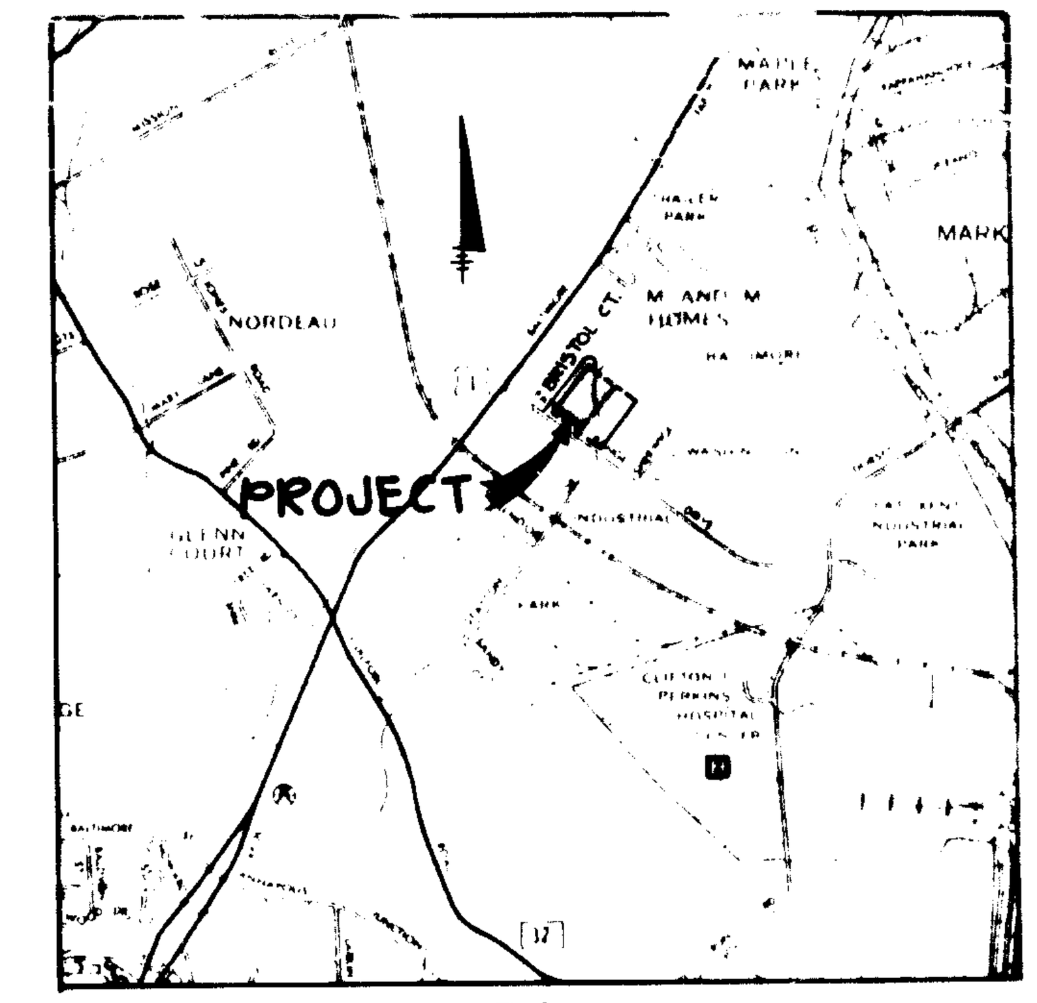
SHEET INDEX

NO.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	DETAILS AND PROFILES
4	DRAINAGE AREA MAP AND SEDIMENT CONTROL PLAN
5	STORM WATER MANAGEMENT NOTES AND DETAILS
6	SEDIMENT CONTROL DETAILS
7	PLANTING PLAN

SITE DEVELOPMENT PLAN
PARCEL G-2
BALTIMORE WASHINGTON INDUSTRIAL PARK
SECTION 1 BLOCK E
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND



VICINITY MAP

GENERAL NOTES

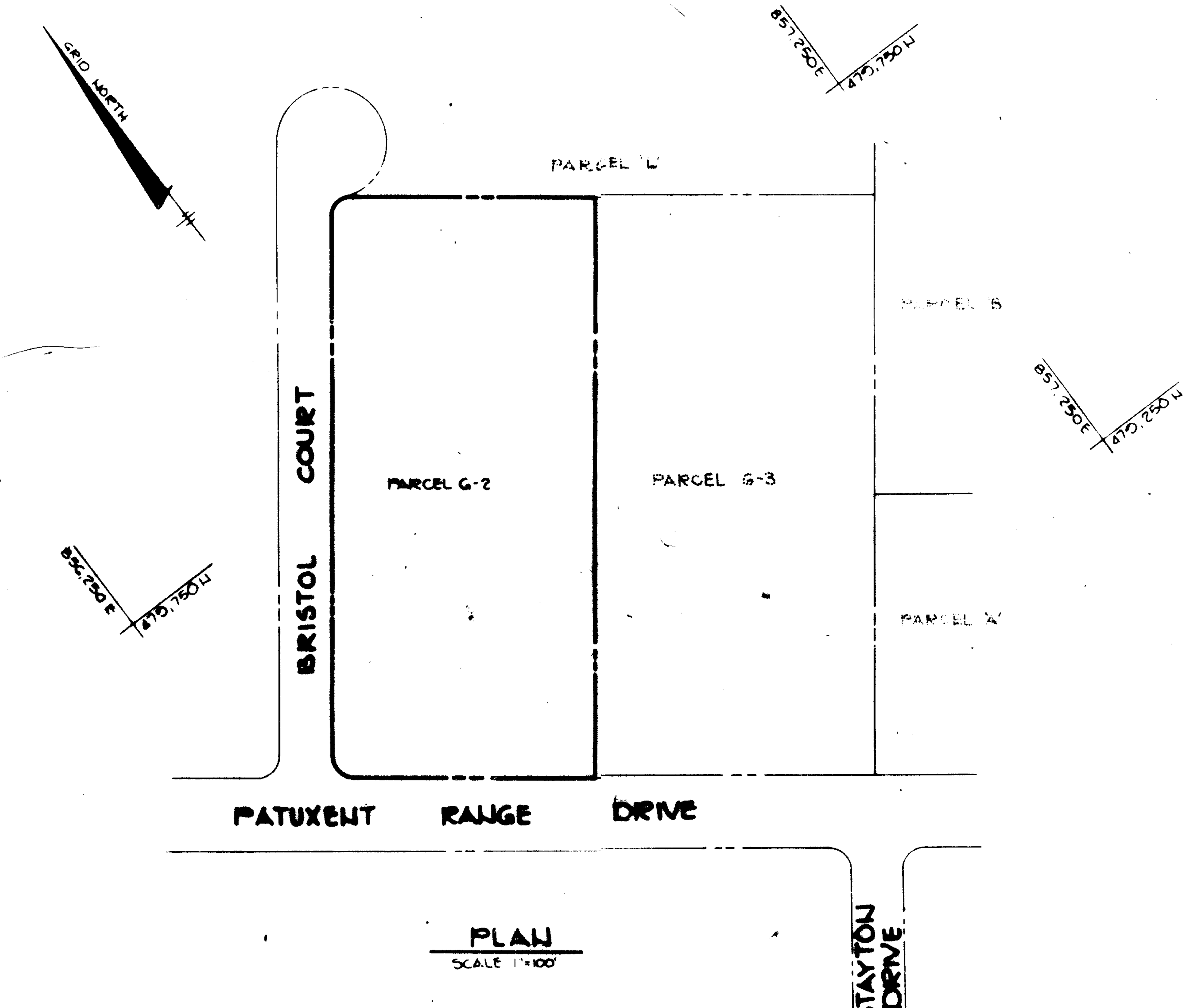
1. ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
2. CORRUGATED STEEL PIPE SECTIONS WILL BE JOINED WITH A SINGLE OR TWO PIECE CORRUGATED BAND WITH A WATERTIGHT NEOPRENE GASKET. DIMPLE BAND CONNECTORS WILL NOT BE PERMITTED.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, ... STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
4. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES , WHERE DIRECTED BY THE ENGINEER, A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS.
6. CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEASE FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:

MISS UTILITY	559-0100
C & P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	992-2366
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS AND ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
HOWARD COUNTY CONSTRUCTION INSPECTION SURVEY DIVISION (24 HOURS NOTICE PRIOR TO COMMENCEMENT OF WORK)	792-7272

7. ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
8. ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
9. THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
10. PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
11. NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.
12. TOPO TAKEN FROM FIELD RUN SURVEY DATED FEBRUARY , 1984 BY THE RIEMER GROUP INC.
13. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
14. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4 IN VOLUME I OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

SITE TABULATION

ZONING	M-2
TOTAL AREA	4.569 AC. (199,008 SF.)
BUILDING COVERAGE (145' x 525')	76,125 SF. (40%)
PARKING	
11,400 SF. OFFICE USE at 1 PERSON/150 SF. = 76 EMPLOYEES at 7 CAR/10 EMPLOYEES	= 54 SPACES
64,725 SF. WAREHOUSE USE at 65 EMPLOYEES/MAJOR SHIFT at 1 CAR/2 EMPLOYEES	= 33 SPACES
TOTAL REQUIRED	87 SPACES
PARKING PROVIDED	110 SPACES
OPEN SPACE REQUIRED	39,802 SF. (20%)
OPEN SPACE PROVIDED	50,984 SF. (25%)



PLAN
SCALE 1"=100'

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER — 12-21-84 DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Acting PLANNING DIRECTOR — 12-26-84 DATE
Acting CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — 12-26-84 DATE

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
DIRECTOR — 12-18-84 DATE
CHIEF, BUREAU OF ENGINEERING — 12-17-84 DATE

DATE	NO	REVISION

OWNER DEVELOPER
B.W.I.P. WAREHOUSE NO. 5
LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND, 21044

PROJECT
B.W.I.P. PARCEL G-2
S. 1 BLK. E

AREA TAX MAP NO. 48 PARCEL G-2
BALTIMORE WASHINGTON INDUSTRIAL PARK
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE TITLE SHEET

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 10-24-84

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-20-84
DATE

STATE OF MARYLAND
REGISTERED PROFESSIONAL ENGINEER

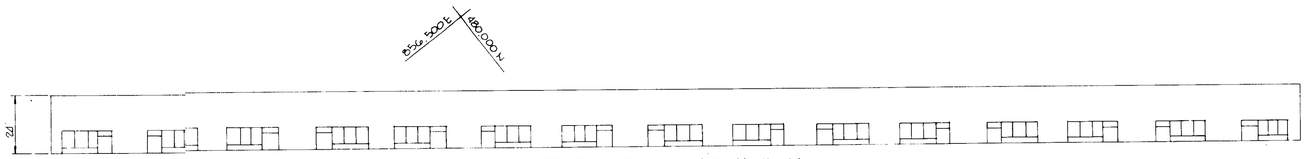
DESIGNED BY J.K.B.
DRAWN BY DAM
PROJECT N 006400
DATE 8-20-84
SCALE AS SHOWN
DRAWING NO 1 OF 7

