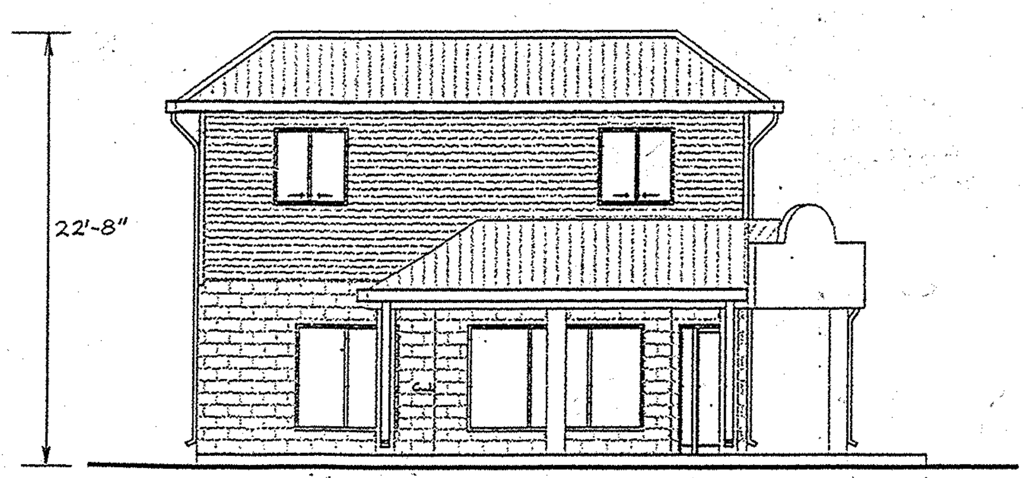
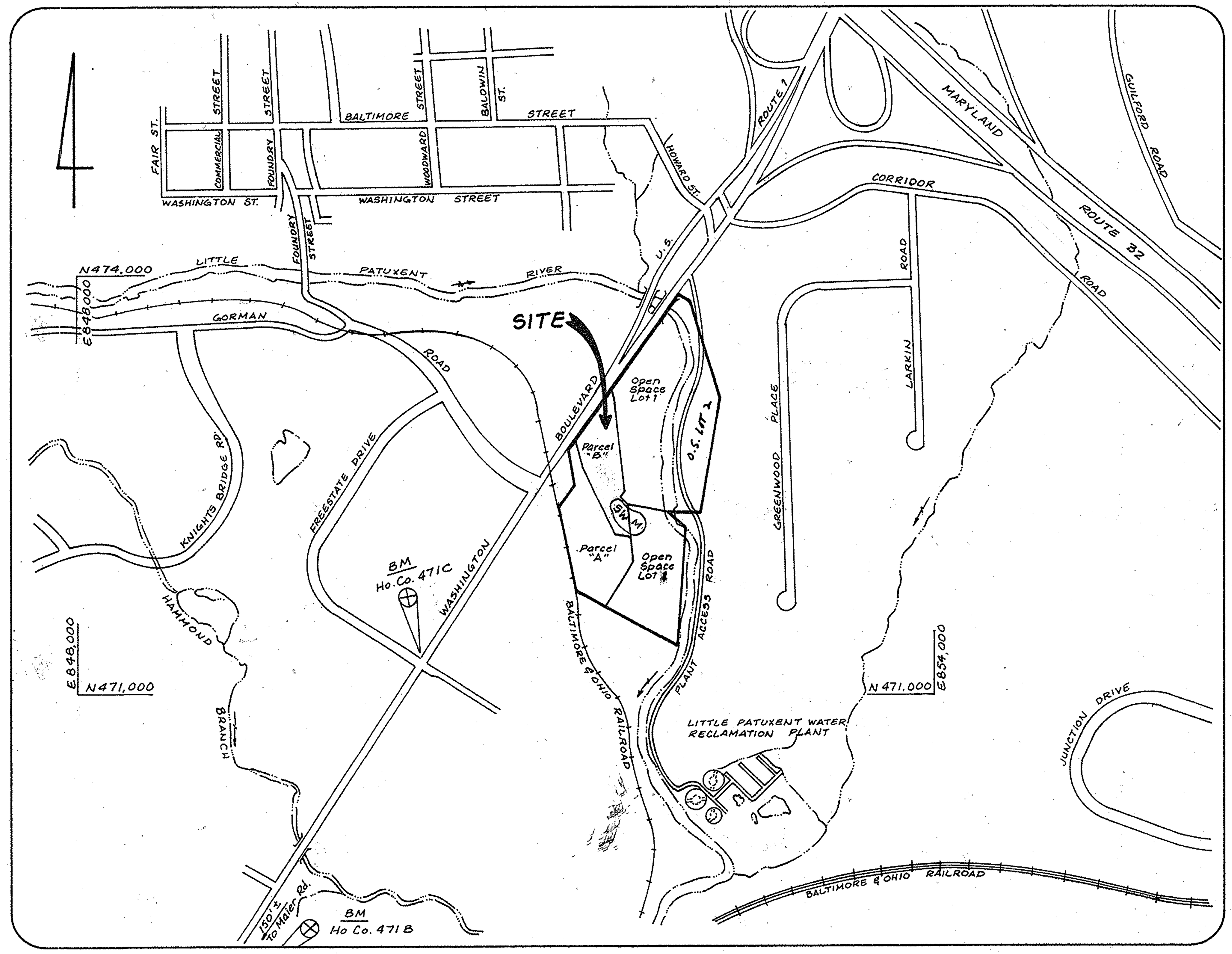
GENERAL NOTES

1. THE PURPOSE OF THIS SITE DEVELOPMENT PLAN IS TO PROVIDE CONSTRUCTION DOCUMENTS FOR A SELF STORAGE FACILITY PROPOSED ON PARCEL B AND A REGIONAL STORMWATER MANAGEMENT POND FOR A.H. SMITH PROPERTY PARCELS A & B IN ACCORDANCE WITH THE SITE DEVELOPMENT PLAN REGULATIONS.
2. All construction shall be in accordance with the latest standards and specifications of Howard County Design Manual Vol. IV and current MSHA standards & specifications.
3. Project Background:
   - Location: Savage , Maryland
   - Tax Map: Map 47
   - Tax Map Parcel P/O 144
   - Grid: 18
   - Election District 6 th
4. Existing zoning: M-2 (Manufacturing– Heavy) per 10/18/93 Comprehensive Zoning Plan.
5. Current Deed Reference:
   - P/O Parcel 144: L. 1681 / F. 44
   - Subdivision Plats 14746 - 14748 Creates Parcels A & B and Open Space Lots 1 & 2.
   - Total Parcel A acreage per Boundary Shown on Plats 14746 - 14748 = 6.199 Acres
   - Total Parcel B acreage per Boundary shown on Plats14746 - 14748 = 4.545 Acres
6. The Boundary shown hereon is based on record plats 14746 - 14748 prepared by Clark, Finefrock and Sackett And recorded among the Land Records of Howard County on April, 11, 2001.
7. Horizontal and vertical datum's are related to the Maryland State Plane Coordinate System as projected from Howard county control stations No. 471B and 471C (NAD 83).
8. Any damage caused by the contractor to existing public right-of-way, existing paving, existing curb and gutter, existing utilities, etc. shall be corrected at the contractors expence.
9. The existing utilities shown hereon are located from field surveys and construction drawings of record. The contractor shall locate existing utilities to his own satisfaction and well in advance of any construction activities. Additionally, the contractor shall take all necessary precautions to protect all existing utilities and maintain uninterrupted service. Any damage incurred to utilities or existing features due to contractor's operation shall be repaired immediately at the contractor's expense.
10. There may be additional utilities not shown on these plans. The engineer assumes no responsibility for utility locations not shown and it shall be the responsibility of the contractor to verify the locations of all existing utilities within the limits of construction and notify the engineer of any discrepancies, prior to the start of construction.
11. Site Analysis Data:
   - a. Total project Area : Parcel A - 6.1994 Ac ; Parcel B - 4.545 Ac (10.74 Ac total)
   - b. Area of Plan Submission: 6.6 Acres
   - c. Limit of Disturbed Area: 6.6 Acres
   - d. Present Use: Parcel A - Ex. Concrete Plant ; Parcel B - Vacant
   - e. Proposed Site and Structure Use: Secured Self Storage facility
   - f. Building Floor Space per Use:
     1)Storage Usage:
     a) Building 'A' , 1 story, 15150 s.f.
     b) Building 'B' , 2 stories, 59250 s.f.
     c) Building 'C' , 1 story, 13990 s.f.
     Total Proposed Storage Space = 88390 s.f.
     2)Office Use:
     a)Building 'D', 1 story, 1500 s.f.
     3)Apartment:
     a)Building 'D' , 2 nd story, 1500 s.f.
     Total Floor Area: 89,890 s.f. (OFFICE & WARE HOUSE)
   - g. Maximum Number of Employees: 2
   - h. Parking Required: 4 Spaces/ 1000 s.f. of Office Area = 6 Spaces
     2 Spaces/ onsite residence = 2 Spaces
     Total Parking Required = 8 Spaces
   - i. Parking Provided: 1 Van Accessible Handicap space + 4 Regular spaces in parking lot adjacent To office. One (1) space inside building 'C', and two (2) parallel spaces behind bldg D.
     Total Parking Provided = 8 Spaces
   - j. Building Coverage of Site (Parcel B): 2.064 Acres 45.4% of gross site area.
   - k. Applicable DPZ File References: F-98-139; WP-98-109; SP-99-08, F-00-31
12. There are no wetlands on Parcel B or the area within the limits of submission on Parcel A per the record plats 14746 – 14748, prepared by Clark, Finefrock & Sackett.
13. The forest conservation obligation for the entire A.H. Smith property Subdivision was addressed on record plats 14746 - 14748 and SP-99-08 with the retention of 2.99 acres of existing onsite forest resources in easements on Parcel A and Open Space Lot 2.
14. Adjustments to the sequence of construction shall be approved by the Howard County Department of Inspections, Licenses and Permits, prior to such adjustments.
15. 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.
16. The contractor shall notify the Department of Public Works/Bureau of Engineering/Construction Inspection at (410) 313-1880 at least five- (5) working days prior to the start of work.
17. The contractor shall notify "Miss Utility" at 1-800-257-7777 at least forty-eight (48) hours prior to any excavation work.
18. The proposed Water system will be public to the proposed onsite hydrant only. The proposed 6" onsite water will be private. The public water system is shown on the public water and sewer plans for this property. The property is located within the Metropolitan District. See Contract No. 24-3906-D.
19. Sewer service will be provided to this property by a public 2" low pressure force main. The public sewer system is shown on the public water and sewer plans for this property. See Contract No. 24-3906-D.
20. Stormwater management quantity has been provided onsite for the ultimate development of Parcels A & B by a stormwater management retention pond located partially on both Parcels.
21. Stormwater Quality Management will be provided for the entire Parcel A and the majority of Parcel B via Retention. Water Quality for the Blgd A roof area on Parcel B will be provided by a Stormceptor structure.
22. The stormwater management pond shall be privately owned and maintained. The Stormceptor structure shall be privately owned and maintained.
23. Any damage to Public "Right-of-Ways" or paved public roads shall be repaired immediately at the contractors expense in accordance with the Howard County and MSHA Standards and Specifications.
24. All fill shall be rolled to a minimum degree of compaction of 95% of the dry unit weight as determined by AASHTO T-180.
25. Building dimensions shown hereon are approximate only. Refer to the architectural plans for building dimensions.
26. There are no existing contiguous slopes 25% or greater which are greater than 20,000 square feet within the boundaries of the site.
27. A Noise Study is not required for this Site Development Plan submission.
28. The Floodplain Study for the A.H. Smith Property Subdivision was submitted and approved under SP-99-08.
29. A Traffic Analysis was completed in April,1999 by Integrated Transportation Solutions and approved under SP-99-08.
30. A Geotechnical Report was completed by Kondner Engineering Services, Inc. as part of this Site Development Plan submission.
31. Earthwork quantities shown on this plan are estimated and should not be used for bid purposes. Contractors should perform independent earthwork analysis for bid purposes.
32. Deviations from these plans and specifications without prior written consent of the civil engineer may cause the work to be unacceptable.
33. The dimensioned distances shall govern if scaled and dimensioned distances on this plan are found to be in disagreement.
34. No clearing, grading or construction is permitted within the Floodplain until the MDE Permit is issued. (MDE Permit # 200066709)
35. No work is permitted within the U.S. Route 1 Right-of-Way until a permit is issued by the MSHA.
36. Landscaping requirement per Section 16.124 of the Subdivision and Land Development Regulations shall be provided in accordance with a landscape plan on file with this site plan. Surety in the amount $ 6270.00 shall be made part of the Developer's Agreement for this site plan.
37. A caretaker's residence is a permitted accessory use to a self-storage facility, provided that it is a single dwelling unit, is shown on the SDP and that a rental license is obtained. The residence is shown as the second floor of building 'D' hereon.
38. Clearing, grading or construction is not permitted within the limit of wetlands, 25' wetlands buffer, streams or 50' stream buffer, floodplain and the forest conservation easements.
39. The existing topography shown hereon is taken from a field run survey with two foot contour intervals prepared by LDE, Inc. in March, 2000.
40. All exterior light fixtures shall be oriented to direct light inwards and downwards onsite away from adjoining properties and public roads in accordance with Section 134 of the Howard County Zoning Regulations.
41. On April 10, 2001, the Planning Director approved WP-01-92 to allow a construction and grading disturbance within the 100 year floodplain to construct the stormwater management pond outfall. The approval is subject to the following conditions: a) The limit of floodplain disturbance is limited to 2270 s.f.. b) The issuance of the MDE permit for the proposed floodplain disturbance.



Office / Apartment Building Profile - Building 'D'
(Not To Scale)



LOCATION MAP
Scale: 1" = 600'

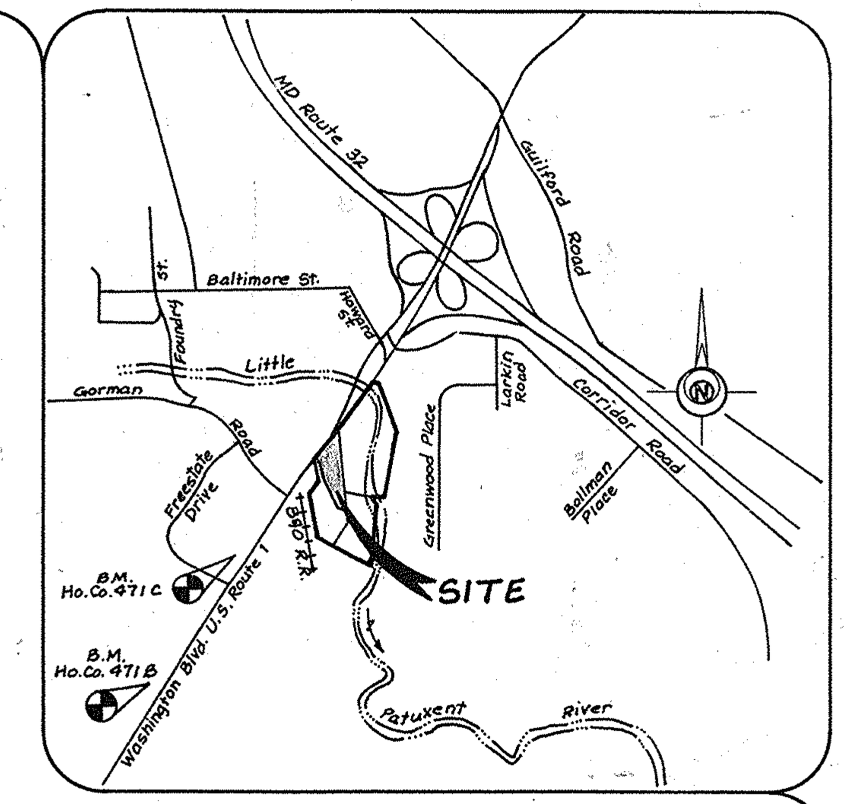
BENCHMARKS

Howard County Geodetic Control # 471 B
Elevation 180.71
3/4 Inch rebar with aluminum cap located 16.7 feet north of an existing fire hydrant, 2.4 feet off the edge of the U.S. Route 1 paving on the southwest quadrant of the U.S. Route 1/Maier Road intersection.

Howard County Geodetic Control # 471 C
Elevation 189.05
Standard Howard County aluminum disc on concrete monument, flush with the ground. Located 84.7 feet southof the edge of an existing storm drain inlet on the northwest qudrant of the Freestate Drive/U.S. Route 1 intersection.

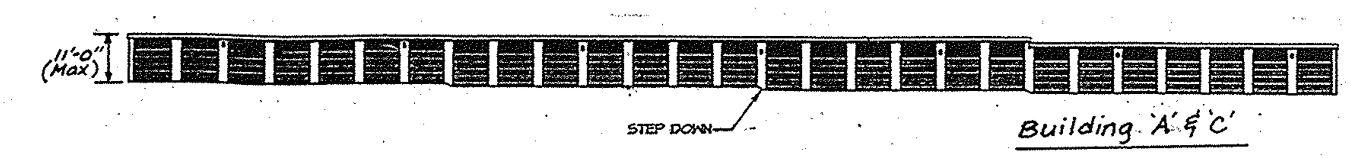
LEGEND

- PROPERTY LINE
- EXISTING CONTOUR — 154
- PROPOSED CONTOUR — 154
- EXISTING CURB AND GUTTER
- PROPOSED CURB AND GUTTER
- PROPOSED STORM DRAIN PIPE
- EXISTING TELEPHONE CABLE — C
- EXISTING TREELINE
- PROPOSED TREELINE
- PROPOSED RIP RAP
- LIMITS OF DISTURBANCE
- SILT FENCE — SF
- SUPER SILT FENCE — SSF
- REMOVABLE PUMPING STATION — RPS
- PROPOSED EASEMENT
- DRAINAGE DIVIDE
- BLDG MOUNTED FLOODLIGHT
- LANDSCAPE PERIMETER EDGE — 1

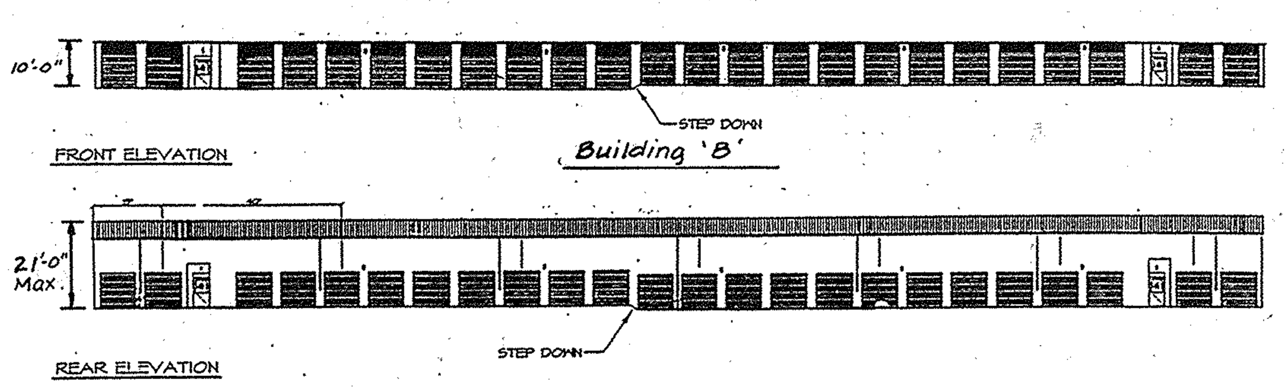


VICINITY MAP
Scale 1" = 2000'

INDEX OF SHEETS



Building 'A' & 'C'
1 Story Building Profile
N.T.S.



Building 'B'
Building 'B'
Split Level Building Profile
N.T.S.

SITE DEVELOPMENT PLANS
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
6th Election District - Howard County, Maryland
Tax Map 47 Grid 18 P/O Parcel 144

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	8/16/01 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	10/12/01 DATE
DIRECTOR	10/12/01 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — 8/13/01 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — 8/13/01 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Burton — SIGNATURE OF ENGINEER — 7/31/01 DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — 6/14/00 DATE

STATE OF MARYLAND — BRUCE DAVID BURTON — REGISTERED PROFESSIONAL ENGINEER

Bruce D Burton 7/31/01

REVISIONS

No.	Date	Description

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY			Section/Area —		Parcel/No. B
Plat No. 14746, 14747, 14748, 14987-88	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th	Census Tract 6069.02
Water Code C-04			Sewer Code 7220000		

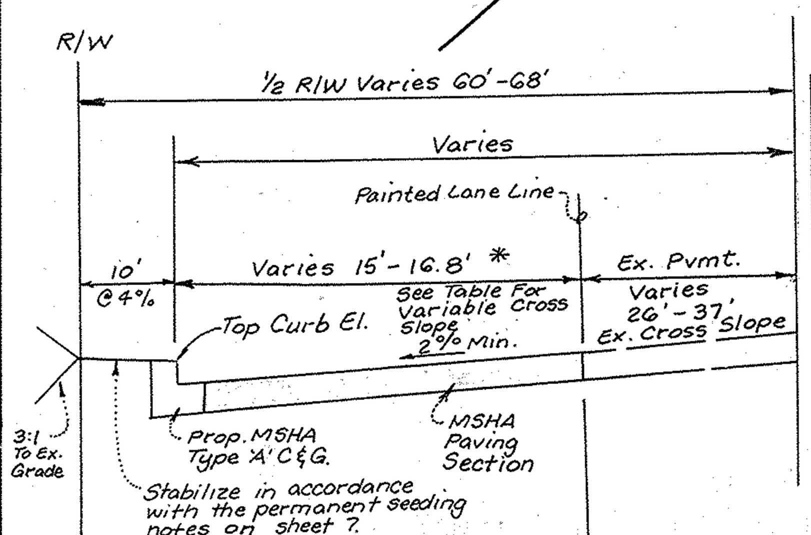
LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.	Cover Sheet STORAGE USA FACILITY A. H. SMITH PROPERTY, PARCEL B AND SHARED SWM FACILITY FOR PARCELS A & B PLAT Nos. 14746 - 14748 Tax Map 47 Grid 18 P/O Parcel 144 6th Election District - Howard County, Maryland Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31, F-02-20	SCALE As Shown
DRAWN EDB		DRAWING 1 of 17
CHECKED B.D.B.		JOB NO. 99025
DATE 8/00 Rev. 3/01	OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410-792-9442 DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4770	FILE NO. SDP 01-25

SDP-01-25

SEQUENCE OF CONSTRUCTION
FOR
U.S. ROUTE 1 ROAD IMPROVEMENTS

1. Notify BGE to relocate existing poles. Once all utilities are relocated, notify MSHA at least 48 hours prior to beginning U.S. Route 1 improvements. Install or relocate silt fence for U.S. Route 1 improvements. Insure stone check dam is free of debris. — 1 Week
2. Install temporary traffic controls on Route 1. Remove existing MSHA curb and gutter. — 2 Days
3. Grade for proposed Route 1 improvements in accordance with the approved road improvement plan. — 4 Days
4. Construct Route 1 drainage system. — 1 Week
5. With the approval of the MSHA Inspector, construct MSHA Type 'A' curb and gutter. Along proposed improvement lane and at common entrance fillets. — 3 Days
6. Install 6" graded aggregate base stone for improvement lane. — 3 Days
7. Install 6" bituminous base paving for improvement lane. — 1 Day
8. Install 1.5" bituminous surface paving for improvement lane. — 1 Day
9. With permission from the sediment control inspector, remove all remaining sediment control devices associated with the Route 1 improvements including silt fence and stone check dam. — 1 Day



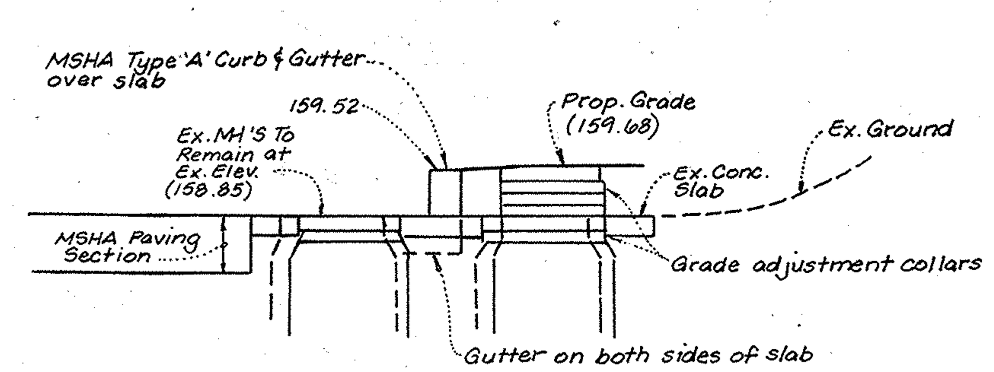
TYPICAL HWY. WIDENING SECTION
U.S. Route 1
No Scale

U.S. ROUTE 1 WIDENING TABLE
NORTHBOUND IMPROVEMENT LANE

CL STATION	EX. CROSS SLOPE	EX. ELEV. AT *SWL	WIDENING WIDTH FROM SWL*	PROPOSED cross slope widening lane	**PROPOSED GUTTER SLOPE	PROPOSED TOP CURB ELEV.	REMARKS
94 + 09.43	2.10%	155.28	15'	2.46%	2.20%	155.65	Nose down and end curb
94 + 50	2.29%	156.18	15'	2.00%	2.20%	156.55	-
95 + 00	2.59%	157.28	16'	2.00%	2.70%	157.63	Top Inlet MSHA-1 (Pavm't @ throat=156.8 ; Top=57.63')
95 + 50	2.81%	158.65	16.8'	2.00%	1.42%	158.98	-
96 + 00	2.77%	159.36	16.8'	2.00%	2.26%	159.69	Top curb @ ex. telephone manholes
96 + 50	2.73%	160.49	16.8'	2.00%	0.91%	160.82	Top Inlet MSHA-2
96 + 59.43	2.73%	160.58	16.8'	0.83%	0.83%	161.39	PC curb fillet
97 + 06.93	3.60%	161.06	15'	2.26%	0.83%	160.72(pavm't)	CL entrance/ pavement @ flowline
97 + 54.43	3.44%	161.43	15'	2.67%	0.70%	161.70	PC curb fillet
98 + 00	2.93%	162.05	15'	4.47%	0.70%	162.05	Top Inlet MSHA-3
98 + 50	2.86%	162.13	15'	2.67%	0.70%	162.40	-
99 + 00	2.78%	162.40	15'	2.13%	0.70%	162.75	-
99 + 12.43	3.00%	162.47	15'	2.46%	1.30%	162.84	End full section, begin taper
99 + 37.43	-	162.53	-	-	-	162.2+-	Match ex. curb and gutter line and grade.

* SWL STANDS FOR THE SOLID WHITE LINE REPRESENTING THE RIGHT EDGE OF THE NORTHBOUND TRAVEL LANES.

** Based on the existing edge of pavement/ solid white line slope along northbound U.S Route 1, a minimum gutter/ top curb slope of 0.7% between the Gorman Road/ Route 1 intersection and the site entrance was established. Slopes of nearly 1.0% in the flowline across the site entrance have been established. The existing edge of pavement slopes in this area are below 0.5%.



