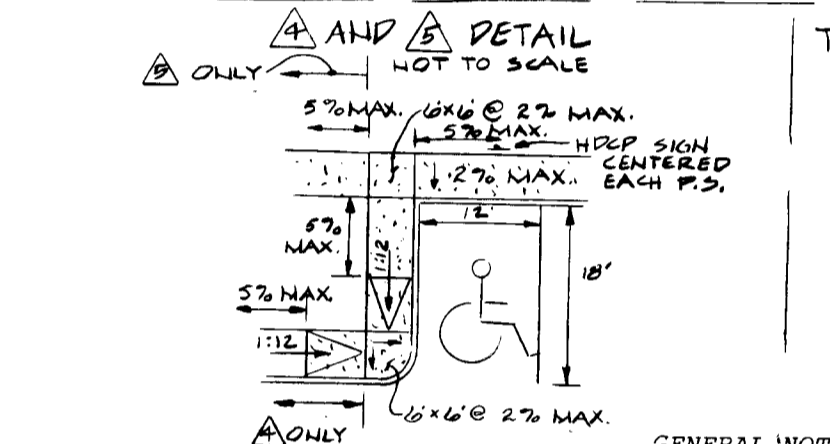
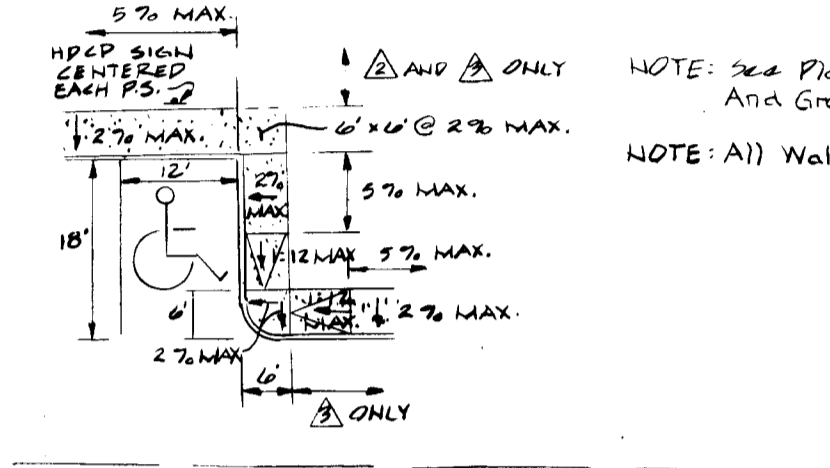


REVERSE SLOPE CURB & GUTTER
NO SCALE

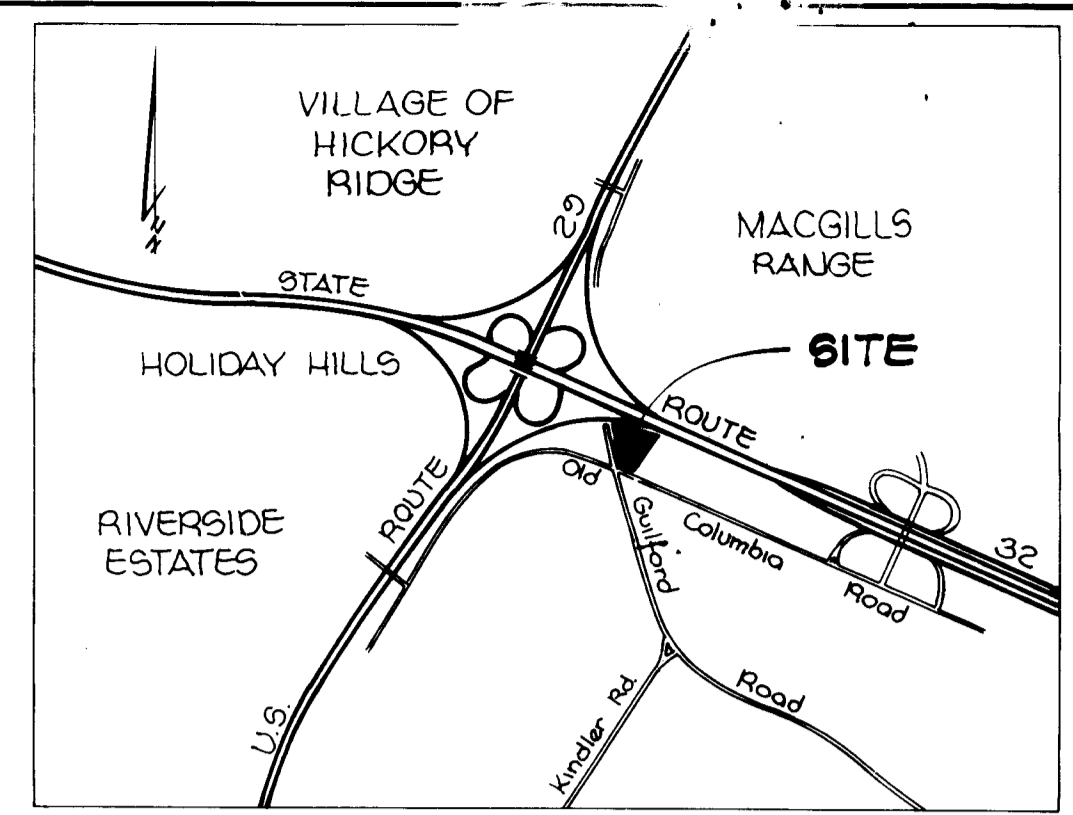
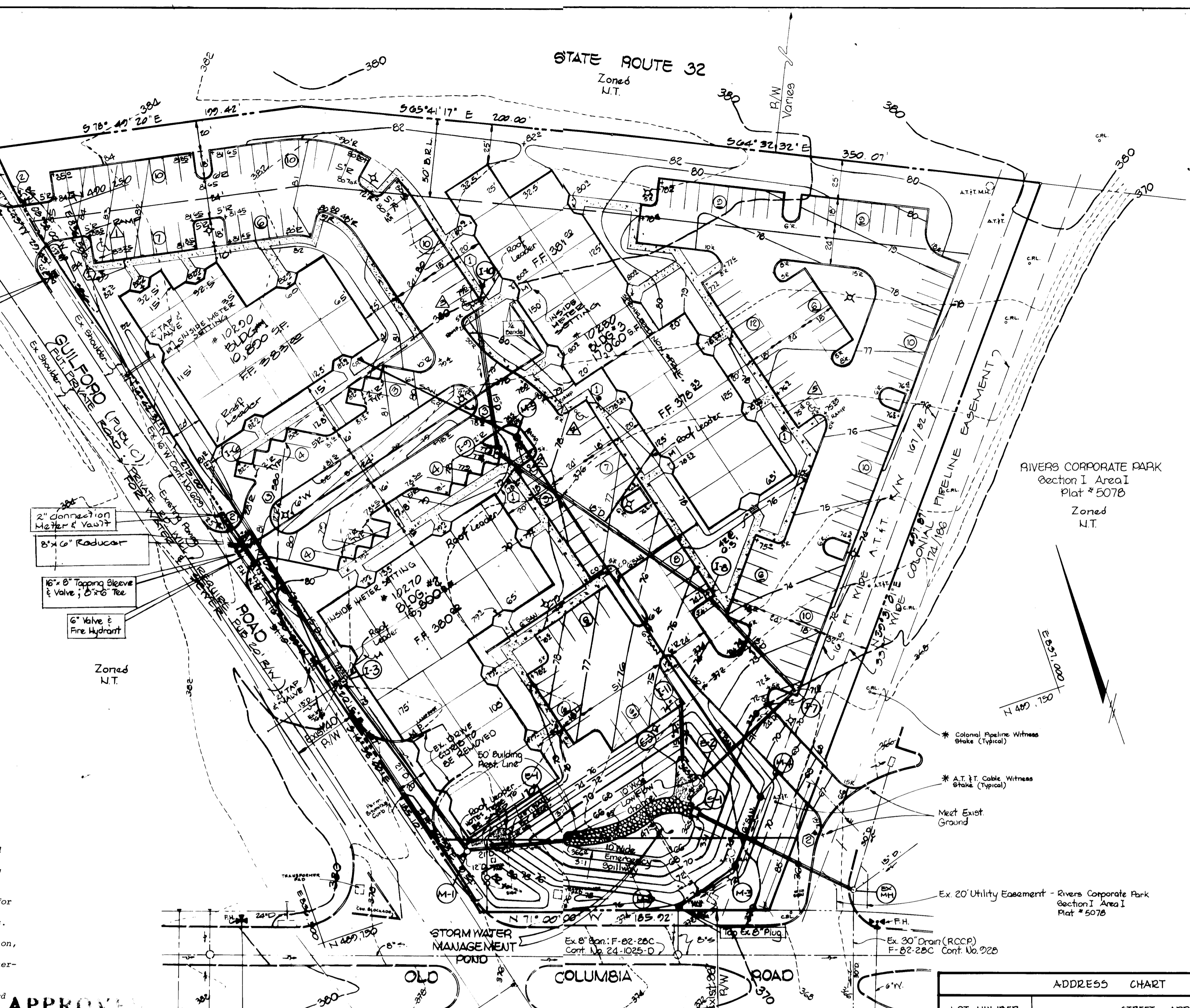
NOTE: REVERSE SLOPE CURB & GUTTER TO BE USED WHERE THE PAVEMENT SLOPES AWAY FROM THE FACE OF CURB. TRANSITION FROM STANDARD GUTTER TO REVERSE GUTTER SO NOT TO TRAP WATER.

NOTE: At Least One (1) Primary Entrance for Each Tenant At Each Grade Floor Level Shall Be Accessible From The Parking Lot Or The Nearest Street By Means Of A Walk Uninterrupted By Steps Or Abrupt Changes In Grade. And Shall Have A Width Of Not Less Than Five (5) Feet And A Gradient Of Not More Than One (1) Unit Vertical In Twenty (20) Units Horizontal (1:20).

HANDICAPPED PARKING DETAILS: NOT TO SCALE



- Maximum building height = 50'.
- All areas not being paved or receiving building coverage shall be stabilized in accordance with the plans approved by the Howard Soil Conservation District.
- Any damage to public rights-of-way and/or adjacent properties shall be repaired immediately at the contractor's expense.
- The contractor shall maintain at least a 2' level bench behind all curb and gutter in fill areas.
- The contractor shall verify all existing utilities to his own satisfaction before starting construction.
- All slopes shall be 2:1 or flatter.
- All work shall be done in accordance with Howard County Standard Specifications and Details for Construction, or as shown on these plans.
- The contractor shall notify the C & P Telephone Co. and the Gas and Electric Company five days prior to starting work shown on these plans by calling "Miss Utility". Call collect 1-550-0100.
- For details of ramps and signs for the handicapped see the Maryland Building Code for the Handicapped and Aged and as shown hereon.
- The contractor shall maintain a minimum of 3.5' cover over all proposed water lines.
- All rip-rap shall be placed on filter cloth.
- The contractor or developer shall contact the Construction Inspection/Survey Division, 24 hours in advance of commencement of work at 992-2417 or 792-7272.
- The contractor shall remove all existing paving, curb and gutter, etc. that may interfere with proposed construction.
- All utilities installed shall receive full trench compaction.
- All water main tees, caps, etc. shall be buttressed in accordance with Howard County Design requirements.



VICINITY MAP
SCALE: 1" = 2000'

SITE DATA

Area of Site = 5.0031 Ac. ±
 Area of Submittal = 5.0031 Ac. ±
 Area to be Vegetatively Stabilized = 96335 S.F. = 2.21 Ac. ±
 Floor Area = Bldg. #1 10,890 S.F.
 Bldg. #2 16,800 S.F.
 Bldg. #3 17,060 S.F.
 44,750 S.F.

Floor Area to Site Ratio:
1.03 Ac. ± / 5.00 Ac. ± = 20.6%

Percentage of Open Space:
96,335 S.F. = 44%

Existing Zoning = N.T. (F.D.P. 184-M) Industrial

Proposed building use = office for research and development

Title Reference: Plat entitled:
Section I, Area I
Parcel 'D'
F.82-28
Plat #5078
12-18-81

Parking Required = 44750 S.F. @ 2/1000 S.F.
= 50

Parking spaces provided = 100 (8 reserved for Hdcp)

STORM WATER MANAGEMENT

- SITE PREPARATION:** The embankment area (fill) and borrow area shall be cleared and grubbed to remove all trees, vegetation, roots and other objectionable material. The topsoil from the embankment area and borrow area shall be removed and stockpiled; the topsoil shall be spread on the completed embankment.
- FILL:**
 - Material:** The fill material shall be obtained from the pond excavation; it shall be free from stones, stumps, wood, rubbish, oversized stones, frozen or objectionable materials. The embankment shall be constructed to the elevations as shown on the plan to allow for anticipated settlement.
 - Placement:** Areas on which fill is to be placed, shall be scarified prior to placement of fill. Fill material shall be placed in 6" max. thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portion of the embankment.
 - Compaction:** The movement of the building and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one track of the equipment or compaction shall be achieved by a minimum of four (4) complete passes of a sheepsfoot roller. Fill material shall contain sufficient moisture so that it can be formed into a ball without crumbling.
- STRUCTURAL BACKFILL:** Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed 4' in thickness and compacted by hand tamping or manually directed power rammers or vibrators. At no time during backfilling operations shall driven equipment be used to compact any fill. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe.
- CONCRETE:** Concrete shall meet the minimum requirements set forth in the Maryland State Road Commission Specifications for Materials, Bridges, and Incidental Structures, Article 20.07 Portland Cement Mixture.
- The storm water management facilities are private and shall be maintained by the Owner. The Owner shall be responsible for all construction according to County standards.
- STABILIZATION:** The storm water management facilities shall be stabilized in accordance with the approved Erosion and Sediment Control Plan.

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
Bldg. #1	10250 Old Columbia Road
Bldg. #2	10270 Old Columbia Road
Bldg. #3	10280 Old Columbia Road

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 PLANNING DIRECTOR: [Signature] DATE: 7-2-84
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION:
 [Signature] DATE: 7-2-84

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 6-30-84

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: [Signature] DATE: 6-21-84
 CHIEF, BUREAU OF ENGINEERING: [Signature] DATE: 6-21-84

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DISTRICT: [Signature] DATE: 6-5-84
 APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 SIGNATURE: [Signature] DATE: 6-5-84
 THE UNITED STATES SOIL CONSERVATION SERVICE

APPROVED: PLANNING AND ZONING OF HOWARD COUNTY
 DATE: 4-18-84

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 6-30-84

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND ROADS
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: [Signature] DATE: 6-21-84
 CHIEF, BUREAU OF ENGINEERING: [Signature] DATE: 6-21-84

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 DISTRICT: [Signature] DATE: 6-5-84
 APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 SIGNATURE: [Signature] DATE: 6-5-84
 THE UNITED STATES SOIL CONSERVATION SERVICE

PLAN
1" = 40'

SUBDIVISION NAME	SECT./AREA	LOT/PARCEL #
RIVERS CORP. PARK	1/1	PARCEL 'D'

PLAT # OR L.P. BLOCK #	ZONE	TAX/ZONE MAP/ELEC. DIST.	GENUINE TR.
5078	IND. INDUSTRIAL	41 & 42	63

WATER CODE	SEWER CODE
	N



GEORGE WILLIAM STEPHENS JR. AND ASSOCIATES INC
 ENGINEERS
 303 ALLEGHENY AVE. TOWSON, MD. 21204
 (301) 825-8120

ENGINEER'S CERTIFICATE
 "I certify that this plan for pond construction, 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. I have notified the department that he must provide the Howard Soil Conservation District with a red-lined "as-built" of the pond within 30 days of completion."
 Signature of Engineer: [Signature]
 Date: 2-14-84

OWNER
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 702-6033

DEVELOPER
 M. O. R. PARTNERSHIP
 36 SOUTH CHARLES ST.
 BALTIMORE, MD. 21202
 727-0000

DEVELOPER'S CERTIFICATE
 "I hereby certify that all development and/or construction will be done according to these plans of development, pond construction and erosion and sediment control. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District. I will provide the Howard Soil Conservation District with a red-lined "as-built" of the pond within 30 days of completion."
 Signature of Developer: [Signature]
 Date: 2/13/84

SITE PLAN & STORMWATER MANAGEMENT PLAN
 FOR
 10270 10280 & 10250 OLD COLUMBIA ROAD
 PROPOSED R&D OFFICE BUILDINGS
 PARCEL 'D'
 RIVERS CORP. PARK
 SECTION I AREA I

