		QUANTIT		
IT CALL	ESTIMATED AS-BUILT			
ITEM	ESTIMATED	QUANTITIES	TYPE	SUPPLIER
8° SEWER	1511 L.F.			
0" D.I.P. SEWER	207 L.F.			
4" SEWER	935 L.F.			
MANHOLES	II EACH			
0" WATER	1.909 L.F.			
6" WATER	105 L.F.			
1" WHC	230 L.F.			
3/4" WHC	413 L.F.			
TRE HYDRANTS	3 EACH		***************************************	
8"×8" TEE	1 EACH			
8"×G" TEE	3 EACH			
8" VALVE	3 EACH			
G" VALVE	3 EACH		,	
8"-1/16 H.B.	3 EACH			
8"-1/32 H.B.	1 EACH			
PLUG & BUTTRESS	1 EACH			
8" PLUG	2 EACH			
8"-1/32 V.B.	6 EACH			

## DEVELOPER'S CERTIFICATION

"I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

Paul W. Kristel FOR: RYLAND HOMES, INC. 04/15/98

## ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

Michael J. M'Caum 2-23-98
SIGNATURE OF NIGHTER DATE

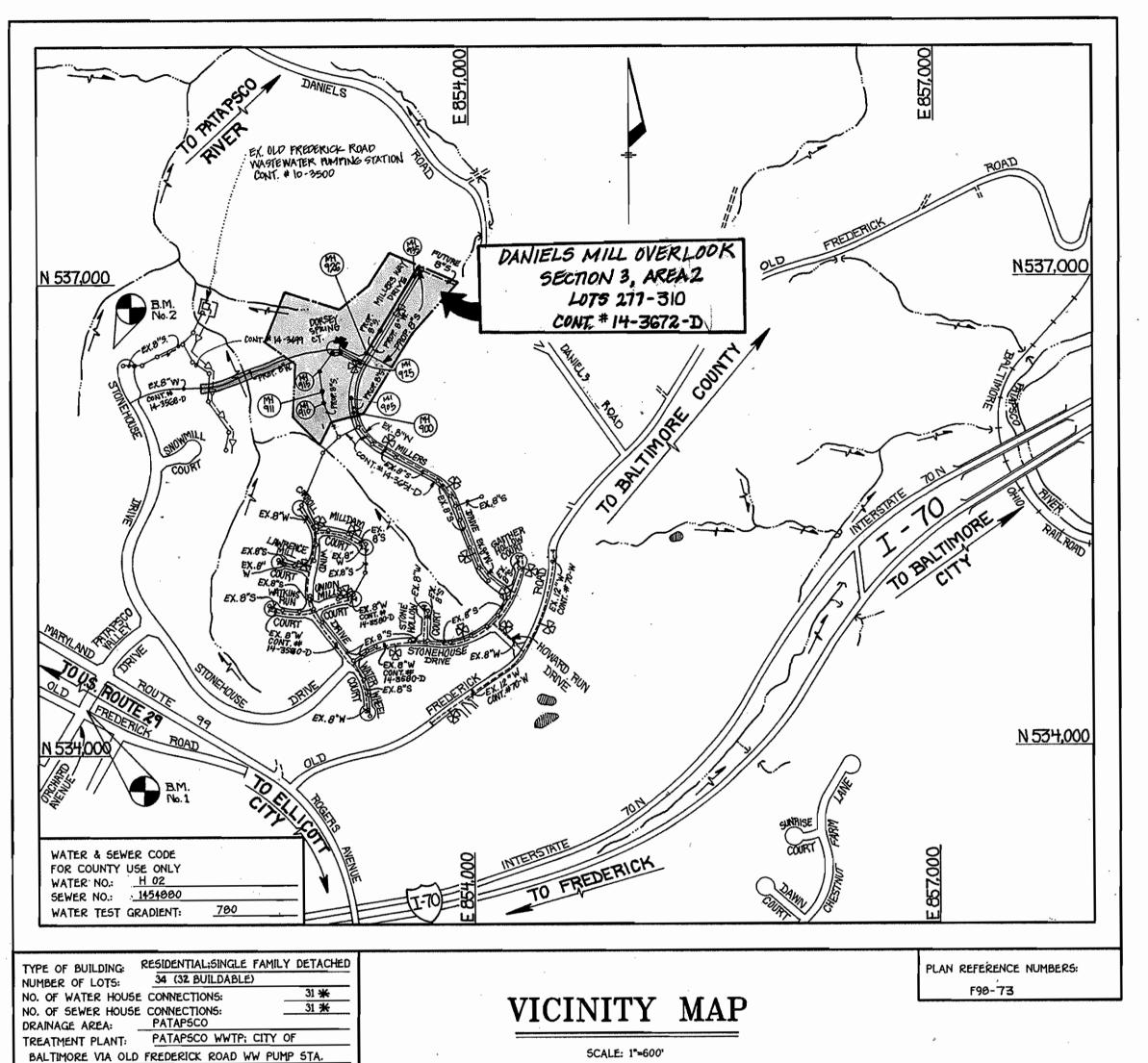
· F98-73 ·

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

THIS DEVELOPMENT IS APPROVED FOR DISTRICT.

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS

CULM. Kondselfor: Ryland Homes, INC. 04/15/98
SIGNATURE OF DEVELOPER DATE



\* BUILDADLE LOT NO. 309 WAS PREVIOUSLY PROVIDED AN THE ! A WHE UNDER CONT. NO. 14-3580-D;
DANIELS MILL OVERLOOK, SECTION &, AREA 3.
(SEE SHEET 5 FOR PLAN VIEW)

SCALE: 1\*=600'

CONTRACT No. 14-3672-D

DANIELS MILL OVERLOOK

SECTION 3, AREA 2

LOT NOS. 277-310

WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

# GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- 3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
  4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- 5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION - 531-5533

BALTIMORE GAS & ELECTRIC CO.. - CONTRACTOR SERVICES - 050-4620

BALTIMORE GAS & ELECTRIC CO.. - UNDER GROUND DAMAGE CONTROL - 707-9060

MISS UTILITY - 1-000-257-7777

COLONIAL PIPELINE CO. - 795-1390

- BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS 313-4900

  9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE
- CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR

  10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE
- INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.

  11. ALL SEWER MAINS SHALL BE D.L.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- 12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 13. T.B. DENOTES TEST BORING.
- 14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- 15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52.

  16. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- 17. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- 16. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN
- 19. MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
- 20. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER
- MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.

  21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
- 22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- 23. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 25. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WI.11 AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- 26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.

  27. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH
- 12-INCH FOR WATER AND OTHER LIQUIDS.
- 28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 10.114(a) OF THE HOWARD COUNTY CODE.

