SHEET INDEX DESCRIPTION TITLE SHEET 2 SITE DEVELOPMENT PLAN 3 SITE DEVELOPMENT PLAN SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP SEDIMENT CONTROL PLAN AND DRAINAGE AREA MAP 6 NOTES AND DETAIL SHEET STORM DRAIN PROFILES 8 STRUCTURE SCHEDULE, PROFILES AND DETAIL SHEET LANDSCAPING PLAN 10 LANDSCAPING PLAN WETLAND MITIGATION PLAN

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/ CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY RIEMER MUEGGE & ASSOCIATES, INC. DATED SEPTEMBER 1996 AND FROM AERIAL TOPOGRAPHY BY WINGS AERIAL MAPPING DATED FEBRUARY 1991
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY SEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 42E3 AND 42B2 WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 24-3625-D
- SEWER IS PUBLIC. SEWER DRAINAGE AREA: PATUXENT CONTRACT NO. 24-3625-D
- THE STORMWATER MANAGEMENT FACILITY PROPOSED FOR THIS SITE IS AN EXTENDED DETENTION FACILITY, AND IS PRIVATELY OWNED AND MAINTAINED.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- THERE IS NO 100- YEAR FLOODPLAIN ON THIS SITE
- THE WETLANDS DELINEATION FOR THIS PROJECT IS BASED ON FIELD INVESTIGATION BY RIEMER MUEGGE
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY SABRA & ASSOCIATES, INC.
- DATED NOVEMBER 1996. THERE IS NO NOISE STUDY REQUIRED FOR THIS PROJECT.
- A GEOTECHNICAL STUDY FOR STORMWATER MANAGEMENT FOR THIS PROJECT WAS PREPARED BY ENGINEERING CONSULTING SEVICES, INC. DATED NOVEMBER 1992 AND SUPPLEMENTED BY REPORT BY PSI DATED JANUARY 1997.
- THE BOUNDARY SURVEY FOR THIS PROJECT IS BASED ON RECORD PLAT 8795.
- SUBJECT PROPERTY ZONED NT-IND PER 10-18-93 COMPREHENSIVE ZONING PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND 6.5. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S: FDP-10, MP-89-10, SDP-89-34c, 5-89-58, F-71-31, F-89-192, MP-89-91, SDP-90-19 & MP-97-106.
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT FACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO DIPE, EXCEPT SMM BARREL, SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT
- WITHIN 6" OF FINISHED GRADE. ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4, VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED. FOR ADS N-12 PIPE USE
- SPECIFICATIONS SUPPLIED ON THESE DRAWINGS.

36. WETLANDS DISTURBANCE HAS BEEN APPROVED BY THE

DOUGLAS R.) 97-0421-4.

3240

7400

10000

12500 8250

SUPPRESSION SYSTEM.

TOTAL 16

ARMY CORPS OF ENGINEERS AS PER LETTER DATED

BUILDING SIZES

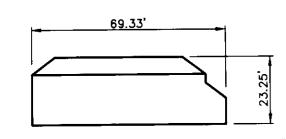
NOTE: ALL BUILDINGS EXCEEDING 5000 SF

WILL BE SERVED BY AN AUTOMATIC FIRE

NO. OF ROOMS - WIDTH x DEPT

MARCH 27, 1997. PERMIT NO. IS CENAB-OP-RE(KOPECK.

- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT OF ELEVATIONS.
- STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.E., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.
- PROFILES STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN
- ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A MINIMUM OF 95% COMPACTION OF AASHTO TISO.
- A WAIVER TO ALLOW ADS N-12 PLASTIC PIPE HAS BEEN APPROVED AND REINFORCED CONCRETE PIPE CAN BE USED AS AN ALTERNATE. ALL PIPE SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 908 OF THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
- ALL BULK REQUIREMENTS AND SETBACKS SHALL BE IN ACCORDANCE WITH FDP PHASE 10.
- ALL ON-SITE LIGHTING TO BE REFLECTED/DEFLECTED AWAY FROM RESIDENTIAL AREAS AND PUBLIC ROAD RIGHTS OF WAY. THIS PLAN WILL BE SUBJECT TO THE REQUIREMENTS OF COUNCIL BILL NO. 1-1997 (ZRA-8).
- ALL ON-SITE LIGHTING TO BE BUILDING MOUNTED WITH THE MINI-STORAGE UNIT LIGHTS BEING MOTION SENSITIVE ONLY. THE R/V AREA WILL BE LIGHTED BY SIX (6) POLE LIGHTS. SEE ELECTRICAL PLANS FOR DETAILS.
- WP-97-106 REQUEST TO WAIVE SECTION 16.116 (a) (1\$2) WHICH RESTRICTS THE REMOVAL OF VEGETATION AND GRADING WITHIN WETLAND BUFFERS WAS APPROVED ON APRIL 16, 1997.



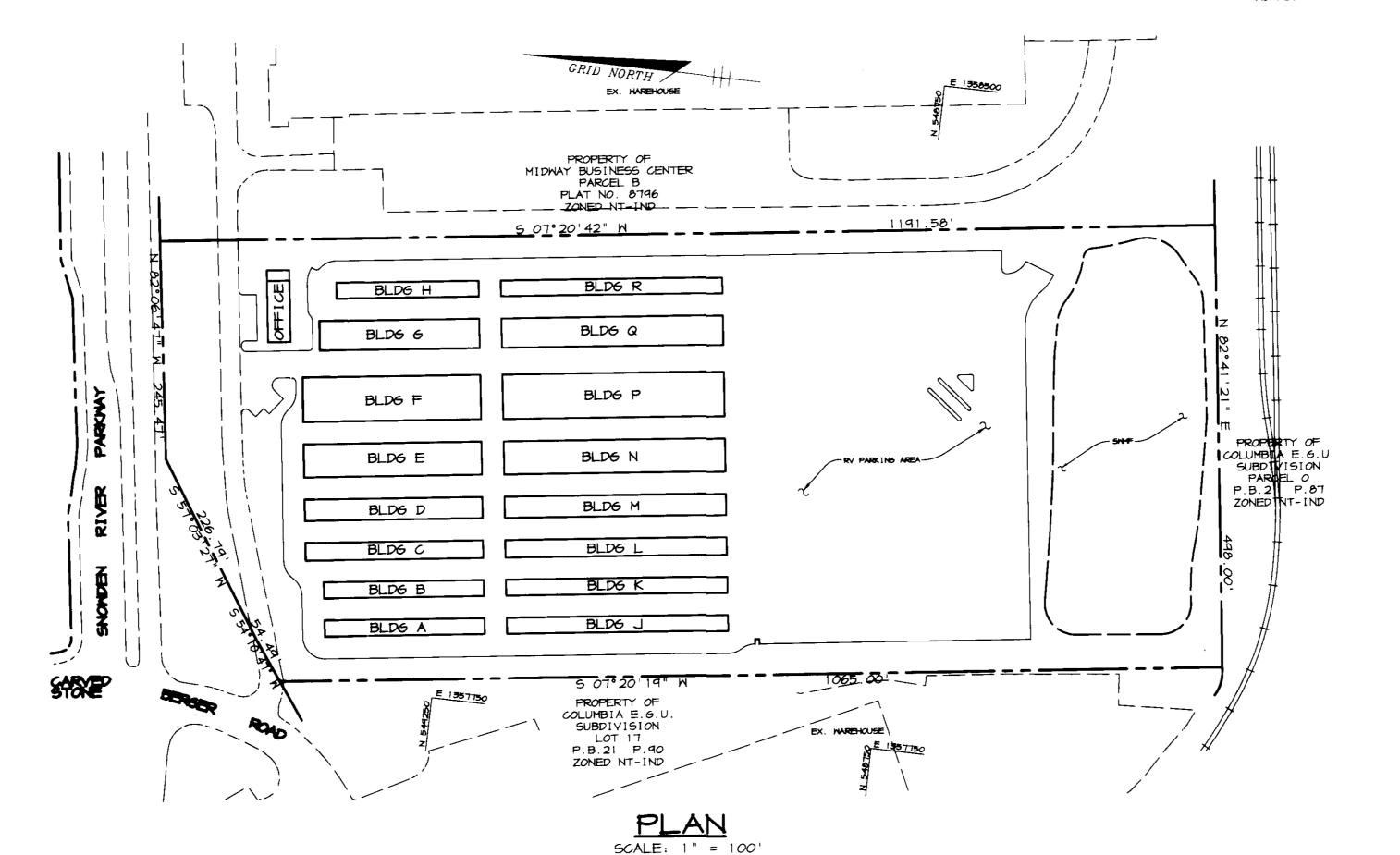
OFFICE BUILDING ELEVATION

STORAGE BUILDING ELEVATION

SITE DEVELOPMENT PLAN

MINI-U-STORAGE

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND



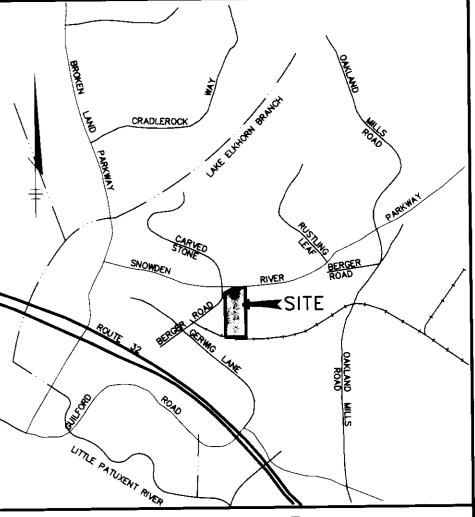
OPERATION AND MAINTENANCE SCHEDULE OF PRIVATELY OWNED AND MAINTAINED STORMWATER MANAGEMENT FACILITY EXTENDED DETENTION POND

ROUTINE MAINTENANCE

- 1. Facility shall be inspected anually and after major storms. Inspections should be performed during wet weather to determine if the pond is functioning properly.
- 2. Top and side slopes of the embankment shall be moved a minimum of two (2) times a year, once in June and once in September. Other side slopes, the bottom of the pond, and maintenance access should be moved as needed.
- 3. Debris and litter next to the outlet structure shall be removed during regular mowing operations and as needed.
- 4. Visible signs of erosion in the pond as well as riprap outlet area shall be repaired as soon as it is noticed.

