TO THE START OF WORK.

AVAILABLE INFORMATION.

SHOWN ON THESE DRAWINGS.

OF FINISHED GRADE

DIMENSIONS

13. NO WETLANDS ARE ON-SITE.

TO ANY EXCAVATION WORK BEING DONE.

GENERAL NOTES

OF HOWARD COUNTY PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.

REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT,

NTERVALS PREPARED BY RIEMER MUEGGE & ASSOCIATES, INC. DATED FEBRUARY 1999

THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL

WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY

SEMER IS PUBLIC. SEMER DRAINAGE AREA: PATUXENT CONTRACT NO. 2822 D W45

12. THE 100 - YEAR FLOODPLAIN IS BASED ON HO.CO. STUDY FOR LITTLE PATUXENT RIVER.

SUBJECT PROPERTY ZONED (NT) PER 10-18-93 COMPREHENSIVE ZONING PLAN.

SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.

EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.

VOLUME 1 OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE NOTED.

ALL PIPE ELEVATIONS SHOWN ARE INVERT OF ELEVATIONS.

MINIMUM OF 95% COMPACTION OF AASHTO T180.

SUPPORTS FOR THE BRD. THROUGH 6TH. FLOORS.

AND NO SURETY IS REQUIRED.

ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.

MONUMENT NOS, 306A AND 3064 WERE USED FOR THIS PROJECT

WATER IS PUBLIC. CONTRACT NO. 2822 D W45

14. NO GEOTECHNICAL STUDY IS REQUIRED FOR THIS PROJECT.

THE BOUNDARY FOR THIS PROJECT IS BASED ON PLAT #4111

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS

THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR

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

THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH MAXIMUM TWO FOOT CONTOUR

APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL

IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST

NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED

ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND 6.5. MEAN SEA LEVEL DATUM, 1983.

CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES,

PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT

NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6"

ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS

COMPACTED IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION, LATEST AMENDMENTS.

ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11.4,

STORM DRAIN TRENCHES WITHIN ROAD RIGHT OF WAY SHALL BE BACKFILLED AND

ALL FILL AREAS WITHIN ROADWAY AND UNDER STRUCTURES TO BE COMPACTED TO A

PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN

THERE ARE NO HOWARD COUNTY LANDSCAPE OBLIGATIONS FOR THIS SITE

THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK

SERVICE, ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED

STORMWATER MANAGEMENT QUALITY IS PROVIDED VIA BAYSAVER MANHOLES. THERE IS NO QUANTITY INCREASE.

18. SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S. F-78-190,F-79-87,FDP-62-A,SDP-79-55C,SDP-79-44,FDP-62-A-1.

WP-00-84, A REQUEST TO WAIVE SECTION 16:115(c)(2) WAS APPROVED ON MAY 4, 2000 SUBJECT TO CONDITIONS.
THE APPROVAL ALLOWS CONSTRUCTION WITHIN THE 100 YEAR FLOODPLAIN FOR THE PURPOSES OF BUILDING

PARKING NOTES & GARAGE SEQUENCE

CONSTRUCTION OF THE UPPER LEVEL PARKING WILL INVOLVE ERECTION OF PRECAST PANELS WHICH WILL TAKE APPROXIMATELY 6 WEEKS. DURING THIS PHASE OF CONSTRUCTION THE EXISTING UPPER

LEVEL WILL BE CLOSED TO VEHICULAR AND PEDESTRIAN TRAFFIC. APPROXIMATELY 130 PARKING

SPACES WILL BE IMPACTED DURING THIS 6 WEEKS PERIOD. HOWEVER, THE B-5 SITE IS ENTITLED

TO 129 SPACES IN THE GARAGE SO THE OVERALL 'LOSS' OF PARKING IS NEGLIGIBLE. ONCE THE ERECTION OF THE NEW UPPER LEVEL IS COMPLETE, THE EXISTING UPPER LEVEL CAN BE REOPENED TO PARKING DURING COMPLETION OF THE STAIRWAY AND ELEVATOR TOWER AT THE SOUTHWEST CORNER.

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

SITE DEVELOPMENT PLAN COLUMBIA TOWN CENTER LOTS B-5 & PARCEL F-1 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

BENCHMARKS

HO. CO. SURVEY CONTROL STATION: 30GA N 566,053.5623 E 1,352,177.5755 ELEV.: 340.68°

HO. CO. SURVEY CONTROL STATION: 3064 N 567,815.2121 E 1,353,271.2488 ELEV.: 361.06'



VICINITY MAP

SCALE: 1"=2000' COPYRIGHT: ADC 'THE MAP PEOPLE PERMITTED USE No. 20894285

SITE TABULATION

LOT B-5 0.558 AC. (24,306 SF) 1.371 Ac. ±(59,720 SF±) PARCEL F-1 TOTAL AREA 1.929 AC.±(24,306 SF±) CURRENT ZONING NT EMPLOYMENT CENTER COMMERCIAL PROPOSED USE LOT B-5 6 STORY OFFICE BUILDING (NO RESTAURANTS ALLOWED)

PROPOSED USE PARCEL F-1 ADDITIONAL GARAGE PARKING AT EXISTING PARKING GARAGE

BUILDING COVERAGE

11,767 SQ. FT. 1ST FLOOR 11,681 SQ. FT. 2ND FLOOR 3RD FLOOR 13,176 SQ. FT. 4TH FLOOR 13,176 SQ. FT. 5TH FLOOR 13,176 SQ. FT.

6TH FLOOR . 13,176 SQ. FT. 76,152 SQ. FT. TOTAL

PROPOSED PARKING**

REQUIRED PARKING*

243 SPACES = 4.05 SPACES/1000 SF

* PER FDP-62-A-1

** 129 SPACES FROM ORIGINAL GARAGE (SDP-79-44) WERE EARMARKED FOR THIS LOT, ALSO AN ADDITIONAL DECK ON PARKING GARAGE IS TO BE ADDED FOR AN ADDITIONAL 114 SPACES.

ZONING.

TOTAL PARKING SPACES TO BE PROVIDED TOTAL HANDICAP PARKING TO BE PROVIDED

DATE NO.

TITLE

477 SPACES 9 SPACES

HOWARD COUNTY DEPARTMENT OF PLANNING AND

REVISION

DATE

2 SPACES/1000 SF = 153 SPACES

APPROVED PLANNING BOARD of HOWARD COUNTY DATE 17 May 2000

COMMUNITARY TO THE PARTY OF THE

PARAGRAPH 6 - NO STRUCTURE SHALL BE LOCATED WITHIN 30 FEET OF THE RIGHT OF WAY OF ANY PUBLIC STREET, ROAD OR HIGHWAY: EXCEPT HOMEVER, THAT STRUCTURES MAY BE LOCATED WITHIN SUCH SETBACK AREA IF SUCH CONSTRUCTION IS IN ACCORDANCE WITH A SITE DEVELOPMENT

BUT NOT LIMITED TO, ALL THE FOLLOWING:

PLAN APPROVED BY THE HOWARD COUNTY PLANNING BOARD. PARAGRAPH 7 - ALL USES PERMITTED IN COMMERCIAL DISTRICTS OR COMMERCIAL LAND USE ZONES ARE PERMITTED INCLUDING

> a. USES PERMITTED IN B-1 DISTRICTS b. USES PERMITTED IN B-2 DISTRICTS c. USES PERMITTED IN S-C DISTRICTS

PARAGRAPH 7B - ALLOW SUBDIVISION OF COMMERCIAL LAND USE WITHOUT IMMEDIATE ACCESS TO PUBLIC ROAD.