BENCHMARKS

BENCHMARK No. 1 ELEY. = 481.10

★ EXISTING MANHOLE RIM No. 1 (CONT. #10-1352-D)

N 534,318.031000 E 851,445.348000

BENCHMARK No.2 ELEV. = 407.75

HUB WITH STAKE MARKED "TRAVERSE PT. No. 126"

N 536,742.360000 E 851,766.890000

CONTRACT NO. 14-3672-D
DANIELS MILL OVERLOOK
SECTION 3 , AREA 2
LOT NOS. 277 - 310
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY MARY AND

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING

HOWARD COUNTY, MARYLAND

Mil ammen eliste

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

CENTENNIAL SQUARE OFFICE PARK
10272 BALTIMORE NATIONAL PIKE
ELLICOTT CITY, MARYLAND 21042
(410) 4GI ~ 2855



DATE :		
CHECKED BY :		
DRAWN BY : J.A.U./L.M		
DESIGNED BY : M.J.M.	`	

TITLE SHEET

600' SCALE MAP NO. 17 & 10 BLOCK NO. 12

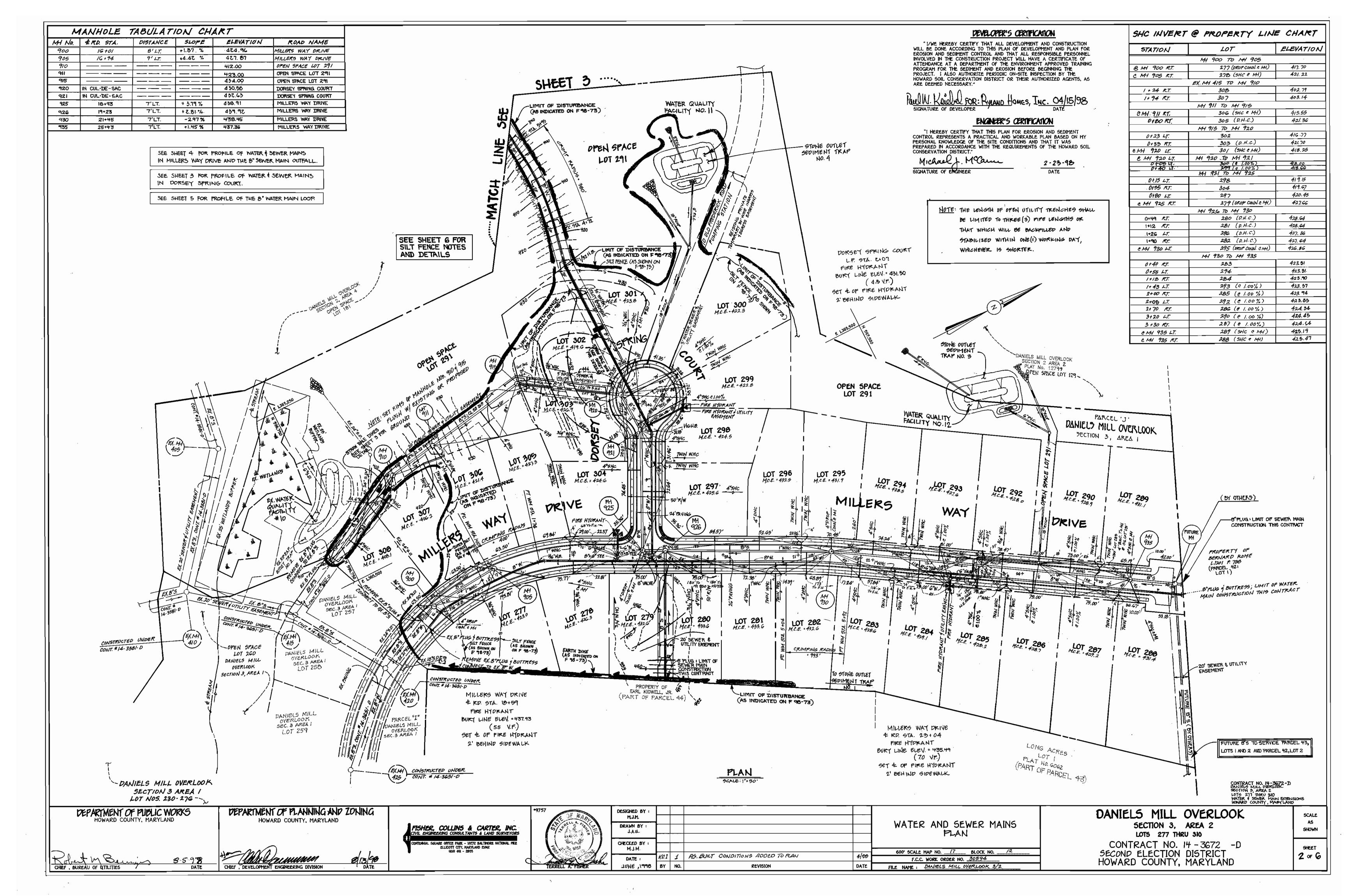
F.C.C. WORK ORDER NO. 30594

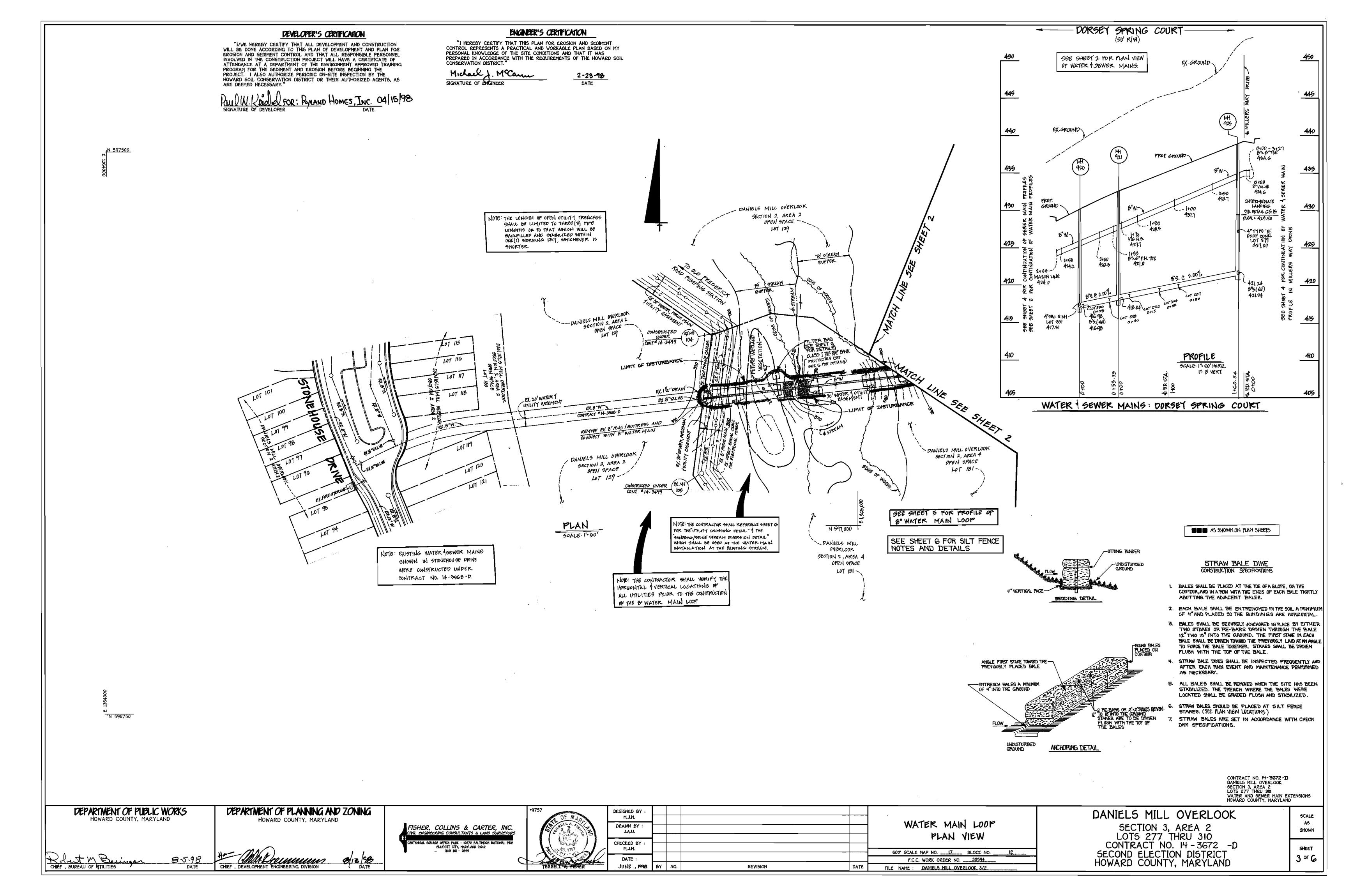
FILE NAME: DANIELS MILL OVERLOOK; 3/2

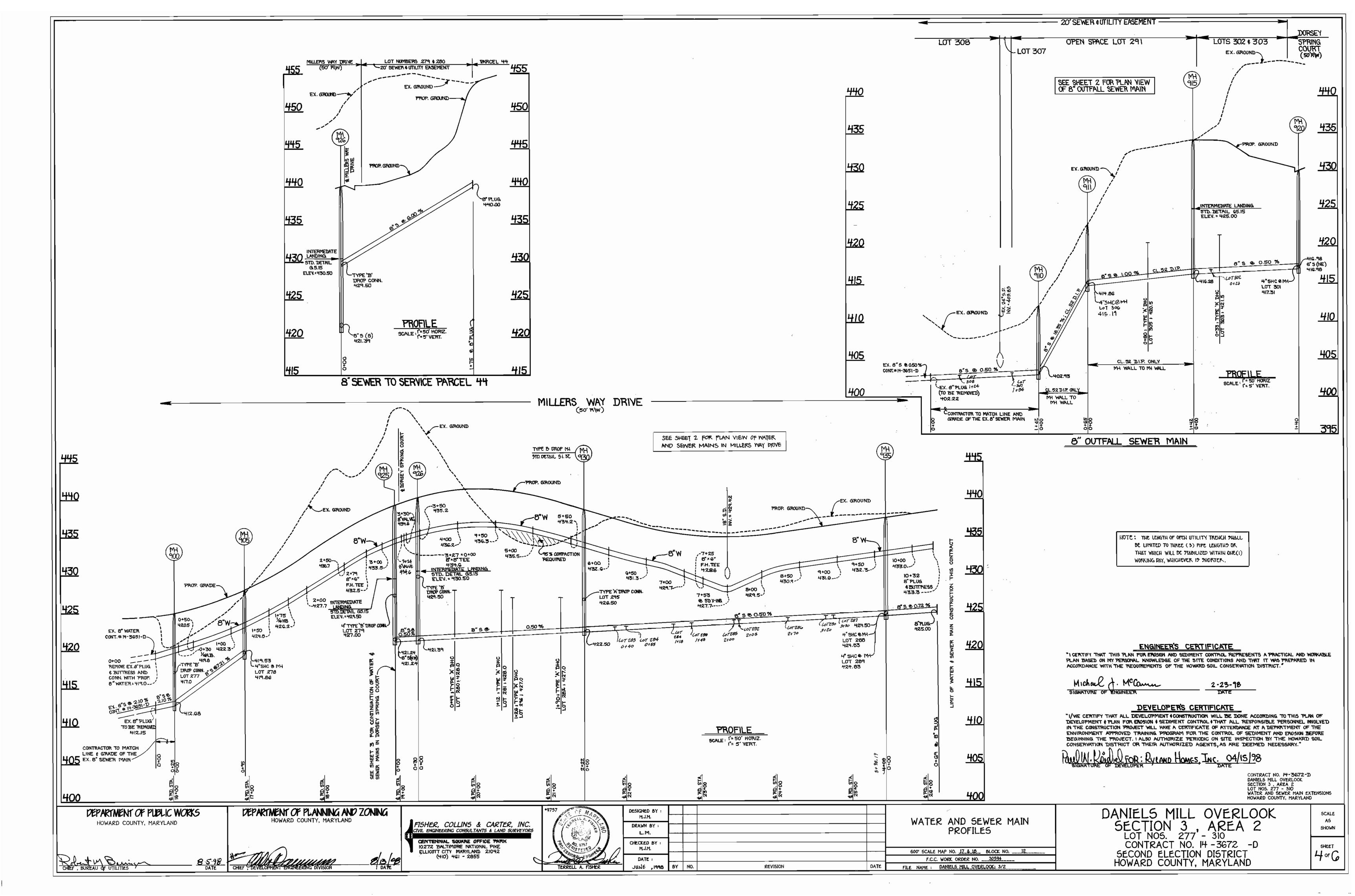
DANIELS MILL OVERLOOK SECTION 3, AREA 2 LOT NOS. 277 - 310: CONTRACT NO. 14 - 3672 - D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

