

**SHEET INDEX**

NO.	TITLE
1	TITLE SHEET
2	PLAN OF WATER EXTENSIONS (NORTH)
3	PLAN OF WATER EXTENSIONS (SOUTH)
4	PROFILES OF WATER EXTENSIONS
5	PROFILES OF WATER EXTENSIONS

# WATER EXTENSIONS DORSEY RUN INDUSTRIAL CENTER PARCEL B DORSEY RUN ROAD 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND CONTRACT NO. 44-4233-D

**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 SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED BY RBA ON AND BETWEEN JANUARY AND JUNE 25, 2003.
- HORIZONTAL AND VERTICAL CONTROLS:  
THE COORDINATES SHOWN ON THE DRAWING ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/91 AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. ,NO. AND NO.  
ALL VERTICAL CONTROLS ARE BASED ON NAVD '83. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE (ENGINEERING/SURVEY FIRM SHALL PROVIDE DESCRIPTION OF VERTICAL CONTROL POINTS, I.E., IRON BARS, CROSS CUTS ON CONCRETE STRUCTURE, ETC.)
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS, UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED UNLESS OTHERWISE NOTED. 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 THE BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES 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.
- THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:  
STATE HIGHWAY ADMINISTRATION 410-531-5533  
BGE (CONSTRUCTION SERVICES) 410-850-4620  
BGE (EMERGENCY) 410-787-9088  
MISS UTILITY 1-800-257-7777  
COLONIAL PIPELINE CO. 410-795-1300  
AT & T 1-800-252-1133  
BUREAU OF UTILITIES 410-313-4900  
VERIZON 1-800-743-0033/ 410-224-9210
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- THE 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.  
THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE (5) WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114 (c) OF THE HOWARD COUNTY CODE.  
PART II WATER (TO BE PRINTED ON WATER PLANS ONLY)  
1. ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.  
2. TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" COVER UNLESS OTHERWISE NOTED.  
3. VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.  
4. ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.  
5. FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.  
6. THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.  
PART III SEWER (TO BE PRINTED ON SEWER PLANS ONLY)  
1. ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. UNLESS OTHERWISE NOTED.  
2. ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.  
3. FORCE MAINS SHALL BE D.I.P. ONLY.  
4. MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.  
5. MANHOLES DESIGNATED W.T. IN PLAN AND PROFILES SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL GS.52, WHERE WATERTIGHT MANHOLE FRAMES AND COVER ARE USED, SET TOP OF FRAME 1'-6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.  
6. HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT THE CELLAR CANNOT BE SERVED.  
7. USE MECHANICAL RESTRAINT JOINT PIPE FOR THE 12" WATER FROM STA. 0+00 TO 50+00.

