#### SHEET INDEX

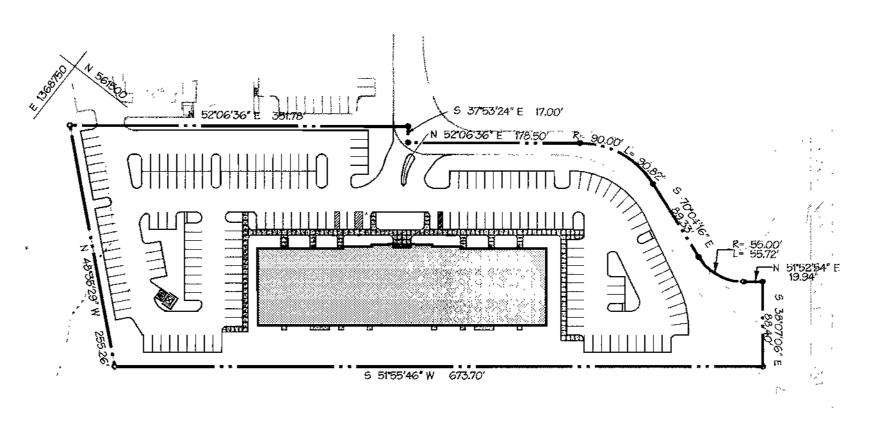
	31 (EE: 11 (BE))							
SHEET	DESCRIPTION							
1	COVER SHEET							
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4	SEDIMENT& EROSION CONTROL PLAN AND DRAINAGE AREA MAP							
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6	UTILITY PROFILES							
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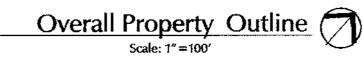
# Site Development Plan Commercial/Office Building

# GENERAL NOTES

- 1. All construction shall be performed in accordance with the latest standards and specifications of Howard County, plus MSHA standards and specifications if applicable or as specified.
- 2. Approximate location of existing utilities are based solely on available records. Contractor shall verify the location of any utilities which may be impacted by the work. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted service. Any damage incurred due to contractors operation shall be repaired immediately at the contractor's expense.
- 3. The contractor shall test pit existing utilities at least five (5) days before starting work shown on these drawings to verify their location and elevation. The contractor shall notify the engineer immediately if location of utilities is other than shown.
- 4. The contractor shall notify 'Miss Utility' at 1-800-257-7777 at least 48 hours prior to any excavation work being done, and shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection Division at (410) 313-1880 at least five (5) working days prior to the start of work.
- 5. Any damage caused by the Contractor to existing public right-of-way, existing paving,
- existing curb and gutter, existing utilities, etc. shall be repaired at the Contactors expense 6. Topography taken from mass grading per F-98-101 dated May 11, 1998 by Gutshick Little & Weber, P.A.
- 7. Public water and sewer provided by contract No. 24-3813-D
- 8. All fill areas shall be compacted to a minimum of 95% of the maximum dry density as determined and verified in accordance with AASHTO T-180.
- 9. Regional stormwater management and water quality are provided in a retention facility located
- on Open Space Lot 2 per F-98-101 10. This Site is exempt from Forest Conservation Ordinance in accordance with Section 16.1202(b)(1)(iv), A Planned Unit Development
- 11. There are no wetlands, floodplain, or streams on this site.
- 12. Traffic Study by A/E Group Inc. was previously approved for this
- use per F-98-101. Date: May 1998.
- 13. Operating existing valves, switches, services or start up of new services shall be coordinated with the owners representative.
- 14. The building will be provided with a sprinkler system.
- 15. Trench compaction for storm drains shall be in accordance with Howard County Design Manual IV, Std. No. G-2.01.
- 16. Unless otherwise noted, dimensions from curb are measured at face of curb.
- 17. Refer to architectural drawings for building dimensions.
- 18. The Contractor shall coordinate the location of all water, sewer, and drain house connections with the mechanical
- 19. The Contractor shall maintain 2.0 feet minimum cover over all utilities during construction.
- 20. Unless otherwise noted, all utility connections shall be capped or plugged five feet from buildings.
- 21. Electric, telephone, gas, cable, lighting, and retaining walls to be designed by others. Where those facilities are shown,
- they are for coordination purposes only. 22. All Curb radii 5' unless otherwise noted.
- 23. There are no known cemeteries or burial grounds on this site. However, upon discovery of any evidence of burial or graves, the developer will be subject to Section 16.1305 of the Howard County Subdivision
- and Land Development Regulations.
- 24. All exterior lighting fixtures shall be installed in compliance with Section 134 of the Zoning Regulations. 25. Geotechnical investigation by Robert T. Balter

# Route 108 Commercial Parcel B-3







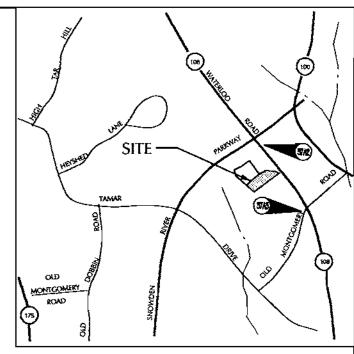
# 

## SITE ANALYSIS DATA CHART

- 1. General Site Data
- a. Present Zoning: New Town Employment Center Comm b. Applicable DPZ File References:
- SF 98-05, FDP PHASE 229, PB 315, WF-97-107, WP 98-34, F-98-101
- c. Proposed Use of Site or Structure(s): Commercial/Office Buildina
- d. Proposed Water and Sewer Systems: X Public Private e. Any Other Information Which May be Relevant: N/A
- 2. Area Tabulation
- a. Total Project Area: 3.53 Acres (Indicate by Section and Area As Shown on Final Plat or As Shown on Deed)
- b. Net Area of Site: \_\_\_\_\_3.53 Acres
- (Indicate by Section and Area As Shown on Final Plat)
- c. Area of This Plan Submission:
  d. Limit of Disturbed Area: 3.24 Acres
  e. Building Coverage of Site: 0.55 Acres and 15.6 % of Gross Area (Proposed)

- 3. Parking Space Data
- a. Floor Space on Each Level per Building(s) per Use: 24,000 SF
- b Maximum Number of Employees, Tenants On-Site per Use: N/A
- c. Number of Parking Spaces Required by Zoning Regulations and Criteria: 168
- 24,000 SF X 5.0 SP/1000 (NET COMM)=120 SPACES + 24,000 SF X 2.0 SP/1000 NET OFFICE)=48 SPACES 168 SPACES REQUIRED BY ZONING REGS AND CRITERIA - PROPOSED BUILDING TO BE TWO (2) FLOORS
- d. Total Number of Parking Spaces Provided On-Site:
- 6 (HC. INCLUDED IN TOTAL) e. Number of Handicapped Parking Spaces Provided:
- f. Proposed building is two-stories

**Building Elevation** 



LOCATION MAP

#### BENCHMARK

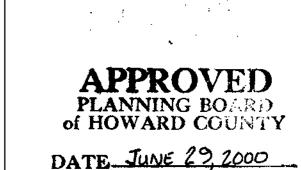
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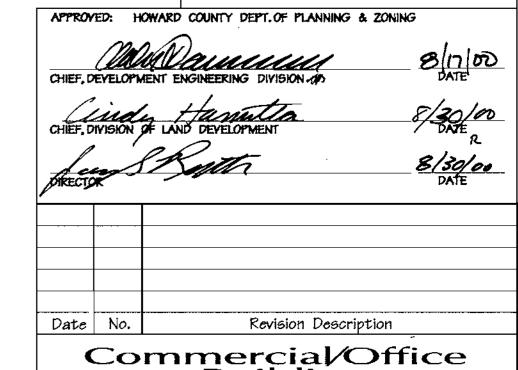
HO. CO. STATION 37A2 N 562,120.83 E 1,369,300.26 ELEV. 403.71 40'± NORTHEAST OF MD ROUTE 108,1100'± NORTHWEST OF OLD MONTGOMERY ROAD

HO. CO. STATION 37A3

N 561, 131.07 E 1,369,913.89 ELEV. 385.66 SOUTHWEST OF THE INTERSECTION OF MD ROUTE 108 AND OLD MONTGOMERY ROAD

ADDRESS CHART							
PARCEL NUMBERS	STREET ADDRESS						
B–3	5850 ROUTE 108						





# Building at Route 108 Commercial Park-Parcel B-3

The Howard Research and Development Corporation 10275 Little Patuxent Parkway Suite 101 Columbia, Maryland 21044

AAK SNOWDEN 8805 Columbia 100 Parkway Columbia, Maryland 21045

DMW Daft · McCune · Walker, Inc. A Team of Land Planners, Towson, Maryland 21286 Landscape Architects, Engineers, Surveyors & Environmental Professional Fax 296 4705

