

# HOWARD COUNTY MARYLAND

## DEPARTMENT OF PUBLIC WORKS

viewer for Howard County U.D. and meets technical requirements.

*James M. Hahn* Date: 11-26-79  
U.S. SOIL CONSERVATION SERVICE

This development plan is approved for soil erosion and sediment control by the Howard County Soil Conservation District.

Approved: *Robert J. Selby* Date: 11-26-79  
HOWARD COUNTY S.C.D.

### ENGINEER'S CERTIFICATION

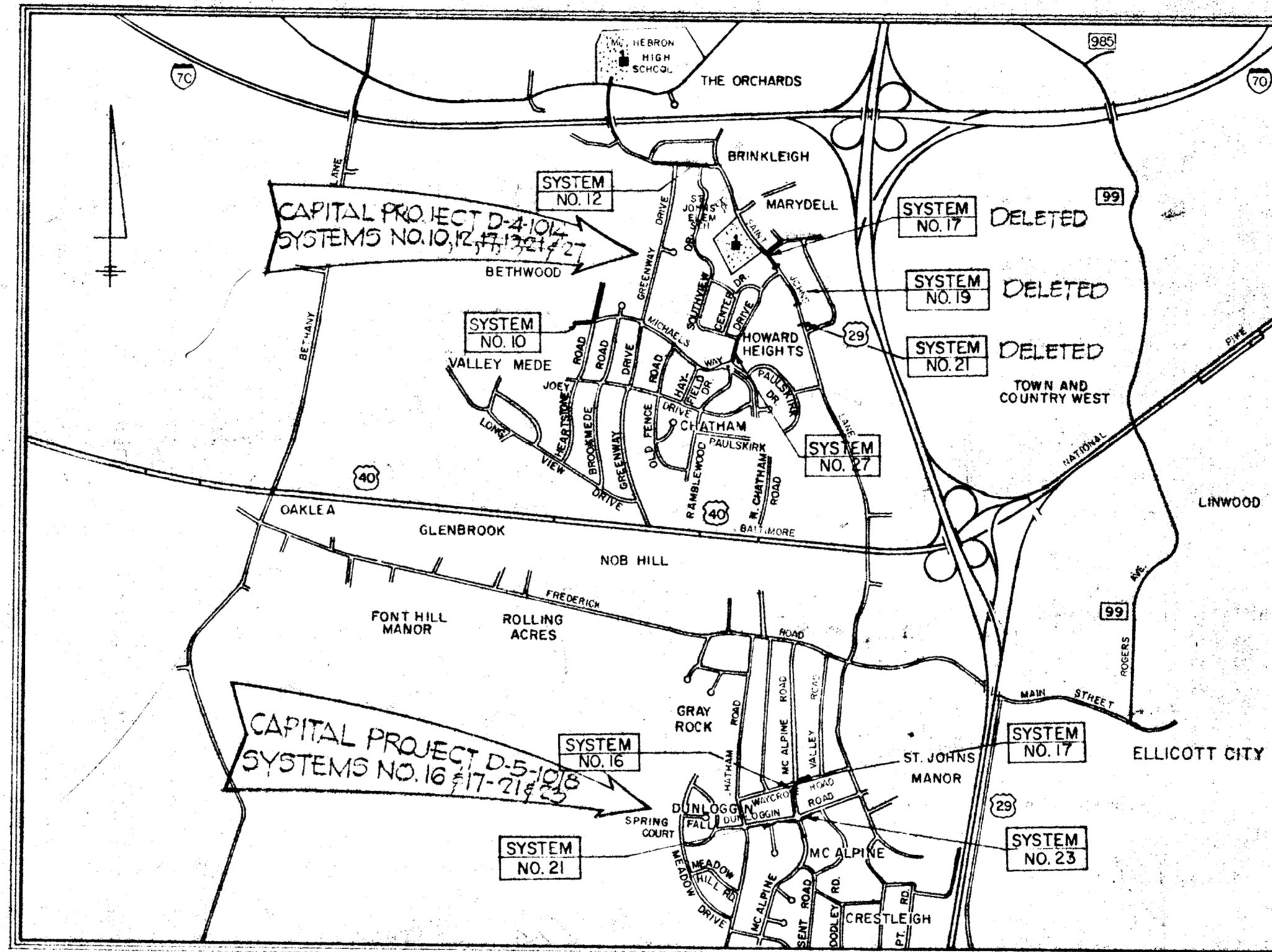
I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard County Soil Conservation District.

*Donald E. Arbo* Date: Oct. 9, 1979  
KIDDE CONSULTANTS, INC.  
1020 CORRELL BRIDGE ROAD  
TOWSON, MD. 21284

### DEVELOPER'S CERTIFICATION

I certify that all development and/or construction will be done according to these plans of development and plan of erosion and sediment control and I also authorize periodic on-site inspection by Howard County Soil Conservation District or their authorized agents as are deemed necessary. Deviation from these plans will be permitted only if authorized by the Howard County Soil Conservation District.

*William E. Riley*  
WILLIAM E. RILEY, P.E., CHIEF  
BUREAU OF ENGINEERING  
DEPARTMENT OF PUBLIC WORKS



VICINITY MAP  
Scale: 1"=2000'

INDEX OF SHEETS		
SHEET NO.	DESCRIPTION	LOCATION
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3	DRAINAGE AREA MAP	VALLEY MEDE
4	SYSTEM NO. 10	HEARTHSTONE ROAD & MICHAEL'S WAY
5	SYSTEM NO. 12	ST. JOHN'S LANE
6	SYSTEM NO. 27	HAMBLEDWOOD DRIVE
DUNLOGGIN - CAPITAL PROJECT NO. D-5-1018		
7	DRAINAGE AREA MAP	DUNLOGGIN
8	SYSTEM NO. 16 & 17	MAC ALPINE ROAD & WAYCROSS ROAD
	SYSTEM NO. 21 & 23	MAC ALPINE ROAD & DUNLOGGIN ROAD

# STORM DRAINAGE IMPROVEMENTS PLUMTREE DRAINAGE AREA VALLEY MEDE AND DUNLOGGIN ELECTION DISTRICT : ELLICOTT CITY NO. 2

SAVE  
C2176A01

RECORD DRAWING  
BY  
KIDDE CONSULTANTS, INC.  
DATE: DEC 21 1979

*Donald E. Arbo*

**KIDDE CONSULTANTS, INC.**  
ENGINEERS • ARCHITECTS • PLANNERS  
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*William E. Riley* DATE: Sept 2 1979  
CHIEF, BUREAU OF ENGINEERING

*Donald E. Arbo* DATE: Sept 2 1979  
CHIEF, DIVISION OF ROADS, BRIDGES, AND STORM DRAINAGE

CAPITAL PROJECT NO. D-4-1014  
AND  
CAPITAL PROJECT NO. D-5-1018

STORM DRAINAGE IMPROVEMENTS  
FOR THE  
PLUMTREE DRAINAGE AREA

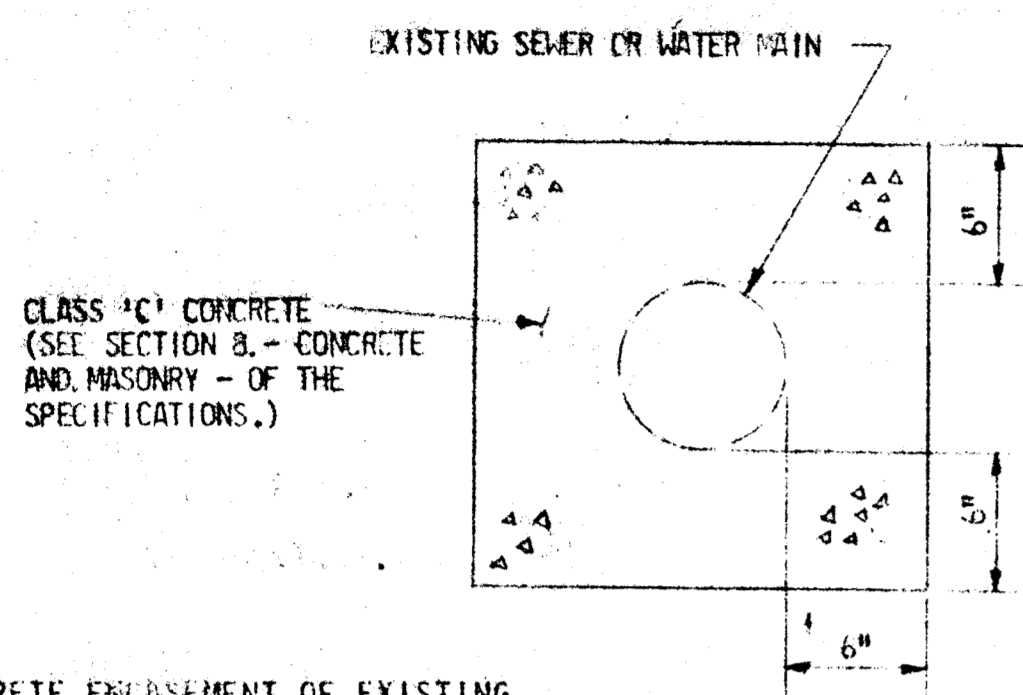
DRAWING  
NO. 1  
OF 8

SCALE  
1"=2,000'

DES: PWZ  
DWN: PWZ  
CHKD: DLH

SOIL CONSERVATION DISTRICT - VALLEY MEDE  
REG. U.D. NO. 1-1-1979 - DUNLOGGIN

NOTE: ENCASEMENT TO EXTEND 5'-0" ON EACH SIDE OF THE CENTERLINE OF STORM DRAIN CROSSING.



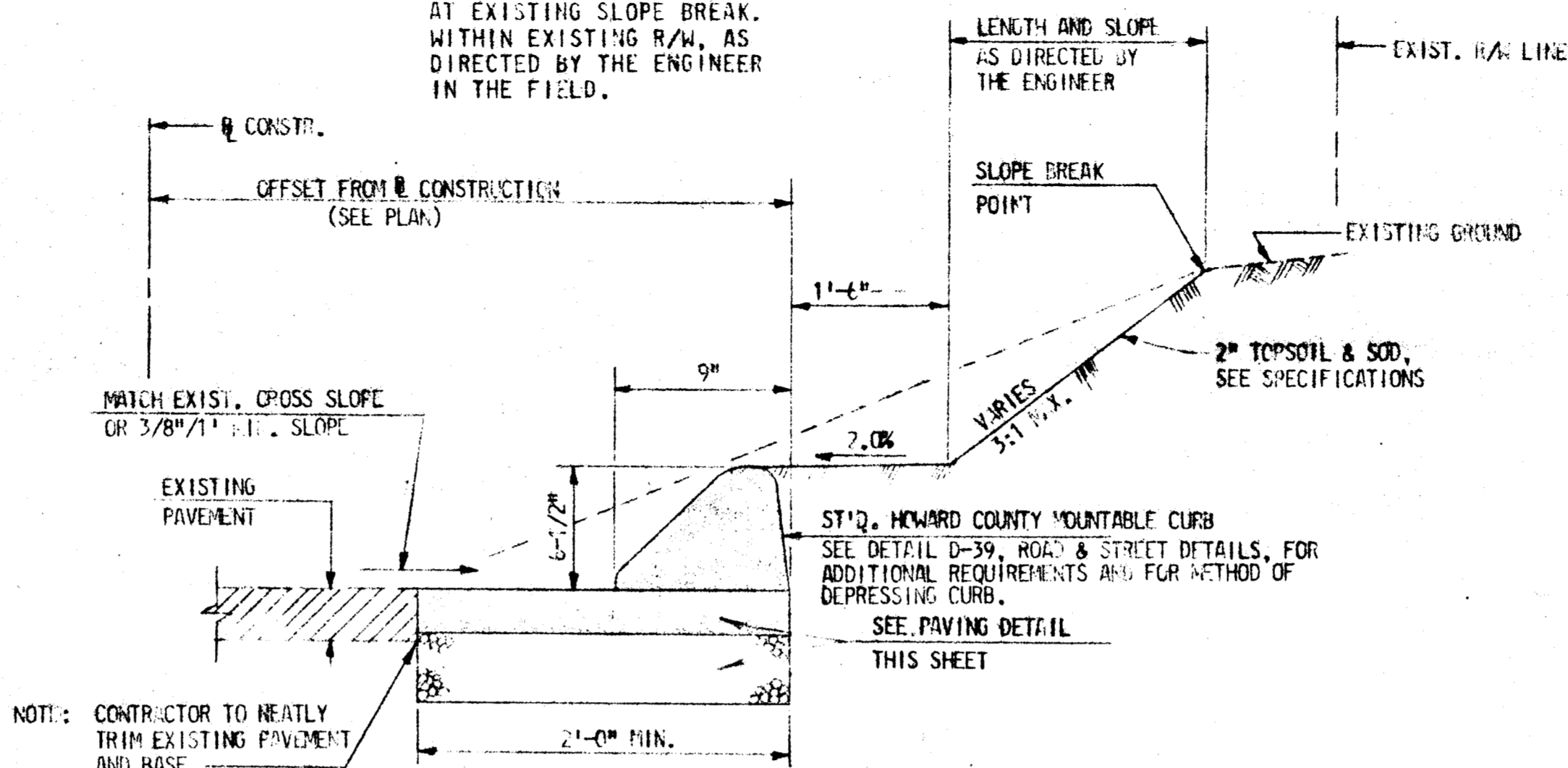
CLASS 'C' CONCRETE (SEE SECTION B - CONCRETE AND MASONRY - OF THE SPECIFICATIONS.)

NOTE: CONCRETE ENCASEMENT OF EXISTING UTILITIES WILL BE PERFORMED ONLY WHERE DIRECTED IN WRITING BY THE ENGINEER IN THE FIELD. PAYMENT FOR CONCRETE ENCASEMENT WILL BE MADE IN ACCORDANCE WITH THE UNIT PRICE PER CUBIC YARD STIPULATED IN THE BID PROPOSAL FORM.

CONCRETE ENCASEMENT DETAIL

NOT TO SCALE

NOTE: VARY CUT SLOPE TO TIL-IN AT EXISTING SLOPE BREAK. WITHIN EXISTING R/W, AS DIRECTED BY THE ENGINEER IN THE FIELD.