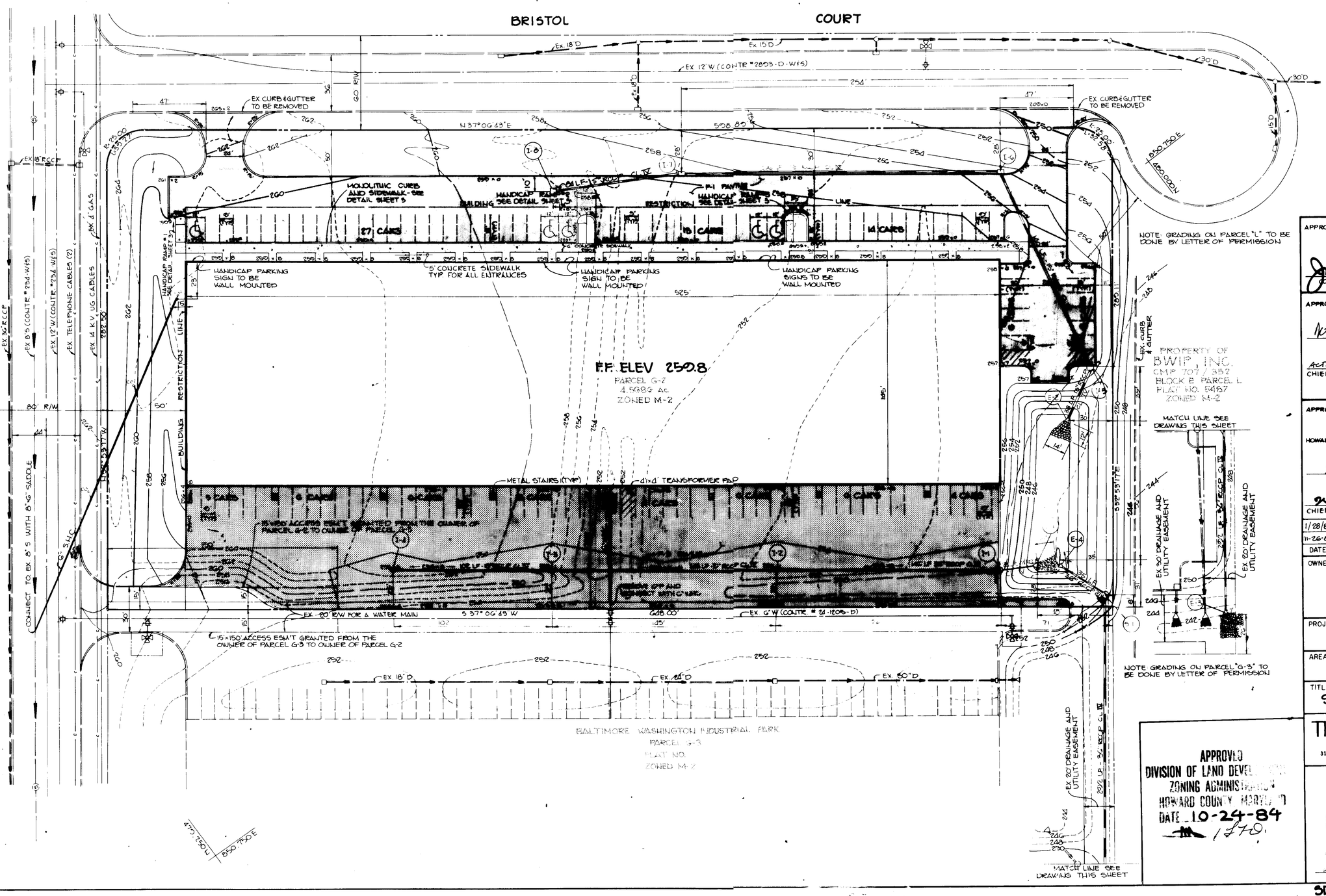
ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
PARCEL G-2	8382 BRISTOL COURT

SUBDIVISION NAME	SECT./AREA	LOT/PARCEL
BALTIMORE - WASHINGTON INDUSTRIAL PARK	SECTION 1 BLOCK E	G-2

PLAT	BLOCK	ZONE	TAX/ZONE MAP	ELEC. DIST.	CENSUS TR.
	1	M-2	48	6	6064

WATER CODE
SEWER CODE





APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER — DATE 12-21-84

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

PLANNING DIRECTOR — DATE 12-26-84

ACTING CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 12-26-84

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 12-18-84

CHIEF, BUREAU OF ENGINEERING — DATE 12-17-84

DATE	NO	REVISION
1/28/87	2	REVISED S.W.M. GRADING
11-26-85	1	ADDED 84 LF-15" RCCP CL IV

OWNER/DEVELOPER

BWI WAREHOUSE #3
LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21044

PROJECT
B.W.I.P PARCEL G-2
S.I. BLK. E

AREA TAX MAP NO. 48 PARCEL G-2
BALTIMORE WASHINGTON INDUSTRIAL PARK
6TH ELECTION DISTRICT
HOWARD COUNTY MARYLAND

TITLE
SITE DEVELOPMENT PLAN

APPROVED
DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
HOWARD COUNTY MARYLAND
DATE 10-24-84

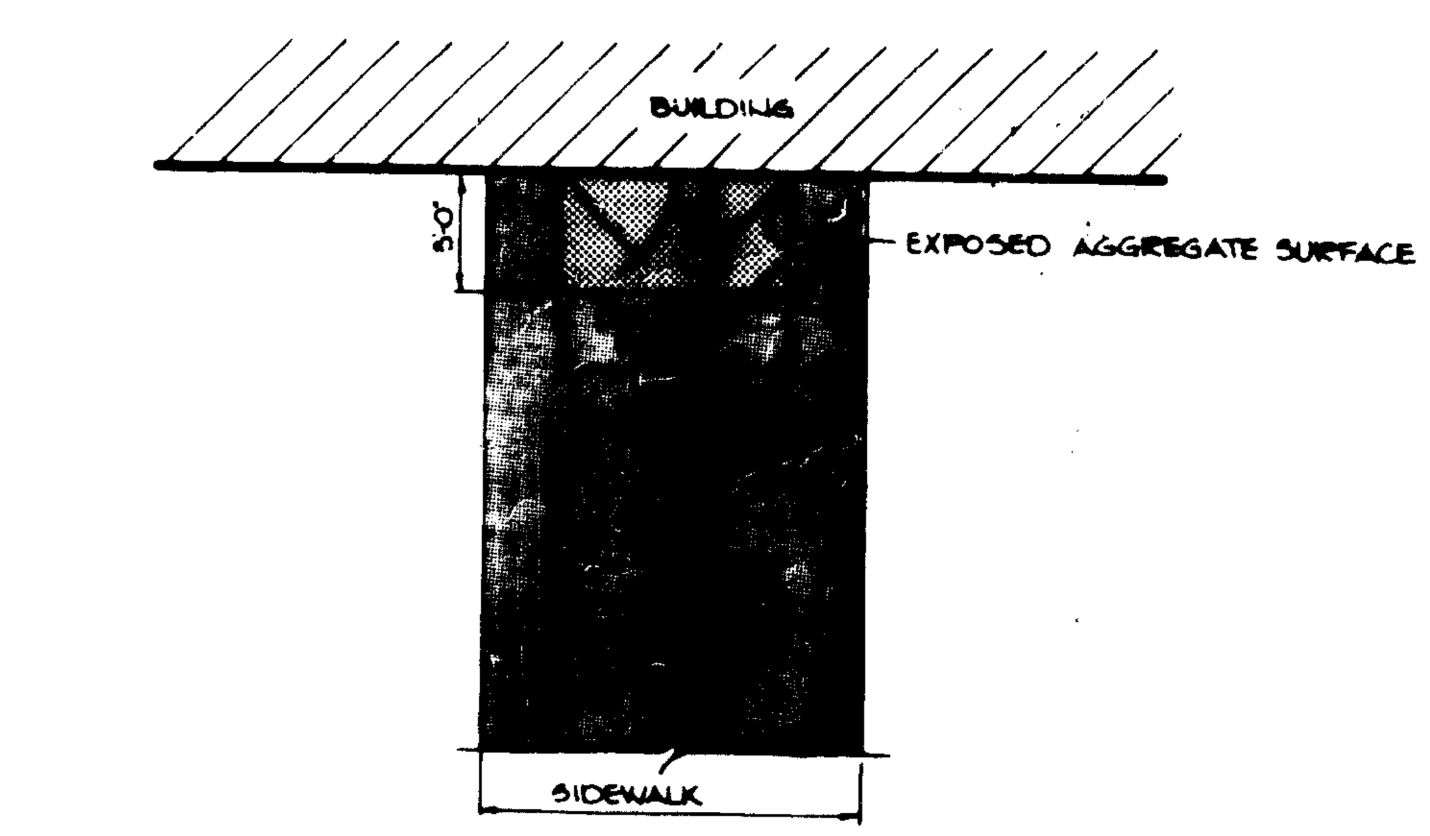
THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 WEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2890

8.20.84
DATE

STATE OF MARYLAND — MATTHEW E. RIEMER — NO. 8197 REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY	J.K.B.
DRAWN BY	J.M.G.
PROJECT NO	006400
DATE	8-20-84
SCALE	1"=30'
DRAWING NO	2 OF 7

