

- GENERAL NOTES**
- 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 and/or construction of improvements.
 - Erosion control shall not be limited to what is shown on the plans. The contractor shall take whatever means necessary to prevent siltation from entering adjacent roadways, properties, and ditches. Such control might include channeling runoff into sediment basins, channeling runoff into areas where an extra row of straw bales are used. A silt fence might be considered, if necessary.
 - No area shall be cleared without permission of the developer.
 - Owner/Developer assumes full responsibility as to the performance of the grading operation and assurance that all properties and County and State roads will be adequately protected.
 - Soil preparation and re-vegetation shall be performed according to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.
 - Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations.
 - Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The unsuitable material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disced prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
 - Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory rollers or high speed impact type drum rollers acceptable to the Soils Engineer. The rollers shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
 - The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals. Developer must supply City Construction Inspectors with soils report prior to or during site soil testing.
 - The Soils Engineer shall notify the Contractor of rejections of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
 - All Areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted to at least 85 percent of the maximum density as determined by the Modified AASHTO T-180 Compaction Test (ASTM-D1557). Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
 - The sequence of operation in the fill areas will be: fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2% to 8% above the optimum moisture content.
 - The surface of the fill shall be finished so that it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.
 - All cut and fill slopes should be a maximum of 3:1 slope (3:1) after grading.
 - All fill placed under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of maximum density as determined by the Modified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compacted from the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with the grading and backfilling operations.
 - Ensure the moisture content of the soil in fill areas is to correspond to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon.
 - Soft soil in the bottom and banks of any existing or former pond site should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed right-of-way locations or on storm sewer locations.
 - Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
 - If straw bales or silt fences are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by contractor.
 - When grading operations are completed or suspended for more than thirty (30) days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the Designated Official's recommendation. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations. All finished grades (areas not to be disturbed by improvement) in excess of 20% slopes (5:1) shall be mulched and locked at the rate of 1 pounds per 1000 square feet when seeded.
 - All existing trash and debris on-site must be removed and disposed of off-site.
 - Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
 - The total yardage of this project is based on a 15% ± shrinkage factor.
 - The shrinkage factor is subject to change, due to soil conditions (types and moisture content), weather conditions, and the percentage of compaction actually achieved at the time of the year grading is performed. As a result, adjustments in final grade may be required. If adjustments need to be made, the contractor shall contact St. Charles Engineering and Surveying prior to completion of the grading.
 - Earth quantities were obtained from aerial grid mapping with contours at two foot intervals, with a tolerance of plus or minus one foot or one-half (2) contour intervals.

O'Fallon File
Number 3603.01

AS-BUILTS MAGNOLIA

PART OF A TRACT OF LAND BEING PART OF SECTION 30
OF TOWNSHIP 47 NORTH; RANGE 3 EAST
CITY OF O'FALLON, MISSOURI



Drawing Index
Not to Scale

- The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.
- The Contractor shall prevent all storm/surface water, mud or construction debris from entering the existing sanitary sewer system.
- The most stringent of the above requirements shall apply.
- Water for wash-off pad will be brought onto site by truck until such time that water can be provided through existing water lines.
- Coordination between the on-site grading of this project with any grading being done on the Magnolia Commercial Improvement Project is required.
- Each fire hydrant shall be provided with a control valve in the hydrant connection such that the hydrant can be removed from service without shutting off water supply to other fire hydrants.
- Each fire hydrant shall have not less than two 2-1/2 inch outlets and one 4-1/2 inch outlet, a 5-1/4 inch valve, a 6 inch barrel and shall be of the breakaway design, frost free chain, left hand open design and have National Standards Threads.
- Developer must supply City construction inspectors with soils reports prior to or during site soil testing.
- Sidewalks, curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer. (Ensure at least one 8' wide handicap access aisle is provided and curb ramps do not project into handicap access aisle.)
- All sign and entrance monument locations and sizes must be approved separately through the Planning Division.
- All proposed utilities shall be located underground.
- 5/8" trash bar shall be included on all inlets.
- Rip rap shown on at fored ends will be evaluated in the field after installation for effectiveness and field modified if necessary to reduce erosion of the existing and new channels.
- Proposed pavilions or playground areas will need a separate permit from the Building Division.
- All proposed fencing requires a separate permit through the City's Planning Division.
- All sign location and sizes must be approved separately through the City's Planning Division.
- All storm and sanitary sewer that lie within the 1:1 shear plane of the road will be granular backfilled.
- All paving to be in accordance with St. Charles County Standards and specifications except as modified by the City of O'Fallon ordinances.
- All proposed recreation areas will need a separate permit from the Building Division.
- Off street parking is not to be maintained by the City of O'Fallon.
- Any area disturbed off-site where existing vegetation exists shall be sodded.

