GATEWAY COMMERCE CENTER WAREHOUSE

PHASE I, II AND III EAST

PARCEL A-40
HOWARD COUNTY, MARYLAND

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
PARCEL A-40	8700 ROBERT FULTON DRIVE

PERMIT INFORMATION CHART

SUBDIVISION NAME			SECTION/AREA		PARCEL #
GATEWAY COMMERCE CENTER			N/A		PARCEL A-40
PLAT # OR L/F	BLOCK #	ZONE	TAX/ZONE MAP	ELECT. DIST	CENSUS TRACT
12119-12121	24	M-1	42	SIXTH (6TH)	6067.03
WATER CODE			SEWER CODE		
E06			4400000		

I 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 DISTRICT.

1/6/97
1/2/97
SIGNATURE OF DEVELOPER — DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

HOWARD SOIL CONSERVATION DISTRICT — 1/9/97 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

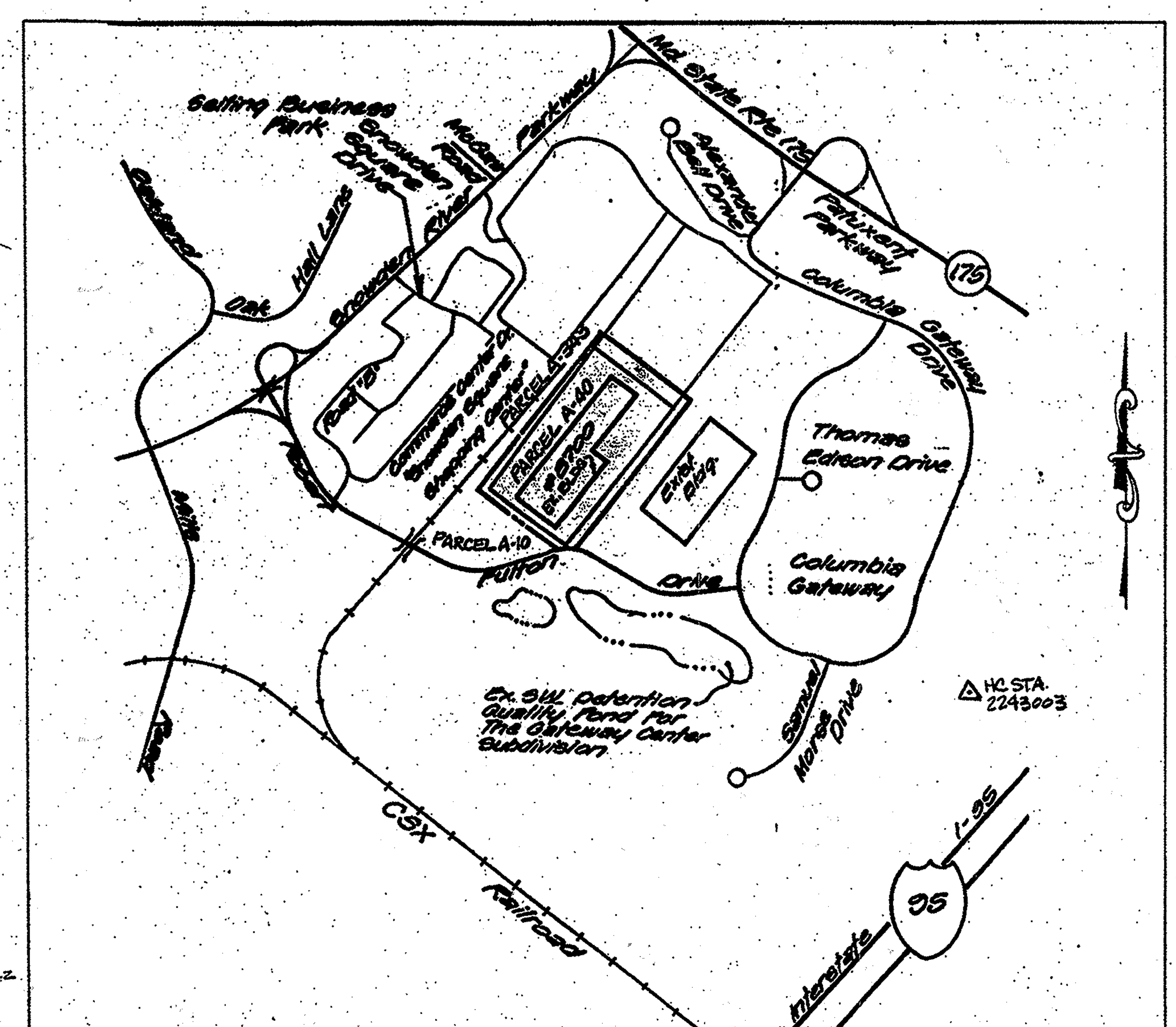
USDA-NATURAL RESOURCES CONSERVATION SERVICE — 01-09-97 DATE

APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — 1/13/97 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT [redacted] — 1/16/97 DATE

DIRECTOR — 1/16/97 DATE



Vicinity Map
SCALE: 1"=2000'

SHEET INDEX

1. COVER SHEET
2. SITE PLAN
3. SITE PLAN
3A. SITE PLAN
4. EROSION AND SEDIMENT CONTROL PLAN
5. EROSION AND SEDIMENT CONTROL PLAN
6. EROSION AND SEDIMENT CONTROL NOTES AND DETAILS/CONSTRUCTION DETAILS
7. EROSION AND SEDIMENT CONTROL NOTES AND DETAILS/CONSTRUCTION DETAILS
8. LANDSCAPE PLAN
9. LANDSCAPE PLAN
10. LANDSCAPE DETAIL SHEET
11. STORM DRAIN PROFILES
12. STORM DRAIN PROFILES
13. MISCELLANEOUS DETAILS AND COUNTY REQUIREMENTS
14. SECTIONS AND DETAILS, DESIGN SPECIFICATIONS

GENERAL NOTES

1. THE PROPERTY IS LOCATED ON TAX MAP 42 AS PARCEL A-40.
2. THE LOCATION OF EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. CONTRACTOR SHALL VERIFY THE EXISTING VERTICAL AND HORIZONTAL LOCATIONS. NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO BEGINNING WORK.
3. THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN THE SCALED AND FIGURED DIMENSIONS SHOWN ON THESE PLANS. THE FIGURED DIMENSIONS SHALL GOVERN.
4. ALL WATER AND SEWER SHOWN ON THIS SITE IS PART OF A PRIVATE SYSTEM. THIS PROJECT IS LOCATED WITHIN THE METROPOLITAN DISTRICT.
5. THERE ARE NO CONTIGUOUS SLOPES OF 25% OR GREATER WHICH ARE GREATER THAN 20,000 SQ. FT. IN THE AREA.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
7. TRAFFIC CONTROL DEVICES, MARKINGS 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.
8. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 2243002 & 3003 WERE USED FOR THIS PROJECT.
9. STORMWATER MANAGEMENT AND WATER QUALITY FOR THE ENTIRE SITE ARE PROVIDED IN AN EXISTING STORMWATER MANAGEMENT POND CONSTRUCTED BY GENERAL ELECTRIC (GE) IN 1970. A REPORT CONFIRMING THE STORMWATER QUALITY/QUANTITY CAPABILITIES OF THE EX. FACILITY TO SERVE THE SITE, WAS PREPARED BY WHITMAN, REQUARDT, AND ASSOCIATES AND APPROVED BY HOWARD COUNTY IN 1995.
10. EXISTING ZONING IS M-1. PROPOSED USE IS WAREHOUSE STORAGE.
11. PARCEL DESIGNATION, PROPERTY LINES WITH BEARING AND DISTANCES WERE OBTAINED FROM SPECIAL PURPOSE SURVEY/SETTLEMENT SURVEY PREPARED BY GUTSCHICK, LITTLE AND WEBER, P.A., BURTONSVILLE, MD.
12. EXISTING TOPOGRAPHY AND PROPOSED TOPOGRAPHY SHOWN AT 1-FOOT INTERVALS. TOPOGRAPHIC INFORMATION SUPPLIED BY MEANS OF FIELD VERIFICATION. ASBUILT ELEVATIONS OF EXISTING UTILITIES WERE SUPPLIED BY GLW.
13. THERE ARE NO 100-YEAR FLOODPLAINS OF RECORD WITHIN THE PROPOSED PARCEL.
14. THE EXISTING WAREHOUSE AND ASSOCIATED PAVING EXPANSIONS ARE EXEMPT FROM THE WOODLAND CONSERVATION REQUIREMENTS BASED ON THE FOLLOWING: SUBTITLE 12 SECTION 16.1202.(B)(1)(iii) AND SUBTITLE 12 SECTION 16.1201.(B)(1)(iv).
16. THERE ARE NO WETLANDS, STREAMS, OR STREAM BUFFERS EXISTING ON-SITE.
17. ALL PAVING SHALL BE ASPHALT PAVING WITHOUT CURB AND GUTTER UNLESS OTHERWISE NOTED.
18. THE APPROXIMATE BUILDING AGE IS 20 YEARS.
19. A TRAFFIC STUDY AND ADEQUATE ROAD FACILITIES PURSUANT TO SUBTITLE 11 "ADEQUATE PUBLIC FACILITIES" ARE NOT REQUIRED FOR THIS PROPOSED SITE DEVELOPMENT.

(8) The limit of disturbance for Rev. #8 equals 1,600 sf.
(9) Rev #9 equals 180 sf.
total L.O.D = 1,780 sf.

Century Eng Inc. for Rev. #8 & 9 only

12/14/01
Note: This signature & seal is for revision #4 only

GATEWAY PARKING TABULATION
REVISED 4/28/97
PARKING REQUIREMENT - 0.5 SPACE FOR 1000 FT²
BUILDING TOTAL 725,650 FT²
PARKING REQUIRED - 362.8
PARKING PROVIDED - 420 CAR SPACES
(ENTIRE SITE) 73 LOADING SPACES
62 TRACTOR SPACES
154 TRAILER SPACES
HANDICAP PARKING REQ. - 9 HC SPACES (1 VAN SPACE)
HANDICAP PARKING PROV.:
4 HC SPACES FOR REVLON (PROP) (1 VAN)
2 HC SPACES FOR COSTCO (PROP) (1 VAN)
1 HC SPACE FOR U.S. STORAGE (PROP.)
2 HC SPACES FOR GIANT (EXIST)
9 HC SPACES TOTAL

RESOURCE LIST:

DEVELOPMENT ENGINEERING DIVISION
MR. CHARLES DAMMERS, P.E.
CHIEF, DEVELOPMENT ENGINEERING DIVISION
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043
(410) 313-3364

DEPARTMENT OF PLANNING AND ZONING
MR. RICHARD BLOOD
ACTING CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043
(410) 313-2393

DEPARTMENT OF INSPECTIONS LICENSE AND PERMITS
MR. DAVID KREBS
CHIEF, PLAN REVIEW DIVISION
3430 COURT HOUSE DRIVE
ELLICOTT CITY, MARYLAND 21043
(410) 313-2436

4/19/12
FOR REV 7 ONLY

NOTIFY "MISS UTILITY" AT
1-800-257-7777
FOR UTILITY LOCATION
48 HOURS PRIOR TO ANY
CONSTRUCTION OR EXCAVATION

PARKING ANALYSIS

The Zoning Ordinance requires 0.5 space per 1000 sq. Ft. of building OR 1 space per employee. As this site is storage warehouse, the number of actual employees working within the building is minimal. The total number of parking spaces provided on this site plan is 349 which we believe will exceed 1 space for employee for the overall building. NO MORE THAN 349 EMPLOYEES will be ON SITE AT ONE TIME without Additional PARKING BEING PROVIDED.

SITE DATA

	SQUARE FEET	ACRES	PERCENTAGE
GROSS SITE	2,121,362	48.7	100%
PROPOSED USE:	WAREHOUSE STORAGE		
BUILDING:			
• PHASE ONE	±240,000 (EXISTING)		
• PHASE TWO	±155,650 (EXISTING)		
• PHASE THREE	330,000 (210,150 sq. Ft. EXISTING) (119,850 sq. Ft. PROPOSED)		
TOTAL (PROPOSED/EXISTING) GFA	725,650		
(8) • Phase Four (gaurdhouse)	100 *		
(9) • Phase Four (security trailer)	100 *		
STRUCTURAL COVERAGE	725,650	16.7	34%
PROPOSED PAVED AREA	766,836	17.6	36%
PROPOSED OPEN SPACE	627,084	14.4	30%

* gaurdhouse/security trailer not added to warehouse storage s.f. calculation

GENERAL NOTES

1. Plat reference 12119-12121 recorded April 11, 1996.
2. The proposed use of the existing building and proposed addition is warehouse storage.
3. All existing utilities on this site are private unless otherwise noted.
4. Dumpster locations are shown in their approximate locations. Final placement will be contingent on truck loading door locations and tenant requirements.
5. This plan follows Rough Grading Plan WP-97-44 which was approved on 11/12/96 and the Site Development Plan SDP 96-118 which was approved on 6/19/96. All existing information shown on the west side of the site is per the improvements shown on SDP 96-118.
6. Test Pit Note. Horizontal and vertical locations of existing utilities are to be determined via test pits by the contractor and/or others.
7. The Contractor or Developer shall contact the Construction Inspection Division 24 hours in advance of commencement of work at (410)313-1880.
8. Representatives of BG&E field located the vertical elevation of the electrical duct bank; at each electrical manhole. The depth is noted at each manhole. The depth at each manhole was not consistent and suggests that the cover over the duct bank varies between manholes. The contractor must verify the vertical and horizontal locations at each utility crossing. The elevations of the duct bank shown on the storm drain profiles are approximate and were calculated using the elevation of the duct bank at the closest manhole for graphical purposes only.

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
MR. OLAV KOLLEVOLL
(703) 847-5270

NOTE: PLAT REFERENCE 12119-12121, RECORDED APRIL 11, 1996. REVISION TO PREVIOUSLY APPROVED SDP-96-118 TO INCLUDE THE REGRADING THE EAST SIDE OF THE SITE, PHASE I, II, AND III, THE ADDITION OF 120,000 SQ. FT. BUILDING TO PHASE III AND ENLARGE THE BERM AREA ON THE WEST SIDE OF THE SITE

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING — LAND PLANNING — LAND SURVEYING — ENVIRONMENTAL STUDIES
15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 698-1240, Metro (301) 831-4544

Designed	KLM
Drafted	MAM
Checked	RAP
Proj. Eng.	RAP
OFFICE	LANHAM
DATE	DEC. 1996

NO.	REVISIONS	BY	DATE
9	Add security trailer	CEI	12/2/15
8	add gaurdhouse & fence	CEI	8/7/15
7	ADDITIONAL PARKING ADDED	PCR	4/9/12
4	REVISED PER REDLINE REVISION FOR SEARS	MR	12/14/01
3	REVISED PER REDLINE TO PRICE COSTCO	KM	9/18/97
2	REVISED PER APPROVED REDLINE	MAM	5/1/97
1	REVISED PER HC COMMENTS	KM	12/8/97

COVER SHEET

R.A. Peterson 1/3/97

GATEWAY COMMERCE CENTER
PARCEL A-40
TAX MAP 42
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 1 OF 14 SHEETS
JOB NO. 801-04-01

SDP-97-42

F:\HOME\PROJ\801-04\COVER Mon Apr 22 14:22:57 1996 LOIEDERMAN ASSOCIATES, INC. Lanham BEB

24-36/0183

MATCH LINE SEE SHEET 3 OF 14

PARCEL 'A-16'
PLAT Nos. 10542
& 10543

L. 2691 F. 429

PROPOSED PARCEL "A-43"

PARCEL A-43
PLAT #12120

EX. ASPHALT DRIVE

PROPOSED EDGE OF PAVING

REMOVE EXISTING RETAINING WALLS AND FILL TO SURROUNDING GRADE

1 HC VAN SPACE
8'x18' W/8' STRIPED AISLE
3 REG. HANDICAP SPACE
8'x18' W/10' STRIPED AISLE

REVISED MAIN ENTRANCE

EXISTING BUILDING HEIGHT 60'±

EXISTING STEEL FRAME BUILDING
W/ CONCRETE AND ALUMINUM VENEER
F.F. ELEV.=358.00

PHASE TWO
PHASE ONE

EXISTING BUILDING HEIGHT 30'±

BITUMINOUS CURB

3' LANDSCAPE BED FROM FACE OF BUILDING

5' SIDEWALK

REMOVE EXISTING RETAINING WALLS AND FILL TO SURROUNDING GRADE

5'x5' CONC. PAD AT EXIT DOOR

EXISTING EDGE OF PAVEMENT

NOTE: PLAT REFERENCE 12119-1212, RECORDED APRIL 11, 1996 REVISION TO PREVIOUSLY APPROVED SDP-96-118 TO INCLUDE THE REGRADING OF THE EAST SIDE OF THE SITE. PHASE I, II, AND III. THE ADDITION OF A 120,000 SQ. FT. BUILDING TO PHASE III AND THE ENLARGEMENT OF THE BERM AREA ON THE WEST SIDE OF THE SITE.

STRUCTURE	PROP. TOP	EX. TOP	REMARKS
EX. MH 26	353.70	357.71	
EX. MH 25	353.70	357.55	
EX. MH 24	353.70	355.95	
EX. MH 23	353.70	356.84	
MH 22	352.50	------	
EX. I 21	348.40	354.37	GRATE W=4.0', L=4.0'
EX. MH 17	353.70	357.00±	SURVEY NOTES INDICATE COVERED
I 16	349.00	------	GRATE W=4.0', L=4.0'
EX. MH 14	353.85	357.67	
I 13	349.50	------	GRATE W=2.5', L=2.5'
EX. MH 12	355.00	357.63	
MH 11		356.00	TOP TO REMAIN UNCHANGED
EX. I 15	TOP TO REMAIN UNCHANGED		
EX. I 20	TOP TO REMAIN 348.40		GRATE W=4.0', L=4.0'
EX. I 19	TOP TO REMAIN UNCHANGED		
EX. I 98	TOP TO BE PLUGGED AND COVERED WITH PROPOSED GRADE		
EX. I 97	TOP TO REMAIN UNCHANGED		
EX. I 100	TOP TO REMAIN UNCHANGED		
EX. I 99	TOP TO REMAIN UNCHANGED		
EX. MH 96	TOP TO REMAIN UNCHANGED		
EX. MH 95	TOP TO REMAIN UNCHANGED		
EX. I 101	TOP TO REMAIN UNCHANGED		

EXISTING BUILDING HEIGHT 57'±

LOADING AREAS

DOCK DOOR LOCATIONS (TYP.)

EXISTING EDGE OF PAVEMENT

EX. SHED TO REMAIN

TYP. RET. WALL NOT CONST.

BUILDING HEIGHT 22'±

75.0'

5'x5' CONC. PADS AT EXIT DOORS

5'x5' CONC. PAD AT BASE OF STEPS

PROP. STAIRWAY

384.5'

RET. WALL

EX. PRIVATE ASPHALT DRIVE

16" FIRE MAIN

N 55°00'52" W 930.23'

NOTE: BERM GRADING IS SHOWN AS 2 FOOT CONTOURS ABOVE 358.

STABILIZE BERM WITH CROWN VETCH

Δ = 38°30'46"
R = 375.00'
L = 252.07'
Chd. = 247.35'
Chd.Brg. = N 74°16'15" W

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — 1/13/97 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/16/97 DATE

DIRECTOR — 1/16/97 DATE

GATEWAY COMMERCE CENTER PARCEL 'A-10' PLAT No. 10390

NOTES:
1. EXISTING STREET LIGHT HEADS WILL BE ROTATED TO FACE THE BUILDING.
2. TREES PLANTED IN THE INTERIOR PARKING ISLANDS WILL BE SPECIFIED AS BRADFORD PEARS ON THE LANDSCAPE PLAN UNLESS OTHERWISE NOTED.

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

NOTES:
1. VERTICAL AND HORIZONTAL LOCATIONS OF THE ELECT. DUCT BANK ARE KNOWN ONLY AT THE BG&E MANHOLES. CONTRACTOR TO VERIFY BOTH IN THE ACTUAL LOCATIONS OF THE UTILITY CROSSINGS PRIOR TO CONSTRUCTION.
2. THE VERTICAL LOCATION OF THE FIRE MAINS AND SANITARY SEWER ARE NOT KNOWN. CONTRACTOR TO VERIFY PRIOR TO CONST.
3. ALL WATERMAINS, SAN. SEWER LINES AND STORM DRAINS ARE PRIVATE UNLESS NOTED OTHERWISE.
4. ALL RELOCATED FIRE HYDRANTS MUST BE UPGRADED TO HOWARD COUNTY STANDARD HYDRANTS. THE RELOCATION MUST BE CO-ORDINATED WITH THE EXISTING USERS OF THE FIRE SYSTEM.
5. ALL VALVES CONNECTING THE FIRE HYDRANT LEADS TO THE 16" FIRE LINE MUST BE CHECKED AND REPLACED IF DETERIORATED OR INOPERABLE.

