

SHEET INDEX	
NO	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	GRADING AND SEDIMENT CONTROL PLAN
4	SEDIMENT CONTROL DETAILS
5	DETAILS
6	PROFILES
7	LANDSCAPE PLAN

# SITE DEVELOPMENT PLAN

# EMERSON

## SECTION THREE AREA TWO

## 6th ELECTION DISTRICT

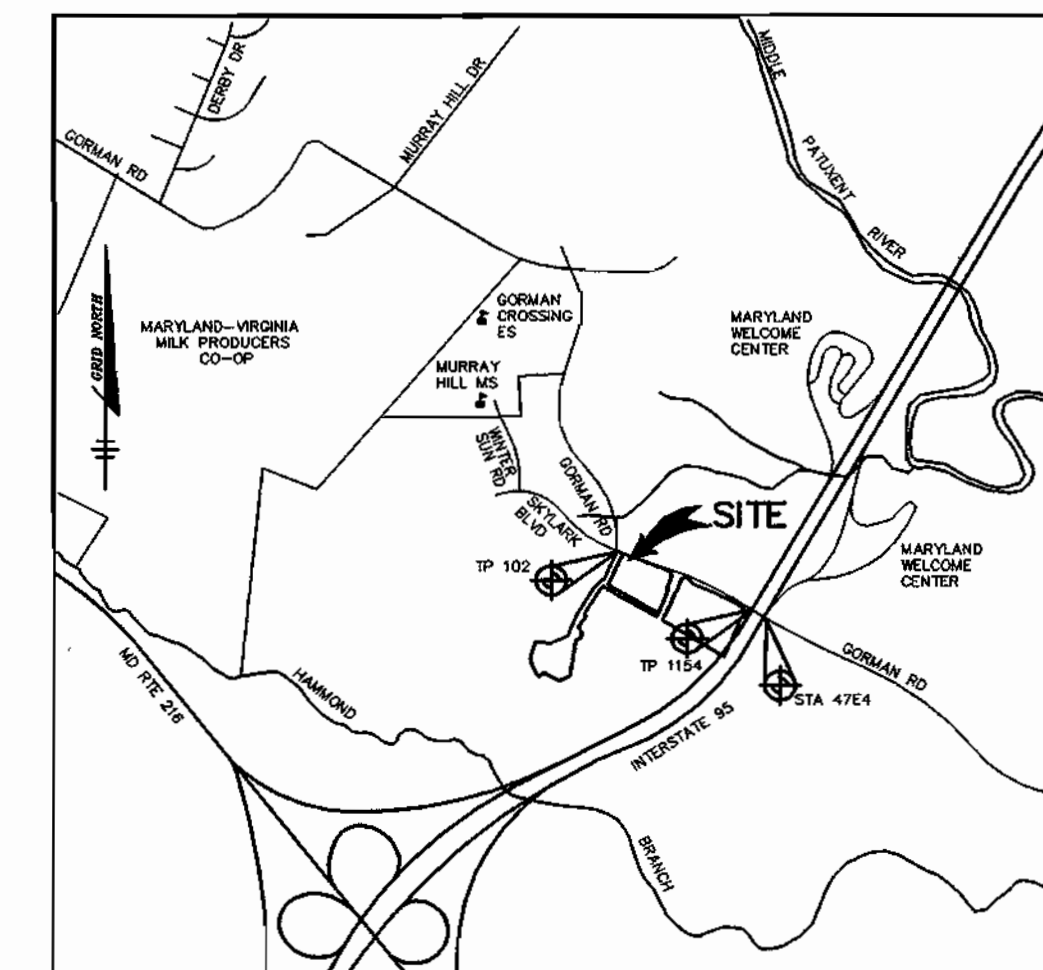
## HOWARD COUNTY, MARYLAND

### BENCHMARKS

TRAVERSE POINT 102  
ELEVATION 346.19  
N 536,499.165  
E 1,353,974.017  
LOCATED NEAR THE  
INTERSECTION OF GORMAN  
ROAD AND SKYLARK BLVD.

TRAVERSE POINT 1154  
ELEVATION 347.45  
N 536,018.069  
E 1,355,129.333  
LOCATED NEAR THE  
I-95 BRIDGE ALONG  
GORMAN ROAD

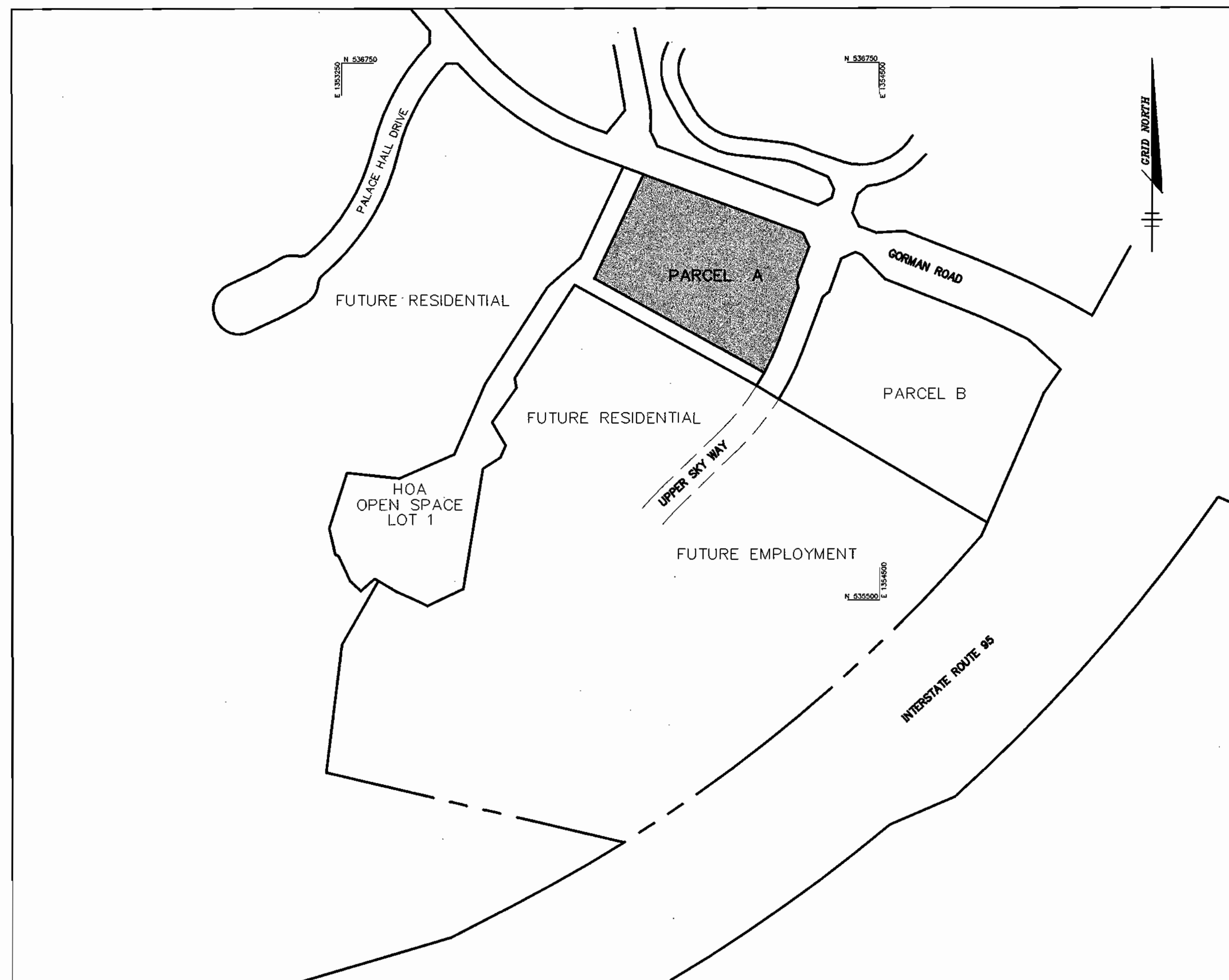
CONTROL STATION 47E4  
ELEVATION 339.00  
N 535,846.16  
E 1,355,431.23  
LOCATED NEAR THE  
I-95 BRIDGE ALONG  
GORMAN ROAD



VICINITY MAP  
SCALE: 1" = 2000'

### GENERAL NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOL. IV "STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION" PLUS MSHA STANDARDS AND SPECIFICATIONS, IF APPLICABLE.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM AERIAL SURVEY MAPS WITH MAXIMUM TWO FOOT CONTOUR INTERVALS PREPARED BY AIR SURVEY CORP. FLOWN IN APRIL 1998. EXISTING GROUND ON PARCEL A AND UPPER SKY WAY IS THE PROPOSED GRADING OF F-02-178.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 47 E4 ALONG WITH 2 TRAVERSE POINTS WERE USED FOR THIS PROJECT.
- WATER IS PUBLIC. CONTRACT NO. 14-4049-D.
- SEWER IS PUBLIC. CONTRACT NO. 14-4049-D, DRAINAGE AREA = PATUXENT.
- THE STORMWATER MANAGEMENT FOR THIS SITE WILL BE PROVIDED VIA THE GRASS CHANNEL CREDIT, AND A PUBLIC WET POND.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE. EXISTING UTILITIES ARE SHOWN BASED ON THE BEST AVAILABLE INFORMATION.
- THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY DAFT McCUNE & WALKER, INC.
- THE TRAFFIC STUDY FOR THIS PROJECT WAS PREPARED BY WELLS & ASSOCIATES DATED FEBRUARY 2000.
- THE NOISE STUDY FOR THIS PROJECT WAS PREPARED BY CENTURY ENGINEERING DATED MARCH 1999.
- THIS PROJECTS FALLS UNDER THE APPROVED AFPO STUDY OF S-99-12.
- THE BOUNDARY SURVEY FOR THIS PROJECT WAS PREPARED BY DAFT, McCUNE & WALKER, INC. JULY 2000.
- SUBJECT PROPERTY ZONED PEC-MXD-3 PER ZONING BOARD CASE ZB-979-M.
- ALL ELEVATIONS SHOWN ARE BASED ON THE U.S.C. AND G.S. MEAN SEA LEVEL DATUM, 1929.
- SEE DEPARTMENT OF PLANNING AND ZONING FILE NO'S.: S-99-12, PB-339, PB-359, ZB-979-M, P-02-22, F-02-178
- THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- PIPE SHALL NOT BE INSTALLED BY THE CONTRACTOR UNTIL THE LENGTH CALLED FOR AT EACH STATION HAS BEEN APPROVED BY THE ENGINEER IN THE FIELD.
- NO PIPE SHALL BE LAID UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT WITHIN 6" OF FINISHED GRADE.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- STREAM BUFFERS ARE DETERMINED BY LAND USE ADJOINING THE OPEN SPACE. EMPLOYMENT USE = 50' BUFFER FROM ANY STREAM.
- THE 100-YEAR FLOODPLAIN FOR HAMMOND BRANCH WAS OBTAINED FROM THE HOWARD COUNTY FLOODPLAIN STUDY DATED NOV. 1980 REF. D-8-10-26 & AUG 1986 REF. D-1085. THE 100 YEAR FLOODPLAIN FOR THE REMAINING STREAMS ARE FROM THE FLOODPLAIN STUDY PREPARED BY DAFT McCUNE AND WALKER MARCH 2000.
- FOREST CONSERVATION REQUIREMENTS FOR THIS PHASE WERE ADDRESSED UNDER F-02-178. WHEN CONSIDERED CUMULATIVELY WITH PREVIOUS PHASES OF THE PROJECT, NO REFORESTATION IS REQUIRED.
- THERE ARE NO KNOWN CEMETARIES OR GRAVE SITES ON THIS PROPERTY.
- SOIL MAP #33.



PLAN  
SCALE: 1" = 200'

### SITE TABULATION

SITE AREA-PARCEL A	3.193 ACRES
LIMIT OF DISTURBED AREA	3.7 ACRES
PRESENT ZONING	PEC-MXD-3
PROPOSED USE	COMMUNITY CENTER/ RECREATION FACILITY (ONE STORY)
FLOOR AREA	4765 SF
COMMUNITY CENTER	
PAVILIONS	FOR SHADE ONLY
PARKING SPACES REQUIRED	
SWIMMING POOL 5910 SF @	
1 PERSON PER 12 SF	= 493 PEOPLE
1 SPACE/7 PEOPLE	70 SPACES
TENNIS COURT 4.0 SP/COURT	8 SPACES
TOTAL	78 SPACES
PARKING SPACES PROVIDED	95 SPACES (INCLUDES 4 HC SPACES)

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Mark D. Wright* 4/21/03  
DIRECTOR DATE

*Chris D. Williams* 4/14/03  
CHIEF, DEVELOPMENT ENGINEERING DIVISION MK DATE

*Andy Hamet* 4/23/03  
CHIEF, DIVISION OF LAND DEVELOPMENT HB DATE

DATE NO. REVISION

OWNER/DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044  
410-992-6000

PROJECT  
**EMERSON**  
SECTION THREE AREA TWO  
PARCEL A

AREA TAX MAP 47 BLOCK 8 & 9  
ZONED: PEC-MXD-3 PARCEL: 462  
6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE SHEET

Patton Harris Rust & Associates, pc  
Engineers, Surveyors, Planners, Landscape Architects.

PHRA  
8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

3.18.03 DATE DESIGNED BY: C.J.R.

DRAWN BY: DAM

CHECKED BY: C.J.R.

PROJECT NO.: 22456/FINALS  
C-SDP1.DWG

DATE: MARCH 25, 2003

SCALE: AS SHOWN

DRAWING NO. 1 OF 7

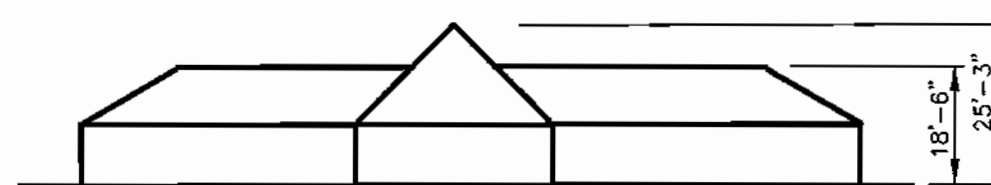
CHRISTOPHER J. REID #19949

APPROVED  
PLANNING BOARD  
of HOWARD COUNTY  
DATE 10/2/02

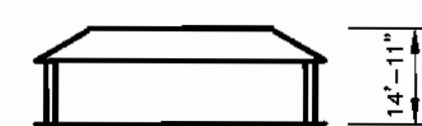
### ADDRESS CHART

LOT NUMBER	STREET ADDRESS
A	8400 UPPER SKY WAY

SUBDIVISION NAME EMERSON	SECT./AREA S/3 A/2	PARCEL A
PLAT # #15888-15891	BLOCK # ZONING 8&9 PEC-MXD-3	TAX MAP NO. ELECT. DIST. CENSUS TRACT 47 6th 6068.02
WATER CODE E-15	SEWER CODE 7390000	



CLUBHOUSE ELEVATION  
SCALE: 1" = 30'



PAVILION ELEVATION  
SCALE: 1" = 30'



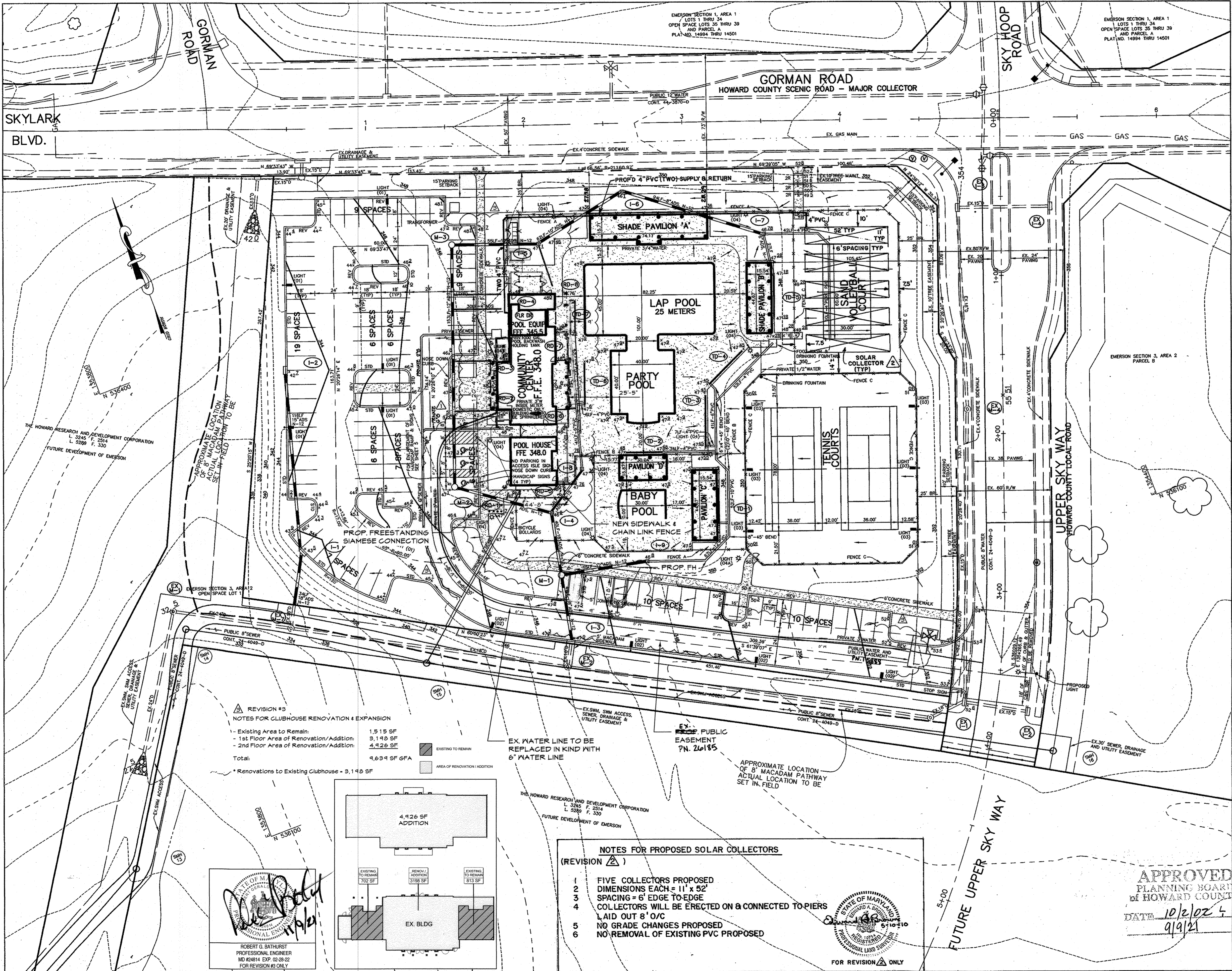
### LIGHTING FIXTURE SCHEDULE

TYPE	LAMPS	MOUNTING	DESCRIPTION	VOLTAGE	CATALOG NO.
01	250W MH	25' ROUND STRAIGHT ALUMINUM POLE	TYPE 3 CUT OFF PARKING LUMINAIRE (BLACK FINISH) WITH MATCHING POLE	208V	KM LIGHTING #AET3250MH BL-P/VSF-ISA POLE #PRA25-6188A/BL-P
02	250W MH	25' ROUND STRAIGHT ALUMINUM POLE	SAME AS TYPE '01' EXCEPT TYPE IV (FORWARD THROW OPTICS)	208V	KM LIGHTING #AET4250MH BL-P/VSF-ISA POLE #PRA25-6188A/BL-P
03	1000W MH	25' ROUND STRAIGHT ALUMINUM POLE	TYPE IV CUT OFF TENNIS COURT LUMINAIRE (BLACK FINISH) WITH MATCHING POLE	208V	SPAILDING #CEPAM1000W/MS28 POLE #P25-RAP-6-SGL-SGB
04	50W MH	10' ROUND TAPERED FIBERGLASS	DECORATIVE POST TOP METAL HALIDE WITH ACRYLIC FROSTED LENS AND BLACK FINISH	120V	BEACON PRODUCTS #AL2822-AF-50MH-BLK SHADESPEARE POLE #M100238801/OPSH1821
04A	50W MH	10' ROUND TAPERED FIBERGLASS	SAME AS TYPE '04' EXCEPT VOLTAGE	208V	BEACON PRODUCTS #AL2822-AF-50MH-BLK SHADESPEARE POLE #M100238801/OPSH1821

### PIPE INVS

NO.	INVERTS FROM MAIN	PIPE SIZE AND LENGTH	INVERTS AT 'S'
RD-1	341.99	4" ADS-5LF02.0%	342.08
RD-2	342.49	4" ADS-22LF02.0%	342.93
RD-3	342.64	4" ADS-22LF02.0%	343.08
RD-4	342.85	4" ADS-30LF02.0%	343.45
RD-5	342.40	4" ADS-2LF02.0%	342.44
RD-6	344.56	4" ADS-BLF02.0%	344.72
RD-7	345.49	4" ADS-SLF02.0%	345.59
RD-8	343.72	4" ADS-28LF02.0%	344.28
FLR DR	342.81	4" ADS-30LF02.0%	343.41
3' W	-	-	340.8
6' S	-	-	339.11
2' S	-	-	340.89

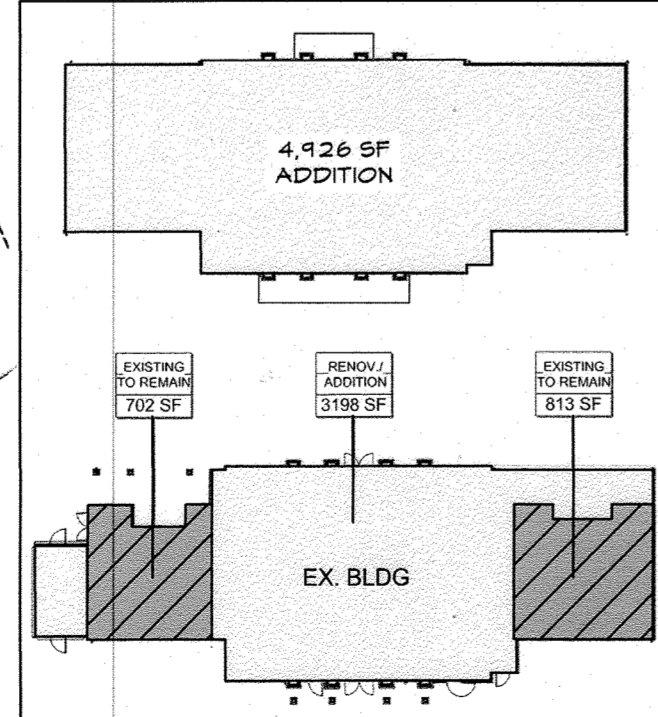
- ### NOTES:
- ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
  - ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
  - ALL ON-SITE ROADS ARE PRIVATE.
  - ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES, AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
  - \* STD/REV - STANDARD TO REVERSE CURB TRANSITION.
  - P-2 PAVING
  - CONCRETE
  - FENCE A - 6' HIGH VINYL COATED CHAIN LINK FENCE
  - FENCE B - 3' HIGH ALUMINUM PICKET FENCE
  - FENCE C - 10' HIGH VINYL COATED CHAIN LINK FENCE
  - ALL CLUBHOUSE DOORS MUST HAVE A 5' LEVEL LANDING AREA.
  - STREET LIGHT, STA 3+50, 23' LEFT OF CL, 250 WATT HPS (SAC) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM.



**REVISION #3**  
**NOTES FOR CLUBHOUSE RENOVATION & EXPANSION**

- Existing Area to Remain:	1,515 SF	EXISTING TO REMAIN
- 1st Floor Area of Renovation/Addition:	9,140 SF	AREA OF RENOVATION/ADDITION
- 2nd Floor Area of Renovation/Addition:	4,926 SF	
<b>Total:</b>	<b>4,634 SF 6FA</b>	

\* Renovations to Existing Clubhouse = 9,140 SF



**NOTES FOR PROPOSED SOLAR COLLECTORS**  
 (REVISION #1)

- FIVE COLLECTORS PROPOSED
- DIMENSIONS EACH = 11' x 52'
- SPACINGS = 6' EDGE TO EDGE
- COLLECTORS WILL BE ERECTED ON & CONNECTED TO PIERS
- LAID OUT 8' O/C
- NO GRADE CHANGES PROPOSED
- NO REMOVAL OF EXISTING PVC PROPOSED

4/21/20 Community Clubhouse Renovation & Expansion

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR: *[Signature]* 10-4-23 DATE

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* 12.7.21 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT: *[Signature]* 12/4/22 DATE

4/21/10 ADD SOLAR COLLECTION SYSTEM OVER EX VOLLEY BALL CT. (EAB)

02-00 REV. SHC

DATE NO. REVISION

OWNER/DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044  
 410-992-6000

PROJECT

EMERSON  
 SECTION THREE AREA TWO  
 PARCEL A

AREA TAX MAP 47 BLOCK 8 & 9  
 ZONED: PEC-MXD-3 PARCEL: 462  
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE

REVISED  
 SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects.

PHRA 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.6900  
 F 410.997.9282

3-18-03 DATE

DESIGNED BY: C.J.R.

DRAWN BY: DAM

CHECKED BY: C.J.R.

PROJECT NO: 22456/FINALS  
 C-SDP2.DWG

DATE: MARCH 25, 2003

SCALE: 1" = 30'

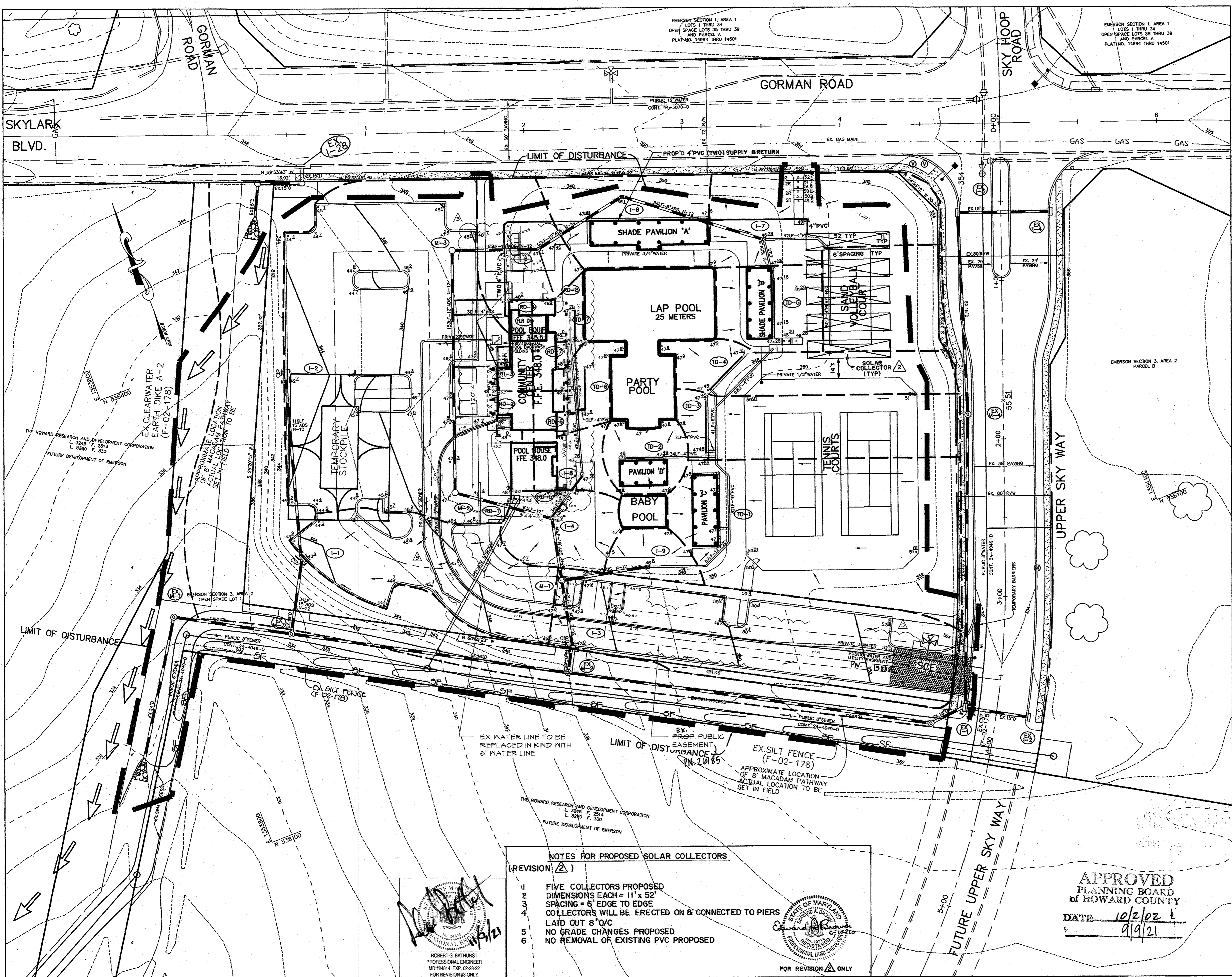
CHRISTOPHER J. REID #19949 DRAWING NO. 2 OF 7

APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 10/2/02  
 9/9/21

*[Signature]*  
 ROBERT G. BATHURST  
 PROFESSIONAL ENGINEER  
 MD #04814 EXP. 02-28-22  
 FOR REVISION #3 ONLY



DRAINAGE AREA DATA			
INLET NO.	DRAINAGE AREA	C FACTOR	PERCENT IMPERVIOUS
I-1	0.19 AC	0.74	79
I-2	0.63 AC	0.79	87
I-3	0.33 AC	0.76	82
I-4	0.08 AC	0.27	13
I-5	0.10 AC	0.39	30
I-6	0.13 AC	0.50	46
I-7	0.18 AC	0.31	11
I-8	0.03 AC	0.41	33
I-9	0.04 AC	0.55	50
TD-1	0.36 AC	0.58	58
TD-2	0.05 AC	0.86	100
TD-3	0.16 AC	0.65	69
TD-4	0.12 AC	0.53	50
TD-5	0.08 AC	0.53	50
TD-6	0.04 AC	0.86	100
TD-7	0.02 AC	0.86	100



BY THE DEVELOPER:

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

*Paul G. ...* 3/25/03  
DEVELOPER DATE

BY THE ENGINEER:

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

*Chris J. Reid* 3-19-03  
ENGINEER DATE

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

NATURAL RESOURCES CONSERVATION SERVICE DATE

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

*Alexander ...* 11/18/21  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Ang ...* 10-4-22  
DIRECTOR DATE

*...* 12-7-21  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*...* 1/14/22  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

4/21/20 Community Clubhouse Renovation 4 Expansion  
4/21/10 ADD SOLAR COLLECTION SYSTEM OVER EX VOLLEY BALL CT (EAB)

DATE NO. REVISION

OWNER/DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
THE ROUSE BUILDING  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044  
410-992-6000

PROJECT

EMERSON  
SECTION THREE AREA TWO  
PARCEL A

AREA TAX MAP 47 BLOCK 8 & 9  
ZONED: PEC-MXD-3 PARCEL: 462  
6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE

REVISED  
GRADING AND  
SEDIMENT CONTROL PLAN

Patton Harris Rust & Associates, pc  
Engineers, Surveyors, Planners, Landscape Architects.