HOWARD COUNTY, MD.
 SCALE 1" = 40' OR AS SHOWN
 PL. 4991 TAX MAP 41 & 42

ELECTION DISTRICT #6
 FEBRUARY 13, 1984
 SHEET 1 OF 5
 S.O.P. 04-200 C

FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER: *[Signature]* DATE: 6-30-84

APPROVED: HOWARD COUNTY BOARD OF PLANNING AND ZONING
DATE: 6-27-84

PLANNING DIRECTOR: *[Signature]* DATE: 6-27-84

CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION:

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND ROADS.
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR: *[Signature]* DATE: 6-27-84

CHIEF BUREAU OF ENGINEERING: *[Signature]* DATE: 6-27-84

HOWARD SOIL CONSERVATION DISTRICT

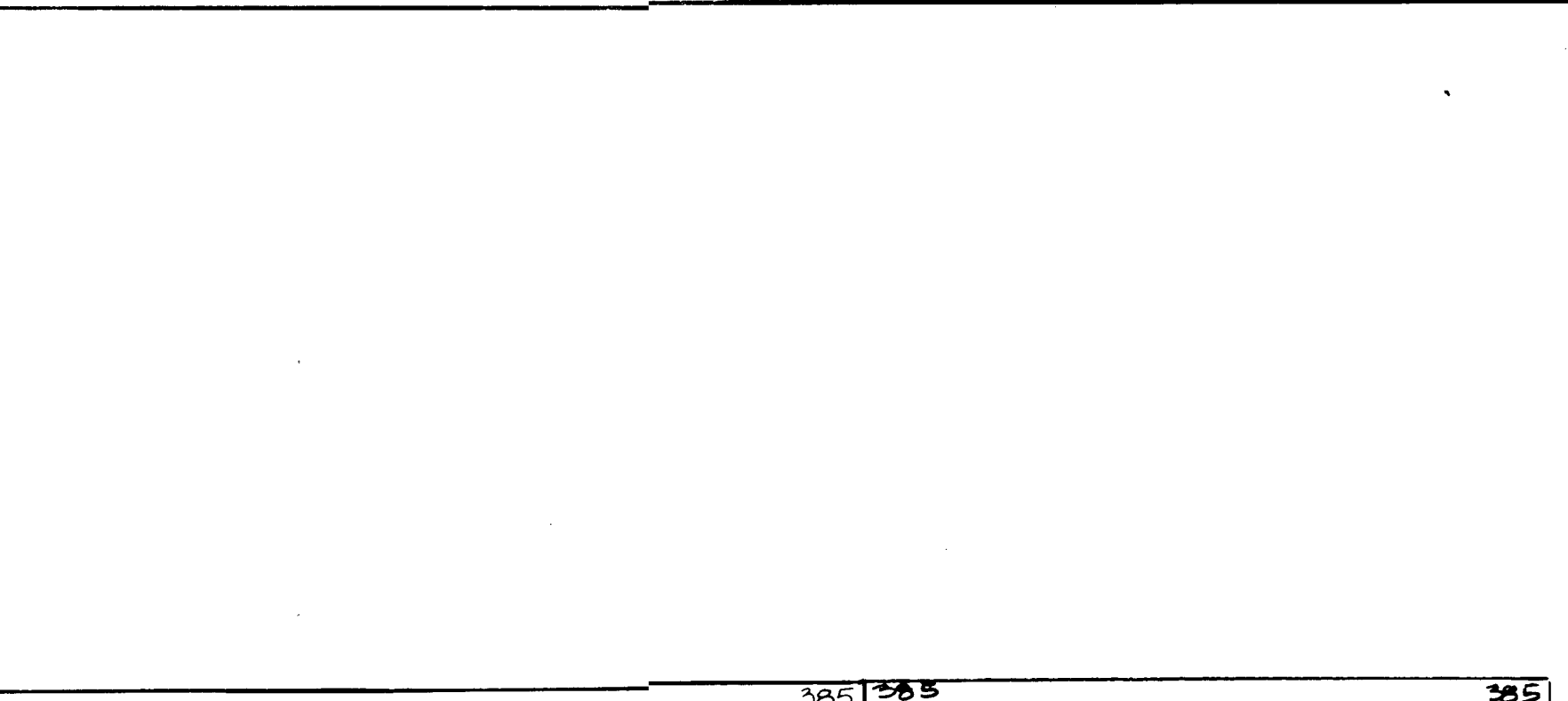
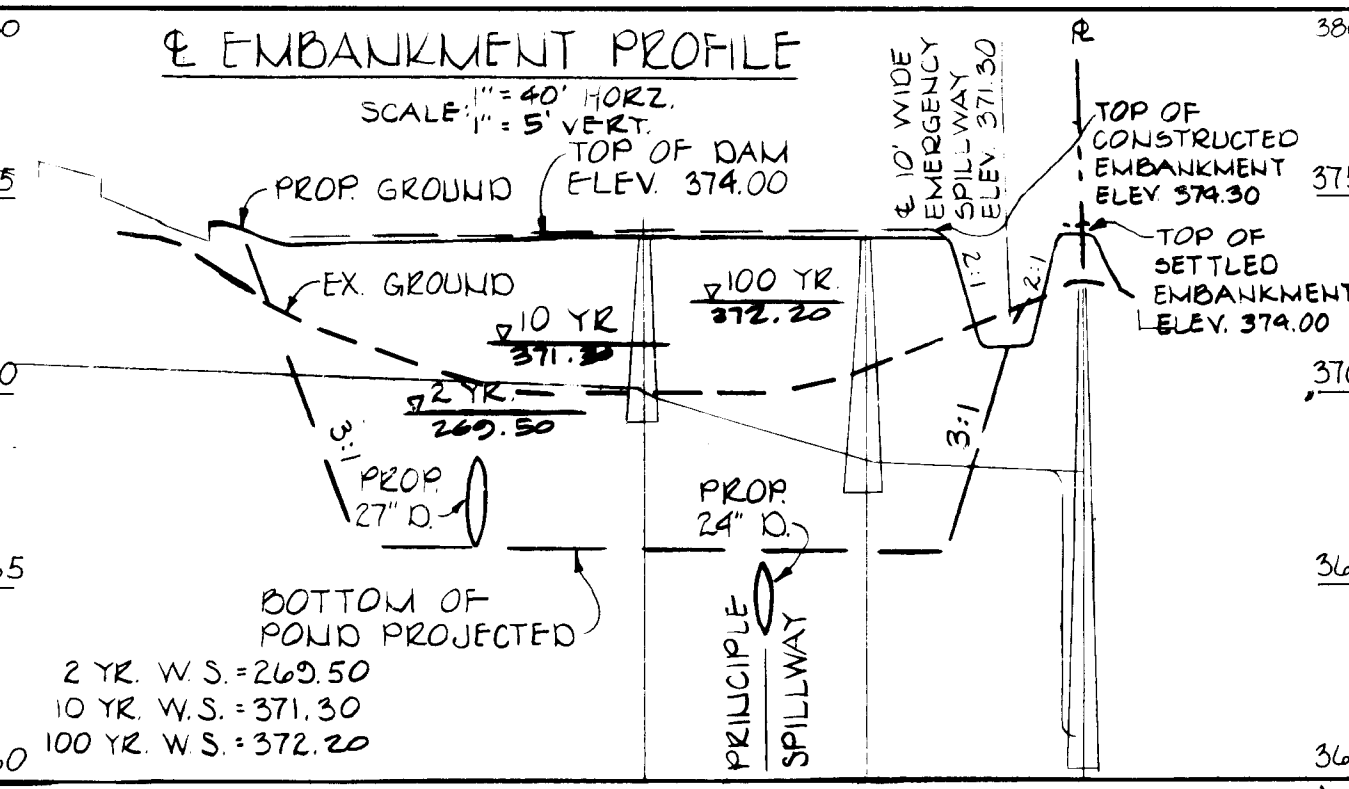
THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