LEGEND:
- BLOCK HEATER
- PROP. STORM DRAIN
- CONC. PAVING
- 351 PROP. CONTOUR
- 351 EXIST. CONTOUR
- EXIST. STRUCTURE
- PROP. TEST PIT
- DOCK DOOR

*MAINTAIN 4' OF COVER OVER ALL WATER MAINS AND FIRE MAINS. ALL FIREMAINS ARE PRIVATE. MATCH EXISTING W/M MATERIAL

COLUMBIA GATEWAY
PARCEL 'I'
PLAT Nos. 6812
& 6813
ZONED M-1

S 35°00'00" W 1635.29'

6' CHAIN LINK RUNNING W/ LINE

ROBERT FULTON DRIVE
(80' R/W)
PLAT No. 10390

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING LAND PLANNING LAND SURVEYING
ENVIRONMENTAL STUDIES
15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	DWL
Drafted	MAM
Checked	KLM
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	12/9/96

NO.	REVISIONS	BY	DATE
7	ADDITIONAL PARKING ADDED	PCR	4/9/12
5	REVISED BERM PER ROUSE CO. COMMENTS	MAM	12/12/97
4	REVISED PER REDLINE FOR SEC. BOOTH	MAM	10/1/97
3	REVISED PER REDLINE TO PROVE COSTCO	KM	9/18/97
2	REVISED PER APPROVED REDLINE 4/30/97	KM	5/1/97
1	REVISED PER HOWARD COUNTY COMMENTS	KM	12/8/96

4/19/12 FOR REV. TONLY

SITE PLAN

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

SCALE	1"=50'
SHEET	2 OF 14 SHEETS
JOB NO.	801-04

SDP-97-42

24-26-0183

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/13/97

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/16/97

DIRECTOR — DATE 1/16/97

OWNER
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8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

STATE OF MARYLAND — CHRISTOPHER M. ROSE — No. 21662 — REGISTERED PROFESSIONAL ENGINEER

Century Engr. Inc.
For rev. #8 & #9 only

HOWARD RESEARCH & DEVELOPMENT GROUP
PARCEL 'A-43'
ZONED M-1

S 55°00'00" E 1263.69'

1" O.E.P. FOUND

COLUMBIA GATEWAY
OPEN SPACE LOT 6
PLAT No. 6773

ADJUST ALL ELECTRICAL MANHOLES TO GRADE

N 35°00'00" W 1635.29'

MATCH EXISTING EDGE OF PAVEMENT

** SEE EROSION AND SEDIMENT CONTROL SHEET FOR DITCH TREATMENT.

COLUMBIA GATEWAY
PARCEL 'L'
PLAT Nos. 6812 & 6813
ZONED M-1

S 35°00'00" W

ELIMINATE EXISTING DRIVEWAY APPRON

PARCEL 'A-43'
ZONED M-1

EXISTING UTILITIES BUILDING

EXISTING 2 STORY CONC. & STEEL FRAME W/ GLASS VENEER BUILDING HEIGHT 60'±

EXISTING BUILDING HEIGHT 32'±

EXISTING BUILDING HEIGHT 70'±

EXISTING BUILDING HEIGHT 30'±

PROPOSED 119,850 SQ. FT. BLDG.
F.F. ELEV. = 358.00

BUILDING HEIGHT 30'±

PARCEL "A-40"
F.F. ELEV. = 358.00

PHASE THREE

PHASE TWO

PAVING CASE 1 LIMITS

PAVING CASE 2 LIMITS

PAVING CASE 3

HC ENTRANCE

ENTRANCE

ACCESS DRIVE

Prop. Security Trailer 8'x 20' FF= 357.5

Prop. Guard House 8'x 20' FF= 359.0

82 Car Parking Spaces (9.5 x 18) Typ.

38 Car Parking Spaces (9.5x18 Typ.)

62 Tractor Parking Spaces (11x20 Typ.)

100 Trailer Parking Spaces (10 x 45 Typ.)

DUMPSTER LOCATION (10'x30')

8' CONC. PAD

PROP. 10'x10' TRANSFORMER PAD

REPLACE EXISTING MH TOP WITH 2.5'x2.5' GRATE AND RAISE TO 356.5'

REMOVE EX. SD

REMOVE EX. WATER LINE

RELOCATED FH SEE NOTE #4

EX. FH TO BE REMOVED AND EX. LINE TO BE REMOVED

MODIFY FENCE

BITUMINOUS CURB AND GUTTER

ADJUST STRUCTURES VERTICALLY AND REPLACE GRATE INLETS WITH MH TOPS

STABILIZE BERM WITH CROWN VETCH

REMOVE EXISTING PAVING

EX. EDGE OF PAVING

PROP EDGE OF PAVING

PROPOSED EDGE OF PAVING

NOSE DOWN CONCRETE CURB & GUTTER TO EDGE OF PAVEMENT AND END GUTTER

F.H. TO BE REMOVED AND REPLACED WITH HOWARD COUNTY STANDARD. F.H. ALSO TO BE RELOCATED

STANDARD HOWARD COUNTY CURB & GUTTER

STANDARD HOWARD COUNTY SIDEWALK DETAIL

20' BGE EASEMENT FOR DISTRIBUTION DUCT BANKS L. 1843 F. 440

3' DEPTH

4' DEPTH

6' DEPTH

STRUCTURE	PROP. TOP	EX. TOP	REMARKS
MH 10	353.60	———	
I 9	349.75	———	GRATE W=3', L=3'
EX. MH 8	357.20	355.53	
I 7	349.80	———	GRATE W=3', L=3'
EX. MH 6	———	349.73	TO BE COVERED
MH 5	353.60	———	
MH 4	353.60	———	
I 3	352.50	———	GRATE W=4', L=4'
I 2	350.00	———	GRATE W=4', L=4'
EX. I 1	358.50	353.80	GRATE W=2.5', L=2.5'
I 31	364.00	———	CDG 20
I 30	361.00	359.42	GRATE W=2.5', L=2.5'
I 29	TOP TO REMAIN	UNCHANGED	GRATE W=2.5', L=2.5'
I 40	350.50	———	GRATE W=3.0', L=3.0'
EX. I 6A	358.00	351.12	GRATE W=2.5', L=2.5'
I 105	367.80	———	
MH 104	365.25	———	

NOTES:
1. VERTICAL AND HORIZONTAL LOCATIONS OF THE ELECT. DUCT BANK ARE KNOWN ONLY AT THE BGE MANHOLES. CONTRACTOR TO VERIFY BOTH IN THE ACTUAL LOCATIONS OF THE UTILITY CROSSINGS PRIOR TO CONSTRUCTION.
2. THE VERTICAL LOCATION OF THE FIRE MAINS AND SANITARY SEWER ARE NOT KNOWN. CONTRACTOR TO VERIFY PRIOR TO CONST.
3. ALL WATERMAINS, SAN. SEWER LINES AND STORM DRAINS ARE PRIVATE UNLESS NOTED OTHERWISE.
4. ALL RELOCATED FIRE HYDRANTS MUST BE UPGRADED TO HOWARD COUNTY STANDARD HYDRANTS. THE RELOCATION MUST BE CO-ORDINATED WITH THE EXISTING USERS OF THE FIRE SYSTEM.
5. ALL VALVES CONNECTING THE FIRE HYDRANT LEADS TO THE 16" FIRE LINE MUST BE CHECKED AND REPLACED IF DETERIORATED OR INOPERABLE.

LEGEND:
- BLOCK HEATER
- PROP. STORM DRAIN
- CONC. PAVING
- PROP. CONTOUR
- EXIST. CONTOUR
- EXIST. STRUCTURE
- PROP. TEST PIT
- PROP. DOCK DOOR
- EXIST. FENCE
- REVERSE CURB

MATCH LINE SEE SHEET 2 OF 14

see sheet 3A for fence detail and knox box location.

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING — LAND PLANNING — ENVIRONMENTAL STUDIES — LAND SURVEYING

15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	DWL
Drafted	MAM
Checked	KLM
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	10/18/96

NO.	REVISIONS	BY	DATE
9	Add security trailer	CEI	12/4/96
8	Add Gaurdhouse & fence	CEI	8/7/96
3	REVISED BERM PER ROUSE COMMENTS 10/30/97	MAM	12/2/97
2	REVISED PER APPROVED REDLINE 4/30/97	MAM	5/1/97
1	REVISED PER HOWARD COUNTY COMMENTS	KM	12/8/96

SITE PLAN

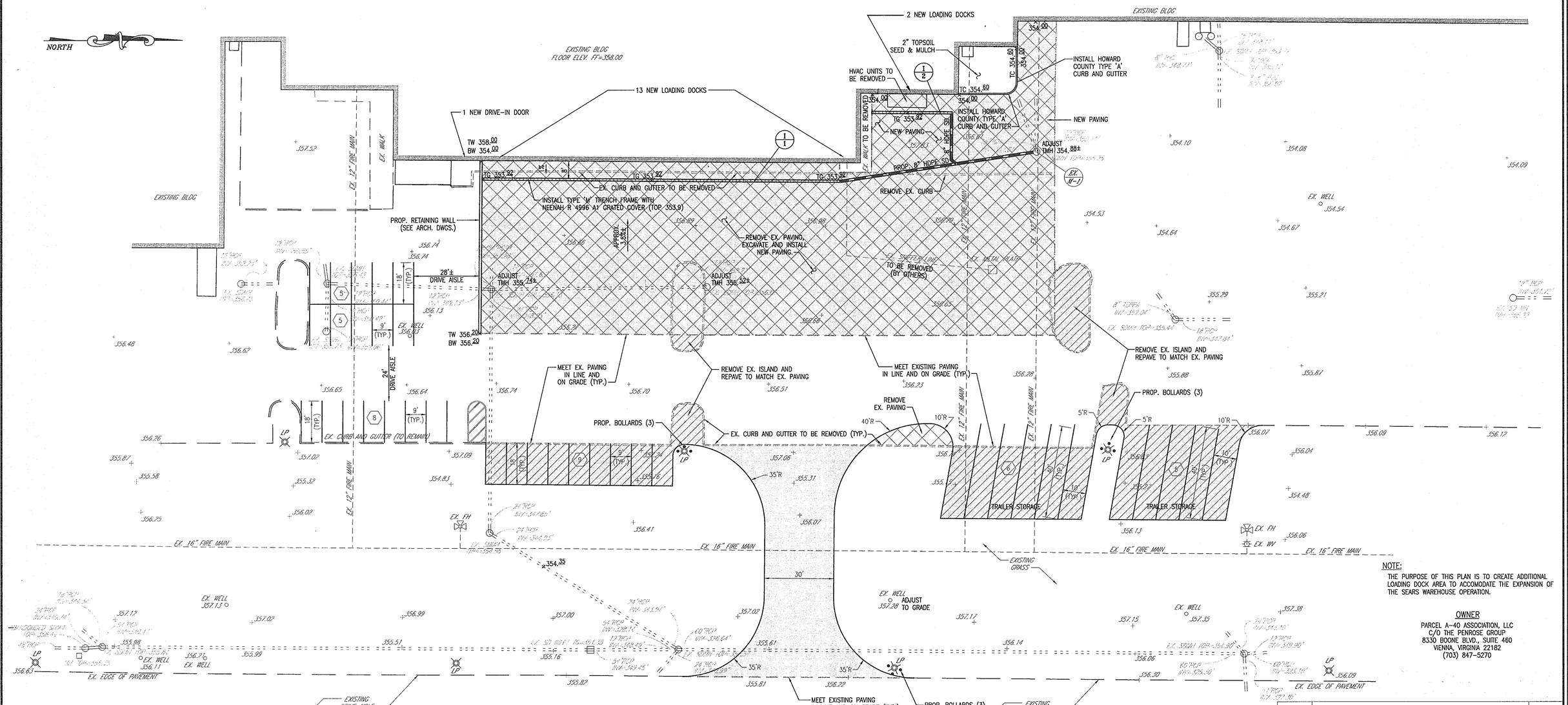
STATE OF MARYLAND — RICHARD A. PETRONIO — No. 11981 — REGISTERED PROFESSIONAL ENGINEER

R.A. Petronio 1/31/97

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

SCALE 1"=50'
SHEET 3 OF 14 SHEETS
JOB NO. 801-04

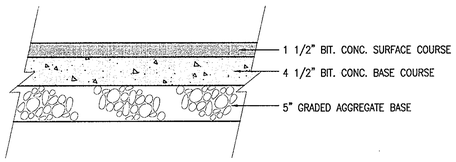
SDP-97-42



NOTE:
THE PURPOSE OF THIS PLAN IS TO CREATE ADDITIONAL LOADING DOCK AREA TO ACCOMODATE THE EXPANSION OF THE SEARS WAREHOUSE OPERATION.

OWNER
PARCEL A-40 ASSOCIATION, LLC
C/O THE PENROSE GROUP
8330 BOONE BLVD., SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270

NO.	REVISION	DATE
4	REVISED PER REDLINE REVISION FOR SEARS	12/14/01

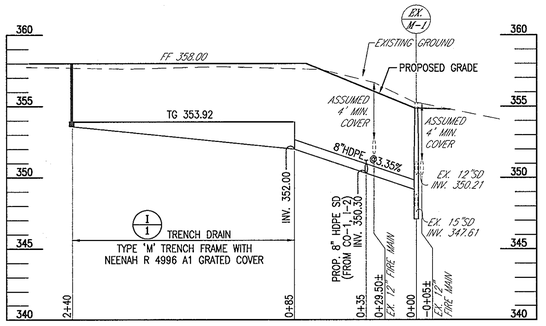


NOTE: TO BE CONFIRMED BY GEOTECHNICAL ENGINEER IN THE FIELD

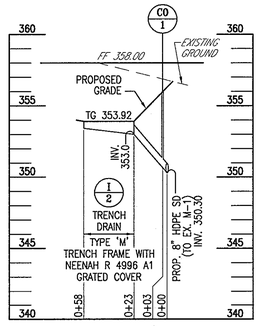
PAVING SECTION
NOT TO SCALE

LEGEND:

- EXISTING LIGHT POLE — LP
- EXISTING BOLLARD
- EXISTING WATER LINE
- EXISTING WATER VALVE — EX. WV
- EXISTING FIRE HYDRANT — EX. FH
- EXISTING STORM DRAIN — 12" RCP
- EXISTING SD MANHOLE — EX. SD MH
- REMOVE EXISTING ISLAND AND INSTALL NEW PAVING
- INSTALL NEW PAVING
- REMOVE EX. PAVING, EXCAVATE AND INSTALL NEW PAVING
- REMOVE EX. PAVING
- EX. CURB AND GUTTER TO BE REMOVED



STORM DRAIN PROFILE
SCALE: HOR.: 1"=50'
VERT.: 1"=5'



STORM DRAIN PROFILE
SCALE: HOR.: 1"=50'
VERT.: 1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 1/18/02

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/23/02

DIRECTOR — DATE 1/25/02

REVISED / SUBSTITUTE SHEET
SITE DEVELOPMENT PLAN

GATEWAY COMMERCE CENTER
PARCEL A-40

TAX MAP 42
6TH ELECTION DISTRICT

PARCEL 'A-40'
HOWARD COUNTY, MARYLAND

FREDERICK WARD ASSOCIATES, INC.
ENGINEERS
ARCHITECTS
SURVEYORS
7125 Riverwood Drive Columbia, Maryland 21046-2354
Phone: 410-290-9550 Fax: 410-720-6226
Bel Air, Maryland Columbia, Maryland Warrenton, Virginia

STATE OF MARYLAND — NORMAN MOUSSA — No. 22702 — REGISTERED PROFESSIONAL ENGINEER — 01/14/02

DESIGN BY:	RHV
DRAWN BY:	KO
CHECKED BY:	RHV
DATE:	01/09/02
SCALE:	1"=20'
W.O. NO.:	2014052

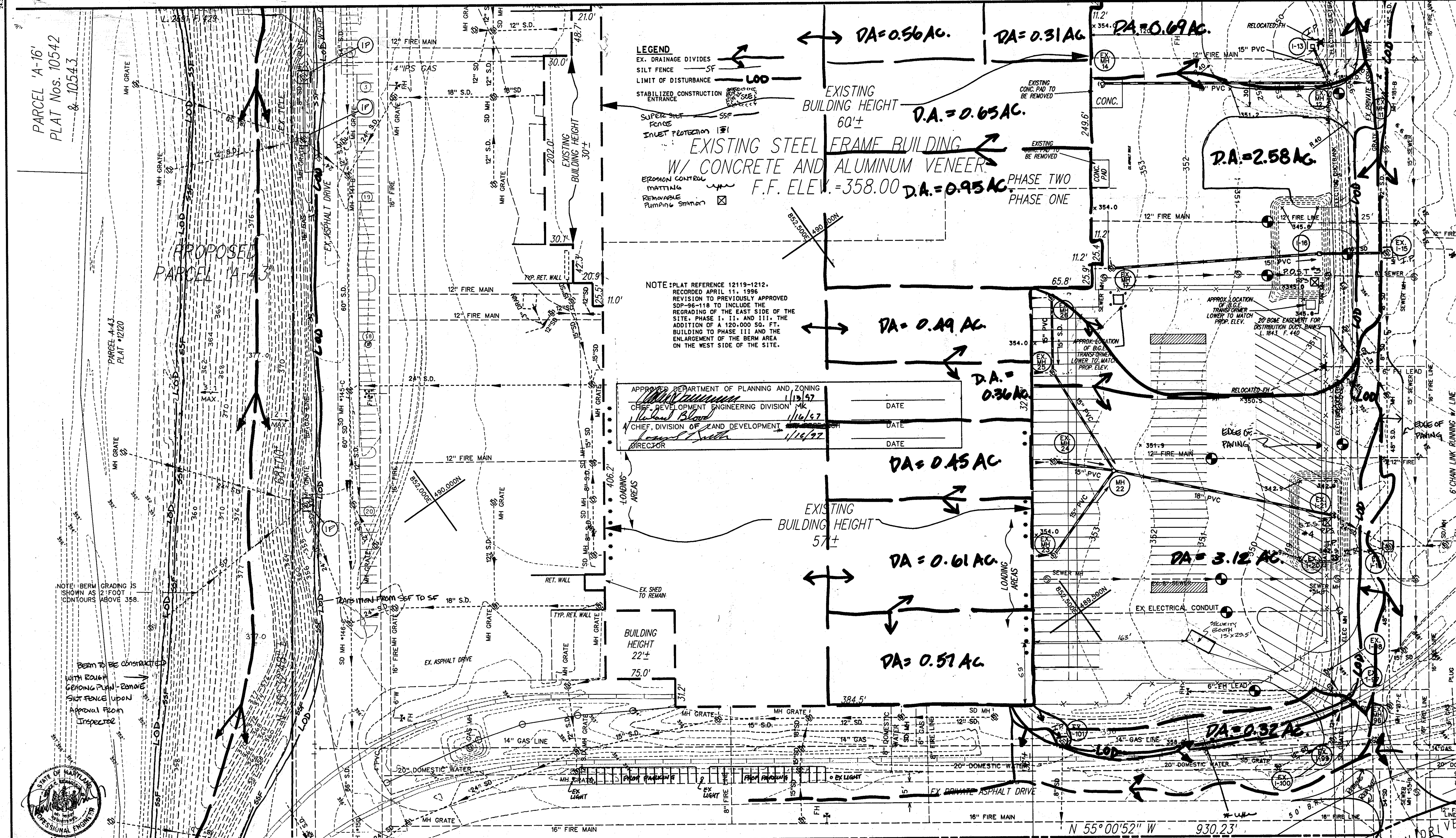
SHEET 3A OF 14

SDP-97-42

M:\PROJECTS\2014052\engr\dwg\Redline3A\f14-p1d3.dwg Wed Jan 09 15:56:35 2002 K.Ocampo

THIS SHEET IS FOR EROSION AND SEDIMENT CONTROL ONLY!

