

**SITE ANALYSIS**

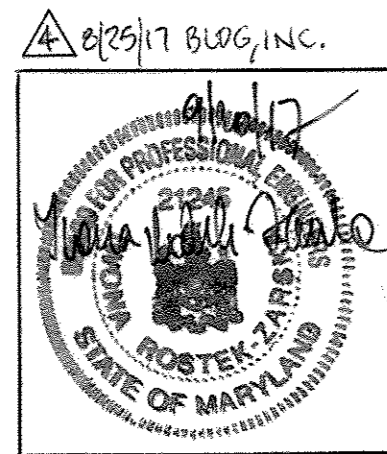
1. LOT AREA (PARCEL B-1):	367,254 SF OR 8.431 AC
2. DISTURBED AREA:	390,384 SF OR 8.962 AC
3. ZONING:	B-2 (COMMERCIAL)
4. EXISTING LAND USE:	COMMERCIAL (SHOPPING CENTER)
5. PROPOSED LAND USE:	COMMERCIAL (SHOPPING CENTER)
6. EXISTING IMPERVIOUS AREA:	83,000 SF
7. EXISTING PERCENT IMPERVIOUS AREA:	93.40 %
8. PROPOSED IMPERVIOUS AREA:	83,000 SF
9. PROPOSED PERCENT IMPERVIOUS AREA:	93.40 %
10. GREEN AREA PROVIDED ON SITE:	25,751 SF
11. LANDSCAPED AREA AT PARKING AREAS:	14,238 SF
12. EXISTING BUILDING SQUARE FOOTAGE:	43,478 SF (INCLUDES MEZZANINE LEVEL 3403 SF)
13. PROPOSED BUILDING SQUARE FOOTAGE:	29,702 SF (MEZZANINE LEVEL ELIMINATED)
14. NUMBER OF PARKING SPACES REQUIRED BY ZONING:	1,000 SF
15. NUMBER OF PARKING SPACES PROVIDED:	474 SPACES
16. NUMBER OF HO PARKING SPACES PROVIDED:	12 SPACES
17. MINIMUM BUILDING SETBACKS:	FRONT: 30 FT, SIDE: 30 FT, REAR: 30 FT

**GENERAL NOTES**

- ALL CONSTRUCTION AS SHOWN ON THESE PLANS IS TO BE CONDUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION VOLUME IV (OCT. 1990 AND ALL ADDENDA THERE TO) UNLESS OTHERWISE NOTED.
- THE LOCATION OF EXISTING UTILITIES AS SHOWN ON THIS PLAN ARE BASED ON FIELD LOCATIONS SUPPLEMENTED WITH EXISTING UTILITY DRAWINGS, AND SHOULD BE VERIFIED BY THE CONTRACTOR TO HIS SATISFACTION PRIOR TO CONSTRUCTION. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING UTILITIES, AND ANY DAMAGE DONE TO THEM DUE TO CONSTRUCTION ACTIVITY SHALL BE REPAIRED IMMEDIATELY AT HIS OWN EXPENSE.
- CONTRACTOR TO NOTIFY HOWARD COUNTY, DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION (410-313-1880) AT LEAST FIVE (5) WORKING DAYS PRIOR TO STARTING CONSTRUCTION.
- CONTRACTOR TO SCHEDULE PRECONSTRUCTION MEETING WITH HOWARD COUNTY, CONSTRUCTION INSPECTION DIVISION (410-313-1880) PRIOR TO STARTING CONSTRUCTION.
- CONTRACTOR TO NOTIFY MISS UTILITY (1-800-257-7777) AT LEAST 48 HOURS PRIOR TO BEGINNING ANY EXCAVATION WORK.
- THE EXISTING TOPOGRAPHY IS TAKEN FROM FIELD RUN SURVEY WITH TWO FOOT CONTOUR INTERVALS PREPARED BY MORRIS & RITCHIE ASSOCIATES, INC. DATED AUGUST 2001, AND SUPPLEMENTED WITH EXISTING AVAILABLE DESIGN PLANS.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 24CA AND 17A WERE USED FOR THIS PROJECT.
- CONTRACTOR IS TO REMOVE ANY ACCUMULATED DIRT OR SEDIMENT FROM ST. JOHNS LANE AND MD RTE 40.
- ALL EXTERIOR LIGHTING SHALL COMPLY WITH ZONING REGULATIONS, SECTION 134.
- CONTRACTOR IS RESPONSIBLE FOR ALL SITE CONDITIONS, CONSTRUCTION REQUIREMENTS, AND SHALL CONFORM TO ALL STATE, FEDERAL, AND COUNTY CONSTRUCTION REGULATIONS. THE CONTRACTOR IS NOT RELIEVED OF RESPONSIBILITY SHOULD ANY REQUIRED ITEMS PERTAINING TO SITE CONSTRUCTION NOT BE INCLUDED ON THESE PLANS. CONTRACTOR IS RESPONSIBLE FOR ALL ITEMS NECESSARY TO COMPLETE THE SITE IMPROVEMENTS AS SHOWN ON THESE PLANS.
- ANY DAMAGE TO EXISTING UTILITIES, PAVEMENT, OR CURB AND GUTTER DUE TO CONSTRUCTION ACTIVITY OUTSIDE THE LIMITS OF DISTURBANCE IS TO BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PROPERTY MONUMENTS, MARKERS, SIGNS, LIGHTS, OR ANY OTHER EXISTING SITE FEATURES DISTURBED DURING CONSTRUCTION.
- ALL WORK SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF THE "1994 STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROLS" PUBLISHED JOINTLY BY THE WATER RESOURCES ADMINISTRATION, SOIL CONSERVATION SERVICE, AND STATE SOIL CONSERVATION COMMITTEE.
- TRAFFIC CONTROL DEVICES, MARKINGS, AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT MONUMENTS NOS. 24CA AND 17A WERE USED FOR THIS PROJECT.
- CONTRACTOR TO TEST PIT ALL EXISTING UTILITIES PRIOR TO UTILITY CONSTRUCTION OR RELOCATION, AND REPORT FINDINGS TO SITE DESIGN ENGINEER OR OWNERS REPRESENTATIVE.
- CONTRACTOR TO REFER TO ELECTRICAL PLANS FOR THE PLACEMENT OF ALL SITE LIGHTING AND FIXTURES.
- WATER IS PUBLIC, CONTRACT NO. 772-W. SEWER IS PUBLIC, CONTRACT NO. 32S.
- NO 100-YEAR FLOOD PLAINS OR WETLANDS EXIST ON THE SITE.
- SEE PREVIOUS DEPARTMENT OF PLANNING AND ZONING FILES: F-77-01, F-71-05, VP-72-10, F-73-10, F-82-68, F-72-70, F-98-133, SDP 70-67, SDP 72-75, SDP 90-182.
- A NOISE STUDY FOR THIS PROJECT IS NOT REQUIRED.
- THE SITE IS EXEMPT FROM FOREST CONSERVATION REQUIREMENTS IN ACCORDANCE WITH SECTION 16.1202 (1) (ii). THE PROJECT WAS CONSTRUCTED IN 1972 UNDER SDP-72-75. THE LIMITS OF DISTURBANCE SHOWN ON THIS SDP DOES NOT EXTEND TO THE LIMIT OF DISTURBANCE SHOWN ON SDP 72-75.
- A GEOTECHNICAL STUDY WAS PREPARED BY GEOTECHNOLOGY ASSOCIATES, INC. DATED JULY 2001.
- EXISTING PARKING LOT STRIPING TO BE REMOVED AND RESTRIPTED PER ENCLOSED PLANS.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB OR FACE OF BUILDING UNLESS OTHERWISE NOTED.

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IMONAROSTEK-ZARSKA AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245 EXPIRATION DATE: JUNE 9, 2018.

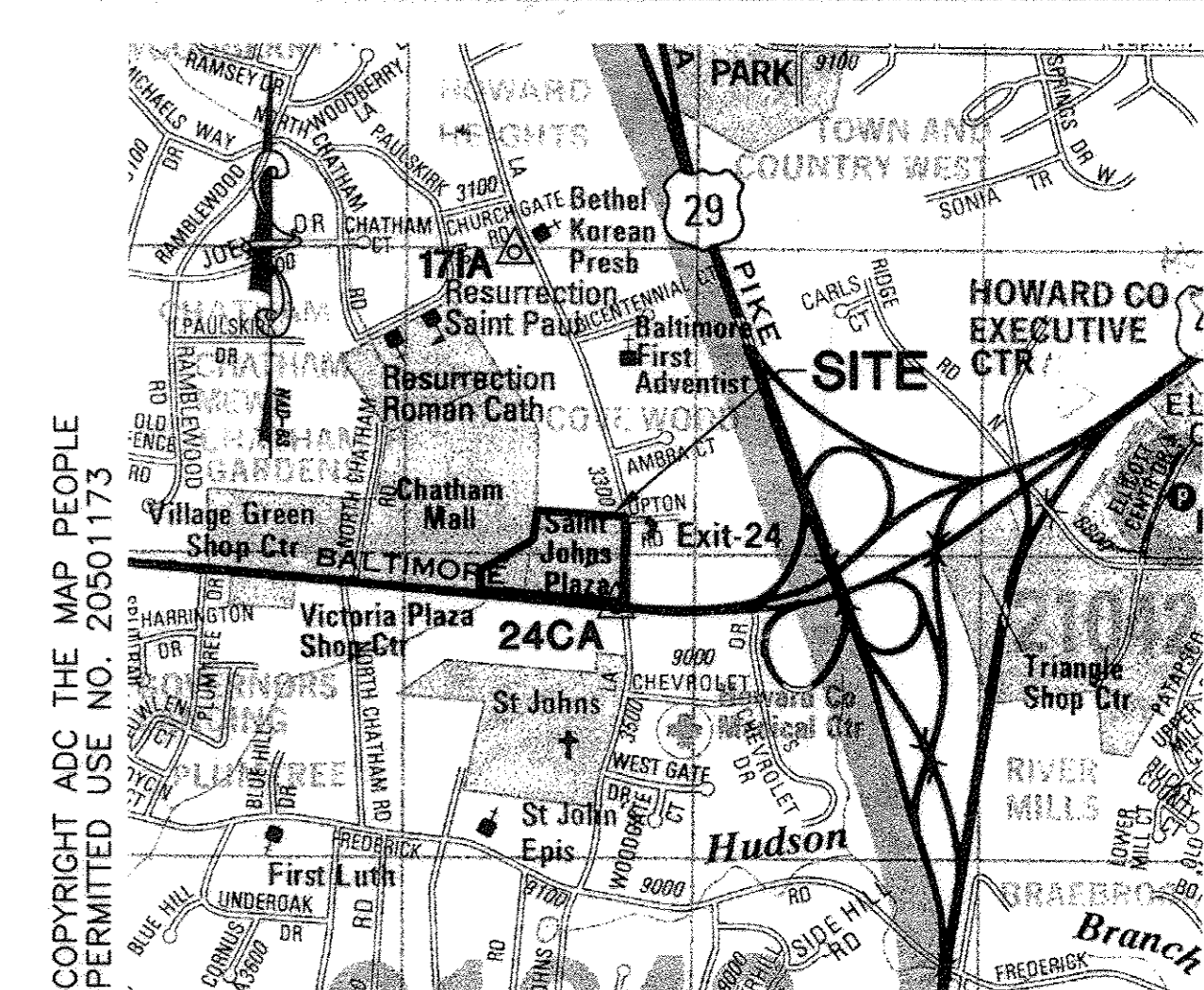
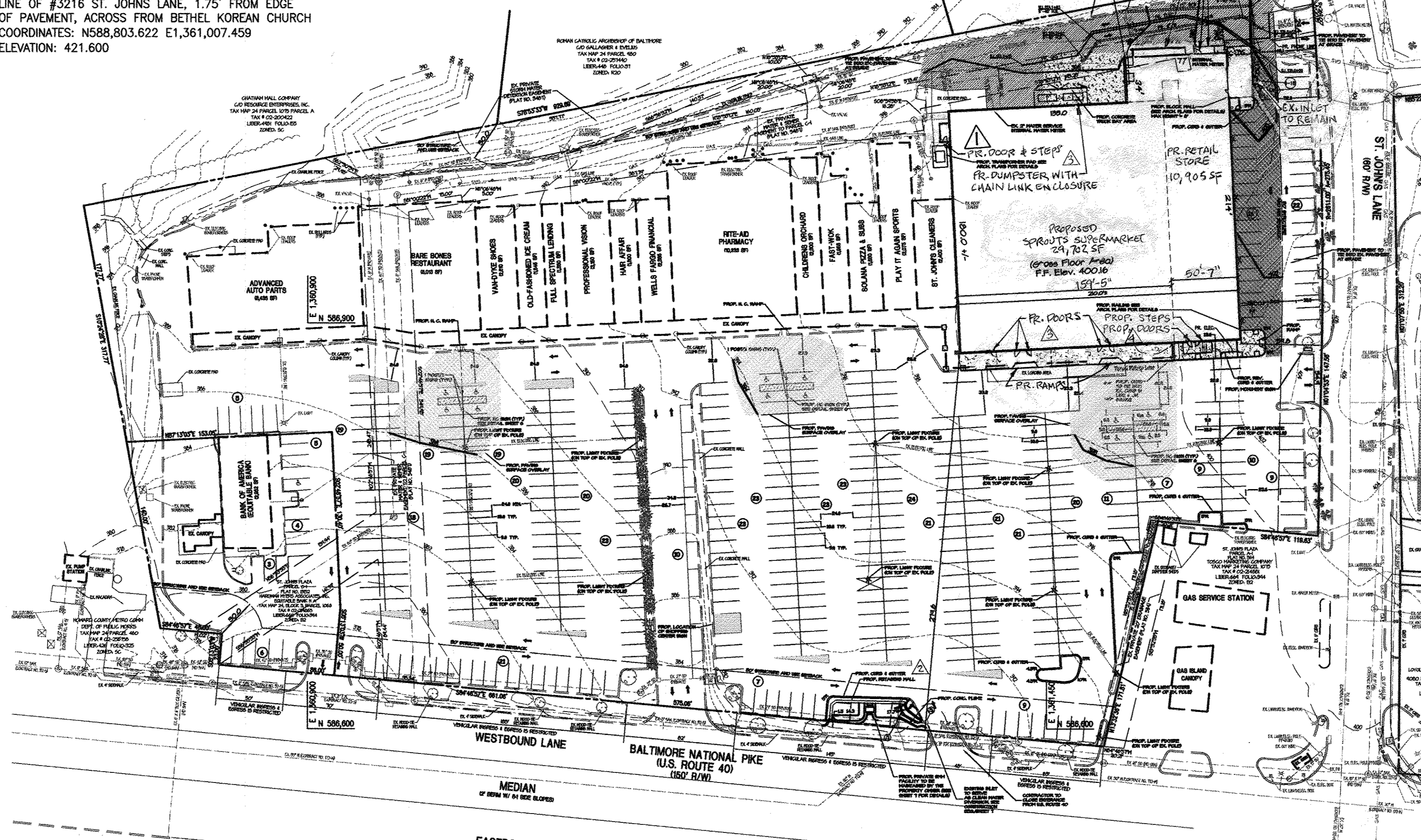


# MARS SUPER MARKET EXPANSION ST. JOHN'S PLAZA SITE DEVELOPMENT PLAN

**HOWARD COUNTY BENCHMARKS**

HOWARD COUNTY BENCHMARK 24CA  
INTERSECTION OF RTE 40 AND ST. JOHNS LANE, 11.5' FROM EDGE OF RTE 40 MEDIAN, WEST SIDE OF INTERSECTION  
COORDINATES: N586,506.183 E1,361,634.312  
ELEVATION: 399.036

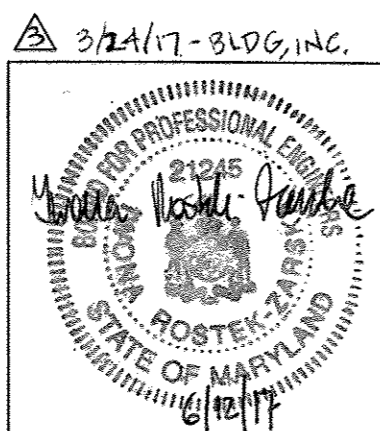
HOWARD COUNTY BENCHMARK 17A  
WEST SIDE OF ST. JOHNS LANE, 15.5' FROM DRIVEWAY @ LINE OF #3216 ST. JOHNS LANE, 1.75' FROM EDGE OF PAVEMENT, ACROSS FROM BETHEL KOREAN CHURCH  
COORDINATES: N588,803.622 E1,361,007.459  
ELEVATION: 421.600



VICINITY MAP SCALE: 1"=1000'

PERMIT INFORMATION CHART					
Subdivision Name:	ST. JOHN'S PLAZA	Section/Area:	N/A	Lot/Parcel #:	B-1
Plat #:	13152	Block #:	5	Zoning:	B-2
Water Code:	F-60	Tax Map:	24	Elec. District:	2
		Census Tract:	1403700		6027.00

ADDRESS CHART		
LOT/PARCEL	STORE NAME	STREET ADDRESS
B-1	ADVANCED AUTO PARTS	9150 BALTIMORE NATIONAL PIKE, SUITE 25
B-1	BARE BONES RESTAURANT	9150 BALTIMORE NATIONAL PIKE, SUITE H
B-1	VAN-DYKE SHOES	9150 BALTIMORE NATIONAL PIKE, SUITE 19
B-1	OLD-FASHIONED ICE CREAM	9150 BALTIMORE NATIONAL PIKE, SUITE 17
B-1	FULL SPECTRUM LENDING	9150 BALTIMORE NATIONAL PIKE, SUITE 16
B-1	PROFESSIONAL VISION	9150 BALTIMORE NATIONAL PIKE, SUITE 15
B-1	HAIR AFFAIR	9150 BALTIMORE NATIONAL PIKE, SUITE 13
B-1	WELLS FARGO FINANCIAL	9150 BALTIMORE NATIONAL PIKE, SUITE 12
B-1	RITE-AID PHARMACY	9150 BALTIMORE NATIONAL PIKE, SUITE 10
B-1	CHILDRENS ORCHARD	9150 BALTIMORE NATIONAL PIKE, SUITE 7
B-1	FAST-WOK	9150 BALTIMORE NATIONAL PIKE, SUITE 6
B-1	SOLANA PIZZA & SUBS	9150 BALTIMORE NATIONAL PIKE, SUITE 4
B-1	PLAY IT AGAIN SPORTS	9150 BALTIMORE NATIONAL PIKE, SUITE 3
B-1	ST. JOHN'S CLEANERS	9150 BALTIMORE NATIONAL PIKE, SUITE 2
B-1	MARS SUPERMARKET	9150-1 BALTIMORE NATIONAL PIKE



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## SHOPPING CENTER COMPOSITE PLAN SCALE: 1"=60'

**SWM MANAGEMENT NOTE**

STORMWATER MANAGEMENT FOR THE PROPOSED SITE IMPROVEMENTS WILL BE PROVIDED BY A SURFACE SAND FILTER. THIS FACILITY WILL PROVIDE WATER QUALITY MANAGEMENT FOR 20% OF THE DEVELOPED SITES IMPERVIOUS AREA. THE SITE IS CONSIDERED AS "REDEVELOPMENT" PER THE HOWARD COUNTY SWM ORDINANCE. THEREFORE, ONLY WATER QUALITY MANAGEMENT IS REQUIRED FOR 20% OF THE DEVELOPED SITE IMPERVIOUS AREA WHERE "SITE" IS DEFINED AS THE PROPOSED EXPANSION AND ALL PARKING AND DRIVE AISLES REQUIRED FOR THE EXPANSION AREA. ALL OWNERSHIP AND MAINTENANCE RESPONSIBILITY REMAINS WITH THE DEVELOPER AND IT IS THEIR FINANCIAL OBLIGATIONS TO MAINTAIN SAID FACILITY TO CURRENT STANDARDS AS AVAILABLE FROM HOWARD COUNTY.

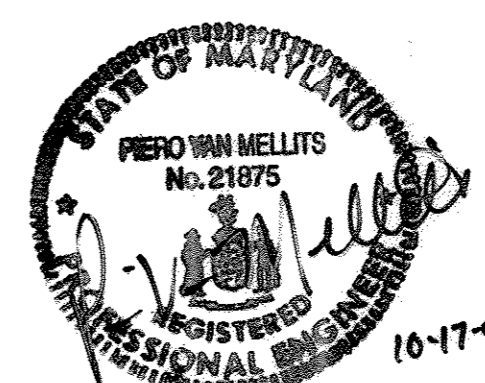
**BOUNDARY SURVEY NOTE**

BOUNDARY LINES SHOWN HEREON ARE BASED UPON BOUNDARY SHOWN ON PLAN ENTITLED "OVERALL PARKING SITE PLAN-PARCEL C-1 ST. JOHN'S PLAZA" FROM SDP-90-182. NO BOUNDARY FIELD WORK HAS BEEN PERFORMED BY MORRIS & RITCHIE ASSOCIATES, INC.

**SHEET INDEX**

- TITLE SHEET
- EXISTING CONDITIONS/DEMOLITION PLAN
- SITE PLAN
- GRADING & SEDIMENT CONTROL PLAN
- GRADING & SEDIMENT CONTROL DETAILS
- STORM DRAIN & UTILITY PROFILES, SITE DETAILS
- SWM DETAIL PLAN
- SWM DETAIL PLAN
- SWM FACILITY RETAINING WALL DETAILS
- LANDSCAPE PLAN
- LANDSCAPE DETAILS
- ROAD IMPROVEMENT PLAN-ST. JOHN'S LANE
- TRAFFIC CONTROL PLAN-ST. JOHN'S LANE
- STORM DRAIN PROFILES & DETAILS-ST. JOHN'S LANE
- TRAFFIC SIGNALIZATION PLAN-US 40 & ST. JOHNS LANE
- GENERAL INFORMATION-US 40 & ST. JOHNS LANE

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- SDP-5 5
- SDP-6 6
- SDP-7 7
- SDP-7A 8
- SDP-8 9
- SDP-9 10
- SDP-10 11
- SDP-11 12
- SDP-12 13
- SDP-13 14
- 15 OF 16 15
- 16 OF 16 16



REVISION #1 ONLY  
PIERO V. MELLITS, P.E. # 21875

PLAT REFERENCE: PLAT NO. 13152  
DEED REFERENCE: 669/394  
TAX ACCOUNT #: 02-214873

OWNER		FAX NO. 410-531-3432	
A. NAME:	Charlotte H. Myers	B. TELEPHONE:	410-531-3432
C. COMPANY:	Hardman-Myers, Inc.		
D. ADDRESS:	P.O. Box 757		
E. CITY:	Clarksville	STATE:	MD
		ZIP:	21029-0757
DEVELOPER		FAX NO. 410-342-4662	
A. NAME:	E. Philip Hanlon	B. TELEPHONE:	410-342-0197
C. COMPANY:	Mars Super Markets, Inc.		
D. ADDRESS:	3401 E. Federal Street		
E. CITY:	Baltimore	STATE:	MD
		ZIP:	21213-4011

APPROVED DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

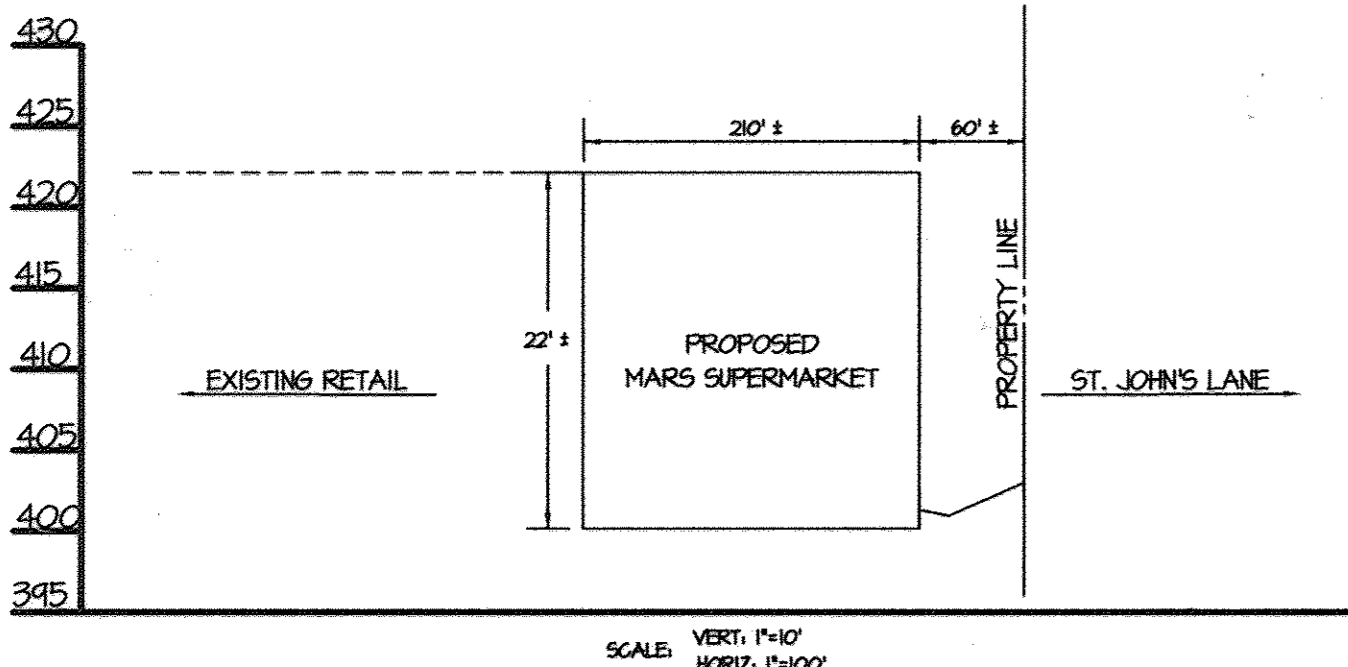
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**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
9090 JUNCTION DRIVE, SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 792-9792 or (301) 778-1690  
FAX (410) 792-7395

**MARS SUPERMARKET ADDITION  
ST. JOHN'S PLAZA  
SITE DEVELOPMENT PLAN  
TITLE SHEET**  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
08/02	REDUCE TRUCK DOCK WIDTH BY THREE (3)	11643.01
	REVISE UTILITY SERVICES TO BUILDING	SCALE: AS NOTED
1/25/12	RELOCATE CURB OPENING AND CONCRETE CHANNEL TO SURFACE SAND FILTER FACILITY. REPAIR INLET LID AND CONCRETE CURB.	DATE: 08/07/02
03/24/17	ADD EXISTING CONC. RAMP AT THE EDGE OF THE EX. PAVEMENT. REPAIR EX. CURB AND SIDEWALK ALONG THE FRONT EDGE OF THE EX. SUPERMARKET.	DRAWN BY: RLZ, TCN
01/25/17	APPROX. 60% AT THE REAR OF THE BUILDING WITH A RAMP AND MODIFIED THE EX. SIDE LOADING AREA.	DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 1 OF 16



SCALE: VERT: 1"=10'  
HORIZ: 1"=100'

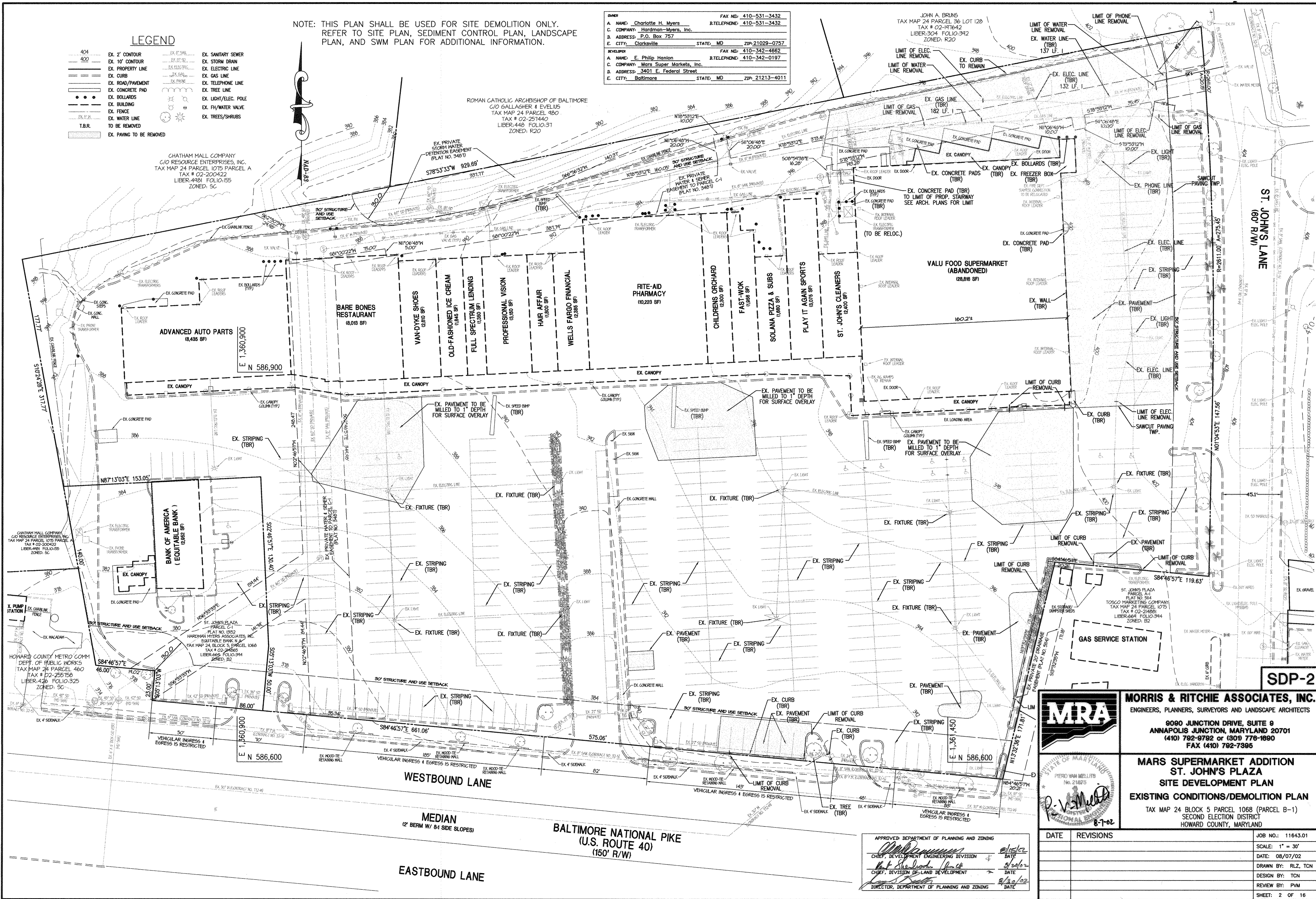


**LEGEND**

- 404 EX. 2' CONTOUR
- 400 EX. 10' CONTOUR
- EX. PROPERTY LINE
- EX. CURB
- EX. ROAD/PAVEMENT
- EX. CONCRETE PAD
- EX. BOLLARDS
- EX. BUILDING
- EX. FENCE
- EX. WATER LINE
- T.B.R. TO BE REMOVED
- EX. PAVING TO BE REMOVED
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. ELECTRIC LINE
- EX. GAS LINE
- EX. TELEPHONE LINE
- EX. TREE LINE
- EX. LIGHT/ELEC. POLE
- EX. FH/WATER VALVE
- EX. TREES/SHRUBS

NOTE: THIS PLAN SHALL BE USED FOR SITE DEMOLITION ONLY. REFER TO SITE PLAN, SEDIMENT CONTROL PLAN, LANDSCAPE PLAN, AND SWM PLAN FOR ADDITIONAL INFORMATION.

**OWNER**  
 A. NAME: Charlotte H. Myers FAX NO: 410-531-3432  
 B. TELEPHONE: 410-531-3432  
**DEVELOPER**  
 A. NAME: E. Philip Hanlon FAX NO: 410-342-4662  
 B. TELEPHONE: 410-342-4662  
**COMPANY**  
 A. COMPANY: Hardman-Myers, Inc. TAX MAP 24 PARCEL 1075 PARCEL A TAX # 02-200422 LIBER:4981 FOLIO:155 ZONED: SC  
 B. COMPANY: Mors Super Markets, Inc. TAX MAP 24 PARCEL 1075 PARCEL B TAX # 02-200422 LIBER:4981 FOLIO:155 ZONED: SC  
**ADDRESS**  
 A. ADDRESS: 3401 E. Federal Street STATE, MD ZIP: 21213-4011  
 B. ADDRESS: 3401 E. Federal Street STATE, MD ZIP: 21213-4011



APPROVED DEPARTMENT OF PLANNING AND ZONING  
 Chief Development Engineering Division  
 Chief, Division of Land Development  
 Director, Department of Planning and Zoning



**MORRIS & RITCHIE ASSOCIATES, INC.**  
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

9090 JUNCTION DRIVE, SUITE 9  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 (410) 782-8782 or (301) 776-1890  
 FAX (410) 782-7395

**MARS SUPERMARKET ADDITION  
 ST. JOHN'S PLAZA  
 SITE DEVELOPMENT PLAN  
 EXISTING CONDITIONS/DEMOLITION PLAN**

TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
		11643.01
		SCALE: 1" = 30'
		DATE: 08/07/02
		DRAWN BY: RLZ, TCN
		DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 2 OF 16

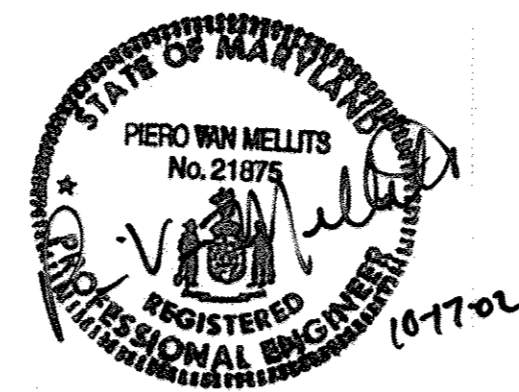
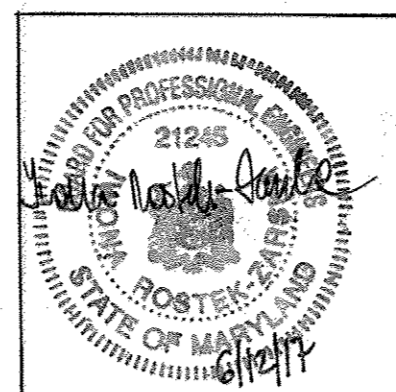
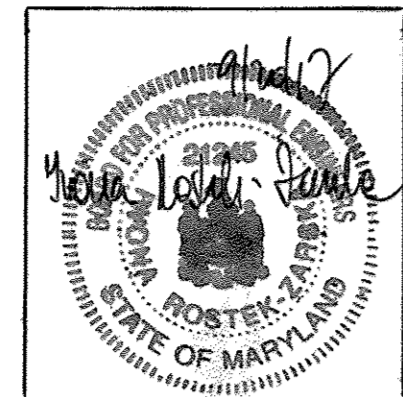
**SDP-2**

SDP-02-31



NOTE: THIS PLAN SHALL BE USED FOR SITE GRADING, STORM DRAIN, AND PAVING PLAN ONLY. REFER TO SEDIMENT CONTROL PLAN, DEMO PLAN, LANDSCAPE PLAN, AND SWM PLAN FOR ADDITIONAL INFORMATION. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR UTILITY CONNECTIONS INTO BUILDINGS.

OWNER		FAX NO. 410-531-3432
A. NAME: Charlotte H. Myers	B. TELEPHONE: 410-531-3432	
C. COMPANY: Hardman-Myers, Inc.		
D. ADDRESS: P.O. Box 757		
E. CITY: Clarksville	STATE: MD	ZIP: 21029-0757
DEVELOPER		FAX NO. 410-342-4662
A. NAME: E. Philip Hanlon	B. TELEPHONE: 410-342-0197	
C. COMPANY: Mars Super Markets, Inc.		
D. ADDRESS: 3401 E. Federal Street		
E. CITY: Baltimore	STATE: MD	ZIP: 21213-4011

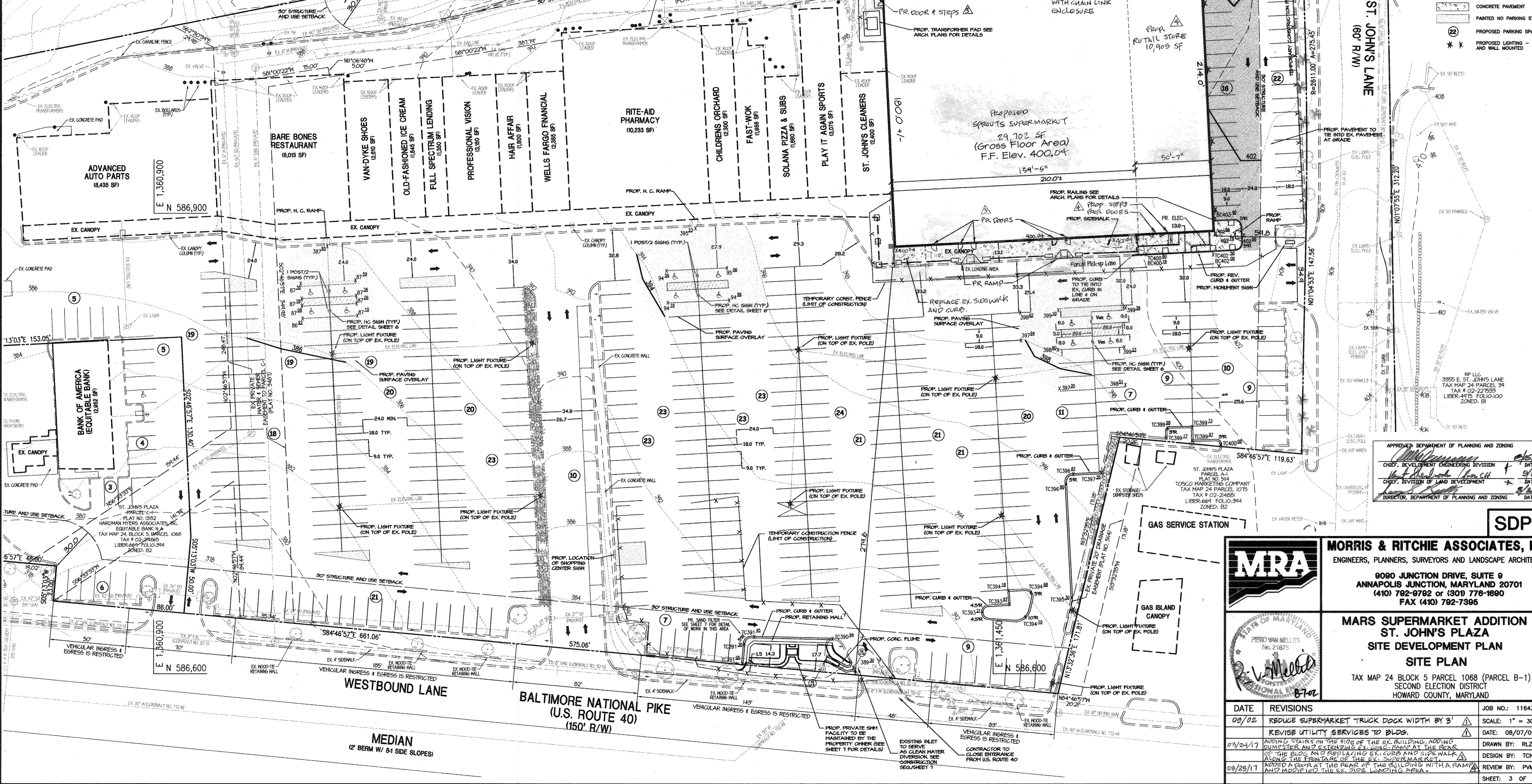


PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21249. EXPIRATION DATE: JUNE 9, 2018.

REVISION #1 ONLY  
PIERO V. MELLITS, P.E. #21875

08/25/17 ELO6, INC.  
ROMAN CATHOLIC ARCHBISHOP OF BALTIMORE  
C/O GALLAGHER 1 LEVELS  
TAX MAP 24 PARCEL 980  
TAX # 02-251440  
LIBER:448 FOLIO:31  
ZONED: R20

GRATHAM MALL COMPANY  
C/O RESOURCE ENTERPRISES, INC.  
TAX MAP 24 PARCEL 1075 PARCEL A  
TAX # 02-200422  
LIBER:4181 FOLIO:155  
ZONED: SC



LEGEND	
404	EX. 2' CONTOUR
400	EX. 10' CONTOUR
---	EX. CURB
---	EX. ROAD/PAVEMENT
---	EX. DOLLARS
---	EX. BUILDING
---	EX. PROPERTY LINE
---	EX. FENCE
---	EX. WATER LINE
---	EX. SANITARY SEWER
---	EX. STORM DRAIN
---	EX. ELECTRIC LINE
---	EX. GAS LINE
---	EX. TELEPHONE LINE
---	EX. TREE LINE
---	EX. LIGHT/ELEC. POLE
---	EX. PH/WATER VALVE
---	EX. TREES/SHRUBS
---	PR. STORM DRAIN
---	PR. WATER LINE
---	PR. ELEC. LINE
---	PR. GAS LINE
---	PR. PHONE LINE
---	PR. 2' CONTOUR
---	PR. 10' CONTOUR
---	PR. ST. ELEVATION
---	30' BUILDING SETBACK LINE
---	HEAVY DUTY PAVEMENT
---	LIGHT DUTY PAVEMENT
---	CONCRETE PAVEMENT
---	PAINTED NO PARKING STRIPING
---	PROPOSED PARKING SPACES
---	PROPOSED LIGHTING - POLE AND WALL MOUNTED

APPROVED DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

SDP-3

**MORRIS & RITCHIE ASSOCIATES, INC.**  
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9090 JUNCTION DRIVE, SUITE 9  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 (410) 792-8782 or (301) 778-1890  
 FAX (410) 792-7385

**MARS SUPERMARKET ADDITION  
 ST. JOHN'S PLAZA  
 SITE DEVELOPMENT PLAN  
 SITE PLAN**

TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
09/02	REDUCE SUPERMARKET TRUCK DOCK WIDTH BY 3'	11643.01
	REVISE UTILITY SERVICES TO BLDGS.	SCALE: 1" = 30'
03/24/17	ADD/REVISE STAIRS ON THE SIDE OF THE EX. BUILDING, ADDING DUMPSTER AND EXTENDING EX. CONC. RAMP AT THE REAR OF THE BLDG. AND REPLACING EX. CURBS AND SIDEWALK ALONG THE FRONTAGE OF THE EX. SUPERMARKET	DATE: 08/07/02
08/25/17	ADD A DOOR AT THE REAR OF THE BUILDING WITH A RAMP AND MODIFIED THE EX. SIDE LOADING AREA.	DRAWN BY: RLZ, TCN
		DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 3 OF 16



REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

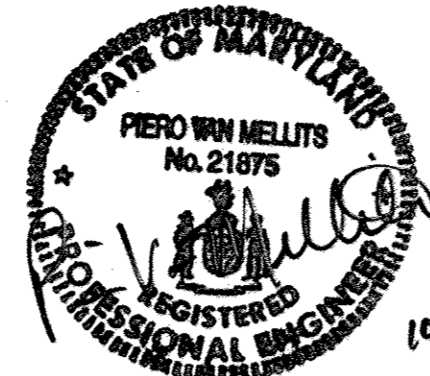
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

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

HOWARD S.C.D.

DIVISION OF ENGINEERING
OWNER: Charlotte H. Myers
COMPANY: Hardman-Myers, Inc.
ADDRESS: P.O. Box 757
CITY: Clarksville STATE: MD ZIP: 21029-0757
DEVELOPER: E. Philip Hanlon
COMPANY: Mars Super Markets, Inc.
ADDRESS: 3401 E. Federal Street
CITY: Baltimore STATE: MD ZIP: 21213-4011

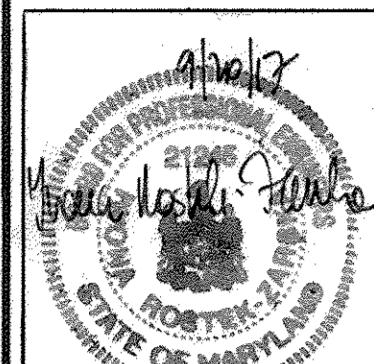
NOTE: THIS PLAN SHALL BE USED FOR SITE GRADING AND SEDIMENT CONTROL ONLY. REFER TO SITE PLAN, LANDSCAPE PLAN, DEMO PLAN AND SWM PLAN FOR ADDITIONAL INFORMATION.



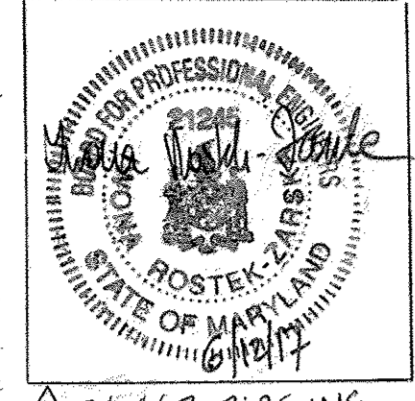
REVISION #1 ONLY
PIERO V. MELLITS, P.E. #21875

ROMAN CATHOLIC ARCHBISHOP OF BALTIMORE
C/O GALLAGHER & EVELLUS
TAX MAP 24 PARCEL 480
TAX # 02-251440
LIBER.448 FOLIO.81
ZONED: R20

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. 21245, EXPIRATION DATE: JUNE 9, 2018.



CHATHAM MALL COMPANY
C/O RESOURCE ENTERPRISES, INC.
TAX MAP 24 PARCEL 1075 PARCEL A
TAX # 02-220422
LIBER.491 FOLIO.155
ZONED: R20



3/24/17 - BLDG. INC.

08/25/17 BLDG. INC.

ADVANCED AUTO PARTS (6,436 SF)

BARE BONES RESTAURANT (8,018 SF)

VAN-DYKE SHOES (2,810 SF)

OLD-FASHIONED ICE CREAM (1,846 SF)

FULL SPECTRUM LENDING (1,830 SF)

PROFESSIONAL VISION (1,830 SF)

HAIR AFFAIR (1,800 SF)

WELLS FARGO FINANCIAL (2,888 SF)

RITE-AID PHARMACY (10,233 SF)

CHILDREN'S ORCHARD (2,800 SF)

FAST-WOK (1,988 SF)

SOLANA PIZZA & SUBS (1,880 SF)

PLAY IT AGAIN SPORTS (8,076 SF)

ST. JOHN'S CLEANERS (2,400 SF)

PROPOSED SPROUTS SUPERMARKET (24,702 SF Gross Floor Area) F.F. Elev. 400.04

PROPOSED RETAIL STORE (10,905 SF)

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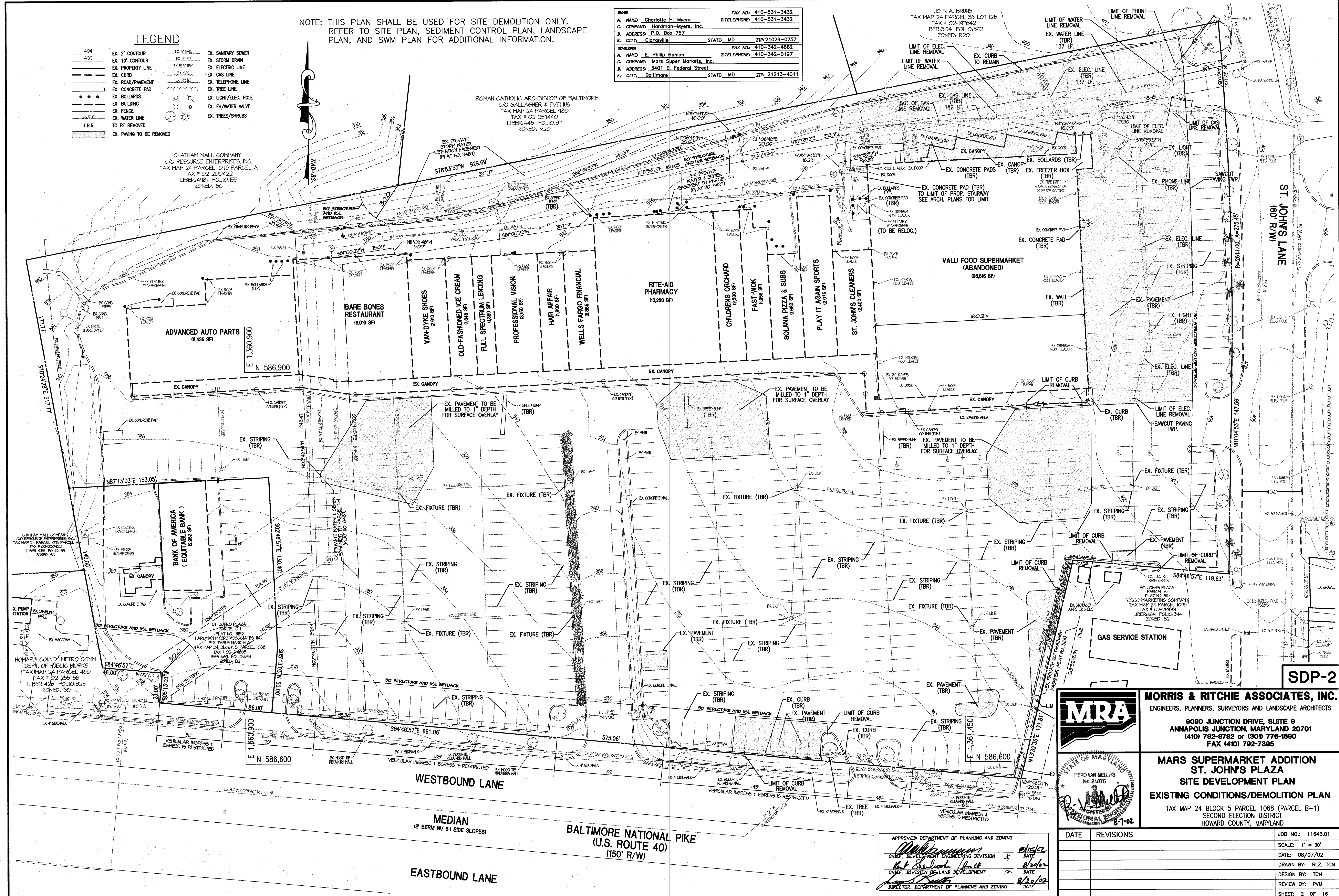
**LEGEND**

- 404 EX. 2' CONTOUR
- 400 EX. 10' CONTOUR
- EX. PROPERTY LINE
- EX. CURB
- EX. ROAD/PAVEMENT
- EX. CONCRETE PAD
- EX. BOLLARDS
- EX. BUILDING
- EX. FENCE
- EX. WATER LINE
- T.B.R. TO BE REMOVED
- EX. PAVING TO BE REMOVED
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. ELECTRIC LINE
- EX. GAS LINE
- EX. TELEPHONE LINE
- EX. TREE LINE
- EX. LIGHT/ELEC. POLE
- EX. FH/WATER VALVE
- EX. TREES/SHRUBS

NOTE: THIS PLAN SHALL BE USED FOR SITE DEMOLITION ONLY. REFER TO SITE PLAN, SEDIMENT CONTROL PLAN, LANDSCAPE PLAN, AND SWM PLAN FOR ADDITIONAL INFORMATION.

OWNER: JOHN A. BRUNS  
 A. NAME: Charlotte H. Myers FAX NO: 410-531-3432  
 B. TELEPHONE: 410-531-3432  
 C. COMPANY: Hardman-Myers, Inc.  
 D. ADDRESS: P.O. Box 757  
 E. CITY: Clarksville STATE: MD ZIP: 21029-0757

DEVELOPER: E. Phillip Hanlon  
 A. NAME: E. Phillip Hanlon FAX NO: 410-342-4862  
 B. TELEPHONE: 410-342-0197  
 C. COMPANY: Mars Super Markets, Inc.  
 D. ADDRESS: 3401 E. Federal Street  
 E. CITY: Baltimore STATE: MD ZIP: 21213-4011

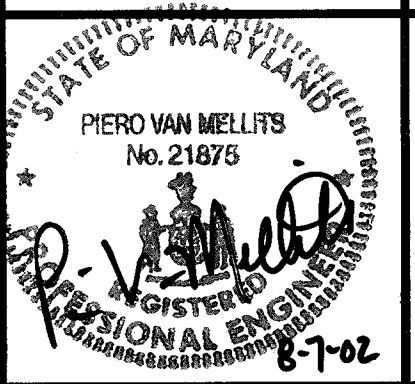


SDP-2



**MORRIS & RITCHIE ASSOCIATES, INC.**  
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

9080 JUNCTION DRIVE, SUITE 9  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 (410) 792-9792 or (301) 776-1690  
 FAX (410) 792-7396

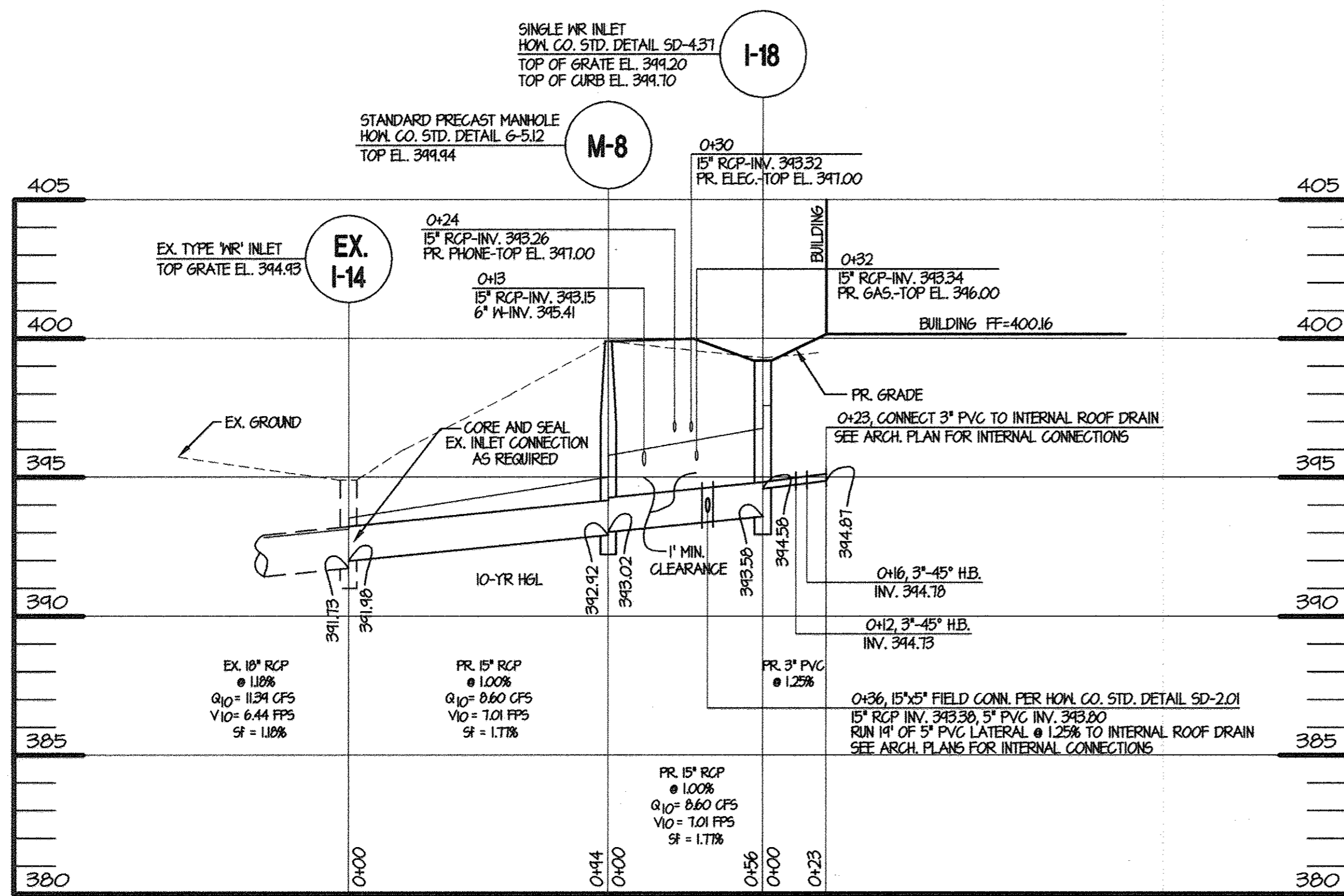


**MARS SUPERMARKET ADDITION  
 ST. JOHN'S PLAZA  
 SITE DEVELOPMENT PLAN  
 EXISTING CONDITIONS/DEMOLITION PLAN**  
 TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
 [Signature] DATE: 8/20/02  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 [Signature] DATE: 8/20/02  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 [Signature] DATE: 8/20/02  
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

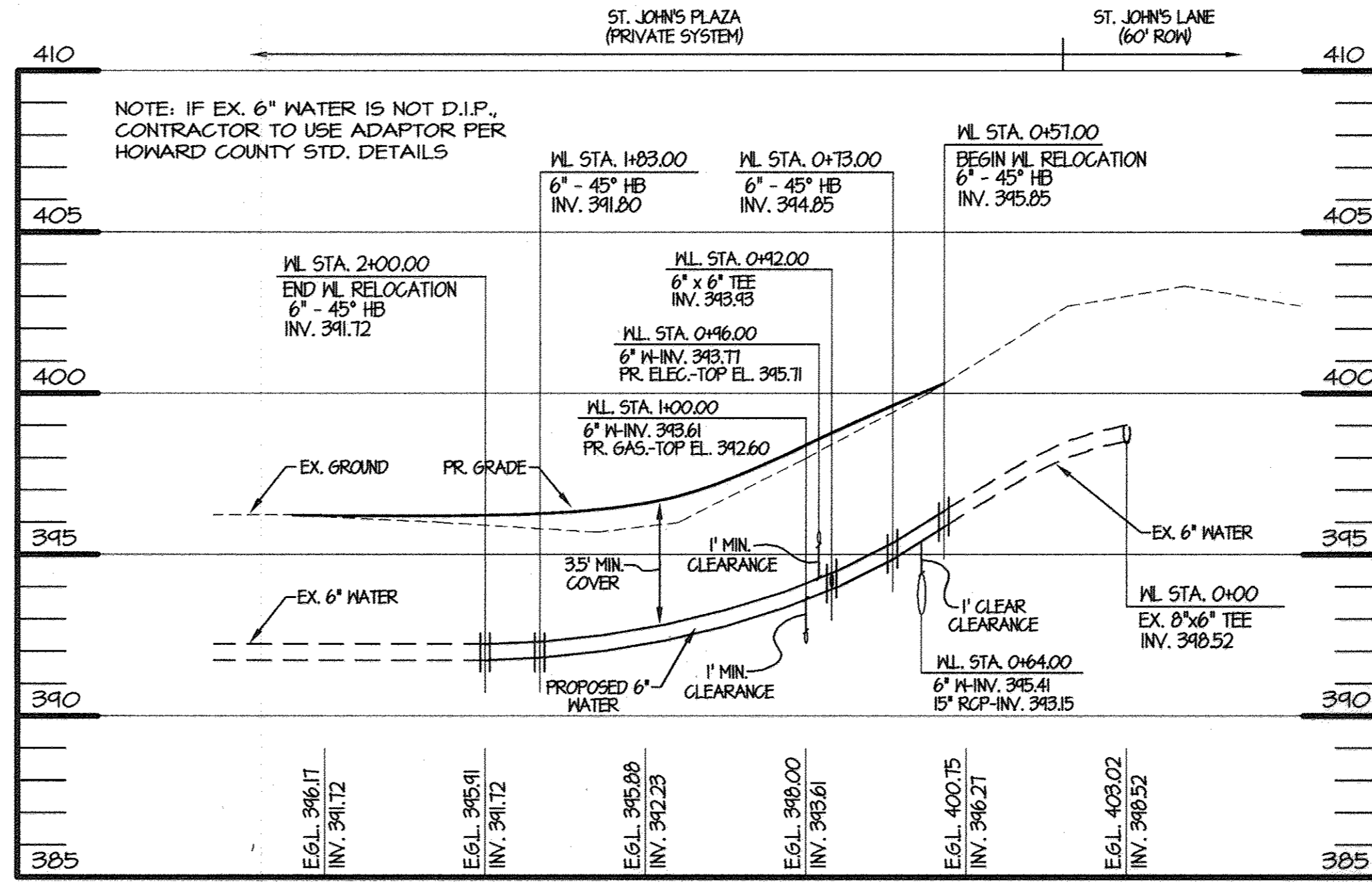
DATE	REVISIONS	JOB NO.:
		11643.01
		SCALE: 1" = 30'
		DATE: 08/07/02
		DRAWN BY: RLZ, TCN
		DESIGN BY: TCN
		REVIEW BY: PWM
		SHEET: 2 OF 16





**STORM DRAIN PROFILE**

HOR. 1" = 40'  
VERT. 1" = 4'