NON-ROUTINE MAINTENANCE

- 1. Structural components of the pond such as the dam, the riser, and the pipes shall be repaired upon the the detection of any damage. The components should be inspected during routine maintenance operations.
- 2. Sediment should be removed when its accumulation significantly reduces the design storage, interfere with the function of the riser, when deemed necessary for aesthetic reasons, or when deemed necessary by the Howard County's Department of Public



VICINITY MAP

SCALE: 1" = 2000'

FDP-10, WP-89-10, SDP-89-39c, S-89-58,

97,756 SF (2.24 ac) 16.9% OF SITE

16 MINI-STORAGE BUILDINGS

TOTAL

9 (Incl. 1 HC)

F-71-31, F-89-192, WP-89-91, SDP-90-19

ONE-STORY MANAGER OFFICE/CARETAKER'S RESIDENCE

13.25 ACRES

12.70 ACRES

1756 SF

96,000 SF *

SITE ANALYSIS

AREA OF PARCEL A LIMIT OF DISTURBED AREA PRESENT ZONING

PREVIOUS DEPARTMENT OF PLANNING & ZONING REF. NOS.

WAREHOUSE

BUILDING COVERAGE: OFFICE

PROPOSED USE

NO. OF EMPLOYEES PARKING REQUIRED ** 4 SP/1000 SF OF OFFICE 1 SP/EMPLOYEE

PARKING PROVIDED RECREATIONAL VEHICLE PARKING

163 SPACES SPACES PROVIDED

* SEE CHART THIS SHEET FOR BREAKDOWN

** PER HO. CO. ZONING REGULATIONS SECTION 133 PAGE 251

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND HIEF, DIVISION OF LAND DEVELOPMENT REVISION DATE NO. DAHN CORPORATION

18552 MacARTHUR BOULEVARD

IRVINE, CALIFORNIA 92715

1-714-752-1284

MINI-U-STORAGE

A STORAGE FACILITY

6th ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

AREA MIDWAY BUSINESS CENTER - PARCEL A
ZONED NT-IND TAX MAP 42 PLAT #8795

TITLE SHEET

APPROVED PLANNING CAM of MO: A NIY

DATE 4.10.97

RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING . ENVIRONMENTAL SERVICES . PLANNING . SURVEYING

DEVELOPER

PROJECT

8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997;8900 fax 410.997.9282 9425 SNOWDEN RIVER PARKWAY

A (P.319) MIDWAY BUSINESS CENTER CENSUS TRACT 6061.03 10 8795

PARCEL NO.

