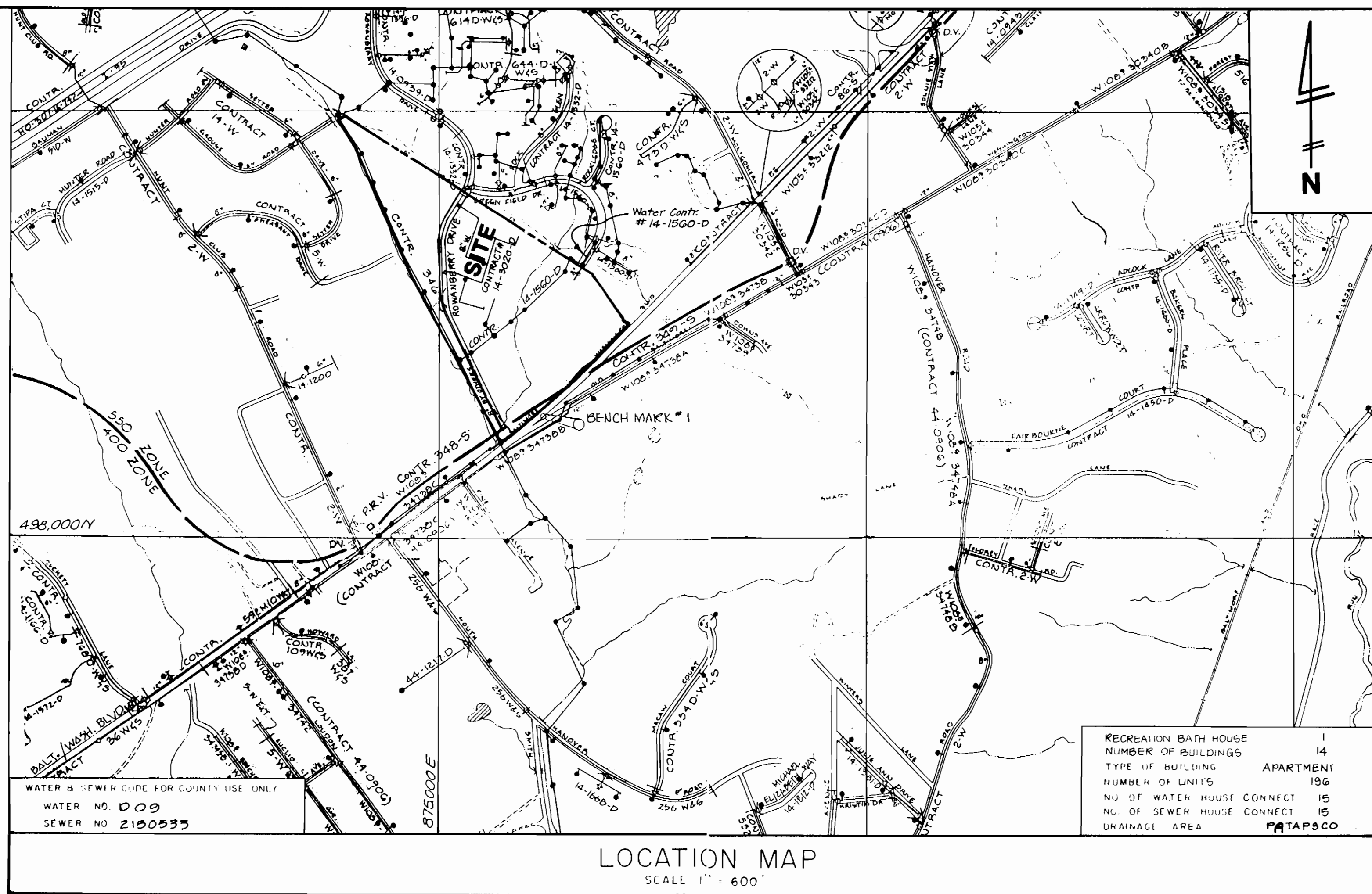


**SHEET INDEX**

SHEET NO.	TITLE
1	Title Sheet
2	Profiles of Water Mains
3	Plan of Water Mains
4	Profiles of Water Mains & Sewer Main

QUANTITIES			
ITEM	ESTIMATED	AS BUILT	MATERIAL SUPPLIER
8" WATER	2214 LF.	2211 LF.	ATLANTIC STATES
6" WATER	314 LF.	312 LF.	"
8" VALVES	11 EA.	11 EA.	MULLER CO.
6" VALVES	4 EA.	4 EA.	"
FIRE HYDRANTS	4 EA.	4 EA.	U.S. PIPE
8" X 8" TEE	5 EA.	5 EA.	GRIFFIN PIPE PROD.
8" X 6" TEE	4 EA.	4 EA.	"
8" SEWER	8 LF.	8 LF.	AMERICAN/HARRINGTON
MANHOLES	1 EA.	1 EA.	ATLANTIC CONC. PROD.
2" WATER (WMC)	150 LF.	150 LF.	HONELL METALS
2" VALVES	15 EA.	15 EA.	MULLER CO.