EX. TELEPHONE MH'S RIM ADJUSTMENT DETAIL
N.T.S.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 8/16/01 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT — 10/12/01 DATE
DIRECTOR — 10/12/01 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — 8/13/01 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — 8/13/01 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Burton — 7/31/01
SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

6/14/00
SIGNATURE OF DEVELOPER — DATE

Bruce D. Burton
7/31/01

REVISIONS

No.	Date	Description

ADDRESS CHART

Parcel No.	Street Address
BLDG. 'A'	9105 Washington Blvd.
BLDG. 'B'	9125 Washington Blvd.
BLDG. 'C'	9145 Washington Blvd.
BLDG. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY	Section/Area —	Parcel/No. B

Plat No.	Block No.	Zone	Tax Map No.	Election District	Census Tract
14746, 14747, 14748, 14987+88	18	M-2	47	6th	6069.02

Water Code	Sewer Code
C 04	722000

LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

US Rte #1 Improvement Plan
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A&E
PLAT Nos. 14746.-14748
Tax Map 47 Grid 18 P/O Parcel 144
6th Election District – Howard County, Maryland
Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31, F-02-20

DESIGNED: S.D.H.
DRAWN: EDB
CHECKED: B.D.B.
DATE: 8/00 Rev. 3/01
SCALE: 1" = 30'
DRAWING: 2 of 17
JOB NO.: 99025
FILE NO.: SDP 01-25

OWNER:
A.H. SMITH PROPERTY LTD PARTNERSHIP
9101 RAILROAD AVENUE
BRANCHVILLE, MARYLAND
410-792-9442

DEVELOPER:
MUNN ASSOCIATES II
11649 FARSIDE ROAD
ELLICOTT CITY, MARYLAND 21042
410-730-4770

SDP-01-25

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 8/16/01 — DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 10/12/01 — DATE

DIRECTOR — 10/12/01 — DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — 8/13/01 — DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — 8/13/01 — DATE

ENGINEER'S CERTIFICATE

SIGNATURE OF ENGINEER — Bruce D. Burton — 7/31/01 — DATE

DEVELOPER'S CERTIFICATE

SIGNATURE OF DEVELOPER — 6/14/00 — DATE

7/31/01

Subdivision Name: A. H. SMITH PROPERTY	Section/Area	Parcel/No. B

Plat No.	Block No.	Zone	Tax Map No.	Election District	Census Tract
14746, 14747, 14748, 14987	18	M-2	47	6th	6069.02

Water Code	Sewer Code
C-04	7220000

REVISIONS

No.	Date	Description
1	1/02	Added Ex. 3" Private Waterline & Prop. 3" Private Waterline
2	2/02	Remove Detector Check & Vault, add "Hotbox" beside Dumpster

ADDRESS CHART

Parcel No.	Street Address
Bldg 'A'	9107 Washington Blvd
Bldg 'B'	9125 Washington Blvd
Bldg 'C'	9145 Washington Blvd
Bldg 'D'	9165 Washington Blvd

LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.
DRAWN EDB
CHECKED B.D.B.
DATE 8/00 Rev 3/01

Site Development Plan
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
Plat Nos. 14746-14748
Tax Map 47 Grid 18 P/O Parcel 144
6th Election District - Howard County, Maryland

Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31, F03-30

OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND
DEVELOPER: MUNN ASSOCIATES II, 11669 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042

SCALE 1" = 30'
DRAWING 3 of 17
JOB NO. 99025
FILE NO. SDP 01-25

SDP-01-25

POND SUMMARY TABLE

Regional Retention Pond
Hazard Classification "A"
Drainage Area = 21.1 Acres
Top of Embankment = 151.0'
Invert of Facility = 141.8
Permanent Pool Elevation = 145.00

		SWM POND		
		2 Year	10 Year	100 Year
At Study Point 'A':				
Acceptable Release	(cfs)	44	75	109
Computed Inflow	(cfs)	60	102	149
Facility Discharge	(cfs)	25	30	34
Elevation at Discharge		146.37	147.39	148.51
Storage at Elevation	(AC\FT)	1.13	2.55	3.97

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/12/01

DIRECTOR — DATE 10/12/01

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

NATURAL RESOURCE CONSERVATION SERVICE — DATE 8/13/01

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 8/13/01

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Gurton — 7/24/01

SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — DATE 1/29/00

STATE OF MARYLAND — BRUCE DAVID — No. 19384 — REGISTERED PROFESSIONAL ENGINEER

7/24/01

REVISIONS

No.	Date	Description
1	1/02	Added Ex. 3" Private Waterline and
		Prop. 3" Private Waterline

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY			Section/Area N/A		Parcel/No. B
Plat No. 14746, 14747, 14748, 14987-88	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th	Census Tract 6069.02
Water Code C-04			Sewer Code 7220000		

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

SITE DEVELOPMENT PLAN
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
PLAT Nos. 14746-14748

Tax Map 47 Grid 18 P/O Parcel 144
6th Election District – Howard County, Maryland

Previous Submittals: F 98-139, WP 98-109, SP 99-08
F-02-20

OWNER/DEVELOPER
A. H. SMITH PROPERTY Ltd Partnership
9101 Railroad Ave
Branchville, MD 20740
301-490-7627 or 410-792-9442

DESIGNED: S.D.H.
DRAWN: EDB
CHECKED: B.D.B.
DATE: 4/00 Rev. 3/01
SCALE: 1" = 30'
DRAWING: 4 of 17
JOB NO. 99025
FILE NO. SDP 01-25

SDP 01-25

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 8/16/01 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 10/12/01 DATE

DIRECTOR — 10/12/01 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — 8/13/01 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — 8/13/01 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Burton — 7/31/01

SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

6/14/00

SIGNATURE OF DEVELOPER — DATE

STATE OF MARYLAND — BRUCE DAVID BURTON — REGISTERED PROFESSIONAL ENGINEER

7/31/01

REVISIONS

No.	Date	Description
2	2/02	Remove detector check & vault add 'Hotbox' beside dumpster

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd
Bldg. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY	Section/Area: —	Parcel/No.: B

Plat No.	Block No.	Zone	Tax Map No.	Election District	Census Tract
14746, 14747, 14748, 14987-88	18	M-2	47	6th	6069.02

Water Code	Sewer Code
C-04	7220000

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.	GRADING & SEDIMENT CONTROL PLAN STORAGE USA FACILITY A. H. SMITH PROPERTY, PARCEL B AND SHARED SWM FACILITY FOR PARCELS A & B PLAT Nos. 14746 - 14748	SCALE 1" = 30'
DRAWN EDB	Tax Map 47 Grid 18 P/O Parcel 144 6th Election District – Howard County, Maryland	DRAWING 5 of 17
CHECKED B.D.B.	Previous Submittals: F 98-138, WP 98-109, SP 99-08, F00-31, F-02-20	JOB NO. 99025
DATE 8/00 Rev. 3/01	OWNER: A. H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410-792-9442 DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4770	FILE No. SDP 01-25

SDP-01-25

POND SUMMARY TABLE				
Regional Retention Pond				
Hazard Classification "A"				
Drainage Area = 21.1 Acres				
Top of Embankment = 151.0'				
Invert of Facility = 141.8				
Permanent Pool Elevation = 145.00				
		SWM POND		
		2 Year	10 Year	100 Year
At Study Point 'A':				
Acceptable Release	(cfs)	44	75	109
Computed Inflow	(cfs)	60	102	149
Facility Discharge	(cfs)	25	30	34
Elevation at Discharge		146.37	147.39	148.51
Storage at Elevation	(AC\FT)	1.13	2.55	3.97

BASIN DESIGN DATA SUMMARY	
Top of Wet Storage Volume, Elev:	**144.20**
Cleanout Elev:	**143.50**
Top of Dry Storage Vol., Elev:	**145.40**
Top of 12" Draw Down Standpipe, Elev:	**145.40**
Begin Perforations on Draw Down Standpipe,Elev:	**144.20**
Existing 2 Year Peak Discharge:	**61 cfs**
Proposed 2 Year Peak Discharge:	**25 cfs**

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/12/01

DIRECTOR — DATE 10/12/01

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

NATURAL RESOURCE CONSERVATION SERVICE — DATE 8/13/01

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

HOWARD SOIL CONSERVATION DISTRICT — DATE 8/13/01

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Barton — 7/31/01

SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — DATE 1/29/00

Bruce D. Barton
7/31/01

REVISIONS

No.	Date	Description
1	10/31/01	Expand L.O.D. and Silt Fence

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY	Section/Area: N/A	Parcel/No.: B

Plat No.	Block No.	Zone	Tax Map No.	Election District	Census Tract
14746, 14747, 14748, 14987-88	18	M-2	47	6th	6069.02

Water Code	Sewer Code
C-04	7220000

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

GRADING & SEDIMENT CONTROL PLAN

STORAGE USA FACILITY

A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
PLAT Nos. 14746-14748
Tax Map 47 Grid 18 P/O Parcel 144
6th Election District – Howard County, Maryland

Previous Submittals: F 98-139, WP 98-109, SP 99-08
F-02-20

DESIGNED: S.D.H.
DRAWN: EDB
CHECKED: B.D.B.
DATE: 4/00, Rev. 3/01

OWNER/DEVELOPER: A. H. SMITH PROPERTY Ltd Partnership, 9101 Railroad Ave, Branchville, MD 20740 — 301-490-7627 or 410-792-9442

SCALE: 1" = 30'
DRAWING: 6 of 17
JOB NO. 99025
FILE NO. SDP 01-25

SDP-01-25

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, (313-1855).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current "MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT 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 7, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL (Section G) for permanent seeding, sod, temporary seeding, and mulching. 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 (Parcels A & B)	10.74 Acres
Area Disturbed	7.74 Acres ⚠1
Area to be roofed or paved	2.8 Acres
Area to be vegetatively stabilized	4.94 Acres ⚠1
Total Cut	11,100 Cu. Yds.
Total Fill	11,100 Cu. Yds.
Offsite waste/borrow area location	

8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
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.

HOWARD SOIL CONSERVATION DISTRICT
PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use one of the following schedules:
1) PREFERRED — Apply 2 tons per acres dolomitic limestone (92 lbs/1000sq. 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/1000sq. ft.)
2) ACCEPTABLE — Apply 2 tons per acres dolomitic limestone (92 lbs/1000sq. ft.) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

SEEDING — For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs per acre (1.4 lbs/1000sq. ft.) of Kentucky 31 Tall Fescue and 2 lbs. per acre (.05 lbs/1000sq. ft.) of weeping lovegrass. During the period of October 16 thru February 28, protect site by: Option (1) — 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) - Use sod. Option (3) - Seed with 60 lbs.per acre Kentucky 31 Tall Fescue and mulch 2 tons / acre well anchored straw.

MULCHING — Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. 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/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000sq. ft.) for anchoring.

MAINTENANCE — Inspect all seeding areas and make needed repairs, replacements and reseedings.

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative cover is needed.

SEEDBED PREPARATION: — Loosen upper three inches of soil by raking, disking, or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: — Apply 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000sq. ft.).

SEEDING — For periods March 1 thru April 30, and from August 15 thru October 15 seed with 2-12 bushels per acre of annual rye (3.2 lbs/1000sq. ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (.07 lbs/1000sq. ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

MULCHING — Apply 1-1/2 to 2 tons per acre (70 to 90 lbs/1000sq. ft.) of unrotted weed free small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gallons per acre (5 gal/1000sq. ft.) of emulsified asphalt on flat areas. On slopes 8 feet or higher, use 348 gallons per acre (8 gal/1000sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

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 11/2" 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.

III. 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.

IV. 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 prescribed to raise the pH to 6.5 or higher.
b. Organic content of topsoil shall be not less than 1.5 percent by weight.
c. Topsoil having soluble salt content greater than 500 parts per million shall not be used.
d. No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phyto-toxic materials.

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

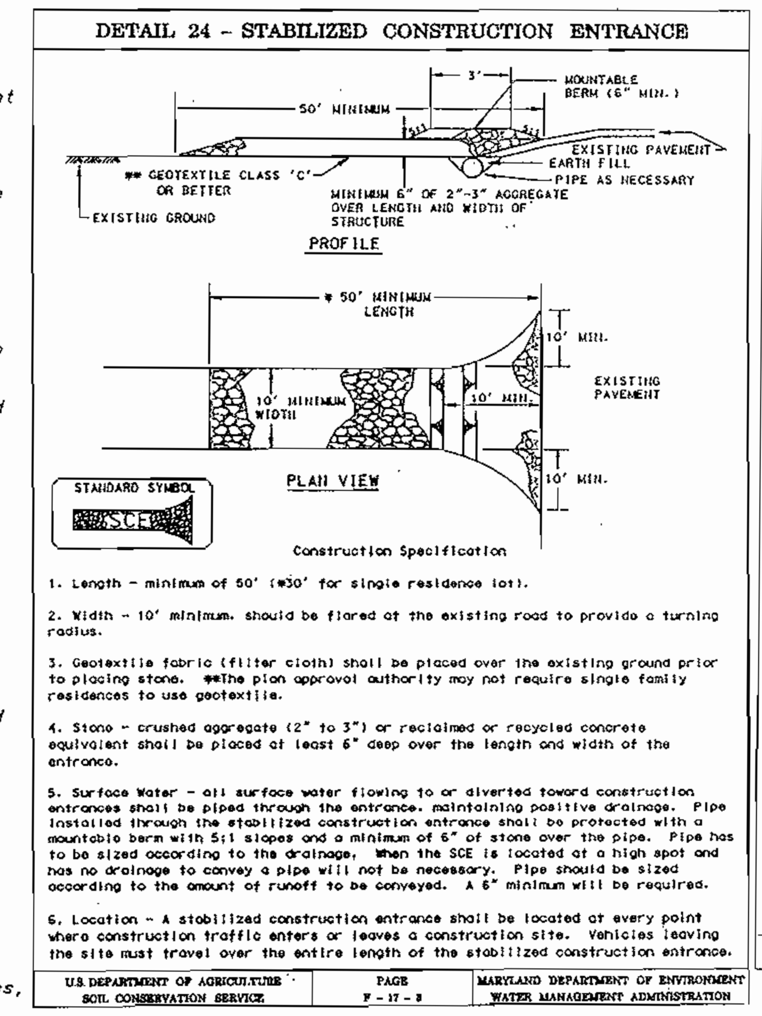
VI. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:

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,

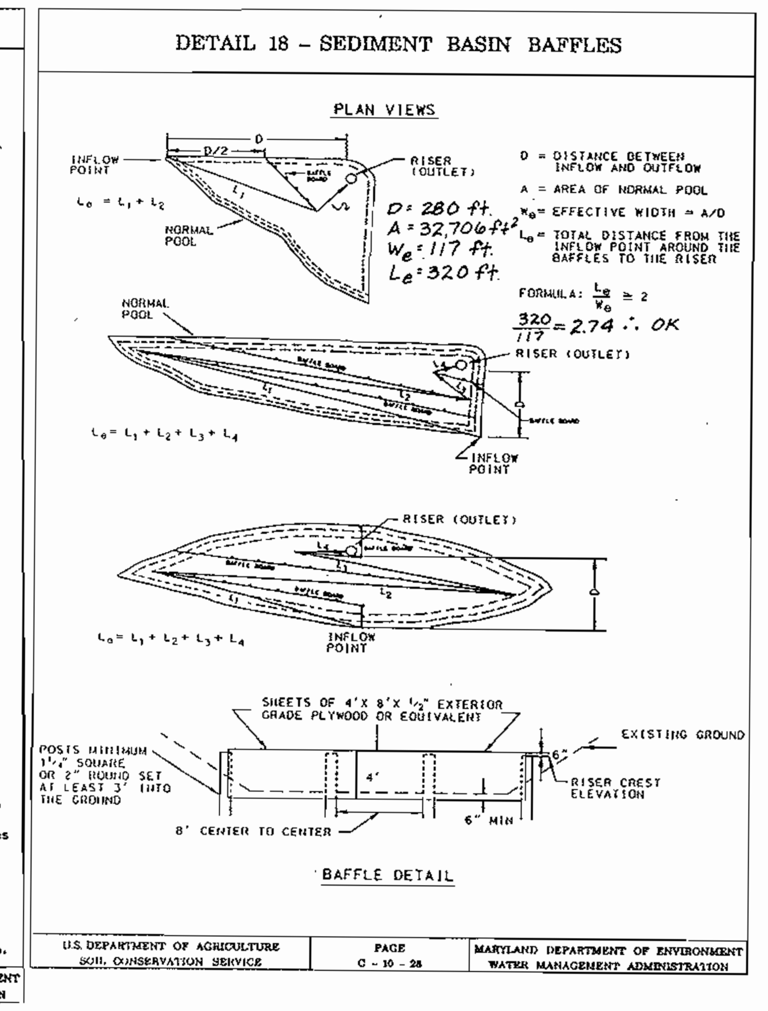
ii. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb./1,000 square feet, and 1/3 the normal lime application rate.

References: Guideline Specifications, Soil Preparation and Sodding. MD-VA, Pub. #1, Cooperative Extension Service, University of Maryland and Virginia Polytechnic Institutes. Revised 1973.

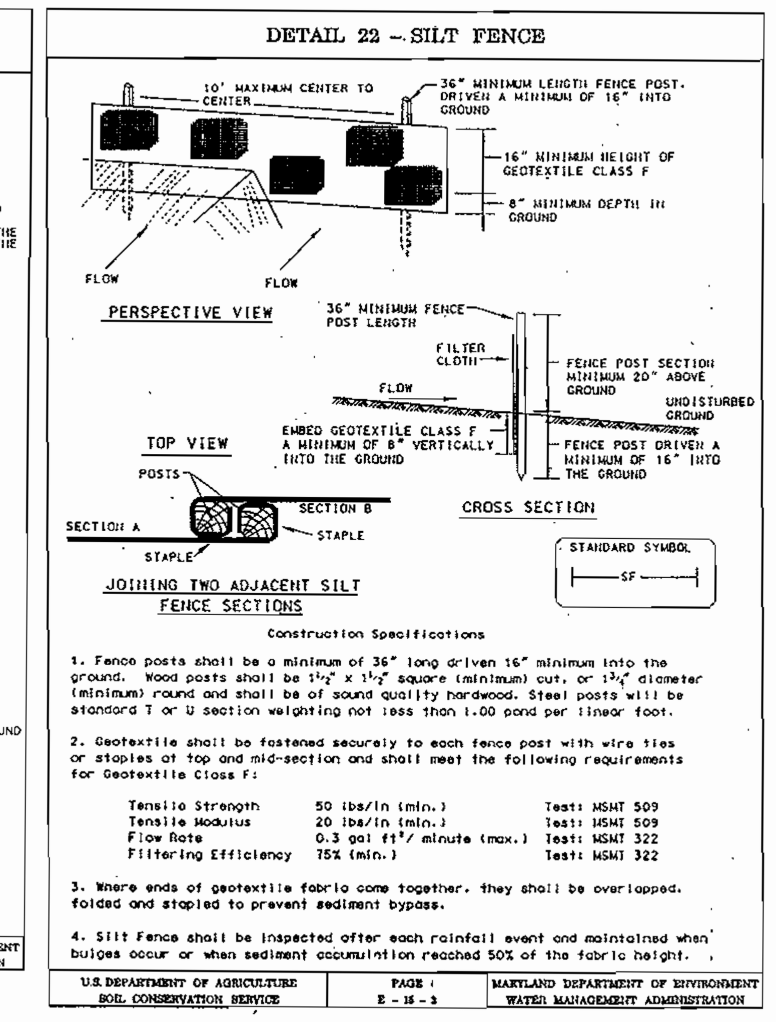
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



