

IMPROVEMENT PLANS

VILLAGES AT DARDENNE - BATES VILLAGE

A TRACT OF LAND BEING PART OF
 LOTS 1, 2 AND 3 OF THE JAMES CAMPBELL
 ESTATE AS RECORDED IN PLAT BOOK 3, PAGE 51,
 WITHIN U.S. SURVEY 3225, TOWNSHIP 46 NORTH, RANGE 3 EAST
 ST. CHARLES COUNTY, MISSOURI

"AS-BUILTS" 1.95 LOTS

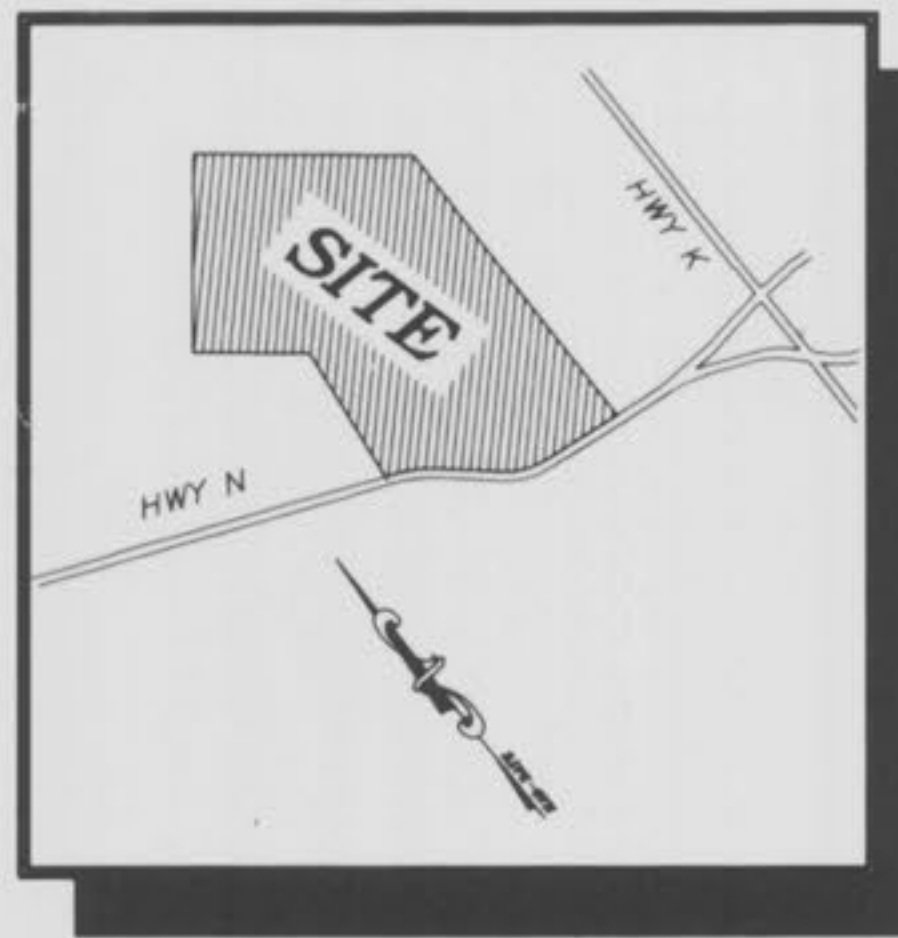
CITY OF O'FALLON GENERAL NOTES

- Gas, water and other underground utilities shall not conflict with the depth or horizontal locations of existing and proposed sanitary and storm sewers, including house laterals.
- Underground utilities have been plotted from available information and, therefore, their locations must be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor and shall be located prior to grading or construction of improvements.
- Polyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR-35.
- All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (ASTM C-76, Class II) unless noted otherwise in the plans.
- Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M-36, A.A.S.H.T.O. See plans for gauge.
- All filled places under buildings, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills shall be compacted to 90% of maximum density as determined by the "Modified A.A.S.H.T.O. T-180 Compaction Test" (ASTM D-1557) unless otherwise specified by the local governing authority specifications. All tests will be verified by a soils engineer.
- All earthen filled places within State, County, or City roads (Highways) shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test A.A.S.H.T.O. T-99" (ASTM D-698) unless otherwise specified by local governing authority specifications. All tests will be verified by a soils engineer.
- All storm and sanitary trench backfills shall be water jetted. Granular fill will be used under paved areas.
- Easements shall be provided for storm sewers, sanitary sewers, and all utilities on the record plat. See record plat for location and size of easements. This does not apply to house laterals.
- No area shall be cleared without the permission of the developer.
- All grades shall be within 0.2 feet (more or less) of those shown on the grading plan.
- No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
- Hazard markers shall consist of three (3) standard specification, "Manual on Uniform Traffic Control Devices," end of roadway markers mounted on two (2) pound "U" channel sign post. Each marker shall consist of an eighteen (18) inch diamond reflectorized red panel. The bottom of each panel shall be mounted a minimum of four (4) feet above the elevation of the pavement surface.
- All manhole and curb inlet tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction stake-out of the sewer lines, all curb and grate inlets will be face staked. If normal face stakes fail in line with sewer construction, the Engineer will set these stakes on a double offset. It shall be the responsibility of the sewer contractor to preserve all face stakes from destruction.
- All standard street curb inlets to have front of inlet 2 feet behind curb.
- The minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding house connection shall not be less than the diameter of the sanitary sewer plus a vertical distance not less than two and one-half feet (2-1/2').
- Water lines, valves, sleeves, meters and etc., shall meet all specifications and installation requirements of the local governing authority.
- All cast iron pipe for water mains shall conform to A.W.W.A. specification C-106 and/or C-108. The cast iron fittings shall conform to A.W.W.A. specification C-110. All rubber gasket joints for water cast iron pressure pipe and fittings shall conform to A.W.W.A. specification C-111.
- All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- All PVC sanitary sewer pipe shall be DR-35 or equal with crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 12" above the top of the pipe.
- All grading on Missouri State Highway Right-of-Way shall be seeded and mulched and all disturbed Right-of-Way markers shall be reset at the completion of grading.
- All streets must meet the specifications and installation requirements of the City of O'Fallon.
- All sanitary service lines shall have a 6" diameter for Multi-family and a 4" diameter for single-family developments.
- Manhole frame and cover shall be Clay and Bailey No. 2008 or Neenah R-1736 or Deeter 1315 or approved equal.
- The City of O'Fallon shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
- Brick shall not be used on manholes.
- Waterproofing: Waterproofing will be required on the exterior of all manholes. The bitumen shall consist of two coats of asphalt, coat-for-pitch, or a coating meeting American Society for Testing and Materials (ASTM) D-41. Asphalt shall conform to the requirements of ASTM D-449. Coat-for-pitch shall conform to the requirements of ASTM D-450. Coating shall be 3/16 inch thickness.
- NOTE: The grading and elevations shown on the grading plans are for construction purposes only. Finished grades and slopes will vary from those shown on the plans depending upon the location, size and type of house built on the lot. However, care should be taken to insure that finished grading conforms to drainage area maps.
- As needed, siltation fence shall be installed as a protective barrier for trees to remain.
- This tract is in or served by:
 - Water - Missouri American Water Company
 - Electric - Union Electric
 - Telephone - G.T.E. Missouri
 - Sewers - Duckett Creek Sanitary District
 - Gas - St. Charles Gas
 - Fire Protection - O'Fallon Fire Protection District
 - School District - Fort Zumwalt
 - Mail Service - O'Fallon
- Lot Data:
 - Total Number of Lots - 195
 - Minimum Lot Size - 9,000 Sq. Ft.
 - Minimum Lot Width at Building Line - 75 Ft.
- Yard and Setback Requirements:
 - Front - 25 Feet
 - Side - 6 Feet
 - Rear - 25 Feet
- The contractor will be responsible to insure that all areas within the project limits that have been disturbed by the grading process shall be seeded and mulched within ninety (90) days of completion.
- The contractor will be responsible for the removal and disposal of all existing improvements, except those designated to be left in place, from within the limits of the construction area.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match preconstruction conditions.
- The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system.
- All sanitary sewer flowlines and tops built elevations furnished by the engineer will be the responsibility of the sewer contractor.
- All construction and materials shall conform to the current construction standards of the Duckett Creek Sanitary District.

