></td><td></td><td></td></tr> <tr><td>0</td><td></td><td></td><td></td><td></td></tr> <tr> <td>NO</td><td>DRW</td><td>DATE</td><td>REVISION</td><td>CHKD</td><td>DATE</td><td>APPV</td><td>DATE</td> </tr> </table>	7					6					5					4					3					2					1					0					NO	DRW	DATE	REVISION	CHKD	DATE	APPV	DATE	
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DRAWING NUMBER: C-602 SHEET NUMBER: 27 of 45 REVISION: 0	GINN FIELD RESTORATION PLAN		TOWN OF WINCHESTER, MASSACHUSETTS		AECOM AECOM 978.589.3000 www.aecom.com	NO DRWDATE REVISION CHKD DATE APPVDATE
	ABERJONA RIVER FMP PROJECT 2 - RIVER WIDENING		PROJ. NO.: 60145116	DATE: 02/2011		



DESIGN NOTES

- 1) PER SITE CLEARING AND DEMOLITION PLANS, A TOTAL OF 123 TREES OF 4" CALIPER OR LARGER ARE PROPOSED FOR REMOVAL IN ASSOCIATION WITH STREAM DREDGING AND WIDENING. THESE LANDSCAPE PLANS PROPOSE THE TOTAL INSTALLATION OF 164 NEW TREES ON BOTH SIDES OF THE RIVER INCLUDING GINN FIELD AND THE TREE LAWN ALONG THE EASTERN SIDE OF THE MYSTIC VALLEY PARKWAY. 110 OF THESE TREES ARE SPECIFIED AS "SHADE" TREES (TREES WITH A 50 FEET OR HIGHER MATURE HEIGHT) AND 54 OF THESE TREES ARE SPECIFIED AS "SMALL" TREES (TREES WITH A 25-40 FEET MATURE HEIGHT).
- 2) GEOWEB BANK STABILIZATION SHALL BE USED ON ALL ENGINEERED BANKS. NO TREES ARE PROPOSED FOR INSTALLATION IN THESE STABILIZED BANKS AS TREES WILL NEGATIVELY AFFECT THE STABILITY OF GEOWEB. ALL NEW TREE PLANTINGS TO OCCUR IN THE PARKLAND AREA BETWEEN THE TOP OF NEW BANK AND MYSTIC VALLEY PARKWAY. IN ADDITION, SEVERAL TREES ARE PROPOSED FOR INSTALLATION ON THE EAST SIDE OF MYSTIC VALLEY PARKWAY WITHIN GAPS OF THE EXISTING LINE OF STREET TREES.
- 3) AREAS DESIGNATED AS "TOP OF SLOPE" AND "ENGINEERED SLOPE" PLANTINGS SHALL INCLUDE SEEDING AS SPECIFIED ON L-107.

CONSTRUCTION GENERAL NOTES

- TREE PROTECTION:**
1. IT IS THE INTENT OF THIS CONTRACT TO AVOID ANY DISTURBANCE TO EXISTING TREES OR SHRUBS ON THE SITE OTHER THAN THOSE SPECIFICALLY DESIGNATED FOR REMOVAL. ADJUSTMENTS SHALL BE MADE IN THE FIELD ONLY AT THE DIRECTION OF THE LANDSCAPE ARCHITECT AND ENGINEER. EXISTING TREES TO BE SAVED WITHIN OR OUTSIDE THE LIMIT OF WORK LINE WHICH HAVE, IN THE OPINION OF THE LANDSCAPE ARCHITECT OR ENGINEER, BECOME DAMAGED, SHALL BE ASSESSED AT \$500 PER CALIPER INCH AND DEDUCTED FROM THE CONTRACT AMOUNT.
 2. TREE PROTECTION FENCE SHALL BE DETERMINED IN THE FIELD IN COORDINATION WITH THE LANDSCAPE ARCHITECT AND ENGINEER. SEE SPECIFICATIONS FOR REQUIREMENTS AND PROTECTION MEASURES.
- OTHER:**
1. FROM TIME TO TIME THERE ARE CHANGES MADE IN THE HANDICAP ACCESSIBILITY CODES. SUCH CHANGES MAY OCCUR DURING THE COURSE OF THE CONSTRUCTION OF THIS PROJECT. IF CHANGES BECOME NECESSARY TO MEET CODES, A CHANGE ORDER WILL BE ISSUED TO COVER STATUTORY REQUIREMENTS.
 2. STAKE CENTERLINE OF PROPOSED PATHS FOR APPROVAL BY ENGINEER AND LANDSCAPE ARCHITECT BEFORE INSTALLATION.

SEE L-106 FOR GINN FIELD SITE IMPROVEMENTS

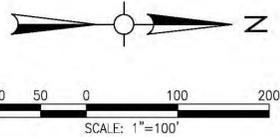
L-103

L-102

L-101

L-104

L-105



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PROJ. NO.: 60145116

DATE: 02/2011

LANDSCAPE RESTORATION PLANS SHEET OVERVIEW

ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING

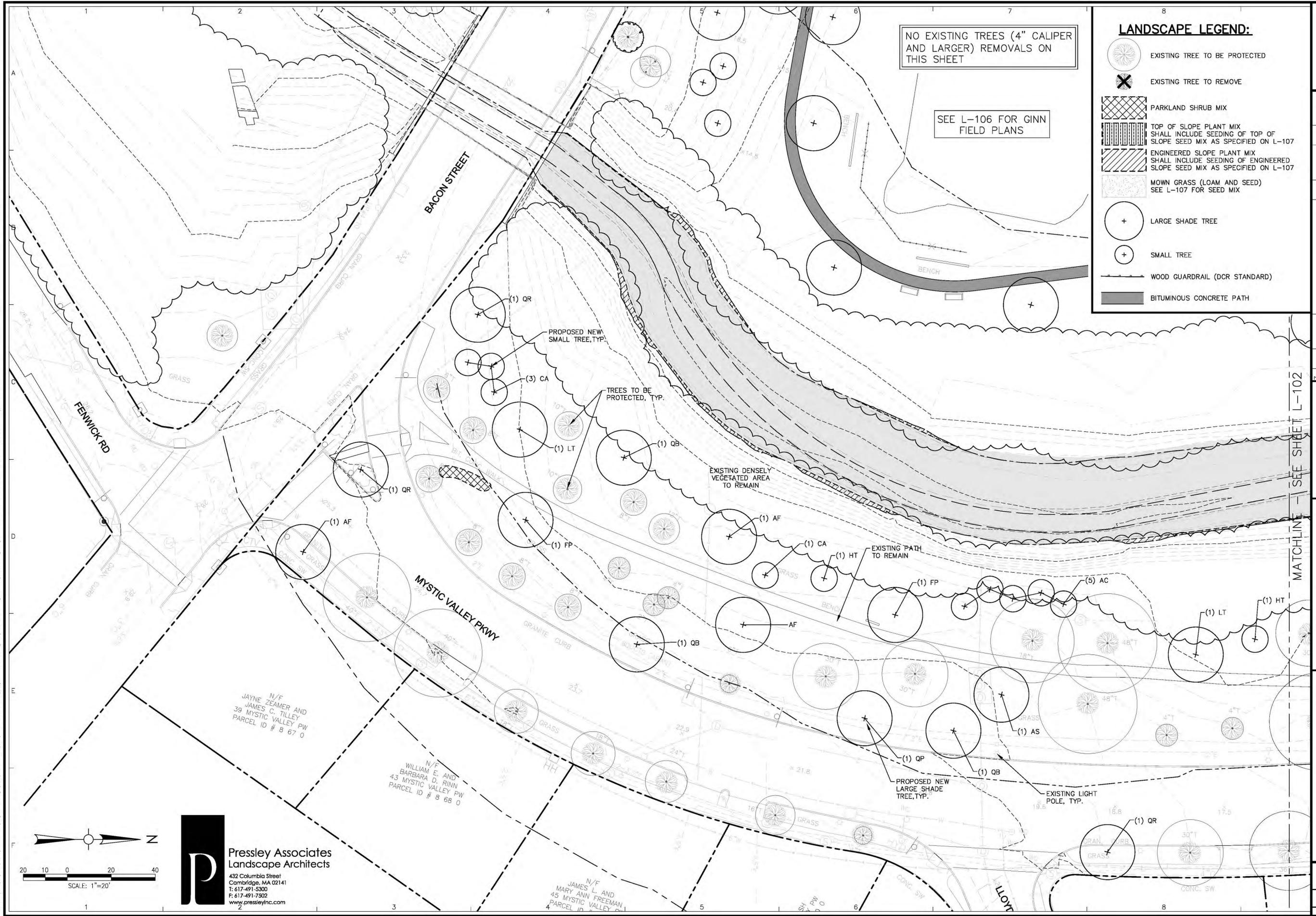
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SHEET NUMBER:
29 of 45

REVISION 0

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LANDSCAPE LEGEND:

- EXISTING TREE TO BE PROTECTED
- EXISTING TREE TO REMOVE
- PARKLAND SHRUB MIX
- TOP OF SLOPE PLANT MIX
SHALL INCLUDE SEEDING OF TOP OF SLOPE SEED MIX AS SPECIFIED ON L-107
- ENGINEERED SLOPE PLANT MIX
SHALL INCLUDE SEEDING OF ENGINEERED SLOPE SEED MIX AS SPECIFIED ON L-107
- MOWN GRASS (LOAM AND SEED)
SEE L-107 FOR SEED MIX
- LARGE SHADE TREE
- SMALL TREE
- WOOD GUARDRAIL (DCR STANDARD)
- BITUMINOUS CONCRETE PATH