PARAGRAPH 6 - NO HEIGHT LIMITATION FOR STRUCTURES EXCEPT PARKING DECKS PARAGRAPH 96 - PROVIDE TWO (2) PARKING SPACES PER 1,000 SQ. FT. OF NET LEASABLE AREA.

PARAGRAPH 9F - PERPENDICULAR PARKING IN 10' x 60' CLEAR SPAN MODULES. PARAGRAPH 9F - HEIGHT OF PARKING DECK WILL NOT EXCEED 40'. PARAGRAPH 12 - COMMERCIAL USE LAND AREAS

NO COVERAGE REQUIREMENT IS IMPOSED UPON LAND WITHIN FDP-PHASE-62-A-1 DEVOTED TO COMMERCIAL LAND USE, EXCEPT IN ACCORDANCE WITH A SITE DEVELOPMENT PLAN APPROVED BY THE HOWARD COUNTY PLANNING BOARD.

ADDRESS CHART LOT NUMBER STREET ADDRESS B-5 & F-1 10211 WINCOPIN CIRCLE SUBDIVISION NAME: SECT./AREA: PARCEL: COLUMBIA TOWN CENTER 7/1 4111,4293 2nd VATER CODE

N 564600 N 564600 HOTEL COLUMBIA CO. L.1007, F.320 PROPOSED NEW LEVEL OF PARKING GARAGE THE HOWARD RESEARCH & DEVELOPMENT CORPORATION L.3245, F.2514 FDP-62-A-1 SDP-79-44 LAKE KITTAMAGUNDI TIAA REALTY, L.4584, F.6 PLAT 4293 LOT E-1 L.26, F.23 N 564300

PLAN SCALE : 1"=50"

ENTRY @ 328.2' TERRACE @ 316.2

BUILDING HEIGHT = 80.32' + 92.32' = 86.32'

BUILDING ELEVATION

PARKING GARAGE ELEVATION

PROPOSED LEVEL EXISTING LEVEL EXISTING LEVEL EXISTING LEVEL SUMMARY OF RELEVANT CRITERIA FROM FDP PHASE 62-A-1

SUITE 301 QUARRY PARK PLACE

9175 GUILFORD ROAD COLUMBIA, MARYLAND 21046 (410) 730-7733 **PROJECT** COLUMBIA TOWN CENTER

CHIEF, DEVELOPMENT ENGINEERING DIVISION MK

, DIVISION OF LAND DEVELOPMENT

DEVELOPER/OWNER: KINCAIDE, LLC

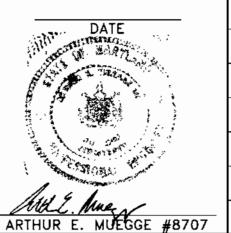
LOTS B-5 & PARCEL F. OFFICE BUILDING & PARKING GARAGE EXPANSION

c/o RICHARD TALKIN

TAX MAP 36 LOT B-5 ZONED NT-EMP-COMM 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE SHEET





DESIGNED BY: C.J.R. DRAWN BY : K.C.B. CHECKED BY : C.J.R. PROJECT NO : 98384 SDP1.DWG DATE : JUNE 27, 2000 SCALE : AS SHOWN DRAWING NO. 1 OF 7

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

THE TOTAL TO

COLUMBIA TOWN CENTER

LOTS B-5 & PARCEL F-1

OFFICE BUILDING & PARKING GARAGE EXPANSION

AREA TAX MAP 36 LOT B-5 ZONED NT-EMP-COMM

2nd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND

EXISTING CONDITIONS / DEMOLITION PLAN

RIEMER MUEGGE & ASSOCIATES INC.



DATE

DRAW

CHEC

PROJ

DATE

DESIGNED BY : C.J.R.

DRAWN BY : K.C.B.

CHECKED BY : C.J.R.

PROJECT NO : 98384
SDP2.DWG

DATE : JUNE 27, 2000 SCALE : 1" = 20"

