

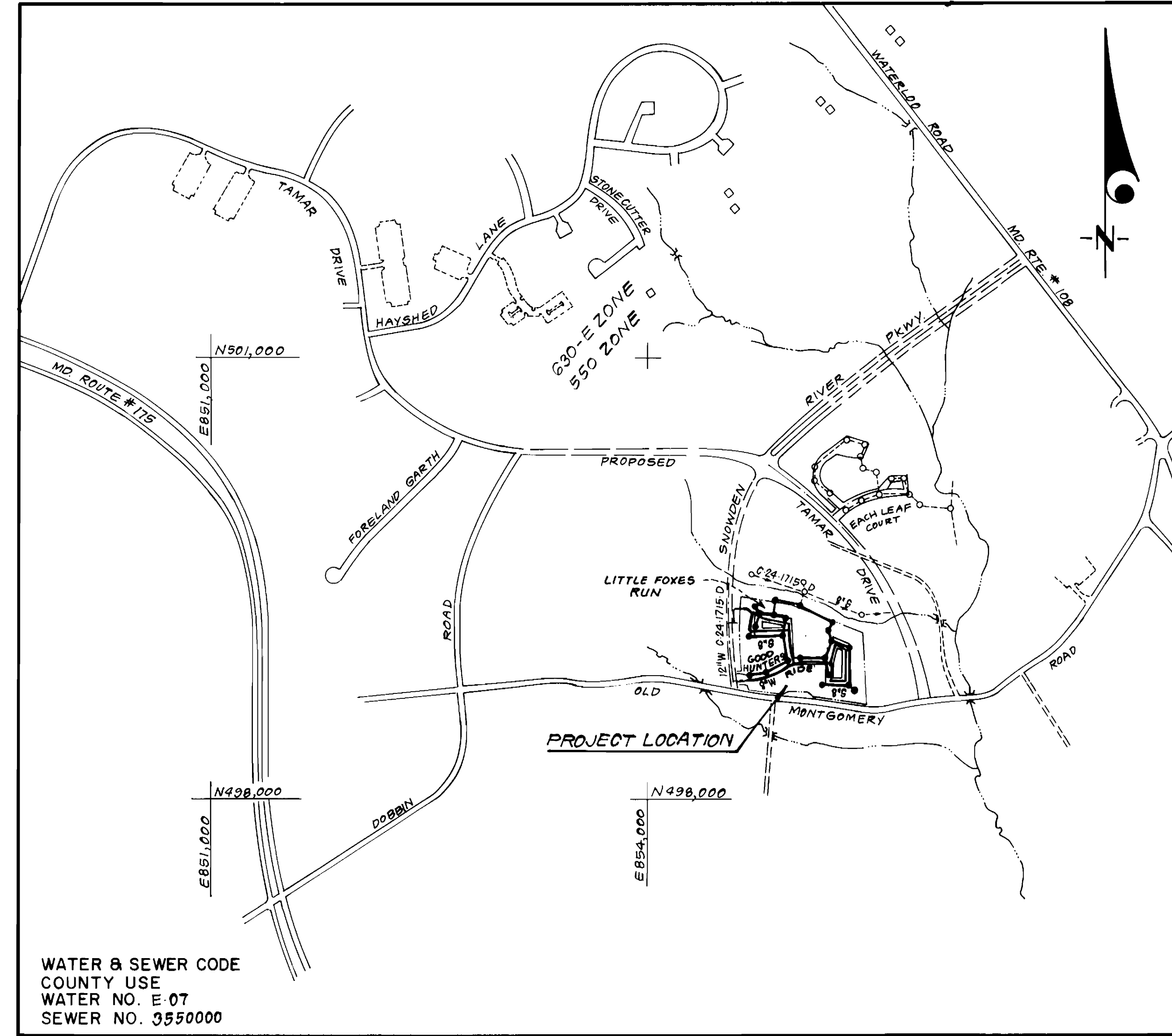
SEWER HOUSE CONNECTION TABLE

LOTS	Inv. at R.	Min. C	LOTS	Inv. at R.	Min. C
E-2	377.8	381.1	E-60	376.1	379.1
E-3	377.7	381.0	E-61	371.0	374.4
E-4	377.3	380.6	E-62	370.1	373.5
E-5	377.0	380.3	E-63	366.5	369.9
E-6	376.3	379.6	E-64	366.5	369.5
E-7	376.1	379.4	E-65	366.5	369.5
E-8	376.0	379.3	E-66	364.5	367.5
E-9	375.9	379.2	E-67	366.8	370.0
E-10	374.7	378.0	E-68/E-69	367.2	370.5
E-11	374.5	377.8	E-70	367.5	370.8
E-12	374.2	377.5	E-71	367.5	370.7
E-13	373.9	377.2	E-72	367.6	370.8
E-14	373.5	376.8	E-73	368.0	371.1
E-15	376.2	379.4	E-74	367.6	370.6
E-16	377.0	380.2	E-75	368.3	371.3
E-17	377.7	380.9	E-76	368.8	371.8
E-18	378.3	381.5	E-77	369.9	373.0
E-19	378.9	382.1	E-78	370.8	373.9
E-20	379.3	382.5	E-79	371.8	374.9
E-21	380.4	383.6	E-80	373.2	376.3
E-22	380.6	383.8	E-81	374.4	377.5
E-23	380.4	383.4	E-82	375.4	378.5
E-24	377.4	380.7	E-83	376.2	379.3
E-25	377.3	380.6	E-84	377.1	380.2
E-26	376.9	380.1	E-85	378.5	381.5
E-27	376.3	379.6	E-86	378.6	381.6
E-28	375.7	379.1	E-87	378.5	381.5
E-29	376.7	379.7	E-88	378.2	381.3
E-30	376.7	379.7	E-89	378.2	381.4
E-31	376.4	379.4	E-90	378.7	381.9
E-32	376.2	379.2	E-91	379.0	382.2
E-33	375.5	378.5	E-92	379.7	382.8
E-34	374.6	377.8	E-93	380.2	383.2
E-35	374.0	377.2	E-94	380.6	383.7
E-36	373.0	376.2	E-95	381.1	384.1
E-37	371.9	375.1	E-96/E-97	381.8	384.8
E-38	363.3	366.4	E-98	381.1	381.3
E-39	363.1	366.2	E-99	379.7	383.1
E-40	362.9	366.0	E-100	379.6	382.8
E-41	362.8	365.9	E-101	378.7	382.0
E-42	362.7	365.8	E-102	377.7	381.0
E-43	362.6	365.7	E-103	378.7	382.0
E-44	362.5	365.6	E-104	379.4	382.7
E-45	362.6	365.7	E-105	379.8	383.1
E-46	372.5	375.6	E-106	380.3	383.6
E-47	372.6	375.7	E-107	380.6	383.9
E-48	373.0	376.1	E-108	376.1	379.4
E-49	372.9	376.0	E-109	376.2	379.5
E-50	373.4	376.7	E-110	376.3	379.6
E-51	373.9	376.8	E-111	376.4	379.7
E-52	373.9	377.2	E-112	376.5	379.8
E-53	379.6	382.6	E-113	376.6	379.9
E-54	379.0	382.0	E-114	376.8	380.1
E-55	379.6	381.6	E-115	377.0	380.3
E-56	378.1	381.1	E-116	377.2	380.5
E-57	377.6	380.6	E-117	377.4	380.7
E-58	377.1	380.1	E-118	377.6	380.9
E-59	376.6	379.6			

