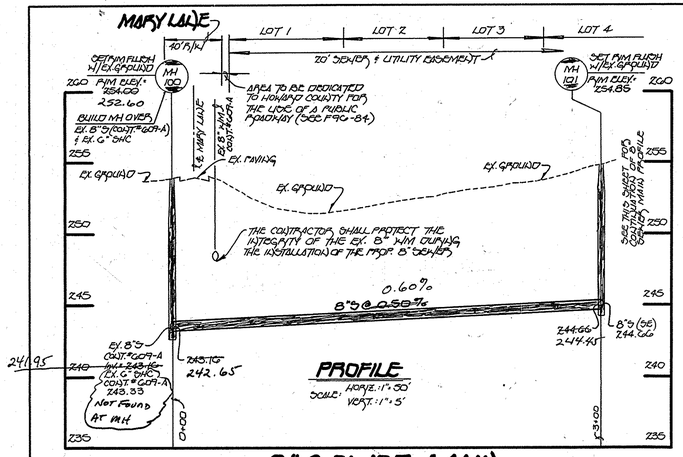
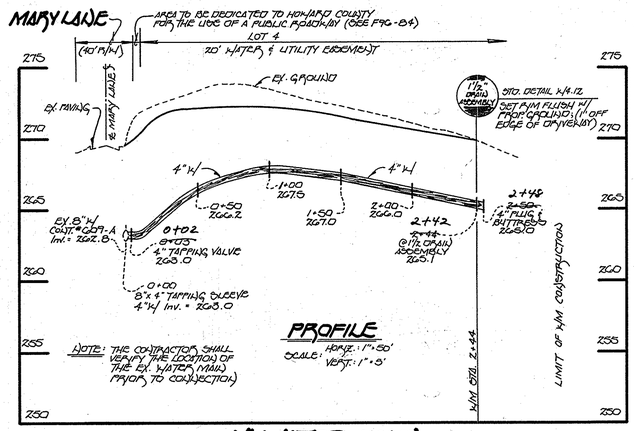


8" SEWER MAIN



4" WATER MAIN

SHC INVERTS @ '℄' CHART		
STATION	LOT	ELEVATION
0+12 RT.	MH 100 TO EX. MH 8414	
0+28 RT.	1	246.2 ±
	MH 100 TO MH 101	
1+40 LT.	2	244.78
2+10 LT.	3	244.58
2+70 LT.	4	244.08
	MH 101 TO MH 102	
0+50 LT.	5	245.39

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHINICAL REQUIREMENTS.

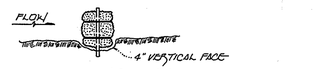
J. M. Warfield JWK 4/2/96
U.S.D.A. NATURAL RESOURCES CONSERVATION SERVICE DATE

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

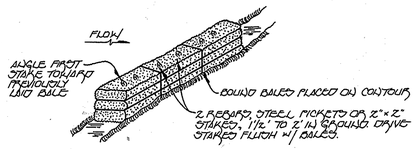
APPROVED:
John P. Robertson 4/2/96
HOWARD SOIL CONSERVATION DISTRICT DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL & STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN DEVELOPING AREAS AS SHOWN ON THESE PLANS AND

