

# VILLAGE OF KINGS CONTRIVANCE

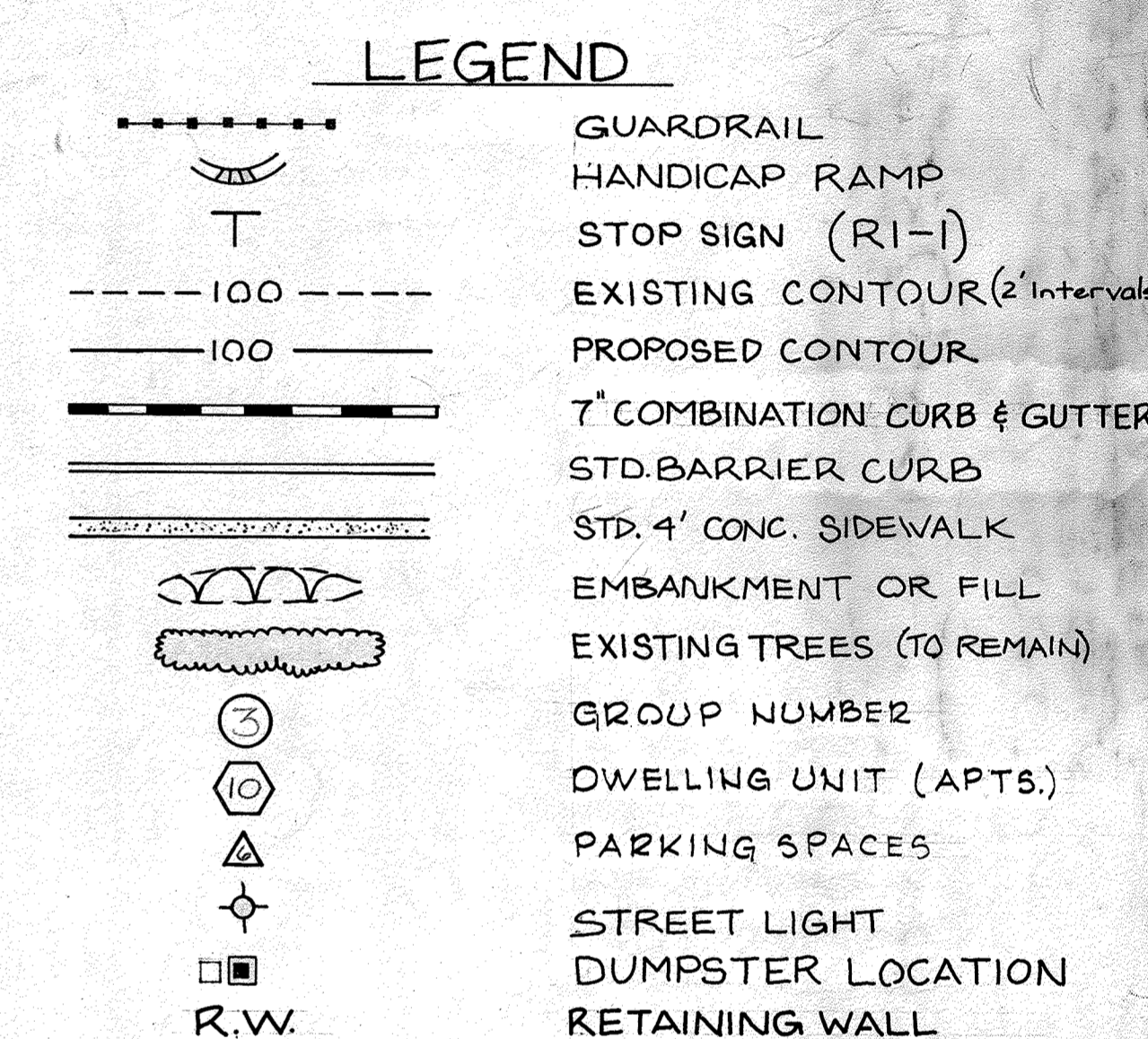
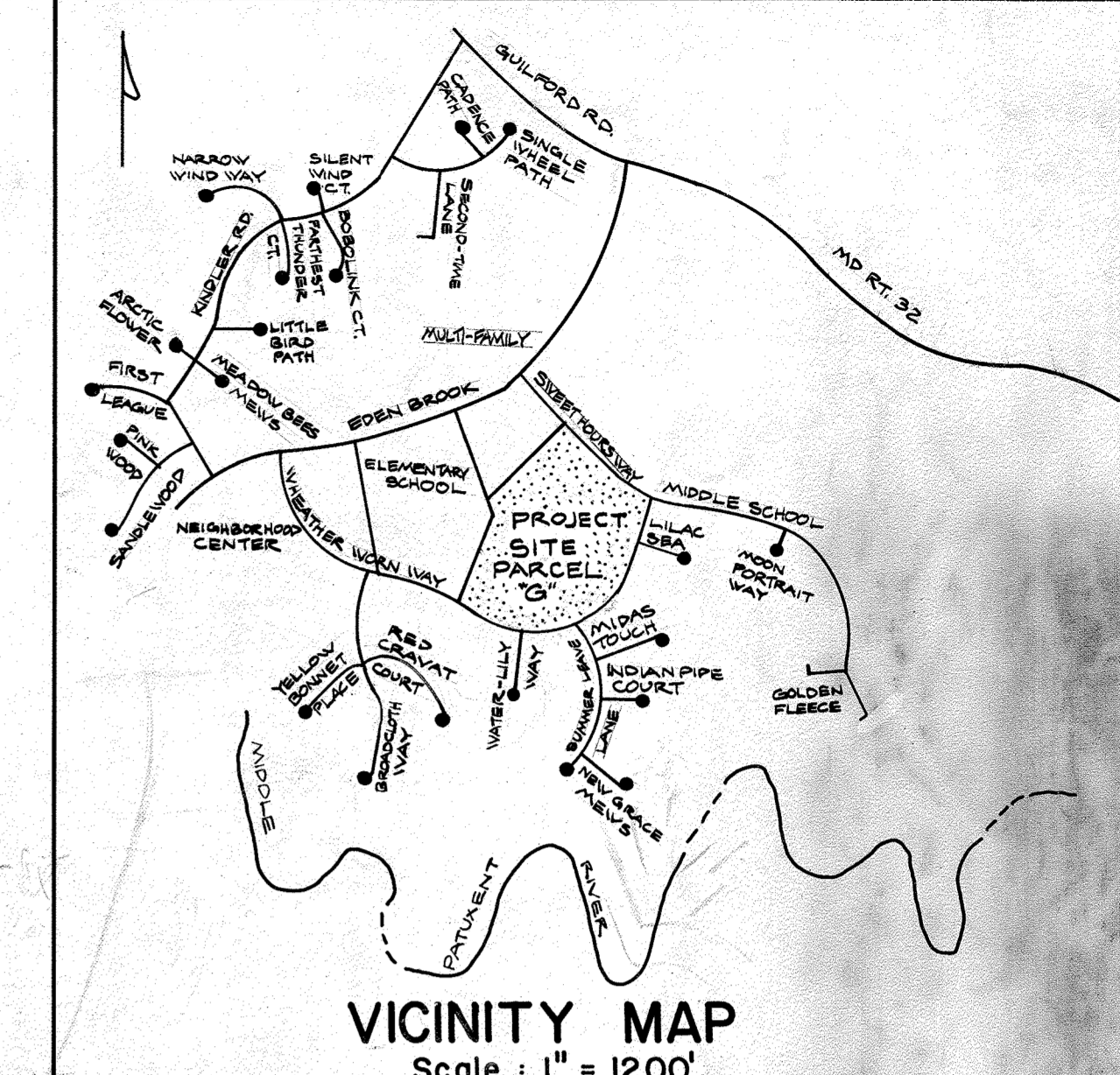
## SECTION 2 AREA 3

### PARCEL "G"

## SITE DEVELOPMENT PLANS

# THE PINES AT DICKINSON

## 6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND



DATA

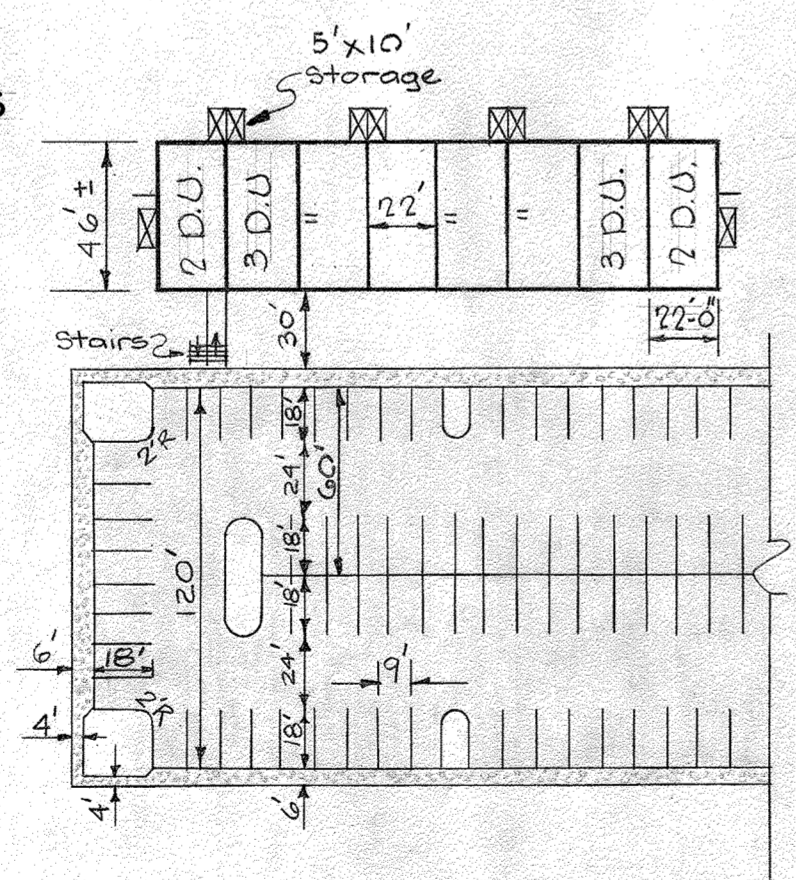
ZONING (EXISTING)	NEW TOWN (MULTIFAMILY)*
AREA OF PARCEL "G"	16.9199 ACRES (16 D.U./Ac. x 16 Ac. = 256)
PROPOSED DWELLING UNITS	256 (SEE F.D.P. SECT. 7B-1)
PARKING SPACES REQUIRED	384 (1.50 SPACES/D.U.)
PARKING SPACES PROPOSED	503 (1.96 SPACES/D.U.)

\* BUILDING TYPES

BLDG. TYPE "A"	- Ground Floor - 2 BR APT. - 1081 S.F.
	1st & 2nd Floor - 2 BR APT. - 1162 S.F.
BLDG. TYPE "B"	- Ground Floor - 2 BR APT. - 962 S.F.
	1st Floor - 1 BR APT. - 754 S.F.
	2nd & 3rd Floor - 2 BR APT. - 1175 S.F.
BLDG. TYPE "C"	- Ground Floor - 2 BR APT. - 935 S.F.
	1st Floor - 1 BR APT. - 621 S.F.
	2nd & 3rd Floor - 2 BR APT. - 1097 S.F.

\* Building types "B" and "C" are interchangeable in each group as per sales.

\* CONDOMINIUM APARTMENTS  
FINAL DEVELOPMENT PLAN - PHASE 178, PART 3  
ADT = 7.5 TRIPS/D.U.  
BUILDING COVERAGE = 2.30 Ac.  
PARCEL "G" RECORDED AS PLAT Nos. 5265 & 5066 DATED 12/11/81



TYPICAL PARKING SPACE  
NO SCALE

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	SITE PLAN
3	ROAD PROFILE AND DETAILS
4	STORM DRAIN PROFILES
5	SEDIMENT CONTROL
6	SEDIMENT CONTROL DETAILS
7	DRAINAGE AREA MAP
8	DETAILS
9	WATER AND SEWER EXTENSIONS - PLAN
10	WATER AND SEWER EXTENSIONS - PROFILES
11	WATER AND SEWER EXTENSIONS - DETAILS
12	LANDSCAPE PLAN
13	LANDSCAPE PLAN

PINES AT DICKINSON  
CONDOMINIUMS OWNER  
DEVELOPER-COUNCIL OF  
UNIT OWNERS OF THE  
PINES AT DICKINSON, INC.  
c/o NAGLE & ZALLER, P.C.  
JOHN TSIKERDANOS  
7226 LEE DEFORREST DRIVE  
SUITE 102  
COLUMBIA, MD. 21046  
PH. 410-740-8100 EXT. 129

- GENERAL NOTES
- All work shall be performed in accordance with the Howard County Road Construction Code and Standard Specifications.
  - All utility companies shall be notified 24 hours in advance of construction.
  - All inlets shall be Howard County standards unless otherwise shown.
  - Streets are designed for traffic speed of 30 m.p.h. in accordance with AASHTO standards.
  - Storm drain trenches within roads rights of way shall be back-filled and compacted in accordance with Howard County Road Code.
  - Poly-filter x (filter cloth blanket) or equal shall be placed under all stone rip-rap.
  - All reinforced concrete for storm drain structures shall have a minimum 28 days strength of 3500 p.s.i.
  - All disturbed areas to be stabilized as soon as grading is completed.
  - Rip-rap at outfalls shall be unpaved unless otherwise noted.
  - All islands to have a 5' radius unless otherwise noted.
  - Approximate location of existing utilities are shown. The contractor shall take all necessary precautions to protect the existing utilities and to maintain uninterrupted service. Any damage due to contractor's operations shall be repaired immediately at the contractor's expense.
  - The contractor or developer shall contact the Construction Inspection/Survey Division, 24-hours in advance of commencement of work at 992-2417 or 992-2418.

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE **11-18-81**

NO	DATE	REVISION
1	11/18/81	AS PER HOWARD COUNTY COMMENTS
2	12-10-2021	REDLINE REVISION FOR CULVERT

SHEET 1 OF 17

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
*John W. Ford* 9-16-81  
COUNTY HEALTH OFFICER DATE

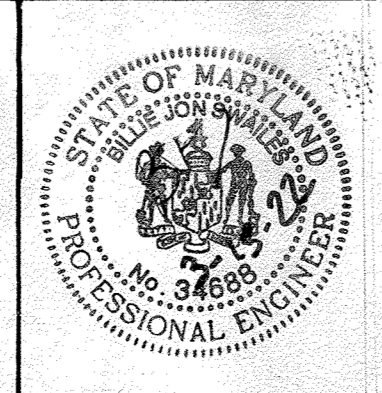
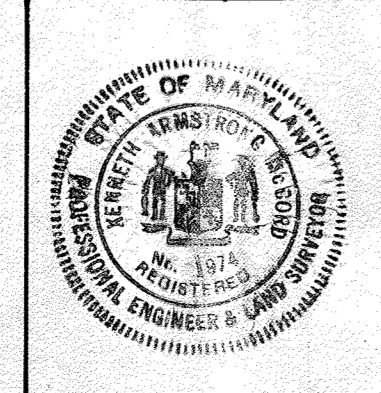
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
*Thomas J. Hamill* 9-20-81  
PLANNING DIRECTOR DATE

CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
DATE 9-20-81

APPROVED FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Kimberly Nunn* 9-15-81  
DIRECTOR DATE

*Robert S. Reber* 9-18-81  
CHIEF, BUREAU OF ENGINEERING DATE

WHITMAN, REQUARDT AND ASSOCIATES  
ENGINEERS  
2315 SAINT PAUL STREET  
BALTIMORE, MARYLAND 21218  
*Kenneth A. McCord*  
KENNETH A. MCCORD P.E. NO. 1974



I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688, EXPIRATION DATE 7-9-23 IFOR REDLINE REVISION FOR CULVERT

CERTIFICATION BY THE DEVELOPER  
"I certify that all development and/or construction will be done according to this plan of development and plan of Erosion and Sediment Control, and I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."  
*Richard W. Goodman* 10/8/81  
Signature of Developer Date

CERTIFICATION 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."  
*Kenneth A. McCord* 10/8/81  
Signature of Engineer Date

AOKY/I.M.G. COLUMBIA, INC.  
OWNER AND DEVELOPER  
SUITE 2454  
THE WORLD TRADE BUILDING  
BALTIMORE, MARYLAND 21202

RESPONSIBLE PERSONNEL CERTIFICATION  
"I hereby certify that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project."  
*Richard W. Goodman* 10/9/81  
Signature of Developer Date



CURVE DATA						
NO.	RADIUS	Δ	ARC	TAN	CHD.	CHD. BRG.
1	225.00'	34°39'20"	136.09'	70.20'	134.03'	N17°19'40"E
2	500.00'	23°54'22"	208.62'	105.85'	207.11'	S11°57'11"W
3	250.00'	53°50'03"	234.40'	126.83'	226.35'	S03°00'40"E
4	300.00'	21°24'22"	112.08'	56.70'	111.43'	S76°47'49"E
5	463.00'	14°20'13"	117.20'	58.92'	116.89'	N16°39'16"E
6	287.00'	17°57'39"	89.97'	45.36'	83.60'	N14°55'33"E

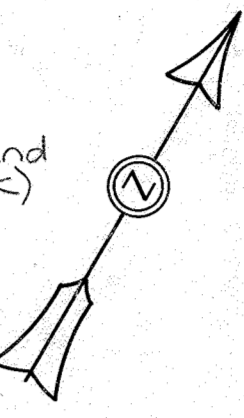
LOT 293  
OPEN SPACE  
ELEMENTARY SCHOOL SITE  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 2, AREA 3

NOTE: I-8 to have throat opening  
on just one side. Elev. 310.00

#4953  
8/3/81

LIMIT OF PAVING  
STA. 0+18.00  
(Remove existing 7"  
combination curb and  
gutter and sidewalk)

Handicap Ramp  
See Detail Sheet  
3 of 13



HOWARD RESEARCH AND  
DEVELOPMENT CORPORATION  
406/506

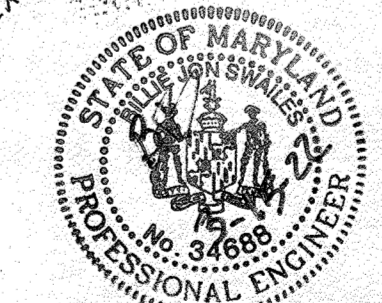
NOTE: Remove existing  
and section and construct  
standard type "K" Inlet  
Grate with throat opening  
on all 4 sides.  
Elevation 292.00

LIMIT OF PAVING  
STA. 0+14.50  
(Remove existing 7"  
combination curb and  
gutter and sidewalk)

#4954  
8/3/81

LIMIT OF PAVING  
STA. 0+18.00  
(Remove existing 7"  
combination curb and  
gutter and sidewalk)

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 11-18-81



HEREBY CERTIFY THAT  
THESE DOCUMENTS WERE  
PREPARED OR APPROVED BY  
ME AND THAT I AM A DULY  
LICENSED PROFESSIONAL  
ENGINEER UNDER THE  
LAWS OF THE STATE OF  
MARYLAND, LICENSE NO.  
34668, EXPIRATION  
DATE 7-9-23 (FOR  
REDLINE REVISION FOR  
CULVERT)

NO.	DATE	DESCRIPTION OF REVISION
1	12-10-81	REDLINE REVISION FOR CULVERT
2	9-26-82	RELOCATE DUMPSTER PAD
3	12/10/81	BUILDINGS TO BE ELEVATION RAISED 1 FOOT

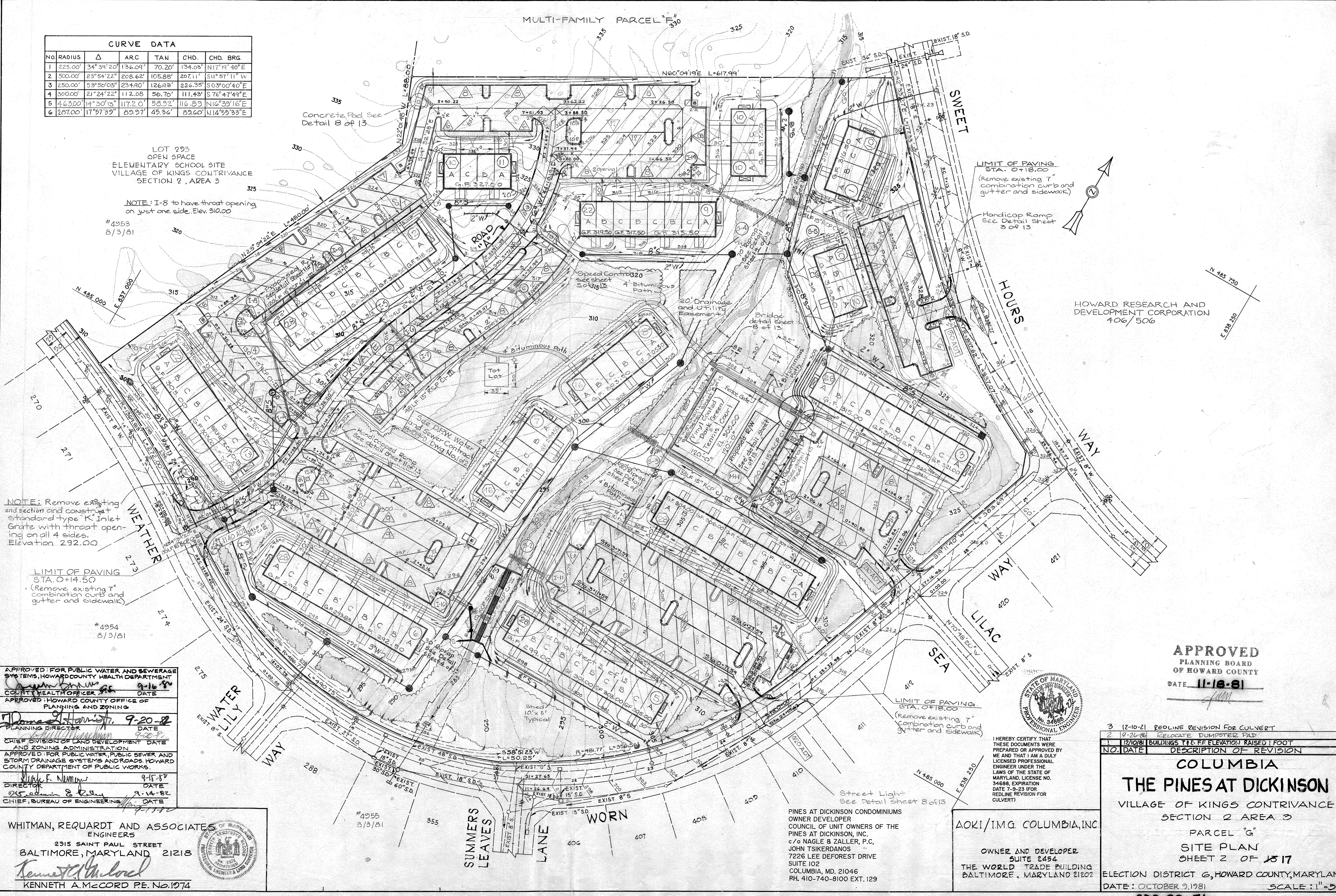
**COLUMBIA**  
**THE PINES AT DICKINSON**  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 2 AREA 3  
PARCEL "G"  
SITE PLAN  
SHEET 2 OF 1817  
ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
DATE: OCTOBER 9, 1981 SCALE: 1"=50'

APPROVED FOR PUBLIC WATER AND SEWERAGE  
SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
*James E. Brown* 9-16-80  
COUNTY HEALTH OFFICER DATE  
APPROVED: HOWARD COUNTY OFFICE OF  
PLANNING AND ZONING  
*James E. Harris* 9-20-80  
PLANNING DIRECTOR DATE  
CHIEF DIVISION OF LAND DEVELOPMENT DATE  
AND ZONING ADMINISTRATION  
APPROVED FOR PUBLIC WATER, PUBLIC SEWER AND  
STORM DRAINAGE SYSTEMS AND ROADS, HOWARD  
COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Mark F. Nunn* 9-15-80  
DIRECTOR DATE  
*James E. Brown* 9-14-82  
CHIEF, BUREAU OF ENGINEERING DATE

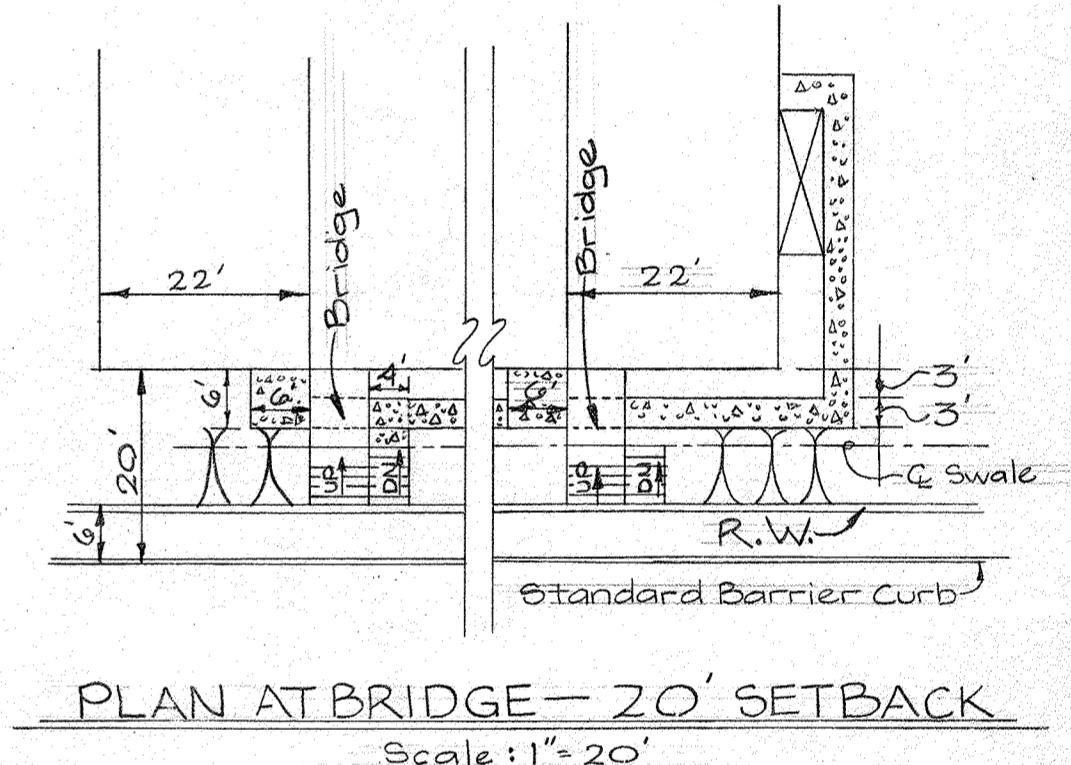
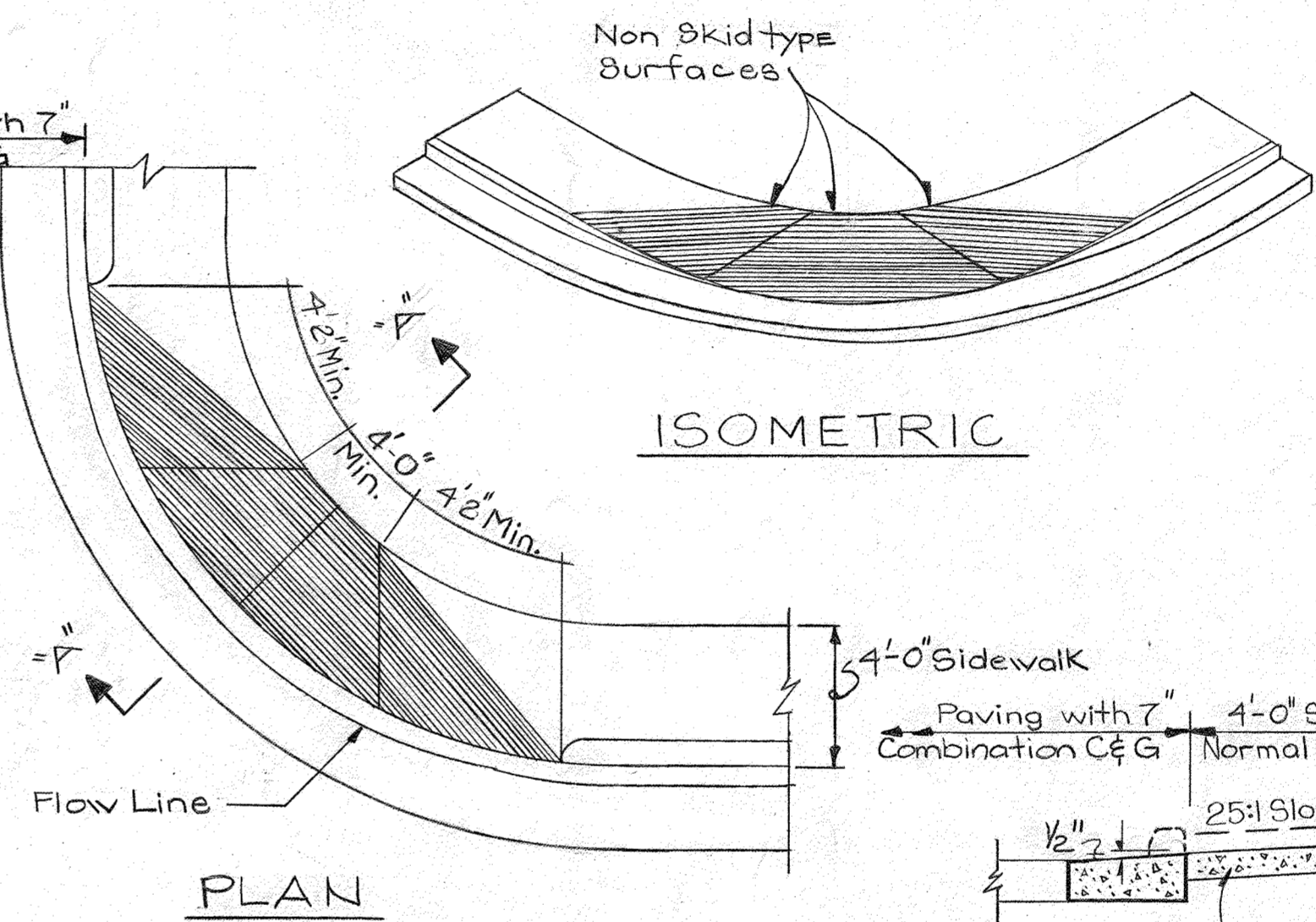
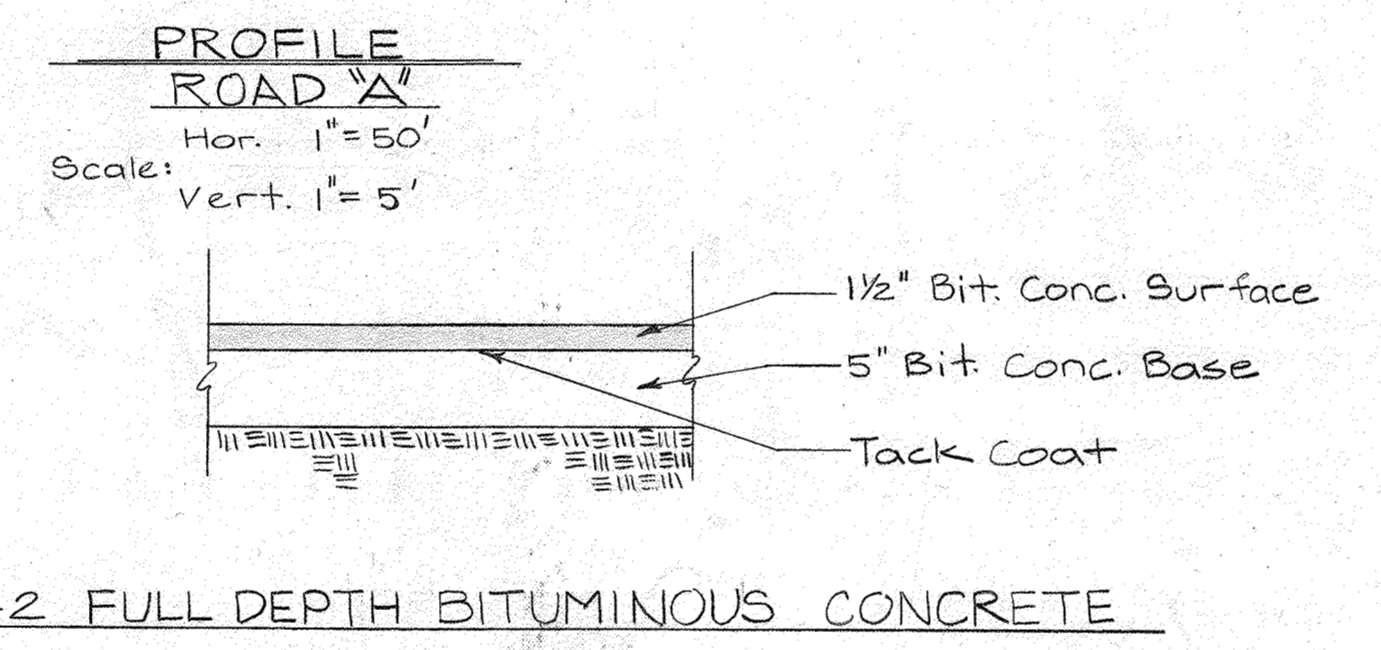
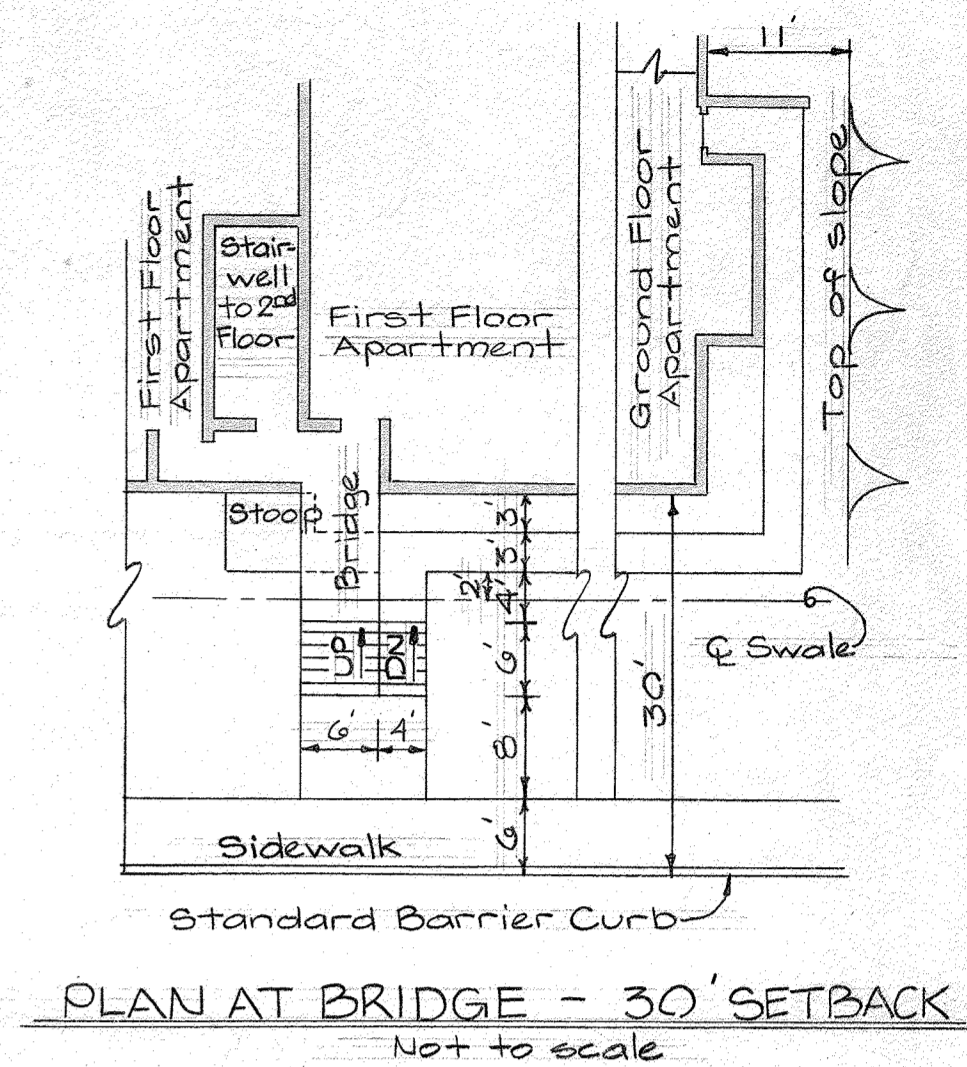
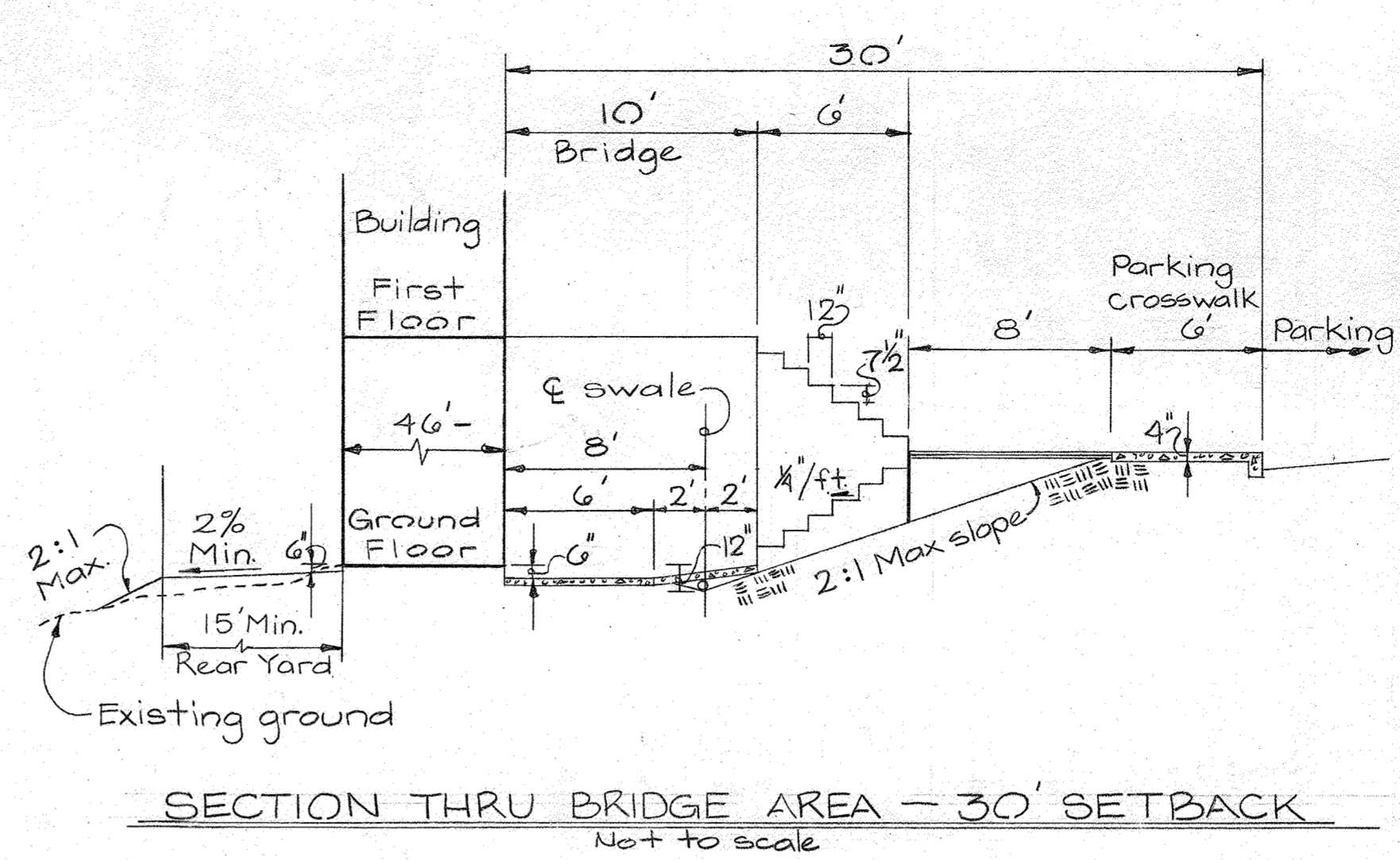
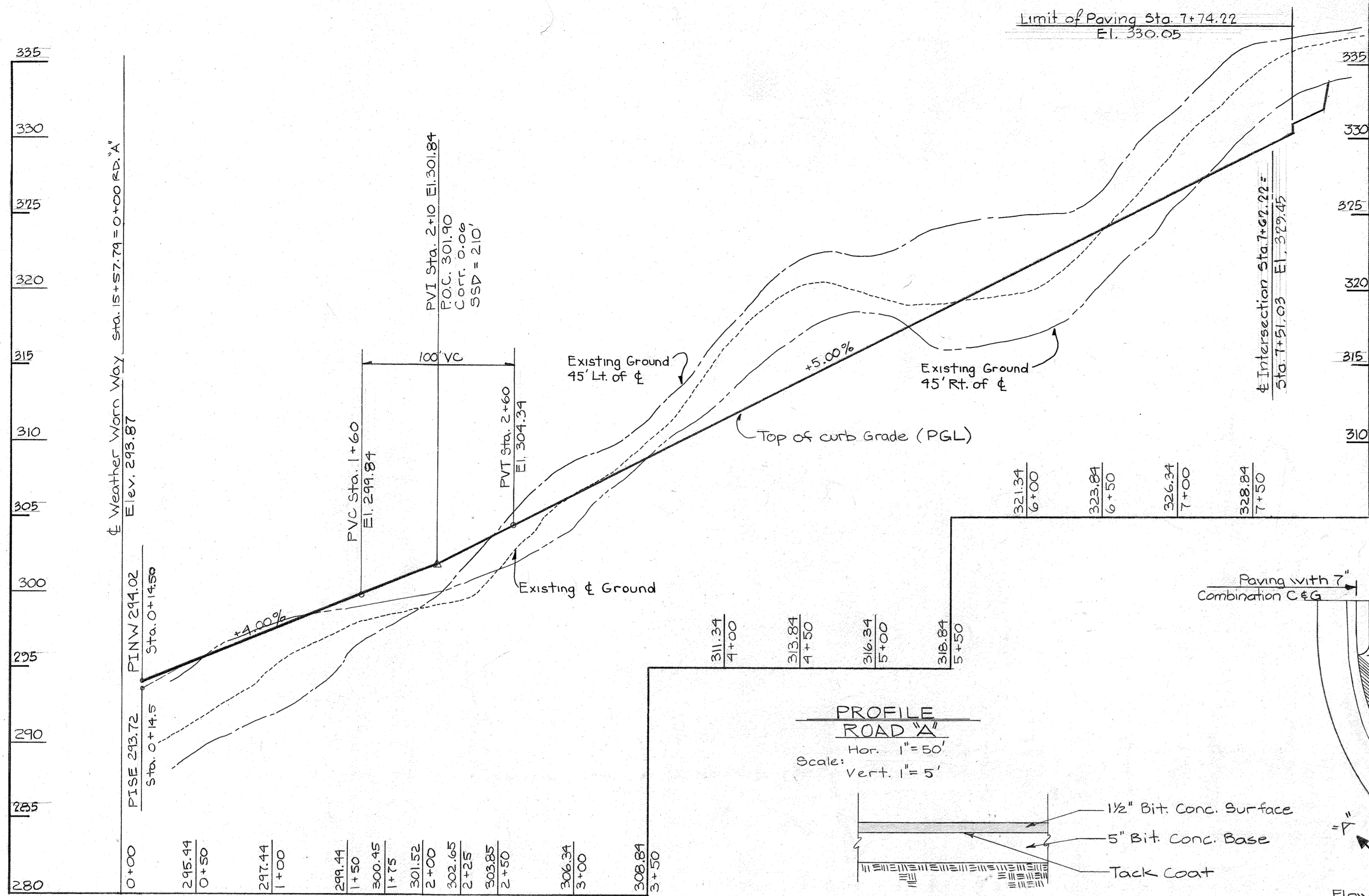
WHITMAN, REQUARDT AND ASSOCIATES  
ENGINEERS  
2915 SAINT PAUL STREET  
BALTIMORE, MARYLAND 21218  
*Kenneth A. McCord*  
KENNETH A. MCCORD P.E. No. 1074