SUBDIVISION NAME SECTION AREA 1 PLATE OR LIF BLOCK # ZONE TAXIZONE MAP ELECT. DISTRICT

1440 3 17 NT \*\* 6 th

WATER CODE BEWER CODE COVER SHEET

> Scale: AS SHOWN Proj. No. 00013.A Date: 7-12-00 Approved:

of 8

Thu Jul 13 14:46:51 2000

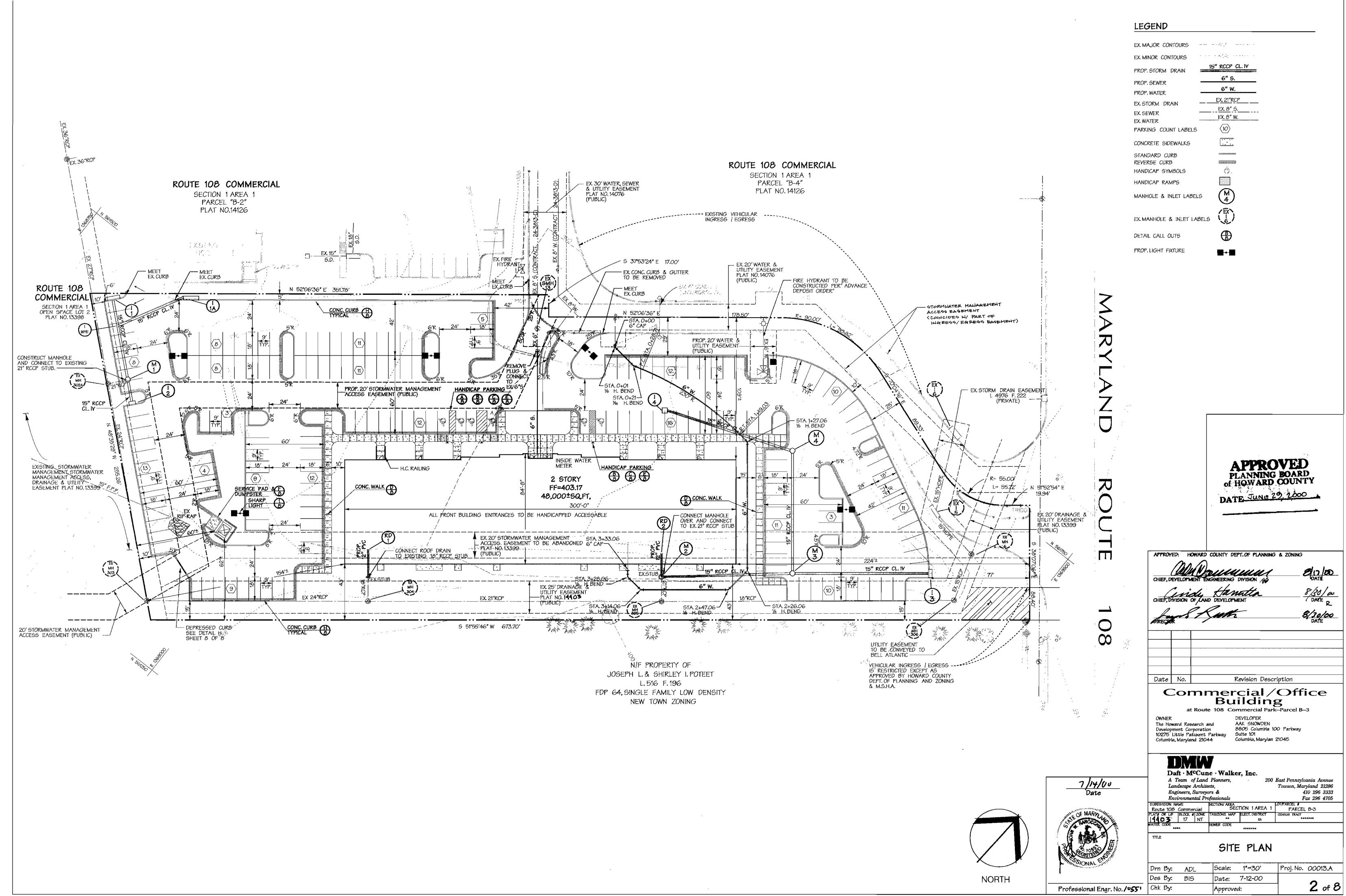
Drn By: ADL Des By: BS

7/14/00

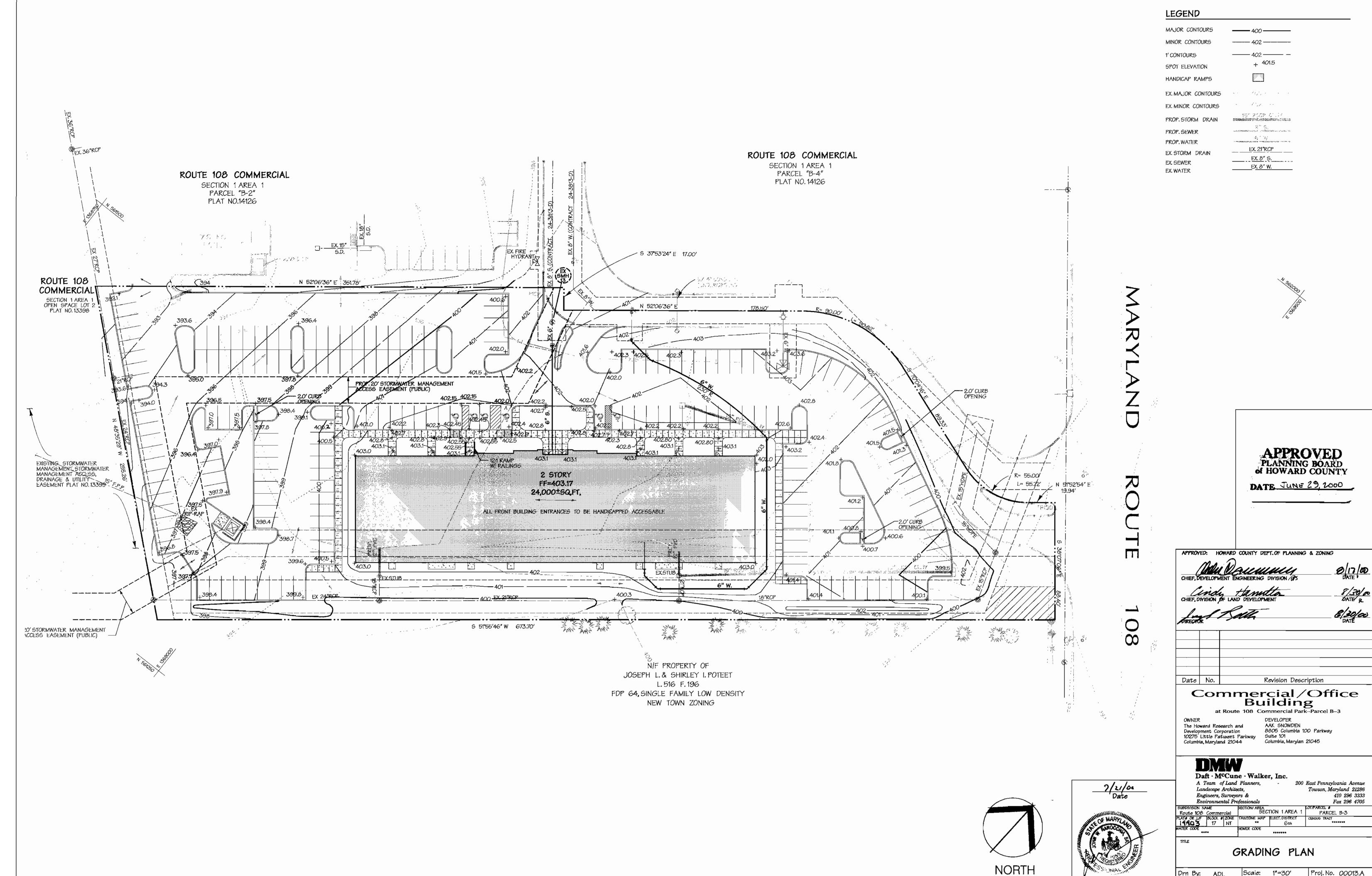
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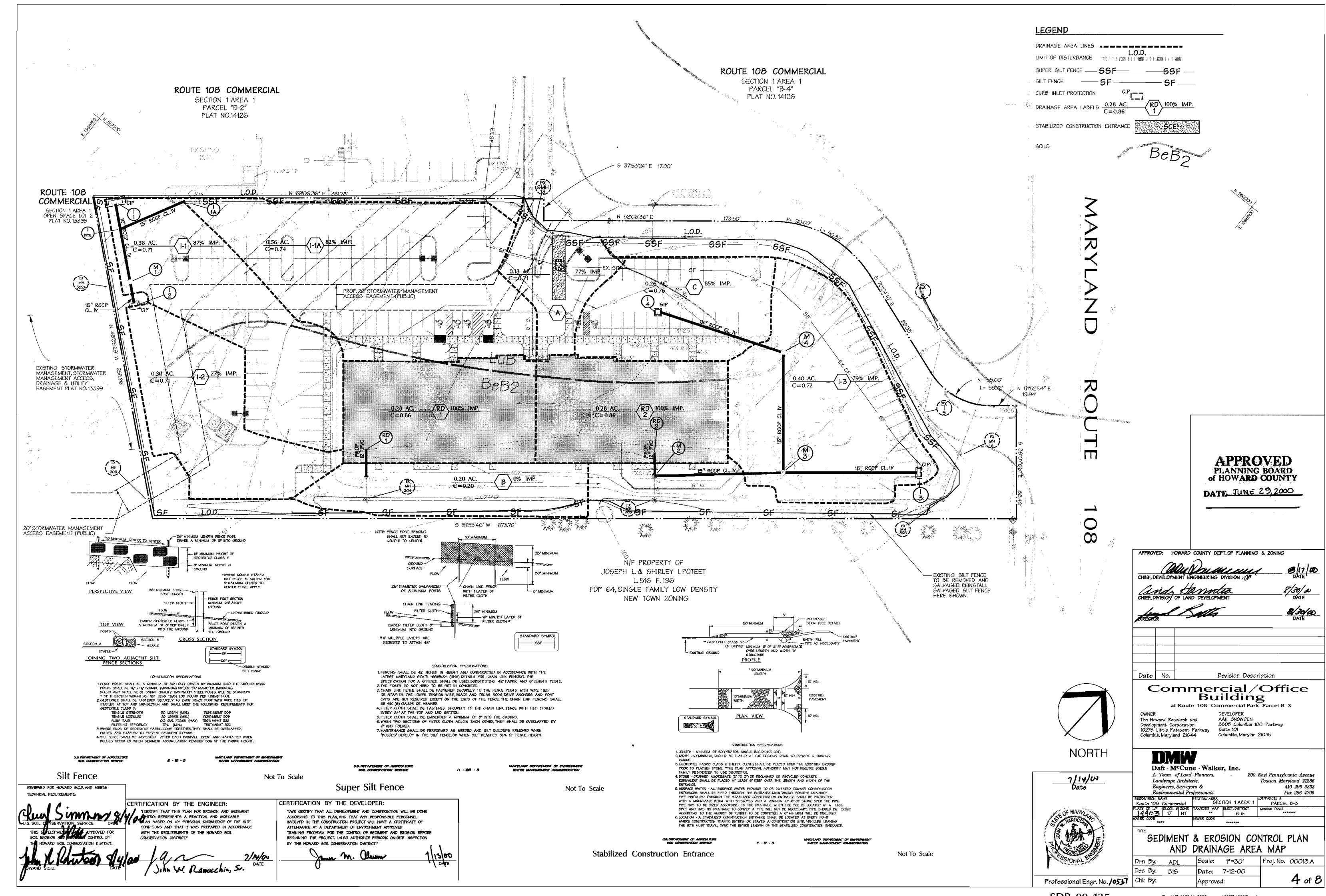
SDP-00-125



