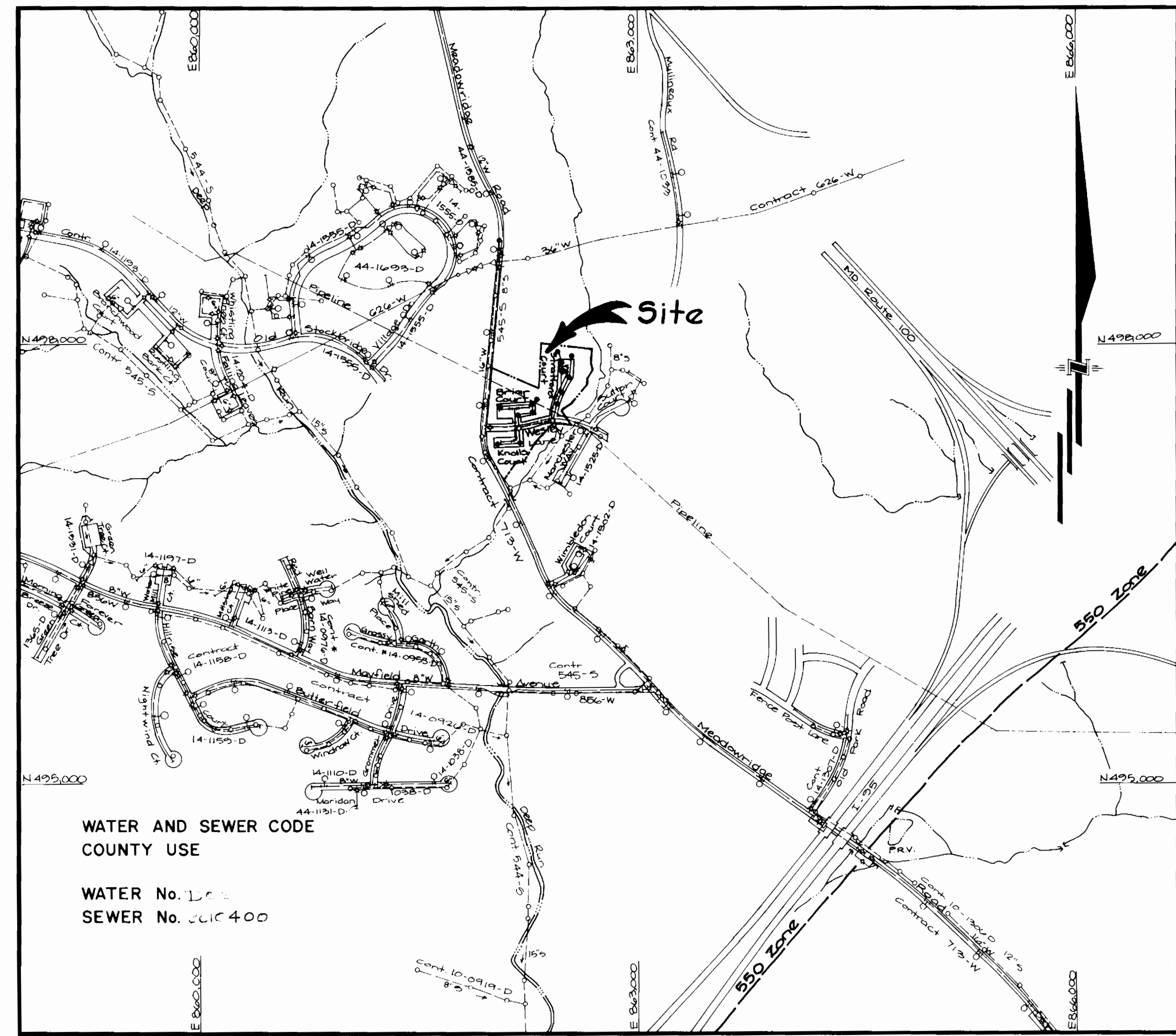


TYPE OF BUILDING	Townhouses
NUMBER OF UNITS	47
NUMBER OF SHC's	47
NUMBER OF WHC's	47
DRAINAGE AREA	Patapsco



WATER AND SEWER CODE
COUNTY USE

WATER No. 14-3025-D
SEWER No. 2010400

VICINITY MAP
SCALE: 1" = 600'

GENERAL NOTES

- Approximate locations 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 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 by the contractor for tunnelling or bracing of 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.
- For materials and construction methods, use Howard County Standard Specifications & Howard County Design Manual, Volume IX. The Contractor shall have a copy of Volume IX on the job.
- 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 & Electric Company	
"Miss Utility"	1-559-0100	Contractor Services	561-2585
Chesapeake & Potomac (CBP)		Underground Damage Control	234-5621
Telephone Company	725-9976	Trouble-shooting	298-9013
Colonial Pipeline Company	795-1390	Bureau of Utilities, Howard County	992-2366
- Trees are to be protected from damage to maximum extent. Trees 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 Operations.
- All water mains to be D.I.P., class 52 Only.
- Top 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.
- Block all fittings with concrete.
- Bury line elevations on fire hydrants shall be set to the elevations 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 Sections 1000 and 1005 of the Standard Specifications.
- All water house connections shall be for an inside meter setting.
- 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., V.C.P.X., R.C.S.P., P.V.C. or A.C.P. Class 2400 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.
- 12" and 16" manhole wall thicknesses shown on profiles pertain to brick manholes only.
- Manholes designated W.T. in plan and profile shall have watertight frames and covers (See Standard Detail G 5.52). Where watertight manhole frame and cover is used, set top of frame 1'-6" above finished grade (See Standard Detail G 5.41).
- House(s) with the symbol "CNS" indicates that cellar cannot be served.
- Water main and water house connection lines must have a minimum of one foot separation from either sanitary sewer or sewer house connections as they cross. Except at crossings, water and sewer lines shall have a minimum horizontal separation of 10'.
- All D.I.P. fittings shall be in accordance with A.W.W.A. specification C-153 ductile iron compact fittings, 3-inch through 12-inch for water and other liquids.