NO EXISTING TREES (4" CALIPER AND LARGER) REMOVALS ON THIS SHEET

SEE L-106 FOR GINN FIELD PLANS

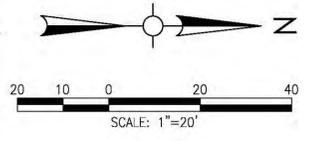
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LANDSCAPE RESTORATION PLAN
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
L-101
 SHEET NUMBER:
30 of 45
 REVISION: 0



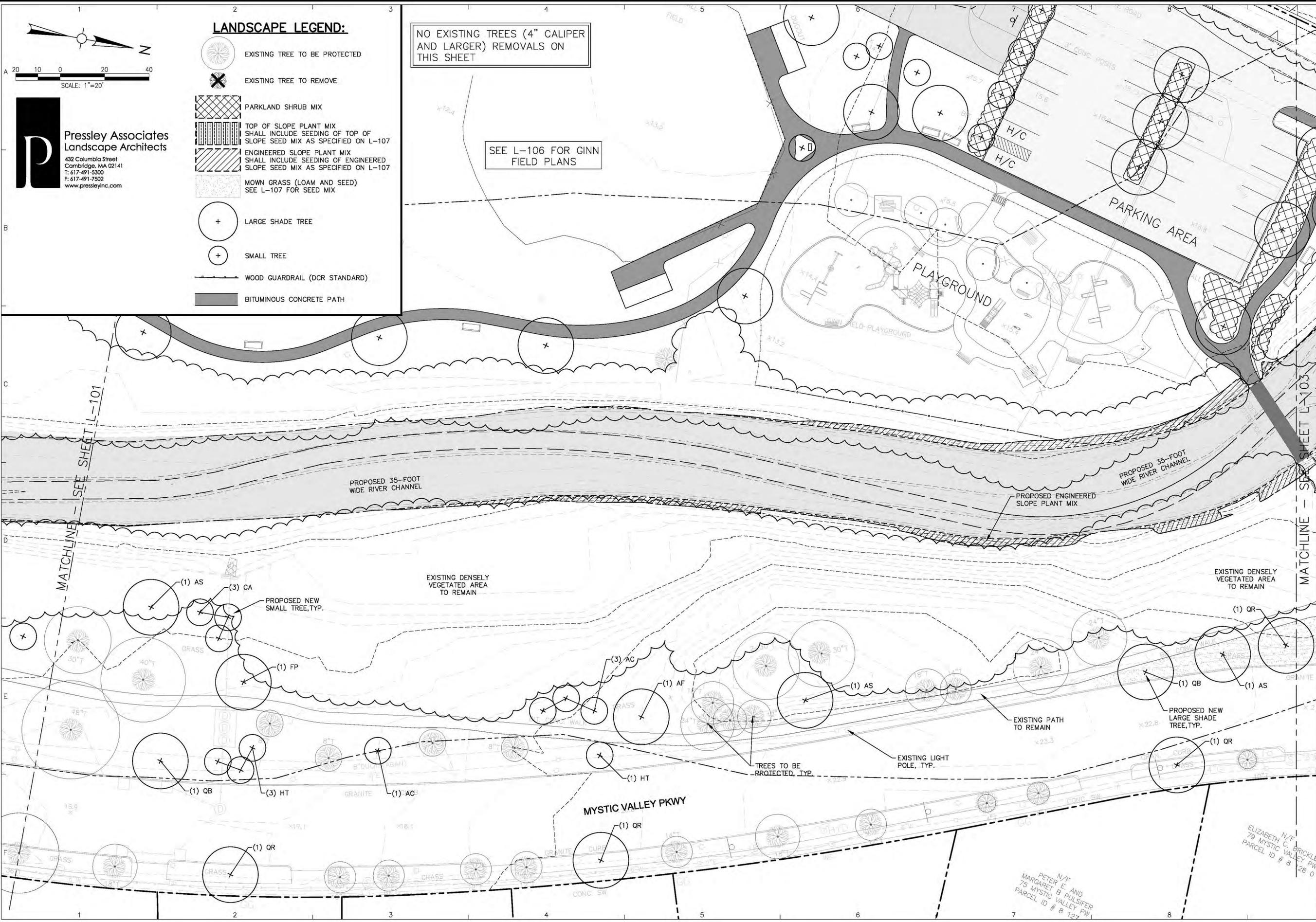
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 F: 617-491-7502
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N/F
 JAYNE ZEAMER AND
 JAMES C. TILLEY
 39 MYSTIC VALLEY PW
 PARCEL ID # 8 67 0

N/F
 WILLIAM E. AND
 BARBARA D. RINN
 43 MYSTIC VALLEY PW
 PARCEL ID # 8 68 0

N/F
 JAMES L. AND
 MARY ANN FREEMAN
 45 MYSTIC VALLEY PW
 PARCEL ID # 8 69 0

MATCHLINE - SEE SHEET L-102

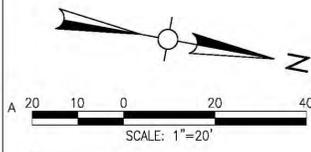


LANDSCAPE LEGEND:

- EXISTING TREE TO BE PROTECTED
- EXISTING TREE TO REMOVE
- PARKLAND SHRUB MIX
- TOP OF SLOPE PLANT MIX
SHALL INCLUDE SEEDING OF TOP OF SLOPE SEED MIX AS SPECIFIED ON L-107
- ENGINEERED SLOPE PLANT MIX
SHALL INCLUDE SEEDING OF ENGINEERED SLOPE SEED MIX AS SPECIFIED ON L-107
- MOWN GRASS (LOAM AND SEED)
SEE L-107 FOR SEED MIX
- LARGE SHADE TREE
- SMALL TREE
- WOOD GUARDRAIL (DCR STANDARD)
- BITUMINOUS CONCRETE PATH

NO EXISTING TREES (4" CALIPER AND LARGER) REMOVALS ON THIS SHEET

SEE L-106 FOR GINN FIELD PLANS



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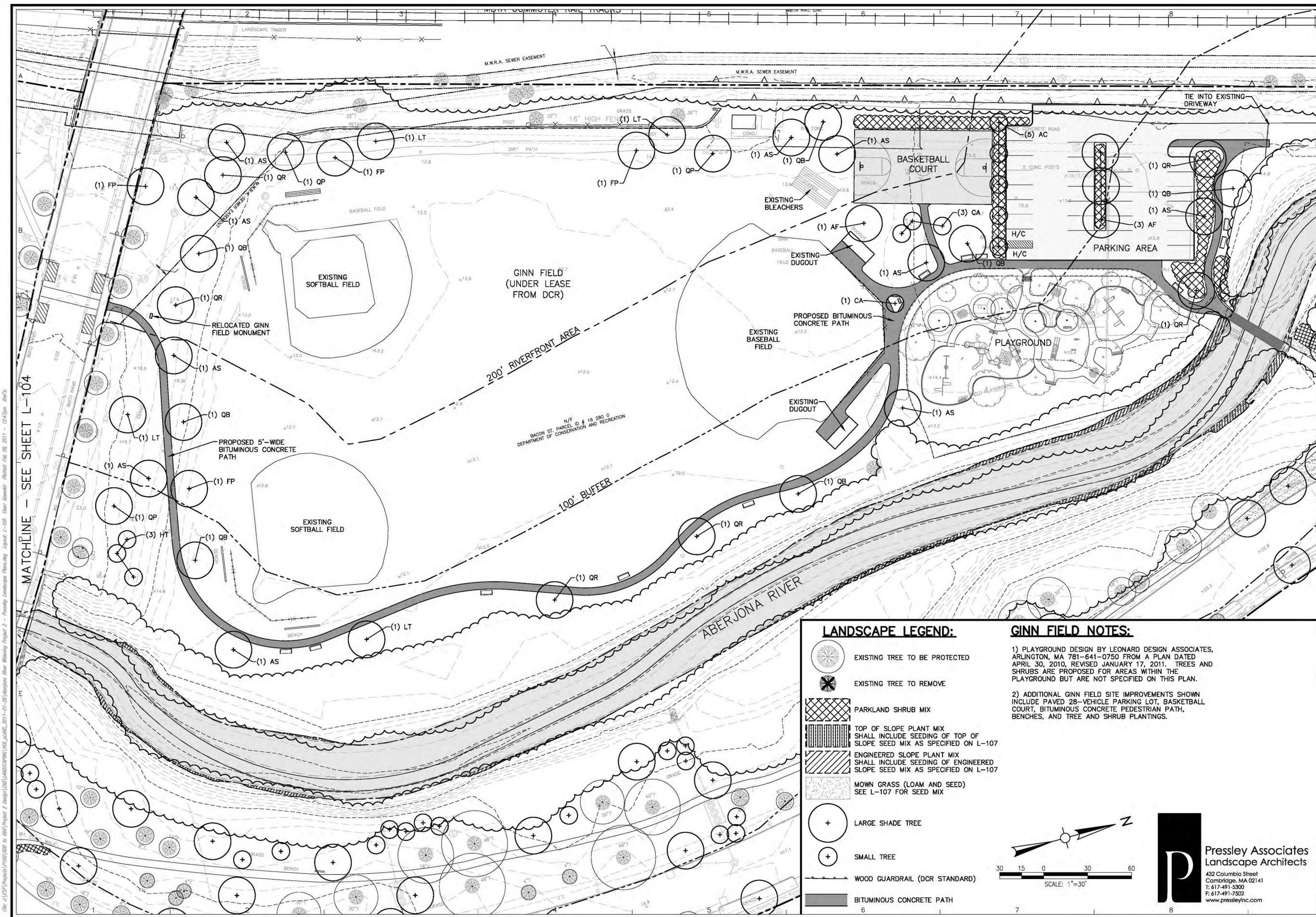
TOWN OF WINCHESTER,
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PROJ. NO.: 60145116
DATE: 02/2011

