

**PLANS FOR CONSTRUCTION OF
SANITARY SEWERS, STORM SEWERS,
GRADING, PAVING, AND WATER MAINS
FOR**

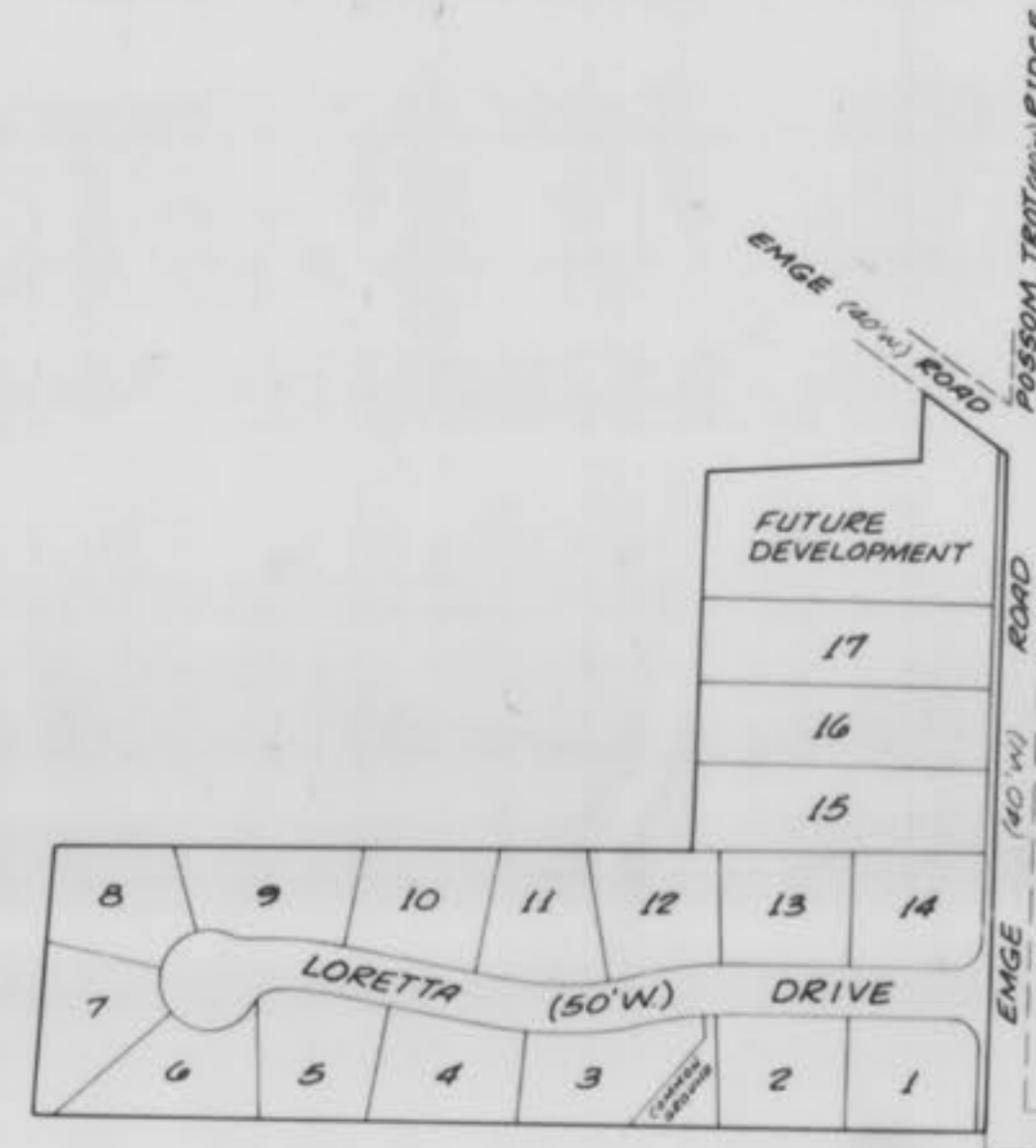
CORONATION ESTATES

**A TRACT OF LAND IN
THE S.W. 1/4 OF SECTION 20
T.47N., R.3E., ST. CHARLES CO., MO.**

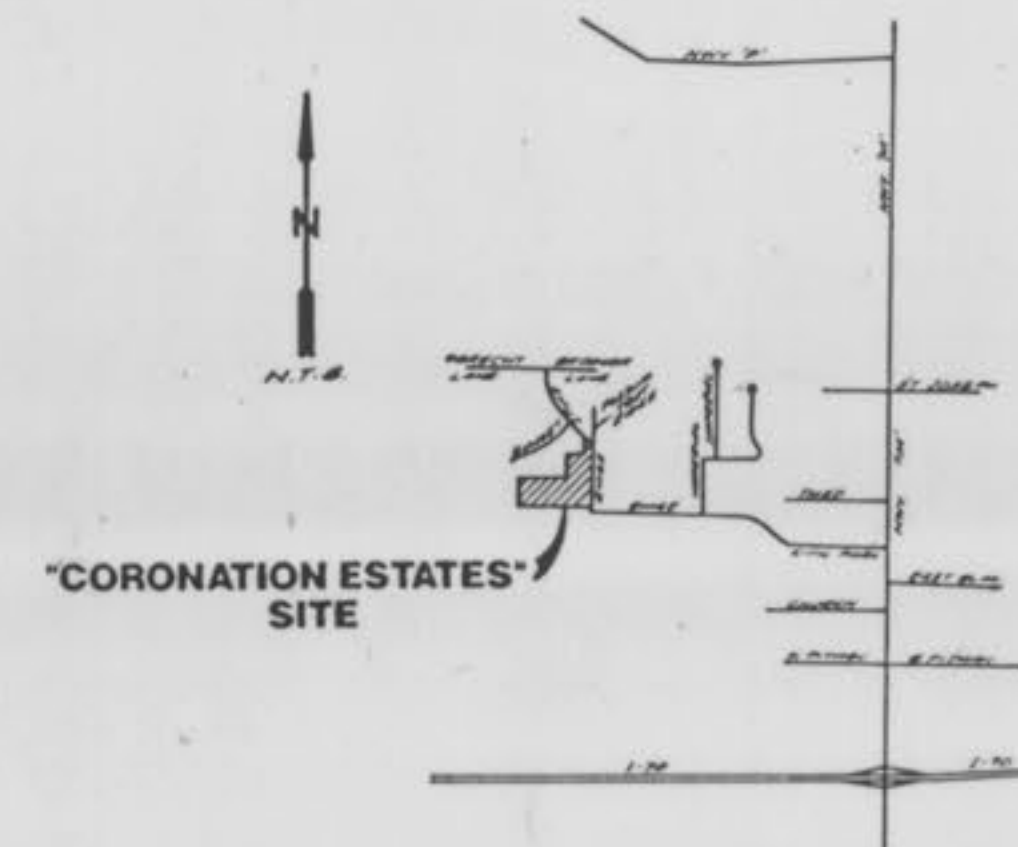
AS-BUILTS

GENERAL NOTES

- 1) Underground utilities have been plotted from available information and therefore their locations shall 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 the improvements.
- 2) All manhole and inlet tops built without elevations furnished by the Engineer will be the responsibility of the Sewer Contractor.
- 3) All standard curb inlets to have front of inlet 2' (foot) behind curb.
- 4) Storm sewers 18" diameter and smaller shall be A.S.T.M. C-14 unless otherwise shown on the plans.
- 5) Storm sewers 21" diameter and larger shall be A.S.T.M. C-76, Class II minimum, unless otherwise shown on the plans.
- 6) All storm pipe in the right-of-way shall be reinforced concrete pipe (A.S.T.M. C-76 Class III minimum).
- 7) 8" P.V.C. sanitary sewer pipe shall meet the following standards. A.S.T.M.-D-3034 SDR-35, with wall thickness compression joint A.S.T.M.-D-3212. An appropriate rubber seal waterstop as approved by the sewer district shall be installed between P.V.C. pipe and masonry structures.
- 8) All filled places, including trench backfills, under buildings, proposed storm and sanitary sewer lines and/or paved areas, shall be compacted to 90% maximum density as determined by the "Modified AASHTO T-99 Compaction Test." (A.S.T.M.-D-1557). All filled places within public roadways shall be compacted to 92% of maximum density as determined by the "Standard Proctor Test AASHTO T-99, Method C" (A.S.T.M. D-698).
- 9) All trench backfills within the public right-of-way shall be granular backfill. Granular backfill shall be water jetted to attain proper compaction. Trench backfills under paved areas, outside of public right-of-way may be granular backfill in lieu of the earth backfill compacted to 90% of the Modified AASHTO Compaction Test.
- 10) No area shall be cleared without the permission of the Project Engineer.
- 11) All grades shall be within 0.2 feet of those shown on the grading plan.
