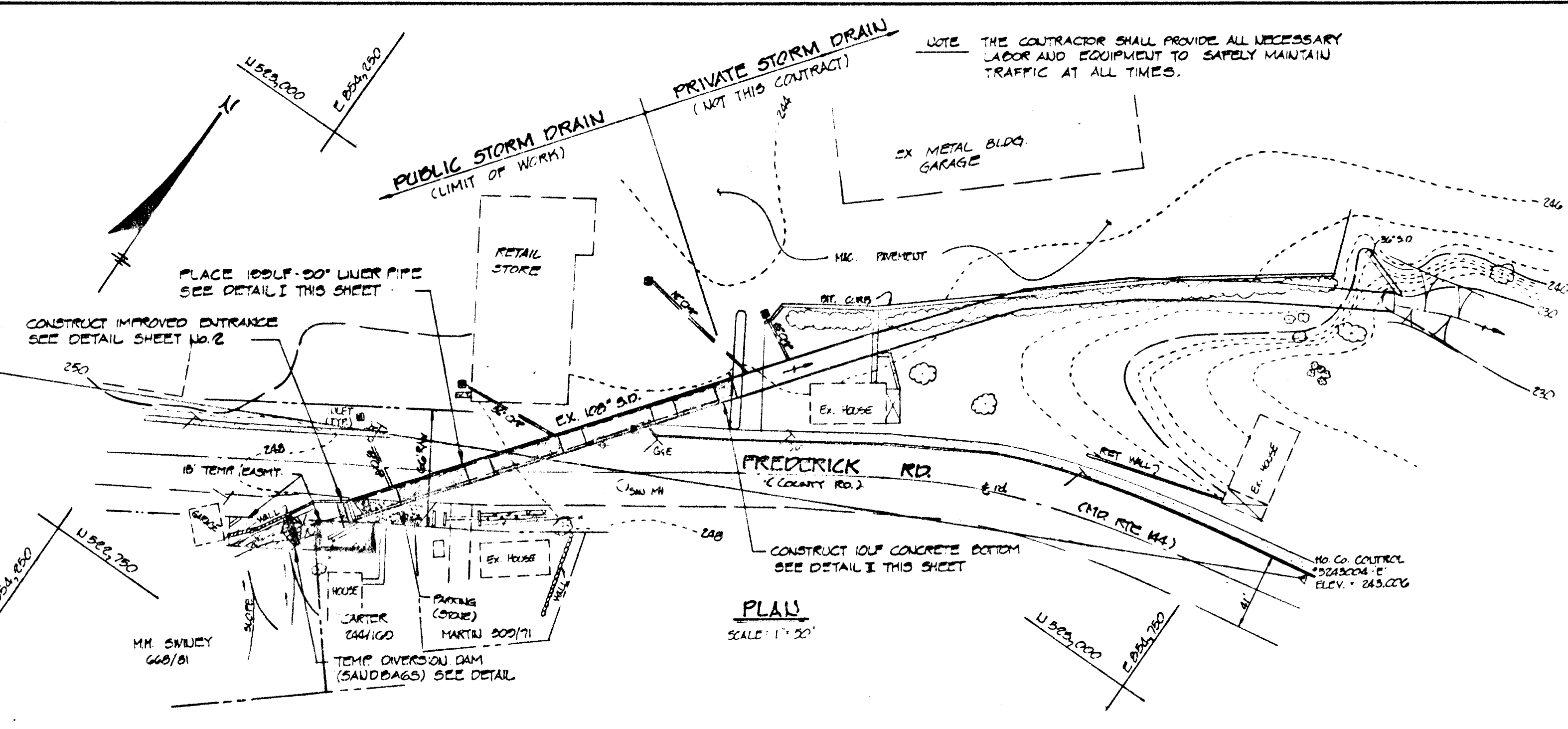
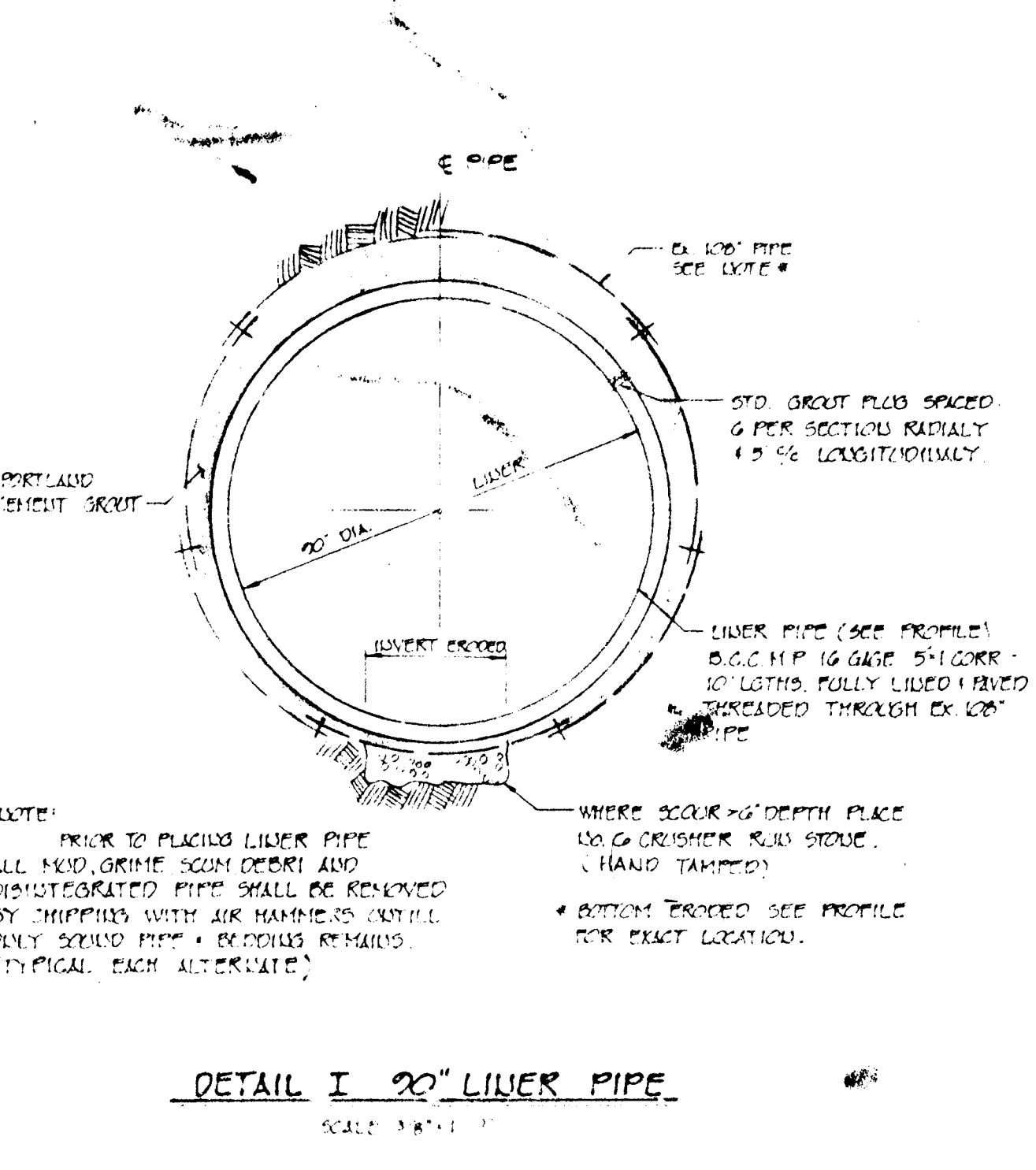
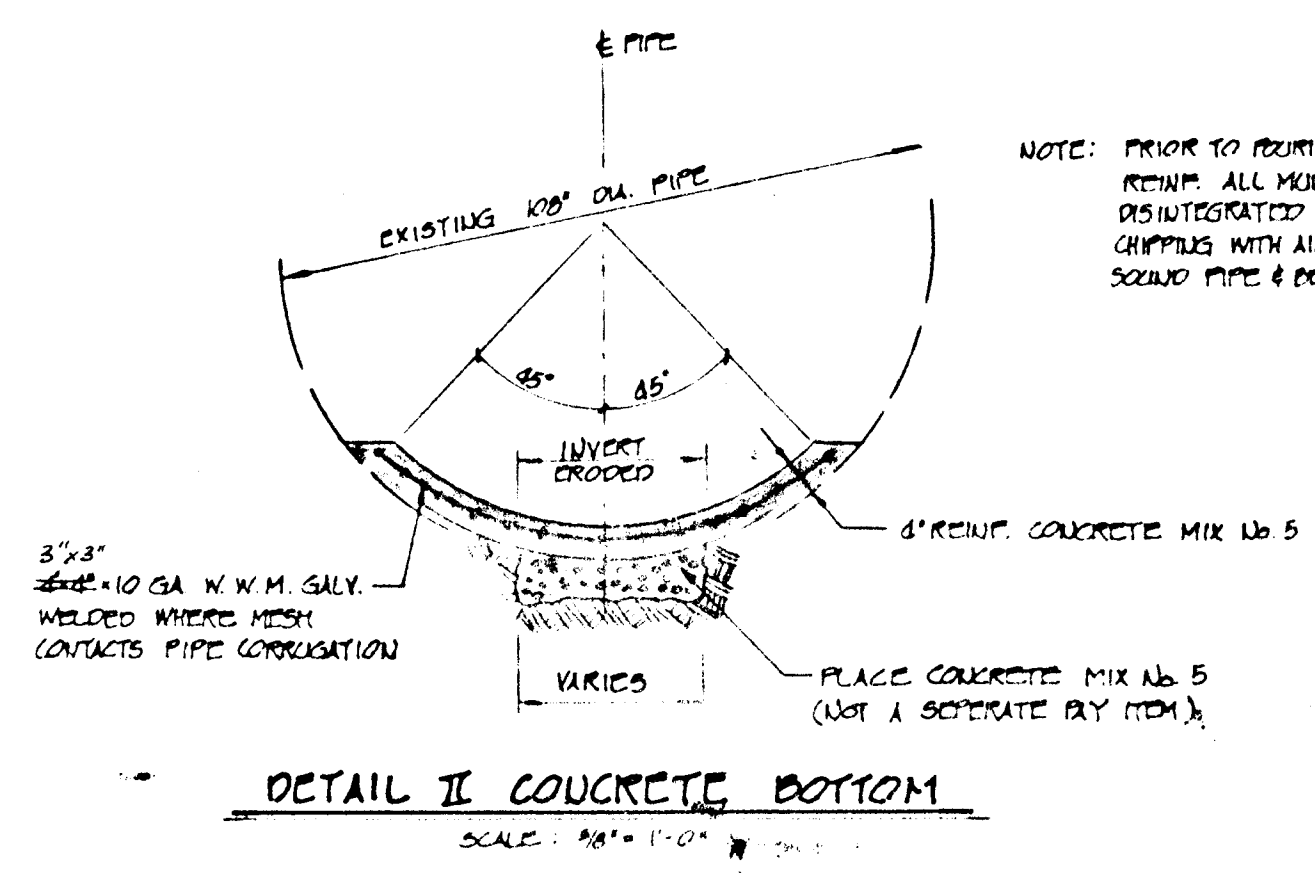