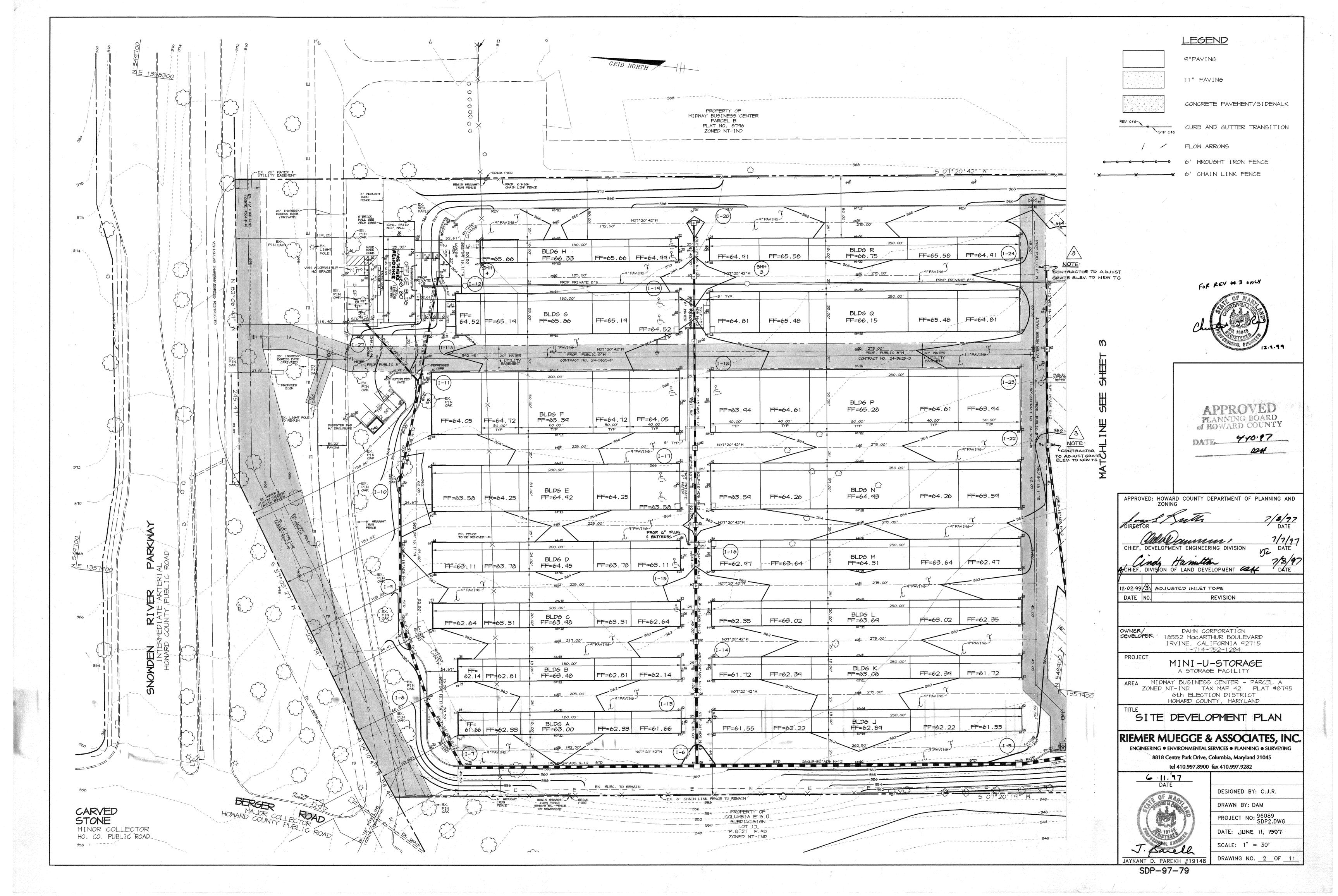
ADDRESS CHART

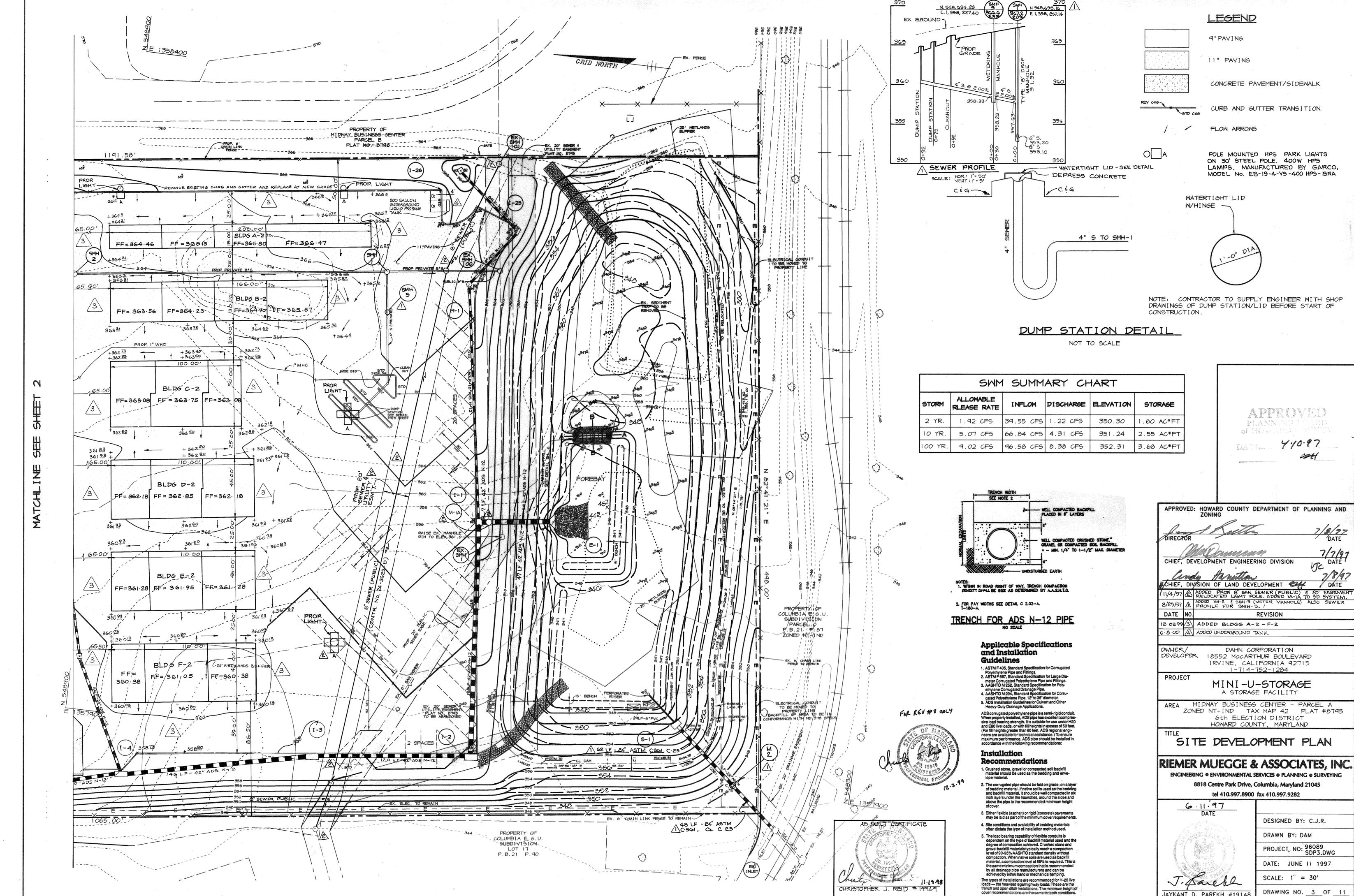
STREET ADDRESS

JAYKANT D. PAREKH #19148

DESIGNED BY: C.J.R. DRAWN BY: DAM PROJECT NO: 96089 SDP1.DWG DATE: JUNE 1, 1997 SCALE: AS SHOWN DRAWING NO. 1 OF 11

SDP-97-79





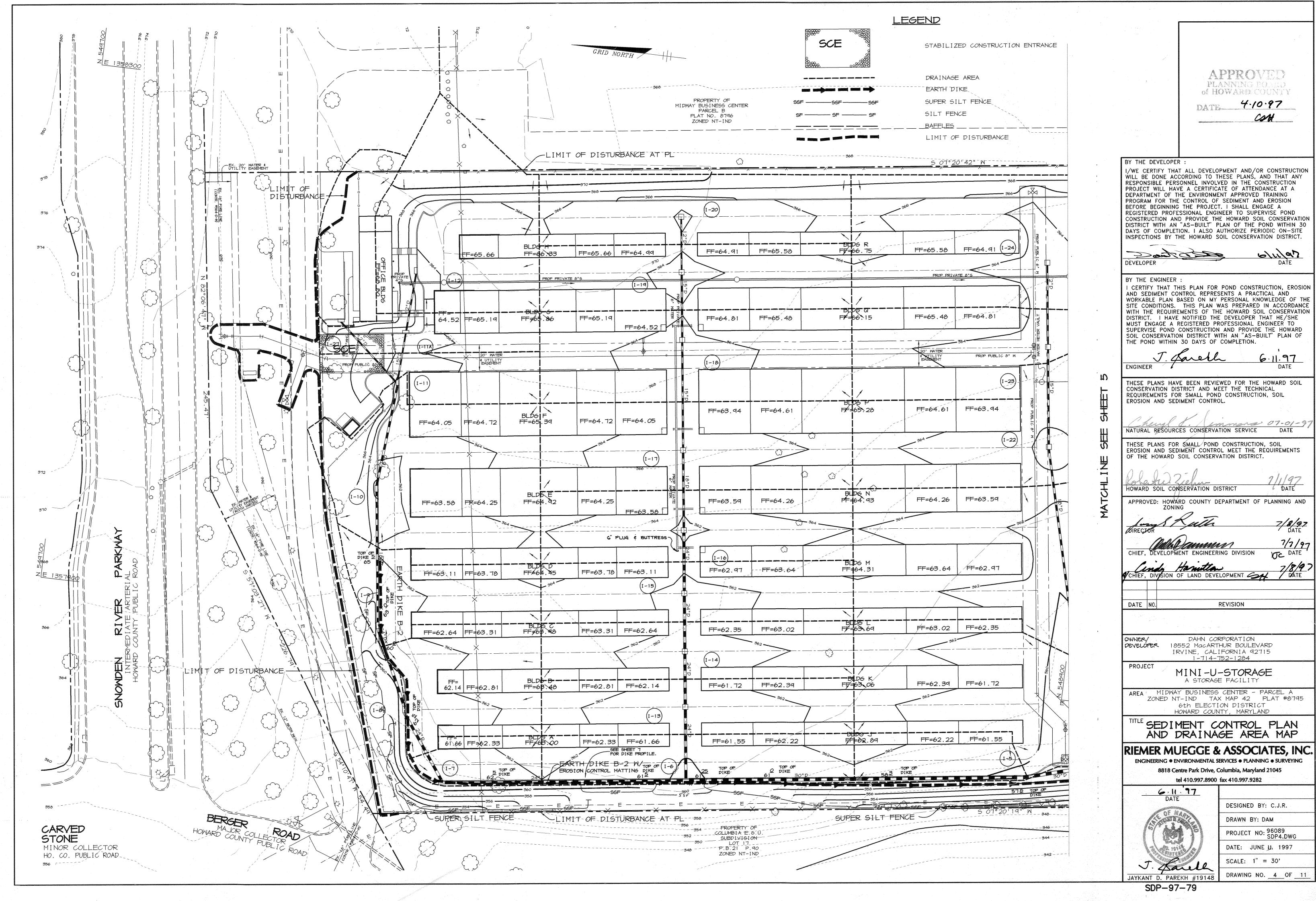
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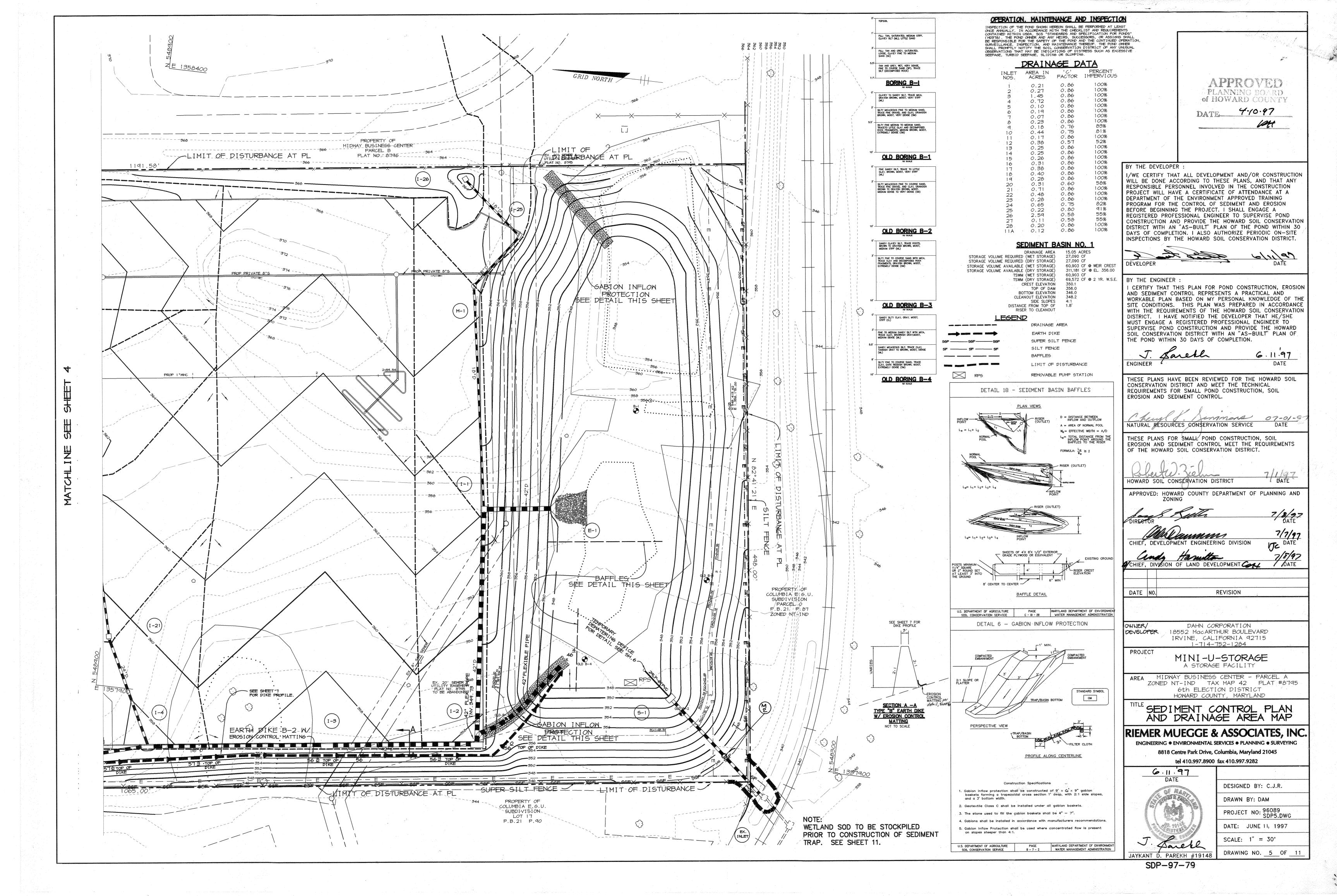
CHRISTOPHER J. REID # 19949

JAYKANT D. PAREKH #19148

DRAWING NO. 3 OF 11

19. BUILT: 11.19.98





MD-378 STANDARDS AND SPECIFICATIONS for POPP 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 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

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 with the ground surface. For dry stormwater management ponds, a minimum of a 50 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.

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 material. Fill material for the center of the embankment and cut off trench shall conform to Unified Soil Classification GC SC, CH, or CL. Consideration may be given to the use of other materials in the embankment if design and construction are supervised by a geotechnical engineer

Placement — Areas on which fill is to be placed shall be scarified prior to 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 the 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 the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepsfoot, rubber tire 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.

Where a minimum required density is specified, it 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.

 $\hbox{\it Cutoff Trench - The cutoff trench shall be excavated into impervious material}\\$ 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

The back fill shall be compacted with construction equipment, rollers, or hand tampers to assure maximum density and minimum permeability. STRUCTURE 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 materia 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 a compacted fill of 24" or greater over the structure or pipe.

PIPE CONDUITS

All pipes shall be circular in cross section.

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

- Materials (Steel Pipe) This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M—190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with col applied bituminous coating compound. Steel pipes with polymeric coatings shall have a minimum coating thickness of 0.01 inch (10 mil) on both sides of the pipe. The following coatings or an approved equal may be used: Nexon, Plasti-Cote, Blac-Klad, and Beth-Cu-Loy. Coated corrugated steel pipe shall meet the requirements of AASHTO M-245 and M-246.
- Coupling bands, anti-seep collars, end sections, etc., must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24
- . Connections All connections with pipes must be completely watertight. The drain pipe 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 48" in diameter; flanges on both ends of the pipe, a 12" wide standard lap type band with 12" wide by 3/8" thick closed cell circular neoprene gasket; and a 12" wide hugger type band with 0—ring gaskets having a minimum diameter of 1/2" greater than the corrugation depth. Pipes 48" in diameter and larger shall be connected by "long annular corrugated band using rods and lugs. A 12" wide by 3/8 thick closed cell circular neoprene gasket will be installed on the end of each pipe for a total of 24". Helically corrugated pipe shall have either continuously welded seams or have lock seams.

- 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
- . Backfilling shall conform to "Structure Backfill." 6. Other details (anti-seep collars, valves, etc.) shall be as shown on the

Reinforced Concrete Pipe - All of the following criteria shall apply for

 Materials — Reinforced concrete pipe shall have bell and spigot joints with rubber gaskets and shall equal or exceed ASTM Designation C-361. An approved equivalent is AWWA Specification C-302

- Redding All reinforced concrete pine conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the side of the pipe at least 10% of ts outside diameter with a minimum thickness of 3 inches, or as shown on
- 5. 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 line, the bedding shall be placed so that all spaces under the pipe are illed. Care shall be exercised to prevent any deviation from the origina line and grade of the pipe. The first joint must be located within 2 feet
- . Backfilling shall conform to Structure Backfill.

ROCK RIPRAF

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

Polyvinyl Chloride (PVC) Pipe - All of the following criteria shall apply for polyvinyl chloride (PVC) pipe:

- Joints and connections to anti-seep collars shall be completely watertight 5. 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
- Backfilling shall conform to Structure "Backfill".

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

Concrete shall meet the requirements of Maryland Department of Transportation, State Highway Administration Standard Specifications for Construction and Materials, Section 608, Mix No. 3.

All rock shall be dense, sound, and free from cracks, seams, and other defects conducive to accelerated weathering. The rock fragments shall be angular to subrounded in shape. The least dimension of an individual rock fragment shall be not less than one—third the greatest dimension of the fragment.

- The rock shall have the following properties: 1. Bulk specific gravity (saturated surface-dry basis) not less than 2.5.
- 2. Absorption not more than three percent.
- 3. Soundness: Weight loss in five cycles not more than 20 percent when sodium
- Bulk specific gravity and absorption shall be determined according to ASTM C The test for soundness shall be performed according to ASTM C 88.

The riprap shall be placed to the required thickness in one operation. The rock shall be delivered and placed in a manner that will insure the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact one to another with the smaller rocks filling the voids between the larger rocks. Filter cloth 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 919.12.