SDP-85-42



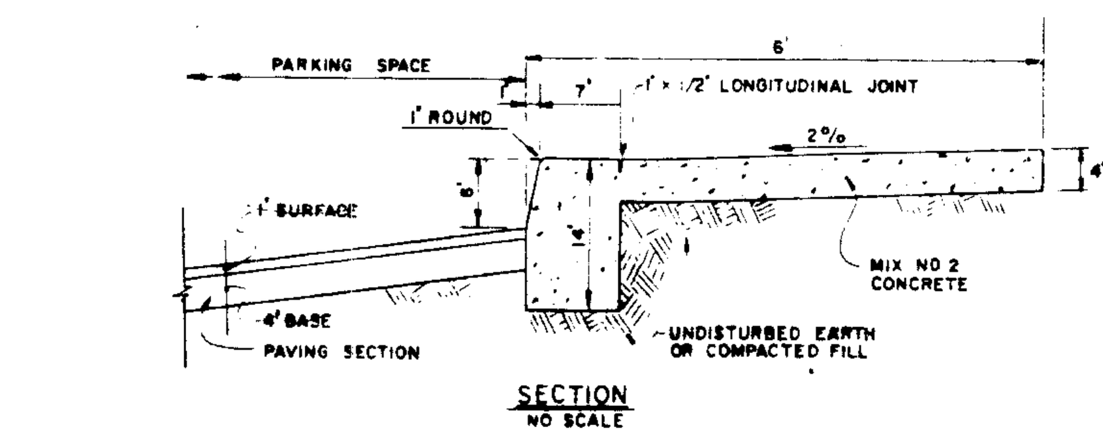
DETAIL BUILDING ENTRANCE TEXTURAL INDENTIFICATION FOR THE BLIND

NO SCALE

NOTE: TO BE USED FOR ALL BUILDING ENTRANCES EXCEPT THOSE THAT ARE EXCLUSIVELY FIRE EXITS

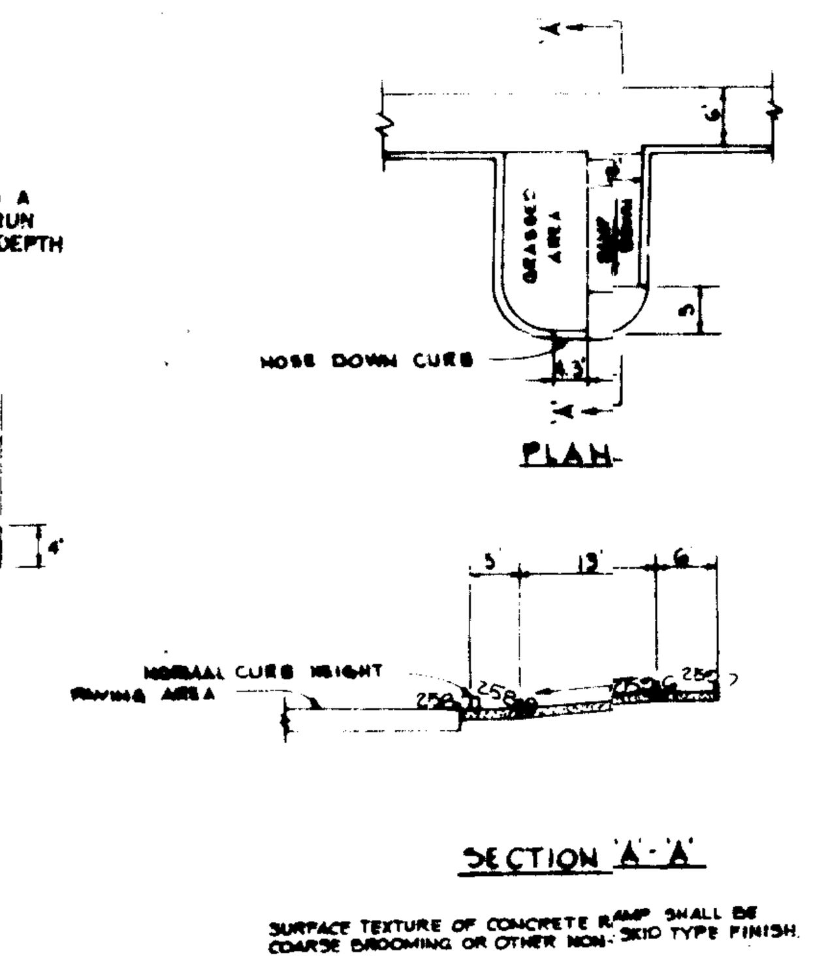
NOTES

1. LONGITUDINAL JOINT BETWEEN SIDEWALK AND CURB SHALL BE CONTINUOUS AND TO A DEPTH OF 1/4 THE SIDEWALK THICKNESS OR 1" MAX. LATITUDINAL JOINTS SHALL RUN FROM BACK EDGE OF SIDEWALK, CONTINUOUS TO THE BOTTOM FACE OF CURB TO A DEPTH OF 1/4" AND SPACED 5' APART.
2. PROVIDE 1/2" EXPANSION JOINTS AT 15' INTERVALS IN LATITUDINAL JOINTS TO FULL CROSS-SECTION



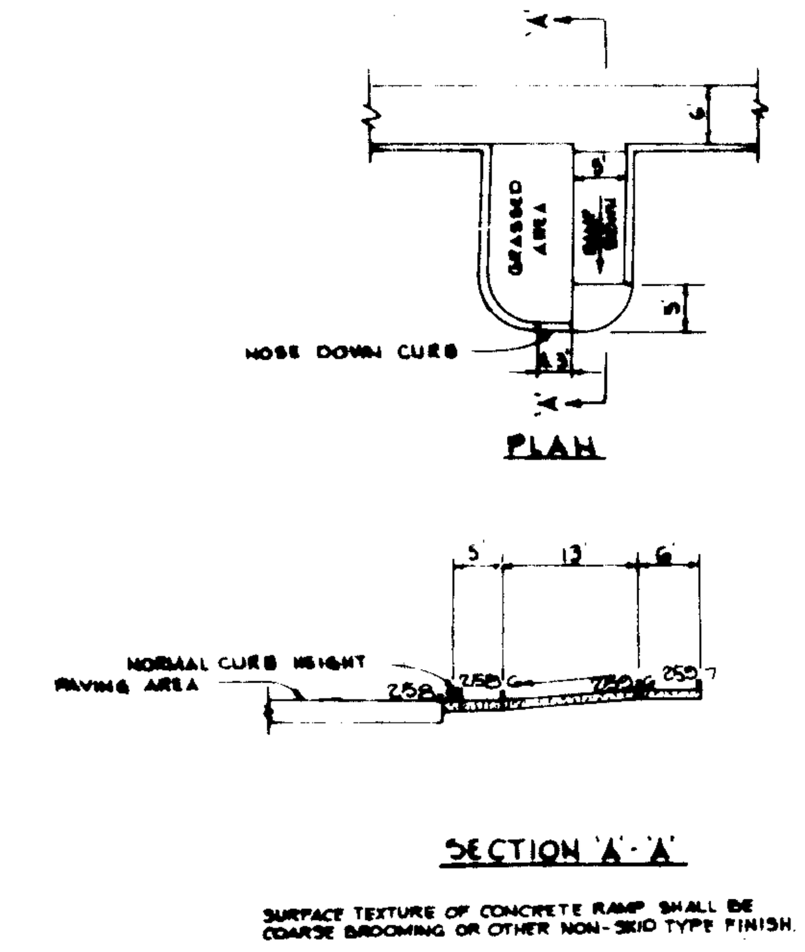
MONOLITHIC CURB AND SIDEWALK DETAIL

NO SCALE



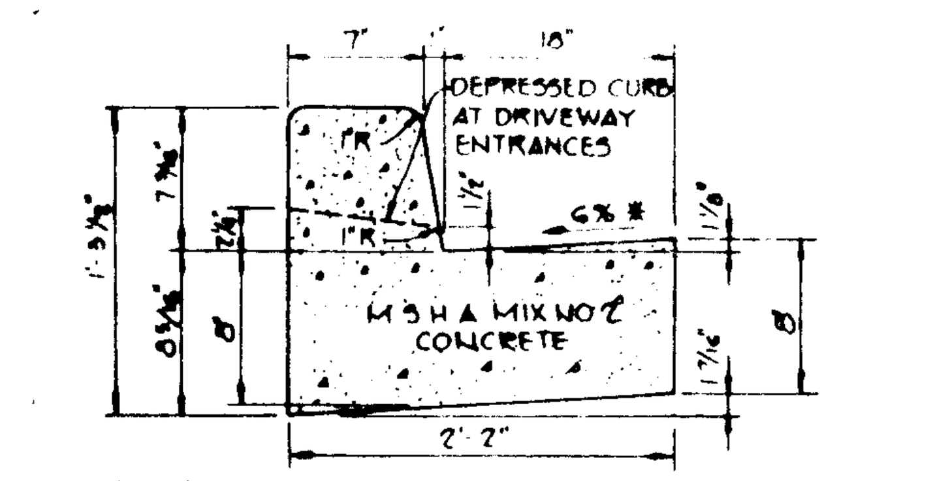
HANDICAP RAMP 2

NO SCALE



HANDICAP RAMP 3

NO SCALE



HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-3.01)