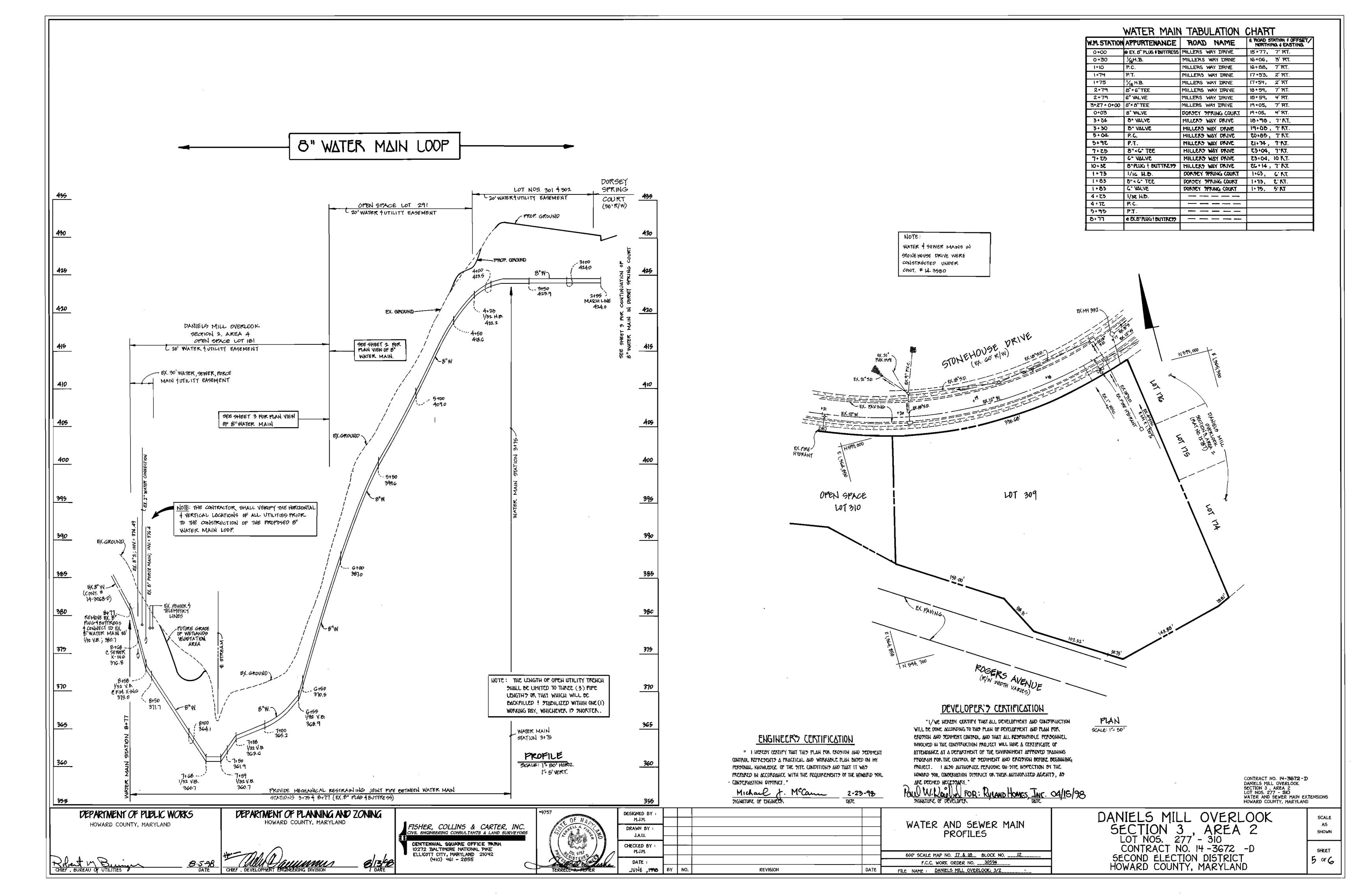
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SHEET

1 OF 6









#### SECTION 20: STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

DEFINITION

Using vegetation as cover for barren soil to protect it from forces that cause erosion.

PURPOSE

Vegetative stabilization specifications are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and run-off to downstream areas, and improving wildlife habitat and visual resources. CONDITIONS WHERE PRACTICE APPLIES

CONDITIONS WHERE PRACTICE APPLIES

This practice shall be used on denuded areas as specified on the plans and may be used on highly erodible or critically eroding areas. This specification is divided into Temporary Seeding, to quickly establish vegetative cover for short duration (up to one year), and Permanent Seeding, for long term vegetative cover. Examples of applicable areas for Temporary Seeding are temporary soil stockpiles, cleared areas being left idle between construction phases, earth dikes, etc. and for Permanent Seeding are lawns, dams, cut and fill slopes and other areas at final grade, former stockpile and staging areas, etc. EFFECTS ON WATER QUALITY AND QUANTITY

Planting vegetation in disturbed areas will have the effect on the water budget, especially on volumes and rates of runoff, infiltration evaporation, transpiration, percolation, and groundwater recharge. Vegetation, over time, will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth. Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone. Sediment control devices must remain in place during grading, seedbed preparation, seeding, mulching and vegetative establishment to prevent large quantities of sediment and associated chemicals and nutrients from washing into surface waters. SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS

- A. Site Preparation Install erosion and sediment control structures (either temporary of permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.

  ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually
- necessary for temporary seeding.

  iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed area over 5 acres.

  B. Soil Amendments (Fertilizer and Lime Specifications)
- Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee
- iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a \*100 mesh sieve and 98-100% will pass through a \*20 mesh sieve.

  Incorporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means
- Seedbed Preparation

  a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable 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 contour of the slope.
- - nunning parallel to the contour of the slope.

    b. Apply fertilizer and lime as prescribed on the plans.
    c. In corporate lime and fertilizer into the top 3-5" of soil by disking or other suitable means.

    ermanent Seeding

    a. Minimum soil conditions required for permanent vegetative establishment:

    1. Soil pH shall be between 6.0 and 7.0.

    2. Soluble salts shall be less than 500 parts per million (ppm).

    3. The soil 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 lowerages or moderate amount of moisture. An exception is if lovegrass of serecia lespedezas is to be planted, then a sandy soil (30% silt
  - plus clay) would be acceptable.

    4. Soil shall contain 1.5% minimum organic matter by weight.

    5. Soil must contain sufficient pore space to permit adequate root penetration.

    6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with Section 21 Standard 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 topsoil to the surface area and to create horizontal erosion check slots to prevent sliding down a slope.
- sliding down a slope.

  Apply soil amendments as per soil test or as included on the plans.

  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 and application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:D) 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 All seed must meet the requirements 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 ii. 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 possib until used. Temperatures above 75°-80° f. can weaken bacteria and make the inoculant less effective.
- Methods of Seeding

   Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeded, or a cultipacker seeder.

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

    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 time. Do not use burnt or hydrated lime when hydroseeding.

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

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

  a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 265 or 266. The seeded area shall then be rolled with a weighted roller to provide good seed to 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 1/4 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. . Mulch Specifications (In order of preference)
- Straw shall consist of thoroughly threshed wheat, rive or oat straw, reasonable 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.

  Wood Cellulose fiber Mulch (WCFM)

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

  - 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 uniformy spread surry. WCFM, including dye, shall contain no germination or growth inhibiting factors. 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 agitation and will blend with seed, fertilizer and other additives to form a homogeneous surry. 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
- moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedings.

  e. WCFM material shall contain no elements or compounds at concentration levels that will be phytol-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 mulch should be used in areas where one species of grass is desired.

  G. Mulching Seeded Areas Mulch shall be applied to all seeded areas immediately after seeding.

  i. If grading is completed outside of the seeding season, mulch along shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed accordance with these specifications.
- ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch shall be applied to a uniform loose depth of between 1° and 2°. Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be increased to 2.5 tons/acre.
- to be used, the rate should be increased to 2.5 tons/acre.

  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 of 50 lbs. of wood cellulose fiber per 100 gallons of water.