PINES AT DICKINSON CONDOMINIUMS  
OWNER DEVELOPER  
COUNCIL OF UNIT OWNERS OF THE  
PINES AT DICKINSON, INC.  
c/o NAGLE & ZALLER, P.C.  
JOHN TSIKERDANOS  
7226 LEE DEFOREST DRIVE  
SUITE 102  
COLUMBIA, MD. 21046  
RH. 410-740-8100 EXT. 129

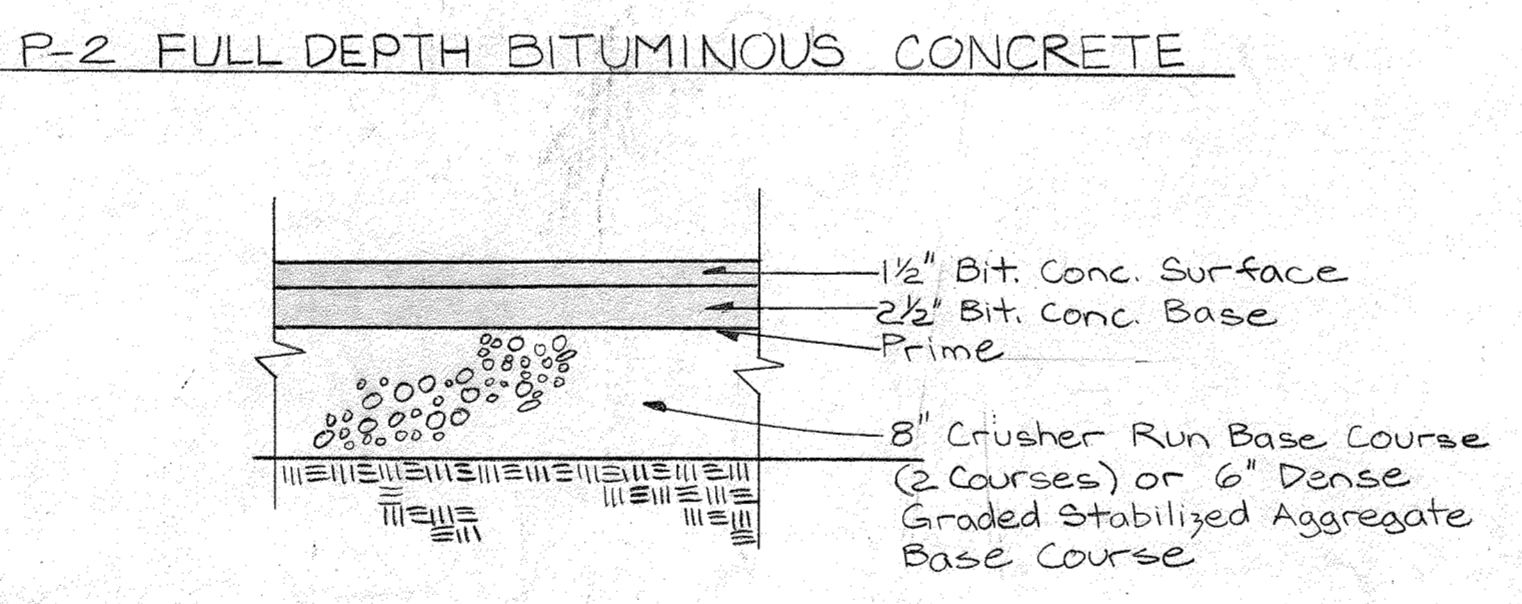
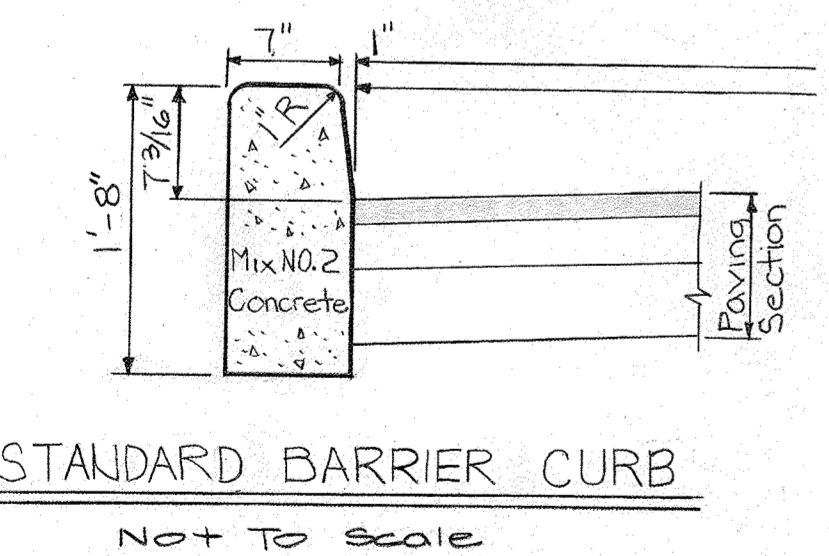
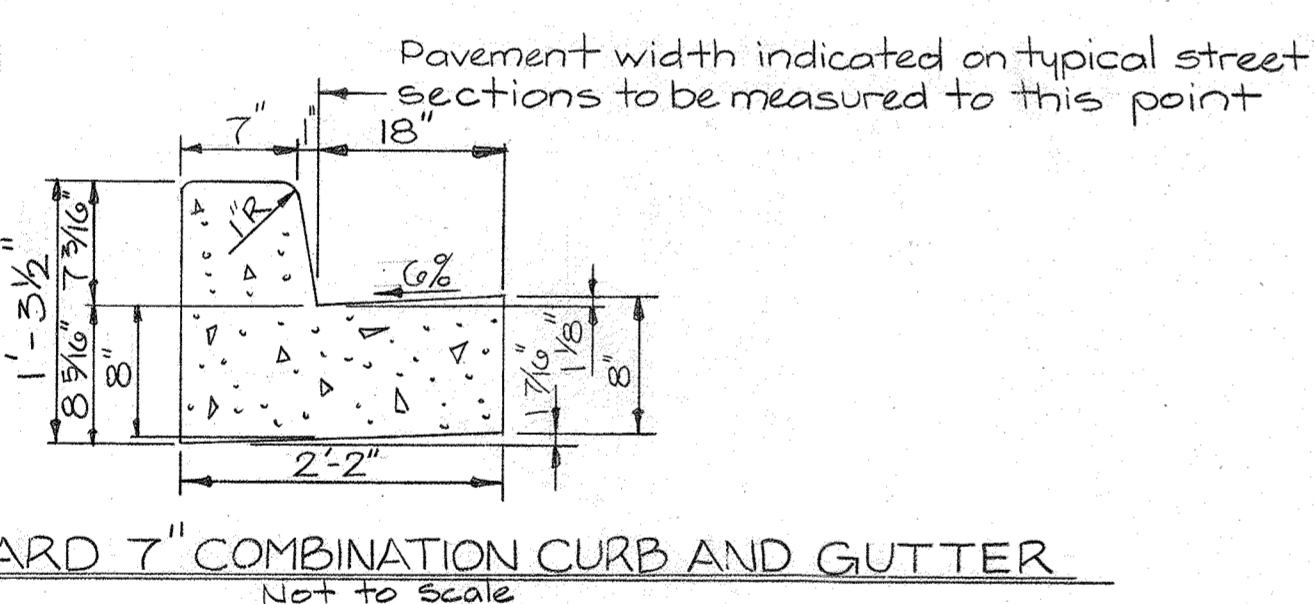
AOKI/IMG, COLUMBIA, INC.  
OWNER AND DEVELOPER  
SUITE 2454  
THE WORLD TRADE BUILDING  
BALTIMORE, MARYLAND 21202



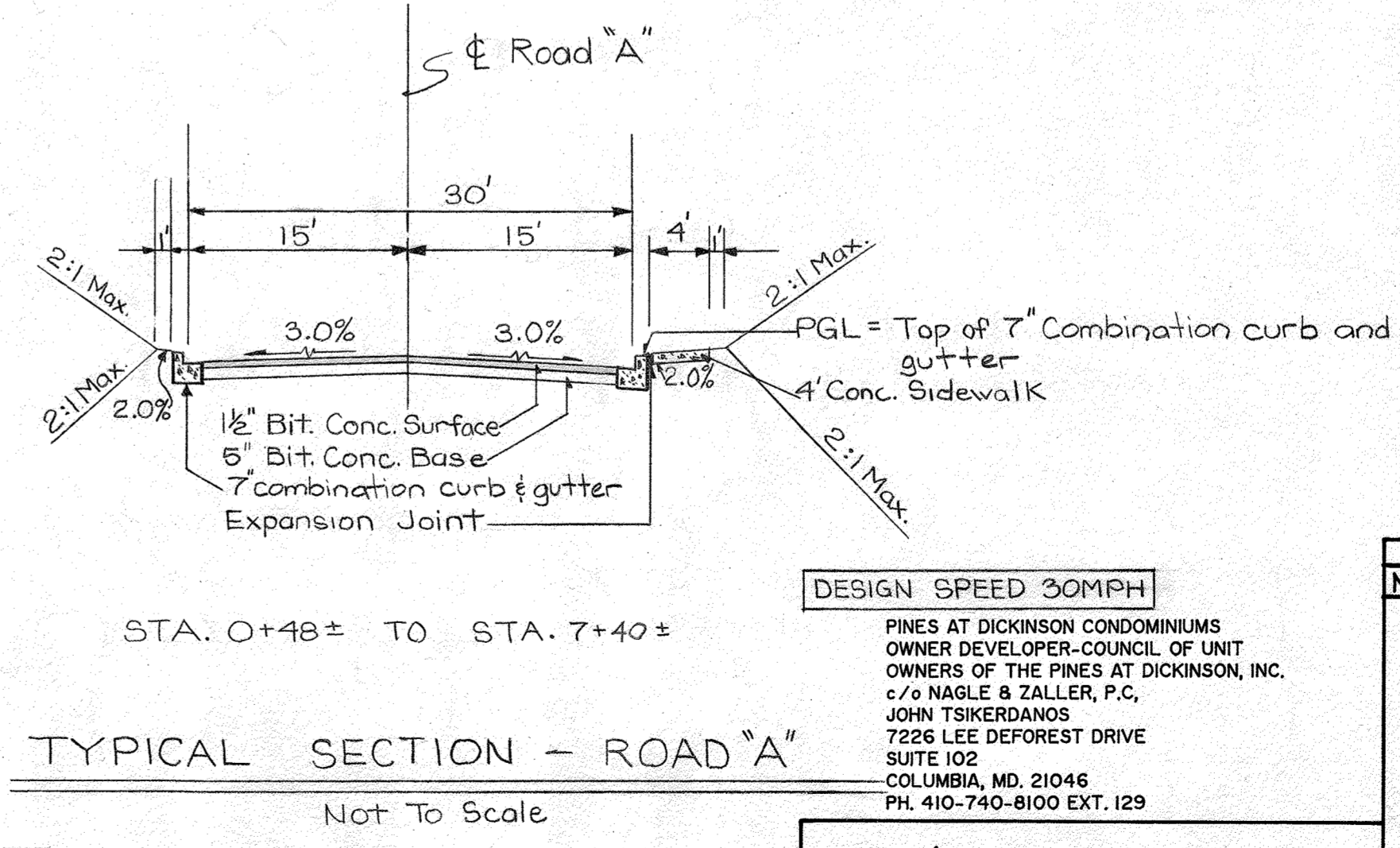
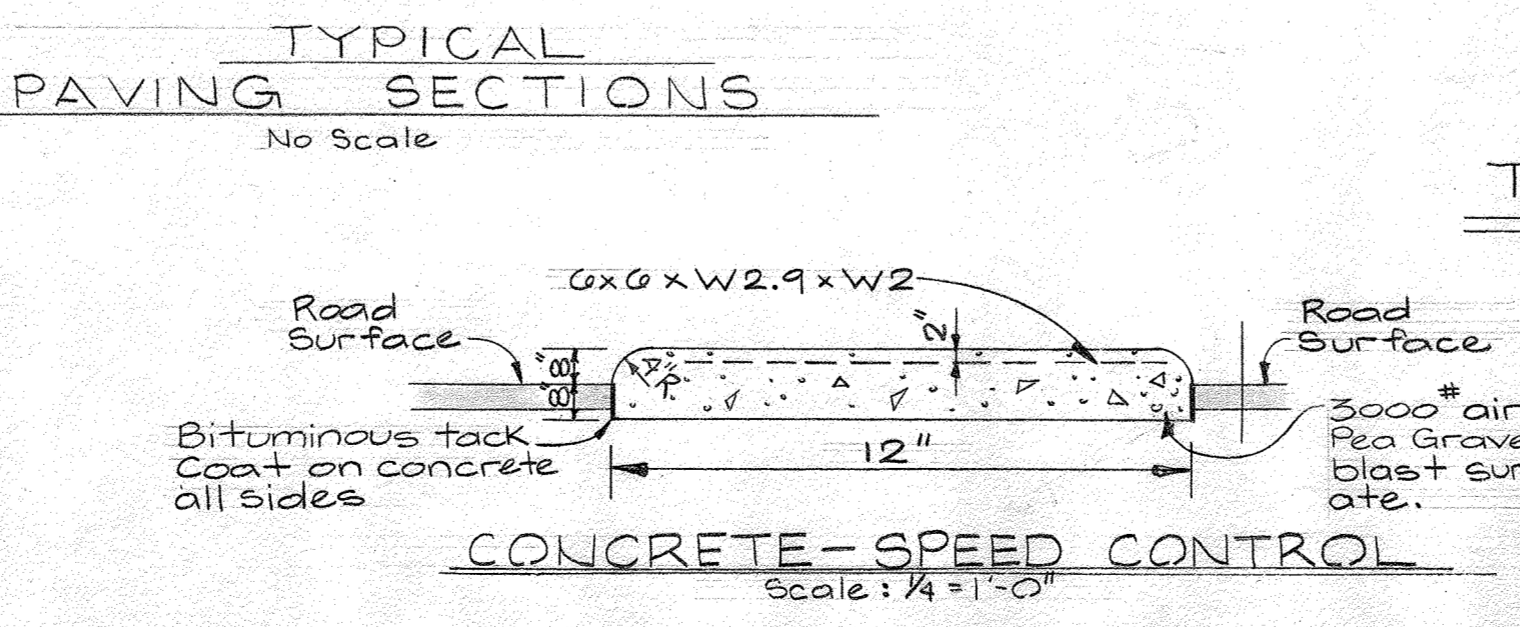




NOTE: See Howard County Standard detail (R12.02) for Pipe Railing to be used along top of R.W.



- P-2 GRANULAR BASE ALTERNATES
- NOTES:
1. Base will be primed in accordance with Article 33.03 as provided in the MD. S.R.C. Specifications.
  2. A Tack Coat will be applied in accordance with section 33.07-3 as provided in the MD. S.R.C. specifications.
  3. Standard Barrier Curb and 7" Combination Curb and Gutter shall be in accordance with County Standard R-3.01 & R-3.03
  4. Paving (6 1/2") shall be in accordance with County Standard R-2.01
  5. Sidewalks shall be in accordance with County Standard R-3.05



DESIGN SPEED 30MPH  
 PINES AT DICKINSON CONDOMINIUMS  
 OWNER DEVELOPER-COUNCIL OF UNIT OWNERS OF THE PINES AT DICKINSON, INC.  
 c/o NAGLE B. ZALLER, P.C.  
 JOHN TSIKERDANOS  
 7226 LEE DEFOREST DRIVE  
 SUITE 102  
 COLUMBIA, MD. 21046  
 PH. 410-740-8100 EXT. 129

AOKI/I.M.G. COLUMBIA, INC.  
 OWNER AND DEVELOPER  
 SUITE 2454  
 THE WORLD TRADE BUILDING  
 BALTIMORE, MARYLAND 21202

APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 11-18-81

12-10-21 REDLINE REVISION FOR CULVERT

NO.	DATE	DESCRIPTION OF REVISION

**COLUMBIA**  
 VILLAGE OF KINGS CONTRIVANCE  
 SECTION 2 AREA 3  
 PARCEL "G"  
**ROAD PROFILE AND DETAILS**  
 SHEET 3 OF 17

ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
 DATE: OCTOBER 9, 1981  
 SCALE: As shown

WHITMAN, REQUARDT AND ASSOCIATES  
 ENGINEERS  
 2315 SAINT PAUL STREET  
 BALTIMORE, MARYLAND 21218  
 KENNETH A. McCORD P.E. No. 1974

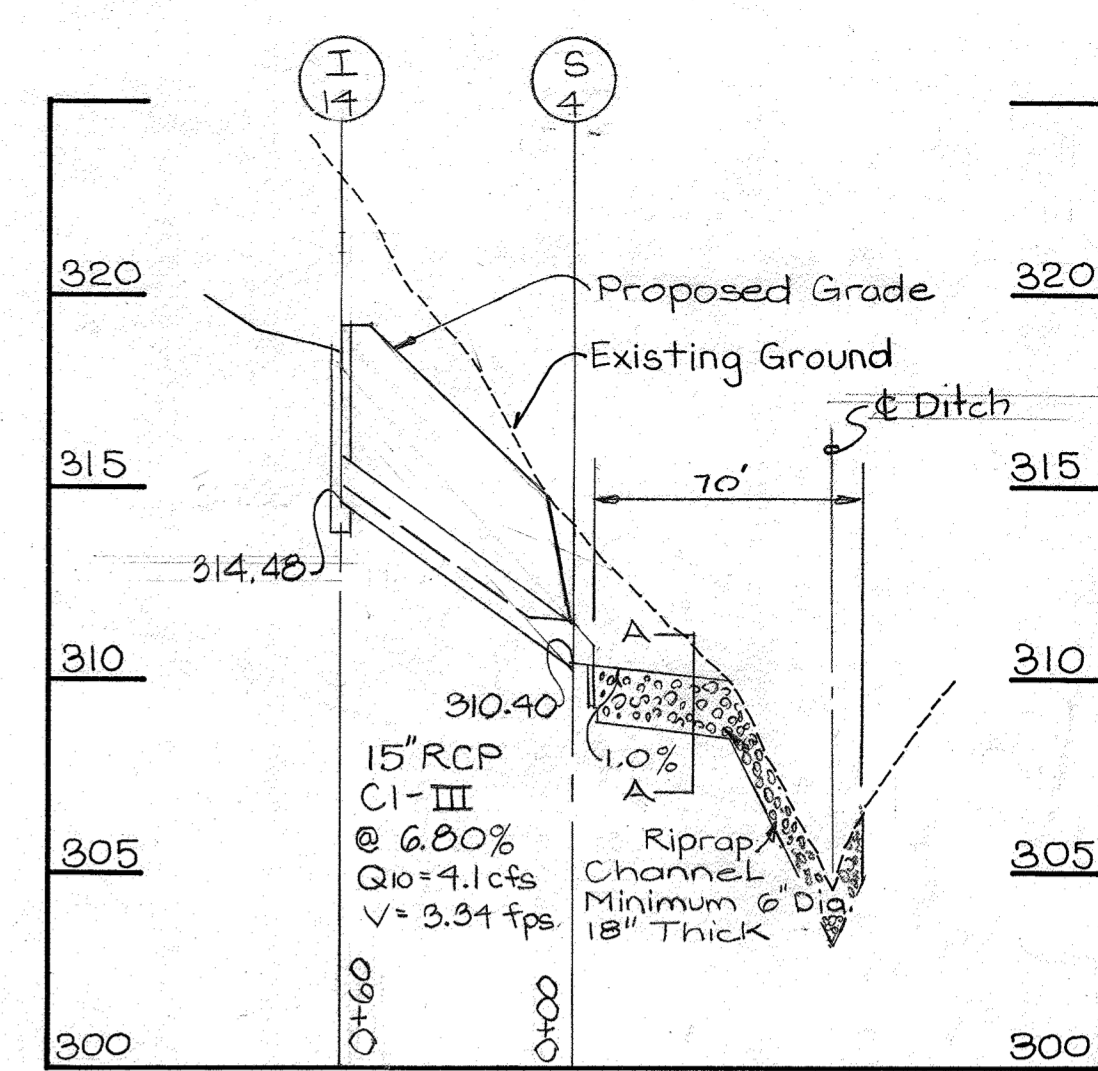
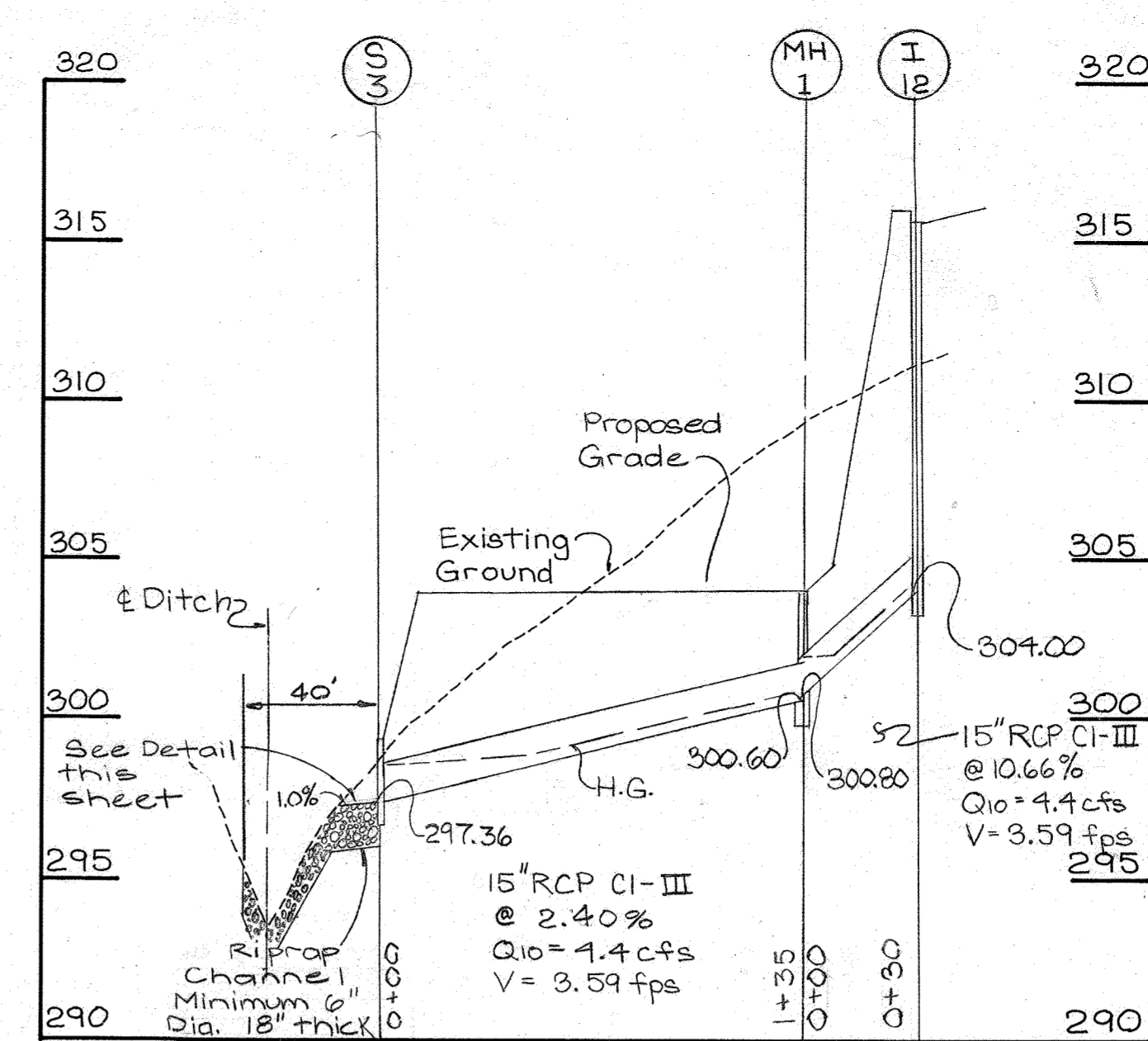
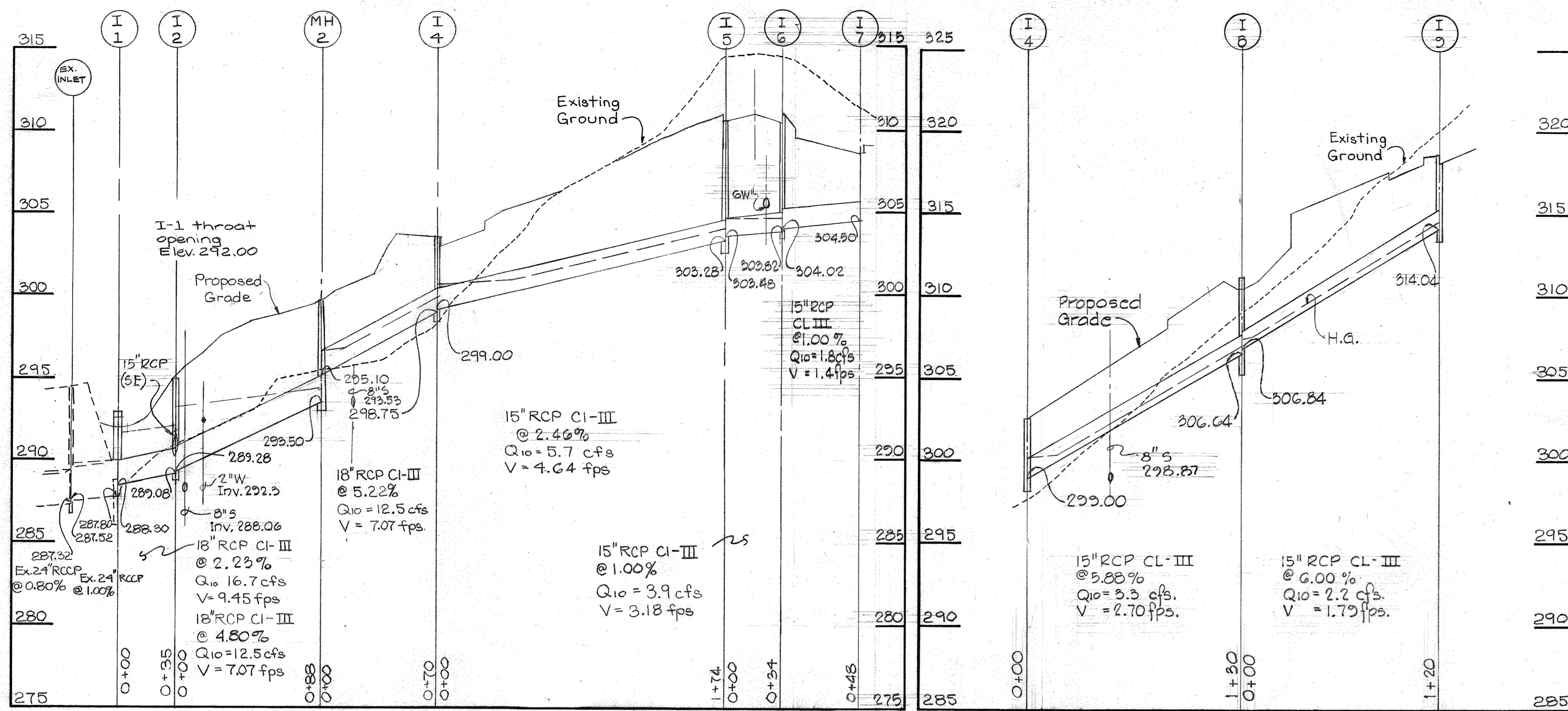
APPROVED: FOR PUBLIC WATER AND PUBLIC BEVERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
 COUNTY HEALTH OFFICER: *[Signature]* DATE: 9-16-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 PLANNING DIRECTOR: *[Signature]* DATE: 9-20-82

APPROVED: FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 DIRECTOR: *[Signature]* DATE: 9-15-82

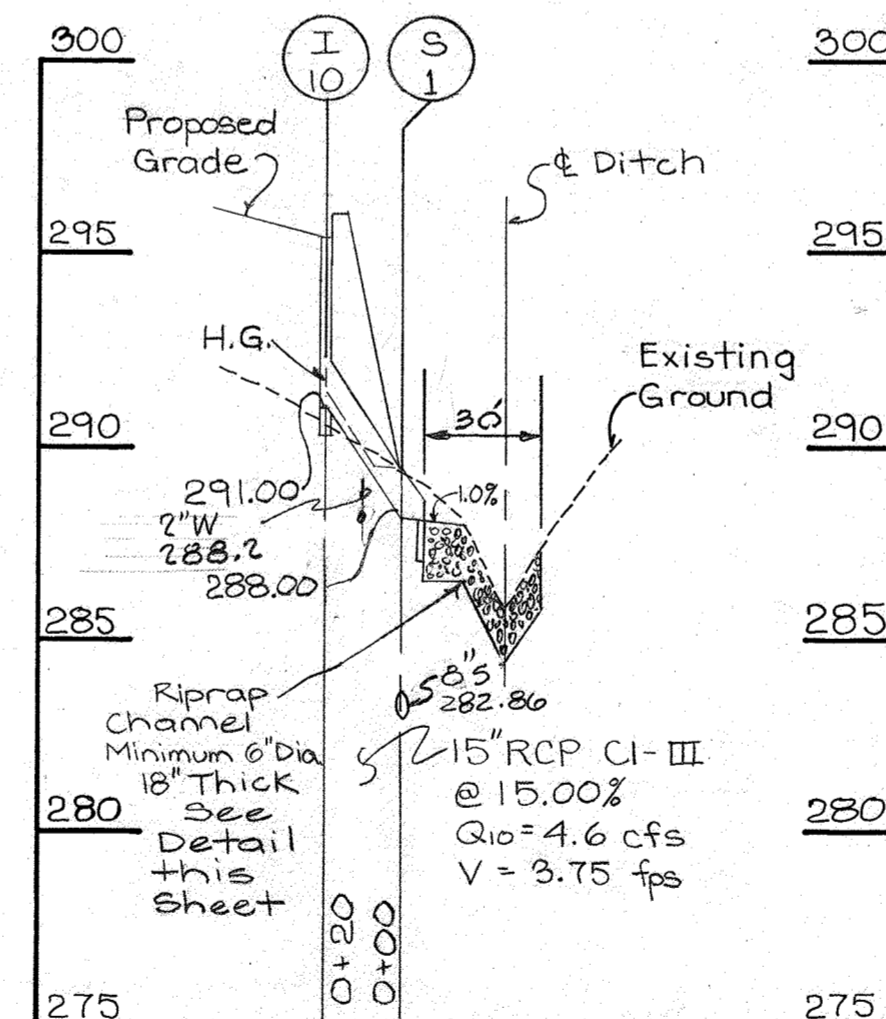
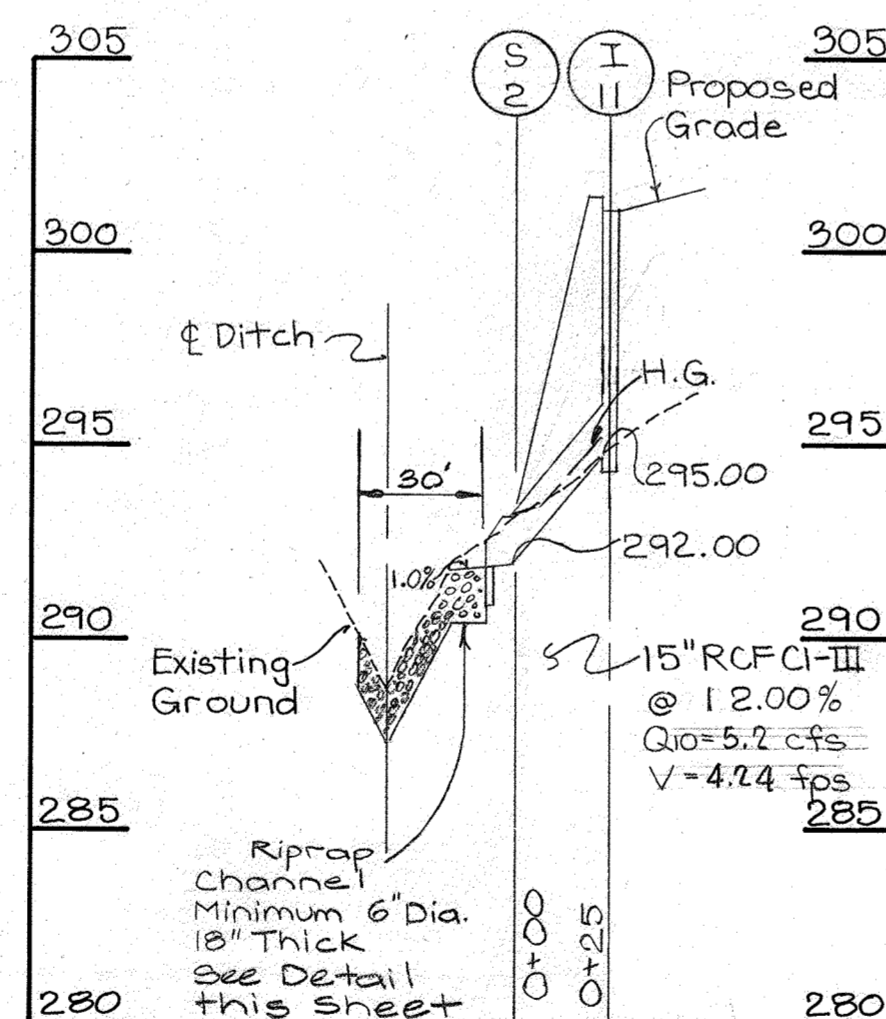
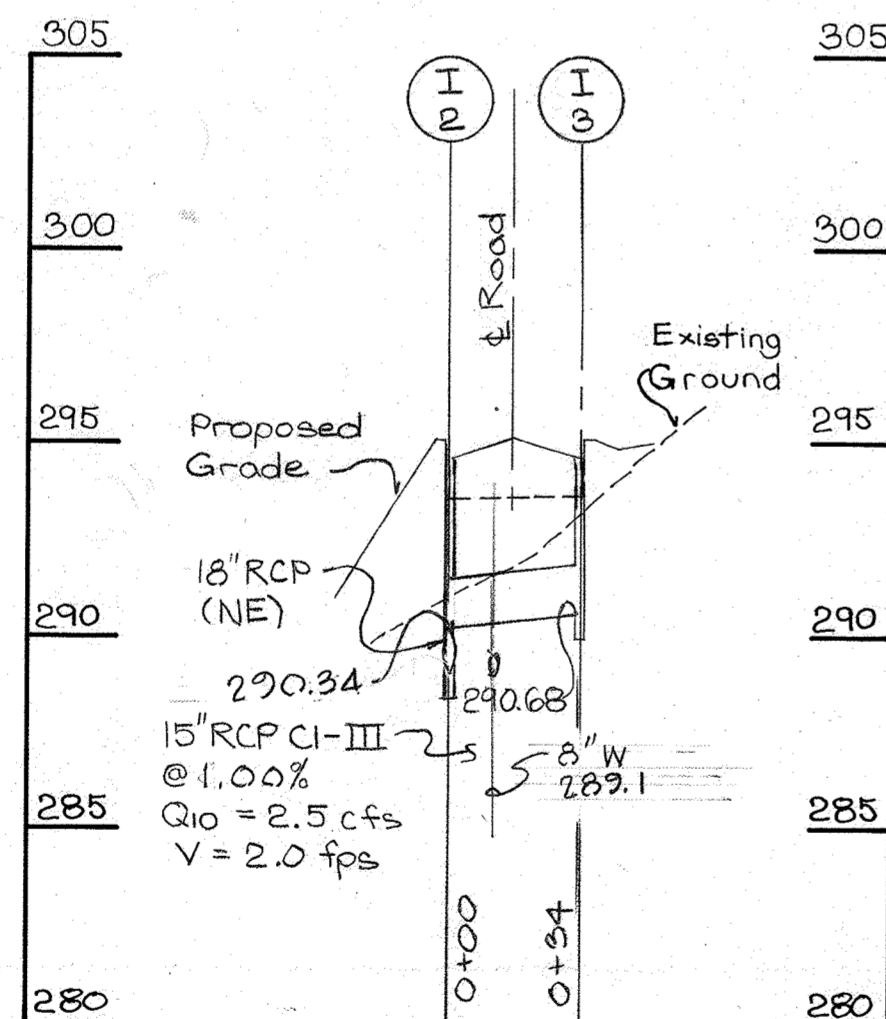
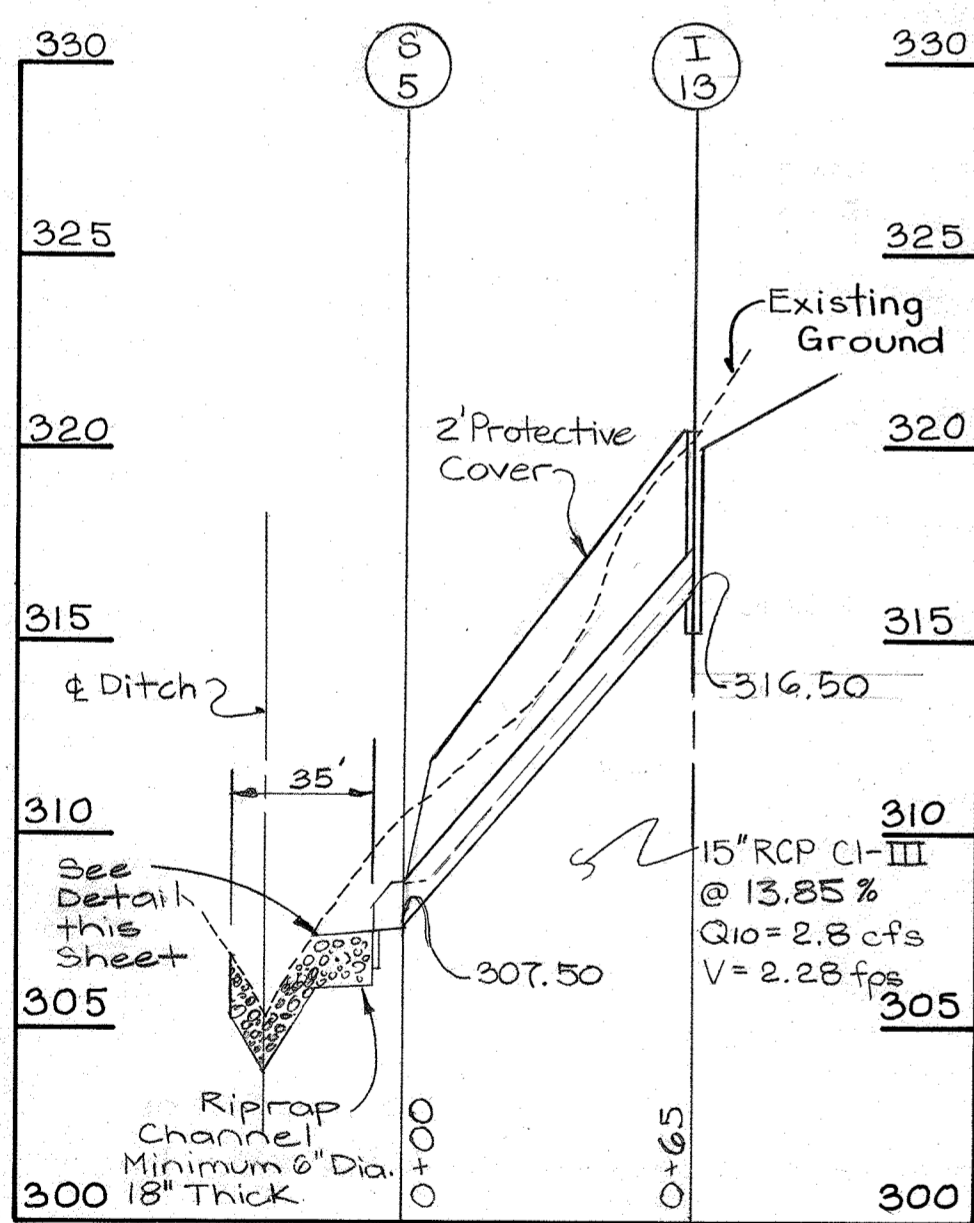
CHIEF, BUREAU OF ENGINEERING: *[Signature]* DATE: 9-14-82



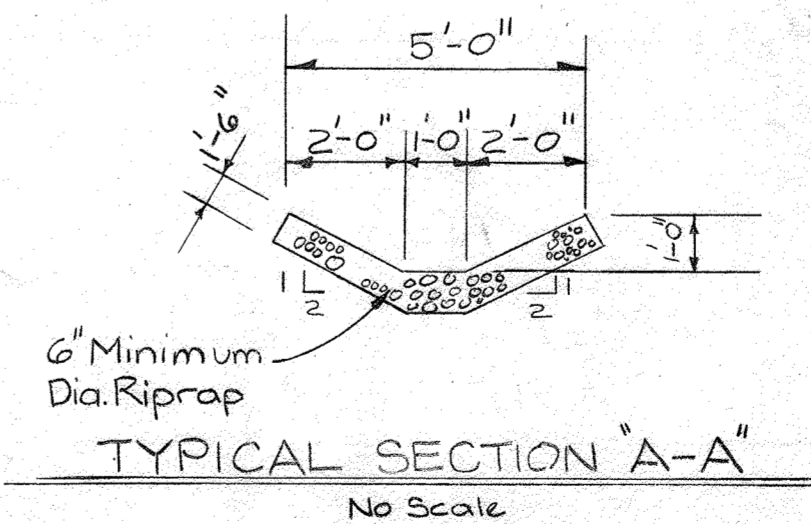


Note: For inlet deflectors see Howard County detail SD.-4.83

STORM DRAIN STRUCTURE SCHEDULE					
NO.	TYPE	TOP ELEV.	INV. IN	INV. OUT	LOCATION
I-1	"K" Inlet Grate	292.83	288.30	-	See Site Plan
I-2	A-5, w/Deflectors	295.66	289.28	289.08	17.84' Lt. 00+50.00
I-3	"	"	"	292.68	17.84' Rt. 00+50.00
I-4	A-10, w/Deflectors	303.30	299.00	298.75	12' Lt. 0+28.20
I-5	A-5, w/Deflectors	310.89	303.48	303.28	17.84' Lt. 3+88.00
I-6	"	310.89	304.02	303.82	17.84' Rt. 3+88.00
I-7	"	308.60	-	304.50	26.83' Rt. 1+11.00
I-8	"K" Inlet Grate	311.33	306.84	306.64	52' Rt. 2+35.00
I-9	A-5, w/Deflectors	318.60	-	314.04	See Site Plan
I-10	"	296.10	-	291.00	" " "
I-11	"	301.60	-	295.00	" " "
I-12	"	316.10	-	304.00	" " "
I-13	"	320.60	-	316.50	" " "
I-14	"	319.10	-	314.48	" " "
MH-1	Type "B" Manhole	304.00	300.80	300.60	" " "
MH-2	Type "A" Manhole	299.60	295.10	293.50	" " "
S-1	Std. Conc. End Section		288.00	-	" " "
S-2	"		292.00	-	" " "
S-3	Type "C" Endwall		297.36	-	" " "
S-4	Std. Conc. End Section		310.40	-	" " "
S-5	"		307.50	-	" " "

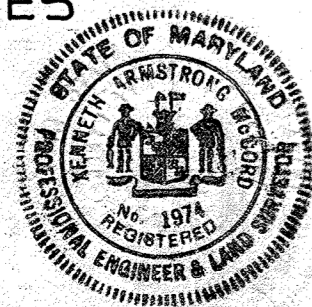


NOTE: Extend rip rap below outfalls S-1 thru S-5 to the stream bottom and up the opposite bank.



APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 11-18-81

WHITMAN, REQUARDT AND ASSOCIATES  
ENGINEERS  
2315 SAINT PAUL STREET  
BALTIMORE, MARYLAND 21218  
Kenneth A. McCord  
KENNETH A. MCCORD P.E. No. 1974



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
COUNTY HEALTH OFFICER DATE 9-16-81  
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
PLANNING DIRECTOR DATE 9-20-82  
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE 9-20-82  
APPROVED: FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
DIRECTOR DATE 9-15-81  
CHIEF, BUREAU OF ENGINEERING DATE 9-14-82

PINES AT DICKINSON CONDOMINIUMS  
OWNER DEVELOPER-COUNCIL OF UNIT OWNERS OF THE PINES AT DICKINSON, INC.  
c/o NAGLE & ZALLER, P.C.  
JOHN TSIKERDANOS  
7226 LEE DEFORREST DRIVE  
SUITE 102  
COLUMBIA, MD. 21046  
PH. 410-740-8100 EXT. 129

AOKI/I.M.G. COLUMBIA, INC.  
OWNER AND DEVELOPER  
SUITE 2454  
THE WORLD TRADE BUILDING  
BALTIMORE, MARYLAND 21202

COLUMBIA  
THE PINES AT DICKINSON  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 2 AREA 3  
PARCEL "G"  
STORM DRAIN PROFILES  
SHEET 4 OF 17  
ELECTION DISTRICT 6 HOWARD COUNTY, MARYLAND  
DATE: OCTOBER 9, 1981 SCALE: Hor: 1"=50', Vert: 1"=5'

SDP-82-51c 10/12/81



CURVE DATA						
NO.	RADIUS	Δ	ARC	TAN	CHD.	CHD. BRG.
1	225.00'	34° 39' 20"	136.09'	70.20'	134.03'	N17° 19' 40" E
2	500.00'	23° 54' 22"	208.62'	202.11'	511° 57' 11" W	
3	250.00'	53° 50' 03"	234.90'	126.93'	226.35'	S0° 00' 40" E
4	300.00'	21° 24' 22"	112.08'	56.70'	111.43'	S76° 47' 49" E

SEDIMENT TRAP SCHEDULE					
TRAP NO.	DRAINAGE AREA	VOL. REQUIRED	TRAP SIZE	TRAP CAPACITY	OUTLET WIDTH
1	2.2 AC.	147 C.Y.	50' x 20' x 4'	148 C.Y.	13'
2	2.0 AC.	134 C.Y.	95' x 10' x 4'	141 C.Y.	12'
3	3.2 AC.	214 C.Y.	55' x 10' x 5'	213 C.Y.	13'
4	3.0 AC.	201 C.Y.	55' x 20' x 5'	204 C.Y.	16'

**SEDIMENT CONTROL NOTES**

- All sediment control procedures shall be carried out in accordance with approved plans and criteria of the Howard County Soil Conservation District and also the U.S. Soil Conservation Service, "Standard and Specifications for Soil Erosion and Sediment Control in Developing Areas" (Hereinafter referred to as "Standards and Specifications").
- All disturbed areas which are to be exposed for more than 60 days shall be stabilized with temporary seeding and mulching immediately following rough grading in accordance with pages 50.01 through 50.03 of the Standards and Specifications.
- These sediment control drawings shall be used for the construction of sediment control practices only. For all other purpose construction see the "Final Development Plans."
- Sediment traps shall be maintained by the contractor on a weekly basis or after rainfall.
- Stabilization of the perimeter dikes will be in accordance with pages 12.01 through 12.03 "Standards and Specifications."
- The Stabilized Construction Entrance will be in accordance with page 16.03 of "Standards and Specifications."
- Stabilization of the diversion dikes will be in accordance with pages 10.01 through 10.03 "Standards and Specifications."
- Stabilization of the interceptor dikes will be in accordance with page 11.01 through 11.05.

**SEDIMENT CONTROL NOTES FOR PROJECT DEVELOPMENT**

- Sediment control devices will be maintained in functioning conditions until all areas are stabilized and approval for removal has been obtained from the Sediment Control Inspector.

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS; HOWARD COUNTY HEALTH DEPARTMENT.  
*Thomas J. Davis* 9-16-81 DATE  
 COUNTY HEALTH OFFICER  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING.  
*Thomas J. Davis* 9-20-81 DATE  
 PLANNING DIRECTOR  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
 APPROVED: FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS; HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*William F. Nunnery* 9-15-81 DATE  
 DIRECTOR  
*Richard W. Beelman* 9-16-81 DATE  
 CHIEF, BUREAU OF ENGINEERING

**LEGEND**

DIVERSION DIKE	DD
INTERCEPTOR DIKE	ID
PERIMETER DIKE	PD
SILT FENCE	S
STABILIZED CONSTRUCTION ENTRANCE	SCE
STONE OUTLET STRUCTURE	SOS
EXISTING GROUND	---
LIMIT OF DRAINAGE AREA	---
PROPOSED GROUND	---

**APPROVED**  
 PLANNING BOARD OF HOWARD COUNTY  
 DATE **11-18-81**

**RESPONSIBLE PERSONNEL CERTIFICATION**  
 "I hereby certify that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project."  
*Richard W. Beelman* 10/8/81  
 Signature of Developer Date

12-10-21 REVISION FOR CULVERT

NO.	DATE	DESCRIPTION OF REVISION
		<b>COLUMBIA</b>
		<b>THE PINES AT DICKINSON</b>
		VILLAGE OF KINGS CONTRIVANCE
		SECTION 2 AREA 3
		PARCEL "G"
		<b>SEDIMENT CONTROL</b>
		SHEET 5 OF 17
		ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND
		DATE: OCTOBER 9, 1981
		SCALE: 1"=50'


**CERTIFICATION BY THE DEVELOPER**  
 "I certify that all development and/or construction will be done according to this plan of development and plan of Erosion and Sediment Control and I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as are deemed necessary."  
*Richard W. Beelman* 10/8/81  
 Signature of Developer Date

**CERTIFICATION 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."  
*Kenneth A. McCord* 10/8/81  
 Signature of Engineer Date

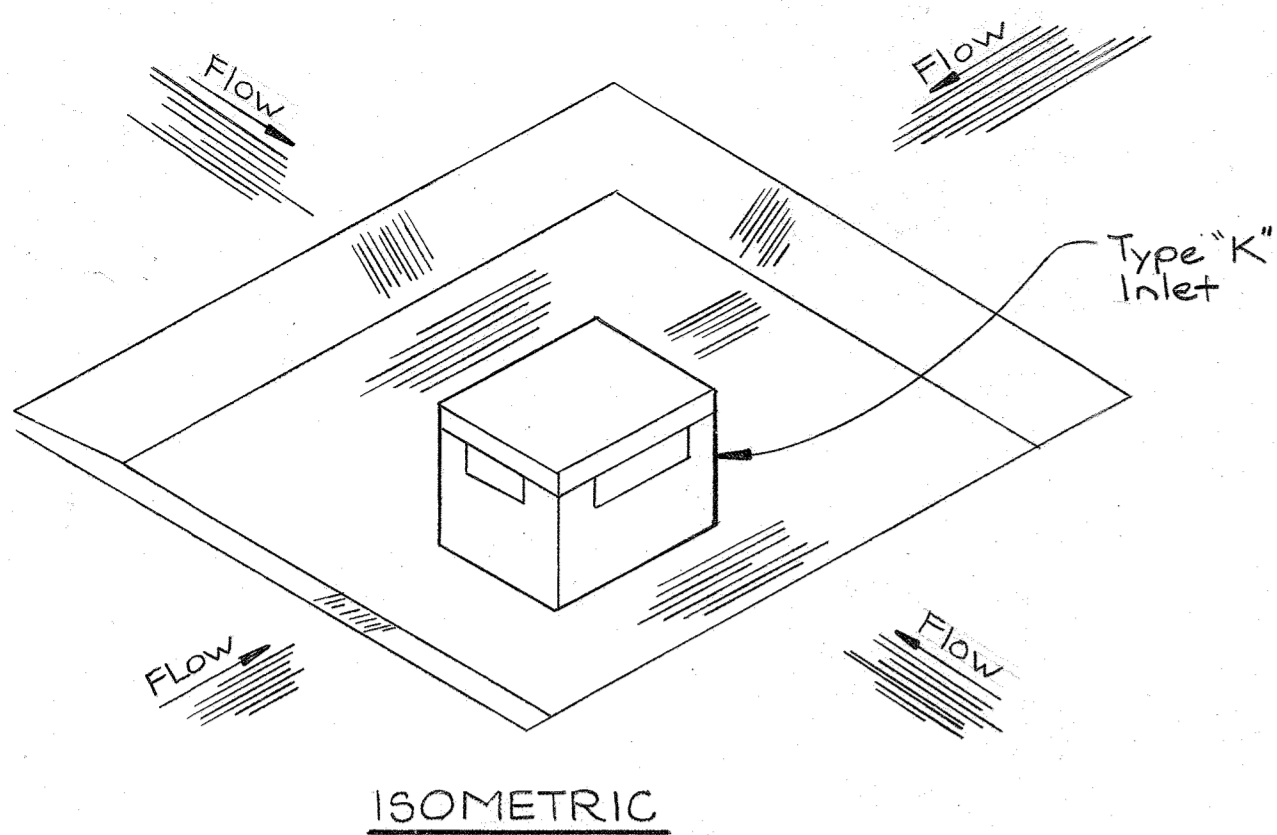
**AOKI/I.M.G. COLUMBIA, INC.**  
 OWNER AND DEVELOPER  
 SUITE 2454  
 THE WORLD TRADE BUILDING  
 BALTIMORE, MARYLAND 21202

Reviewed for Howard S.C.D. and meets Technical Requirements  
*James M. Vela* Date 9-10-81  
 Signature  
 U.S. Soil Conservation Service  
 THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Approved *William T. Rowe* Date 9-10-81  
 Howard S.C.D.

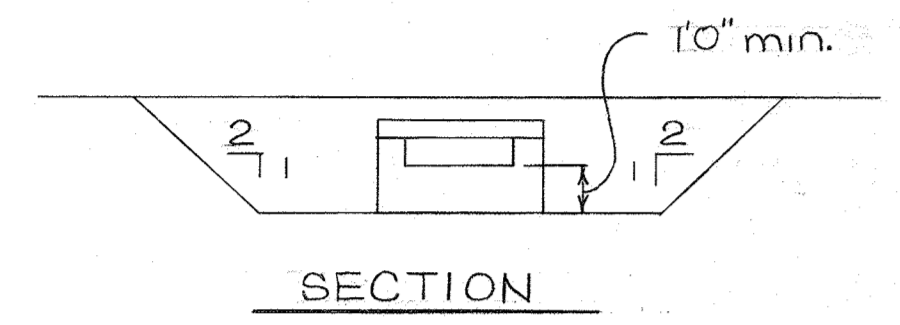
**WHITMAN, REQUARDT AND ASSOCIATES**  
 ENGINEERS  
 2315 SAINT PAUL STREET  
 BALTIMORE, MARYLAND 21218  
*Kenneth A. McCord*  
 KENNETH A. MCCORD P.E. No. 1074





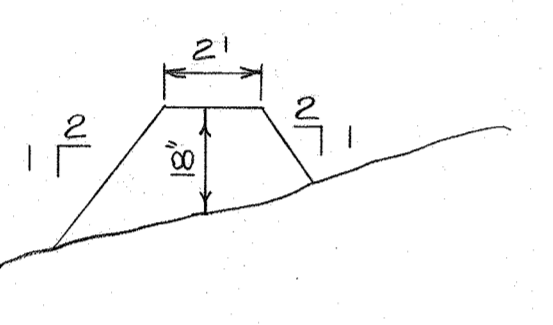


ISOMETRIC

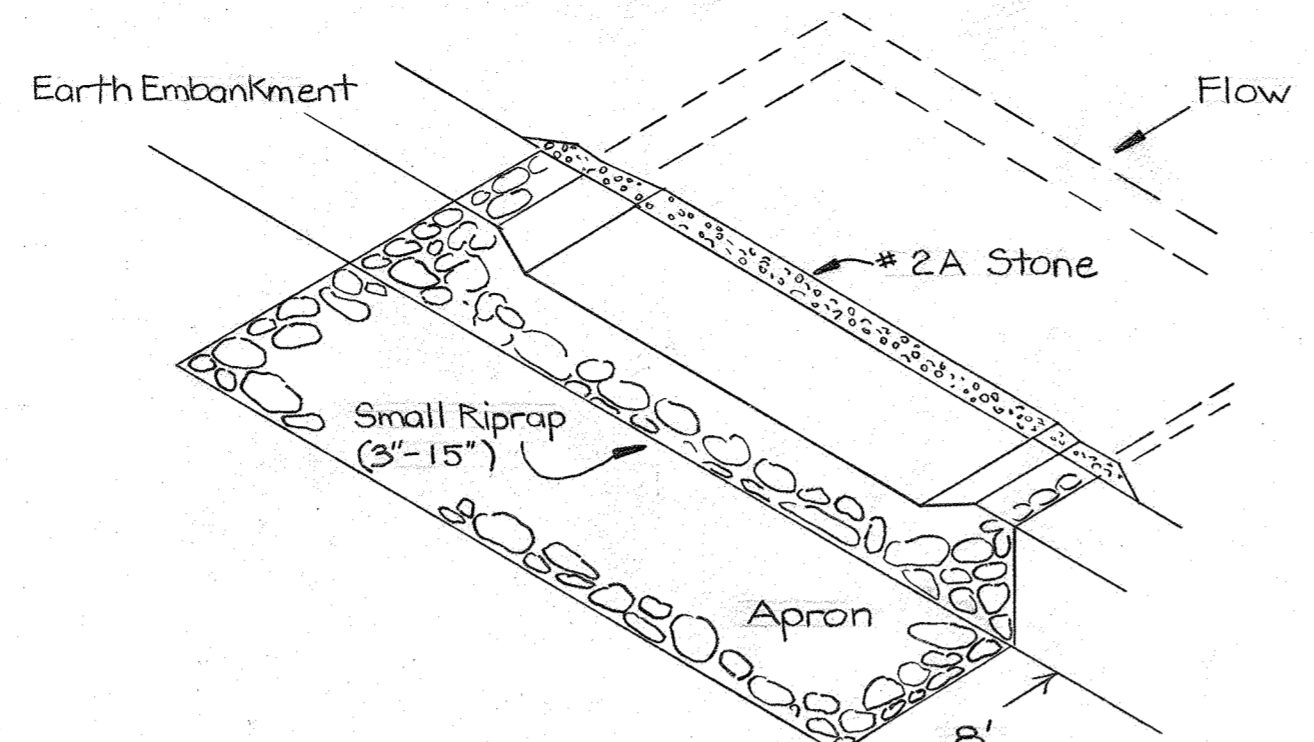


SECTION

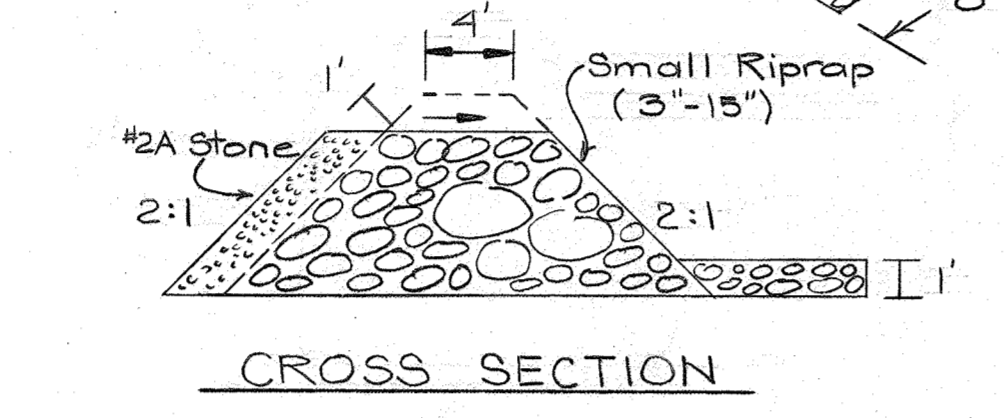
DETAIL - STORM INLET SEDIMENT TRAP  
Not To Scale



DETAIL - STANDARD DIVERSION/INTERCEPTOR/PERIMETER DIKE  
Not To Scale

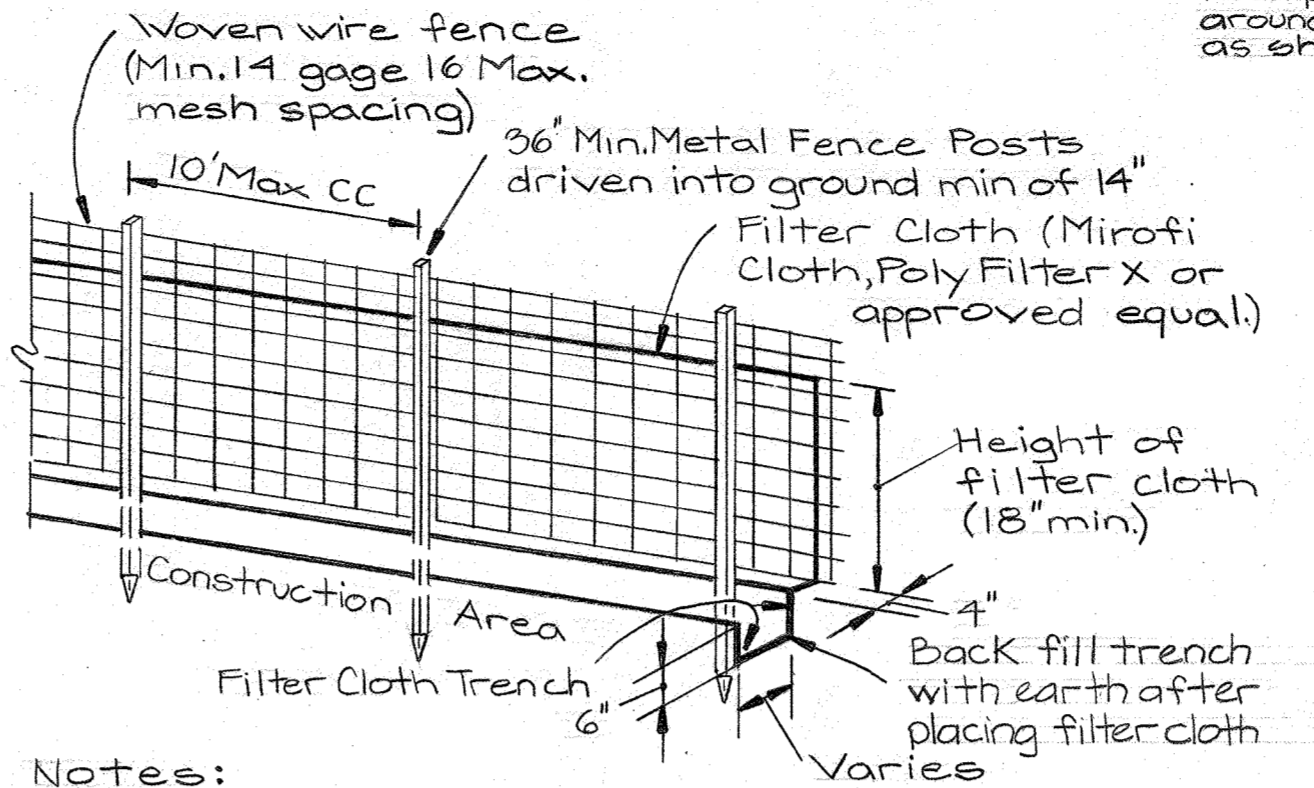


CROSS SECTION



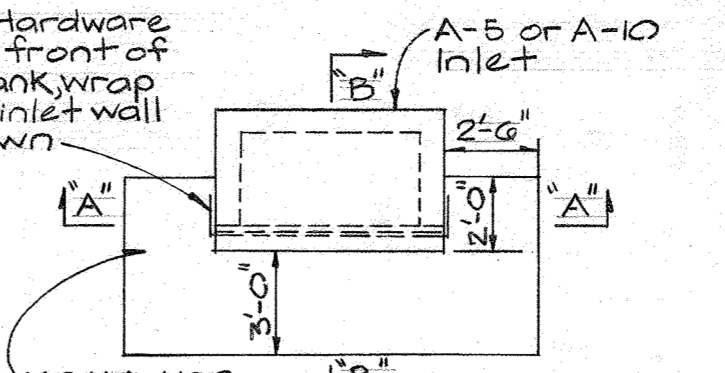
PROFILE

STONE SEDIMENT TRAP  
Not To Scale

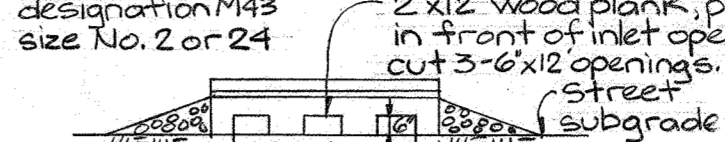


SILT FENCE DETAIL  
Not To Scale

- Notes:
- 1) Woven wire fence to be fastened securely to fence posts by use of wire ties.
  - 2) Filter cloth to be fastened securely to woven wire fence by use of wire ties spaced every 24"x24"
  - 3) Silt fence may be placed in lieu of straw bales.



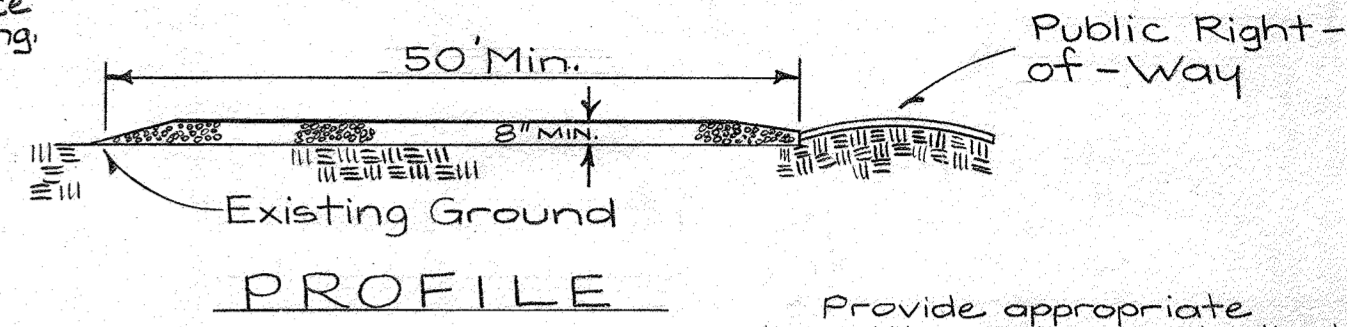
SECTION A-A



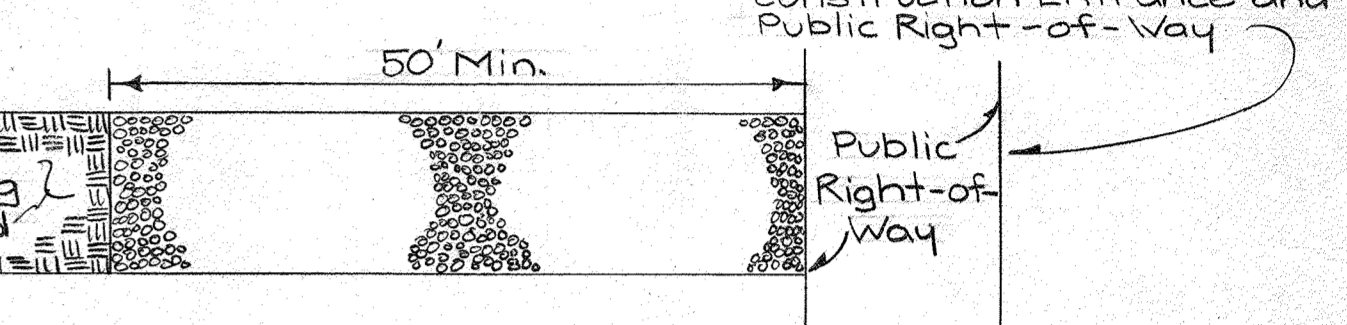
SECTION B-B

BLOCKED INLET DETAIL  
No scale

**RESPONSIBLE PERSONNEL CERTIFICATION**  
 "I hereby certify that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project."  
 Signature of Developer: *Richard W. Goodman*  
 Date: 7/6/82



PROFILE



PLAN

STABILIZED CONSTRUCTION FENCE  
Not To Scale

**CONSTRUCTION SPECIFICATIONS - (INTERCEPTOR DIKE)**

1. ALL DIKES SHALL BE MACHINE COMPACTED.
2. ALL INTERCEPTOR DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES MAY BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. INTERCEPTOR DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHEN EITHER THE INTERCEPTOR DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION, AS SPECIFIED BY THE PLANS, SHALL BE: (1) IN ACCORDANCE WITH STANDARD AND SPECIFICATIONS FOR GRASSED WATERWAY, AND THE AREA TO BE STABILIZED SHALL BE THE CHANNEL (FLOW AREA); OR (2) THE FLOW AREA SHALL BE LINED WITH STONE THAT MEETS MSHA SIZE NO. 2 OR AASHTO SIZE NO. 2 OR 24 WHICH IS PLACED IN A 3 INCH THICK LAYER AND PRESSED INTO THE SOIL. THE AREA COVERED BY THE STONE SHALL BE AS SHOWN ON STANDARD DRAWING DD-1.
7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED.

**TEMPORARY SEEDING**

1. THE TOPSOIL STOCKPILES SHALL BE HYDROSEED AS FOLLOWS:
  - A. GROUND LIMESTONE (50lbs./1000 SF)
  - B. FERTILIZER 10-10-10 (25lbs./1000 SF)
  - C. SEED-ITALIAN RYE GRASS 40lbs./ACRE.
2. MULCH WITH STRAW AT THE RATE OF 50lbs./1000 SF. OR ONE TON PER ACRE. ANCHOR WITH ASPHALT AT THE RATE OF 480 GALLONS/ACRE.

**SEEDING NOTES (HYDROSEED METHOD ONLY)**

1. ALL DISTURBED SLOPE AREAS TO BE STABILIZED AS SOON AS GRADING IS COMPLETED.
2. ALL SEDIMENT CONTROL MEASURES MUST BE CONSTRUCTED AND STABILIZED ACCORDING TO NOTE 1 PRIOR TO ANY OTHER GRADING ON THE SITE.
3. NO TEMPORARY SEDIMENT CONTROL STRUCTURE MAY BE REMOVED OR DESTROYED WITHOUT APPROVAL OF THE HOWARD SOIL CONSERVATION DISTRICT.
4. ALL AREAS OTHER THAN LAWNS TO BE SEED (DIKES, TRAPS, DRAINAGE SWALES AND DISTURBED AREAS) AT THE RATE OF 80lbs./ACRE OF THE FOLLOWING: KENTUCKY 31 TALL FESCUE 60lbs./ACRE AND KOREAN LESPEDEZA (SCARIFY AND INOCULATE) 20lbs./ACRE. IMMEDIATELY AFTER CONSTRUCTION. SCW WITH MECHANICAL SPREADER, RAKE MINIMUM TWO (2) PASSES WITH "YORK RAKE" COVER AND COMPACT WITH CULTIPACKER.
5. SURFACE PREPARATION TO INCLUDE GROUND LIMESTONE OVER TOPSOIL SURFACE AREA AND COMMERCIAL FERTILIZER IN ACCORDANCE WITH SOIL TEST ANALYSIS. ANCHOR WITH ASPHALT AT THE RATE OF 480 GALLONS/ACRE. DRAINAGE SWALES AND DITCHES SHALL BE MULCHED AND COVERED WITH A PERFORATED EROSION CONTROL BLANKET FOR THE FULL WIDTH OF THE SWALE OR DITCH. BLANKET SHALL BE JUTE MAT OVER STRAW OR EXCELSIOR MATTING. STABILIZATION OF SLOPES STEEPER THAN 3:1 SHALL BE PLANTED WITH KENTUCKY 31 TALL FESCUE 45lb./ACRE AND CROWNVECH (SCARIFY AND INOCULATE) 15lb./ACRE INOCULANT FOR CROWNVECH SHALL BE AT THE RATE OF 6.7 oz. POWDER OR LIQUID CULTURE PER 20lb. CROWNVECH.
6. ALL OTHER SURFACES SHALL BE UNIFORMLY SHOWN AT THE RATE OF 250 lbs./ACRE.
7. APPLICATION METHODS: (HYDROSEED)
  - a. SEED, FERTILIZER, LIMESTONE AND MULCH MATERIAL SHALL BE PLACED BY THE FOLLOWING METHODS.
    - (1) THE SEED AND FERTILIZER, OR THE SEED, FERTILIZER AND SUITABLE MULCH SHALL BE MIXED IN THE NEEDED AMOUNT OF WATER TO PRODUCE A SLURRY. APPLIED UNDER PRESSURE AT THE RATE SPECIFIED OR AS DIRECTED WITH HYDRAULIC EQUIPMENT APPROVED PRIOR TO USE.
    - b. WOOD CELLULOSE MULCH MAY BE APPLIED DURING OR AFTER SEEDING OPERATION. THE WOOD CELLULOSE MULCH IS TO BE INCORPORATED AS AN INTEGRAL PART OF THE SLURRY MIX. IT SHALL BE ADDED AFTER THE SEED AND FERTILIZER HAVE BEEN THOROUGHLY MIXED. LIME, WHEN APPLIED HYDRAULICALLY SHALL BE A SINGLE, SEPARATE OPERATION. WOOD CELLULOSE MULCH SHALL BE APPLIED AT THE RATE OF 1,200 POUNDS PER ACRE.
  - c. ANY AREA INADEQUATELY COVERED SHALL BE RE-TREATED.

**CONSTRUCTION SPECIFICATIONS: (PERIMETER DIKE)**

1. ALL DIKES SHALL BE MACHINE COMPACTED.
2. ALL PERIMETER DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. A. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED UPLAND AREA SHALL OUTLET DIRECTLY ONTO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE.
  - B. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED UPLAND AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT BASIN OR TO AN AREA PROTECTED BY ANY OF THESE PRACTICES.
4. STABILIZATION, WHEN REQUIRED SHALL BE DONE IN ACCORDANCE WITH STANDARD AND SPECIFICATIONS FOR GRASSED WATER WAY. THE MINIMUM AREA TO BE STABILIZED SHALL BE THE CHANNEL FLOW AREA.
5. PERIODIC INSPECTION AND REQUIRED MAINTENANCE SHALL BE PROVIDED.

**CONSTRUCTION SPECIFICATIONS: (DIVERSION DIKE)**

1. ALL DIKES SHALL BE MACHINE COMPACTED.
2. ALL DIVERSION DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. A. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL OUTLET DIRECTLY TO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE.
  - B. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED UPLAND AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR A SEDIMENT BASIN OR TO AN AREA PROTECTED BY ANY OF THESE PRACTICES.
4. STABILIZATION, AS SPECIFIED BY THE PLANS, SHALL BE: (1) IN ACCORDANCE WITH STANDARD AND SPECIFICATIONS FOR GRASSED WATERWAY, AND THE AREA TO BE STABILIZED SHALL BE THE CHANNEL (FLOW AREA); OR (2) THE FLOW AREA SHALL BE LINED WITH STONE THAT MEETS MSHA SIZE NO. 2 OR AASHTO M43 SIZE NO. 2 OR 24 WHICH IS PLACED IN A 3 INCH THICK LAYER AND PRESSED INTO THE SOIL. THE AREA COVERED BY THE STONE SHALL BE AS SHOWN ON THE DRAWING ABOVE.

**CONSTRUCTION SPECIFICATION: (SEDIMENT TRAP)**

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER SIZED STONES, ROCKS, ORGANIC MATERIAL OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
6. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
7. ALL CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
8. THE CRUSHED STONE USED IN THE OUTLET SHALL MEET AASHTO DESIGNATION M43, SIZE NO. 2 OR 24 OR ITS EQUIVALENT SUCH AS MSHA NO. 2. GRAVEL, MEETING THE ABOVE GRADATION MAY BE USED IF CRUSHED STONE IS NOT AVAILABLE. CRUSHER RUN IS NOT ACCEPTABLE.

PINES AT DICKINSON CONDOMINIUMS OWNER 6. DEVELOPER-COUNCIL OF UNIT OWNERS OF THE PINES AT DICKINSON, INC. c/o NAGLE & ZALLER, P.C. JOHN TSKERDANOS 7226 LEE DEFORREST DRIVE, SUITE 102 COLUMBIA, MD. 21046 PH. 410-740-8100 EXT. 129

**APPROVED**  
 PLANNING BOARD OF HOWARD COUNTY  
 DATE: 11-18-81

Reviewed for Howard S.C.D Name  
 and meets Technical Requirements.  
 Signature: *Kenneth A. McCord* Date: 9-10-82  
 U.S. Soil Conservation Service

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Signature: *John T. Rowe* Date: 9-10-82  
 APPROVED HOWARD S.C.D.

