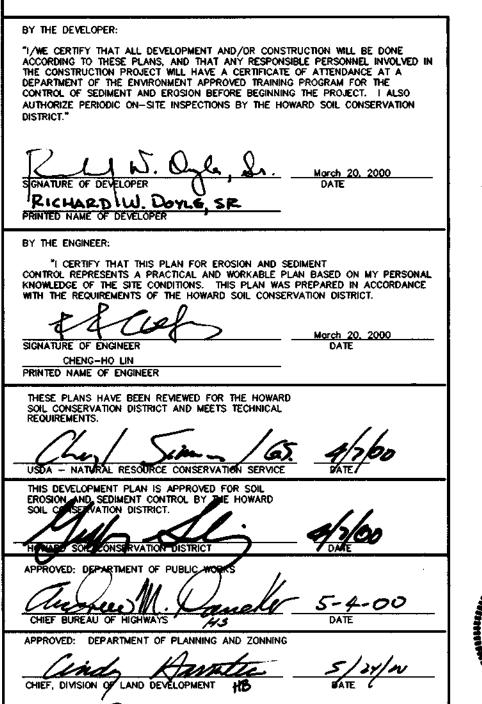
ROAD CONSTRUCTION PLANS

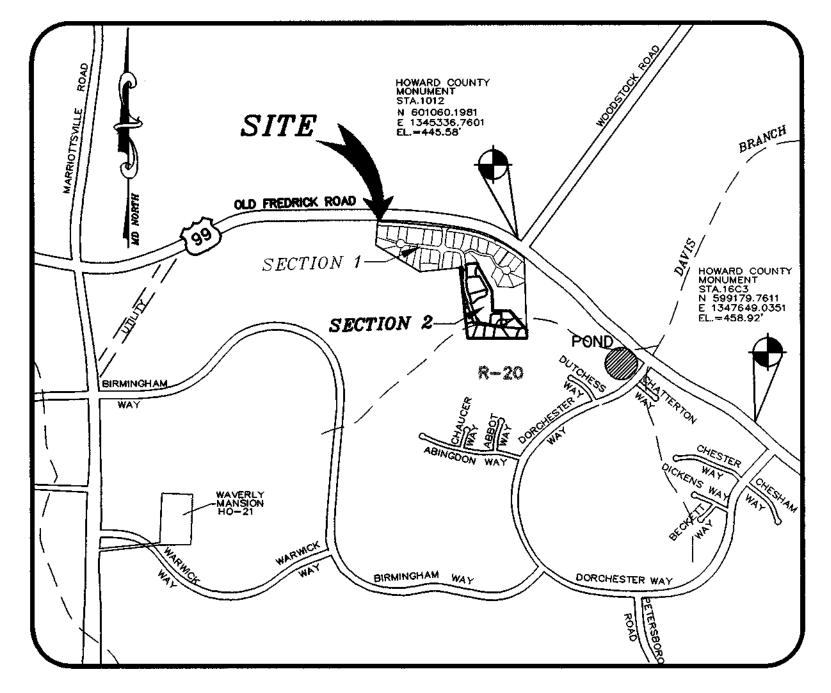
TAYLOR FARM, SECTION TWO LOTS 38 THRU 51 & BULK PARCEL "B"

A RESUBDIVISION OF BULK PARCEL "A" OF TAYLOR FARM SECTION ONE LOTS 1 THRU 33 AND BULK PARCEL "A"

> THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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SCALE: 1'=1000'

OWNER/DEVELOPER

TAYLOR FARM DEVELOPMENT CORP. 2705 FALSTON ROAD FALSTON, MARYLAND 21047 (410) 557-6312

GENERAL NOTES

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS
- 2. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/CONSTRUCTION INSPECTIONS DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- 3. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) DAYS PRIOR TO ANY EXCAVATION WORK:

MISS UTILITY 1-800-257-7777 (410) 725-9976 (410) 313-4900 C&P TELEPHONE COMPANY HOWARD COUNTY BUREAU OF UTILITIES (410) 393-3533 AT&T CABLE LOCATION DIVISION (410) 685-0123 BALTIMORE GAS & ELECTRIC STATE HIGHWAY ADMINISTRATION (410) 531-5533 HOWARD COUNTY DEPT. OF PUBLIC WORKS/ (410) 313-1880 CONSTRUCTION INSPECTION DIVISION

4. PROJECT BACKGROUND: LOCATION: THIRD ELECTION DISTRICT - TAX MAP 10 - PARCELS 309

TOTAL TRACT AREA : 6.658 ACRES ± NUMBER OF PROPOSED LOTS: 15 (11 BUILDABLE) ACREAGE OF PROPOSED LOTS: 3.944 ACRES ± (BUILDABLE OPEN SPACE REQUIRED: 2.00 ACRES ± (30%) (SECTION ONE REQUIRED: 5.06 AC±)

OPEN SPACE PROVIDED: 1.971 ACRES ± (SECTION ONE PROVIDED: 5.21 AC±)

(TOTAL OPEN SPACE PROVIDED = 7.18 AC± > TOTAL OPEN SPACE REQUIRED = 7.06 AC±)

RECREATIONAL OPEN SPACE REQUIRED (11 UNITS X 200 SQ. FT.): 2,200 SQ. FT. (0.05 ACRES)

RECREATIONAL OPEN SPACE REQUIREMENT HAS BEEN MET UNDER F-98-141. AREA OF RIGHT OF WAY: 0.527 ACRES± DPZ REFERENCE #:

- 5. TWO FOOT CONTOUR TOPOGRAPHY AND EXISTING CONDITIONS BASED ON AERIAL TOPOGRAPHY BY WINGS AERIAL MAPPING CO., INC. ON MARCH 12, 1997
- 6. HORIZONTAL AND VERTICAL DATUMS BASED ON (NAD'83) MARYLAND STATE COORDINATE

N 599,179.7611 E 1,347,649.0351 N 601,060,1981 STA No. 1012 EL.= 445.58

- 7. STREET LIGHTS WILL BE REQUIRED IN THIS DEVELOPMENT IN ACCORDANCE WITH THE DESIGN MANUAL STREET LIGHT PLACEMENT AND THE TYPE OF FIXTURE AND POLE SELECTED SHALL BE IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME III (1993) AND AS MODIFIED BY "GUIDELINES FOR STREET LIGHTS IN RESIDENTIAL DEVELOPMENTS (JUNE 1993)." THE JUNE 1993 POLICY INCLUDES GUIDELINES FOR LATERAL AND LONGITUDINAL PLACEMENT.
- 10. TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- 11. COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.
- 13. FOREST CONSERVATION REQUIREMENTS HAVE BEEN SATISFIED UNDER F-98-141, REFORESTATION AND RETENTION ON TAYLOR FARM SECTIONS ONE & TAYLOR FARM SECTION TWO AND OFF-SITE RETENTION OF 2.6 ACRES (CREDITED FOR 1.3 ACRES OF ON-SITE OBLIGATIONS) OF FOREST ON THE BIRDS EYE VIEW FARM, FOREST CONSERVATION PLAT OF EASEMENT (PLAT #13599).
- 16. OPEN SPACE LOTS WILL BE CONVEYED TO THE HOME OWNER'S ASSOCIATION AND HOWARD COUNTY DEPARTMENT OF RECREATION AND PARKS.
- 17. SLOPES IN EXCESS OF 25% EXIST AND 'ARE IDENTIFIED WHERE THEY EXCEED 20,000 SQ. FT.
- 18. ALL EXISTING STRUCTURES TO BE REMOVED.
- 19. FLOODPLAIN STUDY PERFORMED BY MILDENBERG, BOENDER AND ASSOC. IN JUNE 1997.
- 20. A MINIMUM OF TWO (2) PARKING SPACES ARE PROVIDED FOR EACH LOT. NO OFF-STREET PARKING

- S-95-21 APPROVED ON JULY 17, 1995. - F-86-14; F-89-235; F-95-174 - SP-98-16; WP-98-19; F-98-141; SDP-99-138; F-99-159. MDE REFERENCE: TRACKING No. 199960523 NNWW: 99-NT-0010

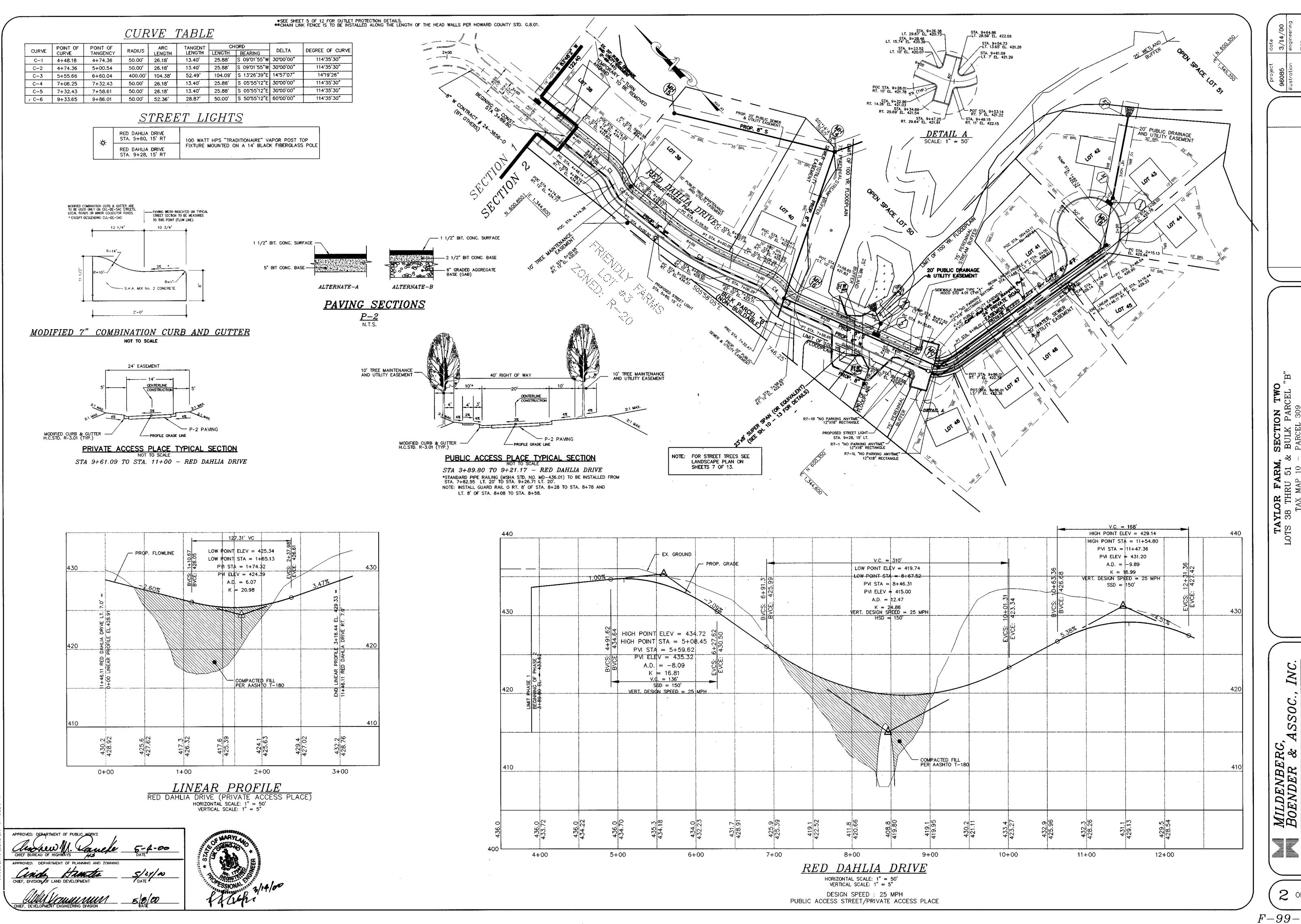
SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS.

E 1,345,336.7601

- A MINIMUM SPACING OF 20' SHALL BE MAINTAINED BETWEEN ANY STREET LIGHT AND ANY TREE.
- 8. PUBLIC WATER AND SEWER WILL BE AVAILABLE UNDER CONTRACT #24-3743-D.
- 9. STORMWATER MANAGEMENT IS PROVIDED BY THE METHOD OF RETENTION UNDER F-95-174. (GTW'S WAVERLY)
- 12. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES ON SITE PRIOR TO COMMENCING
- WETLAND DELINEATION PERFORMED BY WILDMAN ENVIRONMENTAL ON APRIL 14, 1998.
- 15. PROPERTY IS LOCATED WITHIN THE METROPOLITAN DISTRICT.

SSO

IILDENBERG, SOENDER & A

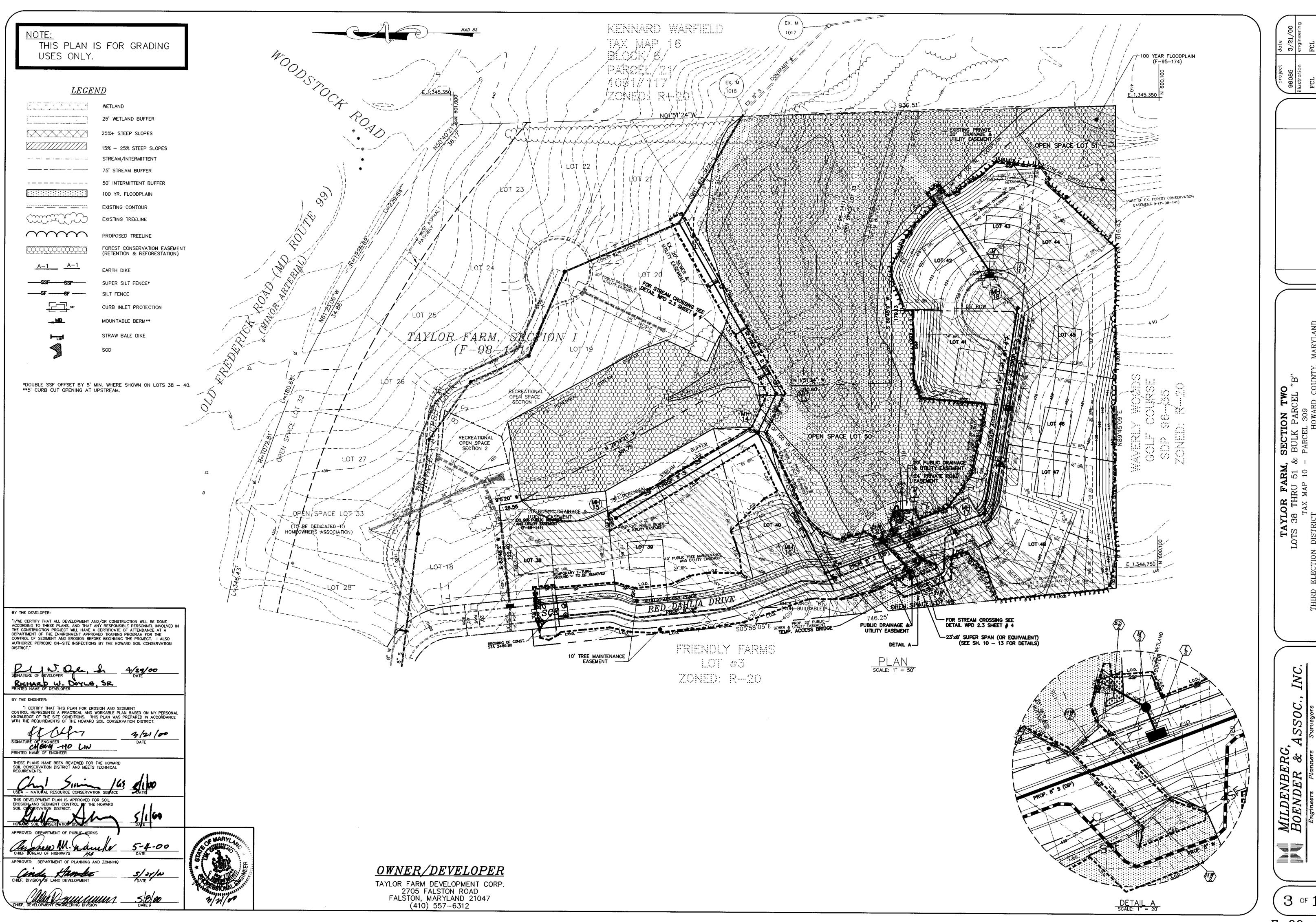


F-99-125

INC.

2 of 13

DISTRICT ROAD PLAN,



3 of 13

F-99-125

HOWARD SOIL CONSERVATION DISTRICT PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

1) PREFERRED — APPLY 2 TONS PER ACRES DOLOMITIC LIMESTONE (92 LBS/1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS/1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING. APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ.FT.). 2) ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (92 LBS./1000

SQ.FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING - FOR THE PERIODS MARCH 1 THRU APRIL 30, AND AUGUST 1 THRU OCTOBER 15, SEED WITH 60 LBS. PER ACRE 1.4 LBS/1000 SQ.FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FÉSCUE PER ACRE AND 2 LOBS. PER ACRE (.05 LBS./1000 SQ.FT.) OF WEEPING LOVEGRASS DURING THE PERIOD OF OCTOBER 16 THRU FEBRUARY 28, PROTECT SITE BY: OPTION (1) - 2 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 60 LBS./ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONE/ACRE WELL ANCHORED STRAW.

MULCHING - APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 218 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR HIGHER, USE 348 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING

MAINTENANCE - INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDINGS.

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, FOR NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.) SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ.FT.) FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVEGRASS (.07 LBS./1000 SQ.FT.). FOR THE PERIOD NOVEMBER 16 THRU NOVEMBER

28, PROTECT SITE BY APPLYING 2 TONS PER ACRÉ OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT—TERM VEGETATIVE COVER IS NEEDED. MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING

TOOL OR 218 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS. ON SLOPES 8 FEET OR

HIGHER, USE 348 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND

GEOTECHNICAL RECOMMENDATIONS

SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

- 1. WEATHERED ROCK MATERIALS WERE ENCOUNTERED IN SEVERAL BORINGS. IT IS LIKELY THAT THIS MATERIAL ABOVE 11 FEET CAN BE RIPPED. BLASTING IS NOT RECOMMENDED TO EXCAVATE ROCK IN SWM PONDS.
- 2. CONSTRUCTION DEWATERING SHOULD BE IMPLEMENTED TO FACILITATE EXCAVATION OF POND BOTTOMS
- 3. WHEN DRAINING EXISTING POND, EXCAVATE POND BOTTOM TO STABLE MATERIAL. IF EXISTING FILLS ARE ENCOUNTERED IN THIS AREA, THEY SHOULD BE CAREFULLY REVIEWED TO IDENTIFY AND REMOVE EXISTING
- 4. FILLS FOR CUTOFF TRENCH AND EMBANKMENT CONSTRUCTION SHOULD BE CONSTRUCTED IN EIGHT INCH
- AND COMPACTED TO 95%, ASTM D-698. 5. FILLS AROUND OUTFALL WORKS; THE OUTFALL PIPE AND ANTI-SEEP COLLARS SHOULD BE PLACED IN
- 4-INCH LIFTS AND COMPACTED TO THE SAME STANDARD WITH HAND EQUIPMENT.
- 6. REFER TO GEOTECHNICAL REPORT FOR FURTHER RECOMMENDATIONS AND INFORMATION.

