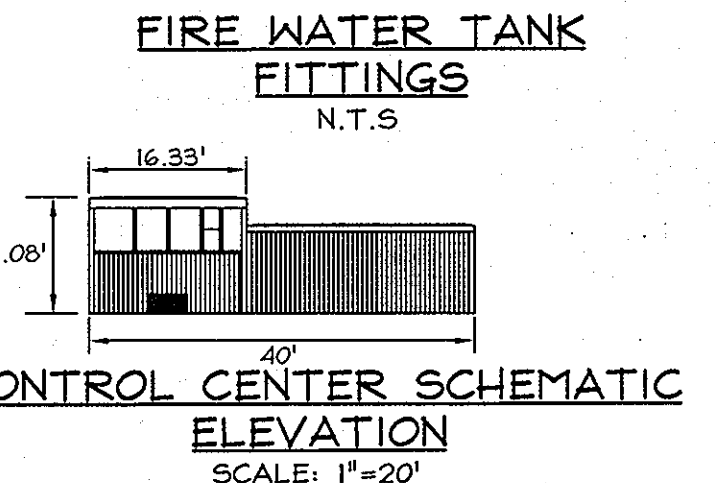
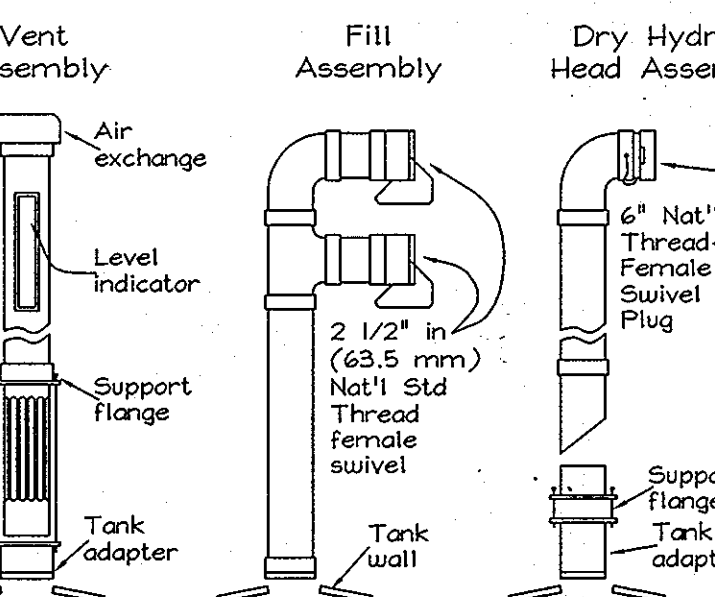


**LEGEND**

- Existing Contour
- Proposed Contour
- Existing Spot Elevation
- Proposed Spot Elevation
- Direction of Flow
- Existing Trees to Remain
- Proposed Cleanout
- Utility Poles
- Existing Utility
- Landscape Perimeter
- Wetlands
- Existing Vegetated Areas
- Proposed Vegetated Areas
- Proposed Rip/Rap
- 25% or greater slopes
- 15% or greater slopes
- 100yr Flood Plain
- Limit of Disturbance
- Soil Boundary
- Property Line
- Wetlands
- Wetland Buffer



**WETLAND 'A'**

LINE	BEARING	DISTANCE
L1	N 21°45'20" E	64.69'
L2	N 10°35'44" E	81.66'
L3	N 17°28'54" E	51.61'
L4	N 63°10'41" W	55.70'
L5	S 21°57'19" W	130.74'
L6	S 21°03'32" W	35.43'
L7	S 20°30'00" W	43.05'
L8	S 74°40'19" E	63.30'

**WETLAND 'B'**

LINE	BEARING	DISTANCE
W9	N 21°16'54" E	54.10'
W10	N 20°10'07" E	61.03'
W11	N 16°34'23" E	63.09'
W12	N 19°01'30" E	31.54'
W13	S 68°03'01" E	0.35'
W14	S 14°03'51" W	79.19'
W15	S 16°41'43" W	14.23'
W16	S 10°36'51" W	63.05'
W17	S 22°27'16" W	58.20'
W18	N 74°40'19" W	4.44'

**SITE ANALYSIS DATA CHART**

- Total project area: 9.70 Acres, 422,532 sq ft
- Area of plan submission: 9.70 Acres, 422,532 sq ft
- Limit of Disturbed Area: 2.44 Acres, 106,286 sq ft
- Present Zoning: M-2
- Proposed use: Asphalt Batching Plant, consisting of 3 silos, 5 storage tanks, mixing equipment, control house, bag house, dryer drum, conveyors, aggregate bins, parking and perimeter landscaping.
- Floor space: 4,410 sq ft
- Maximum no. of employees: 4
- No. of parking spaces required: 7
- No. of parking spaces provided: 7
- Building coverage of site: 0.101 ac ±

APPROVED: FOR PRIVATE WATER AND PUBLIC SEWERAGE SYSTEMS IN ACCORDANCE WITH THE MASTER PLAN OF HOWARD COUNTY

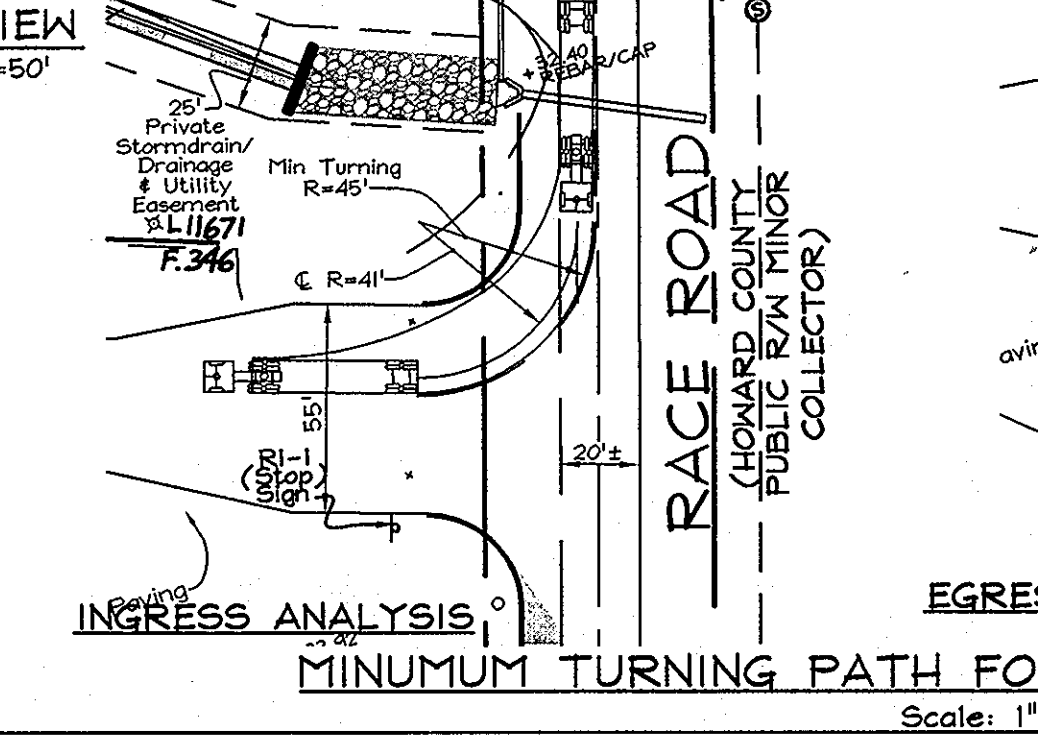
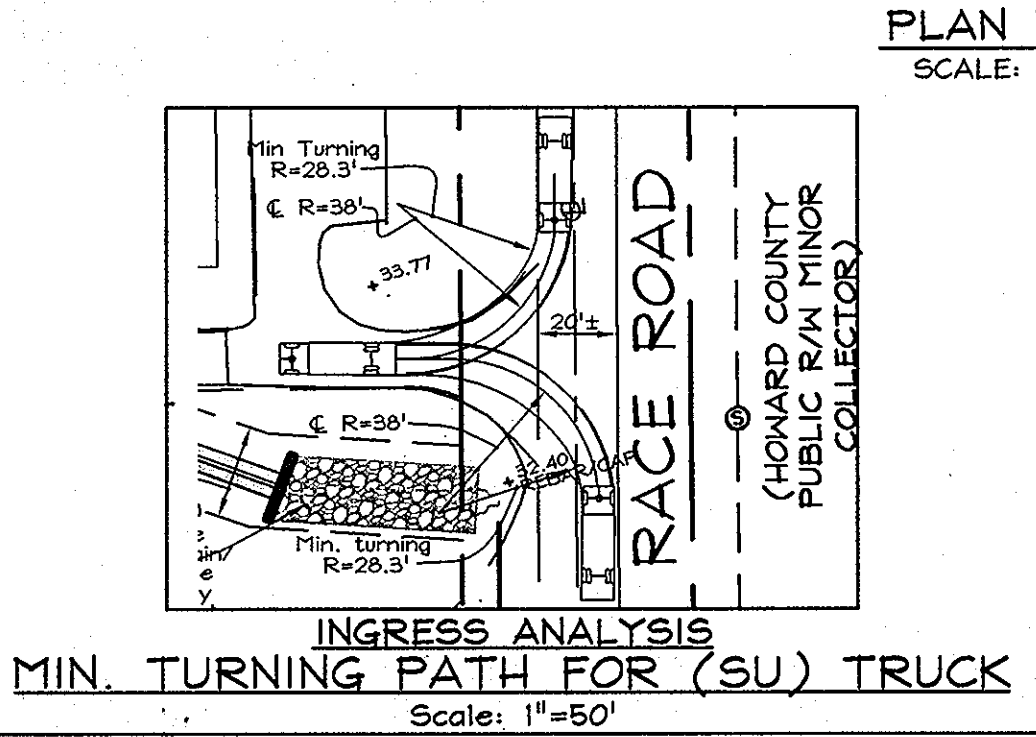
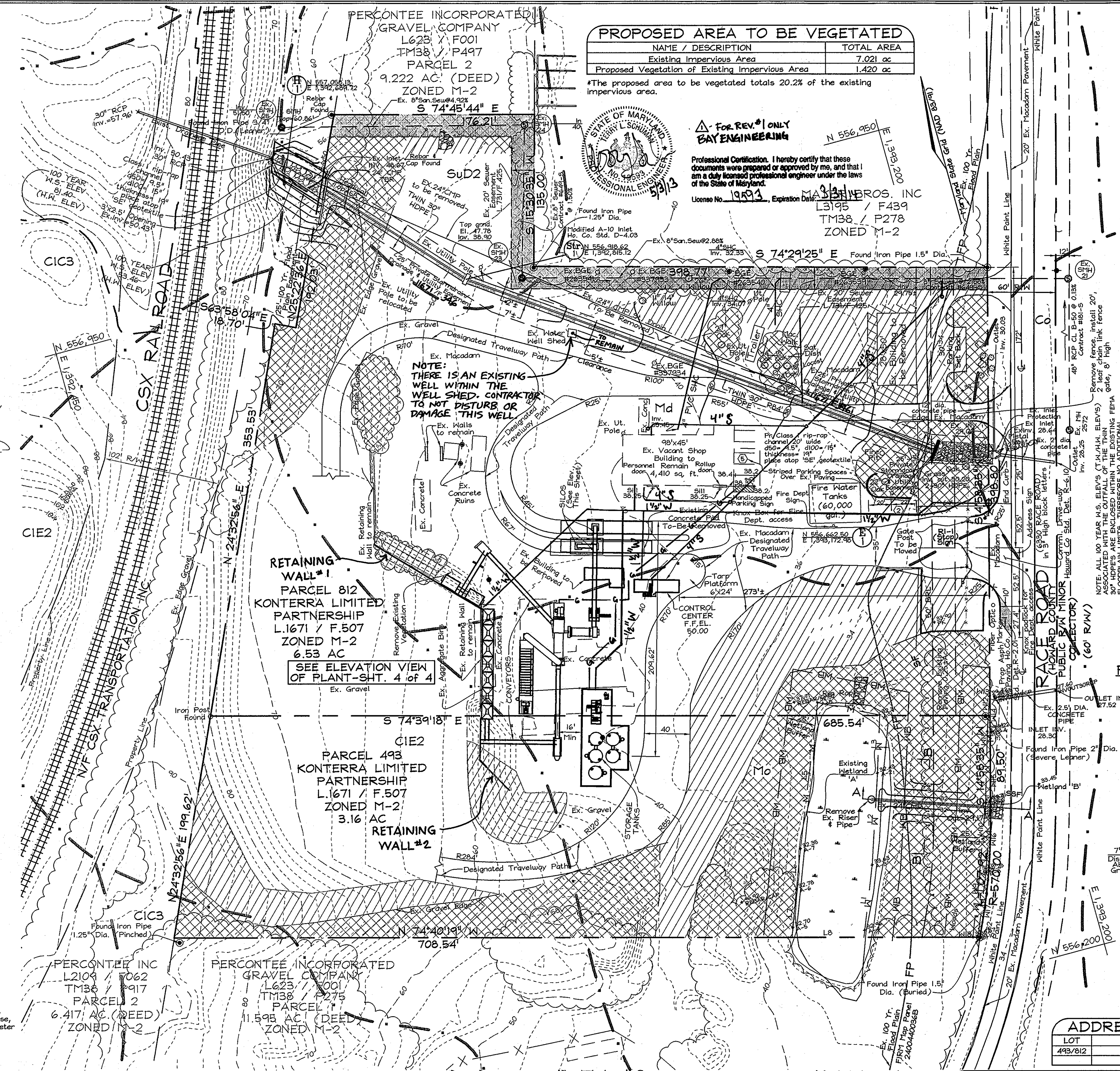
*B. Wilson* 5/19/2009  
COUNTY HEALTH OFFICER  
HOWARD COUNTY HEALTH DEPARTMENT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*W. D. ...* 4/1/09  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*W. D. ...* 5/23/09  
CHIEF, DIVISION OF LAND DEVELOPMENT

*W. D. ...* 5/27/09  
DIRECTOR, DEP.



