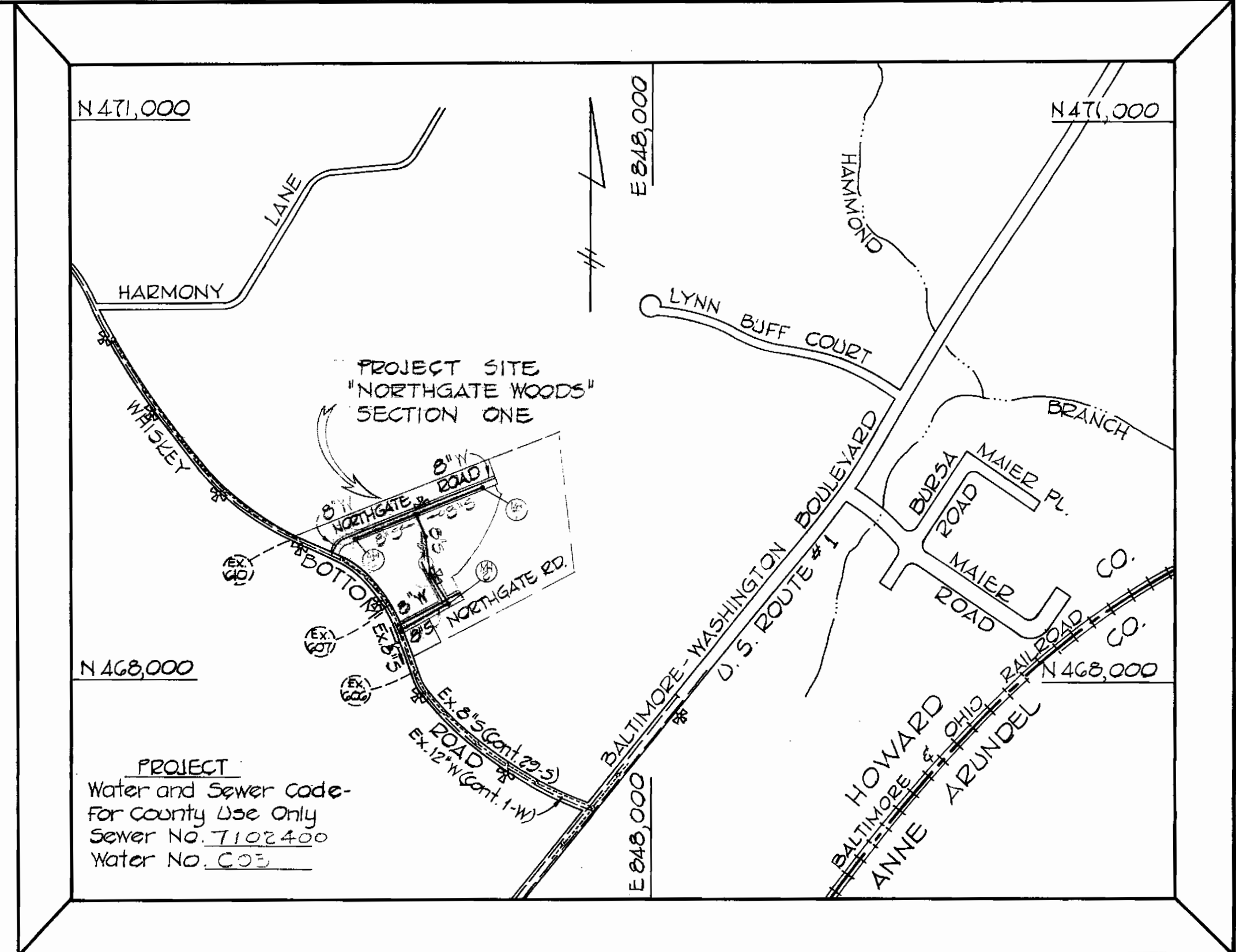


MINI. SUB. ELEV. FOR SEWER SERVICE

Lot	Elev.	Lot	Elev.
1	277.45	24	270.00
2	276.35	25	270.52
3	273.00	26	266.50
4	273.00	27	264.00
5	270.50	28	261.00
6	269.50	29	258.00
7	270.00	30	255.50
8	270.00	31	255.70
9	269.50	32	256.00
10	269.00	33	257.00
11	269.50	34	260.00
12	267.50	35	264.00
13	265.50	36	263.50
14	264.00	37	263.50
15	261.00	38	262.00
16	261.00	39	259.50
17	262.00	40	257.70
18	262.00	41	257.40
19	260.00	42	257.00
20	261.00	43	256.50
21	260.00	44	255.00
22	260.00	45	255.00
23	270.00	46	256.00