DRAWING INDEX

Sheet	Description
1	COVER SHEET
2-5	SITE PLAN
6-8	GRADING PLAN
10-10	STREET PROFILES
11-17 6-9	SANITARY SEWER PROFILES
18-21 10-13	STORM SEWER PROFILES
22-25	DRAINAGE AREA MAPS
26-31	CONSTRUCTION DETAILS

LOCATION MAP



GENERAL NOTES - CONTINUED

- The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination and inspection.
- All exterior sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resource Specification 10 CR5-8.120(7)(E).
- All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- All creek crossings shall be grouted rip-rap as directed by District inspectors. (All grout shall be high slump ready-mix concrete).

This is to certify to Duckett Creek Sanitary District that these "As-Built" plans are based on actual field surveys conducted during 1997 and the results are shown here on.

by Pickett Ray & Silver

Delmar F. Vincent
 MO R. L. S. No 1869
 Date _____

LEGEND

	Sanitary Sewer (Proposed)		Sanitary Structure	R.C.P.	Reinforced Concrete Pipe
	Sanitary Sewer (Existing)		Storm Structure	C.M.P.	Corrugated Metal Pipe
	Storm Sewer (Proposed)		Test Hole	C.I.P.	Cast Iron Pipe
	Storm Sewer (Existing)		Power Pole	P.V.C.	Polyvinyl Chloride
	Water Line & Size		Light Standard	V.C.P.	Vitrified Clay Pipe
	Existing water line		Double Water Meter Setting		
	Tee & Valve		Single Water Meter Setting	C.O.	Clean Out
	Hydrant		Curb Inlet	V.T.	Vent Trap
	Cap		Skewed Curb Inlet	T.B.R.	To Be Removed
	Lot or Building Number		Double Curb Inlet	T.B.R.&R	To Be Removed & Relocated
	Existing Fence Line		Gate Inlet	G.I.	To Be Protected
	Existing Tree Line		Area Inlet	A.I.	To Be Abandoned
	Street Sign		Double Area Inlet	D.A.I.	Base Of Curb
	Existing Contour		Concrete Collar	C.C.	Top Of Curb
	Proposed Contour		Flared End Section	F.E.	Top Of Wall
	Grouted Rip-Rap		End Pipe	E.P.	Base Of Wall
	End of Lateral		Energy Dissipator	E.D.	(TYP)
	Asphalt Pavement		Manhole	M.H.	Unless Noted Otherwise
	Concrete Pavement		Concrete Pipe	C.P.	Use in Place

REVISIONS

- Rev. 08-01-96 SHI, 9
- Rev. 10-29-96 KAN, WIKS
- Revised as per Duckett Creek Sewer District 3-12-96
- Rev. 04-04-96 Misc.
- Rev. 04-30-96 Per O'Fallon Comments
- Rev. 05-27-96 Per O'Fallon Comments (Sheets 2 Thru 8, 14, 17, 18, 20, 23, 24)
- Rev. 6-11-96 THY - City of O'Fallon (Sheet 8, 18, 19, 20 & 21 of 31)
- REV 08-22-96 GS
- REV 10-22-96 SHAW, HARRIS

PICKETT RAY & SILVER

Civil Engineers
 Planners
 Land Surveyors

333 Mid Rivers Mall Dr.
 St. Peters, MO 63376
 397-1211 FAX 397-1104

ENGINEERS AUTHENTICATION

The responsibility for professional engineering liability on this project is hereby limited to the set of plans authorized by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in the project and specifically includes revisions after this date unless reauthorized.

PICKETT, RAY & SILVER, INC.

Signature: Date: _____

DEVELOPER

WHITTAKER CONSTRUCTION CO., INC.
 355A MID RIVERS MALL DRIVE
 ST. PETERS, MO. 63376
 (314)970-1511

2-11-97 "AS-BUILTS"

Rev. 5-14-97 AS-BUILT MH 105A

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DRAWN	R.D.M.	DATE	2-21-1996
CHECKED		DATE	
FIELD BOOK	FB	PROJECT #	95-080
		JOB ORDER #	34202

