

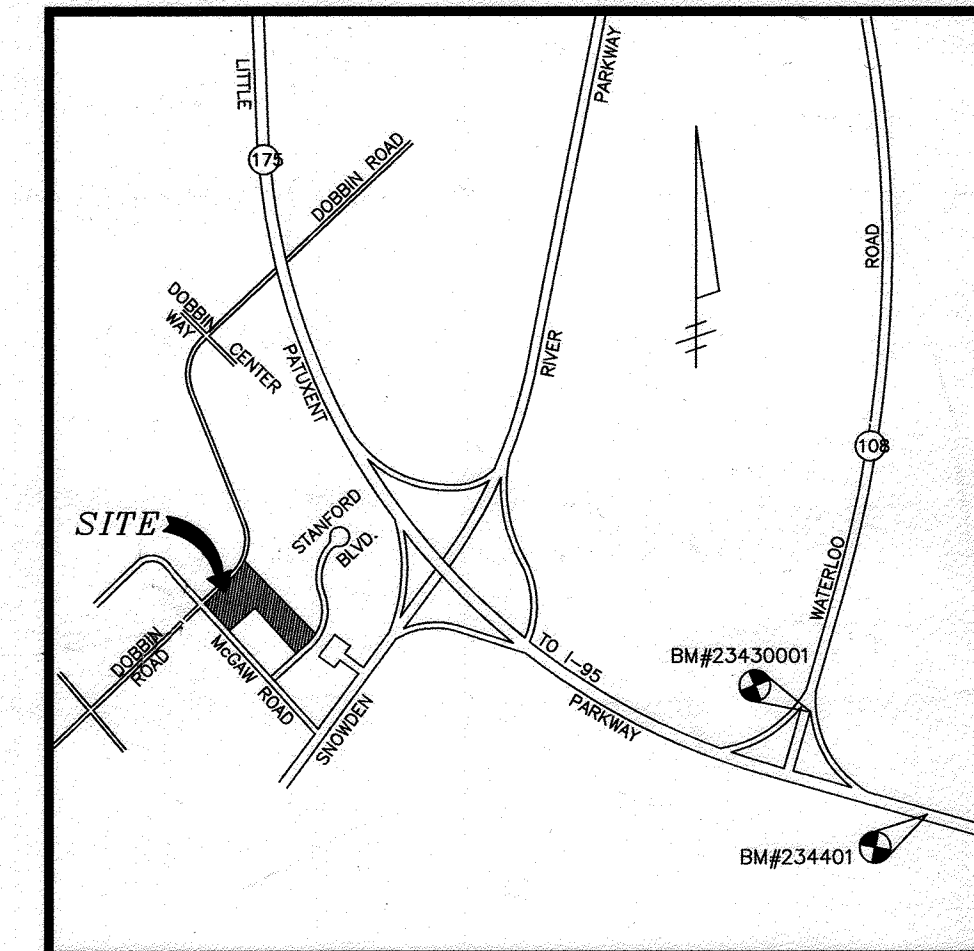
**GENERAL NOTES**

- 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 "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK.
- THE CONTRACTOR IS TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK ON THESE DRAWINGS:  
 MISS UTILITY 1-800-257-7777  
 C & P TELEPHONE COMPANY: 725-9976  
 HOWARD COUNTY BUREAU OF UTILITIES: 313-2366  
 AT&T CABLE LOCATION DIVISION: 393-3553  
 B.G.&E. CO. CONTRACTOR SERVICES: 850-4620  
 B.G.&E. CO. UNDERGROUND DAMAGE CONTROL: 787-4620  
 STATE HIGHWAY ADMINISTRATION: 531-5533
- ALL PLAN DIMENSIONS ARE GIVEN TO FACE OF CURB UNLESS OTHERWISE NOTED. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS.
- 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 START OF WORK.
- ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING, OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- EXISTING UTILITIES LOCATED FROM ROAD CONSTRUCTION PLANS, FIELD SURVEYS AND AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- ALL REINFORCED CONCRETE FOR STORM DRAIN STRUCTURES SHALL HAVE A MINIMUM OF 28 DAYS STRENGTH OF 3,500 P.S.I.
- 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.
- ESTIMATES OF EARTHWORK QUANTITIES ARE PROVIDED SOLELY FOR THE PURPOSE OF CALCULATING FEES.
- SOIL COMPACTION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER. GEOTECHNICAL ENGINEER TO CONFIRM ACCEPTABILITY OF PROPOSED PAVING SECTION, BASED ON SOIL TEST.
- ALL STORM DRAIN PIPE BEDDING SHALL BE CLASS 'C' AS SHOWN IN FIG. 11-4 VOLUME I OF HOWARD COUNTY DESIGN MANUAL.
- A RETENTION STORMWATER MANAGEMENT FACILITY IS PROVIDED FOR THIS DEVELOPMENT UNDER S.D.P.#87-193.
- THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN ANY SCALED DIMENSIONS AND THE FIGURED DIMENSIONS SHOWN ON THESE PLANS, THE FIGURED DIMENSIONS SHALL GOVERN.
- CONTRACTOR SHALL MEET ALL EXISTING IMPROVEMENTS SMOOTHLY FOR LINE, GRADE AND FINISH.
- A NOISE STUDY IS NOT REQUIRED FOR THIS PROJECT.
- EACH PROPERTY OWNER FOR PARCELS A-31 & A-32 IS RESPONSIBLE FOR MAINTENANCE OF ALL BUILDINGS AND/OR STRUCTURES UP TO THEIR RESPECTIVE PROPERTY LINE.  
FOR PAVING SECTION DETAIL, SEE SHEET 4 OF 17.
- ALL CURB AND GUTTER TO BE HOWARD COUNTY STANDARD CONCRETE (SEE DETAIL SHEET 4 OF 17). LIMITS AS SHOWN ON PLAN.
- A WATER METER SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION ON THE INCOMING WATER LINE TO THE BUILDING. CONTRACTOR RESPONSIBLE TO CONSTRUCT ALL HANDICAP PARKING AND HANDICAP ACCESS ROUTES IN ACCORDANCE WITH CURRENT ADA REQUIREMENTS.
- WHERE DRAINAGE FLOWS AWAY FROM CURB, CONTRACTOR TO REVERSE THE GUTTER PAN (SEE DETAIL SHEET 4 OF 17).
- EXISTING TOPOGRAPHY IS BASED ON FIELD RUN TOPOGRAPHIC SURVEY PERFORMED BY BARAKOS-LANDINO SURVEY DATED NOVEMBER 1998.
- THIS PROJECT IS SERVED BY PUBLIC WATER (CONTRACT #24-1667-D) AND PUBLIC SEWER (CONTRACT #483-D-W&S). THE CONTRACTOR WILL REMOVE EX. CURB & GUTTER AS NOTED ON THE SITE PLAN. THE CONTRACTOR WILL LEAVE A CLEAN EDGE OF EX. PAVING FOR TIE-IN OF PROPOSED PAVING.
- THE CONTRACTOR WILL CONSTRUCT ALL CONC. CURB & GUTTER NOTED ON THE SITE PLAN TO BE FULLY DEPRESSED SO THAT THERE IS NOT A LIP.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM SUCH WORK. THE COST OF SUCH WORK SHALL BE INCLUDED IN THE BASE BID.
- THE CONTRACTOR SHALL MEET HOWARD COUNTY STANDARDS FOR THE PROPOSED P-2 PAVING (SEE DETAIL SHEET 4 OF 17).
- THE PROPERTY OWNER FOR PARCELS A-32 IS RESPONSIBLE FOR MAINTENANCE OF STORMCEPTOR LOCATED WITHIN THEIR RESPECTFUL PARCEL.
- THE CONTRACTOR SHALL INSPECT THE SITE TO DETERMINE IF ANY TREES, PAVING, ETC. ARE TO BE REMOVED PRIOR TO PLACING A BID ON SUCH ITEMS.
- CONTRACTOR SHALL PROTECT ALL EXISTING TREES OUTSIDE THE LIMIT OF DISTURBANCE AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR DEMOLITION. COST OF REPAIR TO EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE BASE BID. ALL EXISTING SITE FEATURES NOT BEING RETAINED SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED LOCATION. ANY DAMAGE TO OPPOSITE ROADS, RIGHTS OF WAY, OR ADJACENT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY BL COMPANIES OF ANY DEVIATION FROM THIS PLAN PRIOR TO ANY CHANGE BEING MADE. ANY DEVIATION FROM THIS PLAN WITHOUT WRITTEN AUTHORIZATION FROM BL COMPANIES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ONLY SUITABLE MATERIAL SHALL BE USED AS FILL AND ALL FILL SHALL BE PLACED AND COMPACTED AS SPECIFIED IN THE SOILS REPORT PREPARED FOR THIS SITE OR AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. ALL 3:1 SLOPE SHOWN HEREON, EXCEPTING THOSE ASSOCIATED WITH LANDSCAPE BERMING, ALL GRADING UNDER PROPOSED PAVING, AND ALL FILL AND COMPACTION SHALL BE APPROVED BY GEOTECHNICAL ENGINEER.
- MAXIMUM SLOPE SHALL BE 3 HORIZONTALLY TO 1 VERTICALLY.
- CONTRACTOR SHALL PLACE A WITNESS POST AT THE TERMINUS OF ALL UTILITY STUBS.
- ALL UTILITIES INSTALLED SHALL RECEIVE FULL TRENCH COMPACTION.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 1 FOOT OF PROTECTIVE FILL OVER STORM DRAIN PIPES DURING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN TRAFFIC ON ADJACENT ROAD AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL PROVIDE ALL PAVEMENT MARKINGS AND SIGNAGE FOR HANDICAP PARKING SPACES INDICATED HEREON IN ACCORDANCE WITH ALL APPLICABLE CODES. ALL PAVEMENT MARKINGS TO BE TRAFFIC WHITE.
- THE CONTRACTOR SHALL REPLACE ANY EXISTING BITUMINOUS PAVING OR SUB-BASE WHICH IS DAMAGED OR REMOVED DURING CONSTRUCTION. ALL EXCAVATED AREAS SHALL BE BACKFILLED AND IN ACCORDANCE WITH THE SOILS REPORT AND/OR AS DIRECTED BY GEOTECHNICAL ENGINEER. ANY AREAS TO BE PAVED WHICH EXHIBIT UNSTABLE SUBGRADE CONDITIONS SHALL BE EXCAVATED TO BEARING SOIL, REFILLED AND COMPACTED.
- THE CONTRACTOR SHALL PLACE PROPOSED SURFACE COURSE OVERLAY 5 FEET BEYOND LIMITS OF REPLACEMENT PAVING, UNLESS DIRECTED OTHERWISE BY THE ENGINEER IN THE FIELD. ALL OVERLAYS SHALL HAVE SMOOTH STRAIGHT EDGES. STRIP AND RESURFACE EXISTING PAVING AS NEEDED TO PROVIDE SMOOTH TRANSITION.
- ALL AREAS NOT BEING PAVED OR RECEIVING BUILDING COVERAGE SHALL BE STABILIZED IN ACCORDANCE WITH THE PLANS APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT.
- SIDEWALK SHALL CONFORM TO DETAIL R-505 OF THE AFOREMENTIONED HOWARD COUNTY STANDARDS. SLOPE, WIDTH, AND LOCATION AS SHOWN HEREON. SIDEWALK SHALL BE PLACED ON A 4" CRUSHEDSTONE BASE AND SHALL BE REINFORCED WITH WIRE MESH.
- PREFORMED ELASTOMERIC COMPRESSION JOINT MATERIAL SHALL BE INSTALLED AT ALL MEETINGS OF EXISTING AND PROPOSED CONCRETE PAVING AND SIDEWALKS.
- ALL EXTERIOR LIGHTING SHALL CONFORM TO SECTION 134 OF THE ZONING REGULATIONS.
- THE PUBLIC WATER & SEWER WILL BE CONSTRUCTED UNDER SEPERATE CONTRACT # 24-3761-D.

# SITE DEVELOPMENT PLANS FOR COLUMBIA CORPORATE PARK PARCELS A-31 & A-32

BM#234401 ELEV. 309.49'  
STANDARD CONCRETE MONUMENT SET FLUSH @ SURFACE  
N-491333.018 E-858206.723

BM#23430001 ELEV. 288.24'  
3/4" REBAR SET 0.3' BELOW THE SURFACE  
N-492140.801 E-857226.671



SEE NOTE BELOW **PARKING TABULATIONS**

REQUIRED	PROVIDED
PARCEL A-31 OFFICE- 78,822 SQ. FT. @ 2 P.S./1000 SF.= 158 SPACES	PARCEL A-31 PARKING= 269 SPACES(INCLUDES 7 HANDICAP SPACES)
PARCEL A-32 OFFICE- 87,822 SQ. FT. @ 2 P.S./1000 SF.= 176 SPACES	PARCEL A-32 PARKING= 321 SPACES(INCLUDES 8 HANDICAP SPACES)
TOTAL = 334 SPACES	TOTAL PARKING= 590 SPACES(INCLUDES 15 HANDICAP SPACES)

NOTE:  
EX COVERED LOADING AREA THAT IS TO BE CONVERTED TO ENCLOSED BUILDING WAS ALREADY PART OF PARKING REQUIREMENT CALCULATIONS THESE CALCULATIONS DO NOT CHANGE FOR REQUIRED OR PROVIDED

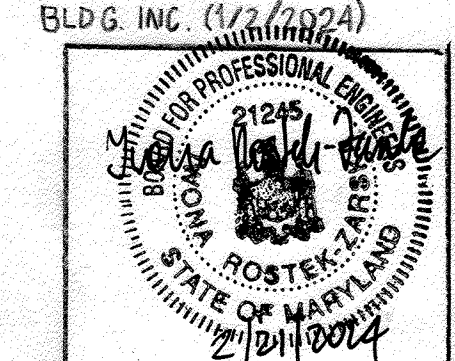
**PURPOSE: SITE DEVELOPMENT PLAN REVISION**

- REDUCE THE MAIN DRIVE OFF STANFORD PAVED FROM 30' TO 26' AND REMOVE THE RETAINING WALL.
- RAISE THE PARKING ON PARCEL A-32 BY 1 FT.
- ADD LOADING DOCKS TO BUILDING #4 & #5.
- SHIFT THE PROPOSED SANITARY SEWER LINE FROM MH #3 TO PROPOSED CLEAN OUT #2.
- ADD INLET #5A AND INLET #1A TO DRAIN LOADING DOCK AREA.
- REVISE THE PARKING, SIDEWALK AND CURB FOR PLAZA AREAS FOR BUILDINGS #4 & #5.

**SITE DATA**

AREA OF PARCELS:	A-31	4,694 AC.±
	A-32	5,644 AC.±
TOTAL AREA OF SITE		10,338 AC.±
EXISTING ZONING		NT EC-IND
PROPERTY REFERENCE		3275/442
EXISTING USE		VACANT OFFICE
PROPOSED USE		(USES PERMITTED SHALL BE IN ACCORDANCE WITH FDP-117-1)
BUILDING COVERAGE:	A-31 (BLDG #4)	25,193 sq. ft. or 0.58 AC.±
	A-32 (BLDG #5)	25,193 sq. ft. or 0.58 AC.±
	A-32 (BLDG #6)	9,000 sq. ft. or 0.20 AC.±
% BUILDING COVERAGE:	A-31 (BLDG #4)	12%
	A-32 (BLDG #5 & #6)	15%
FLOOR AREA RATIO (FAR)	A-31 (BLDG #4)	-78,822 SQ. FT. OR 1.81 AC± 0.39
	A-32 (BLDG #5 & #6)	-89,322 SQ. FT. OR 2.05 AC± 0.36
AREA TO BE PAVED PLUS BUILDINGS:	A-31	145,055 sq. ft. or 3.33 AC.±
	A-32	169,398 sq. ft. or 3.88 AC.±
TOTAL AREA OF PARKING LOT:	A-31	111,639 sq. ft. or 2.560 AC.±
	A-32	123,427 sq. ft. or 2.830 AC.±
% PARKING LOT COVERAGE:	A-31	54.53%
	A-32	50.50%
AREA OF DISTURBANCE		499,160 sq. ft. or 11.460 AC.±
AREA TO BE VEGETATIVELY STABILIZED		189,050 sq. ft. or 4.34 AC.±
DPZ REFERENCES:		S-87-24, P-87-93, F-96-28

REVISION #5 PREPARED BY:  
BLDG. INC. (1/2/2024)

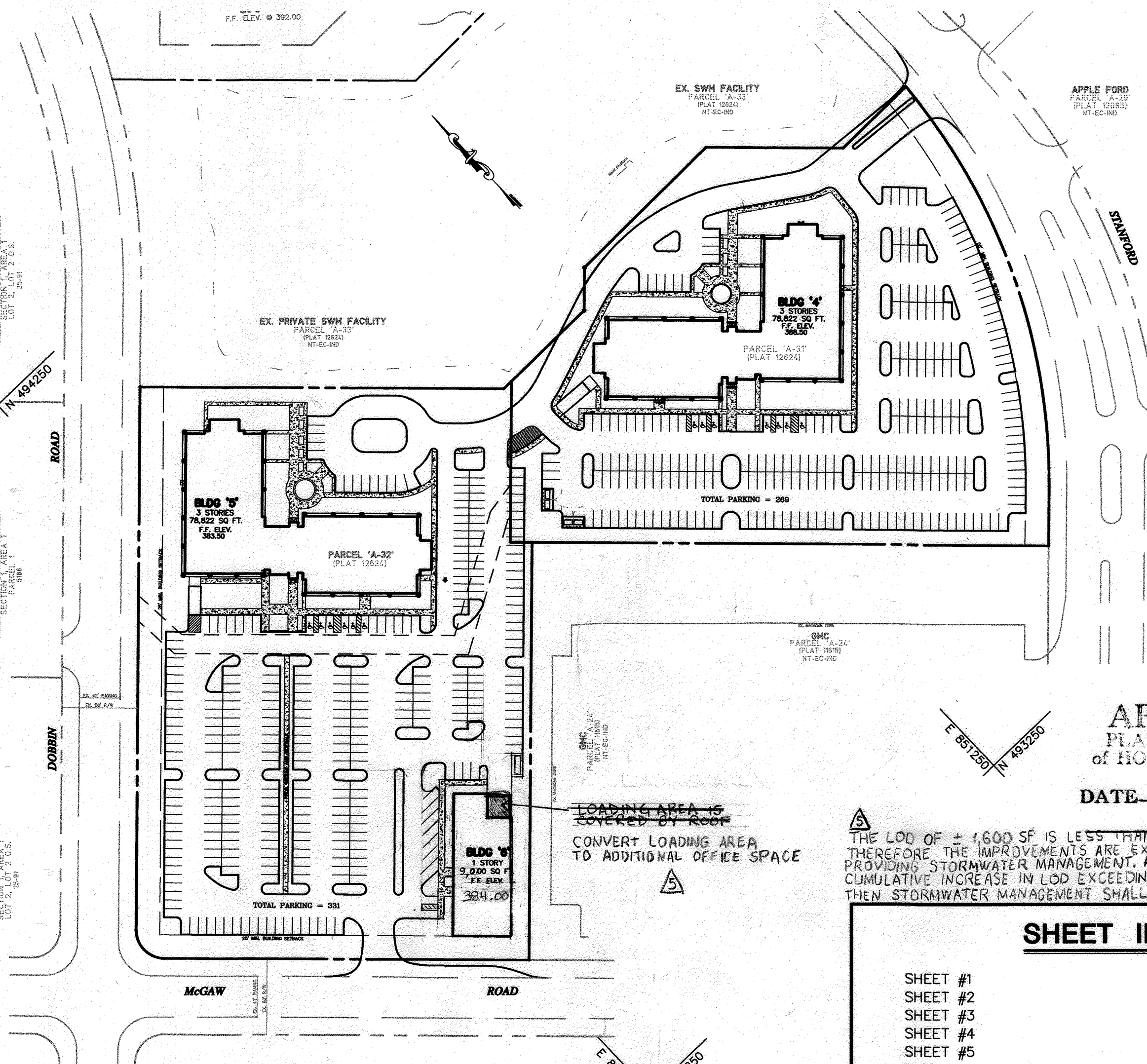


HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, WILONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 21245 EXPIRATION DATE: JUNE 9, 2024

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY

DATE: JUNE 3, 1999

THE LOD OF 4,600 SF IS LESS THAN 5,000 SF THEREFORE THE IMPROVEMENTS ARE EXEMPT FROM PROVISIONS STORMWATER MANAGEMENT. ANY FUTURE CUMULATIVE INCREASE IN LOD EXCEEDING 5,000 SF THEN STORMWATER MANAGEMENT SHALL BE ADDRESSED.



**LOCATION MAP**

SCALE: 1"=100'

- THE CONTRACTOR SHALL OPEN THE RELEASE VALVE ON THE EXISTING RELEASE STRUCTURE TO LOWER THE POND WATER ELEVATION. (SEE SEQUENCE OF OPERATION)
- WP 99-125 - A WAIVER TO SDP FOR MASS GRADING ONLY WAS APPROVED AS PER SECTION 16.155(a)(1) OF THE HOWARD COUNTY SUBDIVISION REGULATION ON JUNE 16, 1999.
- THE FOLLOWING STREET LIGHTS, 250-WATT HPS VAPOR PENDANT FIXTURE (CUT OFF) MOUNTED 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM AT PROPERTY ACCESS LOCATIONS.

**SHEET INDEX**

SHEET #1	COVER SHEET
SHEET #2	SITE LAYOUT PLAN 1
SHEET #3	SITE LAYOUT PLAN 2
SHEET #4	SITE DETAILS
SHEET #5	SECTIONS 1
SHEET #6	SECTIONS 2
SHEET #7	PROFILES
SHEET #8	DRAINAGE AREA MAP
SHEET #9	STORM DRAIN PROFILES 1
SHEET #10	STORM DRAIN PROFILES 2
SHEET #11	SEDIMENT CONTROL PLAN 1
SHEET #12	SEDIMENT CONTROL PLAN 2
SHEET #13	SEDIMENT CONTROL NOTES
SHEET #14	SEDIMENT CONTROL DETAILS
SHEET #15	LANDSCAPE PLAN 1
SHEET #16	LANDSCAPE DETAILS
SHEET #17	CONSTRUCTION DETAILS

ADDRESS CHART					
PARCEL NO.	STREET ADDRESS				
A-31	BUILDING #4 8825 STANFORD BOULEVARD				
A-32	BUILDING #5 8890 MCGAW ROAD				
A-32	BUILDING #6 8880 MCGAW ROAD				
SUBDIVISION NAME					
COLUMBIA CORPORATE PARK					
PLAT	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	PARCEL NUMBER
#6475 & #13781	24	N.T. EC-IND	36	6	A-31 & A-32
WATER CODE		SEWER CODE 5333000			

**REVISED COVER SHEET**

**COLUMBIA CORPORATE PARK**

PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-24B, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 PARCEL A-31 & A-32  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: R.A.M.

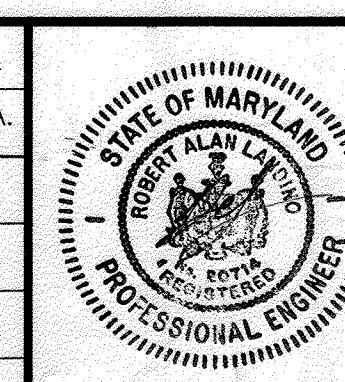
DRAWN BY: J.E.T./D.T.A.

CHECKED BY: R.A.M.

APPRD. BY: R.A.L.

DATE: 06-04-99

SCALE: AS SHOWN



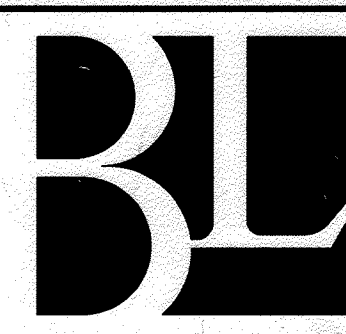
PROJECT # 98B055

DRAWING: Cvb05501.DWG

XREFS: XRB05510

XRB05502

1 SHEET OF 17



Barakos-Landino  
Design Group

ENGINEERS / PLANNERS / SURVEYORS / LANDSCAPE ARCHITECTS

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(203) 630-1406  
(203) 630-2615 Fax

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(410) 859-9100

210 West 70th Street, Suite 604  
New York, NY 10023

2933 North Front Street, Suite 1  
Harrisburg, PA 17110  
(717) 221-9744

900 Parish Street, Suite 201  
Pittsburgh, PA 15220  
(412) 928-3060

80 Washington Street, Suite 310  
Poughkeepsie, NY 12601  
(888) 830-9272

3957 Westerre Parkway  
Richmond, VA 23233  
(800) 301-3077

**OWNER / DEVELOPER**

MERRITT - COP IV, LLC  
MERRITT - COP VI, LLC  
SH ROBB IV LIMITED PARTNERSHIP C/O  
**MERRITT**  
2066 Lord Baltimore Drive  
Baltimore, Maryland 21207  
(410) 298-2600

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

USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*James P. Smith* 4/25/00  
DIRECTOR

*Linda Hamble* 4/20/00  
CHIEF, DIVISION OF LAND DEVELOPMENT

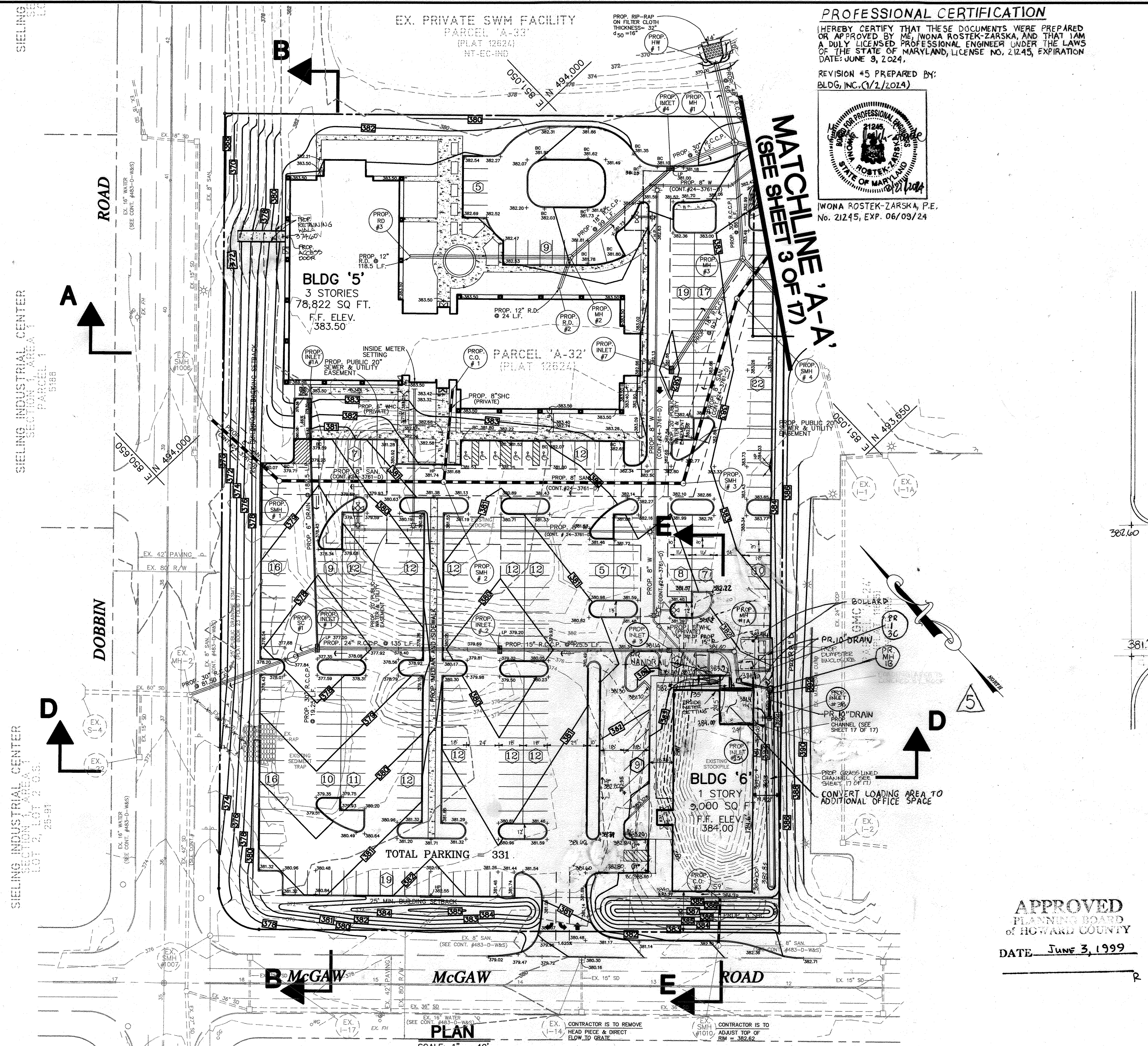
*Chris Demunier* 4/16/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO. REVISION DATE

1	REDUCED THE DRIVEWAY ALONG LAKE TO 26', SHIFTED PLAZA AREAS IN FRONT OF BLDG. #4 & BLDG. #5	9/1/99
2	REVISE P.H. PER APPROVED WATER & SEWER PLAN	4/3/00
3	REVISE BLDG. #6 PARKING, LOADING, GRADING	5/15/00
4	REVISED H.C. GRADES, STORM DRAINS, LOADING AREA & PLAZA #6 FOOTPRINT	6/8/00
5	CONVERT BUILDING #6 COVERED LOADING AREA TO ADDITIONAL OFFICE SPACE.	1/21/2024

THIS SHEET 1 OF 17 SUPERSEDES SHEET 1 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY, DEPT. OF PLANNING & ZONING ON JULY 29, 1999





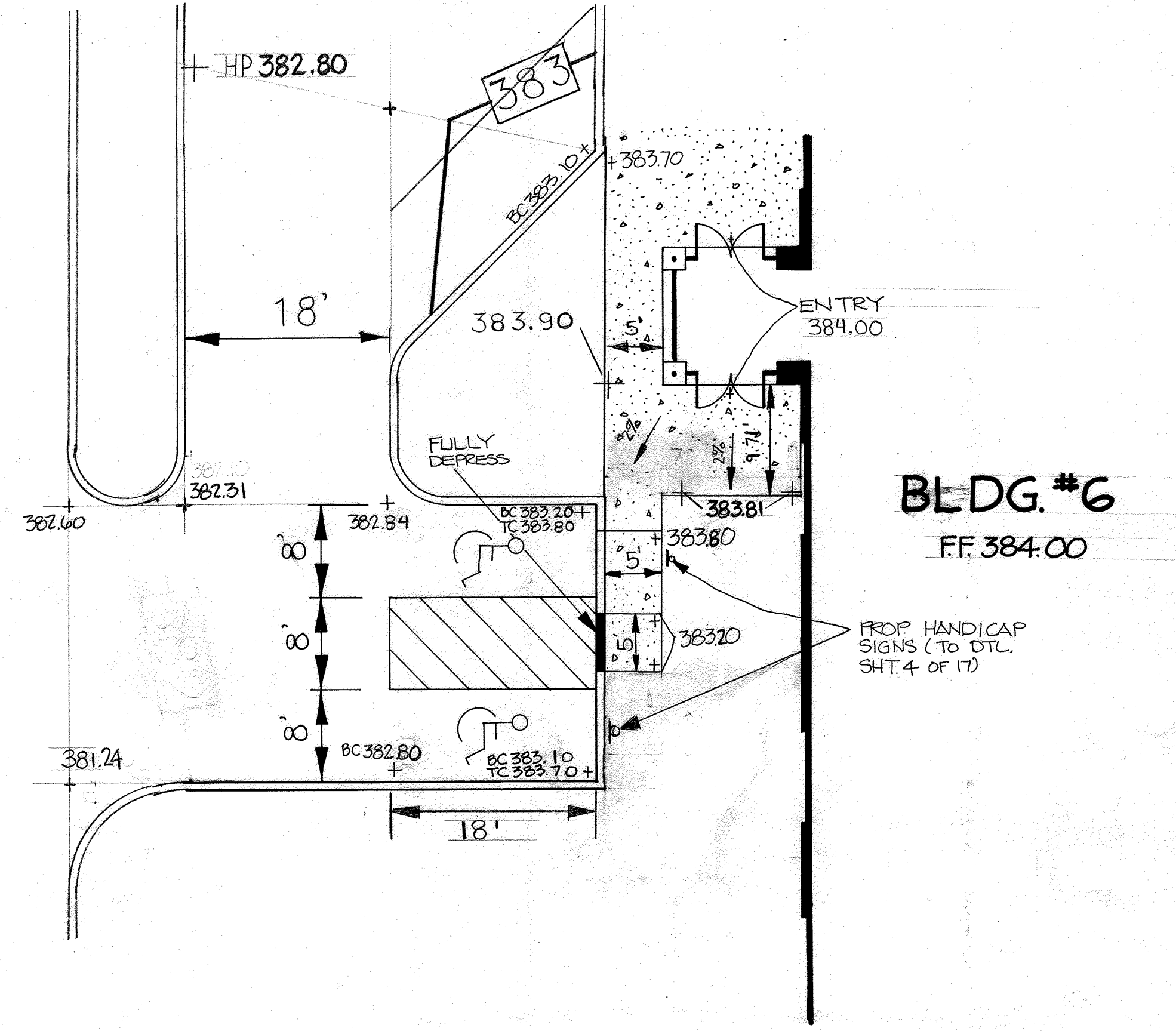
**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 3, 2024.  
 REVISION 45 PREPARED BY:  
 BLDG, INC. (1/2/2024)

