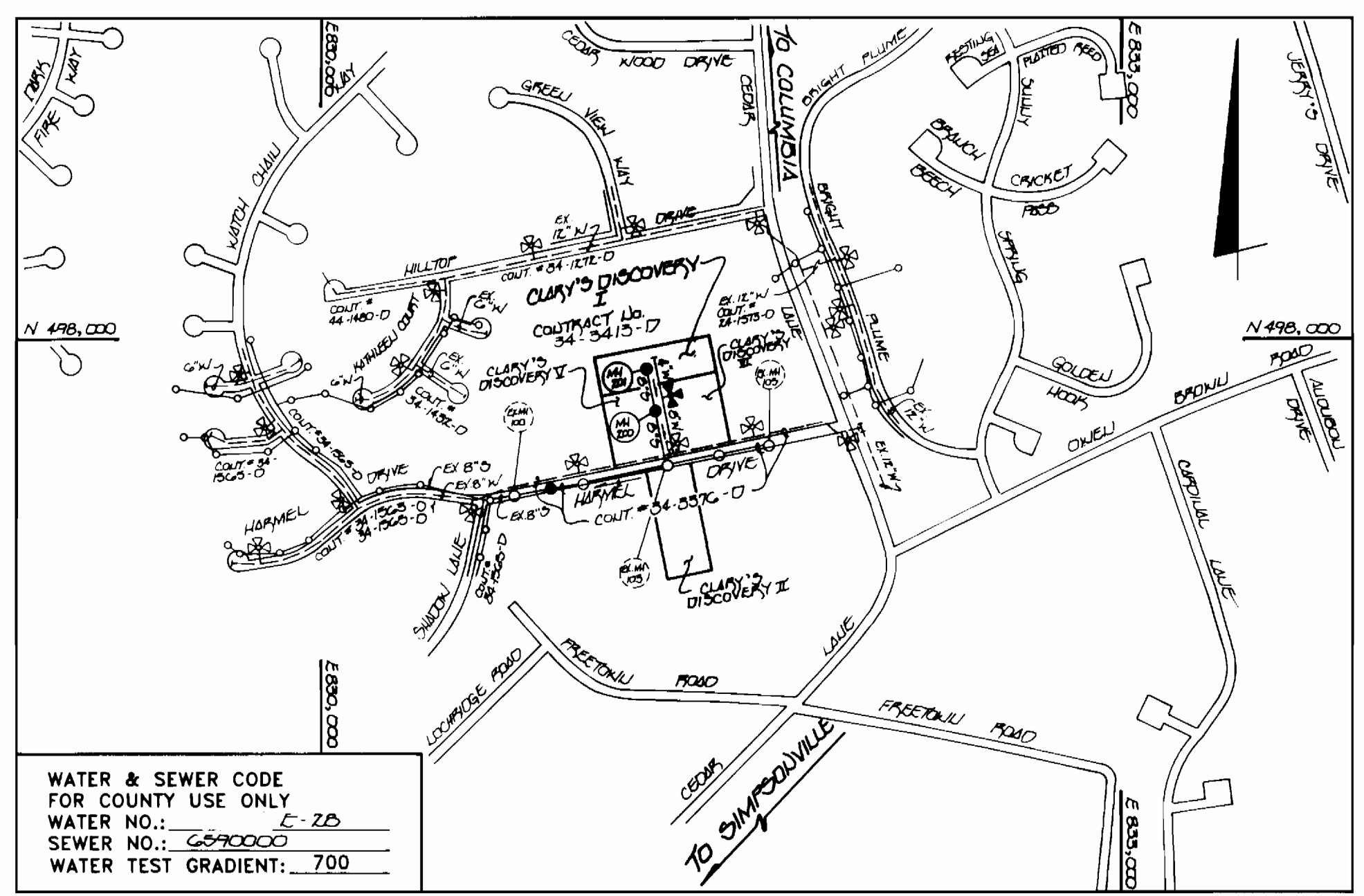


CLARY'S DISCOVERY I
WS/1
3413

QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AD-BUILT	SUPPLIER
8" SEWERS	454 LF	495 LF	5DR-35	J-M MFG
4" SEWERS	367 LF	481 LF	5DR-35	J-M MFG
MANHOLES	2 EACH	2 EA	PRECAST	ATLANTIC CONCRETE
8" WATER	273 LF	271 LF	CL 52	GRIFFIN PIPE
6" WATER	12 LF	19 LF	CL 52	GRIFFIN PIPE
4" WATER	177 LF	184 LF	CL 52	GRIFFIN PIPE
1" K/HC	85 LF	94 LF	TYPE K	CAMBRIDGE-LEE
3/4" K/HC	155 LF	194 LF	TYPE K	CAMBRIDGE-LEE
PIPE HYDRANTS	1 EACH	1 EA	CENTURION	MUELLER
6" VALVE	1 EACH	1 EA		MUELLER
4" VALVE	1 EACH	1 EA		U.S. PIPE