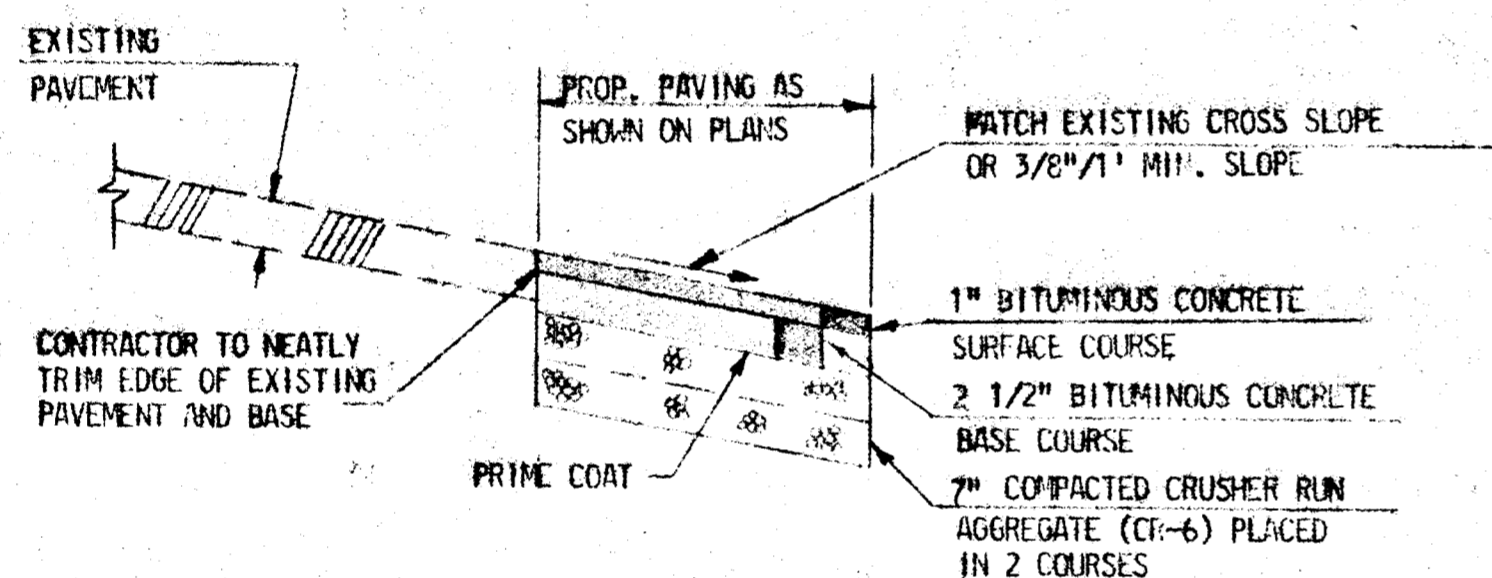


PAVING EXTENSION WITH MOUNTABLE CURB DETAIL

NOT TO SCALE

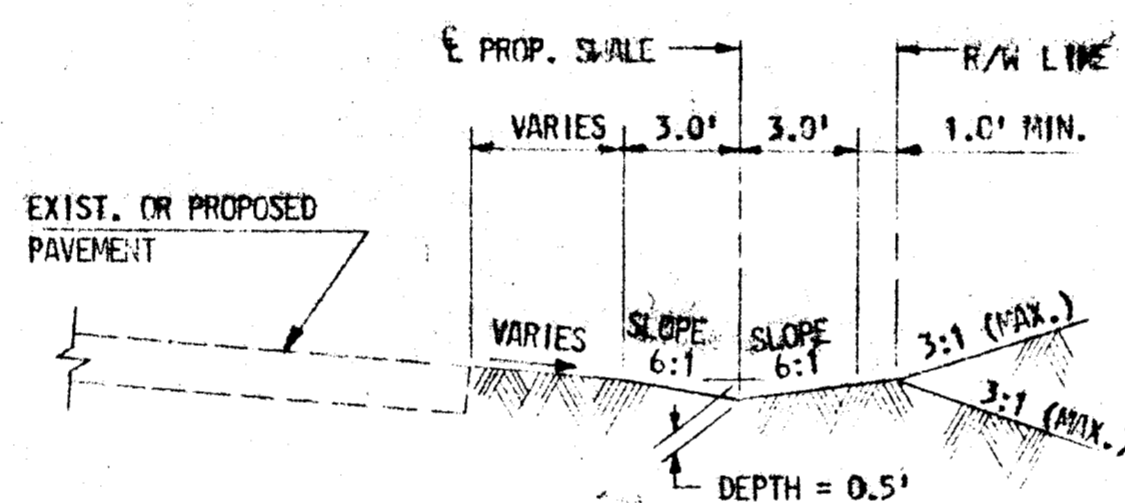
GENERAL NOTES

- THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-559-0100 FOR UNDERGROUND UTILITY LOCATIONS, AT LEAST FIVE DAYS PRIOR TO COMMENCING WORK SHOWN ON THE PLANS.
- ALL TOP ELEVATIONS FOR THE PROPOSED INLETS AND MANHOLES ARE APPROXIMATE, AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ALL EXISTING DRIVEWAYS DAMAGED DURING CONSTRUCTION. SEE MEASUREMENT & PAYMENT IN SPECIAL PROVISIONS.
  - EXISTING BITUMINOUS CONCRETE DRIVEWAYS SHALL BE RESTORED AS FOLLOWS:
    - 7 INCHES OF COMPACTED CRUSHER RUN (CR-6), PLACE IN 2 COURSES.
    - A PRIME COAT OF BITUMINOUS MATERIAL
    - A 3-INCH DEPTH OF BITUMINOUS CONCRETE SURFACE COURSE.
  - EXISTING CONCRETE DRIVEWAY SHALL BE RESTORED USING 7" PLAIN CEMENT CONCRETE PAVING, USING 6x6x12, 9x9x12, 12x12 #308, PARALLEL TO Q DRIVEWAY & #312 PERPENDICULAR TO Q DRIVEWAY.
  - EXISTING GRAVEL DRIVEWAYS SHALL BE RESTORED USING 6 INCHES CRUSHER RUN AGGREGATE (CR-6) INSTALLED IN 2 COURSES.
- TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR TO GRADE AROUND THE TOP OF THE PROPOSED INLETS IN ORDER TO PROVIDE POSITIVE DRAINAGE TO THE INLETS. LINING SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- COORDINATES ARE BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM, 1957 DATUM, PROJECTED BY THE PLANNING AND ZONING COMMISSION OF HOWARD COUNTY, MD.
- THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ON THE PLANS ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION BEFORE STARTING CONSTRUCTION. NEITHER THE ENGINEER NOR THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS WARRANT OR GUARANTEE THE COMPLETENESS OR CORRECTNESS OF THE INFORMATION SHOWN.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN VICINITY OF UTILITIES. COST SHALL BE INCLUDED IN THE UNIT PRICES BID FOR EXCAVATION AND BACKFILL FOR MAINS.
- SEE THE SPECIAL PROVISIONS OF THE SPECIFICATIONS FOR INSTRUCTIONS RELATIVE TO EXCESS EARTH DISPOSAL, SEDIMENT CONTROL AND COMPLIANCE WITH HOWARD COUNTY SOIL CONSERVATION DISTRICT REQUIREMENTS.
- CLEAR ALL UTILITIES BY 6". CLEAR ALL POLES BY 2'-0" OR THE PROPOSED STORM DRAIN SHALL BE PLACED BY TUNNELING. COST OF TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EXCAVATION AND BACKFILL FOR PROPOSED STORM DRAINS.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S DATUM OF 1929.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR FURNISHING AND LAYING PIPE STORM DRAINS.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.
- EXISTING WATER HOUSE SERVICES, THAT ARE IN CONFLICT WITH THE PROPOSED STORM DRAINAGE FACILITIES, SHALL BE ADJUSTED BY THE CONTRACTOR AS DISCUSSED IN THE CONTRACT SPECIAL PROVISIONS.
- SOIL BORING LOCATIONS.



PAVING SECTION AND PAVING EXTENSION DETAIL

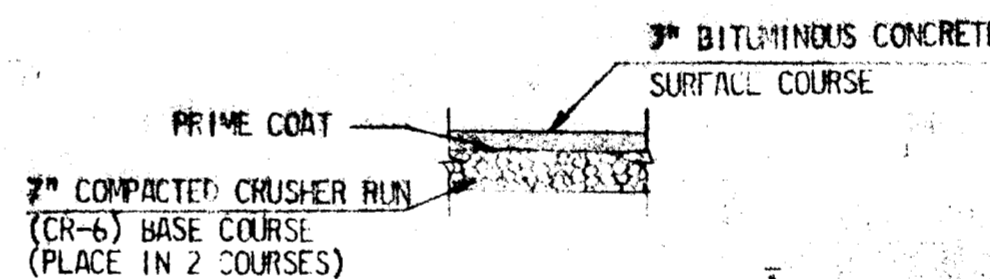
NOT TO SCALE



SWALE DETAIL

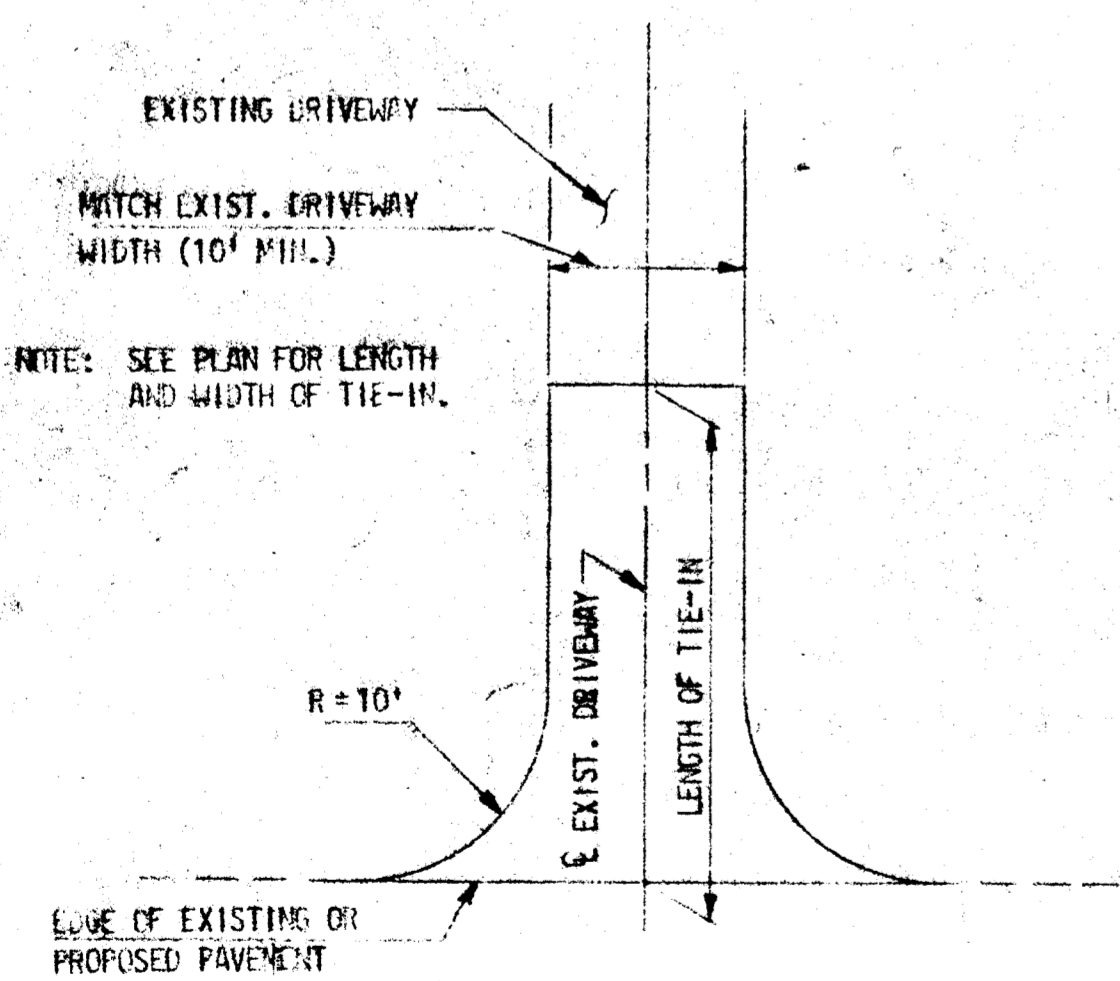
NOT TO SCALE

NOTE: EXACT LOCATION OF PROPOSED SWALE TO BE AT THE DIRECTION OF THE ENGINEER.