DEVELOPER
Bryan Roads Properties, LLC
PO Box 1270
St. Peters, Missouri 63376
636-240-7789

LEGEND

	SANITARY STRUCTURE	C.O.	CLEAN OUT
	STORM STRUCTURE	T.B.R.	TO BE REMOVED
	TEST HOLE	T.B.R.&R.	TO BE REMOVED & RELOCATED
	POWER POLE	T.B.P.	TO BE PROTECTED
	LIGHT STANDARD	T.B.A.	TO BE ABANDONED
	C.I.	B.C.	BASE OF CURB
	D.C.I.	T.C.	TOP OF CURB
	G.I. GRATE INLET (EXISTING)	T.W.	TOP OF WALL
	A.I. AREA INLET (EXISTING)	TYP.	TYPICAL
	D.A.I. DOUBLE AREA INLET	U.N.O.	UNLESS NOTED OTHERWISE
	F.E. FLARED END SECTION	U.I.P.	USE IN PLACE
	E.P. END PIPE		EXISTING CONTOUR
	E.D. ENERGY DISSIPATOR		PROPOSED CONTOUR
	M.H. MANHOLE		TREE LINE
	R.C.P. REINFORCED CONCRETE PIPE		SAN. SEWER (EXISTING)
	C.M.P. CORRUGATED METAL PIPE		SAN. SEWER (PROPOSED)
	C.I.P. CAST IRON PIPE		STORM DRAIN (EXISTING)
	P.V.C. POLYVINYL CHLORIDE		STORM DRAIN (PROPOSED)
	V.C.P. VITRIIFIED CLAY PIPE		PHONE BOX
	GUY WIRE		IRON PIPE
	SIGN		WATER LINE, SIZE
	POST		HYDRANT
	WATER METER		CONCRETE PAVEMENT
	SILT FENCE		PLACED RIP-RAP W/UNDERLAIN FABRIC
	DIVERSION SWALE PROVIDE DITCH CHECKS EVERY 150'		

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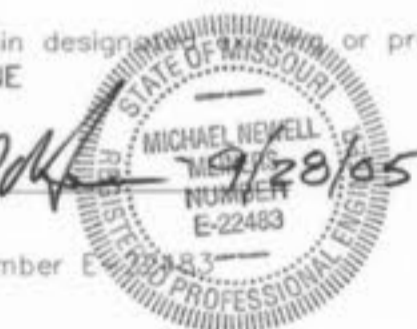
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21-23	CUL-DE-SAC WARPINGS
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STORM AND SANITARY SEWER MEASUREMENTS

The existing sewer lengths, sizes, flowlines, depths of structures and locations with respect to existing or proposed easements have been measured. The results of those measurements are shown on this set of Final Measurement plans. Since the wye locations have been plotted from information provided by the sewer contractor or other sources, I disclaim any responsibility for that specific information.

All public sewers are located within designations shown on the plans or proposed easements except as follows: NONE

Michael Newell Meiners
Michael Newell Meiners
Missouri Professional Engineer Number E-22403



ACCORDING TO FIRM FLOOD INSURANCE RATE MAP 29183C0240
E DATED AUGUST 2, 1996, THIS SITE IS IN ZONE X. THIS SITE
IS NOT WITHIN THE 100-YEAR FLOODPLAIN.