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS  
 2915 SAINT PAUL STREET BALTIMORE, MARYLAND 21216  
 Signature: *Kenneth A. McCord*  
 KENNETH A. MCCORD P.E. No. 1974

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 Signature: *John T. Rowe* Date: 9-20-82  
 PLANNING DIRECTOR  
 Signature: *John T. Rowe* Date: 9-20-82  
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
 APPROVED: FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 Signature: *John T. Rowe* Date: 9-15-81  
 Signature: *John T. Rowe* Date: 9-14-82  
 CHIEF, BUREAU OF ENGINEERING

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.  
 Signature: *John T. Rowe* Date: 9-20-82  
 COUNTY HEALTH OFFICER

CERTIFICATION BY THE DEVELOPER  
 "I certify that all development and/or construction will be done according to this plan of development and plan for Erosion and Sediment Control, and I also authorize periodic on-site inspection by the Howard Soil Conservation District or their authorized agents, as and when necessary."  
 Signature: *Richard W. Goodman* Date: 10/8/81  
 Signature of Developer

CERTIFICATION 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."  
 Signature: *Kenneth A. McCord* Date: 10/8/81  
 Signature of Engineer

AOKI/IMG. COLUMBIA, INC.  
 OWNER AND DEVELOPER  
 SUITE 2454 THE WORLD TRADE BUILDING BALTIMORE, MARYLAND 21202

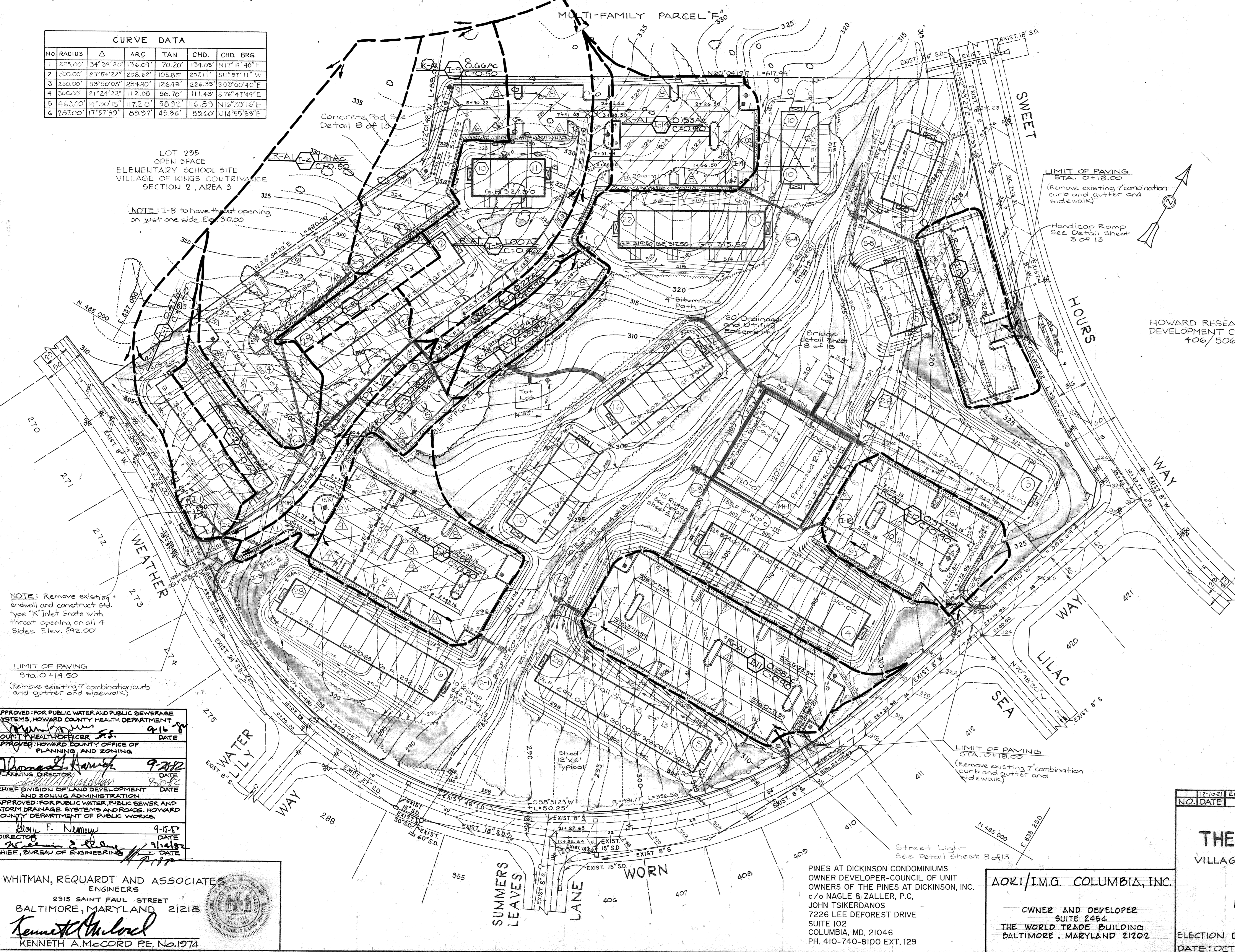
12-10-21 REDLINE REVISION FOR CULVERT  
 NO. DATE DESCRIPTION OF REVISION  
**COLUMBIA**  
**THE PINES AT DICKINSON**  
 VILLAGE OF KINGS CONTRIVANCE  
 SECTION 2 AREA 3  
 PARCEL "G"  
**SEDIMENT CONTROL DETAILS**  
 SHEET 6 OF 17  
 ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
 DATE: OCTOBER 9, 1981 SCALE: 1" = 50'



CURVE DATA					
NO.	RADIUS	Δ	ARC	TAN	CHD. CHD. BRG.
1	225.00'	34°39'20"	136.09'	70.20'	134.03' N17°19'40"E
2	500.00'	23°54'22"	208.62'	105.85'	207.11' S11°57'11"W
3	250.00'	53°50'05"	234.90'	126.93'	226.35' S03°00'40"E
4	300.00'	21°24'22"	112.08'	56.70'	111.43' S76°47'49"E
5	463.00'	14°30'13"	117.20'	58.92'	116.89' N16°39'16"E
6	287.00'	17°57'39"	89.97'	45.36'	89.60' U14°55'33"E

LOT 295  
OPEN SPACE  
ELEMENTARY SCHOOL SITE  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 2, AREA 3

NOTE: I-8 to have throat opening  
on just one side. Elev. 310.00



NOTE: Remove existing 4" endwall and construct std. type "K" Inlet Grate with throat opening on all 4 Sides. Elev. 292.00

LIMIT OF PAVING  
Sta. 0+14.50  
(Remove existing 7" combination curb and gutter and sidewalk)

LIMIT OF PAVING  
Sta. 0+18.00  
(Remove existing 7" combination curb and gutter and sidewalk)

Handicap Ramp  
See Detail sheet 3 of 13

HOWARD RESEARCH AND DEVELOPMENT CORPORATION  
406/506

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
*[Signature]* 9-16-87  
COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
*[Signature]* 9-21-87  
PLANNING DIRECTOR DATE

CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
*[Signature]* 9-23-87  
DATE

APPROVED FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS  
*[Signature]* 9-15-87  
DIRECTOR DATE

*[Signature]* 11-14-87  
CHIEF, BUREAU OF ENGINEERING DATE

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS  
2315 SAINT PAUL STREET  
BALTIMORE, MARYLAND 21218  
*[Signature]*  
KENNETH A. McCORD P.E., No. 1974

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 11-18-81  
*[Signature]*

12-10-81 REDLINE REVISION FOR CURVERT  
NO. DATE DESCRIPTION OF REVISION

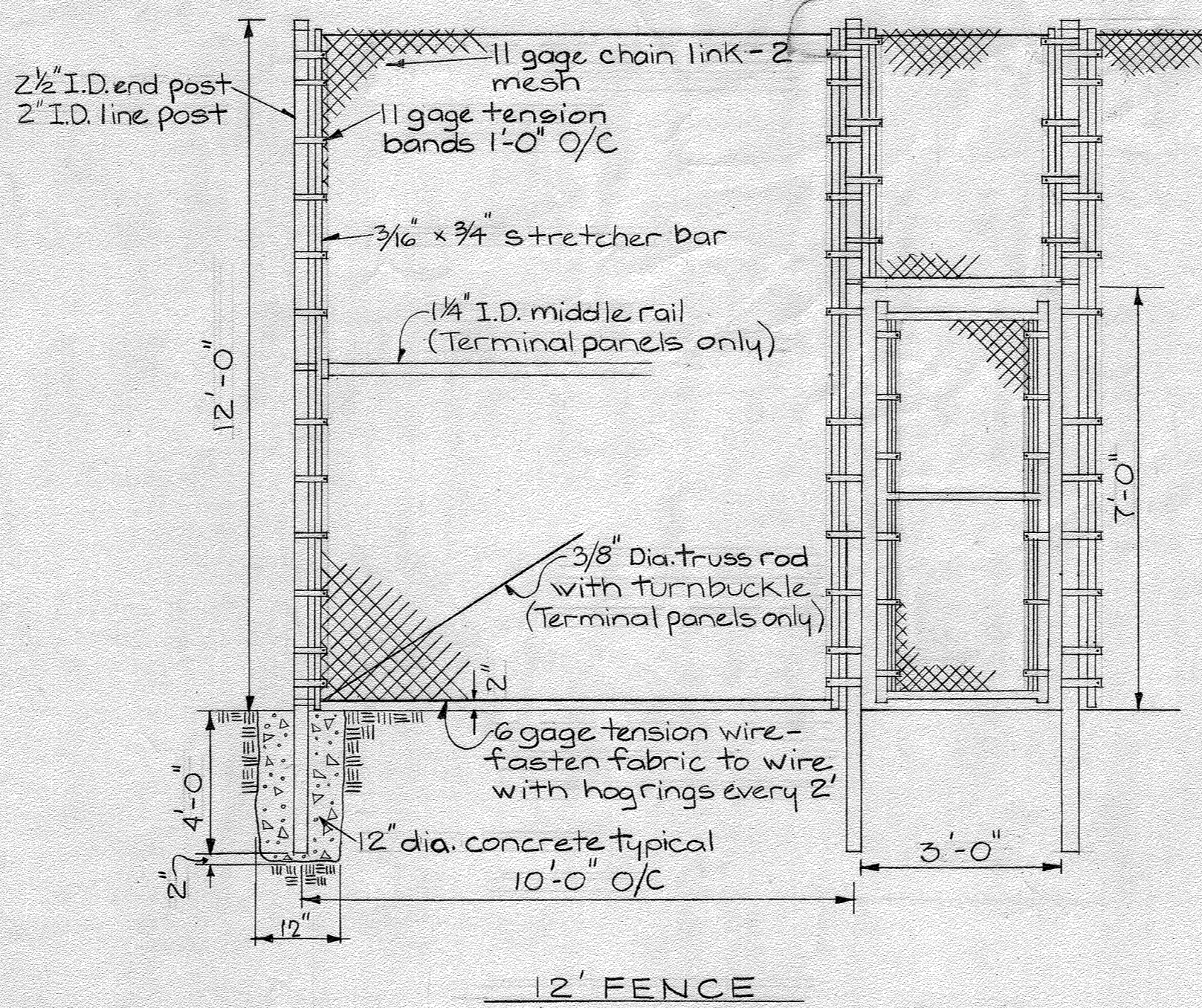
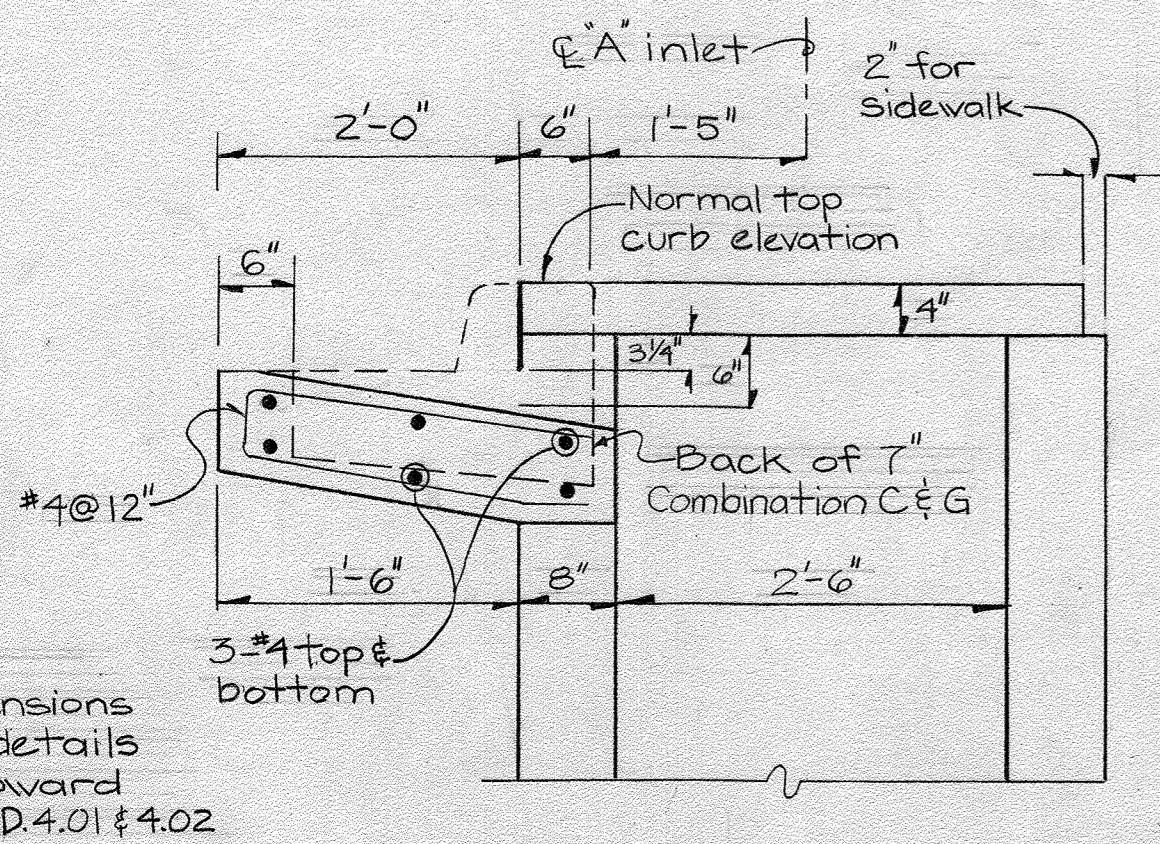
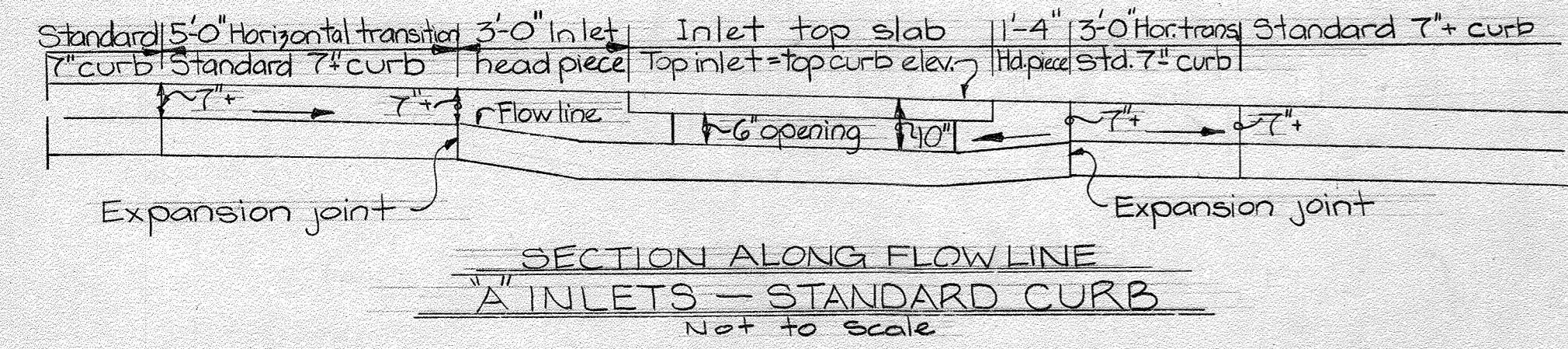
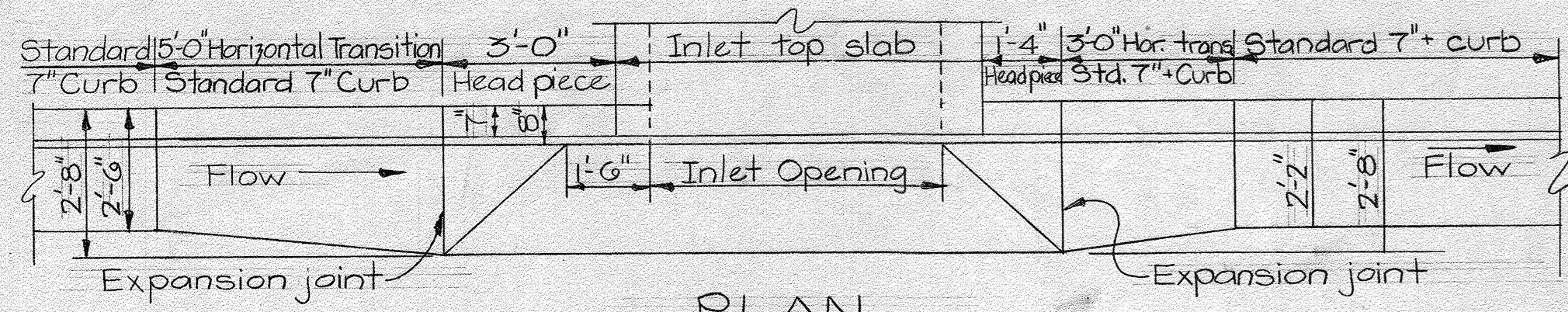
**COLUMBIA**  
**THE PINES AT DICKINSON**  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 2 AREA 3  
PARCEL "G"  
DRAINAGE AREA MAP  
SHEET 7 OF 17

ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
DATE: OCTOBER 9, 1981  
SCALE: 1"=50'

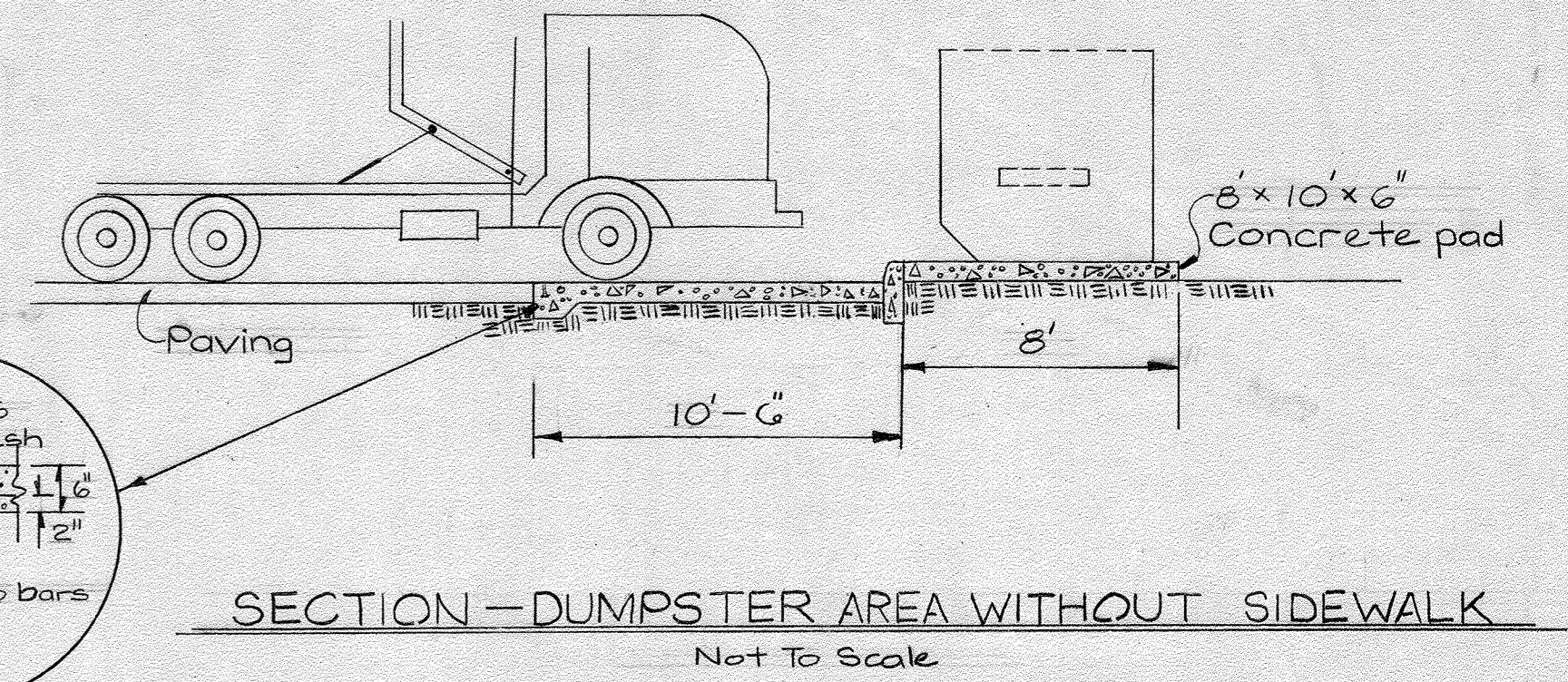
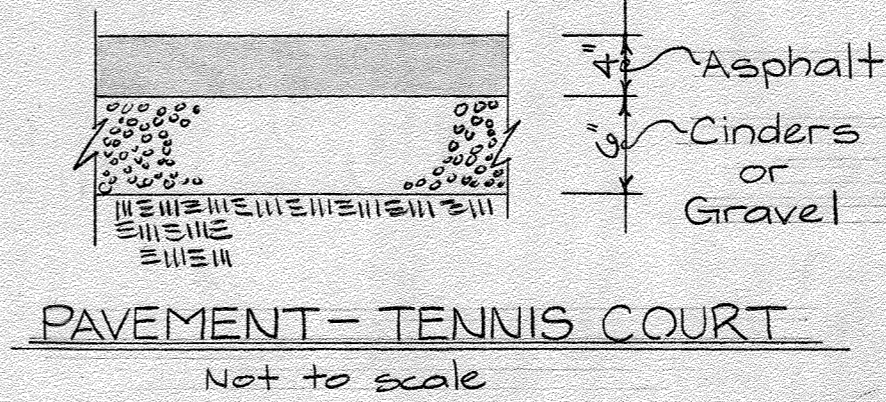
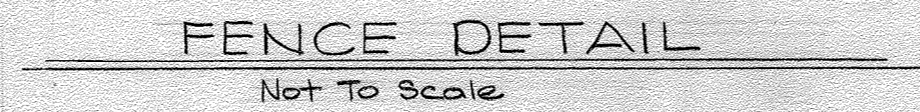
PINES AT DICKINSON CONDOMINIUMS  
OWNER DEVELOPER-COUNCIL OF UNIT OWNERS OF THE PINES AT DICKINSON, INC.  
c/o NAGLE & ZALLER, P.C.  
JOHN TSIKERDANOS  
7226 LEE DEFOREST DRIVE  
SUITE 102  
COLUMBIA, MD. 21046  
PH. 410-740-8100 EXT. 129

AOKI/I.M.G. COLUMBIA, INC.  
OWNER AND DEVELOPER  
SUITE 2454  
THE WORLD TRADE BUILDING  
BALTIMORE, MARYLAND 21202

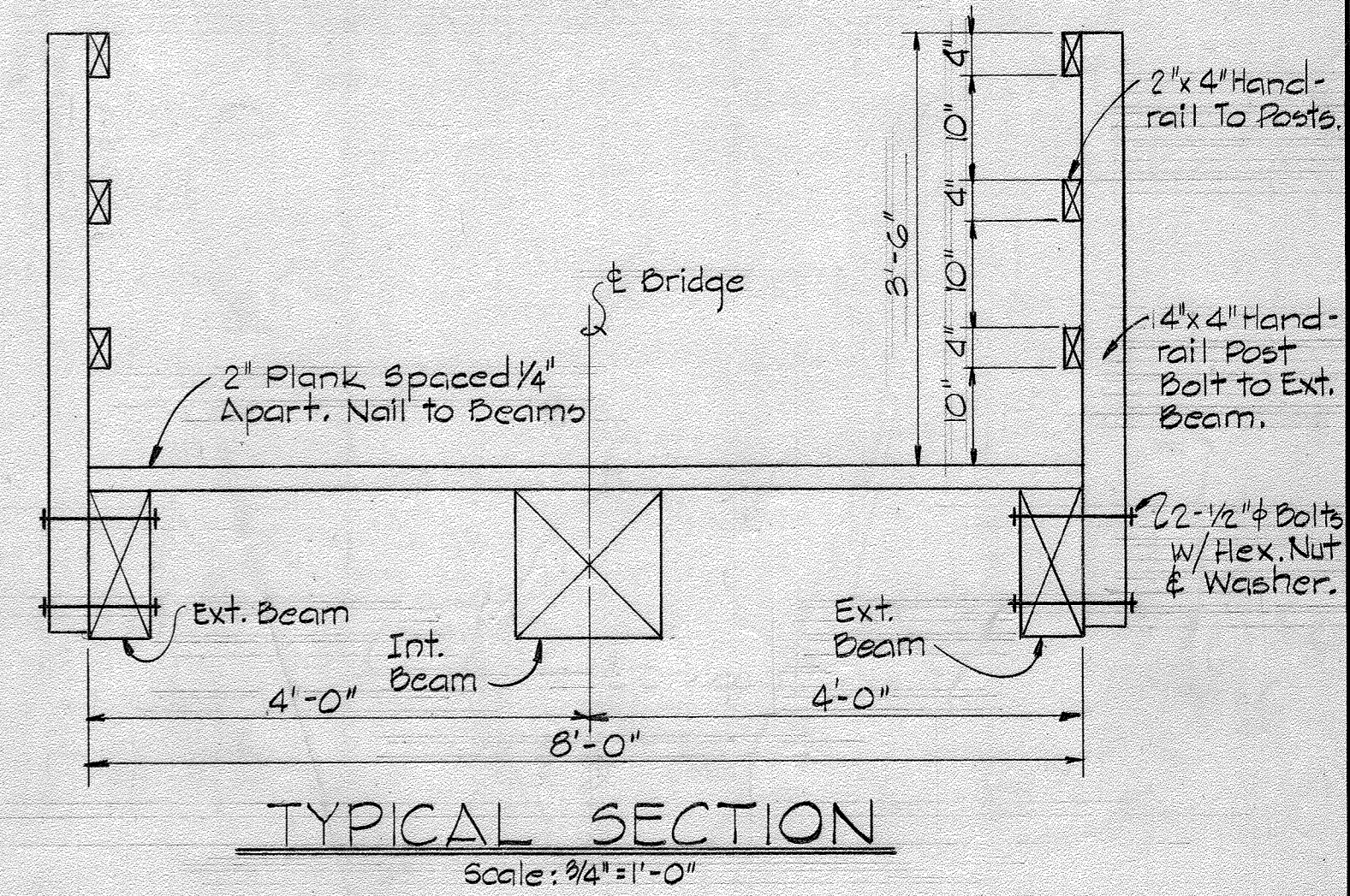




- Notes:
- All posts, fence fabric, rails, and component parts shall be galvanized steel.
  - 10' typical spacing between posts
  - Wire fabric to be attached to line posts with 11 gage tie wires @ 14" O/C max.
  - Bottom of fabric to be 2" max. above ground.
  - All concrete to be 3500 p.s.i.



- Notes:
- The container box shall be of sturdy metal construction with 8 cubic yard capacity, suitable for front end loading collection equipment.
  - The container shall be the sole responsibility of the Owner and not the County or the contractor.
  - The Owner must supply all containers necessary to meet his needs according to the number of apartments or units.
  - It shall be the responsibility of the Owner to maintain each container and keep it painted, clean, and sanitary at all times.



APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 11-18-81

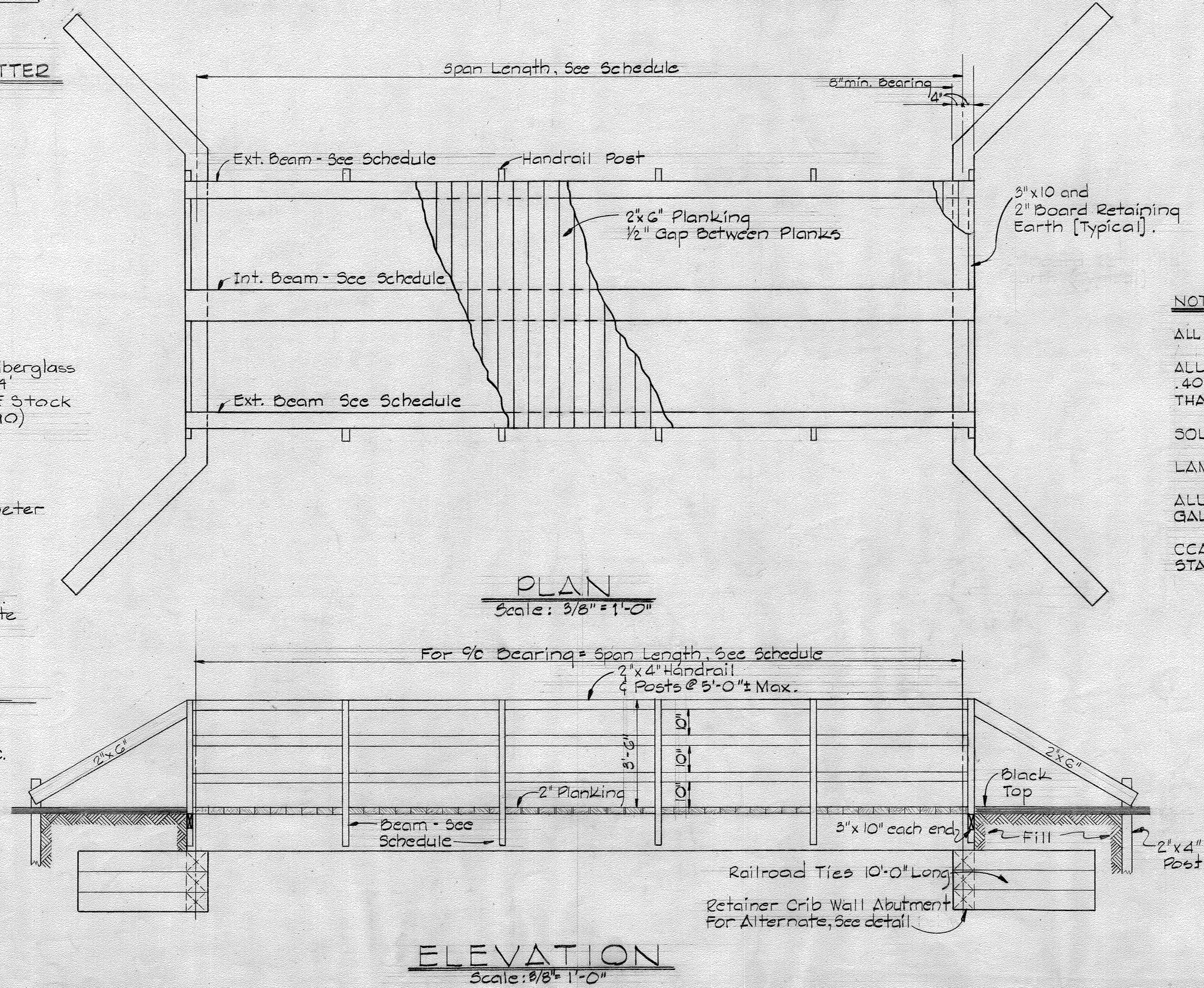
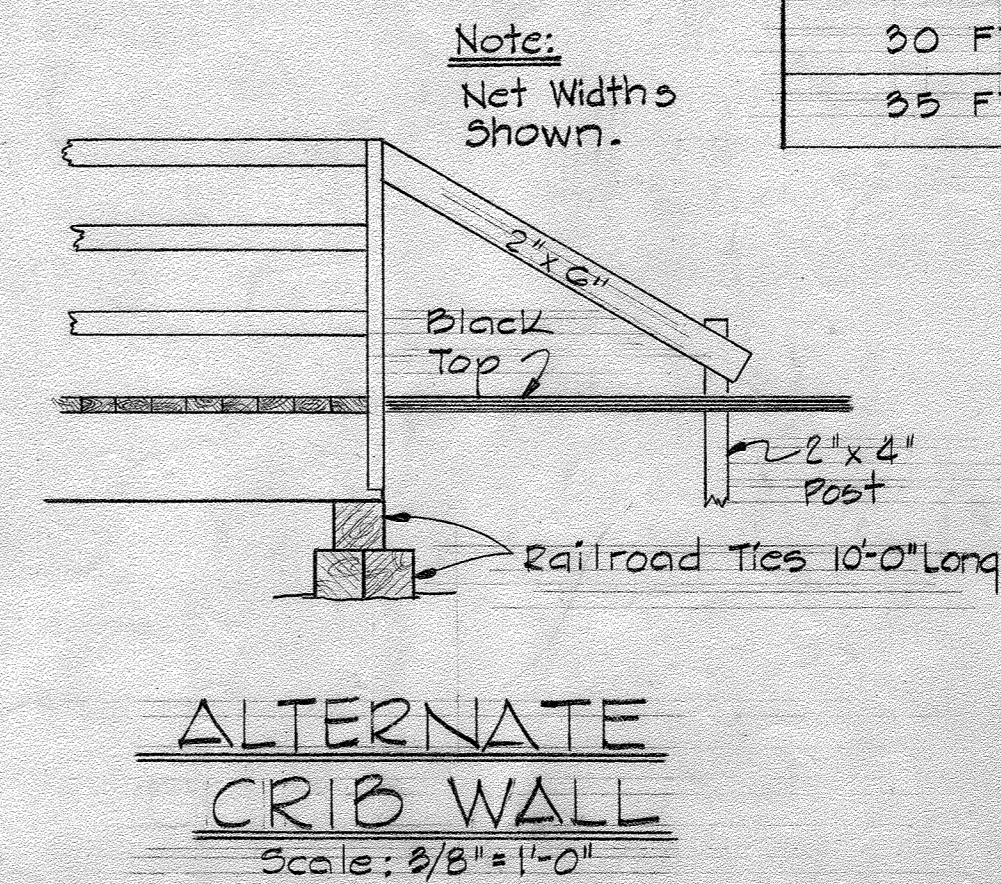
- NOTES:
- ALL WOOD SHALL BE SOUTHERN PINE No.2
- ALL WOOD SHALL BE CCA TREATED AT .40 RETENTION EXCEPT WOOD THICKER THAN 5" SHALL HAVE .60 RETENTION
- SOLID TIMBER F<sub>b</sub> = 1150 P.S.I.
- LAMINATED TIMBER F<sub>b</sub> = 2400 P.S.I.
- ALL HARDWARE SHALL BE HOT-DIP GALVANIZED.
- CCA = CHROMATED COPPER ARSENATE STANDARD P5 AND C1, AWPA.

SOLID BEAM SCHEDULE

SPAN	EXT. BEAM	INT. BEAM
20 FT	6" x 12"	12" x 12"
25 FT	6" x 14"	14" x 14"
30 FT	8" x 14"	2-6" x 14" & 1-8" x 14"
35 FT	10" x 14"	3-10" x 14"

ALTERNATE LAMINATED BEAM SCHEDULE

SPAN	EXT. BEAM	INT. BEAM
20 FT	5 1/8" x 12"	5 1/8" x 13 1/2"
25 FT	5 1/8" x 12"	5 1/8" x 16 1/2"
30 FT	5 1/8" x 15"	8 3/4" x 16 1/2"
35 FT	5 1/8" x 16 1/2"	8 3/4" x 19 1/2"



APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
COUNTY HEALTH OFFICER 9-16-81 DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
PLANNING DIRECTOR 9-20-82 DATE  
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION 9-20-82 DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
DIRECTOR 9-15-81 DATE  
CHIEF, BUREAU OF ENGINEERING 9-14-82 DATE

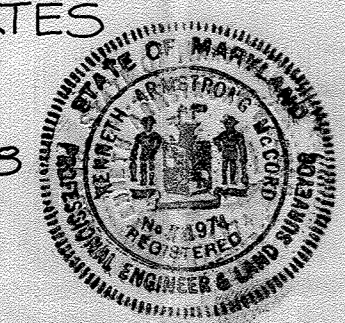
AOK/I.M.G. COLUMBIA, INC.

OWNER AND DEVELOPER  
SUITE 2454  
THE WORLD TRADE BUILDING  
BALTIMORE, MARYLAND 21202

PINES AT DICKINSON CONDOMINIUMS-OWNER DEVELOPER  
COUNCIL OF UNIT OWNERS OF THE PINES AT DICKINSON, INC.  
c/o NAGLE & ZALLER, P.C., JOHN TSIKERDANOS  
7226 LEE DEFOREST DRIVE  
SUITE 102  
COLUMBIA, MD. 21046  
PH. 410-740-8100 EXT. 129

WHITMAN, REQUARDT AND ASSOCIATES  
ENGINEERS  
2315 SAINT PAUL STREET  
BALTIMORE, MARYLAND 21218

Kenneth A. McCord P.E. No. 1974



12-10-21 REDLINE REVISION FOR CULVERT

NO.	DATE	DESCRIPTION OF REVISION

COLUMBIA  
THE PINES AT DICKINSON  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 2 AREA 3  
PARCEL "G"  
DETAILS  
SHEET 8 OF 17

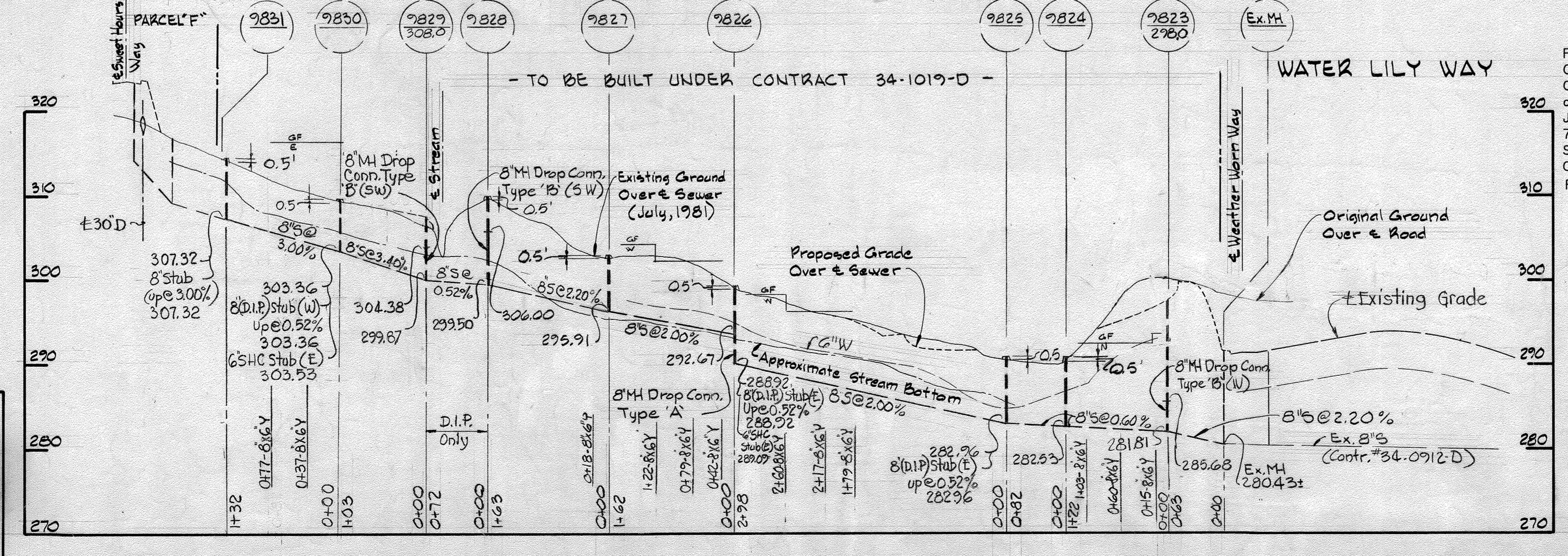
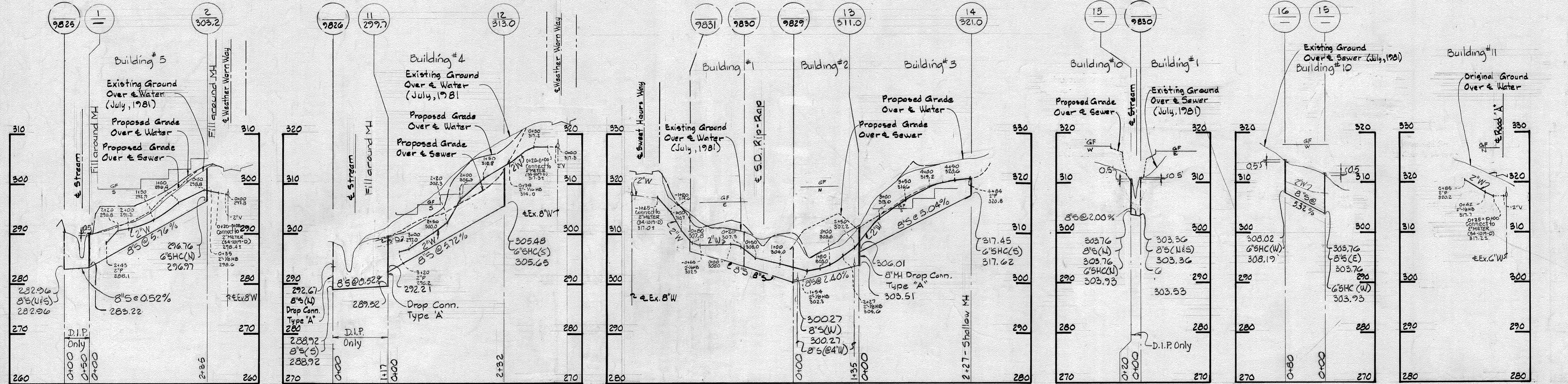
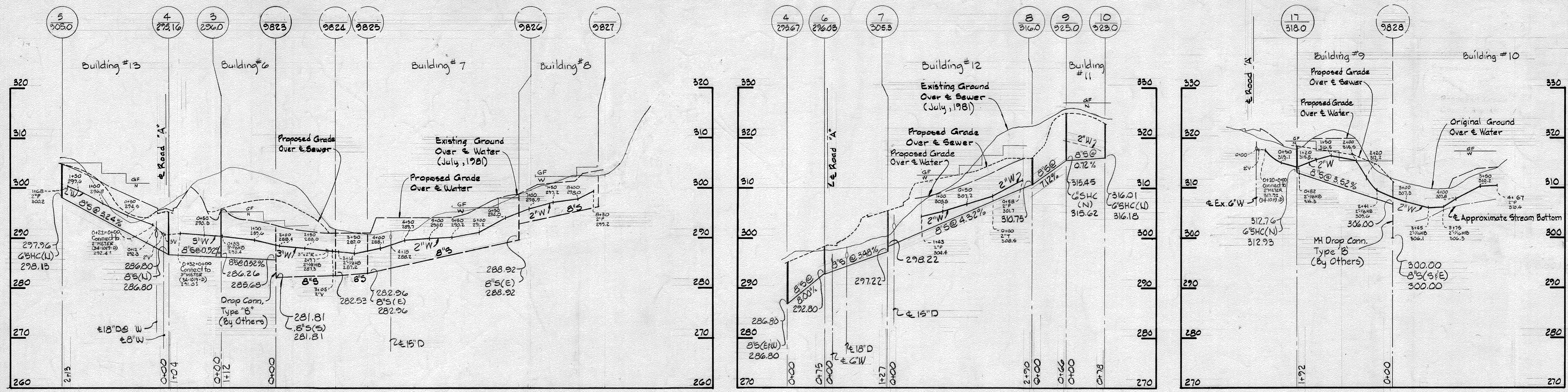
ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
DATE: OCTOBER 9, 1981 SCALE: AS NOTED

SDP-82-51c 10/12/81









APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER  
 DATE 9-16-81

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 PLANNING DIRECTOR  
 DATE 9-20-81

CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
 DATE 9-20-81

APPROVED FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 DIRECTOR  
 DATE 9-15-81

CHIEF BUREAU OF ENGINEERING  
 DATE 9-15-81

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS  
 2310 SAINT PAUL STREET  
 BALTIMORE, MARYLAND 21208  
 KENNETH A. McCORD P.E. No. 1974

PINES AT DICKINSON CONDOMINIUMS  
 OWNER DEVELOPER-COUNCIL OF UNIT OWNERS OF THE PINES AT DICKINSON, INC.  
 c/o NAGLE & ZALLER, P.C.  
 JOHN TSKERDANOS  
 7226 LEE DEFOREST DRIVE  
 SUITE 102  
 COLUMBIA, MD. 21046  
 PH. 410-740-8100 EXT. 129

Note:  
 Original Ground over Water & Sewer was taken from Aerial Photography prepared by Maps and Inc., and verified by field survey in July, 1981.

Note:  
 Fill Around Manholes: 1, 15, and 16. See Standard Details.

APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 11-18-81

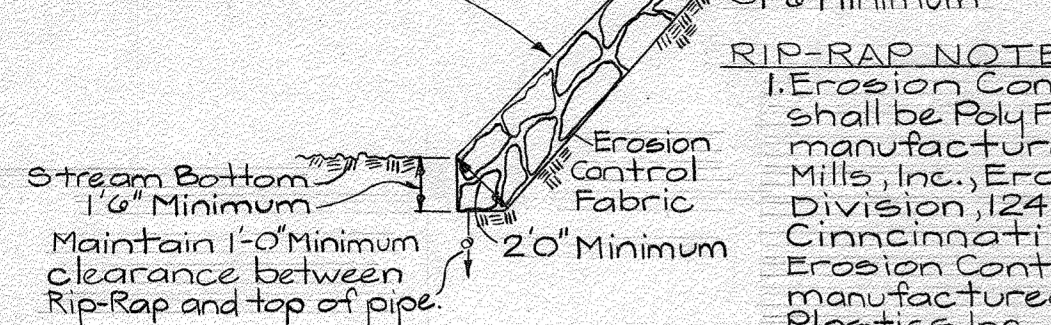
U.O. DATE	REDLINE REVISION FOR CORRECT	DESCRIPTION OF REVISION
12-10-81		

**COLUMBIA**  
**THE PINES AT DICKINSON**  
 VILLAGE OF KINGS CONTRIVANCE  
 SECTION 2 AREA 3  
 PARCEL "G"  
 WATER AND SEWER EXTENSIONS - PROFILES  
 SHEET 10 OF 17  
 ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
 DATE: OCTOBER 9, 1981  
 SCALE: HORIZONTAL V. 1"=100'

AOKI/I.M.G. COLUMBIA, INC.  
 OWNER AND DEVELOPER  
 SUITE 2454  
 THE WORLD TRADE BUILDING  
 BALTIMORE, MARYLAND 21208



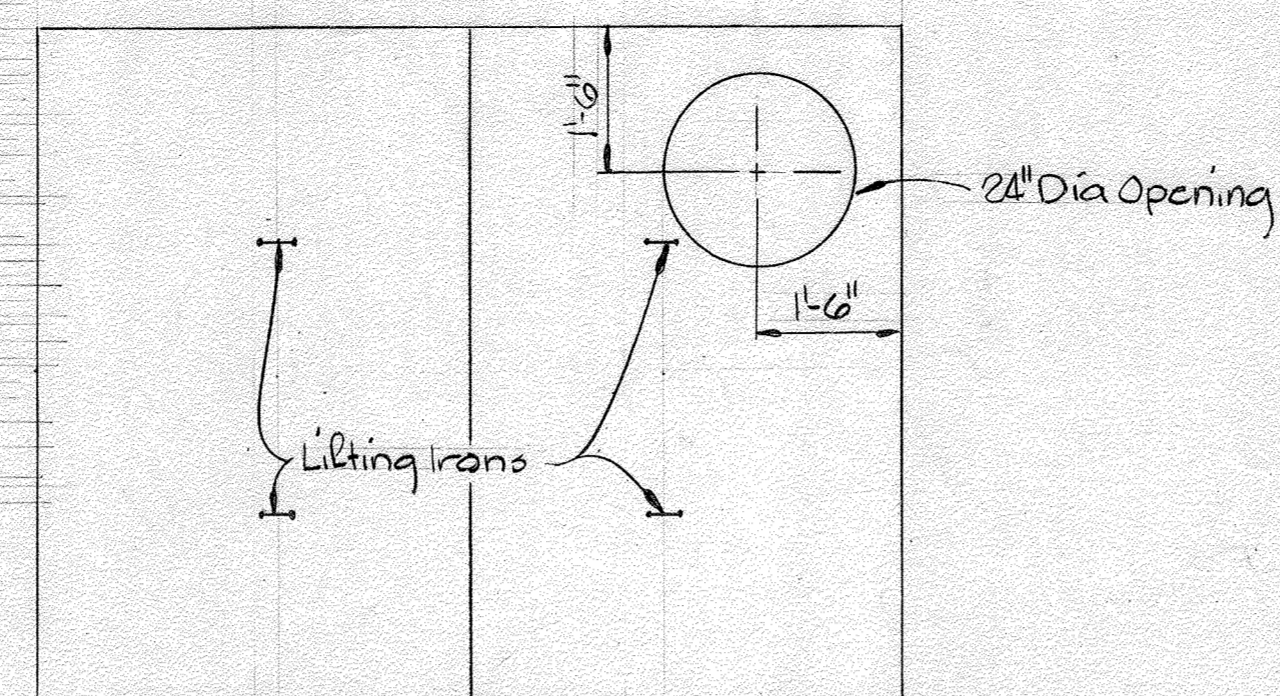
Rip-Rap shall consist of dense racks of random shapes and sizes, resistant to the action of air and water and suitable for bank protection. All rocks shall weigh a minimum of 150 pounds.



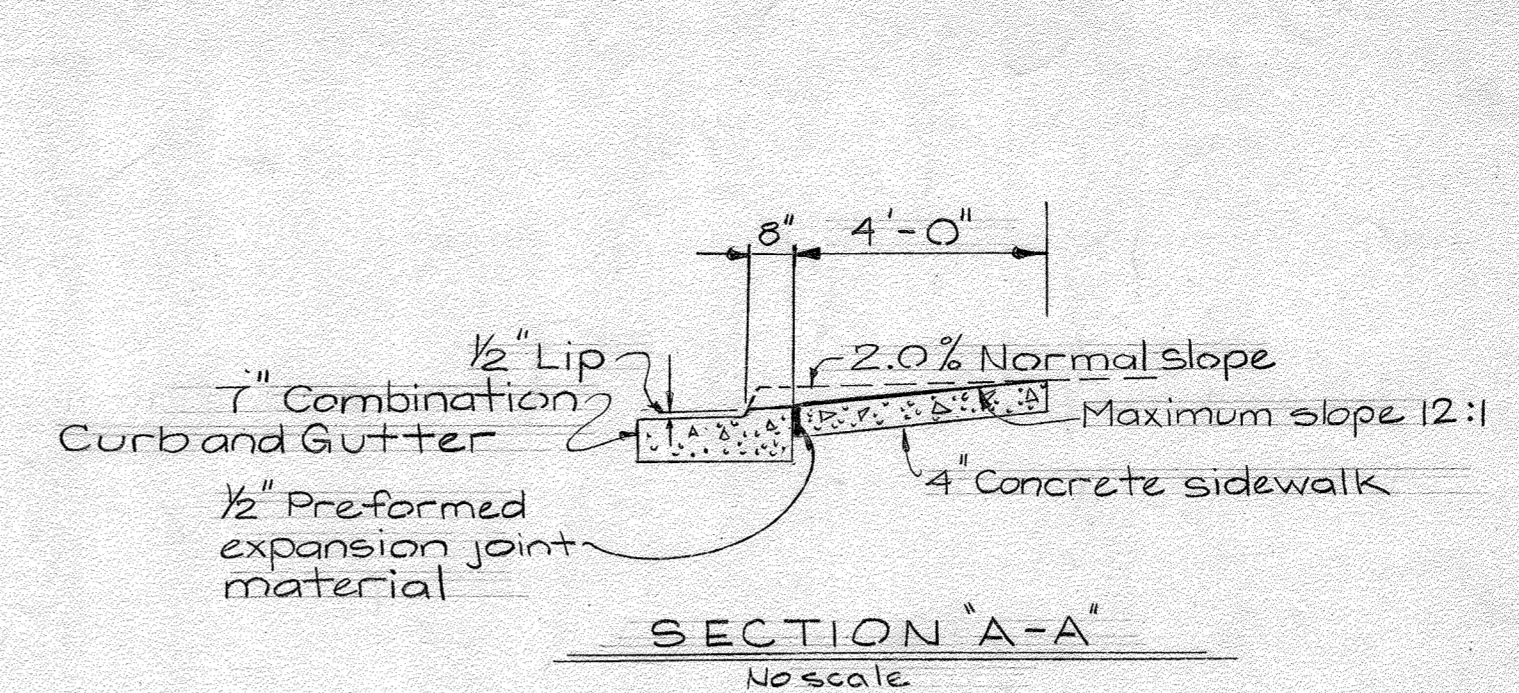
**RIP-RAP DETAIL**  
Scale: 3/16" = 1'-0"

**RIP-RAP NOTES:**  
1. Erosion Control Fabric shall be Poly Filter-X as manufactured by Cartridge Mills, Inc., Erosion Control Division, 124 West 60th St. Cincinnati, Ohio; Laurel Erosion Control Cloth as manufactured by Laurel Plastics Inc., Madison, Maine, or approved equal.  
2. Rip-Rap shall be placed a minimum each side of sewer or as shown.

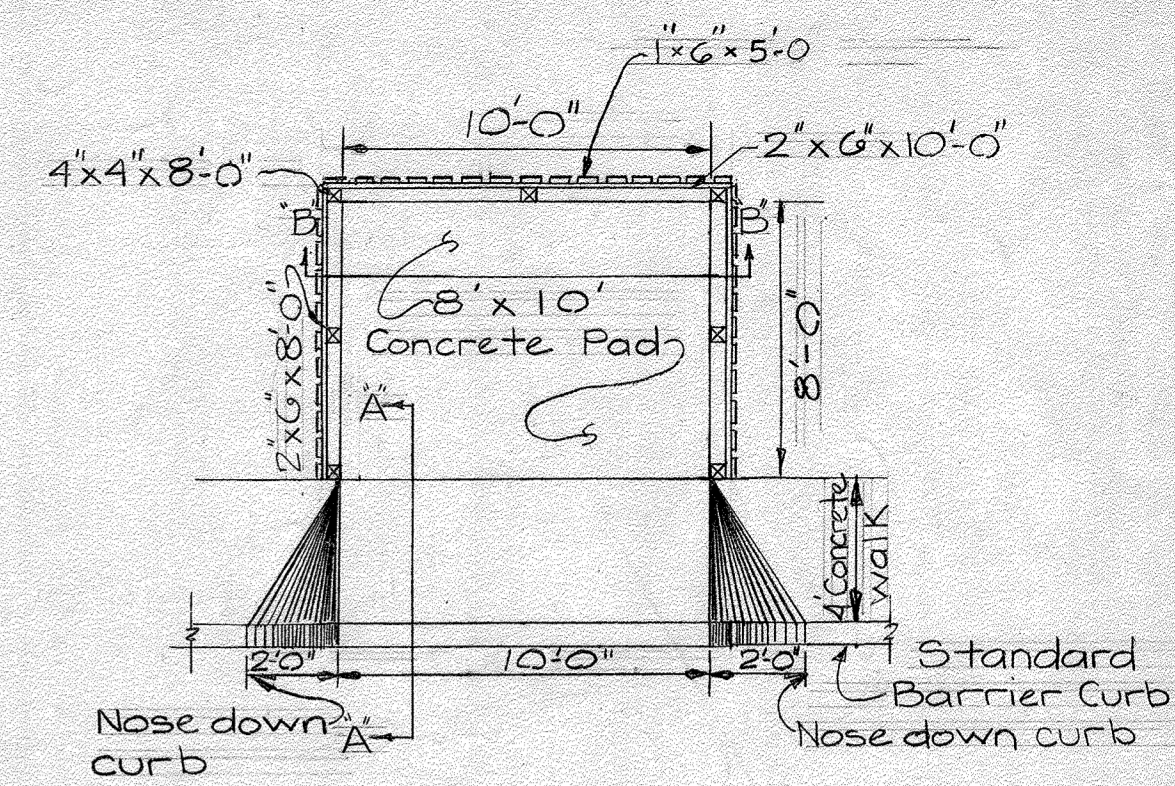
**Notes:**  
1. 2' x 3' DETECTOR METER  
Top Frame and Cover Elev. 296.0. 6"W at structure - Inv. Elev. 290.2.  
2. 4' x 2' DETECTOR METER  
Top Frame and Cover Elev. 3214.4"W at structure - Inv. Elev. 315.6.  
3. Meters will be furnished and installed by Howard County. Contractor shall provide assistance in unloading and installation.



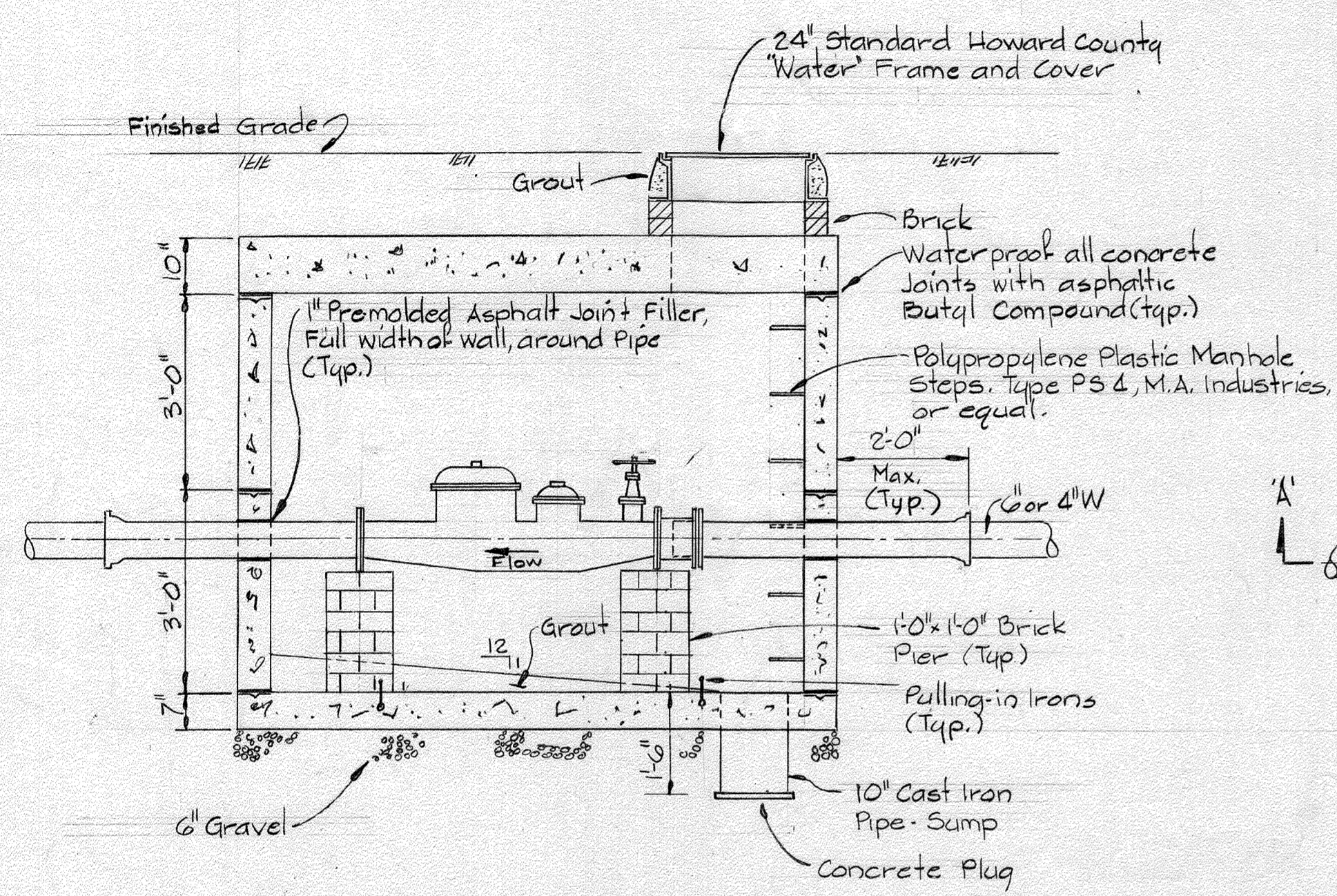
**TOP SLAB**



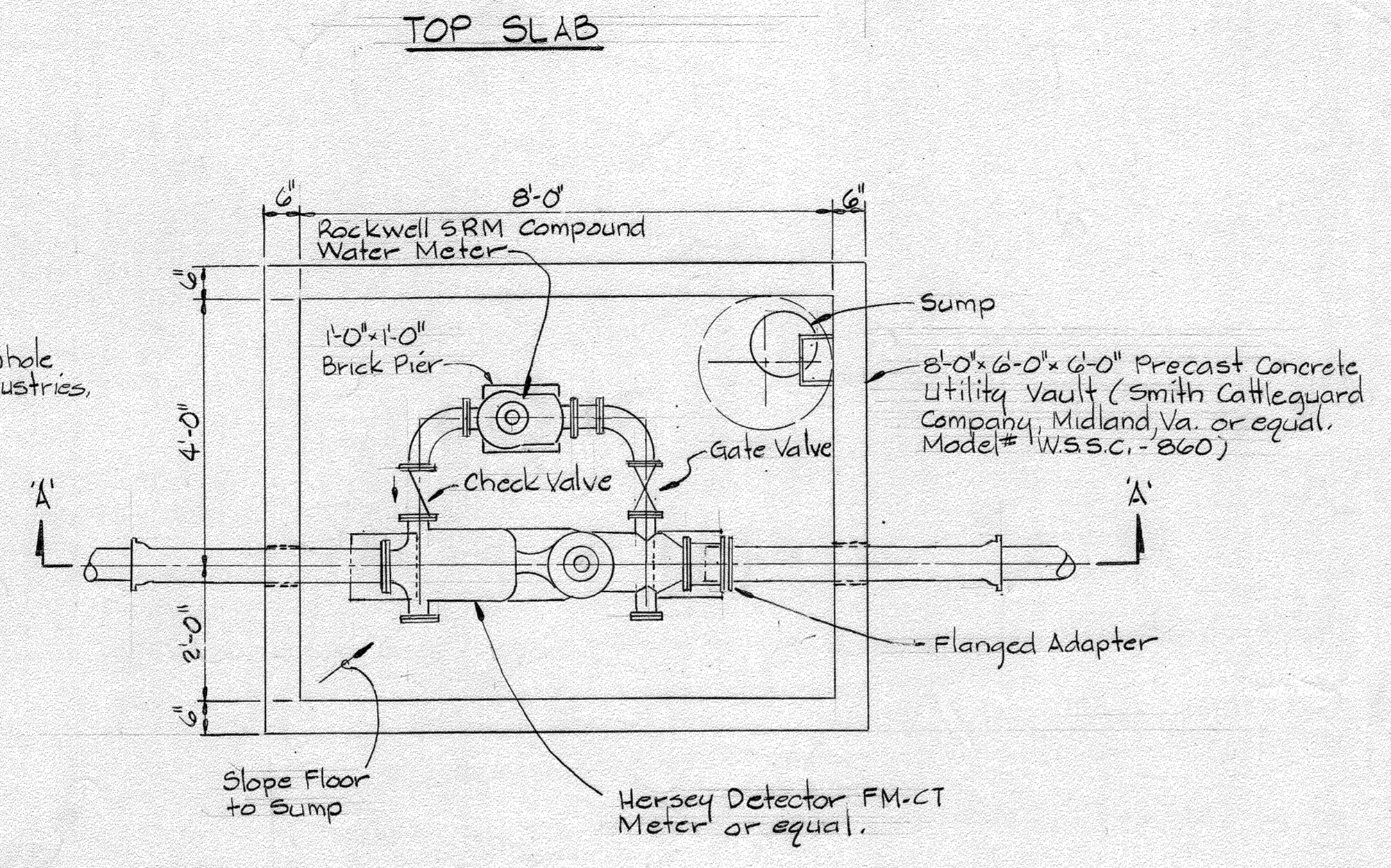
**SECTION A-A**  
No Scale



**PLAN DUMPSTER AREA WITH SIDEWALK**  
NO SCALE

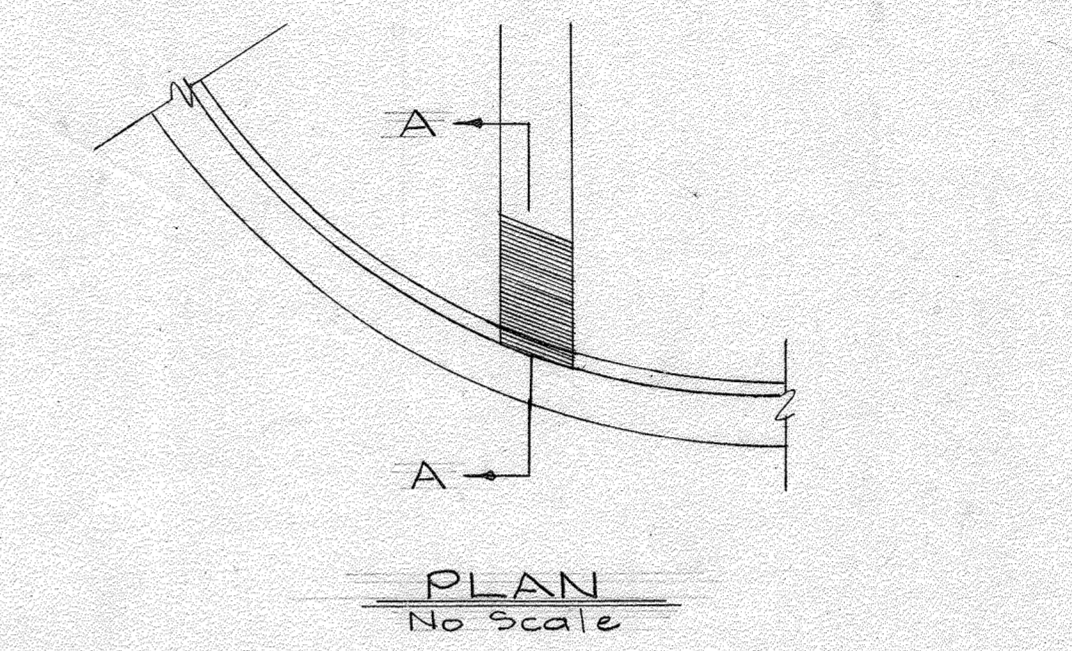


**SECTION A-A**

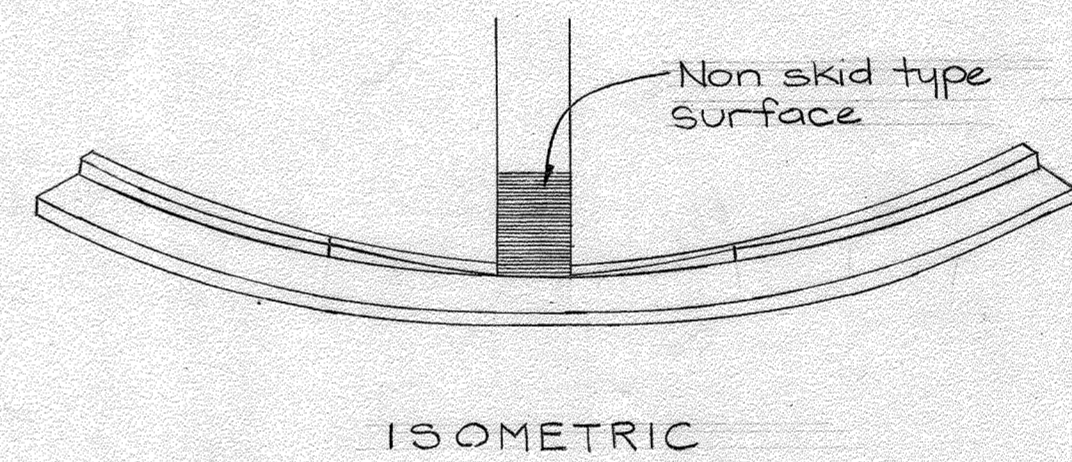


**PLAN**

**DETAIL OF DETECTOR METER**  
Not to Scale

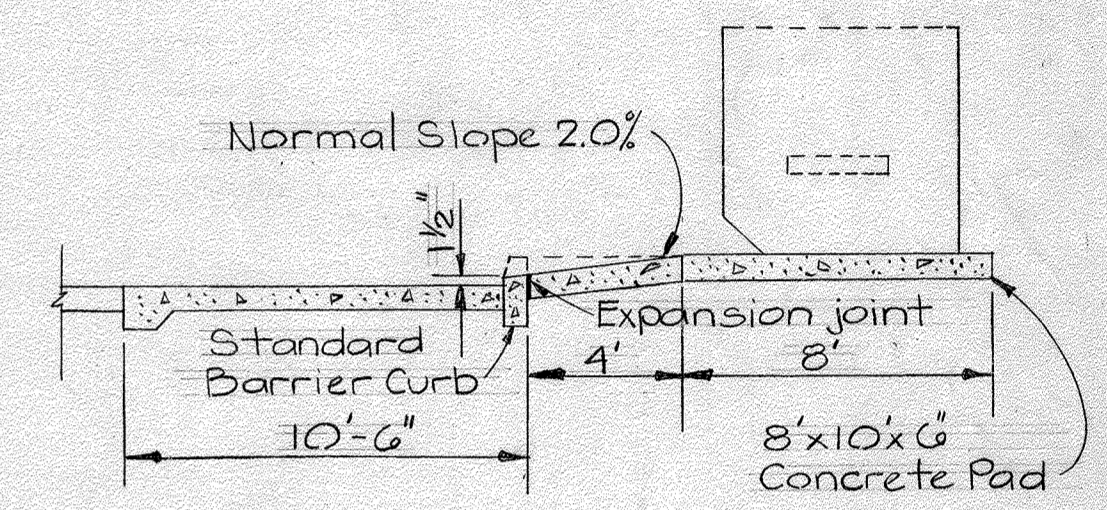


**PLAN**  
No Scale

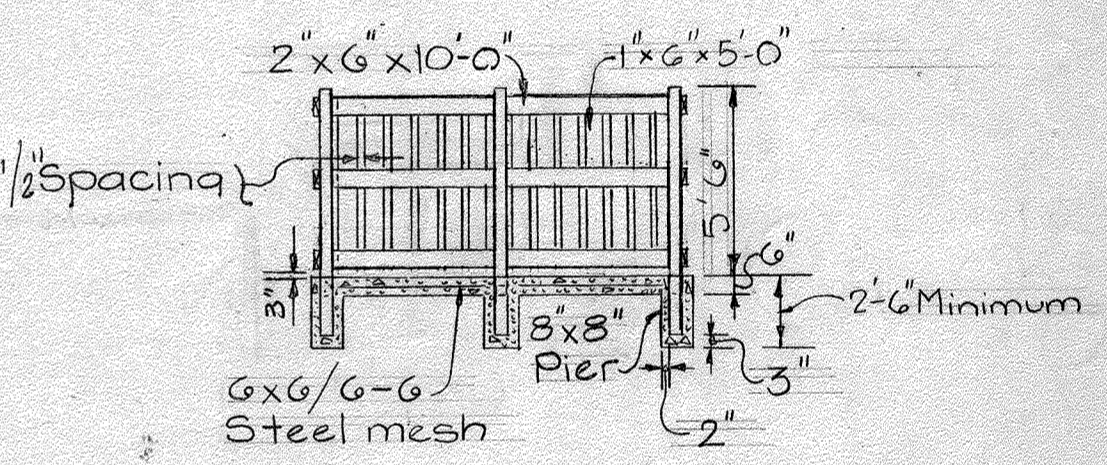


**ISOMETRIC**

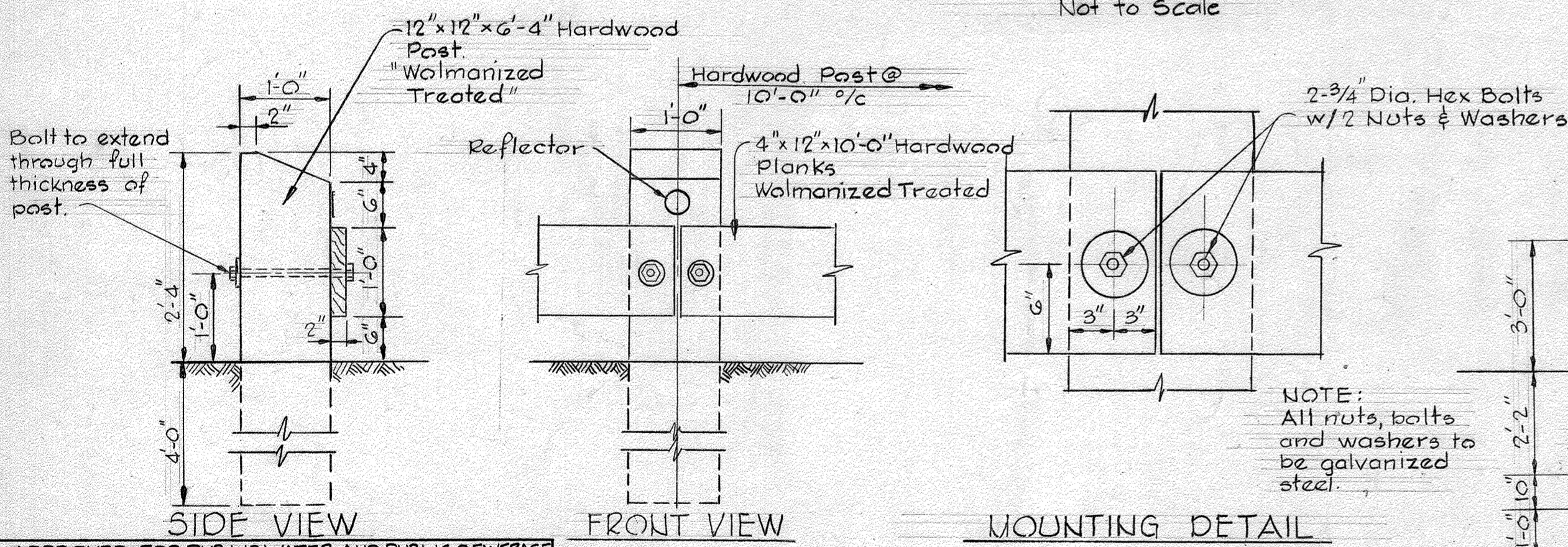
**HANDICAP RAMP**  
No Scale



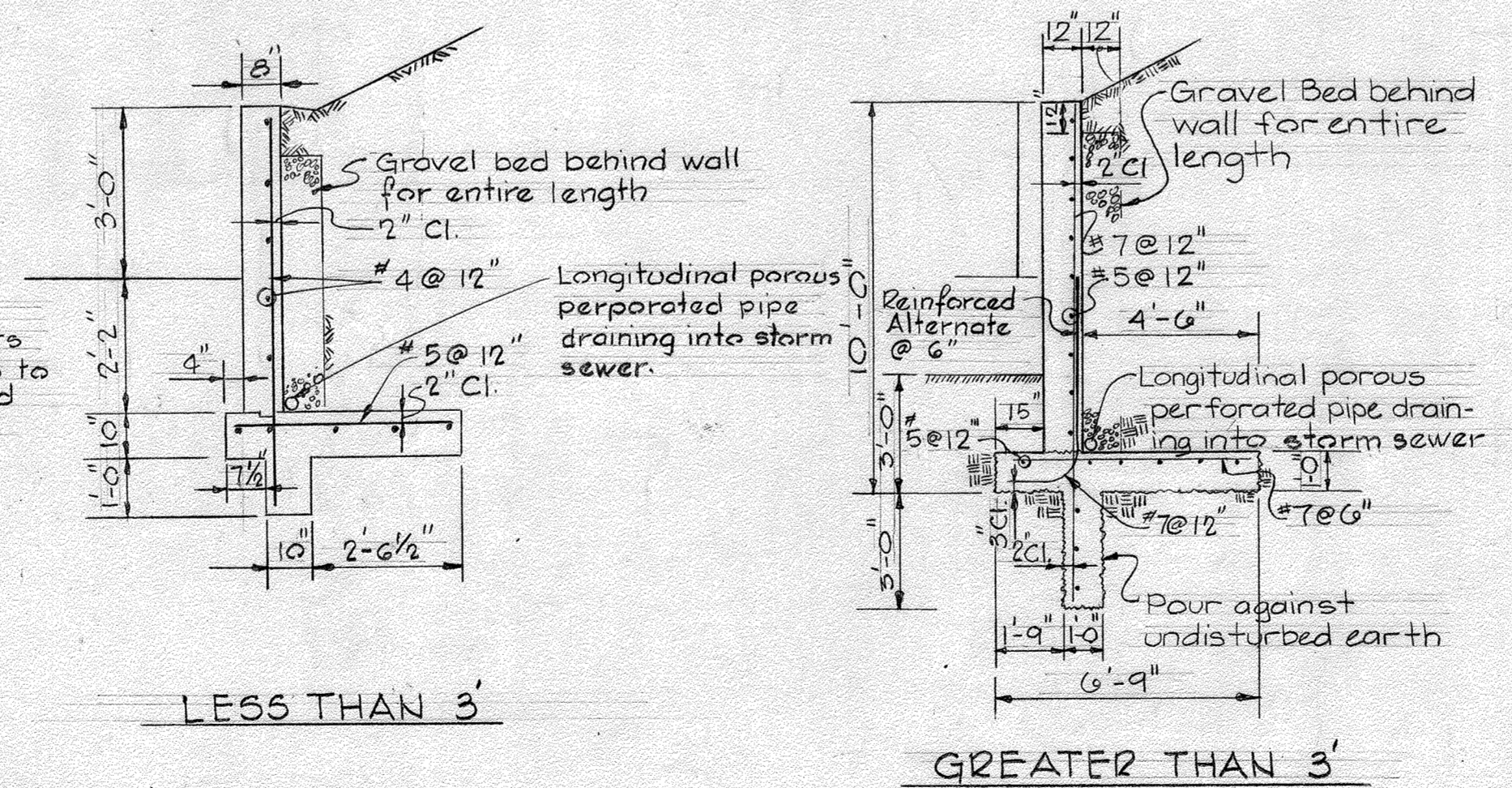
**SECTION A-A**  
No Scale



**SECTION B-B**  
No Scale



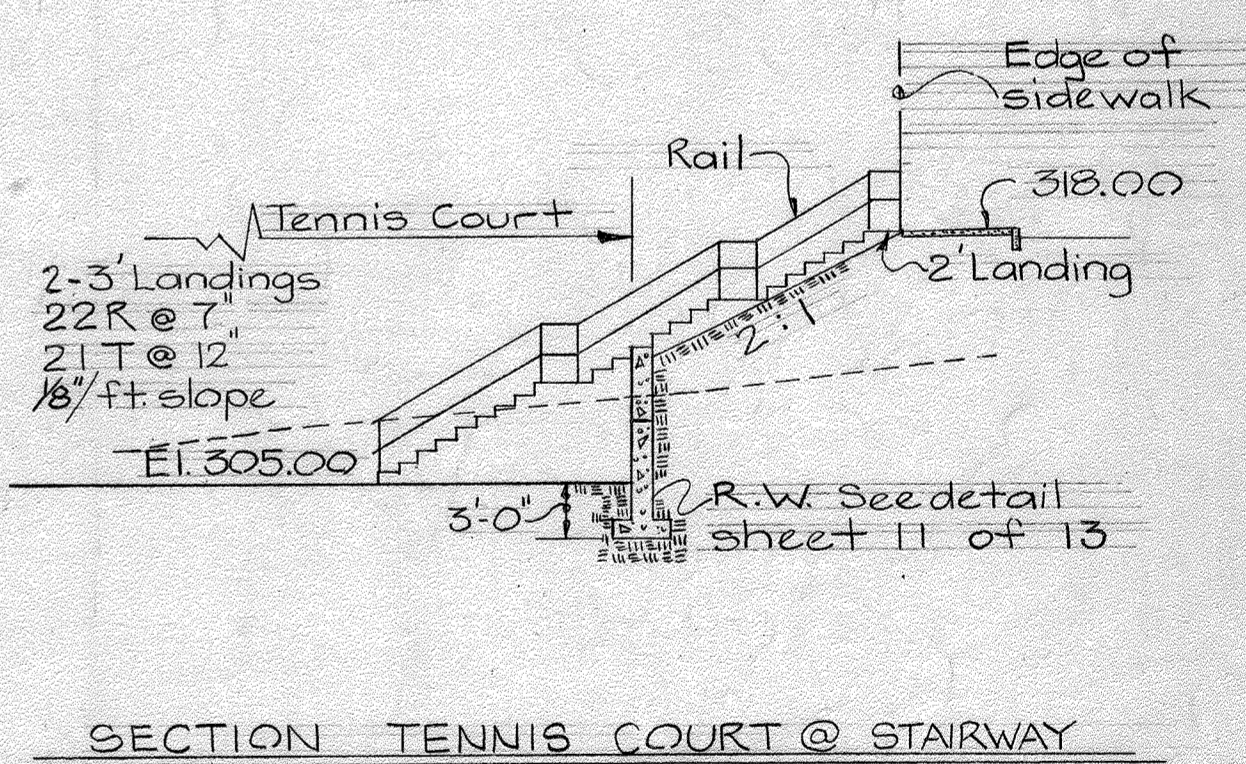
**GUARD RAIL DETAILS**  
No Scale



**FRONT RETAINING WALL (GROUP #2 & #12)**

**RETAINING WALLS**  
NO SCALE

**NOTES:**  
1. 28 day ultimate concrete strength,  $f_c$ , shall be 3000 psi.  
2. Reinforcement shall be ASTM A615 grade 60 steel.  
3. The longitudinal drain shall be a porous or perforated pipe that connects into a drainage basin beyond the retaining wall. A 1 foot gravel pocket shall be directly behind the wall for the entire length of the wall.  
4. The exposed face of the retaining walls shall be scored with a brick pattern.  
5. Contraction joints shall be spaced @ 25 ft. ±. Every fourth joint shall be an expansion joint @ 100 ft. ±. No horizontal reinforcement shall pass through the joints.