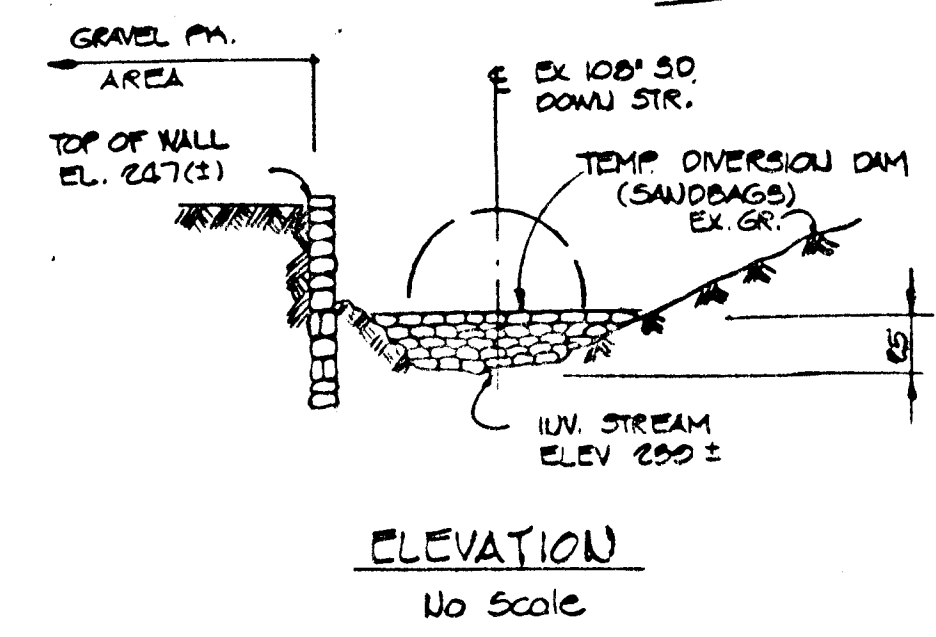
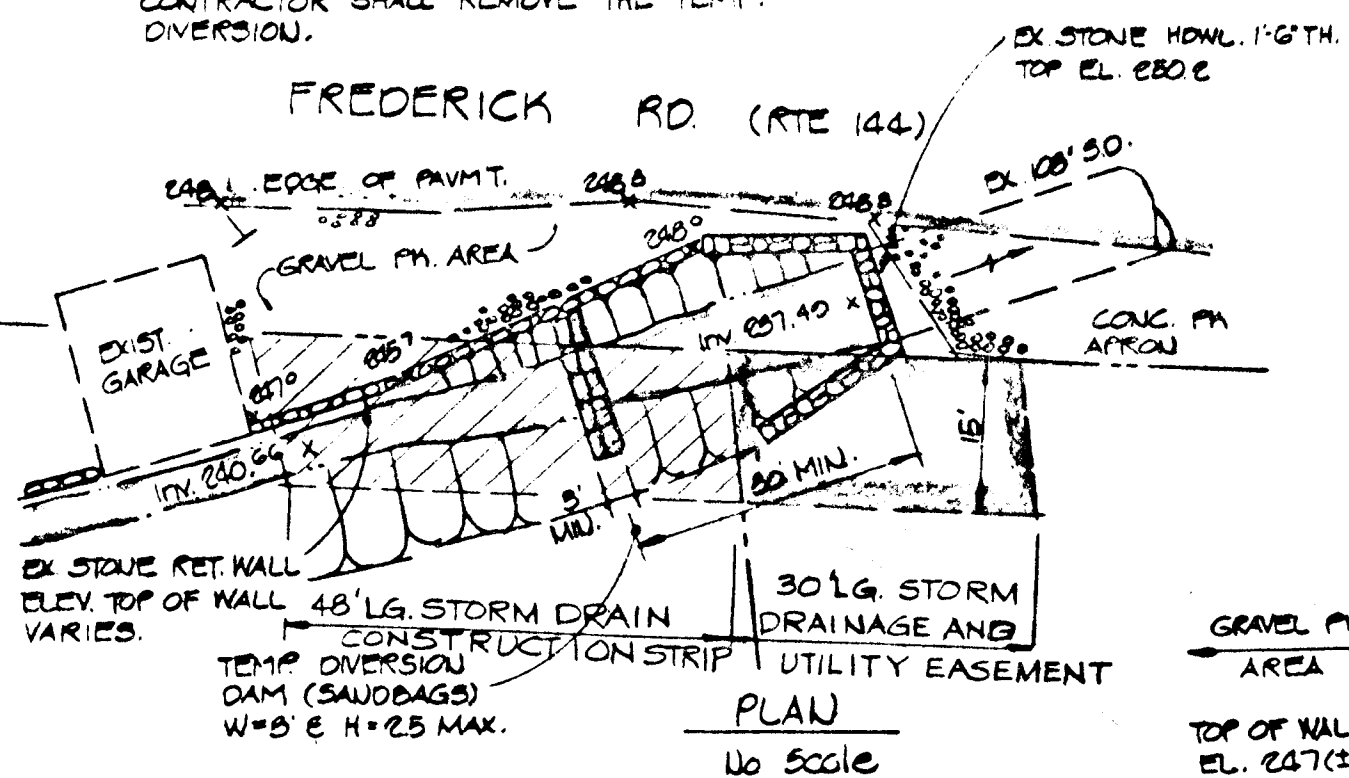