**LANDSCAPE PLAN
RESTORATION PLAN**
ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING
DRAWING NUMBER:
L-102
SHEET NUMBER:
31 of 45
REVISION 0

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N/F
PETER E. AND
MARGARET B. PULSIFER
75 MYSTIC VALLEY PKWY
PARCEL ID # 8 127

N/F
ELIZABETH C. BRICKLE
79 MYSTIC VALLEY PKWY
PARCEL ID # 8 28 0



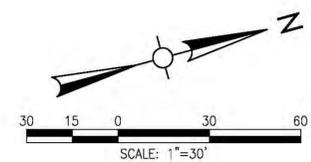
LANDSCAPE LEGEND:

	EXISTING TREE TO BE PROTECTED
	EXISTING TREE TO REMOVE
	PARKLAND SHRUB MIX
	TOP OF SLOPE PLANT MIX SHALL INCLUDE SEEDING OF TOP OF SLOPE SEED MIX AS SPECIFIED ON L-107
	ENGINEERED SLOPE PLANT MIX SHALL INCLUDE SEEDING OF ENGINEERED SLOPE SEED MIX AS SPECIFIED ON L-107
	MOWN GRASS (LOAM AND SEED) SEE L-107 FOR SEED MIX
	LARGE SHADE TREE
	SMALL TREE
	WOOD GUARDRAIL (DCR STANDARD)
	BITUMINOUS CONCRETE PATH

GINN FIELD NOTES:

1) PLAYGROUND DESIGN BY LEONARD DESIGN ASSOCIATES, ARLINGTON, MA 781-641-0750 FROM A PLAN DATED APRIL 30, 2010, REVISED JANUARY 17, 2011. TREES AND SHRUBS ARE PROPOSED FOR AREAS WITHIN THE PLAYGROUND BUT ARE NOT SPECIFIED ON THIS PLAN.

2) ADDITIONAL GINN FIELD SITE IMPROVEMENTS SHOWN INCLUDE PAVED 28-VEHICLE PARKING LOT, BASKETBALL COURT, BITUMINOUS CONCRETE PEDESTRIAN PATH, BENCHES, AND TREE AND SHRUB PLANTINGS.



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MATCHLINE - SEE SHEET L-104

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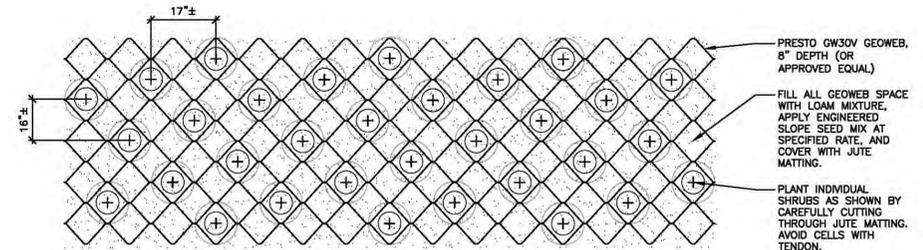
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 PROJ. NO.: 60145116
 DATE: 02/2011

**LANDSCAPE PLAN
 GINN FIELD SITE
 IMPROVEMENTS**
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
L-106
 SHEET NUMBER:
35 of 45
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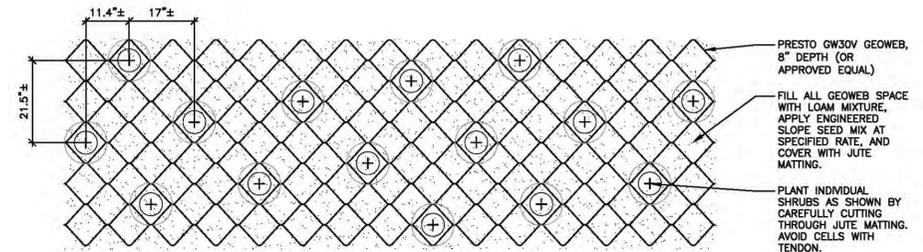
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GEOWEB PLANTING DETAILS
REFER TO PLANT LIST FOR SPACING PER SPECIES



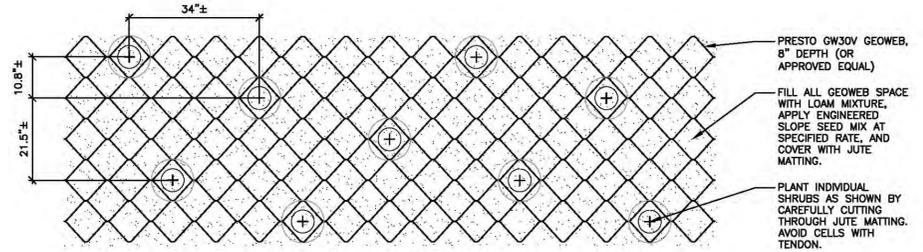
GEOWEB PLANTING - 18"± O.C. SPACING

- PRESTO GW30V GEOWEB, 8" DEPTH (OR APPROVED EQUAL)
- FILL ALL GEOWEB SPACE WITH LOAM MIXTURE, APPLY ENGINEERED SLOPE SEED MIX AT SPECIFIED RATE, AND COVER WITH JUTE MATTING.
- PLANT INDIVIDUAL SHRUBS AS SHOWN BY CAREFULLY CUTTING THROUGH JUTE MATTING. AVOID CELLS WITH TENDON.



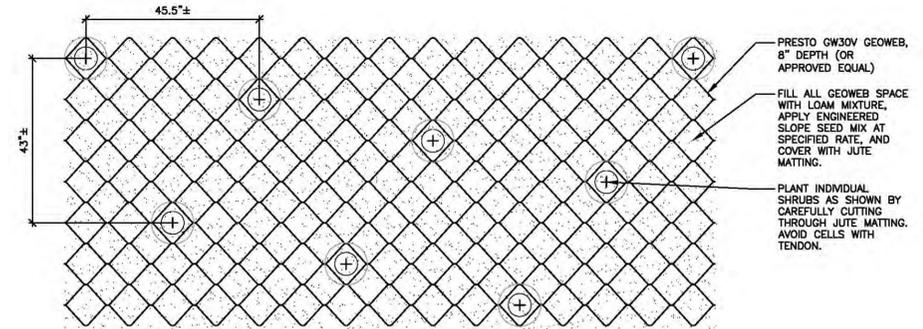
GEOWEB PLANTING - 24"± O.C. SPACING

- PRESTO GW30V GEOWEB, 8" DEPTH (OR APPROVED EQUAL)
- FILL ALL GEOWEB SPACE WITH LOAM MIXTURE, APPLY ENGINEERED SLOPE SEED MIX AT SPECIFIED RATE, AND COVER WITH JUTE MATTING.
- PLANT INDIVIDUAL SHRUBS AS SHOWN BY CAREFULLY CUTTING THROUGH JUTE MATTING. AVOID CELLS WITH TENDON.



GEOWEB PLANTING - 36"± O.C. SPACING

- PRESTO GW30V GEOWEB, 8" DEPTH (OR APPROVED EQUAL)
- FILL ALL GEOWEB SPACE WITH LOAM MIXTURE, APPLY ENGINEERED SLOPE SEED MIX AT SPECIFIED RATE, AND COVER WITH JUTE MATTING.
- PLANT INDIVIDUAL SHRUBS AS SHOWN BY CAREFULLY CUTTING THROUGH JUTE MATTING. AVOID CELLS WITH TENDON.



GEOWEB PLANTING - 48"± O.C. SPACING

- PRESTO GW30V GEOWEB, 8" DEPTH (OR APPROVED EQUAL)
- FILL ALL GEOWEB SPACE WITH LOAM MIXTURE, APPLY ENGINEERED SLOPE SEED MIX AT SPECIFIED RATE, AND COVER WITH JUTE MATTING.
- PLANT INDIVIDUAL SHRUBS AS SHOWN BY CAREFULLY CUTTING THROUGH JUTE MATTING. AVOID CELLS WITH TENDON.