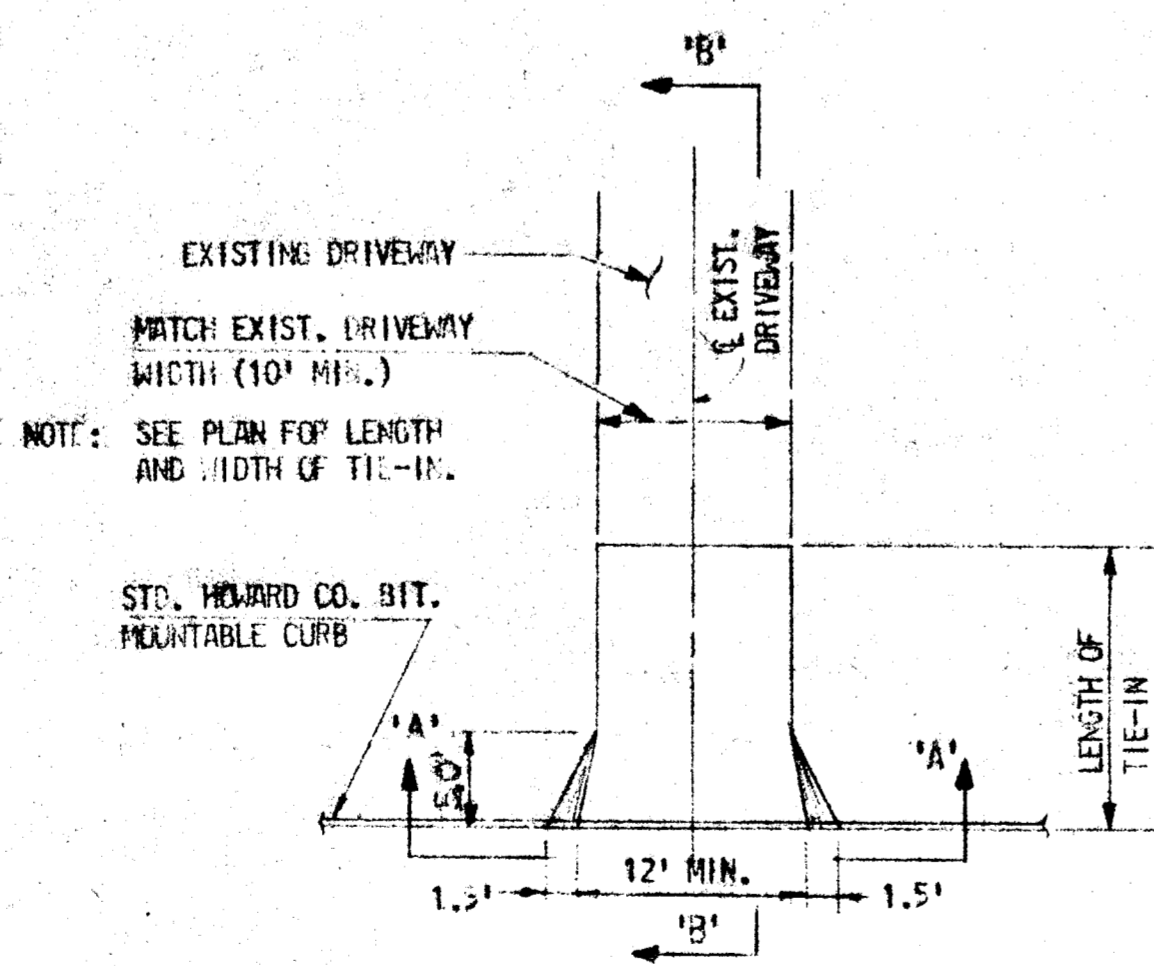
TYPICAL DRIVEWAY PAVING SECTION

NOT TO SCALE



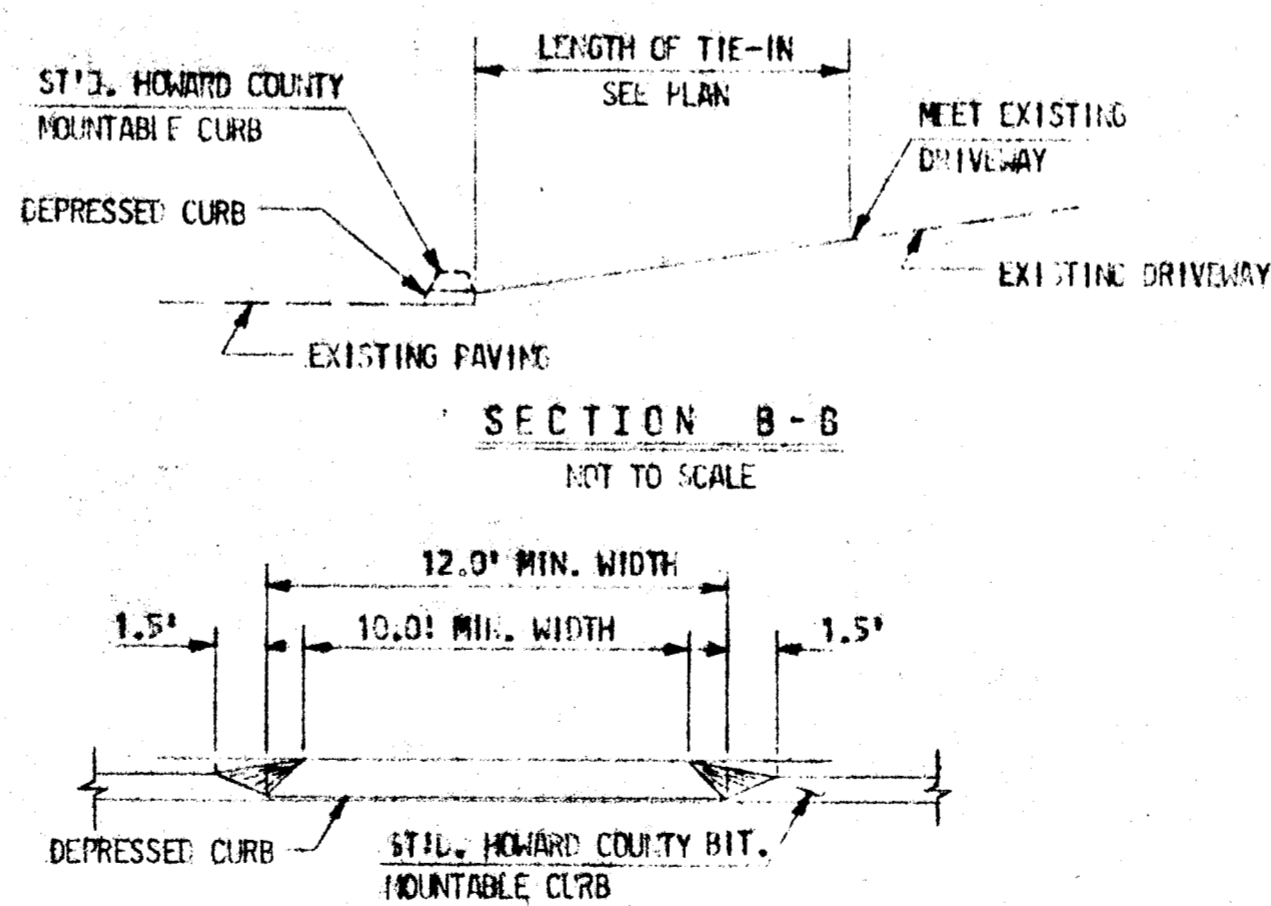
TYPICAL TYPE 'A' DRIVEWAY DETAIL

NOT TO SCALE



TYPICAL TYPE 'B' DRIVEWAY DETAIL

NOT TO SCALE

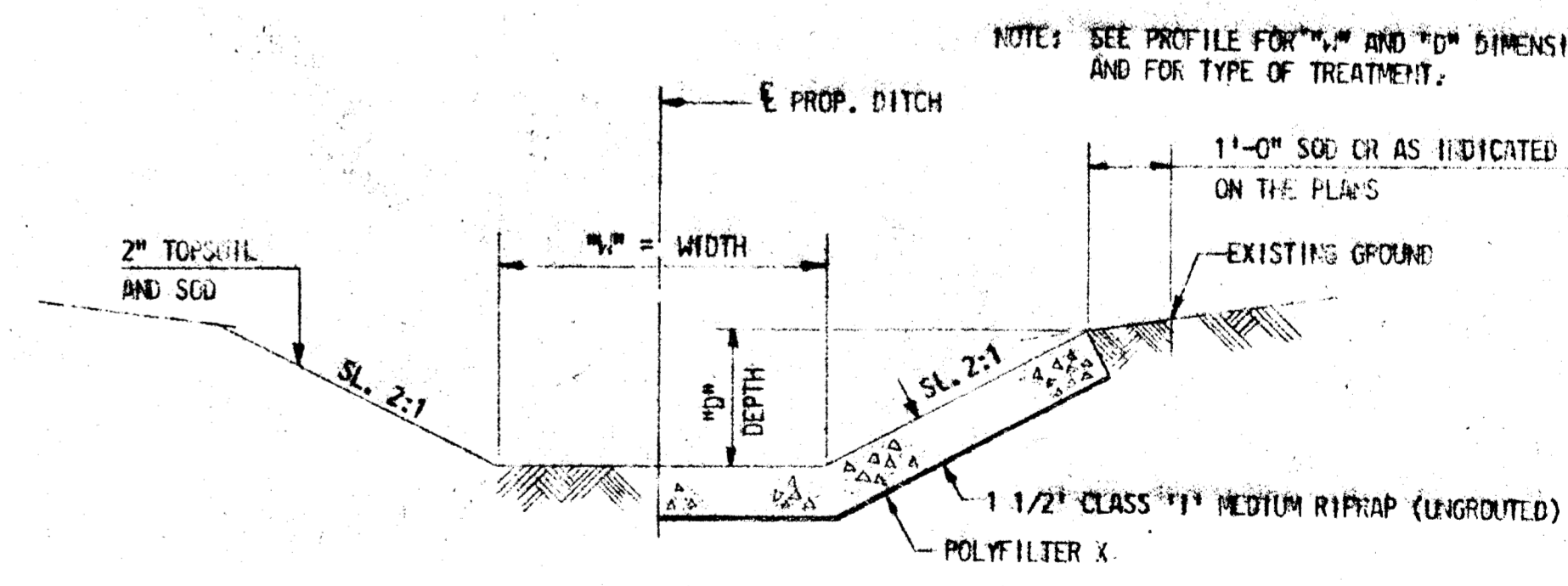


SECTION A-A

NOT TO SCALE

SECTION B-B

NOT TO SCALE



FLAT BOTTOM DITCH DETAIL

NOT TO SCALE

NOTE: SEE PROFILE FOR "A" AND "B" DIMENSIONS AND FOR TYPE OF TREATMENT.

**KIDDE CONSULTANTS, INC.**  
ENGINEERS • ARCHITECTS • PLANNERS  
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. ...* DIRECTOR, DEPARTMENT OF PUBLIC WORKS  
*Robert A. ...* CHIEF, BUREAU OF ENGINEERING

