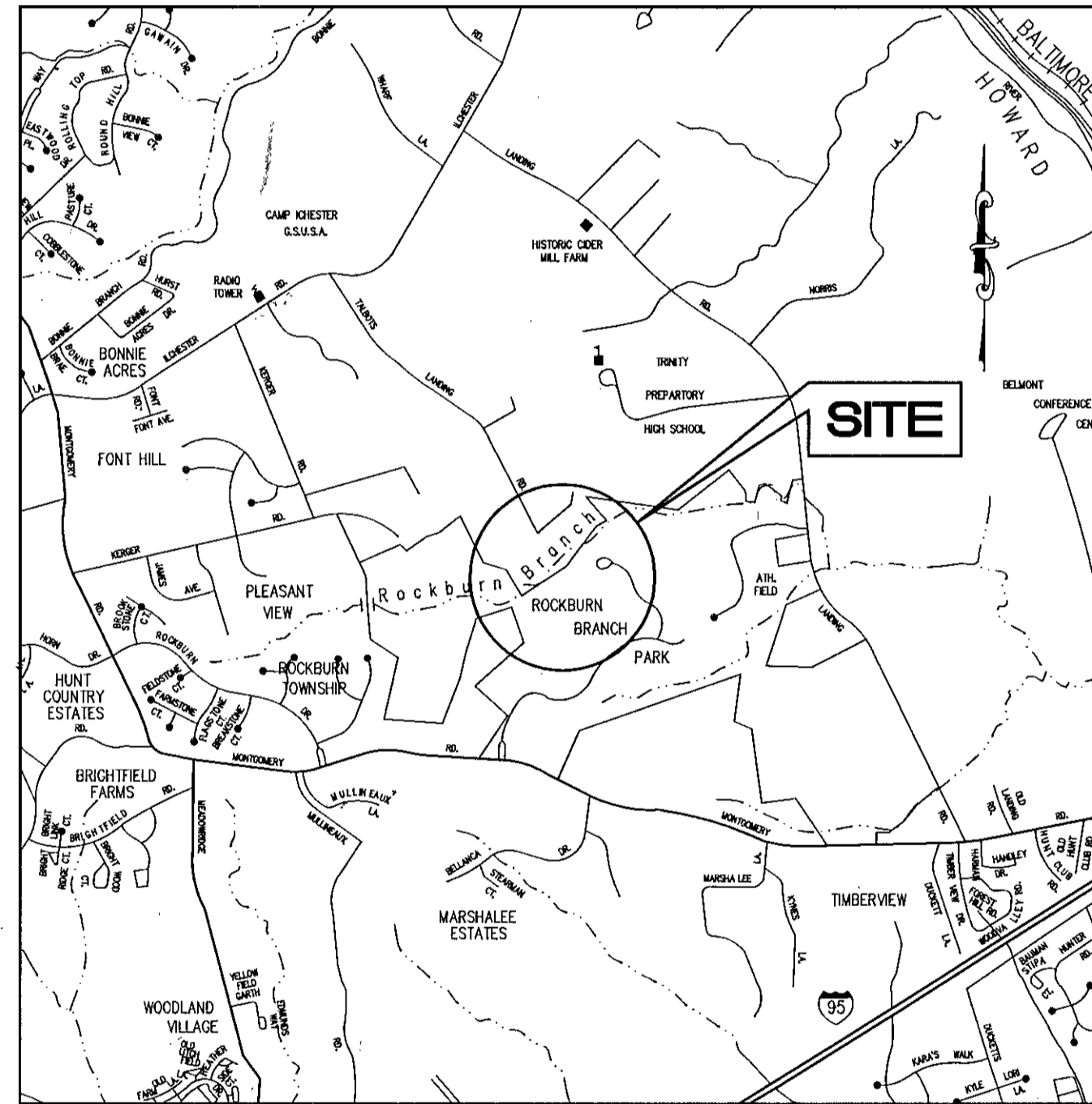


# HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS REPLACEMENT OF BRIDGE ROCKBURN PARK MULTI USE PATHWAY OVER ROCKBURN BRANCH HOWARD COUNTY CAPITAL PROJECT S-6200

### GENERAL NOTES

- This contract shall be constructed under provisions of the Maryland Department of Transportation, State Highway Administration (S.H.A.) "Standard Specifications for Construction and Materials," dated January 2001, including all revisions thereof and additions thereto, except where noted otherwise.
- The Contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1870 at least five (5) working days prior to the start of work.
- The Contractor shall notify "Miss Utility" at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work. The Contractor shall contact the following utilities at least 5 days prior to beginning any work under this contract. For additional information and requirements with respect to utilities, see Special Provisions.  
BGE Gas Division (410) 291-5834  
BGE Electric Division (410) 855-6958  
Bell Atlantic (410) 224-9980
- Project Background:  
Location: Elkridge, Maryland  
Tax Map: 31  
Election District: 1
- Traffic control devices, markings, and signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- Any damage caused by the Contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be corrected at the Contractor's expense.
- The existing utilities shown hereon are located from the best information available, but no guarantee is made to their accuracy. The approximate location of existing utilities are shown for the Contractor's information and convenience. The Contractor shall locate existing utilities to his own satisfaction and well in advance of any construction activities. Additionally, the Contractor shall take all necessary precautions to protect all existing utilities and maintain uninterrupted service.
- Horizontal and vertical datums are related to the Maryland State Plane Coordinate System as projected from Howard County Survey Control 48BA and Howard County Benchmarks S-260 and S-261.
- Clearing shall be limited to the "Limit of Disturbance" as shown on the sediment and erosion control plan. Grading shall be done in such a manner as to provide positive drainage. Contractor shall seed and mulch all disturbed areas except as otherwise directed.
- The contractor shall take extreme caution not to disturb the existing vegetation outside the limits of construction. Soil stabilization shall conform to "Maryland Standards and Specifications for Soil Erosion and Sediment Control," dated 1994, published jointly by Water Management Administration, Soil Conservation Service, and State Soil Conservation Committee.
- All fill areas shall be compacted to a minimum of 95% of the maximum dry density as determined and verified in accordance with AASHTO T-180.
- The grading limits shown on the plan shall not be exceeded. Any changes in the grading, erosion and sediment control plan, stormwater management facility or other segment of work must be reviewed and approved by the Howard County Department of Public Works.
- The Howard County Department of Public Works shall only be responsible for the completeness of documents obtained directly from Howard County Department of Public Works Office of Purchasing. Failure to attach all addenda may cause bid to be irregular.



LOCATION MAP  
SCALE: 1" = 2000'

### INDEX OF DRAWINGS

SHEET NO.	TITLE
1	TITLE SHEET
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3	ROADWAY PLAN AND EROSION AND SEDIMENT CONTROL PLAN
4	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
5	EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
6	ABUTMENT PLAN, ELEVATION AND SECTION
7	MISCELLANEOUS DETAILS

**SEDIMENT AND EROSION CONTROL REGULATIONS WILL  
BE STRICTLY ENFORCED DURING CONSTRUCTION**

**By the Owner/Developer:**  
"I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

*Paul P. Sapon*      2/12/02  
Signature of Owner/Developer      Date  
Print name below signature

**By the Engineer:**  
"I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District."

*Charles S. Noland*      2/13/02  
Signature of Engineer      Date  
Print name below signature

These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements.

*Jim Major*      2/7/02  
USDA-Natural Resources Conservation      Date  
Service

These plans are approved for soil erosion and sediment control by the Howard Soil Conservation District.

*John R. Roberts*      2/7/02  
Howard S.C.D.      Date

#### Standard Stabilization Note:

Following initial soil disturbance, permanent or temporary stabilization shall be completed within seven (7) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeterslopes and all slope greater than 3 horizontal to 1 vertical (3:1) and fourteen (14) days as to all other disturbed or graded areas on the project site.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Paul P. Sapon*      2/13/02  
DIRECTOR OF PUBLIC WORKS      DATE  
*Paul P. Sapon*      2-11-02  
CHIEF, UTILITY DESIGN DIVISION      DATE

*Paul P. Sapon*      2/13/02  
DIRECTOR OF RECREATION AND PARKS      DATE  
*Paul P. Sapon*      2/12/02  
CHIEF, BUREAU OF ENGINEERING      DATE

**NOLAN**  
Associates, Inc.  
Engineers - Civil/Structural/Inspections  
4785 Dorsey Hall Drive  
Suite 124  
Ellicott City, Maryland 21042  
Phone: (410) 895-3651      Fax: (410) 895-1363