CONTRACT NO. 14-3025-D
WILLOWOOD
SECTION 2, AREA 1
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS

ITEM	QUANTITIES		
	ESTIMATED	AS-BUILT	MATERIAL / SUPPLIER
8" S	1182 L.F.	1100 L.F.	CHARLOTTE
8" W	282 L.F.	303 L.F.	ATLANTIC
8" W	647 L.F.	615 L.F.	ATLANTIC
Manholes	14 ea.	14 ea.	B&C UTILITY SUPPLIES
Fire Hydrants	1 ea.	1 ea.	KENNEDY
8" Valves	2 ea.	3 ea.	BINGHAM TAYLOR
8" Reducer	1 ea.	1 ea.	GRIFFIN
4" SHC	922 L.F.	915 L.F.	CHARLOTTE
2" WHC	123 L.F.	DELETED	CAMBRIDGE LEE
1" WHC	253 L.F.	546.5 L.F.	CAMBRIDGE LEE
3/4" WHC	935 L.F.	962.5 L.F.	CAMBRIDGE LEE
3" Blowoff	1 ea.	1 ea.	ECLIPSE
4" W	20 L.F.	23.7 L.F.	ATLANTIC
4" Reducer	1 ea.	1 ea.	GRIFFIN

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Construction Plan F-71-1B ; Drawings 3 & 5 Sediment & Erosion Control

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT
[Signature] 10/24/90
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

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

APPROVED
[Signature] 10/24/90
 HOWARD S.C.D. DATE

AS-BUILT
 COMPLETE

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
[Signature] 10/26/90
 DIRECTOR OF PUBLIC WORKS (Acting) DATE
[Signature] 10-17-90
 CHIEF, BUREAU OF UTILITIES DATE
[Signature] 10/25/90
 CHIEF, LAND DEVELOPMENT DIV. DATE

G.W. GUTSCHICK LITTLE & WEBER, P.A.
 ENGINEERS, PLANNERS, SURVEYORS
 2509 NATIONAL DRIVE, SUITE 200, BURTONTVILLE OFFICE PARK
 BURTONTVILLE, MD 20886
 (301) 421-4024

DES: G.A.W.	
DRN: G.A.W.	
CHK: CKG	
DATE: 02/19/90	
BY: GAW	NO
REVISION	Revise quantity of 8" S
DATE: 12/7/90	