**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 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 SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6" CLEAR ALL POLES BY 2' 0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS.  
STATE HIGHWAY ADMINISTRATION 531-5533  
BALTIMORE GAS AND ELECTRIC COMPANY UNDERGROUND GAS & ELECTRIC DISTRIBUTION CUSTOMER SERVICE 685-0123  
ENGINEERING "DAMAGE CONTROL" 234-5611  
"MISS UTILITY" 1-800-257-7777  
CHESAPEAKE & POTOMAC (C & P) TELEPHONE COMPANY 725-9976  
AMERICAN TELEPHONE AND TELEGRAPH-CABLE LOCATION DIVISION 393-3533  
COLONIAL PIPELINE COMPANY 795-1390  
BUREAU OF UTILITIES HOWARD COUNTY 992-2366
- TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREE'S LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE.
- ALL WATER MAINS TO BE D.I.P. CLASS 52 ONLY.
- TOP OF ALL WATER MAINS TO HAVE A MINIMUM OF 3-172' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- BLOCK ALL FITTINGS WITH CONCRETE.
- BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET AS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING UNLESS OTHERWISE SHOWN.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- FOR ALL COPPER WATER HOUSE CONNECTIONS. UTILIZE FLARED TYPE FITTINGS ONLY.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P., V.C.P.X., ~~OR~~ ~~OR~~ OR PVC UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52.
- 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 FINISH GRADE. STANDARD DETAIL S.5.41.
- HOUSE (S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CAN NOT BE SERVED.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS 8" THROUGH 12" WIDTH.
- ALL SEWER HOUSE CONNECTIONS SHALL BE AT 2' SCOPE AND ARE 4" DIAMETER UNLESS OTHERWISE SHOWN.
- ALL 8" BLOW OFF SHALL BE PER STANDARD DETAIL W.4.13.
- ALL CONSTRUCTION TO BE DONE AS PER THIS PLAN AND CURRENT HOWARD COUNTY DESIGN MANUAL VOL. IV.

**CONTRACT NO. 14-3020-D**  
**ELKRIDGE TOWN CENTER**  
**SECTION ONE**  
**WATER AND SEWER MAIN EXTENSION**  
**HOWARD COUNTY, MARYLAND**  
**DEPARTMENT OF PUBLIC WORKS**

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL DEVELOPING AREAS AND ALSO AS SHOWN ON THE GRADING AND SEDIMENT CONTROL PLAN ON SDP-90-06

REVIEW FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

*James M. Nelson* 4-30-90  
U.S. SOIL CONSERVATION SERVICE DATE

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

APPROVED:  
*Robert W. Stiller* 4/30/90  
HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
*Robert W. Stiller* 4/30/90  
DIRECTOR OF PUBLIC WORKS DATE  
*Robert W. Stiller* 4/30/90  
CHIEF, BUREAU OF UTILITIES DATE  
*Robert W. Stiller* 4/30/90  
CHIEF, LAND DEVELOPMENT DATE

**LB ASSOCIATES, INC.**  
ENGINEERS • PLANNERS • SURVEYORS  
18223-A FLOWER HILL WAY  
GAITHERSBURG, MD 20879  
301-990-0525 • WASH. 948-8439  
FAX: 869-8152  
201-B BROADWAY STREET  
FREDERICK, MD 21701  
831-4510 • 895-9722  
FAX: 831-4801

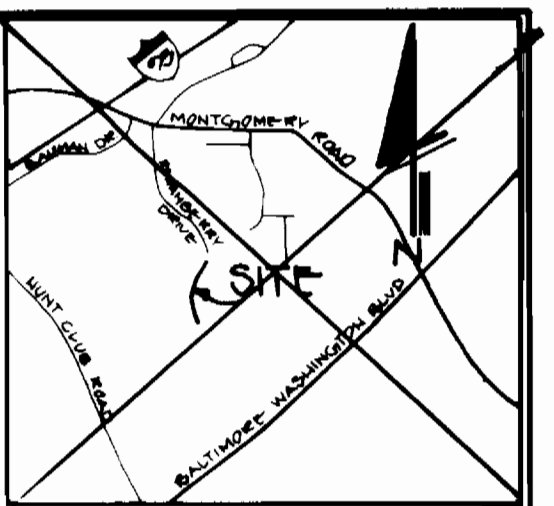
DES: SHP			
DRN: SHP			
CHK: SKC			
DATE: 3-11-90			
SHP	BY	NO.	REVISION
			Rev. 8" W. & 6" W. Quantities
			DATE: 12/24/90

**TITLE SHEET**  
AS-BUILT  
10-11-91  
L.0425

**ELKRIDGE TOWN CENTER**  
**SECTION ONE**  
**1ST ELECTION DISTRICT**  
**HOWARD COUNTY, MARYLAND**  
**CONTRACT NO. 14-3020-D**

OWNER / DEVELOPER  
ORCHARD DEVELOPMENT CORP.  
7060 OAKLAND MILLS ROAD SUITE 1  
COLUMBIA, MARYLAND 21046

SCALE AS SHOWN  
SHEET 1 OF 4



VICINITY MAP  
1"=200'

**ENGINEER'S CERTIFICATE**

I certify that this plan for erosion and 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 2/20/90

---

**DEVELOPER'S/BUILDER'S CERTIFICATE**

"I/We certify that all development and construction will be done according to this plan, and that any responsible person involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project."

Signature of Developer/Builder \_\_\_\_\_ Date \_\_\_\_\_

---

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DIRECTOR \_\_\_\_\_ DATE \_\_\_\_\_

Chief, Division of Community Planning and Land Development \_\_\_\_\_ DATE \_\_\_\_\_

