

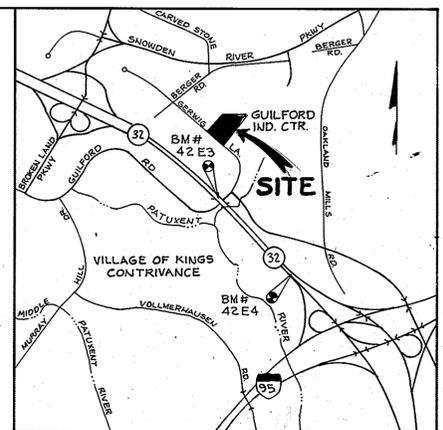
BM # 42E3 ELEV. 306.556
 N 166.582.3241 E 413,887.0332
 CONCRETE MONUMENT SET 13' SOUTH OF WEST BOUND LANE OF MD ROUTE #32 APPROXIMATELY 54' WEST OF GUILFORD ROAD BRIDGE.

BM # 42E4 ELEV. 337.860
 N 166.070.9771 E 414,366.1877
 CONCRETE MONUMENT SET 20' SOUTH OF WEST BOUND LANE OF MD ROUTE #32 APPROXIMATELY 200' EAST OF GUILFORD ROAD BRIDGE.

NOTE: HDPE INDICATES HIGH DENSITY POLYETHYLENE PIPE

GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-287-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- 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.
- ALL PLAN DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- CONTOUR INTERVALS (I) ARE BASED ON A FIELD RUN SURVEY BY C. BROOK MILLER, INC. DATED SEPTEMBER, 1993.
- ALL HORIZONTAL AND VERTICAL CONTROLS ARE BASED ON HOWARD COUNTY BENCH MARKS 42E3 AND 42E4.
- EXISTING WATER AND SEWER FACILITIES ARE PUBLIC AND WERE BUILT UNDER CONTRACT NO. 383A W & S.
- THERE ARE NO 100 YEAR FLOODPLAINS ON THIS SITE.
- THIS SITE IS EXEMPT FROM STORMWATER MANAGEMENT REQUIREMENTS, HOWEVER WATER QUALITY MANAGEMENT IS BEING PROVIDED.
- THERE ARE NO WETLANDS ON THIS SITE.
- A TRAFFIC STUDY IS NOT REQUIRED FOR THIS SITE.
- EXISTING UTILITIES WERE LOCATED FROM AS BUILT PLANS AND FIELD CHECKED WHENEVER POSSIBLE AND THE CONTRACTOR SHALL VERIFY THEIR LOCATION TO HIS OWN SATISFACTION.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- THE CONTRACTOR SHALL NOTE THAT IN THE CASE OF DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- PROPOSED LIGHT POLES AND HARDWARE TO MATCH EXISTING FEATURES ON SITE.
- THE PURPOSE OF THIS PLAN IS TO SHOW CONSTRUCTION OF THE PROPOSED IMPROVEMENTS LISTED HERE: PAVED EMPLOYEE PARKING LOT, PAVED EQUIPMENT PARKING LOT AT REAR OF SITE, PROVIDE 3 WATER QUALITY FACILITIES, CONCRETE STORAGE BINS, DRAINAGE SYSTEM FOR EQUIPMENT WASHING, COVERED EQUIPMENT PARKING (BLDG. C) COVERED LUMBER STORAGE SHED (BLDG. D) LANDSCAPE AND LIGHTING PLAN, AND EQUIPMENT WASH BUILDING (BLDG. F).

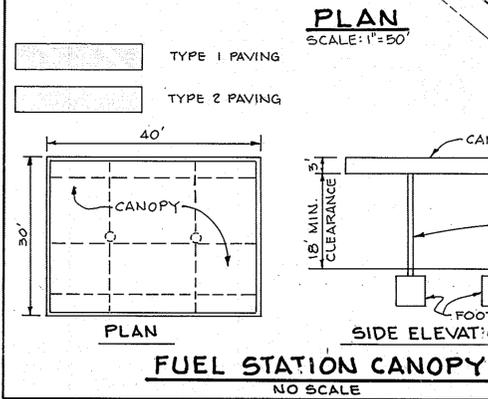
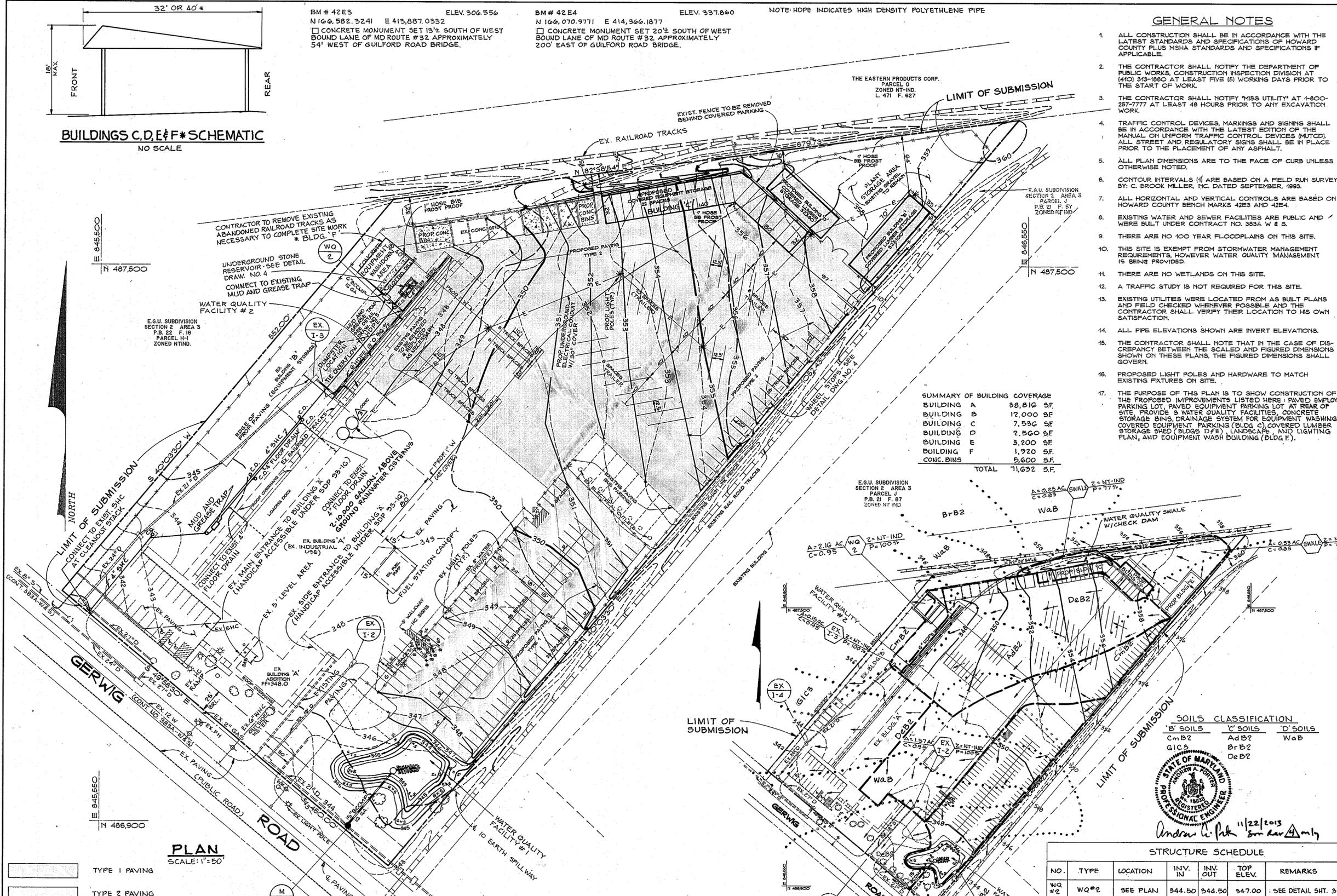


SITE TABULATION/ANALYSIS

AREA OF LOT H-2 8.472 AC OR 369,018 SF
 ZONING-NEW TOWN - IND.
 LAND USE - INDUSTRIAL - FDP PHASE B5
 PROP. USE - INDUSTRIAL (OFFICE/WAREHOUSE MAINT.)
 ALL OVBLE STRUCTURAL COVERAGE 50%
 FLOOR SPACE:-OFFICE 4672 SF
 WARE/MAINT 32,695 SF
 COMMON AREAS 3,374 SF
 PROP. NET INDUSTRIAL (BLDG. X ONLY) 38,816 SF
 EXISTING BUILDING B' 12,000 SF (EQUIP. STORAGE)
 PROPOSED BUILDING C' 7536 SF (VEHICLE STOR.)
 PROPOSED BUILDING D' 2,500 SF (LUMBER STOR.)
 PROPOSED BUILDING E' 3200 SF (LUMBER STOR.)
 PROPOSED BUILDING F' 1,920 SF (EQUIP. WASH. BLDG.)
 INDUSTRIAL 4 SPACES/EMPLOYEE 482 SPACES (9'x18' MIN)
 INCLUDING 8 HANDICAP SPACES (8'x16') TOTAL 442 SPACES
 PARKING - EMPLOYEE & VISITOR 10 SPACES
 MAINTENANCE VEHICLE PARKING 60 SPACES
 TRUCK PARKING (60'x30') 24 SPACES
 COVER EQUIPMENT PARKING (60'x30') 22 SPACES (WITHIN C)
 BUS PARKING (EXISTING) 8 SPACES
 THERE ARE NO EXISTING OR PROPOSED SLOPES 6% OR GREATER EXCEPT AS SHOWN.
 THERE ARE NO HYDRIC SOILS ON SITE. ALL SOILS ARE OF THE (B) (C) & (D) TYPE SOILS.
 THERE ARE NO ONSITE FLOODPLAINS OR WETLANDS.
 ALL VEGETATION ON SITE IS IN THE FORM OF LANDSCAPING AND LAWN.
 THERE ARE NO NATURAL WOODED AREAS ONSITE.
 OPEN SPACES (GREEN AREAS) TO REMAIN ONSITE = 52,469 SF OR 14.2% OF GROSS AREA
 BUILDING COVERAGE OF SITE = 71,032 SF OR 19.1% OF GROSS AREA
 SITE REFERENCES: SEE FDP PHASE B5, SDP 72-104C SDP 93-18 AND P 70-88
 PAVED PARKING LOT/AREA ON SITE 5.87 ACRES OR 255,153 SF OR 64.3% OF GROSS AREA
 EXISTING AND PROPOSED CONCRETE BINS ARE FOR THE BULK STORAGE OF LANDSCAPING MATERIALS SUCH AS MULCH, CRUSHED STONE, SAND, ETC.