Michael J. McCann FOR Nick LaPaglini 3/22/96
SIGNATURE OF DEVELOPER DATE



BEDDING DETAIL

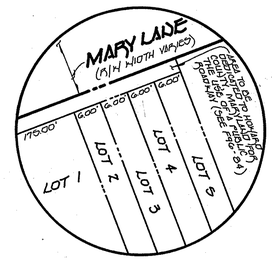


ANCHORING DETAIL

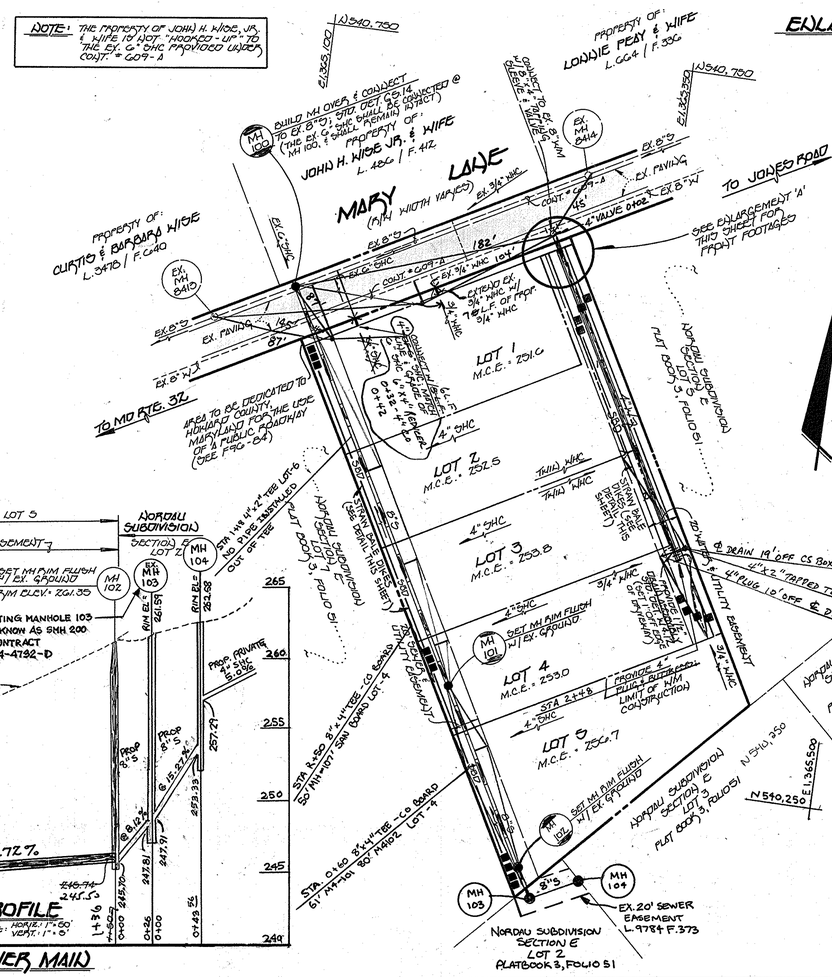
STRAW BALE DIKE

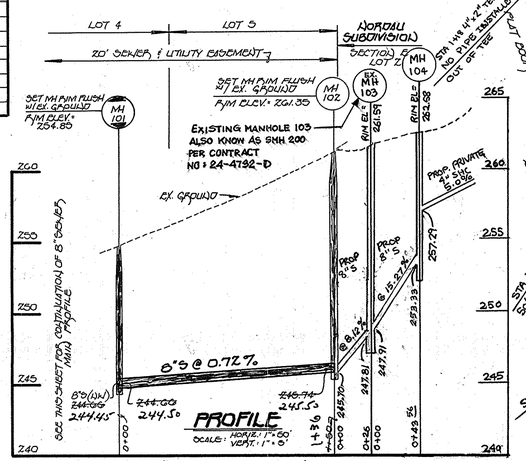
1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR, & IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 - INCHES & PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH W/ THE BALE.
4. INSPECTION SHALL BE FREQUENT & REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

QUANTITIES				
ITEM	ESTIMATED	AS - BUILT		
		QUANTITIES	TYPE	SUPPLIER
8" SEWER	490 L.F.	428 LF	PVC	J.M MANUFACTURING
6" SHC	5 L.F.	0 LF	PVC	J.M MANUFACTURING
4" SHC	40 L.F.	47 LF	PVC	J.M MANUFACTURING
MANHOLES	3 EACH	3 EACH	PRECAST Concrete	ATLANTIC CONCRETE PROD.
4" WATER	250 L.F.	248 LF	DIP	ATLANTIC STATES
8"x4" TAPPING SLEEVE	1 EACH	1 EACH	DIP	MUELLER CO.
4" TAPPING VALVE	1 EACH	1 EACH	OSBORN/GATEVALVE	MUELLER CO.
4" PLUG & BUTTRESS	1 EACH	1 EACH	DIP/CONCRETE	UNION FOUNDRY
1" WHC	5 L.F.	12 LF	K-COPPER	READING TUBE
3/4" WHC	100 L.F.	110 LF.	K-COPPER	READING TUBE
1 1/2" DRAIN ASSEMBLY	1 EACH	1 EACH	K-COPPER	READING TUBE/MUELLER
NAME OF UTILITY CONTRACTOR:		R. L. COOK CONSTR., INC.		
SURVEY & DRAFTING DIVISION AS-BUILT DATE:		11-18-97		

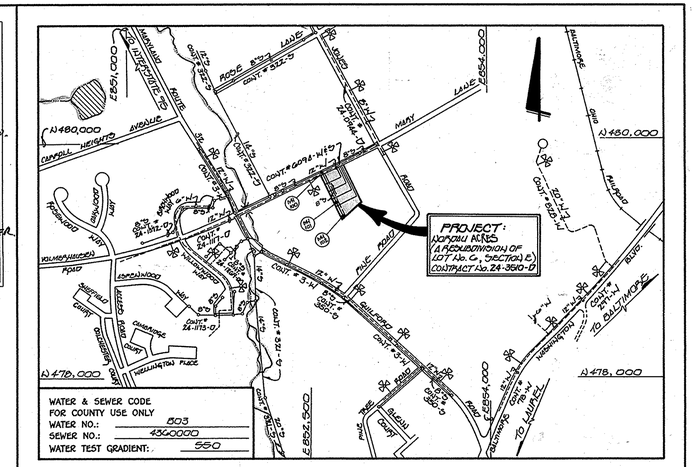


ENLARGEMENT 'A'
NO SCALE





8" SEWER MAIN



TYPE OF BUILDING:	SINGLE FAMILY DETACHED
NUMBER OF LOTS:	5 (5 BUILDABLE)
NO. OF WATER HOUSE CONNECTIONS:	5
NO. OF SEWER HOUSE CONNECTIONS:	5
DRAINAGE AREA:	LITTLE PATUXENT
TREATMENT PLANT:	LITTLE PATUXENT WATER RECLAMATION PLANT: SAVAGE, MD