SITE BENCHMARK:
FEMA REFERENCE MARK 56, ELEVATION 487.05, CHISELED SQUARE ON
CENTERLINE OF SOUTH HEADWALL OF GUTTERMOUTH ROAD BRIDGE OVER
TRIBUTARY NO. 9, AS SHOWN ON FIRM FLOOD INSURANCE RATE MAP
NUMBER 29183C0435 E, DATED REVISED AUGUST 2, 1996.

THIS PROPERTY IS SERVICED BY THE FOLLOWING UTILITY COMPANIES:
CITY OF O'FALLON SANITARY DISTRICT 636-281-2200
AMEREN ILL. 636-925-3316
ST. CHARLES GAS COMPANY 636-978-263
CITY OF O'FALLON WATER DISTRICT
CENTURYTEL TELEPHONE COMPANY 636-332-7705

ENGINEERS AUTHENTICATION

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

OCCUPANCY PERMIT NOTE:

NO OCCUPANCY PERMITS SHALL BE GRANTED ON ANY HOME UNTIL THE SEWER MAIN THAT RUNS THROUGH "THE FALLS GOLF COURSE" IS IMPROVED AS PER CITY REQUIREMENTS.

ORDER NO.
030498
DATE
1-26-04
1

MAGNOLIA
AS-BUILTS
BRYAN ROAD PROPERTIES, LLC

ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448

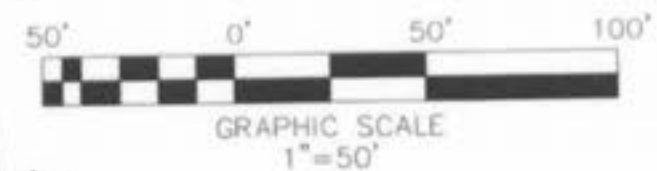
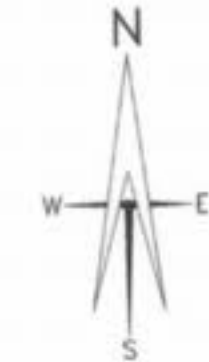
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SEE MAGNOLIA COMMERCIAL
IMPROVEMENT PLANS FOR
PROPOSED IMPROVEMENTS

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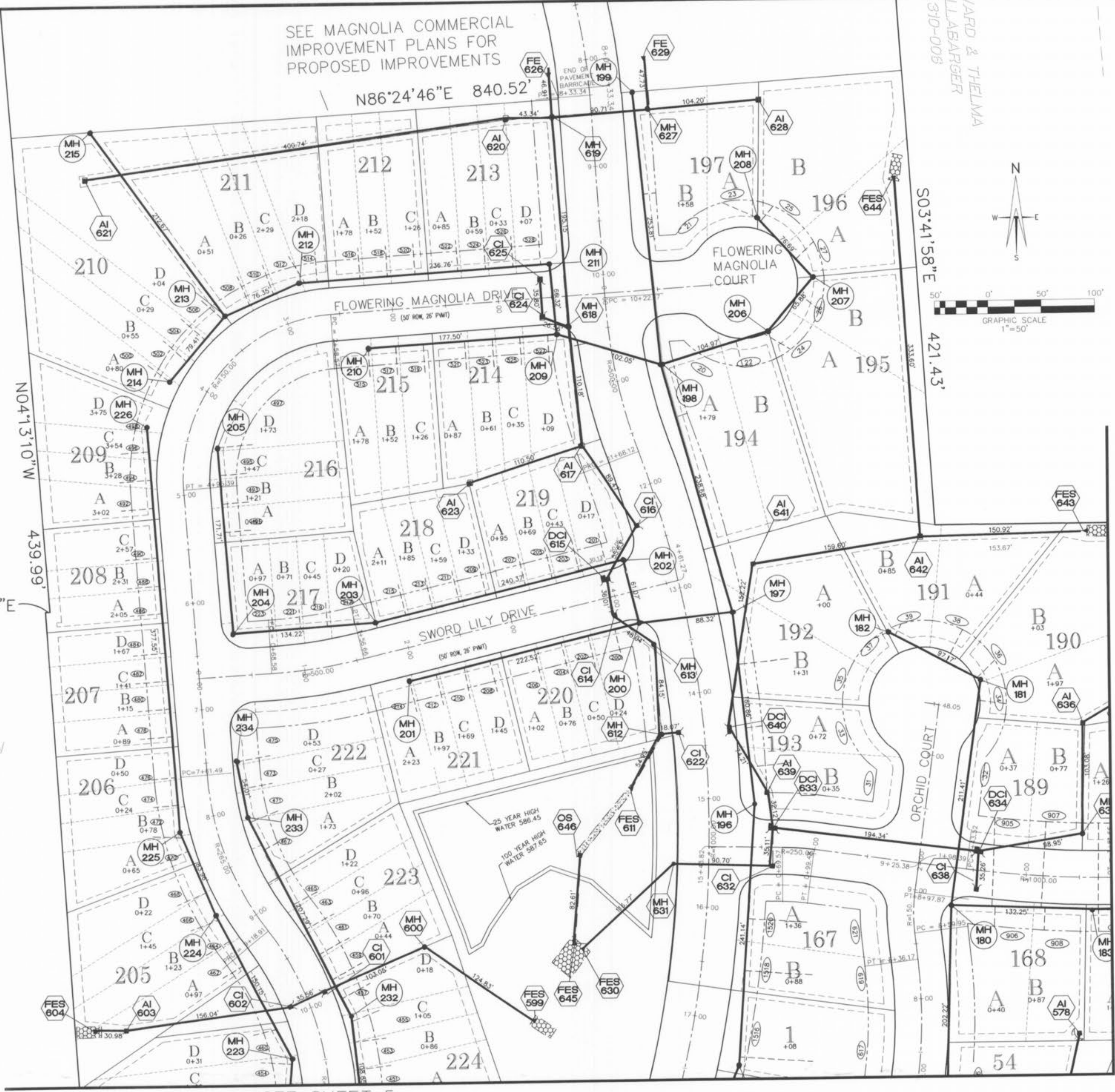
WARD & THELMA
LABARGER
310-005