SUMMARY OF BUILDING COVERAGE

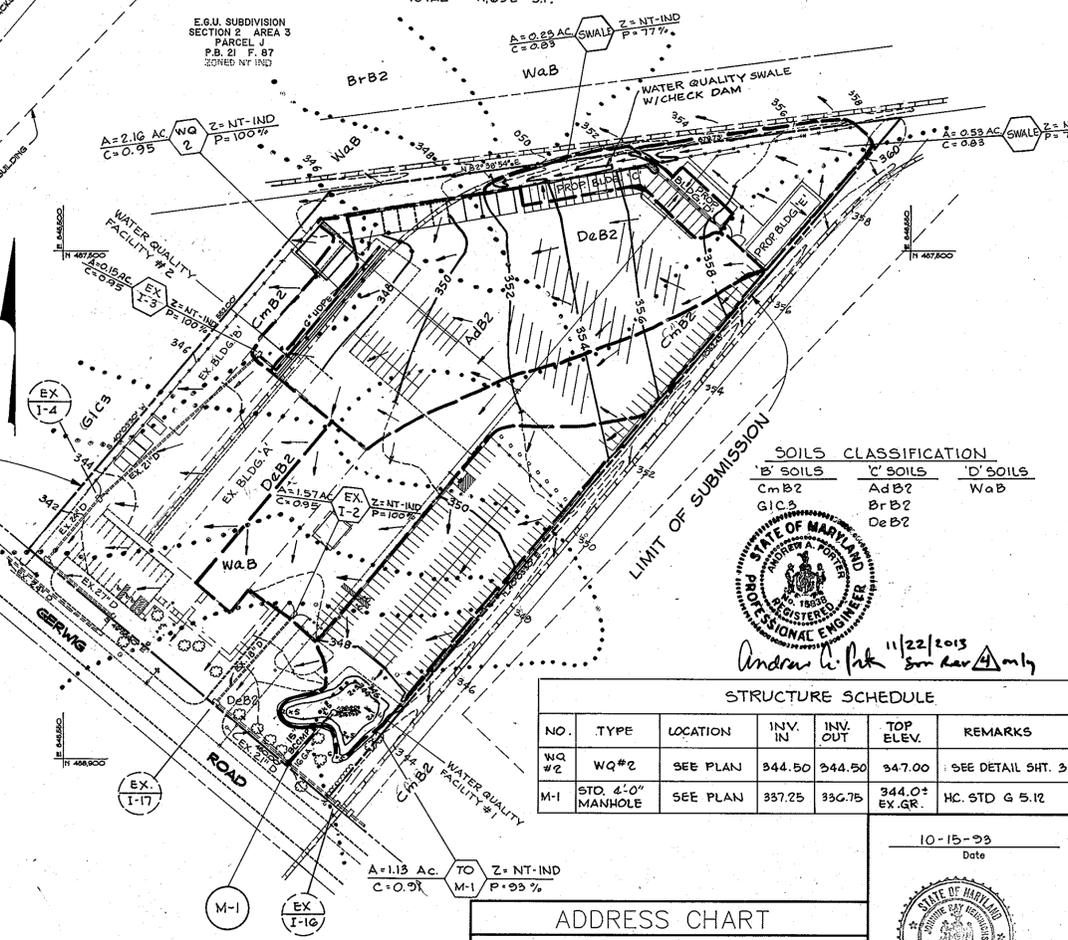
BUILDING A	38,816 SF
BUILDING B	12,000 SF
BUILDING C	7,536 SF
BUILDING D	2,500 SF
BUILDING E	3,200 SF
BUILDING F	1,920 SF
CONC. BINS	5,600 SF
TOTAL	71,032 SF



SHEET INDEX

NO.	DESCRIPTION
1	SITE DEVELOPMENT PLAN
2	SEDIMENT CONTROL PLAN NOTES AND DETAILS
3	WATER QUALITY DETAILS
4	MISCELLANEOUS DETAILS
5	LANDSCAPING PLAN
6	MAINT./RETROFIT SURV./EX. PLAN - WQ FACILITY #1
7	WQ FACILITY #1 PROFILES & DETAILS
8	WQ FACILITY #1 DETAILS (I)
9	WQ FACILITY #1 DETAILS (2)

DRAINAGE AREA MAP SCALE: 1" = 100'



SOILS CLASSIFICATION

B' SOILS	C' SOILS	D' SOILS
CmB2	AdB2	Wab
GIC3	BrB2	
	DeB2	



STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP ELEV.	REMARKS
WQ #2	WQ #2	SEE PLAN	344.50	344.50	347.00	SEE DETAIL SHT. 3
M-1	STD. 4'-0" MANHOLE	SEE PLAN	337.25	336.75	344.0' EX. GR.	HC. STD G 5.12

ADDRESS CHART

BUILDING	STREET ADDRESS					
H-2	9450 GERWIG LANE					
SUBDIVISION NAME	SECT./AREA					
E.G.U. SUBDIVISION	2/3					
PARCEL/LOT	386/H-2					
PLAT	BLOCK	ZONE	NT	TAX. ZONE	ELEC. DIST.	CENSUS TR.
22/18	10			MAP 42	6th	6067.03
WATER CODE	SEWER CODE					
E-06	5241400					

11/22/15	ADD WQ FACILITY #1 (IMPROVEMENTS SHTS 5-9)	
8-21-09	ADDED 2-10000 GALLON RAINWATER CISTERNS	
DATE	NO	REVISION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Andrew C. Pate 11/22/2013
 Chief Development Engineering Division (DATE 4/15)

Chris Williams 8/16/95
 Chief, Division of Land Development and Research - DATE 1/01

Thomas J. DeAngelis 11/15/95
 Director (DATE 11/15/95)

12-7-00	ADDED FUEL STATION CANOPY	
10-1-98	EXTENDED SEWER CONN. & BLDG. 'F'	
Date	No	Revision Description

OWNER/DEVELOPER

THE COLUMBIA PARK & RECREATION ASSOCIATION
 10221 WINCOPIN CIRCLE, SUITE 100
 COLUMBIA, MARYLAND 21044-3410
 (410) 312-8330

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 817 HARBOR CREEK LANE, SUITE 300
 BALTIMORE, MARYLAND 21288
 (410) 847-8833 FAX 847-8897

AREA E.G.U. SUBDIVISION SECTION 2 AREA 3
 ZONED: NT IND. PARCEL 386 PB 22, F16
 6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

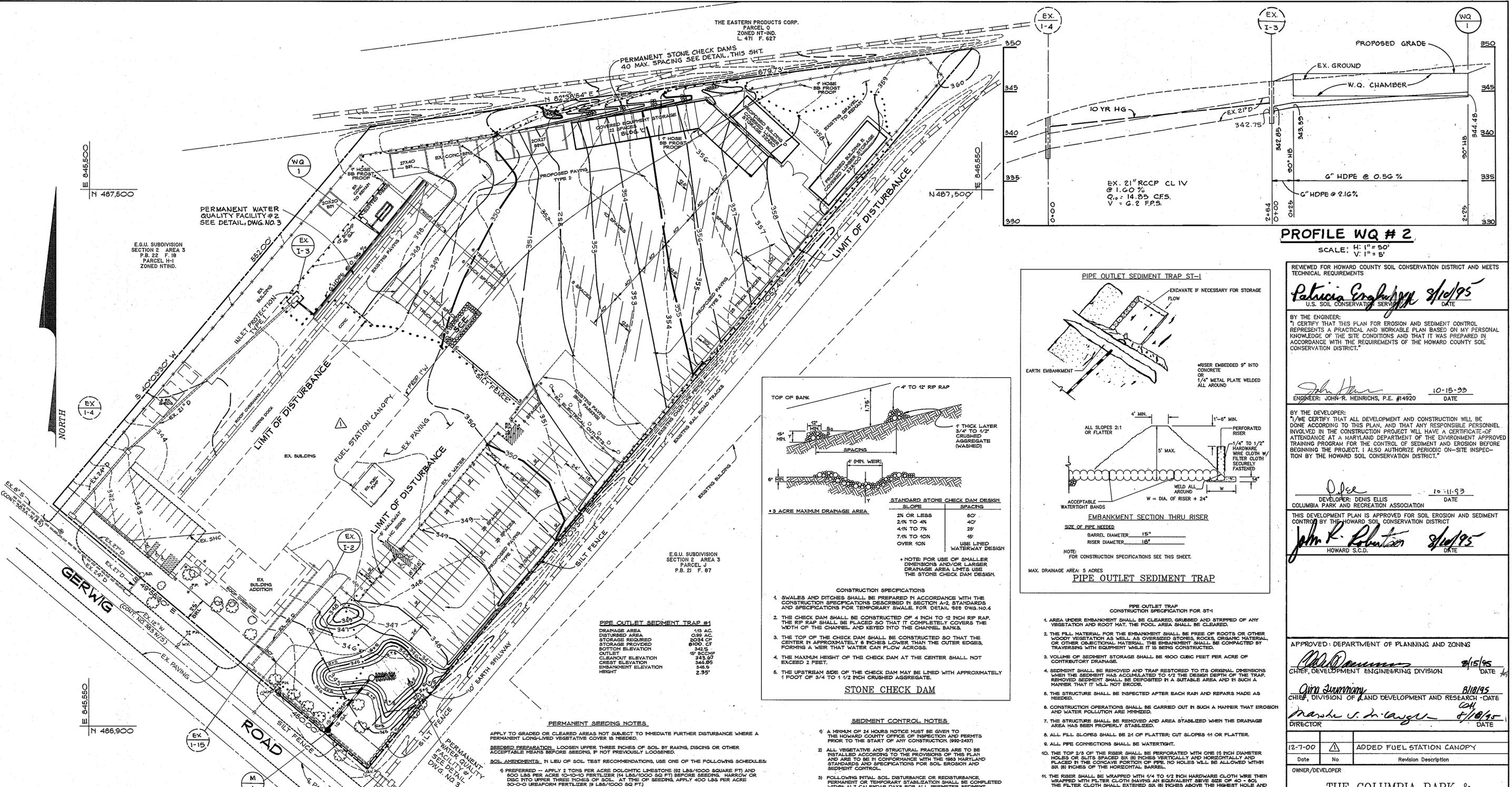
TITLE: ADDITIONS TO THE COLUMBIA PARK AND RECREATION ASSOCIATION'S MAINTENANCE FACILITY