VICINITY MAP

SCALE: 1"=600'

GENERAL NOTES

1. 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.
2. ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES.
3. ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
4. ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
5. CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM.
6. FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS, USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION (1991 AMENDMENTS) THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
7. 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 VERIFIED BY THE CONTRACTOR TO HIS OWN SATISFACTION. ANY DAMAGE TO EXISTING FACILITIES DUE TO THE CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
8. CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

   STATE HIGHWAY ADMINISTRATION – 531-5533
   BALTIMORE GAS & ELECTRIC CO. – CONTRACTOR SERVICES – 850-4620
   BALTIMORE GAS & ELECTRIC CO. – UNDER GROUND DAMAGE CONTROL – 787-9060
   MISS UTILITY – 1-800-257-7777
   COLONIAL PIPELINE CO. – 795-1390
   BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS – 313-4900

9. TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR
10. CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
11. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
12. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
13. T.B. DENOTES TEST BORING.
14. MANHOLES SHOWN WITH 12" AND 18" WALLS ARE FOR BRICK MANHOLES ONLY.
15. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVERS, STANDARD DETAIL G 5.52.
16. WHERE WATERTIGHT MANHOLE FRAME AND COVER IS USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
17. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
18. ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
19. MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
20. WATER MAINS AND WATER HOUSE CONNECTION LINES MUST BE PLACED AS TO HAVE ONE (1) FOOT SEPARATION FROM THE SEWER MAIN OR SEWER HOUSE CONNECTION AS THEY PASS ABOUT IT.
21. ALL WATER MAINS SHALL BE D.I.P., CLASS 52 UNLESS OTHERWISE NOTED.
22. TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
23. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
24. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
25. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATION SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE RESTRAINED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS (W1.11 AND W2.13). SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND 1005 OF THE STANDARD SPECIFICATIONS.
26. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
27. ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
28. THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, @ (410) 313-2450 AT LEAST FIVE WORKING DAYS BEFORE ANY OPEN CUT OF ANY COUNTY ROAD OR BORING/JACKING OPERATION IN COUNTY ROADS FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.
29. THE CHANGE TO THIS PLAN IS FOR REFENCE USE ONLY, TO MATCH THE DESIGN TO BE CONSTRUCTED UNDER CONTRACT 24-4526-D.

WATER AS-BUILT

FROM:	TO:	DIST.
4" VALVE	LOT 1	104'
MH 100	LOT 1	87'
℄ 1½" DRAIN	LOT 2	82'
C.S. BOX LOT 3	LOT 2	6'
℄ 1½" DRAIN	LOT 3	77'
C.S. BOX LOT 4	LOT 3	74'
4" VALVE	LOT 3	166'
℄ 1½" DRAIN	LOT 4	19'
C.S. BOX LOT 3	LOT 4	74'
℄ 1½" DRAIN	LOT 5	66'
C.S. BOX LOT 4	LOT 5	66'
EXIST. MH 8414	0+02 4" VALVE	45'
MH 100	4" VALVE	182'
C.S. BOX LOT 1	4" VALVE	104'

SEWER AS-BUILT

FROM:	TO:	DIST.
SAN. END. MH 8413	LOT 1	87'
MH 100	LOT 1	45'
MH 100	LOT 2	138'
SAN. END. LOT 3	LOT 2	70'
MH 101	LOT 3	91'
SAN. END. LOT 4	LOT 3	61'
MH 101	LOT 4	31'
SAN. END. LOT 5	LOT 4	80'
MH 102	LOT 5	80'
MH 101	LOT 5	52'

SAN AND WATER AS BUILT 3-

PLAN REFERENCE NUMBERS: F-96-84

CONTRACT No. 24-3510-D
NORDALI ACRES
(A RESUBDIVISION OF LOT No. 6, SECTION E)
LOT NOS. 1-5
WATER AND SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND	Fisher, Collins & Carter, Inc. CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTENNIAL SQUARE OFFICE PARK 10272 Baltimore National Pike Ellicott City, Maryland 21042 (410) 461 - 2855	#9757 STATE OF MARYLAND TERRELL A. FISHER No. 9757 PROFESSIONAL ENGINEER
Robert W. Bowman 3-29-96	for 4/10/96		
CHIEF, BUREAU OF UTILITIES DATE	CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE		TERRELL A. FISHER

DES: M.J.M.			
DRWN: J.M.M.			
CHK: P.W.K.	AA	2	REVISE INVERT AND PIPE SLOPE FOR MH102 AND 103 — 07.24.15
DATE:	SAA	1	ADD MANHOLES 103 AND 104 — 07.09.07
	BY	NO.	REVISION — DATE

PLAN VIEW, PROFILE & DETAILS

600' SCALE MAP NO. 47 BLOCK NO. 6

NORDALI ACRES
(A RESUBDIVISION OF LOT No. 6, SECTION E)
LOT Nos. 1 - 5
CONTRACT NO. 24-3510-D
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 1 OF 1

(AS-BUILT) 4-3-97