SDP-00-125

Proj. No. 00013.A Drn By: ADL Scale: 1"=30" Des By: BIS Date: 7-12-00 3 of 8 Professional Engr. No. 10551 Chk By: Approved:

Fri Jul 21 09:52:15 2000 m:\00013a\00013a.gp1



SDP-00-125

Thu Jul 13 14:29:44 2000 m/\00013a\00013a.esc1

## C. Seedbed Preparation

i. Temporary Seedina Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of sultable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the counter

b. Apply fertilizer and lime as prescribed on the plans.

c. Incorporate lime and fertilizer into the top 3 - 5" of soil by disking or other sultable means.

#### II. Permanent Seeding

other suitable means.

a. Minimum soil conditions required for permanent vegetative

establishment: Soll pH shall be between 6.0 and 7.0

Soluble salts shall be less than 500 parts per million (ppm). 3. The soli shall contain less than 40% clay but enough fine grained material ( > 30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lovegrass or serecia lespedeza is to be planted, then a sandy soil ( < 30% silt plus clay) would be acceptable.

topsoil is required in accordance with Section 21 Standard

Soil shall contain 1.5% minimum organic matter by weight. 5. Soli must contain sufficient pore space to permit adequate root penetration. 6. If these conditions cannot be met by the soils on site, adding

and Specification for Topsoil. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade then scarified or otherwise loosened to a depth of 3 - 5 to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoli from sliding down a slope.

c. Apply soil amendments as per soil test or as included on the plans. d. Mix soil amendments into the top 3 - 5" of topsoil by disking or

other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soll by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. The top 1-3" of soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

#### D. Seed Specifications

i. All seed must meet the regulrements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing such material on this job.

Note: Seed tags shall be made available to the Inspector to verify type and rate of seed used.

Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75-80 F. can weaken bacteria and make the innoculant less effective.

## E. Methods of Seeding

i. Hydroseeding: Apply seed uniformly with hydroseeder (slurty Includes seed and fertilizer), broadcast or drop seeder, or a culti-

a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorous): 200 lbs/ac.; K20 (potassium): 200 lbs/ac.

b. Lime - use only ground agricultural limestone, (Up to 3 tons
per acre may be applied by hydroseeding). Normally, not
more than 2 tons are applied by hydroseeding at any one

c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.

ii. Dry Seeding: This includes use of conventional drop or broadcast

a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then b rolled with a weighed roller to provide good seed soil contact.

b. Where practical, seed should be applied in two directions
 perpendicular to each other. Apply half the seeding rate in
 each direction.

III. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

> a. Cultipacking seeders are required to bury the seed in such a fashion as to provide at least 114 inch of soil covering. Seedbed must be firm after planting.

b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

## f. Mulch Specifications (In order of preference)

i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.

il. Wood Cellulose Fiber Mulch (WCFM)

a. WCFM shall consist of specially prepared wood ceilulose processed into a uniform fibrous physical state.

b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.

WCFM, including dye, shall contain no germination or growth inhibiting factors.

d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under autation and will biend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soll without inhibiting the growth of the grass seedings.

e. WCFM material shall contain no elements or compounds at concentration levels that will be phyto-toxic

f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm, diameter approximately 1 mm, pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw much should be used in areas where one

species of grass is desired.

G. Mulching Seeded Areas - Mulch shall be applied to all seeded areas where one species of grass is desired

i. If grading is completed outside of the seeding season mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with these specifications.

ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons lacre. Mulch shall be applied in a uniform loose depth of between 1" and 2". Mulch applied shall achieve a uniform distribution and depth so that the soil surface e not exposed. If a mulch\_anchoring tool is to be used, the rate should bé increased to 2.5 tonslacre.

III. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum 50 lbs. of wood cellulose fiber per 100 gallons of water.

H. Securing Straw Mulch (Mulch Anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area

> i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour

ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds acre The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose iber per 100 gallons of water.

III. Application of liquid binders should be heavier at the edges where wind catches mulch, such as In valleys or on crest of banks. The remainder of area should appear uniform after binder application. Synthetic binders - such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used at rates recommended the manufacturer to anchor mulch.

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

Section II - Temporary Seeding Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. For longer duration of vegetative cover, Permanent Seeding is required.

	SEED N	IXTURE (HARDINESS FROM TABLE		FERTILIZER RATE	LIME RATE		
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	(10-10-10)		
					600 LB/AC (15 LB/1000 SF)	2 TONS/AC (100 LB/1000 SF)	

#### Section III - Permanent Seeding

Seeding grass and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance.

	SEED	MIXTURE (HARDINES FROM TABI		FERTILIZER RATE	LIME RATE			
NO.	SPECIES	APPLICATION RATE (LB/AC)	SEEDING DATES	SEEDING DEPTHS	(10-10-10)			
1	ANNUAL RYEGRASS	50		14 1 <sub>2</sub> .		2 TONS/AC		
2	WEEPING LOVEGRASS	4		4"-1/2"	600 LB/AC (15 LB/1000 SF)	(100 LB/1000 SF)		

# Section IV - Sod - To provide quick cover on disturbed areas (2:1 grade or flatter).

A. General Specifications

Class of turfgrase sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made avallable to the job foreman and inspector.

II. Sod shall be machine cut at a uniform soil thickness of 3/4°, plus or minus 1/4", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be

ili. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.

iv. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival. v. Sod shall be harvested, delivered, and installed within a period of

36 hours. Sod not transplanted within this period shall be approved by an agronomist or soll scientist prior to its installation.