STANDARD AND SPECIFICATIONS FOR TOPSOIL

DEFINITION PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

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
- 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.
- 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.

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION "I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS. EROSION, AND SEDIMENT CONTROL BY THE HOWAR

CONSTRUCTION AND MATERIAL SPECIFICATIONS

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATION. 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.
- TOPSOIL SPECIFICATIONS SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, ŁOAMY 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 A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2" IN DIAMETER.
 - ii. TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSON-
 - SON GRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED. 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
- III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION SECTION I VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:

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 TOPSOILS 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 CONTENT 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 USED.
- d. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT

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

- ii. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION I - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE 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.
- . Topsoil shall be uniformly distributed in a 4" to 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
- VI. ALTERNATIVE FOR PERMANENT SEEDING INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
 - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITES HAVING AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - a. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS WHO ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
 - b. COMPOSTED SLUDGE SHALL CONTAIN AT LEASE 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHOURUS, AND 0.2 PERCENT POTASSIUM AND HAVE A Ph OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS. THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE. c. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
 - iv. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.

REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING. MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

HOWARD SOIL CONSERVATION DISTRICT <u>STANDARD SEDIMENT CONTROL NOTES</u>

- 1) A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF NAY 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 FOR SOIL EROSION AND SEDIMENT

 Output

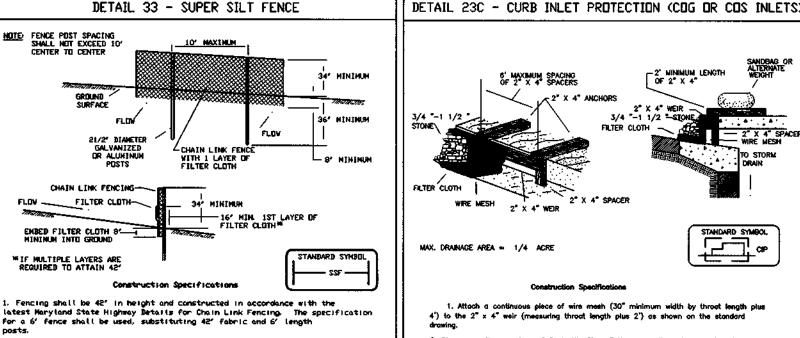
 The provision of the provisions of the provision of the provisions CONTROL", AND REVISIONS THERETO.
- 3) FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER 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
- ERIMETER 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 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC.51), SOD (SEC. 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.
- 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:
 6.658
 ACRES

 AREA DISTURBED:
 3.82±
 ACRES

 AREA TO BE ROOFED OR PAVED
 0.55±

 AREA TO BE VEGITATIVELY STABILIZED
 3.27±
 ACRES
 TOTAL CUT TOTAL FILL ___CU. YDS. TOTAL WASTE/BORROW AREA LOCATION
- 8) 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 CONTROL MUST BE PROVIDED, IF DEEMED 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 AGENCY IS MADE.
- 11) TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACK FILLED AND STABILIZED WITHIN ONE WORKING DAY, WHICHEVER IS SHORTER.

DETAIL 22 - SILT FENCE DETAIL 20A - REMOVABLE PUMPING STATION HOOK AND CHAIN FOR REMOVAL 12" - 36" pipe wrapped w/ 1/2" hardware cloth and Geotextile Class 'C' 0000 PERSPECTIVE VIEW 0 0 0 000 BED GEDTEXTILE CLASS F . WINIMUN OF B' VERTICALLY 0 0 0 0000 000 0 0 000 pround. Wood posts shall be $11/2^a imes 11/2^a$ square (minimum) cut, or $13/4^a$ diameter ELEVATION minimum) round and shall be of sound quality hardwood. Steel posts will be September of the state of th Construction Specifications The outer pipe should be 48° dia. or shall, in any case, be at least 4° greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2° hardware cloth to prevent backfill material from entering the perforations. 50 lbs/in (nin.) 20 lbs/in (nin.) 0.3 gal ft*/ ninute (nax.) Testi MSMT 509 . Where ends of geotextile fabric come together, they shall be overtapped



bulges occur or when sediment occurulation reached 50% of the fabric height.

6. Maintenance shall be performed as needed and silt buildups removed when "bulges"

7. Filter cloth shall be fastened securely to each fence post with wire ties or

staples at top and mid section and shall meet the following requirements for Geotextile Class Fi

50 lbs/in (nin.)

20 lbs/in (min.)

develop in the silt fence, or when silt reaches 50% of fence height

DETAIL 35 TEMPORARY ACCESS BRIDGE

Tensile Strength Tensile Modulus

Filtering Efficiency 75% (Nin.)

a continuous place of 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 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. Chain link fence shall be fastened securely to the fence posts with wire ties.The lower tension wire, brace and truss rods, drive anchors and post caps are not 3. Securely nall the 2" X 4" weir to a 9° long vertical spacer to be located between required except on the ends of the fence. the weir and the inlet face (max, 4' apart).

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced 4. Place the assembly against the inlet throat and not (minimum 2' lengths of $2" \times 4"$ to the top of the weir at spacer locations). These $2" \times 4"$ anchors shall extend across the inlet top and be held in place by eardbags or alternate weight. every 24° at the top and mid section. 4. Filter cloth shall be embedded a minimum of 8° into the ground 5. When two sections of filter cloth adjoin each other, they shall be overlapped

5. The assembly shall be placed so that the end spacers are a minimum 1' beyond 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 3/4 " x 1 1/2 " 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 8. Assure that storm flow does not bypass the inlet by installing a temporary

TEMPORARY ACCESS BRIDGE

Construction Specifications

t. Restriction – Construction, use, or membral of a temporary access bridge will not normally have any time of year.

restrictions since constructions use, or removal: should not offer the stream or its banks, unless the bridge is built

2. Bridge Placement - & temporary bridge structure shall be

3. Abutments - Abutments shall be placed parallel to- and on-

4. Bridge Span - Bridges shall be constructed to span the entire channel. (f the channel width exceeds 8 feet, (as measured from top-of-boank to top-of-boank), then a footings pier, or bridge support may be constructed within the

Stringers - Stringers shoult either be togs, sown timber-prestressed concrete beams, metal beams, or other approved materials.

6. Deck Moteria: - Deaking materials shall be of sufficient strength to support the onticipated load. All deaking members shall be placed perpendicular to the stringers bufted Fightly, and securely fastened to the stringers. Backing

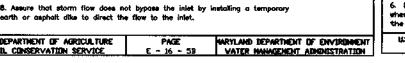
motericle must be butted tightly to prevent gry soil degrario

7. Sun Planks teptionall - Run planking shall be securely formered to the length of the spot. One run plant and I be provided for each trook of the equipment wheels. Although run plants are optional, they may be necessary to properly distribute todds.

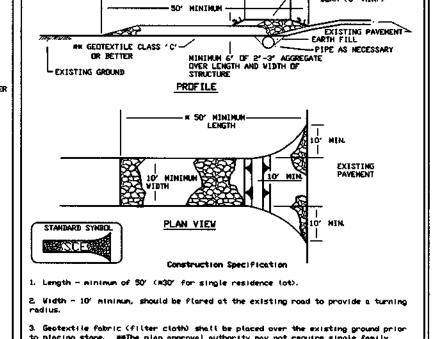
8. Surbs or fenders — Curbs or fenders may be installed along the outer sides of the deck. Curbs or fenders are an option which will provide additional safety.

warerway. One additional footing, plum, or bridge support will be permitted for each additional 8 foot width of the channel. However, no footing, plem, or bridge support will be permitted within the channel for waterways less than 8 feet

entropment of flooting materials and debris.



2" MINIMUM LENGTH



DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE

STRAW BALE DIKE

1. Bales shall be placed at the toe of a slope, on th

and placed so the bindings are horizontal.

contour, and in a now with the ends of each bale tightly abutting the adjacent bales.

2. Each bale shall be entrenched in the soil a minimum of 4°

toward the previously laid bale at an angle to force the bale

together. Stakes shall be driven flush with the top of the

4. Straw bale dikes shall be inspected frequently and after

stabilized. The trench where the bales were located shall be

each rain event and maintenance performed as necessary.

5. All bales shall be removed when the site has been

3. Bales shall be securely anchored in place by either two

o placing stone. **The plan approval authority may not require single family

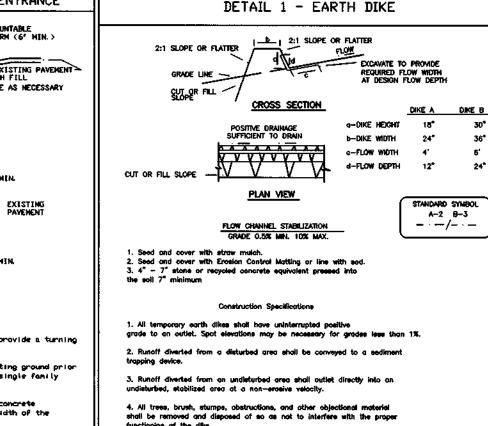
4. Stone - crushed aggregate (2' to 3') or rectained or recycled concrete equivalent shall be placed at least 6' deep over the length and width of the Surface Water - all surface water flowing to or diverted toward construction

to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6' minimum will be required. 6. Location - A stabilized construction entrance shall be located at every point truction traffic enters or leaves a construction si

entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a nountable bern with 5:1 slopes and a minimum of 6° of stone over the pipe. Pipe has where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

ANGLE FIRST STAKE TOWARD THE PREVIOUSLY PLACED BALE PAGE IMARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE
H - 25 - 24 VATER MANAGEMENT ASMINESTRATION SUIL CONSERVATION SERVICE

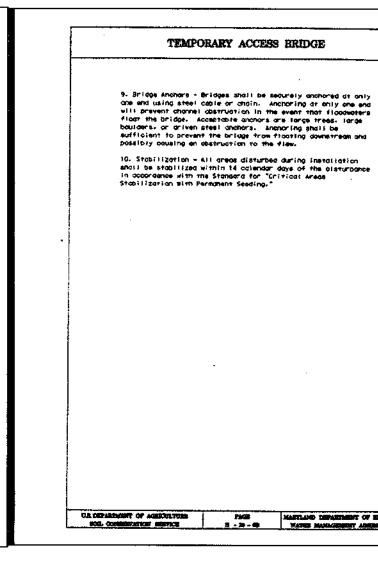
DETAIL 32 - STRAW BALE DIKE

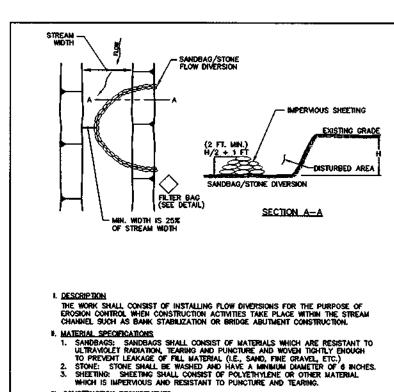


5. The dike shall be excevated or shaped to line, grade and cross section as required to meet the criteric specified herein and be free of bank projections 6. Fill shall be compacted by earth moving equipment.

it will not interfere with the functioning of the dike.

8. Inspection and maintenance must be provided periodically and after each rain event.





WHICH IS IMPERVIOUS AND RESISTANT TO PUNCTURE AND TEARING.

II. CONSTRUCTION BEQUIREMENTS

1. ALL EROSION AND SEDMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST ORDER OF WORK.

2. THE DIVERSION STRUCTURE SHALL BE INSTALLED FROM UPSTREAM TO DOWNSTREAM.

3. THE HEIGHT OF THE DIVERSION STRUCTURE SHALL BE ONE HALF THE DISTANCE FROM STREAM BED TO STREAM BANK PLUS ONE POOT, AS INDICATED ON THE CROSS SECTION VIEW.

4. ALL EXCAVATED MATERIALS SHALL BE DISPOSED OF IN A SCD APPROVED DISPOSAL AREA OUTSIDE THE 100—YEAR FLOODPLAIN UNLESS OTHERWISE APPROVED ON THE PLANS BY THE WIRA.

5. ALL DEWATERING OF THE CONSTRUCTION AREA SHALL BE PUMPED TO A DEWATERING BASIN PRIOR TO RE—ENTERING THE STREAM.

6. SHEETING SHALL BE OVERLAPPED SUCH THAT THE UPSTREAM PORTION COVERS THE DOWNSTREAM PORTION WITH AT LEAST AN 18—INCH OVERLAP.

7. SEDMENT CONTROL DEVICES ARE TO REMAIN IN PLACE UNIT, ALL DISTURBED AREAS ARE STABILIZED IN ACCORDANCE WITH AN APPROVED SEDMENT AND EROSION CONTROL DEVICES ARE TO REMAIN IN PLACE UNIT, ALL DISTURBED AREAS ARE STABILIZED IN ACCORDANCE WITH AN APPROVED SEDMENT AND EROSION CONTROL PLAN AND THE INSPECTING AUTHORITY APPROVES TNEIR REMOVAL.

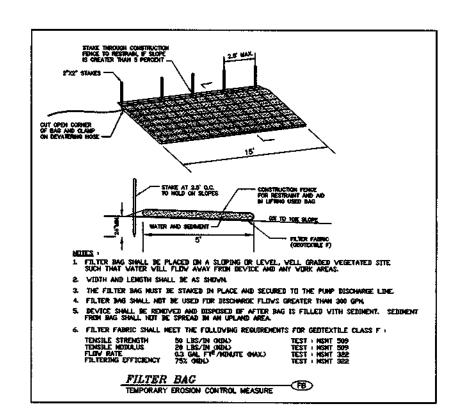
SANDBAG/STONE DIVERSION

SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT. (1 DAY)
 CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM. (1 DAY) CONSTRUCT SUPER SILT FENCE, SILT FENCE, TREE PROTECTIVE FENCES, EARTH DIKES AND STRAW DIKES. (3 DAYS) (SEE SHEET 7 OF 13 FOR TREE PROTECTIVE FENCES)
- INSTALL SANDBAG/STONE DIVERSION PER DETAIL WPD 2.3 FOR THE INSTALLATION OF THE PROPOSED WATER & SEWER. (10 DAYS)
 MODIFY THE INSTALLED SANDBAG/STONE AS NECESSARY FOR THE INSTALLATION OF THE PROPOSED SUPER SPAN AND INSTALL TEMPORARY ACCESS BRIDGE. (10 DAYS) INSTALL SUPER SILT FENCE ALONG THE DOWN STREAM SIDE OF THE SUPER SPAN FOUNDATION. UPON THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, (1 DAY)

CONSTRUCT SUPER SPAN FOUNDATION AND 3' HIGH GABION SURROUNDING THE FOUNDATION. (5 DAYS)

- CONSTRUCT SUPER SPAN FOUNDATION AND THE RELATED HEADEALL/WINGWALL. (10 DAYS) CONTRUCT PROPOSED STORM DRAINS AND THE OUTLET PROTECTIONS UPON THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR. (15 DAYS) BRING SITE TO PROPOSED GRADE. (30 DAYS) STABILIZED EXCAVATION AROUND ES-2 WITH SOD AS SHOWN ON PLAN. (1 DAY)
- INSTALL CURB INLET PROTECTION ON INLET I-1. (1 DAY)
 ANY SEDIMENT CONTROL DEVICES DISTURBED BY THE INSTALLATION OF UTILITIES ARE TO BE REPAIRED IMMEDIATELY. PROVIDE TREE PROTECTIVE FENCING AS INDICATED AROUND REFORESTATION AREAS INSTALL PLANT MATERIAL IN REFORESTATION AREAS AS SPECIFIED. (3 DAYS)
- CONSTRUCT THE ROAD WITH MOUNTABLE BERMS. (20 DAYS) UPON STABIZATION OF THE SITE AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES, RESTORE CURB AT CURB CUTS AND STABILIZE REMAINING DISTURBED AREAS. (5 DAYS)





TAYLOR FARM DEVELOPMENT CORP. 2705 FALSTON ROAD FALSTON, MARYLAND 21047 (410) 557-6312

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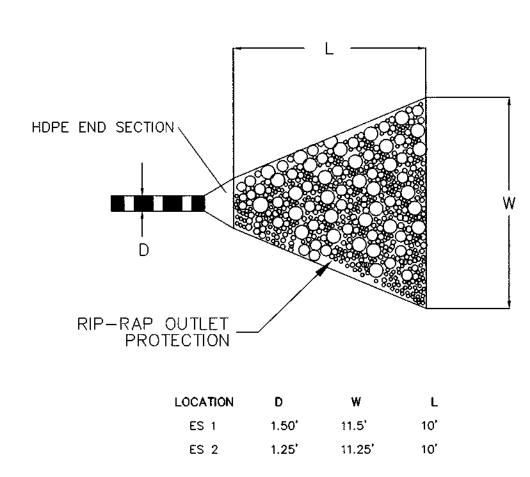
LECTION DI EROSION

4 of 13

STRUCTURE SCHEDULE

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
I1*	RED DAHLIA DRIVE, STA. 12+59.38 LT. 47.66	425.35		420.44	INLET TYPE A-5 (HO. CO. STD SD 4.01) 2.5' WIDE - SUMP (PRIVATE)
1-2*	RED DAHLIA DRIVE, STA. 8+67.68 LT. 10'	419.44		422.46	INLET TYPE A-5 (HO. CO. STD SD 4.01) 2.5' WIDE - SUMP (PUBLIC)
MH1	N 600,320.3753 E 1,345,134.7629	425.00	417.20	416.95	MH (HO. CO. STD G 5.12) (PRIVATE)
MH2	RED DAHLIA DRIVE, STA. 8+67.21 LT. 35.90'	404.75	410.57	410.82	MH (HO. CO. STD G 5.05) (PUBLIC)
ES1	N 600,376.4266 E 1,345,217.5774			402.00	18" Ø ADS END SECTION (PART No. 1810 NP)(PRIVATE)
ES2	RED DAHLIA DRIVE, STA. 8+54.42 LT. 39.45			408.00	18" Ø TYPE "C" ENDWALL (HO. CO. STD SD-5.21) (PUBLIC)
HW1	RED DAHLIA DRIVE, STA. 8+33.04 LT. 24.34'			407.65	SEE DETAILS
HW2	RED DAHLIA DRIVE, STA. 8+53.11 RT. 24.38'			408.00	SEE DETAILS

^{*} LOCATIONS SHOWN ARE AT & OF INLET AT THE FACE OF CURB.

