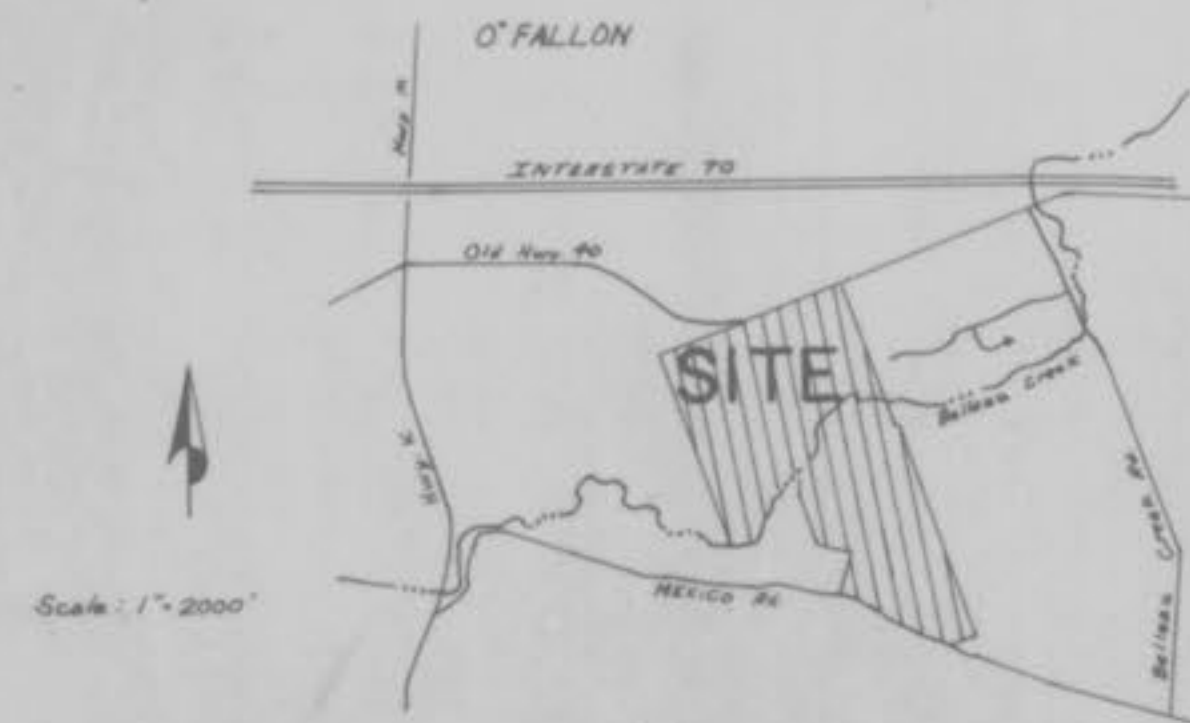


PHASE I COPPERFIELD

IMPROVEMENT PLANS

GENERAL NOTES:

1. Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including house laterals.
2. 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 any grading or construction of improvements.
3. All Manhole and 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, provided said stakes do not fall in the ditch line. If stakes fall within the ditch line the sewer company or job superintendent shall notify the engineer by phone that stakes are needed and allow 48 hours for cuts.
4. All standard street Curb Inlets to have front of inlet 2' (foot) behind curb.
5. Storm sewers 18" diameter and smaller shall be A.S.T.M. C-14 unless otherwise shown on the plans.
6. Storm sewers 21" diameter and larger shall be A.S.T.M. C-76, class II minimum, unless otherwise shown on the plans.
7. All storm sewer pipe in the right-of-way, regardless of size shall be Reinforced Concrete Pipe (A.S.T.M. C-76 Class II Minimum, unless otherwise shown on the plans).
8. Corrugated Metal Pipe shall conform to the standard specifications for corrugated culvert pipe M36, AASHTO. See plans for gauge.
9. All 8" Vitrified Clay Pipe shall be A.S.T.M. Specification C-700. This pipe shall have factory molded resilient joints bonded to spigot and to bell that conforms to A.S.T.M. Specification C-425. See Note 20.
10. All sanitary house connections have been designed so that the minimum vertical distance from the low point of the basement to the flow line of a sanitary sewer at the corresponding house connection is not less than the diameter of the pipe plus a vertical distance of 2 1/2 feet.
11. 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.
12. All filled places, including trench backfills, under buildings, proposed storm and sanitary sewer lines and/or paved areas, shall be compacted to 90% of maximum density as determined by the "Modified AASHTO T-190 Compaction Test," (A.S.T.M. D-1557) unless otherwise required in the soils report for this project.
13. All trench backfills within the public R.O.W., shall be granular backfill. Trench backfills under paved areas, outside of public R.O.W. may be granular backfill in lieu of the earth backfill compacted to 90% of the Modified AASHTO Compaction Test.
14. No area shall be cleared without permission of the developer.
15. All grades shall be within 0.2 feet more or less of those shown on the grading plan.
16. All swales shall be sodded unless otherwise noted on the plans.
17. No slope shall be steeper than 2:1 or as required in the Soils Report for the project.
18. Barricades will consist of three standard 12"x36" red and white striped scotchlite hazard markers mounted on two pound "U" channel sign post, with bottom of marker seven feet above pavement surface.
19. A trust indenture shall be established for maintenance of Cul-de-Sac islands including the 6' Vertical Curb and all Common Ground when applicable.
20. 8" P.V.C. Sanitary Sewer Pipe may be used in place of V.C.P. The pipe must meet the following standards:
 1. ASTM-D-3034 SDR-35, with thick wall compression joint - ASTM-D-3212
21. When P.V.C. pipe is used, appropriate rubber seal waterstop, as approved by the sewer district, shall be installed between P.V.C. pipe and masonry (concrete & brick) structure.
22. All construction & materials used shall conform to current City of O'Fallon, Missouri Standards.