Reviewed for Howard Soil Conservation District and meets technical requirements
 This Development Plan is approved for soil erosion and sediment control by the Howard Soil Conservation District
 Signature: *[Signature]* Date: 12-1-83
 Approved: *[Signature]* Date: 12-1-83
 Howard Soil Conservation Dist. Date

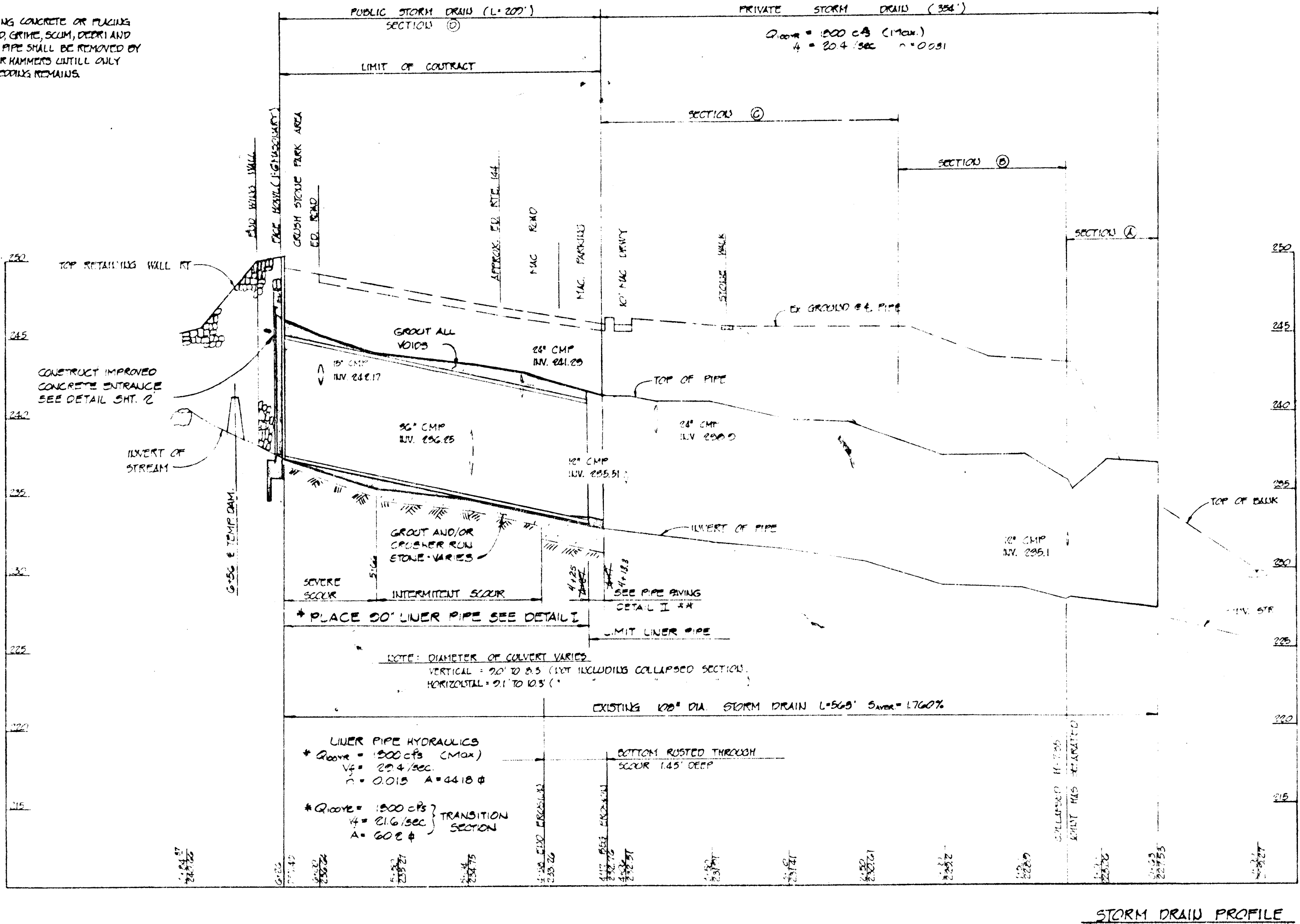
NOTE: EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ARTICLE 15 OF THE HOWARD CO. DESIGN MANUAL VOLUME 4.
 THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS REQUESTED BY THE SCS INSPECTOR IN THE FIELD, IF REQUIRED.