**SECTION TENNIS COURT @ STAIRWAY**  
No Scale

**APPROVED**  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE: 11-18-81

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS; HOWARD COUNTY HEALTH DEPARTMENT  
*James Brax* COUNTY HEALTH OFFICER 7-16-81  
APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
*Donna Hamish* PLANNING DIRECTOR 9-20-82  
CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
APPROVED FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS. HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
*Mike F. Neuman* DIRECTOR 9-15-81  
*Steve D. ...* CHIEF, BUREAU OF ENGINEERING 11/18/81

**WHITMAN, REQUARDT AND ASSOCIATES**  
ENGINEERS  
2315 SAINT PAUL STREET  
BALTIMORE, MARYLAND 21218  
*Kenneth A. McCord*  
KENNETH A. McCord P.E. No. 1074

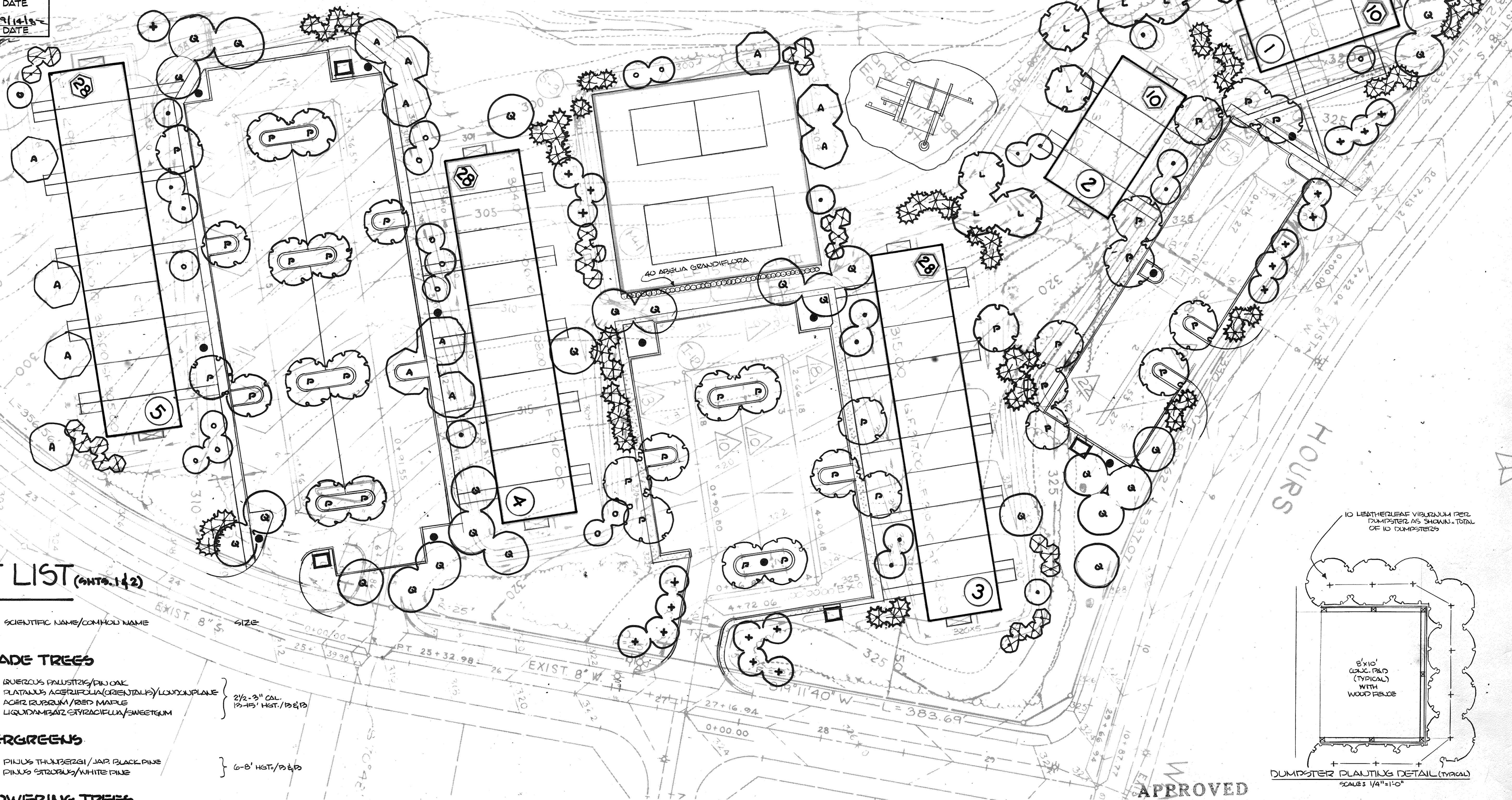
**LOKI/IMG. COLUMBIA, INC.**  
OWNER AND DEVELOPER  
SUITE 2454  
THE WORLD TRADE BUILDING  
BALTIMORE, MARYLAND 21202



REDLINE REVISION FOR COLLECT  
NO. DATE DESCRIPTION OF REVISION  
**COLUMBIA**  
**THE PINES AT DICKINSON**  
VILLAGE OF KINGS CONTRIVANCE  
SECTION 2 AREA 3  
PARCEL "G"  
**WATER AND SEWER EXTENSIONS - DETAILS**  
SHEET 11 OF 13 17  
ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
DATE: OCTOBER 9, 1981 SCALE: AS SHOWN  
SDP-82-516 10/12/81



APPROVED: FOR PUBLIC WATER AND SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER *[Signature]* DATE 9-20-82  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 PLANNING DIRECTOR *[Signature]* DATE 9-20-82  
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
 APPROVED: FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 DIRECTOR *[Signature]* DATE 9-15-82  
 CHIEF BUREAU OF ENGINEERING *[Signature]* DATE 9-14-82

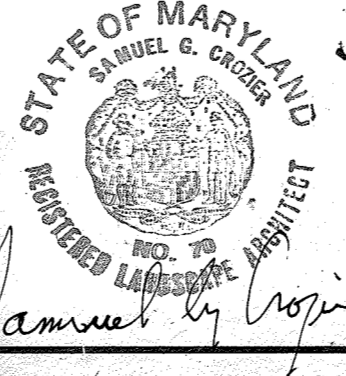


### KEY/PLANT LIST (SHTS. 1 & 2)

SYMBOL	QUANTITIES	SCIENTIFIC NAME/COMMON NAME	SIZE
	<b>224</b>	<b>SHADE TREES</b>	
(68) Q		QUERCUS PALUSTRIS/PIN OAK	
(87) P		PLATANUS ACERIFOLIA (CRENATAUS)/LONDON PLANE	2 1/2 - 3" CAL. 12-15' HGT. / P & P
(40) A		ACER RUBRUM / RED MAPLE	
(29) L		LIQUIDAMBAR STYRACIFLUA / SWEETGUM	
	<b>204</b>	<b>EVERGREENS</b>	
(116) P		PINUS THUNBERGII / JAP. BLACK PINE	6-8' HGT. / P & P
(88) P		PINUS STROBUS / WHITE PINE	
	<b>118</b>	<b>FLOWERING TREES</b>	
(37) A		CORNUS KOUSA / KOUSA DOGWOOD	2-2 1/2" CAL. 8-10' HGT.
(45) A		CRATAEGUS PHNEDOPHYLLUM / WINGED THORN	
(36) A		MALUS FLORIBUNDA / FLOWERING CRAB	
	<b>140</b>	<b>SHRUBS</b>	
(40) A		ABELIA GRANDIFLORA / GLOSSY ABELIA	18-24" P & P
(100) A		VIBURNUM RHYTIPOHYLLUM / LEATHERLEAF VIB.	3-4" P & P

PINES AT DICKINSON CONDOMINIUMS  
 OWNER DEVELOPER-COUNCIL OF UNIT OWNERS OF THE PINES AT DICKINSON, INC.  
 c/o NAGLE & ZALLER, P.C., JOHN TSIKERDANOS  
 7226 LEE DEFOREST DRIVE SUITE 102  
 COLUMBIA, MD. 21046  
 PH. 410-740-8100 EXT. 129

**AOKI/IMG. COLUMBIA, INC.**  
 OWNER AND DEVELOPER  
 SUITE 2454  
 THE WORLD TRADE BUILDING  
 BALTIMORE, MARYLAND 21202

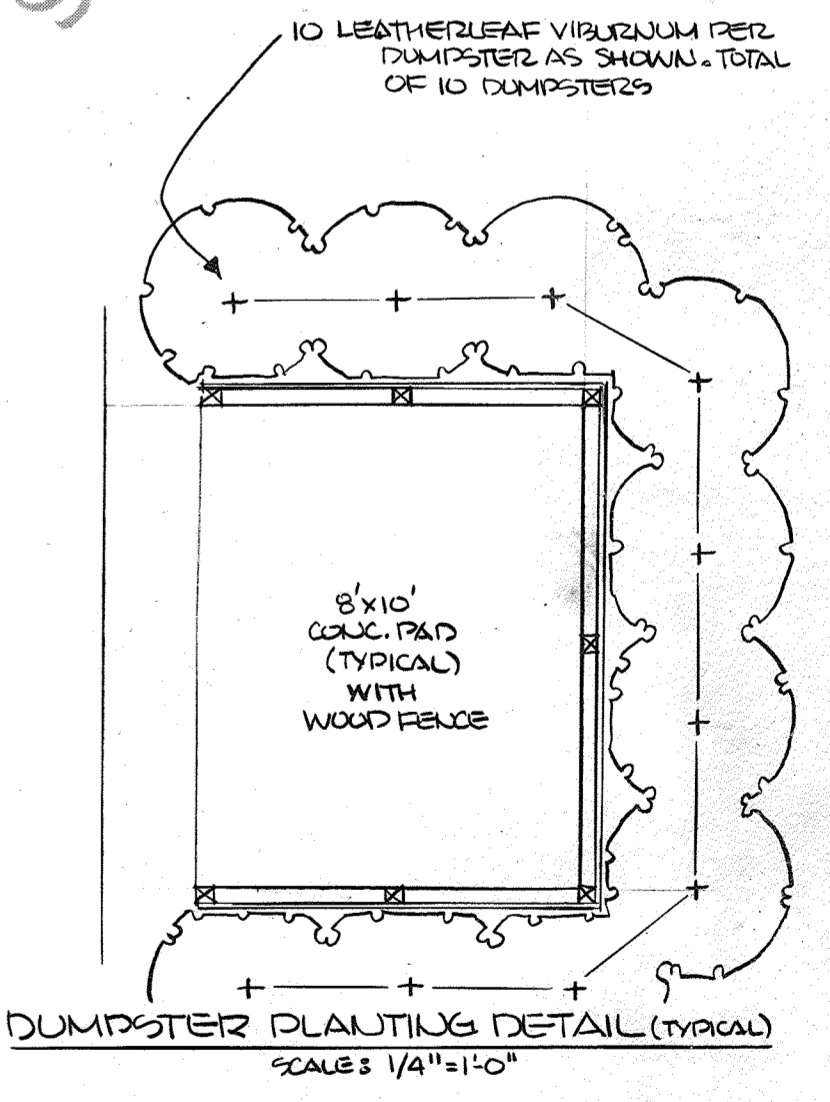


### LANDSCAPE PLAN SHEET 12 OF 13

**THE PINES OF DICKINSON**  
 VILLAGE OF KING'S CONTRIVANCE  
 PARCEL G  
 SECTION TWO ELECTION DIST. SIX AREA THREE HOWARD CO., MD.

DATE	NO.	REVISIONS	PROJECT NO.:
9-21	1	ADDED 140 TREES (CONING CHANGE)	8119
9-22	2	REVISED FOR CURBING, LIGHTING & DUMPSTERS	
11-29	3	MOVED 2 PINES, 10CR.	
12-10-82	4	REDLINE REVISION FOR CURB/EFT	

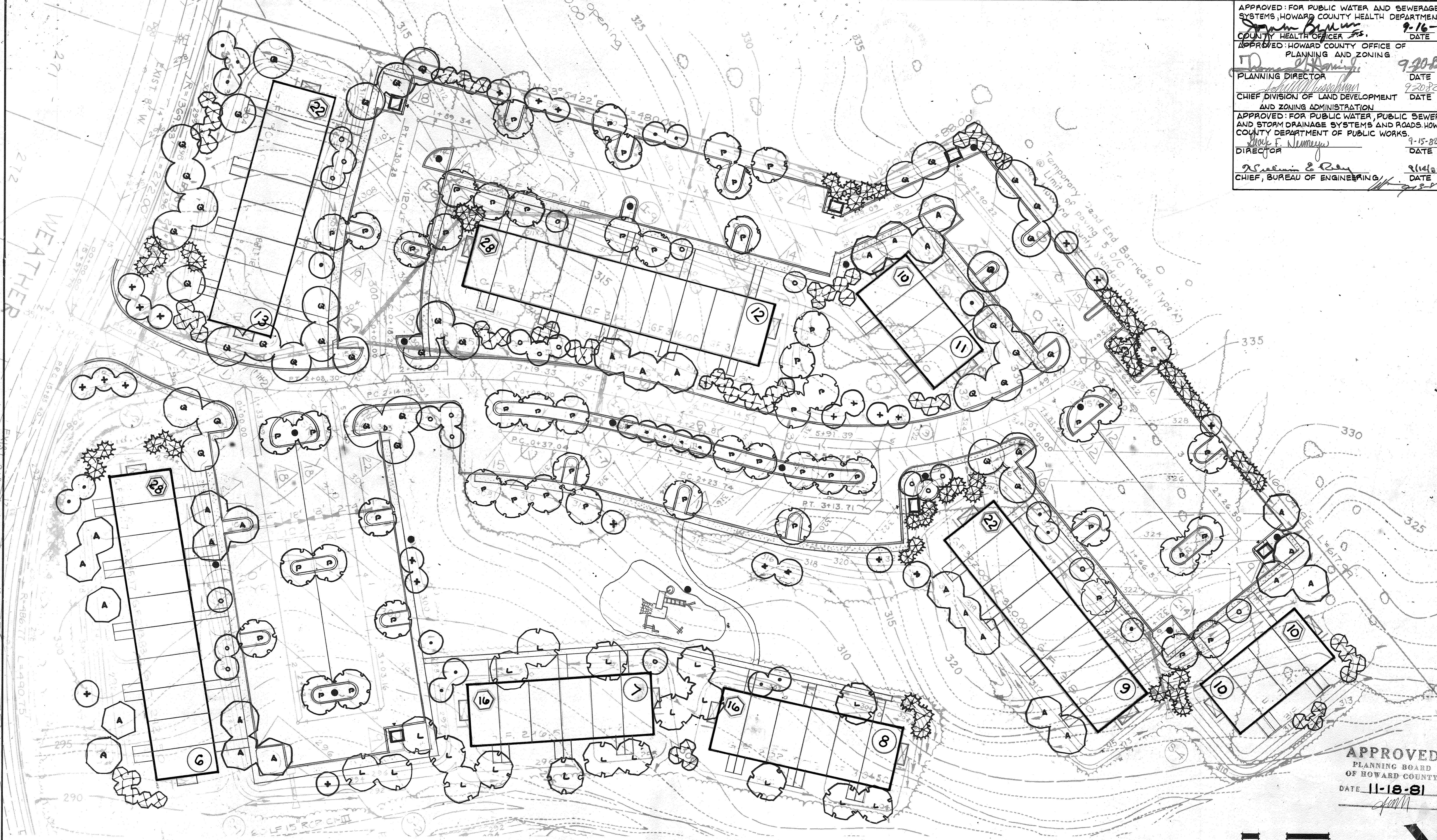
APPROVED  
 PLANNING BOARD OF HOWARD COUNTY  
 DATE 11-18-81



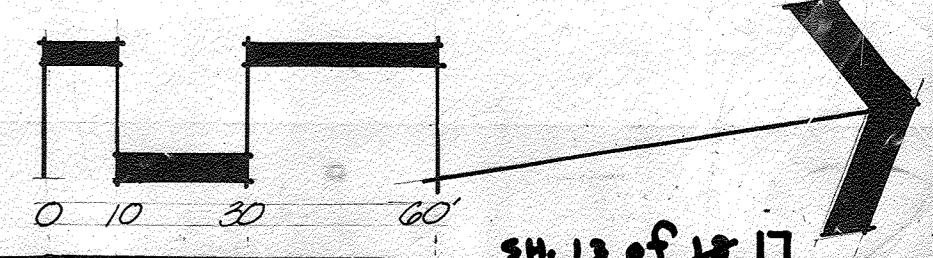
**CROZIER ASSOCIATES**  
 LANDSCAPE ARCHITECTS PLANNERS  
 SUITE 408 EAST QUADRANGLE  
 VILLAGE OF CRIBBS KEYS  
 BALTIMORE, MD. 21210  
 301-323-8518



APPROVED: FOR PUBLIC WATER AND SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT  
 COUNTY HEALTH OFFICER *Samuel G. ...* DATE 9-16-82  
 APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING  
 PLANNING DIRECTOR *...* DATE 9-20-82  
 CHIEF DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION  
 APPROVED: FOR PUBLIC WATER, PUBLIC SEWER AND STORM DRAINAGE SYSTEMS AND ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.  
 DIRECTOR *...* DATE 9-15-82  
 CHIEF, BUREAU OF ENGINEERING *...* DATE 9-15-82



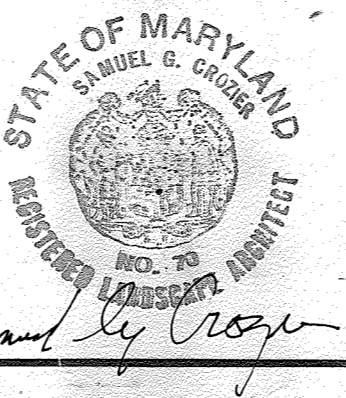
APPROVED  
 PLANNING BOARD  
 OF HOWARD COUNTY  
 DATE 11-18-81  
*JMM*



LANDSCAPE PLAN SHEET 13 OF 13

AOKI/IMG. COLUMBIA, INC.  
 OWNER AND DEVELOPER  
 SUITE 2454  
 THE WORLD TRADE BUILDING  
 BALTIMORE, MARYLAND 21202

PINES AT DICKINSON CONDOMINIUMS  
 OWNER DEVELOPER-COUNCIL OF UNIT OWNERS OF THE PINES AT DICKINSON, INC.  
 c/o NAGLE & ZALLER, P.C., JOHN TSIKERDANOS  
 7226 LEE DEFOREST DRIVE  
 SUITE 102  
 COLUMBIA, MD. 21046  
 PH. 410-740-8100 EXT. 129



**THE PINES OF DICKINSON**  
 VILLAGE OF KINGS CONTRIVANCE  
 SECTION TWO  
 ELECTION DIST. SIX  
 AREA THREE  
 HOWARD CO., MD.

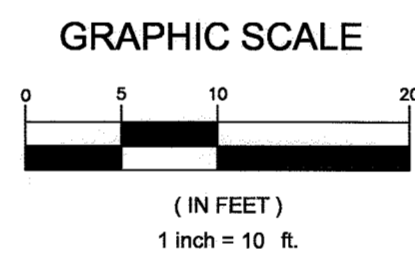
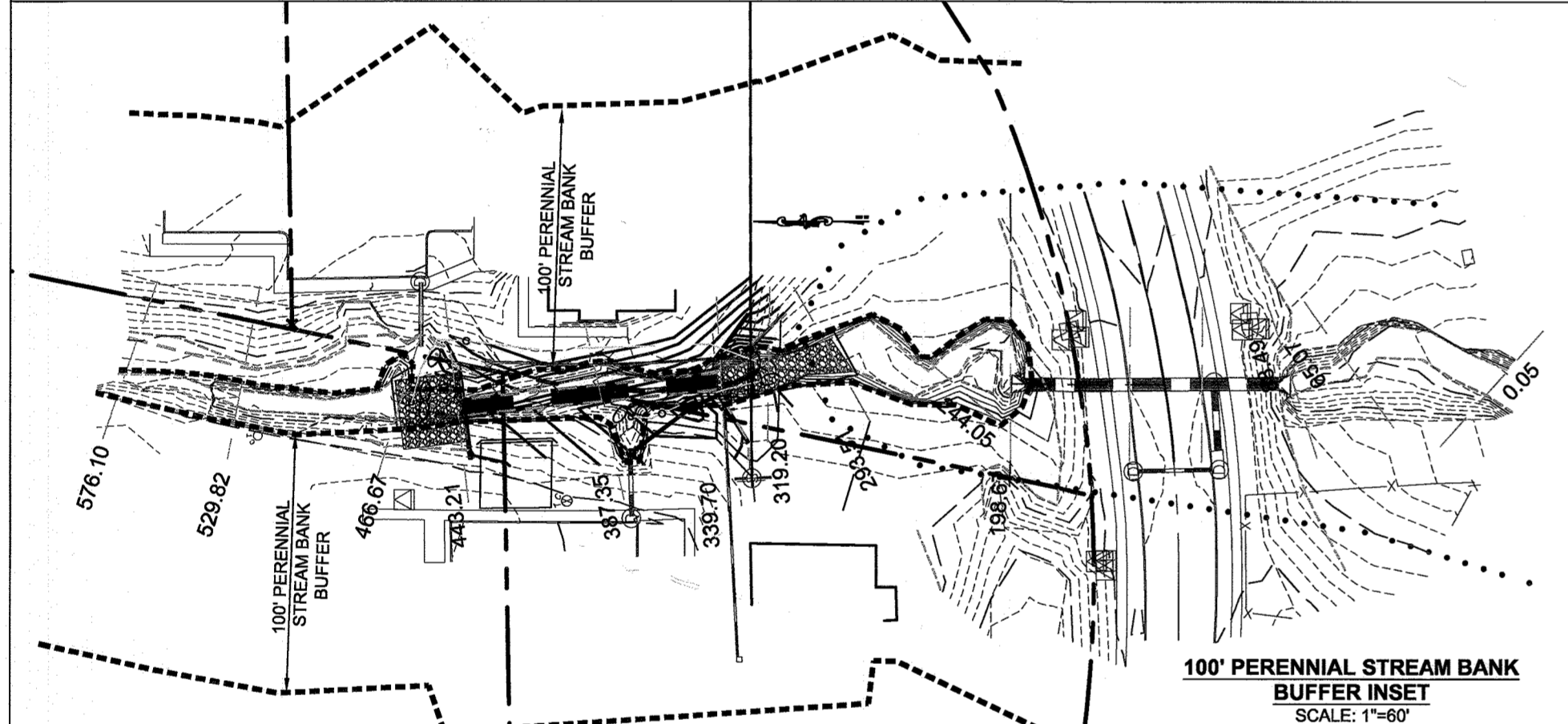
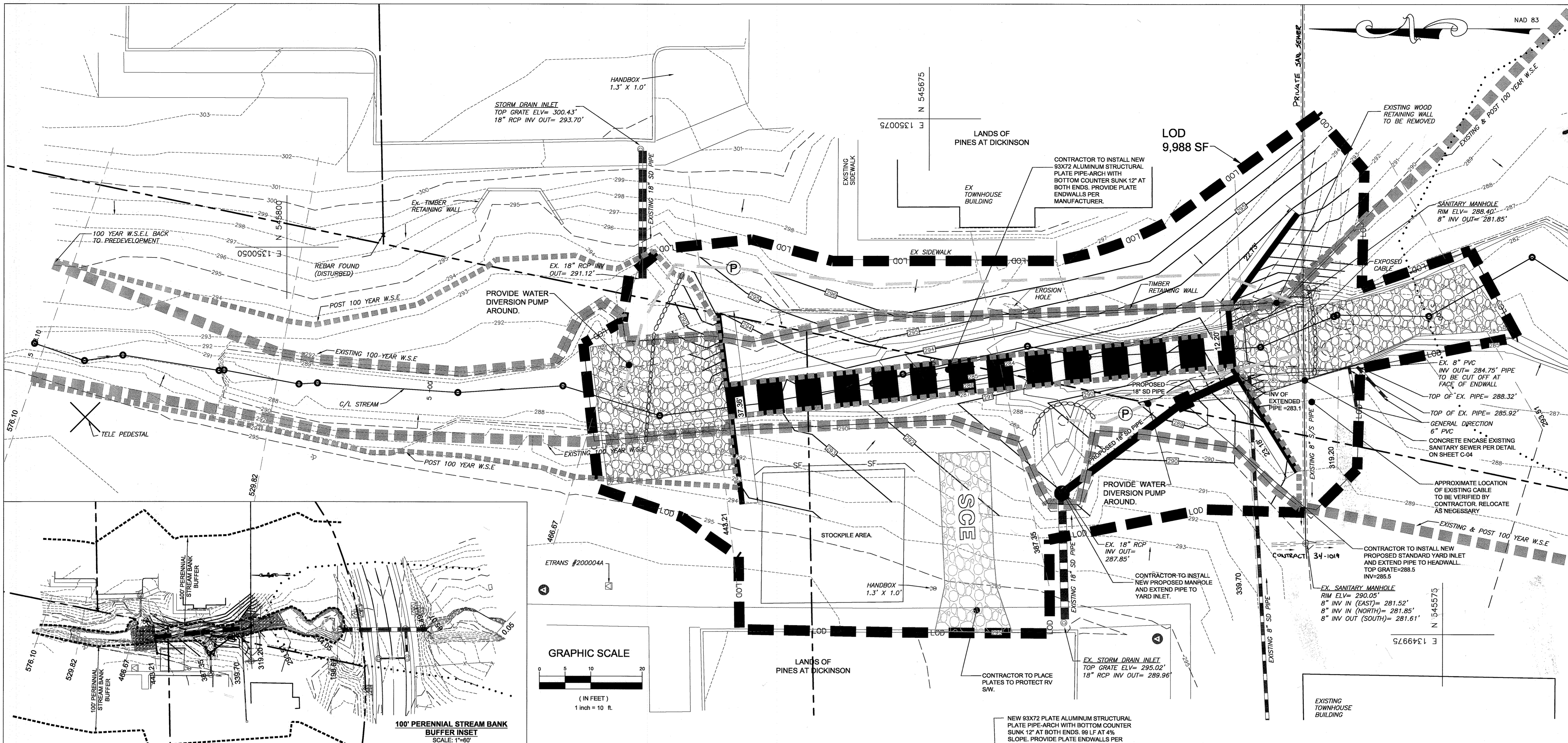
DATE	NO.	REVISIONS
9.21	1	SEE SHEET 1
9.22	2	SEE SHEET 2
12-10-81	3	REDLINE PENNIAL FOR CORRECT

DRAWN BY: EJM/EWT  
 DATE: 8.26.81  
 SCALE: 1" = 30'  
 PROJECT NO.: 8119

**CROZIER ASSOCIATES**  
**LANDSCAPE ARCHITECTS**  
**PLANNERS**

SUITE 408 EAST QUADRANGLE  
 VILLAGE OF CROSS KEYS  
 BALTIMORE, MD. 21210  
 301-323-8916





**OWNERS/DEVELOPER CERTIFICATION:**  
 "WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE."

*John Tsikerdanos*  
 JOHN TSIKERDANOS  
 3/15/22  
 DATE

**DESIGN CERTIFICATION:**  
 "I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*Bill Swales*  
 BILL SWALES  
 3/15/22  
 DATE

MD REGISTRATION NO. 34688  
 (P.E., R.L.S., OR R.L.A. (CIRCLE ONE))

**HOWARD SCD SIGNATURE BLOCK:**  
 THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

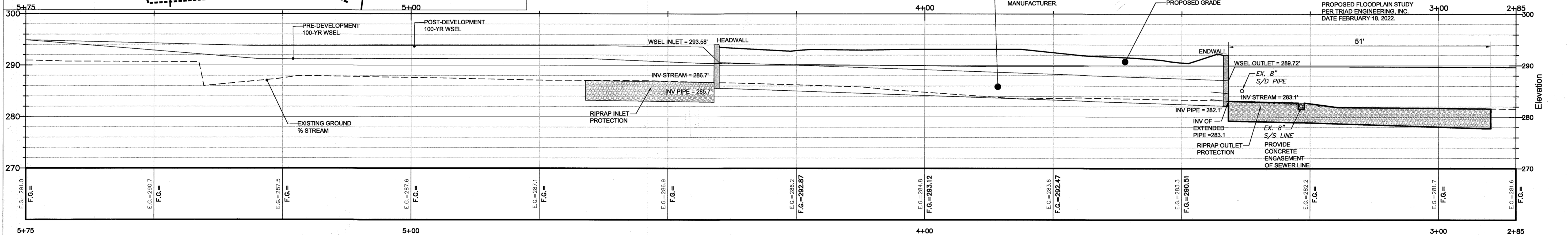
*Alvin Bistacchi*  
 ALVIN BISTACCHI  
 06/23/22  
 DATE

**APPROVED: DEPARTMENT OF PLANNING AND ZONING**  
*Cheryl...*  
 CHERYL...  
 6-28-22  
 DATE

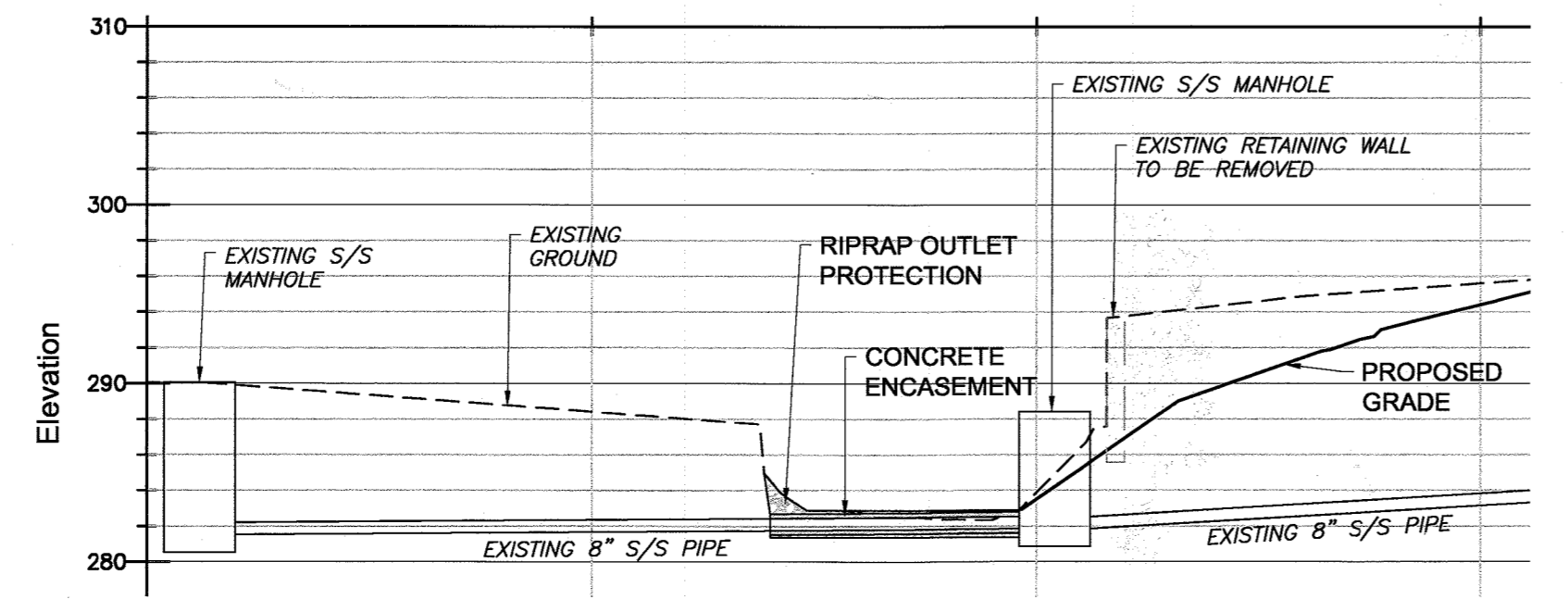
**CHIEF, DEVELOPMENT ENGINEERING DIVISION**  
*...*  
 7/1/22  
 DATE

**CHIEF, DIVISION OF LAND DEVELOPMENT**  
*...*  
 7-11-22  
 DATE

SECTION	EX. WSEL	PROP WSEL
576.1	295.3	295.21
529.82	291.25	293.75
466.64	291.34	293.83
443.21	290.4	293.58
387.35	289.77	CULVERT
339.7	-	289.74
319.2	289.81	289.74
293.51	289.83	289.79
244.05	289.83	289.8
198.67	289.8	289.77
88.49	280.75	280.75
65.07	277.55	276.71
0.05	276.59	276.16
-210	273.75	273.75



PROFILE OF STREAM CHANNEL WITH PROPOSED CULVERT  
 SCALE: HORIZ: 1"=10'  
 VERT: 1"=10'



**THE PURPOSE OF THE RETAINING WALL REPLACEMENT IS DUE TO IT FAILING AND AT RISK OF COMPLETE FAILURE. THE METHOD OF REPLACE/ REPAIR IS TO INSTALL CULVERT/ STREAM CHANNEL TO ELIMINATE NEED FOR WALL.**

**GENERAL NOTES:**

- THIS ALTERNATIVE COMPLIANCE REQUEST TO SECTION 18.116(a)(2)(iii) OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS IS FOR DISTURBANCE TO A 100-FOOT STREAM BANK BUFFER TO REPLACE A FAILING RETAINING WALL AND TO PERFORM RELATED REPAIRS WITHIN THE BUFFER. THE LIMITS OF DISTURBANCE IS 9,988 S.F. THE SUBJECT PROPERTY IS ZONED NT (NEW TOWN) AND IN ACCORDANCE WITH SECTION 125.0.G.1 OF THE ZONING REGULATIONS, PLANNING BOARD REVIEW AND APPROVAL IS REQUIRED.
- DPZ FILES: FDP-178-III, SDP-82-051, PLAT NO. 6885, F-61-089, 14P-22-101
- MDE WETLANDS AND WATERWAYS PERMIT: 201961376/19-NT-3200

**PINES AT DICKINSON CONDOMINIUMS**  
 Owner / Developer  
 Council of Unit Owners of The Pines at Dickinson, Inc.  
 C/O NAGLE & ZALLER P.C.; JOHN TSIKERDANOS  
 7226 LEE DEFOREST DRIVE SUITE 102  
 COLUMBIA, MD 21046  
 PH: 410-740-8100 EXT. 129

NO.	DATE	COMMENTS PER HOWARD SCD
2	3-30-22	REVISION FOR CULVERT
1	12-10-21	REVISION FOR CULVERT

**COLUMBIA THE PINES AT DICKINSON**  
 VILLAGE OF KINGS CONTRIVANCE  
 SECTION 2 AREA 3  
 PARCEL 'G'  
 "REVISED SITE DEVELOPMENT PLAN"  
 CULVERT CONSTRUCTION DRAWING  
 SHEET 14 OF 17

ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
 DATE: December 10, 2021  
 SCALE: 1"=10'

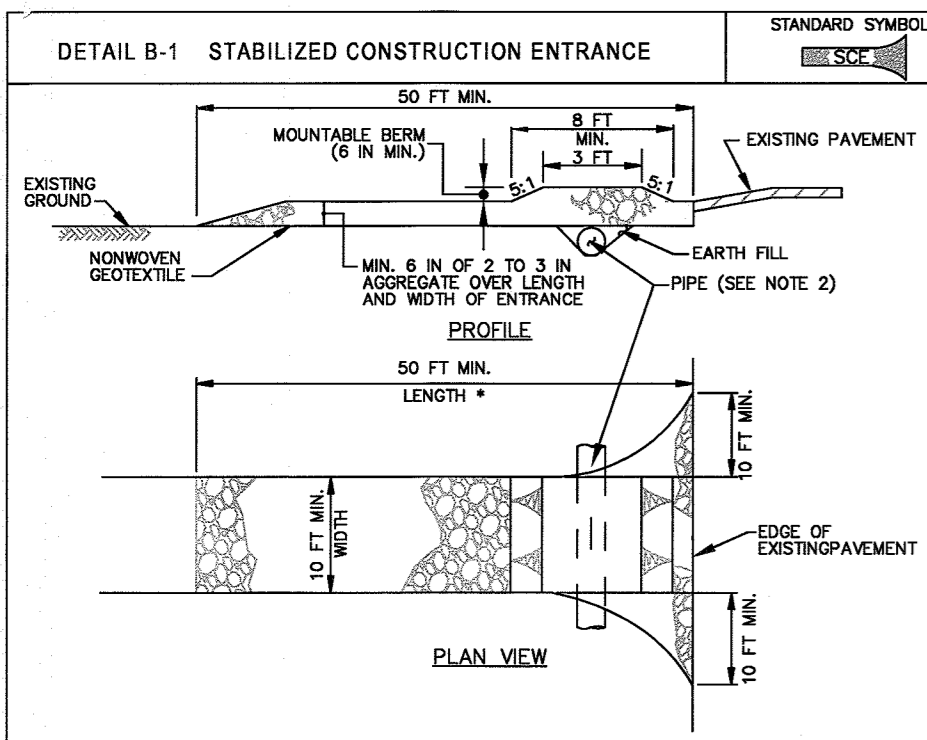
**TRIAD ENGINEERING, INC.**  
 1075-D SHERMAN AVENUE  
 HAGERSTOWN, MD 21740  
 PH: 301.797.6400 FAX: 301.797.2424

OFFICE LOCATIONS  
 MARYLAND • PENNSYLVANIA • VIRGINIA • WEST VIRGINIA

**PROFESSIONAL CERTIFICATION:**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688, EXPIRATION DATE: 7-9-23"

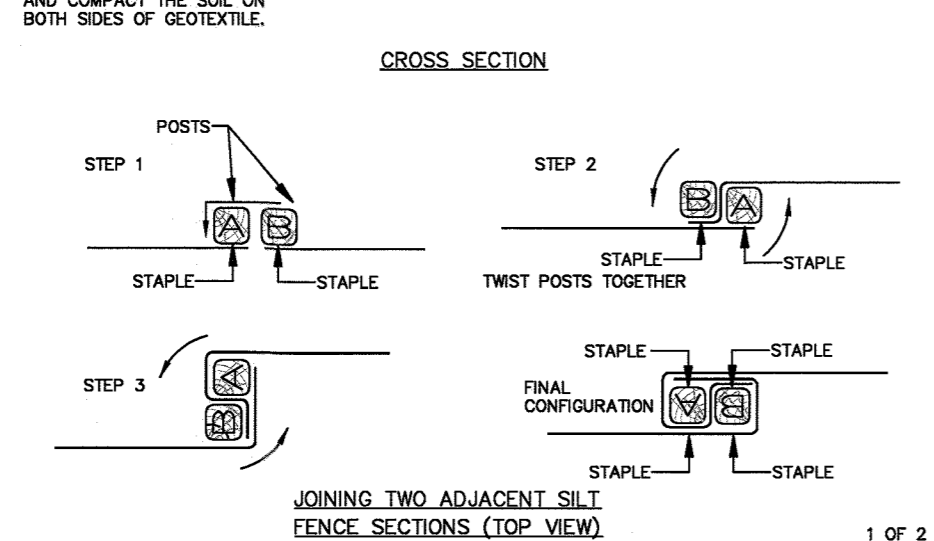
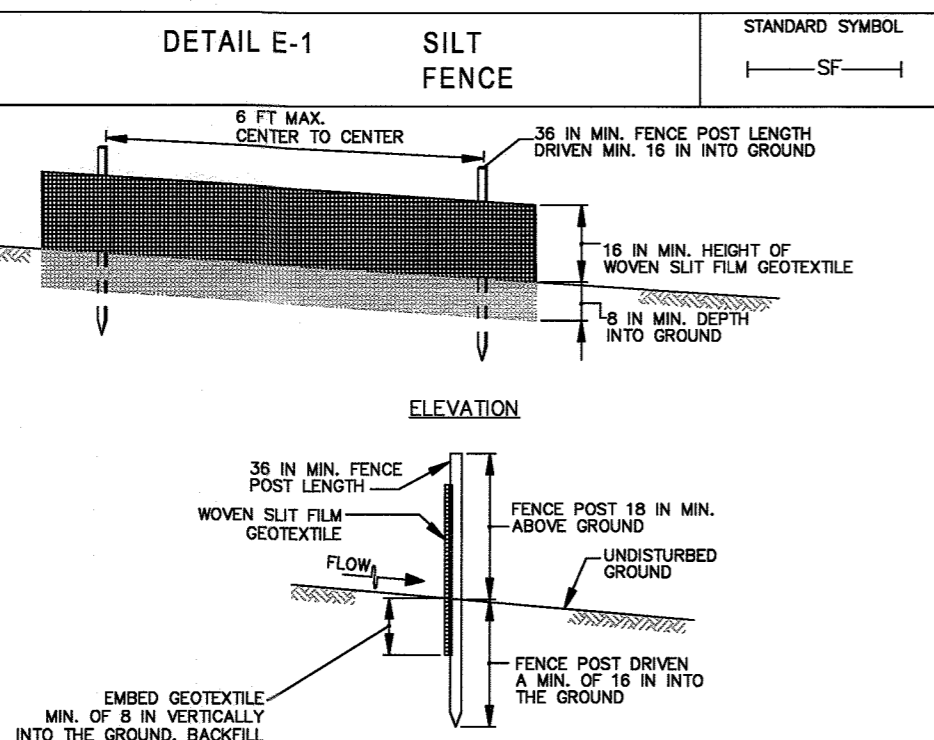
CERTIFICATION FOR REDLINE REVISION FOR CULVERT





- CONSTRUCTION SPECIFICATIONS**
- PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SIZE. USE MINIMUM LENGTH OF 50 FEET (30 FEET FOR WALKER RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SIDE TO 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
  - PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SIDE UNDER THE ENTRANCE. MAINTAIN POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SIDE WITH A MOUNTABLE BEAM WITH 4:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SIDE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BEAM IS REQUIRED WHEN SIDE IS NOT LOCATED AT A HIGH SPOT.
  - PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
  - PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SIDE.
  - MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT, ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE. MOUNTABLE BEAM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLS, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
 U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011



MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
 U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011

**MGWC 1.1 DEWATERING BASINS**  
 Temporary measure for filtering sediment-laden water

**DESCRIPTION**  
 The work should consist of installing dewatering basins jointly with channel diversion measures to filter sediment-laden water from in-stream construction sites before the water re-enters the downstream reach.

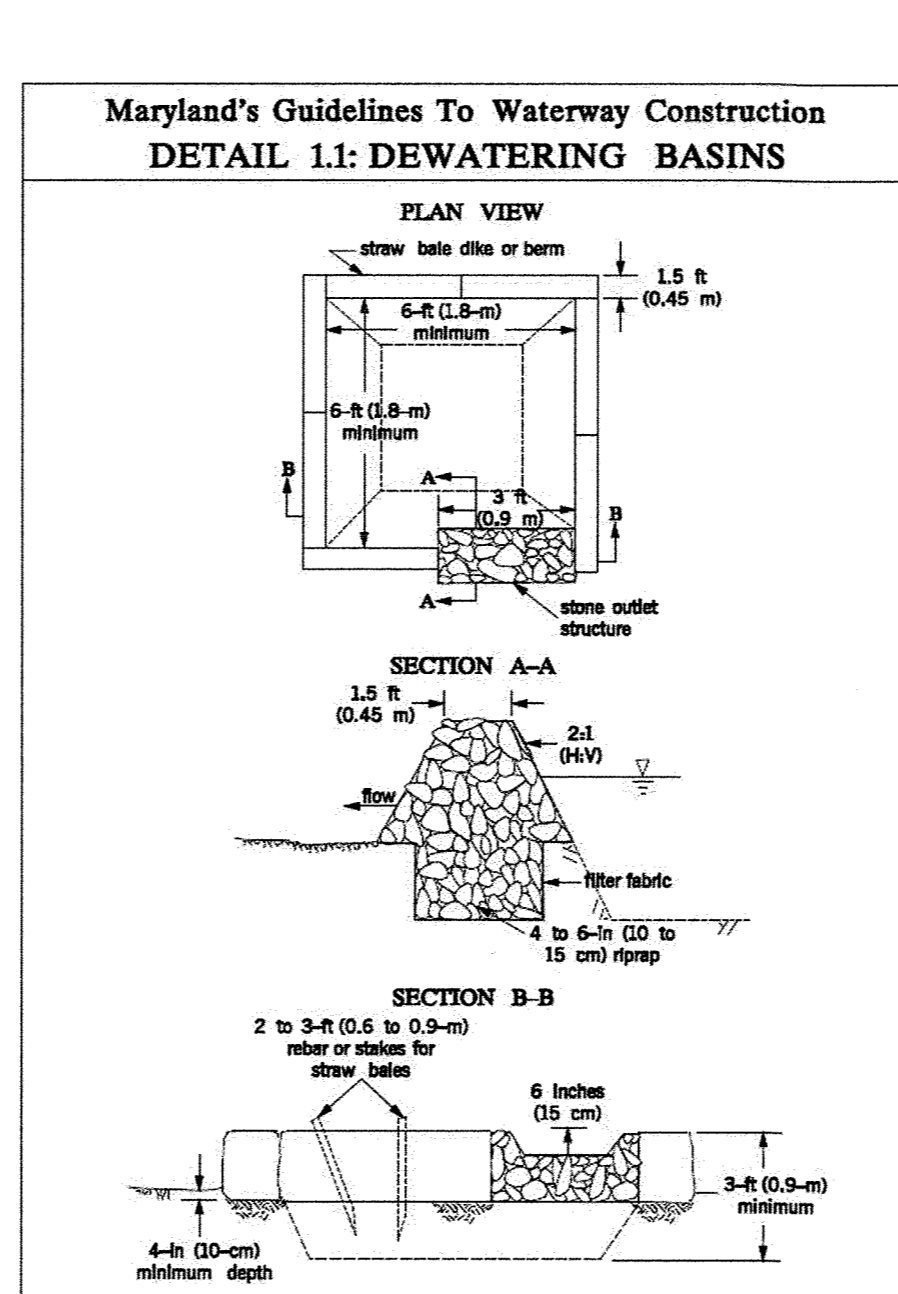
**EFFECTIVE USES & LIMITATIONS**  
 Underlaid dewatering basins will not adequately filter sediment-laden water from the construction site.