MATCH LINE SEE SHEET 5 OF 14



NOTE: EXISTING GRADES SHOWN MUST BE MODIFIED IN THE PAVEMENT AREAS. AS THE EXISTING GRADE IS THE TOP OF PAVEMENT

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

* PLACE EROSION CONTROL MATTING FOR LENGTH OF THE DITCH

I 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

SIGNATURE OF DEVELOPER — DATE 12/2/96 1/2/97

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — DATE 1/9/97

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE 01-09-97

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING — LAND PLANNING — LAND SURVEYING
ENVIRONMENTAL STUDIES

15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	DWL
Drafted	MAM
Checked	KLM
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	12/9/96

NO.	REVISIONS	BY	DATE
1	REVISED PER HOWARD COUNTY SOIL CONSERVATION DISTRICT COMMENTS	KM	12/18/96
2	REVISED PER REDLINE TO PECE/COSTCO	KM	9/18/97
3	REVISED PER REDLINE FOR SEC. BOOTH	MAM	10/1/97
4	REVISED BERM PER ROUSE CO. COMMENTS	MAM	12/12/97
7	ADDITIONAL PARKING ADDED	PCR	4/9/12

EROSION AND SEDIMENT CONTROL PLAN

STATE OF MARYLAND — RANDOLPH A. PETERSEN — NO. 11021 — REGISTERED PROFESSIONAL ENGINEER — R.A. Petersen 1/31/97

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

SCALE 1"=50'
SHEET 4 OF 14 SHEETS
JOB NO. 801-04

SDP-97-42

24-36/0183

APPROVED DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	1/13/97 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	1/16/97 DATE
DIRECTOR	1/16/97 DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — 1/2/97 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

USDA-NATURAL RESOURCES CONSERVATION SERVICE — 1/15/97 DATE

I 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

SIGNATURE OF DEVELOPER — 1/6/97 DATE

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

HOWARD RESEARCH & DEVELOPMENT GROUP
PARCEL 'A-43'
ZONED M-1

PARCEL 'A-43' ZONED M-1

EXISTING UTILITIES BUILDING

EXISTING 2 STORY CONC. & STEEL FRAME W/ GLASS VENEER BUILDING HEIGHT 60'±

EXISTING BUILDING HEIGHT 32'±

EXISTING BUILDING HEIGHT 70'±

EXISTING BUILDING HEIGHT 30'±

PROPOSED 119,850 SQ. FT. BLDG. F.F. ELEV. =358.00

BUILDING HEIGHT 30'±

PARCEL "A-40" F.F. ELEV.=358.00

PHASE THREE

PHASE TWO

HC ENTRANCE

ENTRANCE

NOSE DOWN CONCRETE CURB & GUTTER TO EDGE OF PAVEMENT AND END GUTTER

REPLACE EXISTING MH TOP WITH 2.5'x2.5' GRATE AND RAISE TO 356.5'

NOTE: PLAT REFERENCE 12119-1212, RECORDED APRIL 11, 1996 REVISION TO PREVIOUSLY APPROVED SDP-96-118 TO INCLUDE THE REGRADING OF THE EAST SIDE OF THE SITE, PHASE I, II, AND III. THE ADDITION OF A 120,000 SQ. FT. BUILDING TO PHASE III AND THE ENLARGEMENT OF THE BERM AREA ON THE WEST SIDE OF THE SITE.

Construct Slope Per Geotechnical Specifications

BLOCK INLETS UNTIL AREA IS STABILIZED AND INLET PROTECTION HAS BEEN INSTALLED

NOTE: EXISTING GRADES SHOWN MUST BE MODIFIED IN THE PAVEMENT AREAS, AS THE EXISTING GRADE IS THE TOP OF PAVEMENT

LEGEND
- EX. DRAINAGE DIVIDE
- PROP. DRAINAGE DIVIDE
- SILT FENCE
- LIMITS OF DISTURBANCE
- STABILIZED CONST. ENTRANCE
- REMOVABLE PUMPING STATION
- EROSION CONTROL MATTING
- INLET PROTECTION

D.A.= 0.58Ac.
D.A.= 0.86Ac.
D.A.= 1.35Ac.
D.A.= 0.86Ac.
D.A.= 0.88Ac.
D.A.= 0.94Ac.
D.A.= 1.84Ac.
D.A.= 0.81Ac.
D.A.= 1.36Ac.
D.A.= 0.60Ac.
D.A.= 0.20Ac.
D.A.= 0.17Ac.
D.A.= 0.39Ac.
D.A.= 0.06Ac.
D.A.= 0.18Ac.
D.A.= 0.25Ac.
D.A.= 0.28Ac.
D.A.= 0.85Ac.
D.A.= 0.11Ac.
D.A.= 0.37Ac.
D.A.= 0.13Ac.
D.A.= 0.72Ac.

COLUMBIA GATEWAY OPEN SPACE LOT 6 PLAT No. 6773

COLUMBIA GATEWAY PARCEL 'L' PLAT Nos. 6812 & 6813 ZONED M-1

1" O.E.P. FOUND

1635.29'

N 35°00'00" W

S 55°00'00" E 1263.69'

MATCH LINE SEE SHEET 4 OF 14

THIS SHEET IS FOR EROSION SEDIMENT CONTROL AND DRAINAGE DIVIDES ONLY !

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING LAND PLANNING LAND SURVEYING
ENVIRONMENTAL STUDIES

15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	DWL
Drafted	NJM
Checked	KLM
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	12/9/96

NO.	REVISIONS	BY	DATE
1	REVISED BERM PER ROUSE CO. COMMENTS	NJM	12/20/97

EROSION AND SEDIMENT CONTROL PLAN

STATE OF MARYLAND — KENNETH L. MOORE — NO. 11951 — REGISTERED PROFESSIONAL ENGINEER

R.A. Moore 1/3/97

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

SCALE 1"=50'
SHEET 5 OF 14 SHEETS
JOB NO. 801-04

SDP-97-42

24.36/0193

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.

SEEDED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DIKING 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 ACRE 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 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ. FT.) OF KENTUCKY 31 TALL FESCUE. FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS. KENTUCKY 31 TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (.05 LBS/1000 SQ. FT.) OF WEEPING LOVE GRASS. DURING THE PERIOD OF OCTOBER 16 THROUGH 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 TONS/ACRE WELL ANCHORED STRAW.

MULCHING -- APPLY 1 ½ TO 2 TONS PER ACRE (70-90 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.

EROSION AND SEDIMENT CONTROL NARRATIVE

DESCRIPTION:

THIS PROJECT IS LOCATED IN THE GATEWAY COMMERCE CENTER SUBDIVISION, ADJACENT TO ROBERT FULTON DRIVE AND IS BETTER DESCRIBED AS 8700 ROBERT FULTON DRIVE, PARCEL A-40. THIS PARCEL WAS FORMALLY PART OF THE GE WAREHOUSE CENTER. IT CONSISTS OF 48.7 ACRES WITH A 608,875 SQ. FT. BUILDING AND ASSOCIATED PAVING AND UTILITIES. THE SITE IS BORDERED BY ROBERT FULTON DRIVE TO THE SOUTHWEST AND EXISTING BUILDINGS WITHIN THE SUBDIVISION ON ALL OTHER SIDES.

EXISTING CONDITIONS/STORMWATER MANAGEMENT

THE SITE IS DEVELOPED AND THE TOPOGRAPHY IS VERY FLAT. DRAINAGE FROM THE PAVED AREAS AND ROOF TOP ARE CONVEYED THROUGH AN EXISTING STORM SEWER SYSTEM AND ULTIMATELY TO AN EXISTING STORMWATER MANAGEMENT FACILITY. THIS FACILITY PROVIDES QUANTITY AND QUALITY MEASURES FOR THE ENTIRE SUBDIVISION. A REPORT ON THE STORMWATER MANAGEMENT FACILITY HAS RECENTLY BEEN REVIEWED AND APPROVED BY HOWARD COUNTY. THE REPORT INCLUDED THAT, AFTER SEDIMENT REMOVAL, THE FACILITY WOULD SATISFY HOWARD COUNTY'S STORMWATER MANAGEMENT REQUIREMENTS FOR CONTROLLING WATER QUANTITY AND QUALITY OF STORMWATER RUNOFF FROM THE DEVELOPED SITE.

CONTROL MEASURES

DIVERSION DIKES WILL BE USED TO LIMIT THE AMOUNT OF RUNOFF ACROSS DISTURBED AREAS AND TO DIVERT SEDIMENT LADEN RUNOFF.

THE SITE WILL BE PERMANENTLY SEEDED AFTER ALL CONSTRUCTION ACTIVITIES ARE COMPLETED. DISTURBED AREAS TO REMAIN UNWORKED FOR 30 DAYS WILL BE STABILIZED WITH THE PERMANENT SEEDING NOTES.

TEMPORARY SEEDING NOTES

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

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

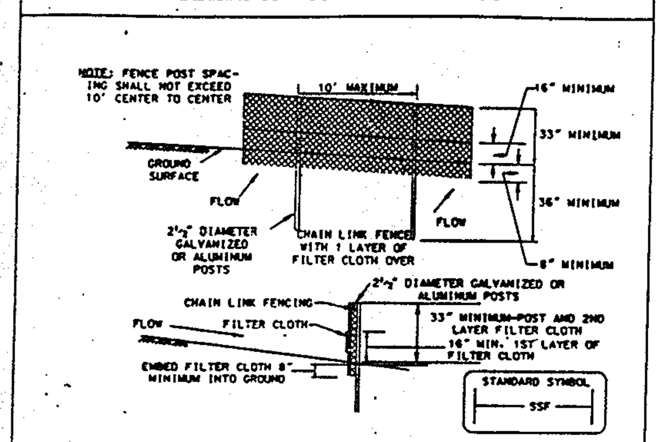
SOIL AMENDMENTS -- APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.).

SEEDING -- FOR PERIODS MARCH 1 THROUGH APRIL 30 AND FROM AUGUST 15 THROUGH OCTOBER 15, SEED WITH 2 ½ BUSHELS PER ACRE OF ANNUAL RYE (3.2 LBS/1000 SQ. FT.). FOR THE PERIOD MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS. PER ACRE OF WEEPING LOVE GRASS (.07 LBS./1000 SQ. FT.). FOR THE PERIOD NOVEMBER 16 THROUGH FEBRUARY 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING -- APPLY 1 ½ 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 GA. 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 OT THE 1995 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

DETAIL 33 - SUPER SILT FENCE



Construction Specifications

Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.

1. The poles do not need to set in concrete.
2. Chain link fence shall be fastened securely to the fence posts with wire ties or staples.
3. Filter cloth shall be fastened securely to the chain link fence with ties spaced 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 by 6" and folded.
6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 30 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

*Spoil ~~should~~ shall be directed to an area with an active grading permit

HOWARD SOIL CONSERVATION DISTRICT
STANDARD SEDIMENT CONTROL NOTES

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 ANY CONSTRUCTION (410-313-1855).
2. ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT 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 PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
5. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC 54), TEMPORARY SEEDING (SEC 50), AND MULCHING (SEC 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
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	48.70 ACRES
AREA DISTURBED	12.5 ACRES
AREA TO BE ROOFED OR PAVED	9.8 ACRES
AREA TO BE VEGETATIVELY STABILIZED	9.7 ACRES
TOTAL CUT	68,000 SQ. YD.
TOTAL FILL	56,000 SQ. YD.
* OFFSITE WASTE	12,000 SQ. YD.

8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
9. ADDITIONAL SEDIMENT 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.

30.0 DUST CONTROL

Definition

Controlling dust blowing and movement on construction sites and roads.

Purpose

To prevent blowing and movement of dust from exposed soil surfaces, reduce on and off-site damage, health hazards, and improve traffic safety.

Conditions Where Practice Applies

This practice is applicable to areas subject to dust blowing and movement where on and off-site damage is likely without treatment.

Specifications

Temporary Methods

1. Mulches - See standards for vegetative stabilization with mulches only. Mulch should be crimped or tacked to prevent blowing.
2. Vegetative Cover - See standards for temporary vegetative cover.
3. Tillage - To roughen surface and bring clods to the surface. This is an emergency measure which should be used before soil blowing starts. Begin plowing on windward side of site. Chisel-type plows spaced about 12" apart, spring-toothed harrows, and similar plows are examples of equipment which may produce the desired effect.
4. Irrigation - This is generally done as an emergency-treatment. Site is sprinkled with water until the surface is moist. Repeat as needed. At no time should the site be irrigated to the point that runoff begins to flow.
5. Barriers - Solid board fences, silt fences, snow fences, burlap fences, straw bales, and similar material can be used to control air currents and soil blowing. Barriers placed at right angles to prevailing currents at intervals of about 10 times their height are effective in controlling soil blowing.
6. Calcium Chloride - Apply at rates that will keep surface moist. May need retreatment.

Permanent Methods

1. Permanent Vegetation - See standards for permanent vegetative cover, and permanent stabilization with sod. Existing trees or large shrubs may afford valuable protection if left in place.
2. Topsoiling - Covering with less erosive soil materials. See standards for topsoiling.
3. Stone - Cover surface with crushed stone or coarse gravel.

References

1. Agriculture Handbook 346. Wind Erosion Forces in the United States and Their Use in Predicting Soil Loss.
2. Agriculture Information Bulletin 354. How to Control Wind Erosion, USDA-ARS. H-30-1

EROSION CONTROL MATTING

Construction Specifications

1. Key-in the matting by placing the top ends of the matting in a narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6".
2. Staple the 4" overlap in the channel center using an 18" spacing between staples.
3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 outer rows, and 2 alternating rows down the center.
5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.
6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

Note: If flow will enter from the edge of the matting then the area effected by the flow must be keyed-in.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE G - 22 - 2A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

21.0 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 growth.
 b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
 c. The original soil to be vegetated contains material toxic to plant growth.
 d. The soil is so acidic that treatment with limestone is not feasible.

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

Construction and Material Specifications

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

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
 i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be 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 1½" in diameter.
 ii. Topsoil must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass, nutsedge, poison ivy, thistle, or others as specified.
 iii. Where the subsoil is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.

II. For sites having disturbed areas under 5 acres:
 i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

III. For sites having disturbed areas over 5 acres:
 i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
  a. pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be perscribed 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 dissipation of phyto-toxic materials.

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

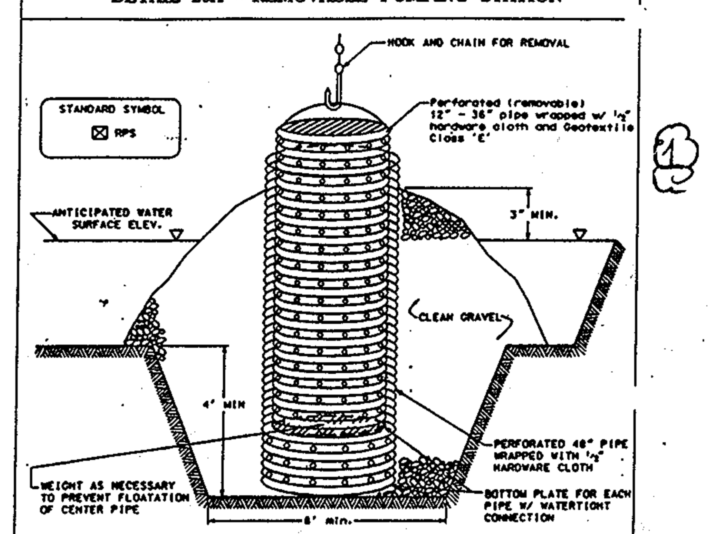
 ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.

V. Topsoil Application
 i. 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.
 iii. Topsoil shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
 iv. Topsoil shall not be placed while the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

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:
 i. 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 disturbed areas under 5 acres shall conform to the following requirements:
  a. Composted sludge shall be supplied by, or originate from, a person or persons that 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 least 1 percent nitrogen, 1.5 percent phosphorus, 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.

DETAIL 20A - REMOVABLE PUMPING STATION



ELEVATION (CUT AWAY)

Construction Specifications

1. 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 ½" hardware cloth to prevent backfill material from entering the perforations.
2. After installing the outer pipe, backfill around outer pipe with 2" aggregate or clean gravel.
3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be ½" X 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with ½" hardware cloth first, then wrapped again with Geotextile Class E.
4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

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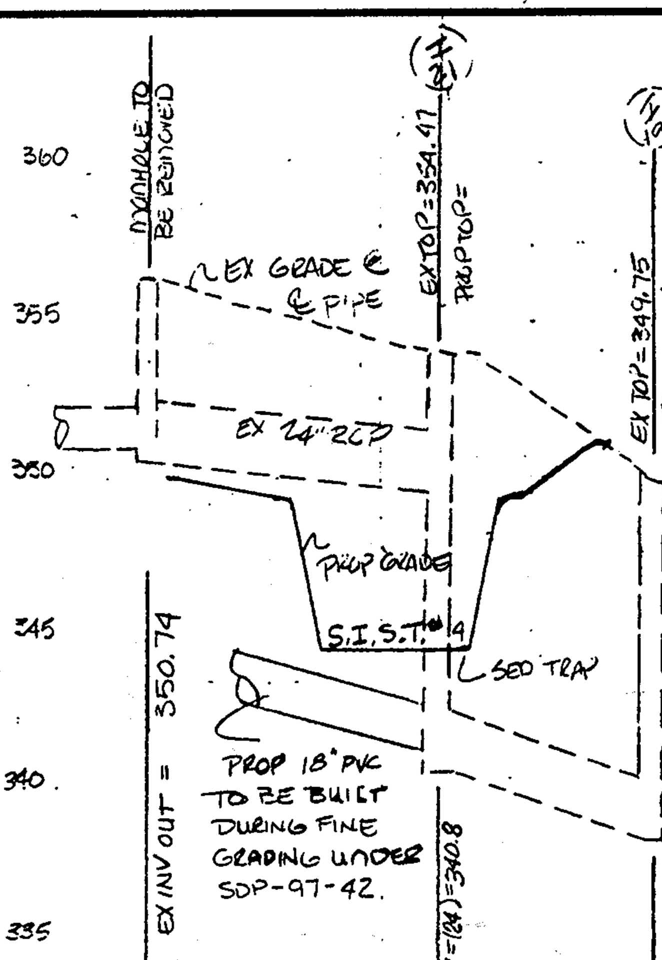
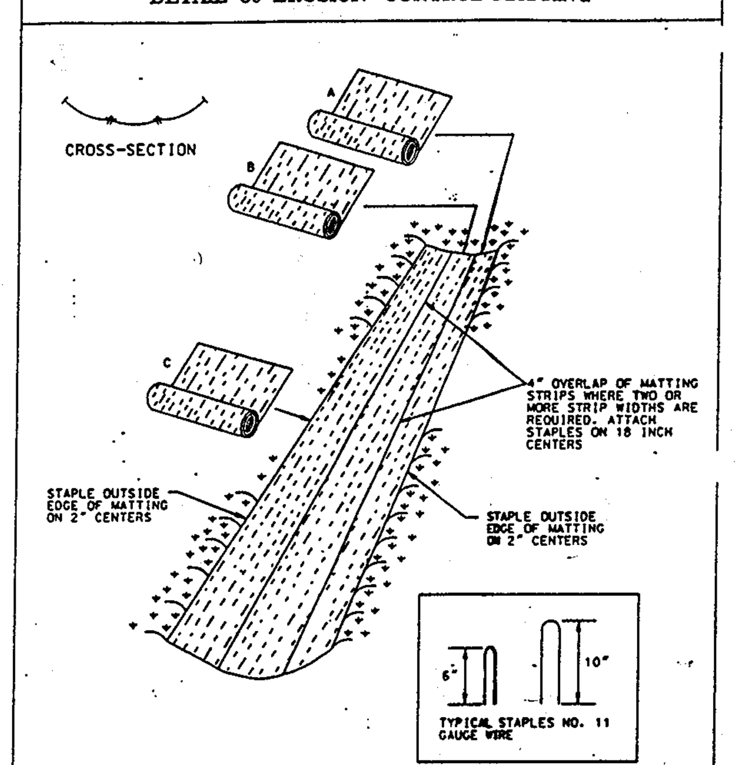


DETAIL 30 EROSION CONTROL MATTING



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12.0 DEWATERING SPECIFICATIONS FOR REMOVABLE PUMPING STATION

Definition

A temporary structure which is used to remove water from excavated areas, sediment traps and basins.

Purpose

The Removable Pumping Station is an easily maintained device that filters sediment laden water at a pump intake, prior to discharging to a suitable area.

Conditions Where Practice Applies

Removable Pumping Stations are constructed when water collects and must be pumped away during excavation, cofferdam dewatering, maintenance or removal of sediment traps and basins or for other uses as applicable. These are preferred over Sump Pits on projects where a long duration of pumping is expected.