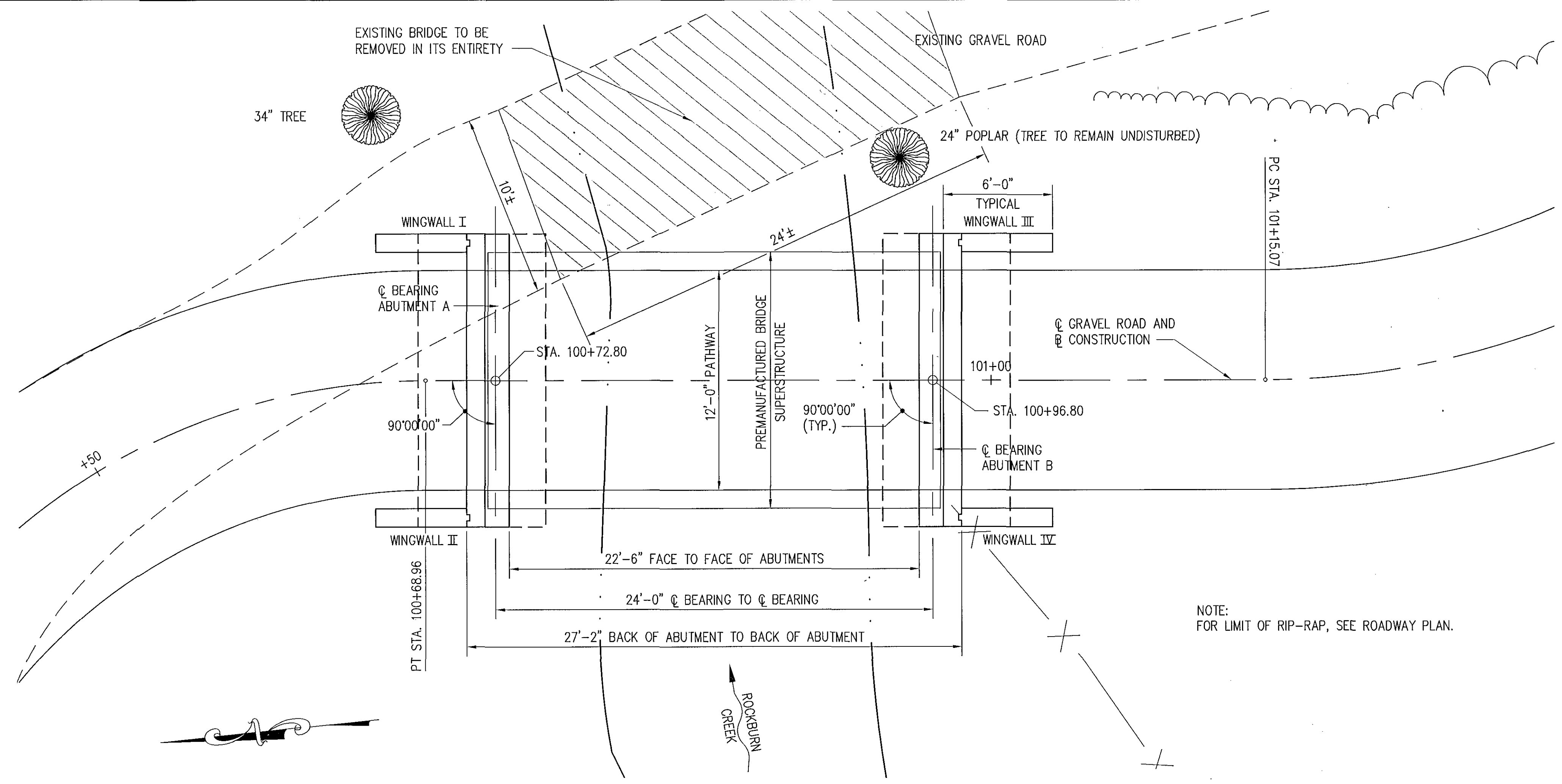
*Paul P. Sapon*

DES: JTA					
DRN: BSB					
CHK: CSN					
DATE: DEC. 2001	BY:	NO.	REVISION	DATE	600' SCALE MAP NO.      BLOCK NO.

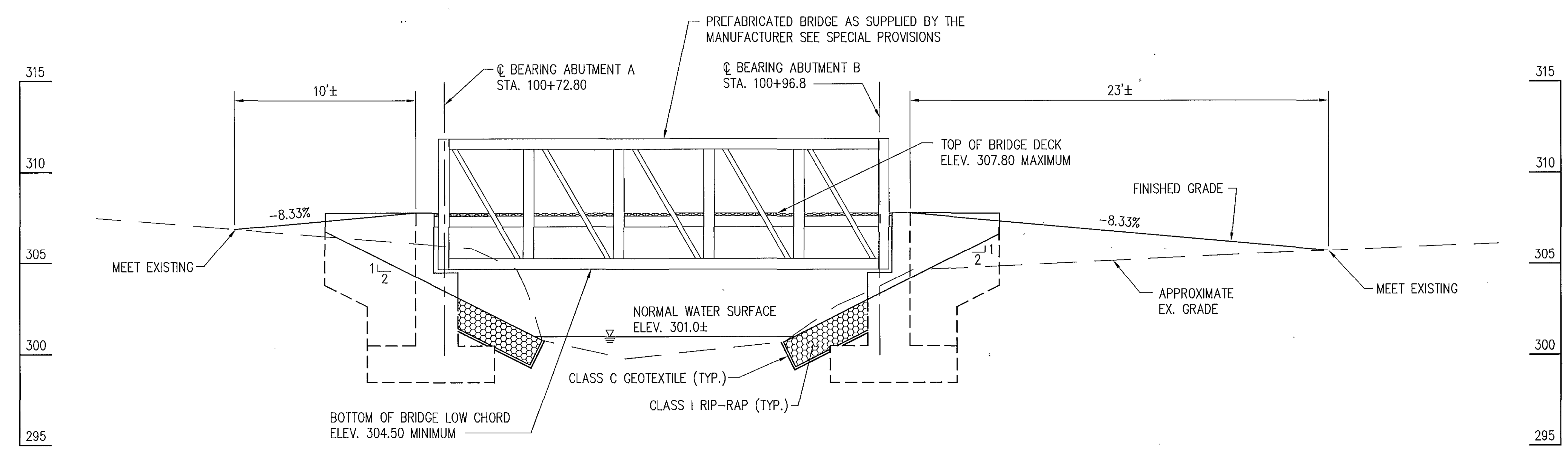
TITLE SHEET

REPLACEMENT OF BRIDGE IN ROCKBURN PARK  
MULTI USE PATHWAY OVER ROCKBURN BRANCH  
CAPITAL PROJECT S-6200  
ELECTION DISTRICT NO. 1  
ELKRIDGE, MARYLAND

SCALE:  
AS SHOWN  
  
SHEET  
1 OF 7



**PLAN**  
SCALE: 1/4" = 1'-0"



**ELEVATION**  
SCALE: 1/4" = 1'-0"

**GENERAL NOTES**

- SPECIFICATIONS:** SHA SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS DATED JANUARY, 2001 REVISIONS THEREOF AND ADDITIONS THERETO, THE SPECIAL PROVISIONS AND HOWARD COUNTY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (VOL. IV DESIGN MANUAL).
- AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 1996 FOR DESIGN INCLUDING ALL INTERIM SPECIFICATIONS.
- CONCRETE DESIGN: SERVICE LOAD DESIGN METHOD  $f_c = 12000$  PSI.
- REINFORCING STEEL DESIGN:  $f_s = 24,000$  PSI.
- STRUCTURAL STEEL DESIGN: ELASTIC DESIGN METHOD
- LOADING:** THE GREATER OF 85 PSF OR A 20,000 POUND VEHICLE.
- CONCRETE:** ALL CONCRETE SHALL BE MIX NO. 3.
- REINFORCING STEEL:** REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60. MINIMUM COVER FOR ANY BAR SHALL BE 2" UNLESS OTHERWISE NOTED, WITH THE EXCEPTION OF BARS AT THE BOTTOM AND SIDES OF ALL FOOTINGS WHICH SHALL HAVE 3" MINIMUM COVER.
- FOR TIES AND STIRRUPS; STANDARD ACI BENDING TOLERANCES ARE MODIFIED TO PLUS (+) ZERO INCHES, MINUS (-) NORMAL ACI BENDING TOLERANCES.
- ONLY GRADE 60 CAN BE USED ON THIS PROJECT
- KEYS:** ALL KEYS ARE NOMINAL SIZE.
- EXISTING STRUCTURE:** ALL DIMENSIONS AFFECTED BY THE GEOMETRICS, AND/OR LOCATION OF THE EXISTING STRUCTURE SHALL BE CHECKED IN THE FIELD BY THE CONTRACTOR, BEFORE ANY CONSTRUCTION IS DONE, AND BEFORE ANY REINFORCING STEEL, ETC., IS ORDERED OR FABRICATED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY THE ENGINEER WITH ALL FIELD DIMENSIONS REQUIRED TO CHECK DETAIL DRAWINGS. THE (±) MARKS SHOWN WITH DIMENSIONS AND STATIONS DO NOT INDICATE ANY DEGREE OF PRECISION. THESE MARKS (±) INDICATE EXISTING DIMENSIONS AND STATIONS THAT MAY VARY AND DO REQUIRE FIELD VERIFICATION BY THE CONTRACTOR.
- EXISTING STRUCTURE SHOWN IN LONG DASHED LINES.
- EXISTING STRUCTURE IS SHOWN HATCHED AND SHALL BE REMOVED IN ITS ENTIRETY.
- SUPERSTRUCTURE:** THE SUPERSTRUCTURE SHALL BE A PREFABRICATED TRUSS BRIDGE, DESIGNED BY THE MANUFACTURER TO THE REQUIREMENTS DETAILED ON THE PLANS AND SPECIAL PROVISIONS. THE BRIDGE MANUFACTURER SHALL REVIEW THE SUBSTRUCTURE DETAILS PROVIDED AND SUBMIT ANY PROPOSED MODIFICATIONS REQUIRED TO SUIT THE ACTUAL BRIDGE SUPERSTRUCTURE FURNISHED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND/OR CONSTRUCTION. THE FINAL LAYOUT WILL BE IN ACCORDANCE WITH THE APPROVED SHOP DRAWINGS.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*John J. ...* 2/12/02  
DIRECTOR OF PUBLIC WORKS

*Paul J. ...* 2/12/02  
CHIEF, BUREAU OF ENGINEERING

**NOLAN**  
Associates, Inc.  
Engineers - Civil/Structural/Inspections  
4785 Dorsey Hall Drive  
Suite 124  
Ellicott City, Maryland 21042  
Phone: (410) 995-3651 Fax: (410) 995-1363