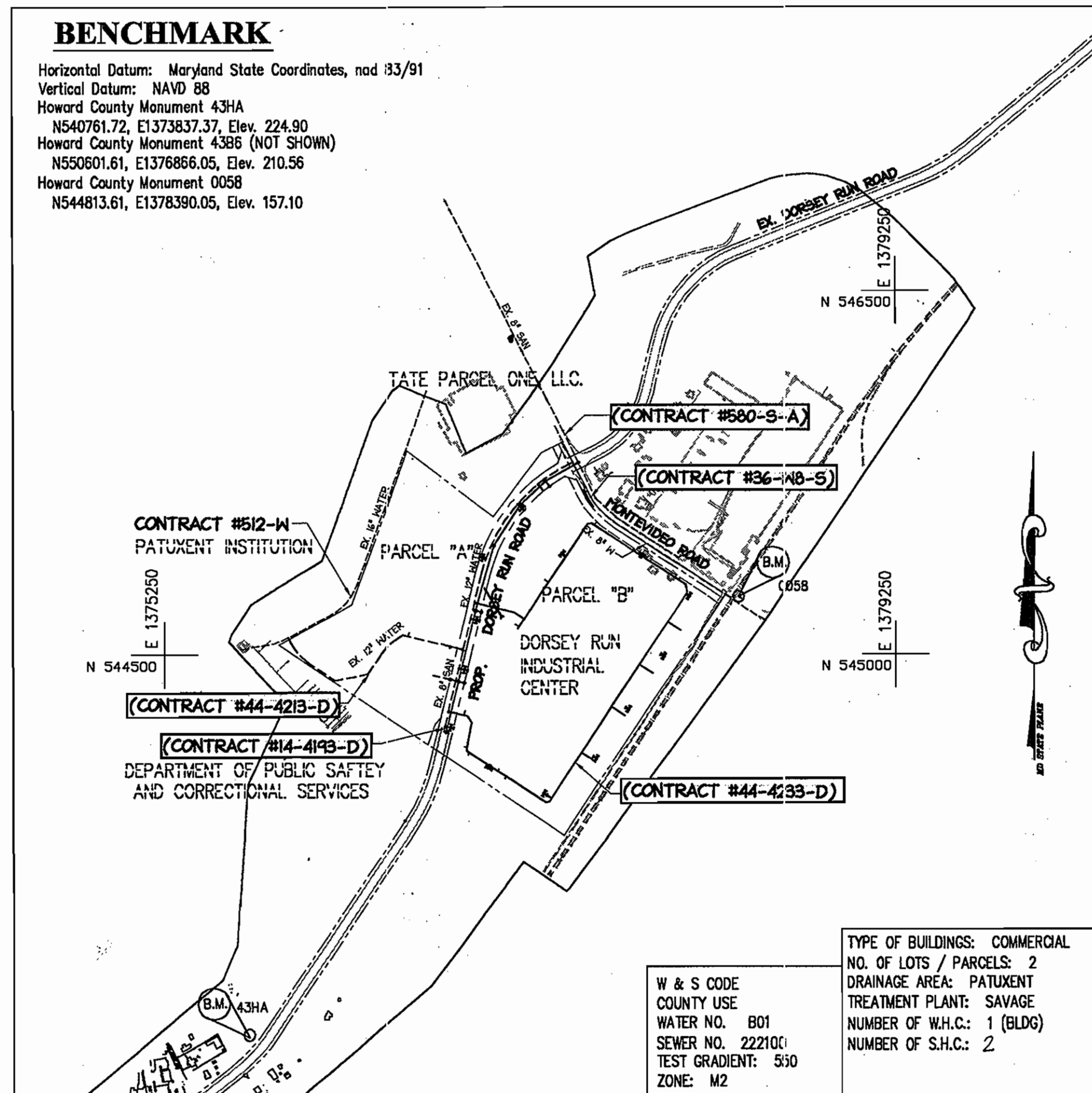
**QUANTITIES**

ITEMS	QUANTITIES ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
12" WATER	485 LF	485 L.F.	D. I. P.	GRIFFIN PIPE
8" WATER	3229 LF	3229 L.F.	D. I. P.	GRIFFIN PIPE
6" WATER	796 LF	796 L.F.	D. I. P.	GRIFFIN PIPE
12" VALVES	1	1	GATE VALVE	MUELLER CO.
8" VALVES	3	3	GATE VALVE	MUELLER CO.
6" VALVES	14	14	GATE VALVE	U.S. PIPE
12"x12" TEES	1	1	MJ TEE	SIGMA CORP.
8"x6" TEES	0	—	—	—
12"x 6" FHT	1	1	HYDRANT TEE	SIGMA CORP.
8"x 6" FHT	13	13	HYDRANT TEE	SIGMA CORP.
FIRE HYDRANT--	14	14	HYDRANT	MUELLER CO.
12" W.H.C.	1	1	—	—
12"x 6" REDUCER	0	—	—	—
12"x 8" REDUCER	2	2	MJ REDUCER	SIGMA CORP.
SEWER MANHOLE	2	2	4.0' MH	—

CHECKBOX  
AS-BUILT DATE -- JANUARY 2006  
SURVEY AND DRAFTING DIVISION

**BENCHMARK**

Horizontal Datum: Maryland State Coordinates, nod 83/91  
Vertical Datum: NAVD 88  
Howard County Monument 43HA  
N540761.72, E1373837.37, Elev. 224.90  
Howard County Monument 43B6 (NOT SHOWN)  
N550601.61, E1376886.05, Elev. 210.56  
Howard County Monument 0058  
N544813.61, E1378390.05, Elev. 157.10



SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON SDP-04-164 AND GP-05-35.

REVIEW FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.  
*Jim Meyer* 5/24/05  
NATURAL RESOURCES CONSERVATION SERVICE DATE  
THIS PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.  
*John R. Robertson* 5/26/05  
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*R. J. B...* 6-20-05  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*M...* 7/10/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

**christopher consultants**  
engineering - surveying - land planning  
christopher consultants, Inc.  
7172 Columbia Gateway Drive Suite 100 - Columbia, MD 21046-2990  
410.872.2800 - fax: 301.881.0146 - te: 410.872.2833



DES:	BAM				
DRN:	DAM				
CHK:	JMH				
DATE:	OCT. 2004	BY:	NO.	REVISION:	DATE:

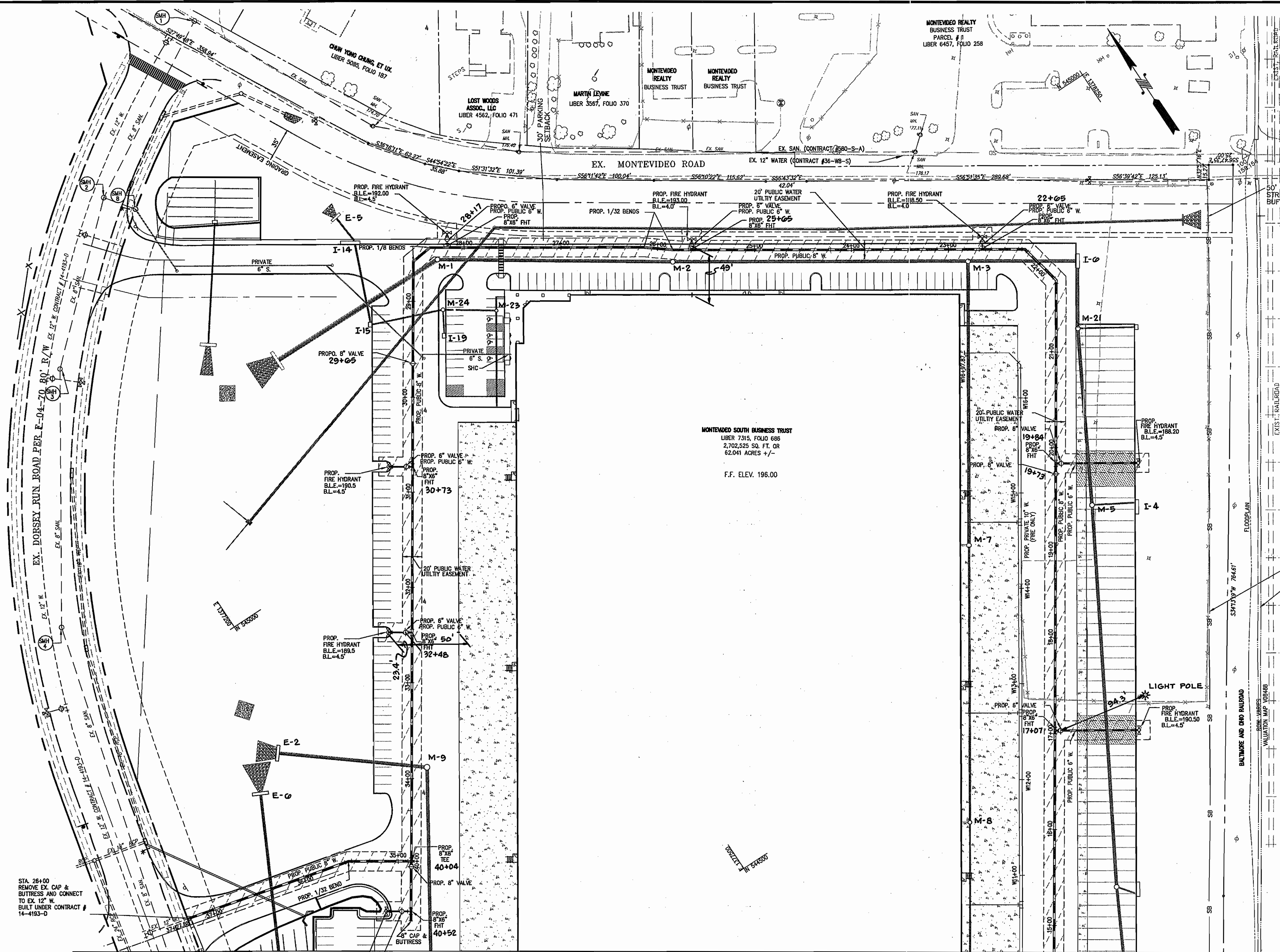
**TITLE SHEET**  
800 SCALE MAP NO. 43 BLOCK NO. 18/17