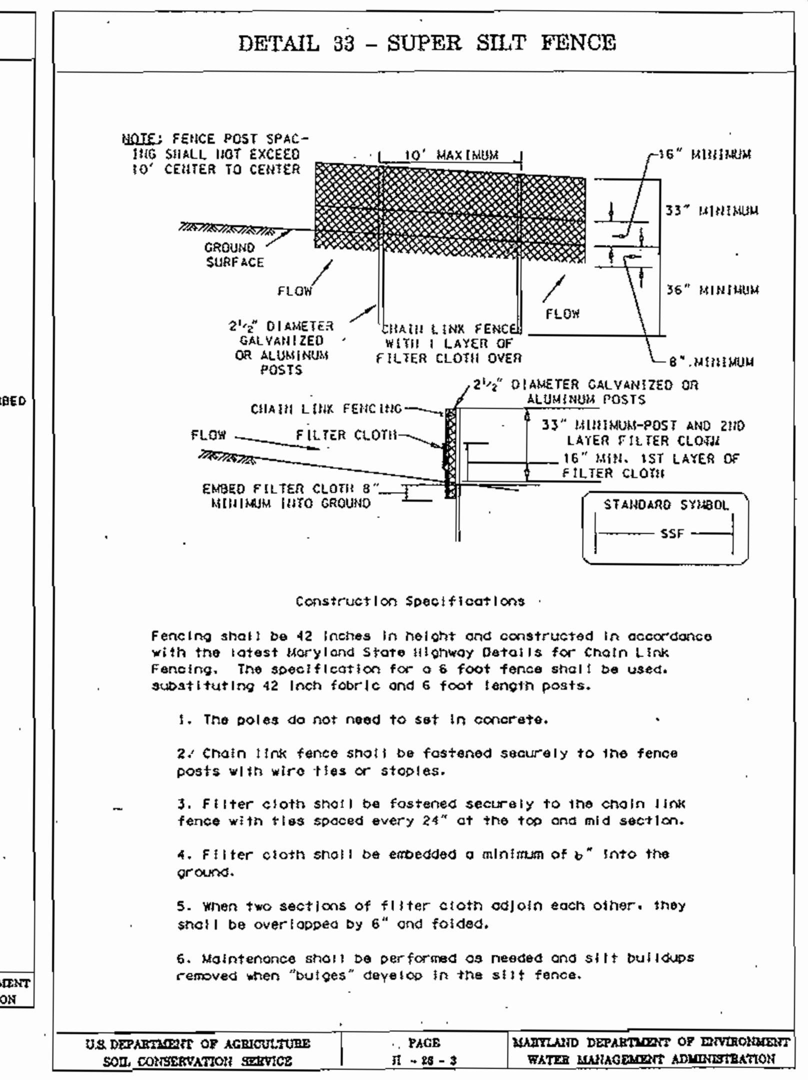
DETAIL 18 - SEDIMENT BASIN BAFFLES



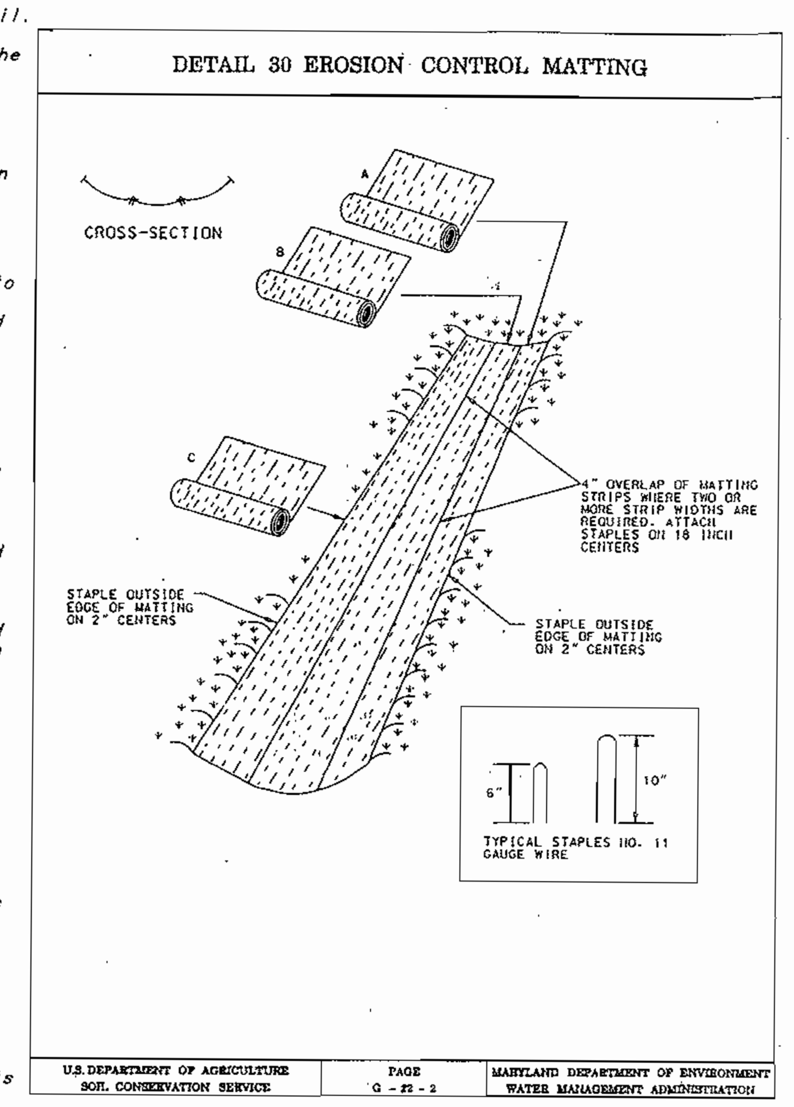
DETAIL 22 - SILT FENCE



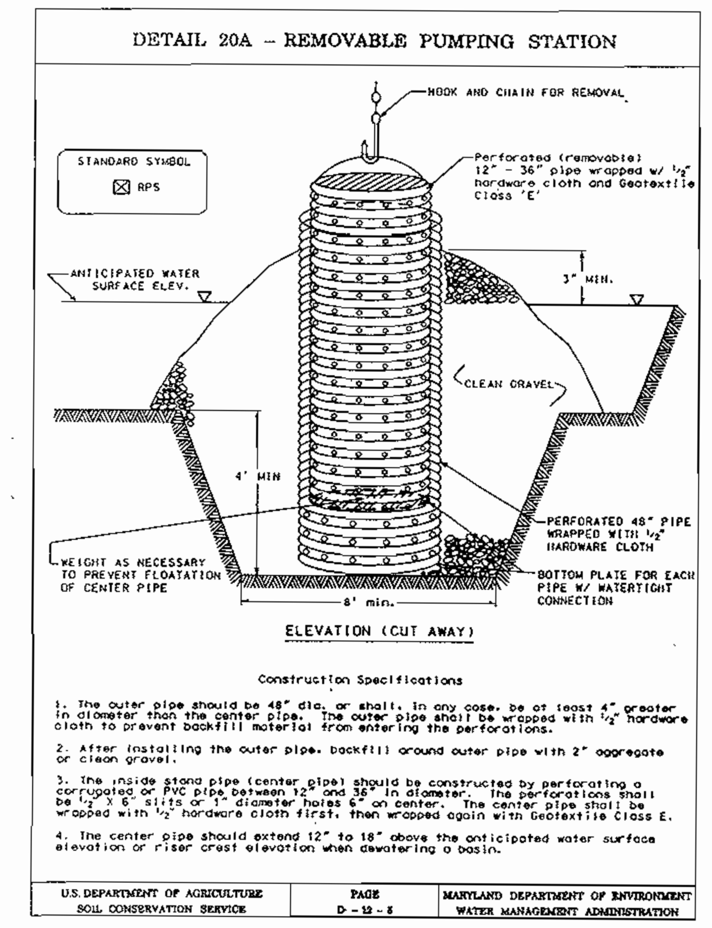
DETAIL 33 - SUPER SILT FENCE



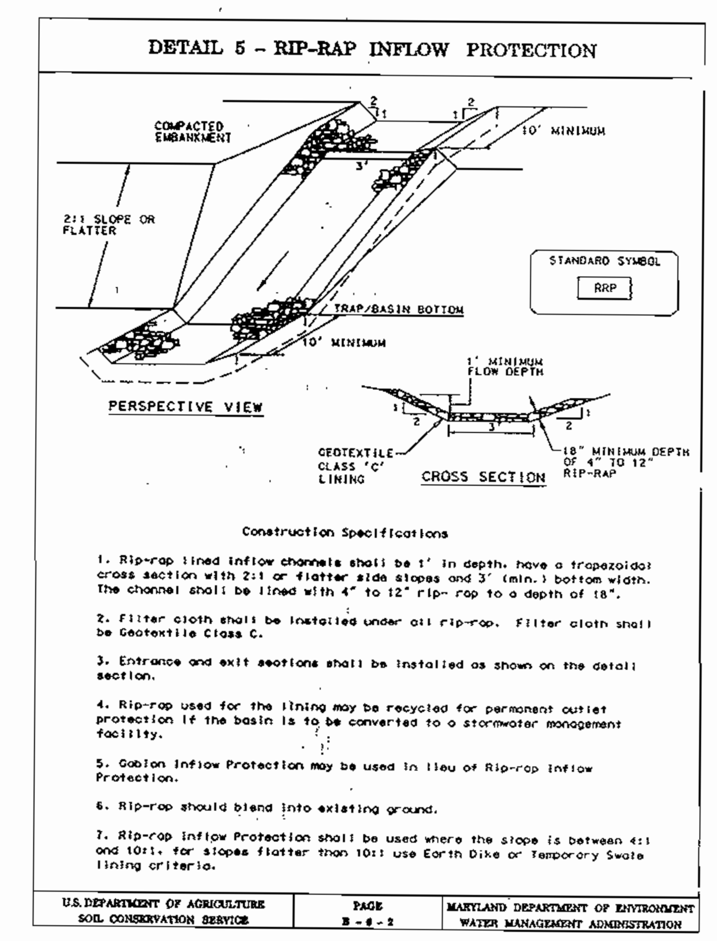
DETAIL 30 EROSION CONTROL MATTING



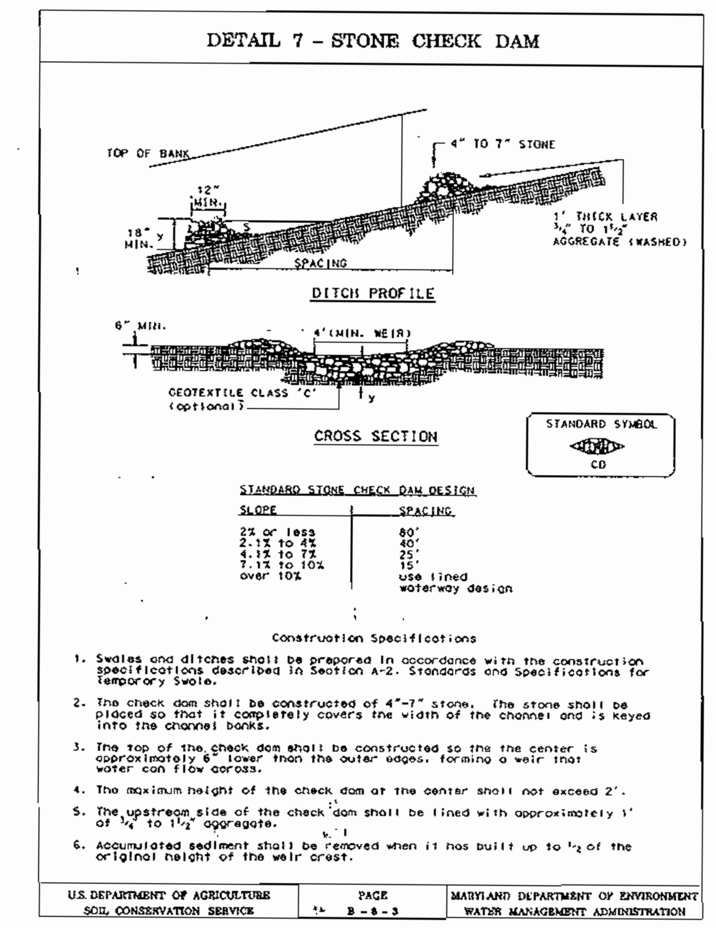
DETAIL 20A - REMOVABLE PUMPING STATION



DETAIL 5 - RIP-RAP INFLOW PROTECTION



DETAIL 7 - STONE CHECK DAM



SEQUENCE OF CONSTRUCTION

1. Obtain grading permit. 1 Day
2. Notify the Howard County Department of Public Works Construction Inspection Division at 410-313-1855 at least 48 hours prior to beginning construction. 1 Day
3. Install perimeter controls, including SCE, silt fence, super silt fence, and stone check dam adjacent to Route 1. 3 Days
4. Clear and grub for pond/ sediment basin and construct basin in accordance with the notes, details and specs on sheets 9 & 10. 2 Weeks
5. Install pond riser and barrel (S-1 to S-2). 3 Days
6. Upon establishment of final grade in and around basin area, immediately stabilize all disturbed areas in accordance with the permanent seeding notes. 2 Days
7. With permission from the Sediment Control Inspector, clear and grub for storage facility. 1 Week
8. Rough grade common entrance and storage site. Immediately stabilize all areas not to be roofed or paved. 3 Weeks
9. Install utilities, including Water, sewer and storm drains. Allow storm drains to function upon completion to convey sediment laden runoff to flow into basin. 2 Weeks
10. Fine grade for slab on grade building foundations. 3 Days
11. Install masonry for split level building (Building 'B').
12. Upon completion of second floor deck for building 'B', install stone pavement base and base paving. 4 Days
13. Complete Buildings. 3 Months
14. Install bituminous pavement surface. 4 Days
15. Immediately stabilize any remaining disturbed areas in accordance with the permanent seeding notes. 1 Day
16. Once all onsite disturbed areas are fully stabilized, and permission is granted by the Sediment Control Inspector, install Stormceptor structure (M-2) at rear of building 'A'. 3 Days
17. Install 6" PVC pipe along rear of Building 'A' and tie building 'A' roof drains into 6" pipe. Connect 6" PVC pipes into Stormceptor structure. 3 Days
18. Stabilize all remaining disturbed areas. Obtain permission from the Sediment Control Inspector and remove any remaining sediment control devices. 4 Days
19. With the permission of the Sediment Control Inspector, convert the sediment basin to a permanent stormwater retention pond:
   a) Dewater the basin completely.
   b) Remove all accumulated sediment and insure pond bottom is at the final design bottom elevation.
   c) Remove the dewatering device from the 10" pond drain.
   d) Insure all permanent orifice and weir openings are sized to the final design dimensions and elevations.
   e) Insure all pond side slopes are in accordance with SWM details and specifications. Close the gate valve on the structure and allow the pond to fill to design permanent pool elevation.
   g) Permanently stabilize the entire inside and outside of the pond.
   h) Insure Pond meets all MD 378 Stds and Specs. 2 Weeks
20. With permission from the sediment control inspector, remove the remaining silt fence and any other remaining sediment control devices and permanently stabilize any remaining disturbed areas in accordance with the permanent seeding notes. 2 Days
21. Install fencing and landscaping.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 8/16/01 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 10/12/01 DATE

DIRECTOR — 10/12/01 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — 8/13/01 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — 8/13/01 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, [illegible] represents a practical and workable plan [illegible] the site conditions. This plan was [illegible] requirements of the Howard Soil [illegible] developer that he/she must engage a [illegible] supervise pond construction and provide [illegible] District with an "as-built" plan of [illegible]

Bruce D. Burton — 7/31/01

SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — 6/14/00 DATE

STATE OF MARYLAND — BRUCE DAVID BURTON — PROFESSIONAL ENGINEER — 7/31/01

REVISIONS

No.	Date	Description
⚠1	10/31/01	Revised disturbed area and vegetatively stabilization quantities

ADDRESS CHART

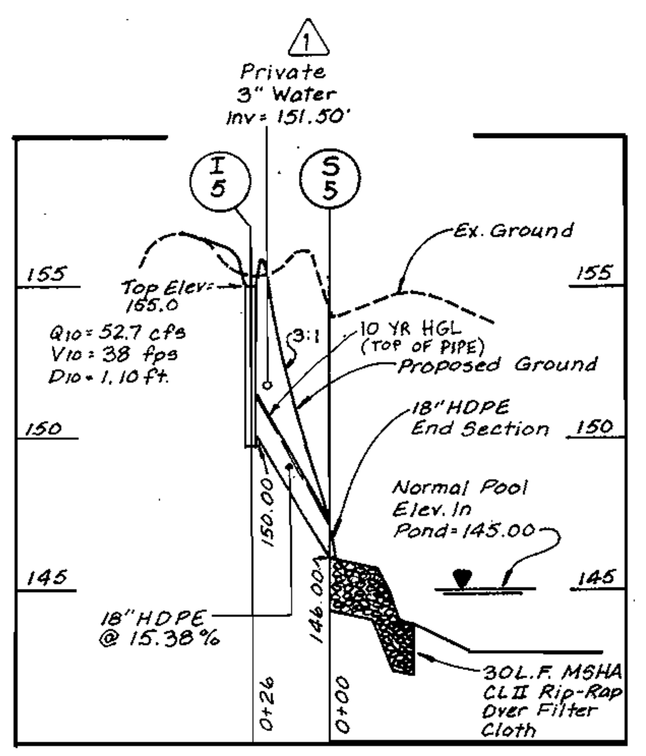
Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd

Subdivision Name: A. H. SMITH PROPERTY			Section/Area —	Parcel/No. B	
Plat No. 14746, 14747, 14748, 14987+88	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th	Census Tract 6069.02
Water Code C-04			Sewer Code 7220000		

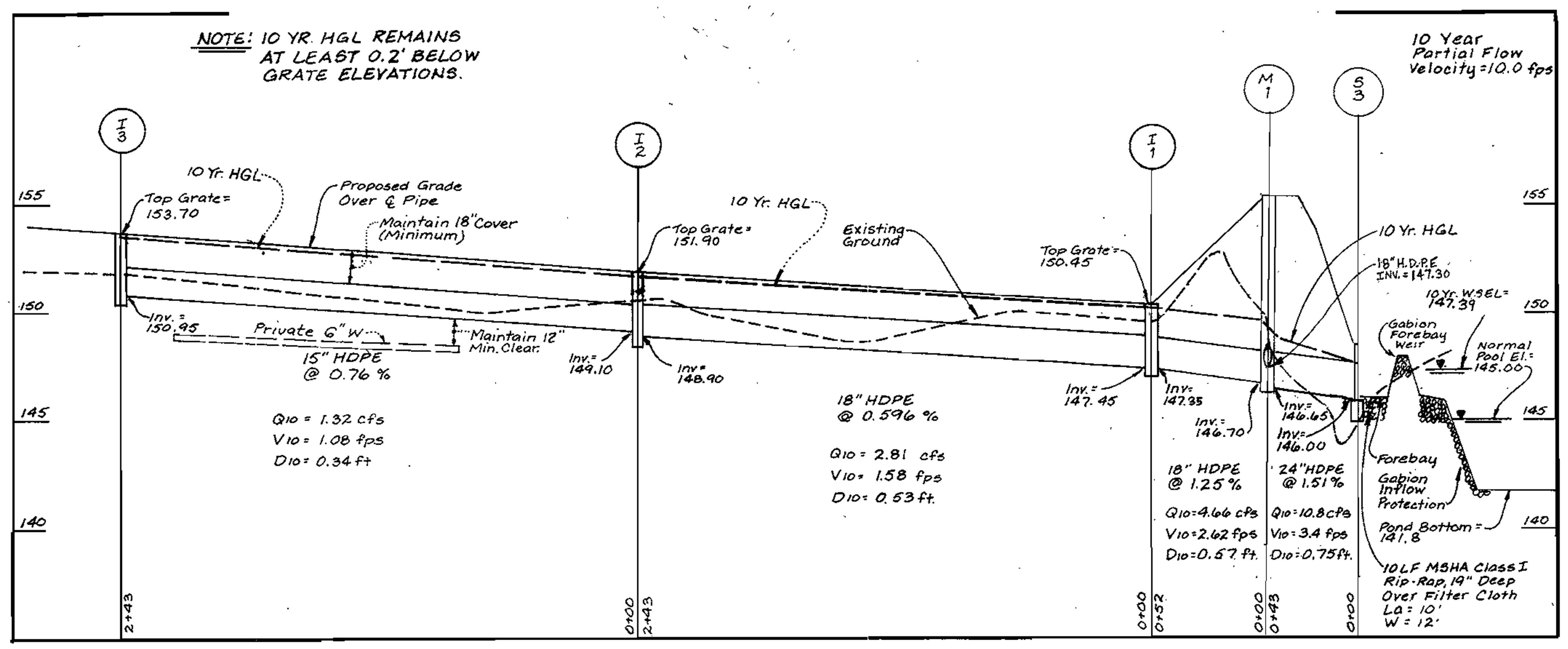
LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.	Sediment Control Notes & Details	SCALE As Shown
DRAWN EDB	STORAGE USA FACILITY A. H. SMITH PROPERTY, PARCEL B AND SHARED SWM FACILITY FOR PARCELS A & B PLAT Nos. 14746 - 14748	DRAWING 7 of 17
CHECKED B.D.B.	Tax Map 47 Grid 18 P/O Parcel 144 6th Election District - Howard County, Maryland Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31 F-02-20	JOB NO. 99025
DATE 8/00 Rev 3/01	OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP 9101 RAILROAD AVENUE BRANCHVILLE, MARYLAND 410-792-9442 DEVELOPER: MUNN ASSOCIATES II 11649 FARSIDE ROAD ELLICOTT CITY, MARYLAND 21042 410-730-4770	FILE NO. SDP 01-25

SDP 01-25



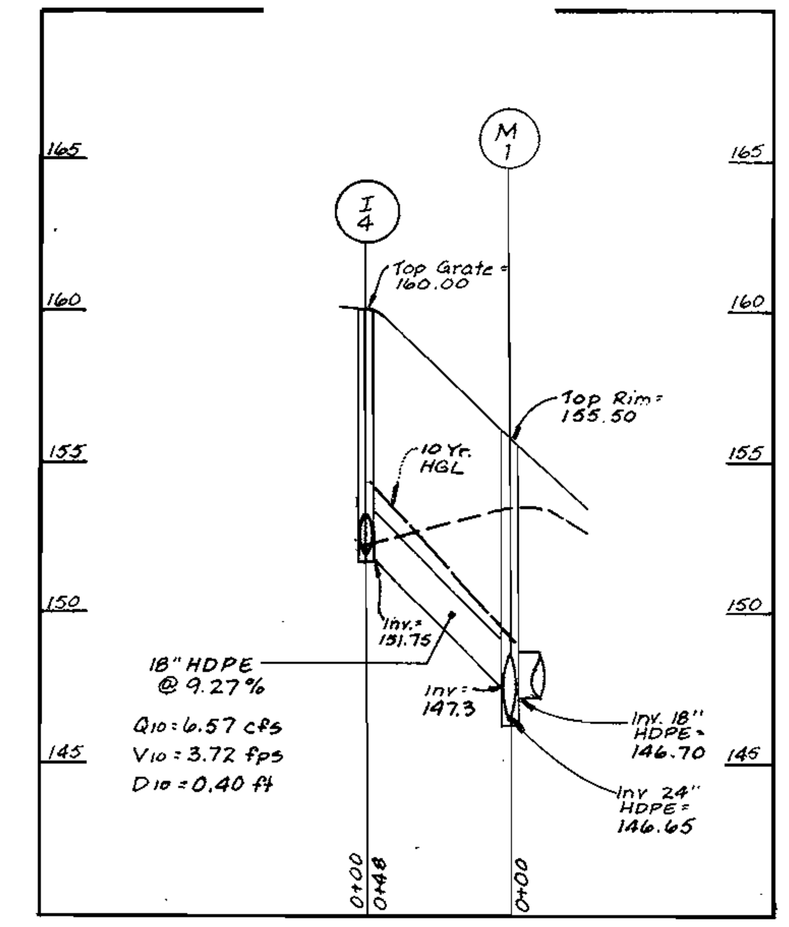
PRIVATE STORM DRAIN PROFILE
I-5 TO S-5
Scale: H: 1" = 50'
V: 1" = 5'



PRIVATE STORM DRAIN PROFILE I-3 to S-3
Scale: H: 1" = 50'
V: 1" = 5'

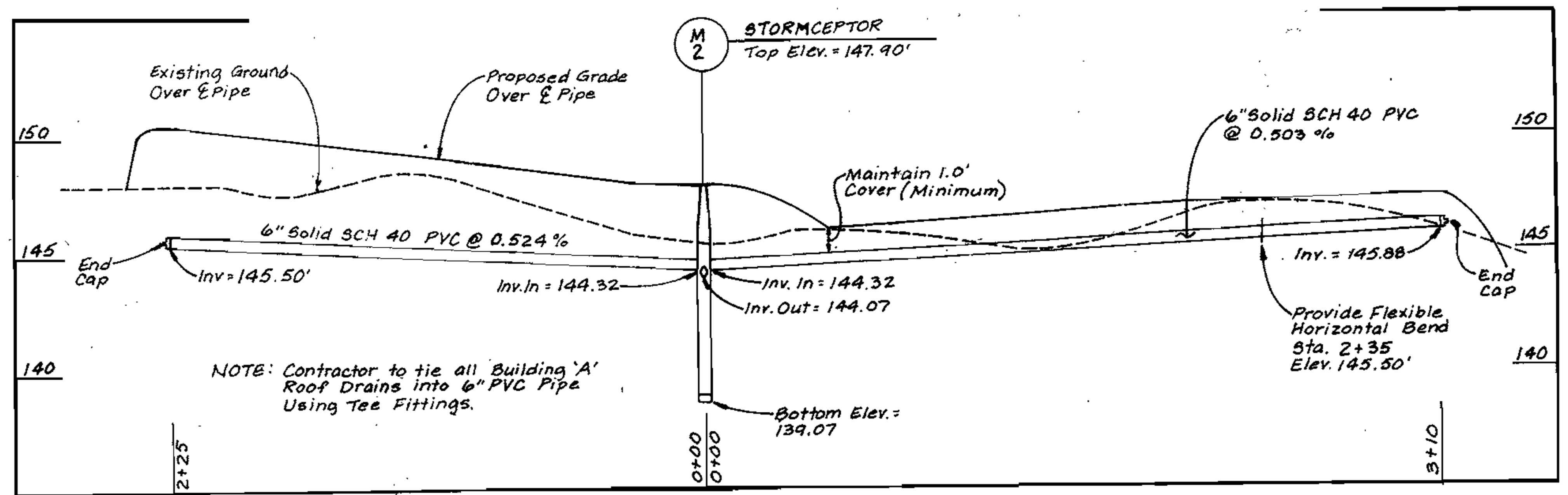
PIPE SCHEDULE		
PIPE SIZE	TYPE	TOTAL LENGTH
15"	ADS N-12 H.D.P.E. OR APPROVED EQUAL	243 L.F.
18"	ADS N-12 H.D.P.E. OR APPROVED EQUAL	343 L.F.
18"	RCP, CLASS IV	478 L.F.
24"	ADS N-12 H.D.P.E. OR APPROVED EQUAL	43 L.F.
24"	ASTM C-361 CONCRETE PIPE	93 L.F.

NOTE: LENGTHS SHOWN ARE STRAIGHT 'PLAN VIEW' LENGTHS.
PIPE SLOPES ARE NOT ACCOUNTED FOR.

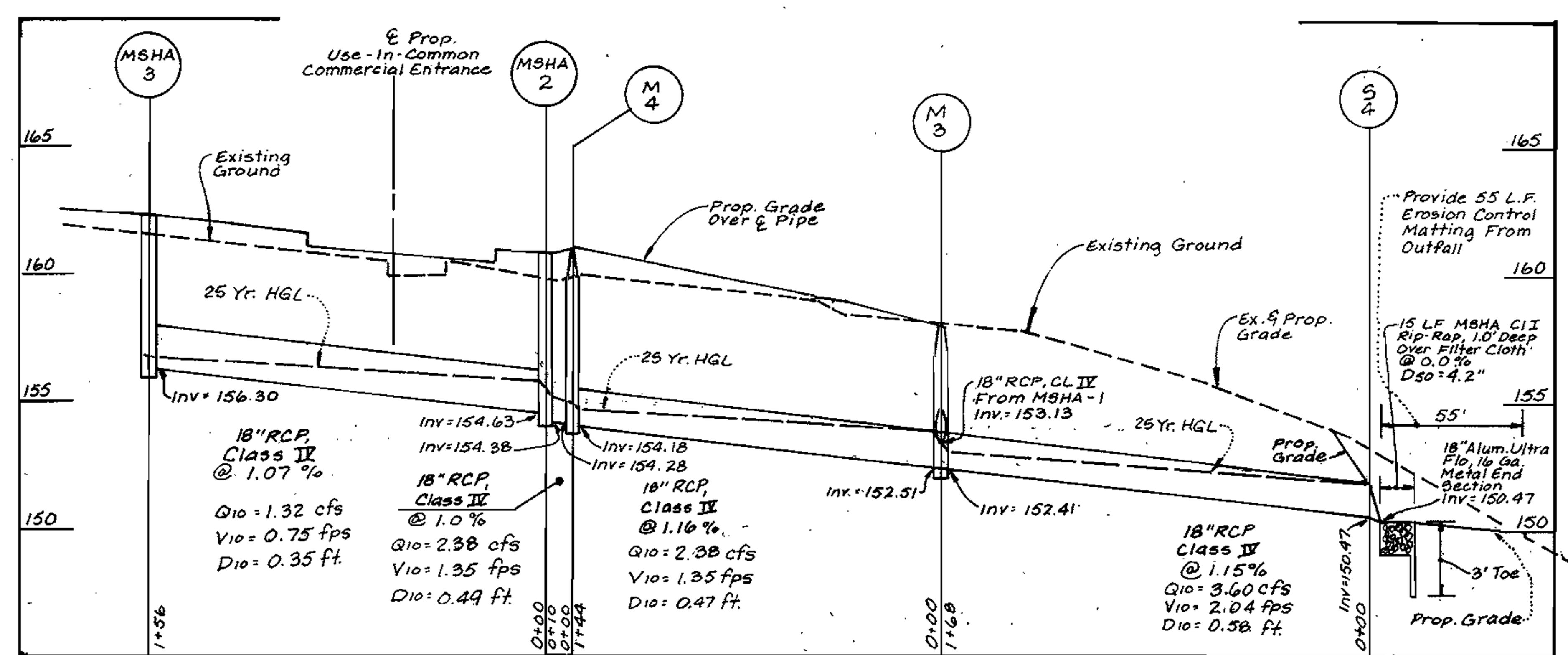


PRIVATE STORM DRAIN PROFILE I-4 to M-1
Scale: H: 1" = 30'
V: 1" = 5'

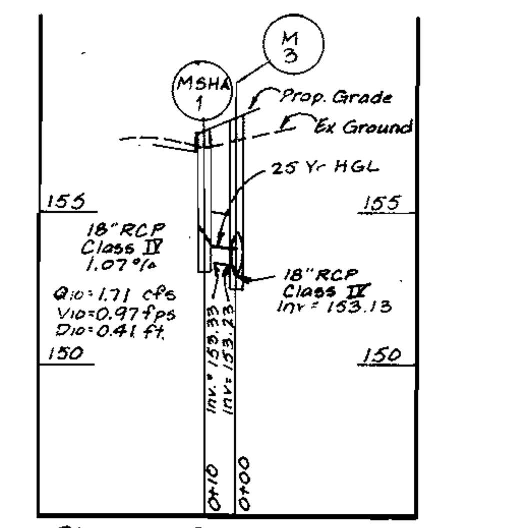
25 YEAR STORM DATA FOR MSHA STORM DRAIN SYSTEM			
PIPE SECTION	DISCHARGE (Q)	VELOCITY	DEPTH
MSHA-3 TO MSHA-2	1.69 cfs	0.97 fps	0.40 ft
MSHA-2 TO M-4	3.40 cfs	1.92 fps	0.59 ft
M-4 TO M-3	3.40 cfs	1.92 fps	0.56 ft
MSHA-1 TO M-3	2.24 cfs	1.27 fps	0.47 ft
M-3 TO S-4	5.18 cfs	2.93 fps	0.71 ft



PRIVATE 6" PIPE SYSTEM- REAR OF BUILDING 'A'
Scale: H: 1" = 50'
V: 1" = 5'



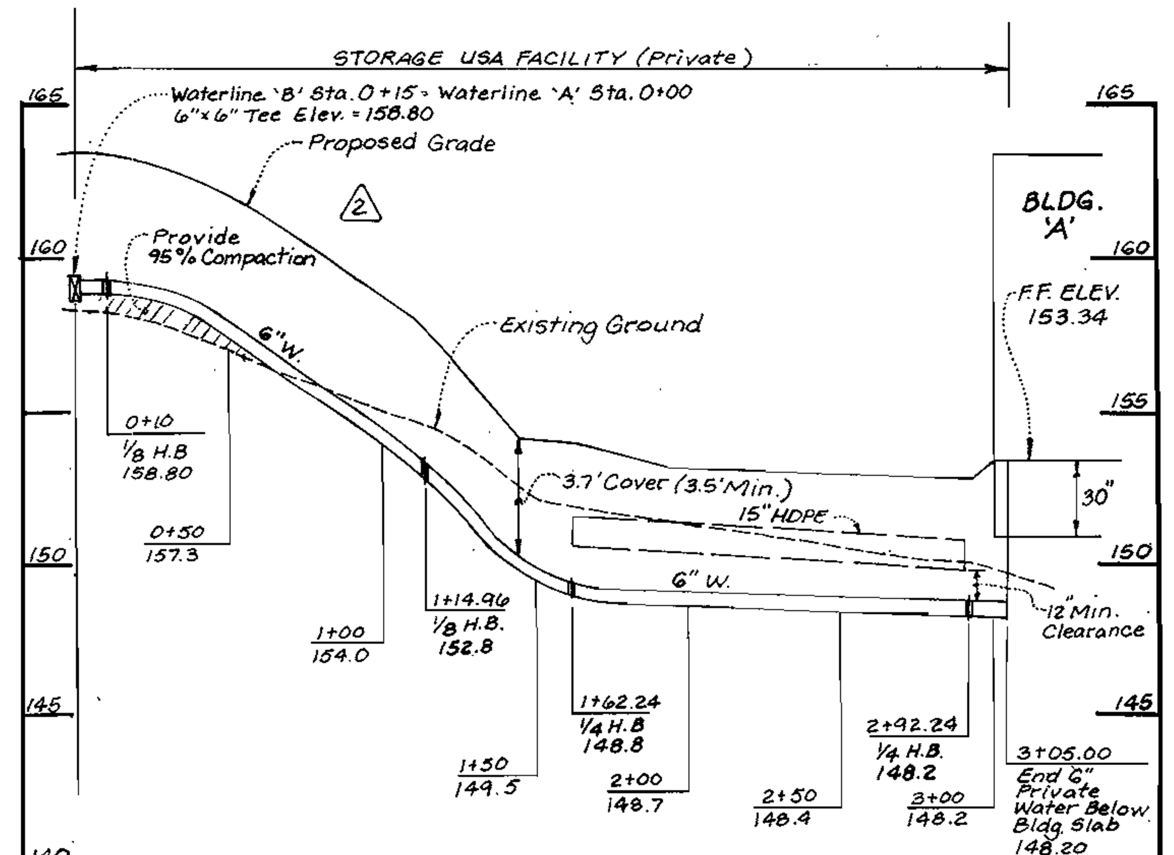
PUBLIC STORM DRAIN PROFILE MSHA-3 To S-4
U.S. ROUTE 1
Scale: H: 1" = 50'
V: 1" = 5'



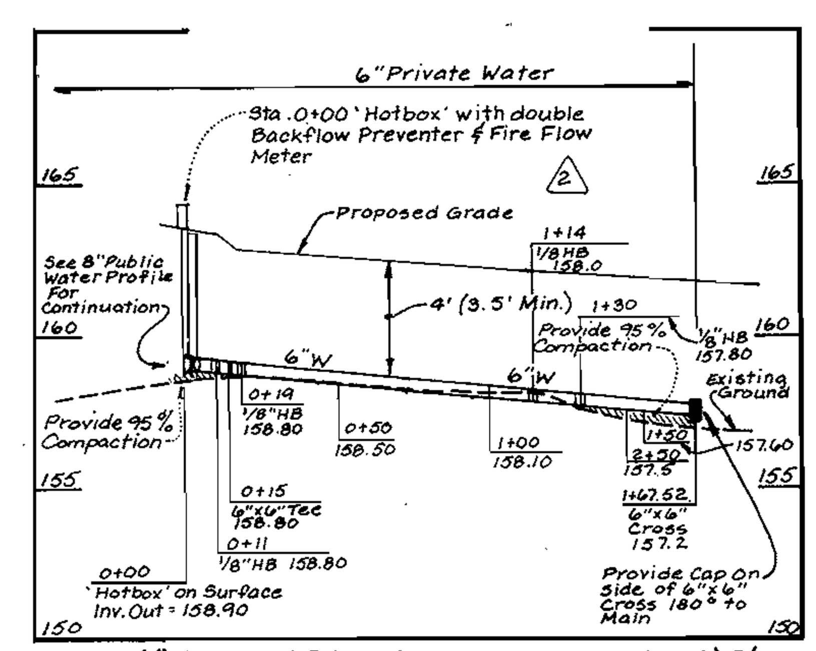
PUBLIC STORM DRAIN PROFILE MSHA1 TO M-3
Scale: H: 1" = 30'
V: 1" = 5'

STORM DRAIN STRUCTURE SCHEDULE							
NUMBER	TYPE	INV. IN	INV. OUT	UPPER	LOWER	DETAIL	LOCATION
I-1	TYPE 'S' INLET	147.45	147.35	150.45		SD 4.22 *	N. 533170.62 E. 1364196.88
I-2	TYPE 'S' INLET	149.10	148.90	151.90		SD 4.22 *	N. 533408.26 E. 1364146.13
I-3	TYPE 'S' INLET	-	150.95	153.70		SD 4.22 *	N. 533645.90 E. 1364095.38
I-4	DOUBLE TYPE 'S' INLET	-	151.75	160.00		SD 4.22 *	N. 533142.93 E. 1364100.53
I-5	YARD INLET	-	150.00	155.00		SD 4.14	N. 532904.06 E. 1364018.48
MSHA-1	COG-10	-	153.33	157.79	157.50	MSHA MD-374.51	N. 533590.06 E. 1363948.73
MSHA-2	COG-10	154.63/ 154.38		160.87	160.68	MSHA MD-374.51	N. 533469.97 E. 1363868.80
MSHA-3	COG-10	-	156.30	162.09	162.01	MSHA MD-374.51	N. 533340.96 E. 1363779.69
M-1	STD MANHOLE	147.30/146.70	146.65	155.50		G 5.12	N. 533156.19 E. 1364146.67
M-2	Stormceptor	144.32/144.32	144.07	147.90		see sht 11	N. 533480.77 E. 1364184.33
M-3	STD MANHOLE	152.51/153.23	152.41	158.03		MSHA MD-383.01	N. 533584.05 E. 1363957.94
M-4	STD MANHOLE	154.28	154.18	161.22		MSHA MD-383.01	N. 533465.14 E. 1363875.79
S-1	TYPE 'C' ENDWALL	-	139.20	141.95**		SD 5.21	N. 533123.96 E. 1364211.72
S-2	See details, sht 10	141.80	-	147.13		Sheet 10	N. 533048.06 E. 1364156.28
S-3	TYPE 'C' ENDWALL	-	146.00	148.75**		SD 5.21	N. 533114.86 E. 1364158.55
S-4	18" RCP CL IV END SECT.	-	150.47			MSHA -368.01	N. 533737.03 E. 1364038.24
S-5	18" H.D.P.E. END SECT.	-	146.00			ADS Specs	n. 532904.11 E. 1364046.73

NOTE: LOCATIONS GIVEN ARE FOR THE CENTERPOINT OF EACH STRUCTURE.
* All type 'S' inlets will require a traffic bearing grate. See Howard County Standard SD 4.93.
** Top of Type 'C' Endwall.