DES: JTA					
DRN: BSB					
CHK: CSN					
DATE: DEC. 2001	BY	NO.	REVISION	DATE	

**GENERAL PLAN AND ELEVATION**

600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

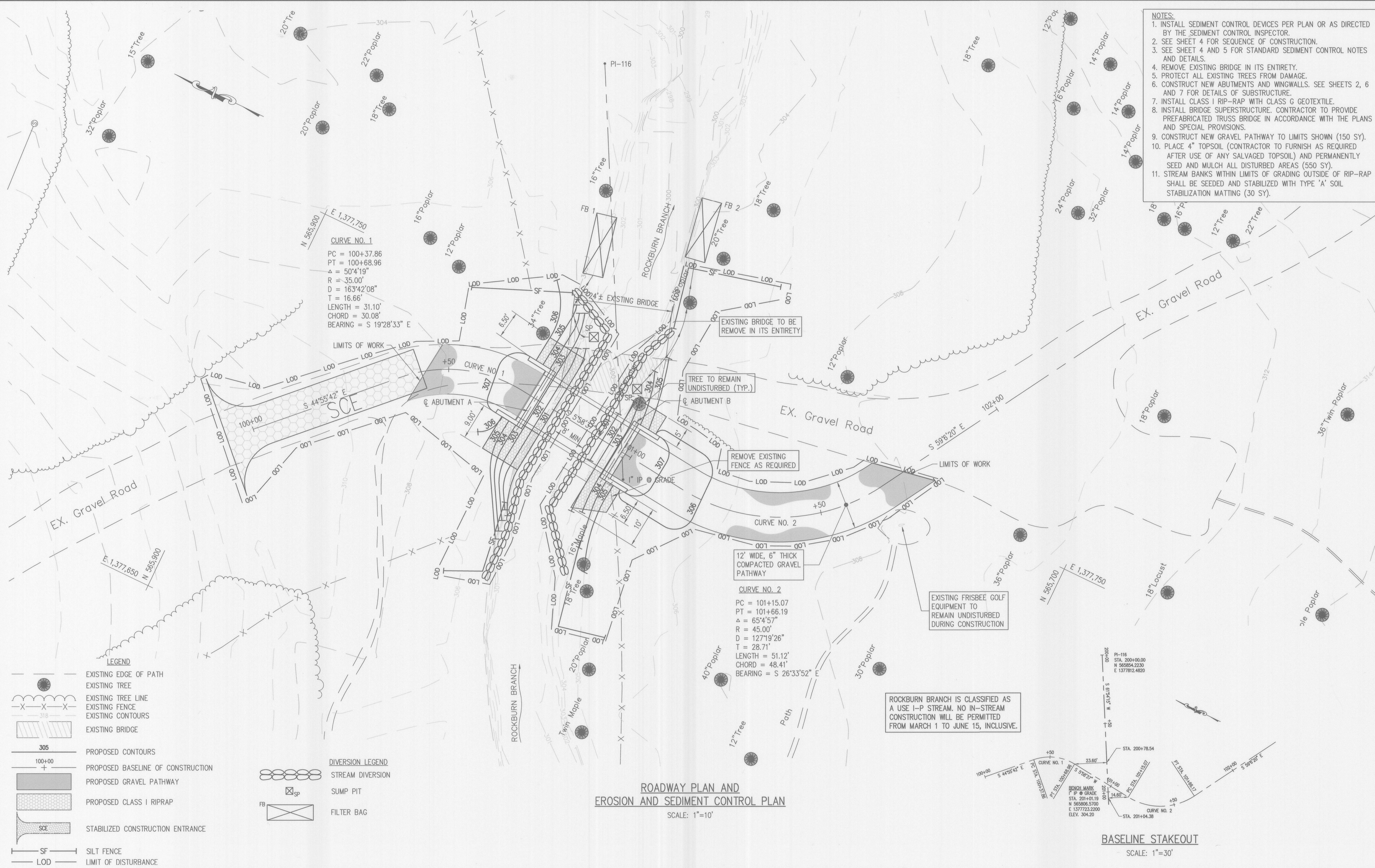
REPLACEMENT OF BRIDGE IN ROCKBURN PARK  
MULTI USE PATHWAY OVER ROCKBURN BRANCH

CAPITAL PROJECT S-6200  
ELECTION DISTRICT NO. 1  
ELKRIDGE, MARYLAND

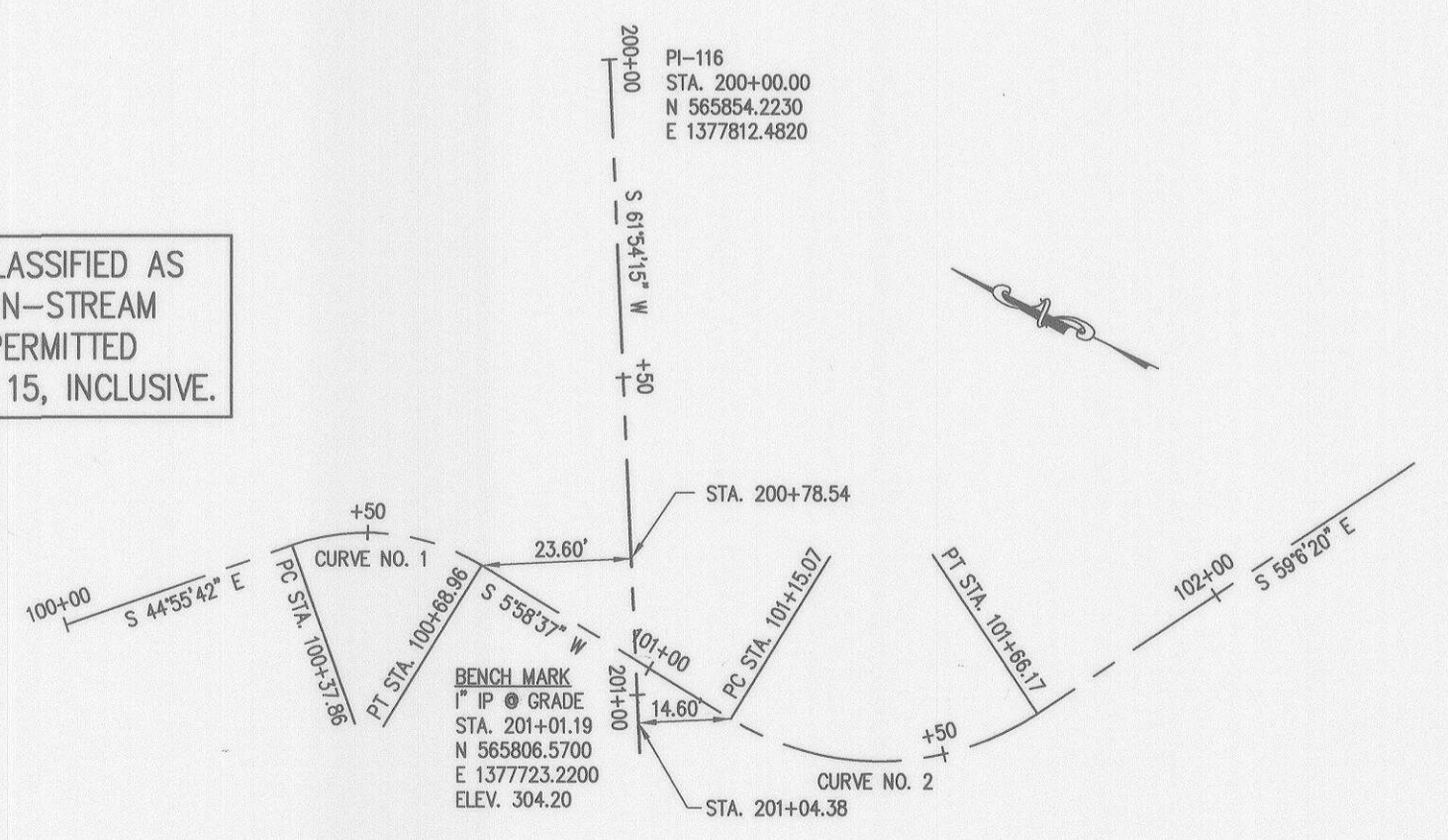
SCALE: AS SHOWN

SHEET 2 OF 7

- NOTES:**
1. INSTALL SEDIMENT CONTROL DEVICES PER PLAN OR AS DIRECTED BY THE SEDIMENT CONTROL INSPECTOR.
  2. SEE SHEET 4 FOR SEQUENCE OF CONSTRUCTION.
  3. SEE SHEET 4 AND 5 FOR STANDARD SEDIMENT CONTROL NOTES AND DETAILS.
  4. REMOVE EXISTING BRIDGE IN ITS ENTIRETY.
  5. PROTECT ALL EXISTING TREES FROM DAMAGE.
  6. CONSTRUCT NEW ABUTMENTS AND WINGWALLS. SEE SHEETS 2, 6 AND 7 FOR DETAILS OF SUBSTRUCTURE.
  7. INSTALL CLASS I RIP-RAP WITH CLASS G GEOTEXTILE.
  8. INSTALL BRIDGE SUPERSTRUCTURE. CONTRACTOR TO PROVIDE PREFABRICATED TRUSS BRIDGE IN ACCORDANCE WITH THE PLANS AND SPECIAL PROVISIONS.
  9. CONSTRUCT NEW GRAVEL PATHWAY TO LIMITS SHOWN (150 SY).
  10. PLACE 4" TOPSOIL (CONTRACTOR TO FURNISH AS REQUIRED AFTER USE OF ANY SALVAGED TOPSOIL) AND PERMANENTLY SEED AND MULCH ALL DISTURBED AREAS (550 SY).
  11. STREAM BANKS WITHIN LIMITS OF GRADING OF RIP-RAP SHALL BE SEED AND STABILIZED WITH TYPE 'A' SOIL STABILIZATION MATTING (30 SY).



ROCKBURN BRANCH IS CLASSIFIED AS A USE I-P STREAM. NO IN-STREAM CONSTRUCTION WILL BE PERMITTED FROM MARCH 1 TO JUNE 15, INCLUSIVE.



DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

Director of Public Works: *2/13/02*  
 Director of Recreation and Parks: *2/13/02*

Chief, Utility Design Division: *2-11-02*  
 Chief, Bureau of Engineering: *2/12/02*

**NOLAN**  
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 Phone: (410) 995-1361 Fax: (410) 995-1363

DES:	JTA				
DRN:	BSB				
CHK:	CSN				
DATE:	DEC. 2001	BY:	NO.	REVISION:	DATE:

**ROADWAY PLAN AND EROSION AND SEDIMENT CONTROL PLAN**

600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

REPLACEMENT OF BRIDGE IN ROCKBURN PARK  
 MULTI USE PATHWAY OVER ROCKBURN BRANCH

CAPITAL PROJECT S-6200  
 ELECTION DISTRICT NO. 1  
 ELKRIDGE, MARYLAND

SCALE: AS SHOWN  
 SHEET 3 OF 7

# SPECIFICATIONS FOR VEGETATION ESTABLISHMENT

## PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

Seeded Preparation: --Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: --In lieu of soil test recommendations, use one of the following schedules:

1. Preferred--Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
2. Acceptable--Apply 2 tons per acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding--For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) - 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) - Use sod. Option (3) - Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching--Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000 sq. ft.) for anchoring.

Maintenance--Inspect all seeding areas and make needed repairs, replacements and reseeds.

## TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

Seeded preparation: --Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

Soil Amendments: --Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.).

Seeding--For periods March 1 thru April 30 and from August 15 thru October 15, seed with 2-1/2 bushel per acre of annual rye (3.2 lbs/1000 sq. ft.). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching--Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slopes 8 ft. or higher, use 348 gal per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

## STANDARD SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction, (313-1850).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", and revisions thereto.
3. Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
7. Site Analysis
 

Total Area of Site	0.19	Acres
Area Disturbed	0.19	Acres
Area to be roofed or paved	0.00	Acres
Area to be vegetatively stabilized	0.19	Acres
Total Cut	0	Cu. Yds.
Total Fill	20	Cu. Yds.

Offsite Waste/Borrow Area Location To Be Determined By Contractor at a site with an active grading permit.
8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
10. On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
11. Trenches for the construction of utilities is limited to three pipe lengths or that which can be backfilled and stabilized within one working day, whichever is shorter.

## SEQUENCE OF CONSTRUCTION

### DAYS

1. The Contractor shall notify the Maryland Department of the Environment, Water Management Administration (410) 974-2755, the Howard County Bureau of Engineering, Construction Inspection Division, (410) 313-1870, and the Howard County Sediment Control Division, (410) 313-1855 at least 48 hours prior to the beginning of construction. . . . . 2
2. The Contractor shall obtain a Howard County Grading Permit prior to the beginning construction. . . . . 1
3. Delineate the limits of disturbance at the site and install perimeter erosion and sediment control devices as shown and/or as directed by the Sediment Control Inspector. . . . . 1
4. With a clear N.W.S. forecast install diversion dike and divert stream away from abutments. . . . . 3
5. Dewater working area. . . . . 1
6. Construct abutments including wingwalls and riprap slope protection. . . . . 30
7. Install prefabricated bridge superstructure. . . . . 3
8. Construct new gravel roadway. . . . . 1
9. Remove stream diversion. . . . . 1
10. Seed, mulch and stabilize all disturbed areas. After final stabilization of entire site, remove sediment control devices only as authorized by the Sediment Control Inspector. Seed, mulch and stabilize the areas occupied by the devices. . . . . 2

# SPECIFICATIONS FOR TOPSOIL

Definition: Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.