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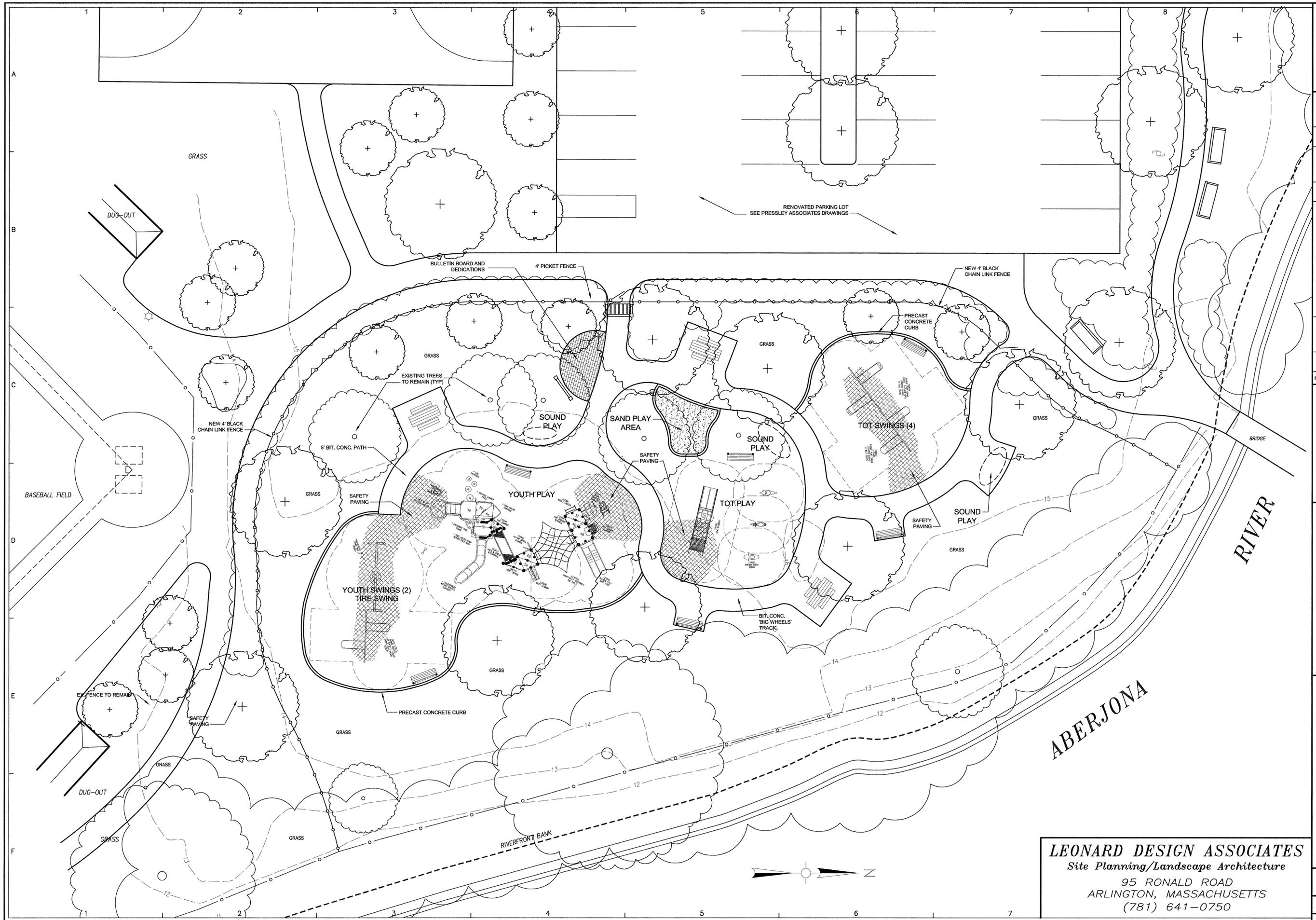
DATE: 02/2011

PROJ. NO.: 60145116

LANDSCAPE DETAILS

ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING

DRAWING NUMBER: L-108
SHEET NUMBER: 37 of 45
REVISION: 0



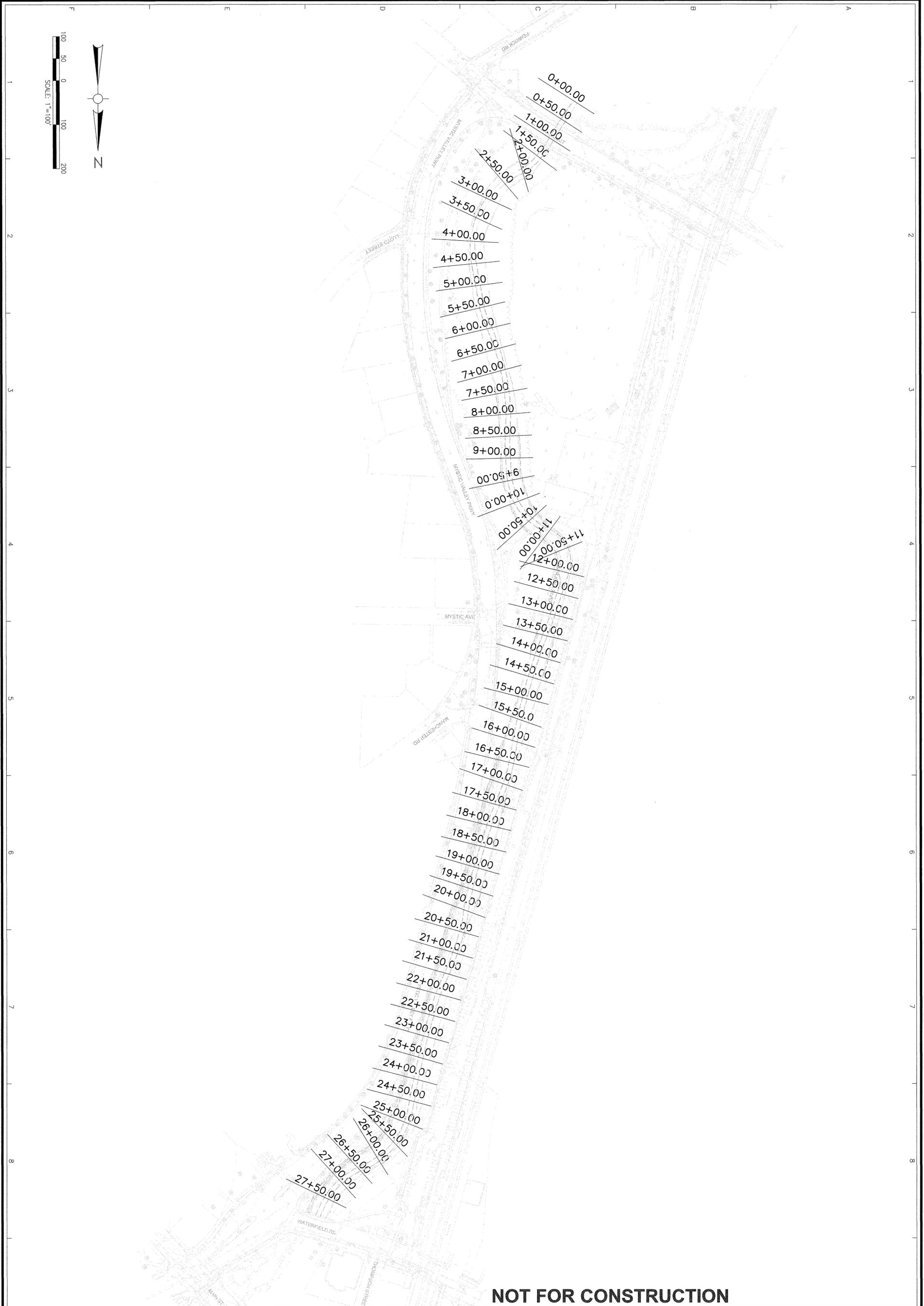
LEONARD DESIGN ASSOCIATES
Site Planning/Landscape Architecture
 95 RONALD ROAD
 ARLINGTON, MASSACHUSETTS
 (781) 641-0750