DISTRICT: *[Signature]* DATE: 6-5-84

APPROVED: HOWARD SOIL CONSERVATION DISTRICT REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

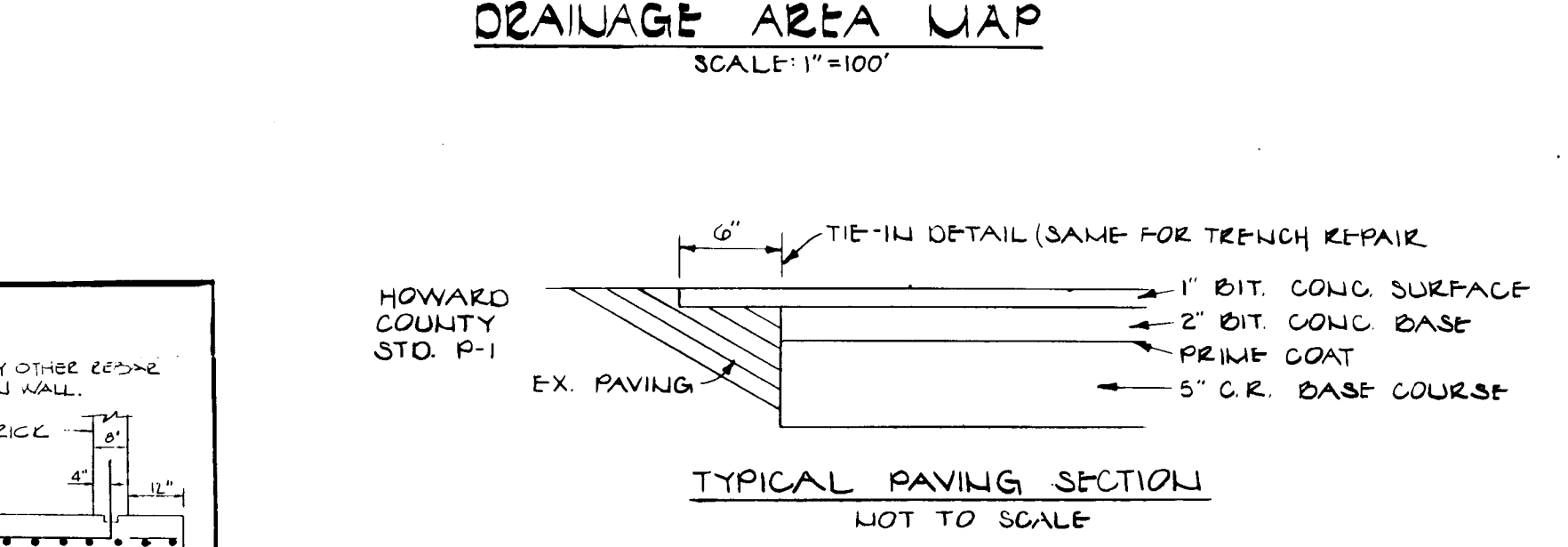
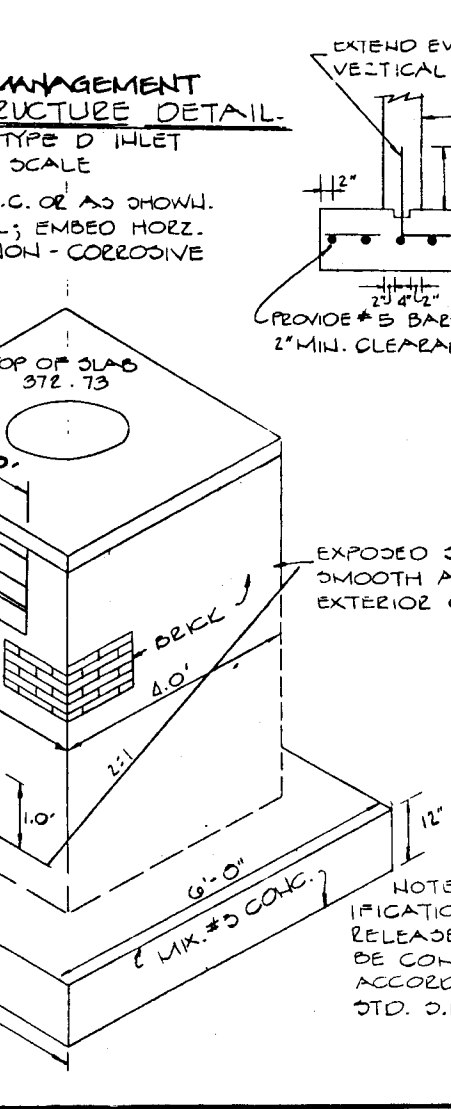
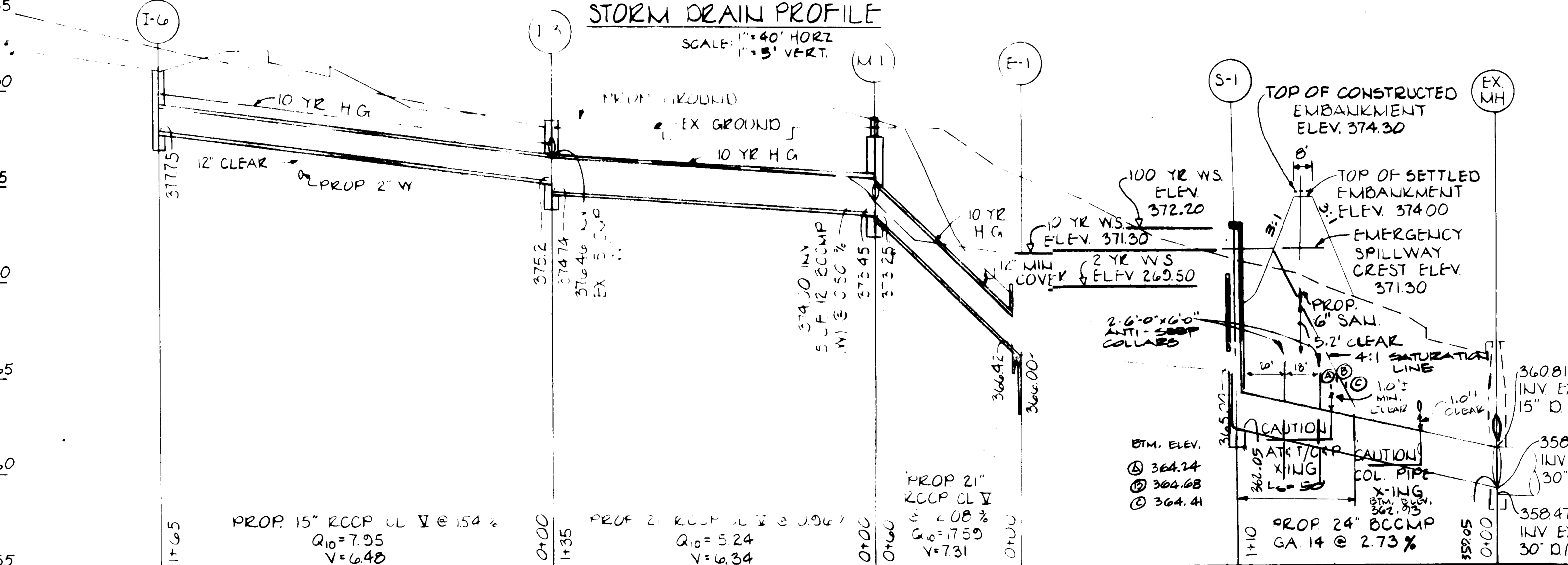
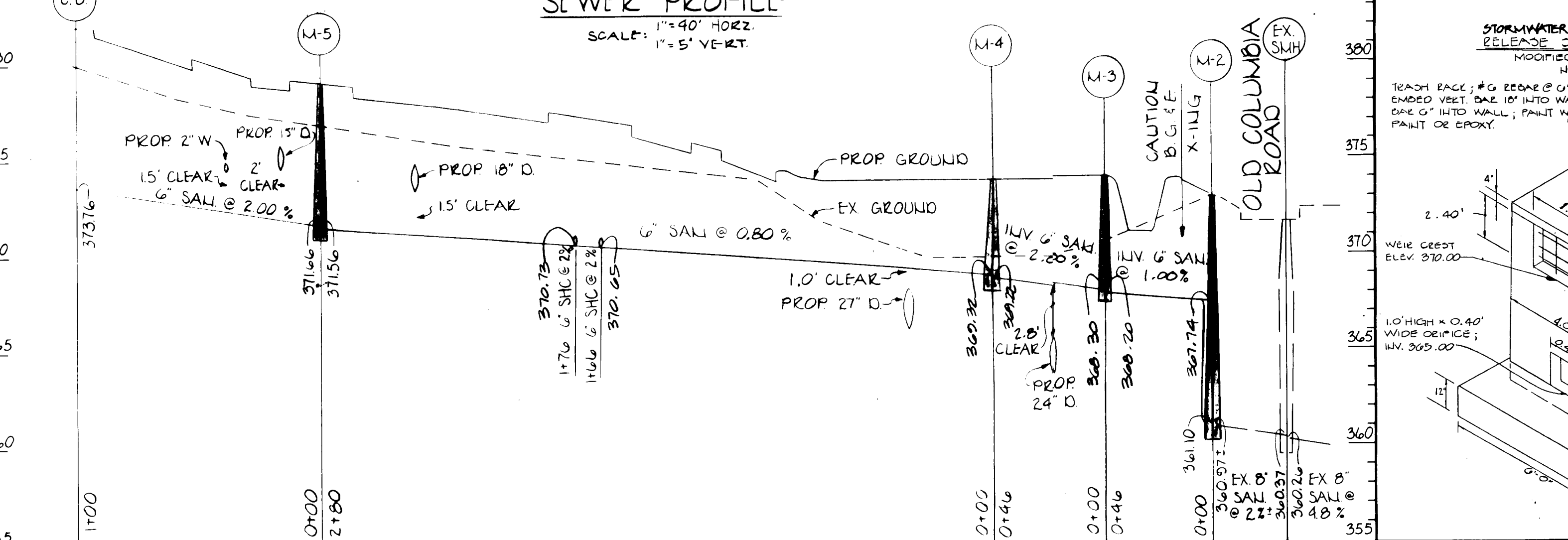
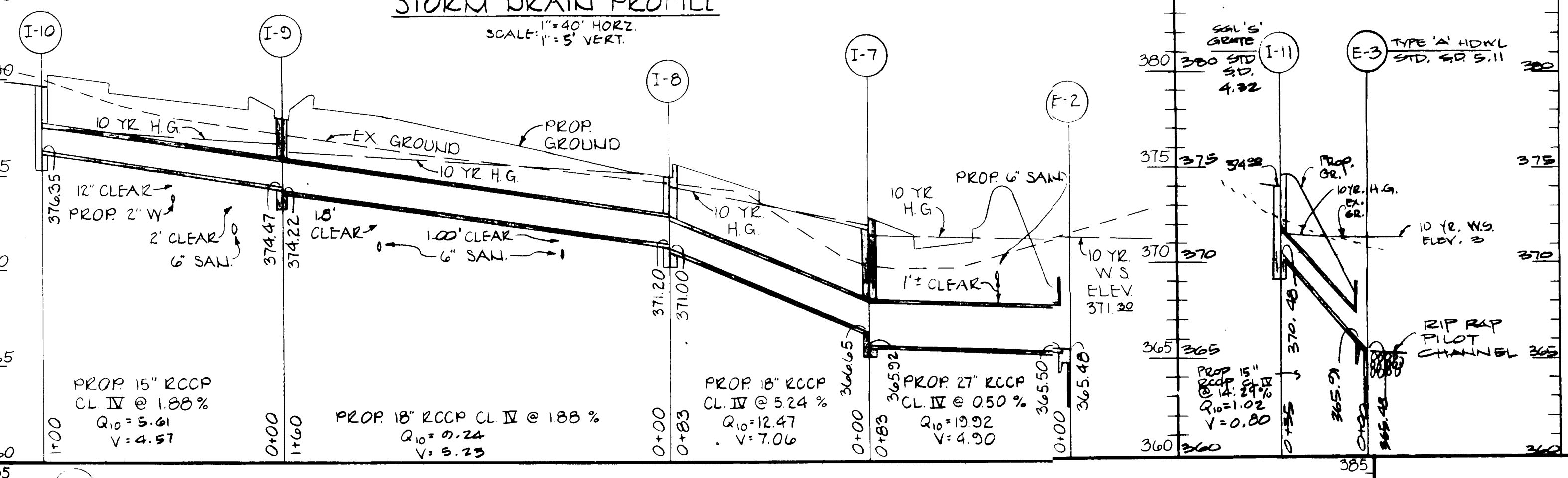
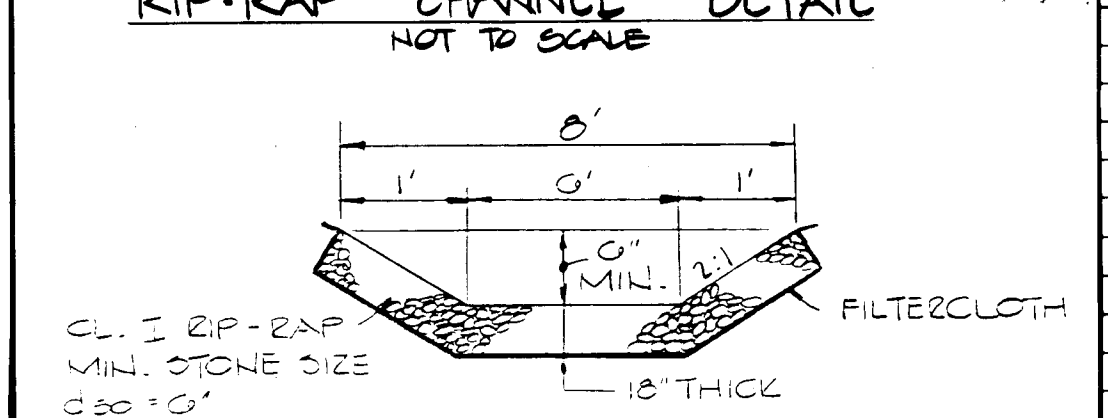
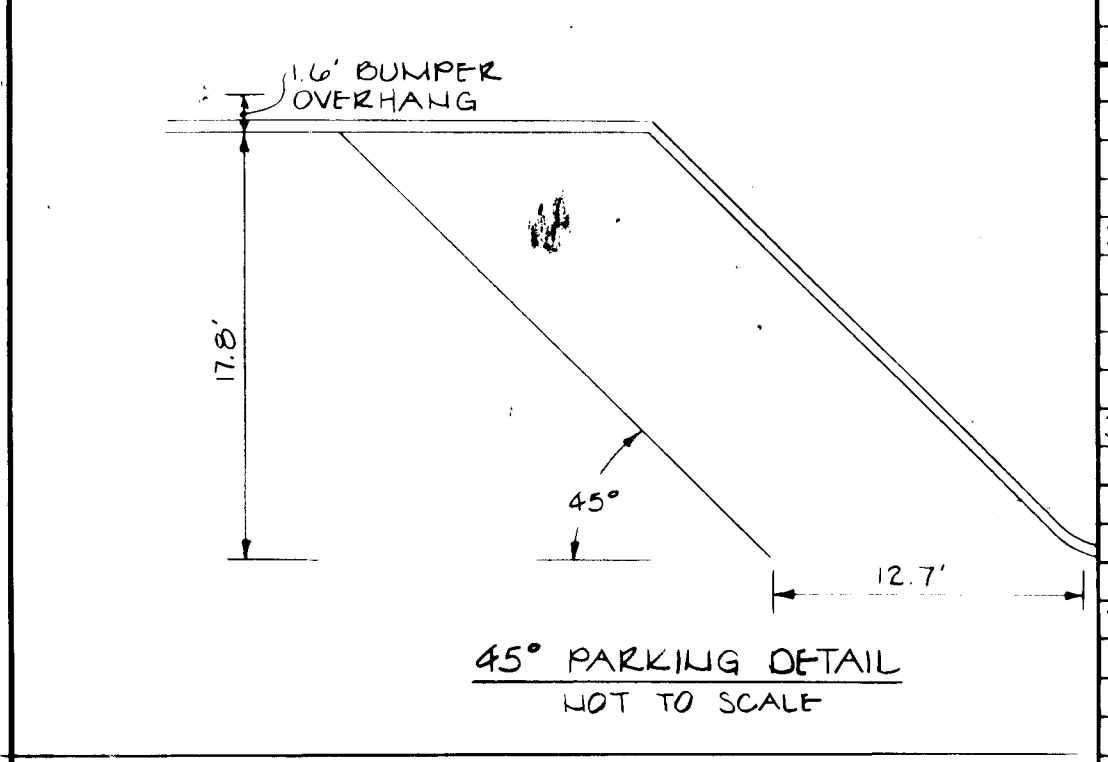
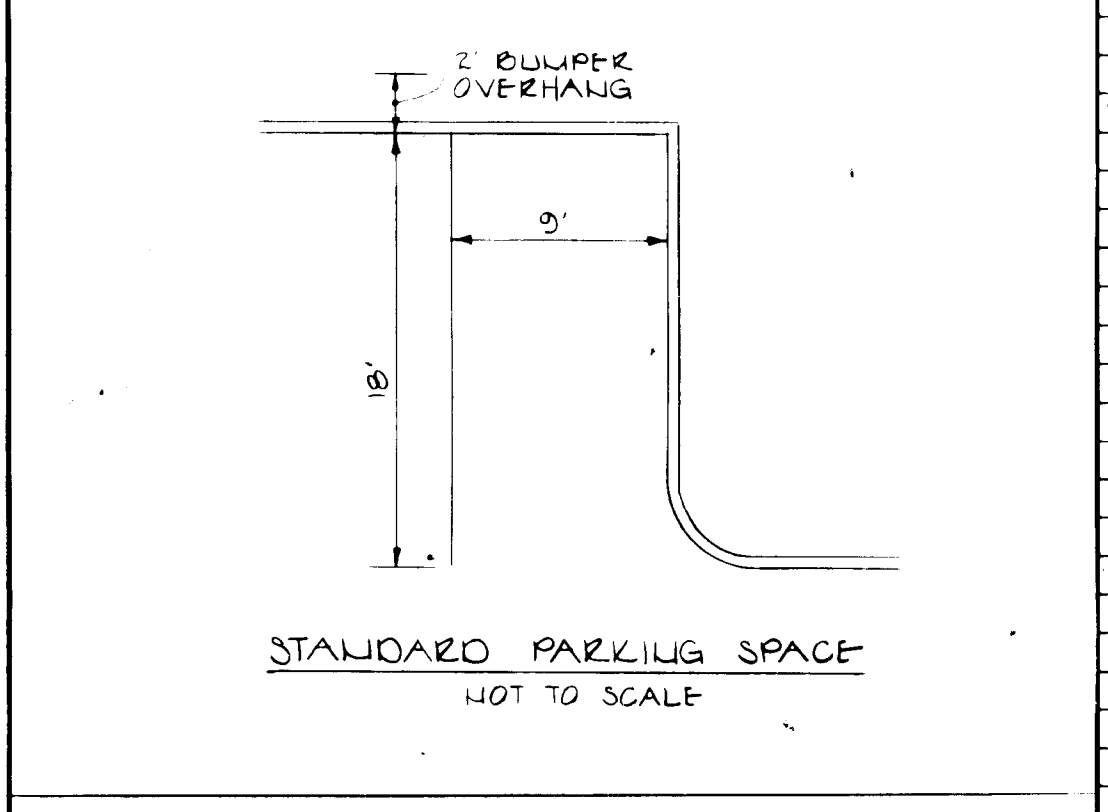
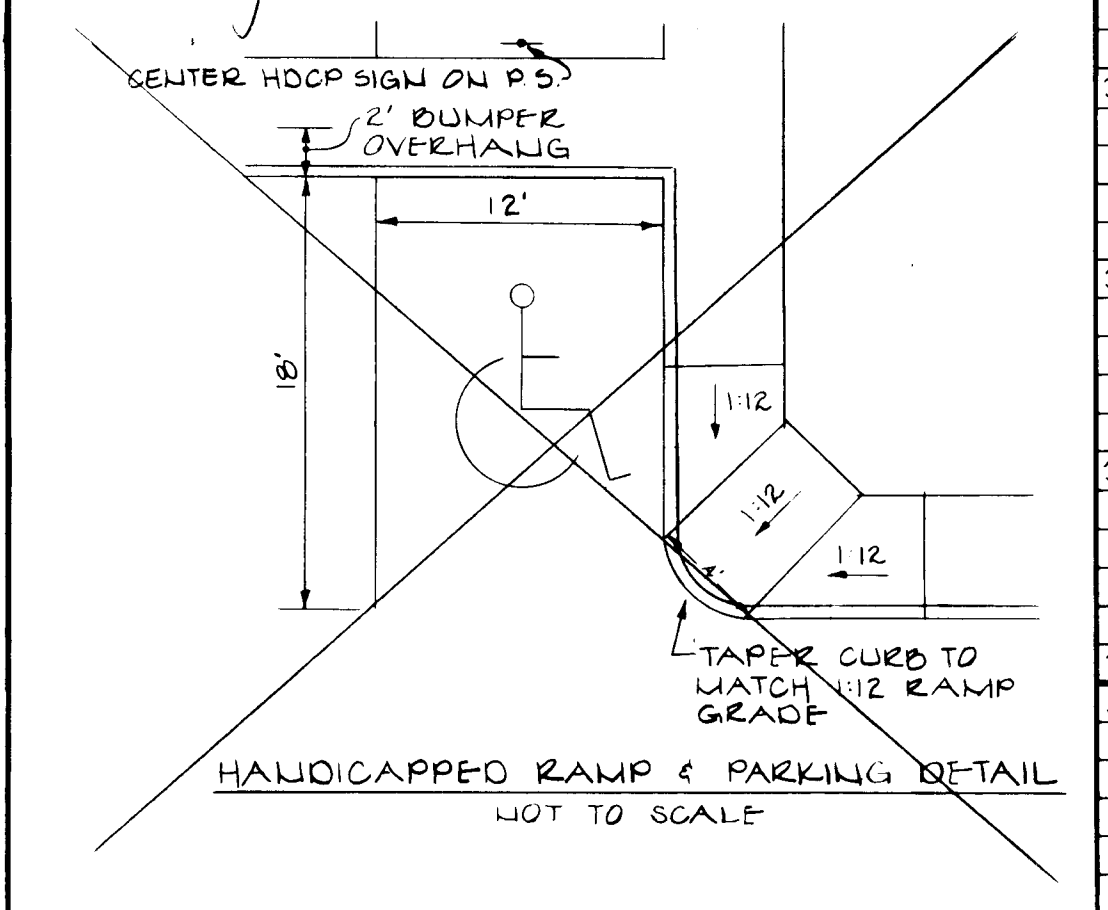
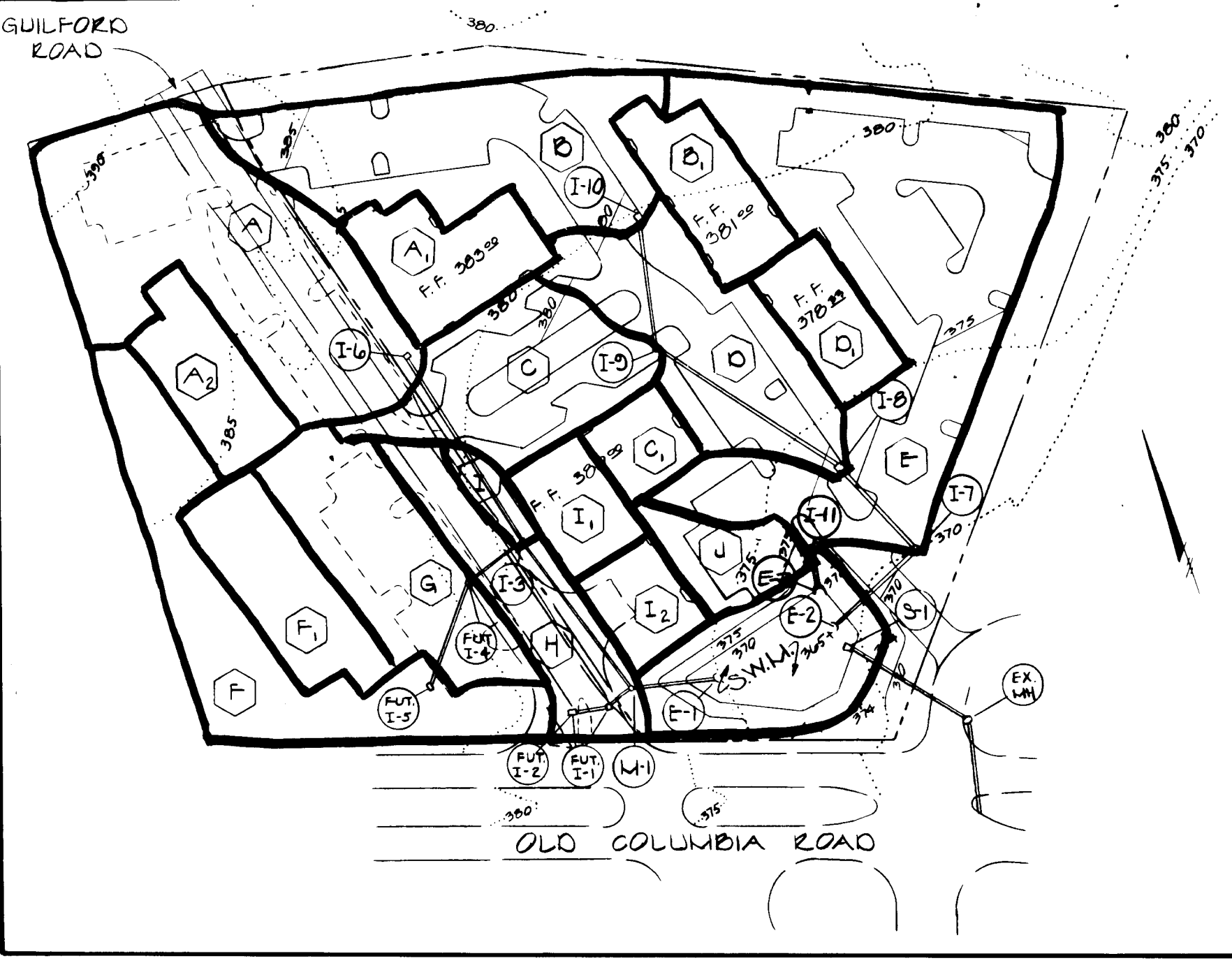
SIGNATURE: *[Signature]* DATE: 6-5-84