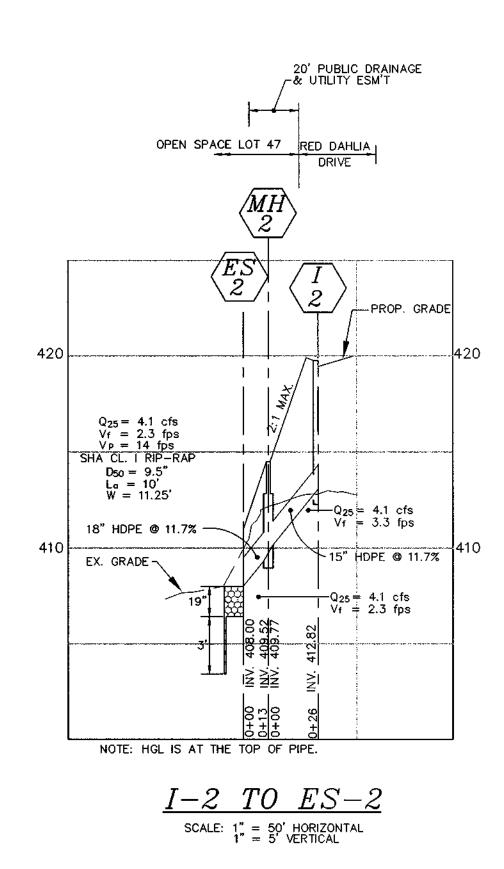


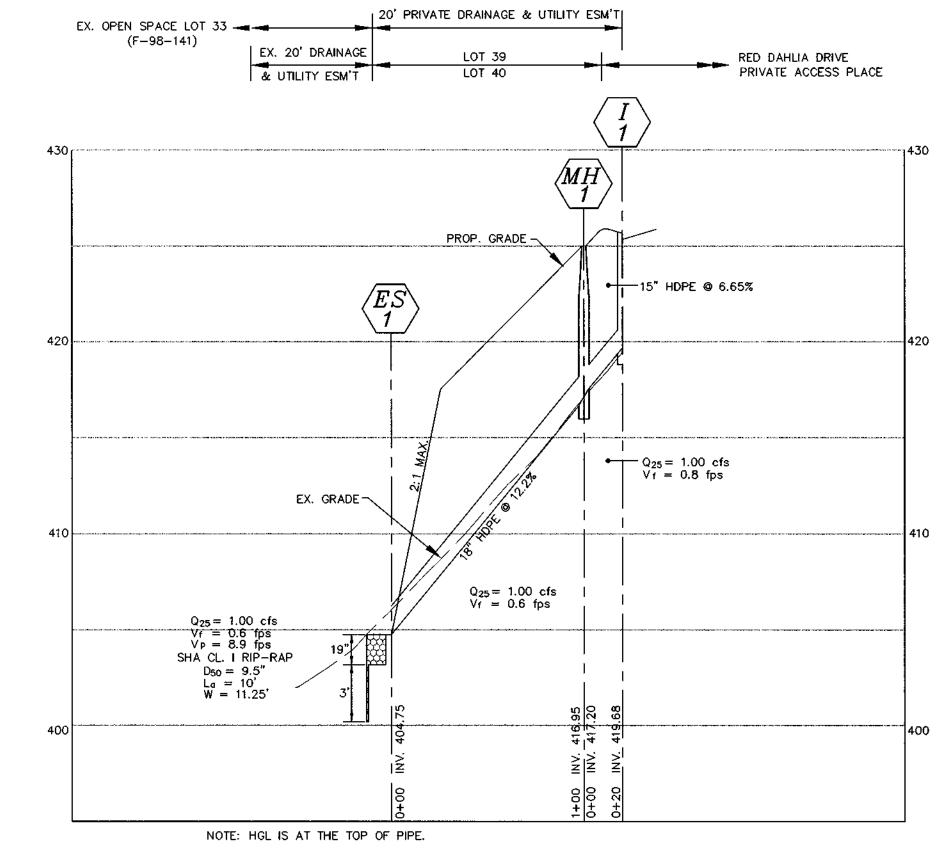
RIP-RAP OUTLET PROTECTION SCHEDULE

PIPE SCHEDULE

	SIZE	LENGTH
PUBLIC	15" HDPE	26'
	18" HDPE	13'
	23'x8' **	54'
PRIVATE	15" HDPE	20'
	18" HDPE	100'

STRUCTURE NUMBER 81A18 OR EQUIVALENT.





<u>I-1 TO ES-1</u> SCALE: 1" = 50' HORIZONTAL 1" = 5' VERTICAL

ADS END SECTION INSTALATION INSTRUCTIONS

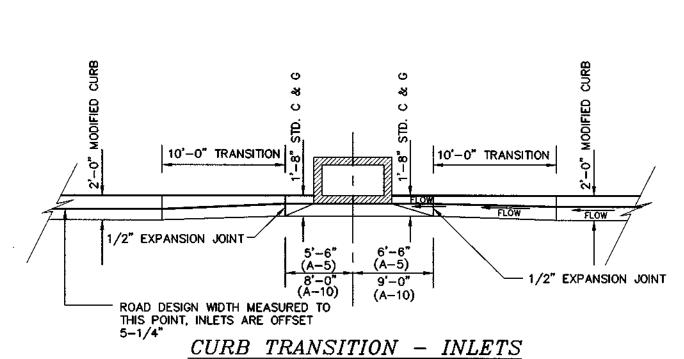
- 1. SPREAD THE ENDSECTION COLLAR AND PLACE IT OVER THE LAST PIPE CORRUGATION. MAKE SURE THE COLLAR SEATS
- PROPERLY IN THE CORRUGATION VALLEY.

 2. INSERT THREADED ROD THROUGH THE PRE-DRILLED HOLES IN
- THE END SECTION COLLAR. TIGHTEN WING NUTS. 3. PLACE BANKFILL AROUND THE END SECTION AND OVER THE
- TOE PLATE. USE CARE DURING COMPACTION ALONG THE SIDES TO PREVENT DISTORTION.

OPEN SPACE LOT 50 | 40' R/W | OPEN SPACE LOT 49 PROP. GRADE-100 YR. STM. WATER SURFACE -__ EX. GROUND

VERT. 1" = 5'

(SEE SH. 8 -12 FOR SUPER SPAN CONSTRUCTION DETAILS)



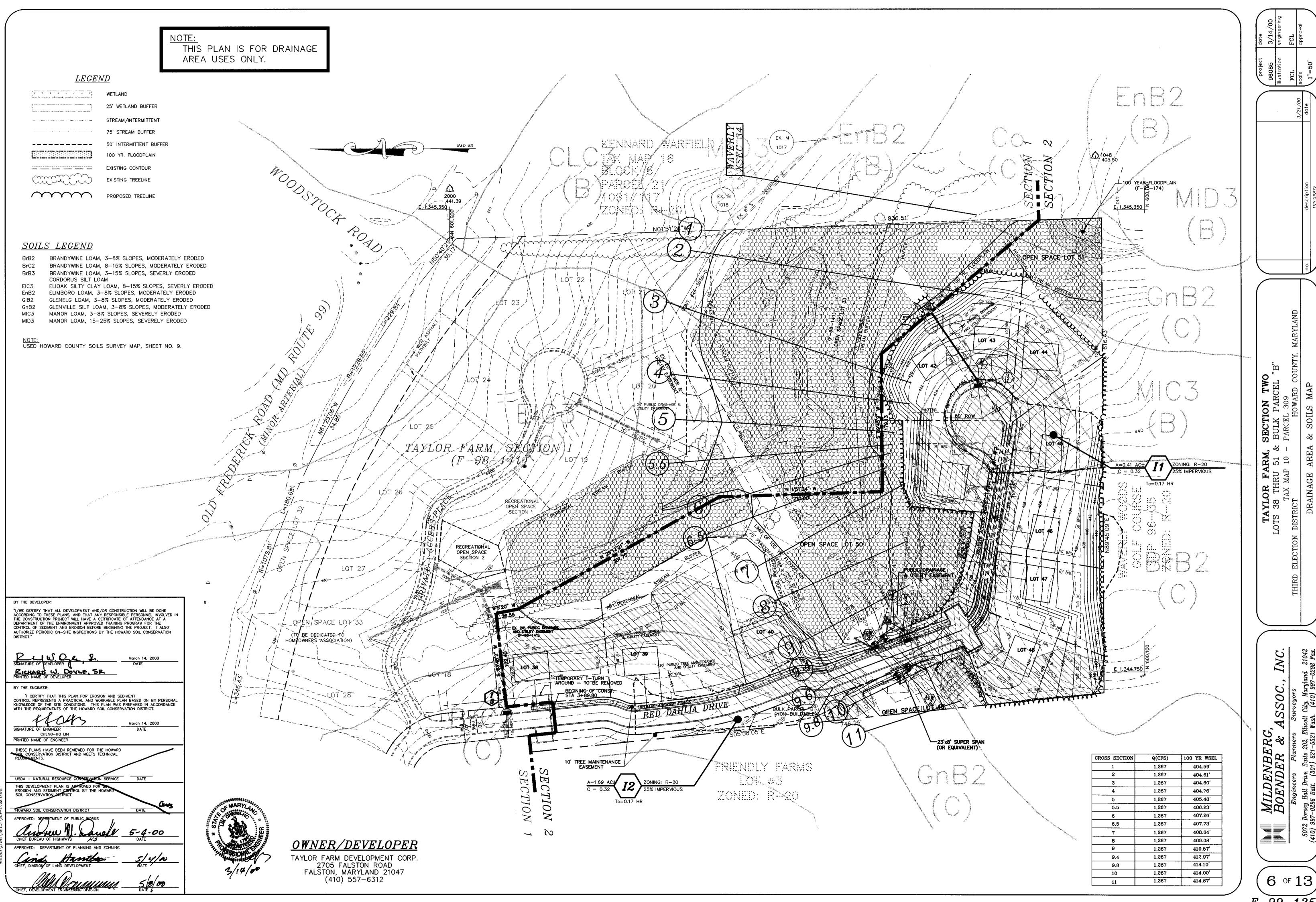


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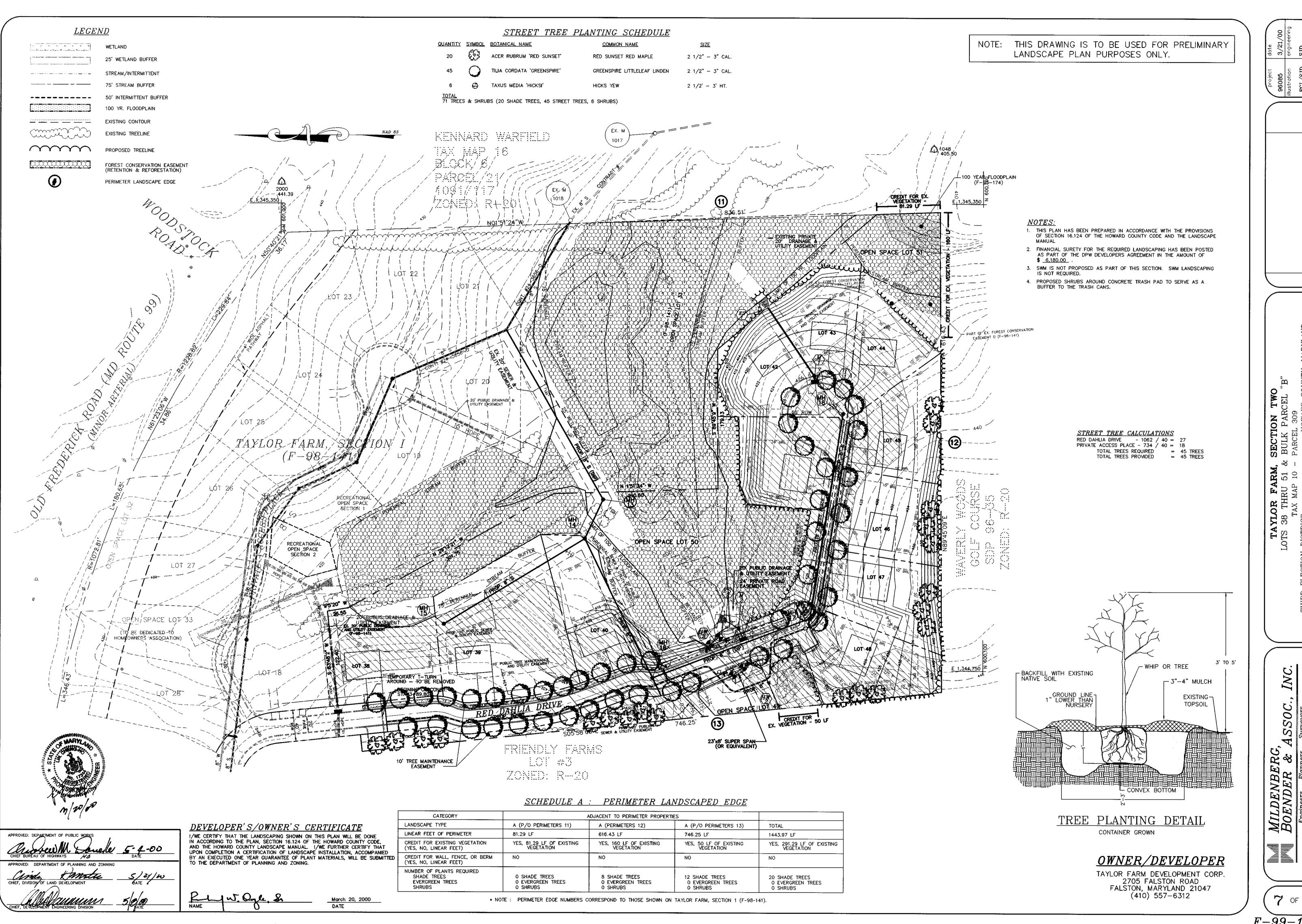
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SECTION THRU 51 - PARCEL 309





F - 99 - 125



7 of 13 F-99-125

- FEE-IN-LIEU OF REFORESTATION HAS BEEN PAID FOR 3.39 ACRES OF REFORESTATION AS PART OF THE FOREST CONSERVATION REQUIREMENT FOR TAYLOR FARM, SECTION 1 (F-98-141).
- THIS PLAN IS INTENDED TO SUPERCEDE THE FOREST CONSERVATION PLAN FROM TAYLOR FARM, SECTION 1 (F-98-141).
- CREDIT IS BEING TAKEN FOR REQUIRED LANDSCAPE TREES ALONG OLD FREDERICK ROAD. CREDIT FOR LANDSCAPING TREES IS BEING TAKEN FOR THE ALLOWED 20% OF THE REFORESTATION AREA. ALLOWED CREDIT IS 12.023 SQ. FT. OR 0.28 ACRES WHICH IS EQUIVALENT TO 31 SHADE TREES. IN FOREST CONSERVATION AREAS A & B, 1.10 ACRES REMAINS TO BE REFORESTED.

GENERAL NOTES FOREST PROTECTION

- ALL FOREST RETENTION AREAS SHALL BE TEMPORARILY PROTECTED BY WELL ANCHORED BLAZE ORANGE PLASTIC MESH FENCING AND SIGNAGE AS INDICATED ON THE PLANS. THE DEVICES SHALL BE INSTALLED ALONG THE FOREST RETENTION BOUNDARY AT THE TIME OF INSTALLATION OF THE SILT FENCE. THIS SHALL BE DONE PRIOR TO ANY LAND CLEARING, GRUBBING, OR GRADING ACTIVITIES.
- THE FOREST PROTECTION DEVICES SHALL BE INSTALLED SUCH THAT THE CRITICAL ROOT ZONES OF ALL TREES WITHIN THE RETENTION AREA NOT OTHERWISE PROTECTED WILL BE WITHIN FOREST PROTECTION DEVICES. ALL PROTECTION DEVICES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION, INCLUDING SILT FENCE BEING USED AS PROTECTIVE
- FENCING. ALL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION HAS CEASED IN THE IMMEDIATE VICINITY. ATTACHMENT OF SIGNS, OR ANY OTHER OBJECTS TO TREES IS PROHIBITED. NO EQUIPMENT, MACHINERY, VEHICLES, MATERIALS OR EXCESSIVE
- PEDESTRIAN TRAFFIC SHALL BE ALLOWED WITHIN THESE PROTECTED AREAS. INSTALLATION AND MAINTENANCE OF PROTECTIVE FENCING AND SIGNAGE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL TAKE THE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING ALL CONSTRUCTION ACTIVITIES. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM SMOTHERING, FLOODING, EXCESSIVE WETTING FROM DEWATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE AND
- DRAINING OF MATERIALS THAT MAY BE HARMFUL TO TREES. THE GENERAL CONTRACTOR SHALL PREVENT PARKING OF CONSTRUCTION VEHICLES AND EQUIPMENT, AND THE STORING OF BUILDING SUPPLIES OR STOCKPILING OF EARTH WITHIN FOREST CONSERVATION EASEMENTS. REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION
- AREA SHALL BE PROHIBITED THE GENERAL CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY TREES DAMAGED OR DESTROYED WITHIN THE FOREST CONSERVATION EASEMENTS. ROOT PRUNING SHALL BE USED AT THE LIMIT OF DISTURBANCE OR LIMIT OF GRADING WITHIN AND ADJACENT TO ALL PRESERVATION AREAS, AS NECESSARY.

PRE-CONSTRUCTION MEETING

- AFTER THE BOUNDARIES OF THE FOREST RETENTION AREAS HAVE BEEN FIELD LOCATED AND MARKED, AND AFTER THE FOREST PROTECTION DEVICES HAVE BEEN INSTALLED, BUT BEFORE ANY OTHER DISTURBANCE HAS TAKEN PLACE ON SITE, A PRE-CONSTRUCTION MEETING SHALL TAKE PLACE ON SITE. THE DEVELOPER, CONTRACTOR OR PROJECT MANAGER, AND HOWARD COUNTY INSPECTORS SHALL ATTEND. THE PURPOSE OF THIS MEETING WILL BE: A. TO IDENTIFY THE LOCATIONS OF THE FOREST RETENTION
 - AREAS, SPECIMEN TREES WITHIN 50 FEET OF THE LIMIT OF DISTURBANCE, LIMITS OF CONSTRUCTION, EMPLOYEE PARKING AREAS AND EQUIPMENT STAGING AREAS;
 - INSPECT ALL FLAGGED BOUNDARIES AND PROTECTION DEVICES; MAKE ALL NECESSARY ADJUSTMENTS; ASSIGN RESPONSIBILITIES AS APPROPRIATE AND DISCUSS

CONSTRUCTION MONITORING

- THE SITE SHALL BE INSPECTED PERIODICALLY DURING THE CONSTRUCTION PHASE OF THE PROJECT. A QUALIFIED PROFESSIONAL SHALL BE RESPONSIBLE FOR IDENTIFYING DAMAGE TO PROTECTED FOREST AREAS OR INDIVIDUAL TREES WHICH MAY HAVE BEEN CAUSED BY CONSTRUCTION ACTIVITIES. SUCH AS SOIL COMPACTION. ROOT INJURY. TRUNK WOUNDS. LIMB INJURY, OR STRESS CAUSED BY FLOODING OR DROUGHT CONDITIONS. ANY SUCH DAMAGE THAT MAY OCCUR SHALL BE REMEDIED IMMEDIATELY USING APPROPRIATE MEASURES. SEVERE PROBLEMS MAY REQUIRE
- CONSULTATION WITH A PROFESSIONAL ARBORIST.
 THE CONSTRUCTION PROCEDURE SHALL NOT DAMAGE AREAS OUTSIDE OF
 THE LIMITS OF DISTURBANCE AS DESIGNATED ON THE PLANS. ANY DAMAGE
 SHALL BE RESTORED BY THE CONTRACTOR AT HIS EXPENSE AND TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE FOREST CONSERVATION EASEMENTS EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION, SOIL COMPACTION, OR EXCAVATION, INTRODUCTION OF TOXIC CHEMICALS OR OTHER DISTURBANCES DETRIMENTAL TO THE LIVE SPECIMEN TREES OR CRITICAL ROOT ZONES FOR THESE TREES EXCEPT AS PERMITTED BY THE HOWARD COUNTY FOREST CONSERVATION PROGRAM.