NOTE: IN THE EVENT OF A POSSIBLE STORM THE CONTRACTOR SHALL REMOVE THE TEMP. DIVERSION DAM.



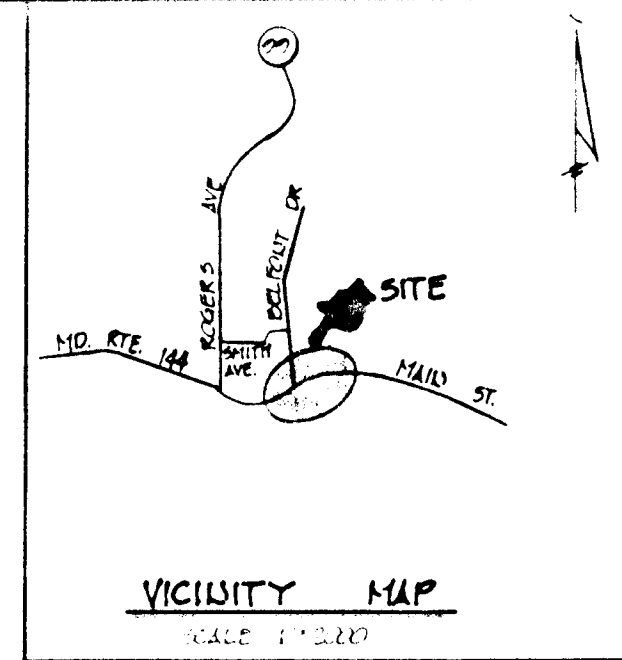
PIPE SCHEDULE

SECTION	SIZE	TYPE OF PIPE	MANUFACTURE	APPROX. INSTALL DATE	CONDITION
A	100"	ALUMINUM CORRUGATED METAL PIPE (5'-11\" CORR.)	KAISER ALUMINUM (NOT DEFINATE)	1920'S	NO EROSION INVERT PIPE COLLAPSED BACKFILL SUSPECT MAYBE UNSTABLE.
D	100"	GALV. STL. STRIP PLATE 6\"-2\" CORR.	UNKNOWN	1920'S	NO EROSION PIPE OUT OF ROUND BACKFILL SUSPECT
C	100"	GALV. STL. STRIP PLATE 6\"-2\" 12 GAGE	ARMCO S.P.P.	1920'S	NO EROSION GOOD CONDITION
D	100"	GALV. STL. STRIP PLATE 6\"-2\" 12 GAGE (7 PLATES/SECTION)	REPUBLIC STL CORP. STRUC. PLATE PIPE	1940'S	SEVERE EROSION OF BOTTOM CONDITION STABLE



By the Developer:
 "I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."
 Signature of Developer: WILLIAM C. RILEY
 Date: 11/24/83
 Title: CHIEF, BUREAU OF ENGINEERING

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 and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."
 Signature of Engineer: CHARLES R. CROCHEN
 Date: 11/25/83



FREDERICK ROAD CULVERT

GENERAL NOTES:

- All work and materials shall be in accordance with the Howard Co. Design Manual Volume 4 Standard Specifications and Details for Construction.
- The Contractor is to notify the following utilities at least 72 hours before starting work shown hereon.
 C & P Telephone Co. 725-9976
 Baltimore Gas & Electric Co. 539-8000 ext. 691
 Howard Co. - Bureau of Utilities 992-2366
- The Contractor shall notify the construction inspection/survey division five (5) days prior to commencement of work at 992-2417 or 992-2418.
- The Contractor shall be responsible for the coordination of the relocation and maintenance of all public and/or private utilities as may be required to complete the work.
- The Contractor shall be responsible for obtaining all necessary permits prior to commencing work.
- The location of existing utilities shown hereon is not guaranteed. The Contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. The existence of utilities other than those shown hereon is not known. The Contractor shall immediately notify the appropriate utility company if other utilities are encountered. Any damages will be repaired at the Contractor's expense and under the direction of the utility company.
- All elevations shown hereon are based on Howard County Bench Mark.
- All fill under the structure shall be compacted to a minimum of 95% optimum compaction as per AASHTO
- All excess excavation to be disposed of off-site. All disturbed areas shall receive 2" topsoil, fertilizer, seed and mulch as per SCS standards.