- 12) No slope shall be steeper than 3:1. All slopes shall be sodded or seeded and mulched.
- 13) All construction and materials used shall conform to current City of O'Fallon and St. Charles County Highway Department Standards.
- 14) All P.V.C. sanitary pipe to have crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 12" of crushed stone bedding above top of pipe.
- 15) All soils tests shall be verified by a Soils Engineer concurrent with the grading and backfilling operations.
- 16) A 25' building line shall be established along all public rights-of-way.
- 17) 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.
- 18) All water lines shall be laid at least 10 feet horizontally, from any sanitary sewer, storm sewer, or manhole. Whenever water lines must cross sanitary sewers, laterals or storm drains the water line shall be laid at such an elevation that the bottom of the water line is 18 inches above the top of the drain or sewer. A full length of water pipe shall be centered over the sewer line to be crossed so that the joints will be equally distant from the sewer and as remote therefrom as possible. This vertical separation shall be maintained for that portion of the water line located within 10 feet, horizontally, of any sewer or drain it crosses.
- 19) All P.V.C. water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- 20) Water lines, valves, sleeves, meters and etc. shall meet all specifications and installation requirements of the local governing authority.
- 21) All ductile iron pipe for water mains shall conform to A.W.W.A. Specifications C-106 and/or C-108. The ductile iron fitting shall conform to A.W.W.A. Specification C-110. All rubber gasket joints for water ductile iron pressure pipe and fittings shall conform to A.W.W.A. Specification C-111.
- 22) All water hydrants and valves shall be ductile iron and installed in accordance with plans and details.
- 23) Hazard markers will consist of four (4) standard specifications, "Manual on Uniform Traffic Control Devices", and 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.