NAME OF UTILITY CONTRACTOR: CONSOLIDATED CONSTRUCTION SERVICE 3
SURVEY & DRAFTING DIVISION AS BUILT DATE: 10-27-95



WATER & SEWER CODE FOR COUNTY USE ONLY
WATER NO.: E-2D
SEWER NO.: 6240000
WATER TEST GRADIENT: 700

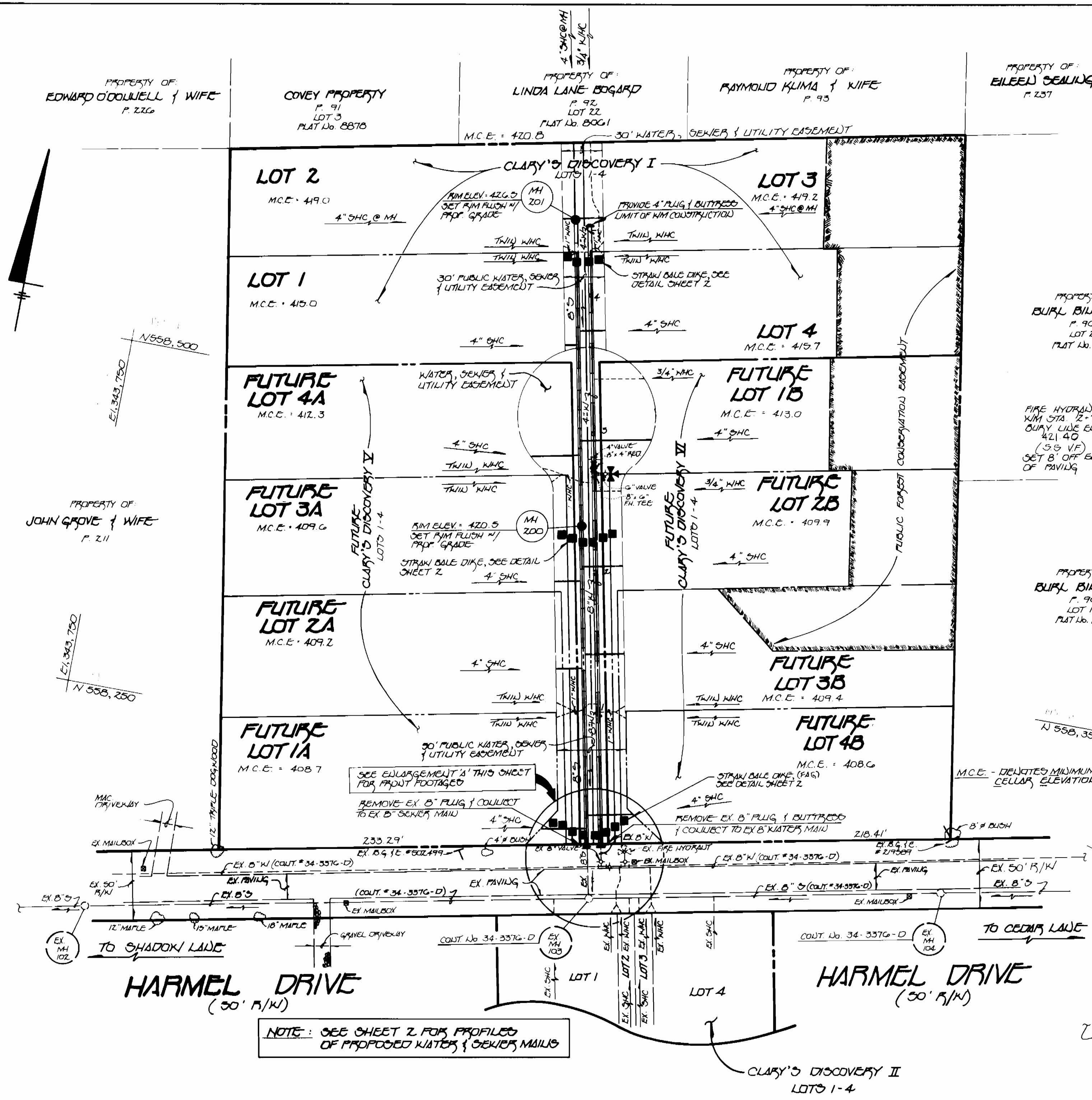
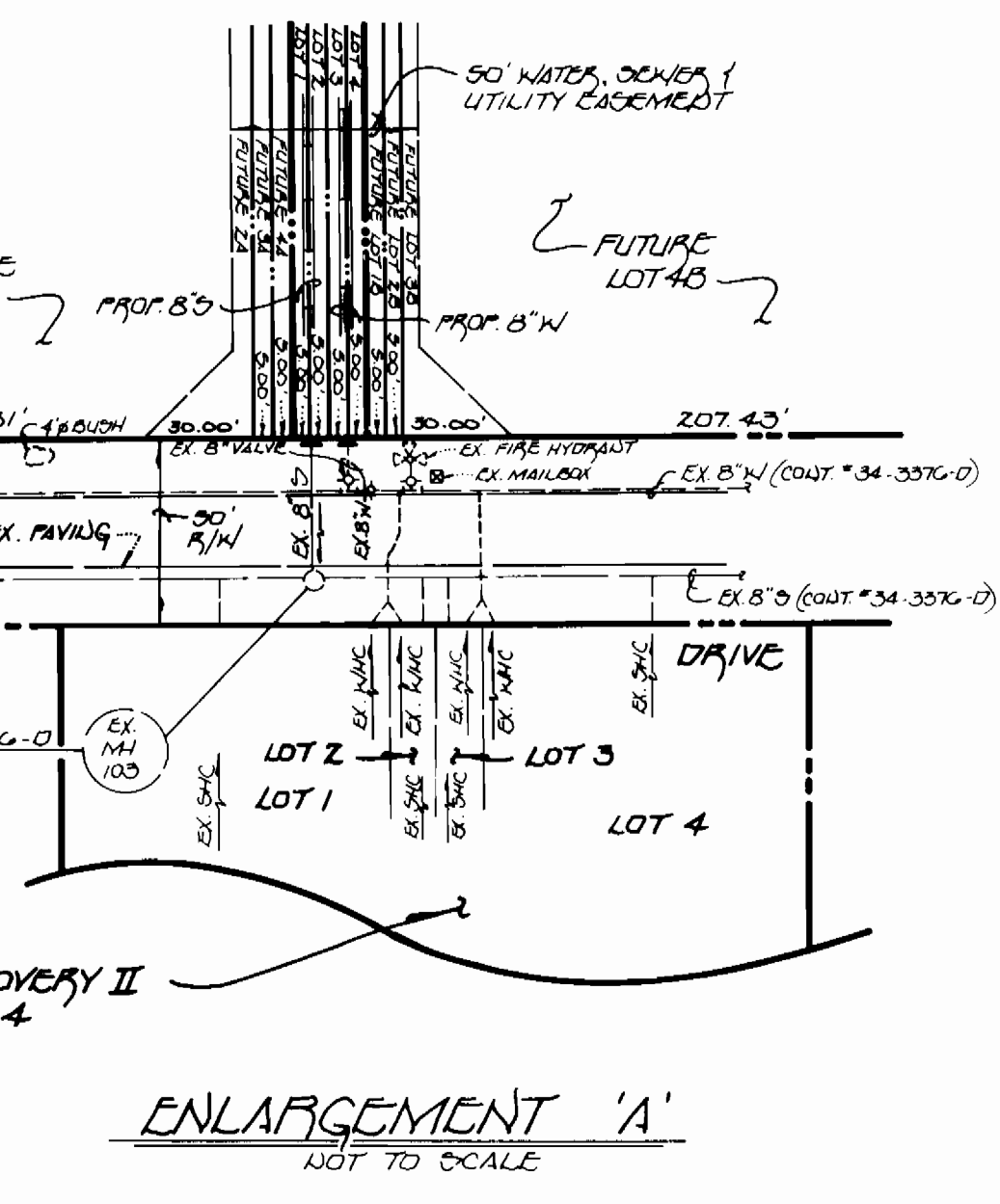
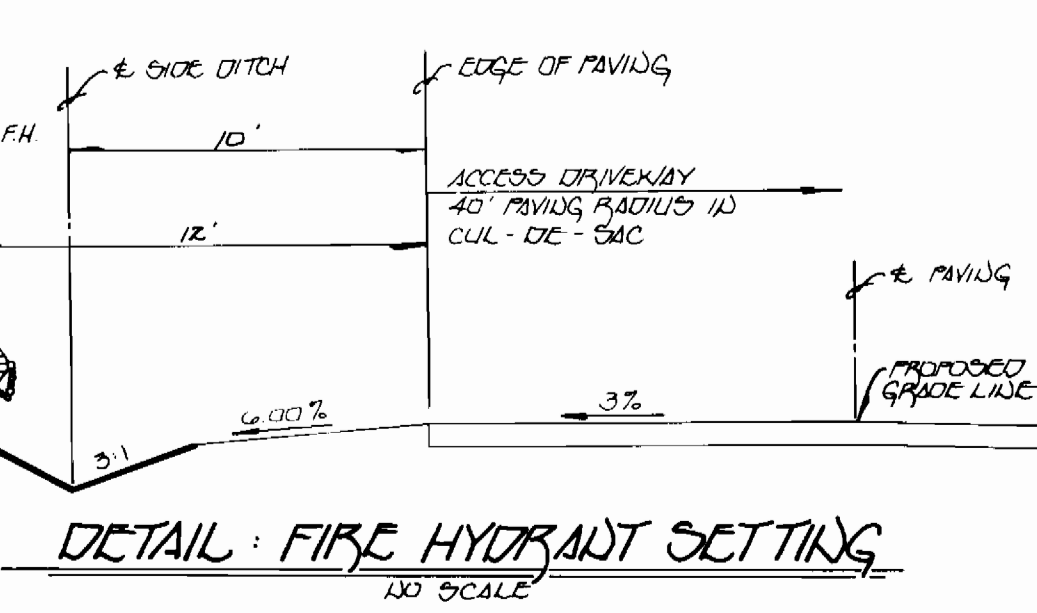
VICINITY MAP
SCALE: 1"=600'