**WATER PROFILE**

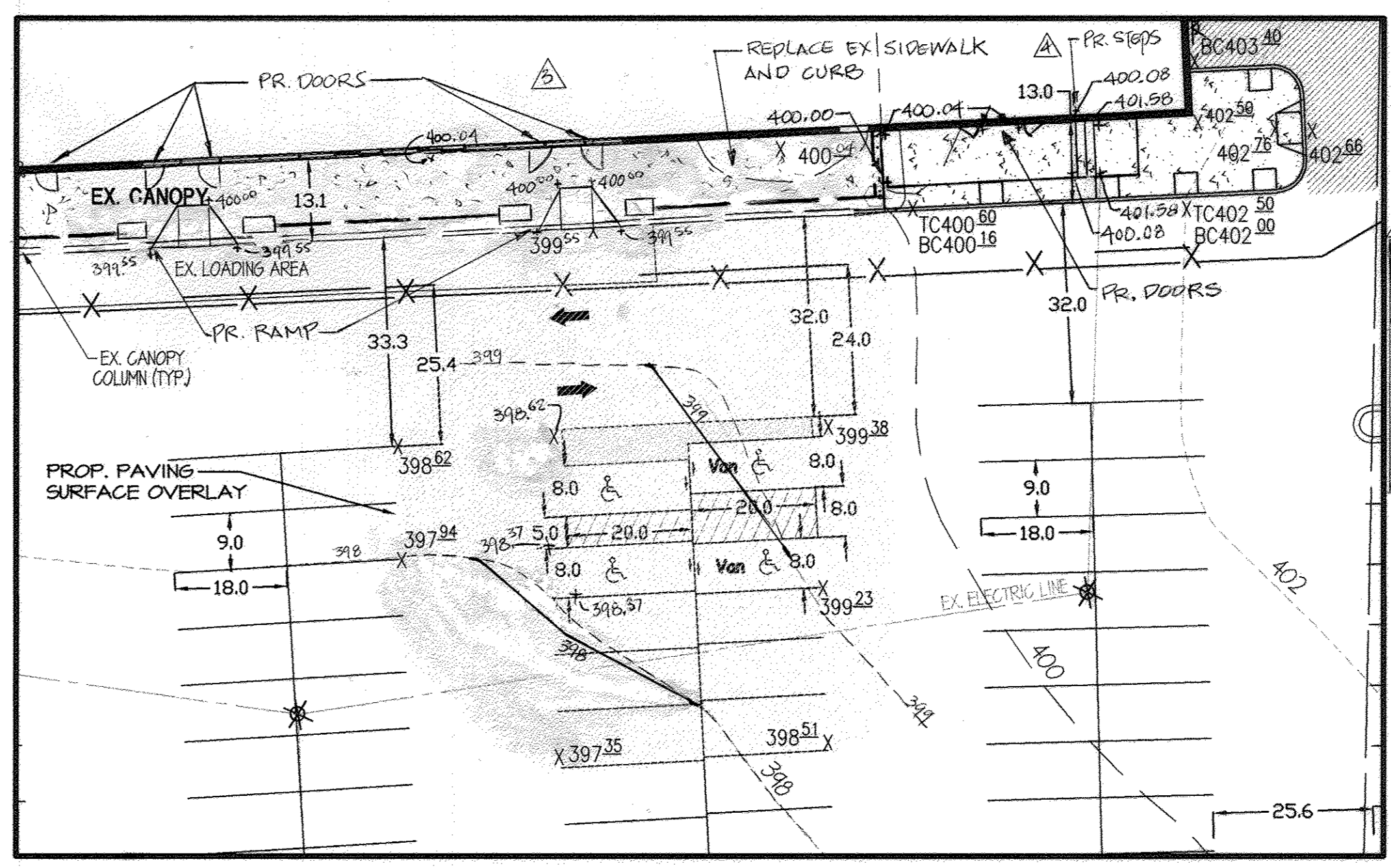
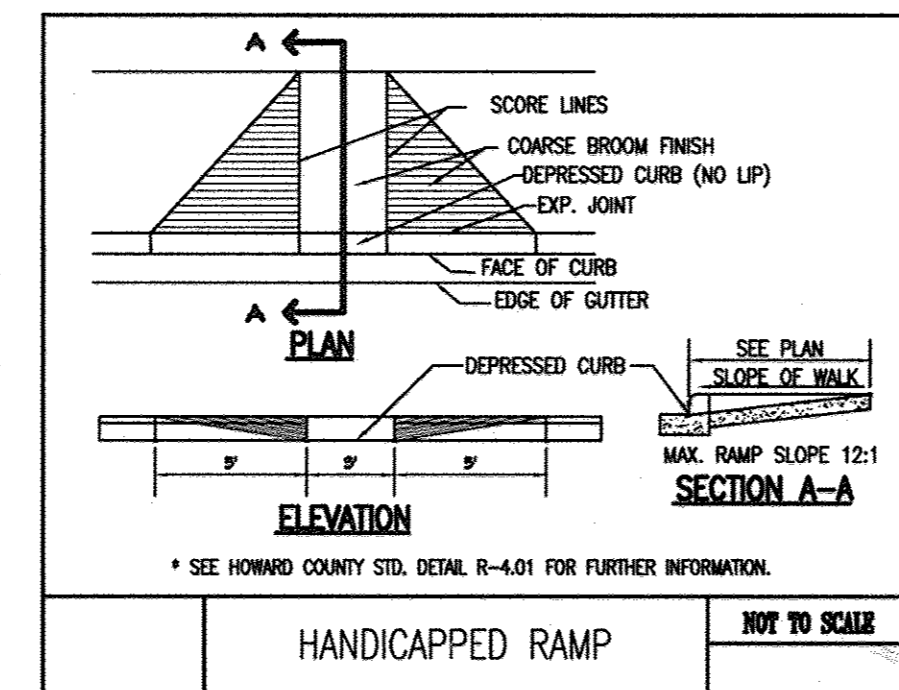
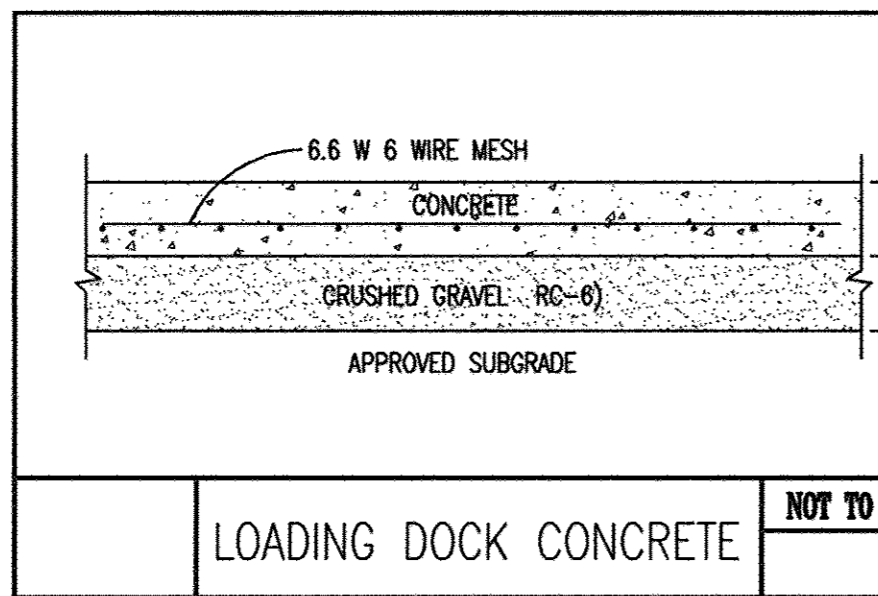
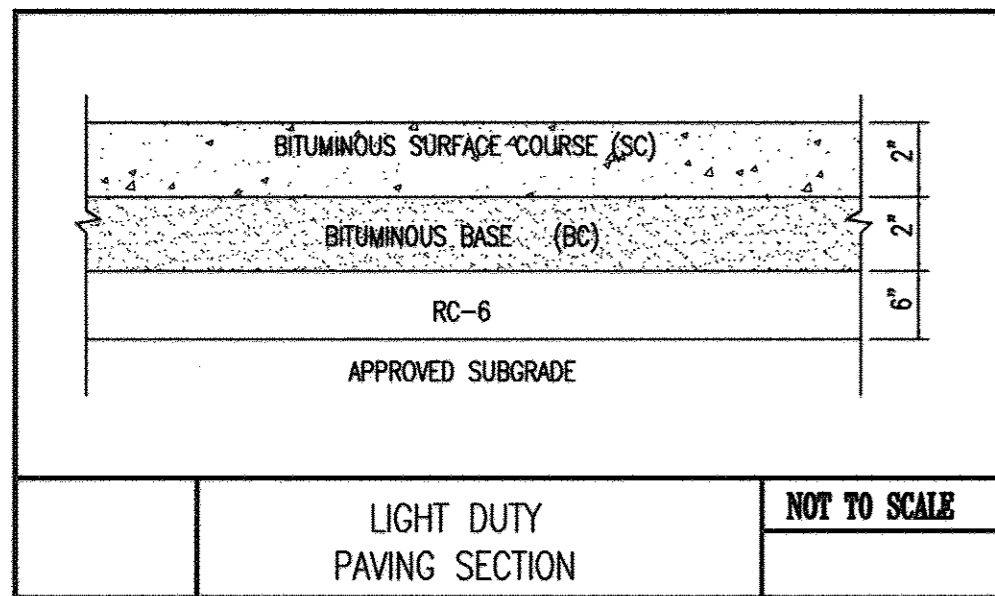
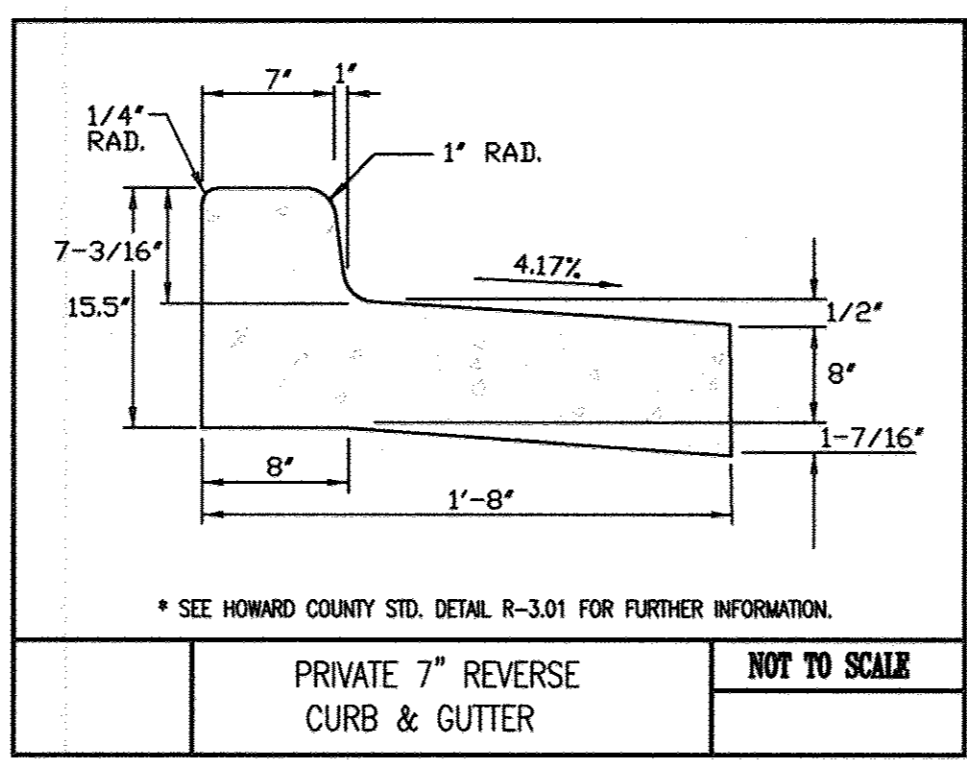
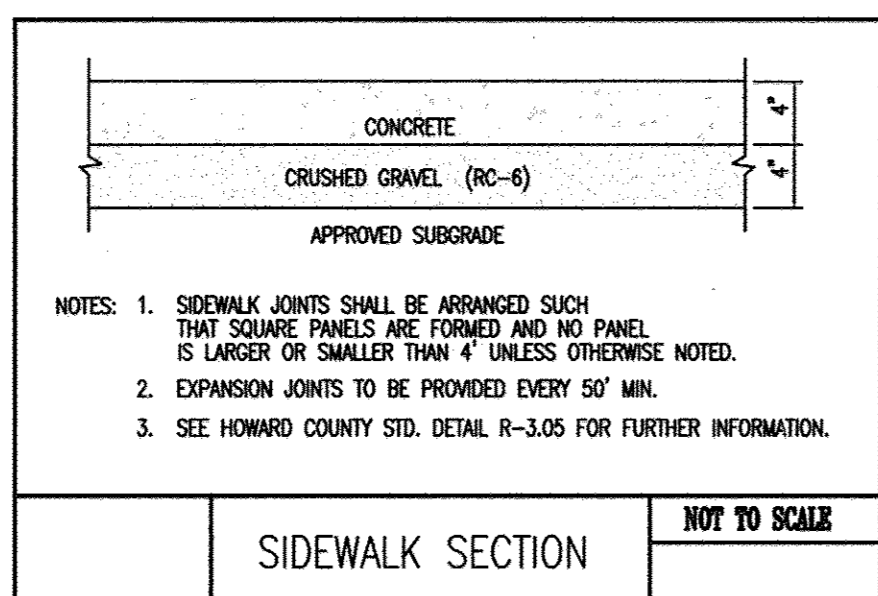
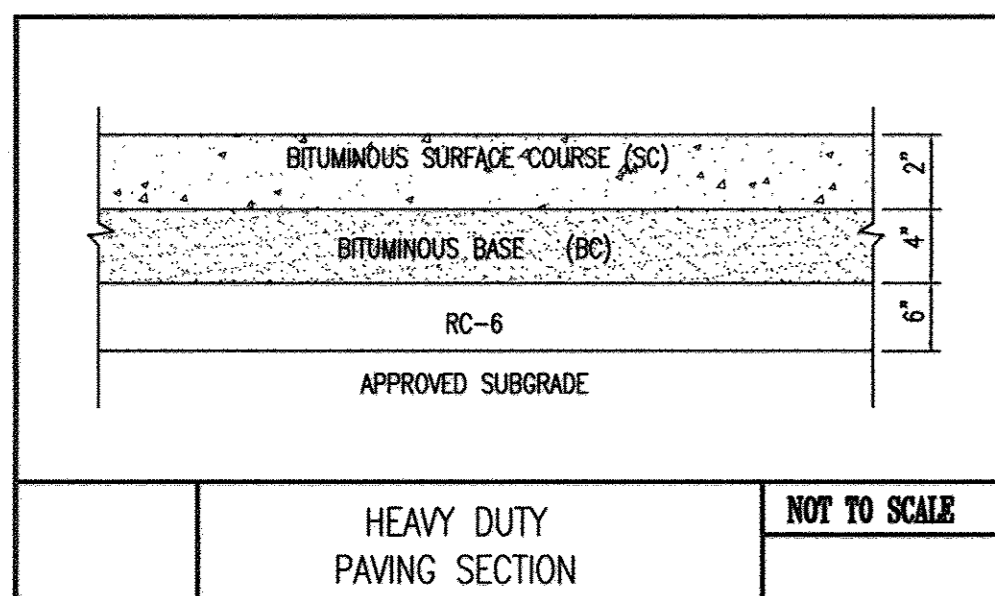
HOR. 1" = 40'  
VERT. 1" = 4'

STORM DRAIN PIPE SCHEDULE		
SIZE	TYPE	LENGTH
3"	PVC (SCHED. 40)	23'
5"	PVC (SCHED. 40)	19'
15"	CLASS IV RCP	145'

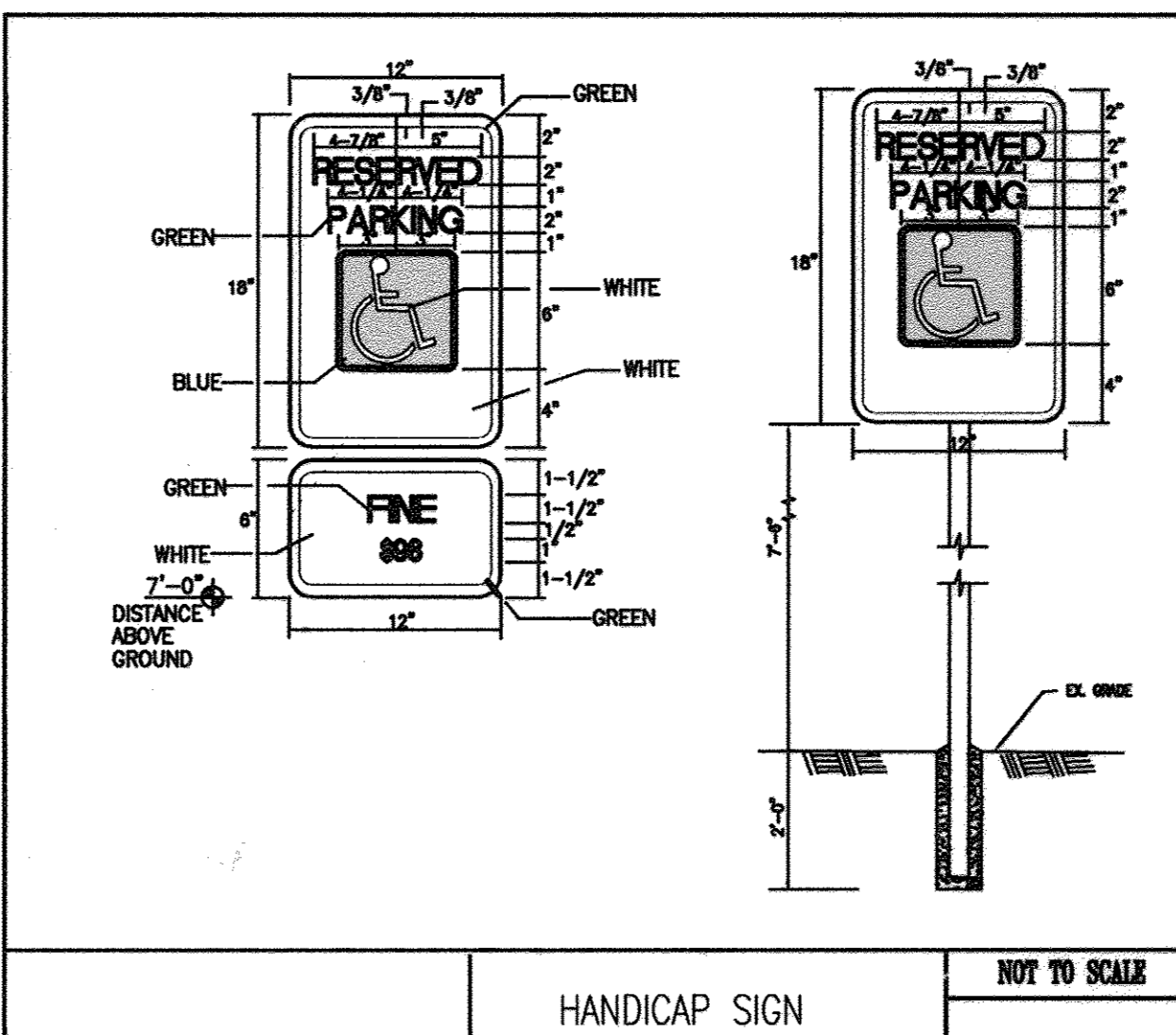
STORM DRAIN FITTINGS SCHEDULE		
SIZE	TYPE	NUMBER
3"	45" H.B. (SCH. 40)	2
15"x5"	RCP FIELD CONN.	1

WATER LINE PIPE SCHEDULE		
SIZE	TYPE	LENGTH
6"	D.I.P. CLASS 52	143'

WATER LINE FITTINGS SCHEDULE		
SIZE	TYPE	NUMBER
6"	45" H.B. (CLASS 350)	4
6"	6"x6" TEE (CLASS 350)	1



**HC PARKING AREA PAVING DETAIL**  
SCALE: 1"=20'

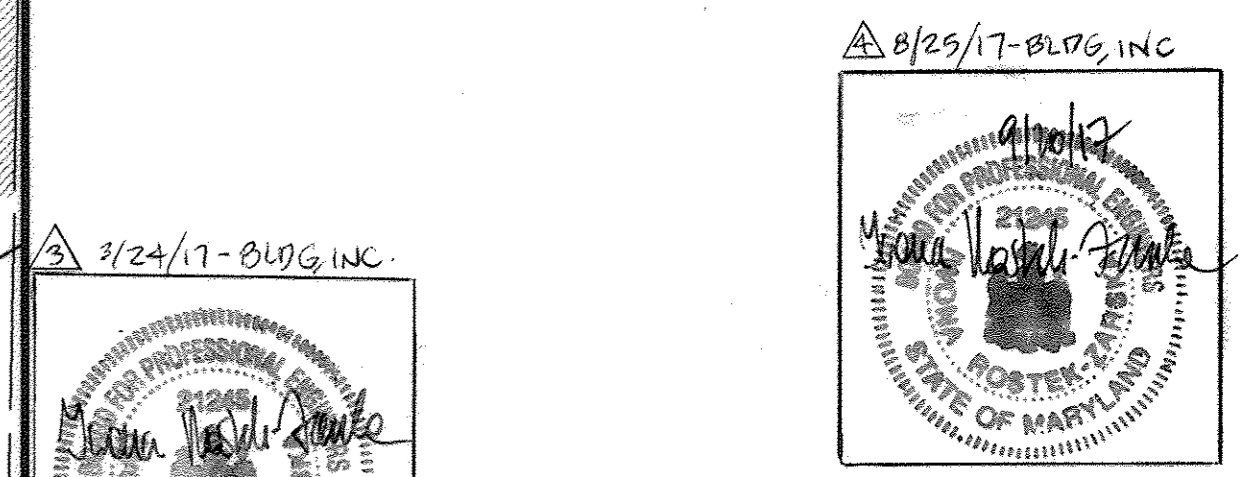


**HANDICAP SIGN**

● COORDINATES TO CENTER OF STRUCTURE AT FACE OF CURB FOR INLETS, CENTER OF STRUCTURE FOR MANHOLES  
\* TOP OF GRATE ELEVATION AT CENTER OF STRUCTURE AT FACE OF CURB. MANHOLE ELEVATIONS ARE AT CENTER OF RIM

STORM DRAIN STRUCTURE SCHEDULE							LOCATION	
STR. NO.	TOP ELEV.	INV. IN.	INV. IN.	INV. OUT.	TYPE	REMARKS	NORTHING	EASTING
M-8	* 399.94	393.02	---	392.92	STD. PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.12		587,135.62	1,361,601.83
I-18	* 399.20	393.83	---	393.58	SINGLE WR INLET HOWARD CO. STD. DETAIL SD-4.37		587,079.68	1,361,603.31
EX. I-9	390.13	N/A	---	N/A	MODIFIED INLET/RISER STRUCTURE PER DETAIL SHEET 8		EXISTING-N/A	EXISTING-N/A
EX. I-10	388.05	N/A	---	N/A	MODIFIED INLET/JUNCTION CHAMBER PER DETAIL SHEET 8		EXISTING-N/A	EXISTING-N/A

NOTE: EXISTING INLETS I-9 AND I-10 ARE TYPE S COMBINATION INLETS PER HOWARD COUNTY STANDARD DETAIL SD-4.32. FOR SWM PURPOSES, THESE INLETS ARE TO BE MODIFIED PER DETAILS SHOWN ON SHEET 8. INLET I-10 IS TO BE CAPPED WITH A CONCRETE SLAB. INLET I-9 IS TO BE MODIFIED TO SERVE AS AN OVERFLOW STRUCTURE FOR THE PROPOSED SWM FACILITY.



**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAW OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

OWNER		FAX NO. 410-531-3432	
A. NAME:	Charlotte H. Myers	B. TELEPHONE:	410-531-3432
C. COMPANY:	Hardman-Myers, Inc.		
D. ADDRESS:	P.O. Box 757		
E. CITY:	Clarksville	STATE:	MD
		ZIP:	21029-0757
DEVELOPER		FAX NO. 410-342-4662	
A. NAME:	E. Philip Hanlon	B. TELEPHONE:	410-342-0197
C. COMPANY:	Mars Super Markets, Inc.		
D. ADDRESS:	3401 E. Federal Street		
E. CITY:	Baltimore	STATE:	MD
		ZIP:	21213-4011

APPROVED DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

**SDP-6**

**MORRIS & RITCHE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

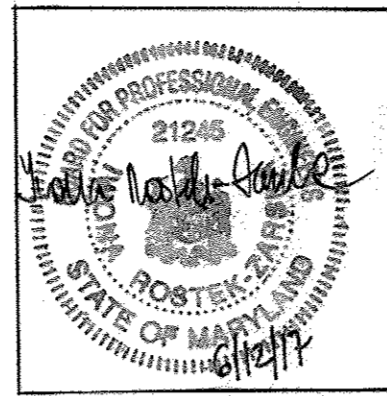
9090 JUNCTION DRIVE, SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 792-6792 or (301) 778-1690  
FAX (410) 792-7395

**MARS SUPERMARKET ADDITION**  
**ST. JOHN'S PLAZA**  
**SITE DEVELOPMENT PLAN**  
**STORM DRAIN & UTILITY PROFILES,**  
**SITE DETAILS**  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
08/24/17	ADDING STAIRS ON THE SIDE OF THE EX. BLDG, ADDING DOWNSTAIRS AND EXTENDING EX. SIDEWALK AT THE REAR OF THE BLDG AND REPLACING EX. CURB AND SIDEWALK ALONG THE FRONTAGE OF THE SUPERMARKET AND ADDING A RAMP AT THE REAR OF THE BUILDING WITH A RAMP AND MODIFIED THE EX. SIDEWALK LOADING AREA.	11643.01
08/29/17		SCALE: AS SHOWN
		DATE: 08/07/02
		DRAWN BY: RLZ, TCN
		DESIGN BY: PVM
		REVIEW BY: PVM
		SHEET: 6 OF 16



NOTE: THIS PLAN SHALL BE USED FOR SITE GRADING, STORM DRAIN, AND PAVING PLAN ONLY. REFER TO SEDIMENT CONTROL PLAN, DEMO PLAN, LANDSCAPE PLAN, AND SWM PLAN FOR ADDITIONAL INFORMATION. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR UTILITY CONNECTIONS INTO BUILDINGS.



**DOWNER**

A. NAME: Charlotte H. Myers  
 B. TELEPHONE: 410-531-3432  
 C. COMPANY: Hardman-Myers, Inc.  
 D. ADDRESS: P.O. Box 757  
 E. CITY: Clarksville STATE: MD ZIP: 21029-0757

FAX NO: 410-531-3432

**DEVELOPER**

A. NAME: E. Philip Hanlon  
 B. TELEPHONE: 410-342-4662  
 C. COMPANY: Mars Super Markets, Inc.  
 D. ADDRESS: 3401 E. Federal Street  
 E. CITY: Baltimore STATE: MD ZIP: 21213-4011

FAX NO: 410-342-0197

**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. 21875. EXPIRATION DATE: JUNE 9, 2018.

REVISION #1 ONLY  
 PIERO V. MELLITS, P.E. #21875

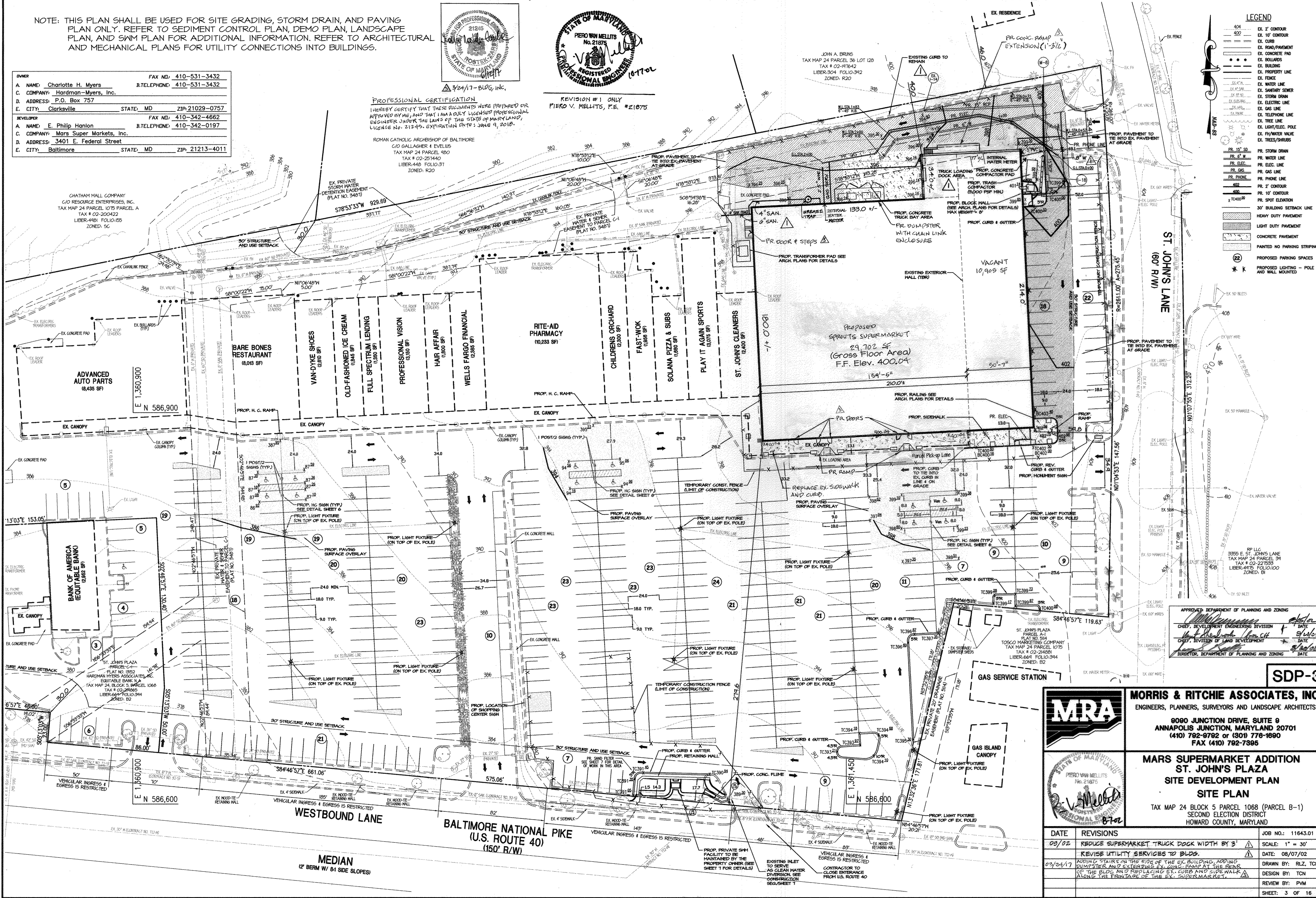
ROMAN CATHOLIC ARCHBISHOP OF BALTIMORE  
 C/O GALLAGHER & EVELLUS  
 TAX MAP 24 PARCEL 980  
 TAX # 02-251440  
 LIBER: 440 FOLIO: 31  
 ZONED: R20

JOHN A. BRUNS  
 TAX MAP 24 PARCEL 36 LOT 128  
 TAX # 02-RT1642  
 LIBER: 304 FOLIO: 312  
 ZONED: R20

CHATHAM HILL COMPANY  
 C/O RESOURCE ENTERPRISES, INC.  
 TAX MAP 24 PARCEL 1075 PARCEL A  
 TAX # 02-200422  
 LIBER: 4481 FOLIO: 155  
 ZONED: SC

**LEGEND**

404	EX. 2' CONTOUR
400	EX. 10' CONTOUR
---	EX. CURB
---	EX. ROAD/PAVEMENT
---	EX. CONCRETE PAD
---	EX. BOLLARDS
---	EX. BUILDING
---	EX. PROPERTY LINE
---	EX. FENCE
---	EX. WATER LINE
---	EX. SANITARY SEWER
---	EX. ELECTRIC LINE
---	EX. GAS LINE
---	EX. TELEPHONE LINE
---	EX. TREE LINE
---	EX. LIGHT/ELEC. POLE
---	EX. FIRE/WATER VALVE
---	EX. TREES/SHRUBS
---	PR. 15' SD
---	PR. 12' W
---	PR. WATER LINE
---	PR. ELEC. LINE
---	PR. GAS
---	PR. PHONE
---	PR. 2' CONTOUR
---	PR. 10' CONTOUR
---	PR. SPOT ELEVATION
---	30' BUILDING SETBACK LINE
---	HEAVY DUTY PAVEMENT
---	LIGHT DUTY PAVEMENT
---	CONCRETE PAVEMENT
---	PAINTED NO PARKING STRIPING
(22)	PROPOSED PARKING SPACES
* K	PROPOSED LIGHTING - POLE AND WALL MOUNTED



APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

**SDP-3**

**MORRIS & RITCHIE ASSOCIATES, INC.**  
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

8090 JUNCTION DRIVE, SUITE 9  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 (410) 792-9792 or (301) 778-1890  
 FAX (410) 792-7395

**MARS SUPERMARKET ADDITION  
 ST. JOHN'S PLAZA  
 SITE DEVELOPMENT PLAN  
 SITE PLAN**

TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

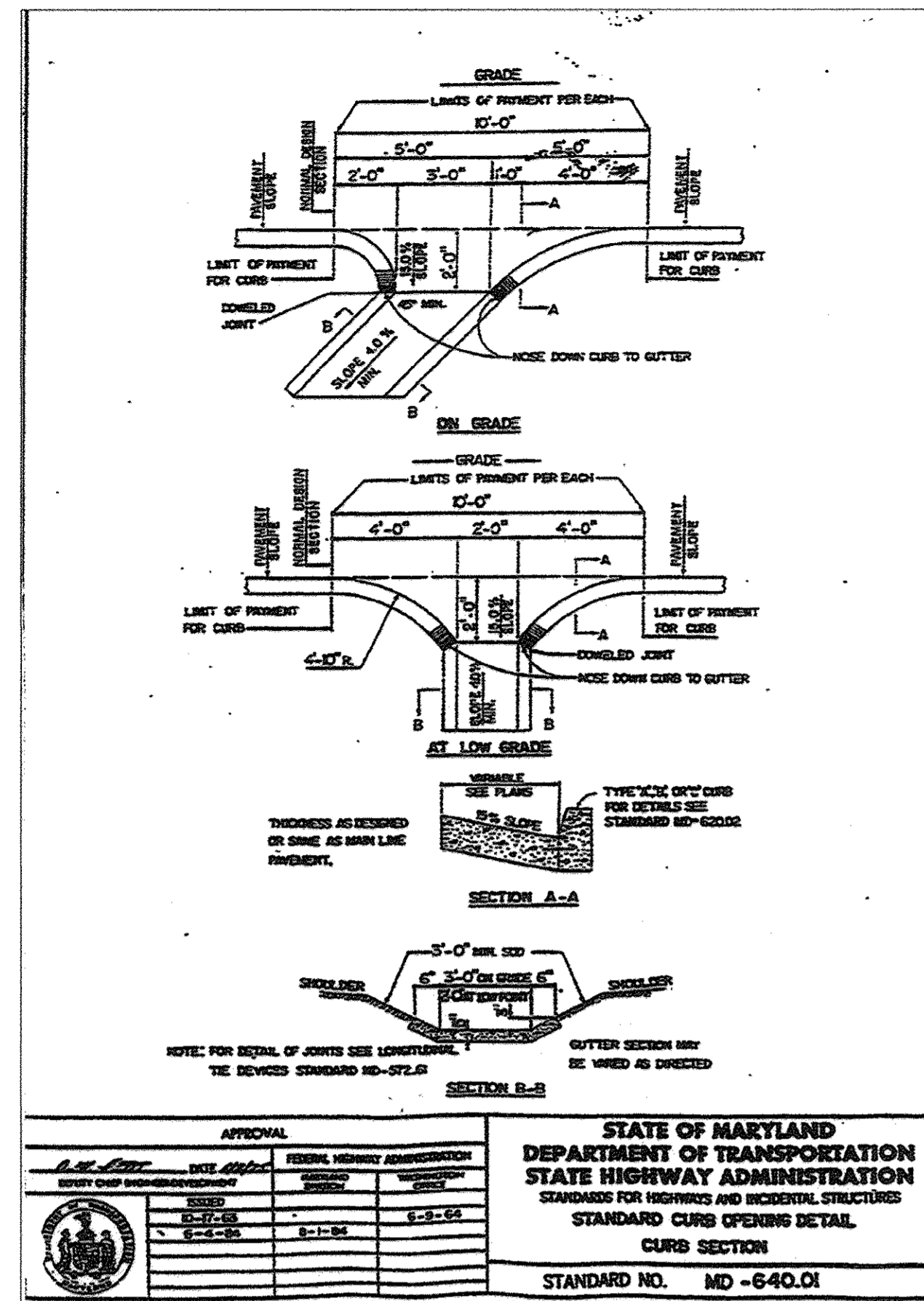
DATE	REVISIONS	JOB NO.:
03/02	REDUCE SUPERMARKET TRUCK DOCK WIDTH BY 3'	11643.01
	REVISE UTILITY SERVICES TO BLDG.	SCALE: 1" = 30'
03/24/17	ADDING STAIRS ON THE SIDE OF THE EX. BUILDING, ADDING DUMPSTER AND EXTENDING EX. CONC. RAMP AT THE REAR OF THE BLDG. AND REPLACING EX. CURB AND SIDEWALK ALONG THE FRONTAGE OF THE EX. SUPERMARKET.	DATE: 08/07/02
		DESIGN BY: RLZ, TCN
		REVIEW BY: PVM
		SHEET: 3 OF 16

**WESTBOUND LANE**  
 BALTIMORE NATIONAL PIKE  
 (U.S. ROUTE 40)  
 (150' R/W)  
 MEDIAN  
 (2' BERM W/ 6:1 SIDE SLOPES)

**MRA**

STATE OF MARYLAND  
 PIERO V. MELLITS  
 No. 21875  
 REGISTERED PROFESSIONAL ENGINEER





**LOG OF BORING NO. SB-1** Sheet 1 of 1

PROJECT: St. John's Plaza  
PROJECT NO: 01599  
PROJECT LOCATION: Howard County, Maryland

DATE STARTED: August 24, 2001  
DATE COMPLETED: August 24, 2001  
DRILLING CONTRACTOR: Geo-Technology Associates, Inc.  
DRILLER: Geo-Technology Associates, Inc.  
SAMPLING METHOD: Split Spoon

WATER LEVEL: 14.3 Dry  
DATE: 8/24/01  
CAVED IN: 14.4 13.5

GROUND SURFACE ELEVATION: 391.2  
DATUM: MSL  
EQUIPMENT: B-8  
LOGGED BY: TODD  
CHECKED BY: S. Rowe

SAMPLE NUMBER	SAMPLE DEPTH (FT)	SAMPLE RECOVERY (FT)	SAMPLE BLOW COUNT	N (blows)	ELEVATION (FT)	USCS	GEOTECHNICAL SYMBOL	DESCRIPTION	REMARKS
1	0.5	12	54-21	27	391.2	SM		Olive-gray-brown, moist, medium dense, micaceous, coarse to fine SAND, some SILT, little Rock Fragments. (F9)	Asphalt: 3 in. Roadbed: 1 in.
2	2.5	12	16-11	27	390.2	SM		Wet spon at 19.0 ft.	
3	5.0	12	34-10	14	386.2	SM		Brown to gray-brown, moist, stiff to medium stiff, SILT & CLAY and coarse to fine Sand, trace Organic. (F9)	Bag Sample: 1.0 - 6.0 ft.
4	8.5	11	5-3	6	378.2	SM		Brown, moist to wet, loose, coarse to fine SAND and SILT.	
5	13.5	16	3-4	8	374.2	SM		Brown, moist to dry, medium dense, coarse to fine SAND, little SILT.	
6	18.5	16	16-17	23	371.2	SM		Brown, moist to dry, medium dense, coarse to fine SAND, little SILT.	

Coordinates:  
N: 586623.0  
E: 1361283.0

NOTES:  
GTA GEO-TECHNOLOGY ASSOCIATES, INC.  
9090 Junction Drive, Suite 9  
Annapolis Junction, MD 20701

**LOG OF BORING NO. SB-2** Sheet 1 of 1

PROJECT: St. John's Plaza  
PROJECT NO: 01599  
PROJECT LOCATION: Howard County, Maryland

DATE STARTED: August 24, 2001  
DATE COMPLETED: August 24, 2001  
DRILLING CONTRACTOR: Geo-Technology Associates, Inc.  
DRILLER: Geo-Technology Associates, Inc.  
SAMPLING METHOD: Split Spoon

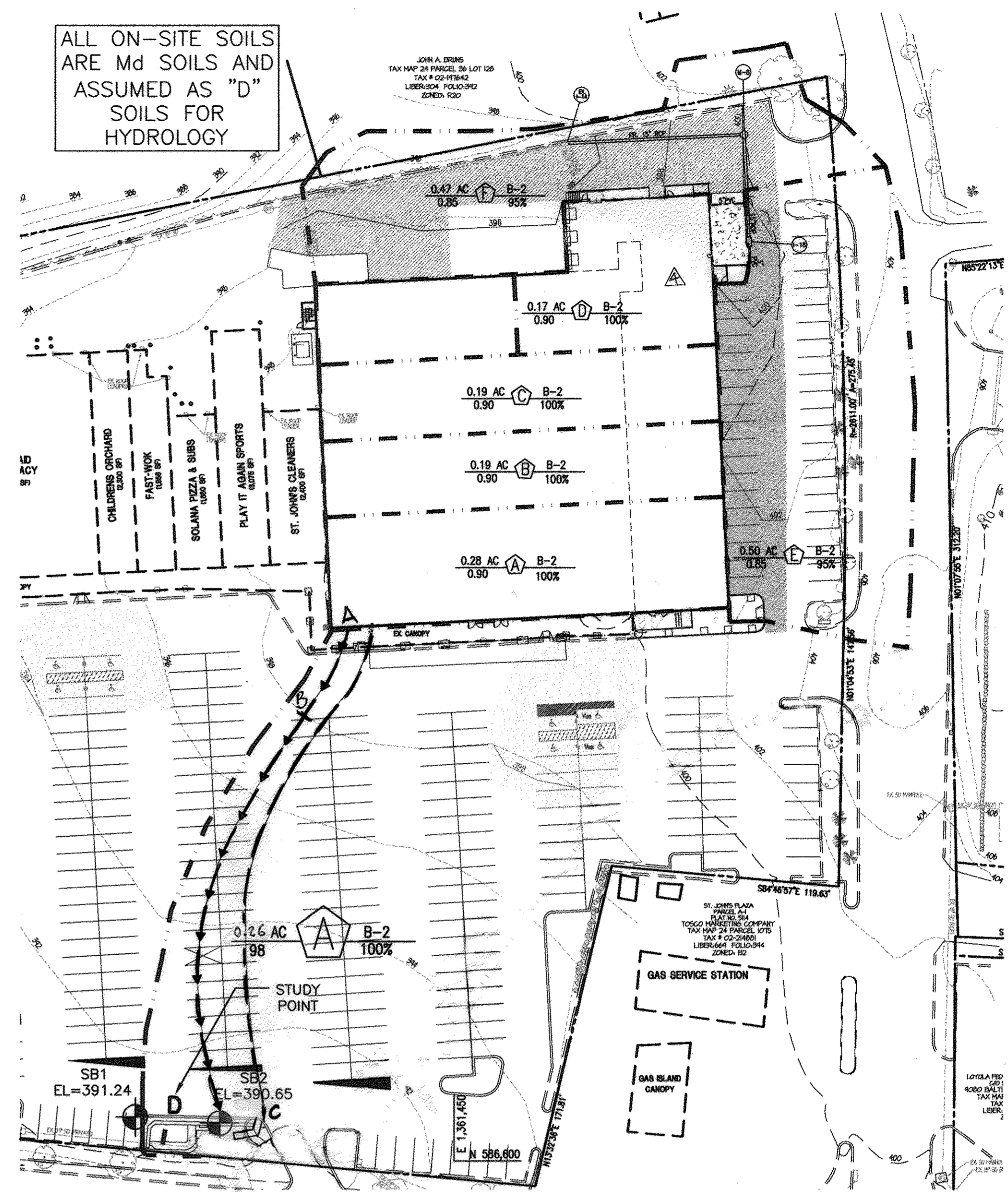
WATER LEVEL: 15.1 Dry  
DATE: 8/24/01  
CAVED IN: 15.8 15.8

GROUND SURFACE ELEVATION: 390.7  
DATUM: MSL  
EQUIPMENT: B-8  
LOGGED BY: TODD  
CHECKED BY: S. Rowe

SAMPLE NUMBER	SAMPLE DEPTH (FT)	SAMPLE RECOVERY (FT)	SAMPLE BLOW COUNT	N (blows)	ELEVATION (FT)	USCS	GEOTECHNICAL SYMBOL	DESCRIPTION	REMARKS
1	0.5	8	3-4	9	390.7	SM		Olive-gray-brown, moist, loose to medium dense, coarse to fine SAND and Clayey SILT. (F9)	Asphalt: 3 in. Roadbed: 1 in.
2	2.5	8	4-4	10	388.2	SM			Wet spon at 18.5 ft.
3	5.0	14	4-4	7	383.2	SM			
4	8.5	7	4-4	9	378.2	SM			
5	13.5	13	10-10	19	373.2	SM		Brown, moist to wet, medium dense to very dense, coarse to fine SAND, little SILT and Rock Fragments.	
6	18.5	14	20-21	36	370.7	SM			

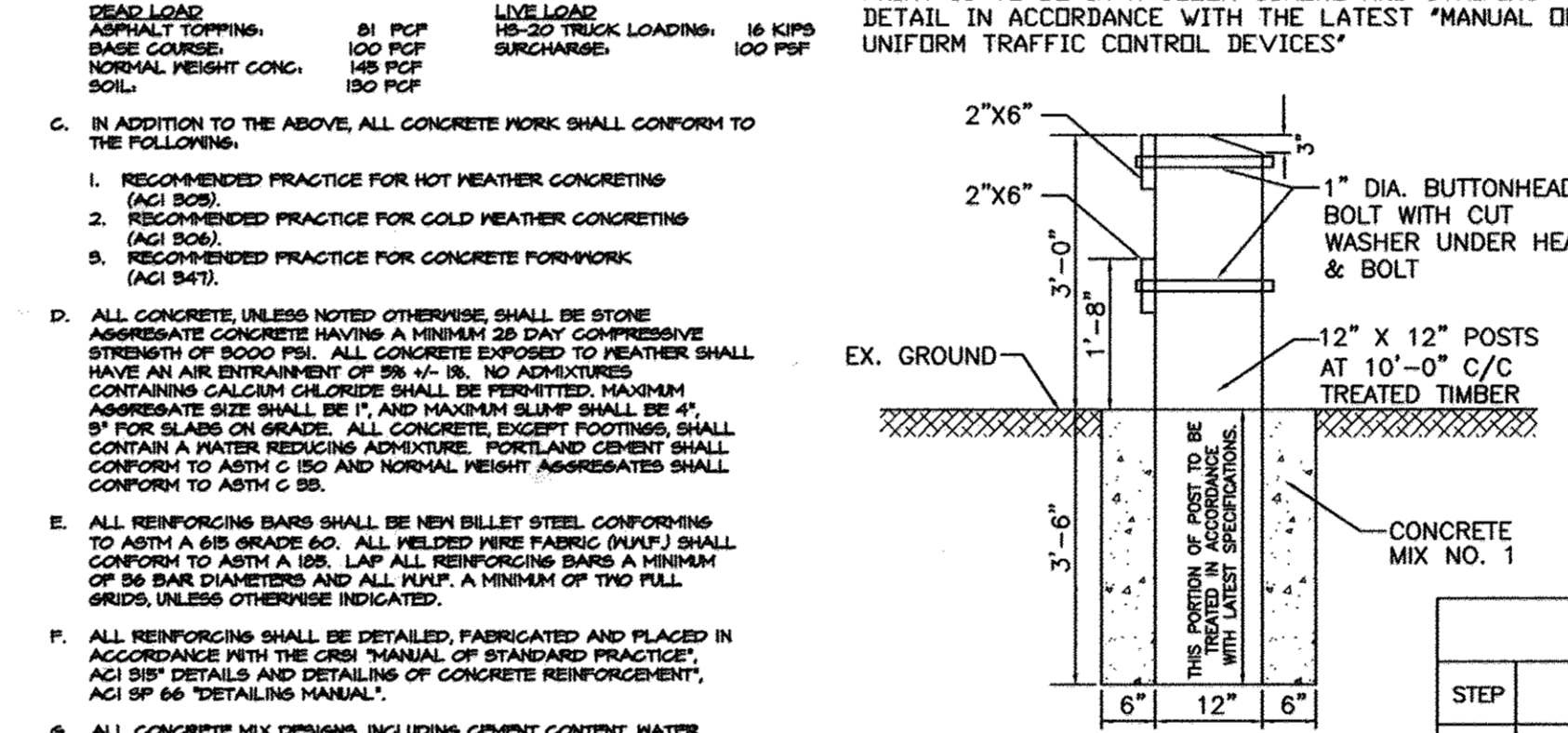
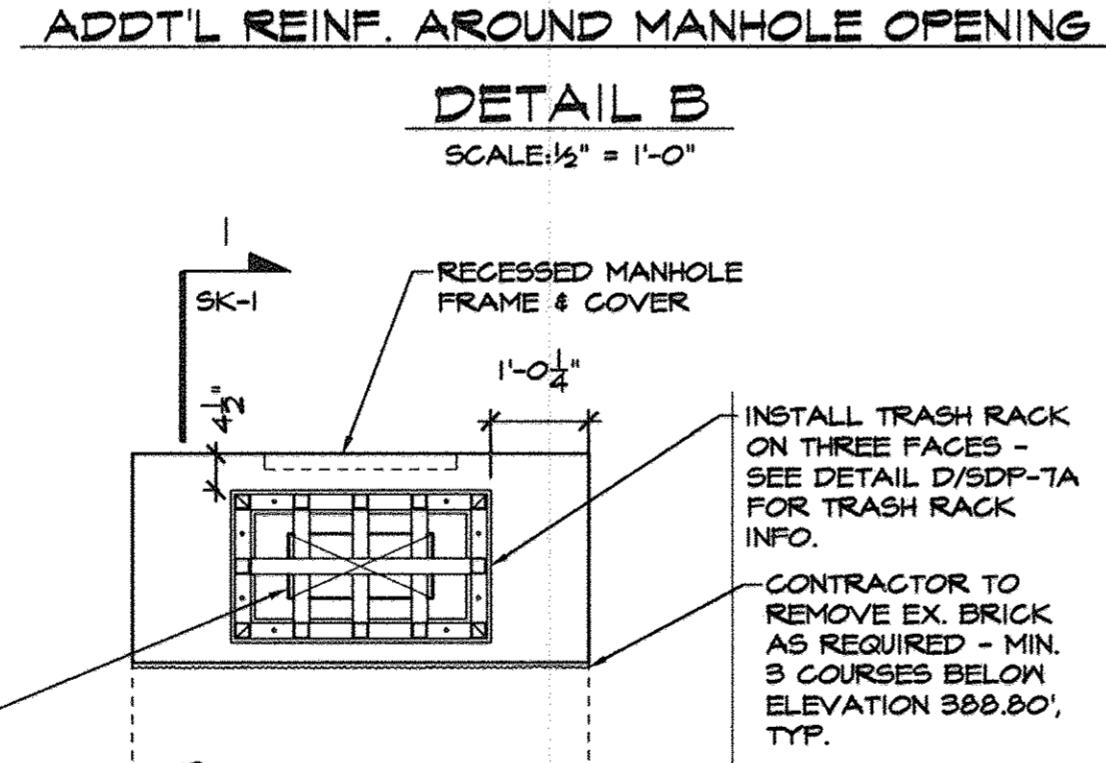
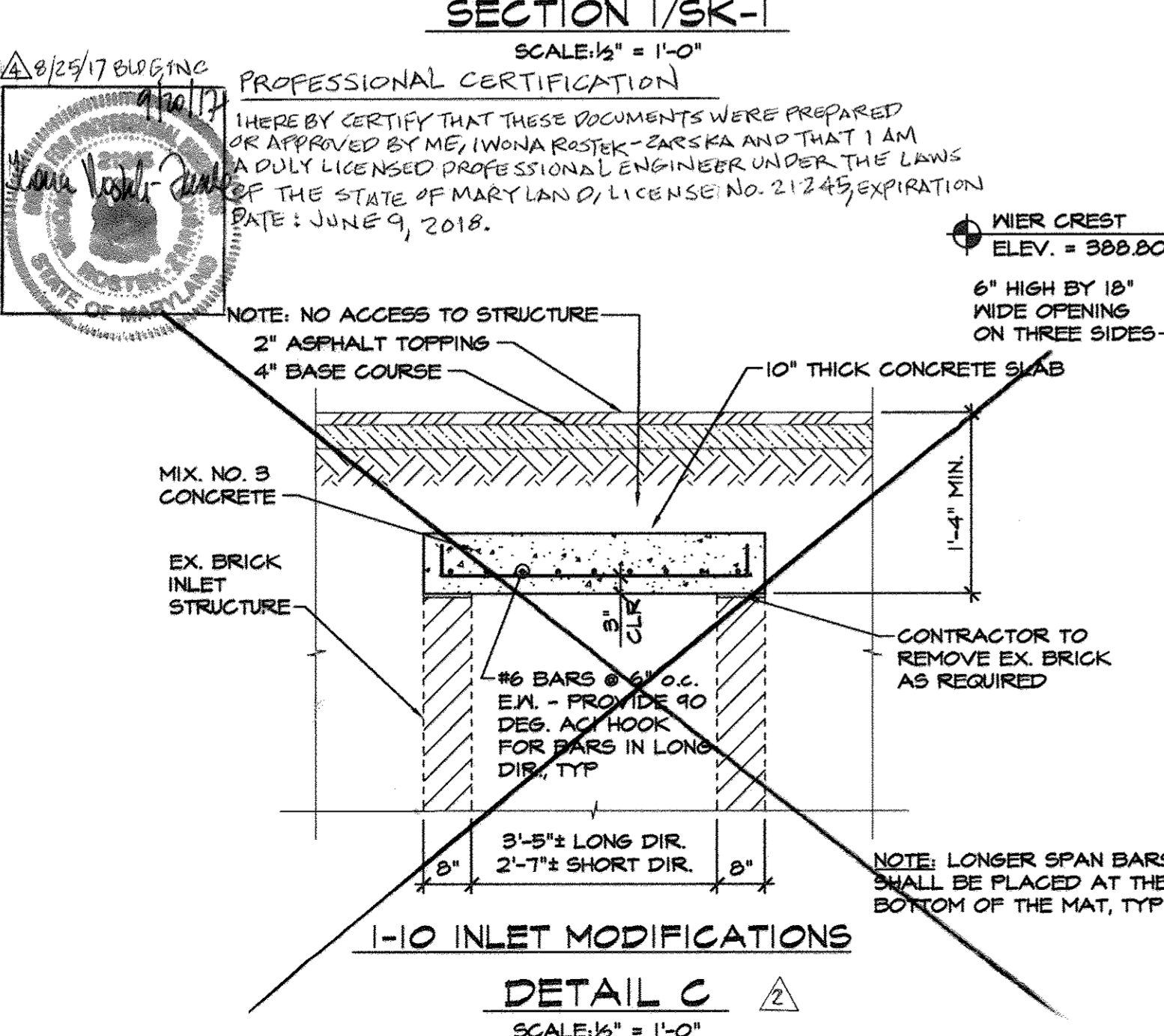
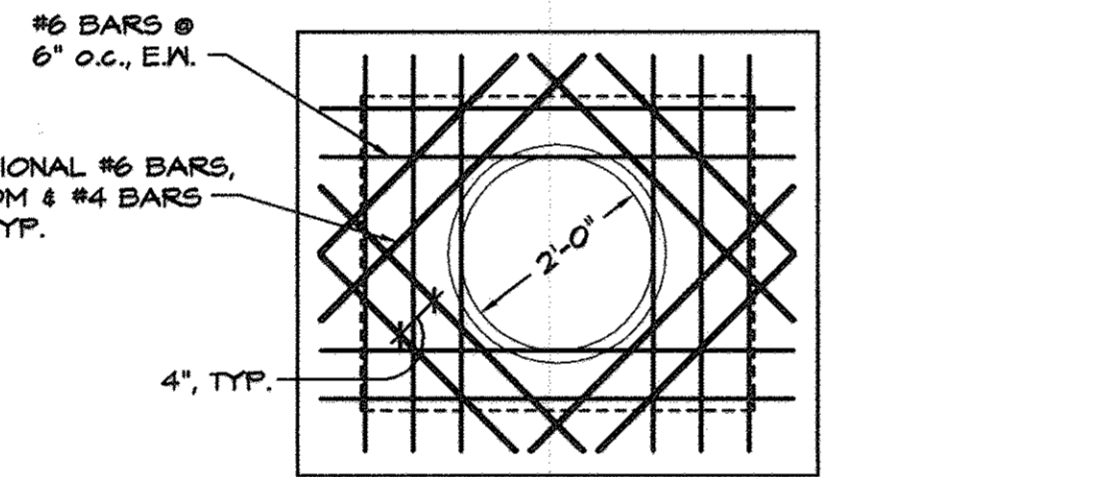
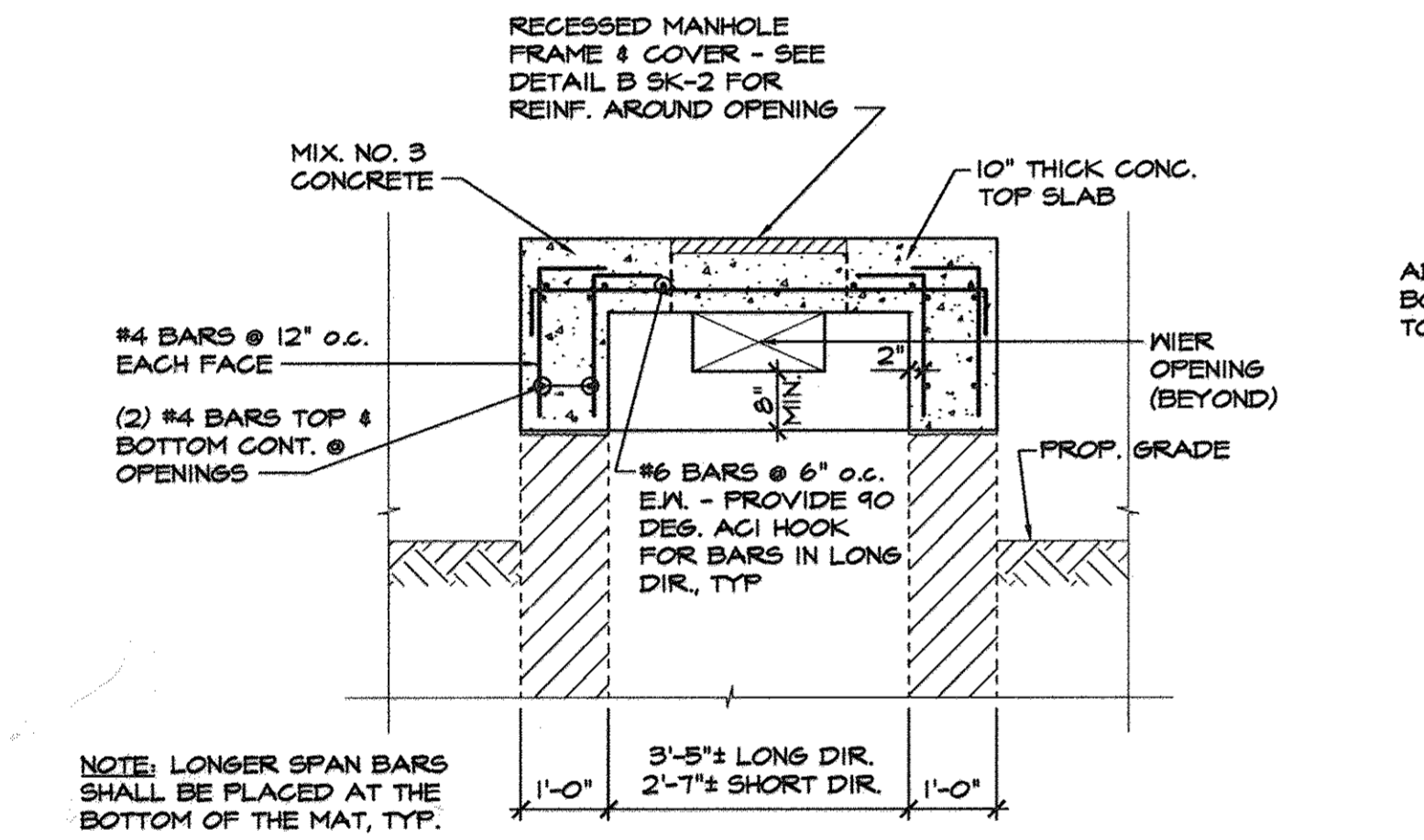
Coordinates:  
N: 586616.0  
E: 1361327.0

NOTES:  
GTA GEO-TECHNOLOGY ASSOCIATES, INC.  
9090 Junction Drive, Suite 9  
Annapolis Junction, MD 20701



FOR ALL SOIL INFORMATION REFER TO REPORT "REPORT OF PRELIMINARY GEOTECHNICAL EXPLORATION - MARS SUPERMARKET EXPANSION" PERFORMED BY GEO-TECHNOLOGY ASSOCIATES, INC. AND DATED ON JULY 12, 2001 AND SEPTEMBER 27, 2001

- STRUCTURAL NOTES**
- ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 308) AND TO THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318).
- DESIGN LOADS:  
DEAD LOAD: 80 PCF  
ASPHALT TOPPING: 100 PCF  
FINISH COURSE: 100 PCF  
NORMAL FLOOR CONC.: 150 PCF  
SOIL: 150 PCF
- LIVE LOAD: 160 PSF  
16 KIPS SURCHARGE: 100 PSF
- IN ADDITION TO THE ABOVE, ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING:  
1. RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING (ACI 308).  
2. RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 308).  
3. RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI 308).
- ALL CONCRETE UNLESS NOTED OTHERWISE SHALL BE STONE AGGREGATE CONCRETE HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR ENTRAINMENT OF 2% +/- .1%. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED. MAXIMUM AGGREGATE SIZE SHALL BE 1" AND MAXIMUM SLUMP SHALL BE 4". 5" FOR SLABS ON GRADE. ALL CONCRETE EXCEPT FOOTINGS SHALL CONTAIN A WATER REDUCING ADMIXTURE. PORTLAND CEMENT SHALL CONFORM TO ASTM C 150 AND NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C 88.
- ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A 618 GRADE 60. ALL HELIX WIRE FABRIC (WAF) SHALL CONFORM TO ASTM A 185. LAP ALL REINFORCING BARS A MINIMUM OF 36 BAR DIAMETERS AND ALL WAF A MINIMUM OF TWO FULL GRIDS, UNLESS OTHERWISE INDICATED.
- ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE CRSI "MANUAL OF STANDARD PRACTICE" ACI 318 DETAILS AND DETAILING OF CONCRETE REINFORCEMENT, ACI 318-05 "DETAILS MANUAL".
- ALL CONCRETE MIX DESIGNS, INCLUDING CEMENT CONTENT, WATER CEMENT RATIO, FINE AND COARSE AGGREGATE CONTENT AND ALL ADMIXTURES, SHALL BE REVIEWED BY ENGINEER PRIOR TO PLACING FIRST CONCRETE.
- ALL CONCRETE SHALL BE SAMPLED AND TESTED BY THE TESTING AGENCY. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO THE PLACEMENT OF ANY CONCRETE.
- THE CONCRETE STRUCTURE SHALL NOT SUPPORT THE DESIGN LIVE LOAD FOR A MINIMUM OF 30 DAYS AND ALL SHORING AND REINFORCING REQUIRED TO SUPPORT THE CONCRETE STRUCTURE DURING CONSTRUCTION SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR. SHOP DRAWINGS, SIGNED AND SEALED BY A REGISTERED ENGINEER IN THE STATE OF MARYLAND, SHALL BE SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL INDICATE THE TYPE, EXTENT, SIZE AND LOCATION OF ALL SHORING AND REINFORCING AS WELL AS THE SEQUENCE OF CONSTRUCTION.
- GROUND BLAST PURCHASE SLAG MAY BE USED TO REPLACE UP TO 50 PERCENT OF THE PORTLAND CEMENT IN A CONCRETE MIX, AND FLY ASH OR POZZOLAN MAY BE USED TO REPLACE UP TO 25 PERCENT OF PORTLAND CEMENT, SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND SHALL CONFORM TO ASTM C 898.
- MINIMUM COVER FOR ALL REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED:  
WALLS BELOW GRADE: 2 INCHES  
SLABS BELOW GRADE: 2 INCHES
- THE GENERAL CONTRACTOR SHALL SUBMIT PLANS SHOWING ALL PENETRATIONS THROUGH THE FINISHED CONCRETE SLABS. THE OPENINGS SHALL BE ACCURATELY LOCATED AND DIMENSIONED.



**GENERAL SWM FACILITY STORAGE REQUIREMENTS (DRAINAGE AREA 'A' ONLY)**

STEP	REQUIREMENT	VOLUME REQUIRED (ac-ft)	NOTES
1	Water Quality Volume (WQV)	0.0135	0.0208 ac-ft provided with sand filter design (min. requirement: 75% of total WQV)
2	Recharge Volume (Rev)	N/A	Not required for redevelopment.
3	Channel Protection Volume (Cov)	N/A	Not required for redevelopment.
4	Overbank Flood Protection Volume (Op)	N/A	Not required for redevelopment. Site not located within designated flood zone areas.
5	Extreme Flood volume (Q)	N/A	Not required for redevelopment. Site not located within designated flood zone areas.