Purpose: To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.

## Conditions Where Practice Applies

- I. This practice is limited to areas having 2:1 or flatter slopes where:
  - a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
  - b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
  - c. The original soil to be vegetated contains material toxic to plant growth.
  - d. The soil is so acidic that treatment with limestone is not feasible.
- II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

## Construction and Material Specifications

- I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.
- II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2" in diameter.
  - ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
  - iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- III. For sites having disturbed areas under 5 acres:
  - i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- IV. For sites having disturbed areas over 5 acres:
  - i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
    - b. Organic content of topsoil shall be not less than 1.5 percent by weight.
    - c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    - d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.

Note: Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by appropriate authority, may be used in lieu of natural topsoil.

  - ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- V. Topsoil Application
  - i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Silt Fence and Sediment Traps and Basins.
  - ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4"-8" higher in elevation.
  - iii. Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
  - iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seeded preparation.
- VI. Alternative for Permanent Seeding. - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
  - i. Composted Sludge Material for use as soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
    - a. Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of Environment under COMAR 26.04.06.
    - b. Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a Ph of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
    - c. Composted sludge shall be applied at the rate of 1 ton/1,000 square feet.
  - ii. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1000 square feet, and 1/3 the normal lime application rate.

## DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

*[Signature]* DATE *2/13/02*  
 DIRECTOR OF PUBLIC WORKS  
*[Signature]* DATE *2/12/02*  
 CHIEF, UTILITY DESIGN DIVISION  
 CHIEF, BUREAU OF ENGINEERING

## NOLAN Associates, Inc.

Engineers - Civil/Structural/Inspections  
 4785 Dorsey Hall Drive  
 Suite 124  
 Ellicott City, Maryland 21042  
 Phone: (410) 995-3651 Fax: (410) 995-1363