SHC INVERTS @ P. CHART		
STATION	LOT	ELEVATION
EX MH 103 TO MH 200		
0+90 LT	CLARY'S V LOT 1A	403.38
0+60 FT	CLARY'S VI LOT 4B	403.45
1+60 LT	CLARY'S V LOT 2A	404.00
1+75 FT	CLARY'S VI LOT 3B	404.20
2+30 LT	CLARY'S V LOT 3A	404.47
2+40 FT	CLARY'S VI LOT 2B	404.74
MH 200 TO MH 201		
0+50 LT	CLARY'S V LOT 4A	407.12
0+60 FT	CLARY'S VI LOT 1B	407.87
1+30 LT	CLARY'S I LOT 1	409.90
1+40 FT	CLARY'S I LOT 4	410.51
@ MH 201 LT	CLARY'S I LOT 2	413.87
@ MH 201 FT	CLARY'S I LOT 3	414.07
@ MH 201 CITY	EX. ROAD PROP. LOT 22	414.77

TYPE OF BUILDING: SINGLE FAMILY DETACHED
NUMBER OF LOTS: 4 (4 BUILDINGS)
NO. OF WATER HOUSE CONNECTIONS: 13
NO. OF SEWER HOUSE CONNECTIONS: 13
DRAINAGE AREA: MIDDLE PATUXENT
TREATMENT PLANT: LITTLE PATUXENT WATER QUALITY MANAGEMENT CENTER, SAVAGE, MD.