  Securing Straw Mulch (Mulch Anchoring): 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 and erosion hazard:

  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 safety. It used on sloping land, this practice should be used on the comfour if possible.

  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 fiber per 100 gallons of water.

  iii. Application of liquid binders should be heavier at the edges where wind catches mulch such as

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

#### SEDIMENT CONTROL NOTES

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LISCENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- 2) ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS
- CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFIC. FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.

  3) FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: a) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3:1, b) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.

  4) ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.

  5) ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 50), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50), AND MULCHING (SEC. 52), TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

  ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND APPLICATIONS.
- GERMINATION AND ESTABLISHMENT OF GRASSES.

  6) ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

  7) SITE ANALYSIS:

  TOTAL AREA OF SITE

  AREA DISTURBED

  AREA TO BE ROOFED OR PAVED

  AREA TO BE ROOFED OR PAVED

  AREA TO BE ROOFED OR PAVED

  AREA TO BE RECETATIVELY STABILIZED

  OLD ACRES

# O BE VEGETATIVELY STABILIZED

OFFSITE WASTE/BORROW AREA LOCATION ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.

ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED

1.8 ACRES (1.4 ACRES - ROAD R/W)

STREAM WIDTH

0.40 ACRES

- NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR. NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

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

#### PERMANENT SEEDING NOTES ALL DISTURBED AREAS SHALL BE STABILIZED AS FOLLOWS:

- SPEDGED PREPARATION:
  LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.
- SOIL AMENDMENTS:
  APPLY TWO TONS PER ACRE DOLOMITIC LIMESTONE (92 L85/ 1,000 SQ.FT.) AND 600 LBS. PER ACRE 0-20-20 FERTILIZER (14 LBS./1,000 SQ.FT.) BEFORE SEEDING HARROW OR DISC. INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1,000 SQ.FT.) AND 500 LBS. PER ACRE (11.5 LBS./
- FOR THE PERIODS MARCH I THROUGH APRIL 30, AND AUGUST I THROUGH OCTOBER 15, SEED WITH 100 LBS. PER ACRE (2.3 LBS./1,000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS/ACRE (1.4 LBS./1,000 SQ.FT.) KENTUCKY 31 TALL FESCUE AND 2 LBS. PER ACRE (0.05 LBS./1,000 SQ.FT.) OF WEEPING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THROUGH
  FEBRUARY 2B. PROJECT SITE BY: OPTION (I) - TWO TONS PER
  ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS
  POSSIBLE IN THE SPRING; OPTION (2) - USE SOD; OPTION (3) SEED WITH 100 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH TWO TONS/ACRE WELL ANCHORED STRAW. ALL SLOPES SHOULD
- MULCHING:

  APPLY 1 TO 2 TONS PER ACRE (10 TO 90 LBS./1,000 SQ.FT.)

  OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.

  ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING 200 GALLONS PER ACRE (5 GAL./1,000 5Q.FT.) OF EMULSIFIED ASPHALT ON FLAT ACRES. ON SLOPES 0 FEET OR HIGHER USE 340 GALLONS PER ACRE (0 GAL./1,000 5Q.FT.) FOR ANCHORING.
- MAINTENANCE:
  INSPECT ALL SEEDED AREAS AND MAKE NEEDED REPAIRS,
  REPLACEMENTS AND RESEEDINGS.

## TEMPORARY SEEDING NOTES APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED.

- SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY
- APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./ 1,000 SQ.FT.)
- FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 15 THROUGH NOVEMBER 15, SEED WITH 1.5 BUSHELS PER ACRE OF UNNUAL RYE (3.2 LBS./ACRE OF WEEPING LOVEGRASS (.07 LBS. 1,000 SQ.FT. FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE
- APPLY 1.5 TO 2 TONS PER ACRE (70 TO 90 LBS./1,000 SQ.FT.)
  OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING.
  ANCHORING TOOL OR 210 GALLONS PER ACRE (5 GAL.1,000 SQ.FT. OF EMULSIFIED ASPHALT ON FLAT ACRES ON SLOPES & FEET OR HIGHER, USE 340 GALLONS PER ACRE (0 GAL./1,000 SQ.FT.) FOR
- REFER TO THE 1900 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT

### SECUENCE OF CONSTRUCTION

OBTAIN THE REQUIRED GRADING PERMIT. NOTIFY MISS UTILITY 48 HOURS BEFORE BEGINNING ANY WORK 1-800-257-7777). NOTIFY HOWARD COUNTY CONSTRUCTION/INSPECTION DIVISION 24 HOURS BEFORE STARTING ANY WORK ((410)313-1670).
INSTALL THE REQUIRED SEDIMENT AND EROSION CONTROL DEVICES
AS INDICATED ON SHEETS 2 AND 3 OF THIS CONTRACT (5 DAYS). THE
START OF CONSTRUCTION ON THE STREAM CROSSING SHALL
BE LIMITED TO A 5-DAY CLEAR WEATHER FORECAST FROM THE N.W.S.
CONSTRUCTION WITHIN THESE LIMITS MUST BE COMPLETED WITHIN 5 DAYS. CLEAR AND GRUB AS NECESSARY; ONLY AS REQUIRED FOR EXCAVATION AND INSTALLATION OF THE WATER AND SEWER MAINS, AND ONLY WITHIN THE DESIGNATED WATER, SEWER AND UTILITY EASEMENTS (3 DAYS).
NOTE: THE LENGTH OF OPEN WATER AND/OR SEWER MAIN TRENCH SHALL BE LIMITED TO THREE (3) PIPE LENGTHS OR THAT WHICH WILL BE BACKFILLED AND STABILIZED WITHIN ONE (I) WORKING DAY, WHICHEVER IS SHORTER.

CONSTRUCT THE WATER MAIN, SEWER MAIN AND APPURTENANCES (30 DAYS).

7. STABILIZE SEED AND MULCH ALL DISTURBED AREAS IN ACCORDANCE WITH THE PERMANENT SCEDING NOTES SHOWN ON THIS SHEET (5 DAYS) FOLLOWING SUCCESSFUL STABILIZATION OF ALL DISTURBED AREAS, AND AFTER PERMISSION HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES.(3 DAYS)

### SECTION 21:

- STANDARD AND SPECIFICATIONS FOR TOPSOIL 1) DEFINITION: PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF
- PERMANENT VEGETATION.
  TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.
- 2) PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH.

  3) SPECIFICATIONS: A.TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, OR LOAMY SAND.

  B.TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING SUBSOILS.

  C.TOPSOIL SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1.5" IN DIAMETER.

  4) APPLICATION: A.TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"- 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4": AVOID SURFACE IRREGULARITIES.