LOCATION MAP

23. All PVC water pipe shall have a minimum rating of 200 p.s.i., SDR 21 or approved equal.
24. All water mains & appurtenance shall meet the specifications & installation requirements of the local governing authority.
25. Water hydrants shall be Mueller "Centurion" 3-Way or approved equal.

INDEX

Sheet 1	Cover Sheet
Sheet 2	Flat Plan
Sheet 3	Grading Plan
Sheets 4 & 5	Street Profiles
Sheets 6 & 7	Sanitary Sewer Profiles
Sheets 8 & 9	Storm Sewer Profiles
Sheet 10	Drainage Area Map
Sheets 11-15	Construction Details
Sheet 16	Water Main Details

LEGEND

C.I.	Curb Inlet	T.B.	Thrust Block
D.C.I.	Double Curb Inlet		
A.I.	Area Inlet		
2.G.I.	Two Grate Inlet		
M.H.	Manhole		
F.E.	Flared End Section		
E.P.	End Pipe		
C.P.	Concrete Pipe		
R.C.P.	Reinforced Concrete Pipe		
C.M.P.	Corrugated Metal Pipe		
C.I.P.	Cast Iron Pipe		
P.V.C.	Poly Vinyl Chloride (Plastic Pipe)		
V.C.P.	Vitrified Clay Pipe		
C.O.	Clean Out		
V.T.	Vent Trap		
—■—	Storm Sewer		
—●—	Sanitary Sewer		
---	Existing Contour		
---	Proposed Contour		
♣	Street Sign		
FL	Elevation at Terminus of House Connection		
FL	FL of Sanitary Sewer		
7	Lot or Building Number		
(12)	Depth to Rock		
E.D.	Energy Dissipator		

PROPERTY OF
CITY OF O'FALLON
BUILDING DEPARTMENT

This is to certify that the as-constructed elevations, locations and distances shown hereon are correct and were taken in the field during March, 1983.



NO.	DATE	REVISION	BY	APPD.
3	8/1/82	Added Meter Valves & Heads Per City of O'Fallon	J.D.B.	
2	8/1/82	Water Main Details Added	J.D.B.	
1	7/13/82	Street Name Chg.	J.D.B.	

		C & H BUILDERS 510 BAXTER ROAD BALLWIN MO. 63011 314-441-4508	
DRAWN J.D.B.		DATE 7-12-82	
CHECKED E.A.R.		SCALE AS SHOWN	

VOLZ ENGINEERING & SURVEYING, INC. LAND SURVEYORS - ENGINEERS - LAND PLANNERS 10849 INDIAN HEAD IND. BLVD. ST. LOUIS, MISSOURI 63132 PHONE - 426-6212		82- 9893
--	--	-------------------------------

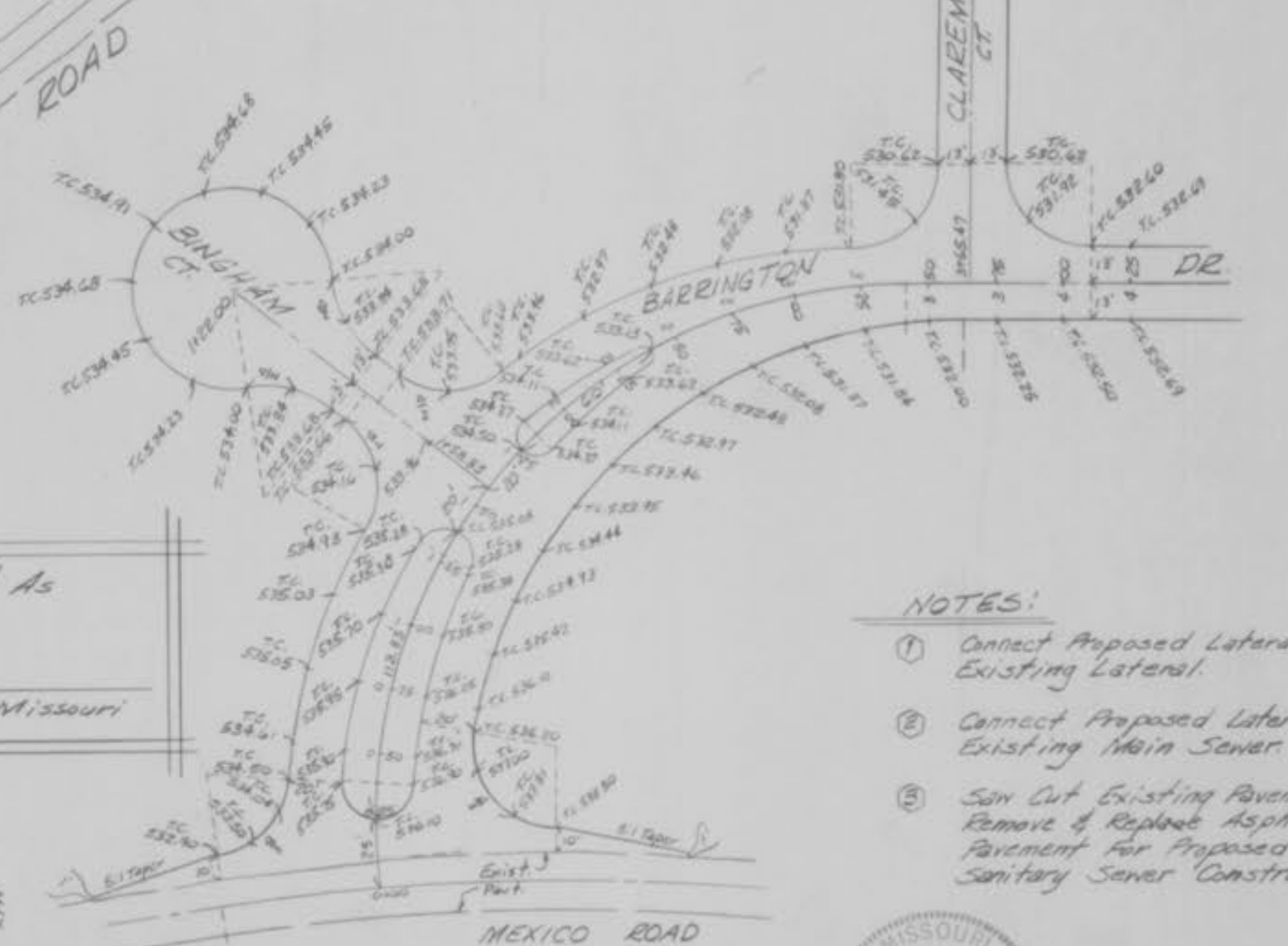
"As-Builts"