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE AS THE PAVEMENT

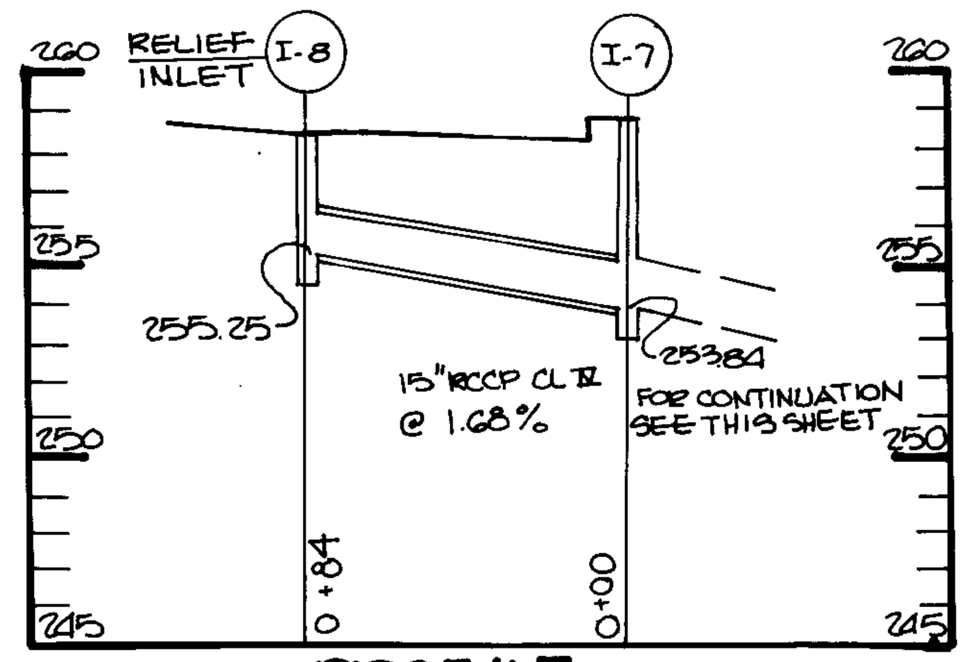
STANDARD 7" COMBINATION CURB AND GUTTER

No Scale

COLORS
LEGEND AND BORDER - GREEN
WHITE SYMBOLS ON BLUE BACKGROUND
BACKGROUND - WHITE

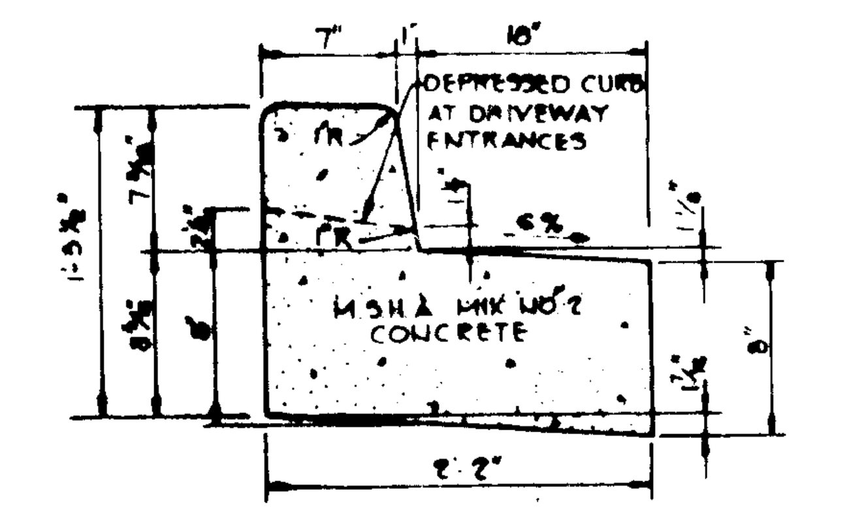
HANDICAP SIGN DETAIL

NO SCALE



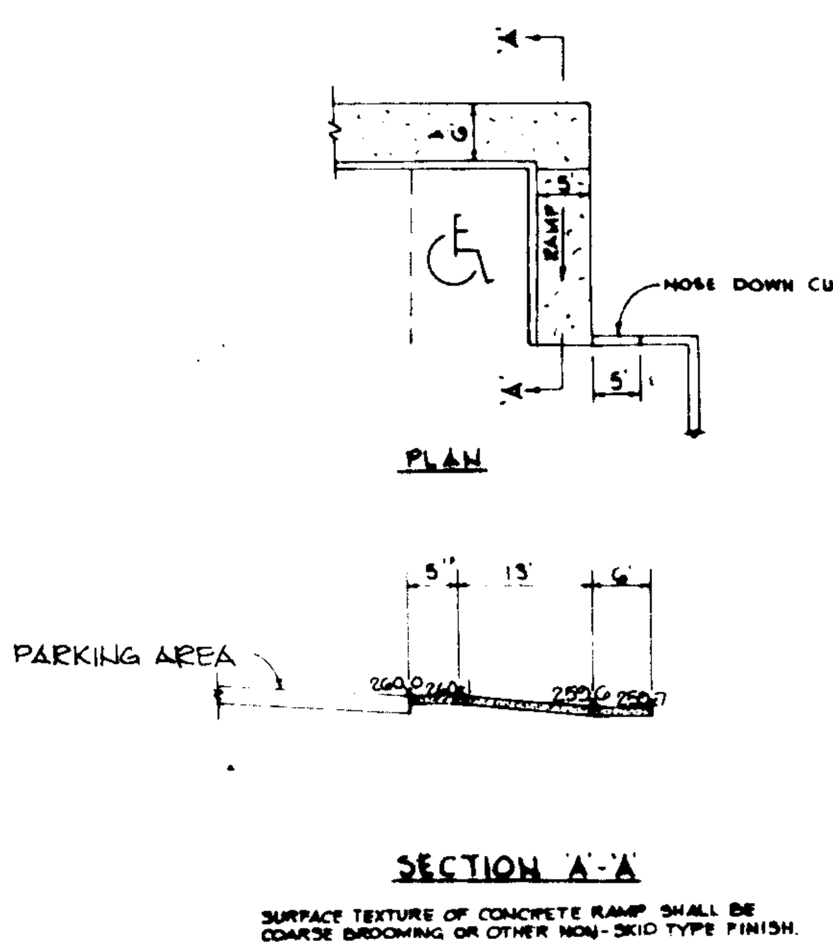
PROFILE

SCALE: HORIZ 1"=50' VERT 1"=5'



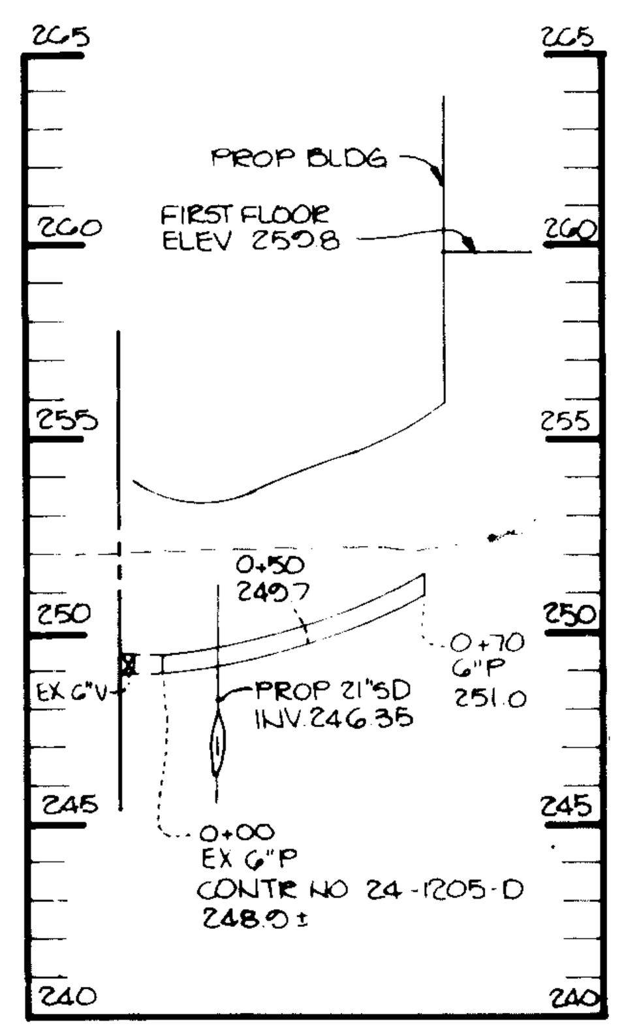
REVERSE 7" COMBINATION CURB AND GUTTER

NO SCALE



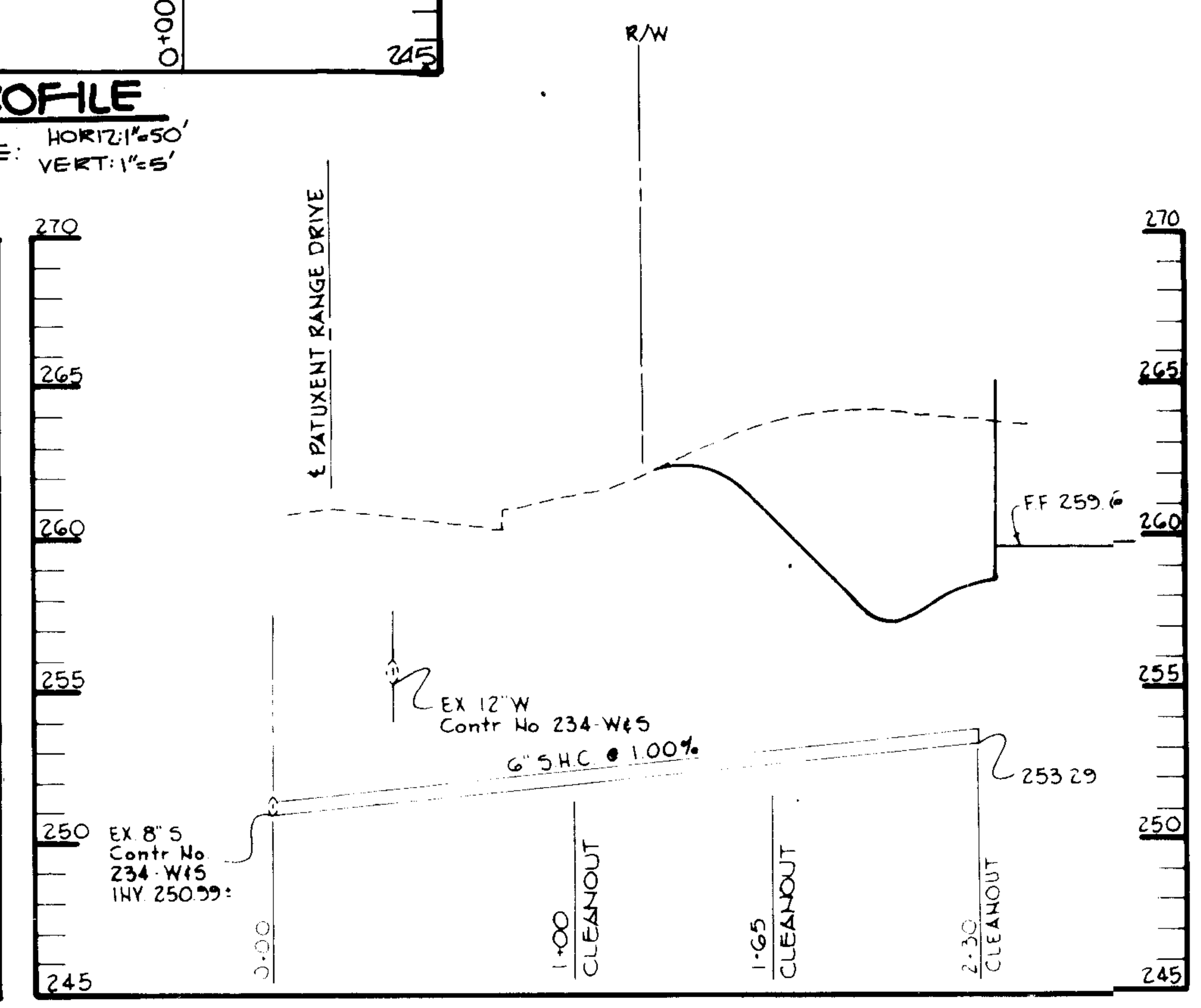
HANDICAP RAMP 1

NO SCALE



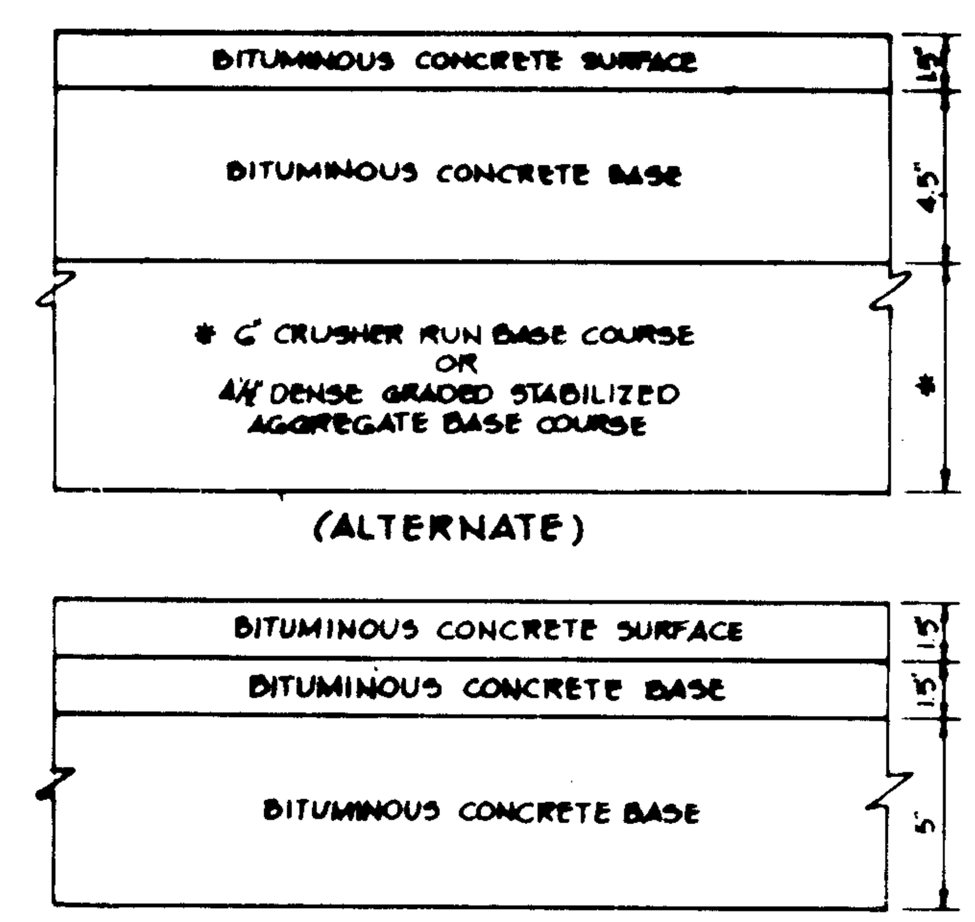
WATER PROFILE

SCALE HORIZ 1"=50' VERT 1"=5'



