

INLET PROTECTION

Filter cloth installed around inlets in the form of a fence or across an opening, thereby reducing sediment content of sediment laden water.

To prevent sediment laden water from entering a storm drain system through

Conditions Where Practice Applies

This practice shall be used where the drainage area to an inlet is disturbed, it is not possible to temporarily divert the storm drain outfall into a sediment trapping device and watertight blocking of inlets is not advisable. It is not to be used in place of sediment trapping devices. This practice may be used in conjunction with storm drain diversion to help prevent siltation of pipes installed with a low slope angle.

I. Materials

A. Wooden frame is to be constructed of 2" x 4" construction grade

Construction Specifications

- B. Wire mesh must be of sufficient strength to support filter fabric, and stone for curb inlets, with water fully impounded against it.
- C. Filter cloth must be of a type approved for this purpose; resistant to sunlight with sieve size, EOS, 40-85, to allow sufficient passage of water and removal of sediment.
- 4. Stone is to be 2" in size and clean, since fines would clog the

- A. A swale, ditchline or yard inlet protection.
- 1. Excavate completely around inlet to a depth of 18" below notch
- 2. Drive 2 x 4 post 1' into ground at four corners of inlet. Place nail strips between posts on ends of inlet. Assemble top portion of 2 x 4 frame using overlap joint shown. Top of frame (weir) must be 6" below edge of roadway adjacent to
- 3. Stretch wire mesh tightly around frame and fasten securely. Ends must meet at post.

- Stretch filter cloth tightly over wire mesh, the cloth must extend from top of frame to 18" below inlet notch elev. Fasten securely to frame. Ends must meet at post, be
- Backfill around inlet in compacted 6" layers until layer of earth is even with notch elevation on ends and top elevation
- 6. If the inlet is not in a low point, construct a compacted
- earth dike in the ditchline below it. The top of this dike is to be at least 6" higher than the top of frame (weir).
- 7. This structure must be inspected frequently and the filter fabric replaced when clogged.

R. Curb Inlet Protection

- 1. Attach a continuous piece of wire mesh (30" min. width by throat length plus 4') to the 2" x 4" weir (measuring throat length plus 2') as shown on the standard drawing.
- Place a piece of approved filter cloth (40-85 sieve) of the same dimensions as the wire mesh over the wire mesh and
- securely attach to the 2" x 4" weir.
- Securely nail the 2" x 4" weir to 9" long vertical spacers to be located between the weir and inlet face (max. 6' apart). Place the assembly against the inlet throat and nail (minimum

2' lengths of 2" x 4" to the top of the weir at spacer

- ocations. These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
- 5. The assembly shall be placed so that the end spacers are a minimum 1' beyond both ends of the throat opening. Total Cut Total Fill
- Form the wire mesh and filter cloth to the concrete gutter and against the face of curb on both sides of the inlet. Place lean 2" stone over the wire mesh and filter fabric in such a manner as to prevent water from entering the inlet under or
- 7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- Assure that storm flow does not bypass inlet by installing

SEDIMENT CONTROL NOTES

- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (992-2437)
- 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 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 3) Following initial soil disturbances or redisturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to all other disturbed or graded areas on the project site.
- 4) All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12,
- of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage. 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52) Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper

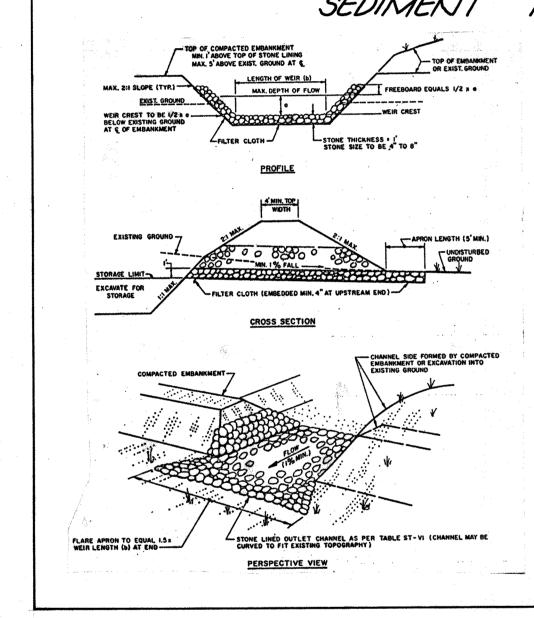
germination and establishment of grasses.

7) Site Analysis

Total Area of Site

Area Disturbed

- 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.
 - 8.76 Acres 6.53 Acres 2.23 Acres
 - Area to be roofed or paved Area to be vegetatively stabilized 16,000 Cu. yds. 10,000 Cu. yds. Offsite waste/borrow area location
- 8) Any sediment control practice which is disturbed by grading activity for placement of utilites must be repaired on the same day of
- 9) Additional sediment controls must be provided, if deemed necessary by the Howard County DPW 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.



SEDIMENT TRAP TYPE ST - VI

CONSTRUCTION SPECIFICATIONS FOR ST-VI

- 1. The area under embankment shall be cleared, grubbed and stripped of any
- 2. The fill material for the embankment shall be free of roots or other woody vegetation as well as over-sized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of embankment shall be five (5) feet, measured at centerline of embankment.
- 3. All fill slopes shall be 2:1 or flatter; cut slopes 1:1 or flatter.
- 4. Elevation of the top of any dike directing water into trap must equal or
- 5. Storage area provided shall be figured by computing the volume available behind the outlet channel up to an elevation of one (1) foot below the 6. Filter cloth shall be placed over the bottom and sides of the outlet
- Fabric shall be embedded at least six (6) inches into existing ground at 7. Stone used in the outlet channel shall be four (4) to eight(8) inches (riprap). To provide a filtering effect, a layer of filter cloth shall be embedded one (I) foot back into the upstream face of the outlet stone or a

one (1) foot thick layer of two (2) inch or finer aggregate shall be

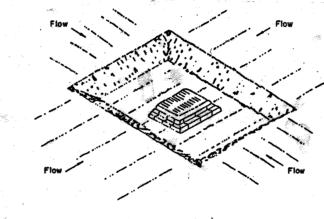
channel prior to placement of stone. Sections of fabric must overlap at

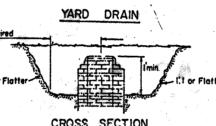
one (1) foot with section nearest the entrance placed on top-

- B. Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap.