TYPE OF BUILDING	TOWNHOUSES
NO. OF LOTS	117
NO. OF WHC's	117
NO. OF SHC's	117
DRAINAGE AREA	LITTLE PATUXENT

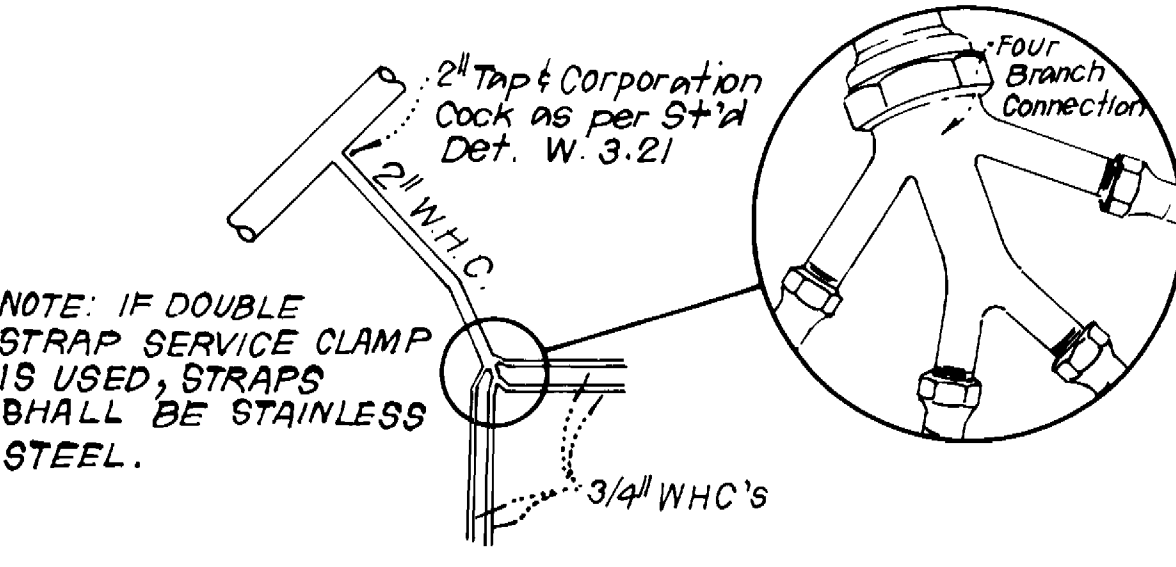
GENERAL NOTES

- 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 Inspector, 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 to the contractor for tunneling or bracing at poles shall be included in unit prices bid for excavation and backfill.
- For details not shown on the drawings use Howard County Standard Details.
- For materials and construction methods use Howard County Standard Specifications and Howard County Design Manual, Volume IV, 1989 Amendments. The Contractor shall have Volume IV, 1989 Amend. on the job site.
- 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 - Underground Damage Control - 859-9004
 - Baltimore Gas & Electric Company - Contractor Services - 850-4620
 - Baltimore Gas & Electric Company - Trouble Shooting - 298-9001
 - "Miss Utility" - 1-800-257-7777
 - Chesapeake & Potomac (C & P) Telephone Company - 1-800-257-7777
 - Bureau of Utilities Howard County - 992-2366
 - Colonial Pipeline Company - 795-1390
- 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 Inspector. Payment for such removal shall be included in the unit price bid for excavation and backfill.
- 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 unless otherwise noted.
- 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 & 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.
- All sewer mains shall be C.S.P.X., V.C.P.X., or P.V.C. 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.
- Water main and water house connection lines must have a minimum of one foot separation from the sanitary sewer and sewer house connections as they cross. Except at crossings, water and sewer lines shall have a minimum horizontal separation of 10'.
- Manholes designated thus: WT, shall have a Watertight Frame and Cover.
- All D.I.P. fittings shall be in accordance with AWWA specification C-153 Ductile Iron Compact Fittings, 3-inch through 12-inch for water and other liquids.
- Lots 64, 65, 68, 69, 96 and 97 shall have SHC's in accordance with S't'd Det 9-2.14. All other SHC's shall be 4" I.D.



VICINITY MAP
SCALE: 1" = 600'

CONTRACT NO.24-1914-D
VILLAGE OF LONG REACH
SECTION 3 AREA 2
PARCEL E, LOTS E-2 THRU E-123
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS



4-WAY WHC DETAIL
NO SCALE
LOTS E-20-E-23, E-43-E-46, E-63-E-66, E-85-E-88 & E-95-E-98

Sediment Control Measures will be implemented in accordance with Section 219 of the Specifications & with Road Construction Plan F-89-225; Drawing , Sediment & Erosion Control.

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENT.

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:

Howard S.C.D. DATE _____

QUANTITIES			
ITEM	EST'D	AS BUILT	MATERIAL / SUPPLIER
8" W	1554 LF	1506 LF	GRIFFIN PIPE / GRIFFIN PIPE PRODUCTS CO
6" W	1063 LF	1132 LF	GRIFFIN PIPE / GRIFFIN PIPE PRODUCTS CO
8" S	2923 LF	2913 LF	CHARLOTTE PIPE / A & P WATER & SEWER SUPPLY INC.
4" SHC	2375 LF	2543 LF	CHARLOTTE PIPE / A & P WATER & SEWER SUPPLY INC.
2" WHC	280 LF	277 LF	VINCENT BRASS & HALSTEAD IND. / A & P WATER & SEWER
1" WHC	870 LF	1130 LF	VINCENT BRASS & HALSTEAD IND. / A & P WATER & SEWER
3/4" WHC	1605 LF	1082 LF	VINCENT BRASS & HALSTEAD IND. / A & P WATER & SEWER
FIRE HYDRANT	4 EA	4 EA	MUELLER CO. / A & P WATER & SEWER SUPPLY INC.
4'-0" DIA. M.H.	22 EA	22 EA	ATLANTIC CONCRETE PRODUCTS INC.
8" V	5 EA	6 EA	MUELLER CO. / A & P WATER & SEWER SUPPLY INC.
6" V (exclu. F.H.)	5 EA	4 EA	MUELLER CO. / A & P WATER & SEWER SUPPLY INC.
6" SHC	50 LF	106 LF	CHARLOTTE PIPE / A & P WATER & SEWER SUPPLY INC.
8" x 8" T & V	1 EA	1 EA	-
8" D.C. TYPE 1B	1 EA	1 EA	FLO CONTROL / A & P WATER & SEWER SUPPLY INC.