*[Signature]*

DES: JTA			
DRN: BSB			
CHK: CSN			
DATE: DEC. 2001	BY	NO.	REVISION

## EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

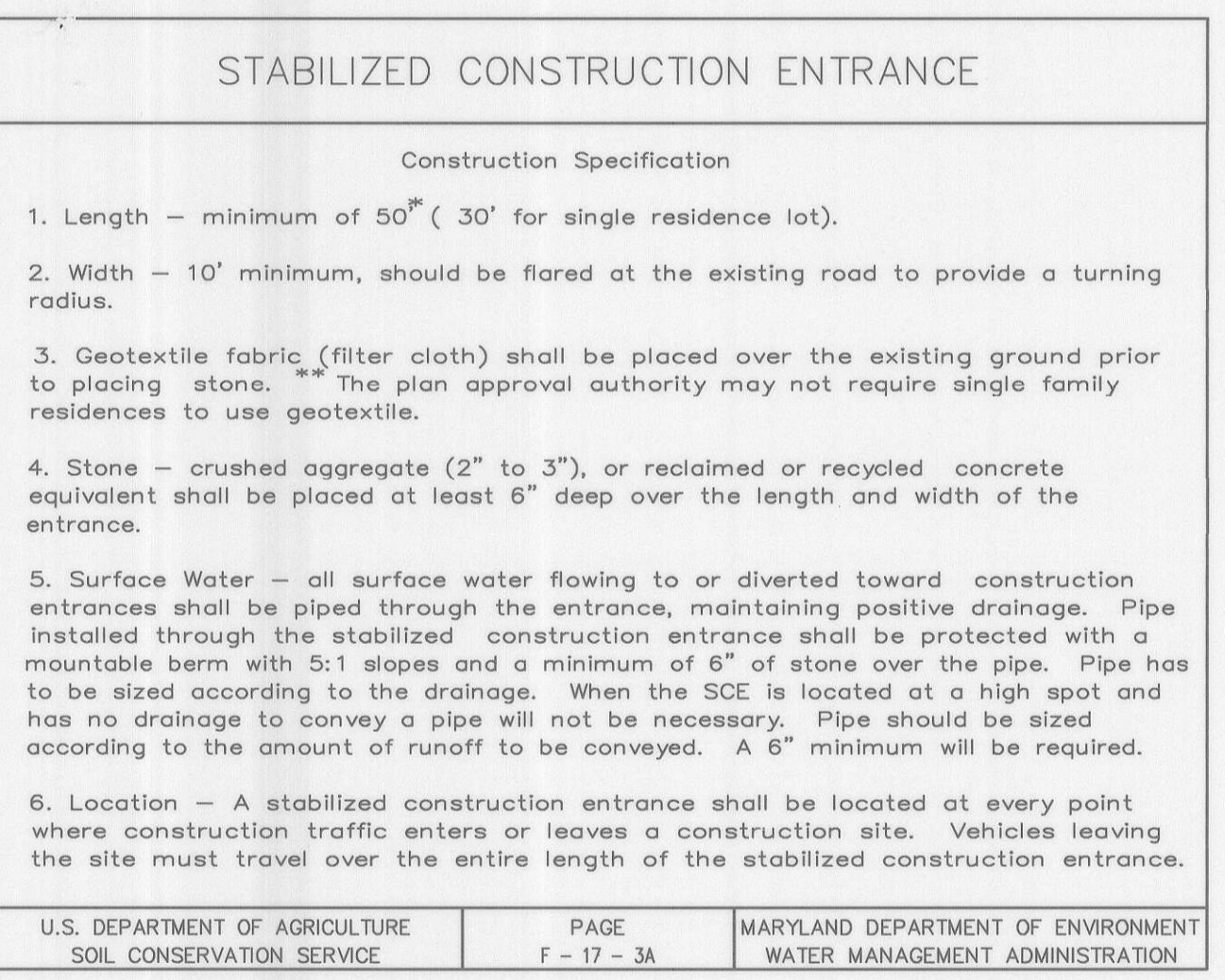
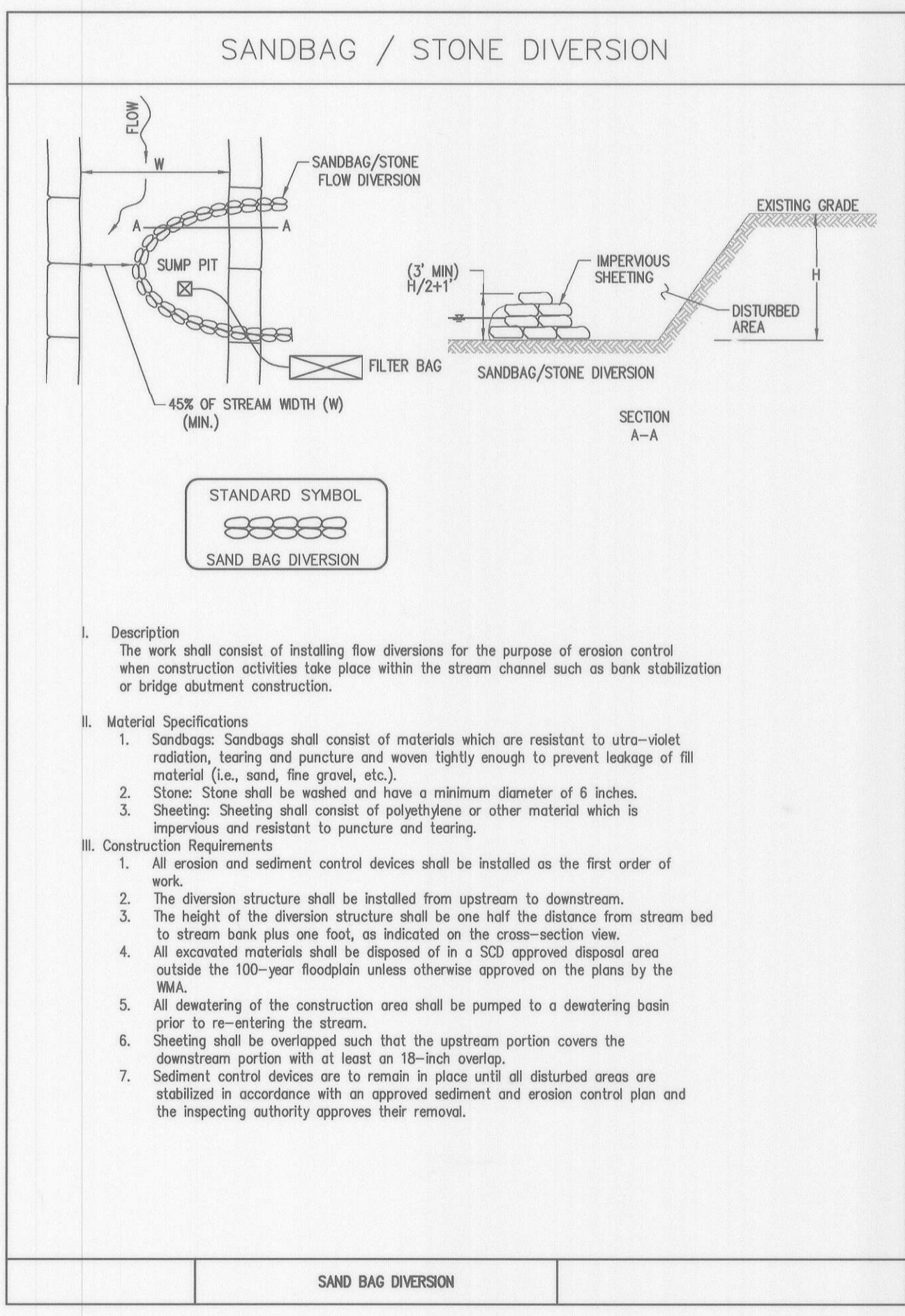
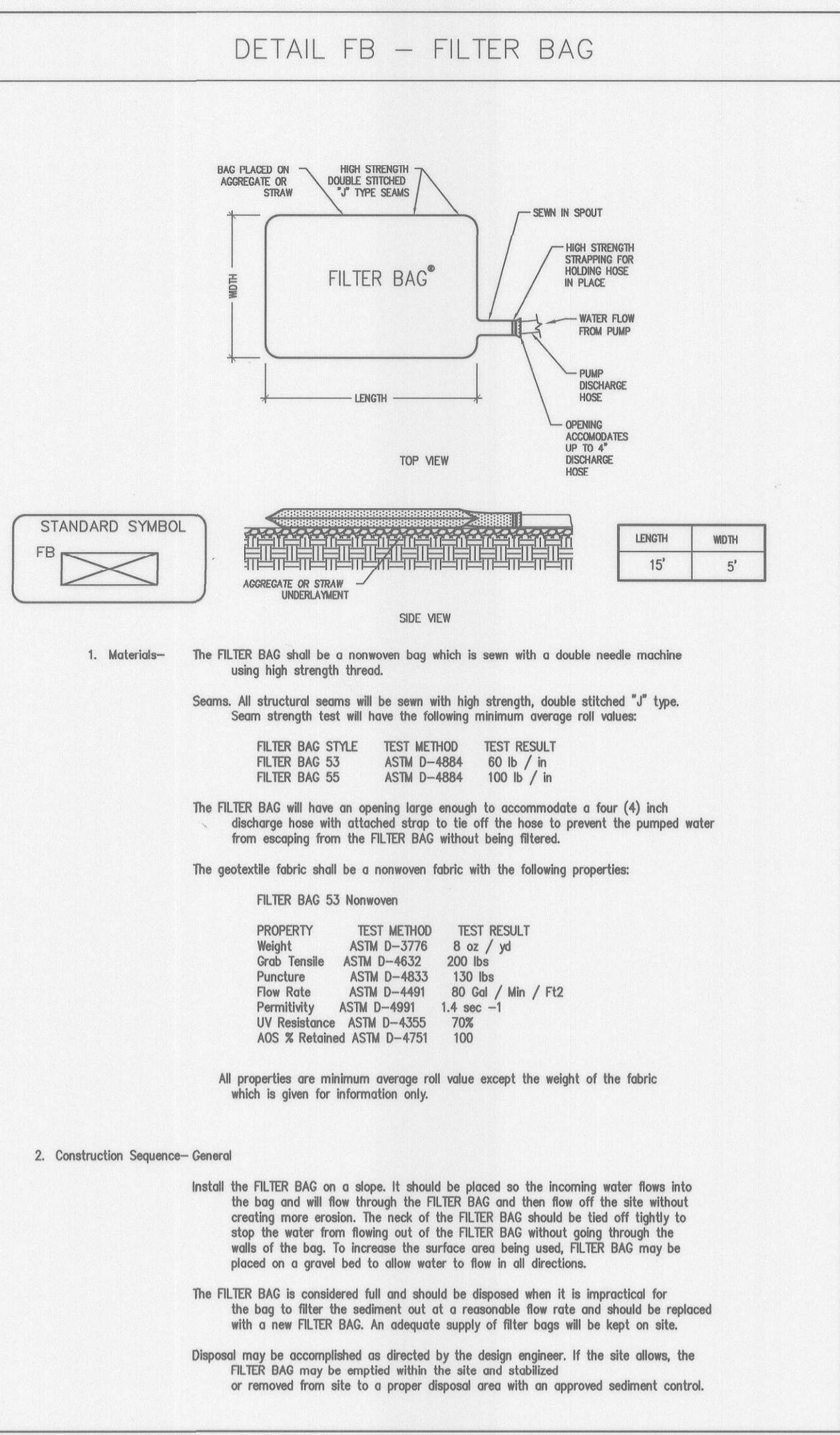
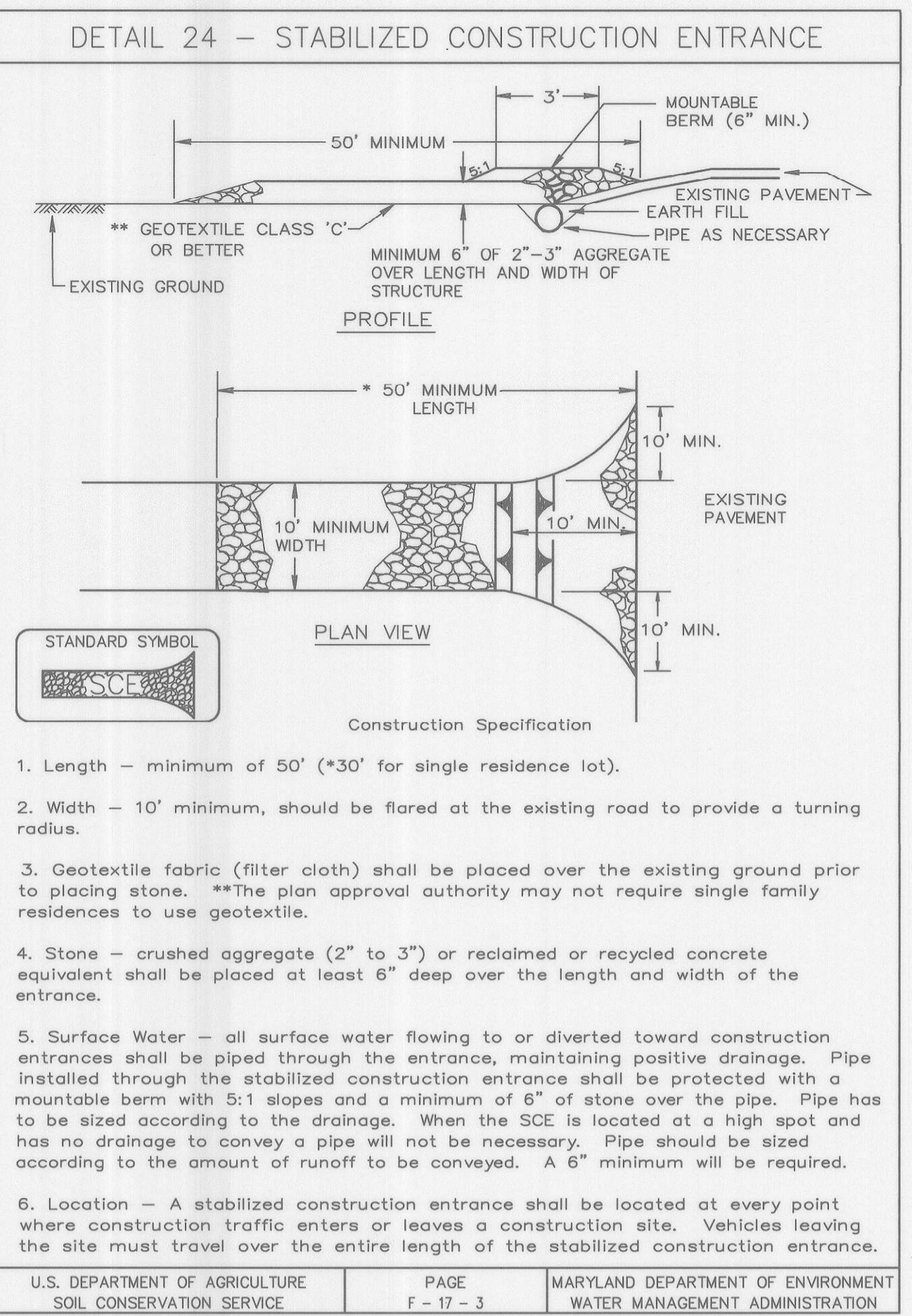
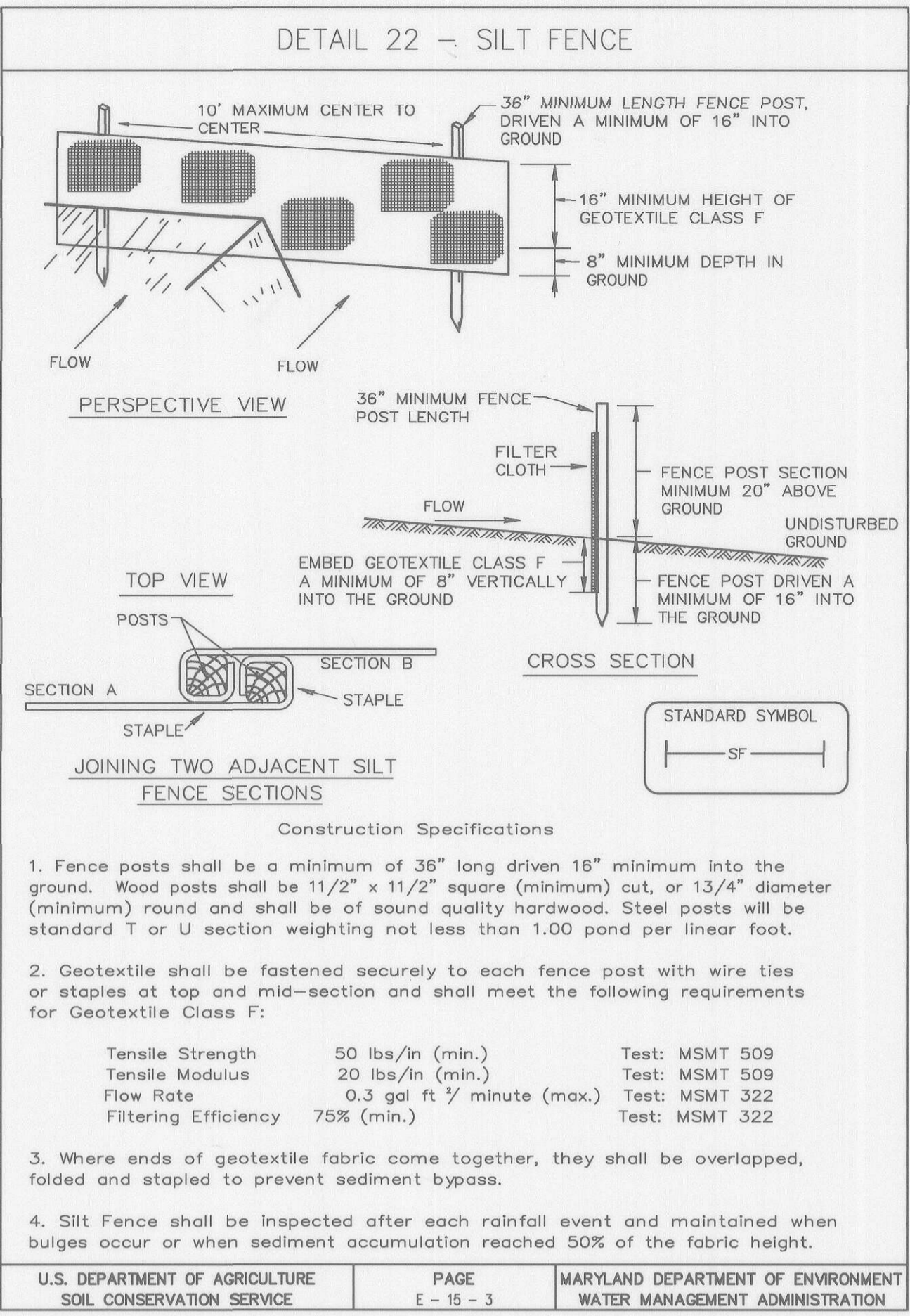
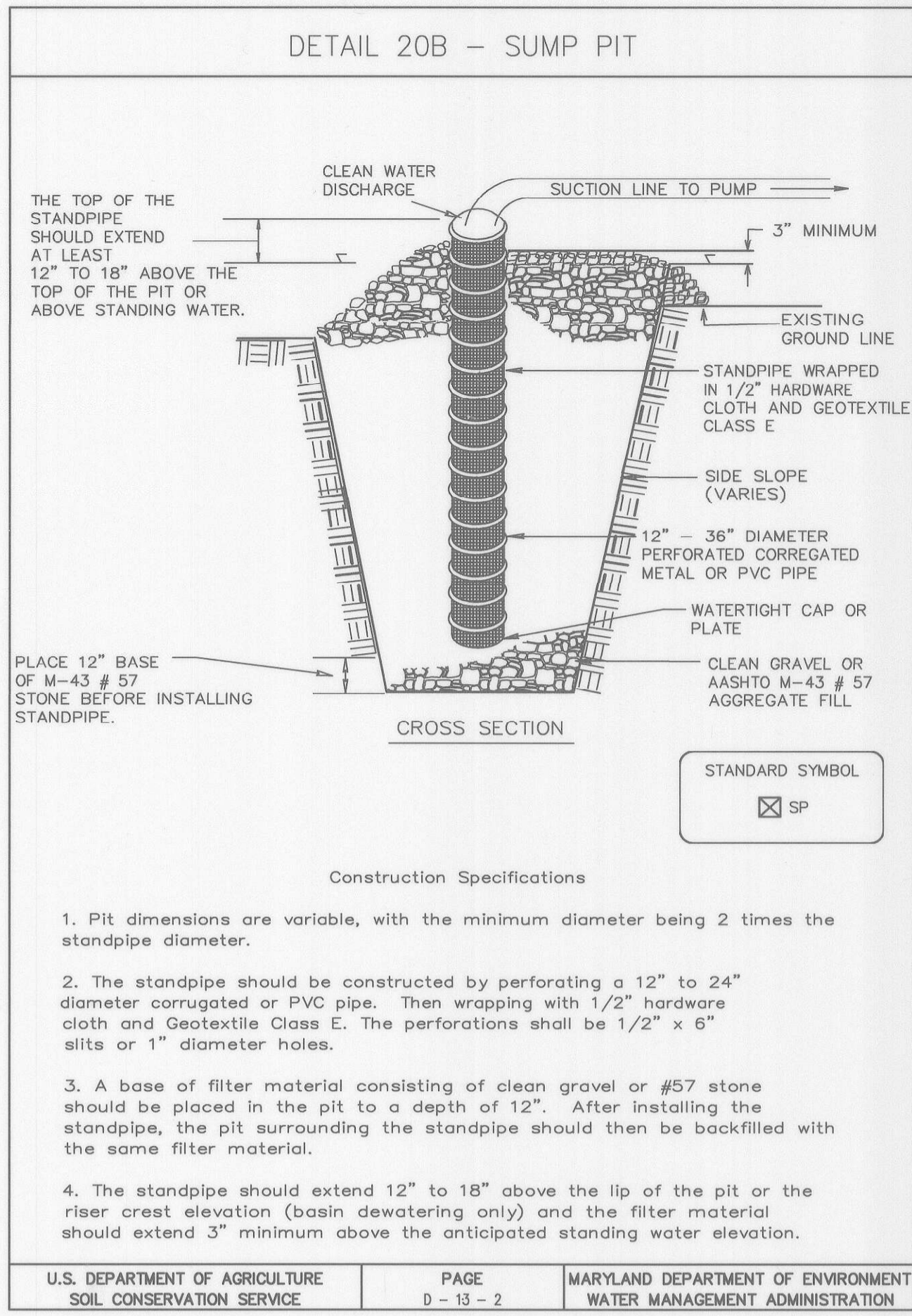
REPLACEMENT OF BRIDGE IN ROCKBURN PARK MULTI USE PATHWAY OVER ROCKBURN BRANCH