CARE OF WATER DURING CONSTRUCTION

Il 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 extent required to prevent obstruction n 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 of 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 require 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 Maryland Soil Conservation Service Standards and Specifications for Critical Area Planting (MD-342) or as shown on the

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 to be employed during the

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL

EROSION AND SEDIMENT CONTROL for rate and methods not covered.

TEMPORARY SEEDING NOTES Apply to graded or cleared greas likely to be redisturbed where a

<u>Seedbed Preparation: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously the control of the co</u>

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sa.ft.).

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for applying per 1000 sq.ft.) for anchoring.

PERMANENT SEEDING NOTES

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long—lived vegetative cover is needed. Seedbed Preparation: Loosen upper three inches of soil by raking. discing or other acceptable means before seeding, if not previously

Soil Amendments: In lieu of soil test recommendations, use one of the following schedules:

1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lb per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.). 2) Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into

unper three inches of soil Seeding: For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seewith 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following

- 1) 2 tons per acre of well-anchored mulch straw and seed as soon
- 3) Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sa.ft.) for anchoring.

<u>Maintenance</u>: <u>Inspect all seeded areas and make needed repairs</u>, replacements and reseedings.

2) Use sod.

SEDIMENT CONTROL NOTES

A minimum of 48 hours notice must be given to the Howard County Department of inspections and Permits prior to the start of any construction (313-1855).

according to the provisions of this plan and are to be in conformance with the MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL, and revisions thereto.

3. Following initial soil disturbance or redisturbance, permanent or emporary 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 other disturbed or graded areas on the project site.

4. All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.

5. All disturbed areas must be stabilized within the time period specified above in accordance with the 1991 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can

Materials - PVC pipe shall be PVC-1120 or PVC-1220 conforming to ASTM D-17856. All sediment control structures are to remain in place and are to

be maintained in operative condition until permission for their

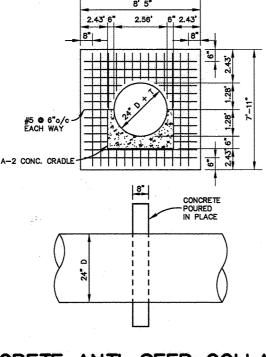
only be done when recommended seeding dates do not allow for

Site Analysis :

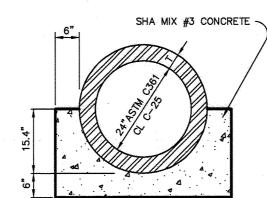
Total Area of Site Area Disturbed Area to be roofed or paved Area to be vegetatively stabilized Total Cut Total Fill

35,000 cu.yds. 8. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same

- 9. Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 10. Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
- . Sediment will be removed from traps when its depth reaches clean Cut and fill quantities provided under site analysis do not represent bid quantities. These quantities do not distinguish between topsoil, structural fill or embankment material, nor do
- they reflect consideration of undercutting or removal of unsuitable material. The contractor shall familiarize himself 13. On all sites with disturbed greas in excess of 2 acres, approval o
- the inspection agency shall be requested upon completion of nstallation 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.
- 14. Trenches for the construction of utilities is limited to three pipe lengths or that which can be backfilled and stabilized within one working day, whichever is shorter.



CONCRETE ANTI-SEEP COLLARS



CLASS 'A' DAMS LESS THAN 50' HIGH A-2 CONCRETE CRADLE

21.0 STANDARD AND SPECIFICATIONS

TOPSOIL

Placement of topsoll over a prepared subsoll prior to establishment of permanent vegetation

To provide a suitable soil medium for vegetative growth. Soils of concern have low moisture

Conditions Where Practice Applies

- 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

. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth

II. Topsoil Specifications - Soil to be used as topsoil must meet the following:

- . Topsoi 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 1?" in diameter
- nutsedge, poison lvy, thistle, or others as specified. iii. Where 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

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.

- 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
- 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 soll which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit

Note: Topsoil substitutes to amendments, as recommended by a qualified agronomist or soil

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

I. When topsoiling, maintain needed erosion and sediment control practices such as diversions, Grade Stabilization Structures, Earth Dikes, Slope Slit Fence and Sediment Traps and Basins. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4" - 8" higher in elevation.

. Topsoli shall be uniformly distributed in a 4" - 8" layer and lightly compacted to a minimum proceed with a minimum of additional soil preparation and tillage. Any irregularities in the

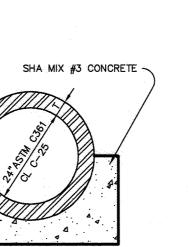
ly. Topsoll shall not be placed while the topsoll or subsoll is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper

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

shall conform to the following requirements: a. Composted sludge shall be supplied by, or originate from, a person or persons that are

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.

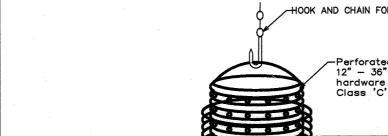
d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.



- EXISTING GROUND

RIPRAP TO BE EMBEDDED IN PROPOSED TRANSITION SECTION

SECTION A-A



0 0 0 -ANTICIPATED WATER A 1 1 1 1 SURFACE ELEV. 4 1 1 1 REE ES 4.1 mg - 1 mg - 12

I. This practice is limited to great having 2:1 or flatter slopes where

special consideration and design for adequate stabilization. Areas having slopes steeper than 2:1 shall have the appropriate stabilization shown on the plans.

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 conneration with Marvand Agricultural Experimentation Station.

II. Topsoll must be free of plants or plant parts such as bermuda grass, quackgrass, Johnsongrass,

III. For sites having disturbed areas over 5 acres:

b. Organic content of topsoil shall be not less than 1.5 percent by weight.

2.30 acres

5,000 cu.yds.

.70 acres

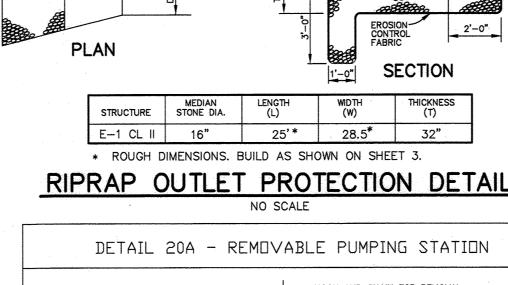
thickness of 4°. Spreading shall be performed in such a manner that sodding or seeding can surface resulting from topsoiling or other operations shall be corrected in order to prevent the

. Composted Sludge Material for use as a soll conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for site having disturbed areas under 5 acres

permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.

c. Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.

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

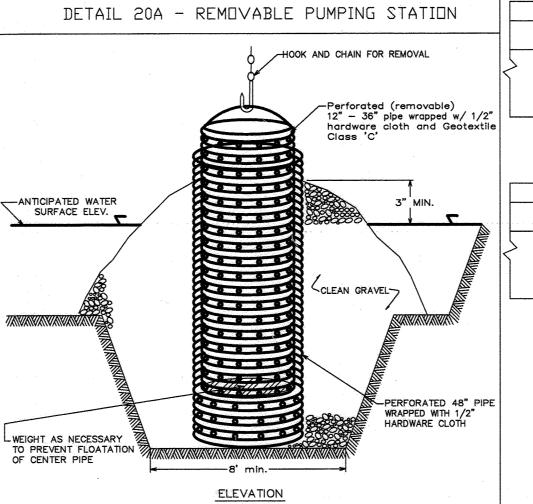


FILTER CLOTH OR GRADED AGGREGATE FILTER

NOTE: CL OR CH MATERIAL IS TO BE USED FOR CORE TRENCH. IF UNSUITABLE MATERIAL EXISTS ON SITE,

ACCEPTABLE MATERIAL WILL NEED TO BE TRUCKED

CORE TRENCH DETAIL

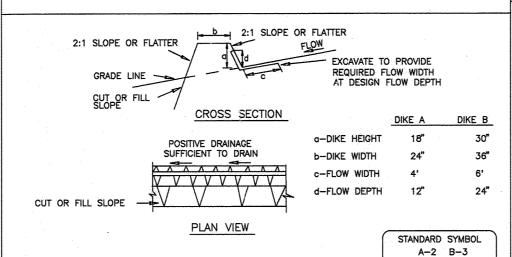


Construction Specifications 1. The outer pipe should be 48" dia. or shall, in any case, be at least 4" greater in diameter than the center pipe. The outer pipe shall be wrapped with 1/2" hardware cloth to prevent backfill material from entering the perforations. 2. After installing the outer pipe, backfill around outer pipe with 2" aggregate 3. The inside stand pipe (center pipe) should be constructed by perforating a corrugated or PVC pipe between 12" and 36" in diameter. The perforations shall be 1/2" X 6" slits or 1" diameter holes 6" on center. The center pipe shall be wrapped with 1/2" hardware cloth first, then wrapped again with Geotextile Class C 4. The center pipe should extend 12" to 18" above the anticipated water surface elevation or riser crest elevation when dewatering a basin.

U.S. DEPARTMENT OF AGRICULTURE WATER MANAGEMENT ADMINISTRATION DETAIL 1 - EARTH DIKE

---/---

MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE



FLOW CHANNEL STABILIZATION GRADE 0.5% MIN. 10% MAX. . Seed and cover with straw mulch. 2. Seed and cover with Erosion Control Matting or line with sod. 3. 4" - 7" stone or recycled concrete equivalent pressed into

the soil 7" minimum

trapping device.

Construction Specifications

1. All temporary earth dikes shall have uninterrupted positive grade to an outlet. Spot elevations may be necessary for grades less than 1%. 2. Runoff diverted from a disturbed area shall be conveyed to a sedimen

3. Runoff diverted from an undisturbed area shall outlet directly into an undisturbed, stabilized area at a non-erosive velocity. 4. All trees, brush, stumps, obstructions, and other objectional material

6. Fill shall be compacted by earth moving equipment

U.S. DEPARTMENT OF AGRICULTURE

shall be removed and disposed of so as not to interfere with the proper functioning of the dike. 5. The dike shall be excavated or shaped to line, grade and cross section as required to meet the criteria specified herein and be free of bank projections or other irregularities which will impede normal flow.