PLANTING SPECIFICATIONS AND NOTES SITE PREPARATION AND SOILS

PROTECTIVE FENCING IS TO BE INSTALLED AS A FIRST ORDER OF BUSINESS PER PLAN LOCATIONS. PROTECTIVE FENCING WILL NOT NECESSARY ALONG THOSE PERIMETERS WHERE SILT FENCE HAS BEEN INSTALLED FOR SEDIMENT CONTROL DISTURBANCE OF SOILS SHOULD BE LIMITED TO THE PLANTING FIELD

LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY

- 3. SOIL MIX FOR ALL PLANTS EXCEPT ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD LOCATION INTO WHICH THE CONTRACTOR SHALL THOROUGHLY INCORPORATE 25% BY VOLUME OF COMPOSTED SLUDGE. 4. SOIL MIX FOR ERICACEOUS MATERIAL: SOIL MIX SHALL CONSIST OF EXISTING NATIVE TOPSOIL MIXTURE AT EACH PLANTING FIELD
- INCORPORATE 25% BY VOLUME PEAT MOSS. 5. ALL MIXING IN 3 AND 4 SHALL BE LIMITED TO CONTAINER GROWN OR BALL AND BURLAP STOCK ONLY AND CONFINED TO THE PLANTING FIELD AND IMMEDIATE ADJACENT SOIL SURFACE AREA AND SHALL BE DONE TO THE SATISFACTION OF THE DESIGN TEAM OR ENGINEER.

PLANT STORAGE AND INSPECTION

- 1. FOR CONTAINER GROWN NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN 2 WEEKS AFTER DELIVERY TO THE SITE. 2. FOR BALL AND BURLAP NURSERY STOCK, PLANTING SHOULD OCCUR WITHIN THREE DAYS AFTER DELIVERY TO THE SITE. 3. PLANTING STOCK SHOULD BE INSPECTED PRIOR TO PLANTING. PLANTS NOT CONFORMING TO STANDARD NURSERYMAN SPECIFICATIONS FOR SIZE, FORM, VIGOR, ROOTS, TRUNK WOUNDS, INSECTS AND DISEASE
- SHOULD BE REPLACED 4. UNTIL PLANTED, ALL PLANT STOCK SHALL BE KEPT IN A SHADED, COOL, AND MOISTENED ENVIRONMENT.

APPROVED: DEPARTMENT OF PUBLIC WORK APPROVED: DEPARTMENT OF PLANNING AND ZONNING

PLANT INSTALLATION

- . THE PLANTING FIELD SHOULD BE PREPARED AS SPECIFIED (SEE DETAIL). NATIVE STOCKPILED SOILS SHOULD BE USED FOR SOIL MIX AND BACKFILL FOR PLANTING FIELD. AFTER PLANT INSTALLATION, RAKE SOILS EVENLY OVER THE PLANTING FIELD AND COVER WITH AT LEAST 4 INCHES OF MULCH. WATER, GENEROUSLY, TO SETTLE SOIL BACKFILLED AROUND TREES.
- PLANTING FIELD DIAMETERS SHOULD BE REDUCED OR PLANTING FIELD MOVED IF IT APPEARS THAT EXCESSIVE EXISTING ROOT DAMAGE MAY OCCUR DURING DIGGING OPERATION NEAR EXISTING FOREST.
- CARE SHALL BE TAKEN WHEN DIGGING PLANTING FIELDS NOT TO CHOP THROUGH LARGER EXISTING ROOTS FROM EXISTING MATURE TREES. IF ROOTS GREATER THAN 1/2 INCH ARE ENCOUNTERED DIG AROUND THEM AS MUCH AS POSSIBLE TO MINIMIZE IMPACT TO EXISTING TREES. 4. CONTAINER GROWN STOCK SHOULD BE REMOVED FROM THE CONTAINER AND ROOTS GENTLY LOOSENED FROM THE SOIL. IF THE ROOTS ENCIRCLE THE ROOT BALL, SUBSTITUTION IS STRONGLY RECOMMENDED. J-SHAPED OR KINKED ROOT SYSTEMS SHOULD ALSO BE NOTED. ROOTS MAY NOT
- FOR BALL AND BURLAP STOCK, PLACE TREE IN PREPARED PLANTING FIELD AND REMOVE WIRE AND/OR STRING FROM ROOT BALL, THEN PEEL BACK BURLAP TO BASE OF ROOT BALL AND COVER ENTIRE ROOT BALL WITH TOPSOIL MIXTURE INDICATED ABOVE AND WATER GENEROUSLY.

BE TRIMMED ON SITE, DUE TO THE INCREASED CHANCES OF SOIL BORNE

- 6. THE CONTRACTOR SHALL EVENLY DISPERSE SPECIES IN GROUPS OF TWO
 (2) TO FIVE (5) PER SPECIES, OVER THE DESIGNATED AREA TO BE
 PLANTED WHILE MAINTAINING AN AVERAGE RANDOM SPACING OF INDIVIDUAL TREES AT PROPER SPACING INDICATED IN THE PLANT LIST. ** 7. A STRAIGHT GRID PATTERN SPACING IS TO BE AVOIDED. TREES SHALL BE PLANTED ON AN AVERAGE SPACING AS INDICATED IN THE PLANT LIST TO
- OBTAIN A MORE NATURAL APPEARANCE. NEWLY PLANTED TREES MAY NEED WATERING AS MUCH AS ONCE A WEEK FOR THE ENTIRE GROWING SEASON, DUE TO THE VERY DEEP, WELL DRAINED NATURE OF THE NATIVE SOILS FOUND ON THIS SITE COMBINED WITH THE LOOSENESS OF THE BACKFILLED AREA WITHIN THE PLANTING FIELD. THE NEXT TWO YEARS MAY REQUIRE WATERING ONLY A FEW TIMES A YEAR DURING SUMMER AND DRY MONTHS. AFTER THAT PERIOD, TREES SHOULD ONLY NEED WATER IN SEVERE DROUGHTS. ANY WATERING PLAN SHOULD COMPENSATE FOR RECENT RAINFALL PATTERNS.
- ** IN AREAS WHERE REFORESTATION IS ADJACENT TO PROJECT BOUNDARIES. LANDSCAPE SIZE PLANT MATERIAL MUST BE INSTALLED MUST BE INSTALLED FIRST, IN ORDER TO SATISFY PERIMETER BUFFER REQUIREMENTS.

<u>FERTILIZING</u>

- 1. DO NOT FERTILIZE NEWLY PLANTED TREES WITHIN THE FIRST GROWING SEASON AFTER PLANTING. DOING SO MAY CAUSE A SPURT OF CANOPY GROWTH WHICH THE ROOTS CANNOT SUPPORT AND ADDITIONAL SHOCK TO THE ALREADY DISTURBED PLANT.
- NOTHING SHOULD BE ADDED TO THE SOIL WITHOUT TESTING IT FIRST TO DETERMINE WHAT IS NEEDED. 3. IF AND WHEN IT IS TIME TO FERTILIZE, ORGANIC FERTILIZERS ARE PREFERRED TO SYNTHETIC FERTILIZERS. BONE MEAL OR SEAWEED BASED PRODUCTS ARE AVAILABLE COMMERCIALLY AND ARE RECOMMENDED. THEY HAVE THE ABILITY TO SUPPLY NUTRIENTS TO THE PLANT AS NEEDED WHILE MINIMIZING THE RISK OF EXCESS

NUTRIENTS ENTERING THE FOREST SYSTEM AND WATER SUPPLY.

MAINTENANCE SCHEDULE

1. ANNUAL MAINTENANCE DURING THE GROWING SEASON, FOR A MINIMUM OF YEAR PERIOD 2. INSPECT PLANTED STOCK FOR MORTALITY. REMOVE AND REPLACE ANY DEAD OR DISEASED PLANTINGS.

EXPECT VOLUNTEER SEEDING OF NATIVE, LOCAL AND ENDEMIC VEGETATION

- TO OCCUR. DO NOT DISCOURAGE THIS GROWTH UNLESS IT NEGATIVELY EFFECTS THE PLANTED STOCK. 4. MANUALLY REMOVE AGGRESSIVE, NOXIOUS, INVASIVE SPECIES AND ALL HERBACEOUS VEGETATION WITHIN A 3-FOOT RADIUS SURROUNDING THE
- PLANTED WOODY NURSERY STOCK. 5. REMOVE AND DISPOSE OF ANY MAN-MADE TRASH, INCLUDING ITEMS CONTAINED WITHIN THE PLANTING AREA. DO NOT REMOVE DOWN AND DEAD MATERIAL NATURALLY OCCURRING OR ACCUMULATING. UNLESS IT S SMOTHERING PLANTING STOCK OR INTERFERES WITH THE REFORESTATION
- 6. A 75 PERCENT SURVIVAL OF PLANTED STOCK MUST BE ACHIEVED AT THE END OF THE 24 MONTH MANAGEMENT PERIOD. IF NOT, ADDITIONAL PLANTINGS WILL BE REQUIRED TO BRING THE PLANTED STOCK SURVIVAL RATE UP TO 75%.

SUPERVISION

1. ALL FOREST CONSERVATION ACTIVITIES SHALL BY DONE UNDER THE DIRECT SUPERVISION OF SOMEONE FROM THE DESIGN TEAM OR OTHER "QUALIFIED PROFESSIONAL" AS DETERMINED BY THE REQUIREMENTS OF COMAR 08.19.06.01 AND THE MARYLAND DEPARTMENT OF NATURAL RESOURCES, PUBLIC LANDS AND FORESTRY DIVISION.

791 TREES & SHRUBS

WETLAND STREAM/INTERMITTENT -----_-----75' STREAM BUFFER OLD REDERICK ROAD (MD. RTE. 99) 50' INTERMITTENT BUFFER -----100 YR. FLOODPLAIN EXISTING CONTOUR _________ FOREST CONSERVATION -**EXISTING TREELINE** (REFORESTATION) 0.56 ACRES PROPOSED TREELINE TREE PROTECTIVE FENCING FOREST CONSERVATION SIGNAGE 15% TO 25% SLOPES SLOPES, 25% AND GREATER 000 FRIENDLY (FARMS) - FOREST CONSERVATION EASEMENT B (REFORESTATION) PLAT 6363 0.82 ACRES R-20 SILT FENCE AS TREE PROTECTIVE ______ FENCING IN SEE SHEET FRIENDLY FARMS KENNARD WARFIELD FRIENDLY FARMS PLAT-6363-JAX MAP 16 PLAT /6363 BLOCK 6 R+20 PARCEL 21 1091/117 ZONED: R-20 FOREST CONSERVATION (RETENTION PROTECTIVE FENCE DETAIL 0.16 ACRES FOREST FRIENDLY FARMS BLAZE ORANGE PLASTIC MESH CONSERVATION AREA end of silt fence and super LOT #3 SILT FENCE TO BE USED AS TREE ZONED: R-20 PROTECTIVE FENCING IN THIS AREA ANCHOR POSTS SHOULD BE MINIMUM 2" STEEL 'U' CHANNEL REFORESTATION USE 2" X 4" P/O FOREST CONSERVATION OR 2" X 2" TIMBER, 6' IN LENGTH EASEMENT D (REFORESTATION) CROSS BRACING PROJECT HIGHLY VISIBLE FLAGGING -0.54 ACRES P/O FOREST CONSERVATION P/O FOREST CONSERVATION EASEMENT D TREES FOR YOUR (REFORESTATION) 0.44 ACRES FUTURE 0.00 ACRES CREDITED FOREST EX. FOREST CONSERVATION FASEMENT F PART OF EX. FOREST CONSERVATION (RETENTION) EASEMENT D (F-98-141) 0.19 ACRES (RETENTION) TO BE REMOVED 1.26 ACRES FOREST 0.65 ACRES CREDITED FOREST CONSERVATION START OF SILT FENCE AND SUPER SILT FENCE TO BE USED AS TREE PROTECTIVE FENCING IN THIS AREA FOREST 100 YEAR FLOODPLAIN PRESERVATION WAVERLY WOODS (F-95-174) GOLF COURSE SDP 96-35 ANCHOR POSTS MUST BE INSTALLED TO A DEPTH OF ZONED: R-20 - PART OF EX. FOREST CONSERVATION USE 8" WIRE 'U' TO SECURE NO LESS THAN 1/3 OF THE EASEMENT D (F-98-141) TO BE TOTAL HEIGHT OF POST TREES FOR YOUR ABANDONED FUTURE FOREST PROTECTION DEVICE ONLY. RETENTION AREA WILL BE SET AS PART OF THE REVIEW PROCESS. BOUNDARIES OF RETENTION AREA SHOULD BE STAKED AND FLAGGED PRIOR TO INSTALLING FOREST CONSERVATION DATA DEVICE. B. ROOT DAMAGE SHOULD BE AVOIDED. PROTECTIVE SIGNAGE MAY ALSO BE USED. DEVICE SHOULD BE MAINTAINED THROUGHOUT CONSTRUCTION.

REFORESTATION PLANT LIST (WETLAND & FLOODPLAIN AREAS)

QTY. SPECIES REGIME STATUS SPACING REMARKS QTY. SPECIES REGIME STATUS SPACING REMARKS VT D-W FAC 20' 3' - 5' HT. FAC+ 8' 3' – 5' HT. Acer negundo 38 Acer rubrum Red Maple 29 Cornus florida FACU- 11' 3' - 5' HT. 20' 3' - 5' HT. 75 Acer rubrum FAC D-W Red Maple Flowering Dogwood 75 Fraxinus pennsylvanica I-MT M-W FACW 11' 3' - 5' HT. FACU 20' 3' - 5' HT. 38 Fagus grandifolia American Beech Green Ash 11' 3' - 5' HT. Hamamelis virginiana FACW-FACU 38 Fraxinus americana Witch Hazel White Ash 6' 3' – 5' HT. FACW-Jualans nigra FACU 11' 3' - 5' HT. Black Walnut Nyssa sylvatica 20' 3' - 5' HT. FAC 20' 38 Liriodendron tulipifera 3' – 5' HT. Tulip Poplar FACW-Platanus occidentalis 30 Nyssa sylvatica 20' 3' - 5' HT. American Sycamore Black Gum FAC+ 20' 3' – 5' HT. Quercus phelios 15' 3' - 5' HT. 30 Prunus serotino FAC D-W Willow Oak Black Cherry Salix nigra Black Willow FACW+ 20' 3' -- 5' HT. 75 38 Quercus alba FAC+ 3' - 5' HT. Vaccinium corymbosum FACW-20' 38 Quercus rubro 3' - 5' HT. Highbush Blueberry FACW- 6' 2' - 3' HT. Viburnum dentatum 15' 3' - 5' HT. Sassafras albidum D-M FACU Common Sassafras Southern Arrowwood

* NOTE : SEEDLINGS CAN BE USED IN PLACE OF THE 3' - 5' TREES. IN ORDER TO DETERMINE THE NUMBER OF SEEDLINGS REQUIRED, MULTIPLY THE QUANTITY

LISTED BY 2. ALSO, MINIMUM ON-CENTER SPACING FOR TREES SHOULD BE REDUCED TO 8'.

385 SEEDLINGS

REFORESTATION PLANT LIST

(UPLAND AREAS ALONG OLD FREDERICK ROAD)

SIGNAGE DETAIL NOT TO SCALE 3' TO 5' - WHIP OR TREE - BACKFILL WITH EXISTING NATIVE SOIL -3"-4" MULCH EXISTING -TOPSOIL - CONVEX BOTTOM _____ 2'-3' ____

TREE PLANTING DETAIL CONTAINER GROWN

I. BASIC SITE DATA ACRES GROSS SITE AREA AREA WITHIN 100 YEAR FLOODPLAIN 2.85 'AREA WITHIN AGRICULTURAL USE OR PRESERVATION PARCEL 0.00 NET TRACT AREA 20.64 LAND USE CATEGORY RESIDENTIAL (SUBURBAN) II. FOREST CONSERVATION WORKSHEET DATA SUMMARY REFORESTATION THRESHOLD (20%) AFFORESTATION MINIMUM (15%) EXISTING FOREST ON NET TRACT AREA 5.67 FOREST AREAS TO BE CLEARED FOREST AREAS TO BE RETAINED 0.81 IV, REFORESTATION CALCULATIONS G. FOREST AREAS CLEARED ABOVE REFORESTATION THRESHOLD H. FOREST AREAS CLEARED BELOW REFORESTATION THRESHOLD 3.32 I. FOREST AREAS RETAINED ABOVE REFORESTATION THRESHOLD 0.00 REFORESTATION FOR CLEARING ABOVE THRESHOLD 0.39 REFORESTATION FOR CLEARING BELOW THRESHOLD 6.64 SUBTOTAL REFORESTATION REQUIRED 7.03 TOTAL FEE-IN-LIEU OF REFORESTATION PREVIOUSLY PAID 3.39 TOTAL REFORESTATION REQUIRED 3.64 3.64 TOTAL REFORESTATION PROVIDED