  B.PLACE TOPSOIL AND APPLY SOIL AMENDMENTS AS SPECIFIED IN "STANDARDS AND SOPCIETO ATIONS FOR VECETATIONS FOR VECETATIONS. SPECIFICATIONS FOR VEGETATIVE STABILIZATION". C.TOPSOIL SHALL NOT BE PLACED DURING FROZEN, MUDDY, OR EXCESSIVELY WET

### DEVELOPER'S CERTIFICATION

I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR erosion and sediment control and that all responsible personnei EROSIAN AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS



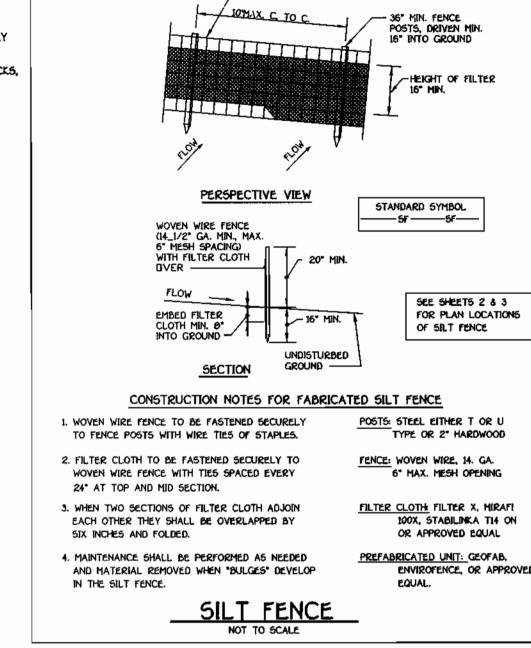
# ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL

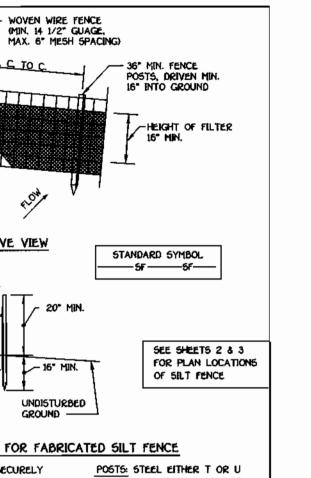
MINIMUM CHANNEL CROSSECTIONAL AREA SHALL BE 60% OF EXISTING UNLESS OTHERWISE SPECIFICALLY APPROVED

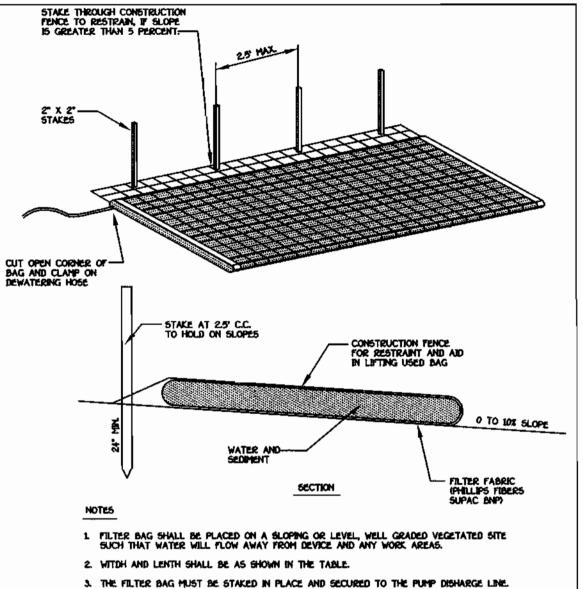
H/2+1FT

May 27, 1998



\_EXISTING GRADE

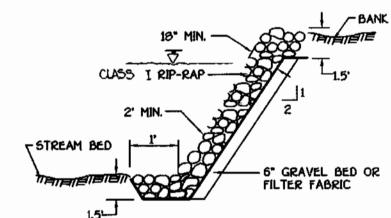




- 4. FILTER BAG SHALL NOT BE USED FOR DISCHARGE FLOWS GREATER THAN 300 GPM.

FILTER BAG DETAIL

#### SANDBAG/STONE STREAM FLOW DIVERSION DETAIL NO SCALE

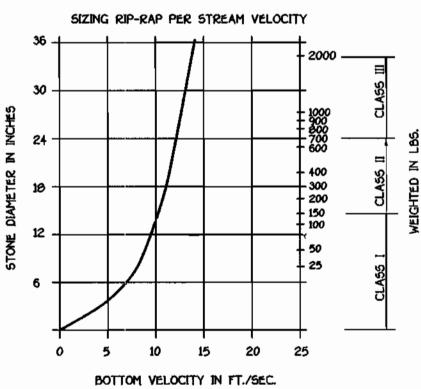


DEWATERING PUMP

- FILTER BAG

\* SIZE BASED ON BANKFULL VELOCITY

#### CROSS SECTION



RIP-RAP GRADATION PERCENT OF TOTAL WEIGHT SMALLER THAN THE GIVEN SIZE

CLASS I 150 lb. (70 kg.) 10 MAX. 2 (b. (1 kg.) CLASS II 700 b. (320 kg.) 20 lb. ao kg; 10 MAX.

A. BANK RUN GRAVEL SHALL MEET THE FOLLOWING REQUIREMENTS: U.S. STANDARD SEIVE SIZE \* LESS THAN 100 **85-100** 60-100 35-70 NO. 10

ON THIS DRAWING

1. BEDDING

II. MATERIAL SPECIFICATIONS

20-50 NO. 40 3-20 NO. 200

THIS WORK SHALL CONSIST OF PROTECTING SLOPES & CHANNELS FROM EROSION WITH COVERINGS OF STONE IN ACCORDANCE WITH THE PLANS & SPECIFICATIONS SHOWN

B. GEOTEXTILE FILTER FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS: TENSILE STRENGTH BURST STRENGTH PUNCTURE STRENGTH 70 lbs. PERMEABILITY .02 cm/sec. ELONGATION AT FAILURE

2. RIP-RAP

THE MAXIMUM WEIGHT OF RIP-RAP SHALL BE BASED UPON THE BANKFULL STREAM CHANNEL VELOCITY USING THE GIVEN CHART. CLASS I RIP-RAP SHALL BE UTILIZED.