CAPITAL PROJECT S-6200  
 ELECTION DISTRICT NO. 1  
 ELKCRIDGE, MARYLAND

SCALE: AS SHOWN

SHEET 4 OF 7

600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 2-13-02  
DIRECTOR OF PUBLIC WORKS DATE

*[Signature]* 2-11-02  
CHIEF, UTILITY DESIGN DIVISION DATE

*[Signature]* 2-13-02  
DIRECTOR OF RECREATION AND PARKS DATE

*[Signature]* 2-12-02  
CHIEF, BUREAU OF ENGINEERING DATE

**NOLAN**  
Associates, Inc.  
Engineers - Civil/Structural/Inspections  
4785 Dorsey Hall Drive  
Suite 124  
Ellicott City, Maryland 21042  
Phone: (410) 995-3851 Fax: (410) 995-1383

DES: JTA  
DRN: BSB  
CHK: CSN  
DATE: DEC. 2001

BY NO. REVISION DATE

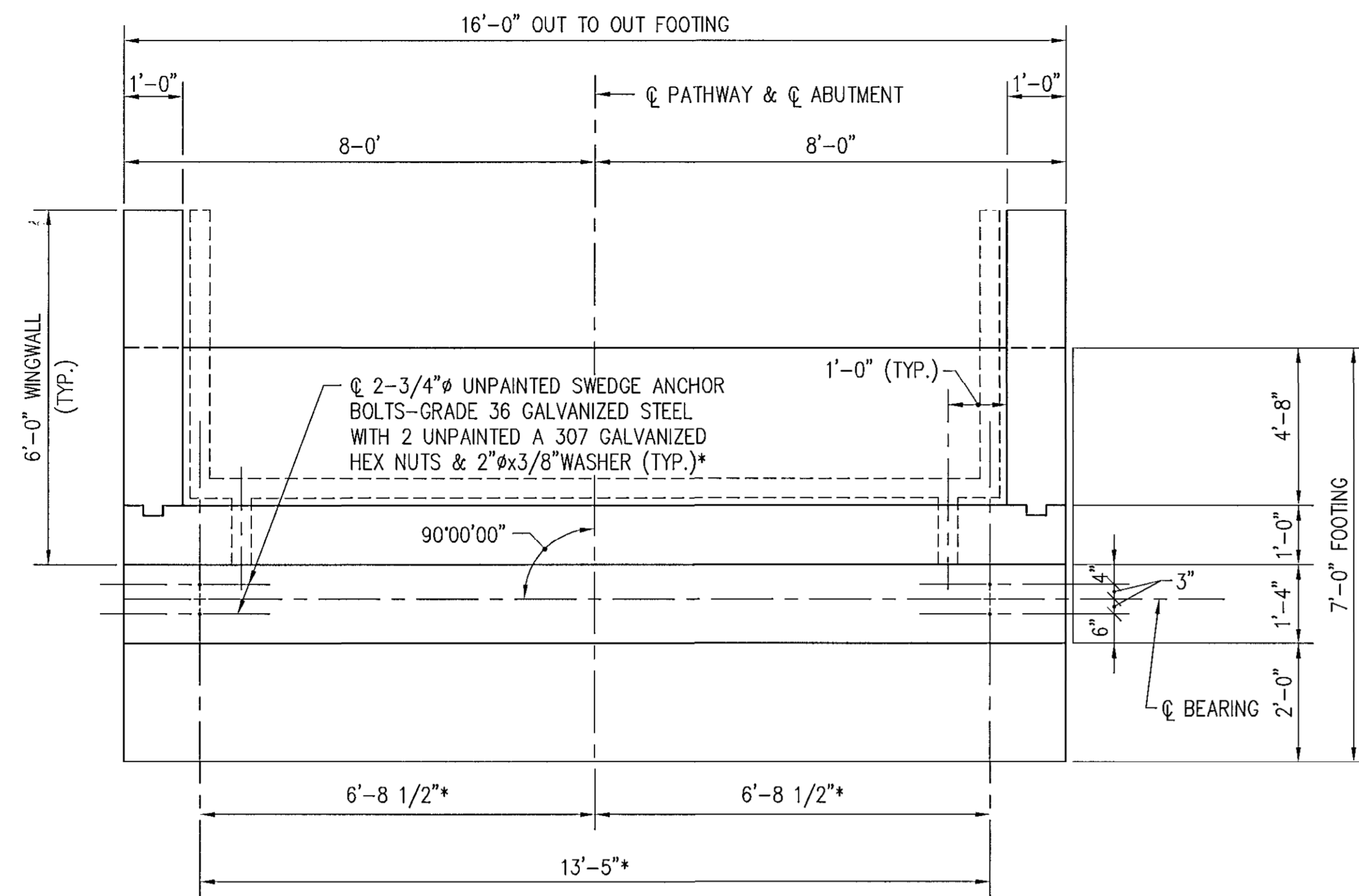
EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

600' SCALE MAP NO. BLOCK NO.

