

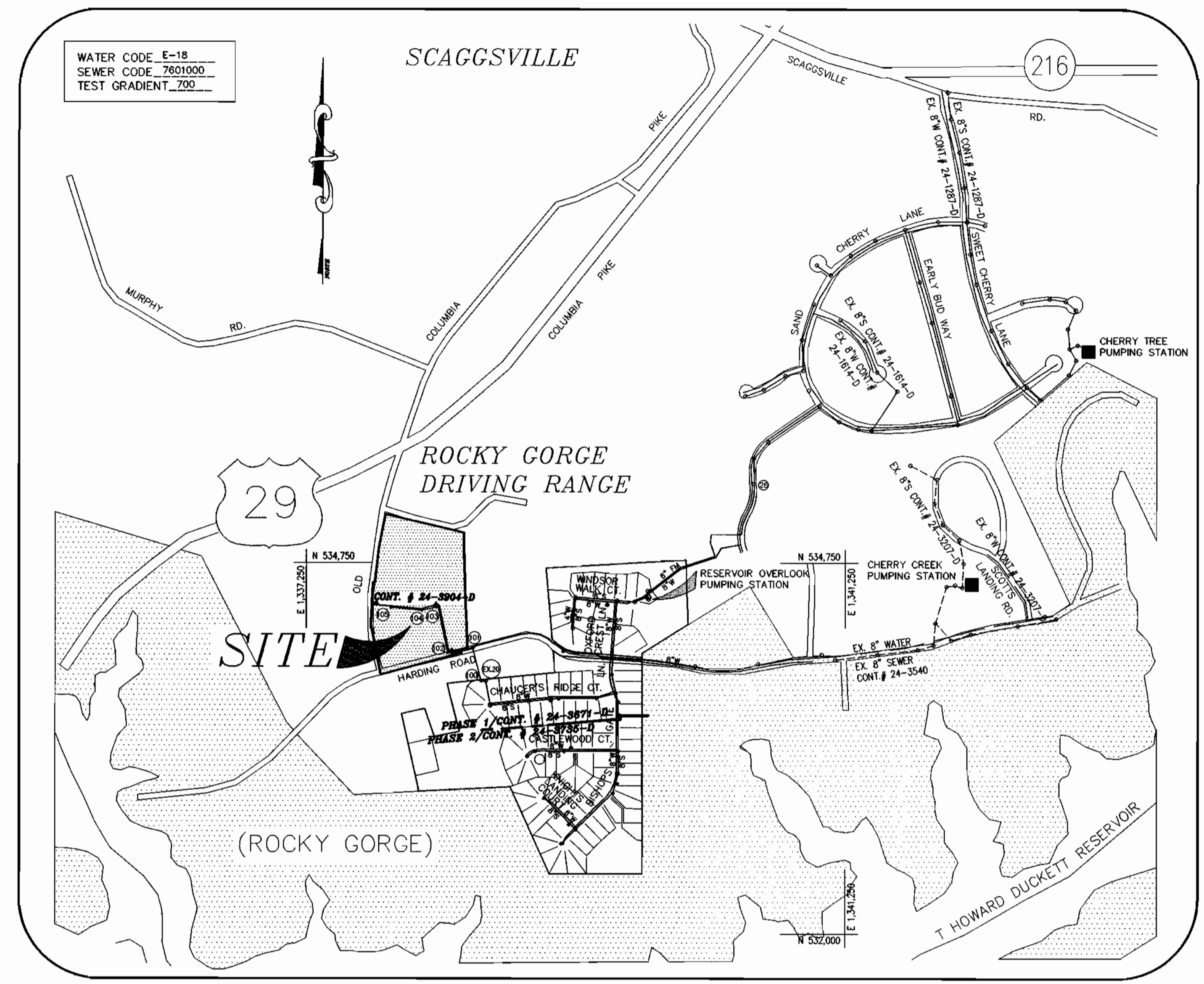
QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
STANDARD MH	6			
TYPE A DROP MH	1			
TYPE B DROP MH CONNECTION	1			
8" SEWER MAIN	1208 L.F.			
4" SEWER HOUSE CONNECTION	216 L.F.			
# DROP HOUSE CONNECTIONS	5			
# SEWER HOUSE CONNECTIONS	4			
# MH CONNECTIONS	2			
8" WATER	2082 L.F.			
6" WATER	53 L.F.			
1" WHC	250 L.F.			
# WHC	13			
8"x6" T	5			
6" V	5			
FIRE HYDRANTS	5			
8"x8" T	1			
8"x8" T WITH 8" VALVE AND CAP	1			
8" V	6			
8" PLUG & BUTTRESS	2			
1 1/2" AIR RELEASE MH	1			
1/8 HB	4			
1/16 HB	1			
8" PLUG	1			
OUTSIDE METER SETTINGS	2			
NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE				

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER & SEWER PLAN
3	WATER PROFILE
4	SEWER PROFILE

NOTE:
SEDIMENT CONTROL
PROVIDED UNDER 4P-01-85



VICINITY MAP

SCALE : 1" = 600'

TYPE OF BUILDING	SFD
No. OF UNITS	1
No. OF WATER HOUSE CONNECTION	13
No. OF TWIN WATER HOUSE CONNECTION	N/A
No. OF SEWER HOUSE CONNECTIONS	11
DRAINAGE AREA	LITTLE PATUXENT
TREATMENT PLANT	LITTLE PATUXENT WATER RECLAMATION PLANT

CONTRACT NO.: 24-3904-D
JAMESTOWN LANDING,
 LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
 (FUTURE LOTS 4 THRU 10 & 27 THRU 29)
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 DEPARTMENT OF PUBLIC WORKS

OWNER
 TANTERRA, LC
 6820 ELM STREET, SUITE 200
 McLEAN, VIRGINIA 22101
 (703) 734-9730

JAMESTOWN LANDING
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 CONTRACT No. 24-3904-D

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

Russell Dickens 12/13/00
 DEVELOPER'S SIGNATURE
 RUSSELL DICKENS, MANAGER, TANTERRA, L.C.
 DEVELOPER'S NAME

I HEREBY 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.

John B. Milenberg 12/07/00
 ENGINEER'S SIGNATURE
 JOHN B. MILDENBERG
 ENGINEER'S NAME

John A. Workfield 12/6/10
 DSDA-NATURAL RESOURCES
 CONSERVATION SERVICE

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

John A. Workfield 12/14/00
 HOWARD SCD

DPZ FILE NOS.
 F-00-169
 SP-01-01
 47-01-85

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

Robert B. Reimer 11-07-00
 CHIEF, BUREAU OF UTILITIES

John A. Workfield 12/13/00
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21142
 (410) 997-0296 Fax (301) 621-5521 Wash. (410) 997-0296 Fax

John B. Milenberg
 PROFESSIONAL ENGINEER

engineering	SJD					
illustration	SJD					
approval						
project	2000-020					
date	OCT 2000	BY	NO.	REVISION	DATE	

TITLE SHEET

600' SCALE MAP NO. 46 BLOCK NO. 15

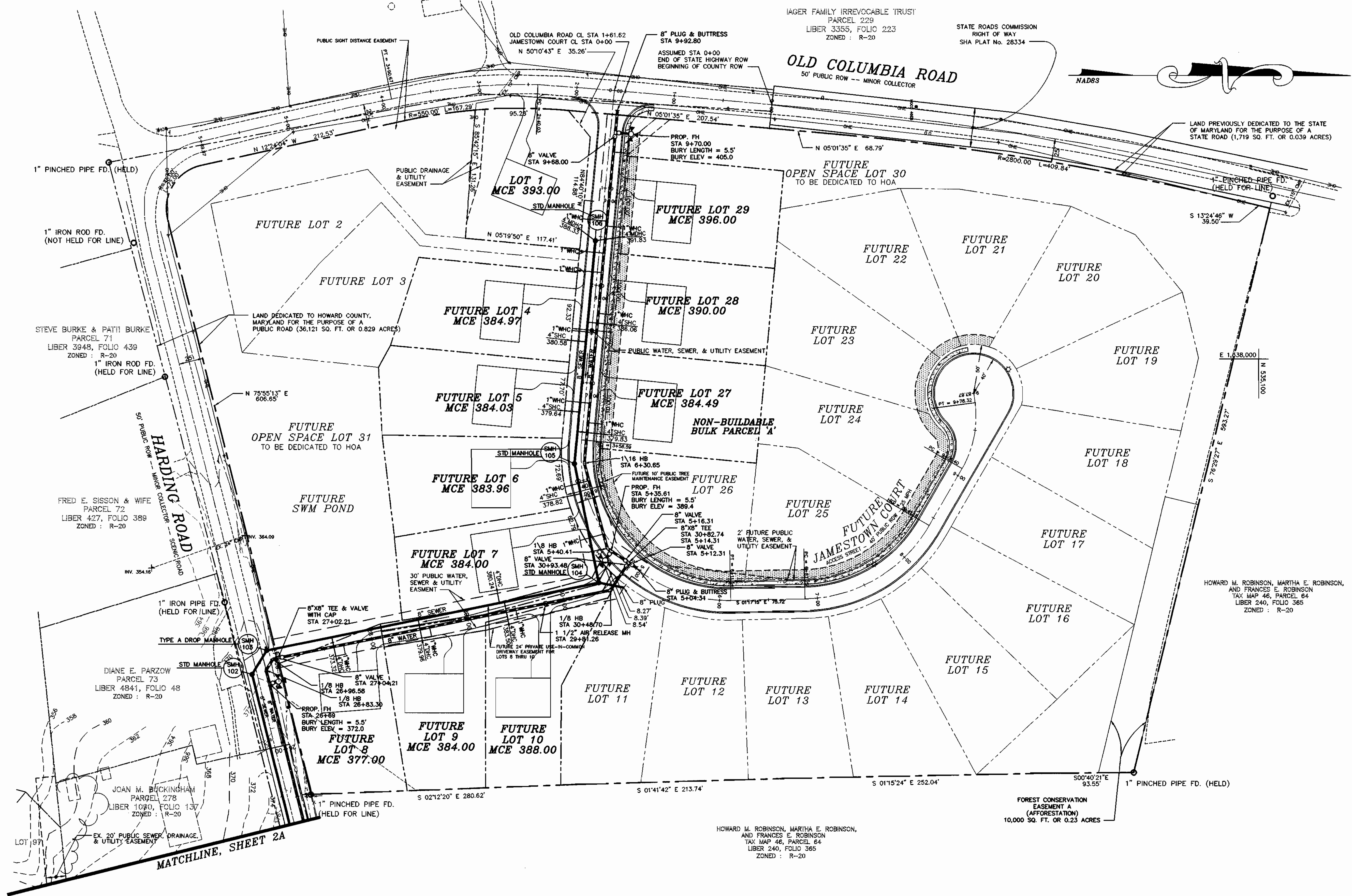
JAMESTOWN LANDING,
 LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
 (FUTURE LOTS 4 THRU 10 & 27 THRU 29)
 CONTRACT NO. 24-3904-D
 TAX MAP 46 PARCEL 230
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