30%

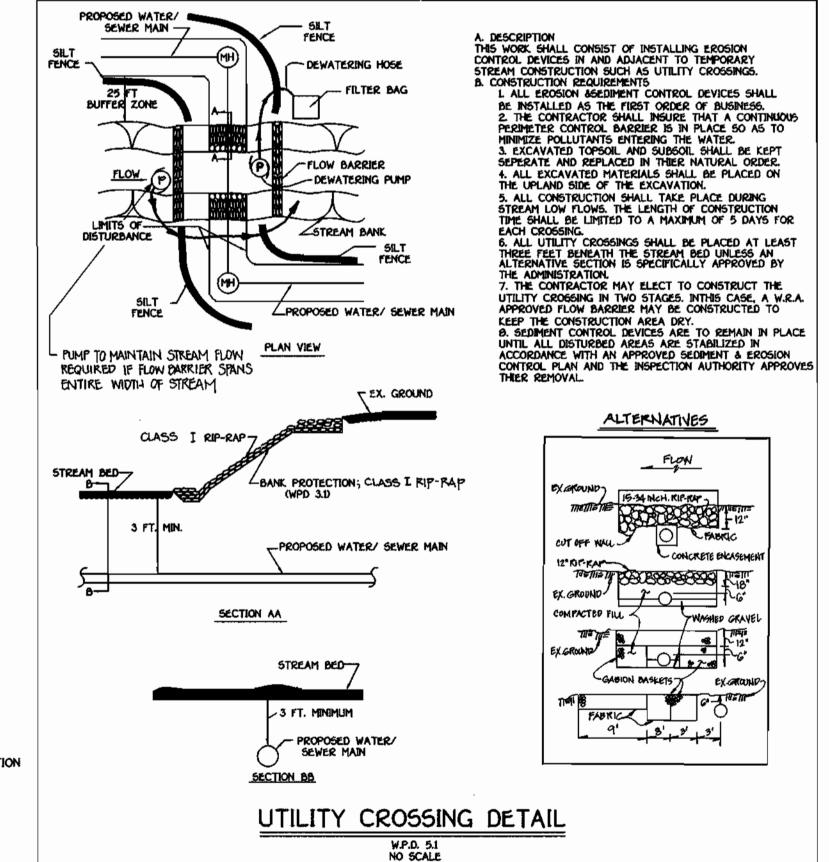
III. CONSTRUCTION REQUIREMENTS

MINIMUM LAP LENGTH

-SANDBAG/STONE DIVERSION

SECTION AA

- 1. THE CONTRACTOR SHALL INSTALL ALL SEDIMENT & EROSION CONTROL DEVICES
- AS A FIRST ORDER OF BUSINESS. 2. PROVISIONS MUST BE MADE TO ANCHOR THE RIP-RAP AT THE STREAM BED 50 AS TO PROVIDE PROTECTION AGAINST UNDER MINING. IF THIS CANNOT BE ACCOMPLISHED BY EXTENDING THE TOE TRENCH AS INDICATED IN CROSS SECTION, AN ALTERNATIVE METHOD OF PROTECTION MUST RECEIVE PRIOR WRITTEN APPROVAL
- OF THE ADMINISTRATION. 3. EXCAVATION FOR RIP-RAP SHALL BE MADE IN REASONABLY CLOSE CONFORMITY WITH THE EXISTING STREAM SLOPE & BED. 4. A FILTER BEDDING IS REQUIRED UNDER ALL RIP-RAP. BEDDING MATERIAL SHALL
- CONSIST OF EITHER A BANK RUN GRAVEL OR A GEOTEXTILE FILTER FABRIC MEETING THE SPECIFICATIONS OF ILIB ABOVE. 5. THE PLACEMENT OF RIP-RAP SHALL BEGIN WITH THE TOE. THE LARGER STONES SHALL BE PLACED IN THE TOE & ALONG THE OUTSIDE EDGES OF THE LIMITS OF THE SLOPE & CHANNEL PROTECTION. THE RIP-RAP SHALL BE PLACED WITH SUITABLE EQUIPMENT IN SUCH MANOR AS TO PRODUCE A REASONABLY GRADED MASS OF STONES WITH ZERO DROP HEIGHT. THE PLACING OF STONES THAT CAUSE EXTENSIVE SEGREGATION
- IS NOT ALLOWED. 6. ANY EXCAVATION VOIDS THAT ARE EXISTING ALONG THE EDGES OF THE COMPLETED SLOPE & CHANNEL PROTECTION SHALL BE BACKFILLED.
- 7. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED IN ACCORDANCE WITH AN APPROVED SEDIMENT AND EROSION CONTROL PLAN.



RIP-RAP BANK PROTECTION DETAIL W.P.D. 3.1 NOT TO SCALE

DANIELS MILLS OVERLOOK SECTION 3, AREA 2 LOTS 277 THRU 310 CONTRACT NO. 14-3672-D SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

A. M Burney

FISHER, COLLINS & CARTER, INC. /IL ENGINEERING CONSULTANTS & LAND SURVEYORS



CLASS III 2000 lb. (910 kg.)

40 lb. (20 kg.)

DESIGNED BY M.J.M. DRAWN BY M.J.M. CHECKED BY M.J.M. DATE :

10 MAX.

DETAILS 600' SCALE MAP NO. \_\_\_17\_\_\_ BLOCK NO. \_\_\_12\_

f.C.C. Work order no. \_\_<del>30</del> JUNE , 1998 CHIEF , DEVELOPMENT ENGINEERING DIVISION REVISION FILE NAME : G:/DRAWINGS/30594/WATSEW/DMO32DETAILS.DWG CHIEF , BUREAU OF UTILITIES

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING

HOWARD COUNTY, MARYLAND

SHEET

CONTRACT NO. 14-3672-D

HOWARD COUNTY, MARYLAND

WATER AND SEWER MAIN EXTENSIONS

DANIELS MILL OVERLOOK

SECTION 3. AREA 2

6 of 6

**SCALE** 

**SHOWN** 

QUANTITIES						
		A5-BUILT				
ITEM	ESTIMATED	QUANTITIES	TYP£	SUPPLIER		
8" SEWER	1511 L.F.	1511	SDR 35 P.V.C.	J.M. MANUFACTINO		
8" D.I.P. SEWER	207 L.F.	207	CL-52	ATRANTIC STATES		
4" SEWER	935 L.F.	955	SDR-35 P.V.C.	J.M MANUFACTINO		
MANHOLES	# EACH	11	PRE-CAST	ATLANTIC CONC.		
8" WATER	1,909 L.F.	1909	CL-52 D.1 P.	ATCANTIC		
6" WATER	105 L.F.	105	ju 11 4	tf		
1" WHC	230 L.F.	230	TYPE C	BELAIR RD SUPPLES		
3/4" WHC	413 L.F.	413	te fe	AL EF H		
FIRE HYDRANTS	3 EACH	3	MUELLER	U.S. FILTER		
8"×8" TEE	EACH	i	UNION FOUNDRY	U.S. FICTER		
8"×G"TEE	3 EACH	3	te q	, t		
8" VALVE	3 EACH	3	MUELLER	u u		
G"VALVE	3 EACH	3	u · ·	¢, 4		
8"- 1/16 U.B.	3EACH	3	UNION FOUNDRY	4 4		
8"-1/32 H.B.	1 EACH	3	11 4	4 4		
B"PLUG & BUTTRESS	1 BACH	1	tı 44	4 4		
8" PLUG	2 EACH	2	ti V	li ti		
8"-1/32 V.B.	G EACH	G	4 4	te u		
NAME OF UTILITY CO	ONTRACTOR: (		<u>0. INC</u> -21-98			

## DEVELOPER'S CERTIFICATION

\* I/WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY."