6" PRIVATE WATERLINE 'A' PROFILE
Scale: H: 1" = 50'
V: 1" = 5'



6" PRIVATE WATERMAIN PROFILE 'B'
Scale: H: 1" = 30'
V: 1" = 5'

Subdivision Name: A. H. SMITH PROPERTY	Section/Area: ———	Parcel/No. B

Plat No.	Block No.	Zone	Tax Map No.	Election District	Census Tract
14,746, 14747 & 14748, 14987+88	18	M-2	47	6th	6069.02

Water Code	Sewer Code
C-04	7220000

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/29/01

DIRECTOR — DATE 10/12/01

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — DATE 8/13/01

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — DATE 8/13/01

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Burton 7/31/01
SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — DATE 6/14/00

STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER No. 19184

Bruce D. Burton 7/31/01

REVISIONS

No.	Date	Description
1	1/02	Added Prop. 3" Waterline Crossing to I-5 to S5 Profile
2	2/02	Revised both Private 6" Waterline Profiles to match revised Plan View

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.	STORM DRAIN, WATER & SEWER PROFILES STORAGE USA FACILITY A. H. SMITH PROPERTY, PARCEL B AND SHARED SWM FACILITY FOR PARCELS A & B PLAT NOS. 14746-14748	SCALE As Shown
DRAWN EDB	Tax Map 47 Grid 18 P/O Parcel 144 6th Election District – Howard County, Maryland	DRAWING 8 of 17
CHECKED B.D.B.	Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31 F-02-20	JOB NO. 99025
DATE 8/00 Rev 3/01	OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410-792-9442 DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4770	FILE NO. SDP 01-25

SDP-01-25

POND CONSTRUCTION SPECIFICATIONS

These specifications are appropriate to all ponds within the scope of the Standard for practice MD-378. All references to ASTM and AASHTO specifications apply to the most recent version.

SITE PREPARATION

Areas designated for borrow areas, embankment and structural works shall be cleared grubbed, and stripped of topsoil. All trees, vegetation, roots, and other objectionable material shall be removed. Channel banks and sharp breaks shall be sloped to no steeper than 1:1. All trees shall be cleared and grubbed within 15 feet of the toe of the embankment.

Areas to be covered by the reservoir will be cleared of all trees, brush, logs, fences, rubbish, and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level to the ground surface. For dry stormwater management ponds, a minimum of a 25 foot radius around the inlet structure shall be cleared.

All cleared and grubbed material shall be disposed of outside and below the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

EARTH FILL

Material - The fill material shall be taken from approved designated borrow areas. It shall be free of roots, stumps wood, rubbish, stones greater than 6", frozen or other objectionable materials. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC, SC, CH, or CL and must have at least 30% passing the #200 sieve. Consideration may be given to the use of other materials in the embankment if designed by a geotechnical engineer. Such special designs must have construction supervised by a geotechnical engineer.

Materials used in the outer shell of the embankment must have the capability to support vegetation of the quality required to prevent erosion of the embankment.

Placement - Areas on which fill is to be placed shall be scarified prior to the placement of fill. Fill materials shall be placed in maximum 8 inch thick (before compaction) layers which are to be continuous over the entire length of fill. The most permeable borrow material shall be placed in the downstream portions of the embankment. The principal spillway must be installed concurrently with fill placement and not excavated into the embankment.

Compaction - The movement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of heavy equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tired, or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction will be obtained with the equipment used. The fill material shall contain sufficient moisture so that if formed into a ball it will not crumble yet not be so wet that water can be squeezed out.

When required by the reviewing agency the minimum required density shall not be less than 95% of maximum dry density with a moisture content within +/- 2% of the optimum. Each layer of fill shall be compacted as necessary to obtain that density, and is to be certified by the Engineer at the time of construction. All compaction is to be determined by AASHTO Method T-99 (Standard Proctor).

Cut off Trench - The cutoff trench shall be excavated into impervious material along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet below existing grade or as shown on the plans. The side slopes of the trench shall be 1 to 1 of flatter. The backfill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability.

Embankment Core - The core shall be parallel to the centerline of the embankment as shown on the plans. The top width of the core shall be a minimum of four feet. The height shall extend up to at least the 10 year water elevation or as shown on the plans. The side slopes shall be 1 to 1 or flatter. The core shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. In additional, the core shall be placed concurrently with the outer shell of the embankment.

STRUCTURAL BACKFILL

Backfill adjacent to pipes or structures shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a concrete structure or pipe, unless there is compacted fill of 24" or greater over the structure or pipe. Structure backfill may be flowable fill meeting the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 313 as modified. The mixture shall have a 100-200 psi; 28 day unconfined compressive strength. The flowable fill shall have a minimum pH of 4.0 and a minimum resistivity of 2,000 ohm-cm. Material shall be placed such that a minimum of 6" (measured perpendicular to the outside of the pipe) of flowable fill shall be under (bedding), over and, on the sides of the pipe. It only needs to extend up to the spring line for rigid conduits. Average slump of the fill shall be 7" to assure flowability of he material. Adequate measures shall be taken (sand bags, etc.) to prevent floating the pipe. When using flowable fill, all metal pipe shall be bituminous coated. Any adjoining soil fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other manually directed compaction equipment. The material shall completely fill all voids adjacent to the flowable fill zone. At no time during the backfillling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall equipment be driven over any part of a structure or pipe unless there is compacted fill of 24" or greater over the structure or pipe. Backfill material outside the structural backfill (flowable fill) zone shall be of the type and quality conforming to that specified for the core of the embankment or other embankment materials.

GEOTECHNICAL RECOMMENDATIONS

Three soil test borings drilled within the storm water management pond showed stiff to hard micaceous silts to sandy silts to micaceous clay silts (ML soils) with minimum infiltration rates questionable for infiltration practices resulting in the SWM facility becoming a wet or storage facility.

This is to confirm our previous discussions regarding the adequacy of on-site soils for use in the construction of the storm water management facility earth embankments with the exception of the core cut-off trench which should be constructed of control compacted soils with United Soil Classifications GC, SC, CH or CL. If unsuitable pervious material is encountered at cut-off core trench subgrade, as determined by subgrade inspection by a geotechnical engineer, the bottom of the cut-off trench should be lowered to satisfactory material or to a depth directed by the geotechnical engineer.

Embankment subgrade shall be free of all unsuitable materials and proof rolled with a fully loaded ten wheeler dump truck prior to construction of the embankment and cut-off core trench. Both embankment and cut-off core trench soils shall be control compacted and soils shall be placed in loose layers (lifts) not to exceed eight inches in thickness and compacted to 95 percent of maximum dry density per ASTM – D – 698 standard proctor density.

Pond subgrade should be inspected and evaluated by a geotechnical engineer with unsuitable materials excavated and replaced by control compacted fill per above compaction criterion.

All construction shall meet the conditions in accordance with Maryland Soil Conservation Specification No. 378.

PIPE CONDUITS

All pipes shall be circular in cross section.

Corrugated Metal Pipe - All of the following criteria shall apply for corrugated metal pipe:

1. Materials - (Polymer Coated steel pipe) - Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-245 & M-246 with watertight coupling bands or flanges.

Materials - (Aluminum Coated Steel Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-274 with watertight coupling bands or flanges. Aluminum Coated Steel Pipe, when used with flowable fill or when soil and/or water conditions warrant the need for increased durability, shall be fully bituminous coated per requirements of AASHTO Specification M-190 Type A. Any aluminum coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer or two coats of asphalt.
Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specifications M-196 or M211 with watertight coupling bands or flanges. Aluminum Pipe, when used with flowable fill or when soil and/or water conditions warrant for increased durability, shall be fully bituminous coated per requirements of AASHTO Specifications M-190 Type A. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The pH of the surrounding soils shall be between 4 and 9.

2. Coupling bands, anti seep-collars, end sections, etc., must be composed of the same material and coatings as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness.

3. Connections - All connections with pipes must be completely watertight. The drain or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight. Dimple bands are not considered to be watertight.
All connections shall use a rubber or neoprene gasket when joining pipe sections. The end of each pipe shall be re-rolled an adequate number of corrugations to accommodate the band width. The following type connections are acceptable for pipes less than 24" in diameter: flanges on both ends of the pipe, with a circular 3/8" closed cell neoprene gasket, pre-punched to the flange bolt circle, sandwiched between adjacent flanges; a 12 inch wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12 inch wide hugger type band with O-ring gaskets having a minimum diameter of 1/2 inch greater than the corrugated depth. Pipes 24" in diameter and larger shall be connected by a 24" long annular corrugated band using a minimum of 4 (four) rods and lugs, 2 on each connecting pipe end. A 24" wide by 3/8" thick closed cell circular neoprene gasket will be installed with 12 inches on the end of each pipe. Flanged joints with 3/8" closed cell gaskets the full width of the flange is also acceptable.

Helically corrugated pipe shall have either continuously welded seams or have lock seams with internal caulking or a neoprene bead.

4. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

5. Backfilling shall conform to "Structure Backfill."

6. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Reinforced Concrete Pipe - All of the following criteria shall apply for reinforced concrete pipe:

1. Materials - Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361.

2. Bedding - Reinforced concrete pipe conduits shall be laid in a concrete bedding/cradle for their entire length. This bedding/cradle shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 50 % of its outside diameter with a minimum thickness of 6 inches. Where a concrete cradle is not needed for structural reasons, flowable fill may be used as described in "Structure Backfill" section of this standard. Gravel bedding is not permitted.

3. Laying pipe - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire length, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe. The first joint must be located within 4 feet from the riser.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

Plastic Pipe - The following criteria shall apply for plastic pipe.

1. Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-1785 or ASTM D-2241. Corrugated High Density Polyethylene (HDPE) pipe, couplings and fittings shall conform to the following: 4" - 10" pipe shall meet the requirements of AASHTO M252 Type S, and 12" through 24" shall meet the requirements of AASHTO M294 Type S.

2. Joints and connections to anti-seep collars shall be completely watertight.

3. Bedding - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

4. Backfilling shall conform to "Structure Backfill."

5. Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

DRAINAGE DIAPHRAGMS - When a drainage diaphragm is used, a registered professional engineer will supervise the design and construction inspection.

CONCRETE:

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 414, Mix No. 3.

ROCK RIPRAP:

Rock riprap shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 311.

Geotexile shall be placed under all riprap and shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 921.09, Class C.

CARE OF WATER DURING CONSTRUCTION:

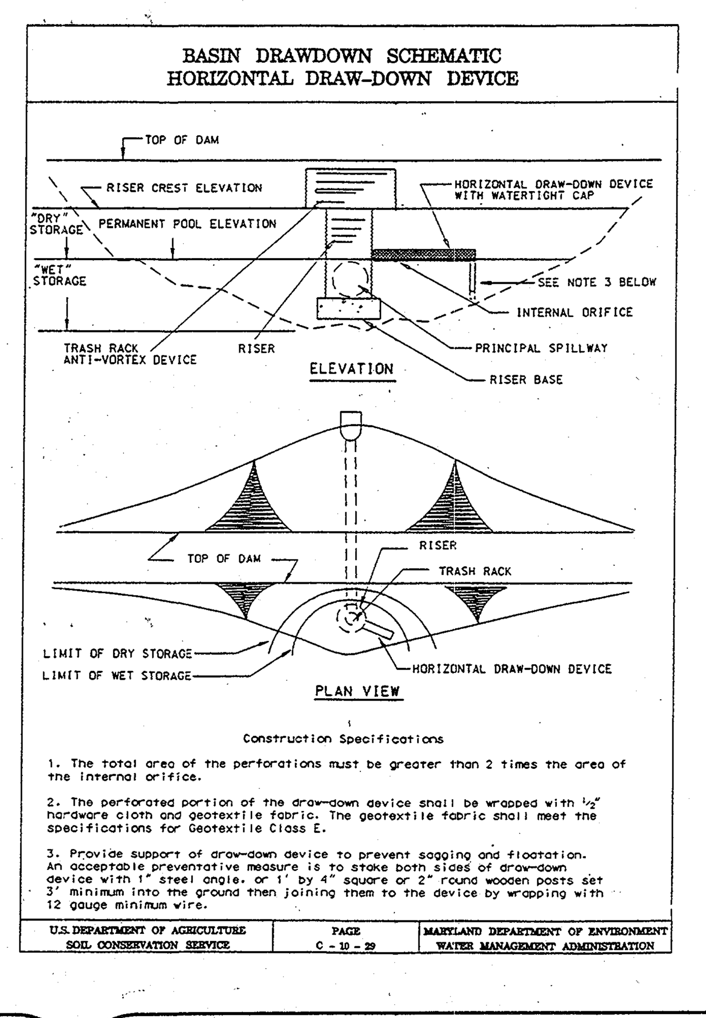
All work on permanent structures shall be carried out in areas free from water. The Contractor shall construct and maintain all temporary dikes, levees, cofferdams, drainage channels, and stream diversions necessary to protect the areas to be occupied by the permanent works. The contractor shall also furnish, install, operate and maintain all necessary pumping and other equipment required for removal of water from the various parts of the work and for maintaining the excavations, foundation, and other parts of the work free from water as required or directed by the engineer for constructing each part of the work. After having served their purpose, all temporary protective works shall be removed or leveled and graded to the extend required to prevent obstruction in any degree whatsoever of the flow of water to the spillway or outlet works and so as not to interfere in any way with the operation or maintenance of the structure. Stream diversions shall be maintained until the full flow can be passed through the permanent works. The removal of water from the required excavation and the foundation shall be accomplished in a manner and to the extent that will maintain stability of the excavated slopes and bottom required excavations and will allow satisfactory performance of all construction operations. During the placing and compacting of material in required excavations, the water level at the locations being refilled shall be maintained below the bottom of the excavation at such locations which may required draining the water to sumps from which the water shall be pumped.

STABILIZATION:

All borrow areas shall be graded to provide proper drainage and left in a sightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and berms shall be stabilized by seeding, liming, fertilizing and mulching in accordance with the Natural Resource Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the accompanying drawings.

EROSION AND SEDIMENT CONTROL:

Construction operations will be carried out in such a manner that erosion will be controlled and water and air pollution minimized. State and local laws concerning pollution abatement will be followed. Construction plans shall detail erosion and sediment control measures.



TEST BORING RECORD

PROJECT: Mini Storage, Route 1, Laurel, MD — PROJECT NUMBER: 2379
BORING NUMBER: W-1 (SWM) — SURFACE ELEVATION: 142.50 — DATE: 9/20/99
CLIENT: Kondner Engineering & Technical Services

DEPTH (ft) FROM	DEPTH (ft) TO	STRATA DESCRIPTION AND REMARKS	NO	DEPTH (ft) FROM	DEPTH (ft) TO	1ST 6"	2ND 6"	3RD 6"	Rec'd (in)
		8" Topsoil							
1.0'		Medium brown moist	1	1.0	2.5	3	2	5	14"
	3.0'	Micaceous silt							
3.0'		Light brown fine	2	3.5	5.0	7	9	10	14"
	9.0'	Sandy silt							
9.0'		Dark green fine sandy silt	3	8.5	10.0	5	14	12	16"
			4	13.5	15.0	16	24	28	14"
	20.0'		5	18.5	20.0	18	38	50/5"	12"
		B.O.H. @ 20.0'							

METHOD OF DRILLING: HOLLOW STEM AUGER √; SOLID STEM AUGER ___; DRIVEN CASING/WASH ___
WEATHER: ___
WATER LEVEL: Dry @COMP DATE ___
CAVE IN DEPTH: 16.0' @COMP DATE ___
SAMPLE TYPES: SPLIT SPOON (S) √; SHELBY TUBE (T) ___; BULK (B) ___; ROCK CORE (C) ___
SHEET: 1 OF 1
L:\STEVENMAINDIR\TESTBOR\KONDNERB2.wpd (corel wp8.0) (091999)

TEST BORING RECORD

PROJECT: Mini Storage, Route 1, Laurel, MD — PROJECT NUMBER: 2379
BORING NUMBER: W-2 (SWM) — SURFACE ELEVATION: 147.00 — DATE: 9/20/99
CLIENT: Kondner Engineering & Technical Services

DEPTH (ft) FROM	DEPTH (ft) TO	STRATA DESCRIPTION AND REMARKS	NO	DEPTH (ft) FROM	DEPTH (ft) TO	1ST 6"	2ND 6"	3RD 6"	Rec'd (in)
		8" Topsoil							
1.0		Light brown micaceous	1	1.0	2.5	3	3	5	14"
	4.5	Clay silt							
4.5			2	3.5	5.0	3	8	50/2"	10"
	5.0	Rock							
		Auger Refusal @ 5.0'							

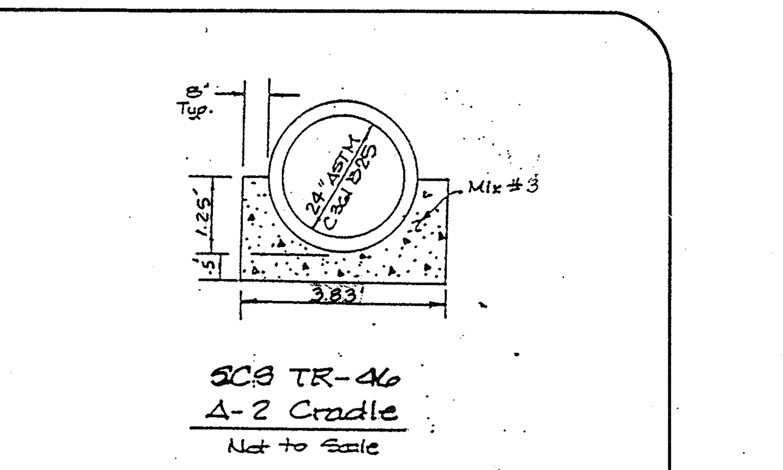
METHOD OF DRILLING: HOLLOW STEM AUGER √; SOLID STEM AUGER ___; DRIVEN CASING/WASH ___
WEATHER: ___
WATER LEVEL: Dry @COMP DATE ___
CAVE IN DEPTH: 3.0' @COMP DATE ___
SAMPLE TYPES: SPLIT SPOON (S) √; SHELBY TUBE (T) ___; BULK (B) ___; ROCK CORE (C) ___
SHEET: 1 OF 1
L:\STEVENMAINDIR\TESTBOR\KONDNERB3.wpd (corel wp8.0) (091999)

TEST BORING RECORD

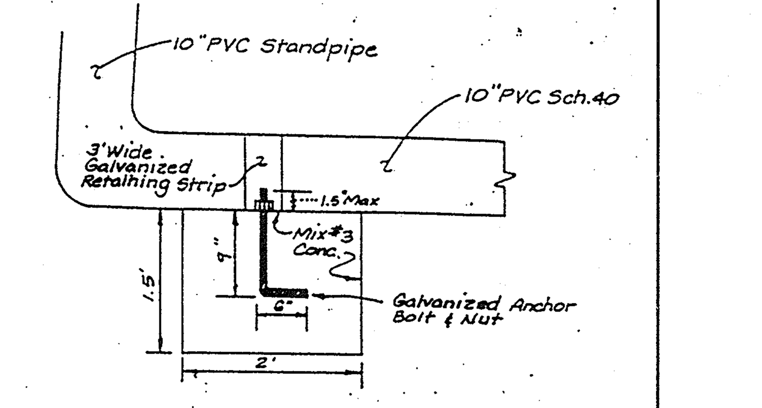
PROJECT: Mini Storage, Route 1, Laurel, MD — PROJECT NUMBER: 2379
BORING NUMBER: W-3 (SWM) — SURFACE ELEVATION: 149.00 — DATE: 9/20/99
CLIENT: Kondner Engineering & Technical Services

DEPTH (ft) FROM	DEPTH (ft) TO	STRATA DESCRIPTION AND REMARKS	NO	DEPTH (ft) FROM	DEPTH (ft) TO	1ST 6"	2ND 6"	3RD 6"	Rec'd (in)
		10" Topsoil							
1.0		Medium brown silty	1	1.0	2.5	7	5	4	10"
	3.0	Clay with medium gravel							
3.0		Light brown stiff	2	3.5	5.0	10	11	14	12"
	6.0	Silty Clay							
6.0		Light brown stiff	3	8.5	10.0	8	10	13	12"
	11.0	Silt							
11.0		Greenish fine sandy silt	4	13.5	15.0	4	6	10	14"
	20.0		5	18.5	20.0	12	42	50/5"	10"
		B.O.H. @ 20.0'							

METHOD OF DRILLING: HOLLOW STEM AUGER √; SOLID STEM AUGER ___; DRIVEN CASING/WASH ___
WEATHER: ___
WATER LEVEL: Dry @COMP DATE ___
CAVE IN DEPTH: 16.5' @COMP DATE ___
SAMPLE TYPES: SPLIT SPOON (S) √; SHELBY TUBE (T) ___; BULK (B) ___; ROCK CORE (C) ___
SHEET: 1 OF 1
L:\STEVENMAINDIR\TESTBOR\KONDNERB4.wpd (corel wp8.0) (091999)



SCS TR-46 A-2 Cradle
Not to Scale

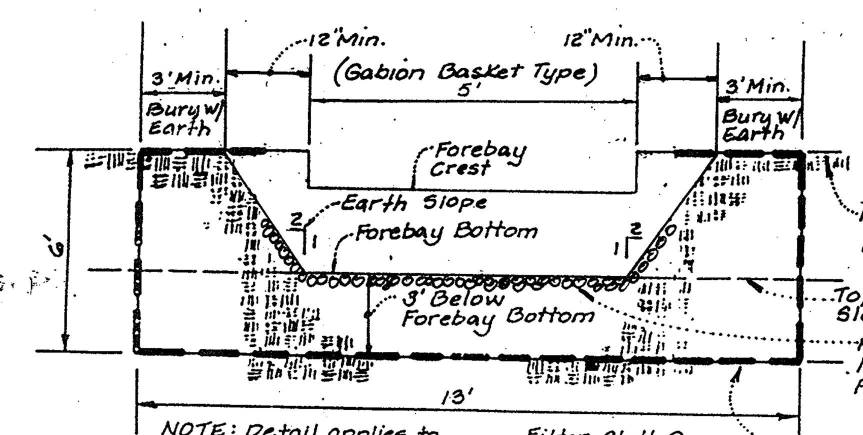


LOW FLOW CONCRETE BASE DETAIL
No Scale

BASIN DESIGN DATA SUMMARY

Top of Wet Storage Volume, Elev:	144.20
Cleanout Elev:	143.50
Top of Dry Storage Vol., Elev:	145.40
Top of 12" Draw Down Standpipe, Elev:	145.40
Begin Perforations on Draw Down Standpipe, Elev:	144.20

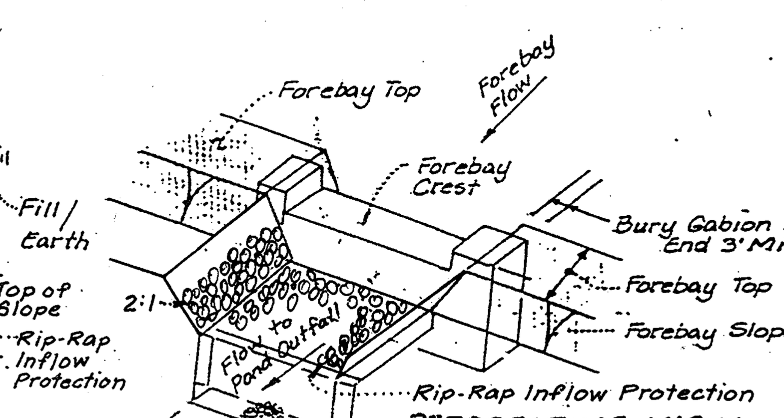
TYPICAL FOREBAY DETAILS (N.T.S.)