*Robert A. ...* CHIEF, DIVISION OF ROADS, BRIDGES, AND STORM DRAINAGE

CAPITAL PROJECT NO. D-4-1014  
AND  
CAPITAL PROJECT NO. D-5-1018

STORM DRAINAGE IMPROVEMENTS  
VALLEY MEDE & DUNLOGGIN  
STANDARD DETAILS  
ELECTION DISTRICT: ELLICOTT CITY NO. 2

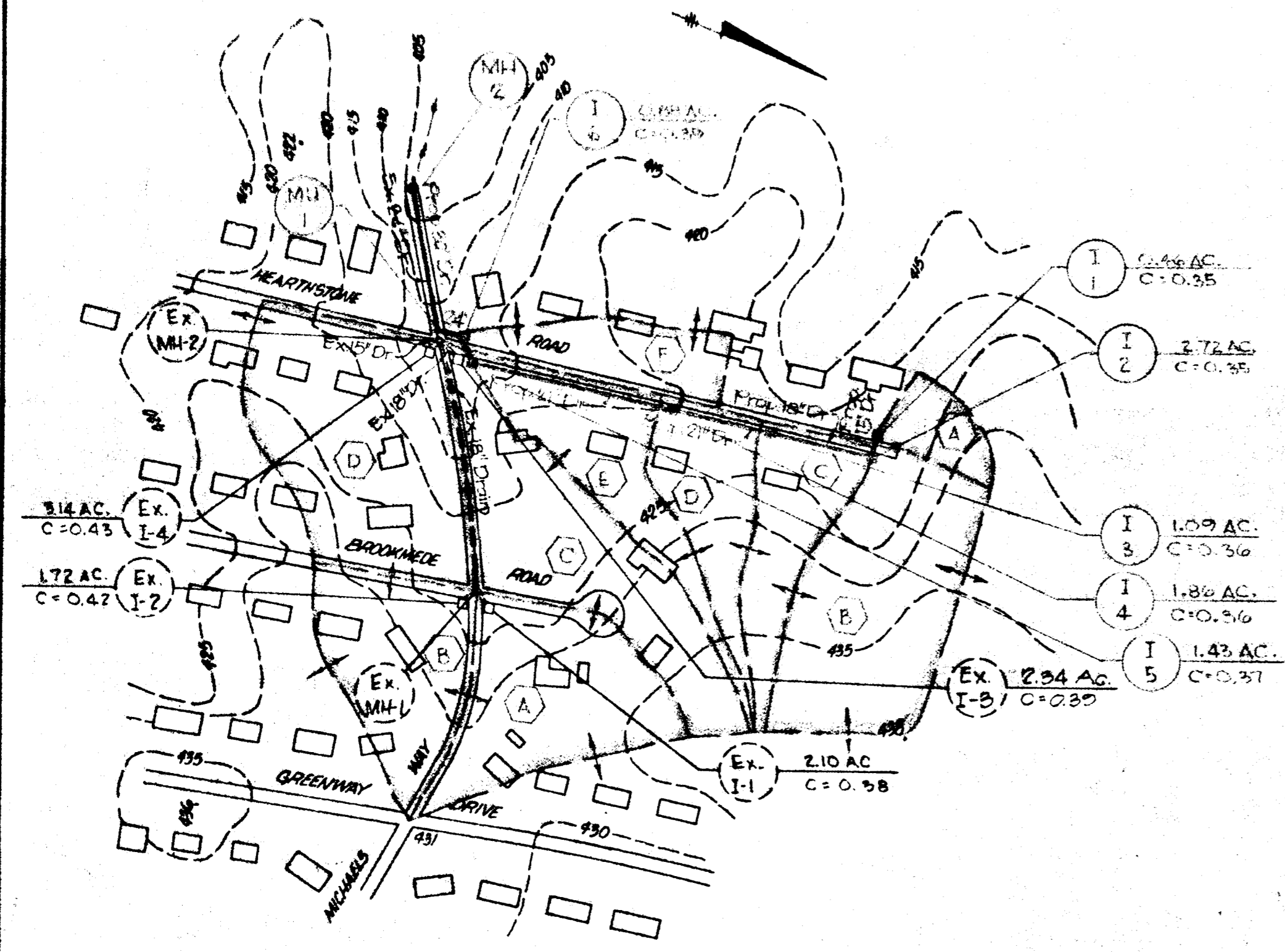
DRAWING  
NO. 2  
OF 8

SCALE  
AS  
SHOWN

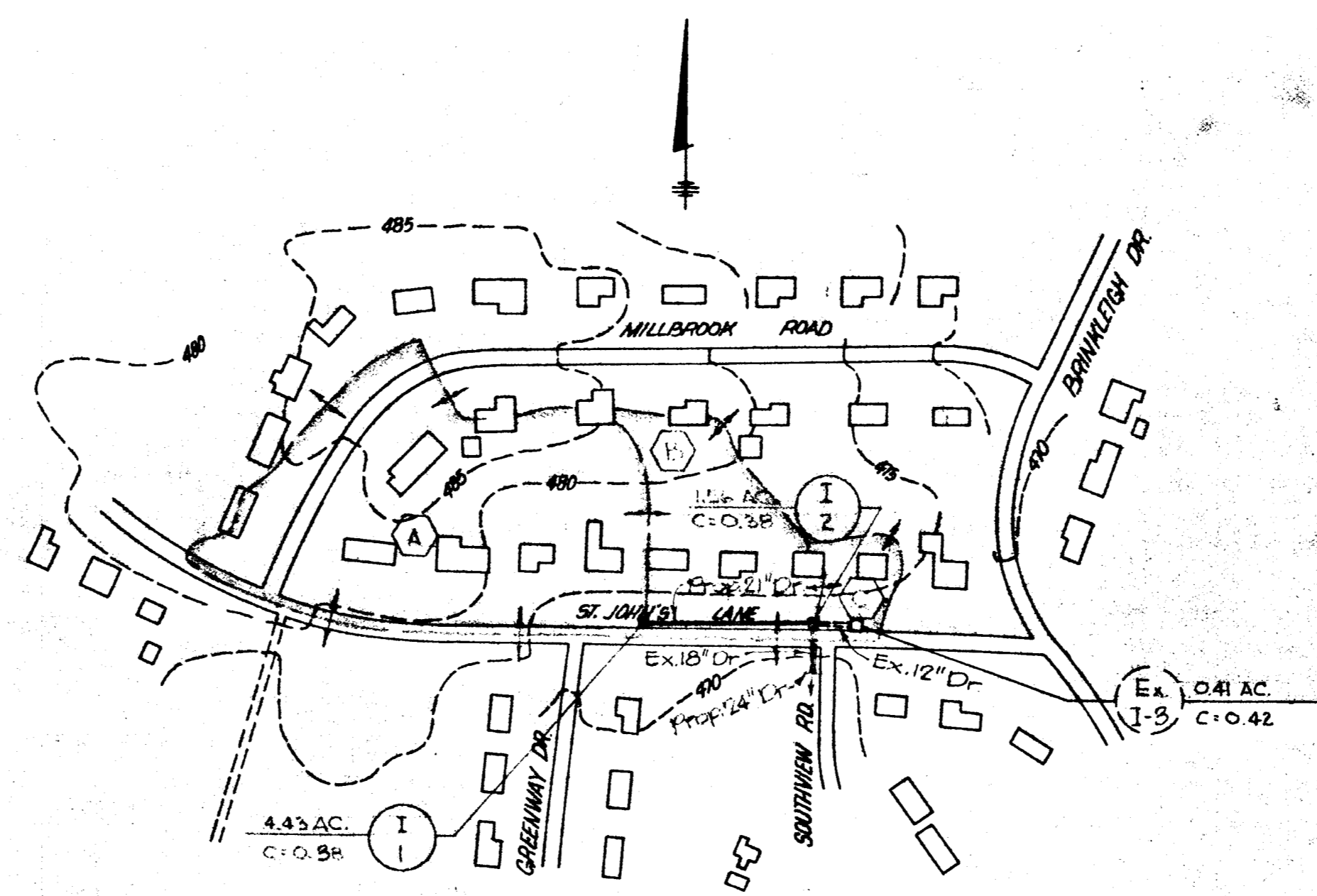
DES. *...*  
DR. *...*  
CK. *...*

RECORD DRAWING  
BY  
KIDDE CONSULTANTS, INC.  
DATE: 7/28 12:00 DEC 24 1992

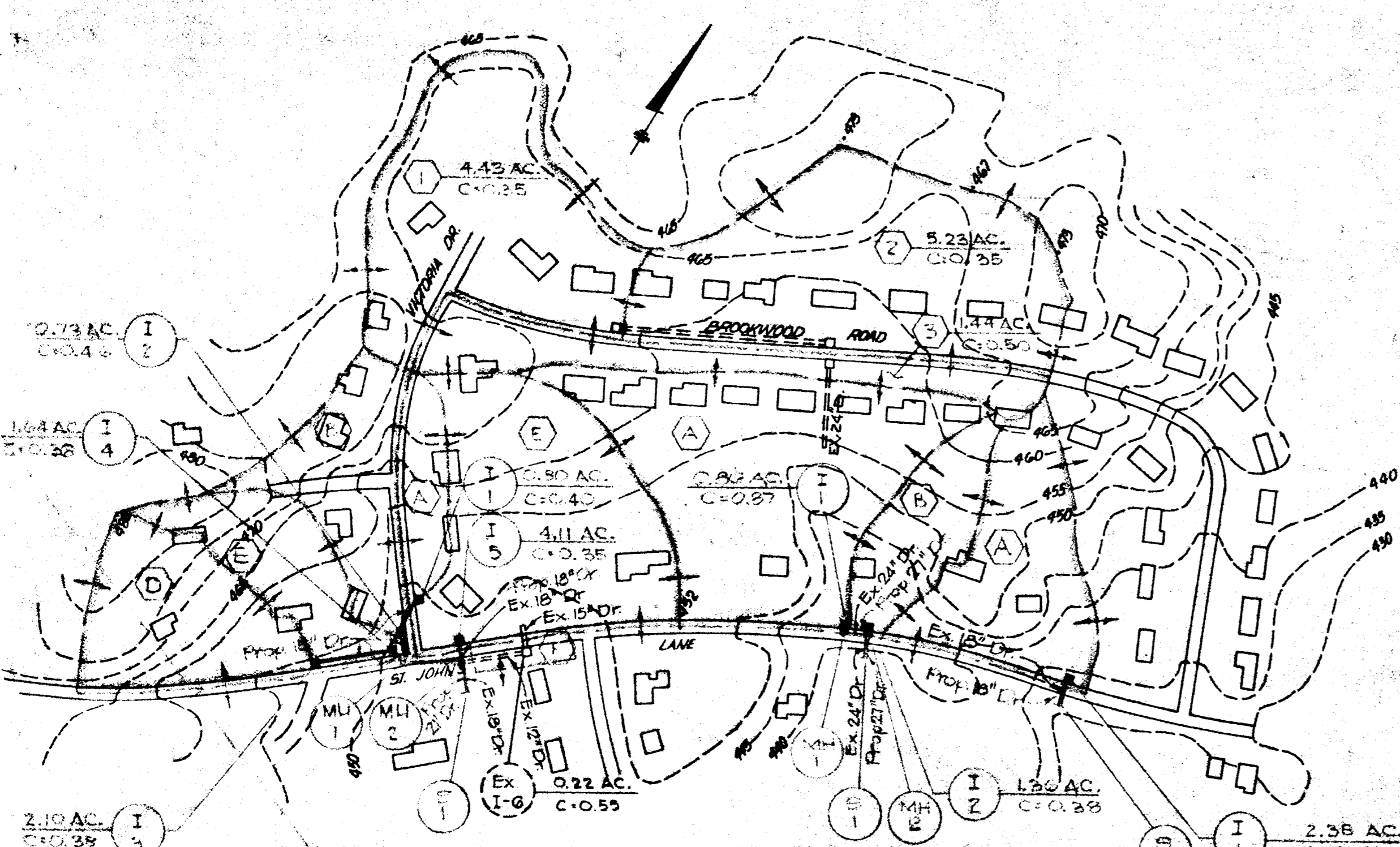




SYSTEM NO. 10



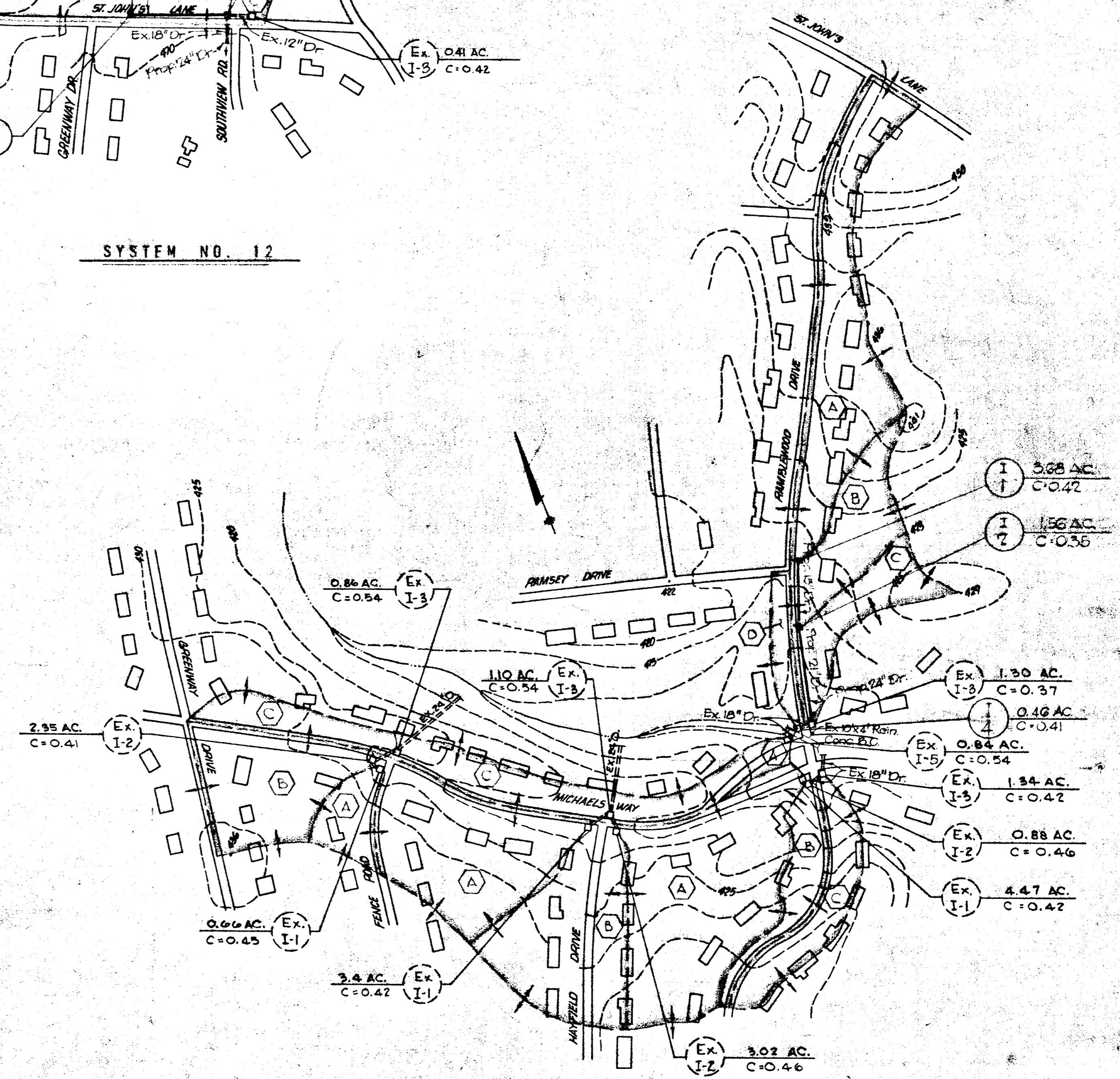
SYSTEM NO. 12



SYSTEM NO. 17  
"DELETED FROM CONTRACT"

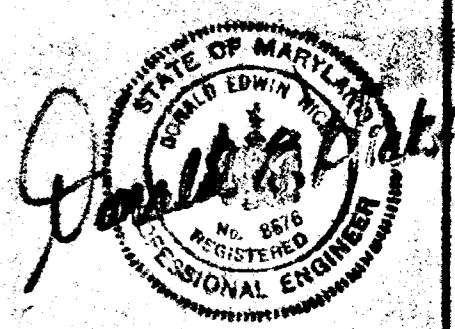
SYSTEM NO. 19  
"DELETED FROM CONTRACT"

SYSTEM NO. 21  
"DELETED FROM CONTRACT"



SYSTEM NO. 27

RECORD DRAWING  
BY  
KIDDE CONSULTANTS, INC.  
DATE DEC 21 1982



**KIDDE CONSULTANTS, INC.**  
ENGINEERS • ARCHITECTS • PLANNERS  
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*James M. Schwan*  
DIRECTOR, DEPARTMENT OF PUBLIC WORKS  
DATE

*Charles H. Colver*  
CHIEF, DIVISION OF ROADS, BRIDGES,  
AND STORM DRAINAGE  
DATE

CAPITAL PROJECT D-4-1014

STORM DRAINAGE IMPROVEMENTS  
VALLEY MEDE  
DRAINAGE AREA MAP  
ELECTION DISTRICT: ELLICOTT CITY NO. 2

DRAWING  
NO. 3  
OF 8

SCALE  
1"=200'

DES. P.F.Z.  
DR. T.J.A.  
CK. DEH

KC1 D.C. NO. 1-77022 - VALLEY MEDE  
KC1 D.C. NO. 1-77025 - DUNLONGTON

NOTE:  
THE CONTRACTOR SHALL CONNECT EXISTING 4" UNDERDRAIN, WHERE DISTURBED, TO THE NEAREST PROPOSED INLET USING LIVE MATERIAL. COST OF PLACING & CONNECTING 4" UNDERDRAIN TO BE INCLUDED IN THE UNIT PRICE BID FOR S.H.A. TYPE "K" INLET (D.G.I.) - STD. NO. - 779.02

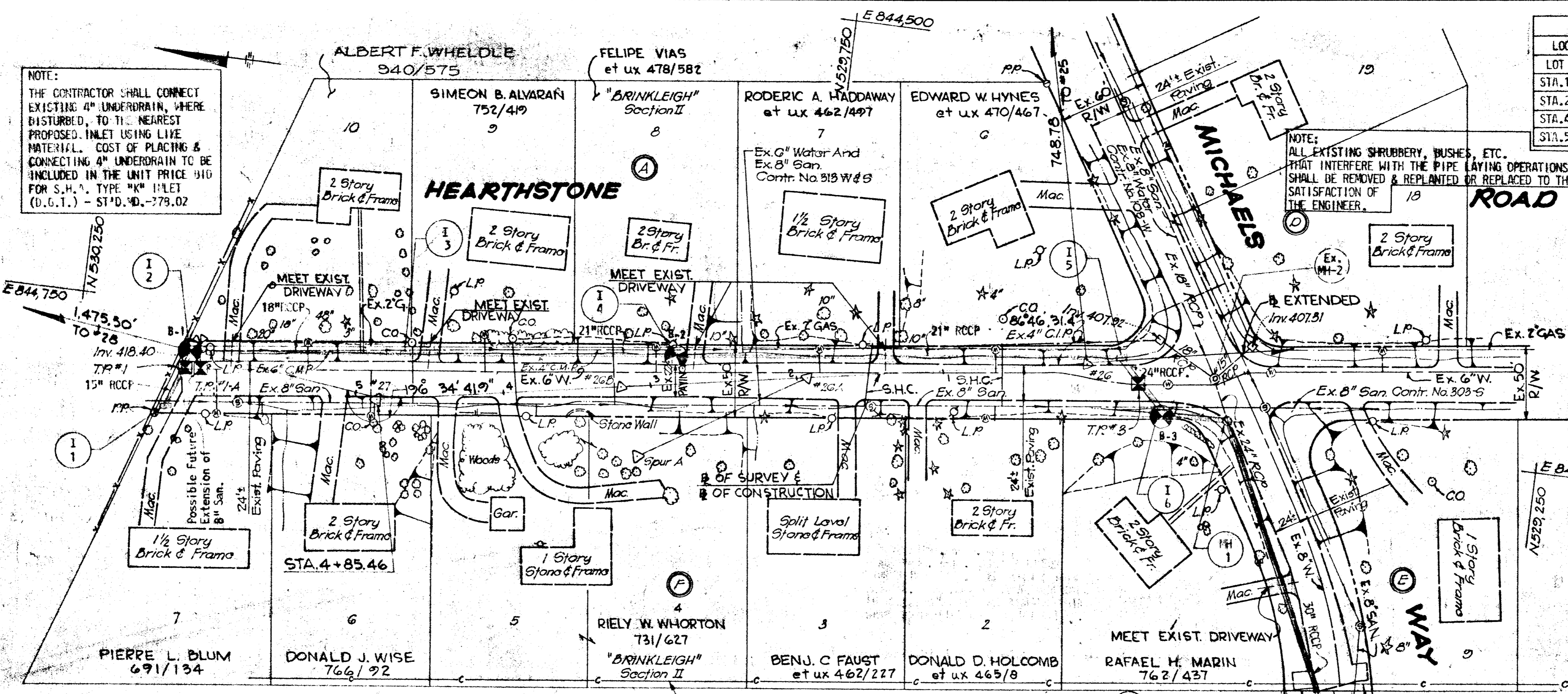
NOTE:  
ALL EXISTING SHRUBBERY, BUSHES, ETC. THAT INTERFERE WITH THE PIPE LAYING OPERATIONS, SHALL BE REMOVED & REPLANTED OR REPLACED TO THE SATISFACTION OF THE ENGINEER.