BENCH MARKS
 B.M. "5-4" Elev. 264.837
 P.K. nail set on edge of Whiskey Bottom Road next to Ex. MH GOT.
 B.M. "5-5" Elev. 261.657
 P.K. nail set on edge of Whiskey Bottom Road 65' SE. of C&P 11.



VICINITY MAP
 SCALE: 1" = 600'

TYPE OF BUILDINGS - SINGLE FAMILY DWELLING
 TOTAL NUMBER OF LOTS - 47
 NUMBER OF WATER HOUSE CONNECTIONS - 46
 NUMBER OF SEWER HOUSE CONNECTIONS - 46
 DRAINAGE AREA - LITTLE PATUXENT

GENERAL NOTES

- APPROXIMATE LOCATIONS OF EXISTING UTILITIES 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.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT (I) ELEVATIONS.
- THE CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN VICINITY OF UTILITIES.
- FOR ALL STANDARD DETAILS, SEE STANDARDS BOUND IN SPECIFICATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6" VERTICALLY. CLEAR ALL UTILITY POLES BY 2'-0" MINIMUM OR TUNNEL, AS REQUIRED. ANY COSTS INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING POLES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR EXCAVATION.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITH 2'-0" OF EXTERIOR MANHOLE WALLS.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER.
- BUTTRESS OR ANCHOR ALL WATER MAIN FITTINGS WITH CONCRETE. ALL VALVES SHALL BE STRAPPED TO TEES IN ACCORDANCE WITH STANDARD DETAILS.
- ALL WATER MAINS TO HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.
- ALL FIRE HYDRANTS SHALL BE STRAPPED TO THE TEE AND SHALL BE BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. COST OF STRAPPING FIRE HYDRANTS AND VALVES TO BE INCLUDED IN THE UNIT PRICE BID FOR FURNISHING AND INSTALLING FIRE HYDRANTS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 5-15 OF THE HOWARD COUNTY STANDARD SPECIFICATIONS.
- ALL WATER MAINS TO BE C.I.P., D.I.P. UNLESS OTHERWISE NOTED.
- ALL WATER HOUSE CONNECTIONS SHALL BE METER SETTING FOR INSIDE.
- TOPOGRAPHIC SURVEYS PROVIDED BY TYDINGS-OHEIM ASSOC., INC.

QUANTITIES

ITEM	EST'D	AS-BUILT	SUPPLIER
3" Sewer	1,400 L.F.	1377.2	CERTAIN-TEED
6" Sewer	985 L.F.	922	CERTAIN-TEED
Manholes	7 EA.	7	
6" x 6" Sewer Saddles	9 EA.	9	
6" Water	1,165 L.F.	1165	U.S. PIPE
6" Water	340 L.F.	333	U.S. PIPE
6" Valves	3 EA.	3	
6" Valves	1 EA.	1	
Fire Hydrant	2 EA.	2	

CONTRACT NO. 24-0894-D
 NORTHGATE WOODS
 SECTION 1, AREA 1
 WATER AND SEWER EXTENSION

REVISION

NO.	DATE	DESCRIPTION
Δ	7/25/80	Addition of W.H.C. & S.H.C. to LOT 48

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 Chief, Bureau of Engineering