WATER EXTENSIONS  
**DORSEY RUN INDUSTRIAL CENTER**  
PARCEL B  
**DORSEY RUN ROAD**  
CONTRACT NO. 44-4233-D  
TAX MAP 43 PARCEL B ZONE: M2  
1st ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 5

**AS BUILT**  
DATE: JANUARY 2006

**OWNER / DEVELOPER**  
MONTVIDEO SOUTH BUSINESS TRUST  
C/O TRAMMELL CROW COMPANY  
7315 WISCONSIN AVENUE  
SUITE 300 W  
BETHESDA, MARYLAND 20814  
TEL. (301) 530-6200  
FAX (301) 530-6131



WATER LINE DATA			
STATION	DESCRIPTION	NORTHING	EASTING
17+07	8"X6" FHT	544,443.54	1,377,847.63
19+13	8" VALVE	544,667.43	1,377,996.66
19+84	8"X6" FHT	544,676.64	1,378,002.79
21+76	8" 1/8 BEND	544,836.18	1,378,109.04
22+21	8" 1/8 BEND	544,880.88	1,378,100.07
22+65	8"X6" FHT	544,904.98	1,378,063.38
25+65	8"X6" FHT	545,069.69	1,377,812.62
25+84	8" 1/32 BEND	545,080.26	1,377,795.52
26+14	8" 1/32 BEND	545,099.10	1,377,772.81
28+17	8"X6" FHT	545,210.48	1,377,603.12
28+35	8" 1/8 BEND	545,220.35	1,377,588.08
28+58	8" 1/8 BEND	545,217.66	1,377,565.62
29+65	8" VALVE	545,128.74	1,377,506.41
30+73	8"X6" FHT	545,038.41	1,377,446.25
32+48	8"X6" FHT	544,893.59	1,377,349.80
34+33	8"X6" FHT	544,738.98	1,377,246.93
34+67	8" X 8" TEE	544,695	1,377,217
35+51	8" 1/32 BEND	544,730.33	1,377,162.96
37+25	12"X8" REDUCER	544,771.86	1,376,993.86
37+28	CONN. TO EX. 12" W/L	544,772.42	1,376,991.60
17+07	6" VALVE	544,440.44	1,377,852.42
17+07	6" FIRE HYDRANT	544,395.68	1,377,921.54
19+84	6" VALVE	544,673.53	1,378,007.58
19+84	6" FIRE HYDRANT	544,629.82	1,378,074.91
22+65	6" VALVE	544,912	1,378,067
22+65	6" FIRE HYDRANT	544,916	1,378,070
25+84	6" VALVE	544,073	1,377,815
25+84	6" FIRE HYDRANT	545,079	1,377,819
30+73	6" VALVE	545,042	1,377,441
30+73	6" FIRE HYDRANT	545,052	1,377,425
32+48	6" VALVE	544,897	1,377,344
32+48	6" FIRE HYDRANT	544,907	1,377,329
40+52	8"X6" FHT	544,651	1,377,188
40+52	6" VALVE	544,657	1,377,180
40+52	6" FIRE HYDRANT	544,685	1,377,167

NOTE: ALL FIRE HYDRANTS WILL BE SET BACK 3' FROM THE BACK OF THE CURB LINE.

**AS BUILT**  
DATE: JANUARY 2006

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Robert W. Bunger* 6-20-05  
CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
HOWARD COUNTY, MARYLAND  
*William J. ...* 7/2/05  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

**christopher consultants**  
engineering · surveying · land planning  
christopher consultants, llc  
7722 rockledge drive suite 100 · columbia, md 21046-2800  
410.222.2829 · ext. 301.801.0140 · fax 410.222.2825



DES:	BAM				
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DATE:	OCT. 2004	BY:	NO.	REVISION	DATE

PLAN OF  
WATER EXTENSIONS  
(NORTH)  
600 SCALE MAP NO. 43 BLOCK NO. 16/17

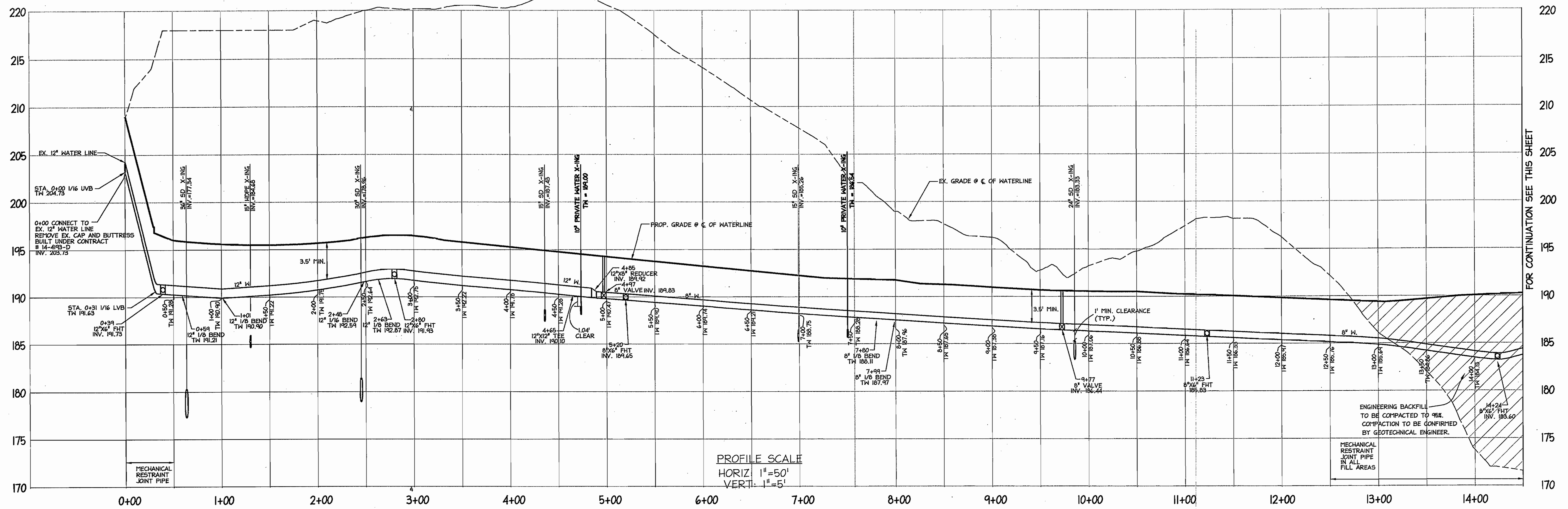
WATER EXTENSIONS  
**DORSEY RUN INDUSTRIAL CENTER**  
PARCEL B  
DORSEY RUN ROAD  
CONTRACT NO. 44-4233-D  
TAX MAP 43 PARCEL B ZONE: M2  
1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE  
1"=50'  
SHEET  
2 OF 5