# B. Sod Installation

l. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.

ii. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and tightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent volds which would cause air drying of the roots.

lii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solld contact between sod roots and the underlying soll surface.

lv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations laying, tamping and irrigating for any piece of sod shall be completed within eight

## C. Sod Maintenance

!. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent

II. After the first week, sod watering is required as necessary to maintain adequate moisture content.

iii. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise

#### Section V - Turfgrass Establishment

Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and raked to prepare a prope seedbed. Stones and debris over 1½ inches In diameter shall be removed. The resultina seedbed

#### A. Turfgrass Mixtures

1. Kentucky Bluegrass - Full sun mixture - For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and eastern shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds/1000 square feet. A minimum of three bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the

il. Kentucky Bluegrass/Perennial Rye - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding rate: 2 pounds mixture/1000 square feet. A minimum of 3 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.

iii. Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; certified Tall Fescue Cultivars 95 - 100%, certified Kentucky Bluegrass Cultivars 0 - 5%. Seeding rate: 5 to 8 lb/ 1000 sf. One or more cultivars may be blended.

lv. Kentucky Bluegrass/Fine Fescue - Shade Mixture - For use in areas with shade in Bluegrass lawns, For establishment in high quality, intensively managed turf area. Mixture includes; certified Kentucky Bluegrass Cultivars 30-40% and certified Fine Fescue and 60-70%. Seeding rate: 11/2 - 3 lbs/1000 square feet. A minimum of 3 Kentucky Bluegrass cultivars must be chosen, with each cultivar ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

Note: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Mimeo #77, Turfgrass Cultivar Recommendations for Maryland.

#### B. Ideal times of seeding

Western MD: March 15 - June 1, August 1 - October 1 (Hardiness Central MD: March 1 - May 15, August 15 - October 15 (HardIness

Southern MD, Eastern Shore: March 1 - May 15, August 15 - October 15 (Hardiness Zones - 7a, 7b)

#### C. irrigation

If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2" - 1" every 3" to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made lat in the planting season, in abnormally dry or hot seasons, or on

Inspect all seeded areas for fallures and make necessary repairs, replacements, and reseedings within the planting season.

I. Once the vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.

II. If the stand provides less than 40% ground coverage, reestablish following original lime, fertilizer, seedbed preparation and seeding

ill. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half of the rates originally applied may be necessary.

lv. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For lawns and other medium high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care In Maryland" Bulletin No. 171.

Solitest must be performed to determine the exact ratios and

G - 20 - 1A

## VEGETATIVE STABILIZATION

#### DUST CONTROL SPECIFICATIONS

TEMPORARY METHODS: 1. MULCHES - SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES

ONLY MUICH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING. 2. YEGETATIVE COVER - SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER 3. TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE, THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE, CHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, SPRING-TOOTHED HARROWS, AND SIMILAR PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IPPLICATED TO THE POINT THE POINTER BEGINS TO SLOW 5. BARRIERS - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE AFFECTIVE IN CONTROLLING SOIL BLOWING. 6. CALCIUM CHLORIDE - APPLY AT A RATE THAT WILL KEEP SURFACE MOIST, MAY NEED

4. IRRIGATION - THIS IS GENERALLY DONE AS AN AN EMERGENCY TREATMENT, SITE IS

#### PERMANENT METHODS:

Dust Control Specifications

MAX. DRAINAGE AREA = 1/4 ACRI

GEOTEXTILE -

I.S. DEPARTMENT OF AGRICULTUR

Standard Inlet Protection

BOIL CONSERVATION SERVICE

1. PERMANENT VEGETATION - SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD, EXISTING TREES OR LARGE SHRUBS MAY AFFORD

VALUABLE PROTECTION IF LEFT IN PLACE. 2. TOPSOILING - COVERING WITH LESS EROSIVE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.

3. STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

- 2" x 4" FRAMING

-TOP ELEVATION

- NOTCH ELEVATION

- NAILING

POST DRIVEN-

STRIP

- WIRE MESH

FLOODING AND SAFETY ISSUES MAY ARISE.

THE ENDS MUST MEET AND OVERLAP AT A POST.

GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED.

POST, BE OVERLAPPED AND FOLDED, THEN FASTENED DOWN.

\* \* \*

CONSTRUCTION SPECIFICATIONS

2 DRIVE THE 2" x 4" CONSTRUCTION GRADE LUMBER POSTS 1"INTO THE GROUND AT EACH

3. STRETCH THE %" x &" WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY

WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES. 6. IF THE INLET IS NOT IN A SUMP. CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH

4. STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH WITH THE GEOTEXTILE

THE GEOTEXTILE FIRMLY TO THE FRAME. THE ENDS OF THE GEOTEXTILE MUST MEET AT A

5 BACKFISS AROUND THE INLET IN COMPACTED 6' LAYERS UNTIL THE LAYER OF EARTH IS LEVEL

LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6" HIGHER

7. THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE

E -18 - 5

CORNER OF THE INLET, PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE

1. EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18" BELOW THE NOTCH ELEVATION.

INLET, ASSEMBLE THE TOP PORTION OF THE 2"x 4" FRAME USING THE OVERLAP JOINT SHOWN

ON DETAIL. THE TOP OF THE FRAME (WEIR) MUST BE 6" BELOW ADJACENT ROADWAYS WHERE

EXTENDING FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION, FASTEN

MARYLAND DEPARTMENT OF ENVIRONMEN H - 50 -

EDGE OF ROADWAY OR-

TOP OF EARTH DIKE

6" MINIMUM

WATER MANAGEMENT ADMINISTRATION

Not To Scale

FYCAVATE BACKFILL AND

COMPACT EARTH

STANDARD SYMBOL

MAKYLAND DEPARTMENT OF ENVIRONME

Not To Scale

Sediment Control General Notes

SEQUENCE NUMBER OF DAYS 1. OBTAIN A GRADING PERMIT. -2. INSTALL SEDIMENT AND EROSION CONTROL DEVICES. \_\_\_\_\_ 3. ROUGH GRADE SITE. 4 CONSTRUCT WATER, SEWER AND STORM DRAIN AND INSTALL INLET PROTECTION. 5. BEGIN BUILDING CONSTRUCTION. 6. FINE GRADE SITE. 7. INSTALL CURB & GUTTER, PAVING AND SIDE WALKS.

8. STABILIZE ALL AREAS IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS.

9. UPON APPROVAL OF THE SEDIMENT AND EROSION CONTROL INSPECTION

REMOYE ALL EROSION CONTROL MEASURES AND STABILIZE.

**APPROVED** PLANNING BOARD of HOWARD COUNTY

SANDBAG OR 6' MAXIMUM SPACING OF 2" x 4" ALTERNATE OF 2" x 4" SPACERS WEIGHT 2" x 4" WEIR -ANCHORS %" - 1%" STONE -FILTER CLOTH-- 2° X 4° SPACER WIRE MESH FILTER CLOTH - 2" x 4" SPACER 2" x 4" WEIR STANDARD SYMBOL MAX. DRAINAGE AREA = 1/4 ACRE

## CONSTRUCTION SPECIFICATIONS

1.ATTACH A CONTINUOUS PIECE OF %"x %" WIRE MESH (30" MINIMUM WIDTH BY THROAT LENGTH PLUS 4') TO THE 2" x 4" WEIR (MEASURING THROAT LENGTH PLUS 2') AS SHOWN ON THE

STANDARD DRAWING. 2.PLACE A CONTINUOUS PIECE OF GEOTEXTILE CLASS E THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH IT TO THE 2" x 4" WEIR. 3. SECURELY NAIL THE 2" x 4" WEIR TO A 9" LONG VERTICAL SPACER TO BE LOCATED BETWEEN THE WEIR AND THE INLET FACE (MAX. 4' APART). 4 PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2'LENGTHS OF

2" x 4" TO THE TOP OF THE WEIR AT SPACER LOCATIONS). THESE 2" x 4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT 5. THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM "BEYOND BOTH ENDS OF THE THROAT OPENING.

6. FORM THE 1/2" x 1/2" WIRE MESH AND THE GEOTEXTILE FABRIC TO THE CONCRETE GUTTER AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN "X" X 16." STONE OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE.

7. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT, 8. ASSURE THAT STORM FLOW DOES NOT BYPASS THE INLET BY INSTALLING A TEMPORARY EARTH OR ASPHALT DIKE TO DIRECT THE FLOW OF THE INLET.

U.S. DEPARTMENT OF AGRICULTUR

CERTIFICATION BY THE ENGINEER:

CONSERVATION DISTRICT."

