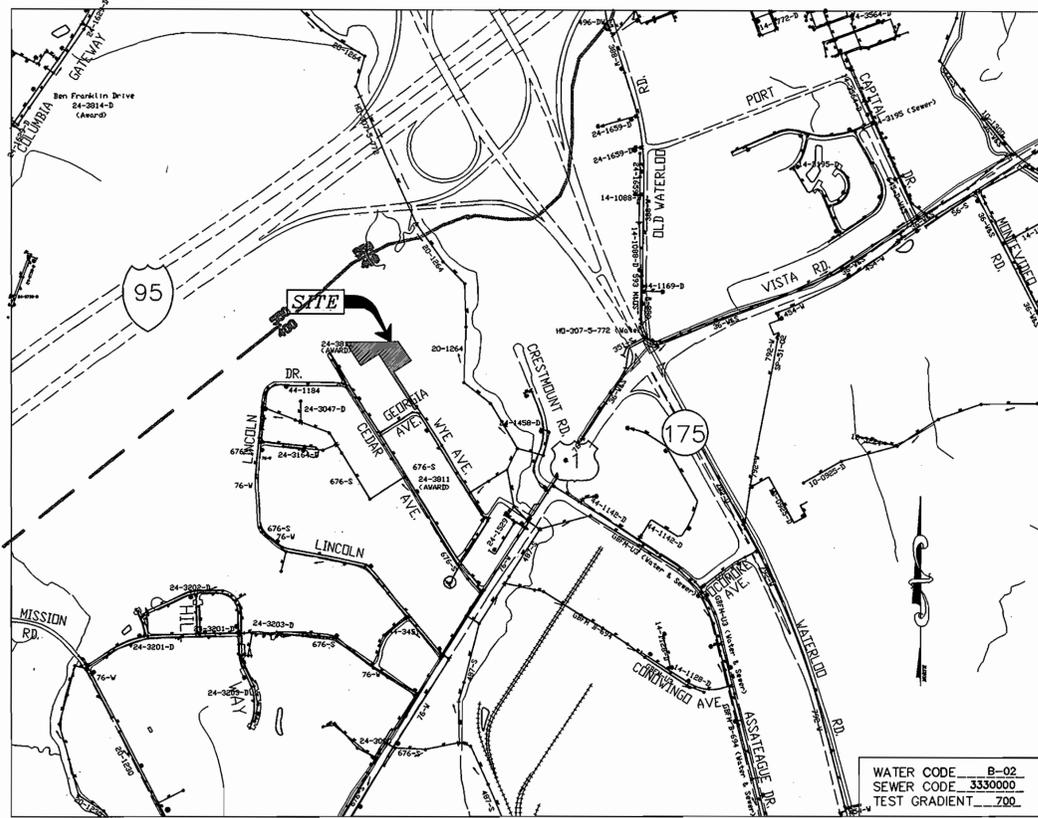


QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
STANDARD MH	3	3 EA	ASTM C-478	ATLANTIC CONCRETE PR
8" SEWER MAIN	536 L.F.	536 L.F.	SDR-35	U.M. HFQ / BRS
4" SEWER HOUSE CONNECTION	250 L.F.	270 L.F.	SDS-35	" " "
# SEWER HOUSE CONNECTIONS	17 EACH	17 EA	ASTM A574	" " "
# MH SHC CONNECTIONS	2 EACH	2 EA	ASTM A574	" " "
8" WATER MAIN	597 L.F.	597 L.F.	P.V.C. 8" DR-15	" " "
1" WATER HOUSE CONNECTION	170 L.F.	170 L.F.	" " "	" " "
# 1" WHC	3 EACH	3 EA	H-15000	MOELLER / BRS
# TWIN WHC	8 EACH	8 EA	H-15940	MOELLER / BRS
8" x 8" T.S. & V.	1 EACH	1 EA	8" V.G. 8" DR-15	MOELLER / BRS
8" x 6" F.H.T. & V.	1 EACH	1 EA	8" V.G. 8" DR-15	VALVE MOELLER / BRS
F.H.	1 EACH	1 EA	G"	MOELLER / BRS
8" - 1/8 H.B.	1 EACH	NOT USED	M.J.	SIG / BRS
8" - 1/16 H.B.	2 EACH	3 EA	M.J.	" / BRS
8" C. & B.	1 EACH	1 EA	M.J.	" / BRS
8" V.	1 EACH	1 EA	RSOR.	GATE VALVE MOELLER / BRS