DRIVEWAY SCHEDULE				
LOCATION	TYPE	WIDTH	LENGTH	REMARKS
LOT NO. 1	"A"	10'	14'	RECONSTRUCT SIDE WALK
STA. 1+40 RT.	"A"	10'	12'	
STA. 2+69 RT.	"A"	12'	12'	HEARTHSTONE ROAD
STA. 4+50 RT.	"A"	14'	12'	
STA. 5+88 RT.	"A"	10'	13'	

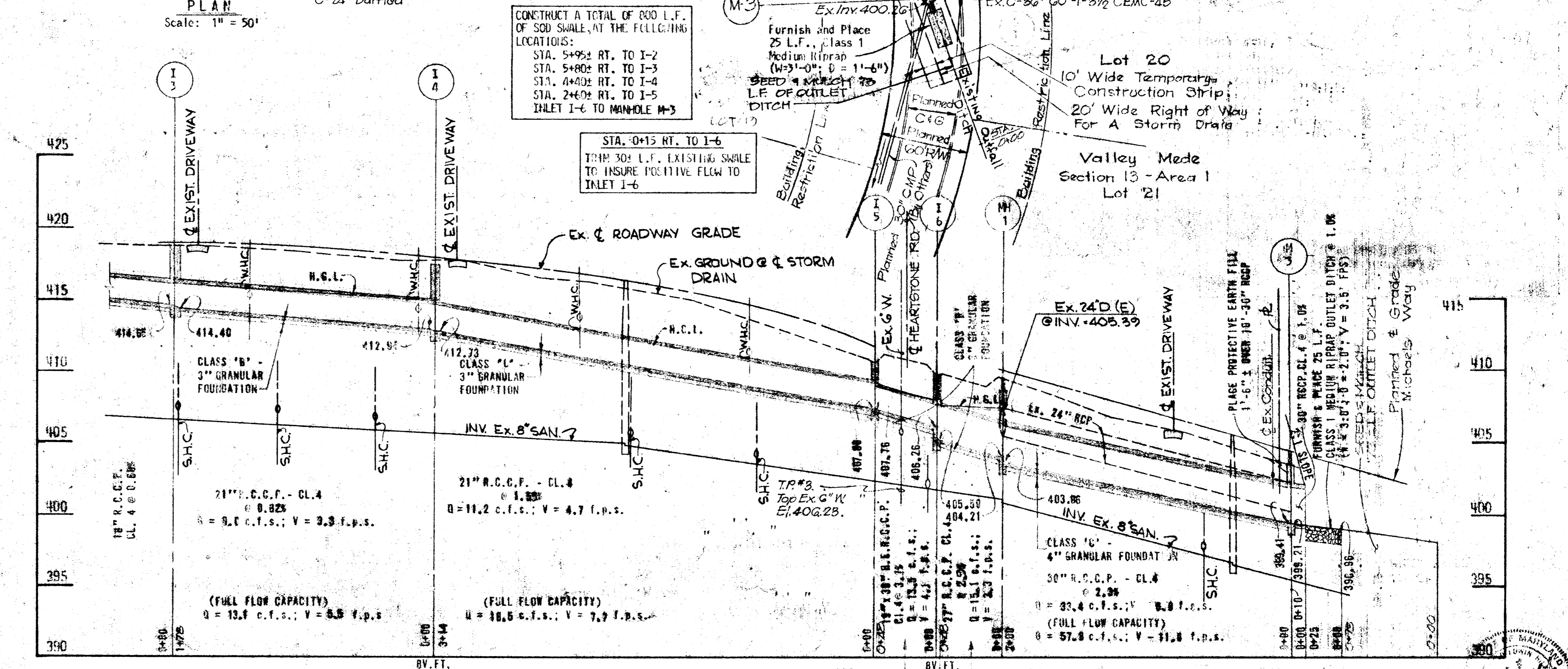
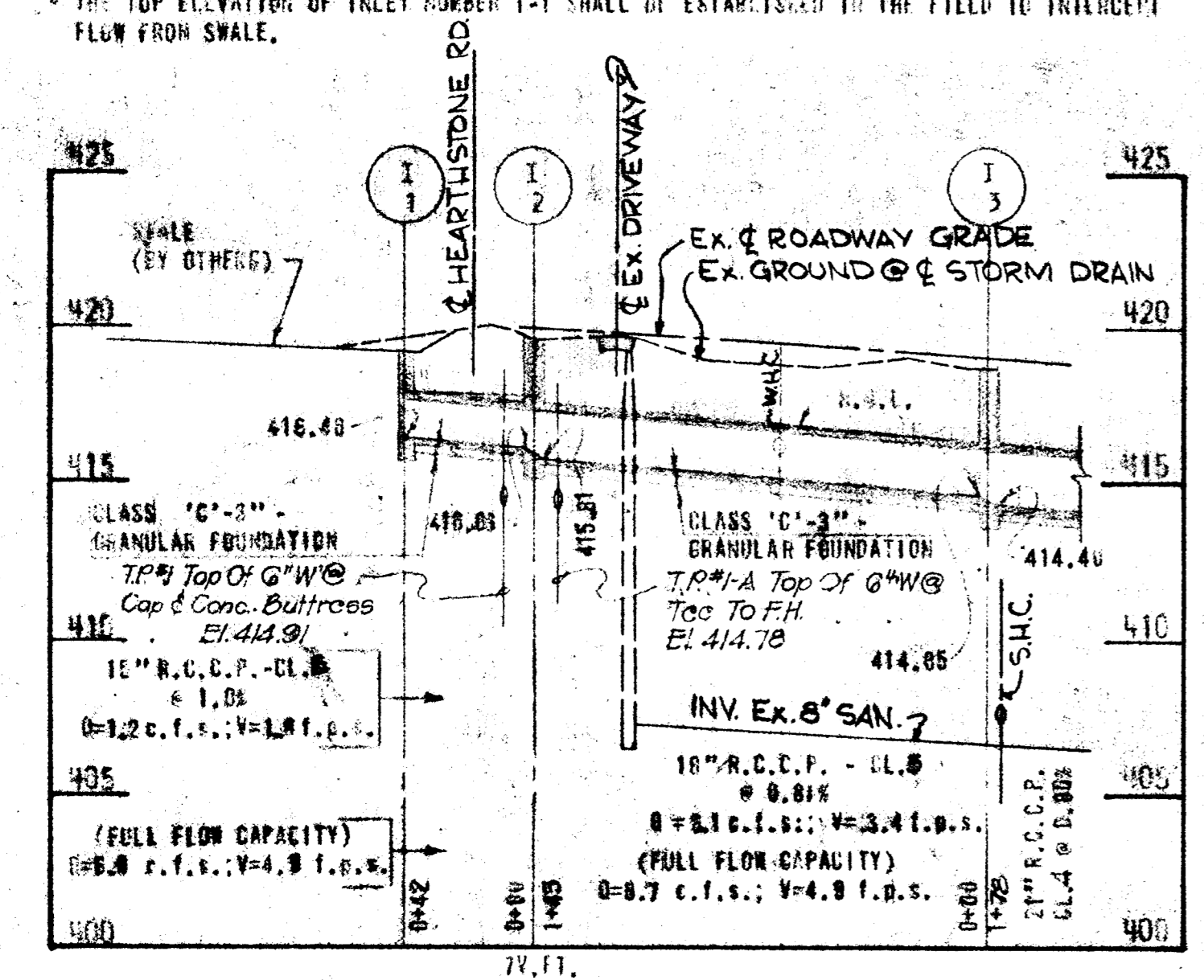
STA. 0+92-45+ RT. (B EXTENDED)  
CONSTRUCT MANHOLE (MH-1) ON EXISTING 24" R.C.P. PIPE AND CONNECT EXISTING 24" R.C.P. PIPE, FROM THE EAST, TO MH-1

NOTE: FROM INLET NO. 1-6 TO MANHOLE MH-3, RECONSTRUCT 500 SWALE FOR POSITIVE DRAINAGE TO OUTLET.

MANHOLE NO. MH-1 TO MANHOLE NO. MH-3  
CONTRACTOR SHALL REMOVE & DISPOSE OF THE EXISTING 24" R.C.P. FROM MH-1 TO MH-3, AND THE EXISTING ENDWALL AT MH-3. ALL RELATED COSTS ARE TO BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT FOR FURNISHING & LAYING PIPE STORM DRAINS.



STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. FT.	TOP EL.	REMARKS	
1-1	STD. "A" INLET	STA. 6+24 - 41' LT.	416.46	416.00	H.C. DRWG. D-93 & D-95	
1-2	STD. "A" INLET	STA. 6+15	416.86	416.51	H.C. DRWG. D-93 & D-95	
1-3	STD. "A" INLET	STA. 4+85 - 30' RT.	414.56	414.20	H.C. DRWG. D-93 & D-95	
1-4	STD. "A" INLET	STA. 2+83 - 15' RT.	412.54	412.19	H.C. DRWG. D-93 & D-95	
1-5	STD. "A" INLET	STA. 0+25 - 3' LT.	407.98	407.62	H.C. DRWG. D-93 & D-95	
1-6	STD. "A" INLET	STA. 0+58 - 18' RT.	406.26	405.90	H.C. DRWG. D-93 & D-95	
1-7	STD. "B" MANHOLE	STA. 0+64 - 10' RT.	404.21	403.86	FIG. 3.03	
1-8	STD. "B" MANHOLE	STA. 0+64 - 10' RT.	399.41	399.06	FIG. 3.03	



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BALTIMORE, MARYLAND

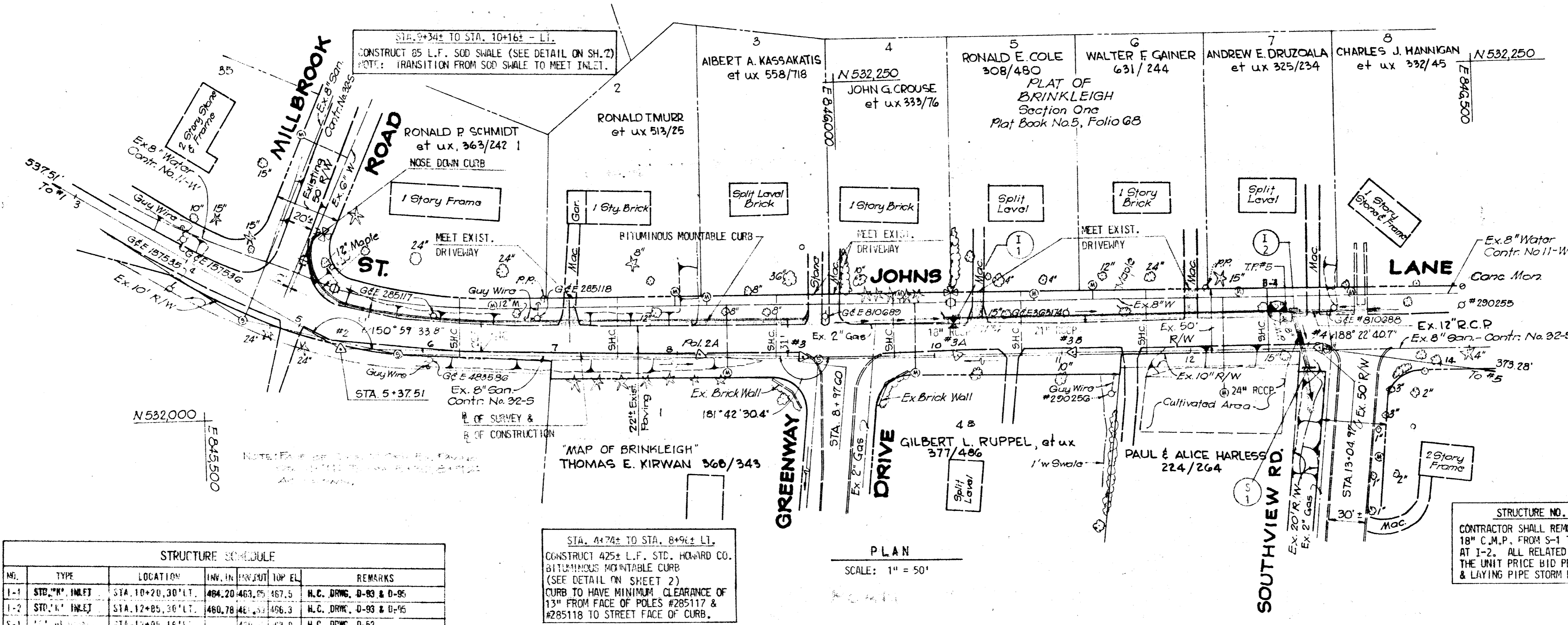
DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
CHIEF, DIVISION OF ROADS, BRIDGES, AND STORM DRAINAGE

CAPITAL PROJECT D-4-1014

STORM DRAINAGE IMPROVEMENTS  
**VALLEY MEDE - SYSTEM NO. 10**  
HEARTHSTONE ROAD & MICHAELS WAY  
ELECTION DISTRICT: ELLICOTT CITY NO. 2

DRAWING NO. 4 OF 8  
SCALE AS SHOWN

RECORDED BY KIDDE CONSULTANTS, INC. DATE DEC 31 1982



STA. 10+45± TO STA. 12+80± LI.  
CONSTRUCT 225 L.F. 300 SWALE  
(SEE DETAIL ON SHEET 2)  
NOTE: TRANSITION FROM SOD  
SWALE TO MEET INLET.

STA. 10+45± TO STA. 12+80± LI.  
PRIOR TO CONNECTING THE EXISTING  
12" R.C. PIPE TO INLET NO. I-2 THE  
EXISTING DRAIN SHALL BE FLUSHED  
CLEAN BY THE CONTRACTOR.

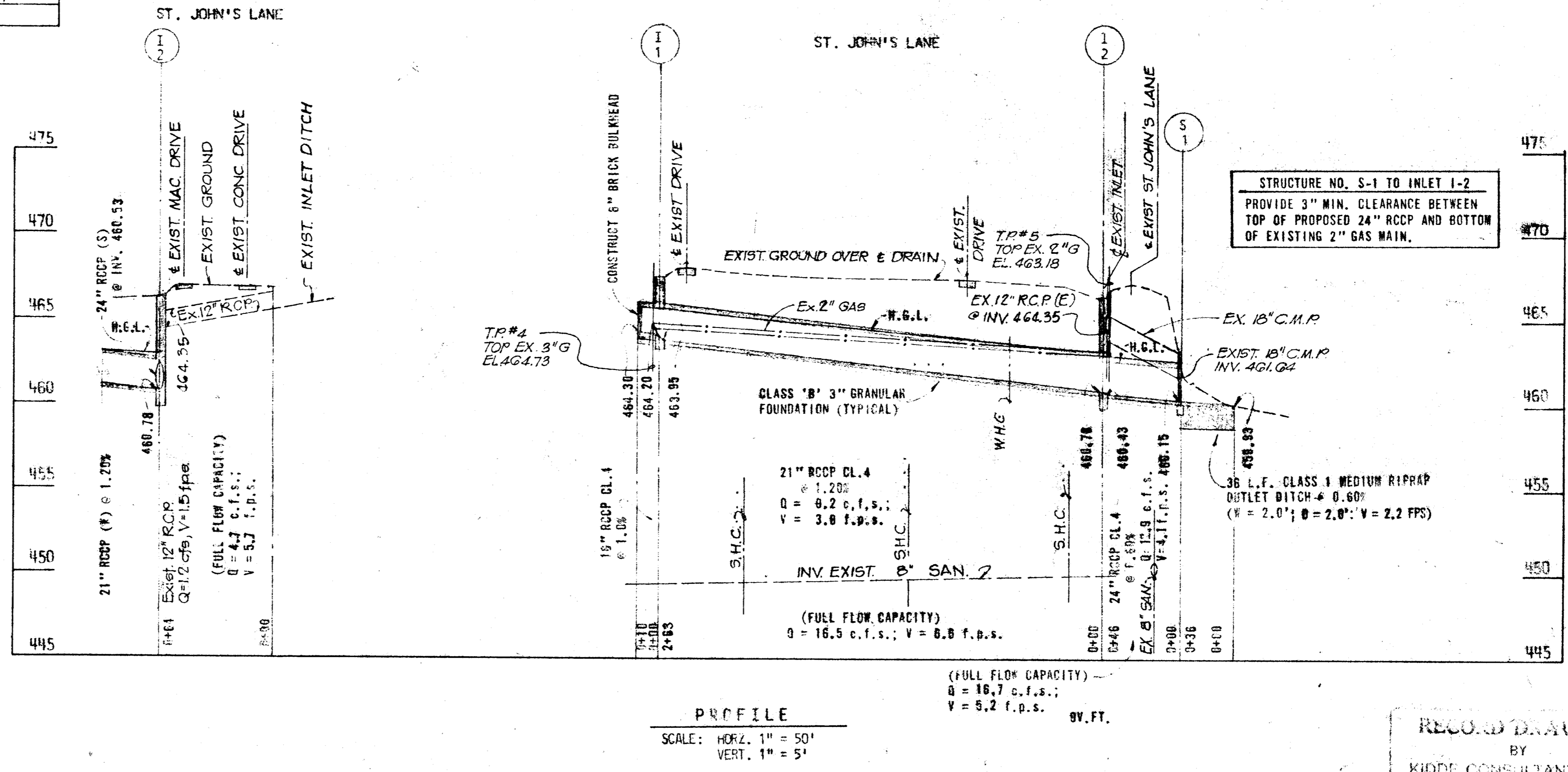
STA. 10+ TO STA. 12+ LI.  
THE CONTRACTOR SHALL TUNNEL PAST  
TREES, BY HAND EXCAVATION IF  
NECESSARY OR DIRECTED, IN ORDER  
TO PREVENT DAMAGING THE TREES.