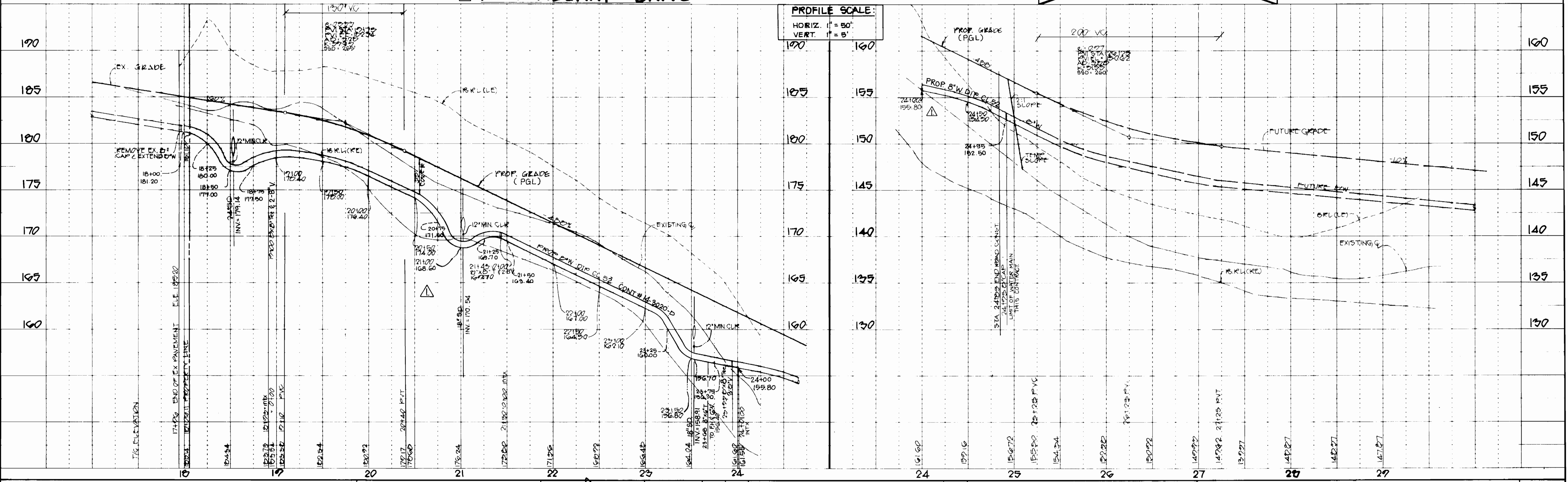
**OWNER / DEVELOPER**  
**ORCHARD DEVELOPMENT CORP.**  
 7060 OAKLAND MILLS ROAD SUITE 1  
 COLUMBIA, MARYLAND 21046

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

HOWARD SOIL CONSERVATION DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE STATEMENT SPECIFICATIONS AND SMP 900-076.

**ROWANBERRY DRIVE**



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

**DEPARTMENT OF PUBLIC WORKS**  
 HOWARD COUNTY, MARYLAND

\_\_\_\_\_  
 DIRECTOR OF PUBLIC WORKS  
 DATE 4/30/90

\_\_\_\_\_  
 CHIEF, BUREAU OF UTILITIES  
 DATE 4/30/90

**ASSOCIATES, INC.**  
 ENGINEERS • PLANNERS • SURVEYORS

19223-A FLOWER HILL WAY  
 GAITHERSBURG, MD 20879  
 301-990-0525 • WASH. 948-9439  
 FAX: 869-9182

201-B BROADWAY STREET  
 FREDERICK, MD 21701  
 831-4510 • 835-9722  
 FAX: 831-4801



DES	GHP		
DRN	GHP		
CHK	GKC		
DATE	3-11-90		
BY	NC	Rev. Water line profile & S.D. Crossing	12/24/90