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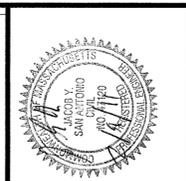
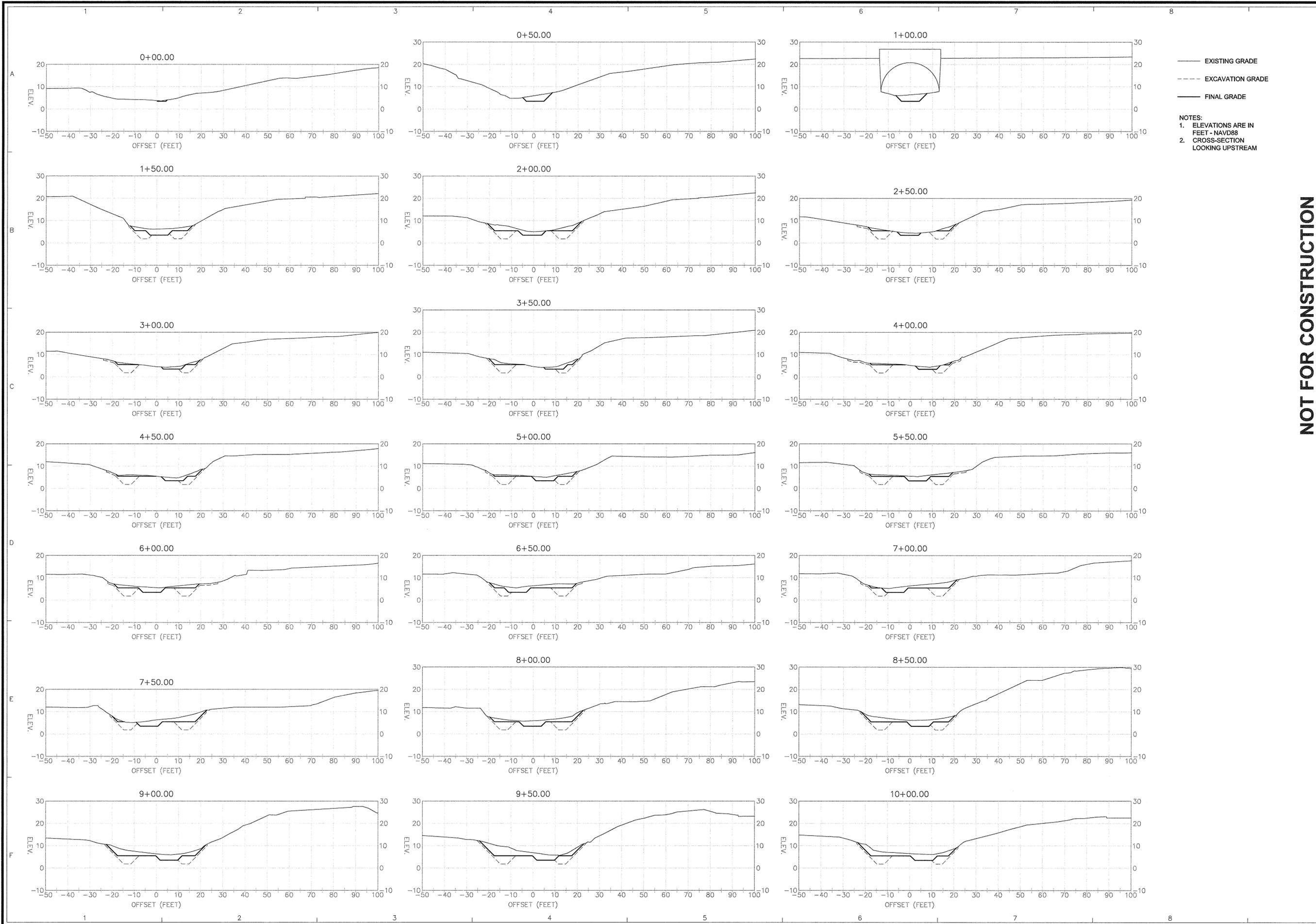
**GINN FIELD PLAYGROUND
 SCHEMATIC PLAN**
 MYSTIC VALLEY PARKWAY
 ABERJONA RIVER
 DRAWING NUMBER:
L-200
 SHEET NUMBER:
 37 of 44
 REVISION 0



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DRAWING NUMBER: C-700 SHEET NUMBER: 39 of 45 REVISION: 0	CROSS SECTION OVERVIEW		TOWN OF WINCHESTER, MASSACHUSETTS		<p>AECOM 2 Technology Park Drive, Westford, MA 978.866.9000 www.aecom.com</p>	
	ABERJONA RIVER FMP PROJECT 2 - RIVER WIDENING		PROJ. NO.: 60145116	DATE: 02/2011		

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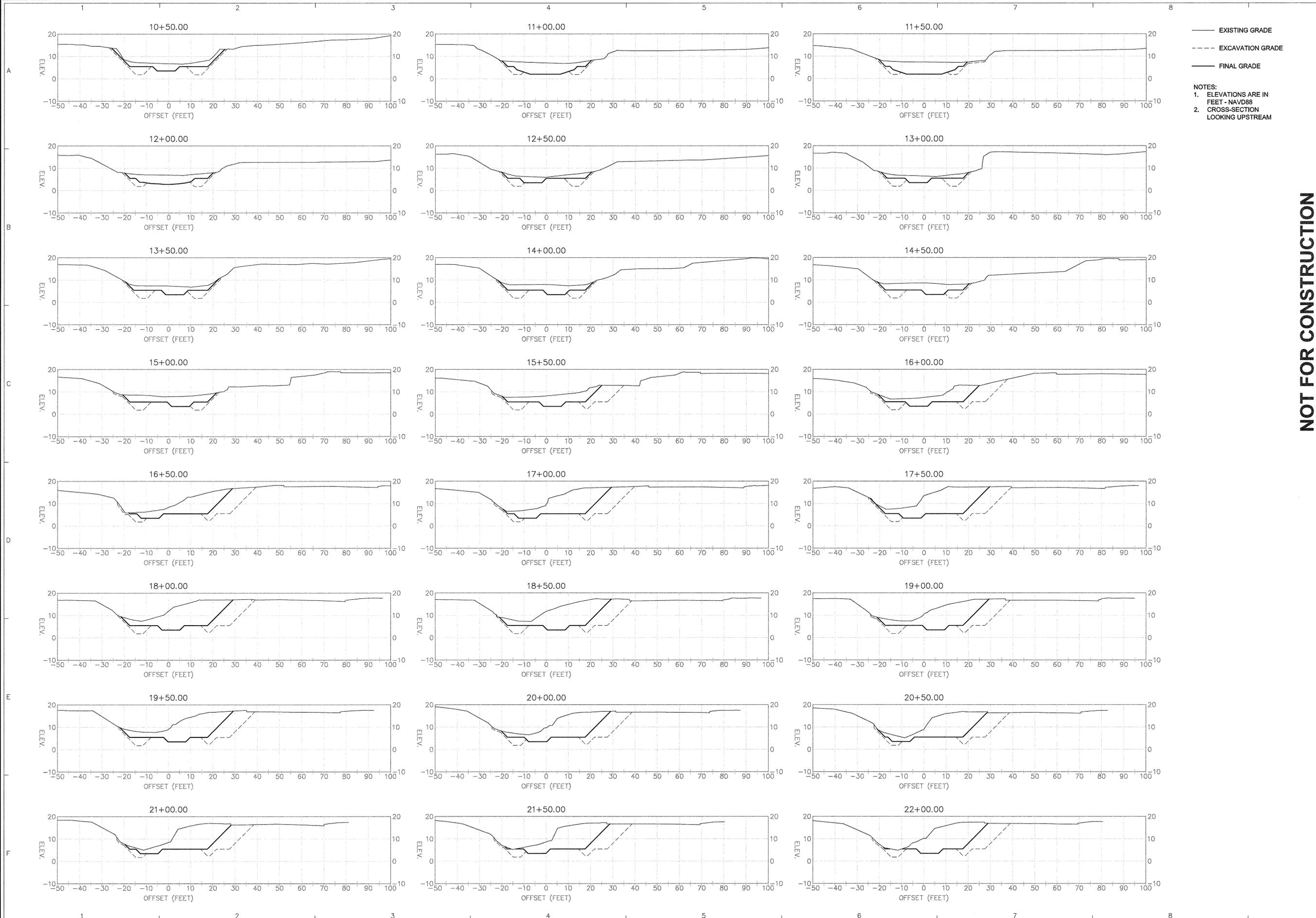
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 MASSACHUSETTS
 PROJ. NO.: 60145116
 DATE: 02/2011

**REPRESENTATIVE
 CROSS SECTIONS**
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
C-701
 SHEET NUMBER:
40 of 45
 REVISION | 0

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— EXISTING GRADE
 - - - EXCAVATION GRADE
 — FINAL GRADE

NOTES:
 1. ELEVATIONS ARE IN FEET - NAVD88
 2. CROSS-SECTION LOOKING UPSTREAM



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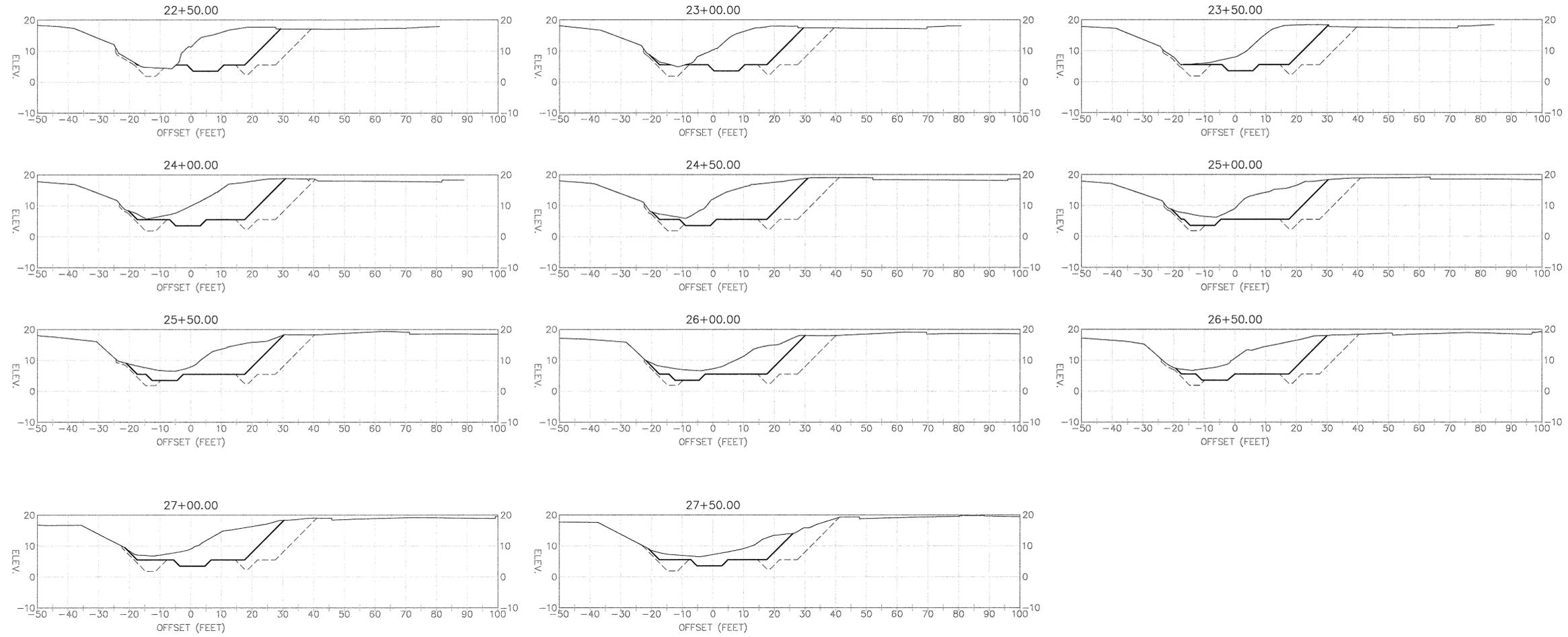
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TOWN OF WINCHESTER,
 MASSACHUSETTS
 PROJ. NO.: 60145116
 DATE: 02/2011