**COPPERFIELD PHASE I
FLAT PLAN**

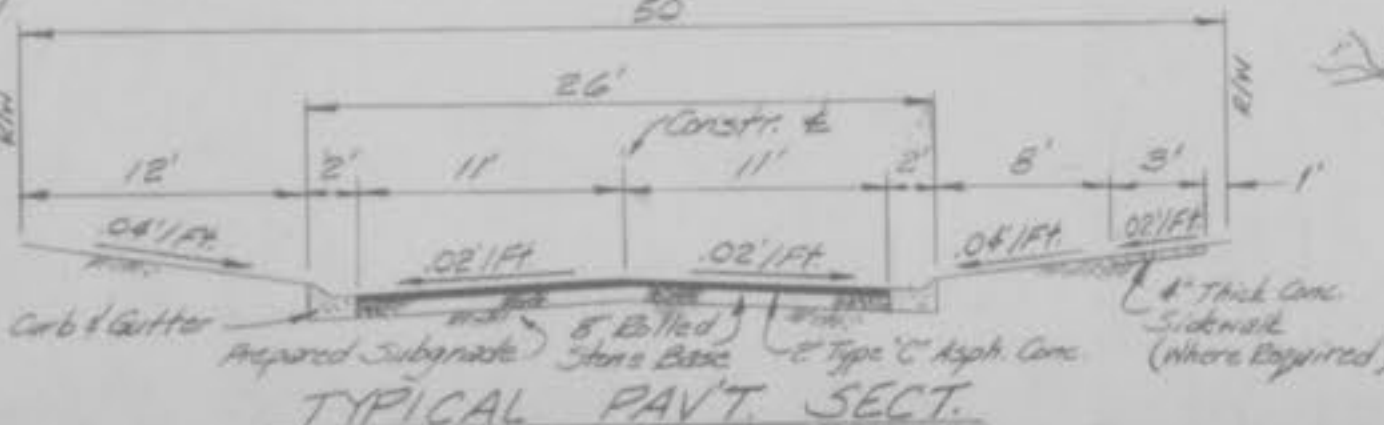
#82-9893 B 7-12-82
 Rev. 7/13/82 Str. Names
 Rev. 8/14/82 Water Main
 Rev. 8/16/82 Water Valves & Hydrants
 Rev. 9/5/82 Str. Names
 Rev. 2/21/83 Chg. Sidewalk



INTERSECT DETAIL
1" = 30'



ENTRANCE WARPING
1" = 50'



TYPICAL PAVT. SECT.

SECTION A-A
1" = 10'

Total Q @ Sect = 146.86 c.f.s.
 $Q = a \times 1.486 \times R^{0.54}$
 $a = 29.7 \quad n = 0.35 \quad wp = 21.7$
 $R = \frac{S}{n} = \frac{0.0098}{0.35} = 1.37$
 $S = 0.0098$

$Q = 29.7 \times \frac{1.486}{0.35} \times 1.37^{0.54} = 0.0098 \text{ c.f.s.}$
 $Q = 29.7 \times 42.457 \times 1.233 \times 0.009899$
 $Q = 153.91 \text{ c.f.s.}$

Scale 1" = 50'

Sidewalk Change Approved As Shown Hereon.

City of O'Fallon, Missouri

- NOTES:**
- 1 Connect Proposed Lateral To Existing Lateral.
 - 2 Connect Proposed Lateral To Existing Main Sener.
 - 3 Saw Cut Existing Pavement, Remove & Replace Asphalt Pavement For Proposed Sanitary Sener Construction.