1/13

REVISED PER ENTRANCE CHANGE
 Rev. 03/12/96
 Rev. 04/04/96
 Rev. 04/30/96
 Rev. 08/22/96
 2-11-97
 AS-BUILTS

2198.14(S)
 N/V BRASSEL 203/473

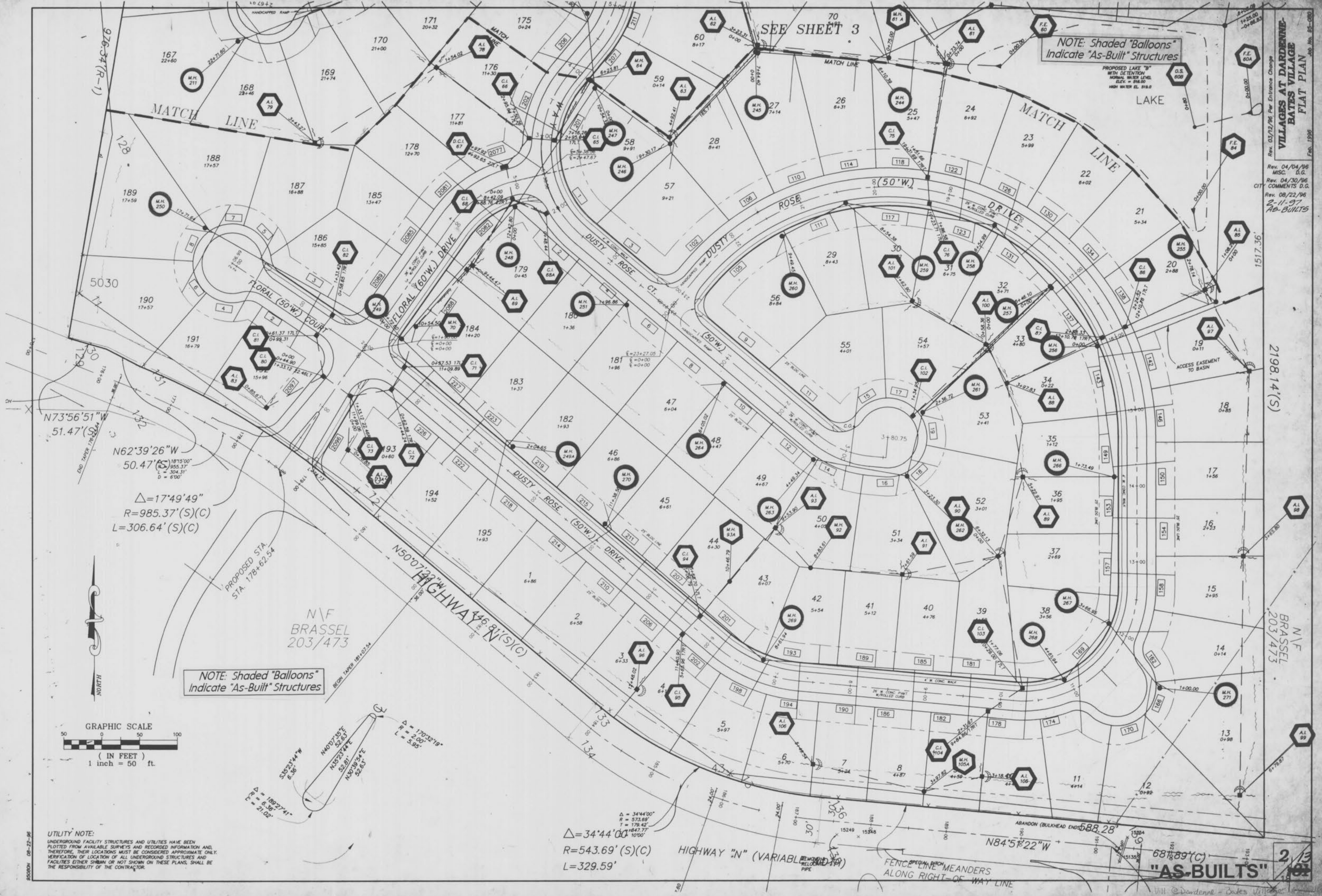
N/V BRASSEL 203/473

2/13

NOTE: Shaded "Balloons" Indicate "As-Built" Structures

PROPOSED LAKE "B" WITH DETENTION NORMAL WATER LEVEL ELEV. = 516.00 HIGH WATER EL. 518.00

SEE SHEET 3

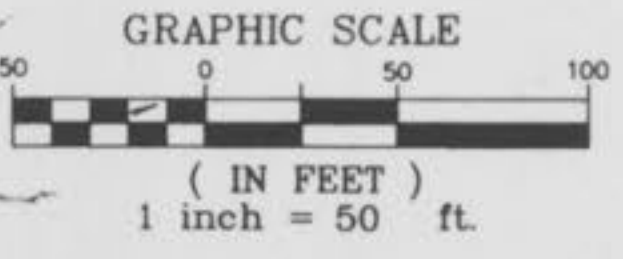


NOTE: Shaded "Balloons" Indicate "As-Built" Structures

$\Delta = 17^{\circ}49'49''$
 $R = 985.37'(S)(C)$
 $L = 306.64'(S)(C)$

PROPOSED STA. 178+62.54

N/V BRASSEL 203/473



UTILITY NOTE:
 UNDERGROUND FACILITY STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDED INFORMATION AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF LOCATION OF ALL UNDERGROUND STRUCTURES AND FACILITIES EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

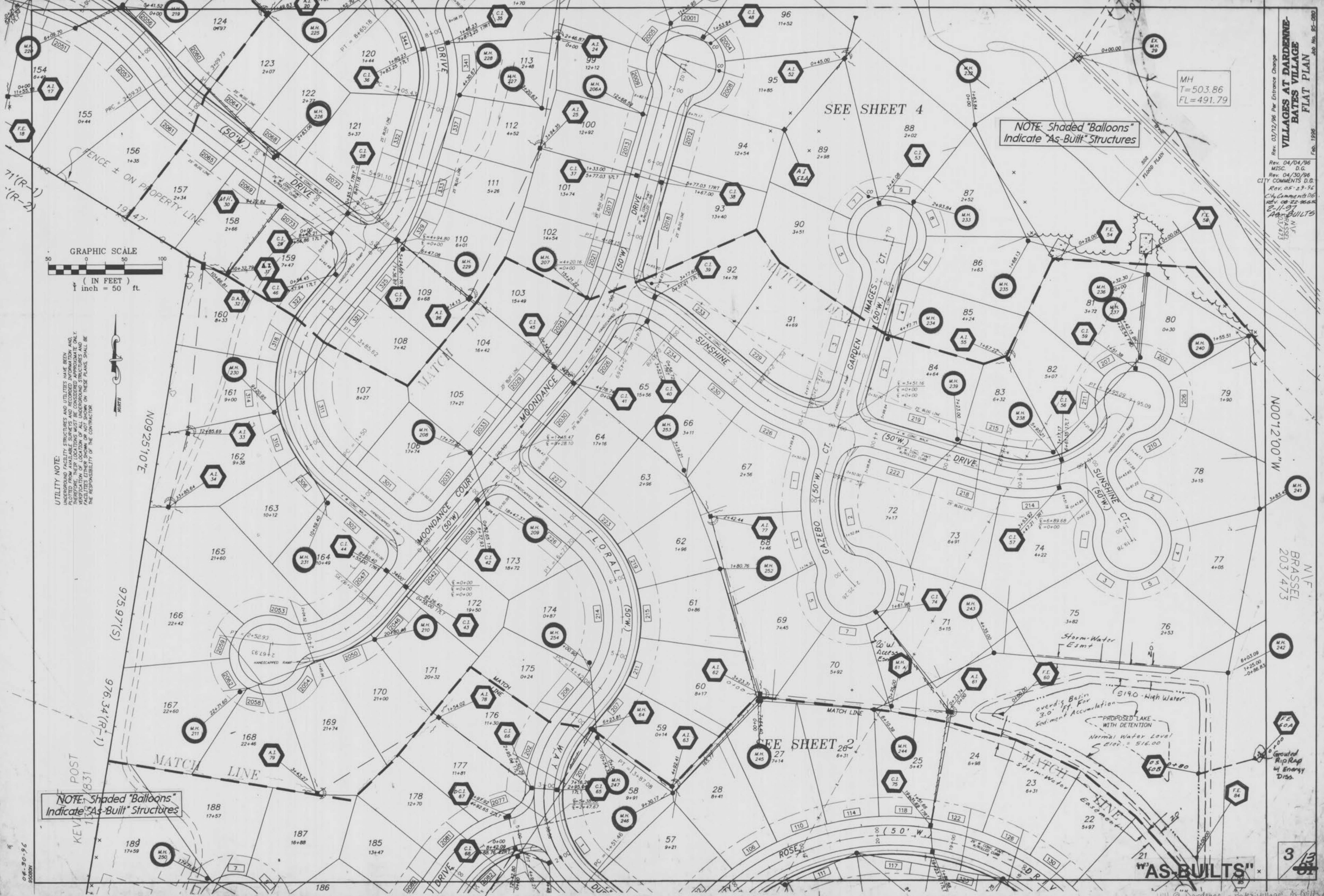
$\Delta = 34^{\circ}44'00''$
 $R = 543.69'(S)(C)$
 $L = 329.59'$

HIGHWAY "N" (VARIABLE)

FENCE MEANDERS ALONG RIGHT-OF-WAY LINE

68°39'(C)
 "AS-BUILTS"

Vill. © Dardenne - Bates Village



SEE SHEET 4

NOTE: Shaded "Balloons" Indicate "As-Built" Structures

SEE SHEET 2

NOTE: Shaded "Balloons" Indicate "As-Built" Structures

"AS-BUILTS"

GRAPHIC SCALE
 (IN FEET)
 1 inch = 50 ft.

UTILITY NOTE:
 UNDERGROUND FACILITY STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDED INFORMATION AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. FACILITIES EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

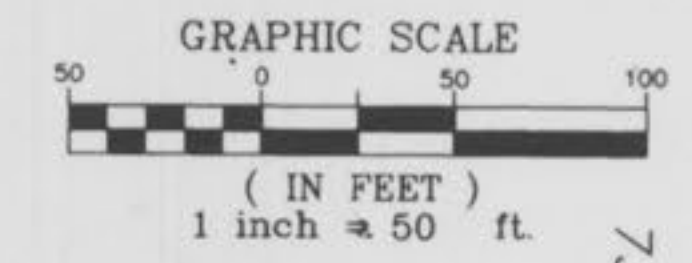
Storm Water
 Esmt
 Proposed Lake
 WITH DETENTION
 Normal Water Level
 Elev. = 516.00
 519.0 - High Water
 3.0' Depth For
 Sediment Accumulation
 Groued Riprap
 w/ Energy Diss.