- 24) The minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding house connections shall not be less than the diameter of the sanitary sewer plus a vertical distance of not less than 2 1/2 feet.
- 25) The City of O'Fallon shall be notified 48 hours prior to start of construction of sanitary sewers for coordination and inspection.
- 26) Siltation control devices shall be as shown on plans, and approved by the local governing authority. Additional siltation control, if required, will be placed at the direction of the soils engineer on-site and the local governing authority prior to placement.
- 27) All grading on City and County right-of-way shall be seeded and mulched and all disturbed right-of-way markers shall be reset at the completion of grading.
- 28) Brick will not be used in the construction of sanitary sewer manholes and all sanitary sewer manholes shall have 31 mil. thick coat of coal tar pitch waterproofing.
- 29) The developer shall comply with current tree preservation Ordinance No. 1059 and provide landscaping as set forth in Article 23 of the City of O'Fallon zoning ordinance.
- 30) All utility and other utility lines shall be shown on the record plat.



KEY MAP
N.T.S.



LOCATION MAP
N.T.S.

LEGEND

- | | |
|--------|------------------------------------|
| C.I. | Curb Inlet |
| D.C.I. | Double Curb Inlet |
| A.I. | Area 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. | Corrugate Metal Pipe |
| C.I.P. | Cast Iron Pipe |
| P.V.C. | Poly Vinyl Chloride (Plastic Pipe) |
| C.O. | Clean Out |
| ⊙ | Fire Hydrant |
| — | Storm Sewer |
| — | Sanitary Sewer |
| — | Existing Contour |
| — | Proposed Contour |
| — | Street Sign |
| — | F.L. Elevation of House Connection |
| — | F.L. of Sanitary Sewer |
| 4 | Lot Number |

INDEX

SHEET NO.	DESCRIPTION
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2	FLAT PLAN
3	GRADING PLAN
4	STREET/SEWER PROFILES
5	SEWER PROFILES
6	DRAINAGE AREA MAP
7-11	CONSTRUCTION DETAILS

BENCH MARKS:

U.S.G.S. Benchmark: Elevation = 501.91
Top headwall at north side of box culvert located at southwest corner of "Sigmund Auto Service" site on West Second Street (Civic Park Drive).

Site Benchmark: Elevation = 545.94
Large nail in pavement at Emge Road located at southwest corner of "Coronation Estates" site.