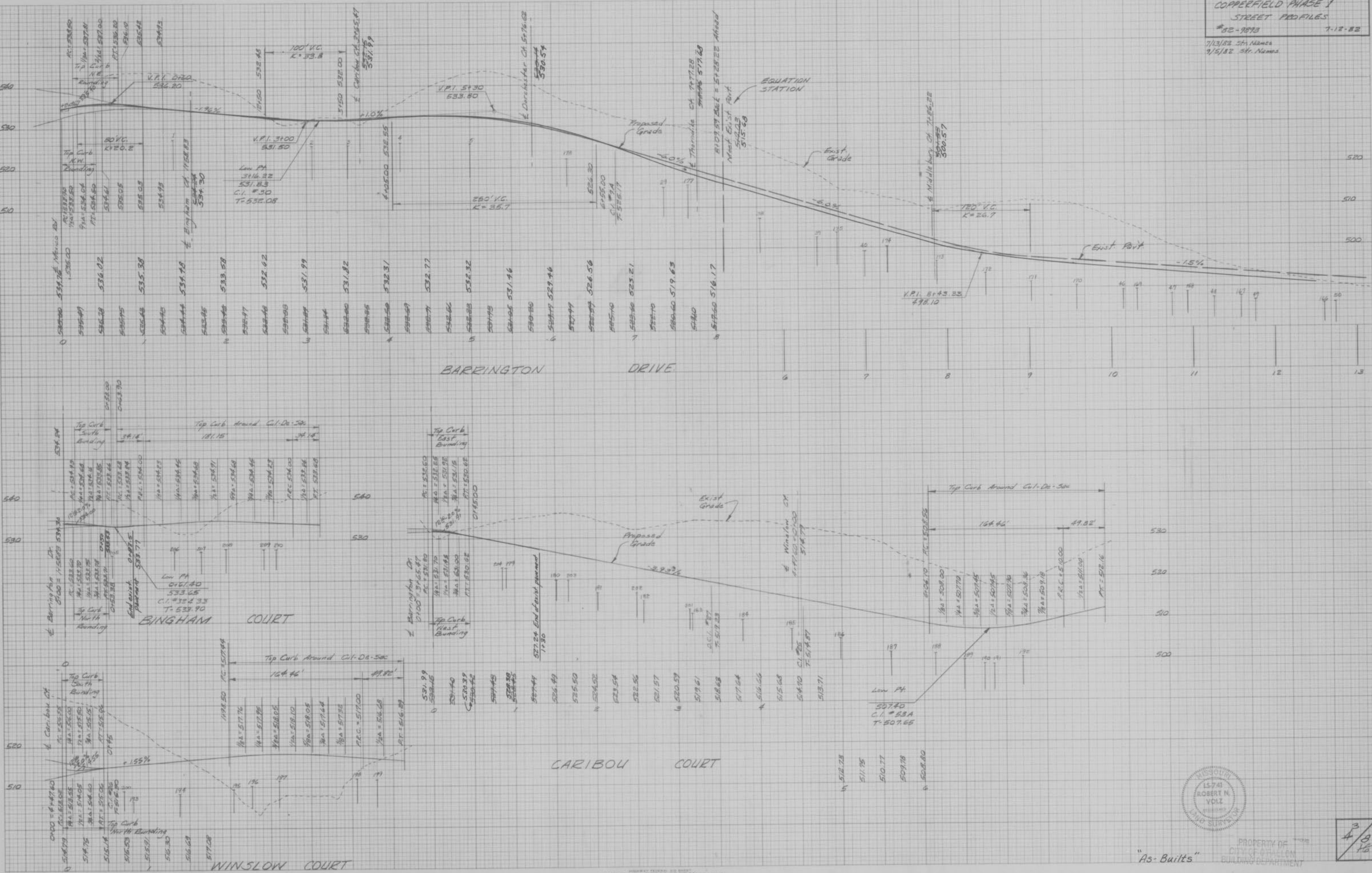
PROPERTY OF
CITY OF O'FALLON
BUILDING DEPARTMENT

**COPPERFIELD PHASE I
STREET PROFILES**
#82-9873 7-12-82

7/13/82 St. Names
7/5/82 St. Names

FINAL SURVEY DATE
BY
PLATTED DATE
BY
NOTE BOOK NUMBER
AREA
SCALE CHECKED
NO.

ORIGINAL SURVEY DATE
BY
PLATTED DATE
BY
NOTE BOOK NUMBER
AREA
SCALE CHECKED
NO.