SITE MEETS REDEVELOPMENT DESIGNATION PER MDE SWM CRITERIA. THEREFORE SWM REQUIREMENTS ARE LIMITED TO A 20% REDUCTION IN "SITE" IMPERVIOUS AREA, OR PROVIDING STRUCTURAL WATER QUALITY TREATMENT OF 20% OF THE "SITE" IMPERVIOUS AREA. "SITE" AREA = 37,150 S.F. 20% OF "SITE" AREA = 7,430 S.F. WATER QUALITY VOLUME REQ'D = 588 C.F. (PROVIDED BY SAND FILTER) SAND FILTER LOCATION GOVERNED BY DRAINAGE AREA CONTAINING ADEQUATE IMPERVIOUS AREA TO MEET THE REDUCTION REQUIREMENTS. DA A = 0.26 AC. OR 11,443 S.F. (100% IMPERVIOUS)

**DRAINAGE AREA 'A' FOR SWM: RCH=98, TC=0.10 HR, 100% IMPERVIOUS**

TIME OF CONCENTRATION PATH	PR. DA	SM	PERCENT	SHEET	SMOOTH SURFACE	TC=0.10 HR	
A-B	50'	3.0%			SHALLOW PAVED SURFACE	TC=0.10 HR	
B-C	250'	3.50%			OPEN CHANNEL FLOW	TC=0.005 HR	
C-D	70'	V=4 FPS				TC=0.025 HR	
						TOTAL	TC=0.05 HR

USE MARS-TC-0100HR

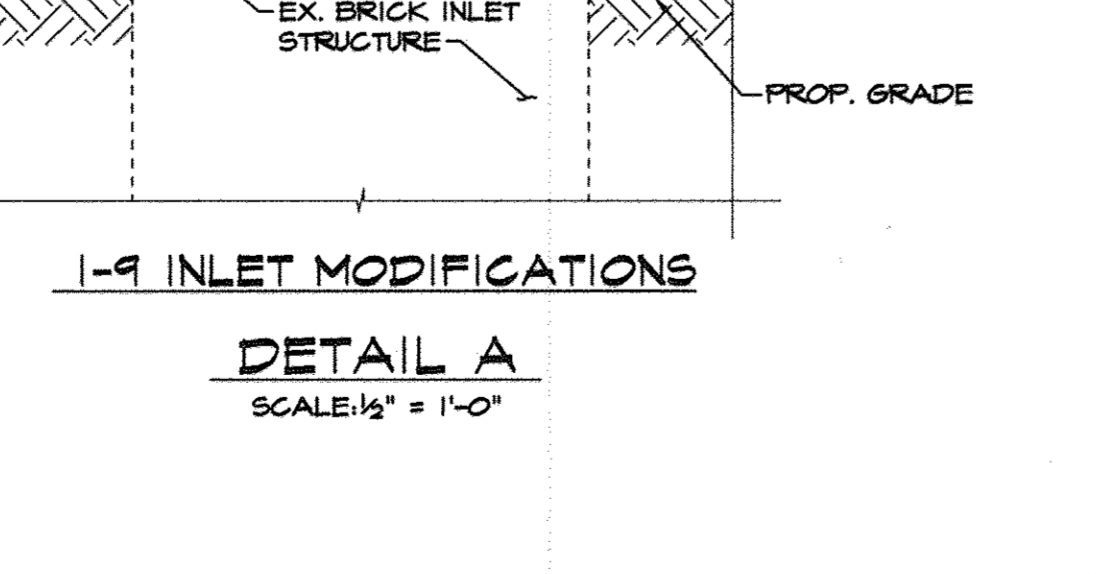
APPROVED DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, JONNA KRATZ - ENR 164 AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21249, EXPIRATION DATE: JUNE 9, 2018.

NOTE: NO ACCESS TO STRUCTURE

2" ASPHALT TOPPING  
4" BASE COURSE

10" THICK CONCRETE SLAB



**OWNER**

A. NAME: Charlotte H. Myers  
B. TELEPHONE: 410-531-3432  
C. COMPANY: Hardman-Myers, Inc.  
D. ADDRESS: P.O. Box 757  
E. CITY: Clarksville STATE: MD ZIP: 21029-0757

**DEVELOPER**

A. NAME: E. Philip Hanlon  
B. TELEPHONE: 410-342-4662  
C. COMPANY: Mars Super Markets, Inc.  
D. ADDRESS: 3401 E. Federal Street  
E. CITY: Baltimore STATE: MD ZIP: 21213-4011

**MORRIS & RITCHE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

8090 JUNCTION DRIVE, SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 792-9792 or (301) 778-1690  
FAX (410) 792-7395

**MARS SUPERMARKET ADDITION  
ST. JOHN'S PLAZA  
SITE DEVELOPMENT PLAN  
SWM DETAIL PLAN**

TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
1/25/12	RELOCATE CURB OPENING AND CONCRETE CHANNEL TO SURFACE SAND FILTER FACILITY. REBUILD INLET 1'-0" DIA. AND 1'-0" DEEP. ADDED A DOOR AT THE REAR OF THE BUILDING WITH A RAMP AND MODIFIED THE EX. SIDE LOADING AREA.	11643.01
8/25/17		SCALE: AS SHOWN
		DATE: 08/07/02
		DRAWN BY: RLZ, TCN
		DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 8 OF 16

**SDP-7A**



REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS.

U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE

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

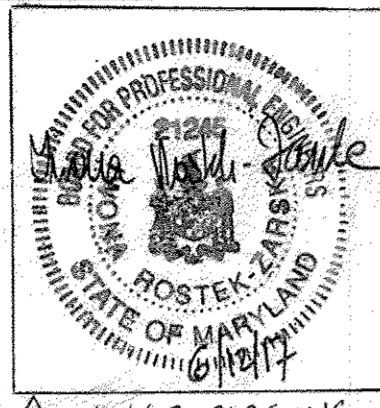
HOWARD S.C.D.

DIVISION OF PROFESSIONAL ENGINEERING... PIERO V. MELLITS No. 21875... REGISTERED PROFESSIONAL ENGINEER

NOTE: THIS PLAN SHALL BE USED FOR SITE GRADING AND SEDIMENT CONTROL ONLY. REFER TO SITE PLAN, LANDSCAPE PLAN, DEMO PLAN AND SWM PLAN FOR ADDITIONAL INFORMATION.

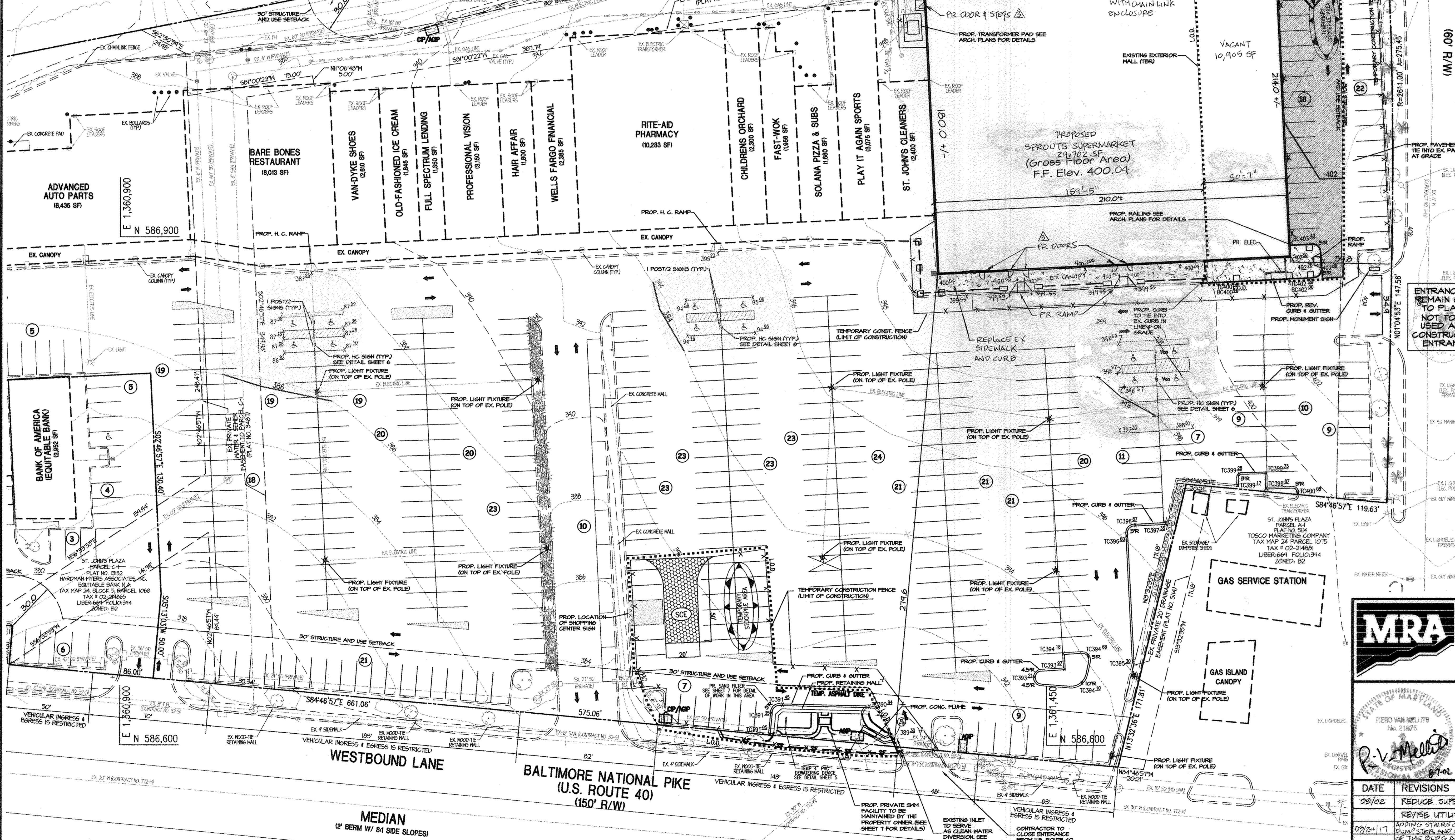


REVISION #1 ONLY PIERO V. MELLITS, P.E. #21875



PROFESSIONAL CERTIFICATION... I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME...

CHATHAM MALL COMPANY... TAX MAP 24 PARCEL 1075 PARCEL A... ZONED: SC



- LEGEND: 404 EX. 2' CONTOUR, 400 EX. 10' CONTOUR, EX. CURB, EX. ROAD/PAVEMENT, EX. CONCRETE PAD, EX. BOLLARDS, EX. BUILDING, EX. PROPERTY LINE, EX. FENCE, EX. WATER LINE, EX. SANITARY SEWER, EX. STORM DRAIN, EX. ELECTRIC LINE, EX. GAS LINE, EX. TELEPHONE LINE, EX. LIGHT/ELEC. POLE, EX. FH/WATER VALVE, EX. TREES/SHRUBS, PR. 15' SD, PR. 6' W, PR. ELEC., PR. GAS, PR. PHONE, 402, 400, PR. 2' CONTOUR, PR. 10' CONTOUR, PR. SPOT ELEVATION, 30' BUILDING SETBACK LINE, HEAVY DUTY PAVEMENT, LIGHT DUTY PAVEMENT, CONCRETE PAVEMENT, PAINTED NO PARKING STRIPING, PROPOSED PARKING SPACES, PROPOSED LIGHTING - POLE AND WALL MOUNTED, PR. LIMIT OF DISTURBANCE, PR. CURB INLET PROTECTION, PR. AT GRADE INLET PROTECTION, PR. SILT FENCE, TEMPORARY ASPHALT DIKE, PR. STONE CONSTRUCTION ENTRANCE, TEMPORARY STOCK PILE AREA

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... P. V. Mellits 8-7-02

BY THE DEVELOPER: I HAVE CERTIFIED THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN... E. Philip Hanlon 8/6/02

APPROVED DEPARTMENT OF PLANNING AND ZONING... Morris & Ritchie Associates, Inc. 8/6/02

MORRIS & RITCHIE ASSOCIATES, INC. ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS. 9080 JUNCTION DRIVE, SUITE 9 ANNAPOLIS JUNCTION, MARYLAND 20701

MARS SUPERMARKET ADDITION ST. JOHN'S PLAZA SITE DEVELOPMENT PLAN GRADING & SEDIMENT CONTROL PLAN TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1) SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

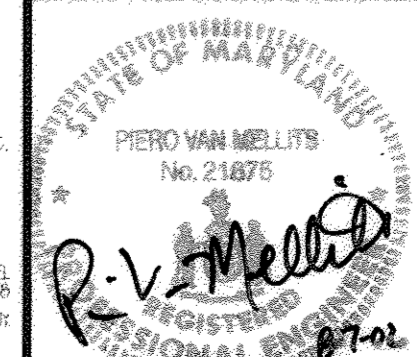


Table with columns: DATE, REVISIONS, JOB NO.: 11643.01, SCALE: 1" = 30', DATE: 08/07/02, DRAWN BY: RLZ, TCN, DESIGN BY: TCN, REVIEW BY: PVM, SHEET: 4 OF 16

SDP-4







**STANDARDS AND SPECIFICATION FOR TOPSOIL**

**DEFINITION**  
 PLACEMENT OF TOPSOIL OVER A PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.

**PURPOSE**  
 TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW NUTRIENT CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIAL TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.

**CONDITIONS WHERE PRACTICE APPLIES**

- THIS PRACTICE IS LIMITED TO AREAS HAVING 24 OR FLATTER SLOPES WHERE:
  - THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT SUITABLE TO PRODUCE VEGETATIVE GROWTH.
  - THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF HUMUS AND PLANT NUTRIENTS.
  - THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
  - THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
- FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 24 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREA HAVING SLOPES STEEPER THAN 24 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.

**CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY THE DEPTH OF TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN REPRESENTATIVE SOIL PROFILE SECTIONS IN THE SURVEY PUBLISHED BY USDA-SCS IN COOPERATION WITH MARYLAND AGRICULTURAL EXPERIMENTAL STATION.
- TOPSOIL SPECIFICATIONS-SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING:
  - TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE APPROPRIATE AUTHORITY. REGARDLESS TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSTRATES WHICH CONTAIN LESS THAN 5% BY VOLUME OF CINDERS, STONES, SLAG, COARSE FRAGMENTS, GRAVELS, STICKS, ROOTS, TWIGS, OR OTHER MATERIALS LARGER THAN 1/4" IN DIAMETER.
  - TOPSOIL MUST BE FREE OF PLANTS OR PLANT PARTS SUCH AS BERMUDA GRASS, QUICKGRASS, JOHNSONGRASS, NUTCRACK, PRISON Ivy, THISTLE, OR OTHER WEEDS.
  - WHERE THE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED OF HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 POUNDS PER 1000 SF) PRIOR TO THE PLACEMENT OF TOPSOIL. THE SUBSOIL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.

**FOR SITE HAVING DISTURBED AREAS UNDER 5 ACRES**

- PLACE TOPSOIL OF REQUIRED AND APPLY SOIL AMENDMENTS AS SPECIFIED IN SOIL VEGETATIVE STABILIZATION-SECTION I-VEGETATIVE STABILIZATION METHODS AND MATERIALS.
- TOPSOIL APPLICATION
  - WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH BIKES, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
  - GRADES IN THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED, SHALL BE MAINTAINED, ALTHOUGH 4"-6" HIGHER IN ELEVATION.
  - TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4"-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SOILING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY ADDITIONAL SOIL PREPARATION AND TILLAGE SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- TOPSOIL SHALL NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MOIST CONDITION. TOPSOIL COMPACTED EXCESSIVELY VET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDING PREPARATION.

**ALTERNATIVE FOR PERMANENT SEEDING-STEAD OF APPLYING THE FULL AMOUNTS OF LINE AND COMMERCIAL FERTILIZER**

- COMPOSTED SLUDGE MATERIAL FOR USE AS SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO PREASURE AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
  - COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED AT THE TIME OF ACQUISITION OF THE COMPOST BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT UNDER COM 26.04.06.
  - COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1 PERCENT NITROGEN, 1.5 PERCENT PHOSPHORUS, AND 0.2 PERCENT POTASSIUM AND HAVE A PH OF 7.0 TO 8.0. COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
  - COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1000 SF.
- COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4LB/1000 SF, AND 1/3 THE NORMAL LINE APPLICATION RATE.

**RECOMMENDED GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SEEDING, NOVVA PUB. #11 COOPERATIVE EXTENSION SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTE, REVISED 1978.**

**STANDARDS AND SPECIFICATIONS FOR LAND GRADING**

**DEFINITION**  
 RESHAPING OF THE EXISTING LAND SURFACE IN ACCORDANCE WITH A PLAN AS DETERMINED BY ENGINEERING SURVEY AND LAYOUT.

**PURPOSE**  
 THE PURPOSE OF A LAND GRADING SPECIFICATION IS TO PROVIDE FOR EROSION CONTROL AND VEGETATIVE ESTABLISHMENT ON THESE AREAS WHERE THE EXISTING LAND SURFACE IS TO BE RESHAPED BY GRADING ACCORDING TO PLAN.

**DESIGN CRITERIA**

THE GRADING PLAN SHOULD BE BASED UPON THE INCORPORATION OF BUILDING DESIGNS AND STREET LAYOUTS THAT FIT AND UTILIZE EXISTING TOPOGRAPHY AND DESIRABLE MATERIAL TO AVOID EXTREME GRADE MODIFICATIONS. INFORMATION SUBMITTED MUST PROVIDE SUFFICIENT TOPOGRAPHIC SURVEYS AND INVESTIGATIONS TO DETERMINE LIMITATIONS THAT MUST BE IMPROVED ON THE GRADING OPERATION RELATED TO SLOPE STABILITY, EFFECT ON ADJACENT PROPERTIES AND DRAINAGE PATTERNS, MEASURES FOR DRAINAGE AND WATER REMOVAL AND VEGETATIVE TREATMENT, ETC.

MANY COUNTIES HAVE REGULATIONS AND DESIGN PROCEDURES ALREADY ESTABLISHED FOR LAND GRADING AND CUT AND FILL SLOPES. WHERE THESE REQUIREMENTS EXIST, THEY SHALL BE FOLLOWED. THE PLAN MUST SHOW EXISTING AND PROPOSED CONTOURS OF THE AREAS TO BE GRADED. THE PLAN SHALL ALSO INCLUDE PRACTICES FOR EROSION CONTROL, SLOPE STABILIZATION, SAFE DISPOSAL OF RUNOFF WATER AND DRAINAGE, SUCH AS WATERWAYS, LINEAR BIKES, REVERSE SLOPE BENCHES, GRADE AND CROSS SECTION, GRADE STABILIZATION STRUCTURES, RETAINING WALLS, AND SURFACE AND SUBSURFACE DRAINAGE. THE PLAN SHALL ALSO INCLUDE PHASING OF THESE PRACTICES. THE FOLLOWING SHALL BE INCORPORATED INTO THE PLAN:

- PROVISIONS SHALL BE MADE TO SAFELY CONDUIT SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABLE WATER COURSES TO INSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS.
- CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASSES SHALL NOT BE STEEPER THAN 2:1, WHERE THE SLOPE IS TO BE MOVED THE SLOPE SHOULD BE NO STEEPER THAN 3:1. 4:1 TO 5:1 SLOPES EXCEEDING 20 FEET VERTICAL INTERVAL (HEIGHT) OF ANY 2:1 SLOPE EXCEEDING 20 FEET FOR 3:1 SLOPE IT SHALL BE INCREASED TO 30 FEET AND FOR 4:1 TO 40 FEET, BENCHES SHALL BE USED TO DIVIDE THE SLOPE FACE AS EQUALLY AS POSSIBLE AND SHALL CONVEY THE WATER TO A STABLE OUTLET. SLOPES, SEEPS, ROCK OUTCROPS, ETC. SHALL ALSO BE TAKEN INTO CONSIDERATION WHEN DESIGNING BENCHES.
  - BENCHES SHALL BE A MINIMUM OF SIX FEET WIDE TO PROVIDE FOR EASE OF MAINTENANCE.
  - BENCHES SHALL BE DESIGNED WITH A REVERSE SLOPE OF 6:1 FROM TOE TO PLACEMENT OF TOPSOIL. THE UPPER SLOPE AND WITH A MINIMUM OF ONE FOOT IN DEPTH. BENCH SHALL BE PROTECTED FROM SURFACE RUNOFF UNTIL THEY ARE STABILIZED.
  - THE FLOW LENGTH WITHIN A BENCH SHALL NOT EXCEED 100 FEET. BENCHES SHALL BE DESIGNED TO ACCOMMODATE COMPUTATIONS. FOR FLOW CHANNEL STABILIZATION SEE TEMPORARY SLOPE.
- SURFACE WATER SHALL BE DIVERTED FROM THE FACE OF ALL CUT AND/OR FILL SLOPES BY THE USE OF EARTH BIKES, DITCHES AND SWALES OR CONVEYED DOWNSLOPE BY THE USE OF A DESIGNED STRUCTURE, EXCEPT WHERE OTHERWISE SPECIFIED.
  - THE FACE OF THE SLOPE IS OR SHALL BE STABILIZED AND THE FACE OF ALL GRADED SLOPES SHALL BE PROTECTED FROM SURFACE RUNOFF UNTIL THEY ARE STABILIZED.
  - THE FACE OF SLOPE SHALL NOT BE SUBJECT TO ANY CONCENTRATED FLOWS OF SURFACE WATER SUCH AS FROM NATURAL DRAINAGEWAYS, GRADED SWALES, DOWNSPOUTS, ETC.
  - THE FACE OF THE SLOPE WILL BE PROTECTED BY SPECIAL EROSION CONTROL MATERIALS, TO INCLUDE, BUT NOT LIMITED TO APPROVED VEGETATIVE STABILIZATION PRACTICES (SEE SECTION D), RIP-RAP OR OTHER APPROVED STABILIZATION METHODS.
- CUT SLOPES OCCURRING IN RIPABLE ROCK SHALL BE SERRATED AS SHOWN ON THE FOLLOWING DIAGRAM. THESE SERRATIONS SHALL BE MADE WITH CONSTRUCTION EQUIPMENT AS THE EXCAVATION IS MADE. EACH STEP OR SERRATION SHALL BE CONSTRUCTED ON THE CONTIGUOUS SLOPE STEPS CUT AT NOMINAL TWO-FOOT INTERVALS WITH NOMINAL THREE-FOOT HORIZONTAL SHELVES. THESE STEPS WILL VARY DEPENDING ON THE SLOPE RATIO OR THE CUT SLOPE. THE NOMINAL SLOPE LINE IS 1:1. THESE STEPS WILL WEATHER AND ACT TO HOLD MOISTURE, LINE, FERTILIZER AND SEED TRAPS, PRODUCING A HIGH QUICKER AND LONGER LIVED VEGETATIVE COVER AND BETTER SLOPE STABILIZATION. OVERLAND FLOW SHALL BE DIVERTED FROM THE TOP OF ALL SERRATED CUT SLOPES AND CARRIED TO A SUITABLE OUTLET.
- SUBSURFACE DRAINAGE SHALL BE PROVIDED WHERE NECESSARY TO INTERCEPT SEEPAGE THAT WOULD OTHERWISE ADVERSELY AFFECT SLOPE STABILITY OR CREATE EXCESSIVELY VET SITE CONDITIONS.
- SLOPES SHALL NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJACENT PROPERTIES WITHOUT ADEQUATELY PROTECTING SUCH PROPERTIES AGAINST SEDIMENTATION, EROSION, SLIPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED DAMAGES.
- FILL MATERIAL SHALL BE FREE OF BRUSH, RUBBISH, ROCKS, LOGS, STUMPS, BUILDING DEBRIS, AND OTHER UNDESIRABLE MATERIALS. IT SHALL BE FREE OF STONES OVER TWO (2) INCHES IN DIAMETER WHERE COMPACTED BY HAND OR MECHANICAL TAMPERS OR OVER EIGHT (8) INCHES IN DIAMETER WHERE COMPACTED BY ROLLERS OR OTHER EQUIPMENT. FROZEN MATERIAL SHALL NOT BE PLACED IN THE FILL NOR SHALL THE FILL MATERIAL BE PLACED ON A FROZEN FOUNDATION.
- STOCKPILES, BORROW AREAS AND SPOIL SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATIONS.
- ALL DISTURBED AREAS SHALL BE STABILIZED STRUCTURALLY OR VEGETATIVELY IN COMPLIANCE WITH SOIL STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION.

**VEGETATIVE STABILIZATION**

**PERMANENT AND TEMPORARY SEEDING, SOODING AND MULCHING**

**I. SITE PREPARATION**  
 PERMANENT OR TEMPORARY VEGETATION SHALL BE ESTABLISHED WITHIN SEVEN (7) DAYS ON THE SURFACE OF ALL SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BIKES, WATERWAYS, SEDIMENT CONTROL BASINS, AND ALL SLOPES GREATER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) AND WITHIN 14 DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE. MULCHING MAY ONLY BE USED IN JUSTIFIED AREAS WHERE VEGETATIVE COVER WHERE VEGETATION IS NOT FEASIBLE OR WHERE SEEDING CAN NOT BE COMPLETED BECAUSE OF WEATHER.

**II. SEEDING PREPARATION AND SEEDING APPLICATION**  
 LOOSEN THE TOP LAYER OF THE SOIL TO A DEPTH OF 3 TO 5 INCHES BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT SUCH AS DISC HARROWS, CHISEL PLOWS OR RIPPERS MOUNTED ON CONSTRUCTION EQUIPMENT. INCORPORATE THE LINE AND FERTILIZER INTO THE TOP 3 TO 5 INCHES OF THE SOIL BY DISCING OR BY OTHER SUITABLE MEANS. ROUGH AREAS SHOULD NOT BE ROLLED OR BRANDED SMOOTH, BUT LEFT IN A COARSE CONDITION. STEEP SLOPES GREATER THAN 3:1 SHOULD BE TRACKED BY A RIDGE, LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL. SHOULD BE LOOSE AND FRIABLE. PERMANENT COVER MAY REQUIRE AN APPLICATION OF TOPSOIL. IF SO, IT MUST MEET THE REQUIREMENTS SET FORTH IN SECTION 6.10 STANDARDS AND SPECIFICATIONS FOR TOPSOIL FROM THE 1994 STANDARDS AND SPECIFICATIONS.

**III. SOIL AMENDMENTS**  
 SOIL TESTS SHALL BE MADE ON SITES OVER FIVE ACRES TO DETERMINE THE EXACT REQUIREMENTS FOR BOTH LINE AND FERTILIZER. FOR SITES UNDER 5 ACRES, IN LIEU OF A SOIL TEST, APPLY THE FOLLOWING:  
 FERTILIZER NITROGEN 2 LBS/1000 SF (90 LBS/AC)  
 P2O5 1 LBS/1000 SF (45 LBS/AC)  
 K2O 1 LBS/1000 SF (45 LBS/AC)  
 GROUND LIMESTONE 2 TONS/AC

**IV. SEDIMENT CONTROL PRACTICE SEEDING**

SELECT A SEEDING MIXTURE FROM TABLE 25 OR 26 IN SECTION 6.0 OF THE 1994 STANDARDS AND SPECIFICATIONS. DOCUMENT SEEDING ON THE EROSION AND SEDIMENT CONTROL PLAN USING APPROPRIATE CHART BELOW.  
 NOTE: IF SEDIMENT CONTROL PRACTICES ARE IN FOR LONGER THAN 12 MONTHS, PERMANENT SEEDING IS REQUIRED.

**V. TEMPORARY/PERMANENT SEEDING MIXTURES AND RATES**

TEMPORARY SEEDING SUMMARY		FERTILIZER RATE (10-10-10)		LINE RATE		
NO.	SPECIES	APPLICATION RATE (LBS/AC)	SEEDING DATE	SEEDING DEPTH		
1	BARLEY OR RYE PLUS FXTAIL MILLET	8/15-11/30	8/15-11/30	1/4"-1/2"	600 LBS/AC (15 LBS/1000 SF)	2 TONS/AC (100 LBS/1000 SF)

**PERMANENT SEEDING SUMMARY**

SEED MIXTURE/HARDNESS ZONE 7a)		FERTILIZER RATE (10-10-10)		LINE RATE		
NO.	SPECIES	APPLICATION RATE (LBS/AC)	SEEDING DATE	SEEDING DEPTH		
3	TALL FESCUE (85%) CHEWINGS FESCUE (10%) KENTUCKY BLUE GRASS (5%)	8/15-11/30	8/15-11/30	1/4"-1/2"	2 LB/AC 1 LB/AC 1 LB/AC	8 TONS/AC (400 LB/AC) 1000 SF

**VI. TURFGRASS ESTABLISHMENT**

THIS INCLUDES LAWNS, PARKS, PLAYGROUNDS, AND COMMERCIAL SITES WHICH WILL RECEIVE A MINIMUM TO HIGH LEVEL OF MAINTENANCE. AREA TO RECEIVE SEED SHALL BE TILLED BY DISCING OR BY OTHER MEANS TO A DEPTH OF 3 TO 5 INCHES. LEVELLED AND RANKE TO PREPARE A PROPER SEEDBED. STONES AND DEBRIS OVER 1/2 INCHES IN DIAMETER SHALL BE REMOVED. THE RESULTING SEEDBED SHALL BE IN SELECTED FROM THE LIST IN THE MOST CURRENT UNIVERSITY OF MARYLAND PUBLICATION, AGRONOMY #877, "TURFGRASS CULTIVAR RECOMMENDATIONS FOR MARYLAND".

**VI. MULCHING**

ALL SEEDING REQUIRE MULCHING. ALSO MULCH DURING NON-SEEDING DATES. UNLESS SEEDING CAN BE DONE IMMEDIATELY, A MULCH ANCHORING TIE, IS USED. APPROX 2.5 TONS/ACRE. MULCH MATERIAL SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE COMPLETELY FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH UNIFORMLY, MECHANICALLY OR BY HAND, TO A DEPTH OF 1-2 INCHES. MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY MULCH NETTINGS, MULCH ANCHORING TIE, WOOD CELLULOSE FIBER OR LIQUID MULCH BINDERS.

APPLY WOOD CELLULOSE FIBER AT A DRY WEIGHT OF 1,500 LBS/ACRE. IF MIXED WITH WATER, USE 50 LBS. OF WOOD CELLULOSE FIBER PER 1000 GALLONS OF WATER.

LIQUID BINDER SHOULD BE APPLIED HEAVIER AT THE EDGE, WHERE WIND CATCHES MULCH IN VALLEYS, AND ON CREST OF BANKS. THE REMAINDER OF THE AREA SHOULD APPEAR UNIFORM AFTER BINDER APPLICATION. APPLY RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR AND MULCH. STABLE LIGHT WEIGHT, PLASTIC NETTING OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

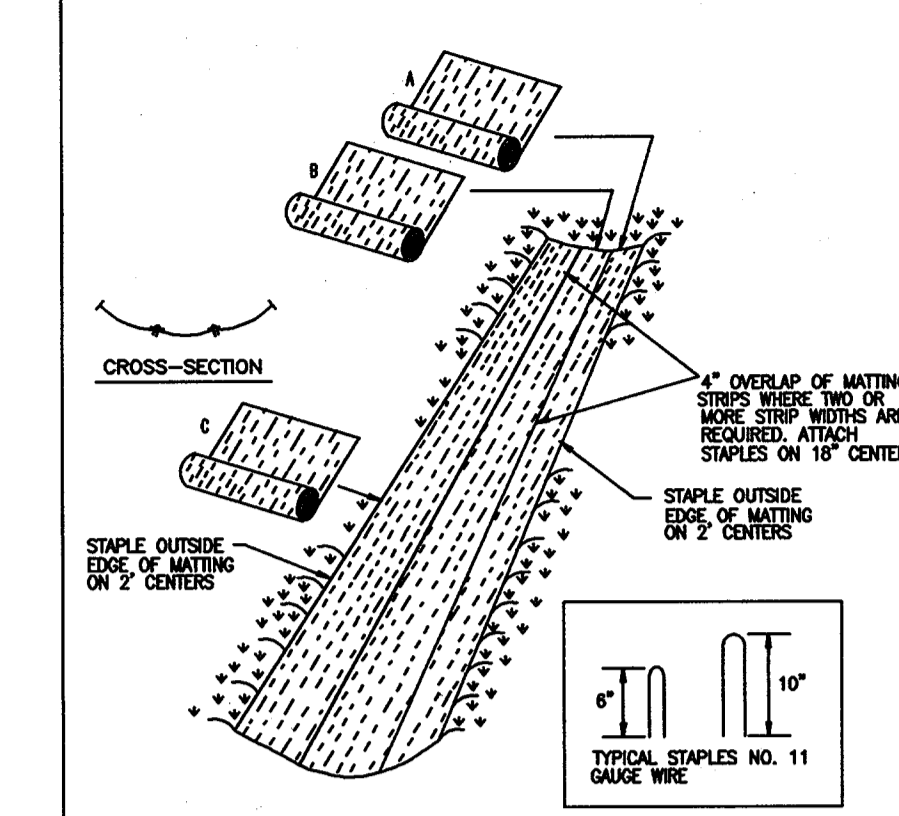
**VII. GOODNESS**  
 TURFGRASS SOD SHALL BE MARYLAND OR VIRGINIA STATE CERTIFIED, OR MARYLAND OR VIRGINIA STATE APPROVED SOD. SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS. SOD IS TO BE LAID WITH THE LONG EDGES PARALLEL TO THE CONTIGUOUS USING STAGGERED JOINTS WITH ALL EDGES TIGHTLY ABUTTED AND NOT OVER LAPPING. SOD SHALL BE ROLLED AND MAINTAINED WATERED AFTER INSTALLATION. DAILY WATERING TO MAINTAIN A 1/2" DEPTH OF MOISTURE FOR THE FIRST 30 DAYS IS REQUIRED IN THE ABSENCE OF RAINFALL. SOD IS NOT TO BE APPLIED ON FROZEN GROUND.

**IX. MAINTENANCE**

- IRRIGATE-APPLY MINIMUM 1" OF WATER EVERY 3 TO 4 DAYS DEPENDING ON SOIL TEXTURE, WHEN SOIL MOISTURE BECOMES DEFICIENT TO PREVENT LOSS OF STAND OF PROTECTIVE VEGETATION.
- REPAIRS-IF STAND PROVIDES BETWEEN 40% TO 60% COVER, OVERSEED AND FERTILIZER USING HALF OF THE RATES ORIGINALLY APPLIED. IF STAND PROVIDES LESS THAN 40% COVER, REESTABLISH AND STAND FOLLOWING ORIGINAL RATES AND PROCEDURES.

NOTE: USE OF THIS INFORMATION DOES NOT PRECLUDE MEETING ALL OF THE REQUIREMENTS OF THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL VEGETATIVE PRACTICES.

**DETAIL 30 - EROSION CONTROL MATTING**



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**EROSION CONTROL MATTING**

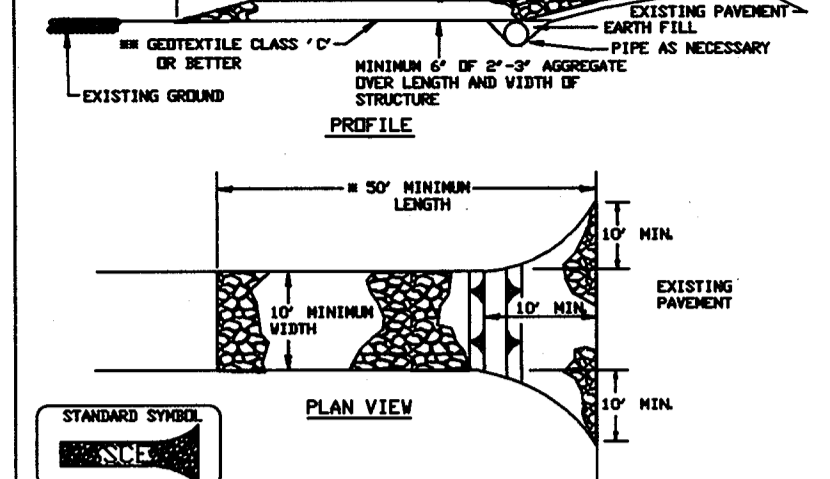
**CONSTRUCTION SPECIFICATIONS**

- KEY-IN THE MATTING BY PLACING THE TOP ENDS OF THE MATTINGS IN A NARROW TRENCH, 6" IN DEPTH. BACKFILL THE TRENCH AND TAMP FIRMLY TO CONFORM TO THE CHANNEL CROSS-SECTION. SECURE WITH A ROW OF STAPLES ABOUT 4" DOWN SLOPE FROM THE TRENCH. SPACING BETWEEN STAPLES IS 6".
- STAPLE THE 4" OVERLAP IN THE CHANNEL CENTER USING AN 18" SPACING BETWEEN STAPLES.
- BEFORE STAPLING THE OUTER EDGES OF THE MATTING, MAKE SURE THE MATTING IS SMOOTH AND IN FIRM CONTACT WITH THE SOIL.
- STAPLES SHALL BE PLACED 2' APART WITH 4 ROWS FOR EACH STRIP, 2 OUTER ROWS, AND 2 ALTERNATING ROWS DOWN THE CENTER.
- WHERE ONE ROLL OF MATTING ENDS AND ANOTHER BEGINS, THE END OF THE TOP STRIP SHALL OVERLAP THE UPPER END OF THE LOWER STRIP BY 4". SIMILAR FASHION, REINFORCE THE OVERLAP WITH A DOUBLE ROW OF STAPLES SPACED 6" APART IN A STAGGERED PATTERN ON EITHER SIDE.
- THE DISCHARGE END OF THE MATTING LINER SHOULD BE SIMILARLY SECURED WITH 2 DOUBLE ROWS OF STAPLES.

NOTE: IF FLOW WILL ENTER FROM THE EDGE OF THE MATTING THEN THE AREA EFFECTED BY THE FLOW MUST BE KEYED-IN.

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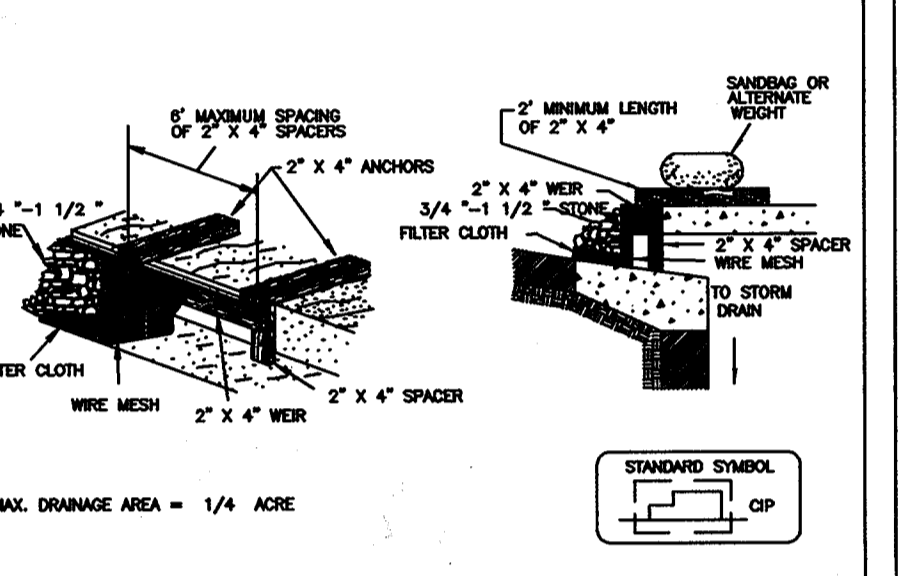
**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**



- Length - minimum of 50' (200' for single residence lot).
- Width - 10' minimum, should be flared at the existing road to provide a turning radius.
- Geotextile fabric (Fibrex cloth) shall be placed over the existing ground prior to placing stone. Stone shall be placed over the geotextile fabric.
- Stone - crushed aggregate (2" to 3") or recycled or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
- Surface water - all surface water flowing to or diverted toward construction activities shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a concrete curb with 1/2" slope and a minimum of 6" of stone over the pipe. Pipe has to be staked according to the drainage. When the SCS is located at a high spot and has no drainage to convey a pipe still will not be necessary. Pipe should be secured according to the amount of runoff to be conveyed. A 6" minimum will be required.
- Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicle leaving the site must travel over the entire length of the stabilized construction entrance.

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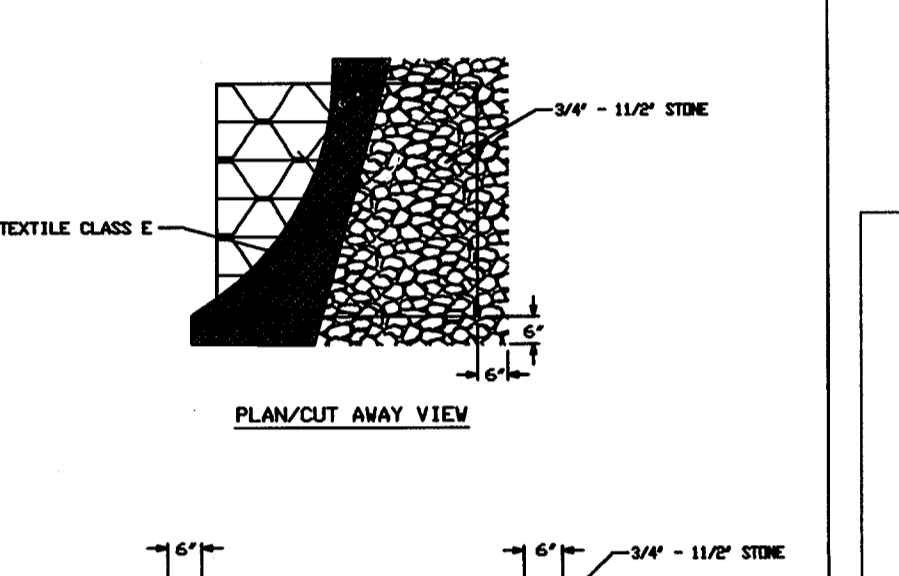
**DETAIL 23C - CURB INLET PROTECTION (CGD OR CDS INLETS)**



- Place a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2' x 4" curb (connecting throat length plus 2") on shown on the standard drawing.
- Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2' x 4" curb.
- Securely nail the 2' x 4" curb to a 6" long vertical support to be located between the curb and the inlet face (max. 4" apart).
- Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the curb on both sides of the curb. Place clean 3/4" x 1/2" x 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
- The type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- Assure that storm flow does not bypass the curb by installing a temporary curb or support aside to direct the flow to the inlet.

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**DETAIL 23B - AT GRADE INLET PROTECTION**



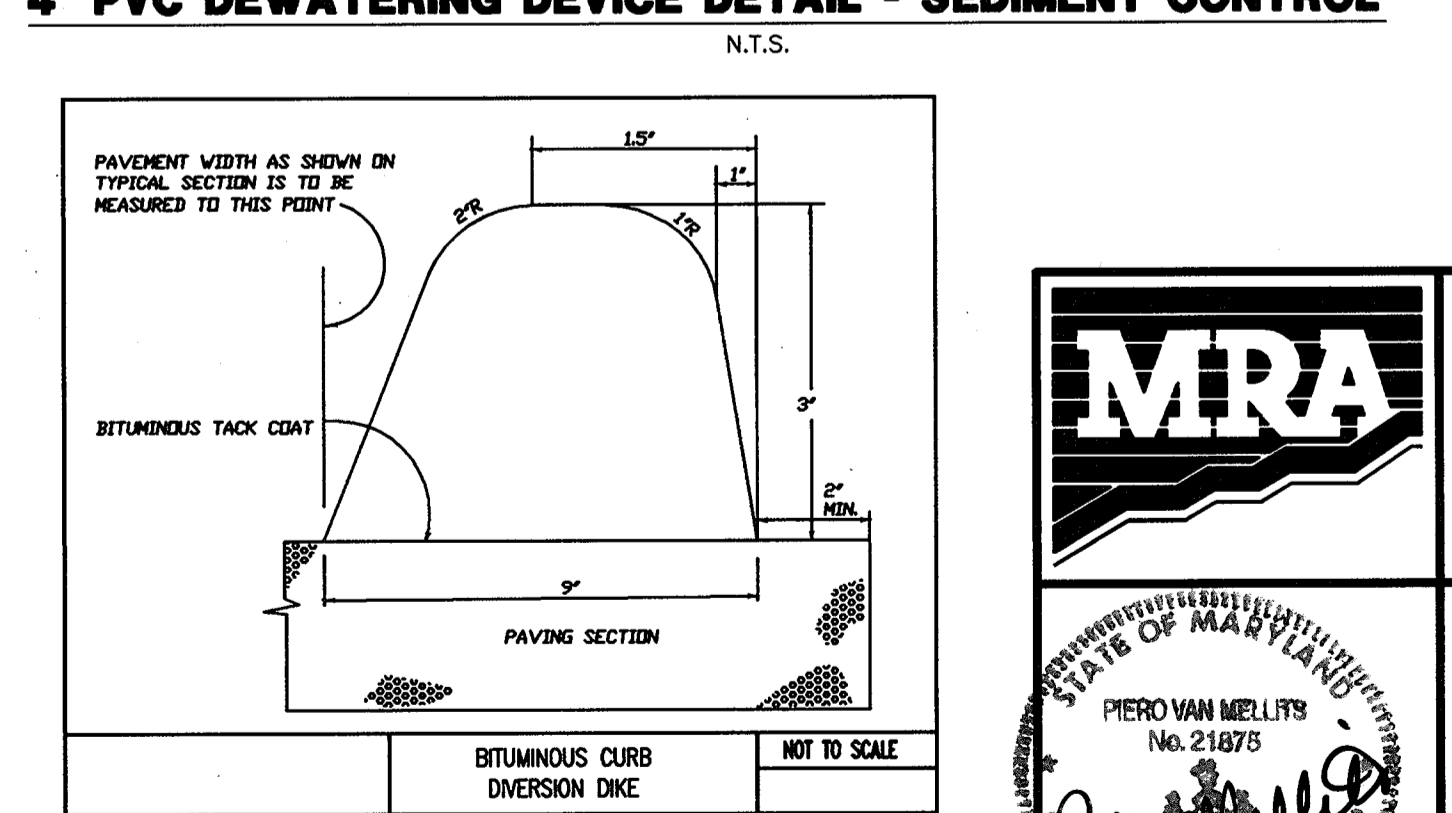
- Place a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2' x 4" curb (connecting throat length plus 2") on shown on the standard drawing.
- Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2' x 4" curb.
- Securely nail the 2' x 4" curb to a 6" long vertical support to be located between the curb and the inlet face (max. 4" apart).
- Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the curb on both sides of the curb. Place clean 3/4" x 1/2" x 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
- The type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
- Assure that storm flow does not bypass the curb by installing a temporary curb or support aside to direct the flow to the inlet.

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**HOWARD SOIL CONSERVATION DISTRICTS STANDARDS SEDIMENT CONTROL NOTES**

- A MIN. OF 48 HOURS NOTICE MUST BE GIVEN TO THE HOWARD CO. DEPARTMENT OF INSPECTIONS, LICENSES AND PERMITS, SEDIMENT CONTROL DIVISION PRIOR TO THE START OF ANY CONSTRUCTION (313-1855)
- ALL VEGETATION AND STRUCTURAL ARE TO BE INSTALLED ACCORDING TO THE PROVISIONS OF THIS PLAN AND ARE TO BE IN CONFORMANCE WITH THE MOST CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AND REVISIONS THERETO.
- FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN: A) 7 CALENDAR DAYS FOR ALL PERIMETER SEDIMENT CONTROL STRUCTURES, DIKES, PERIMETER SLOPES AND ALL SLOPES GREATER THAN 3:1; B) 14 DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE.
- ALL SEDIMENT TRAPS/BASINS SHOWN MUST BE FENCED AND WARNING SIGNS POSTED AROUND THE PERIMETER IN ACCORDANCE WITH VOL. 1, CHAPTER 12 OF THE HOWARD COUNTY DESIGN MANUAL, STORM DRAINAGE.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN THE TIME PERIOD SPECIFIED ABOVE IN ACCORDANCE WITH THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR PERMANENT SEEDING (SEC. 51), SOD (SEC. 54), TEMPORARY SEEDING (SEC. 50) AND MULCHING (SEC. 52). TEMPORARY STABILIZATION WITH MULCH ALONE CAN ONLY BE DONE WHEN RECOMMENDED SEEDING DATES DO NOT ALLOW FOR PROPER GERMINATION AND ESTABLISHMENT OF GRASSES.
- ALL SEDIMENT CONTROL STRUCTURES ARE TO REMAIN IN PLACE AND ARE TO BE MAINTAINED IN OPERATIVE CONDITION UNTIL PERMISSION FOR THEIR REMOVAL HAS BEEN OBTAINED FROM HOWARD COUNTY SEDIMENT CONTROL INSPECTOR

**4" PVC DEWATERING DEVICE DETAIL - SEDIMENT CONTROL**

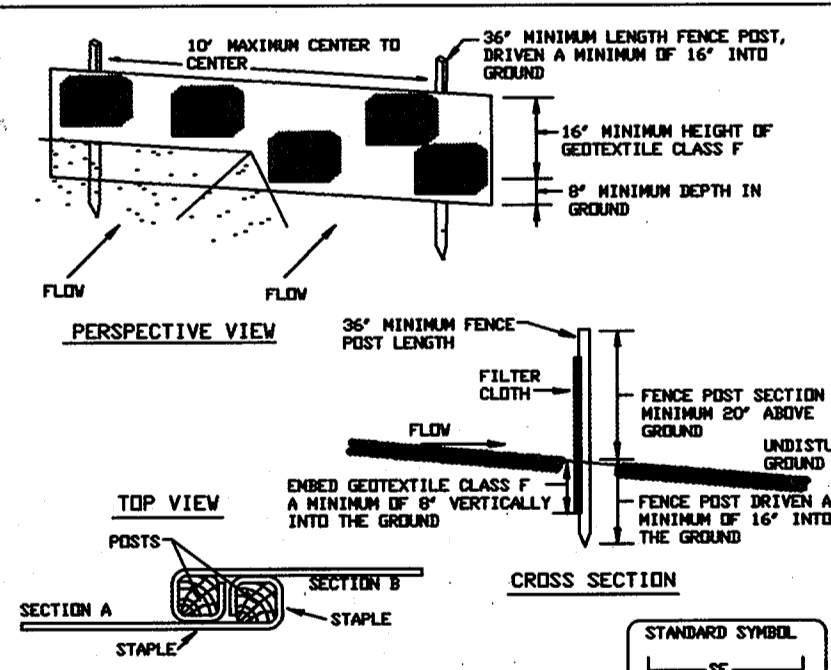


OWNER	FAX NO. 410-531-3432
A. NAME: Charlotte H. Myers	B. TELEPHONE: 410-531-3432
C. COMPANY: Hardman-Myers, Inc.	
D. ADDRESS: P.O. Box 757	
E. CITY: Clarksville	STATE: MD ZIP: 21029-0757
DEVELOPER	FAX NO. 410-342-4662
A. NAME: E. Philip Hanlon	B. TELEPHONE: 410-342-0197
C. COMPANY: Mars Super Markets, Inc.	
D. ADDRESS: 3401 E. Federal Street	
E. CITY: Baltimore	STATE: MD ZIP: 21213-4011

**SEQUENCE OF CONSTRUCTION**

- OBTAIN ALL NECESSARY PERMITS. CONTACT THE HOWARD COUNTY OFFICE OF INSPECTIONS AT LEAST 48 HOURS PRIOR TO BEGINNING ANY WORK. 1 DAY
- INSTALL TEMPORARY CONSTRUCTION FENCE. SAWCUT AND REMOVE PAVEMENT FOR INSTALLATION OF SEDIMENT CONTROLS ONLY. 2 DAYS
- INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES REQUIRED FOR DEMOLITION WORK AND BUILDING CONSTRUCTION. 2 DAYS
- SAWCUT REMAINING EXISTING PAVEMENT, UTILITIES, SERVICES, BUILDING SLABS AND WALLS PER DEMOLITION PLAN. 20 DAYS
- BEGIN BUILDING CONSTRUCTION. INSTALL ALL PROPOSED SERVICES, UTILITIES, & STORM DRAIN PER SITE PLAN AND ARCHITECTURAL PLANS. 3 MONTHS
- BEGIN INSTALLATION OF SWM FACILITY. SEE SEQUENCE OF CONSTRUCTION FOR SWM FACILITY ON SHEET 7. 20 DAYS
- INSTALL PAVING, CURB & GUTTER, SIDEWALK, FINAL LANDSCAPING, & RESTRIPE EXISTING PARKING LOT PER SITE PLAN. 20 DAYS
- STABILIZE ALL REMAINING DISTURBED AREAS. 2 DAYS
- WITH SEDIMENT CONTROL INSPECTOR'S APPROVAL, REMOVE ALL SEDIMENT CONTROLS AND STABILIZE ANY REMAINING DISTURBED AREAS. 2 DAYS

**DETAIL 22 - SILT FENCE**



- Fence posts shall be a minimum of 1/2" long 4" diameter or 1 1/2" diameter. Wood posts shall be 1/2" diameter. Metal posts shall be 1/2" diameter. Posts shall be minimum round and shall be of good quality hardwood. Steel posts will be minimum 1/2" diameter and shall be of good quality. Steel posts will be minimum 1/2" diameter and shall be of good quality.
- Geotextile shall be fastened securely to each fence post with wire ties spaced at top and intersection and shall meet the following requirements for Geotextile Class F:
 

Tensile Strength	30 lbs/in (min.)	Test: MSMT 509
Seal Strength	30 lbs/in (min.)	Test: MSMT 509
Flow Rate	0.3 gal / ft <sup>2</sup> / minute (max.)	Test: MSMT 502
Filtering Efficiency	75% (min.)	Test: MSMT 502
- Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
- Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

**SILT FENCE**

Silt Fence Design Criteria		
Slope Steepness	(Maximum) Slope Length	Silt Fence Length
Flatter than 30:1	unlimited	unlimited
10:1 to 30:1	100 feet	1,000 feet
5:1 to 10:1	50 feet	500 feet
3:1 to 5:1	40 feet	300 feet
2:1 to 3:1	30 feet	200 feet
1:1 to 2:1	20 feet	125 feet

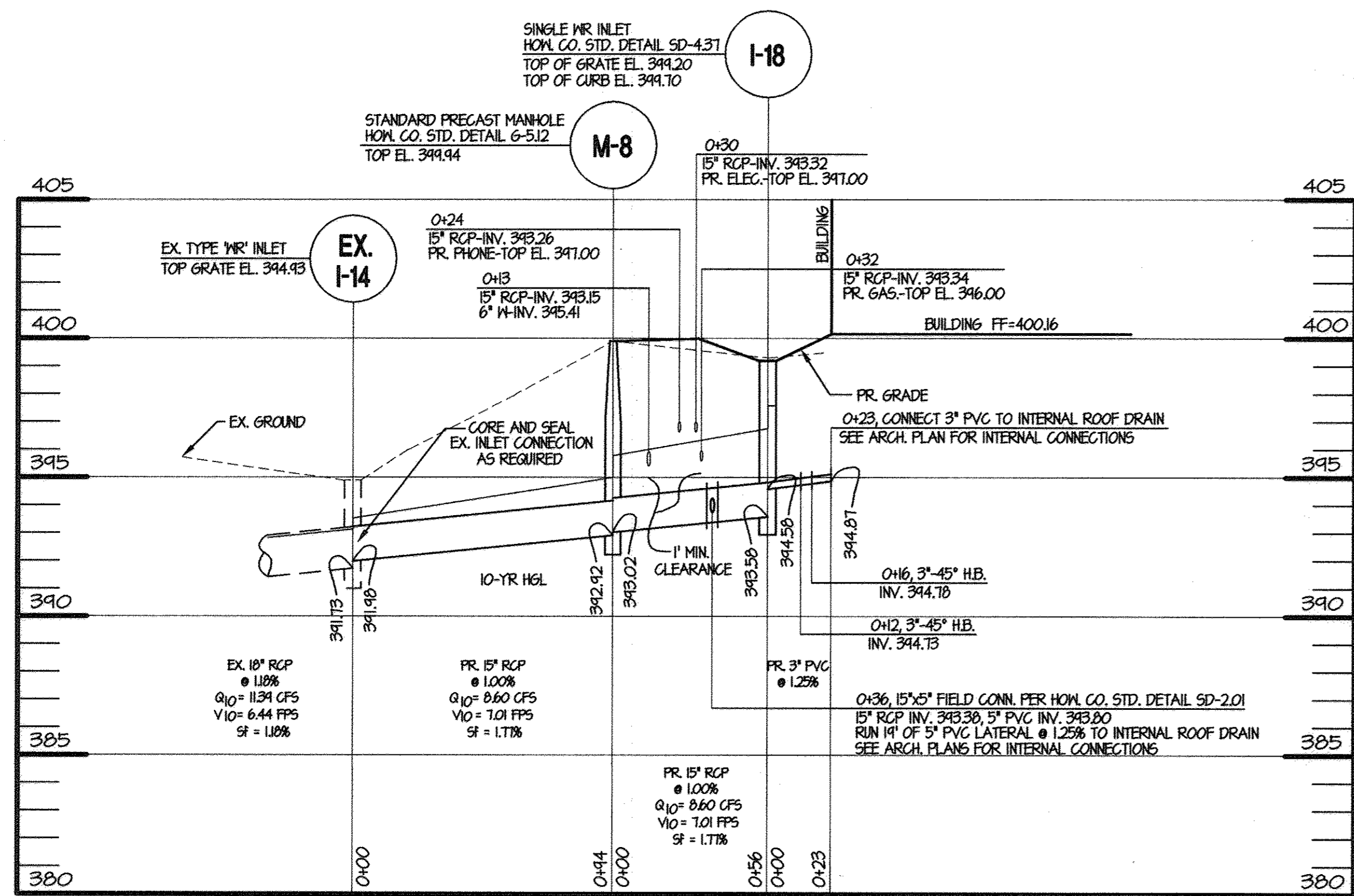
Note: In areas of less than 22 slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be increased. In these areas a silt fence may be the only perimeter control required.

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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.