NAME OF UTILITY CONTRACTOR: CONSOLIDATION CONSTRUCTION SERVICES
 SURVEY AND DRAFTING DIVISION AS-BUILT DATE



VICINITY MAP
SCALE: 1"=600'

TYPE OF BUILDING	SFD
No. OF UNITS	8
No. OF WATER HOUSE CONNECTION	19
No. OF SEWER HOUSE CONNECTIONS	19
DRAINAGE AREA	LITTLE PATUXENT
TREATMENT PLANT	LPWWTP

SEDIMENT CONTROL HAS BEEN PROVIDED UNDER CP-04-038

DEVELOPER
 TIYANA LLC
 5072 DORSEY HALL DR. SUITE 202
 ELLICOTT CITY, MD. 21042

CONTRACT NO.: 24-4118-D
THE CEDARS
LOTS 66-68 & LOTS 133-137
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER AND SEWER PLAN AND PROFILES
3	CATHODIC PROTECTION LAYOUT AND DETAILS
4	CATHODIC PROTECTION DETAILS 1
5	CATHODIC PROTECTION DETAILS 2

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.

DEVELOPER'S SIGNATURE: *[Signature]* DATE: 11/17/03

DEVELOPER'S NAME: TIYANA LLC

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.

ENGINEER'S SIGNATURE: *[Signature]* DATE: 11/17/03

ENGINEER'S NAME: R. JACOB HIKMAT

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

USDA-NATURAL RESOURCES CONSERVATION SERVICES: *[Signature]* DATE: 12/10/03

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

HOWARD SCD: *[Signature]* DATE: 12/10/03

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

[Signature] 12-1-03
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

[Signature] 12/10/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

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



engineering	MMP			
illustration	MMP			
approval				
project	02-053	NOV.03	NOV.03	NOV.03
date	NOV.03	BY	NO.	NO.