THE UNITED STATES SOIL CONSERVATION SERVICE



DRAINAGE AREA TABULATION

AREA	'	AC ±
A	0.76	0.68
A ₁	0.95	0.23
A ₂	0.95	0.205
B	0.74	0.647
B ₁	0.95	0.189
C	0.85	0.376
C ₁	0.95	0.127
D	0.79	0.35
D ₁	0.95	0.172
E	0.76	1.25
F	0.30	0.63
F ₁	0.95	0.246
G	0.77	0.427
H ₁	0.95	0.124
I	0.30	0.074
I ₁	0.95	0.134
I ₂	0.95	0.134
J	0.86	0.14



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 4-18-84

STRUCTURE SCHEDULE (SEE ALSO PROFILE I-11 TO I-15)

NO.	TYPE	TOP ELEV.	INV. IN.	INV. OUT.	REMARKS
S-1	MODIFIED TYPE 'D' INLET	372.73	365.00	362.05	SEE DETAIL SHT. 2
I-3	TYPE 'D' INLET	379.23	375.21	374.74	HO. CO. STD. S.D. 4.11
I-6	TYPE 'D' INLET	381.03	---	377.75	HO. CO. STD. S.D. 4.11
I-7	O.D. COMB. INLET	371.90	366.65	365.92	HO. CO. STD. S.D. 4.34
I-8	O.D. COMB. INLET	374.70	371.20	371.00	HO. CO. STD. S.D. 4.34
I-9	O.D. COMB. INLET	377.85	374.47	374.22	HO. CO. STD. S.D. 4.34
I-10	O.D. COMB. INLET	379.60	---	376.35	HO. CO. STD. S.D. 4.34
M-1	4'-0" BRICK MH	378.50	373.45	373.25	HO. CO. STD. G. 5.05
M-2	STD. 4'-0" BRICK MH	373.00	367.74	366.97	HO. CO. STD. G. 5.01
M-3	STD. 4'-0" BRICK MH	374.00	368.30	368.20	HO. CO. STD. G. 5.01
M-4	STD. 4'-0" BRICK MH	374.00	369.32	369.22	HO. CO. STD. G. 5.01
M-5	4'-0" BRICK MH	379.00	371.66	371.56	HO. CO. STD. G. 5.01
E-1	TYPE 'X' HEADWALL	---	366.42	366.00	HO. CO. STD. S.D. 5.11
E-2	TYPE 'X' HEADWALL	---	365.50	364.48	HO. CO. STD. S.D. 5.11

GEORGE WILLIAM STEPHENS JR. AND ASSOCIATES INC
ENGINEERS
303 ALLEGHENY AVE. TOWSON, MD. 21204
(301) 825-8120



ENGINEER'S CERTIFICATE
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[Signature]
Signature of Engineer
2-14-84
Date

OWNER
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
202-6033

DEVELOPER
M.O. R. XXZI PARTNERSHIP
36 SOUTH CHARLES ST.
BALTIMORE, MD. 21202
727-0600

DEVELOPER'S CERTIFICATE
"I hereby certify that all development and/or construction will be done according to these plans of development, pond construction and erosion and sediment control. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District. I will provide the Howard Soil Conservation District with a red-lined "as-built" of the pond within 30 days of completion."

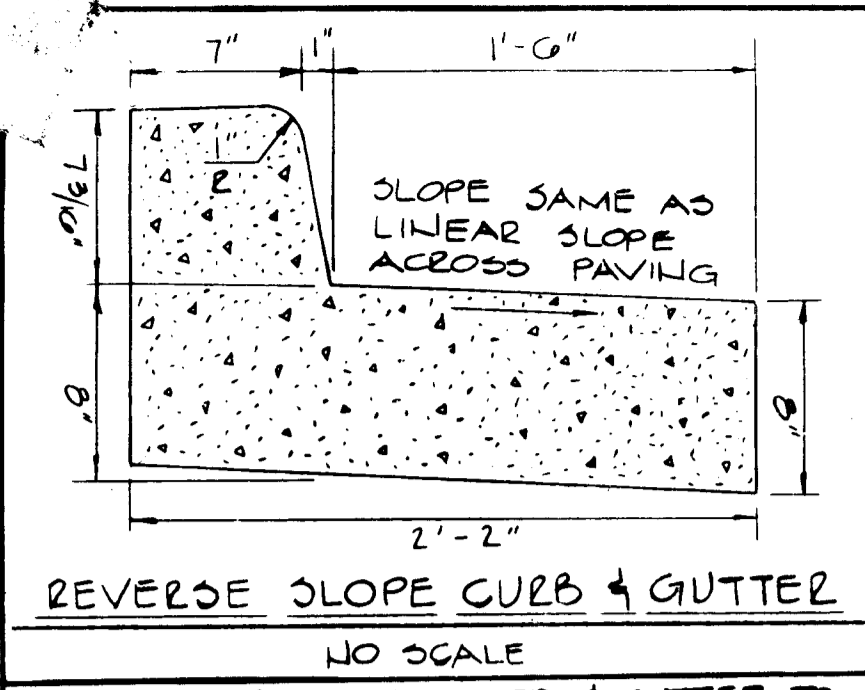
[Signature]
Signature of Developer
2/13/84
Date

DES: RWR
CHK: TH./DR.
CHK: T.C.
REVISIONS
6-26-84
PROP. INV. S.W.M.
OUTFALL PER EX.
UTIL. TEST PIT
INFO.

PROFILES & DETAILS
10270, 10280, & 10290 OLD COLUMBIA ROAD
PROPOSED R&D OFFICE BUILDINGS
PARCEL 'D'
RIVERS CORPORATE PARK
SECTION I AREA I

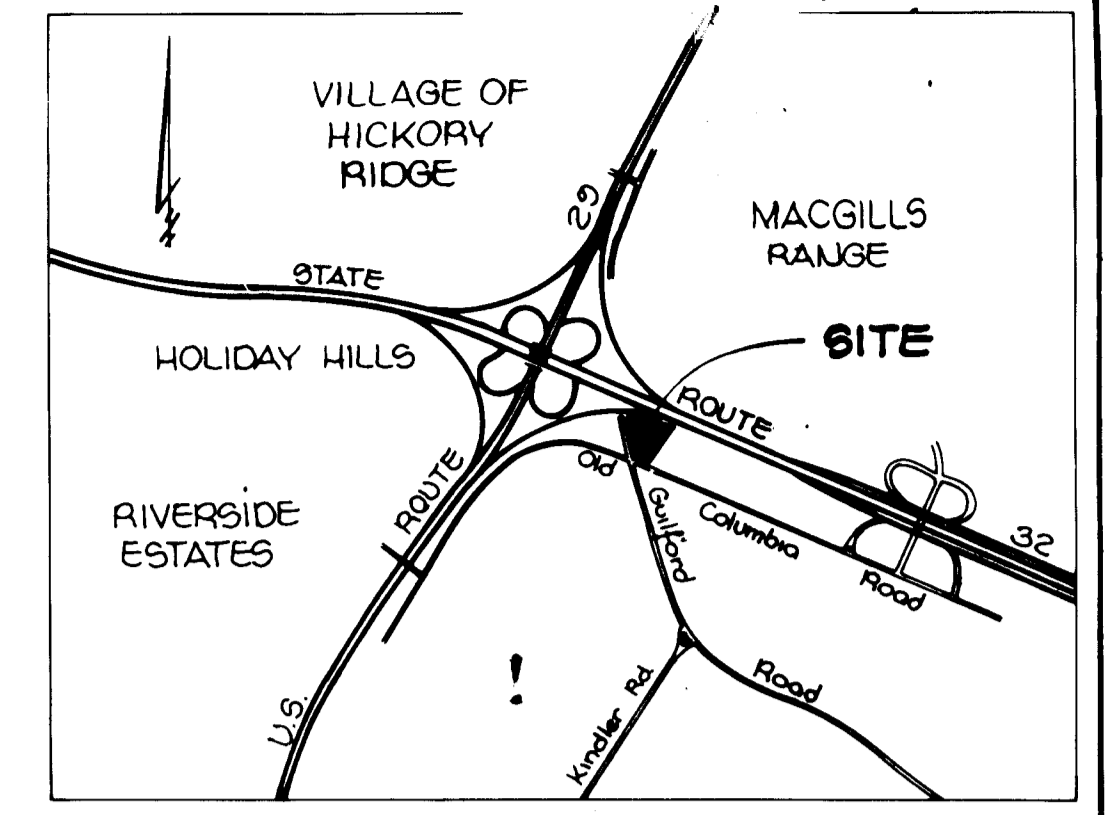
HOWARD COUNTY, MD.
SCALE 1"=40' OR AS SHOWN
REV. 4/96 TAX MAP 41 E 42

ELECTION DISTRICT *G
FEBRUARY 13, 1984
SHEET 2 OF 5
S.D.P. 84-200 C

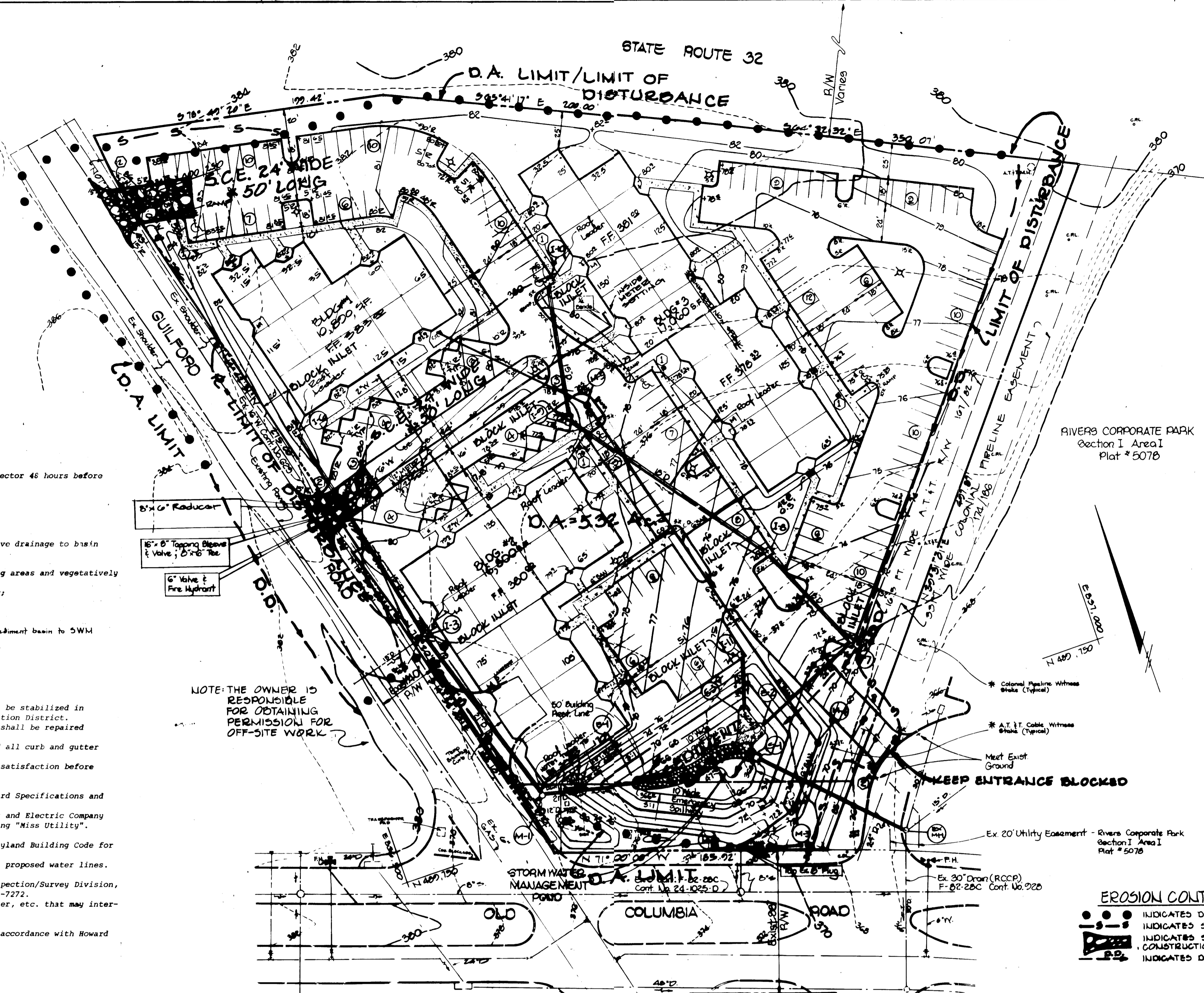


REVERSE SLOPE CURB & GUTTER
NO SCALE

NOTE: REVERSE SLOPE CURB & GUTTER TO BE USED WHERE THE PAVEMENT SLOPES AWAY FROM THE FACE OF CURB; TRANSITION FROM STANDARD GUTTER TO REVERSE GUTTER SO NOT TO TRAP WATER



VICINITY MAP
SCALE: 1" = 2000'



SITE DATA

Area of Site = 5.0031 Ac. ±
 Area of Submittal = 5.0031 Ac. ±
 Area to be Vegetatively Stabilized = 96335 S.F. = 2.21 Ac. ±
 Floor Area = Bldg. #1 10,890 S.F.
 Bldg. #2 16,800 S.F.
 Bldg. #3 17,060 S.F.
 44,750 S.F.

Floor Area to Site Ratio:
 1.03 Ac. ±/5.00 Ac. ± = 20.6%

Percentage of Open Space:
 96,335 S.F. = 44%

Existing Zoning = N.T. (F.D.P. 184-A) Industrial
 Proposed building use = office for research and development

Title Reference: Plat entitled:
 Section I, Area I
 Parcel 'D'
 F.82-28
 Plate #5078
 12-18-61

Parking Required = 44750 SF @ 2/1000 SF
 = 20 (5 reserved for Hdcp)

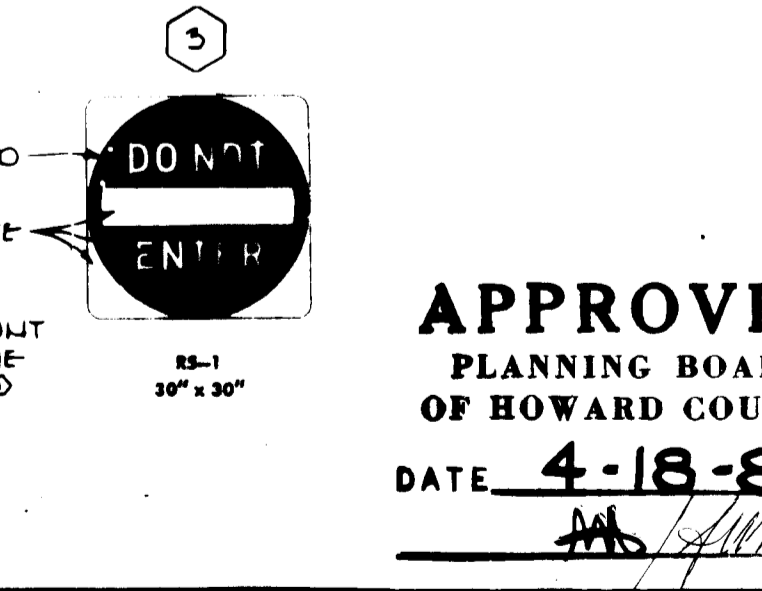
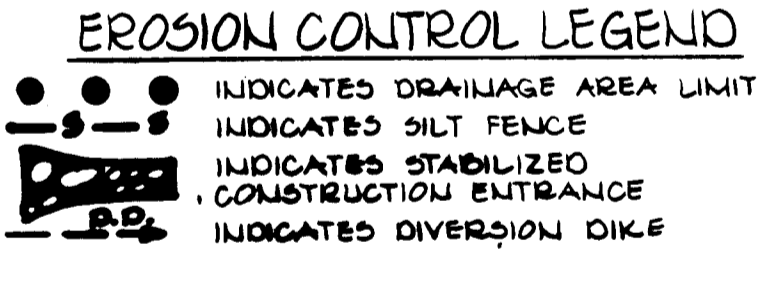
Parking spaces provided = 109 (8 reserved for Hdcp)

NOTE: Sediment Basin shall be constructed According to S.W.M. Construction Specifications as follows:

- SEQUENCE OF OPERATIONS**
1. Notify the Howard County Department of Licenses & Permits Inspector 48 hours before beginning work.
 2. Install stabilized construction entrances and silt fence.
 3. Install sediment basin and outfall pipe and dewatering device.
 4. Install diversion dikes.
 5. Clear and grub site.
 6. Begin major grading.
 7. Install all utilities; keep inlets plugged and maintain positive drainage to basin at all times.
 8. Install foundations and begin building construction.
 9. Complete major grading; place base stone on building and paving areas and vegetatively stabilize all other disturbed areas.
 10. After receiving permission from the sediment control inspector:
 - a. clean out basin and restore grades.
 - b. stabilize all disturbed areas.
 - c. complete building construction and paving.
 - d. remove all remaining sediment control devices and convert sediment basin to S.W.M. facility.