LEGEND

MD DNR QUALIFIED PROFESSIONAL

Venclule 4/26/00 TAYLOR FARM DEVELOPMENT CORP. STEPHANIE DEMCHIK

OWNER/DEVELOPER 2705 FALSTON ROAD

FALSTON, MARYLAND 21047 (410) 557-6312

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F-99-125

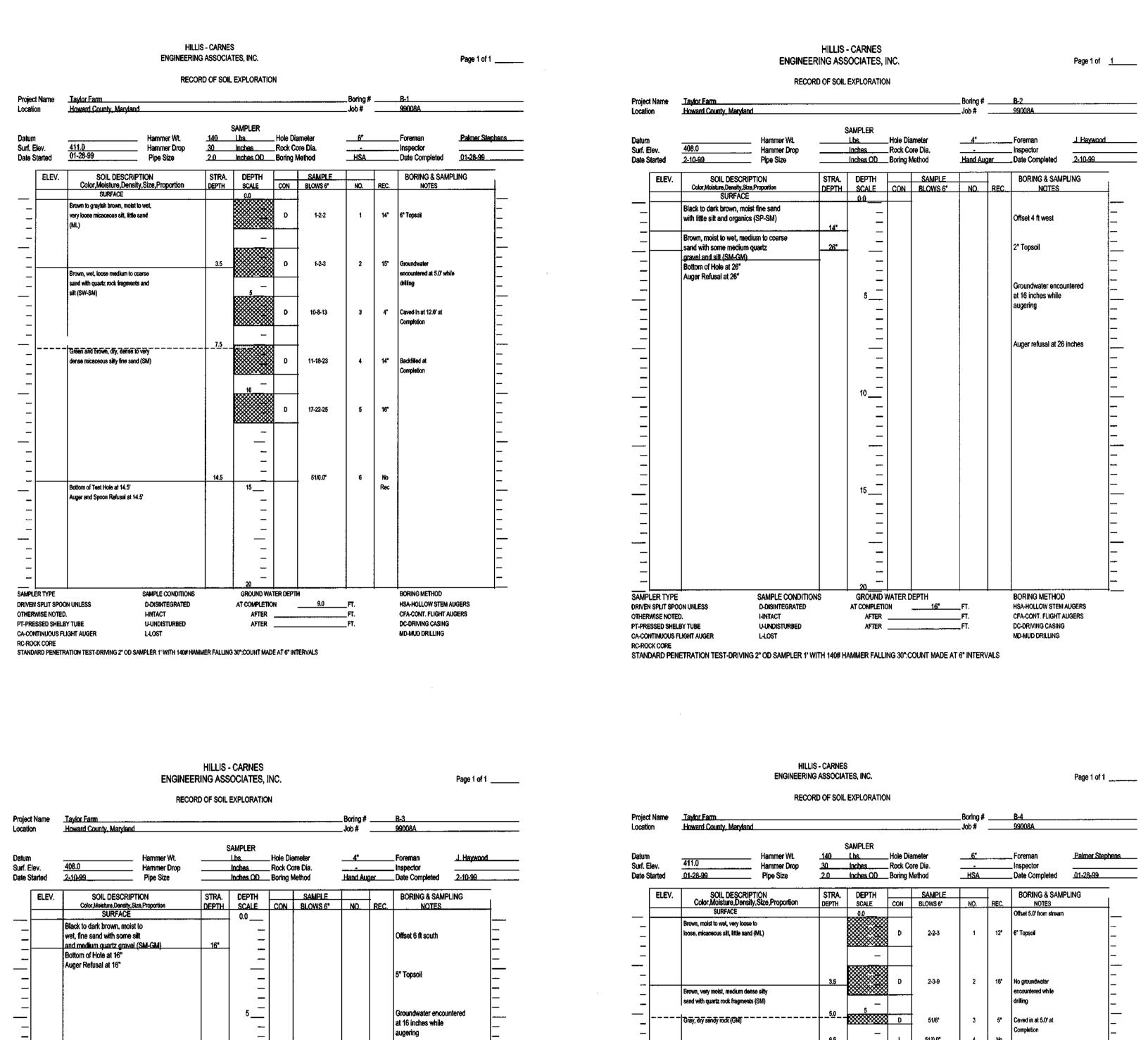
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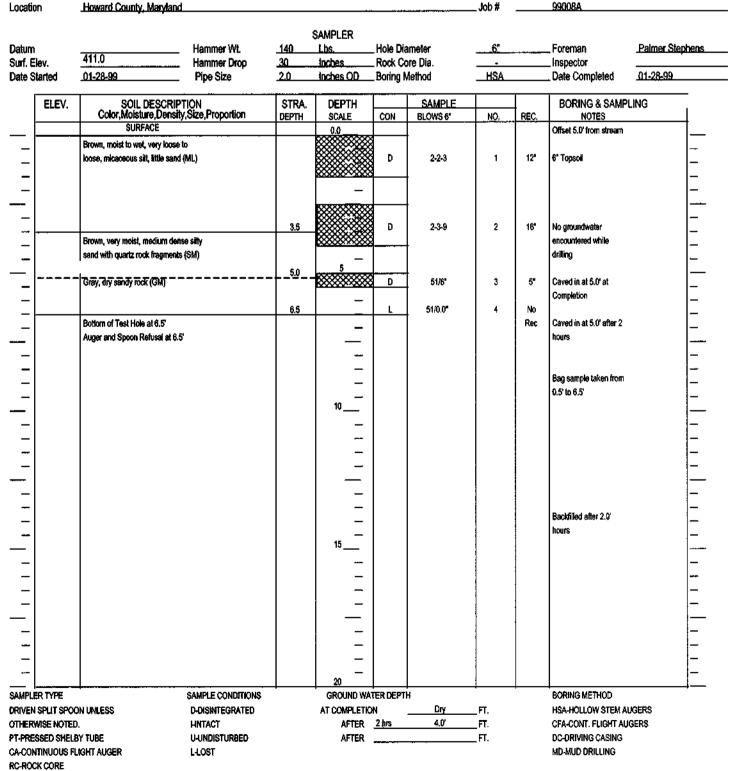
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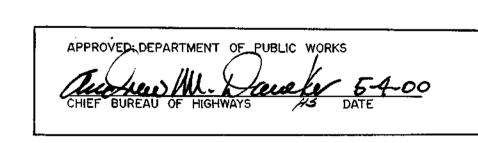
AND

NO

FOREST

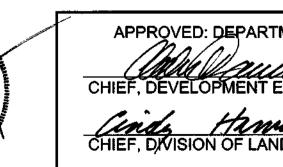


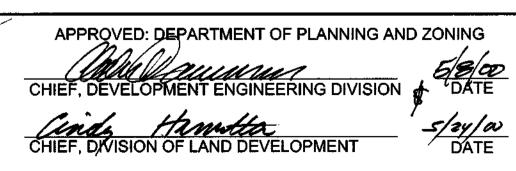






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SAMPLER TYPE

OTHERWISE NOTED.

RC-ROCK CORE

DRIVEN SPLIT SPOON UNLESS

PT-PRESSED SHELBY TUBE

CA-CONTINUOUS FLIGHT AUGER

SAMPLE CONDITIONS

STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30":COUNT MADE AT 6" INTERVALS

D-DISINTEGRATED

U-UNDISTURBED

HINTACT

L-LOST

	FILE NUMBER:	99088A/BORDER	
	JOB NUMBER:	99-008B	
	SCALE:	N/A	
nd 98			

BORING METHOD

DC-DRIVING CASING MD-MUD DRILLING

HSA-HOLLOW STEM AUGERS

CFA-CONT. FLIGHT AUGERS

GROUND WATER DEPTH

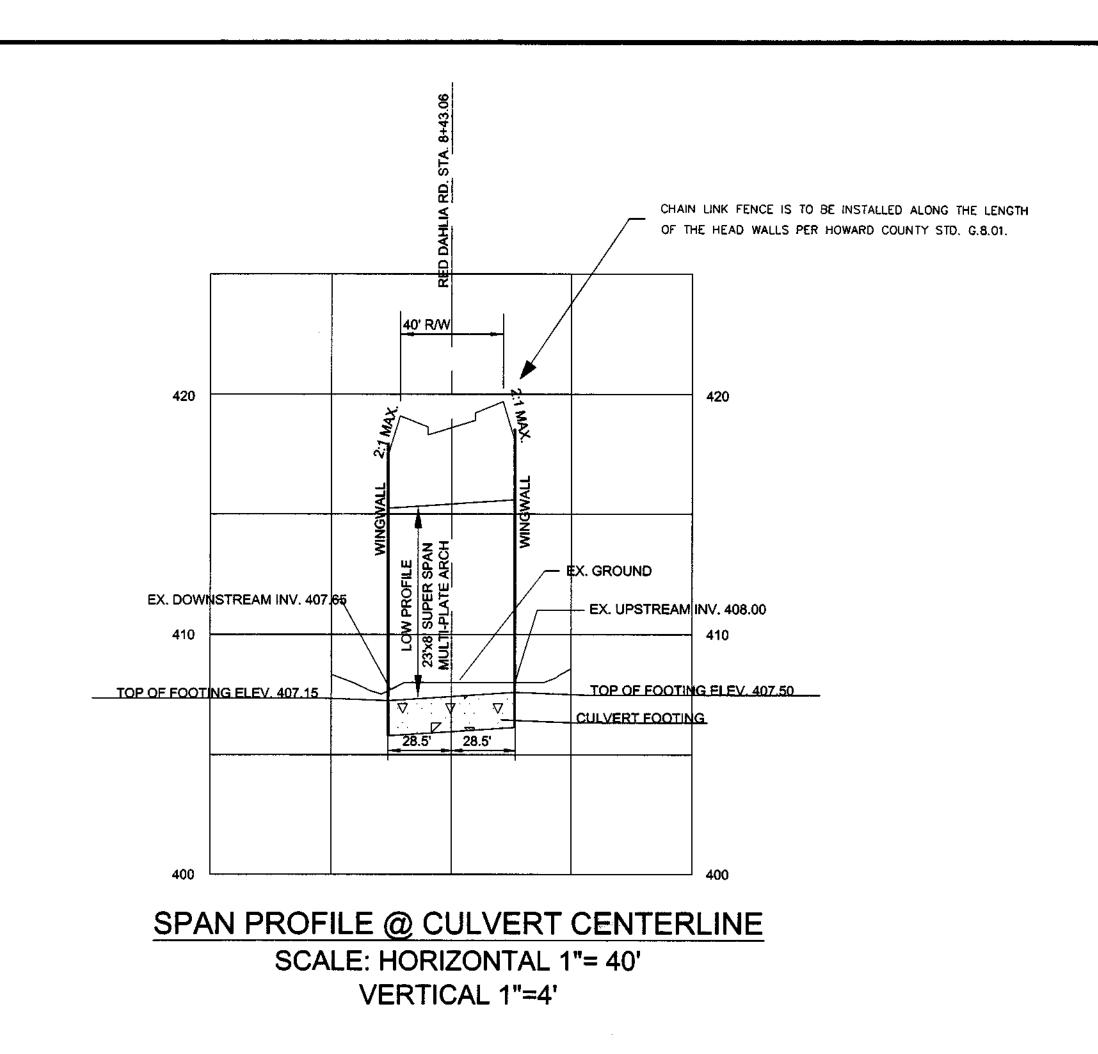
AT COMPLETION

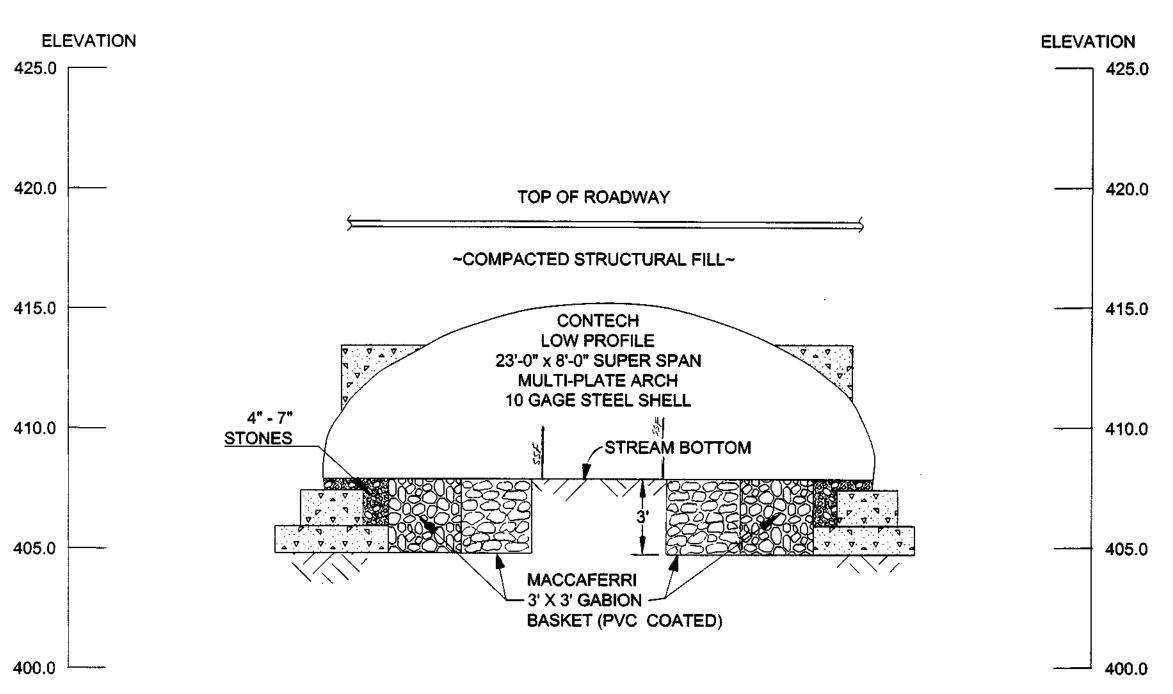
REVISED DATE:		
DRAWN BY:	DJ	:
APPROVED BY:	R.W.S.	
DATE:	5/28/99	

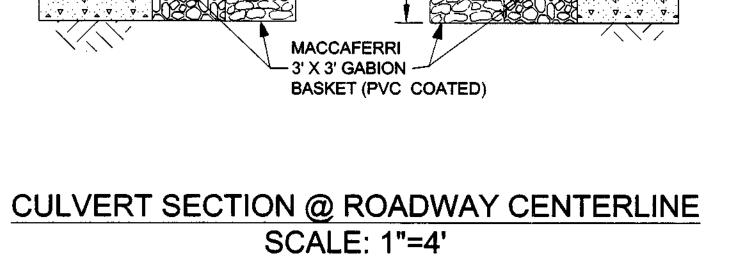
STANDARD PENETRATION TEST-DRIVING 2" OD SAMPLER 1" WITH 140# HAMMER FALLING 30":COUNT MADE AT 6" INTERVALS

BORING LOGS

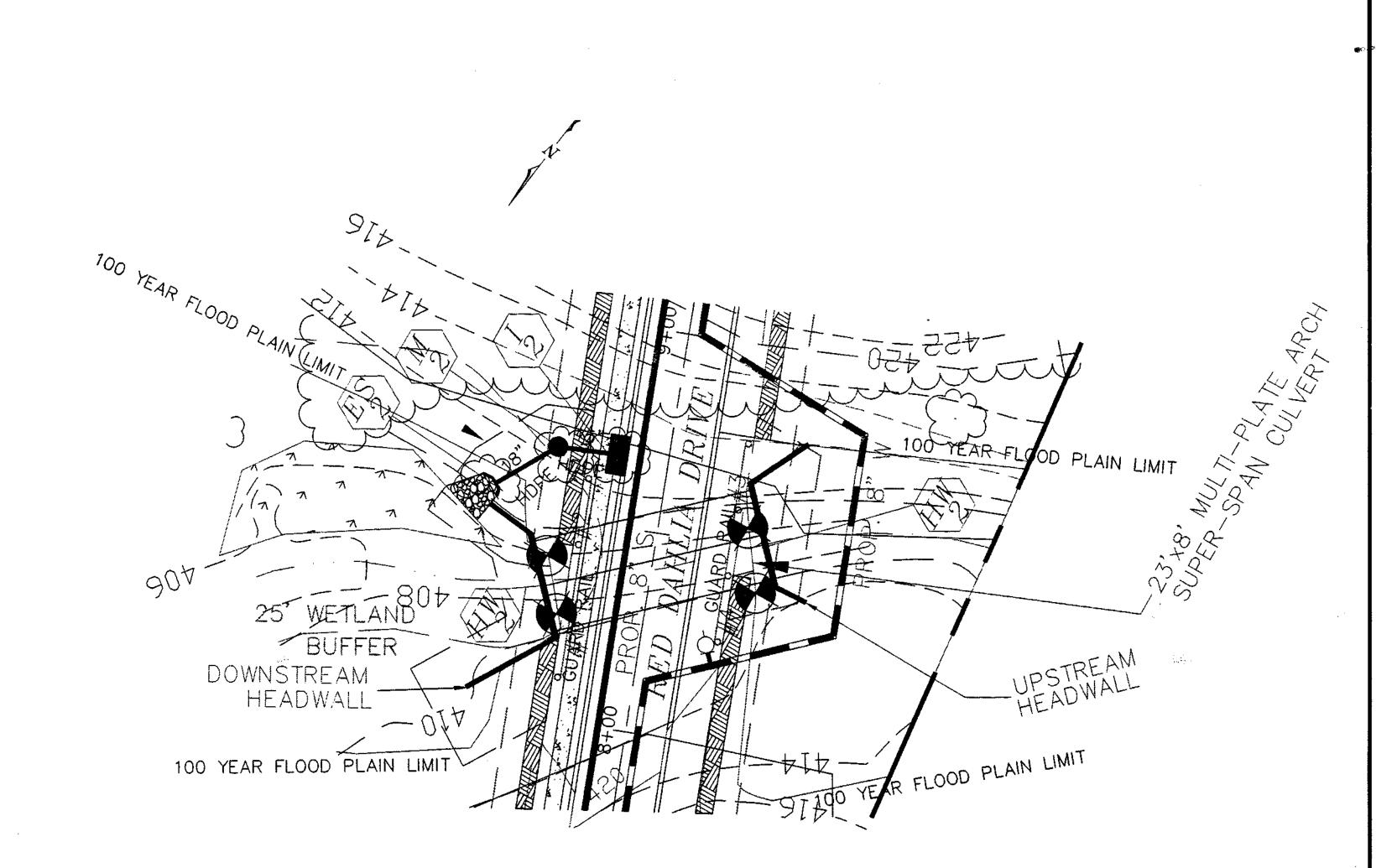
TAYLOR FARM-SECTION TWO HOWARD COUNTY, MARYLAND



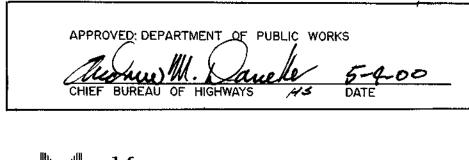




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CULVERT SITE LOCATION PLAN SCALE: 1"= 20'



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APPROVED: DEPARTMENT OF PLANNING AND ZONING

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HILLIS-CARNES	
ENGINEERING ASSOCIATES,	INC.