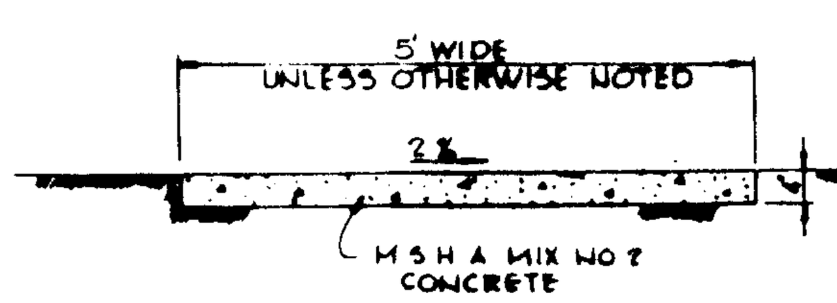
SEWER PROFILE

SCALE: HORIZ 1"=50' VERT 1"=5'



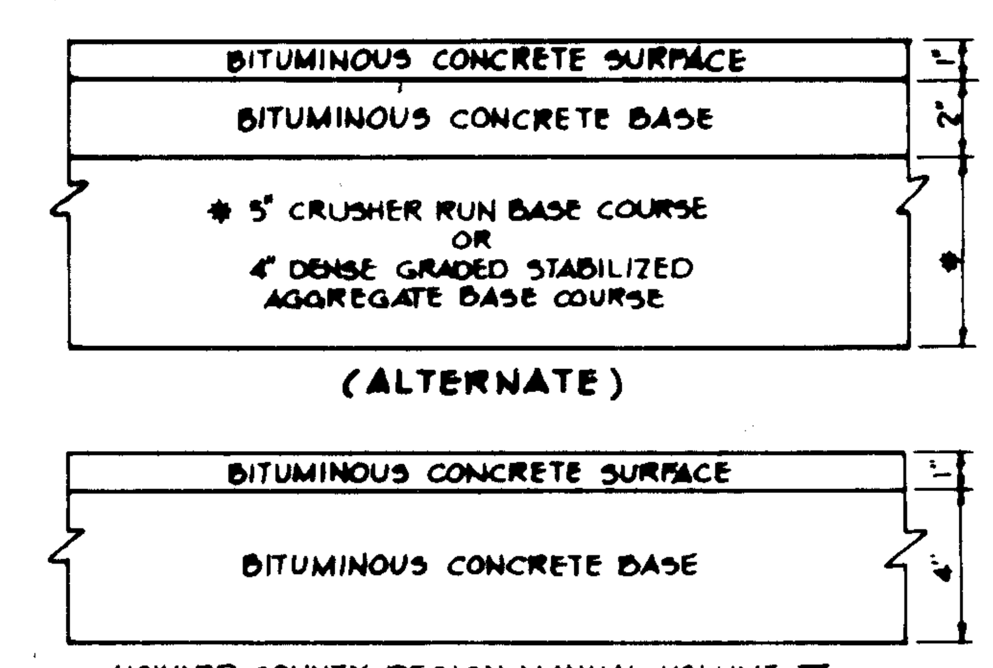
HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

(8" PAVING, P-3)



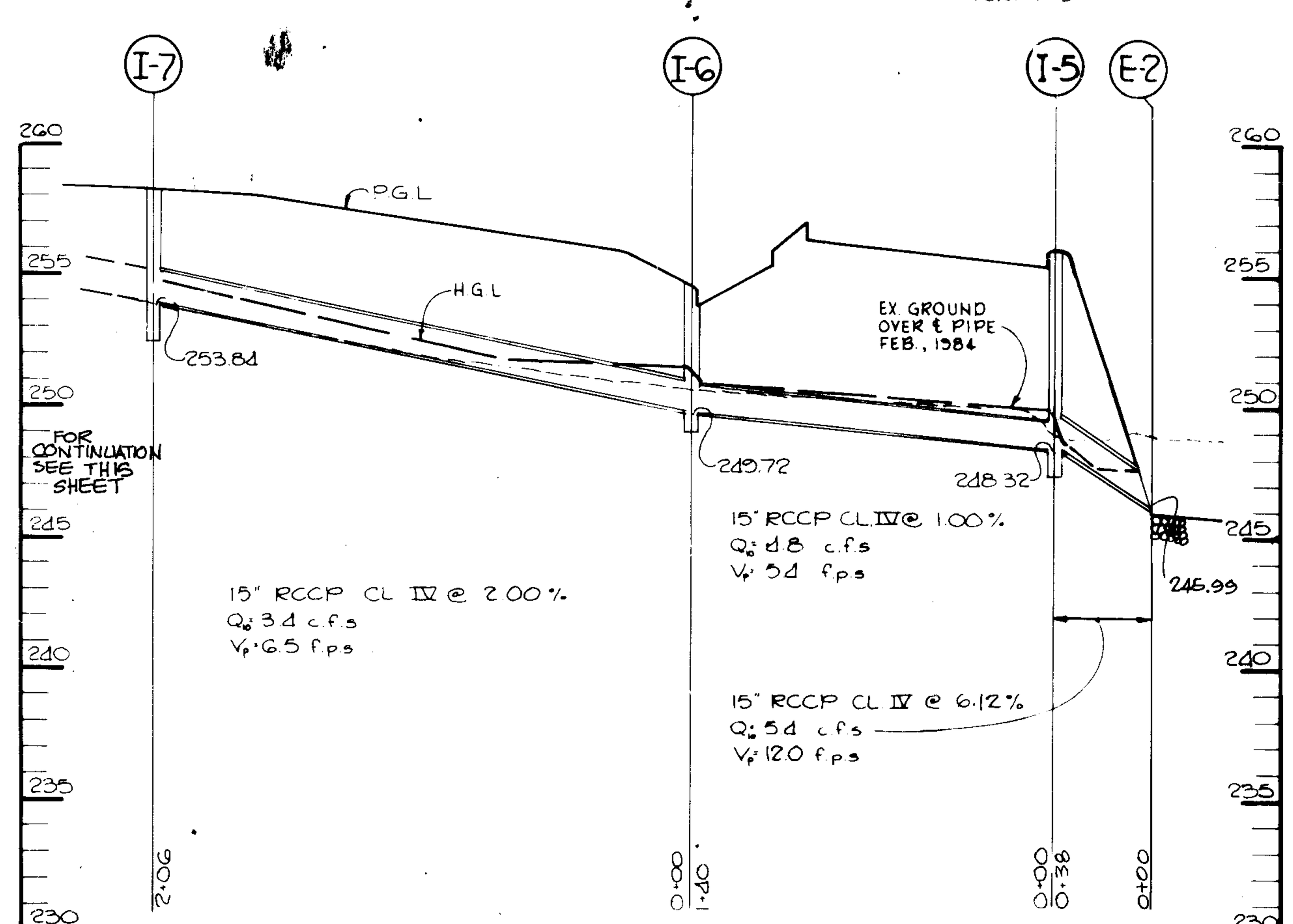
SIDEWALK DETAIL

No Scale



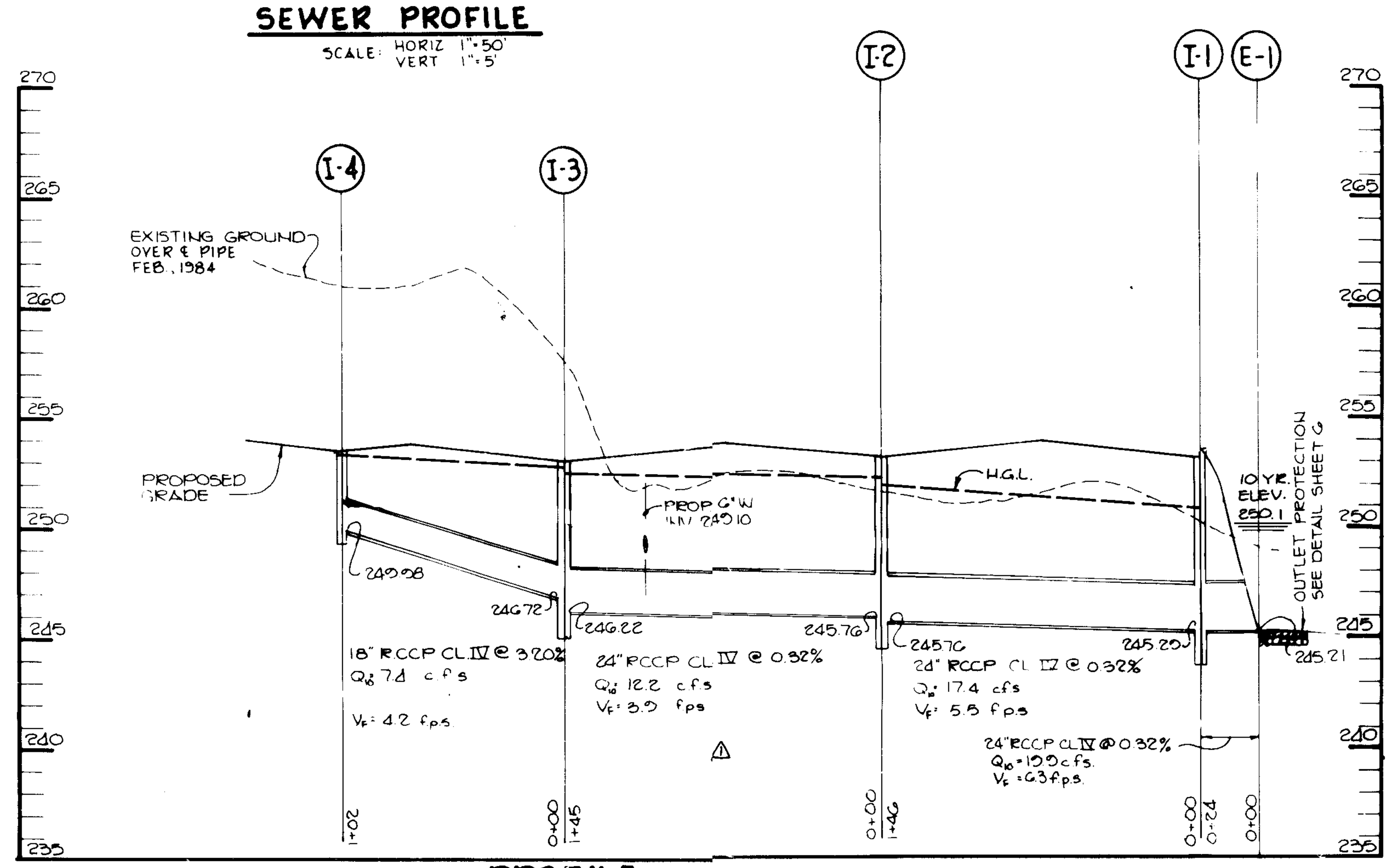
HOWARD COUNTY DESIGN MANUAL VOLUME IV - STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

(5" PAVING, P-1)



PROFILE

SCALE HORIZ 1"=50' VERT 1"=5'



PROFILE

SCALE HORIZ 1"=50' VERT 1"=5'

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 10-24-84

1-28-87	3	REVISED PROFILE FROM E2 TO I5

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER — 12-21-84 — DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Acting — PLANNING DIRECTOR — 12-26-84 — DATE

ACTING — CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — 12-26-84 — DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — 12-18-84 — DATE

CHIEF, BUREAU OF ENGINEERING — 12-17-84 — DATE

DATE	NO	REVISION
11-26-86	2	ADDED PROFILE
5-20-85	1	REVISED PIPE SIZE FROM I-2 TO I-3, & H.G.L.