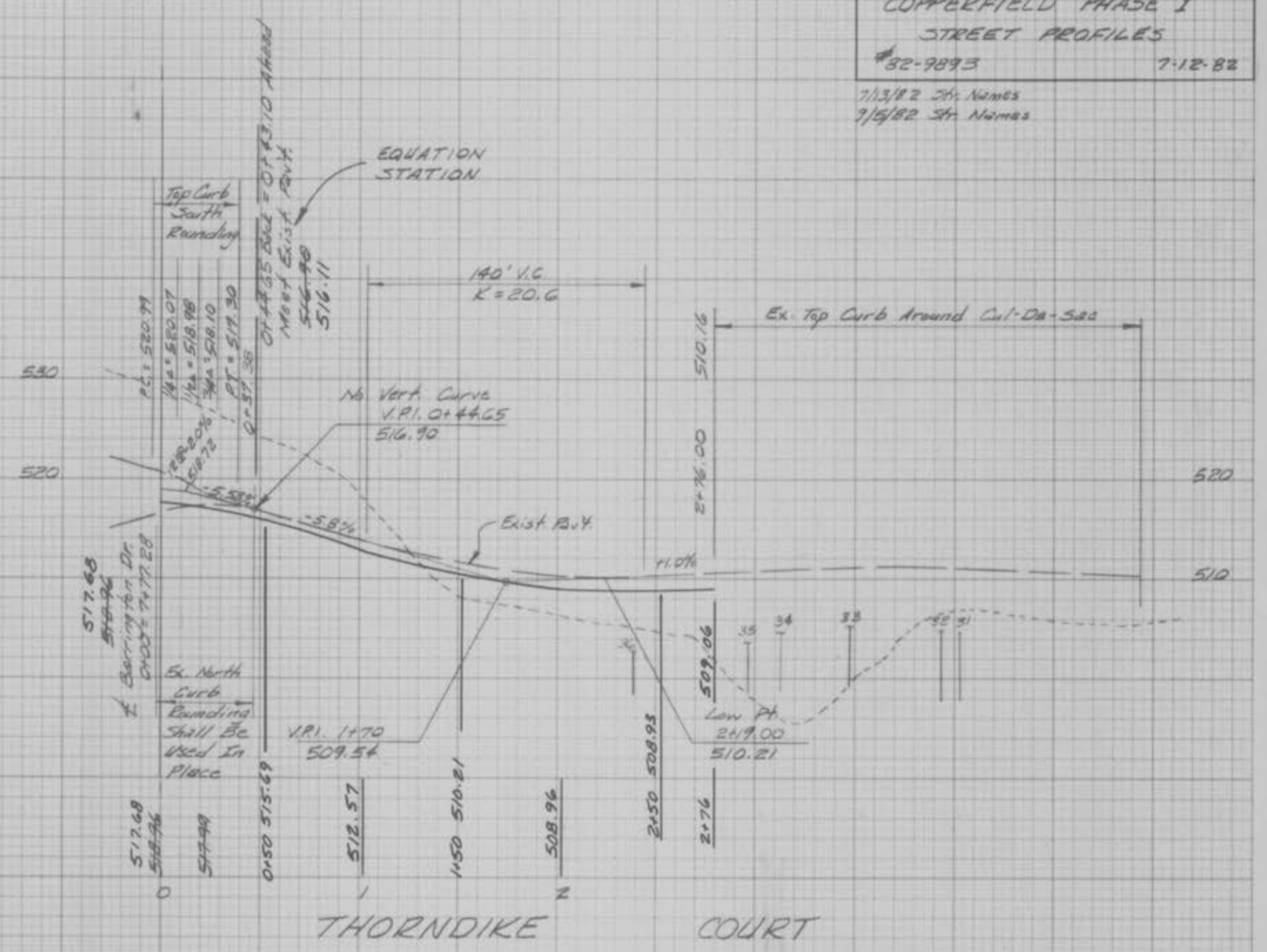
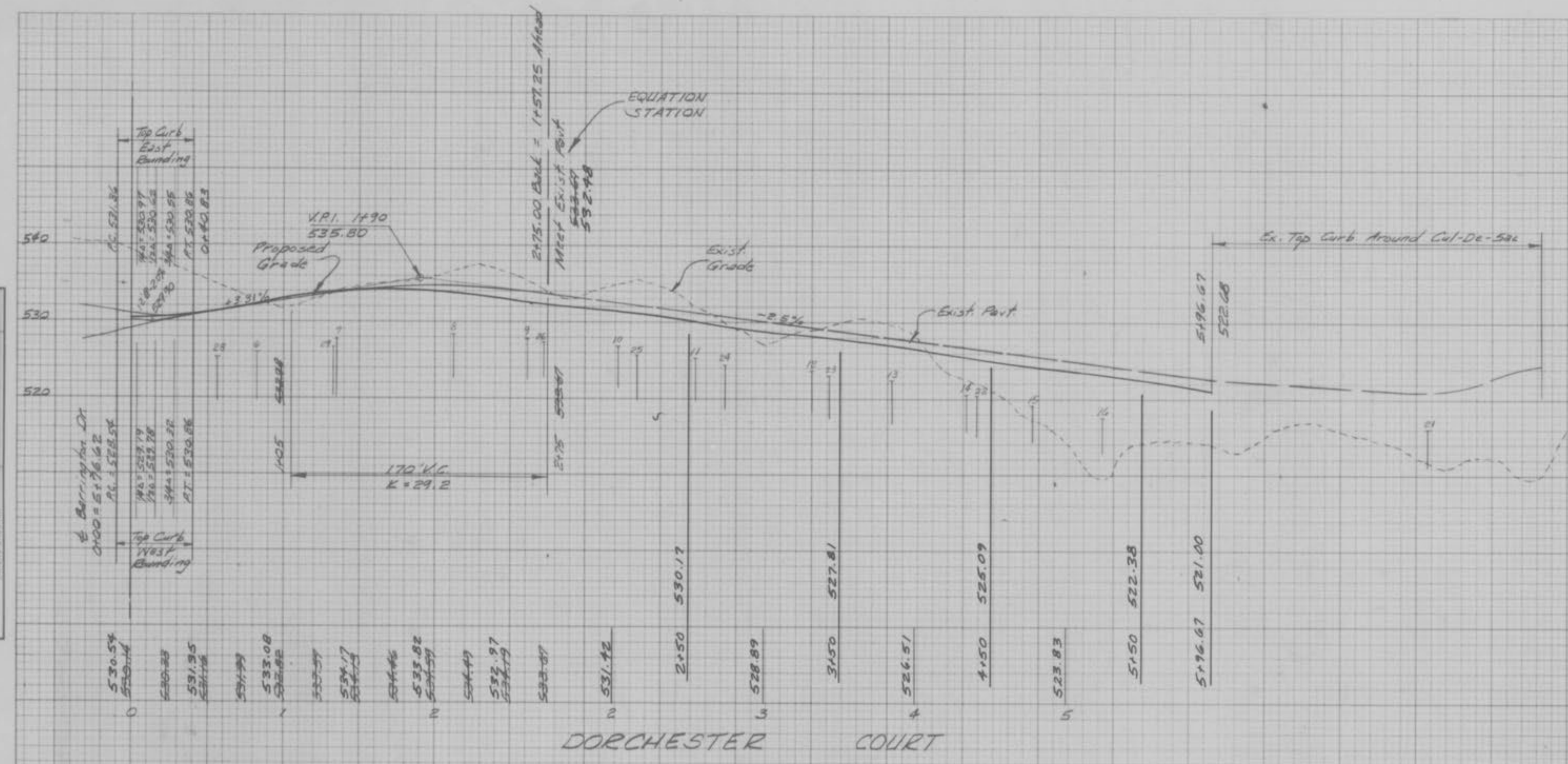
"As-Built"