WITH THE REQUIREMENTS OF THE HOWARD SOIL

Curb Inlet Protection (COG or COS Inlets)

MARYLAND DEPARTMENT OF ENVIRONMEN

Not To Scale

TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE

CERTIFICATION BY THE DEVELOPER: \*I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT "I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE CONTROL REPRESENTS A PRACTICAL AND WORKABLE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE ATTENDANCE AT A DEPARTMENT OF ENVIRONMENT APPROVED

> BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT." M. Olen

Date No.

REVIEWED FOR HOWARD S.C.D. AND MEETS

THIS DEVELOPMENT PLAN IS APPROVED FOR

THE HOWARD SOIL CONSERVATION DISTRICT.

2/14/00

Professional Engr. No./055

SOIL EROSION AND SEDIMENT CONTROL BY

TECHNICAL REQUIREMENTS.

Jummw 8/4/10 Commercial /Office Building at Route 108 Commercial Park-Parcel B-3

The Howard Research and Development Corporation Columbia, Maryland 21044

Sulte 101 Columbia, Marylan 21045

Daft · McCune · Walker, Inc. A Team of Land Planners, Landscape Architects,

Engineers, Surveyors &

Environmental Professionals SECTION 1 AREA 1 Route 108 Commercial

BEWER CODE

TITLE SEDIMENT & EROSION CONTROL DETAILS

5 of 8 Approved:

SDP-00-125

Thu Jul 13 14:30:55 2000 m\00013a\00013a.eec2

6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM 3.53 ACRES 3.24±ACRES 2.25 ACRES 1.19 ACRES

TOTAL OUT 3970 CUBIC YARDS TOTAL FILL 4110 CUBIC YARDS OFF-SITE WASTELBORROW AREA LOCATION WASTE # 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE. 9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF

INSPECTIONS, AND PERMITS, SEDIMENT CONTROL DIMISION PRIOR TO THE START OF ANY

2 AT VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE

3. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY

AND REVISIONS THERETO.

MANUAL", STORM DRAINAGE.

TOTAL AREA OR SITE

area disturbed

7. SITT ANALYSIS:

STABILIZATION SHALL BE COMPLETED WITHIN:

PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 34.

FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

AREA TO BE VEGETATIVELY STABILIZED

AREA TO BE ROOFED OR PAVED

PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL'

A. SEVEN CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES,

S. ALI. DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN

EROSION AND SEDIMENT CONTROL" FOR PERMANENT SEEDINGS (SEC. 51), SODS (SEC. 54).

TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH

MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW

ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL

B. FOURTHEN DAYS AS TO ALL OTHER DISTURBED OF GRADED AREAS ON THE PROJECT SITE.

4. ALL SEDIMENT TRAPS/BASING SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND

THEIR PERIMETER IN ACCORDANCE WITH VOL.1, CHAPTER 12, OF THE "HOWARD COUNTY DESIGN

HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. 10. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE REQUESTED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING, OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROYAL BY THE INSPECTION AGENCY IS MADE.

11. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH SHALL BE BACK-FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

Not To Scale SEQUENCE OF CONSTRUCTION

DATE JUNE 29, 2000

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING S/D/D Marie Miller Marie M CHIEF, DEVELOPMENT ENGINEERING DIVISION A 8/30/10 DATE R

Revision Description

DEVELOPER AAK SNOWDEN 8805 Columbia 100 Parkway

200 East Pennsylvania Avenue Towson, Maryland 21286 410 296 3333 Fax 296 4705

PLATE OR LIF BLOCK # ZONE TAXZONE MAP ELECT. DISTRICT | 14403 17 NT \*\* 6 th

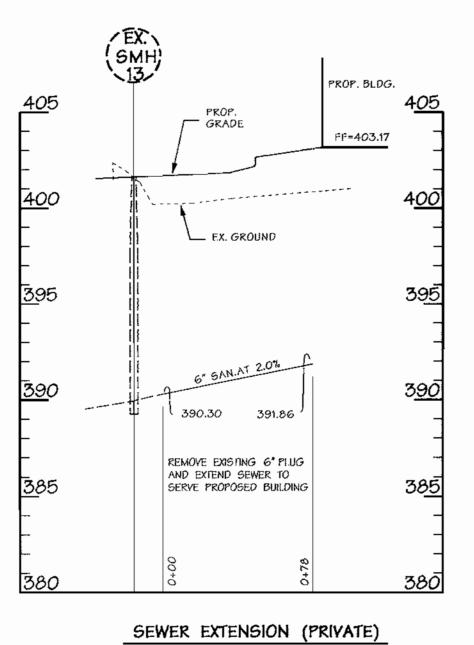
Drn By: ADL Scale: 1"=30' Proj. No. 00013.A

10275 Little Patuxent Parkway

Des By: BIS Date: 7-12-00 Chk By:

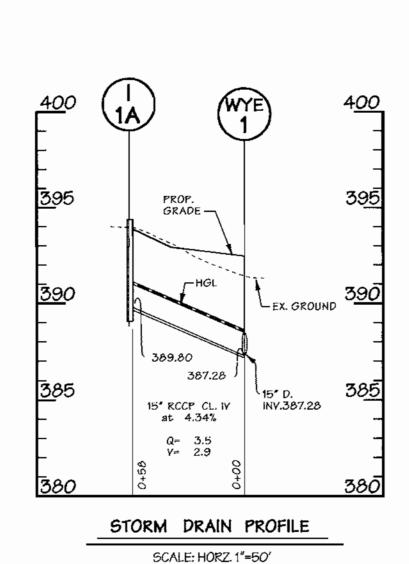
#### STRUCTURE SCHEDULE

				TOP ELEV,						coo	RDINATES
NO.	TYPE	INV. OUT	INV. IN				RE	MARKS		NORTH	EAST
I-1A	A-10	389.80		394.38		но	со	STD. SD	4.02	561,492.2	1,368,848.4
l1	A-5	388.75		392.60		HO	co	STD.SD	4.01	561,455.3	1,368,801.3
1-2	<b>A-</b> 5	387.55		394.50		но	co	STD. SD	4.01	561,403.0	1,568,860.6
⊹3	<b>A-</b> 5	395.76		400.0		HO	СО	STD. SD	4.01	561,675.4	1,369,422.7
1-4	5	398,00		401.50		но	co	STD. SD	4.22	561,649.5	1,369,186.4
M-1	STD. MANHOLE	382,65	384.35	393.52		но	co	STD. G	5.12	561,414.3	1,368,847.8
M-2	STD. MANHOLE	388.33	390.0	402.00		но	co	STD.G	5.12	561,547.2	1,369,263.4
M-3	STD. MANHOLE	394.90	395.10	401.00		HO	ÇO	STD.G	5.12	561,611.3	1,369,340.8
M-4	SHALLOW MH	397.20	397.40	402.26		но	co	STD.G	5.12	561,658.4	1,569,252.7
WYE-1	15"X15" BRICK "Y"	387.28	387.28			HO	со	STD.G	5.12	561,442.0	1,368,816.4

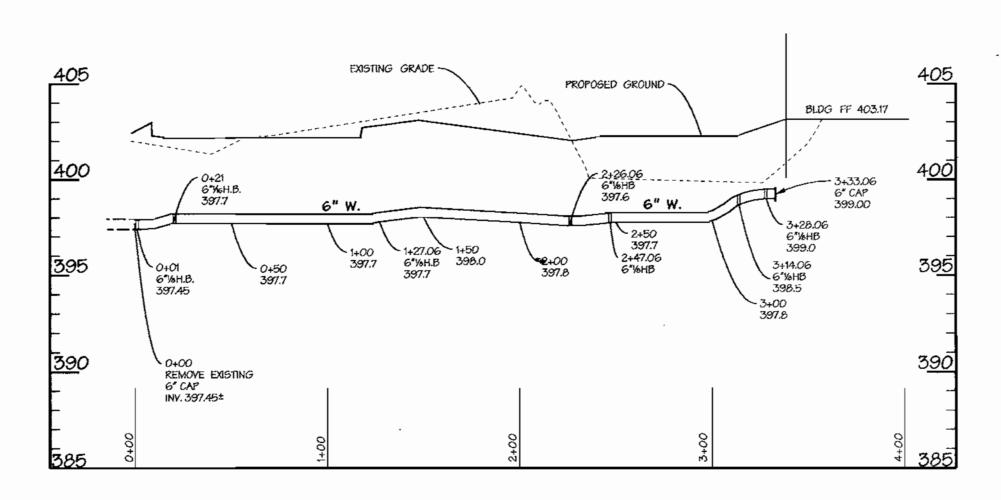


SCALE: HORZ. 1"=50"

VER1.1"=5"