- GENERAL NOTES**
1. Maximum building height = 50'.
 2. All areas not being paved or receiving building coverage shall be stabilized in accordance with the plans approved by the Howard Soil Conservation District.
 3. Any damage to public rights-of-way and/or adjacent properties shall be repaired immediately at the contractor's expense.
 4. The contractor shall maintain at least a 2' level bench behind all curb and gutter in fill areas.
 5. The contractor shall verify all existing utilities to his own satisfaction before starting construction.
 6. All slopes shall be 2:1 or flatter.
 7. All work shall be done in accordance with Howard County Standard Specifications and details for construction, or as shown on these plans.
 8. The contractor shall notify the C & P Telephone Co. and the Gas and Electric Company five days prior to starting work shown on these plans by calling "Miss Utility". Call collect 1-559-0100.
 9. For details of ramps and signs for the handicapped see the Maryland Building Code for the Handicapped and Aged and as shown hereon.
 10. The contractor shall maintain a minimum of 3.5' cover over all proposed water lines.
 11. All rip-rap shall be placed on filter cloth.
 12. The contractor or developer shall contact the Construction Inspection/Survey Division, 24 hours in advance of commencement of work at 992-2417 or 792-7272.
 13. The contractor shall remove all existing paving, curb and gutter, etc. that may interfere with proposed construction.
 14. All utilities installed shall receive full trench compaction.
 15. All water main tees, bends, caps, etc. shall be buttressed in accordance with Howard County Design requirements.

- STORM WATER MANAGEMENT CONSTRUCTION SPECIFICATIONS**
1. **SITE PREPARATION:** The embankment area (fill) and borrow area shall be cleared and graded to remove all trees, vegetation, roots and other objectionable material. The topsoil from the embankment area and borrow areas shall be removed and stockpiled; the topsoil shall be spread on the completed embankment.
 2. **EARTH FILL:**
 - a. Material: The fill material shall be obtained from the pond excavation. It shall be free from roots, stems, weeds, rubbish, uncrushed stones, frozen or other objectionable materials. The embankment shall be constructed to the elevation as shown on the plan to allow for anticipated settlement.
 - b. Placement: Areas on which fill is to be placed, shall be stabilized prior to placement of fill. Fill material shall be placed in 6" max. thickness before construction layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portion of the embankment.
 - c. Compaction: The movement of the building and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one track of the equipment or compaction shall be achieved by a minimum of four (4) complete passes of a sheepsfoot roller. Fill material shall contain sufficient moisture so that it can be formed into a ball without crumbling.
 3. **STRUCTURAL BACKFILL:** Backfill material shall be of the type and quality conforming to that specified for the retaining fill material. The fill shall be placed in horizontal layers not to exceed 4" in thickness and compacted by hand tamping or manually operated vibratory plate vibrators. At no time during backfilling operations shall driven equipment be used to operate any closer to the structure than 4 feet unobstructed horizontally to any part of the structure. Under no circumstances shall the contractor allow equipment over any part of a concrete structure or pipe unless there is a compacted fill of 24" or greater over the structure or pipe.
 4. **PIPE COUPLERS:** Release Pipe - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of ASCE Specification for pipe types with neoprene coupling heads. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
 5. **Concrete:** Concrete shall meet the minimum requirements set forth in the Maryland State Roads Commission Specifications for Materials, Highways, Bridges, and Incidental Structures, Article 30.07 Portland Cement Concrete.
 6. The storm water management facilities are private and shall be maintained by the Owner. The Owner shall be responsible for all construction according to County standards.
 7. **STABILIZATION:** The storm water management facility shall be stabilized in accordance with the approved Erosion and Sediment Control Plan.



PLAN
1" = 40'

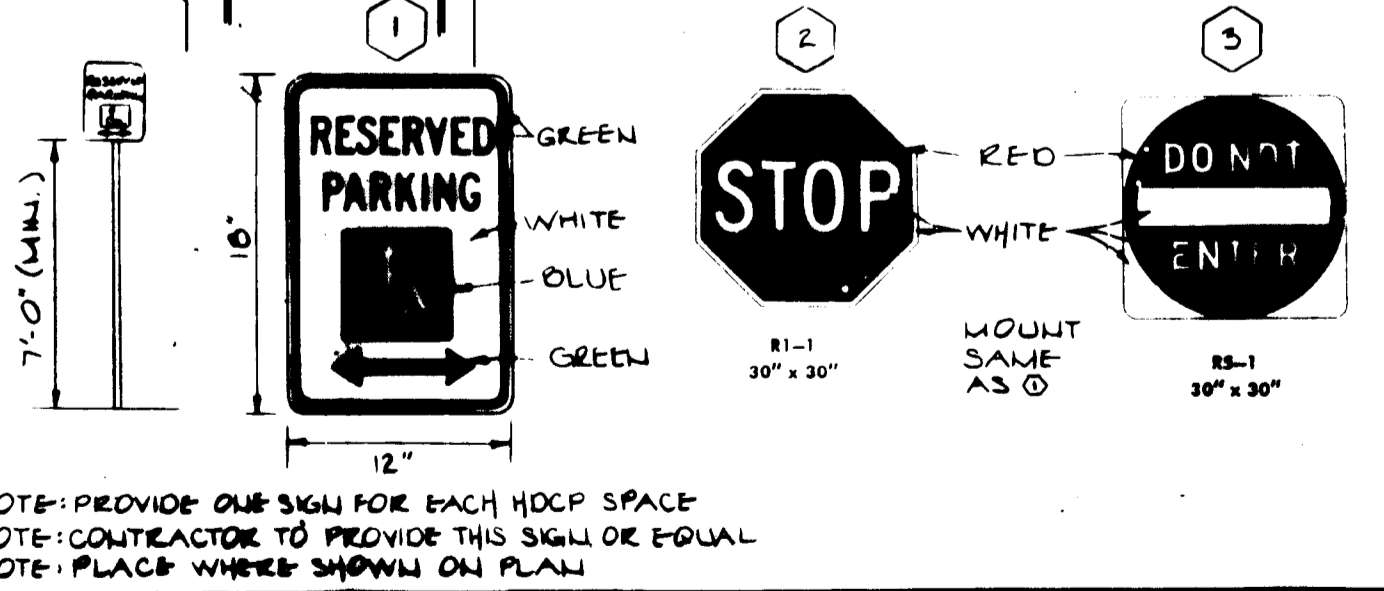
AREA OF SITE = 5.00 Ac. ±
 DISTURBED AREA = 209,090 S.F. = 4.00 Ac. ±
 AREA TO BE VEGETATIVELY STABILIZED = 96,335 S.F. = 2.21 Ac. ±

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 PLANNING DIRECTOR: [Signature] DATE: 7-2-84
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION: [Signature] DATE: 7-2-84

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND ROADS.
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 DIRECTOR: [Signature] DATE: 6-21-84
 CHIEF, BUREAU OF ENGINEERING: [Signature] DATE: 6-27-84

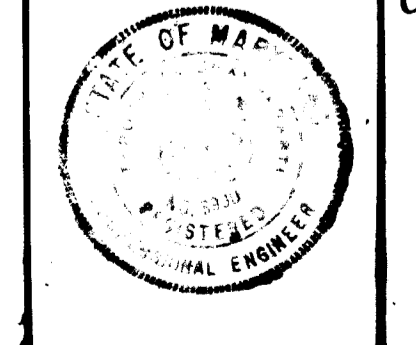
HOWARD SOIL CONSERVATION DISTRICT
 THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED: HOWARD SOIL CONSERVATION DISTRICT
 REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 SIGNATURE: [Signature] DATE: 6-5-84
 THE UNITED STATES SOIL CONSERVATION SERVICE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM
 HOWARD COUNTY HEALTH DEPARTMENT
 COUNTY HEALTH OFFICER: [Signature] DATE: 6-3-84



APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 4-18-84
 [Signature]

GEORGE WILLIAM STEPHENS JR. AND ASSOCIATES INC
 ENGINEERS
 303 ALLEGHENY AVE. TOWSON, MD. 21204
 (301) 825-8120



ENGINEER'S CERTIFICATE

I HEREBY 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.

DATE: 2/14/84

OWNER
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
 10275 LITTLE PATUXENT PARKWAY
 COLUMBIA, MARYLAND 21044
 702-6088

DEVELOPER
 M.O.R. JAVI PARTNERSHIP
 56 SOUTH CHARLES ST.
 BALTIMORE, MD. 21202
 787-0000

OWNER'S CERTIFICATE

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. I ALSO CERTIFY THAT ANY RESPONSIBLE PERSON 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 & EROSION BEFORE BEGINNING THE PROJECT.

BY: [Signature]
 DATE: 2/14/84

REVISED BY: [Signature]
 DATE: [Signature]

GRADING, EROSION & SEDIMENT CONTROL PLAN
 10270, 10280, 10290 OLD COLUMBIA ROAD
 PROPOSED R&D OFFICE BUILDINGS
 PARCEL 'D'
 RIVERS CORPORATE PARK
 SECTION I AREA I
 HOWARD COUNTY, MD.
 SCALE: 1" = 40' OR AS SHOWN
 PU. 4904 TAX MAP 41 & 42
 ELECTION DISTRICT #6
 FEBRUARY 13, 1984
 SHEET 3 OF 6
 S.D.P. 84-203 C

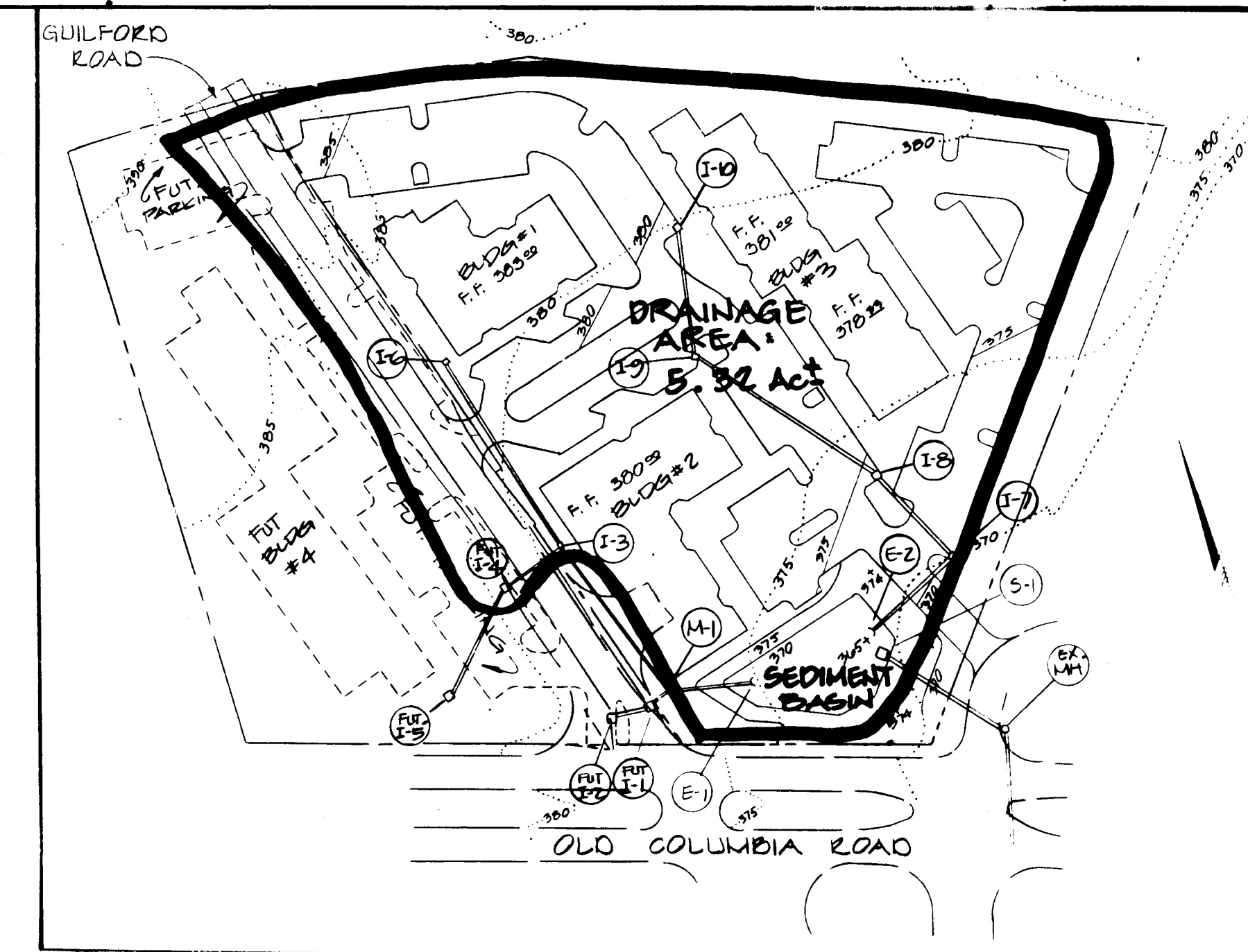
FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER: *[Signature]* DATE: 6-30-84
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR: *[Signature]* DATE: 7-2-84
CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
[Signature] DATE: 7-28-84
APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND ROADS.
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR: *[Signature]* DATE:
CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: 6-21-84
HOWARD SOIL CONSERVATION DISTRICT
THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
DISTRICT: *[Signature]* DATE: 6-5-84
APPROVED: HOWARD SOIL CONSERVATION DISTRICT
REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
SIGNATURE: *[Signature]* DATE: 6-5-84
THE UNITED STATES SOIL CONSERVATION SERVICE