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421.43'



S89°57'39"E
4.23'

N/F
JONH M. FLAVIN
774-1108
ZONED C-3
CITY OF O'FALLON



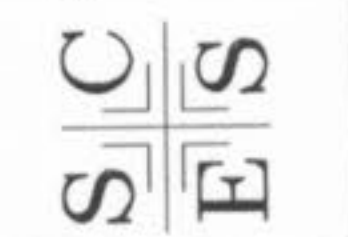
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05/20/04	REVISED AS PER CITY COMMENTS
07/11/05	REVISED AS PER CITY COMMENTS
08/15/05	REVISED MH TOP ADJUSTMENTS
09/27/05	REVISED AS PER CITY COMMENTS

**MAGNOLIA
FLAT PLAN
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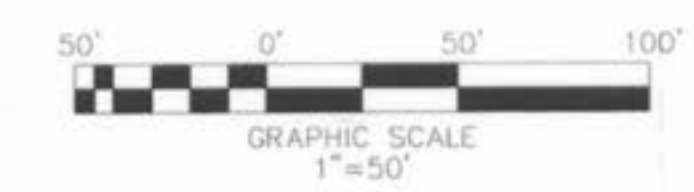


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O'Fallon File
Number 3603.01



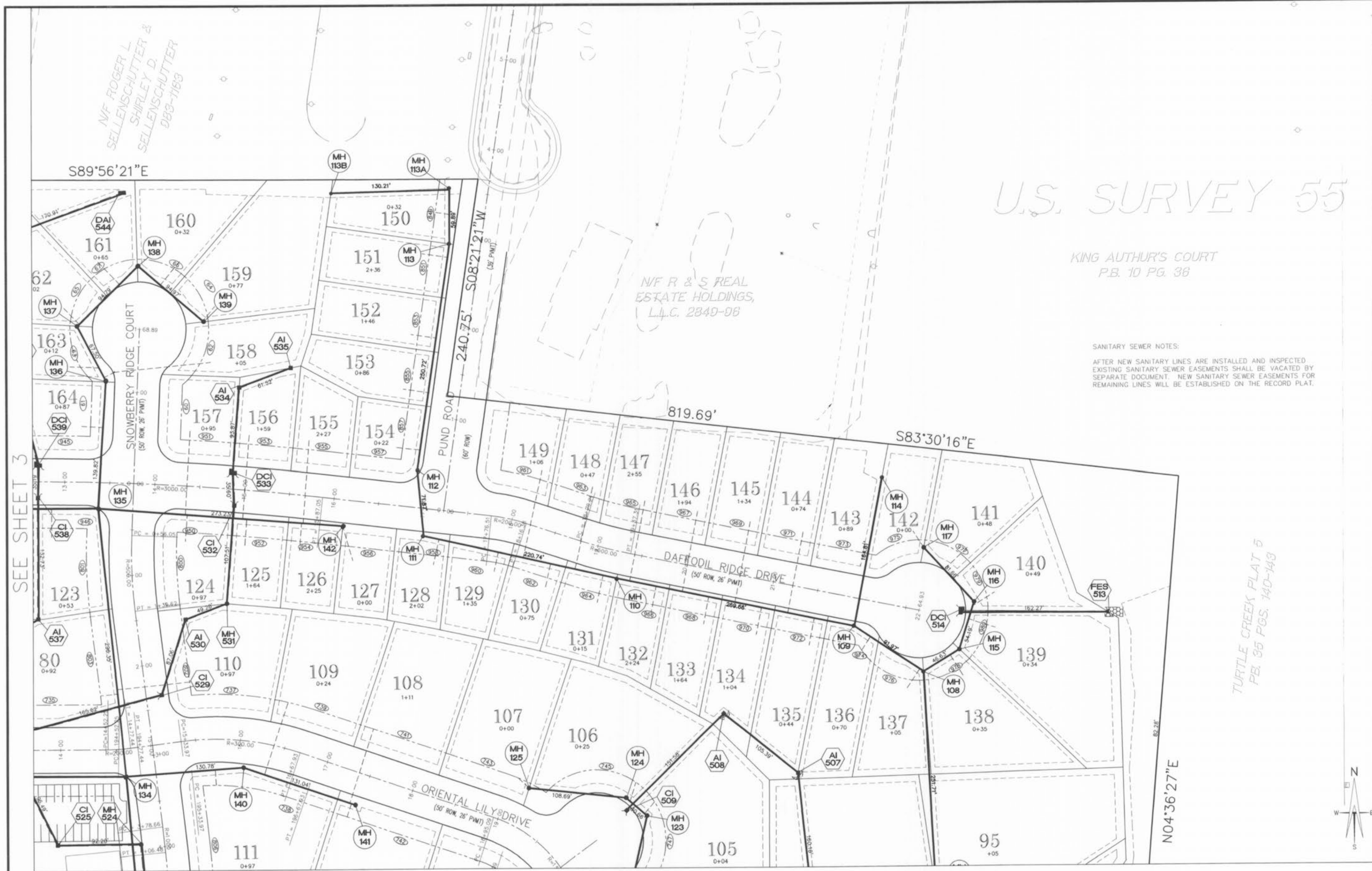
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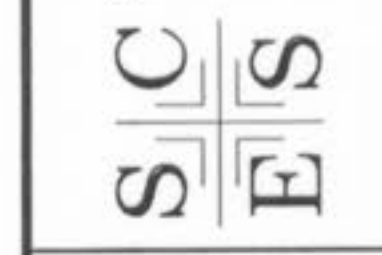
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11/10/04	REVISED SAN LOT 150
08/15/05	REVISED MH TOP ADJUSTMENTS
09/27/04	REVISED AS PER CITY COMMENTS

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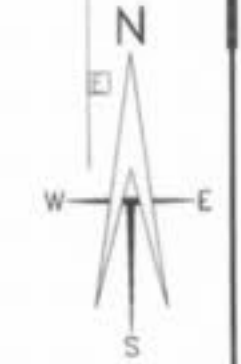