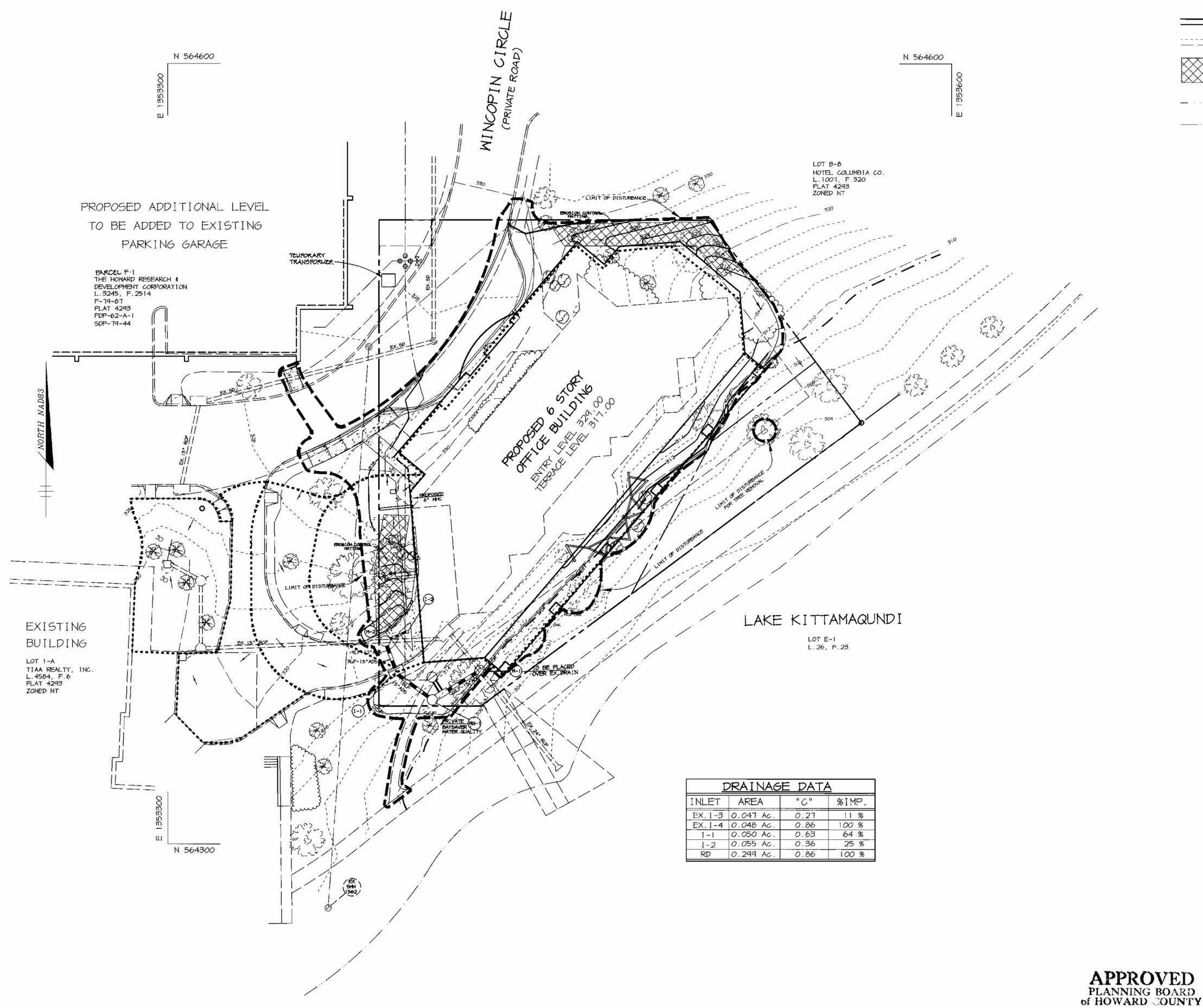
SDP-00-65

DRAWING NO. 2 OF 7

SEQUENCE OF CONSTRUCTION

- 1. OBTAIN GRADING PERMIT DEMOLITION PERMIT.
- 2. INSTALL TREE PROTECTION FENCE AND SUPER SILT FENCE. (! DAY)
- 3. PERFORM DEMOLITION OF BUILDING AND EXISTING FEATURES. (I MONTH)
- 4. BEGIN BUILDING CONSTRUCTION FOR PARKING DECK AND OFFICE BUILDING. PERFORM ROUGH GRADING AND INSTALL EROSION CONTROL MATTING IN SWALES. (6 MONTHS)
- 5. INSTALL STORM DRAIN AND UTILITIES. (I WEEK)
- 6. COMPLETE CONSTRUCTION OF BUILDING INCLUDING SIDEWALKS AND LANDSCAPING (GMONTHS)
- 7. APPLY TOPSOIL AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH





LEGEND

LIMIT OF DISTURBANCE

SUPER SILT FENCE

DRAINAGE AREA DIVIDE

PROPOSED GRADE

EXISTING GRADE

EROSION CONTROL MATTING

FLOODPLAIN LIMITS

WATER ELEVATION

BY THE DEVELOPER :

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

6.27.00

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

10.27.00

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

AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION

PROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DATE NO. REVISION DEVELOPER/OWNER: KINCAIDE, LLC

c/o RICHARD TALKIN

SUITE 301 QUARRY PARK PLACE 9175 GUILFORD ROAD COLUMBIA, MARYLAND 21046 (410) 730-7733

COLUMBIA TOWN CENTER LOTS B-5 & PARCEL F-1 OFFICE BUILDING & PARKING GARAGE EXPANSION

AREA TAX MAP 36 LOT B-5 ZONED NT-EMP-COMM

2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

GRADING, SEDIMENT CONTROL PLAN # DRAINAGE AREA MAP



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

tel 410.997.8900 fax 410.997.9282 DESIGNED BY : C.J.R.

DRAWN BY : K.C.B. CHECKED BY : C.J.R. PROJECT NO : 98384 SDP4.DWG DATE : JUNE 27 , 2000 SCALE : 1" = 20" ARTHUR E. MUEGGE #8707

DRAWING NO. 4 OF 7 SDP-00-65

- 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 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION 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 AND ALL SLOPES GREATER THAN 3:1, B) 14 DAYS AS TO OTHER
- 4. ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12, OF
- 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 ALONG CAN ONLY BE DONE
- 6. ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL

| TOTAL AREA OF SITE AREA DISTURBED AREA TO BE ROOFED OR PAVED AREA TO BE VEGETATIVELY STABILIZED TOTAL CUT | 0.44 0.32 0.12 4,000 | ACRES ACRES ACRES ACRES CU.YDS |
|---|-------------------------------|--|
| TOTAL FILE | 4,000 | CU.YDS |
| | | |

- 8. ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF
- 9. ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY
- 10. SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL
- 11. SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT
- 12. 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 WITH SITE CONDITIONS WHICH MAY
- 13. ON ALL SITES WITH DISTURBED AREAS IN EXCESS OF 2 AC., 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.
- 14. TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OR THAT WHICH CAN BE BACKFILLED AND STABILIZED WITHIN ONE

Apply to graded or cleared areas likely to be redisturbed where a

discing or other acceptable means before seeding, if not previously

Soil Amendments: Apply 600 lbs. per acre 10-10-10 fertilizer (14

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. flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal.

FROSION AND SEDIMENT CONTROL for rate and methods not covered.

PERMANENT SEEDING NOTES

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

- lbs. per 1000 sq.ft.) before seeding. Harrow or disc into 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. Horrow or disc into

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, seed with 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

- as possible in the spring.

sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring too 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 anchoring.

Maintenance: Inspect all seeded areas and make needed repairs.

21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

<u>Definition</u> Placement of topsol! over a prepared subsoll prior to establishment of permanent vegetation.

Purpose

To provide a sultable soll medium for vegetative growth. Solls of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soll gradation.

- I. This practice is limited to areas having 2:1 or flatter slopes where: The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth. . The soll material is so shallow that the rooting zone is not deep enough to support plants or
- furnish continuing supplies of moisture and plant nutrients. The original soil to be vegetated contains material toxic to plant growth.

Conditions Where Practice Applies

- . The soil is so acidic that treatment with ilmestone 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 Experimentation Station.

1. Topsoll 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. Régardiéss, topso!! sha!! 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 it 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 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 topsoll. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- II. For sites having disturbed areas under 5 acres:
- 1. Place topsoil (if required) and apply soil amendments as specified in <u>20.0 Vegetative</u> <u>Stabilization</u> Section 1 Vegetative Stabilization Methods and Materials.
- III. For sites having disturbed areas over 5 acres:

grading and seedbed preparation.

- i. On soll meeting Topsoli 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 topsoli 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: Topso!! substitutes to amendments, as recommended by a qualified agronomist or soil
- scientist and approved by the appropriate approvai 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.

NOTE: FENCE POST SPACING

KKKKKKK

SHALL NOT EXCEED 10'

VXXXXXXXXX

GROUND SURFACE

SIX (6) GAUGE OR HEAVIER

EMBED FILTER CLOTH 8"-

MINIMUM INTO GROUND

LAY FILTER IN BOTTOM

every 24" at the top and mid section.

U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

by 6" and folded

OF 24" MIN, WIDE TRENCH:

CHAIN LINK FENCING-

21/2" DIAMETER

GALVANIZED

OR ALUMINUM

POSTS

CENTER TO CENTER

- . 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.
- 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
- formation of depressions or water pockets. iv. 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

surface resulting from topsoiling or other operations shall be corrected in order to prevent the

- 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 site having disturbed areas under 5 acres
 - a. Composted sludge shall be suppiled 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. . Composted sludge shall be applied at a rate of 1 ton/1,000 square feet. d. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/i,000

FLOW

- 2 1/2" DIA. GALVANIZED

OR ALUMINUM POSTS

" MINIMUM

36" MINIMUM

--- 8" MINIMUM

STANDARD SYMBOL

MARYLAND DEPARTMENT OF ENVIRONMENT

WATER MANAGEMENT ADMINISTRATION

U.S. DEPARTMENT OF AGRICULTURE

SOR CONSERVATION SERVICE

square feet, and 1/3 the normal lime application rate.