REPLACE D.I.P. WATER LINE WITH P.V.C. C-900

TITLE SHEET

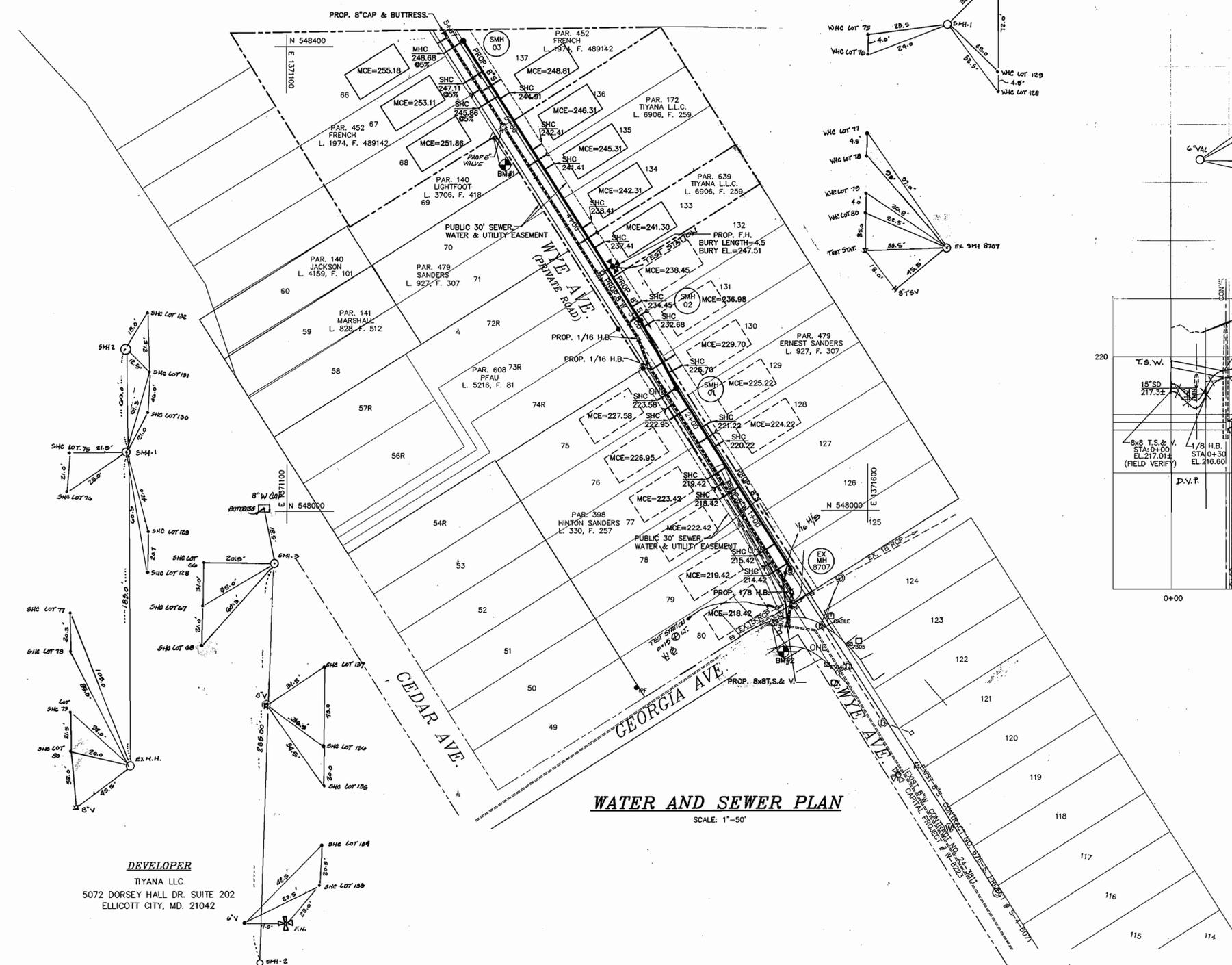
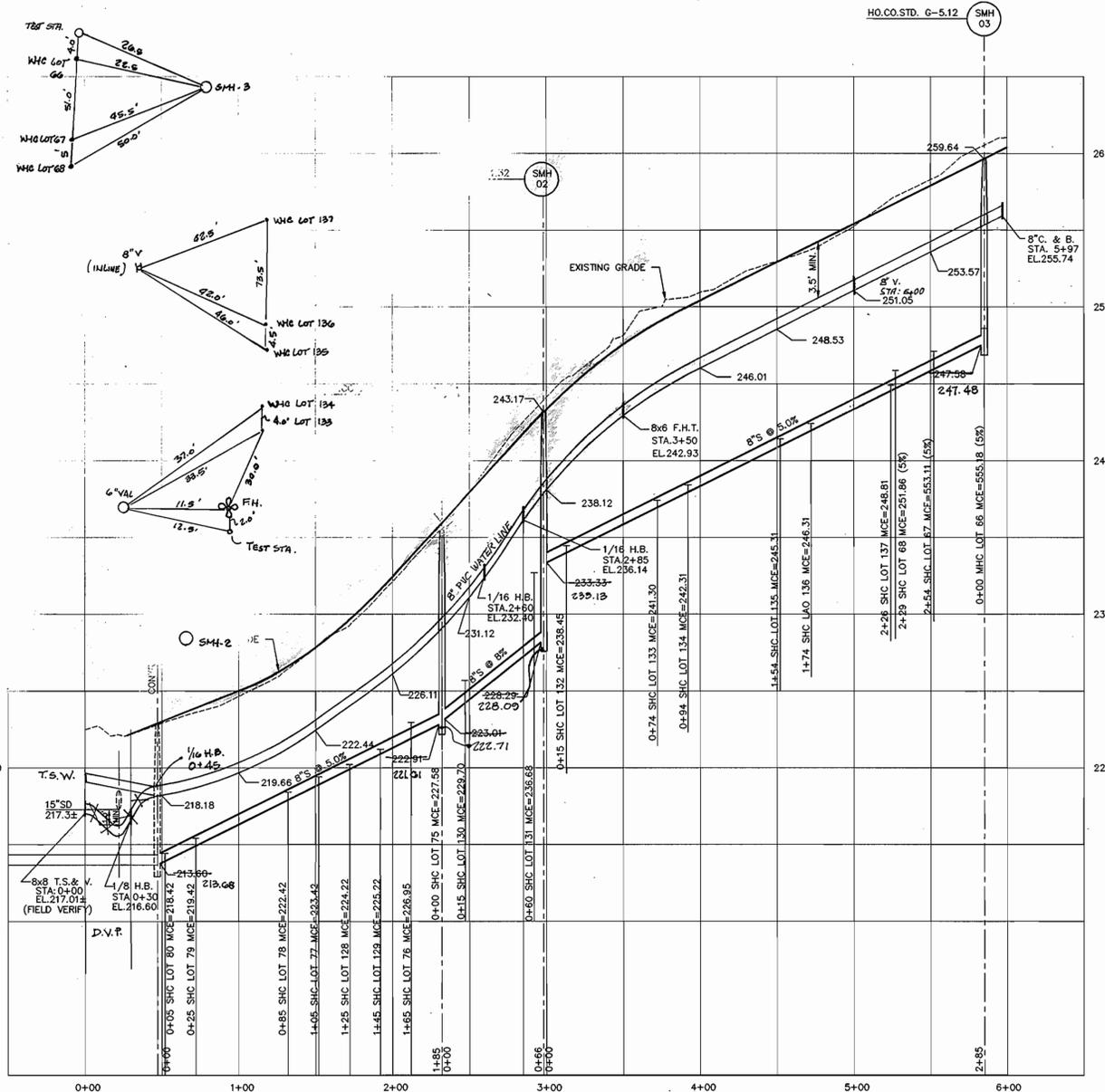
600' SCALE MAP NO. 43 BLOCK NO. B