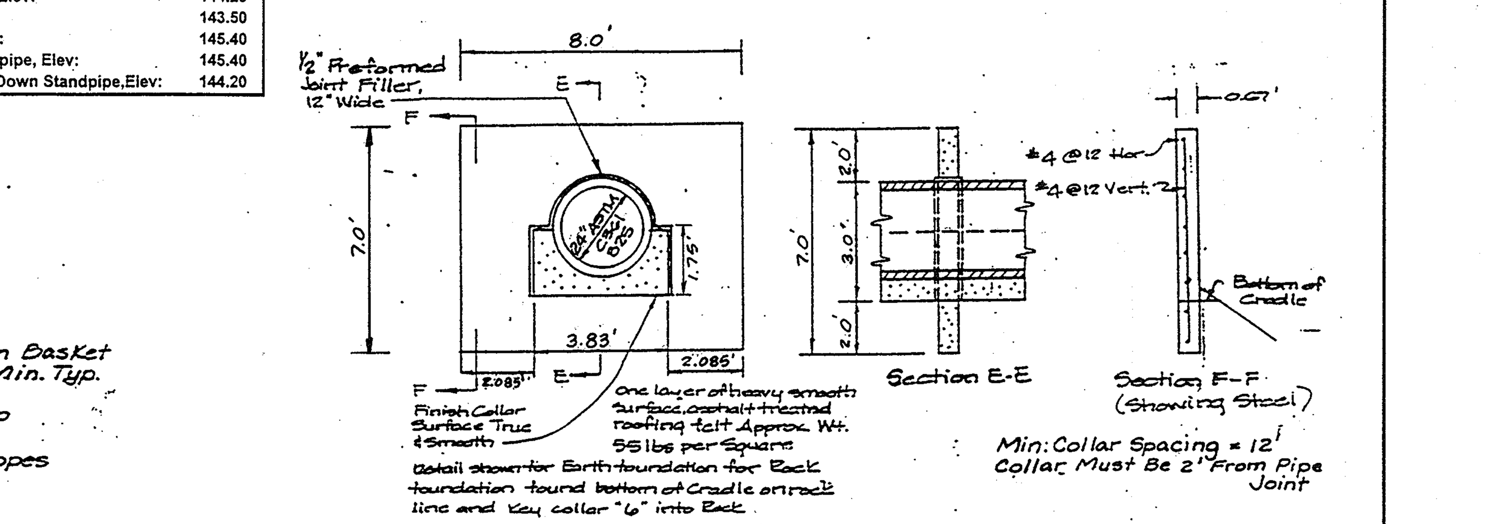
NOTE: Detail applies to both Pond #1 and Pond #2.

Filter Cloth @ All Soil / Gabion Basket Interfaces

FOREBAY DETAIL
PLAN VIEW
(N.T.S.)



PERSPECTIVE VIEW
(N.T.S.)



Detail of Anti Seep Collar
Use (3) 10' x 7.4'
N.T.S.

Figure 2 Temporary Sediment Basin Design Data Sheet

Computed by: SDH Date: 1/31/01 Checked by: BDB Date: ___
Project name: STORAGE USA (Smith Prop) Basin #: 1
Location: A.H. Smith Property Parcels A & B
East side of U.S. Route 1, 100 yds north of relocated Gorman Road Intersection

Total area draining to basin: 21.2 acres (ac)

Basin Volume Design

Note: 1. Also see Surface Area Design #30, this form.
2. To convert ft^3 to yd^3, divide ft^3 by 27. To convert ft^2 to yd^2, divide ft^2 by 9.

1. Min. required vol. = 3600 ft^3/ac x 21.2 ac. drainage = 76,320 ft^3
2. Actual Volume of basin = 205,437 ft^3
3. Excavate 76,320 ft^3 (2827 yd^3) to obtain required capacity.
4. Vol. at dewatering elev. = 1800 ft^3/ac x 21.2 ac. = 38,160 ft^3
5. Vol. of basin at cleanout = 900 ft^3/ac x 21.2 ac. = 19,080 ft^3
6. Elevation corresponding to min. required volume of basin (riser crest elevation) 145.4 ft.
7. Permanent pool elevation 144.20 ft.
8. Distance from riser crest elevation to permanent pool elevation 1.2 ft.
9. Basin cleanout elevation 143.5 ft.
10. Distance from riser crest elevation to cleanout elevation 1.9 ft.

Spillway Design

11. Q_{10} = 30 cfs (peak discharge from 10-yr, 24-hr storm event, attach computations)

Principal Spillway (Qps) (See Detail 11)

12. Design Principal Spillway (Barrel) discharge, Design Q_{ps} = 30 cfs (min. 10% of 10 year peak or 8" Diameter Pipe)
13. H = 7.13 ft.; Barrel length = 93 ft.
14. Barrel Diam. 24 in. Note: Q_{ps} must equal or exceed Design Q_{ps}
Q_{ps} = Q (from Table 13 or 14) 39.8 x (length correction factor) 0.95 = 37.8 cfs.
15. Riser Diameter 48 in.; Riser Height 7.33 ft.; Riser Head (h) = — ft.
16. Trash Rack Diam. * in.; Trash Rack Height = * in.
* Custom Rebar Trashrack

NOTE: A table showing design data shall be included on the plan for each basin.

Anti-Seep Collar Design (If Required)

21. y = 5.3 ft.; z = 3 :1; pipe slope = 2.795 %; Ls = 65 ft
22. Use 3 collars, 7'x8' ft. - — in. square; projection = 2.0 ft.

Design Elevations

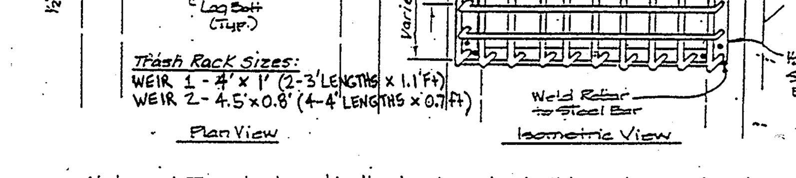
23. Riser Crest	= 145.4 ft.	24. Design High Water	= 148.70 ft.
25. Emergency Spillway Crest	= N/A ft.	26. Min. settled top of dam	= 151.0 ft.
27. Permanent pool	= 144.2 ft.	28. Bottom of Basin	= 141.8 ft.
29. Draw-down orifice invert	= 141.8 ft.		

Surface Area Design

30. Min. basin surface area; SA ≥ 0.0035 x Q_{10} = 0.0035 x 32 cfs ≤ 0.112 ac.
Actual Surface Area at Sediment Basin Perm. Pool (Top of wet storage) = 0.69 Ac

Draw-down Device

31. Draw-down device orifice diameter = 8" in. (From Table 11) (4 x Area = 1.40 ft.2)
32. A_t = Total area of perforations ≥ $4A_o$ Use 1.0" Diameter Holes
A_t = (# of perforation/foot)(perforation area ft^2)(perforated section length ft.)
(0.0055 ft^2) (4')
A_t = 206 ft^2
A_o = Internal orifice area (from Table 11 or computed) 64, ∴ 1" Holes/ft x 4' = 256 Total Holes
0.34 ft^2
In order to provide the required number of Holes, use a 12" Pipe: Circumference = 3.14 x 4' = 12.56 ft^2 (Surface Area available)
Punch 256, 1" Dia Holes in a 12" PVC Standpipe, 4' long

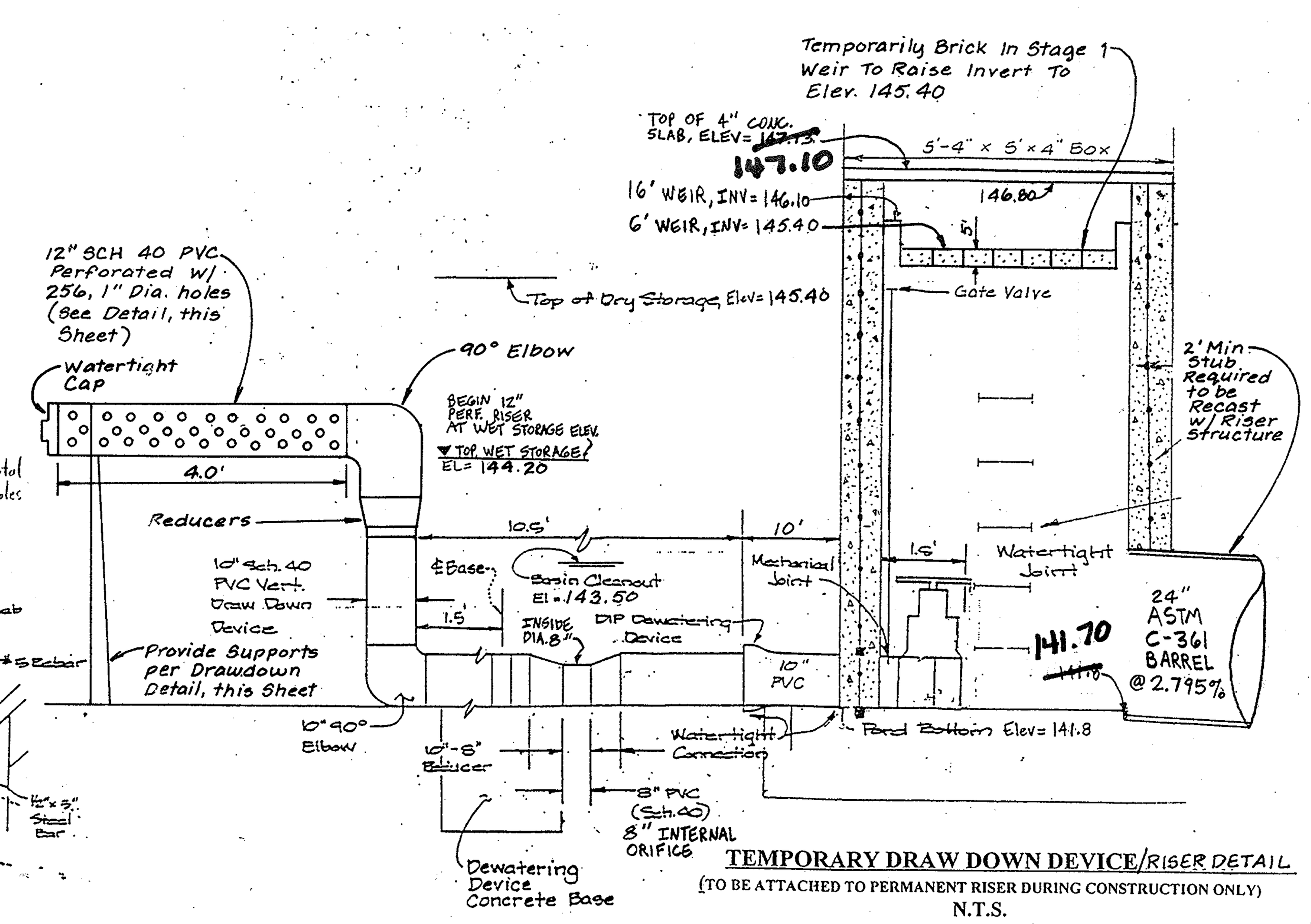


Trash Rack Sizes:
WEIR 1 - 4' x 1' (2-3' LENGTHS x 1.1' Ft)
WEIR 2 - 4.5' x 0.8' (4-4' LENGTHS x 0.7 ft)

Plan View — Isometric View

Notes
1. ~~The steel used in the trash rack shall be galvanized and painted battleship grey after fabrication.~~
2. ~~The #5 Rebar to be welded to the ½" x 3" steel bar and bolted to the face of the structure.~~
3. ~~All bolts used to fasten trash rack to the riser structure shall be galvanized.~~

Trash Rack Details (2 Required)
Scale: ½" = 1'



TEMPORARY DRAW DOWN DEVICE/RISER DETAIL
(TO BE ATTACHED TO PERMANENT RISER DURING CONSTRUCTION ONLY)
N.T.S.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 8/10/01 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT — 10/2/01 DATE
DIRECTOR — 10/2/01 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — 8/13/01 DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — 8/13/01 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

SIGNATURE OF ENGINEER — Bruce D. Button 7/31/01 DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — 1/29/00 DATE

Bruce D. Button 7/31/01

REVISIONS

No.	Date	Description

ADDRESS CHART

Parcel No.	Street Address
Bldg 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg 'D'	9165 Washington Blvd

Subdivision Name: A. H. SMITH PROPERTY	Section/Area: —	Parcel/No. B

Plat No.	Block No.	Zone	Tax Map No.	Election District	Census Tract
14746, 14747 & 14748, 14987-88	18	M-2	47	6th	6069.02

Water Code: C-04 — Sewer Code: 7220000

LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: S.D.H.
DRAWN: EDB
CHECKED: B.D.B.
DATE: 8/00 Rev. 3/01

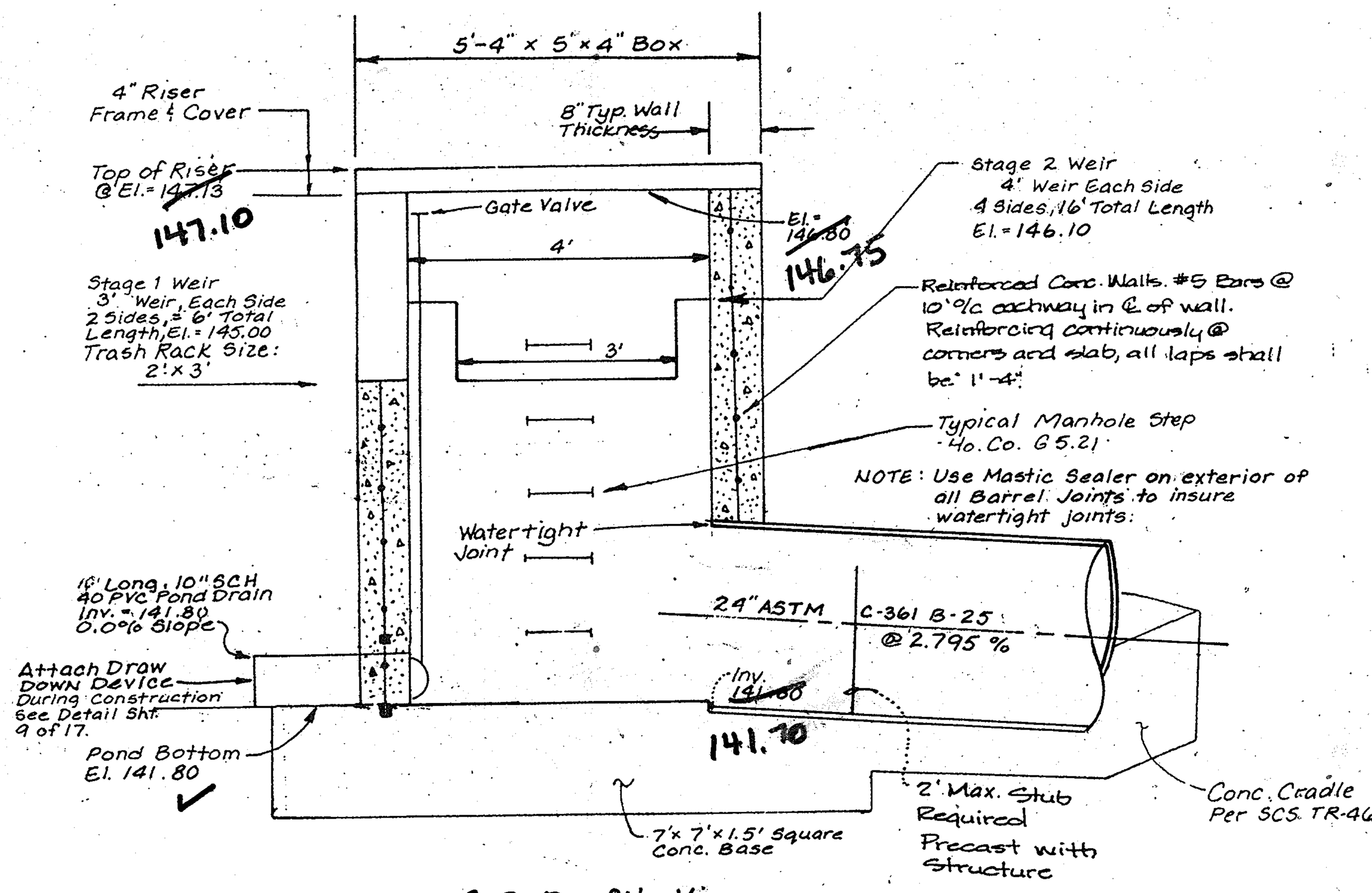
STORMWATER MANAGEMENT & SEDIMENT BASIN SPECIFICATIONS NOTES & DETAILS
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
PLAT NOS. 14746-14748
Tax Map 47 Grid 18 P/O Parcel 144
6th Election District – Howard County, Maryland
Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31, F-02-20

OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410-792-9442
DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4770

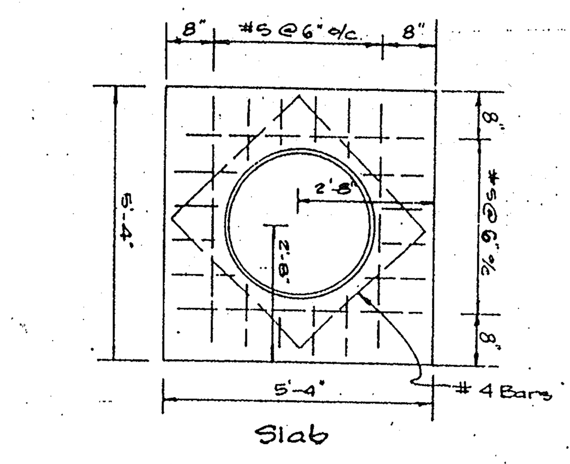
SCALE: As Shown

JOB NO.: 99025
FILE NO.: SDP 01-25

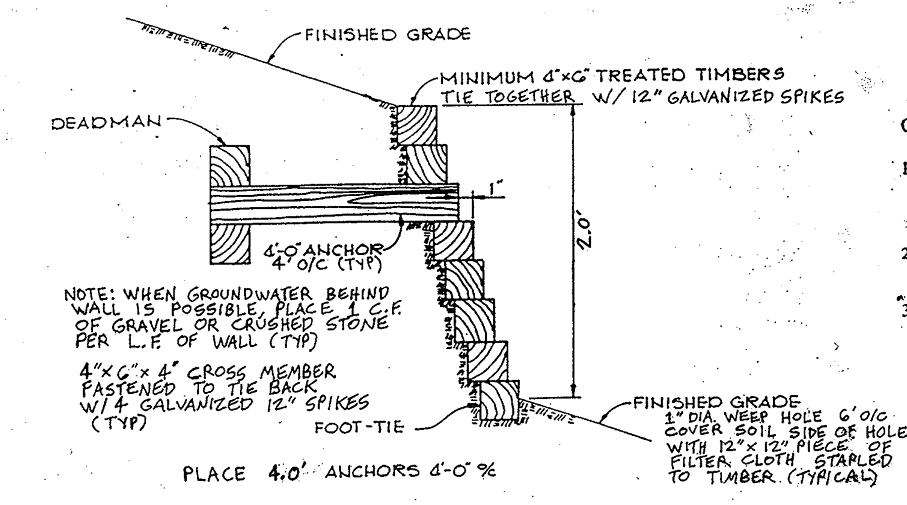
SDP 01-25



S-2 Profile View
N.T.S.



Riser Frame & Cover Detail
N.T.S.
Note: Riser Frame & Cover shall be bolted to riser structure.



TIMBER RETAINING WALL
No Scale

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY WET DETENTION POND

Owner's Maintenance responsibilities:

1. Top and side slopes of the embankment shall be mowed a minimum of two (2) times a year, once in June and once in September. Other side slopes and maintenance access should be mowed as needed.
2. Debris and litter next to outlet structure shall be removed during regular mowing operations and as needed.
3. When deemed necessary for aesthetic reasons, sediment should be removed from the pond. Approval of the Department of Public Works is required.

STORMWATER MANAGEMENT RETENTION POND NOTES:

1. All MD 378 Specifications shall apply to the construction of this pond.
2. All pipe joints must conform to ASTM C 361 specifications.
3. Use only County approved fill for core trench.
4. All pipe joints shall be watertight.
5. Anti seep collar locations will require modifications if pipe lengths Are longer than 4' or 8' sections.
6. Grout pipe joints with mastic sealer.
7. A geotechnical engineer is to be present onsite to supervise the Construction of the core trench and placement of embankment fill Per MD 378 specifications.
8. Core trench shall be dewatered prior to the placement of County approved fill.
9. The site shall be stripped of topsoil and any other unsuitable materials From the embankment or structure area in accordance with Soil Conservation guidelines. After stripping operations have been Completed, the exposed subgrade materials should be proofrolled With a loaded dump truck or similar equipment in the presence of A geotechnical engineer or his representative. For areas that are not Accessible to a dump truck, exposed material shall be observed and Tested by a geotechnical engineer or his representative utilizing a Dynamic Cone Penetrometer. Any excessively soft or loose materials identified by proofrolling or penetrometer should be excavated to suitably firm soil, and then re-established by backfilling with suitable soil.
10. Refer to Kondner Engineering and Technical Services "geotechnical recommendations" on sheet 9 of 17.

SEDIMENT BASIN CONSTRUCTION SPECS.

1. Vegetative Treatment: Stabilize the embankment in accordance with the appropriate vegetative Standard and Specifications immediately following construction. In no case shall the embankment remain unstabilized for more than seven (7) days. Once constructed, the top and outside face of the embankment shall be stabilized with seed and mulch. The remainder of the interior slopes should be stabilized (one time) with seed and mulch upon basin completion and monitored and maintained erosion free during the life of the basin.

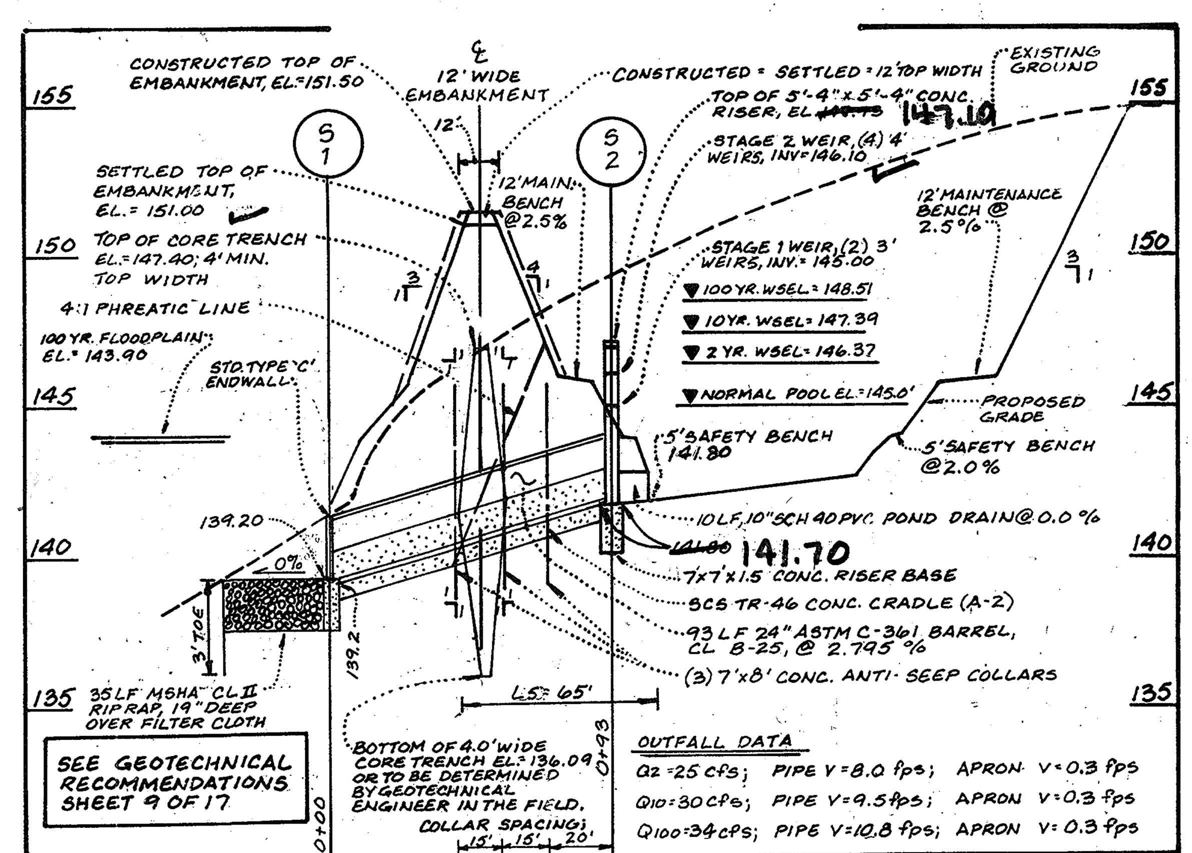
2. Safety: Local requirements concerning fencing and signs shall be met, warning the public of hazards of soft sediment and floodwater.

3. Maintenance: Repair all damage caused by soil erosion and construction equipment at or before the end of each working day. Sediment shall be removed from the basin when it reaches the specified distance below the top of the riser as shown on the riser. This sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the embankment, adjacent to a stream or floodplain. Disposal areas must be stabilized.

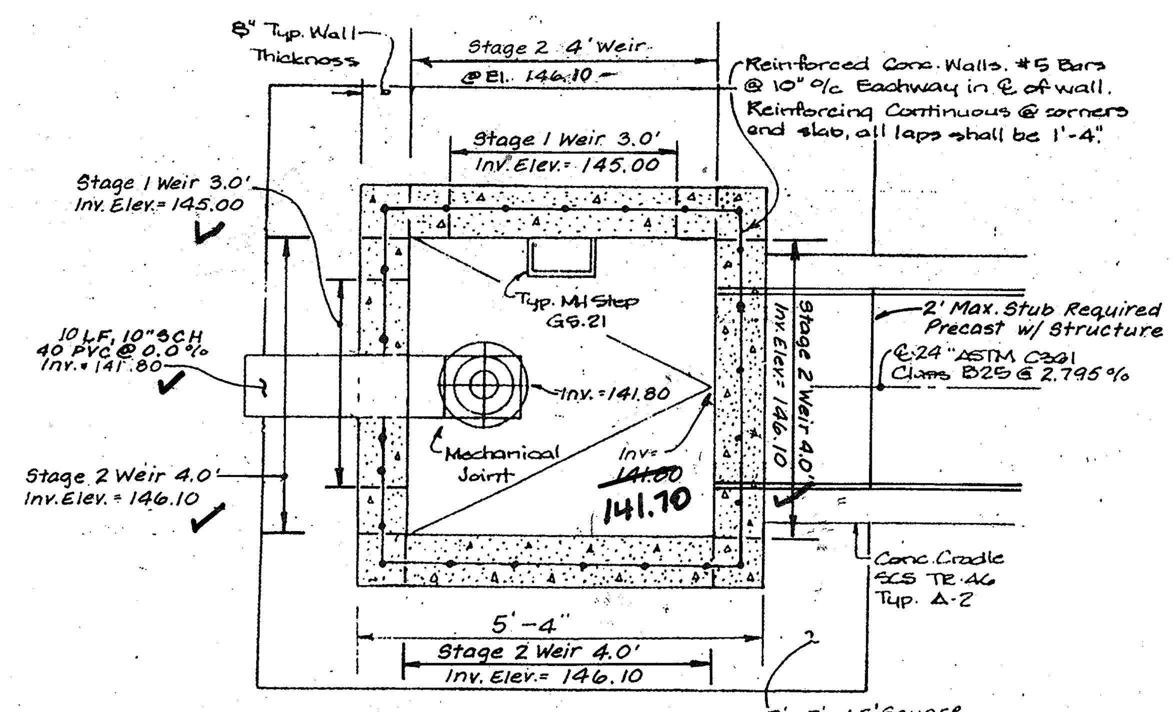
4. Conversion to Stormwater Management Structure: After permanent stabilization of all disturbed contributory drainage areas, temporary sediment basins, if initially built and certified to meet permanent standards, may be converted to permanent stormwater management structures. To convert the basin from temporary to permanent use, the outlet structure must be modified in accordance with approved stormwater management design plans. Additional grading may also be necessary to provide the required storage volume in the basin. Conversion can only take place after all disturbed areas have been permanently stabilized to the satisfaction of the inspection authority and storm drains have been flushed.