06-30-96
 00000

Bill © Dardenne - Bates Village - As-Built

UTILITY NOTE:
 UNDERGROUND FACILITY STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDED INFORMATION AND, THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. VERIFICATION OF LOCATION OF ALL UNDERGROUND STRUCTURES AND FACILITIES EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

NOTE: Shaded "Balloons" Indicate "As-Built" Structures



N/F
 DICKHERBER REVOCABLE
 LIVING TRUST AGREEMENT
 1362/967

FENCE ON PROPERTY LINE

N32°22'23"E

1228.70'(S)(R-3)

1372.80'(S-2)

VILLAGES AT DARDENNE-
 BATES VILLAGE
 FLAT PLAN

Rev. 04/04/96
 MISC. D.G.
 Rev. 04/30/96
 CITY COMMENTS D.G.
 Rev. 05-29-96 D.G.
 2-11-97 AS-BUILTS

ROYALSPRINGS
 PLAT FOUR
 PB 31 PG. 396

ROYALTRAIL
 LANE (50'W)

ROYALSPRINGS
 PLAT THREE
 PB 31 PGS. 292-293

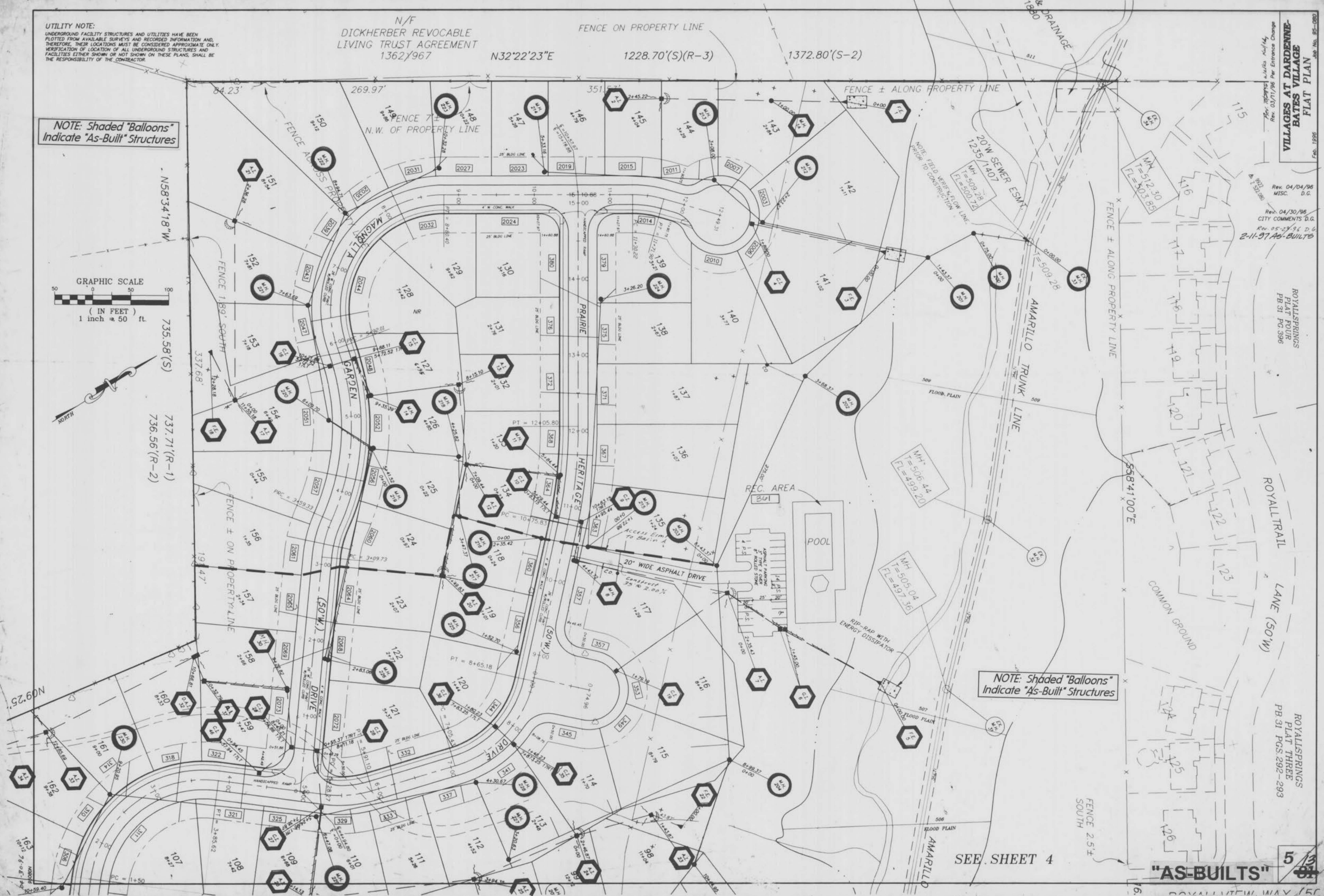
NOTE: Shaded "Balloons" Indicate "As-Built" Structures

SEE SHEET 4

"AS-BUILTS"

5/91

ROYALTRAIL WAY / EC
 Vill. @ Dardenne - Bates Village AS-Built



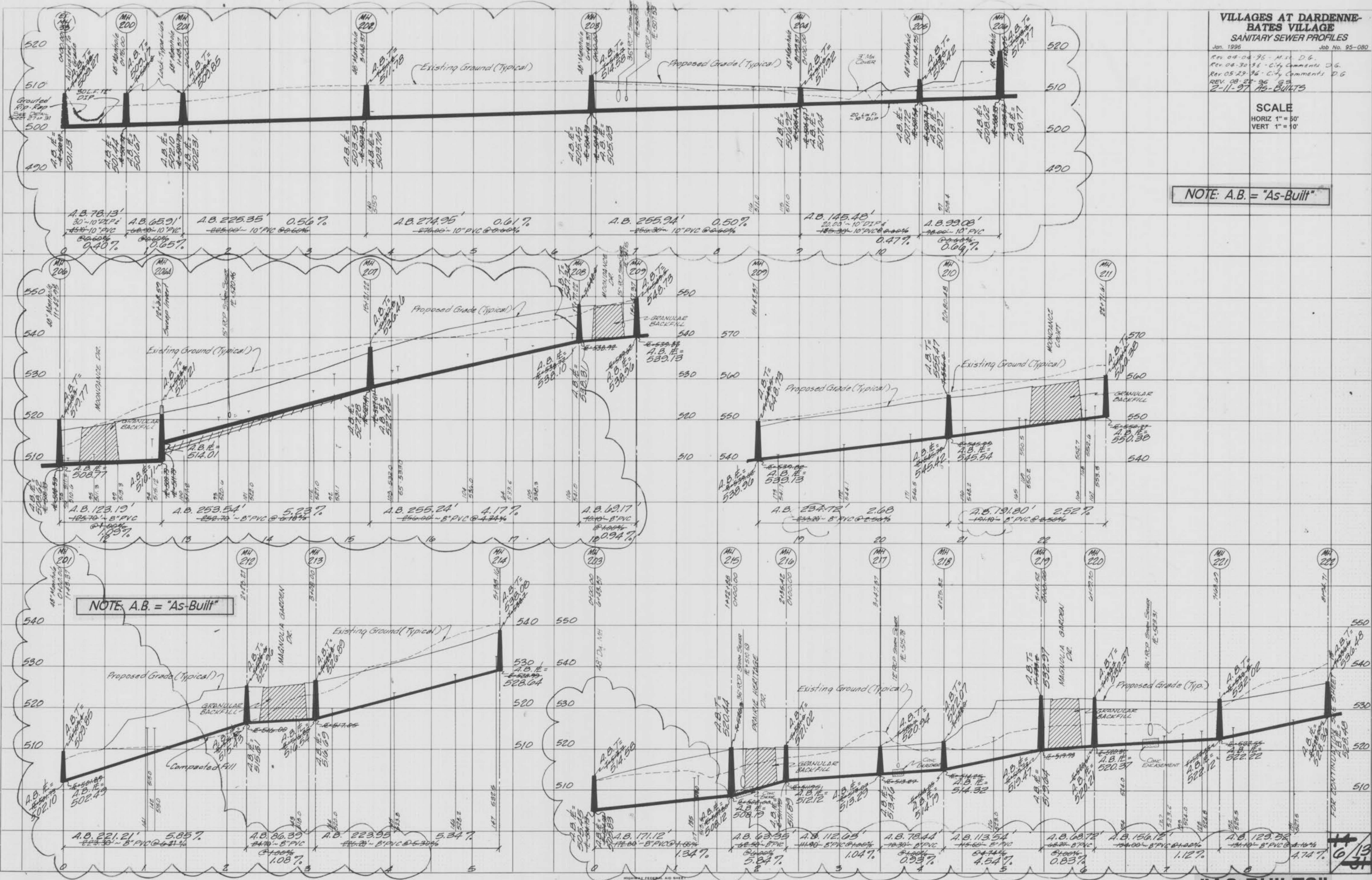
VILLAGES AT DARDENNE-BATES VILLAGE
SANITARY SEWER PROFILES
 Jan. 1996 Job No. 95-080
 Rev. 04-04-96 - M.I. D.G.
 Rev. 08-30-96 - C.F. Comments D.G.
 Rev. 05-29-96 - C.F. Comments D.G.
 Rev. 08-27-96 - G.S.
 2-11-97 AS-BUILTS

SCALE
 HORIZ 1" = 50'
 VERT 1" = 10'

NOTE: A.B. = "As-Built"

DATE _____ BY _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 ORIGINAL SURVEY TEMPLATE AREAS CHECKED

DATE _____ BY _____
 SURVEYED _____
 PLOTTED _____
 CHECKED _____
 ORIGINAL SURVEY TEMPLATE AREAS CHECKED



NOTE: A.B. = "As-Built"

"AS-BUILTS"

NATIONAL FIREARMS
 PRINTED IN U.S.A.