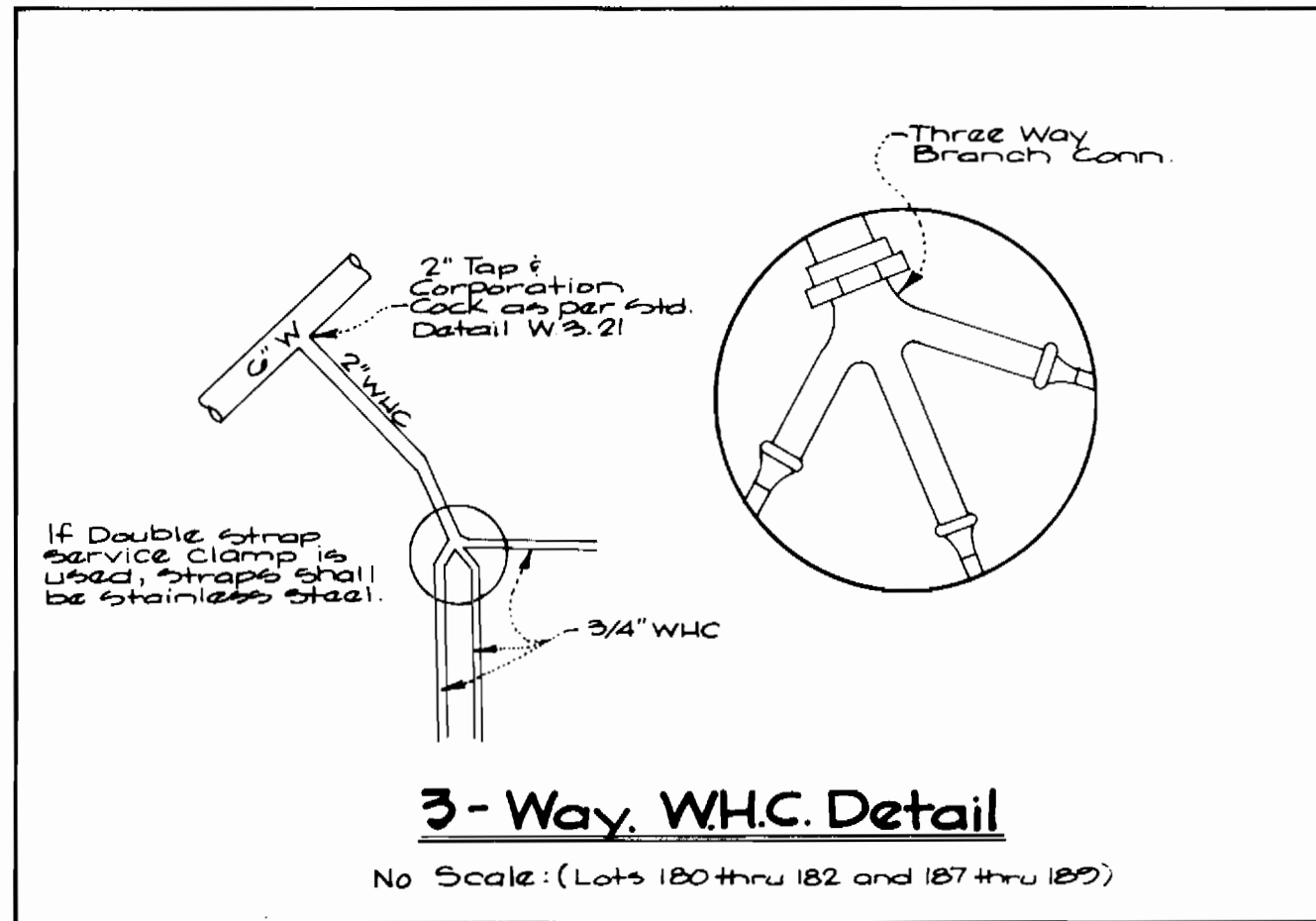
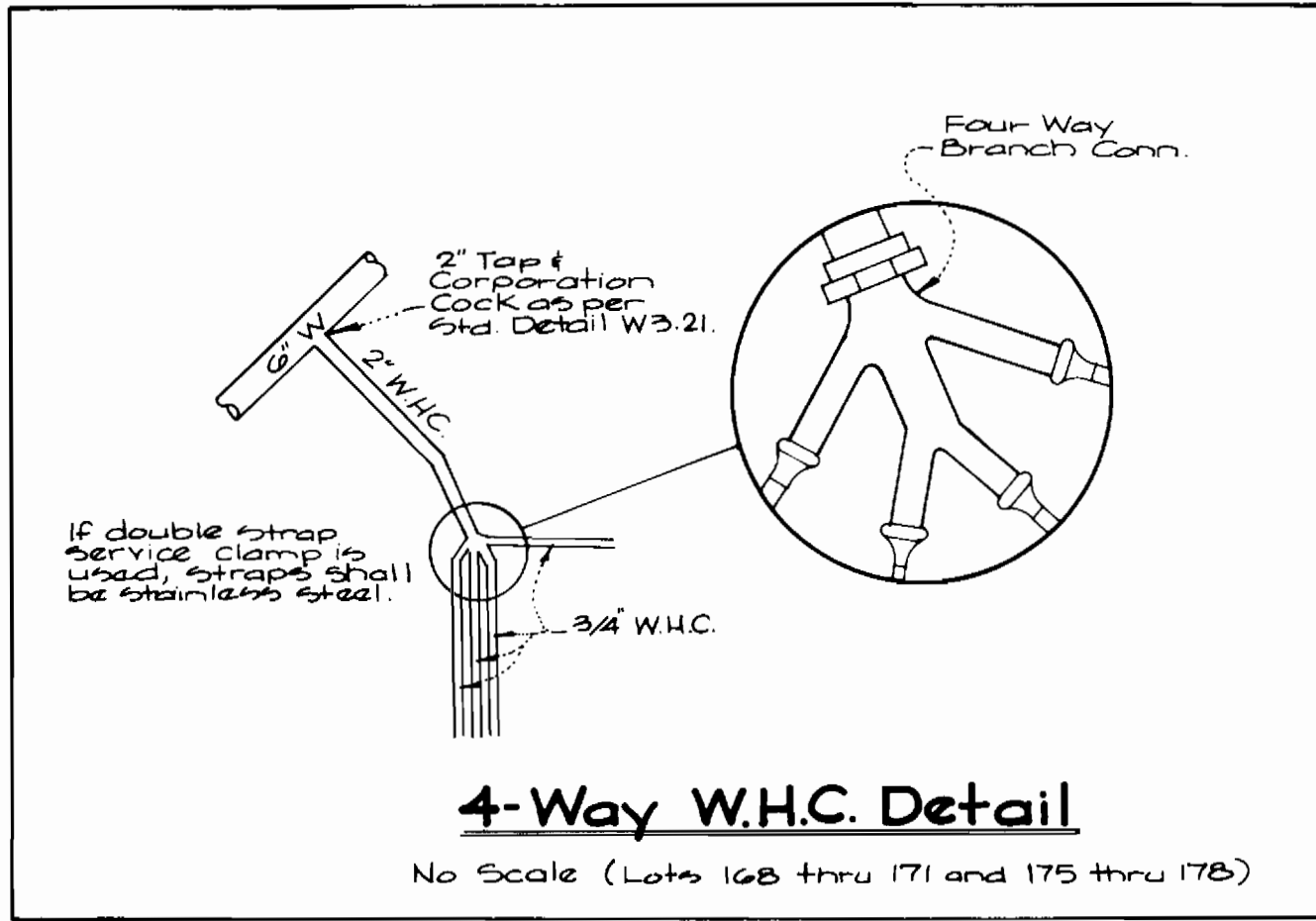
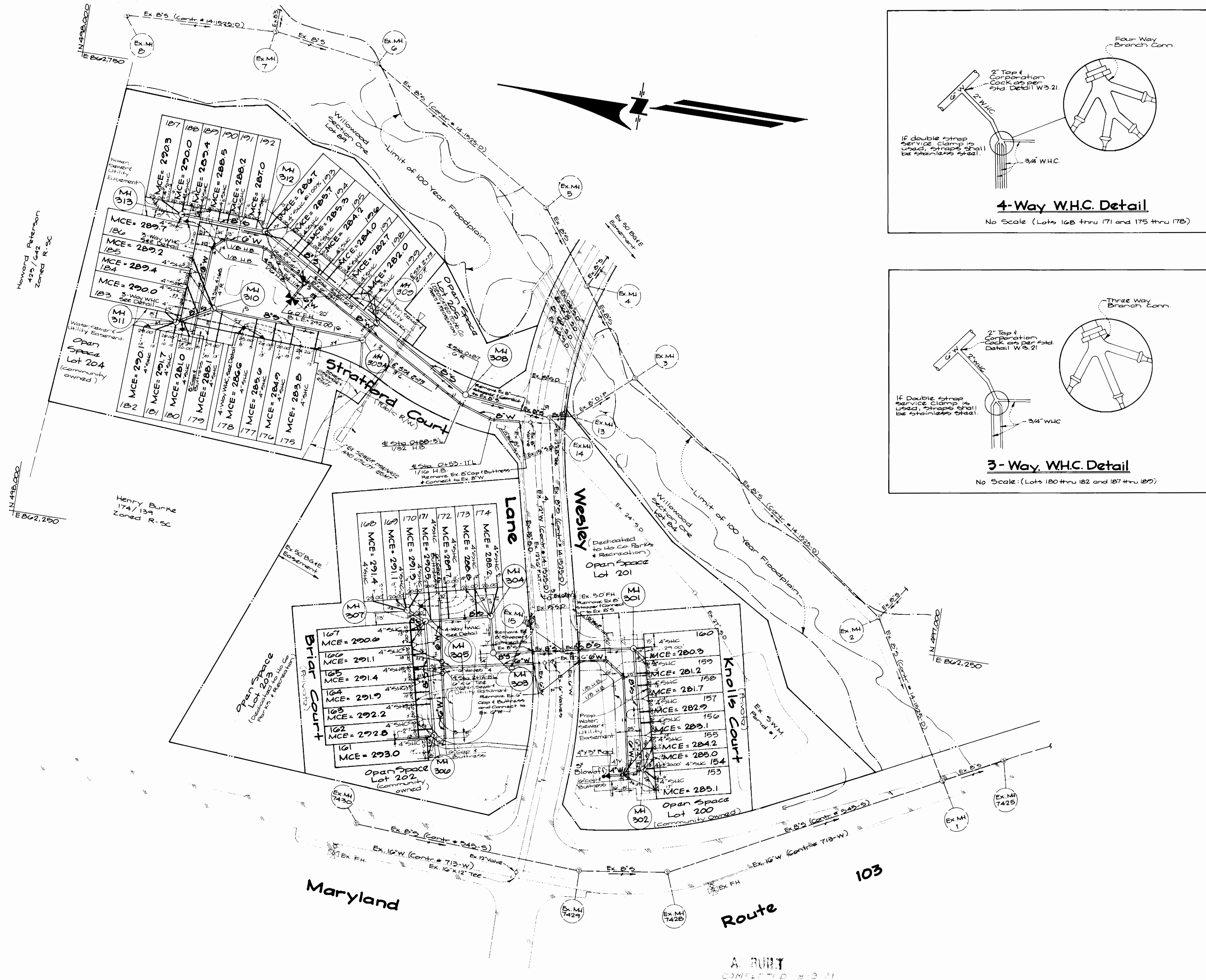
Water & Sewer Title Sheet
 600' SCALE MAP NO. 27 BLOCK NO. 15