5. Sediment Disposal The sediment basin plans shall indicate the method(s) of disposing of the sediment removed from the basin. The sediment shall be placed in such a manner that it will not erode from the site. The sediment shall not be deposited downstream from the basin or adjacent to a stream or floodplain. Disposal sites must be considered in an approved sediment control plan. The sediment basin plans shall show the method of disposal of the sediment basin after the drainage area is stabilized, and shall include the stabilization of the sediment basin site. Sediment shall not be allowed to flush into a stream or drainage way. For dewatering methods see Section D.

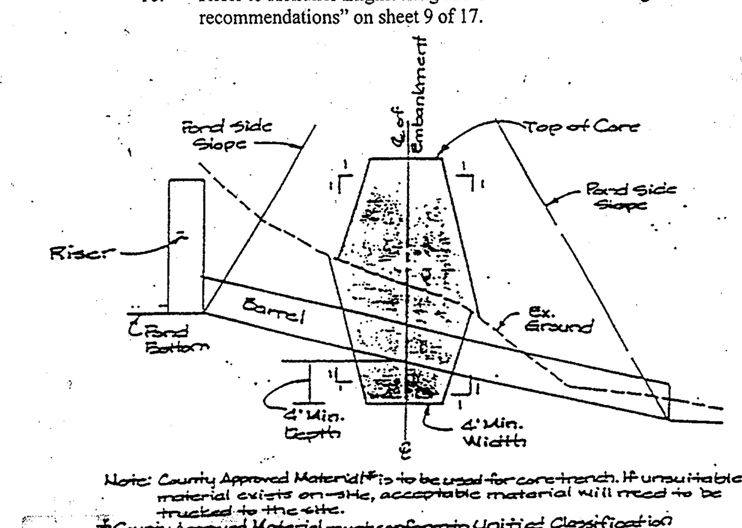
Please refer to the MD-378 Pond Construction Specifications, Sheet 9.



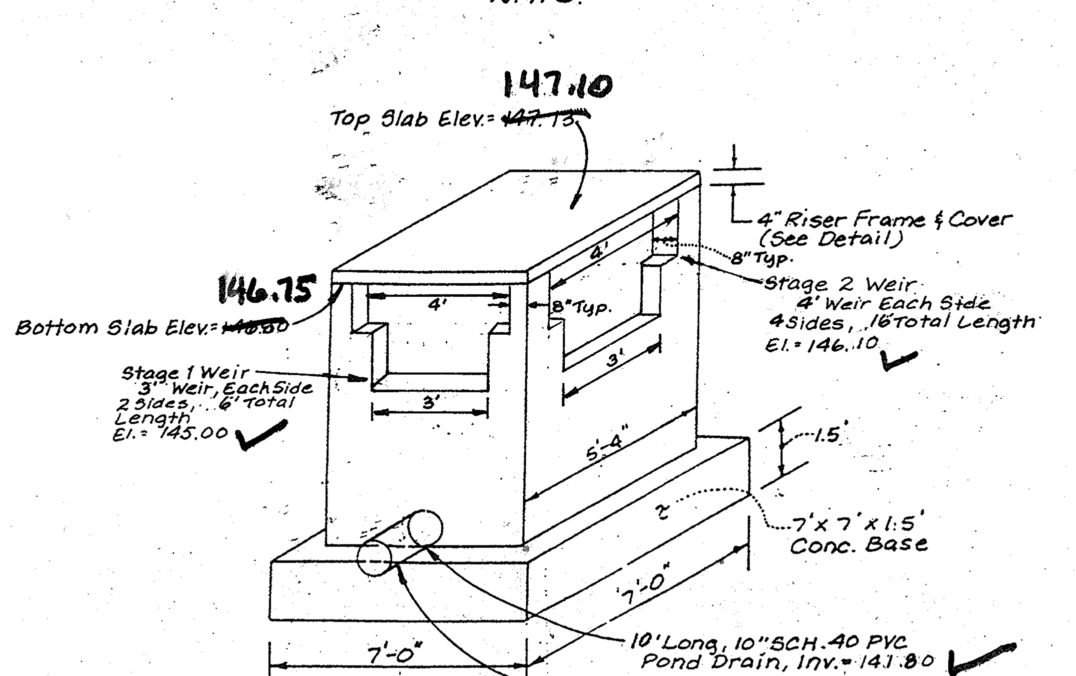
STORMWATER MANAGEMENT RETENTION POND ALONG ℄ OF PRINCIPAL SPILLWAY, HAZARD CLASS 'A'
Scale: H: 1" = 50' V: 1" = 5'



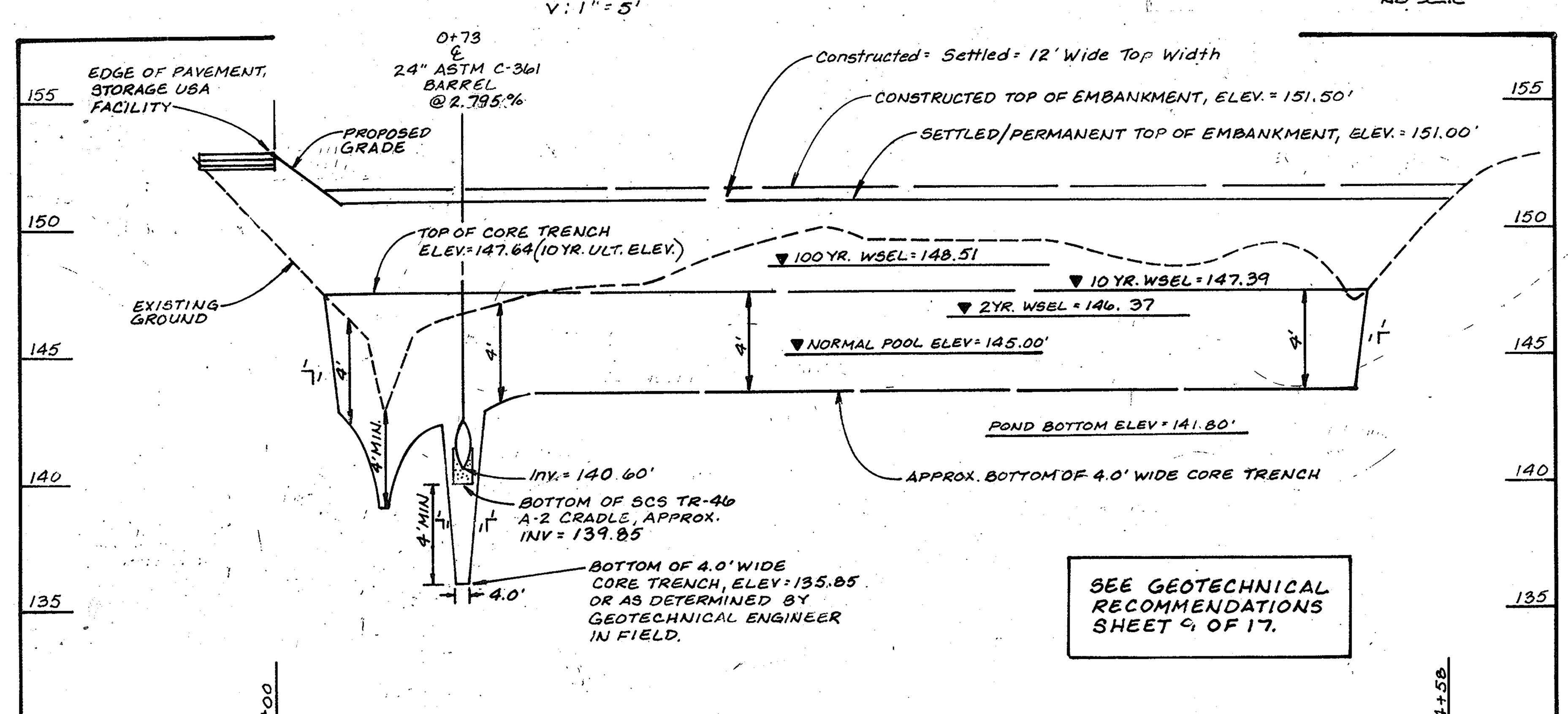
S-2 Plan View
N.T.S.



Core Trench Typ. Section
No Scale



S-2 Isometric View
No Scale



STORMWATER MANAGEMENT RETENTION PROFILE ALONG ℄ OF EMBANKMENT, HAZARD CLASS 'A'
Scale: H: 1" = 50' V: 1" = 5'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/12/01

DIRECTOR — DATE 10/12/01

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — DATE 8/13/01

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — DATE 8/13/01

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion, and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Barton — SIGNATURE OF ENGINEER — DATE 7/31/01

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — DATE 6/14/00

STATE OF MARYLAND — BRUCE DAVID BARTON — 19184 — REGISTERED PROFESSIONAL ENGINEER

7/31/01

Subdivision Name: A. H. SMITH PROPERTY	Section/Area: —	Parcel/No.: B

Plat No.	Block No.	Zone	Tax Map No.	Election District	Census Tract
14746, 14747 & 14748, 14987+88	18	M-2	47	6th	6069.02

Water Code	Sewer Code
C-04	7220000

REVISIONS

No.	Date	Description

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: S.D.H.
DRAWN: EDB
CHECKED: B.D.B.
DATE: 8/00 Rev. 3/01

STORMWATER MANAGEMENT & SEDIMENT BASIN NOTES, SPECIFICATIONS, PROFILES & DETAILS
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
PLAT NOS. 14746 - 14748

Tax Map 47 Grid 18 P/O Parcel 144
6th Election District – Howard County, Maryland

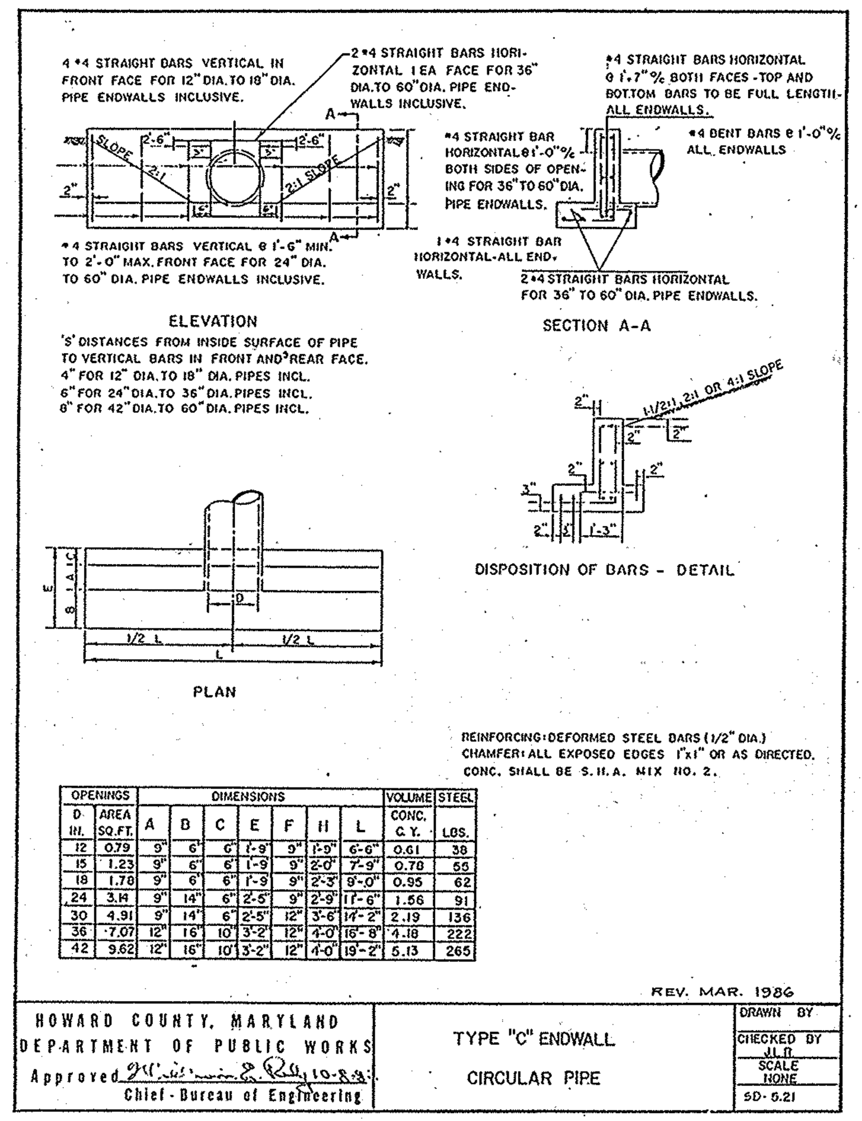
Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31, F-02-20

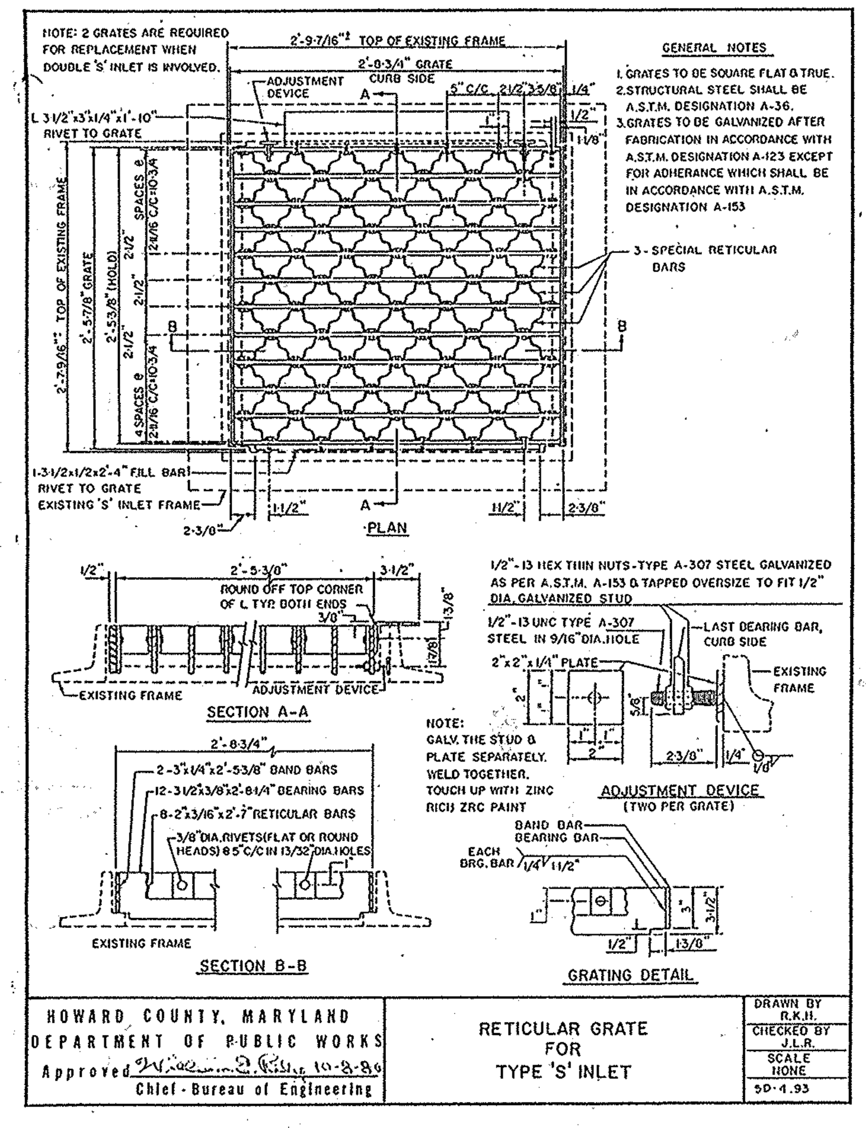
OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410 792-9442

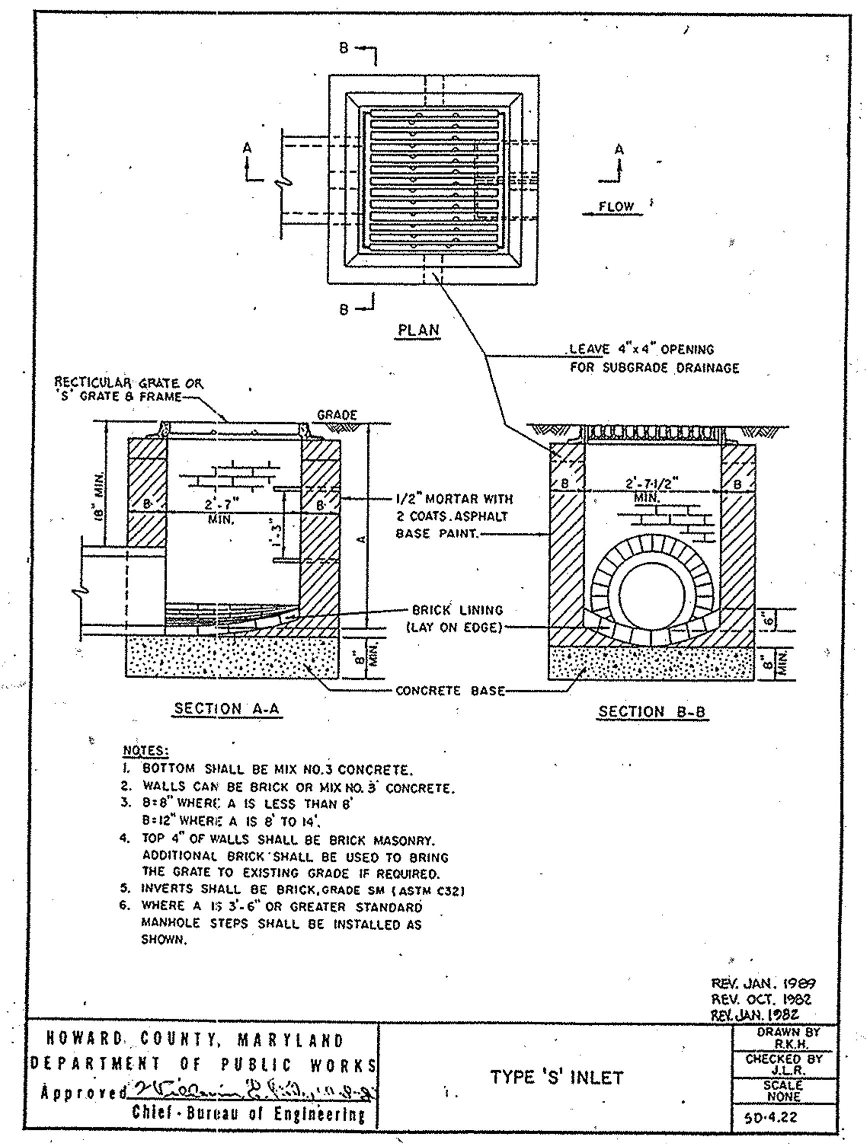
DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4770

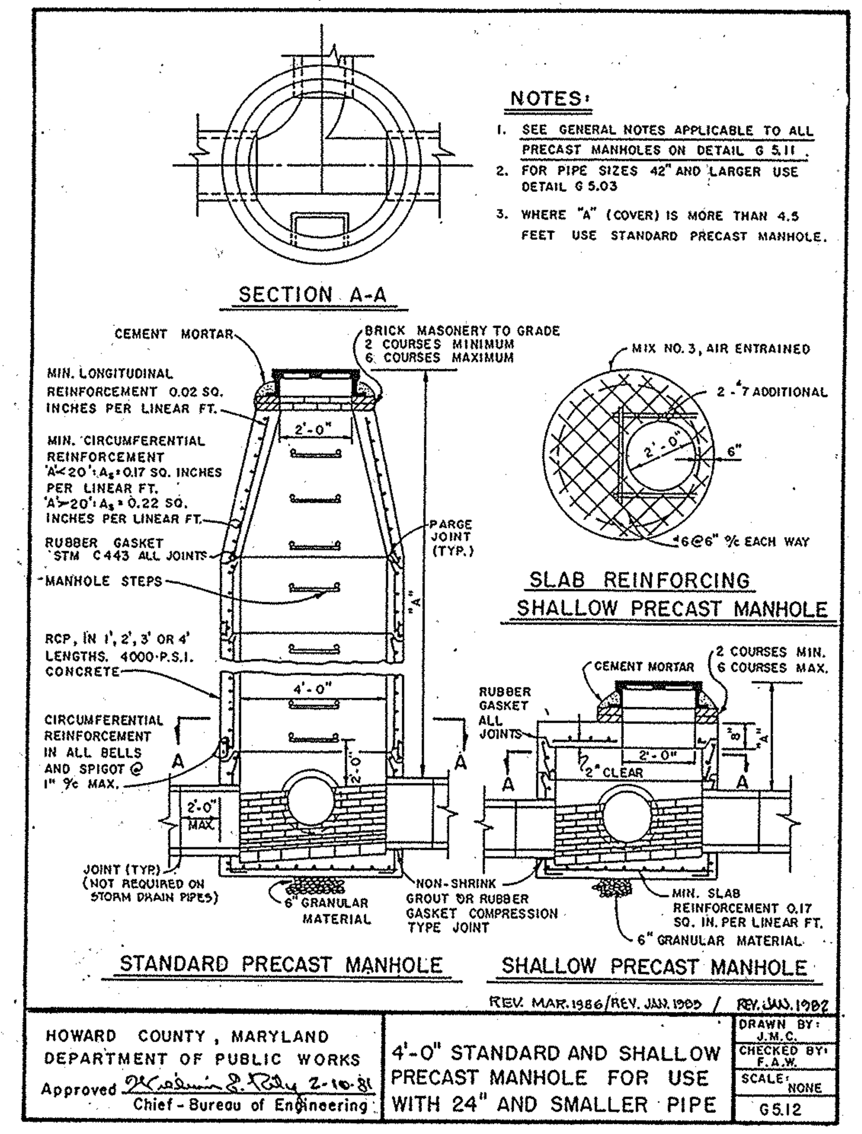
SCALE: As Shown
DRAWING: 10 of 17
JOB NO.: 99025
FILE NO.: SDP 01-25

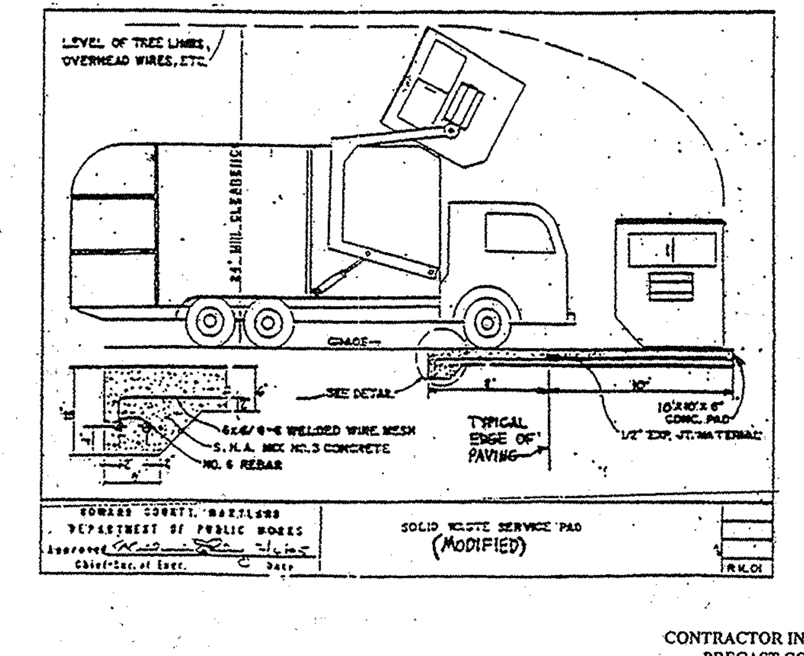
SDP 01-25

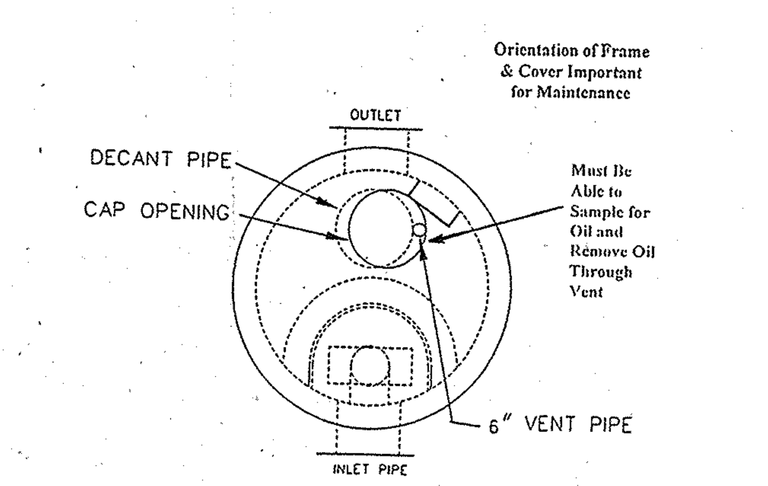












CONTRACTOR INSTALLATION INSTRUCTIONS: PRECAST CONCRETE STORMCEPTOR

1. STAKE-OUT THE LOCATION OF THE STORMCEPTOR AND EXCAVATE HOLE. EXCAVATE ADEQUATE SPACE TO CONNECT INLET AND OUTLET PIPES TO UNIT. INSTALL A 12" DEEP (OR AS REQUIRED) LAYER OF COMPACTED AGGREGATE SUBBASE AT THE BOTTOM OF THE EXCAVATION. INSTALL TRENCH BOX OR SHORING AS NEEDED.
2. CHECK ELEVATION OF UNIT BY MEASURING ITS SECTIONS FROM BASE OF THE STORAGE CHAMBER (BOTTOM OF UNIT'S SLAB) TO THE INVERT OF STORMCEPTOR BYPASS CHAMBER INLET ELEVATION (FIBERGLASS INSERT). SUBTRACT THIS DISTANCE FROM DESIGN INVERT ELEVATION TO DETERMINE TOP OF SUBBASE ELEVATION. CHECK ELEVATION OF INSTALLED SUBBASE AND ADJUST AS NEEDED.
3. SECURE INSPECTOR APPROVAL OF SUBGRADE AND SUBBASE. ALL LIFTING APPARATUS IS TO BE PROVIDED BY THE INSTALLATION CONTRACTOR.
4. INSTALL STORAGE CHAMBER. (INSTALL SCREW LIFTING PINS INTO BASE OF STORAGE CHAMBER.) ATTACH CABLES OR CHAINS TO ALL 3 LIFT LUGS ON THE BASE SLAB. USING LARGE EQUIPMENT OR CRANE, LIFT AND PLACE THE BASE SECTION OF THE STORAGE CHAMBER IN THE EXCAVATED HOLE ON THE SUBBASE. MAKE SURE THAT THE BASE IS LEVEL. SPECIFIC ALIGNMENT OF THIS PART IS NOT REQUIRED. INSTALL RUBBER GASKET ON BASE UNIT AND COAT WITH LUBRICATING GREASE (PROVIDED IN SHIPMENT), IF NOT PRELUBRICATED. INSTALL ADDITIONAL STORAGE CHAMBER SECTIONS, AS REQUIRED (PROCEDURE IS SAME AS STEP 8).