FISHER, COLLINS AND CARTER, INC.
 CIVIL ENGINEERS AND LAND SURVEYORS
 8388 COURT AVENUE
 ELLICOTT CITY, MARYLAND 21043

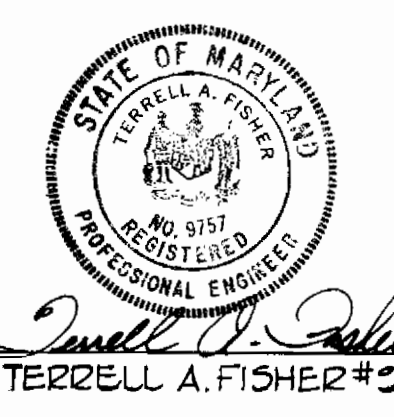
CONTRACT NO. 24-0894-D

PLAN
 WATER & SEWER MAINS

NORTHGATE WOODS
 SECTION 1, AREA 1
 ELECTION DISTRICT NO. 6
 HOWARD COUNTY, MARYLAND

DRAWING NO. 1 OF 2
 SCALE AS SHOWN
 DES: R.D.B.
 DRN: R.D.B.
 CHK: T.A.F.

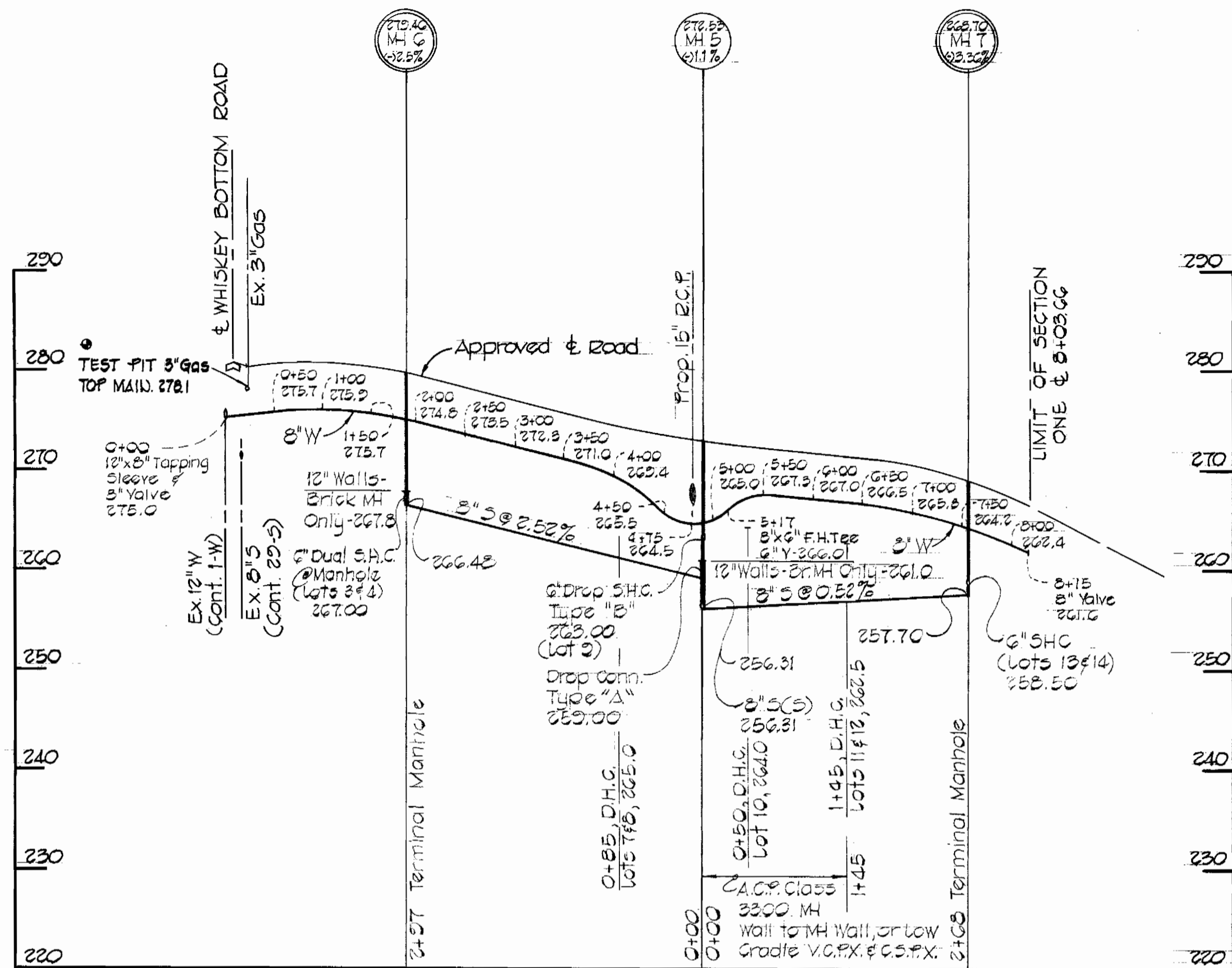
AS-BUILT: DEC. 18, 1980 B.L.