**REPRESENTATIVE
 CROSS SECTIONS**
 ABERJONA RIVER FMP
 PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
C-702
 SHEET NUMBER:
41 of 45
 REVISION: 0

File: \\ESP\Projects\1100\100 to 699\Project 2 Design\DWG\1100\100\Surfaces_SS_Sheets_110010.dwg Layout: C-703 User: kermack Plot: Feb 08, 2011 - 7:03am xref:



— EXISTING GRADE
 - - - EXCAVATION GRADE
 — FINAL GRADE

NOTES:
 1. ELEVATIONS ARE IN FEET - NAVD88
 2. CROSS-SECTION LOOKING UPSTREAM



NOT FOR CONSTRUCTION

NO.	DATE	REVISION	CHKD	DATE	APPV	DATE
7						
6						
5						
4						
3						
2						
1						
0						



TOWN OF WINCHESTER, MASSACHUSETTS	DATE: 02/2011
PROJ. NO.: 60145116	

REPRESENTATIVE CROSS SECTIONS	ABERJONA RIVER FMP PROJECT 2 - RIVER WIDENING
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DRAWING NUMBER: C-703
SHEET NUMBER: 42 of 45
REVISION 0



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MASSACHUSETTS

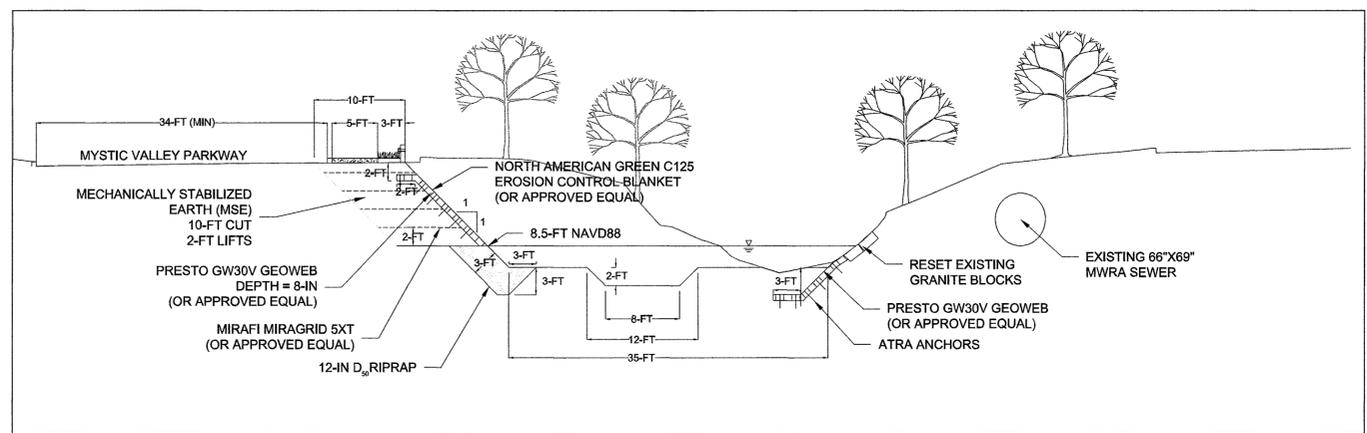
DATE: 02/2011

PROJ. NO.: 60145116

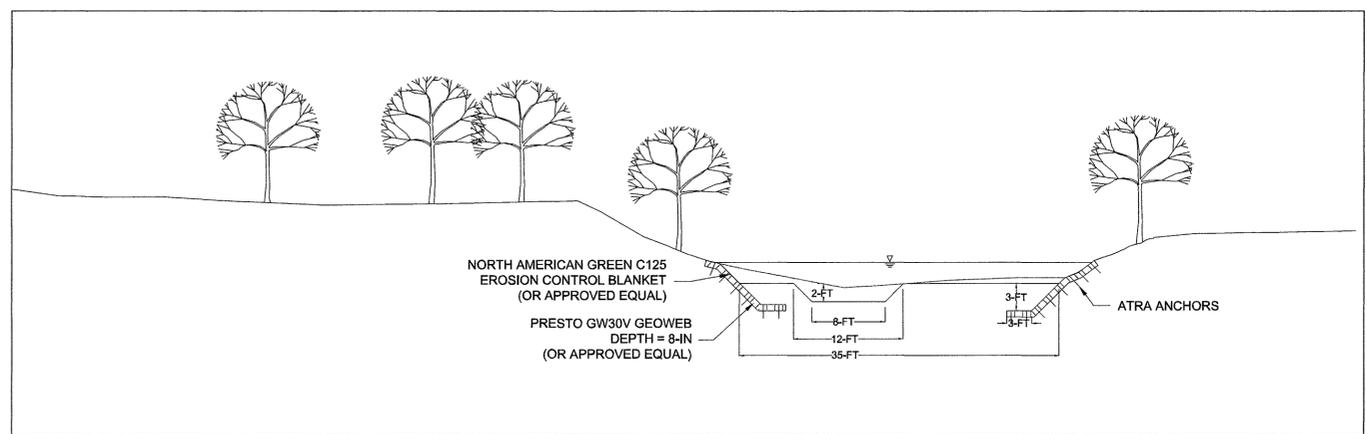
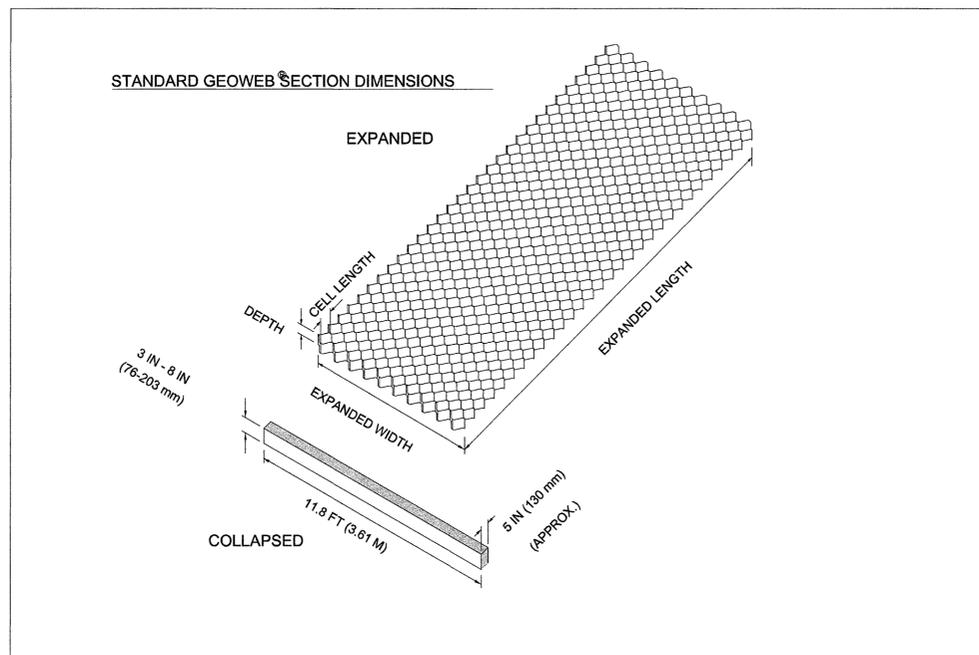
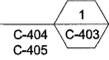
DETAILS

ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING

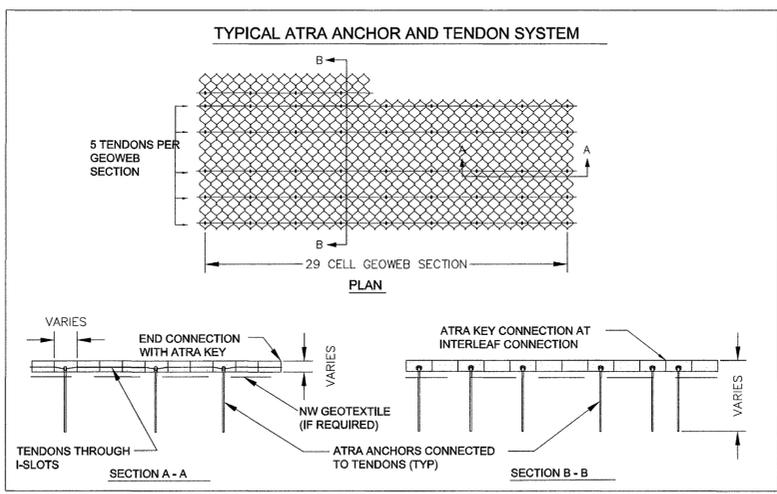
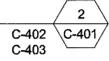
DRAWING NUMBER:
D-100
SHEET NUMBER:
43 of 45
REVISION | 0