scale AS SHOWN
1 OF 4

GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATA.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6" CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAIL FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATION OF THE TEST PIT. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
 STATE HIGHWAY ADMINISTRATION (410) 531-5533
 BG & E CO. CONTRACTOR SERVICES (410) 850-4620
 BG & E CO. UNDERGROUND DAMAGE CONTROL (410) 787-9068
 MISS UTILITY 1-800-257-7777
 COLONIAL PIPELINE CO. (410) 795-1390
 HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS (410) 313-4900
 BUREAU OF UTILITIES (410) 313-4900
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED OUTSIDE THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL 05.52. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.
- ALL WATER METERS TO BE LOCATED INSIDE PROPOSED UNITS.
- STATIONING SHOWN IS WATER MAIN AND CENTER LINE STATIONING.
- ALL CLEANOUTS AND BALL VALVES ARE TO BE LOCATED AT THE WATER, SEWER AND UTILITY EASEMENT LINE.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- ON-SITE & OFF-SITE SEDIMENT CONTROL TO BE PROVIDED UNDER 4P-01-85
- ALL SEWER HOUSE CONNECTIONS TO BE 4" IN SIZE.
- ALL WATER HOUSE CONNECTIONS TO BE 1" IN SIZE UNLESS OTHERWISE NOTED.
- ALL CELLARS WILL HAVE SERVICE TO LOWEST FLOOR UNLESS OTHERWISE NOTED.
- THERE WILL BE NO TWIN SEWER HOUSE CONNECTIONS ON SITE UNLESS APPROVED BY HOWARD COUNTY.
- ALL WATER MAINS TO BE 8", 6", OR 4" DIP CLASS 52.
- STORM DRAIN SYSTEM INDICATED FOR INFORMATIONAL PURPOSES ONLY. SEE ROAD PLANS FOR CONSTRUCTION DATA.
- COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.
- IF MATERIAL IS WITHIN 8% OF OPTIMUM MOISTURE, WORKING THE MATERIAL UNTIL REQUIRED COMPACTION IS ACHIEVED IS CONTRACTOR'S RESPONSIBILITY.
- THE CONSTRUCTION IS TO BE LIMITED TO THAT WHICH CAN BE BACKFILLED AND STABILIZED IN ANY ONE WORKING DAY.
- THE SPOIL FROM THE TRENCH OPERATIONS IS TO BE PLACED ON THE UPHILL SIDE OF CONSTRUCTION.

00-020 (cma) \mca\mca\020-ws-cover.dwg 10-27-00 9:25:35 am EST



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

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[Signature]
DEVELOPER'S SIGNATURE
RUSSELL DICKENS, MANAGER, TANTERRA, L.C.
DEVELOPER'S NAME

[Signature]
ENGINEER'S SIGNATURE
JOHN B. MILDENBERG
ENGINEER'S NAME

DPZ FILE NOS.
F-00-169 F-01-88
SP-01-01 F-01-141
GP-01-85 F-01-155

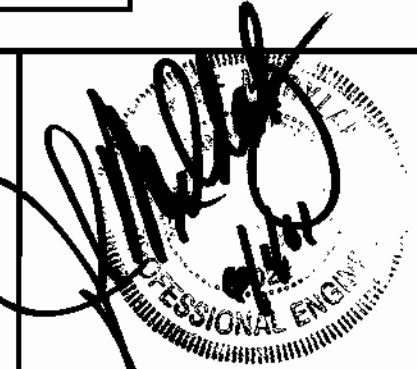
THESE DRAWINGS, SHEETS 2 & 2A, SUPERCEDE SHEET 2 OF THE PLANS SIGNED BY THE CHIEF OF DEVELOPMENT ENGINEERING DIVISION ON 12/7/00.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

**MILDENBERG,
BOENDER & ASSOC., INC.**
Engineers Planners Surveyors

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 997-0286 Cell. (301) 621-5521 Wash. (410) 997-0288 Fax.



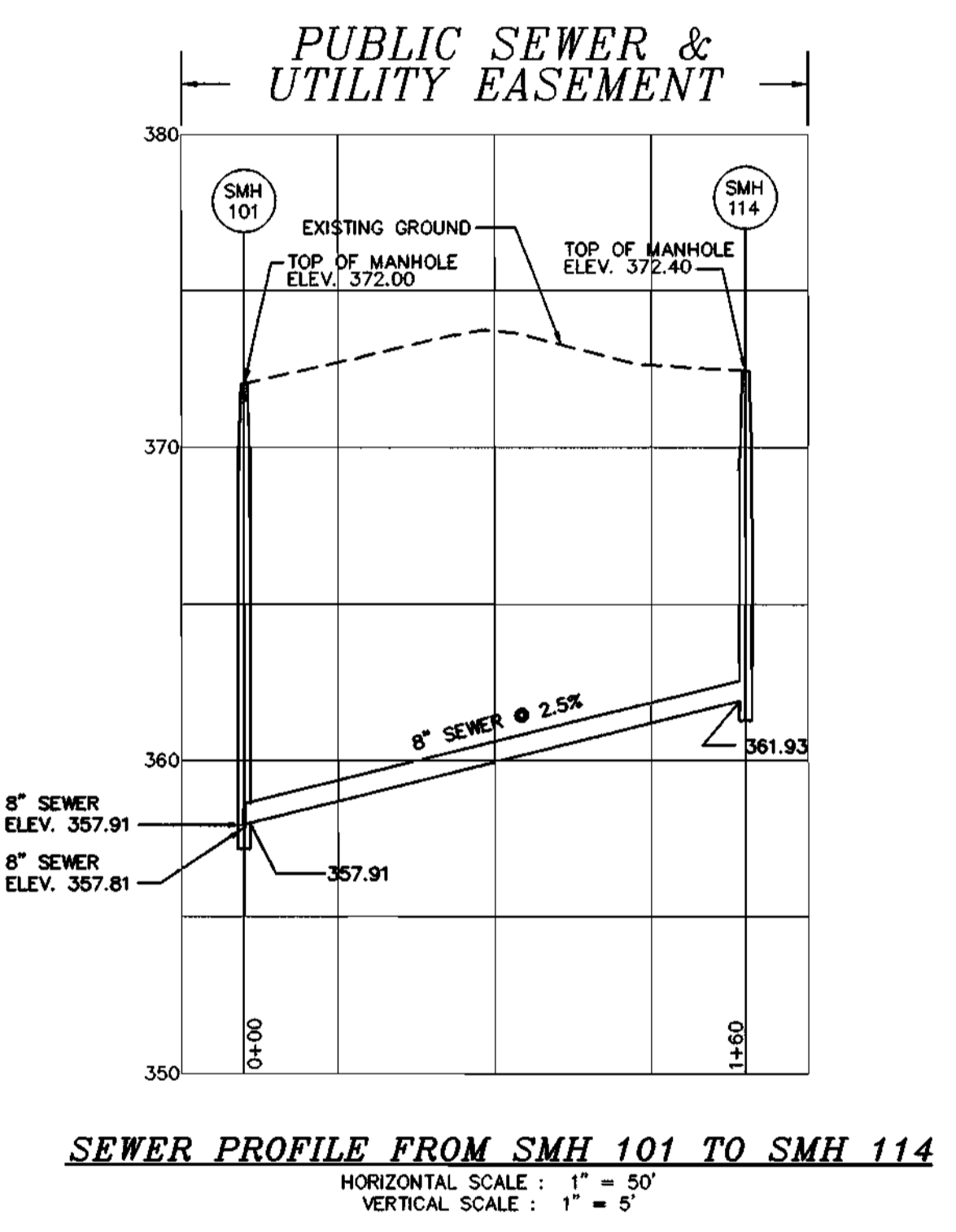
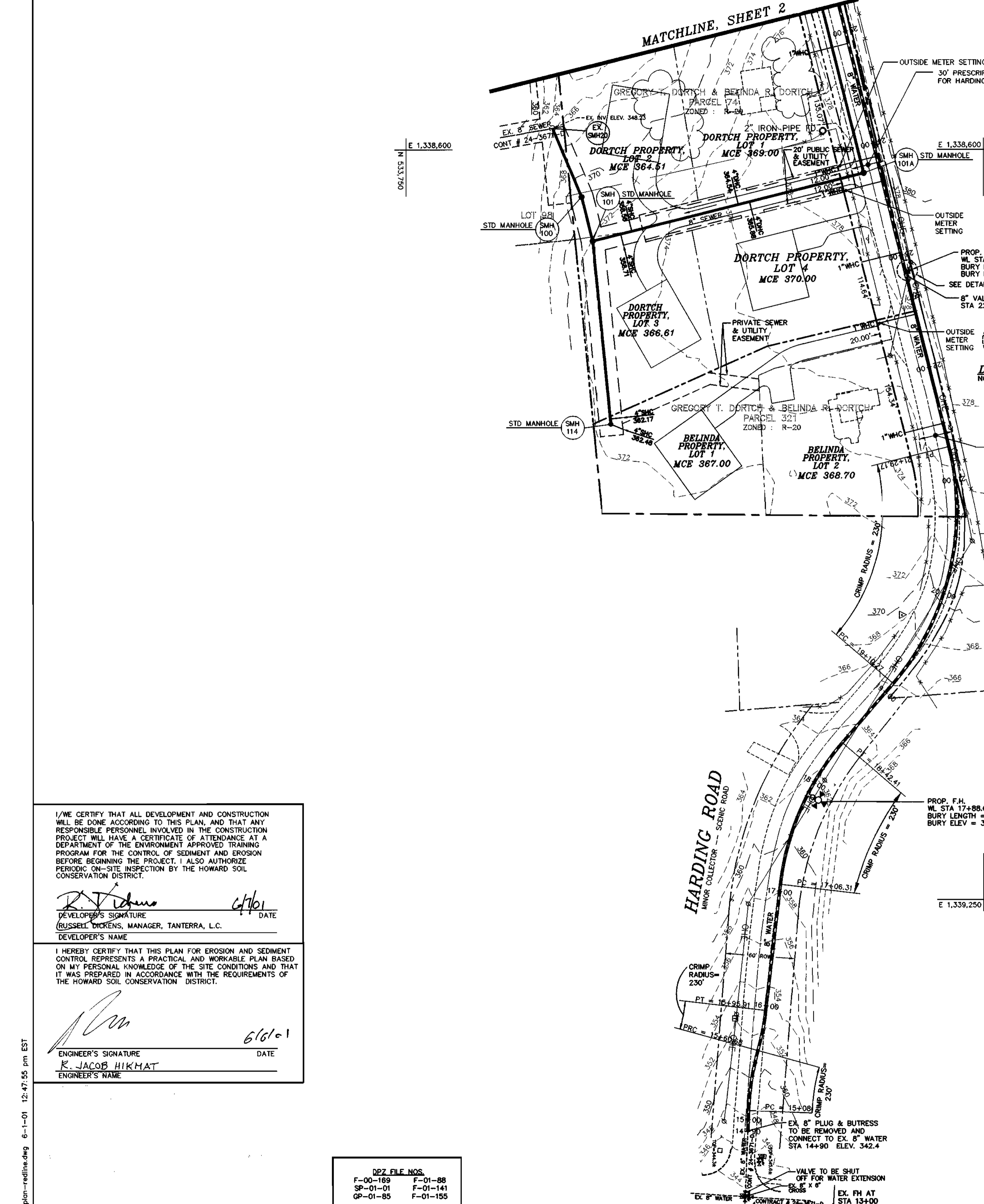
engineering	SJD		
illustration	SJD		
approval			
project	2000-020	1	ADD MATCHLINE TO SHEET 2A, REMOVE EVERYTHING EAST OF MATCHLINE, ADD DPZ FILE NOS. & REVISE TITLE
date	06 OCT 2000	BY	NO.

**WATER & SEWER
PLAN**

600' SCALE MAP NO. 46... BLOCK NO. 15...