THE CEDARS
 LOTS: 66 THRU 68 AND 133 THRU 137
 CONTRACT NO.: 24-4118-D
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

TRAVERSE CHART				
NUMBER	STATION	DESCRIPTION	LOCATION	ELEVATION
1	902	R+C	N 548,322.568 E 1,371,277.732	255.75
2	1069	NAIL	N 547,902.947 E 1,370,517.037	223.90

MANHOLE LOCATION CHART	
MANHOLE NO.	LOCATION
1	N 548,105.5 E 1,371,435.4
2	N 548,164.0 E 1,371,404.2
3	N 548,404.7 E 1,371,251.9

WATER MAIN CHART	
APPURTENANCE	LOCATION
8"x8" T.S. & V	N 547,900.5 E 1,371,530.8
8" 1/8" H.B.	N 547,929.8 E 1,371,534.7
8" 1/16" H.B.	N 548,124.1 E 1,371,411.8
8" 1/16" H.B.	N 548,148.4 E 1,371,402.3
8"x6" F.H.T. & V.	N 548,202.9 E 1,371,368.1
F.H.	N 548,210.5 E 1,371,380.3
8" V.	N 548,329.8 E 1,371,287.6
8" C & B	N 548,412.2 E 1,371,235.3



WATER AND SEWER PROFILE

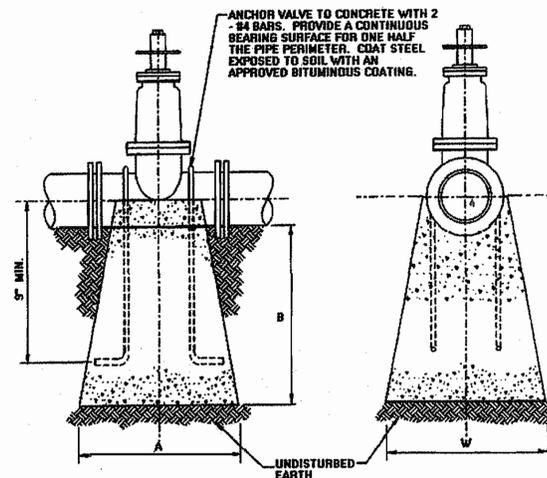
SCALE: HOR. 1"=50'
VER. 1"=5'

WATER AND SEWER PLAN

SCALE: 1"=50'