6-09-05

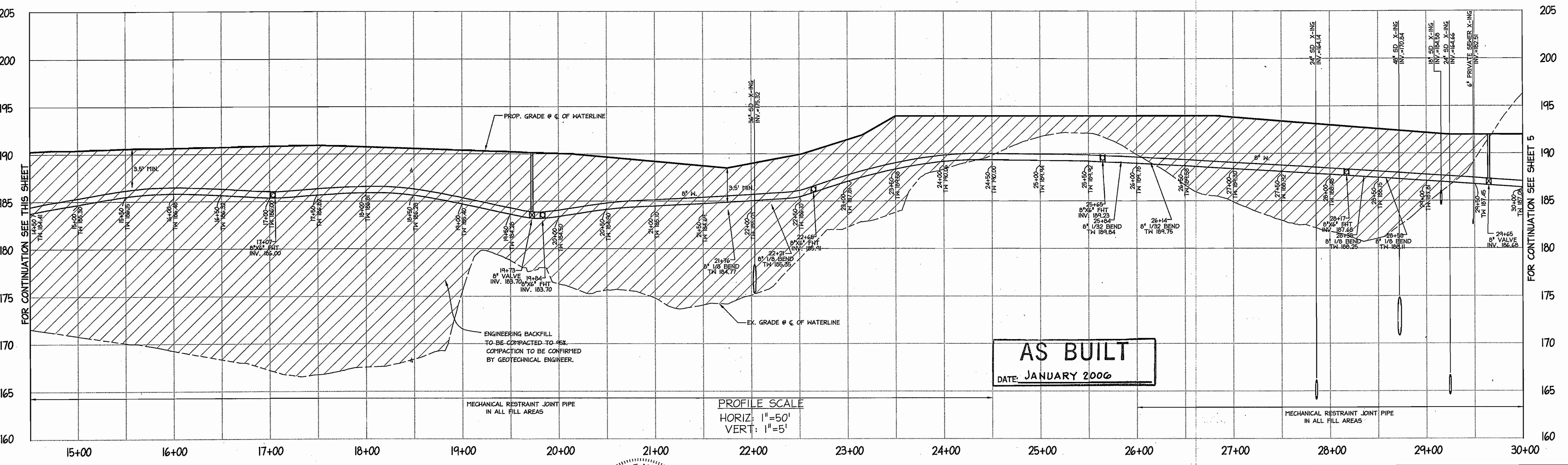
MDC-129(W&S)





PROFILE SCALE  
 HORIZ: 1"=50'  
 VERT: 1"=5'

FOR CONTINUATION SEE THIS SHEET



PROFILE SCALE  
 HORIZ: 1"=50'  
 VERT: 1"=5'

FOR CONTINUATION SEE SHEET 5

**AS BUILT**  
 DATE: JANUARY 2006

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 Chief, Bureau of Utilities  
 6-20-05

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 Chief, Development Engineering Division  
 7/2/05