**PROPOSED AREA TO BE VEGETATED**

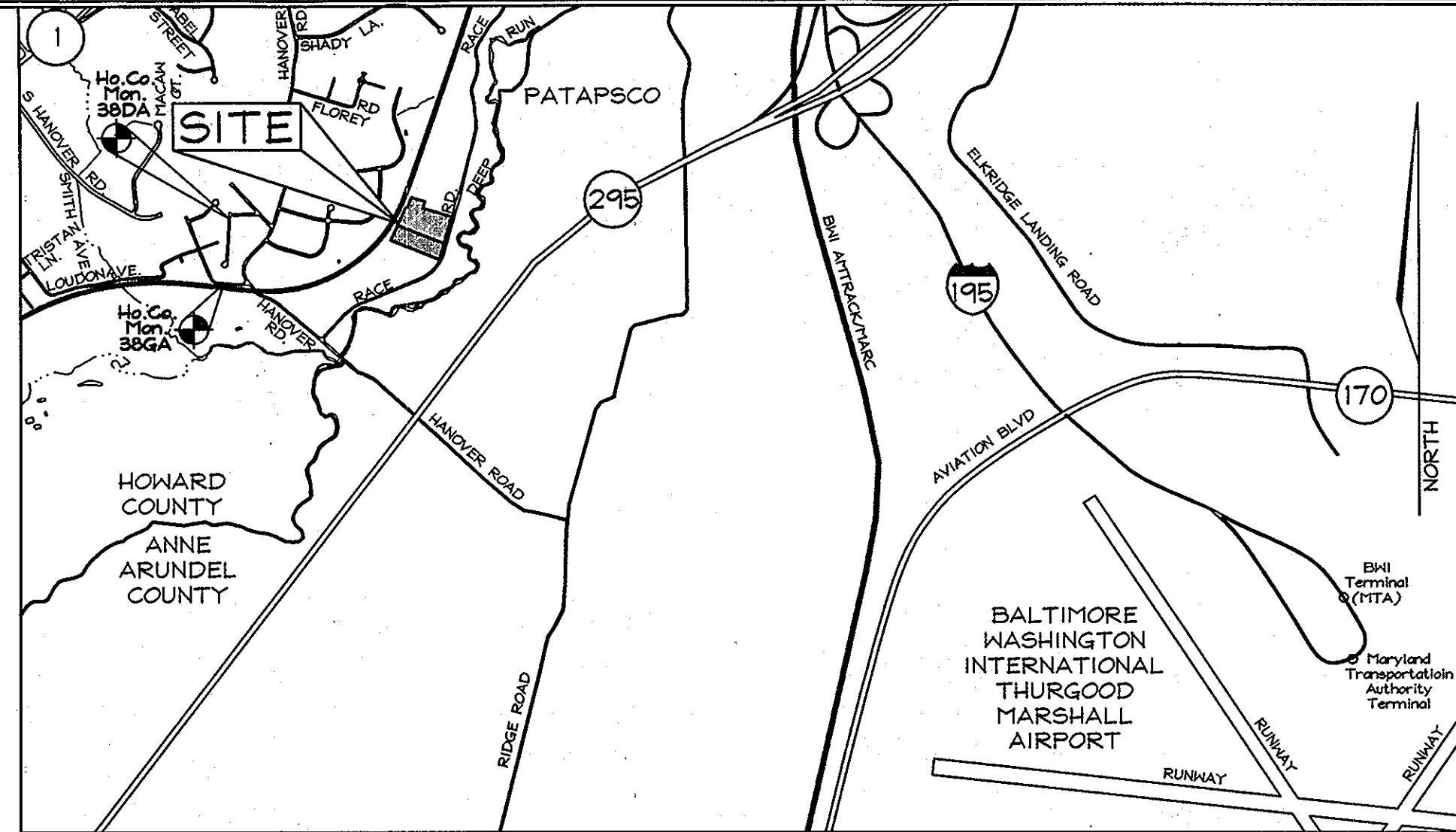
NAME / DESCRIPTION	TOTAL AREA
Existing Impervious Area	7.021 ac
Proposed Vegetation of Existing Impervious Area	1.420 ac

\*The proposed area to be vegetated totals 20.2% of the existing impervious area.

FOR REV. ONLY  
BY ENGINEERING

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

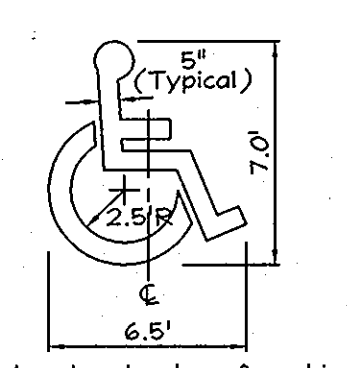
License No. 19493, Expiration Date: 12/31/2008  
M. S. ...  
L3195 / F439  
TM38 / P278  
ZONED M-2



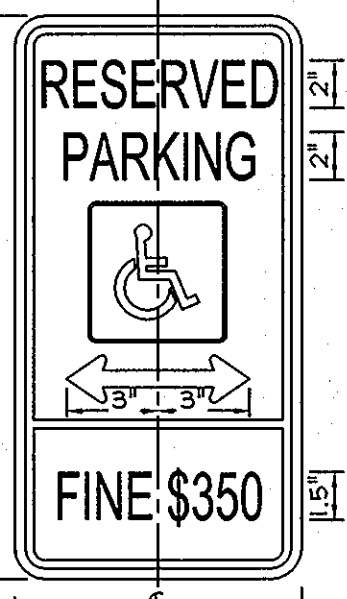
**Fire Dept Static Water Source**  
60,000 gal.

**Draft Access**

**Fire Dept Sign**



**ACCESSIBLE PARKING SYMBOL**



**HANDICAPPED PARKING SIGN**  
MDSA Std. Detl. R7-8(4)

**GENERAL NOTES**

- Subject property zoned M-2 per 2/2/04 Comprehensive Zoning Plan, and per the Comp. Lite Zoning Regulation amendments effective on 07/28/06.
- Property is within the Metropolitan District.
- The coordinates shown herein are based upon the Howard County Geodetic Control which is based on the Maryland State Plane coordinate system, Howard Co. Monument No. 386A and 386A used for this project.
- All construction shall be in accordance with the latest standards and specifications of Howard County plus MSHA standards and specifications if applicable.
- Public sewer will be used within this site.
- The Contractor shall notify the following utility companies or agencies at least five(5) working days before starting work upon these plans:
  - Verizon 1.800.743.0033/410.224.9210
  - AT&T 1.800.252.1133
  - BGE(Contractor Services) 410.850.4620
  - BGE(Underground Damage Control) 410.787.9068
  - Miles Utility (and 48 hours before excavation begins) 1.800.287.7777
  - Colonial Pipeline Company 410.795.1390
  - Howard County, Dept. of Public Works, Bureau of Utilities 410.313.4900
  - Howard County Health Department 410.313.2640
- The contractor or developer shall contact the Construction Inspection Division 24 hours in advance of commencement of work at (410) 313-1880.
- Offsite topography based on Howard County aerial topography flown in 2006 and onsite topography based on survey by FSH Associates in September and October 2007.
- Contractor to confirm all dimensions, utilities and topography in the field. If any conflicts arise, contact Engineer before beginning any work.
- There are no streams, or cemeteries on site.
- Wetlands evaluation conducted in August, 2007 by Exploration Research, Inc.
- The project is in conformance with the latest Howard County Standards unless waivers have been approved.
- Existing utilities are based on survey by FSH Associates in September and October, 2007.
- All activity proposed under this DCP is contained in areas within previous limits of disturbance and areas which have been disturbed by existing uses, including parking, driveways, and existing buildings. FSH Associates has provided copies of aerial photographs used to document existing site conditions from 1967.
- This project has been reviewed and approved by the Maryland Aviation Administration under Airport Zoning Permit No. 08-006.
- Traffic control devices, marking and signing shall be in accordance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). All street and regulatory signs shall be in place prior to the placement of any asphalt.
- All plan dimensions are to face of curb unless otherwise noted.
- The floodplain study for this project was prepared by FSH Associates dated February 4, 2008 and was approved on May 5, 2008.
- Stockpiling will not be permitted on the site.
- A Fire Department access box (knock box) shall be placed on the front of the shop building and the Control Center. They shall be placed to the right of the main entrance, 4' to 5' above floor level and not more than 6' laterally from the door. There shall be such boxes on the gates at the drive ways on Race Rd, also.
- All street sign posts shall be 2" square metal tube posts (14 gauge) installed into a 3 foot, 2.5" square metal sleeve, (12 gauge) with a galvanized steel cap on top.
- For maintenance of traffic (MOT) plan, see sheet 2.
- Disturbance of the Wetlands is necessary to the extent required to remove the pond in Wetland 'A' as allowed by the Howard County Soil Conservation District in its comments letter to the Department of Planning and Zoning of May 8, 2008.

**ADDRESS CHART**

LOT	STREET
493/812	6330 Race Road

**REVISIONS**

REVISION	DATE	BY	DESCRIPTION
1	3/18/09	TLS	ADD 2 RETAINING WALLS
2			WATER SEWER & GAS

**OWNER/DEVELOPER**  
KONTERRA LIMITED PARTNERSHIP  
14504 Greenview Drive, Suite 210  
Laurel, Maryland 20708-3225  
Phone: (301) 953-9870

**SHEET INDEX**

DESCRIPTION	SHEET NO.
SITE DEVELOPMENT PLAN	1 OF 6
SEWER & WATER CONTROL PLAN	2 OF 6
SEWER & WATER CONTROL DETAILS & STORM DRAIN PROFILES	3 OF 6
LANDSCAPING AND EXISTING VEGETATION PLAN	4 OF 6
RETAINING WALL DETAILS & PROFILE	5 OF 6
RETAINING WALL DETAILS	6 OF 6

**PROFESSIONAL CERTIFICATION**

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 7/29/04.

**PERMIT INFORMATION CHART**

Subdivision Name	Section/Area	Parcel/Lot No.
Konterra Property	N/A	493 & 812
Liber/Folio	Grid	Zoning
1671/507	15	M-2
Water Code	Tax Map No.	Elect. District
N/A	38	1ST
	Census Tract	
	6012.01	
	Sewer Code	
	649-5	

**REVISED SITE DEVELOPMENT PLAN**  
**LAUREL ASPHALT INC. MANUFACTURING PLANT**  
6330 RACE ROAD  
ZONED M-2

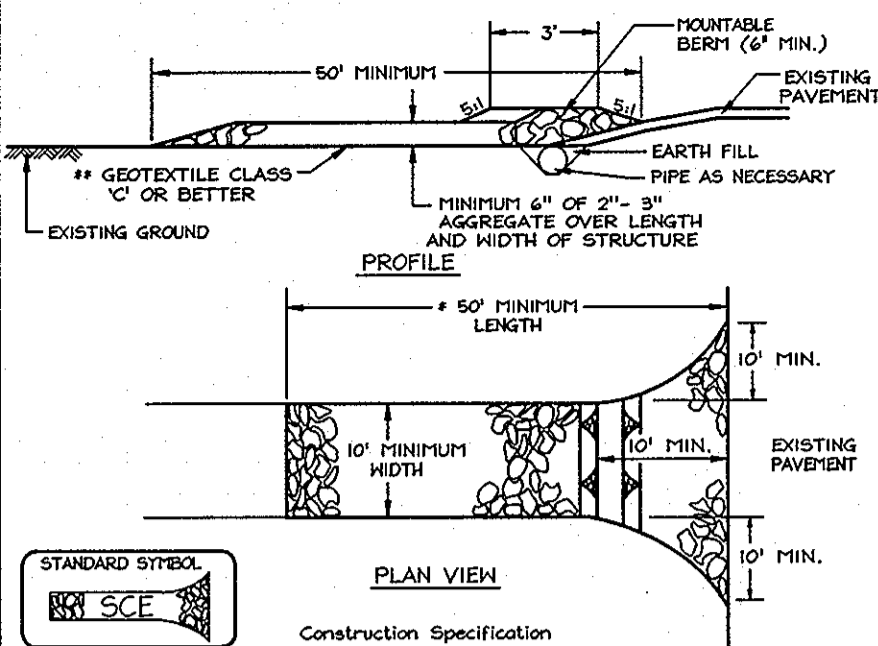
TAX MAP 38 GRID 15  
1ST ELECTION DISTRICT

PARCELS 493 & 812  
HOWARD COUNTY, MARYLAND

**FSH Associates**  
Engineers Planners Surveyors  
6339 Howard Lane Elkridge, MD 21075  
Tel: 410-567-5200 Fax: 410-798-1562  
E-mail: info@fshet.com

DESIGN BY: APG-D  
DRAWN BY: CED  
CHECKED BY: ZYF  
SCALE: As Shown  
DATE: Mar. 5, 2009  
N.O. No.: 9500  
SHEET No.: 1 OF 6

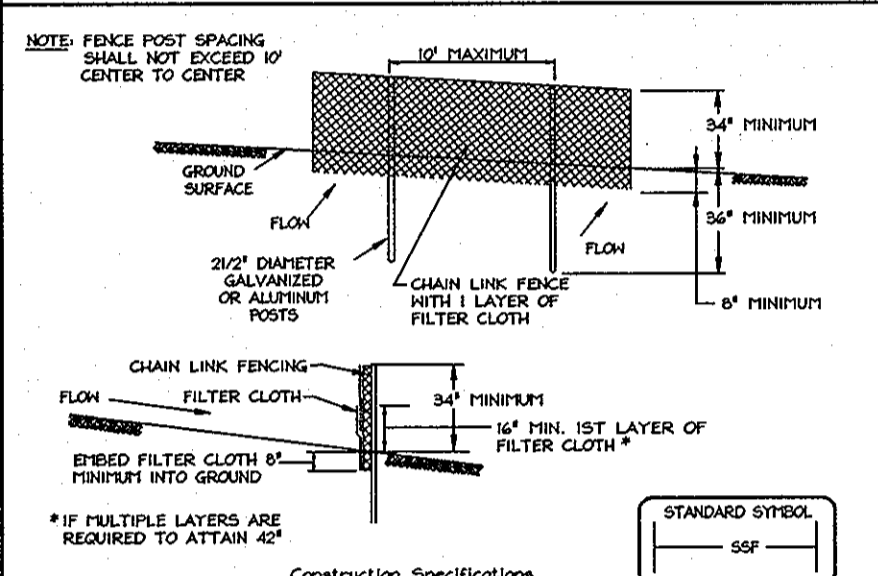
**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**