TERRELL A. FISHER #9157

LUMP SUM ITEM NO. 819 #1
 Build MH #1 over and connect to exist. 8" S (C&P) built under Cont. 22-5.

NORTHGATE ROAD



SEDIMENT CONTROL MEASURES FOR THIS PROJECT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 14-26 OF THE APPROVED SPECIFICATIONS.

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

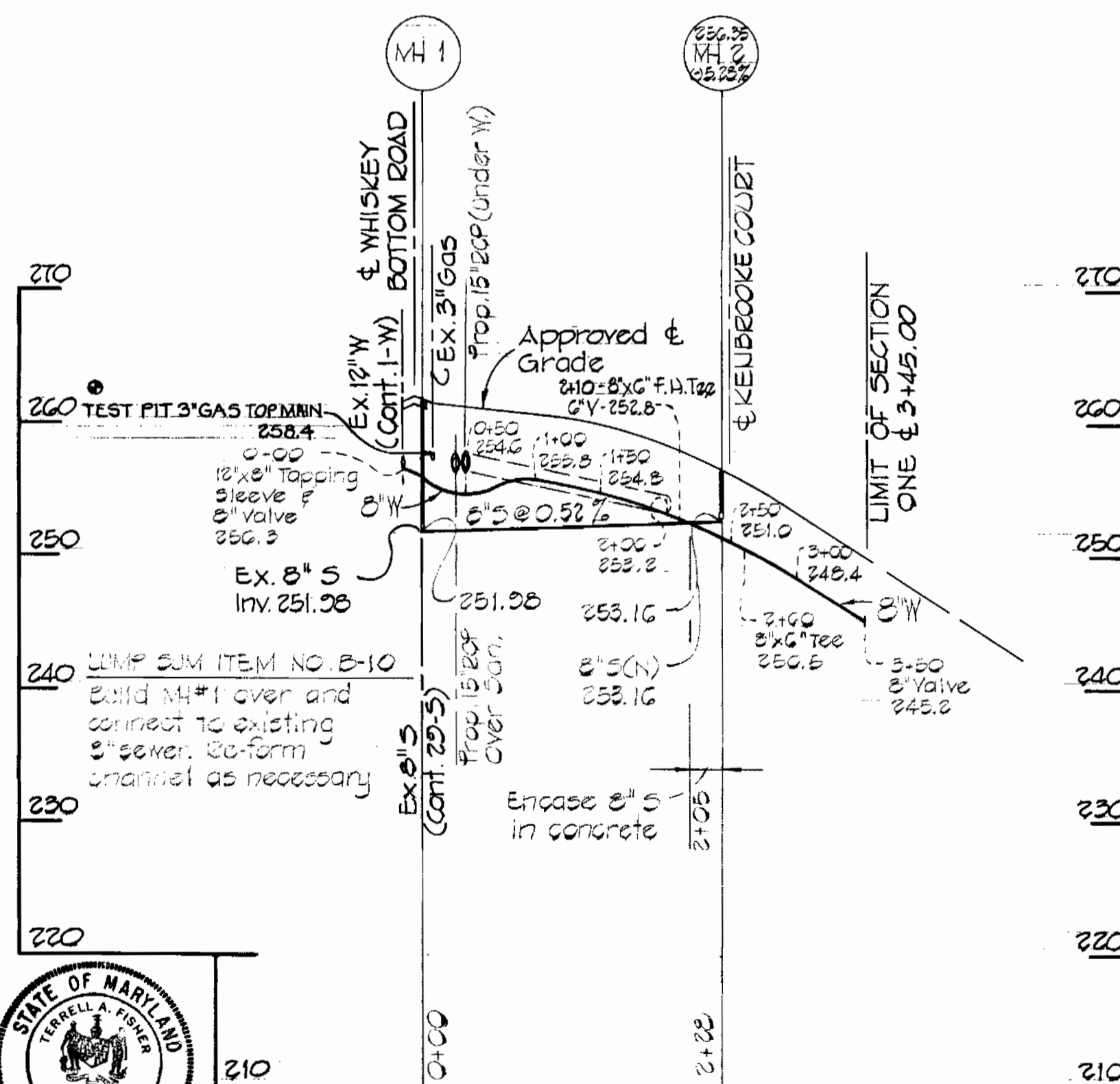
James M. Helm 3-26-80
U.S. SOIL CONSERVATION SERVICE DATE