**JAMESTOWN LANDING,
LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
& BELINDA PROPERTY, LOTS 1 & 2**
CONTRACT NO. 24-3904-D
TAX MAP 46 PARCEL 230
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

scale
1" = 50'
2 of 4



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

R. Dickens 6/16/01
 DEVELOPER'S SIGNATURE DATE
 RUSSELL DICKENS, MANAGER, TANERRA, L.C.
 DEVELOPER'S NAME

I HEREBY 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.

K. Jacob Hikmat 6/16/01
 ENGINEER'S SIGNATURE DATE
 K. JACOB HIKMAT
 ENGINEER'S NAME

2022 FILE NOS.

F-00-189	F-01-88
SP-01-01	F-01-141
OP-01-85	F-01-155

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

R. Dickens 6-7-01
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

K. Jacob Hikmat 6/12/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Ball. (301) 821-8521 Wash. (410) 997-0298 Fax.

engineering	SJD				
illustration	SJD				
approval					
project	2000-020				
date	MAY 2001	BY	NO.	REVISION	DATE

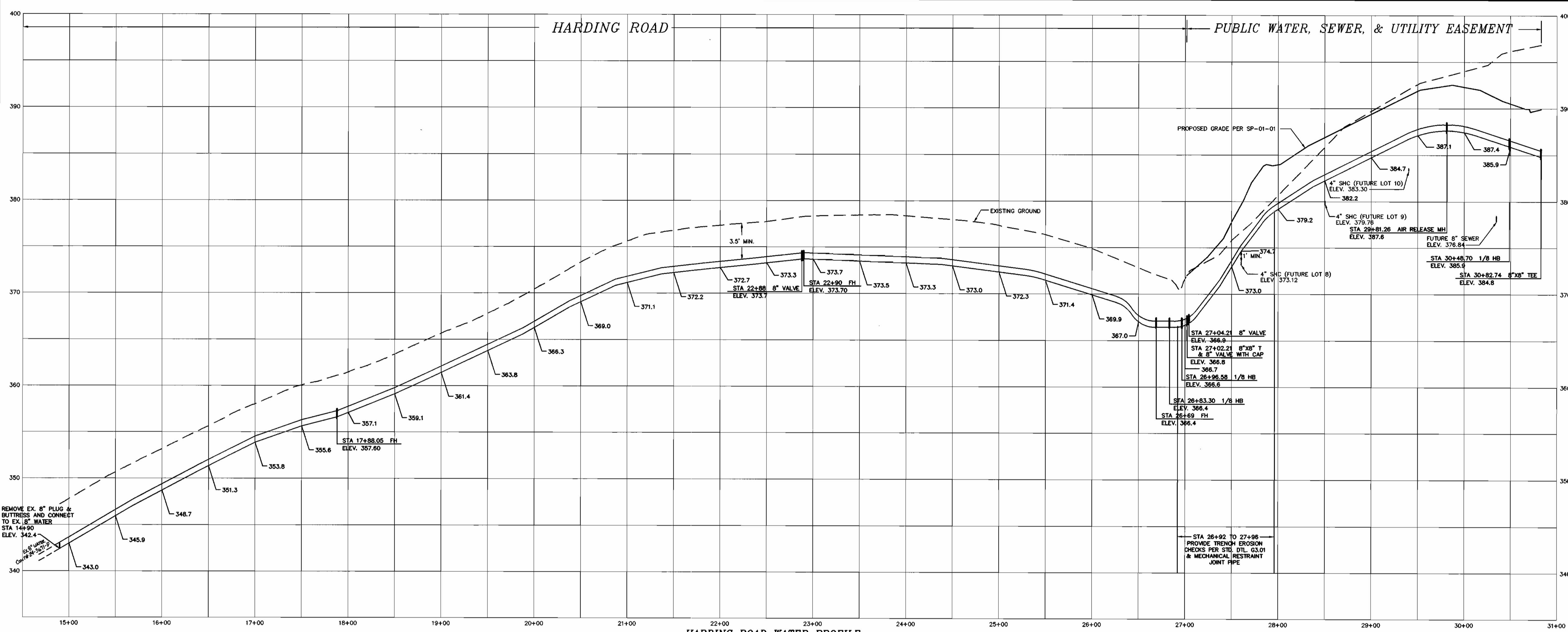
WATER & SEWER PLAN & PROFILE

600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING,
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 CONTRACT NO. 24-3904-D

scale 1" = 50'
 2A OF 4

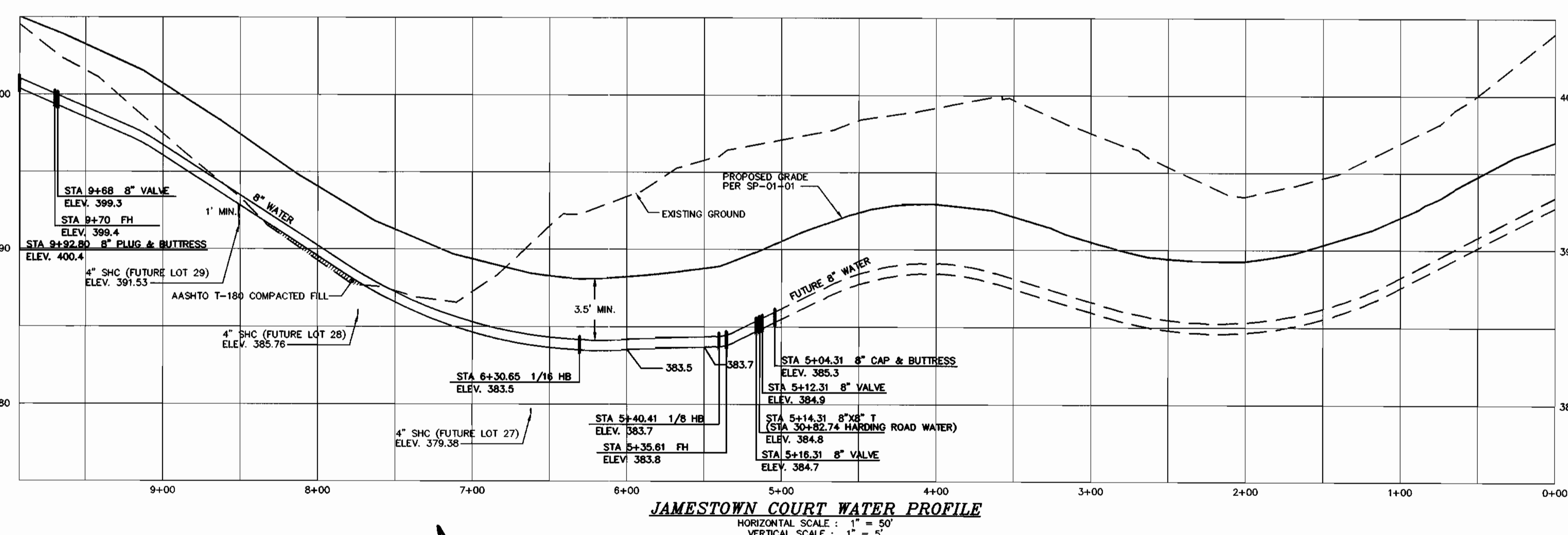
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WATER MAIN TABULATION CHART
HARDING ROAD

NORTHING & EASTING	APPURTENANCE
N 544,045.274 E 1,339,450.948	EX. PLUG & BUTTRISS
N 534,097.185 E 1,339,159.045	8"X6" FHT
N 534,098.967 E 1,339,159.953	6" V
N 534,064.476 E 1,339,163.781	FH
N 534,182.675 E 1,338,707.421	8" V
N 534,182.192 E 1,338,705.480	8"X6" FHT
N 534,183.424 E 1,338,705.173	6" V
N 534,185.588 E 1,338,704.634	FH
N 534,089.640 E 1,338,333.433	8"X6" FHT
N 534,091.581 E 1,338,332.951	6" V
N 534,098.984 E 1,338,331.110	FH
N 534,096.189 E 1,338,319.560	1/8" HB
N 534,093.068 E 1,338,308.197	1/8" HB
N 534,098.576 E 1,338,307.064	8"X8" T
N 534,100.535 E 1,338,306.681	8" V & CAP
N 534,371.932 E 1,338,250.934	1 1/2" AIR RELEASE MH
N 534,437.994 E 1,338,237.369	1/8" HB
N 534,455.629 E 1,338,210.621	8" V
N 534,456.730 E 1,338,209.951	8"X8" T

NOTE: - CONTRACTOR TO VERIFY THE LOCATION OF APPURTENANCES WITHIN EASEMENTS.



WATER MAIN TABULATION CHART
JAMESTOWN COURT

NORTHING & EASTING	APPURTENANCE
N 534,465.078 E 1,338,214.455	8" PLUG & BUTTRISS
N 534,458.399 E 1,338,210.052	8" V
N 534,455.060 E 1,338,207.850	8" V
N 534,438.949 E 1,338,197.228	8"X6" FHT
N 534,437.848 E 1,338,198.898	6" V
N 534,432.685 E 1,338,206.730	FH
N 534,434.938 E 1,338,194.584	1/8" HB
N 534,411.326 E 1,338,107.493	1/16" HB
N 534,442.667 E 1,337,771.602	8" V
N 534,442.853 E 1,337,769.611	8"X6" FHT
N 534,444.844 E 1,337,769.797	6" V
N 534,455.783 E 1,337,771.097	FH
N 534,444.971 E 1,337,746.908	8" PLUG & BUTTRISS

NOTE: - CONTRACTOR TO VERIFY THE LOCATION OF APPURTENANCES WITHIN EASEMENTS.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

[Signature]
CHIEF, DEVELOPMENT ENGINEERING DIVISION

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax (301) 621-5221 Wash. (410) 997-0298 Fax

[Signature]
PROFESSIONAL ENGINEER

engineering SJD
 illustration SJD
 approval
 project 2000-020
 date OCT 2000 BY NO. REVISION DATE

WATER PROFILES

600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING,
 LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
 (FUTURE LOTS 4 THRU 10 & 27 THRU 29)
 CONTRACT NO. 24-3904-D
 TAX MAP 46 PARCEL 230
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