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. DATUM.
- ALL PIPE ELEVATIONS ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED.
- 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.
- 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.
- 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 - 787-9068
 - MISS UTILITY - 1-800-257-7777
 - COLONIAL PIPELINE CO. - 795-1390
 - BUREAU OF UTILITIES, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS - 313-4900
- 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.
- 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.
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- T.B. DENOTES TEST BORING.
- 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 G 5.52.
- 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.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING, UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS.
- MANHOLES LOCATED WITHIN THE PROPOSED ROADWAY SHALL HAVE STANDARD HEAVY TRAFFIC MANHOLE FRAMES AND COVERS, STANDARD DETAIL G5.51.
- 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.
- ALL WATER MAINS SHALL 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 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.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH ANWA SPECIFICATIONS C-153; DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- 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.



NOTE: SEE SHEET 2 FOR PROFILES OF PROPOSED WATER & SEWER MAINS

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS
Patricia Eagle 5/8/95
LAND NATURAL RESOURCES CONSERVATION SERVICE DATE

PLAN REFERENCE NUMBERS: F 95 - 82
SCALE: 1" = 50'

DEVELOPER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION & SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEVELOPMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
DATE: 4-23-95

ENGINEER'S CERTIFICATE
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.
DATE: 4-23-95

OWNER & DEVELOPER
HARMEL, LLC
96 MARK REICH
LAND DESIGN & DEVELOPMENT, INC.
10805 HICKORY RIDGE ROAD
COLUMBIA, MARYLAND 21044

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.
APPROVED: *John P. Hunter* 5/8/95
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 AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN SDP-
Mark Reich 4-23-95
SIGNATURE OF DEVELOPER DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Director of Public Works: *John P. Hunter* 5/8/95
Chief, Bureau of Engineering: *Michael A. Strain* 5-2-95
Chief, Bureau of Utilities: *Michael A. Strain* 5-2-95

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
SUITE 100, 9171 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21042
(410) 481-2855
TERRELL A. FISHER

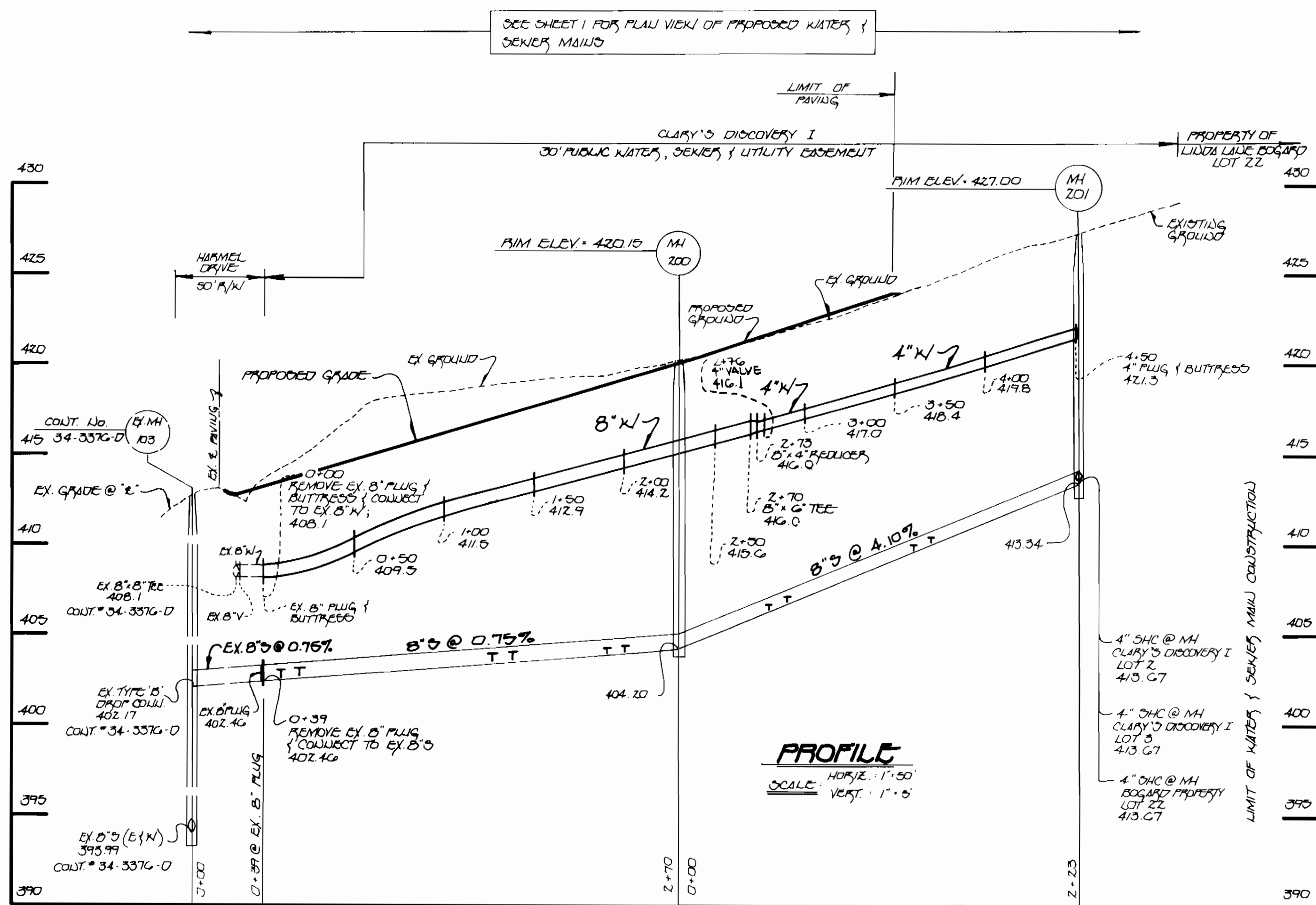
DES: M.J.M.
DRWN: J.M.M./M.J.M.
CHK: P.W.K.
DATE: _____