12. Drainage area for this practice is limited to 15 acres or less.

SEDIMENT TRAP TYPE ST III





- Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap. Removed sediment shall be deposited in a suitable area and in such a manner that it will not erode.
- The volume of sediment storage shall be 1800 cubic feet per acre of
- Construction operations shall be carried out in such a manner that
- . All cut slopes shall be 1:1 or flatter.

DESIGNED: R.M.B.

DIVISION OF LAND DEVELOPMENT ZONING ADMINISTRATION HOWARD COUNTY, MARYLAND DATE 1-21-88

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND CERTIFICATION BY THE DEVELOPER:

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

CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR OTHER AUTHORIZED AGENTS AS ARE DEEMED NECESSARY

ARTHUR B. DEAN FOR: ROWE DEVELOPMENT COMPANY

KCW CONSULTANTS; INC.

CONSERVATION DISTRICT.

CERTIFICATION BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL

12.21.87

DEVELOPER

ROWE DEVELOPMENT COMPANY 4121 COX ROAD SUITE 110 GLEN ALEN, VIRGINIA 23060 (804) 747-7693

OWNER

PRESTON LAKES LIMITED PARTNERSHIP 4121 COX ROAD SLITE 110 GLEN ALLEN, VIRGINIA 23060 TEL. (804) 747-7693

PROFILES AND DETAILS

"BALTIMORE WASHINGTON INDUSTRIAL PARK" SECTION II PARCEL 'A'

SHEET Nº 4 OF 10

S.D.P.

88 - 125

SDP-88-125

SCALE: 1'= 40'