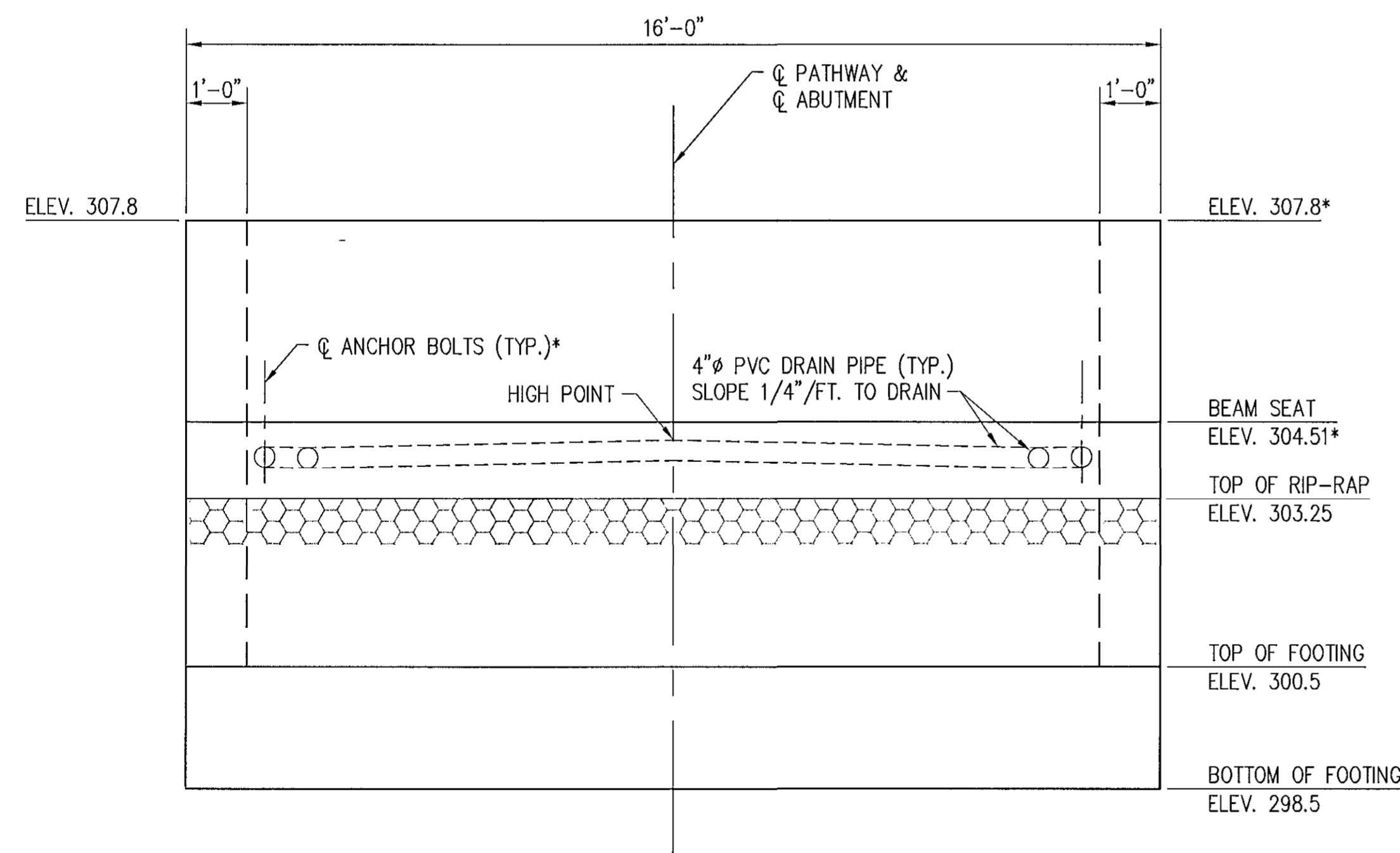
REPLACEMENT OF BRIDGE IN ROCKBURN PARK MULTI USE PATHWAY OVER ROCKBURN BRANCH

CAPITAL PROJECT S-6200  
ELECTION DISTRICT NO. 1  
ELKRIDGE, MARYLAND

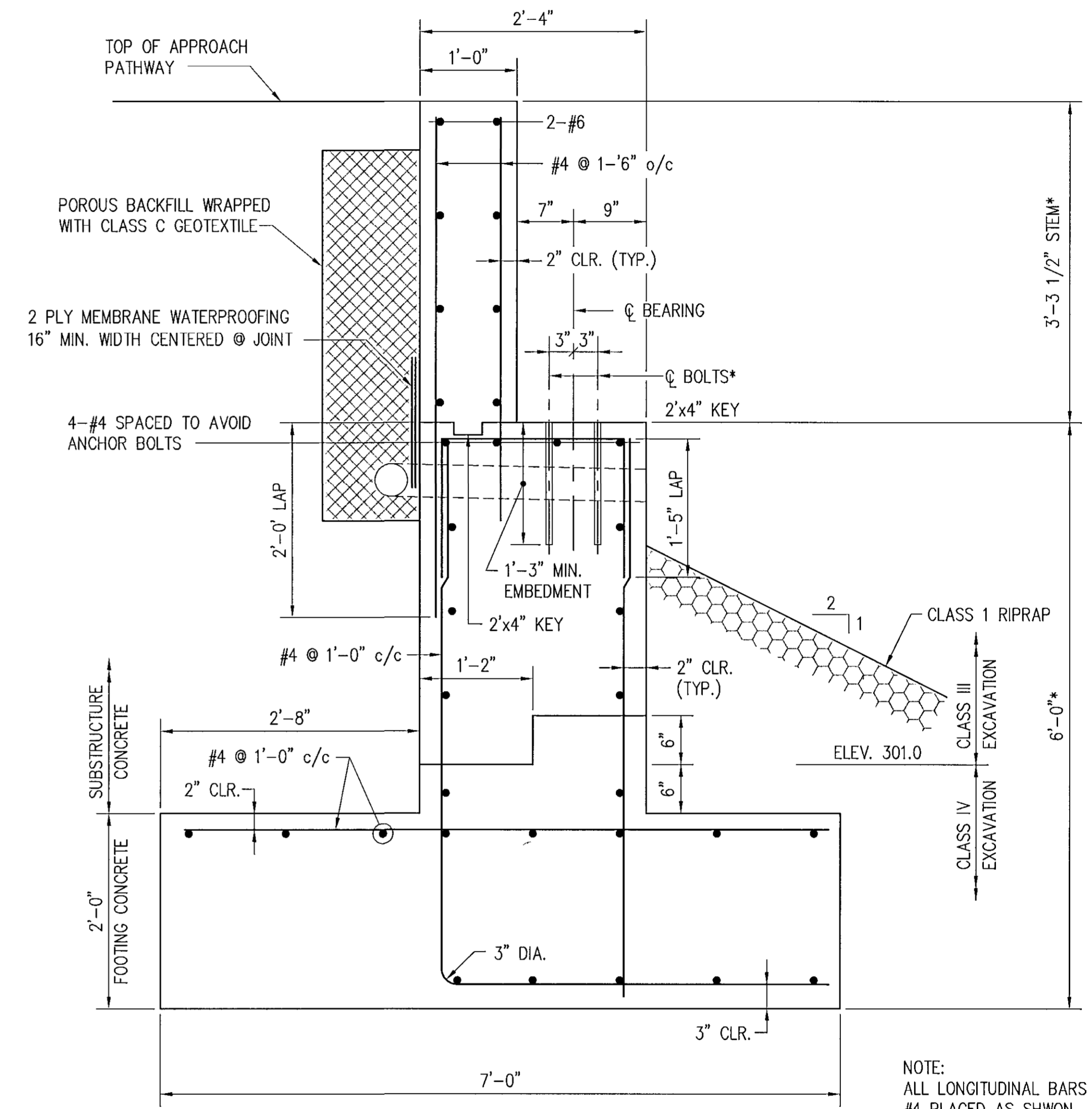
SCALE: AS SHOWN  
SHEET 5 OF 7



**PLAN**  
SCALE: 1/2" = 1'-0"



**ELEVATION**  
SCALE: 1/2" = 1'-0"



**TYPICAL ABUTMENT SECTION**  
SCALE: 1" = 1'-0"

\* THE ELEVATIONS AND DIMENSIONS SHOWN FOR TOP OF BACKWALL, BEAM SEAT ELEVATIONS, ABUTMENT STEM HEIGHT, HEIGHT OF BACKWALL AND SIZE AND LOCATIONS OF ANCHOR BOLTS ARE SHOWN BASED ON INFORMATION PROVIDED BY CONTINENTAL BRIDGE COMPANY. ACTUAL DIMENSIONS, ELEVATIONS AND DETAILS SHALL BE VERIFIED BY THE CONTRACTOR AND PROVIDED BY THE BRIDGE SUPERSTRUCTURE SUPPLIER AND INCLUDED ON ALL SUBMITTED SHOP PLANS FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO FABRICATION AND/OR CONSTRUCTION.

NOTE:  
ALL LONGITUDINAL BARS  
#4 PLACED AS SHOWN.

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*[Signature]* 2/12/02  
DIRECTOR OF PUBLIC WORKS  
*[Signature]* 2/13/02  
DIRECTOR OF RECREATION AND PARKS  
*[Signature]* 2/12/02  
CHIEF, UTILITY DESIGN DIVISION  
CHIEF, BUREAU OF ENGINEERING

**NOLAN**  
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Phone: (410) 995-3651 Fax: (410) 995-1363

DES:	JTA			
DRN:	BSB			
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DATE:	DEC. 2001			
BY:	NO.	REVISION	DATE	

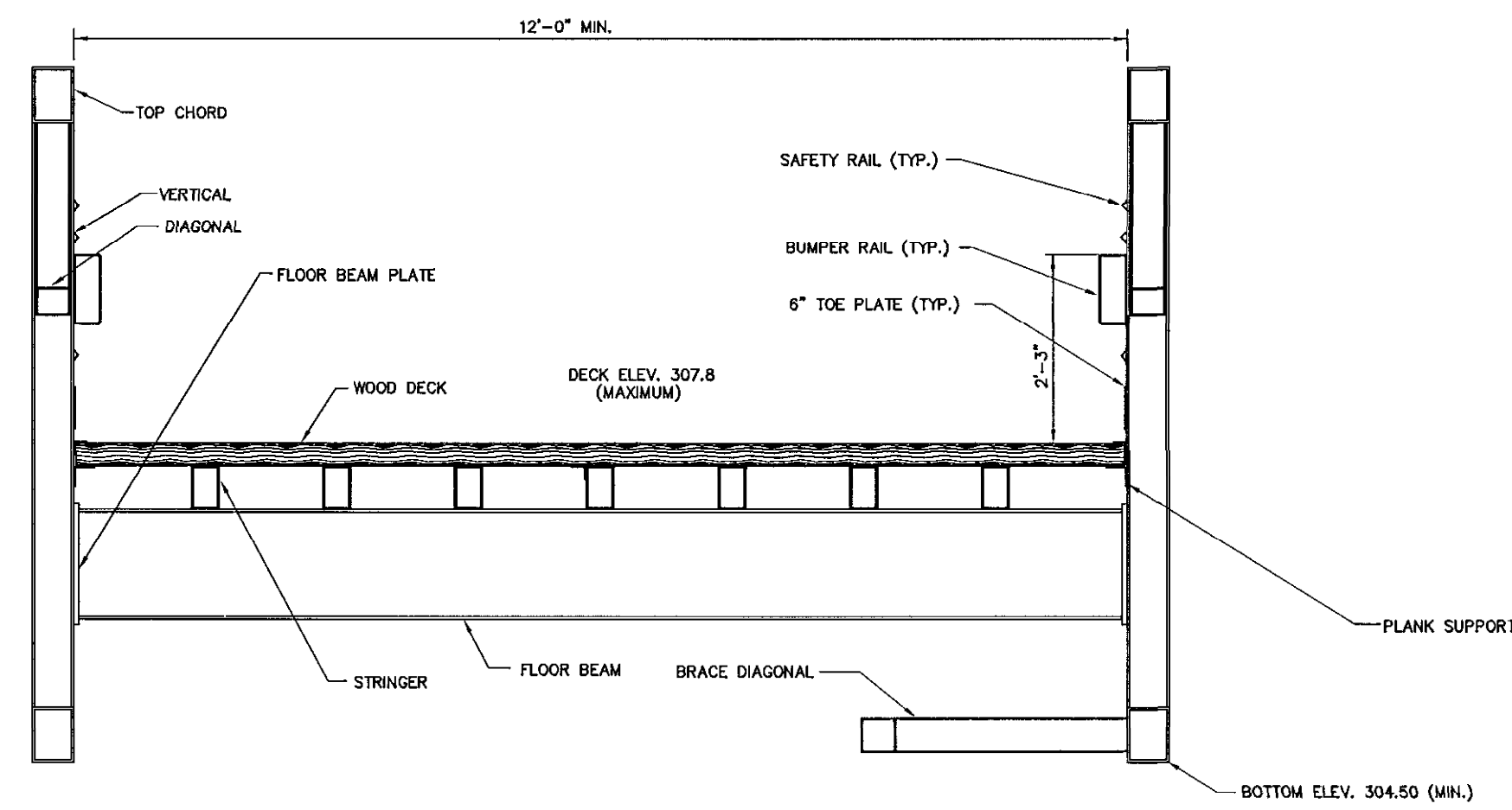
**ABUTMENT PLAN,  
ELEVATION AND SECTION**

REPLACEMENT OF BRIDGE IN ROCKBURN PARK  
MULTI USE PATHWAY OVER ROCKBURN BRANCH  
CAPITAL PROJECT S-6200  
ELECTION DISTRICT NO. 1  
ELKCRIDGE, MARYLAND

SCALE:  
AS SHOWN  
SHEET  
6 OF 7

600' SCALE MAP NO. \_\_\_\_\_ BLOCK NO. \_\_\_\_\_

NOTE: TYPICAL SECTION IS SHOWN TO PROVIDE CRITERIA FOR BRIDGE WIDTH AND LIMITING DECK AND BOTTOM ELEVATIONS, ONLY. ACTUAL CONFIGURATION OF STRUCTURAL COMPONENTS WILL BE DETERMINED BY THE PREFABRICATED BRIDGE SUPPLIER. SEE SPECIAL PROVISIONS.