DETAIL 33 - SUPER SILT FENCE

____10' MAXIMUM

CHAIN LINK FENC

WITH 1 LAYER OF

FILTER CLOTH

Construction Specifications

latest Maryland State Highway (SHA) Details for Chain Link Fencing. The SHA specifications

3. Chain link fence shall be fastened securely to the fence posts with wire ties or staples,

The lower tension wire, brace and truss rods, drive anchors and post caps are not

required except on the ends of the fence. The chain link fencing shall be six (6) gauge or heavier.

4. Filter cloth shall be fastened securely to the chain link fence with ties spaced

6. When two sections of geotextile fabric adjoin each other, they shall be overlapped

7. Maintenance shall be performed as needed and silt buildups removed when "bulges"

. Fencing shall be 42" in height and constructed in accordance with the

for a 6 foot fence shall be used, substituting 42" fabric and 6 foot length posts.

5. Filter cloth shall be embedded a minimum of 8" into the ground.

develop in the silt fence, or when silt reaches 50% of fence height

2. The posts do not need to be set in concrete.

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

325 GROUND 320 PROPOSED GRADE .======== EX. 15*RCCP ~ **a** 1.36% Q = 0.12 CFS EX. 15°RCCP √ = 0.10 FPS 2.25% V = 2.10 FPS Q = 0.37 CFS v¦o = 0.30 FPS V = 4.04 FPS 300.4 15"ADS-N12**s** 5.00% OUTFALL EX. 15*RCCP --= 1.82 CFS PROTECTION **0** 1.38% VIO = 1.49 PPS Q = 0.12 CFS - 15*AD5-NI2 V = 8.73 FPS e 9.00% V = 0.10 FPS Q_ = 1.97 CFS V = 2.10 FPS V = 1.61 FP9 15" ADS-N12 -V =10.04 FPS EX.24"RCCP **a** 5.78% # 7.69% Q = 1.97 CFS Q = 1.97 CFS (= 1.61 FPS V = 0.62 FPS =10.04 FPS om V = 4.31 FPS

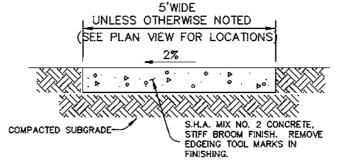
STORM DRAIN PROFILE

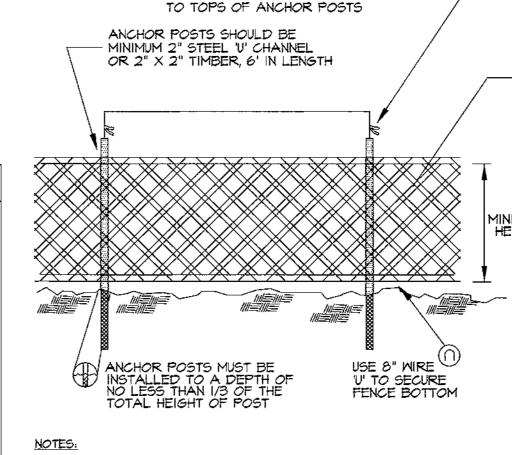
SCALE

HOR .: 1" = 50" VER, : 1" = 5STRUCTURE SCHEDULE

| STRUCTURE | TYPE | LOCATION | INV. IN | INV. OUT | TOP | REMARKS |
|-----------|---------------|-------------------------------|------------------------------|--------------|----------------|-------------------------------|
| MQ-1 | BAYSAVER | 米 N 564,355.31 E 1,353,401.20 | 308.65 (15*) | 300.40 (15") | 312.50 | SEE BAYSAVER DETAILS, SHEET 6 |
| 1-1 | A-5 | *N 564,367.62 E 1,353,386.82 | 309.79 (15*) | 309.69 (15") | 316.90 t.c. | HOCO STD. DETAIL SD 4.40 |
| t-2 | YARD INLET | ₩N 564,381.51 E 1,353,391.59 | 313.67 (10*) | 313.50 (12") | 316.20 | HOCO STD. DETAIL SD 4.14 |
| M-1 | 4'D1A. | *N 564,366.60 E 1,353,419.50 | 306.42 (15") | 303.09 (24") | 310.00 | HOCO STD. DETAIL 6.5.14 |
| M-2 | 4'DIA. | *N 564,377.40 E 1,353,383.14 | 310.54 (15*) 313.32 (12°) | 303.09 (24") | 316.50 | HOCO STD. DETAIL 6.5.14 |

LOCATION OF MANHOLES IS AT CENTER OF TOP COVER; FOR "A" INLETS LOCATION IS GIVEN FOR CENTER OF THROAT OPENING AT FACE OF CURB; TOP ELEVATION IS TOP OF CURB/GRATE/RIM.





HIGHLY VISIBLE FLAGGING ATTACHED ---

- BLAZE ORANGE MESH OR SUPER SILT FENCE FOR TREE PROTECTION DEVICE, ONLY. TREE PROTECTION BOUNDARIES WILL BE ESTABLISHED AT 2/3 THE SIZE
- OF THE TREE'S DRIP LINE. AVOID DAMAGE TO CRITICAL ROOT ZONE. DO NOT DAMAGE OR SEVER LARGE ROOTS WHEN INSTALLING POSTS. FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.

TREE PROTECTION FENCING NOT TO SCALE

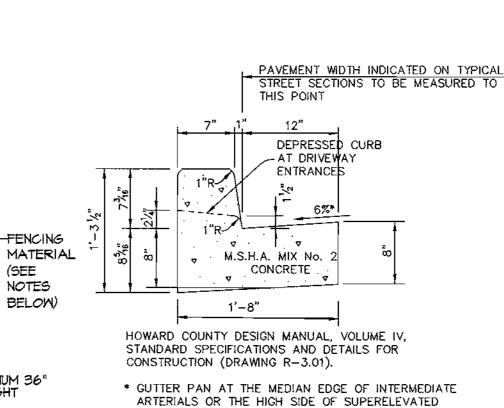
narrow trench, 6" in depth. Backfill the trench and tamp firmly to conform to the channel cross-section. Secure with a row of staples about 4" down slope from the trench. Spacing between staples is 6". 2. Stople the 4" overlap in the channel center using an 18" spacing

3. Before stapling the outer edges of the matting, make sure the matting is smooth and in firm contact with the soil.

outer rows, and 2 alternating rows down the center.

6. The discharge end of the matting liner should be similarly secured with 2 double rows of staples.

effected by the flow must be keyed-in. MARYLAND DEPARTMENT OF ENVIRONMENT U.S. DEPARTMENT OF AGRICULTURE MARYLAND DEPARTMENT OF ENVIRONMENT



320

315

310

CONCRETE WALK OR

CONCRETE -EDGE RESTRAINT

(SEE

FINISHED GRADE

313.32-

15"ADS 310.44"OUT

STORM DRAIN PROFILE

SCALE : HOR.: 1"= 50°

VER.: 1"= 5"

PROP.BLDG

TERRACE:317.0

- 12"ADS-N12

e 2.00%

a, = 2.38 CFS

√" = 3.*0*3 PPS

10 ADS-N12

e 2.00%

= 2.21 CFS

BRICK PAVER SECTION

2"x4"x8" PAVERS-

COMPACTED

BRICK PAVER SECTION

CONTRACTOR SHALL COORDINATE COLOR OF

BRICK PAVERS WITH ARCHITECT TO PROVIDE

CONTINUITY WITH BUILDING EXTERIOR MATERIALS.