Willowood
 Section 2, Area 1
 First Election District
 Howard County, Maryland
 Contract No. 14-3025-D

SCALE AS SHOWN
 SHEET 1 OF 3

**Sewer House Connection
Invert Elevations at
Property Line**

Lot No.	Inv. Elev.
153	281.96
154	281.88
155	281.12
156	280.07
157	279.67
158	278.62
159	278.11
160	277.17
161	280.48
162	280.48
163	280.06
164	280.70
165	280.16
166	287.91
167	287.40
168	288.40
169	287.90
170	288.08
171	287.34
172	286.66
173	285.63
174	285.14
175	280.56
176	281.66
177	282.48
178	283.29
179	283.14
180	277.97
181	286.87
182	287.00
183	286.95
184	286.23
185	286.05
186	286.82
187	287.18
188	286.86
189	286.17
190	285.42
191	285.06
192	283.90
193	283.52
194	282.47
195	282.11
196	280.99
197	280.67
198	279.91
199	278.77



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Donald E. Spitzer 10/26/90
CHIEF BUREAU OF ENGINEERING

Ruth Beatty 10-17-90
CHIEF BUREAU OF UTILITIES

William S. Kelly 10-26-90
CHIEF BUREAU OF ENGINEERING

John M. Pagan 10/15/90
CHIEF, LAND DEVELOPMENT DIV.

GW GUTSCHICK LITTLE & WEBER, P.A.
ENGINEERS, PLANNERS, SURVEYORS

John G. Gutschick

DES. G.A.W.
CHK. J.N.G.A.W.
CHK. C.K.G.

DATE: Oct. 1990

Revised Briar Court & MH BLE in Stratford Ct.