**Construction Specifications**

- Length - minimum of 50' (±30' for a single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
- Stone - crushed aggregate (2" to 3") or recycled or recycled concrete equipment shall be placed at least 6" deep over the length and width of the entrance.
- Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mounded berm with 5' slopes and a minimum of 4" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCS 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 that will be required. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

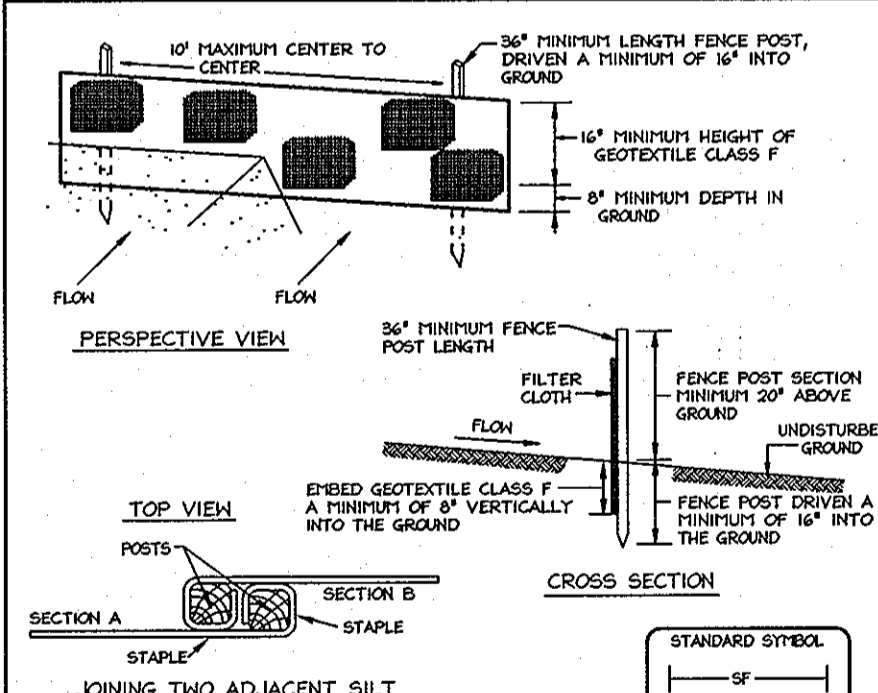
**DETAIL 33 - SUPER SILT FENCE**



**Construction Specifications**

- Fencing shall be 42" in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The application for a 6' fence shall be used, substituting 42" fabric and 6' length posts.
- Chain link fence shall be fastened securely to the fence posts with wire ties. The lower tension wire, brace and legs rods, drive anchors and post caps are not required except on the ends of the fence.
- Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.
- Filter cloth shall be embedded a minimum of 6" into the ground.
- When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and fastened.
- Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence, or when silt reaches 50% of fence height.
- 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 F:
  - Tensile Strength: 50 lb/in (min.) Test: MSHT 509
  - Tensile Modulus: 20 lb/in (min.) Test: MSHT 509
  - Flow Rate: 0.3 gal/ft/minute (max.) Test: MSHT 322
  - Filtering Efficiency: 75% (min.) Test: MSHT 322

**DETAIL 22 - SILT FENCE**



**Construction Specifications**

- Fence posts shall be a minimum of 36" long, driven 16" minimum into the ground. Round posts shall be 1 1/2" diameter (minimum) and 2" diameter (maximum) and shall be of sound quality hardwood. Spaced posts will be standard U or U section using no less than 1.00 pound per linear foot.
- Geotextile 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 F:
  - Tensile Strength: 50 lb/in (min.) Test: MSHT 509
  - Tensile Modulus: 20 lb/in (min.) Test: MSHT 509
  - Flow Rate: 0.3 gal/ft/minute (max.) Test: MSHT 322
  - Filtering Efficiency: 75% (min.) Test: MSHT 322
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt fence shall be inspected after each rainfall event and maintained when height occurs or when sediment accumulation reaches 50% of the fabric height.

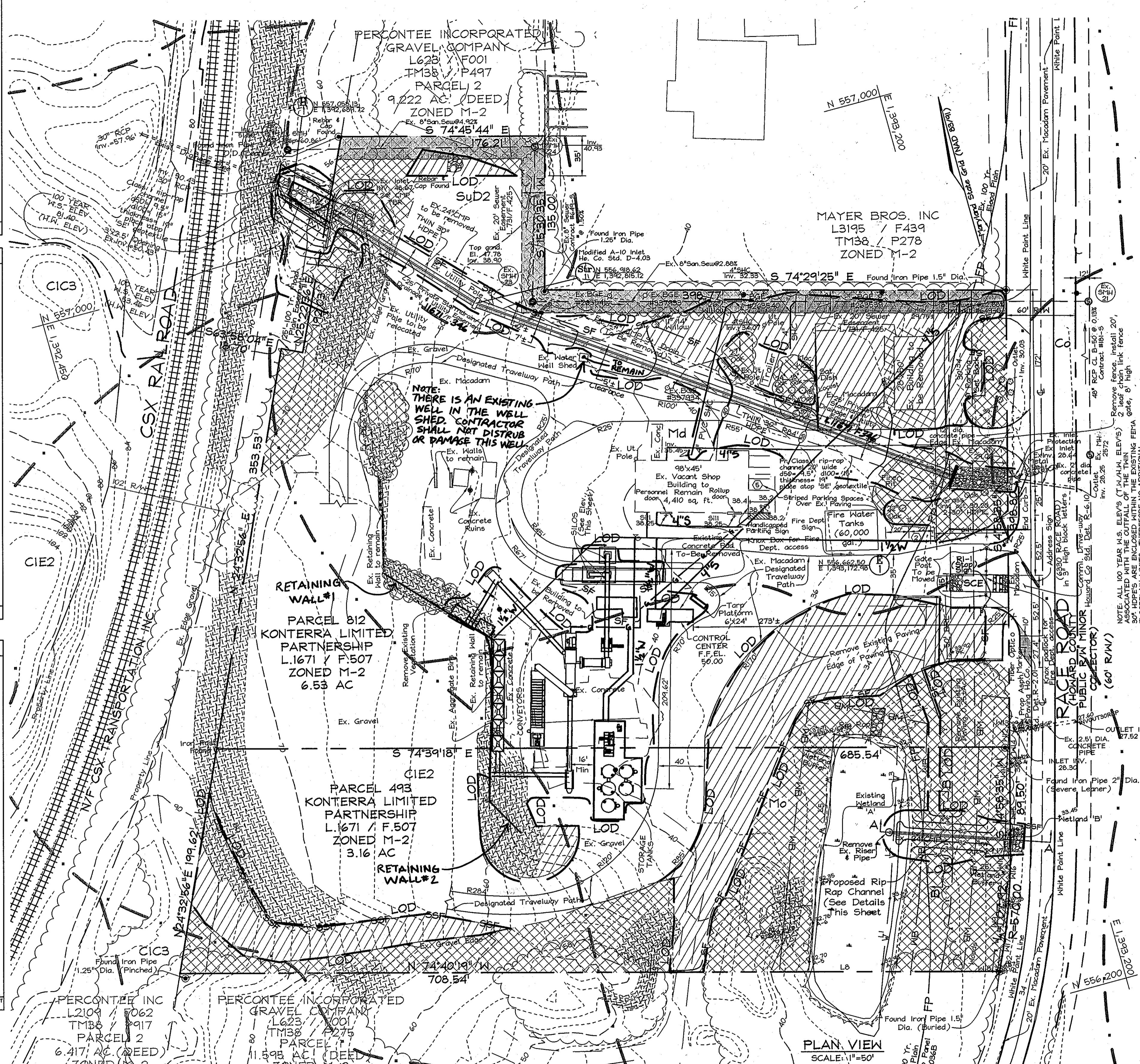
**SOILS LEGEND**

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
CIC3	Chillum gravelly loam, 5 to 10 percent slopes, severely eroded	B
CIE2	Chillum gravelly loam, 15 to 30 percent slopes, moderately eroded	B
Co	Codorus silt loam	C
Md	Mixed land	C
Mo	Mixed alluvial land	D
SUD2	Sunnyside fine sandy loam, 5 to 15 percent slopes, moderately eroded	B

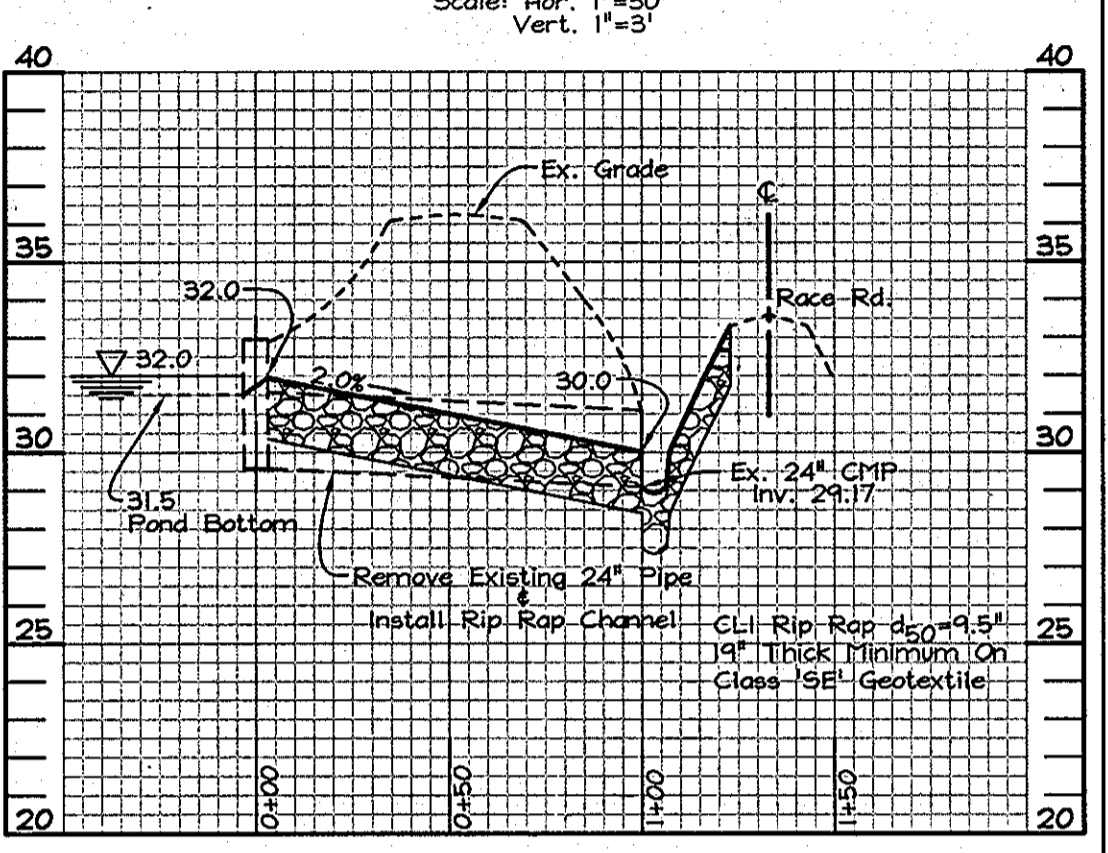
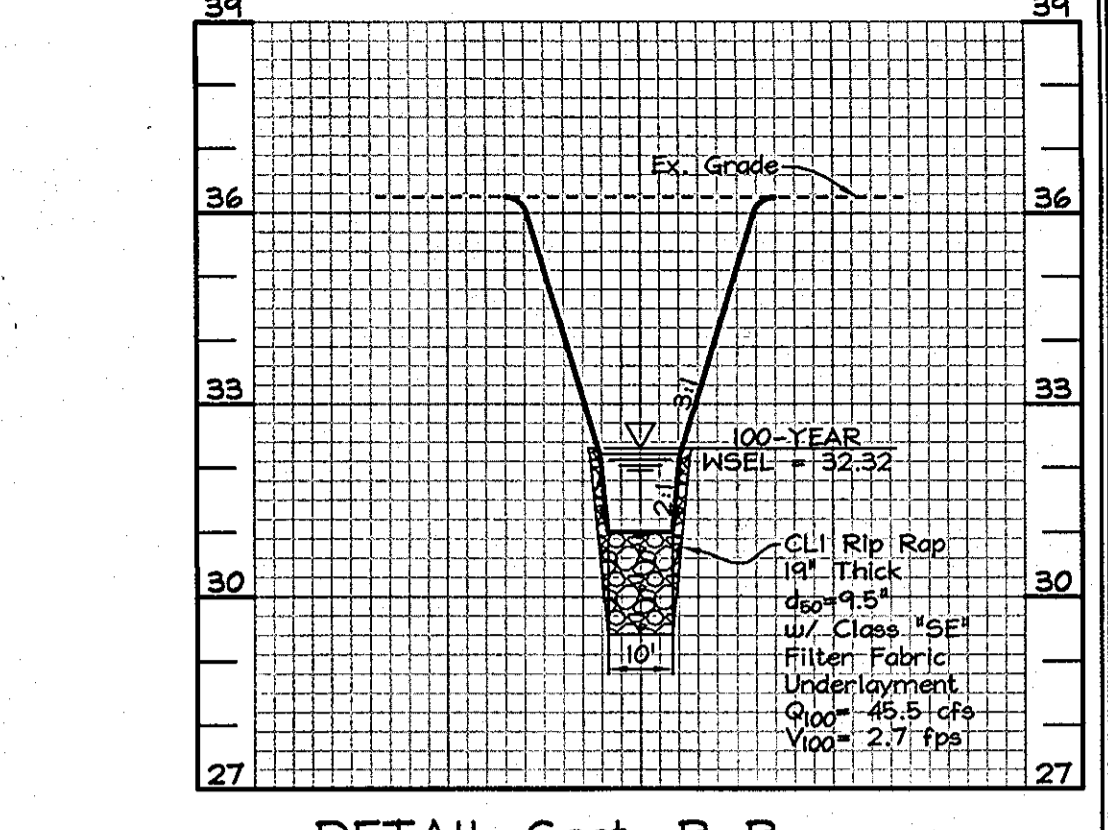
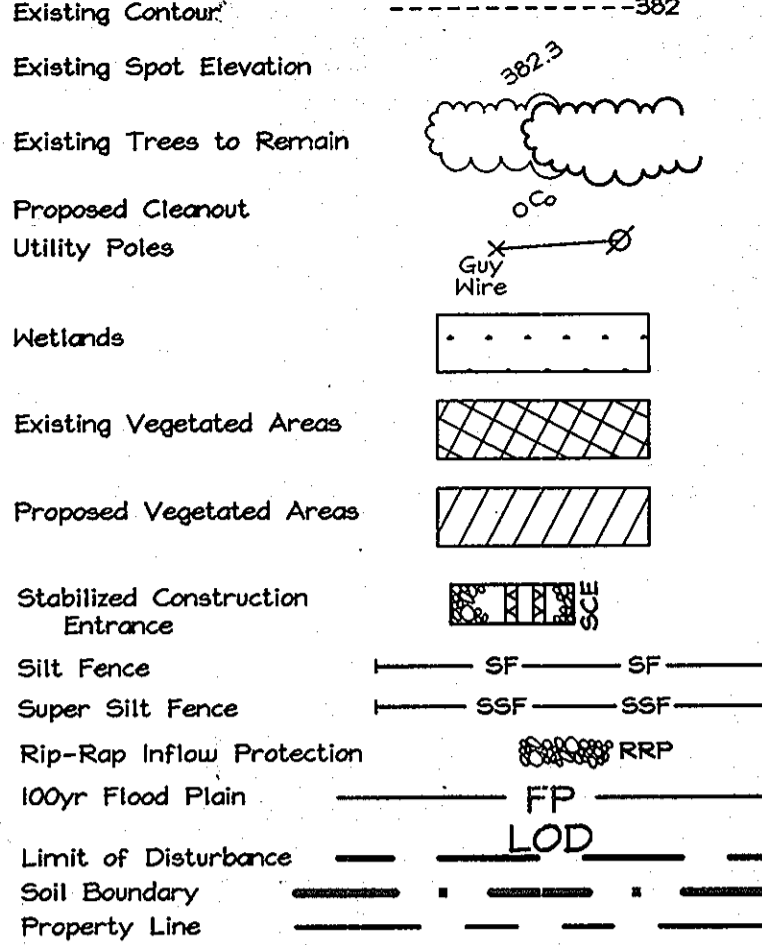
**PROPOSED AREA TO BE VEGETATED**