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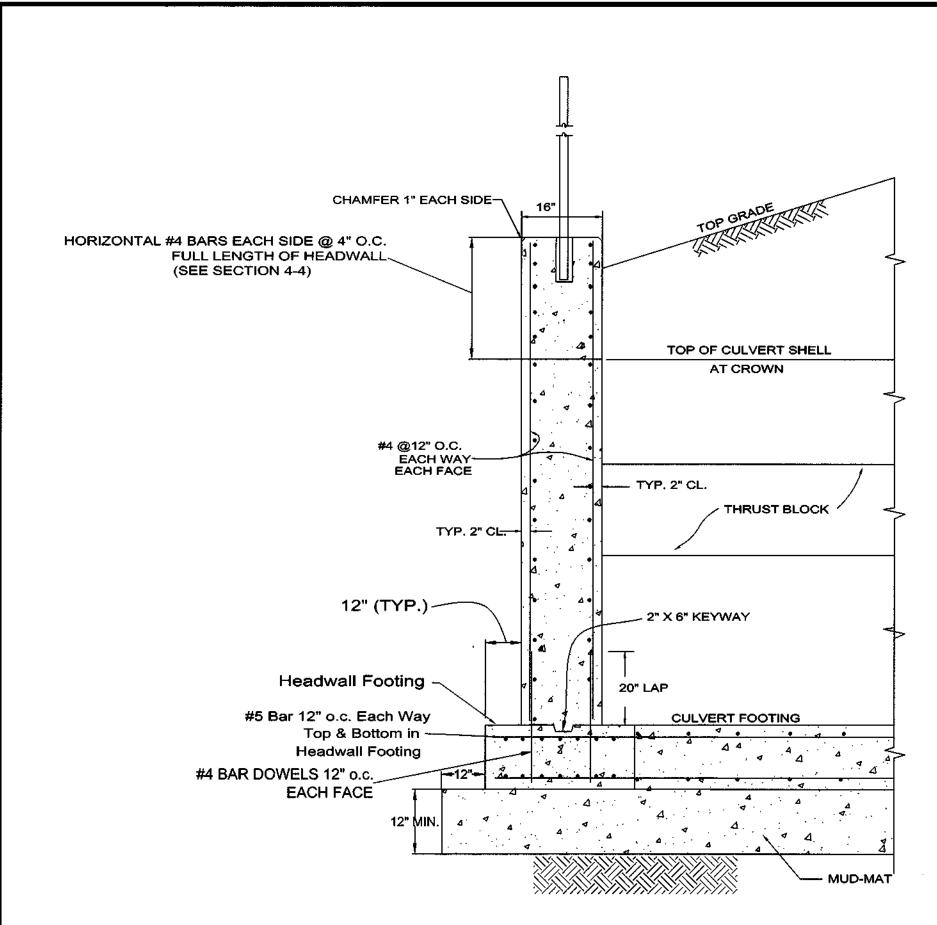
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JOB NUMBER:	99-008B
 SCALE:	NONE

REVISED DATE:	8/12/99	
DRAWN BY:	DJ	
APPROVED BY:	R.W.S.	
DATE:	5/28/99	

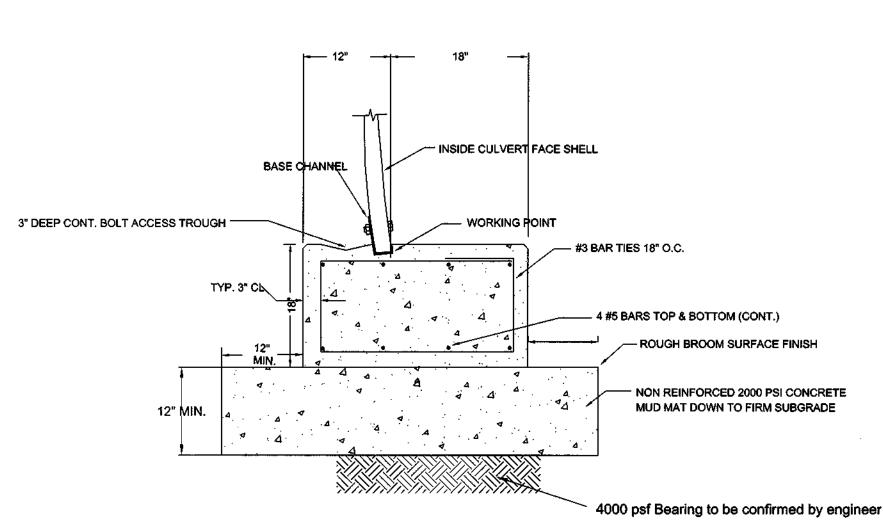
SUPER-SPAN CULVERT PLAN & SECTIONS

TAYLOR FARM-SECTION TWO HOWARD COUNTY, MARYLAND

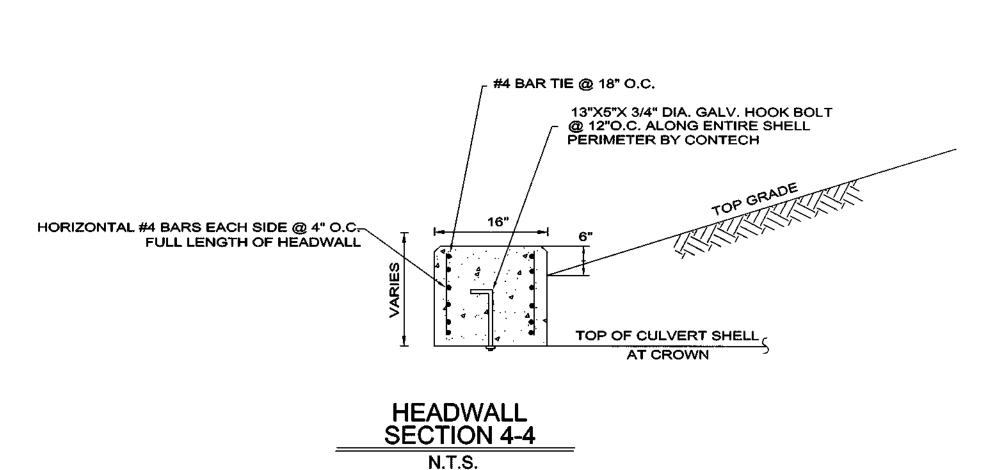
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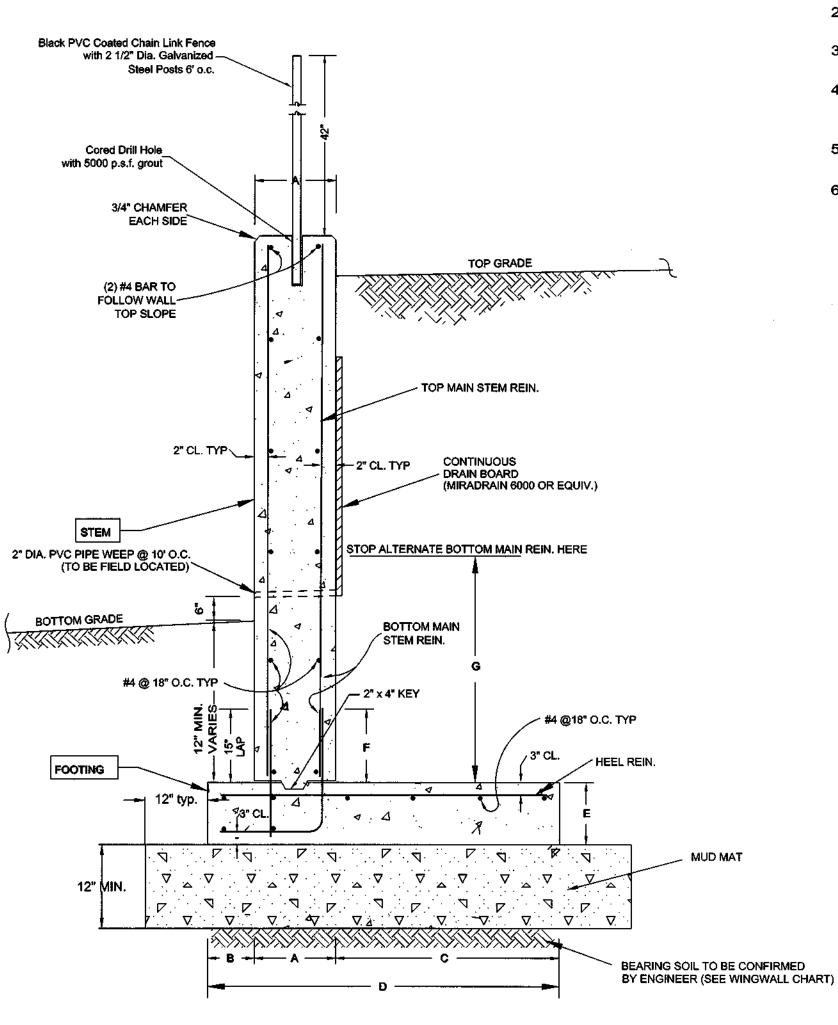


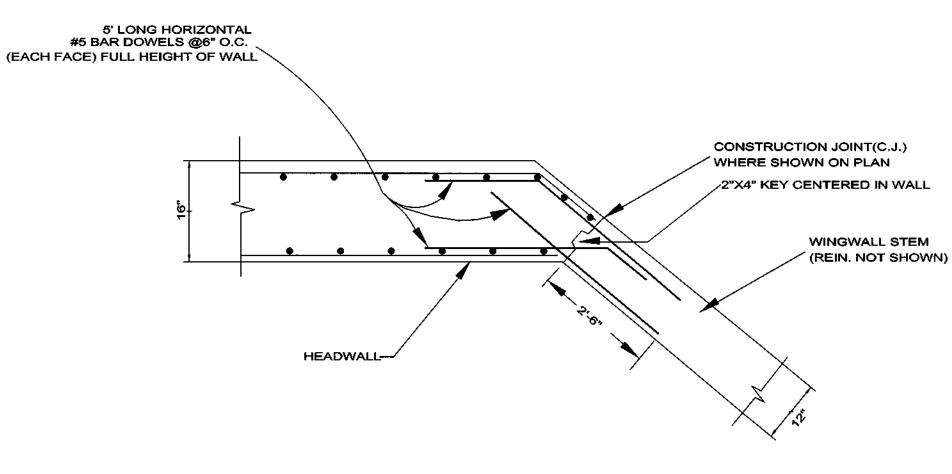




CULVERT FOOTING SECTION 5-5 N.T.S.







HEADWALL/WINGWALL CONSTRUCTION JOINT DETAIL NOT TO SCALE

NOTES:

- 1.) ALL HEADWALL AND WINGWALL CONCRETE SHALL BE SHA MIX NO. 3 (3500 PSI) WITH AIR ENTRAINMENT.
- 2.) REINFORCING STEEL SHALL CONFORM TO ASTM A-615 GRADE 60.
- 3.) WINGWALL BACKFILL SHALL BE TYPE A-2 OR BETTER, COMPACTED TO 90% OF T-180.
- 4.) CONCRETE WORK SHALL COMPLY WITH THE LATEST ACI 318 BUILDING CODE FOR CONCRETE STRUCTURES.
- 5.) ALL REBAR SPLICES NOT SHOWN SHALL BE A MINIMUM 30 BAR DIAM.
- 6.) ALL HEADWALL AND WINGWALL EXPOSED SURFACES SHALL BE MORTAR PATCHED AND SACK-RUBBED FINISHED WITH GROUT AND

WINGWALL DIMENSION CHART

WALL SECTION	Α	В	С	D	E	F	G	HEEL REIN.	TOP MAIN STEM REIN.	BOTTOM MAIN STEM REIN.	REQUIRED SOIL BEARING CAPACITY
1	12"	9"	3'-6"	5'-3"	12"	1'-9"	N/A	#5 @ 12" O.C.	#5 @ 12" O.C.	#5 @ 12" O.C.	3000 p.s.f.
2	12*	9"	6'-2"	8'-3"	12"	2'-1"	5'-6"	#6 @ 7" O.C.	#6 @ 14" O.C.	#6 @ 7* O.C.	4200 p.s.f.



 $\underline{\mathit{MILDENBERG}},$ BOENDER & ASSOC., INC.

Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.



APPROVED: DEPARTMENT OF PLANNING AND ZONING CHIEF, DEVELOPMENT ENGINEERING DIVISION & CHIEF, DIVISION OF LAND DEVELOPMENT

HILLIS-CARNES ENGINEERING ASSOC	CIATES, INC.
12011 Guilford Road - Suite 106	Annapolis Junction, Maryland
(410) 880-4788	Fax: (410)880-4098

	FILE NUMBER:	99008A/DETAILS	RE\
	JOB NUMBER:	99-008B	DRA
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EVISED DATE: 8/12/99 DJ RAWN BY: R.W.S. PROVED BY: 5/28/99

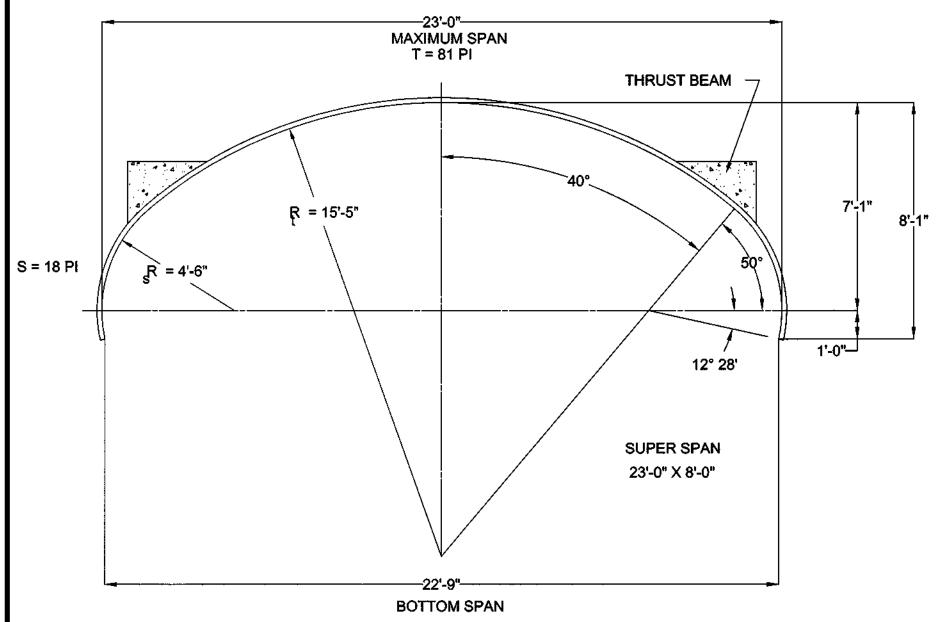
WINGWALL SECTIONS 1 & 2

NOT TO SCALE

SUPER-SPAN CULVERT STRUCTURAL DETAILS

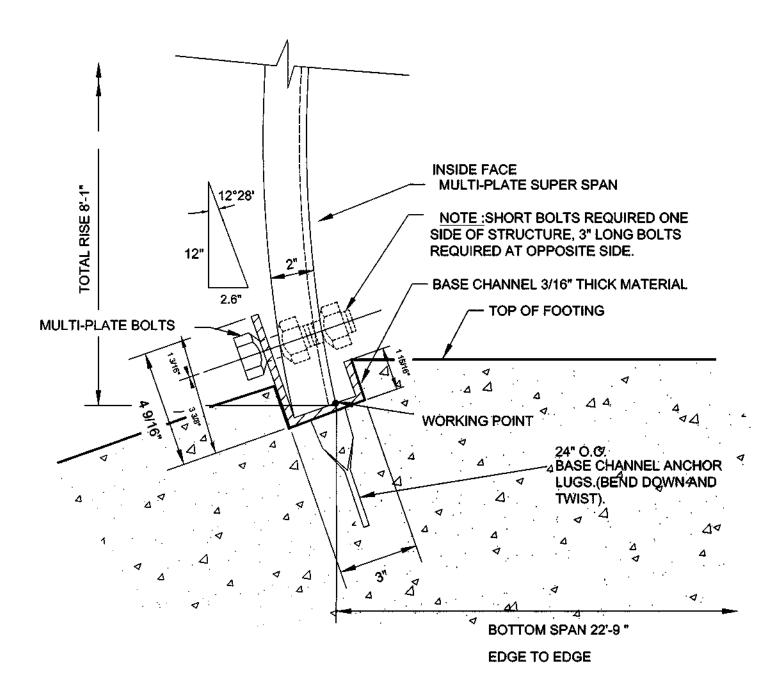
TAYLOR FARM-SECTION TWO HOWARD COUNTY, MARYLAND

11 OF 13



LOW PROFILE ARCH SHAPE DETAIL

NOT TO SCALE



BASE CHANNEL DETAIL

NOT TO SCALE

STRUCTURAL BACKFILL

A granular type of material shall be used around and over the structure. This select structural backfill material shall conform to one of the following classifications of soil from AASHTO Specification M-145, as modified in the following table for A-1. A-2-4 or A-2-5. Maximum particle size shall not exceed 3 inches. For the A-2 materials, moisture content must be between -3% to +2% optimum as defined by AASHTO T-180.

ADDITIONAL REQUIREMENTS

- 1. Materials must be dense graded (open graded or gap graded materials are not allowed).
- 2. Fine beach sands, windblown sands, stream deposited sands exhibiting fine, rounded particles and typically classified by AASHTO M-145 as A-3 materials are not allowed.
- 3. On site mixing or blending to achieve specified gradation is not

BACKFILL ENVELOPE LIMITS

The backfill envelope limits are as detailed on the plans.

BACKFILL PLACEMENT

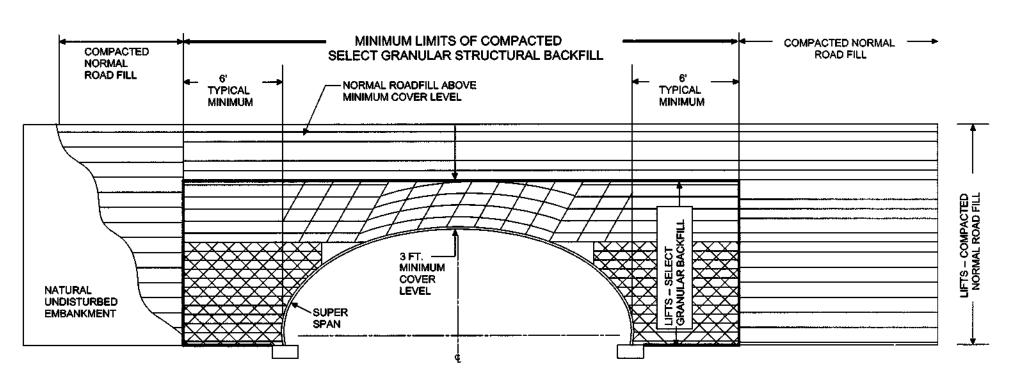
Before backfilling, the erected structure shall meet the tolerance and symmetry requirements of AASHTO and the manufacturer.

Approved backfill material shall be placed in horizontal, uniform layers not exceeding 8" in thickness, before compaction, and shall be brought up uniformly on both sides of the structure. Each layer of backfill shall be compacted to a relative density of not less than 90%, modified proctor per AASHTO Test Method No. T-180. Field density tests of compacted backfill will be made at regular intervals during backfill.

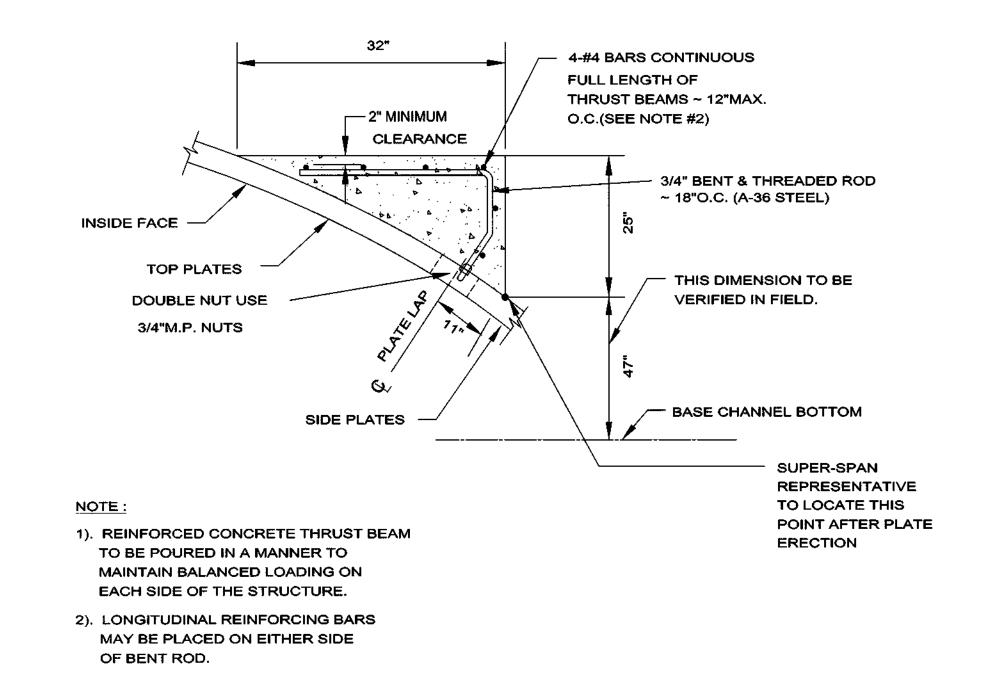
Long span structures, due to their size and shape, are sensitive to the types and weights of equipment used to place and compact the select backfill material. This is especially critical in the areas immediately adjacent to and above the structure. Therefore, equipment types will be restricted in those critical zones. Compaction equipment or methods that produce horizontal or vertical earth pressures which cause excessive distortion or damage to structures shall not be used.