**P-H-R-A** 8818 Centre Park Drive  
Columbia, MD 21045  
T 410.997.8900  
F 410.997.9282

3-19-03 DATE  
DESIGNED BY: C.J.R.  
DRAWN BY: DAM  
CHECKED BY: C.J.R.  
PROJECT NO: 22456/FINALS  
C-SDP3.DWG  
DATE: MARCH 25, 2003  
SCALE: 1" = 30'  
DRAWING NO. 3 OF 7

NOTES FOR PROPOSED SOLAR COLLECTORS  
(REVISION: A)

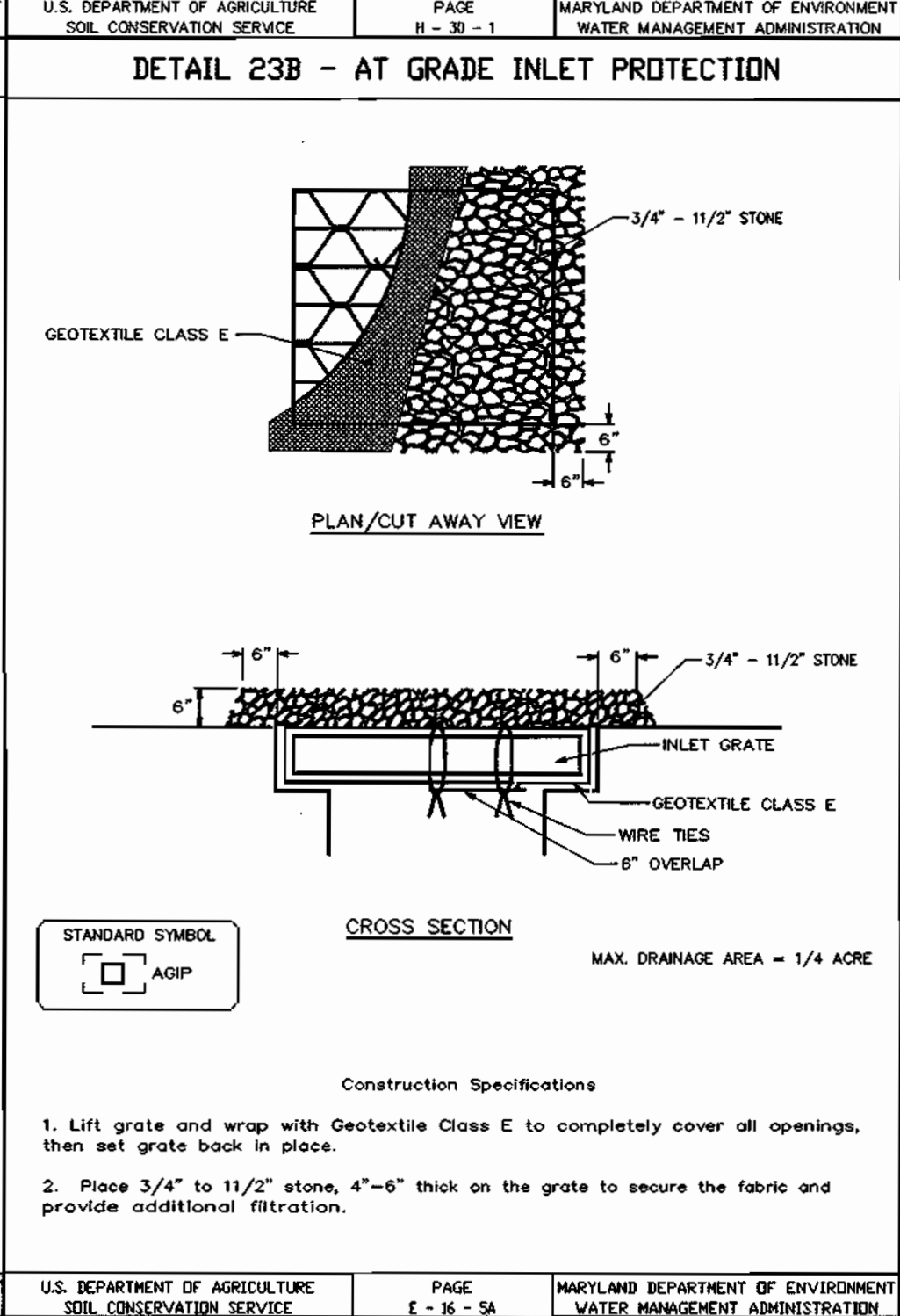
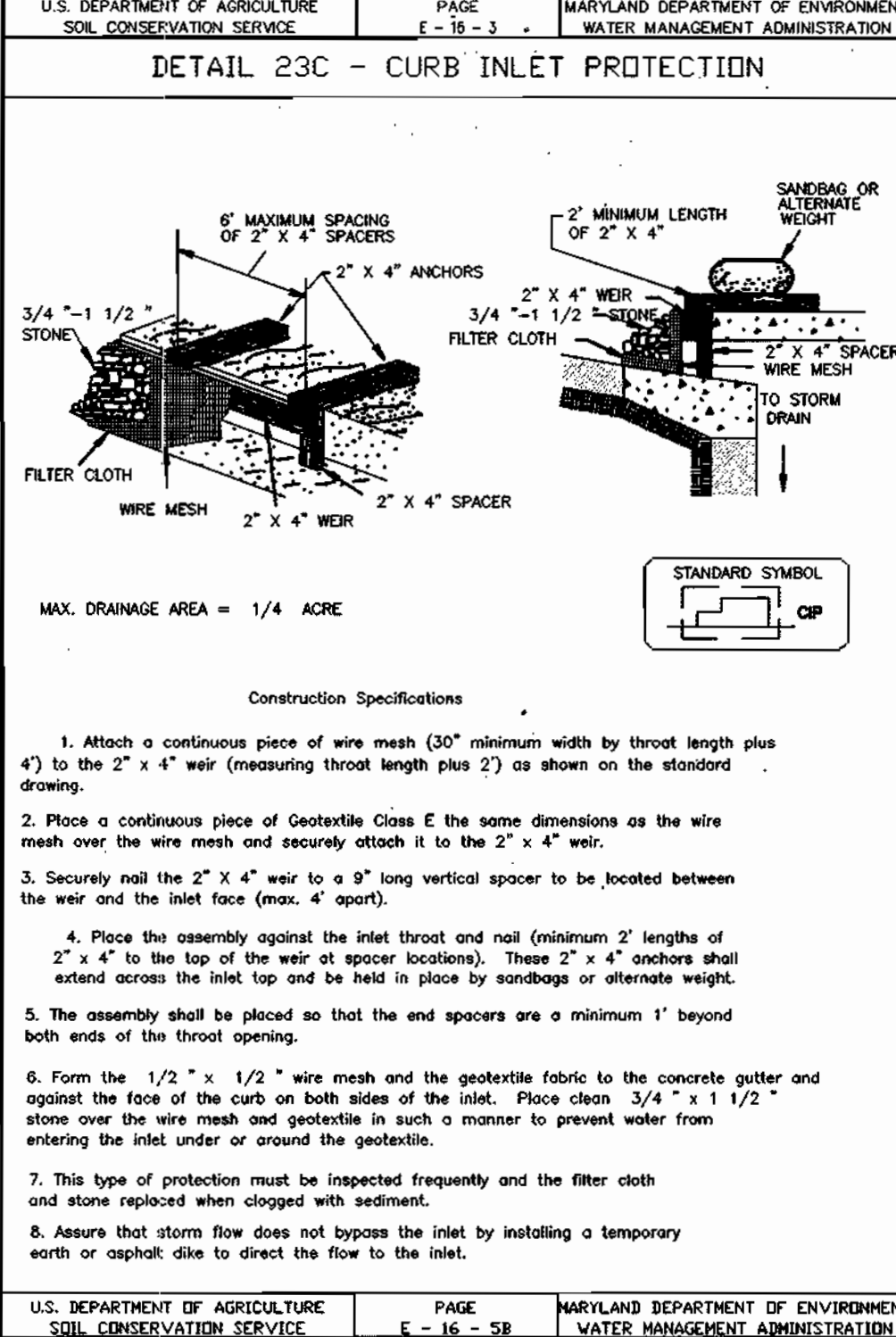
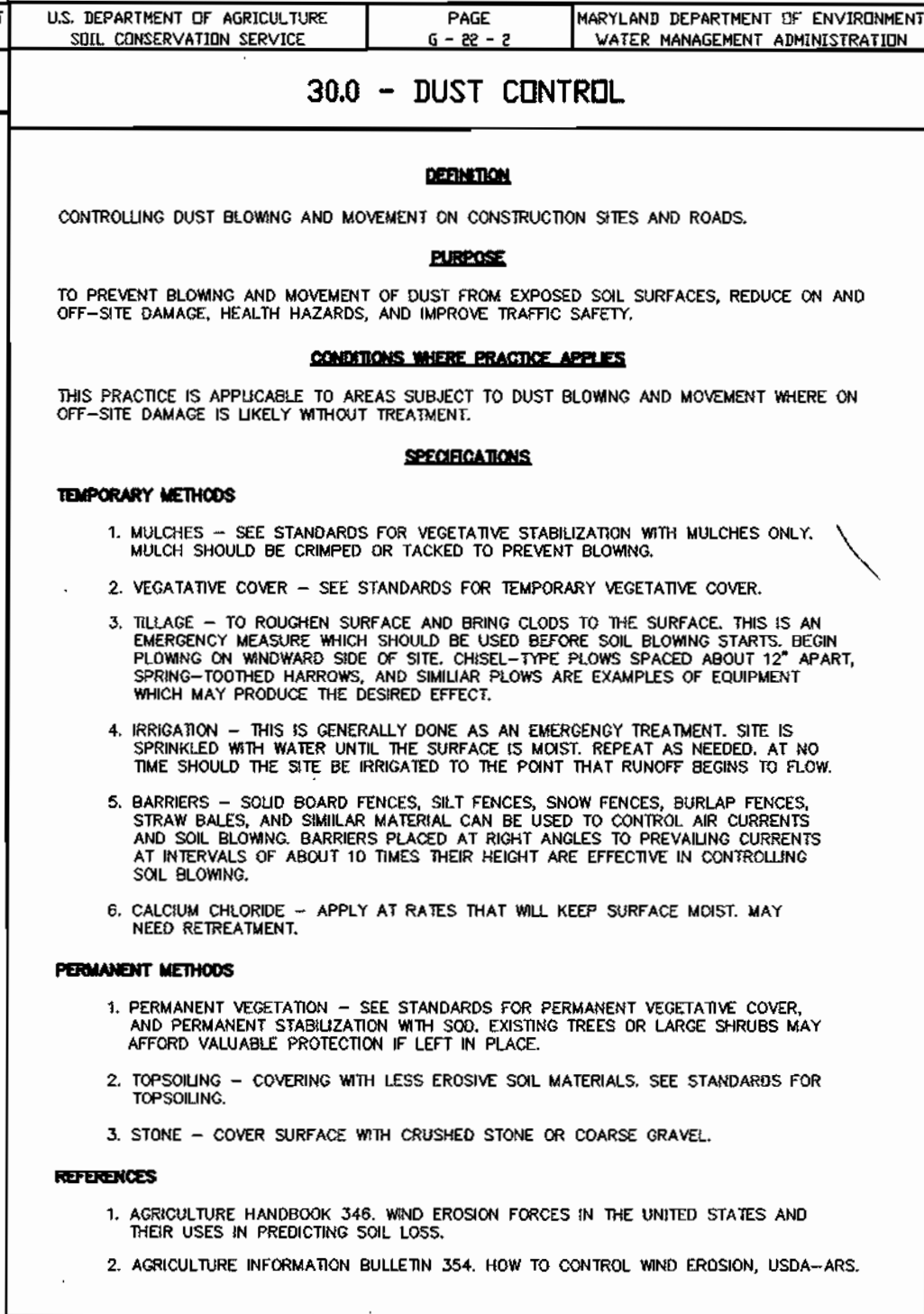
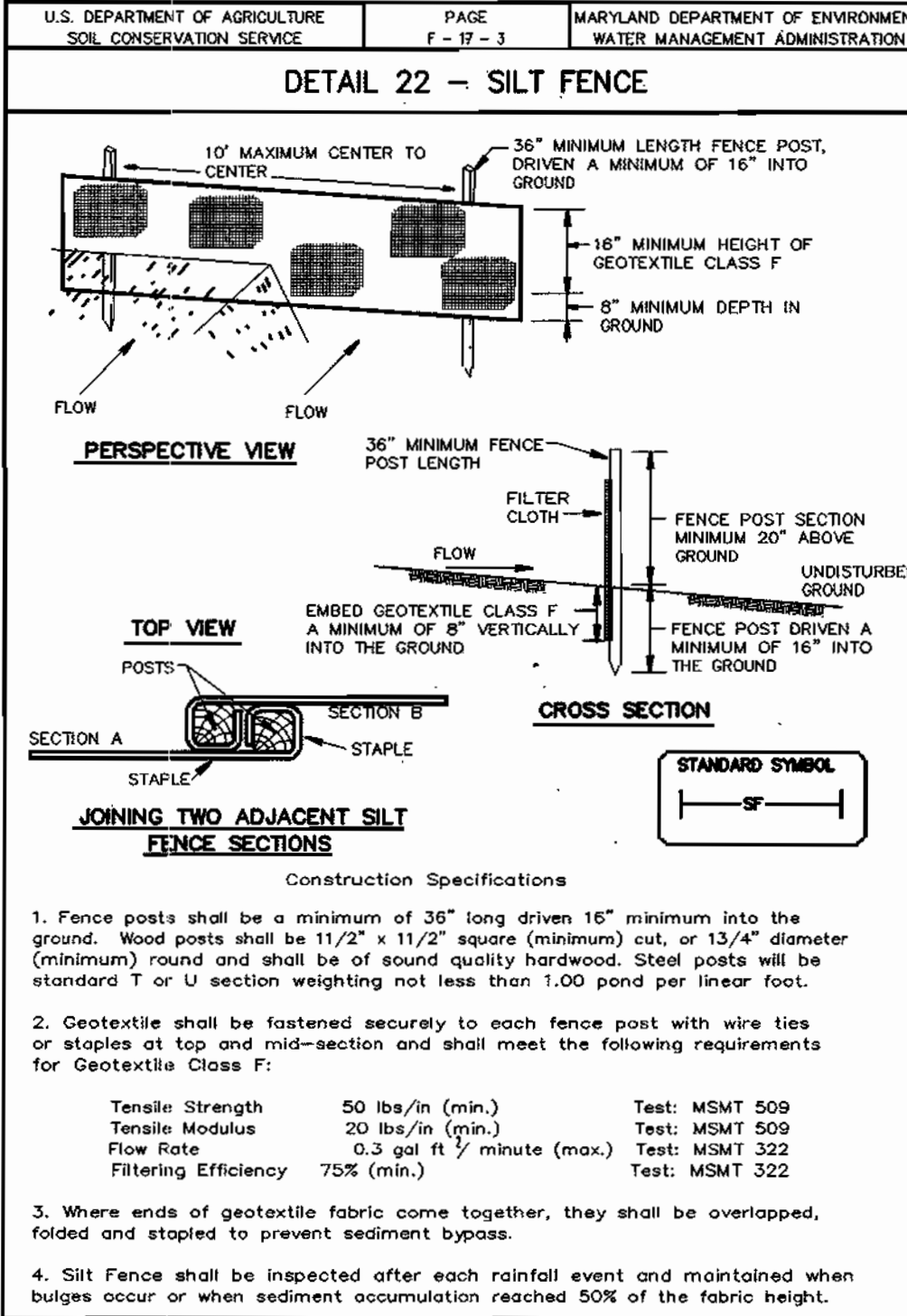
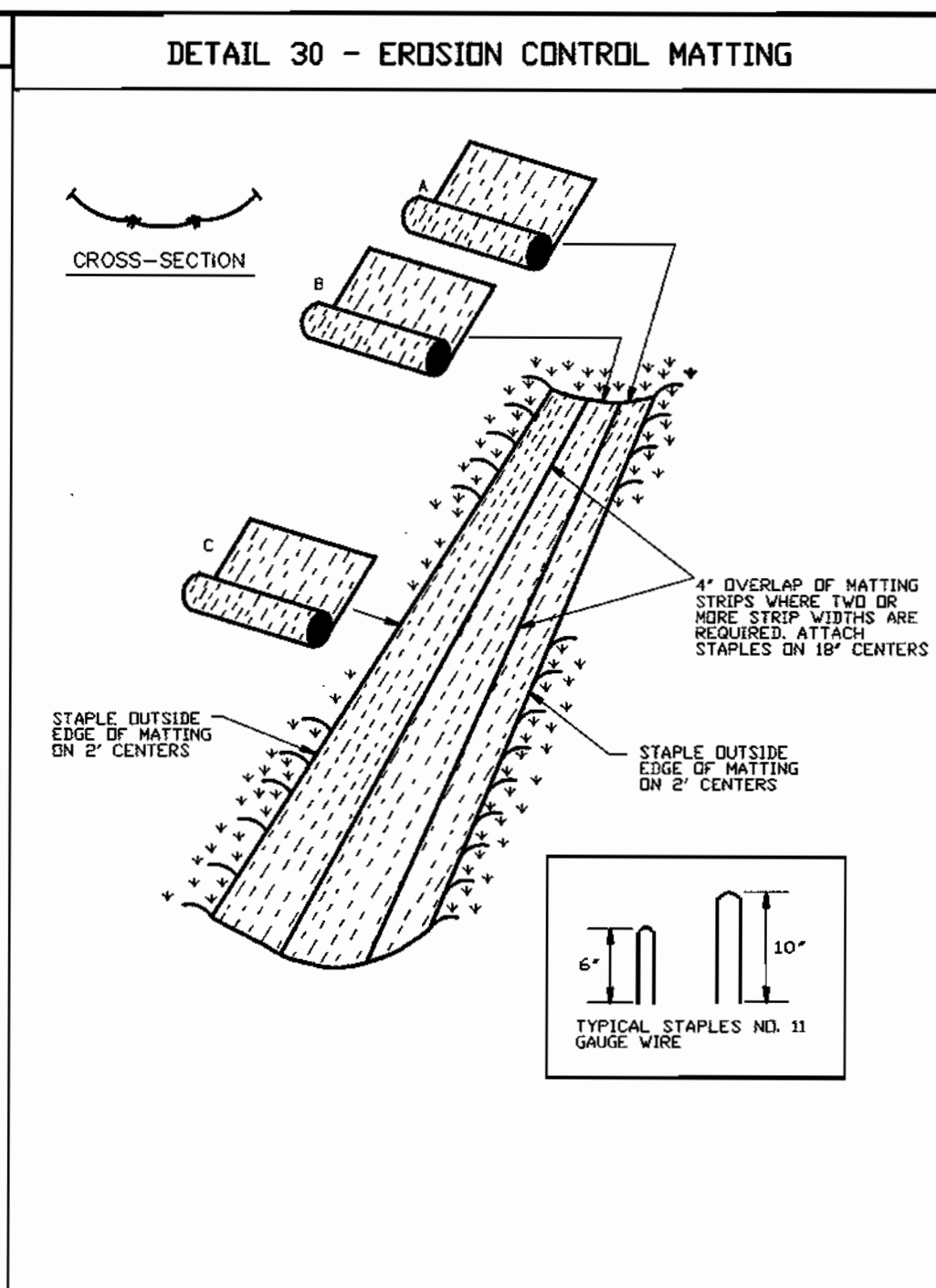
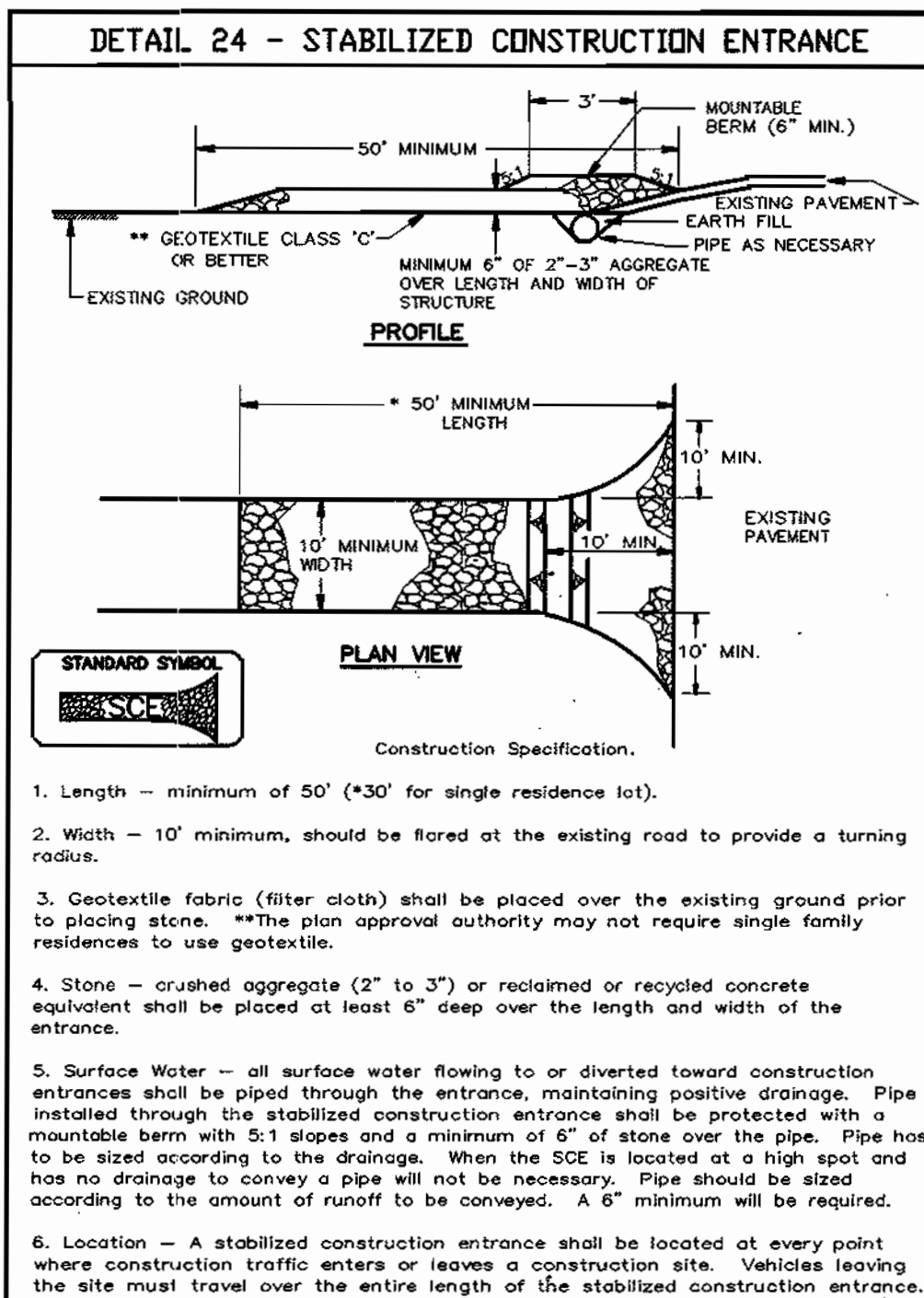
- 1 FIVE COLLECTORS PROPOSED
- 2 DIMENSIONS EACH = 11' x 52'
- 3 SPACING = 6' EDGE TO EDGE
- 4 COLLECTORS WILL BE ERRECTED ON & CONNECTED TO PIERS LAID OUT 8' O/C
- 5 NO GRADE CHANGES PROPOSED
- 6 NO REMOVAL OF EXISTING PVC PROPOSED

*Robert G. Bathurst*  
ROBERT G. BATHURST  
PROFESSIONAL ENGINEER  
MD #24814 EXP. 02-28-22  
FOR REVISION 42 ONLY

FOR REVISION ONLY

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 10/2/02 &  
9/9/21



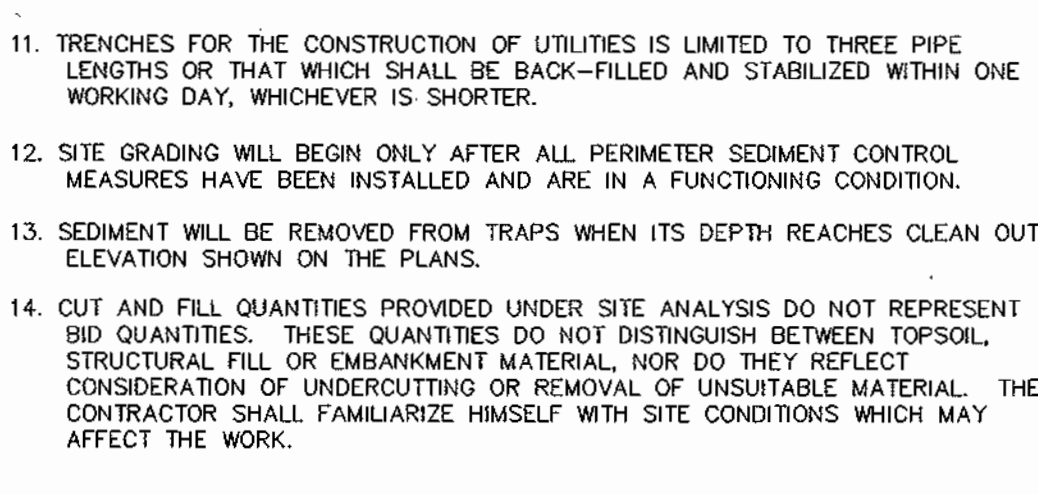


## STANDARD SEDIMENT CONTROL NOTES

- A MINIMUM OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855).
- 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 THERE TO.
- 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.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 7, OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- 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, SOIL, TEMPORARY SEEDING, AND MULCHING (SEC. G). TEMPORARY STABILIZATION WITH MULCH ALONE SHALL ONLY BE DONE WHEN RECOMMENDED SEEDING DATA DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHED OF GRASSES.
- 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.
- SITE ANALYSIS:
 

TOTAL AREA OF SITE	3.02 ACRES
AREA DISTURBED	3.7 ACRES
AREA TO BE ROOFED OR PAVED	1.9 ACRES
AREA TO BE VEGETATIVELY STABILIZED	1.8 ACRES
TOTAL CUT	2400 CU. YARDS
TOTAL FILL	3900 CU. YARDS

 OFF-SITE WASTE AREA LOCATION TO HAVE ACTIVE GRADING PERMIT
- ANY SEDIMENT CONTROL PRACTICE WHICH IS DISTURBED BY GRADING ACTIVITY FOR PLACEMENT OF UTILITIES MUST BE REPAIRED ON THE SAME DAY OF DISTURBANCE.
- ADDITIONAL SEDIMENT CONTROLS MUST BE PROVIDED, IF DEEMED NECESSARY BY THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR.
- 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.
- 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.
- SITE GRADING WILL BEGIN ONLY AFTER ALL PERIMETER SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND ARE IN A FUNCTIONING CONDITION.
- SEDIMENT WILL BE REMOVED FROM TRAPS WHEN ITS DEPTH REACHES CLEAN OUT ELEVATION SHOWN ON THE PLANS.
- CUT AND FILL QUANTITIES PROVIDED UNDER SITE ANALYSIS DO NOT REPRESENT BID QUANTITIES. THESE QUANTITIES DO NOT DISTINGUISH BETWEEN TOPSOIL, STRUCTURAL FILL OR EMBANKMENT MATERIAL, NOR DO THEY REFLECT CONSIDERATION OF UNDERCUTTING OR REMOVAL OF UNSUITABLE MATERIAL. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH SITE CONDITIONS WHICH MAY AFFECT THE WORK.



## SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSPECT AND RE-ESTABLISH EXISTING SEDIMENT CONTROLS FROM F-02-178, WHICH INCLUDES AN EXISTING SILT FENCE, AND EARTH DIKE. (1 DAY)
- INSTALL STABILIZED CONSTRUCTION ENTRANCE. (1 DAY)
- UPON ACCEPTANCE BY THE COUNTY INSPECTOR CONTRACTOR TO PROCEED WITH BUILDING CONSTRUCTION AND GRADING.
- AS SUBGRADE ELEVATIONS ARE ESTABLISHED, INSTALL STORM DRAINS, WATER, AND SEWER. (3 WEEKS)
- INSTALL CURB AND GUTTER AND PAVE. (3 WEEKS)
- PERFORM FINE GRADING, LANDSCAPING, LIGHTING AND SIDEWALKS. (2 WEEKS)
- COMPLETE BUILDING CONSTRUCTION AND POOL CONSTRUCTION. (2 MONTHS)
- UPON PERMISSION OF COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE ALL REMAINING SEDIMENT CONTROL DEVICES AND STABILIZE DISTURBED AREAS IN ACCORDANCE WITH PERMANENT SEEDING NOTES. (1 WEEK)

## 21.0 STANDARD AND SPECIFICATIONS FOR TOPSOIL

- DEFINITION**
- PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
- PURPOSE**
- TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
- CONDITIONS WHERE PRACTICE APPLIES**
- THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
    - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
    - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
    - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
    - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
  - FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.
- CONSTRUCTION AND MATERIAL SPECIFICATIONS**
- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE SOIL SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTATION STATION.
  - TOPSOIL SPECIFICATIONS - SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
    - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1" IN DIAMETER.
    - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSEDGE, POISON IVY, THISTLE, OR OTHERS AS SPECIFIED.
    - WHERE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1,000 SQUARE FEET) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
  - FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
    - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
  - FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
    - ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
      - PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
      - ORGANIC CONTENT OF TOPSOIL SHALL BE NOT LESS THAN 1.5 PERCENT BY WEIGHT.
      - TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
      - NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MIN.) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
    - NOTE: TOPSOIL SUBSTITUTES TO AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE APPROVAL AUTHORITY MAY BE USED IN LIEU OF NATURAL TOPSOIL.
    - PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 20.0 VEGETATIVE STABILIZATION - SECTION 1 - VEGETATIVE STABILIZATION METHODS AND MATERIALS.
  - TOPSOIL APPLICATION
    - WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
    - GRADES ON THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALBEIT 4" - 8" HIGHER IN ELEVATION.
    - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4" - 8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
    - TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.
  - ALTERNATIVE FOR PERMANENT SEEDING - INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
    - COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PRESCRIBE AMENDMENTS AND FOR SITE HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
      - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COMAR 26.04.06.
      - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
      - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,000 SQUARE FEET.
      - COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LB/1,000 SQUARE FEET, AND 1/3 THE NORMAL LIME APPLICATION RATE.
    - REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA, PUB. #1, COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES. REVISED 1973.

APPROVED  
PLANNING BOARD  
of HOWARD COUNTY  
DATE 10/2/02

BY THE DEVELOPER:

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

*Cal Hoff*  
DEVELOPER  
3/25/02  
DATE

BY THE ENGINEER:

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

*Cheryl S. Lee*  
ENGINEER  
3-18-03  
DATE

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

*Jim Murray*  
NATURAL RESOURCES CONSERVATION SERVICE  
4/10/03  
DATE

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

*John R. Robertson*  
HOWARD SOIL CONSERVATION DISTRICT  
4/10/03  
DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*Mark W. Cagle*  
DIRECTOR  
4/24/03  
DATE

*Cheryl S. Lee*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
4/14/03  
DATE

*Cindy Harris*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
4/22/03  
DATE

DATE NO.	REVISION
OWNER/DEVELOPER	
THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION THE ROUSE BUILDING 10275 LITTLE PATUXENT PARKWAY COLUMBIA, MARYLAND 21044 410-992-6000	
PROJECT	
EMERSON SECTION THREE AREA TWO PARCEL A	
AREA	TAX MAP 47 BLOCK 8 & 9 ZONED: PEC-MXD-3 PARCEL: 462 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND
TITLE	
SEDIMENT CONTROL DETAILS	
Patton Harris Rust & Associates, pc Engineers, Surveyors, Planners, Landscape Architects.	
PHRA 8818 Centre Park Drive Columbia, MD 21045 T 410.997.6900 F 410.997.9282	
DATE	DESIGNED BY: C.J.R.
3-18-03	DRAWN BY: DAM
	CHECKED BY: C.J.R.
	PROJECT NO.: 22456/FINALS C-SDPDET1.DWG
	DATE: MARCH 25, 2003
	SCALE: AS SHOWN
	DRAWING NO. 4 OF 7
CHRISTOPHER J. REID #19949	



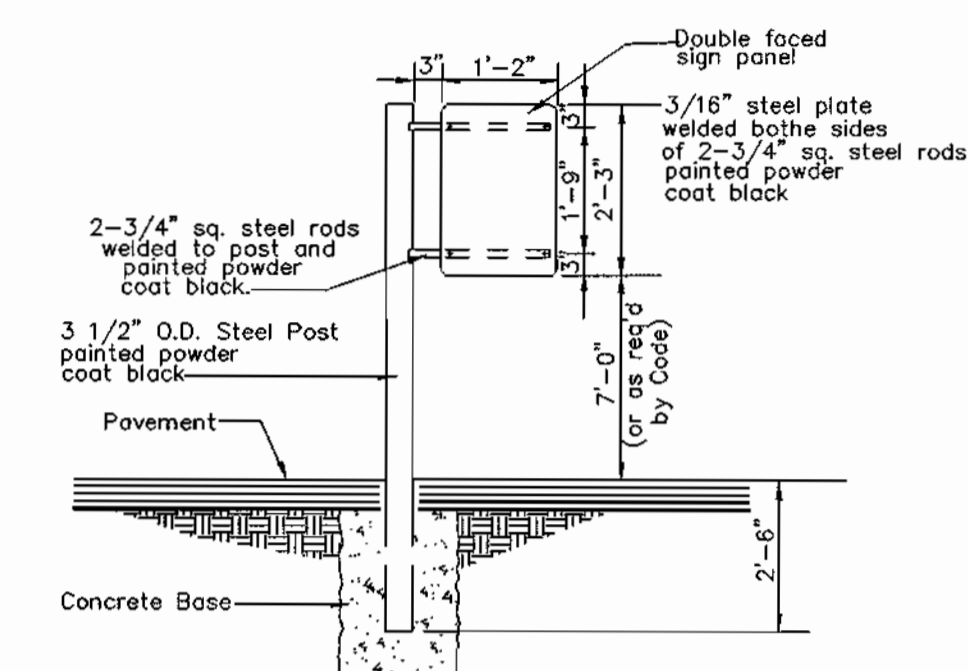
SCHEDULE A - PERIMETER LANDSCAPE EDGE*				
PERIMETER	ADJACENT TO ROADWAYS			ADJACENT TO PERIM. PROP.
	1	2	3	4
LANDSCAPE TYPE	E	B	-	-
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±127'	±293'	-	-
CREDIT FOR EXISTING DRIVE AISLE (LINEAR FEET)	-	-	-	-
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	-	-	-
LINEAR FEET REMAINING	±127'	±293'	-	-
CREDIT FOR MALL, FENCE, OR BERM (YES/NO/LINEAR FEET)	-	-	-	-
NUMBER OF PLANTS REQUIRED				
SHADE TREES	3	6	-	-
EVERGREEN TREES	-	-	-	-
SHRUBS	32	7	-	-
NUMBER OF PLANTS PROVIDED				
SHADE TREES	3	6	-	-
EVERGREEN TREES	-	-	-	-
SMALL FLOWERING TREES	1	14	-	-
SHRUBS	42	-	-	-

**SUBSTITUTION NOTES:**  
 \* SEE GENERAL NOTE 1 SHEET 7 OF 7.  
 PERIMETER 1 - 2 EVERGREEN TREES, 2 ORNAMENTAL TREES, AND 10 SHRUBS SUBSTITUTED FOR 3 SHADE TREES  
 PERIMETER 2 - 12 EVERGREEN TREES SUBSTITUTED FOR 6 SHADE TREES  
 PERIMETER 3 - NO LANDSCAPE REQUIREMENTS ADJACENT TO INTERNAL ROAD  
 PERIMETER 4 - NO LANDSCAPE REQUIREMENTS BETWEEN SAME SUBDIVISION

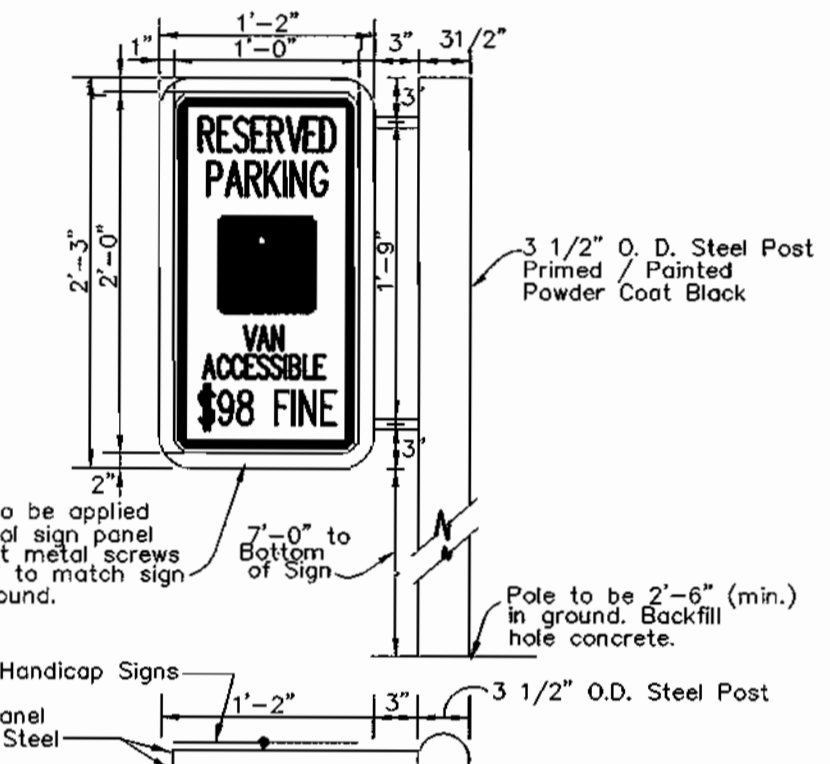
SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING*	
PARKING LOT	1
NUMBER OF PARKING SPACES	70
NUMBER OF SHADE TREES REQUIRED (1/10 SPACES)	7
NUMBER OF TREES PROVIDED	
SHADE TREES	10
OTHER TREES (2:1 SUBSTITUTION)	-
NUMBER OF ISLANDS PROVIDED	10

\* SEE GENERAL NOTE 1 SHEET 7 OF 7

PLANT LIST					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
AR	6	Acer rubrum 'Armstrong' / Armstrong red maple	3-3.5' cal. / 14-16' ht.	B&B	Full
GT	1	Gleditsia triacanthos 'inermis' 'Moraine' / Moraine thornless honeylocust	3.5-4' cal. / 15-17' ht.	B&B	Full
ZS	21	Zelkova serrata 'Green Vase' / Green Vase Japanese zelkova	2.5-3' cal. / 12-14' ht.	B&B	Full
MS	13	Malus sieboldii var. zumi 'Colocarpa' / Colocarpa zumi crabapple	3-3.5' cal. / 10-12' ht.	B&B	Full
CL	31	Xopressocyparis leylandii / Leeland cypress	8-10' ht.	B&B	Full
PS1	27	Pinus strobus / Eastern white pine	8-10' ht.	B&B	Full
PS2	11	Pinus strobus / Eastern white pine	6-8' ht.	B&B	Full
BJ	92	Barberis julianae / Wintergreen barberry	30-36" ht. / 30-36" spr.	B&B	Heavy
EA	61	Euonymus alatus 'Compactus' / Dwarf burning bush	24-30" ht. / 24-30" spr.	B&B or Cont.	Heavy
IC	62	Ilex crenata 'Helleri' / Heller's dwarf Japanese holly	18-24" ht. / 24-30" spr.	Cont.	Heavy
IG	145	Ilex glabra 'Compacta' / Dwarf inkberry	24-30" ht. / 24-30" spr.	B&B	Heavy
IM	5	Ilex meserveae 'Blue Princess' / Blue Princess holly	36-42" ht. / 30-36" spr.	B&B	Heavy
RP	28	Rhododendron 'Purple Gem' / Purple Gem rhododendron	15-18" ht. / 12-15" spr.	B&B or Cont.	Heavy
LM	80	Liriope muscari 'Big Blue' / Big Blue lilyturf	1 gallon	Cont.	Plant 18" o.c.

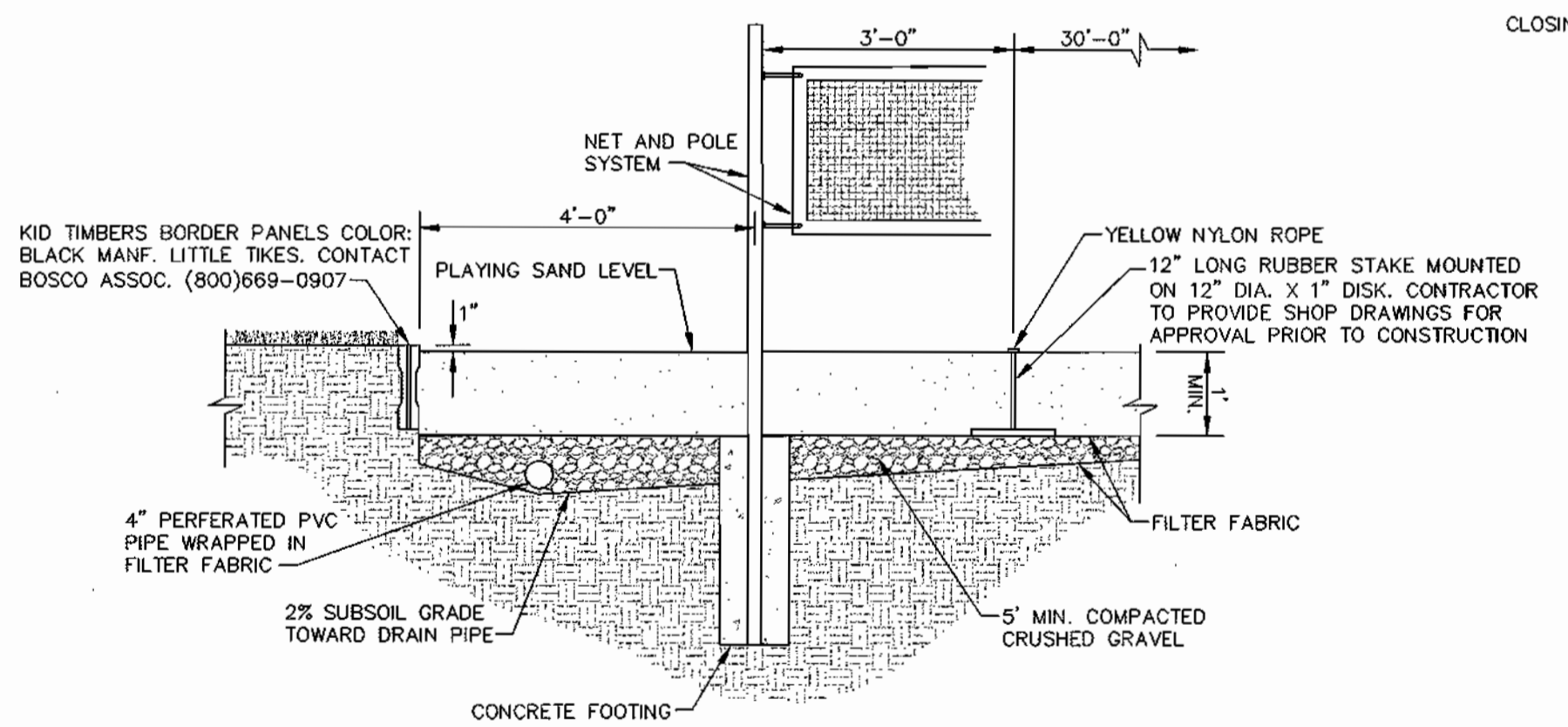


POST & SIGN PANEL DETAIL FOR PARKING RESTRICTION SIGN  
NO SCALE



**APPROVED PLANNING BOARD OF HOWARD COUNTY**  
 DATE 10/2/02

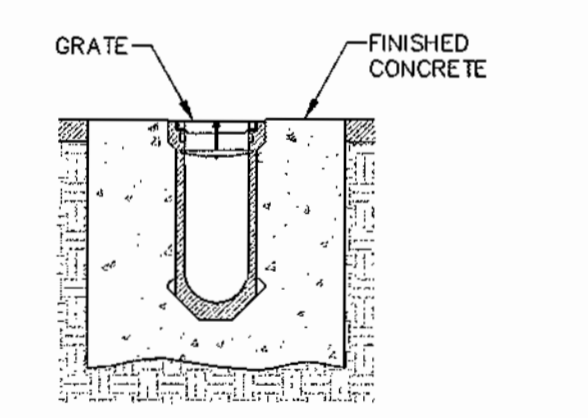
MOUNTING DETAIL FOR PARKING RESTRICTION SIGN  
NO SCALE



SAND VOLLEYBALL COURT DETAIL  
SCALE: 1/2" = 1'

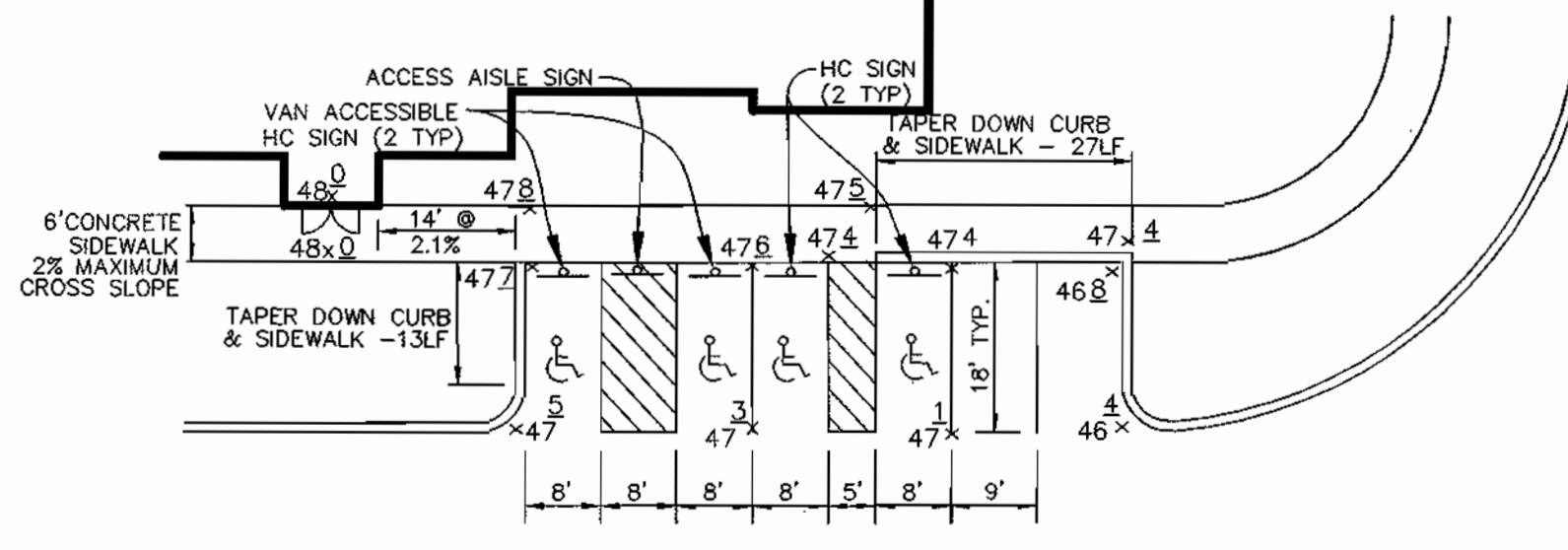
PART NO.	DIMENSIONS: END INVERT DEPTH	WEIGHT
NW 100-1	1M/39.37IN 4.6IN	33.0 LBS
NW 100-02	1M/39.37IN 4.6IN	33.0 LBS
NW 100-2	1M/39.37IN 4.8IN	33.0 LBS
NW 100-3	1M/39.37IN 5.0IN	33.0 LBS
NW 100-4	1M/39.37IN 5.3IN	33.0 LBS
NW 100-5	1M/39.37IN 5.5IN	33.0 LBS
NW 100-6	1M/39.37IN 5.7IN	33.0 LBS
NW 100-7	1M/39.37IN 6.0IN	33.0 LBS
NW 100-8	1M/39.37IN 6.2IN	33.0 LBS
NW 100-9	1M/39.37IN 6.4IN	33.0 LBS
NW 100-10	1M/39.37IN 6.4IN	33.0 LBS
NW 100-103	0.5M/19.7IN 6.4IN	33.0 LBS
NW 100-10	1M/39.37IN 6.7IN	33.0 LBS
NW 100-11	1M/39.37IN 6.9IN	33.0 LBS
NW 100-12	1M/39.37IN 7.1IN	33.0 LBS
NW 100-13	1M/39.37IN 7.4IN	33.0 LBS
NW 100-14	1M/39.37IN 7.6IN	33.0 LBS
NW 100-15	1M/39.37IN 7.9IN	33.0 LBS

**ACO DRAIN GRATE 491 SPECIFICATIONS:**  
 APPLICABLE SYSTEM: RECOMMENDED FOR USE WITH 4 IN. ACO DRAIN SYSTEMS K100S, NW100, FG100 AND SPORT SYSTEM 4000  
 LOAD CLASS: DIN 19580 - RATED LOAD CLASS B(28,000 LB)  
 APPLICATIONS: FOR LOAD CLASS B - LIGHT TO MEDIUM DUTY TRAFFIC APPLICATIONS, PUBLIC PARKING LOTS FOR PASSENGER CARS, SPORT VEHICLES, LIGHT PICKUP TRUCKS AT LOW SPEEDS.  
 APPEARANCE: SMOOTH, LIGHT GRAY COLOR (STANDARD), SMALL ROUND PROTRUDING DIMPLE (3/16 IN. DIA.) - TWO (2) COLUMNS RUNNING ALONG LENGTH OF GRATE.  
 RIBS: RIBS RUN PERPENDICULAR TO LENGTH OF CHANNEL UNDERNEATH GRATE.  
 MATERIAL COMPOSITION: POLYPROPYLENE  
 ARTICLE NUMBER: 01308

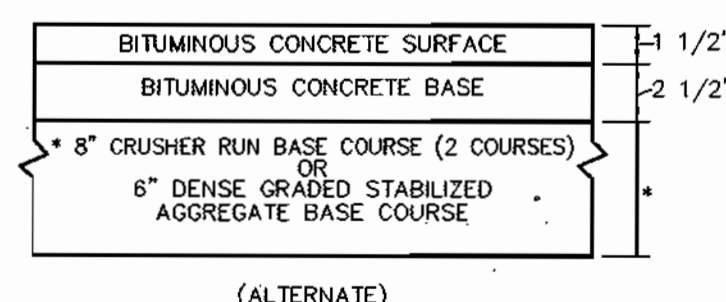


ACO DRAIN  
SCALE: 1" = 1'

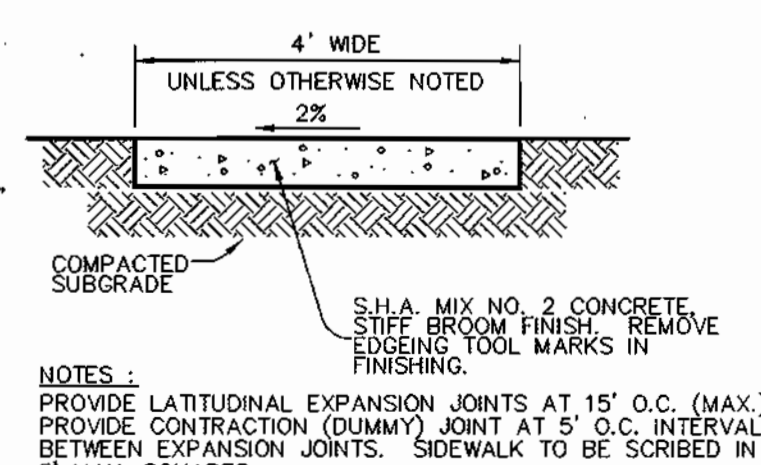
**PROPOSED CLUB HOUSE**  
 F.F. ELEV. 348.0



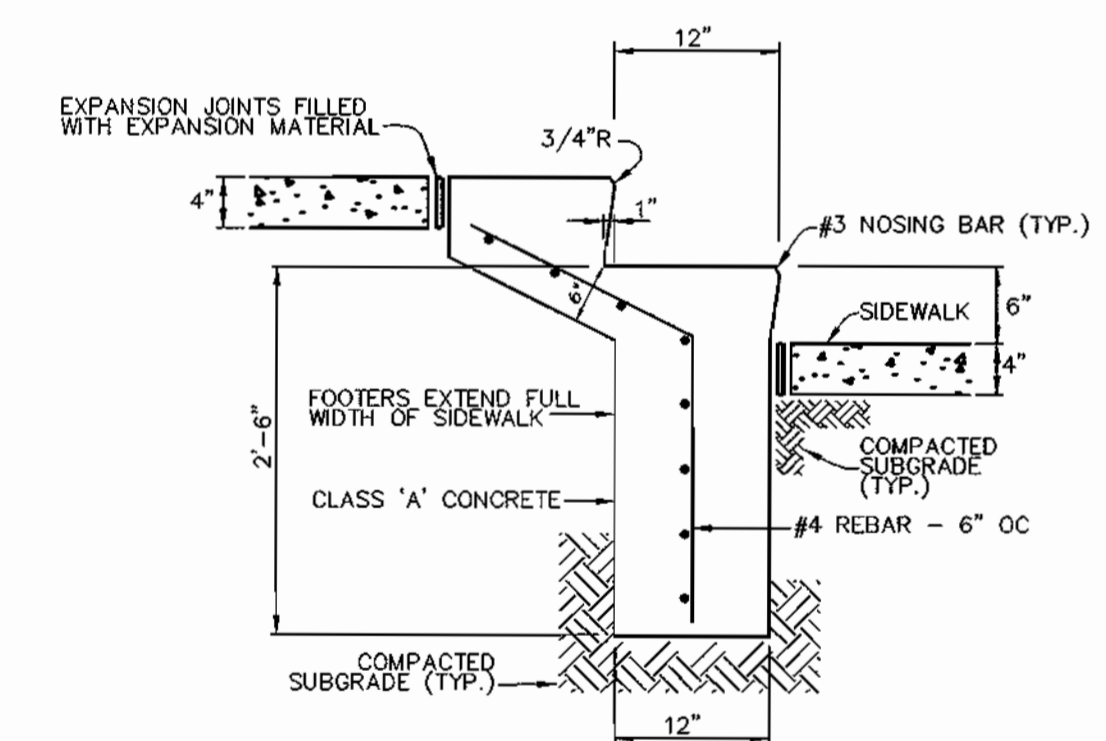
HANDICAP RAMP  
SCALE: 1" = 20'