NOTE: TOP OF PAVER EDGE RESTRAINT COURSE TO BE FLUSH WITH BRICK PAVERS

PROVIDE MIRAFI 600X

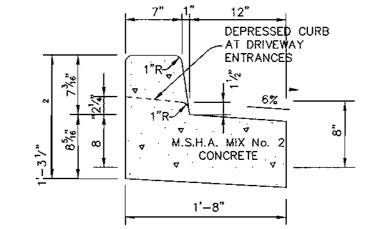
GRADE STABILIZATION

1" BEDDING SAND OR

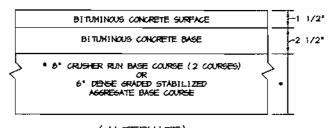
V = 4.05 FPS

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

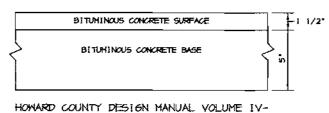
STANDARD 7" COMBINATION CURB AND GUTTER



REVERSE 7" COMBINATION CURB AND GUTTER NO SCALE



(ALTERNATE)

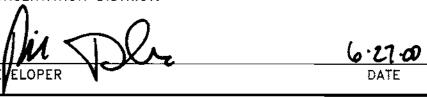


STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (DRAWING R-2.01)

APPROVED
PLANNING BOARD
of HOWARD COUNTY DATE 17 Hay 2000

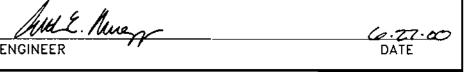
BY THE DEVELOPER

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

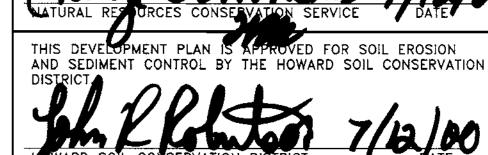


BY THE ENGINEER

CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.



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



HOWARD COUNTY DEPARTMENT OF PLANNING AND

DEVELOPMENT ENGINEERING DIVISION MK

DATE NO.

DEVELOPER/OWNER: KINCAIDE, LLC c/o RICHARD TALKIN SUITE 301 QUARRY PARK PLACE 9175 GUILFORD ROAD COLUMBIA, MARYLAND 21046

PROJECT COLUMBIA TOWN CENTER LOTS B-5 & PARCEL F-1 OFFICE BUILDING & PARKING GARAGE EXPANSION

(410) 730-7733

TAX MAP 36 LOT B-5 ZONED NT-EMP-COMM 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

REVISION

DETAILS, NOTES & PROFILES



RIEMER MUEGGE & ASSOCIATES INC ENGINEERING • ENVIRONMENTAL SERVICES • PLANNING • SURVEYING 8818 Centre Park Drive, Columbia, MD 21045 tel 410.997.8900 fax 410.997.9282

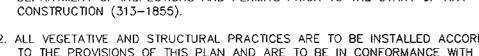


DRAWN BY : K.C.B. CHECKED BY : C.J.R. PROJECT NO : 98384 SDP5.DWG DATE : JUNE 27, 2000

DESIGNED BY: C.J.R.

SDP-00-65

1. A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS AND PERMITS PRIOR TO THE START OF ANY



- DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE
- HAS BEEN OBTAINED FROM THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.

7. SITE ANALYSIS:



BORROW OF 3,000 CU.YDS.TO BE TAKEN FROM A SITE WITH AN OPEN GRADING PERMIT.

- THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.

TEMPORARY SEEDING NOTES

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

Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL

Apply to graded or cleared areas not subject to immediate further

per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 upper three inches of soil. At time of seeding, apply 400 lbs.

upper three inches of soil.

- 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.

WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND II. Topsoil Specifications - Soil to be used as topsoil must meet the following: ESTABLISHMENT OF GRASSES.

- ELEVATION SHOWN ON THE PLANS.
- WORKING DAY, WHICHEVER IS SHORTER.
- short-term vegetative cover is needed. <u>Seedbed Preparation: Loosen upper three inches of soil by raking.</u>

per 1000 sq.ft.) for anchoring.

disturbance where a permanent long-lived vegetative cover is needed.

1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs.

Mulching: Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000

PROVIDE LATITUDINAL EXPANSION JOINTS AT 15' O.C. (MAX.) PROVIDE CONTRACTION (DUMMY) JOINT AT 5' O.C. INTERVALS BETWEEN EXPANSION JOINTS. SIDEWALK TO BE SCRIBED IN SIDEWALK DETAIL DETAIL 30 - EROSION CONTROL MATTING A" OVERLAP OF MATTING STRIPS WHERE TWO OR MORE STRIP WIDTHS ARE REQUIRED. ATTACH STAPLES ON 18" CENTERS TYPICAL STAPLES NO. 11 GAUGE WIRE

CROSS-SECTION STAPLE OUTSIDE -EDGE OF MATTING ON 2' CENTERS

EROSION CONTROL MATTING Construction Specifications 1. Key—in the matting by placing the top ends of the matting in a between staples.

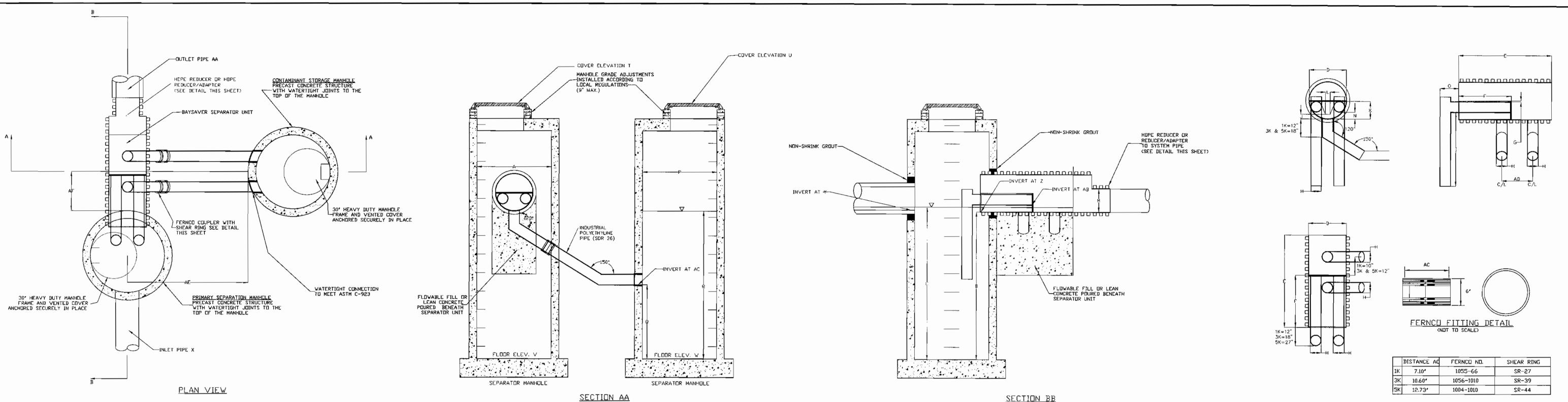
4. Staples shall be placed 2' apart with 4 rows for each strip, 2 5. Where one roll of matting ends and another begins, the end of the top strip shall overlap the upper end of the lower strip by 4", shiplap fashion. Reinforce the overlap with a double row of staples spaced 6" apart in a staggered pattern on either side.