Water & Sewer Plan

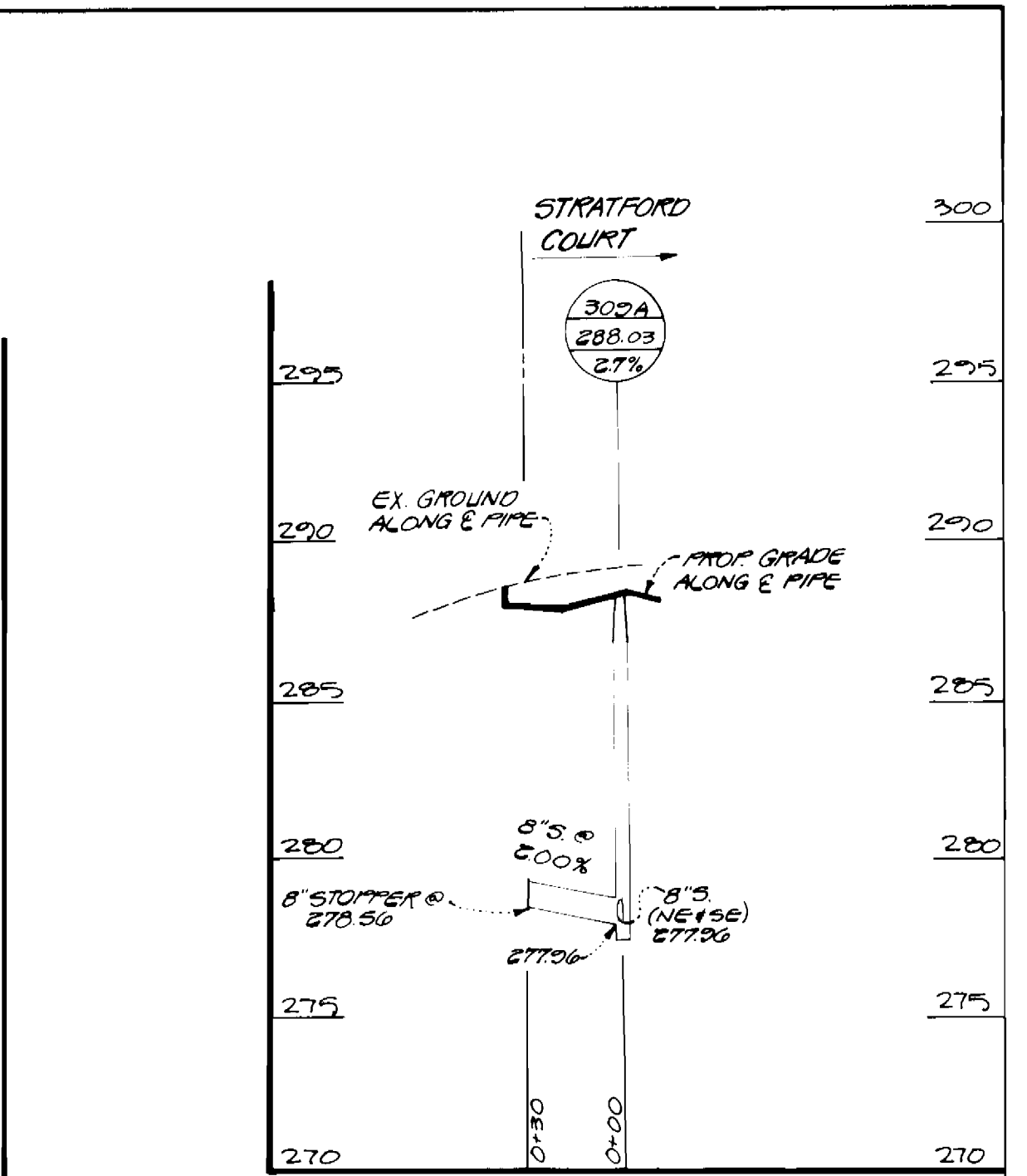
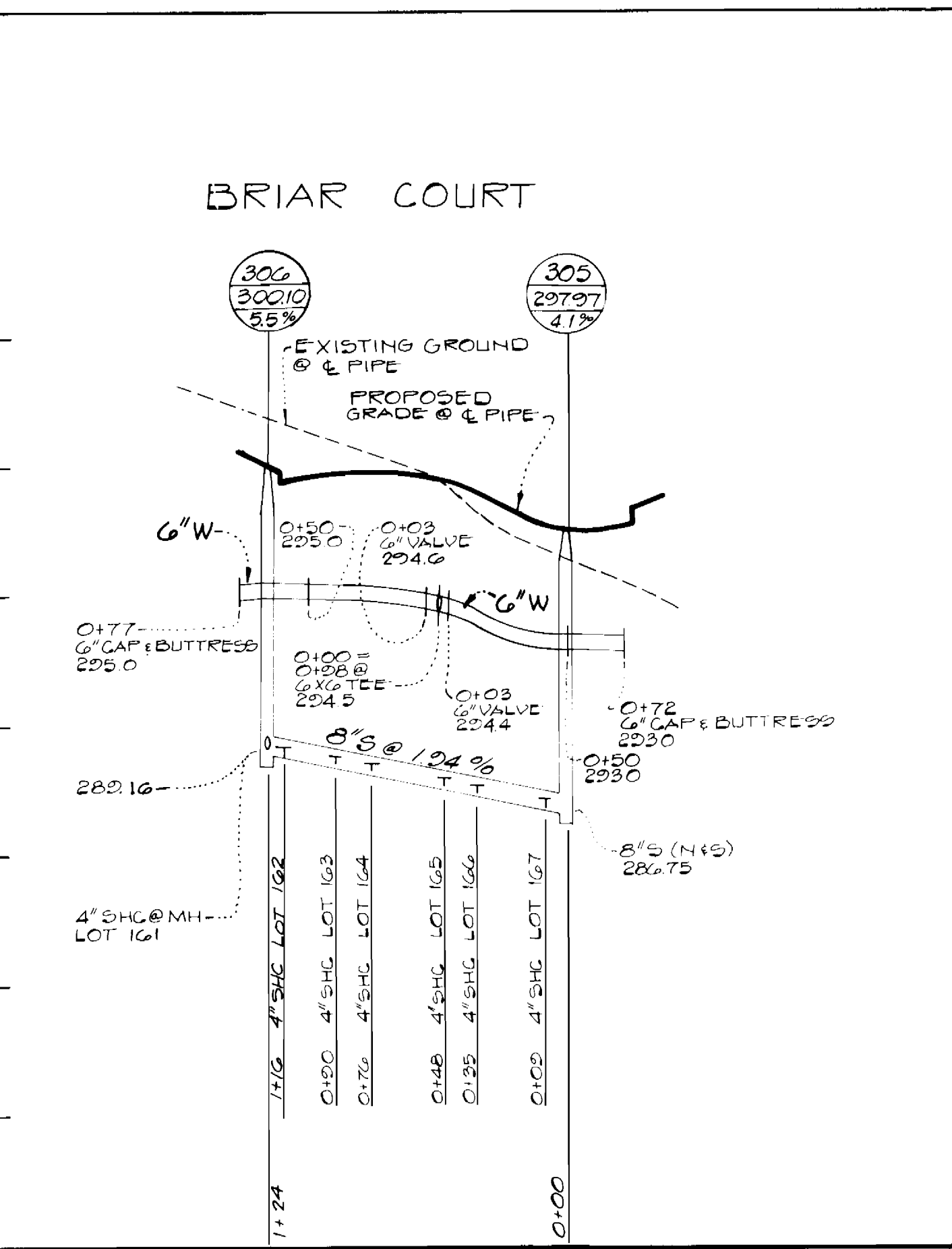