7. All earth removed and not needed for construction shall be placed so that it will not interfere with the functioning of the dike

-16" MINIMUM HEIGHT OF PERSPECTIVE VIEW MINIMUM FENCE FILTER CLOTH - FENCE POST SECTION MINIMUM 20 GROUND UNDISTURBED EMBED GEOTEXTILE CLASS F - A MINIMUM OF 8" VERTICALLY TOP VIEW - FENCE POST DRIVEN A INTO THE GROUND MINIMUM OF 16" INTO STANDARD SYMBOL STAPLE _____SF _____ JOINING TWO ADJACENT SIL' FENCE SECTIONS Construction Specifications . Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 11/2" x 11/2" square (minimum) cut, or 13/4" diameter to placing stone. **The plan approval authority may not require single family

DETAIL 22 - SILT FENCE

36" MINIMUM LENGTH FENCE POST,

DRIVEN A MINIMUM OF 16" INTO

FLOW

SECTION BB

SECTION AA

FORBAY DETAIL

NO SCALE

1" PERFORATIONS -

MINIMUM 6"DIA. PVC-

THAN ELEV. OF PRIMARY RISER CRES

FILTER CLOTH OVER WIRE MESH-

PERFORATIONS OR SLITS, MUST NOT BE MADE ANY LOWER THAN 6" ABOVE TOP OF THE HORZ. OUTFALL BARREL.

BITUMINOUS CONCRETE SURFACE

BITUMINOUS CONCRETE BASE

* 5" CRUSHER RUN BASE COURSE

4" DENSE GRADED STABILIZED

9" PAVING

BITUMINOUS CONCRETE SURFACE

BITUMINOUS CONCRETE BASE

* 7" CRUSHER RUN BASE COURSE

6" DENSE GRADED STABILIZED

11" PAVING

CENTER.

d = 4" STONE

ANTI-VORTEX DEVICE-

PERFORATIONS - 6" SPACING

TEMPORARY DEWATERING DEVICE

WITH 6" PERFORATED RISER

NO SCALE

1-1/2"

RISER-

BARREL -

RESERVED

\$98 FIN

* VAN ACCESSIBLE

* FOR VAN ACCESSIBLE

SPACES ONLY. SEE PLAN FOR LOCATION

NOTE DISTANCE FROM GROUND TO

COLOR LEGEND AND BORDER - GREEN

PROPOSED GRADE

BACKGROUND - WHITE

HANDICAP SIGN DETAIL

M.S.H.A. MIX No. 2

REVERSE 7" COMBINATION

CURB AND GUTTER

CONCRETE .

entrance.

MARYLAND DEPARTMENT OF ENVIRONMENT

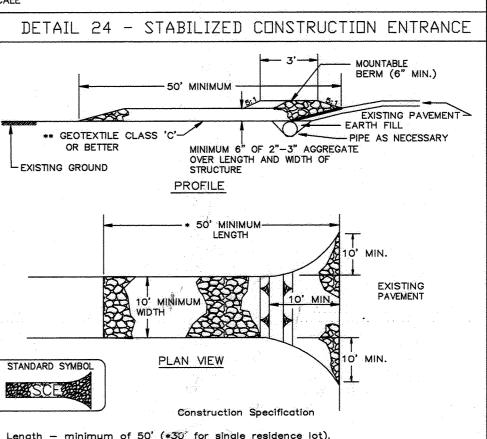
DEPRESSED CURB

AT DRIVEWAY

ENTRANCES

(minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighting not less than 1.00 pond per linear foot. 2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F: Tensile Strength 50 lbs/in (min.) Test: MSMT 509

Tensile Modulus 20 lbs/in (min.) Test: MSMT 509 0.3 gal ft 2/ minute (max.) Test: MSMT 322 Flow Rate 3. Where ends of geotextile fabric come together, they shall be overlapped folded and stapled to prevent sediment bypass 4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.



6x6/6-6 WELDED WIRE MESH SHA MIX NO. 3 CONCRETE NO. 6 REBAR

DUMPSTER PAD

PAVEMENT WIDTH INDICATED ON TYPI STREET SECTIONS TO BE MEASURED

DEPRESSED CURI

DRIVEWAY

ENTRANCES

CONCRETE

M.S.H.A. MIX No. 2

HOWARD COUNTY DESIGN MANUAL, VOLUME IV,

STANDARD SPECIFICATIONS AND DETAILS FOR

* GUTTER PAN AT THE MEDIAN EDGE OF INTERMEDIATE

ARTERIALS OR THE HIGH SIDE OF SUPERELEVATED SECTIONS SHALL BE SLOPED AT THE SAME RATE

STANDARD 7" COMBINATION

CURB AND GUTTER

NO SCALE

Length - minimum of 50' (*30' for single residence lot). . Width — 10' minimum, should be flored at the existing road to provide a turning . Geotextile fabric (filter cloth) shall be placed over the existing ground prior

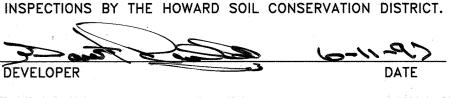
residences to use geotextile. 4. Stone — crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the

5. Surface Water — all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a nountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe ha to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.

6. Location — A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance ILS. DEPARTMENT HE AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONM

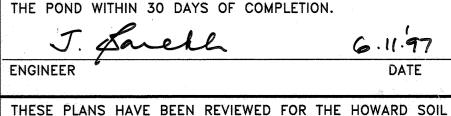
of HOWARD COUNTY 4.10.97 BY THE DEVELOPER

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



BY THE ENGINEER I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF TH 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

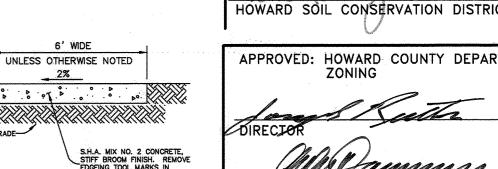
DATE



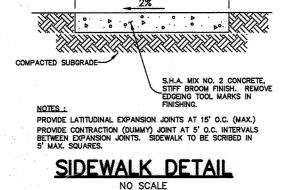
CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

NATURAL RESOURCES CONSÉRVATION SERVICE THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS

OF THE HOWARD SOIL CONSERVATION DISTRICT. $\Omega \wedge \Lambda \cap \Lambda - \Omega$ HOWARD SOIL CONSERVATION DISTRICT



8'x10'x6"CONC. P.



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND 7/8/97 MMH<u>aunun</u>

CHIEF. DIVISION OF LAND DEVELOPMENT COM / /DATE DATE NO. REVISION

OWNER! DAHN CORPORATION developer 18552 MacARTHUR BOULEVARD IRVINE, CALIFORNIA 92715 1-714-752-1284

A STORAGE FACILITY MIDWAY BUSINESS CENTER - PARCEL A ZONED NT-IND TAX MAP 42 PLAT #8795 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

NOTES AND DETAIL SHEET

RIEMER MUEGGE & ASSOCIATES, INC ENGINEERING ● ENVIRONMENTAL SERVICES ● PLANNING ● SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045

tel 410.997.8900 fax 410.997.9282



DESIGNED BY: C.J.R. DRAWN BY: DAM

PROJECT NO: 96089 SDP6.DWG DATE: JUNE 11, 1997 SCALE: AS SHOWN

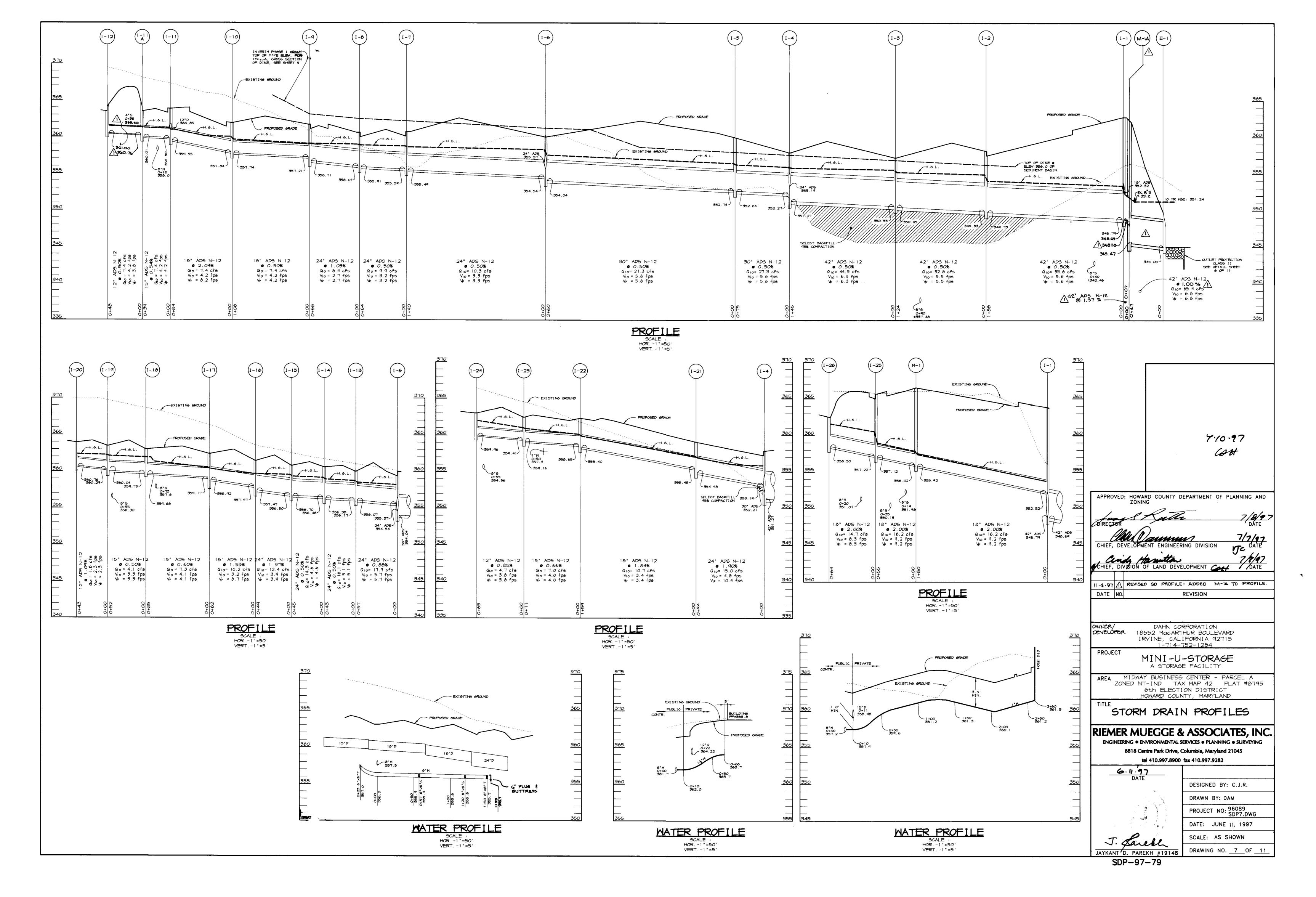
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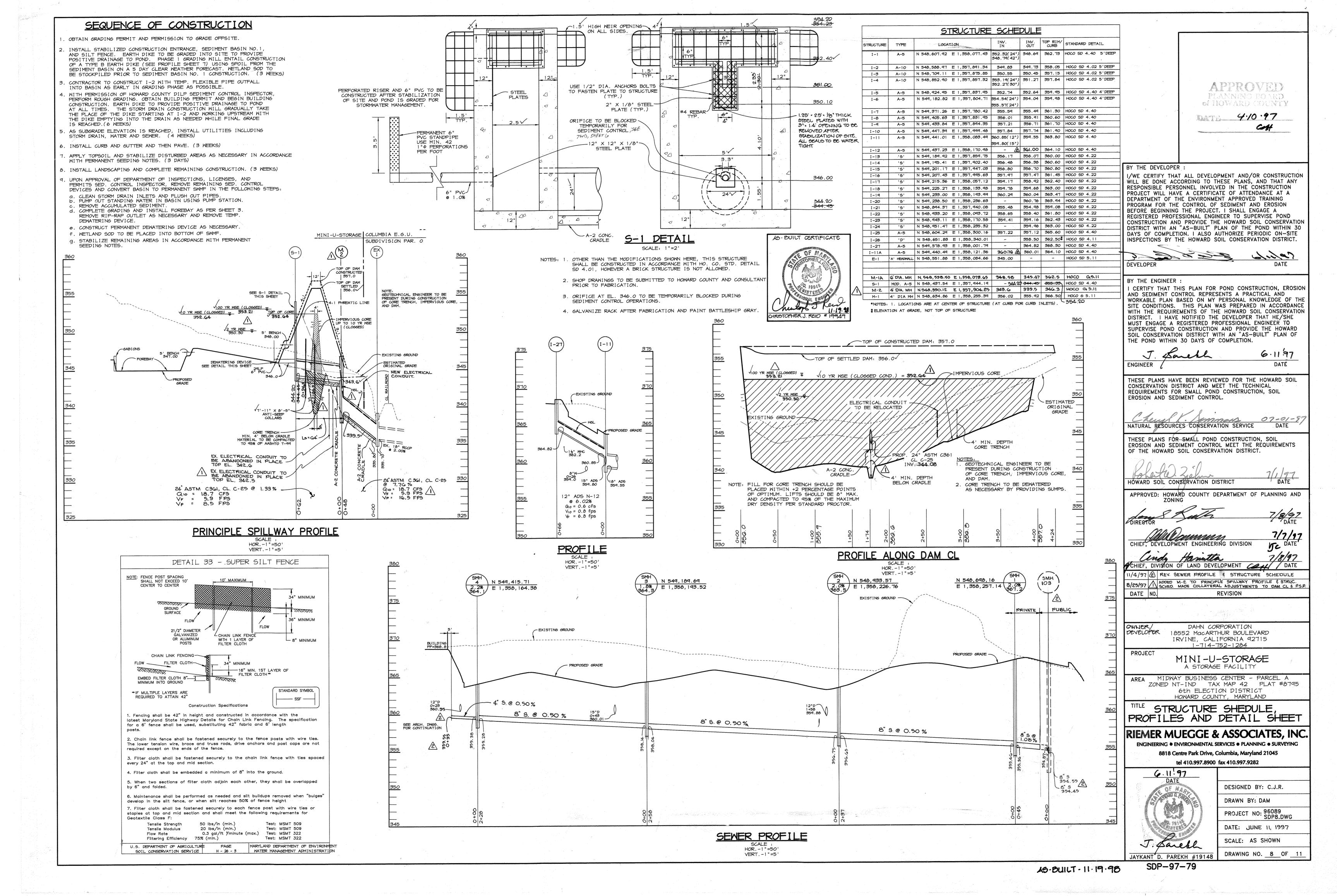
D. PAREKH #19148