SITE DEVELOPMENT PLAN

PREVIOUSLY SDP 72-104C & SDP 93-16

Des By	R.J.W.	Date	AS SHOWN	Proj No	93-0200 GERWIG
Chk By	A.J.R.	Date	NOV. 1993	DRAWING NO	
Chk By	J.R.H.	Date	SDP-94-09	1 OF 9	

THE EASTERN PRODUCTS CORP.
PARCEL D
ZONED NT-IND.
L. 471 F. 627



SEDIMENT CONTROL PLAN

SCALE: 1" = 50'

SEQUENCE OF CONSTRUCTION

- DAY 1 OBTAIN A GRADING PERMIT
- DAY 2-3 INSTALL STABILIZED CONSTRUCTION ENTRANCE WITH MOUNTABLE BERM AND INLET PROTECTION AT EXISTING INLET 1-3.
- DAY 4-6 CLEAR AND GRUB AREAS FOR AND INSTALL REMAINDER OF PERIMETER SEDIMENT CONTROL DEVICES INCLUDING STONE CHECK DAMS IN SWALE AT NORTH END OF SITE.
- DAY 7-12 CLEAR AND GRUB AREA FOR AND INSTALL PIPE OUTLET SEDIMENT TRAP #1 WITH TEMPORARY WATER TIGHT PLUG INSTALLED IN 12" RCCP AND STABILIZE ALL DISTURBED AREAS IMMEDIATELY IN ACCORDANCE WITH TEMPORARY SEEDING NOTES.
- DAY 13-20 INSTALL WATER QUALITY FACILITY #2 AND BLOCK INLET 1-1.
- DAY 21-24 INSTALL REMAINING UNDERGROUND UTILITIES IE: CONDUITS, WATER, GREASE TRAP ETC.
- DAY 25-28 GRADE SITE.
- DAY 29-70 COMPLETE ALL CONSTRUCTION AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
- DAY 71-76 PAVE SITE AS SHOWN ON PLANS.
- DAY 77-80 WHEN ALL DISTURBED AREAS HAVE BEEN STABILIZED AND UPON APPROVAL OF SEDIMENT CONTROL INSPECTOR CONVERT FLOAT #1 TO A PERMANENT WATER QUALITY FACILITY BY REMOVING ACCUMULATED SEDIMENT AND SPREAD OVER ADJACENT LAWN AREA. RETURN BOTTOM OF TRAP TO ELEV. 342.8. INSTALL 12" PERFORATED RCCP AND STONE DEWATERING CHAMBER AS PER WATER QUALITY DETAIL #1 AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES.
- DAY 81-86 WHEN ALL UPSTREAM AREAS HAVE BEEN STABILIZED AND WITH APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE ALL DISTURBED AREAS AS PER PERMANENT SEEDING NOTES.

PERMANENT SEEDING NOTES

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

SEEDING 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 ONE OF THE FOLLOWING SCHEDULES:

- PREFERRED - APPLY 3 TONS PER ACRE DOLOMITIC LIMESTONE (82 LBS/1000 SQ FT) AND 800 LBS PER ACRE 10-10-10 FERTILIZER (4 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS PER ACRE 30-0-0 UREA-FORM FERTILIZER (2 LBS/1000 SQ FT).
- ACCEPTABLE - APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (82 LBS/1000 SQ FT) AND 1000 LBS PER ACRE 10-10-10 FERTILIZER (2 LBS/1000 SQ FT) BEFORE SEEDING. HARROW OR DISC 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 (4 LBS/1000 SQ FT) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THRU JULY 31, SEED WITH 80 LBS PER ACRE (6 LBS/1000 SQ FT) OF ENHANCED PERMANENT SEEDINGS (SEC. 61) SOG (SEC. 64) TEMPORARY SEEDING (SEC. 60) AND MULCHING (SEC. 62) TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORS TOOL OR 20 GAL PER ACRE (5 GAL/1000 SQ FT) OF ENHANCED ASPHALT ON FLAT AREAS ON SLOPES 6 FT OR HIGHER, USE 348 GAL PER ACRE (6 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

TEMPORARY SEEDING NOTES

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

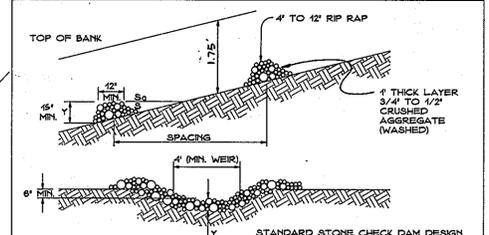
SEEDING PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISCING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS: APPLY 600 LBS PER ACRE 10-10-10 FERTILIZER (4 LBS/1000 SQ FT).

SEEDING: FOR PERIODS MARCH 1 THRU APRIL 30 AND FROM AUGUST 15 THRU NOVEMBER 15, SEED WITH 2 1/2 BUSHEL PER ACRE OF ANNUAL RYE (81 LBS/1000 SQ FT). FOR THE PERIOD MAY 1 THRU AUGUST 14, SEED WITH 3 LBS PER ACRE OF WEEDING LOVEGRASS (27 LBS/1000 SQ FT). FOR THE PERIOD NOVEMBER 16 THRU FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2) USE SOG, OPTION (3) SEED WITH 80 LBS/ACRE KENTUCKY 31 TALL FESCUE AND MULCH WITH 2 TONS/ACRE WELLS ANCHORED STRAW.

MULCHING: APPLY 1 1/2 TO 2 TONS PER ACRE (70 TO 90 LBS/1000 SQ FT) OF UNROTTED SMALL GRASS STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORS TOOL OR 20 GAL PER ACRE (5 GAL/1000 SQ FT) OF ENHANCED ASPHALT ON FLAT AREAS ON SLOPES 6 FT OR HIGHER, USE 348 GAL PER ACRE (6 GAL/1000 SQ FT) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.



SLOPE	SPACING
2% OR LESS	80'
2.1% TO 4%	40'
4.1% TO 7%	25'
7.1% TO 10%	15'
OVER 10%	USE LINED WATERWAY DESIGN

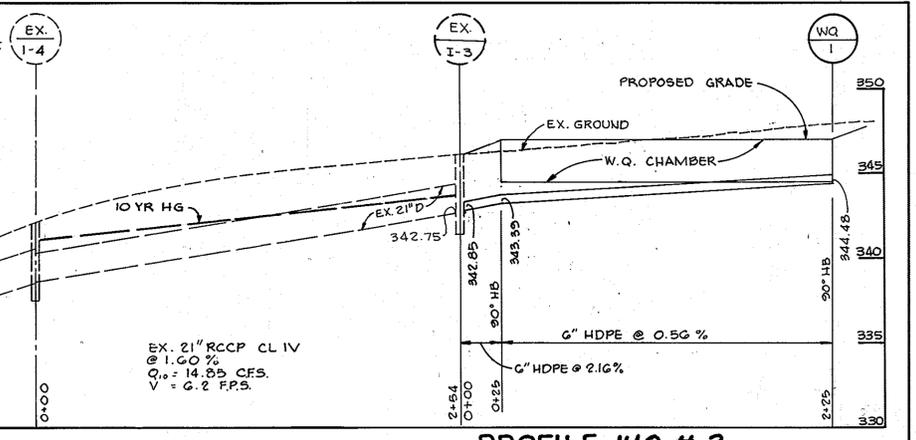
NOTE: FOR USE OF SMALLER DIMENSIONS AND/OR LARGER DRAINAGE AREA LIMITS USE THE STONE CHECK DAM DESIGN.

- #### CONSTRUCTION SPECIFICATIONS
- SWALES AND DITCHES SHALL BE PREPARED IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATIONS DESCRIBED IN SECTION A-2, STANDARDS AND SPECIFICATIONS FOR TEMPORARY SWALES FOR DETAIL, SEE DWG. NO. 4.
 - THE CHECK DAM SHALL BE CONSTRUCTED OF 4 INCH TO 12 INCH RIP RAP. THE RIP RAP SHALL BE PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL AND KEPT INTO THE CHANNEL BANKS.
 - THE TOP OF THE CHECK DAM SHALL BE CONSTRUCTED SO THAT THE CENTER IS APPROXIMATELY 8 INCHES LOWER THAN THE OUTER EDGES, FORMING A WEIR THAT WATER CAN FLOW ACROSS.
 - THE MAXIMUM HEIGHT OF THE CHECK DAM AT THE CENTER SHALL NOT EXCEED 2 FEET.
 - THE UPSTREAM SIDE OF THE CHECK DAM MAY BE LINED WITH APPROXIMATELY 1 FOOT OF 3/4 TO 1 1/2 INCH CRUSHED AGGREGATE.

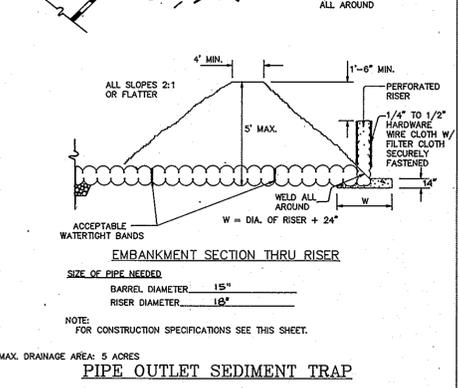
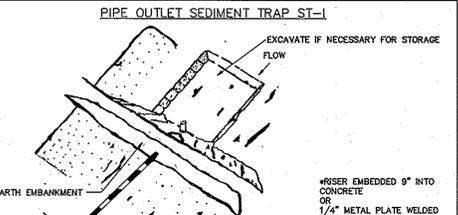
STONE CHECK DAM

SEEDING CONTROL NOTES

- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY OFFICE OF INSPECTION AND PERMITS PRIOR TO THE START OF ANY CONSTRUCTION. (1992-2437)
- ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN 47 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, PILES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 2% 64 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THEIR PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. PERMANENT SEEDINGS (SEC. 61) SOG (SEC. 64) TEMPORARY SEEDING (SEC. 60) AND MULCHING (SEC. 62) TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND 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 OF SITE: 8.47 ACRES
AREA TO BE ROOFED OR PAVED: 2.42 ACRES
AREA TO BE VEGETATIVELY STABILIZED: 7.22 ACRES
TOTAL CUT: 320 CU YDS
TOTAL FILL: 320 CU YDS
OFFSITE WASTE/BORROW AREA LOCATION: ON SITE
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF PERMITS MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY PWD SEDIMENT CONTROL INSPECTOR.
- ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 ACRES, APPROVAL OF THE INSPECTION AGENCY SHALL BE OBTAINED UPON COMPLETION OF INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER GRADING OR GRADING OTHER BUILDING OR GRADING INSPECTION APPROVALS MAY NOT BE AUTHORIZED UNTIL THIS INITIAL APPROVAL BY THE INSPECTION AGENCY IS MADE.