NAME / DESCRIPTION	TOTAL AREA
Existing Impervious Area	7.021 ac
Area to be Vegetated	1.420 ac

\*The proposed area to be vegetated totals 20.2% of the existing impervious area.



**LEGEND**

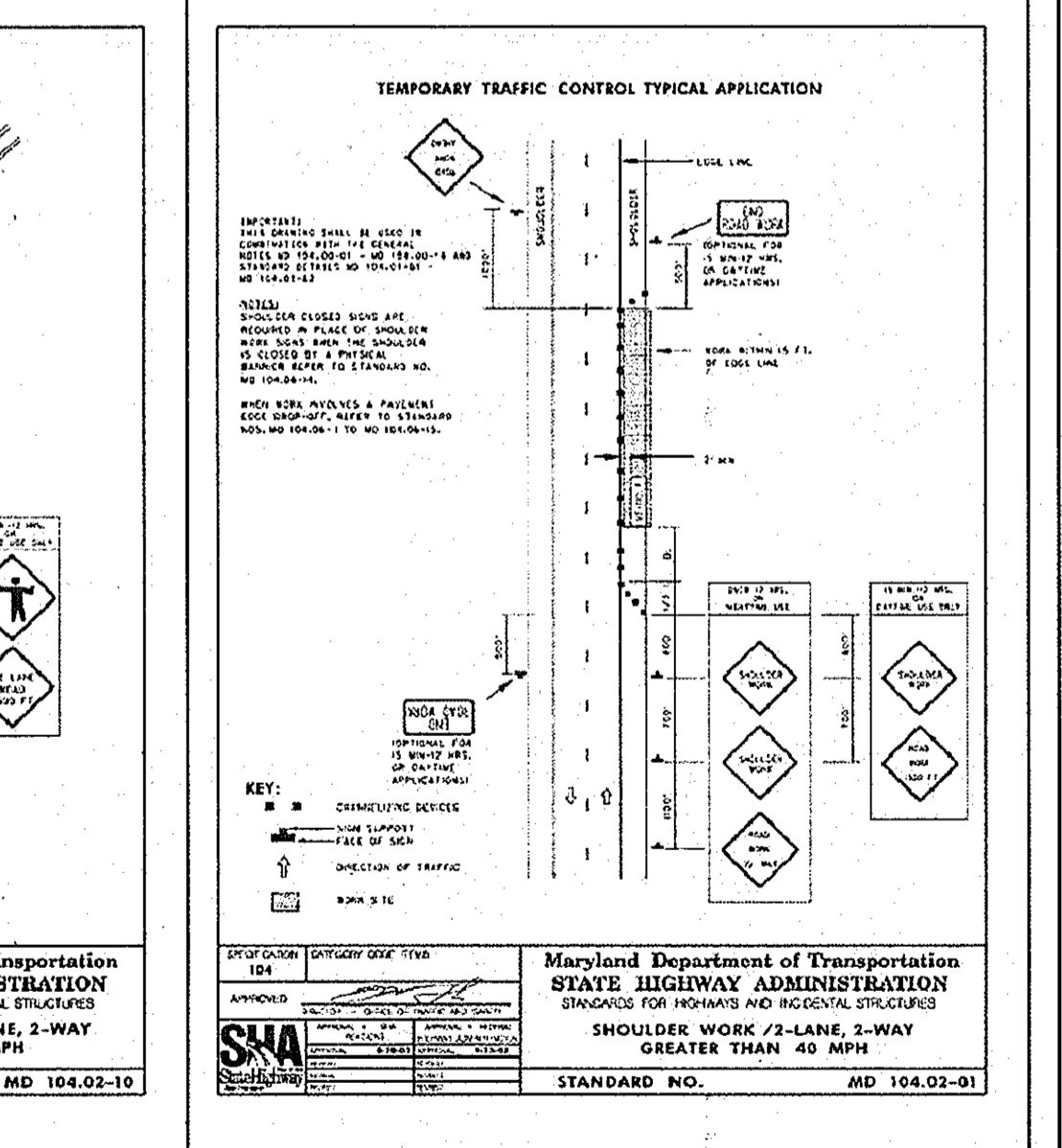
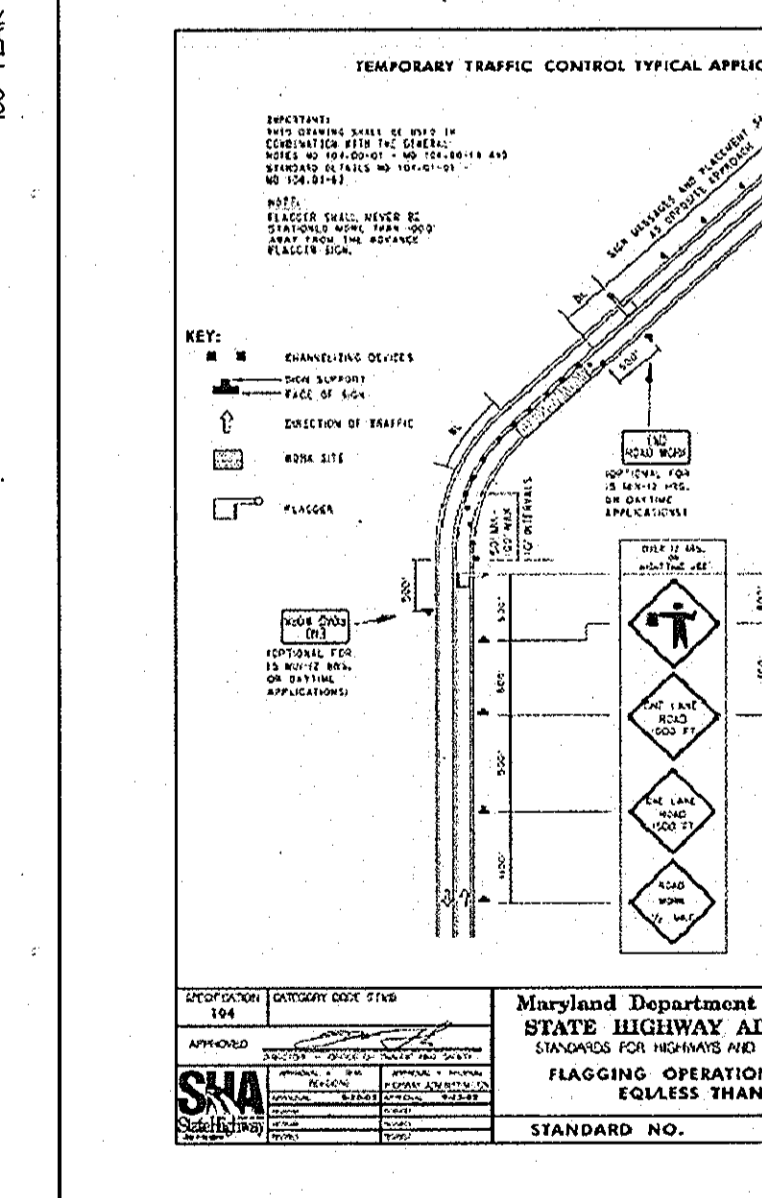
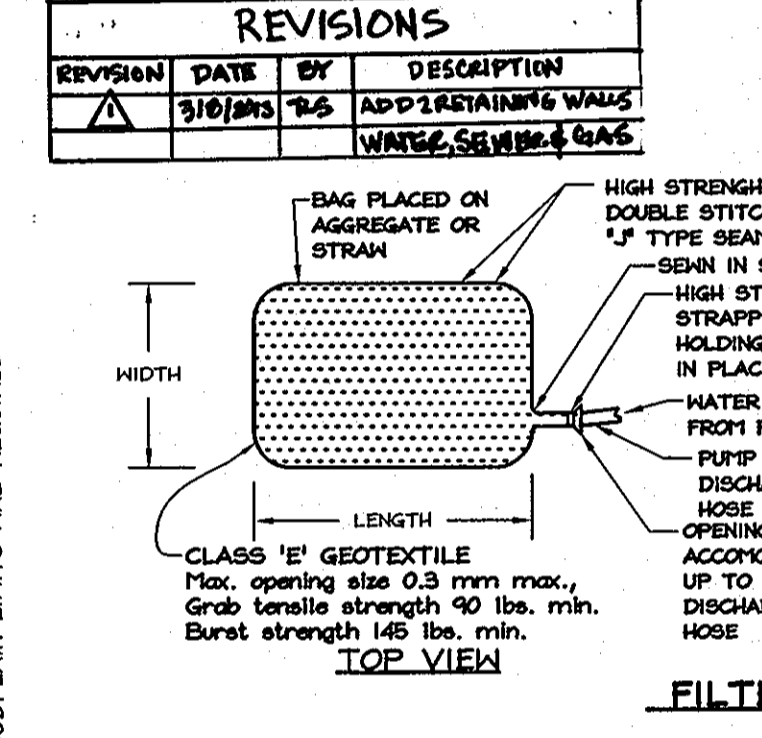


Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.

License No. 19593, Expiration Date: 3/31/14

**REVISIONS**

REVISION	DATE	BY	DESCRIPTION
1	3/10/09	TS	ADD 1 RETAINING WALL
2	3/10/09	TS	WATER SEWERAGE



**REVISED SEDIMENT AND EROSION CONTROL PLAN**  
**LAUREL ASPHALT INC. MANUFACTURING PLANT**  
 6330 RACE ROAD  
 ZONED M-2  
 TAX MAP 38 GRID 15  
 1ST ELECTION DISTRICT  
 PARCELS 493 & 812  
 HOWARD COUNTY, MARYLAND

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 4/1/09  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 DATE 3/22/09

*[Signature]* 5/22/09  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE 3/19/09

*[Signature]*  
 DIRECTOR, DEP

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

*[Signature]* 3/19/09  
 HOWARD SCD  
 DATE

**ENGINEERS CERTIFICATE**

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

*[Signature]* 3/12/09  
 SIGNATURE OF ENGINEER  
 ZACHARIA Y. FISCH  
 DATE

**DEVELOPER'S CERTIFICATE**

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION 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.