DEVELOPMENT NOTES

- 1) GROSS ACREAGE OF PROPERTY: 8.51 ACRES.
- 2) PRESENT ZONING CLASSIFICATION: "R-1" SINGLE FAMILY RESIDENTIAL (CITY OF O'FALLON)
- 3) PROPOSED USE OF PROPERTY: SINGLE FAMILY RESIDENTIAL SUBDIVISION OF 17 LOTS AND COMMON GROUND.
- 4) THIS PROPERTY WILL BE SERVED BY THE FOLLOWING:
WATER: CITY OF O'FALLON
SANITARY SEWER: CITY OF O'FALLON
ELECTRIC: UNION ELECTRIC COMPANY AND CUIVRE RIVER ELECTRIC
GAS: O'FALLON GAS SERVICES, INC.
TELEPHONE: CONTINENTAL TELEPHONE CO.
- 5) THIS PROPERTY IS LOCATED IN THE FOLLOWING SERVICE AREA:
SCHOOL: FORT ZUMWALT SCHOOL DISTRICT
FIRE: O'FALLON FIRE PROTECTION DISTRICT
- 6) THE PROPOSED HEIGHT AND LOT AREA REQUIREMENTS ARE AS FOLLOWS:
MINIMUM FRONT YARD: 25 FEET
MINIMUM REAR YARD: 25 FEET
MINIMUM SIDE YARD: 10 FEET
MINIMUM LOT AREA: 10,000 SQ. FEET
MINIMUM LOT WIDTH: 80 FEET
MAXIMUM HEIGHT OF BUILDINGS: 2 1/2 STORIES OR 35 FEET

This is to certify that the following as-built locations were located in the field and are correctly shown herein.

Richard S. Musler
Neg. John News Id
Mo. Reg. L.S. #2117



AS-BUILTS ADDED JULY 1990

Bax Engineering Co., Inc.
221 Point West Blvd. St. Charles, Missouri 63301
946-6588 724-3330

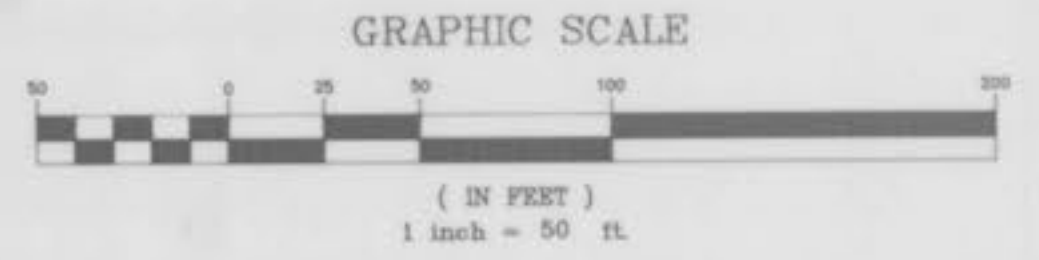
**PREPARED FOR:
DEVELOPER & OWNER
H.S.P. PARTNERSHIP
4165 INDUSTRIAL DRIVE
ST. CHARLES, MO. 63301
PHONE: (314) 447-8870**

DATE: NOV 20, 1989
ORDER NO.: 87-2736
SHEET 1 OF 11

ENGINEER:
RICHARD S. MUSLER, P.E.

**FLAT PLAN
CORONATION
ESTATES**

NOV. 20, 1989 87-2786
 REV. 11-30-89
 REV. 1-4-90
 REV. 1-24-90 EMGE RD. WATER CROSSING
 REV. 2-20-90 EMGE RD. WATER CROSSING
 REV. 2-23-90
 REV. 2-27-90
 REV. 4-4-90