DEVELOPER
TIYANA LLC
5072 DORSEY HALL DR. SUITE 202
ELLCOTT CITY, MD. 21042

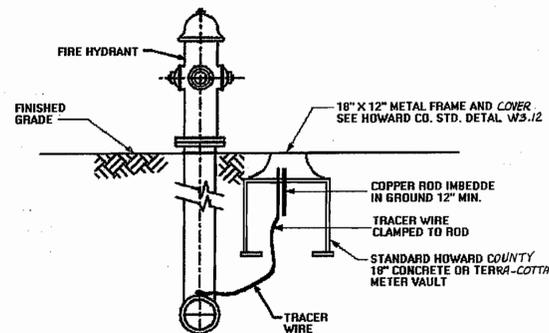
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND DATE: 12-1-03 CHIEF, BUREAU OF UTILITIES	DEPARTMENT OF PLANNING & ZONING HOWARD COUNTY, MARYLAND DATE: 12/1/03 CHIEF, DEVELOPMENT ENGINEERING DIVISION	MILDENBERG, BOENDER & ASSOC., INC. Engineers Planners Surveyors 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042 (410) 997-0296 Ball. (301) 621-5521 Wash. (410) 997-0298 Fax.		engineering MMP illustration MMP approval project K21 2 ASBUILT DATA 02-053 MBA 1 REPLACE D.I.P. WATER LINE WITH P.V.C. C-900 date NOV.03 BY NO. REVISION	DATE: 3/27/04 12/16/04	WATER & SEWER PLAN & PROFILE 600' SCALE MAP NO. 43 BLOCK NO. 8	scale 1"=50' THE CEDARS LOTS: 66 THRU 68 AND 133 THRU 137 24-4118-D SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND 2 of 3
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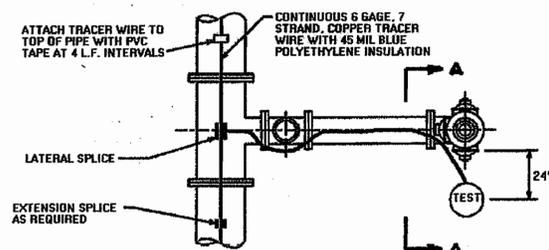
PIPE SIZE	A	B	W
4"	9"	1'-0"	1'-0"
6"	10"	1'-6"	1'-0"
8"	1'-0"	2'-0"	2'-0"
12"	1'-0"	2'-0"	3'-0"

ALL CONCRETE TO BE MK NO. 2

A CONCRETE ANCHOR MUST BE USED WHERE VALVE CANNOT BE ATTACHED TO A TEE.



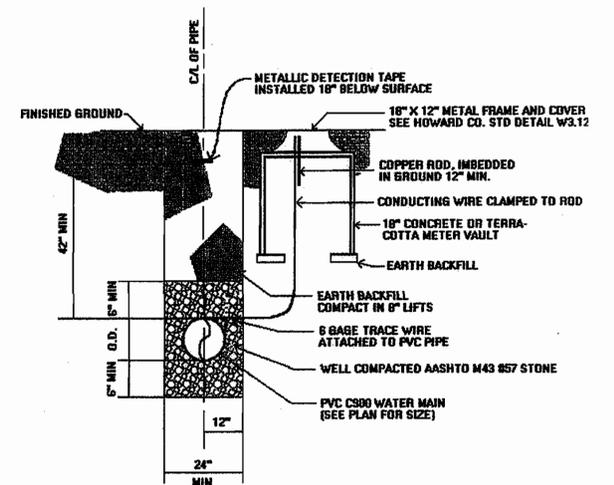
SECTION A-A



PLAN

NOTES:

1. TEST STATION MUST BE PLACED TO THE RIGHT OR LEFT SIDE OF THE FIRE HYDRANT.
2. VALVE VAULT FRAME AND COVER TO BE SET FLUSH WITH FINAL GRADE.
3. BUTTRESSES AND STRAPPING NOT SHOWN FOR CLARITY



TRENCH FOR PVC PIPE AND CONTINUITY TEST STATION DETAIL

DEVELOPER

TIYANA LLC
5072 DORSEY HALL DR. SUITE 202
ELLCOTT CITY, MD. 21042

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

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engineering	MMP				
illustration	MMP				
approval					
project	02-053				
date	NOV.03	BY	NO.	REVISION	DATE

WATER & SEWER
DETAILS

THE CEDARS
LOTS: 66 THRU 67 AND 133 THRU 167
24-4118-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

scale

1"=50'

3 of 3

R. H. M. Runyon 3-18-05
CHIEF, BUREAU OF UTILITIES DATE

Chad Runyon 2/24/05
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

600' SCALE MAP NO. 43 BLOCK NO. 8