GTH ELECTION DISTRICT

TAX MAP Nº 48

OCTOBER 30, 1987

HOWARD COUNTY, MARTLAND

4/22/38 LANNING AND LAND DEVELOPEMENT DATE

SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

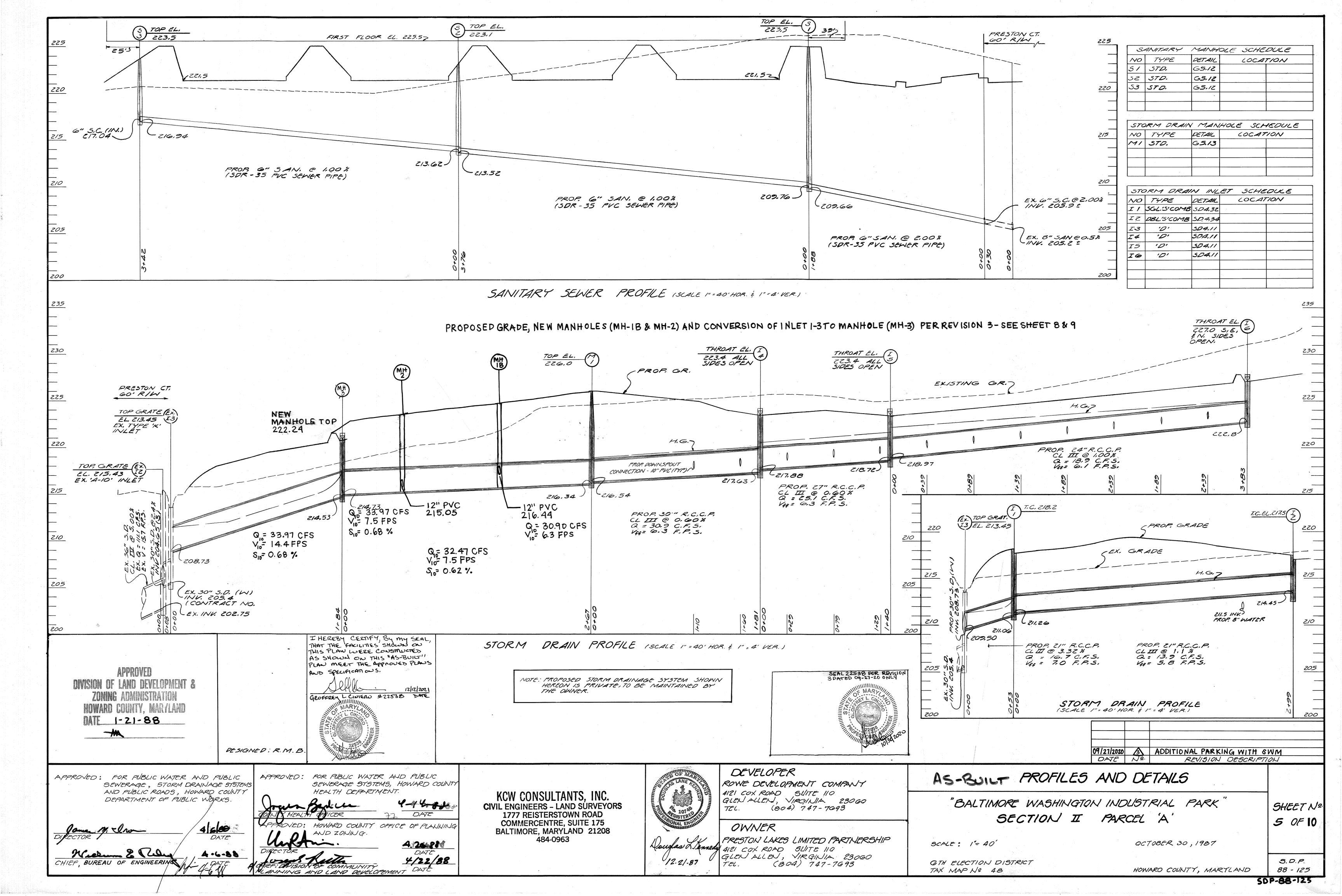
APPROVED: FOR PUBLIC WATER AND PUBLIC