Note: If flow will enter from the edge of the matting then the area WATER MANAGEMENT ADMINISTRATION SOIL CONSERVATION SERVICE

P-2 PAVING

ARTHUR E. MUEGGE #8707

SCALE: AS SHOWN DRAWING NO. 5 OF 7



GENERAL CONSTRUCTION NOTES

SAFETY OF THE CONSTRUCTION CREW.

1. ALL WORK MUST BE DONE WITH REGARD FOR THE

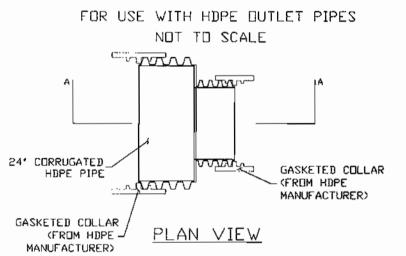
2. ALL WORK AND MATERIALS MUST COMPLY WITH

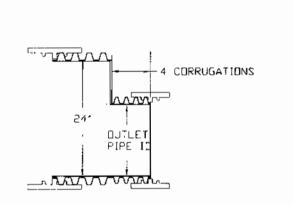
UNDERGROUND UTILITIES BEFORE EXCAVATION BEGINS.

APPLICABLE STATE AND LOCAL REGULATIONS.

3. KNOW THE LOCATION AND DEPTH OF ANY

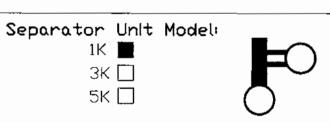






SECTION AA

| COLUMBIA TOWN CENTER Project: PARCEL B-5 | Designer: <u>RMA, INC.</u> |
|--|------------------------------|
| Address: | Contact: <u>CHRIS REID</u> |
| | Phone: <u>(410)</u> 997-8900 |
| | Fax: <u>(410) 997-9282</u> |
| Delivery Date: | |
| Owner: | Contractor: |
| Contact: | Address: |
| Address: | |
| - | Contact: |
| | Phone: |
| | Fax: |



Manhole Specifications:

Primary Manhole Diameter:___48_inches Storage Manhole Diameter: 48_inches

Floor Elevations: Primary Manhole<u>300.40</u> Storage Manhole<u>300.40</u>

Primary Manhole Inverts: 308.40 Separator Unit____308.40 Inlet Pipe(s)__<u>308.65 (15"</u>IN)

308.40 (15"0UT) Please show orientation (including angle), size and material of inlet pipes above.

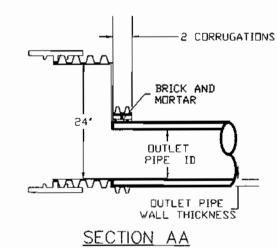
Cover Elevations:

Primary Manhole 312.50 Storage Manhole 315.30

MQ-1/MQ-1AThis order can be faxed to Bay Saver, Inc. at (301) 829-3747

Circle system orientation above

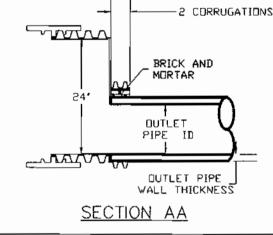
NOT TO SCALE



REDUCER/ADAPTER DETAIL

FOR USE WITH DUTLET PIPES OTHER THAN HOPE

24" CORRUGATED__ HOPE PIPE - RCP DUTLET PIPE GASKETED COLLAR <u>PLAN VIEW</u> (FROM HDPE -MANUFACTURER)



SEQUENCE OF CONSTRUCTION AND INSPECTOR'S CHECK-OFF LIST FOR DUAL MANHOLE SEPARATORS

| Stage (X = Approval Required) | Developer's/Engineer Approvai | | Inspector | | Geotechnical Engineer | |
|---|----------------------------------|------|-----------|------|-----------------------|------|
| | Initials | Date | Initials | Date | Initials | Date |
| 1. Pre-Construction Meeting. | X | | X | | X | |
| Install Manholes and associated storm drainage: a. Obtain approval of subgrade from Geotechnical Engineer. (Subgrade to have a minimum of 95% compaction) | | | | | × | |
| b. Installation of precast base, lower tank and lower piping. | X | | X | | | |
| c. Backfill and min. 95% compaction around lower tank and lower piping. | | | | | × | |
| d. Installation of precast middle section(s) with separator unit and remaining piping. | X | | X | | | |
| e. Installation of precast top slab. | X | | X | | | |
| f. Installation of adjustment rings and frame and cover. | X | | X | | | |
| g. Installation of flowable fill or concrete backfill. | | | | | X | |
| 3. Backfilling operation and compaction. | | | | | X | |
| Site is permanently stabilized. Sediment control measures removed and all sediment and debris removed from dual manhole separators. | | | X | | | |
| 5. Final inspection. | | | X | | | |

| Baysaver Separator Unit | Baysaver Manhole Sizes (prim. x stor.) | Maximum Treatment (cfs)*1 | Maximum Treatment (gpm)*1 | Impervious Area (acres) |
|-------------------------------|--|---------------------------------|---------------------------------|-------------------------------|
| K Baysaver Separator | 48×48 48×50 48×72 60×60 | 2.4 2.4 2.4 2.4 2.4 | 1076 1076 1076 1076 | 1.2 1.4 1.6 1.5 |
| 3K Baysaver Separator | 60×60 60×72 60×84 72×72 | 7.2 7.2 7.2 7.2 7.2 | 3231 3231 3231 3231 | 3.6 4.1 4.6 4.4 |
| 5K Baysaver Separator | 72×72 72×84 72×96 96×96 | 11.1 11.1 11.1 11.1 | 4981 4981 4981 4981 | 5.5 6.5 7.5 8.0 |

BAYSAVERS ARE TO BE INSTALLED WITH THE STORM DRAIN SYSTEM AND WILL FUNCTION AS SECONDARY SEDIMENT CONTROL DEVICES. UPON COMPLETION OF SITE STABILIZATION, EACH BAYSAVER SYSTEM SHALL BE FLUSHED CLEAN & THE MANHOLES CLEANED OUT AND

NOTE: DIMENSIONAL SHOP DRAWINGS ARE TO BE APPROVED BY THE DESIGN

REFILLED WITH CLEAN WATER.

BAYSAVER MAINTENANCE

BAYSAVER SYSTEMS MUST BE INSPECTED AND MAINTAINED PERIODICALLY. INSPECTION IS MADE BY CHECKING THE DEPTH OF SEDIMENT IN EACH MANHOLE WITH A GRADE STICK DR SIMILAR DEVICE. MAINTENANCE IS REQUIRED WHEN THE SEDIMENT DEPTH IN EITHER MANHOLE EXCEEDS 2 FEET. MINIMUM INSPECTION IS REQUIRED TWICE A YEAR TO MAINTAIN OPERATION AND FUNCTION OF BAYSAVER.