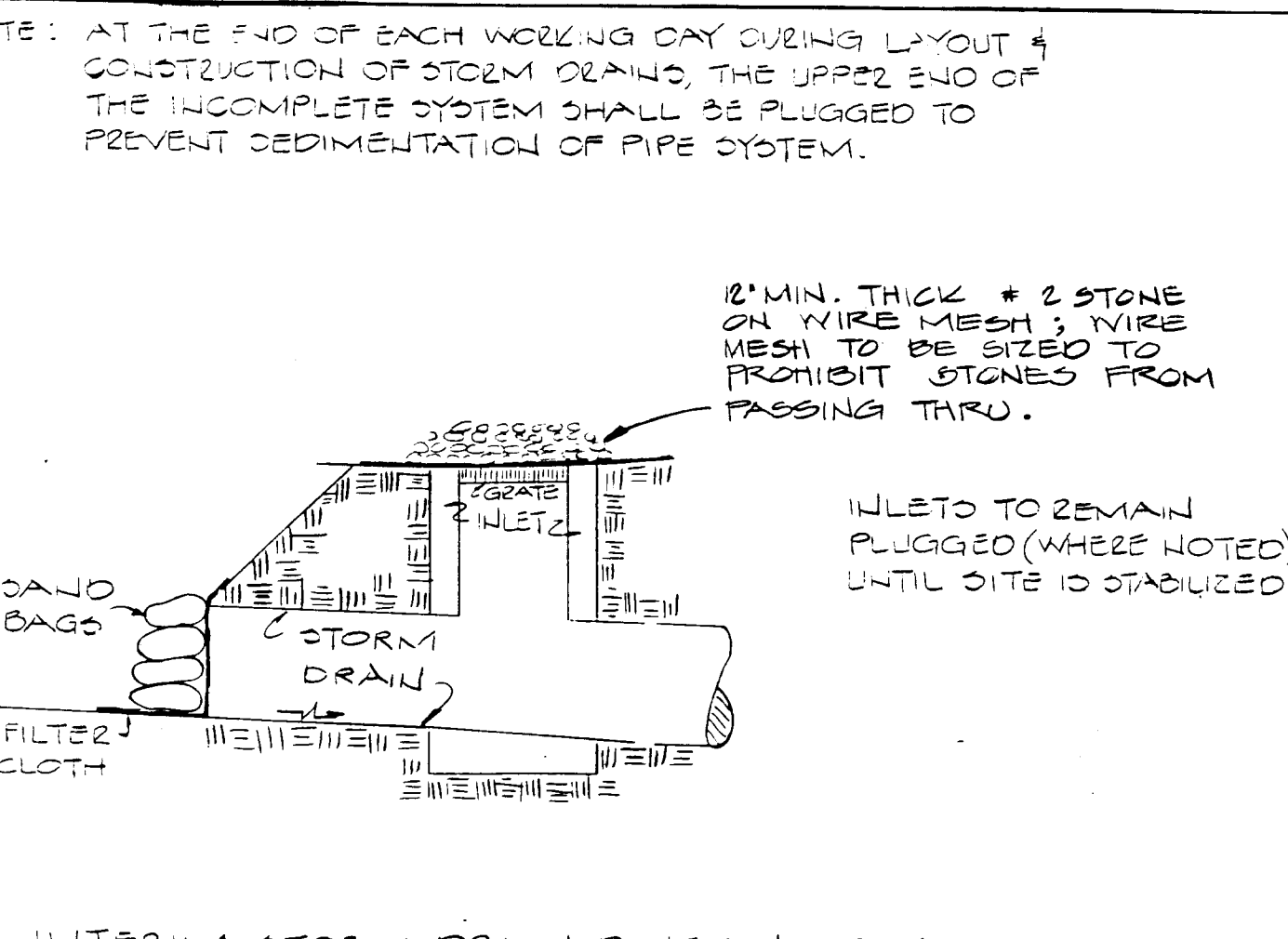
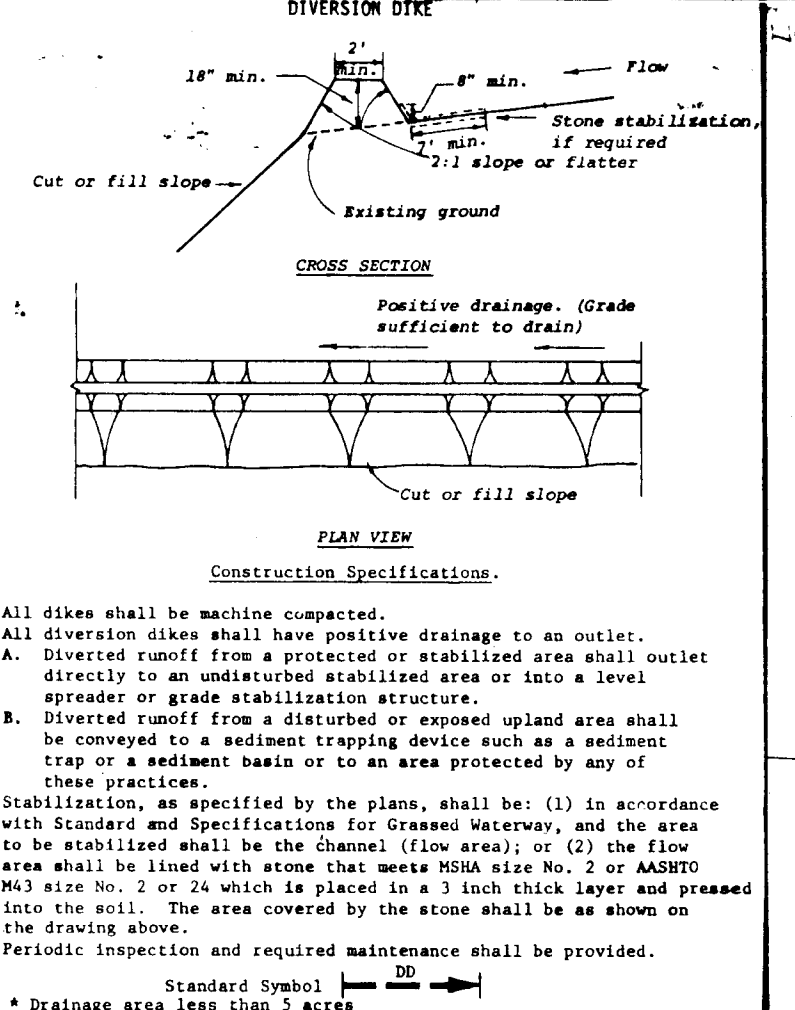
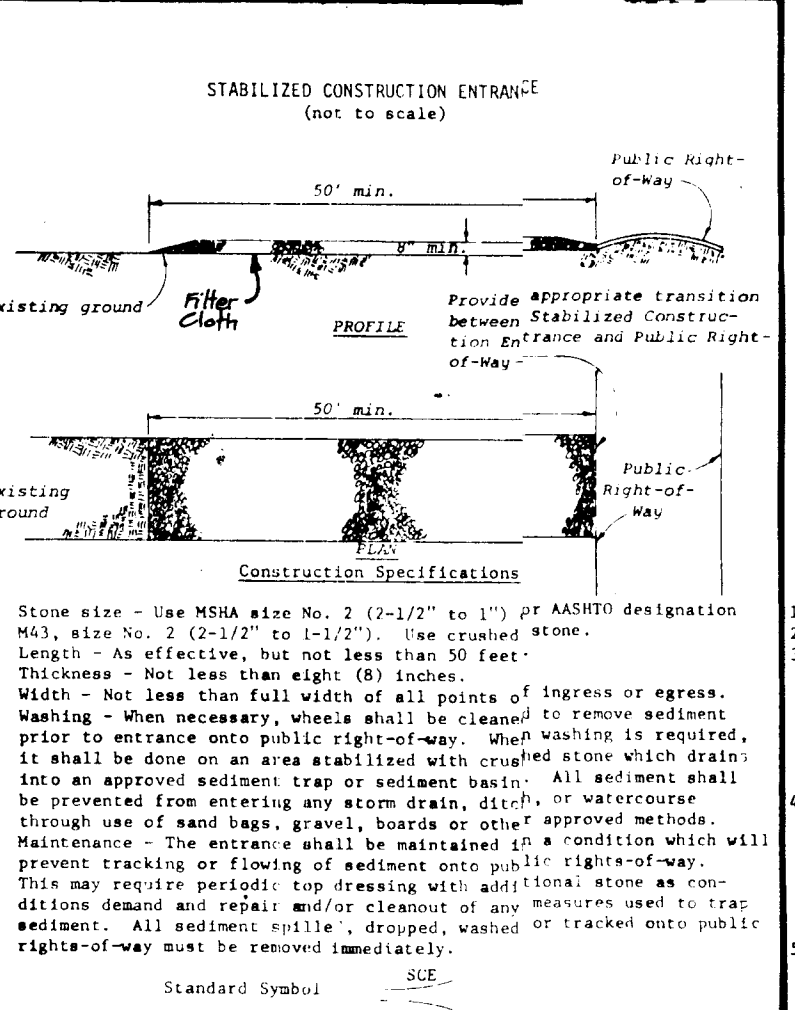
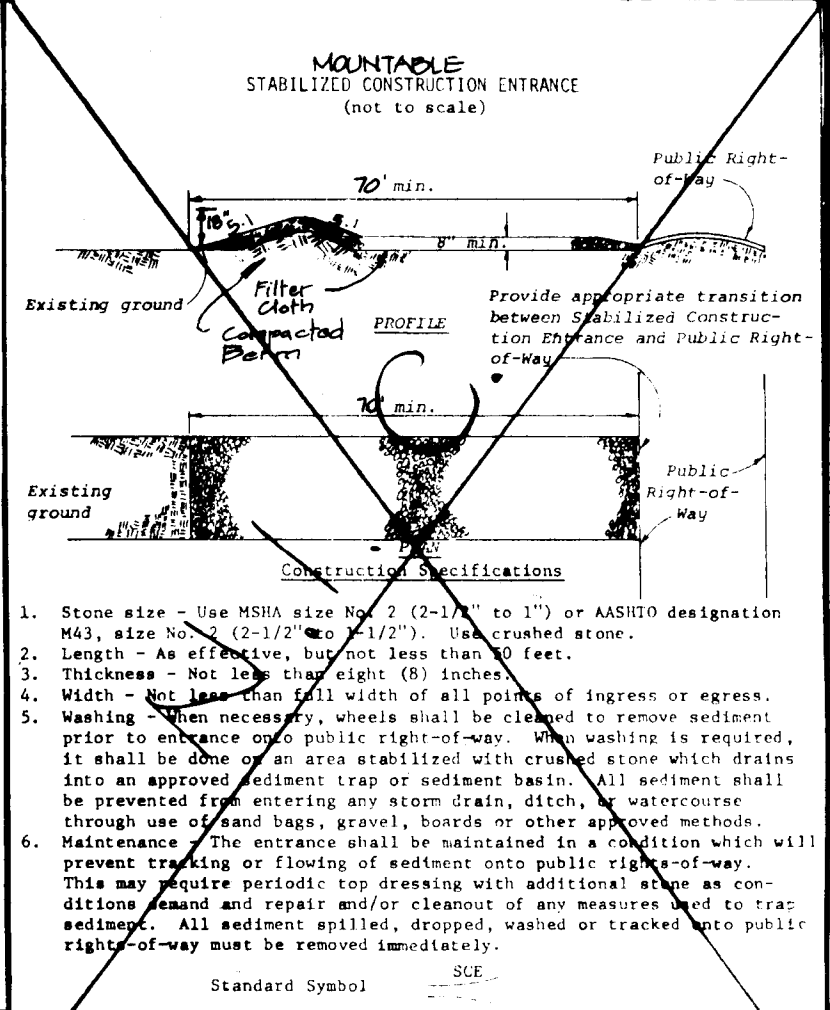
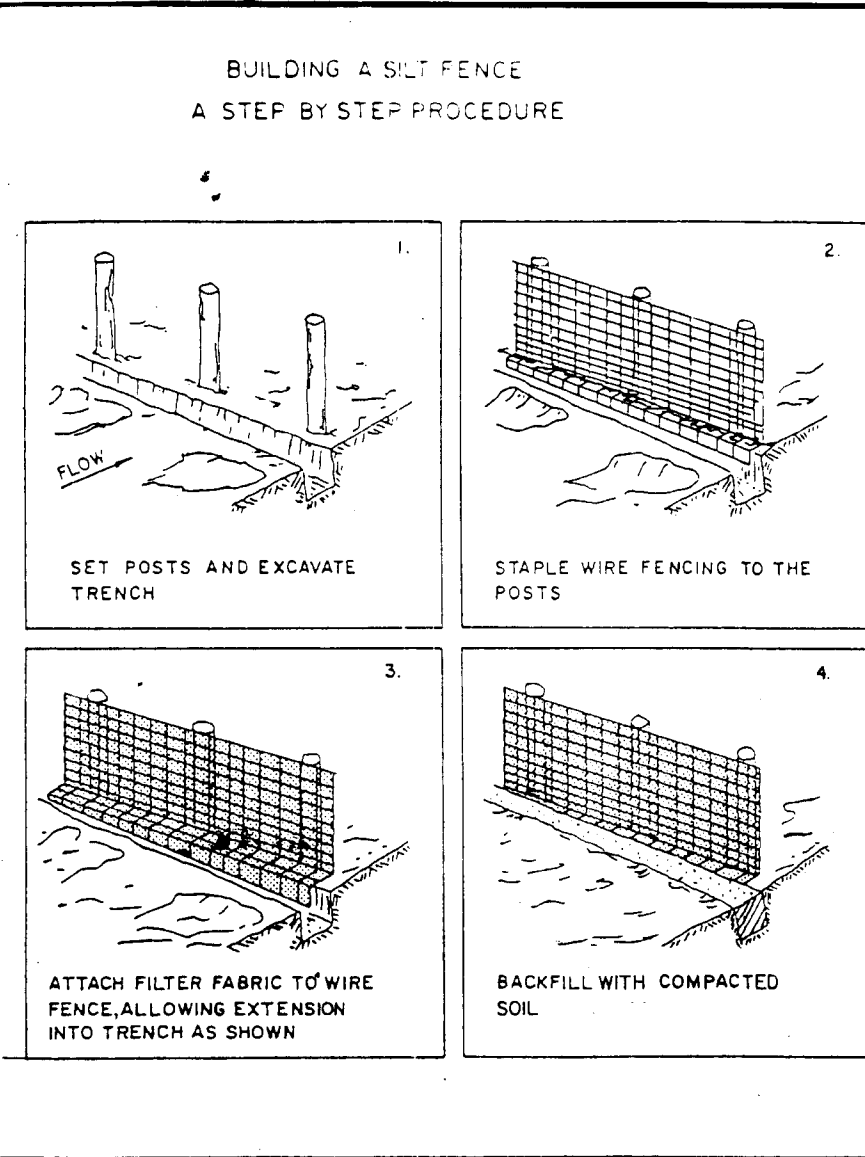
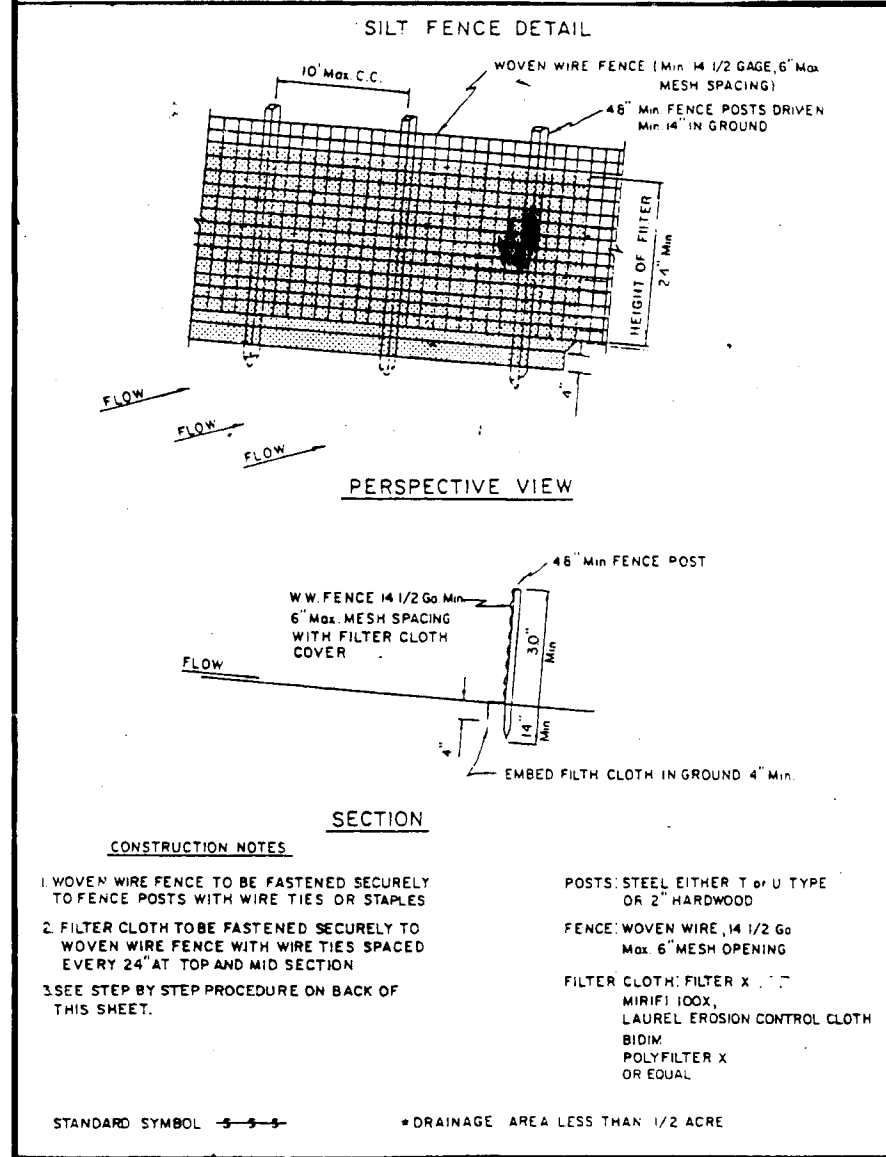
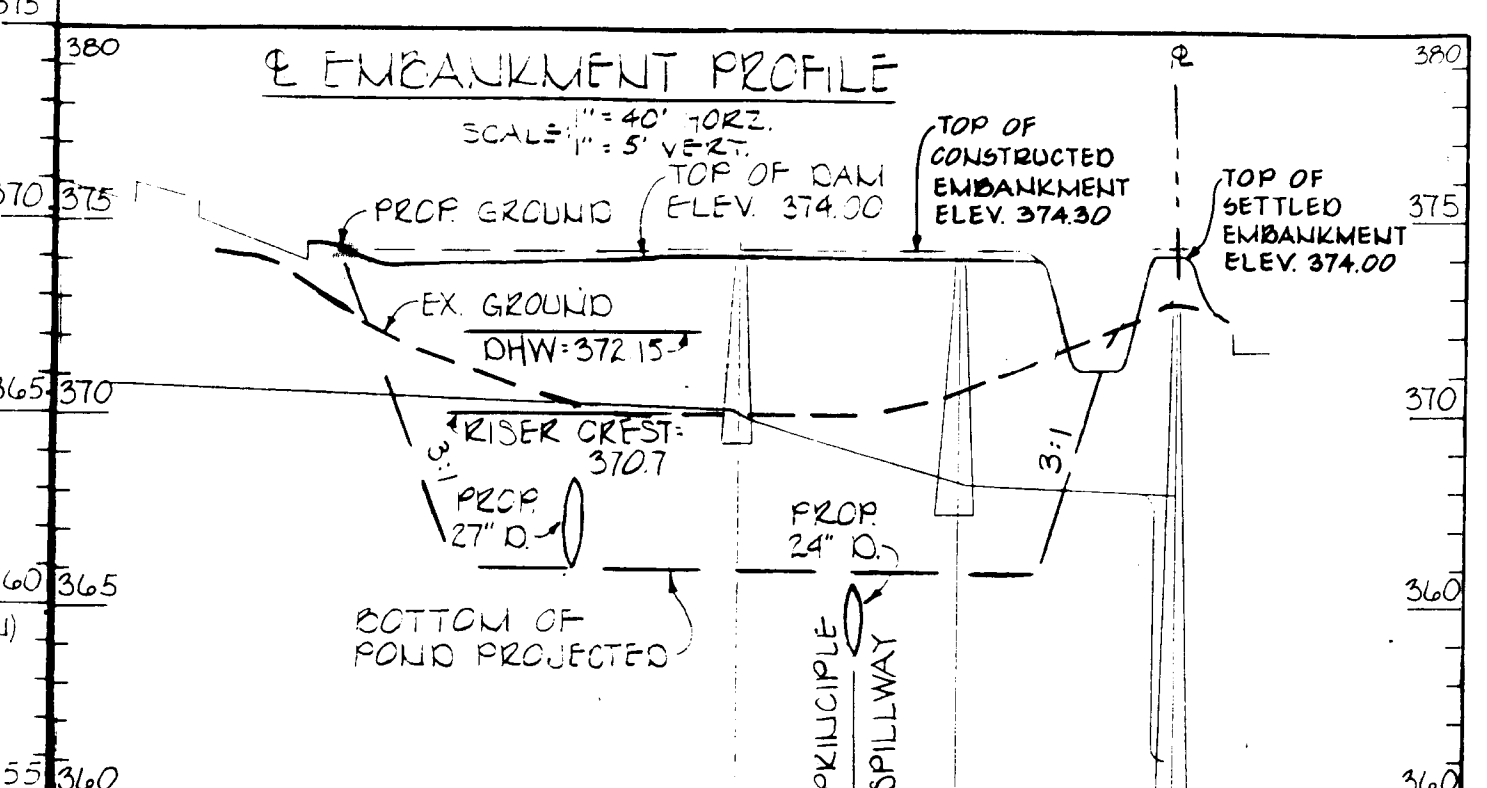
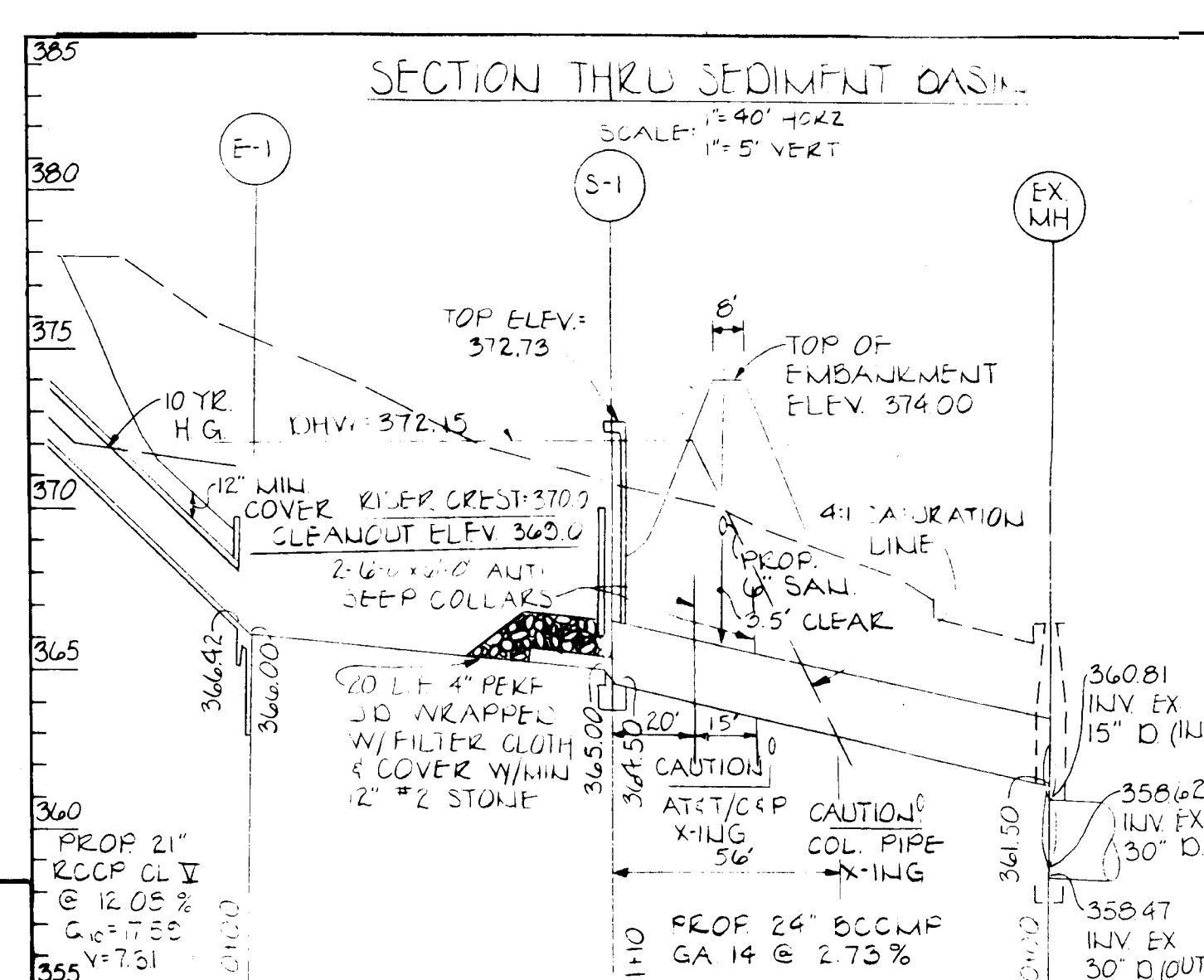
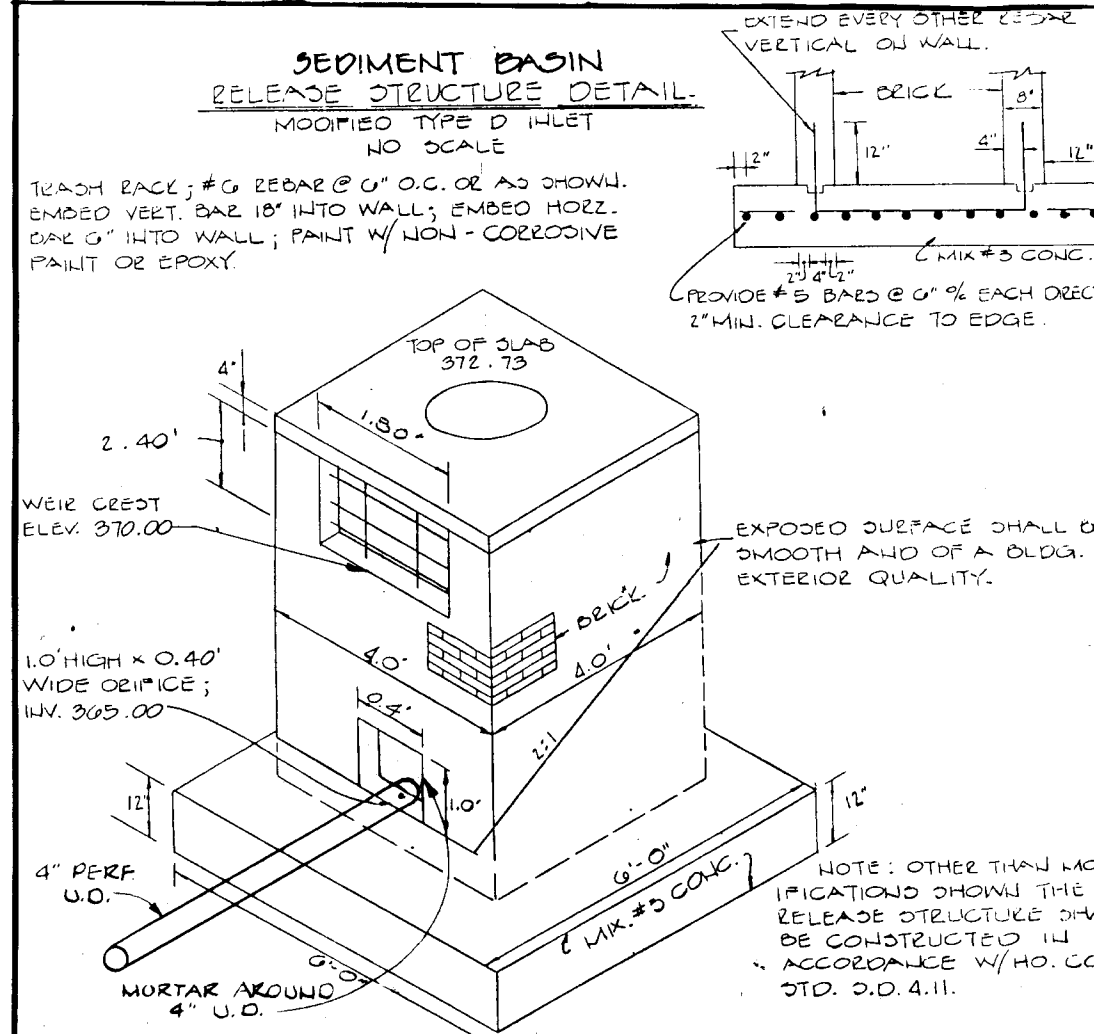
EROSION & SEDIMENT CONTROL
GENERAL NOTES