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

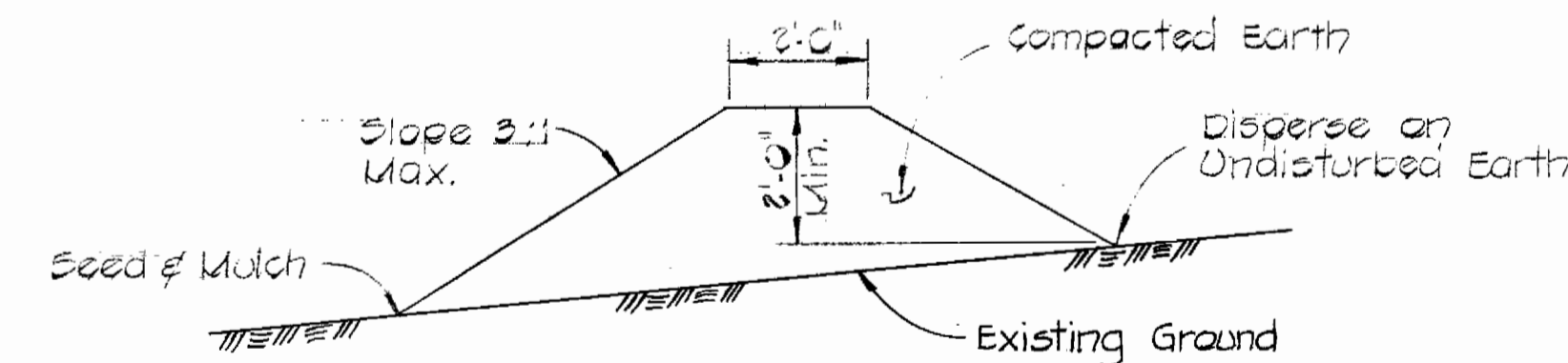
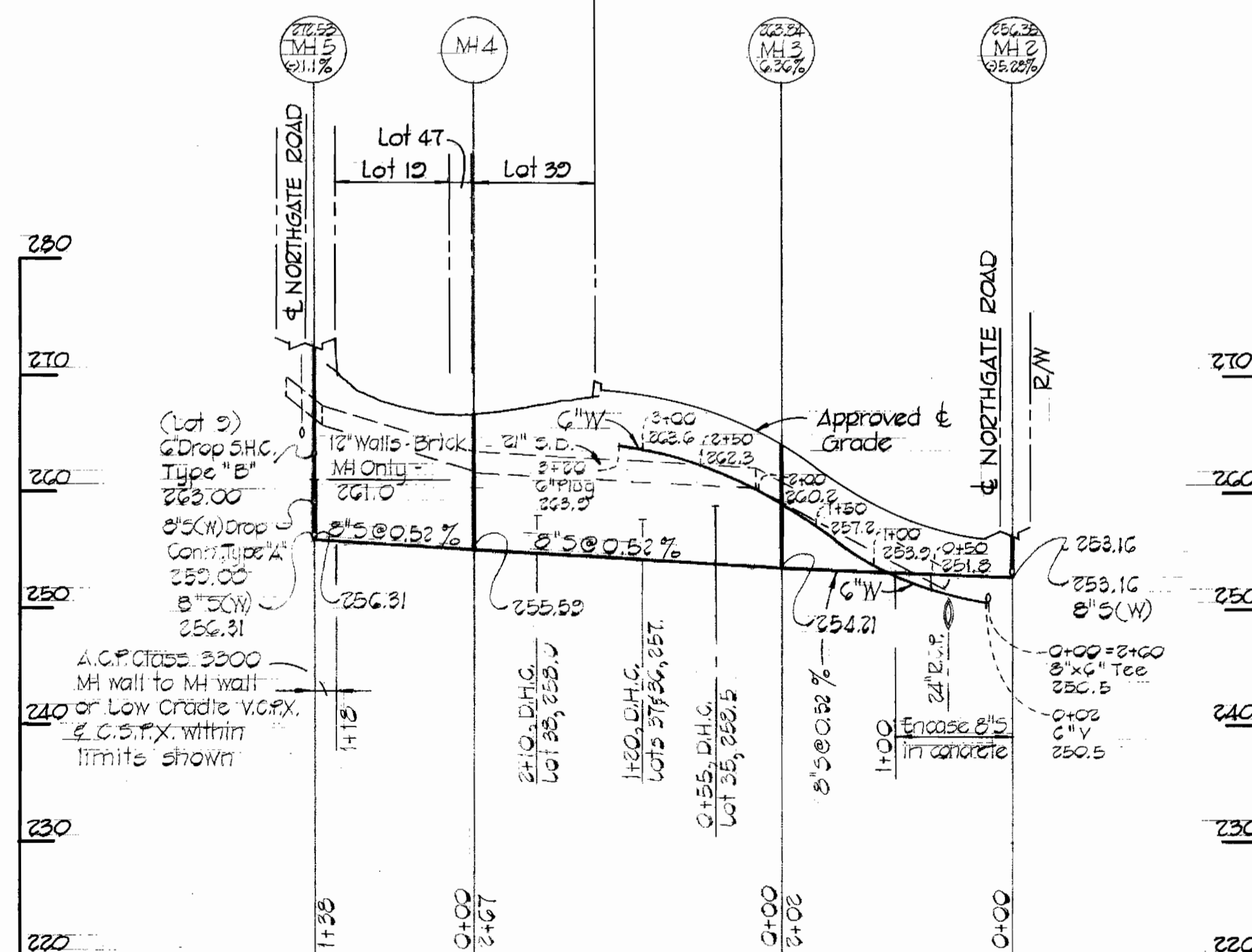
APPROVE: *Robert W. Ziehm* 3/26/80
HOWARD S.C.D. DATE