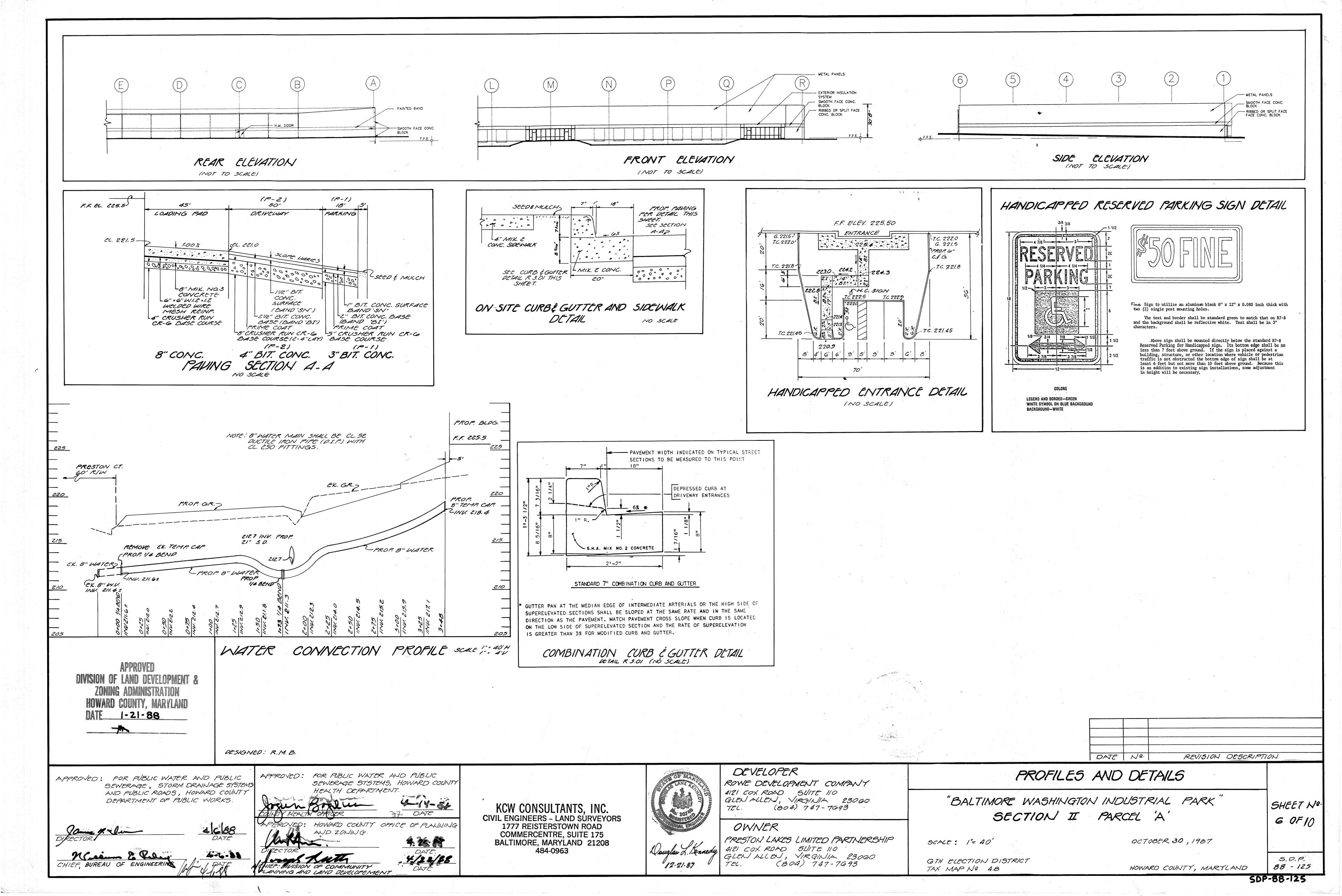
4/5/88 DATE 4.6.88

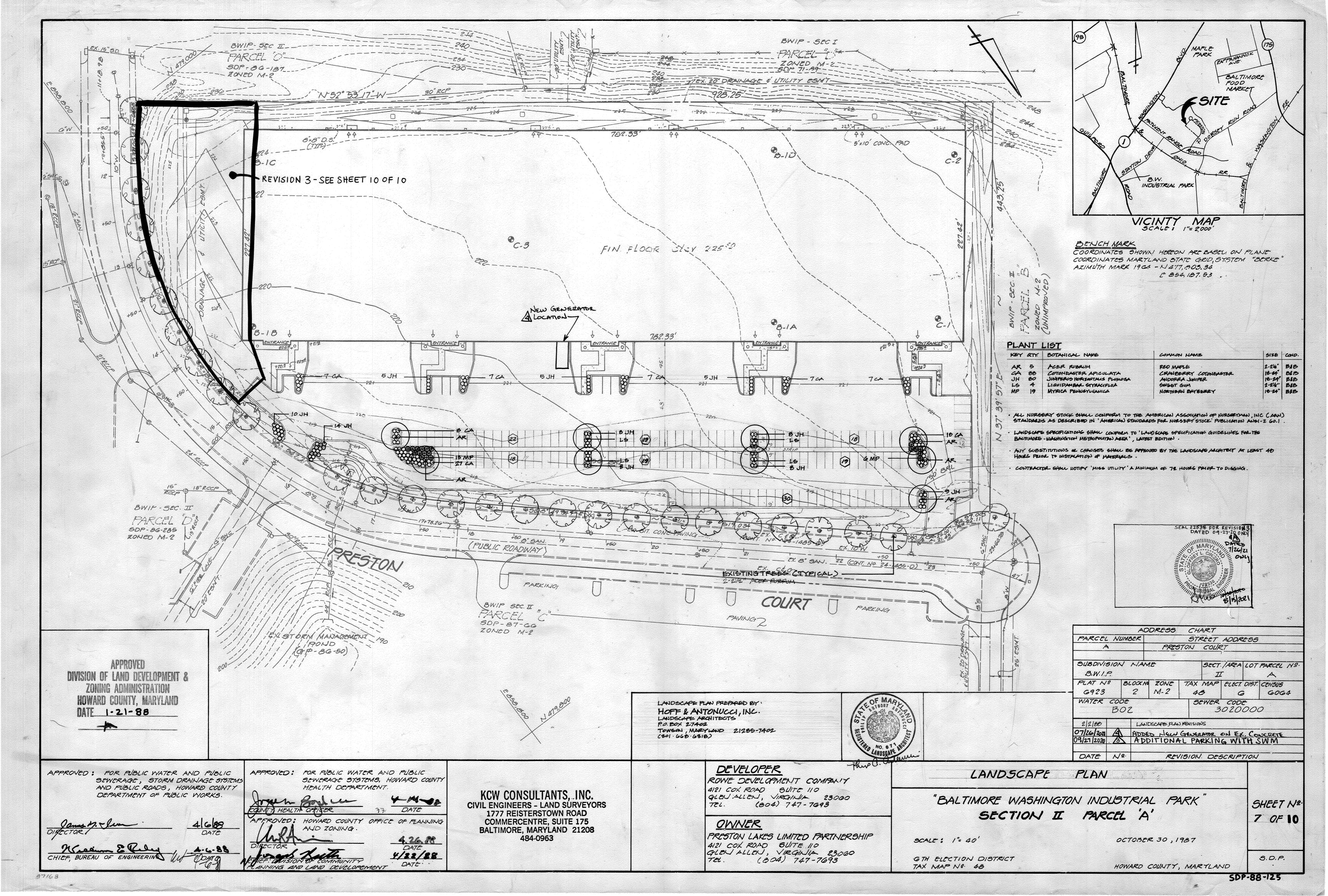
HOWARD COUNTY OFFICE OF PLANNING 4.26 88 DATE

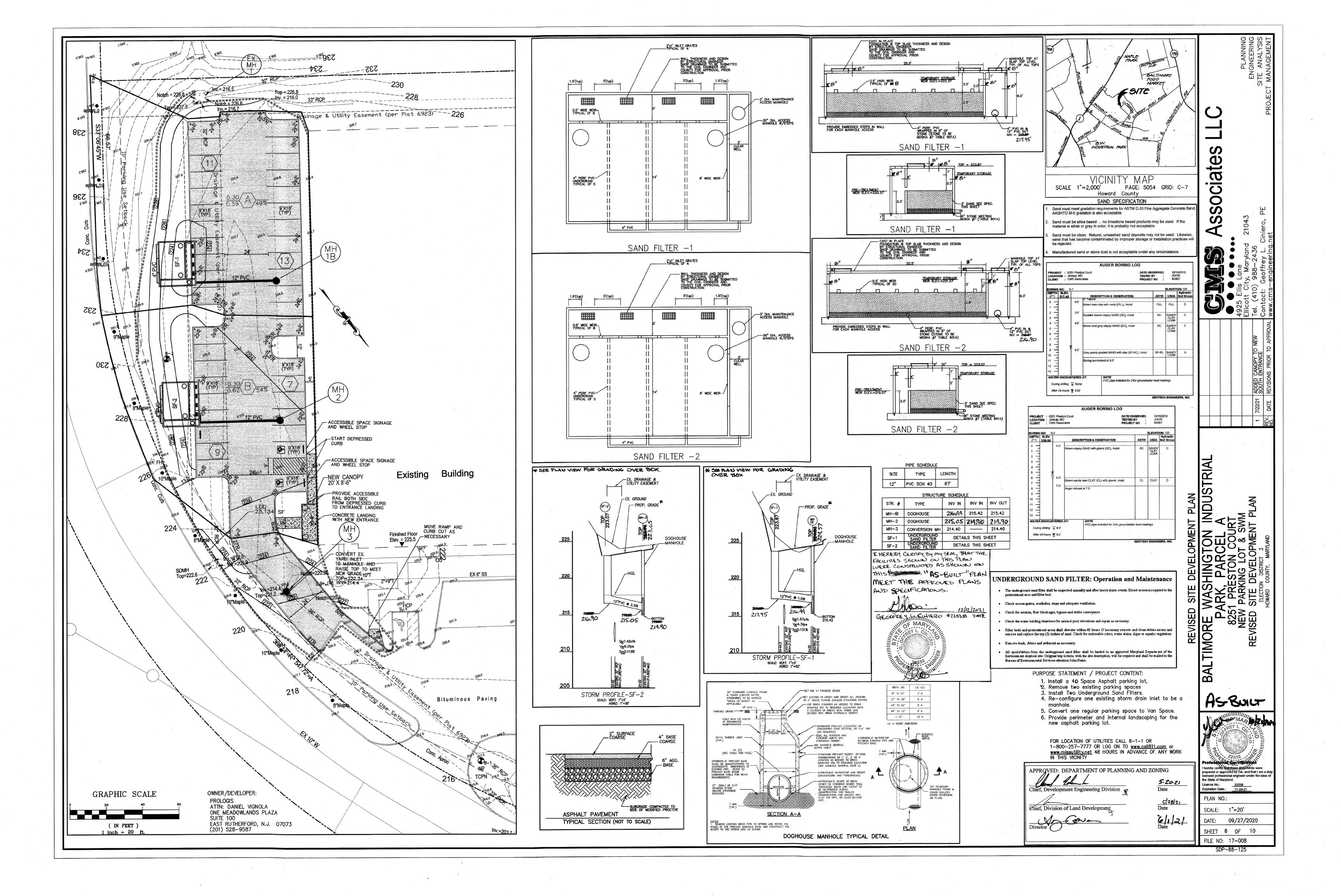
FOR PUBLIC WATER AND PUBLIC SEWERAGE STSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