Design Criteria

The number of Removable Pumping Stations and their locations shall be determined by the designer and included on the plans. Contractors may relocate sump pits to optimize use but discharge location changes must be coordinated with inspectors. A design is not required but construction must conform to the general criteria outlined on Detail 20A.

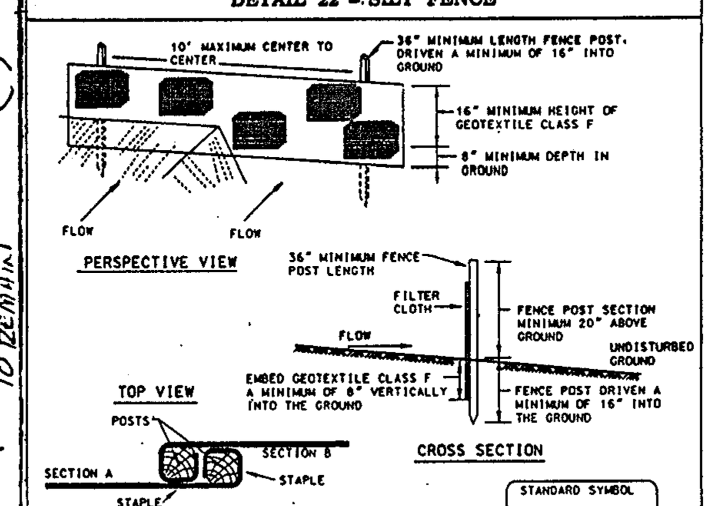
A perforated, vertical standpipe wrapped with wire mesh and geotextile is placed inside a larger pipe. The outside pipe is then enveloped by a cone of washed stone. Water is then pumped from the center of the inside pipe to a suitable discharge area.

Water pumped from the standpipe should discharge into a sediment trap, sediment basin or stabilized area.

Construction Specifications

1. The inner pipe shall be constructed by perforating a 12" to 36" diameter pipe with a watertight cap on the bottom end and wrapping it with 1/2" hardware cloth and Geotextile Class E". The perforations shall be 1/2" X 6" slits or 1" diameter holes 6" on center.
2. The outer pipe shall be at least 4" larger in diameter than the inside pipe. Both the inner and outer pipes should extend 12" to 18" above the riser crest elevation, or anticipated high water elevation.
3. Filter material ranging from clean gravel (minimal fines) to #57 stone (1 1/2" maximum diameter) should be backfilled around the outer pipe.
4. The suction hose from the pump shall be placed inside the inner pipe to begin dewatering. The discharge hose shall be placed in a stabilized area downslope of unstabilized areas to prevent erosion. Meadow or wooded areas are preferred discharge locations but storm drains and paved areas are acceptable.
5. Maintenance - The inner pipe can easily be removed to facilitate changing the geotextile when it clogs. Maintenance must be performed when the pump runs dry and backed up water remains.

DETAIL 22 - SILT FENCE



Construction Specifications

1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1½" x 1½" square (minimum) cut, or 1¾" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot.
2. 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 lbs/in (min.)	Test: MSMT 509
Tensile Modulus	20 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal ft²/ minute (max.)	Test: MSMT 322
Filtering Efficiency	75% (min.)	Test: MSMT 322

3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

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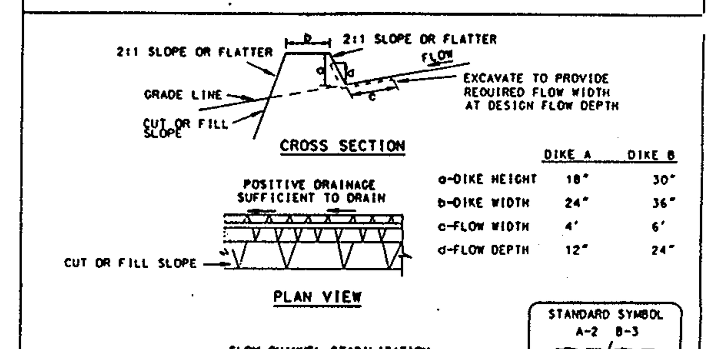
DETAIL 1 - EARTH DIKE



	DIKE A	DIKE B
a-DIKE HEIGHT	18"	30"
b-DIKE WIDTH	24"	36"
c-FLOW WIDTH	4'	6'
d-FLOW DEPTH	12"	24"

1. Seed and cover with straw mulch.
2. Seed and cover with Erosion Control Matting or line with sod.
3. 4" - 7" stone or recycled concrete equivalent pressed into the soil 7" minimum

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%.
2. Runoff diverted from a disturbed area shall be conveyed to a sediment trapping device.
3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity.
4. All trees, brush, stumps, obstructions, and other objectional material shall be removed and disposed of so as not to interfere with the proper functioning of the dike.
5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.
6. Fill shall be compacted by earth moving equipment.
7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike.
8. Inspection and maintenance must be provided periodically and after each rain event.

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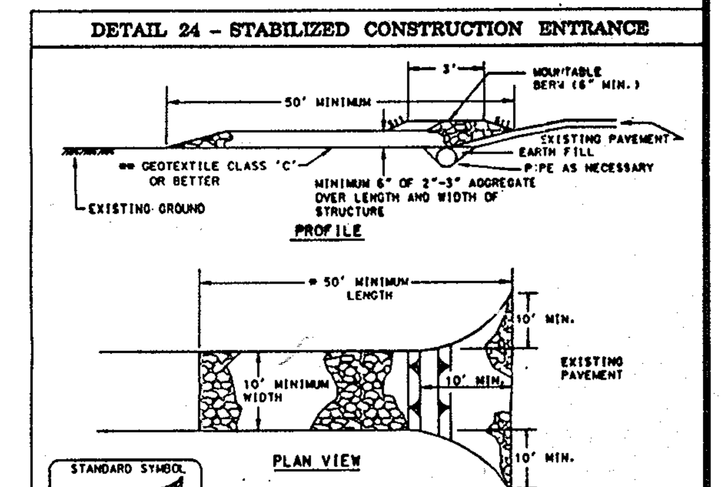
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



Construction Specification

1. Length - minimum of 50' (*30' for single residence lot).
2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
3. 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.
4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
5. 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 mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has 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 where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

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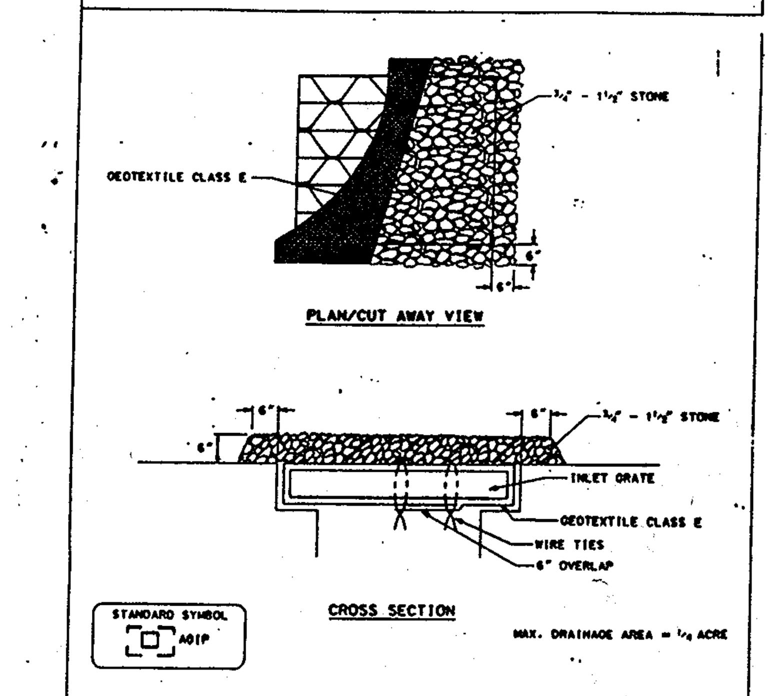
DETAIL 23B - AT GRADE INLET PROTECTION



Construction Specifications

1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
2. Place ¾" to 1½" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

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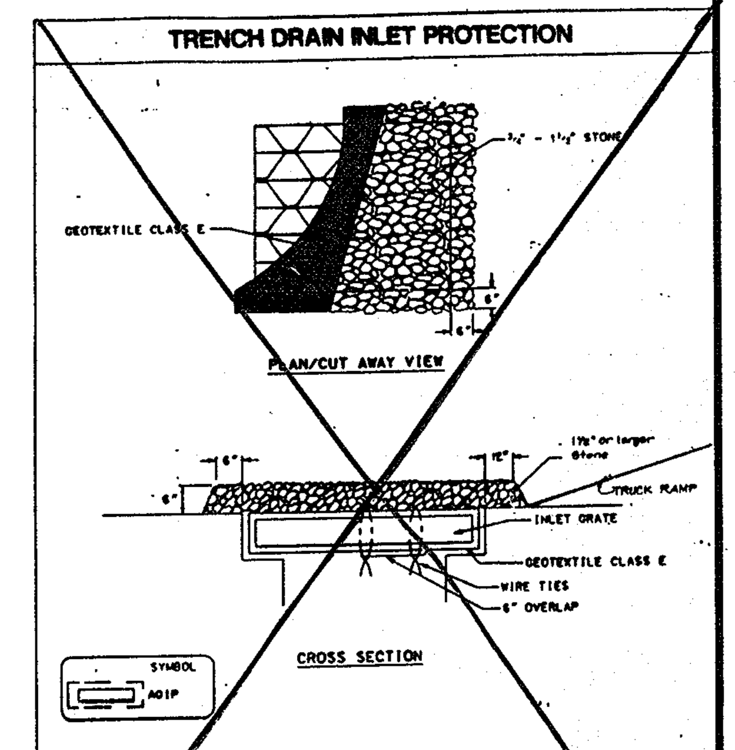
TRENCH DRAIN INLET PROTECTION



Construction Specifications

1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
2. Place 1½" orlarger stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

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APPROVED: DEPARTMENT OF PLANNING AND ZONING

[signature] CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	1/13/97 DATE
[signature] CHIEF, DIVISION OF LAND DEVELOPMENT	1/16/97 DATE
[signature] DIRECTOR	1/16/97 DATE

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 COUNTY SOIL CONSERVATION DISTRICT.

[signature] 1/3/97 — 11-6-96
SIGNATURE OF ENGINEER — DATE
[signature] 1/6/97

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION.

[signature] — 1/7/97
HOWARD SOIL CONSERVATION DISTRICT — DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

[signature] — 01-09-97
USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE

I 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.

[signature] — 1/6/97
[signature] — 1/3/97
SIGNATURE OF DEVELOPER — DATE

SEQUENCE OF CONSTRUCTION

1. NOTIFY THE PROPER HOWARD COUNTY AGENCIES 48 HOURS PRIOR TO THE START OF WORK AND OBTAIN A GRADING PERMIT.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE FOR THE AREA OF WORK. THE EXISTING EROSION AND SEDIMENT CONTROLS PLACED WITH THE MASS GRADING PLAN (GP-97-61) ARE TO REMAIN WITH THIS PLAN UNTIL THE SEDIMENT CONTROL INSPECTOR APPROVES REMOVAL OF THE CONTROLS (1 DAY)
3. VERIFY THE LOCATION OF EXISTING UTILITIES. (THROUGHOUT CONSTRUCTION)
4. INSTALL INLET PROTECTION ON THE EXISTING DRAINAGE STRUCTURES THAT ARE TO REMAIN.
5. THIS PLAN ASSUMES THAT THE MASS GRADING APPROVED WITH GP-97-61 HAS BEEN COMPLETE AND THAT THE BERM ON THE WEST SIDE OF THE SITE IS CONSTRUCTED AND STABILIZED. WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR, REMOVE THE EROSION CONTROL MEASURES.
6. BEGIN DEMOLITION OF EXISTING PAVED AREAS AS DELINEATED ON THE CONSTRUCTION PLANS. REMOVE EXISTING MATERIAL TO AN AREA WITH A CURRENT ACTIVE GRADING PERMIT, IF NECESSARY. (5 DAYS)
7. THE CONTRACTOR CAN PROCEED WITH CONSTRUCTION UPON APPROVAL FROM THE SEDIMENT CONTROL INSPECTOR.
8. INSTALL SILT FENCE AND EARTH DIKES. (5 DAYS)
9. INSTALL TEMPORARY SEDIMENT TRAPS. THESE TRAPS MUST REMAIN IN WORKING ORDER UNTIL GRADING IN THE IMMEDIATE AREA IS COMPLETE. CLEAN THE TRAPS OF SILT AND CONSTRUCTION DEBRIS. (15 DAYS)
10. CLEAR AND GRUB REMAINDER OF SITE WITHIN LIMITS OF CONSTRUCTION. BEGIN GRADING. (1 MONTH)
11. CONTRACTOR MUST USE THE APPROVED BERM AREAS APPROVED WITH THIS PLAN FOR STOCKPILING EXCESS CUT MATERIAL.
12. ONCE THE ROUGH GRADING IS COMPLETE, CUT TRENCH AND INSTALL STORM DRAIN SYSTEM. INSTALL INLET PROTECTION ON ALL PROPOSED INLET STRUCTURES AND OUTFALL THE PROPOSED STORM DRAIN LINE INTO THE SEDIMENT TRAP.
13. INSTALL CURB AND GUTTER IN THE UPPER PARKING LOT. (5 DAYS)
14. INSTALL PAVING. (10 DAYS)
15. THE RECEIVING STORM WATER MANAGEMENT STRUCTURE MUST BE CLEANED OF SEDIMENTS ATTRIBUTED TO THE PROPOSED CONSTRUCTION WITHIN THIS PLAN.
16. WITH PERMISSION FROM THE SEDIMENT CONTROL INSPECTOR REMOVE THE SEDIMENT CONTROL DEVICES IN THOSE AREAS WHERE CONSTRUCTION IS COMPLETE AND STABILIZED IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (5 DAYS)

OWNER

PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
MR. OLAV KOLLEVOLL
(703) 847-5270

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING LAND PLANNING LAND SURVEYING
ENVIRONMENTAL STUDIES

15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	DML
Drafted	MM
Checked	RAP
Proj. Eng.	KM
OFFICE	LAN
DATE	11/3/96

NO.	REVISIONS	BY	DATE
1	REVISED PER H.C. SOIL CONSERVATION COMMENTS	K.M.	12/8/96

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS /CONSTRUCTION DETAILS

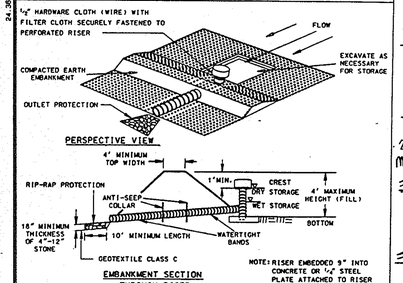
STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER [seal] [signature] 1/6/97 12/8/97

GATEWAY COMMERCE CENTER
PARCEL A-40
TAX MAP 42
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 6 OF 14 SHEETS
JOB NO. 801-04

SDP-97-42

DETAIL 8 - PIPE OUTLET SEDIMENT TRAP - ST I



NOTE: RISER EMBEDDED 9" INTO CONCRETE OR ½" STEEL PLATE ATTACHED TO RISER WITH A CONTINUOUS WELD ON BOTTOM AND 2" OF STONE PLACED ON STEEL PLATE TWICE THE RISER DIAMETER (MIN.)

Construction Specifications

1. The area under the embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The pool area shall be cleared.
2. 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 objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed.
3. The total trap volume as measured from the bottom to riser crest elevation shall be 3600 cubic feet per acre of drainage area (see Table 9). The top of embankment must be ≥1' above the riser crest elevation.
4. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one half of the wet storage depth of the trap (900cf/ac). The sediment shall be deposited in a suitable area and in such a manner that it will not erode.
5. The structure shall be inspected periodically and after each rain and repairs made as necessary.

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PIPE OUTLET SEDIMENT TRAP - ST I

6. Construction operations shall be carried out in such a manner that erosion and water pollution are abated. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. Points of concentrated inflow shall be protected in accordance with Grade Stabilization Structure criteria. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon trap completion and monitored and maintained erosion free during the life of the trap.
7. The structure shall be removed and area stabilized when the drainage area has been properly stabilized.
8. All cut and fill slopes shall be 2:1 or flatter.
9. All pipe connections shall be watertight.
10. Above the wet storage elevation, the riser shall be perforated with ½" wide by 6" long slits or 1" diameter holes spaced 6" vertically and horizontally. No perforations will be allowed within 6" of the horizontal barrel.
11. The riser shall be wrapped with ½" hardware cloth (wire) then wrapped with Geotextile Class E. The filter cloth shall extend 6" above the highest slit and 6" below the lowest slit. Where ends of filter cloth come together, they shall be overlapped, folded and fastened to prevent bypass. Filter cloth shall be replaced as necessary to prevent clogging.
12. 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.
13. Fill material around the pipe spillway shall be hand compacted in 4" layers. A minimum of 2' of hand-compacted backfill shall be placed over the pipe spillway before crossing it with construction equipment.
14. The riser shall be anchored with either a concrete base or steel plate base to prevent flotation. Concrete bases shall be at least twice the riser diameter and 12" deep with the riser embedded 9". Steel plate bases shall be at least twice the riser diameter. ¼" minimum thickness and attached to the bottom of the riser by a continuous weld to form a watertight connection. Then place 2' of stone, gravel or tamped earth on the plate.
15. Anti seep collars shall be constructed in accordance with plans (ref. table 16 and Details 13 and 14).
16. Concentric trash rack and anti-vortex device design details are on Detail 16.
17. Refer to Section D for dewatering requirements of sediment traps.
18. Outlet - An outlet shall be provided, which includes a means of conveying the discharge in an erosion free manner to an existing stable channel.
19. Where discharge occurs at the property line, local ordinances and drainage easement requirements shall be met.

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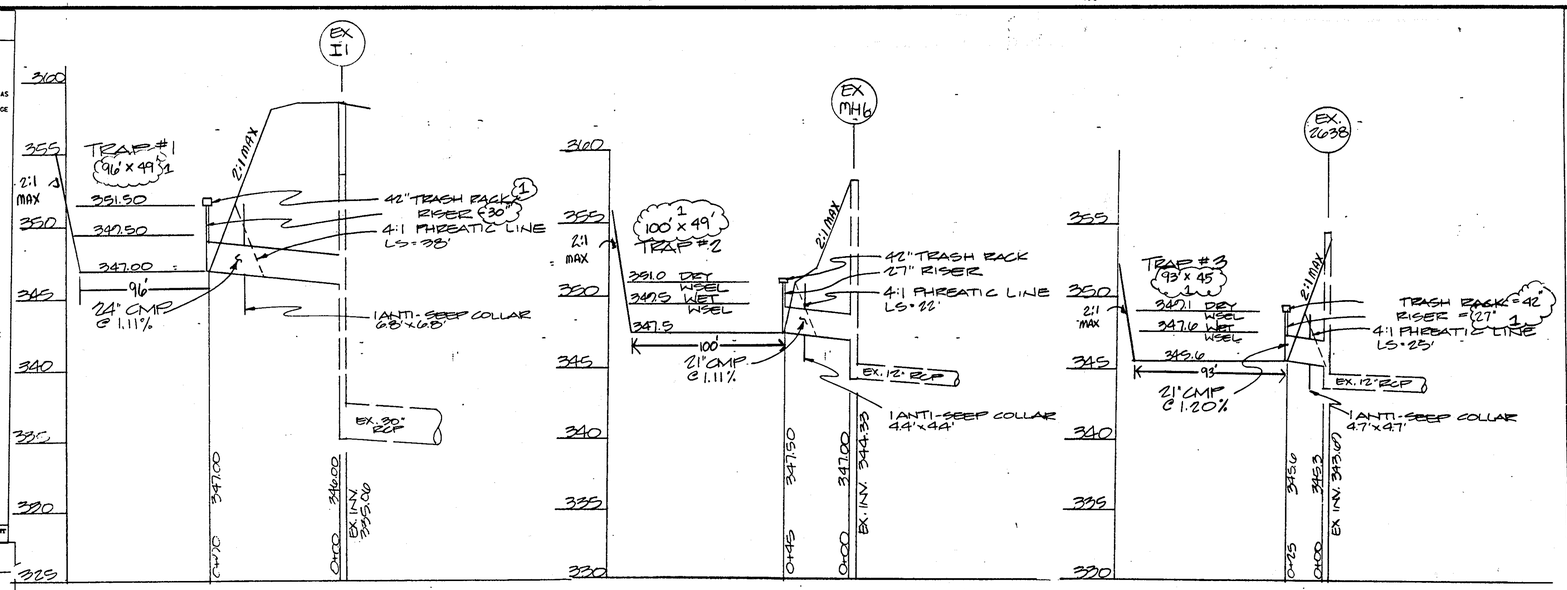


PIPE OUTLET PROFILE FROM SEDIMENT TRAP #1

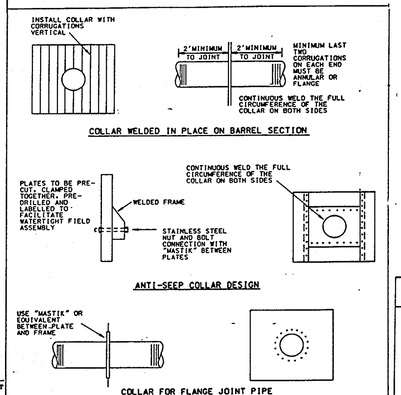
PIPE OUTLET PROFILE FROM SEDIMENT TRAP #2

SCALE VERT 1"=5' HORZ 1"=50'

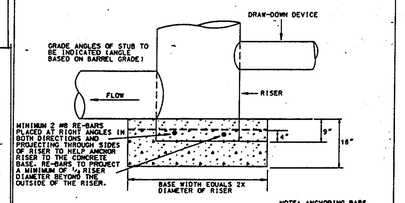
PIPE OUTLET PROFILE FROM SEDIMENT TRAP #3

SCALE VERT 1"=5' HORZ 1"=50'

DETAIL 14 - TYPICAL ANTI-SEEP COLLARS



DETAIL 15 - RISER BASE DETAIL



Construction Specifications

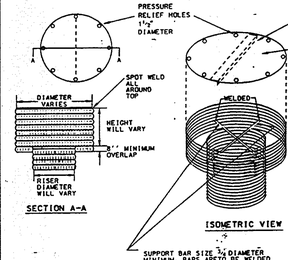
The riser shall have a base attached with a watertight connection and shall have sufficient weight to prevent flotation of the riser. Two approved bases for riser 10' or less in height are:

1. A concrete base 18" thick with the riser embedded 9" in the base.
2. A ½" minimum thickness steel plate attached to the riser by a continuous weld around the circumference of the riser to form a watertight connection. The plate shall have 2' of stone, gravel, or compacted earth placed on it to prevent flotation. In either case, each side of the square base shall be twice the riser diameter.