*[Signature]* 3/12/09  
 SIGNATURE OF DEVELOPER Timothy Schmidt  
 DATE

**OWNER/DEVELOPER**  
 KONTERRA LIMITED PARTNERSHIP  
 14504 Greenview Drive, Suite 210  
 Laurel, Maryland 20708-3225  
 Phone: (301) 453-9870

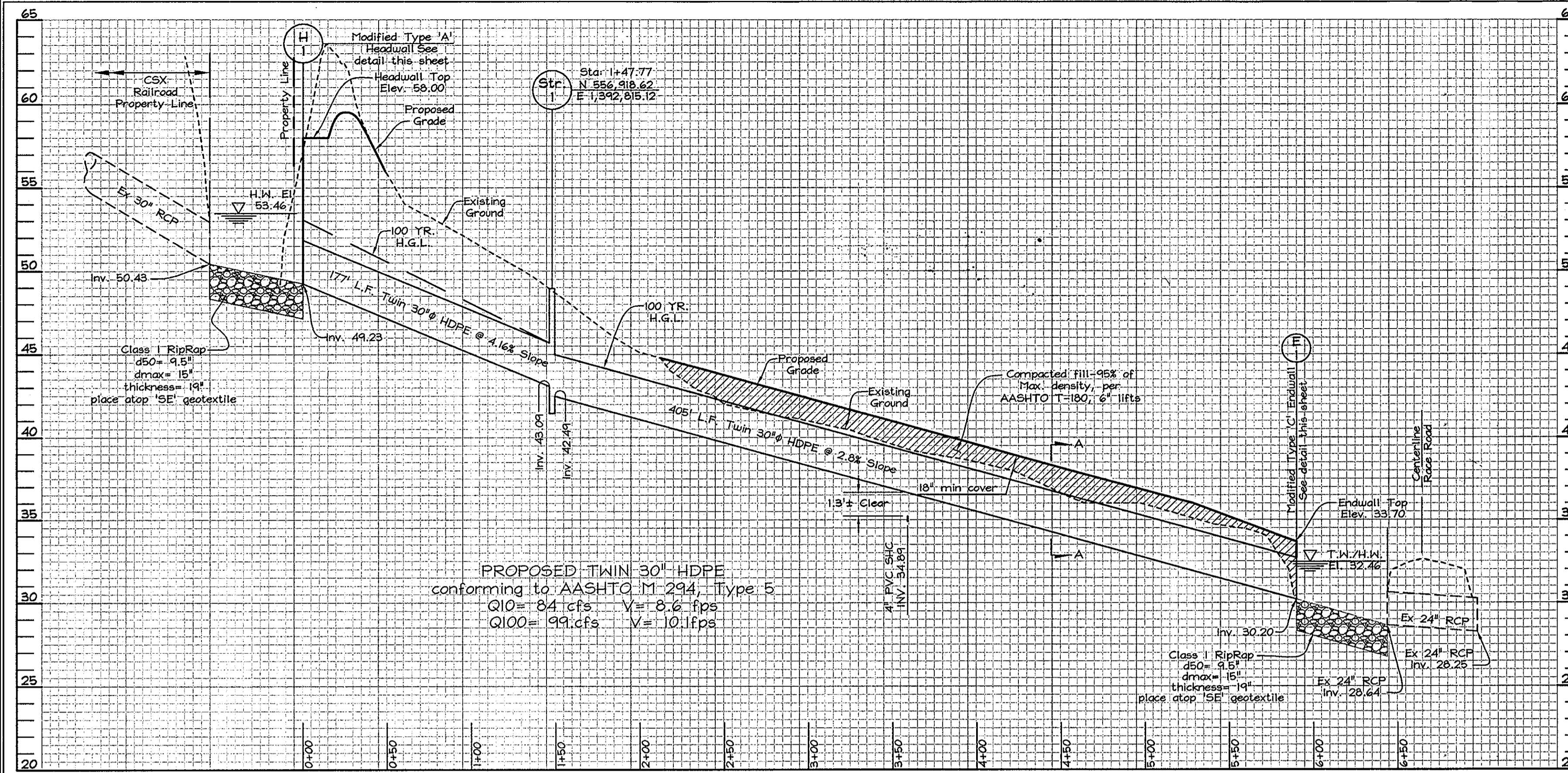
**PROFESSIONAL CERTIFICATION**

I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 7/29/2009.

*[Signature]* 3/12/09  
 PROFESSIONAL ENGINEER

**FSH Associates**  
 Engineers Planners Surveyors  
 6339 Howard Lane Elkridge, MD 21075  
 Tel: 410-567-5200 Fax: 410-796-1562  
 E-mail: info@fsher.com

DESIGN BY: *[Signature]*  
 DRAWN BY: *[Signature]*  
 CHECKED BY: *[Signature]*  
 SCALE: As Shown  
 DATE: Mar 5, 2009  
 W.O. No.: 3500  
 SHEET No.: 2 OF 6

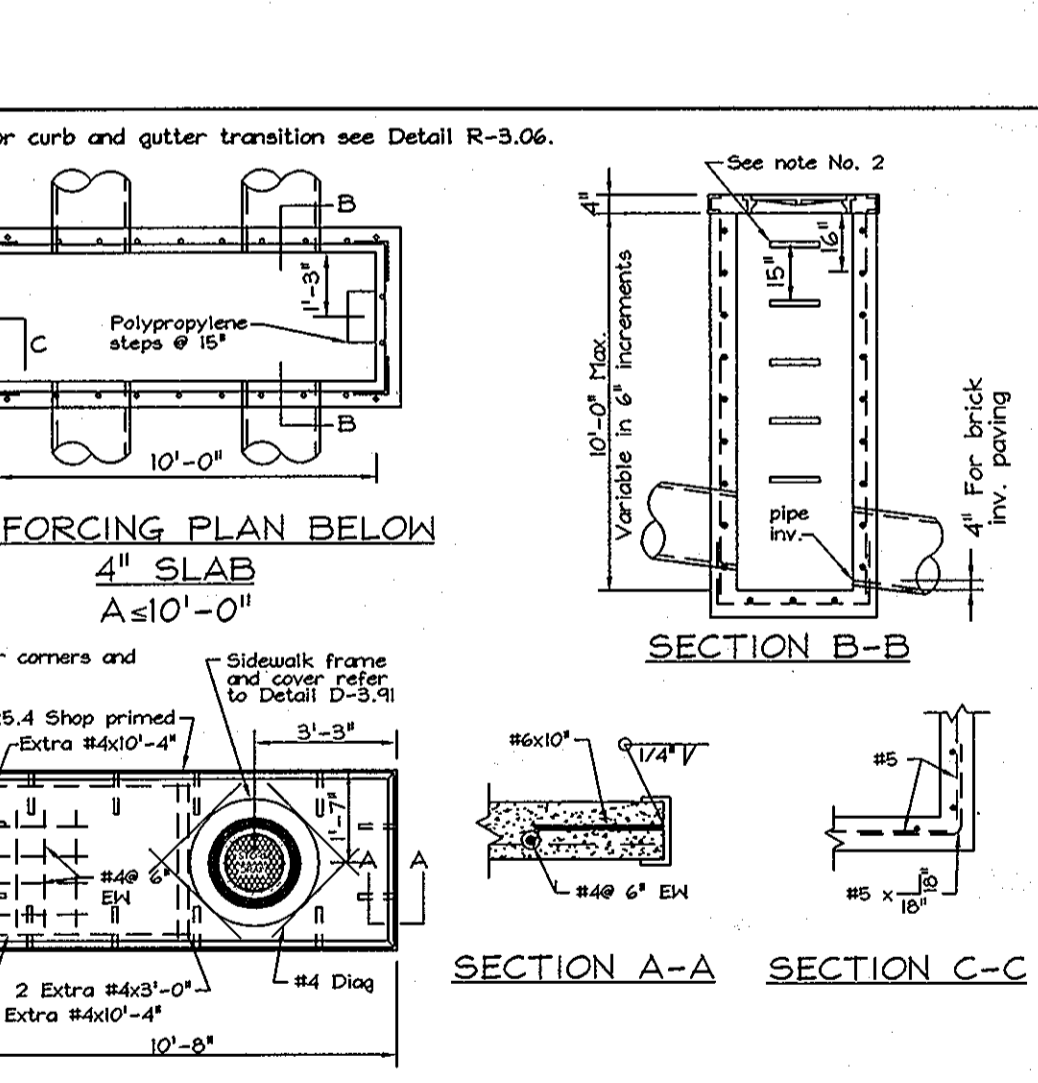


**STORM DRAIN PROFILE**  
Scale: Horizontal - 1"=50'  
Vertical - 1"=5'

NO.	TYPE	LOCATION	TOP ELEV.	INV. IN	INV. OUT	REMARKS
H-1	Type 'A' Headwall	N 557,058.13 E 1,392,609.42	58.00	49.23	42.49	Modified Detail D-5.11
Str.-1	Std. Pre. Manhole	N 556,918.62 E 1,392,815.12	49.00	43.09	42.49	See Modified Detail D-5.21
E-1	Type 'C' Endwall	N 556,662.50 E 1,393,172.98	33.70	-	30.20	Modified Detail D-5.21

NOTES: 1. Adjust top elevation of Structure 1 to existing grade.

SIZE	TYPE	LENGTH
30"	HDPE	1250 LF

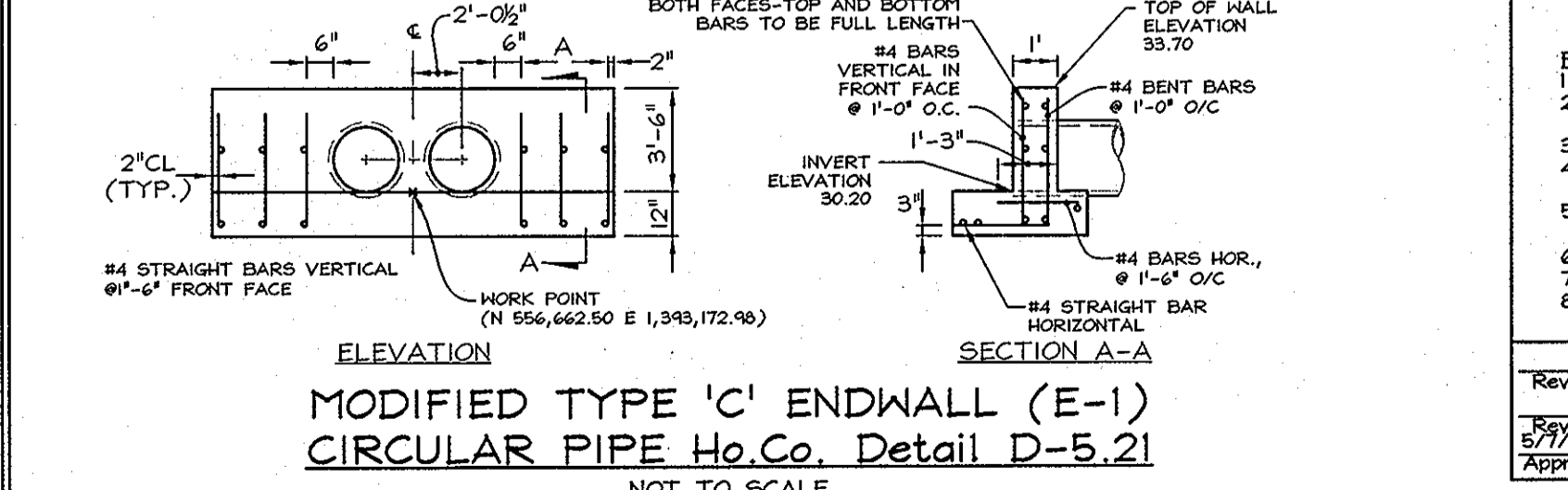
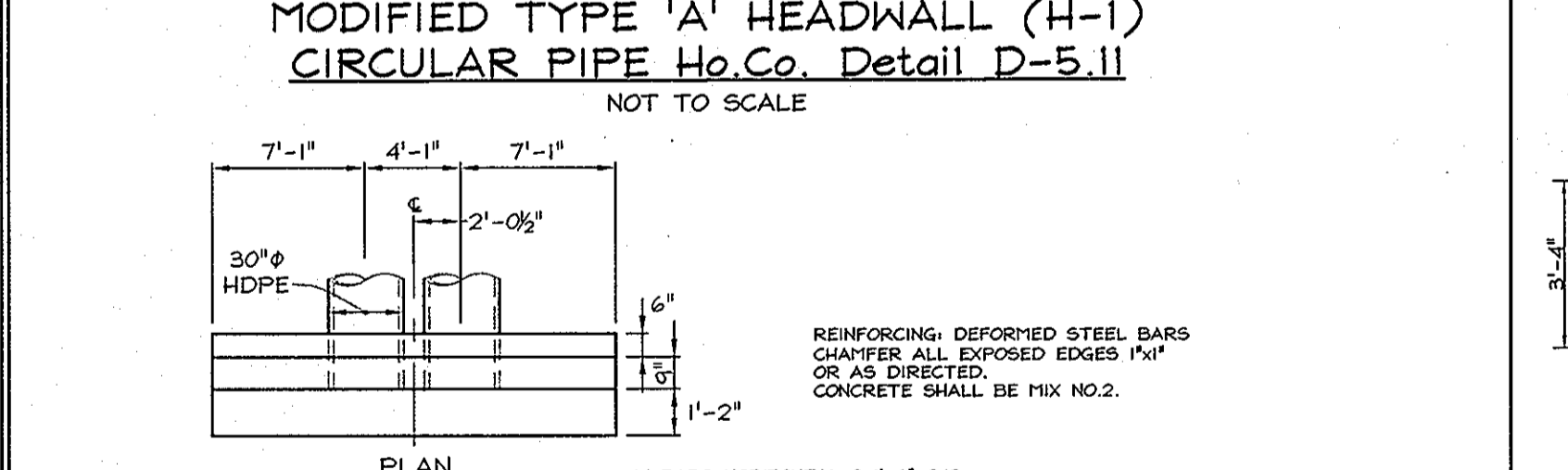
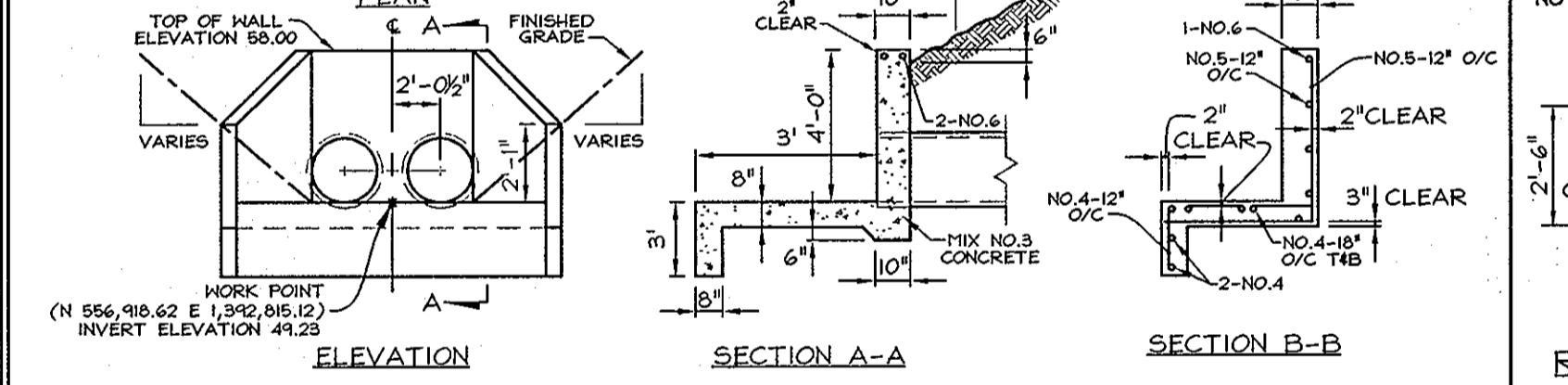
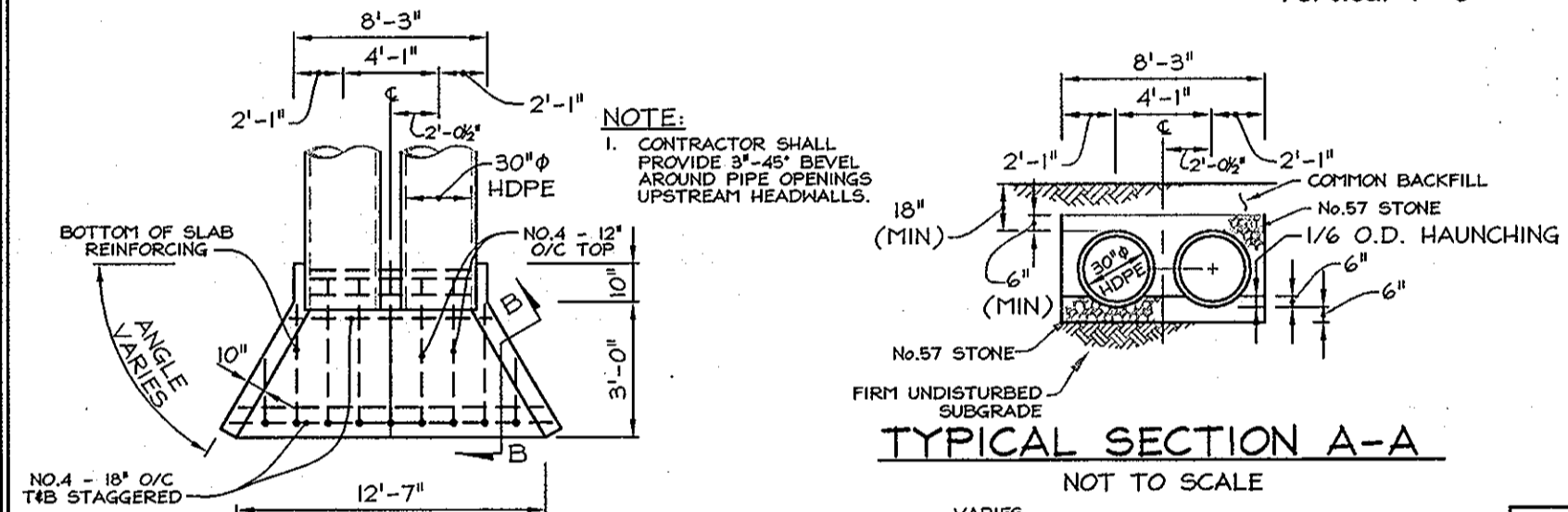