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE 8/16/89

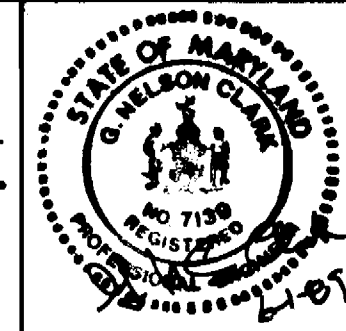
CHIEF, BUREAU OF ENGINEERING DATE 8/11/89

CHIEF, BUREAU OF UTILITIES DATE 8/9/89

CHIEF, LAND DEVELOPMENT DIV. DATE 8/11/89

CLARK - FINEPROCK & SACKETT, INC.
ENGINEERS - PLANNERS - SURVEYORS

7135 MINSTREL WAY COLUMBIA MARYLAND 21045
(301) 381-7500 BALTO. (301) 621-8100 WASH.



DES: JTR			
DRN: VLM			
CHK: JTR			
DATE: MAY 89	1	Change names of roads	12-5-89
BY NO.		REVISION	DATE

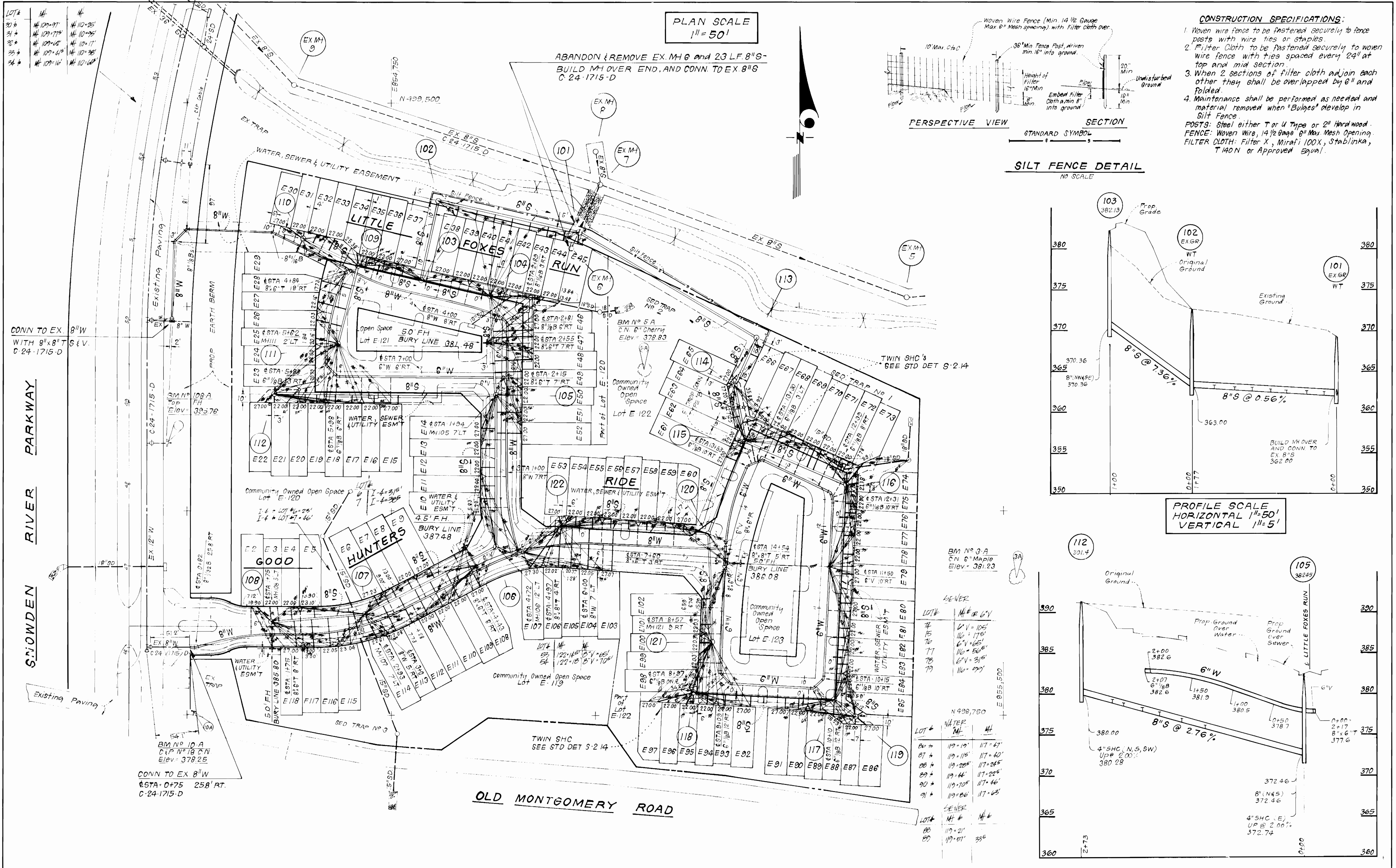
TITLE SHEET

600' SCALE MAP NO. 37 BLOCK NO. _____

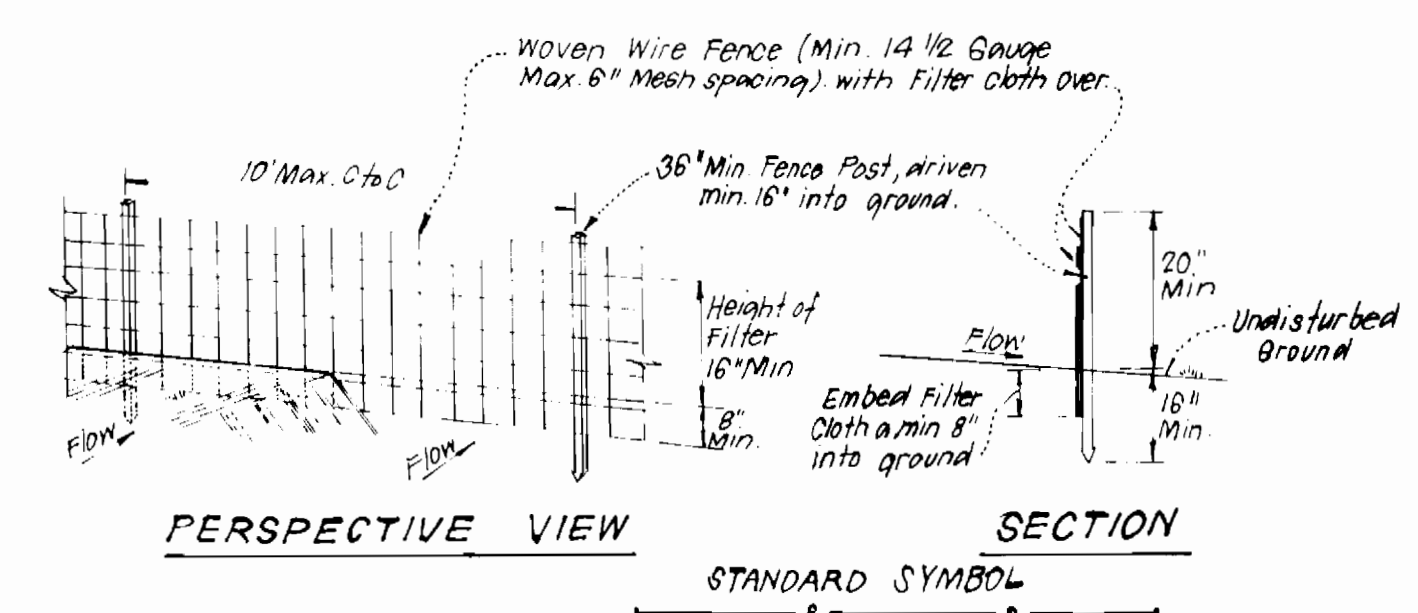
COLUMBIA
VILLAGE OF LONG REACH
SECTION 3 AREA 2
PARCEL E, LOTS E-2 THRU E-123
6TH ELECTION DISTRICT
CONTRACT NO. 24-1914-D

SCALE AS SHOWN
SHEET 1 OF 4

AS BUILT 10/30/90

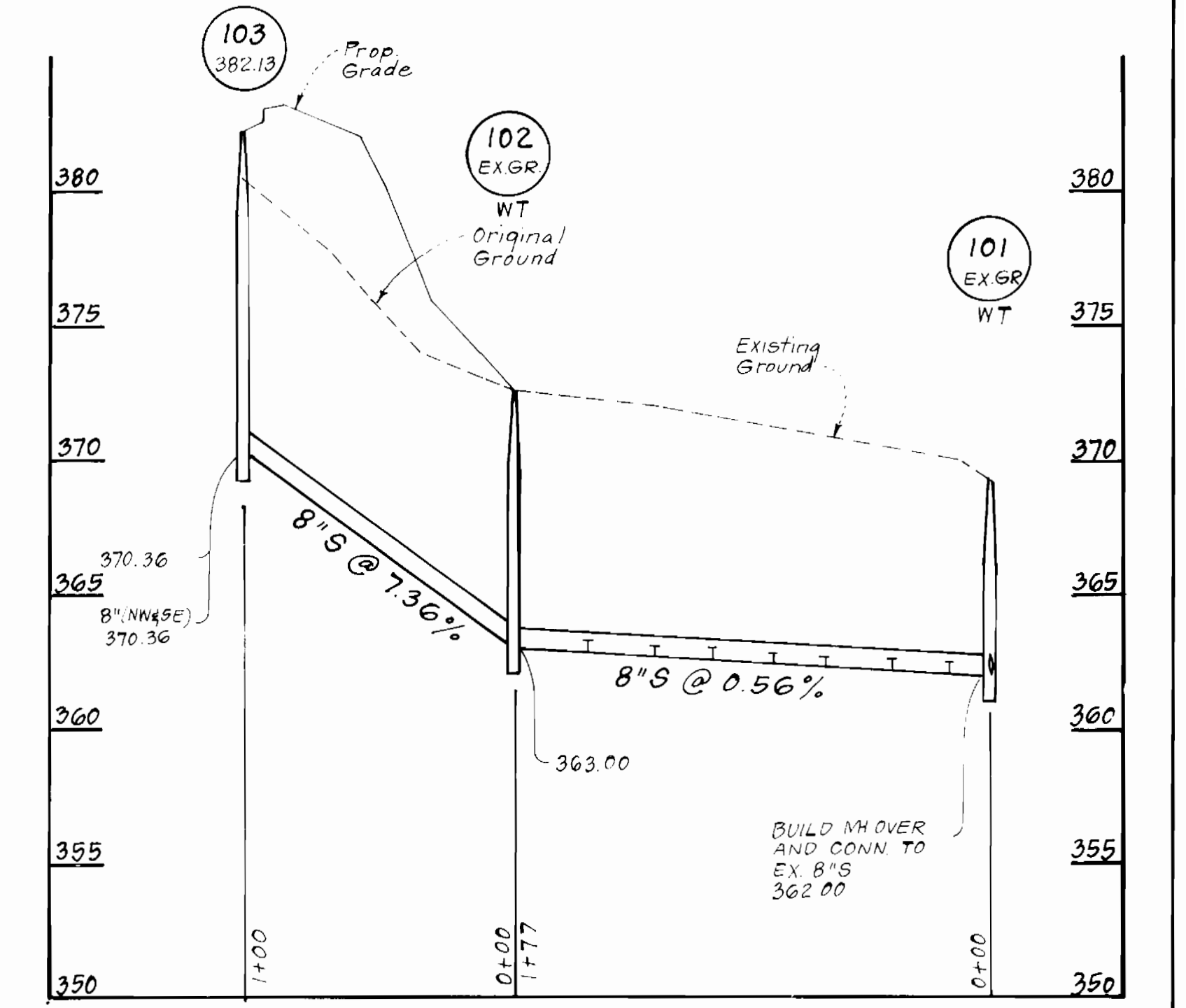


PLAN SCALE
1" = 50'