   (FOR STORMCEPTOR MODELS STC-900, STC-1200 AND STC-1800 SKIP STEP 5 AND GO TO STEP 6)
5. INSTALL REDUCING SLAB. (STORMCEPTOR MODELS STC-2400, STC-3600, STC-4800, STC-6000 AND STC-7200) CHECK THAT SECTION IS SET FLUSH, LEVEL AND IS AT THE PROPER ELEVATION. INSTALL RUBBER GASKET ON THE TRANSITION SLAB SPIGOT AND COAT WITH LUBRICATING GREASE (PROVIDED IN SHIPMENT).
6. INSTALL BYPASS SECTION OF STORMCEPTOR WITH FACTORY INSTALLED STORMCEPTOR INSERT. LIFT BYPASS SECTION AND INSTALL, WHILE CHECKING ALIGNMENT AND GRADE OF INLET AND OUTLET DRAINAGE PIPES. CHECK TO MAKE SURE THE BYPASS CHAMBER IS SET FLUSH, LEVEL AND IS AT THE PROPER ELEVATION. THE BYPASS SECTION MUST BE ORIENTED SUCH THAT INLET PIPE DISCHARGES INTO THE V-SHAPED FIBERGLASS WEIRS (INSIDE INSERT). INSTALL RUBBER GASKET ON TOP OF BYPASS SECTION AND COAT WITH LUBRICATING GREASE, IF NOT PRELUBRICATED.
7. INSTALL STORMCEPTOR DROP PIPES ACCORDING TO STC PIPE INSTALLATION PROCEDURE ON REVERSE SIDE OF THESE INSTRUCTIONS.
8. INSTALL RISER SECTION. LIFT RISER SECTION AND INSTALL, WHILE CHECKING THAT SECTION IS SET FLUSH AND IS AT PROPER ELEVATION AND THAT UNIT IS LEVEL. SPECIFIC ALIGNMENT OF THIS PART IS REQUIRED, IF STEP(S) ARE INCLUDED. ALIGN STEPS ABOVE INLET INSPECTION PORT. NOTE, FOR SHALLOW INSTALLATIONS THIS SECTION MAY NOT BE REQUIRED.
9. INSTALL TOP SLAB WITH OPENING FOR STORMCEPTOR FRAME AND COVER. IF OPENING IS OFFSET (NOT CENTERED) THE TOP SLAB OPENING SHOULD BE ORIENTED ABOVE THE STORMCEPTOR INLET INSPECTION PORT (PLUG).
10. BACKFILL STORMCEPTOR WITH APPROVED BACKFILL MATERIAL (NO ORGANIC OR TOPSOIL IS TO BE USED FOR BACKFILL). BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL SHOULD BE COMPACTED TO LOCAL/STATE REQUIREMENTS.
11. INSTALL AND SET GRADE ADJUSTING RINGS, AS NEEDED. PLUG ALL LIFT HOLES WITH TAPERED FLEXIBLE PLUG AND KNOCK IN TO PLACE. PLUGS IN STORAGE CHAMBER MUST BE GROUTED INSIDE AND OUTSIDE WITH GROUT.
12. INSTALL AND SET STORMCEPTOR FRAME AND COVER.
13. INSTALL INLET AND OUTLET STORM DRAIN PIPES. CONNECT INLET AND OUTLET STORM DRAIN PIPES WITH FLEXIBLE BOOTS (WHEN PROVIDED) AND WITH NON-SHRINK GROUT WHEN NO FLEXIBLE BOOTS ARE PROVIDED. THE INVERT OF THE INLET AND OUTLET PIPE IS TO MATCH UP WITH THE INVERT OF THE STORMCEPTOR INSERT. FLEXIBLE BOOT INSTALLATION PROCEDURES: CENTER THE PIPE IN BOOT OPENING. LUBRICATE THE OUTSIDE OF THE PIPE AND/OR THE INSIDE OF THE BOOT, IF THE PIPE OUTSIDE DIAMETER IS THE SAME AS THE INSIDE DIAMETER OF THE BOOT. POSITION THE PIPE CLAMP IN THE GROOVE OF THE BOOT WITH THE SCREW AT THE TOP. TIGHTEN THE PIPE CLAMP SCREW TO 60 INCH POUNDS. IF THE PIPE IS MUCH SMALLER THAN THE BOOT, LIFT THE BOOT SUCH THAT IT CONTACTS THE BOTTOM OF THE PIPE WHILE TIGHTENING THE CLAMP TO ENSURE EVEN CONTRACTION OF THE RUBBER. MOVE PIPE HORIZONTALLY AND/OR VERTICALLY TO BRING TO GRADE.
14. THE STORMCEPTOR SHOULD BE PUMPED OUT WHEN THE SEDIMENT CONTROL MEASURES ARE REMOVED (SITE PERMANENTLY STABILIZED).
15. FINAL INSPECTION.

7/3/96

FOR TECHNICAL INFORMATION CALL STORMCEPTOR CORPORATION AT 1-800-762-4703

4.0 Installation Procedures

The installation of the concrete Stormceptor® should conform in general to state highway or local specifications for the construction of manholes. Selected sections of a general specification that are applicable are summarized in the following sections.

Excavation

Excavation for the installation of the Stormceptor® should conform to state highway or local specifications. Topsoil that is removed during the excavation for the Stormceptor® should be stockpiled in designated areas and should not be mixed with subsoil or other materials. Topsoil stockpiles, and the general site preparation for the installation of the Stormceptor® should conform to state highway or local specifications.

The Stormceptor® should not be installed on frozen ground. Excavation should extend a minimum of 12 inches from the precast concrete surfaces plus an allowance for shoring and bracing where required. If the bottom of the excavation provides an unsuitable foundation additional excavation may be required.

In areas with a high water table, continuous dewatering should be provided to ensure that the excavation is stable and free of water.

Leveling

A 6 to 12 inch layer of granular material (conforming to local or state highway backfill specifications) should be installed, compacted, and leveled at the bottom of the excavation to the proper elevation for the installation of the interceptor base.

Backfilling

Backfill material should conform to state highway or local specifications. Generally, backfill material should be placed in uniform layers not exceeding 12 inches in depth. Each layer should be compacted to the density required by local/state guidelines. Backfill is not to contain topsoil.

Stormceptor® Construction Sequence

The concrete Stormceptor® is installed in sections in the following sequence :

1. aggregate base
2. base slab
3. treatment chamber section(s)
4. transition slab (if required)
5. by-pass section with insert
6. connect inlet and outlet pipes
7. riser section and/or transition slab (if required)
8. maintenance riser section(s) (if required)
9. top slab oriented with clear access to vent and 24" opening
10. frame and access cover

The precast base should be placed level at the specified grade. The entire base should be in contact with the underlying compacted granular material. Subsequent sections, complete with joint seals, should be installed in accordance with the precast concrete manufacturer's recommendations.

Adjustment of the Stormceptor® can be performed by lifting the upper sections free of the excavated area, re-leveling the base, and re-installing the sections. Damaged sections and gaskets should be repaired or replaced as necessary. Once the Stormceptor® has been constructed, the lift holes should be plugged and mortared inside and outside.

Down Pipe and Riser Pipe

Once the by-pass section has been attached to the lower treatment chamber, the inlet down pipe, and outlet riser pipe can be attached. To install the inlet down pipe a worker enters the lower treatment chamber through the outlet riser pipe opening (24 inch diameter) in the by-pass section.

The inlet drop pipe is installed by coating the outside of the pipe with glue and pushing the pipe into the coupling. Chemrex 948 caulking should be applied to the connection once the inlet drop pipe is securely in place. The tee at the end of the inlet drop pipe must be oriented such that water which enters the treatment chamber is directed tangentially around the inside walls of the chamber.

The outlet riser pipe (24 inch diameter) should be installed from the top of the fiberglass disc by sliding the pipe that is provided into the existing 24" sleeve from above. The 24" diameter pipe is manufactured with a flange on the end. Chemrex 948 caulking should be applied underneath the flange to act as a permanent seal before the pipe is secured in place. Pressure should be carefully applied to the top of the flange to ensure that the pipe is fully extended into the lower chamber (i.e. the top elevation of the flange is level with the surrounding fiberglass disc) and that the caulking evenly seals the pipe in place.

Inlet and Outlet Pipes

Inlet and outlet pipes should be securely set into the by-pass chamber using grout or approved pipe seals so that the structure is watertight. Flexible rubber boots are normally used and installed at the precast concrete plant prior to shipping. The flexible boots are applicable for pipes with an outside diameter up to 42 inches. The local Stormceptor affiliate should be notified if the pipe is to be grouted in the field at the time of ordering since the boots are generally included in the price quotations.

Installation of the flexible boots should follow the manufacturer's recommendations. As previously mentioned, the boots will already be attached to the Stormceptor® at the manufacture's plant.

Top Slab and Access Opening Installation

The final concrete piece to be installed is the top slab with the 30 inch access opening. Proper positioning of the top slab is extremely important to the proper operation and maintenance of the Stormceptor. The 30 inch opening must be positioned so the 6" vent pipe and the 24" discharge opening are both accessible from the surface opening (see drawing after page 25).

Frame and Cover Installation

Stormceptor provides a standard cast iron frame and cover with the name Stormceptor clearly embossed on it. Precast concrete adjustment units should be installed to set the frame and cover at the required elevation. The adjustment units should be laid in a full bed of mortar with successive units being joined using sealant recommended by the manufacturer. Frames for the cover should be set in a full bed of mortar at the elevation specified.

5.0 Maintenance Procedures

Maintenance of the Stormceptor® is performed using vacuum trucks. No entry into the unit is required for maintenance. The Vacuum Service Industry (Tank Cleaning) is a well established sector of the service industry which cleans underground tanks, sewers and catch-basins. Costs to clean the Stormceptor® vary based on the size of unit and transportation distances.

5.1 *Maintenance Costs*

A typical cleaning cost (equipment and personnel) is estimated to be approximately $ 400 to $600 including disposal costs. This cost is based on one Stormceptor®. Economies of scale are expected where there are multiple units for a given location. The average time to clean a Stormceptor® unit is approximately 3 hours (includes transportation/disposal).

Disposal of Stormceptor® waste is generally not hazardous and solids once dewatered can be landfilled or incinerated. Maintenance costs would be incurred during the maintenance of any stormwater quality structure and not just the Stormceptor®. A recent public bid (US MidAtlantic Area) was received for $400 per cleaning any size unit, with all services included.

5.2 *Maintenance Frequency*

If the Stormceptor® is sized based on the guidelines provided in Section 2.4, and treats a paved area, annual maintenance is recommended. Approximately 15% of the Stormceptor® total sediment capacity will be reduced each year based on the maximum impervious drainage areas recommended in Table 4.

Although annual maintenance is recommended, long term data on the maintenance of Stormceptor® units is not available. Accordingly, it is recommended that annual maintenance be performed initially, and that the frequency of maintenance be increased or reduced based on local conditions (i.e. if the unit is filling up with sediment more quickly than projected, maintenance may be required semi-annually ; conversely once the site has stabilized maintenance may only be required once every two or three years).

5.3 *Spills*

The Stormceptor® is often implemented in areas where the potential for spills is great. The Stormceptor® should be cleaned immediately after a spill occurs by a licensed liquid waste hauler.

5.4 *Disposal*

Disposal options for the sediment will probably range from disposal in a public works yard, disposal in a sanitary landfill site or incineration. It is not anticipated that the sediment would be classified as hazardous waste. Petroleum waste products collected in the Stormceptor® (oil/chemical/fuel spills) should be removed by a licensed waste management company.

5.5 *Inspection*

The Stormceptor® can be easily inspected from the surface by removing the maintenance cover. The presence of oil in the interceptor can be determined by inserting a dipstick in the 6" (150 mm) vent tube.

Similarly, the depth of sediment can be measured from the surface without entry into the Stormceptor® via a dipstick tube equipped with a ball valve (Sludge Judge). Maintenance should be performed once the sediment depth exceeds the guideline values provided in Table 6.

Table 6. Sediment Depths Indicating Required Maintenance*

Model	Sediment Depth (feet)
900	0.50
1200	0.75
1800	1.00
2400	1.00
3600	1.25
4800	1.00
6000	1.50
7200	1.25

* based on 15% of the interceptor's sediment storage

Any potential obstructions at the inlet can be observed from the surface. The insert has been designed as a platform for maintenance personnel in the event that obstructions need to be removed, sewer flushing needs to be performed, or camera surveys are required. See Maintenance Manual for additional information.

Stormceptor® GASKET INSTALLATION INSTRUCTIONS

GUIDELINES FOR ASSEMBLING PROFILE GASKETS ON A SINGLE STEP Stormceptor® JOINT

(1) The Stormceptor® section should be handled with care to avoid any chipping of the bell or spigot.

(2) Carefully clean all dirt and debris from the spigot, including the step seating area of the gasket. Clean the inside area of the bell.

(3) Place the profile gasket in the step of the "dry" spigot. Verify that the pointed end of the gasket is directed towards the shoulder of the spigot. (See Figure 1)

(4) Insert a smooth, round rod, such as a screwdriver, between the gasket and the spigot. Be careful not to cut or lacerate the gasket. Equalize the gasket stretch by running the rod around the entire circumference several times.

(5) Apply joint lubricant to the inner surface of the bell including the leading edge. Lubricate the spigot and gasket.

(6) Align the Stormceptor® sections (spigot with the bell). Verify that the gasket touches the lead-in taper around the entire circumference.

(7) Gently push the joint home. Note that every Stormceptor section will not home exactly the same. (See Figure 2)

If jointing problems arise, do not force the Stormceptor® sections together (cracking may occur). Contact CSR Hydro Conduit immediately.

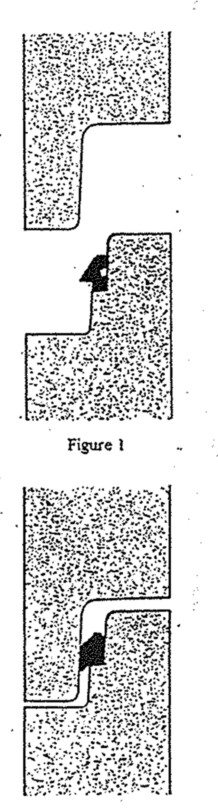
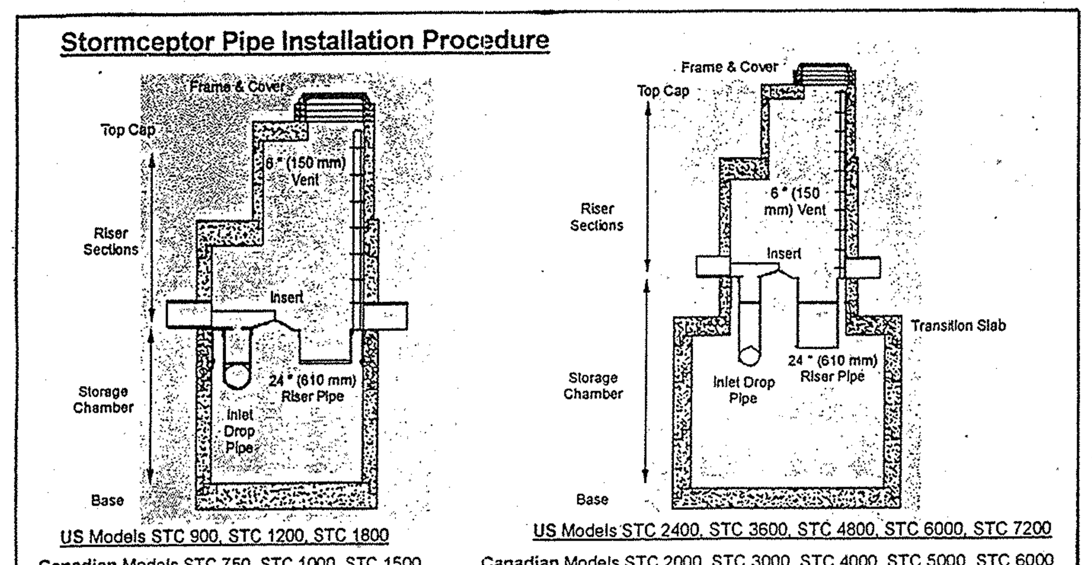


Figure 1

Figure 2

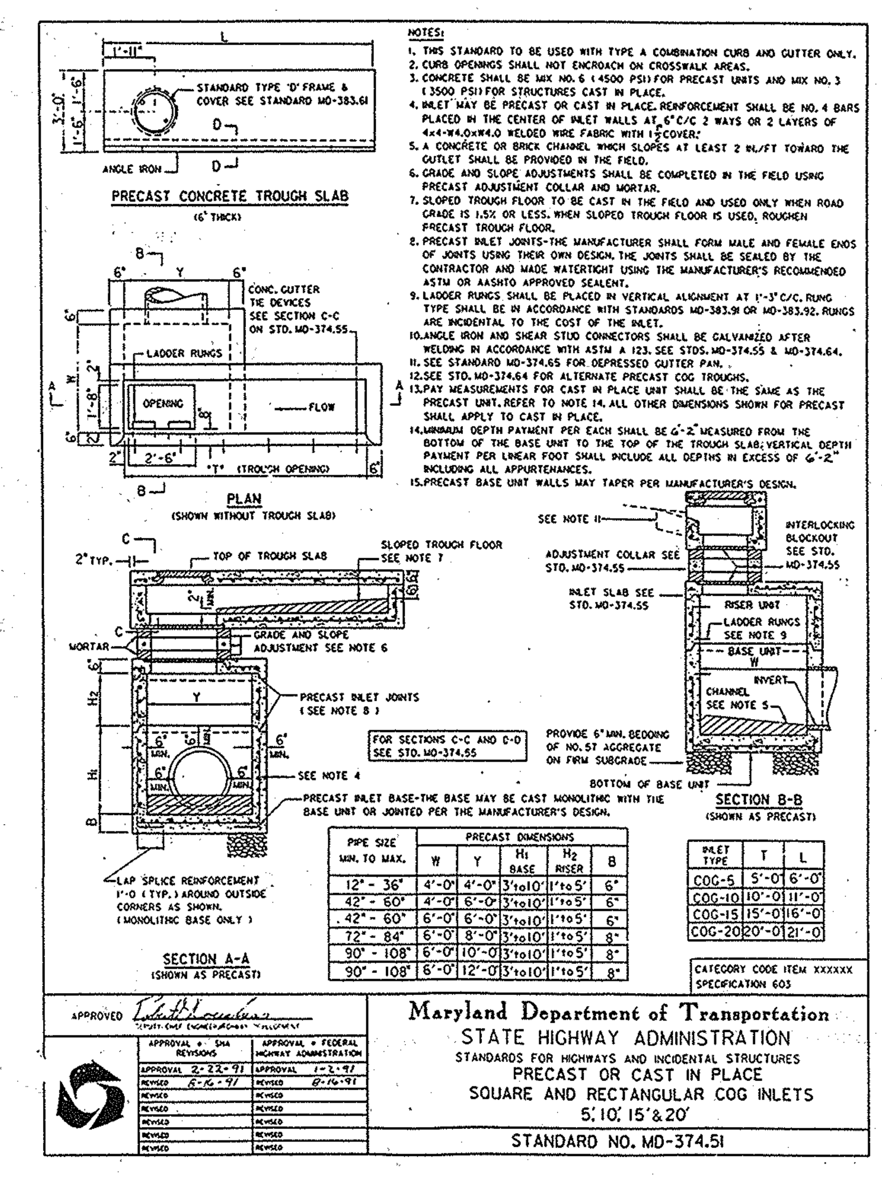
Stormceptor Pipe Installation Procedure

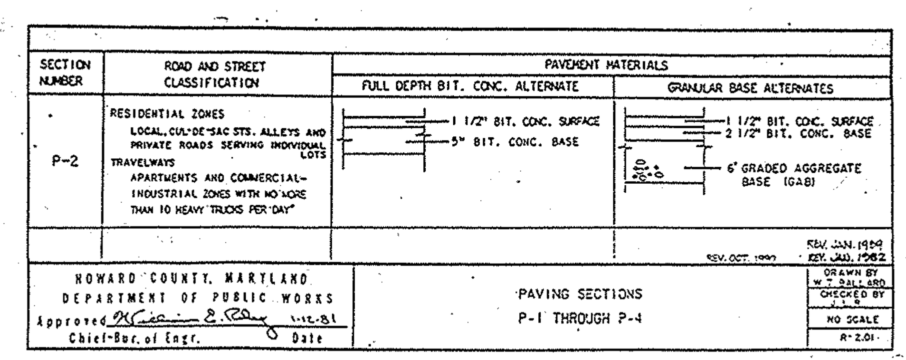


US Models STC 900, STC 1200, STC 1800
Canadian Models STC 750, STC 1000, STC 1500

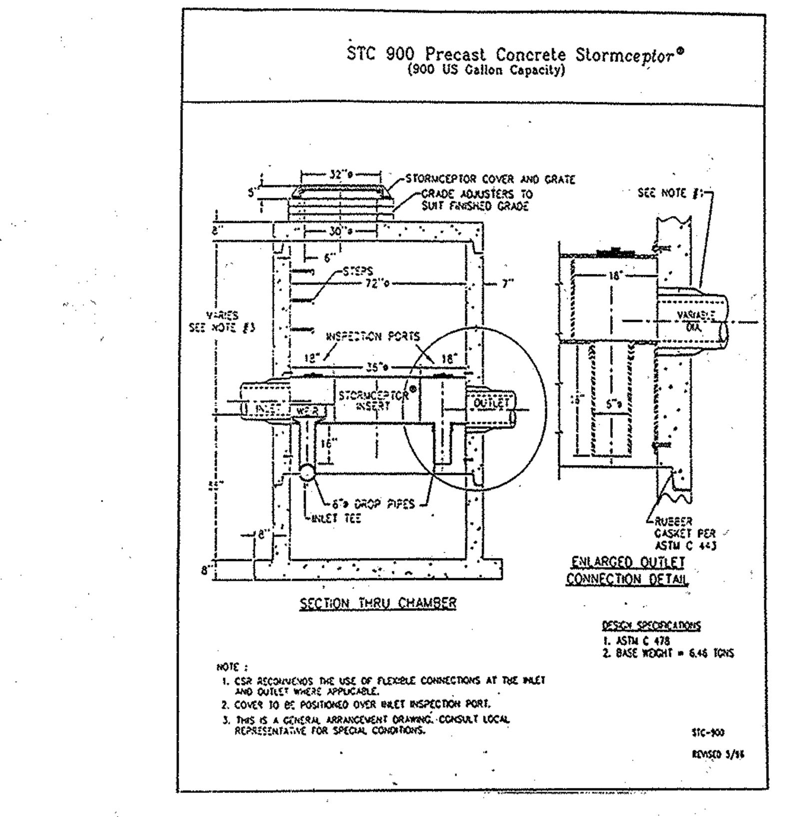
US Models STC 2400, STC 3600, STC 4800, STC 6000, STC 7200
Canadian Models STC 2000, STC 3000, STC 4000, STC 5000, STC 6000

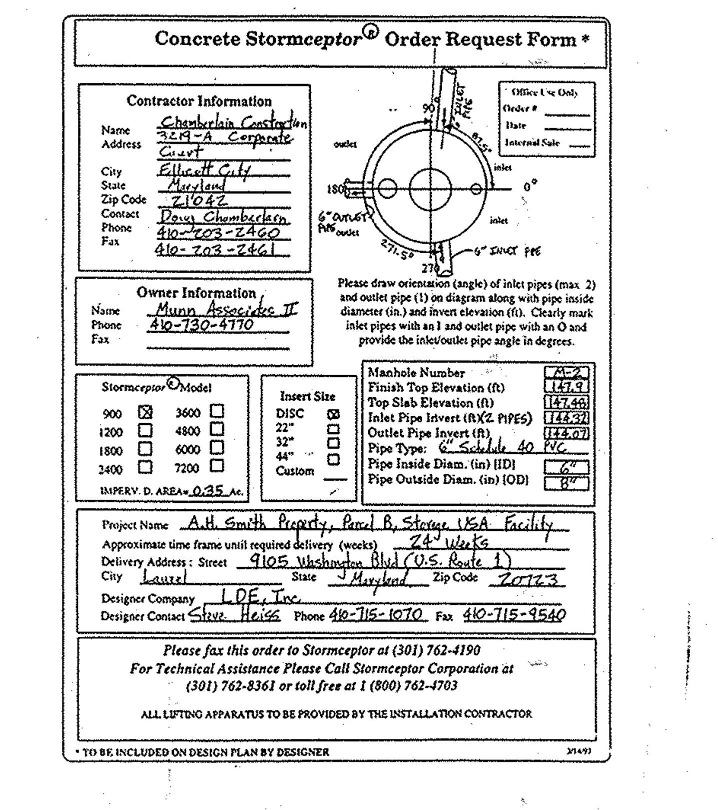
1. Drop Pipes are to be installed once the riser section containing the insert has been installed on the storage chamber.
2. Enter the Storage Chamber and install the Inlet Drop Pipe from underneath the insert. The Inlet Drop pipe is easily identifiable by the T-section fitting. The tee is oriented such that it is perpendicular to the direction of flow in the upstream storm sewer. For the smaller models (< 2000) the Inlet Drop Pipe is cemented into the coupling that is provided using the supplied PVC cement For the larger models (>=2000) the Inlet Drop Pipe is connected into a gasketed coupling using the supplied pipe lubricant. Once the Inlet Drop Pipe has been installed, the connection should also be caulked using the supplied (Chemrex 948 or Bulldog Premium PL) sealant to ensure an oil/water tight connection.
3. The large 24" (610 mm) Riser Pipe is inserted into the provided outlet sleeve from above while standing on the insert. A flange is provided on the Outlet Riser Pipe to prevent it from falling into the Storage Chamber. The underside of the flange <u>must</u> be caulked with the provided Chemrex 948 sealant to ensure an oil/water tight connection.
4. A 6" (150 mm) coupling is provided on the Insert for the 6" (150 mm) supplied PVC Vent Pipe. The Vent Pipe should be attached to the coupling using the supplied PVC cement. Once the cement has set, the connection should also be caulked using the supplied Chemrex 948 sealant to ensure an oil/water tight connection.