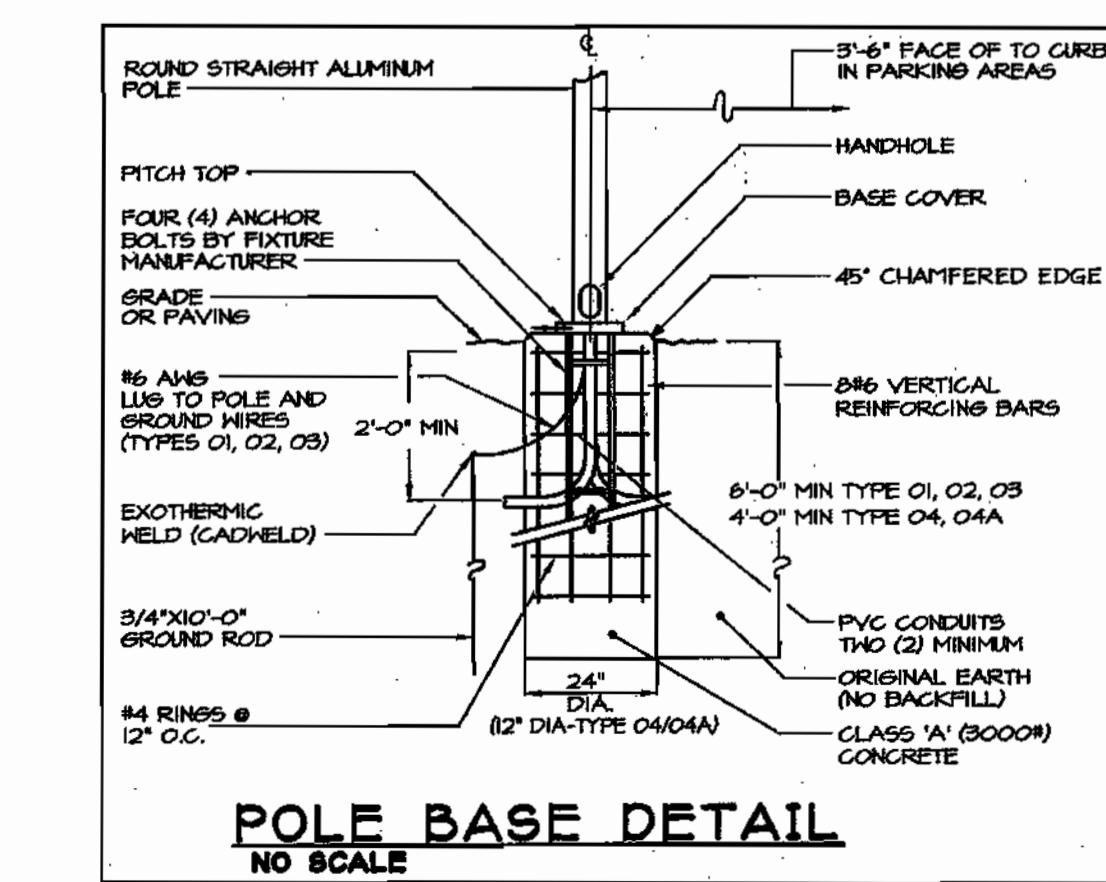
P-2 PAVING  
NO SCALE



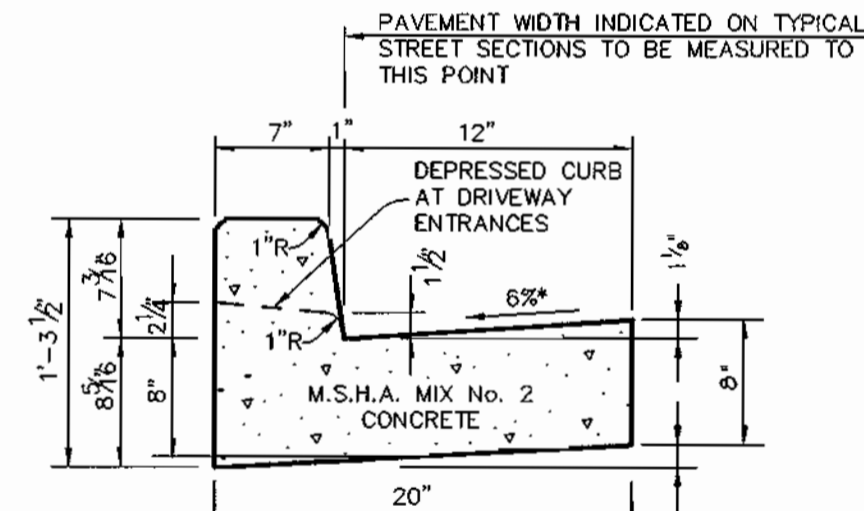
SIDEWALK DETAIL  
NO SCALE



TYPICAL CONCRETE STEP WITH RAIL DETAIL  
NO SCALE

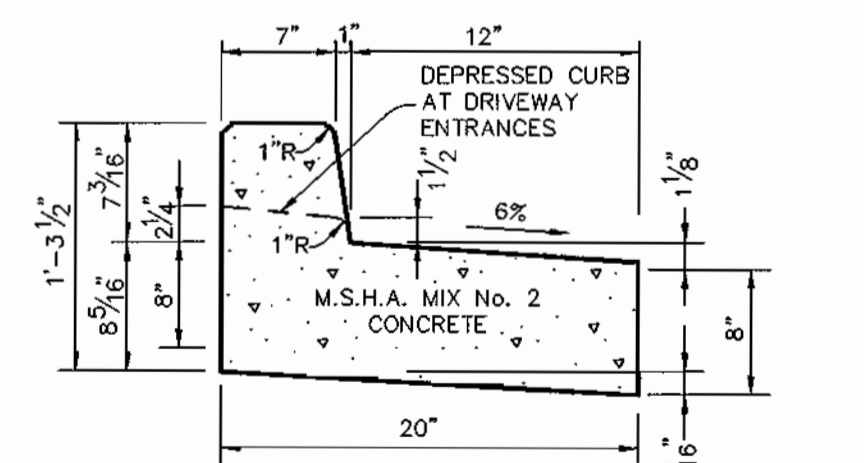


POLE BASE DETAIL  
NO SCALE



STANDARD 7" COMBINATION CURB AND GUTTER  
NO SCALE

**REVERSE 7" COMBINATION CURB AND GUTTER**  
 NO SCALE



CONCRETE WHEEL STOP LOCATION PLAN  
NO SCALE

**APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.**  
 Director: David D. Cagle, 4/21/13  
 Chief, Development Engineering Division: M.K. [Signature], 4/14/13  
 Chief, Division of Land Development: Cindy Hanath, 4/24/13

**OWNER/DEVELOPER**  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATENT PARKWAY  
 COLUMBIA, MARYLAND 21044  
 410-992-6000

**PROJECT**  
 EMERSON  
 SECTION THREE AREA TWO  
 PARCEL A

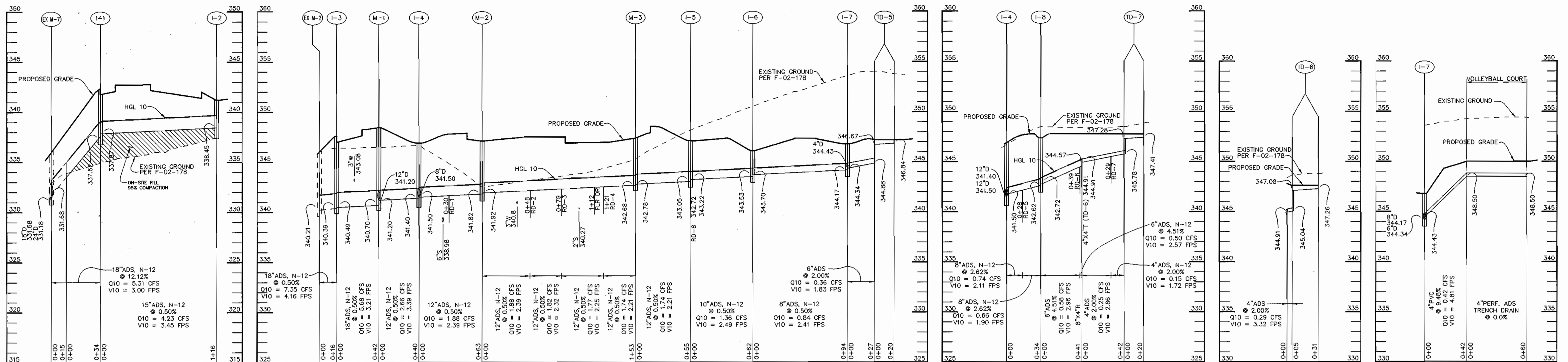
**AREA**  
 TAX MAP 47 BLOCK 8 & 9  
 ZONED: PEC-MXD-3 PARCEL: 462  
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**TITLE**  
 DETAILS

**Patton Harris Rust & Associates, pc**  
 Engineers, Surveyors, Planners, Landscape Architects.  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

DESIGNED BY: C.J.R.  
 DRAWN BY: DAM  
 CHECKED BY: C.J.R.  
 PROJECT NO.: 22456/FINALS  
 C-SDPDET2.DWG  
 DATE: MARCH 25, 2003  
 SCALE: AS SHOWN  
 DRAWING NO. 5 OF 7