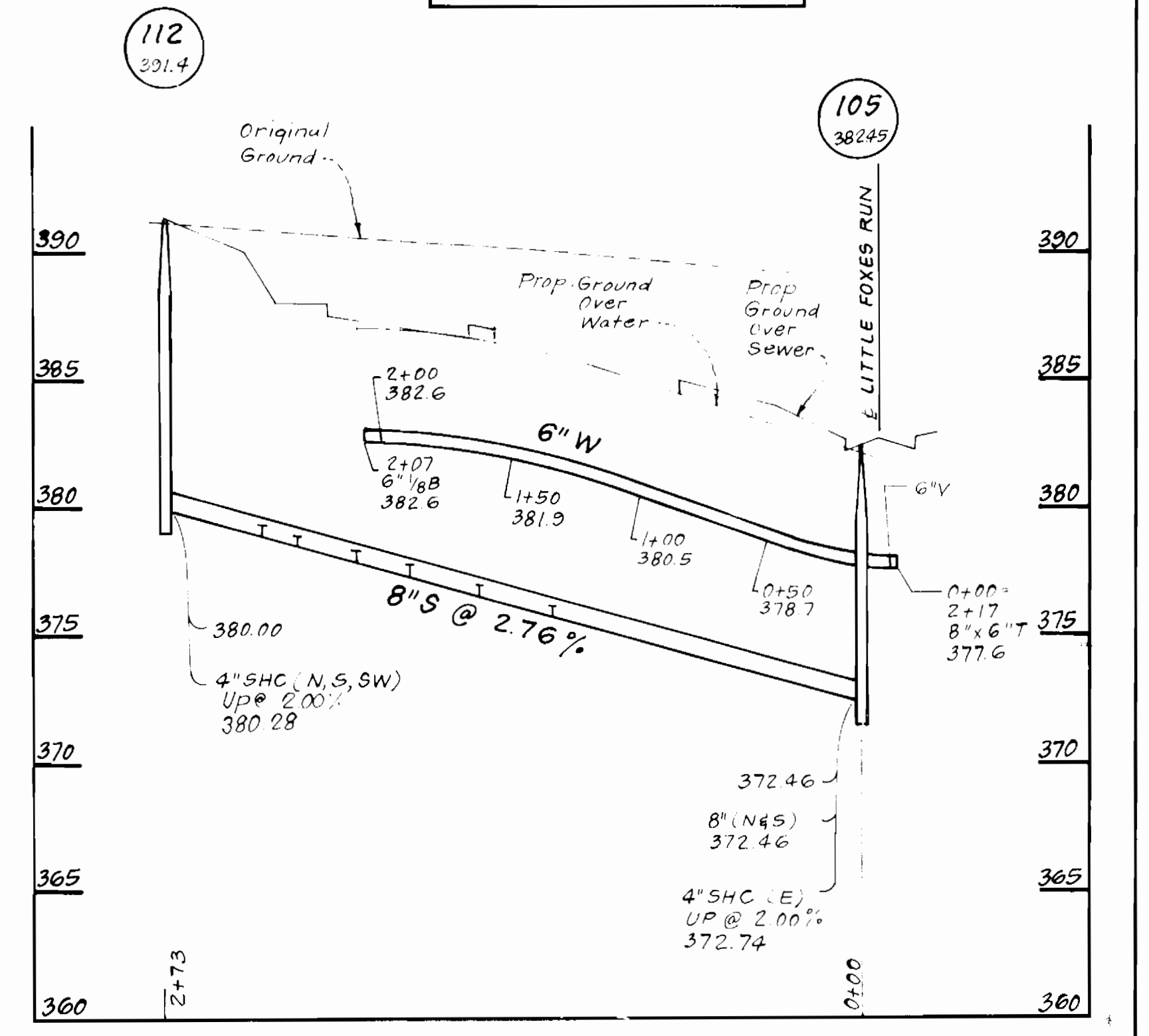


- CONSTRUCTION SPECIFICATIONS:**
1. Woven wire fence to be fastened securely to fence posts with wire ties or staples.
 2. Filter Cloth to be fastened securely to woven wire fence with ties spaced every 24" at top and mid section.
 3. When 2 sections of filter cloth adjoin each other they shall be overlapped by 6" and folded.
 4. Maintenance shall be performed as needed and material removed when "Bulges" develop in Silt Fence.
- POSTS: Steel either T or U Type or 2" Hard Wood.
FENCE: Woven Wire, 14 1/2 Gauge 6" Max. Mesh Opening.
FILTER CLOTH: Filter X, Mirafi 100X, Stablanka, TIAON or Approved Equal.

SILT FENCE DETAIL
NO SCALE



PROFILE SCALE
HORIZONTAL 1" = 50'
VERTICAL 1" = 5'



BM # 3-A
C.N. 6" Maple
Elev = 381.23

SEWER

LOT #	WT	HT
74	105'	47'
75	175'	40'
76	165'	40'
77	165'	40'
78	215'	46'
79	175'	65'

N 499,750
E 855,500

LOT #	WT	HT
80	110'	47'
81	115'	40'
82	125'	45'
83	144'	22'
84	170'	46'
85	170'	65'

SEWER

LOT #	WT	HT
86	119'	21'
87	119'	67'
88	336'	

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

Director of Public Works: *James J. ...* 8/18/89
Chief, Bureau of Engineering: *Richard ...* 8/11/89
Chief, Bureau of Utilities: *Richard ...* 8-9-89
Chief, Land Development Div: *Mark ...* 8/11/89

CLARK-FINEFROCK & SACKETT, INC.
ENGINEERS-PLANNERS-SURVEYORS

7135 MINSTREL WAY COLUMBIA MARYLAND 21045
(301) 381-7500 BALTO. (301) 621-8100 WASH.

STATE OF MARYLAND
JAMES W. NELSON, CLERK
REGISTERED PROFESSIONAL SURVEYOR
No. 1130

DES: JTR	
DRN: VLM	
JTR: JTR	
CHK: JTR	
DATE: MAY 89	
BY: NO	
REVISION: 1 Change names of roads	12 5 89

PLAN & PROFILES OF
WATER & SEWER MAINS

600' SCALE MAP NO. 37 BLOCK NO.