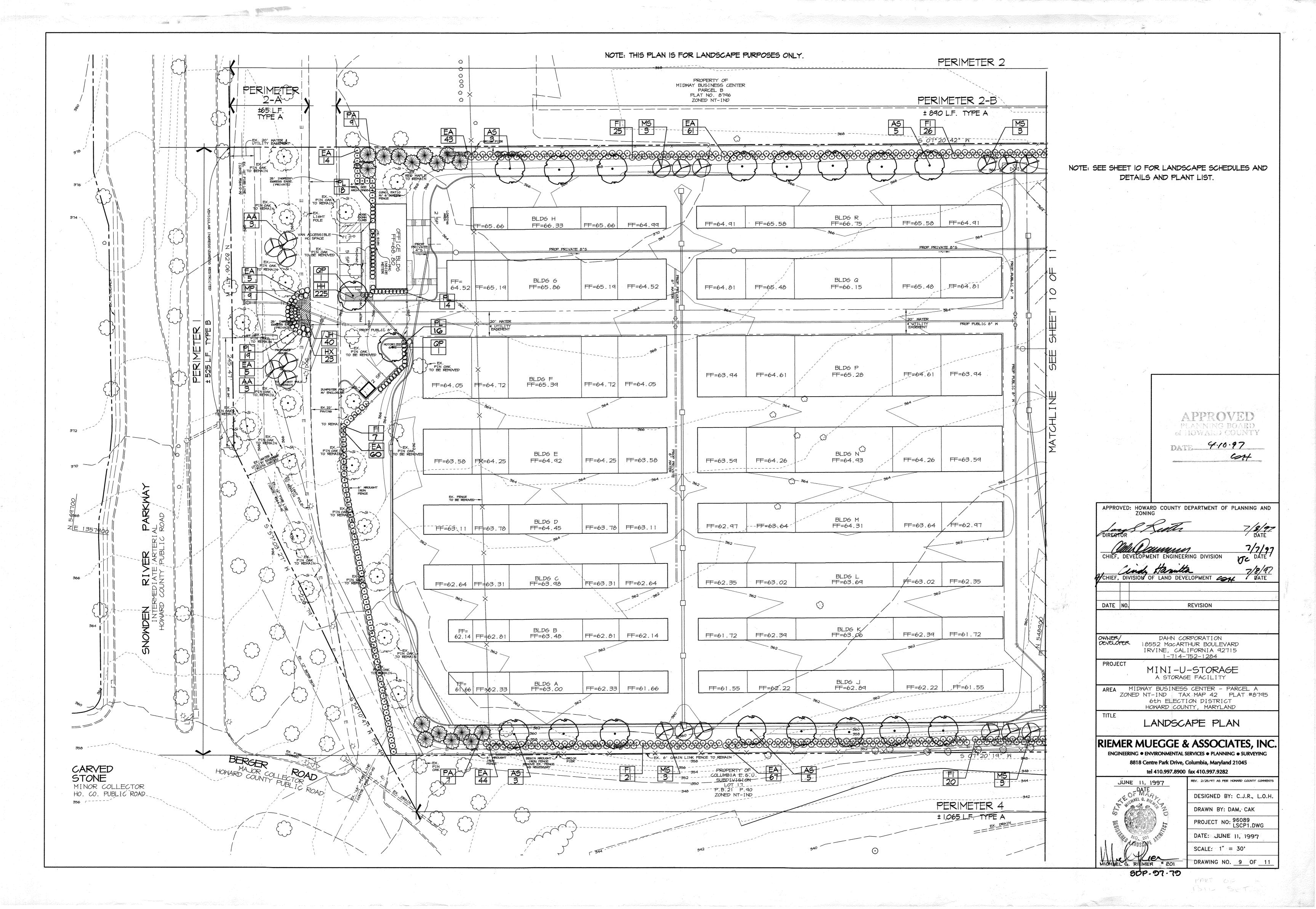
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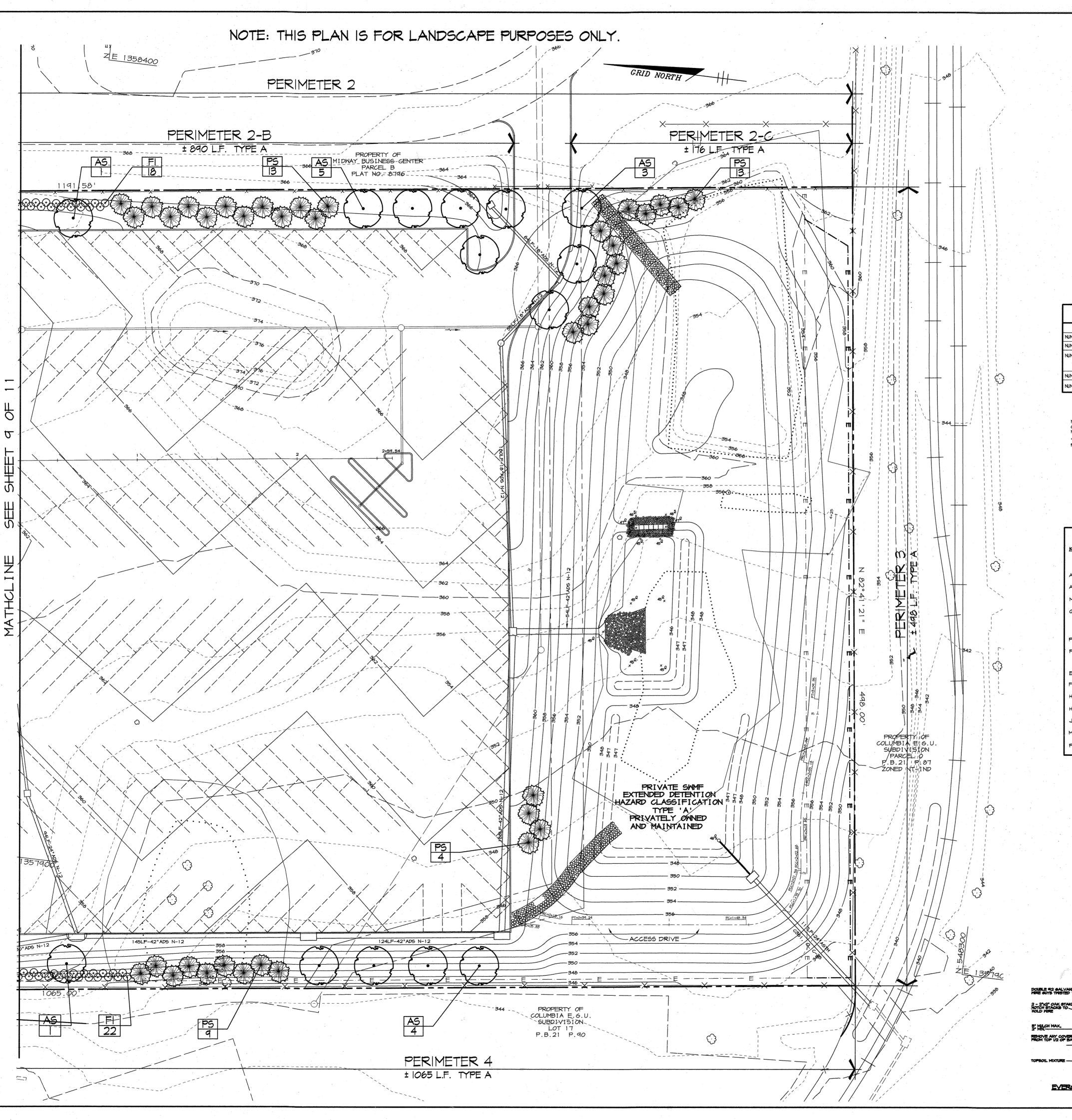
DRAWING NO. 6 OF 11