Within Limits Shown.

NORTHGATE ROAD



KENBROOKE COURT



Diversion berms are required every 250 feet on continuous slopes of 4% or greater. The berms shall conform to the typical section shown hereon. They shall be constructed across the construction areas immediately after the backfilling of the pipe trench and prior to placing stabilization in order to prevent erosion of the backfilled areas.

TEMPORARY EARTH DIVERSION BERM
No Scale



FISHER, COLLINS AND CARTER, INC.
CIVIL ENGINEERS AND LAND SURVEYORS
8388 COURT AVENUE
ELLCOTT CITY, MARYLAND 21043

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James E. Helm 3-26-80
CHIEF, BUREAU OF UTILITIES DATE CHIEF, BUREAU OF ENGINEERING DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND
Henry F. Nemmy 3-26-80
DIRECTOR OF PUBLIC WORKS DATE

CONTRACT NO. 24-0894-D

PROFILES AND DETAILS
WATER & SEWER MAINS

NORTHGATE WOODS
SECTION I, AREA I
ELECTION DISTRICT NO. 6
HOWARD COUNTY, MARYLAND

CONTRACT NO. 24-0894-D
NORTHGATE WOODS
SECTION I, AREA I
WATER AND SEWER EXTENSION

DRAWING NO. 2 OF 2	SCALE AS SHOWN	DES. R. D. B.
		CHK. T. A. F.

AS-BUILT DEC. 18, 1980 B.L.