**PROFILES OF WATER MAINS**

600 SCALE MAP NO. 38 BLOCK NO. 22

**ELKBRIDGE TOWN CENTER**  
**SECTION ONE**  
 1ST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 14-3020-D

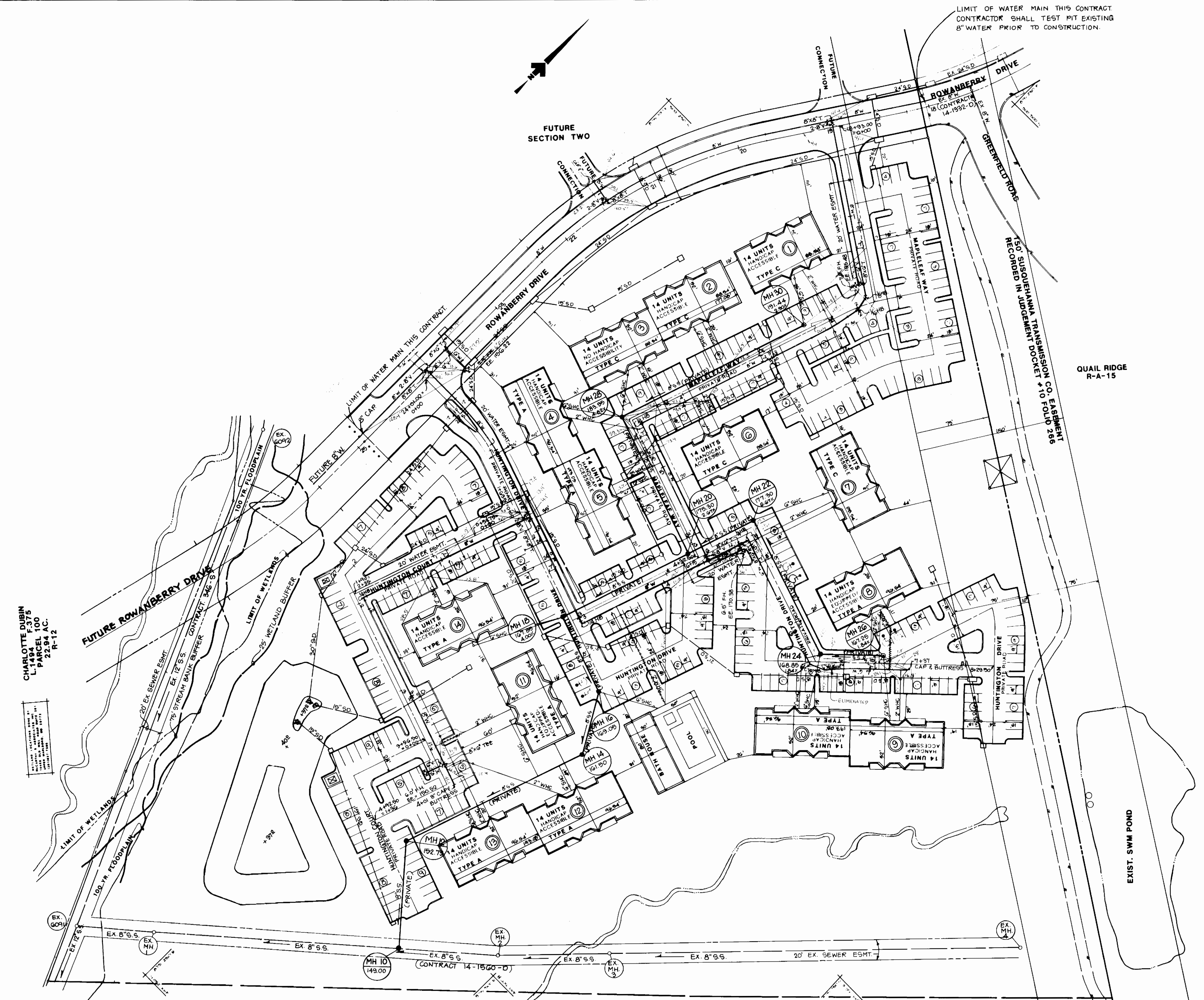
SCALE AS SHOWN

SHEET 2 OF 4

LIMIT OF WATER MAIN THIS CONTRACT  
 CONTRACTOR SHALL TEST PIT EXISTING  
 8" WATER PIPING PRIOR TO CONSTRUCTION.



FUTURE SECTION TWO



QUAIL RIDGE  
 R-A-15

150' SUSQUEHANNA TRANSMISSION CO. EASEMENT  
 RECORDED IN JUDGEMENT DOCKET #10 FOLIO 286

CHARLOTTE DUBIN  
 L. PARCEL F-375  
 PARCEL 100  
 22.94 AC.  
 R-12

NOTE: ALL 2" WATER HOUSE CONNECTION'S FOR INSIDE WATER  
 SETTING'S SHOULD BE AS PER STANDARD DETAIL W-3-21

OWNER / DEVELOPER  
 ORCHARD DEVELOPMENT CORP.  
 7060 OAKLAND MILLS ROAD SUITE I  
 COLUMBIA, MARYLAND 21048

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*James P. ...* 4/30/90  
 DIRECTOR OF PUBLIC WORKS DATE

*Robert ...* 4/30/90  
 CHIEF, BUREAU OF UTILITIES DATE

*...* 4/30/90  
 CHIEF, BUREAU OF ENGINEERING DATE

*...* 4/30/90  
 CHIEF, LAND DEVELOPMENT DATE

CB ASSOCIATES, INC.  
 ENGINEERS • PLANNERS • SURVEYORS

18223-A FLOWER HILL WAY  
 GAITHERSBURG, MD 20879  
 301-980-0525 • WASH. 848-9439  
 FAX: 869-9152

201-B BROADWAY STREET  
 FREDERICK, MD 21701  
 831-4510 • 886-9722  
 FAX: 831-4801



DES. SHP.			
DRN. SHP.			
MK. SKC.			
DATE: 3-11-90	BY: GHP	NO: 1	REVISION: Rev. location of Huntington Court & S.W.M. Pond.