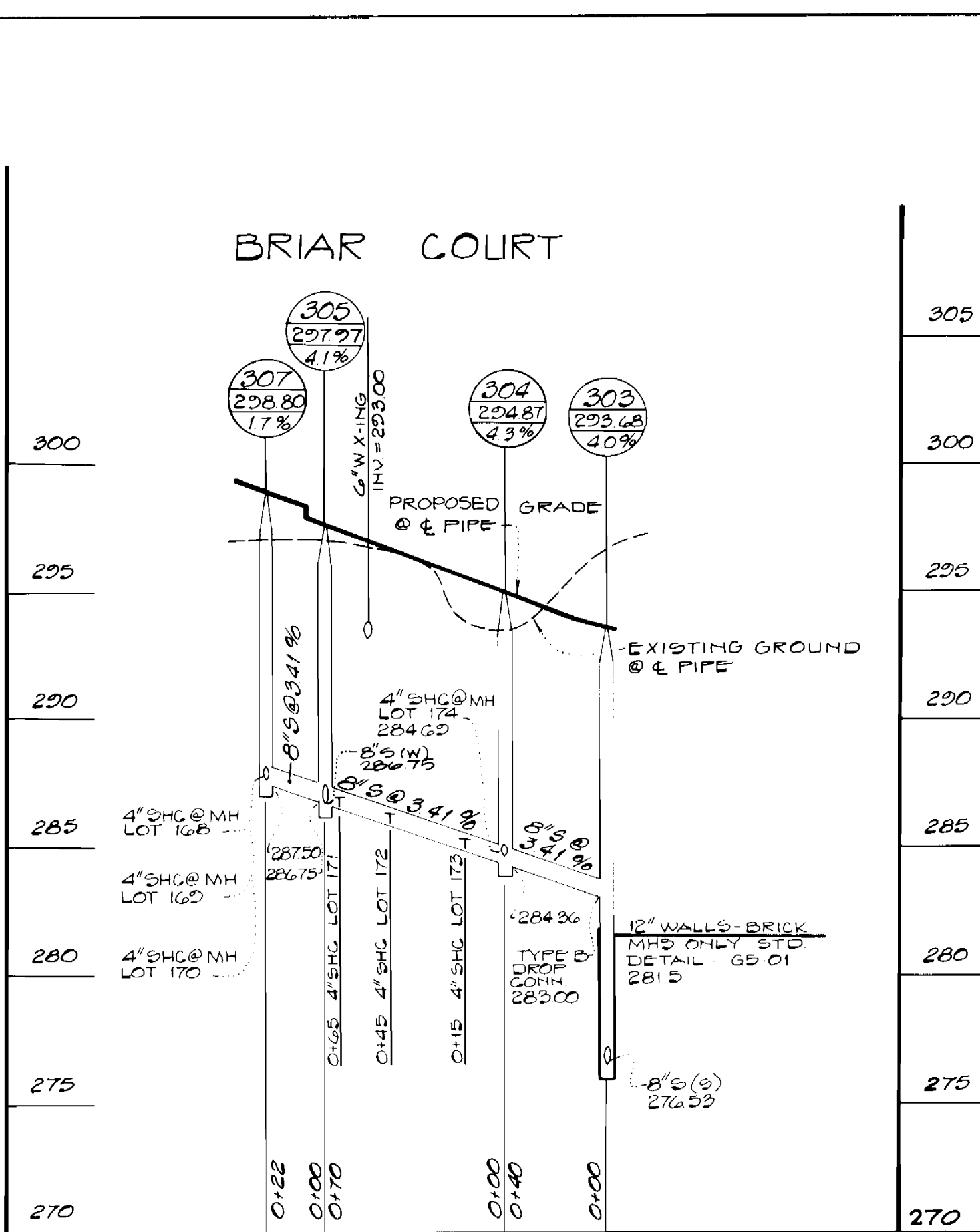
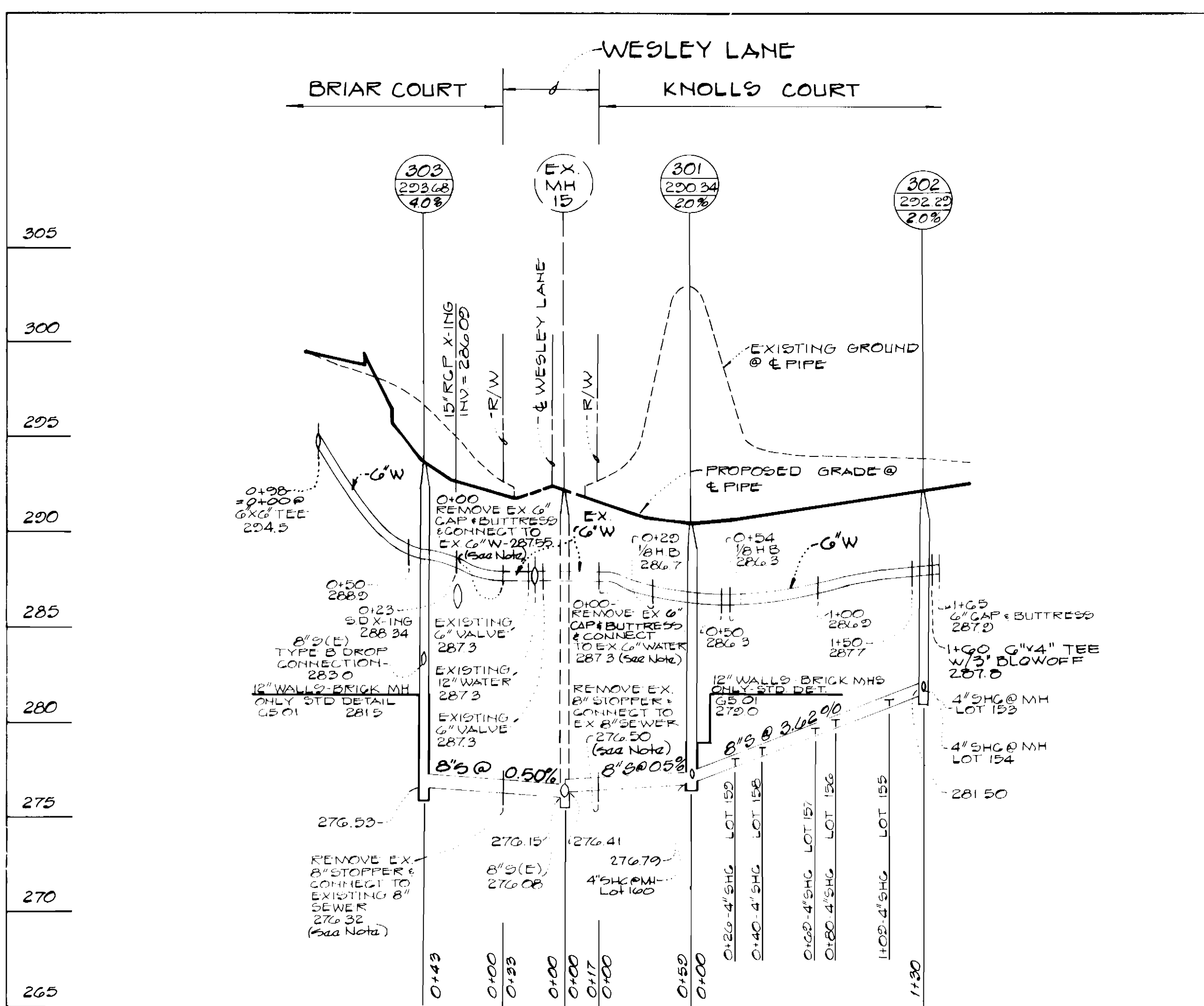
DATE: 12/7/90