**PROFESSIONAL ENGINEER**  
 IWONA ROSTEK-ZARSKA, P.E.  
 No. 21245, EXP. 06/03/24

**LEGEND**

EX. 2' CONTOURS	---
EX. 10' CONTOURS	----
PROP. 2' CONTOURS	----
PROP. 10' CONTOURS	----
EX. CURB & GUTTER	----
PROP. CURB & GUTTER	----
BLDG. RESTRICTION LINE	----
EX. SANITARY	----
EX. STORM DRAIN	----
EX. WATER	----
PROP. SANITARY	----
PROP. STORM DRAIN	----
PROP. WATER	----

MATCHLINE 'A-A' (SEE SHEET 3 OF 17)



**HANDICAP DETAIL #3**  
 SCALE: 1" = 10'

**APPROVED**  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE: JUNE 3, 1999

**ADDRESS CHART**

PARCEL NO.	STREET ADDRESS
A-31	BUILDING #4 8825 STANFORD BOULEVARD
A-32	BUILDING #5 8890 MCGAW ROAD
A-32	BUILDING #6 8880 MCGAW ROAD

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBERS
COLUMBIA CORPORATE PARK	1/1	A-31 & A-32

PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
#6475 & #13781	24	N.T. EC-IND	36	6	6067-03

WATER CODE E06 SEWER CODE 5333000

**REVISED SITE PLAN**  
 FOR  
**COLUMBIA CORPORATE PARK**  
 PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 PARCELS A-32 & A-31  
 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: R.A.M.  
 DRAWN BY: J.E.T./D.T.A.  
 CHECKED BY: R.A.M.  
 APPRD. BY: R.A.L.  
 DATE: 06-04-99  
 SCALE: 1"=40'

PROJECT # 98B055  
 DRAWING: SPb05501.DWG  
 XREFS: XRB05510 XRB05502

2 SHEET OF 17

**Barakos-Landino Design Group**  
 ENGINEERS / PLANNERS / SURVEYORS / LANDSCAPE ARCHITECTS

355 Research Parkway  
 Meriden, CT 06450  
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 Richmond, VA 23233  
 (800) 301-3077

**OWNER / DEVELOPER**

MERRITT - CCP IV, LLC  
 MERRITT - CCP V, LLC  
 BH ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
 2066 Lord Baltimore Drive  
 Baltimore, Maryland 21207  
 (410) 298-2600

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 4/25/00  
 DIRECTOR

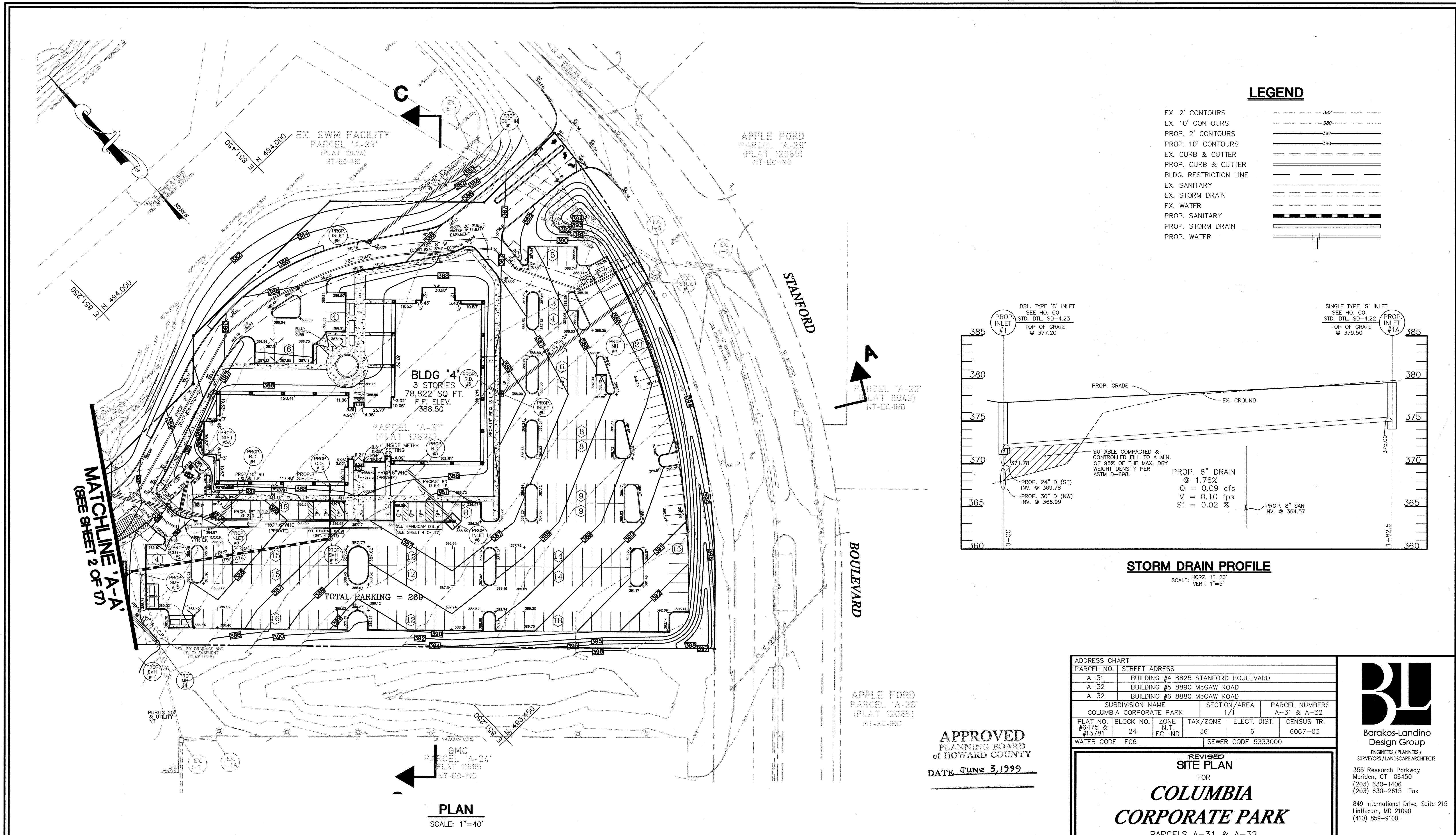
*[Signature]* 4/20/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 4/11/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	REVISION	DATE
1	RAISED BUILDING #5 ONE FOOT, SHIFTED PLAZA IN FRONT OF BLDG. #5, SHIFTED SANITARY SEWER SMH #3 TO SMH #6 AND LOADING DOCKS	9/1/99
2	REVISED #11 LOCATION AT FRONT OF BLDG #6, REMOVED EX. 10" S.D. AND REBARMENT AT EX. #11	4/3/00
3	REVISED BLDG. #6, PARKING, LOADING, GRADING, UTILITIES	5/15/00
4	ADDED BLDG. #6 AREA WITH REFINED HC GRABES, STOCK CONTAINERS, LOADING AREA	6/8/00
5	BLDG. #6 CONVERT BUILDING #6 COVERED LOADING AREA TO ADDITIONAL OFFICE SPACE, RELOCATE STORM DRAIN	1/2/2024

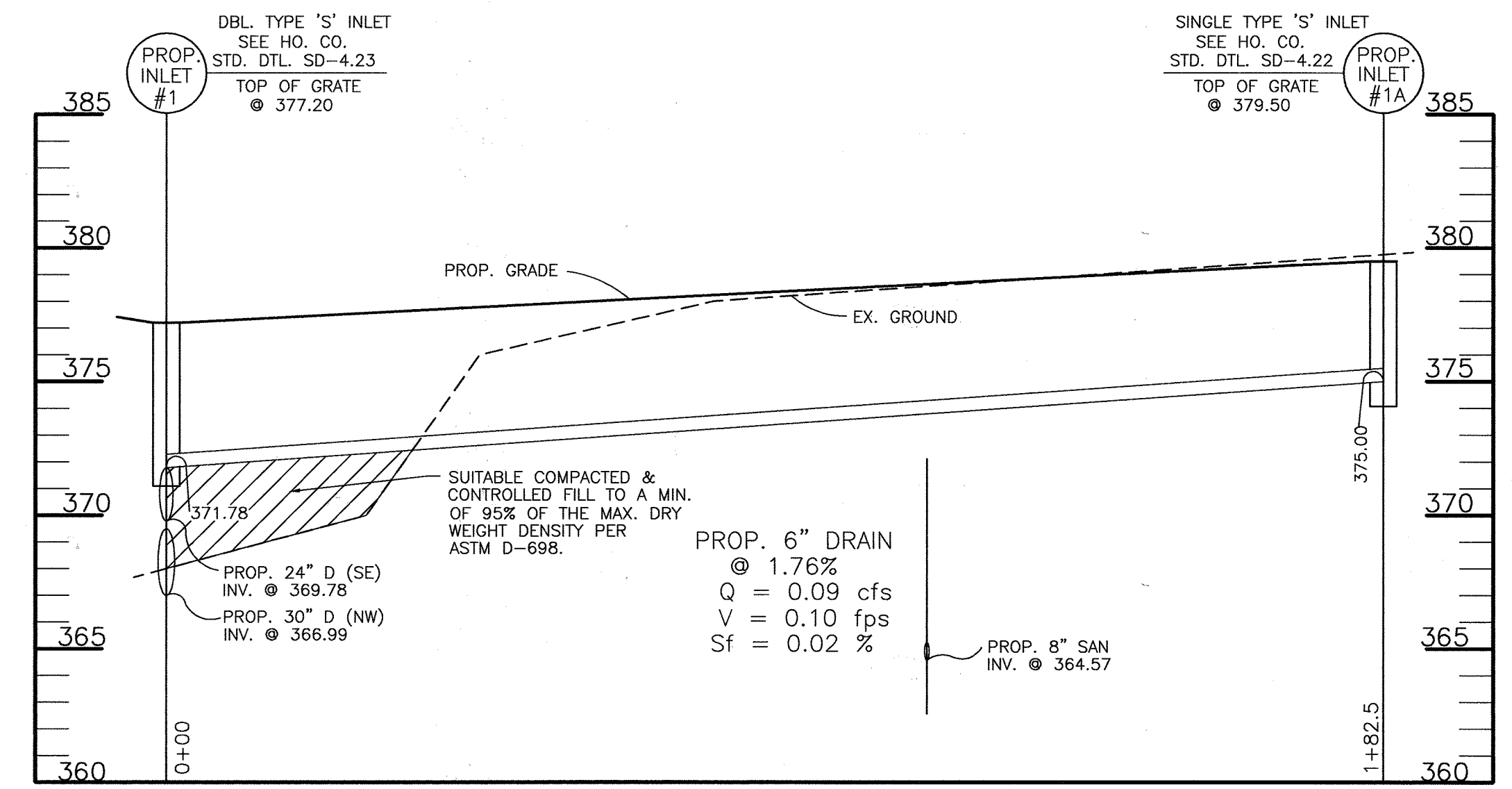
THIS SHEET 2 OF 17 SUPERSEDES SHEET 2 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY, DEPT. OF PLANNING & ZONING ON JULY 23, 1999.





**LEGEND**

- EX. 2' CONTOURS
- EX. 10' CONTOURS
- PROP. 2' CONTOURS
- PROP. 10' CONTOURS
- EX. CURB & GUTTER
- PROP. CURB & GUTTER
- BLDG. RESTRICTION LINE
- EX. SANITARY
- EX. STORM DRAIN
- EX. WATER
- PROP. SANITARY
- PROP. STORM DRAIN
- PROP. WATER



**STORM DRAIN PROFILE**  
SCALE: HORIZ. 1"=20'  
VERT. 1"=5'

**APPROVED**  
PLANNING BOARD  
of HOWARD COUNTY  
DATE JUNE 3, 1999

**PLAN**  
SCALE: 1"=40'

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
A-31	BUILDING #4 8825 STANFORD BOULEVARD
A-32	BUILDING #5 8890 MCGAW ROAD
A-32	BUILDING #6 8880 MCGAW ROAD

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBERS
COLUMBIA CORPORATE PARK	1/1	A-31 & A-32

PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
#6475 & #13781	24	N.T. EC-IND	36	6	6067-03

WATER CODE E06 SEWER CODE 5333000



REVISED SITE PLAN FOR

## COLUMBIA CORPORATE PARK

PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 PARCELS A-31 & A-32  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: R.A.M.  
DRAWN BY: J.E.T./D.T.A.  
CHECKED BY: R.A.M.  
APPRD. BY: R.A.L.  
DATE: 06-04-99  
SCALE: 1"=40'

PROJECT # 98B055  
DRAWING: SPB05502.DWG  
XREFS: XRB05510, XRB05502

3 SHEET OF 17

355 Research Parkway  
Meriden, CT 06450  
(203) 630-1406  
(203) 630-2615 Fax

849 International Drive, Suite 215  
Linthicum, MD 21090  
(410) 859-9100

210 West 70th Street, Suite 604  
New York, NY 10023

2933 North Front Street, Suite 1  
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900 Parish Street, Suite 201  
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(412) 928-3060

80 Washington Street, Suite 310  
Poughkeepsie, NY 12601  
(888) 830-9272

3957 Westerre Parkway  
Richmond, VA 23233  
(800) 301-3077

**OWNER / DEVELOPER**

MERRITT - COP IV, LLC  
MERRITT - COP V, LLC  
BH ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
2066 Lord Baltimore Drive  
Baltimore, Maryland 21207  
(410) 298-2600

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 9/25/00  
DIRECTOR

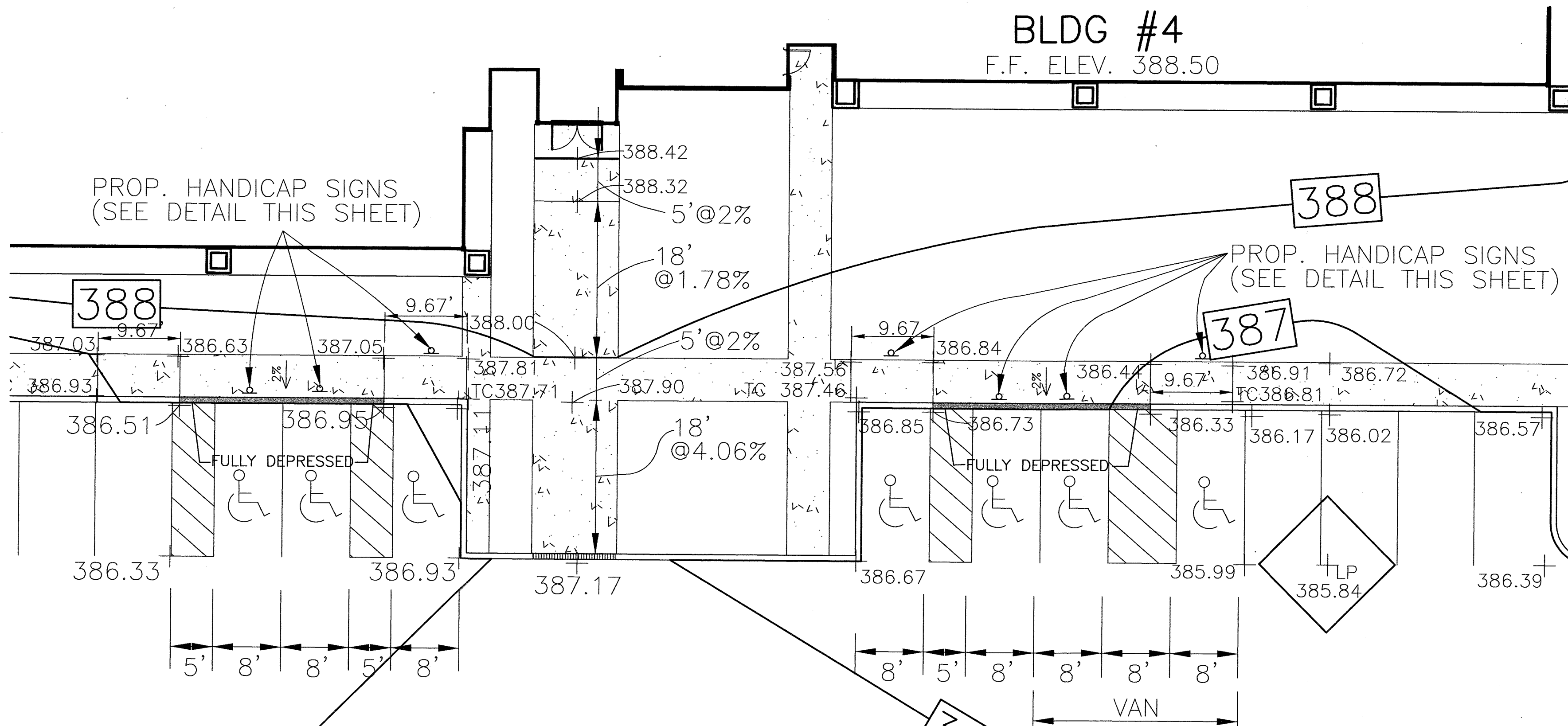
*[Signature]* 4/10/02  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 4/11/02  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

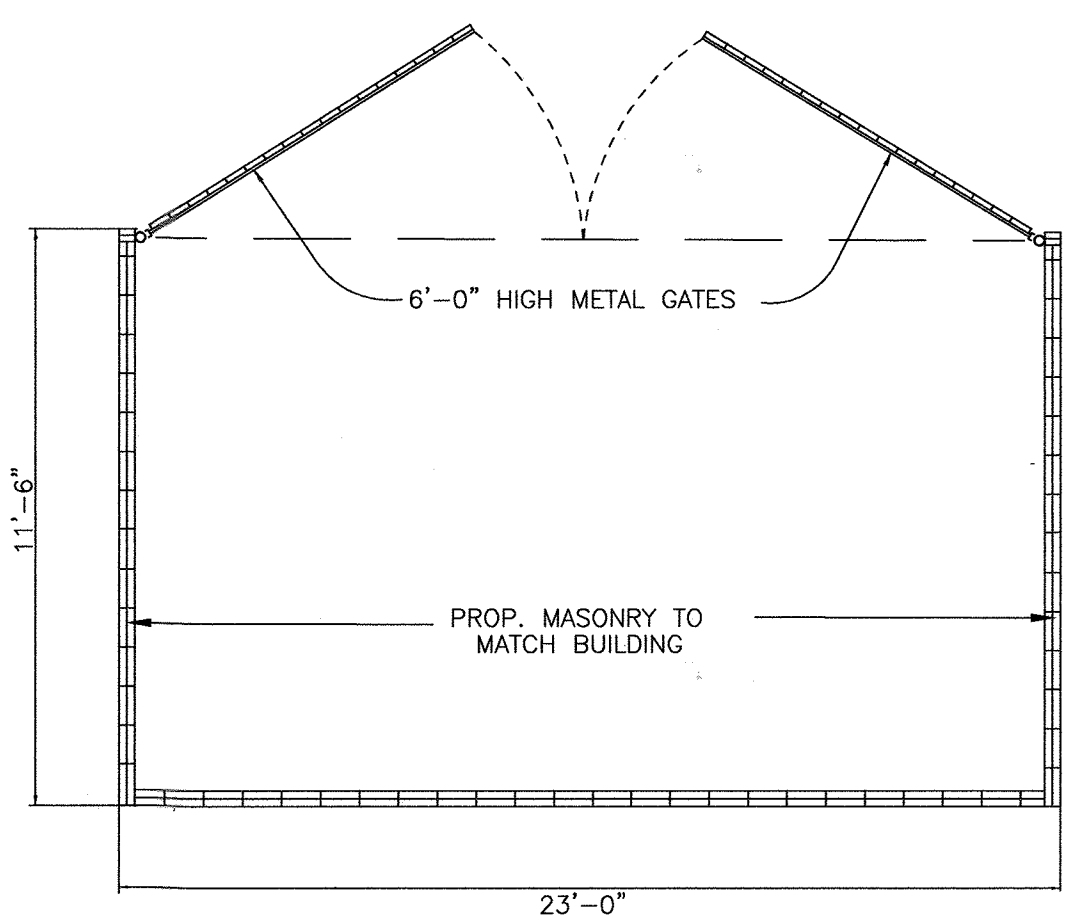
NO.	REVISION	DATE
1	REDUCED THE DRIVE ALONG LAKE TO 26', ADDED LOADING DOCK, SHIFTED PLAZA IN FRONT BLDG. #4 AND RELOCATED SAN. SMH #3 TO C.O. #2. ADDED LOADING DOCK AND STORM DRAIN PROFILE.	9/1/99
2	REVISE FH. PER APPROVED WATER & SEWER PLAN	4/13/00

THIS SHEET 3 OF 17 SUPERSEDES SHEET 3 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY, DEPT. OF PLANNING & ZONING ON JULY 23, 1999.

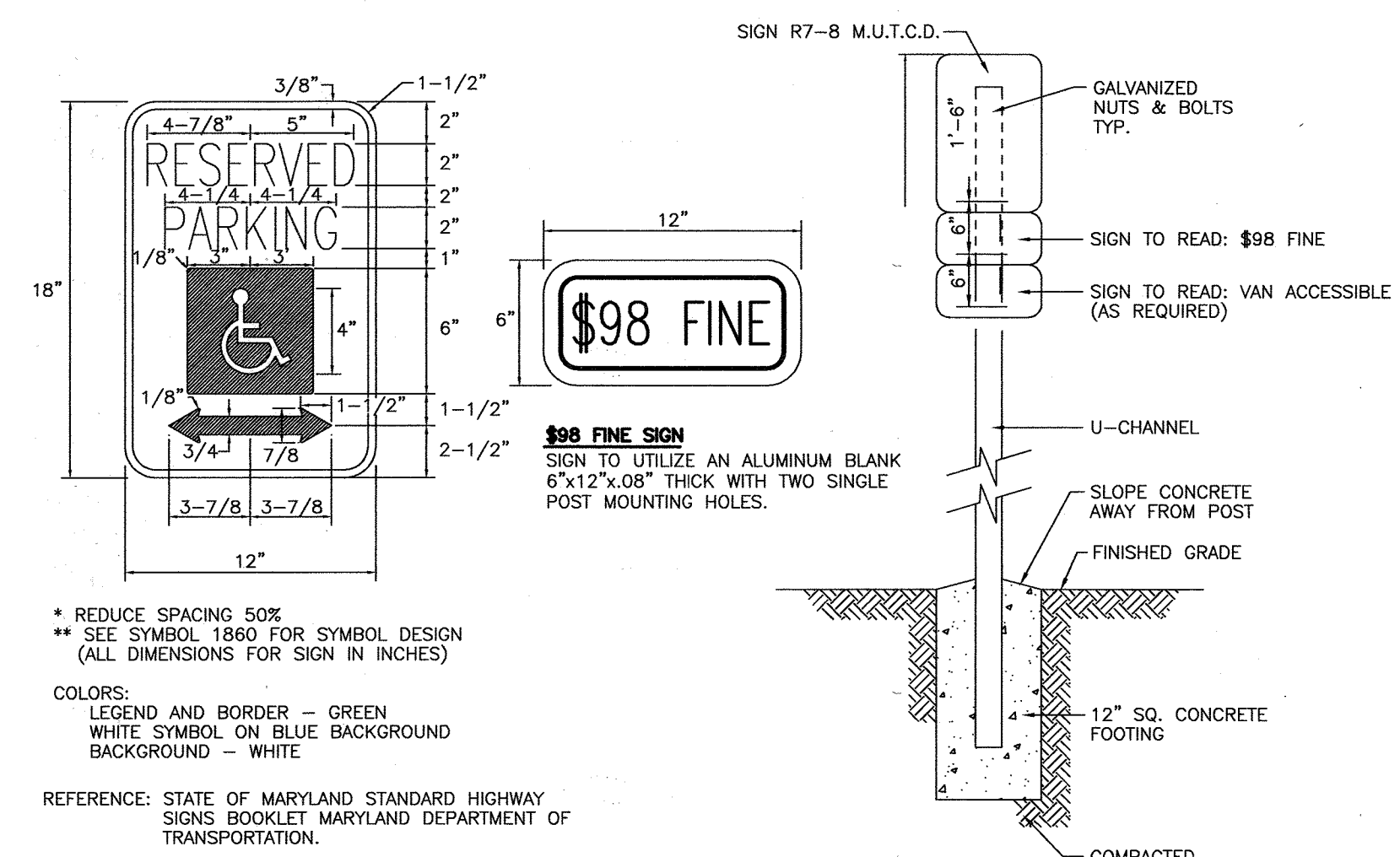




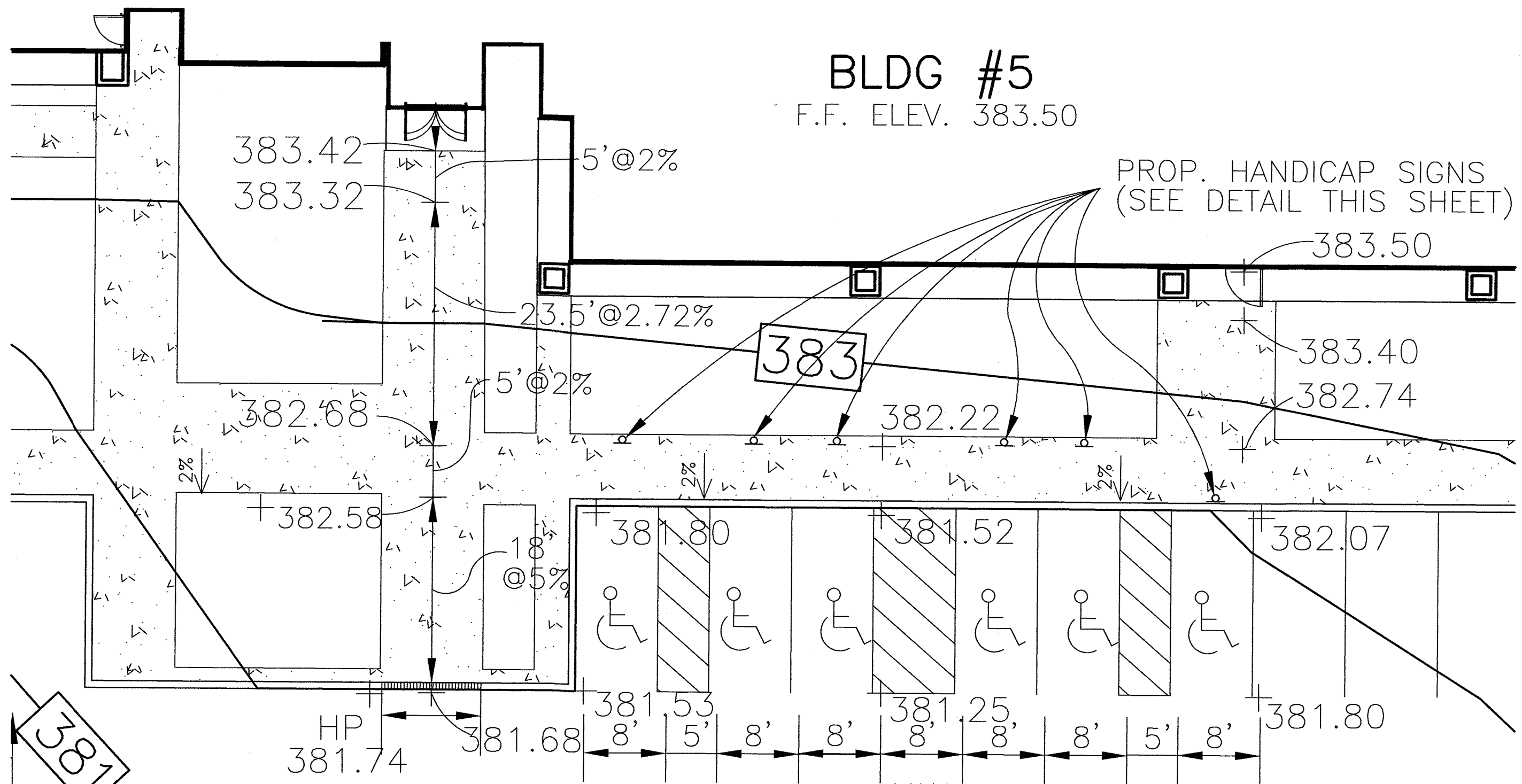
**HANDICAPPED PARKING DETAIL #1**  
SCALE: 1"=10'