**PRECAST NOTES:**

- Concrete work shall conform to the requirements of latest editions of ACI 301 and ACI 318.
- Precast structures shall be designed by a precast concrete structures manufacturer in accordance to loading specified in latest editions of ASTM C857 and ASTM C890.
- Precast structures shall conform to the requirements of latest editions of ASTM C858.
- Resilient connectors between manhole structures, pipes and laterals shall be in accordance with the requirements of latest editions of ASTM C929.
- Concrete shall conform to latest editions of the SHA Standard Specifications for Construction and Materials.
- Polypropylene strips shall be installed inline where A19'-6" (See G-5.21).
- Reference drawing for type A-10 Inlet is Howard County Detail No. D-4.04.
- Provide 3" DIA rust proof steel pipe, painted gray at mid point of throat, fill with concrete.

Howard County, Maryland  
Department of Public Works  
Approved: Chief, Bureau of Engineering

Modified Type A-10 Inlet  
Precast  
10' Depth  
Detail D-4.03



**SEDIMENT CONTROL NOTES**

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (319-1955).
- All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
- Following initial soil disturbance or redistribution, 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 for all other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 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, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall be done as soon as recommended seeding dates do not allow for proper germination and establishment of grasses.
- 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.
- Site Analysis:
 

Total Area	9.64 Acres
Area Disturbed	2.72 Acres
Area to be roofed or paved	1.14 Acres
Area to be vegetatively stabilized	1.58 Acres
Total Cut	18,200 CY
Total Fill	4445 CY
- Offsite waste/borrow area location:
  - Topsell salvaged from the existing site 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 necessary by the Howard County Sediment Control Inspector.
  - 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.
  - Trenches for the construction of utilities to be limited to three pipe lengths or less, which shall be back-filled and stabilized within one working day, whichever is shorter.
  - Earthwork quantities are solely for the purpose of calculating fees. Contractor to verify all quantities prior to the start of construction.
  - To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit.

**TEMPORARY SEEDING NOTES**

- SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
- SOIL AMENDMENTS:** In lieu of soil test recommendations, use the following schedule: Apply 2 tons per acre dolomitic limestone (92 lbs/1000 s.f.) and 900 lbs. / acre (20.7 lbs./1000s.f.) of 10-20-20 before seeding, or disc into upper 3 in. of soil. SEEDING: Apply the Maryland State Highway approved seed mixture of Barley or Rye plus Foxtail Millet in accordance with seeding dates and rates shown in the Temporary Seeding Summary shown on this sheet. For stabilization outside of the seeding dates, apply straw mulch at rates and methods specified below.
- MULCHING:** Immediately following seeding, apply a uniform 1-2 in. Deep layer of un-rotted small grain straw at a rate of 2 tons/acre. (Apply 2.5 Tons/acre if a mulch anchoring tool is used). Straw may be anchored with wood cellulose fiber at a rate of 750 lbs. / acre mixed at a ratio of 50 lbs. of wood fiber/ 100 gal. of water. Synthetic liquid binders such as Terra Top II, Acrylic DLR (Agro-Tack), DCA-70, Petrosol and other approved equiva may be used at rates recommended by the manufacturers.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

**TEMPORARY SEEDING SUMMARY**

No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depth	Fertilizer Rate (10-10-10)	Lime Rate
1	Barley or Rye plus Foxtail Millet	150 lbs (3.5lbs/1000sqft)	2/1-11/30 (7a) 3/15-10/31 (6a)	1/4 in- 1/2 in	600 lb/ac (15lb/1000sqft)	2 tons/ac (100lb/1000sqft)

**21.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL BEST MANAGEMENT PRACTICES**

- Definition:** Placement of topsoil over a prepared subsoil prior to establishment of permanent vegetation.
- Purpose:** To provide a suitable soil medium for vegetable growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptably soil gradation.
- Conditions Where Practice Applies:**
- This practice is limited to areas having 2:1 or flatter slopes where:
    - The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
    - 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.
    - The original soil to be vegetated contains material toxic to plant growth.
    - 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.
- Construction and Material Specifications:**
- Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experiment Station.
- Topsoil Specifications - Soil to be used as topsoil must meet the following:
    - Topsoil shall be a loam, sandy loam, clay loam, silty loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or a 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, trash, or other materials larger than 1 and 1/2" in diameter.
    - Topsoil must be free of plants or plant parts such as Bermuda grass, quackgrass, Johnsongrass, nutgrass, 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 procedures.
  - For sites having disturbed areas under 5 acres:
    - Place topsoil (if required), and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section 1 - Vegetative Stabilization Methods and Materials.
  - For sites having disturbed areas over 5 acres:
    - On soil moisture, topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
      - pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
      - Organic content of topsoil shall be not less than 1.5 percent by weight.
      - Topsoil having soluble salt content greater than 500 parts per million shall not be used.
      - No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control.
    - Topsoil shall be uniformly distributed in a 4" - 6" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that seeding or sodding can proceed with a minimum of additional soil preparation or 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.
    - 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 topsoil.
    - Place topsoil (if required) and apply soil amendments specified in 20.0 Vegetative Stabilization Section 1 - Vegetative Stabilization Methods and Materials.
- OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED OPEN CHANNEL SYSTEMS (O-1 AND O-2)**
- The open channel system shall be inspected annually and after major storms. Inspections shall be performed during wet weather to determine if the facility is functioning properly.
  - The open channel shall be mowed a minimum of as needed during the growing season to maintain a maximum grass height of less than 6 inches.
  - Debris and litter shall be removed during regular mowing operations and as needed.
  - Visible signs of erosion in the open channel system shall be repaired as soon as it is noticed.
  - Remove silt in the open channel system when it exceeds 25% of the original HWA.

**PERMANENT SEEDING NOTES**

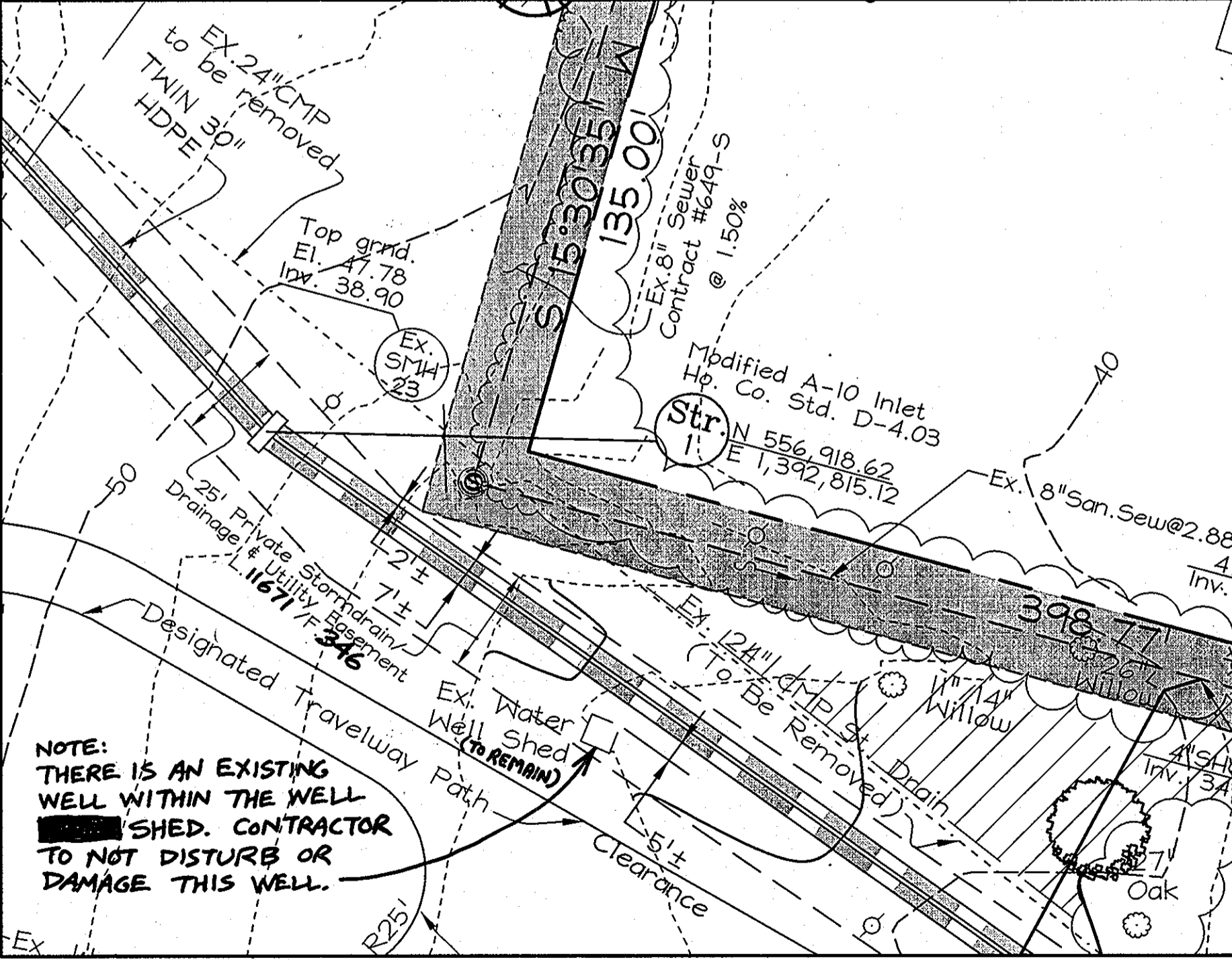
- APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.
- SEEDBED PREPARATION:** Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.
- SOIL AMENDMENTS:** In lieu of soil test recommendations, use the following schedule: Apply 2 tons per acre dolomitic limestone (92 lbs/1000 s.f.) and 900 lbs. / acre (20.7 lbs./1000s.f.) of 10-20-20 before seeding, or disc into upper 3 in. of soil. SEEDING: Apply a mixture of Turf Type Tall Fescue (80% and Fescue (20%) in accordance with seeding dates and rates shown in the Permanent Seeding Summary shown on this sheet. For stabilization outside of the seeding dates, apply straw mulch at rates and methods specified below and apply permanent seeding when within proper seeding dates.
- MULCHING:** Immediately following seeding, apply a uniform 1-2 in. Deep layer of un-rotted small grain straw at a rate of 2 tons/acre. (Apply 2.5 Tons/acre if a mulch anchoring tool is used). Straw may be anchored with wood cellulose fiber at a rate of 750 lbs. / acre mixed at a ratio of 50 lbs. of wood fiber/ 100 gal. of water. Synthetic liquid binders such as Terra Top II, Acrylic DLR (Agro-Tack), DCA-70, Petrosol and other approved equiva may be used at rates recommended by the manufacturers.

**PERMANENT SEEDING SUMMARY**

No.	Species	Application Rate (lb/ac)	Seeding Dates	Seeding Depth	N	P2O5	K2O	Lime Rate
10	Tall Fescue (80%) Hard Fescue (20%)	120 30	3/1-5/15 8/15-11/15	0.5 in.	90lb/ac (2.0lb/1000sqft)	175lb/ac (4lb/1000sqft)	175lb/ac (4lb/1000sqft)	2tons/ac (100lb/1000sqft)

**SEQUENCE OF CONSTRUCTION FOR OLD SEDIMENT BASIN/SMALL POND PIPE REMOVAL**

- Obtain grading permit.
- Notify Howard County Department of Inspections, License and Permits at (410) 319-1880 at least 24 hours before starting any work.
- Install stabilized construction entrance, super silt fence, and silt fence. (1 week)
- After receiving permission from the sediment control inspector, grade site, predominantly removal of impervious materials. (1 week)
- Install underground utilities including twin 30" storm drain pipes, associated manholes and endwall. (4 weeks)
- Install paving, curb, and gate. (2 weeks)
- Install landscape plantings. (1 week)
- Upon stabilization of all disturbed areas and with the permission of the Sediment Control Inspector, remove all sediment control measures, and stabilize any remaining disturbed area. (1 week)



**PLAN VIEW**  
SCALE: 1"=30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

4/10/09  
DATE

5/22/09  
DATE

5/21/09  
DATE

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

3/19/09  
DATE

**ENGINEERS CERTIFICATE**

I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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.