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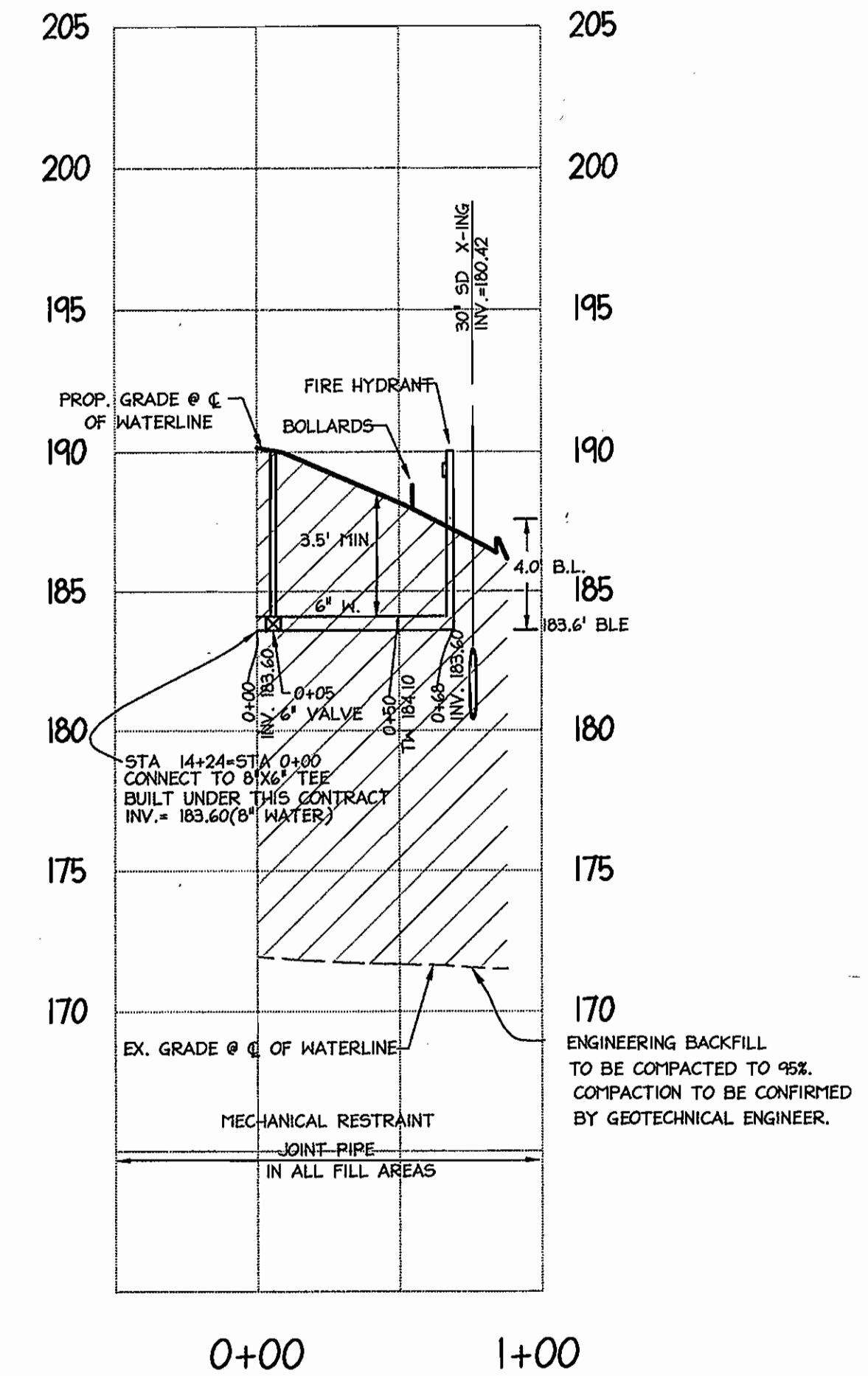