PROFILE WQ # 2
SCALE: H: 1" = 50'
V: 1" = 5'



PIPE OUTLET SEDIMENT TRAP
CONSTRUCTION SPECIFICATION FOR ST-1

- AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
- THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVERSIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBSTRUCTIVE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
- VOLUME OF SEDIMENT STORAGE SHALL BE 4000 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
- SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT RECOSE.
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
- CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE MINIMIZED.
- THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED.
- ALL FILL SLOPES SHALL BE 2:1 OF FLATTER; CUT SLOPES 4:1 OR FLATTER.
- ALL PIPE CONNECTIONS SHALL BE WATERTIGHT.
- THE TOP 2/3 OF THE RISER SHALL BE PERFORATED WITH ONE (1) INCH DIAMETER HOLES OR SLITS SPACED SIX (6) INCHES VERTICALLY AND HORIZONTALLY AND PLACED IN THE CONVEX PORTION OF PIPE. NO HOLES WILL BE ALLOWED WITHIN SIX (6) INCHES OF THE HORIZONTAL BARREL.
- THE RISER SHALL BE WRAPPED WITH 1/4 TO 1/2 INCH HARDWARE CLOTH WIRE THEN WRAPPED WITH FILTER CLOTH HAVING AN EQUIVALENT SIEVE SIZE OF 40 - 60. THE FILTER CLOTH SHALL EXTEND SIX (6) INCHES ABOVE THE HIGHEST HOLE AND SIX (6) INCHES BELOW THE LOWEST HOLE. WHERE ENDS OF FILTER CLOTH COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT BYPASS.
- STRAPS OR CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH.
- FILL MATERIAL AROUND THE PIPE SPILLWAY SHALL BE COMPACTED IN FOUR (4) INCH LAYERS, A MINIMUM OF TWO (2) FEET OF HAND-COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT.
- THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOATATION. FOR CONCRETE BASES THE DEPTH SHALL BE 12 INCHES WITH THE RISER EMBEDDED NINE (9) INCHES. A 1/4 INCH MINIMUM THICKNESS STEEL PLATE SHALL BE ATTACHED TO THE RISER BY A CONTINUOUS WELD AROUND THE BOTTOM TO FORM A WATERTIGHT CONNECTION AND THEN PLACE TWO (2) FEET OF STONE, GRAVEL, OR TAMPED BARTH ON THE PLATE.

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
Patricia Eng... 8/10/95
U.S. SOIL CONSERVATION SERVICE DATE

BY THE ENGINEER:
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 AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

ENGINEER: JOHN R. HEINRICHS, P.E. #14920 10-15-93 DATE

BY THE DEVELOPER:
I WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE-OF-ATTENDANCE AT A MARYLAND 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.

DEVELOPER: DENIS ELLIS 10-11-93 DATE
COLUMBIA PARK AND RECREATION ASSOCIATION

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
John R. Heinrichs 8/10/95
HOWARD S.C.D. DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
John R. Heinrichs 8/15/95
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Jim Summery 8/18/95
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH - DATE

Marsha V. Langley 8/18/95
DIRECTOR DATE

Date	No.	Revision Description
12-7-00	1	ADDED FUEL STATION CANOPY

OWNER/DEVELOPER

THE COLUMBIA PARK & RECREATION ASSOCIATION
10221 WINCOPIN CIRCLE, SUITE 100
COLUMBIA, MARYLAND 21044-3410
(410) 312-6330

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
817 WOODBURN LANE, SUITE 300
BALTIMORE, MARYLAND 21288
(410) 241-8833 FAX 241-8307

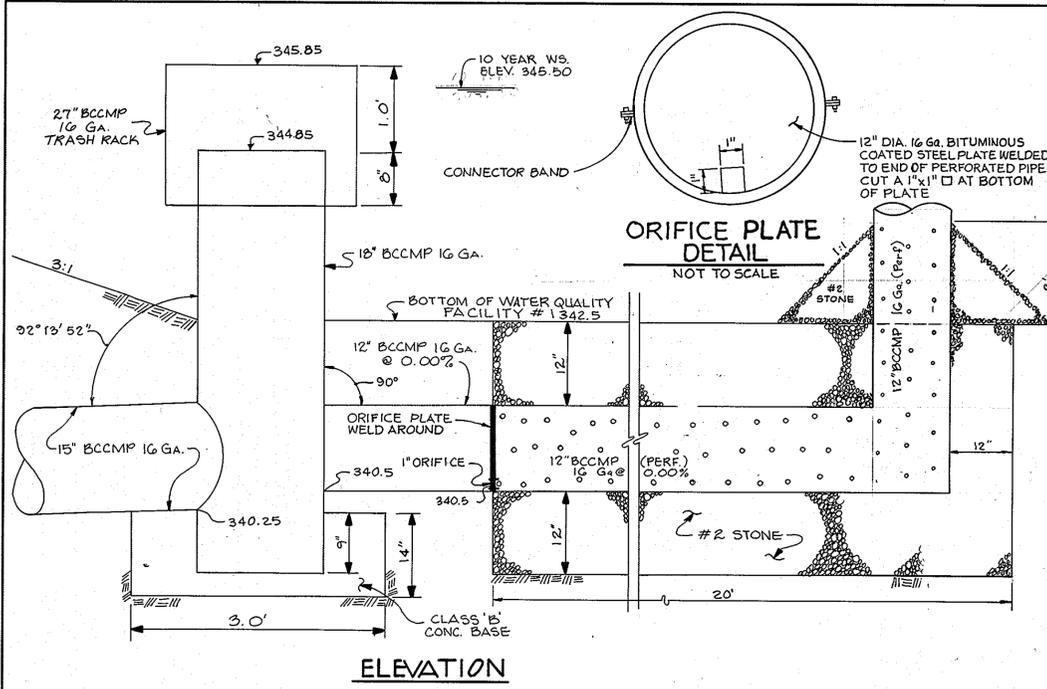
AREA: E.G.U. SUBDIVISION SECTION 2 AREA 3
PARCEL 386
6th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE: ADDITIONS TO THE COLUMBIA PARK AND RECREATION ASSOCIATION MAINTENANCE FACILITY
SEDIMENT CONTROL PLAN
NOTES & DETAILS

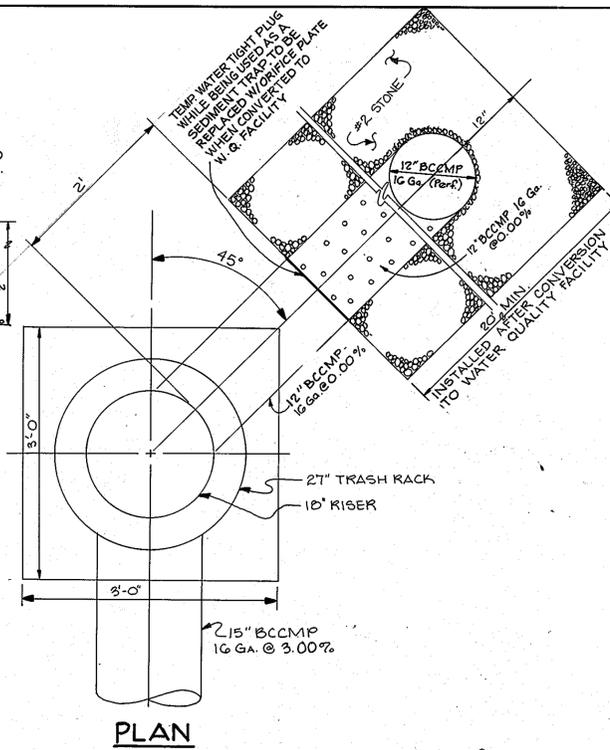
Des By	R.J.W.	Scale	AS SHOWN	Proj No	83-0200 00000200
Drn By <td>A.J.R.</td> <td>Date <td>OCT. 1993</td> <td>DRAWING NO</td> <td></td> </td>	A.J.R.	Date <td>OCT. 1993</td> <td>DRAWING NO</td> <td></td>	OCT. 1993	DRAWING NO	
Chk By <td>J.R.H.</td> <td>SPR-94-09</td> <td></td> <td>2 OF 7</td> <td></td>	J.R.H.	SPR-94-09		2 OF 7	