PLAN VIEW
WATER AND SEWER MAINS
600' SCALE MAP NO. 35 BLOCK NO. 11

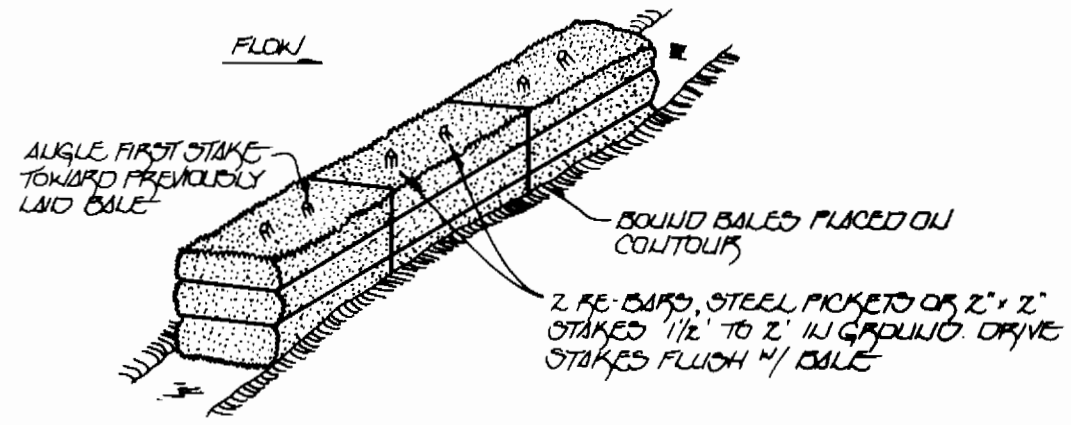
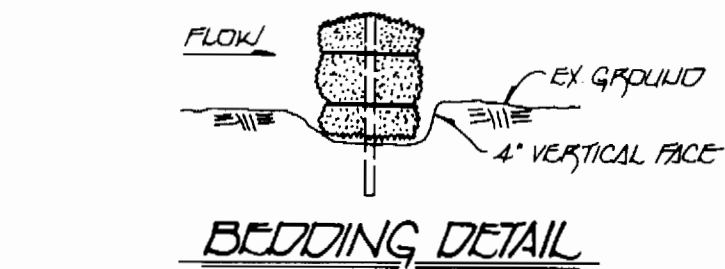
CLARY'S DISCOVERY I
LOTS 1-4
CONTRACT NO. 34-3413-D
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SCALE AS SHOWN
SHEET 1 OF 2
CDTS.DWG