TYPICAL CROSS SECTION - UPPER REACH
STA. 15+25.00 TO 27+94.47
Not to Scale



TYPICAL CROSS SECTION - LOWER REACH
STA. 00+00.00 TO 15+25.00
Not to Scale



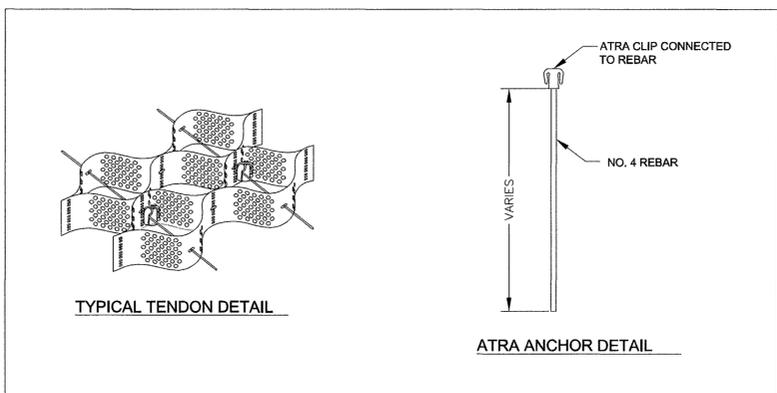
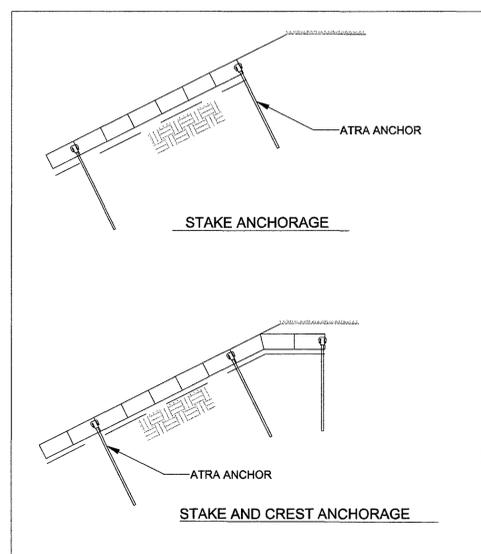
- CREST ANCHOR NOTES:**
- FOR MANY APPLICATIONS, AN ANCHOR TRENCH OR SOIL COVER EMBEDMENT ARE ALL THAT IS REQUIRED FOR CREST ANCHORAGE.
 - VARIOUS FORMS OF CREST ANCHORAGE ARE AVAILABLE.
 - IF TENDONS ARE REQUIRED, COORDINATE THE NUMBER AND LOCATION OF ATRA CLIPS AND/OR ATRA ANCHORS REQUIRED TO TRANSFER THE LOAD TO THE CREST ANCHOR SYSTEM.
 - EARTH ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS.
 - ALL CREST ANCHORAGE REQUIREMENTS SHALL BE PREPARED BY A COMPETENT PROFESSIONAL FAMILIAR WITH ENGINEERING CONCEPTS.
 - WHEN CONNECTING TO A CONCRETE STRUCTURE, TENDON CAN BE TIED DIRECTLY TO SPEC'D EYE BOLT OR SPEC'D ROD THROUGH THE EYE BOLT.
 - INSTALL EYE BOLT PER MANUFACTURER'S INSTRUCTIONS.
 - EPOXY ANCHORING COMPOUNDED IS RECOMMENDED WHEN EYE BOLT IS DOWELED INTO AN EXISTING CONCRETE STRUCTURE.

- TENDON AND ATRA ANCHOR NOTES:**
- ATRA ANCHOR LENGTH AND SPACING VARY ACCORDING TO DESIGN REQUIREMENTS.
 - WHEN ATRA ANCHORS ARE USED FOR ANCHORAGE, ENSURE ANCHOR BEARS AGAINST THE CELL WALL AND ARM IS ENGAGED THROUGH THE I-SLOT.
 - TENDON TYPE AND SPACING VARY ACCORDING TO DESIGN REQUIREMENTS.
 - ATRA CLIPS OR ATRA ANCHORS SHALL BE PROVIDED AT END OF GEOWEB SECTION TO PREVENT TENDON FROM PULLING THROUGH THE WEB.
 - CREST ANCHORAGE WITH ATRA ANCHOR AND/OR TENDONS MAY BE REQUIRED PER THE DESIGN.
 - ALL ANCHOR REQUIREMENTS SHALL BE PREPARED BY A COMPETENT PROFESSIONAL FAMILIAR WITH ENGINEERING CONCEPTS.

GEOWEB® CELL SIZES						
CELL WIDTH	CELL LENGTH	NOMINAL CELL AREA IN ² (CM ²)	CELL EXPANSION RANGE		NOMINAL AREA FT ² M ²	
			MINIMUM LENGTH WIDTH IN (CM)	MAXIMUM LENGTH WIDTH IN (CM)		
30V		71.3 (460)	10.25 (260)	11.39 (289)	12.39 (315)	13.77 (360)

NOTE: ALL DIMENSIONS ARE NOMINAL AND ARE WITHIN MANUFACTURING TOLERANCES

GEOWEB® SECTION SIZES					
GW30V - 8 CELLS WIDE					
CELLS LONG	MIN EXPANSION		MAX EXPANSION		NOMINAL AREA FT ² M ²
	LENGTH	WIDTH	LENGTH	WIDTH	
18	15.4	4.7	18.6	5.7	143 13.3
21	18.0	5.5	21.7	6.6	167 15.5
25	21.4	6.5	25.8	7.9	198 18.4
29	24.8	7.6	30.0	9.1	230 21.4
34	29.1	8.9	35.1	10.7	270 25.0





NO.	DATE	REVISION	CHKD.	DATE	APPV.	DATE
7						
6						
5						
4						
3						
2						
1						
0						

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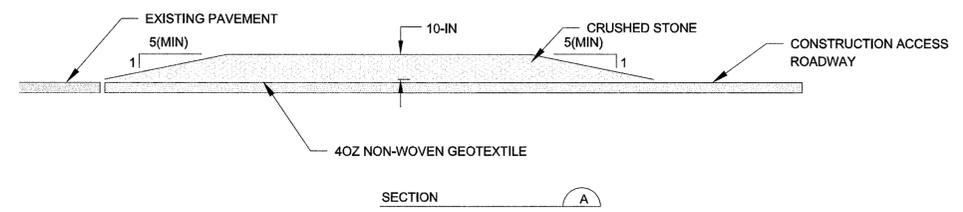
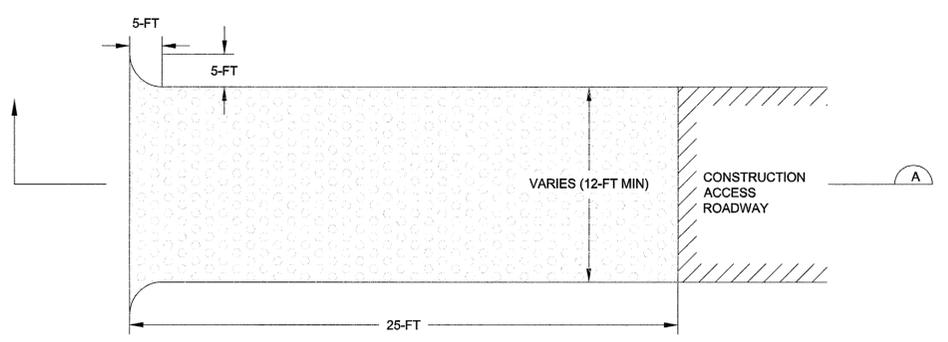
DATE: 02 / 2011

PROJ. NO.: 60145116

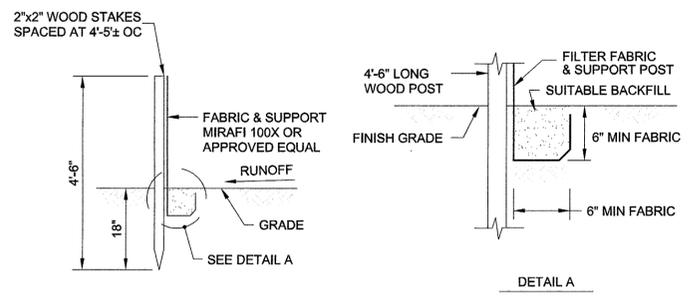
DETAILS

ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING

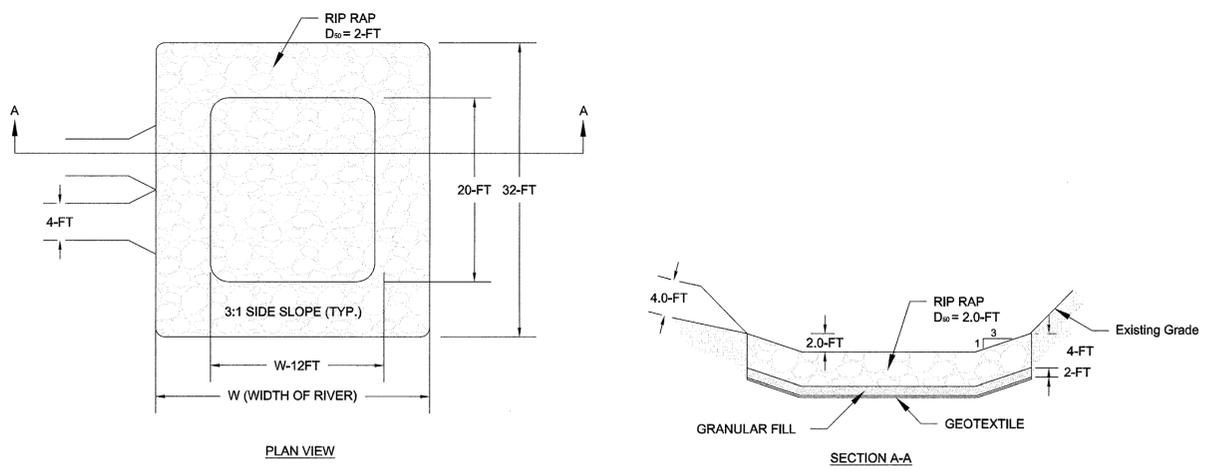
DRAWING NUMBER:
D-101
SHEET NUMBER:
44 of 45
REVISION **0**