10-15-93 Date

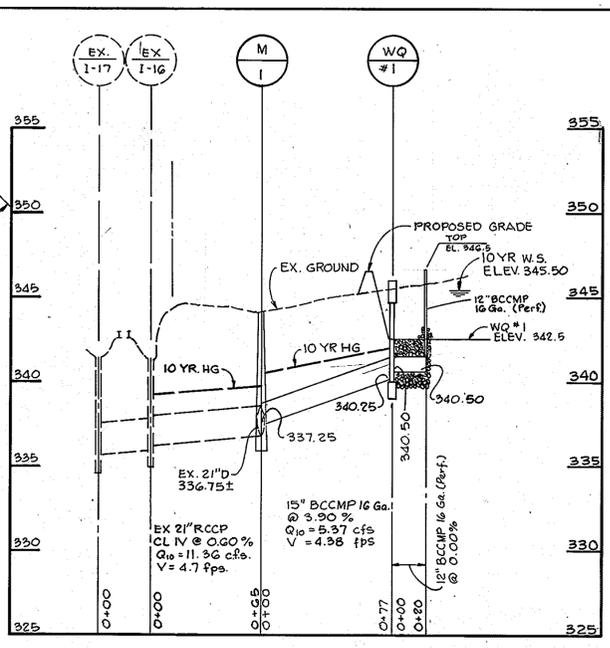




ELEVATION

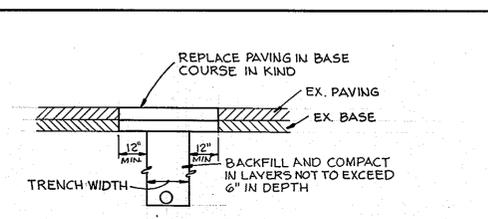


PLAN



PROFILE WQ #1

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

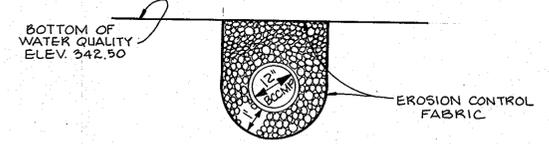


TRENCH REPAIR DETAIL
NOT TO SCALE

NOTES:
1. PAVEMENT PATCH MATERIALS AND COURSE THICKNESSES SHALL BE EQUAL TO EXISTING PAVING SECTION OR AS APPROVED BY D.P.W. THE MINIMUM PAVING PATCH SHALL CONSIST OF 3" BIT. CONC. SURFACE MATERIAL PLACED IN TWO LAYERS. CONC. BASE MATERIAL WHEN PLACED SHALL NOT EXCEED 5" THICKNESS PER COURSE. STONE BASE MATERIAL SHALL NOT EXCEED 5" THICKNESS PER COURSE.
2. PLACE HOT LIQUID ASPHALT SEALER (AS-5 OR AS APPROVED BY D.P.W.) ALONG VERTICAL FACE OF EXISTING PAVING PRIOR TO PLACING NEW MATERIAL TO INSURE CONTINUITY TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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."

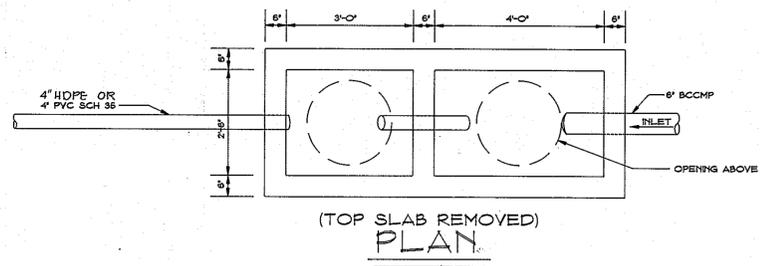
REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
Patricia Englund 8/18/95
U.S. SOIL CONSERVATION SERVICE DATE

BY THE ENGINEER:
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 AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

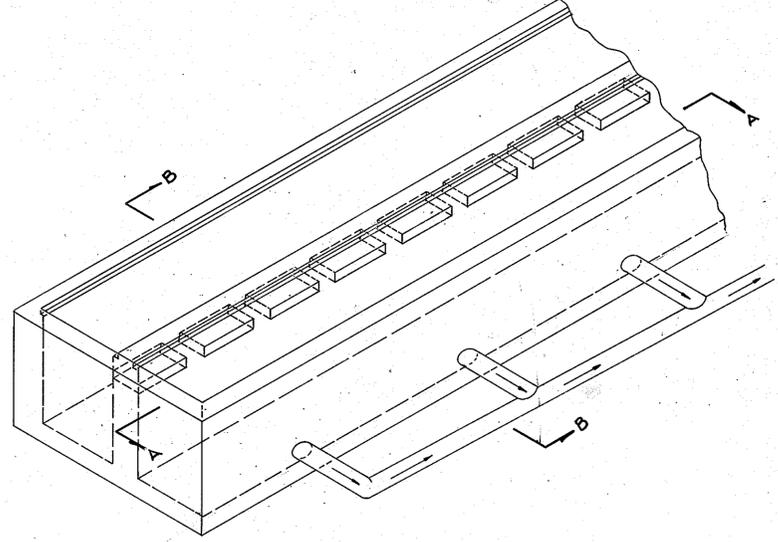


PERFORATED PIPE CLEARANCE
NOT TO SCALE

DETAILS OF WATER QUALITY #1
SCALE: 1"=1'

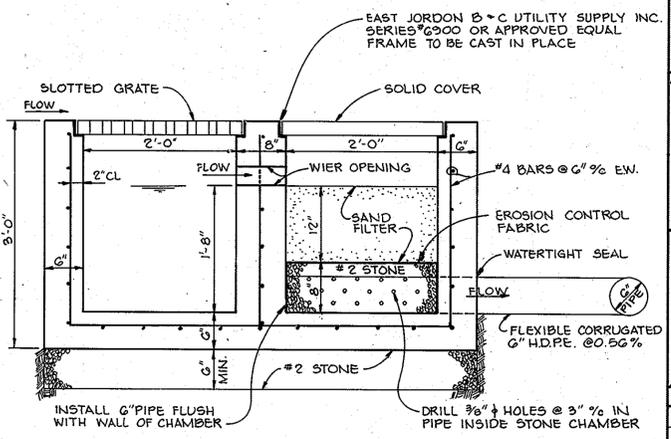


PLAN
(TOP SLAB REMOVED)

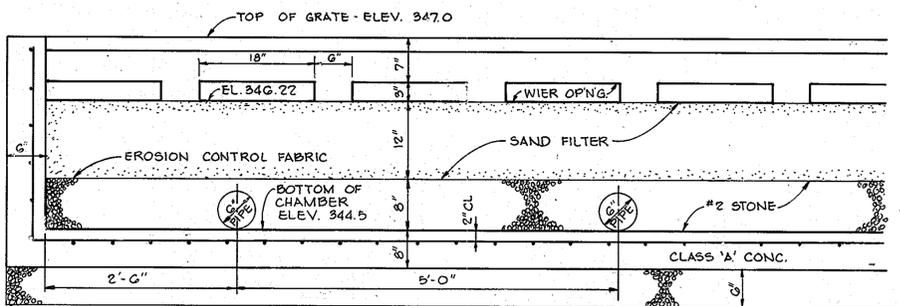


ISOMETRIC

- OPERATIONS AND MAINTENANCE SCHEDULE**
- EXTENDED DETENTION POND**
- THE POND SHALL BE INSPECTED AFTER ALL SIGNIFICANT RAINFALL EVENTS TO INSURE THE OUTFALL STRUCTURE REMAINS CLEAR AND OPERATIONAL.
 - TRASH LITTER AND OTHER DEBRIS ARE TO BE REMOVED FROM THE POND WHENEVER OBSERVED. REGULAR CLEANUPS SHALL BE SCHEDULED NOT LONGER THAN SIX MONTHS APART.
 - THE SEDIMENT BUILD-UP IS TO BE REMOVED AND TAKEN TO AN APPROVED WASTE SITE WHEN THE CAPACITY OF THE POND HAS BEEN REDUCED BY ONE-HALF. THE BOTTOM IS TO BE RESTORED TO THE ORIGINAL ELEVATION AND THE LOW FLOW PIPE IS TO BE REMOVED, CLEANED, AND REPLACED IN A NEW STONE BED AS SHOWN ON THE ORIGINAL PLANS.
 - THE COVER GATES ARE TO BE REMOVED ON AN ANNUAL BASIS TO INSURE THAT THE SYSTEM IS FUNCTIONING AS DESIGNED AND TO IDENTIFY THE NEED FOR CLEANING.
 - THE SEDIMENT CHAMBER SHALL BE CLEANED WHEN THE SEDIMENT REACHES A DEPTH OF 6" (6" BELOW THE WEIR OPENING). THIS CHAMBER WILL PROBABLY BE FILLED WITH WATER SO THE SEDIMENT WILL BE SATURATED AND WILL HAVE TO BE DRIED PRIOR TO DISPOSAL.
 - THE SAND CHAMBER SHALL BE CLEANED WHEN THE TOP 2" OF SAND BECOMES DISCOLORED, (ESTIMATED AT 5-7 YEARS). THE TOP 2-3 INCHES OF SAND WILL BE REPLACED. THE SAND THAT IS REMOVED, IS TO BE DISPOSED OF IN ACCORDANCE WITH CURRENT REGULATIONS AT AN APPROVED SITE.
 - ACCURATE RECORDS WILL BE KEPT INDICATING THE DATE OF EACH INSPECTION, THE DEPTH OF SEDIMENT AND SAND DISCOLORATION, ANY ACTION TAKEN, AND THE AMOUNT AND DISPOSAL LOCATION OF ANY MATERIAL REMOVED FROM THE FACILITY.
 - HOWARD COUNTY RETAINS THE RIGHT TO INSPECT THE RECORDS OR FACILITY AT ANY TIME.



SECTION B-B

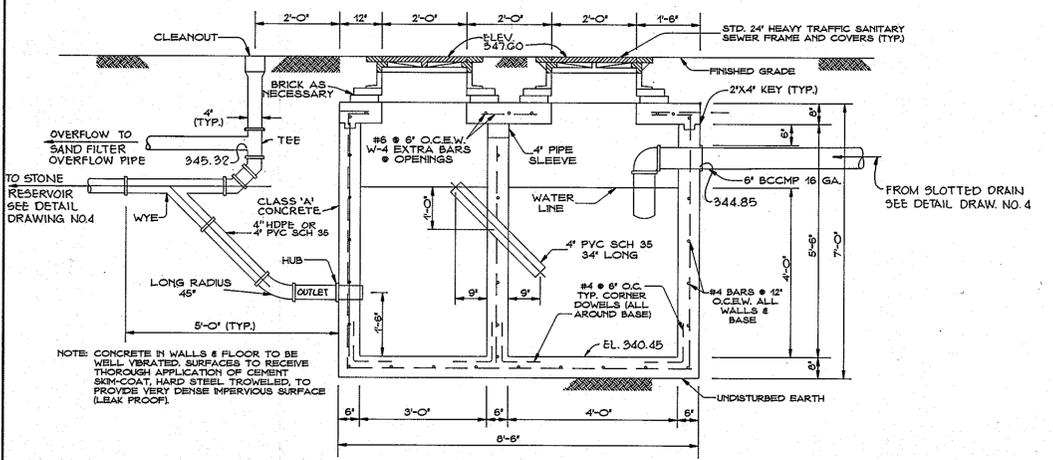


SECTION A-A

DETAILS OF WATER QUALITY #2

SCALE: 1"=1'

NOTE: WATER QUALITY CHAMBER TO BE PRECAST AS MANUFACTURED BY NATIONAL CONC. PRODUCTS GREENWOOD, DELAWARE 19950 OR FABRICATED ON SITE AS APPROVED BY THE ENGINEER.