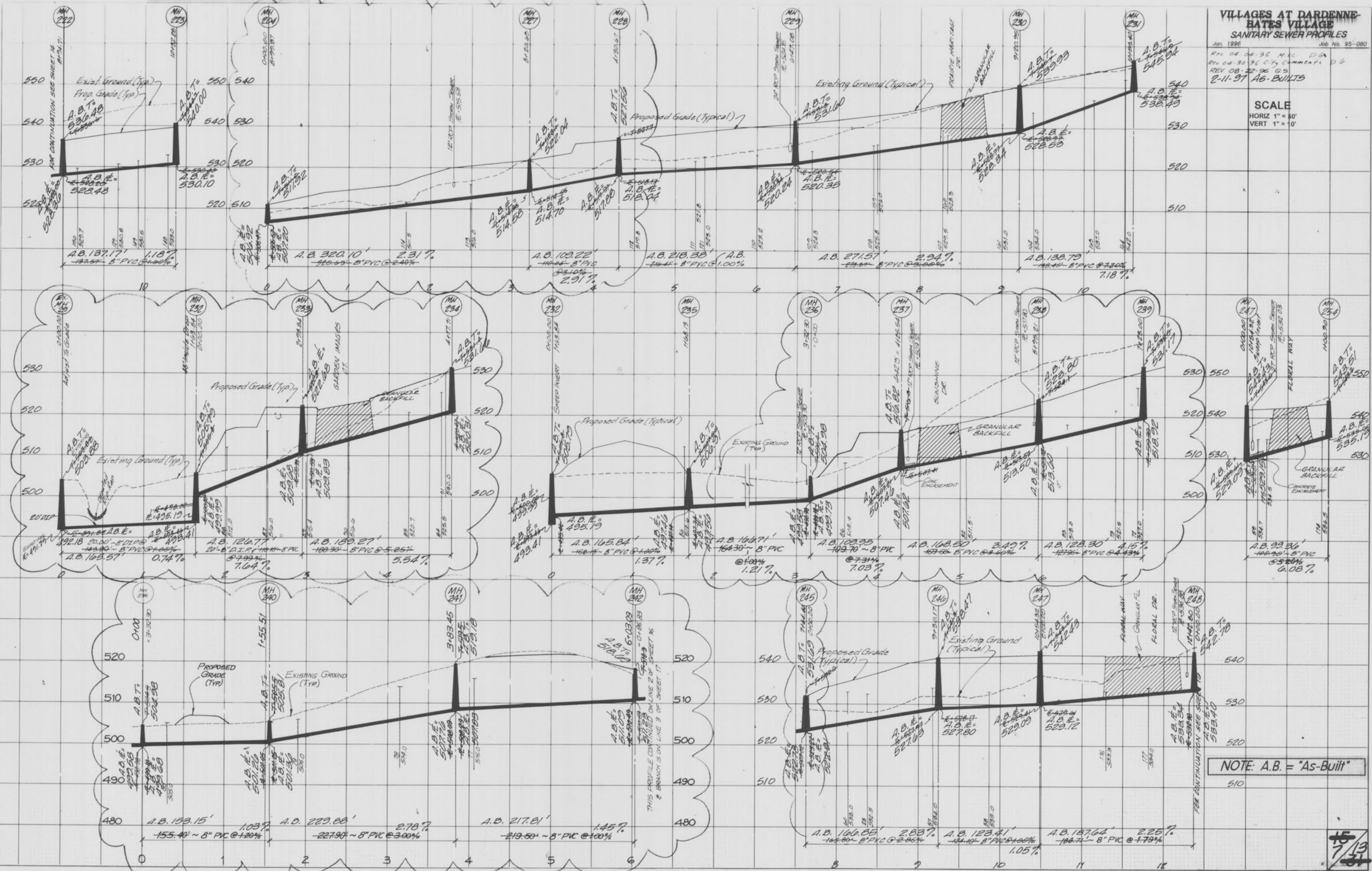
NOTE: A.B. = "A5-Built"

VILLAGES AT DARDENNE-
BATES VILLAGE
SANITARY SEWER PROFILES
Jan. 1996 Job No. 95-080
Rev. 04-96 M.C. D.G.
Rev. 06-30-95 City Comments D.G.
REV. 08-22-96 G.S.
2-11-97 A6-BUILTS

SCALE
HORIZ 1" = 50'
VERT 1" = 10'

FINAL SURVEY
DATE
BY
REVISIONS
NO. DATE BY

ORIGINAL SURVEY
DATE
BY
REVISIONS
NO. DATE BY



NOTE: A.B. = "As-Built"

PLATE 3-FULL CROSS SECTION, LINE & DOT
NATIONAL INSTRUMENT
PRINTED IN U.S.A.

"AS-BUILTS"

VILLAGES AT DARDENNE-BATES VILLAGE
SANITARY SEWER PROFILES

Jan. 1996 Job No. 95-080
Rev. 04-24-96 Misc. D.S.
Rev. 08-30-96 C.L. Comments: D.G.
Rev. 08-27-96 G.S.
Rev. 10-25-96 STORM CROSSING 242-265, TR 22 REV. - G.S.
2-11-97 AG-BUILTS

NOTE: A.B. = "As-Built"

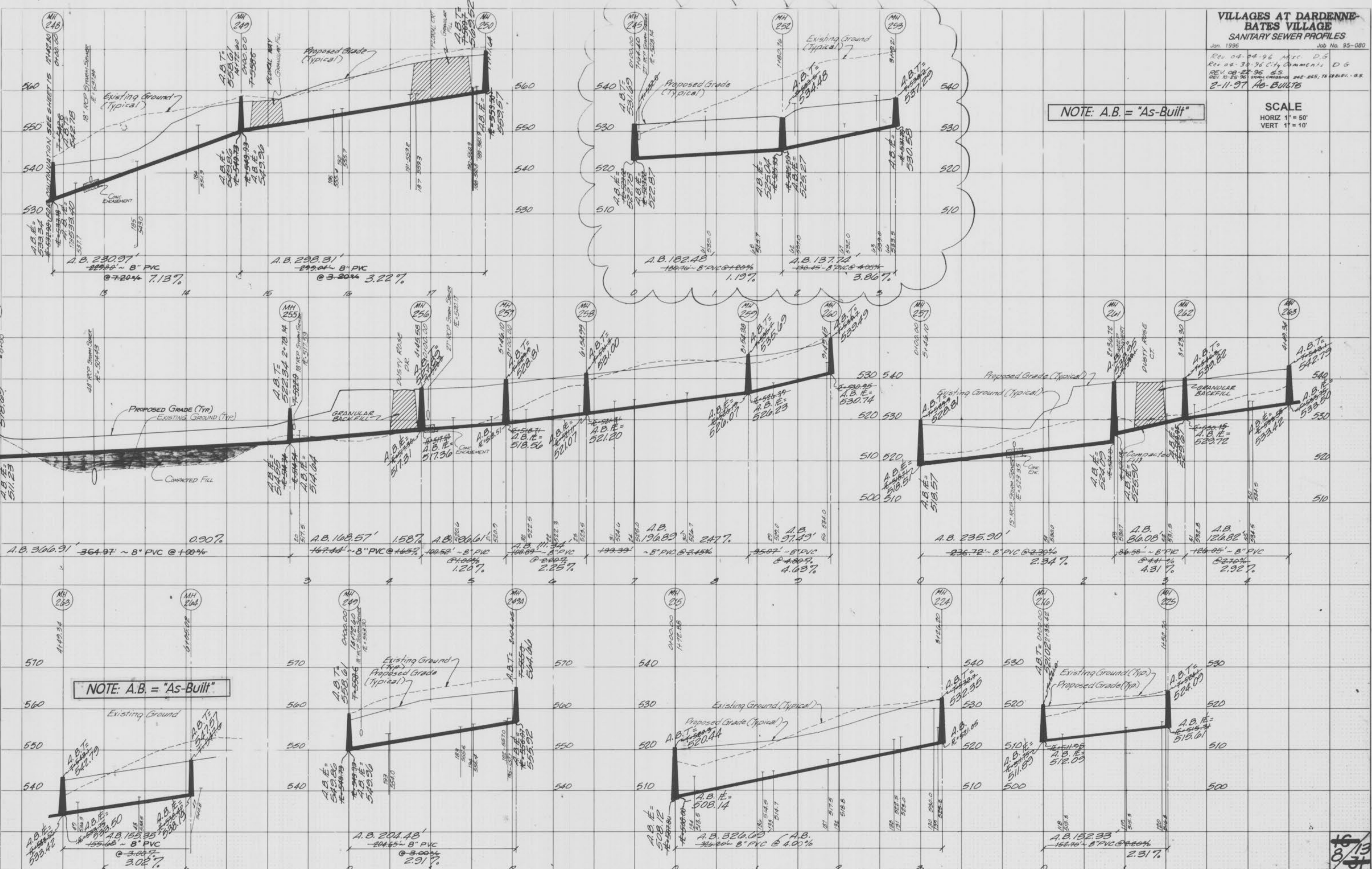
SCALE
HORIZ 1" = 50'
VERT 1" = 10'