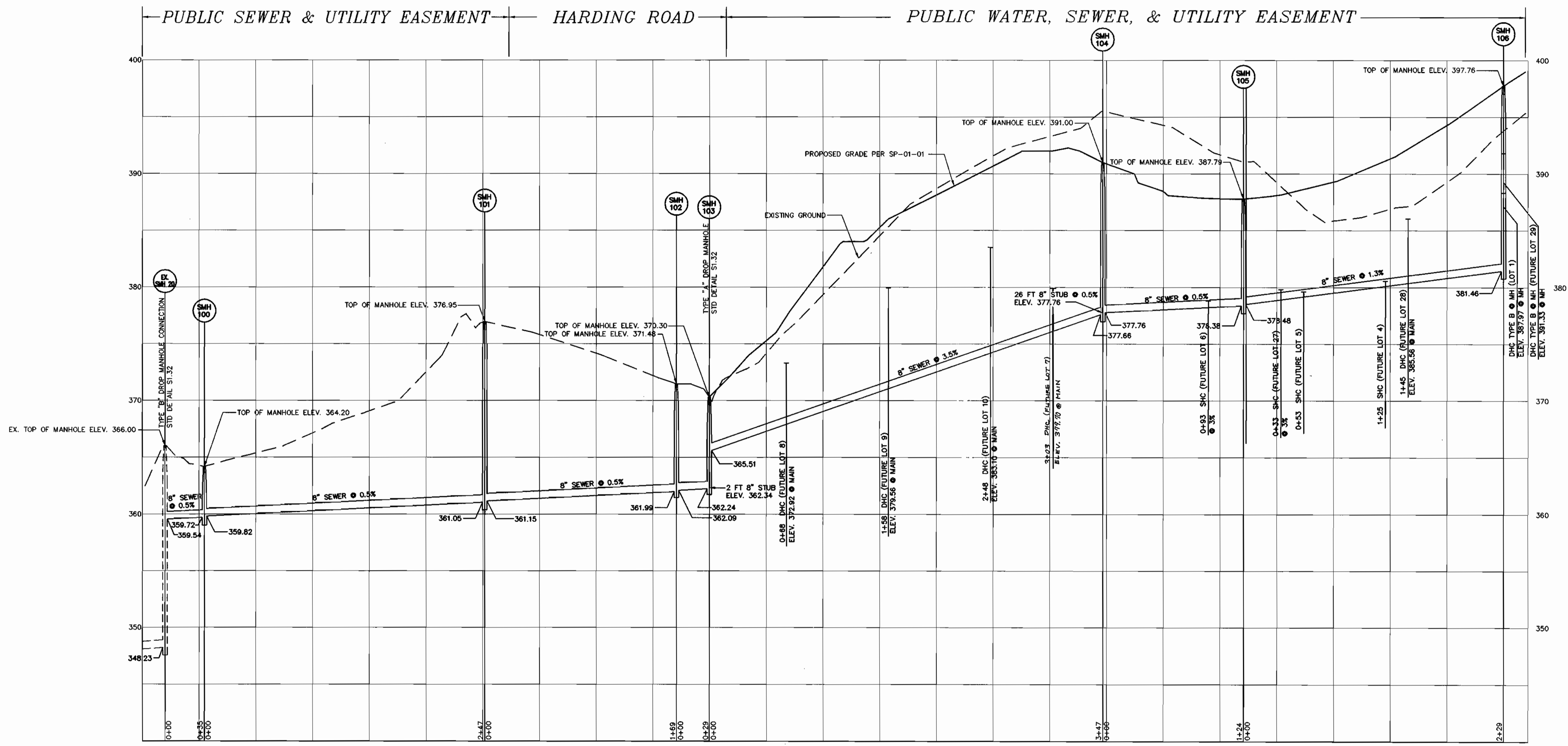
scale AS SHOWN
3 of 4

00-020.dwg (hard) (vba) (2000-wr-prof.dwg) 10-25-00 2:25:31 pm EST

MANHOLE LOCATION CHART

MH #	NORTHING & EASTING
EX 20	N 533,876.694 E 1,338,881.434
100	N 533,873.288 E 1,338,546.884
101	N 534,112.878 E 1,338,487.283
102	N 534,071.902 E 1,338,323.864
103	N 534,086.763 E 1,338,299.281
104	N 534,426.187 E 1,338,229.585
105	N 534,401.231 E 1,338,108.046
106	N 534,422.506 E 1,337,890.030

NOTE: CONTRACTOR TO VERIFY THE LOCATION OF APPURTENANCES WITHIN EASEMENTS.



SEWER PROFILE FROM EX. SMH 20 TO SMH 105
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

DEZ FILE NOS.
 F-00-169
 SP-01-01
 4P-01-85

00-000\eng\final\kels\020-wr-prof.dwg 10-25-00 2:25:31 pm EST

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND
<i>Robert Bauman</i> CHIEF, BUREAU OF UTILITIES	<i>John De... CHIEF, DEVELOPMENT ENGINEERING DIVISION</i>
11-07-00	12/1/00

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0286 Ball. (301) 621-5521 Wash. (410) 997-0288 Pa.

engineering	SJD			
illustration	SJD			
approval				
Project	2000-020			
date	OCT 2000	BY	NO.	REVISION

SEWER PROFILES

600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING
 LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
 (FUTURE LOTS 4 THRU 10 & 27 THRU 29)
 CONTRACT NO. 24-3904-D
 TAX MAP 46 PARCEL 230
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

scale AS SHOWN
 4 of 4

JAMESTOWN LANDING
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 CONTRACT NO. 24-3904-D

QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
STANDARD MH	8			
TYPE A DROP MH	1			
TYPE B DROP MH CONNECTION	1			
8" SEWER MAIN	1543 L.F.			
4" SEWER HOUSE CONNECTION	267 L.F.			
# DROP HOUSE CONNECTIONS	7			
# SEWER HOUSE CONNECTIONS	7			
# MH CONNECTIONS	3			
8" WATER	2082 L.F.			
6" WATER	53 L.F.			
1" WHC	455 L.F.			
# WHC	19			
8"x6" T	5			
6" V	5			
FIRE HYDRANTS	5			
8"x8" T	1			
8"x8" T WITH 8" VALVE AND CAP	1			
8" V	6			
8" PLUG & BUTTRESS	2			
1 1/2" AIR RELEASE MH	1			
1/8 HB	4			
1/16 HB	1			
8" PLUG	1			
OUTSIDE METER SETTINGS	5			
NAME OF UTILITY CONTRACTOR:				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE				

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER & SEWER PLAN
2A	WATER & SEWER PLAN & PROFILE
3	WATER PROFILE
4	SEWER PROFILE

NOTE:
SEDIMENT CONTROL
PROVIDED UNDER 4P-01-85

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Russell Dickens 12/23/00
DEVELOPER'S SIGNATURE
RUSSELL DICKENS, MANAGER, TANTRERRA, L.C.
DEVELOPER'S NAME

I HEREBY 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.

John B. Miltenberg 12/27/00
ENGINEER'S SIGNATURE
JOHN B. MILTENBERG
ENGINEER'S NAME

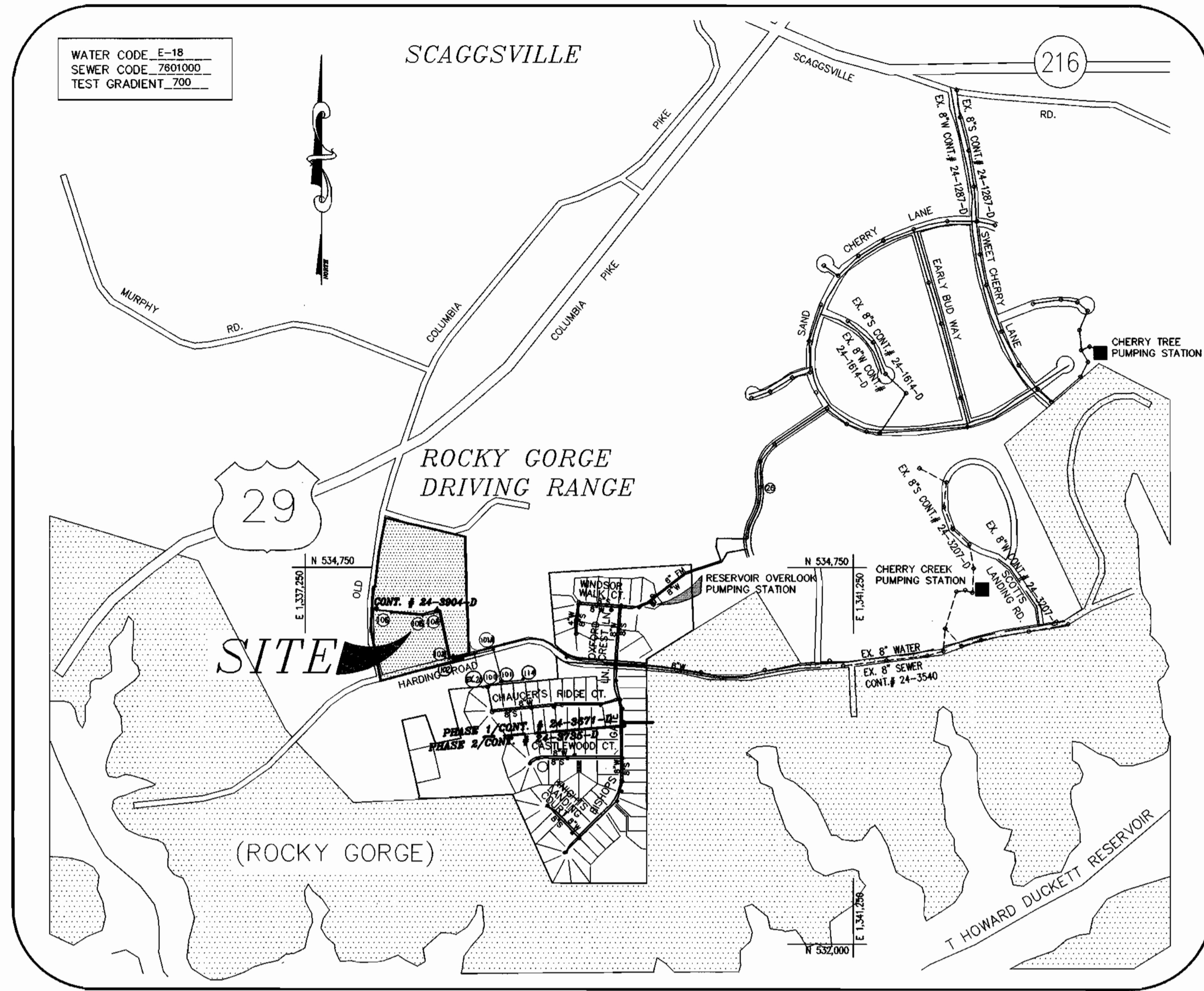
REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

John A. Welford 12/6/00
USDA-NATURAL RESOURCES CONSERVATION SERVICE

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

John A. Welford 12/16/00
HOWARD SCD

DPZ FILE NOS.
F-00-169 F-01-263
SP-01-01 F-01-141
4P-01-85 F-01-155



VICINITY MAP

SCALE : 1" = 600'

TYPE OF BUILDING	SFD
No. OF UNITS	1
No. OF WATER HOUSE CONNECTION	19
No. OF TWIN WATER HOUSE CONNECTION	N/A
No. OF SEWER HOUSE CONNECTIONS	17
DRAINAGE AREA	LITTLE PATUXENT
TREATMENT PLANT	LITTLE PATUXENT WATER RECLAMATION PLANT

CONTRACT NO.: 24-3904-D
JAMESTOWN LANDING,
LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
(LOTS 4 THRU 10 & 27 THRU 29 & DORTCH PROPERTY, LOTS 1 THRU 4 & BELINDA PROPERTY, LOTS 1 & 2)
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

OWNER

TANTRERRA, LC
6820 ELM STREET, SUITE 200
MCLEAN, VIRGINIA 22101
(703) 734-9730

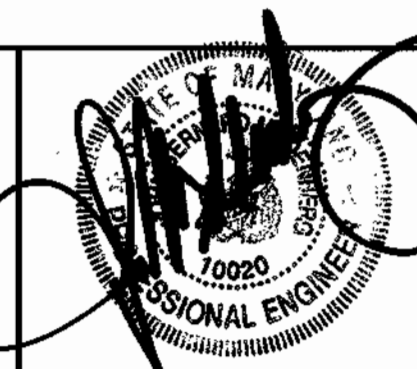
JAMESTOWN LANDING
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-3904-D

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21142
(410) 997-0296 Fax (301) 621-5521 Wash. (410) 997-0296 Fax



engineering	SJD				
illustration	SJD				
approval					
project	2000-020	1	REVISE QUANTITY TABLE, # OF SHC, # OF WHC, & LF OF	6/18/01	
date	OCT 2000	BY	NO.	REVISION	DATE