MUD & GREASE TRAP DETAIL

SCALE: 1"=2'

ENGINEER: JOHN R. HEINRICHS 10-15-93 DATE

BY THE DEVELOPER:
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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."

DEVELOPER: DENIS ELLIS 11-10-93 DATE
COLUMBIA PARK AND RECREATION ASSOCIATION

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
John C. Robertson 8/18/95
HOWARD S.C.D. DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING
John D. ... 2/15/95 DATE
CHIEF, DEVELOPMENT ENGINEERING DIVISION
Quinn ... 8/18/95 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH- DATE
Janet ... 2/18/95 DATE
DIRECTOR

Date	No	Revision Description

OWNER/DEVELOPER
THE COLUMBIA PARK & RECREATION ASSOCIATION
10221 WINCOPIN CIRCLE, SUITE 100
COLUMBIA, MARYLAND 21044-3410
(410) 312-8330

PHOENIX ENGINEERING, INC.
CONSULTING ENGINEERS
817 MARYLAND DRIVE, SUITE 300
BALTIMORE, MARYLAND 21229
(410) 247-8833 FAX 247-8397

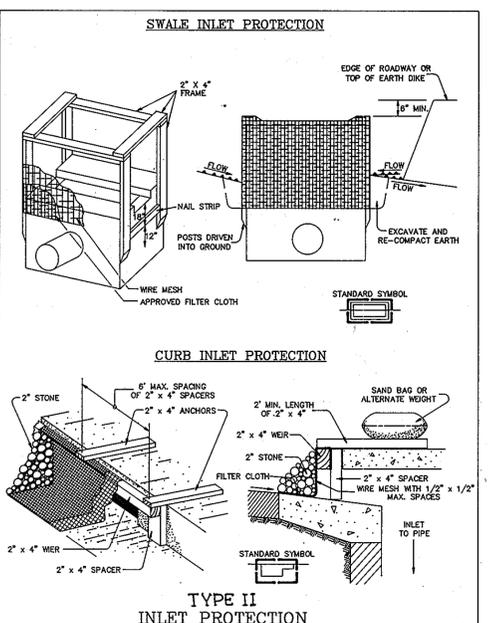
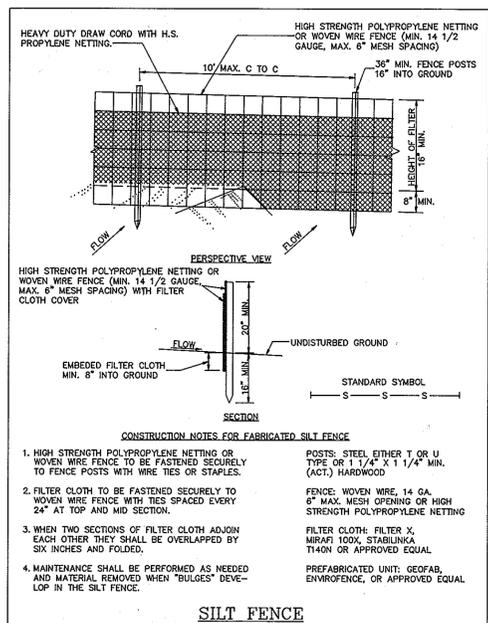
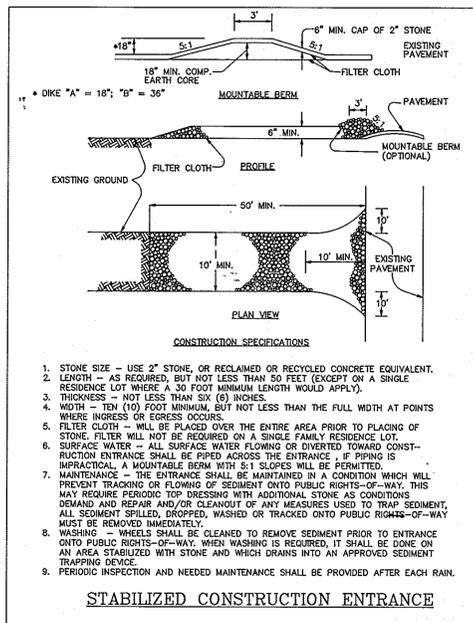
AREA: E.G.U. SUBDIVISION SECTION 2 AREA 3
PARCEL 386
8th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE: ADDITIONS TO THE COLUMBIA PARK AND RECREATION ASSOCIATION MAINTENANCE FACILITY
WATER QUALITY DETAILS

Des By: R.J.W. Scale: AS SHOWN Proj No: 83-0200 CERM0200
Dm By: A.J.R. Date: OCT, 1993 DRAWING NO:
Ck By: J.R.H. SDP-94-29 3 OF 2

10-15-93 Date

John R. Heinrichs
JOHN R. HEINRICHS
Professional Engr. No. 14920



INLET PROTECTION

I. MATERIALS

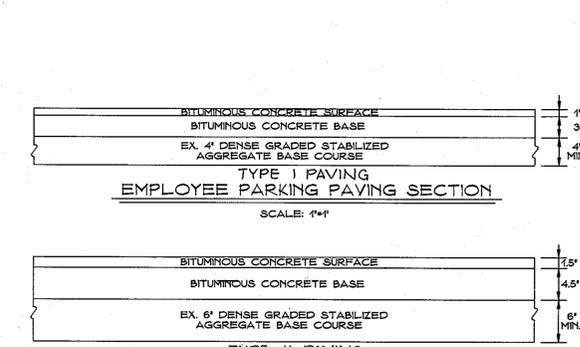
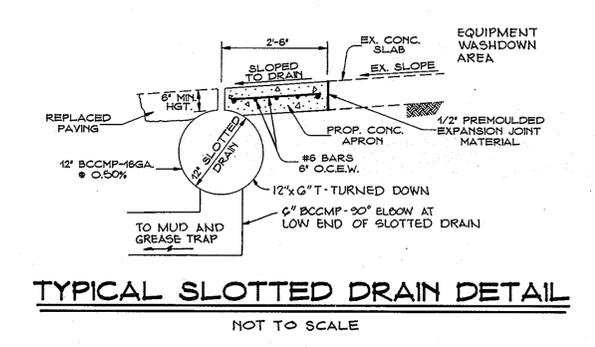
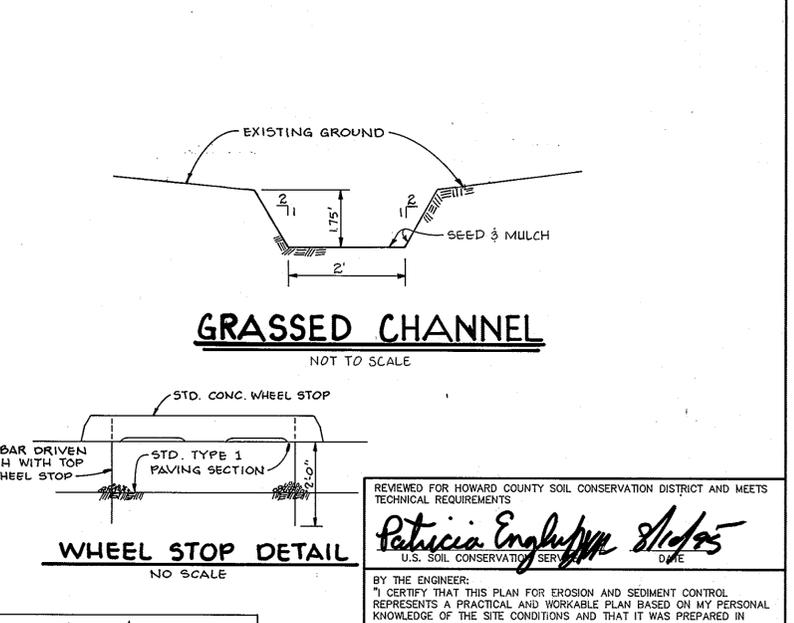
CONSTRUCTION SPECIFICATIONS

- WOODEN FRAME IS TO BE CONSTRUCTED OF 2" x 4" CONSTRUCTION GRADE LUMBER.
- WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC, AND STONE FOR CURB INLETS, WITH WATER FULLY IMPOUNDED AGAINST IT.
- FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE, RESISTANT TO SUNLIGHT WITH SIEVE SIZE, EGS, 40-80, TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDIMENT.
- STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH.

II. PROCEDURE

CURB INLET PROTECTION

- ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MIN. WIDTH BY THROAT LENGTH PLUS 4") TO THE 2" x 4" WEIR (MEASURING THROAT PLUS 2") AS SHOWN ON THE STANDARD DRAWING.
- PLACE A PIECE OF APPROVED FILTER CLOTH (40-80 SIEVE) OF THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WEIR AND SECURELY ATTACH TO THE 2" x 4" WEIR.
- SECURELY NAIL THE 2" x 4" WEIR TO 9" LONG VERTICAL SPACERS TO BE LOCATED BETWEEN THE WEIR AND THE INLET FACE (MAX. 6' APART).
- PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2' LENGTHS OF 2" x 4" TO THE TOP OF THE WEIR AT SPACER LOCATIONS). THESE 2" x 4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT.
- THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1' BEYOND BOTH ENDS OF THE THROAT OPENING.
- FORM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE GUTTER AND AGAINST THE FACE OF CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 2" STONE OVER THE WIRE MESH AND FILTER FABRIC IN SUCH A MANNER AS TO PERVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE FILTER CLOTH.
- THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.
- ASSURE THAT STORM FLOW DOES NOT BYPASS INLET BY INSTALLING TEMPORARY EARTH OR ASPHALT DIKES DIRECTING FLOW INTO INLET.