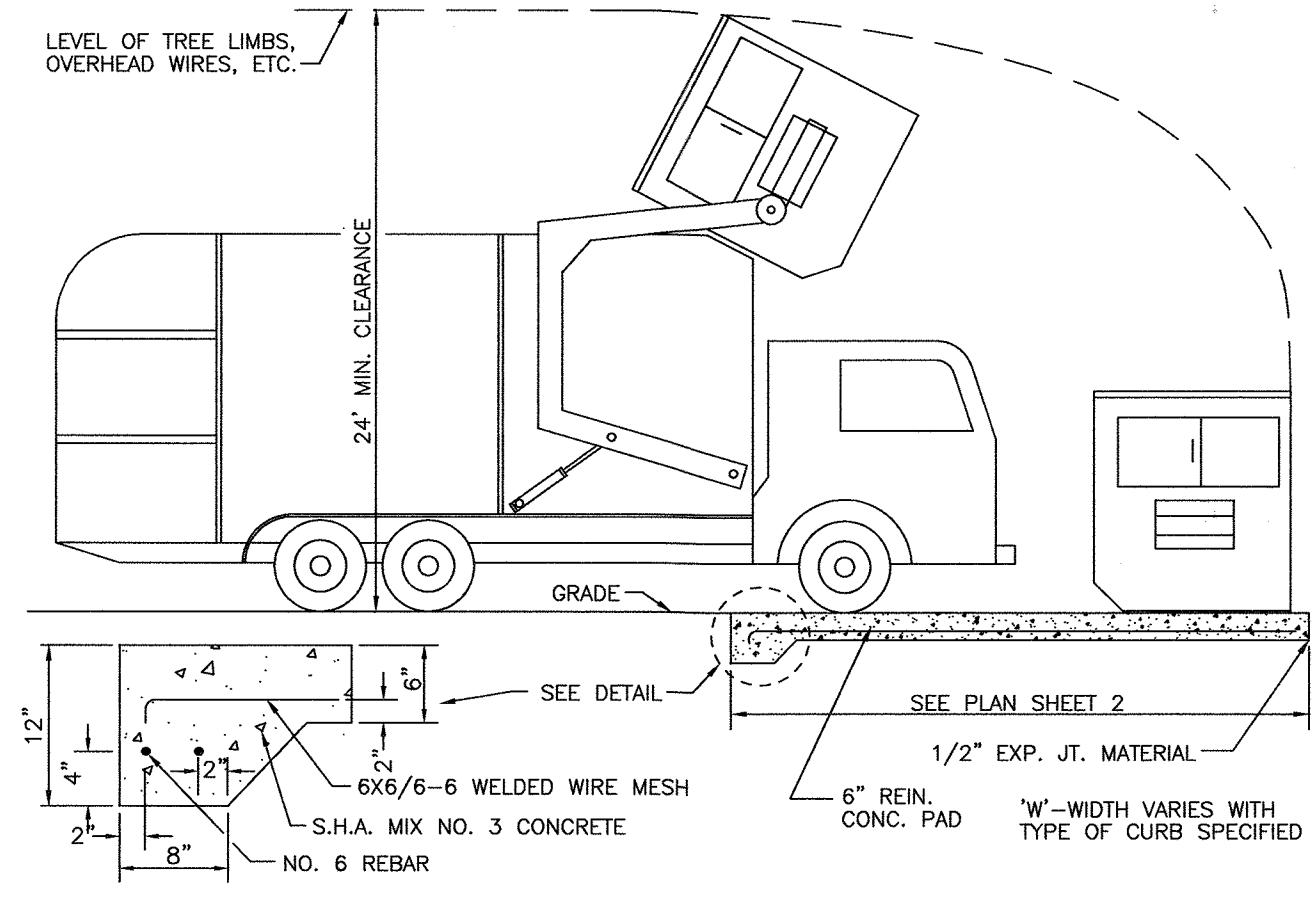
**TRASH ENCLOSURE PLAN**  
NOT TO SCALE



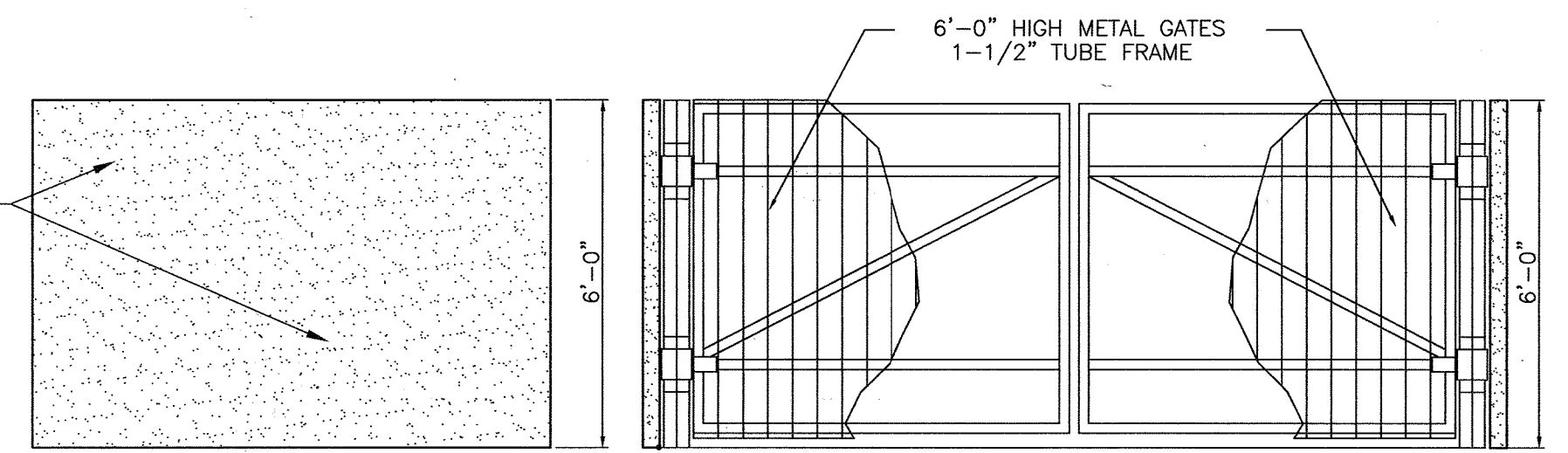
**HANDICAPPED PARKING SIGN DETAIL**  
NOT TO SCALE



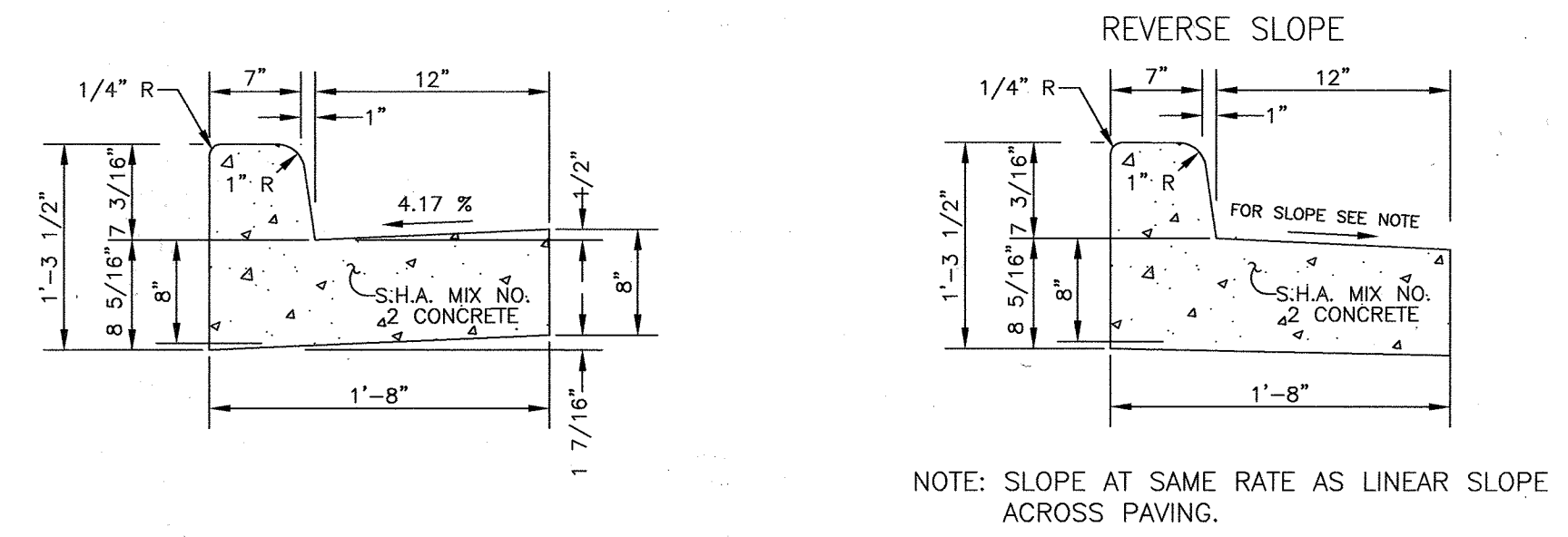
**HANDICAPPED PARKING DETAIL #2**  
SCALE: 1"=10'



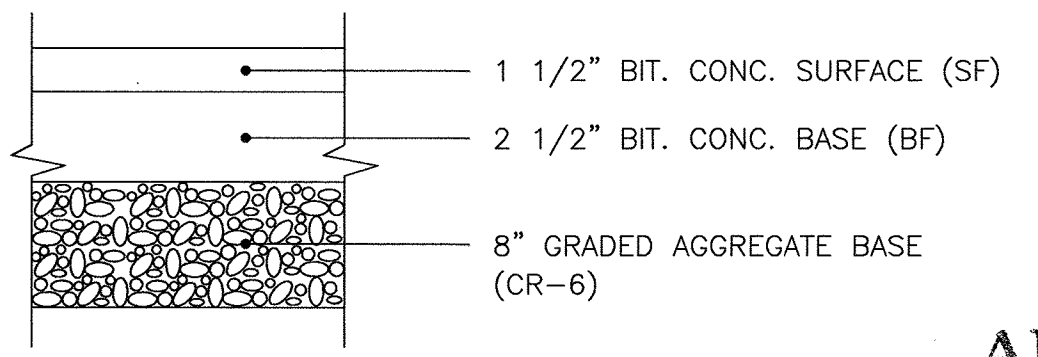
**SOLID WASTE SERVICE PAD**  
HOWARD COUNTY STANDARD R-11.01  
NOT TO SCALE



**TRASH ENCLOSURE ELEVATION**  
NOT TO SCALE



**STANDARD COMBINATION CURB AND GUTTER**  
HOWARD COUNTY STANDARD R-3.01  
NOT TO SCALE



**PAVEMENT SECTION**  
AS PER GEOTECH REPORT PERFORMED BY INVESTIGATIVE TESTING & ENGINEERING  
NOT TO SCALE

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE: June 3, 1999

ADDRESS CHART					
PARCEL NO.	STREET ADDRESS				
A-31	BUILDING #4 8825 STANFORD BOULEVARD				
A-32	BUILDING #5 8890 MCGAW ROAD				
A-32	BUILDING #6 8880 MCGAW ROAD				
SUBDIVISION NAME					
COLUMBIA CORPORATE PARK					
SECTION/AREA	PARCEL NUMBERS				
1/1	A-31 & A-32				
PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
#6475 & #13781	24	N.T. EC-IND	36	6	6067-03
WATER CODE E06		SEWER CODE 5333000			

**REVISED SITE DETAILS**  
FOR  
**COLUMBIA CORPORATE PARK**  
PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36  
6TH ELECTION DISTRICT

DESIGN BY: R.A.M.  
DRAWN BY: J.E.T./R.F.S.  
CHECKED BY: R.A.M.  
APPRD. BY: R.A.L.  
DATE: 06-04-99  
SCALE: AS SHOWN

PROJECT # 98B055  
DRAWING: DSB05501.DWG  
XREFS: XRB05510, XRB05502

4 SHEET OF 17

**Barokos-Landino Design Group**  
ENGINEERS / PLANNERS / SURVEYORS / LANDSCAPE ARCHITECTS

355 Research Parkway  
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(800) 301-3077

**OWNER / DEVELOPER**

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MERRITT - CCP V, LLC  
BH ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
2066 Lord Baltimore Drive  
Baltimore, Maryland 21207  
(410) 298-2600

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*James P. Rutter* 4/26/00  
DIRECTOR

*Clayton H. Hovatta* 4/29/00  
CHIEF, DIVISION OF LAND DEVELOPMENT

*Michael J. DeMunn*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

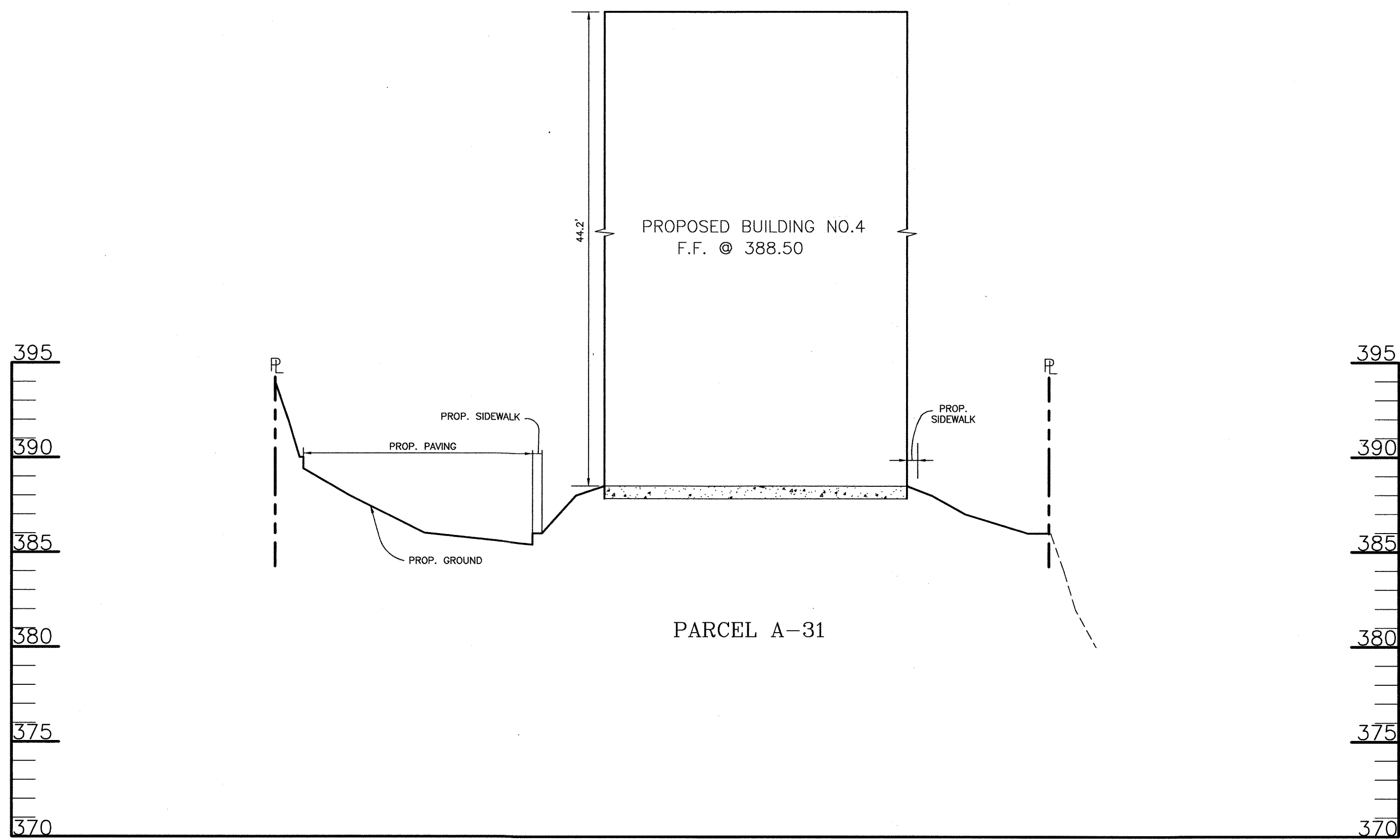
NO.	REVISION	DATE
1	REVISED HANDICAPPED PARKING SPACES.	9/1/99

THIS SHEET 4 OF 17 SUPERSEDES SHEET 4 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY, DEPT. OF PLANNING & ZONING ON JULY 23, 1999.



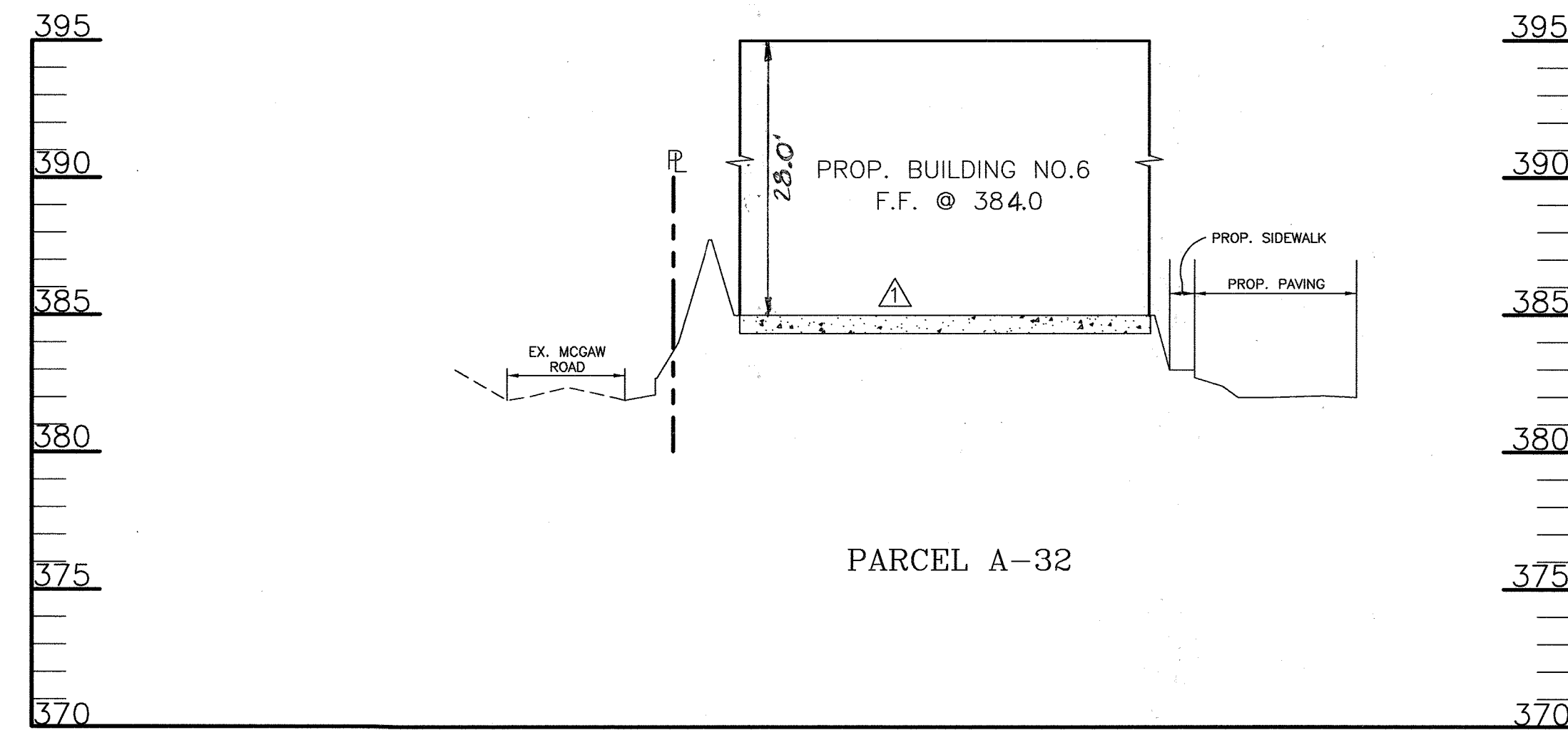






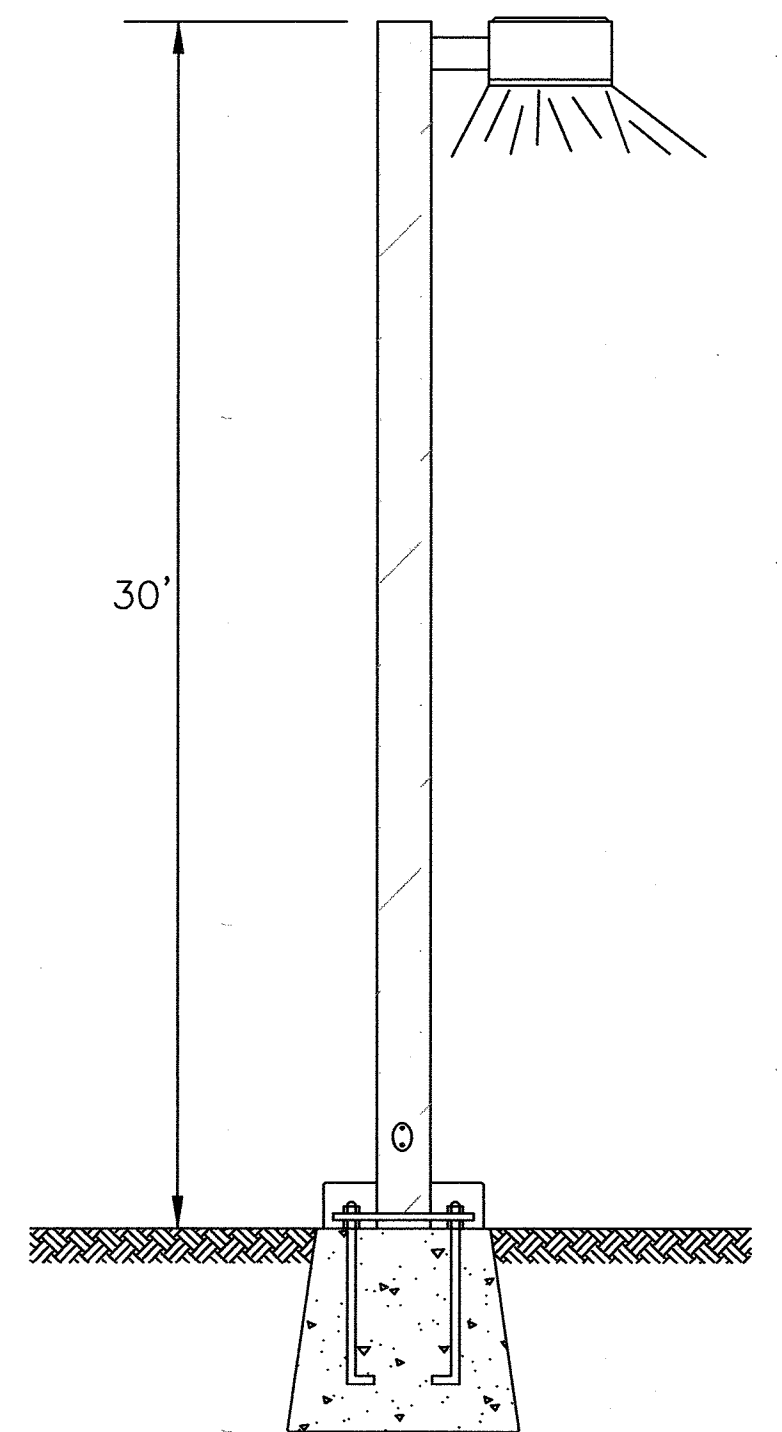
**SECTION C-C**

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



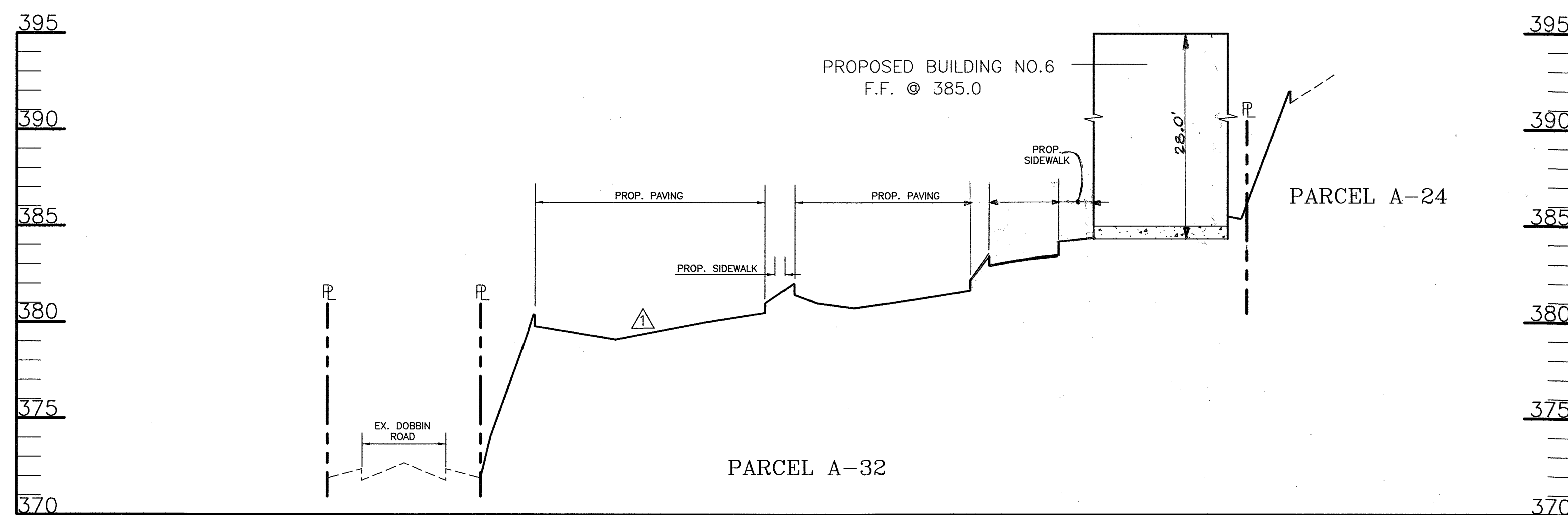
**SECTION E-E**

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



**STD. LIGHT POLE**

SEE ELECTRICAL ENGINEER'S LIGHTING PLANS FOR LIGHT LOCATION & SPEC. N.T.S.



**SECTION D-D**

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

**APPROVED**  
PLANNING BOARD  
of HOWARD COUNTY  
DATE JUNE 3, 1999

ADDRESS CHART					
PARCEL NO.	STREET ADDRESS				
A-31	BUILDING #4 8825 STANFORD BOULEVARD				
A-32	BUILDING #5 8890 MCGAW ROAD				
A-32	BUILDING #6 8890 MCGAW ROAD				
SUBDIVISION NAME		SECTION/AREA	PARCEL NUMBERS		
COLUMBIA CORPORATE PARK		1/1	A-31 & A-32		
PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
#6475 & #13781	24	N.T. EC-IND	36	6	6067-03
WATER CODE E06			SEWER CODE 5333000		

REVISED SECTIONS FOR

**COLUMBIA CORPORATE PARK**

PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 PARCELS A-31 & A-32  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGNED BY: M.A.D.  
DRAWN BY: D.T.A./J.E.T.  
CHECKED BY: R.A.M.  
APPRD. BY: R.A.L.  
DATE: 06-04-99  
SCALE: AS SHOWN

PROJECT # 98B055  
DRAWING: DSB05503  
XREFS:

6 SHEET OF 17



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ENGINEERS / PLANNERS / SURVEYORS / LANDSCAPE ARCHITECTS

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MERRITT - CCP V, LLC  
BH ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
2066 Lord Baltimore Drive  
Baltimore, Maryland 21207  
(410) 298-2600

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 4/12/00  
DIRECTOR

*[Signature]* 4/29/00  
CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 4/14/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

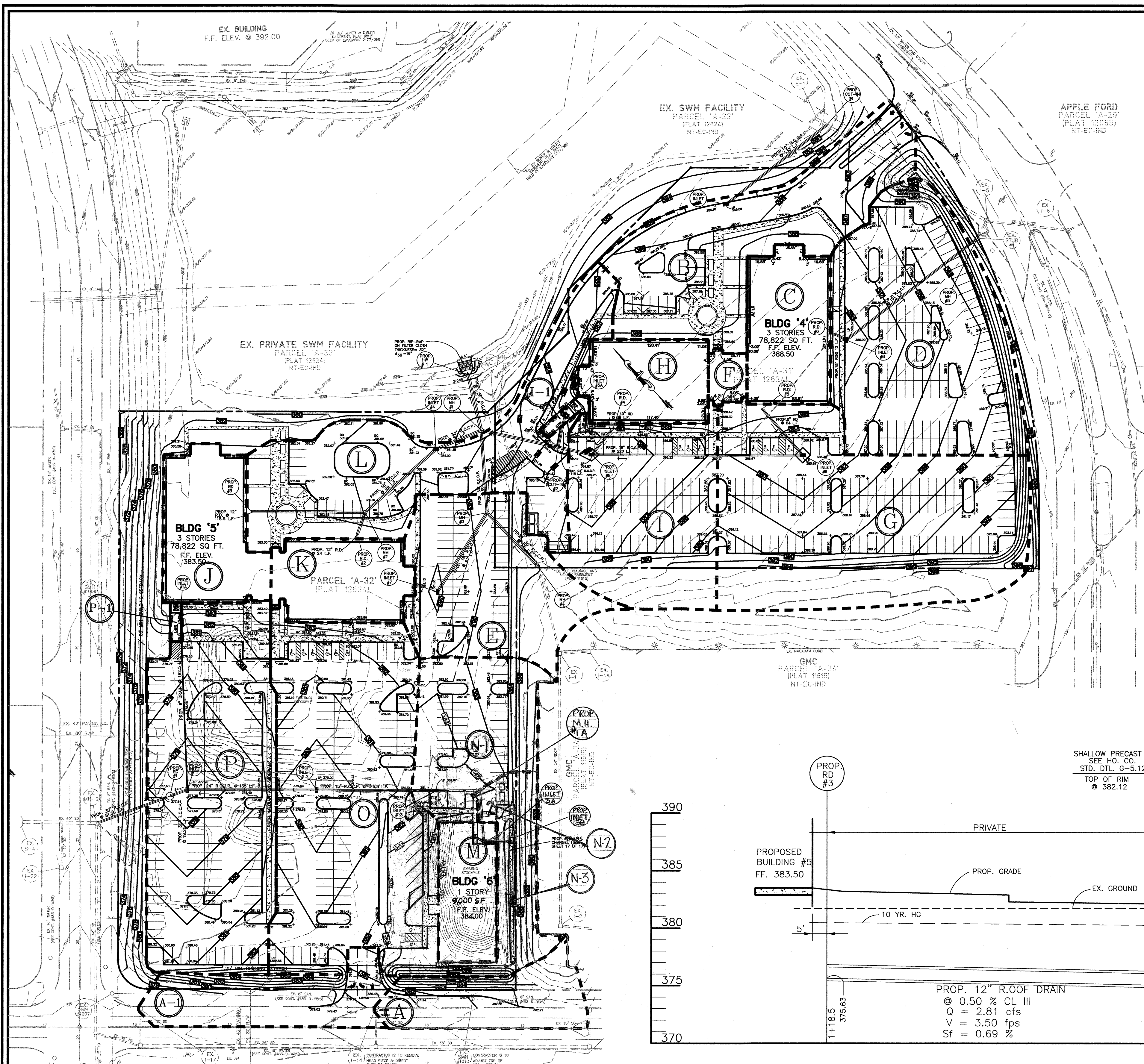
NO.	REVISION	DATE
1	ADJUSTED PROPOSED GRADE.	9/1/99
2	CHANGES TO BUILDING #6	4/28/00

THIS SHEET 6 OF 17 SUPERSEDES SHEET 6 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY, DEPT. OF PLANNING & ZONING ON JULY 23, 1999.