APPROVED: FOR PUBLIC STORM DRAINAGE SYSTEMS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 Director: *[Signature]* Date: 11/24/83
 Chief, Bureau of Engineering: *[Signature]* Date: 11/25/83
 Chief, Division of Roads, Bridges and Storm Drains: *[Signature]* Date: 11/25/83

DATE	NO.	REVISION DESCRIPTION

OWNER: HOWARD COUNTY, MD.
 DEVELOPER: SAME AS OWNER
 PROJECT: 100' FREDERICK RD STORM DRAIN EAST OF ROGERS AVE. CAPITAL PROJECT D-1066
 AREA: ELLICOTT CITY, MD 2ND ELECTRIC DISTRICT HOWARD COUNTY, MD
 TITLE: STORM DRAIN REHABILITATION PLAN & DETAILS

TYDINGS & THEIM ASSOCIATES INC.
 CONSULTING ENGINEERS, LAND & CONSTRUCTION SURVEYORS
 2001 PINE AVE. ELLICOTT CITY, MD 21043 465-0265

DESIGNED BY: CRC
 DRAWN BY: CRC/TAP
 PROJECT NO:
 DATE: DECEMBER 1982
 SCALE: AS SHOWN
 DRAWING NO. 1 OF 2

DATE: 11/25/83
 AS BUILT
 SEPT 1984
 6/1/84

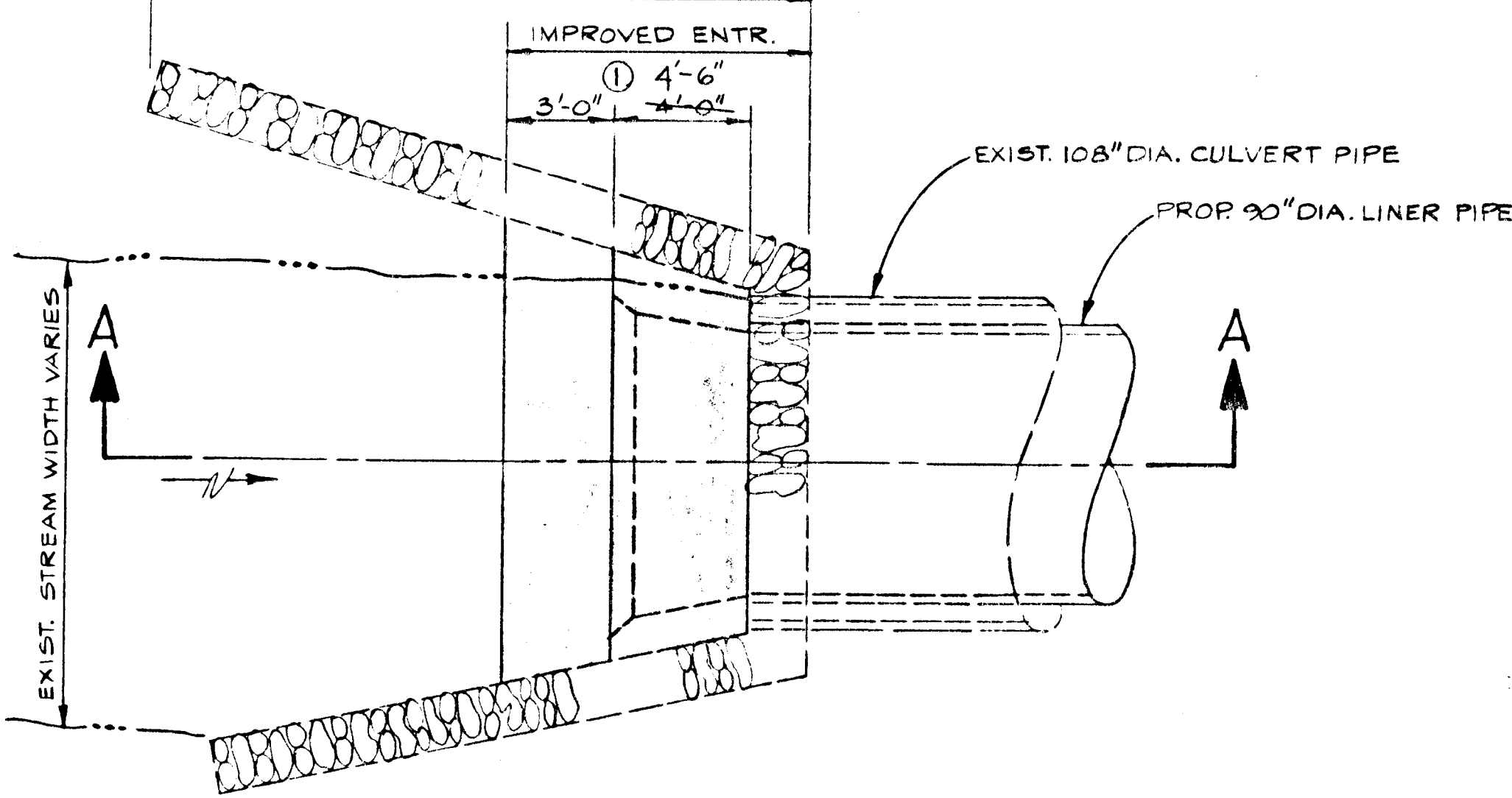
STATE OF MARYLAND
 PROFESSIONAL ENGR. NO. []