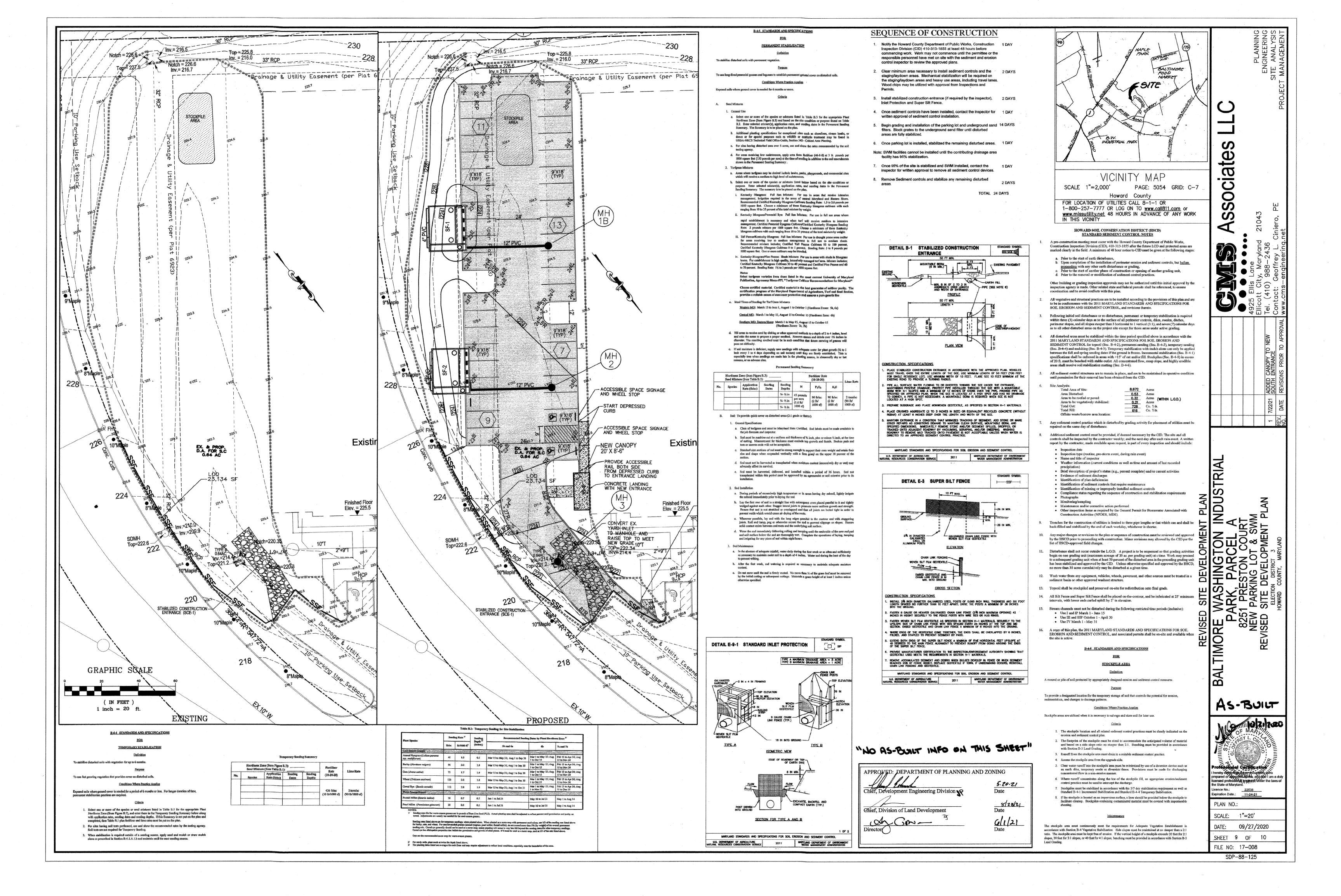
KCW CONSULTANTS, INC. CIVIL ENGINEERS - LAND SURVEYORS 1777 REISTERSTOWN ROAD **COMMERCENTRE, SUITE 175** BALTIMORE, MARYLAND 21208 484-0963