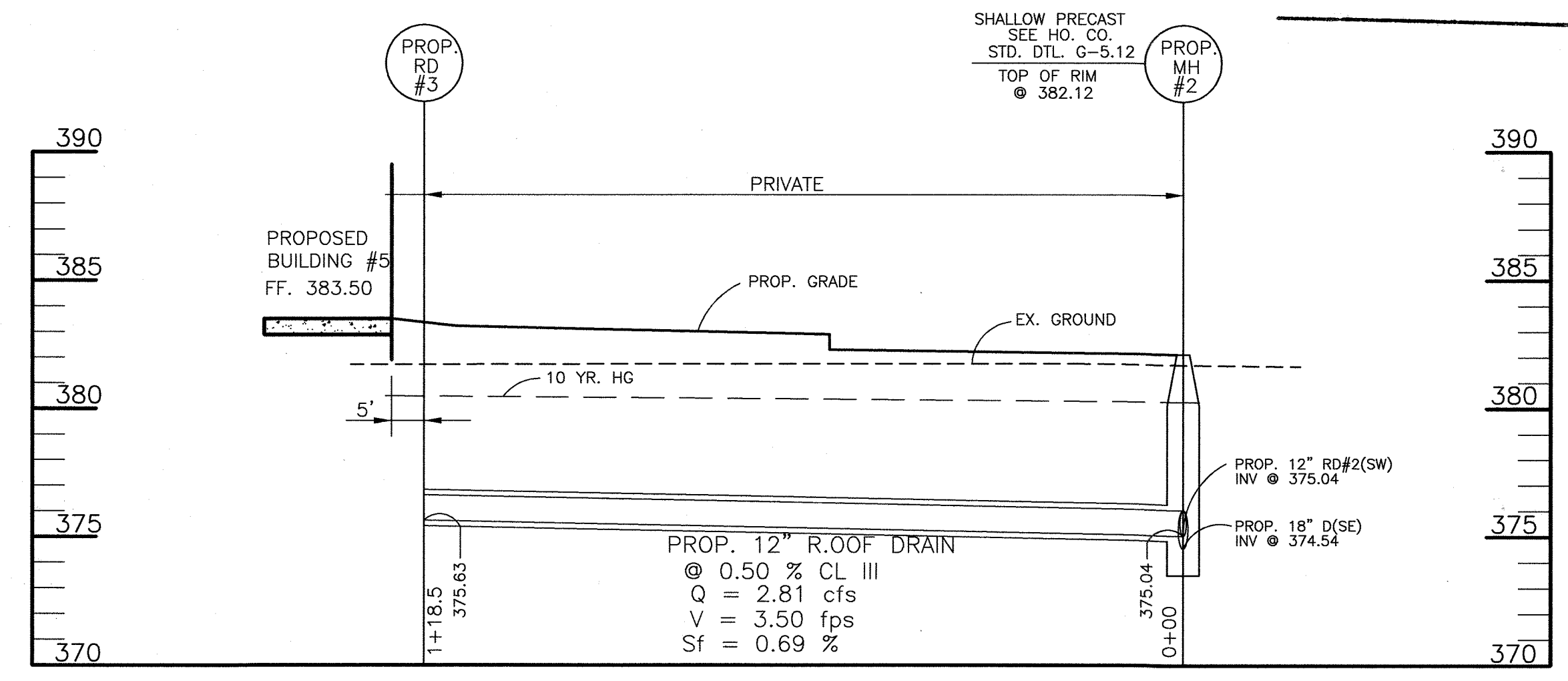
DRAINAGE AREA			
AREA	ACREAGE	'C'	IMPERV.
A	0.32	0.54	0.15 AC
B	0.78	0.61	0.46 AC
C	0.32	0.86	0.32 AC
D	1.05	0.72	0.81 AC
E	0.63	0.63	0.39 AC
F	0.05	0.86	0.05 AC
G	1.32	0.56	0.66 AC
H	0.26	0.86	0.26 AC
I	0.68	0.62	0.40 AC
J	0.34	0.86	0.34 AC
K	0.29	0.86	0.29 AC
L	0.94	0.67	0.64 AC
M	0.20	0.86	0.20 AC
N-1	0.47	0.56	0.24 AC
O	1.32	0.74	1.05 AC
P	1.13	0.77	0.96 AC
I-1	0.02	0.68	0.014 AC
P-1	0.01	0.86	0.01 AC
A-1	0.35	0.55	0.17 AC
N-2	0.03	0.86	0.03 AC
N-3	0.46	0.26	0.00 AC

INLET SCHEDULE						
NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	Q <sub>s</sub> cfs	HO. CO. STD. PLATE
I-1A	TYPE "S"	* 379.50	—	375.00	0.09	SD-4.22
I-1	DBL TYPE "S"	* 377.20	371.78 (E) 369.78 (SE)	366.99	21.70	SD-4.23
I-2	DBL TYPE "S"	* 379.20	373.38	371.13	14.27	SD-4.23
I-3	TYPE "S"	* 381.07	375.88	374.63	5.19	SD-4.22
I-4	DBL TYPE "S" COMB.	* 381.00	374.04	372.54	10.52	SD-4.34
I-5	DBL TYPE "S"	* 384.87	377.57 (SE) 379.09 (E)	377.07	11.93	SD-4.23
I-6	DBL TYPE "S"	* 385.84	380.60	379.77	7.08	SD-4.23
I-7	DBL TYPE "S"	* 381.86	—	375.60	3.91	SD-4.23
I-8	DBL TYPE "S" COMB.	* 385.52	380.63	380.38	9.71	SD-4.34
I-9	DBL TYPE "S" COMB.	* 385.09	—	376.29	4.68	SD-4.34
I-5A	TYPE "S"	* 382.78	—	379.28	0.14	SD-4.22
I-3A	TYPE "S"	* 379.80	376.99	376.83	0.34	SD-4.22
I-3B	TYPE "S"	* 382.00	—	377.26	0.34	SD-4.22

STRUCTURE SCHEDULE					
NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	HO. CO. STD. PLATE
MH-1	BRICK MH	* 382.60	374.37 (SE) 372.28 (NW) 373.60 (SW)	372.18	G-5.03
MH-2	SHALLOW PRECAST	* 382.12	12" RD (NW) 375.04 12" RD (SW) 375.04	374.54	G-5.12
MH-3	STD PRECAST	* 383.36	18" (SW) 375.11 30" (SW) 374.21	374.11	G-5.11
MH-4	STD PRECAST	* 385.90	378.72	378.62	G-5.11
MH-5	STD PRECAST	** 391.50	379.43	379.23	G-5.11
HW-1	TYPE 'A'	** 375.50	370.00	—	SD-5.11
MH-1A	STD PRECAST	* 381.93	375.39	374.97	G-5.11

SOIL CHART		
SOIL	NAME/DESCRIPTION	GROUP
NeB2	NESHAMINY SILT LOAM— SLIGHT	B
NeC2	NESHAMINY SILT LOAM— MODERATE SLOPES	B
BeB2	BELTSVILLE SILT LOAM— SLIGHT	C
IuB	IUKA LOAM— SLIGHT	C
SfC2	SASSAFRAS GRAVELLY SANDY LOAM— SLIGHT	B
SfB2	SASSAFRAS GRAVELLY SANDY LOAM— SLIGHT	B
CmB2	CHILLUM SILT LOAM— SLIGHT	B

APPROVED  
PLANNING BOARD  
of HOWARD COUNTY  
DATE: June 3, 1999



**DRAINAGE AREA MAP**  
SCALE: 1" = 60'

**STORM DRAIN PROFILE**  
HORIZ. 1"=20'  
SCALE: VERT. 1"=5'

ADDRESS CHART					
PARCEL NO.	STREET ADDRESS				
A-31	BUILDING #4 8825 STANFORD BOULEVARD				
A-32	BUILDING #5 8890 MCGAW ROAD				
A-32	BUILDING #6 8880 MCGAW ROAD				
SUBDIVISION NAME		SECTION/AREA	PARCEL NUMBERS		
COLUMBIA CORPORATE PARK		1/1	A-31 & A-32		
PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
#6475 & #13781	24	N.T. EC-IND	36	6	6067-03
WATER CODE E06		SEWER CODE 5333000			

REVISED  
**DRAINAGE AREA MAP**  
FOR  
**COLUMBIA CORPORATE PARK**  
PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36  
6TH ELECTION DISTRICT

DESIGN BY: N.W./R.A.M.  
DRAWN BY: J.E.T./D.T.A.  
CHECKED BY: R.A.M.  
APPRD. BY: R.A.L.  
DATE: 06-04-99  
SCALE: AS SHOWN

PROJECT # 98B055  
DRAWING: Dab05501  
XREFS: XRB05510  
XRB05502

8 SHEET OF 17

**Barakos-Landino Design Group**  
ENGINEERS / PLANNERS / SURVEYORS / LANDSCAPE ARCHITECTS

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**OWNER / DEVELOPER**  
MERRITT - CCP IV, LLC  
MERRITT - CCP V, LLC  
BRI ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
2066 Lord Baltimore Drive  
Baltimore, Maryland 21207  
(410) 298-2600

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Joseph S. Smith* 4/25/00  
DIRECTOR

*Cindy Hamilla* 4/24/00  
CHIEF, DIVISION OF LAND DEVELOPMENT

*William Damann* 4/11/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

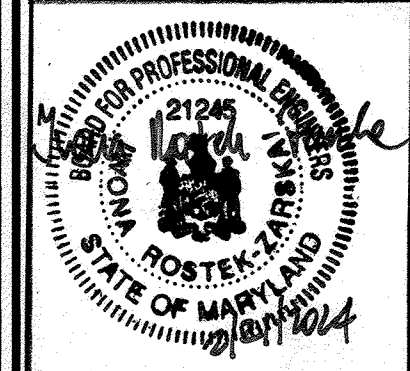
NO.	REVISION	DATE
1	REVISED SCHEDULES, SD PROFILES AND DA MAP.	9/1/99
2	REVISED BLDG #6 PARKING, LOADING, GRADING	5/15/00
3	ADD MH1A & RELOCATED I-3A	6/8/00

THIS SHEET IS OF 17 SUPERSEDES SHEET 2 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY DEPT OF PLANNING & ZONING ON JULY 23, 1999.

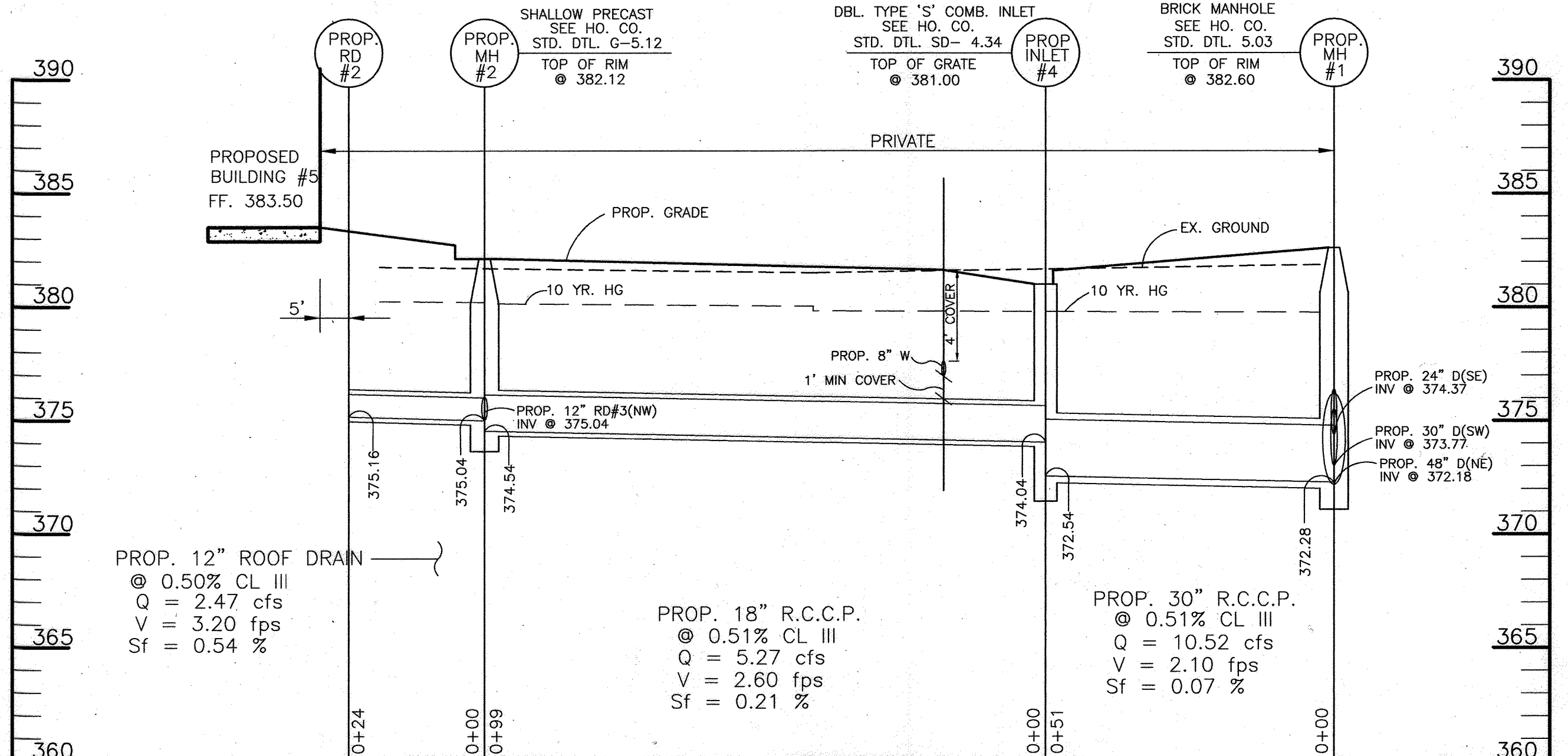
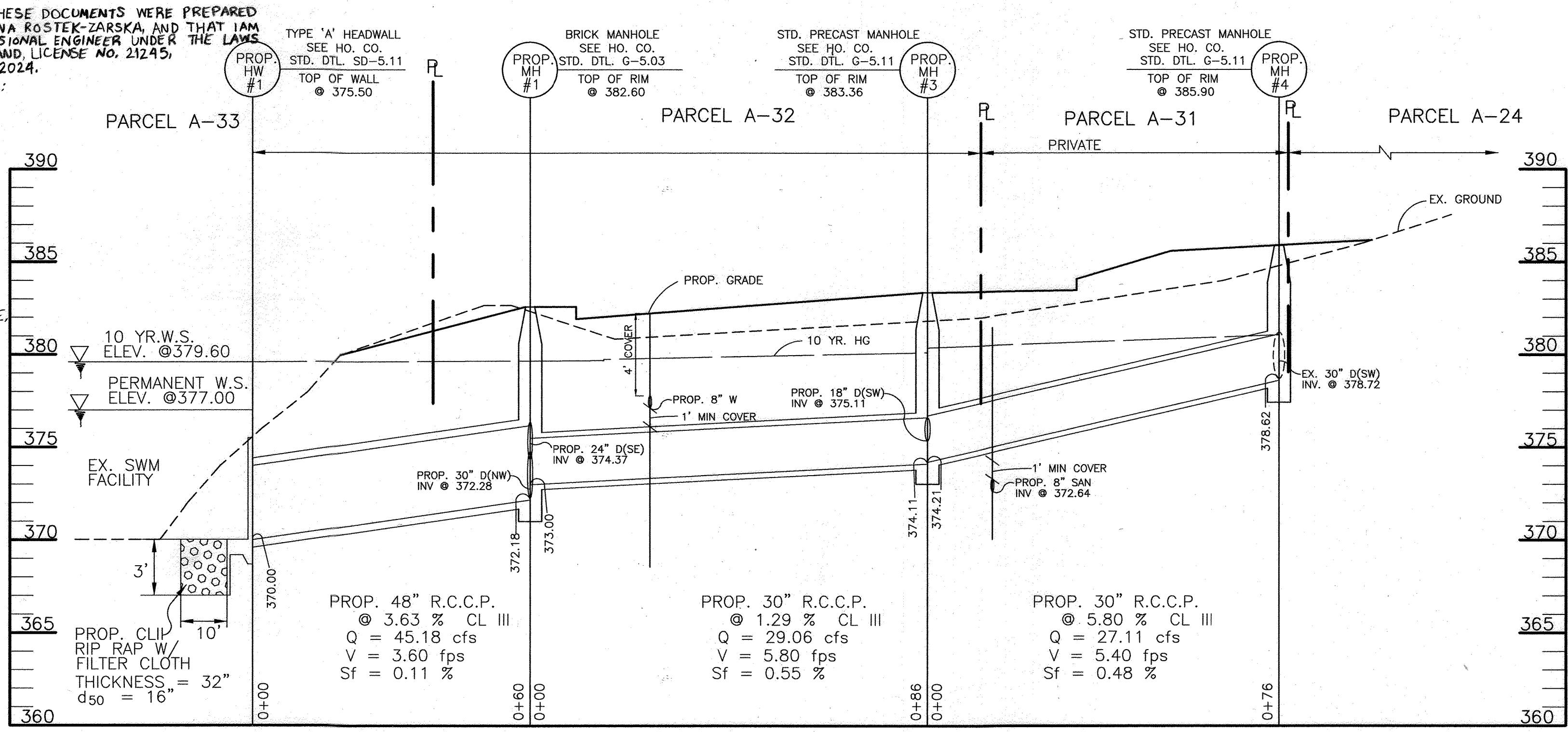


**PROFESSIONAL CERTIFICATION**

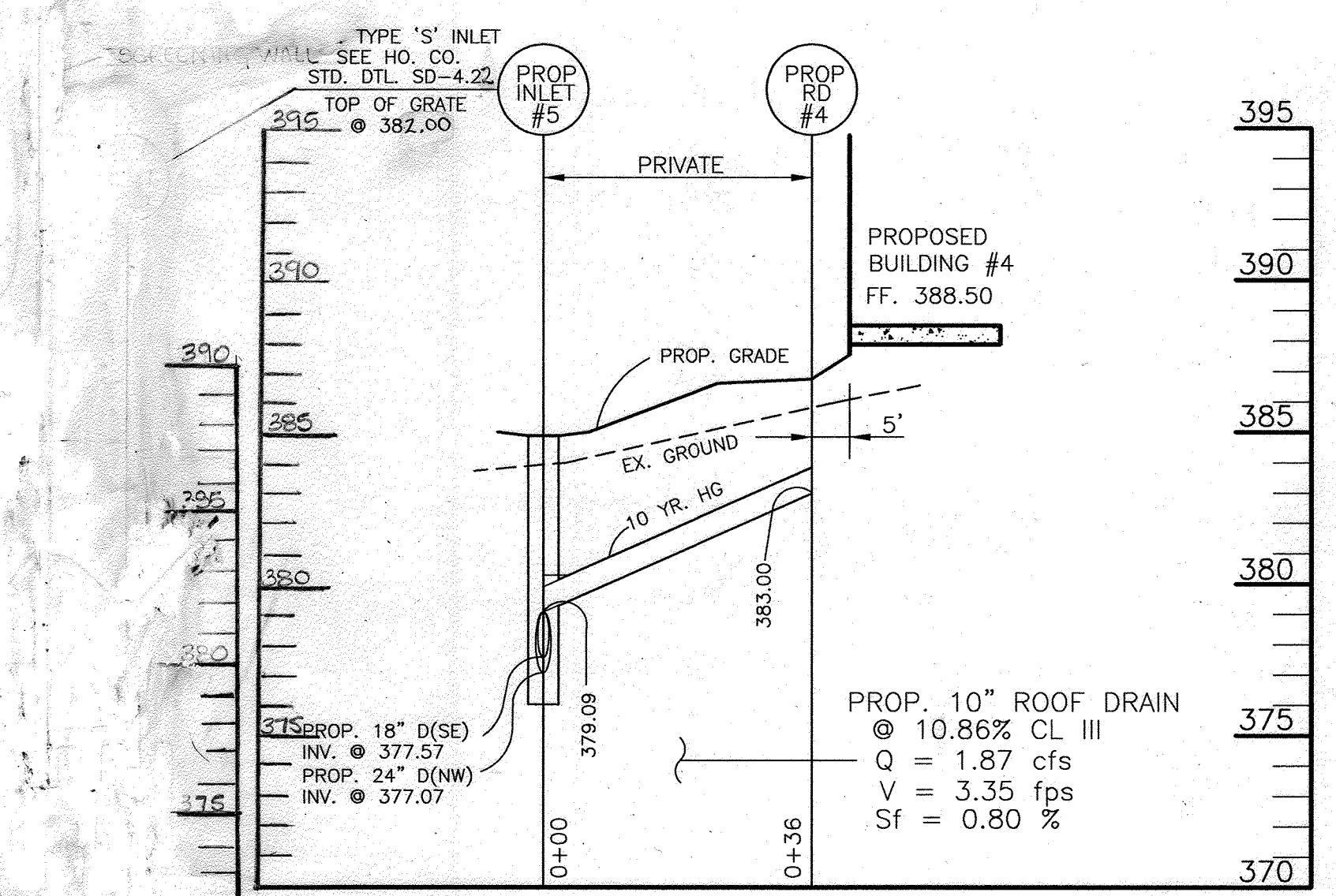
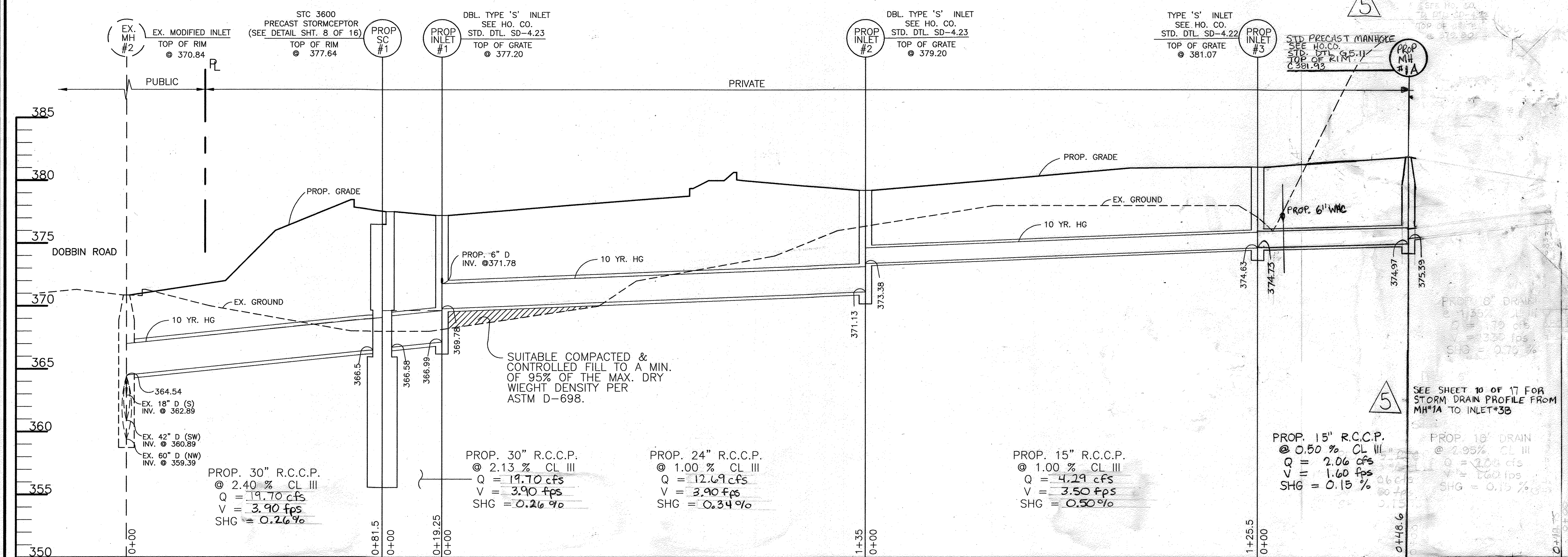
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, WONA ROSTEK-ZARSKA, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 3, 2024.  
 REVISION #5 PREPARED BY:  
 BLDG. INC. (1/2/2024)



WONA ROSTEK-ZARSKA, P.E.  
 No. 21245, EXP. 06/03/24



APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE: JUNE 3, 1999



ADDRESS CHART

PARCEL NO.	STREET ADDRESS
A-31	BUILDING #4 8825 STANFORD BOULEVARD
A-32	BUILDING #5 8890 MCGAW ROAD
A-32	BUILDING #6 8880 MCGAW ROAD

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBERS
COLUMBIA CORPORATE PARK	1/1	A-31 & A-32

PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
#6475 & #13781	24	N.T.	36	6	6067-03

WATER CODE E06 SEWER CODE 53333000

REVISED  
**STORM DRAIN PROFILES**  
 FOR  
**COLUMBIA CORPORATE PARK**  
 PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 6TH ELECTION DISTRICT PARCELS A-31 & A-32 HOWARD COUNTY, MARYLAND

DESIGN BY: N.W.  
 DRAWN BY: J.E.T./D.T.A.  
 CHECKED BY: R.A.M.  
 APPRD. BY: R.A.L.  
 DATE: 06-04-99  
 SCALE: AS SHOWN

PROJECT # 98B055  
 DRAWING: SDB05501.DWG  
 XREFS:  
 9 SHEET OF 17



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 (412) 928-3060

80 Washington Street, Suite 310  
 Poughkeepsie, NY 12601  
 (888) 830-9272

3957 Westerre Parkway  
 Richmond, VA 23233  
 (800) 301-3077

**OWNER / DEVELOPER**

MERRITT - COP V, LLC  
 MERRITT - COP V, LLC  
 BH ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
 2066 Lord Baltimore Drive  
 Baltimore, Maryland 21207  
 (410) 298-2600

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

USDA-NATURAL RESOURCES CONSERVATION SERVICE

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

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

Director: *[Signature]* 4/25/00

Chief, Division of Land Development: *[Signature]* 7/2/00

Chief, Development Engineering Division: *[Signature]* 4/11/00

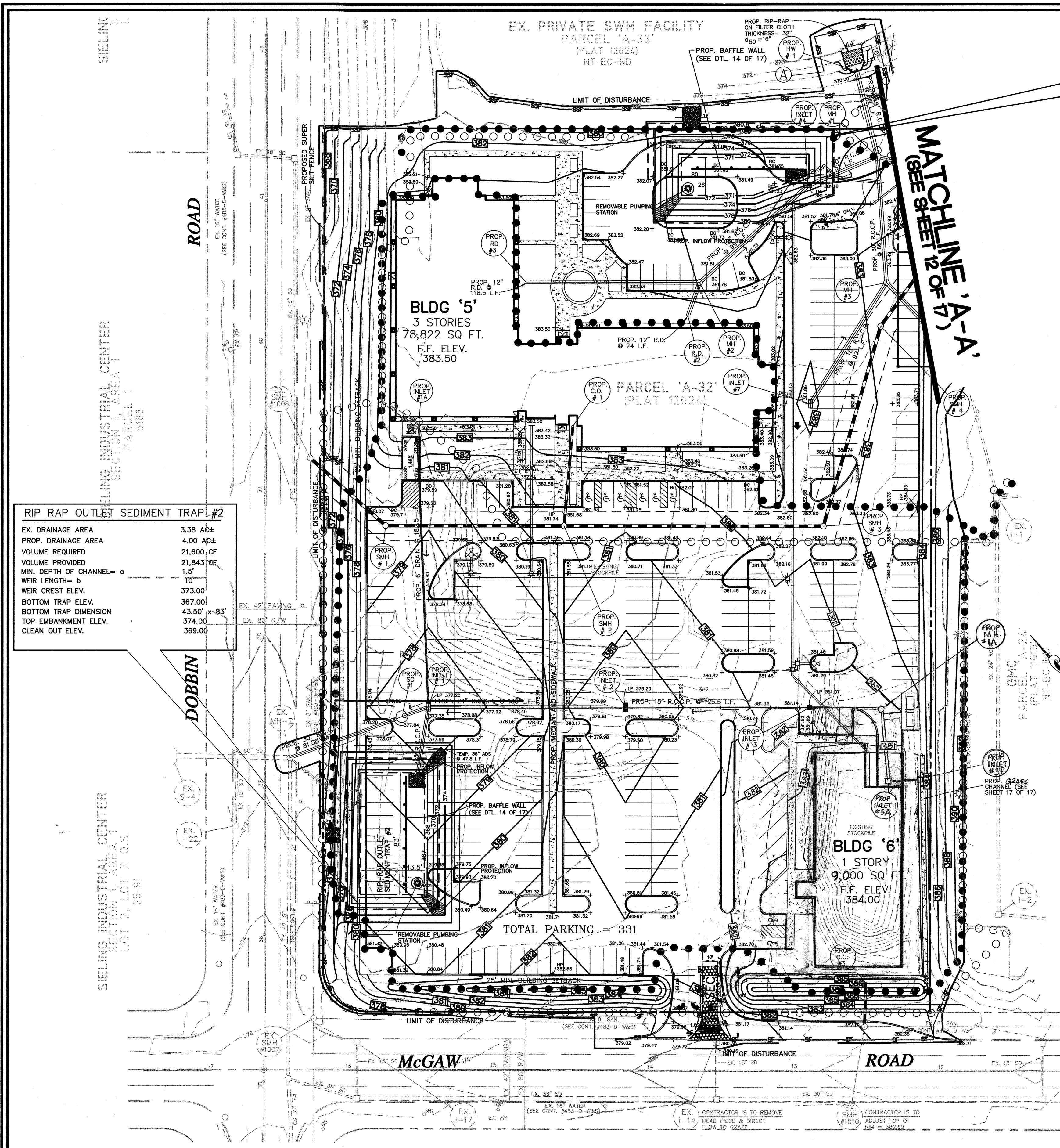
NO.	REVISION	DATE
1	REVISED PROPOSED GRADE AND ADJUSTED PROFILES.	9/1/99
2	REVISE PRIVATE DRAINS FOR BUILDING #6	5/11/00
3	REVISE PRIVATE DRAINS FOR BUILDING #6	6/8/00
4	CONVERT BUILDING #6 COVERED LOADING AREA TO ADDITIONAL OFFICE SPACE, RELOCATE STORM DRAIN.	1/2/2004

THIS SHEET 9 of 17 SUPERSEDES SHEET 9 of 17 THAT WAS SIGNED AND APPROVED BY HOWARD CO. DEPT. OF PLANNING & ZONING ON JULY 22, 2000.