PROPERTY OF
CITY OF ST. LOUIS
BUILDING DEPARTMENT

3
4
8
16

FINAL SURVEY DATE
BY
REVISIONS
DATE
NO. OF SHEETS
TOTAL SHEETS
DATE BOON AREA
NO. OF SHEETS
TOTAL SHEETS
DATE CHECKED

ORIGINAL SURVEY DATE
BY
REVISIONS
DATE
NO. OF SHEETS
TOTAL SHEETS
DATE BOON AREA
NO. OF SHEETS
TOTAL SHEETS
DATE CHECKED



PROPERTY OF
CITY OF FALLON
BUILDING DEPARTMENT

"As-Built"

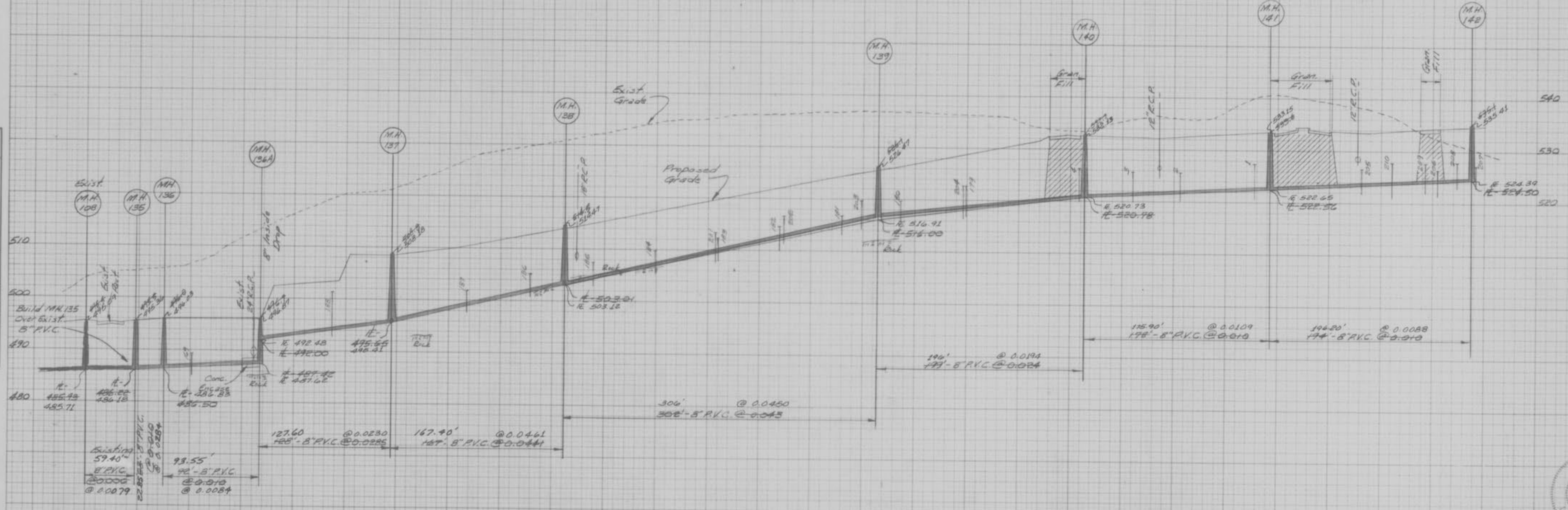
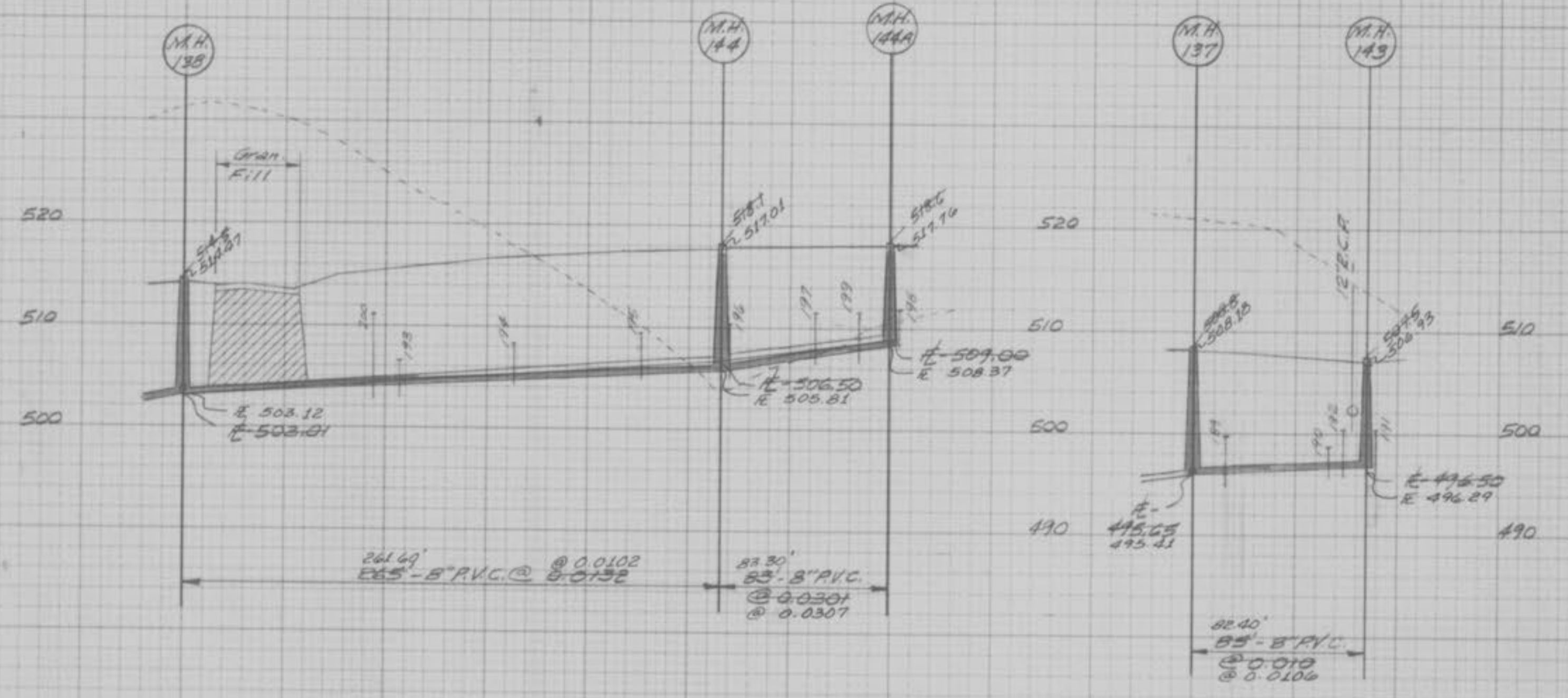