DATE	
BY	
CHECKED	
NO.	

PROFILE CONTINUED FROM LINE B OF SHEET 15

ORIGINAL SURVEY	
NOTE BOOK	
NO.	

04-30-96
95-080-N



NOTE: A.B. = "As-Built"

"AS-BUILTS"

NOTE: A.B. = "As-Built"

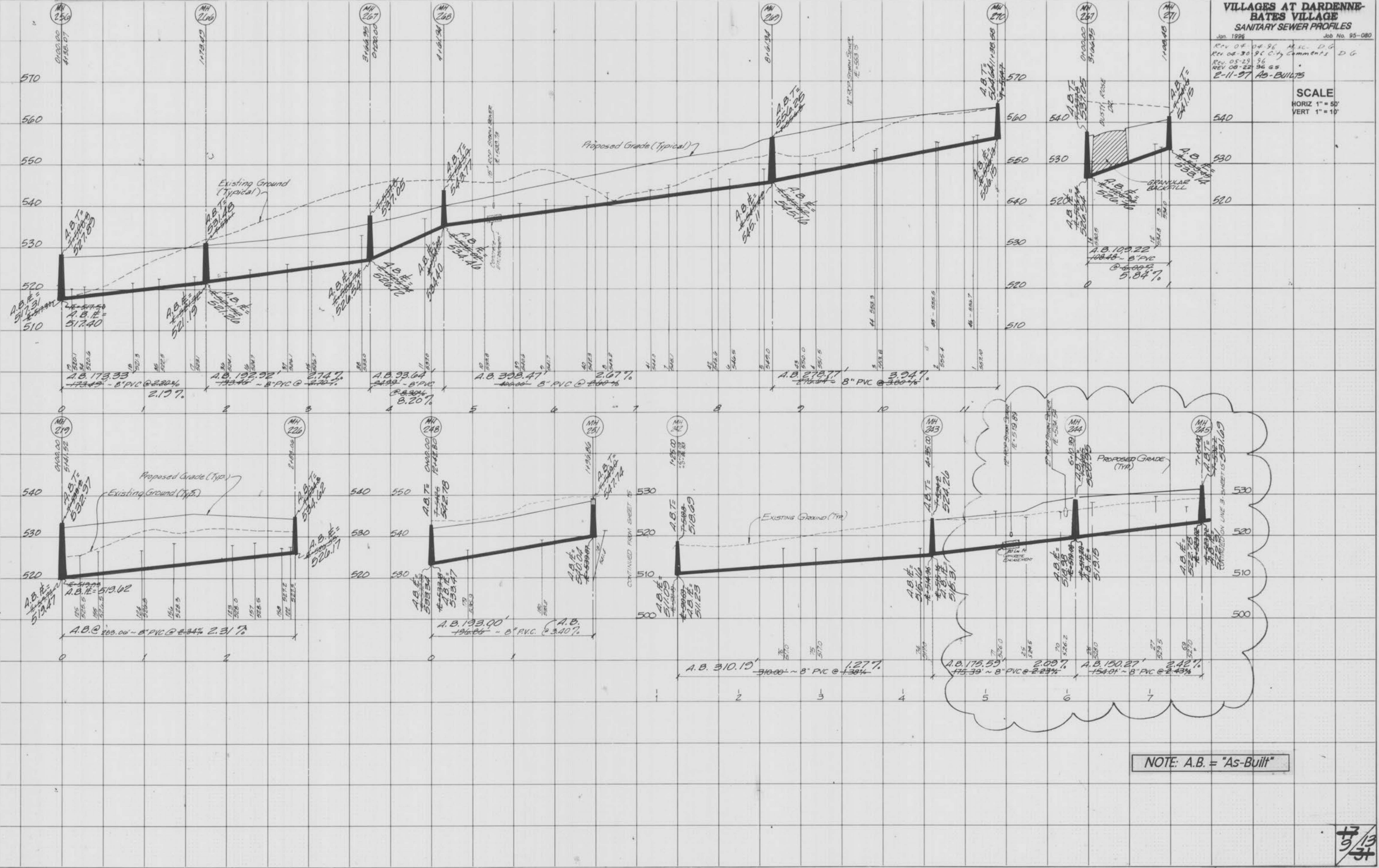
VILLAGES AT DARDENNE-BATES VILLAGE
SANITARY SEWER PROFILES

Jan. 1996 Job No. 95-080
REV 04-30-96 M.S.C. D.G.
REV 05-29-96 R.C. Comments D.G.
REV 08-22-96 G.S.
2-11-97 AS-BUILTS

SCALE
HORIZ 1" = 50'
VERT 1" = 10'

FINAL SURVEY
DATE: _____ BY: _____
PLANNED: _____
PLOTTED: _____
TEMPLATE: _____
NOTE BOOK: _____
AREAS CHECKED: _____
NO. _____

ORIGINAL SURVEY
DATE: _____ BY: _____
PLANNED: _____
PLOTTED: _____
TEMPLATE: _____
NOTE BOOK: _____
AREAS CHECKED: _____
NO. _____



"AS-BUILTS"