TITLE SHEET

600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING,
LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
(LOTS 4 THRU 10 & 27 THRU 29 & DORTCH PROPERTY, LOTS 1 THRU 4 & BELINDA PROPERTY, LOTS 1 & 2)
CONTRACT NO. 24-3904-D
TAX MAP 46 PARCEL 230
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

scale AS SHOWN
1 of 4

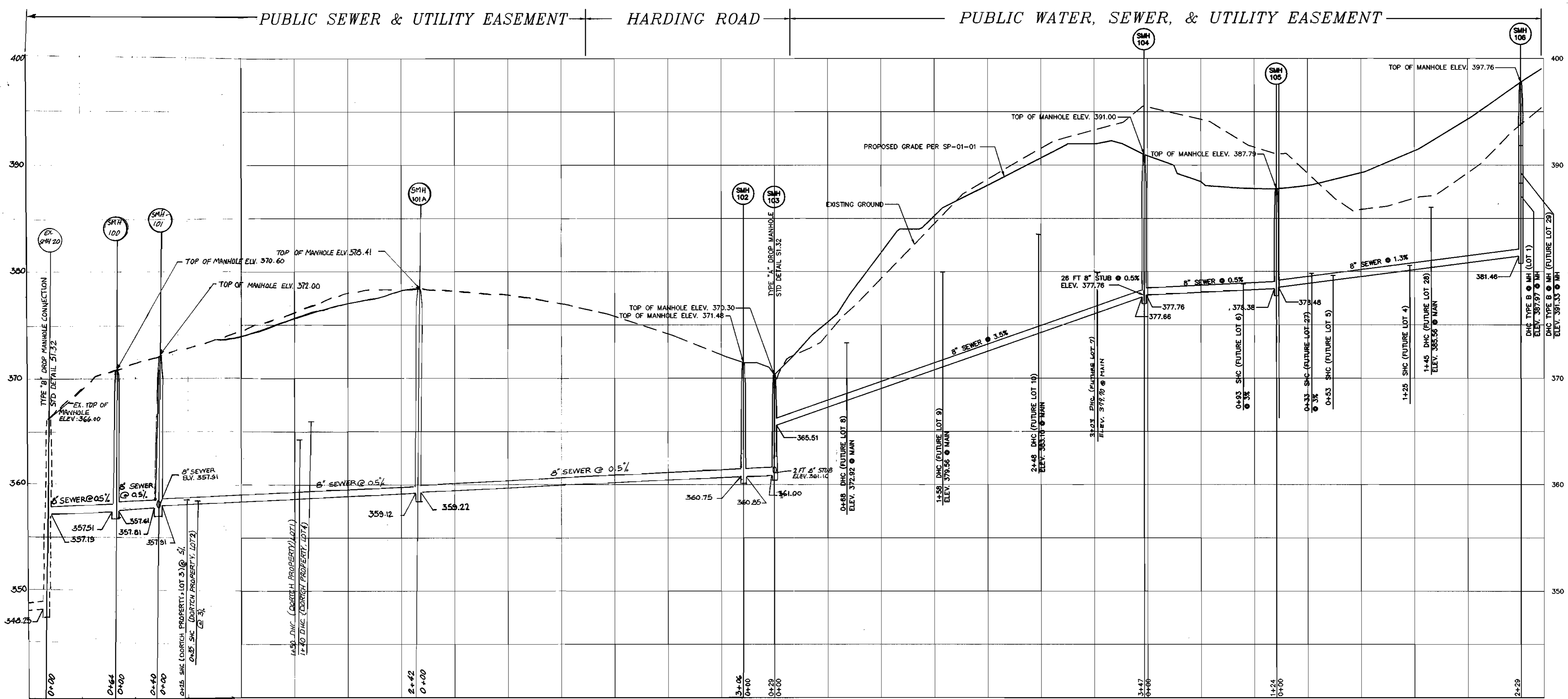
GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
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- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONEY OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
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STATE HIGHWAY ADMINISTRATION (410) 531-5533
BG & E CO. CONTRACTOR SERVICES (410) 850-4620
BG & E CO. UNDERGROUND DAMAGE CONTROL (410) 787-9088
MISS UTILITY (410) 787-9088
COLONIAL PIPELINE CO. (410) 795-1390
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS (410) 313-4900
BUREAU OF UTILITIES (410) 313-4900
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- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVERS, STANDARD DETAIL 05-52. WHERE WATER-TIGHT FRAME AND COVER IS USED, SET TOP OF FRAME 1' - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.
- ALL WATER METERS TO BE LOCATED INSIDE PROPOSED UNITS.
- STATIONING SHOWN IS WATER MAIN AND CENTER LINE STATIONING.
- ALL CLEANOUTS AND BALL VALVES ARE TO BE LOCATED AT THE WATER, SEWER AND UTILITY EASEMENT LINE.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- ON-SITE & OFF-SITE SEDIMENT CONTROL TO BE PROVIDED UNDER 4P-01-85
- ALL SEWER HOUSE CONNECTIONS TO BE 4" IN SIZE.
- ALL WATER HOUSE CONNECTIONS TO BE 1" IN SIZE UNLESS OTHERWISE NOTED.
- ALL CELLARS WILL HAVE SERVICE TO LOWEST FLOOR UNLESS OTHERWISE NOTED.
- THERE WILL BE NO TWIN SEWER HOUSE CONNECTIONS ON SITE UNLESS APPROVED BY HOWARD COUNTY.
- ALL WATER MAINS TO BE 8", 6", OR 4" DIP CLASS 52.
- STORM DRAIN SYSTEM INDICATED FOR INFORMATIONAL PURPOSES ONLY, SEE ROAD PLANS FOR CONSTRUCTION DATA.
- COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.
- IF MATERIAL IS WITHIN 8% OF OPTIMUM MOISTURE, WORKING THE MATERIAL UNTIL REQUIRED COMPACTION IS ACHIEVED IS CONTRACTOR'S RESPONSIBILITY.
- THE CONSTRUCTION IS TO BE LIMITED TO THAT WHICH CAN BE BACKFILLED AND STABILIZED IN ANY ONE WORKING DAY.
- THE SPOIL FROM THE TRENCH OPERATIONS IS TO BE PLACED ON THE UPHILL SIDE OF CONSTRUCTION.

00-020.dwg (Final) 12/23/00 10:27:00 9:25:35 am EST

MANHOLE LOCATION CHART	
MH #	NORTHING & EASTING
EX 20	N 533,876.694 E 1,338,581.434
100	N 533,901.597 E 1,338,640.690
101	N 535,911.531 E 1,338,678.945
102	N 534,071.502 E 1,338,323.864
103	N 534,086.763 E 1,338,299.281
104	N 534,428.187 E 1,338,229.585
105	N 534,401.231 E 1,338,108.046
106	N 534,422.506 E 1,337,880.030
101A	N 534,146.180 E 1,338,610.095
114	N 533,927.131 E 1,338,857.756

NOTE: CONTRACTOR TO VERIFY THE LOCATION OF APPURTENANCES WITHIN EASEMENTS.



SEWER PROFILE FROM EX. SMH 20 TO SMH 105
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

DEP. FILE NOS.	
F-00-169	F-01-88
SP-01-01	F-01-141
4F-01-05	F-01-155

00-020.dwg (last) vba 020-wr-prod.dwg 10-25-00 2:25:31 pm EST

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
11-07-00
DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND
12/1/00
DATE

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
6072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 987-0296 Bldg. (301) 621-5521 Wash. (410) 987-0298 Fax

engineering	SJD		
illustration	SJD		
approval		1	REVISE BY SEWER FROM EX. SMH 20 TO SMH 103 AND ADD LOCATION INFO FOR SMH 101 AND SMH 114
project	2000-020		
date	OCT 2000	BY	NO.
		REVISION	DATE

SEWER PROFILES
600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING
LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
CONTRACT NO. 24-3904-D
TAX MAP 46 PARCEL 230
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

scale AS SHOWN
4 OF 4

JAMESTOWN LANDING
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
CONTRACT No. 24-3904-D

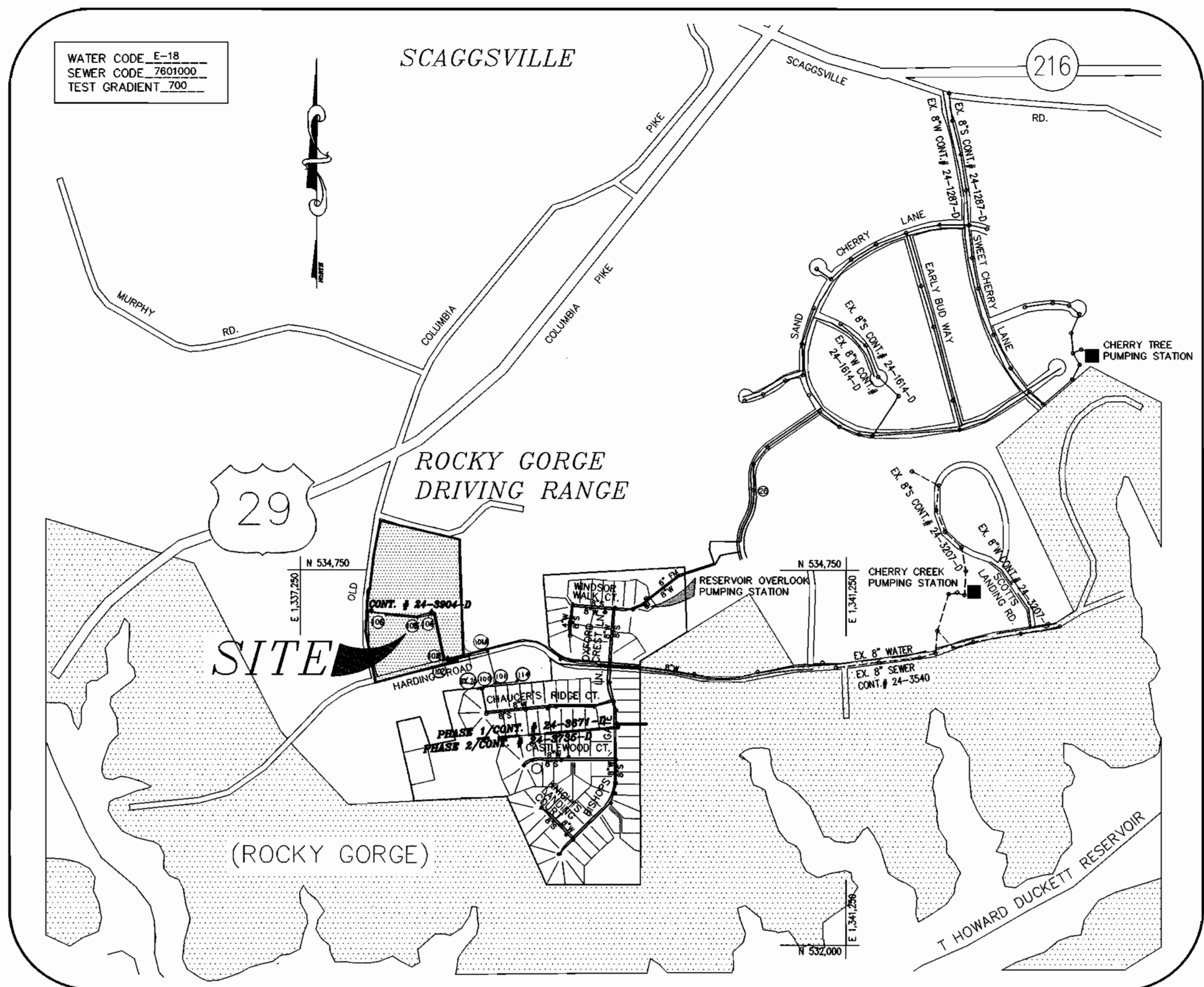
QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
STANDARD MH	3	3		CONTRACTORS PRECAST
TYPE A DROP MH	1	1		CONTRACTORS PRECAST
TYPE B DROP MH CONNECTION	1	1		
8" SEWER MAIN	1543 L.F.	1543'		DIAMOND
4" SEWER HOUSE CONNECTION	267 L.F.			"
# DROP HOUSE CONNECTIONS	7	6		"
# SEWER HOUSE CONNECTIONS	7	6		DIAMOND
# MH CONNECTIONS	3	3		
8" WATER	2082 L.F.	2082'		TYLER
6" WATER	53 L.F.	415'		TYLER
1" WHC	458 L.F.	550.5'		HOWELL
# WHC	19	19		
8"x6" T	5	5		TYLER
6" V	5	5		KENNEDY
FIRE HYDRANTS	5	5		KENNEDY
8"x8" T	1	1		TYLER
8"x8" T WITH 8" VALVE AND CAP	1	1		"
8" V	6	6		"
8" PLUG & BUTTRESS	2	2		TYLER
1 1/2" AIR RELEASE MH	1	1		CONTRACTORS PRECAST
1/8 HB	4	4		TYLER
1/16 HB	1	1		"
8" PLUG	1	1		TYLER
OUTSIDE METER SETTINGS	5	5		
NAME OF UTILITY CONTRACTOR: GAINES				
SURVEY AND DRAFTING DIVISION AS-BUILT DATE				