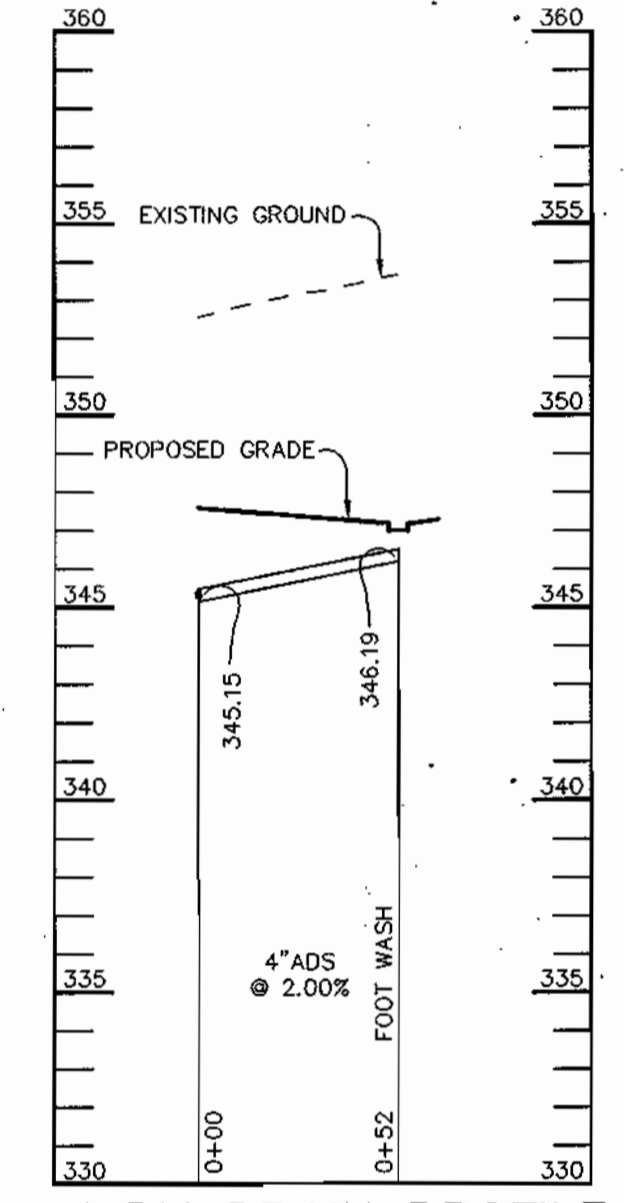
**STORM DRAIN PROFILE**

**STORM DRAIN PROFILE**

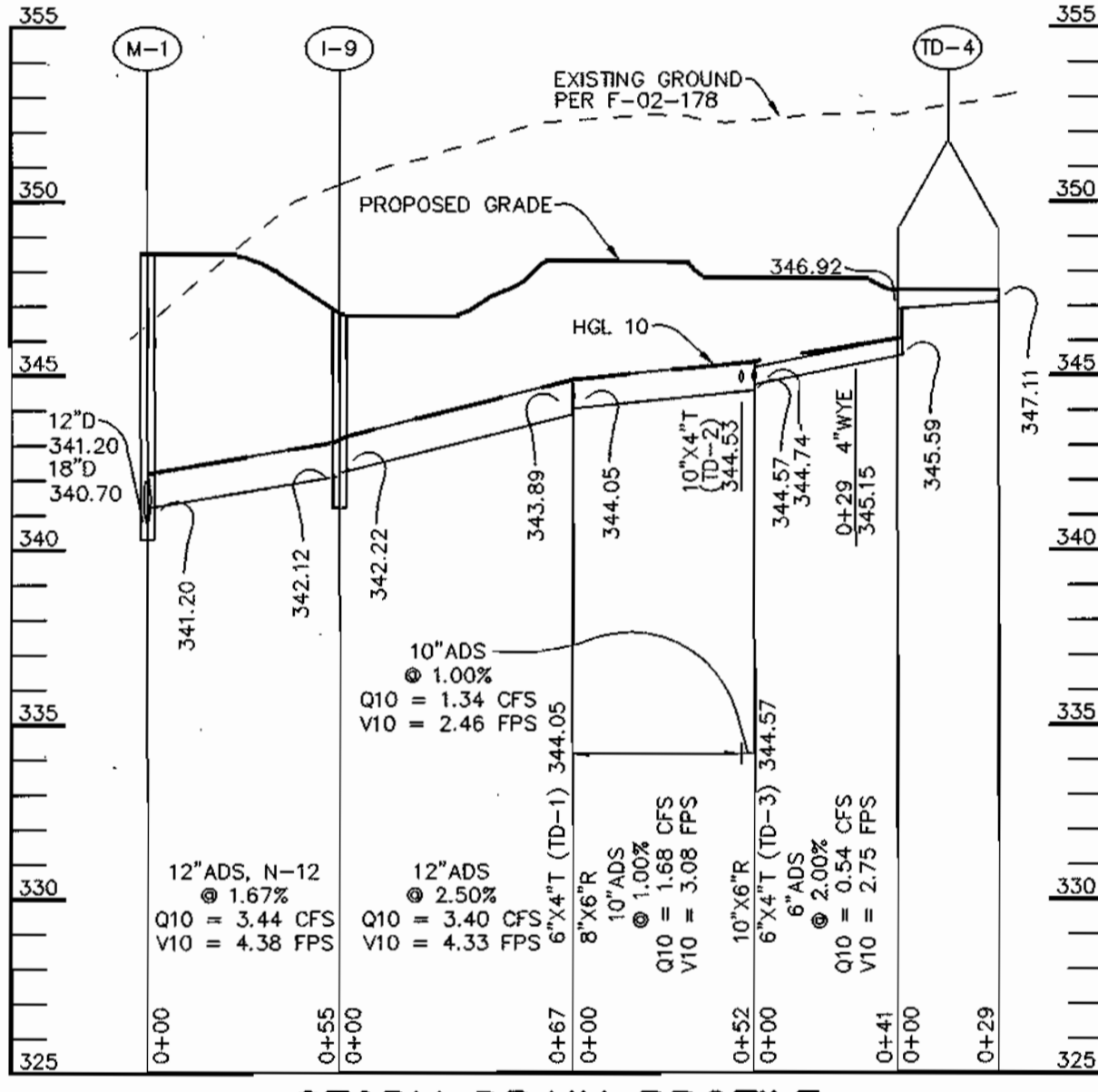
**STORM DRAIN PROFILE**

**STORM DRAIN PROFILE**

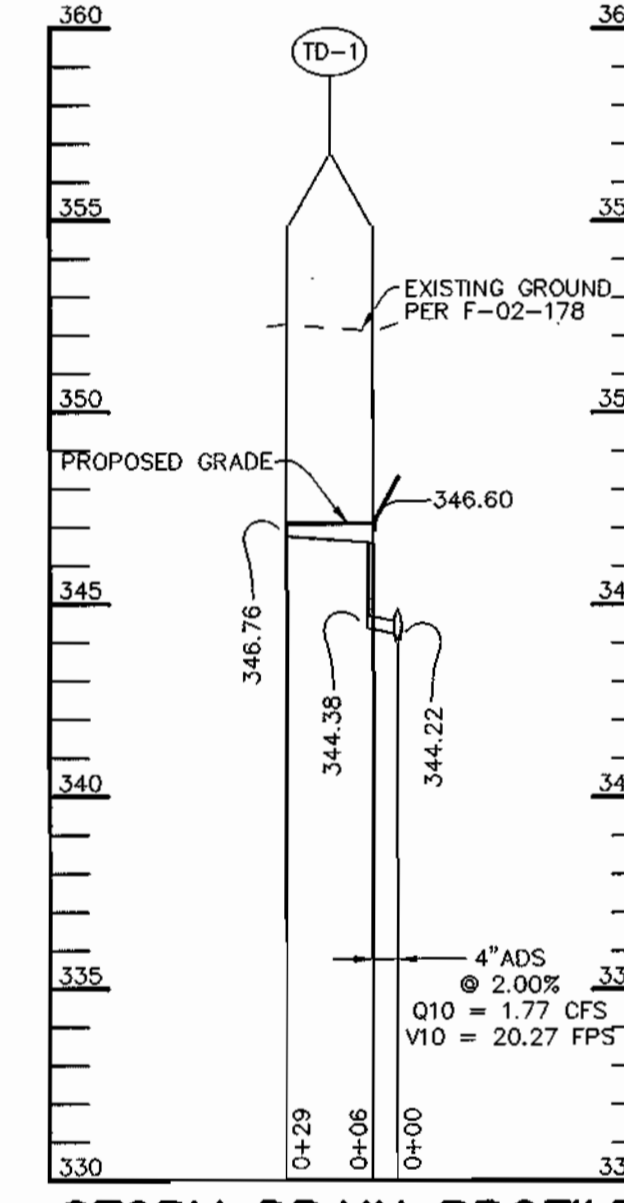
**STORM DRAIN PROFILE**



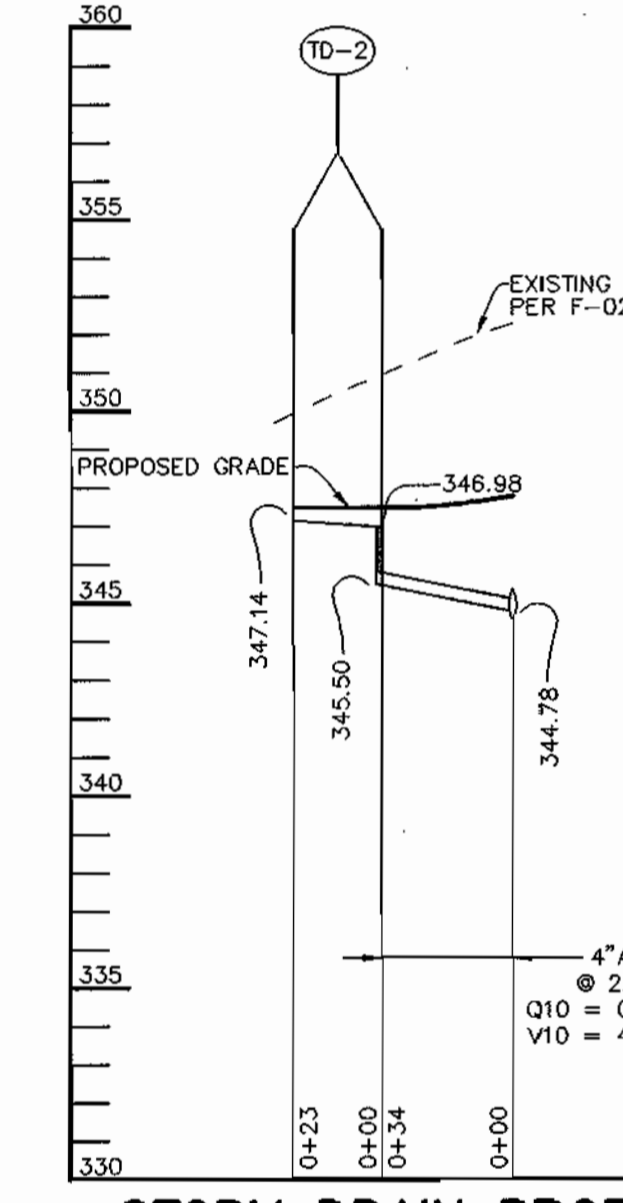
**STORM DRAIN PROFILE**



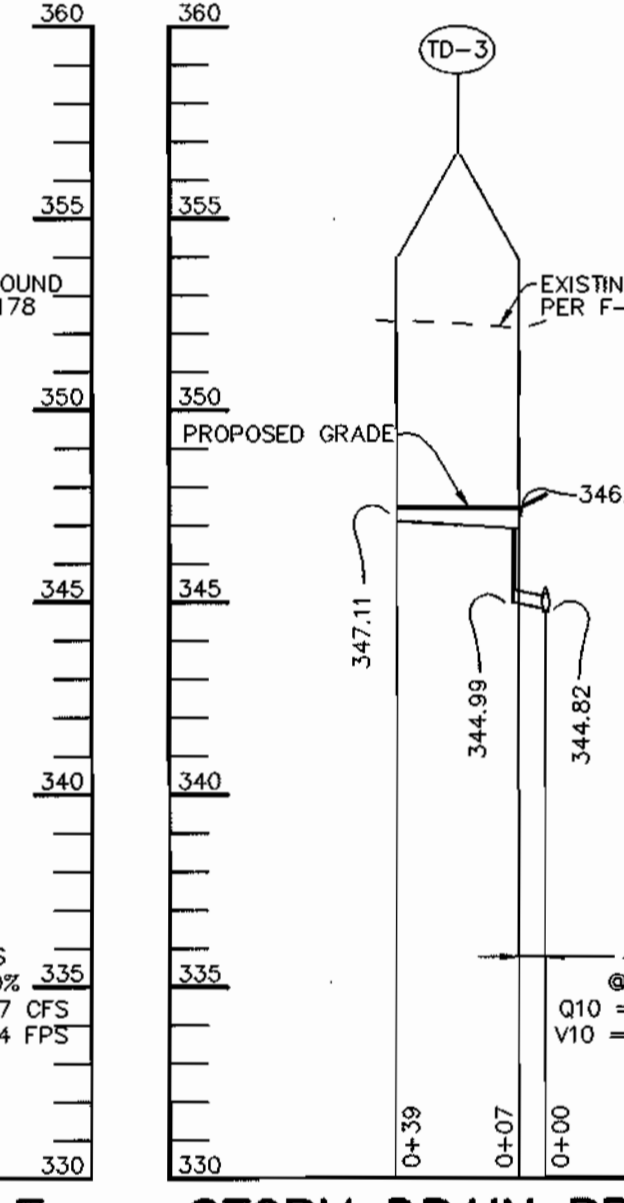
**STORM DRAIN PROFILE**



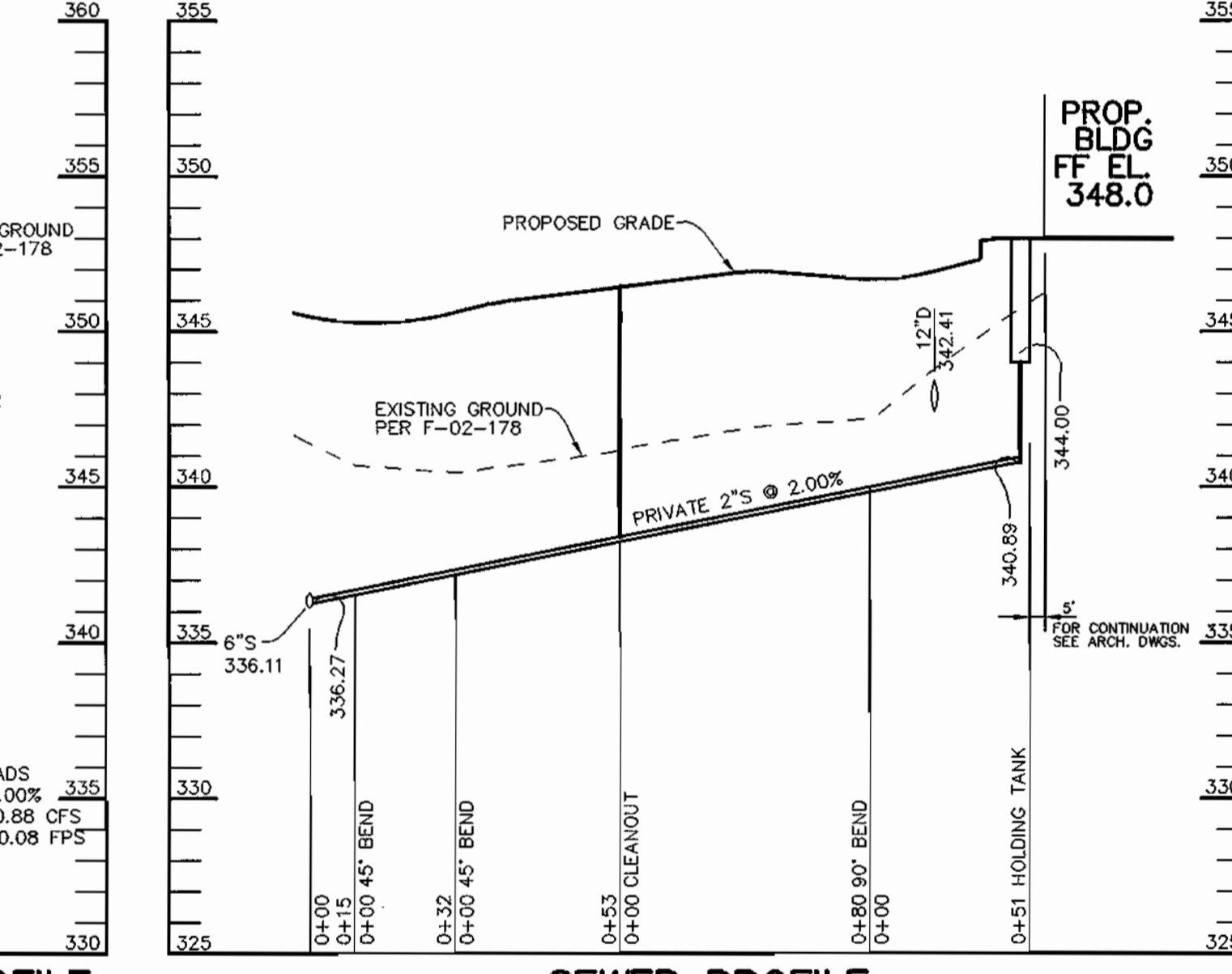
**STORM DRAIN PROFILE**



**STORM DRAIN PROFILE**



**STORM DRAIN PROFILE**



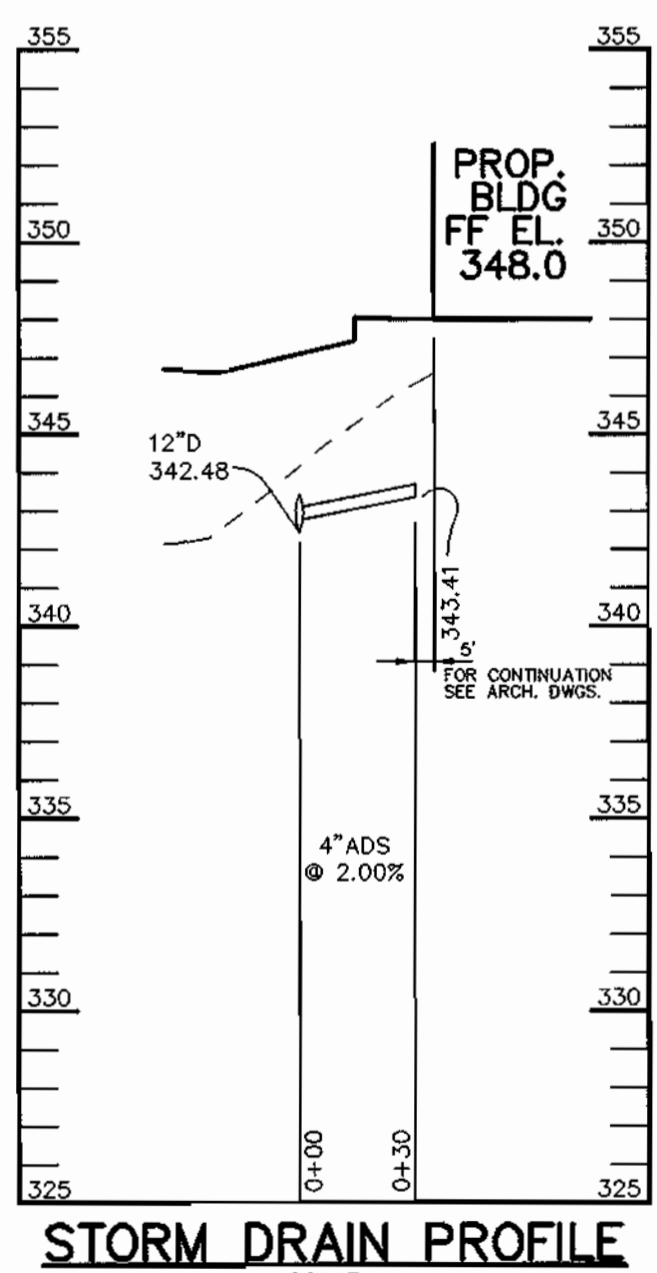
**SEWER PROFILE**

**PIPE SCHEDULE**

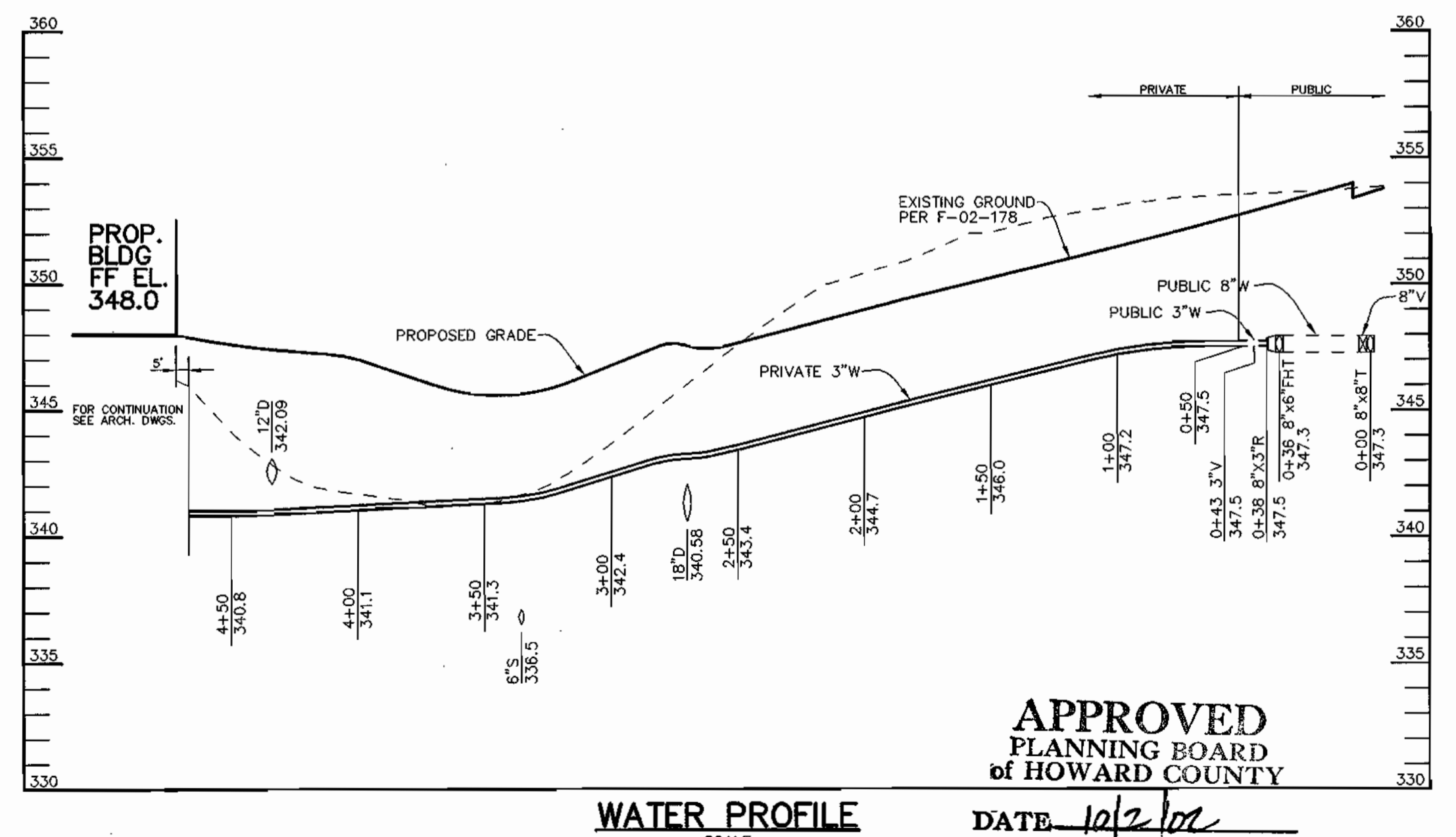
PIPE LENGTH	SIZE	TYPE
102	4"	PERF ADS
176	4"	ADS, N-12
109	6"	ADS, N-12
128	8"	ADS, N-12
114	10"	ADS, N-12
433	12"	ADS, N-12
116	15"	ADS, N-12
107	18"	ADS, N-12

**STRUCTURE SCHEDULE**

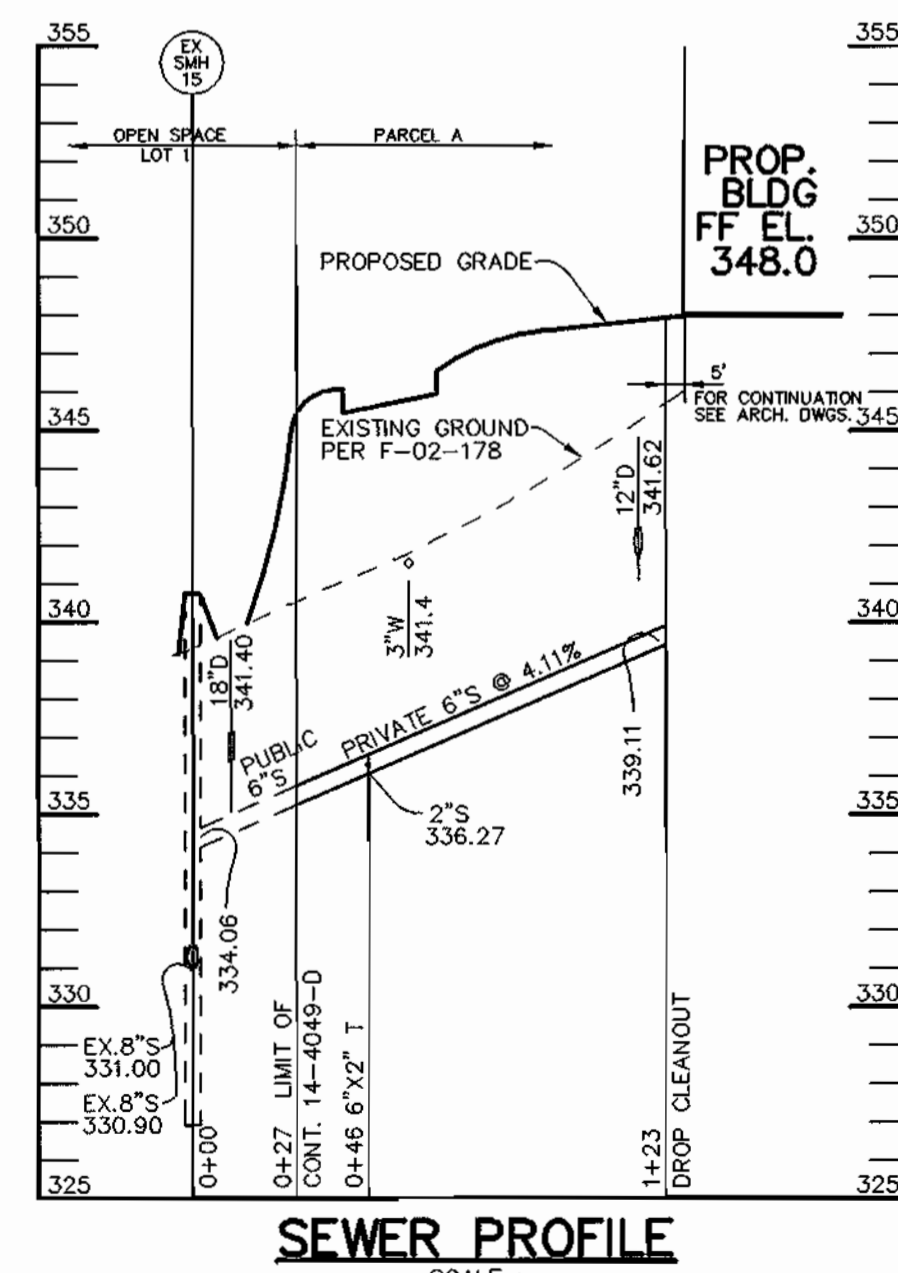
STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	A-5 2.5" WIDE	N 536261.07 E 1353884.63	337.87 (15")	337.62 (18")	342.40	HOCO STD. DETAIL SD-4.40
I-2	A-5 2.5" WIDE	N 536371.58 E 1353915.80	-	338.45 (15")	341.20	HOCO STD. DETAIL SD-4.40
I-3	A-5 2.5" WIDE	N 536147.57 E 1354021.67	340.49 (18")	340.39 (18")	347.60	HOCO STD. DETAIL SD-4.40
I-4	18" GRATE	N 536227 E 1354039	341.50 (8") 341.50 (12")	341.40 (12")	346.90	ADS 2818 AG
I-5	15" GRATE	N 536389 E 1354093	343.22 (10")	343.05 (12")	347.10	ADS 2815 AG
I-6	12" GRATE	N 536401 E 1354154	343.70 (8")	343.53 (10")	346.10	ADS 2812 AG
I-7	12" GRATE	N 536343 E 1354228	344.34 (8")	344.17 (8")	346.78	ADS 2812 AG
I-8	12" GRATE	N 536246 E 1354067	342.72 (6")	342.62 (8")	347.36	ADS 2812 AG
I-9	18" GRATE	N 536176 E 1354084	342.22 (12")	342.12 (12")	346.81	ADS 2818 AG
M-1	4'-0" DIA.	N 536188 E 1354031	341.20 (12") 341.20 (12")	340.70 (18")	348.50	HOCO STD. DETAIL G-5.11
M-2	4'-0" DIA.	N 536264 E 1353988	341.92 (12")	341.82 (12")	347.10	HOCO STD. DETAIL G-5.11
M-3	4'-0" DIA.	N 536408 E 1354041	342.78 (12")	342.68 (12")	347.40	HOCO STD. DETAIL G-5.11
TD-1	NW 100	N 536182 E 1354135 N 536204 E 1354143	346.76 346.60	346.60	347.10	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-7)
TD-2	NW 100	N 536238 E 1354118 N 536246 E 1354097	347.14 347.14	346.98	347.48	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-7)
TD-3	NW 100	N 536231 E 1354145 N 536261 E 1354196	347.11 347.11	346.92	347.45	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-10)
TD-4	NW 100	N 536287 E 1354161 N 536279 E 1354188	347.11 347.11	346.92	347.45	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-9)
TD-5	NW 100	N 536316 E 1354224 N 536282 E 1354215	346.84 346.84	346.67	347.18	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-8)
TD-6	NW 100	N 536284 E 1354083 N 536308 E 1354093	347.26 347.26	347.08	347.60	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-8)
TD-7	NW 100	N 536326 E 1354090 N 536345 E 1354097	347.41 347.41	347.28	347.75	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-6)



**STORM DRAIN PROFILE**



**WATER PROFILE**



**SEWER PROFILE**

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
 Director: *David L. Anglin* 4/21/03  
 Chief, Development Engineering Division: *Mark J. ...* 4/21/03  
 Chief, Division of Land Development: *Cindy Hamilton* 7/22/03

DATE NO. REVISION

OWNER/DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044  
 410-992-6000

PROJECT  
**EMERSON**  
 SECTION THREE AREA TWO  
 PARCEL A

AREA  
 TAX MAP 47 BLOCK 8 & 9  
 ZONED: PEC-MXD-3 PARCEL: 462  
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
**PROFILES**

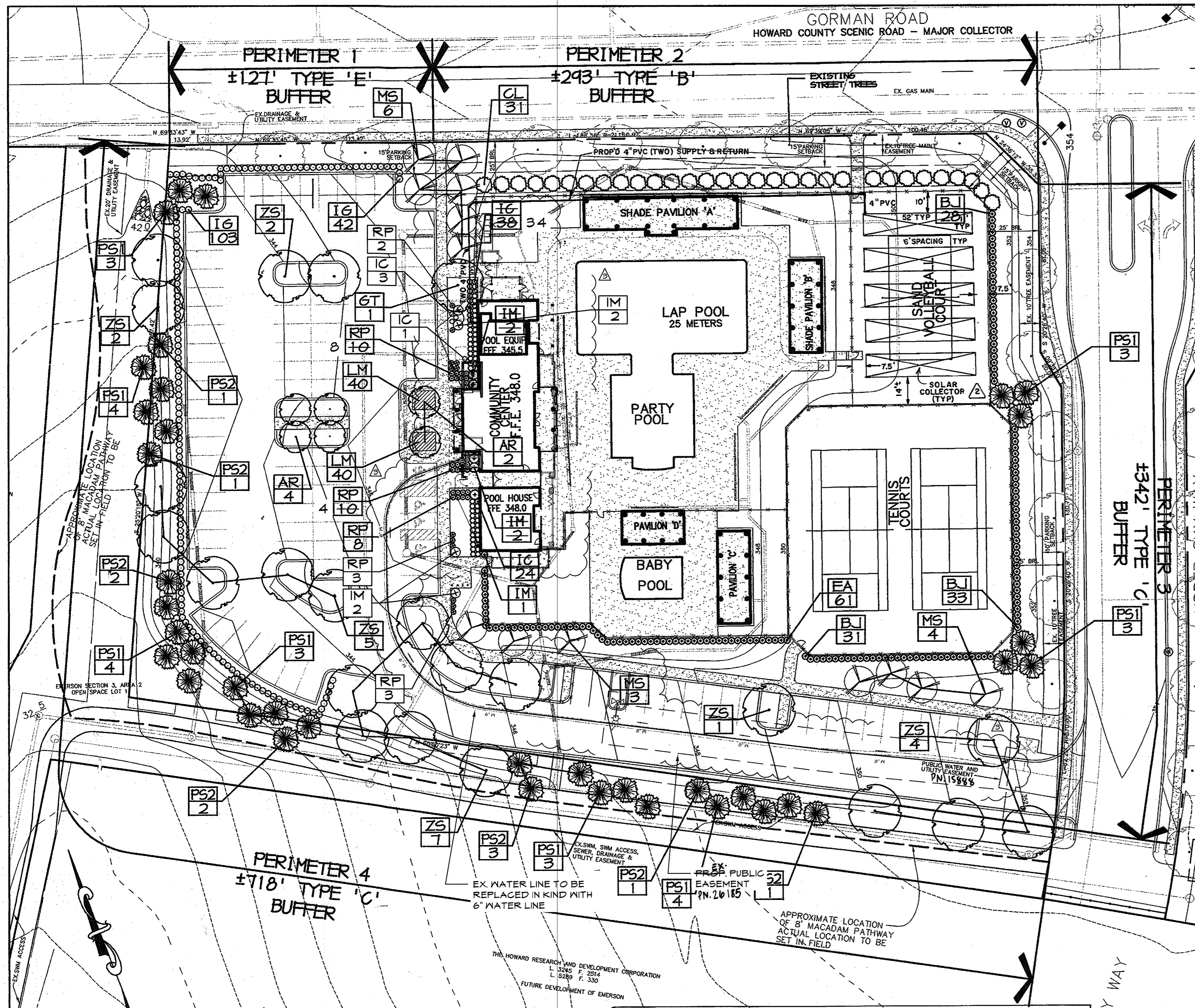
Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects.  
 PHRA  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

3.10.03  
 DATE  
 DESIGNED BY: C.J.R.  
 DRAWN BY: DAM  
 CHECKED BY: C.J.R.  
 PROJECT NO: 22456/FINALS  
 SDPPROF1.DWG  
 DATE: MARCH 25, 2003  
 SCALE: AS SHOWN  
 DRAWING NO. 6 OF 7

CHRISTOPHER J. REID #19949

NOTES:  
 LOCATION OF INLETS AND MANHOLES IS AT CENTER OF TOP COVER; FOR "A" INLETS LOCATION IS GIVEN FOR CENTER OF THROAT  
 OPENING AT FACE OF CURB;  
 LOCATION OF TRENCH DRAINS IS AT BOTH ENDS





**PLANTING SPECIFICATIONS**

- Plants, related material, and operations shall meet the detailed description, as given on the plans and as described herein. Where discrepancies exist between Standards & Guidelines referenced within these specifications and the Howard County Landscape Manual, the latter takes precedence.
- All plant material, unless otherwise specified, that is not nursery grown, uniformly branched, does not have a vigorous root system, and does not conform to the most recent edition of the American Association of Nurserymen (AAN) standards will be rejected. Plant material that is not healthy, vigorous, free from defects, decay, disfiguring roots, sunscald injuries, abrasions of the bark, plant disease, insect pest eggs, borers and all forms of insect infestations or objectionable disfigurements will be rejected. Plant material that is weak or which has been cut back from larger grades to meet specified requirements will be rejected. Trees with forked leaders will be rejected. All B & B plants shall be freshly dug, no healed-in plants or plants from cold storage will be accepted.
- Unless otherwise specified, all general conditions, planting operations, details and planting specifications shall conform to the most recent edition of the "Landscape Specification Guidelines by the Landscape Contractors Association of MD, DC, & VA", (hereinafter "Landscape Guidelines") approved by the Landscape Contractors Association of Metropolitan Washington and the Potomac Chapter of the American Society of Landscape Architects.
- Contractor shall guarantee all plant material for a period of one year after date of acceptance in accordance with the appropriate section on the Landscape Guidelines. Contractor's attention is directed to the maintenance requirements found within the one year specifications including watering and replacement of specified plant material.
- Contractor shall be responsible for notifying all relevant and appropriate utility companies, utility contractors, and "Miss Utility" a minimum of 48 hours prior to the beginning of any work. Contractor may make minor adjustments in spacing and location of plant material to avoid conflicts with utilities. Major changes will require the approval of the landscape architect. Damage to existing structure and utilities shall be repaired at the expense of the Contractor.
- Protection of existing vegetation to remain if present shall be accomplished via the temporary installation of 4 foot high snow fence at the drip line, see detail.
- Contractor is responsible for installing all material in the proper planting season for each plant type. All planting is to be completed within growing season of completion of site construction. Do not plant Pinus strobus or Xyprassacyparis leylandii between November 15 and March 15. Landscape plants are not to be installed before site is graded to final rough grade.
- Contractor to regrade, fine grade, sod, hydroseed and straw mulch all areas disturbed by their work.
- Bid shall be based on actual site conditions. No extra payment shall be made for work arising from actual site conditions differing from those indicated on drawings and specifications.
- Plant quantities are provided for the convenience of the contractor only. If discrepancies exist between quantities shown on plan and those shown on the plant list, the quantities on the plan take precedence. Where discrepancies on the plan exist between the symbols and the callout leader, the number of symbols take precedence.
- All shrubs and groundcover areas shall be planted in continuous planting beds, prepared as specified, unless otherwise indicated on plans. (See Specification 13). Beds to be mulched with minimum 2" and maximum 3" of composted, double-shredded hardwood mulch throughout.
- Positive drainage shall be maintained on planting beds (minimum 2 percent slope).
- Bed preparation shall be as follows: Till into a minimum depth of 6" 1 yard of Compro or Leafgro per 200 SF of planting bed, and 1 yard of topsoil per 100 SF of bed. Add 3 lbs of standard 5-10-5 fertilizer per cubic yard of planting mix and till. Ericaceous plants (Azaleas, Rhododendrons, etc.): top dress after planting with Iron sulfate or comparable product according to package directions. Taxus baccata 'Repandens' (English weeping yew): Top dress after planting with 1/4 to 1/2 cup lime each.
- Planting mix: For trees not in a prepared bed, mix 50% Compro or Leafgro with 50% soil from tree hole to use as backfill, see tree planting detail.
- Weed & Insect control: Incorporate a pre-emergent herbicide into the planting bed following recommended rates on the label. For tree planting, apply a pre-emergent on top of soil and root ball before mulching. Caution: For areas to be planted with a ground cover, be sure to carefully check the chemical used to assure its adaptability to the specific groundcover to be treated. Maintain the mulch weed-free for the extent of the warranty period. Under no circumstances is a pesticide containing chlorpyrifos to be used as a means of pest control.
- Water: All plant material planted shall be watered thoroughly the day of planting. All plant material not yet planted shall be properly protected from drying out until planted. At a minimum, water unplanted plant material daily and as necessary to avoid desiccation.
- Pruning: Do not heavily prune trees and shrubs at planting. Prune only broken, dead, or diseased branches.
- All areas within contract limits disturbed during or prior to construction not designated to receive plants and mulch shall be fine graded, grass seed planted, and covered with straw mulch.

**GENERAL NOTES**

- THIS PLAN MEETS THE HOWARD COUNTY LANDSCAPE MANUAL AND THE CRITERIA OF 5-98-12 THROUGH ALTERNATE COMPLIANCE. SEE EMERSON (KEY PROPERTY) LANDSCAPE PARKING AND STREETSCAPE DESIGN CRITERIA. THE LAND USE FOR THIS PARCEL IS RECREATIONAL, THEREFORE THE SKETCH PLAN REQUIREMENTS ARE BETTER MET WITH ALTERNATIVE COMPLIANCE RATHER THAN APPLYING STRICT EMPLOYMENT USE REQUIREMENTS.
- FINANCIAL SURETY FOR THE PROPOSED LANDSCAPING MUST BE POSTED AS PART OF THE DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$25,000.  

10 SHADE TREES @ \$300	= \$3,000
2 FLOWERING TREES @ \$150	= \$300
21 EVERGREEN TREES @ \$150	= \$3,150
42 SHRUBS @ \$30	= \$1,260
- THIS PLAN IS FOR LANDSCAPING PURPOSES ONLY.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, PROCEDURES, AND SAFETY PRECAUTIONS AND PROGRAMS.
- ALL MATERIAL SELECTED SHALL BE EQUAL TO OR BETTER THAN THE REQUIREMENTS OF THE "USA STANDARD FOR NURSERY STOCK", LATEST EDITION, AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
- ALL MATERIAL SHALL BE PLANTED IN ACCORDANCE WITH THE MINIMUM STANDARDS GITED IN THE LATEST EDITION OF "LANDSCAPE SPECIFICATION GUIDELINES" PUBLISHED BY THE LANDSCAPE CONTRACTORS ASSOCIATION.
- AT THE TIME OF INSTALLMENT, ALL SHRUBS AND OTHER PLANTINGS SHALL BE OF THE PROPER HEIGHT AND/OR SPREAD REQUIREMENTS IN ACCORDANCE WITH THIS PLAN AND THE HOWARD COUNTY LANDSCAPE MANUAL.
- NO SUBSTITUTIONS OR RELOCATION OF PLANTS MAY BE MADE WITHOUT PRIOR APPROVAL FROM THE DEPARTMENT OF PLANNING AND ZONING OF HOWARD COUNTY. ANY DEVIATION FROM THIS LANDSCAPE PLAN MAY RESULT IN A REQUIREMENT FOR SUBMITTAL OF AN OFFICIAL "REDLINE REVISION" TO THE SITE DEVELOPMENT PLAN(S) AND/OR DENIAL IN THE RELEASE OF LANDSCAPE SURETY.