MAINTENANCE CONSISTS OF THE FOLLOWING A. CONTAMINANT STURAGE MANHOLE

VACUUM TRUCK.

1. REMOVE THE ENTIRE VOLUME OF THE CONTAMINATED WATER BY

2. CLEAN THE MANHBLE WALLS AND FLUSH DUT THE MANHBLE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.

B. PRIMARY SEPARATION MANHOLE

1. USING A SUBMERSIBLE PUMP, PUMP THE CLEAN WATER FROM THE CENTER OF THE MANHOLE DIRECTLY INTO THE EMPTY STORAGE MANHOLE UNTIL THE WATER LEVEL FALLS TO 1 FOOT ABOVE THE

2. REMOVE THE SETTLED SEDIMENT AND REMAINING WATER BY VACUUM

SEPARATOR MANHOLE DIMENSIONS

STANDARD SEPARATOR UNIT DIMENSIONS

STORAGE MANHOLE DIMENSIONS

SYSTEM DIMENSIONS AND ELEVATIONS

3. CLEAN THE MANHULE WALLS AND FLUSH OUT THE MANHULE USING A HIGH PRESSURE HOSE AND REMOVE FLUSHING WATER BY VACUUM TRUCK. MAKE CERTAIN MANHOLE IS CLEAN.

4. CONTAMINATED MATERIAL REMOVED FROM THE MANHOLES MUST BE DISPOSED OF RESPONSIBLY AND LEGALLY BY THE OPERATOR OF THE VACUUM TRUCK.

DESCRIPTION

PRIMARY MANHOLE DIAMETER MANHOLE DEPTH BELOW DUTLET

MINIMUM FLUID DEPTH

SEPARATOR UNIT ID

SEPARATOR UNIT LENGTH

BYPASS PLATE LENGTH

WEIR/BYPASS PLATE THICKNESS

ELBOW AND CONNECTING PIPE OD

ELBOW LENGTH

WEIR HEIGHT ABOVE INVERT

BYPASS PLATE HEIGHT ABOVE INVERT

WIDTH OF WEIR AT BASE

DUTLET PIPE DIAMETER

ELBOW PIPE OVERHANG

STORAGE MANHOLE DIAMETER

FLUID DEPTH

TOTAL STORAGE VOLUME

SEPARATOR MANHOLE COVER ELEVATION

STORAGE MANHOLE COVER ELEVATION

SEPARATOR MANHOLE FLOOR ELEVATION

STORAGE MANHOLE FLOOR ELEVATION

INLET PIPE ID AND MATERIAL

INLET PIPE INVERT

SEPARATOR UNIT INVERT

DUTLET PIPE ID AND MATERIAL

ELBOW INVERT ELEVATION

CONNECTING PIPE INVERT ELEVATION

CONNECTION PIPE SPACING

STORAGE MANHOLE DOWNSTREAM OFFSET

STORAGE MANHOLE SIDE OFFSET

MANHOLE DEPTH BELOW INLET/DUTLET

ELBOW INVERT HEIGHT ABOVE UNIT INVERT 4 1/2"

SECTION BB

BAYSAVER SYSTEM DIMENSIONS

8' - 0**'**

8' - 3**"**

7.125*

48"

8, - 0,

200 CF

AA

AB

72 ± 6°

23"

1K SYSTEM 3K SYSTEM 5K SYSTEM

45**"**

10.75*

18"

48"

4 1/2"

7 1/2"

8' - 0" | 8' - 0"

- 4 1/2° 8' - 6°

78.2* 75.4*

3/4" 3/4"

18' 24'

60* 72*

48* 48*

8' - 0" 8' - 0"

300 CF 450 CF

U U

V

X2

AA

AC

24"

31*

AB

48*

45"

12.75*

6**'**

24*

6'

М

11"

V

W

X2

Z

AA

AB

24"

25*

72 ± 6" | 72 ± 6"

BAYSAVER INSTALLATION INSTRUCTIONS

EXCAVATION MUST PROVIDE ADEQUATE SPACE TO CONNECT INLET AND DUTLET PIPES TO SEPARATOR MANHOLE AND BAYSAVER UNIT. INSTALL PRECAST DROP STRUCTURES ON SOLID GROUND AS VERIFIED BY A GEOTECHNICAL ENGINEER.

. VERIFY THE SUBGRADE ELEVATION AGAINST THE MANHOLE DIMENSIONS AND CONNECTING STORM DRAIN INVERTS.

3. MAKING SURE THE BASES ARE LEVEL AND THE STORAGE MANHOLE OPENINGS ARE ALIGNED WITH THE SEPARATOR UNIT, INSTALL PRIMARY AND STORAGE MANHOLES. INSTALL RUBBER GASKETS ON BASE UNITS AND COAT WITH LUBRICATING GREASE. INSTALL ADDITIONAL MANHOLE SECTIONS AS REQUIRED. SEAL LIFT HOLES WITH NON-SHRINK GROUT.

4. BACKFILL BASE SECTIONS OF MANHOLES TO INVERT OF STORAGE MANHOLE CONNECTING PIPES. USING APPROVED BACKFILL MATERIAL, BACKFILL AND COMPACT IN 8 INCH LIFTS. BACKFILL AND COMPACTION SHOULD BE MONITORED BY A GEOTECHNICAL ENGINEER.

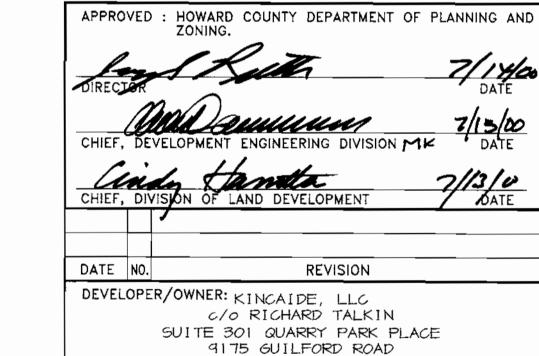
5. INSTALL BAYSAVER SEPARATOR UNIT AND CONNECTING PIPES. SEAL ALL CONNECTING JOINTS AND INSTALL SEPARATOR UNIT/STORM DRAIN JOINT COLLAR. CUT EXCESS LENGTH OFF CONNECTING PIPES INSIDE STORAGE MANHOLE.

6. BACKFILL SEPARATOR UNIT AND MANHOLES, AREAS NOT ACCESSIBLE TO COMPACTION EQUIPMENT MUST BE BACKFILLED WITH LEAN CONCRETE OR FLOWABLE FILL.