**MATERIAL SPECIFICATIONS**  
 Materials for dewatering basins should meet the following requirements:

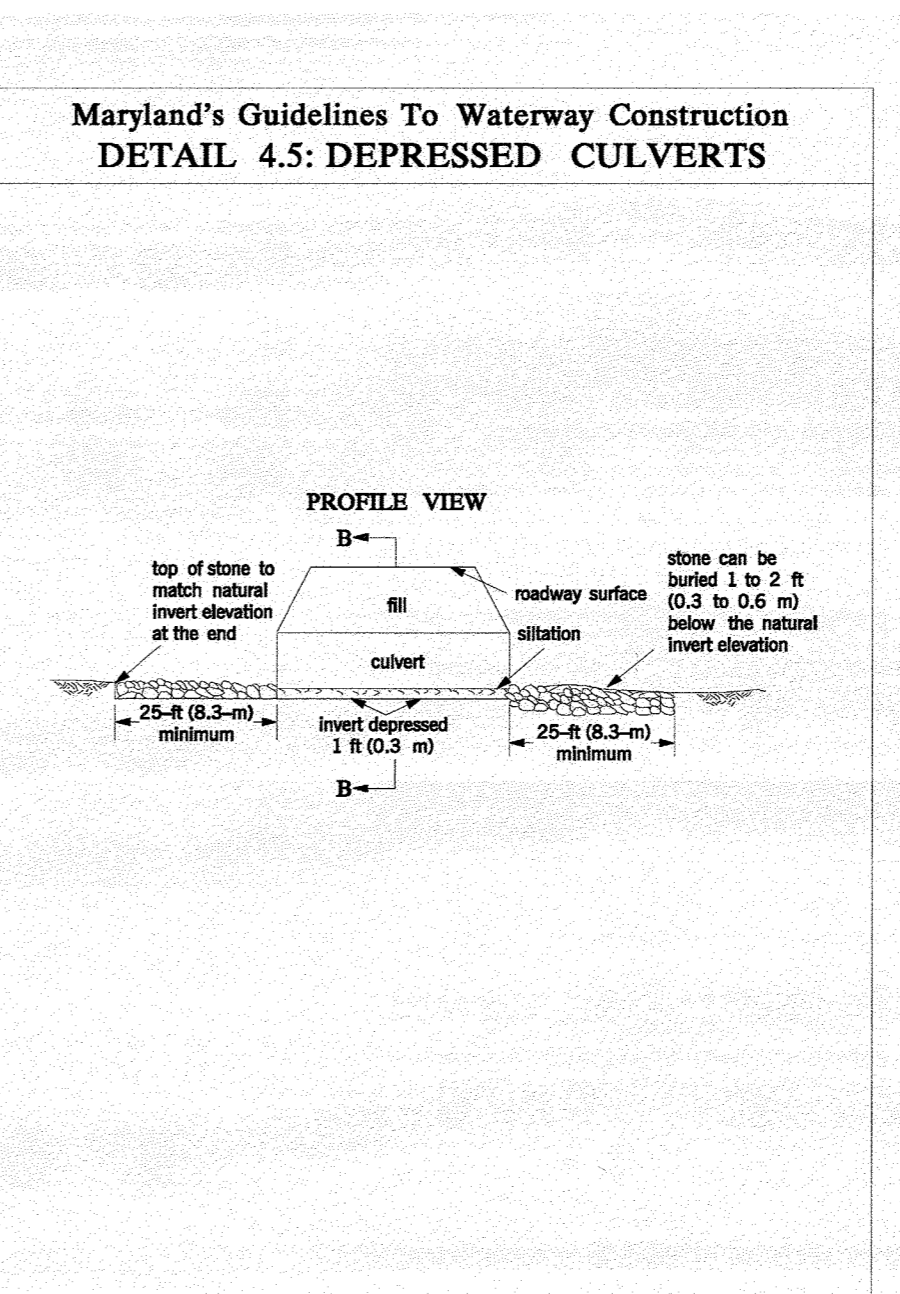
- **Filter Cloth:** Filter cloth should be woven or non-woven fabric consisting only of continuous chain polymeric filaments or yarns of polypropylene. The fabric should be woven or non-woven fabric consisting only of continuous chain polymeric filaments or yarns of polypropylene. The fabric should be woven or non-woven fabric consisting only of continuous chain polymeric filaments or yarns of polypropylene. The fabric should be woven or non-woven fabric consisting only of continuous chain polymeric filaments or yarns of polypropylene.

**INSTALLATION GUIDELINES**  
 Due to the danger of overtopping by waves greater than the design flow, dewatering basins require a vegetative buffer strip to filter sediment-laden overflow. A 50-foot (15-meter) minimum grass-covered buffer width is required for slopes less than 20 degrees (1:2.7) when right-of-way is not limited. For slopes greater than 20 degrees, basins should have a 100-foot (30-meter) minimum buffer width.

MARYLAND DEPARTMENT OF THE ENVIRONMENT WATERWAY CONSTRUCTION GUIDELINES  
 RETIRED NOVEMBER 2008



MARYLAND DEPARTMENT OF THE ENVIRONMENT WATERWAY CONSTRUCTION GUIDELINES  
 RETIRED NOVEMBER 2008

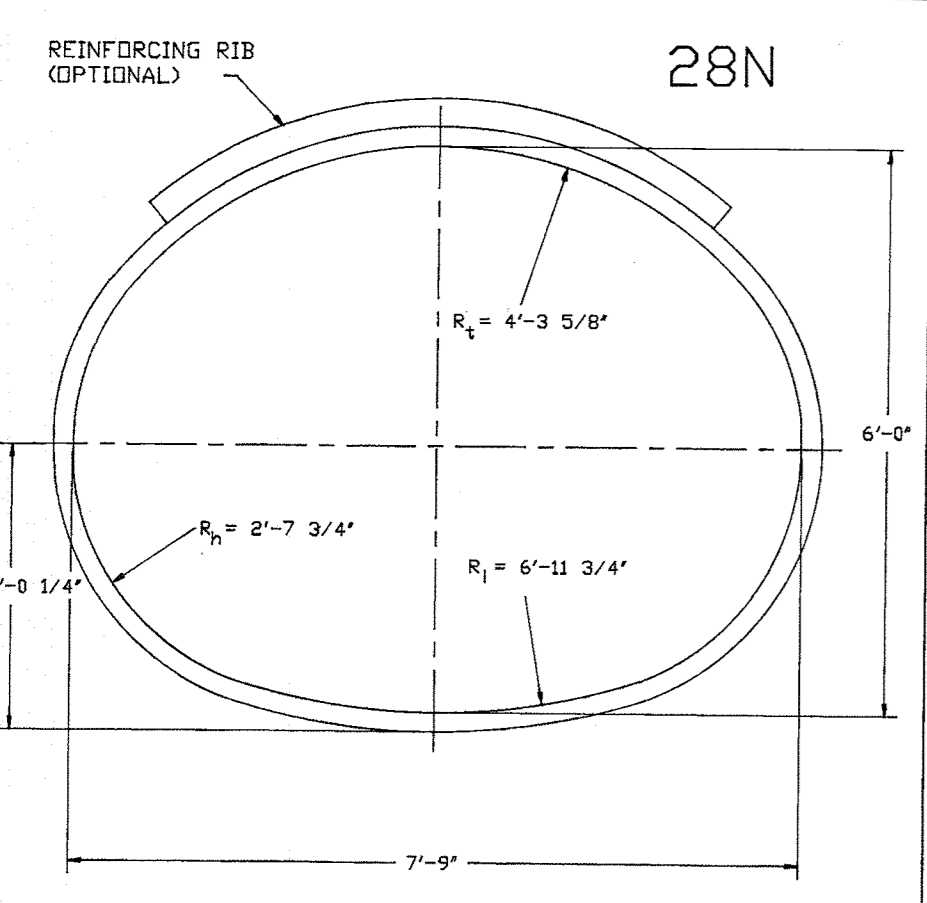
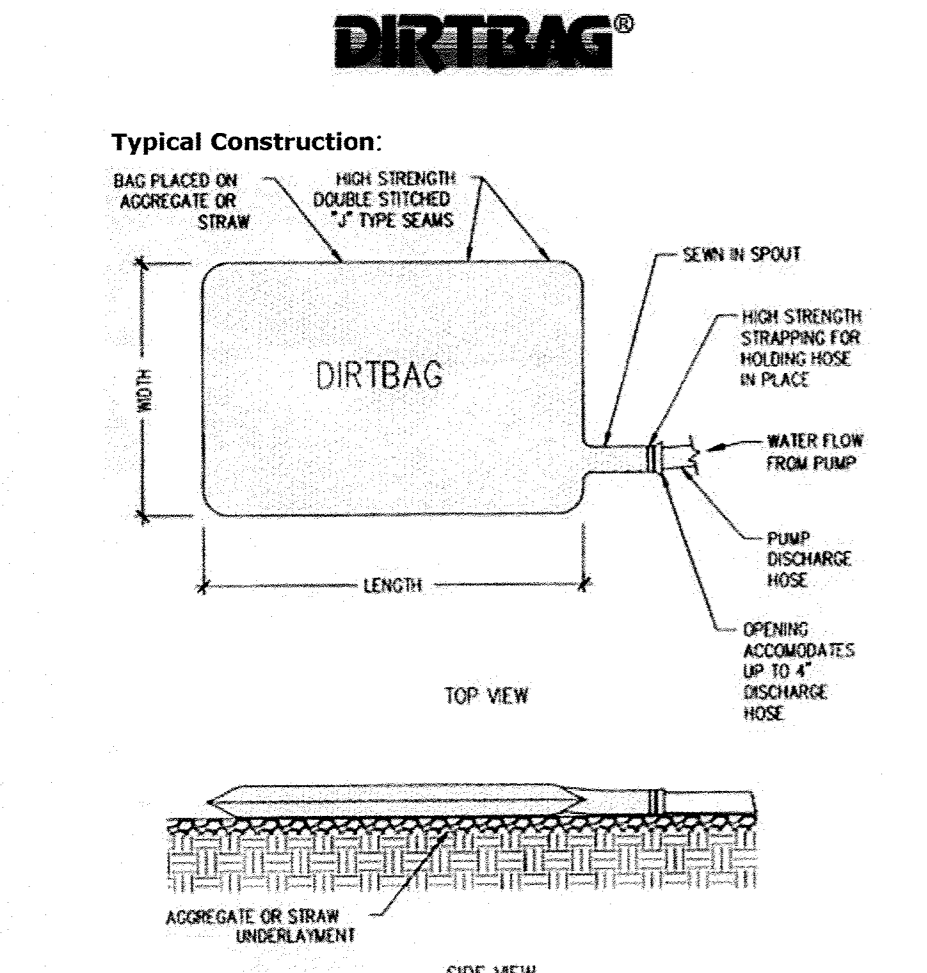


MARYLAND DEPARTMENT OF THE ENVIRONMENT WATERWAY CONSTRUCTION GUIDELINES  
 RETIRED NOVEMBER 2008

- HOWARD SOIL CONSERVATION DISTRICT (HSCD) STANDARD SEDIMENT CONTROL NOTES**
- A PRE-CONSTRUCTION MEETING MUST OCCUR WITH THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, CONSTRUCTION INSPECTION DIVISION (CID), 410-313-1855 AFTER THE FUTURE LEO AND PROTECTED AREAS ARE MARKED CLEARLY IN THE FIELD. A MINIMUM OF 48 HOUR NOTICE TO CID MUST BE GIVEN AT THE FOLLOWING STAGES:
    - PRIOR TO THE START OF EARTH DISTURBANCE.
    - UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
    - PRIOR TO THE START OF ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT, PRIOR TO THE REMOVAL OR MODIFICATION OF SEDIMENT CONTROL PRACTICES.
  - ALL VEGETATIVE AND STRUCTURAL PRACTICES ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND REVISIONS THERETO.
  - FOLLOWING INITIAL SOIL DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION IS REQUIRED WITHIN THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED AREAS ON THE PROJECT SITE EXCEPT FOR THOSE AREAS UNDER ACTIVE GRADING.
  - ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, FOR TOPSOIL (SEC. B-4-2); PERMANENT SEEDING (SEC. D-4-5); TEMPORARY SEEDING (SEC. B-4-4) AND MULCHING (SEC. B-4-3); TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE APPLIED BETWEEN THE FALL AND SPRING SEEDING DATES IF THE GROUND IS FROZEN. INCREMENTAL STABILIZATION (SEC. B-4-1) SPECIFICATIONS SHALL BE ENFORCED IN AREAS WITH >15' OF CUT AND/OR FILL. STOCKPILES (SEC. B-4-8) IN EXCESS OF 200 FT. MUST BE BENCHED WITH STABLE OUTLET. ALL CONCENTRATED FLOW, STEEP SLOPE, AND HIGHLY ERODIBLE AREAS SHALL RECEIVE SOIL STABILIZATION MATTING SEC. B-4-4.
  - 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 CID.
  - SITE ANALYSIS:
 

TOTAL AREA OF SITE:	6.89	ACRES
AREA TO BE ROOFED OR PAVED:	0.23	ACRES
AREA TO BE VEGETATIVELY STABILIZED:	0.19	ACRES
TOTAL CUT:	90	CU. YDS.
TOTAL FILL:	300	CU. YDS.

 OFFSITE WASTE/BORROW AREA LOCATIONS:
  - 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 CONTROL MEASURES MUST BE PROVIDED, IF DEEMED NECESSARY BY THE CID. THE SITE AND ALL CONTROLS SHALL BE INSPECTED BY THE CONTRACTOR WEEKLY, AND THE NEXT DAY AFTER EACH RAIN EVENT. A WRITTEN REPORT BY THE CONTRACTOR, MADE AVAILABLE UPON REQUEST, IS PART OF EVERY INSPECTION AND SHOULD INCLUDE:
    - INSPECTION DATE
    - INSPECTION TYPE (ROUTINE, PRE-STORM EVENT, DURING RAIN EVENT)
    - NAME AND TITLE OF INSPECTOR
    - WEATHER INFORMATION (CURRENT CONDITIONS AS WELL AS TIME AND AMOUNT OF LAST RECORDED PRECIPITATION)
    - BRIEF DESCRIPTION OF PROJECT'S STATUS (E.G., PERCENT COMPLETE) AND/OR CURRENT ACTIVITIES
    - EVIDENCE OF SEDIMENT DISCHARGES
    - IDENTIFICATION OF PLAN DEFICIENCIES
    - IDENTIFICATION OF SEDIMENT CONTROLS THAT REQUIRE MAINTENANCE
    - IDENTIFICATION OF MISSING OR IMPROPERLY INSTALLED SEDIMENT CONTROLS
    - COMPLIANCE STATUS REGARDING THE SEQUENCE OF CONSTRUCTION AND STABILIZATION REQUIREMENTS
    - PHOTOGRAPHS
    - MONITORING/SAMPLING
    - MAINTENANCE AND/OR CORRECTIVE ACTION PERFORMED
    - OTHER INSPECTION ITEMS AS REQUIRED BY THE GENERAL PERMIT FOR STORMWATER ASSOCIATED WITH CONSTRUCTION ACTIVITIES (NPDES, MDE).
  - TRENCHES FOR THE CONSTRUCTION OF UTILITIES IS LIMITED TO THREE PIPE LENGTHS OF THAT WHICH CAN AND SHALL BE BACK-FILLED AND STABILIZED BY THE END OF EACH WORKDAY, WHICHEVER IS SHORTER.
  - ANY MAJOR CHANGES OR REVISIONS TO THE PLAN OR SEQUENCE OF CONSTRUCTION MUST BE REVIEWED AND APPROVED BY THE HSCD PRIOR TO PROCEEDING WITH CONSTRUCTION. MINOR REVISIONS MAY ALLOWED BY THE CID PER THE LIST OF HSCD-APPROVED FIELD CHANGES.
  - DISTURBANCE SHALL NOT OCCUR OUTSIDE THE L.O.D. A PROJECT IS TO BE SEQUENCED SO THAT GRADING ACTIVITIES BEGIN ON ONE GRADING UNIT (MAXIMUM ACREAGE OF 20 AC. PER GRADING UNIT) AT A TIME. WORK MAY PROCEED TO A SUBSEQUENT GRADING UNIT WHEN AT LEAST 50 PERCENT OF THE DISTURBED AREA IN THE PRECEDING GRADING UNIT HAS BEEN STABILIZED AND APPROVED BY THE CID, UNLESS OTHERWISE SPECIFIED AND APPROVED BY THE HSCD. NO MORE THAN 30 ACRES CUMULATIVELY MAY BE DISTURBED AT A GIVEN TIME.
  - WASH WATER FROM ANY EQUIPMENT, VEHICLES, WHEELS, PAVEMENT, AND OTHER SOURCES MUST BE TREATED IN A SEDIMENT BASIN OF OTHER APPROVED WASHOUT STRUCTURE.
  - TOPSOIL SHALL BE STOCKPILED AND PRESERVED ON-SITE FOR REDISTRIBUTION ONTO FINAL GRADE.
  - ALL SILT FENCE AND SUPER SILT FENCE SHALL BE PLACED ON-THE-CONTOUR, AND BE IMBRICATED AT 25' MINIMUM INTERVALS, WITH LOWER ENDS CURLED UPHILL BY 2' IN ELEVATION.
  - STREAM CHANNELS MUST NOT BE DISTURBED DURING THE FOLLOWING RESTRICTED TIME PERIODS (INCLUSIVE):
    - USE I AND IP MARCH 1 - JUNE 15
    - USE III AND IIP OCTOBER 1 - APRIL 30
    - USE IV MARCH 1 - MAY 31
  - A COPY OF THIS PLAN, THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, AND ASSOCIATED PERMITS SHALL BE ON-SITE AND AVAILABLE WHEN THE SITE IS ACTIVE.

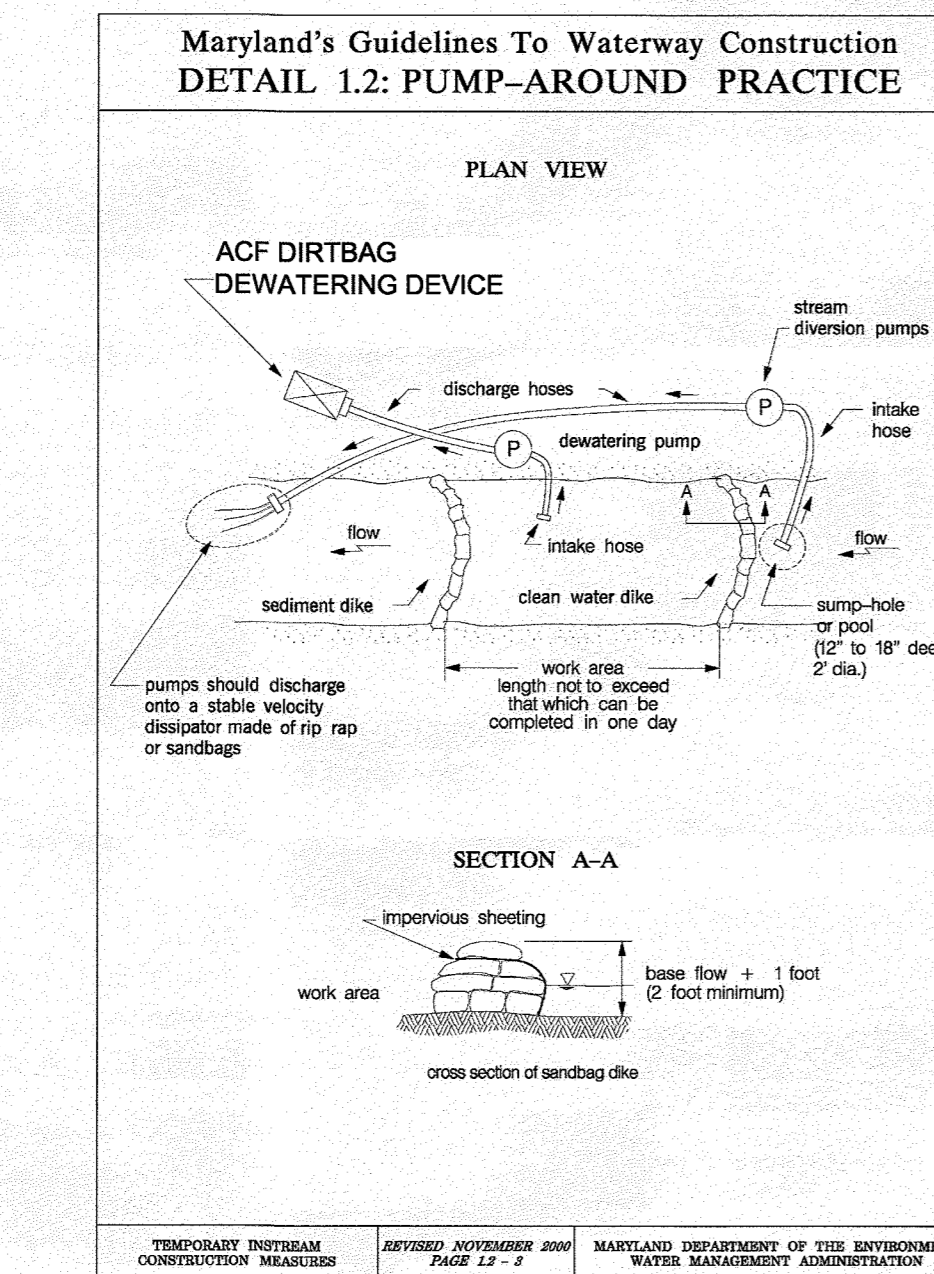


SCALE: 3/4" = 1'-0"  
 APPROX. AREA = 36.8 SQ. FT.

NOTES:  
 1) MEASUREMENTS ARE TO THE INSIDE CRESTS OF THE CORRUGATIONS.  
 2) DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.  
 3) CIRCUM. PLATE LENGTHS ARE IN TERMS OF N, (N=9.625" or 3 pi).

**CONTECH**  
 ALUMINUM STRUCTURAL PLATE PIPE-ARCH 7'-9" x 6'-0"

HOWARD SCD SIGNATURE BLOCK:  
 THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
 Howard SCD Signature  
 DATE: 06/23/22



MARYLAND DEPARTMENT OF THE ENVIRONMENT WATERWAY CONSTRUCTION GUIDELINES  
 RETIRED NOVEMBER 2008

**MGWC 4.5: DEPRESSED CULVERTS**  
 Depressed stream culverts to encourage fish passage and channelization

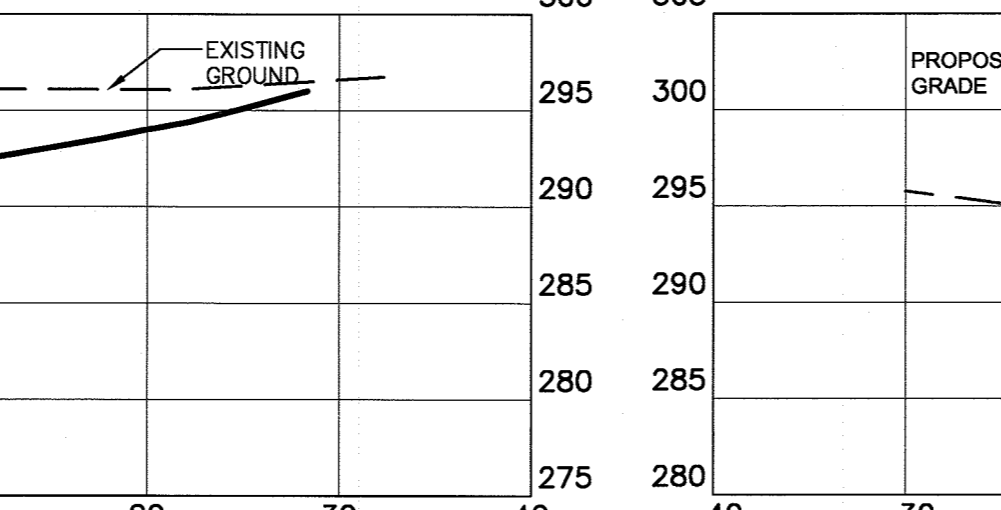
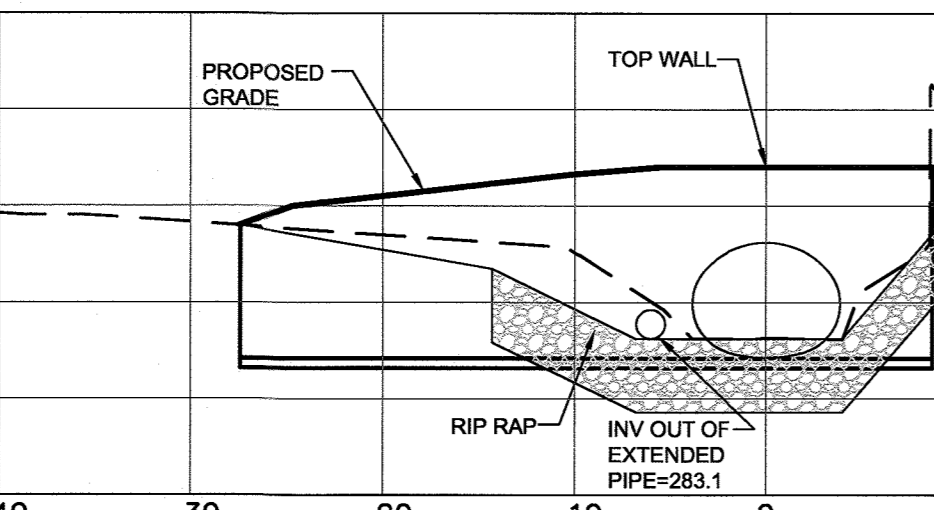
**DESCRIPTION**  
 The work should consist of depressing stream culverts 1 foot (0.3 meters) below the natural stream invert.

**EFFECTIVE USES & LIMITATIONS**  
 Depressed culverts encourage channelization and enhance fish passage by allowing water to pool and sediments to deposit in the culvert barrel. During storm events, deposited sediments wash away, insuring the effectiveness and integrity of the culvert.

**INSTALLATION GUIDELINES**  
 Construction of depressed culverts should proceed the same as for standard culverts as detailed in MGWC 4.3. Culvert installation. In the case of double or triple-culvert culverts, only one or two culverts should be depressed as necessary. Additionally, the streambed adjacent to the entrance and exit of the barrel should be reinforced with rip rap and filter fabric.

Refer to Detail 4.5 for typical details of depressed culverts.

MARYLAND DEPARTMENT OF THE ENVIRONMENT WATERWAY CONSTRUCTION GUIDELINES  
 RETIRED NOVEMBER 2008



SCALE: VERT. 1"=10'  
 HORIZ. 1"=10'

SCALE: VERT. 1"=10'  
 HORIZ. 1"=10'

APPROVED DEPARTMENT OF PLANNING AND ZONING  
 Chief, Development Engineering Division  
 DATE: 6-28-22

OWNERS/DEVELOPER CERTIFICATION:  
 I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT. I CERTIFY RIGHT-OF-ENTRY FOR PERIODIC ON-SITE EVALUATION BY HOWARD COUNTY, THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

DESIGN CERTIFICATION:  
 I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

OWNER'S DEVELOPER'S SIGNATURE  
 DATE: 3-15-22

DESIGNER'S SIGNATURE  
 PRINTED NAME: BILLIE SWAIKES  
 M.D. REGISTRATION NO. 34688  
 (P.E./L.S., OR R.L.A. (CIRCLE ONE))

**TRIAD ENGINEERING, INC.**  
 1075-D SHERMAN AVENUE  
 HAGERSTOWN, MD 21740  
 PH: 301.797.6400 FAX: 301.797.2424

PROFESSIONAL CERTIFICATION:  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688, EXPIRATION DATE: 7-9-23

CERTIFICATION FOR REDLINE REVISION FOR CULVERT

- SILT FENCE CONSTRUCTION SPECIFICATIONS**
- USE WOOD POSTS 1 1/2 X 1 1/2 X 1/2 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD, AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
  - USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
  - USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
  - PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
  - EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MOUND FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
  - REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN, IF UNDERMINING OCCURS, REINSTALL FENCE.

**SITE CLOSE-OUT NOTIFICATION**

- C-1 COMPLETE FINAL SEEDING AND MULCH FOR PERMANENT STABILIZATION OVER ENTIRE DISTURBED AREA. - 1 DAY
- C-2 UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATORS SHALL CONTACT THE HOWARD COUNTY CID AND TRIAD ENGINEERING FOR A SITE INSPECTION PRIOR TO THE REMOVAL/CONVERSION OF THE E&S BMP'S. - 1 DAY
- C-3 UPON NOTICE TO PROCEED FROM THE HOWARD COUNTY CID, REMOVE THE TEMPORARY ESC BMP'S AND CONTACT THE HOWARD COUNTY CID FOR A FINAL INSPECTION. - 1 DAY

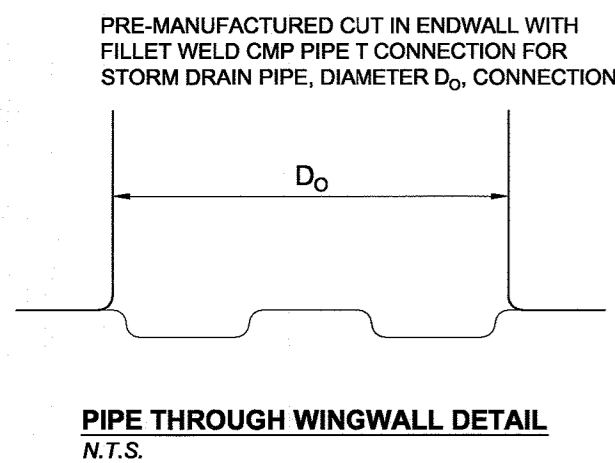
NO.	DATE	COMMENTS PER HOWARD SCD REVISION FOR CULVERT DESCRIPTION OF REVISION
2	3-30-22	
1	12-10-21	

**COLUMBIA THE PINES AT DICKINSON**  
 VILLAGE OF KINGS CONTRIVANCE  
 SECTION 2 AREA 3  
 PARCEL 'G'  
 "REVISED SITE DEVELOPMENT PLAN"  
 CONSTRUCTION NOTES AND DETAILS  
 SHEET 15 OF 17

ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND  
 DATE: December 10, 2021 SCALE: AS SHOWN

SDP-82-051c





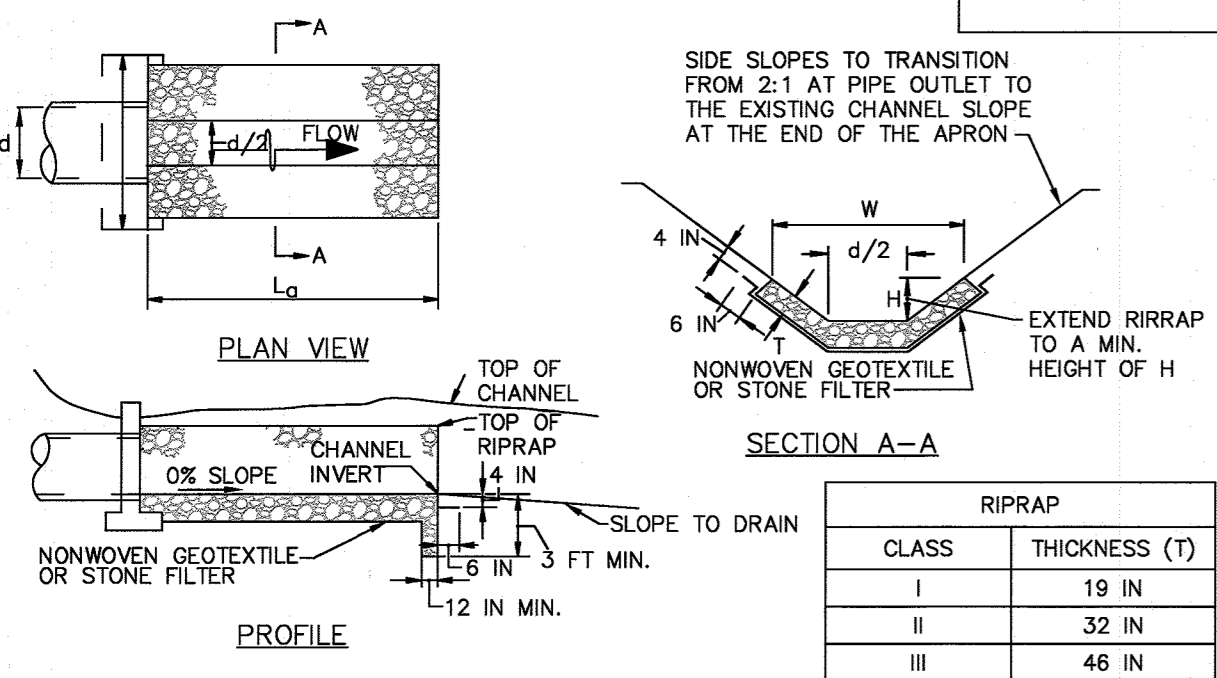
NOTES:  
ALL CONCRETE SHALL BE MD SHA MIX NO. 1.  
POUR CONCRETE AGAINST DISTURBED EARTH.  
REMOVE SHEETING BEFORE POURING CONCRETE  
OR FULL SHEETING UP ABOVE THE POURED  
CONCRETE. ANCHOR ALL PIPE PRIOR TO POURING  
CONCRETE TO INSURE THAT THE PIPE DOESN'T  
FLOAT.

CONCRETE ENCASEMENT DETAIL  
N.T.S.

DETAIL D-4-1-B ROCK OUTLET PROTECTION

STANDARD SYMBOL  
ROPII

DISCHARGE TO CONFINED CHANNEL SECTION



CLASS	THICKNESS (T)
I	19 IN
II	32 IN
III	46 IN

CONSTRUCTION SPECIFICATIONS

- RIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
- USE NONWOVEN GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
- PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (¾ TO 1½ INCH STONE FOR 6 INCH MINIMUM DEPTH) AND RIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RIPRAP.
- CONSTRUCT RIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RIPRAP OUTLET IN A MANNER THAT IT IS REASONABLY HOMOGENEOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RIPRAP IN A MANNER TO PREVENT DAMAGE TO THE STONE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
- WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
- CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND DISLOGGED RIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL  
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE 2011 MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT RISK TO BEGINNING THE PROJECT. I/CERTIFY RIGHT-OF-ENTRY FOR PERSON ON-SITE EVALUATION BY HOWARD COUNTY HOWARD COUNTY SOIL CONSERVATION DISTRICT AND/OR MDE."

*John Tskerdanos* 3/15/22  
OWNER/DEVELOPER SIGNATURE DATE  
JOHN TSKERDANOS, ALENT  
PRINTED NAME & TITLE

HOWARD SCD SIGNATURE BLOCK:  
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

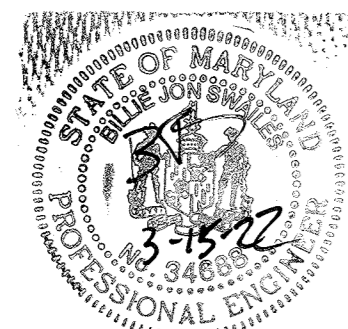
*Alvando Bratchie* 06/23/22  
HOWARD SCD SIGNATURE DATE

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION, DATE 6-28-22  
CHIEF, DIVISION OF LAND DEVELOPMENT, DATE 7/1/22  
DIRECTOR, DATE 7-11-22

TRIAD ENGINEERING, INC.

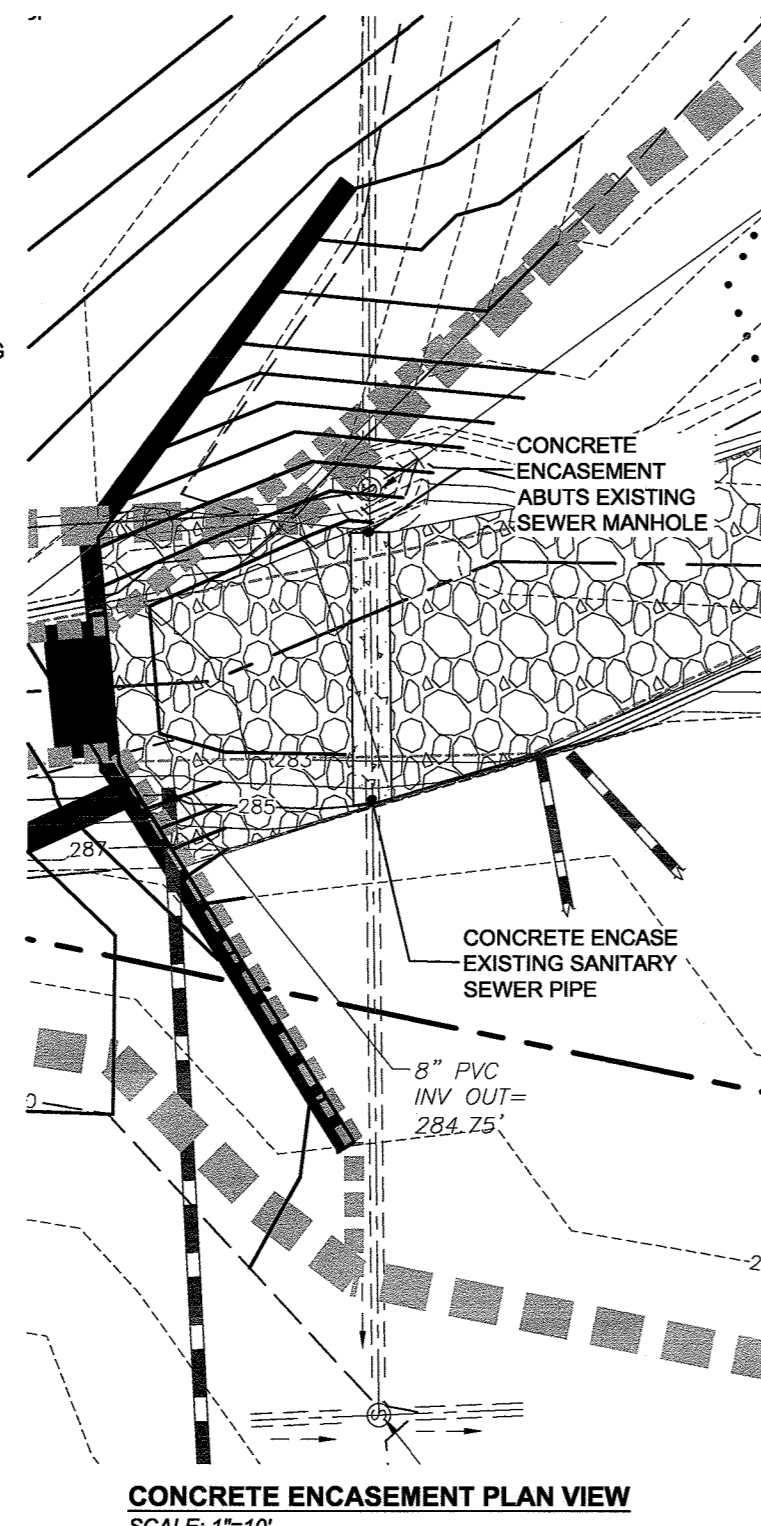
1075-D SHERMAN AVENUE  
HAGERSTOWN, MD 21740  
PH: 301.797.6400 FAX: 301.797.2424

OFFICE LOCATIONS  
MARYLAND • PENNSYLVANIA • VIRGINIA • WEST VIRGINIA



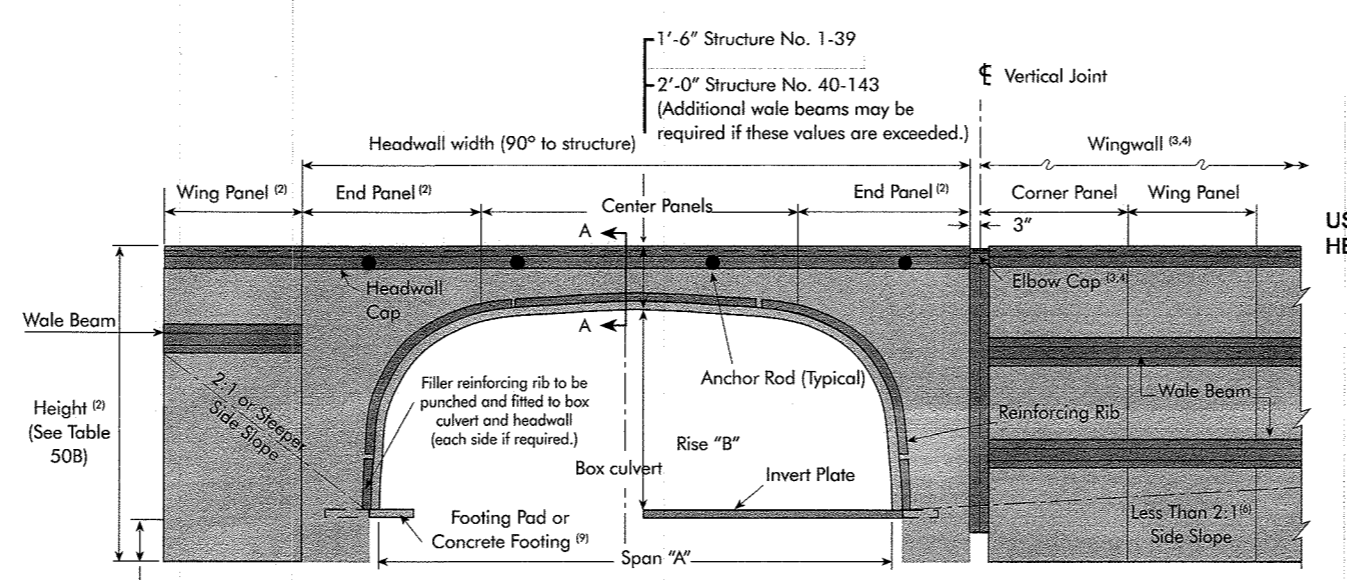
PROFESSIONAL CERTIFICATION:  
"I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34688, EXPIRATION DATE: 7-9-23"