4
8
16

COPPERFIELD PHASE I
 SANITARY SEWER PROFILES
 #52-9873 7-12-82

FINAL SURVEY BY DATE
 REVISIONS
 1. DATE
 2. DATE
 3. DATE
 4. DATE
 5. DATE
 6. DATE
 7. DATE
 8. DATE
 9. DATE
 10. DATE
 11. DATE
 12. DATE
 13. DATE
 14. DATE
 15. DATE
 16. DATE
 17. DATE
 18. DATE
 19. DATE
 20. DATE
 21. DATE
 22. DATE
 23. DATE
 24. DATE
 25. DATE
 26. DATE
 27. DATE
 28. DATE
 29. DATE
 30. DATE
 31. DATE
 32. DATE
 33. DATE
 34. DATE
 35. DATE
 36. DATE
 37. DATE
 38. DATE
 39. DATE
 40. DATE
 41. DATE
 42. DATE
 43. DATE
 44. DATE
 45. DATE
 46. DATE
 47. DATE
 48. DATE
 49. DATE
 50. DATE
 51. DATE
 52. DATE
 53. DATE
 54. DATE
 55. DATE
 56. DATE
 57. DATE
 58. DATE
 59. DATE
 60. DATE
 61. DATE
 62. DATE
 63. DATE
 64. DATE
 65. DATE
 66. DATE
 67. DATE
 68. DATE
 69. DATE
 70. DATE
 71. DATE
 72. DATE
 73. DATE
 74. DATE
 75. DATE
 76. DATE
 77. DATE
 78. DATE
 79. DATE
 80. DATE
 81. DATE
 82. DATE
 83. DATE
 84. DATE
 85. DATE
 86. DATE
 87. DATE
 88. DATE
 89. DATE
 90. DATE
 91. DATE
 92. DATE
 93. DATE
 94. DATE
 95. DATE
 96. DATE
 97. DATE
 98. DATE
 99. DATE
 100. DATE

ORIGINAL SURVEY BY DATE
 REVISIONS
 1. DATE
 2. DATE
 3. DATE
 4. DATE
 5. DATE
 6. DATE
 7. DATE
 8. DATE
 9. DATE
 10. DATE
 11. DATE
 12. DATE
 13. DATE
 14. DATE
 15. DATE
 16. DATE
 17. DATE
 18. DATE
 19. DATE
 20. DATE
 21. DATE
 22. DATE
 23. DATE
 24. DATE
 25. DATE
 26. DATE
 27. DATE
 28. DATE
 29. DATE
 30. DATE
 31. DATE
 32. DATE
 33. DATE
 34. DATE
 35. DATE
 36. DATE
 37. DATE
 38. DATE
 39. DATE
 40. DATE
 41. DATE
 42. DATE
 43. DATE
 44. DATE
 45. DATE
 46. DATE
 47. DATE
 48. DATE
 49. DATE
 50. DATE
 51. DATE
 52. DATE
 53. DATE
 54. DATE
 55. DATE
 56. DATE
 57. DATE
 58. DATE
 59. DATE
 60. DATE
 61. DATE
 62. DATE
 63. DATE
 64. DATE
 65. DATE
 66. DATE
 67. DATE
 68. DATE
 69. DATE
 70. DATE
 71. DATE
 72. DATE
 73. DATE
 74. DATE
 75. DATE
 76. DATE
 77. DATE
 78. DATE
 79. DATE
 80. DATE
 81. DATE
 82. DATE
 83. DATE
 84. DATE
 85. DATE
 86. DATE
 87. DATE
 88. DATE
 89. DATE
 90. DATE
 91. DATE
 92. DATE
 93. DATE
 94. DATE
 95. DATE
 96. DATE
 97. DATE
 98. DATE
 99. DATE
 100. DATE