#### ENGINEER'S CERTIFICATION

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL

Michael J. M. Caum SIGNATURE OF ENGINEER

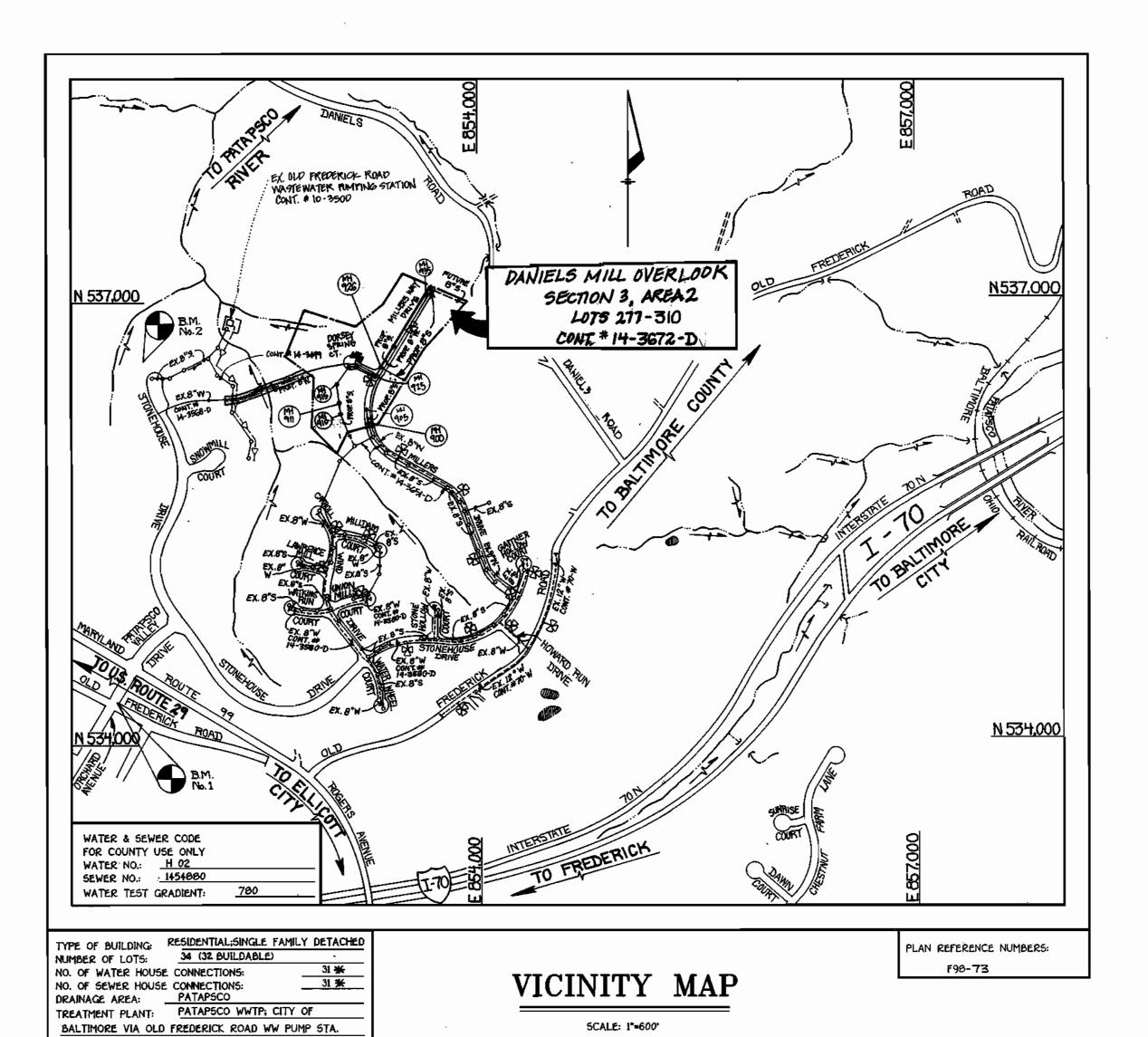
· F98-73 ·

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

EDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

IN DEVELOPING AREAS AS SHOWN ON THESE PLANS

Rull Karde For: Ryland Homes, INC. 04/15/98



\* BUILDABLE LOT NO. 309 WAS PREVIOUSLY PROVIDED AN THE ! A WHE UNDER CONT. NO. 14-3580-D; DANIELS MILL OVERLOOK, SECTION E, AREA 3.

(SEE SHEET S FOR PLAN VIEW) CONTRACT No. 14-3672 - D

DANIELS MILL OVERLOOK

SECTION 3, AREA 2 LOT NOS. 277-310

WATER AND SEWER MAIN EXTENSIONS HOWARD COUNTY, MARYLAND

# GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- 2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- 4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- 5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM.
- 6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
- 7. WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL 🖪 AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 9. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION - 531-5533 BALTIMORE GAS & ELECTRIC CO.. - CONTRACTOR SERVICES - 850-4620 BALTIMORE GAS & ELECTRIC CO.. - UNDER GROUND DAMAGE CONTROL - 787-9068 MISS UTILITY - 1-000-257-7777 COLONIAL PIPELINE CO. - 795-1390

BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900 9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE

- CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR 10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE
- INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN. II. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- 12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- 13. T.B. DENOTES TEST BORING.
- 14. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- 15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SÉT TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE
- NOTED ON THE PLANS OR IN THE SPECIFICATIONS. 17. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- 18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN
- 19. MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS,
- 20. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER
- MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
- 21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED. 22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- 23. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- 24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- 25. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS, ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (WI.11 AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS. 26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- 27. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH
- 12-INCH FOR WATER AND OTHER LIQUIDS.
- 28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, . (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF

BENCHMARKS

£ EXISTING MANHOLE RIM No. 1 (CONT. #10-1352-D) E 851,495.348000

ELEV. = 407.75 HUB WITH STAKE MARKED "TRAVERSE PT. No. 126" N 536,742.360000 E 651,766.890000

CONTRACT NO. 14-3672-D
DANIELS MILL OVERLOOK
SECTION 3, AREA 2
LOT NOS. 277 - 310
WATER AND SEWER MAIN EXTENSIONS

DEPARTMENT OF PUBLIC WORKS

HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND

FISHER. COLLINS & CARTER, INC. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK 10272 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MARYLAND 21042 (410) 4GI - 2855



				·	
<u>~~</u>	JUNE , 1998	βY	NO.	REVISION	DATE
K	DATE :	K.C.I	. 1	ASBUILT CONDITIONS ADDED TO PLAN	4/99
	CHECKED BY : M.J.M.				
146198284	J.A.U./L.M				
1.15.2 E. 12.18	M.J.M. DRAWN BY :	Ш			
	DESIGNED BY :				

600' SCALE MAP NO. 17 & 18 BLOCK NO. \_\_\_12 F.C.C. WORK ORDER NO. 30594 FILE NAME : DANIELS MILL OVERLOOK; 3/2

DANIELS MILL OVERLOOK SECTION 3, AREA 2 LOT NOS. 277 - 310 CONTRACT NO. 14 - 3672 - D SECOND ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

**SCALE** SHOWN