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER & SEWER PLAN
2A	WATER & SEWER PLAN & PROFILE
3	WATER PROFILE
4	SEWER PROFILE

NOTE:
SEDIMENT CONTROL
PROVIDED UNDER GP-01-85



VICINITY MAP

SCALE : 1" = 600'

TYPE OF BUILDING	SFD
No. OF UNITS	1
No. OF WATER HOUSE CONNECTION	19
No. OF TWIN WATER HOUSE CONNECTION	N/A
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TREATMENT PLANT	LITTLE PATUXENT WATER RECLAMATION PLANT

CONTRACT NO.: 24-3904-D
JAMESTOWN LANDING,
LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
(LOTS 4 THRU 10 & 27 THRU 29 & DORTCH PROPERTY, LOTS 1 THRU 4 & BELINDA PROPERTY, LOTS 1 & 2)
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

OWNER

TANTERRA, LC
6820 ELM STREET, SUITE 200
MCLEAN, VIRGINIA 22101
(703) 734-9730

JAMESTOWN LANDING
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
CONTRACT NO. 24-3904-D

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

Russell Dickens 12/23/00
DEVELOPER'S SIGNATURE DATE
RUSSELL DICKENS, MANAGER, TANTERRA, L.C.
DEVELOPER'S NAME

I HEREBY 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.

John B. Miltenberg 12/27/00
ENGINEER'S SIGNATURE DATE
JOHN B. MILTENBERG
ENGINEER'S NAME

REVIEWED FOR HOWARD SOIL AND MEETS TECHNICAL REQUIREMENTS.

John A. Welford 12/6/00
DATE
USDA-NATURAL RESOURCES CONSERVATION SERVICE

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

John A. Welford 12/16/00
DATE
HOWARD SOIL CONSERVATION DISTRICT

DPZ FILE NOS.
F-00-169 F-01-05
SP-01-01 F-01-141
GP-01-85 F-01-155

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert J. Berman 11-07-00
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

John A. Welford 12/7/00
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21442
(410) 997-0296 Fax (301) 821-5521 Wash. (410) 997-0298 Fax

John B. Miltenberg
PROFESSIONAL ENGINEER

engineering	SJD				
illustration	SJD				
approval	JMT	2	PER AS-BUILT		12-15-00
project	2000-020	1	REVISE QUANTITY TABLE, # OF SHC, # OF WHC, & LF OF WHC & SHC, & TITLE & ADD DPZ FILE NOS.		6/18/01
date	OCT 2000	BY	NO.	REVISION	DATE

TITLE SHEET

600' SCALE MAP NO. 46 BLOCK NO. 15

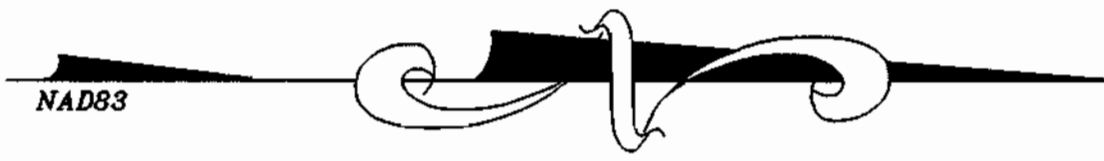
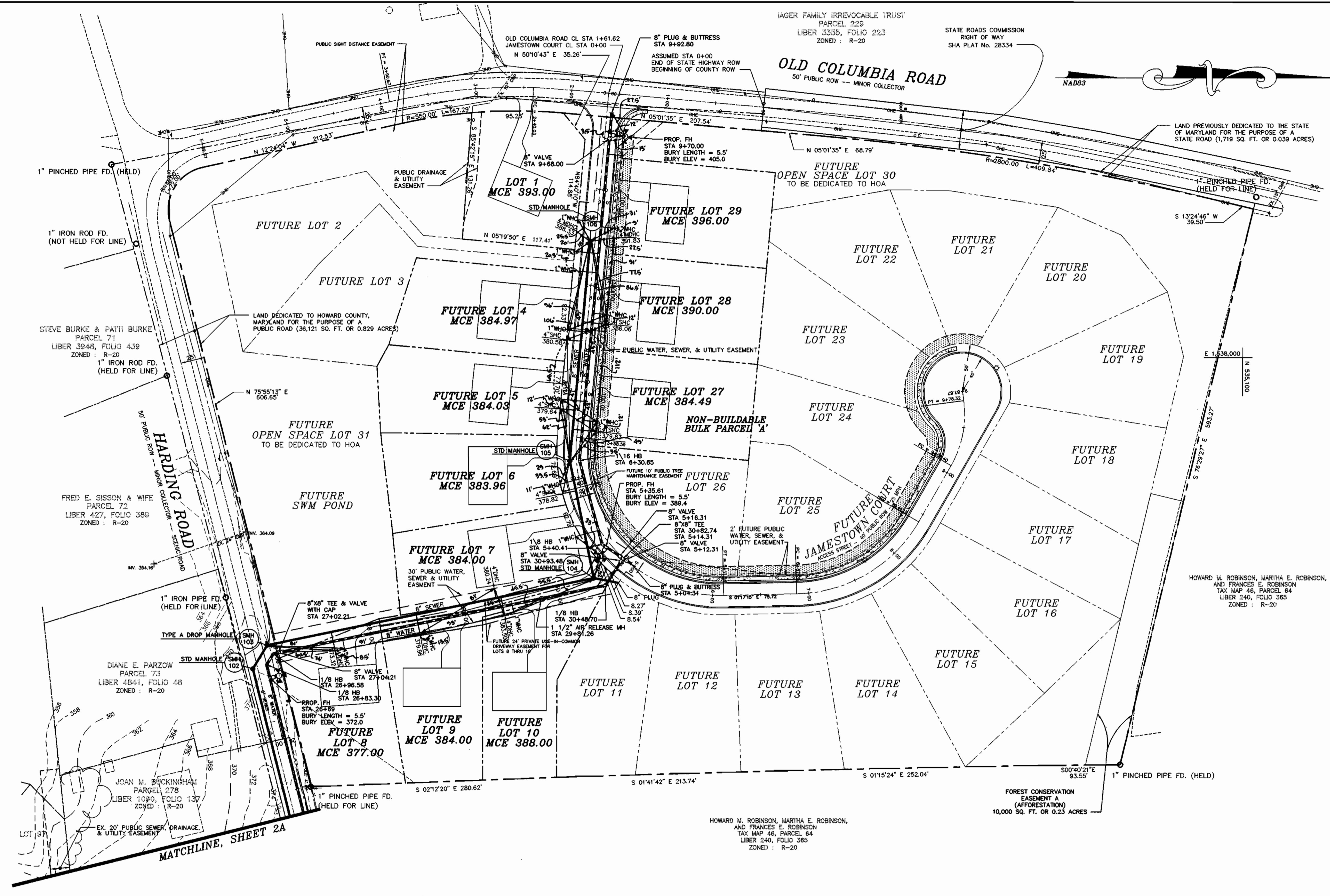
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LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
(LOTS 4 THRU 10 & 27 THRU 29 & DORTCH PROPERTY, LOTS 1 THRU 4 & BELINDA PROPERTY, LOTS 1 & 2)
CONTRACT NO. 24-3904-D
TAX MAP 46 PARCEL 230
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

scale AS SHOWN
1 OF 4

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BG & E CO. UNDERGROUND DAMAGE CONTROL (410) 787-9068
MISS UTILITY 1-800-257-7777
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HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS (410) 313-4900
BUREAU OF UTILITIES
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10-27-00 9:25:35 am EST



THESE DRAWINGS, SHEETS 2 & 2A, SUPERCEDE SHEET 2 OF THE PLANS SIGNED BY THE CHIEF OF DEVELOPMENT ENGINEERING DIVISION ON 12/7/00.

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

I HEREBY 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.

DEVELOPER'S SIGNATURE: *[Signature]* DATE: 6/1/01
 DEVELOPER'S NAME: RUSSELL DICICENS, MANAGER, TANERRA, L.C.

ENGINEER'S SIGNATURE: *[Signature]* DATE: 6/1/01
 ENGINEER'S NAME: JOHN B. MILDENBERG

DPZ FILE NOS.	
F-00-169	F-01-88
SP-01-01	F-01-141
GP-01-85	F-01-155

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Fax. (301) 621-5521 Wash. (410) 997-0296 Fax.

engineering	SJD		
illustration	SJD		
approval	JMT	2	AS-BUILT
project	2000-020	1	ADD MATCHLINE TO SHEET 2A, REMOVE EVERYTHING EAST OF MATCHLINE, ADD DPZ FILE NOS. & REVISE TITLE
date	OCT 2000	BY NO.	REVISION