600 SCALE MAP NO. 37

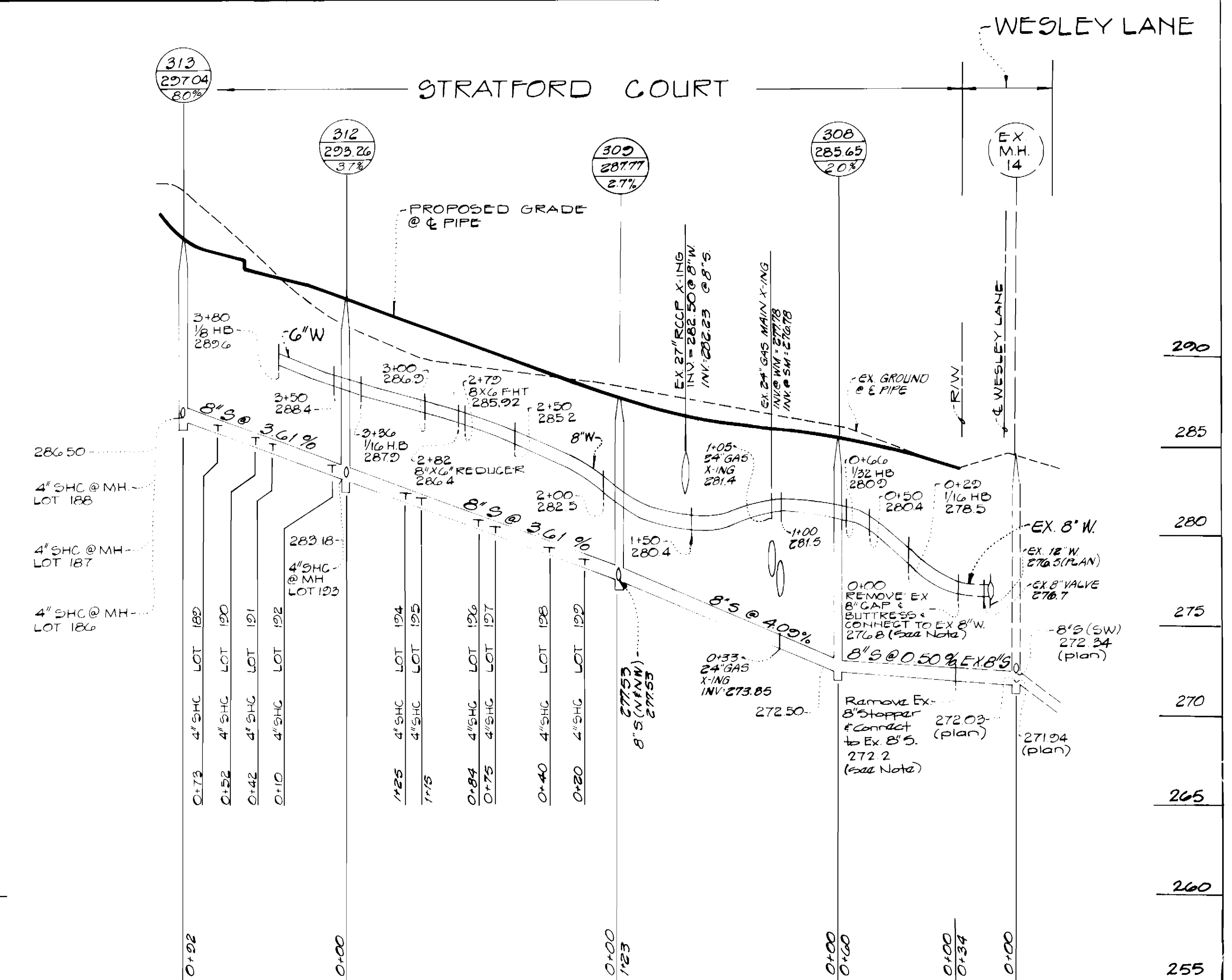
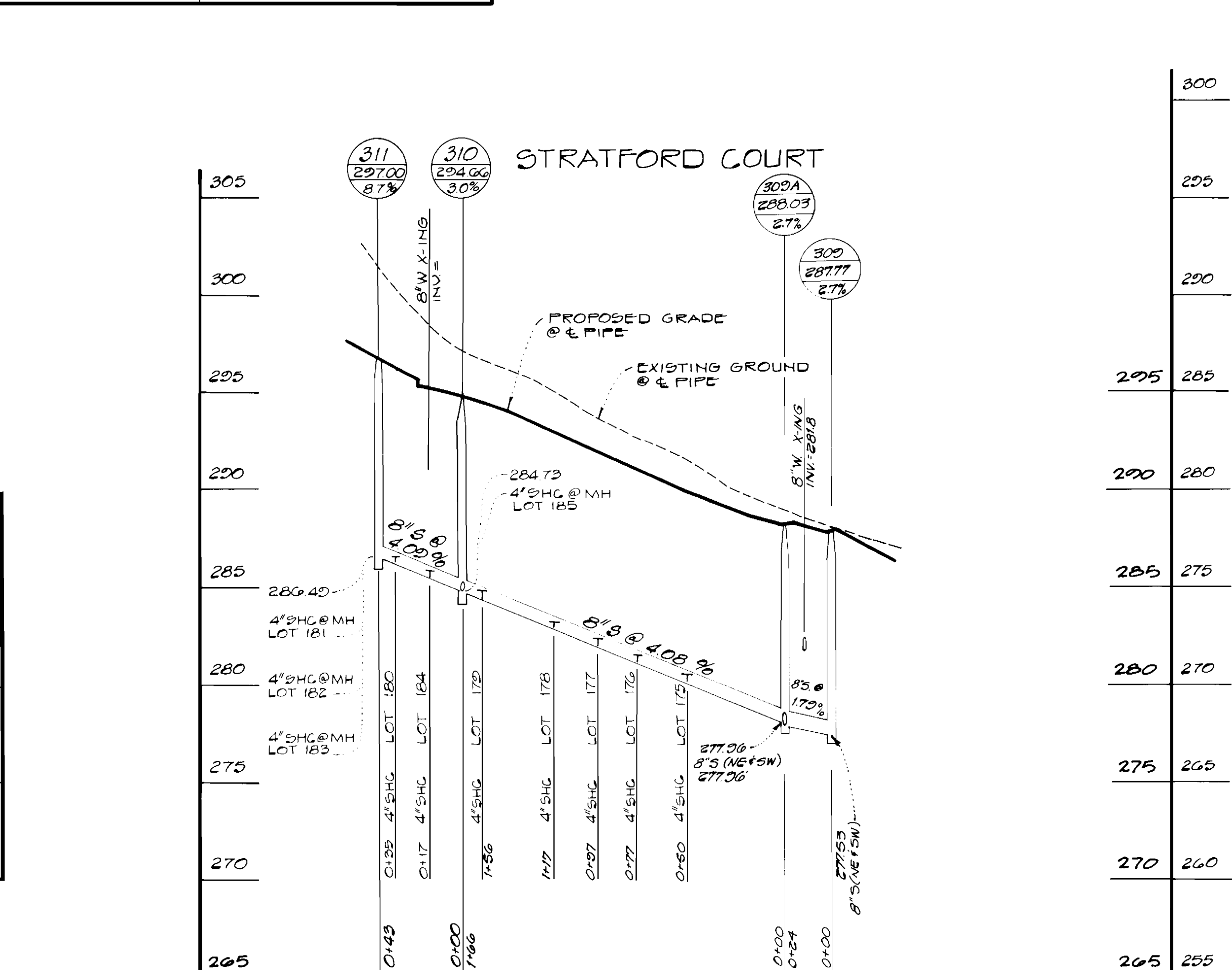
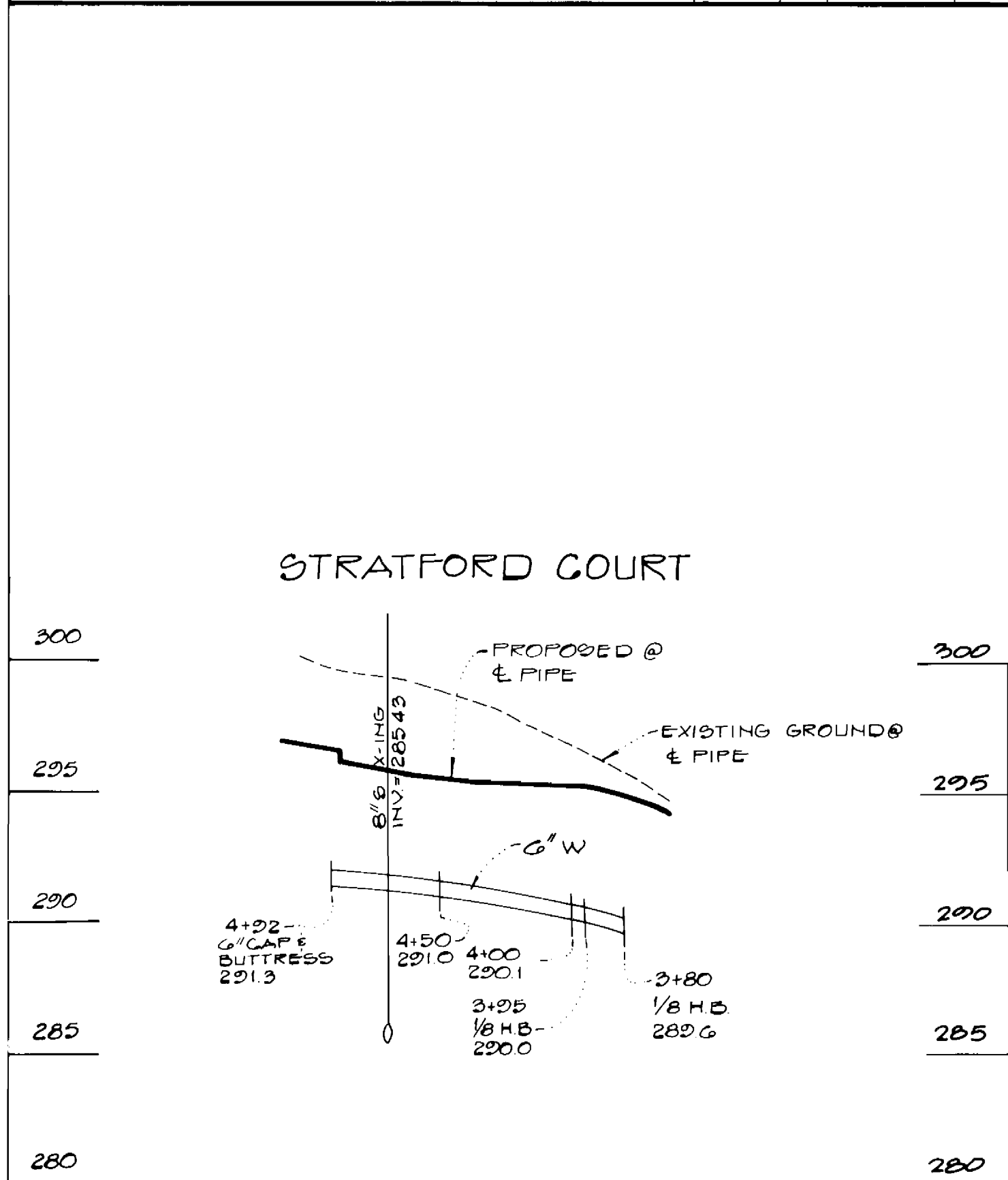
Willwood
Section 2, Area 1
First Election District
Howard County, Maryland
Contract No. 14-3025-D

SCALE AS SHOWN

SHEET 2 OF 3



Note: Contractor shall unearth all existing caps & stoppers and determine the exact invert elevations at these locations. If these field checked inverts do not match the inverts shown on these plans, the contractor must notify Gutschick, Little & Weber immediately.



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Robert W. Beatty 10/26/90
CHIEF, BUREAU OF UTILITIES

Robert W. Beatty 10-17-90
DATE

GW GUTSCHICK LITTLE & WEBER, P.A.
ENGINEERS, PLANNERS, SURVEYORS

CKG

12/1/90

DES. G.A.W.
DWN. TRC
CHK. CKG
GAW
BY N.O.
REVISION

Revised We/S Profiles & MH Rim Elevations

12/1/90

Water & Sewer Profiles

Scale: 1" = 50' Horiz. 1" = 5' Vert.

600' SCALE MAP NO. 37 BLOCK NO. 13

Willowood
Section 2, Area 1
First Election District
Howard County, Maryland
Contract No. 14-3025-D

SCALE AS SHOWN

SHEET 3 OF 2