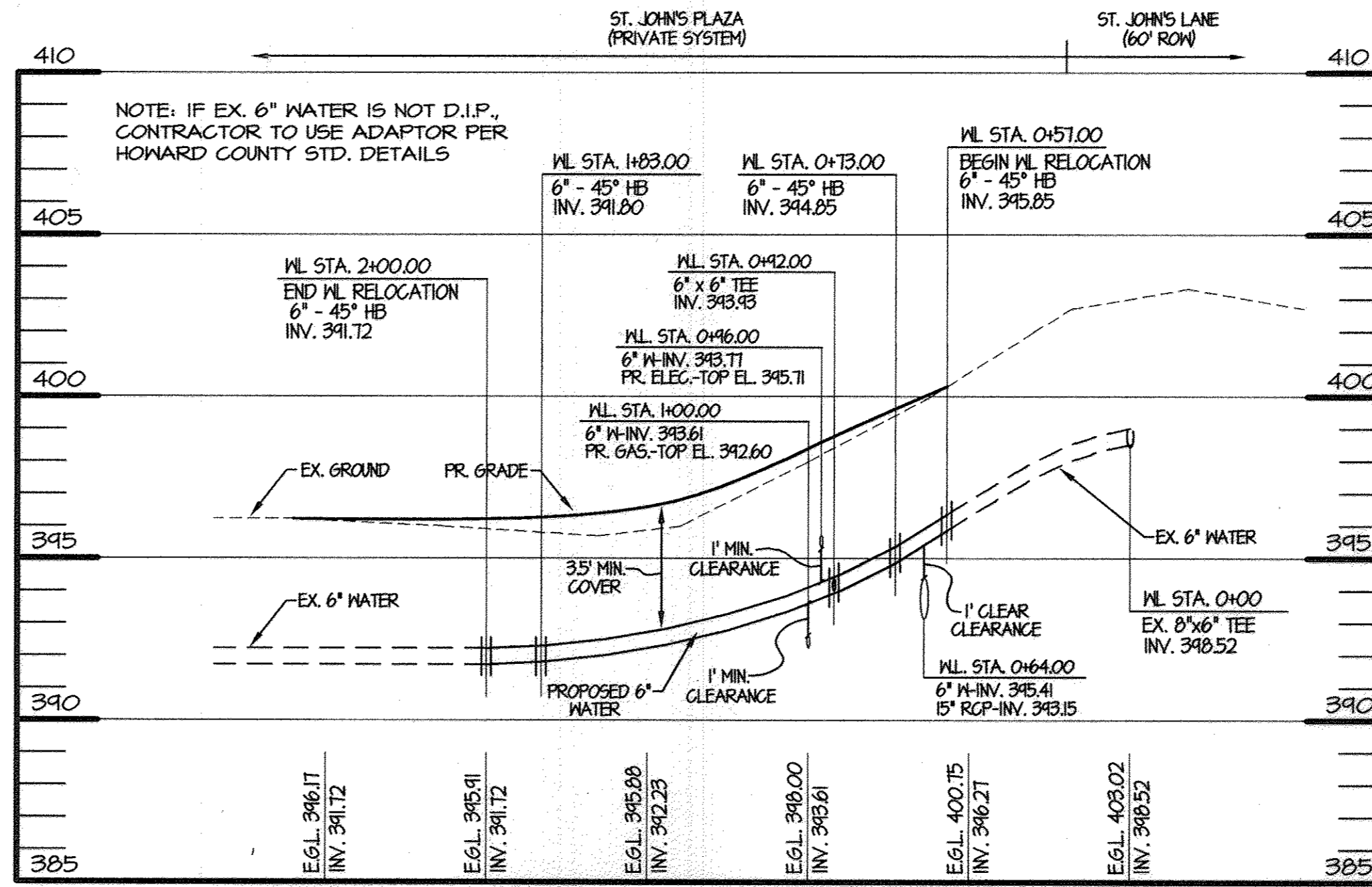
*P. V. Melby* 8-7-02  
 SIGNATURE OF ENGINEER DATE  
 PIER





**STORM DRAIN PROFILE**

HOR. 1" = 40'  
VERT. 1" = 4'



**WATER PROFILE**

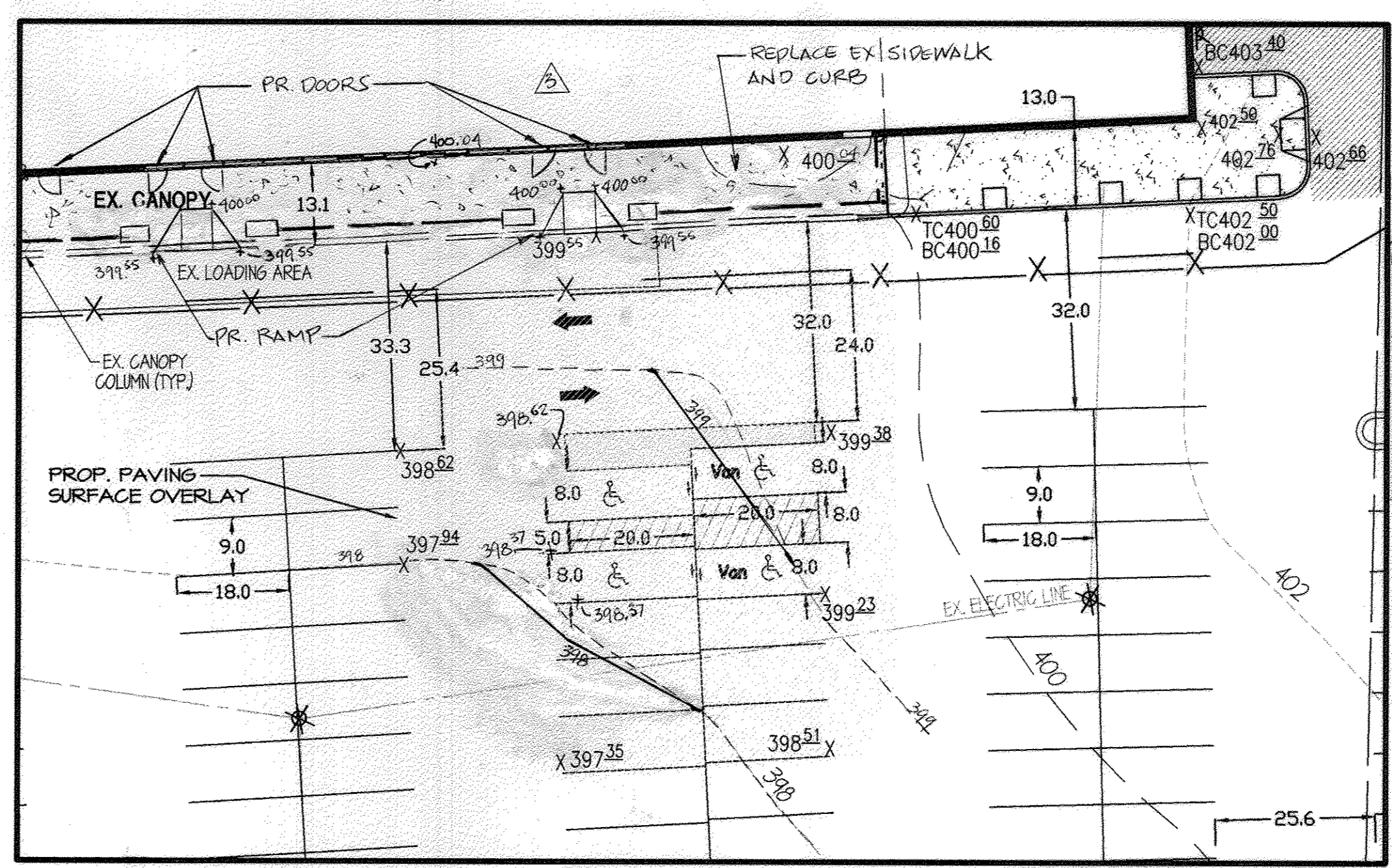
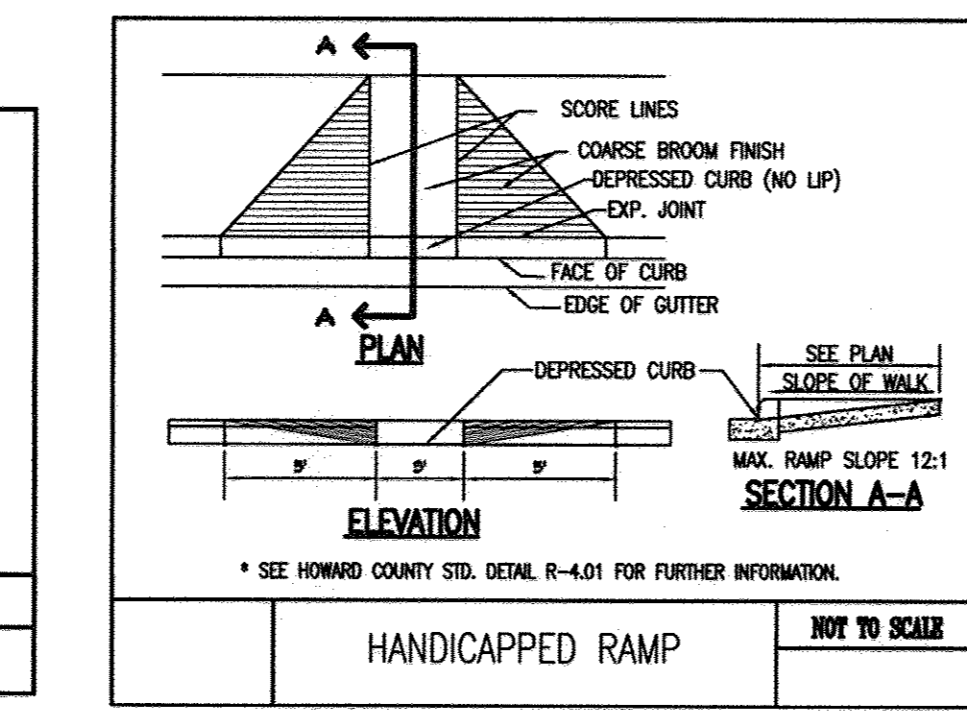
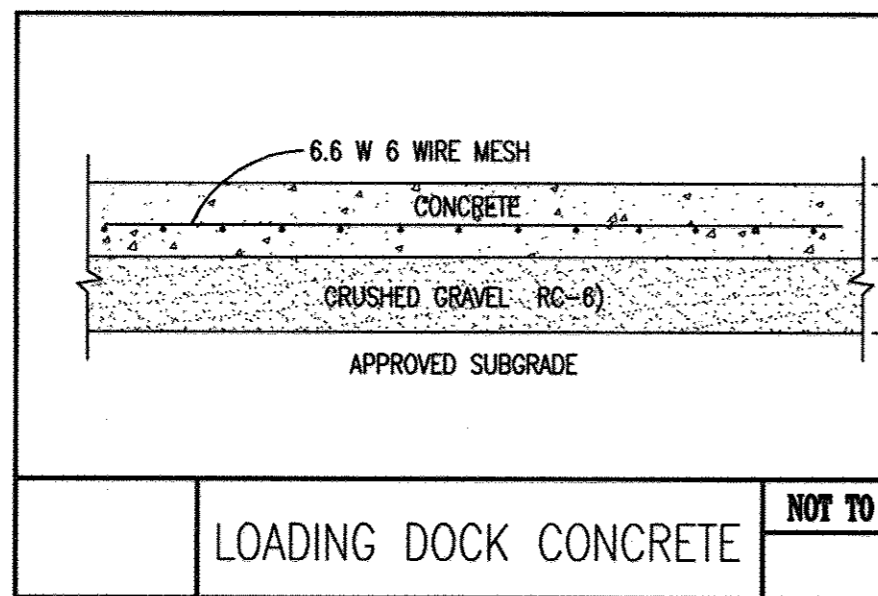
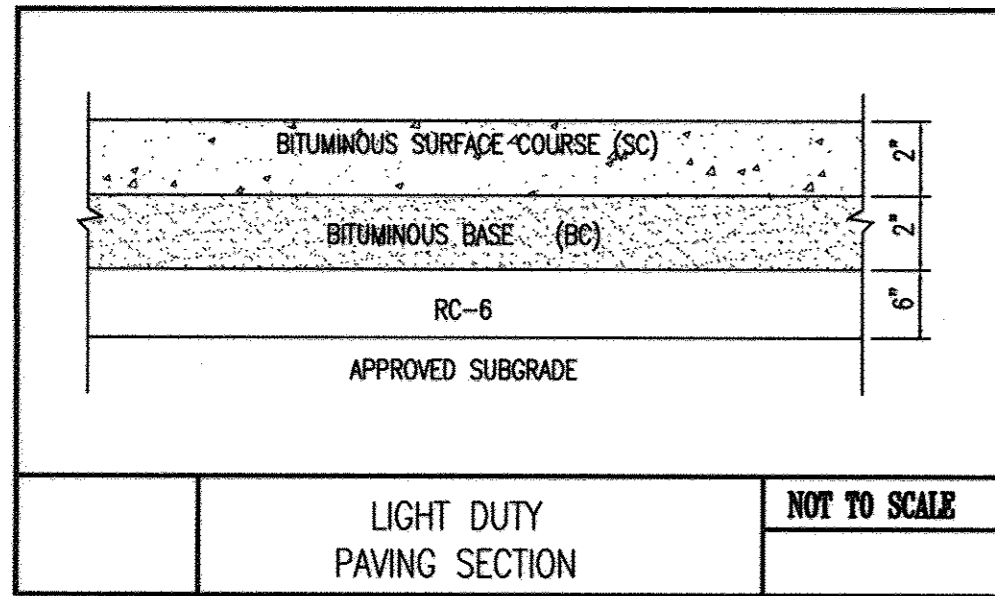
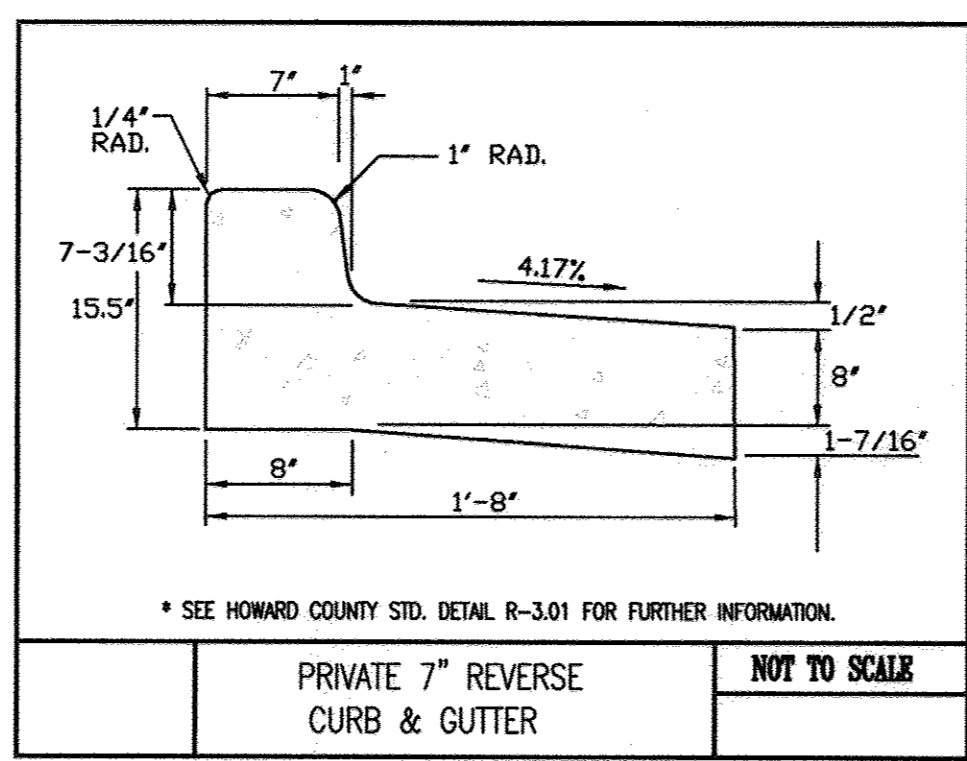
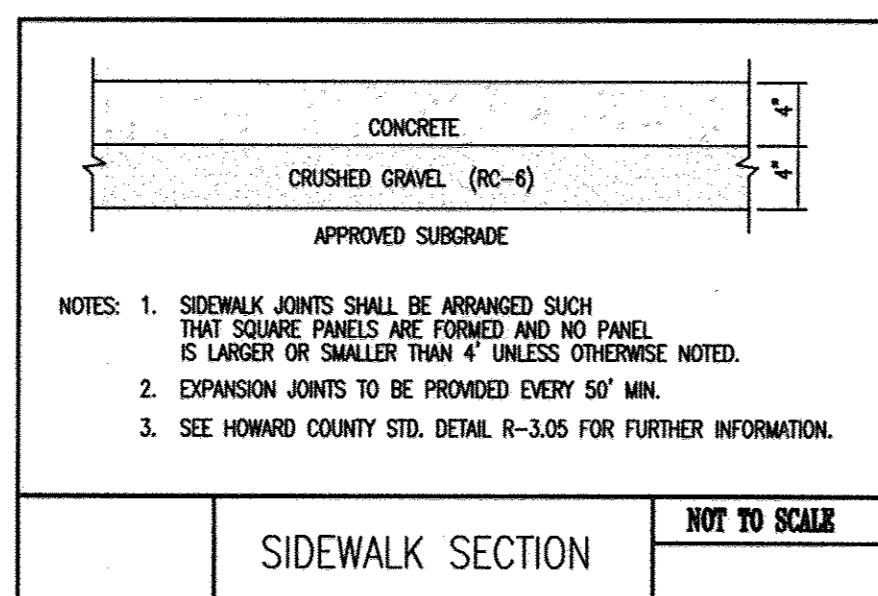
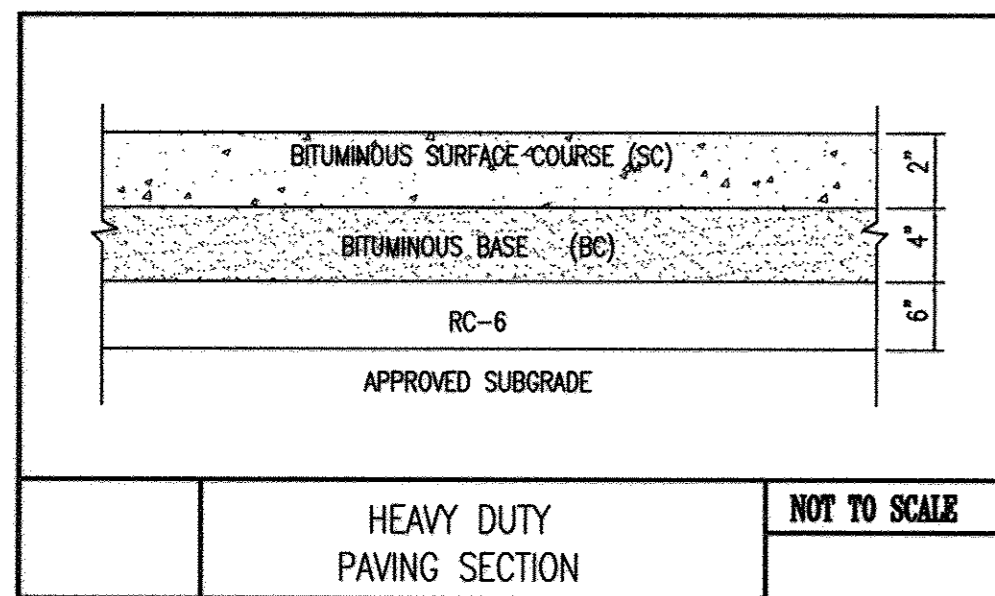
HOR. 1" = 40'  
VERT. 1" = 4'

STORM DRAIN PIPE SCHEDULE		
SIZE	TYPE	LENGTH
3"	PVC (SCHED. 40)	23'
5"	PVC (SCHED. 40)	19'
15"	CLASS IV RCP	145'

STORM DRAIN FITTINGS SCHEDULE		
SIZE	TYPE	NUMBER
3"	45" H.B. (SCH. 40)	2
15"x5"	RCP FIELD CONN.	1

WATER LINE PIPE SCHEDULE		
SIZE	TYPE	LENGTH
6"	D.I.P. CLASS 52	143'

WATER LINE FITTINGS SCHEDULE		
SIZE	TYPE	NUMBER
6"	45" H.B. (CLASS 350)	4
6"	6"x6" TEE (CLASS 350)	1



**HC PARKING AREA PAVING DETAIL**  
SCALE: 1"=20'

**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAW OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

**OWNER**  
A. NAME: Charlotte H. Myers  
B. TELEPHONE: 410-531-3432  
C. COMPANY: Hardman-Myers, Inc.  
D. ADDRESS: P.O. Box 757  
E. CITY: Clarksville, STATE: MD, ZIP: 21029-0757

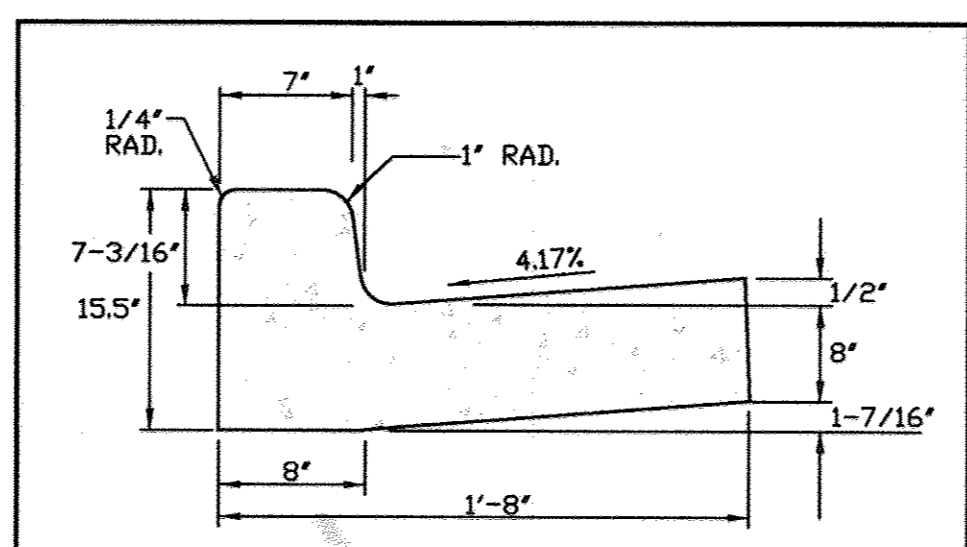
**DEVELOPER**  
A. NAME: E. Philip Hanton  
B. TELEPHONE: 410-342-4662  
C. COMPANY: Mars Super Markets, Inc.  
D. ADDRESS: 3401 E. Federal Street  
E. CITY: Baltimore, STATE: MD, ZIP: 21213-4011

**APPROVED DEPARTMENT OF PLANNING AND ZONING**  
DATE: 03/24/17

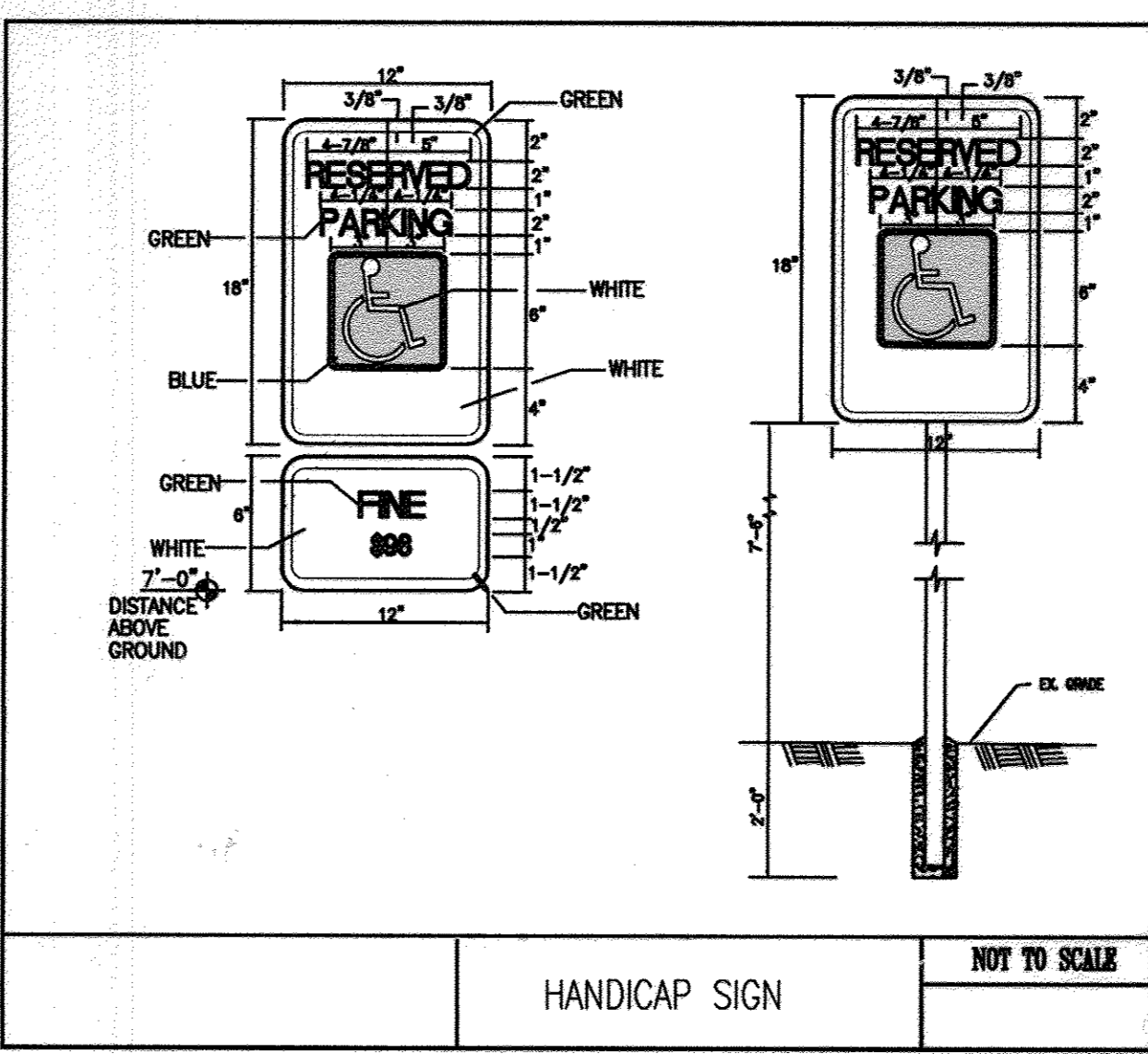
● COORDINATES TO CENTER OF STRUCTURE AT FACE OF CURB FOR INLETS, CENTER OF STRUCTURE FOR MANHOLES  
\* TOP OF GRATE ELEVATION AT CENTER OF STRUCTURE AT FACE OF CURB. MANHOLE ELEVATIONS ARE AT CENTER OF RIM

STORM DRAIN STRUCTURE SCHEDULE							LOCATION	
SIR NO.	TOP ELEV.	INV IN	INV OUT	TYPE	REMARKS	NORTHING	EASTING	
M-8	399.94	393.02	392.92	STD. PRECAST MANHOLE HOWARD CO. STD. DETAIL G-5.12		587,135.62	1,361,601.83	
I-18	399.20	393.83	393.58	SINGLE WR INLET HOWARD CO. STD. DETAIL SD-4.37		587,079.68	1,361,603.31	
EX. I-9	390.13	N/A	N/A	MODIFIED INLET/RISER STRUCTURE PER DETAIL SHEET 8		EXISTING-N/A	EXISTING-N/A	
EX. I-10	388.05	N/A	N/A	MODIFIED INLET/JUNCTION CHAMBER PER DETAIL SHEET 8		EXISTING-N/A	EXISTING-N/A	

NOTE: EXISTING INLETS I-9 AND I-10 ARE TYPE S COMBINATION INLETS PER HOWARD COUNTY STANDARD DETAIL SD-4.32. FOR SWM PURPOSES, THESE INLETS ARE TO BE MODIFIED PER DETAILS SHOWN ON SHEET 8. INLET I-10 IS TO BE CAPPED WITH A CONCRETE SLAB. INLET I-9 IS TO BE MODIFIED TO SERVE AS AN OVERFLOW STRUCTURE FOR THE PROPOSED SWM FACILITY.



**PRIVATE 7" CURB & GUTTER**  
NOT TO SCALE



**HANDICAP SIGN**  
NOT TO SCALE

**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

8090 JUNCTION DRIVE, SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 792-8792 or (301) 778-1690  
FAX (410) 792-7396

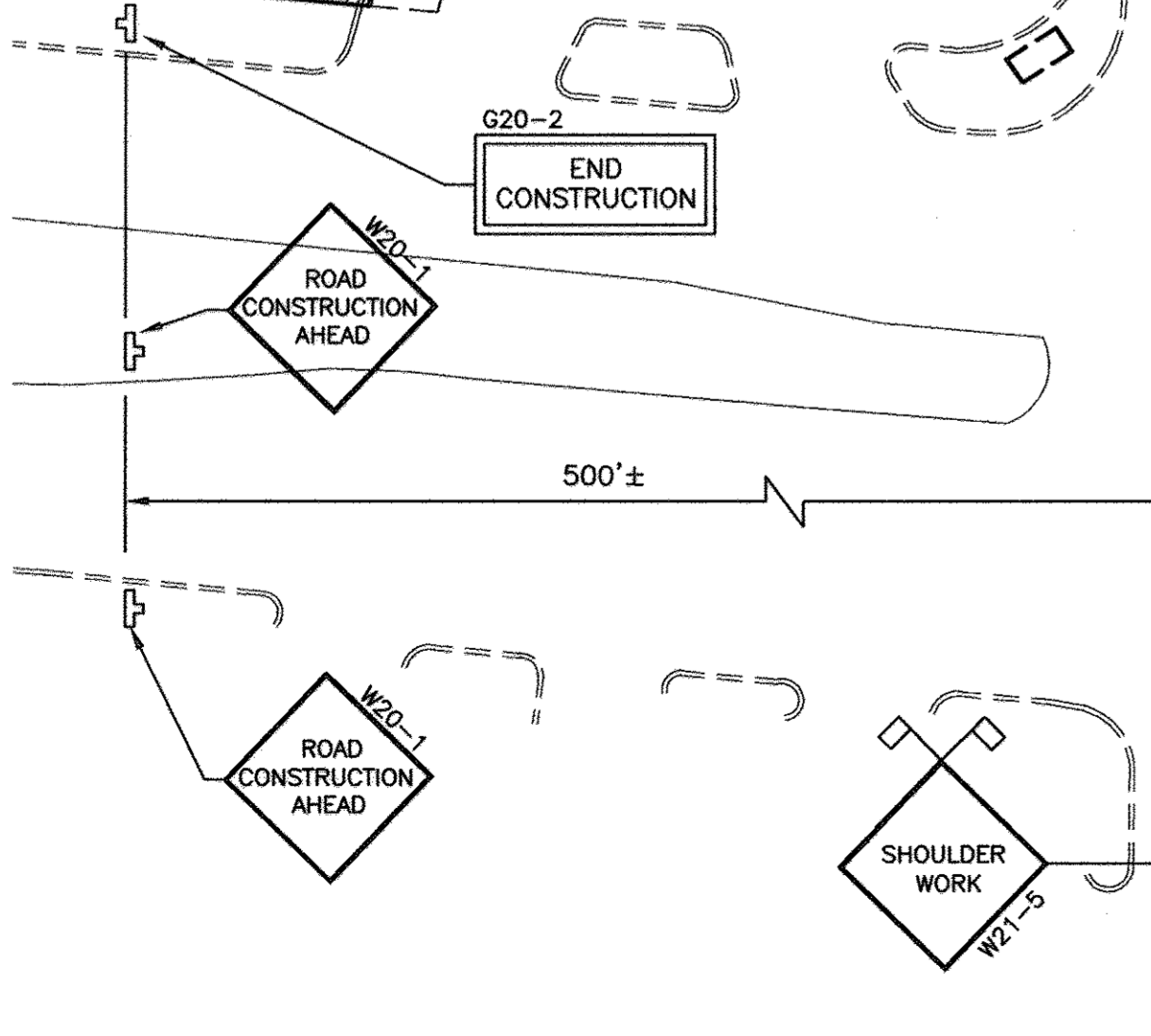
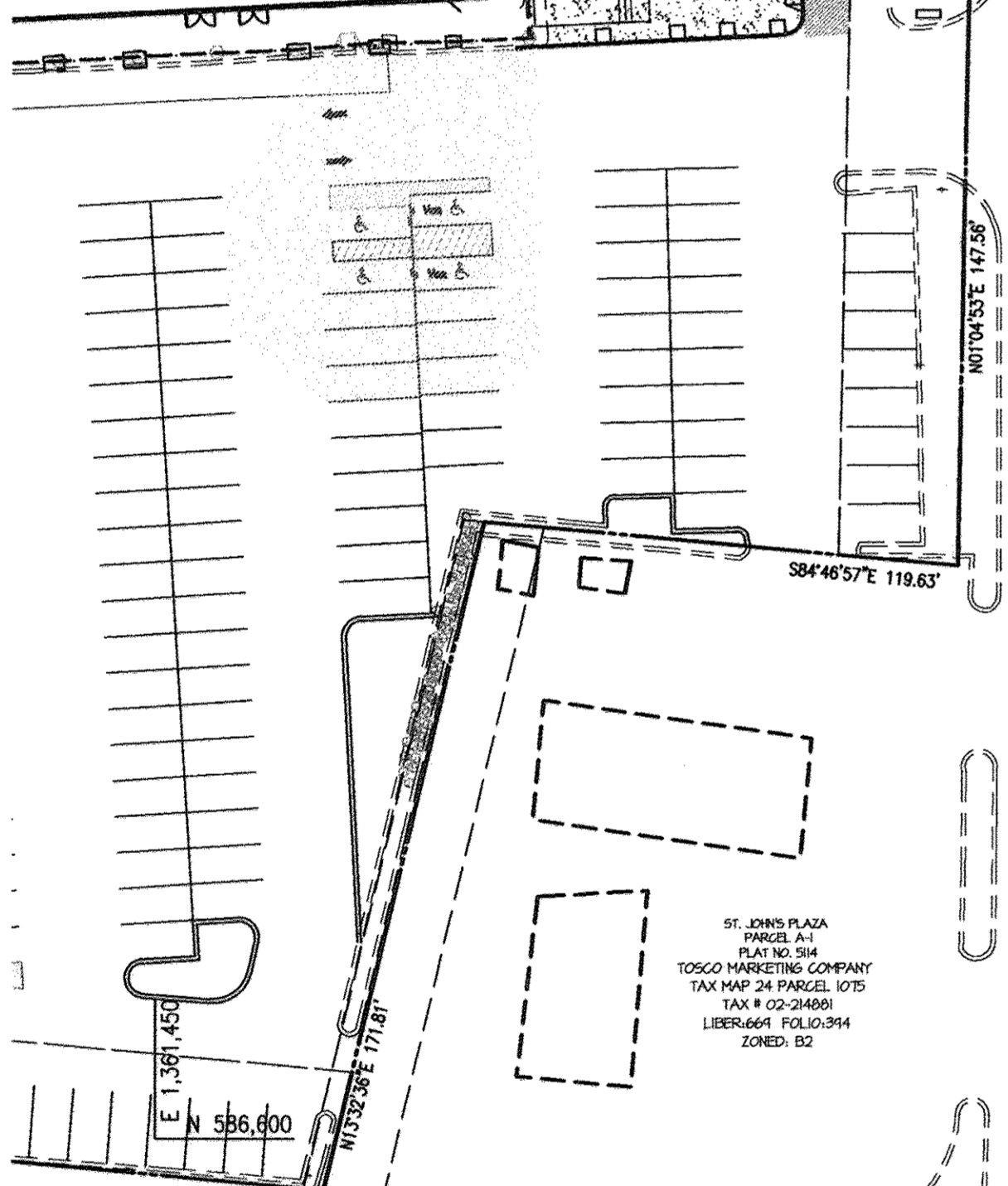
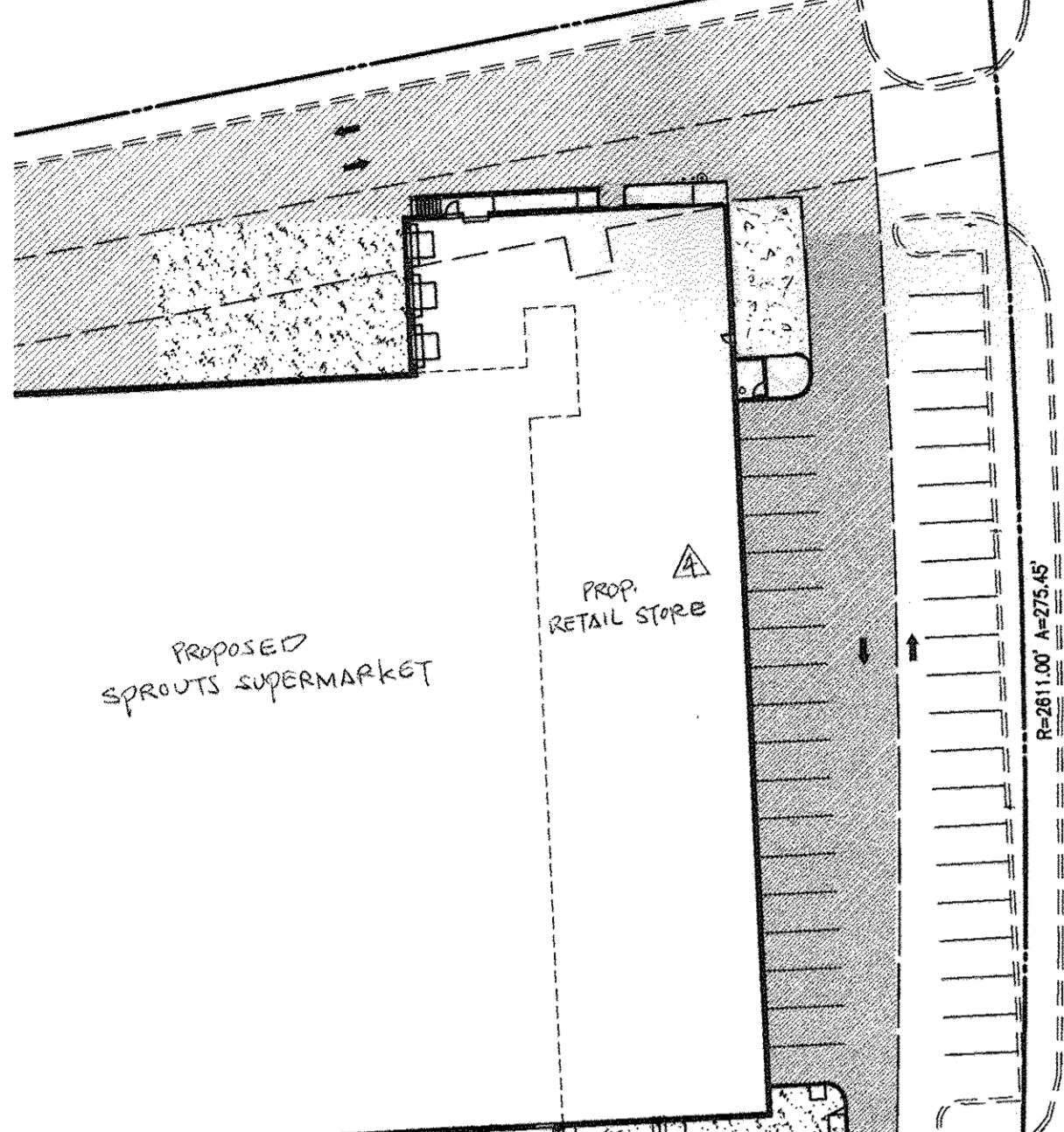
**MARS SUPERMARKET ADDITION**  
ST. JOHN'S PLAZA  
SITE DEVELOPMENT PLAN  
STORM DRAIN & UTILITY PROFILES,  
SITE DETAILS  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

**DATE** 03/24/17  
**REVISIONS** ADDING STAIRS ON THE SIDE OF THE EX. BLDG, ADDING DUMPSTER AND EXTENDING EX. CONC. RAMP AT THE REAR OF THE BLDG AND REPLACING EX. CURB AND SIDEWALK ALONG THE FRONTAGE OF THE SUPERMARKET

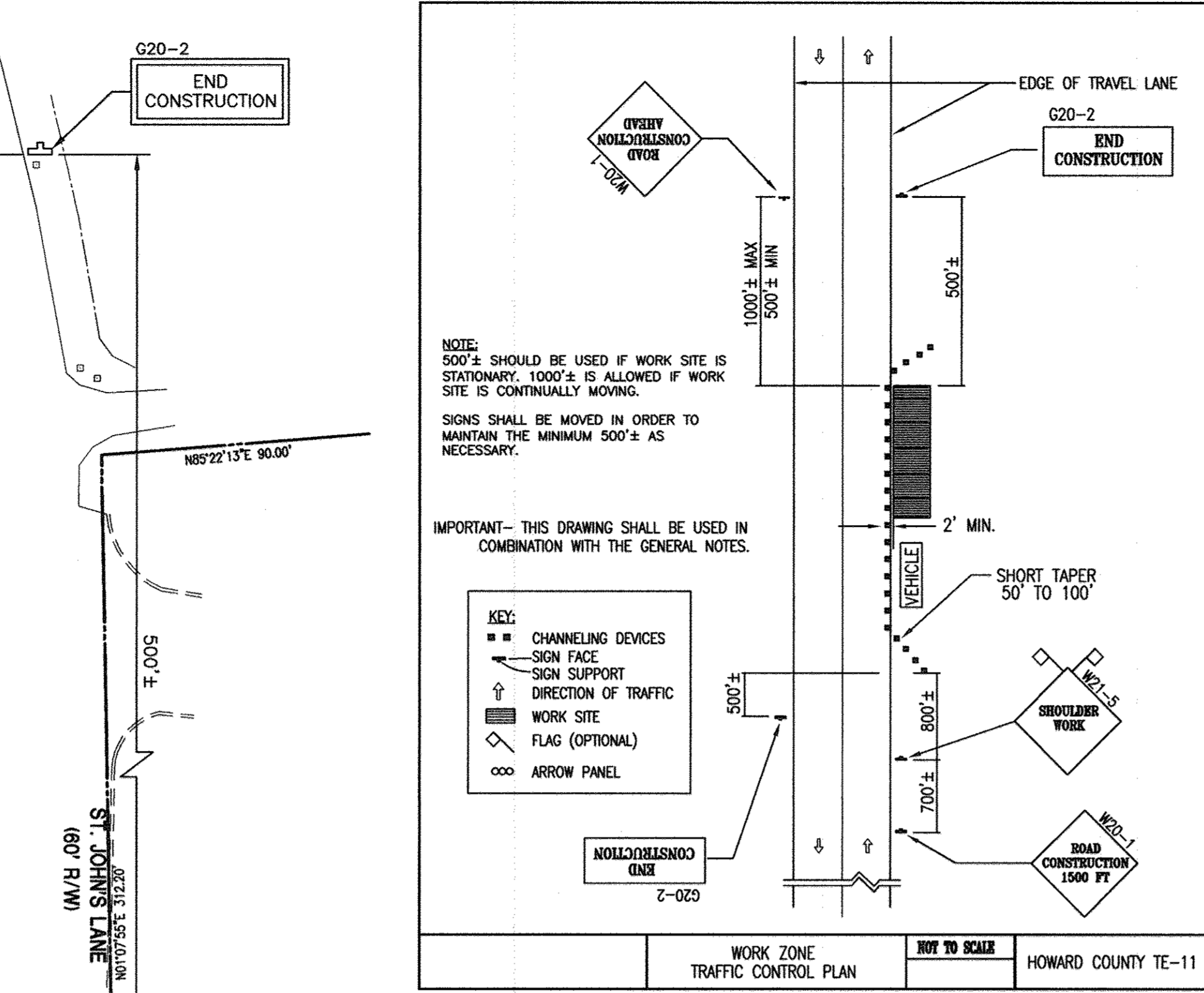
**JOB NO.:** 11643.01  
**SCALE:** AS SHOWN  
**DATE:** 08/07/02  
**DRAWN BY:** RLZ, TCN  
**DESIGN BY:** TCN  
**REVIEW BY:** PVM  
**SHEET:** 6 OF 16



JOHN A. BRING  
TAX MAP 24 PARCEL 36 LOT 08  
TAX # 02-227842  
LIBER 204 FOLIO 362  
ZONED R20



TRAFFIC CONTROL PLAN-ST. JOHN'S LANE  
SCALE: 1"=40'



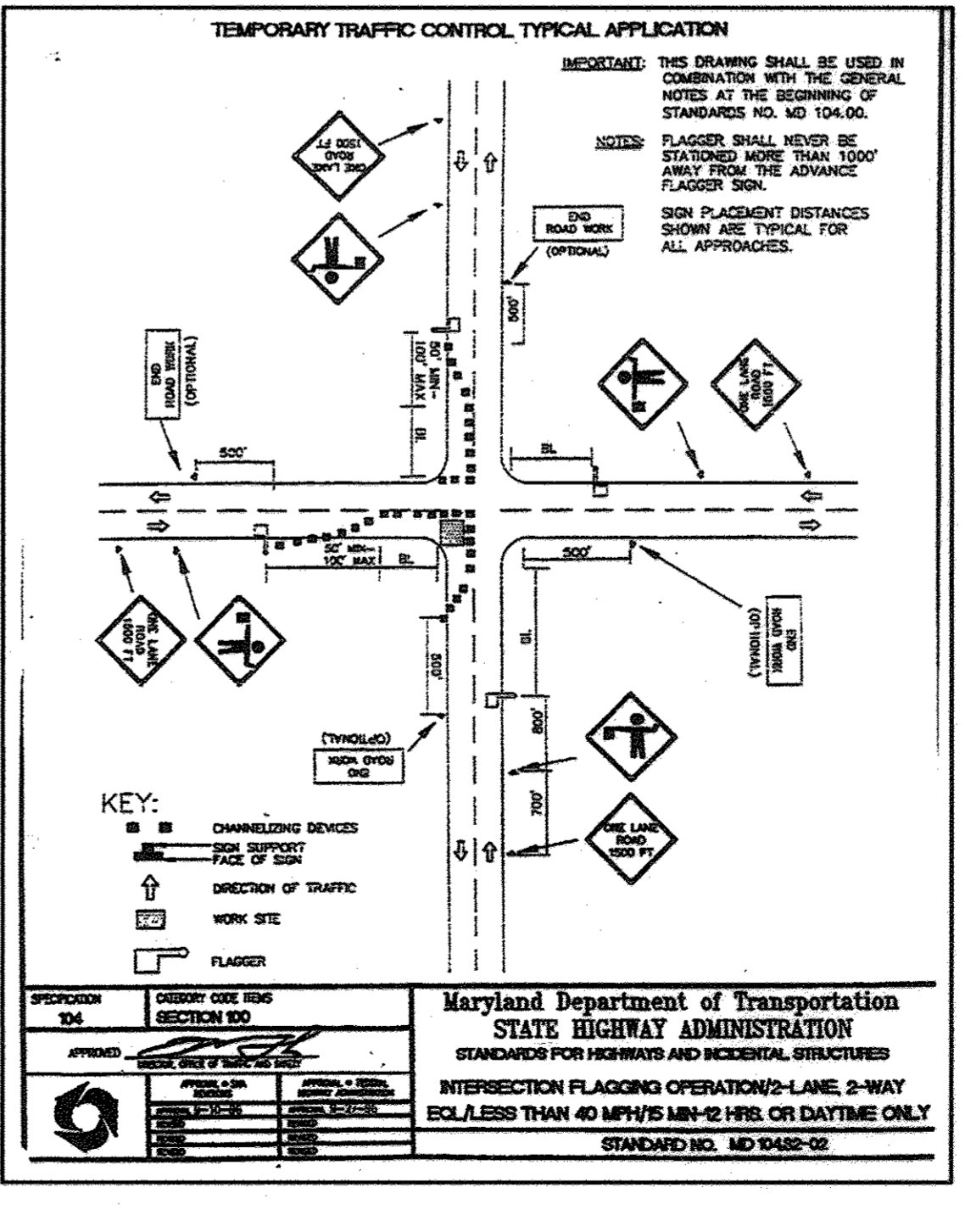
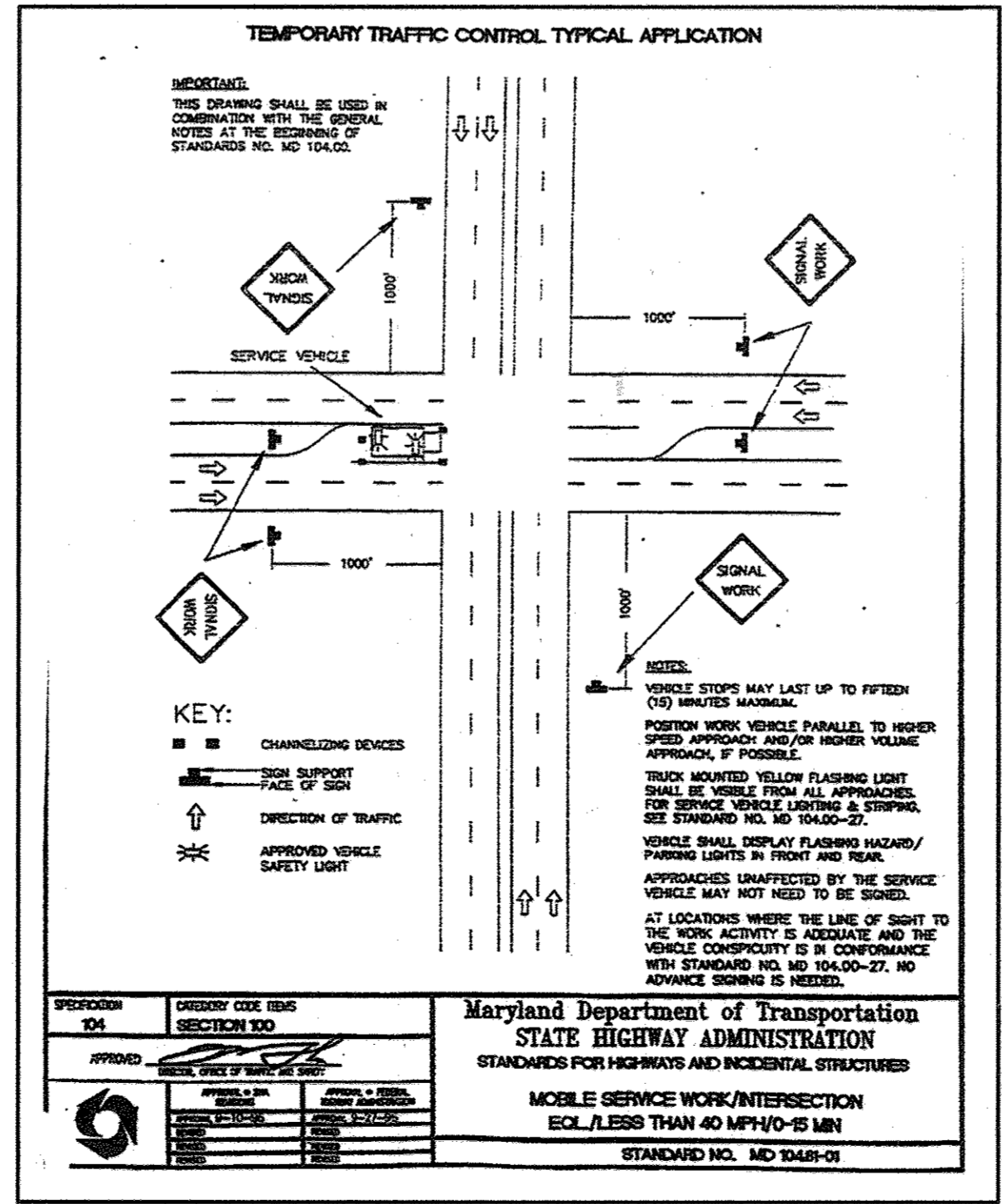
NOTE:  
500'± SHOULD BE USED IF WORK SITE IS STATIONARY. 1000'± IS ALLOWED IF WORK SITE IS CONTINUALLY MOVING.  
SIGNS SHALL BE MOVED IN ORDER TO MAINTAIN THE MINIMUM 500'± AS NECESSARY.

IMPORTANT - THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES.

- KEY:
- CHANNELIZING DEVICES
- SIGN FACE
- SIGN SUPPORT
- DIRECTION OF TRAFFIC
- WORK SITE
- FLAG (OPTIONAL)
- ARROW PANEL

OWNER  
A. NAME: Charlotte H. Myers FAX NO: 410-531-3432  
B. TELEPHONE: 410-531-3432  
C. COMPANY: Hardman-Myers, Inc.  
D. ADDRESS: P.O. Box 757  
E. CITY: Clarksville STATE: MD ZIP: 21029-0757

DEVELOPER  
A. NAME: E. Philip Hanlon FAX NO: 410-342-4662  
B. TELEPHONE: 410-342-0197  
C. COMPANY: Mars Super Markets, Inc.  
D. ADDRESS: 3401 E. Federal Street  
E. CITY: Baltimore STATE: MD ZIP: 21213-4011



*SPEED M.P.H.	MINIMUM DISTANCE FROM TAPER TO FIRST SIGN	ADDITIONAL SIGNS IN A SERIES TO BE SPACED AT A MINIMUM			MINIMUM COMBINED ADVANCED WARNING
	A	B	C	D	A
0 - 25	200'	200'	200'	-	600'
30 - 35	300'	300'	300'	-	900'
40	500'	500'	500'	-	1500'
41 - 55	800'	700'	1100'	2600' (1/2 MILE)	5200' (1 MILE)

\*SPEED LIMIT OR PREVAILING TRAVEL SPEED, WHICH EVER IS HIGHER.  
BELOW EXAMPLE: TWO LANES ONE-WAY ROADWAY / SPEED LIMIT IS 35 MPH / PREVAILING SPEED IS 38 MPH (USE 40 MPH)

TERMINATION AREA	WORK AREA	BUFFER AREA	TRANSITION AREA	ADVANCE WARNING AREA
LETS TRAFFIC RESUME NORMAL DRIVING	WORK SITE	PROVIDES ADDITIONAL PROTECTION FOR TRAFFIC AND WORKERS	MOVES TRAFFIC OUT OF ITS NORMAL PATH	TELLS TRAFFIC WHAT TO EXPECT AHEAD

WORK ZONE TRAFFIC CONTROL PLAN NOT TO SCALE HOWARD COUNTY TE-10

WORK ZONE TRAFFIC CONTROL NOTES

- SEE HOWARD COUNTY STANDARD DETAILS TE-10 AND TE-11 FOR PLACEMENT OF ALL TRAFFIC CONTROL SIGNS AND BARRICADES. ALSO, SEE MARYLAND, DEPT. OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, BOOK OF STANDARDS, STANDARD DETAILS 104.00-01 TO 104.00-30 FOR ADDITIONAL INFORMATION.
- AN ARROW PANEL, IN THE FLASHING MODE, SHALL BE USED ANYTIME THERE IS A LANE CLOSURE ON A MULTILANE HIGHWAY. ARROW PANELS SHALL NOT BE USED ALONG TWO-WAY ROADWAYS UNLESS THEY DISPLAY MSHA'S "FOUR CORNER" LAMP ARRAY.
- VEHICLES SHOULD NOT OCCUPY OR BE STOPPED IN A LANE BEYOND A HORIZONTAL CURVE OR A VERTICAL CURVE. INSTEAD, VEHICLES STOPPING ARE TO BE PULLED AS FAR OFF THE ROAD AS POSSIBLE, OR BE OTHERWISE PARKED IN A MANNER AS TO INHIBIT THE MOVEMENT OF TRAFFIC AS LITTLE AS POSSIBLE.
- WARNING SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE HOWARD COUNTY DETAILS LISTED IN NOTE #1. THE BOTTOM OF EACH SIGN SHALL NOT BE LESS THAN ONE FOOT ABOVE THE PAVEMENT ELEVATION. ALL SIGNS SHALL BE PLACED IN SUCH A MANNER AS TO PROVIDE ADEQUATE VISIBILITY OF THESE SIGNS, AND ALL OTHER EXISTING SIGNS ON THE HIGHWAY TO THE DRIVER.
- FOR URBAN AREAS WHERE THE PREVAILING SPEED IS 35 MPH OR LESS, THE MINIMUM WARNING SIGN SIZE MAY BE 36" X 36".
- NO WORK OPERATIONS, WHICH INTERFERES WITH THE FLOW OF TRAFFIC, MAY TAKE PLACE DURING PEAK HOURS 6 AM-9AM, AND 3PM-7PM MONDAY-FRIDAY UNLESS WRITTEN APPROVAL IS RECEIVED FROM THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
- ALL SIGNS, CHANNELIZING DEVICES, ETC. SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 1988 EDITION.

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, IWOJIA ROSTEK-ZARSKA AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21245, EXPIRATION DATE: JUNE 9, 2018.

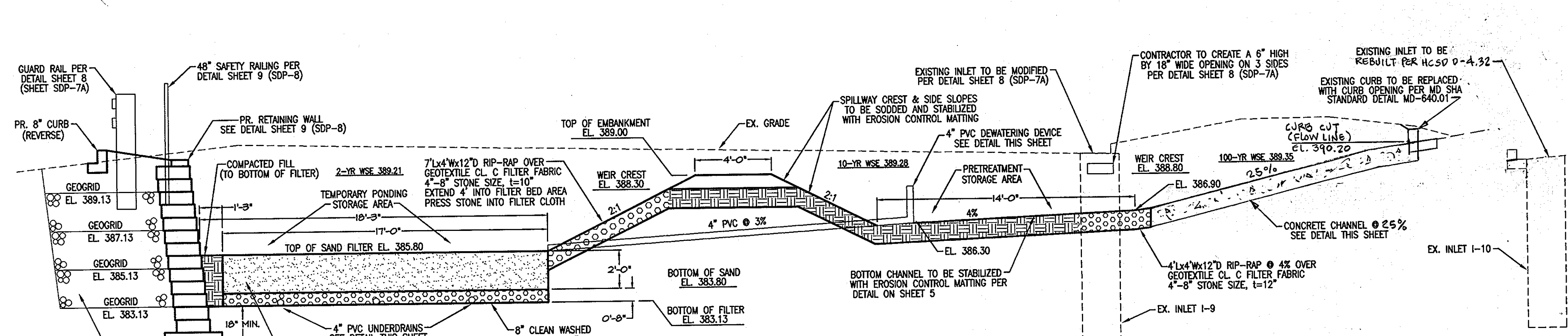
APPROVED DEPARTMENT OF PLANNING AND ZONING  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

**MRA**  
MORRIS & RITCHIE ASSOCIATES, INC.  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
8090 JUNCTION DRIVE, SUITE 207  
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(410) 782-8782 or (301) 778-1880  
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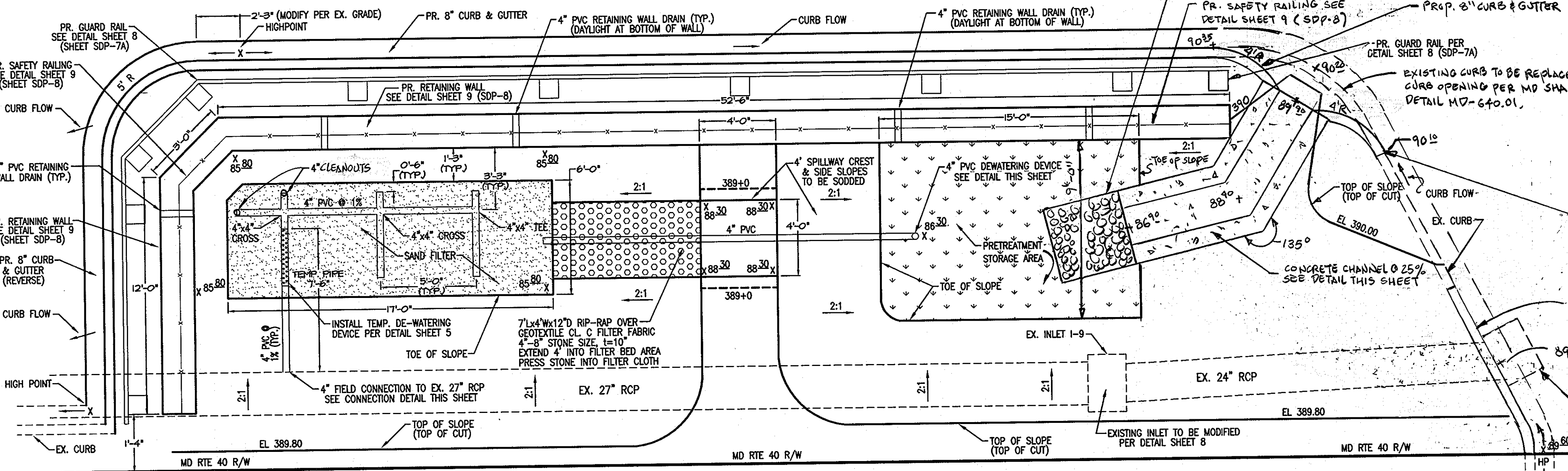
**MARS SUPERMARKET ADDITION**  
ST. JOHN'S PLAZA  
SITE DEVELOPMENT PLAN  
TRAFFIC CONTROL PLAN-ST. JOHN'S LANE  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
8/25/17	ADDED A CURB AT THE REAR OF THE BUILDING WITH A RAMP AND MODIFIED THE EX. SIDE LOADING AREA.	11843.01
		SCALE: AS SHOWN
		DATE: 08/07/02
		DRAWN BY: RLZ, TCN
		DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 13 OF 16

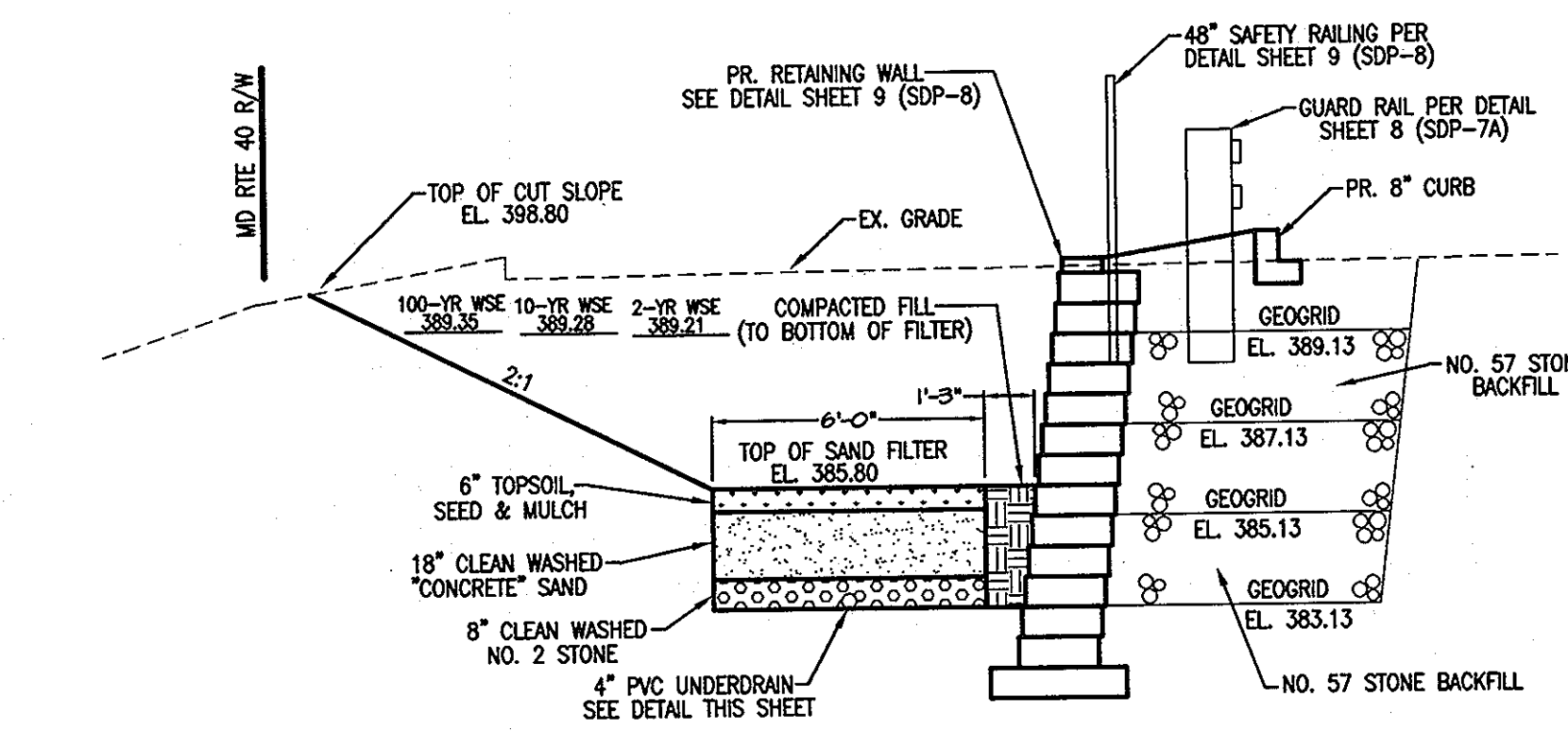




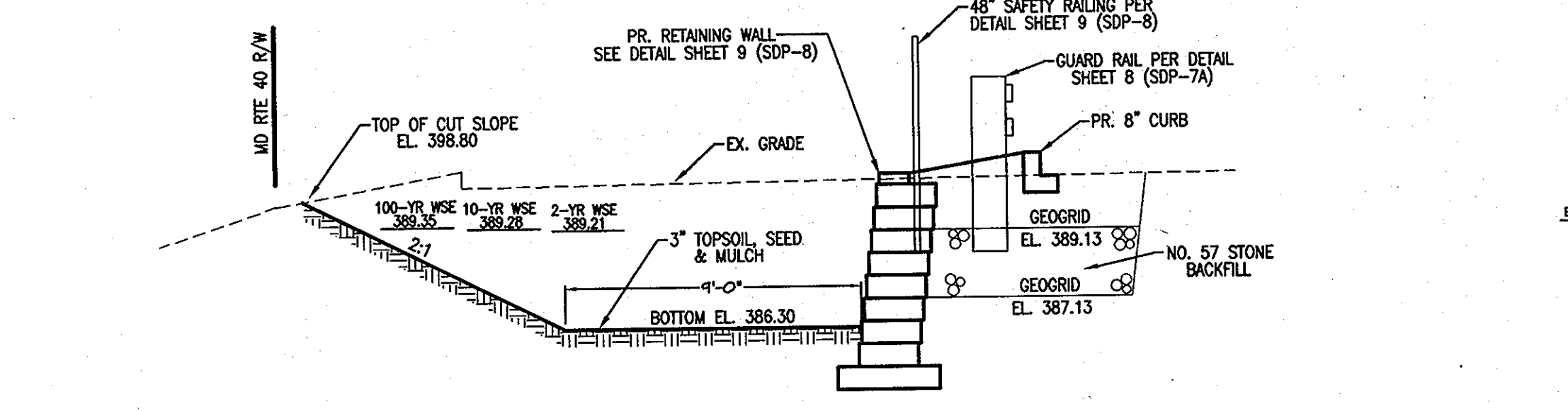
**SURFACE SAND FILTER FACILITY PROFILE**  
SCALE: 1"=4'