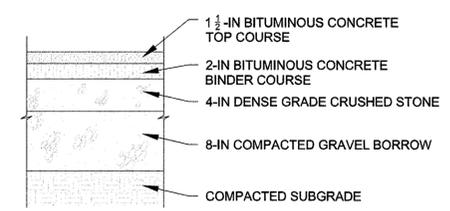
CONSTRUCTION ENTRANCE
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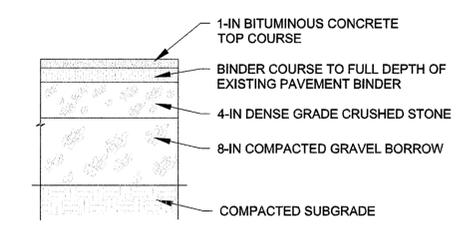
SILTATION FENCE
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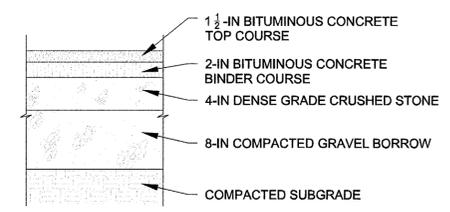
SCOUR HOLE
Not to Scale



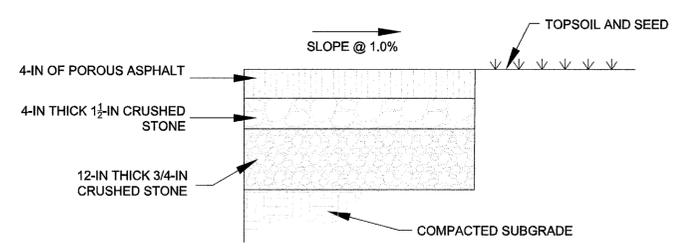
BITUMINOUS CONCRETE ROADWAY
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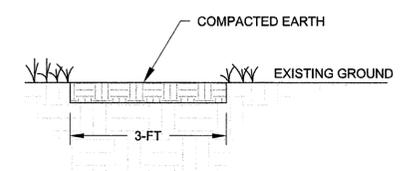
BITUMINOUS CONCRETE PATCH
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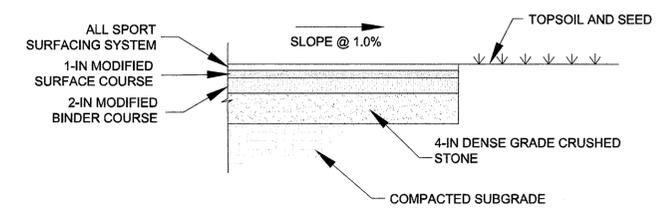
BITUMINOUS CONCRETE SIDEWALK
Not to Scale



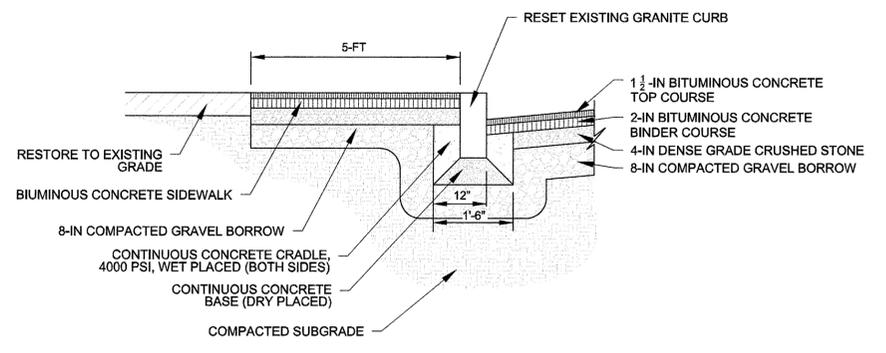
PERVIOUS PAVEMENT
Not to Scale



DIRT PATH
Not to Scale

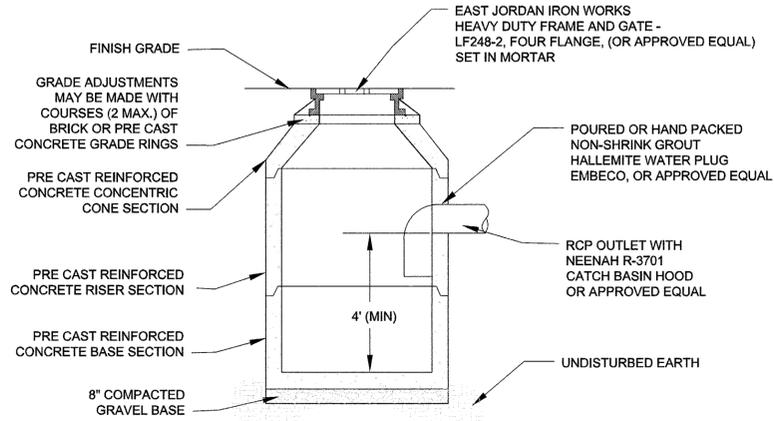


BASKETBALL COURT
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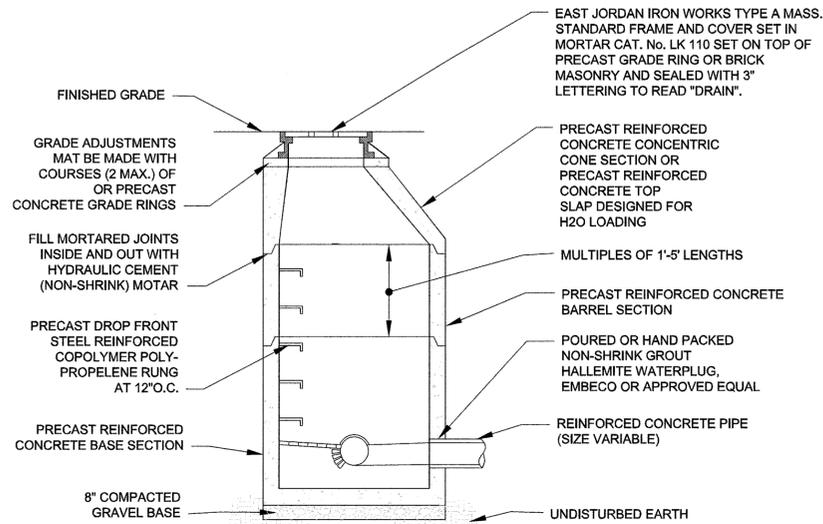


BITUMINOUS CONCRETE SIDEWALK AND GRANITE CURB
Not to Scale

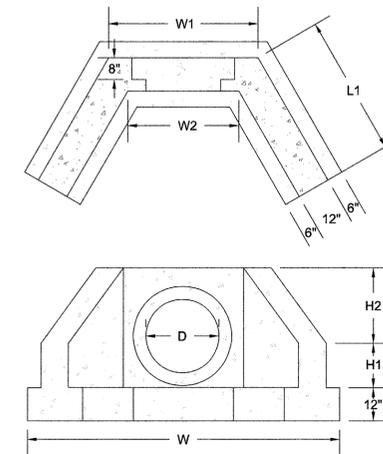
1 2 3 4 5 6 7 8



CATCH BASIN
Not to Scale
C-505 C-504



DRAINAGE MANHOLE
Not to Scale
C-504 C-503



DIMENSION	18-IN PIPE	27-IN PIPE	30-INCH PIPE
D	18"	27"	30"
W	82- ³ / ₁₆ "	115- ⁵ / ₁₆ "	135- ³ / ₁₆ "
W1	38"	54"	70"
W2	24- ¹ / ₈ "	40- ¹ / ₈ "	56"
L2	23"	40"	48"
H	45"	56"	69"
H1	11"	16"	22"
H2	22"	27"	35"

HEADWALL
Not to Scale
C-504 C-503



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NO	DATE	REVISION	CHKD	DATE	APPROVDATE
7					
6					
5					
4					
3					
2					
1					
D	102				

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PROJ. NO.: 60145116

DATE: 02/2011

DETAILS

ABERJONA RIVER FMP
PROJECT 2 - RIVER WIDENING

DRAWING NUMBER:
D-102

SHEET NUMBER:
45 of 45

REVISION **0**

1 2 3 4 5 6 7 8

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