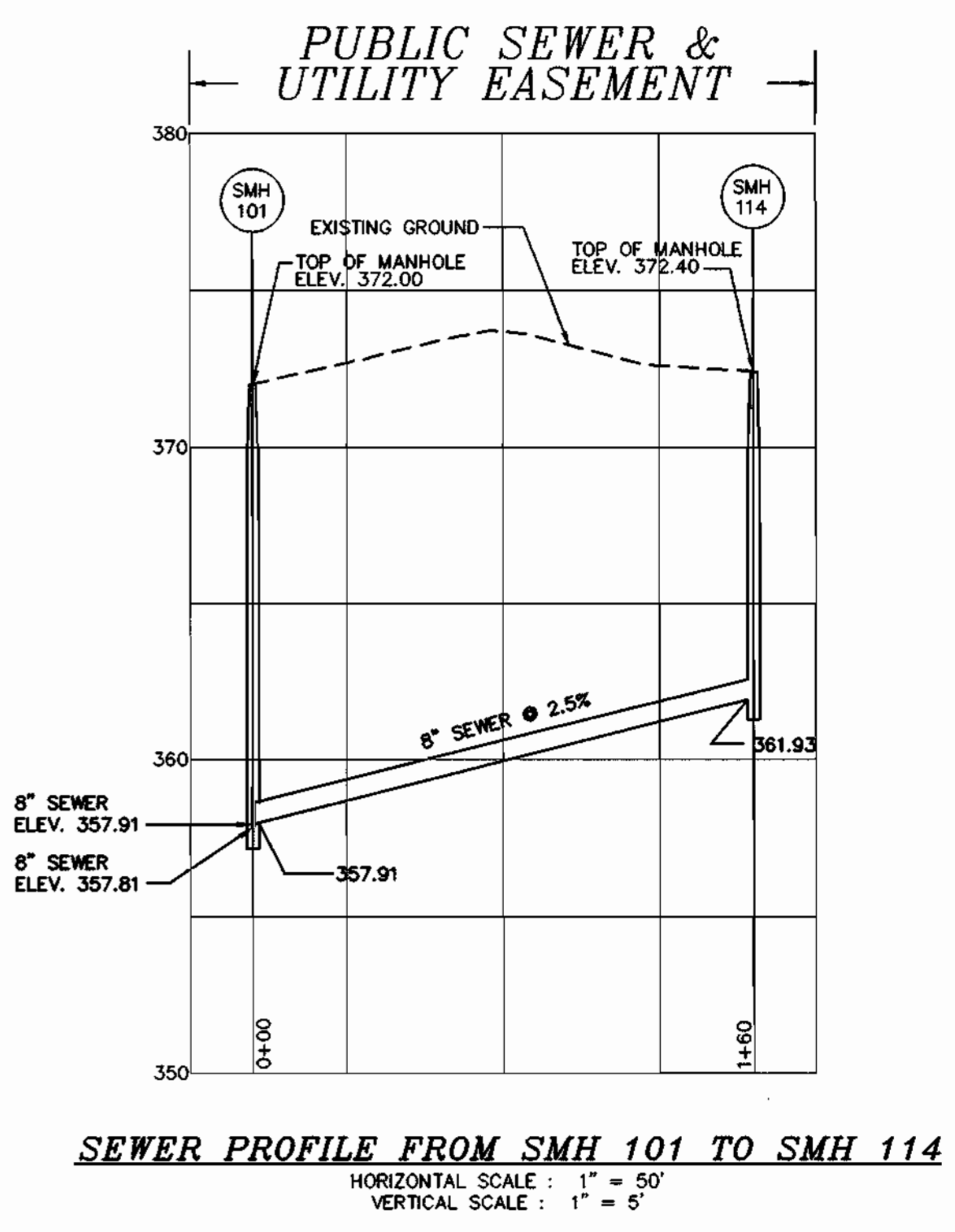
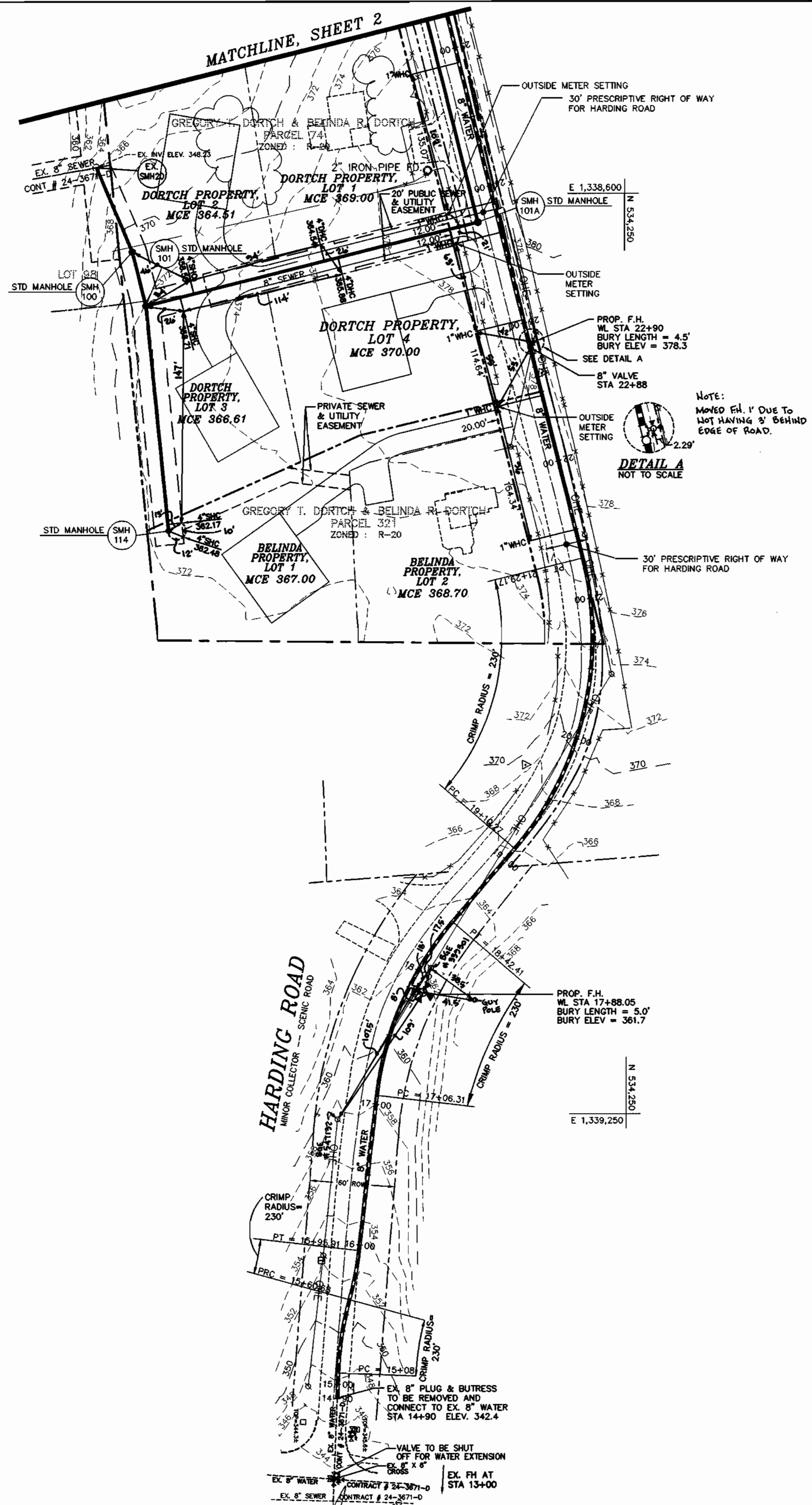
WATER & SEWER PLAN

600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING,
 LOTS 1 & NON-BUILDABLE BULK PARCEL "A",
 (LOTS 4 THRU 10 & 27 THRU 29 & DORTCH PROPERTY, LOTS 1 THRU 4 & BELINDA PROPERTY, LOTS 1 & 2)
 CONTRACT NO. 24-3904-D
 TAX MAP 46 PARCEL 230
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

scale 1" = 50'
 2 of 4

00-020.dwg (final) (kds) 020--wp-plan--redline.dwg 6-1-01 12:47:55 pm EST



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

R. Dickens 6/16/01
 DEVELOPER'S SIGNATURE DATE
 (RUSSELL DICKENS, MANAGER, TAN TERRA, L.C.)
 DEVELOPER'S NAME

I HEREBY 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.

R. Jacob Hikmat 6/16/01
 ENGINEER'S SIGNATURE DATE
 R. JACOB HIKMAT
 ENGINEER'S NAME

DEZ FILE NOS.

F-00-159	F-01-88
SP-01-01	F-01-141
GP-01-85	F-01-155

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

R. Dickens 6-7-01
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

Chad Deussen 6/12/01
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Bull. (301) 621-5521 Wash. (410) 997-0288 Fax.



engineering	SJD				
illustration	SJD				
approval					
project	2000-020	JMT	2	PER AS-BUILT	12-19-01
date	MAY 2001	BY	NO.	REVISION	DATE

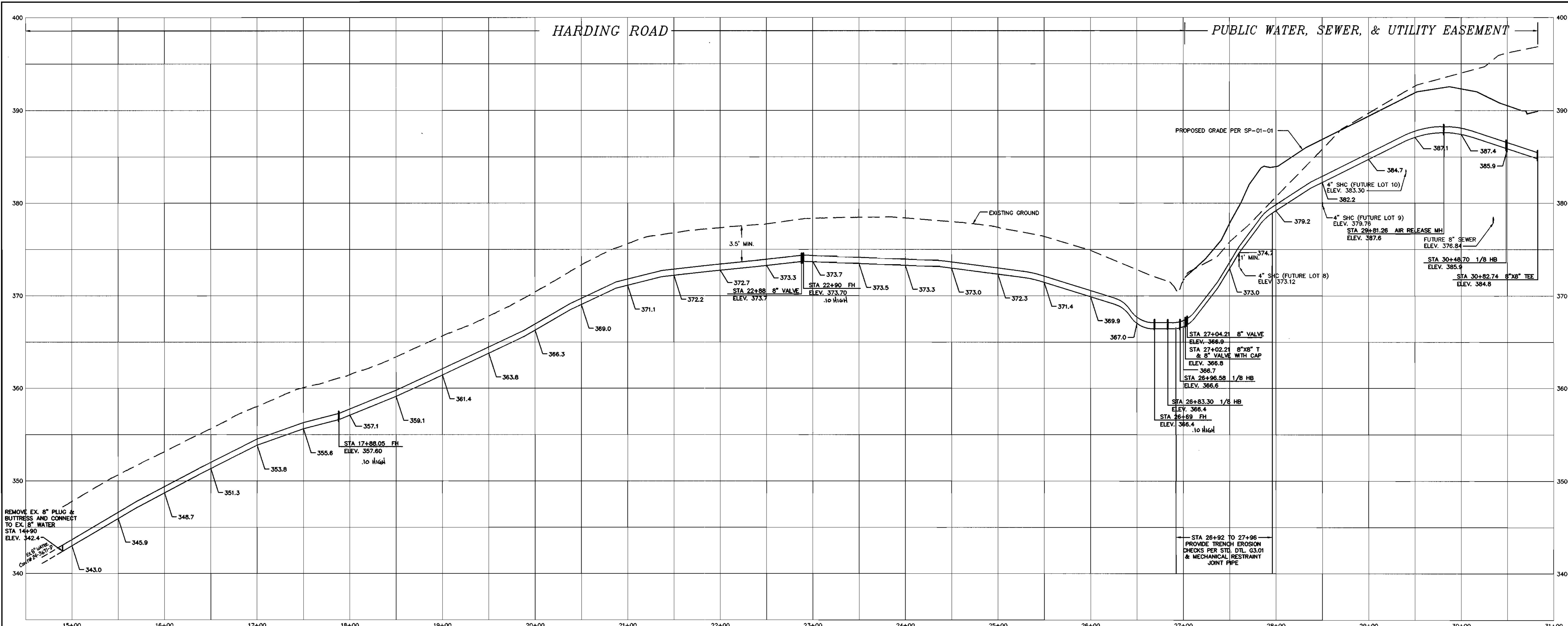
WATER & SEWER PLAN & PROFILE

600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING,
 LOTS 1 & NON-BUILDABLE BULK PARCEL "A",
 (LOTS 4 THRU 10 & 27 THRU 29 & DORTCH PROPERTY, LOTS 1 & 2)
 & BELINDA PROPERTY, LOTS 1 & 2)
 CONTRACT NO. 24-3904-D
 TAX MAP 46 PARCEL 230
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