CERTIFICATION FOR REDLINE REVISION FOR CULVERT

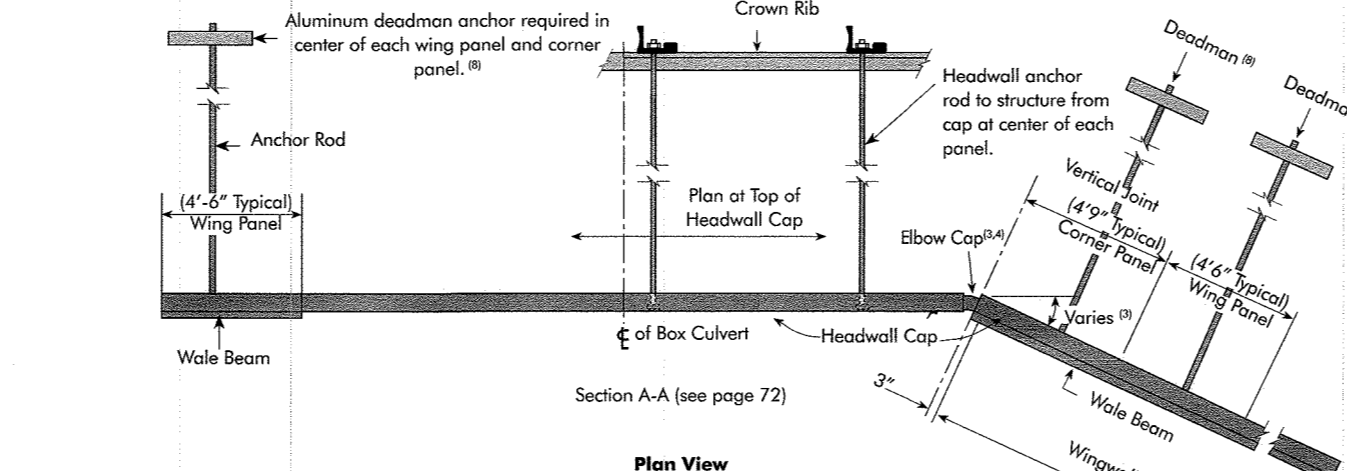


CONCRETE ENCASEMENT PLAN VIEW  
SCALE: 1"=10'

Headwall and Wingwall Details



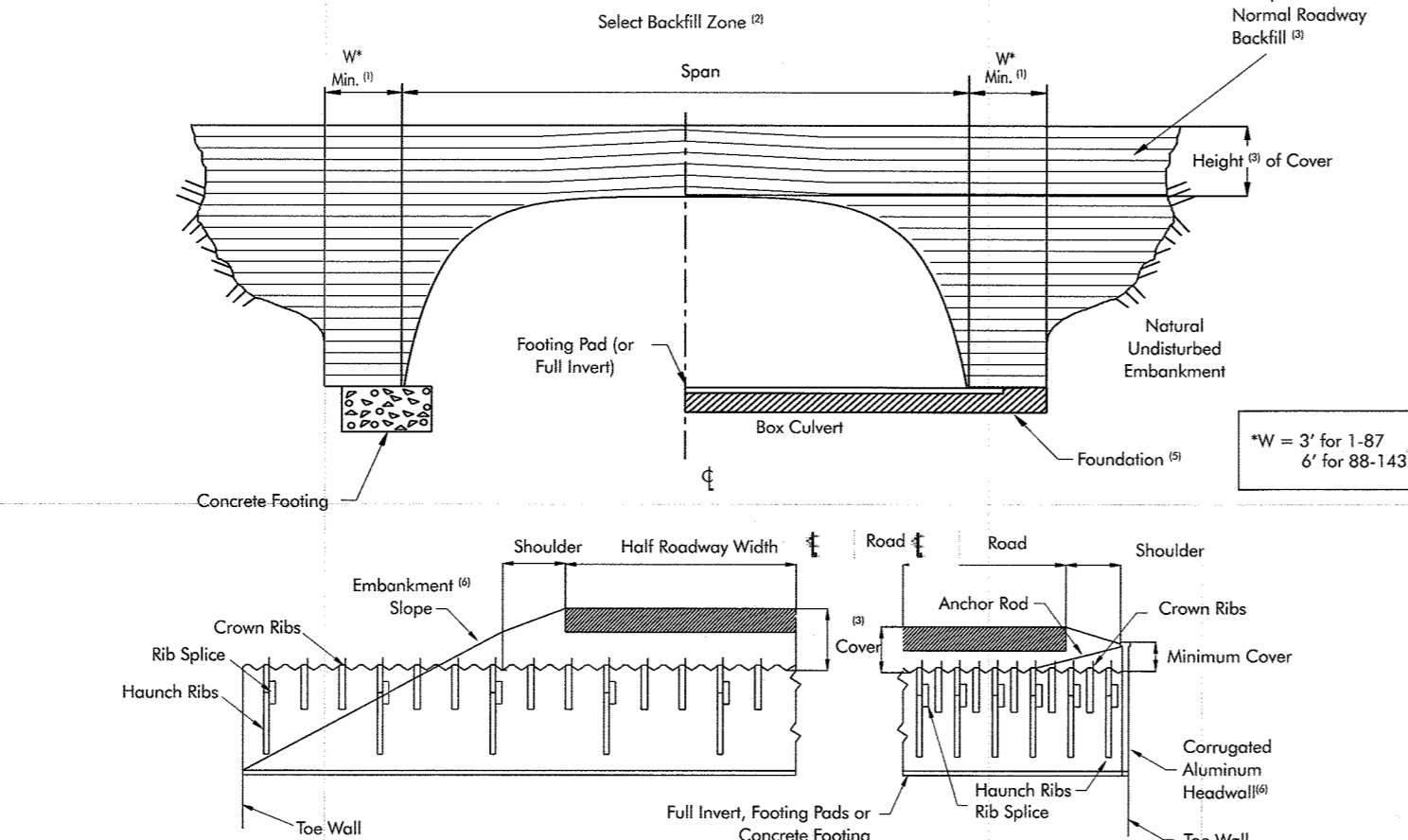
Typical Headwall Elevation



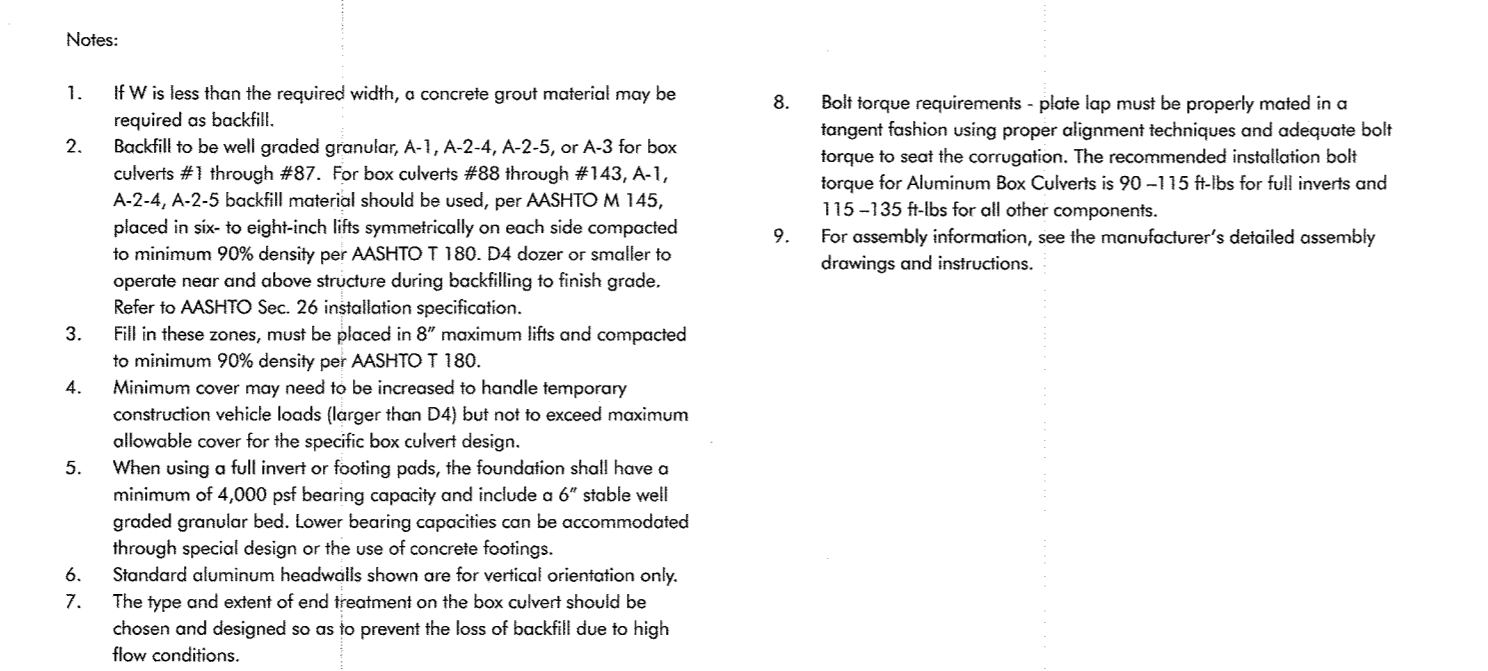
Plan View

- Notes:
- All panels are fabricated from aluminum structural plate as specified in ASTM B746.
  - Height of headwall listed in Table 509 permits approximately 24" entrenchment depth below the invert. All wall and headwall and panels must be trenched into existing ground.
  - Horizontal rotation on the wingwall should not exceed 90°.
  - The top of a headwall and its wingwall are always horizontal, unless leveled wingwalls are required.
  - Standard headwalls shown are for vertical orientation only.
  - If side slope is flatter than 2:1, a double setback assembly is required for each deadman.
  - Standard headwalls are shown. HS-20, HS-25 and HL-93 wheel loads must be kept a minimum distance of 36" from the wall face. Special headwall packages can be fabricated to meet other loading requirements.
  - For details on single and dual deadman anchors, refer to next page.
  - Structures on concrete footings with headwalls require field modification of the headwall plates to fit around the footings.
  - Aluminum headwalls may be used only on square ended structures. Structure lengths must be an increment of 9 inches, if these headwalls are utilized at both ends.

Typical Backfill Cross Section



Typical End Treatments



DESIGN CERTIFICATION:

"I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

*Billie Swanes* 3-15-22  
DESIGNER'S SIGNATURE DATE  
BILLIE SWANES  
PRINTED NAME

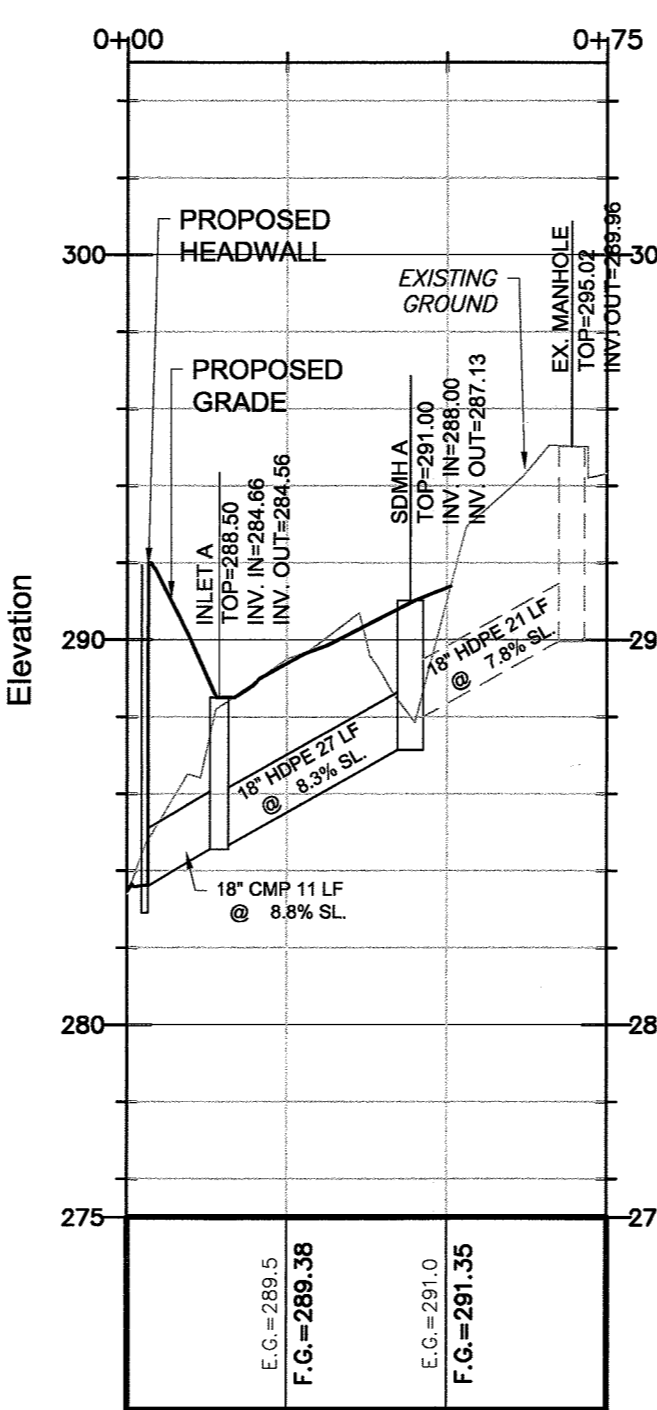
MD REGISTRATION NO. 34688  
P.E./R.L.S. OR R.L.A. (CIRCLE ONE)

TEMPORARY SEEDING SUMMARY

No.	SPECIES	APPLICATION RATE (lb/1000 sq ft)	SEEDING DATES	SEEDING DEPTH (inches)	FERTILIZER RATE (lb/1000 sq ft)	LIME RATE
1	BARLEY (PHORDEUM VULGARE)	2.2 @ 1000 sq ft	MAR. 1 - MAY 15	1.0	436 lb/1000 sq ft (10 lb/1,000 sq ft)	2 tons/1000 sq ft (60 lb/1,000 sq ft)

PERMANENT SEEDING SUMMARY

No.	SPECIES	APPLICATION RATE (lb/1000 sq ft)	SEEDING DATES	SEEDING DEPTH (inches)	FERTILIZER RATE (lb/1000 sq ft)	LIME RATE
1	GRASS	4.0	MAR. 1 - MAY 15	1.0	436 lb/1000 sq ft (10 lb/1,000 sq ft)	2 tons/1000 sq ft (60 lb/1,000 sq ft)



PROFILE OF SD-1  
SCALE: HORZ: 1"=30'  
VERT: 1"=5'

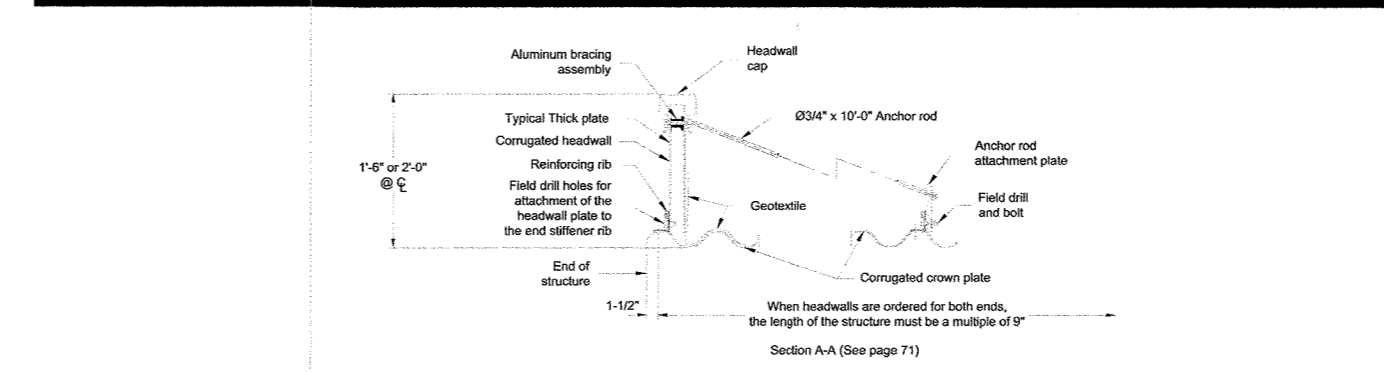
Steel and Aluminum  
Structural Plate  
Design Guide

TABLE 509

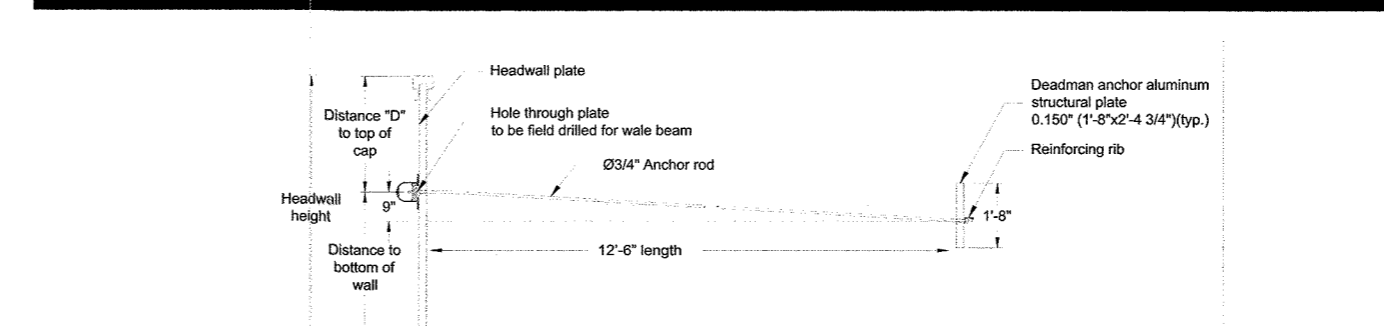
Wall Height	Headwall		Side Anchor		Dual Anchor		Triple Anchors		0.150" Thick Deadman Size	Dia. Rod Length	
	Center Panel Thickness	End Panel Thickness	Wale Beam - Distance from top to HW	Panel Thickness	Wale Beam - Distance from top of HW	Panel Thickness	Wale Beam - Distance from top of HW	Panel Thickness			
6' 0" to 8' 7"	0.125"	0.150"	N/A	0.125"	3' 0"	0.125"	2' 6"	N/A	N/A	18" x 2 3/4"	12' 6"
8' 7" to 11' 9"	0.125"	0.150"	N/A	0.125"	3' 6"	0.125"	2' 6"	N/A	N/A	18" x 2 3/4"	12' 6"
12' 9" to 14' 2"	0.125"	0.150"	N/A	N/A	N/A	0.150"	3' 6"	N/A	N/A	18" x 2 3/4"	12' 6"
14' 2" to 17' 11"	0.175"	0.175"	7' 3" & 12' 3"	N/A	N/A	0.175"	4' 6" & 12' 3"	N/A	N/A	32" x 2 1/2"	19' 0"
17' 11" to 19' 7"	0.175"	0.175"	7' 6" & 12' 6"	N/A	N/A	0.175"	4' 6" & 12' 3"	N/A	N/A	32" x 2 1/2"	19' 0"
19' 7" to 22' 0"	0.200"	0.200"	7' 6", 12' 6", & 14' 0"	N/A	N/A	N/A	N/A	0.200"	4' 6" & 12' 3"	32" x 2 1/2"	19' 0"
22' 0" to 24' 0"	0.200"	0.200"	7' 6", 12' 6", & 15' 0"	N/A	N/A	N/A	N/A	0.200"	4' 6" & 12' 3"	32" x 2 1/2"	19' 0"

ANYTHING GREATER THAN 17' 4": INQUIRE

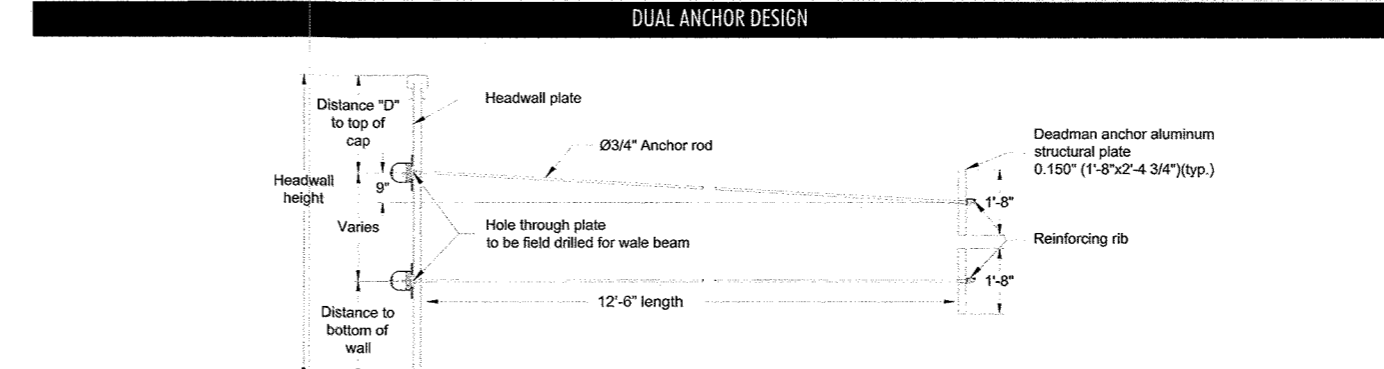
HEADWALL ATTACHMENT TO CROWN



SINGLE ANCHOR DESIGN



DUAL ANCHOR DESIGN

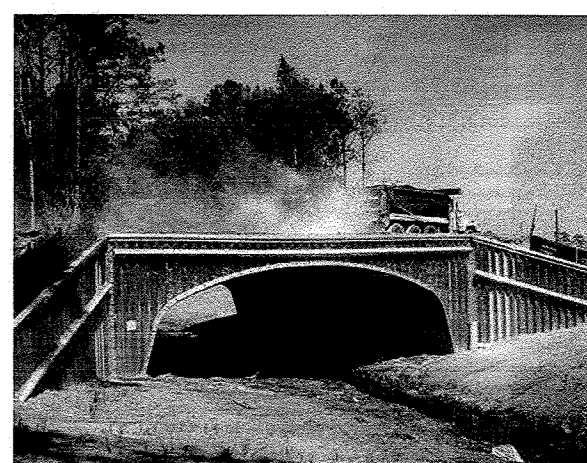


Note: Triple anchor design required for 14' 2" and greater heights. See table above for additional options.

Headwall Dimensions for H-20, HS-20, H-25, HS-25, HL-93 Loading

TABLE 509: HEADWALL

No.	Width Ft.-In.	Height Ft.-In.	No. of Anchor Rods	No.	Width Ft.-In.	Height Ft.-In.	No. of Anchor Rods
1	13-6	6-2	3	86	33-0	9-4	7
2	13-6	6-11	3	87	33-0	10-11	7
3	13-6	7-9	3	90	33-0	10-11	7
4	13-6	8-4	3	92	33-0	11-9	7
5	13-6	9-4	3	92	33-0	12-7	7
6	13-6	10-2	3	93	33-0	12-7	7
7	13-6	10-11	3	94	33-0	14-2	7
8	13-6	11-3	3	94	33-0	14-2	7
9	15-0	6-11	3	96	34-6	10-11	8
10	15-0	7-9	3	97	34-6	11-9	8
11	15-0	8-4	3	98	34-6	12-7	8
12	15-0	9-4	3	99	34-6	13-4	8
13	15-0	10-2	3	100	34-6	14-2	8
14	15-0	10-11	3	101	34-6	14-11	8
15	15-0	11-3	3	102	34-6	14-11	8
16	16-6	7-9	4	103	36-0	11-9	8
17	16-6	8-4	4	104	36-0	12-7	8
18	16-6	9-4	4	105	36-0	13-4	8
19	16-6	10-2	4	106	36-0	13-4	8
20	16-6	10-11	4	107	36-0	14-2	8
21	18-0	6-11	4	108	36-0	14-11	8
22	18-0	7-9	4	109	37-6	10-11	8
23	18-0	8-4	4	110	37-6	11-9	8
24	18-0	9-4	4	111	37-6	12-7	8
25	18-0	10-2	4	112	37-6	13-4	8
26	19-6	6-11	4	113	37-6	14-2	8
27	19-6	7-9	4	114	37-6	14-11	8
28	19-6	8-4	4	115	37-6	15-9	8
29	19-6	9-4	4	116	37-6	15-9	8
30	19-6	10-2	4	117	37-6	12-7	8
31	19-6	10-11	4	118	37-6	13-4	8
32	19-6	11-3	4	119	37-6	14-2	8
33	21-0	6-11	5	120	37-6	14-11	8
34	21-0	7-9	5	121	37-6	15-9	8
35	21-0	8-4	5	122	37-6	16-7	8
36	21-0	9-4	5	123	37-6	17-4	8
37	21-0	10-2	5	124	37-6	12-7	8
38	21-0	10-11	5	125	37-6	13-4	8
39	21-0	11-3	5	126	37-6	14-2	8
40	22-6	7-9	5	127	37-6	14-11	8
41	22-6	8-4	5	128	37-6	15-9	8
42	22-6	9-4	5	129	37-6	16-7	8
43	22-6	10-2	5	130	40-6	12-7	9
44	22-6	10-11	5	131	40-6	13-4	9
45	22-6	11-3	5	132	40-6	14-2	9
46	22-6	11-9	5	133	40-6	14-11	9
47	24-0	8-4	5	134	40-6	15-9	9
48	24-0	9-4	5	135	40-6	16-7	9
49	24-0	10-2	5	136	40-6	17-4	9
50	24-0	10-11	5	137	40-6	18-2	9
51	24-0	11-3	5	138	42-0	14-2	9
52	24-0	11-9	5	139	42-0	14-11	9
53	24-0	12-7	5	140	42-0	15-9	9
54	24-0	13-4	5	141	42-0	16-7	9
55	24-0	14-2	5	142	42-0	17-4	9
56	24-0	15-9	5	143	42-0	18-2	9
57	25-6	10-11	6				
58	25-6	11-9	6				
59	25-6	12-7	6				
60	25-6	13-4	6				
61	25-6	14-2	6				
62	27-0	10-2	6				
63	27-0	10-11	6				
64	27-0	11-3	6				
65	27-0	11-9	6				
66	27-0	12-7	6				
67	27-0	13-4	6				
68	28-6	9-4	6				
69	28-6	10-2	6				
70	28-6	10-11	6				
71	28-6	11-3	6				
72	28-6	12-7	6				
73	28-6	13-4	6				
74	28-6	14-2	6				
75	30-0	10-11	7				
76	30-0	11-3	7				
77	30-0	11-9	7				
78	30-0	12-7	7				
79	30-0	13-4	7				
80	30-0	14-2	7				
81	30-0	14-11	7				
82	31-6	10-2	7				
83	31-6	10-11	7				
84	31-6	11-3	7				
85	31-6	12-7	7				
86	31-6	13-4	7				
87	31-6	14-2	7				



Aluminum Box Culvert with Full Aluminum Headwall Package

STANDARD STABILIZATION NOTE

- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN:
- THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES, PERMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
  - SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.

STANDARD UTILITY NOTES

- CONTRACTOR TO ONLY OPEN UP LENGTH OF TRENCH THAT CAN BE CONSTRUCTED AND BACKFILLED IN ONE WORKING DAY IN PAVED AREAS.
- CONTRACTOR TO PLACE EXCAVATED MATERIALS IN A DUMP TRUCK AND HAUL TO AN APPROVED LOCATION.
- CONTRACTOR TO BACKFILL TRENCH WITH APPROVED MATERIALS AND STABILIZE DISTURBED AREAS THE SAME WORKING DAY.
- IN AREAS WHERE THE CONSTRUCTION TAKES TO PLACE OUTSIDE OF THE EXISTING TRAIL OR ROADBED, CONTRACTOR TO INSTALL SILT FENCE ALONG THE DOWNHILL SIDE OF THE TRENCH BEFORE BEGINNING CONSTRUCTION AND PLACE EXCAVATED MATERIAL FROM THE TRENCH ON THE UPHILL SIDE.
- IF DEWATERING OF THE TRENCH IS REQUIRED, CONTRACTOR TO PUMP WATER TO A FILTER BAG TO DEWATER.
- CONTRACTOR TO SWEEP STREETS OF ANY DEBRIS OR SEDIMENTS CAUSED BY CONSTRUCTION OPERATIONS AND DISPOSE OF AT AN APPROVED LOCATION.
- CONTRACTOR TO STABILIZE ALL DISTURBED AREAS WITH SEED AND MULCH OR APPROPRIATE GRAVEL/ASPHALT REPAIR.

UTILITY NOTIFICATION

THE SOIL CONSERVATION DISTRICT MAKES NO REPRESENTATION AS TO THE EXISTENCE OR NONEXISTENCE OF ANY UTILITIES AT THE CONSTRUCTION SITE. SH



B-4-2 STANDARDS AND SPECIFICATIONS

FOR SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition

The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies

Where vegetative stabilization is to be established.

Criteria

A. Soil Preparation

1. Temporary Stabilization

a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment...

b. Apply fertilizer and lime as prescribed on the plans.

c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.

2. Permanent Stabilization

a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:

- i. Soil pH between 6.0 and 7.0.
ii. Soluble salts less than 500 parts per million (ppm).
iii. Soil contains less than 40 percent clay but enough fine grained material...
iv. Soil contains 1.5 percent minimum organic matter by weight.
v. Soil contains sufficient pore space to permit adequate root penetration.

b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.

c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.

d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.

e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application.

B. Topsoiling

1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth.

2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications.

3. Topsoiling is limited to areas having 2:1 or flatter slopes where:

- a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting zone is not deep enough to support plants...
c. The original soil to be vegetated contains material toxic to plant growth.
d. The soil is so acidic that treatment with limestone is not feasible.

4. Areas having slopes steeper than 2:1 require special consideration and design.

5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:

- a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand.
b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
c. Topsoil substitutes or 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.

6. Topsoil Application

- a. Erosion and sediment control practices must be maintained when applying topsoil.
b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches.
c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition...

C. Soil Amendments (Fertilizer and Lime Specifications)

- 1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more.
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment.
3. Lime materials must be ground limestone (hydrated or burnt lime may be substituted except when hydroseeding) which contains at least 50 percent total oxides...
4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

B-4-3 STANDARDS AND SPECIFICATIONS

FOR SEEDING AND MULCHING

Definition

The application of seed and mulch to establish vegetative cover.

Purpose

To protect disturbed soils from erosion during and at the end of construction.

Conditions Where Practice Applies

To the surface of all perimeter controls, slopes, and any disturbed area not under active grading.

Criteria

A. Seeding

1. Specifications

a. All seed must meet the requirements of the Maryland State Seed Law. All seed must be subject to re-testing by a recognized seed laboratory.

b. Mulch alone may be applied between the fall and spring seeding dates only if the ground is frozen.

c. Inoculants: The inoculant for treating legume seed in the seed mixtures must be a pure culture of nitrogen fixing bacteria prepared specifically for the species.

d. Sod or seed must not 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 phytotoxic materials.

2. Application

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

i. Incorporate seed into the subsoil at the rates prescribed on Temporary Seeding Table B.1, Permanent Seeding Table B.3, or site-specific seeding summaries.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction. Roll the seeded area with a weighted roller to provide good seed to soil contact.

b. Drill or Cultipacker Seeding: Mechanized seeders that apply and cover seed with soil.

i. Cultipacking 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.

ii. Apply seed in two directions, perpendicular to each other. Apply half the seeding rate in each direction.

c. Hydroseeding: Apply seed uniformly with hydroseeder (slurry includes seed and fertilizer).

i. If fertilizer is being applied at the time of seeding, the application rates should not exceed the following: nitrogen, 100 pounds per acre total of soluble nitrogen; P2O5 (phosphorous), 200 pounds per acre; K2O (potassium), 200 pounds per acre.

ii. Lime: Use only ground agricultural limestone (up to 3 tons per acre may be applied by hydroseeding). Normally, not more than 2 tons are applied by hydroseeding at any one time.

iii. Mix seed and fertilizer on site and seed immediately and without interruption.

iv. When hydroseeding do not incorporate seed into the soil.

B. Mulching

1. Mulch Materials (in order of preference)

a. Straw consisting of thoroughly threshed wheat, rye, oat, or barley and reasonably bright in color. Straw is to be free of noxious weed seeds as specified in the Maryland Seed Law and not musty, moldy, caked, decayed, or excessively dusty.

b. Wood Cellulose Fiber Mulch (WCFM) consisting of specially prepared wood cellulose processed into a uniform fibrous physical state.

i. WCFM is to 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.

ii. WCFM, including dye, must contain no germination or growth inhibiting factors.

iii. WCFM materials are to 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.

iv. WCFM material must not contain elements or compounds at concentration levels that will be phytotoxic.

v. WCFM must conform to the following physical requirements: fiber length of approximately 10 millimeters, diameter approximately 1 millimeter, pH range of 4.0 to 8.5, ash content of 1.6 percent maximum and water holding capacity of 90 percent minimum.

2. Application

a. Apply mulch to all seeded areas immediately after seeding.

b. When straw mulch is used, spread it over all seeded areas at the rate of 2 tons per acre to a uniform loose depth of 1 to 2 inches. Apply mulch to achieve a uniform distribution and depth so that the soil surface is not exposed.

c. Wood cellulose fiber used as mulch must be applied at a net dry weight of 1500 pounds per acre. Mix the wood cellulose fiber with water to attain a mixture with a maximum of 50 pounds of wood cellulose fiber per 100 gallons of water.

3. Anchoring

a. Perform mulch anchoring immediately following application of mulch to minimize loss by wind or water. This may be done by one of the following methods (listed by preference), depending upon the size of the area and erosion hazard:

i. A mulch anchoring tool is a tractor drawn implement designed to punch and anchor mulch into the soil surface a minimum of 2 inches. This practice is most effective on large areas, but is limited to flatter slopes where equipment can operate safely.

ii. Wood cellulose fiber may be used for anchoring straw. Apply the fiber binder at a net dry weight of 750 pounds per acre.

iii. Synthetic binders such as Acrylic DLR (Agro-Tack), DCA-70, Petroset, Terra Tax II, Terra Tack AR or other approved equal may be used. Follow application rates as specified by the manufacturer.

iv. Lightweight plastic netting may be stapled over the mulch according to manufacturer recommendations.

v. Netting is usually available in rolls 4 to 15 feet wide and 300 to 3,000 feet long.

B-4-8 STANDARDS AND SPECIFICATIONS

FOR STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.

2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1.

3. Runoff from the stockpile area must drain to a suitable sediment control practice.

4. Access the stockpile area from the upgrade side.

5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence.

6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.

7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.

8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup.

Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio.

BEST MANAGEMENT PRACTICES FOR WORKING IN NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, AND 100-YEAR FLOODPLAINS

1. NO EXCESS FILL, CONSTRUCTION MATERIAL, OR DEBRIS SHALL BE STOCKPILED OR STORED IN NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.

2. PLACE MATERIALS IN A LOCATION AND MANNER WHICH DOES NOT ADVERSELY IMPACT SURFACE OR SUBSURFACE WATER FLOW INTO OR OUT OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.

3. DO NOT USE THE EXCAVATED MATERIAL AS BACKFILL IF IT CONTAINS WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL, OR ANY OTHER DELETERIOUS SUBSTANCE.

4. PLACE HEAVY EQUIPMENT ON MATS OR SUITABLY OPERATE THE EQUIPMENT TO PREVENT DAMAGE TO NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, WATERWAYS, OR THE 100-YEAR FLOODPLAIN.

5. REPAIR AND MAINTAIN ANY SERVICEABLE STRUCTURE OR FILL SO THERE IS NO PERMANENT LOSS OF NONTIDAL WETLANDS, NONTIDAL WETLAND BUFFERS, OR WATERWAYS, OR PERMANENT MODIFICATION OF THE 100-YEAR FLOODPLAIN IN EXCESS OF THAT LOST UNDER THE ORIGINALLY AUTHORIZED STRUCTURE OR FILL.

6. RECTIFY ANY NONTIDAL WETLANDS, WETLAND BUFFERS, WATERWAYS, OR 100-YEAR FLOODPLAIN TEMPORARILY IMPACTED BY ANY CONSTRUCTION.

7. ALL STABILIZATION IN THE NONTIDAL WETLAND AND NONTIDAL WETLAND BUFFER SHALL CONSIST OF THE FOLLOWING SPECIES:

ANNUAL RYEGRASS (LOLIUM MULTIFLORUM), MILLET (SETARIA ITALICA), BARLEY (HORDEUM SP.), OATS (UNIOLA SP.) AND/OR RYE (SECALE CEREALE). THESE SPECIES WILL ALLOW FOR THE STABILIZATION OF THE SITE WHILE ALSO ALLOWING FOR THE VOLUNTARY REVEGETATION OF NATURAL WETLAND SPECIES.

8. AFTER INSTALLATION HAS BEEN COMPLETED, MAKE POST CONSTRUCTION GRADES AND ELEVATIONS THE SAME AS THE ORIGINAL GRADES AND ELEVATIONS IN TEMPORARILY IMPACTED AREAS.

9. TO PROTECT AQUATIC SPECIES, IN-STREAM WORK IS PROHIBITED AS DETERMINED BY THE CLASSIFICATION OF THE STREAM:

- A. USE I WATERS (WITHOUT YELLOW PERCH): IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH JUNE 15, INCLUSIVE DURING ANY YEAR.
B. USE I WATERS (WITH YELLOW PERCH): IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD FEBRUARY 15 THROUGH JUNE 15, INCLUSIVE DURING ANY YEAR.
C. USE III WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD OCTOBER 1 THORUGH APRIL 30, INCLUSIVE, DURING ANY YEAR.
D. USE IV WATERS: IN-STREAM WORK SHALL NOT BE CONDUCTED DURING THE PERIOD MARCH 1 THROUGH MAY 31, INCLUSIVE, DURING ANY YEAR.

10. STORMWATER RUNOFF FROM IMPERVIOUS SURFACES SHALL BE CONTROLLED TO PREVENT THE WASHING OF DEBRIS INTO THE WATERWAY.

11. CULVERTS SHALL BE CONSTRUCTED AND ANY RIPRAP PLACED SO AS NOT TO OBSTRUCT THE MOVEMENT OF AQUATIC SPECIES, UNLESS THE PURPOSE OF THE ACTIVITY IS TO IMPOUND WATER.

OWNERS/DEVELOPER CERTIFICATION:

"I/WE HEREBY CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THAT THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) APPROVED TRAINING PROGRAM FOR THE CONTROL ON EROSION AND SEDIMENT PRIOR TO BEGINNING THE PROJECT."

RIGHT-OF-ENTRY FOR PERIODIC ON-SITE INSPECTION BY HOWARD COUNTY: THE HOWARD SOIL CONSERVATION DISTRICT AND/OR MDE.

OWNER/DEVELOPER'S SIGNATURE: JOHN TSIKERDANOS, DATE: 6/15/22

PRINTED NAME & TITLE: JOHN TSIKERDANOS, ALERT

DESIGN CERTIFICATION: "I HEREBY CERTIFY THAT THIS PLAN HAS BEEN DESIGNED IN ACCORDANCE WITH CURRENT MARYLAND EROSION AND SEDIMENT CONTROL LAWS, REGULATIONS, AND STANDARDS, THAT IT REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

DESIGNER'S SIGNATURE: Bill Swales, DATE: 3-15-22

PRINTED NAME: BILLIE SWALES

MD REGISTRATION NO. 34888 (P)E(R)L.S., OR R.L.A. (CIRCLE ONE)

HOWARD SCD SIGNATURE BLOCK:

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

HOWARD SIGNATURE: Alexander Butchik, DATE: 06/23/22

HOWARD SOIL CONSERVATION DISTRICT

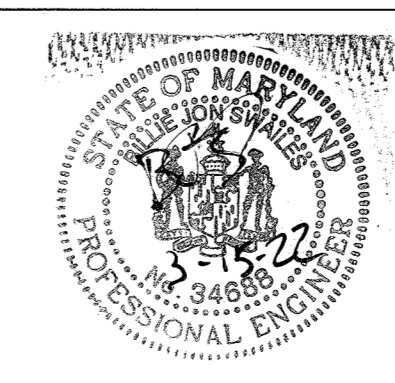
APPROVED: DEPARTMENT OF PLANNING AND ZONING, Chief, Development Engineering Division, DATE: 6-28-22

Chief, Division of Land Development, DATE: 7/1/22

DIRECTOR, DATE: 7-11-22

PINES AT DICKINSON CONDOMINIUMS, Owner / Developer, Council of Unit Owners of The Pines at Dickinson, Inc., 7226 LEE DEFOREST DRIVE SUITE 102 COLUMBIA, MD 21046

TRIAD ENGINEERING, INC., 1075-D SHERMAN AVENUE HAGERSTOWN, MD 21740, PH: 301.797.6400 FAX: 301.797.2424



"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 34888, EXPIRATION DATE: 7-9-23"

REDLINE REVISION FOR CULVERT DESCRIPTION OF REVISION

COLUMBIA THE PINES AT DICKINSON VILLAGE OF KINGS CONTRIVANCE SECTION 2 AREA 3 PARCEL 'G' "REVISED SITE DEVELOPMENT PLAN" CONSTRUCTION NOTES AND DETAILS SHEET 17 OF 17

ELECTION DISTRICT 6, HOWARD COUNTY, MARYLAND DATE: December 10, 2021 SCALE: AS SHOWN