Note: For risers greater than ten feet high computations shall be made to design a base which will prevent flotation. The minimum factor of safety shall be 1.20 (downward forces ÷ 1.20 x upward forces).

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE C-10-25	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

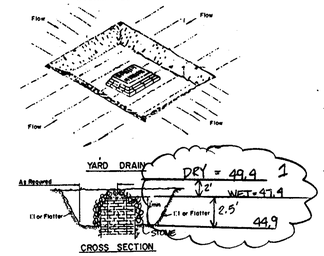
DETAIL 16 - CONCENTRIC TRASH RACK AND ANTI-VORTEX DEVICE



Riser Diam., in.	Trash Rack Cylinder Diam., in.	Trash Rack Cylinder Thick., gage	No. in.	Minimum Size Support Bar	Minimum Top Thickness	Minimum Top Stiffener
12	18	16	6	#6 Rebar	16 ga.	—
15	21	16	7	"	"	—
18	27	16	8	"	"	—
21	30	16	11	"	"	—
24	36	16	13	"	14 ga.	—
27	42	16	15	"	14 ga.	—
36	54	14	17	#8 Rebar	12 ga.	—
42	60	14	19	"	"	—
48	72	12	21	1-½" pipe or 1-½" x 1-½" x ¼" angle	10 ga.	—
54	78	12	25	"	"	—
60	90	12	29	1-½" pipe or 1-½" x 1-½" x ¼" angle	8 ga.	—
66	96	10	33	2" pipe or 2x2x3/16 angle	8 ga., w/stiffener	2x2x¼ angle
72	102	10	36	"	"	2-1/2x2-1/2x1/4 angle
78	114	10	39	2-½" pipe or 2x2x¼ angle	"	"
84	120	10	42	2-½" pipe or 2-1/2x2-1/2x1/4 angle	"	2-½ x2-1/2x ⅝ angle

Note: The above trash rack and anti-vortex device information is only for corrugated metal pipe. Concrete risers must meet the requirements of MD 378.

STORM INLET SEDIMENT TRAP ST-III



CONSTRUCTION SPECIFICATION FOR ST-III

1. Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to ½ the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
2. The volume of sediment storage shall be 3600 cubic feet per acre of contributory drainage.
3. The structure shall be inspected after each rain and repairs made as needed.
4. Construction operations shall be carried out in such a manner that erosion and water pollution shall be minimized.
5. The sediment trap shall be removed and the area stabilized when the constructed drainage area has been properly stabilized.
6. All cut slopes shall be 1:1 or flatter.

Maximum Drainage Area: 3 Acres

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE COLLEGE PARK, MARYLAND	STORM INLET SEDIMENT TRAP	STANDARD DRAWING ST-III

PIPE OUTLET #1

Sediment Trap

Existing Drainage Area:		5.5 Ac
Developed Drainage Area:		6.16 Ac
Top of Embankment Elevation:		52.5
Crest Elevation:		51.5
Outlet Elevation:		49.3
Crest Length:		3'
Storage Depth:	Wet	3.5
	Dry	2
Bottom Elevation:		46.0
Bottom Dimensions:		4'x4'
Approximate Storage Volume Provided	Wet	13635
	Dry	13860
	Total	27495
Required Storage Volume:	Wet	11880
	Dry	11880
	Total	23760
Side Slopes:		2:1
Clearout Elevation:		48.2

BARREL 24"
RISER 30"
TRASH RACK 42"

PIPE OUTLET #2

Sediment Trap 1

Existing Drainage Area:		4.32
Developed Drainage Area:		4.79
Top of Embankment Elevation:		52.0
Crest Elevation:		51.0
Outlet Elevation:		49.6
Crest Length:		2'
Storage Depth:	Wet	1.6
	Dry	1.6
Bottom Elevation:		47.5
Bottom Dimensions:		10'x 9'
Approximate Storage Volume Provided	Wet	11,024
	Dry	9990
	Total	21,014
Required Storage Volume:	Wet	8022
	Dry	8022
	Total	7244
Side Slopes:		2:1
Clearout Elevation:		48.8

BARREL 21"
RISER 27"
TRASH RACK 42"

PIPE OUTLET #3

Sediment Trap

Existing Drainage Area:		3.1 Ac.
Developed Drainage Area:		4.2 Ac.
Top of Embankment Elevation:		50.10
Crest Elevation:		49.101
Outlet Elevation:		47.10
Crest Length:		3'
Storage Depth:	Wet	2.6
	Dry	1.5
Bottom Elevation:		345.0
Bottom Dimensions:		8'X45'
Approximate Storage Volume Provided	Wet	9600
	Dry	8736
	Total	18282
Required Storage Volume:	Wet	7200
	Dry	7200
	Total	15120
Side Slopes:		2:1
Clearout Elevation:		46.6

21"
27"
42"

STORM INLET #4

Sediment Trap

Existing Drainage Area:		6.0 Ac
Developed Drainage Area:		2.2 Ac
Top of Embankment Elevation:		49.4
Crest Elevation:		49.4
Outlet Elevation:		47.4
Crest Length:		4.5
Storage Depth:	Wet	2
	Dry	2
Bottom Elevation:		42.9
Bottom Dimensions:		9'x 9'x2
Approximate Storage Volume Provided	Wet	13,117
	Dry	13,480
	Total	26,597
Required Storage Volume:	Wet	10800
	Dry	10800
	Total	21600
Side Slopes:		2:1
Clearout Elevation:		46.2

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 COUNTY SOIL CONSERVATION DISTRICT.

Ronald A Peterson 1/6/97
SIGNATURE OF ENGINEER — DATE

THESE PLANS FOR SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION.

HOWARD SOIL CONSERVATION DISTRICT — 1/9/97 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Cheryl K Simmons 01-09-97
USDA-NATURAL RESOURCES CONSERVATION SERVICE — DATE

I 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.

Thomas W Gregg 1/6/97

11/9/96
SIGNATURE OF DEVELOPER — DATE

APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — 1/13/97 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 1/16/97 DATE

DIRECTOR — 1/16/97 DATE

OWNER

PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
ATTN: CLAY KOLLEVOLL

RECYCLABLE - if printed on xerographic bond paper

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING LAND PLANNING LAND SURVEYING
ENVIRONMENTAL STUDIES
15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 695-1240, Metro (301) 831-4544

Designed	DL
Drafted	MM
Checked	RAP
Proj. Eng.	KM
OFFICE	LAN
DATE	11/13/96

NO.	REVISIONS	BY	DATE
(1)	REVISED PER H.C. SOIL CONSERVATION COMMENTS	KM	1/8/96

EROSION AND SEDIMENT CONTROL NOTES AND DETAILS/ CONSTRUCTION DETAILS

STATE OF MARYLAND — RONALD A. PETERSON — NO. 11971 — REGISTERED PROFESSIONAL ENGINEER — 1/6/97

Ronald A Peterson 1/6/97

GATEWAY COMMERCE CENTER

PARCEL A - 40
TAX MAP 42
6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
SHEET 7 OF 14 SHEETS
JOB NO. 801-04

100' SCALE SITE PLAN COVER SHEET - 187[0,418]PF: 140-02 83 29-Mar-96 05:22 PM / 140-02-1

SDP-97-42

MATCH LINE SEE SHEET 8 OF 14

PARCEL 'A-16'
PLAT Nos. 10542
& 10543

PARCEL A-43
PLAT #12120

EX. ASPHALT DRIVE

PROP EDGE OF PAVEMENT
1 RELOCATED AR
EX. AR
GRASS AREA
STABILIZE BERM WITH CROWN VETCH
EX. GW
1 RELOCATED GW
GRASS AREA
EX. AR
1 RELOCATED AR
PLANT BERM SIDE SLOPES WITH CROWN VETCH OR EQUIVALENT PLANT MATERIAL THAT DOES NOT REQUIRE MOWING
EX. GW
1 GW RELOCATED
SIGHT DISTANCE TRIANGLE
EX. ASPHALT DRIVE
STABILIZE BERM WITH CROWN VETCH
10 EXISTING WHITE PINES

EDGE OF PAVING
SIDEWALK
TYP. RET. WALL
EXISTING EDGE OF PAVEMENT
2 BITUMINOUS CURB & GUTTER
LOADING SPACES
EXISTING EDGE OF PAVEMENT
RETAINING WALL NOT CONSTRUCTED
EX. SHED TO REMAIN
4 EXISTING WHITE PINES
TYP. RET. WALL
BUILDING HEIGHT 22'±
75.0'
31.2'

EXISTING BUILDING HEIGHT 60'±
EXISTING STEEL FRAME BUILDING
W/ CONCRETE AND ALUMINUM VENEER
F.F. ELEV.=358.00
EXISTING BUILDING HEIGHT 30'±
EXISTING BUILDING HEIGHT 57'±
PHASE TWO
PHASE ONE
LOADING AREAS
LOADING AREAS

PLAT REFERENCE 12119-1212, RECORDED APRIL 11, 1996 REVISION TO PREVIOUSLY APPROVED SDP-96-118 TO INCLUDE THE REGRADING OF THE EAST SIDE OF THE SITE. PHASE I, II, AND III, THE ADDITION OF A 120,000 SQ. FT. BUILDING TO PHASE III AND THE ENLARGEMENT OF THE BERM AREA ON THE WEST SIDE OF THE SITE.

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

EXISTING CONC. PAD TO BE REMOVED
CONC. RAMP
2 LOADING SPACES
EXISTING CONC. PAD TO BE REMOVED
3 LOADING SPACES
2 HC RAMP
SECURITY BOOTH (TYP.)
PROP. LIGHT POLE
APPROX. LOCATION OF B.G.E. TRANSFORMER LOWER TO MATCH PROP. ELEV.
SECURITY BOOTH 10'x29.5'
10' CONC. PAD
EX. 8" SEWER
EX. ELEC. CONDUIT
SAN. C.O.
EDGE OF PAVING
1½" WHC
EX. 8" WATER HOUSE CONN.
EX. LIGHT
PROPOSED PAVING (USING P-1 PAVING SECTION)
EX. PRIVATE ASPHALT DRIVE

SIGHT DISTANCE TRIANGLE
SIGHT DISTANCE TRIANGLES
EX. PRIVATE ASPHALT DRIVE
APPROX. LOCATION OF B.G.E. TRANSFORMERS
20' BG&E ESMT. FOR DISTRIBUTION DUCT BANKS L. 1843 F. 440
2 PROP. BOLLARDS
EX. LIGHT POLE
RELOCATED PH
ELEC. DUCTBANK
12" FIRE MAIN
LAWN AREA
EX. LIGHT POLE
2 PROP. BOLLARDS
SIGHT DISTANCE TRIANGLES
WATER & UTILITY EASEMENT
RE-BAR & CAP FOUND

S 35°00'00" W 1635.29'
N 55°00'52" W 930.23'
384.5'
136.4'
GATEWAY COMMERCE CENTER PARCEL 'A-10' PLAT No. 10390
ROBERT FULTON DRIVE
PLAT No. 10390
(80' R/W)

COLUMBIA GATEWAY
PARCEL 'I'
PLAT Nos. 6812
& 6813
ZONED M-1

6' CHAIN LINK RUNNING w/ LINE

Δ = 38°30'46"
R = 375.00'
L = 252.07'
Chd. = 247.35'
Chd.Brg. = N 74°16'15" W

APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/13/97

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/16/97

DIRECTOR — DATE 1/16/97

NOTES:
1. THERE WILL BE NO PLANTING ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLES AT THE ENTRANCES
2. THIS LANDSCAPE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE ALTERNATIVE COMPLIANCE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
3. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF $500.00.

LEGEND
● DOCK DOOR

STATE OF MARYLAND — JOHN ALAN SPIEGEL — No. 934 — REGISTERED LANDSCAPE ARCHITECT
4/19/12
FOR REV. 7 ONLY

THIS SHEET IS FOR LANDSCAPE PURPOSES ONLY!

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING LAND PLANNING LAND SURVEYING
ENVIRONMENTAL STUDIES
15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	MAM
Drafted	MAM
Checked	JAS
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	12/2/96

NO.	REVISIONS	BY	DATE
7	ADDITIONAL PARKING ADDED	PCR	4/9/12
6	REVISED BERM PER ROUSE CO. COMMENTS	MAM	12/12/97
5	REVISED LANDSCAPE BERM PER ROUSE CO.	MAM	10/21/97
4	REVISED PER REDLINE FOR SEC. BOOTH	MAM	10/1/97
3	REVISED PER REDLINE FOR PEPCO/COSTCO	KM	9/18/97
2	REVISED PER APPROVED REDLINE 4/30/97	MAM	6/1/97
1	REVISED PER COMMENTS RECEIVED FROM HOWARD COUNTY AND THE ROUSE COMPANY	MAM	12/2/96

LANDSCAPE PLAN

3 JAN 97

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

SCALE 1"=50'
SHEET 8 OF 14 SHEETS
JOB NO. 801-04

SDP-97-42

24.38/0953

APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 1/13/97

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/16/97

DIRECTOR — DATE 1/16/97

PLAT REFERENCE 12119-1212, RECORDED APRIL 11, 1996 REVISION TO PREVIOUSLY APPROVED SDP-96-118 TO INCLUDE THE REGRADING OF THE EAST SIDE OF THE SITE, PHASE I, II, AND III. THE ADDITION OF A 120,000 SQ. FT. BUILDING TO PHASE III AND THE ENLARGEMENT OF THE BERM AREA ON THE WEST SIDE OF THE SITE.

HOWARD RESEARCH & DEVELOPMENT GROUP
PARCEL 'A-43'
ZONED M-1

1" O.E.P. FOUND

COLUMBIA GATEWAY OPEN SPACE LOT 6 PLAT No. 6773

S 55°00'00" E 1263.69'

NOSE DOWN CONCRETE CURB & GUTTER TO EDGE OF PAVEMENT AND END GUTTER

SIGHT DISTANCE TRIANGLE

EX. ASPHALT DRIVE

20' BG&E EASEMENT FOR DISTRIBUTION DUCT BANKS L. 1843 F. 440

38 Reg Parking Spaces (9.5x18 Typ.)

ENTRANCE

272.6'

EXISTING 2 STORY CONC. & STEEL FRAME W/ GLASS VENEER BUILDING HEIGHT 60'±

PROP. 10'x10' TRANSFORMER PAD

PAVING CASE 1
62 Tractor Parking Spaces (11'x20' Typ.)

CONTRACTOR TO PROVIDE 1' OF ORGANIC TOP SOIL PLANTED WITH CROWN VETCH OR EQUIVALENT

EX. OVERHEAD CONVEYOR TO REMAIN

82 Car Parking Spaces (9.5 x 18 Typ.)

HC ENTRANCE

188.4'

EXISTING BUILDING HEIGHT 32'±

110.3'

109.8'

85.4'

226'±

PROPOSED 119,850 SQ. FT. BLDG. F.F. ELEV. =358.00

EXISTING BUILDING HEIGHT 70'±

289.7'

526.5'

EX. ASPHALT PARKING

DUMPSTER LOCATION (10'x30')

PAVING CASE 1

100 Tractor Parking Spaces (10' x 45' Typ.)

6' CONC. PAD

PAVING CASE 2

MODIFY EXISTING FENCE

BITUMINOUS CURB AND GUTTER

EDGE OF PAVING

389'±

25'

LAWN AREA

BUILDING HEIGHT 30'±

PARCEL "A-40" F.F. ELEV.=358.00

EXISTING BUILDING HEIGHT 30'±

178.2'

100.8'

PHASE THREE

PHASE TWO

256.4'

188.4'

89.7'

GRASS

PROPOSED EDGE OF PAVING

PARCEL 'A-43' ZONED M-1

EXISTING UTILITIES BUILDING

1077.45'

ACCESS DRIVE

PROPOSED EDGE OF PAVING

STABILIZE BERM WITH CROWN VETCH

EX. ASPHALT DRIVE

6' CHAIN LINK RUNNING w/ LINE

1635.29'

N 35°00'00" W

COLUMBIA GATEWAY PARCEL 'L' PLAT Nos. 6812 & 6813 ZONED M-1

NOTES:

1. THERE WILL BE NO PLANTING ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLES AT THE ENTRANCES
2. THIS LANDSCAPE PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE ALTERNATIVE COMPLIANCE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.
3. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE GRADING PERMIT IN THE AMOUNT OF $300.00.

LEGEND

- BLOCK HEATER
- DOCK DOOR
- PROPOSED LIGHT POLE

MATCH LINE SEE SHEET 7 OF 14

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

REFER TO THE ELECTRICAL PLANS FOR A DETAIL OF THE LIGHT POLES !

THIS SHEET IS FOR LANDSCAPE PURPOSES ONLY!