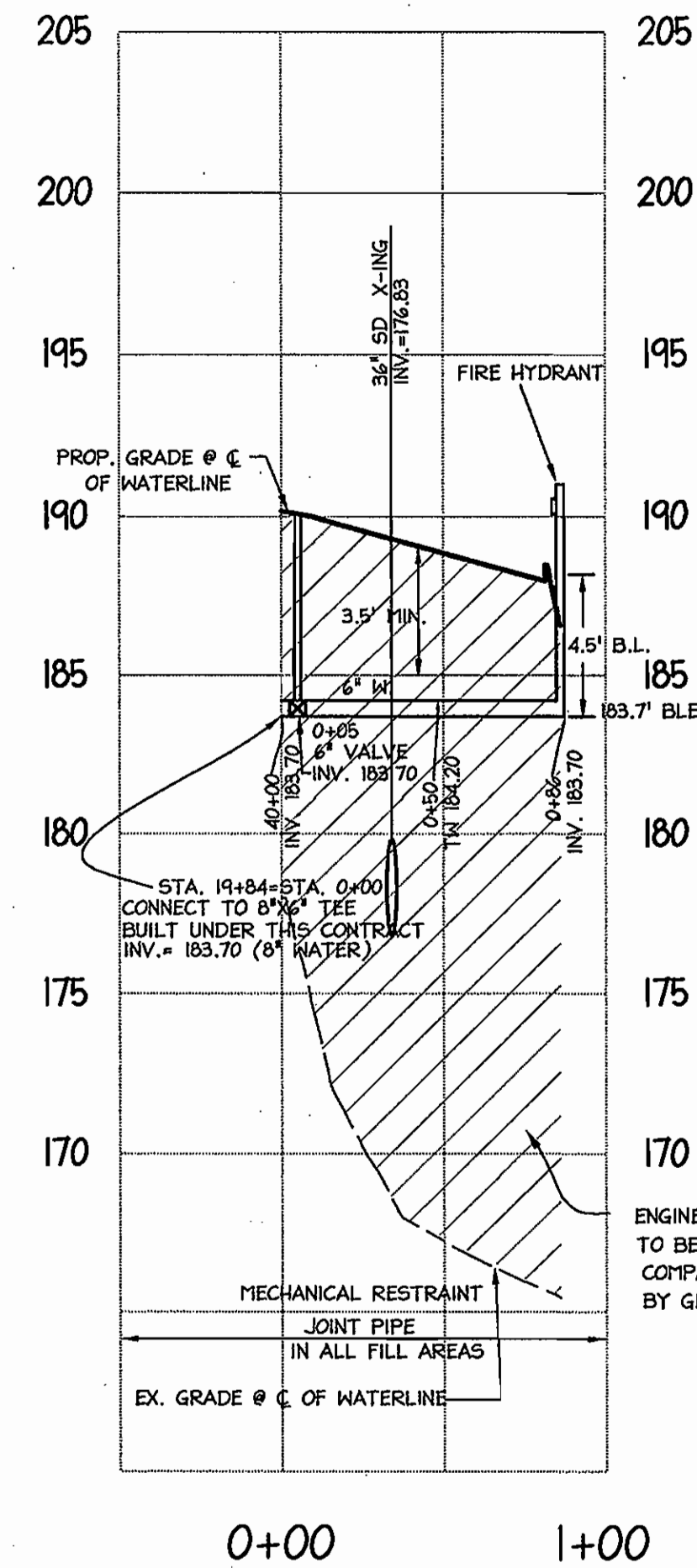
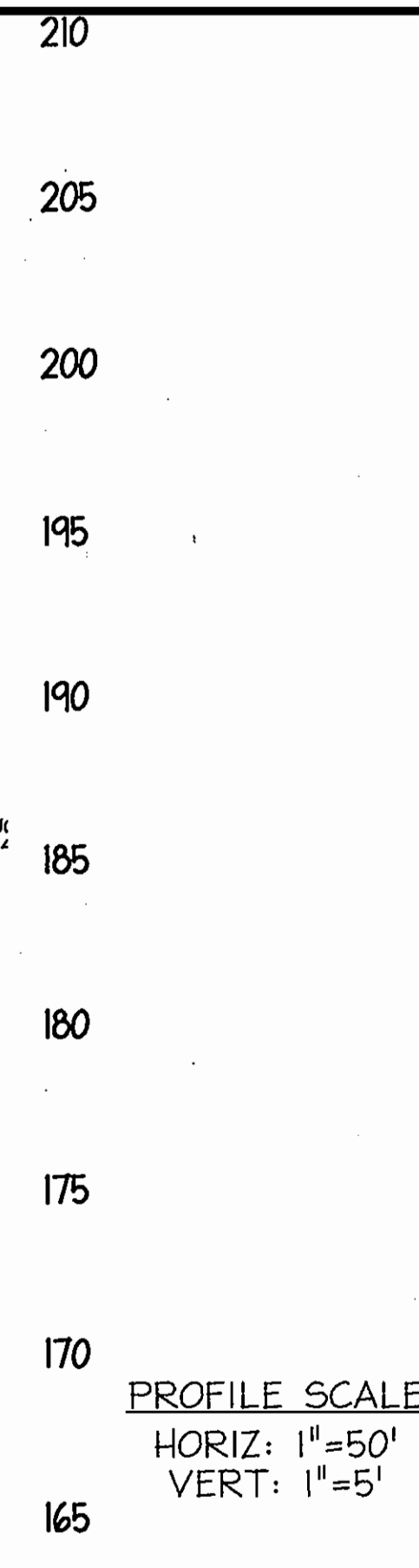
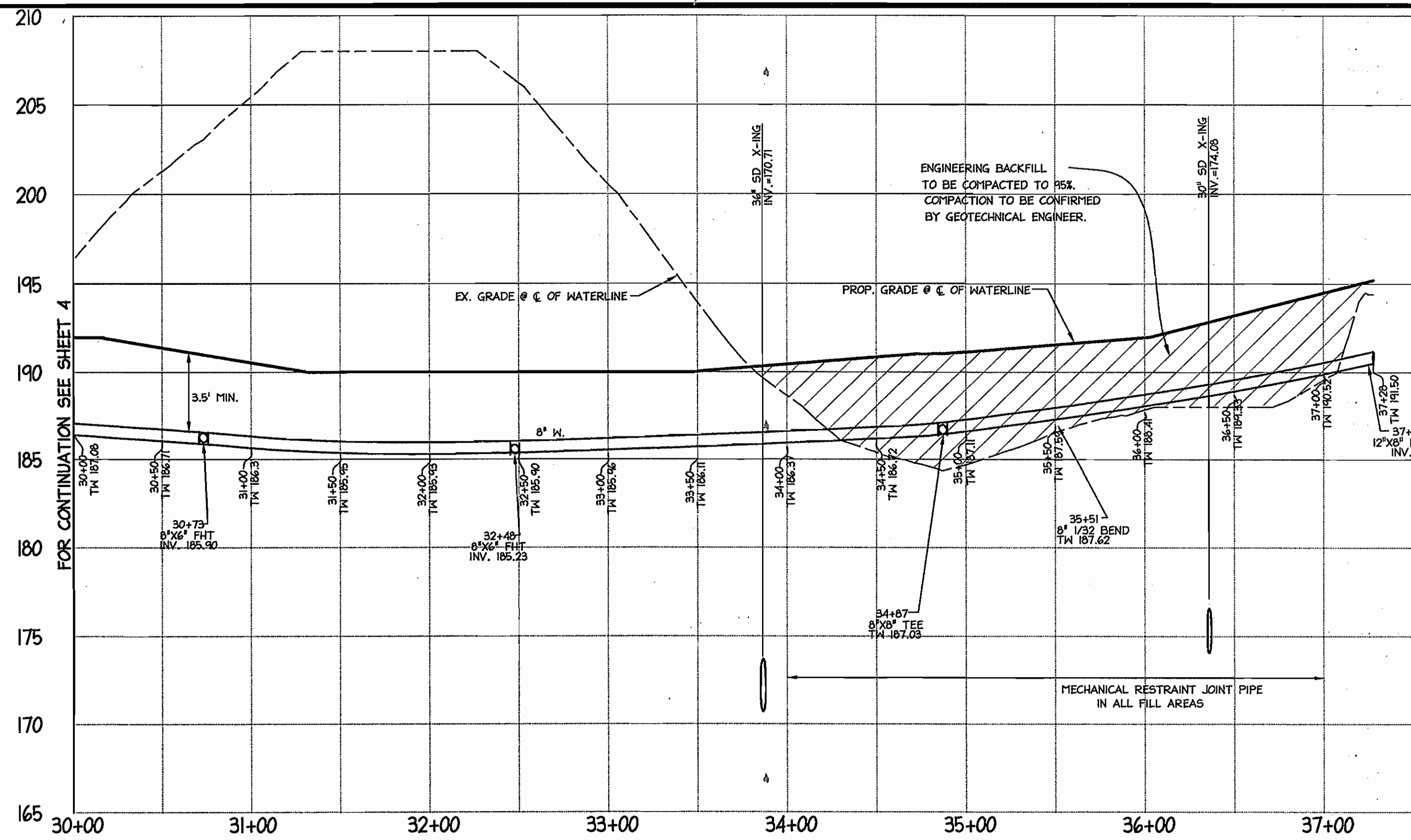