850 FINE SIGN

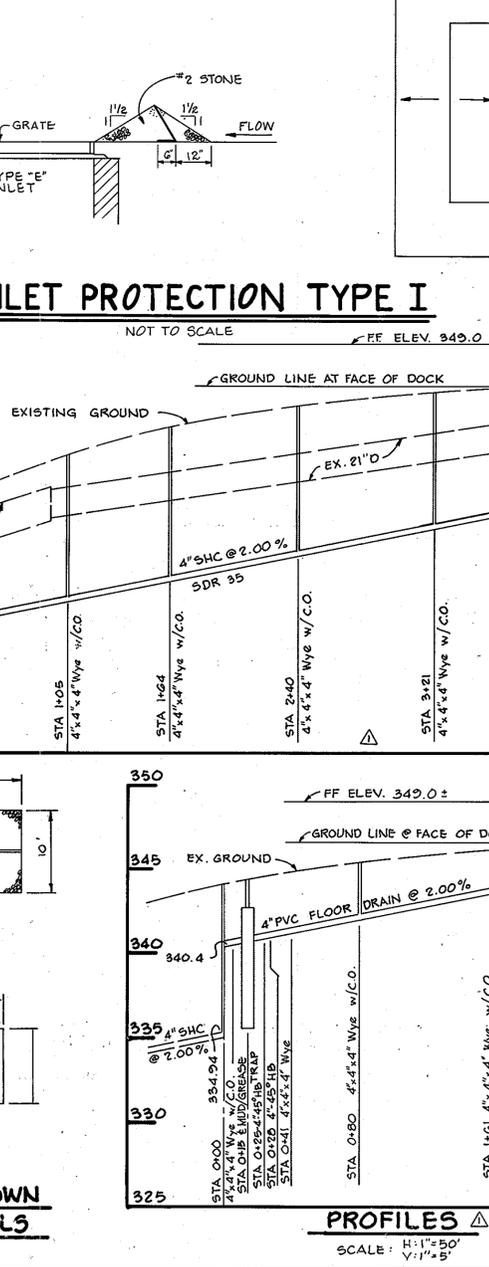
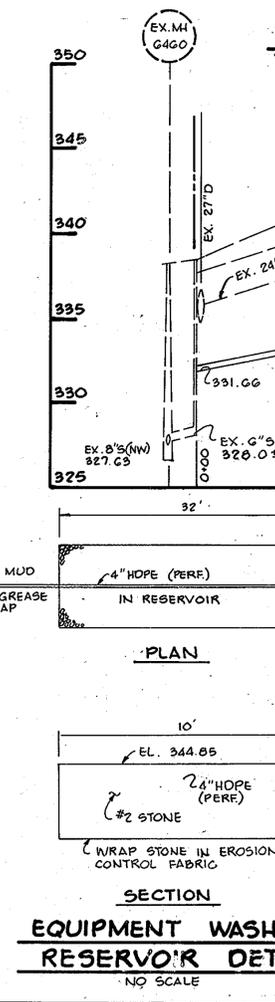
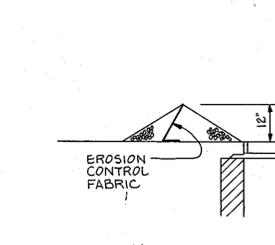
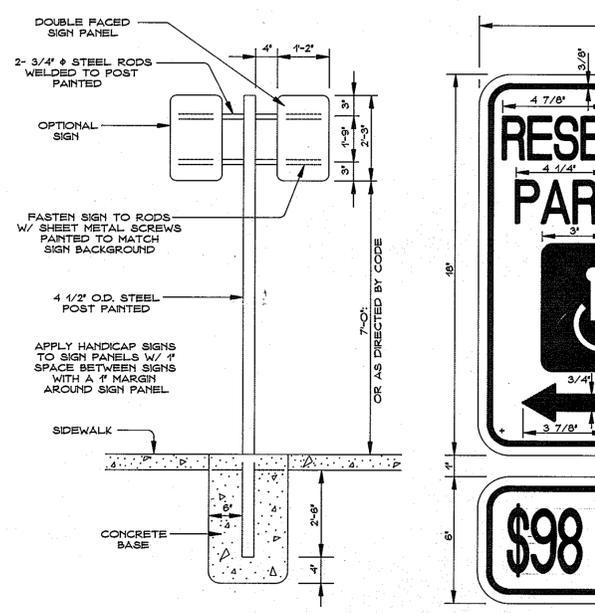
SIGN TO UTILIZE AN ALUMINUM BLANK 6X12X0.060 INCH THICK WITH TWO SINGLE POST MOUNTING HOLES.

THE TEXT AND BORDER SHALL BE STANDARD GREEN TO MATCH THAT ON R-7-8 AND THE BACKGROUND SHALL BE REFLECTIVE WHITE. TEXT SHALL BE IN 3" CHARACTERS.

SIGN SHALL BE MOUNTED DIRECTLY BELOW THE STANDARD R-7-8 RESERVED PARKING SIGN. ITS BOTTOM EDGE SHALL BE NO LESS THAN 7 FEET ABOVE GROUND. IF THE SIGN IS PLACED AGAINST A BUILDING, STRUCTURE, OR OTHER LOCATION WHERE VEHICLE OR PEDESTRIAN TRAFFIC IS NOT OBSTRUCTED THE BOTTOM EDGE OF SIGN SHALL BE AT LEAST 6 FEET BUT NOT MORE THAN 10 FEET ABOVE GROUND.

COLORS

LEGEND AND BORDER - GREEN
 WHITE SYMBOL ON BLUE BACKGROUND
 BACKGROUND - WHITE



REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

Patricia Englund 8/18/95 DATE

BY THE ENGINEER:

John R. Heinrichs 10-15-93 DATE

ENGINEER: JOHN R. HEINRICHS, P.E. 14920

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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.

Denis Ellis 10-11-93 DATE

DEVELOPER: DENIS ELLIS
 COLUMBIA PARK AND RECREATION ASSOCIATION

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

John R. Heinrichs 8/18/95 DATE

HOWARD S.C.D.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

John R. Heinrichs 8/18/95 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION

John R. Heinrichs 8/18/95 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH - DATE

John R. Heinrichs 8/18/95 DATE

DIRECTOR

10-1-99	ADD	ADDED 9HC AND FLOOR DRAIN PROFILES
Date	No	Revision Description

OWNER/DEVELOPER

THE COLUMBIA PARK & RECREATION ASSOCIATION

10221 WINCOPIN CIRCLE, SUITE 100
 COLUMBIA, MARYLAND 21044-3410
 (410) 312-8330

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 817 MADISON CHURCH LANE, SUITE 300
 BALTIMORE, MARYLAND 21228
 (410) 247-0823 FAX 247-0297

AREA: E.G.U. SUBDIVISION SECTION 2 AREA 3
 PARCEL 386

8th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE ADDITIONS TO THE COLUMBIA PARK AND RECREATION ASSOCIATIONS MAINTENANCE FACILITY
 MISCELLANEOUS
 DETAILS

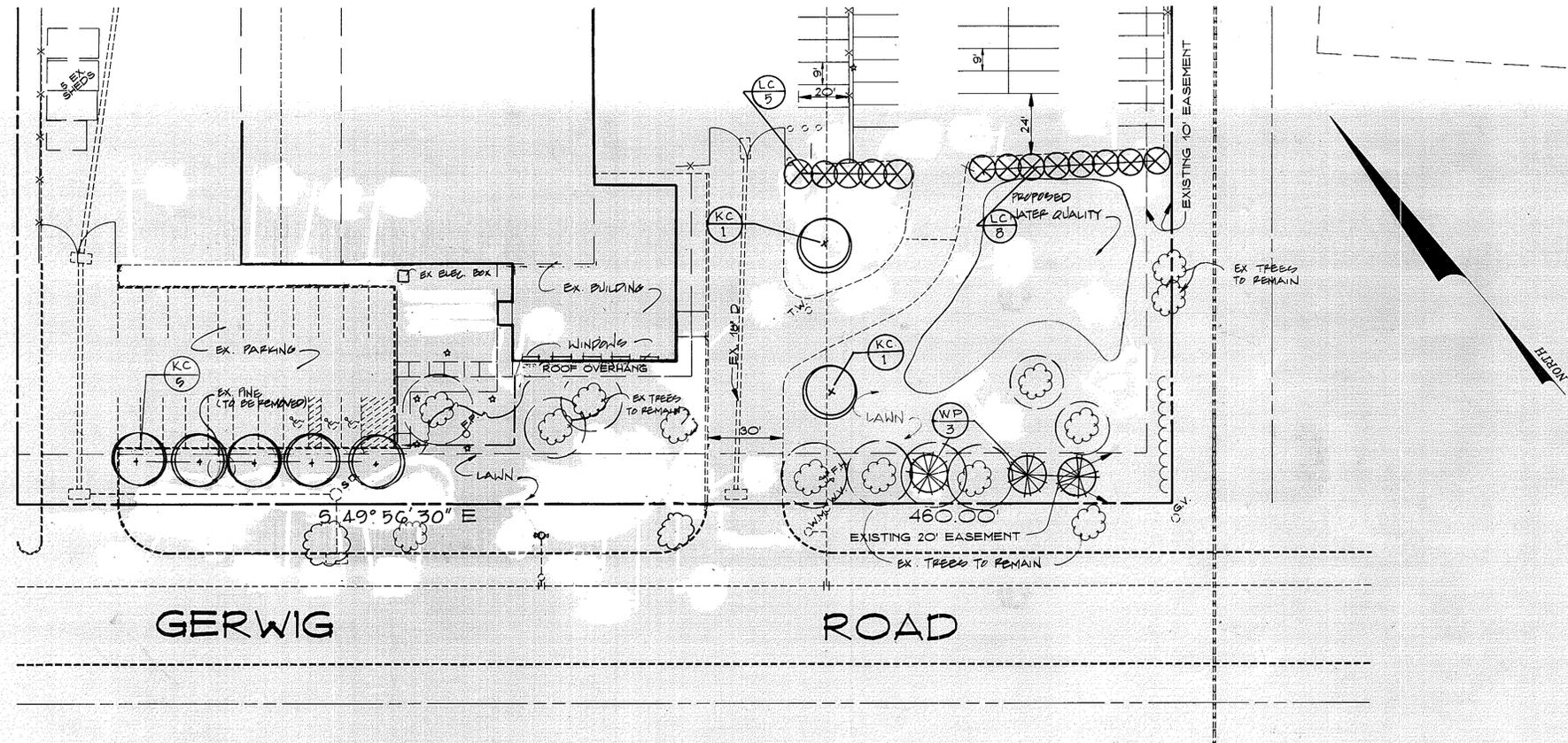
Des By: R.J.W. Scale: AS SHOWN Proj No: 93-0200 08/NOV/1993
 Dm By: A.J.R. Date: NOV,1993 DRAWING NO:
 Ck By: J.R.H. SPP-94-G-9 4 OF 9