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING LAND PLANNING ENVIRONMENTAL STUDIES LAND SURVEYING
15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
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258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	MAM
Drafted	MAM
Checked	JAS
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	12/2/96

NO.	REVISIONS	BY	DATE
3	REVISED BERM/LANDSCAPING PER ROUSE CO.	MAM	12/12/97
2	REVISED PER APPROVED REDLINE 4/30/97	MAM	5/1/97
1	REVISED PER COMMENTS RECEIVED FROM HOWARD COUNTY AND THE ROUSE COMPANY	MAM	12/2/96

LANDSCAPE PLAN

STATE OF MARYLAND — JOHN ALAN SPIEGEL — No. 934 — REGISTERED LANDSCAPE ARCHITECT

3. Jan. 97

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

SCALE 1"=50'
SHEET 9 OF 14 SHEETS
JOB NO. 801-04

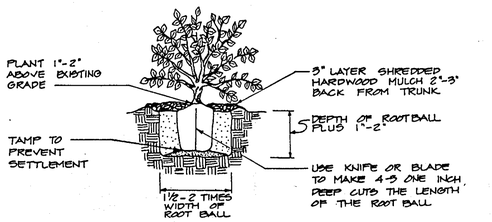
SDP-97-42

24-38

PLANTING NOTES

1. PRIOR TO CONSTRUCTION OR EXCAVATION, CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES, UTILITY RIGHT OF WAYS, ETC...
2. CONTRACTOR TO VERIFY QUANTITIES SHOWN ON PLANT LIST TOTALS TO THOSE INDICATED ON THE PLAN. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF QUANTITIES AS DRAWN. NOTIFY LANDSCAPE ARCHITECT PRIOR TO BID NEGOTIATION OF ANY DISCREPANCIES IN PLANT COUNT. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL MEET THE NORMAL REQUIREMENTS FOR THE VARIETY PER AAN STANDARDS. PLANTS TO BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE OWNER.
3. UNIT PRICES FOR ALL MATERIAL SHALL BE SUPPLIED TO THE OWNER AT BIDDING TIME.
4. CONTRACTOR TO SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. LANDSCAPE ARCHITECT SHALL BE NOTIFIED SHOULD THE RELOCATION OF PROPOSED PLANTS BE NECESSARY.
5. ALL TREES AND SHRUBS TO BE IN MULCHED BEDS. MULCH TO BE SHREDDED HARDWOOD BARK. BEDS TO HAVE SMOOTHLY CONTOURED EDGES, CLEARLY DEFINED AND SHALL GENERALLY FOLLOW THE CONTOUR OF THE GROUND. TREES LOCATED WITHIN 4' OF SHRUB BEDS SHALL SHARE SAME MULCH BED.
6. ALL TREES TO BE LOCATED A MINIMUM OF 3' FROM BUILDINGS. ALL PLANTING SHOULD BE A MINIMUM OF 4' FROM FIRE HYDRANTS.
7. FINISHED PLANTING BEDS SHALL BE GRADED SO AS TO NOT IMPEDE DRAINAGE AWAY FROM BUILDING.
8. IF CONFLICTS ARISE BETWEEN ACTUAL SIZE OF AREAS AND PLANS, CONTRACTOR TO CONTACT OWNER FOR RESOLUTION PRIOR TO PLANT INSTALLATION. FAILURE TO MAKE SUCH CONFLICTS KNOWN TO THE OWNER MAY RESULT IN CONTRACTOR'S RELOCATION OF THE PLANTS AT HIS OWN EXPENSE.
9. ALL PLANT MATERIALS SHALL BE SUBJECT TO APPROVAL BY OWNER. OWNER SHALL RECEIVE TAG FROM EACH SPECIES AND A COMPLETE LIST OF PLANT SUPPLIERS.
10. ALL PLANTS SHALL BE FRESHLY DUG, SOUND, HEALTHY, VIGOROUS, WELL BRANCHED AND FREE OF ALL DISEASE, INSECT EGGS AND LARVAE.
11. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE FULL TOPS WHICH ARE HEALTHY AND VIGOROUS. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY UPON THE APPROVAL OF THE OWNER.
12. TAGS AND TWINE ARE TO BE REMOVED AND BURLAP IS TO BE PEELED BACK FROM THE TOP OF ALL B&B PLANT MATERIAL ROOT BALLS.
13. SHRUBS, GROUNDCOVERS, AND SEASONAL COLOR SHALL BE TRIANGULARLY SPACED AT SPACING SHOWN ON THE PLANT LIST AND SHALL RECEIVE MULCH AS SPECIFIED IN DETAILS.
14. SHADE TREES: HEIGHT SHALL BE MEASURED FROM GROUND TO THE AVERAGE HEIGHT OF CANOPY. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF "V" CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION.
15. SIZES SPECIFIED IN THE PLANT LIST ARE MINIMUM SIZES TO WHICH THE PLANTS ARE TO BE JUDGED. FAILURE TO MEET MINIMUM SIZE ON ANY PLANT MAY RESULT IN REJECTION OF THAT PLANT.
16. PLANTS SHALL BE PLANTED 1/6 HEIGHT OF ROOT BALL HIGHER (AFTER SETTLING) THAN ADJACENT POSITIVELY DRAINED GRADE.
17. WHERE TREES ARE PLANTED IN ROWS, THEY SHALL BE UNIFORM IN SIZE AND SHAPE.
18. TREE STAKING AND GUYING SHALL BE INSTALLED PER DETAILS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE TREES TO REMAIN STRAIGHT FOR THE DURATION OF THE GUARANTEE PERIOD.
19. SUBSTITUTIONS OF PLANT MATERIALS MAY BE NECESSARY DUE TO AVAILABILITY OR CURRENT NURSERY STOCK. SUBSTITUTIONS SHALL BE EQUIVALENT IN SIZE, FORM, TEXTURE AND GENERAL QUALITY TO PLANTS SPECIFIED ON PLANT LIST.
20. ALL SUBSTITUTIONS OF PLANT MATERIAL ARE TO BE REQUESTED IN WRITING TO THE OWNER. FAILURE TO OBTAIN APPROVAL OF SUBSTITUTIONS IN WRITING FROM THE OWNER MAY POSSIBLY RESULT IN CONTRACTOR'S LIABILITY.
21. DEAD PLANTS ARE TO BE REMOVED FROM THE JOB BY THE CONTRACTOR WEEKLY. CONTRACTOR SHALL MAINTAIN AN UPDATED, COMPREHENSIVE LIST OF ALL DEAD MATERIALS REMOVED AND PRESENT A COPY OF THE LIST TO THE OWNER AT THE END OF EVERY MONTH DURING THE CONTRACT PERIOD.
22. AT ALL PLANTED MEDIAN STRIPS AND ISLANDS CONTRACTOR TO BERM 8" HEIGHT WITH TOPSOIL SUPPLIED ON SITE. CONTACT OWNER TO INSPECT FINE GRADING OF THESE AREAS PRIOR TO SEEDING, MULCHING, PLANTING, AND TACKING.
23. ALL CONTRACTORS AND SUBCONTRACTORS SHALL BE REQUIRED TO COMPLETELY REMOVE ALL TRASH, DEBRIS, SOIL, AND EXCESS MATERIALS FROM THE WORK AREA AND THE PROPERTY (ESPECIALLY ALL CURB, GUTTERS, AND SIDEWALKS DAILY).
24. CONTRACTOR SHALL BE RESPONSIBLE TO REGRADE, HYDRO-SEED, STRAW MULCH, AND TACK ALL AREAS DISTURBED AS THE RESULT OF HIS WORK TO EQUAL OR BETTER CONDITION WITHIN 5 DAYS OF EACH AREA DISTURBED.
25. INSTALLATION OF ALL LANDSCAPE RELATED MATERIALS SHALL BE IN CONFORMANCE WITH LCMH/ASLA "LANDSCAPE SPECIFICATION GUIDELINES."
26. ALL PLANT MATERIAL AND WORKMANSHIP SHALL BE WARRANTED FOR 12 MONTHS COMMENCING ON THE DATE OF ACCEPTANCE.
27. ALL DECIDUOUS TREES OVER 2" CALIPER AND EVERGREEN TREES SHALL BE GUYED SECURELY WITH GUY WIRES SPACED EQUALLY ABOUT EACH TREE. SEE DETAIL.
28. ALL AREAS DISTURBED DURING CONSTRUCTION THAT ARE NOT PAVED, PLATTED, OR CALLED OUT AS SOD SHALL BE SEEDED W/KENTUCKY 31 AT A RATE OF 8 LBS./1000 SF. AFTER THE AREAS HAVE BEEN BROUGHT TO GRADE, THE SUBGRADE, SHALL BE LOOSENED BY DISKING OR BY SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES.
29. SOD SHALL BE APPROVED KENTUCKY 31 BLUEGRASS MIX.

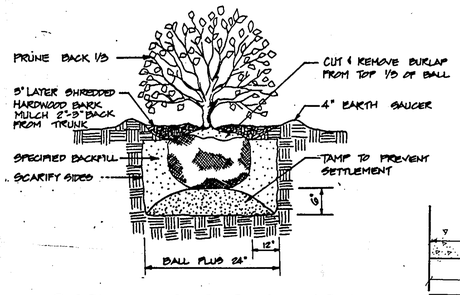
PLANT LIST PROVIDED IS FOR CONTRACTORS INFORMATION ONLY - QUANTITIES SHALL BE AS SHOWN ON DRAWING.



REMOVE PLANT BY EITHER CUTTING OR INVERTING THE CONTAINER.

DETAIL - CONTAINERIZED PLANT PLANTING

NO SCALE

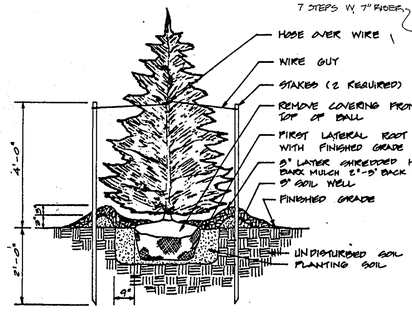


DETAIL - SHRUB PLANTING

NO SCALE

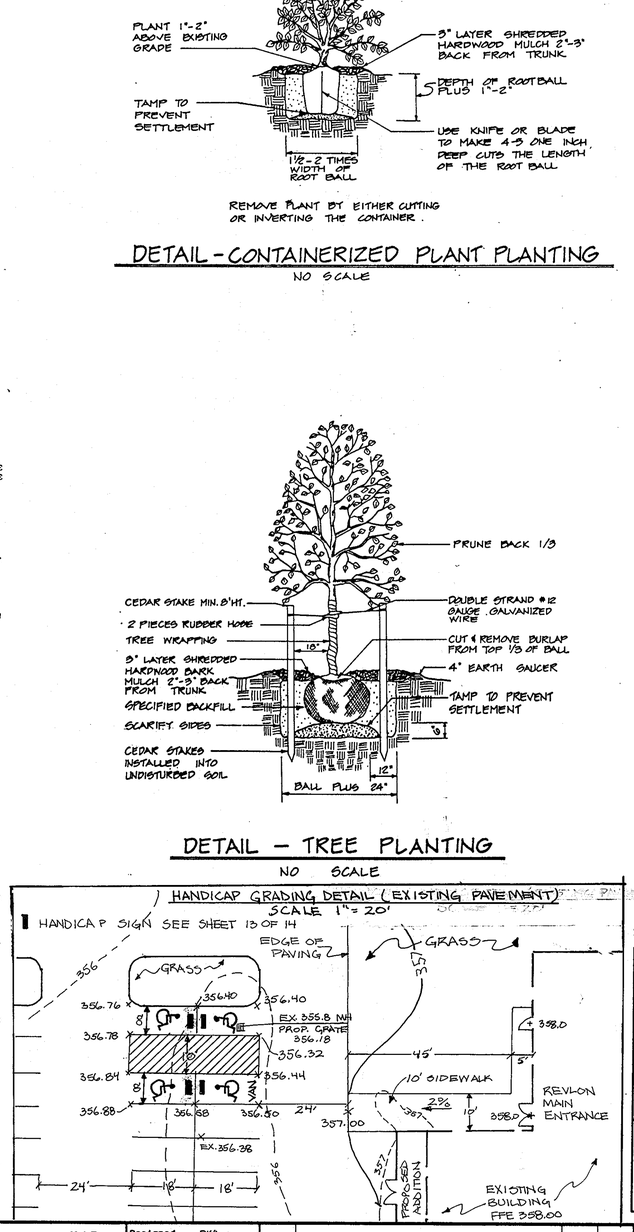
DETAIL - TREE PLANTING

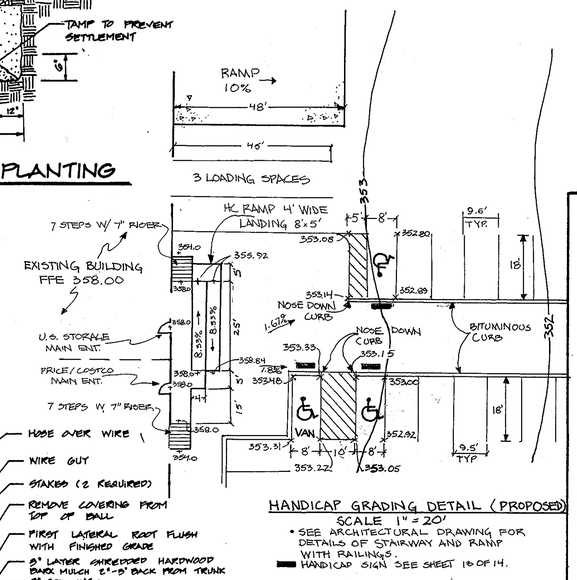
NO SCALE



DETAIL - EVERGREEN TREE PLANTING

NO SCALE

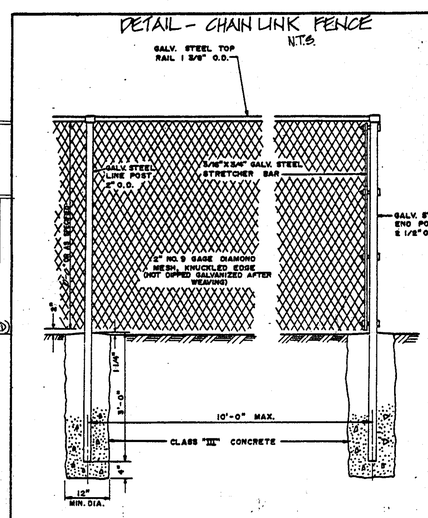




- SEE ARCHITECTURAL DRAWING FOR DETAILS OF STAIRWAY AND RAMP WITH RAILINGS.
- HANDICAP SIGN SEE SHEET 13 OF 14.

DETAIL - CHAIN LINK FENCE

N.T.S.



NOTE: GALVANIZING TO BE IN ACCORDANCE WITH AASHO M-181.
WHEN SPECIFIED FOR USE ON STRUCTURES POSTS TO BE EMBEDDED 12" IN LEADED SOCKETS.

PLANT SCHEDULE — PHASE I, II, III, AND BERM ONLY !

KEY	BOTANICAL/COMMON	QUANT.	SIZE	REMARK
AR	ACER RUBRUM/RED MAPLE	16	2-1/2"-3" CAL.	B&B
LS	LIQUIDAMBAR STYRACIFLUA/SWEETGUM	15	2-1/2"-3" CAL.	B&B
PN	PINUS NIGRA/AUSTRIAN PINE	27	6-8' HGT.	B&B
PS	PINUS STROBUS/WHITE PINE	67	6-8' HGT.	B&B
PY	PINUS SYLVESTRIS/SCOTCH PINE	11	6-8' HGT.	B&B
QP	QUERCUS PALUSTRIS/PIN OAK	14	2-1/2"-3" CAL.	B&B
CS	CORNUS STOLONIFERA/ RED-OSIER DOGWOOD	12	2-1/2"-3" HGT.	B&b OR CONT.
FI	FORSYTHIA INTERMEDIA 'SPECTABILIS'/ SHOWY BORDER FORSYTHIA	16	2-1/2"-3" HGT.	B&B OR CONT.
SC	SAMBUCUS CANADENSIS 'AUREA'/ GOLDEN ELDER	12	2-1/2"-3" HGT.	B&B OR CONT.
QW	QUERCUS PHELLOS/WILLOW OAK	5	2-1/2"-3" CAL.	B&B
PC	PYRUS Calleryana 'BRADFORD'	8	2-½"-3" CAL.	B & B

SCHEDULE B-PARKING LOT INTERNAL LANDSCAPING
PHASE I, II, III, AND BERM ONLY !

NUMBER OF PARKING SPACES	349- 392
NUMBER OF TREES REQUIRED(1:20)	18 20
NUMBER OF TREES PROVIDED SHADE TREES OTHER TREES (2:1 SUBST.)	18 20 – –
NO. OF LANDSCAPE ISLANDS REQ.(1:20) (AREA OF 1 ISLAND: 200 SQ. FT.)	18 OR 20 3600 SQ. FT. 4000
NO. OF LANDSCAPE ISLANDS PROVIDED	368 OR 2672 7381 SQ. FT. 3237

SCHEDULE A-PERIMETER LANDSCAPE EDGE — PHASE I, II, III, AND BERM ONLY!!

CATEGORY	NORTH BOUNDARY PERIMETER	SOUTH BOUNDARY PERIMETER	EAST BOUNDARY PERIMETER	WEST BOUNDARY PERIMETER
LANDSCAPE TYPE	TYPE C BUFFER	TYPE C BUFFER	TYPE C BUFFER	TYPE C BUFFER
LINEAR FEET OF ROADWAY FRONTAGE/PERIMETER	1263.69'	930.23'	1635.29'	1077.45'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO	NO	NO	NO
NUMBER OF PLANTS REQUIRED:				
SHADE TREES	10	12	33	33
EVERGREEN TREES	20	24	65	65
SHRUBS	–	–	–	–
NUMBER OF PLANTS PROVIDED:				
SHADE TREES	13 EXIST. TREES	8	–	35
EVERGREEN TREES (2:1 SUBST.)	14	11	–	75
OTHER TREES (2:1 SUBST.)	–	–	–	–
SHRUBS (10:1 SUBST.)	3	30	–	–
(DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)				

COMMENTS: ABOVE SCHEDULE SUBJECT TO ALTERNATIVE COMPLIANCE.

APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	1/13/97 DATE
A/CHIEF, DIVISION OF LAND DEVELOPMENT [redacted]	1/16/97 DATE
DIRECTOR	1/16/97 DATE

NOTE: PLAT REFERENCE 12119-12121, RECORDED APRIL 11, 1996 REVISION TO PREVIOUSLY APPROVED SDP-96-118 TO INCLUDE THE REGRADING THE EAST SIDE OF THE SITE, PHASE I, II, AND III, THE ADDITION OF 120,000 SQ. FT. BUILDING TO PHASE III AND ENLARGE THE BERM AREA ON THE WEST SIDE OF THE SITE

OWNER

PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
MR. OLAV KOLLEVOLL
(703) 847-5270

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING LAND PLANNING LAND SURVEYING
ENVIRONMENTAL STUDIES
15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 695-1240, Metro (301) 831-4544

Designed	DWL
Drafted	MAM
Checked	KLM
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	DEC. 1996

NO.	REVISIONS	BY	DATE
3	REVISED SCHEDULE 'A' AND PLANT SCHEDULE	MAM	12/12/97
2	REVISED PER APPROVED REDLINE 4/30/97	MAM	5/1/97
1	REVISED PER COUNTY COMMENTS	KW	12/9/96

LANDSCAPE DETAIL SHEET

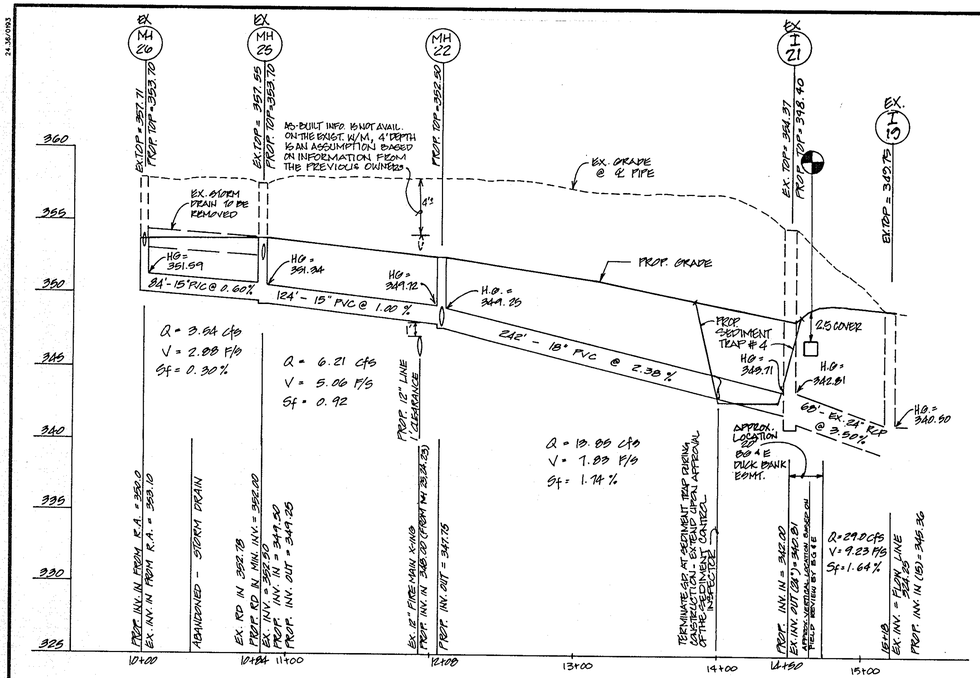
STATE OF MARYLAND — JOHN ALAN SPIEGEL No. 982 — REGISTERED LANDSCAPE ARCHITECT
17 Dec 96
3 Jan 97

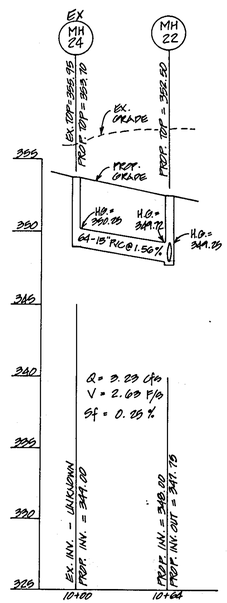
Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