STRUCTURE SCHEDULE						
NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP EL.	REMARKS
I-1	STD. "K" INLET	STA. 10+20, 30' LT.	464.20	463.75	467.5	H.C. DRNG. D-83 & D-95
I-2	STD. "K" INLET	STA. 12+85, 36' LT.	460.78	461.33	466.3	H.C. DRNG. D-93 & D-95
S-1	ST. INLET	STA. 12+85, 16' LT.	460.2	463.0		H.C. DRNG. D-52

STA. 4+74± TO STA. 8+9± LI.  
CONSTRUCT 425± L.F. STD. HOWARD CO.  
BITUMINOUS MOUNTABLE CURB  
(SEE DETAIL ON SHEET 2)  
CURB TO HAVE MINIMUM CLEARANCE OF  
13" FROM FACE OF POLES #285117 &  
#285118 TO STREET FACE OF CURB.

DRIVEWAY SCHEDULE				
LOCATION	TYPE	WIDTH	LENGTH	REMARKS
STA. 7+15± LT.	B	11'	12'	
STA. 2+05± LT.	A	11'	10'	SEE PLAN
STA. 2+23± LT.	A	18'	11'	SEE PLAN
STA. 10+96± LT.	A	16'	12'	
STA. 12+02± LT.	A	10'	17'	

\* CONSTRUCT SWALE TO CONVEY FLOW FROM SOD'D SWALE ACROSS MACADAM DRIVEWAY.



STRUCTURE NO. S-1 TO INLET I-2  
PROVIDE 3" MIN. CLEARANCE BETWEEN  
TOP OF PROPOSED 24" RCP AND BOTTOM  
OF EXISTING 2" GAS MAIN.

PROFILE  
SCALE: HORIZ. 1" = 50'  
VERT. 1" = 5'

**KIDDE CONSULTANTS, INC.**  
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BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
DATE: SEP 13, 20  
CHIEF, BUREAU OF ENGINEERING

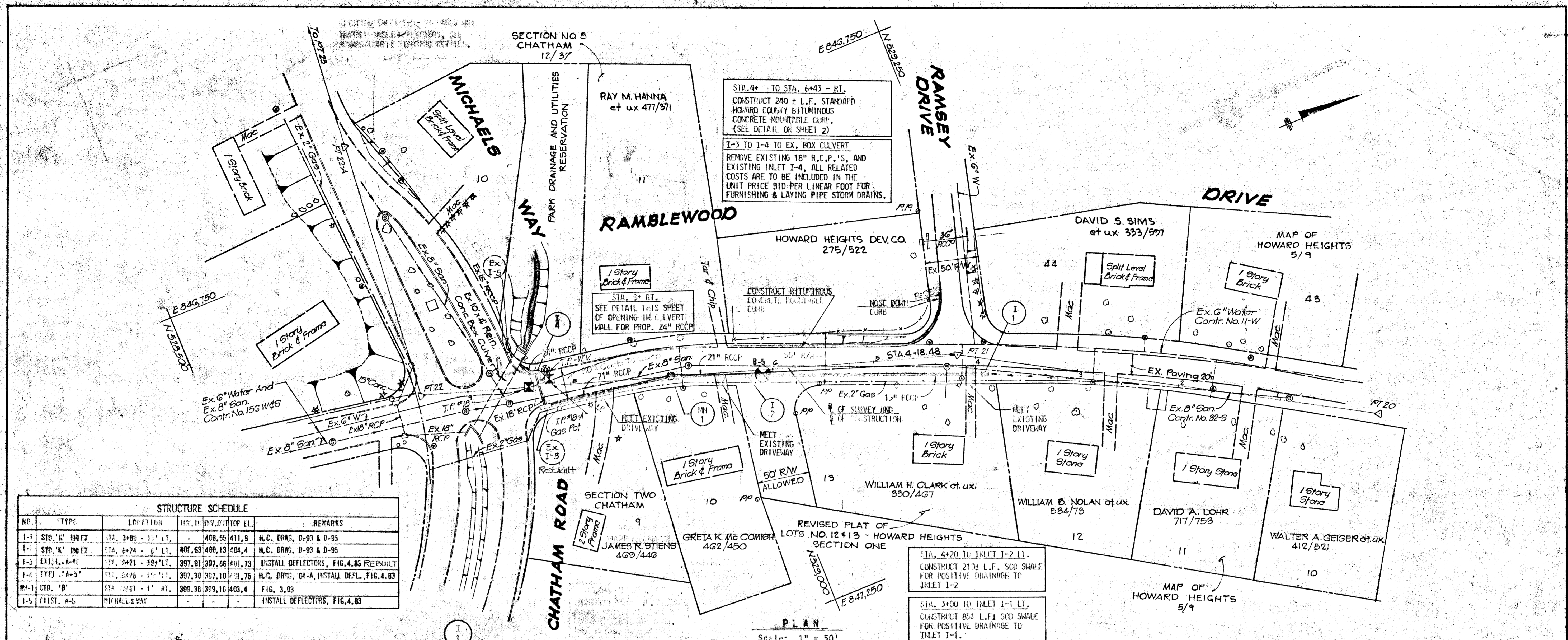
CAPITAL PROJECT D-4-1014

STORM DRAINAGE IMPROVEMENTS  
VALLEY MEDE - SYSTEM NO.12  
ST. JOHN'S LANE  
ELECTION DISTRICT ELLICOTT CITY NO. 2

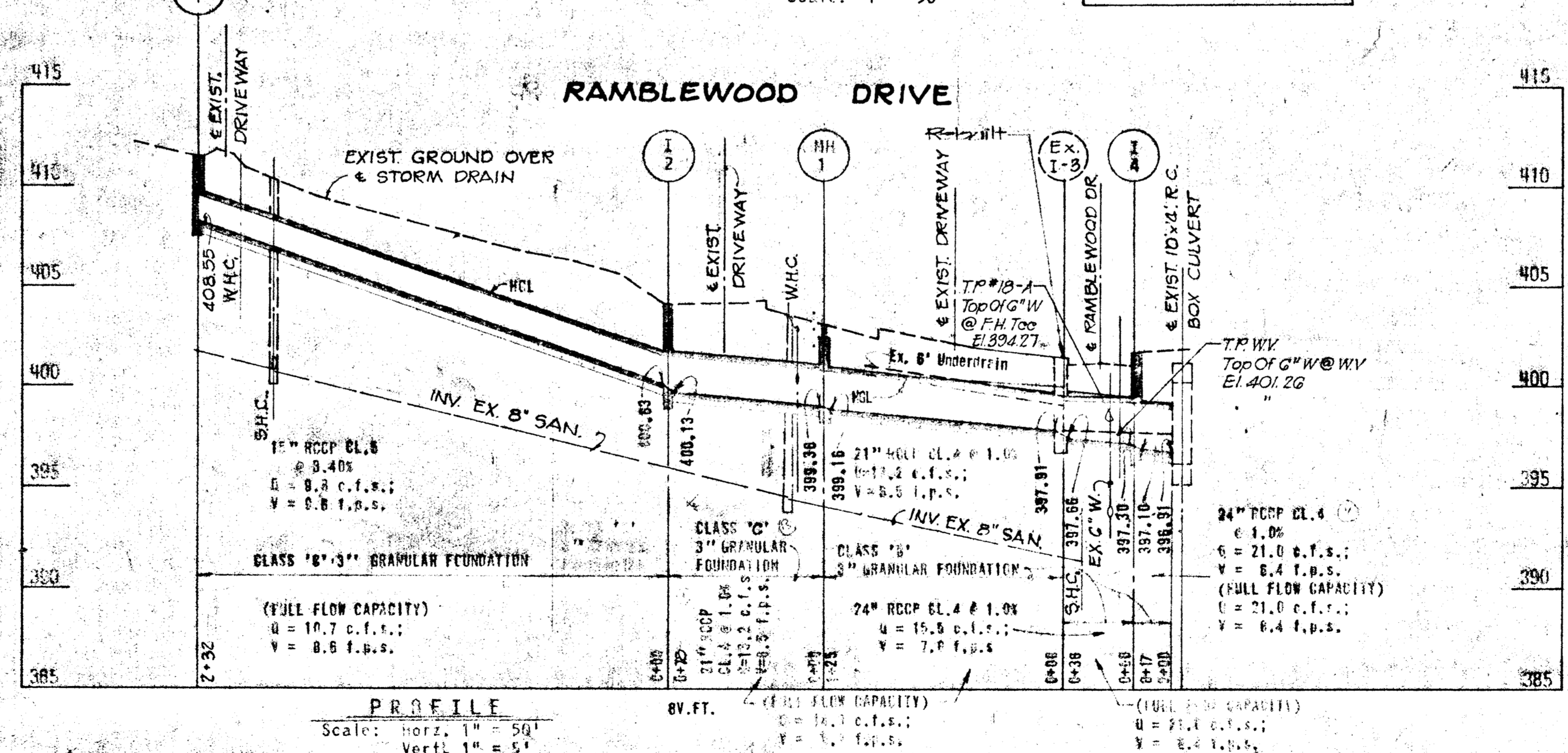
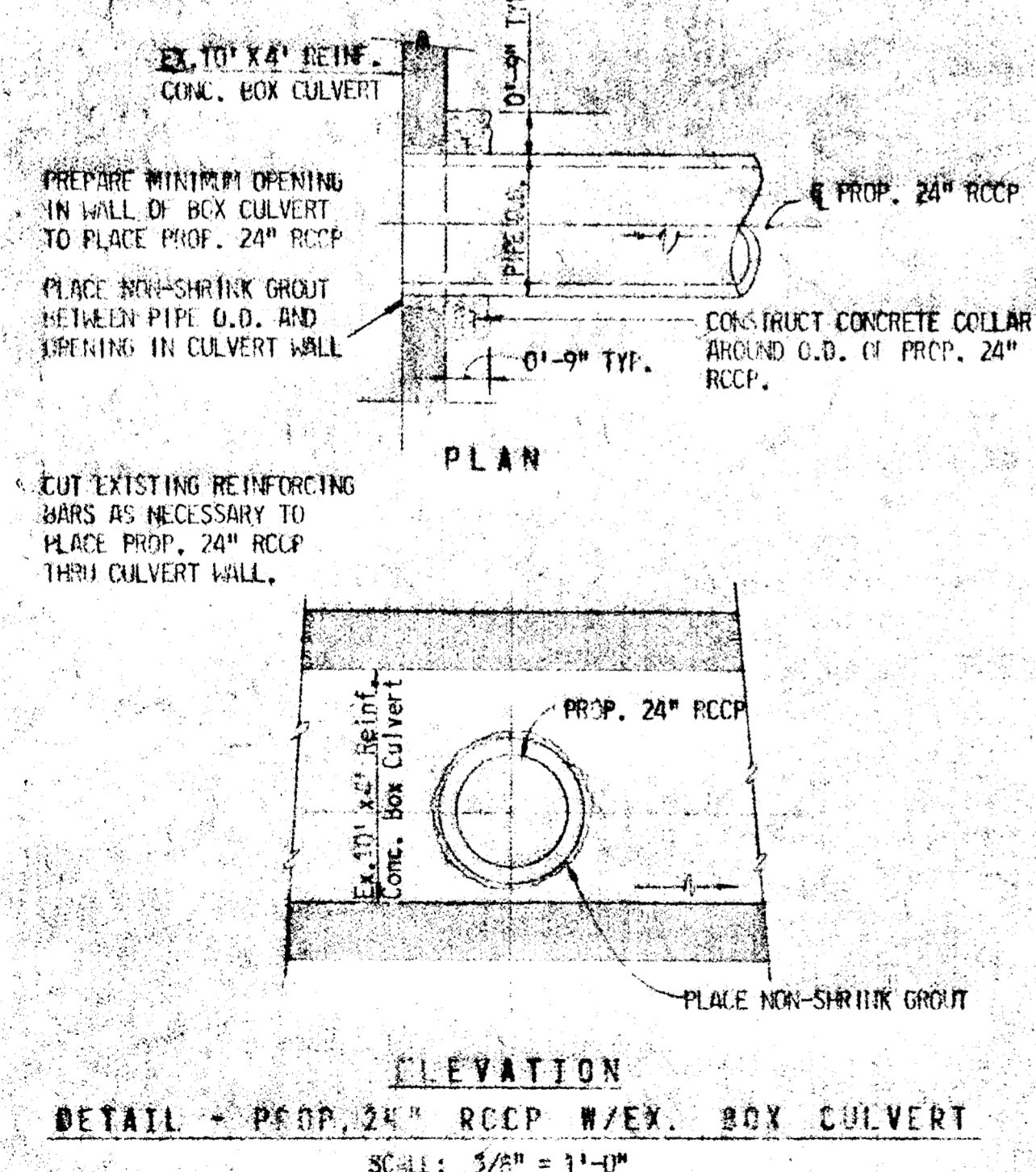
DRAWING NO. 5 OF 8  
SCALE AS SHOWN  
DES. P.K.Z.  
DR. J.J.  
CK. J.C.M.