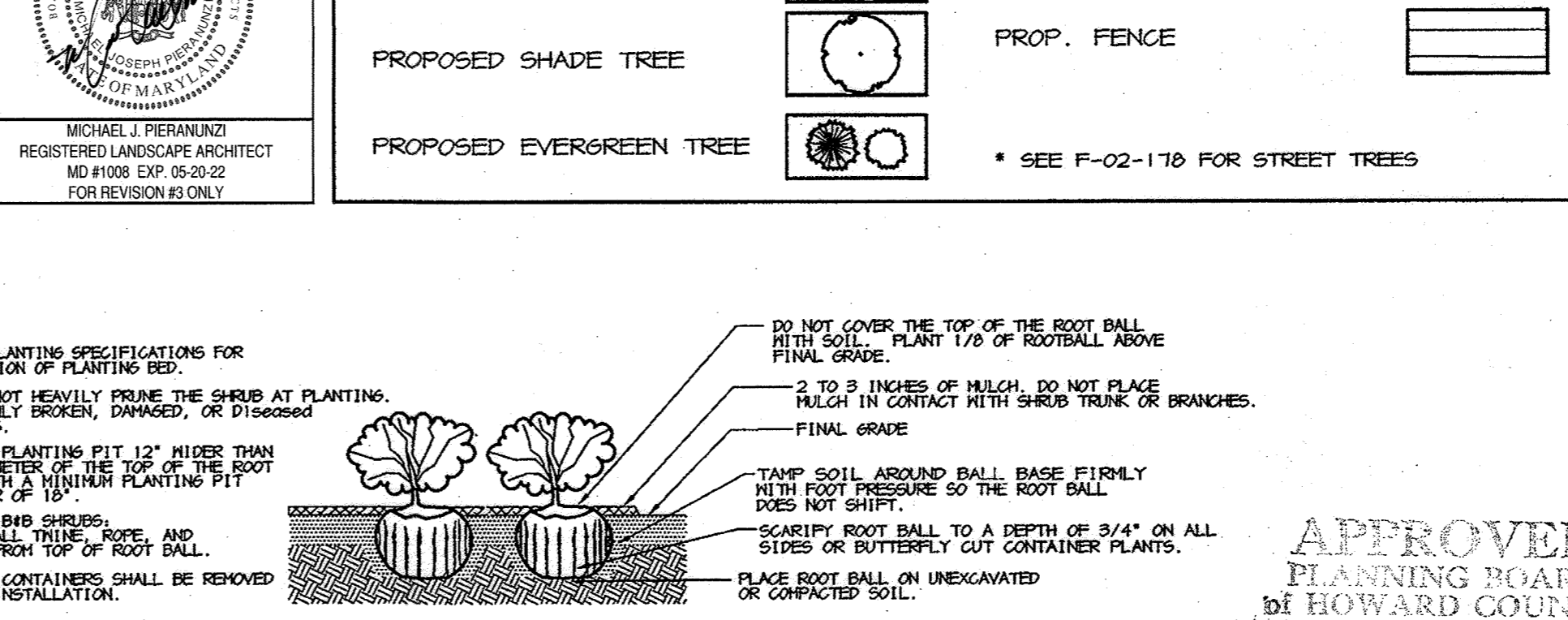
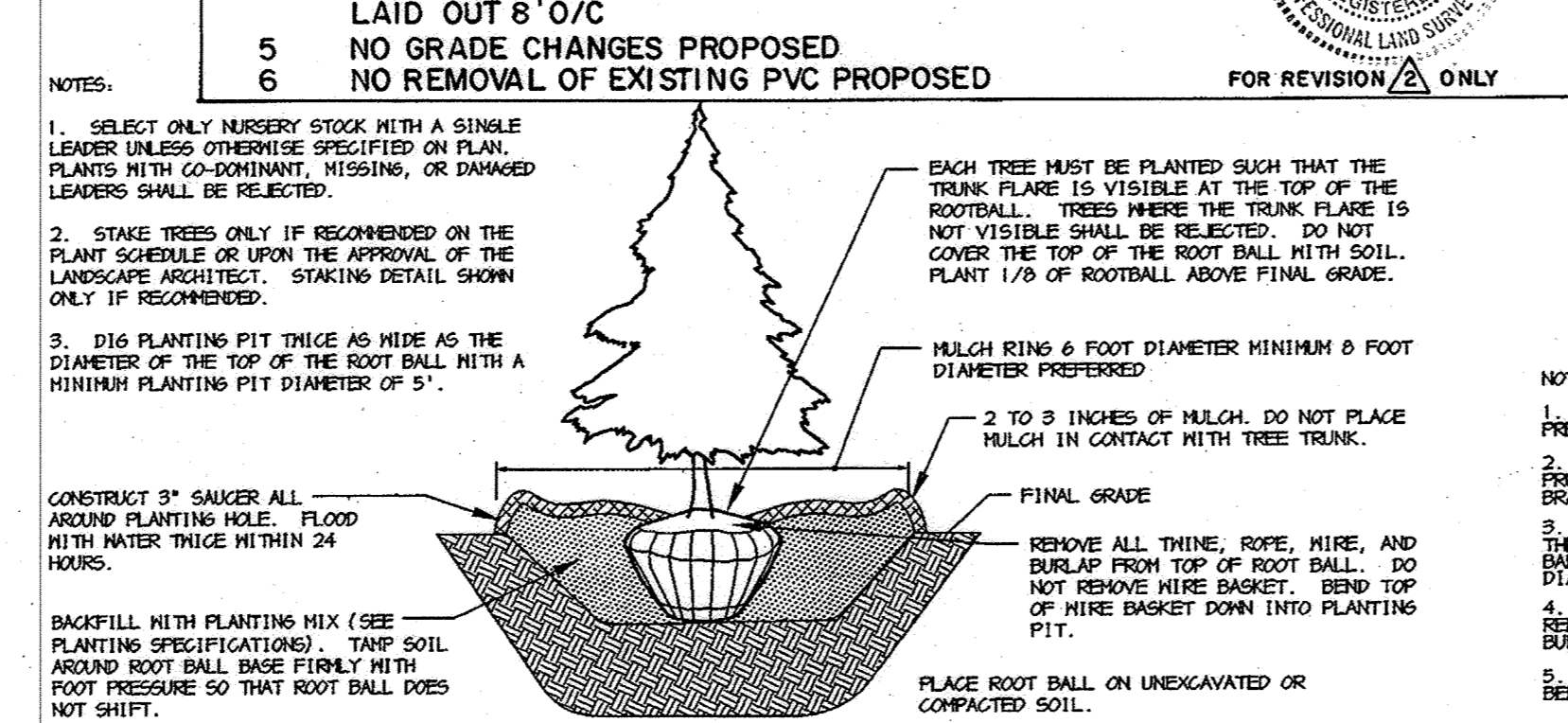
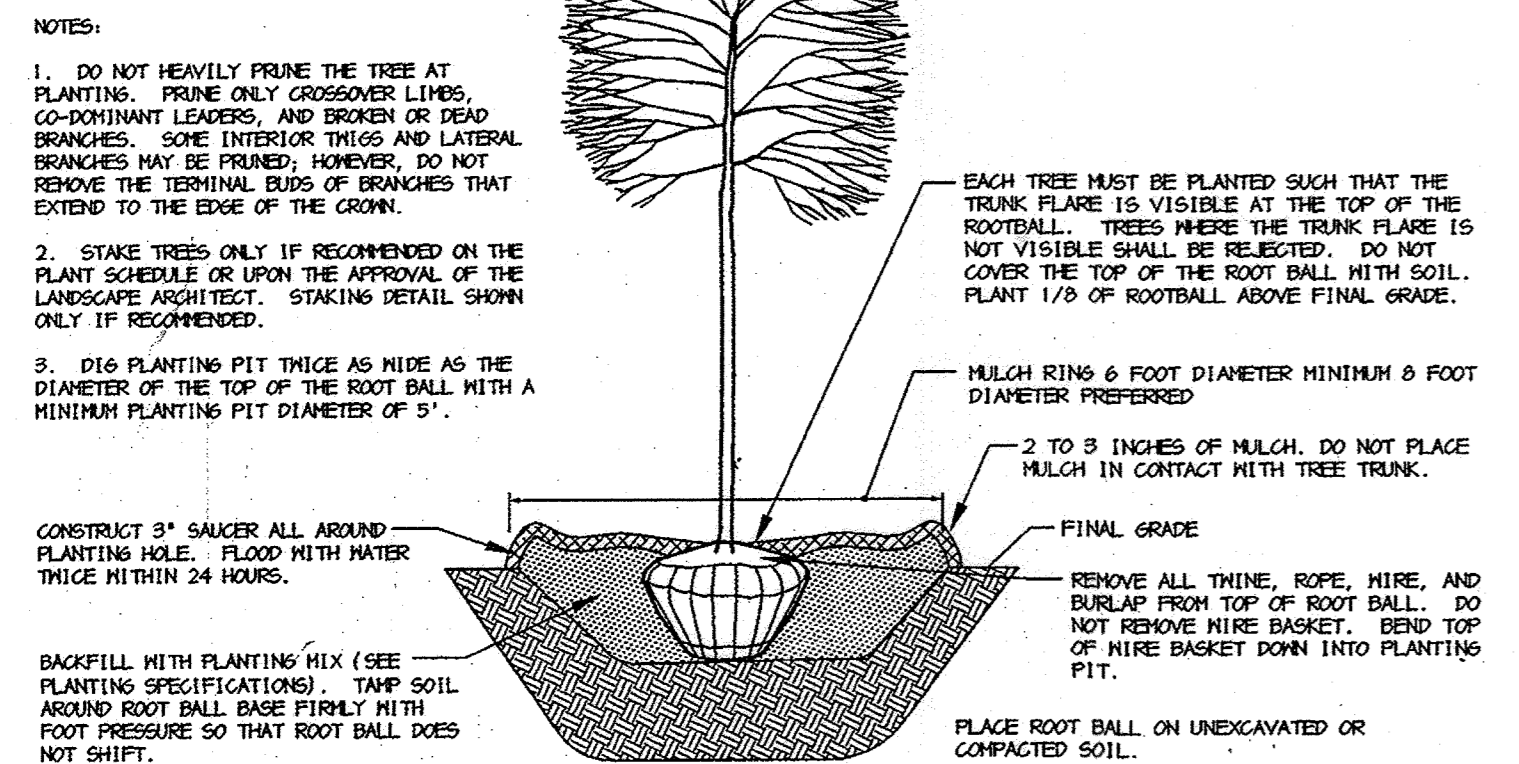
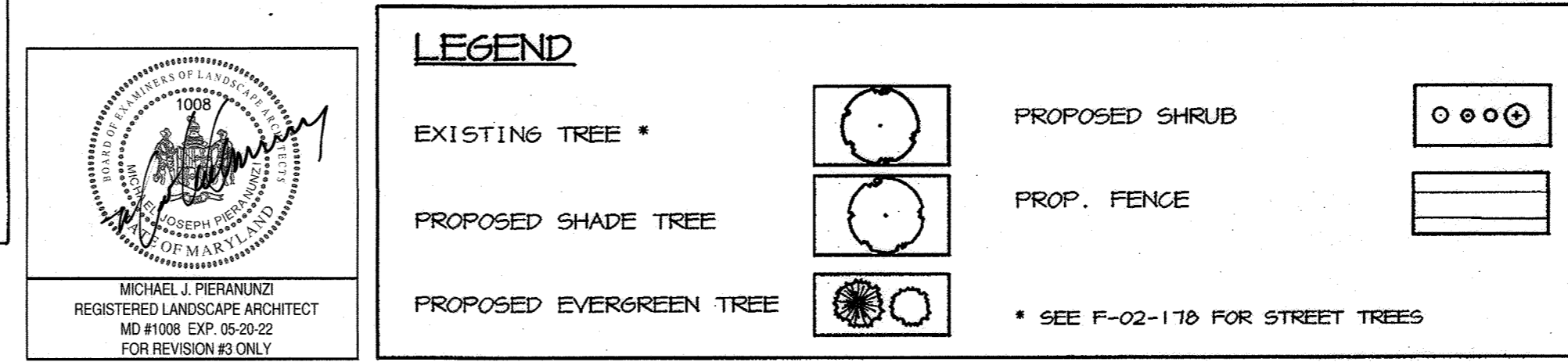
**DEVELOPER'S/BUILDER'S CERTIFICATE**

I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION, A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE OF PLANT MATERIALS, WILL BE SUBMITTED TO THE DEPARTMENT OF PLANNING AND ZONING.

*[Signature]*  
 SIGNATURE 3/25/03  
 DATE

**NOTES FOR PROPOSED SOLAR COLLECTORS**  
 (REVISION A)

- FIVE COLLECTORS PROPOSED
- DIMENSIONS EACH = 11' x 52'
- SPACING = 6" EDGE TO EDGE
- COLLECTORS WILL BE ERCTED ON & CONNECTED TO PIERS LAID OUT 8' O/C
- NO GRADE CHANGES PROPOSED
- NO REMOVAL OF EXISTING PVC PROPOSED



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*[Signature]* 10-9-23  
 DIRECTOR DATE

*[Signature]* 11-7-23  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 05-14-02  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

4/21/20 ADD SOLAR COLLECTION SYSTEM OVER BK VOLLEY BALL CT (EAB)

DATE NO. REVISION

OWNER/DEVELOPER

THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044  
 410-992-6000

PROJECT  
**EMERSON**  
 SECTION THREE AREA TWO  
 PARCEL A

AREA TAX MAP 47 BLOCK 8 & 9  
 ZONED: PEC-MXD-3 PARCEL: 462  
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
**REVISED LANDSCAPE PLAN**

Patton Harris Rust & Associates, p.c.  
 Engineers, Surveyors, Planners, Landscape Architects.

**PHRA** 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

3-26-03 DATE  
 DESIGNED BY: DMD  
 DRAWN BY: GTH, XZZ  
 CHECKED BY: PJS  
 PROJECT NO: 22456/FINALS  
 L2011LD.DWG  
 DATE: MARCH 25, 2003  
 SCALE: 1" = 30'  
 DRAWING NO. 7 OF 7

APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE: 10/2/02  
 9/9/21

DAVID T. DOWS R.L.A.#830

SDP-03-07



**LIGHTING FIXTURE SCHEDULE**

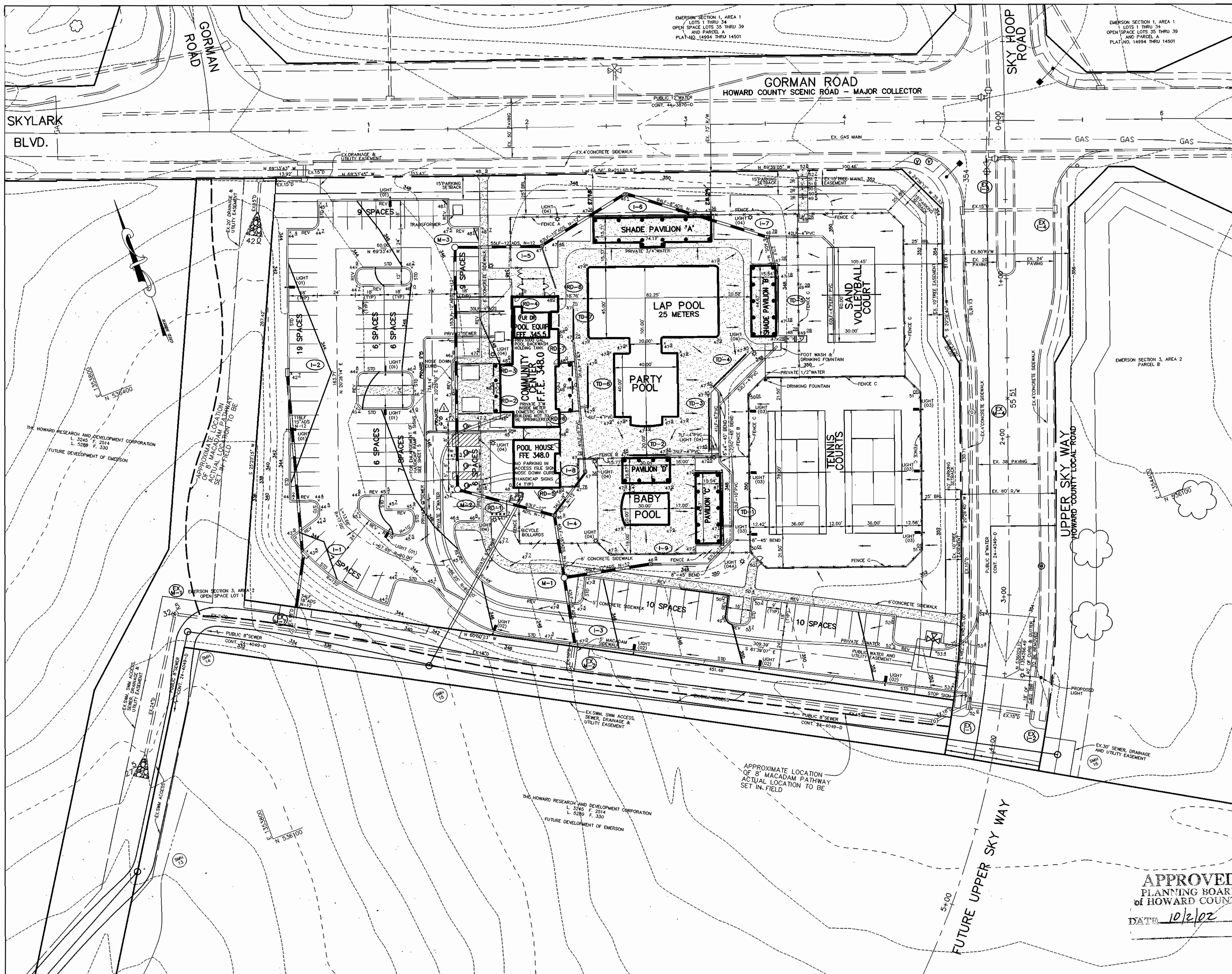
TYPE	LAMPS	MOUNTING	DESCRIPTION	VOLTAGE	CATALOG NO.
01	250W MH	25' ROUND STRAIGHT ALUMINUM POLE	TYPE 3 CUT OFF PARKING LUMINAIRE (BLACK FINISH) WITH MATCHING POLE	208V	KIM LIGHTING #AET3250MH BL-P/VSF-ISA POLE #RAZ25-6188A/BL-P
02	250W MH	25' ROUND STRAIGHT ALUMINUM POLE	SAME AS TYPE '01' EXCEPT TYPE IV (FORWARD THROW OPTICS)	208V	KIM LIGHTING #AET4250MH BL-P/VSF-ISA POLE #RAZ25-6188A/BL-P
03	1000W MH	25' ROUND STRAIGHT ALUMINUM POLE	TYPE IV CUT OFF TENNIS COURT LUMINAIRE (BLACK FINISH) WITH MATCHING POLE	208V	SPAUDLING #CEPMT1000WMTSGB POLE #25-RAP-6-SL-5GB
04	50W MH	10' ROUND TAPERED FIBERGLASS	DECORATIVE POST TOP METAL HALIDE WITH ACRYLIC FROSTED LENS AND BLACK FINISH	120V	BEACON PRODUCTS #AL2822-AF-50MH-BLK SHAKESPEARE POLE #A100258B01/0FSH1821
04A	50W MH	10' ROUND TAPERED FIBERGLASS	SAME AS TYPE '04' EXCEPT VOLTAGE	208V	BEACON PRODUCTS #AL2822-AF-50MH-BLK SHAKESPEARE POLE #A100258B01/0FSH1821

**PIPE INVS**

NO.	INVERTS 5' FROM MAIN	PIPE SIZE AND LENGTH	INVERTS AT 5' FROM BLDG
RD-1	341.98	4" ADS-21LF02.0%	342.05
RD-2	342.49	4" ADS-22LF02.0%	342.93
RD-3	342.84	4" ADS-22LF02.0%	343.08
RD-4	342.85	4" ADS-30LF02.0%	343.45
RD-5	342.40	4" ADS-21LF02.0%	342.44
RD-6	344.56	4" ADS-21LF02.0%	344.72
RD-7	345.49	4" ADS-21LF02.0%	345.59
RD-8	343.72	4" ADS-28LF02.0%	344.28
FLR DR	342.81	4" ADS-30LF02.0%	343.41
6" S	-	-	340.8
2" S	-	-	340.89

**NOTES:**

- ALL CURB RADI ARE 5' UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE TO FACE OF CURB OR BUILDING UNLESS OTHERWISE NOTED.
- ALL ON-SITE ROADS ARE PRIVATE.
- ALL LIGHTING IS TO BE DIRECTED/REFLECTED AWAY FROM ADJACENT PUBLIC ROADS AND RESIDENTIALLY ZONED PROPERTIES AND BE IN ACCORDANCE WITH SECTION 134 OF THE HOWARD COUNTY ZONING REGULATIONS.
- \* STD/REV - STANDARD TO REVERSE CURB TRANSITION.
- P-2 PAVING
- CONCRETE
- FENCE A - 6' HIGH VINYL COATED CHAIN LINK FENCE
- FENCE B - 3' HIGH ALUMINUM PICKET FENCE
- FENCE C - 10' HIGH VINYL COATED CHAIN LINK FENCE
- ALL CLUBHOUSE DOORS MUST HAVE A 5' LEVEL LANDING AREA.
- \* STREET LIGHT, STA 3+50, 23' LEFT OF CL, 250 WATT HPS (SAG) MOUNTED AT 30' ON A BRONZE FIBERGLASS POLE USING A 12' ARM.



APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director: *Thomas A. Light* DATE: 4/11/03  
 Chief, Development Engineering Division: *Mark* DATE: 4/14/03  
 Chief, Division of Land Development: *Cindy* DATE: 4/21/03

DATE: 02-00 REV. SHC  
 REVISION:

OWNER/DEVELOPER:  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044  
 410-992-6000

PROJECT:  
 EMERSON  
 SECTION THREE AREA TWO  
 PARCEL A

AREA: TAX MAP 47 BLOCK 8 & 9  
 ZONED: PEC-MXD-3 PARCEL: 462  
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE: SITE DEVELOPMENT PLAN

Patton Harris Rust & Associates, pc  
 Engineers, Surveyors, Planners, Landscape Architects.  
**PHRA**  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.9900  
 F 410.997.9282

DATE: 3.18.03  
 DESIGNED BY: C.J.R.  
 DRAWN BY: DAM  
 CHECKED BY: C.J.R.  
 PROJECT NO: 22456/FINALS  
 C-SDP2.DWG  
 DATE: MARCH 25, 2003  
 SCALE: 1" = 30'  
 DRAWING NO. 2 OF 7

CHRISTOPHER J. REID #19949

APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE: 10/2/02



SCHEDULE A - PERIMETER LANDSCAPE EDGE*				
PERIMETER	ADJACENT TO ROADWAYS			ADJACENT TO PERIM. PROP.
	1	2	3	4
LANDSCAPE TYPE	E	B	-	-
LINEAR FEET OF ROADWAY FRONTAGE/ PERIMETER	±127'	±243'	-	-
CREDIT FOR EXISTING DRIVE AISLE (LINEAR FEET)	-	-	-	-
CREDIT FOR EXISTING VEGETATION (YES/NO, LINEAR FEET) (DESCRIBE BELOW IF NEEDED)	-	-	-	-
LINEAR FEET REMAINING	±127'	±243'	-	-
CREDIT FOR WALL, FENCE, OR BERM (YES/NO/LINEAR FEET)	-	-	-	-
NUMBER OF PLANTS REQUIRED				
SHADE TREES	3	6	-	-
EVERGREEN TREES	-	-	-	-
SHRUBS	32	7	-	-
NUMBER OF PLANTS PROVIDED				
SHADE TREES	3	6	-	-
EVERGREEN TREES	3	19	-	-
SMALL FLOWERING TREES	-	-	-	-
SHRUBS	42	-	-	-

**SUBSTITUTION NOTES:**

\* SEE GENERAL NOTE 1 SHEET 7 OF 7.  
 PERIMETER 1 - 2 EVERGREEN TREES, 2 ORNAMENTAL TREES, AND 10 SHRUBS SUBSTITUTED FOR 3 SHADE TREES

PERIMETER 2 - 12 EVERGREEN TREES SUBSTITUTED FOR 6 SHADE TREES

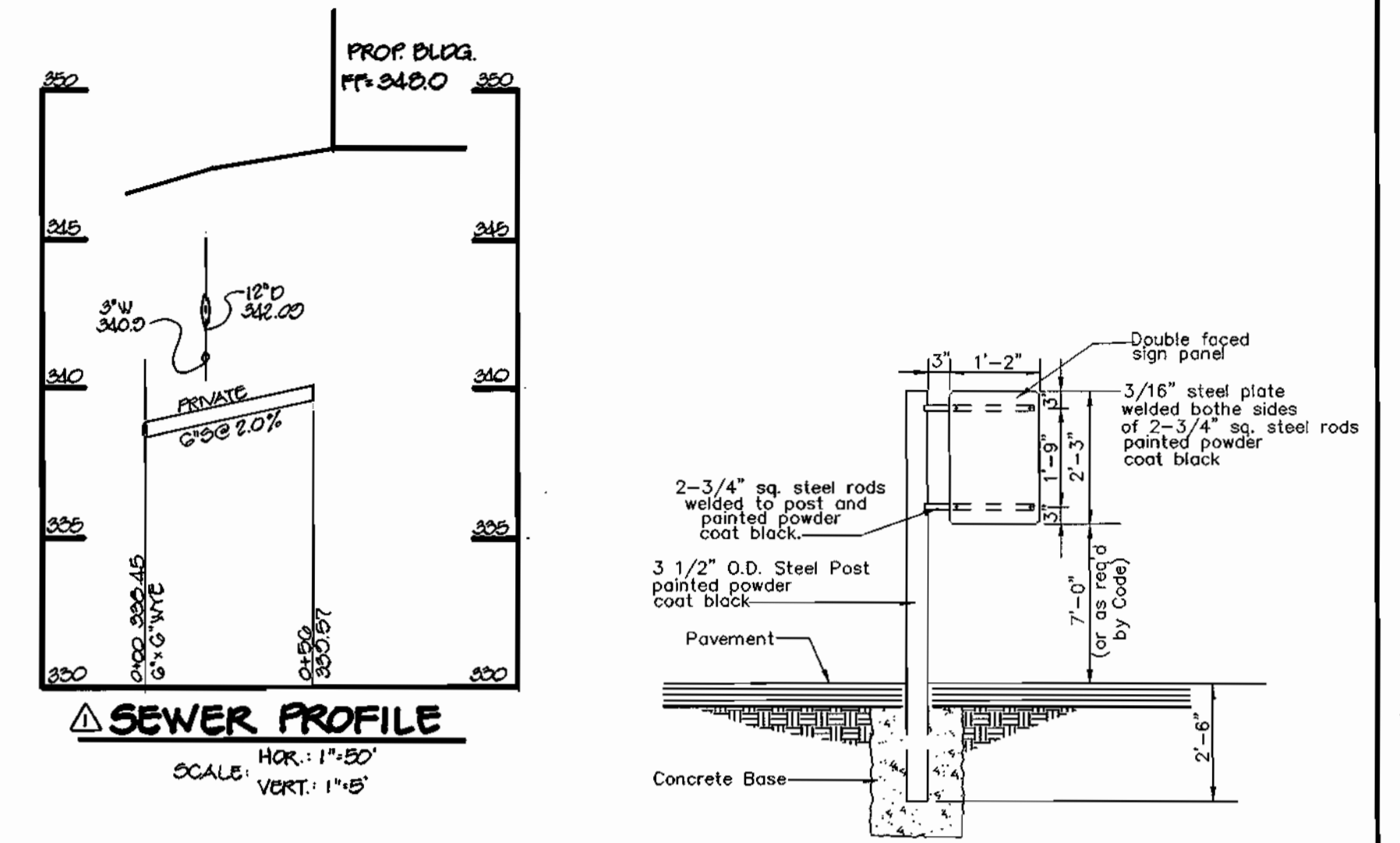
PERIMETER 3 - NO LANDSCAPE REQUIREMENTS ADJACENT TO INTERNAL ROAD

PERIMETER 4 - NO LANDSCAPE REQUIREMENTS BETWEEN SAME SUBDIVISION

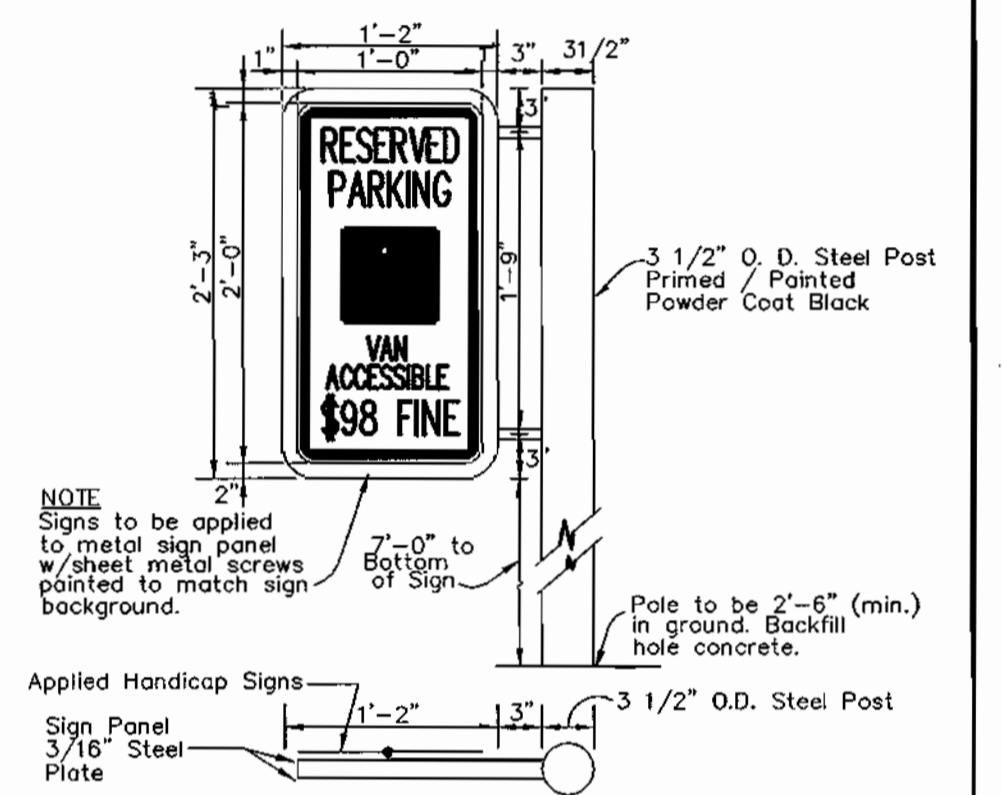
SCHEDULE B - PARKING LOT INTERNAL LANDSCAPING*	
PARKING LOT	1
NUMBER OF PARKING SPACES	70
NUMBER OF SHADE TREES REQUIRED (1/10 SPACES)	7
NUMBER OF TREES PROVIDED	
SHADE TREES	10
OTHER TREES (2:1 SUBSTITUTION)	-
NUMBER OF ISLANDS PROVIDED	10

\* SEE GENERAL NOTE 1 SHEET 7 OF 7

PLANT LIST					
SYMBOL	QTY.	SCIENTIFIC/COMMON NAME	SIZE	ROOT	REMARKS
AR	6	Acer rubrum 'Armstrong' Armstrong red maple	3-3.5' cal. 14-16' ht.	B&B	Full
GT	1	Gleditsia triacanthos inermis 'Moraine' Moraine thornless honeylocust	3.5-4' cal. 15-17' ht.	B&B	Full
ZS	21	Zelkova serrata 'Green Vase' Green Vase Japanese zelkova	2.5-3' cal. 12-14' ht.	B&B	Full
MS	13	Malus sieboldii var. zumi 'Calocarpa' Calocarpa zumi crabapple	3-3.5' cal. 10-12' ht.	B&B	Full
CL	31	Xcupressocyparis leylandii Leeland cypress	8-10' ht.	B&B	Full
PS1	27	Pinus strobus Eastern white pine	8-10' ht.	B&B	Full
PS2	11	Pinus strobus Eastern white pine	6-8' ht.	B&B	Full
BJ	92	Barbentis julianae Wintergreen barberry	30-36" ht. 30-36" spr.	B&B	Heavy
EA	61	Euonymus alatus 'Compactus' Dwarf burning bush	24-30" ht. 24-30" spr.	B&B or Cont.	Heavy
IC	62	Ilex crenata 'Helleri' Heller's dwarf Japanese holly	18-24" ht. 24-30" spr.	Cont.	Heavy
IG	145	Ilex glabra 'Compacta' Dwarf inkberry	24-30" ht. 24-30" spr.	B&B	Heavy
IM	5	Ilex meserveae 'Blue Princess' Blue Princess holly	36-42" ht. 30-36" spr.	B&B	Heavy
RP	28	Rhododendron 'Purple Gem' Purple Gem rhododendron	15-18" ht. 12-15" spr.	B&B or Cont.	Heavy
LM	80	Liriope muscari 'Big Blue' Big Blue lilyturf	1 gallon	Cont.	Plant 18" o.c.