Zacharia Y. Fisch  
SIGNATURE OF ENGINEER  
3/19/09  
DATE

**DEVELOPER'S CERTIFICATE**

I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION 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 BEGINSING PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Timothy J. Schmitt  
SIGNATURE OF DEVELOPER  
3/12/09  
DATE

**OWNER/DEVELOPER**

KONTERRA LIMITED PARTNERSHIP  
14504 Greenview Drive, Suite 210  
Laurel, Maryland 20706-3225  
Phone: (301) 953-9870

**PROFESSIONAL CERTIFICATION**

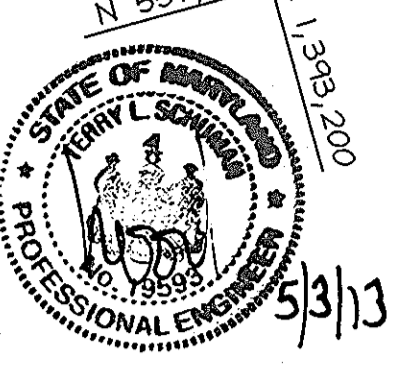
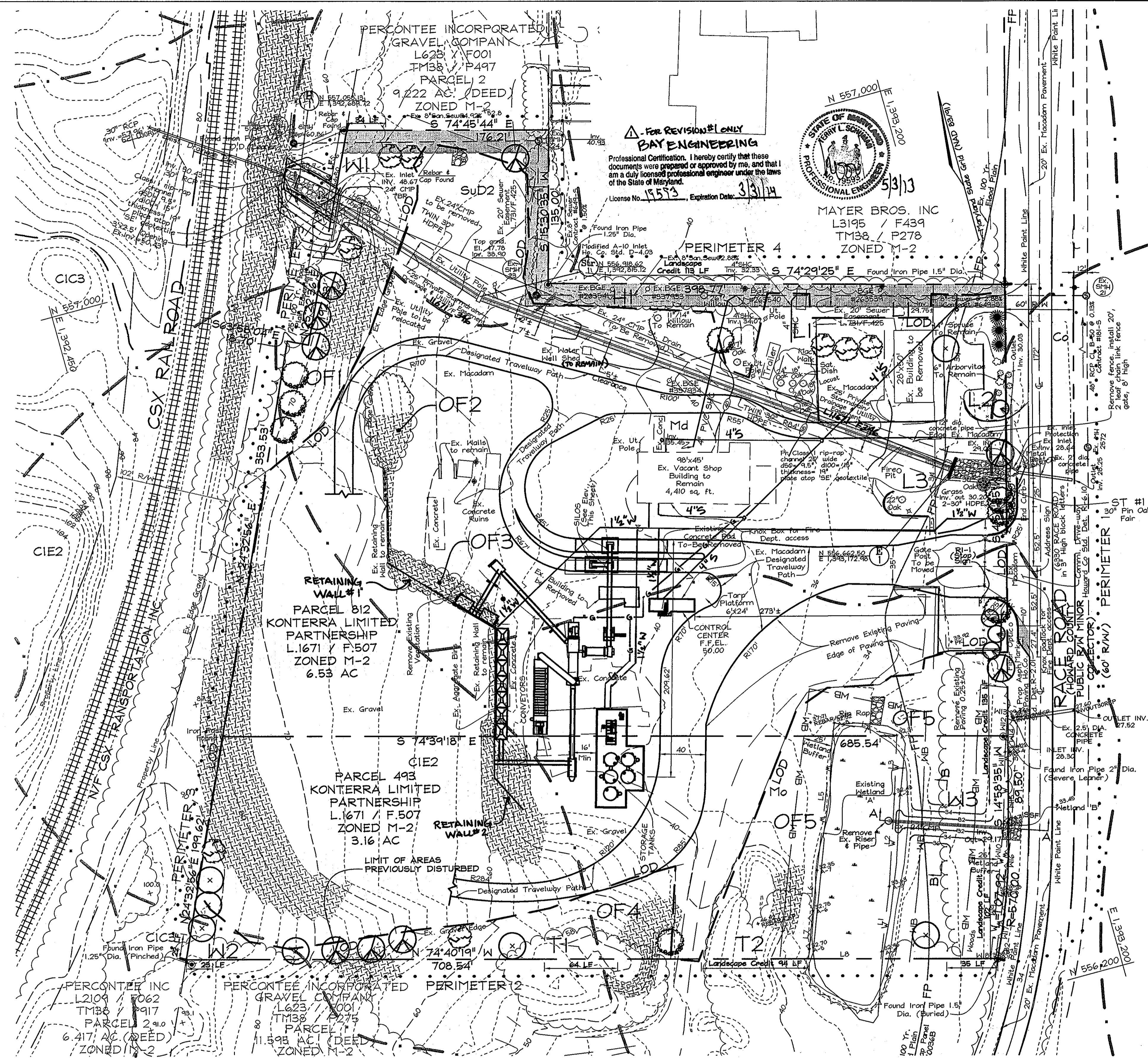
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 7/29/2009.

**SEDIMENT AND EROSION CONTROL DETAILS & STORM DRAIN PROFILES**  
**LAUREL ASPHALT INC. MANUFACTURING PLANT**  
6330 RACE ROAD  
ZONED M-2  
PARCELS 493 & 812  
HOWARD COUNTY, MARYLAND

TAX MAP 38 GRID 15  
1ST ELECTION DISTRICT

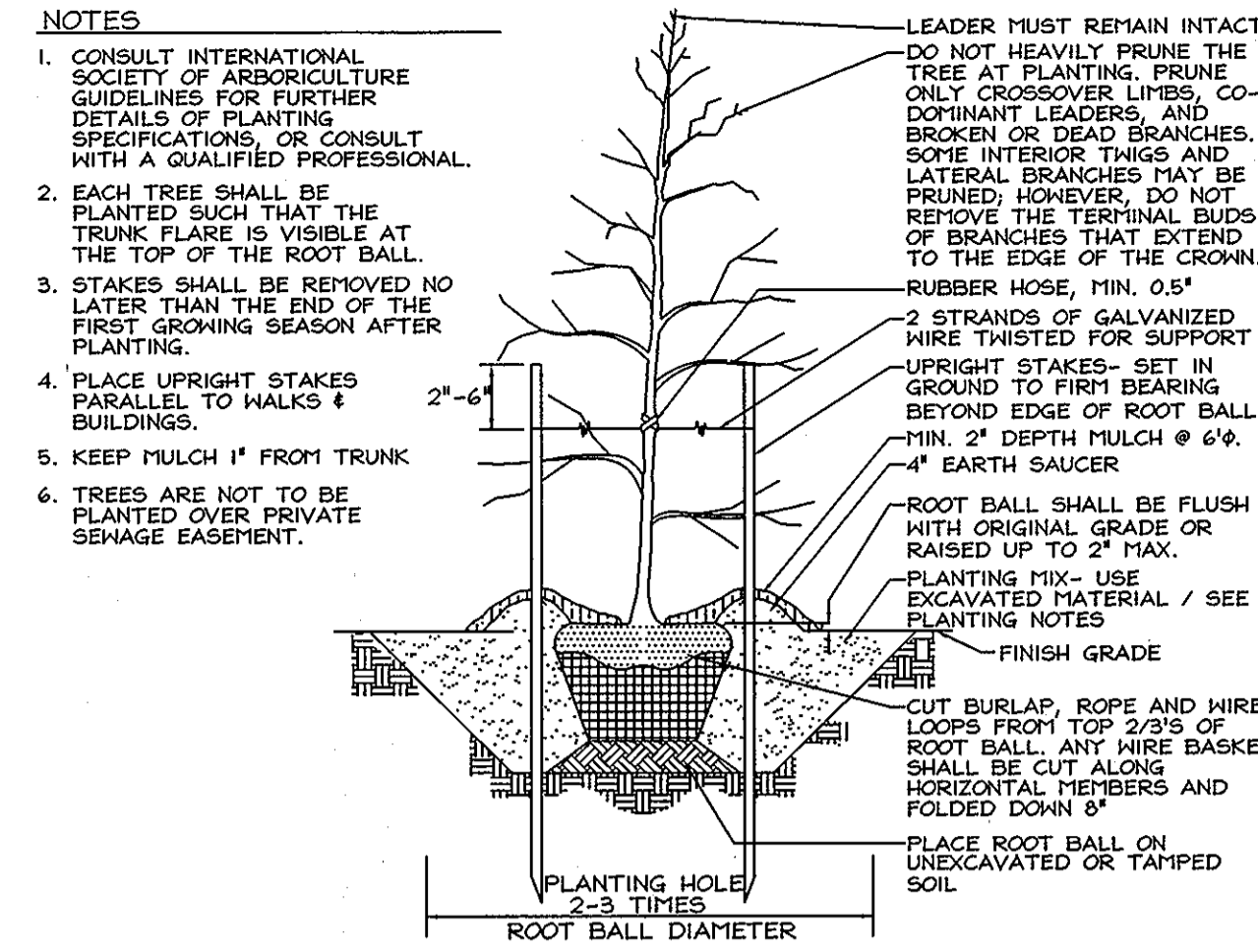
DESIGN BY: ACP-D  
DRAWN BY: JFG  
CHECKED BY: ZYF  
SCALE: As Shown  
DATE: Mar. 5, 2009  
P.L.O. No.: 3500  
SHEET No.: 3 OF 6

**FSH Associates**  
Engineers Planners Surveyors  
6339 Howard Lane Elkridge, MD 21075  
Tel: 410-587-5200 Fax: 410-798-1582  
E-mail: info@fsh.com

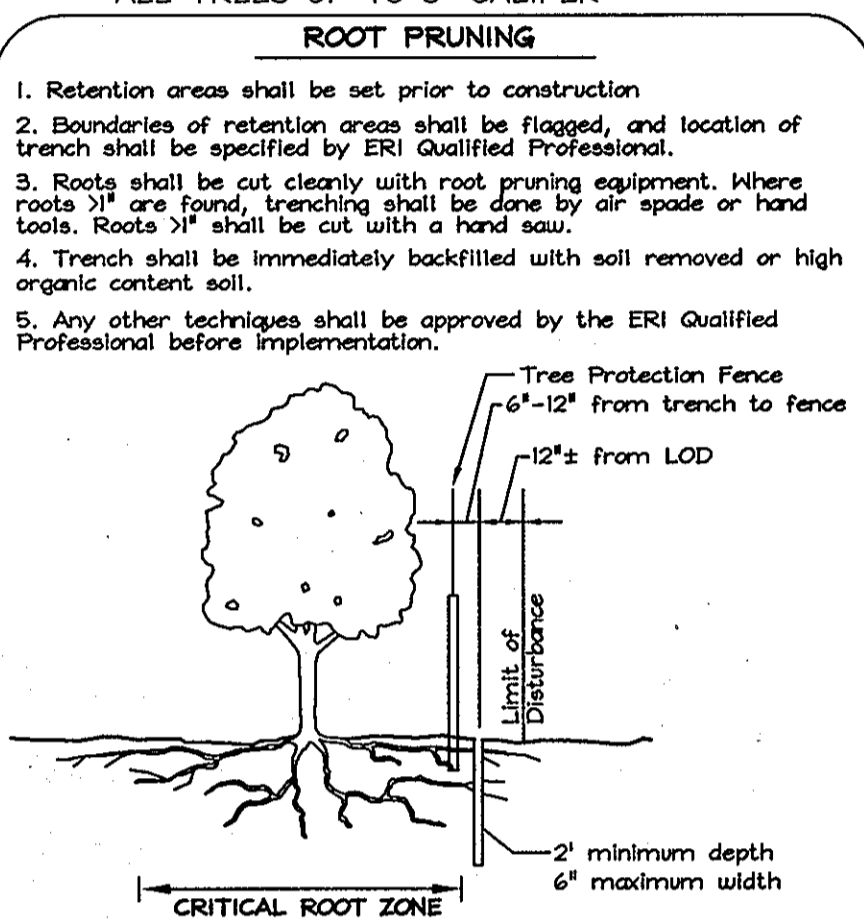


MAYER BROS. INC.  
L3195 / F439  
TM38 / P278  
ZONED M-2

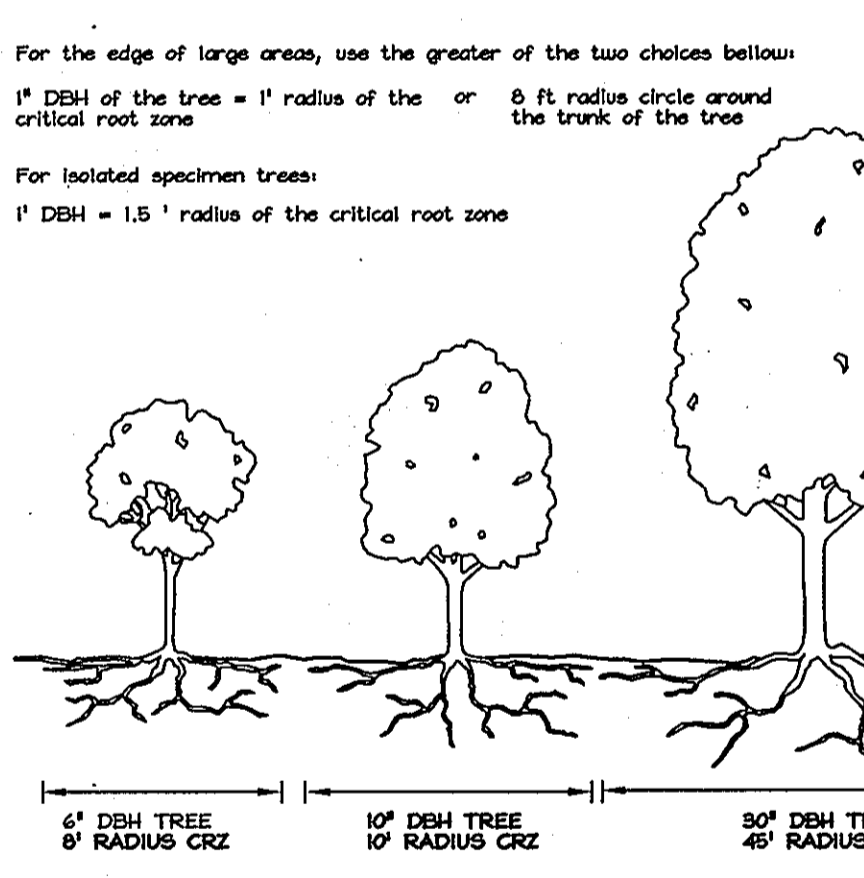
For REVISION ONLY  
DAY ENGINEERING  
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland.  
License No. 15593, Expiration Date: 3/31/14