3413 WS/2 CLARY'S DISCOVERY I

SHC'S LOCATIONS		WHC'S LOCATIONS	
LOT 1A	85' TO FIRE HYD. 117.5' TO SHC LOT 2A	LOT 1A	121.5' TO FIRE HYD. 7.0' TO WHC LOT 2A
LOT 2A	119.5' TO SHC LOT 1A 62.7' TO SHC LOT 3A	LOT 2A	127.6' TO FIRE HYD. 7.0' TO WHC LOT 1A
LOT 3A	62.7' TO SHC LOT 2A 44.5' TO MH 200	LOT 3A	40.4' TO MH 200 55.3' TO FIRE HYD.
LOT 4A	62.0' TO MH 200 83.3' TO SHC LOT 1	LOT 4A	53.9' TO FIRE HYD. 46.5' TO MH 200
LOT 1	83.3' TO SHC LOT 4A 92.8' TO MH 201	LOT 1	4.2' TO WHC LOT 2 30.8' TO WHC LOT 4
LOT 2	9.4' TO MH 201 57.5' TO SHC LOT 22	LOT 2	22.9' TO MH 201 4.2' TO WHC LOT 1
LOT 3	59.4' TO SHC LOT 22 26.0' TO MH 201	LOT 3	29.1' TO MH 201 6.8' TO WHC LOT 4
LOT 4	86.4' TO MH 201 85.0' TO SHC LOT 1B	LOT 4	6.8' TO WHC LOT 3 30.8' TO WHC LOT 1
LOT 1B	85.0' TO SHC LOT 4 79.5' TO MH 200	LOT 1B	92.9' TO WHC LOT 4 70.0' TO FIRE HYD.
LOT 2B	45.0' TO MH 200 61.0' TO SHC 3B	LOT 2B	40.0' TO MH 200 12.0' TO FIRE HYD.
LOT 3B	41.0' TO SHC 2B 117.0' TO SHC 4B	LOT 3B	40.7' TO WHC LOT 2A 7.0' TO WHC 4B
LOT 4B	117.0' TO SHC 3B 29.3' TO FIRE HYD.	LOT 4B	7.0' TO WHC 3B 101.7' TO FIRE HYD.



WATER & SEWER MAIN EXTENSIONS



SEE SHEET 1 FOR LOCATIONS OF STRAW BALE DIKES

STRAW BALE DIKE

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR, & IN A ROW WITH ENDS TIGHTLY ADJUTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, & PLACED SO THE BUNDLES ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE, BY EITHER TWO STAKES OR REINFORCING 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 WITH 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 IMPED STORM FLOW OR DRAINAGE.

DEVELOPER'S CERTIFICATE
 I / WE HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL 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 EROSION AND SEDIMENT BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 M. M. Luch
 SIGNATURE OF DEVELOPER 4-17-95
 DATE

ENGINEER'S CERTIFICATE
 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.
 Paul W. Knobel
 SIGNATURE OF ENGINEER 4-27-95
 DATE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Director of Public Works: James J. Slone 5/6/95
 Chief, Bureau of Engineering: [Signature] 5/10/95
 Chief, Bureau of Utilities: Michael A. Binannell 5/2/95
 Chief, Land-Development Division: [Signature] 5/1/95

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 TERRELL A. FISHER

DES:	M.J.M.			
DRWN:	J.M.M./M.J.M.			
CHK:	P.W.K.			
DATE:				
BY:	NO.	REVISION	DATE	

WATER AND SEWER MAINS
 PROFILES AND DETAILS
 600' SCALE MAP NO. 35 BLOCK NO. 17

CLARY'S DISCOVERY I
 LOTS 1 - 4
 CONTRACT NO. 34-3413-D
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN
 SHEET 2 OF 2
 CD.DWG