PROJECT MINI-U-STORAGE









LANDSCAPE SCHEDULES

SCHEDULE A * PERIMETER LANDSCAPE EDGE									
	ADJACENT TO ROADWAYS	ADJACENT TO PERIMETER PROPERTIES							
PERIMETER	-	2-A	2-B	2-0	3	4			
LANDSCAPE TYPE	В	A	Α	A	A	A			
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±525LF	± 65 LF	± 890 LF	± 176 LF	± 498 LF	± 1,065 LF			
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	YES *I6 EX. PIN OAKS	YES *I EX. PIN OAK	YES *I EX. PIN OAK & I RED MAPLE	NO	NO	NO .			
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	NO NO	NO	NO	NO	NO	NO			
NUMBER OF PLANTS REQUIRED: SHADE TREES EVERGREEN TREES SHRUBS	@ 1/50' = 10.5 @ 1/40' = 13.1 O	@ 1/60' = 1.1 0 0	@ 1/60' = 14.8 O O	@ 1/60' = 2.9 0 0	@ 1/60' = 8.3 O	@ I/60' = 17.			
NUMBER OF PLANTS PROVIDED: SHADE TREES EVERGREEN TREES SMALL FLOWERING TREES SHRUBS	* 0 6 158	* 000	14* 22 6 173	® <u>®</u> ○ ○	* 0000	13 20 6 174			

*SUBSTITUTION/CREDIT NOTES:

PERIMETER LANDSCAPE EDGE: SCHEDULE A

PERIMETER 1: CREDIT TAKEN FOR RETAINING 16 LARGE PIN OAKS (>18"DBH). PERIMETER 2-A: CREDIT TAKEN FOR RETAINING I LARGE PIN OAK (>18"DBH).

PERIMETER 2-B: CREDIT TAKEN FOR RETAINING I LARGE PIN OAK (>16"DBH) AND I LARGE RED MAPLE.

PERIMETER 3:
REQUIRED PLANTS MOVED FROM BELOW
SWM EMBANKMENT TO PERIMETER 2 AND PERIMETER 4.

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING				
NUMBER OF PARKING SPACES	9			
NUMBER OF SHADE TREES REQUIRED @ S.T./20 SPACES	1			
NUMBER OF TREES PROVIDED: SHADE TREES OTHER TREES (2:1 SUBSTITUTION)	2			
NUMBER OF ISLANDS REQUIRED (I ISLAND/ 20 SPACES)	ı			
NUMBER OF ISLANDS PROVIDED	2			

NOTES: "THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE

"FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE DPW DEVELOPERS AGREEMENT IN THE AMOUNT OF \$ 6,700.00

ALTERNATIVE COMPLIANCE REQUIRED

HRD TREE REQUIREMENTS

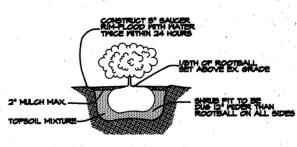
INDUSTRIAL 10+ ACRES

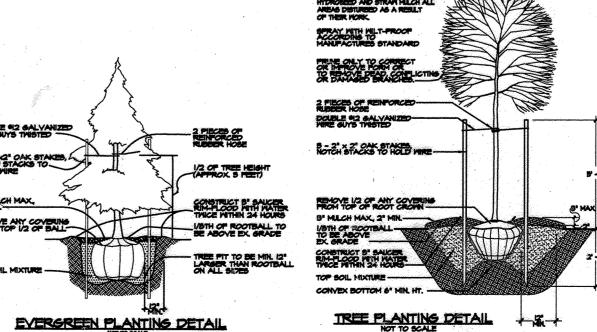
12 SHADE TREES PER GROSS ACRE - UNWOODED 13.25 ACRES x 12 SHADE S.T.E./ ACRE = 159 (HRD REQUIRED SHADE TREE EQUIVALENTS, S.T.E.) = 159

PLANTED	<u>S.T.E.</u>
(30)	30
(55)	27.5
(18)	9
(504)	50.4
	110.9
(18)	32.0
	148.9
	(30) (55) (18) (504)

PLANT MATERIAL LIST							
KEY	QIY	BOTANICAL + COMMON NAME	SIZE	ROOT	REMARKS		
		DECIDUOUS TREE	5				
AA	6	Amélanchier arborea Downy Serviceberry	2½" - 3" Cal.	B 4 B	Full Crown Single Trunk		
AS	30	Acer saccharum 'Green Mountain' Green Mountain Sugar Maple	2½" - 3" Cal.	B&B	Full Crown Central Lea		
MS	12	Malus Crabapple	2" - 2½" Cal.	B 4 B	Full Crown		
QP	2	Quercus palustris Pin Oak	3½" - 4" Cal.	B # B	Full Crown Central Lea Count as 2 S.T.E. eac		
		EVERGREEN TREE	5				
PA	16	Picea ables Normay Spruce	6'-8' Ht.	B 4 B	Full Form		
P5	39	Pinus strobus White Pine	6'-8' Ht.	B 4 B	Sheared		
		SHRUBS & GROUNDC	OVER				
EA	299	Evonymus alatus Burning Bush	2'-3' Ht.	B & B/Cont.	48" O.C.		
FI	139	Forsythia X intermedia Border Forsythia	3'-4' Ht.	B & B/Cont.	48" O.C.		
HH	225	Hedra Helix English Ivy	10" - 12" Length	100/ Flat	8" O.C.		
HX	23	Hemerocallis X 'Bountiful' Bountiful Daylily	#1	Cont.	24" O.C.		
JH	40	Juniperus horz. 'plumosa' Andorra Juniper	12"-18" Spr	d. Cont.	24" O.C.		
MP	9	Miscanthus sin. 'Purpurescens' Red-leaved Miscanthus	#1	Cont.	24" O.C.		
PL	67	Prunus laurocerasus Cherry Laurel	2'-3' Ht.	B 4 B	36" O.C.		

PLANTING DETAILS





Chief, DIVISION OF LAND DEVELOPMENT CON DATE NO. REVISION DAHN CORPORATION 18552 MacARTHUR BOULEVARD IRVINE, CALIFORNIA 92715 1-714-752-1284 **PROJECT**

CHIEF, DEVELOPMENT ENGINEERING DIVISION

MINI-U-STORAGE A STORAGE FACILITY

PRANNING DOARD of HOWARD COUNTY

DARBOOMAN HOLD ON THE STATE OF THE STATE OF

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND

AREA MIDWAY BUSINESS CENTER - PARCEL A
ZONED NT-IND TAX MAP 42 PLAT #8795
6th ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING ● ENVIRONMENTAL SERVICES ● PLANNING ● SURVEYING 8818 Centre Park Drive, Columbia, Maryland 21045

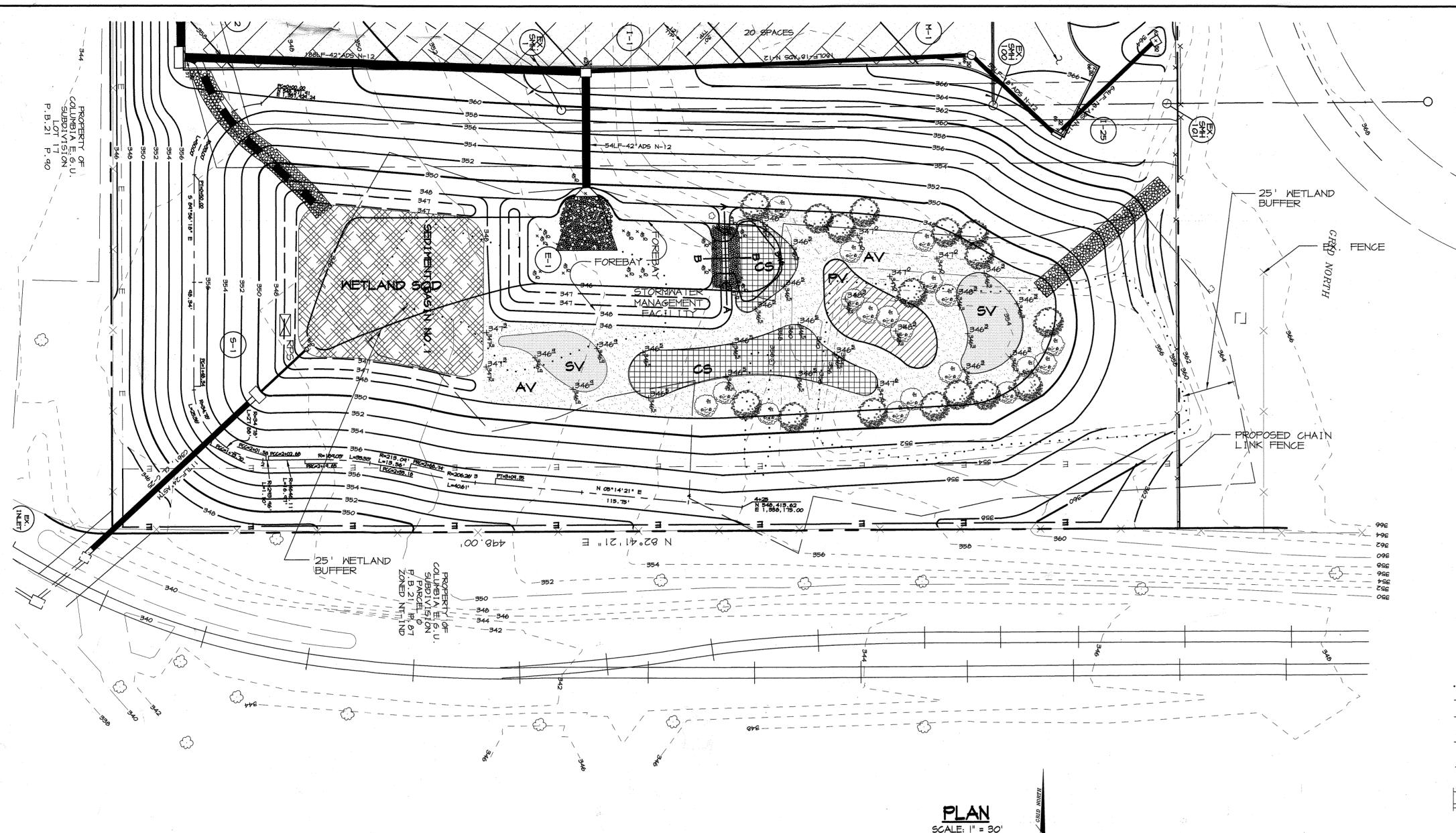
tel 410.997.8900 fax 410.997.9282 JUNE 11, 1997