Contractors should plan to have a D4 (approximately 20,000 lbs.) or similar weight tracked dozer to place and grade backfill immediately alongside and above the structure until minimum cover level is reached. Lightweight vibratory plate or roller type compaction equipment must be used to compact the backfill in these zones. Use of heavier equipment and/or rubber tired equipment such as scrapers, graders and front end loaders will be prohibited inside the select fill envelope zone until appropriate minimum cover height has been obtained.

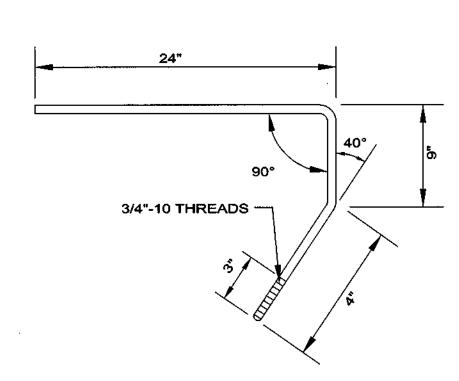
The manufacturers representative shall be on site during backfill operations and as requested by the inspector.



BACKFILL DETAIL FOR SUPER-SPAN STRUCTURE NOT TO SCALE



THRUST BEAM DETAIL NOT TO SCALE



	A-1		A-2 (MO	DIFIED)
GROUP CLASSIFICATION	A-1-a	A-1-b	A-2-4	A-2-5
SIEVE ANALYSIS, PERCENT PASSING:				
NO.10 (2.00mm)	50 MAX			
NO. 40 (.0.425 mm)	30 MAX	50 MAX		
NO. 100 (0.150 mm)			50 MAX	50 MAX
NO. 200 (0.075 mm)	15 MAX	25 MAX	50 MAX	50 MAX
CHARACTERISTICS OF	FRACTION PAS	SING NO. 40 (0.4	425 mm)	l
Liquid Limit			40 MAX	41 MAX
Plasticity Index	6	MAX	10 MAX	10 MAX
USUAL TYPES OF SIGNIFICANT	STONE FRAGMENTS		SILTY OR CLAYEY	
CONSTITUENT MATERIALS	GRAVEL AN	ND SAND	GRAVEL A	ND SAND

BENT & THREADED ROD DETAIL NOT TO SCALE

APPROVED: DEPARTMENT OF PUBLIC WORKS

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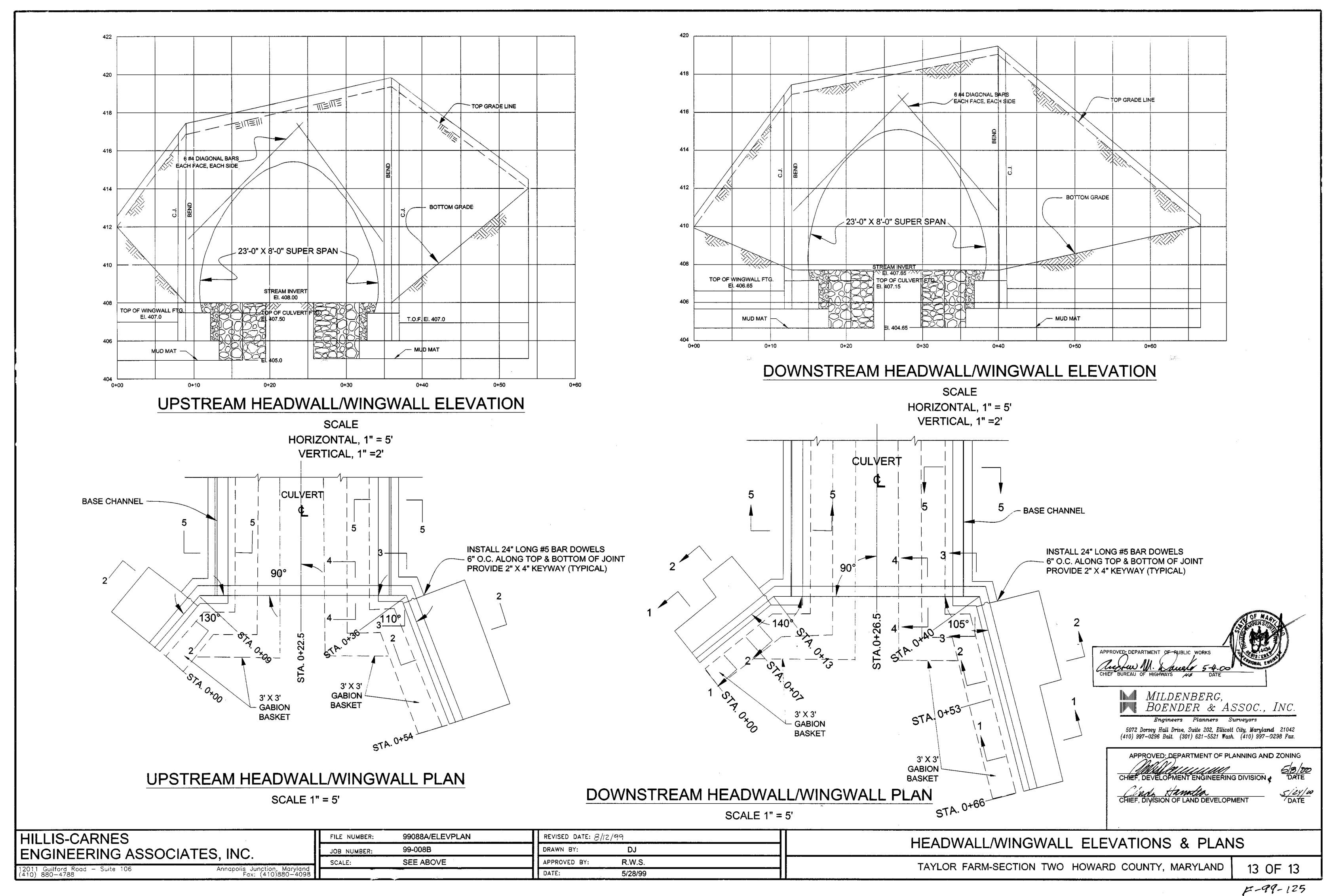
HILLIS-CARNES ENGINEERING ASSOCIATES, INC. 12011 Guilford Road - Suite 106 (410) 880-4788 Annapolis Junction, Maryland Fax: (410)880-4098

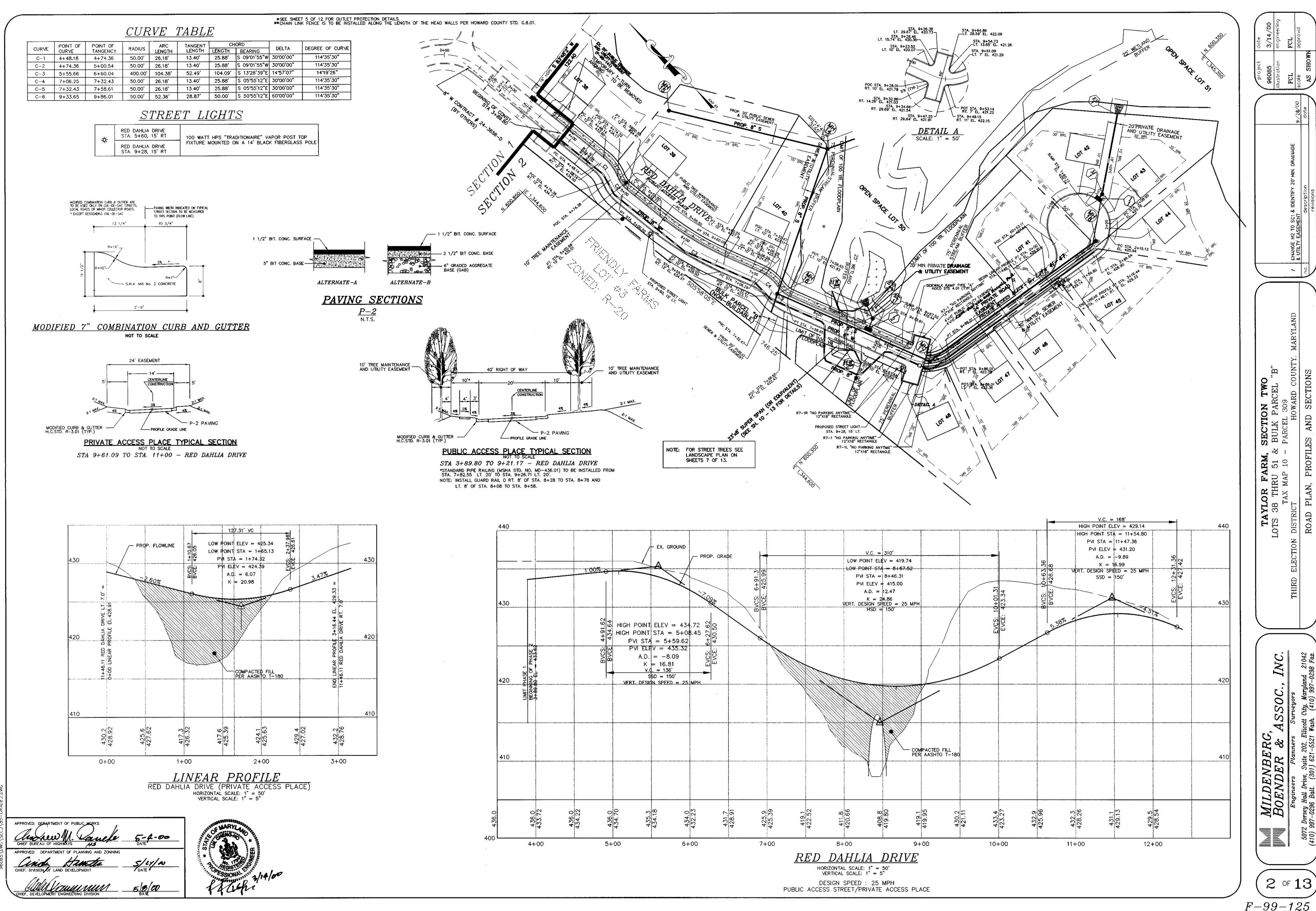
99088A/DETAIL2 REVISED DATE: 99-008B DJ DRAWN BY: JOB NUMBER NONE R.W.S. APPROVED BY: SCALE: 5/28/99 DATE:

SUPER-SPAN CULVERT STRUCTURAL DETAILS

TAYLOR FARM-SECTION TWO HOWARD COUNTY, MARYLAND

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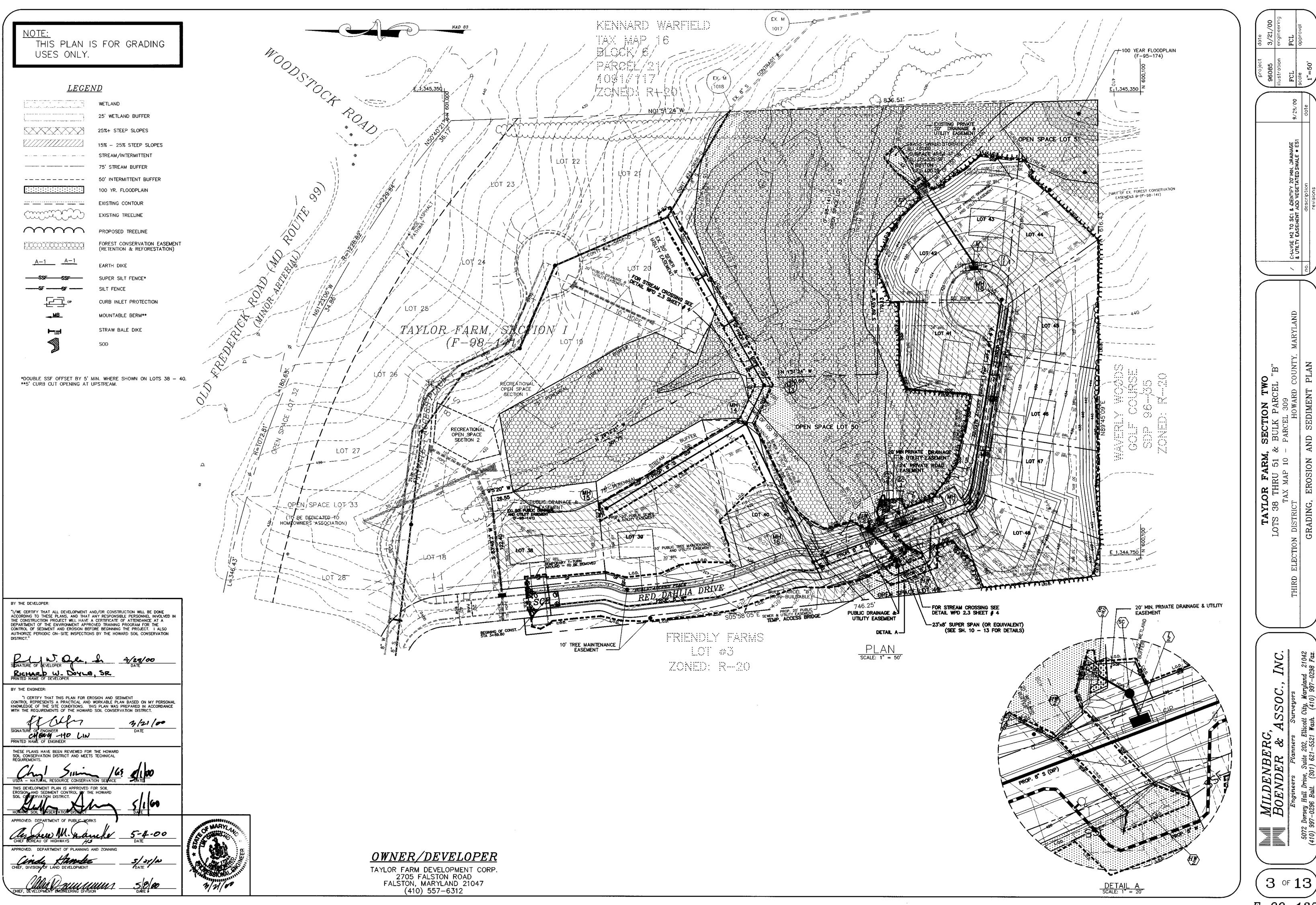




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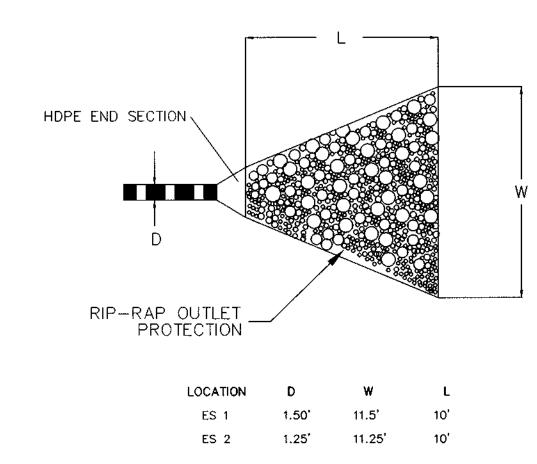


F-99-125

STRUCTURE SCHEDULE

NO.	LOCATION*	TOP**	INV. IN	INV. OUT	COMMENTS
I1*	RED DAHLIA DRIVE, STA. 12+59.38 LT. 47.66	425.35		419.68	INLET TYPE A-5 (HO. CO. STD SD 4.01) 2.5' WIDE - SUMP (PRIVATE)
I2*	RED DAHLIA DRIVE, STA. 8+67.68 LT. 10'	419.44		412.82	INLET TYPE A-5 (HO. CO. STD SD 4.01) 2.5' WIDE - SUMP (PUBLIC)
M. 1	N 600,320.3753 E 1,345,134.7629	425.00	417.20	416.95	MH (HO. CO. STD G 5.12) (PRIVATE)
SC1	RED DAHLIA DRIVE, STA. 8+67.21 LT. 35.90'	413.90	410.82	410,57	STC 900 (PRIVATE)
ES1	N 600,376.4266 E 1,345,217.5774			402.00	18" Ø ADS END SECTION (PART No. 1810 NP)(PRIVATE)
ES2	RED DAHLIA DRIVE, STA. 8+54.42 LT. 39.45			408.00	18" Ø TYPE "C" ENDWALL (HO. CO. STD SD-5.21) (PUBLIC)
HW1	RED DAHLIA DRIVE, STA. 8+33.04 LT. 24.34'			407.65	SEE DETAILS
HW2	RED DAHLIA DRIVE, STA. 8+53.11 RT. 24.38'			408.00	SEE DETAILS

^{*} LOCATIONS SHOWN ARE AT & OF INLET AT THE FACE OF CURB.

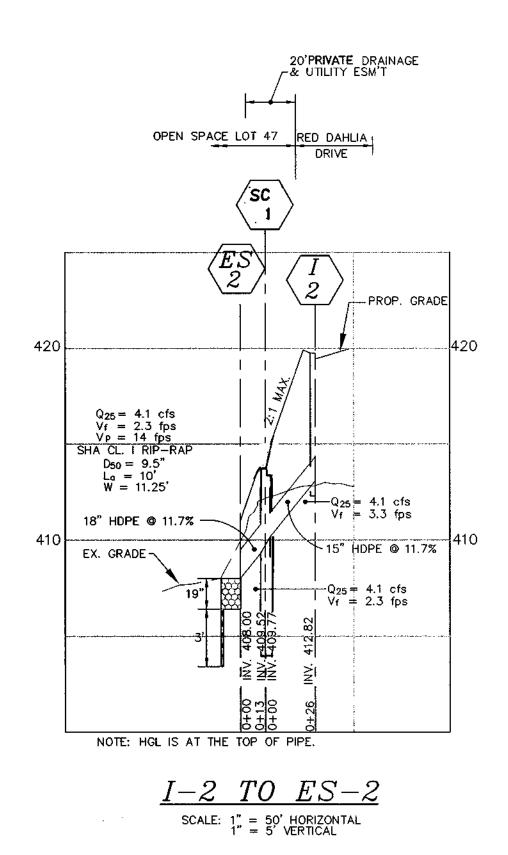


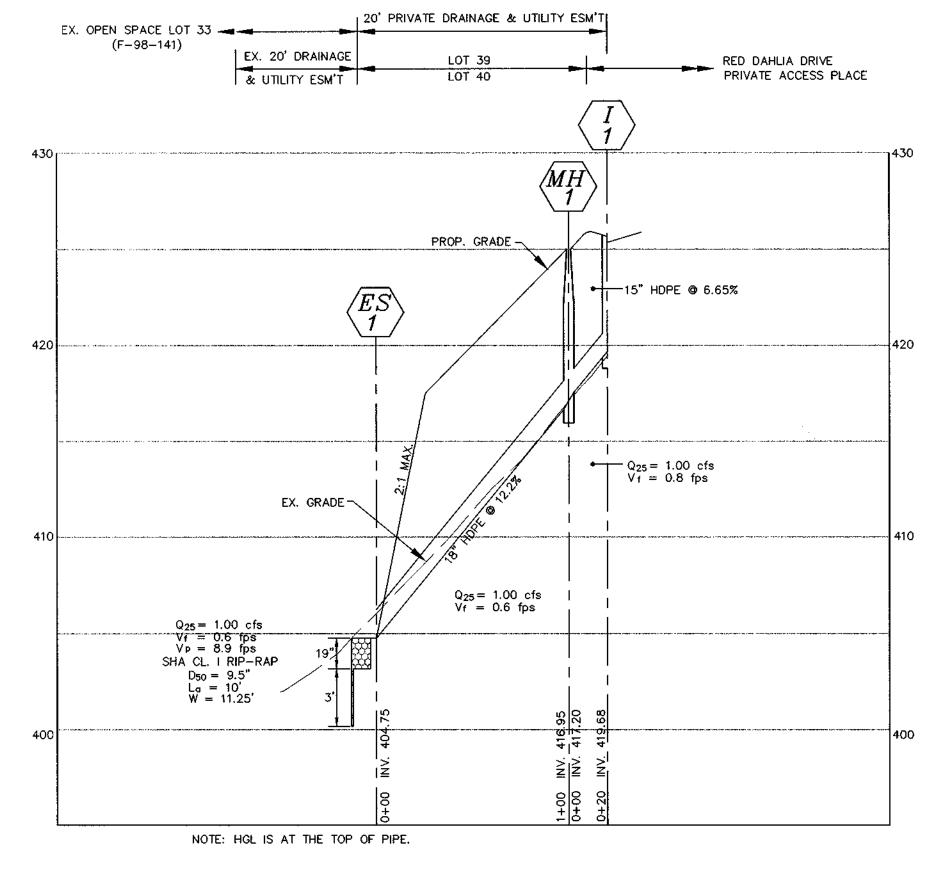
RIP-RAP OUTLET PROTECTION SCHEDULE

PIPE SCHEDULE

	SIZE	LENGTH
PUBLIC	15" HDPE	
	18" HDPE	
	23'x8' **	54'
PRIVATE	15" HDPE	46*
	18" HDPE	113'

STRUCTURE NUMBER 81A18 OR EQUIVALENT.