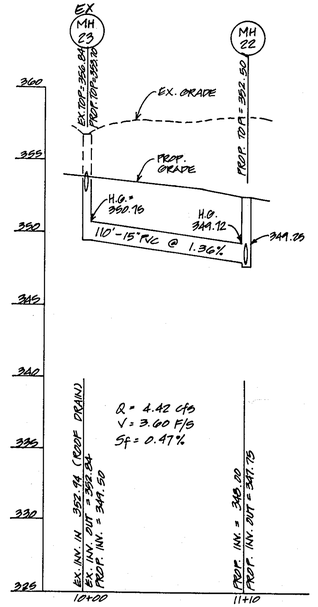
SCALE AS NOTED
SHEET 10 OF 14 SHEETS
JOB NO. 801-04

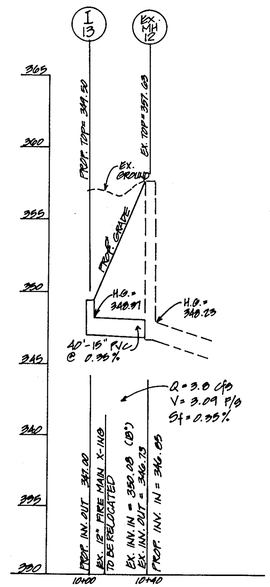
SDP-97-42

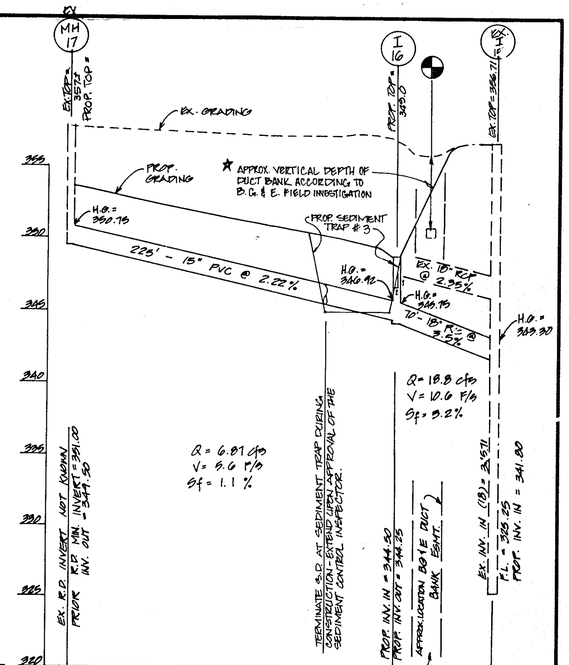
24-36/093











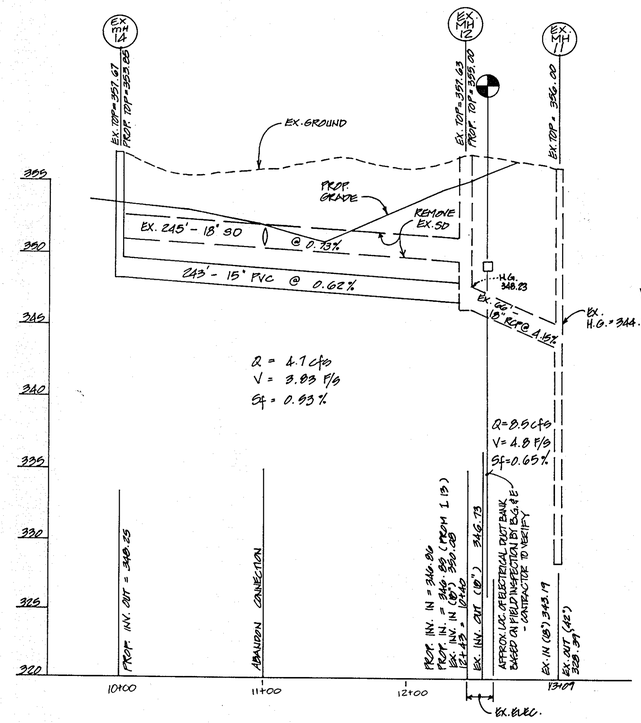
CONTRACTOR MUST VERIFY HORIZONTAL & VERTICAL LOCATION FOR UTILITIES CONSTRUCTION

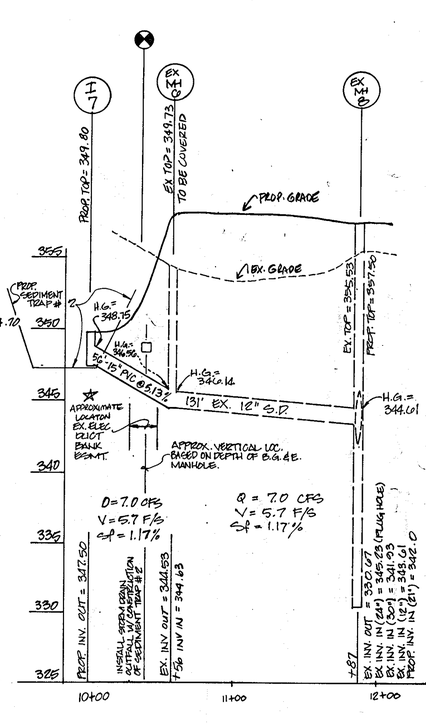
APPROVED DEPARTMENT OF PLANNING AND ZONING

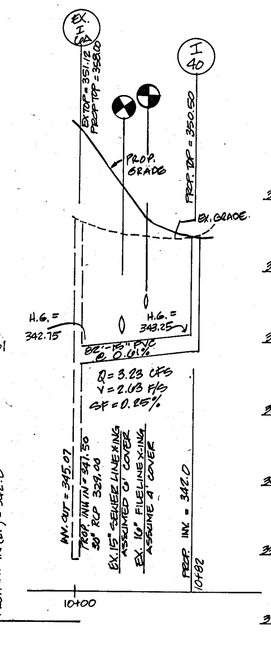
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 1/13/97

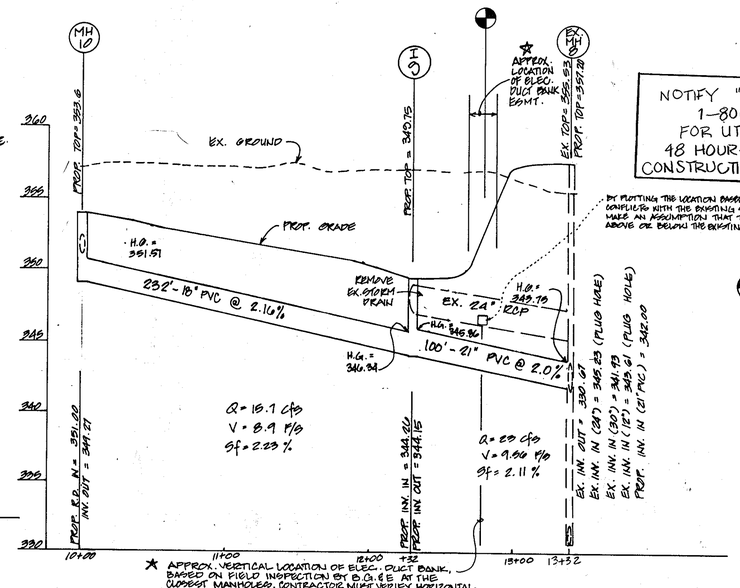
CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/16/97

DIRECTOR — DATE 1/16/97









★ APPROX. VERTICAL LOCATION OF ELEC. DUCT BANK, BASED ON FIELD INSPECTION BY B.G.&E. AT THE CLOSEST MANHOLES. CONTRACTOR MUST VERIFY HORIZONTAL & VERTICAL LOCATION PRIOR TO CONSTRUCTION OF UTILITIES.

NOTIFY "MISS UTILITY" AT
1-800-257-7777
FOR UTILITY LOCATION
48 HOURS PRIOR TO ANY
CONSTRUCTION OR EXCAVATION

BY PLOTTING THE LOCATION BASED ON THE MANHOLE DEPTH, THE DUCT BANK CONFLICTS WITH THE EXISTING STORM DRAIN LINE. THE ENGINEER CAN ONLY MAKE AN ASSUMPTION THAT THE EX. DUCT BANK IS EITHER CONSTRUCTED ABOVE OR BELOW THE EXISTING STORM DRAIN.

CONTRACTOR TO TEST PIT TO VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES.

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

NOTE: PLAT REFERENCE 12119-12121, RECORDED APRIL 11, 1996
REVISION TO PREVIOUSLY APPROVED SDP-96-118
TO INCLUDE THE REGRADING THE
EAST SIDE OF THE SITE, PHASE I, II, AND III, THE ADDITION
OF 120,000 SQ. FT. BUILDING TO PHASE III
AND ENLARGE THE BERM AREA ON THE
WEST SIDE OF THE SITE

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING · LAND PLANNING · LAND SURVEYING · ENVIRONMENTAL STUDIES
15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	DWL
Drafted	MAM
Checked	KLM
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	10/11/96

NO.	REVISIONS	BY	DATE
1	REVISED S.D. PER COUNTY COMMENTS	KM	12/18/96

STORM DRAIN PROFILES

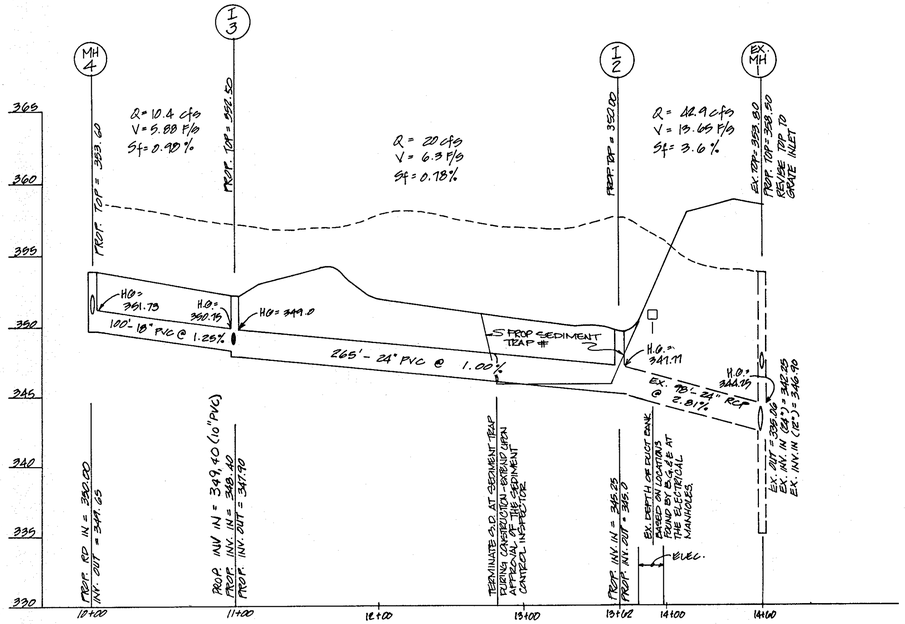
STATE OF MARYLAND — RICHARD A. FRANKUM — No. 11021 — REGISTERED PROFESSIONAL ENGINEER

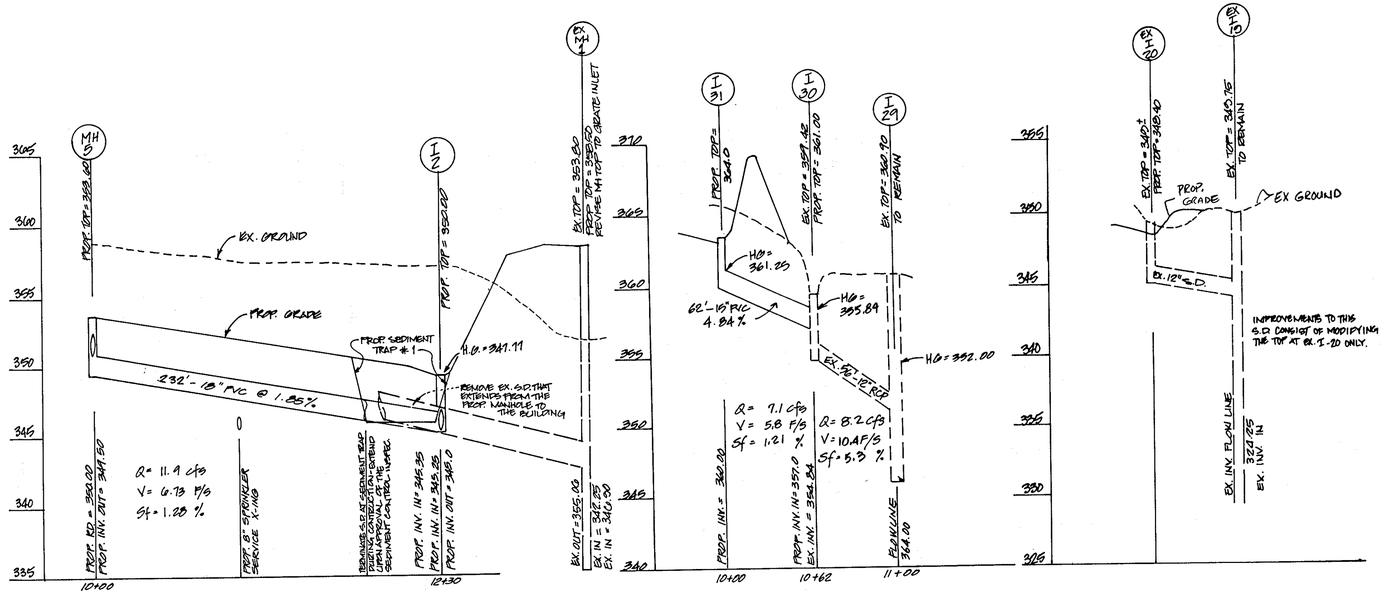
R.A. Frankum 1/31/97

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

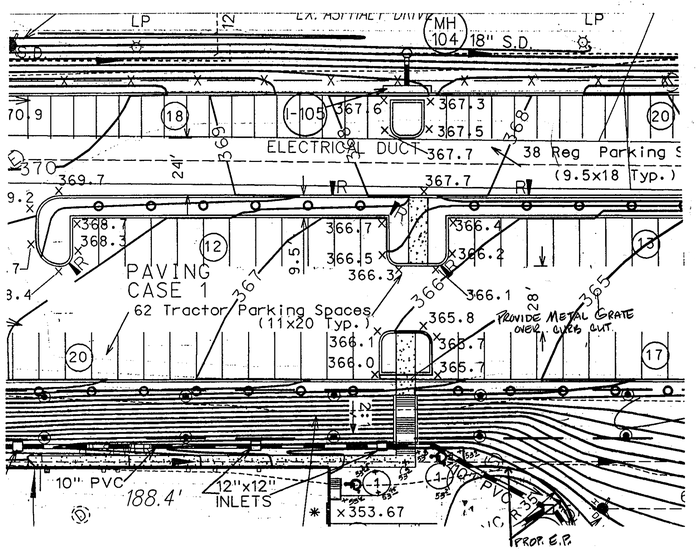
SCALE	AS NOTED
SHEET	11 OF 14 SHEETS
JOB NO.	801-04

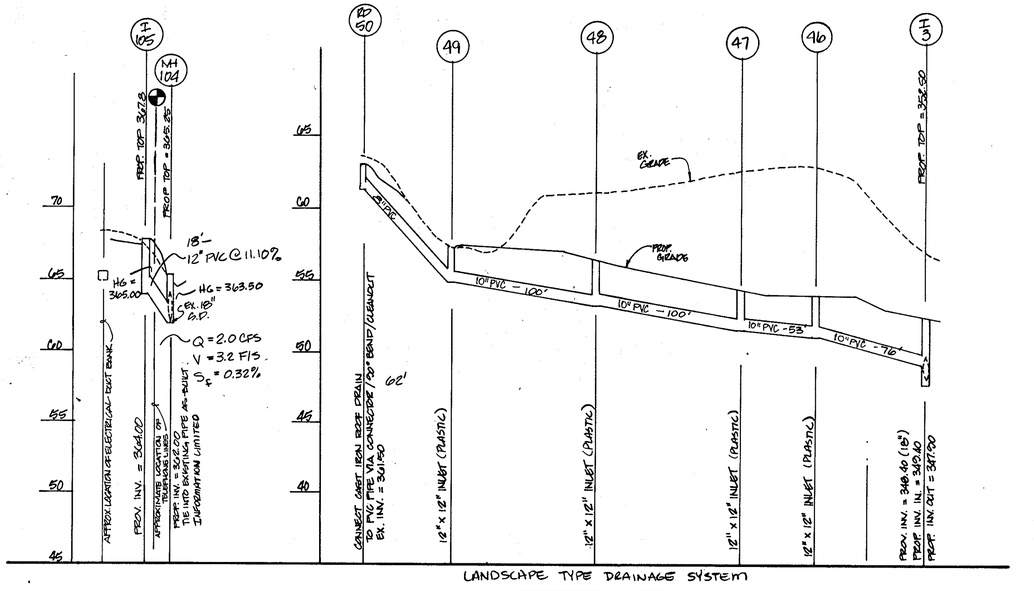
SDP-97-42





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





LANDSCAPE TYPE DRAINAGE SYSTEM

HANDICAP ACCESS
1" = 30'

NOTIFY "MISS UTILITY" AT
1-800-257-7777
FOR UTILITY LOCATION
48 HOURS PRIOR TO ANY
CONSTRUCTION OR EXCAVATION

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

NOTE: PLAT REFERENCE 12119-12121, RECORDED APRIL 11, 1996
REVISION TO PREVIOUSLY APPROVED SDP-96-118 TO INCLUDE THE REGRADING THE EAST SIDE OF THE SITE, PHASE I, II, AND III, THE ADDITION OF 120,000 SQ. FT. BUILDING TO PHASE III AND ENLARGE THE BERM AREA ON THE WEST SIDE OF THE SITE

APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK — DATE 1/13/97

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/16/97

DIRECTOR — DATE 1/16/97

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Designed	DWL
Drafted	MAM
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OFFICE	LANHAM
DATE	10/11/96

NO.	REVISIONS	BY	DATE
1	REVISED PLAN PER H.C. COMMENTS	KM	12/18/96
2	REVISED PER APPROVED REDLINE 4/30/97	NAM	5/1/97

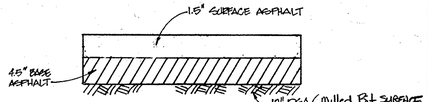
STORM DRAIN PROFILES

STATE OF MARYLAND · RANDOLPH A. PETERSEN · NO. 11901 · REGISTERED PROFESSIONAL ENGINEER
5/1/97

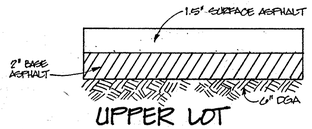
Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

SCALE: HORIZ. 1" = 50', VERT. 1" = 5'
SHEET 12 OF 14 SHEETS
JOB NO. 801-04

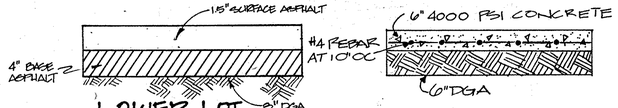
SDP-97-42



LOWER LOT & PRIVATE ROAD CASE 1

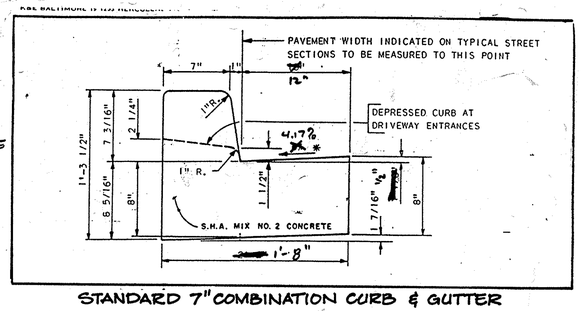


UPPER LOT

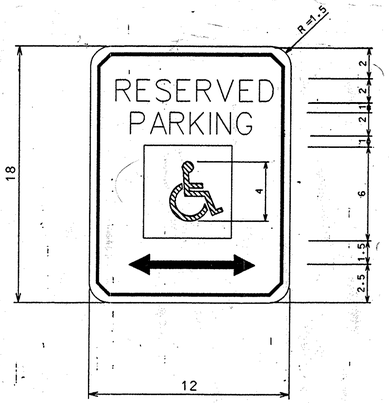


LOWER LOT CASE 2

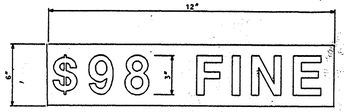
DOLLY PAD & DUMPSTER DETAIL



STANDARD 7" COMBINATION CURB & GUTTER



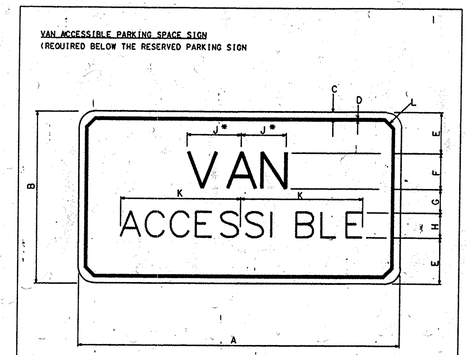
REFERENCE:
STATE OF MARYLAND STANDARD HIGHWAY SIGNS BOOKLET
MARYLAND DEPARTMENT OF TRANSPORTATION
P.O. BOX 717 - 707 N. CALVERT STREET
BALTIMORE, MD 21203



1 SIGN WILL HAVE AN ALUMINUM BLANK, 0.080 INCH THICK WITH TWO SINGLE POST MOUNTING HOLES - STANDARD GREEN BACKGROUND SHALL BE REFLECTIVE WHTE.