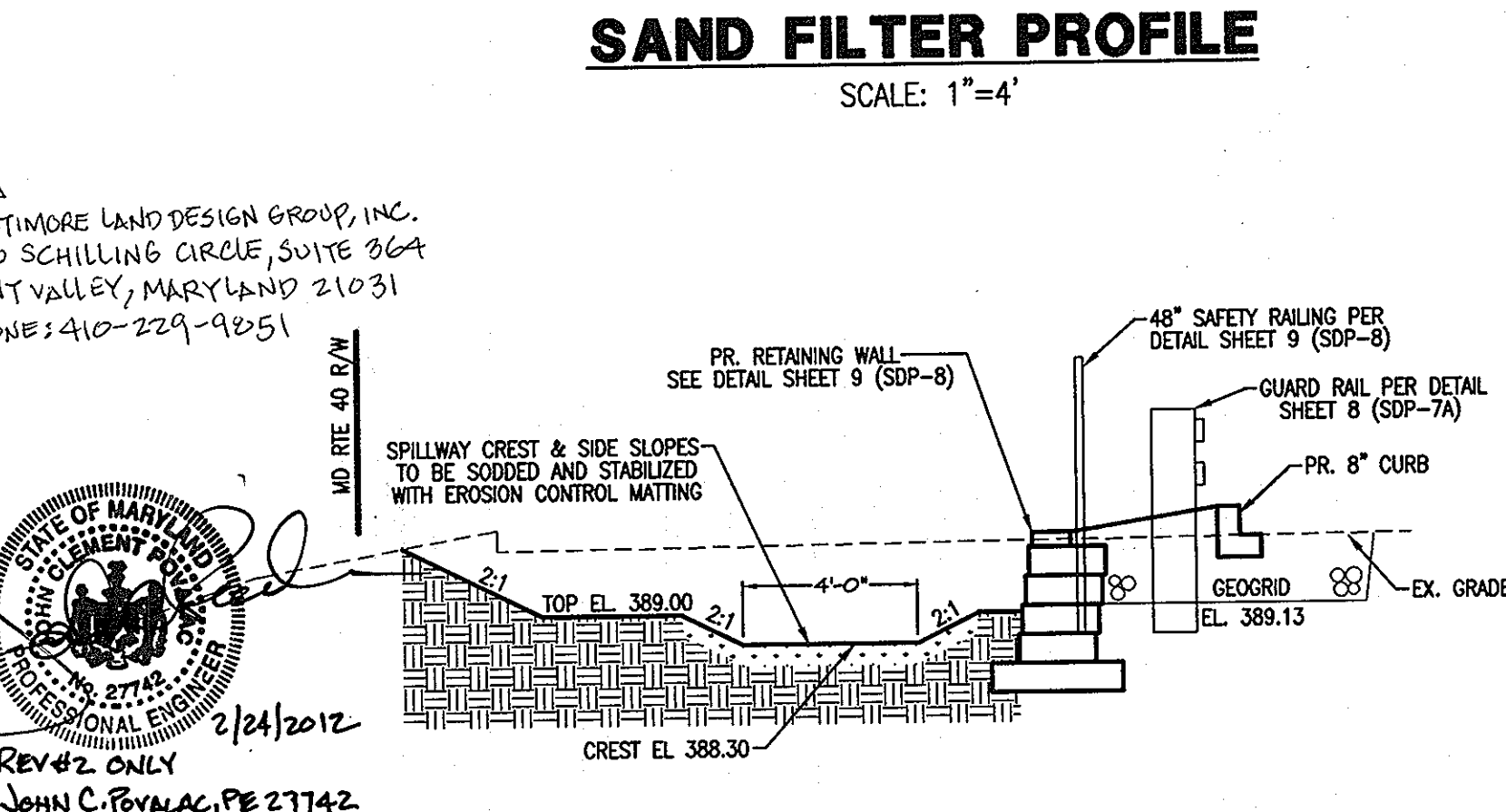
**SURFACE SAND FILTER FACILITY PLAN**  
SCALE: 1"=4'



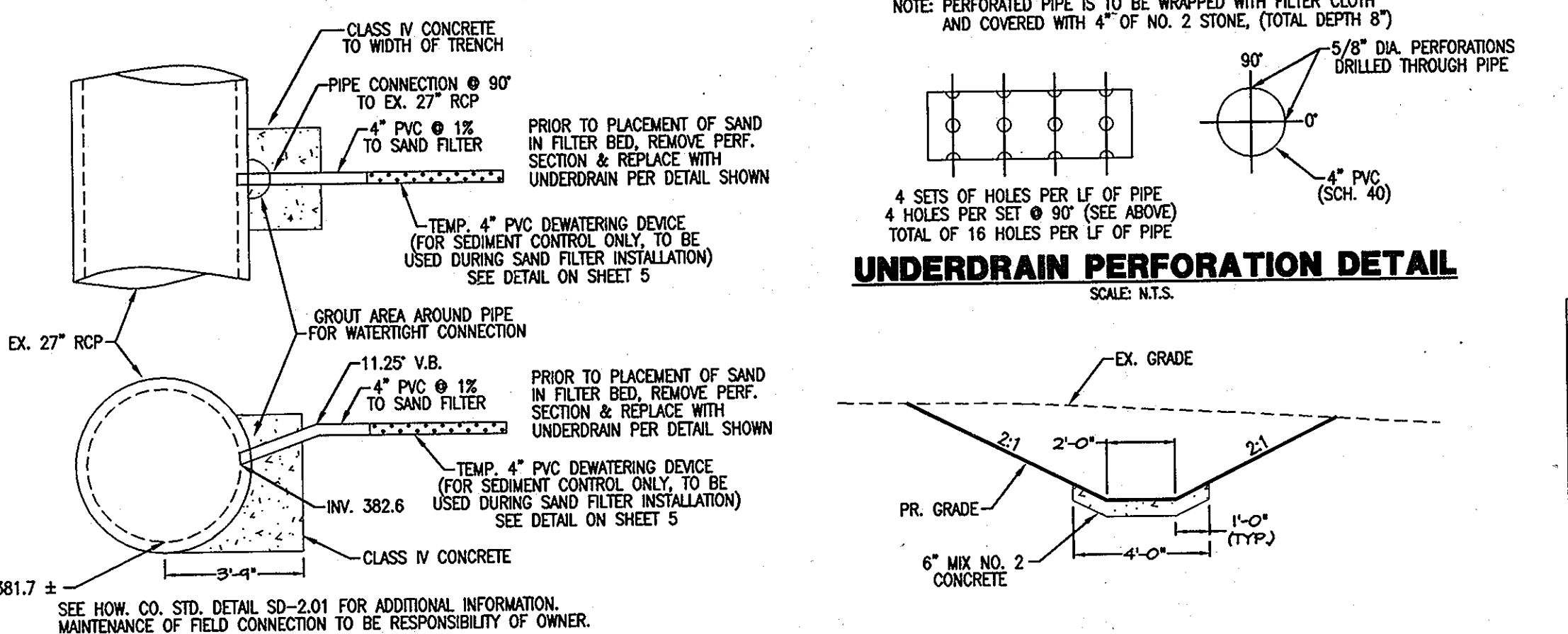
**SAND FILTER PROFILE**  
SCALE: 1"=4'



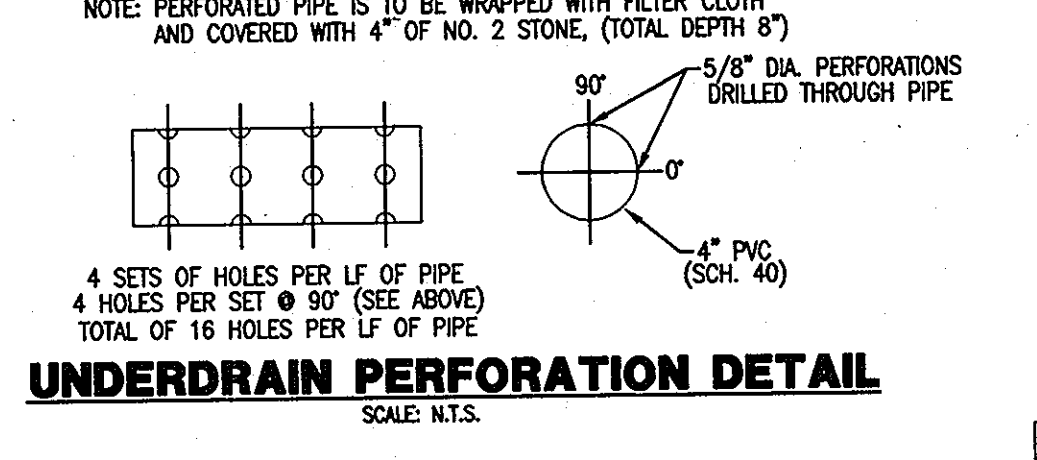
**PRETREATMENT AREA PROFILE**  
SCALE: 1"=4'



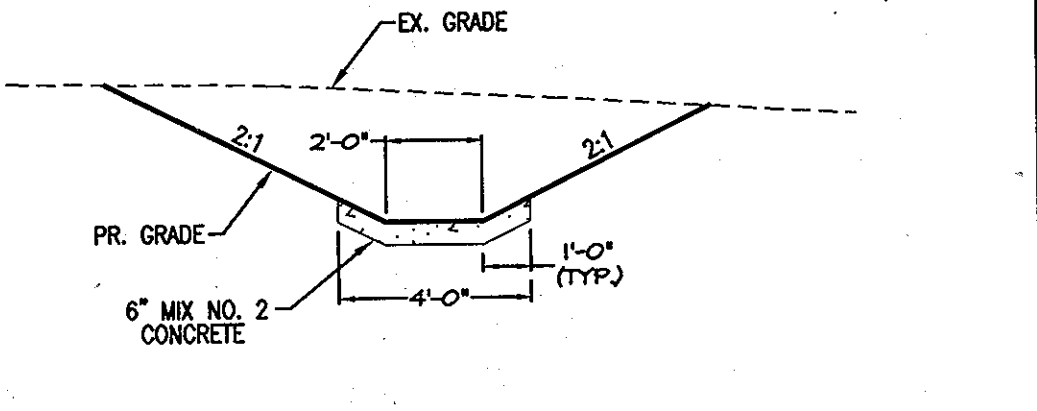
**SPILLWAY PROFILE**  
SCALE: 1"=4'



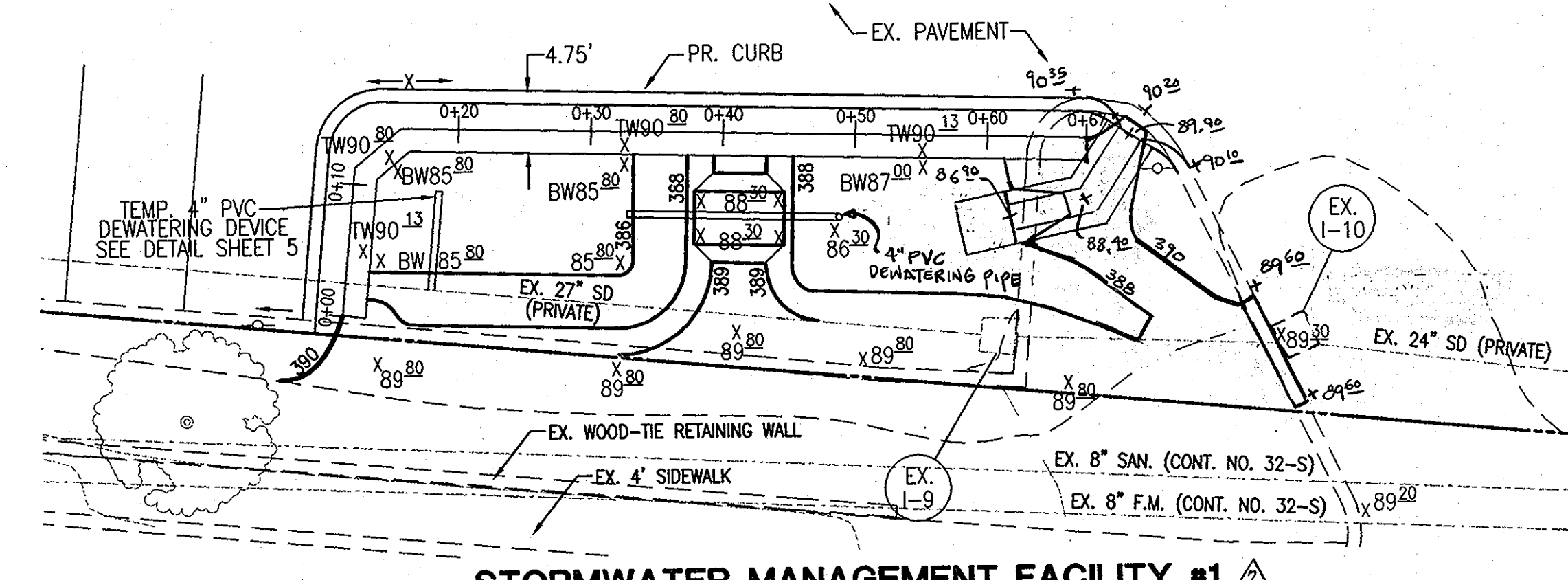
**FIELD CONNECTION DETAIL**  
SCALE: 1"=4'



**UNDERDRAIN PERFORATION DETAIL**  
SCALE: N.T.S.



**CONCRETE SPILLWAY DETAIL**  
SCALE: 1"=4'



**STORMWATER MANAGEMENT FACILITY #1**  
SCALE: 1"=10'

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED SURFACE STORMWATER FILTRATION SYSTEMS (F-1, F-4, AND F-5)**

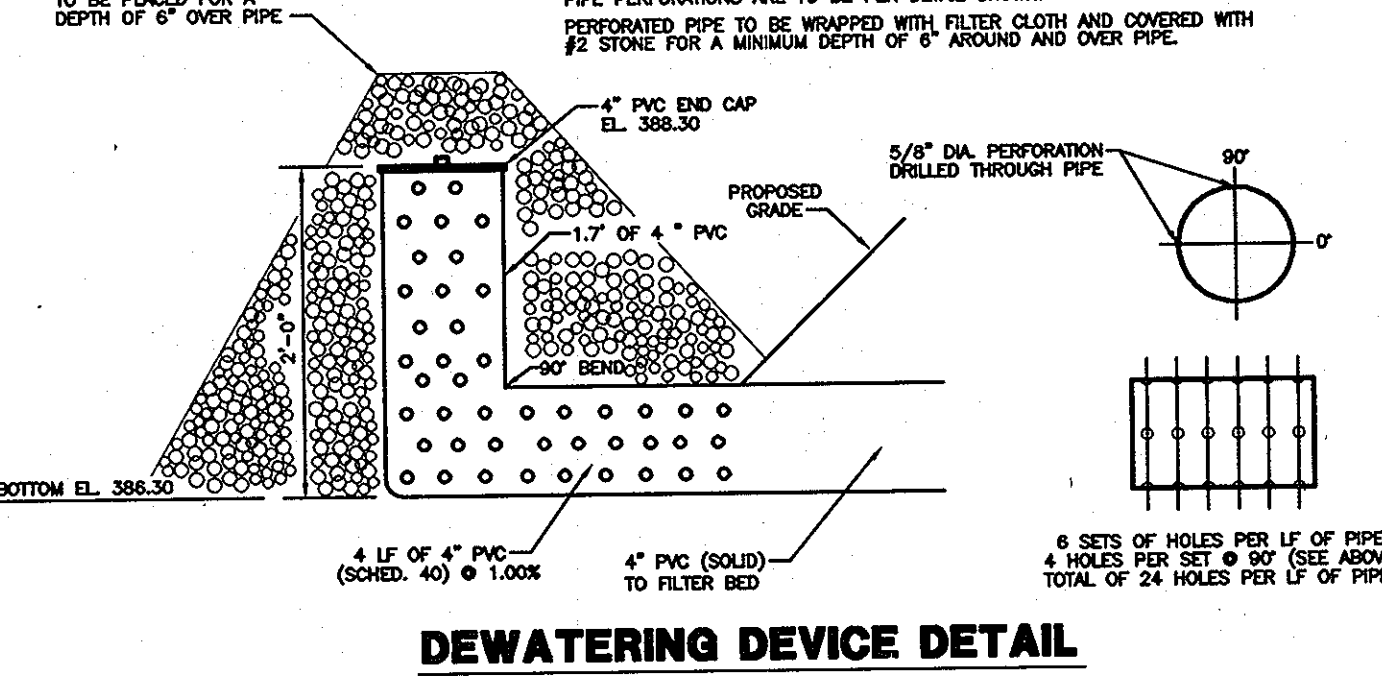
1. THE STORMWATER WETLAND FACILITY SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
2. THE TOP AND SIDE SLOPES OF THE EMBANKMENT SHALL BE MOWED A MINIMUM OF ONCE PER YEAR, WHEN VEGETATION REACHES 10" IN HEIGHT OR AS NEEDED.
3. FILTERS THAT HAVE A GRASS COVER SHALL BE MOWED A MINIMUM OF THREE (3) TIMES PER GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 12 INCHES.
4. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MAINTENANCE OPERATIONS AND AS NEEDED.
5. VISIBLE SIGNS OF EROSION IN THE FACILITY SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
6. REMOVE SILT WHEN IT EXCEEDS FOUR (4) INCHES DEEP IN THE FOREBAY.
7. WHEN WATER PONDING ON THE SURFACE OF THE FILTER BED FOR MORE THAN 72 HOURS, THE TOP FEW INCHES OF DISCOLORED MATERIAL SHALL BE REPLACED WITH FRESH MATERIAL WITH PROPER CLEANING AND DISPOSAL OF THE REMOVED MATERIALS AND LIQUID MUST BE FOLLOWED BY THE OWNER.
8. A LOG BOOK SHALL BE MAINTAINED TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
9. THE MAINTENANCE LOG BOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
10. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION SYSTEM HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

**INSTALLATION NOTES**

1. RETAINING WALL INSTALLATION SHALL BE DONE IN ACCORDANCE WITH DETAILS AND SPECIFICATIONS SHOWN ON SHEET 8.
2. CONCRETE SPILLWAY SHALL BE MAX NO. 2 CONCRETE, EXPANSION JOINTS EVERY 4 FEET.
3. ALL PIPE SHALL BE 4" PVC, SCHEDULE 40. PIPE PERFORATIONS ARE TO BE AS SHOWN.
4. UPON COMPLETION, EXISTING INLET I-9 TO BE MODIFIED AS SHOWN.
5. UPON COMPLETION, EXISTING INLET I-10 TO BE COVERED WITH CONCRETE TOP AND MANHOLE COVER PER HOWARD COUNTY STANDARD DETAILS C-505 AND C-551.
6. AFTER GRADING, CUT SLOPES ARE TO BE STABILIZED WITH EROSION CONTROL MATTING.
7. AFTER GRADING, ALL AREAS EXCEPT FILTER BED ARE TO BE STABILIZED WITH 3" TOPSOIL, SEED, & MULCH. FILTER BED AREA TO BE STABILIZED WITH 6" TOPSOIL, SEED, & MULCH.
8. FILTER MATERIAL AT FILTER BED TO BE CLEAN WASHED "CONCRETE" SAND. FILTER SAND TO BE COVERED WITH FILTER FABRIC PRIOR TO PLACEMENT OF 6" TOPSOIL.
9. FILTER STONE AROUND UNDERDRAINS TO BE CLEAN WASHED NO. 2 STONE OR EQUIVALENT. FILTER STONE TO BE COVERED WITH FILTER CLOTH PRIOR TO PLACEMENT OF SAND.
10. UNDERDRAINS TO THE INLET EXISTING 27" RCP TO REMAIN FIELD CONNECTION DETAIL.
11. UPON COMPLETION, EXISTING CURB AT INLET I-10 TO BE REMOVED ONCE INLET IS MODIFIED FOR INSTALLATION OF FACILITY.
12. REMOVAL OF EXISTING PAVEMENT AND CURB TO BE CARRIED ONLY TO EXTENT NECESSARY FOR INSTALLATION OF FACILITY.
13. CONTRACTOR TO USE EXTREME CARE WHEN EXCAVATING PRETREATMENT AREA AND SAND FILTER BED NEAR THE EXISTING 27" RCP STORM DRAIN.
14. DAMAGE TO ANY EXISTING PAVEMENT, CURB, OR UTILITIES NOT REQUIRED FOR INSTALLATION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.

**SWM FACILITY CONSTRUCTION SEQUENCE**

1. CONTACT HOWARD COUNTY CONSTRUCTION INSPECTION DIVISION (410-313-1880) FOR SWM PRECONSTRUCTION MEETING. 1 DAY
2. INSTALL SILT FENCE, ASPHALT DIVERSION DIKE, AND TEMPORARY CONSTRUCTION FENCE AS SHOWN ON GRADING AND SEDIMENT CONTROL PLAN. 1 DAY
3. WITH GRADING INSPECTOR'S APPROVAL, REMOVE PAVEMENT TO LIMIT REQUIRED FOR INSTALLATION OF RETAINING WALL. BEGIN GRADING FOR SAND FILTER AND PRETREATMENT STORAGE AREA. 5 DAYS
4. BEGIN RETAINING WALL CONSTRUCTION. INSTALL SAND FILTER PER ALL DETAILS SHOWN ON THIS PLAN. FINAL GRADE SPILLWAY AND PRETREATMENT STORAGE AREA. 30 DAYS
5. INSTALL CONCRETE SPILLWAY AND MODIFY INLET I-9 PER DETAIL ON SHEET 8. PROVIDE FINAL STABILIZATION FOR ALL DISTURBED AREAS. 5 DAYS
6. INSTALL PROPOSED CURB, GUARD RAIL, AND ANY NECESSARY PAVING. 15 DAYS
7. ONCE ALL INTERIOR AREAS ARE STABILIZED, MODIFY INLET I-10 PER DETAIL ON SHEET 8. REMOVE EXISTING CURB BEHIND I-10 AND REPLACE WITH CURB OPENING PER DETAIL ON SHEET 8. 5 DAYS
8. WITH GRADING INSPECTOR'S APPROVAL, REMOVE ALL REMAINING SEDIMENT CONTROLS AND PROVIDE FINAL STABILIZATION AS NEEDED. 2 DAYS



**DEWATERING DEVICE DETAIL**  
N.T.S.

BY THE ENGINEER  
I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL, REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF HOWARD COUNTY SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE/SHE MUST ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE HOWARD COUNTY SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION.

*P. V. Mellis* 8-7-02  
SIGNATURE OF ENGINEER DATE  
PIERO VAN MELLITS, P.E. MD LIC.#21875

BY THE DEVELOPER  
I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I SHALL ENGAGE A REGISTERED PROFESSIONAL ENGINEER TO SUPERVISE POND CONSTRUCTION AND PROVIDE THE HOWARD COUNTY SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.

*E. Philip Hanlon* 8/10/02  
SIGNATURE OF DEVELOPER DATE  
E. PHILIP HANLON, MARS SUPERMARKETS, INC.

OWNER	FAX NO. 410-531-3432
A. NAME: Charlotte H. Myers	B. TELEPHONE: 410-531-3432
C. COMPANY: Hardman-Myers, Inc.	
D. ADDRESS: P.O. Box 757	
E. CITY: Clarksville	STATE: MD ZIP: 21029-0757
DEVELOPER	FAX NO. 410-342-4662
A. NAME: E. Philip Hanlon	B. TELEPHONE: 410-342-0197
C. COMPANY: Mars Super Markets, Inc.	
D. ADDRESS: 3401 E. Federal Street	
E. CITY: Baltimore	STATE: MD ZIP: 21213-4011

APPROVED: DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 8/10/02  
DATE  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
*[Signature]* 8/9/02  
DATE  
CHIEF, DIVISION OF LAND DEVELOPMENT  
*[Signature]* 8/9/02  
DATE  
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

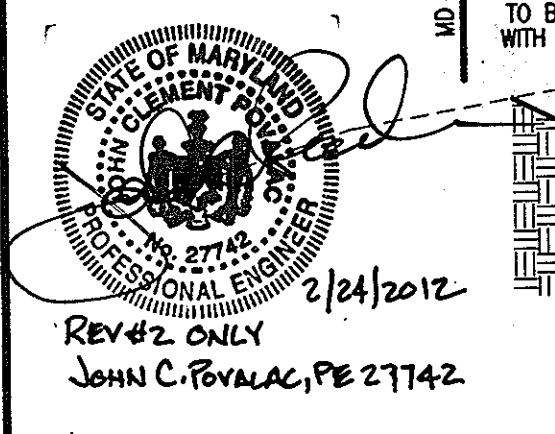
**SDP-7**

**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
9090 JUNCTION DRIVE, SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 782-9782 or (301) 778-1880  
FAX (410) 782-7395

**MARS SUPERMARKET ADDITION ST. JOHN'S PLAZA SITE DEVELOPMENT PLAN SWM DETAIL PLAN**  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1) SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND

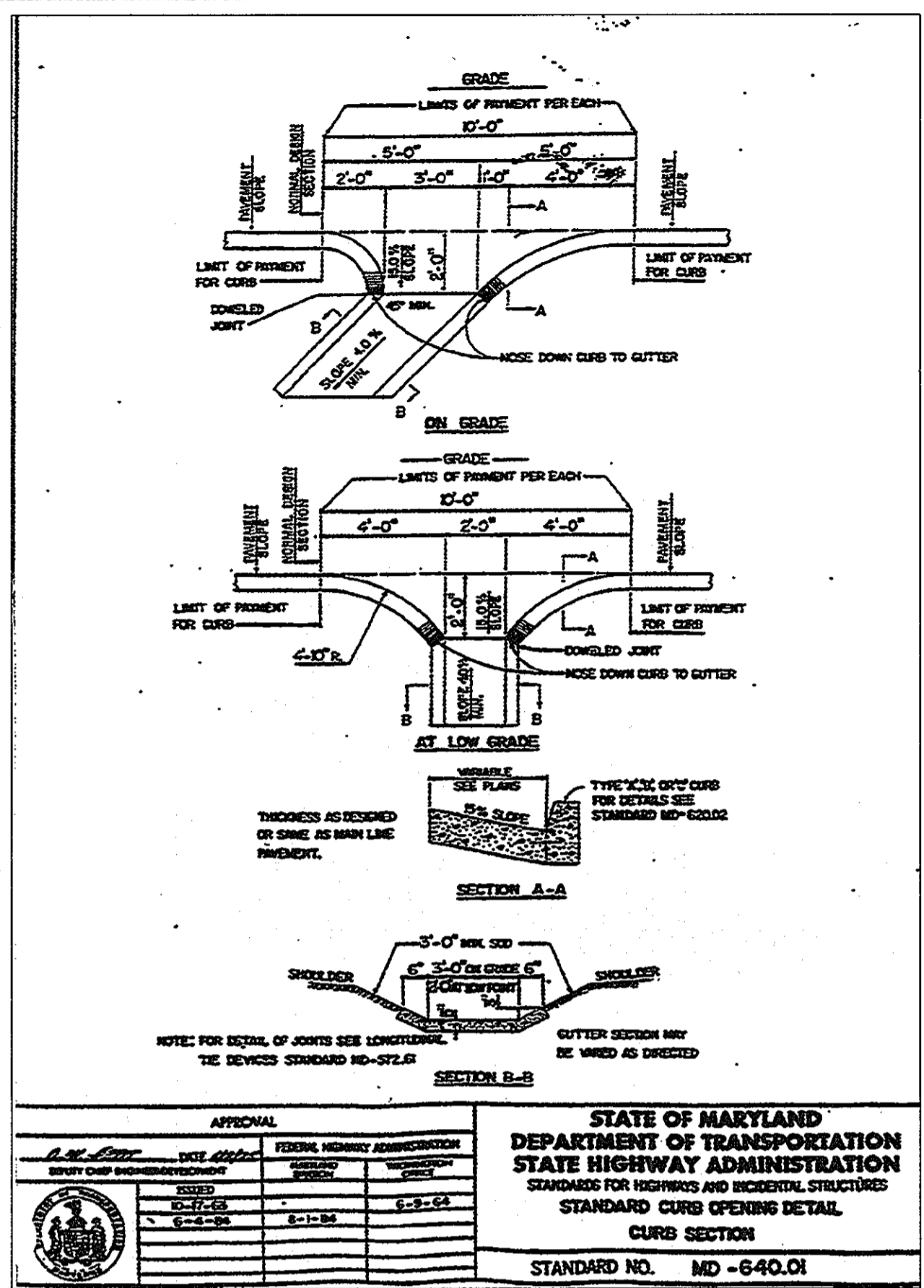
DATE	REVISIONS	JOB NO.:
1/25/12	RELOCATE CURB OPENINGS AND CONCRETE CHANNEL TO SURFACE SAND FILTER FACILITY. RELOCATE INLET I-10 AND CONCRETE CURB.	11643.01
		SCALE: AS SHOWN
		DATE: 08/07/02
		DRAWN BY: RLZ, TCN
		DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 7 OF 16

BALTIMORE LAND DESIGN GROUP, INC.  
230 SCHILLING CIRCLE, SUITE 304  
HUNT VALLEY, MARYLAND 21031  
PHONE: 410-229-9251



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 LAW OF THE STATE OF MARYLAND LICENSE NO. 27142, EXPIRATION DATE JULY 18, 2012.





### LOG OF BORING NO. SB-1

PROJECT: St. John's Plaza  
PROJECT NO: 01559  
PROJECT LOCATION: Howard County, Maryland

DATE STARTED: August 24, 2001  
DATE COMPLETED: August 24, 2001  
DRILLING CONTRACTOR: Geo-Technology Associates, Inc.  
DRILLER: Geo-Technology Associates, Inc.  
SAMPLING METHOD: Split Spoon

WATER LEVEL: 14.3' Dry  
DATE: 8/24/01  
CAVED IN: 14.2' - 13.5'

GROUND SURFACE ELEVATION: 391.2  
DATUM: MSL  
EQUIPMENT: B-61  
LOGGED BY: TODD  
CHECKED BY: S. Rowe

SAMPLE NUMBER	DEPTH (FT)	REMARKS
1	0.5	Asphalt: 3 in. Roadbed: 1 in.
2	2.5	Well spoon at 19.0 ft.
3	5.0	Bag Sample: 1.0 - 8.0 ft.
4	8.5	
5	13.5	
6	18.5	Bottom of Hole at 20.0 ft.

Coordinates: N: 586823.0, E: 1361283.0

### LOG OF BORING NO. SB-2

PROJECT: St. John's Plaza  
PROJECT NO: 01559  
PROJECT LOCATION: Howard County, Maryland

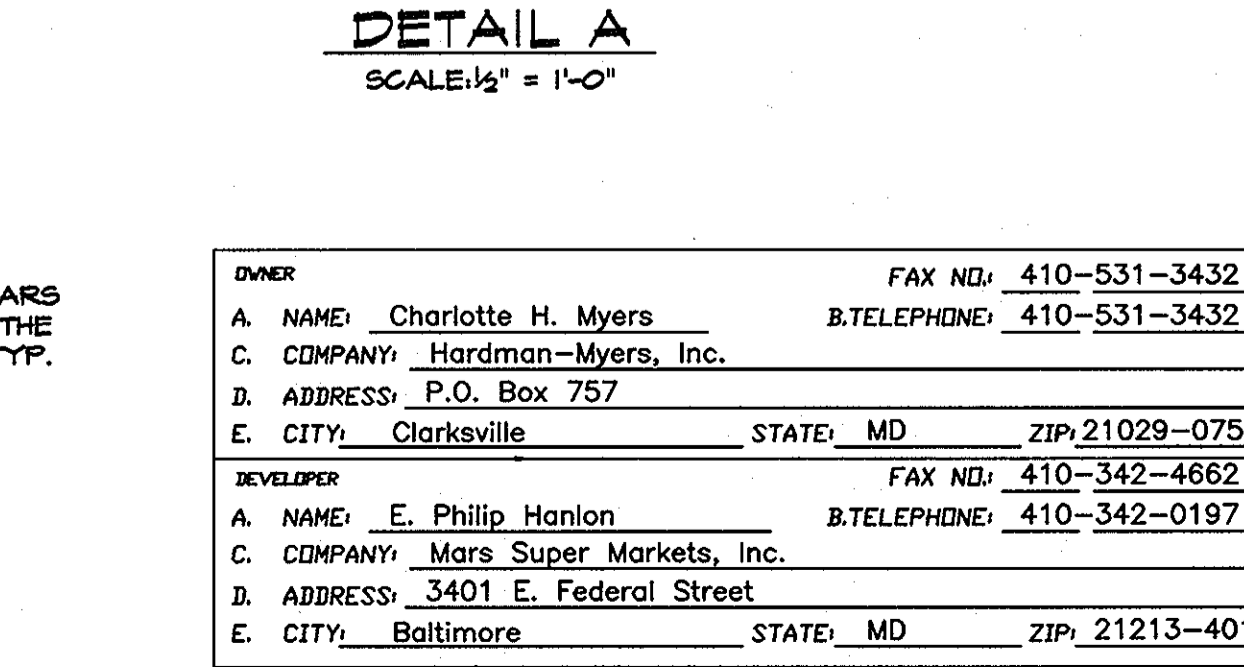
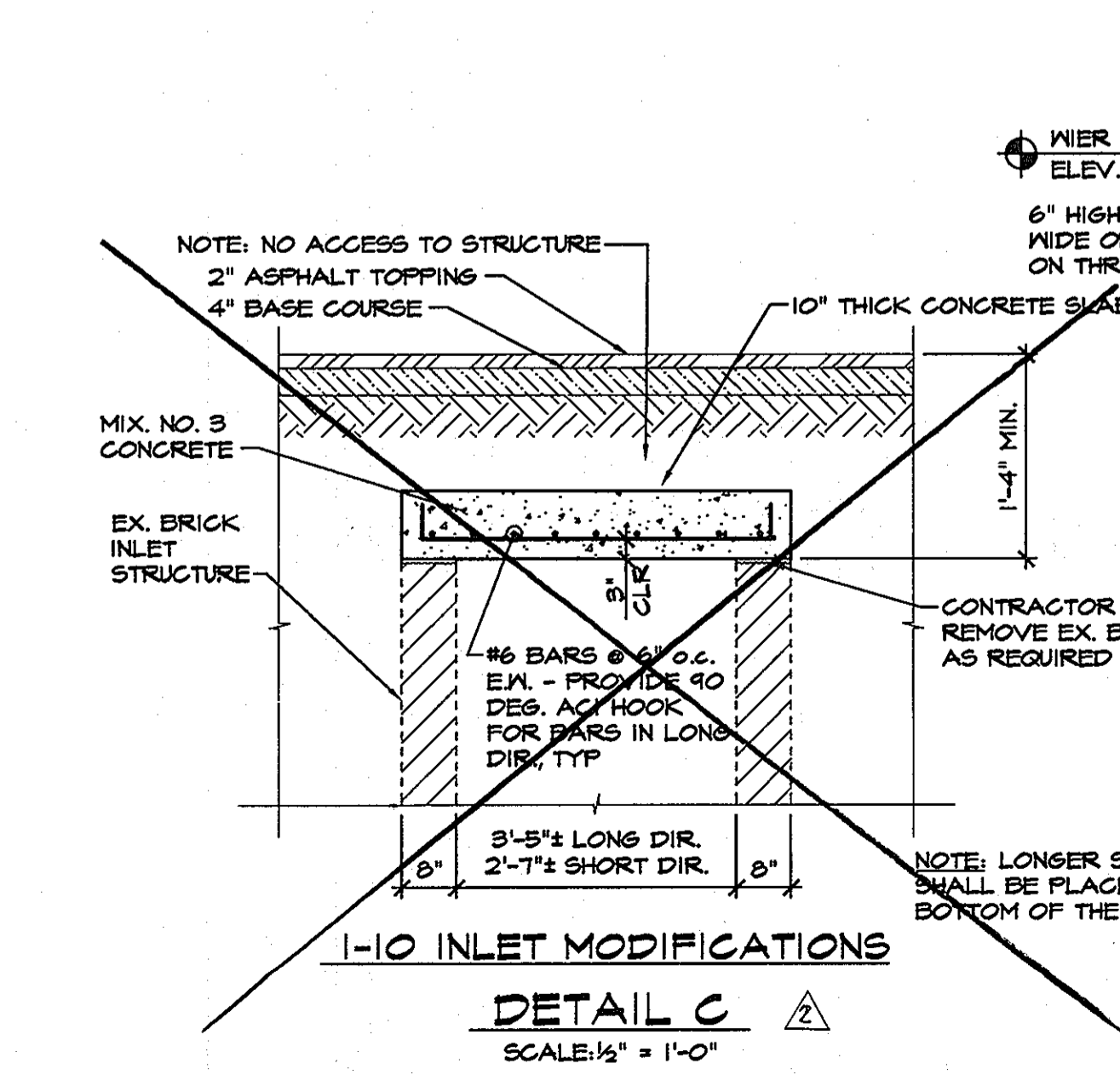
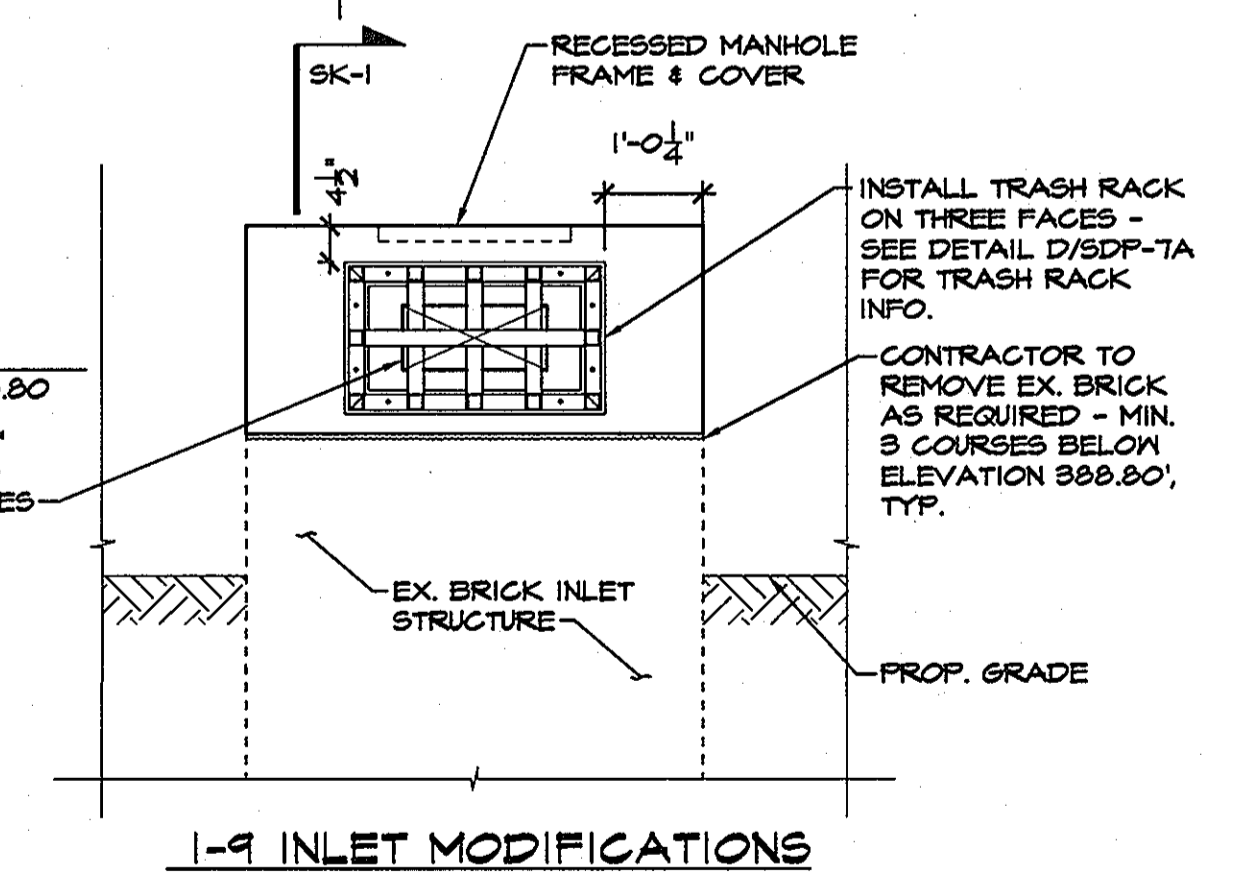
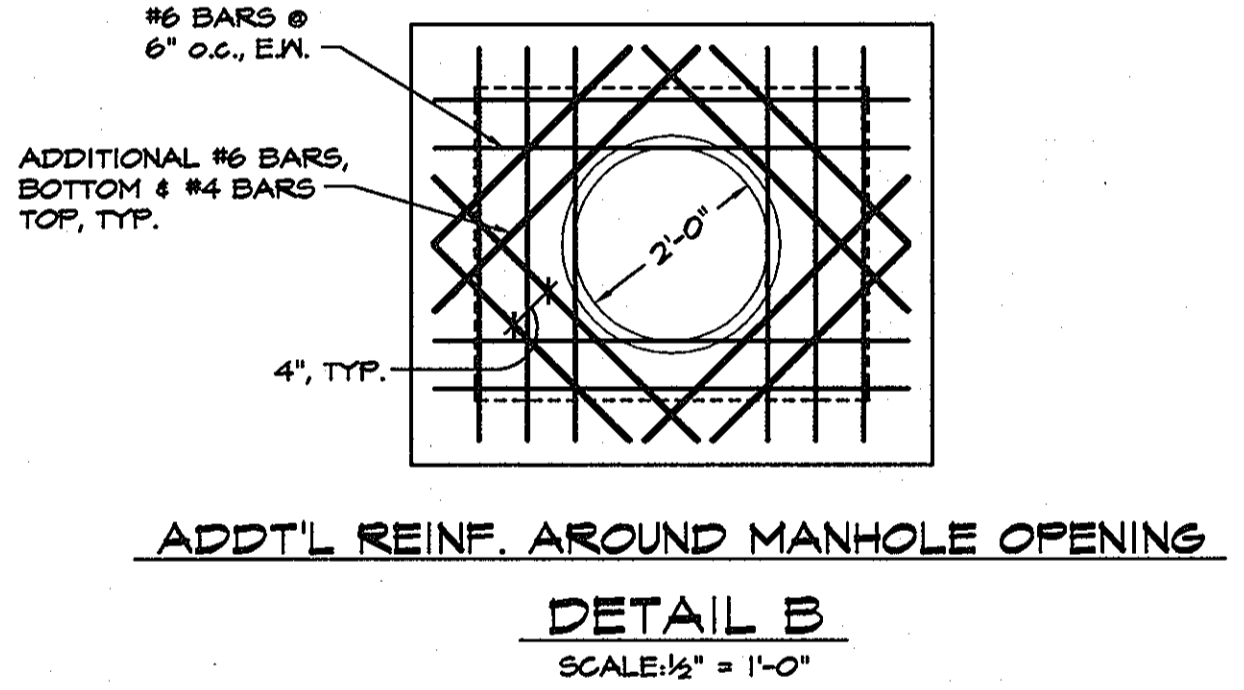
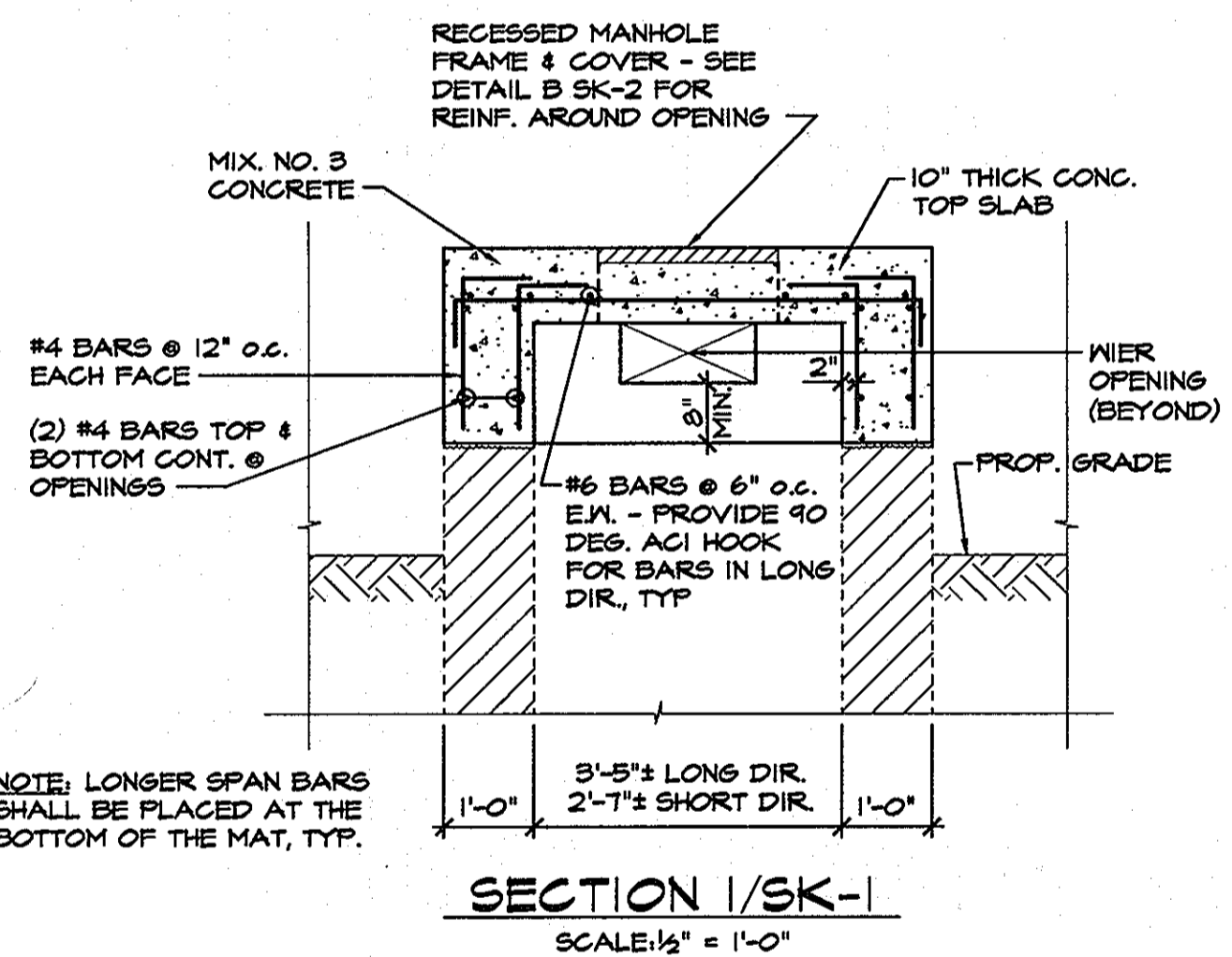
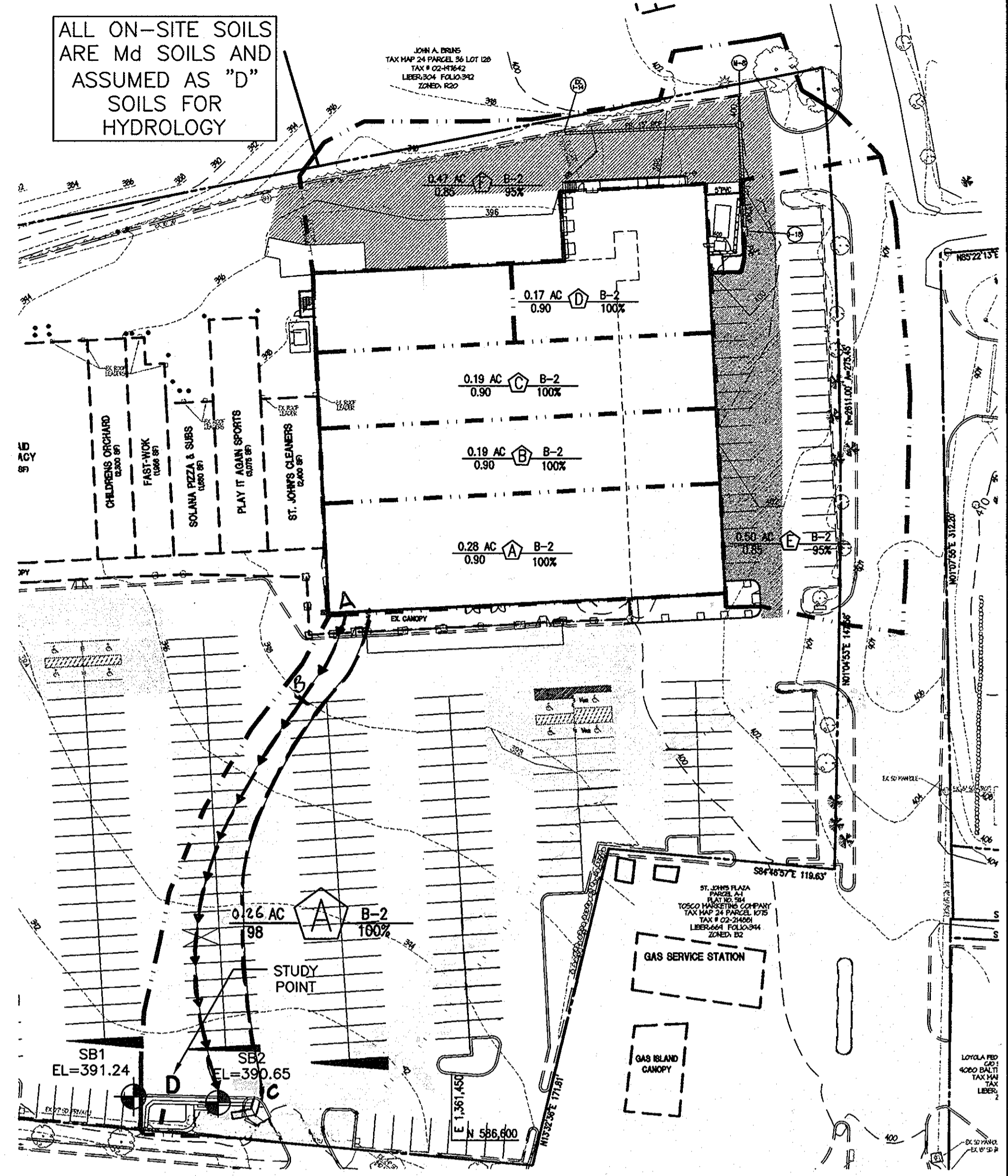
DATE STARTED: August 24, 2001  
DATE COMPLETED: August 24, 2001  
DRILLING CONTRACTOR: Geo-Technology Associates, Inc.  
DRILLER: Geo-Technology Associates, Inc.  
SAMPLING METHOD: Split Spoon

WATER LEVEL: 15.1' Dry  
DATE: 8/24/01  
CAVED IN: 15.8' - 15.8'

GROUND SURFACE ELEVATION: 390.7  
DATUM: MSL  
EQUIPMENT: B-61  
LOGGED BY: TODD  
CHECKED BY: S. Rowe

SAMPLE NUMBER	DEPTH (FT)	REMARKS
1	0.5	Asphalt: 3 in. Roadbed: 1 in.
2	2.5	Well spoon at 18.5 ft.
3	5.0	
4	8.5	
5	13.5	
6	18.5	Bottom of Hole at 20.0 ft.

Coordinates: N: 586819.0, E: 1361327.0



FOR ALL SOIL INFORMATION REFER TO REPORT 'REPORT OF PRELIMINARY GEOTECHNICAL EXPLORATION - MARS SUPERMARKET EXPANSION' PERFORMED BY GEO-TECHNOLOGY ASSOCIATES, INC. AND DATED ON JULY 12, 2001 AND SEPTEMBER 27, 2001

**STRUCTURAL NOTES**

RAILS TO BE UNTREATED TIMBER POSTS TO BE TREATED TIMBER. WHERE PAINT IS TO BE CALLED FOR, TWO COATS ARE TO BE APPLIED. ALL LUMBER TO BE SOUTHERN YELLOW PINE OF 1400 STRESS GRADE OR BETTER. PAINT IS TO BE IN A COLOR SCHEME AND STRIPING DETAIL IN ACCORDANCE WITH THE LATEST 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES'

**GENERAL SWM FACILITY STORAGE REQUIREMENTS (DRAINAGE AREA 'A' ONLY)**

STEP	REQUIREMENT	VOLUME REQUIRED (cu-ft)	NOTES
1	Water Quality Volume (WQV)	0.0135	0.0208 cu-ft provided with sand filter design (min. requirement: 75% of total WQV)
2	Recharge Volume (Rev)	N/A	Not required for redevelopment.
3	Channel Protection Volume (Cpv)	N/A	Not required for redevelopment.
4	Overbank Flood Protection Volume (Op)	N/A	Not required for redevelopment. Site not located within designated flood zone area.
5	Extreme Flood volume (Of)	N/A	Not required for redevelopment. Site not located within designated flood zone area.

**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. 21742, EXPIRATION DATE JULY 19, 2012.

**SDP-7A**

**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

9090 JUNCTION DRIVE, SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 792-8792 or (301) 778-1890  
FAX (410) 792-7395

**MARS SUPERMARKET ADDITION ST. JOHN'S PLAZA**  
SITE DEVELOPMENT PLAN  
SWM DETAIL PLAN

TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DATE: 1/25/12  
REVISIONS: RELOCATE CURB OPENING AND CONCRETE CHANNEL TO SURFACE SAND FILTER FACILITY. RELOCATE INLET 1'-10" AND CONCRETE CURB.

DATE: 08/07/02  
DRAWN BY: RLZ, TCN  
DESIGN BY: TCN  
REVIEW BY: PVM  
JOB NO.: 11643.01  
SCALE: AS SHOWN  
SHEET: 8 OF 16



**SEGMENTAL RETAINING WALL SPECIFICATIONS**

**PART 1 - GENERAL**

1.1 Work includes furnishing and installing segmental retaining wall units, geogrid reinforcement, wall fill, and backfill to the lines and grades shown on the construction drawings and as specified herein. The contract also includes the furnishing and installing of appropriate materials, equipment, and labor required for construction of the geogrid reinforced, segmental retaining wall.

**1.2 REFERENCE STANDARDS**

- A. ASTM C90-75 (1981 rev) - Hollow Load Bearing Masonry Units
- B. ASTM C140-75 (1981 rev) - Sampling and Testing Concrete Masonry Units
- C. ASTM C145-75 (1981 rev) - Solid Load Bearing Concrete Masonry Units
- D. Geosynthetic Research Institute (GRI), GR-604 - Determination of Long Term Design Strength of Geogrids.
- E. ASTM D 638 - Test Method for Tensile Properties of Plastic
- F. ASTM D 1248 - Specification of Polyethylene Plastics Molding and Extrusion Materials
- G. ASTM D 4218 - Test Method for Carbon Black Content in Polyethylene Compounds by the Muffle Furnace Technique
- H. ASTM D 3034 - Specification for Polyvinyl Chloride (PVC) Pipe

**1.3 DELIVERY, STORAGE AND HANDLING**

- A. Contractor should check the materials upon delivery to assure that proper material has been received.
- B. Contractor should prevent excessive mud, wet cement, epoxy, and like materials which may affix themselves, from coming in contact with the materials.
- C. Geogrids should be stored above -20 degrees F.
- D. Contractor should protect the materials from damage. Damaged material should not be incorporated into the reinforced retaining wall.

**PART 2 - PRODUCTS**

**2.1 DEFINITIONS**

- A. Geogrid is a high density polyethylene grid, specifically fabricated for use as a soil reinforcement.
- B. Concrete retaining wall units are as detailed on the drawings and as specified herein.
- C. Geosynthetic Drainage Composites are polyethylene net structure with non-woven geotextiles bonded to both sides.
- D. Erosion Control Blankets consist of a web of polyolefin fibers securely bounded by polyolefin threads between two high strength polyolefin nets.
- E. Backfill is the soil which is used as fill for the reinforced soil mass.
- F. Foundation soil is the in-situ soil or controlled compacted fill placed below the bottom of the retaining wall and geogrid zone.

**2.2 MATERIALS**

The contractor should submit manufacturer's catalog and samples of the proposed materials for approval by the project geotechnical engineer a minimum of seven days before the start of construction. Materials should be transported to the site only after approval of the proposed materials by the project geotechnical engineer.

**A. Concrete Units**

- 1. Masonry units should be Keystone Standard Retaining Wall Units. Substitution of other concrete units including Mesa Standard Units may be allowed with the prior approval of the Geotechnical Engineer.
- 2. Concrete wall units should have a minimum 28 day compressive strength of 3000 psi, in accordance with ASTM C-90. The concrete should have adequate freeze/thaw protection with a maximum moisture absorption of 6 to 8 percent.
- 3. Exterior dimensions may vary. Units are required to have a minimum of one square foot of face area each.
- 4. Units should have angled sides and be capable of attaining concave and convex alignment curves in accordance with manufacturer's recommendations.
- 5. Units should be interlocked with non-corrosive reinforced fiberglass pins.
- 6. Units should be interlocked as to provide a maximum of 1-1/4 inch of setback per block.

**B. Leveling Pad**

Material for leveling pad/footing should consist of compacted free-draining coarse aggregates meeting the requirements of ASTM #57 or Graded Aggregate Base (GAB) per Maryland State Highway Administration Standard Specifications for Construction and Materials. A minimum of 6 inches deep and 36 inches wide compacted leveling pad is required.

**C. Fiberglass Connecting pins**

- 1. Thermoset isophthalic polyester resin pultruded fiberglass reinforcements rods, minimum one-half inch in diameter.
- 2. Pins should have a minimum flexural strength of 128,000 psi and short beam shear of 6400 psi.
- 3. For substitute concrete units, use of other compatible connector system may be allowed with the prior approval of the Geotechnical Engineer.

**D. Geogrid**

Geogrid should be Tensor UX 1,400SB or equivalent as approved by the geotechnical engineer. The geogrid should have a long term design strength of 1,334 pounds/foot for UX 1,400SB geogrid.

**E. Reinforced Backfill**

Reinforced backfill soils should be non-plastic, controlled fill meeting the requirements of AASHTO A-2-4 or more granular. The geotechnical report for the project indicates that A-2-4 material is available on site. However, the material may not be readily available and also may be wet of optimum moisture. Contractor should be prepared to dry the on-site soils or import suitable AASHTO A-2-4 materials if these materials are not readily available from an on-site source at the time of construction.

**F. Controlled Fill**

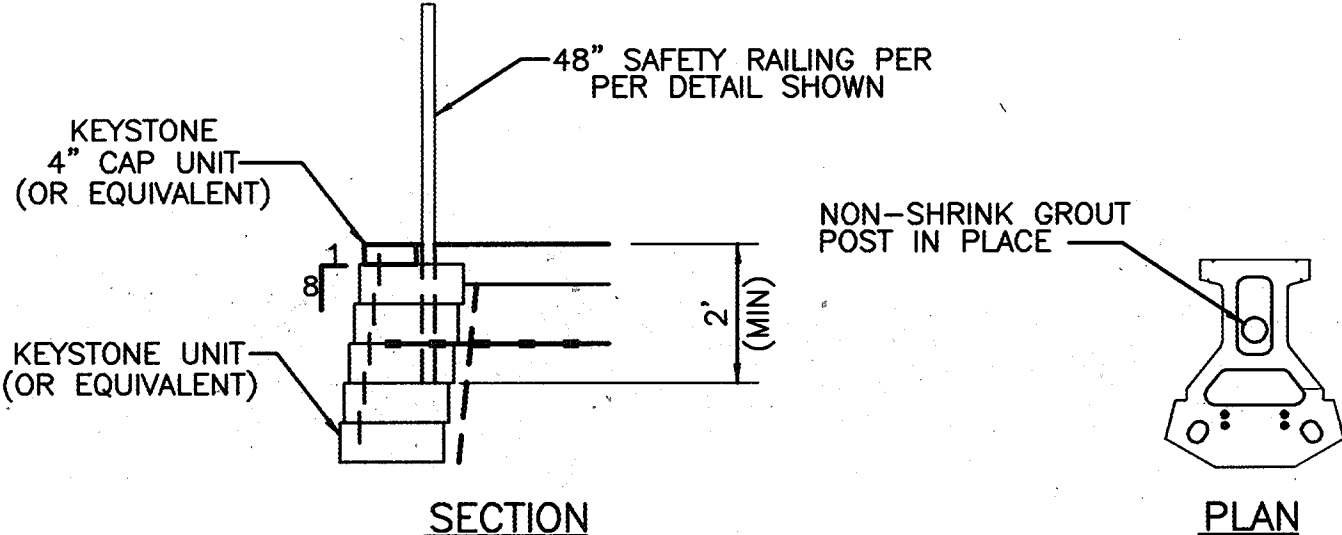
Controlled Fill soils to be placed outside the Reinforced Backfill area and where specified should be soils meeting the requirements of AASHTO A-2-4 or more granular.

**G. Drainage Pipe**

The drainage pipes should be perforated or slotted PVC pipe manufactured in accordance with ASTM D-3034.

**H. Filter Fabric**

Filter Fabric should be non-woven, polypropylene geotextile, 140 N manufactured by Nicolon Miraf Group or approved equivalent.



**SAFETY RAILING DETAIL**

**PART 3 - EXECUTION**

**A. Excavation**

- 1. The contractor should excavate to the lines and grades shown on the construction drawings. Under no circumstances should the excavation lines and grades be exceeded, except with owner's approval. The contractor should protect the excavation from sloughing by placing a membrane over the face of the excavation.
- 2. Excavations should be sloped or otherwise supported in accordance with Occupation Safety and Health Administration (OSHA) and other local and state regulations.

**B. Foundation Subgrade Preparation**

- 1. Foundation soil should be excavated as required for installation of leveling pad, geogrid and other elements and as shown on the construction drawings.
- 2. Foundation soil should be examined by the Engineer to assure that the actual foundation soil strength meets or exceeds assumed design strength. Soils not meeting required strength should be removed and replaced with controlled, compacted material.
- 3. Over-excavated areas should be filled with select and approved material and compacted to 92 percent of maximum dry density in accordance with the Modified Proctor, ASTM D-1557.
- 4. Allowable bearing pressure for natural and controlled, compacted fill soils should be at least 2000 psf for the retaining wall.
- 5. The exposed foundation subgrade should be proofrolled with a loaded dump truck. Any soft or unstable areas identified during proofrolling should be overexcavated and backfilled with Controlled Fill.
- 6. Fill required to establish the sloping surface in front of the wall should consist of Controlled Fill and should be placed, compacted and field tested in accordance with the requirements specified herein.

**C. Leveling Pad**

- 1. The leveling pad should be placed as shown on the construction drawings with a minimum thickness of 6 inches.
- 2. Leveling pad materials should be installed upon undisturbed in-situ soils or controlled, compacted backfill.
- 3. Leveling Pad should be prepared to insure complete contact of retaining wall unit with base. Gaps should not be allowed.

**D. Unit Installation**

- 1. First course of concrete wall units should be placed on the footing. The units should be checked for level and alignment. The first course is the most important to insure accurate and acceptable results.
- 2. Insure that units are in full contact with base.
- 3. Units are placed side by side for full length of wall alignment. Alignment may be done by means of a string line or offset from base line.
- 4. Install fiberglass connecting pin.
- 5. Lay up each course insuring that the connecting pins are inserted through front slot of the unit, and into the receiving slot in the course beneath. Repeat procedure to the extent of wall height.
- 6. At the end of each course where the wall changes elevation, units should be turned into the backfill. Units should be laid as to create the minimum radius possible. Unless otherwise shown on the drawings, a minimum of one unit should be installed into the grade. Only the front face of the units should be visible from the side of the wall.
- 7. Standard Units should be used to make convex and concave curves in accordance with manufacturer's recommendations.
- 8. Cap units should be installed and bonded with construction adhesive or epoxy cement as required by manufacturer, as approved by the Engineer.
- 9. Contractor should provide positive drainage for the back of the retaining wall during construction.

**E. Geogrid Installation**

- 1. All utilities in the vicinity of any retaining wall or geogrid reinforcement must be installed and properly backfilled prior to placing the geogrid soil reinforcement or constructing the wall.
- 2. The geogrid soil reinforcement should be laid horizontally on compacted backfill, connected to the concrete wall units. Hook grid over the fiberglass connecting pin, pull taut, and anchor before backfill is placed on the geogrid.
- 3. Slack in the geogrid at the wall unit connections should be removed in a manner, and to such a degree, as approved by the Engineer.
- 4. Geogrid should be laid at the proper elevation and orientation as shown on the construction drawings or as directed by the Engineer.
- 5. Correct orientation (roll direction) of the geogrid should be verified by the Contractor.
- 6. Geogrid should be secured in-place with staples, pins, sand bags, or backfill as required by fill properties, fill placement procedures, or weather conditions, or as directed by the Engineer.
- 7. Overlaps
  - a. Uniaxial geogrid does not need to be overlapped in the across the roll direction, except to contain the fill at the slope face when wrap-around facing is used. Uniaxial grid should be overlapped 48" in the rolled direction.
  - b. A layer of soil a minimum of 4 inches in thickness should be spread between uniaxial geogrid layers in the area to be overlapped, or as directed.