OWNER/DEVELOPER

B.W.I. WAREHOUSE #3
LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21044

PROJECT

B.W.I.P. PARCEL G-2
S.1, BLK.E

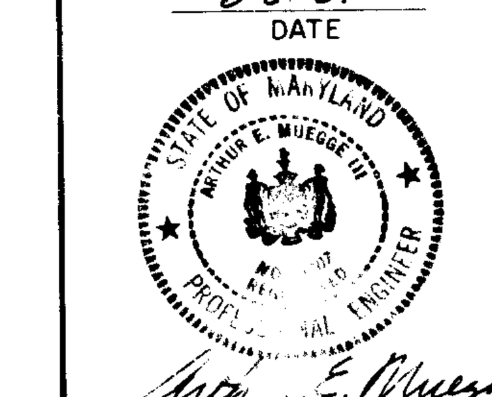
AREA: TAX MAP NO 48 — PARCEL G-2
BALTIMORE WASHINGTON INDUSTRIAL PARK
6th ELECTION DISTRICT
HOWARD COUNTY MARYLAND

TITLE

DETAILS & PROFILES

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3305 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8-20-84
DATE



DESIGNED BY	J.K.B.
DRAWN BY	J.S.K.
PROJECT NO	006100
DATE	8-20-84
SCALE	AS SHOWN
DRAWING NO	3 OF 7

SDP-85-42

STRUCTURE	TYPE	INV/IN	INV/ OUT	TOP ELEV.	LOCATION	REMARKS
I-1	A-5 Inlet	245.20	245.20	*253.1	See Plan	HoCo St'd SD. 4.01
I-2	'S' Inlet Reticuler Grate	245.76	245.76	253.1	See Plan	HoCo St'd SD. 4.22
I-3	'S' Inlet Reticular Grate	246.72	246.22	253.1	See Plan	HoCo St'd SD. 4.22
I-4	'S' Inlet Reticular Grate	------	249.98	253.5	See Plan	HoCo St'd SD. 4.22
I-5	A-5 Inlet	248.32	248.32	*255.5	See Plan	HoCo St'd SD. 4.01
I-6	A-5 Inlet	249.72	249.72	*254.4	See Plan	HoCo St'd SD. 4.01
I-7	A-5 Inlet	253.84	253.84	*257.7	See Plan	HoCo St'd SD. 4.01
S-1	Modified 5.0' Dia Precast Manhole	244.50	244.00	252.0	See Plan	HoCo St'd SD. 5.13
E-1	End Section 24" RCCP	------	245.20	------	See Plan	HoCo St'd SD. 5.52
E-2	End Section 15" RCCP	------	246.00	------	See Plan	HoCo St'd SD. 5.52
E-3	End Section 36" RCCP	------	242.01	------	See Plan	HoCo St'd SD. 5.52
E-4	End Section 36" RCCP	245.00	------	------	See Plan	HoCo St'd SD. 5.52
	18" INLET KETICULAR GRATE	-----	255.75	258.25	See Plan	HoCo Std SD 4.22

* Elevation of throat opening

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT
2. INSTALL STABILIZED CONSTRUCTION ENTRANCES, SILT FENCE, DIVERSION DIKES AND TRAP NO. 2
3. CONSTRUCT STORM WATER MANAGEMENT FACILITY WITH STONE OUTLET STRUCTURE FOR TRAP NO. 1 BLOCK E-4 PER DETAIL
4. INSTALL REMAINING STORM DRAINS AND UTILITIES BLOCK ALL INLETS
5. COMPLETE ALL CONSTRUCTION. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES.
6. UPON APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE ALL SEDIMENT CONTROL DEVICES AND CONVERT TRAP #1 TO STORM WATER MANAGEMENT AS FOLLOWS:
   - A. PUMP OUT IMPOUNDED WATER
   - B. REMOVE STONE OUTLET STRUCTURE AND BACKFILL IN ACCORDANCE WITH THE SITE PLAN
   - C REMOVE SEDIMENT AND RESTORE BASIN TO ORIGINAL DIMENSIONS AS SHOWN ON SITE PLAN
   - D. SEED ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES

BRISTOL COURT

DRIVE

RANGE

PATUXENT

E.D A-1 (D.A.=1.8Ac.)

E.D A-1 (D.A.=1.8Ac.)

SCE #1

RELIEF INLET I-8

MONOLITHIC CURB AND SIDEWALK SEE DETAIL SHEET 3

A=0.28 Ac C=0.88 BUILDING I-7 ZONING M-2 84% IMP.

806 LF - 15" RCCP CL IV

A=0.21 Ac C=0.85 I-6 ZONING M-2 80% IMP

RESTRICTION LINE

27 CARS

13 CARS

14 CARS

HANDICAP PARKING SIGN TO BE WALL MOUNTED

F.F. ELEV. 259.8

A=1.18 Ac C=0.85 I-4 ZONING M-2 84% IMP.

A=0.71 Ac C=0.55 I-3 ZONING M-2 100% IMP

A=0.71 Ac C=0.55 I-2 ZONING M-2 100% IMP

A=0.38 Ac C=0.55 I-1 ZONING M-2 100% IMP

A=0.10 Ac C=0.55 I-5 ZONING R-2 100% IMP

E.D A-1 (D.A.=0.8Ac.)

NOTE GRADING ON PARCEL 'L' TO BE DONE BY LETTER OF PERMISSION

MATCH LINE SEE DRAWING THIS SHEET

ROOF DRAIN

METAL STAIRS (TYP)

TRANSFORMER PAD

5 CARS 6 CARS 6 CARS 6 CARS 4 CARS 6 CARS 6 CARS 4 CARS

S.F.I.P

102 LF - 18" RCCP CL IV

105 LF - 21" RCCP CL IV

106 LF - 24" RCCP CL IV

292 LF - 36" RCCP CL IV

P.C. PAVING

EX PAVING

LIMIT OF GRADING

EX 18" D

EX 24" D

EX 30" D

TRAP #1

E-1

E-2

S-1

MATCH LINE SEE DRAWING THIS SHEET

NOTE GRADING ON PARCEL 'G-3' TO BE DONE BY LETTER OF PERMISSION

SEDIMENT TRAP DATA						
TRAP NO.	MAX. DRAINAGE AREA (ACRES)	STORAGE VOLUME (CF) REQUIRED	STORAGE VOLUME (CF) PROVIDED	CREST ELEV.	BOTTOM ELEV.	CLEANOUT ELEV
1	4.08	7544	21,600	261.0	245.0	248.0
2	1.21	2178	2268	250.0	247.0	248.5

SITE ANALYSIS

DISTURBED AREA	4.97 Ac.
PAVING AREA	1.67 Ac.
ROOF AREA	1.75 Ac.
AREA TO BE RESEEDED	1.15 Ac.

BY THE DEVELOPER:

"I 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

BWI WAREHOUSE #3 LIMITED PARTNERSHIP BY ELDRIDGE CORPORATION, ITS GENERAL PARTNER

DEVELOPER: [signature] 12/5/84 DATE

BY THE ENGINEER:

"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 DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

Arthur E. Muegge 8-20-84

ENGINEER: ARTHUR E. MUEGGE DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

James M. Helm 12-13-84

U.S. SOIL CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED Robert W. Zeller 12-13-84

HOWARD S.C.D. DATE

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

[signature] 12-21-84

COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

[signature] 12-26-84

PLANNING DIRECTOR DATE

ACTING [signature] 12-26-84

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

[signature] 12-18-84

DIRECTOR DATE

[signature] 12-17-84

CHIEF, BUREAU OF ENGINEERING DATE

DATE	NO	REVISION
11-26-85	A	ADD 84 LF 15" RCCP CL IV & I-8
1-28-87	B	REVISED S.W.M. GRADING

OWNER/DEVELOPER

B.W.I WAREHOUSE #3
LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21044

PROJECT

B.W.I.P PARCEL G-2

S.I. BLK E

AREA TAX MAP NO 48 PARCEL G-2
BALTIMORE WASHINGTON INDUSTRIAL PARK
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

DRAINAGE AREA MAP AND SEDIMENT CONTROL PLAN

THE RIEMER GROUP INC.

LAND PLANNING, SURVEYING, ENGINEERING

3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 10-24-84

8-20-84 DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — NO. 8108 — REGISTERED PROFESSIONAL ENGINEER

[signature]

DESIGNED BY	C.B.
DRAWN BY	J.M.G.
PROJECT NO	1006100
DATE	8-20-84
SCALE	1"=50'
DRAWING NO	4 OF 7

SDP-85-42 SEPT. 17, 1984

I. SITE PREPARATION

Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

II. EARTH FILL

Material:

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, oversize stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipaid settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement:

Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum 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 portions of the embankment.

Compaction:

The movement of the hauling 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 tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Cutoff Trench:

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. 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 four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure or pipe.

IV. PIPE CONDUITS

A. Reinforced Concrete Pipe

1. Materials - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. Approved equivalents are AWWA Specification C-300, 301, and 302.
2. Bedding - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its diameter with a minimum thickness of 3", or as shown on the drawings.
3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shal be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire line, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe.
4. Backfilling shall conform to structural backfill as shown above.
5. Other details (anti-seep collars, valves, etc.) be as shown on the drawings.

B. For pipes of other materials, specific specifications shall be shown on the drawings.

V. CONCRETE

Material:

1. Cement - Normal Portland cement shall conform to the latest ASTM Specification C-150.
2. Water - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
3. Sand - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
4. Course Aggregate - The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-½) inches.
5. Reinforcing Steel - The reinforcing steel shall be be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

Design Mix:

The concrete shall be mixed in the following proportions, measured by weight. The water-cement ration shall be 5-½ to 6 U.S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1:2:3-½. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

Mixing:

The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the material, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the additions of water to perserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.

Forms:

The forms shall have sufficient strength and rigidity to hold the concrete and to with stand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed.

Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

Reinforcing Steel:

All reinforcing material shall be free of dirt, rust, scale, oil, paint or other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

Consolidating:

Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be suplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

Finishing:

Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.