17/3/96

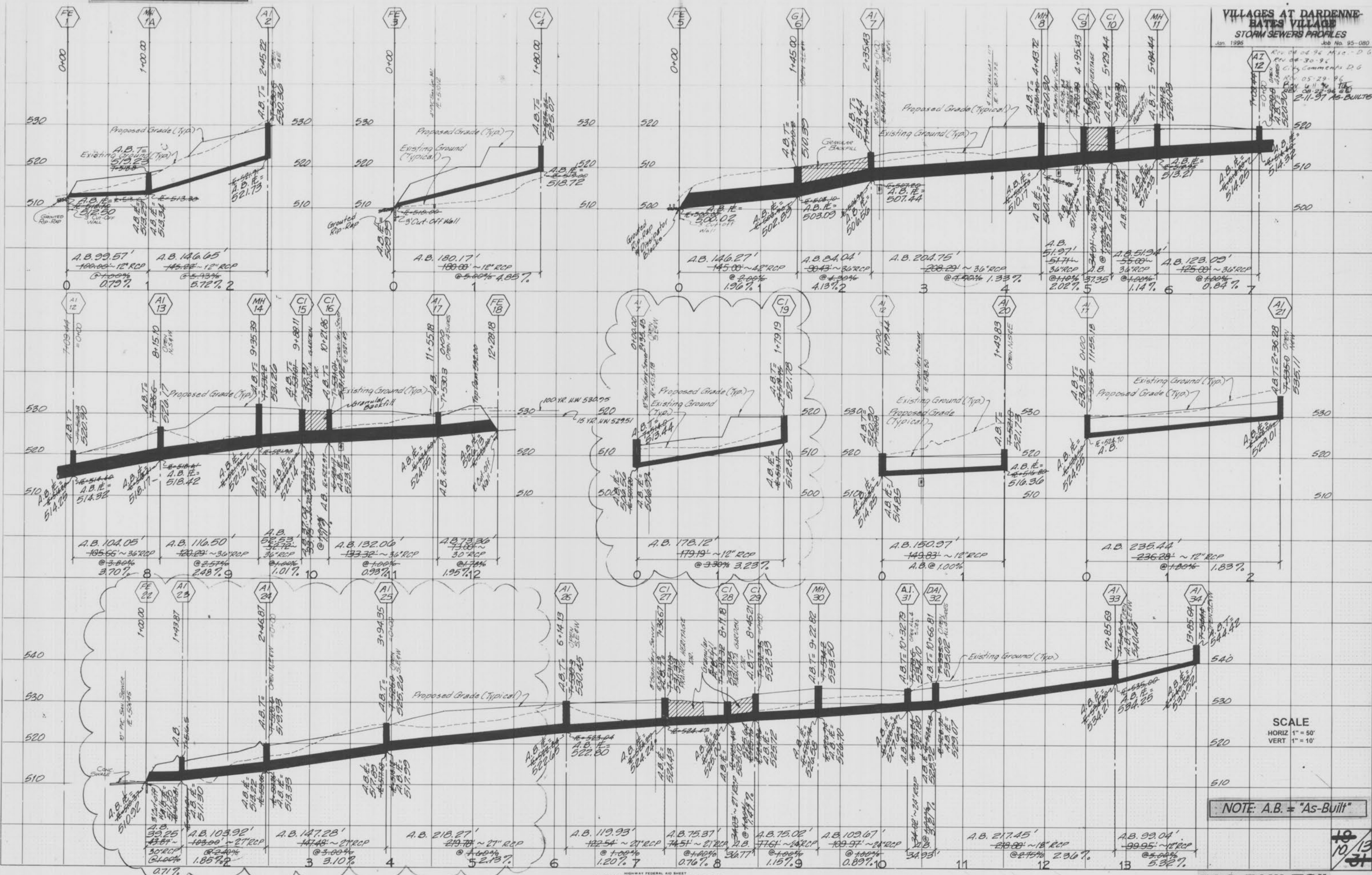
NOTE: A.B. = "As-Built"

VILLAGES AT DARDENNE-BATES VILLAGE
STORM SEWERS PROFILES
Jan 1996 Job No 95-080

Rev 04-24-96 M11-D.G
Rev 04-30-96 City Comments D.G
Rev 05-29-96
Rev 06-11-96
Rev 06-29-96
2-11-97 AS-BUILTS

FINAL SURVEY
DATE
NO. AREAS CHECKED

ORIGINAL SURVEY
DATE
NO. AREAS CHECKED



SCALE
HORIZ 1" = 50'
VERT 1" = 10'

NOTE: A.B. = "As-Built"

10/13/96

NOTE: A.B. = "As-Built"

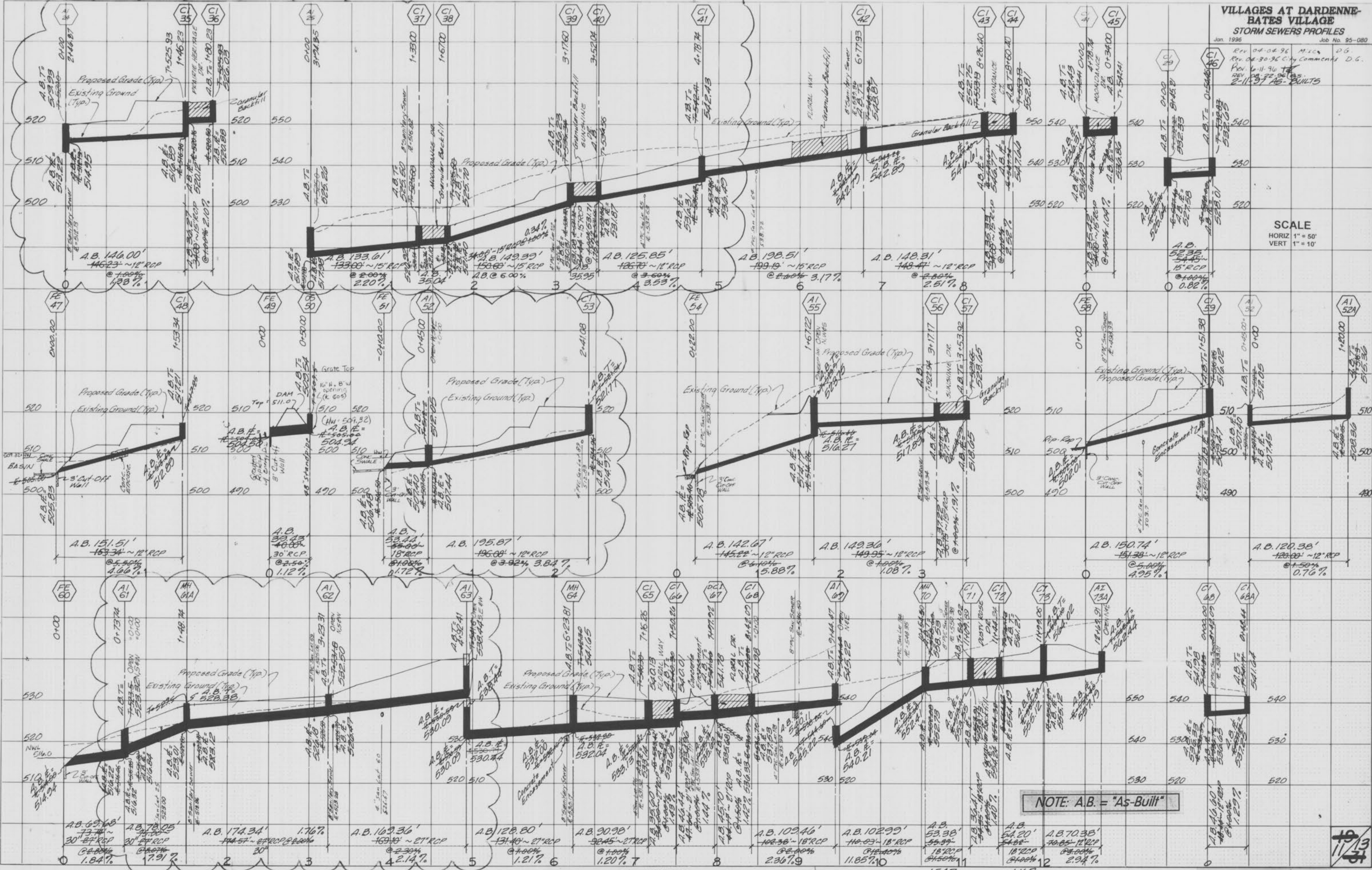
VILLAGES AT DARDENNE-BATES VILLAGE STORM SEWERS PROFILES

Jan 1996 Job No. 95-080
Rev. 04-04-96 M.S.C. D.G.
Rev. 04-30-96 C.H. Comments D.G.
Rev. 04-11-96 J.K.
Rev. 04-22-96 J.K.
2-11-97 AG - POINTS

SCALE
HORIZ 1" = 50'
VERT 1" = 10'

FINAL SURVEY
DATE: _____
BY: _____
CHECKED: _____
NOTED: _____
NO. _____
AREA CHECKED: _____

ORIGINAL SURVEY
DATE: _____
BY: _____
CHECKED: _____
NOTED: _____
NO. _____
AREA CHECKED: _____



NOTE: A.B. = "As-Built"