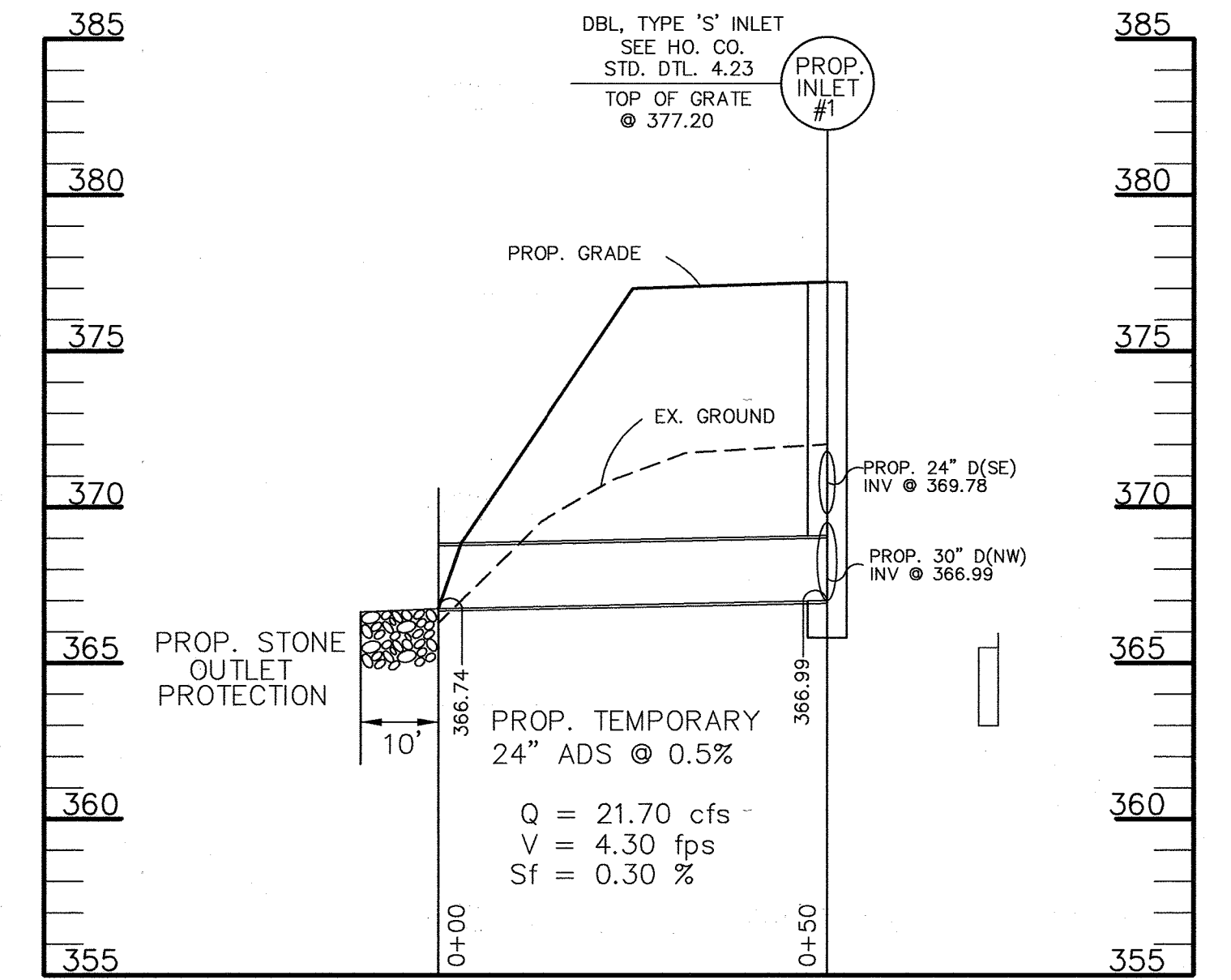






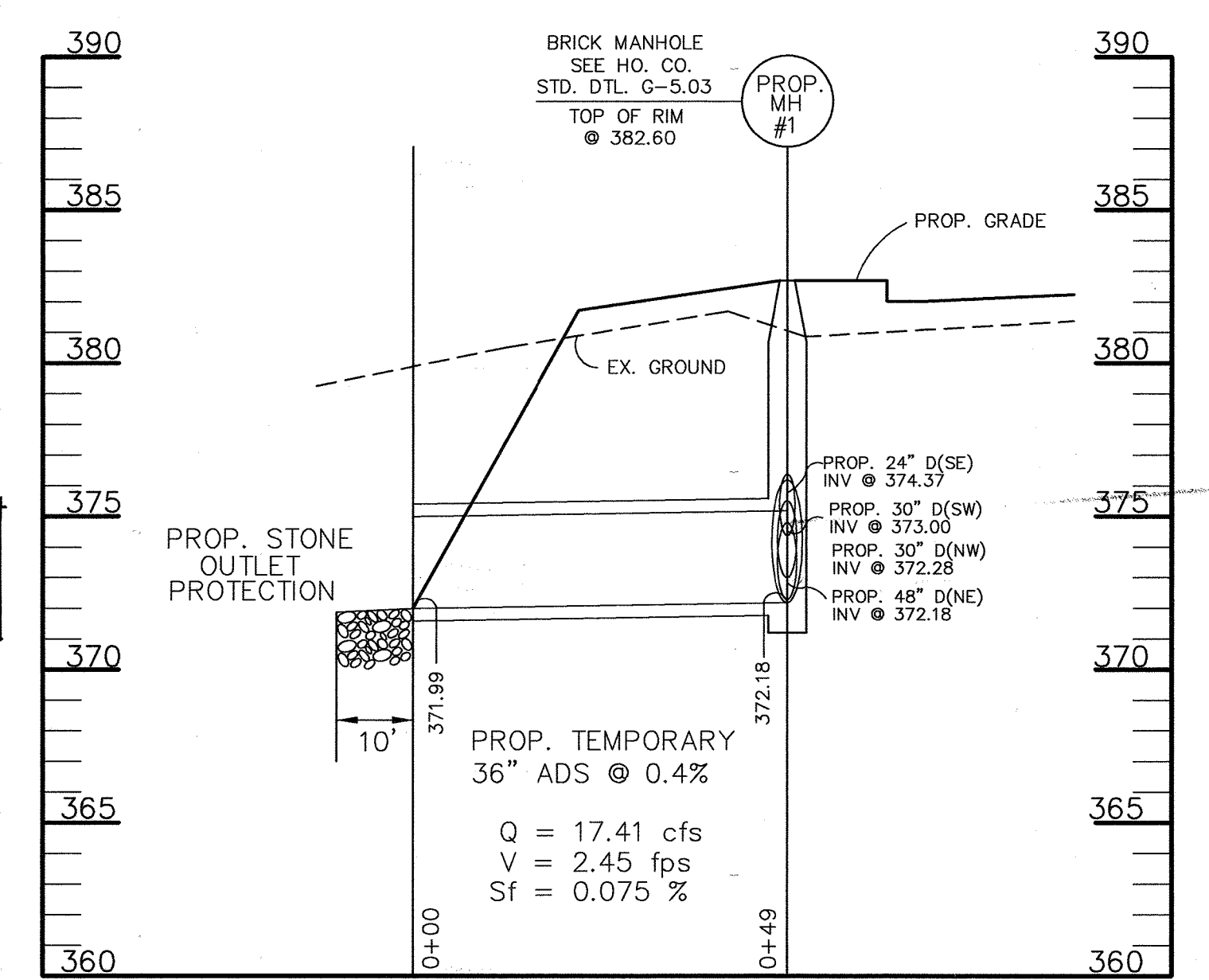
**RIP RAP OUTLET SEDIMENT TRAP #1**

EX. DRAINAGE AREA	0.84 AC±
PROP. DRAINAGE AREA	4.77 AC±
VOLUME REQUIRED	25,758 CF
VOLUME PROVIDED	26,158 CF
MIN. DEPTH OF CHANNEL= a	2'
WEIR LENGTH= b	12'
WEIR CREST ELEV.	379.50
BOTTOM TRAP ELEV.	371.00
BOTTOM TRAP DIMENSION	80' x 26'
TOP EMBANKMENT ELEV.	390.50
CLEAN OUT ELEV.	375.40



**LEGEND**

- EX. 2' CONTOURS
- EX. 10' CONTOURS
- PROP. 2' CONTOURS
- PROP. 10' CONTOURS
- EX. CURB & GUTTER
- PROP. CURB & GUTTER
- BLDG. RESTRICTION LINE
- EX. SANITARY
- EX. STORM DRAIN
- EX. WATER
- PROP. SANITARY
- PROP. STORM DRAIN
- PROP. WATER
- PROP. SILT FENCE
- PROP. SUPER SILT FENCE
- LIMIT OF DISTURBANCE
- PROP. DRAINAGE AREA (TO SEDIMENT TRAPS)
- EX. DRAINAGE AREA (TO SEDIMENT TRAPS)
- PROP. INLET PROTECTION



**RIP RAP OUTLET SEDIMENT TRAP #2**

EX. DRAINAGE AREA	3.38 AC±
PROP. DRAINAGE AREA	4.00 AC±
VOLUME REQUIRED	21,600 CF
VOLUME PROVIDED	21,843 CF
MIN. DEPTH OF CHANNEL= a	1.5'
WEIR LENGTH= b	10'
WEIR CREST ELEV.	373.00
BOTTOM TRAP ELEV.	367.00
BOTTOM TRAP DIMENSION	43.50' x 83'
TOP EMBANKMENT ELEV.	374.00
CLEAN OUT ELEV.	369.00

THIS SHEET 11 OF 17 SUPERSEDES SHEET 11 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY DEPT. OF PLANNING & ZONING ON JULY 23, 1999.

AREA OF DISTURBANCE = 499,160 S.F. OR 11.46 AC±

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE JUNE 3, 1999

**NOTES:**

- CONTRACTOR IS TO CURL SILT FENCE AND SUPER SILT FENCE ENDS UPHILL 3' VERTICAL LENGTH.
- CONTRACTOR TO STABILIZE ALL AREA OUTFALLING TO PROPOSED HEAD WALL #1 PRIOR TO INSTALLING STORM DRAIN BETWEEN EX. I-1 AND MH-4. (SEE SEQUENCE OF OPERATION #24)
- CONTRACTOR IS IMMEDIATELY STABILIZE WORK AREAS OUTSIDE THE SEDIMENT CONTROL MEASURES PLAN.

**ADDRESS CHART**

PARCEL NO.	STREET ADDRESS
A-31	BUILDING #4 8825 STANFORD BOULEVARD
A-32	BUILDING #5 8890 MCGAW ROAD
A-32	BUILDING #6 8880 MCGAW ROAD

SUBDIVISION NAME: COLUMBIA CORPORATE PARK SECTION/AREA: 1/1 PARCEL NUMBERS: A-31 & A-32

PLAT NO. #6475 & #13781 BLOCK NO. 24 ZONE N.T. EC-IND TAX/ZONE 36 ELECT. DIST. 6 CENSUS TR. 6067-03

WATER CODE E06 SEWER CODE 5333000

**REVISED SEDIMENT CONTROL PLAN**  
FOR  
**COLUMBIA CORPORATE PARK**  
PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 PARCELS A-31 & A-32  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: M.A.D.  
DRAWN BY: RES/MAD  
CHECKED BY: R.A.M.  
APPRD. BY: RAL  
DATE: 06-04-99  
SCALE: 1"=40'

PROJECT # 98B055  
DRAWING: Ecb05501  
XREFS: XRB05510, XRB05502, XRB05512  
11 SHEET OF 17



NO.	REVISION	DATE
1	RAISED PROP. GRADING, REDUCED DRIVE ALONG LAKE TO 28" AND SHIFTED SAN. SEWER AND PLAZA AREAS IN FRONT OF BLDGS. #4 & #5, ADDED LOADING DOCK.	9/1/99
2	REVISED P.L. LOCATION AT FRONT OF BLDG. #5, REMOVED EX. 16" S.D. AND EMBANKMENT AT EX. MH #2.	8/17/00
3	REVISED BUILDING #6 PARKING, LOADING, GRADING	5/15/00

**ENGINEER CERTIFICATION:**  
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.

ENGINEER: Robert Alan Landino DATE: 4/3/00  
NAME: ROBERT ALAN LANDINO PE# 20714

**DEVELOPER CERTIFICATION:**  
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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: Merritt Properties, Inc. DATE: 4/3/00  
NAME: Stacey Krinner J. Kanni

**OWNER / DEVELOPER**

MERRITT - CCP IV, LLC  
MERRITT - CCP V, LLC  
BY ROBE IV LIMITED PARTNERSHIP C/O

**MERRITT**  
2066 Lord Baltimore Drive  
Baltimore, Maryland 21207  
(410) 298-2600

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

Chad Simm / 1/05 4/2/00  
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

[Signature] / [Signature] 4/2/00  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] / [Signature] 4/2/00  
DIRECTOR

[Signature] / [Signature] 4/2/00  
CHIEF, DIVISION OF LAND DEVELOPMENT

[Signature] / [Signature] 4/11/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION



**NOTES:**

- CONTRACTOR IS TO CURL SILT FENCE AND SUPER SILT FENCE ENDS UP HILL 3' VERTICAL LENGTH.
- CONTRACTOR TO STABILIZE ALL AREAS OUTFALLING TO PROPOSED HEAD WALL #1 PRIOR TO INSTALLING STORM DRAIN BETWEEN EX. I-1 AND MH-4. (SEE SEQUENCE OF OPERATION #24)
- CONTRACTOR IS IMMEDIATELY STABILIZE WORK AREAS OUTSIDE THE SEDIMENT CONTROL MEASURES PLAN.
- THE CONTRACTOR SHALL DE-WATER THE EXISTING POND ONLY TO THE ELEVATION NECESSARY TO IMPLEMENT ALL SEDIMENT CONTROL MEASURES REQUIRED TO CONSTRUCT PROPOSED HEADWALL #1.

**INLET SEDIMENT TRAP #1**

EX. DRAINAGE AREA	0 AC±
PROP. DRAINAGE AREA	1.05 AC±
CAPACITY REQUIRED	3,780 C.F.
CAPACITY PROVIDED	3,791 C.F.
BARREL PIPE (WATER TIGHT)	12"
RISER PIPE	15"
BEGIN PERFORATED PIPE (WRAP W/ GEO-FABRIC)	384.25
BOTTOM TRAP ELEV.	382.50
BOTTOM TRAP DIMENSION	25' x 42'
TOP OF TRAP	385.50
SLOPE INSIDE OF TRAP	2:1
TOP OF RISER	385.50
WET STORAGE	382.50-384.25
OUTLET ELEV.	384.25
DRY STORAGE	384.25-385.50

**LEGEND**

EX. 2' CONTOURS	---	PROP. STORM DRAIN	=====
EX. 10' CONTOURS	---	PROP. WATER	=====
PROP. 2' CONTOURS	---	PROP. SILT FENCE	---S---S---S---
PROP. 10' CONTOURS	---	PROP. SUPER SILT FENCE	---SS---SS---SS---
EX. CURB & GUTTER	=====	LIMIT OF DISTURBANCE	-----
PROP. CURB & GUTTER	=====	PROP. DRAINAGE AREA (TO SEDIMENT TRAPS)	●●●●●●●●●●
BLDG. RESTRICTION LINE	=====	EX. DRAINAGE AREA (TO SEDIMENT TRAPS)	○ ○ ○ ○ ○ ○ ○ ○ ○ ○
EX. SANITARY	-----	PROP. INLET PROTECTION	[ ]
EX. STORM DRAIN	-----		
EX. WATER	-----		
PROP. SANITARY	-----		

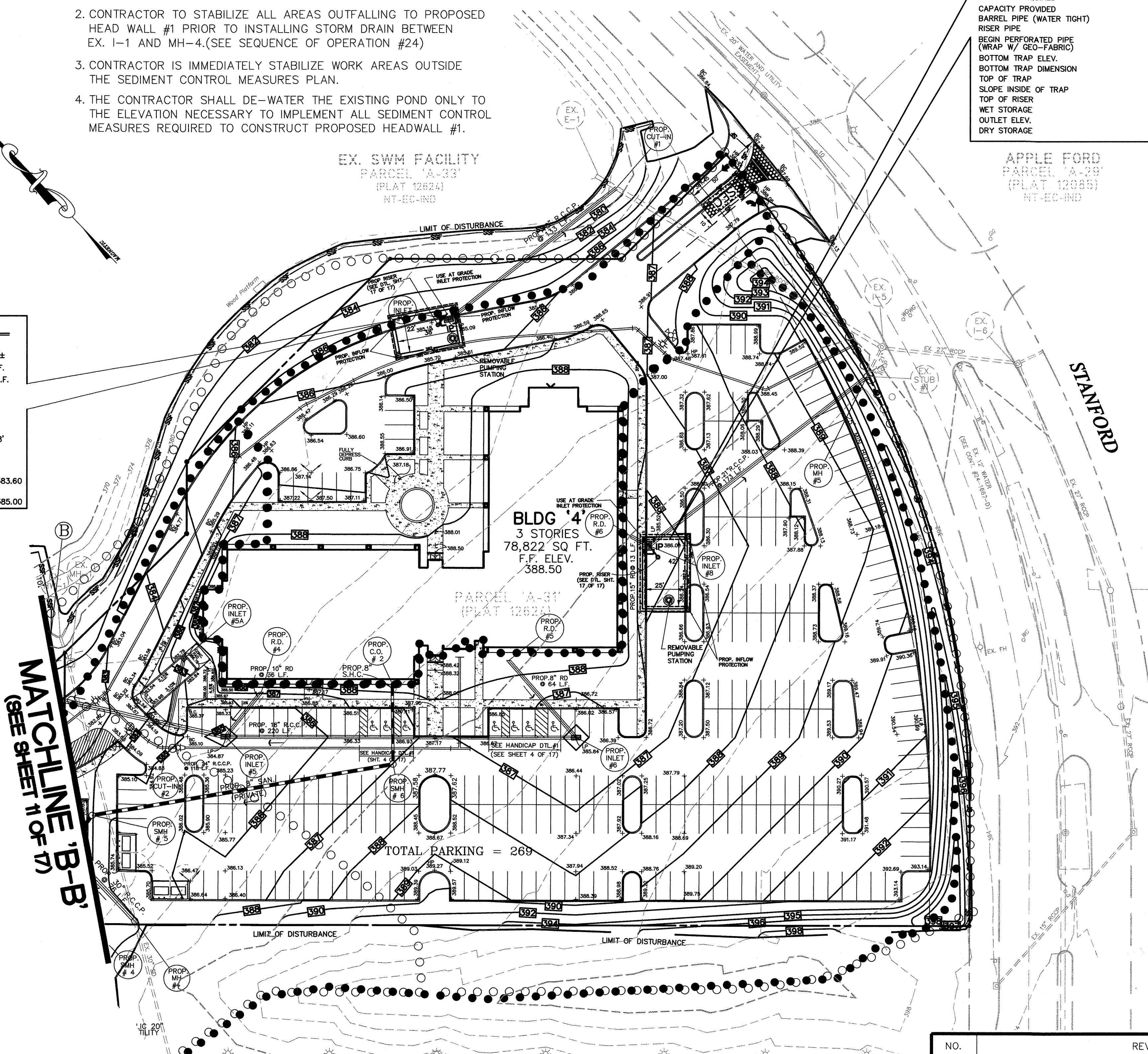
**SEQUENCE OF OPERATION**

- Obtain grading permit 1 day
- Notify the Howard County Dept. of Permits and Licenses 48 hours before beginning work. 1 day
- Install Stabilized Construction Entrance #1 & #2. 1 day
- Install perimeter Super Silt Fence and Silt Fence. 1 day
- Install Rip-Rap Outlet Sediment Trap #1 with removable pumping station, baffle wall and inflow protection. 2 days
- Contractor is to construct Rip-Rap Outlet Sediment Trap #2 with removable pumping station, baffle wall and inflow protection, also block ex. 15" D. 2 days
- Begin site grading. 5 days
- Contractor to install Storm drain systems prop. MH-1 to prop. MH-3, prop. MH-3 to prop. I-7, prop. MH-1 to prop. I-5, prop. I-5 to prop. I-6, prop. MH-1 to prop. I-4, temporary 36" ADS from prop. MH-1 to Rip Rap Sediment trap #1. (Contractor will not construct prop. MH-3 to prop. MH-4 until sequence # 23). 7 days
- Contractor to install storm drain system prop. I-1 to prop. I-2, prop. I-2 to prop. I-3, temp. 36" ADS pipe from prop. I-1 to Rip Rap Sediment Trap # 2. 3 days
- Contractor to install storm drain system prop. I-8 to prop. MH-5, and Inlet Sediment Trap #1 with removable pumping station and inflow protection. 2 days
- Contractor to install storm drain system prop. I-9 to prop. cut-in-1, and Inlet Sediment Trap #2 with removable pumping station and inflow protection. 2 days
- Begin construction for buildings. 90 days
- Contractor to install site utilities and remaining storm drains, excluding prop. MH-4 to MH-3, prop. MH-1 to prop. HW-1, and prop I-1 to ex. MH-2. (See note #3 this sheet) 20 days
- Begin site curbing and aggregate up to onsite sediment traps. 2 days
- After all areas are stabilized to prop. I-8 and I-9 the contractor shall remove Inlet Sediment Traps #1 and #2, then immediately install remaining conc. curb and gutter and aggregate. 2 days
- Construct dumpster enclosure and electrical pads, and loading docks. 10 days
- After all areas are stabilized to prop. I-1, prop. I-2, and prop. I-3. Contractor shall flush out storm drain system and construct storm drains from prop. I-1 to ex. MH-2. Remove temp. 36" ADS pipe and Rip Rap Sediment Trap #2. Immediately install remaining concrete curb and gutter and aggregate. 4 days
- After all areas to prop. I-4, I-5, I-6 and I-7 are stabilized and with the sediment control inspectors permission the contractor shall lower the private SWM facility water elevation. 1 day
- Install super silt fence A to B for construction of HW #1. 1 day
- The contractor shall flush out the storm drain system and remove the temp. 36" ADS pipe. Remove the Rip Rap Sediment Trap #1, and construct the storm drain system from prop. HW#1 to prop. MH-1. Install gabions and sod all areas disturbed within the SWM facility. 6 days
- Contractor shall remove the Rip Rap Sediment Trap #1 and immediately install remaining concrete curb and gutter and aggregate. 3 days
- After prop. HW#1 concrete has cured and is operational the contractor shall construct storm drain system prop. MH-4 to prop. MH-3 and remove ex. HW-1. 2 days
- Contractor is to pave driveways and parking lots (see paving sequence.) 15 days
- With permission from Sediment Control Inspector, the contractor shall remove all remaining sediment control devices and stabilize with permanent seeding. 3 days

**INLET SEDIMENT TRAP #2**

EX. DRAINAGE AREA	0 AC±
PROP. DRAINAGE AREA	0.82 AC±
CAPACITY REQUIRED	2,952 C.F.
CAPACITY PROVIDED	3,086 C.F.
BARREL PIPE (WATER TIGHT)	12"
RISER PIPE	15"
BEGIN PERFORATED PIPE (WRAP W/ GEO-FABRIC)	383.60
BOTTOM TRAP ELEV.	382.00
BOTTOM TRAP DIMENSION	22' x 38'
TOP OF TRAP	385.00
SLOPE INSIDE TRAP	2:1
TOP OF RISER	385.00
WET STORAGE	382.00-383.60
OUTLET ELEV.	383.60
DRY STORAGE	383.60-385.00

MATCHLINE 'B-B'  
(SEE SHEET 11 OF 17)



**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY

DATE **JUNE 3, 1999**

**ADDRESS CHART**

PARCEL NO.	STREET ADDRESS
A-31	BUILDING #4 8825 STANFORD BOULEVARD
A-32	BUILDING #5 8890 MCGAW ROAD
A-32	BUILDING #6 8880 MCGAW ROAD

SUBDIVISION NAME: COLUMBIA CORPORATE PARK SECTION/AREA: 1/1 PARCEL NUMBERS: A-31 & A-32

PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
#6475 & #13781	24	N.T. EC-IND	36	6	6067-03

WATER CODE: E06 SEWER CODE: 5333000

THIS SHEET 12 OF 17 SUPERSEDES SHEET 12 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY DEPT. OF PLANNING & ZONING ON JULY 23, 1999

**OWNER / DEVELOPER**

MERRITT - CCP IV, LLC  
MERRITT - CCP V, LLC  
BH ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
2066 Lord Baltimore Drive  
Baltimore, Maryland 21207  
(410) 298-2600

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

*Cheryl Sumner* / *1/65* / 4/7/00 / DATE

USDA-NATURAL RESOURCES CONSERVATION SERVICE

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

*John A. ...* / 4/7/00 / DATE

HOWARD SOIL CONSERVATION DISTRICT

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Robert Alan Landino* / 4/25/00 / DIRECTOR

*Cindy ...* / 4/21/00 / CHIEF, DIVISION OF LAND DEVELOPMENT

*Mark ...* / 4/11/00 / CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO. REVISION DATE

PROP. DRIVE ALONG LAKE WAS REDUCED TO 26'. PROP. SANITARY HAS BEEN SHIFTED AND LOADING DOCK ADDED. 9/1/99

ENGINEER CERTIFICATION:  
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.

ENGINEER: *Robert Alan Landino* DATE: 4/3/00  
NAME: ROBERT ALAN LANDINO PE# 20714

DEVELOPER CERTIFICATION:  
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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER: *Merritt Companies, Inc.* DATE: 4/3/00  
NAME: *Stacey Keeney* / *J. Keeney*

**REVISED SEDIMENT CONTROL PLAN**  
FOR  
**COLUMBIA CORPORATE PARK**  
PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 PARCELS A-31 & A-32  
6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

DESIGN BY: R.A.M.  
DRAWN BY: RFS/MAD  
CHECKED BY: R.A.M.  
APPRD. BY: R.A.L.  
DATE: 06-04-99  
SCALE: 1"=40'

PROJECT # 98B055  
DRAWING: Ecb05502  
XREFS: XRB05510, XRB05502, XRB05512

12 SHEET OF 17

**Barokas-Landino Design Group**  
ENGINEERS / PLANNERS / SURVEYORS / LANDSCAPE ARCHITECTS

355 Research Parkway  
Meriden, CT 06450  
(203) 630-1406  
(203) 630-2615 Fax

849 International Drive, Suite 215  
Linthicum, MD 21090  
(410) 859-9100

210 West 70th Street, Suite 604  
New York, NY 10023

2933 North Front Street, Suite 1  
Harrisburg, PA 17110  
(717) 221-9744

900 Parish Street, Suite 201  
Pittsburgh, PA 15220  
(412) 928-3060

80 Washington Street, Suite 310  
Poughkeepsie, NY 12601  
(888) 830-9272

3957 Westlerra Parkway  
Richmond, VA 23233  
(800) 301-3077



**STABILIZATION SPECIFICATION**

**SECTION I - Vegetative Stabilization Methods and Materials**

**A. Site Preparation**

- i. Install erosion and sediment control structures (either temporary or permanent) such as diversions, grade stabilization structures, berms, waterways, or sediment control basins.
- ii. Perform all grading operations at right angles to the slope. Final grading and shaping is not usually necessary for temporary seeding.
- iii. Schedule required soil tests to determine soil amendment composition and application rates for sites having disturbed areas over 5 acres.

**B. Soil Amendments**

- i. Soil tests must be performed to determine the exact ratios and application rates for lime and fertilizer on sites having disturbed areas over 5 acres. Soil analysis may be performed by the University of Maryland or a recognized commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analyses.
- ii. Fertilizers shall be uniform in composition, free flowing and suitable for accurate application by approved equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers shall all be delivered to the site fully labeled according to the applicable state fertilizer laws and shall bear the name, trade name or trademark and warrantee of the producer.
- iii. Lime materials shall be ground limestone (hydrated or burnt lime may be substituted) which contains at least 50% total oxides (calcium oxide plus magnesium oxide). Limestone shall be ground to such fineness that at least 50% will pass through a #100 mesh sieve and 98 - 100% will pass through a #20 mesh sieve.

**C. Seedbed Preparation**

- i. Temporary Seeding.
  - a. Seedbed preparation shall consist of loosening soil to a depth of 3" to 5" by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened it should not be rolled or dragged smooth but left in the roughened condition. Sloped areas (greater than 3:1) should be tracked leaving the surface in an irregular condition with ridges running parallel to the contour of the slope.
  - b. Apply fertilizer and lime as prescribed on the plans.
  - c. Incorporate lime and fertilizer into the top 3-5" of the soil by disking or the other suitable means.
- ii. Permanent Seeding
  - a. Minimum soil conditions required for permanent vegetative establishment:
    - 1. Soil pH shall be between 6.0 and 7.0.
    - 2. Soluble salts shall be less than 500 parts per million (ppm).
    - 3. The soil shall contain less than 40 % clay but enough fine grained material (>30% silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception is if lowgrass or sericea lepedeza is to be planted, then a sandy soil (< 30% silt plus clay) would be acceptable.
    - 4. Soil shall contain 1.5% minimum organic matter by weight.
    - 5. Soil must contain sufficient pore space to permit adequate root penetration.
    - 6. If these conditions cannot be met by soils on site, adding topsoil is required in accordance with section 21 Standard and Specification for Topsoil.
  - b. Areas previously graded in conformance with the drawings shall be maintained in a true and even grade, then scarified or otherwise loosened to a depth of 3-5" to permit bonding of the topsoil to the surface area and to create horizontal erosion check slots to prevent topsoil from sliding down a slope.
  - c. Apply soil amendments as per soil test or as included on the plans.
  - d. Mix soil amendments into the top 3-5" of topsoil by other suitable means. Lawn areas should be raked to smooth the surface, remove large objects like stones and branches, and ready the areas for seed application. Where site conditions will not permit normal seedbed preparation, loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface. Steep slopes (steeper than 3:1) should be tracked by a dozer leaving the soil in an irregular condition with ridged running parallel to the contour of the slope. The top 1-3" of the soil should be loose and friable. Seedbed loosening may not be necessary on newly disturbed areas.

**D. Seed Specifications**

- i. All seed must meet the requirements of the Maryland State Seed Law. All seed shall be subject to re-testing by a recognized seed laboratory. All seed used shall have been tested within the 6 months immediately preceding the date of sowing material on this job.
- Note: Seed tags shall be made available to the inspector to verify type and rate of seed used.
- ii. Inoculant - The inoculant for treating legume seed in the seed mixtures shall be a pure culture of nitrogen-fixing bacteria prepared specifically for the species. Inoculants shall not be used later than the date indicated on the container. Add fresh inoculant as directed on package. Use four times the recommended rate when hydroseeding. Note: It is very important to keep inoculant as cool as possible until used. Temperatures above 75 - 80 F. can weaken bacteria and make the inoculant less effective.

**E. Methods of Seeding**

- i. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer), broadcast or drop seeder, or a outpucker seeder.
  - a. If fertilizer is being applied at the time of seeding, the application rates amounts will not exceed the following: nitrogen; maximum of 100 lbs. per acre total of soluble nitrogen; P205 (phosphorus); 200 lbs./ac.; K20 (potassium); 200 lbs./ac.
  - b. Lime - use only ground agricultural limestone, ( 1 up to 3 tons per acre may be applied by hydroseeding at any one time. Do not use burnt or hydrated lime when hydroseeding.
  - c. Seed and fertilizer shall be mixed on site and seeding shall be done immediately and without interruption.

**ii. Dry Seeding: This includes use of conventional drop or broadcast spreaders.**

- a. Seed spread dry shall be incorporated into the subsoil at the rates prescribed on the Temporary or Permanent Seeding Summaries or Tables 25 or 26. The seeded area shall then be rolled with a weighted roller to provide good seed to soil contact.
- b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.
- iii. Drill or Outpucker Seeding: Mechanized seeders that apply and cover seed with soil.
- a. Outpacker seeders are required to bury the seed in such a fashion as to provide at least 1/4 inch of soil covering. Seedbed must be firm after planting.
- b. Where practical, seed should be applied in two directions perpendicular to each other. Apply half the seeding rate in each direction.

**F. Mulch Specifications (in order of preference)**

- i. Straw shall consist of thoroughly threshed wheat, rye or oat straw, reasonably bright in color, and shall not be musty, moldy, caked, decayed, or excessively dusty and shall be free of noxious weed seeds as specified in the Maryland Seed Law.
- ii. Wood Cellulose Fiber Mulch ( WCFM )
  - a. WCFM shall consist of specially prepared wood cellulose processed into a uniform fibrous physical state.
  - b. WCFM shall be dyed green or contain a green dye in the package that will provide an appropriate color to facilitate visual inspection of the uniformly spread slurry.
  - c. WCFM, including dye, shall contain no germination or growth inhibiting factors.
  - d. WCFM materials shall be manufactured and processed in such a manner that the wood cellulose fiber mulch will remain in uniform suspension in water under agitation and will blend with seed, fertilizer and other additives to form a homogeneous slurry. The mulch material shall form a blotter-like ground cover, on application, having moisture absorption and percolation properties and shall cover and hold grass seed in contact with the soil without inhibiting the growth of the grass seedlings.
  - e. WCFM material shall contain no elements or compounds at concentration levels that will be phytotoxic.
  - f. WCFM must conform to the following physical requirements: fiber length to approximately 10 mm., diameter approximately 1mm., pH range of 4.0 to 8.5, ash content of 1.6% maximum and water holding capacity of 90% minimum.

Note: Only sterile straw mulch should be used in areas where one species of grass is desired.

**G. Mulching Seeded Areas**

- i. If grading is completed outside of the seeding season, mulch alone shall be applied as prescribed in this section and maintained until the seeding season returns and seeding can be performed in accordance with specifications.
- ii. When straw mulch is used, it shall be spread over all seeded areas at the rate of 2 tons/acre. Mulch applied shall achieve a uniform distribution and depth so that the soil surface is not exposed. If a mulch anchoring tool is to be used, the rate should be to 2.5 tons/acre.
- iii. Wood cellulose fiber used as a mulch shall be applied at a net dry weight of 1,500 lbs. per acre. The wood cellulose fiber shall be mixed with water, and the mixture shall contain a maximum of 50 lbs. of wood cellulose fiber per 100 gallons of water.

**H. Securing Straw Mulch (Mulch Anchoring)**

- i. Mulch anchoring shall be performed immediately following mulch application to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon size of area and erosion hazard:
  - 1. A mulch anchoring tool is a tractor draw implement designed to punch and anchor mulch into the soil surface a minimum of two (2) inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely. If used on sloping land, this practice should be used on the contour if possible.
  - ii. Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 pounds/acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.
  - iii. Application of liquid binders should be heavier at the edges where wind catches mulch, such as in valleys and on crests of banks. The remainder of area should be applied uniform after binder application. Synthetic binders - such as Acrylic DLR (Agra-Tack), DCA-70, Petroset, Terre Tax II, Terra Tack AR or other approved equal may be used at rates recommended by the manufacturer to anchor mulch.
- iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer's recommendations. Netting is usually available in rolls 4' to 15' feet wide and 300 to 3,000 feet long.