scale 1" = 50'
 2A OF 4

00-020.dwg\\msd\hbs\020-ws-plan-profile.dwg 6-1-01 12:47:50 pm EST

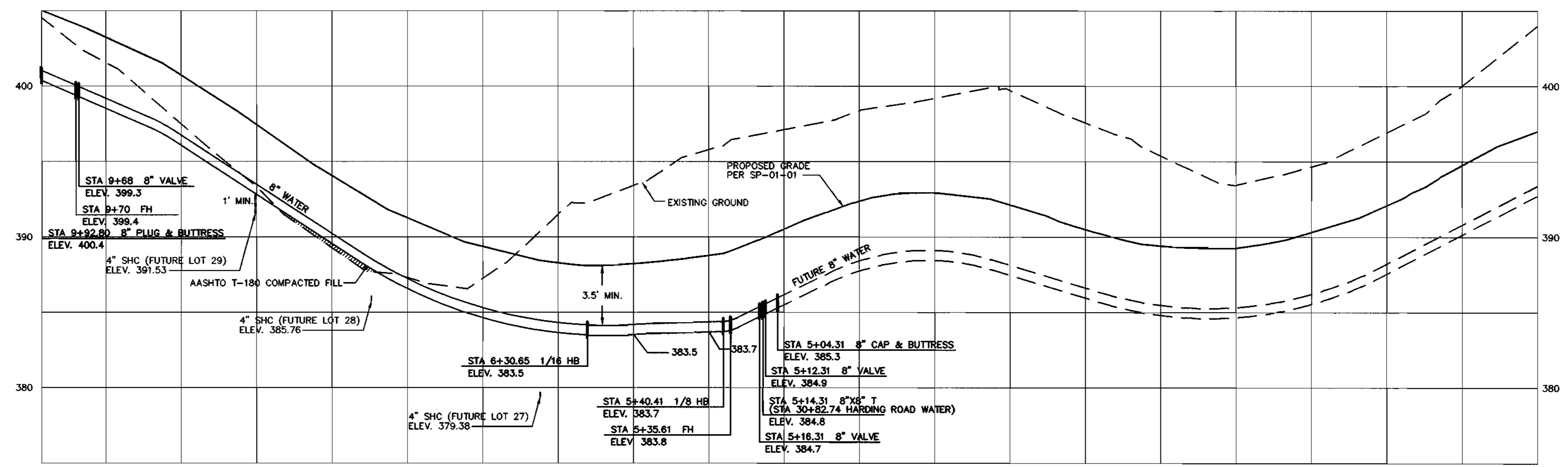


HARDING ROAD WATER PROFILE
 HORIZONTAL SCALE : 1" = 50'
 VERTICAL SCALE : 1" = 5'

WATER MAIN TABULATION CHART
 HARDING ROAD

NORTHING & EASTING	APPURTENANCE
N 544,045.274 E 1,339,450.948	EX. PLUG & BUTTRISS
N 534,097.185 E 1,339,159.045	8"X6" FHT
N 534,098.967 E 1,339,159.953	6" V
N 534,106.476 E 1,339,163.781	FH
N 534,102.975 E 1,338,707.421	8" V
N 534,182.192 E 1,338,706.480	8"X6" FHT
N 534,183.424 E 1,338,705.173	6" V
N 534,185.588 E 1,338,704.634	FH
N 534,089.640 E 1,338,333.433	8"X6" FHT
N 534,091.581 E 1,338,332.951	6" V
N 534,098.984 E 1,338,331.110	FH
N 534,086.189 E 1,338,319.560	1/8 HB
N 534,093.058 E 1,338,308.197	1/8 HB
N 534,098.576 E 1,338,307.064	8"X8" T
N 534,100.535 E 1,338,306.661	8" V & CAP
N 534,371.932 E 1,338,250.934	1 1/2" AIR RELEASE MH
N 534,437.994 E 1,338,237.369	1/8 HB
N 534,455.629 E 1,338,210.521	8" V
N 534,456.730 E 1,338,208.951	8"X8" T

NOTE : - CONTRACTOR TO VERIFY THE LOCATION OF APPURTENANCES WITHIN EASEMENTS.



JAMESTOWN COURT WATER PROFILE
 HORIZONTAL SCALE : 1" = 50'
 VERTICAL SCALE : 1" = 5'

WATER MAIN TABULATION CHART
 JAMESTOWN COURT

NORTHING & EASTING	APPURTENANCE
N 534,465.078 E 1,338,214.455	8" PLUG & BUTTRISS
N 534,458.399 E 1,338,210.052	8" V
N 534,455.060 E 1,338,207.850	8" V
N 534,438.949 E 1,338,197.228	8"X6" FHT
N 534,437.848 E 1,338,198.898	6" V
N 534,432.685 E 1,338,206.730	FH
N 534,434.938 E 1,338,194.584	1/8 HB
N 534,411.326 E 1,338,107.493	1/16 HB
N 534,442.667 E 1,337,771.602	8" V
N 534,442.853 E 1,337,769.811	8"X6" FHT
N 534,444.844 E 1,337,769.797	6" V
N 534,458.783 E 1,337,771.097	FH
N 534,444.971 E 1,337,746.908	8" PLUG & BUTTRISS

NOTE : - CONTRACTOR TO VERIFY THE LOCATION OF APPURTENANCES WITHIN EASEMENTS.

DEP. FILE NOS.
 F-00-169
 SP-01-01
 4P-01-25

JAMESTOWN LANDING
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 CONTRACT NO. 24-3904-D

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 11-07-00

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division
 12/7/00

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dersey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 387-0298 Fax

engineering	SJD				
illustration	SJD				
approval					
project	2000-020	JMT	2	PER A5-BUILT	10-19-01
date	OCT 2000	BY	NO.	REVISION	DATE

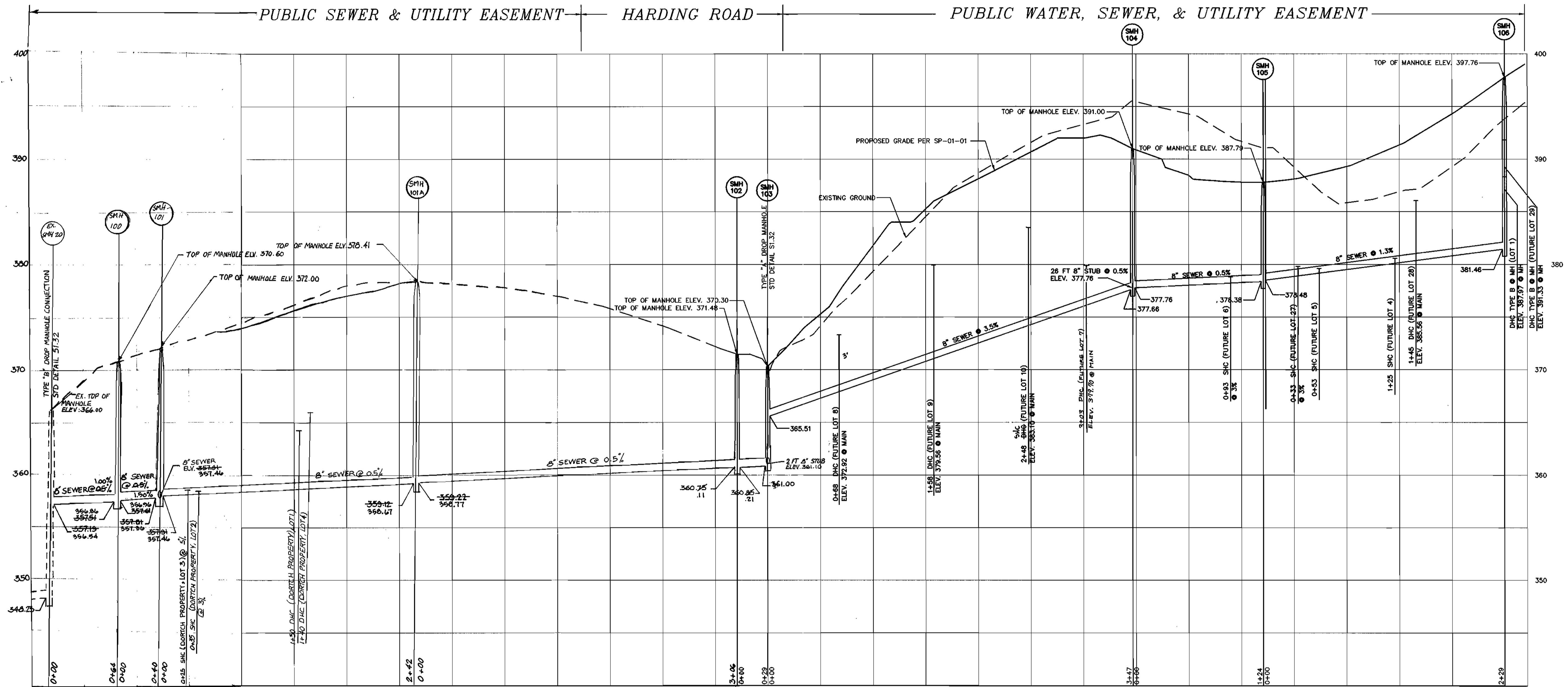
WATER PROFILES
 600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING,
 LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
 (FUTURE LOTS 4 THRU 10 & 27 THRU 29)
 CONTRACT NO. 24-3904-D
 TAX MAP 46 PARCEL 230
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 scale AS SHOWN
 3 of 4

MANHOLE LOCATION CHART

MH #	NORTHING & EASTING
EX 20	N 533,876.694 E 1,338,581.434
100	N 533,801.957 E 1,338,640.890
101	N 533,811.531 E 1,338,678.945
102	N 534,071.302 E 1,338,323.864
103	N 534,086.763 E 1,338,299.281
104	N 534,426.187 E 1,338,229.585
105	N 534,401.231 E 1,338,108.046
106	N 534,422.506 E 1,337,880.030
101A	N 534,146.180 E 1,338,630.093
114	N 533,927.131 E 1,338,037.756

NOTE: CONTRACTOR TO VERIFY THE LOCATION OF APPURTENANCES WITHIN EASEMENTS.



SEWER PROFILE FROM EX. SMH 20 TO SMH 105
 HORIZONTAL SCALE : 1" = 50'
 VERTICAL SCALE : 1" = 5'

DPZ FILE NOS.	
F-00-169	F-01-88
SP-01-01	F-01-141
4-01-85	F-01-155

JAMESTOWN LANDING
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 CONTRACT No. 24-3904-D

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 11-07-00

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division
 12/7/00

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0288 Pa.



engineering	SJD			
Illustration	SJD			
approval	JMT	2	PER A-5-BUILT	12-19-01
		1	REVISE B' SEWER FROM EX. SMH 20 TO SMH 103	6/18/01
project			AND ADD LOCATION INFO FOR SMH 101 AND	
			SMH 114	
date	OCT 2000	BY	NO.	REVISION

SEWER PROFILES
 600' SCALE MAP NO. 46 BLOCK NO. 15

JAMESTOWN LANDING
 LOTS 1 & NON-BUILDABLE BULK PARCEL "A"
 (LOTS 4 THRU 10 & 27 THRU 29 & DORTCH PROPERTY, LOTS 1 THRU 4 & BELINDA PROPERTY, LOTS 1 & 2)
 CONTRACT NO. 24-3904-D
 TAX MAP 46 PARCEL 230
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

scale AS SHOWN
4 of 4

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