#1027

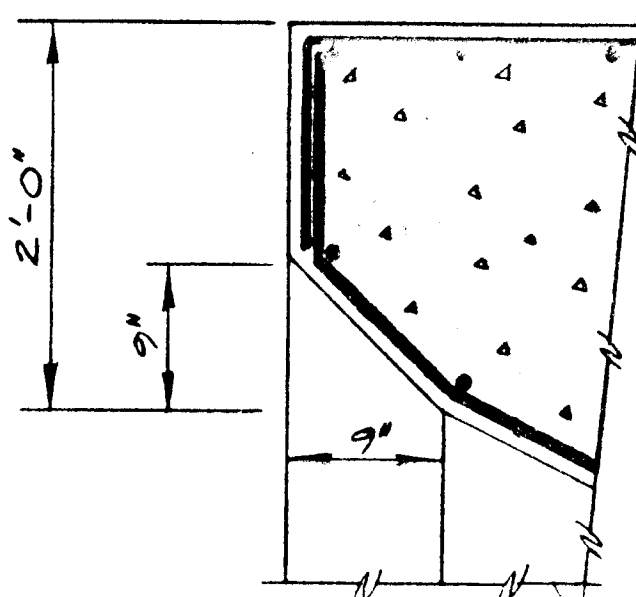
C278CZ#1

Reviewed for Howard Soil Conservation District and meets technical requirements
 Signature: *William E. Riley* Date: 12-1-83
 Approved: *William E. Riley* Date: 12-1-83
 Howard Soil Conservation Dist. Date

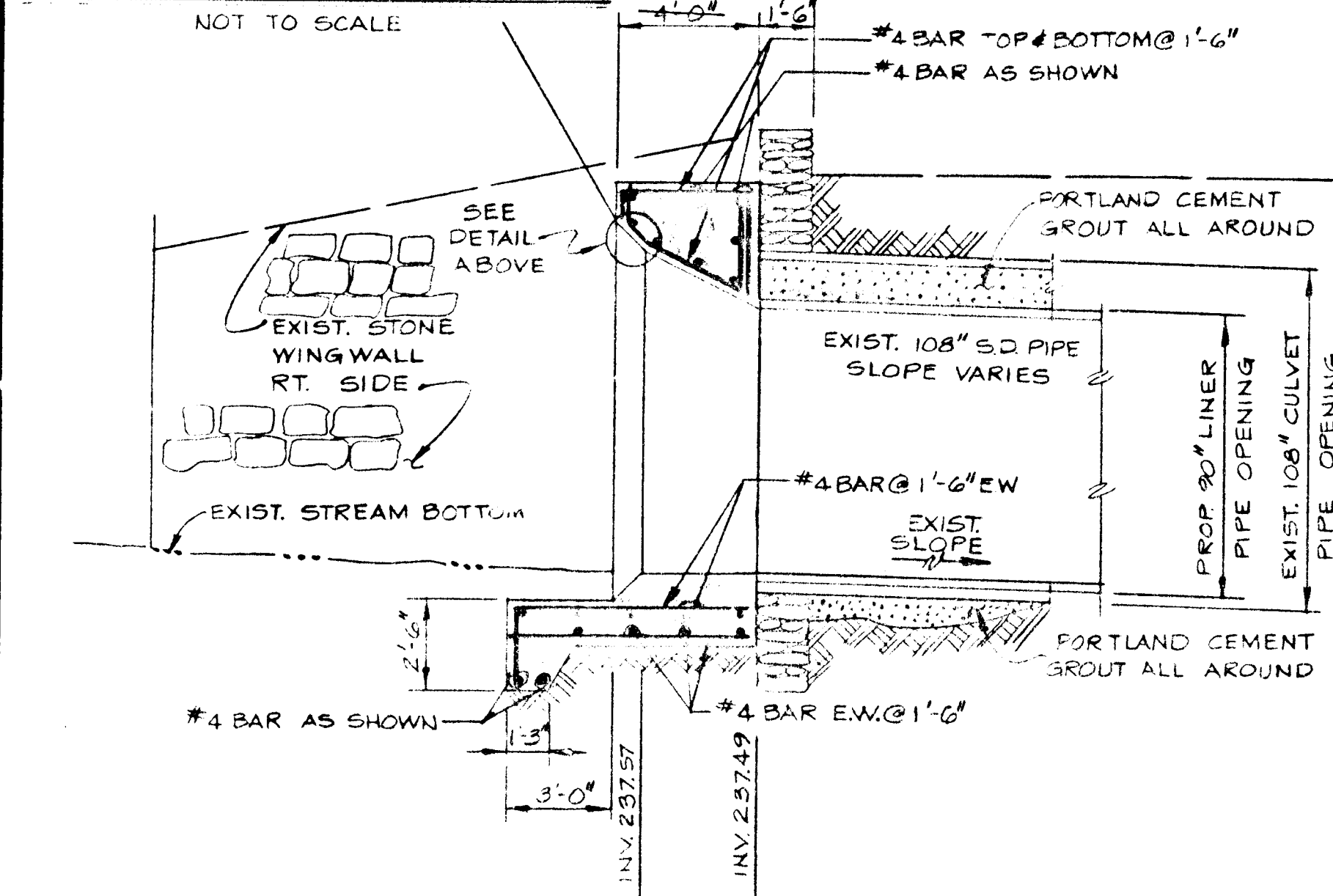
NOTE: EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH ARTICLE 15 OF THE HOWARD CO. DESIGN MANUAL VOLUME 4.
 THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS REQUESTED BY THE SCS INSPECTOR IN THE FIELD, IF REQUIRED.