**F. Fill Placement**

- 1. Wall backfill material should be placed in no more than 8-inch lifts and compacted to 92 percent of the Modified Proctor (ASTM D-1557).
- 2. Backfill should be placed, spread, and compacted in such a manner that minimizes the development of wrinkles in and/or movement of the geogrid.
- 3. Only hand-operated compaction equipment should be allowed within 4 feet of the wall face.
- 4. Backfill should be placed from the wall outward to insure that the geogrid remains taut.
- 5. Tracked construction equipment should not be operated behind or above the wall.
- 6. Rubber-tired equipment may pass over the geogrid reinforcement at slow speeds, less than 10 MPH. Sudden braking and sharp turning should be avoided.
- 7. Place filter fabric between the unit core fill and the reinforced backfill as shown on plans.
- 8. The finished sloping surface on the toe side of Retaining Walls A and B should be protected by installing the permanent erosion control blanket and seeding in accordance with project requirements.

**G. DRAINAGE**

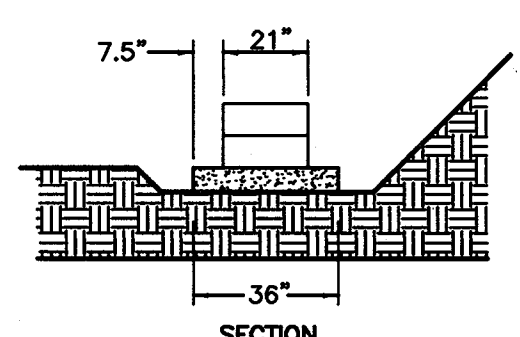
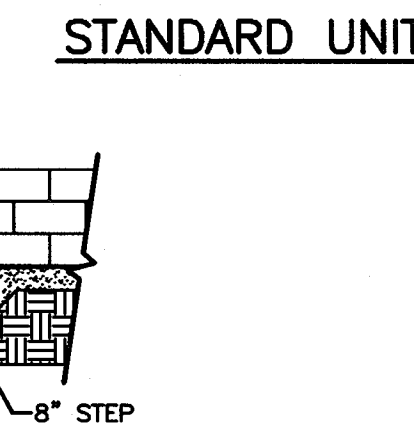
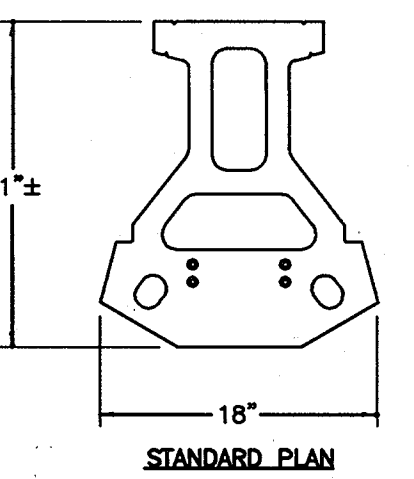
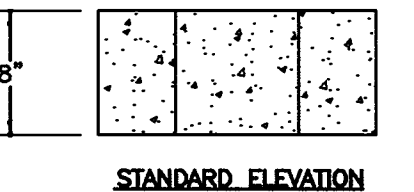
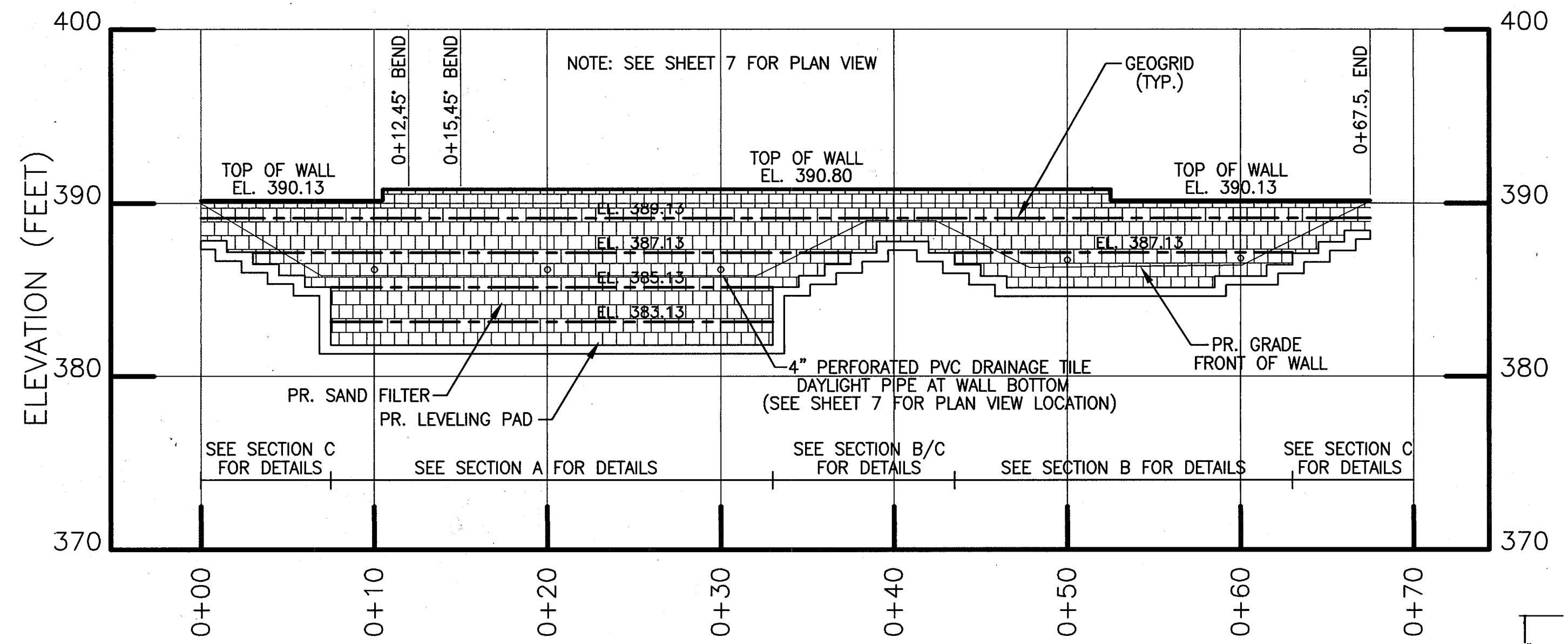
- 1. Drainage fill should be placed behind the wall to the limits shown. The drainage fill should be a minimum of 12-inches thick. The drainage fill should be ASTM #57 stone. The drainage fill should be wrapped in filter fabric (Mirafl 140N or equal) as shown on the drawings.
- 2. Positive drainage should be maintained during and after construction. Soils within the reinforced zone that become wet during construction should be dried to optimum moisture or removed.
- 3. Install the perforated drainage pipes and lateral drainage pipes incrementally along with installation of concrete units and placement of fill.

**PART 4 - CONSTRUCTION OBSERVATION AND TESTING**

- A. The required leveling pad subgrade bearing capacity should be certified by a Maryland Registered Professional Geotechnical Engineer prior to footing placement.
- B. Construction of retaining wall should be performed under the observations of a Maryland Professional Engineer. Performance testing should be performed to verify material engineering properties. Upon completion of the work, the engineer should submit a signed and sealed report stating that the retaining wall was constructed in accordance with the plans, specifications, and accepted modifications (if applicable).

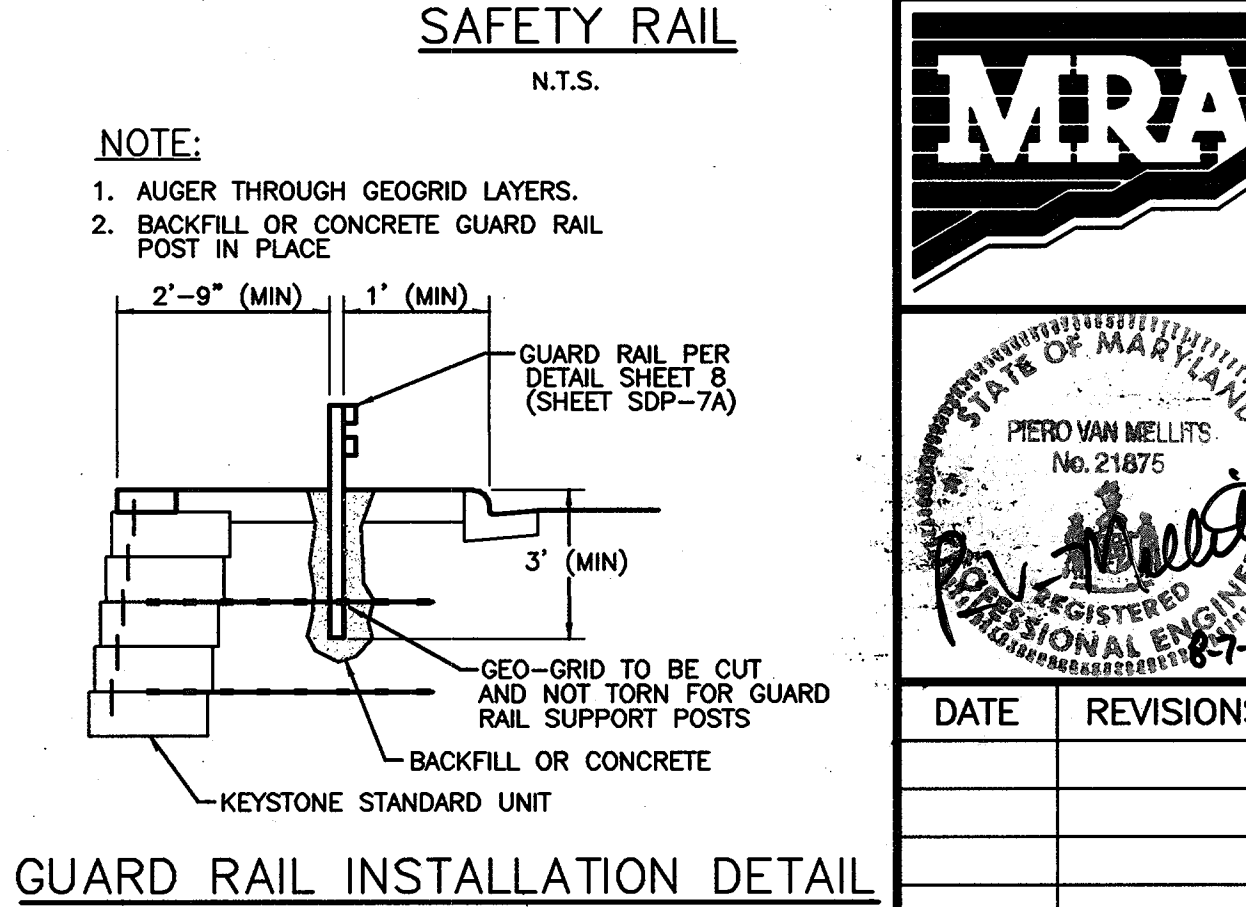
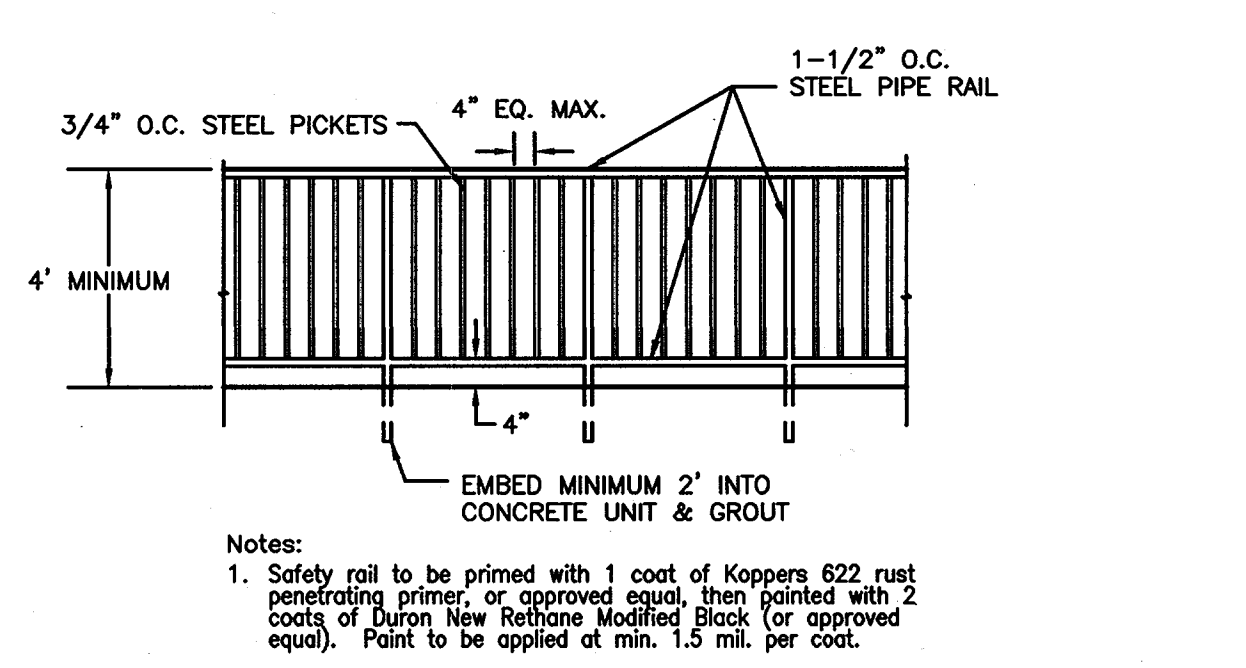
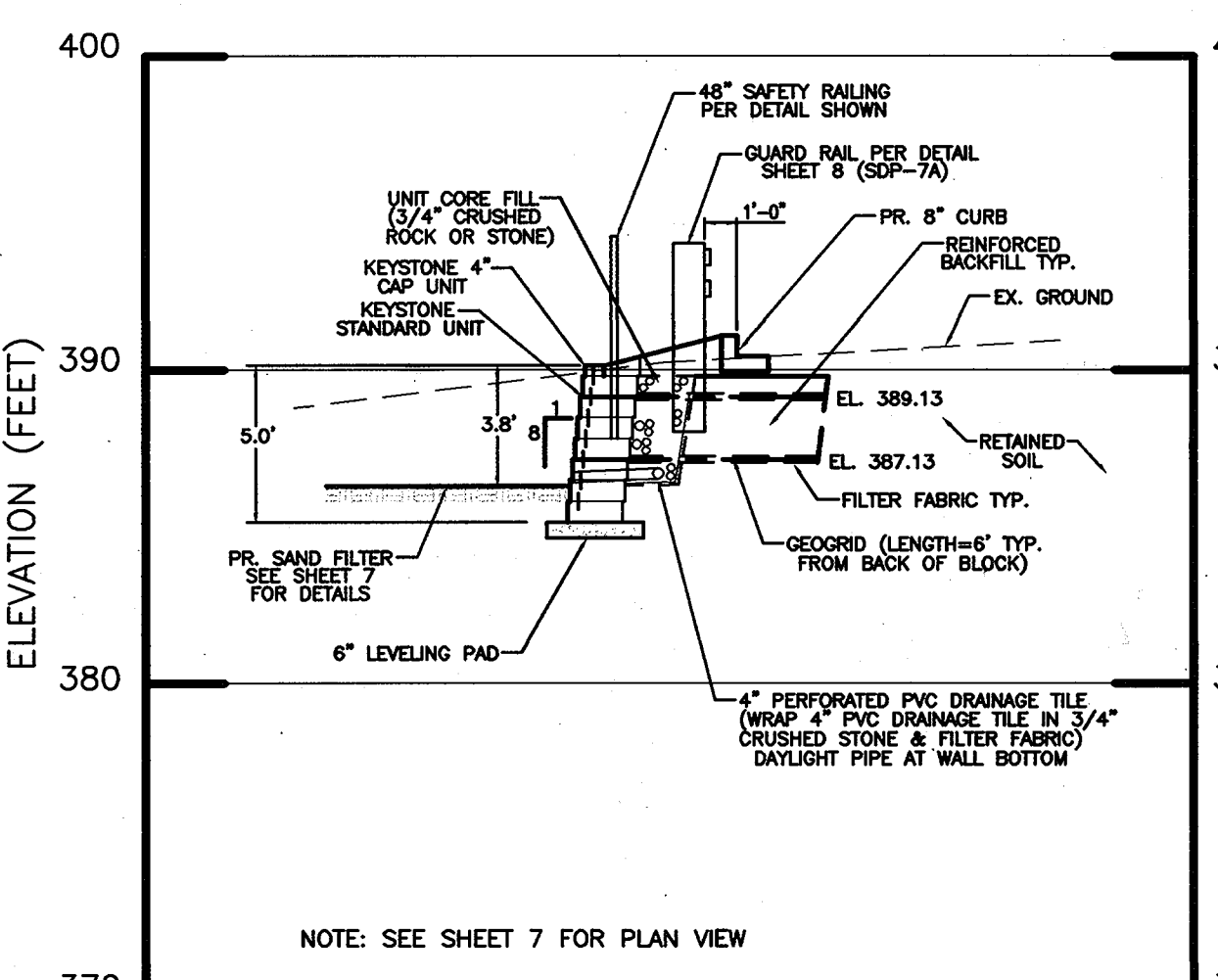
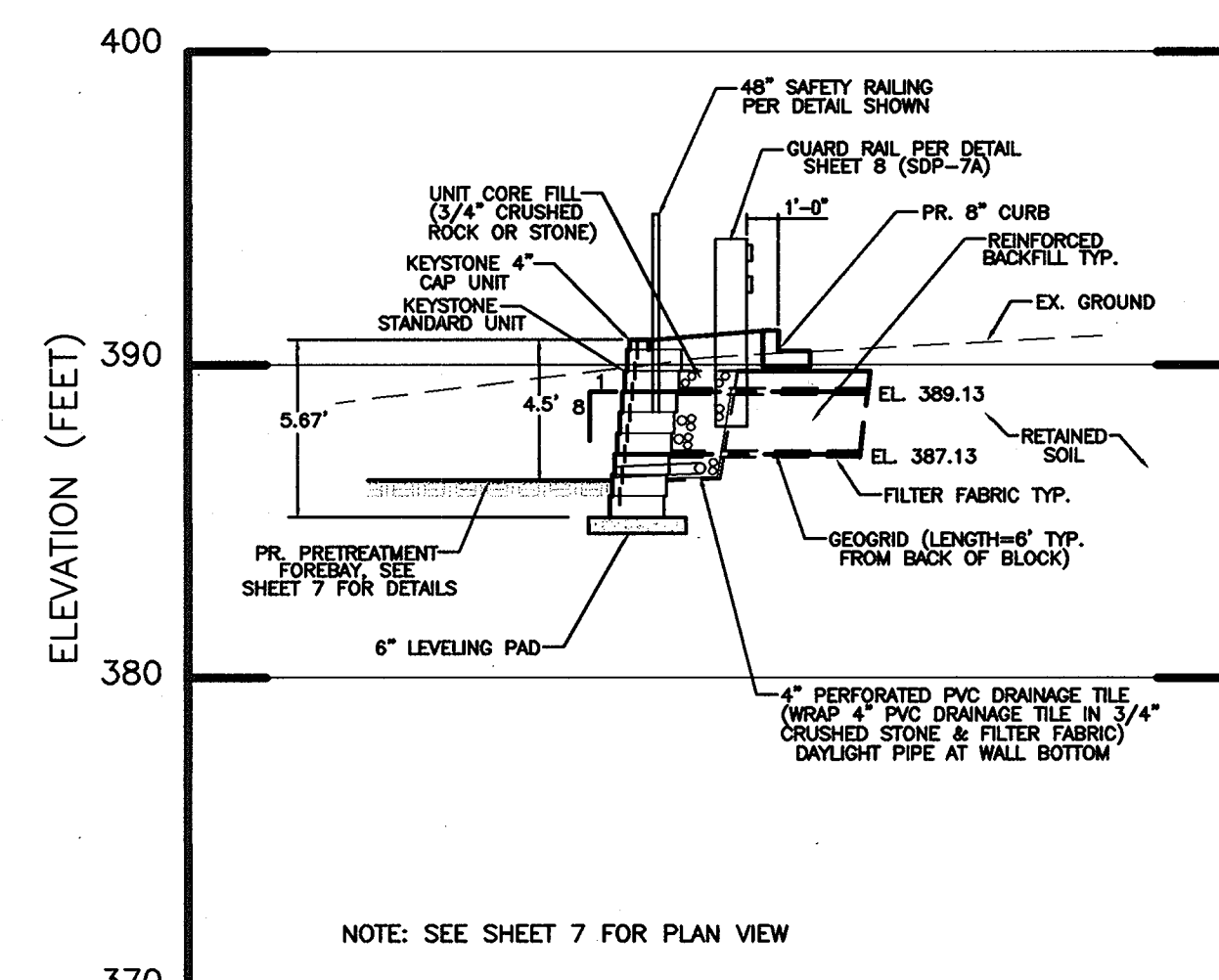
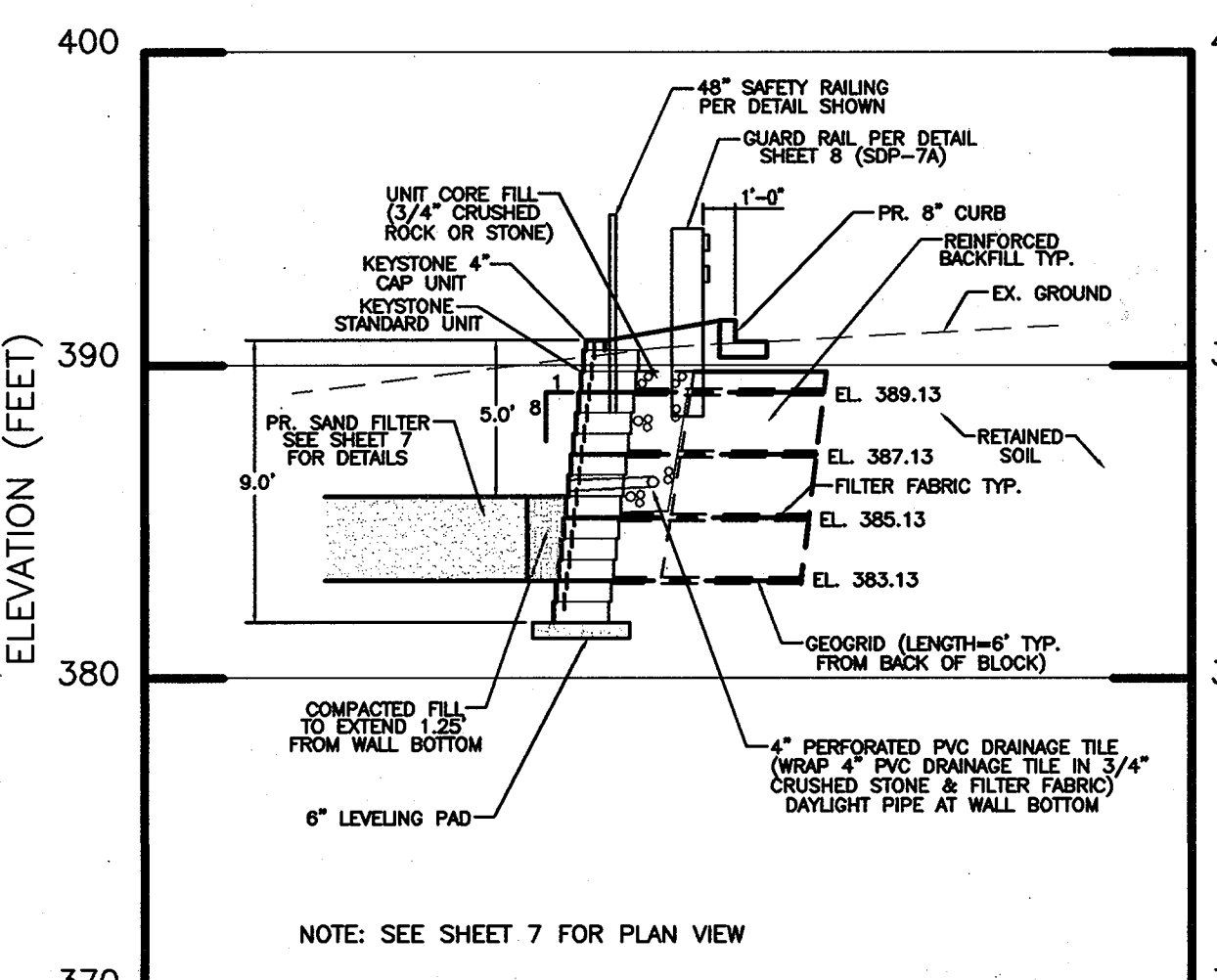
**PART 5 - DESIGN CRITERIA**

- 1. Required minimum allowable foundation bearing pressure is 2,000 psf.
- 2. Design internal friction angle = 30 degrees.
- 3. Design moist unit weight = 130 pcf.
- 4. Retaining walls are not designed to resist hydrostatic pressure.
- 5. Foundation soil internal friction angle = 30 degrees and cohesion = 0 psf.
- 6. This design includes a surcharge of 250 psf for traffic live load at the top of the wall.



APPROVED DEPARTMENT OF PLANNING AND ZONING  
 [Signatures]  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

**SDP-8**



<b>OWNER</b>		FAX NO.: 410-531-3432	
A. NAME: Charlotte H. Myers	B. TELEPHONE: 410-531-3432		
<b>DEVELOPER</b>		FAX NO.: 410-342-4662	
C. NAME: E. Philip Hanlon	B. TELEPHONE: 410-342-0197		
<b>COMPANY: Hardman-Myers, Inc.</b>			
D. ADDRESS: P.O. Box 757			
E. CITY: Clarksville	STATE: MD	ZIP: 21029-0757	
<b>COMPANY: Mars Super Markets, Inc.</b>			
D. ADDRESS: 3401 E. Federal Street			
E. CITY: Baltimore	STATE: MD	ZIP: 21213-4011	

**MRA**  
 MORRIS & RITCHIE ASSOCIATES, INC.  
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
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 ANNAPOLIS JUNCTION, MARYLAND 20701  
 (410) 782-9792 or (301) 776-1680  
 FAX (410) 792-7395

**MARS SUPERMARKET ADDITION**  
**ST. JOHN'S PLAZA**  
**SITE DEVELOPMENT PLAN**  
**SWM FACILITY RETAINING WALL DETAILS**  
 TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.: 11643.01
		SCALE: AS SHOWN
		DATE: 08/07/02
		DRAWN BY: RLZ, TCN
		DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 9 OF 16



**LEGEND**

- DECIDUOUS TREES
- FLOWERING TREES
- EVERGREEN TREES
- SHRUBS

**Schedule D**  
Stormwater Management Area Landscaping

Linear Feet of Perimeter	185 L.F., Type B
Number of Trees Required	4.0
Shade Trees 1/50	5.0
Evergreen Trees 1/40	
Credits for Existing Vegetation (Yes, No, and If)	No
Credits for Other Landscaping (Yes, No, and If)	No
Number of Trees Provided	0 0 0
Shade Trees	
Evergreen Trees	
Other Trees (2:1 substitution)	
Shrubs (10:1 substitution)	21.0 shrubs

\* Balance shown on Schedule B

**Schedule B** Parking Lot Internal Landscaping

Number of Parking Spaces	73 Parking Spaces
Number of Trees Required	4.0
Number of Trees Provided	4 CANOPY TREES
Shade Trees	1 Flowering trees from Schedule D
Other Trees (2:1 substitution)	
Number of Landscaped Islands provided:	73 p.s. / 20 = 3.65 or 4 Islands
Number of Landscaped Islands provided:	Dean to fill out.

The Schedule D for the stormwater management facility generates a planting requirement of 6.5 shade tree equivalents. Per a meeting on December 6, 2001 with Planning and Zoning the shrub substitution has been shown in the immediate location of the facility with the balance of the plantings occurring in the vicinity of the facility. The alternative locations for the balance of the plantings occurs in the two parking islands which have been created nearest the stormwater management facility. (Schedule B depicts the balance of these plantings)

Alternative compliance has been provided for the four landscaped islands shown. (Dean)

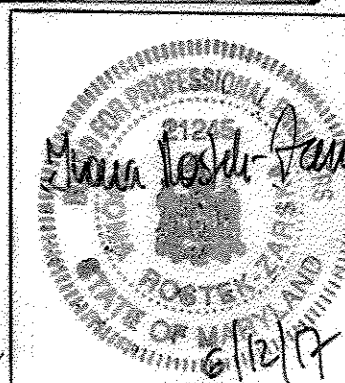
**PLANT LIST**

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
<b>CANOPY TREES</b>					
T-1	4	Fraxinus pennsylvanica	Green Ash	2 1/2" - 3" cal.	DB
T-2	3	Ginkgo biloba	Ginkgo	2 1/2" - 3" cal.	DB
T-3	4	Platanus occidentalis	American Sycamore	2 1/2" - 3" cal.	DB

**PLANT LIST**

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
ZS	6	ZELKOVA SERRATA 'GREEN VAGE' 'GREEN VAGE'	ZELKOVA	2 1/2" - 3" cal.	DBD
LT	11	LAGERSTROEMIA 'TUSCANA' 'TUSCANA'	LAGERSTROEMIA	8-10' HT	DBB
AG	138	ABELIA GRANDIFLORA 'LITTLE RICHARD' 'LITTLE RICHARD'	ABELIA	24-30" HT	#3 CONT.
EK	18	EUCONYMIUS KIULT 'MANHATTAN' 'MANHATTAN'	EUCONYMIUS	24-30" HT	#3 CONT.
VP	50	VIBURNUM PRAGENSE 'PRAGUE VIBURNUM'	VIBURNUM	80-86" HT	#7 CONT.

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 LAW OF THE STATE OF MARYLAND, LICENSE NO. 21243, EXPIRATION DATE: 3 JUNE 9, 2018.



**Schedule A**  
Perimeter Landscape Edge

Category	Adjacent to Roadway	Adjacent to Perimeter Properties
Linear Feet of Roadway Frontage / Perimeter	280 L.F. Type "E"	252 L.F. Type "F"
Credits for Existing Vegetation (Yes, No, Linear Feet) (Describe below if needed)	YES 2 EX. TREES	No
Credits for Wall, Fence or Barn (Yes, No, Linear Feet) (Describe below if needed)	YES 83 LF	No
Number of Plants Required	1/40 = 7.0 Shade 3 SHADE TREES 1/40 = 7.0 Evergreen 1/10 = 7.0 Shrubs	1/60 = 4.0 Shade 1/10 = 2.0 Evergreen 9 ORN. TREES
Number of Plants Provided	7.0 Shade 2 SHADE Evergreen Trees 51 SHRUBS 111.0 Shrubs	4.0 Shade 2 ORNAMENTAL 165 EV. SHRUBS 5 SHADE / 16 EVERGREENS - 5 SHADE TREES SURPLUS TO BE PLANTED - THE REMAINING 5 SHRUBS ACCORD TO THE BALANCE OF 4 SHADE TREES REQUIRED

OWNER: Charlotte H. Myers  
SUBDIVISION NAME: St. John's Plaza (Parcel B-1)  
SUBDIVISION PLAT BOOK: 78 PAGE 15  
LIBER & FOLIO: 669 F. 304  
FINAL PLAN NUMBER: 98-133  
TAX ACCOUNT NUMBER: 02-214873  
TAX MAP: 24  
BLOCK: 5  
PARCEL: 1068

REVISIONS:  
09/02 REDUCE SUPERMARKET TRUCK DOCK WIDTH BY 3'  
REVISE UTILITY SERVICES TO BLDG.  
04/29/13 REVISED THE LANDSCAPE PLAN  
03/24/17 ADDING STAIRS ON THE SIDE OF THE BLDG. MOODING LANDSCAPE AND EX. CONCRETE AT THE REAR OF THE BLDG. AND REPLACING EX. CURB AND SIDEWALK ALONG THE FRONTAGE OF THE SUPERMARKET.

DATE: 09/02  
SCALE: 1" = 30'  
DATE: 08/07/02  
DRAWN BY: RLZ, TCN  
DESIGN BY: TCN  
REVIEW BY: PVM  
SHEET: 10 OF 16

**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
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ANNAPOLIS JUNCTION, MARYLAND 20701  
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FAX (410) 792-7395

**MARS SUPERMARKET ADDITION**  
ST. JOHN'S PLAZA  
SITE DEVELOPMENT PLAN  
LANDSCAPE PLAN  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND



**MARS SUPERMARKET ADDITION**  
ST. JOHN'S PLAZA  
SITE DEVELOPMENT PLAN  
LANDSCAPE PLAN  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND



**SPECIFICATIONS FOR PLANTING**

**Plant Identification** -- All plants shall be properly marked for identification and checking.

**List of Plant Material** -- The quantities given in the plant list are approximate only. The contractor will verify plant quantities prior to bidding and any discrepancies shall be brought to the attention of the landscape architect. The Contractor shall furnish, and plant, all plants required to complete the work as shown on the drawings. Substitutions shall not be made.

**Plant Quality** -- All plants shall be sound, free of plant disease, infestation, or insect eggs and shall have a healthy, normal root system. Plants shall be freshly dug and not heeled-in stock, nor stock from cold storage. All plants shall be nursery grown. Plants shall not be pruned prior to delivery. The shape of the plant shall, in general, conform to its natural growth proportions unless otherwise specified. All plants, including container grown, shall conform to the branching, caliper and height specifications of the American Association of Nurserymen's Publication entitled American Standard for Nursery Stock, ANSIZ60.1-1990 or latest edition, and shall have a well-shaped, heavy-branched structure for the species. Evergreen trees are to have an internode no greater than 24" and shall be uniformly well-shaped. Plants of a given-size shall not measure less than the minimum size as set forth in the American Standard for Nursery Stock, ANSIZ60.1-1990 or latest edition.

**Plant Spacing** -- Plant spacing is to scale on plan.

**Soil Mix** -- Soil mix will be 2/3 existing topsoil, 1/3 leafmold thoroughly mixed and homogenized.

**Rootball Size** -- The ball size shall conform to the American Association of Nurserymen's Publication entitled American Standard for Nursery Stock, ANSIZ60.1-1990 or latest edition, and shall be wrapped in untreated burlap.

**Excavation** -- Holes for all plants shall be 18" larger in diameter than size of ball or container and shall have vertical sides. Organic material (leafmold) will be incorporated into plant beds by tilling again to a depth of 8". Proportions of soil to organic material will be two parts existing soil to one part organic material.

**Planting** -- Backfilling shall be done with soil mix previously described, reasonably free of stones, subsoil, clay, lumps, stumps, roots, weeds, Bermuda grass, litter, toxic substances, or any other material which may be harmful to plant growth or hinder grading, planting, or maintenance operations. Plants shall be set plumb and straight and trees shall be guyed or staked at the time of planting. Backfill shall be well worked about the roots and seated by watering. Plants will be planted higher than surrounding grade. Trees will be 3" higher. Remove rope from round tree trunks and lay back burlap and wire baskets from top 1/3 of all B&B material. Nylon, plastic, or vinyl rope and/or burlap will be completely removed from all plant material prior to planting.

**Maintenance** -- The Contractor shall be responsible during the contract and up to the time of acceptance for keeping the planting and work incidental thereto in good condition by replanting, plant replacement, watering, weeding, cultivating, pruning, spraying, restaking and cleaning up, and by performing all other necessary operations of care for the promotion of good plant growth so that work is in satisfactory condition at the time of acceptance at no additional cost to the owner.

**Fertilizer** -- All fertilizer shall be granular, packet or pellet type with 35 to 90 percent of the total nitrogen in a slowly available form. For trees, fertilizer shall be a complete fertilizer with a minimum analysis of 10 percent nitrogen, 6 percent phosphorous and 4 percent potassium. Fertilizer shall be added depending on the size of the plant and the manufacturer's recommendation using the following application rate:

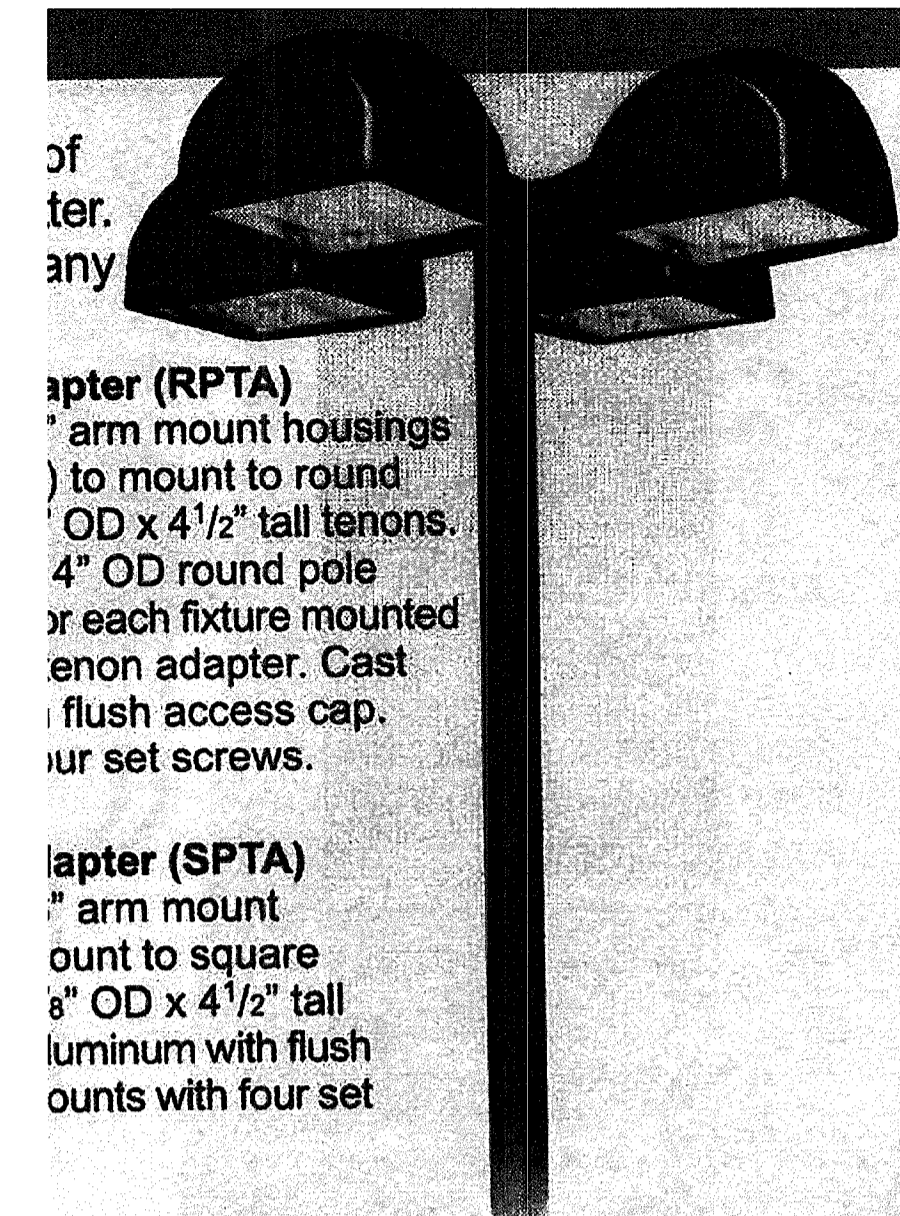
1. Trees: Use 1/2 lb. Of 10-6-4 fertilizer per inch of trunk diameter.

**Guarantee and Replacement** -- All plant material shall be unconditionally guaranteed for one year. The guarantee will begin on the date of that acceptance of the work. After a plant has been determined to be dead, dying or damaged from handling or installation, it will be replaced during the next growing season. For example, if a plant is found dead during the summer months, it will be replaced during the fall planting season. The guarantee will end for all plant material one year after acceptance. During the guarantee period, the Contractor will not be responsible for mechanical injury or vandalism caused by other parties.

**Material Inspection** -- Owner shall, at their discretion, inspect plant material before and during delivery and installation. Plant material will be properly delivered in covered trucks, and promptly uncovered when delivered to prevent damage. Material will be unloaded and properly handled in such a way as not to damage plants. Plants will be inspected and may be rejected upon delivery and/or installation by the owner for mechanical damage, and damage that will subsequently cause misshapen or deformed material. Owner will have authority to observe site preparation and planting installations, and have the right to reject any work if the specifications and construction documents are not followed. All plant material shall be of the quality specified and installed as described above, and unless these minimum standards are satisfied, the plants will be rejected.

**GENERAL NOTES:**

1. ALL PLANT MATERIAL SHALL CONFORM TO THE STANDARDS OF NURSERY STOCK OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
2. TREES AND SHRUBS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED, DENSELY FOLIATED BRANCHES, AND VIGOROUS, FIBROUS ROOT SYSTEMS.
3. TREES AND SHRUBS SHALL BE FRESHLY DUG AND NURSERY GROWN. THEY SHALL HAVE BEEN GROWN UNDER CLIMATIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT OR PROPERLY ACCLIMATED TO CONDITIONS OF THE LOCALITY OF THE PROJECT.
4. TREES AND SHRUBS SHALL BE FREE FROM DEFECTS AND INJURIES AND CERTIFIED BY APPROPRIATE FEDERAL AND STATE AUTHORITIES TO BE FREE OF DISEASES AND INSECT INFESTATIONS.
5. THE LANDSCAPE CONTRACTOR SHALL WARRANT ALL PLANT MATERIAL FOR A PERIOD OF ONE (1) FULL YEAR AFTER THE DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS, UNSATISFACTORY GROWTH, DISEASE OR DEATH. UNSATISFACTORY, UNHEALTHY, DYING OR DEAD PLANT MATERIAL (IN THE OPINION OF THE LANDSCAPE ARCHITECT) SHALL BE REPLACED WITH THE SAME SIZE AND SPECIES.
6. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO ADEQUATELY AND PROPERLY MAINTAIN THE LANDSCAPED AREAS, WHICH SHALL INCLUDE WATERING, CLEANING OF WEEDS AND DEBRIS, PRUNING AND TRIMMING, REPLACEMENT OF DEAD OR DISEASED PLANTINGS, AND FERTILIZING TO MAINTAIN HEALTHY GROWTH.
7. THE LANDSCAPE CONTRACTOR SHALL STAKEOUT PLANT LOCATIONS IN THE FIELD. THE LANDSCAPE ARCHITECT OR HIS REPRESENTATIVE SHALL OBSERVE THESE LOCATIONS PRIOR TO COMMENCING PLANT PIT EXCAVATION. THE LANDSCAPE CONTRACTOR SHALL MAKE ANY ADJUSTMENTS AS REQUESTED BY THE LANDSCAPE ARCHITECT.
8. ALL PLANT SAUCERS AND PLANT BEDS SHALL BE MULCHED WITH DOUBLE SHREPPED HARDWOOD MULCH, A MINIMUM OF 3" IN DEPTH.
9. NO SUBSTITUTIONS OF PLANT MATERIAL SHALL BE PERMITTED WITHOUT WRITTEN AUTHORIZATION OF THE LANDSCAPE ARCHITECT, THEIR REPRESENTATIVE, OR THE DEPARTMENT OF HOWARD COUNTY PLANNING & ZONING. THIS SHALL APPLY TO SUBSTITUTIONS OF SPECIES, SIZE AND QUANTITY.
10. THE LANDSCAPE CONTRACTOR SHALL INSTALL SHREPPED HARDWOOD BARK MULCH TO A DEPTH OF 3" UNDER AND SURROUNDING ALL NEW LANDSCAPED MASS PLANTING AREAS TO PROVIDE A UNIFORM AND CONTINUOUS SURFACE AND APPEARANCE BETWEEN AND AROUND ALL PLANT MATERIAL, BUILDING LINES AND PAVED AREAS. IN GENERAL, THIS PERTAINS TO ALL PLANT MATERIAL THAT IS PLANTED CLOSER THAN SIX (6) FEET CENTER TO CENTER. IT IS THE INTENT OF THIS CONTRACT TO INSTALL LANDSCAPE MAT AROUND THE ENTIRE AREA OF SHREPPED BARK MULCH.
11. TREES SHALL BE LOCATED A MINIMUM OF 5' FROM SEWER/WATER CONNECTIONS. CONTRACTOR SHALL BE LIABLE FOR DAMAGE TO ANY AND ALL PUBLIC AND PRIVATE UTILITIES, WATER AND SEWER LINES.
12. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
13. CONTRACTOR SHALL SLIGHTLY ADJUST PLANT LOCATIONS IN THE FIELD AS NECESSARY TO BE CLEAR OF DRAINAGE SWALES AND UTILITIES. FINISHED PLANTING BEDS SHALL BE GRADED SO AS NOT TO IMPED DRAINAGE AWAY FROM BUILDINGS.
14. TREE STAKING AND GUYING SHALL BE DONE PER DETAILS. CONTRACTOR SHALL ENSURE THAT TREES REMAIN PLUMB AND UPRIGHT FOR THE DURATION OF THE GUARANTEE PERIOD.
15. ALL TREE PITS, SHRUB BEDS, AND PREPARED PLANTING BEDS ARE TO BE COMPLETELY EXCAVATED IN ACCORDANCE WITH THE PLANTING DETAILS.
16. CROWN OF ROOT BALL SHALL BE HIGHER (AFTER SETTING) THAN ADJACENT SOIL.
17. SHADE TREES: HEIGHT SHALL BE MEASURED FROM THE CROWN OF THE ROOT BALL TO THE TOP OF MATURE GROWTH. SPREAD SHALL BE MEASURED TO THE END OF BRANCHING EQUALLY AROUND THE CROWN FROM THE CENTER OF THE TRUNK. MEASUREMENTS ARE NOT TO INCLUDE ANY TERMINAL GROWTH. SINGLE TRUNK TREES SHALL BE FREE OF 'V' CROTCHES THAT COULD BE POINTS OF WEAK LIMB STRUCTURE OR DISEASE INFESTATION.
18. CONTRACTOR MUST CONTACT THE OWNER AT LEAST TEN WORKING DAYS IN ADVANCE TO SCHEDULE ACCEPTANCE INSPECTION(S). CONTRACTOR MUST REPLACE ALL DEAD OR UNACCEPTABLE PLANTS DURING THE FOLLOWING RECOMMENDED PLANTING SEASON.
19. TREES SHALL BE PLANTED DURING ACCEPTABLE PLANTING SEASONS: BETWEEN MARCH 15 AND MAY 15 AND BETWEEN AUGUST 15 AND NOVEMBER 15 OR AS APPROVED BY OWNERS REPRESENTATIVE.
20. ALL TREE STAKING AND GUYING SHALL BE REMOVED BY THE CONTRACTOR AFTER THE TREES ARE ESTABLISHED.
21. SEEPED AREAS THAT WASH OUT MUST BE FILLED AND GRADED AS NECESSARY AND THE RESEDED. SOME TYPE OF ANCHORING METHOD SHOULD THEN BE USED TO HOLD SEED AND MULCH IN PLACE; THIS IS ESPECIALLY IMPORTANT AROUND WATER COURSED, IN SWALES AND AREAS OF CONCENTRATED FLOWS, AND ON SLOPES.
22. BONDING OF LANDSCAPE WORK MUST BE COMPLETED PRIOR TO COMMENCEMENT OF INSTALLATION. 14 SHADE TREES @ A RATE OF \$300.00 EA., 30 EVERGREEN TREES @ A RATE OF \$150.00 EA., AND 12 SHRUBS @ A RATE OF \$50.00 EA. THE REQUIRED AMOUNT OF BONDING FOR THIS LANDSCAPE PLAN IS \$12,360.00.
23. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL.
24. FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS A PART OF THE DPM DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$12,360.00.



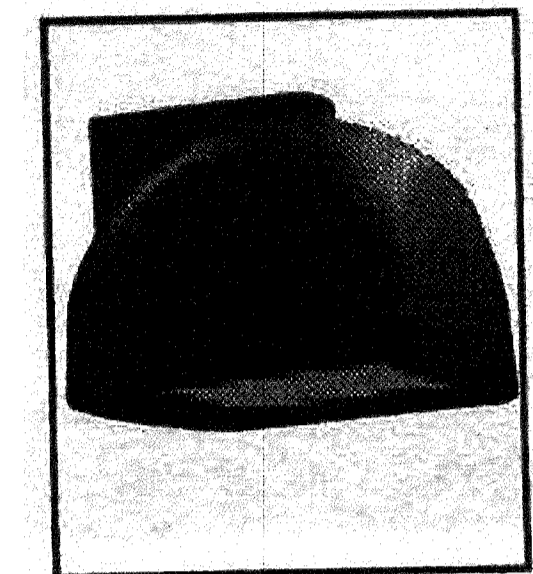
of  
ter.  
any  
apter (RPTA)  
' arm mount housings  
) to mount to round  
OD x 4 1/2" tall tenons.  
4" OD round pole  
r each fixture mounted  
enon adapter. Cast  
flush access cap.  
ur set screws.

apter (SPTA)  
" arm mount  
ount to square  
8" OD x 4 1/2" tall  
luminum with flush  
ounts with four set

**POLE MOUNTED FIXTURES**

NOTES:

- 1) TYPE OF FIXTURE: WIDELITE EALM-400-4V, FULL CUT-OFF
- 2) HEIGHT OF FIXTURE: FIXTURES TO BE INSTALLED ON THE EXISTING POLES. TOTAL HEIGHT NOT TO EXCEED 35' AGL.
- 3) FULL CUT-OFF SHIELDING
- 4) FIXTURE WILL PROVIDE 36000 LUMENS LIGHT INTENSITY.
- 5) ALL FIXTURES TO BE LOCATED AS PER SITE PLANS.
- 6) FIXTURE WILL CONSIST OF 4 VERTICAL LAMPS, ARRANGED @ 90° CIRCULAR ARRAY FROM THE CENTER OF MOUNTING POLE (SEE ALL FIXTURES LABELED AS "A") QUANTITY= 9. ALSO, TWO OF THE FIXTURES TO CONSIST OF SINGLE VERTICAL LAMPS TO BE INSTALLED IN POSITIONS MARKED AS "B" ON THE PLANS. QUANTITY=2
- 7) TYPE OF LIGHT-



**WALL MOUNTED FIXTURES**

NOTES:

- 1) TYPE OF FIXTURE: WIDELITE EWLM-175-4H, FULL CUT-OFF
- 2) HEIGHT OF FIXTURE: FIXTURES TO BE INSTALLED ON THE PROPOSED WALL. HEIGHT NOT TO EXCEED 18' AGL.
- 3) FULL CUT-OFF SHIELDING
- 4) FIXTURE WILL PROVIDE 14000 LUMENS LIGHT INTENSITY.
- 5) ALL FIXTURES TO BE LOCATED AS PER SITE PLANS.
- 6) EACH FIXTURE WILL CONSIST OF 1 HORIZONTAL LAMP, PROJECTING A TYPE 4 HORIZONTAL LIGHT DISTRIBUTION. POSITIONS MARKED AS "C" ON THE PLANS. QUANTITY=5.
- 7) TYPE OF LIGHT-

OWNER	FAX NO. 410-531-3432
A. NAME: Charlotte H. Myers	B.TELEPHONE: 410-531-3432
C. COMPANY: Hardman-Myers, Inc.	
D. ADDRESS: P.O. Box 757	
E. CITY: Clarksville	STATE: MD ZIP: 21029-0757
DEVELOPER	FAX NO. 410-342-4662
A. NAME: E. Philip Hanlon	B.TELEPHONE: 410-342-0197
C. COMPANY: Mars Super Markets, Inc.	
D. ADDRESS: 3401 E. Federal Street	
E. CITY: Baltimore	STATE: MD ZIP: 21213-4011

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

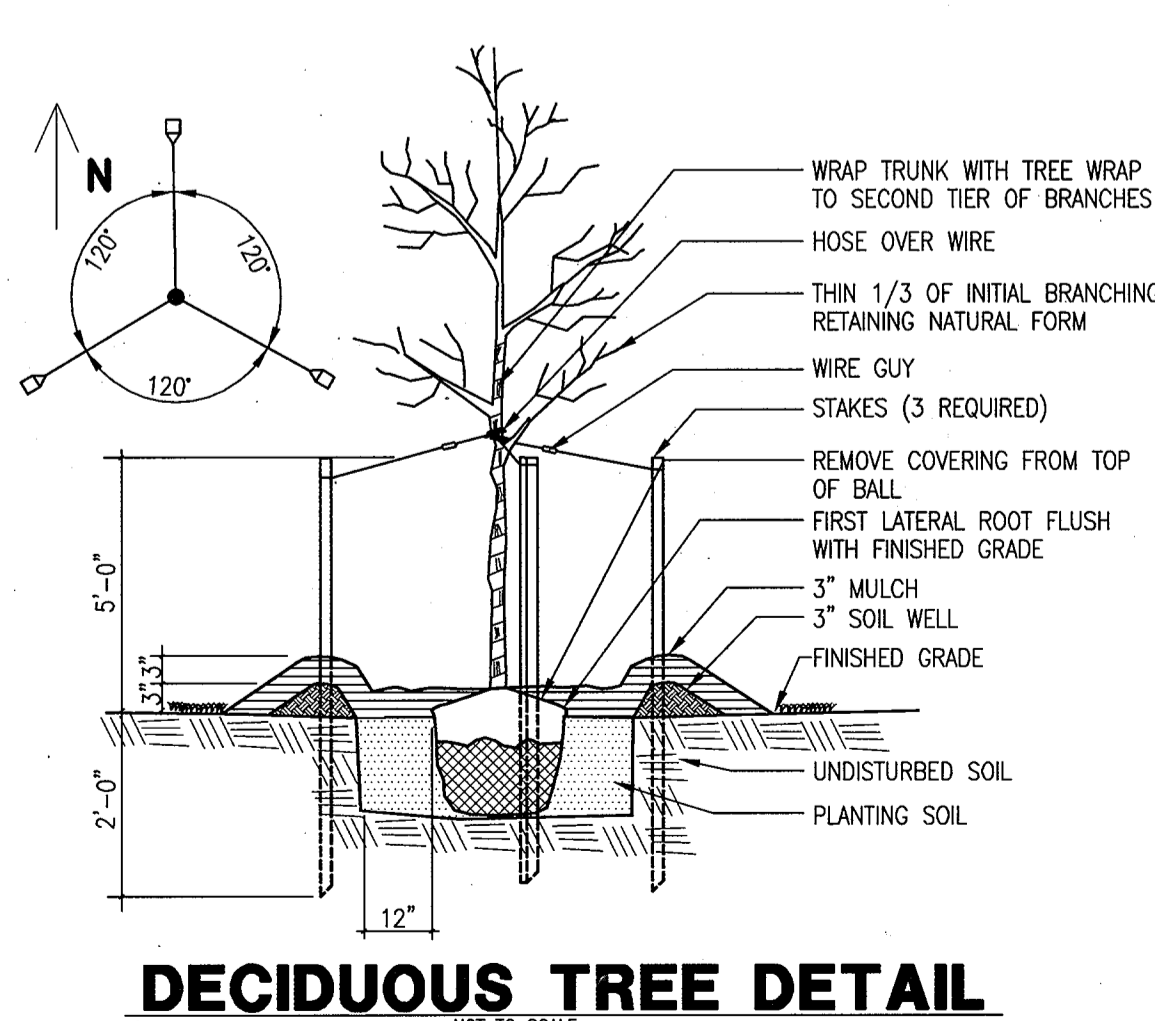
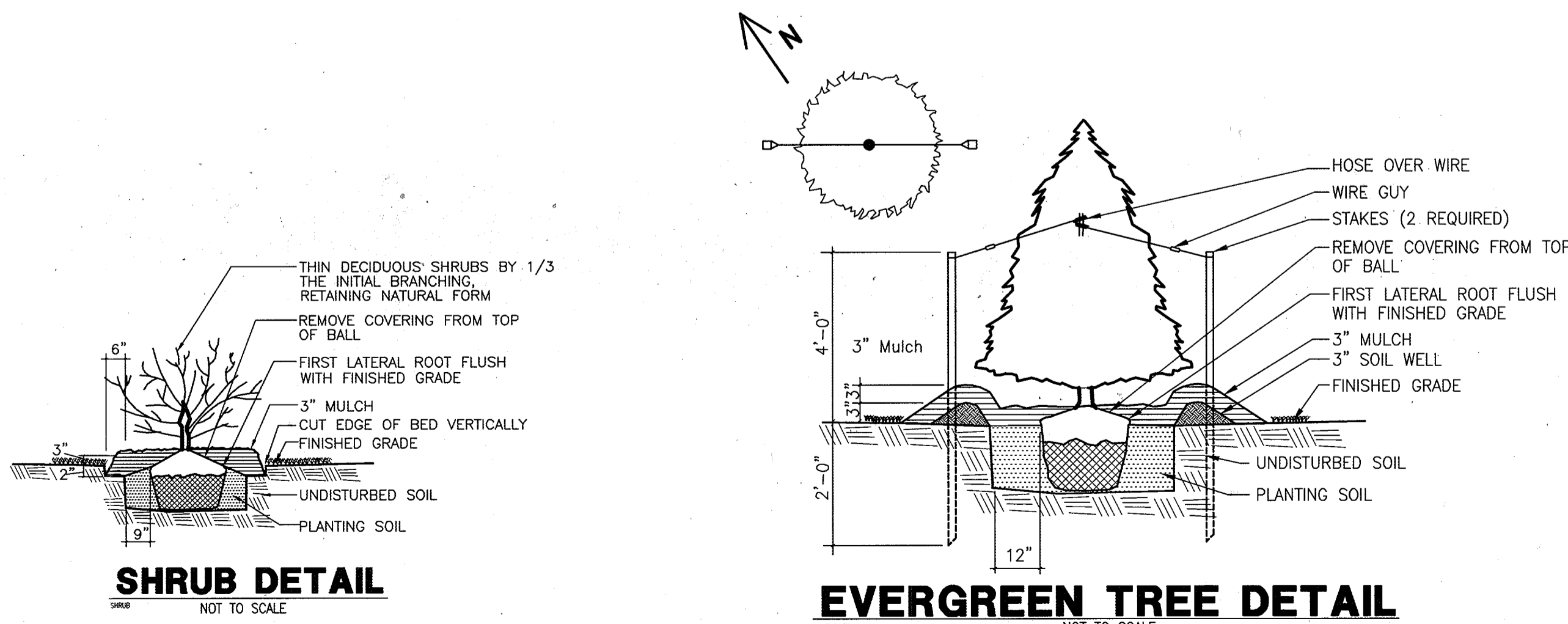
I/WE CERTIFY THAT THE LANDSCAPING SHOWN ON THIS PLAN WILL BE DONE ACCORDING TO THE PLAN, SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE HOWARD COUNTY LANDSCAPE MANUAL. I/WE FURTHER CERTIFY THAT UPON COMPLETION A CERTIFICATION OF LANDSCAPE INSTALLATION, ACCOMPANIED BY AN EXECUTED ONE YEAR GUARANTEE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

*E. Philip Hanlon* 8/6/02  
E. PHILIP HANLON DATE  
MARS SUPER MARKETS, INC.