RECORD DRAWING  
BY  
KIDDE CONSULTANTS, INC.  
DATE DEC 21, 1982





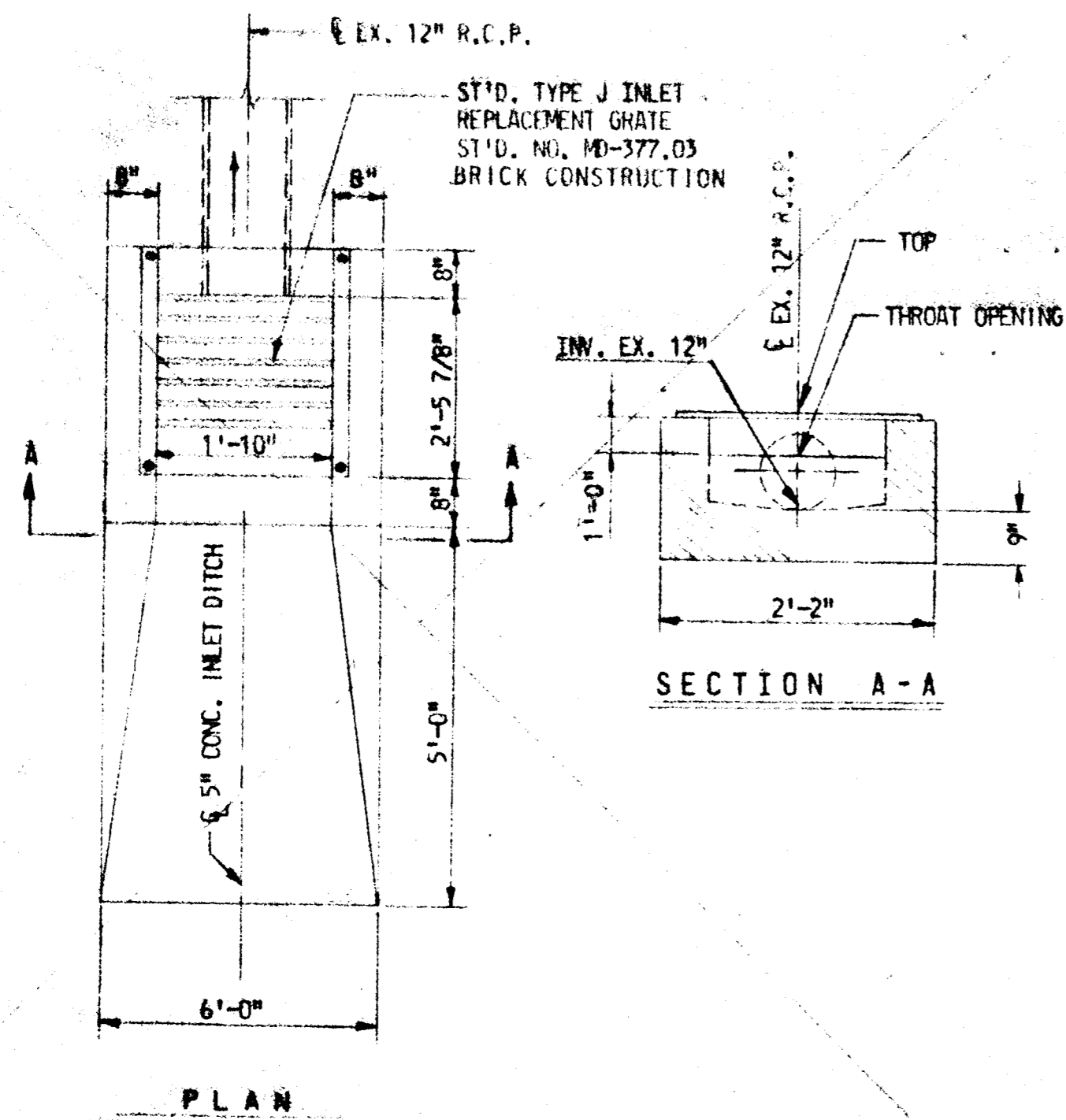
NO.	TYPE	LOCATION	INVERT	TOP EL.	REMARKS
1-1	STD. 'K' INLET	STA. 3+89 - 1' LT.	408.55	411.8	H.C. DRWG. D-93 & D-95
1-2	STD. 'K' INLET	STA. 6+24 - 1' LT.	406.63	404.4	H.C. DRWG. D-93 & D-95
1-3	EXIST. A-1	STA. 5+21 - 10' LT.	397.81	397.86	INSTALL DEFLECTORS, FIG. 4.85 REBUILT
1-4	TYP. 'A-5'	STA. 6+78 - 10' LT.	397.30	397.10	H.C. DRWG. G-4-A, INSTALL DEF., FIG. 4.83
1-5	STD. 'B'	STA. 4+01 - 4' RT.	389.36	389.16	FIG. 3.03
1-5	EXIST. A-5	MICHAELS WAY	-	-	INSTALL DEFLECTORS, FIG. 4.83



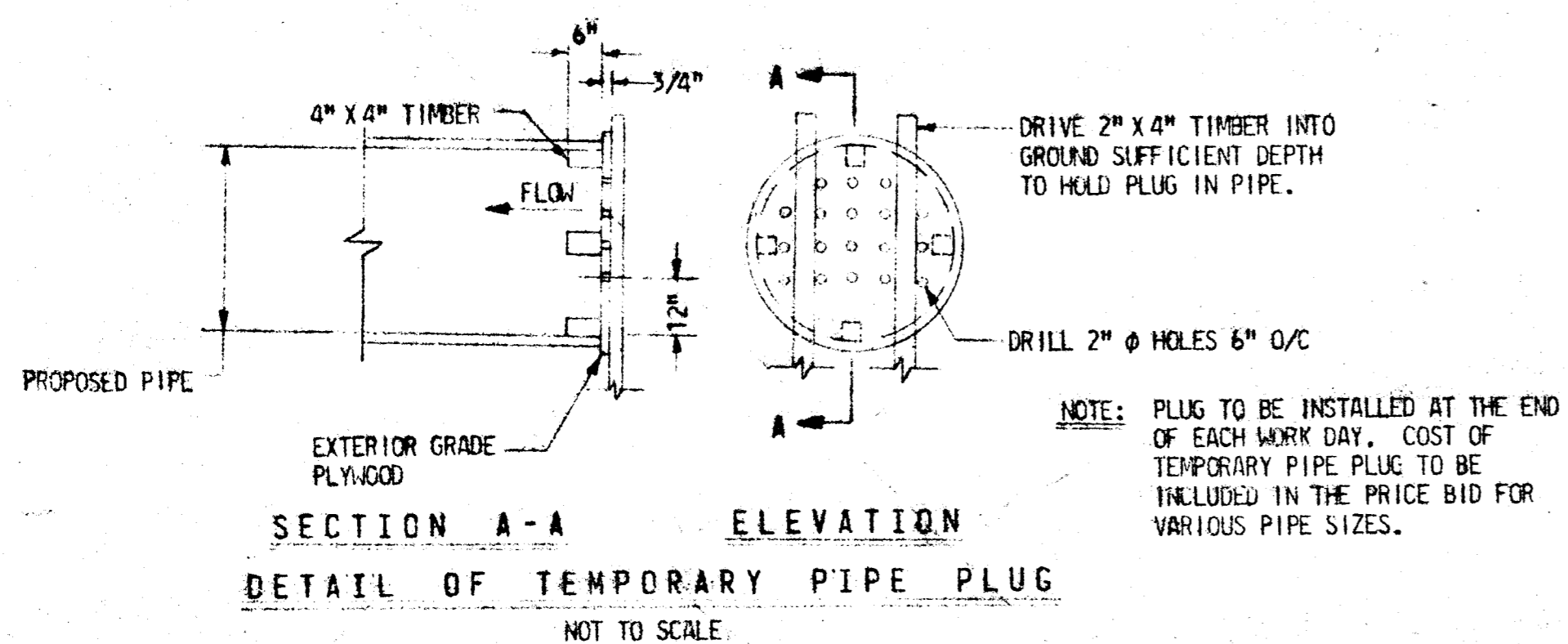
LOCATION	TYPE	WIDTH	LENGTH	REMARKS
ST. 4+03 LT.	A	10'	16'	
STA. 6+56 RT.	F	11'	12'	
STA. 7+58 LT.	S	16'	16'	

RECORD DRAWING  
 BY  
 KIDDE CONSULTANTS, INC.  
 DATE: DEC 21 1982

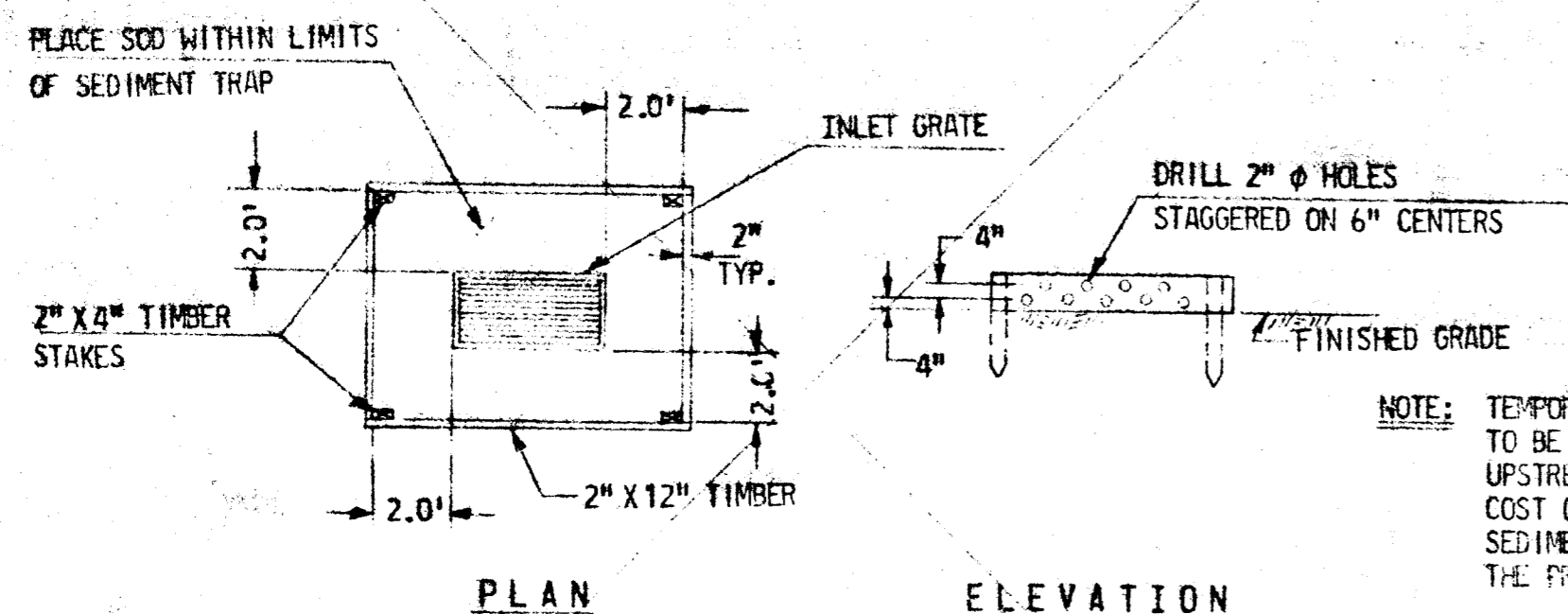
<b>KIDDE CONSULTANTS, INC.</b> ENGINEERS • ARCHITECTS • PLANNERS BALTIMORE, MARYLAND	DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Director, Department of Public Works	Chief, Division of Roads, Bridges, and Storm Drainage	CAPITAL PROJECT D-4-1014	STORM DRAINAGE IMPROVEMENTS VALLEY MEDE - SYSTEM NO. 27 RAMBLEWOOD DRIVE ELECTION DISTRICT: ELLICOTT CITY NO. 2	DRAWING NO. 6 OF 8	SCALE AS SHOWN	DES. DR. CK.
					DATE: DEC 21 1982		



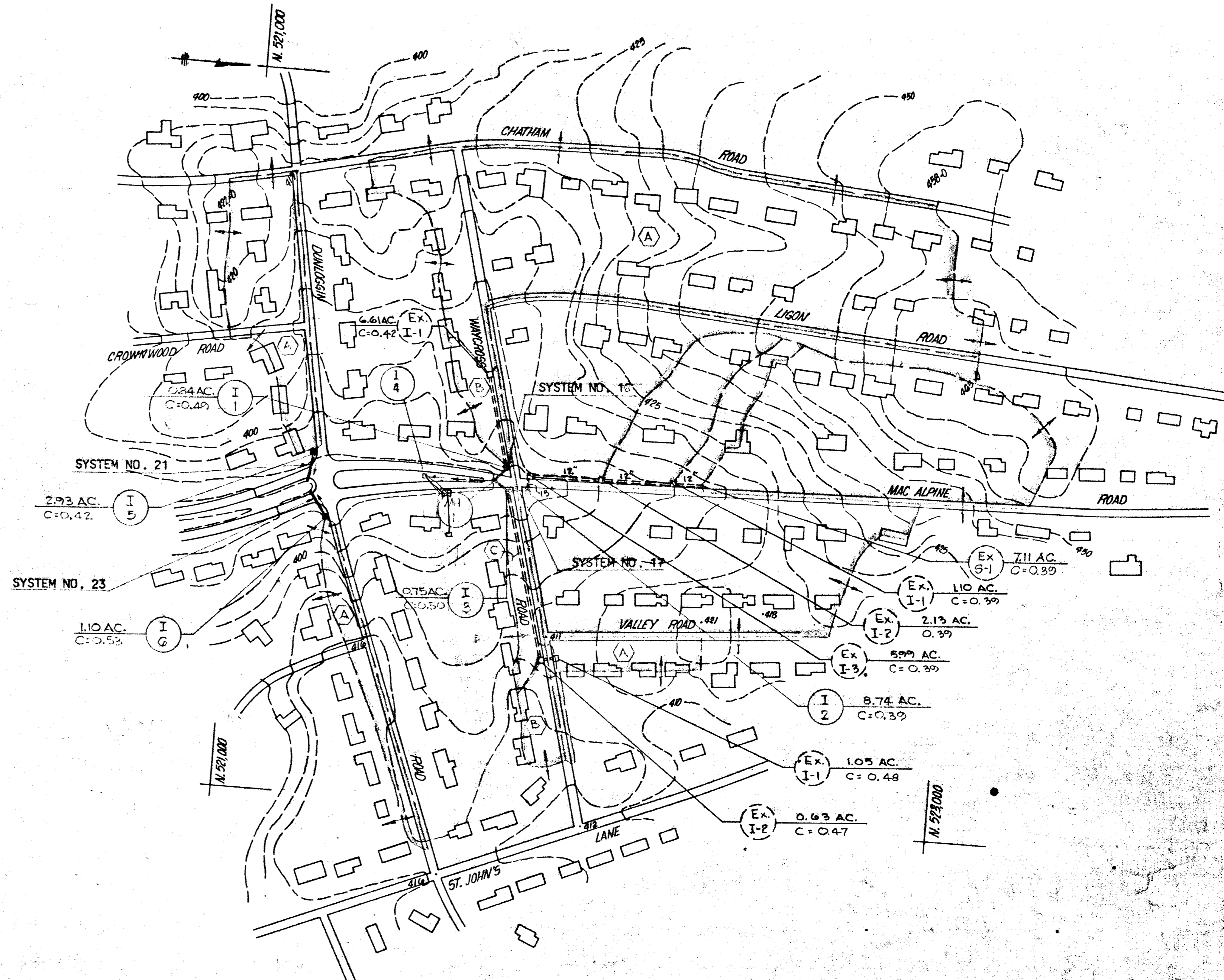
**SPECIAL INLET I-1 FOR SYSTEM NO. 17 DUNLOGGIN**  
NOT TO SCALE



**SECTION A-A ELEVATION**  
**DETAIL OF TEMPORARY PIPE PLUG**  
NOT TO SCALE



**PLAN ELEVATION**  
**DETAIL OF TIMBER INLET SEDIMENT TRAP**  
NOT TO SCALE



**DRAINAGE AREA MAP**

SCALE: 1" = 200'