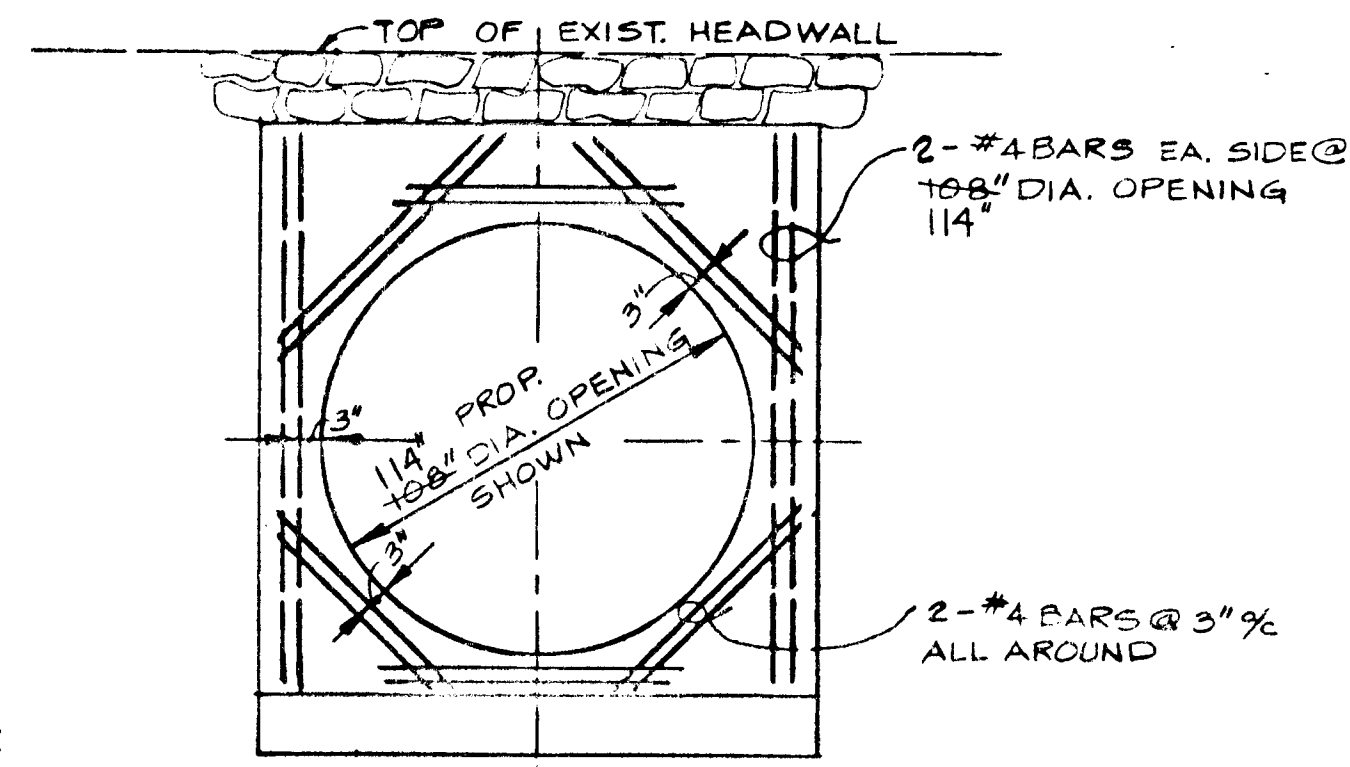
PLAN



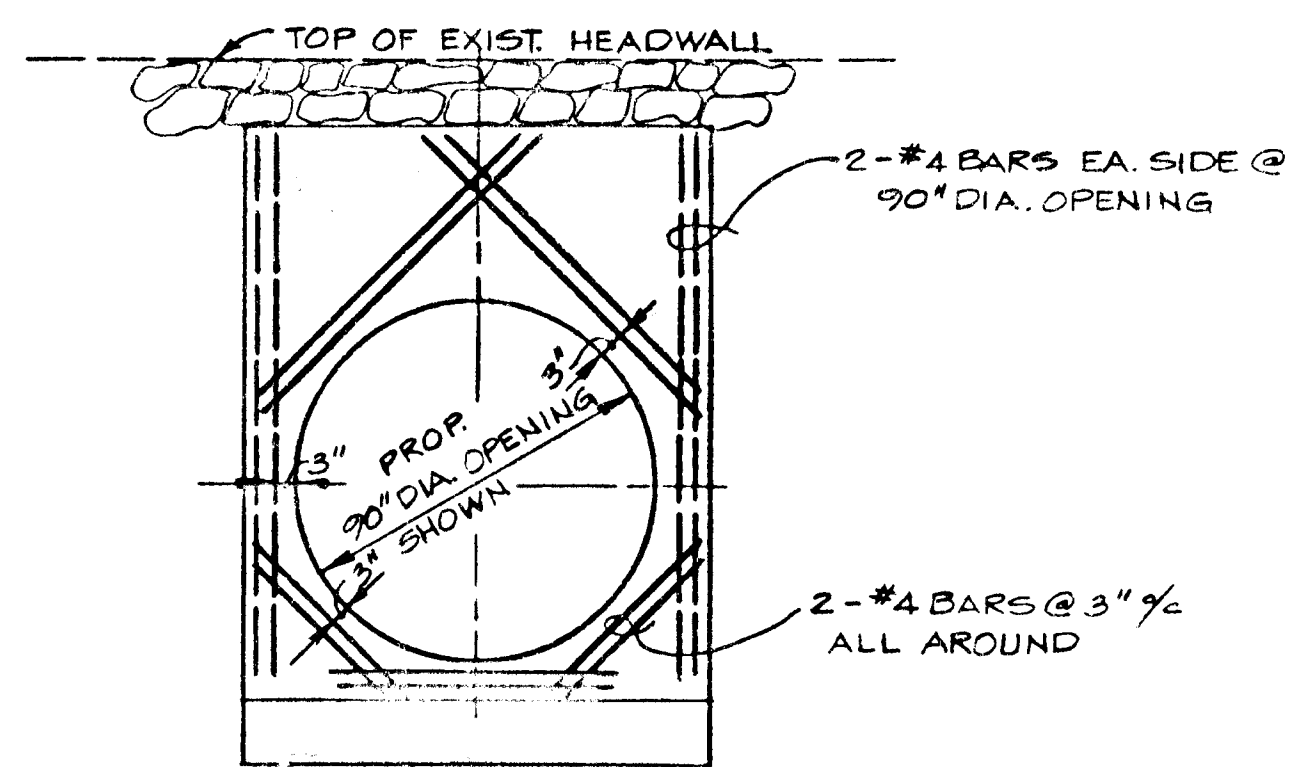
ENTRANCE BEVEL DETAIL @ 4'-6"