AS-BUILT  
 PLAN OF WATER MAINS

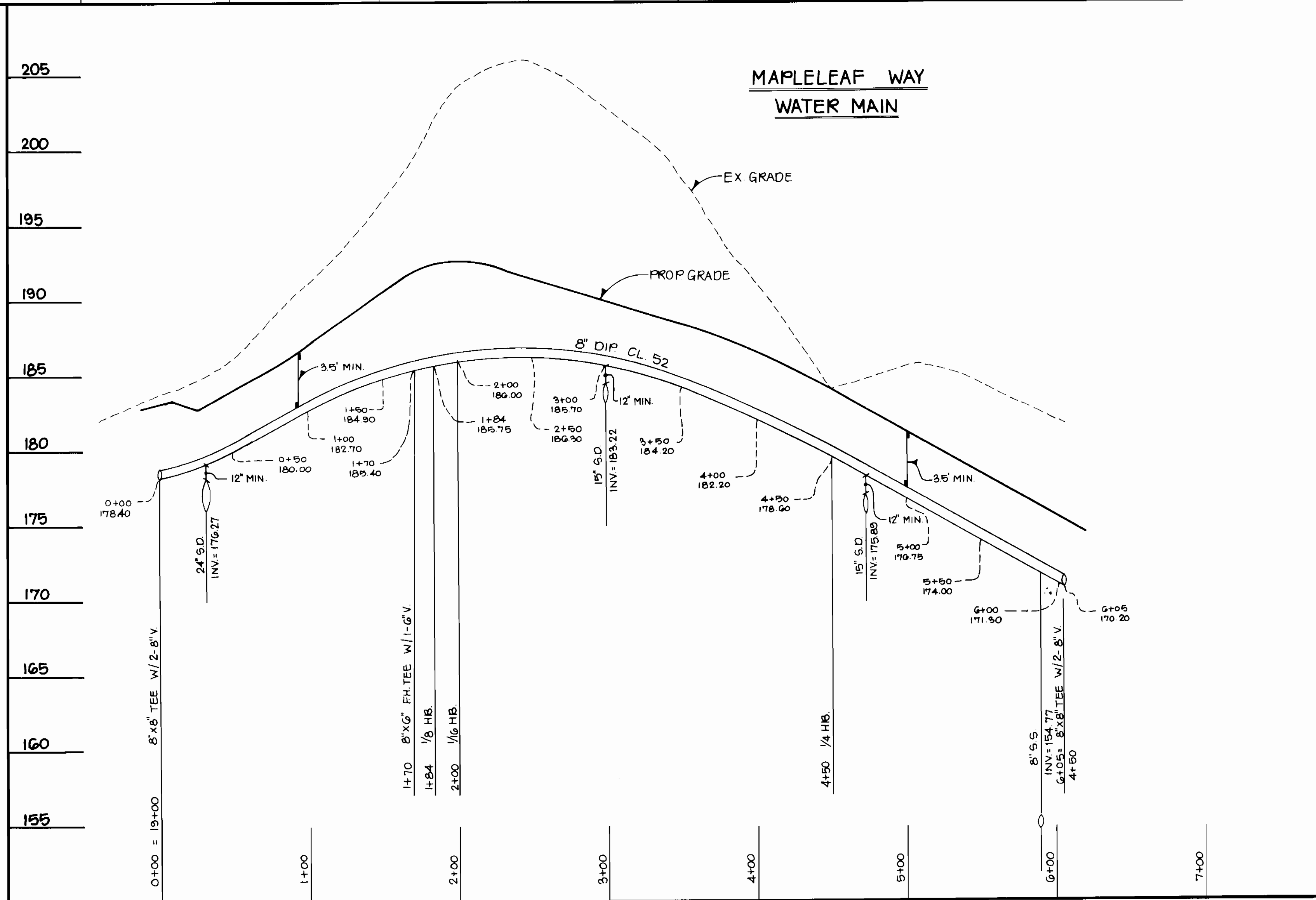
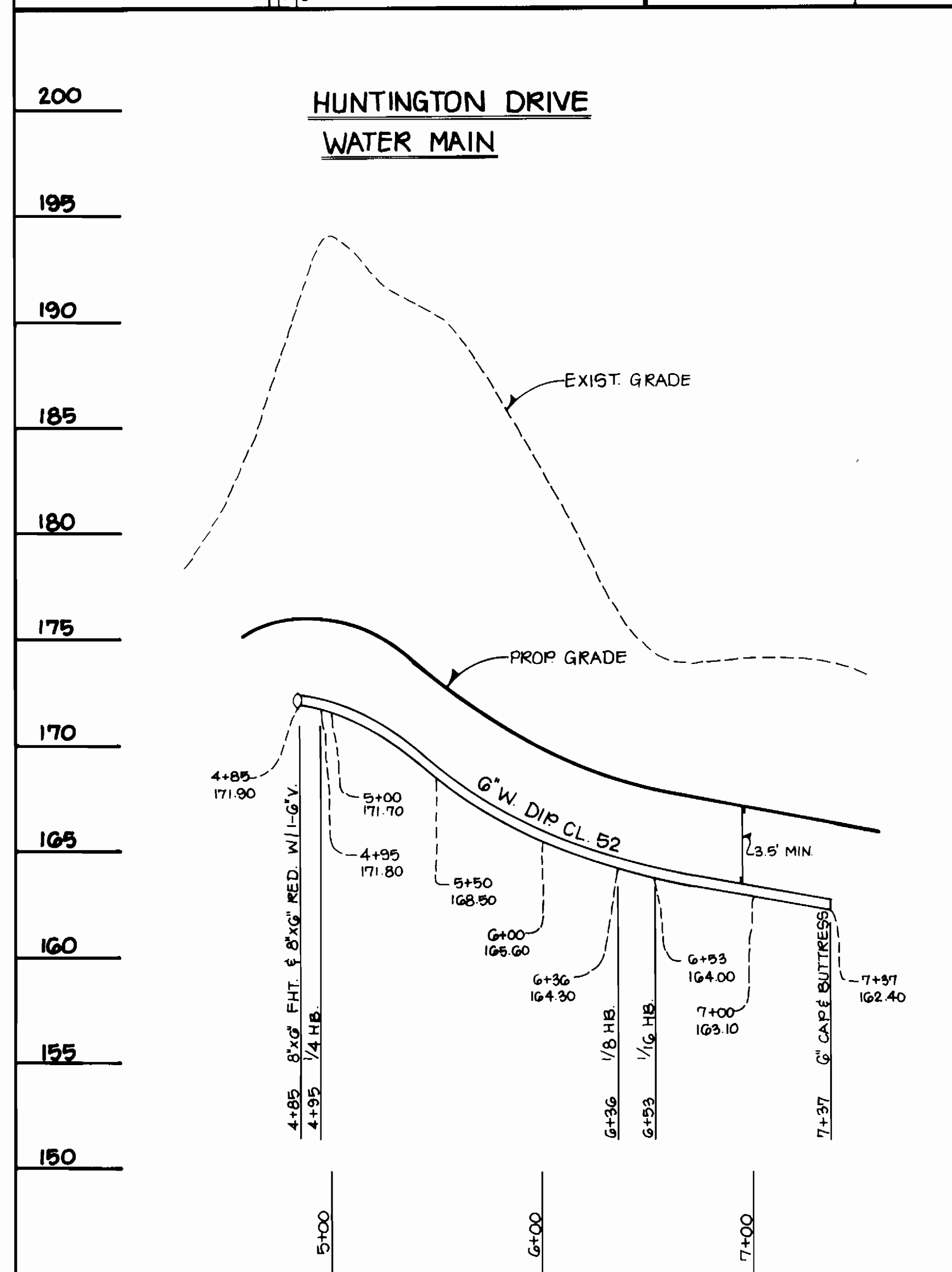