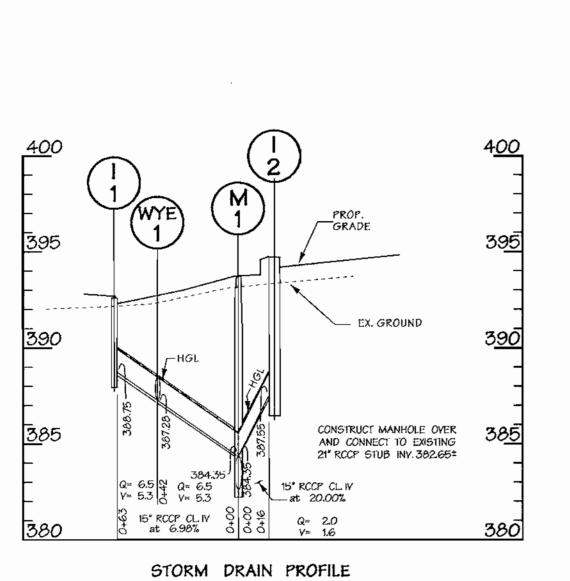
YERT. 1"=5"



6" WATER EXTENSION (PRIVATE)

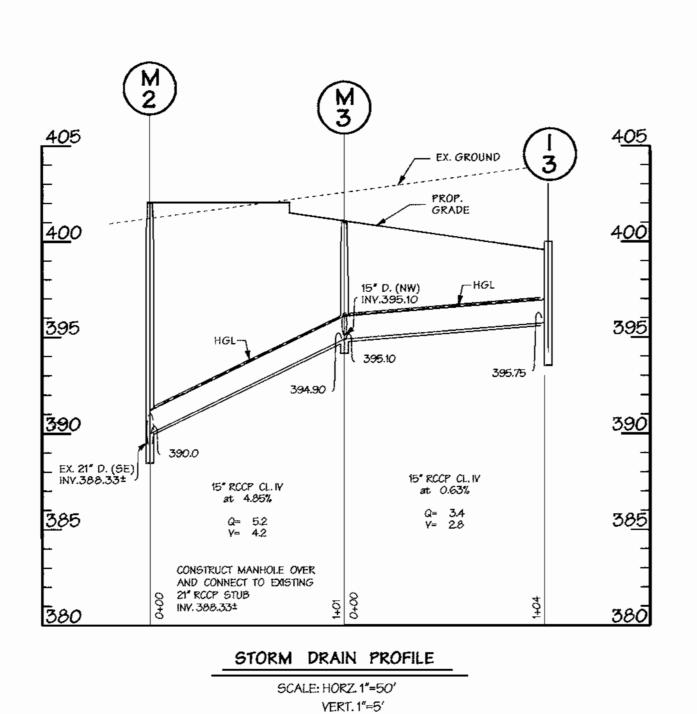
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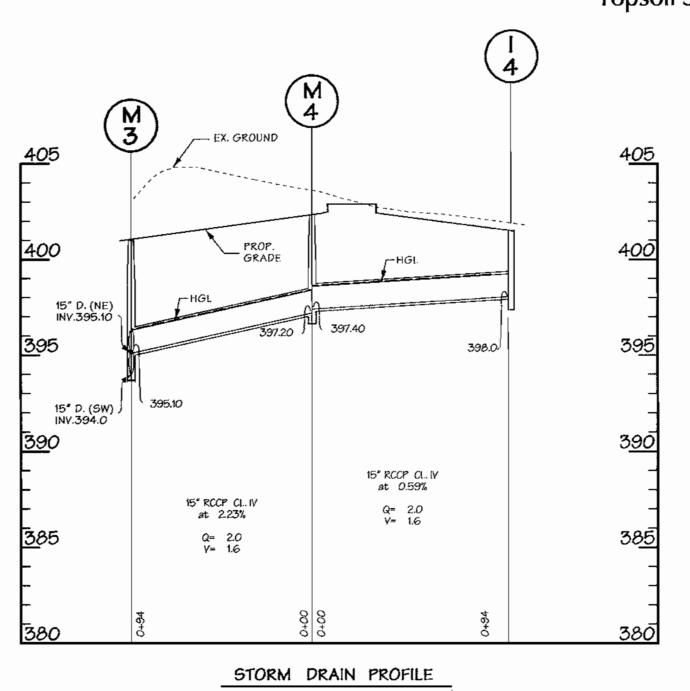
YERT. 1"=5"



SCALE: HORZ. 1"=50"

YERT. 1"=5"





SCALE: HORZ 1"=50"

VERT. 1"=5"

CONTRACTOR TO TEST PIT TO DETERMINE ACTUAL LOCATION AND ELEVATION OF EXISTING 6" CAP PRIOR TO LAYING PIPE.

Professional Engr. No. /0557

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

Definition

Placement of topsoil over a prepared subsoil prior to establishment of permanent

Purpose

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

Conditions Where Practice Applies

I. This practice is limited to areas having 2:1 or flatter slopes where:

a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.

b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.

c. The original soil to be vegetated contains material toxic to plant growth. d. The soil is so acidic that treatment with limestone is not feasible.

II. For the purpose of these Standards and Specifications, areas having slopes steeper than 2:1 require special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

Construction and Material Specifications

I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.

11. Topsoil Specifications - Soil to be used as topsoil must meet the following:

i. Topsoil shall be a loam, sandy loam, clay loam, sllt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be mixture of contrasting textured subsoils and shall contain less than 5% by volume of cinders, stones, slags, coarse fragments, gravel sticks, roots, trash, and other materials larger 11/2 inch in diameter.

ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.

iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:

i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:

I. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:

a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.

b. Organic contents of topsoil shall be not less than 1.5 percent by weight.

c. Topsoil having soluble salt content greater than 500 parts per million shall not be

or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

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

ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization-Section I-Vegetative Stabilization Methods and

V. Topsoil Application

i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slop Silt Fence and Sediment Traps and Basins.

ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4\*-8\* higher in elevation.

iii. Topsoil shall be uniformly distributed in a 4\* - 8\* layer and lightly compacted to a minimum thickness of 4\*. Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.

iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

**Topsoil Specifications** 

7/14/CD Date

UTILITY PROFILES

Date No.

OWNER

The Howard Research and

Development Corporation

Columbia, Maryland 21044

DMW

Landscape Architects,

Engineers, Surveyors &

A Team of Land Planners,

**Environmental Professionals** 

10275 Little Patuxent Parkway Suite 101

Daft · McCune · Walker, Inc.

Proj. No. 00013.A Scale: 1"=30' Drn By: ADL Des By: Date: 7-12-00 BIS 6 of 8 Chk By: Approved:

BECTION AREA 1

SDP-00-125

TITLE

Thu Jul 13 14:53:42 2000

n:\00013a\00013a.util

Revision Description

8805 Columbia 100 Parkway

Columbia, Marylan 21045

Commercial/Office Building

at Route 108 Commercial Park-Parcel B-3

DEVELOPER

AAK SNOWDEN

200 East Pennsylvania Avenue

PARCEL B-3

Towson, Maryland 21286

410 296 3333

Fax 296 4705

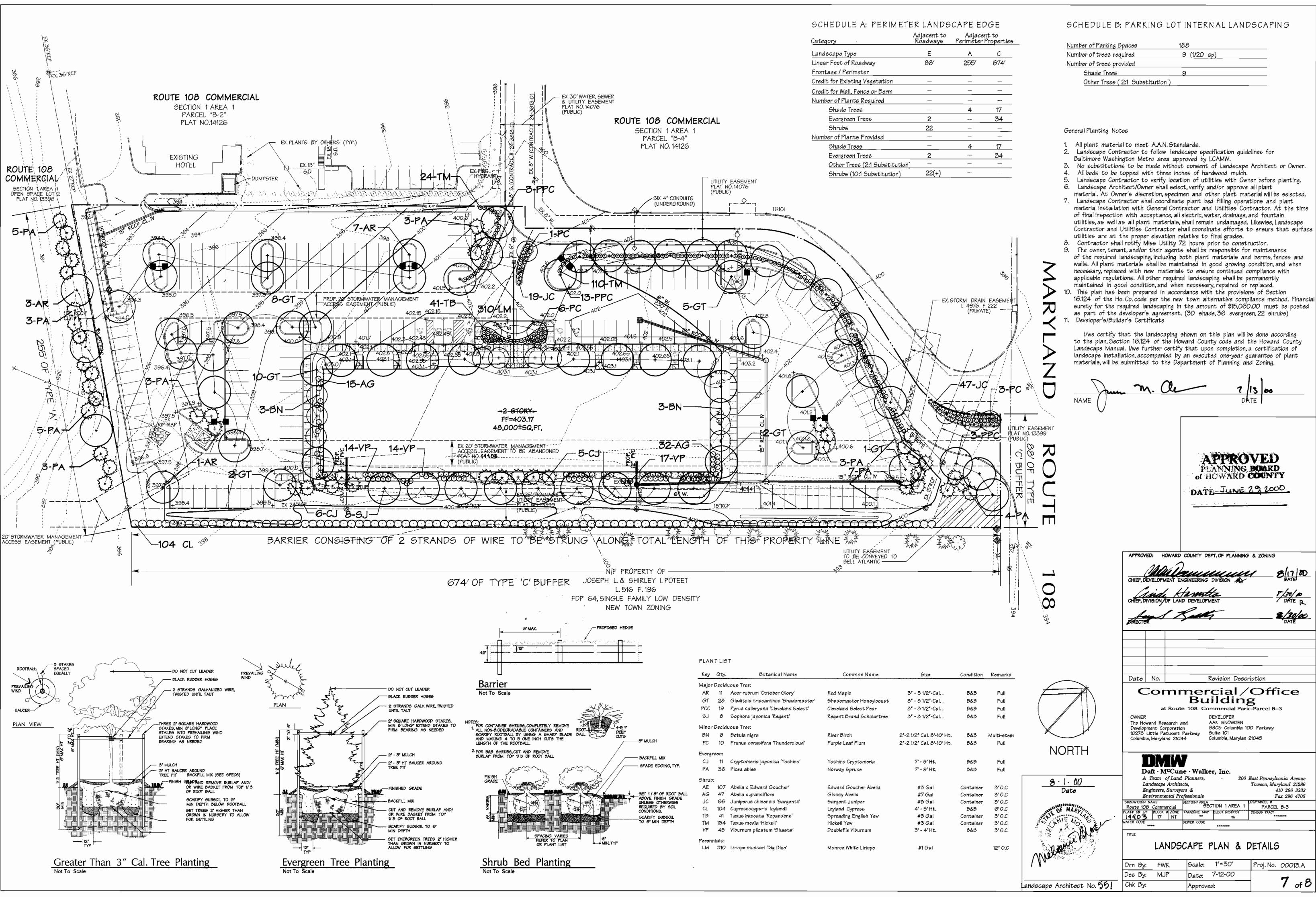
PLANNING BOARD of HOWARD COUNTY

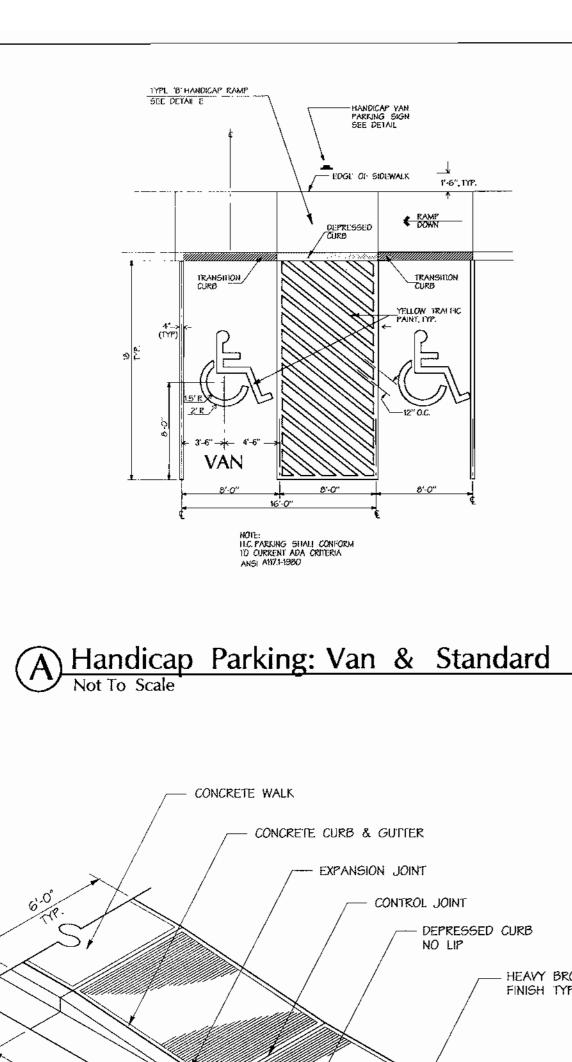
DATE JUNE 29, 2000

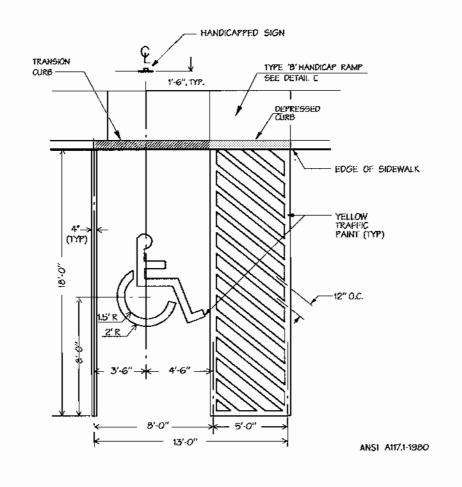
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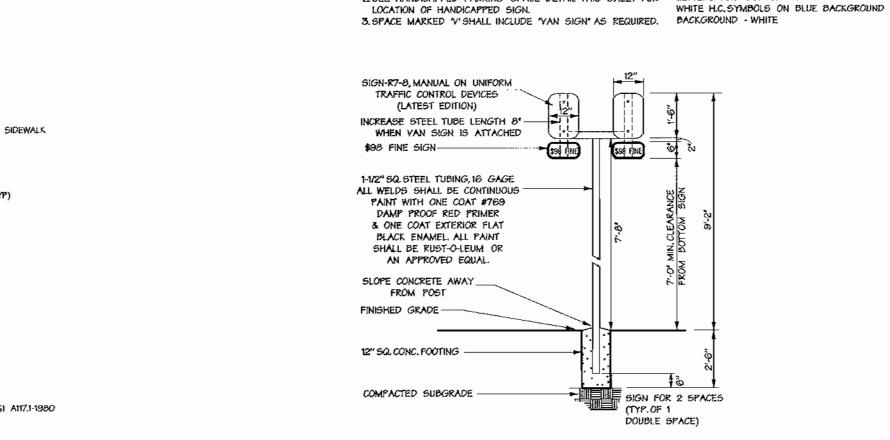
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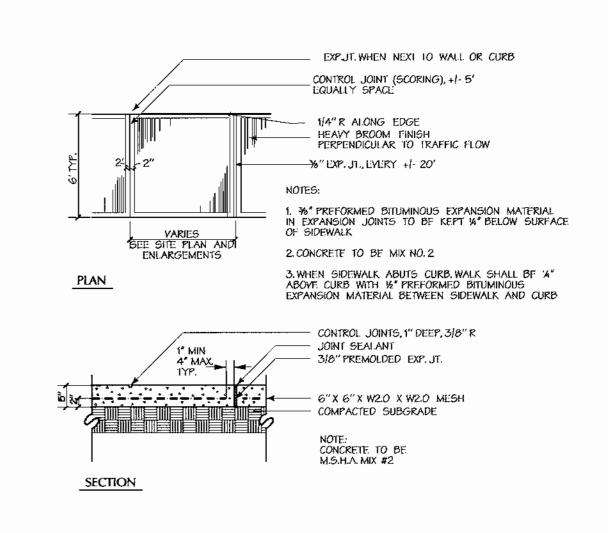
APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