**POST & SIGN PANEL DETAIL FOR PARKING RESTRICTION SIGN**  
NO SCALE



APPROVED  
PLANNING BOARD  
of HOWARD COUNTY

DATE 10/2/02

**MOUNTING DETAIL FOR PARKING RESTRICTION SIGN**  
NO SCALE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>Paul D. Cagle</i>	1/24/13
DIRECTOR	DATE
<i>Christy Hanath</i>	4/14/12
CHIEF, DEVELOPMENT ENGINEERING DIVISION	DATE
<i>Christy Hanath</i>	4/24/12
CHIEF, DIVISION OF LAND DEVELOPMENT	DATE

8-22-03	ADD SEWER PROFILE
DATE	REVISION

OWNER/DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044  
 410-992-6000

PROJECT  
**EMERSON**  
 SECTION THREE AREA TWO  
 PARCEL A

AREA TAX MAP 47 BLOCK 8 & 9  
 ZONED: PEC-MXD-3 PARCEL: 462  
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**DETAILS**

Patton Harris Rust & Associates, p.c.  
 Engineers, Surveyors, Planners, Landscape Architects.

**PHRA**  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.9282

3-25-03  
 DATE

DESIGNED BY: C.J.R.

DRAWN BY: DAM

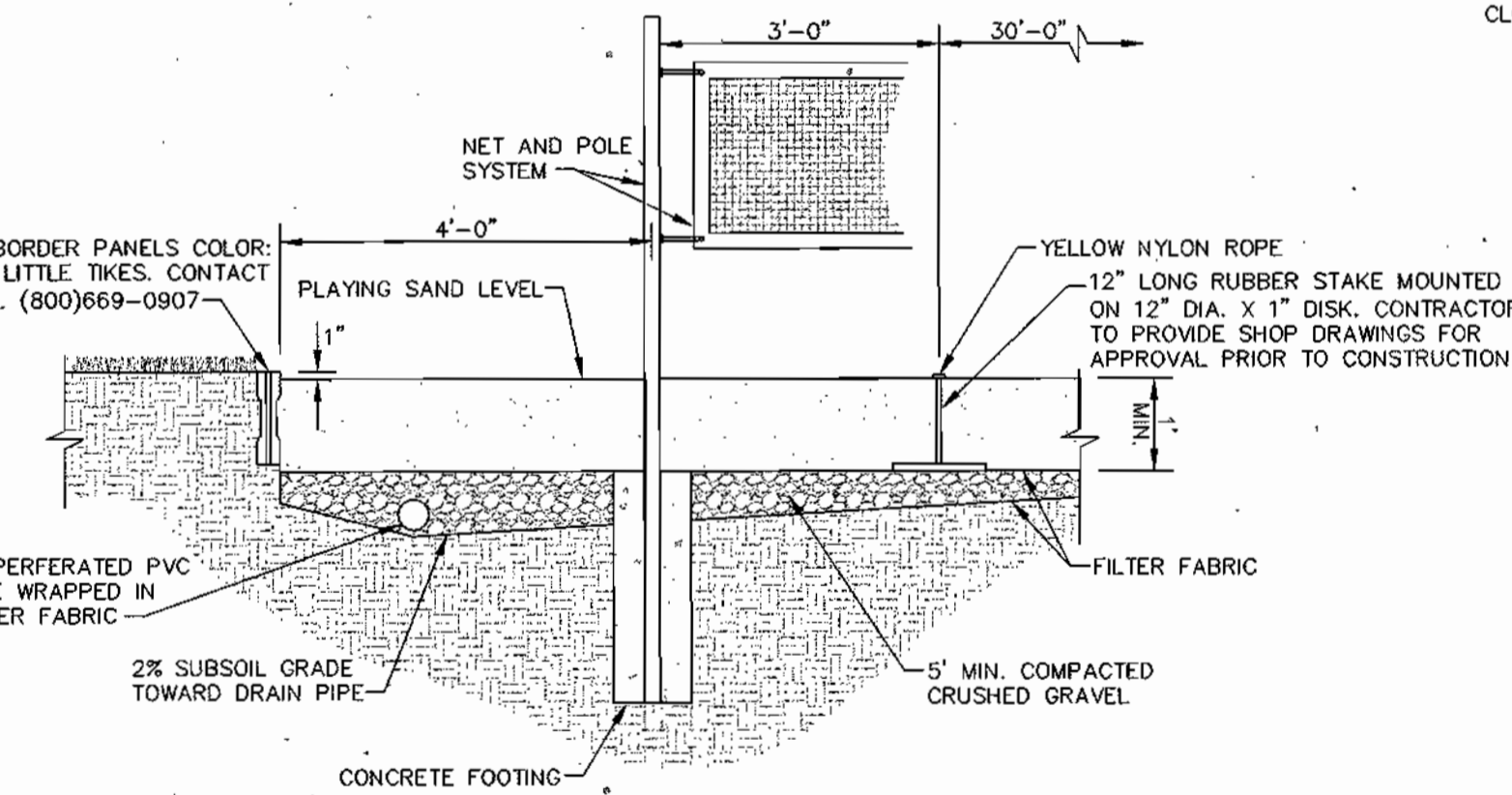
CHECKED BY: C.J.R.

PROJECT NO. 22456/FINALS  
 C-SDPDET2.DWG

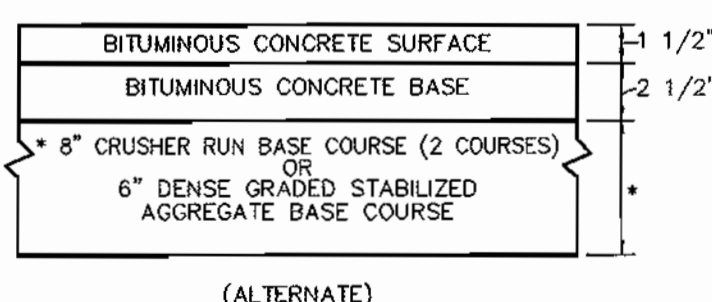
DATE: MARCH 25, 2003

SCALE: AS SHOWN

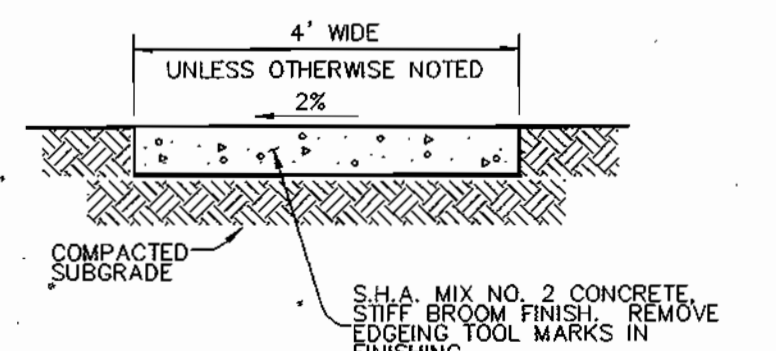
DRAWING NO. 5 OF 7



**SAND VOLLEYBALL COURT DETAIL**  
SCALE: 1/2" = 1'

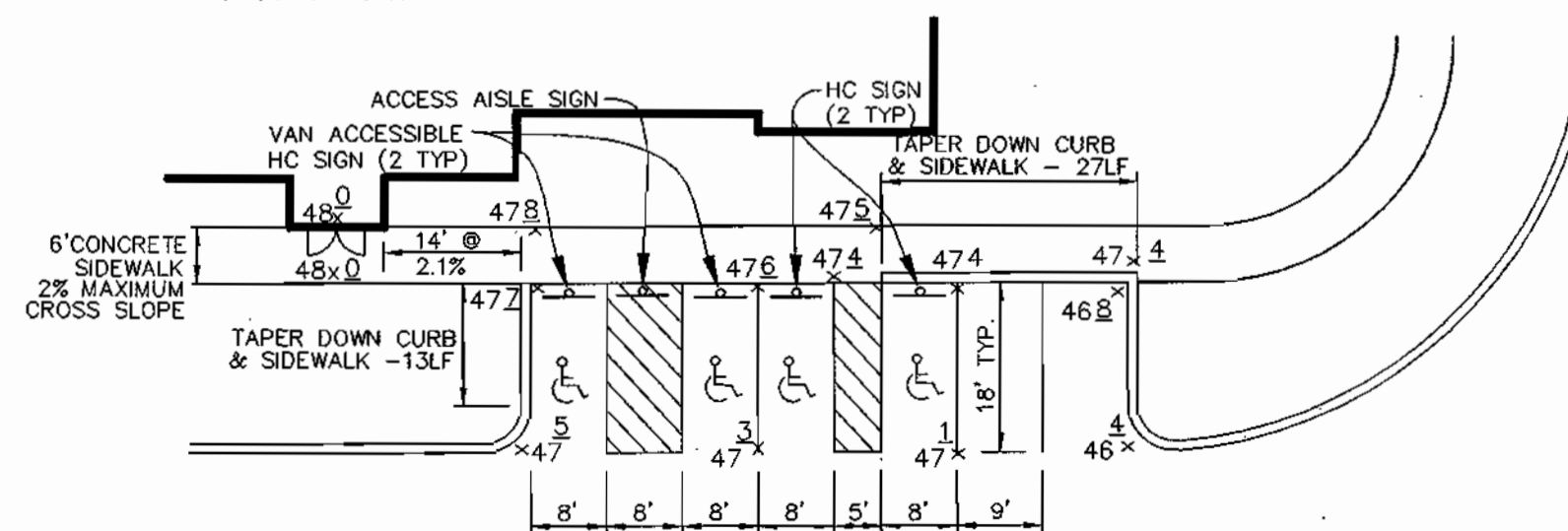


**P-2 PAVING**  
NO SCALE



**SIDEWALK DETAIL**  
NO SCALE

**PROPOSED CLUB HOUSE**  
F.F. ELEV. 348.0



**HANDICAP RAMP**  
SCALE: 1" = 20'

PART NO.	DIMENSIONS: END INVERT	WEIGHT
NW 100-1	1M/39.37IN	4.6IN 33.0 LBS
NW 100-02	1M/39.37IN	4.6IN 33.0 LBS
NW 100-2	1M/39.37IN	4.6IN 33.0 LBS
NW 100-3	1M/39.37IN	5.0IN 33.0 LBS
NW 100-4	1M/39.37IN	5.3IN 33.0 LBS
NW 100-5	1M/39.37IN	5.5IN 33.0 LBS
NW 100-6	1M/39.37IN	5.7IN 33.0 LBS
NW 100-7	1M/39.37IN	6.0IN 33.0 LBS
NW 100-8	1M/39.37IN	6.2IN 33.0 LBS
NW 100-9	1M/39.37IN	6.4IN 33.0 LBS
NW 100-010	1M/39.37IN	6.4IN 33.0 LBS
NW 100-103	0.5M/19.7IN	6.4IN 33.0 LBS
NW 100-10	1M/39.37IN	6.7IN 33.0 LBS
NW 100-11	1M/39.37IN	6.9IN 33.0 LBS
NW 100-12	1M/39.37IN	7.1IN 33.0 LBS
NW 100-13	1M/39.37IN	7.4IN 33.0 LBS
NW 100-14	1M/39.37IN	7.6IN 33.0 LBS
NW 100-15	1M/39.37IN	7.9IN 33.0 LBS

**ACO DRAIN GRATE 491 SPECIFICATIONS:**

APPLICABLE SYSTEM:  
 RECOMMENDED FOR USE WITH 4 IN. ACO DRAIN SYSTEMS K100S, NW100, FG100 AND SPORT SYSTEM 4000

LOAD CLASS:  
 DIN 19580 - RATED LOAD CLASS B(28,000 LB)

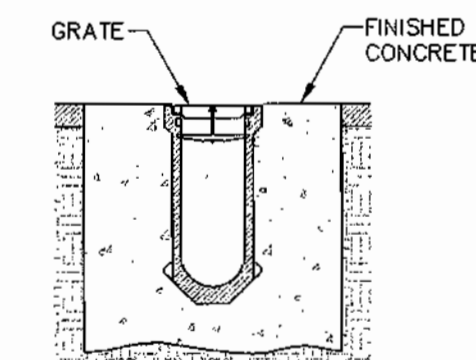
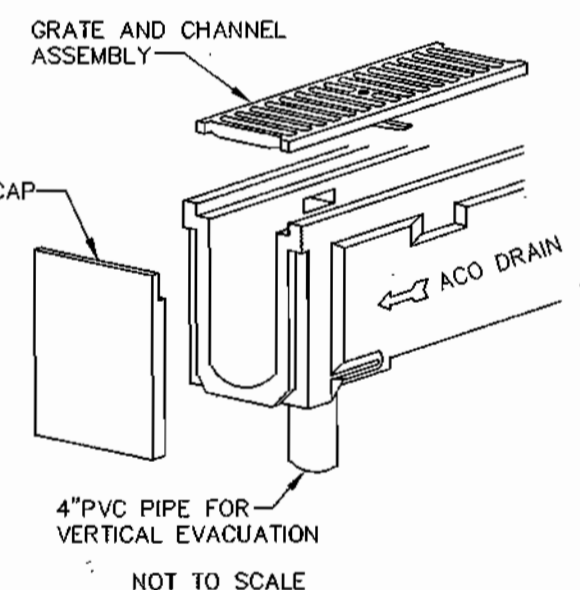
APPLICATIONS:  
 FOR LOAD CLASS B - LIGHT TO MEDIUM DUTY TRAFFIC APPLICATIONS, PUBLIC PARKING LOTS FOR PASSENGER CARS, SPORT VEHICLES, LIGHT PICKUP TRUCKS AT LOW SPEEDS.

APPEARANCE:  
 SMOOTH, LIGHT GRAY COLOR (STANDARD), SMALL ROUND PROTRUDING DIMPLE (3/16 IN. DIA.) - TWO (2) COLUMNS RUNNING ALONG LENGTH OF GRATE.

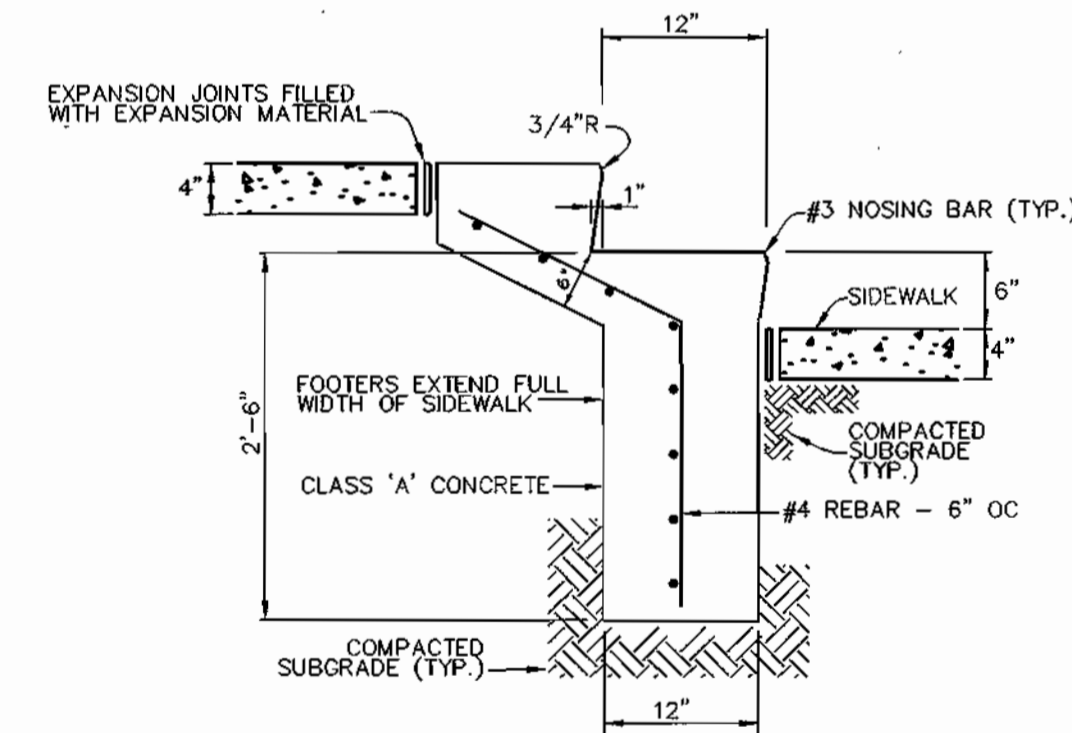
RIBS:  
 RIBS RUN PERPENDICULAR TO LENGTH OF CHANNEL UNDERNEATH GRATE.

MATERIAL COMPOSITION: POLYPROPYLENE

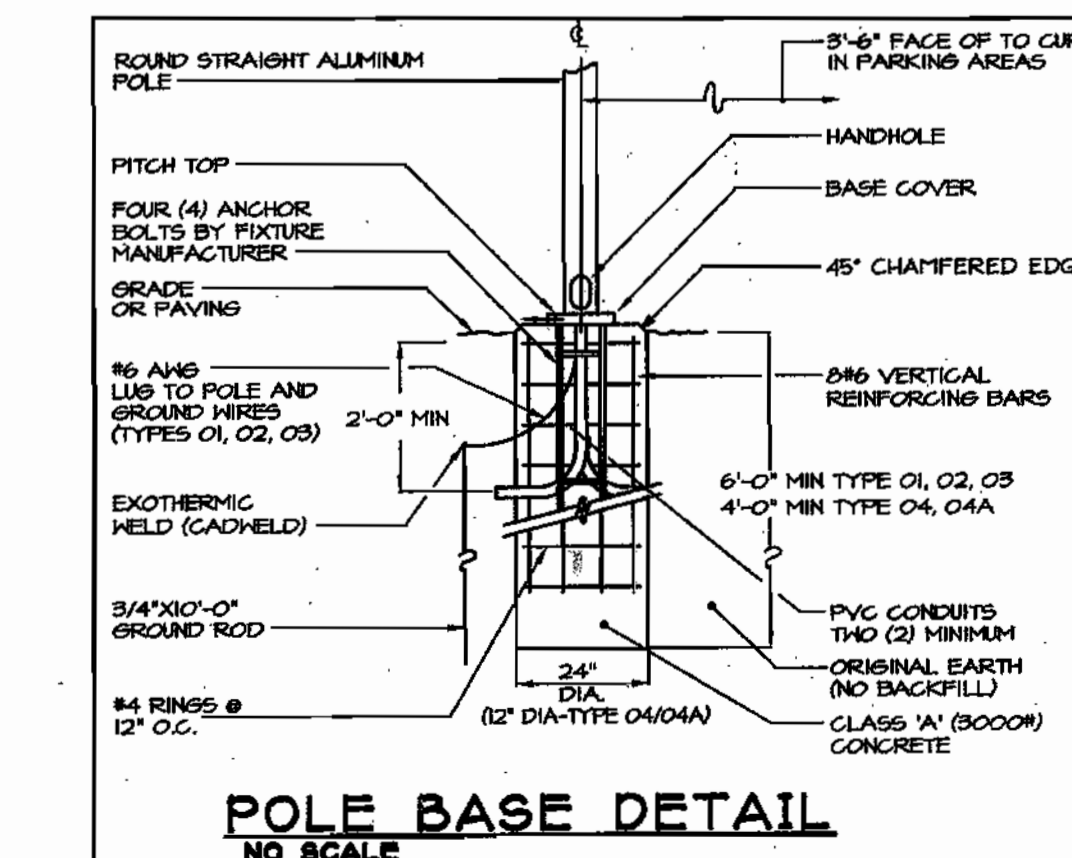
ARTICLE NUMBER: 01308



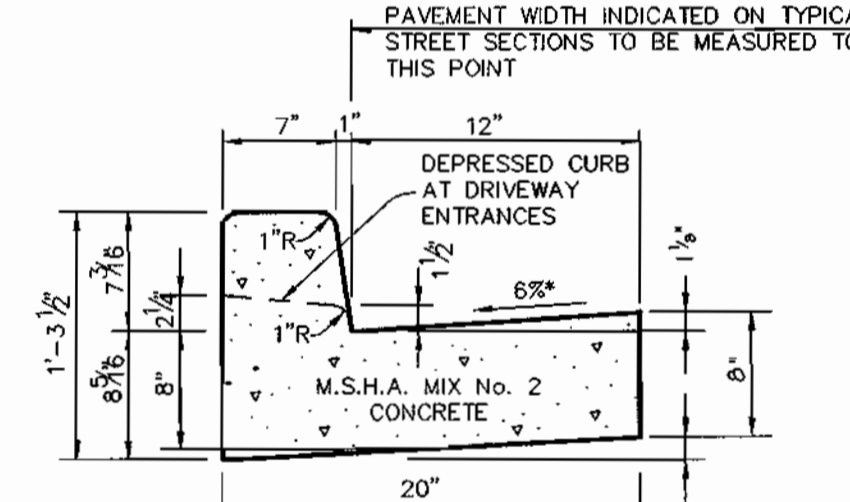
**ACO DRAIN**  
SCALE: 1" = 1'



**TYPICAL CONCRETE STEP WITH RAIL DETAIL**  
NO SCALE

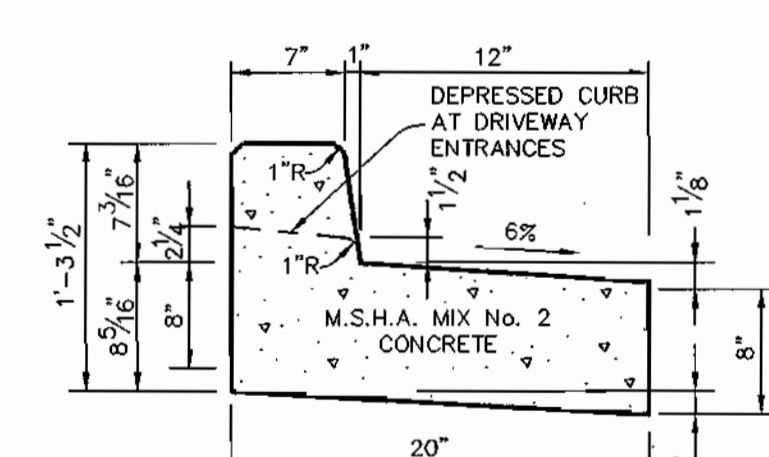


**POLE BASE DETAIL**  
NO SCALE

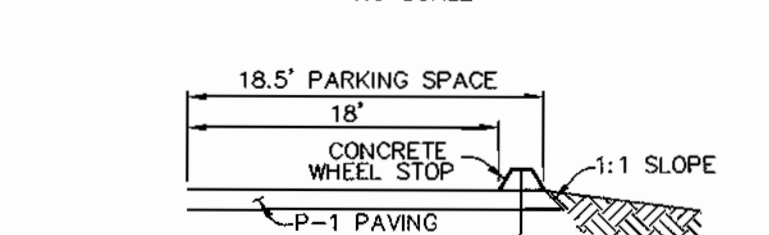


**STANDARD 7\"/>NO SCALE**

**REVERSE 7\"/>NO SCALE**

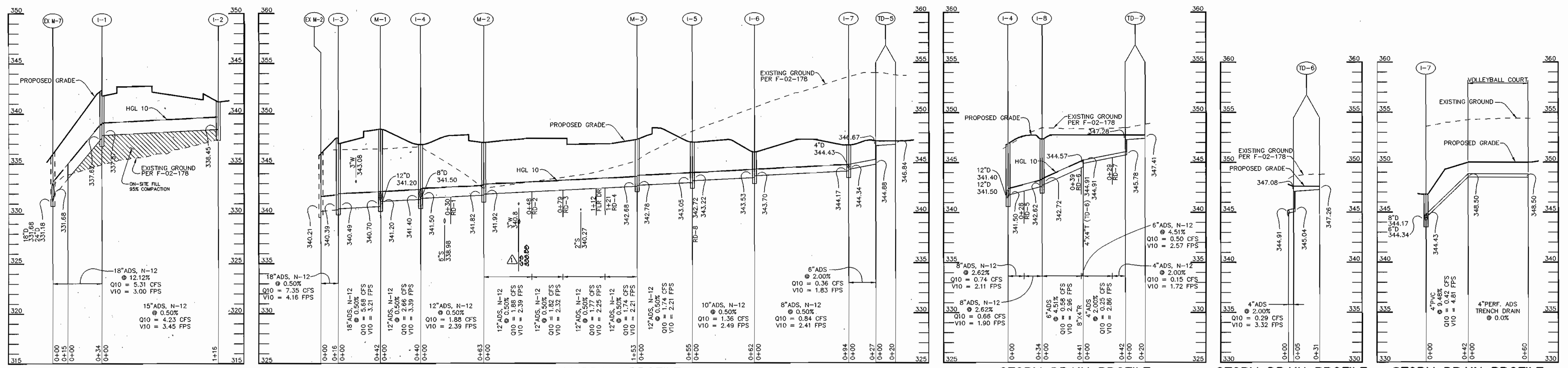


**REVERSE 7\"/>NO SCALE**



**CONCRETE WHEEL STOP LOCATION PLAN**  
NO SCALE





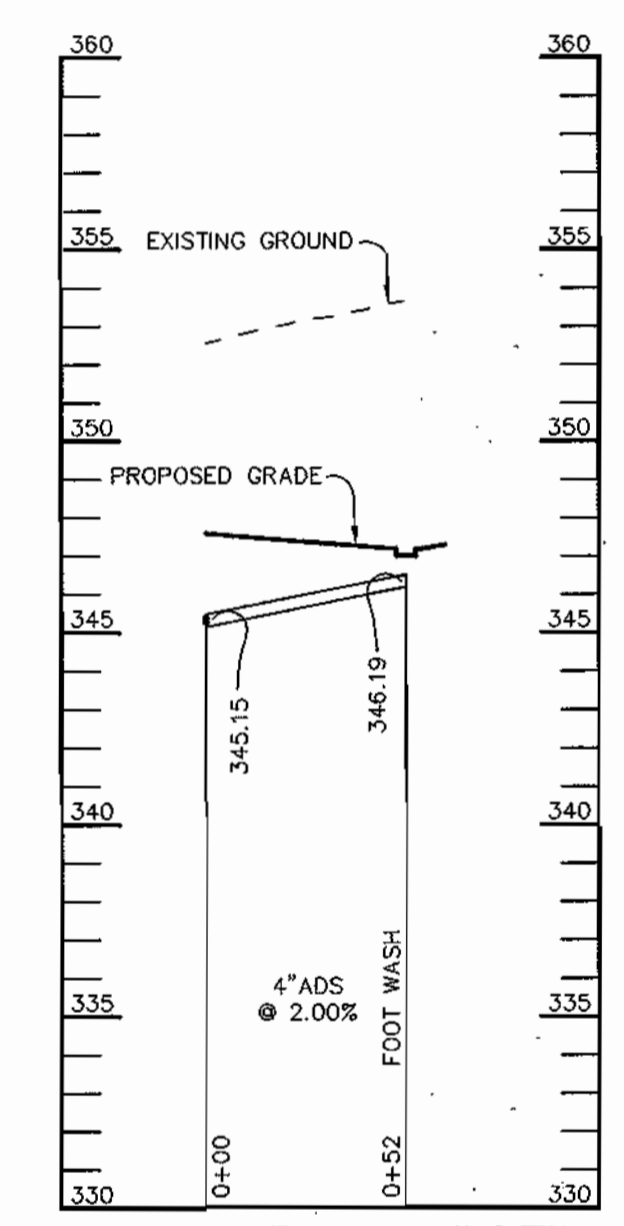
**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'