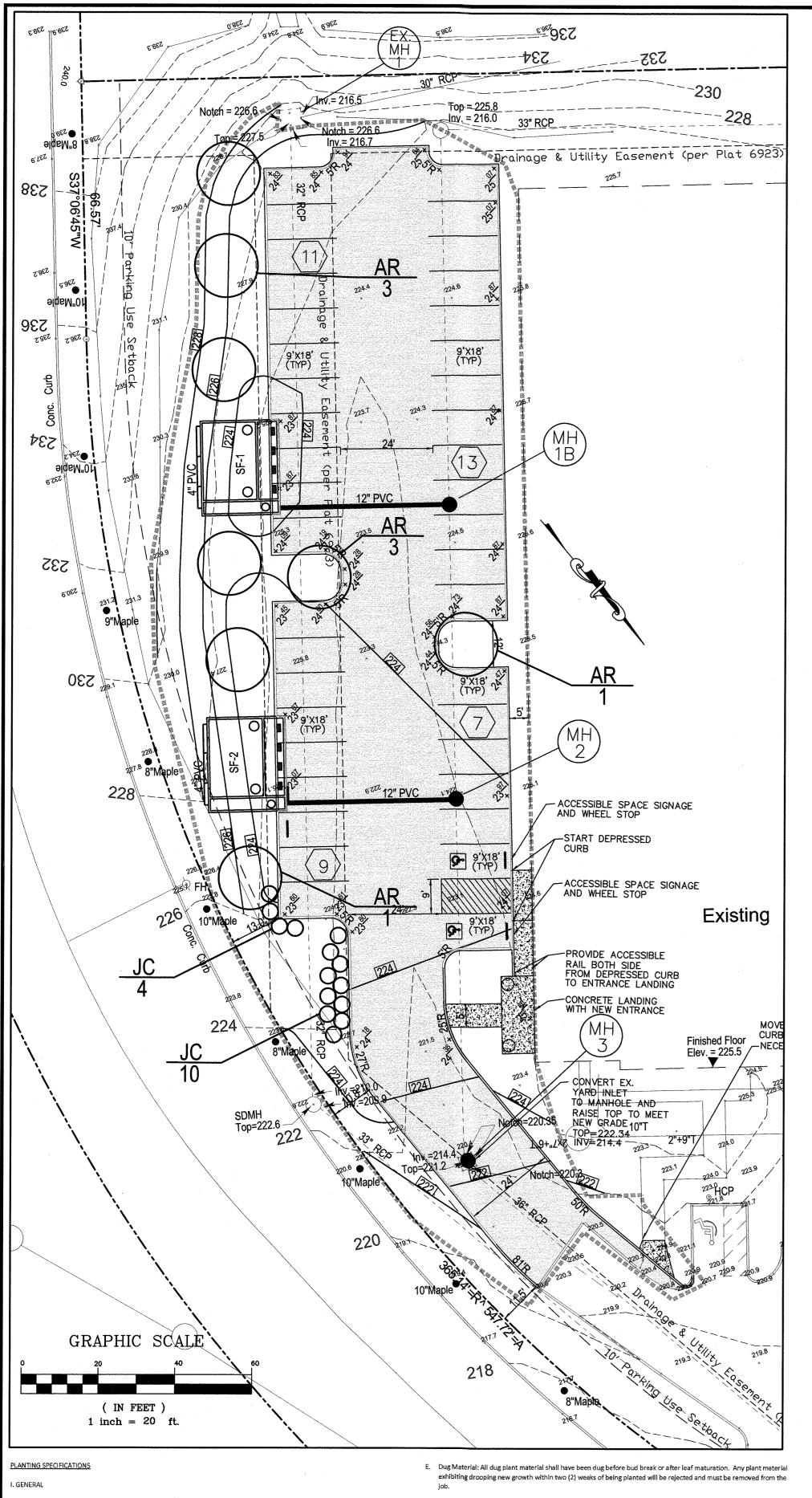












Balled and burlapped plants shall be dug with firm natural balls of earth.

Anti-desiccants shall be applied on all material dug while in foliage.

A. Scope: The Landscape Contractor shall provide all labor, materials, and equipment necessary to complete the work

before delivering or installing any plant material.

15', the Landscape Architect is to be consulted.

health or appearance, will be rejected.

shown on the drawings and described in the specifications. The Landscape Contractor shall verify all quantities of plant

material shown on the plan and in the plant list. In the event of a discrepancy between the quantities shown on the

plan and in the plant list, the plan shall govern. Immediately inform the Landscape Architect of any such discrepancy

and shall ask the General Contractor to locate lighting and other on-site utilities in the field before proceeding with the

C. Substitutions: Any change in the type, size and quatity of plant material must be approved by the Landscape Architect

D. Quality Standards: All plant material must be nursery grown and meet all of the qualitative criteria established by the

Furthermore, all plant material must exhibit a full, symmetrical habit of growth that is characteristic of quality grown

nursery stock. Any plant material exhibiting a spindly or lop-sided habit or any other feature that detracts from its

current issue of the American Standard for Nursery Stock specifications published by the American Nursery &

installation of any planting. If conditions arise in the field which necessitate the shifting of a plant location more than

B. Utilities: The Landscape Contractor shall notify Miss Utility (1-800-257-7777) to verify the location of all main utilities

- F. Poor Drainage: No plants shall be planted in situations that show obvious poor drainage. Such situations shall immediately be brought to the attention of the Landscape Architect and Owner, and if they deem necessary, the plants shall be relocated or the contract shall be adjusted to allow for drainage correction at a negotiated cost.
- G. Site Preparation: It shall be the General Contractor's responsibility to present "clean" soil conditions to the Landscape Contractor prior to any landscape installation. "Clean" soil may include on-site soil but must be free of payement materials, muck, root systems, petroleum or other chemical substances, blue stone, construction debris and other materials larger than 4" in diameter. The "clean" soil shall extend to the following minimum depths: 18" where trees are proposed, 12" where shrubs are proposed and 4" where lawn is proposed. If the Landscape Contractor encounters any areas to be deficient regarding these "clean" soil specifications, he shall report this condition to the Landscape Architect and Owner prior to planting in those areas.
- H. Workmanship: During planting, all areas shall be kept neat and clean, and all reasonable precautions shall be taken to avoid damage to existing plants, turf and structures. Upon completion, all debris and waste material resulting from planting operations shall be removed from the project and the area cleaned up. Any damaged areas shall be restored to their original condition.

PROPOSED SHADE TREE (SYMBOL)

PROPOSED SHRUB (SYMBOL)

LANDSCAPING PLANT LIST - SCHEDULE A KEY QTY BOTANICAL COMMON NAME | CATEGORY | SIZE AR 8 ACER RUBRUM 'Armstrong' RED MAPLE TREE 2" - 21/2" CA JC 14 JUNIPERUS CHINENSIS 'Sea Green' JUNIPER SHRUB 3 GAL

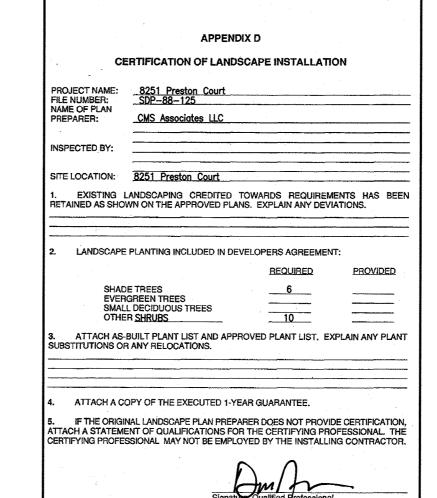
GENERAL NOTE - THIS LANDSCAPE PLAN FOR THE PARKING ADDITION HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$2,700.00 FOR THE 12 REQUIRED SHADE TREES AND 10 SHRUBS SHALL BE PAID WITH THE DPW DEVELOPER AGREEMENT.