STORMCEPTOR DIMENSIONS							
Structure No.	Type	Top Elev. (Finished Grade)	Bottom Slab Elev.	Top Slab Elev.	Inv. In Elev. # 1	Inv. In Elev. # 2	Inv. Out
M-2	STC-900	147.90	139.07	147.48	144.32	144.32	144.07





OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTORS

Owner's Maintenance Responsibilities:

1. Both Stormceptors shall be inspected annually for sediment and oil build up and inlet or outlet pipe obstructions.
2. When the sediment depth in the bottom of the structure exceeds 12 inches or excessive oil is observed in the structure, maintenance is required.
3. Maintenance of the structures is performed using a vacuum truck. Maintenance is required at least once annually or as indicated by visual inspection. (No entry into the structure itself is required)
4. Oil shall be removed through the 6 inch vents. Sediment shall be removed through the 24 inch diameter outlet riser pipes.
5. In the event of an oil spill the Stormceptors shall be cleaned immediately by a licensed liquid waste hauler. Additionally, the Maryland Department of the Environment as well as local regulatory agencies should be notified.
6. Based on visual inspection of the structures during the initial year of operation the Owner shall determine if maintenance is required more than once annually.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE 8/16/01
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE 10/12/01
DIRECTOR	DATE 10/12/01

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

SIGNATURE OF ENGINEER — Bruce D. Burton — DATE 7/31/01

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — DATE 6/14/00

Bruce D. Burton 7/31/01

REVISIONS		
No.	Date	Description

ADDRESS CHART	
Parcel No.	Street Address
Bldg.'A'	9105 Washington Blvd.
Bldg.'B'	9125 Washington Blvd.
Bldg.'C'	9145 Washington Blvd.
Bldg.'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY			Section/Area —	Parcel/No. B	
Plat No. 14,746, 14747 & 14748, 14987+88	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th	Census Tract 6069.02
Water Code C-04			Sewer Code 7220000		

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.	STORMCEPTOR & CONSTRUCTION NOTES & DETAILS STORAGE USA FACILITY A. H. SMITH PROPERTY, PARCEL B AND SHARED SWM FACILITY FOR PARCELS A&B PLAT NOS. 14746-14748	SCALE As Shown
DRAWN EDB	Tax Map 47 Grid 18 P/O Parcel 144 6th Election District – Howard County, Maryland	DRAWING 11 of 17
CHECKED B.D.B.	Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31 F-02-20	JOB NO. 99025
DATE 8/00 Rev. 3/01	OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410-792-9442 DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4770	FILE NO. SDP 01-25

Subdivision Name: A. H. SMITH PROPERTY	Section/Area	Parcel/No. B
Plat No. 14746, 14747, 14748	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th	Census Tract 6069.02
Water Code C-04	Sewer Code 7220000

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/2/01

DIRECTOR — DATE 10/2/01

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — DATE 8/13/01

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — DATE 8/13/01

ENGINEER'S CERTIFICATE

SIGNATURE OF ENGINEER — Bruce D. Burton — 7/24/01

DEVELOPER'S CERTIFICATE

SIGNATURE OF DEVELOPER — DATE 6/14/00

Bruce D. Burton 7/24/01

REVISIONS		
No.	Date	Description
2	2/02	Remove detector check & vault add 'Hotbox' beside dumpster

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.
DRAWN EDB
CHECKED B.D.B.
DATE 8/00 Rev. 5/01

DRAINAGE AREA MAP
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
Plat Nos. 14746-14748
Tax Map 47 Grid 18 P/O Parcel 144
6th Election District – Howard County, Maryland

Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31, F-03-30

OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410-792-9442

DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4750

SCALE 1" = 30'
DRAWING 12 of 17
JOB NO. 99025
FILE NO. SDP 01-25

SDP 01-25

POND SUMMARY TABLE

Regional Retention Pond
Hazard Classification "A"
Drainage Area = 21.1 Acres
Top of Embankment = 151.0'
Invert of Facility = 141.8
Permanent Pool Elevation = 145.00

		SWM POND 2 Year	10 Year	100 Year
At Study Point 'A':				
Acceptable Release	(cfs)	44	75	109
Computed Inflow	(cfs)	60	102	149
Facility Discharge	(cfs)	25	30	34
Elevation at Discharge		146.37	147.39	148.51
Storage at Elevation	(AC\FT)	1.13	2.55	3.97

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — 8/16/01 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT — 10/12/01 DATE

DIRECTOR — 10/12/01 DATE

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

NATURAL RESOURCE CONSERVATION SERVICE — 8/13/01 DATE

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

HOWARD SOIL CONSERVATION DISTRICT — 8/13/01 DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Burton — SIGNATURE OF ENGINEER — 7/31/01 DATE

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — 1/29/00 DATE

Bruce D. Burton

7/31/01

REVISIONS

No.	Date	Description

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY		Section/Area N/A	Parcel/No. B		
Plat No. 14746, 14747, 14748, 14987+88	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th	Census Tract 6069.02
Water Code C-04			Sewer Code 7220000		

LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED: S.D.H.
DRAWN: EDB
CHECKED: B.D.B.
DATE: 4/00 Rev. 3/01

DRAINAGE AREA MAP
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
PLAT NOS. 14746-14748

Tax Map 47 Grid 18 P/O Parcel 144
6th Election District - Howard County, Maryland

Previous Submittals: F 98-139, WP 98-109, SP 99-08
F-03-20

OWNER/DEVELOPER
A. H. SMITH PROPERTY
Ltd Partnership
9101 Railroad Ave
Branchville, MD 20740
301-490-7627 or 410-792-9442

SCALE: 1" = 30'
DRAWING: 13 of 17
JOB NO. 99025
FILE NO. SDP 01-25

SDP 01-25

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
CHIEF, DEVELOPMENT ENGINEERING DIVISION	8/16/01 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT	10/12/01 DATE
DIRECTOR	10/12/01 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Burton 7/31/01

SIGNATURE OF ENGINEER — DATE

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6/14/00

SIGNATURE OF DEVELOPER — DATE

Bruce D. Burton
7/31/01

REVISIONS

No.	Date	Description

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY			Section/Area —	Parcel/No. B	
Plat No. 14746, 14747 & 14748, 14982-88	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th	Census Tract 6069.02
Water Code C-04			Sewer Code 7220000		

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.	Existing Conditions Plan STORAGE USA FACILITY A. H. SMITH PROPERTY, PARCEL B AND SHARED SWM FACILITY FOR PARCELS A & B PLAT NOS. 14746-14748	SCALE 1"=50'
DRAWN EDB	Tax Map 47 Grid 18 P/O Parcel 144 6th Election District – Howard County, Maryland	DRAWING 14 of 17
CHECKED B.D.B.	Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31, F-02-20	JOB NO. 99025
DATE 8/00 Rev. 3/01	OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410-792-9442 DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4770	FILE NO. SDP 01-25

SDP 01-25

See Sheet 2 of 17
For U.S. Route 1
Road Improvement Plan

Subdivision Name: A. H. SMITH PROPERTY			Section/Area	Parcel/No. B
Plat No. 14746, 14747 & 14748, 14987+88	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th
Census Tract 6069.02	Water Code C-04	Sewer Code 7220000		

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/2/01

DIRECTOR — DATE 10/12/01

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMIENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE — DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT — DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

Bruce D. Burton — 7/31/01

SIGNATURE OF ENGINEER — DATE

DEVELOPER'S CERTIFICATE

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6/14/00

SIGNATURE OF DEVELOPER — DATE

STATE OF MARYLAND — BRUCE DAVID BURTON — No. 19184 — REGISTERED PROFESSIONAL ENGINEER

Bruce D. Burton 7/31/01

REVISIONS

No.	Date	Description

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

LDE, INC.

9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

LANDSCAPE PLAN

STORAGE USA FACILITY

A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
Plat Nos. 14746-14748

Tax Map 47 Grid 18 P/O Parcel 144
6th Election District – Howard County, Maryland

Previous Submittals: F 98-139, WP 98-109, SP 99-08, F00-31, F-02-2

DESIGNED	S.D.H.
DRAWN	EDB
CHECKED	B.D.B.
DATE	8/00 Rev. 3/01
SCALE	1" = 30'
DRAWING	15 of 17
JOB NO.	99025
FILE NO.	SDP 01-25

OWNER:
A.H. SMITH PROPERTY [illegible] PARTNERSHIP
9101 RAILROAD AVENUE
BRANCHVILLE, MARYLAND
410-792-9442

DEVELOPER:
MUNN ASSOCIATES II
1[illegible]549 FARSIDE ROAD
ELLICOTT CITY, MARYLAND 21042
410-730-4770

SDP 01-25

POND SUMMARY TABLE

Regional Retention Pond
Hazard Classification "A"
Drainage Area = 21.1 Acres
Top of Embankment = 151.0'
Invert of Facility = 141.8
Permanent Pool Elevation = 145.00

		SWM POND		
		2 Year	10 Year	100 Year
At Study Point 'A':				
Acceptable Release	(cfs)	44	75	109
Computed Inflow	(cfs)	60	102	149
Facility Discharge	(cfs)	25	30	34
Elevation at Discharge		146.37	147.39	148.51
Storage at Elevation	(AC\FT)	1.13	2.55	3.97

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION — DATE 8/16/01

CHIEF, DIVISION OF LAND DEVELOPMENT — DATE 10/12/01

DIRECTOR — DATE 10/12/01

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

NATURAL RESOURCE CONSERVATION SERVICE — DATE

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

HOWARD SOIL CONSERVATION DISTRICT — DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

SIGNATURE OF ENGINEER — Bruce D. Barton — DATE 7/30/01

DEVELOPER'S CERTIFICATE

I/We certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of the Environment Approved Training Program for the Control of Sediment and Erosion before beginning the project. I shall engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District.

SIGNATURE OF DEVELOPER — DATE 1/29/00

STATE OF MARYLAND — BRUCE DAVID BARTON — No. 19184 — REGISTERED PROFESSIONAL ENGINEER

Bruce D. Barton 7/31/01

REVISIONS

No.	Date	Description

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd.
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY				Section/Area: N/A	Parcel/No.: B
Plat No.: 14746, 14747, 14748, 14937-?	Block No.: 18	Zone: M-2	Tax Map No.: 47	Election District: 6th	Census Tract: 6069.02
Water Code: C-04			Sewer Code: 7220000		

LDE, INC.

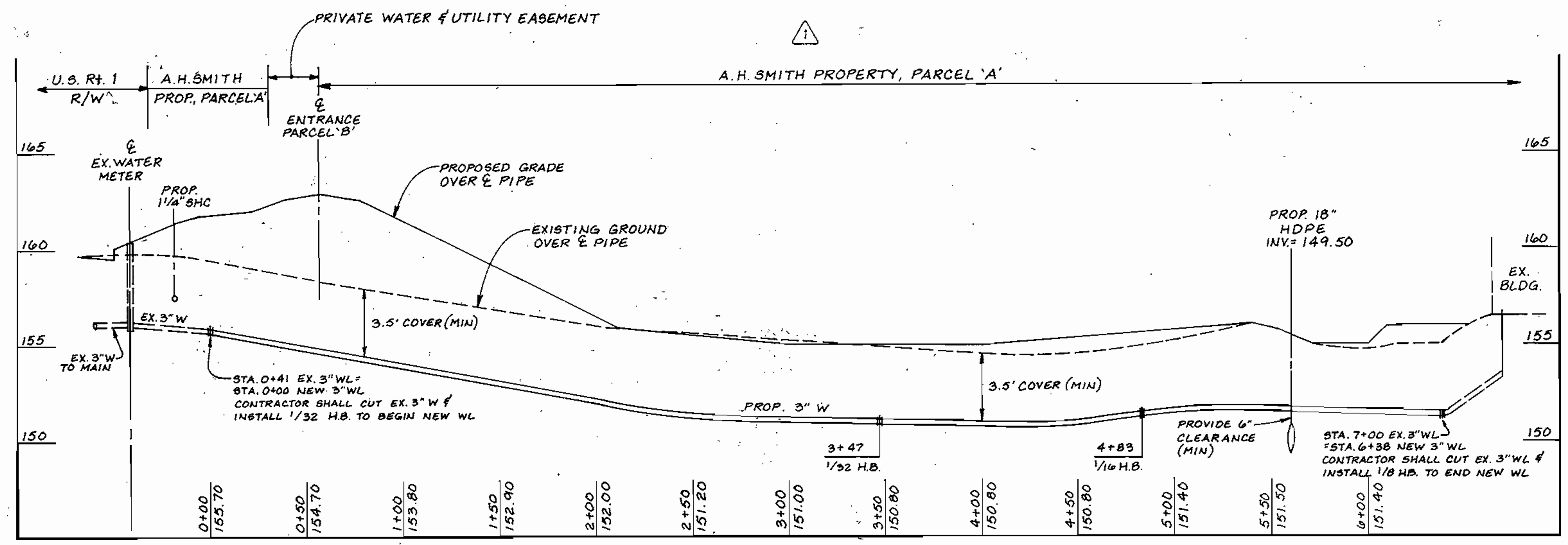
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.	LANDSCAPE PLAN STORAGE USA FACILITY A. H. SMITH PROPERTY, PARCEL B AND SHARED SWM FACILITY FOR PARCELS A & B PLAT No. 14746-14748	SCALE 1" = 30'
DRAWN EDB	Tax Map 47 Grid 18 P/O Parcel 144 6th Election District - Howard County, Maryland	DRAWING 16 of 17
CHECKED B.D.B.	Previous Submittals: F 98-139, WP 98-109, SP 99-08 F-02-20	JOB NO. 99025
DATE 4/00 Rev. 3/01	OWNER/DEVELOPER A. H. SMITH PROPERTY Ltd Partnership 9101 Railroad Ave Branchville, MD 20740 301-490-7627 or 410-742-9442	FILE NO. SDP 01-25

SDP 01-25

PLANTING / STREET TREE NOTES

1. Notify "Miss Utility" 72 hours prior to installation of all plant material.
2. Plant installation must conform to the minimum standards cited in the latest edition of Landscape Specification Guidelines, published by the Landscape Contractors Association.
3. Plants to be located in the field by the owner or owner's representative. Notify owner 72 hours in advance of planting.
4. A Certification of Landscape Installation is required as per the Howard County Landscape Ordinance.
5. The number, size, location of plants shall not be changed without the approval of the Landscape Architect. Substitutions must be included in the recommended plant list in the Howard County Landscape Ordinance.
6. Balled and burlapped plant material shall not be accepted if ball is cracked or broken before or during planting. Protect all plants from drying by either sun or wind.
7. Tree pits shall be backfilled with 50% topsoil, 25% peat, 25% sand with one pound of 10-10-10 fertilizer per pit.
8. Top soil shall be sandy loam soil free from noxious weeds or grasses, roots, clay clumps, stones, sticks, etc. Peat moss shall be commercial with pi 4.5 to 5.5, free of woody material or harmful minerals.
9. All plants shall be watered at planting with weekly watering thereafter for the first 80 days. Watering shall continue bi-monthly or as necessary to maintain plants in a healthy condition during the guarantee period.
10. Maintain the site in an orderly manner. Streets and sidewalks shall be swept clean. All rejected or dead materials shall be immediately removed from the site.
11. Plant material to be alive and healthy at the time of the guarantee period (one year), as specified in the Howard County Landscape Ordinance.
12. Maintenance shall begin immediately after planting and continue to the end of guarantee period.
13. Maintenance consist of pruning, watering, weeding, re-mulching, resetting plants to proper grades as needed and repairing guys and stakes as needed.



RELOCATED 3" PRIVATE WATERLINE PROFILE
Scale: H: 1"=50' V: 1"=5'

GENERAL NOTES

1. This plan has been prepared in accordance with the provisions of Section 16.124 of the Howard County Code and Landscape Manual.
2. The Owner/Developer is responsible for the planting of all plant material required to meet the standards established by the Howard County Landscape Manual.
3. Financial Surety for the required landscaping has been posted as part of the Department of Public Works Developer's Agreement in the amount of $6,270.00.
4. Balled and burlapped plant material shall be not accepted if ball is cracked or broken before or during planting. Protectall plants from drying by either sun or wind.
5. Tree pits shall be backfilled with 50% topsoil, 25% peat, 25% sand with one pound of 10-10-10 fertilizer per pit.

PROPERTY PERIMETER SUMMARY

No.	Buffer Type	Linear Feet / Buffer Type	Required Plants	Provided Plants	Comments
1	A	1048 LF	N/A	N/A	①
2	B	400 LF	8 Shade 10 Evergreen	6 Shade 120 Shrubs	②
2	E	35 LF	1 Shade 9 Shrubs	19 Shrubs	③
3	A	861 LF	N/A	N/A	①
Tot.			9 Shade 10 Evergreen 9 Shrubs	6 Shade 139 Shrubs	

① Perimeters 1, 2 & 3 are Internal Subdivision Lot/Parcel Lines. No edge required along 'Internal' Lines.

② Substitute 20 Shrubs for 2 Shade Trees. Substitute 100 Shrubs for 10 Evergreens.

③ Substitute 10 Shrubs for 1 Shade Tree.

SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	8 Spaces
Number of Trees Required	1 Tree
Number of Trees Provided Shade Trees Other Trees (2:1 substitution)	1 Tree

SCHEDULE A
PERIMETER LANDSCAPE EDGE

Category	Adjacent to Roadways	Adjacent to Perimeter Properties
Landscape Type	B & E	A
Linear Feet of Roadway Frontage / Perimeter	① 435 LF	* 1909 LF
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	NO	NO
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	NO	NO
Number of Plants Required 'B' Buffer Shade Trees 1:50 = 8 Evergreen Trees 1:40 = 10 Shrubs	'E' Buffer 1:40 = 1 — 1:4 = 9	* N/A
Number of Plants Provided Shade Trees Evergreen Trees Other Trees (2:1 substitution) Shrubs (10:1 substitution) (Describe plant substitution credits below if needed)		* N/A

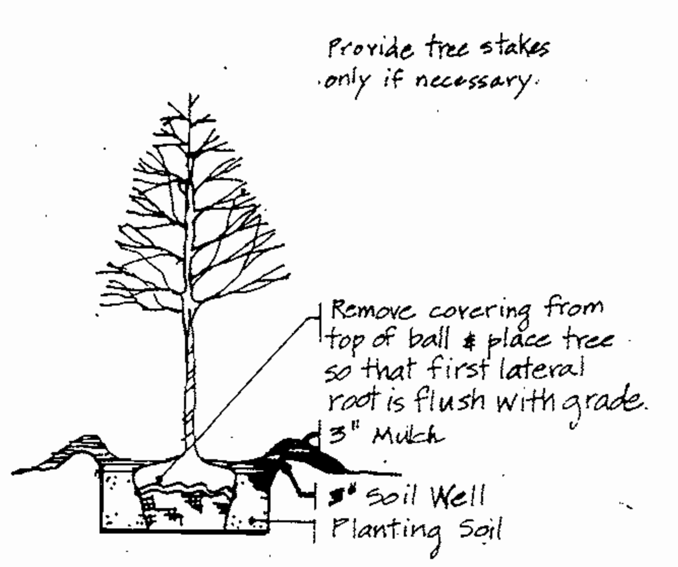
* Entire perimeter adjacent to perimeter properties consists of 'Internal Property Lines'. All adjacent properties are lots or parcels that are within the A.H. Smith Property Subdivision. Therefore, no perimeter edge landscaping is required for adjacent properties. ① 35 LF type 'E' Buffer + 400 LF type 'B' Buffer = 435 LF total.

SCHEDULE D
STORMWATER MANAGEMENT AREA LANDSCAPING

Linear Feet of Perimeter	* 1197 LF
Number of Trees Required Shade Trees 1 : 50 Evergreen Trees 1 : 40	N/A
Credit for Existing Vegetation (Yes, No, and %)	N/A
Credit for Other Landscaping (Yes, No, and %)	No
Number of Trees Provided Shade Trees Evergreen Trees Other Trees (2:1 substitution)	N/A

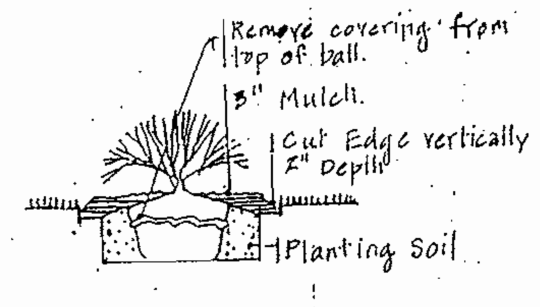
* No SWM Landscaping required for a facility in an M-2 Zone that is not adjacent to a public roadway.

TREE PLANTING DETAILS

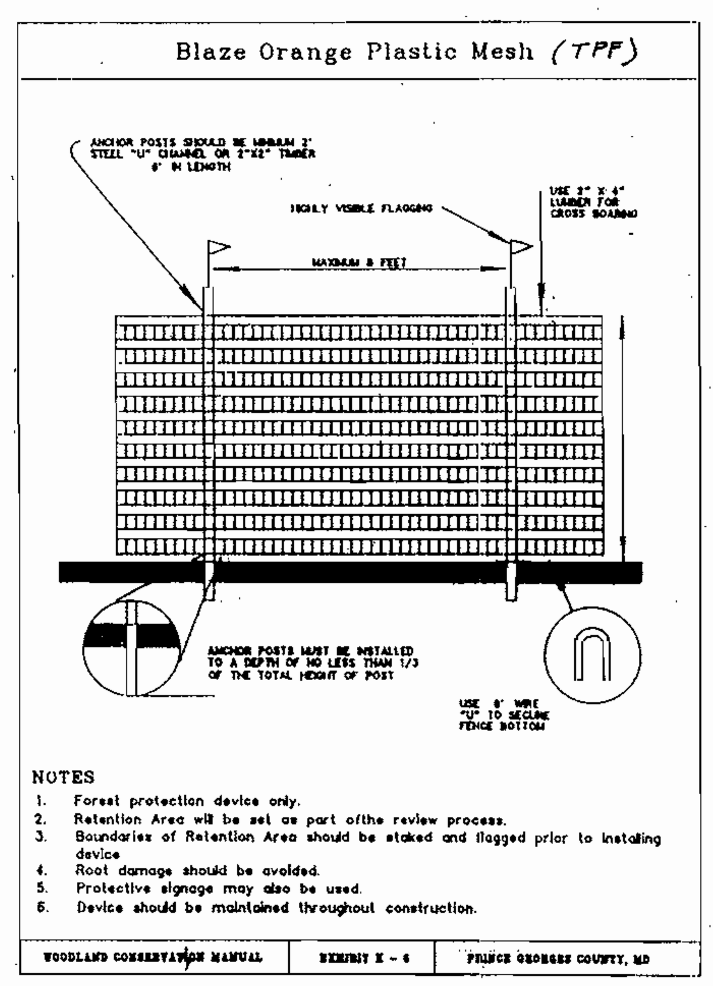


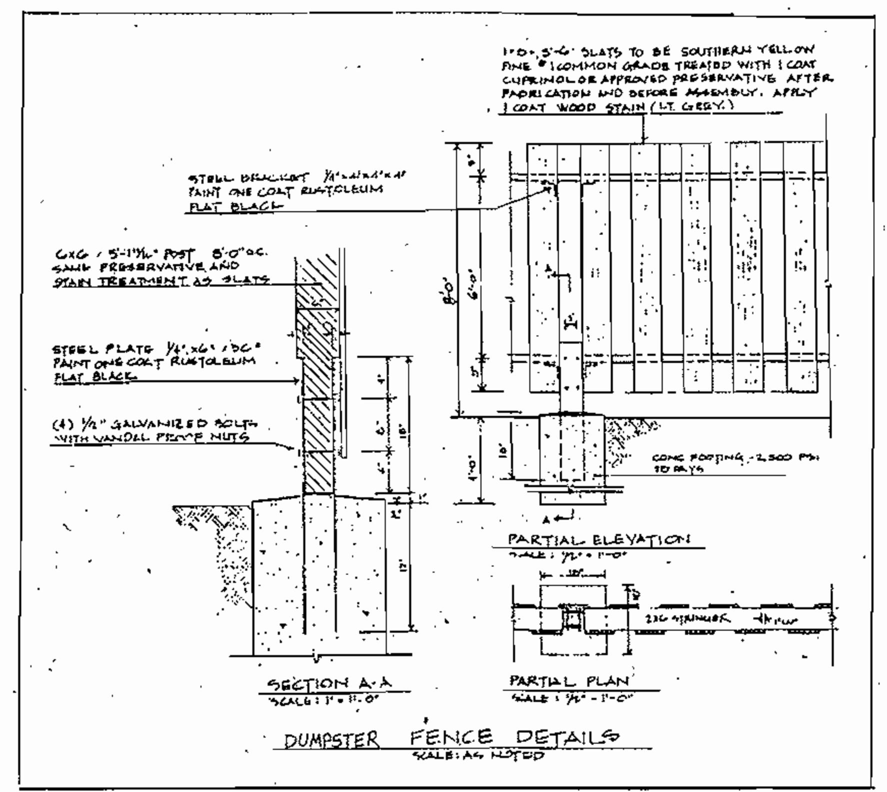
DECIDUOUS TREE PLANTING DETAIL
N.T.S.

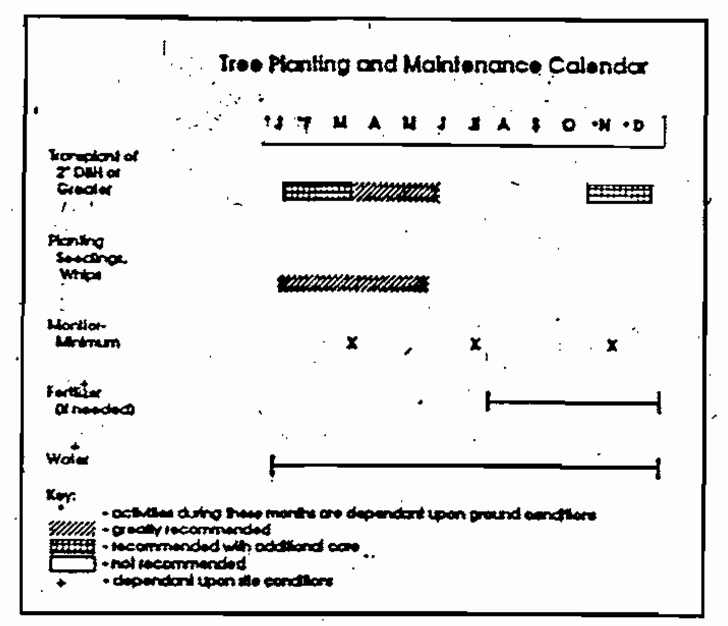
EVERGREEN TREE PLANTING DETAIL
N.T.S.



SHRUB PLANTING DETAIL
N.T.S.







LANDSCAPE SCHEDULE

SYMBOL	QNTY.	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
TREES					
PO	3	Pin Oak	Quercus palustris	2"-2 1/2 Caliper	B & B
WO	2	Willow Oak	Quercus phellos	2"-2 1/2 Caliper	B & B
AR	1	Red Maple October Glory	Acer rubrum	2"-2 1/2 Caliper	B & B
TOTAL TREES	6				
SHRUBS					
IC	30	'Burfordi' Burford Holly	Ilex Cornuta	30" Height	container 3' o.c.
CS	49	Red-Osier Dogwood	Cornus stolonifera	2 1/2'-3' Ht.	container 3' o.c.
MP	60	'Northern Bayberry'	Myrica pennsylvanica	2'-2 1/2' Ht.	container 3' o.c.
TOTAL SHRUBS	139				

DEVELOPER/ BUILDER'S CERTIFICATE

I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a Certificate of Landscape Installation, accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

Owner 1/29/01 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION 8/16/01 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 10/12/01 DATE

DIRECTOR 10/12/01 DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMENT CONTROL

NATURAL RESOURCE CONSERVATION SERVICE DATE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION, AND SEDMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT

HOWARD SOIL CONSERVATION DISTRICT DATE

ENGINEER'S CERTIFICATE

I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he/she must engage a registered professional engineer to supervise pond construction and provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion.

SIGNATURE OF ENGINEER DATE

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SIGNATURE OF DEVELOPER 6/14/00 DATE

REVISIONS

No.	Date	Description
1	2/02	Added 3" Private Waterline Profile & Relocated Landscape Schedule

ADDRESS CHART

Parcel No.	Street Address
Bldg. 'A'	9105 Washington Blvd.
Bldg. 'B'	9125 Washington Blvd
Bldg. 'C'	9145 Washington Blvd.
Bldg. 'D'	9165 Washington Blvd.

Subdivision Name: A. H. SMITH PROPERTY				Section/Area —	Parcel/No. B
Plat No. 14746, 14747 & 14748, 14987+88	Block No. 18	Zone M-2	Tax Map No. 47	Election District 6th	Census Tract 6069.02
Water Code C-04			Sewer Code 7220000		

LDE, INC.
9250 Rumsey Road, Suite 106, Columbia, MD. 21045
(410) 715-1070 (301) 596-3424 (410) 715-9540 (Fax)

DESIGNED S.D.H.
DRAWN EDB
CHECKED B.D.B.
DATE 8/00 Rev. 3/01

Landscape Notes & Details
STORAGE USA FACILITY
A. H. SMITH PROPERTY, PARCEL B
AND SHARED SWM FACILITY FOR PARCELS A & B
PLAT NO. 14746-14748
Tax Map 47 Grid 18 P/O Parcel 144
6th Election District – Howard County, Maryland

Previous Submittals: F 98-139, WP 98-109, SP 99-08, F 00-31 F-02-20

OWNER: A.H. SMITH PROPERTY LTD PARTNERSHIP, 9101 RAILROAD AVENUE, BRANCHVILLE, MARYLAND, 410-792-9442

DEVELOPER: MUNN ASSOCIATES II, 11649 FARSIDE ROAD, ELLICOTT CITY, MARYLAND 21042, 410-730-4770

SCALE As Shown
DRAWING 17 of 17
JOB NO. 99025
FILE NO. SDP 01-25

SDP 01-25

/users/land/JONI/STORAGEUSA/SDP/lsdetails.S70