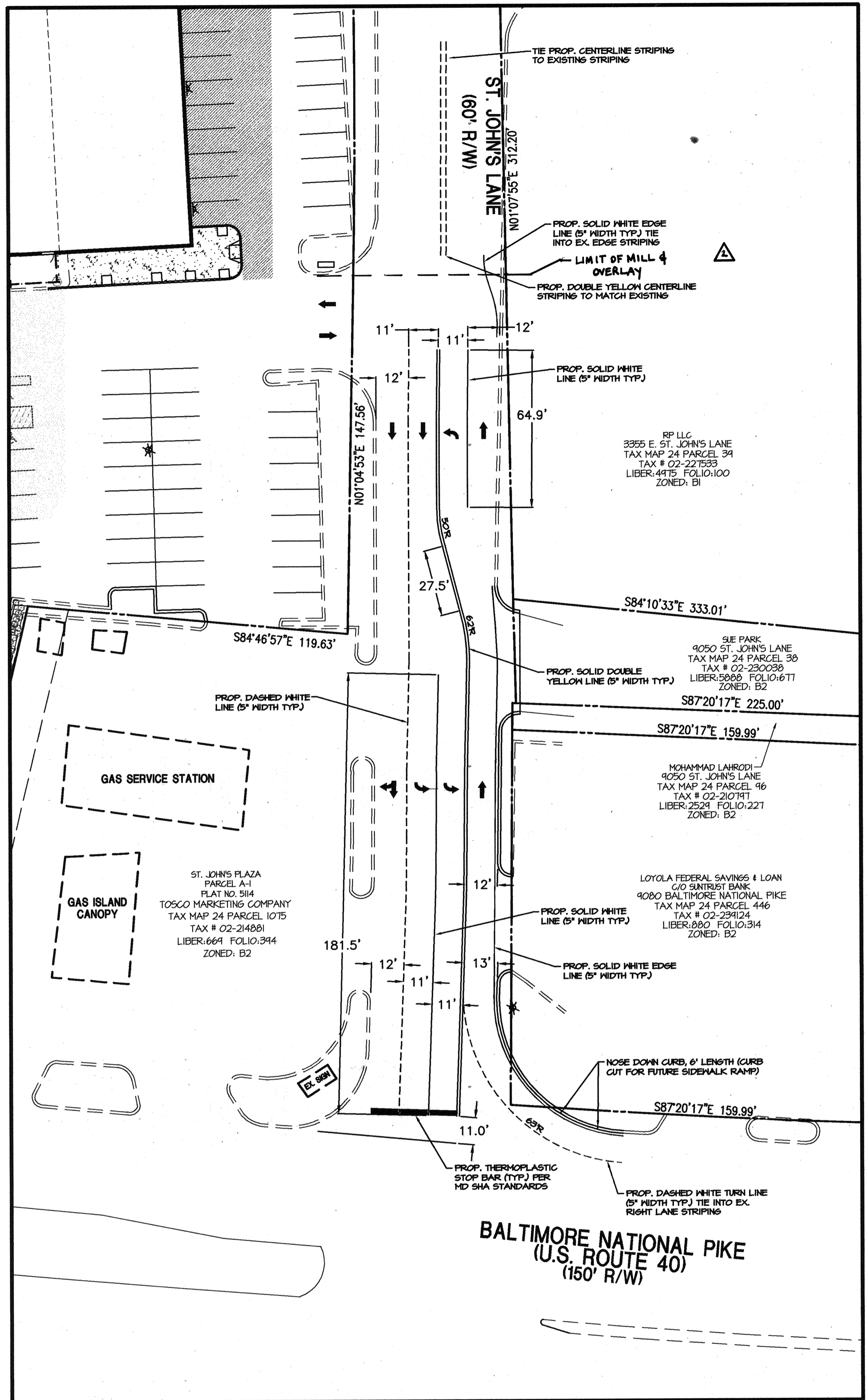
APPROVED DEPARTMENT OF PLANNING AND ZONING  
*[Signature]* 8/6/02  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE  
*[Signature]* 8/6/02  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE  
*[Signature]* 8/6/02  
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING DATE

**SDP-10**

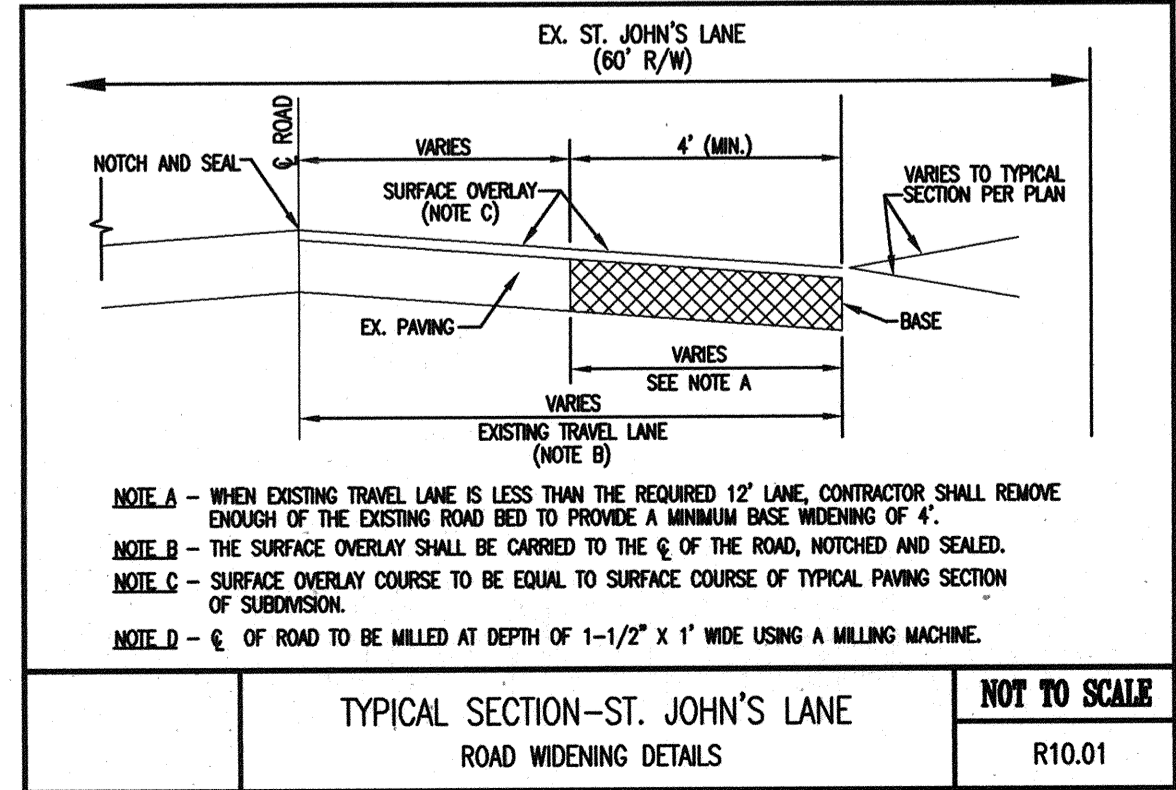
	<b>MORRIS &amp; RITCHIE ASSOCIATES, INC.</b> ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS 9080 JUNCTION DRIVE, SUITE 9 ANNAPOLIS JUNCTION, MARYLAND 20701 (410) 792-9792 or (301) 776-1890 FAX (410) 792-7395																								
	<b>MARS SUPERMARKET ADDITION</b> <b>ST. JOHN'S PLAZA</b> SITE DEVELOPMENT PLAN LANDSCAPE DETAILS TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1) SECOND ELECTION DISTRICT HOWARD COUNTY, MARYLAND																								
<table border="1"> <thead> <tr> <th>DATE</th> <th>REVISIONS</th> <th>JOB NO.:</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>11643.01</td> </tr> <tr> <td></td> <td></td> <td>SCALE: N.T.S.</td> </tr> <tr> <td></td> <td></td> <td>DATE: 08/07/02</td> </tr> <tr> <td></td> <td></td> <td>DRAWN BY: RLZ, TCN</td> </tr> <tr> <td></td> <td></td> <td>DESIGN BY: TCN</td> </tr> <tr> <td></td> <td></td> <td>REVIEW BY: PVM</td> </tr> <tr> <td></td> <td></td> <td>SHEET: 11 OF 16</td> </tr> </tbody> </table>	DATE	REVISIONS	JOB NO.:			11643.01			SCALE: N.T.S.			DATE: 08/07/02			DRAWN BY: RLZ, TCN			DESIGN BY: TCN			REVIEW BY: PVM			SHEET: 11 OF 16	
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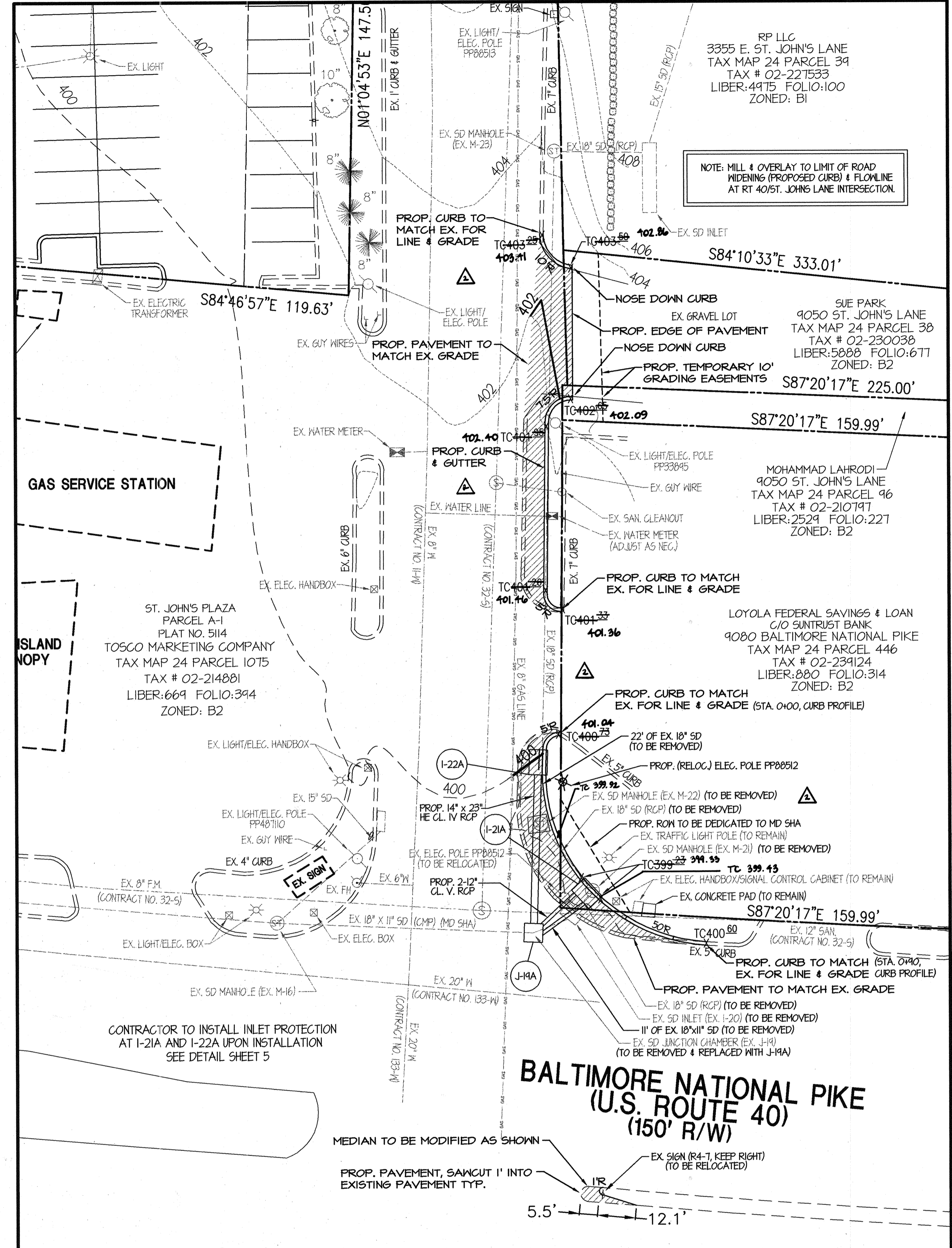




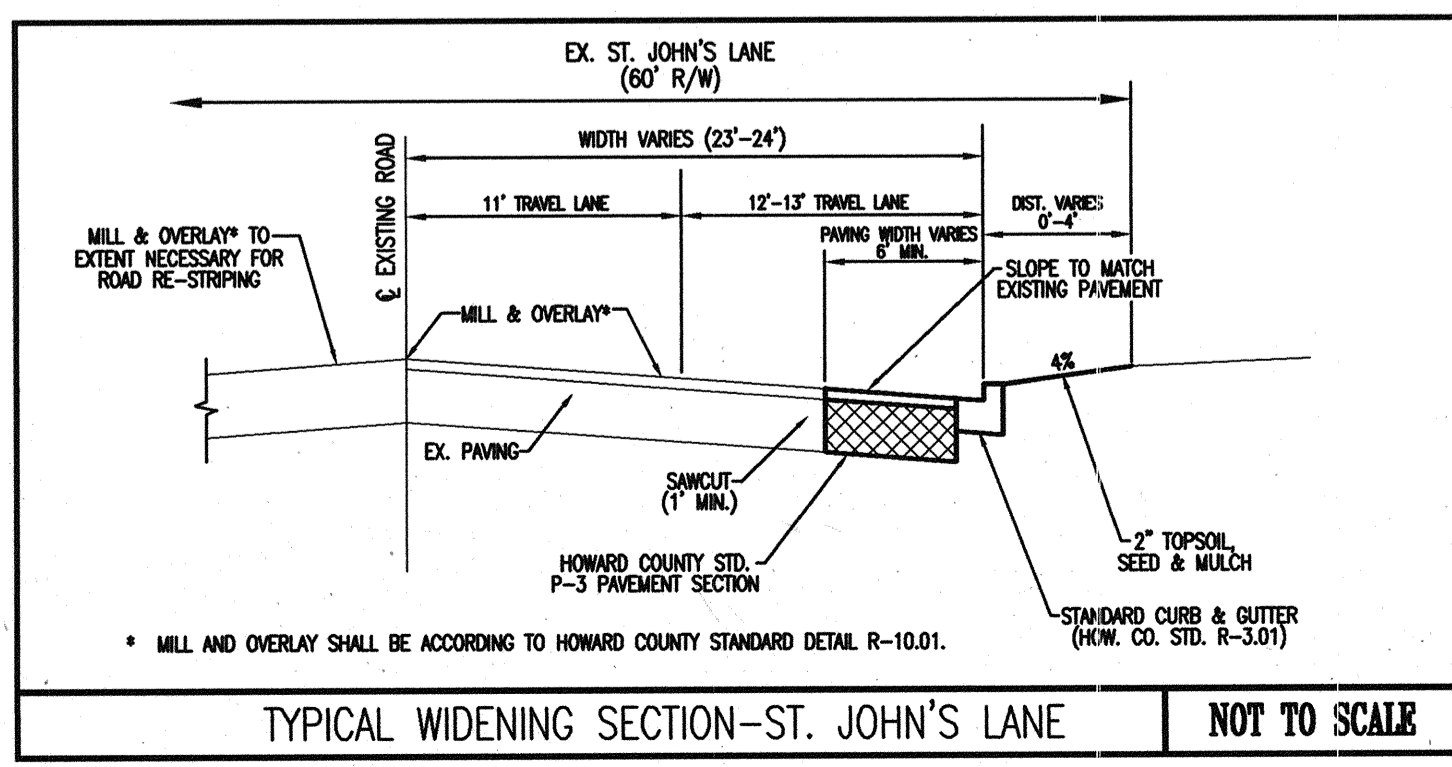
**RESTRIPING PLAN - ST. JOHN'S LANE**  
SCALE: 1"=30'



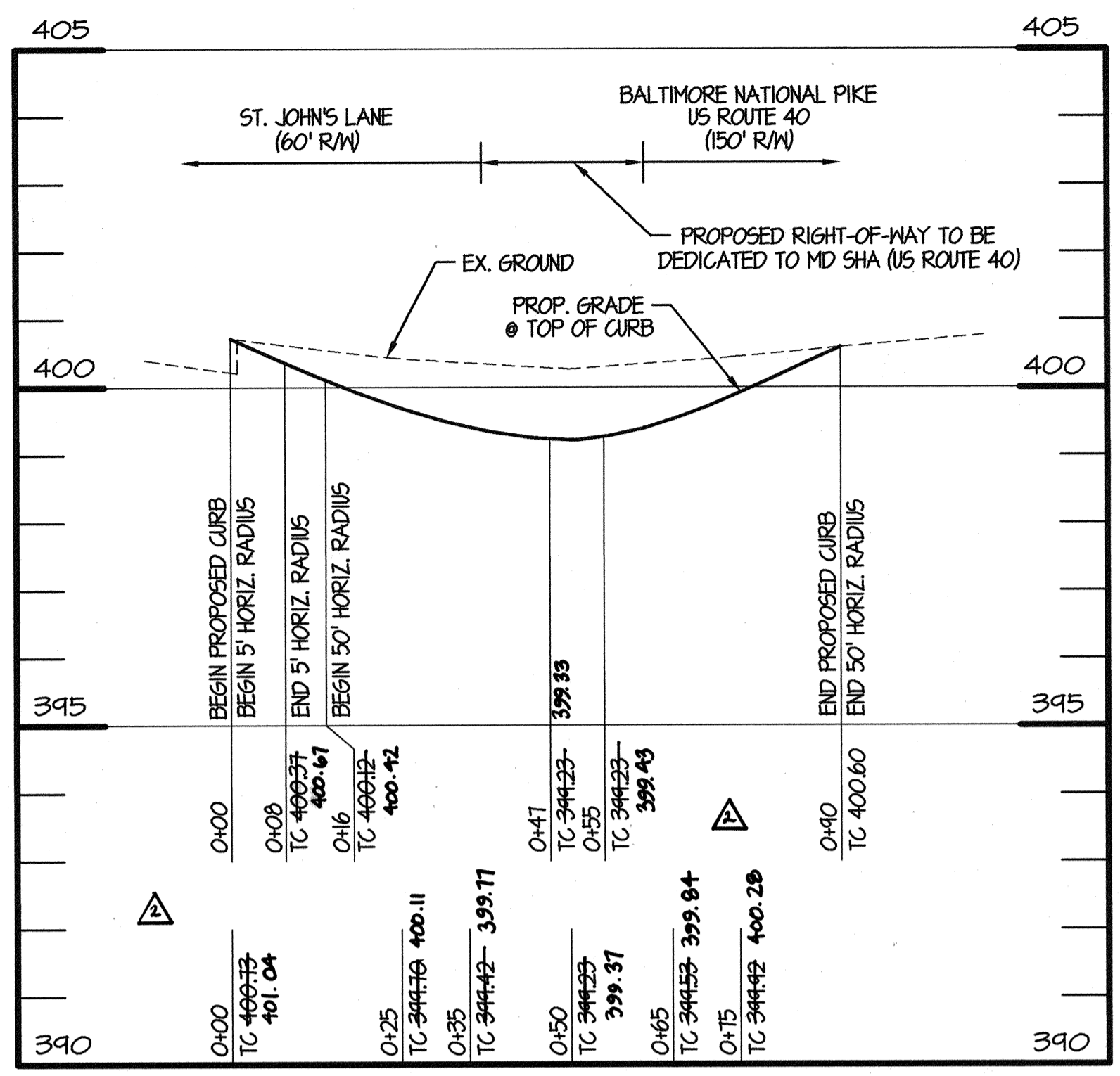
**TYPICAL SECTION-ST. JOHN'S LANE**  
ROAD WIDENING DETAILS  
NOT TO SCALE  
R10.01



**ROAD WIDENING PLAN - ST. JOHN'S LANE**  
SCALE: 1"=20'



**TYPICAL WIDENING SECTION-ST. JOHN'S LANE**  
NOT TO SCALE



**LINEAR PROFILE-PROP. CURB (ST. JOHN'S LANE & US 40)**  
HOR. 1" = 20', VERT. 1"=2'

**LEGEND**

- EX. 2' CONTOUR
- EX. 10' CONTOUR
- EX. CURB
- EX. ROAD/PAVEMENT
- EX. BUILDING
- EX. PROPERTY LINE
- EX. FENCE
- EX. WATER LINE
- EX. SANITARY SEWER
- EX. STORM DRAIN
- EX. ELECTRIC LINE
- EX. TREE LINE
- EX. LIGHT/ELEC. POLE
- EX. FH/WATER VALVE
- EX. TREES/SHRUBS
- PR. 2' CONTOUR
- PR. 10' CONTOUR
- PR. SPOT ELEVATION
- 30' BUILDING SETBACK LINE
- HEAVY DUTY PAVEMENT
- LIGHT DUTY PAVEMENT
- CONCRETE PAVEMENT
- PAINTED NO PARKING STRIPING
- PROPOSED LIGHTING OR RELOCATED UTILITY POLE

**NOTE:**  
ALL OF THE WORK ON THIS DRAWING INCLUDING UTILITY WORK, NEW CONCRETE CURB AND GUTTER, WIDENING OF ST. JOHN'S LANE, AND RESURFACING, WAS COMPLETED AS SHOWN AND SPECIFIED ON THIS DRAWING EXCEPT:

- THE WIDENING PAVING WAS CHANGED BY OUR SHA INSPECTOR FROM HOWARD COUNTY P-3 TO 12" CR-6 SUBBASE, 1" ASPHALT BASE, 19MM PG-64-22 (2-3" LIFTS) AND 2" ASPHALT SURFACE 12.5MM PG-64-22.
- WE WERE DIRECTED TO FURNISH AND PLACE 12" OF CR-6 SUBBASE UNDER CURB AND GUTTER.
- THE MILLING AND RESURFACING OF ST. JOHN'S LANE EXTENDED BY 28 FEET TO THE "LIMIT LINE" SHOWN, FULL WIDTH AND INCREASED FROM 1.5" TO 2".
- THE ASPHALT SURFACE MATERIAL FOR THE RESURFACING WAS CHANGED FROM "5F" TO 12.5MM PG-64-22.

**APPROVED** DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

**OWNER** FAX NO: 410-531-3432  
**A. NAME:** Charlotte H. Myers B. TELEPHONE: 410-531-3432  
**C. COMPANY:** Hardman-Myers, Inc.  
**D. ADDRESS:** P.O. Box 757  
**E. CITY:** Clarksville STATE: MD ZIP: 21029-0757

**DEVELOPER** FAX NO: 410-342-4662  
**A. NAME:** E. Philip Hanlon B. TELEPHONE: 410-342-0197  
**C. COMPANY:** Mars Super Markets, Inc.  
**D. ADDRESS:** 3401 E. Federal Street  
**E. CITY:** Baltimore STATE: MD ZIP: 21213-4011

**SDP-11**

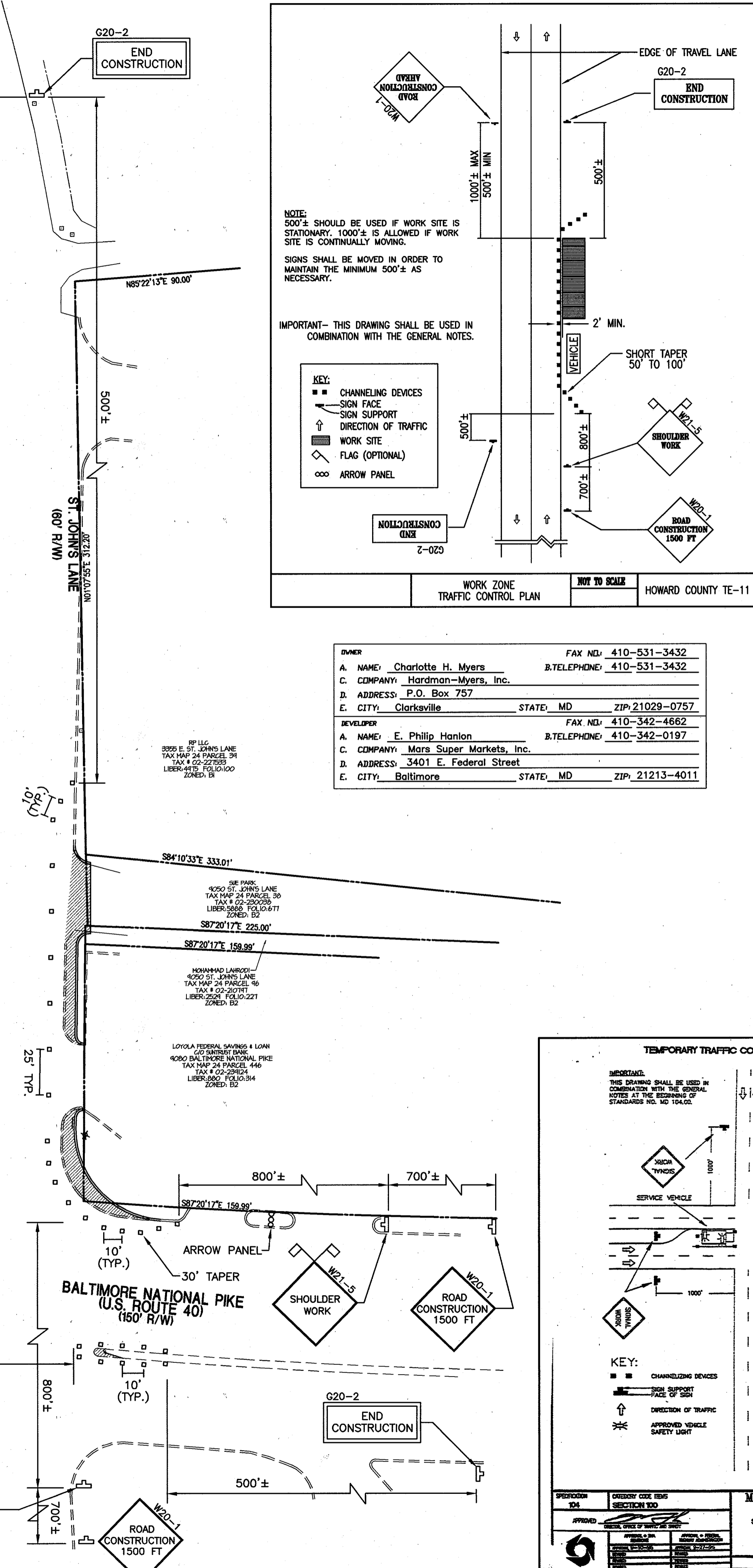
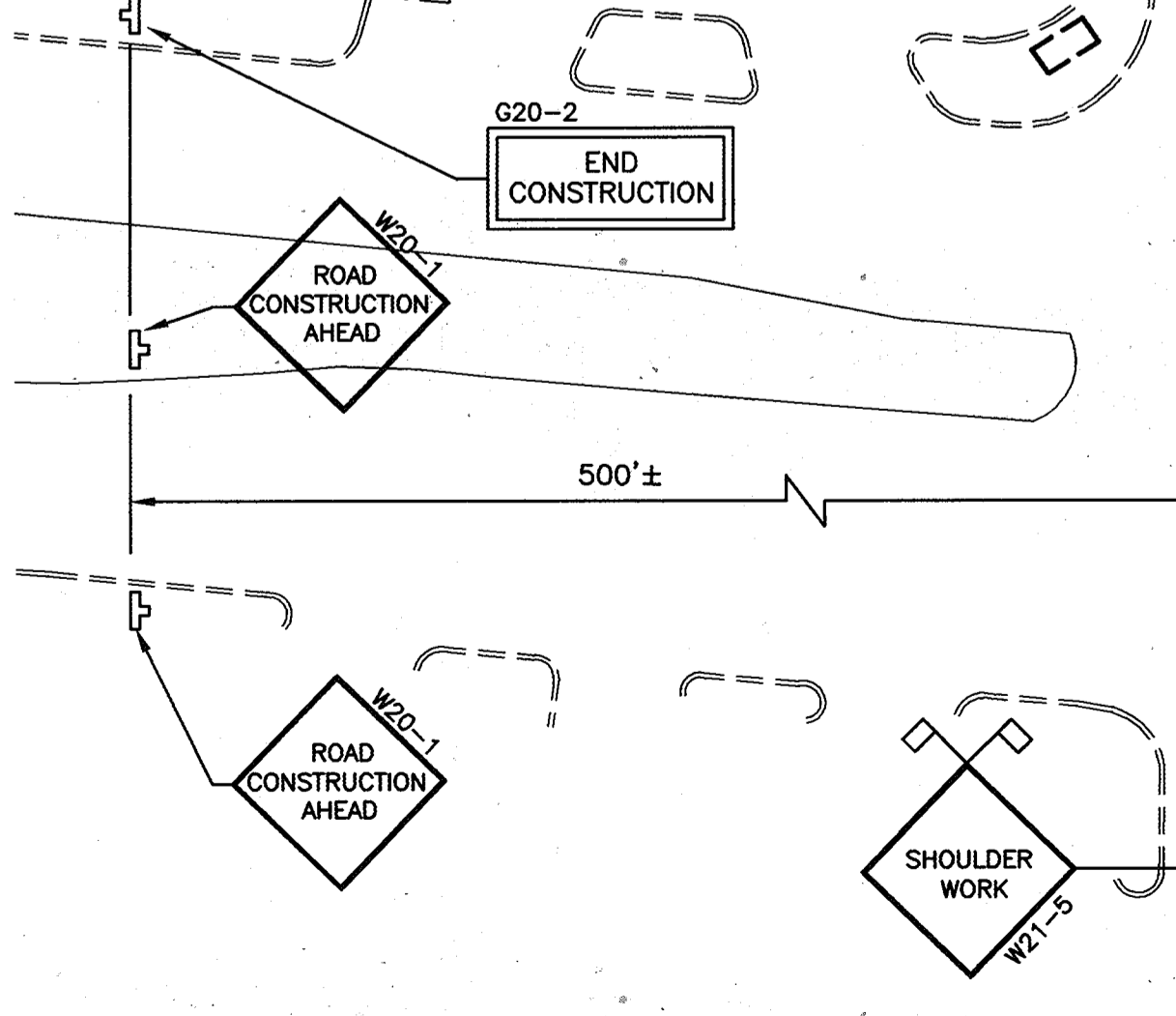
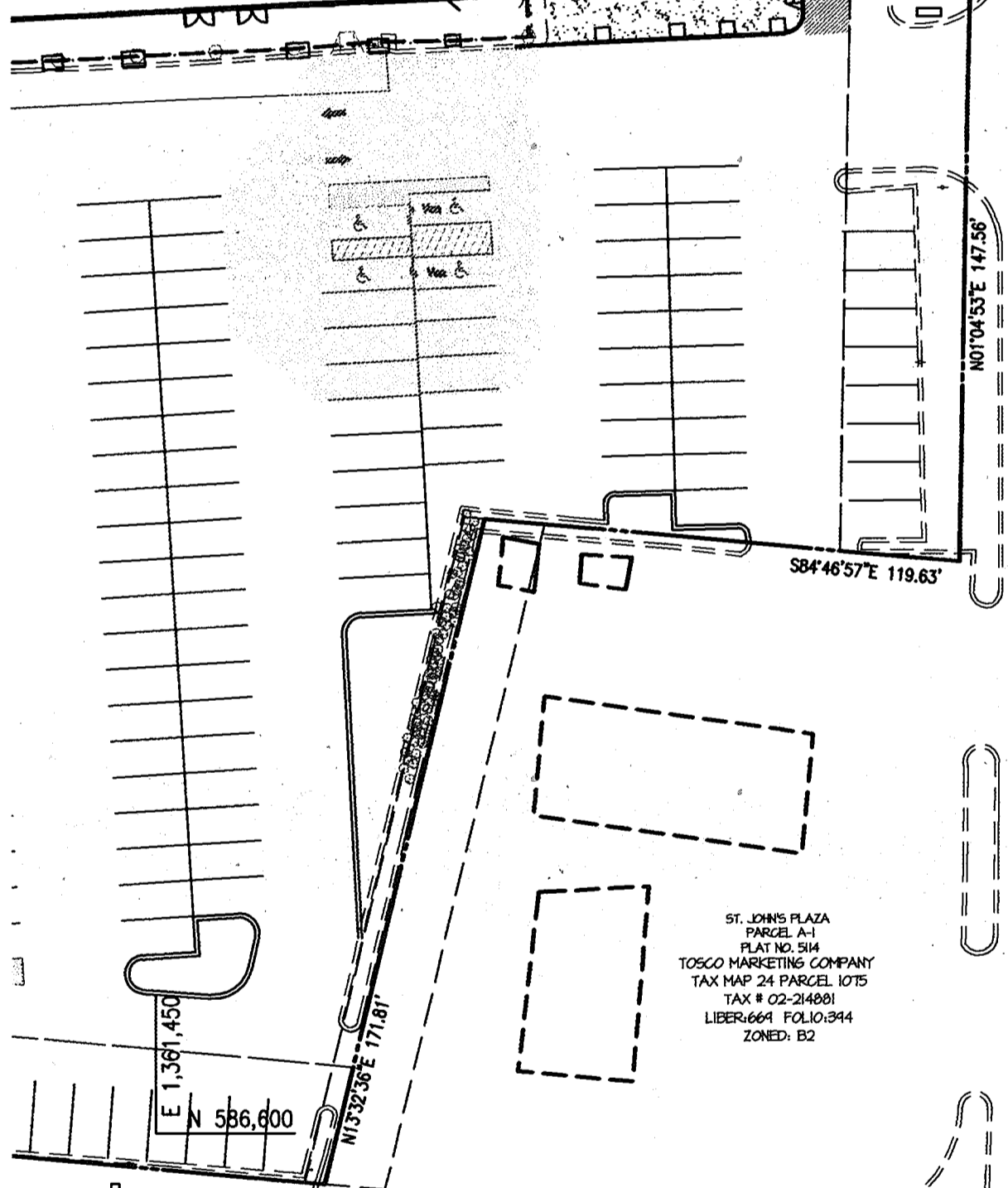
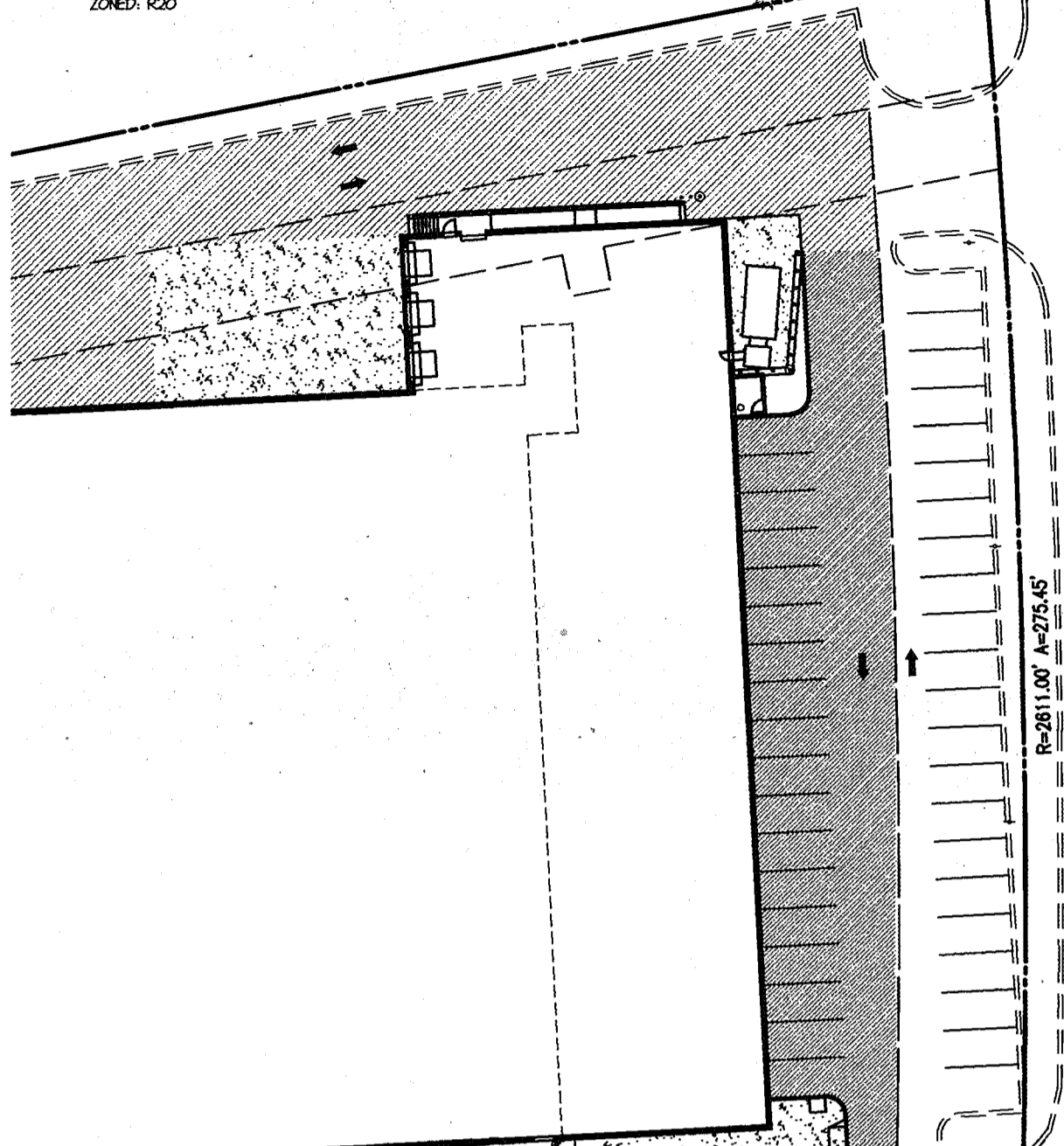
**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
 9090 JUNCTION DRIVE, SUITE 9  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 (410) 792-9792 or (301) 776-1690  
 FAX (410) 792-7395

**MARS SUPERMARKET ADDITION**  
**ST. JOHN'S PLAZA**  
**SITE DEVELOPMENT PLAN**  
**ROAD IMPROVEMENT PLAN-ST. JOHN'S LANE**  
 TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
05/2004	AS BUILT INFORMATION ADDED TO PLAN	11643.01
		SCALE: AS SHOWN
		DATE: 08/07/02
		DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 12 OF 16



JOHN A. BRUNS  
TAX MAP 24 PARCEL 36 LOT 2B  
TAX # 02-17642  
LIBER 304 FOLIO 302  
ZONED R20



NOTE:  
500'± SHOULD BE USED IF WORK SITE IS STATIONARY. 1000'± IS ALLOWED IF WORK SITE IS CONTINUALLY MOVING.  
SIGNS SHALL BE MOVED IN ORDER TO MAINTAIN THE MINIMUM 500'± AS NECESSARY.

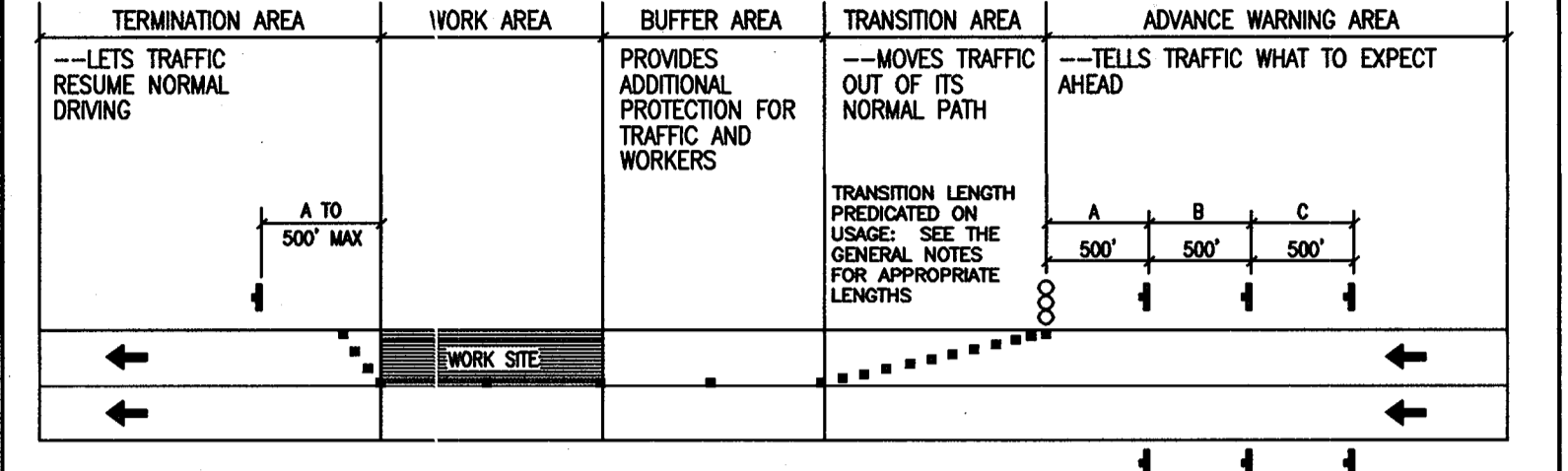
IMPORTANT - THIS DRAWING SHALL BE USED IN COMBINATION WITH THE GENERAL NOTES.

KEY:  
■ CHANNELING DEVICES  
□ SIGN FACE  
○ SIGN SUPPORT  
↑ DIRECTION OF TRAFFIC  
■ WORK SITE  
◇ FLAG (OPTIONAL)  
∞ ARROW PANEL

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A. NAME: Charlotte H. Myers  
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DEVELOPER:  
A. NAME: E. Philip Hanlon  
B. TELEPHONE: 410-342-4862  
C. COMPANY: Mars Super Markets, Inc.  
D. ADDRESS: 3401 E. Federal Street  
E. CITY: Baltimore STATE, MD ZIP: 21213-4011

*SPEED M.P.H.	MINIMUM DISTANCE FROM TAPER TO FIRST SIGN	ADDITIONAL SIGNS IN A SERIES TO BE SPACED AT A MINIMUM			MINIMUM COMBINED ADVANCED WARNING
	A	B	C	D	A
0 - 25	200'	200'	200'	-	600'
30 - 35	300'	300'	300'	-	900'
40	500'	500'	500'	-	1500'
41 - 55	800'	700'	1100'	2800' (1/2 MILE)	5200' (1 MILE)

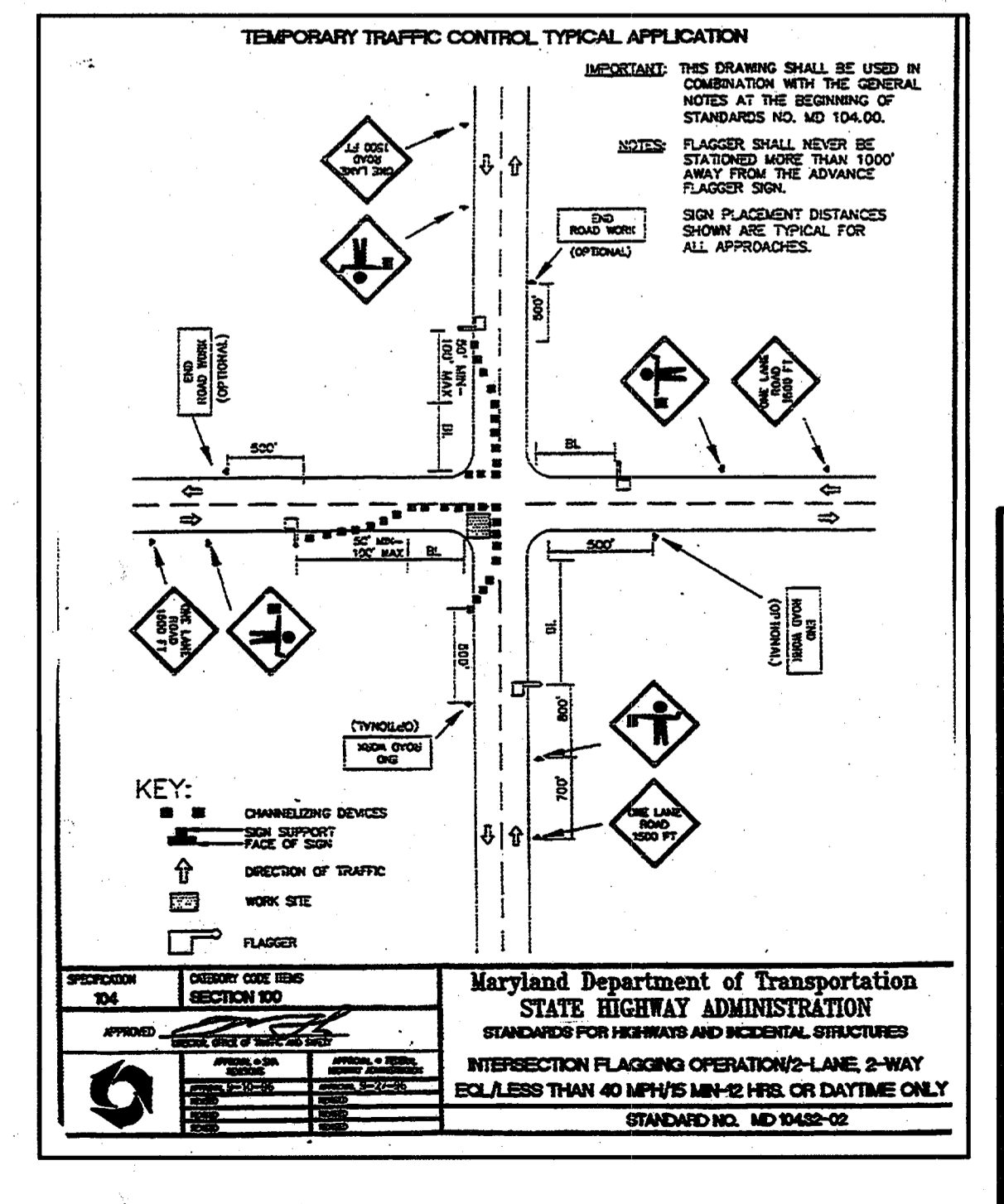
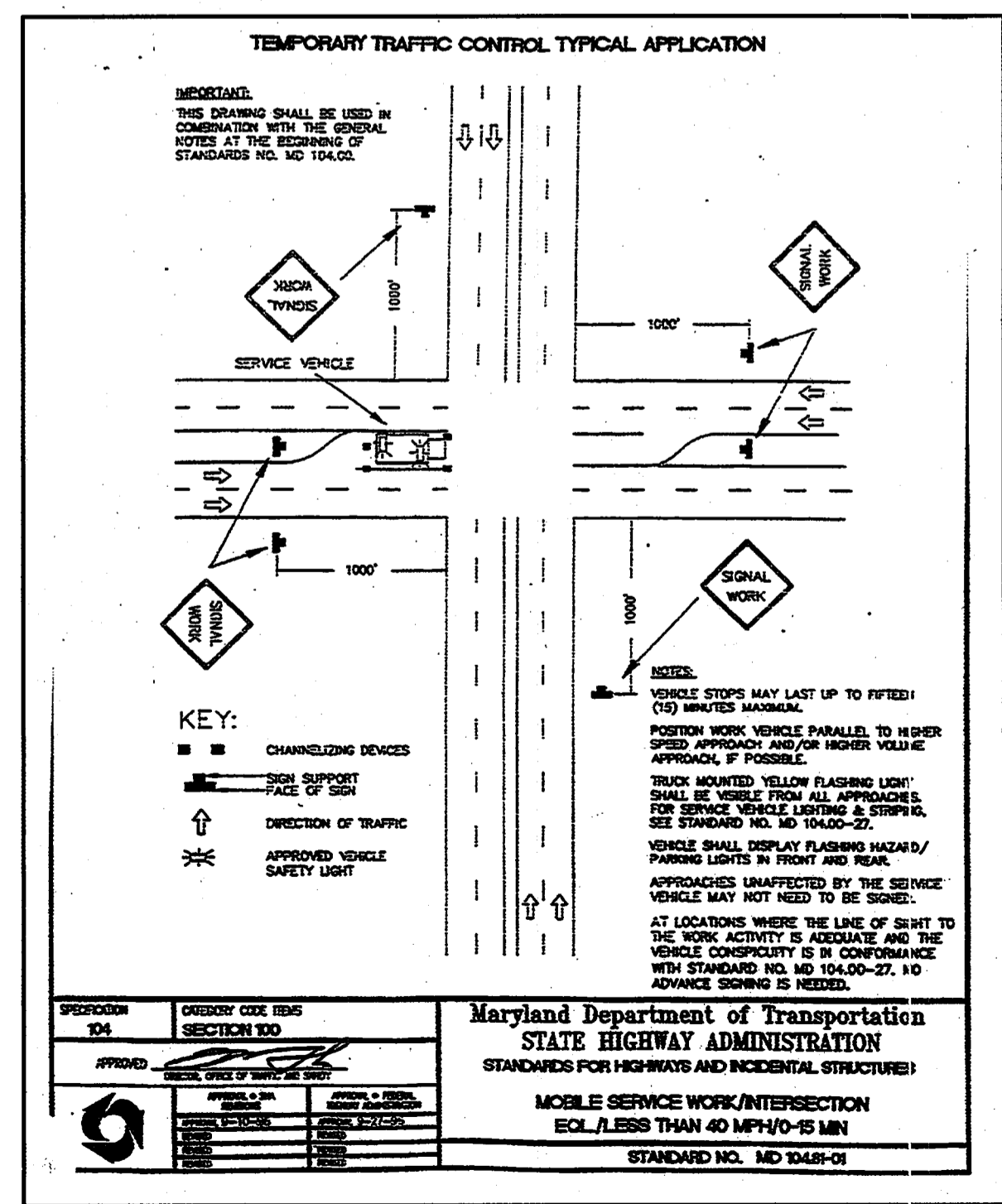
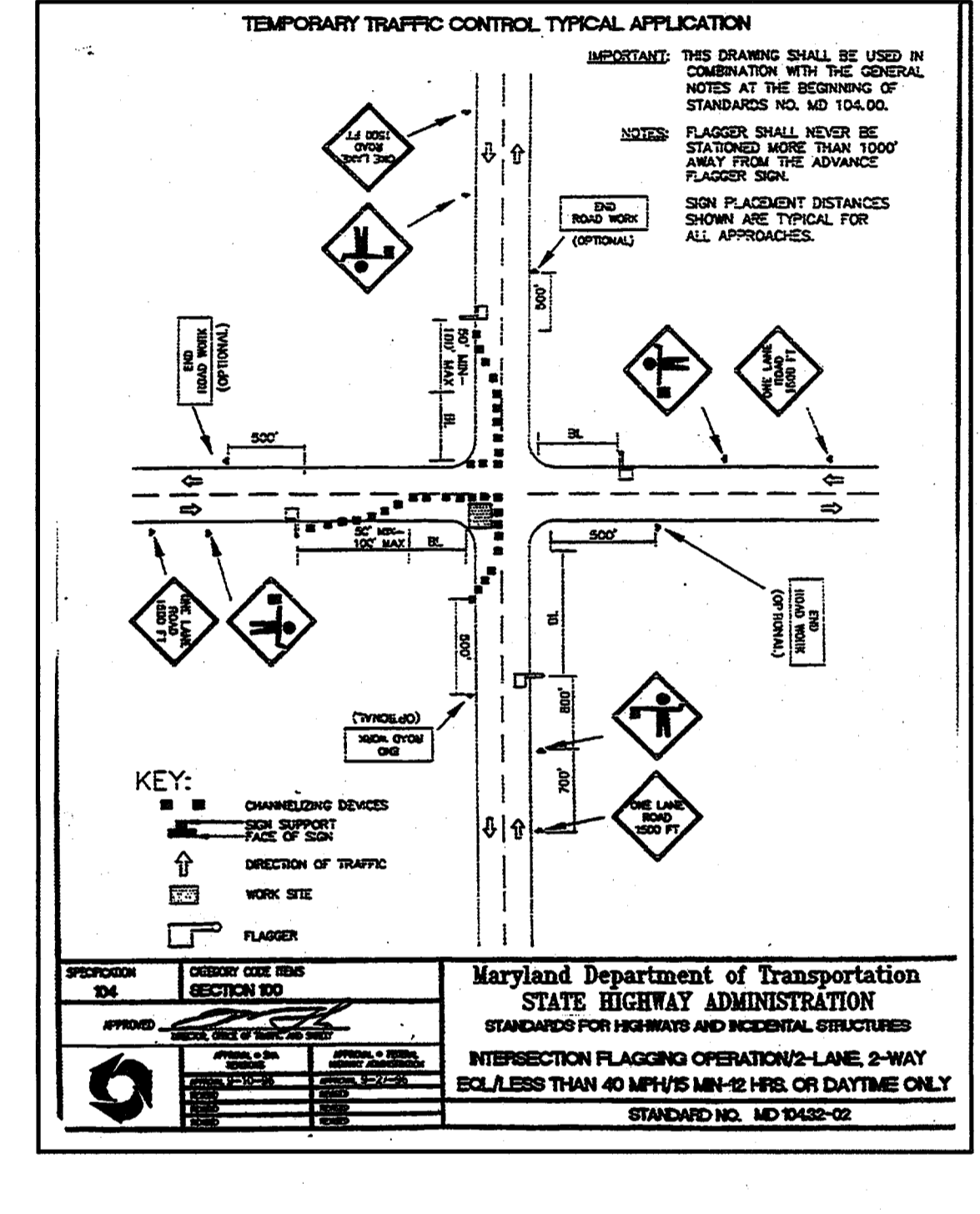
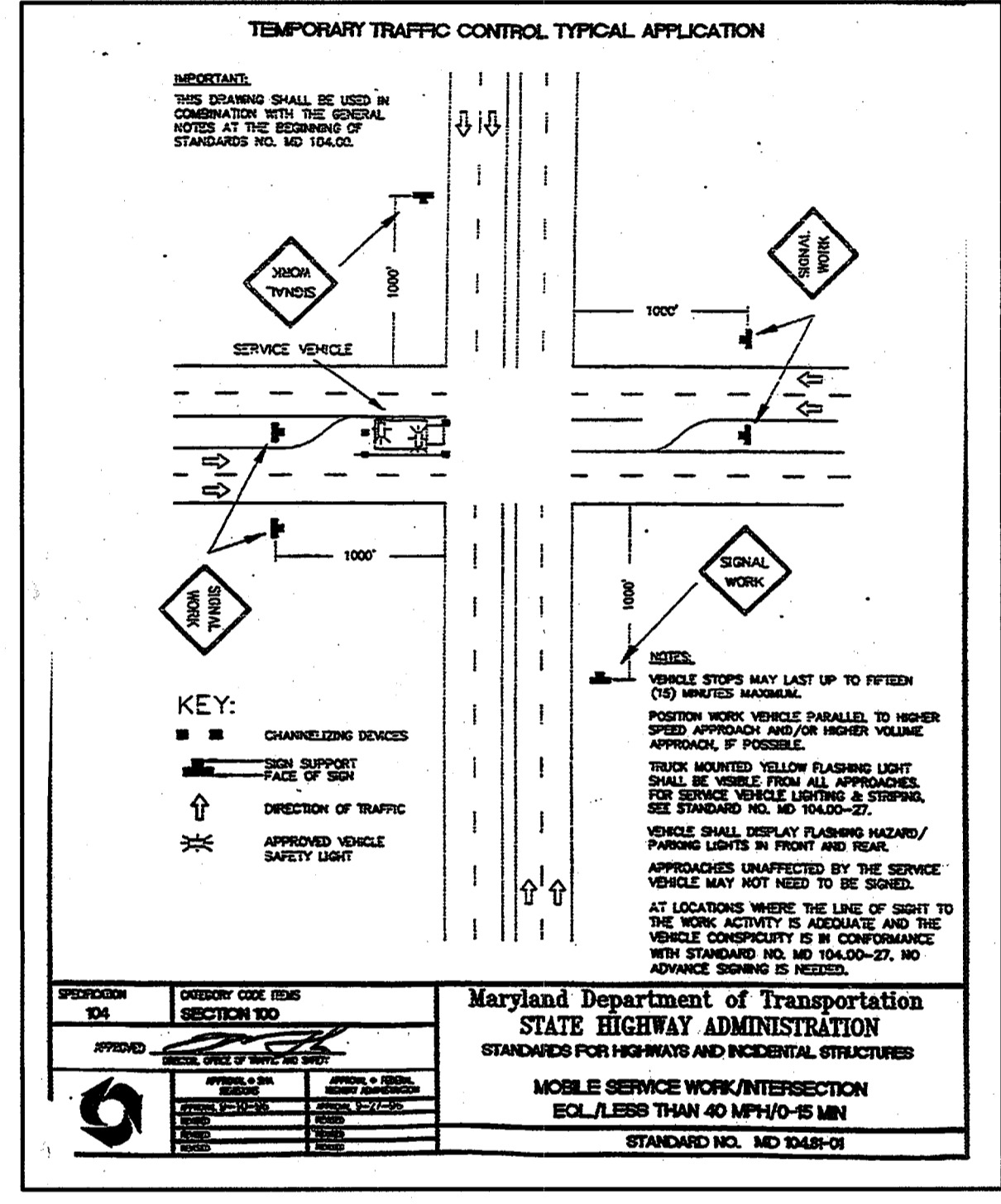
\*SPEED LIMIT OR PREVAILING TRAVEL SPEED, WHICH EVER IS HIGHER.  
BELOW EXAMPLE: TWO LANES ONE-WAY ROADWAY / SPEED LIMIT IS 35 MPH / PREVAILING SPEED IS 38 MPH (USE 40 MPH)



WORK ZONE TRAFFIC CONTROL PLAN NOT TO SCALE HOWARD COUNTY TE-10

**WORK ZONE TRAFFIC CONTROL NOTES**

- SEE HOWARD COUNTY STANDARD DETAILS TE-10 AND TE-11 FOR PLACEMENT OF ALL TRAFFIC CONTROL SIGNS AND BARRICADES. ALSO, SEE MARYLAND, DEPT. OF TRANSPORTATION, STATE HIGHWAY ADMINISTRATION, BOOK OF STANDARDS, STANDARD DETAILS 104.00-01 TO 104.00-30 FOR ADDITIONAL INFORMATION.
- AN ARROW PANEL, IN THE FLASHING MODE, SHALL BE USED ANYTIME THERE IS A LANE CLOSURE ON A MULTILANE HIGHWAY. ARROW PANELS SHALL NOT BE USED ALONG TWO-WAY ROADWAYS UNLESS THEY DISPLAY MSHA'S "FOUR CORNER" LAMP ARRAY.
- VEHICLES SHOULD NOT OCCUPY OR BE STOPPED IN A LANE BEYOND A HORIZONTAL CURVE OR A VERTICAL CURVE. INSTEAD, VEHICLES STOPPING ARE TO BE PULLED AS FAR OFF THE ROAD AS POSSIBLE, OR BE OTHERWISE PARKED IN A MANNER AS TO INHIBIT THE MOVEMENT OF TRAFFIC AS LITTLE AS POSSIBLE.
- WARNING SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE HOWARD COUNTY DETAILS LISTED IN NOTE #1. THE BOTTOM OF EACH SIGN SHALL NOT BE LESS THAN ONE FOOT ABOVE THE PAVEMENT ELEVATION. ALL SIGNS SHALL BE PLACED IN SUCH A MANNER AS TO PROVIDE ADEQUATE VISIBILITY OF THESE SIGNS, AND ALL OTHER EXISTING SIGNS ON THE HIGHWAY TO THE DRIVER.
- FOR URBAN AREAS WHERE THE PREVAILING SPEED IS 35 MPH OR LESS, THE MINIMUM WARNING SIGN SIZE MAY BE 36" X 36".
- NO WORK OPERATIONS, WHICH INTERFERES WITH THE FLOW OF TRAFFIC, MAY TAKE PLACE DURING PEAK HOURS 6 AM-9AM, AND 3PM-7PM MONDAY-FRIDAY UNLESS WRITTEN APPROVAL IS RECEIVED FROM THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
- ALL SIGNS, CHANNELIZING DEVICES, ETC. SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) 1988 EDITION.