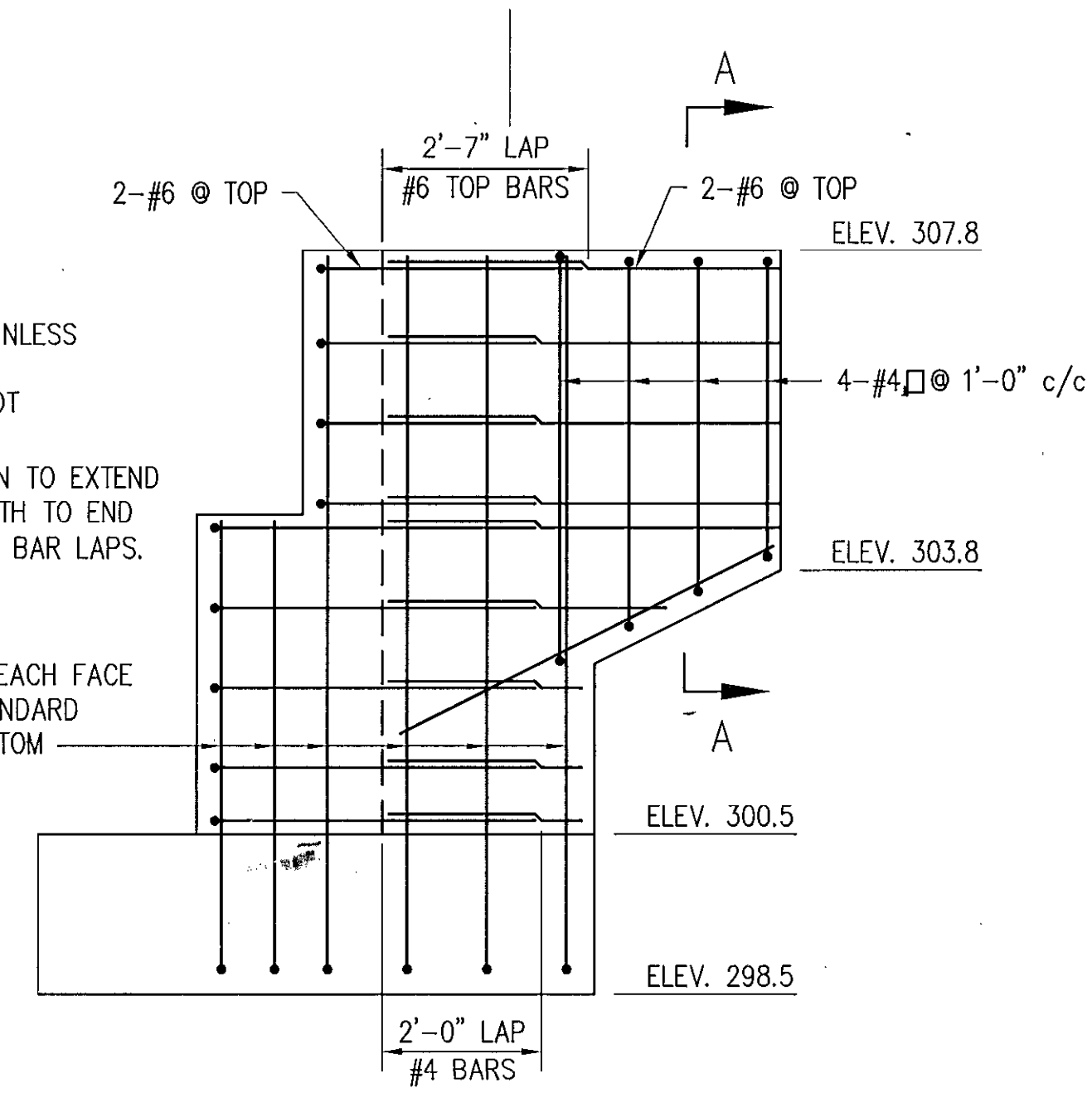


**BRIDGE TYPICAL SECTION**  
SCALE: 1/2" = 1'-0"

NOTES:

1. ALL BARS #4 @ 1'-0", UNLESS OTHERWISE NOTED.
2. FOOTING REINFORCING NOT SHOWN.
3. CONTRACTOR HAS OPTION TO EXTEND DOWEL BARS FULL LENGTH TO END OF WALL AND ELIMINATE BAR LAPS.

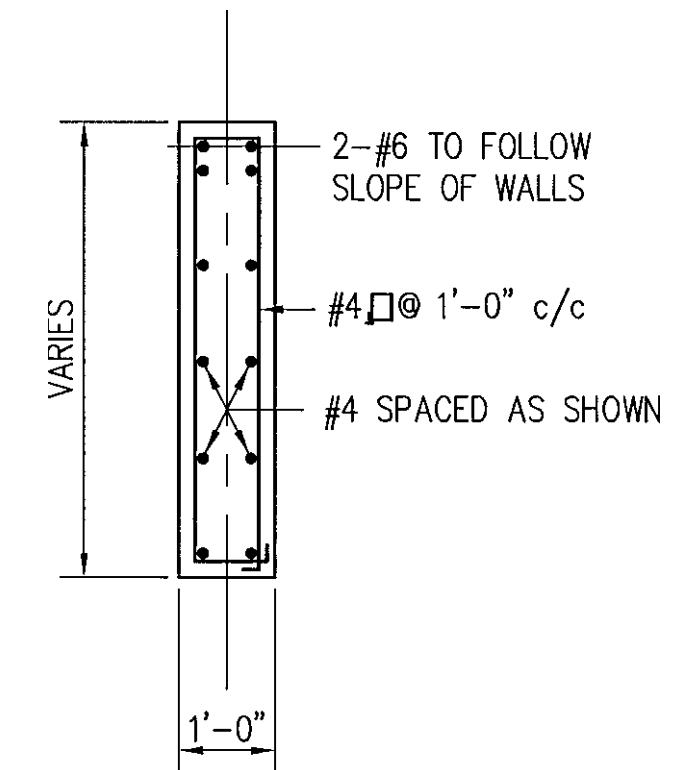
#4 @ 1'-0" EACH FACE PROVIDE STANDARD HOOK AT BOTTOM



**ELEVATION**

**WINGWALL REINFORCEMENT**

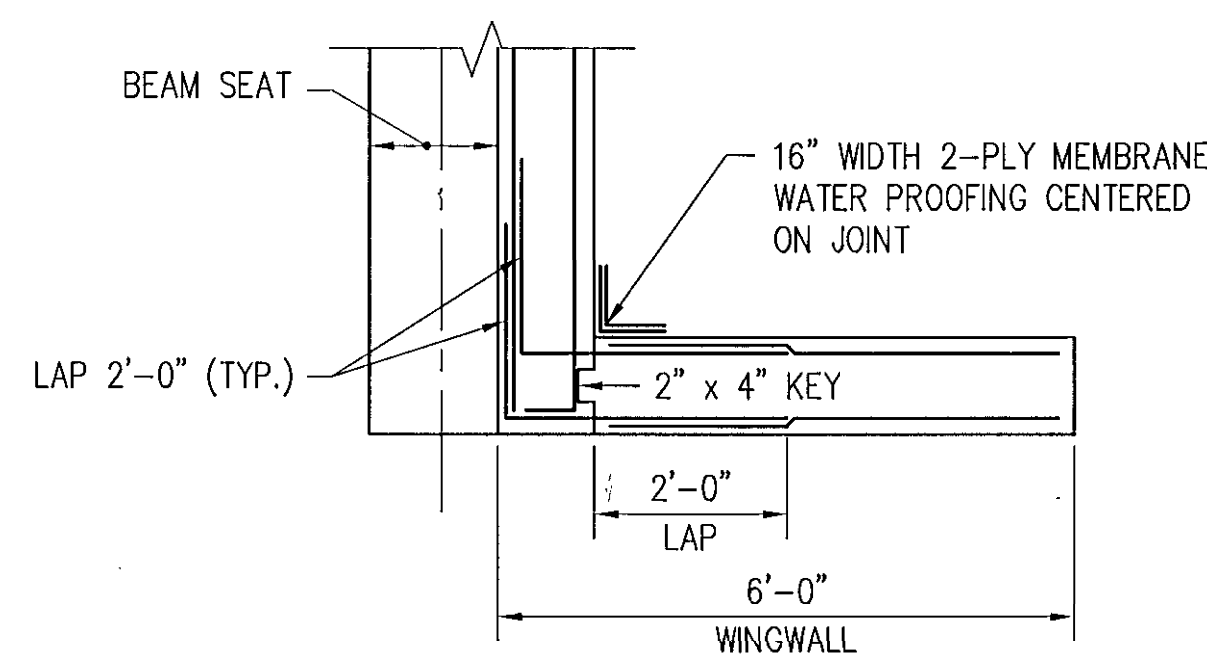
SCALE: 1/2" = 1'-0"



**A-A**

SCALE: 1/2" = 1'-0"

- NOTES: 1. SHOWN ABOVE BEAM SEAT. DETAIL BELOW BEAM SEAT SIMILAR.  
2. VERTICAL BARS NOT SHOWN.  
3. ALL REINFORCEMENT #4 @ 1'-0", UNLESS NOTED OTHERWISE.



**TYPICAL CORNER REINFORCEMENT**

SCALE: 1/2" = 1'-0"

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Jan 11/02*  
DIRECTOR OF PUBLIC WORKS  
DATE

*David A. Cochran 2-13-02*  
DIRECTOR OF RECREATION AND PARKS  
DATE

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REVISION

DATE

600' SCALE MAP NO.

BLOCK NO.

MISCELLANEOUS  
DETAILS

REPLACEMENT OF BRIDGE IN ROCKBURN PARK  
MULTI USE PATHWAY OVER ROCKBURN BRANCH

CAPITAL PROJECT S-6200  
ELECTION DISTRICT NO. 1  
ELKRIDGE, MARYLAND

SCALE:  
AS SHOWN

SHEET  
7 OF 7