PROPERTY OF CITY OF FALLON
 BUILDING DEPARTMENT

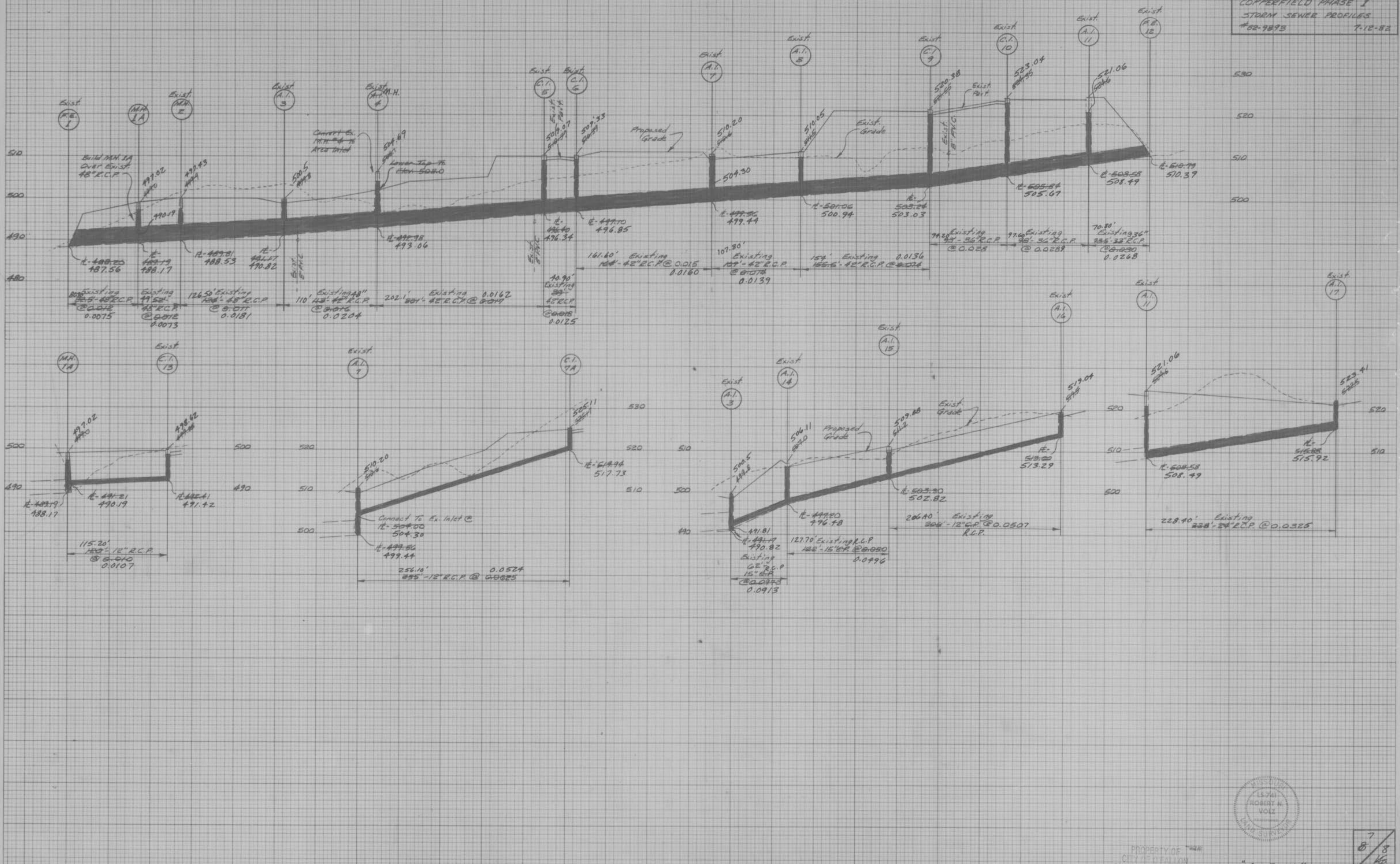
PROPERTY OF CITY OF FALLON
 BUILDING DEPARTMENT

"As-Built"
 COPPERFIELD PHASE I
 SANITARY SEWER PROFILES

6
 8
 16

DATE
BY
FINAL SURVEY
FLIPPED
NOTE BOOK
NO.
AREAS CHECKED

DATE
BY
ORIGINAL SURVEY
FLIPPED
NOTE BOOK
NO.
AREAS CHECKED



PROPERTY OF
CITY OF ILLINOIS
BUILDING DEPARTMENT

"As-Built"

7
8
16