- Any change to the grading proposed on this plan requires it to be re-submitted to the Soil Conservation District.
 - All slopes 2:1 are to be stabilized with "Permanent Slope Seeding" immediately after grading operation (see note #13).
 - All other disturbed areas not intended to be paved or receive building coverage shall be stabilized with "Permanent Seeding" (see note #12).
 - Any damage to silt fences, sediment trap, sediment basin, etc. during grading operation or utility installation shall be repaired immediately.
 - The sediment basin shall be cleaned out when silt deposits reach elevations shown on the plan.
 - No sediment control measure shall be removed without permission from the Sediment Control Inspector.
 - Upon installation of storm drains, inlets shall be kept plugged until site is stabilized. Positive drainage must be maintained at all times.
 - During the layout of sediment control practices shown hereon, minor adjustments can and will be made to assure the arrest and control of any sediment before it leaves the construction site. These said changes require approval from the Sediment Control Inspector and the Soil Conservation District.
 - All site work is to be done in accordance with "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas", July 1975, and this plan of sediment control approved by the Howard Soil Conservation District and the Department of Public Works.
 - At the end of each working day, all sediment control measures will be inspected and left in operational condition.
- PERMANENT SEEDING:**
Seedbed Preparation: Loosen upper 3 inches of soil by raking, disking or other acceptable means before seeding.
Soil Amendments: Apply 2 T./Ac. (92 Lbs./1,000 S.F.) Dolomitic Limestone and 600 Lbs./Ac. (14 Lbs./1,000 S.F.) 0-20-20 fertilizer. Harrow or disc lime and fertilizer into upper 3 inches of soil. At time of seeding, apply 400 Lbs./Ac. (9.2 Lbs./1,000 S.F.) of 38-0-0 Ureaform fertilizer and 500 Lbs./Ac. (11.5 Lbs./1,000 S.F.) of 10-20-20 fertilizer.

- Seeding: For periods March 1-April 30 and August 1-October 15, seed with 60 Lbs./Ac. (1.4 Lbs./1,000 S.F.) of Kentucky 31 Tall Fescue. For the period May 1 - July 31, seed with 60 Lbs./Ac. of Kentucky 31 Tall Fescue and 2 Lbs./Ac. (0.5 Lbs./1,000 S.F.) of Weeping Lovegrass. During the period of October 16 - February 28, protect site by: Option (1) 2 T./Ac. of well anchored straw mulch and seed as soon as possible in the Spring. Option (2) Use sod. Option (3) Seed with 60 Lbs./Ac. of Kentucky 31 Tall Fescue and mulch with 2 T./Ac. well anchored straw.
- Mulching: Apply 1.5-2 T./Ac. (70-90 Lbs./1,000 S.F.) of unrotted, small grain straw immediately after seeding. Anchor mulch immediately after application using 200 Ga./Ac. (5 Ga./1,000 S.F.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 Ga./Ac. (8 Ga./1,000 S.F.) for anchoring.
- Maintenance: Inspect all seeded areas and make needed repairs, replacements and reseedings.
- PERMANENT SLOPE SEEDING:** Spread 4 inches of topsoil, seed shall be a mixture of 30% inoculated Crownvetch and 70% Kentucky 31 Tall Fescue applied at a rate of 60 Lbs./Ac. fertilizer and mulching shall be the same as Note #12 above.
- TEMPORARY SEEDING:**
Seedbed Preparation: See Note #12.
Soil Amendments: Apply 600 Lbs./Ac. (15 Lbs./1,000 S.F.) of 10-20-20 fertilizer.
Seeding: For periods March 1 - April 30 and from August 15 - November 15, seed with 2.5 Bu./Ac. (3.2 Lbs./1,000 S.F.) of Annual Rye. For the period May 1 - August 14, seed with 3 Lbs./Ac. (0.07 Lbs./1,000 S.F.) of Weeping Lovegrass.
Mulching: See Note #12.
- Disturbed earth left idle for more than 30 days shall be stabilized with temporary seed and mulch (see note #14).
- SOD SPECIFICATION (USE WHERE SPECIFIED BY LANDSCAPE ARCHT)**
Sod shall be K-31 Sod which has not been cut and rolled more than 2 days in advance; all sod shall be fastened securely with at least 2 stakes not more than 2 feet apart with the flat side against the slope and stake flush with top of sod; sod "bed preparation" and "soil amendments" shall be in accordance with General Note #12.