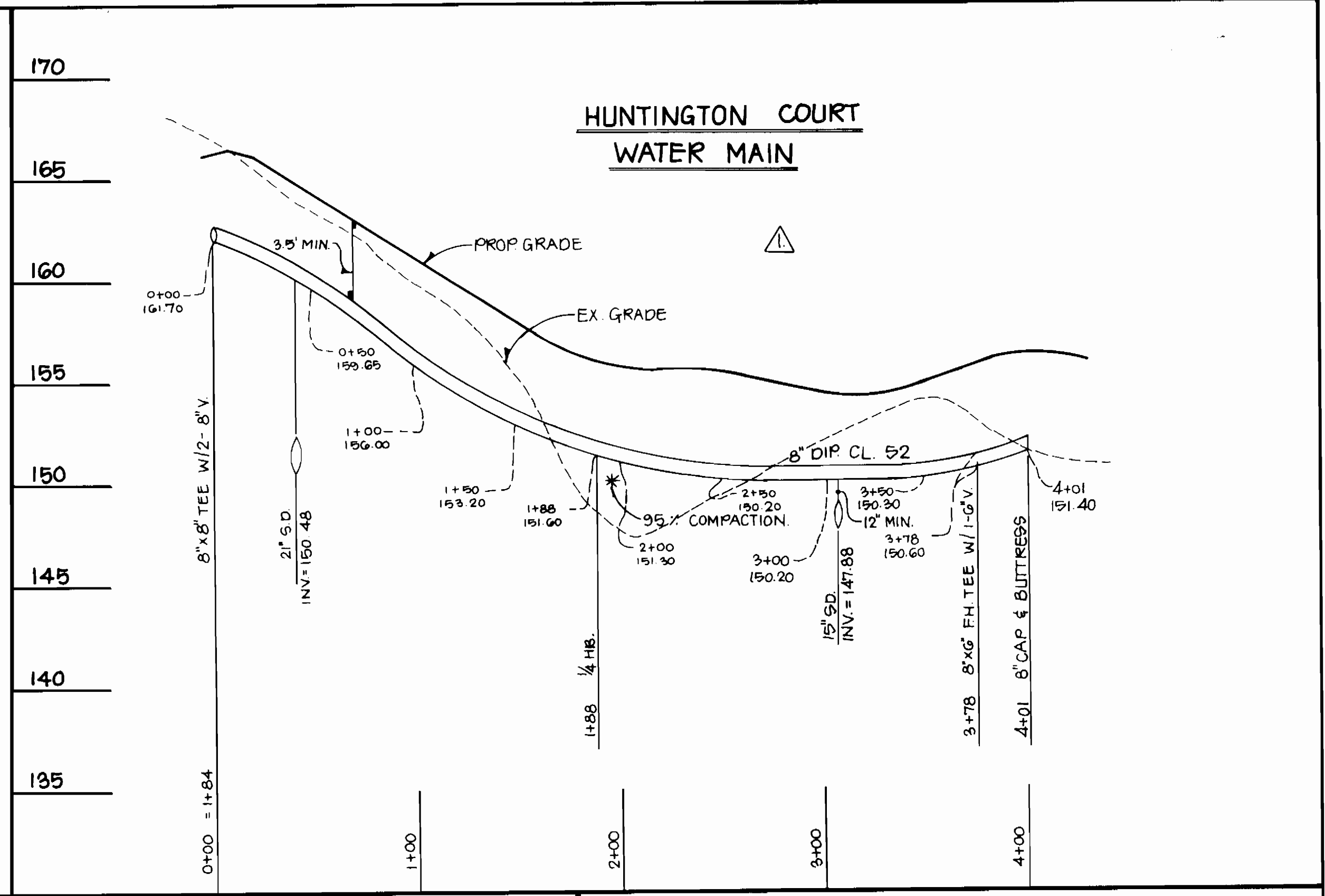
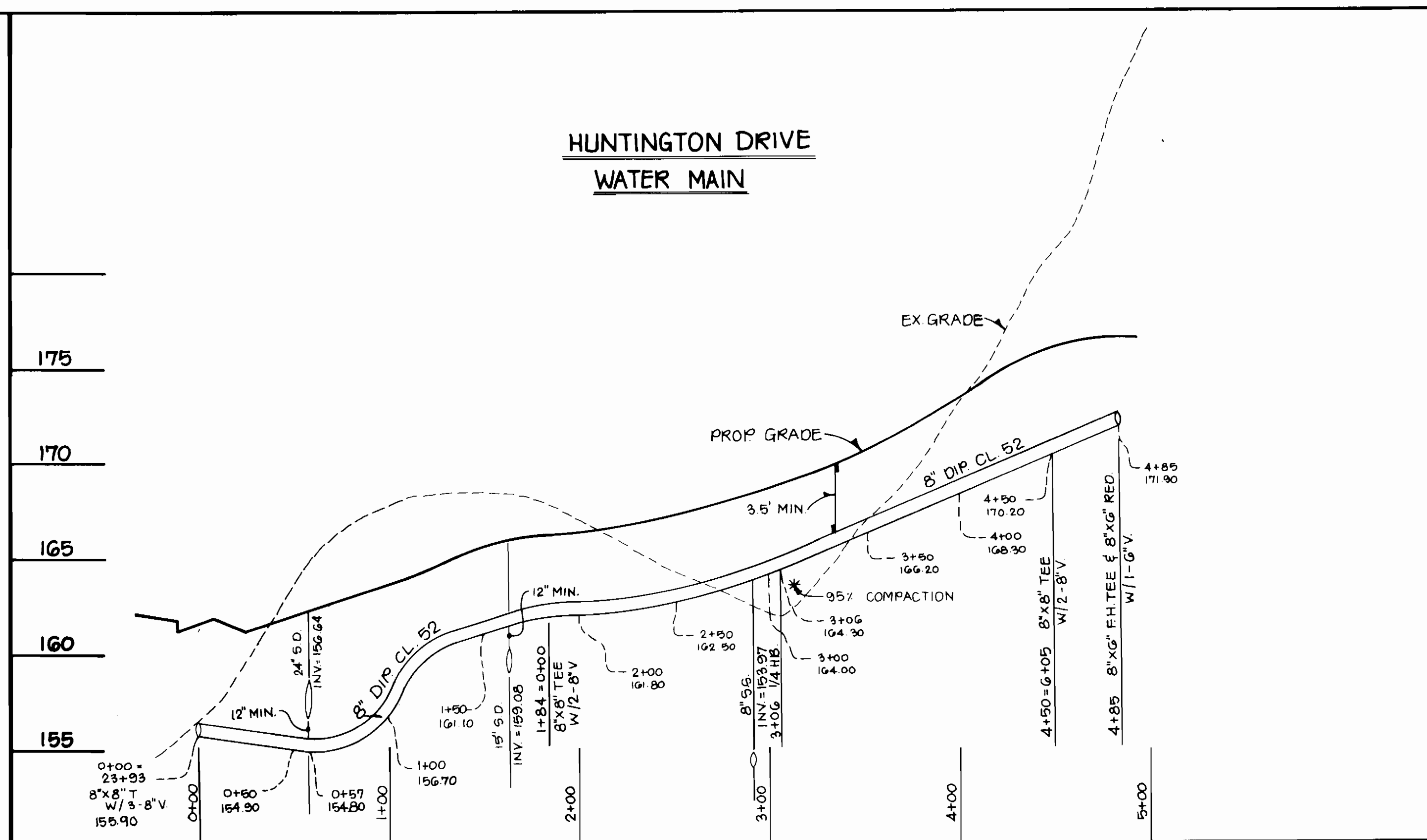