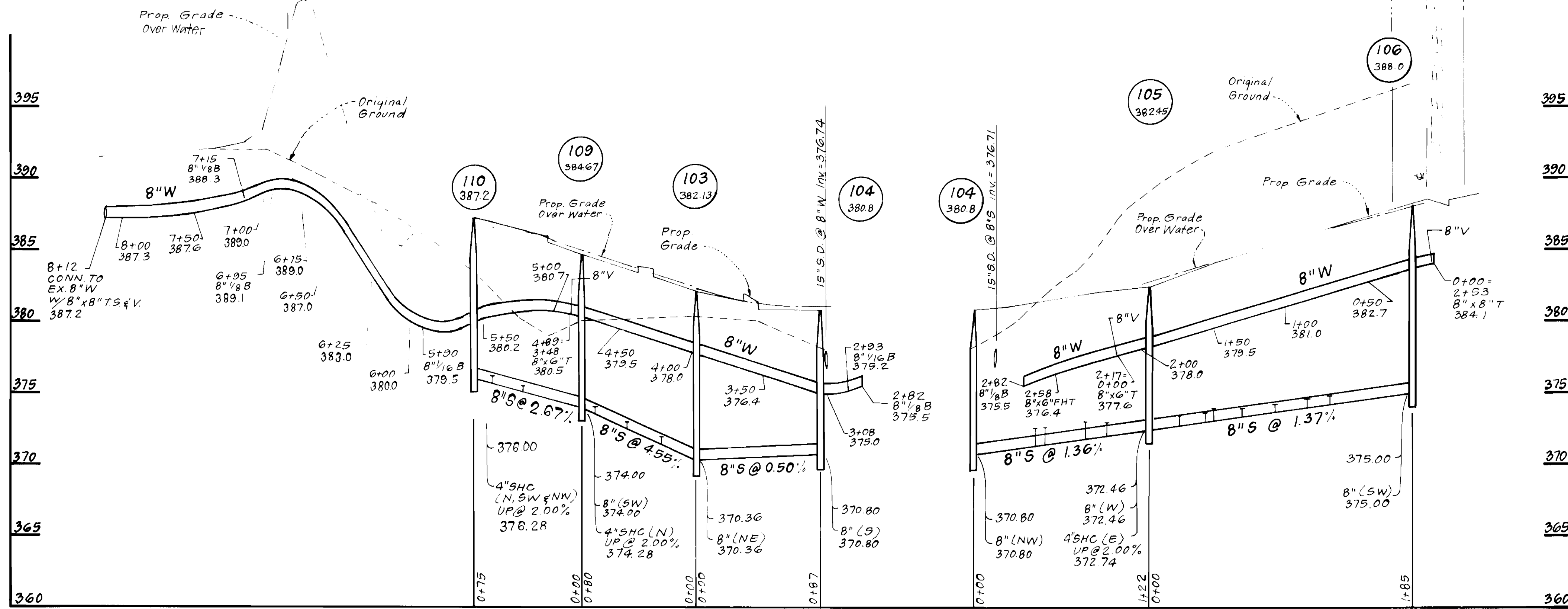
COLUMBIA
VILLAGE OF LONG REACH
SECTION 3 AREA 2
PARCEL E, LOTS E-2 THRU E-123
6TH ELECTION DISTRICT
CONTRACT NO. 24-1914-D