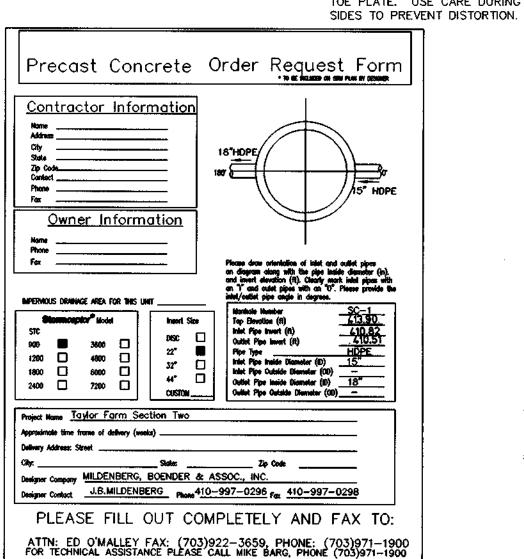


I-1 TO ES-1

ADS END SECTION INSTALATION INSTRUCTIONS

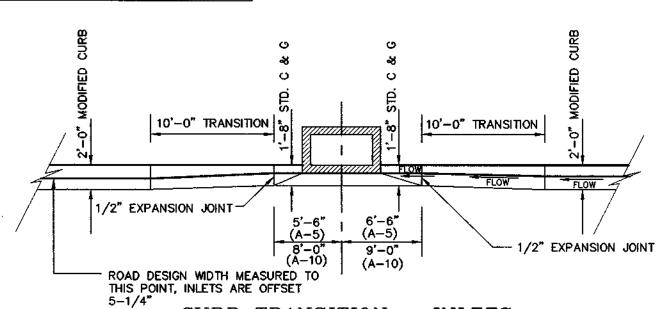
- 1. SPREAD THE ENDSECTION COLLAR AND PLACE IT OVER THE LAST PIPE CORRUGATION. MAKE SURE THE COLLAR SEATS
- PROPERLY IN THE CORRUGATION VALLEY. 2. INSERT THREADED ROD THROUGH THE PRE-DRILLED HOLES IN
- THE END SECTION COLLAR. TIGHTEN WING NUTS.
- 3. PLACE BANKFILL AROUND THE END SECTION AND OVER THE TOE PLATE. USE CARE DURING COMPACTION ALONG THE

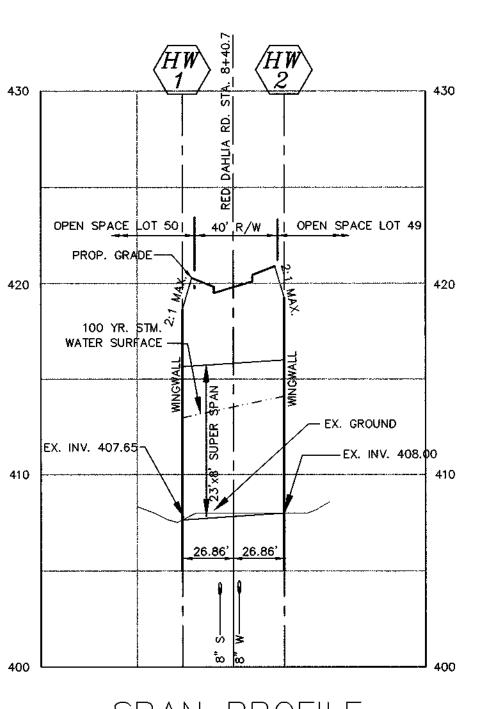
3. MINIMUM CONCRETE STRENGTH
for 4,000 PSI
MINIMUM STEEL STRENGTH
fyr 60,000 PSI

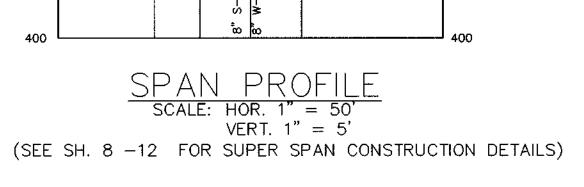


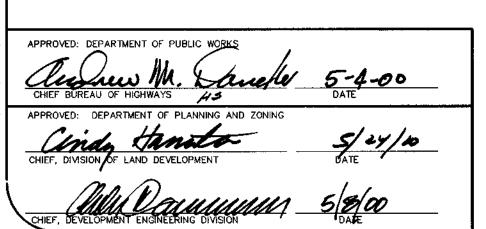
OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY DEVICE THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE PERIODICALLY INSPECTED AND CLEANED TO MAINTAIN OPERATION AND FUNCTION. THE OWNER SHALL INSPECT THE STORMCEPTOR UNIT YEARLY AT A MINIMUM, UTILIZING THE STORMCEPTOR INSPECTION/MONITORING FORM. INSPECTIONS SHALL BE DONE BY USING A CLEAR PLEXIGLASS TUBE ("SLUDGE JUDGE") TO EXTRACT A WATER COLUMN SAMPLE. WHEN THE SEDIMENT DEPTHS EXCEED THE LEVEL SPECIFIED IN TABLE 6 OF THE STORMCEPTOR TECHNICAL MANUAL, THE UNIT MUST BE CLEANED.

- THE STORMCEPTOR WATER QUALITY STRUCTURE SHALL BE CHECKED AND CLEANED IMMEDIATELY AFTER PETROLEUM SPILLS. THE OWNER SHALL CONTACT THE APPROPRIATE REGULATORY AGENCIES.
- THE MAINTENANCE OF THE STORMCEPTOR UNIT SHALL BE DONE USING A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT, DEBRIS, FLOATING HYDROCARBONS AND OTHER MATERIALS IN THE UNIT. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
- THE INLET AND OUTLET PIPES SHALL BE CHECKED FOR ANY OBSTRUCTIONS AT LEAST ONCE EVERY SIX MONTHS. IF OBSTRUCTIONS ARE FOUND THE OWNER SHALL HAVE THEM REMOVED. STRUCTURAL PARTS OF THE STORMCEPTOR UNIT SHALL BE REPAIRED AS NEEDED.
- The owner shall retain and make the stormceptor inspection/monitoring forms available to the howard county officials upon their request.









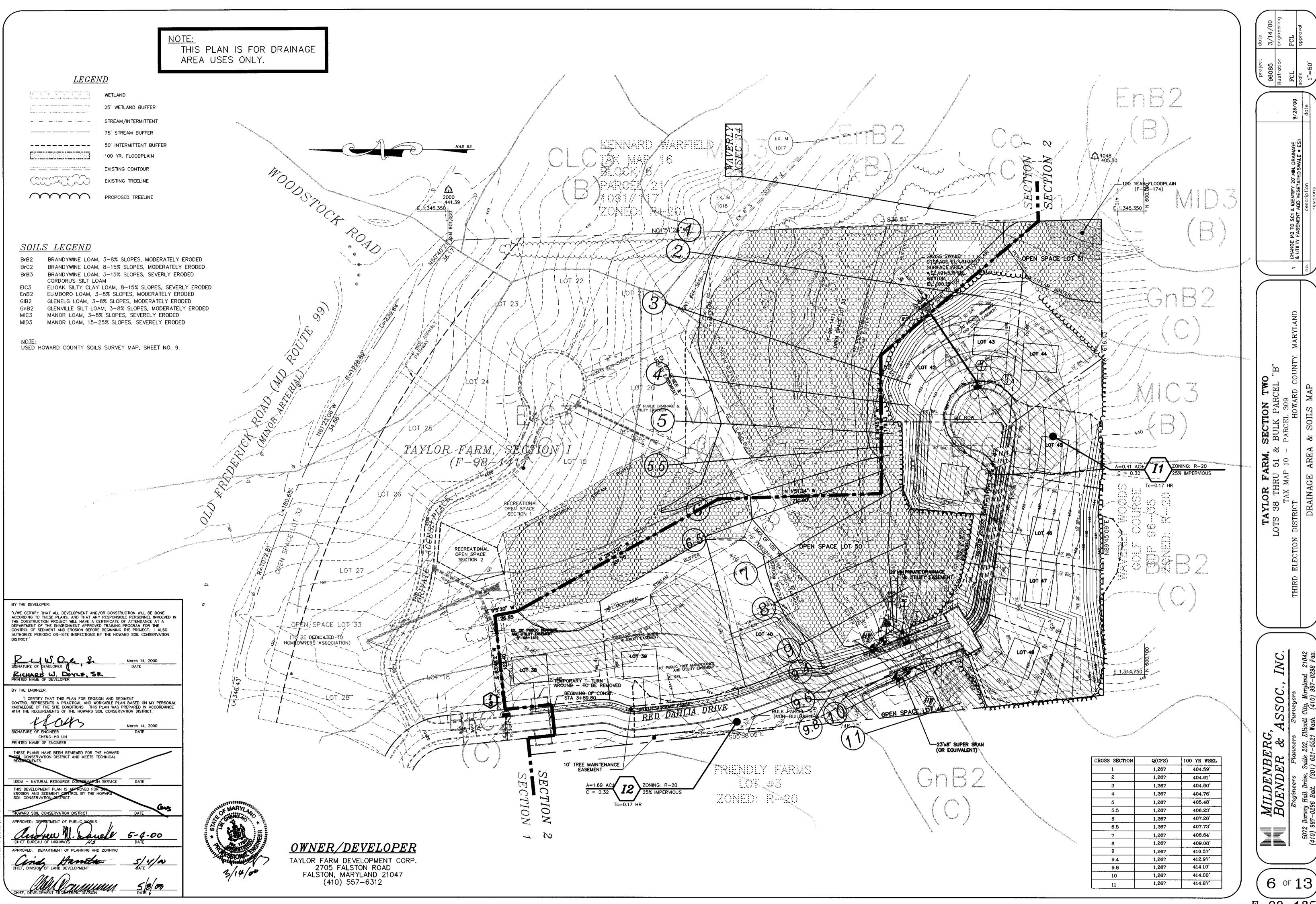


CURB TRANSITION - INLETS

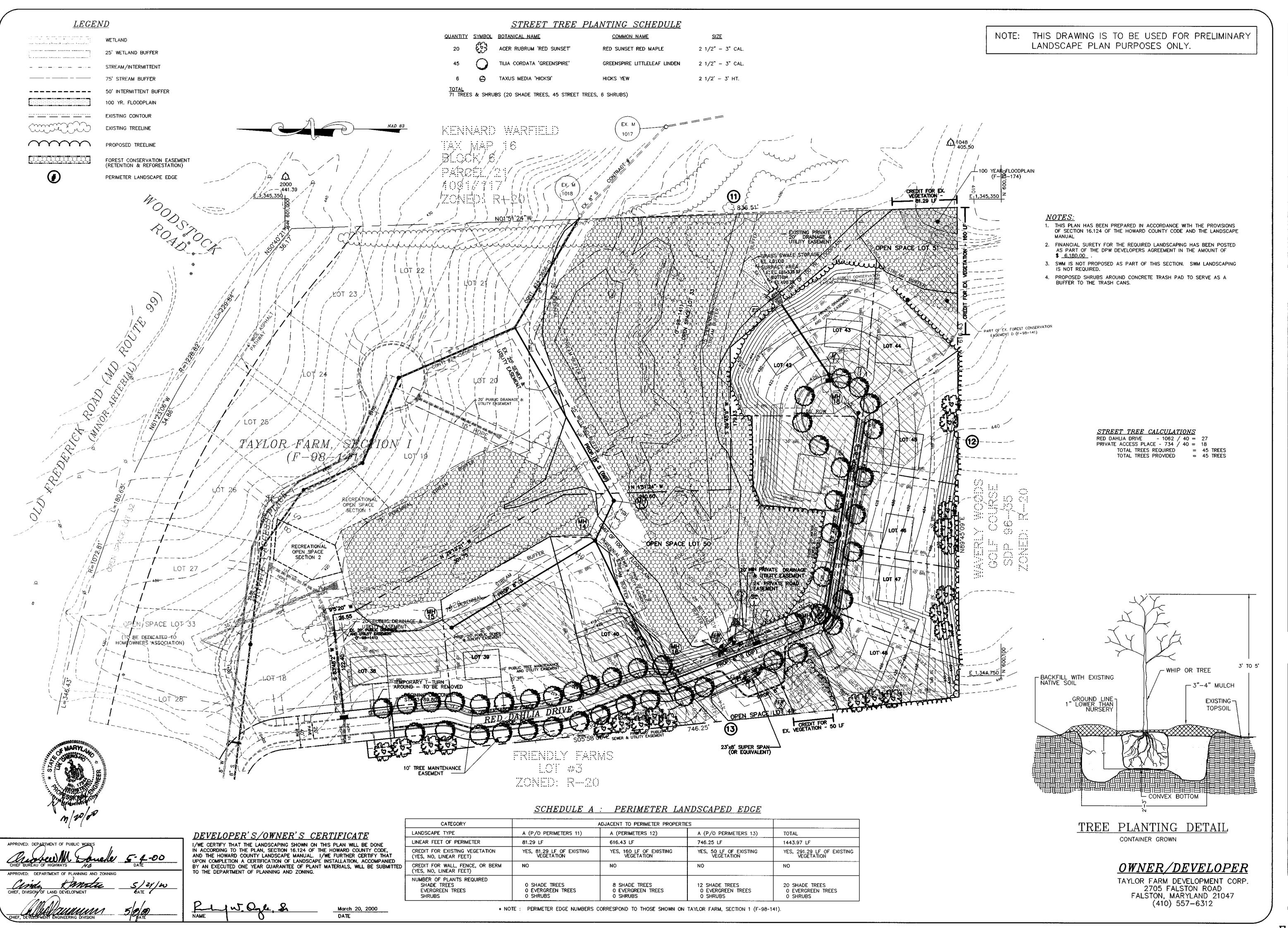
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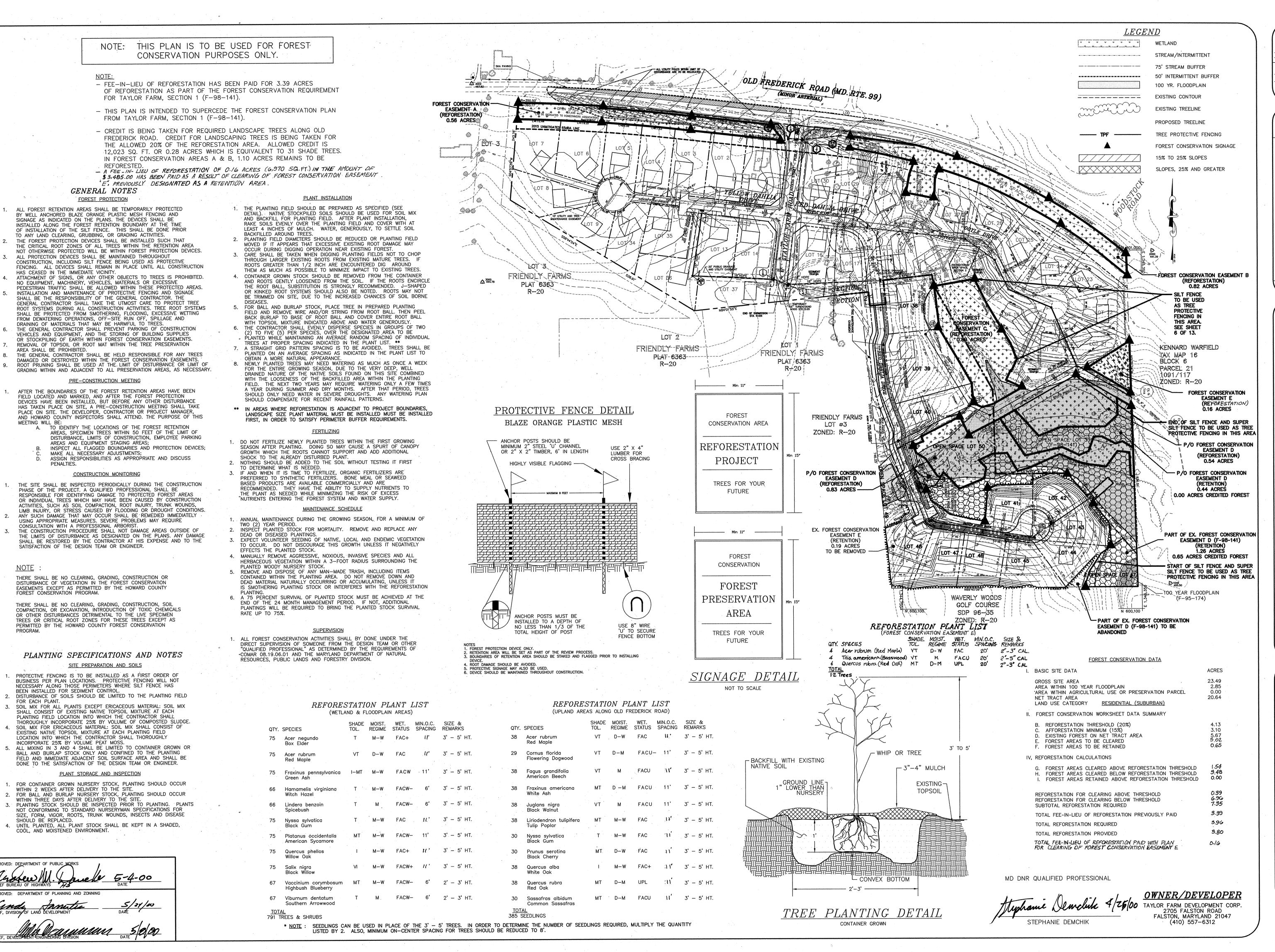
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