> <u>Developer's/ Owner's Certificate</u>
>
> 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 certification of landscape installation, accompanie

Campory 19-11-11		Adlacentac
Landscape Type	E	Permeter Properties N/A
Linear Feet of Roadway Frontage/Perimeter	224	N/A
Credit for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	N/A	N/A
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	*184	N/A
Number of Piants Required Shade Trees Evergreen Trees Shrubs	6 0 10	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)	6 0 14	N/A

Comments *184 Feet of the road frontage is 3 feet or greater below the roadway so per "Option Treatment" page 24 of the Landscape Manual - Shrubs not required.

SCHEDULE E PARKING LOT INTERNAL L		
Number of Parking Spaces	40	
Number of Trees Required	2	
Number of Trees Provided Shade Trees Other Trees (2:1 substitution)	2 Shade Trees	



Total (Gross) Tract Area Area within 100-year Floodplair

Existing Forest Cover
G. Existing Forest Cover within the Net Tract Area
H. Area of Forest above Afforestation Threshold
f. Area of Forest above Reforestation Threshold

K. Forest Clearing Permitted without Mitigation

Proposed Forest Clearing
L Total Area of Forest to be Cleared
M. Total Area of Forest to be Retained

Planting Requirements Inside Watershed

Date: 06/3/2020

Reforestation for Clearing above the Reforestation Threshold

Reforestation for Clearing below the Reforestation Thresho

Retorestation for Clearing below the Retorestation Threshold
Credit for Retention above the Reforestation Threshold
Total Reforestation Required
Total Afforestation Required
Total Reforestation Afforestation Required
Total Reforestation and Afforestation Requirement
75% of Total Obligation (Retention + Planting)
Parting Required Onsite to meet 75% Obligation

Planting Requirements Outside Watershed
W. Total Planting within Development Site Watershed
X. Total Afforestation Required
Y. Remaining Planting within Watershed for Reforestation Credit
Z. Reforestation for Clearing above the Reforestation Threshold
AA Reforestation for Clearing below the Reforestation Threshold

Credit for Retention above the Reforestation Threshold CC. Total Reforestation Required
DD. Total Afforestation and Reforestation Requirement

Net Tract Area

Other Deductions (Identify: Impervious area (Parking Lot, Sidewalk, Bldg)

 Resid.
 Resid.
 Resid.
 Inst./
 Retail/Ind./
 Mixed Use/

 Rural LD
 Rural MD
 Suburban
 Linear
 Office
 PUD

 0
 0
 0
 1
 0

15%) E = <u>0.30</u> 15%) F = <u>0.30</u>

J = 0.00 K = 0.00

Land Use Category
Insert the number "1" under the appropriate land use (limit to only one entry)

BALTIMORE INDUSTRIAL PARK VICINITY MAP

SCALE 1"=2,000' PAGE: 5054 GRID: C-7 Howard County

FOR LOCATION OF UTILITIES CALL 8-1-1 OR 1-800-257-7777 OR LOG ON TO www.call811.com or www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY

1. THE AREA ON THE EAST SIDE OF THE EXISTING WAREHOUSE WHERE THE NEW PARKING LOT IS PROPOSED IS CURRENTLY A GRASS AREA SLOPING FROM SOUTH TO NORTH AT AN AVERAGE SLOPE OF 2% FROM THE EMBANKMENT OF A STORMWATER FACILITY TO THE SOUTH TO A YARD INLET TO THE NORTH. ADDITIONALLY, THIS OPEN AREA SLOPES UP TO THE PRESTON COURT ROADWAY AT A RATE OF 20%. THIS OPEN AREA DOES CONTAIN A DRAINAGE SWALE, BUT DOES NOT CONTAIN ANY STREAMS, WETLANDS, WETLAND BUFFERS, STEEP SLOPES, OR FLOODPLAINS.

3. THERE ARE NO FOREST RESOURCES ON THE SITE. 4. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE COUNTY CODE FOR FOREST CONSERVATION ACT. THIS PARKING LOT ADDITION GENERATED A TOTAL AFFORESTATION REQUIREMENT OF 0.30 ACRES OF PLANTING THIS REQUIREMENT HAS BEEN MET THROUGH THE PURCHASE OF 0.30 ACRES OF CREDIT FROM THE REGAN PROPERTY FOREST MITIGATION BANK SDP-16-015.

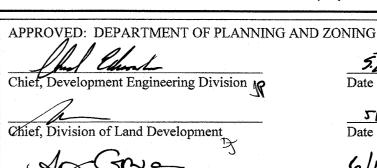
5. THIS NEW PARKING LOT WILL BE LIGHTED WITH WALL PACKS LOCATED ON THE SIDE OF THE EXISTING BUILDING. A LIGHTING PROFESSIONAL WILL BE ENGAGED TO DETERMINE THE PROPER LIGHTING TO BE INSTALLED TO ABIDE BY SECTION 134.0.C & D OF THE COUNTY CODE.