Protection and Curing:

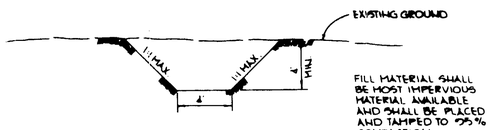
Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also by used.

Placing Temperature:

Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° with the temperature rising.

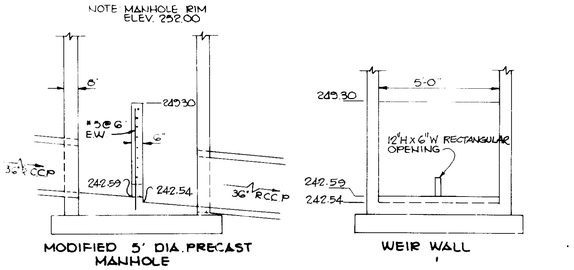
VI STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying the drawings.



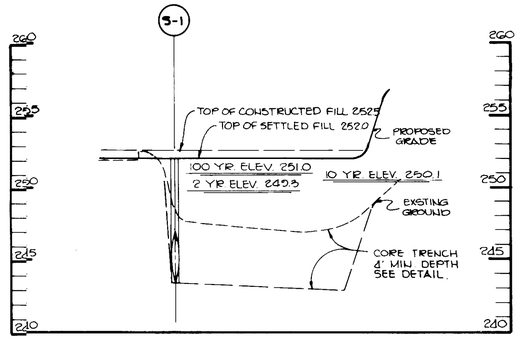
CORE TRENCH TYP. SECTION

NO SCALE



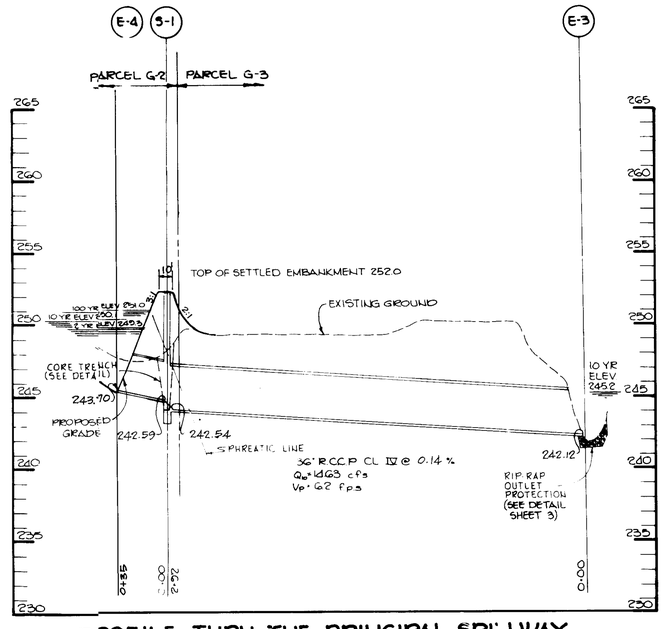
S.W.M. STRUCTURE #5-1

NO SCALE



PROFILE ALONG THE ℄ OF EMBANKMENT

SCALE HORIZ 1" = 50'
VERT 1" = 5'



PROFILE THRU THE PRINCIPAL SPILLWAY

SCALE HORIZ 1"=50'
VERT 1"=5'

BY THE DEVELOPER:

"I 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

DEVELOPER: _____ DATE 12/5/84

BY THE ENGINEER:

"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 DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

ENGINEER: ARTHUR E. MUEGGE — DATE 8.20.84

THESE PLANS HAVE BEEN REVIEWED FOR 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 12-13-84

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED _____ HOWARD S.C.D. — DATE 12-13-84

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER — DATE 12-21-84

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

PLANNING DIRECTOR — DATE 12-26-84

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 12-26-84

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 12-18-84

CHIEF, BUREAU OF ENGINEERING — DATE 12-17-84

DATE	NO	REVISION
12-16-84	2	REVISED CONTROL STRUCTURE S-1
5-20-84	1	CORRECTED 2YR & 10 YR ELEVATIONS
4-3-84	3	REVISED PROFILE FROM SITE 84

OWNER/DEVELOPER
B.W.I WAREHOUSE #3
LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21044

PROJECT
B.W.I.P PARCEL G-2
S.I. BLK. E

AREA TAX MAP NO 48 PARCEL G-2
BALTIMORE WASHINGTON INDUSTRIAL PARK
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE
STORM WATER MANAGEMENT
NOTES AND DETAILS

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 10-24-84

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
5105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2644

8-20-84 DATE

STATE OF MARYLAND — ARTHUR E. MUEGGE — NO. 6442 — REGISTERED PROFESSIONAL ENGINEER

DESIGNED BY	J.K.B.
DRAWN BY	J.C.J.
PROJECT NO	0084100
DATE	8-20-84
SCALE	AS SHOWN
DRAWING NO	5 OF 7

SDP-85-12

SEPT. 17, 1984

MARYLAND BLUEPRINT CO. INC.

SEDIMENT CONTROL CONSTRUCTION NOTES

GENERAL NOTES

1. A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction. (992-2437)
2. All sediment control structures will be installed in accordance with '1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control' as published by Soil Conservation Service, Water Resources Administration and State Soil Conservation Committee.
3. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
4. All perimeter sediment control structures, dikes, swales, ditches, perimeter slopes and all slopes greater than 3:1 will be stabilized with in (7) seven calander days and all other disturbed or graded areas on the site with in (14) fourteen calender days.
5. Sediment will be removed from traps when its depth reaches the clean out elevation shown on the plans.
6. Fertilizer and lime rates may be changed through authorization by the Howard Soil Conservation District if soil test determine a reduction in the specified rates is justified.
7. 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.
8. References called for on the sediment control construction plan and details are made to '1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control.'
9. Sediment control will be installed before clearing and grubbing remainder of the site.

TEMPORARY SEEDING

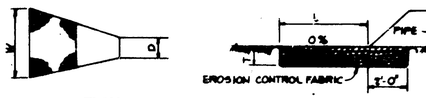
Area to be seeded shall be recently loosened. If the ground is packed, crusted or hard, the top layer of soil shall be loosened by discing, raking or other acceptable means.

A. Apply 10-20-10 fertilizer (or equivalent) at the rate of 600 lbs. per acre or 15 lbs. per 1000 square feet.
B. Where soil is known to be highly acid, apply dolomitic limestone at the rate of 1 ton per acre.
C. Work both into soil and seed with cyclone seeder, drill, cultipacker seeder or hydroseeder (slurry will include seed and fertilizer) at the rate of 40 lbs. per acre of Italian or perennial ryegrass.
D. Mulch with unweathered small grain straw at the rate of 1½ to 2 tons, per acre and anchor with a cutback asphalt or emulsified asphalt at the rate of 5 gal. per 1000 square feet.

PERMANENT SEEDING

Final stabilization will take place as soon as possible as weather conditions permit, as follows:

A. Apply dolomitic limestone at the rate of 2 tons per acre (one ton per acre if application of ton per acre was made for temporary seeding.)
B. Apply 0-20-20 fertilizer at the rate of 600 lbs. per acre harrow or disc lime and 0-20-20 fertilizer into the soil to a minimum depth of 3" lawns or high maintenance areas will be dragged and leveled with a York rake. At the time of seeding apply 400 pounds of 30-0-0 ureaform fertilizer and 500 lbs. of 10-20-20 or equivalent fertilizer per acre.
C. Seed with a mixture of certified "Merion" Kentucky bluegrass - 40 lbs. per acre; common Kentucky bluegrass @ 40 lbs. per acre; Red Fescue, Pennlawn or Jamestown @ 20 lbs. per acre.
D. Mulch with unweathered small grain straw at the rate of 1½ to 2 tons per acre and anchor with a cutback asphalt or emulsified asphalt at the rate of 5 gallons per 1000 square feet.
E. Seed all slopes with a mixture of certified Kentucky 31 tall fescue @ 50 lbs. per acre and inoculated Korean Lespedeza @ 15 lbs. per acre.
F. Sodded swales shall be Kentucky 31 tall fescue.

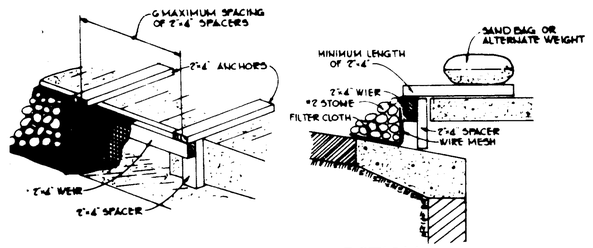


STRUCTURE	MEDIUM STONE DIA.	LENGTH (L)	WIDTH (W)	THICKNESS (T)
E-1	6"	12'	14'	12"
E-2	6"	12'	14'	12"
E-3	8"	*	*	18"

OUTLET PROTECTION DETAIL

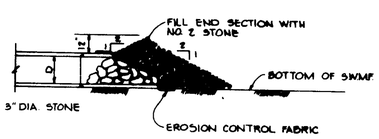
No Scale

* RIP-RAP TO BE PLACED IN SHAPE OF EXISTING CHANNEL SEE PLAN AND PROFILE FOR CONFIGURATION



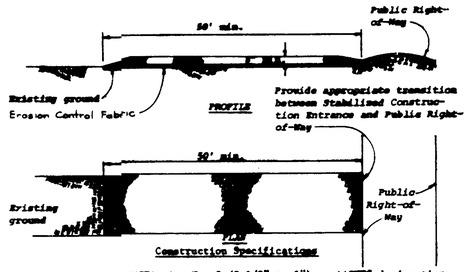
STONE FILTER PROTECTION INLET

NO SCALE



STONE FILTER @ E-4

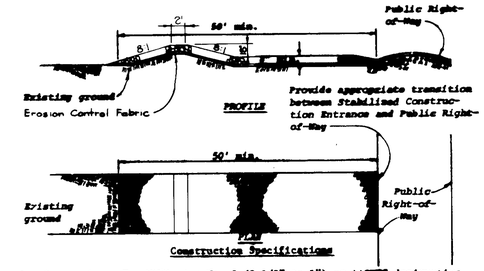
NO SCALE



1. Stone size - Use MSHA size No. 2 (2-1/2" to 1") or AASHTO designation M43, size No. 2 (2-1/2" to 1-1/2"). Use crushed stone.
2. Length - As effective, but not less than 50 feet.
3. Thickness - Not less than eight (8) inches.
4. Width - Not less than full width of all points of ingress or egress.
5. Washing - When necessary, wheels shall be cleaned to remove sediment prior to entrance onto public right-of-way. When washing is required, it shall be done on an area stabilized with crushed stone which drains into an approved sediment trap or sediment basin. All sediment shall be prevented from entering any storm drain, ditch, or watercourse through use of sand bags, gravel, boards or other approved methods
6. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or clean-out of any measures used to trap sediment. All sediment spilled, 'roppe', washed or tracked onto public rights-of-way must be removed immediately.