**I. Incremental Stabilization - Cut Slopes**

- i. All cut slopes shall be dressed, prepared, seeded and mulched as the work progresses. Slopes shall be excavated and stabilized in equal increments not to exceed 15'.
- ii. Construction sequence (Refer to Figure 3 below)
  - a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to convey runoff from the excavation.
  - b. Perform phase 1 excavation, dress, and stabilize.
  - c. Perform phase 2 excavation, dress, and stabilize. Overseed phase 1 areas as necessary.
  - d. Perform final phase excavation, dress, and stabilize. Overseed previously seeded areas as necessary.

**J. Incremental Stabilization of Embankments - Fill Slopes**

- i. Embankments shall be constructed in lifts as prescribed on the plans.
- ii. Slopes shall be stabilized immediately when the vertical height of the multiple lifts reaches 15', or when the grading operation ceases as prescribed in the plans.
- iii. At the end of each day, temporary berms and pipe slope drains should be constructed along the top edge of the embankment to intercept surface runoff and convey it down the slope in a non-erosive manner to a sediment trapping device.
- iv. Construction sequence: Refer to figure 4 (below)
  - a. Excavate and stabilize all temporary swales, side ditches, or berms that will be used to divert runoff around the fill. Construct Slope Silt Fence on low side of fill as shown in Figure 5, unless other methods shown on the plans address this area.
  - b. Place phase 1 embankment, dress and stabilize.

**c. Place phase 2 embankment, dress and stabilize.**

- d. Place final phase embankment, dress and stabilize. Overseed previously seeded areas as necessary.
- Note: Once the placement of fill has begun the operation should be continuous from grubbing through the completion of grading and placement of topsoil (if required) and permanent seed and mulch. Any interruptions in the operation out of the seeding season will necessitate the application of temporary stabilization.

**SECTION II - Temporary Seeding**

Vegetation - annual grass or grain used to provide cover on disturbed areas for up to 12 months. Duration of vegetative cover, Permanent Seeding is required.

**A. Seed mixtures - Temporary Seeding**

- i. Select one or more of the species or mixtures listed in Table 26 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Temporary Seeding Summary below, along with application rates, seeding dates and seeding depths. If this summary is not put on the plans and completed, then Table 26 must be put on the plans.
- ii. For sites having soil tests performed, the rates shown on this table shall be deleted and the Rates recommended by the testing agency shall be written in. Soil tests are not required for Temporary Seeding.

**SECTION III - Permanent Seeding**

Seeding and legumes to establish ground cover for a minimum period of one year on disturbed areas generally receiving low maintenance.

**A. Seed Mixtures - Permanent Seeding**

- i. Select one or more of the species or mixtures listed in Table 25 for the appropriate Plant Hardiness Zone (from Figure 5) and enter them in the Permanent Seeding Summary below, along with application rates and seeding dates. Seeding depths can be estimated using Table 26. If this Summary is not put on the construction plans and completed, then Table 25 must be put on the plans. Additional planting specifications for exceptional sited such as shoreline, streambanks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA - SCS Technical Field Office Guide, Section 342 - Critical Area Planting. For special lawn maintenance areas, see Sections IV Sod and V Turfgrass.
- ii. For sites having disturbed area over 5 acres, the rated shown on this table shall be deleted and the rated recommended by the soil testing agency shall be written in.
- iii. For areas receiving low maintenance, apply ureamform fertilizer (46-0-0) at the 3 1/2 lbs./1000 sq. ft. (150 lbs./ac), in addition to the above soil amendments shown in the table below, to be performed at the time of seeding.

**SECTION IV - Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).**

**A. General Specifications**

- i. Class of turfgrass sod shall be Maryland or Virginia State Certified or Approved. Sod labels shall be made available to the job foreman and inspector.
- ii. Sod shall be machine cut at a uniform soil thickness of 1", plus or minus 1/8", at the time of cutting. Measurement for thickness shall exclude top growth and thatch. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
- iii. Standard size sections of sod shall be strong enough to support their own weight and retain the size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
- iv. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
- v. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not transplanted within this period shall be approved by an agronomist or soil scientist prior to its installation.

**B. Sod Installation**

- i. During periods of excessively high temperature or in areas having dry subsoil, the subsoil shall be lightly irrigated immediately prior to laying the sod.
- ii. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and lightly wedged against each other. Lateral joints shall be staggered to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause drying of the roots.
- iii. Wherever possible, sod shall be laid with the long edges parallel to the contour and with staggering joints. Sod shall be rolled and tamped, pegged or otherwise secured to prevent slippage on slopes and to ensure solid contact between sod roots and the underlying soil surface.
- iv. Sod shall be watered immediately following rolling or tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. The operations of laying, tamping and irrigating for any piece of sod shall be completed within eight hours.

**C. Sod Maintenance**

- i. In the absence of adequate rainfall, watering shall be performed daily or as often as necessary during the first week and in sufficient quantities to maintain moist soil to a depth of 4". Watering should be done during the heat of the day to prevent wilting.
- ii. After the first week, sod watering is required as necessary to maintain adequate moisture content.
- iii. The first mowing of sod should not be attempted until the sod is firmly rooted. No more than 1/3 of the grass leaf shall be removed by the initial cutting or subsequent cutting or subsequent cuttings. Grass height shall be maintained between 2" and 3" unless otherwise specified.

**SECTION IV - Turfgrass Establishment**

Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sited which will receive a medium to high level of maintenance. Areas to receive seed shall be tilled by disking or other approved methods to a depth of 2 to 4 inches, leveled and raked to prepare a proper seedbed. Stones and debris over 1 1/2 inches in diameter shall be removed. The resulting seedbed shall be in such condition that future mowing of grasses will pose no difficulty.

Note: Choose certified material is the best guarantee of cultivar purity. The certifications program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

**A. Turfgrass Mixtures**

- i. Kentucky Bluegrass - Full sun mixture - For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and eastern shore. Recommended certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds /100 square feet. A minimum of three bluegrass cultivars should be chosen ranging from a minimum of 10% to a maximum of 35% of the mixture by weight.

- ii. Kentucky Bluegrass/Perennial Rye - Full sun mixture - For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture/1000 square feet. A minimum of 3 Kentucky Bluegrass Cultivars Must be chosen, with each cultivar ranging from 10% to 35% of the mixture by weight.
- iii. Tall Fescue/Kentucky Bluegrass - Full sun mixture - For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. recommended mixture includes: certified Tall Fescue Cultivars 0 - 5%. Seeding rate: 5 to 8 lb./1000 sq. ft. One or more cultivars may be blended.

- iv. Kentucky Bluegrass/Fine Fescue - Shade mixture - For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes: certified Kentucky Bluegrass Cultivars 30 - 40% and certified Fine Fescue and 60-70%. Seeding rate: 1 1/2 - 3 lbs/1000 square feet. A minimum of 3 Kentucky Bluegrass Cultivars must be chosen, with each cultivar ranging from a minimum of 10% to a minimum of 35% of the mixture by weight.

Note: Turfgrass varieties should be selected from those listed in the most current University of Maryland Publication, Agronomy Mimeo #77, "Turfgrass Cultivar Recommendations for Maryland"

**B. Ideal times of seeding**

- Western MD: March 15 - June 1, August 1 - October 1 (Hardiness Zones - 5b, 6a)
- Central MD: March 1 - May 15, August 15 - October 15 (Hardiness Zone - 6b)
- Southern MD, Eastern Shore: March 1 - May 15, August 15 - October 15 (Hardiness Zones - 7a, 7b)

**C. Irrigation**

If soil moisture is deficient, supply new seeding with adequate water for plant growth (1/2" - 1" every 3 to 4 days depending on soil texture) until they are firmly established. This especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

**D. Repairs and Maintenance**

Inspect all seeded areas for failures and make necessary repairs, replacements, and reseedings within the planting season.

- i. Once vegetation is established, the site shall have 95% groundcover to be considered adequately stabilized.
- ii. If the stand provides less than 40% ground coverage, reestablish following original lime, fertilizer, seedbed preparation and seeding recommendations.
- iii. If the stand provides between 40% and 94% ground coverage, overseeding and fertilizing using half of the originally applied may be necessary. % and 94

- iv. Maintenance fertilizer rates for permanent seedings are shown in Table 24. For Lawns and other medium to high maintenance turfgrass areas, refer to the University of Maryland publication "Lawn Care in Maryland" Bulletin No. 171.

**Utility Note**

- A) Contractor should open only that section of trench that can be backfilled and stabilized each day. If trench must remain open longer than one day, silt fence shall be placed below (downslope) the trench.
- B) Place all excavated materials on uphill side of trench.
- C) Any sediment controls disturbed by utility construction are to be repaired immediately.

**Inlet Protection Note**

The contractor is required to install inlet protection on all storm drain inlets with the exception of the following:

- \*1) Any inlet outfalling directly into a sediment trapping device.
- 2) Inlets on private or public paved roadways open to the public.

All inlet protection will be installed as directed by the inspector in accordance with the 1994 Maryland Standards and Specifications for Soil Erosion and Sediment Control, Page E-16-1 (or as may be amended). The removal of any inlet protection devices will require approval from the Inspector.

\* Storm Drains to be flushed prior to trapping device removal.

**Table 26 Temporary Seeding Rates, Depths, and Dates**

SPECIES	MINIMUM SEEDING RATES	PLANTING DEPTH	HARDINESS ZONES AND SEEDING DATES*											
			2b and 7b		5b		6a and 6b		7a and 7b		8a and 8b			
			2/1-4/30	5/1-8/14	8/15-11/30	3/1-4/30	5/1-8/14	8/15-11/15	3/15-5/31	6/1-7/31	8/1-10/31			
CHOOSE ONE: BARLEY OATS RYE	2.5 BU. (22 lbs) 2.5 BU. (86 lbs) 2.5 BU. (140 lbs)	2.80 2.21 3.22	1-2 1-2 1-2	X X X	- - -	10/15 X X	X - -	10/15 X X	X X X	X X X	- - -	10/1 - -	X - -	
BARLEY OR RYE PLUS FORTAL MILLER	150 lbs	3.45	1	X X X	X X X	10/15 X X	X X X	10/15 X X	X X X	X X X	X X X	10/1 X X	X X X	
WHEAT LOWGRASS	4 lbs	.09	1/4-1/2	- - -	X - -	- - -	X - -	- - -	- - -	X - -	- - -	X - -	- - -	
ANNUAL RYEGRASS MILLEP	50 lbs	1.15	1/4-1/2	X - -	- - -	11/1 - -	X - -	- - -	11/1 X -	X - -	- - -	8/15 - -	X - -	

**STANDARD SEDIMENT CONTROL NOTES**

- 1. All Grading Permits shall be obtained prior to the starting of any Grading work.
- 2. A minimum of 48 hours notice must be given to the Howard County Department of Inspection, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
- 3. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. and revisions thereto.
- 4. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes steeper than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
- 5. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- 6. All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- 7. 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. Site Analysis
 

Total area of site R/W and easements:	Parcel A-31	4,694 AC.±
	Parcel A-32	5,644 AC.±
	Total=	10,338 AC.±
Area disturbed.....		11,410 AC.±
Area to be roofed and paved:	Parcel A-31	3,300 AC.±
	Parcel A-32	3,840 AC.±
	Total=	7,140 AC.±
Area to be vegetatively stabilized.....		4,270 AC.±
Total cut.....		22,460 cu. yds.
Total fill.....		22,460 cu. yds.
Offsite waste/borrow area location.....		0 cu. yds.

Excess cut/spoil to be placed on a site with an approved sediment control plan and active grading permit.
- 9. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- 10. Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- 11. 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.
- 12. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

Temporary Seeding Summary		Permanent Seeding Summary			
Fertilizer Rate (10-10-10)	Lime rate	Fertilizer Rate (10-20-20)	Lime rate		
400 lb/acre (10 lb/1000 sq ft)	2 tons/acre (100 lb/1000 sq ft)	90 lb/acre (9 lb/1000 sq ft)	175 lb/acre (17.5 lb/1000 sq ft)	175 lb/acre (17.5 lb/1000 sq ft)	2 tons/acre (100 lb/1000 sq ft)

**OWNER / DEVELOPER**

MERRITT - COP IV, LLC  
MERRITT - COP V, LLC  
BN ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
2066 Lord Baltimore Drive  
Baltimore, Maryland 21207  
(410) 298-2600

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

USDA-NATURAL RESOURCES CONSERVATION SERVICE

Clay Simon /es. 4/19/00  
DATE

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

Howard Soil Conservation District  
4/19/00  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

4/26/00  
DIRECTOR

4/27/00  
CHIEF, DIVISION OF LAND DEVELOPMENT

4/11/00  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**APPROVED**  
PLANNING BOARD  
of HOWARD COUNTY

DATE: JUNE 3, 1999

THIS SHEET IS OF 17 SUPERSEDES SHEET 13 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY DEPT. OF PLANNING & ZONING ON JULY 23, 1999.

NO.	REVISION	DATE
1	REVISED SITE ANALYSIS.	9/1/99

ENGINEER CERTIFICATION:  
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.

ENGINEER NAME: ROBERT ALAN LANDINO DATE: 4/23/00

DEVELOPER CERTIFICATION:  
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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER NAME: Merritt Properties, LLC DATE: 4/6/00

ADDRESS CHART  
PARCEL NO. / STREET ADDRESS

A-31 BUILDING #4 8825 STANFORD BOULEVARD  
A-32 BUILDING #5 8890 MCGAW ROAD  
A-32 BUILDING #6 8880 MCGAW ROAD

SUBDIVISION NAME: COLUMBIA CORPORATE PARK SECTION/AREA: 1/1 PARCEL NUMBERS: A-31 & A-32

PLAT NO. BLOCK NO. ZONE TAX/ZONE ELECT. DIST. CENSUS TR.  
#6475 & #13781 24 N.T. 36 6 6067-03

WATER CODE: E06 SEWER CODE: 5333000

REVISED  
**SEDIMENT CONTROL NOTES**  
FOR  
**COLUMBIA CORPORATE PARK**

PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 6TH ELECTION DISTRICT PARCELS A-31 & A-32 HOWARD COUNTY, MARYLAND

DESIGN BY: R.A.M.  
DRAWN BY: D.T.A.