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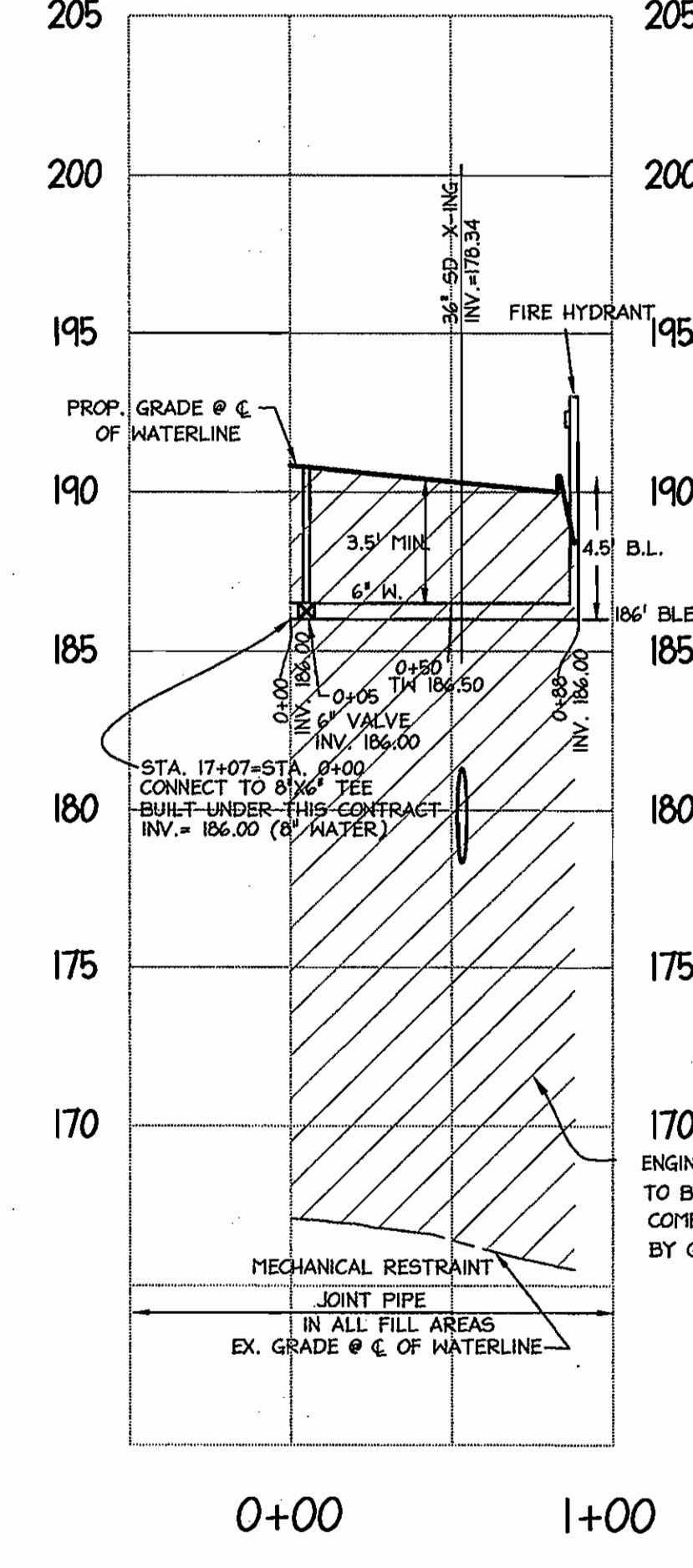
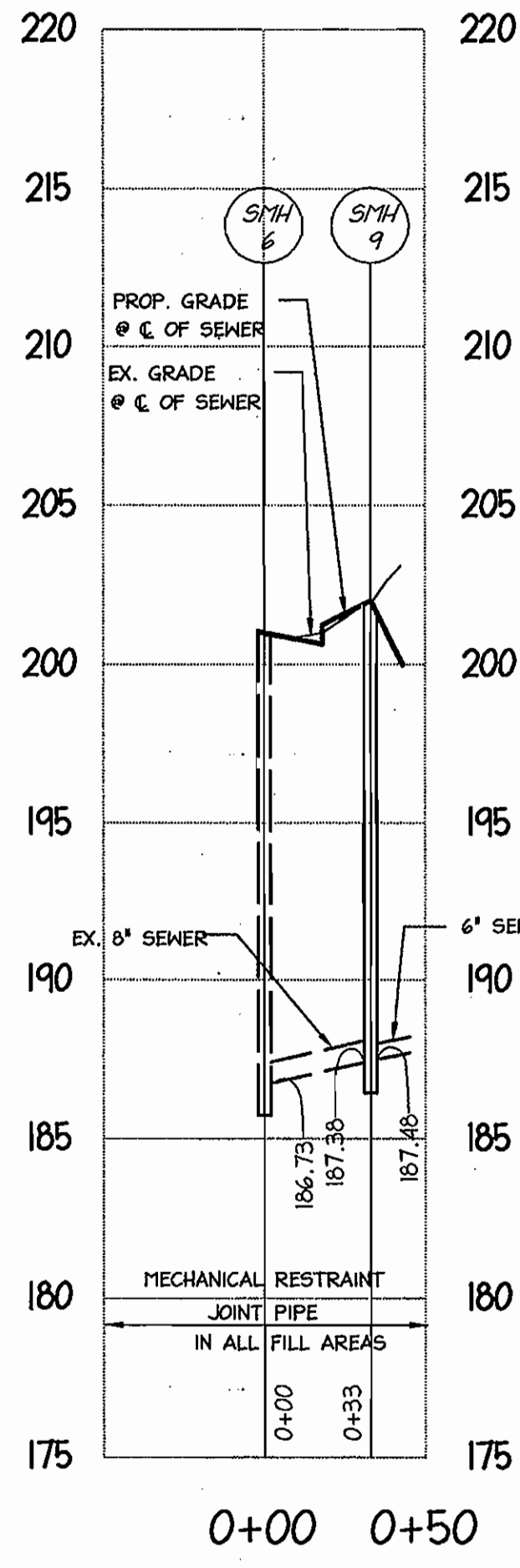
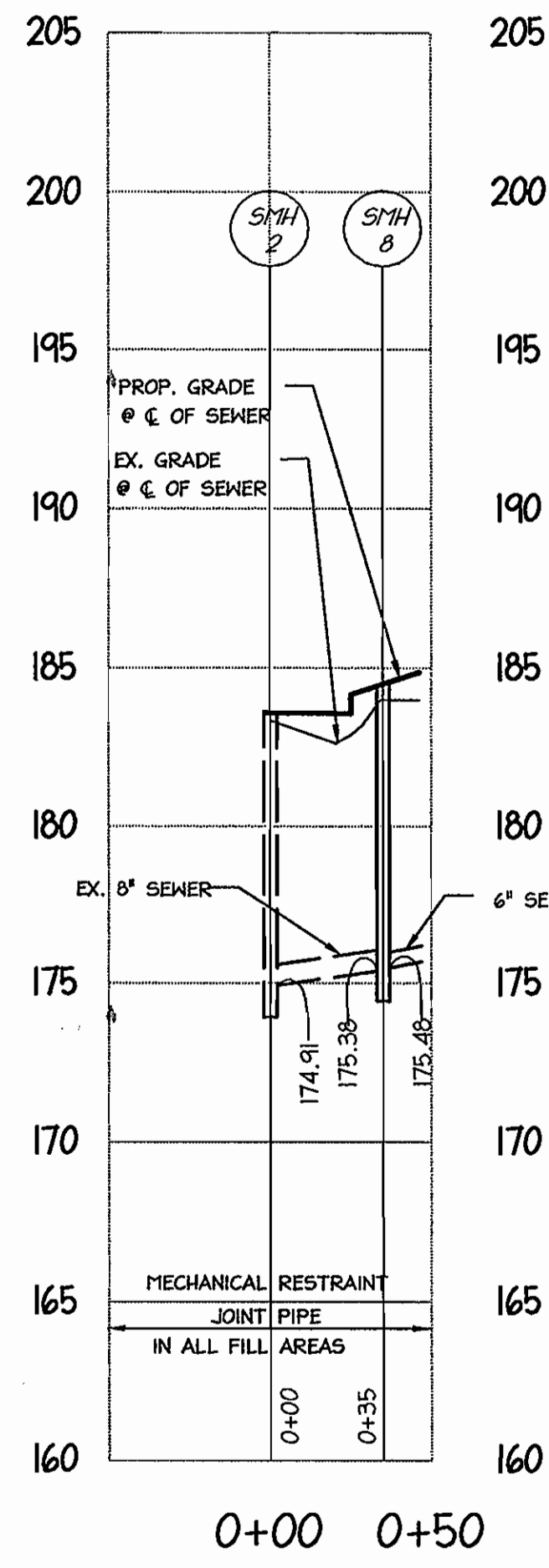
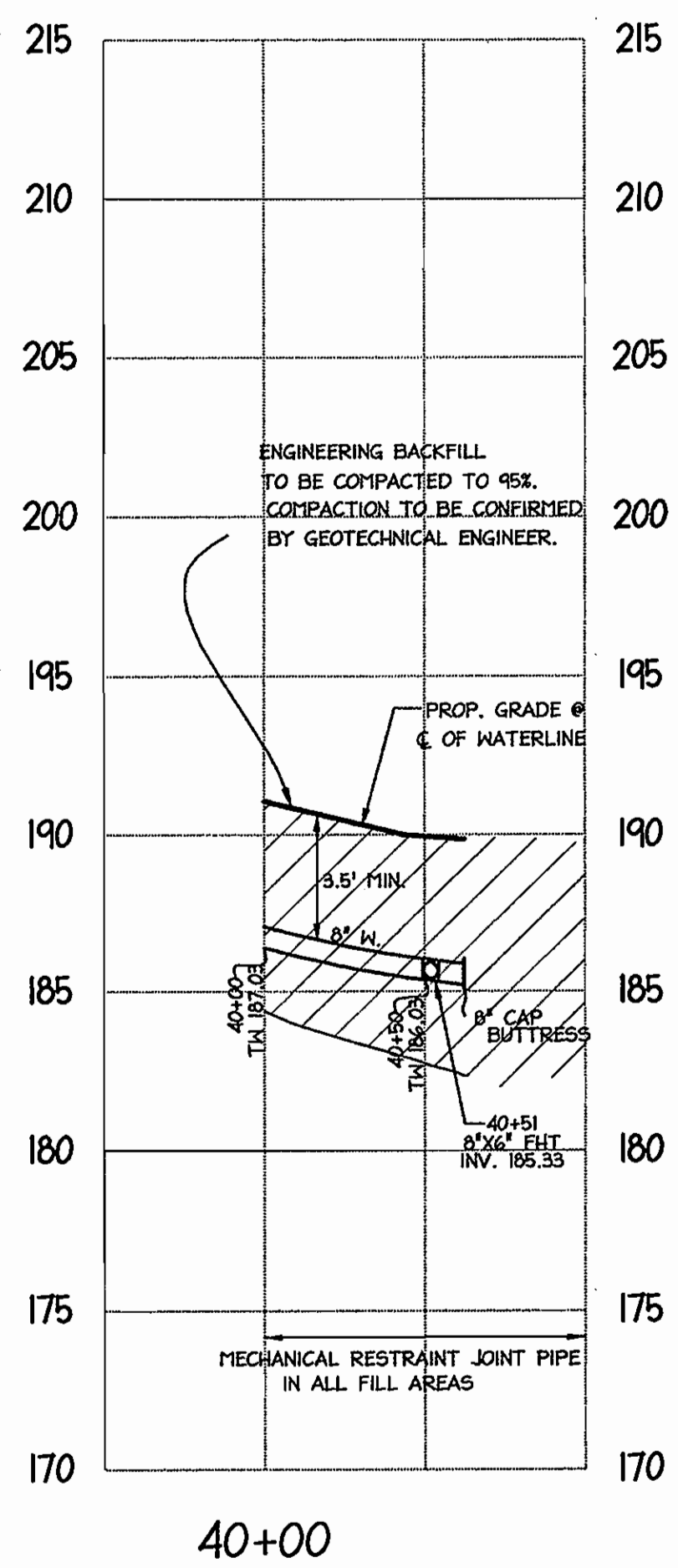
PROFILES OF  
 WATER EXTENSIONS  
 800 SCALE MAP NO. 43 BLOCK NO. 16/17