RECORD DRAWING  
BY  
KIDDE CONSULTANTS, INC.  
DATE: DEC 21 1982

*Donald J. Kidde*  
REGISTERED PROFESSIONAL ENGINEER

**KIDDE CONSULTANTS, INC.**

ENGINEERS • ARCHITECTS • PLANNERS  
BALTIMORE, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

Director, Department of Public Works DATE: 1/10/83  
CHIEF, BUREAU OF ENGINEERING DATE: 1/10/83

*Harold A. Galia*  
CHIEF, DIVISION OF ROADS, BRIDGES, AND STORM DRAINAGE DATE: 1/10/83

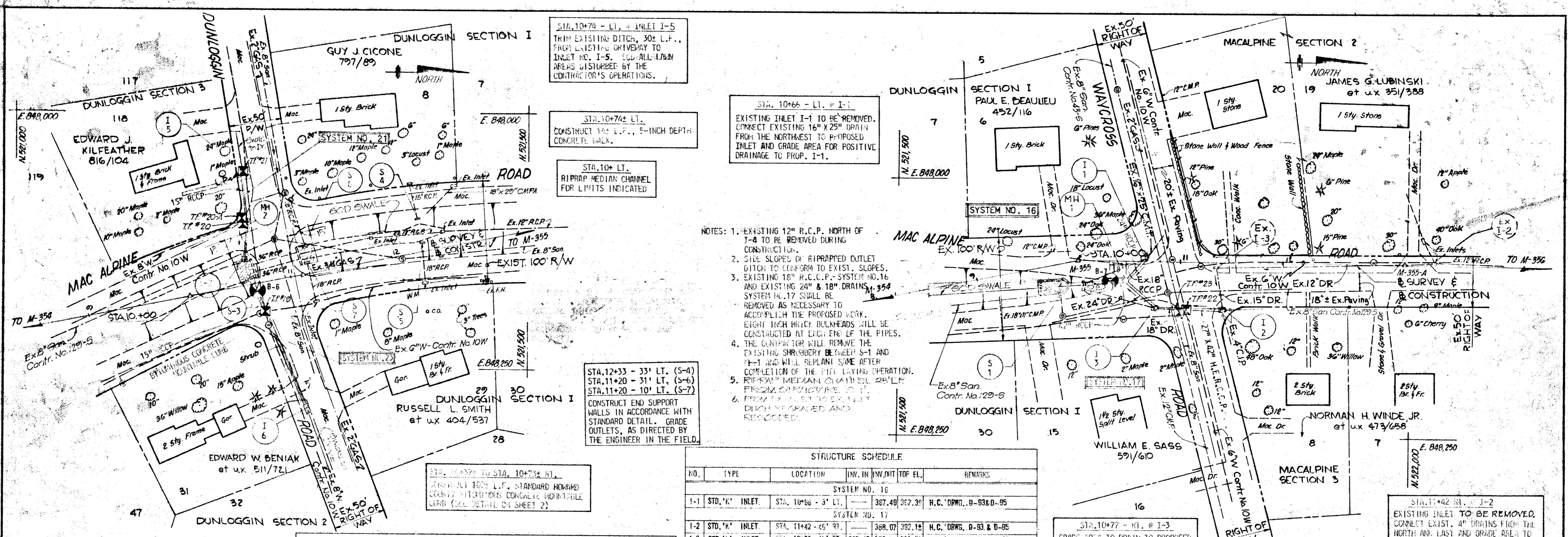
CAPITAL PROJECT D-5-1018

STORM DRAINAGE IMPROVEMENTS  
DUNLOGGIN  
DRAINAGE AREA MAP  
ELECTION DISTRICT - ELLICOTT CITY NO. 2

DRAWING NO. 7 OF 8  
SCALE AS SHOWN

DES. PAZ  
CHK. JJA  
APP. DEH

NOT D.D. NO. 1-77022 - VALLEY MD.  
NOT D.D. NO. 1-77023 - DUNLOGGIN



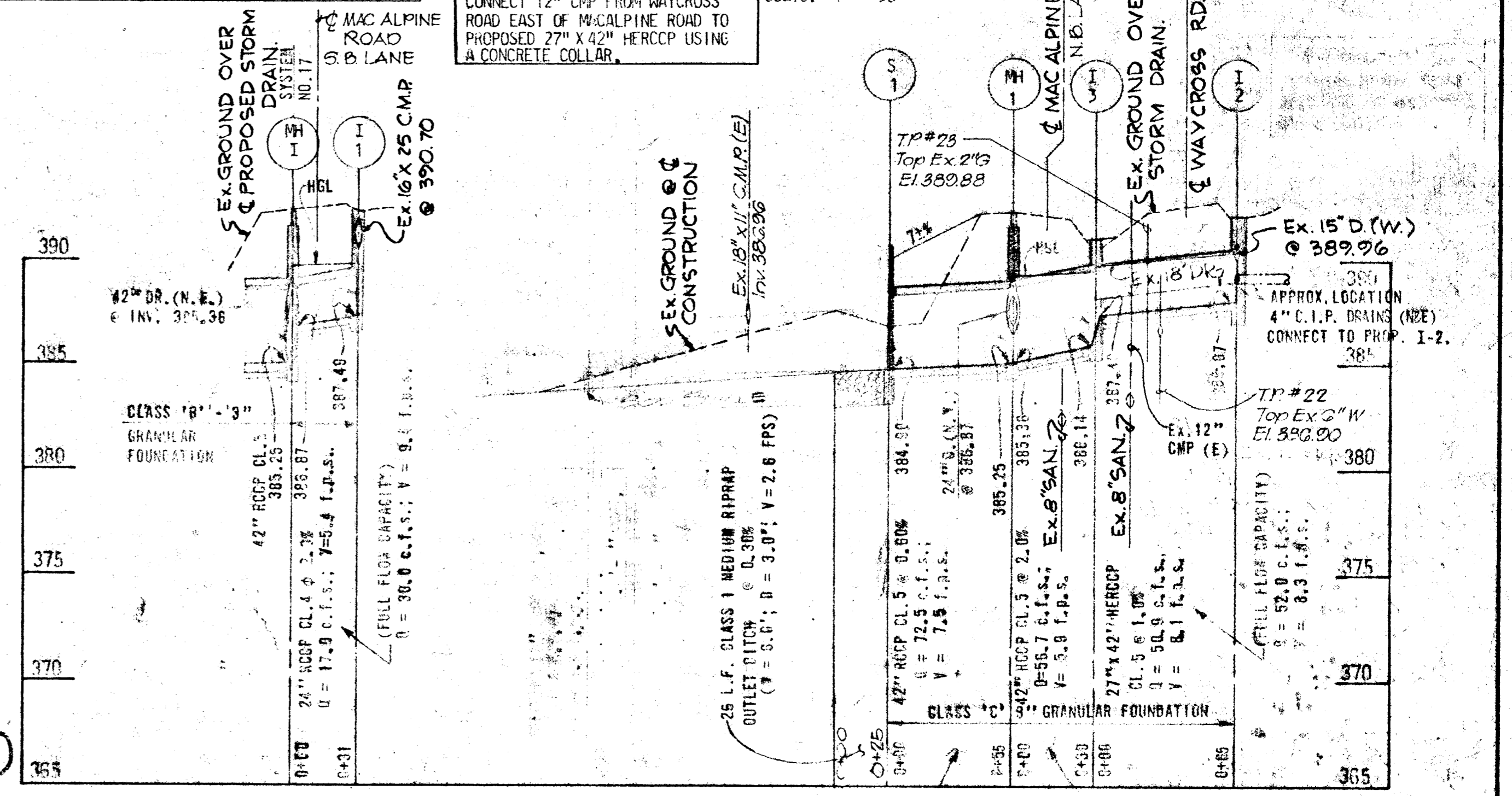
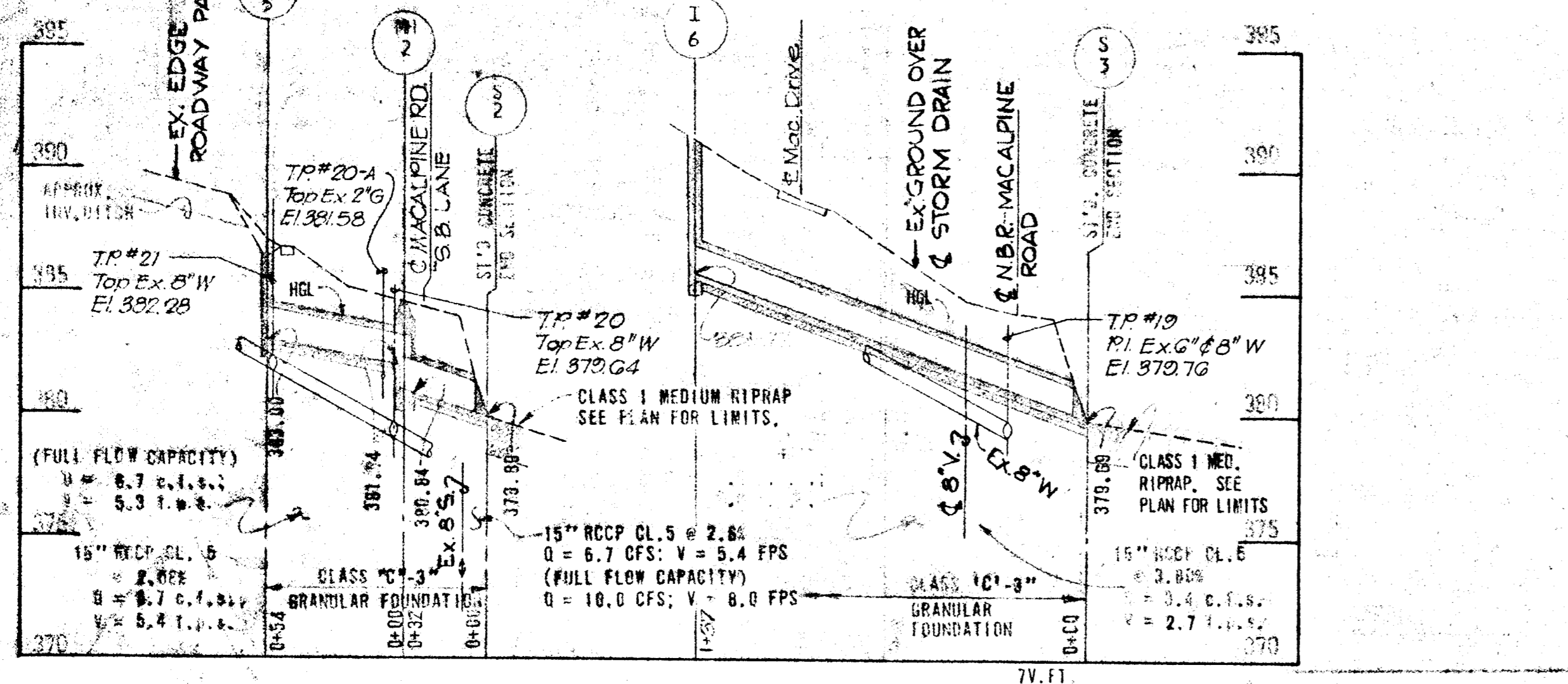
- NOTES:
- EXISTING 12" R.C.P. NORTH OF 3-4 TO BE REMOVED DURING CONSTRUCTION.
  - SIDE SLOPES OF RIPRAPPED OUTLET DITCH TO CONFORM TO EXIST. SLOPES.
  - EXISTING 18" H.C.C.P. - SYSTEM NO. 16 AND EXISTING 24" & 18" DRAINS SYSTEM NO. 17 SHALL BE REMOVED AS NECESSARY TO ACCOMPLISH THE PROPOSED WORK. EIGHT INCH BRICK BULKHEADS WILL BE CONSTRUCTED AT EACH END OF THE PIPES.
  - THE CONTRACTOR WILL REMOVE THE EXISTING SHROUDS BE GREEN S-1 AND S-1-1 AND WILL REPLANT SAME AFTER COMPLETION OF THE SITE LAYING OPERATION.
  - RIPPRAP MEDIAN CHANNEL SHALL BE PERFORMED FOLLOWING TO THE PERMITS OBTAINED AND RECORDED.
  - EXISTING 4" DRAIN FROM THE NORTH AND EAST AND GRADE AREA TO DRAIN TO PROPOSED I-2.

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP EL.	REMARKS
SYSTEM NO. 16						
I-1	STD. "K" INLET	STA. 10+66 - 3' LT.	387.49	382.36	H.C. DRWG. D-83 & D-95	
SYSTEM NO. 17						
I-2	STD. "K" INLET	STA. 11+42 - 46' RT.	388.07	382.18	H.C. DRWG. D-93 & D-95	
I-3	STD. "K" INLET	STA. 10+77 - 46' RT.	387.49	382.14	H.C. DRWG. D-93 & D-95	
MH-1	STD. TYPE "C"	STA. 10+46 - 20' RT.	385.36	385.25	387.38	FIG. 3.04
S-1	STD. TYPE "A"	STA. 8+66 - 22' LT.	384.90	389.00	387.00	FIG. 5.11

STRUCTURE SCHEDULE

NO.	TYPE	LOCATION	INV. IN	INV. OUT	TOP EL.	REMARKS
SYSTEM NO. 21						
I-4	STD. "K" INLET	STA. 10+74 - 110' LT.	383.00	386.4	H.C. DRWG. D-93 & D-95	
S-2	CONC. END SECT.	STA. 10+59 - 22' LT.	379.89	-	11.5.51 OR FIG. 5.52	
MH-2	STD. TYPE "B"	STA. 10+66 - 50' LT.	381.84	380.84	384.68	FIG. 3.03
SYSTEM NO. 23						
I-6	STD. "K" INLET	STA. 10+80 - 122' RT.	382.00	382.00	H.C. DRWG. D-93 & D-95	
S-3	CONC. END SECT.	STA. 10+82 - 6.5' LT.	379.89	-	FIG. 5.51 OR FIG. 5.52	
S-4	END SUPPORT WALL	STA. 12+33 - 33' LT.	381.62	382.66	H.C. DRWG. D-46	
S-5	END SUPPORT WALL	STA. 12+32 - 49' LT.	ADJUST IN FIELD	H.C. DRWG. D-46		
S-6	END SUPPORT WALL	STA. 11+20 - 31' LT.	381.74	382.48	H.C. DRWG. D-46	
S-7	END SUPPORT WALL	STA. 11+20 - 10' LT.	379.76	381.01	H.C. DRWG. D-46	



RECORD DRAWING  
BY  
KIDDE CONSULTANTS, INC.  
DATE: DEC 21 1982

*Donald G. Pickett*  
Professional Engineer  
No. 10000

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DEPARTMENT OF PUBLIC WORKS  
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Charles E. Galia, Jr.  
CHIEF DIVISION OF ROADS, BRIDGES, AND STORM DRAINAGE

CAPITAL PROJECT D-5-1018

STORM DRAINAGE IMPROVEMENTS  
DUNLOGGIN - SYSTEMS NO. 16 & NO. 17  
NO. 21 & NO. 23  
ELECTION DISTRICT: ELLICOTT CITY NO. 2

DRAWING NO. 8 OF 8  
SCALE AS SHOWN  
DES. P.W.  
DR. I.A.  
CK. C.F.