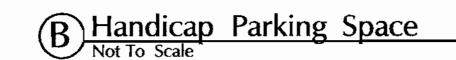












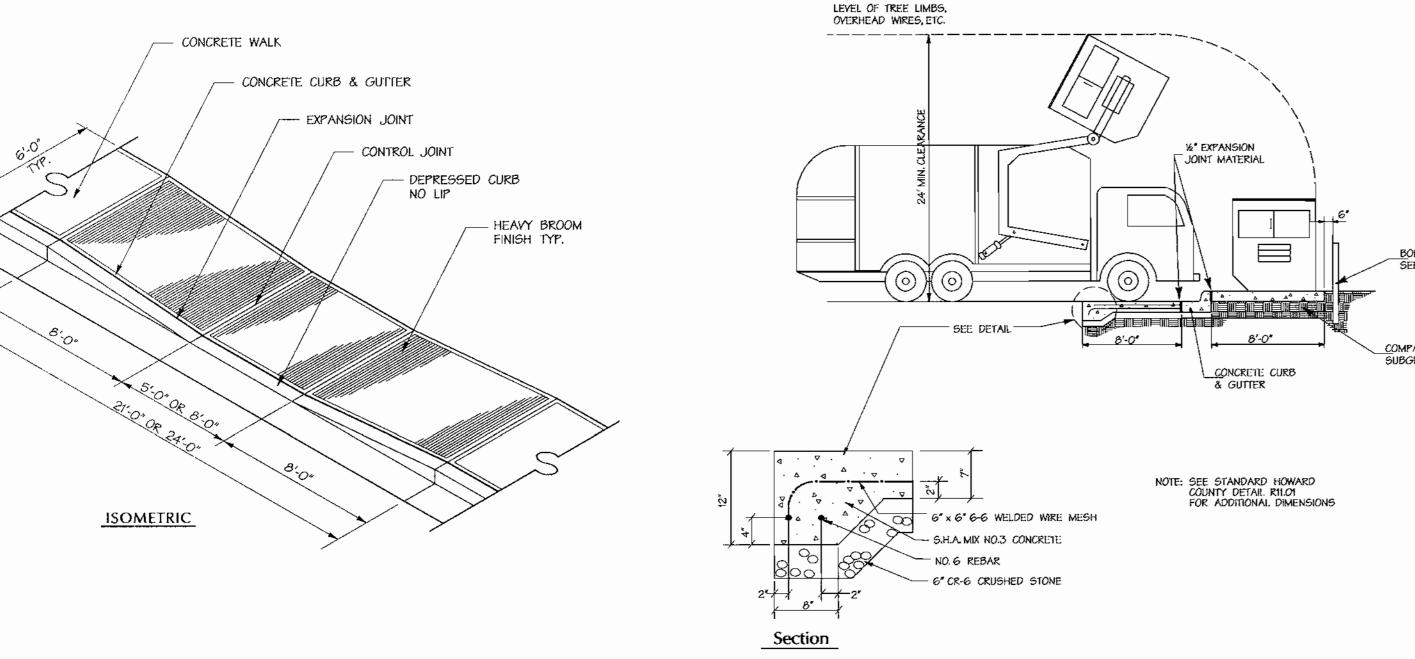


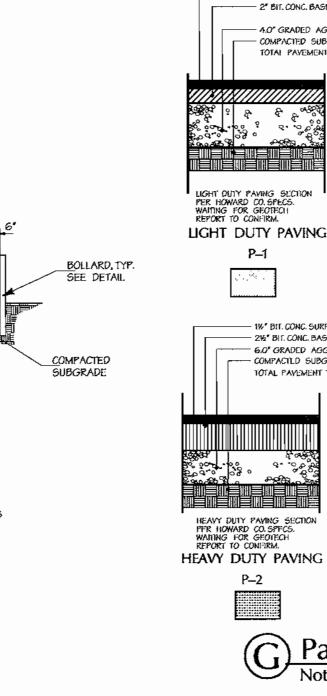
- Y BIL CONC. SURFACE

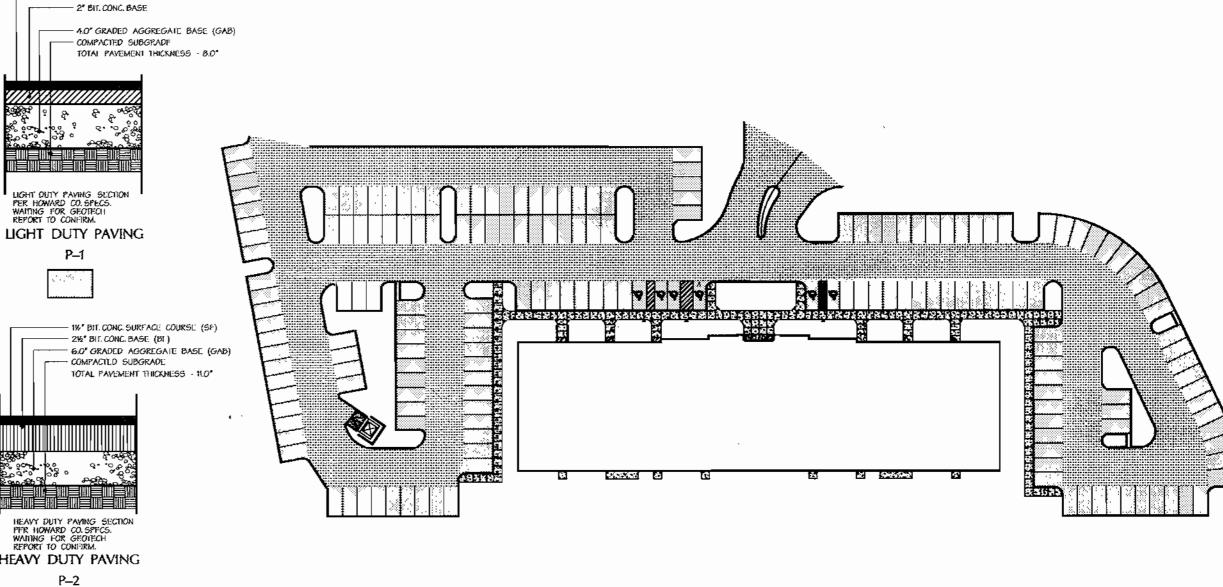
1. DISTANCE FROM GROUND TO BOTTOM OF SIGN SHALL BE 7', SIGN COLORS:

2 SEE HANDICAPPED PARKING SPACE DETAIL THIS SHEET FOR LETTERS AND BORDER - GREEN









APPROVED
PLANNING BOARD
of HOWARD COUNTY

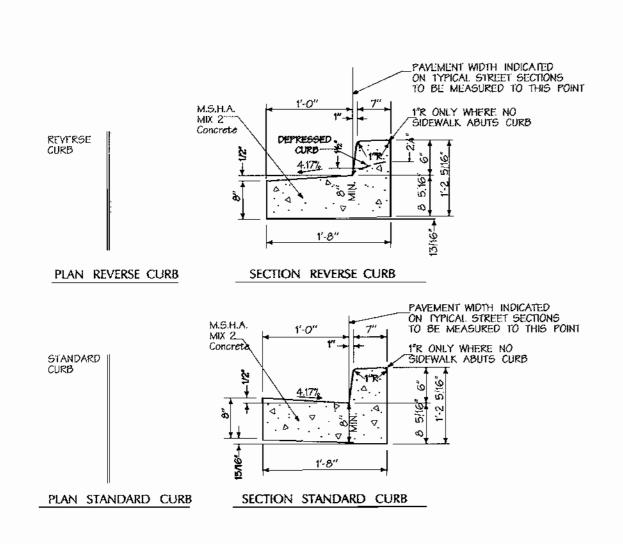
DATE JUNE 29, 2000

8/38/10 DATE 2

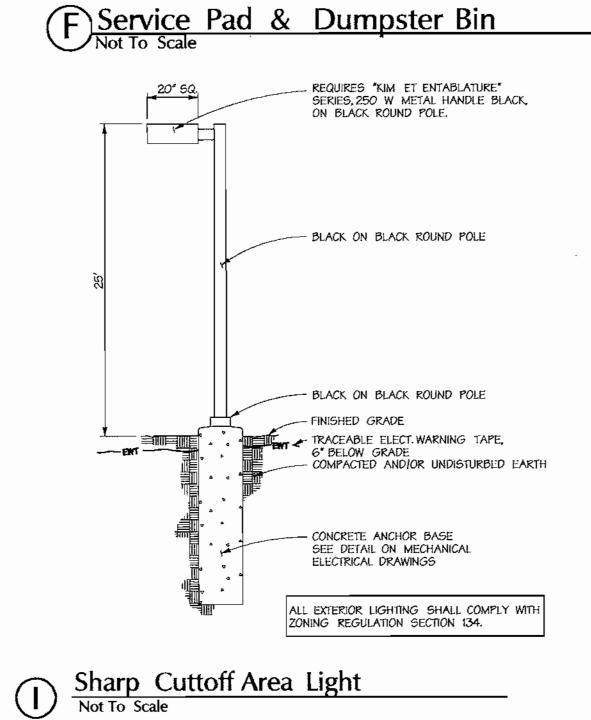
8/30/00 DATE

Paving Detail
Not To Scale

# E Type "B" Handicapped Ramp Not To Scale



H Concrete Curb, Typical



Service Pad & Recycling Bins Section
Not To Scale

8.1.00
Date

Date No. Revision Description

Commercial Office

APPROVED: HOWARD COUNTY DEPT. OF PLANNING & ZONING

# Commercial / Office Building at Route 108 Commercial Park-Parcel B-3

OWNER
The Howard Research and Development Corporation
10275 Little Patuxent Parkway
Columbia, Maryland 21044

DEVELOPER
AAK SNOWDEN
8805 Columbia 100 Parkway
Suite 101
Columbia, Maryland 21045

Daft · McCune · Walker, Inc.

A Team of Land Planners,
Landscape Architects,
Engineers, Surveyors &
Environmental Professionals

200 East Pennsylvania Avenue
Towson, Maryland 21286
410 296 3333
Fax 296 4705

SITE DETAILS

SECTION AREA 1

 Drn By:
 ADL
 Scale:
 1"=30'
 Proj. No. 00013.A

 Des By:
 BIS
 Date:
 7-12-00

 Chk By:
 Approved:
 8 of 8