WATER EXTENSIONS  
**DORSEY RUN INDUSTRIAL CENTER**  
 PARCEL B  
 DORSEY RUN ROAD  
 CONTRACT NO. 44-4233-D  
 TAX MAP 43 PARCEL B ZONE M2  
 1st ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE  
 AS SHOWN  
 SHEET  
 4 OF 5



PROFILE SCALE  
 HORIZ: 1"=50'  
 VERT: 1"=5'



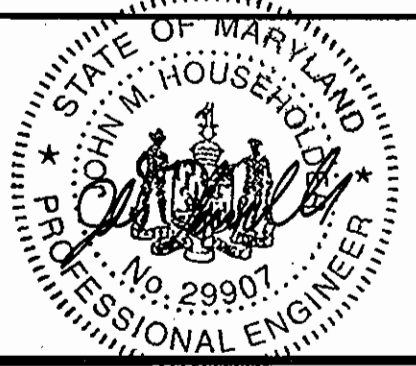
STRUCTURE SCHEDULE					
STRUCTURE	TYPE	NORTHING	EASTING	TOP	REMARKS
SMH 8	4'-0" DIA. MANHOLE	N 545,422.07	E 1,377,356.65	184.30	HOCO STD. MH DETAIL G 5.1
SMH 9	4'-0" DIA. MANHOLE	N 544,344.56	E 1,376,888.95	202.00 SLOPE=33.33%	HOCO STD. MH DETAIL G 5.1

**AS BUILT**  
 DATE: JANUARY 2006

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND  
 R. M. Benjamin 6-20-05  
 CHIEF, BUREAU OF UTILITIES

DEPARTMENT OF PLANNING & ZONING  
 HOWARD COUNTY, MARYLAND  
 M. J. DeMunnig 7/27/05  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION

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PROFILES OF  
 WATER EXTENSIONS  
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WATER EXTENSIONS  
**DORSEY RUN INDUSTRIAL CENTER**  
 PARCEL B  
 DORSEY RUN ROAD  
 CONTRACT NO. 44-4233-D  
 TAX MAP 43 PARCEL B ZONE: M2  
 1st ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE  
 AS SHOWN  
 SHEET  
 5 OF 5