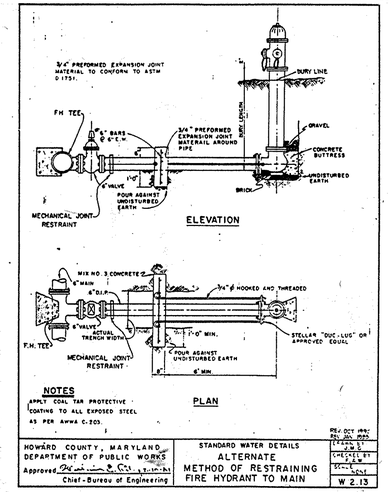
2. MOUNT BELOW THE R7-8 RESERVES PARKING SIGN. BOTTOMNO LESS THAN 7' ABOVE GROUND.

VAN ACCESSIBLE PARKING SPACE SIGN
(REQUIRED BELOW THE RESERVED PARKING SIGN



SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN.	12	6	3/8	1 1/2	1 1/2 D	1/2	1 D	2 1/2	4	1 1/2
STD.	18	9	3/8	2 1/2	2 D	1	1 1/2 D	2 3/4	7	1

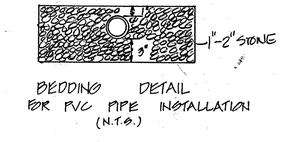
REGULATORY (COLORS MAY BE REVERSED)
LEGEND: GREEN OR BLACK
BACKGROUND: WHITE (RETROREFLECTIVE)



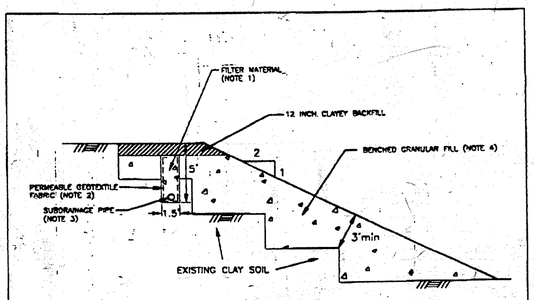
NOTES
APPLY COAL TAR PROTECTIVE COATING TO ALL EXPOSED STEEL AS PER AWWA C-203.

HOWARD COUNTY, MARYLAND DEPARTMENT OF PUBLIC WORKS	STANDARD WATER DETAILS	REV. OCT 1990 REV. JULY 1995
Approved: Chief - Bureau of Engineering	ALTERNATE METHOD OF RESTRAINING FIRE HYDRANT TO MAIN	W 2.13

FIRE HYDRANT RESTRAINT METHOD FOR RELOCATED FIRE HYDRANTS



BEDDING DETAIL FOR PVC PIPE INSTALLATION (N.T.S.)



SLOPE STABILIZATION NOTES

1. FILTER MATERIAL GRADATION SHOULD SATISFY REQUIREMENTS FOR AASHTO NO. 7 COARSE AGGREGATE.
2. PERMEABLE FABRIC SHOULD HAVE EQUIVALENT OPEN SIZE NOT LARGER THAN THE NO. 70 U.S. STANDARD SIEVE SIZE.
3. SUBDRAINAGE PIPING SHOULD BE 4 INCH DIAMETER SLOTTED CORRUGATED POLYETHLENE (PE) TUBING ACCORDING TO ASTM F-405 WITH MAXIMUM 1/8 INCH SLOT WIDTH. PIPING SHOULD OUTLET BY GRAVITY ON THE EAST END OF THE SLOPE
4. GRANULAR FILL CLASSIFIED AS SW, GW, SP, OR GW PER ASTM D2487, OR CRUSHED STONE COARSER THAN AASHTO NO. 57 STONE SHOULD BE BENCHED INTO THE EXISTING HILLSIDE. THIS BENCH SHOULD CONSIST OF A MINIMUM 8 FEET WIDE LEVEL CUT, AND AT LEAST ONE SUCH BENCH SHOULD BE USED FOR EACH 3 FEET OF VERTICAL RISE OF FILL PLACED. THE FILL SHOULD BE COMPACTED TO AT LEAST 95% OF ASTM D-698. FINAL SLOPES SHOULD HAVE A SLOPE NO STEEPER THAN 2H:1V.
5. EROSION CONTROL MUST BE DEVELOPED ON THE FINAL SLOPE SURFACE.

962428C

SCHNABEL ENGINEERING ASSOCIATES	Giant Food Warehouse, Gateway Commerce Center, Howard County, Maryland		
	SLOPE STABILIZATION SCHEME 2	DATE: Dec. 1996	CONTRACT No.: 962428
		DRAWN BY: MCC	SCALE: N.T.S.
			FIGURE No.: 2

REFER TO GEOTECHNICAL REPORT FOR SLOPE DESIGN

Schematic Profile

Scale
1" HORIZ = 50'
1" VERT = 5'

APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK	1/13/97 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT, [illegible] DIRECTOR	1/16/97 DATE
	1/16/97 DATE

OWNER
PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

Century Engineering for Rev. #8 only 1.13.97

LOIEDERMAN ASSOCIATES, INC.
CIVIL ENGINEERING · LAND PLANNING · ENVIRONMENTAL STUDIES · LAND SURVEYING

15200 Shady Grove Road, Rockville, Maryland 20850, (301) 948-2750
4407 Forbes Boulevard, Lanham, Maryland 20706, (301) 794-7555
258 West Patrick Street, Frederick, Maryland 21701, (301) 696-1240, Metro (301) 831-4544

Designed	KLM
Drafted	MAM
Checked	KLM
Proj. Eng.	KLM
OFFICE	LANHAM
DATE	12/6/96

NO.	REVISIONS	BY	DATE
1	ADDITIONAL SHEET PER H.C. Comments	KM	12/18/96
8	Add gazebo/house	KSL	1/7/97
9	Add security trailer	KSL	1/13/97

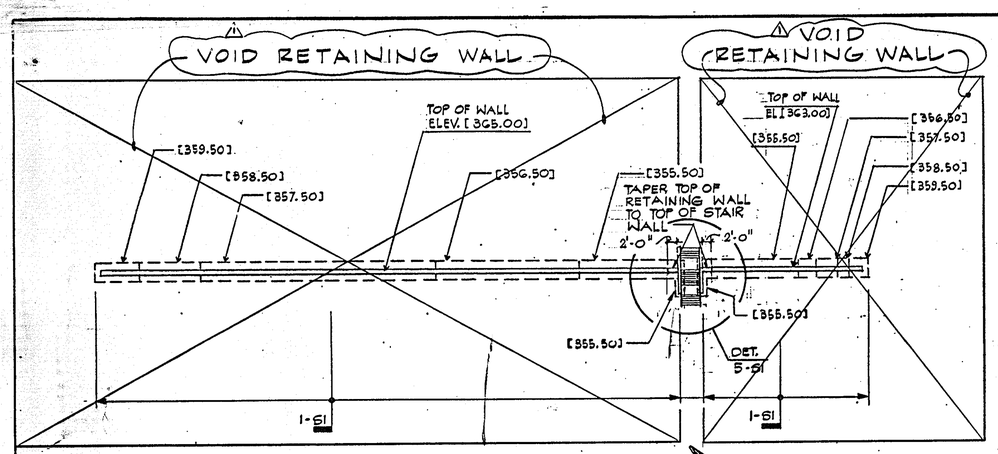
MISCELLANEOUS DETAILS AND COUNTY REQUIREMENTS

STATE OF MARYLAND · RANDOLPH · No. 11021 · REGISTERED PROFESSIONAL ENGINEER
R. D. Peterson 1/13/97

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

SCALE AS NOTED
SHEET 13 OF 14 SHEETS
JOB NO. 801-04

SDP-97-42

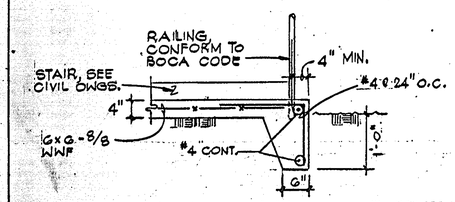


RETAINING WALL & CONC. STAIR PLAN

1" = 50'

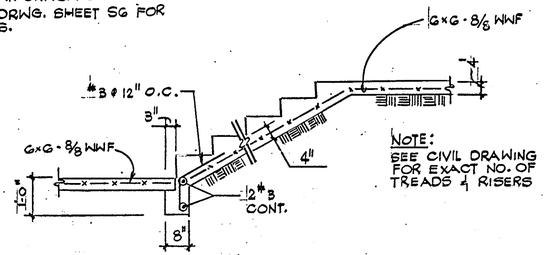
NORTH

NOTE:
1) [ ] INDICATES BOTTOM OF FOOTING ELEVATION.
2) SEE CIVIL SITE PLAN DRWG. FOR GRADING.
3) SEE STRUCTURAL DRWG. SHEET S6 FOR STRUCTURAL NOTES.



SECTION 3-S1

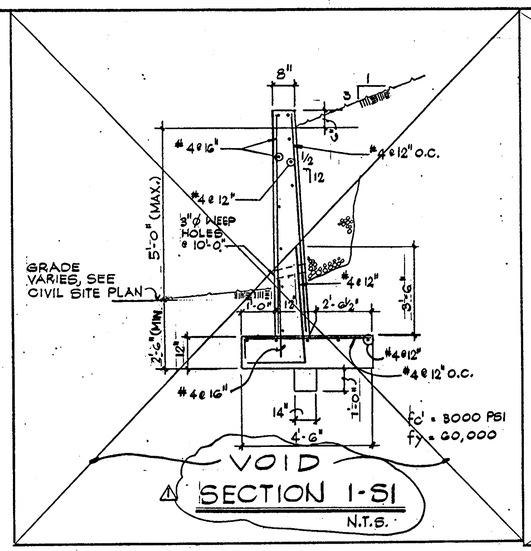
3/4" = 1'-0"



DETAIL 4-S1

3/4" = 1'-0"

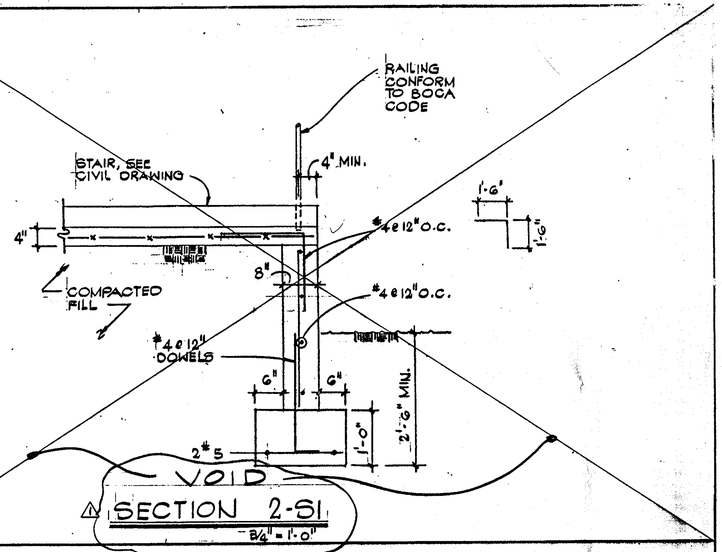
NOTE:
SEE CIVIL DRAWING FOR EXACT NO. OF TREADS & RISERS



VOID

SECTION 1-S1

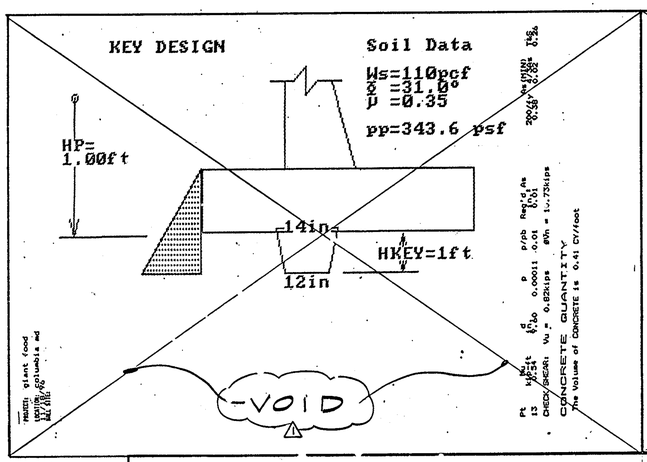
N.T.S.



VOID

SECTION 2-S1

3/4" = 1'-0"



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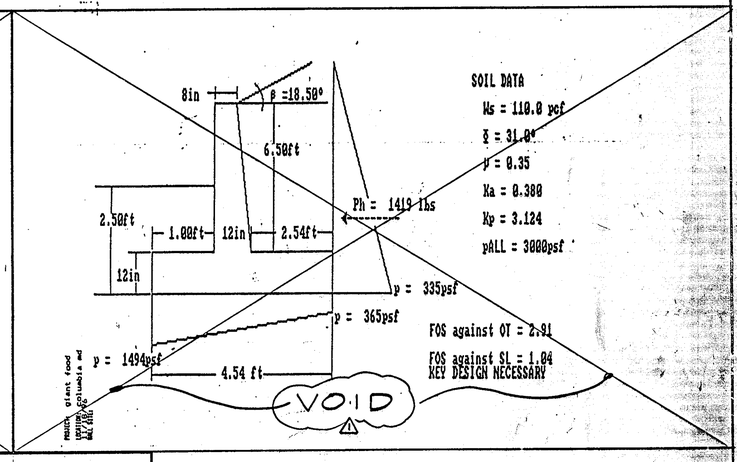


VOID

PROJECT: giant food
LOCATION: columbia md
11/18/96
WALL SITE1

REINFORCED CONCRETE DESIGN SPECS

f'c 3000 psi | fy 60000 psi | Load Factor LL 1.70 | Load Factor DL 1.40

STEM DESIGN

Pt	Mu kip-ft/ft	d in.	p	p/pb	Req'd As in.²/ft.	As(MIN) 200/fy	As(MIN) 4/3As	T&S
1	0.00	5.80	0.00000	0.00	0.00	0.25	0.00	0.18
2	0.03	6.20	0.00001	0.00	0.00	0.25	0.00	0.19
3	0.08	6.60	0.00004	0.00	0.00	0.25	0.00	0.20
4	0.20	7.00	0.00007	0.00	0.01	0.25	0.01	0.21
5	0.39	7.40	0.00013	0.01	0.01	0.30	0.02	0.22
6	0.67	7.80	0.00022	0.01	0.02	0.31	0.03	0.23
7	1.06	8.20	0.00034	0.01	0.03	0.34	0.04	0.24
8	1.58	8.60	0.00049	0.02	0.04	0.34	0.05	0.24
9	2.26	9.00	0.00065	0.02	0.06	0.34	0.07	0.25
10	3.08	9.40	0.00085	0.03	0.07	0.38	0.10	0.26

CHECK SHEAR: Vu = 1.42kips ØVn = 10.50kips
SHEAR Reiforcment @ Base of Stem =0.04 in.²/ft.

TOE DESIGN

Pt	Mu kip-ft/ft	d in.	p	p/pb	Req'd As in.²/ft.	As(MIN) 200/fy	As(MIN) 4/3As	T&S
11	0.98	8.40	0.00026	0.01	0.03	0.34	0.03	0.24

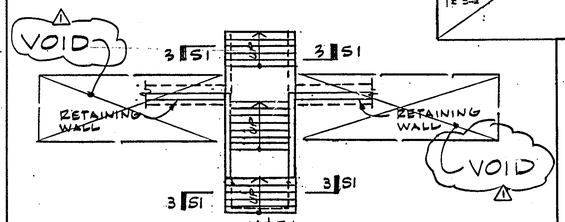
CHECK SHEAR: Vu = 0.61kips ØVn = 9.39kips

HEEL DESIGN

Pt	Mu kip-ft/ft	d in.	p	p/pb	Req'd As in.²/ft.	As(MIN) 200/fy	As(MIN) 4/3As	T&S
12	4.56	9.40	0.00097	0.03	0.11	0.38	0.13	0.26

CHECK SHEAR: Vu = 1.83kips ØVn = 10.50kips
M(heel) > M(stem) Used alternate design proceedure. (See USERS MANUAL)

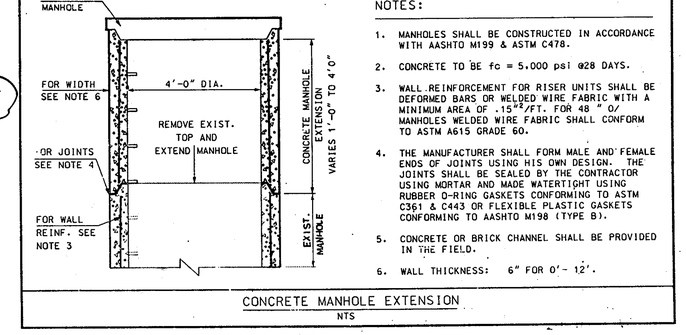
VOID



CONC. STAIR PLAN

DETAIL 5-S1

1" = 1'-0"



NOTES:

1. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M199 & ASTM C478.
2. CONCRETE TO BE fc = 5.000 psi @28 DAYS.
3. WALL REINFORCEMENT FOR RISER UNITS SHALL BE DEFORMED BARS OR WELDED WIRE FABRIC WITH A MINIMUM AREA OF .15 in²/FT. FOR 48 " O/ MANHOLES WELDED WIRE FABRIC SHALL CONFORM TO ASTM A615 GRADE 60.
4. THE MANUFACTURER SHALL FORM MALE AND FEMALE ENDS OF JOINTS USING HIS OWN DESIGN. THE JOINTS SHALL BE SEALED BY THE CONTRACTOR USING MORTAR AND MADE WATERTIGHT USING RUBBER O-RING GASKETS CONFORMING TO ASTM C361 & C443 OR FLEXIBLE PLASTIC GASKETS CONFORMING TO AASHTO M198 (TYPE B).
5. CONCRETE OR BRICK CHANNEL SHALL BE PROVIDED IN THE FIELD.
6. WALL THICKNESS: 6" FOR 0'- 12'.

CONCRETE MANHOLE EXTENSION

NTS

STATE OF MARYLAND — DEAN ROBERT ZIWAN — No. 4499 — REGISTERED PROFESSIONAL ENGINEER

Ziwan Cohen

NO.	REVISIONS	BY	DATE
1	ADDED MANHOLE EXTENSION DETAIL PER FOOSE	MAR	12/12/97

⚠ 12-31-96 RETAINING WALL REMOVAL PER CLIENT REQUEST

Gateway Commerce Center
Phases I, II and III East
Parcel A-40
Tax Map 42
6th Election District Howard County Maryland

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 1/13/97

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 1/16/97

DIRECTOR — DATE 1/16/97

OWNER/DEVELOPER/APPLICANT

PARCEL A-40 ASSOCIATES, LLC
8330 BOONE BOULEVARD
SUITE 460
VIENNA, VIRGINIA 22182
(703) 847-5270
MR. OLAV KOLLEVOLL

PROJECT
GIANT FOOD WAREHOUSE
RETAINING WALL

Tadjer·Cohen·Edelson·Assoc.
CONSULTING STRUCTURAL ENGINEERS
1109 Spring St. (301)587-1820 (301)588-1966 Fax
Suite #510 Silver Spring MD. 20910

DWG. TITLE
RETAINING WALL PLAN, SECTS., & DETAILS, DESIGN SPECS.

SCALE AS NOTED
DWG. NO. 14 OF 19 S1
JOB NO. 196024.01
DATE NOV. 20, 1996

SDP-97-42