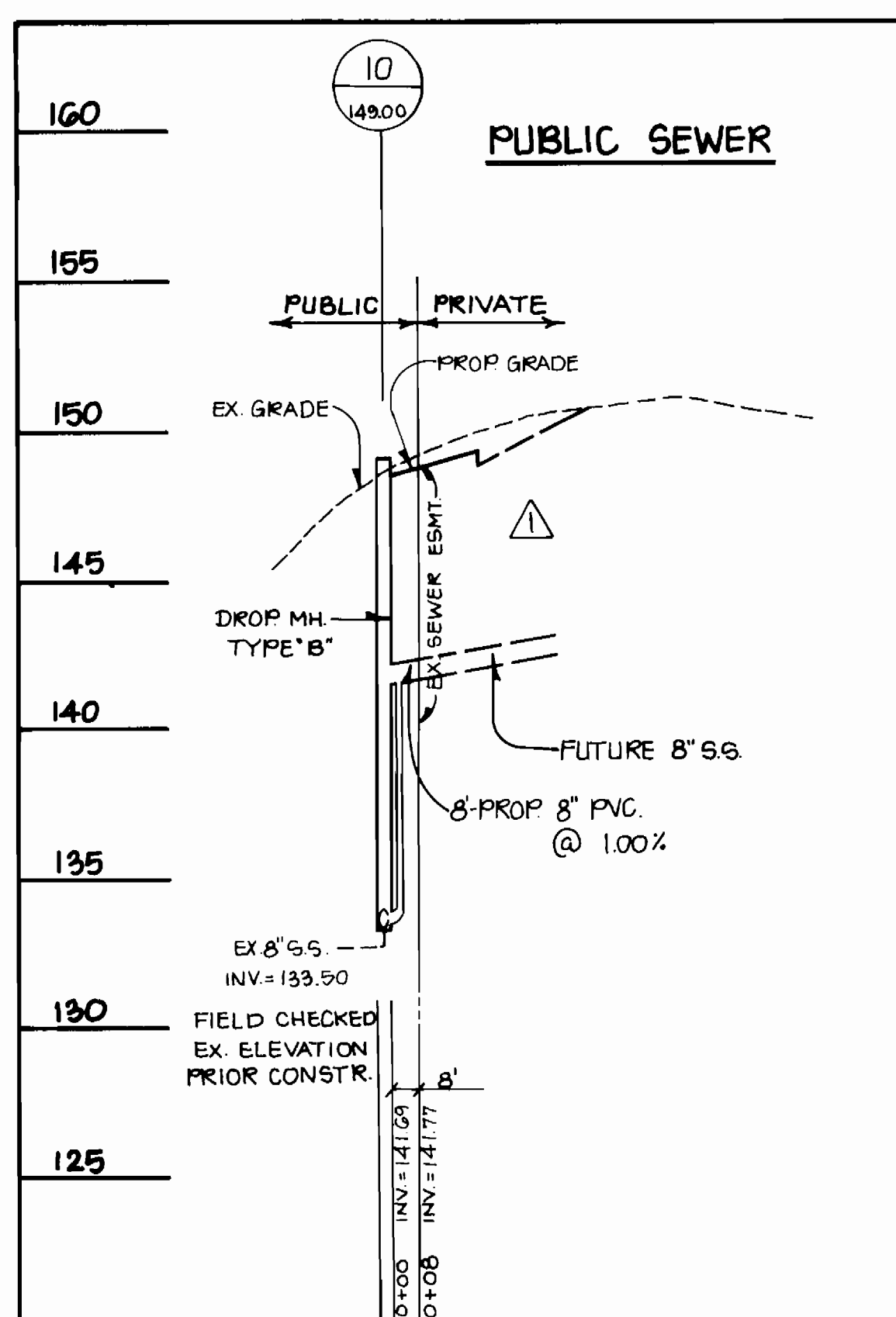
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600 SCALE MAP NO. 38 BLOCK NO. 22