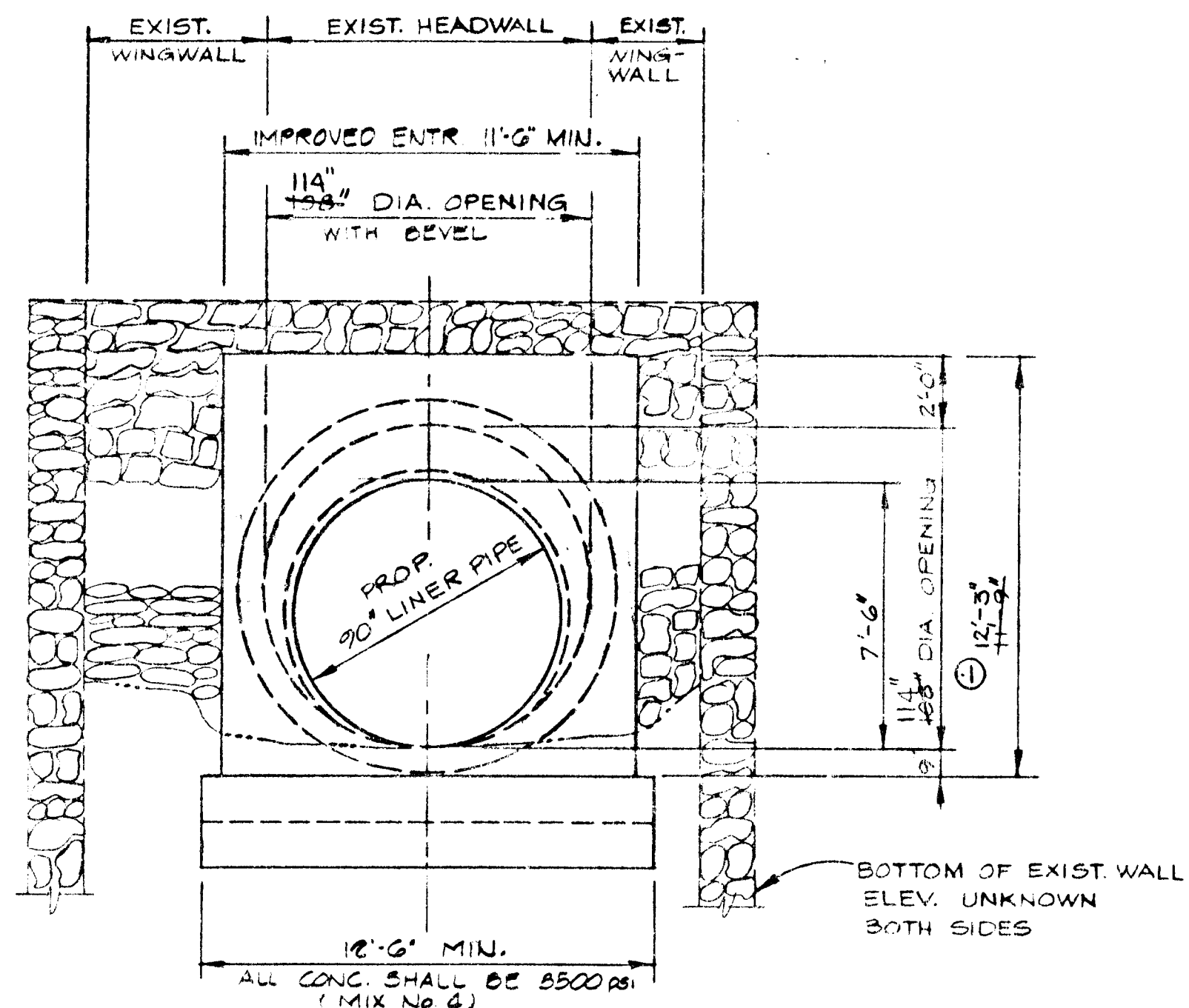
SECTION "A-A"



DETAIL - REINFORCING AT 108" OPENING



DETAIL - REINFORCING AT 90" OPENING



FRONT ELEVATION

DETAILS OF IMPROVED ENTRANCE

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

CONSTRUCTION NOTES

CONCRETE: All concrete for Improved Entrance Construction shall be Mix No. 4 (3500 psi). See Special Provisions. All concrete for Storm Drain Bottom shall be Mix No. 5 (4000psi).

CHAMFER: All exposed corners of concrete shall be chamfered with 3/4"x3/4" milled chamfer strips.

REINFORCING STEEL: Reinforcing steel shall conform to ASTM Designation A-615, Grade 60. All splices shall be lapped a minimum of 40 bar diameters. Minimum cover for any bar shall be 2" unless noted otherwise.

DIMENSIONS: All dimensions affected by the geometrics, and or location of the existing structure are to be verified in the field by the Contractor, prior to construction and before any reinforcing steel, etc. is ordered or fabricated. It shall be the responsibility of the Contractor to supply the County with all field dimensions required to check detail drawings.

By the Developer:
 "I/We certify that all development and construction will be done according to this plan, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."

Signature of Developer: *William E. Riley* Date: _____
 CHIEF BUREAU OF ENGINEERING

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 and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature of Engineer: *Charles R. Crocken* Date: 11/25/83
 CHARLES R. CROCKEN

APPROVED: FOR PUBLIC STORM DRAINAGE SYSTEMS

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

William E. Riley 11/25/83
 DIRECTOR DATE
William E. Riley 11/25/83
 CHIEF, BUREAU OF ENGINEERING DATE
Alach Anderson 11/25/83
 CHIEF, DIVISION OF ROADS DATE
 BRIDGES AND STORM DRAINS

2/14/84	1	Revise entrance dimension	CR
DATE	NO.	REVISION DESCRIPTION	

OWNER: HOWARD COUNTY, MD.

DEVELOPER: SAME AS OWNER

PROJECT: 108th FREDERICK RD. STORM DRAIN
 EAST OF ROGERS AVE.
 CAPITOL PROJECT D-1066

AREA: ELLICOTT CITY, MD.
 2ND ELECTION DISTRICT
 HOWARD COUNTY, MD.

TITLE: MISCELLANEOUS DETAILS

HYDINGS & THEIM
 ASSOCIATES INC.
 CONSULTING ENGINEERS - LAND & CONSTRUCTION SURVEYORS
 8370 COURT AVENUE, ELLICOTT CITY, MD. 21043 465-0660

DATE: 11/25/83

 PROFESSIONAL ENGR. NO. 11213

DESIGNED BY: C.R.C.
 DRAWN BY: C.R.C./R.R.S.
 PROJECT NO:
 DATE: 11/25/83
 SCALE: AS SHOWN
 DRAWING NO. 2 OF 2