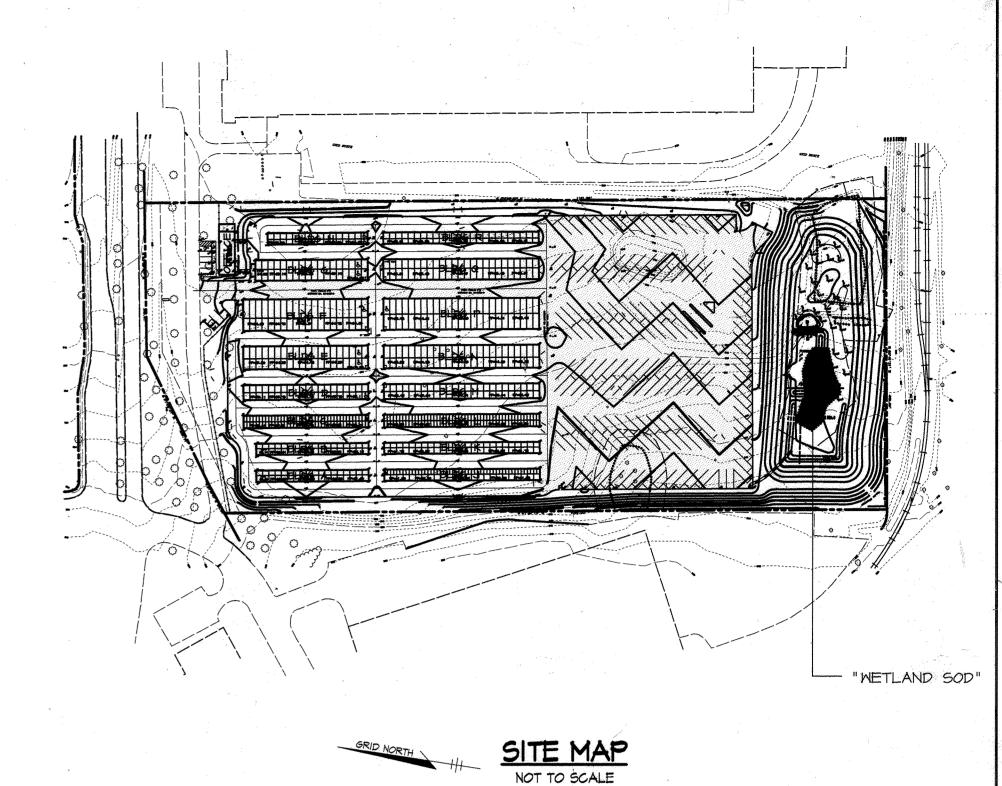
DESIGNED BY: C.J.R., L.O.H. DRAWN BY: DAM, CAK PROJECT NO: 96089 LSCP1.DWG DATE: JUNE 11, 1997 SCALE: 1'' = 30'

DRAWING NO. __10_OF __11_

REV. 2/25/97 AS PER HOWARD COUNTY COMMENTS

50P-97·79





LEGEND

WETLANDS \$ 25' BUFFER

-X-X- EX. FENCE
-X- EX. UTILITY EASEMENT

- EX ELEC LINE

WETLAND SOD

GENERAL NOTES

- I. THIS PLAN FOR PLANTING PURPOSES ONLY.
- 2. WETLAND DELINEATION COMPLETED BY RIEMER MUEGGE AND ASSOCIATES
- 3. TRACKING # 199360046, FOR PERMIT APPLICATION DATED SEPTEMBER 30, 1992.
- 4. TOTAL MITIGATION REQUIRED: ±32,544 S.F. AT A 2:1 REPLACEMENT RATIO
 TOTAL MITIGATION SHOWN: \$3,669 S.F.
- 5. AREA OF SHALLOW MARSH CREATION CALCULATED BELOW THE 348 ELEVATION

SPECIFICATIONS

1. Seeding:

Seedbed Preparation for Disturbed Upland Areas Only:

Flat areas and slopes up to 3:1 slope shall be loose and friable to a depth of at least 3 inches.

The top layer of soil shall be loosened by raking, discing or other acceptable means before seeding.

Slopes steeper than 3:1 shall have the top 1 to 3 inches of soil loose and friable before seeding.

Soil Amendments: Use one of the following schedules.

Lime and fertilizer needs can be determined by a soil testing laboratory such as the University of Maryland's

Soil Testing Laboratory. Lime and fertilizer according to soil tests.

- In lieu of soil test results, use one of the following schedules.
- 1) Preferred Apply 2 tons per acre dolomitic limestone (92 LBS/1000 SF) and 600 LBS per acre 10-10-10 fertilizer (14 LBS/1000 SF) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (01 LBS/100SF).
- 2) Acceptable Apply 2 tons per acre dolomitic limestone (92 LBS/1000 SF) and 1000 LBS per acre 10-10-10 fertilizer (23 LBS/1000 SF) before seeding. Harrow or disc into upper three inches of soil.

On slopes steeper than 3:1 slope, the lime and fertilizer shall be worked the best way possible. On sloping land, the final harrowing or discing operation should be on the contour wherever feasible. No attempt should be made

to drag any disced area to make the soil surface smooth after discing.

Seeding for POND & POND EMBANKMENT ONLY:

All disturbed areas shall be seeded and mulched upon completion of all grading work, using seeding as specified.

All stabilization on pond embankment shall be of the following species:

Poa Tivialis, (Poa tivialis)

Red Clover, (Trifolium pretense)

Red Top, (Agrostis alba)

Birdsfoot Trefoil, (Lotus coriculatus)

Deer Tongue Grass, (Panicum clampestinum)

25 lbs/acre
15 lbs/acre
10 lbs/acre
12 lbs/acre

These species allow for the stabilization of the site, while allowing for the voluntary revegetation of wetland species.

Kentucky-31 Fescue shall not be utilized in the shallow marsh creation areas or the pond embankment/side slopes.

Irrigation:

If soil moisture is deficient, supply new plantings with adequate water for plant growth until they are firmly

This is especially important when seedings are made late in the planting season, in abnormally dry or hot seasons, or adverse sites.

Maintenance:

irrigation - if soil moisture becomes deficient, irrigate to prevent loss of vegetation.

Repairs - Inspect all seeded areas for failures and make necessary repairs, replacements, and reseeding within

i) if stand is inadequate for erosion control, overseed and fertilize, using half of the rates originally applied.

2) If stand is over 60% damaged, reestablish following original lime, fertilizer, seedbed preparation and seeding recommendations.

II. PLANTING SPECIFICATION AND NOTES

Stockpiling of Existing Hydrophtic Vegetation (WETLAND SOD)

Salvaged vegetation and topsoil from within the limits of the existing nontidal metiands, indicated on the site map, shall be stored for ultimate application to the metiand creation area as shown.

1. Remove first twelve (12) inches of topsoil and hydrophytic vegetation, together in managable sections

- ("Wetland Sod")

 2. Store soil and vegetation, "Wetland Sod" in a suitable, shaded area. Vegetation and soil <u>must</u> be kept
- moist at all times to insure survival.

 3. Excavate if necessary, areas to be planted with "Wetland Sod". Finished elevation will be as shown on the
- 4. Install "Wetland Sod". Complete coverage of proposed "Wetland Sod" area is required.
- 5. Water thoroughly once installation is complete and until material is established.

Shallow Marsh Plant Establishment:

plans after sod is installed.

- 1. Plant species required are normally unavailable from standard landscape nursery sources. The Contractor must make arrangements with competent wetlands restoration specialists to insure a supply of the required material.
- 2. The Contractor and/or his subcontractor should be aware of the site design conditions and should take all prudent steps to insure that the plant material specified on the plans is acclimated to wetland conditions prior to delivery to the job site. If the plant material is available from sources where wetland conditions are duplicated at the nursery, the Contractor should favor these sources as the supplier.

Planting Schedule:

It is recommended that planting be completed early in the Spring (or fall, if applicable).

Planting Material:

- Rootstock of wetland plant material <u>must</u> be kept moist during the transport from the source to the job site and <u>until planted</u>.
- 2. Plant material shall be planted in the soil mix specified, each planting pit shall be excavated to a size sufficient to contain the entire rootstock or root mass without cramping.

PLANT MATERIAL LIST

QTY BOTANICAL + COMMON NAME SIZE REMARKS IND. STAT.

19 Cephalanthus occidentalis 18-24" Container OBL
Buttonbush
16 Ilex verticillata 18-24" Container FACM+
Winterberry Holly

EMERGENT Andropogon virginicus FACM 4' 0.0. peat pots Broomseage Carex stricta OBL peat pots 4' 0.c. Tussock Sedge Panicum virgatum FAC Switchgrass SV Scirpus validus OBL peat pots 4'0.0. Soft Stem Bulrush

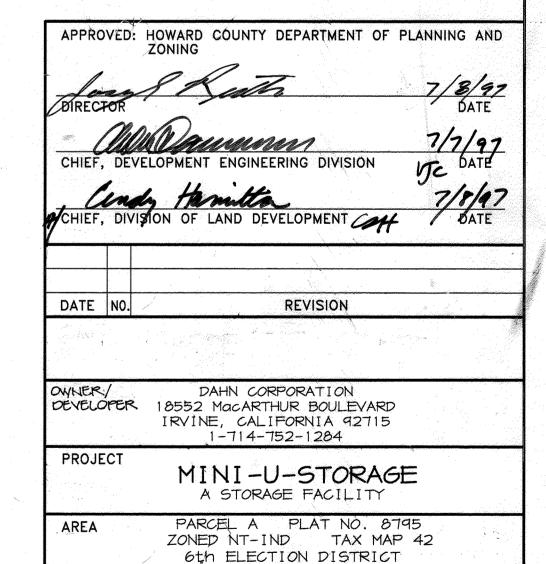
CONSTRUCT 3" SAUCER
RIM-FLOOD WITH WATER
TWICE WITHIN 24 HOURS

1/8TH OF ROOTBALL
SET ABOVE EX. GRADE

2" MULCH MAX.

SHRUB PIT TO BE
DUG 12" WIDER THAN
ROOTBALL ON ALL SIDES

SHRUB PLANTING DETAIL



WETLAND MITIGATION PLAN

HOWARD COUNTY, MARYLAND

RIEMER MUEGGE & ASSOCIATES, INC. ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING

8818 Centre Park Drive, Columbia, Maryland 21045 tel 410.997.8900 fax 410.997.9282

G·II·77
DATE

OF HOWARD COUNTY

DATE-

4.10.27

COH

DESIGNED BY: DK,RR

DRAWN BY: RR

PROJECT NO: 96089

DATE: JUNE 11, 1997

SCALE: AS SHOWN

JAYKANT D. PAREKH #19148 DRAWING NO. 11 OF 11

50P.97.79