**TRAFFIC CONTROL PLAN-ST. JOHN'S LANE**  
SCALE: 1"=40'

APPROVED DEPARTMENT OF PLANNING AND ZONING  
DATE: 08/07/02  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

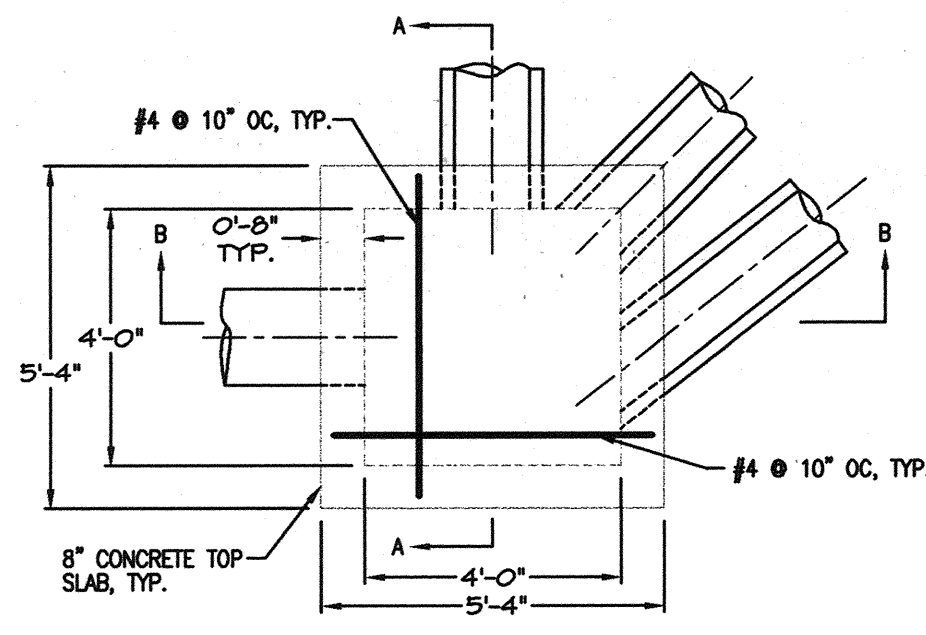
**SDP-12**

**MRA**  
**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
9080 JUNCTION DRIVE, SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 792-9792 or (301) 776-1680  
FAX (410) 792-7395

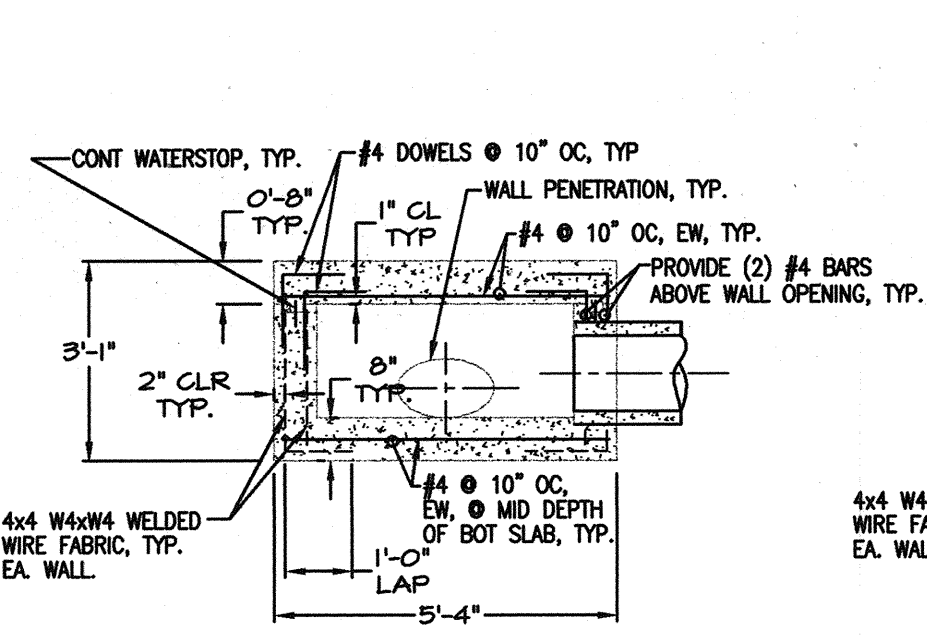
**MARS SUPERMARKET ADDITION**  
**ST. JOHN'S PLAZA**  
SITE DEVELOPMENT PLAN  
TRAFFIC CONTROL PLAN-ST. JOHN'S LANE  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
		11643.01
		SCALE: AS SHOWN
		DATE: 08/07/02
		DRAWN BY: RLZ, TCN
		DESIGN BY: TCN
		REVIEW BY: PVM
		SHEET: 13 OF 16

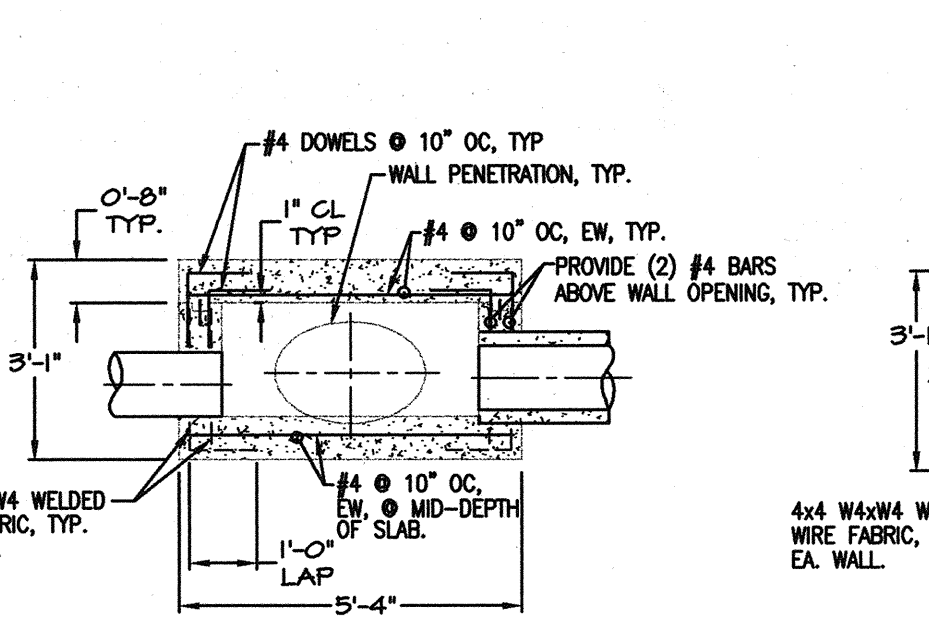




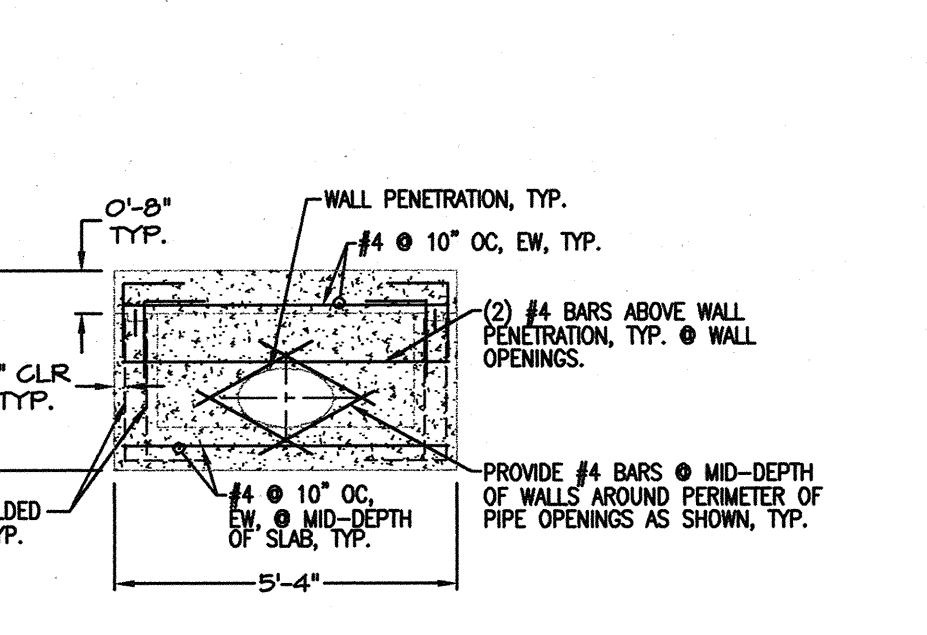
**STRUCTURAL PLAN - STRUCTURE J-19A**  
SCALE: 1"=3'



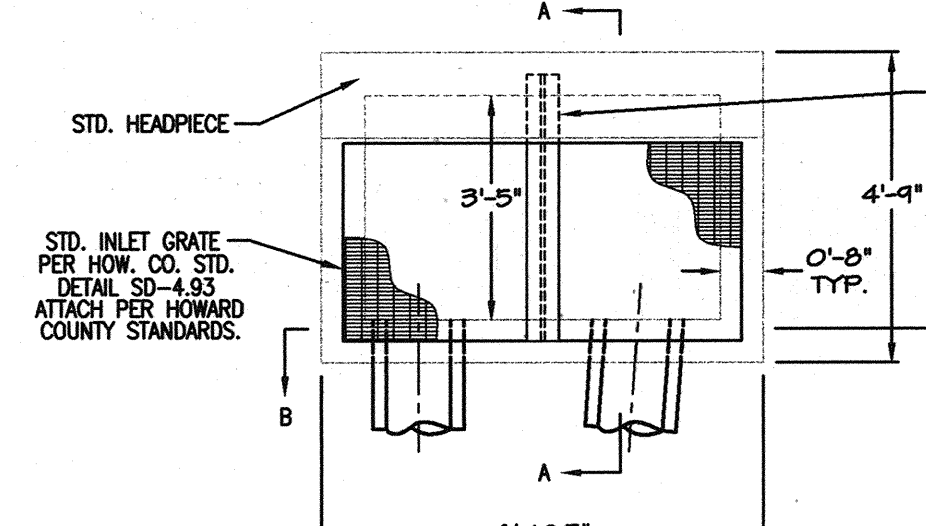
**STRUCTURE J-19A SECTION A-A**  
SCALE: 1"=3'



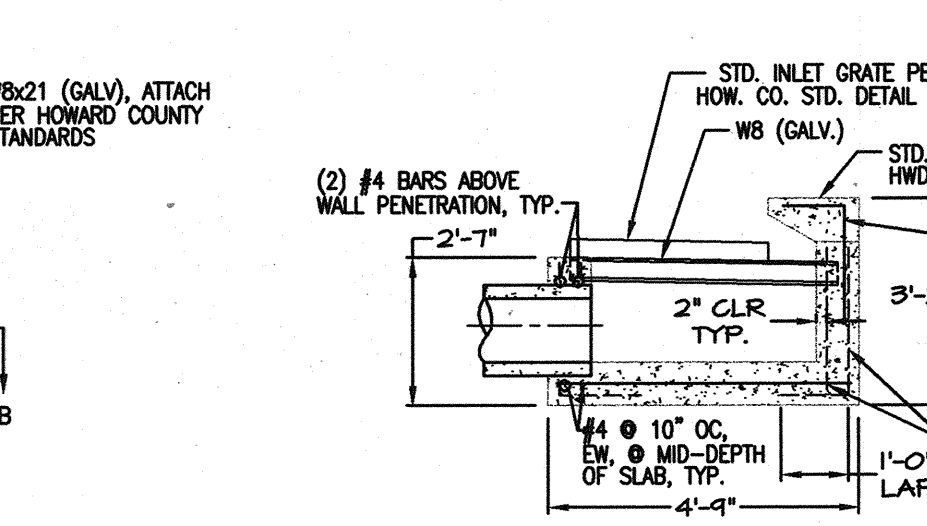
**STRUCTURE J-19A SECTION B-B**  
SCALE: 1"=3'



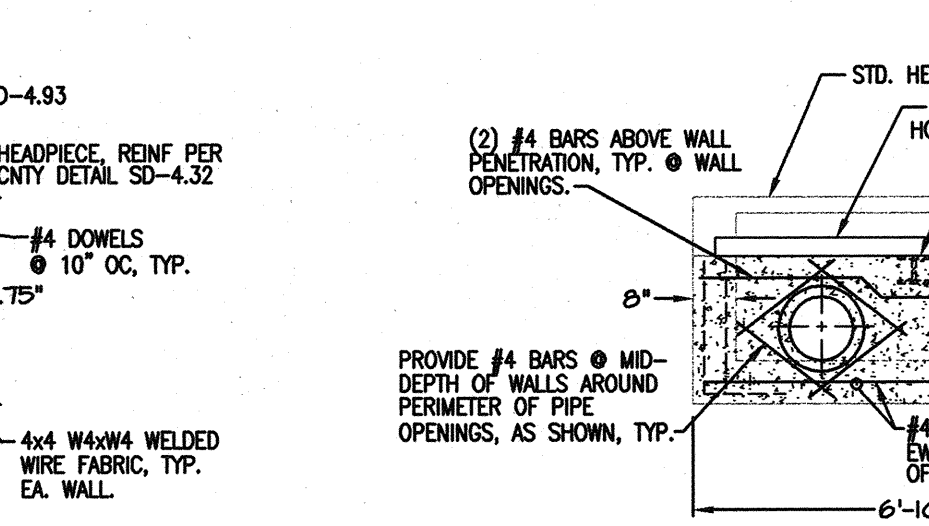
**TYPICAL WALL REINFORCING AT PENETRATION**  
SCALE: 1"=3'



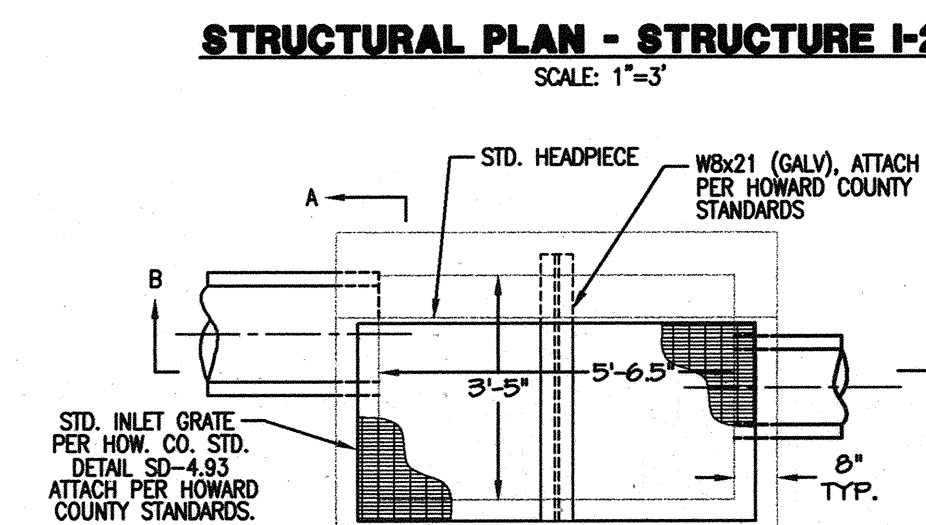
**STRUCTURAL PLAN - STRUCTURE I-21A**  
SCALE: 1"=3'



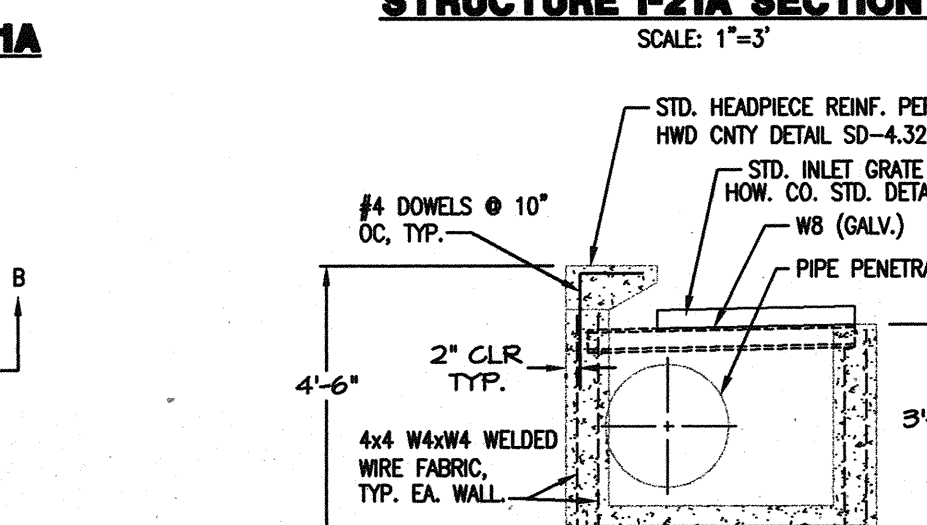
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SCALE: 1"=3'



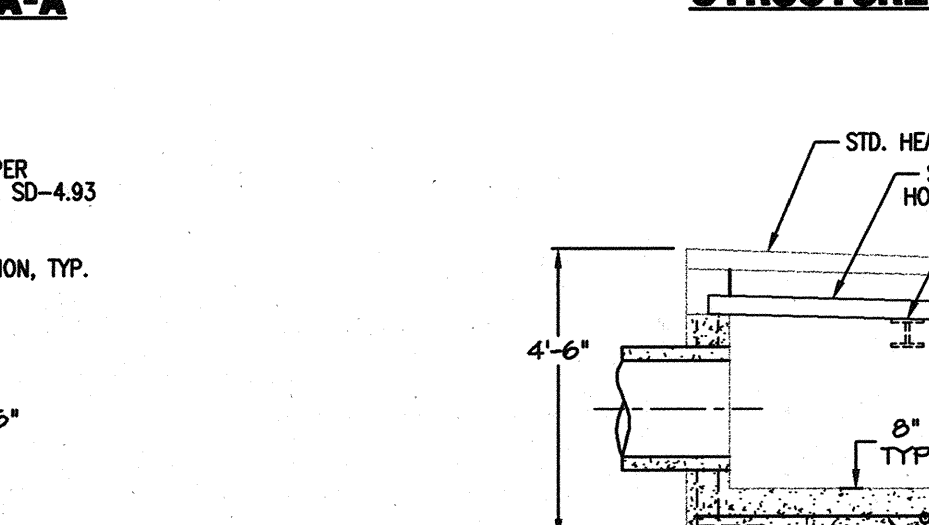
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SCALE: 1"=3'



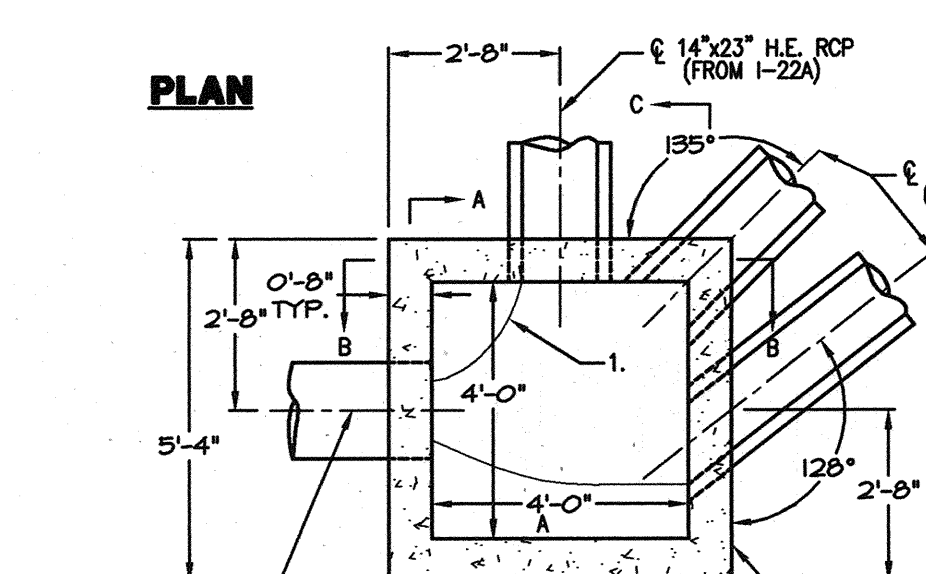
**STRUCTURAL PLAN - STRUCTURE I-22A DETAIL**  
SCALE: 1"=3'



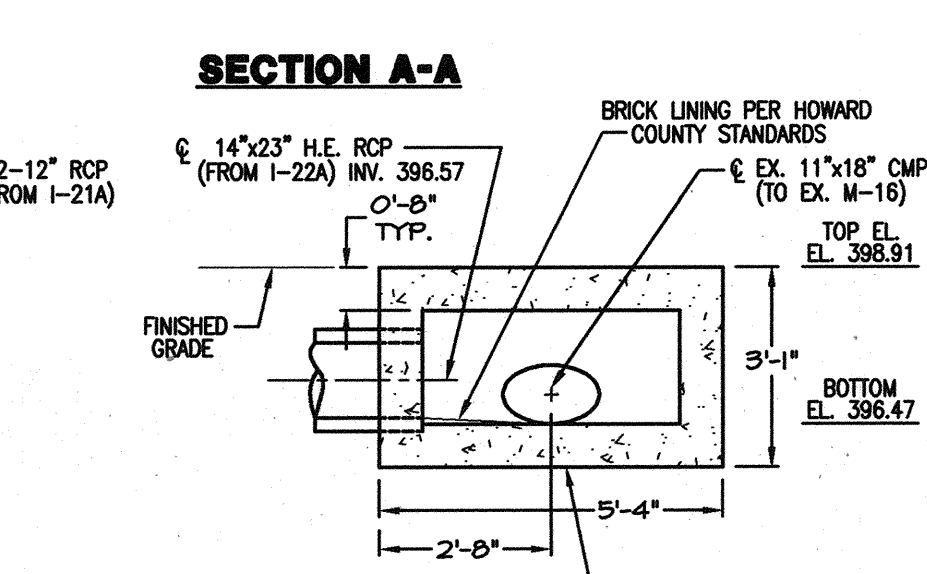
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SCALE: 1"=3'



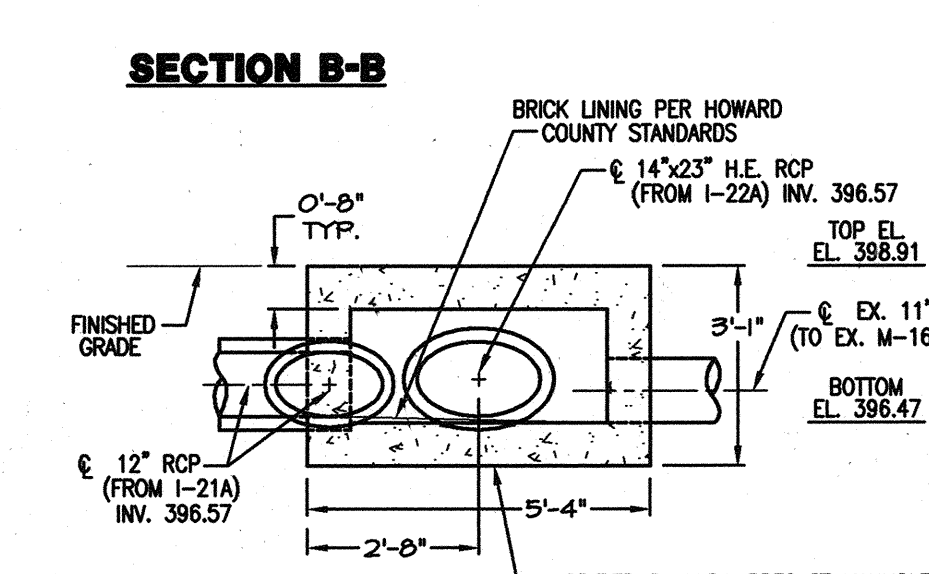
**STRUCTURE I-22A SECTION C-C**  
SCALE: 1"=3'



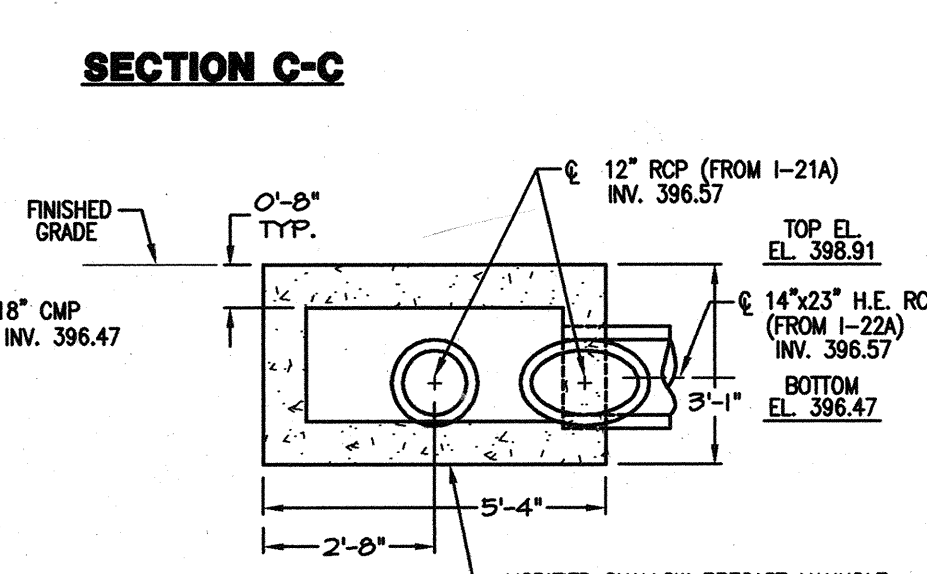
**STRUCTURE J-19A DETAIL**  
SCALE: 1"=3'



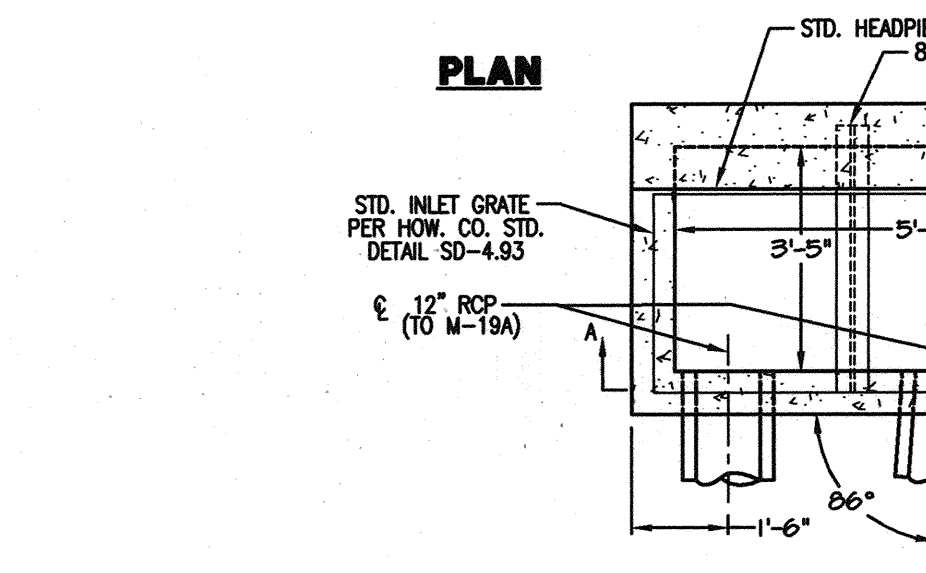
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SCALE: 1"=3'



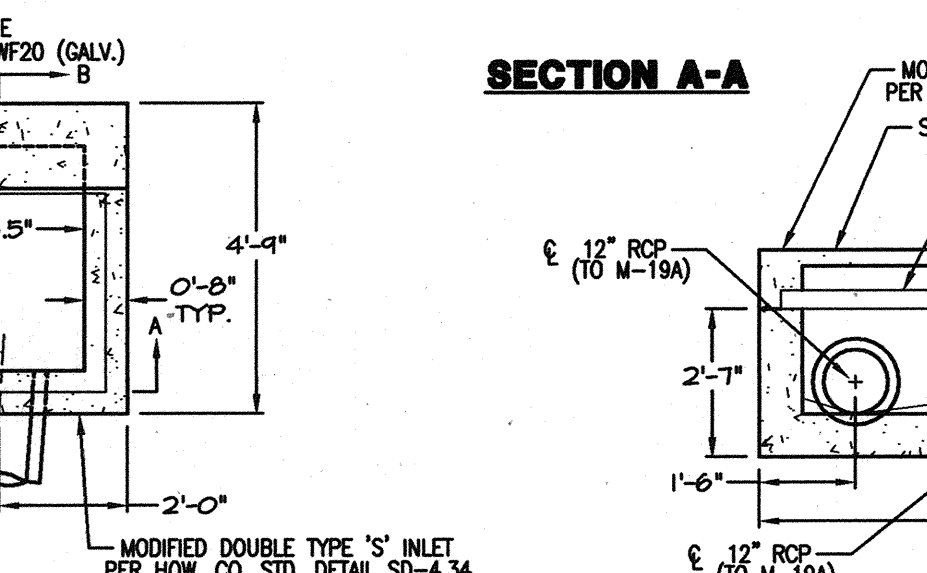
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SCALE: 1"=3'



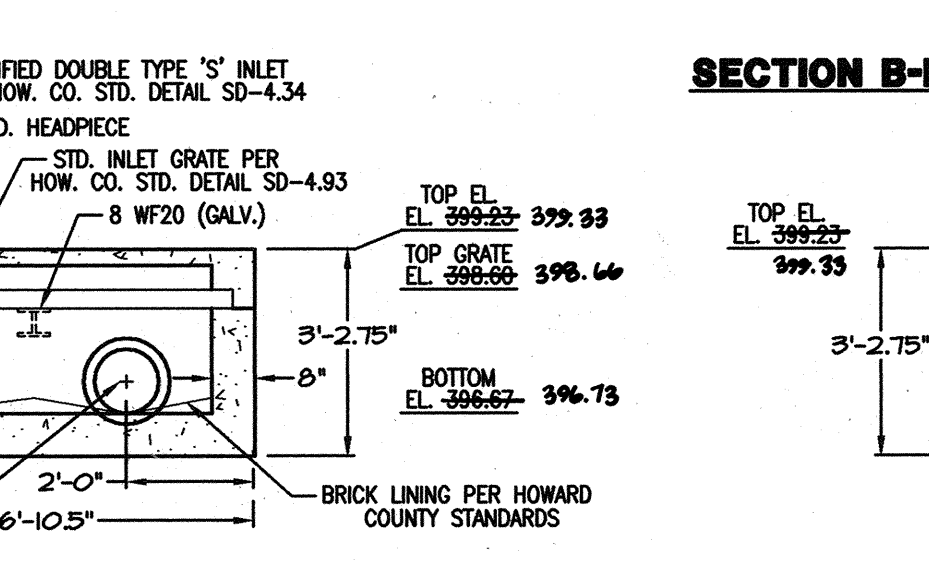
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SCALE: 1"=3'



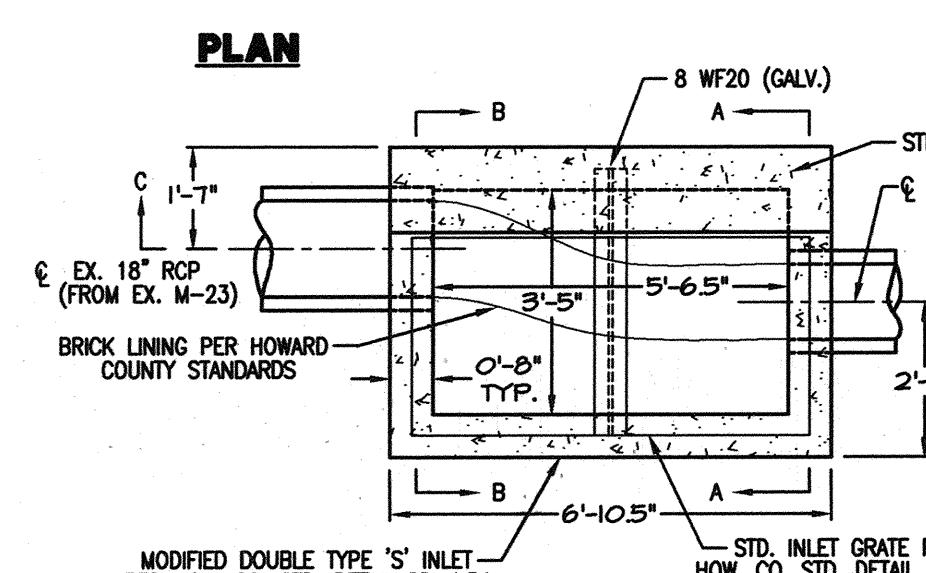
**STRUCTURE I-21A DETAIL**  
SCALE: 1"=3'



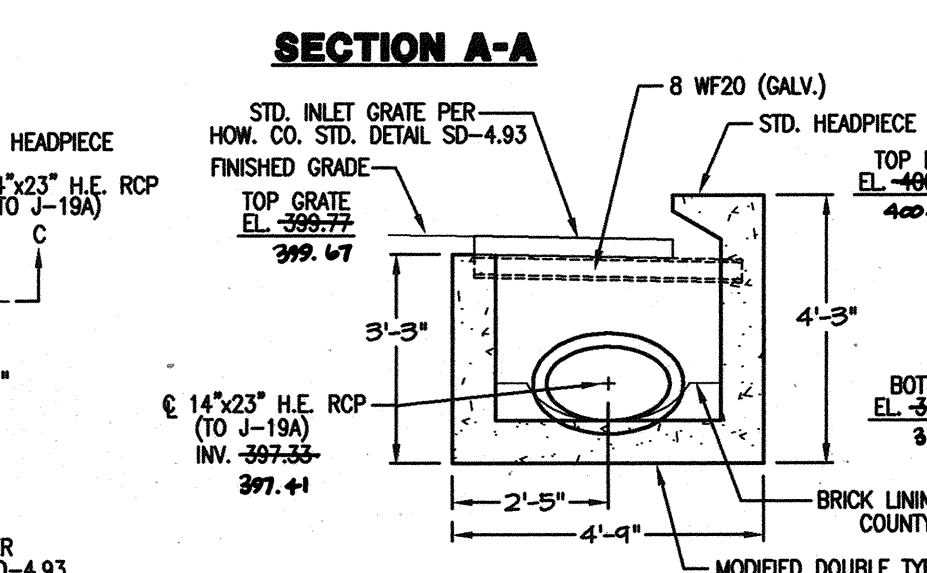
**STRUCTURE I-21A DETAIL**  
SCALE: 1"=3'



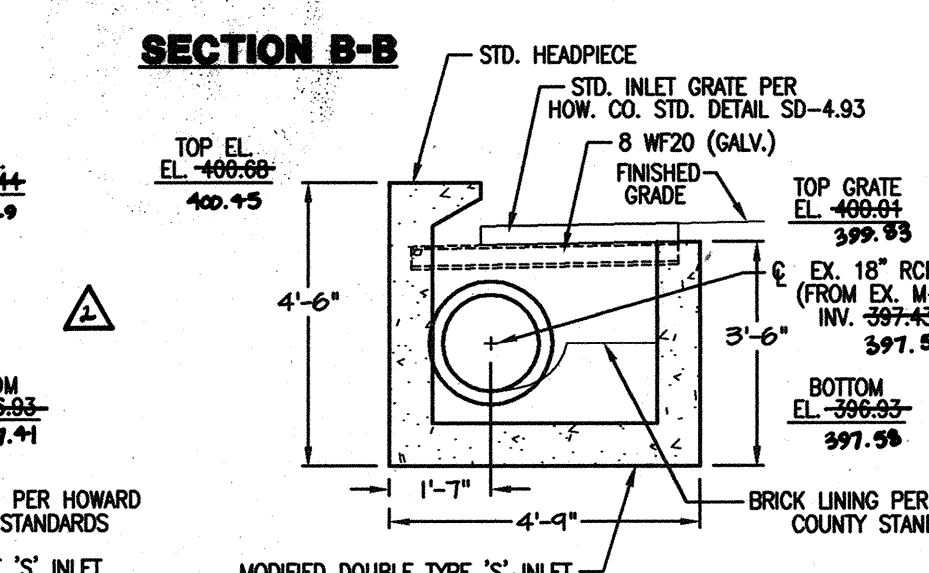
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SCALE: 1"=3'



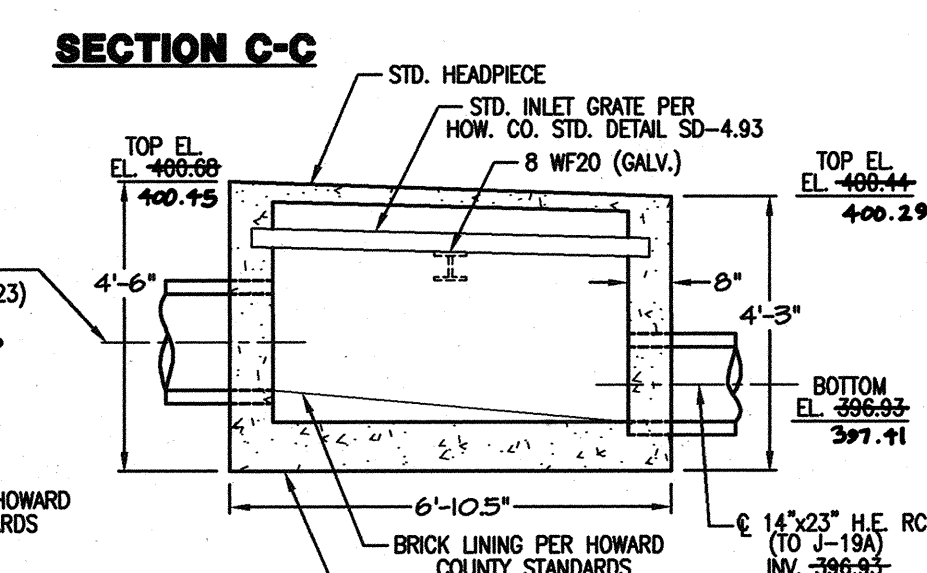
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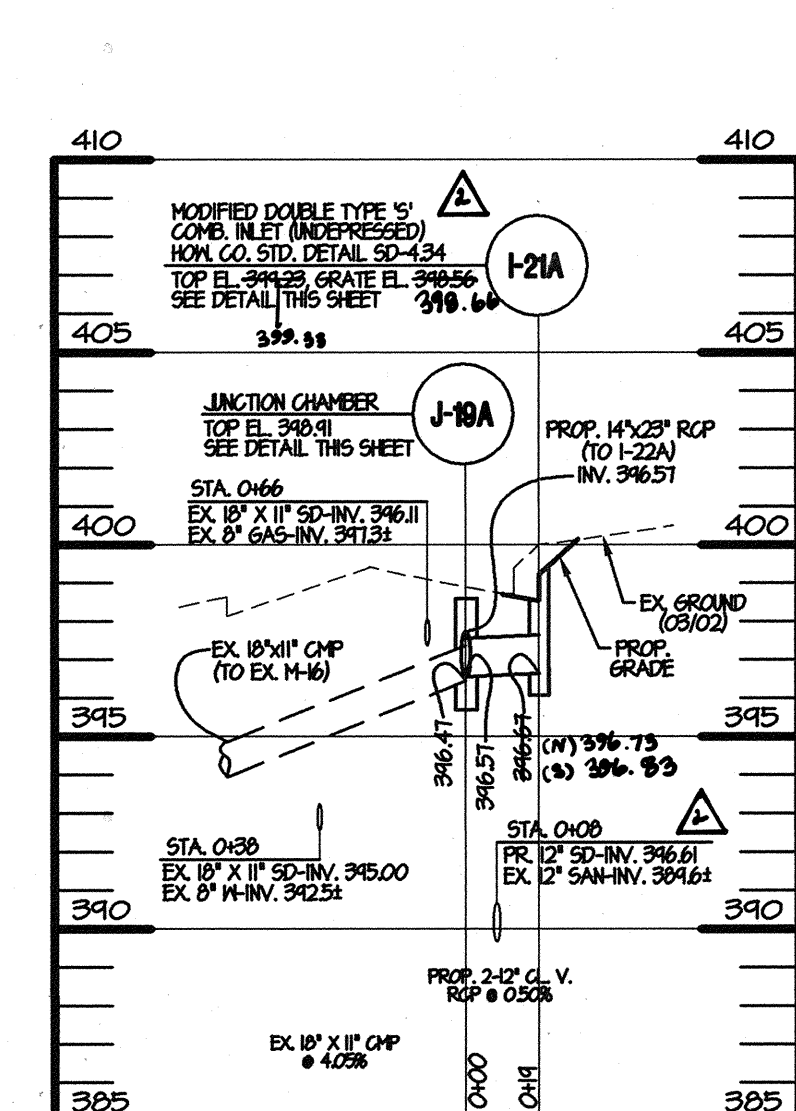
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SCALE: 1"=3'



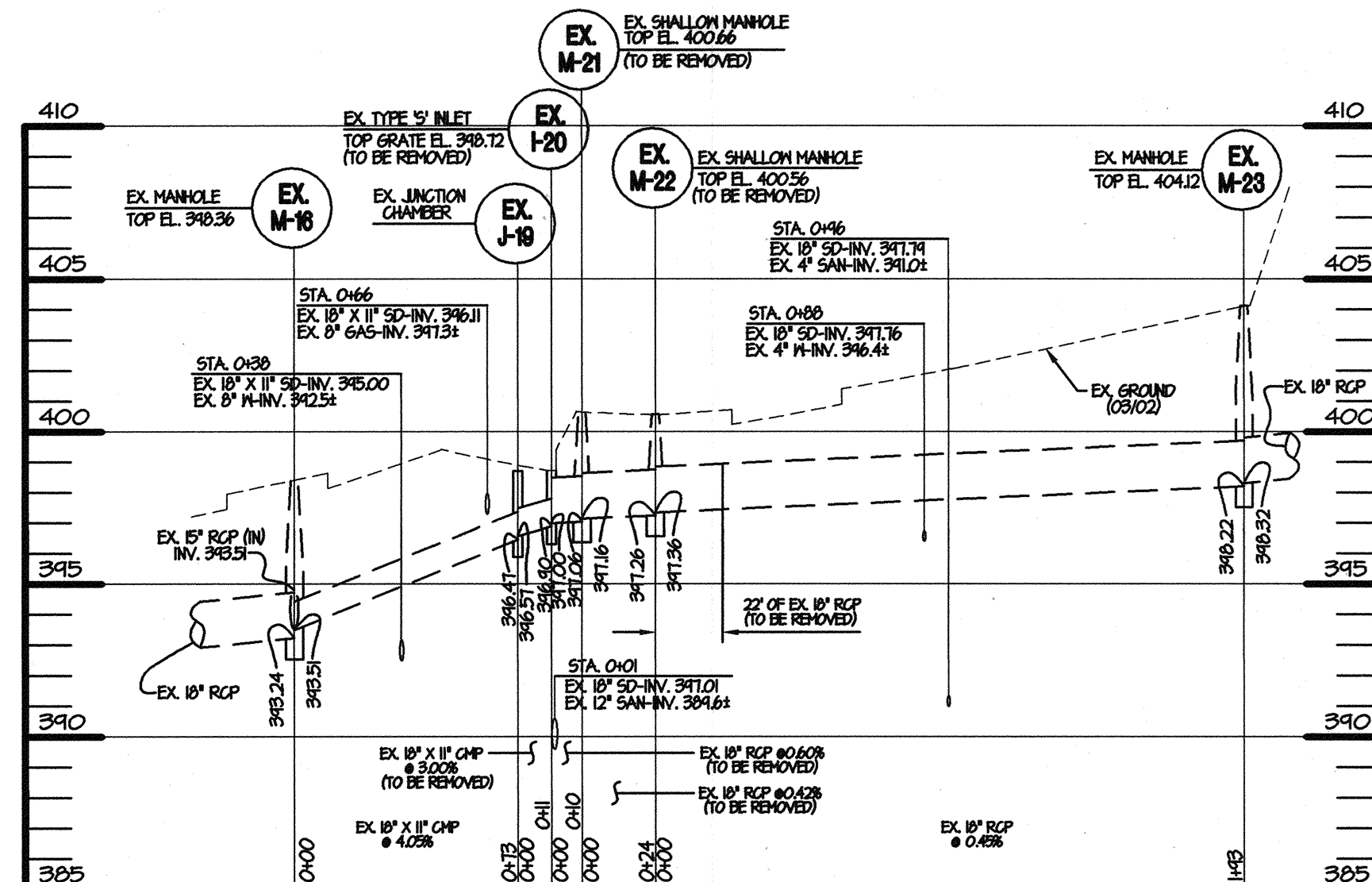
**STRUCTURE I-22A DETAIL**  
SCALE: 1"=3'



**STRUCTURE I-22A DETAIL**  
SCALE: 1"=3'



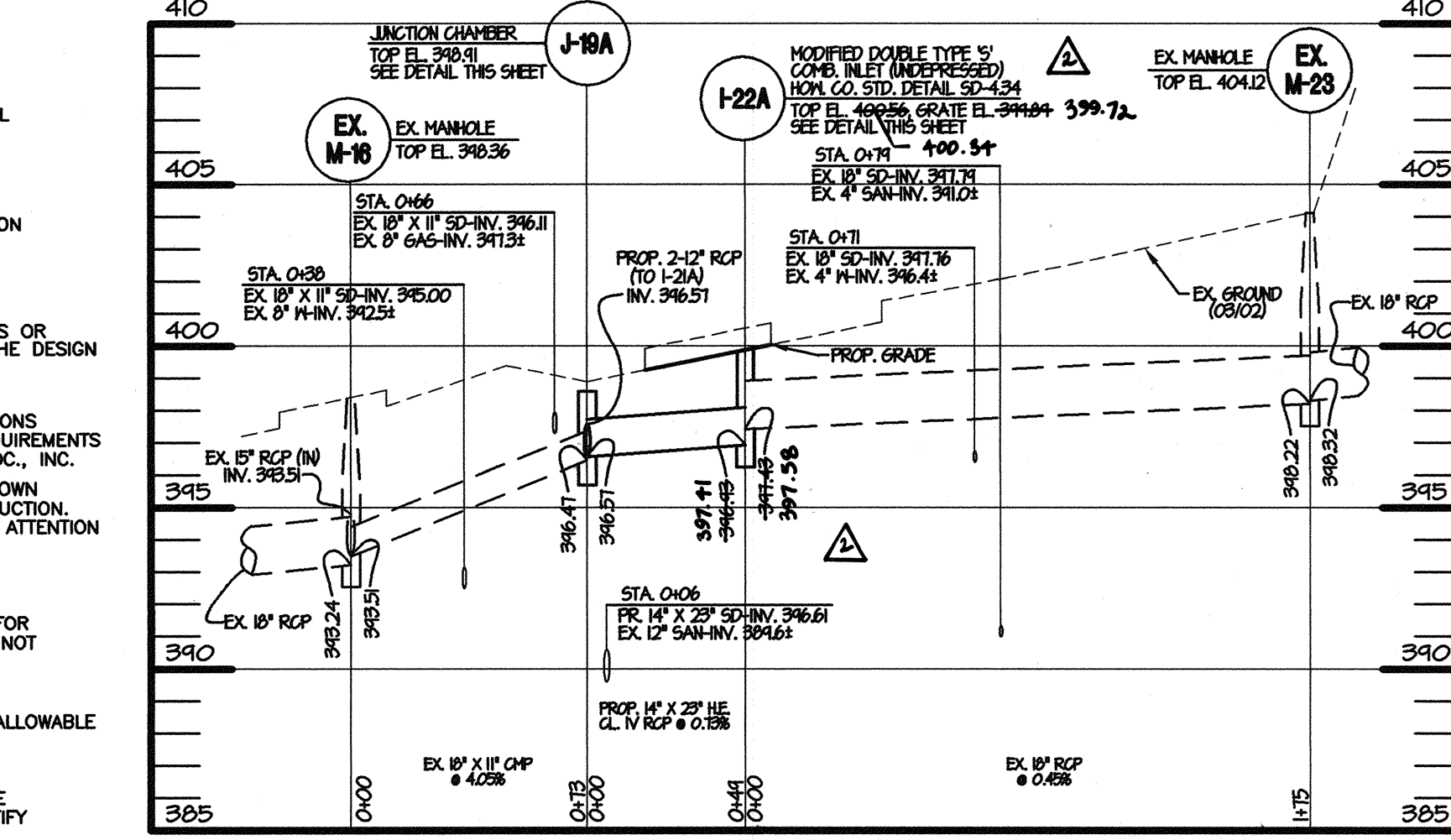
**STORM DRAIN PROFILE-PROPOSED PIPE**  
HOR. 1" = 50'  
VERT. 1" = 5'



**STORM DRAIN PROFILE-EXISTING PIPE**  
HOR. 1" = 50'  
VERT. 1" = 5'

**STRUCTURAL NOTES**

- BUILDING CODES**
  - ALL CONSTRUCTION SHALL CONFORM WITH THE 2000 INTERNATIONAL BUILDING CODE AND ALL SUBSEQUENT SUPPLEMENTS.
  - IN ADDITION, ALL CONSTRUCTION SHALL CONFORM WITH THE GOVERNING LOCAL BUILDING CODE.
- DESIGN LOADS**
  - THE MINIMUM DESIGN DEAD LOADING FOR ALL FRAMING IS BASED ON THE CONSTRUCTION MATERIALS SHOWN ON THE DRAWINGS AND INDICATED IN THE SPECIFICATIONS.
  - THE DESIGN LIVE LOADING FOR ALL FRAMING IS BASED ON THE ASHTO HS20-44 TRUCK LOADING.
  - THE CONTRACTOR SHALL NOT STORE ANY CONSTRUCTION MATERIALS OR UNDERTAKE ANY CONSTRUCTION OPERATION WHICH WILL EXCEED THE DESIGN LIVE LOADINGS NOTED.
- MISCELLANEOUS**
  - THE CONTRACTOR SHALL COORDINATE THE LOCATION AND DIMENSIONS OF OPENINGS, SLEEVES, DEPRESSIONS, AND OTHER PROJECT REQUIREMENTS WITH THE CIVIL DRAWINGS PREPARED BY MORRIS & RITCHIE ASSOC., INC.
  - THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS SHOWN ON THE CONTRACT DRAWINGS BEFORE PROCEEDING WITH CONSTRUCTION. ALL DISCREPANCIES AND OMISSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
  - THE CONTRACTOR SHALL NOT SUBMIT REPRODUCTIONS OF THE STRUCTURAL CONTRACT DOCUMENTS AS SHOP DRAWINGS.
  - SCALES SHOWN ON THE STRUCTURAL CONTRACT DRAWINGS ARE FOR GENERAL INFORMATION ONLY. DIMENSIONAL INFORMATION SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS.
- FOUNDATIONS**
  - ALL FOUNDATIONS HAVE BEEN DESIGNED FOR AN ASSUMED NET ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF. THE ALLOWABLE SOIL BEARING PRESSURE SHALL BE FIELD VERIFIED BY A REGISTERED GEOTECHNICAL ENGINEER AND APPROVED PRIOR TO PLACING FOUNDATIONS. SHOULD THE ACTUAL SOIL BEARING PRESSURE BE LESS THAN 2000 PSF, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
  - ALL FILL PLACED UNDER FOUNDATIONS SHALL BE COMPACTED TO A DRY DENSITY OF AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698.
  - ALL EXCAVATION AND BACKFILLING OPERATIONS WITHIN THE STRUCTURE FOOTPRINT, INCLUDING ALL COMPACTION TESTS AND INSPECTIONS, SHALL BE DONE UNDER THE DIRECTION AND SUPERVISION OF A REGISTERED GEOTECHNICAL ENGINEER.
  - THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ALL FOUNDATION AND SOIL CONDITIONS WHICH DIFFER FROM THOSE ANTICIPATED OR INDICATED IN THE CONTRACT DOCUMENTS.
  - ALL EXISTING SOIL CONTAINING GRAVEL, CONSTRUCTION OR DEMOLITION DEBRIS, ORGANIC SUBSTANCES, OR OTHER FOREIGN OBJECTS SHALL BE REMOVED FROM THE REGION WITHIN THE FOOTPRINT OF THE STRUCTURE.
- CAST IN PLACE CONCRETE**
  - ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES 350 AND TO THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318).
  - IN ADDITION TO THE ABOVE, ALL CONCRETE WORK SHALL CONFORM TO THE FOLLOWING:
    - RECOMMENDED PRACTICE FOR HOT WEATHER CONCRETING (ACI 305).
    - RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 306).
    - RECOMMENDED PRACTICE FOR CONCRETE FORMWORK (ACI 347).
  - ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL BE STONE AGGREGATE CONCRETE HAVING A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. ALL CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR ENTRAINMENT OF 6%, NO ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL BE PERMITTED. MAXIMUM AGGREGATE SIZE SHALL BE 1" AND MAXIMUM SLUMP SHALL BE 4".
  - FOR SLABS ON GRADE, ALL CONCRETE EXCEPT FOOTINGS SHALL CONTAIN A WATER REDUCING ADMIXTURE. PORTLAND CEMENT SHALL CONFORM TO ASTM C 150 AND NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C 33.
  - ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A 615 GRADE 60. ALL WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A 185. LAP ALL REINFORCING BARS A MINIMUM OF 48 BAR DIAMETERS AND ALL W.W.F. A MINIMUM OF TWO FULL GRIDS, UNLESS OTHERWISE INDICATED.
  - ALL REINFORCING SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH THE CRSI "MANUAL OF STANDARD PRACTICE" ACI 315' DETAILS AND DETAILING OF CONCRETE REINFORCEMENT, ACI SP 66 'DETAILING MANUAL'.
  - ALL CONCRETE MIX DESIGNS, INCLUDING CEMENT CONTENT, WATER CEMENT RATIO, FINE AND COARSE AGGREGATE CONTENT AND ALL ADMIXTURES, SHALL BE REVIEWED BY ENGINEER PRIOR TO PLACING FIRST CONCRETE.
  - ALL CONCRETE SHALL BE SAMPLED AND TESTED BY THE TESTING AGENCY. THE CONTRACTOR SHALL NOTIFY THE TESTING AGENCY 48 HOURS PRIOR TO THE PLACING OF ANY CONCRETE.
  - GROUND BLAST FURNACE SLAG MAY BE USED TO REPLACE UP TO 50 PERCENT OF THE PORTLAND CEMENT IN A CONCRETE MIX, AND FLY ASH OR POZZOLAN MAY BE USED TO REPLACE UP TO 25 PERCENT OF PORTLAND CEMENT, SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND SHALL CONFORM TO ASTM C 989.
  - MINIMUM COVER FOR ALL REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED: FOUNDATIONS 3 INCHES, WALLS 2 INCHES.
  - THE GENERAL CONTRACTOR SHALL SUBMIT PLANS SHOWING ALL PENETRATIONS THROUGH THE FRAMED CONCRETE SLABS. ALL PENETRATIONS SHALL BE ACCURATELY LOCATED AND DIMENSIONED.
  - ALL RISER WALLS SHALL BE BRACED AND SHORED AS REQUIRED DURING BACKFILLING. BOTH SUPPORTING ELEMENTS SHALL BE IN PLACE AND DEVELOPING FULL REQUIRED STRENGTH PRIOR TO EXH FILLING OF WALLS SUPPORTED AT TOP AND BOTTOM.
- STRUCTURAL AND MISCELLANEOUS STEEL**
  - ALL STEEL CONSTRUCTION SHALL CONFORM TO THE NINTH EDITION OF THE AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND THE ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN AND THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
  - ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A 992 GRADE 50 OR A 36 AT THE CONTRACTORS OPTION.
  - STEEL MEMBERS, FABRICATIONS AND ASSEMBLIES INDICATED TO BE GALVANIZED SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A 123 AFTER FABRICATION.



**STORM DRAIN PROFILE-PROPOSED PIPE**  
HOR. 1" = 50'  
VERT. 1" = 5'

\* FLOWLINE ELEVATION AT CENTER OF STRUCTURE, FACE OF CURB.  
• COORDINATES TO CENTER OF STRUCTURE AT FACE OF CURB FOR INLETS.  
• COORDINATES TO CENTER OF STRUCTURE FOR JUNCTION CHAMBER.

STORM DRAIN STRUCTURE SCHEDULE				
STR. NO.	TOP ELEV.	INV. IN	INV. OUT	TYPE
J-19A	398.91	396.57	395.57	JUNCTION CHAMBER, SEE DETAIL THIS SHEET
I-21A	398.56	---	---	MOD. DOUBLE TYPE S COMB. INLET, HOW. CO. SD-4.34
I-22A	399.09	397.43	396.93	MOD. DOUBLE TYPE S COMB. INLET, HOW. CO. SD-4.34

STORM DRAIN PIPE SCHEDULE				
SIZE	TYPE	LENGTH	LOCATION	
14"x23" H.E. (RISE/SPAN)	CLASS IV RCP	49'	J-19A	
12"	CLASS V RCP	38'	I-21A, I-22A	

APPROVED DEPARTMENT OF PLANNING AND ZONING  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DIRECTOR, DEPARTMENT OF PLANNING AND ZONING

**MORRIS & RITCHIE ASSOCIATES, INC.**  
 ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
 9090 JUNCTION DRIVE, SUITE 20  
 ANNAPOLIS JUNCTION, MARYLAND 20701  
 (410) 792-9792 or (301) 776-1690  
 FAX (410) 792-7395

**MARS SUPERMARKET ADDITION**  
**ST. JOHN'S PLAZA**  
**SITE DEVELOPMENT PLAN**  
**STORM DRAIN PROFILES & DETAILS**  
**ST. JOHN'S LANE**  
 TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
 SECOND ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

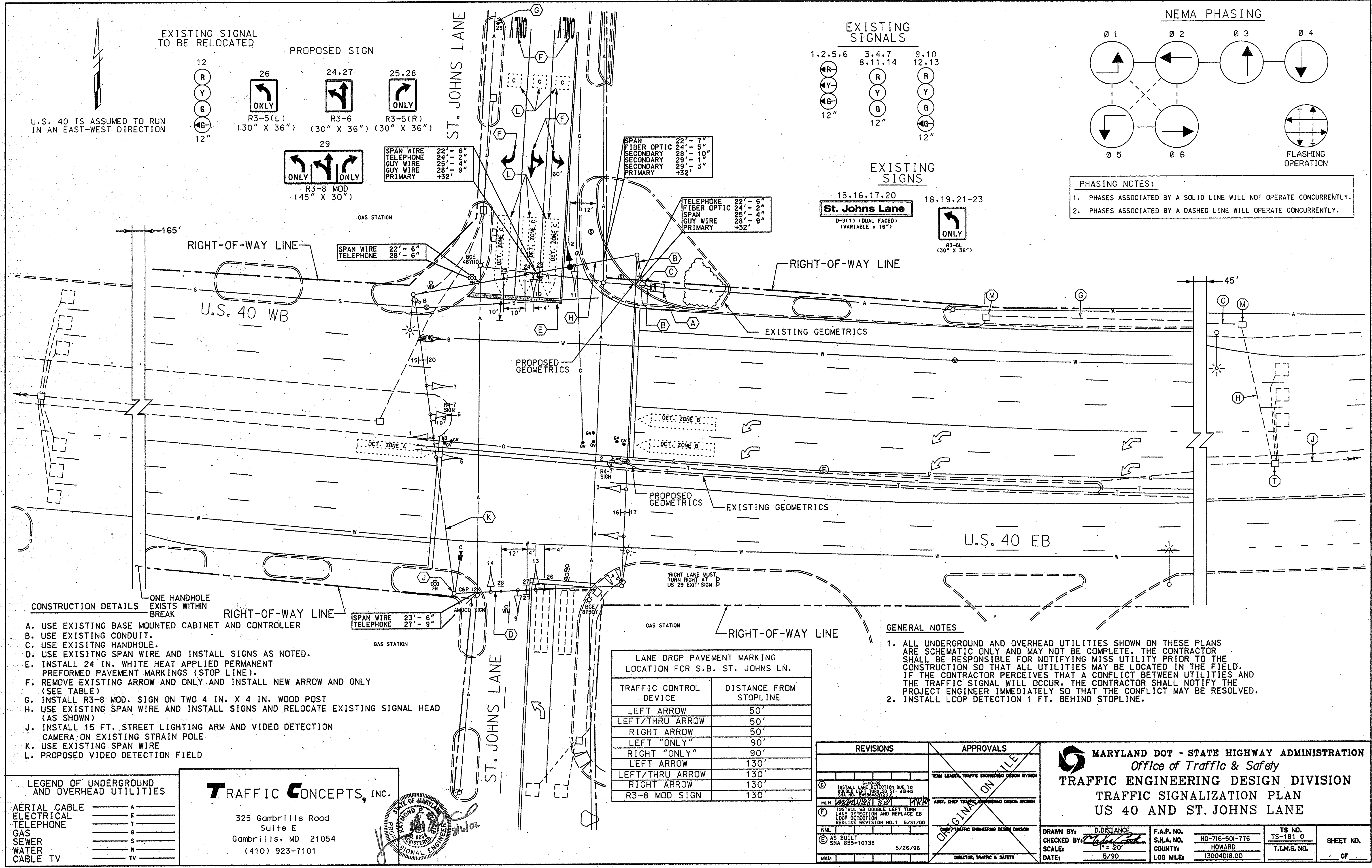
**MRA**  
 PROFESSIONAL ENGINEERING  
 PIERO VAN MELLENS  
 No. 21675  
 1/24/02

**DATE** 05/20/04 **REVISIONS** AS-BUILT INFORMATION ADDED TO PLAN

JOB NO.: 11643.01  
 SCALE: AS SHOWN  
 DATE: 08/07/02  
 DRAWN BY: RLZ, TCN  
 DESIGN BY: TCN  
 REVIEW BY: PWM  
 SHEET: 14 OF 16

**SDP-13**





**OWNER**

A. NAME: Charlotte H. Myers  
B. TELEPHONE: 410-531-3432

C. COMPANY: Hardman-Myers, Inc.  
D. ADDRESS: P.O. Box 757  
E. CITY: Clarksville STATE: MD ZIP: 21029-0757

**DEVELOPER**

A. NAME: E. Philip Hanlon  
B. TELEPHONE: 410-342-4662

C. COMPANY: Mars Super Markets, Inc.  
D. ADDRESS: 3401 E. Federal Street  
E. CITY: Baltimore STATE: MD ZIP: 21213-4011

APPROVED DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR, DEPARTMENT OF PLANNING AND ZONING



**MORRIS & RITCHIE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS

9080 JUNCTION DRIVE, SUITE 9  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 792-9792 or (301) 776-1690  
FAX (410) 792-7395

**MARS SUPERMARKET ADDITION**  
**ST. JOHN'S PLAZA**  
**SITE DEVELOPMENT PLAN**  
TRAFFIC SIGNALIZATION PLAN-US 40 & ST. JOHN'S LANE  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.:
		11643.01
		SCALE: AS SHOWN
		DATE: 08/07/02
		DRAWN BY: T.C., INC.
		DESIGN BY: T.C., INC.
		REVIEW BY: T.C., INC.
		SHEET: 15 OF 16



**PROJECT DESCRIPTION**

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF US 40 AND ST JOHNS LANE IN HOWARD COUNTY. US 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

**CONTROLLER OPERATION**

THE EXISTING CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. CONTROLLER OPERATION WILL NOT CHANGE.

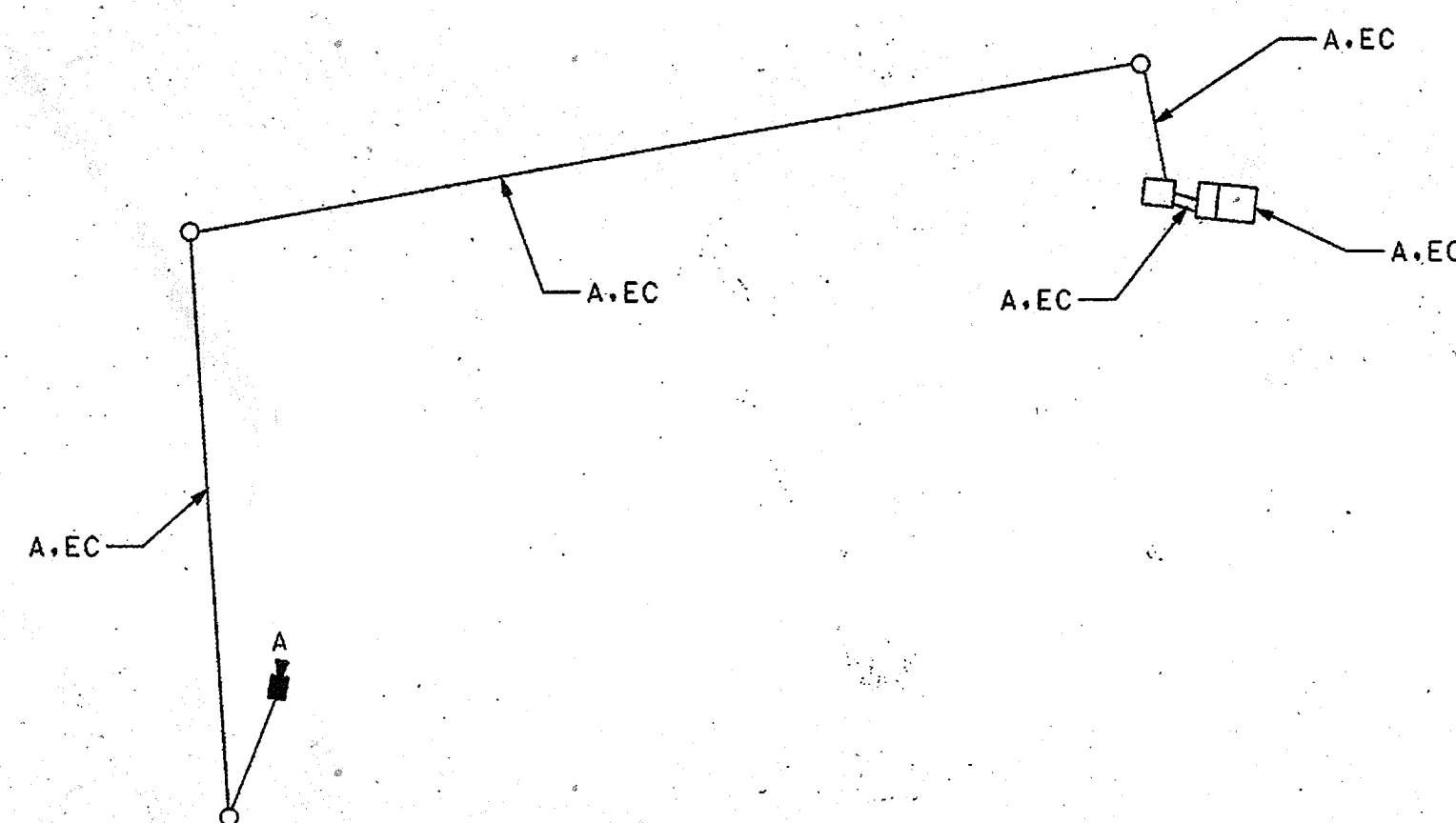
PHASING WILL NOT CHANGE

**EQUIPMENT LIST "B"**

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OOTS FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	LS	MAINTENANCE OF TRAFFIC
5001	4 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING ARROW (LEFT AND RIGHT)
5001	2 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING ARROW (THUR/LEFT)
5002	8 EA	FURNISH AND INSTALL HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING LETTER
5005	35 LF	FURNISH AND INSTALL 24 IN. HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
8003	1 EA	FURNISH AND INSTALL 500 FT. VIDEO CABLE TO CONTROLLER
8013	1 EA	FURNISH AND INSTALL 15 FT. BRACKET ARM FOR SIGNAL STRUCTURE
8049	1 EA	VIDEO DETECTION CAMERA
8058	30 LF	FURNISH AND INSTALL 4 IN. X 4 IN. WOOD POST
---	2 EA	FURNISH AND INSTALL R3-5(R) SIGN (30" X 36") SPAN WIRE MOUNT
---	1 EA	FURNISH AND INSTALL R3-5(L) SIGN (30" X 36") SPAN WIRE MOUNT
---	2 EA	FURNISH AND INSTALL R3-6 SIGN (30" X 36") SPAN WIRE MOUNT
---	1 EA	FURNISH AND INSTALL R3-8 MOD. SIGN (45" X 30") GROUND MOUNT
---	1 EA	RELOCATE EXISTING SIGNAL HEAD

**WIRING DIAGRAM**



**WIRING KEY**

- A VIDEO DETECTION 500 FT. PREMANUFACTURED CABLE
- EC EXISTING CABLE

**EQUIPMENT LIST "A"**

A. APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

**CONTACT PERSONS FOR DISTRICT 7 ARE AS FOLLOWS:**

- MR. JIM BUCKALEW  
ASSISTANT DISTRICT ENGINEER - UTILITIES  
(301) 624-8110
- MR. JOHN CONCANNON  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
(301) 624-8141
- MR. DAVID COYNE  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
(301) 624-8106
- MR. RICHARD DAFF SR.  
CHIEF, TRAFFIC OPERATIONS  
(410) 787-7630
- MR. EUGENE BAILEY  
TEAM LEADER SIGN OPERATIONS  
(410) 787-7676
- MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS  
(410) 787-7631
- MR. DAVID SCHWARTZ  
SUPPLY OFFICE IV (SIGNAL SHOP WAREHOUSE)  
(410) 787-7668
- MR. ED RODENHIZER  
TEAM LEADER SIGNAL OPERATIONS  
(410) 787-7652

**CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY**

**EQUIPMENT LIST "C"**

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL OTHERS SHALL BECOME THE PROPERTY OF THE CONTRACTOR

**MARYLAND DOT - STATE HIGHWAY ADMINISTRATION**  
Office of Traffic & Safety  
**TRAFFIC ENGINEERING DESIGN DIVISION**  
GENERAL INFORMATION  
US 40 AND ST. JOHNS LANE

**TRAFFIC CONCEPTS, INC.**

325 Gambrills Road  
Suite E  
Gambrills, MD 21054  
(410) 923-7101

DRAWN BY: M.HOWELL	F.A.P. NO.	TS NO. 1816 GI	SHEET NO. OF
CHECKED BY: T.ZAYDEL	S.H.A. NO.	T.I.M.S. NO.	
SCALE: 1" = 20'	COUNTY: HOWARD		
DATE: 3-13-02	LOG MILE:		

<b>OWNER</b>		FAX NO. 410-531-3432
A. NAME: Charlotte H. Myers	B. TELEPHONE: 410-531-3432	
C. COMPANY: Hardman-Myers, Inc.		
D. ADDRESS: P.O. Box 757		
E. CITY: Clarksville	STATE: MD	ZIP: 21029-0757
<b>DEVELOPER</b>		FAX NO. 410-342-4662
A. NAME: E. Philip Hanlon	B. TELEPHONE: 410-342-0197	
C. COMPANY: Mars Super Markets, Inc.		
D. ADDRESS: 3401 E. Federal Street		
E. CITY: Baltimore	STATE: MD	ZIP: 21213-4011

APPROVED DEPARTMENT OF PLANNING AND ZONING  
*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 3/15/02

APPROVED DEPARTMENT OF PLANNING AND ZONING  
*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 3/15/02



**MORRIS & RITCHE ASSOCIATES, INC.**  
ENGINEERS, PLANNERS, SURVEYORS AND LANDSCAPE ARCHITECTS  
9090 JUNCTION DRIVE, SUITE 8  
ANNAPOLIS JUNCTION, MARYLAND 20701  
(410) 782-9792 or (301) 776-1690  
FAX (410) 782-7395

**MARS SUPERMARKET ADDITION**  
**ST. JOHN'S PLAZA**  
**SITE DEVELOPMENT PLAN**  
GENERAL INFORMATION-US 40 & ST. JOHN'S LANE  
TAX MAP 24 BLOCK 5 PARCEL 1068 (PARCEL B-1)  
SECOND ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

DATE	REVISIONS	JOB NO.: 11643.01
		SCALE: AS SHOWN
		DATE: 08/07/02
		DRAWN BY: T.C., INC.
		DESIGN BY: T.C., INC.
		REVIEW BY: T.C., INC.
		SHEET: 16 OF 16