TYPICAL TREE PLANTING AND STAKING  
ALL TREES UP TO 3" CALIPER  
NOT TO SCALE



ROOT PRUNING



CRITICAL ROOT ZONE

LANDSCAPE SCHEDULE

KEY	QUAN.	BOTANICAL/COMMON NAME	SIZE	NOTE
9	1	Gleditsia triacanthos var. inermis 'Shademaster'	2 1/2"-3" Cal.	B & B
7	1	Liquidambar styraciflua American Sweetgum	2 1/2"-3" Cal.	B & B
9	1	Tilia americana 'Redmond'	2 1/2"-3" Cal.	B & B
8	1	Acer rubrum 'Autumn Blaze'	2 1/2"-3" Cal.	B & B
4	1	Ilex opaca American Holly	5'-6'	B & B
3	1	Thuja occidentalis Eastern Arborvitae	5'-6'	B & B

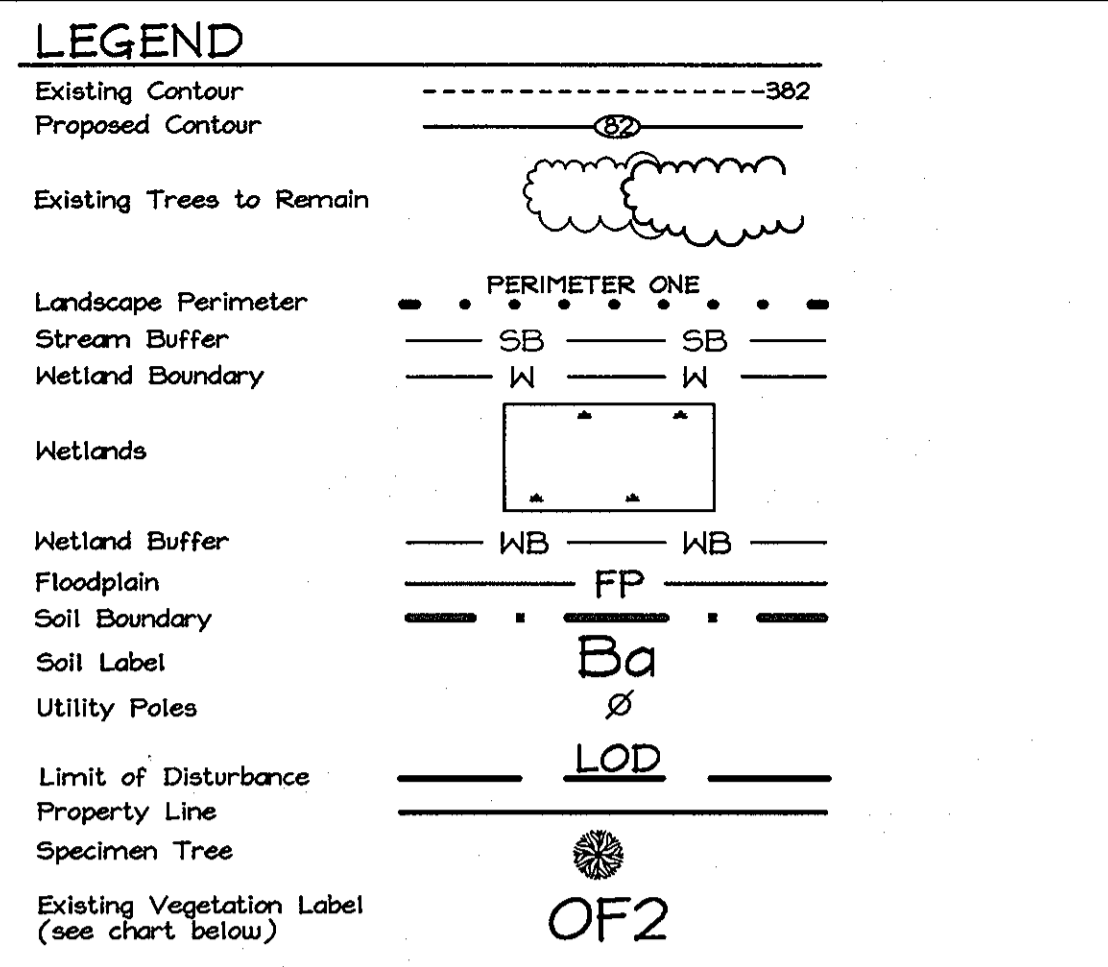
LANDSCAPE NOTES

- This Landscape plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and the Landscape Manual.
- At the time of installation, all shrubs and other plantings hereinafter listed and approved for this site, shall be of the proper height requirements in accordance with the Howard County Landscaping Manual. In addition, no substitutions or relocation of required plantings may be made without prior review and approval from the Department of Planning and Zoning. Any deviation from this approved Landscape Plan may result in denial or delay in the release of landscape surety until such time as all required materials are planted and/or revisions are made to applicable plans and certificates.
- The owner, tenant, and/or their agents shall be responsible for maintenance of the required landscaping, including both plant materials and retaining walls. All plant materials shall be maintained in good growing condition, and when necessary, replaced with new materials to ensure continued compliance with applicable regulations. All other required landscaping shall be permanently maintained in good growing condition, and when necessary, repaired or replaced.
- Financial surety for the required landscaping will be posted as part of the Developer's Agreement in the amount of \$10,950 (33 shade trees @ \$300.00 each and 7 evergreen trees @ \$150.00 each).
- Trees with mature heights greater than 25' shall not be planted within 20' of either side of the utility pole line. Trees with mature heights greater than 40' shall not be planted within 45' of the utility pole line.

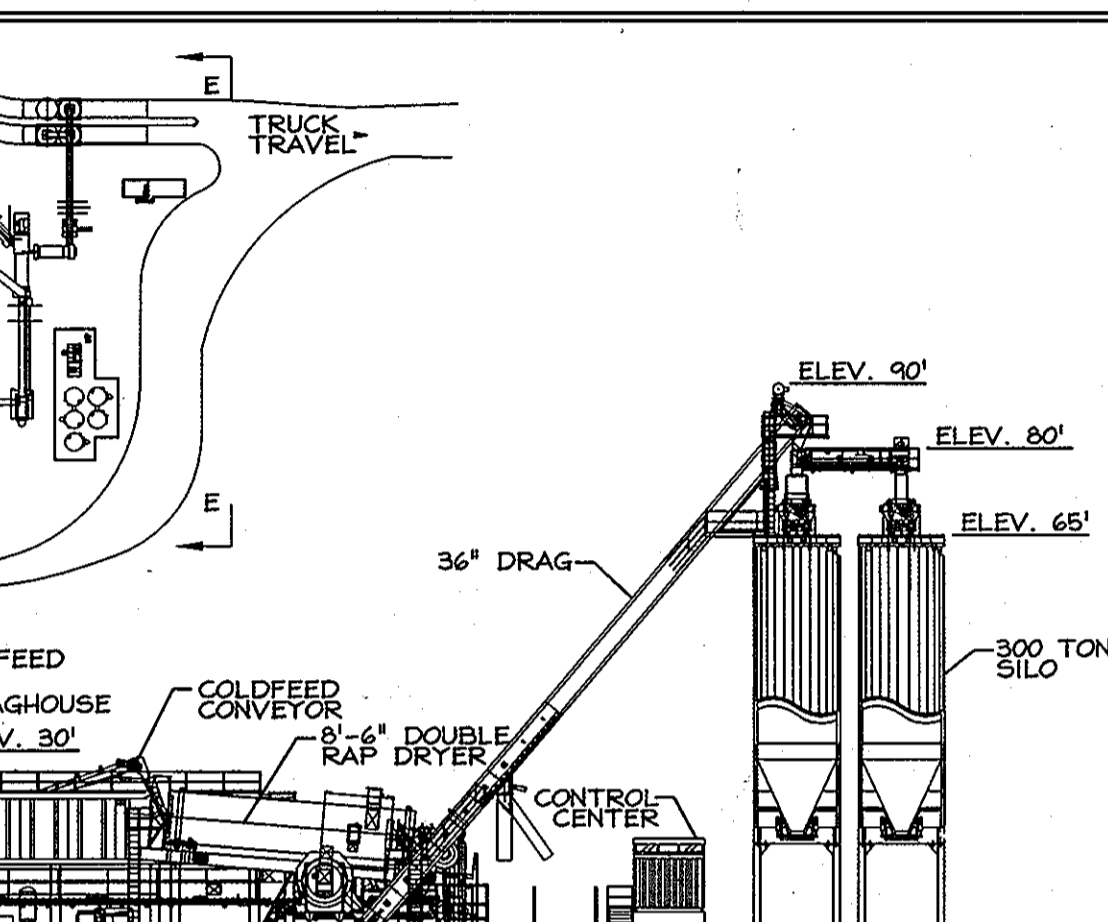
REVISIONS

REVISION	DATE	BY	DESCRIPTION
1	3/8/09	TJS	ADD 2 RETAINING WALLS

PROFESSIONAL CERTIFICATION  
I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. #22418, Expiration Date: 7/24/2009.



LEGEND



ELEVATION VIEW E-E  
N.T.S.

Note on Forest Conservation  
There are no forest resources on site. There is one specimen tree along the front fence which will be preserved. All activity proposed under this SDP is contained in areas within previous limits of disturbance and areas which have been disturbed by existing uses, including parking, driveways, and existing buildings.

EXISTING VEGETATION CHART

KEY	TYPE OF COMMUNITY	DESCRIPTION
H1	Hedgerow	Deciduous and evergreen trees lined up along fence-line
L1	Laun	Maintained lawn grasses
L3	Laun	Maintained lawn grasses
OF1 to OF4	Open Field	Areas of gravel that have been reclaimed somewhat by meadow grasses (unmaintained).
OF5	Open Field	Some meadow grasses, but primarily phragmites.
T1	Tree Group	Group of aspen and sycamore trees, 8" to 10" in diameter, some understory, mostly invasives.
T2	Tree Group	Group of sycamores, 2-12" in diameter, young successional colony, phragmites understory.
W1	Woodlands	8" Cherry, 6-10" Sycamores, 18-22" White Oaks, and 16-18" Scarlet Oaks, all being checked out by bittersweet. Poison Ivy is also prevalent.
W2	Woodlands	Virginia Fines, 2" to 16" diameter. Relatively healthy, some areas of dumping.
W3	Woodlands	Birch, Oak and Cherry trees in the 6-12" diameter range. A few larger sycamores, 18-22". Row of White Pines along the fence-line. Sparse shrub layer, mostly invasives.

OWNER/DEVELOPER  
KONTERRA LIMITED PARTNERSHIP  
14504 Greenview Drive, Suite 210  
Laurel, Maryland 20707-2255  
Phone: (301) 453-9870  
Att: Timothy Schmidt

LANDSCAPING AND EXISTING VEGETATION PLAN  
**LAUREL ASPHALT INC. MANUFACTURING PLANT**  
6330 RACE ROAD  
ZONED M-2  
TAX MAP 38 GRID 15  
1ST ELECTION DISTRICT  
PARCELS 493 & 512  
HOWARD COUNTY, MARYLAND

FSH Associates  
Engineers Planners Surveyors  
6338 Howard Lane Elkrige, MD 21075  
Tel:410-567-5200 Fax: 410-798-1562  
E-mail: info@fsh.com

DESIGN BY: APG-D  
DRAWN BY: SIM1  
CHECKED BY: AB  
SCALE: As Shown  
DATE: Mar. 5, 2009  
H.O. No.: 3500  
SHEET No.: 4 OF 6

SPECIMEN TREE LIST

Number	Common name	Species	Condition	DBH	Retain
ST-1	Pin oak	Quercus palustris	Fair	30"	Yes

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
CIC3	Chittum gravelly loam, 5 to 10 percent slopes, severely eroded	B
CIE2	Chittum gravelly loam, 15 to 30 percent slopes, moderately eroded	B
Co	Codorus silt loam	C
Md	Made land	C
Mo	Mixed alluvial land	D
SUD2	Sunnyside fine sandy loam, 5 to 15 percent slopes, moderately eroded	B

PLAN VIEW  
SCALE: 1"=50'

SCHEDULE A PERIMETER LANDSCAPING

CATEGORY	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES
Perimeter/Frontage Designation	1	2 3 4
Frontage/Perimeter	B	A A A A
Linear Feet of Roadway	547	704 765 710
Credit for Existing Vegetation (Yes, No, Linear Feet)	(237)	(216) (98) (147)
Remaining Perimeter Length (Yes, No, Linear Feet)	360	419 667 563
Remaining Perimeter Length	No	No No No
Number of Plants Required		
Shade Trees	1:50 7	1:60 8 1:60 11 1:60 9
Evergreen Trees	1:40 9	
Shrubs		
Number of Plants Provided		
Shade Trees	6*	8 11 8***
Evergreen Trees	7**	
Other Trees (2:1 Substitution)		
Shrubs (10:1 Substitution)		

\* Credit taken for existing 30" Oak  
\*\* Credit taken for existing 14" Spruce and 6" Arborvitae.  
\*\*\* Credit taken for existing 11/14" double Willow.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
DATE: 4/1/09  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 5/2/09  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 5/2/09  
DIRECTOR, DEP.

DEVELOPER'S/BUILDER'S CERTIFICATE  
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A LETTER OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXCITED ONE(1) YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.  
TIMOTHY J. SCHMIDT 3/12/09  
SIGNATURE OF DEVELOPER/BUILDER DATE