**VILLAGES AT DARDENNE-BATES VILLAGE
STORM SEWERS PROFILES**

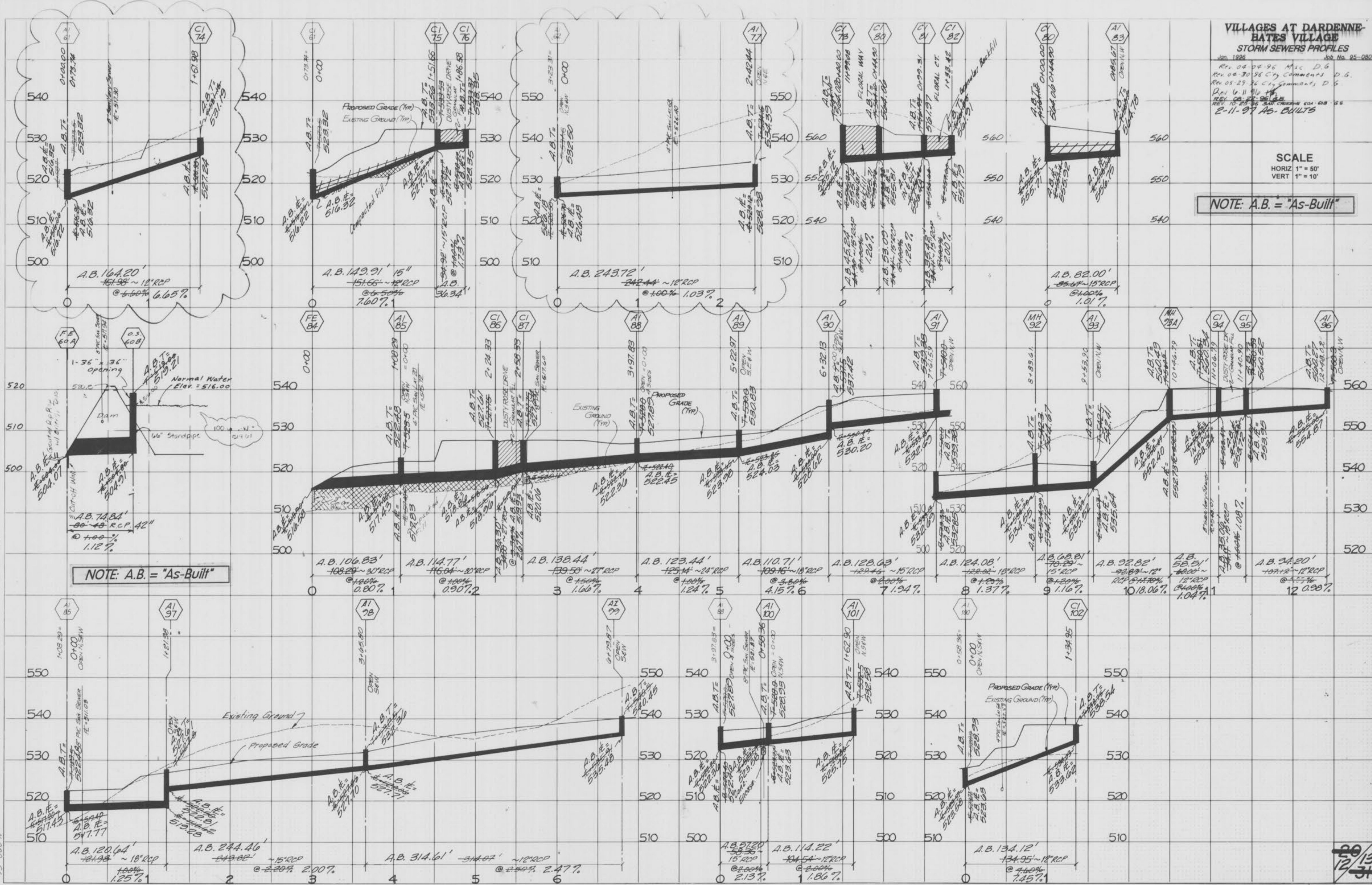
Jan. 1985
Rev. 04-25-96 Misc. D.G.
Rev. 04-30-98 City Comments D.G.
Rev. 05-29-96 City Comments D.G.
Rev. 6-11-96
REV. 04-25-96
2-11-97 AS-BUILTS

SCALE
HORIZ 1" = 50'
VERT 1" = 10'

NOTE: A.B. = "As-Built"

FINAL SURVEY PLOTTED
NOTE BOOK NO.
AREAL CHECKED

ORIGINAL SURVEY PLOTTED
NOTE BOOK NO.
AREAL CHECKED



NOTE: A.B. = "As-Built"

04-26-96
25-08-01

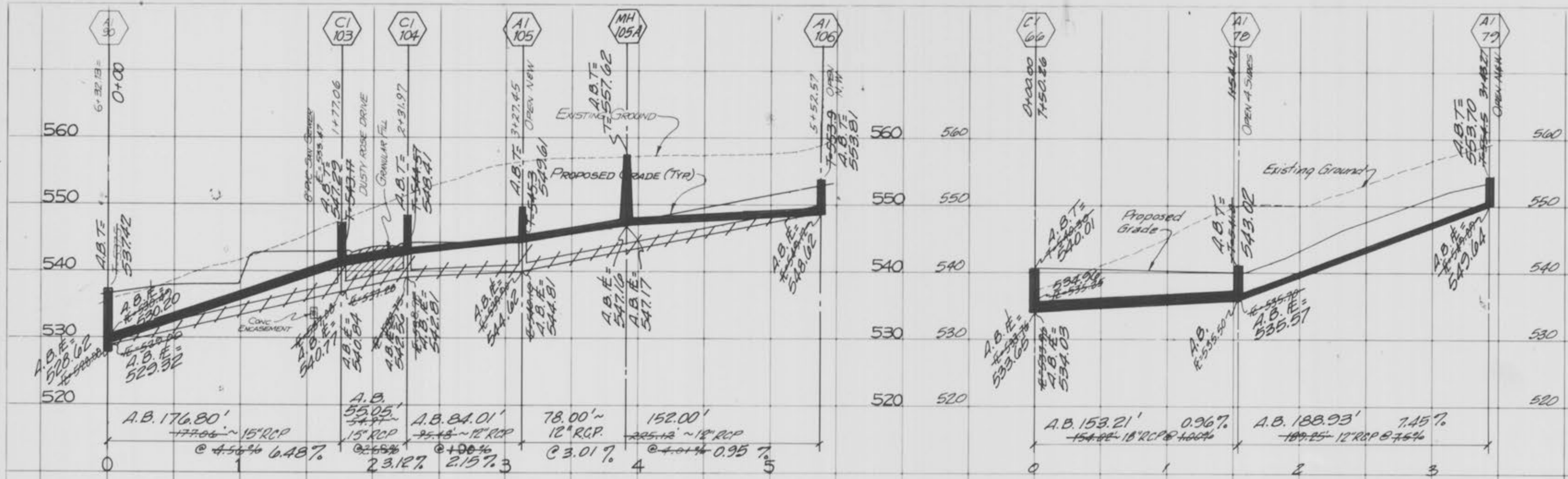
20/13
31

**VILLAGES AT DARDENNE-BATES VILLAGE
STORM SEWERS PROFILES**

Jan. 1996 Job No. 95-D80
 Rev. 04-02-96 M.S.C. D.G.
 Rev. 04-30-96 C.T. Comment D.G.
 Rev. 06-11-96 T.B.
 Rev. 08-12-96 T.B.
 2-11-97 AS-BUILTS
 6-14-97 Rev. AS-BUILT MH 105A

NOTE: A.B. = "As-Built"

SCALE
 HORIZ 1" = 50'
 VERT 1" = 10'



DATE: _____
 BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 FINAL SURVEY: _____
 NOTE BOOK: _____
 SHEET NO: _____
 SHEETS CHECKED: _____

DATE: _____
 BY: _____
 SURVEYED: _____
 PLOTTED: _____
 CHECKED: _____
 ORIGINAL SURVEY: _____
 NOTE BOOK: _____
 SHEET NO: _____
 SHEETS CHECKED: _____

04-30-96
 95-080-N

21
 13/13
 4