JOHN R. HEINRICHS
 Professional Engr. No. 14920

SDP 94-69

PLANT LIST

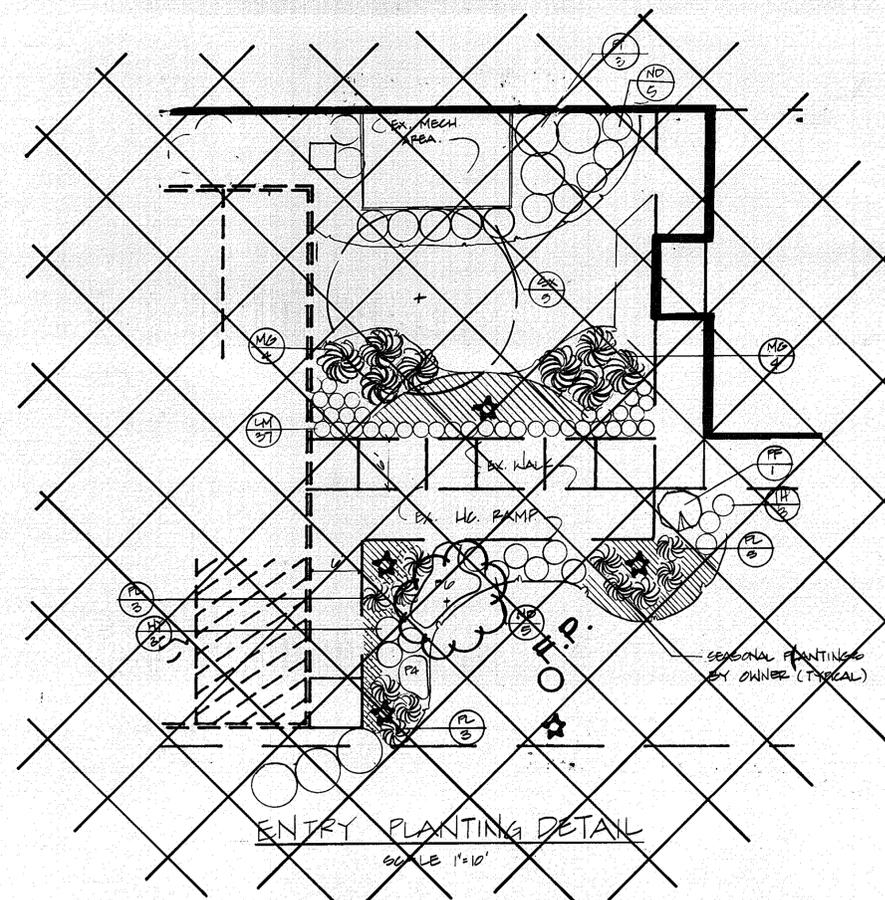
KEY	APPROX. QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	COND.	REMARK
CK	2	CORNUS ROSEA	CHINESE DOGWOOD	10'-8"	B+B	
EA	3	ELONIMUS ADATUS COMPACTUS	DWARF KINCOED ELONIMUS	24'-30"	B+B	
JA	10	JUNIPERUS HORIZONTALIS 'PLUMBER'	ANDROMEDA JUNIPER	5' GAL	CONT.	
JH	24	JUNIPERUS HORIZONTALIS 'KILTONI'	WILTONI JUNIPER	5'-16"	CONT.	
MA	3	MAHONIA AQUIFOLIUM	ORANGE GRAPE HULLY	2 1/2'	CONT.	
NP	10	NANDINA DOMESTICA GOLF STREAM	GOLF STREAM NANDINA	12-18"	CONT.	
PF	4	PHOXINIA READER	FRAGRANT PHOXINIA	5' GAL	CONT.	
PA	3	PICEA ABIES	NORWAY SPRUCE	1'-7"	B+B	
PJ	3	PICEA JAPONICA	JAPANESE ANDROMEDA	24'-30"	B+B	
P	6	PINUS STROBUS	WHITE PINE	1'-7"	B+B	
PS	3	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	1'-2 1/2'	B+B	
PL	36	PENNISTEMUM ALOPECUROIDES	MOUNTAIN GRASS	2' GAL	CONT.	
SP	5	SPICEA X BUXALDA 'ANTHONY WATERER'	ANTHONY WATERER SPICEA	10-24"	CONT.	
VP	6	VIBURNUM CARLESII	KOREAN SPICE VIBURNUM	24'-30"	B+B	
CH	13	CHINA CORNUTA X PUNICATA 'CHINA GAY'	CHINA GAY HOLLY	5' GAL	CONT.	
LM	27	LIRIODIE MUGLARI	GREEN LIRADIE	1' GAL	CONT.	
LS	7	LOBELIA GELONA	PAMPAS GRASS	5' GAL	CONT.	
MG	30	MICROSTICHUS SINENSIS BRACILLIMUS	MALDEN GRASS	5' GAL	CONT.	
HL	-	HEMEROCALLIS	DAY LILY	1' GAL	CONT.	
WF	3	PINUS STROBUS	WHITE PINE	6'-8'	B+B	
KC	7	PRUNUS SERRULATA 'KWANZAN'	KWANZAN CHERRY	2'-2 1/2'	B+B	
LC	13	CUPRESSOCYPARIS LEYLANDII	LEYLAND CYPRESS	6'-8'	B+B	



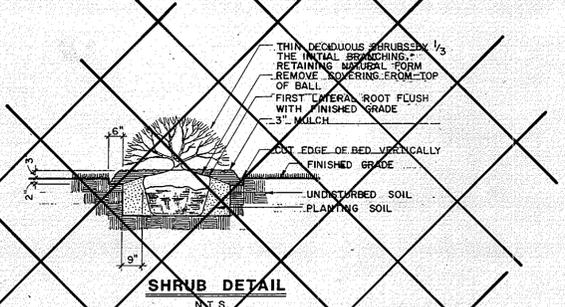
GERWIG ROAD

LANDSCAPE PLAN

SCALE: 1" = 30'



ENTRY PLANTING DETAIL
SCALE 1"=10'



SHRUB DETAIL
N.T.S.

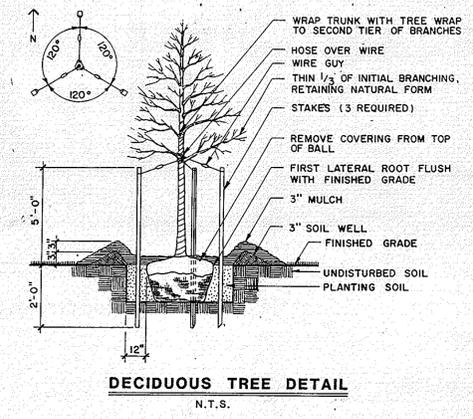
NOTE: FOR USE ONLY WHEN PLANTS ARE SPACED EQUIDISTANT FROM EACH OTHER AS SHOWN AND SPECIFIED IN THE PLANT LIST.

SPACING "O.C."	ROW "A"	NO. OF PLANTS / S.F.
6" O.C.	5.20'	4.61
8" O.C.	6.93'	2.60
10" O.C.	8.66'	1.66
12" O.C.	10.40'	1.15
15" O.C.	13.00'	.78
18" O.C.	15.60'	.52
24" O.C.	20.80'	.29
30" O.C.	26.00'	.19
36" O.C.	30.00'	.12

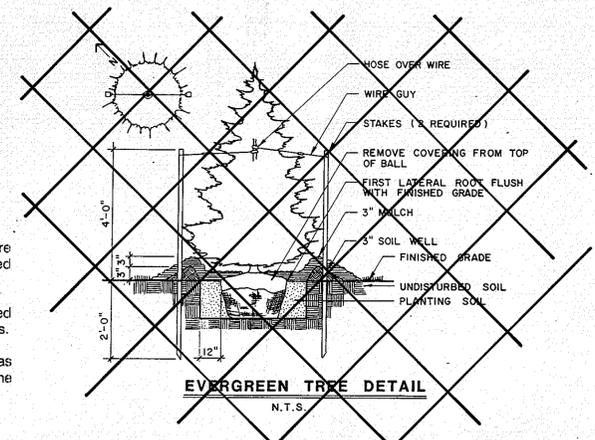
PLANT SPACING CHART

PLANTING PLAN GENERAL NOTES

- Quantities of trees, evergreens, and shrubs, when noted on the plant list, are approximate. The Contractor shall make his own determination of required quantities based upon the graphic symbols shown on the Drawings.
- Contact Landscape Architect if a difference is found between the quantities noted in the plant list and the symbol count of plant materials shown on the Drawings.
- Groundcover, bulb, perennials and/or annuals, and vine quantities shall be as noted in the plant list regardless of the number of graphic symbols shown on the Drawings.



DECIDUOUS TREE DETAIL
N.T.S.



EVERGREEN TREE DETAIL
N.T.S.

2.08 LANDSCAPE REVISED
10/15/93
Date



JOHN R. HEINRICHS
Professional Engr. No. 14920

APPROVED: DEPARTMENT OF PLANNING AND ZONING
John Dammmer 8/15/95
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE
Jim Shimmansky 8/18/95
 CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE
David V. Mungell 8/18/95
 DIRECTOR DATE

10-1-98 REVISED PLANT TYPES AND QUANTITIES
 Date No. Revision Description

OWNER/DEVELOPER
THE COLUMBIA PARK & RECREATION ASSOCIATION
 10221 WINCOPIN CIRCLE, SUITE 100
 COLUMBIA, MARYLAND 21044-3410
 (410) 312-8330

PHOENIX ENGINEERING, INC.
 CONSULTING ENGINEERS
 817 HAZEN CIRCLE, SUITE 300
 BALTIMORE, MARYLAND 21202
 (410) 247-8830 FAX 247-8397

AREA E.G.U. SUBDIVISION SECTION 2 AREA 3
 PARCEL 386
 8th ELECTION DISTRICT OF HOWARD COUNTY, MARYLAND

TITLE ADDITIONS TO THE COLUMBIA PARK AND RECREATION ASSOCIATION'S MAINTENANCE FACILITY
LANDSCAPING PLAN

Des By R.J.W. Scale AS SHOWN Proj No 83-0200 02/02/93
 Dm By A.J.R. Date OCT. 1993 DRAWING NO
 Chk By J.R.H. SDP-94-03 5 OF 9

SDP 94-69