Standard Symbol SCE

STABILIZED CONSTRUCTION ENTRANCE #1



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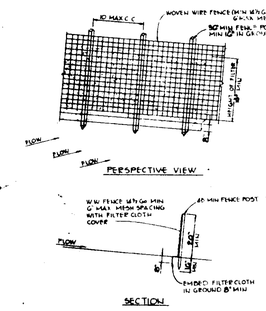
Standard Symbol SCE

STABILIZED CONSTRUCTION ENTRANCE #2



CONSTRUCTION NOTES

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POST WITH WIRE TIES OR STAPLES
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH WIRE TIES SPACED EVERY 10' AT TOP AND MID SECTION

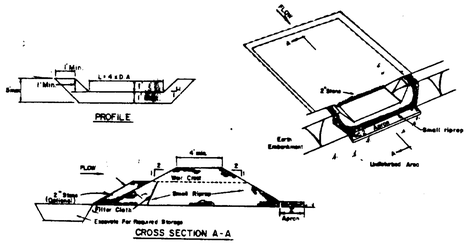
POST: STEEL EITHER 1.00 LB/FT OR 2" HARDWOOD
FENCE: WOVEN WIRE, MIN GA MAX 6" MESH OPENING
FILTER CLOTH: FILTER X, MIRAFI 100X, LAIDLY BROWN CONTROL CLOTH, BIDIM, POLYFILTER X OR EQUAL

STANDARD SYMBOL —S—S—

SILT FENCE DETAIL

NO SCALE

STONE OUTLET SEDIMENT TRAP V



OPTION: A one foot layer of 2" stone may be placed on the upstream side of the riprap in place of the embedded filter cloth.

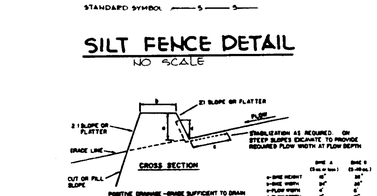
CONSTRUCTION SPECIFICATIONS FOR ST-V

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. The fill material for the embankment shall be free of roots and other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. All cut and fill slopes shall be 1:1 or flatter.
4. The stone used in the outlet shall be small riprap 4"-8" along with a 1' thickness of 2" aggregate placed on the up-grade side on the small riprap or embedded filter cloth in the riprap.
5. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

Maximum Drainage Area: 5 Acres

STONE OUTLET SEDIMENT TRAP

NO SCALE



	DIKE A (Grass-lined)	DIKE B (Stone-lined)
H=DIKE HEIGHT	18"	18"
W=DIKE WIDTH	54"	48"
F=FLOW WIDTH	4'	4'
D=FLOW DEPTH	9"	9"

1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR RESERVOIR BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN NESTING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	CHANNEL GRADE	DIKE A	DIKE B
1	0-5.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	5.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE, OR EXCELSIOR; SOD; 2" STONE
3	5.1-8.0%	SEED WITH JUTE, OR SOD; 2" STONE	LINED: RIP-RAP 4-8"
4	8.1-20%	LINED: RIP-RAP 4-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.
C. ENGINEERED ALTERNATIVES CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

EARTH DIKE

NO SCALE

BY THE DEVELOPER:

"I 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 NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

BW1 WAREHOUSE #3 LIMITED PARTNERSHIP

DEVELOPER: _____ 12/6/84 DATE

BY THE ENGINEER:

"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 DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN 'AS-BUILT' PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

ENGINEER: ARTHUR E. MUEGGE — 8.20.84 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

U.S. SOIL CONSERVATION SERVICE — 12-18-84 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

APPROVED: HOWARD S.C.D. — 12-13-84 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER — 12-21-84 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.

PLANNING DIRECTOR — 12-26-84 DATE

ACTING CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — 12-26-84 DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — 12-18-84 DATE

CHIEF, BUREAU OF ENGINEERING — 12-17-84 DATE

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 10-24-84

DATE	NO	REVISION

OWNER / DEVELOPER

BW1 WAREHOUSE #3
LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND 21044

PROJECT

B.W.I.P PARCEL G-2

S.I. BLK. E

AREA TAX MAP #48 PARCEL G-2
BALTIMORE WASHINGTON RESEARCH PARK
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

SEDIMENT CONTROL DETAILS

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
3105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2690

8.20.84 DATE

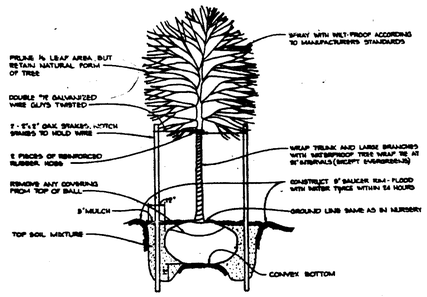
DESIGNED BY JKB
DRAWN BY JCJ
PROJECT NO 006300
DATE 8.20.84
SCALE AS SHOWN
DRAWING NO G OF 7

SDP-85-12

AUGUST 28, 1984

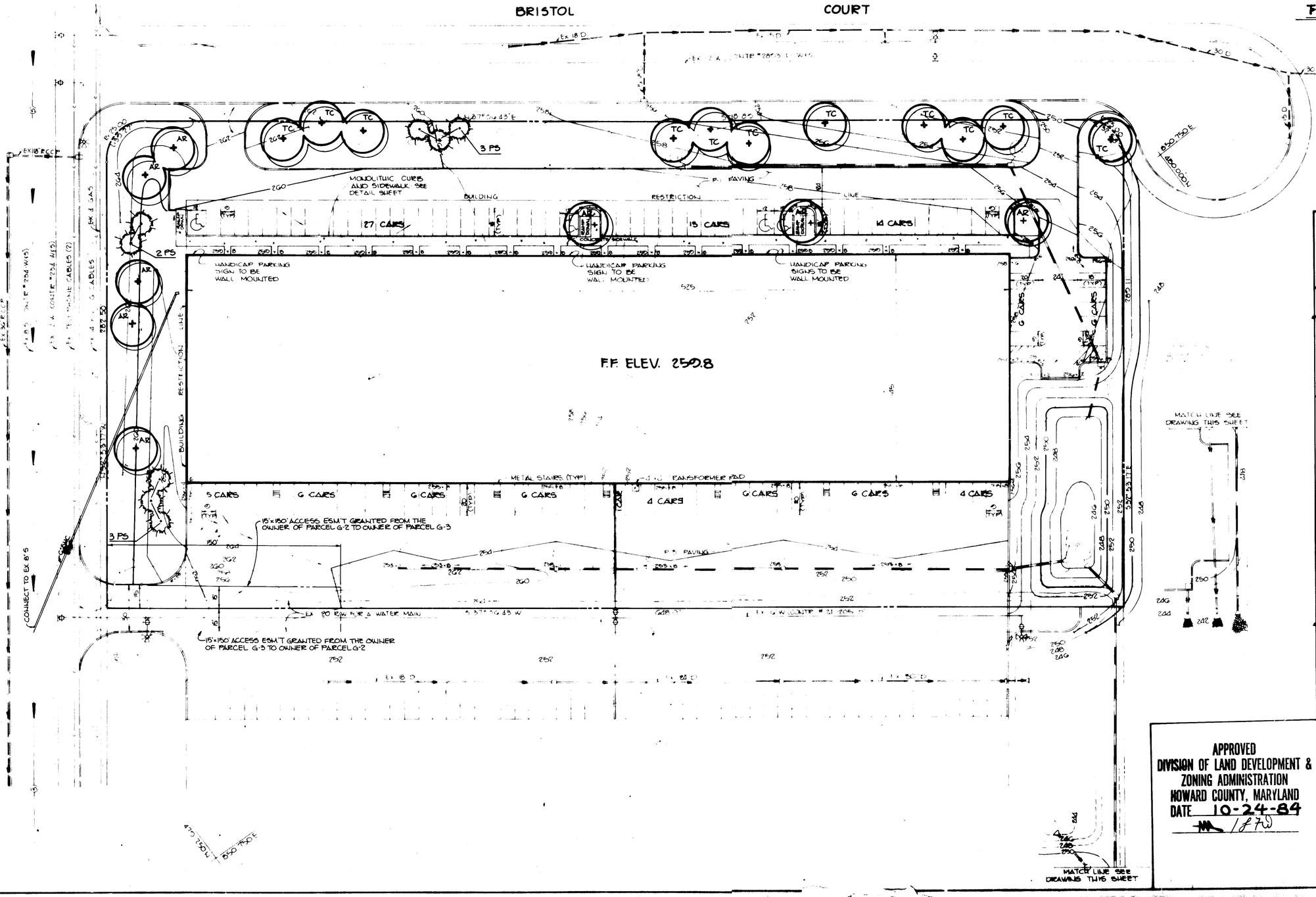
PLANT LIST

SYM	QUAN.	NAME	SIZE	REMARKS
AR	8	ACER RUBRUM -Red Maple	13' - 15' Ht. 2½" - 3" Cal.	B & B Full Head
TC	11	TILIA CORDATA -Littleleaf Linden	13' - 15' Ht. 2½" - 3" Cal.	B & B Full Head
PS	8	PINUS STROBUS -Eastern White Pine	6' - 8' Ht. 2½" Cal.	B & B Unsheared



TREE PLANTING DETAIL

No Scale



NOTE:
STREET TREES PROVIDED IN ACCORDANCE WITH SECTION 16.131 OF THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS. A MINIMUM OF 1 TREE FOR EVERY FORTY FEET OF LINEAR PROPERTY FOOTAGE ALONG ADJOINING ROADS.

954 LIN.FT. @ 1 TREE/40 FT. = 24 TREES REQ'D.
24 TREES PROVIDED

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT

COUNTY HEALTH OFFICER — DATE 12-21-84

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Acting PLANNING DIRECTOR — DATE 12-26-84

CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION — DATE 12-26-84

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS

DIRECTOR — DATE 12-18-84

CHIEF, BUREAU OF ENGINEERING — DATE 12-17-84

DATE	NO	REVISION

OWNER

B.W.I.P WAREHOUSE NO. 3
LIMITED PARTNERSHIP
710 AMERICAN CITY BUILDING
COLUMBIA, MARYLAND, 21044

PROJECT

B.W.I.P PARCEL G-2
S.I. BLK. E

AREA TAX MAP NO. 48 PARCEL 317
BALTIMORE WASHINGTON INDUSTRIAL PARK
6TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

TITLE

PLANTING PLAN

APPROVED
DIVISION OF LAND DEVELOPMENT & ZONING ADMINISTRATION
HOWARD COUNTY, MARYLAND
DATE 10-24-84

THE RIEMER GROUP, INC.
A LAND PLANNING, DESIGN & CIVIL ENGINEERING FIRM
5105 HEALTH PARK DRIVE, ELLICOTT CITY, MD. 21043 301 461-2699

Aug. 20, 1984 DATE

STATE OF MARYLAND — MELANIE MOSER — No. 651 — REGISTERED LANDSCAPE ARCHITECT

Melanie Moser

DESIGNED BY	DK
DRAWN BY	DK
PROJECT NO	006100
DATE	8-20-84
SCALE	1"=30'
DRAWING NO	7 OF 7

ADP-85-12

AUGUST 28, 1984