SCALE
AS SHOWN

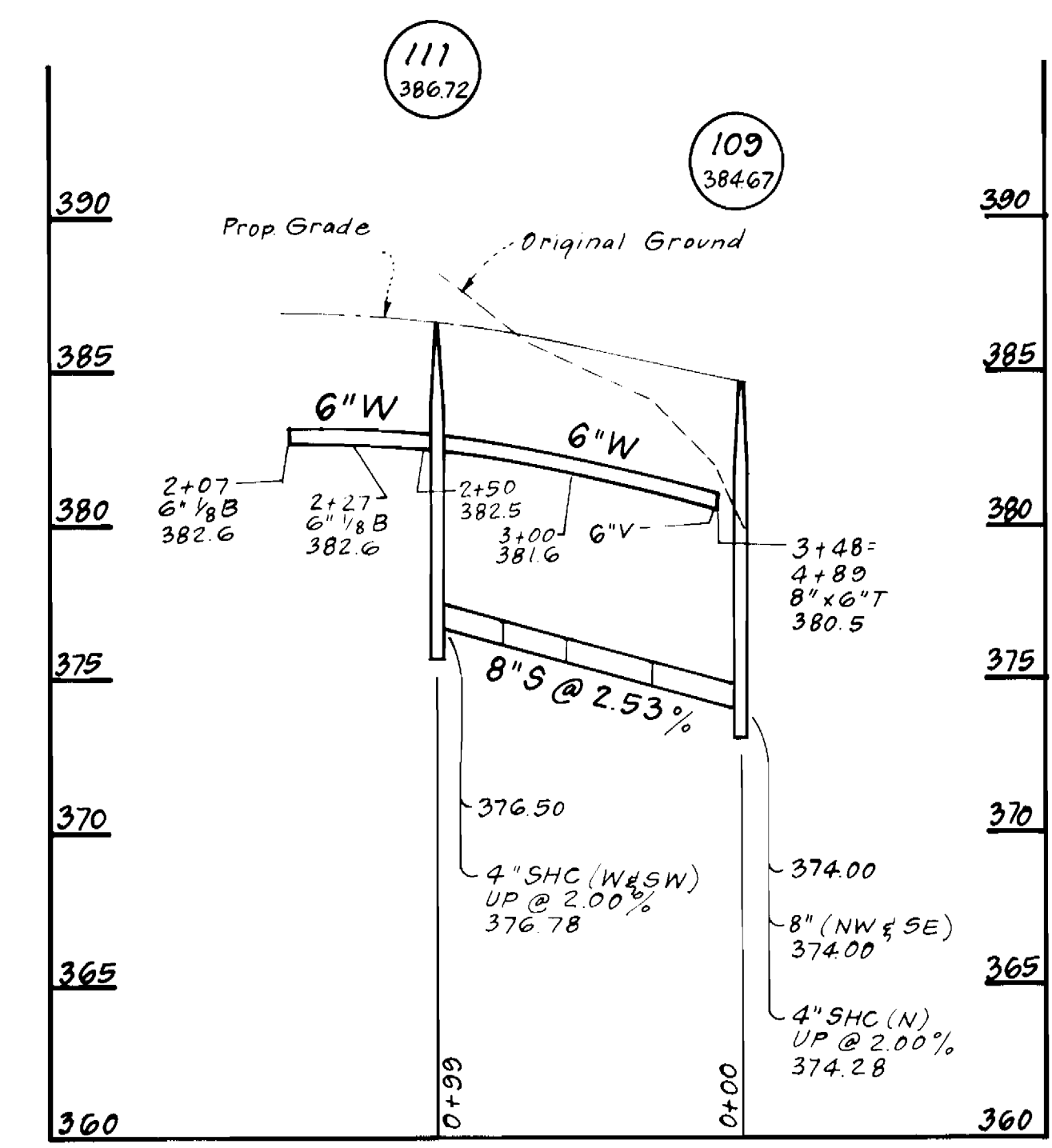
SHEET
2 OF 4

LITTLE FOXES RUN

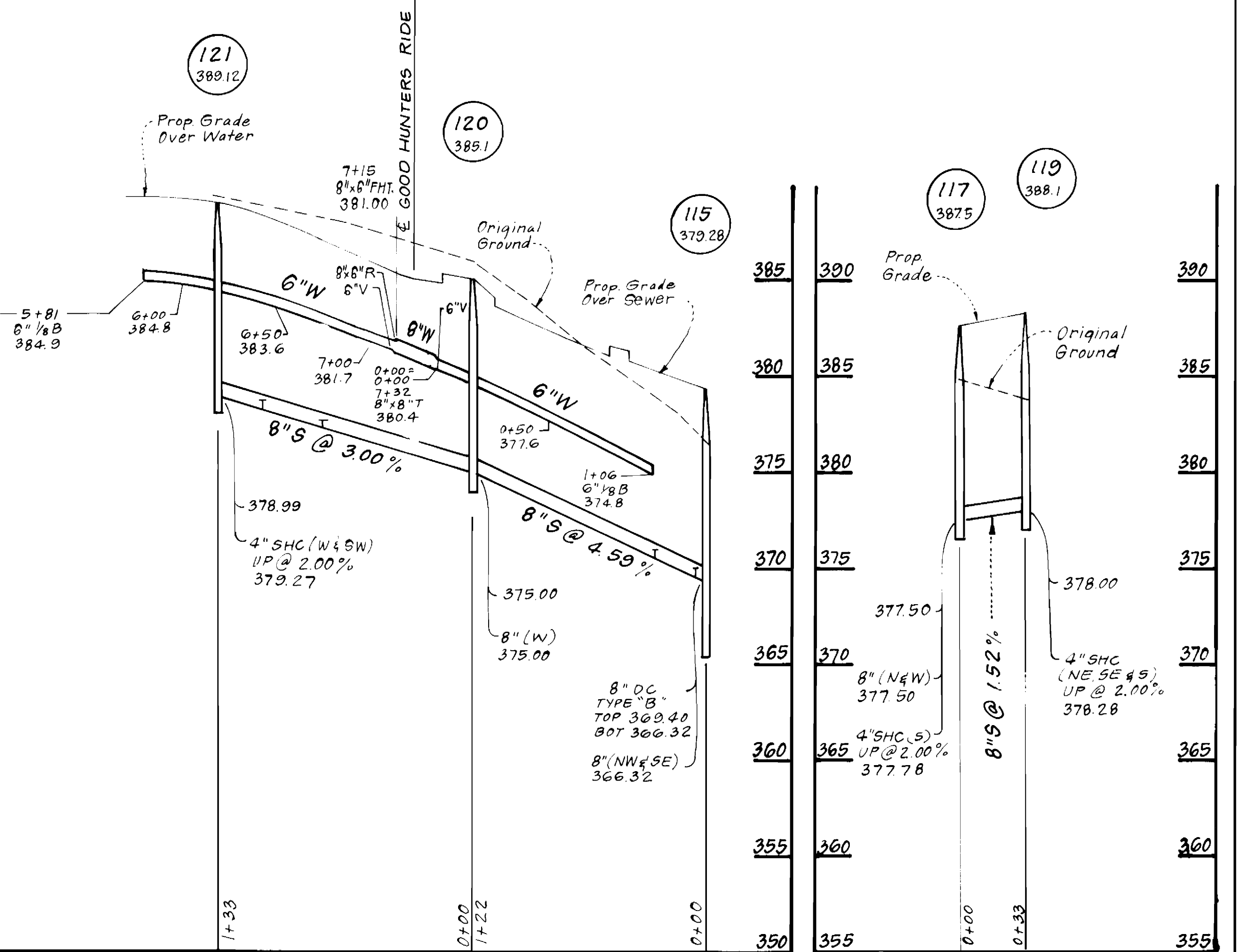
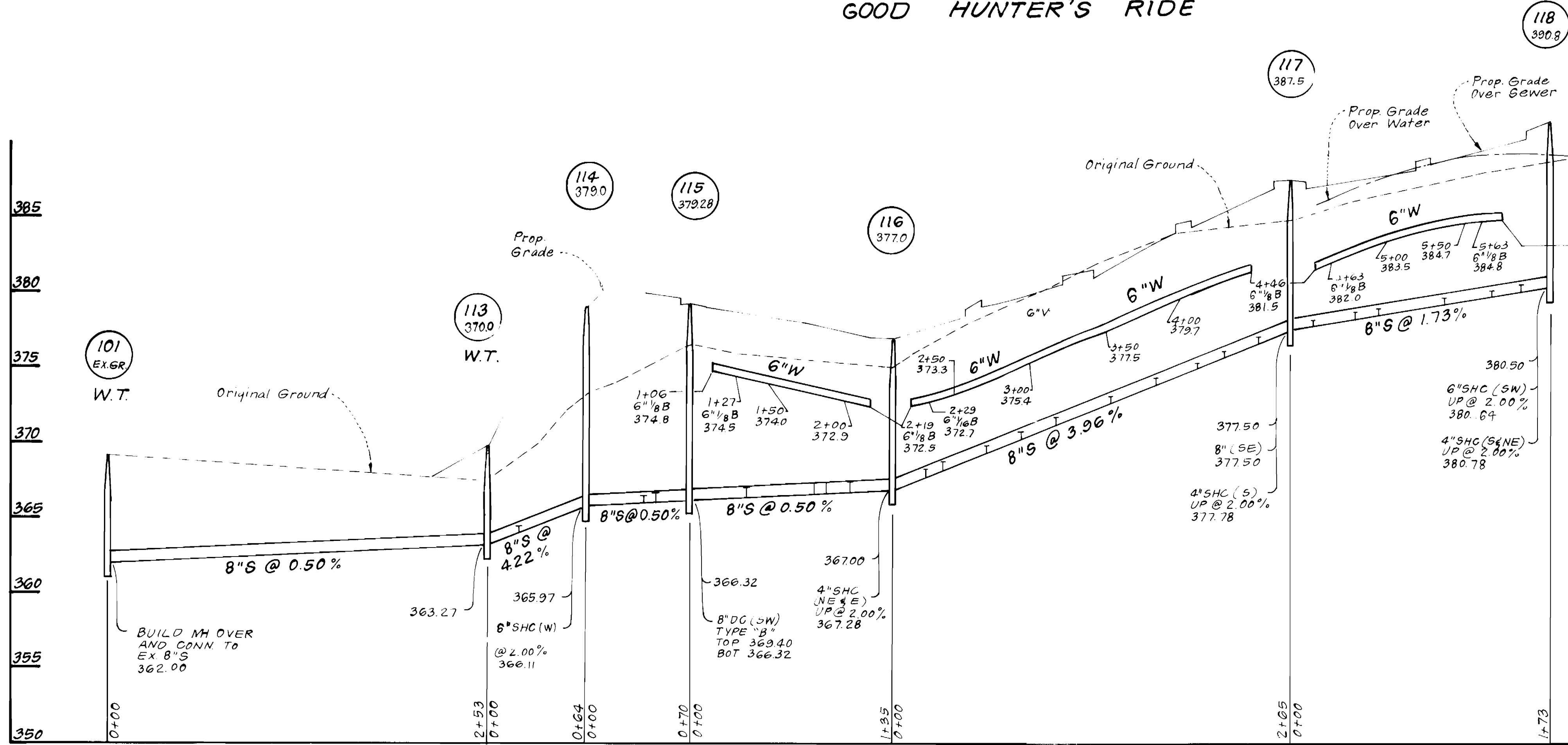
SNOWDEN RIVER PARKWAY