DRAINAGE AREA
MAP
1" = 100'



GEORGE WILLIAM STEPHENS JR. AND ASSOCIATES INC
ENGINEERS
303 ALLEGHENY AVE. TOWSON, MD. 21204
(301) 825-8120

ENGINEER'S CERTIFICATE
I HEREBY 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] REG. NO. 8930 DATE: 2-14-84

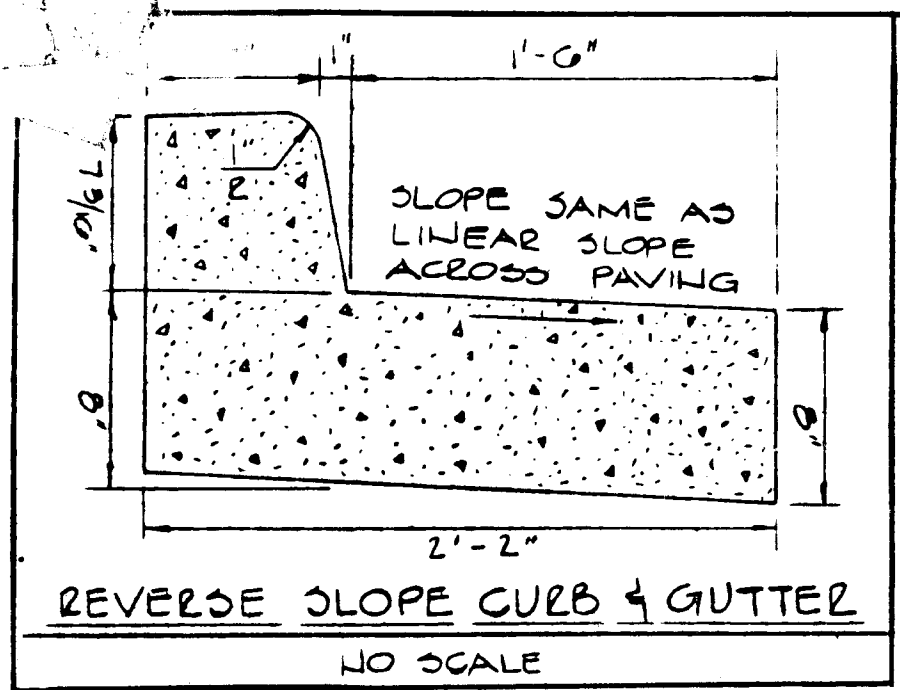
OWNER
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
202-6033
DEVELOPER
M.O. R. JAZZI PARTNERSHIP
36 SOUTH CHARLES ST.
BALTIMORE, MD. 21202
727-0000

OWNER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY. I ALSO CERTIFY THAT ANY RESPONSIBLE PERSON 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 EROSION BEFORE BEGINNING THE PROJECT.
BY: *[Signature]* DATE: 2/13/84

DESIGNED BY: *[Signature]*
DRAWN BY: *[Signature]*
CHECKED BY: *[Signature]*
REVISIONS

EROSION & SEDIMENT CONTROL PROFILES & DETAILS FOR
10270, 10280 & 10290 OLD COLUMBIA ROAD
PROPOSED R&D OFFICE BUILDINGS
PARCEL 'D'
RIVERS CORPORATE PARK
SECTION I AREA I
HOWARD COUNTY, MD.
SCALE: 1" = 40' OR AS SHOWN
S.U. 2991 TAX MAP 41-1-42
ELECTION DISTRICT #6
FEBRUARY 13, 1984
SHEET 4 OF 5
SDP 89-200 C

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 4-18-84
[Signature]



NOTE: REVERSE SLOPE CURB & GUTTER TO BE USED WHERE THE PAVEMENT SLOPED AWAY FROM THE FACE OF CURB; TRANSITION FROM STANDARD GUTTER TO REVERSE GUTTER SO NOT TO TRAP WATER

ELK RIDGE, MD. 21227 796-4195
REV. 5-24-84

PLANT LIST

KEY NO	PLANT NAME	SIZE	REMARKS
27	ACER RUBRUM 'RED SUNSET' RED MAPLE	2 1/2 - 3 CAL 8-14 HT.	BIB. HEAVY
15	ZELKOVA SERRATA 'VIL. GRN' ZELKOVA 'VIL. GREEN'	"	BIB. HEAVY
21	QUERCUS PALLISTRIS PIN OAK	"	"
5	FRAXINUS PLANCEOLATA GREEN ASH	"	"
10	TILIA CORDATA LITTLE LEAF LINDEN	"	"
6	ACER PLATANOIDES NORWAY MAPLE	"	"
5	SALIX BABYLONICA BAB. WEeping WILLOW	"	"
7	PRUNUS SERRULATA KWANZAN KWANZAN CHERRY	2-2 1/2 CAL 8-10 HT.	"
13	MALUS RADIANT RADIANT CRABAPPLE	"	"
8	PRUNUS C. THUNDERCLOUD PURPLE LEAF FL. PLUM	"	"
7	MALUS SNOWCLOUD SNOWCLOUD CRABAPPLE	"	"
11	MALUS PINK PERFECTION PINK PERFECTION CRABAPPLE	"	"
9	TSUGA CANADENSIS CANADA HEMLOCK	6-8 HT.	"
33	PINUS THUNBERGI JAP. BLACK PINE	6-8 HT.	"
38	PINUS STROBILIFERA WHITE PINE	6-8 HT.	"

NOTE: ALL PLANTING TO COMPLY WITH HED PLANTING SPECIFICATIONS. CONTRACTOR TO VERIFY UNDERGROUND UTILITIES BEFORE DIGGING.

- The contractor shall verify all existing utilities to his own satisfaction before starting construction.
- All slopes shall be 2:1 or flatter.
- All work shall be done in accordance with Howard County Standard Specifications and Details for Construction, or as shown on these plans.
- The contractor shall notify the C & P Telephone Co. and the Gas and Electric Company five days prior to starting work shown on these plans by calling "Miss Utility". Call collect 1-559-0100.
- For details of ramps and signs for the handicapped see the Maryland Building Code for the Handicapped and Aged as shown herein.
- The contractor shall maintain a minimum of 3.5' cover over all proposed water lines.
- All rip-rap shall be placed on filter cloth.
- The contractor or developer shall contact the Construction Inspection/Survey Division, 24 hours in advance of commencement of work at 992-2417 or 792-7272.
- The contractor shall remove all existing paving, curb and gutter, etc. that may interfere with proposed construction.
- All utilities installed shall receive full trench compaction.
- All water main tees, bends, caps, etc. shall be buttressed in accordance with Howard County Design requirements.

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
DATE: 6-11-84

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS, AND ROADS.
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR: [Signature] DATE: 6-11-84
CHIEF, BUREAU OF ENGINEERING: [Signature] DATE: 6-27-84

HOWARD SOIL CONSERVATION DISTRICT
THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
DATE: 6-5-84

APPROVED: HOWARD SOIL CONSERVATION DISTRICT
REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
DATE: 6-5-84

SIGNATURE: [Signature] DATE: 6-5-84
THE UNITED STATES SOIL CONSERVATION SERVICE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEM
HOWARD COUNTY HEALTH DEPARTMENT
DATE: 6-5-84

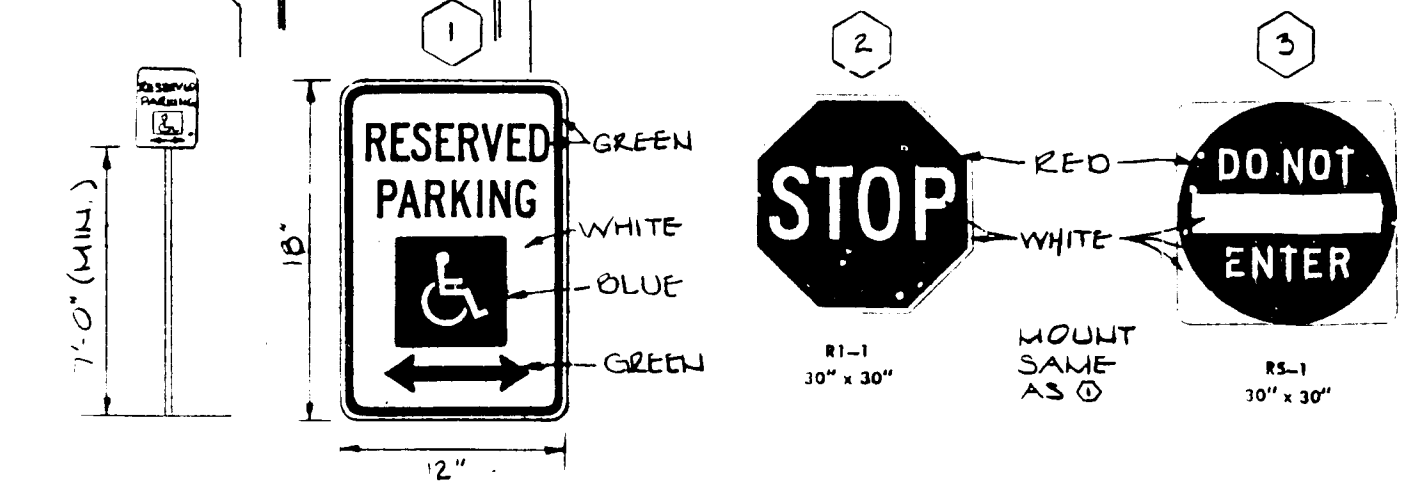
COUNTY HEALTH OFFICE [Signature] DATE: 6-5-84
These plans have been reviewed by the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control.

U.S. Soil Conservation Service
DATE: 6-5-84
These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District.

APPROVED: [Signature] DATE: 6-5-84
Howard Soil Conservation District

LANDSCAPE ARCHITECT
WIGAND & THEIMER REG #434

PLAN
1" = 40'



NOTE: PROVIDE ONE SIGN FOR EACH HOCP SPACE
NOTE: CONTRACTOR TO PROVIDE THIS SIGN OR EQUAL
NOTE: PLACE WHERE SHOWN ON PLAN

LEGEND

- 372 --- INDICATES EX. CONTOURS
- 72 --- INDICATES PROP. CONTOURS
- --- INDICATES EX. CURB & GUTTER
- --- INDICATES PROP. CURB & GUTTER
- --- INDICATES PROP. PAVING
- --- INDICATES PROP. CONC. WALKS
- --- 5' WIDE x 6" THICK, MIX 2" CONC. HQ. CO. STD. R.S.O.S
- --- INDICATES SIGN - (SEE DETAIL THIS SHEET)
- --- INDICATES NUMBER OF PARKING SPACES
- --- INDICATES PARKING SPACE RESERVED FOR THE HANDICAPPED.

APPROVED: [Signature] DATE: 4-18-84
REV. 5-24-84

GEORGE WILLIAM STEPHENS JR. AND ASSOCIATES INC
ENGINEERS
303 ALLEGHENY AVE. TOWSON, MD. 21204
(301) 825-8120

OWNER
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION
10275 LITTLE PATUXENT PARKWAY
COLUMBIA, MARYLAND 21044
702-6033

DEVELOPER
M.O.R. XXVI PARTNERSHIP
30 SOUTH CHARLES ST.
BALTIMORE, MD. 21202
727-0000

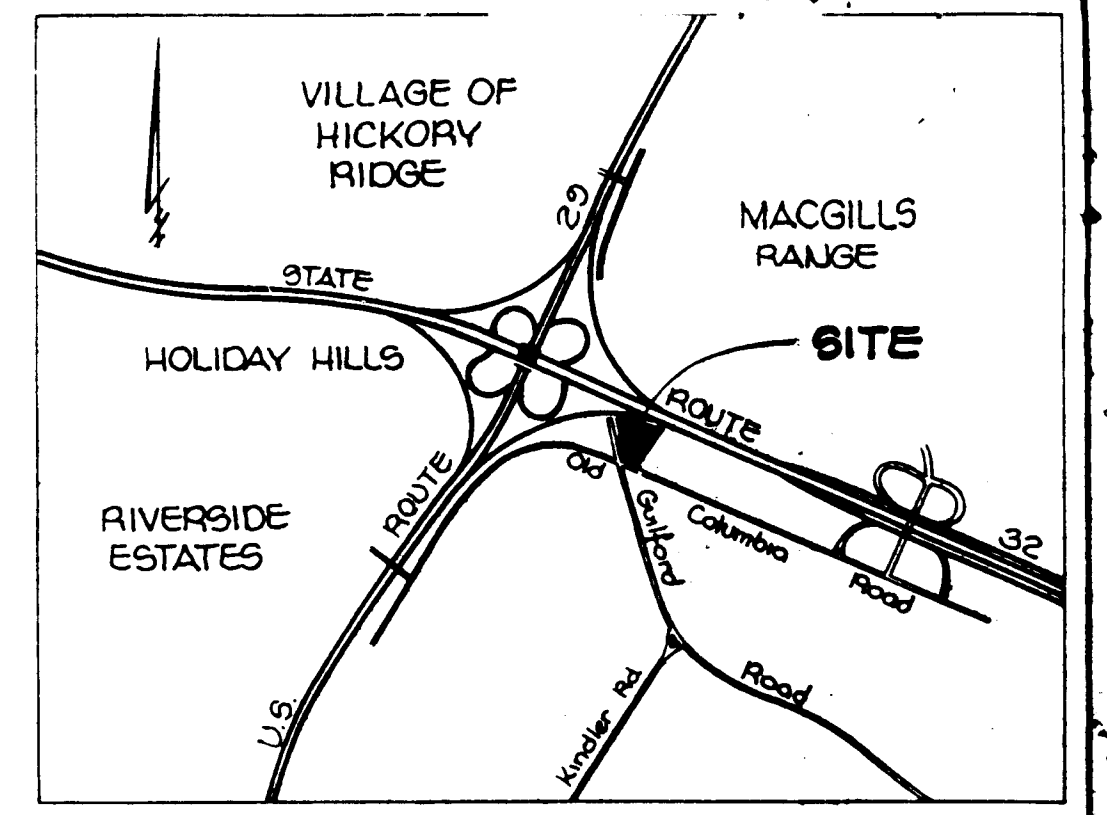
DEVELOPER'S CERTIFICATE
"I hereby certify that all development and/or construction will be done according to these plans of development, pond construction and erosion and sediment control. I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary. Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District. I will provide the Howard Soil Conservation District with a red-lined "as-built" of the pond within 30 days of completion."
[Signature] DATE: 2/12/84

DES: RWR
DWA: T.H.
CHK: T.C.
REVISIONS

REVISIONS

HOWARD COUNTY, MD.
SCALE 1" = 40' OR AS SHOWN
RU. 4901 TAX MAP 41 & 42

ELECTION DISTRICT #6
MARCH 19, 1984
SHEET 19 OF 5



VICINITY MAP
SCALE: 1" = 2000'

SITE DATA

Area of Site = 5.0031 Ac. ±
Area of Submittal = 5.0031 Ac. ±
Area to be Vegetatively Stabilized = 96335 S.F. = 2.21 Ac. ±
Floor Area = Bldg. #1 10,890 S.F.
Bldg. #2 16,800 S.F.
Bldg. #3 17,060 S.F.
44,750 S.F.

Floor Area to Site Ratio:
1.03 Ac. / 5.00 Ac. ± = 20.6%

Percentage of Open Space:
96,335 S.F. = 44%

Existing Zoning = N.T. (P.D.P. 184-A) Industrial
Proposed building use = office for research and development

Title Reference: Plat entitled:
Section I, Area I
Parcel 'D'
P.82-28
Plat #5078
12-18-81

Parking Required = 150 employees;
7 P.S./10 emp. = 105 P.S. (5 reserved for Hdcp)

Parking spaces provided = 172 (8 reserved for Hdcp)

STORM WATER MANAGEMENT

CONSTRUCTION SPECIFICATIONS

- SITE PREPARATION:** The submittal area (fill) and borrow area shall be cleared and graded to remove all topsoil, vegetation, roots and other objectionable material. The borrow area shall be removed and the borrow area shall be removed and stabilized, the borrow area shall be replaced with the same material.
- EROSION CONTROL:**
 - Material: The fill material shall be obtained from the pond excavation. It shall be free from roots, stumps, weed, rubbish, oversize stones, frozen or other objectionable materials. The submittal area shall be constructed to the elevations shown on the plan to allow for anticipated settlement.
 - Placement: Areas on which fill is to be placed, shall be smoothed prior to placement of fill. Fill material shall be placed in 4" max. thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous bottom material shall be placed in the downstream portion of the submittal area.
 - Compaction: The placement of the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one third track of the equipment or compaction shall be achieved by a minimum of four (4) complete passes of a vibratory roller. Fill material shall contain sufficient moisture so that it can be formed into a ball without crumbling.
- STRUCTURAL SPECIFICATIONS:** Best fill material shall be of the type and quality conforming to that specified for the submittal fill material. The fill shall be placed in horizontal layers not to exceed 4" in thickness and compacted by hand tamping or manually directed power tamper on place vibrator. At no time during handling operations shall heavy equipment be allowed to operate on fill until it has been compacted horizontally to any part of the structure. Under no circumstances shall the contractor be allowed to operate any kind of equipment on the structure or fill.
- PIPE COULDS:** Unless pipe - this pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of ASCE Specification for Pipe with a minimum of 10 mils. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.
- CONCRETE:** Concrete shall meet the minimum requirements set forth in the Maryland State Road Commission Specifications for Materials, Highways, Bridges, and Incidental Structures, Article 16.07 Portland Cement Concrete #3.
- STABILIZATION:** The storm water management facility shall be established in accordance with the approved Erosion and Sediment Control Plan.