Table 25 Permanent Seeding for Low Maintenance Areas

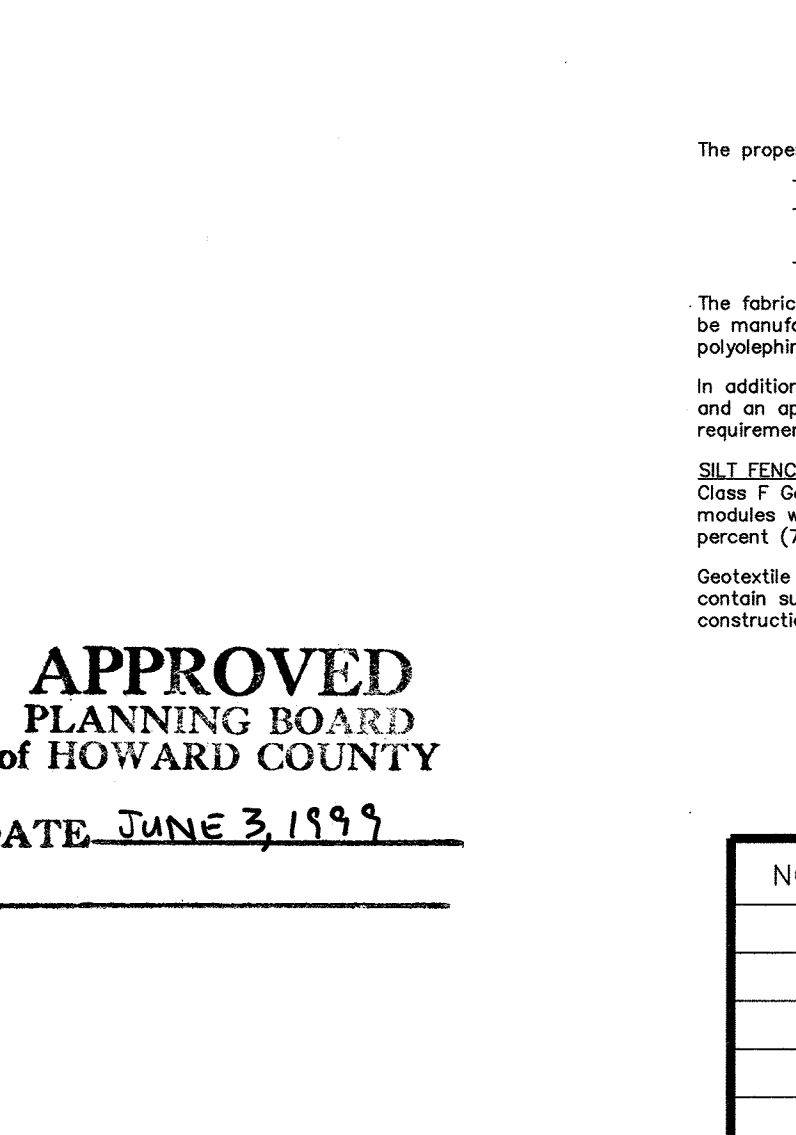
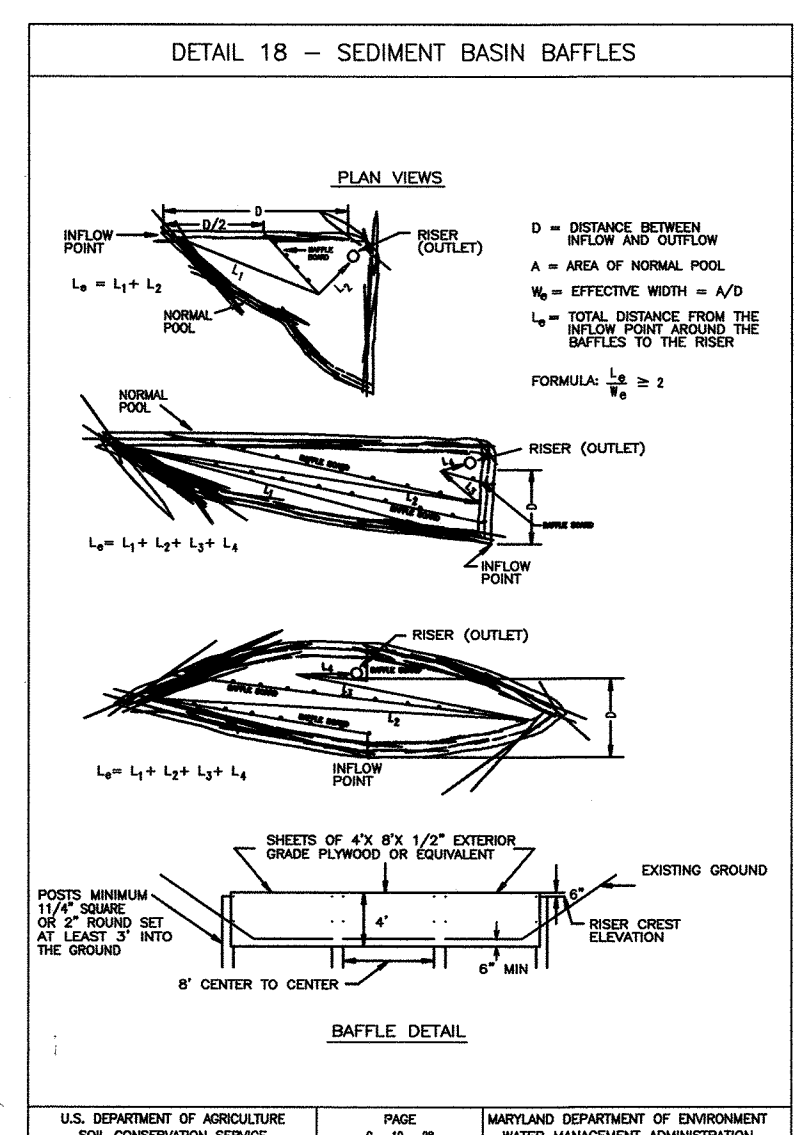
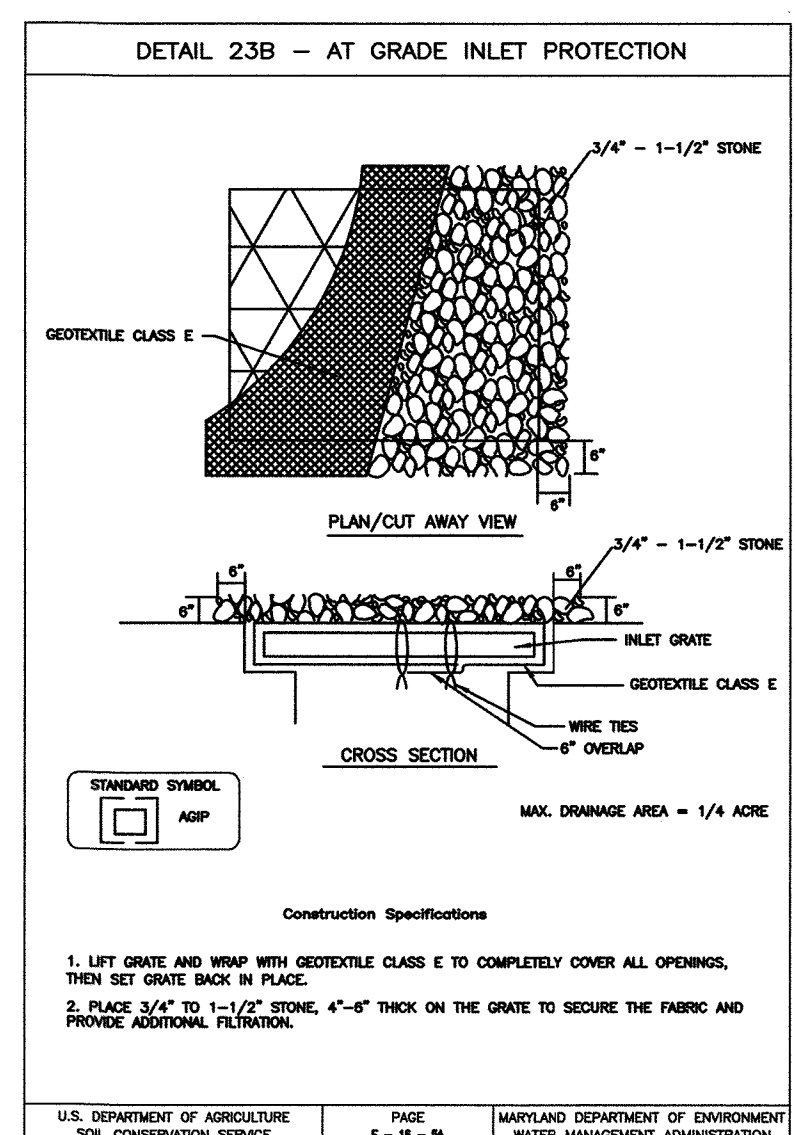
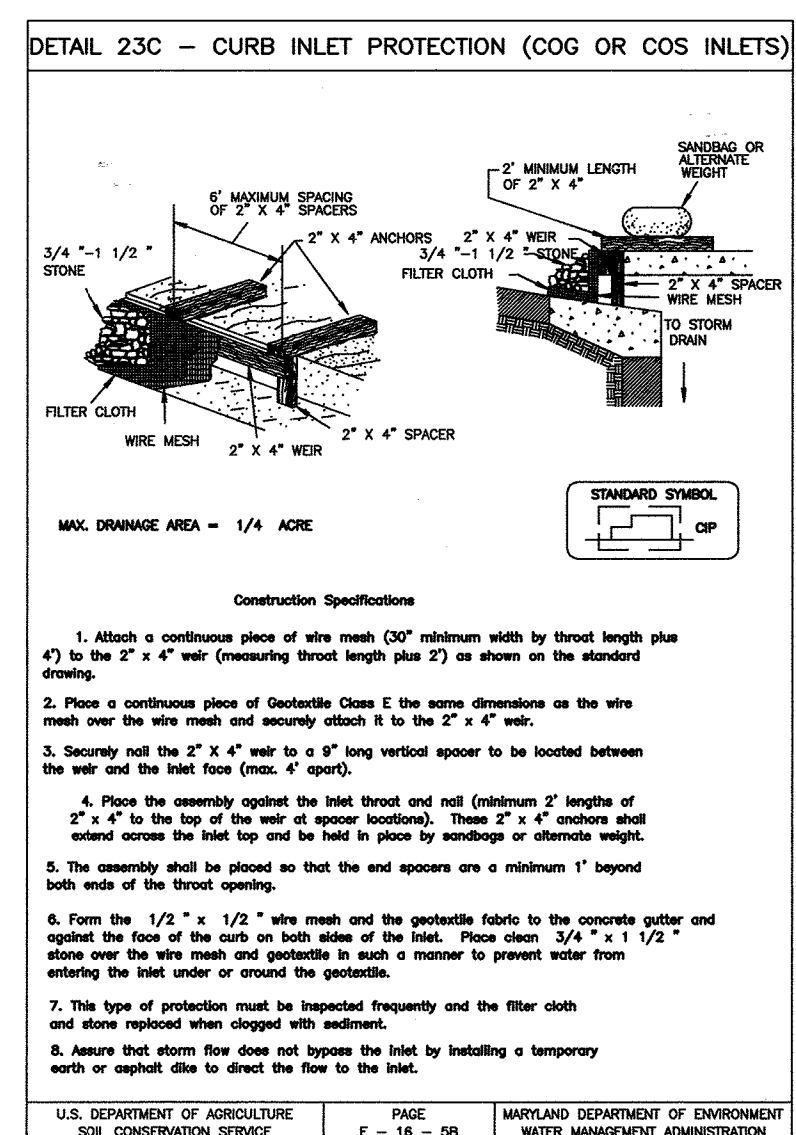
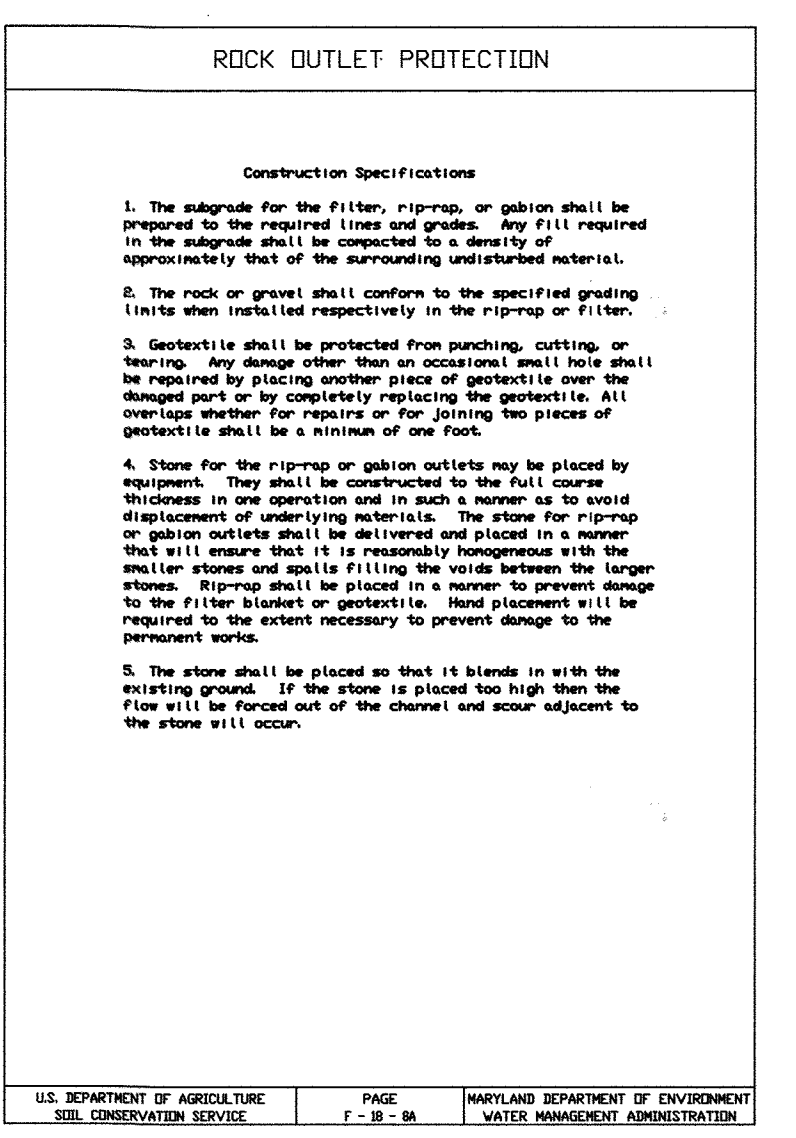
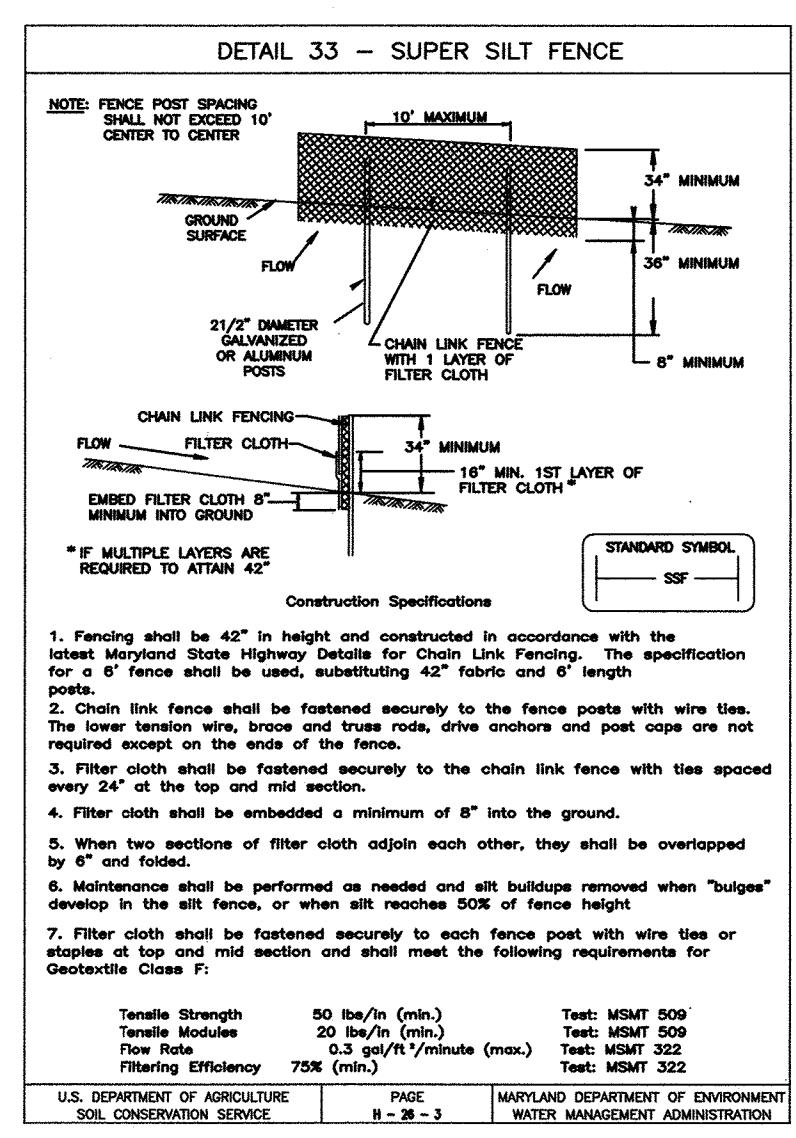
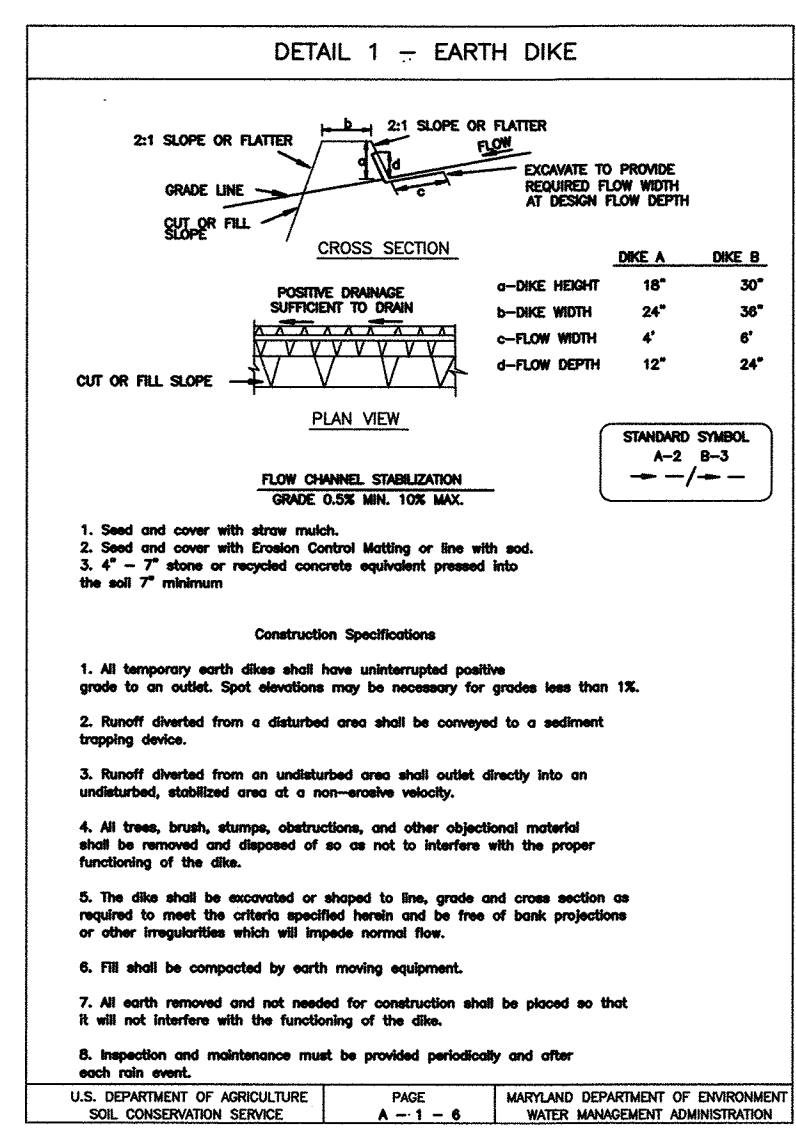
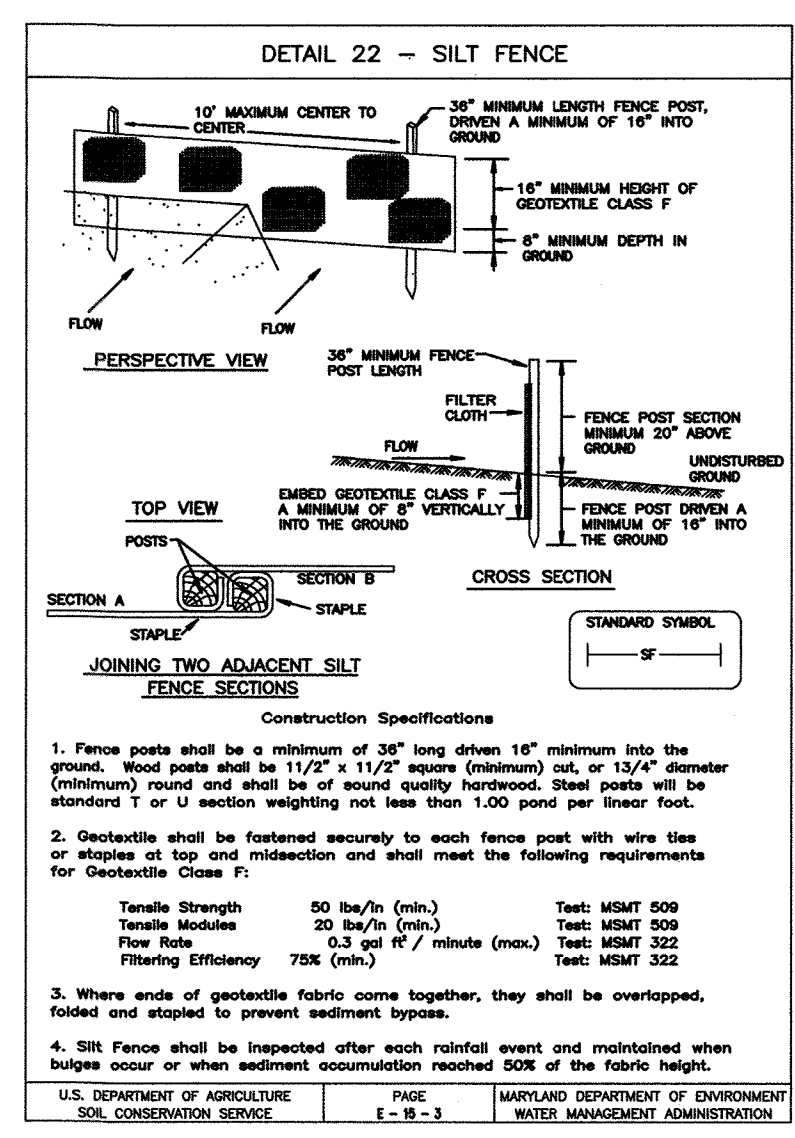
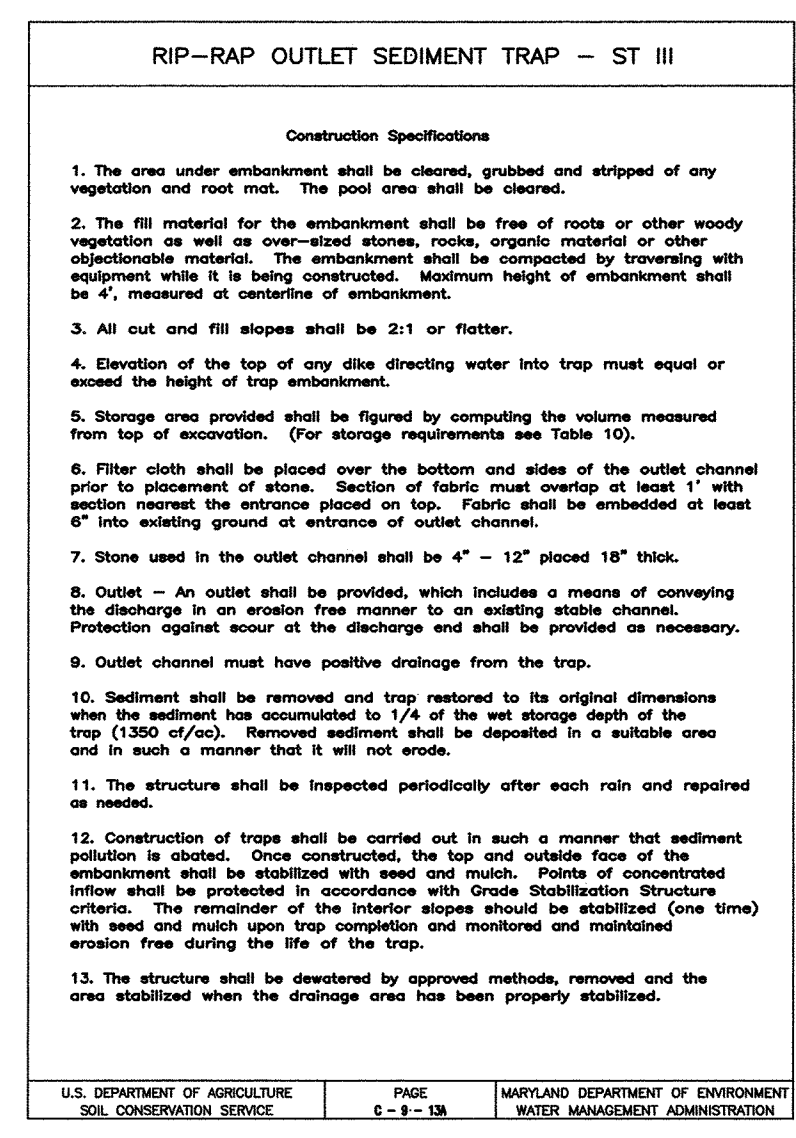
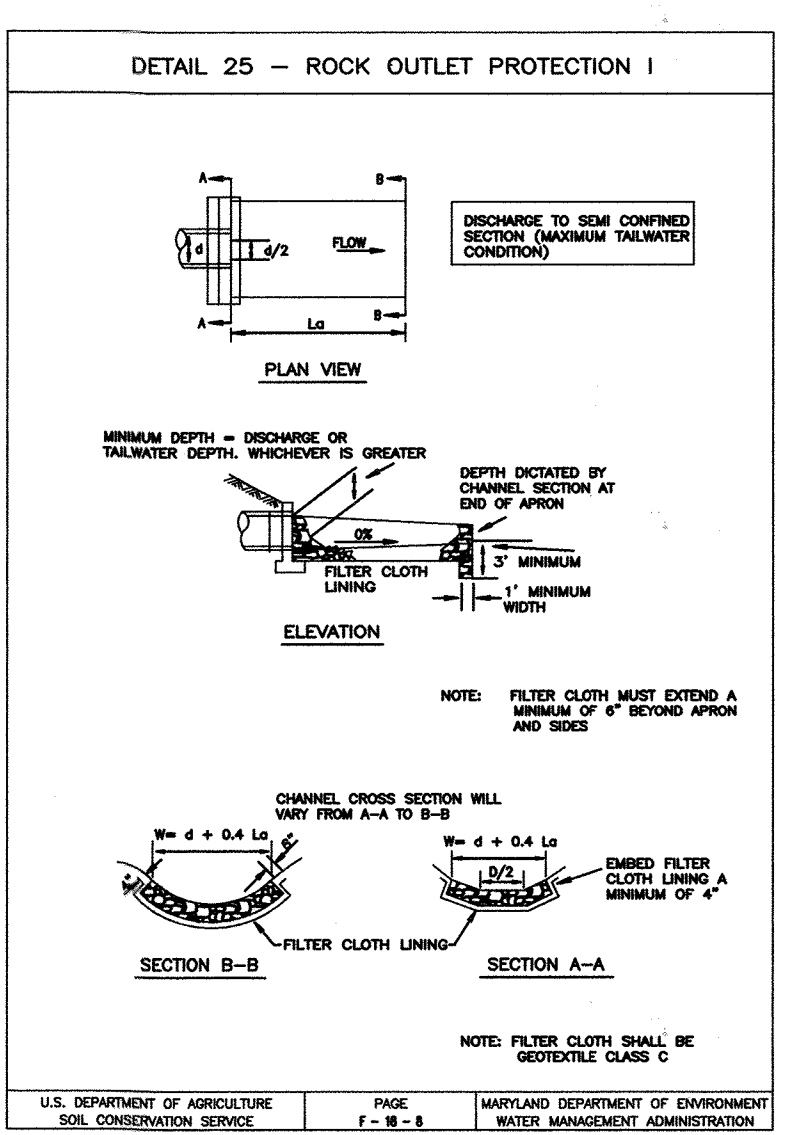
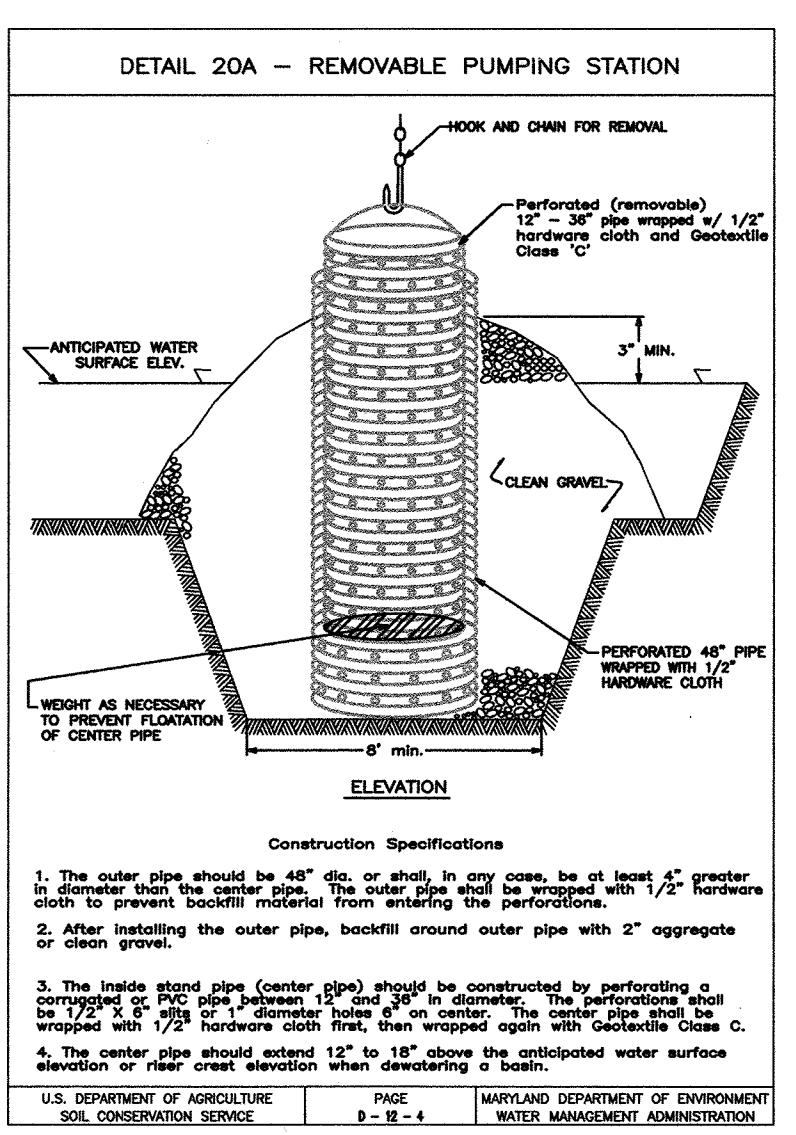
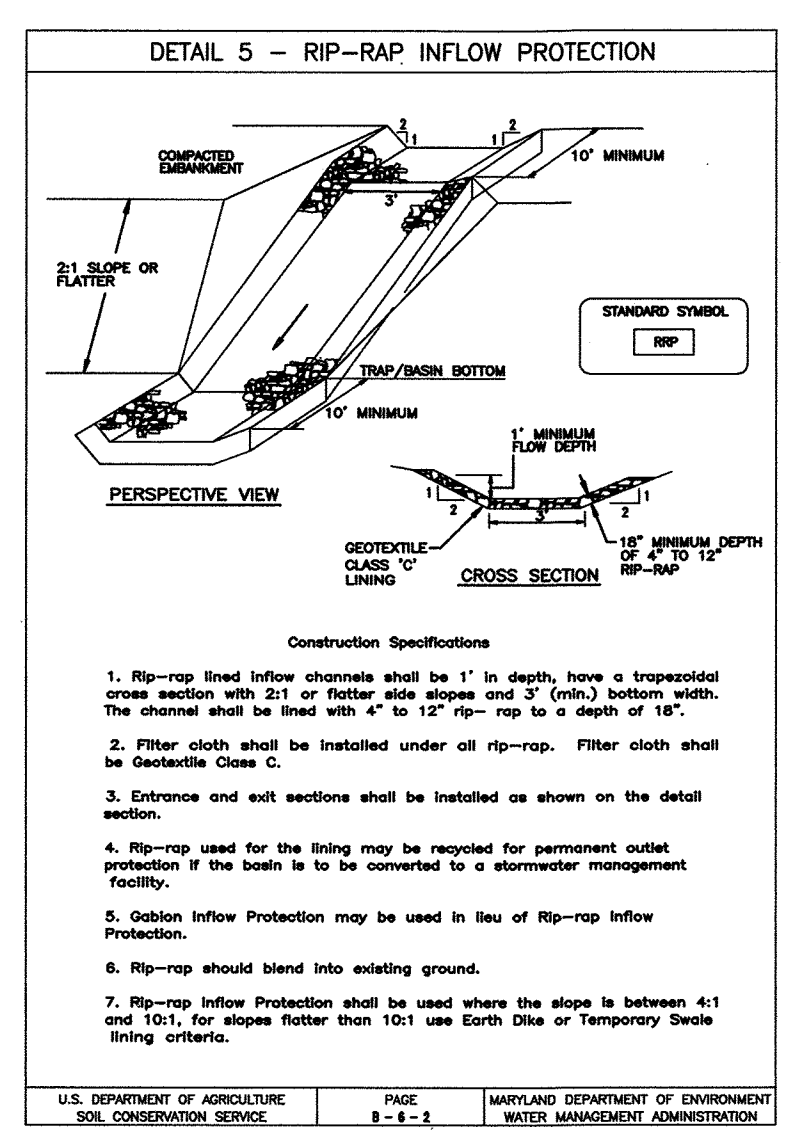
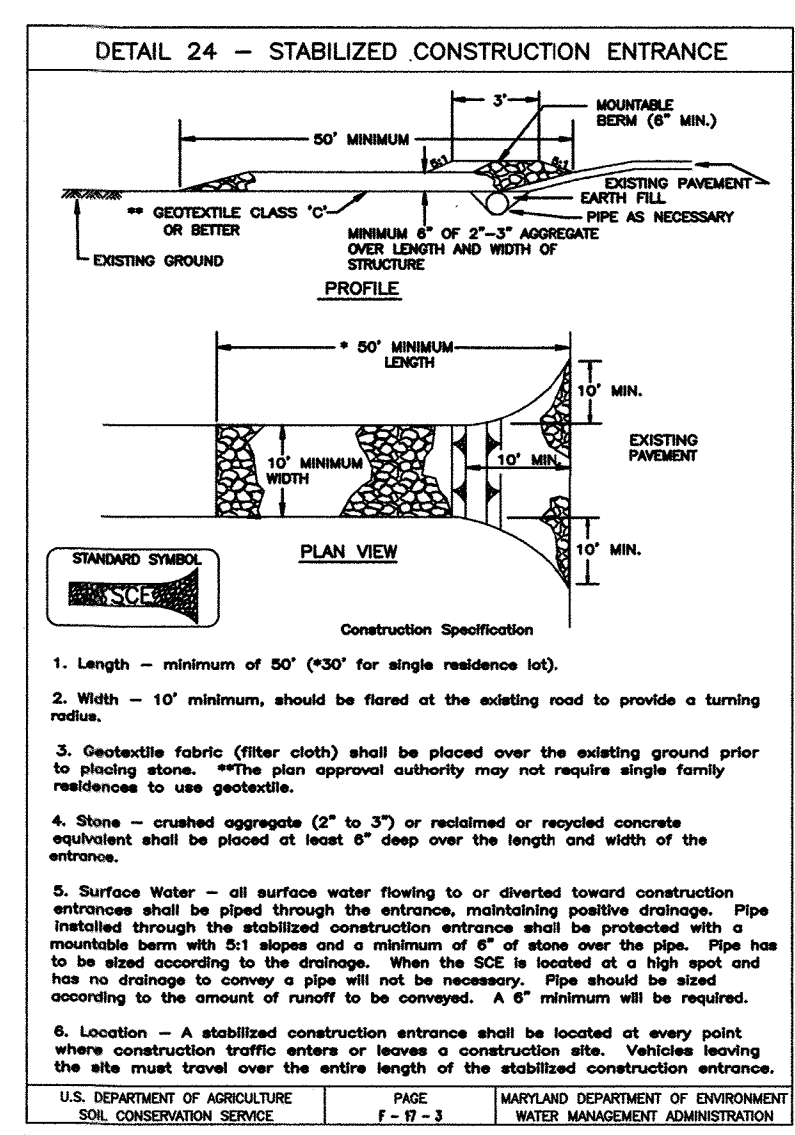
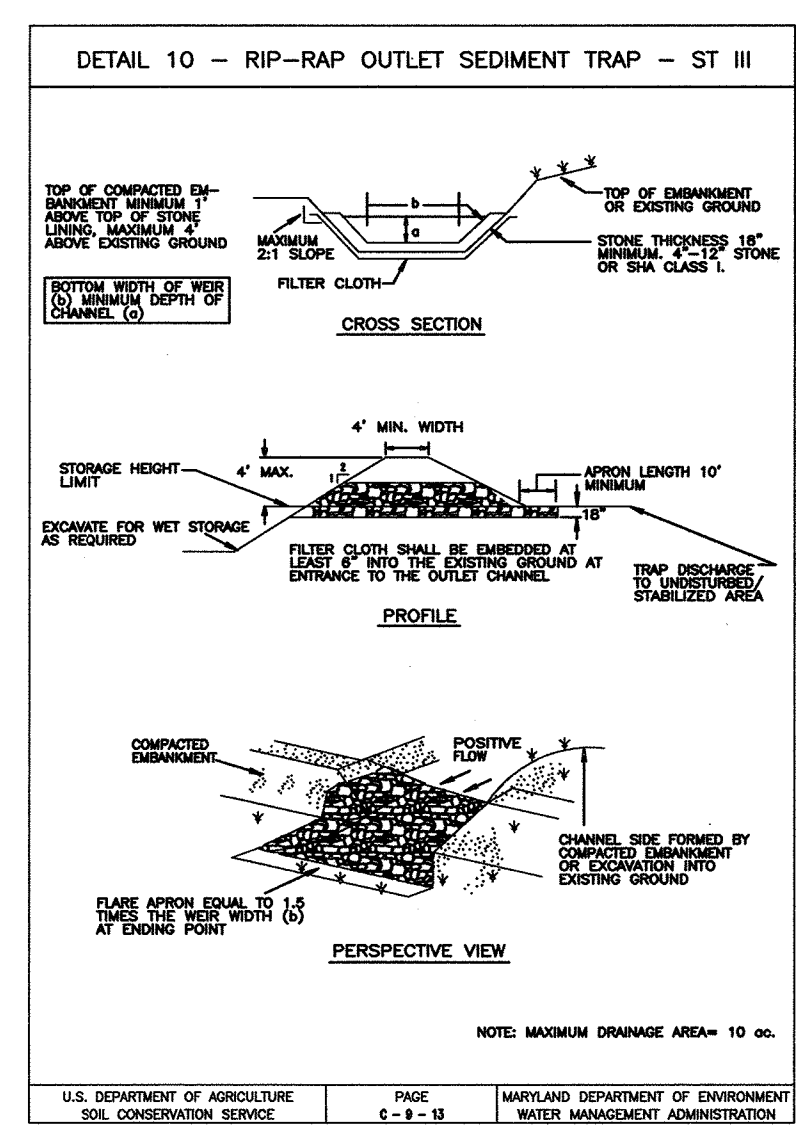
MIX	SEED MIX (USE CERTIFIED MATERIAL IF AVAILABLE)	PLANTING LBS./AC	SITE CONDITIONS	USDA HARDINESS ZONE*	RECOMMENDED PLANTING DATES*						NOTES
					3/15-5/15	5/16-6/14	6/15-7/31	8/1-10/1	10/15-11/15	11/15-1/15	
1	TALL FESCUE (75%) CANADIAN BLUEGRASS (10%) KENTUCKY BLUEGRASS (10%) REDTOP (5%)	150	3.4	MOIST TO DRY	5b	X	X	X	X	A	
2	KENTUCKY BLUEGRASS (50%) CREeping RED FESCUE OR A HARD FESCUE (40%) REDTOP (10%)	150	3.4	MOIST TO MODERATELY DRY TO DRY	5b	X	X	X	X	B	
3	TALL FESCUE (85%) PERENNIAL RYEGRASS (10%) KENTUCKY BLUEGRASS (5%)	125	2.9	MOIST TO DRY	5b	X	X	X	X	C	
4	RED FESCUE OR CREeping FESCUE (80%) PERENNIAL RYEGRASS (20%)	60	.92	MOIST TO DRY	5b	X	X	X	X	D	
5	TALL FESCUE (65%) OR PERENNIAL RYEGRASS (50%) PLUS CROWNTHROAT FLATPEA	110	2.5	MOIST TO DRY	5b	X	X	X	X	E	
6	WEeping LOVEGRASS (75%) SERCIA LESPEDEZA (25%)	4	.09	DRY TO VERY DRY	6a	X	X	X	X	F	
7	TALL FESCUE (83%) WEeping LOVEGRASS (2%) PLUS SERCIA LESPEDEZA (15%)	110	3	DRY TO VERY DRY	5b	X	X	X	X	G	
8	REED CANARYGRASS (70%) REDTOP (30%) PLUS BROODFOOT TREFOIL* (15%)	40	.92	WET TO MODERATELY DRY	6a	X	X	X	X	H	
9	TALL FESCUE (80%) POA TRIVIALIS (7%) BROODFOOT TREFOIL (13%)	125	2.9	WET TO MODERATELY DRY	5b	X	X	X	X	I	
10	TALL FESCUE (80%) HARD FESCUE (20%)	120	3.4	WET TO DRY	5b	X	X	X	X	J	
11	HARD FESCUE (100%)	75	1.7	MOIST TO DRY	5b	X	X	X	X	K	

A. USED BY SHADY SLOPE AREAS. ADD A LEAFLE FOR SLOPES > THAN 3:1.  
 B. USED IN MEADOWS. PERMANENT GREENCOVER QUANTITY.  
 C. BEST USE ON SHADY SLOPES NOT ON POORLY DRAINED CLAYS.  
 D. USE ON LOW MAINTENANCE STEEP SLOPES. USE TALL FESCUE IN DRAUGHTY COND. GROWN VETCH BEST FOR ZONES 6a, 6b, 6c.  
 E. SUITABLE FOR SEEDING IN MID-SUMMER.  
 F. USE IN AREAS OF MOST SHADE POA TRIVIALIS WIVES IN WET SHADY AREAS.  
 G. USE ON POORLY DRAINED SOILS - DITCHES OR WATERWAYS. BROODFOOT TREFOILS BEST FOR ZONES 5b, 6a, 6b, 6c, 6d, 6e, 6f, 6g, 6h, 6i, 6j, 6k, 6l, 6m, 6n, 6o, 6p, 6q, 6r, 6s, 6t, 6u, 6v, 6w, 6x, 6y, 6z.  
 H. TALL FESCUE MAY BE SEEDING ALONE. HARD FESCUE PROVIDES BETTER SHADE TOLERANCE AND PRODUCES A BETTER STAND.  
 I. LOW FERTILITY GRASS. REQUIRES INFREQUENT MOWING. GOOD COMPANION FOR WILDFLOWERS.  
 J. LOW FERTILITY GRASS. REQUIRES INFREQUENT MOWING. GOOD COMPANION FOR WILDFLOWERS.

Table 27 Geotextile Fabrics

CLASS	APPARENT OPENING SIZE (MM. MAX.)	GRAB TENSILE STRENGTH (LBS. MIN.)	BURST STRENGTH (PSI. MIN.)
A	0.30**	250	500
B	0.60	200	320
C	0.30	200	320
D	0.60	90	145
E	0.30	90	145
F (SILT FENCE)	0.40-0.80*	90	190

\* US Std sieve CW-02215 \*\* 50 mm. max. for Super Silt Fence



The properties shall be determined in accordance with the following procedures:  
 - Apparent opening size MSMT 323  
 - Grab tensile strength ASTM D 1882; 4x8" specimen, 1x2" clamps, 1x2"/min. strain rate in both principal directions of geotextile fabric.  
 - Burst strength ASTM D 3786

The fabric shall be inert to commonly encountered chemicals and hydrocarbons, and will be rot and mildew resistant. It shall be manufactured from fibers consisting of long chain synthetic polymers, and composed of a minimum of 85% by weight of polyethylene, polyesters, or polyamides. The geotextile fabric shall resist deterioration from ultraviolet exposure.

In addition, Classes A through E shall have a 0.01 cm/sec. minimum permeability when tested in accordance with MSMT 507, and an apparent minimum elongation of 20 percent (20%) when tested in accordance with the grab tensile strength requirements listed above.

SILT FENCE  
 Class F Geotextile Fabrics for silt fence shall have a 50 lb./in. minimum tensile strength and a 20 lb./in. minimum tensile modulus when tested in accordance with MSMT 509. The material shall have a 0.3 gal./ft./min. flow rate and seventy-five percent (75%) minimum filtering efficiency when tested in accordance with MSMT 322.

Geotextile fabrics used in the construction of silt fence shall resist deterioration from ultraviolet exposure. The fabric shall contain sufficient amounts of ultraviolet ray inhibitors and stabilizers to provide a minimum of 12 months of expected useful construction life at a temperature range of 0 to 120 degrees F.

**OWNER / DEVELOPER**

MERRITT - CCP IV, LLC  
 MERRITT - CCP V, LLC  
 BH ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
 2066 Lord Baltimore Drive  
 Baltimore, Maryland 21207  
 (410) 298-2600

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

*Cheryl Simon* 4/2/00  
 USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*Yuhua* 4/2/00  
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Joseph R. Routh* 4/25/00  
 DIRECTOR

*Linda Hamilton* 4/24/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*William Pennington* 4/14/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

ENGINEER CERTIFICATION:  
 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.