LITTLE FOXES RUN



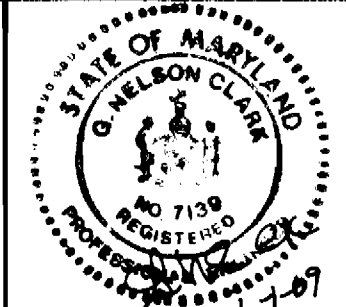
GOOD HUNTER'S RIDE



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James O. Lewis 8/14/89
DIRECTOR OF PUBLIC WORKS DATE
8/9/89
Chief, Bureau of Utilities DATE

CLARK · FINEPROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY COLUMBIA MARYLAND 21045
(301) 381-7500 BALTO. (301) 621-8100 WASH.



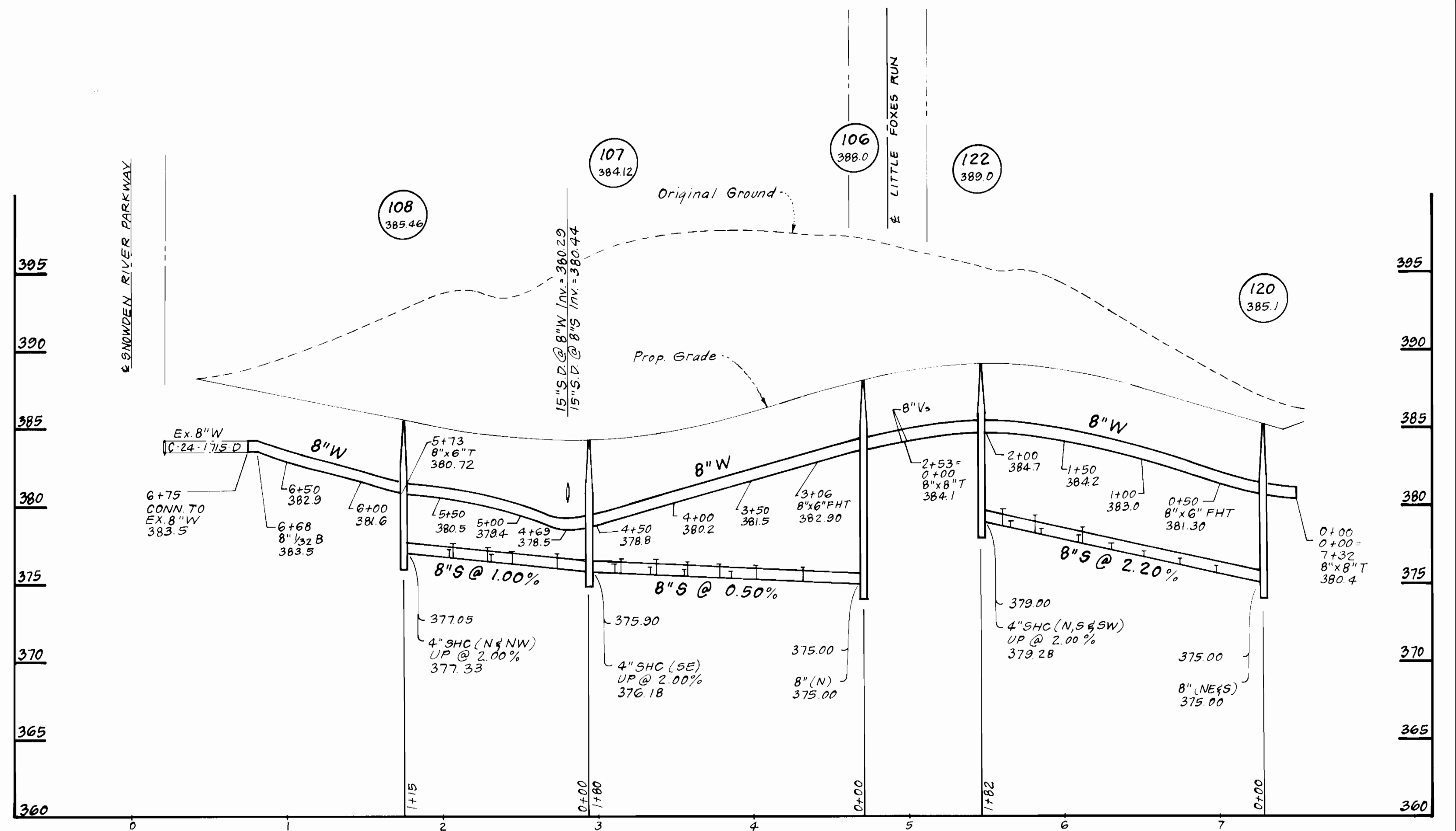
DES	JTR				
DRN	VLM				
CHK	JTR				
DATE	MAY 89	BY	NO	REVISION	DATE
				1 Change names of roads	12-5-89

PROFILES OF
WATER & SEWER MAINS

COLUMBIA
VILLAGE OF LONG REACH
SECTION 3 AREA 2
PARCEL E, LOTS E-2 THRU E-123
6TH ELECTION DISTRICT
CONTRACT NO. 24-1914-D

SCALE
HORZ 1"=50'
VERT 1"=5'
SHEET
3 OF 4

GOOD HUNTER'S RIDE



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James M. ...
DIRECTOR OF PUBLIC WORKS
DATE: 8/14/89

William S. ...
CHIEF, BUREAU OF ENGINEERING
DATE: 8/11/89

CFE CLARK · FINEFROCK & SACKETT, INC.
ENGINEERS · PLANNERS · SURVEYORS
7135 MINSTREL WAY COLUMBIA MARYLAND 21045
(301) 381-7500 BALTO. (301) 621-8100 WASH.



DES	JTR		
DRN	VLM		
CHK	JTR		
DATE	MAY 89	REVISION	1 Change names of roads

PROFILE OF
WATER & SEWER MAINS

COLUMBIA
VILLAGE OF LONG REACH
SECTION 3 AREA 2
PARCEL E, LOTS E-2 THRU E-123
6TH ELECTION DISTRICT
CONTRACT NO. 24-1914-D

SCALE
HORZ 1"=50'
VERT 1"=5'
SHEET
4 OF 4