ELKRIDGE TOWN CENTER  
 SECTION ONE  
 1ST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 14-3020-D

SCALE AS SHOWN

SHEET 3 OF 4



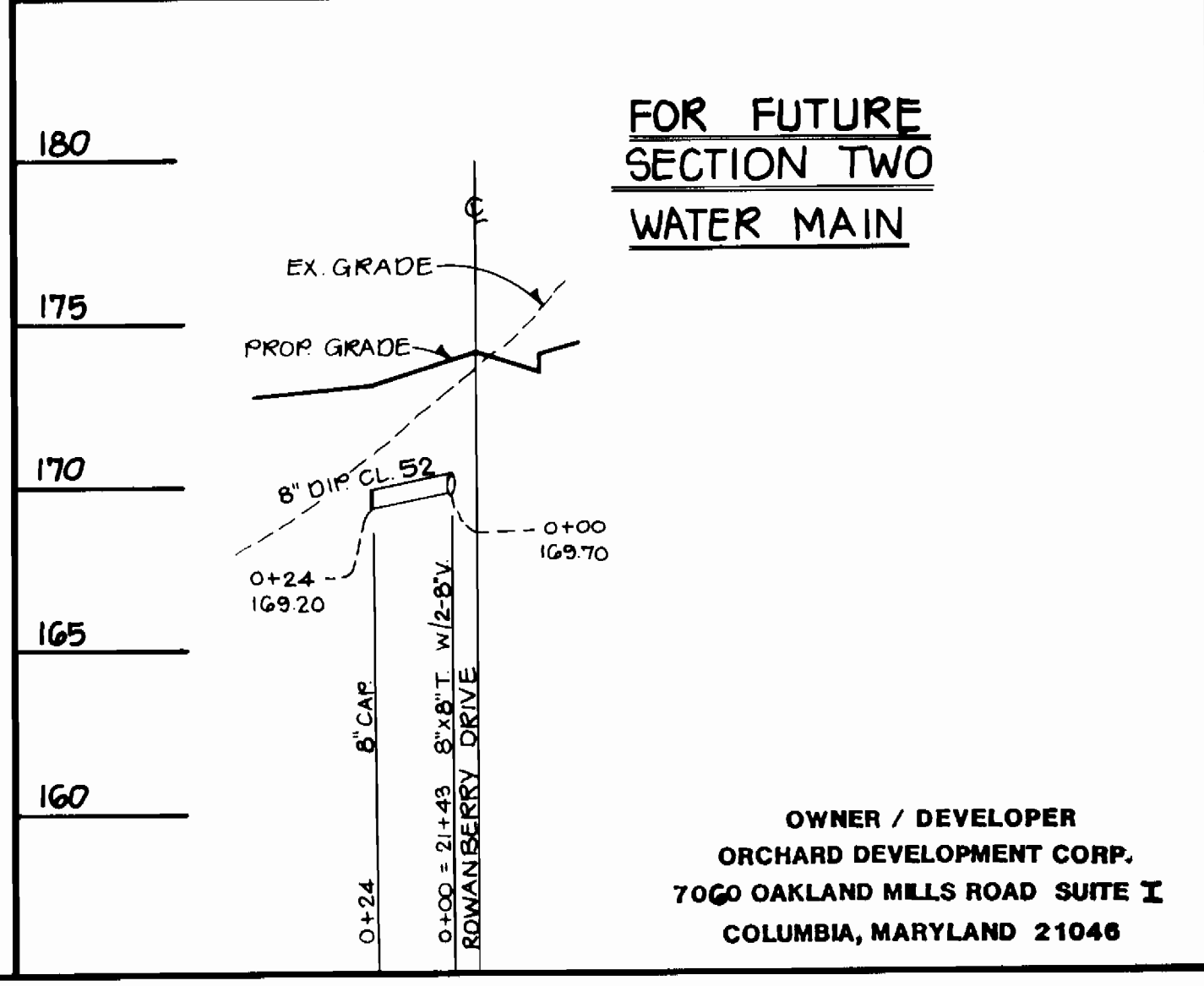
Size	Type	Total Length
6"	DIP. CL. 52	314 L.F.
8"	DIP. CL. 52	2214 L.F.

Mh. No.	Type	Top Ele.	Lowest Inv.
Mh. - 10	S-1.32 Drop Type "B"	149.00	133.50

Size	Type	Total Length
8"	P.V.C. DR. 35	8 L.F.



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

*Robert J. ...* 4/30/90  
DIRECTOR OF PUBLIC WORKS DATE

*Robert J. ...* 4/30/90  
CHIEF, BUREAU OF UTILITIES DATE

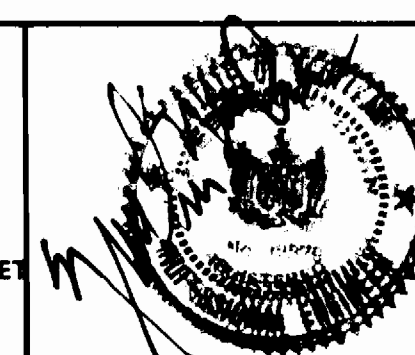
*...* 4/30/90  
CHIEF, BUREAU OF ENGINEERING DATE

*...* 4/30/90  
CHIEF, LAND DEVELOPMENT DATE

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831-4510 • 885-9722  
FAX: 831-4801



DES: GHP			
DRN: GHP			
CHK: GKC			
DATE: 3-11-90			

Rev. Water & Sewer Profile & Schedules. 12/24/90

**PROFILES OF WATER MAIN & SEWER MAIN**

600' SCALE MAP NO. 38 BLOCK NO. 22

**ELKRIDGE TOWN CENTER SECTION ONE**  
1ST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
CONTRACT NO. 14-3020-D

OWNER / DEVELOPER  
ORCHARD DEVELOPMENT CORP.  
7060 OAKLAND MILLS ROAD SUITE X  
COLUMBIA, MARYLAND 21046

SCALE AS SHOWN  
SHEET 4 OF 4