** ADDITIONAL PLAN NOTES

2. AN ADDITIONAL PARKING LOT THAT INCLUDES 46 PARKING SPACES WAS ADDED TO THE SITE WITHIN A L.O.D. AREA OF 0.53 ACRES.

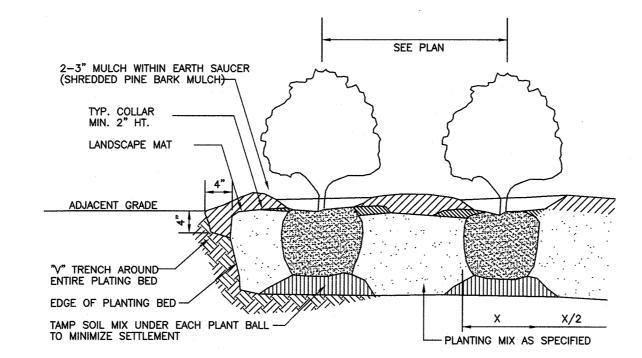
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11 NO AS-BUILT INFO ON THIS SHEE



SCALE: 1"=20' DATE: 09/27/2020 SHEET 10 OF 10 FILE NO: 17-008

-2 STRANDS 16 GA. DK. AN. WIRE REMOVE TOP 1/3 OF -RUBBER HOSE, 2 PLY BURLAP FROM B&B TREES -- 2"X2" OAK WOODSTAKES 2-3" LAYER OF MULCH FIN. GRADE -4" SAUCER BERM AS PER A.A.N. STDS. -LANDSCAPE MAT - PLANTING MIX -TAMP SOIL MIX UNDER BALL TO MINIMIZE SETTLEMENT TREE PLANTING DETAIL



OMIT COLLAR AROUND EACH SHRUB WHEN IRRIGATION SYSTEM IS PRESENT.

2. SHRUB SHALL BEAR SAME RELATION TO FINISH GRADE AS EXISTED AT NURSERY

NOTE - FOR DECIDUOUS SHRUBS USE A MIXTURE OF FOUR PARTS TOPSOIL AND ONE PART MUSHROOM SOIL, COW MANURE,

FOR EVERGREEN SHRUBS USE A MIXTURE OF FOUR PARTS

SHRUB PLANTING DETAIL

. Water: If available on-site, the Owner shall supply water at no cost. It will be the Landscape Contractor's responsibility to supply water if there is none on the site.

J. Guarantee: All plant material shall be guaranteed for a period of one (1)year. It is the Landscape Contractor's responsibility to assure that all plant material be maintained in a healthy condition during this period. The Landscape Contractor shall replace within 30 days of notice any and all plant material that declines to less than 75% of its original planted condition due to cultural reasons. The Landscape Contractor shall not be responsible for

The Landscape Contractor shall not be held responsible for any plant losses due to mechanical injury, theft or vandalism after the job is accepted by the owner.

replacing plants for cultural reasons after the first instance of decline. If decline for cultural reasons occurs a second

time, the Landscape Architect shall be notified and an alternative planting remedy will be negotiated at an extra cost to

A. Planting Beds: With the exception of those trees shown on the plan as individuals, all plants are to be planted into prepared planting beds which are designated on the plan with dashed outlines. The outline of each bed shall be spade dug to be a smooth, continuous sharp-cut edge. The entire area within the outline of the bed shall be thoroughly loosened to a depth of 6-8" by picking or other means and all materials unsuitable for plant growth and all rocks and debris greater than 4" diameter are to be removed. Topsoil (that meets the qualitative description of the Maryland State Highway Administration's Materials Specification 920,02 Natural Topsoil) shall be applied over the loosened subsoil to a minimum depth of 6", creating a slightly raised planting bed in relation to the surrounding area.

Preparing tree pit: The walls of the tree pit shall be dug so that they are vertical and scarified. The diameter of the pit shall be a total of 24" wider than the ball diameter. Care should be taken not to excavate the tree pit below a depth that allows 2" of the ball to be above finished grade. If the pit is dug too deep, then the bottom of the pit must be firmly tamped (to prevent settlement).

2. Placing Tree in Pit: Place the tree in the pit either by lifting and carrying the tree by its ball (never lift by branches or trunk) and then lowering it into the pit. Set the tree straight and in the center of the pit with the most desirable side of the tree facing toward the prominent view (sidewalk, building, street, etc.).

3. Backfilling Tree Pit: Backfill the tree pit with a mixture of 2/3 original excavated material amended with 1/3 topsoil (as specified in II.A. above)(This step will have been partially completed if the tree is planted into a prepared bed as described above.)

Backfill sides of tree pit halfway with soil mixture and tamp before adding more backfill. Cut rope or wire on ball of tree and pull burlap back to the edge of the tree ball. Remove all plastic wraps and twine.

Form a saucer above existing grade and around the outer rim of the tree pit. Mulch top of root ball and saucer within 48 hours to a depth of 2" to 3".

Finish backfilling sides of tree pit and tamp firmly. Never cover top of root ball with soil.

Water thoroughly on the interior of the tree saucer until it is filled, even if it is raining. A second watering may be necessary to insure saturation of the root ball. Prune out any dead or broken branches.

4. Tree bracing: All trees less than 2" cal. are to be braced with two (2) 6' hardwood stakes 180 degrees apart. All trees 2" cal. or larger are to be braced with three (3) guy wires and ground stakes spaced evenly apart (120 degrees) in a circle (see details on plan for additional information). Staking and guying shall be completed within 48 hours of planting the tree.

C. Shrub Planting:

1. Preparing Shrub Pit: The walls of the shrub pit shall be dug so that they are vertical and scarified. The diameter of the pit shall be a total elevation that allows 2" of the ba tamped (to prevent settlement).

2. Placing Shrub in Pit: Container gro ball examined for the presence o and loosened from the earth ball i shrub in the pit either by lifting or it into the pit.

Set the shrub straight and in the c prominent view (sidewalk, building, street, etc.).

al of 12" wider than the ball diameter. The depth of the pit shall be at an all to be above finished grade, after the bottom of the pit has been firmly	That Educat
	Chief, Development Engineering Division
rown material shall have the container removed and the outside of the root of encircling roots. If present, these roots should be severed with a sharp knife by means of pulling them out slightly by hand prior to planting.	The same of the sa
r carrying the shrub by its root ball (never lift by branches) and then lowering	Chief, Division of Land Development
center of the pit with the most desirable side of the shrub facing toward the	1 Low Conva
ng street at the bit with the most desirable side of the silidb facilig toward the	Director

SDP-88-125