ENGINEER *Robert Alan Landino* DATE 4/3/00  
 NAME ROBERT ALAN LANDINO PE# 20714

DEVELOPER CERTIFICATION:  
 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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

DEVELOPER *Merritt Properties, LLC* DATE 4/3/00  
 NAME *Stacey Keizer*

ADDRESS CHART  
 PARCEL NO. | STREET ADDRESS

A-31 BUILDING #4 8825 STANFORD BOULEVARD  
 A-32 BUILDING #5 8890 MCGAW ROAD  
 A-32 BUILDING #6 8880 MCGAW ROAD

SUBDIVISION NAME: COLUMBIA CORPORATE PARK SECTION/AREA: 1/1 PARCEL NUMBERS: A-31 & A-32  
 COLUMBIA CORPORATE PARK

PLAT NO. #6475 & #13781 BLOCK NO. 24 ZONE N.T., EC-IND TAX/ZONE 36 ELECT. DIST. 6 CENSUS TR. 6067-03

WATER CODE E06 SEWER CODE 5333000

SEDIMENT CONTROL DETAILS FOR COLUMBIA CORPORATE PARK

PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 6TH ELECTION DISTRICT PARCELS A-31 & A-32 HOWARD COUNTY, MARYLAND

DESIGN BY: R.A.M. DRAWN BY: D.T.A. CHECKED BY: R.A.M. APPRD. BY: R.A.L. DATE: 06-04-99 SCALE: AS SHOWN

PROJECT # 98B055 DRAWING: Ecb05504 XREFS: XRB05510 XRB05502

14 SHEET OF 17

Barokas-Landino Design Group  
 ENGINEERS / PLANNERS / SURVEYORS / LANDSCAPE ARCHITECTS  
 355 Research Parkway Meriden, CT 06450 (203) 630-1406 (203) 630-2615 Fax  
 849 International Drive, Suite 215 Linthicum, MD 21090 (410) 859-9100  
 210 West 70th Street, Suite 604 New York, NY 10023  
 2933 North Front Street, Suite 1 Harrisburg, PA 17110 (717) 221-9744  
 900 Parish Street, Suite 201 Pittsburgh, PA 15220 (412) 928-3060  
 80 Washington Street, Suite 310 Poughkeepsie, NY 12601 (888) 630-9272  
 3957 Westerline Parkway Richmond, VA 23233 (800) 301-3077

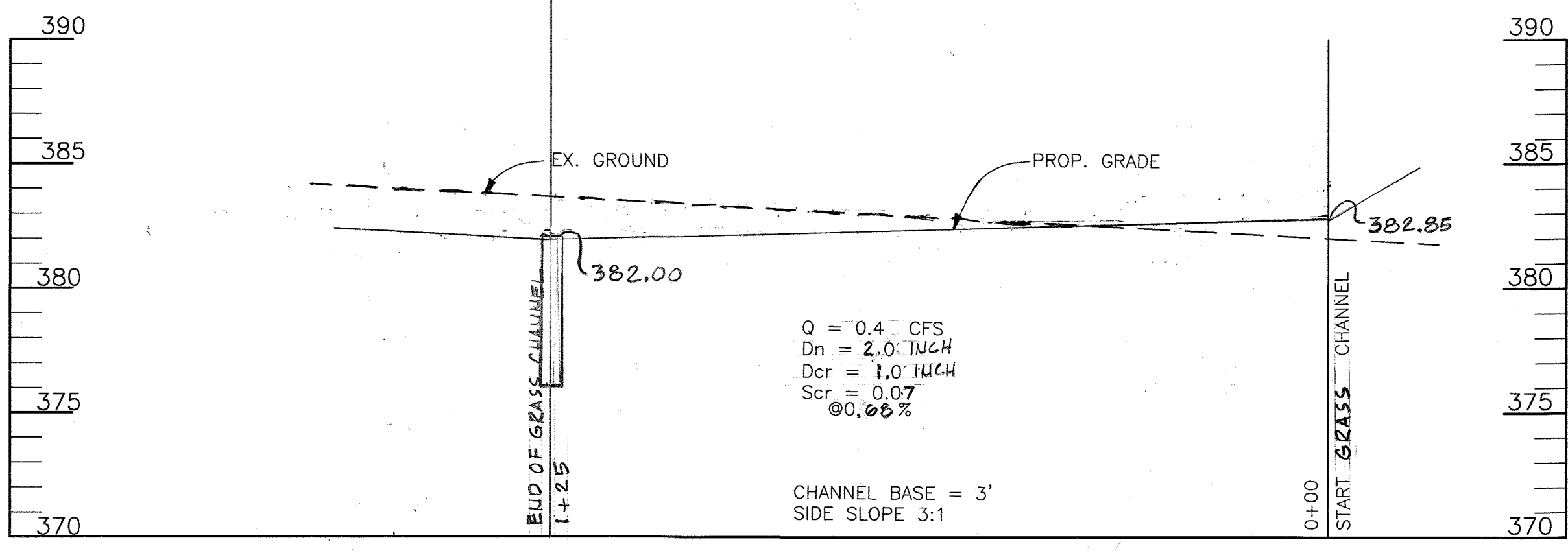






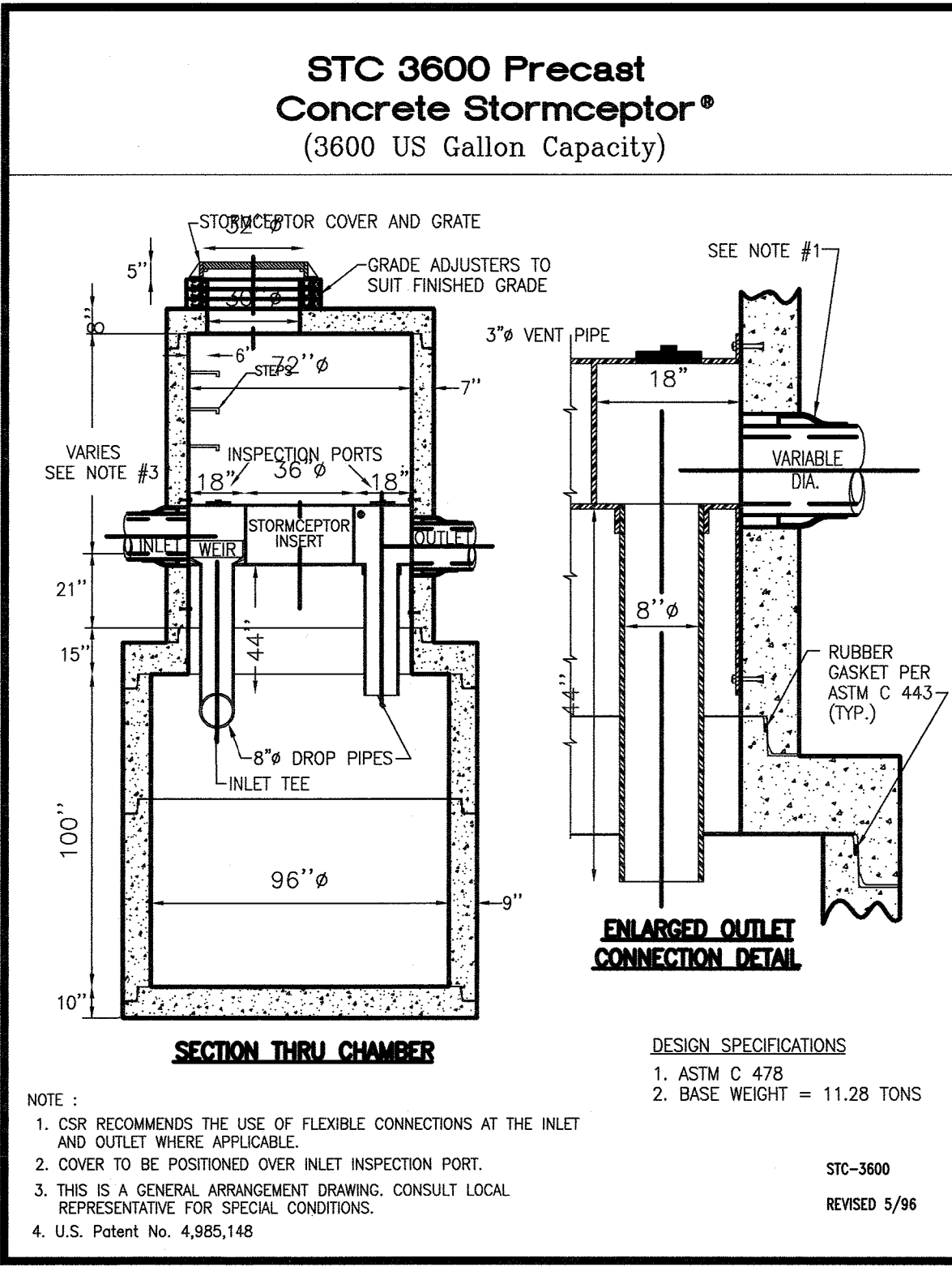






**GRASS CHANNEL PROFILE**

SCALE: HORIZ. 1"=20'  
VERT. 1"=5'



**NOTE:**  
1. CSR RECOMMENDS THE USE OF FLEXIBLE CONNECTIONS AT THE INLET AND OUTLET WHERE APPLICABLE.  
2. COVER TO BE POSITIONED OVER INLET INSPECTION PORT.  
3. THIS IS A GENERAL ARRANGEMENT DRAWING. CONSULT LOCAL REPRESENTATIVE FOR SPECIAL CONDITIONS.  
4. U.S. Patent No. 4,885,148

STC-3600  
REVISED 5/96

**Concrete Stormceptor Order Request Form**

Contractor Information  
 Name: CTG  
 Address: 3922 WASHINGTON BLVD.  
 City: BALTIMORE  
 State: MARYLAND  
 Zip Code: 21227  
 Contract: BILL SLACUM  
 Phone: 410-525-1173  
 Fax: 410-644-6577

Owner Information  
 Name: MERRITT CORP.  
 Phone: (410) 298-2600  
 Fax: (410) 298-9644

Stormceptor Model:  900  3600  1200  4800  1800  6000  2400  7200

Insert Size:  22"  32"  44"  Custom

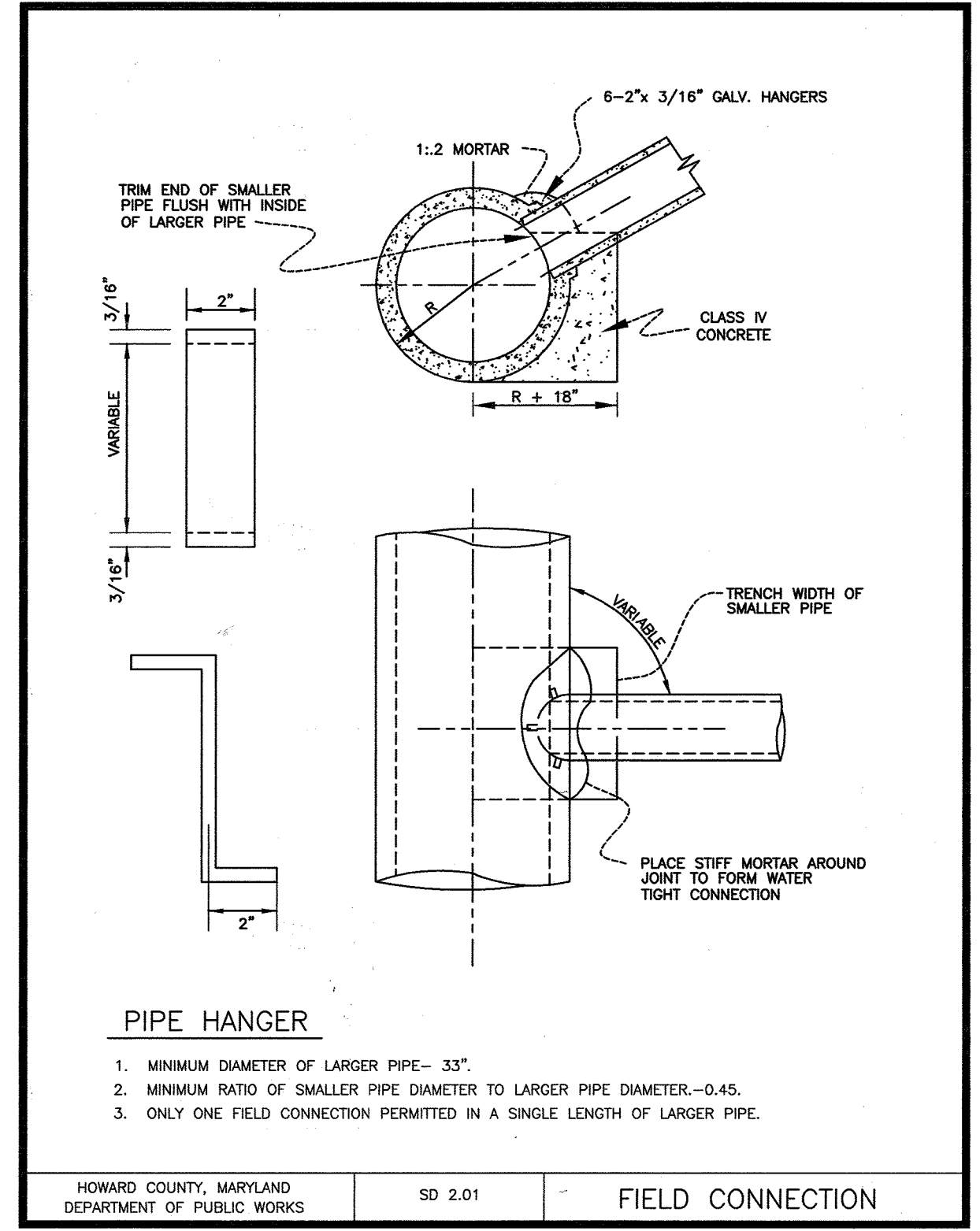
Manhole Number: SC-1  
 Top Elevation (ft): 376.84  
 Inlet Pipe Invert (ft): 366.58  
 Outlet Pipe Invert (ft): 366.50  
 Pipe Type: RCCP  
 Pipe Inside Diameter (in) [ID]: 30"  
 Pipe Outside Diameter (in) [OD]: 37"

Project Name: COLUMBIA CORPORATE PARK  
 Approximate time frame until required delivery (weeks): xxx  
 Delivery Address: Street 8890 MCGAW ROAD  
 City: COLUMBIA State: MARYLAND Zip Code: 21246  
 Designer Company: BARAKOS-LANDINO DESIGN GROUP  
 Designer Contact: RANDY MOHR Phone: (410) 859-9100 Fax: (410) 859-9958

Please fax this sheet back to Hydro Conduit/Virginia Precast at (804) 798-3426 Attn: Dave Brinser / Ed O'Malley (Phone: 1-800-999-2278)

For credit information/applications contact Carole Broodus at (804) 798-6088  
 For Technical Assistance Please Call Stormceptor Corporation at (301) 762-8361 or toll free at 1 (800) 762-4703

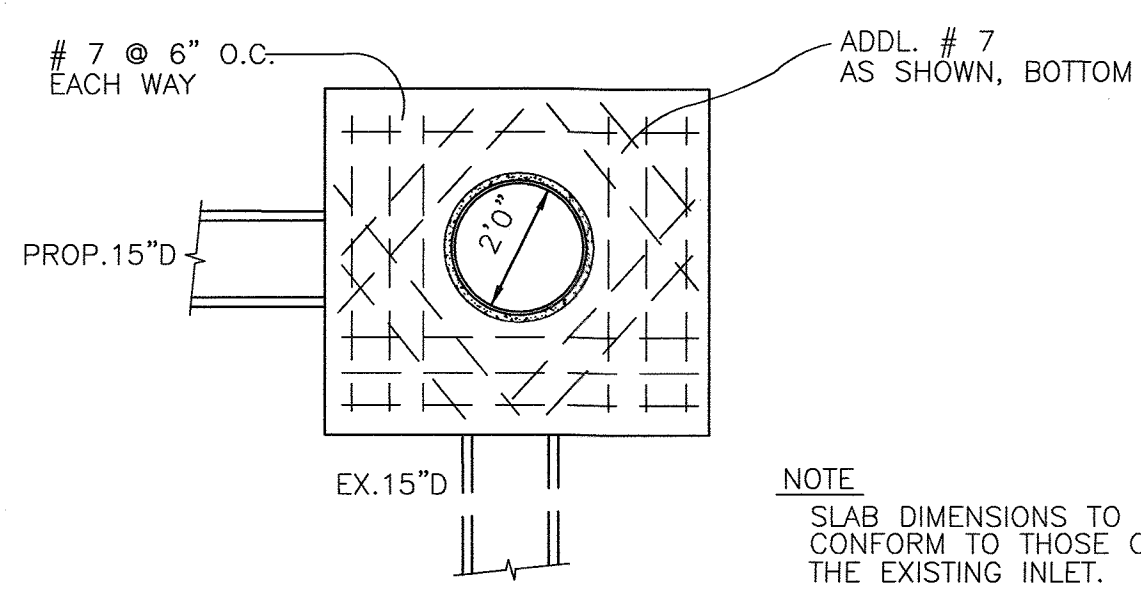
\* TO BE INCLUDED ON SWM PLAN BY DESIGNER.



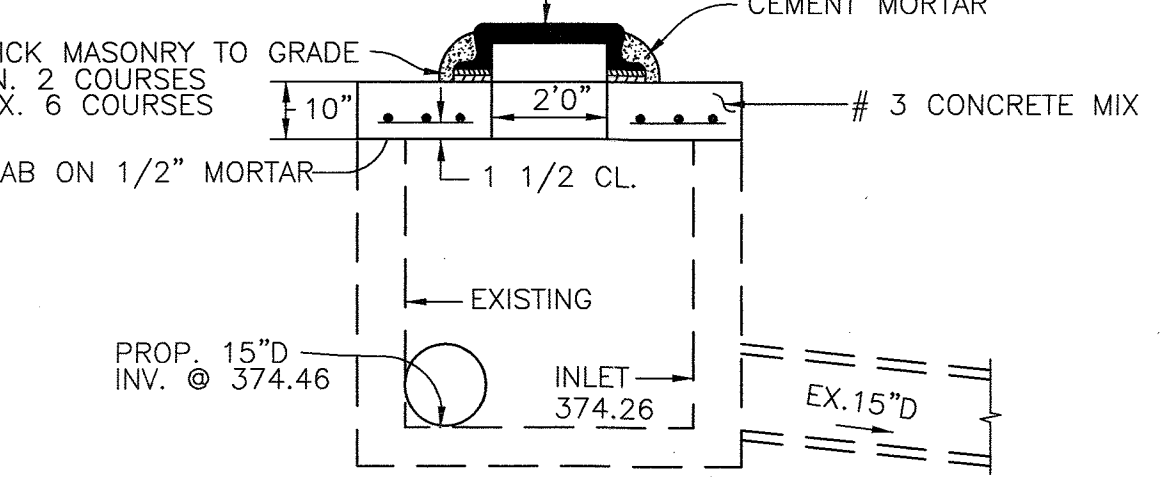
**PIPE HANGER**

1. MINIMUM DIAMETER OF LARGER PIPE - 33"
2. MINIMUM RATIO OF SMALLER PIPE DIAMETER TO LARGER PIPE DIAMETER - 0.45.
3. ONLY ONE FIELD CONNECTION PERMITTED IN A SINGLE LENGTH OF LARGER PIPE.

HOWARD COUNTY, MARYLAND  
DEPARTMENT OF PUBLIC WORKS SD 2.01 FIELD CONNECTION

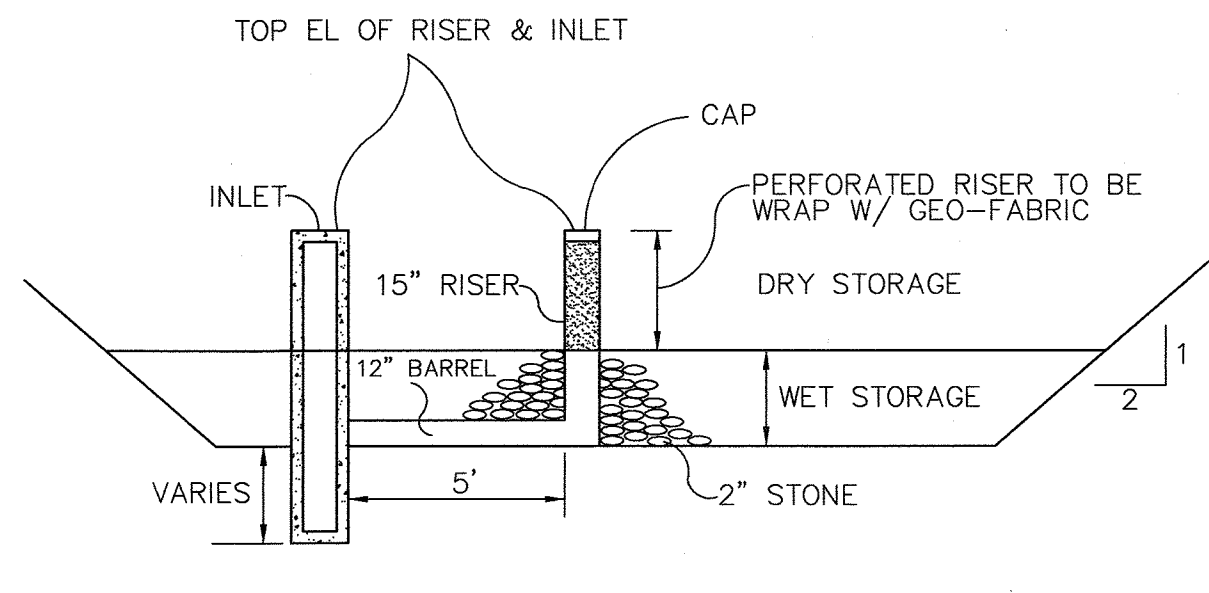


NOTE: SLAB DIMENSIONS TO CONFORM TO THOSE OF THE EXISTING INLET.



**INLET CAPPING DETAIL FOR EX. I-14**

NTS



**INLET SEDIMENT TRAP SECTION VIEW**

N.T.S.

**STORMCEPTOR ORDER INFORMATION**

STORMCEPTOR MODEL:.....3600  
 INSERT SIZE—(DIAMETER/HEIGHT): 6" x 22"  
 STRUCTURE:.....SC-1  
 TOP ELEVATION:.....376.84  
 INLET PIPE INVERT:.....366.58  
 OUTLET PIPE INVERT:.....366.50  
 PIPE SIZE:.....30" RCCP CL III

NOTE:  
SEE DRAINAGE AREA MAP FOR CONTRIBUTING IMPERVIOUS AREA TO STORMCEPTOR.

AREAS: M.....=0.24 AC +/-  
 N.....=0.31 AC +/-  
 O.....=1.08 AC +/-  
 P.....=0.97 AC +/-

TOTAL IMPERVIOUS AREA.....=2.58 AC +/-

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY

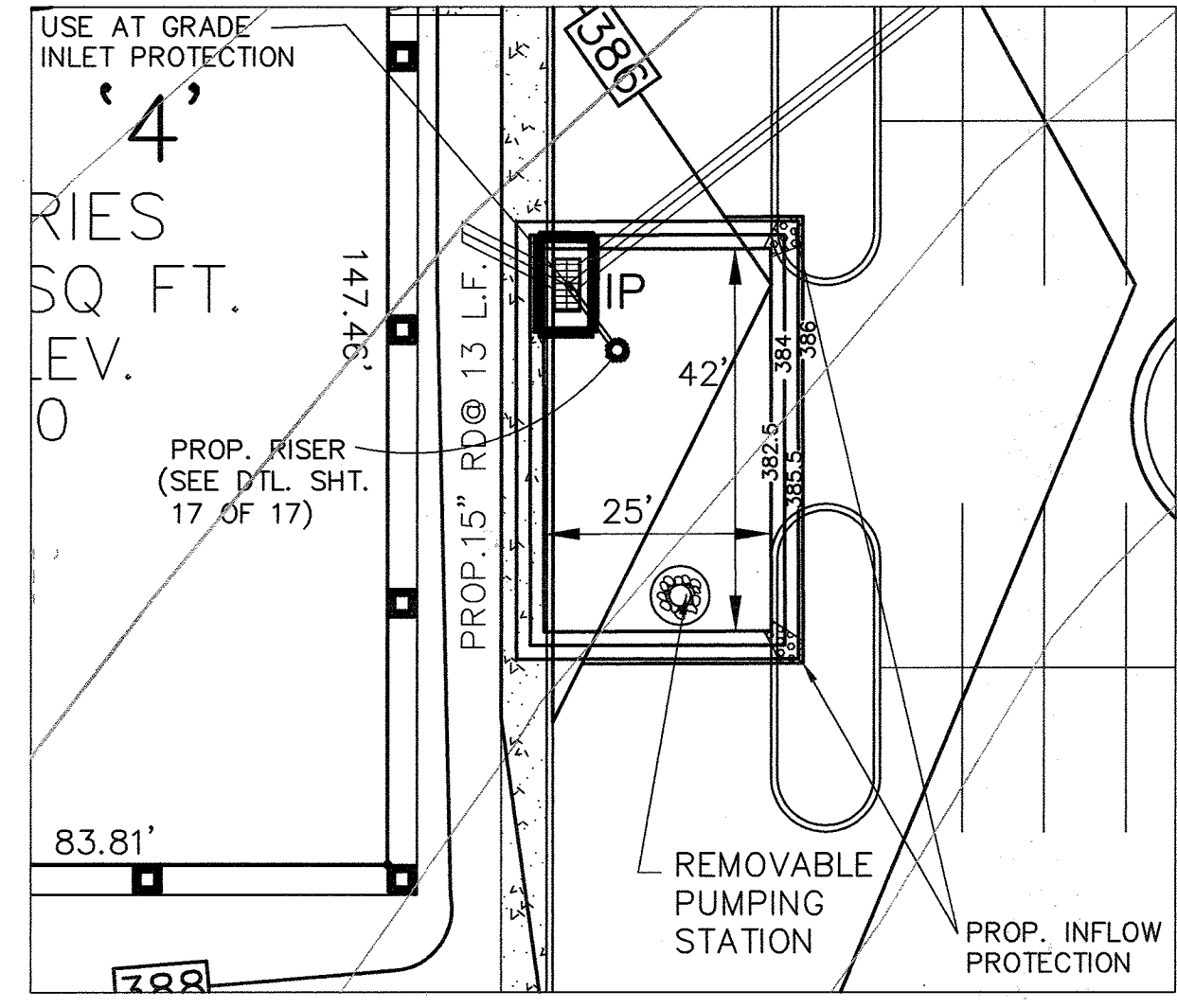
DATE JUNE 3, 1999

**OPERATION AND MAINTENANCE SCHEDULE FOR STORMCEPTOR WATER QUALITY STRUCTURE**

THE STORMCEPTOR WILL BE VISUALLY INSPECTED ANNUALLY FOR THE PRESENCE OF OIL AND FUEL AND SEDIMENT BY REMOVING THE MANHOLE COVER. ANY OBSTRUCTIONS WILL BE CLEARED. THE SEDIMENT IS TO BE REMOVED WHEN THE SEDIMENT DEPTH REACHES 2.0 FEET (FOR STC 3600). REMOVAL OF THE MATERIALS IS TO BE PERFORMED BY A LICENSED WASTE MANAGEMENT COMPANY AND DISPOSAL IN ACCORDANCE WITH CURRENT REGULATIONS.

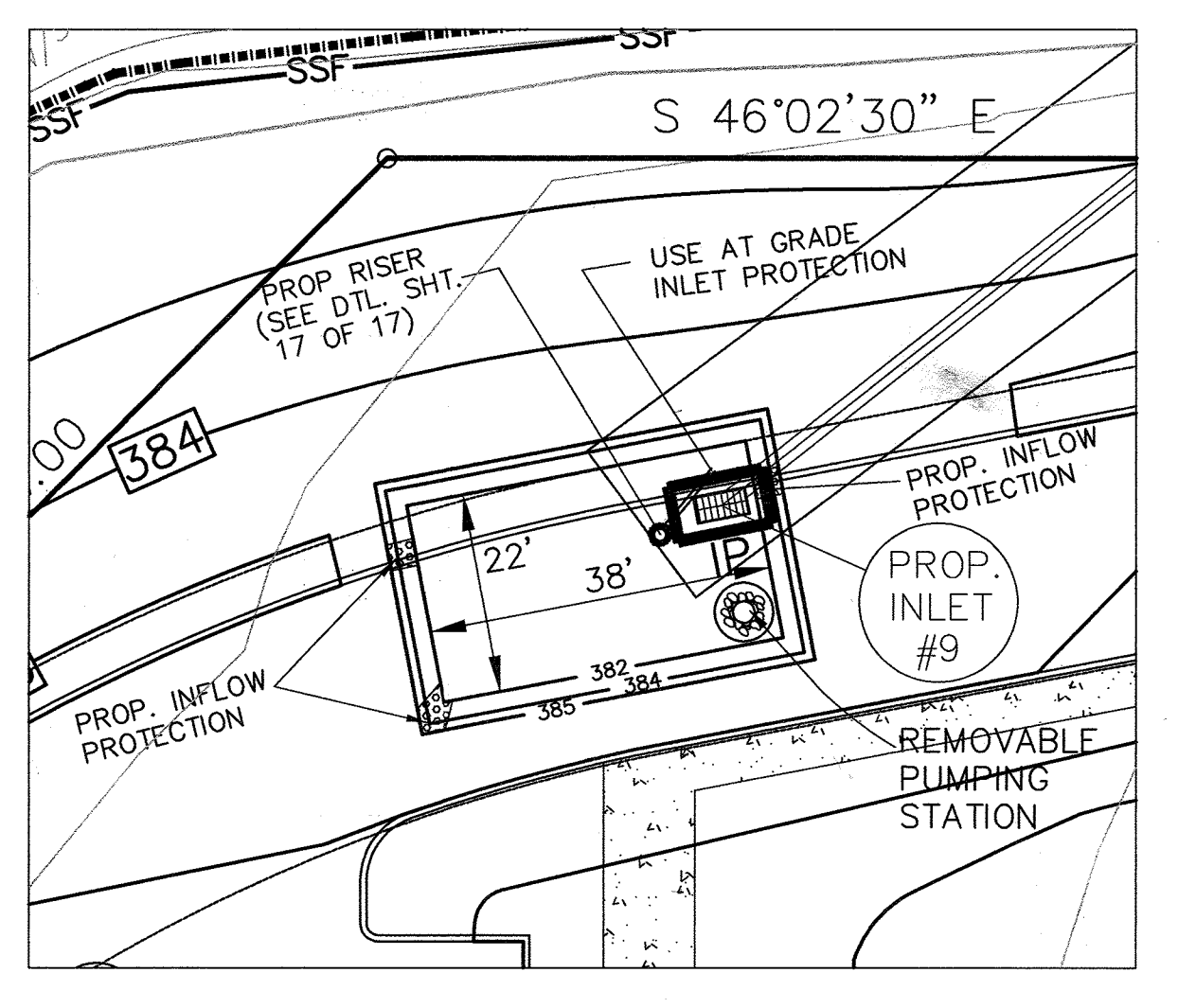
THE MAINTENANCE OF THE STORMCEPTOR UNIT SHALL BE DONE USING A VACUUM TRUCK WHICH WILL REMOVE THE WATER, SEDIMENT, DEBRIS, FLOATING HYDROCARBONS AND OTHER MATERIALS IN THE UNIT. PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.

THE OWNER SHALL RETAIN AND MAKE THE STORMCEPTOR INSPECTION/MONITORING FORMS AVAILABLE TO HOWARD COUNTY OFFICIALS UPON THEIR REQUEST.



**INLET SEDIMENT TRAP PLAN VIEW #1**

SCALE: 1"= 20'



**INLET SEDIMENT TRAP PLAN VIEW #2**

SCALE: 1"= 20'

**OWNER / DEVELOPER**

MERRITT - CCP IV, LLC  
 MERRITT - CCP V, LLC  
 BH ROBB IV LIMITED PARTNERSHIP C/O

**MERRITT**  
 2066 Lord Baltimore Drive  
 Baltimore, Maryland 21207  
 (410) 298-2600

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

*Cheryl Simon / GS* 4/7/00  
 USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*[Signature]* 4/7/00  
 HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 4/25/00  
 DIRECTOR

*[Signature]* 4/24/00  
 CHIEF, DIVISION OF LAND DEVELOPMENT

*[Signature]* 4/11/00  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

NO.	REVISION	DATE
1	REMOVED RETAINING WALL DETAIL, REVISED THE GRADE ON THE CHANNEL	9/1/99
2	REVISED CHANNEL TO GRASS	5/1/00
3	REVISED INLET 3B	6/13/00

THIS SHEET 17 OF 17 SUPERSEDES SHEET 17 OF 17 THAT WAS SIGNED AND APPROVED BY HOWARD COUNTY DEPT. OF PLANNING & ZONING ON JULY 23, 1999

ADDRESS CHART

PARCEL NO.	STREET ADDRESS
A-31	BUILDING #4 8825 STANFORD BOULEVARD
A-32	BUILDING #5 8890 MCGAW ROAD
A-32	BUILDING #6 8880 MCGAW ROAD

SUBDIVISION NAME	SECTION/AREA	PARCEL NUMBERS
COLUMBIA CORPORATE PARK	1/1	A-31 & A-32

PLAT NO.	BLOCK NO.	ZONE	TAX/ZONE	ELECT. DIST.	CENSUS TR.
#6475 & #13781	24	N.T. EC-IND	36	6	6067-03

WATER CODE E06 SEWER CODE 5333000

REVISED PROFILES FOR

**COLUMBIA CORPORATE PARK**

PARCELS A-31 & A-32

O.P.Z. FILE NOS.: S-87-24, P-87-43, F-72-90C, F-91-130, F-89-248, F-88-109, F-93-90, F-95-52, FDP 117A-1

TAX MAP #36 6TH ELECTION DISTRICT PARCELS A-31 & A-32 HOWARD COUNTY, MARYLAND

DESIGN BY: R.A.M.  
 DRAWN BY: J.E.T./D.T.A.  
 CHECKED BY: R.A.M.  
 APPRD. BY: R.A.L.  
 DATE: 06-04-99  
 SCALE: AS SHOWN

PROJECT # 98B055  
 DRAWING: DSB05504.DWG  
 XREFS: XRB05510  
XRB05502

17 SHEET OF 17



**Barakos-Landino Design Group**  
 ENGINEERS / PLANNERS / SURVEYORS / LANDSCAPE ARCHITECTS

355 Research Parkway  
 Meriden, CT 06450  
 (203) 630-1406  
 (203) 630-2615 Fax

849 International Drive, Suite 215  
 Linthicum, MD 21090  
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210 West 70th Street, Suite 604  
 New York, NY 10023

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 Harrisburg, PA 17110  
 (717) 221-9744

900 Parish Street, Suite 201  
 Pittsburgh, PA 15220  
 (412) 928-3060

80 Washington Street, Suite 310  
 Poughkeepsie, NY 12601  
 (888) 830-9272

3957 Westerre Parkway  
 Richmond, VA 23233  
 (800) 301-3077