7. INSTALL AND SET MANHOLE COVER GRADE ADJUSTMENT RINGS AS NECESSARY.

8. INSTALL AND SET MANHBLE FRAME AND COVER UNITS.

APPROVED PLANNING BOARD of HOWARD COUNTY DATE 17 May 2000



COLUMBIA, MARYLAND 21046 (410) 730-7733 COLUMBIA TOWN CENTER LOTS B-5 & PARCEL F-1

OFFICE BUILDING 4 PARKING GARAGE EXPANSION AREA TAX MAP 36 LOT B-5 ZONED NT-EMP-COMM 2nd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND BAYSAVER DETAILS & NOTES

RIEMER MUEGGE & ASSOCIATES INC ENGINEERING ● ENVIRONMENTAL SERVICES ● PLANNING ● SURVEYING



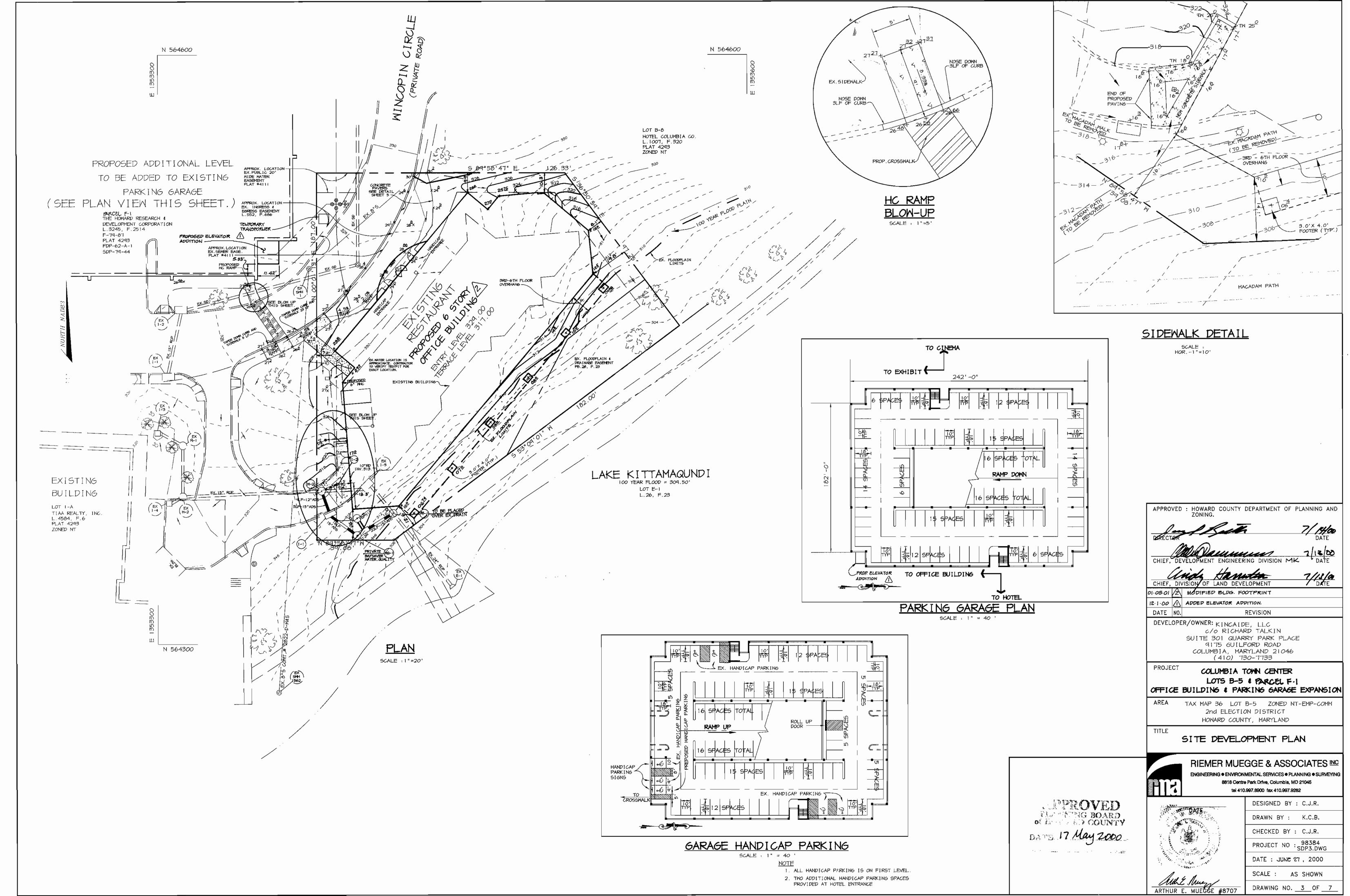
ARTHUR E. MUEGGE #8707

8818 Centre Park Drive, Columbia, MD 21045 tel 410.997.8900 fax 410.997.9282 DESIGNED BY : C.J.R. DRAWN BY: K.C.B. CHECKED BY : C.J.R.

PROJECT NO : 98384 SDP6.DWG DATE : JUNE 27, 2000 SCALE : AS SHOWN

DRAWING NO. 6 OF 7

DRAWING NO. _ 7 OF _ 7



BUILDING

LOT 1-A TIAA REALTY, INC. L.4584, F.6 PLAT 4243 ZONED NT

N 564300

N 564600

PROPOSED ADDITIONAL LEVEL

TO BE ADDED TO EXISTING

PARKING GARAGE

) <u>___</u>

PARCEL F-1 THE HOWARD RESEARCH & DEVELOPMENT CORPORATION

L.3245, F.2514

F-79-87 PLAT 4293

FDP-62-A-1

SDP-79-44

TEMPORARY TRANSFORMER-

> DRAINAGE DATA INLET | AREA | "C" | %IMP. EX.1-3 0.047 Ac. 0.27 11 % EX.I-4 0.048 Ac. 0.86 100 % I-1 0.050 Ac. 0.63 64 % I-2 0.055 Ac. 0.36 25 % RD 0.299 Ac. 0.86 100 %

N 564600

LOT B-8

LAKE KITTAMAQUNDI

LOT E-1 L.26, F.23

HOTEL COLUMBIA CO.

L.1007, F.320 PLAT 4293 ZONED NT

APPROVED PLANNING BOARD of HOWARD OUNTY DATE 17 May 2000

LEGEND

LIMIT OF DISTURBANCE DRAINAGE AREA DIVIDE SUPER SILT FENCE PROPOSED GRADE EXISTING GRADE EROSION CONTROL MATTING

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. 1 ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

FLOODPLAIN LIMITS

WATER ELEVATION



BY THE ENGINEER :

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

| tthe. Muy | 6.27.0 |
|-----------|--------|
| INEER | DATE |

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

AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION

PROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

01.05.01 /2 MODIFIED BLDG FOOTPRINT 12-1-00 1 ADDED ELEVATOR ADDITION.

DATE NO. REVISION

DEVELOPER/OWNER: KINCAIDE, LLC c/o RICHARD TALKIN SUITE 301 QUARRY PARK PLACE 9175 GUILFORD ROAD COLUMBIA, MARYLAND 21046

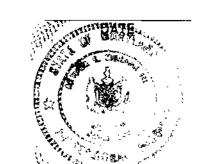
(410) 730-7733 PROJECT COLUMBIA TOWN CENTER

LOTS B-5 & PARCEL F-1 OFFICE BUILDING & PARKING GARAGE EXPANSION

AREA TAX MAP 36 LOT B-5 ZONED NT-EMP-COMM 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

GRADING, SEDIMENT CONTROL PLAN & DRAINAGE AREA MAP





DRAWN BY: K.C.B. CHECKED BY : C.J.R. PROJECT NO : 98384 SDP4.DWG

DESIGNED BY : C.J.R.

DATE : JUNE 27, 2000 SCALE : 1" = 20"

ARTHUR E. MUEGGE #8707 DRAWING NO. 4_OF 7