**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'

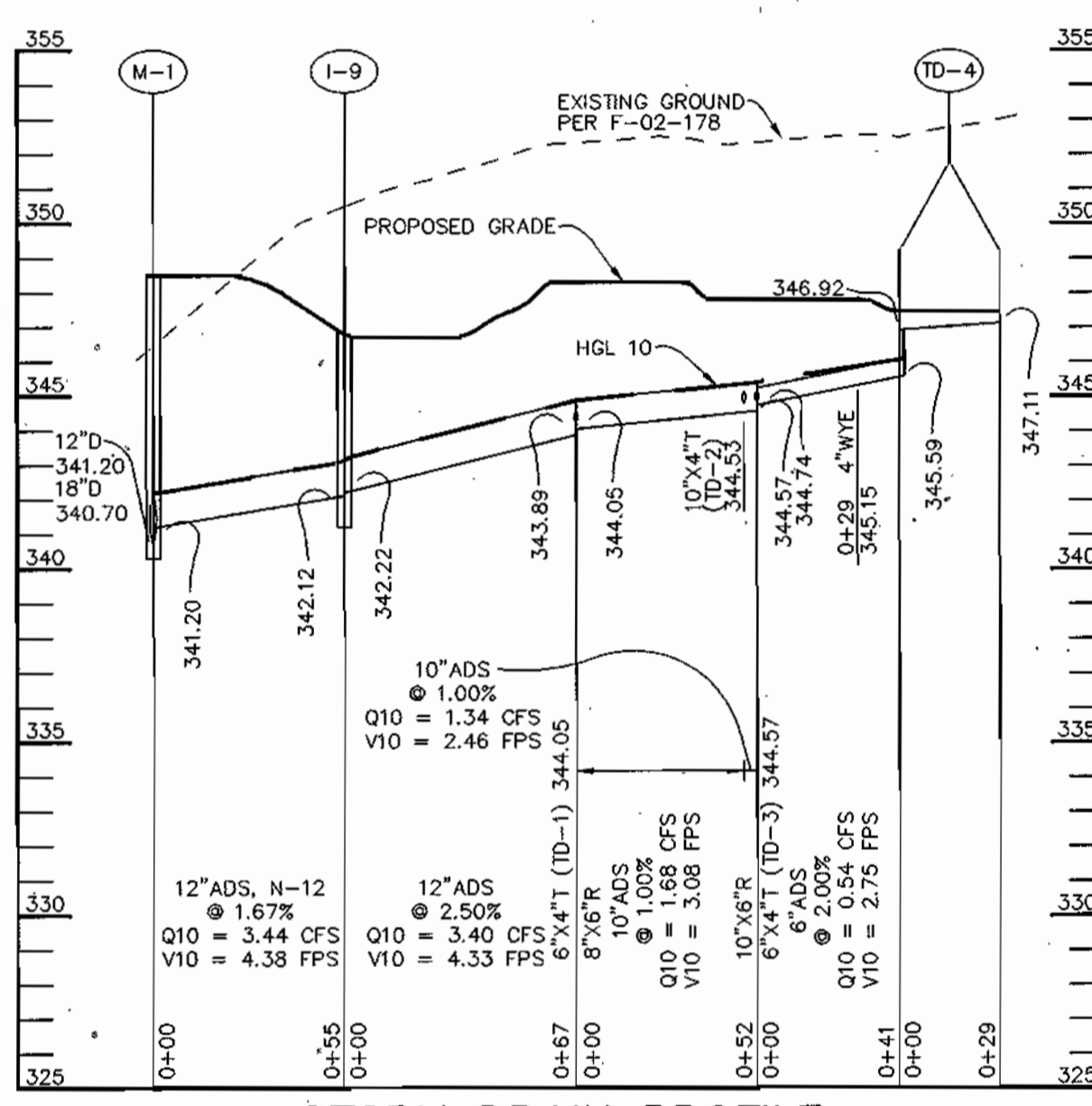
**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'

**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'

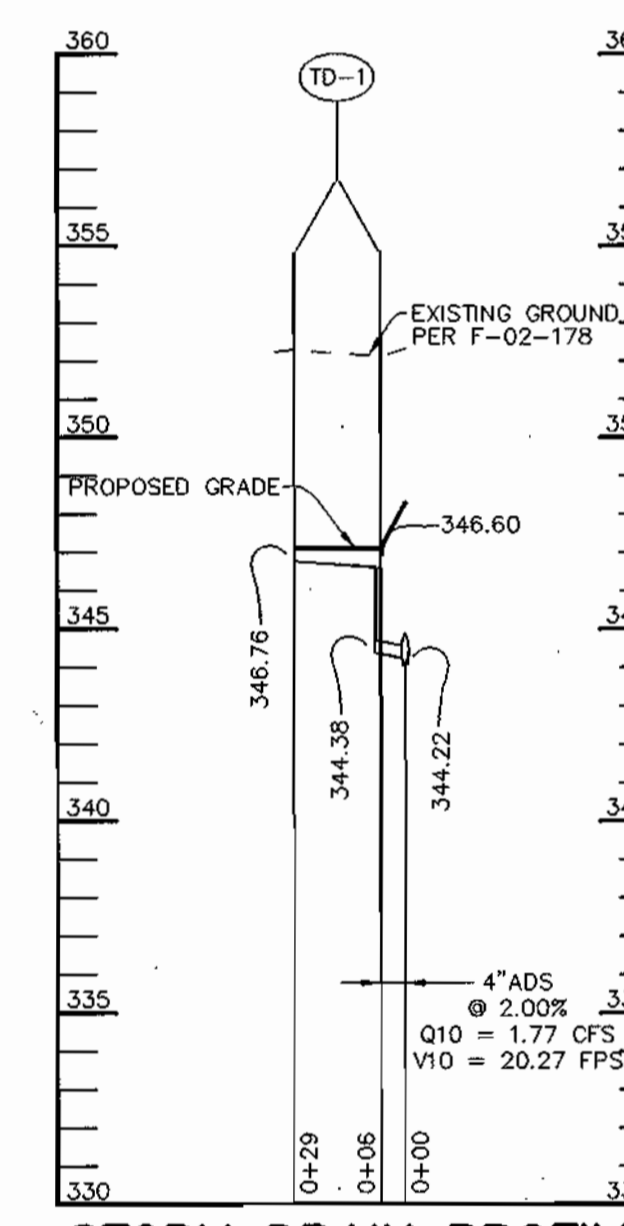
**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'



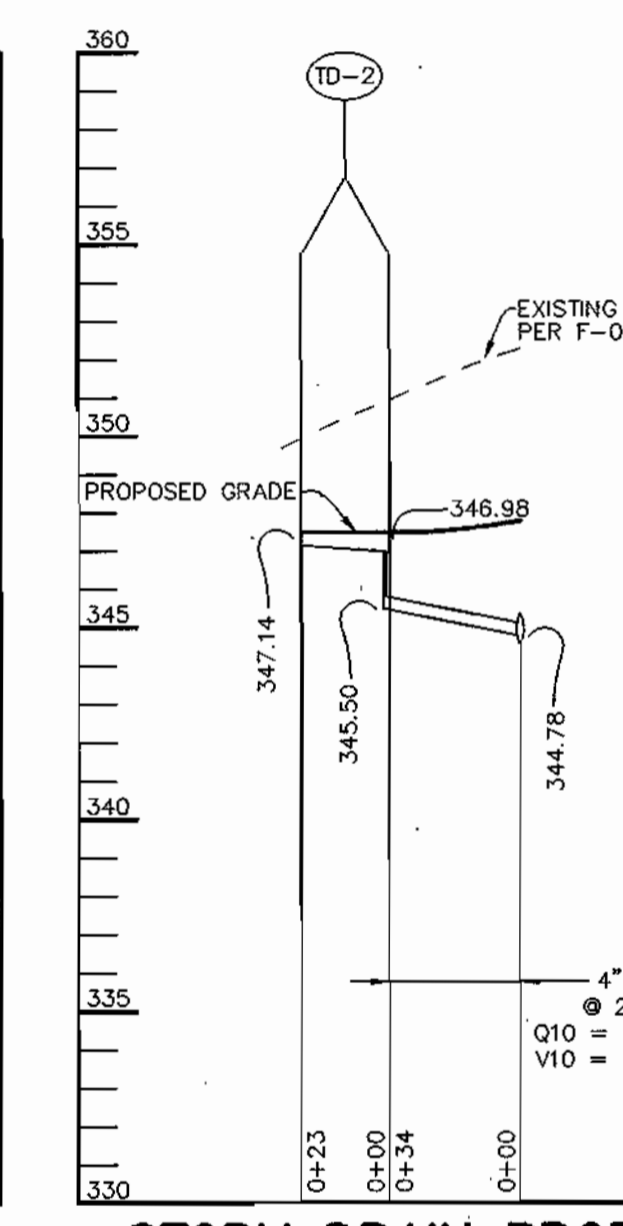
**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'



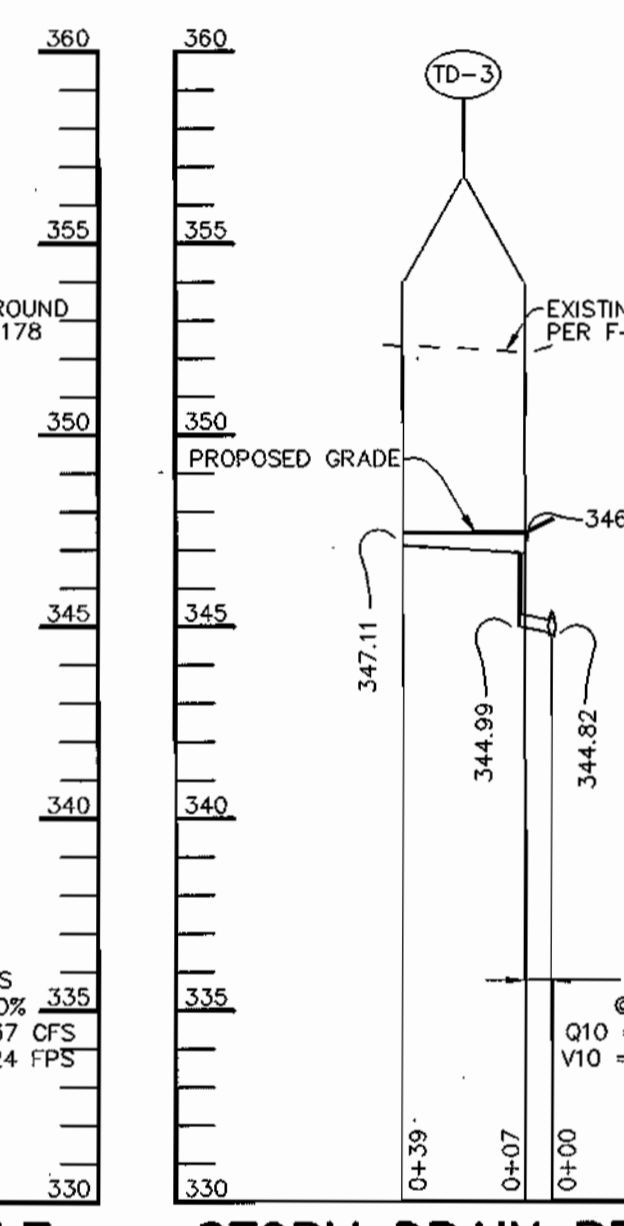
**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'



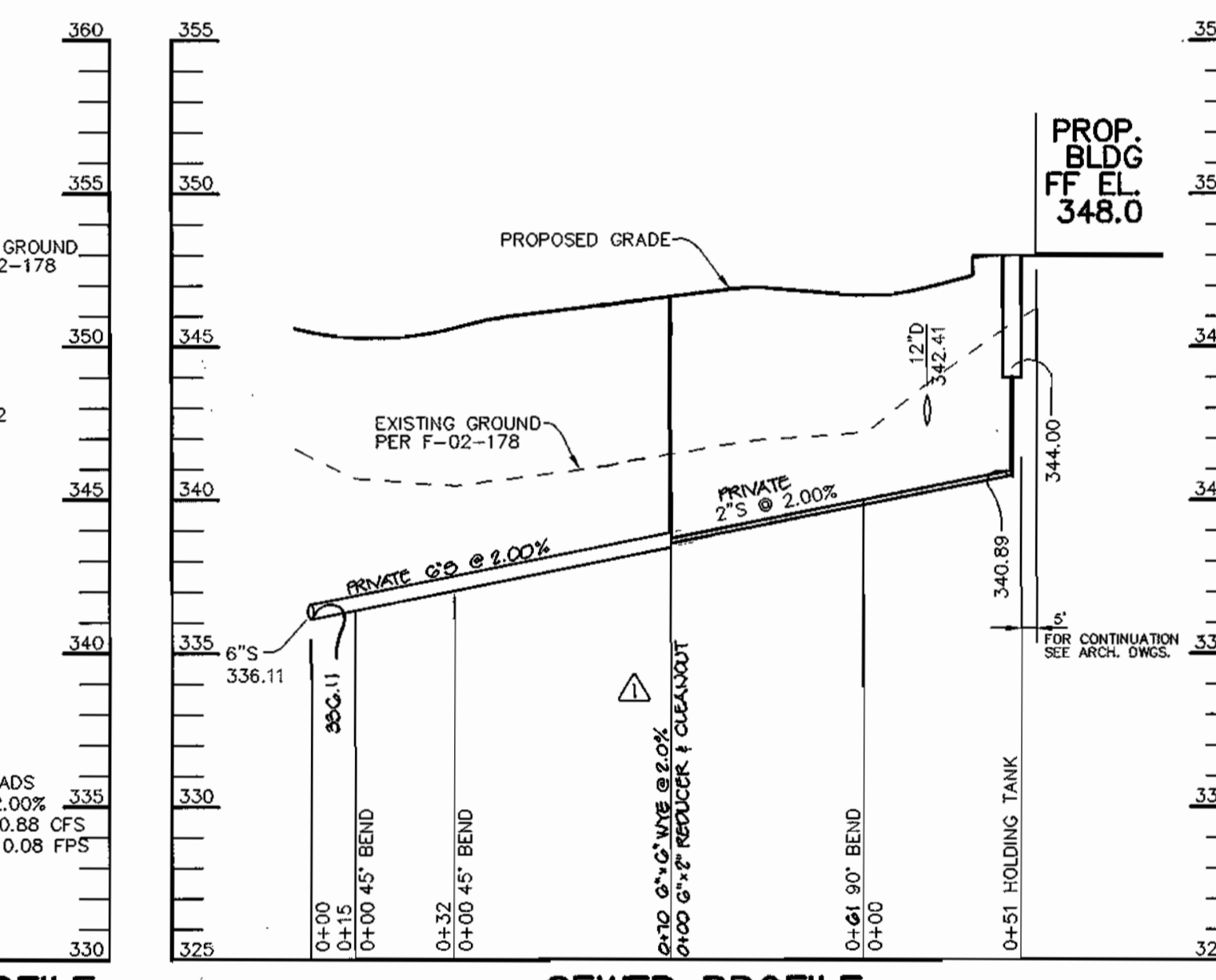
**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'



**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'



**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'



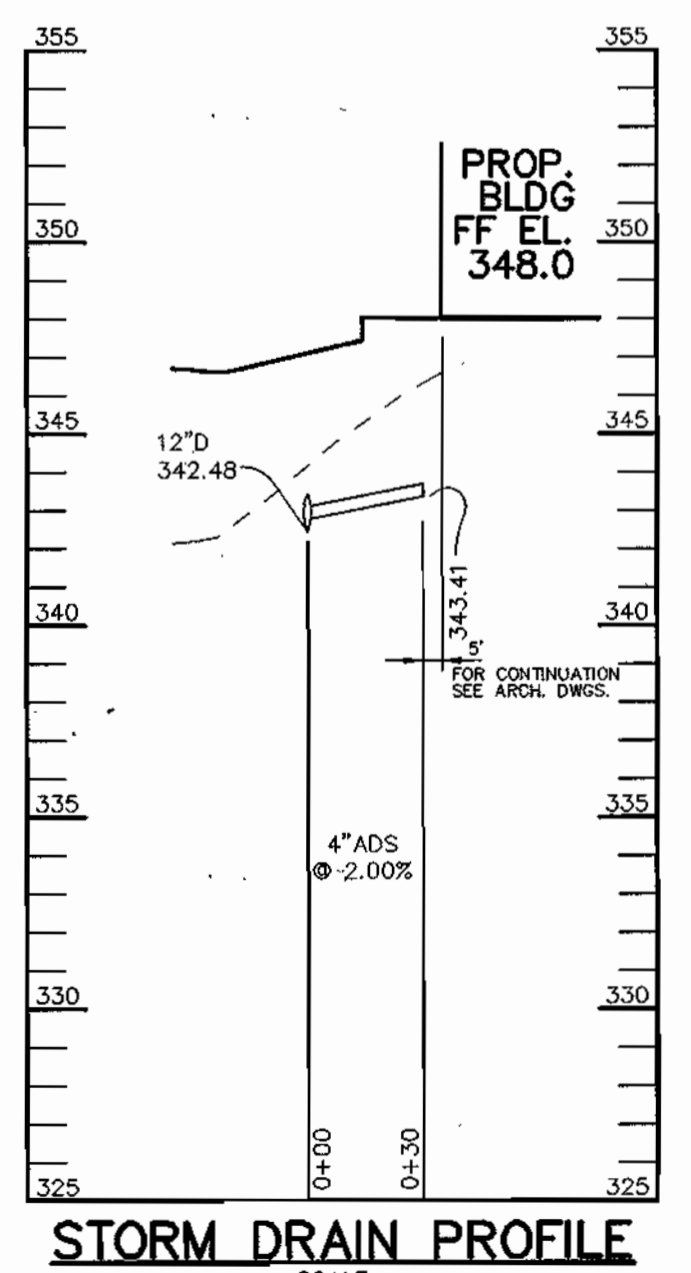
**SEWER PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'

**PIPE SCHEDULE**

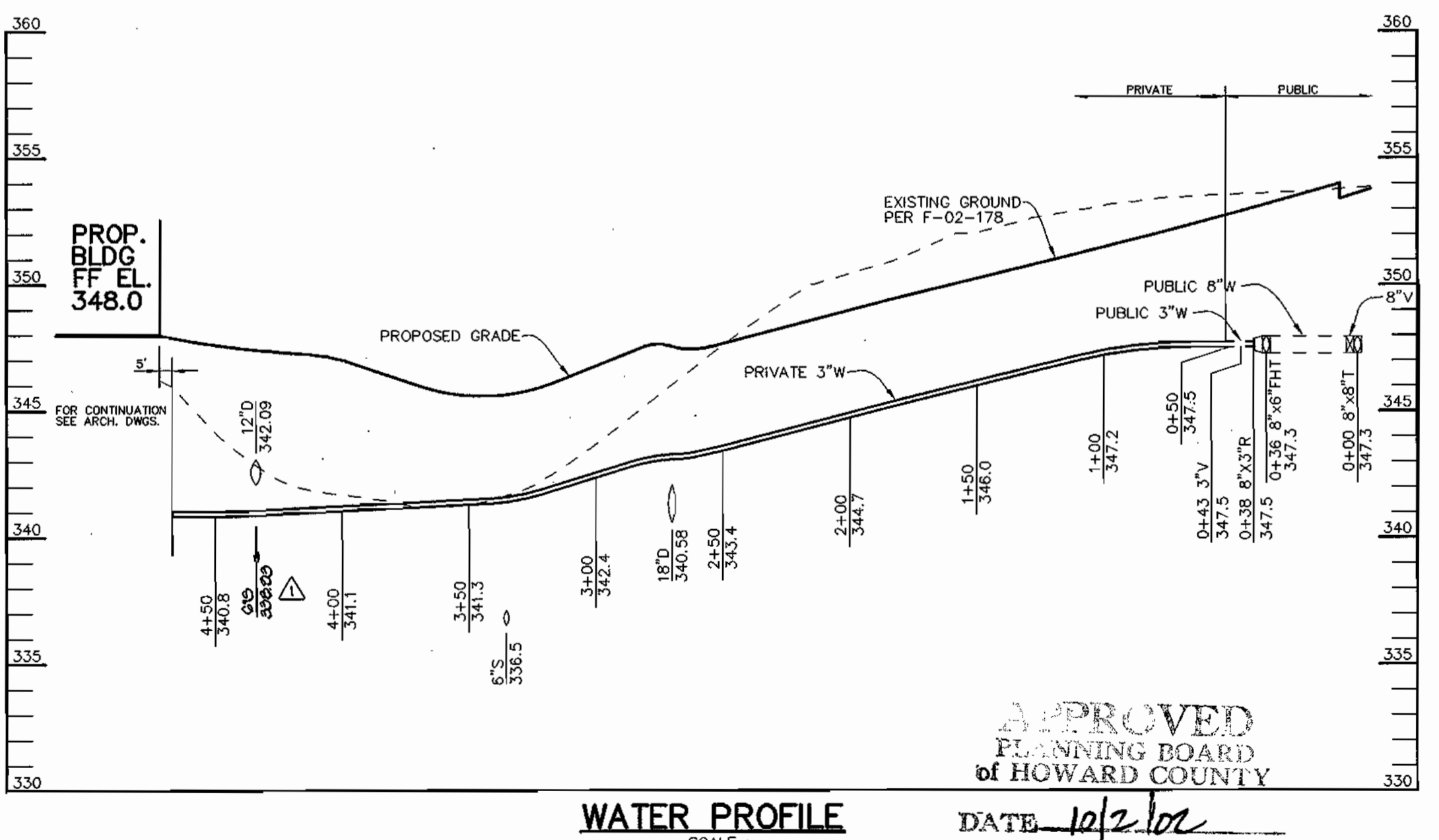
PIPE LENGTH	SIZE	TYPE
102	4"	PERF ADS
176	4"	ADS, N-12
109	6"	ADS, N-12
128	8"	ADS, N-12
114	10"	ADS, N-12
433	12"	ADS, N-12
116	15"	ADS, N-12
107	18"	ADS, N-12

**STRUCTURE SCHEDULE**

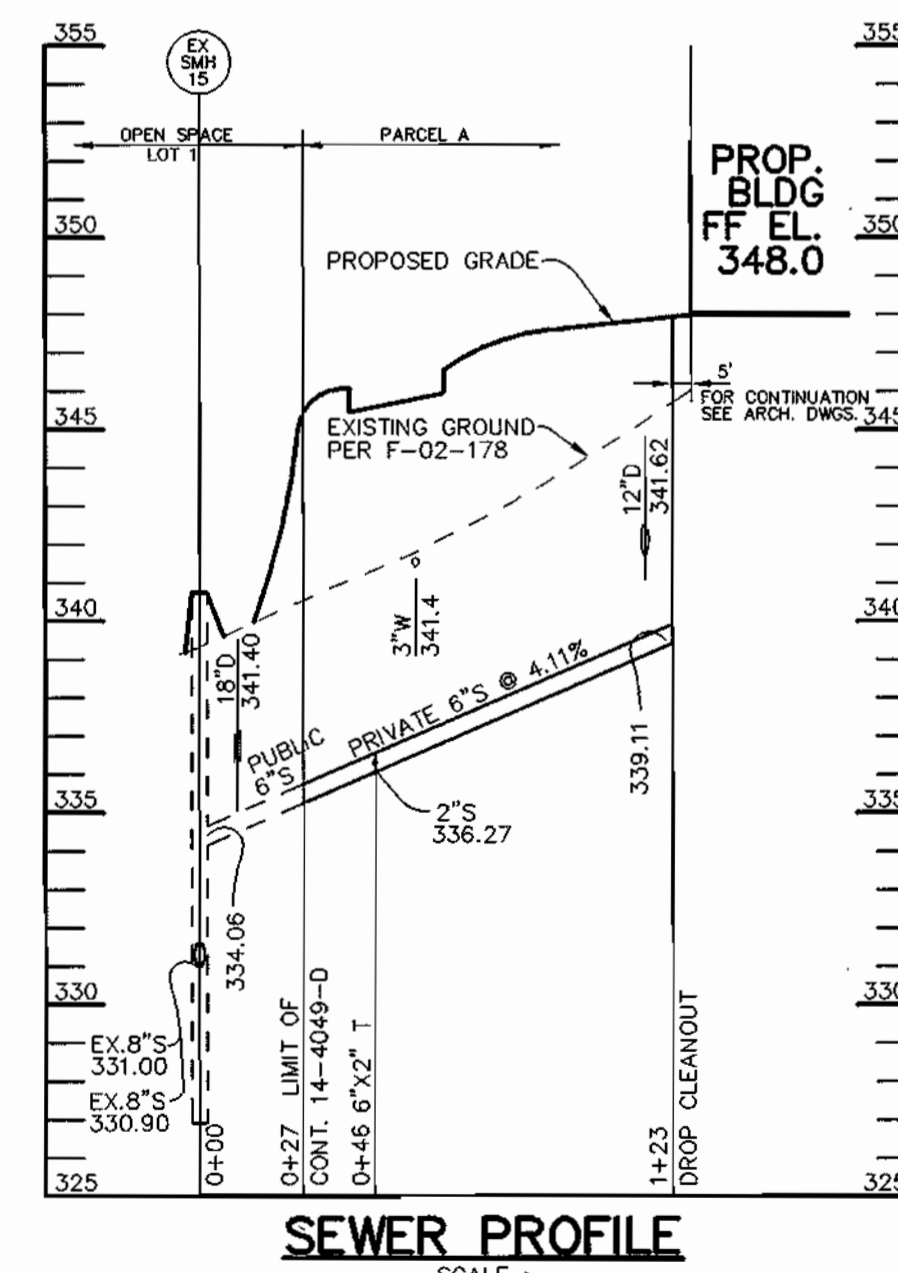
STRUCTURE	TYPE	LOCATION	INV. IN	INV. OUT	TOP	REMARKS
I-1	A-5 2.5" WIDE	N 536261.07 E 1353884.63	337.87 (15')	337.62 (18')	342.40	HOCO STD. DETAIL SD-4.40
I-2	A-5 2.5" WIDE	N 536371.58 E 1353915.80	-	338.45 (15')	341.20	HOCO STD. DETAIL SD-4.40
I-3	A-5 2.5" WIDE	N 536147.57 E 1354021.67	340.49 (18')	340.39 (18')	347.60	HOCO STD. DETAIL SD-4.40
I-4	18" GRATE	N 536227 E 1354039	341.50 (8") 341.50 (12")	341.40 (12')	346.90	ADS 2818 AG
I-5	18" GRATE	N 536389 E 1354093	343.22 (10')	343.05 (12')	347.10	ADS 2815 AG
I-6	12" GRATE	N 536401 E 1354154	343.70 (8')	343.53 (10')	346.10	ADS 2812 AG
I-7	12" GRATE	N 536343 E 1354228	344.34 (6')	344.17 (8')	346.78	ADS 2812 AG
I-8	12" GRATE	N 536246 E 1354067	342.72 (6')	342.62 (8')	347.36	ADS 2812 AG
I-9	18" GRATE	N 536176 E 1354084	342.22 (12')	342.12 (12')	346.81	ADS 2818 AG
M-1	4'-0" DIA.	N 536188 E 1354031	341.20 (12") 341.20 (12")	340.70 (18')	348.50	HOCO STD. DETAIL G-5.11
M-2	4'-0" DIA.	N 536264 E 1353988	341.92 (12')	341.82 (12')	347.10	HOCO STD. DETAIL G-5.11
M-3	4'-0" DIA.	N 536408 E 1354041	342.78 (12')	342.68 (12')	347.40	HOCO STD. DETAIL G-5.11
TD-1	NW 100	N 536182 E 1354135 N 536304 E 1354143	346.76	346.60	347.10	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-7)
TD-2	NW 100	N 536238 E 1354118 N 536246 E 1354097	347.14	346.98	347.48	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-7)
TD-3	NW 100	N 536231 E 1354145 N 536261 E 1354165	347.11	346.92	347.45	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-10)
TD-4	NW 100	N 536267 E 1354181 N 536279 E 1354188	347.11	346.92	347.45	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-9)
TD-5	NW 100	N 536316 E 1354224 N 536292 E 1354215	346.84	346.67	347.18	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-8)
TD-6	NW 100	N 536284 E 1354083 N 536308 E 1354093	347.26	347.08	347.60	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-8)
TD-7	NW 100	N 536328 E 1354090 N 536345 E 1354097	347.41	347.28	347.75	ACO DRAIN - NW 100 CHANNEL (SECTIONS 1-6)



**STORM DRAIN PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'



**WATER PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'



**SEWER PROFILE**  
SCALE: HOR.-1"=50'  
VERT.-1"=5'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.  
 Director: *David L. Wright* DATE: 4/24/03  
 Chief, Development Engineering Division: *Mark* DATE: 4/24/03  
 Chief, Division of Land Development: *Cindy* DATE: 7/24/03

**REV. SEWER PROFILE**

DATE	NO.	REVISION

OWNER/DEVELOPER  
 THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
 THE ROUSE BUILDING  
 10275 LITTLE PATUXENT PARKWAY  
 COLUMBIA, MARYLAND 21044  
 410-992-6000

PROJECT  
**EMERSON**  
 SECTION THREE AREA TWO  
 PARCEL A

AREA TAX MAP 47 BLOCK 8 & 9  
 ZONED: PEC-MXD-3 PARCEL: 462  
 6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND

TITLE  
**PROFILES**

Patton Harris Rust & Associates, p.c.  
 Engineers, Surveyors, Planners, Landscape Architects.  
**PHRA**  
 8818 Centre Park Drive  
 Columbia, MD 21045  
 T 410.997.8900  
 F 410.997.8282

3.10.03 DATE  
 DESIGNED BY: C.J.R.  
 DRAWN BY: DAM  
 CHECKED BY: C.J.R.  
 PROJECT NO. 2245/FINALS  
 SDPPROF1.DWG  
 DATE: MARCH 25, 2003  
 SCALE: AS SHOWN  
 DRAWING NO. 6 OF 7

CHRISTOPHER J. REID #1949

NOTES:  
 1. LOCATION OF INLETS AND MANHOLES IS AT CENTER OF TOP COVER; FOR "A" INLETS LOCATION IS GIVEN FOR CENTER OF THROAT OPENING AT FACE OF CURB;  
 2. LOCATION OF TRENCH DRAINS IS AT BOTH ENDS