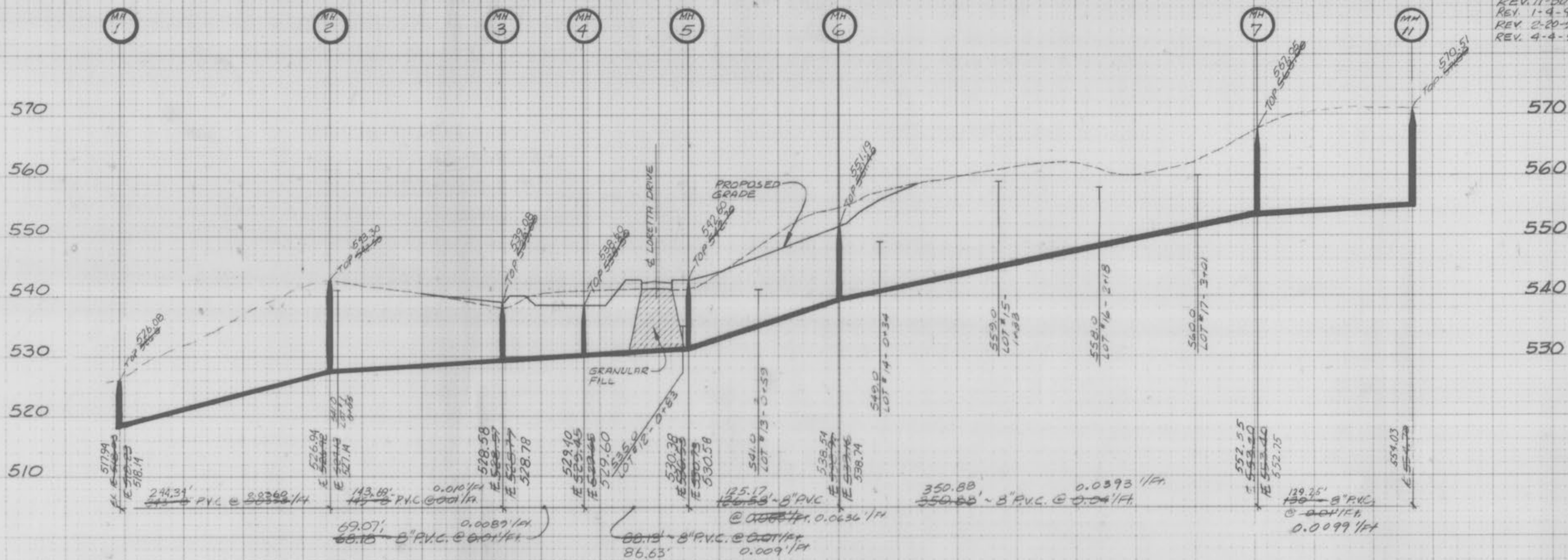
AS-BUILTS ADDED JULY 1990

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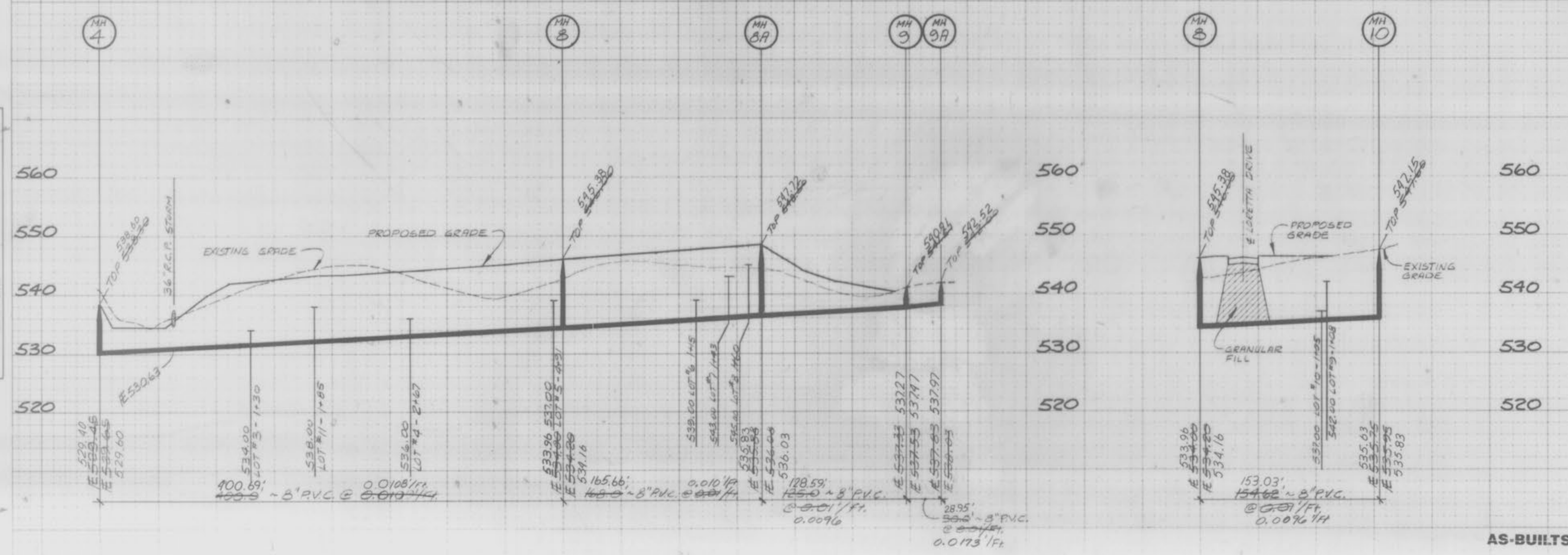
SEWER PROFILES
CORONATION
ESTATES

NOV. 20, 1989
REV. 11-30-89
REV. 1-4-90
REV. 2-20-90
REV. 4-4-90

87-2736



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



AS-BUILTS ADDED 1990