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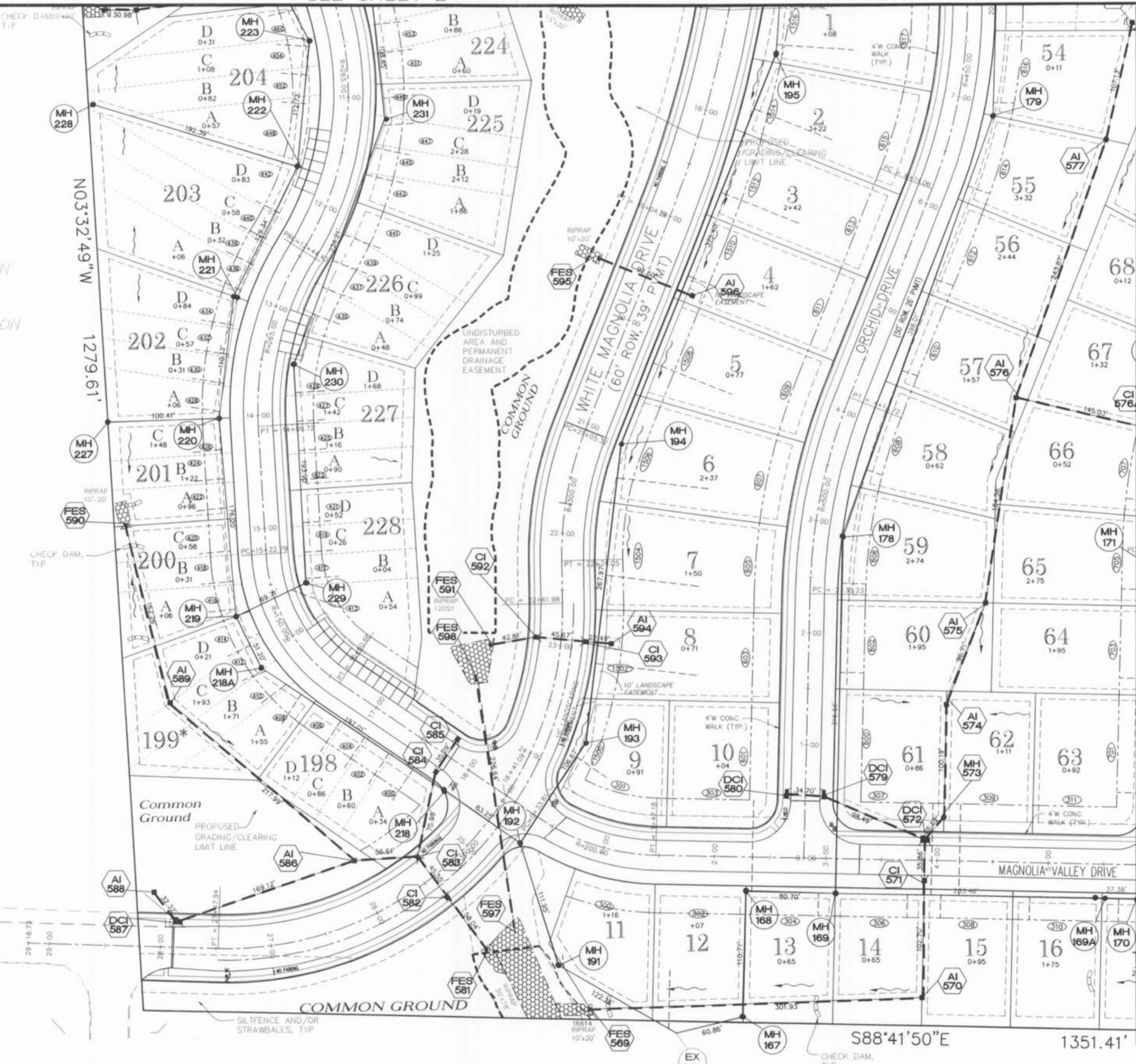
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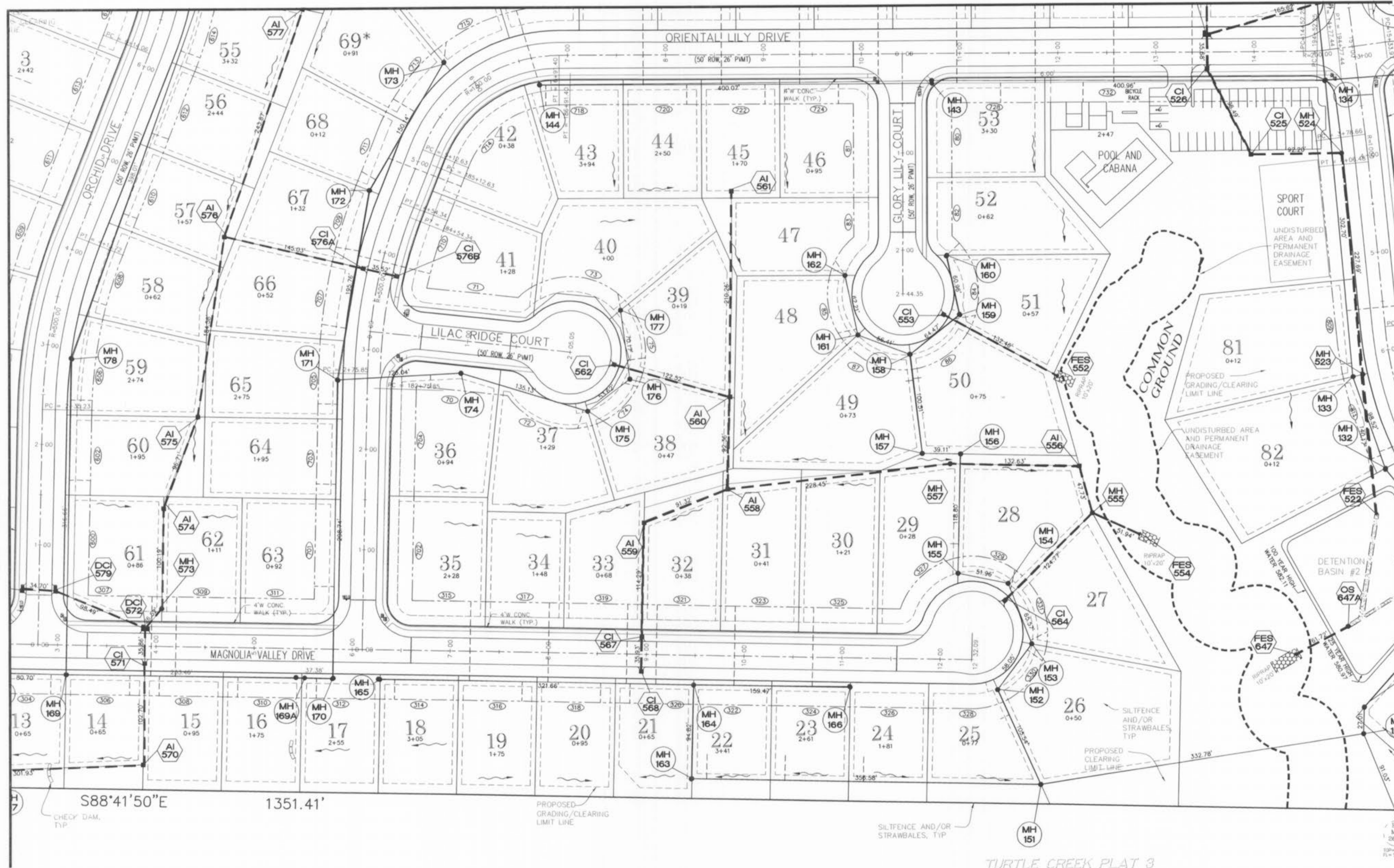
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JONH M FLAVIN
774-1103
ZONED C-3
CITY OF O'FALLON



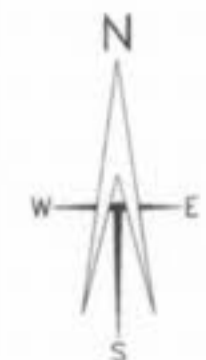
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TURTLE CREEK PLAT 3
PB. 33 PGS. 243-247



O'Fallon File
Number 3603.01

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 05/29/04 REVISED AS PER CITY COMMENTS
 01/17/06 REVISED MH 169A

**MAGNOLIA
FLAT PLAN
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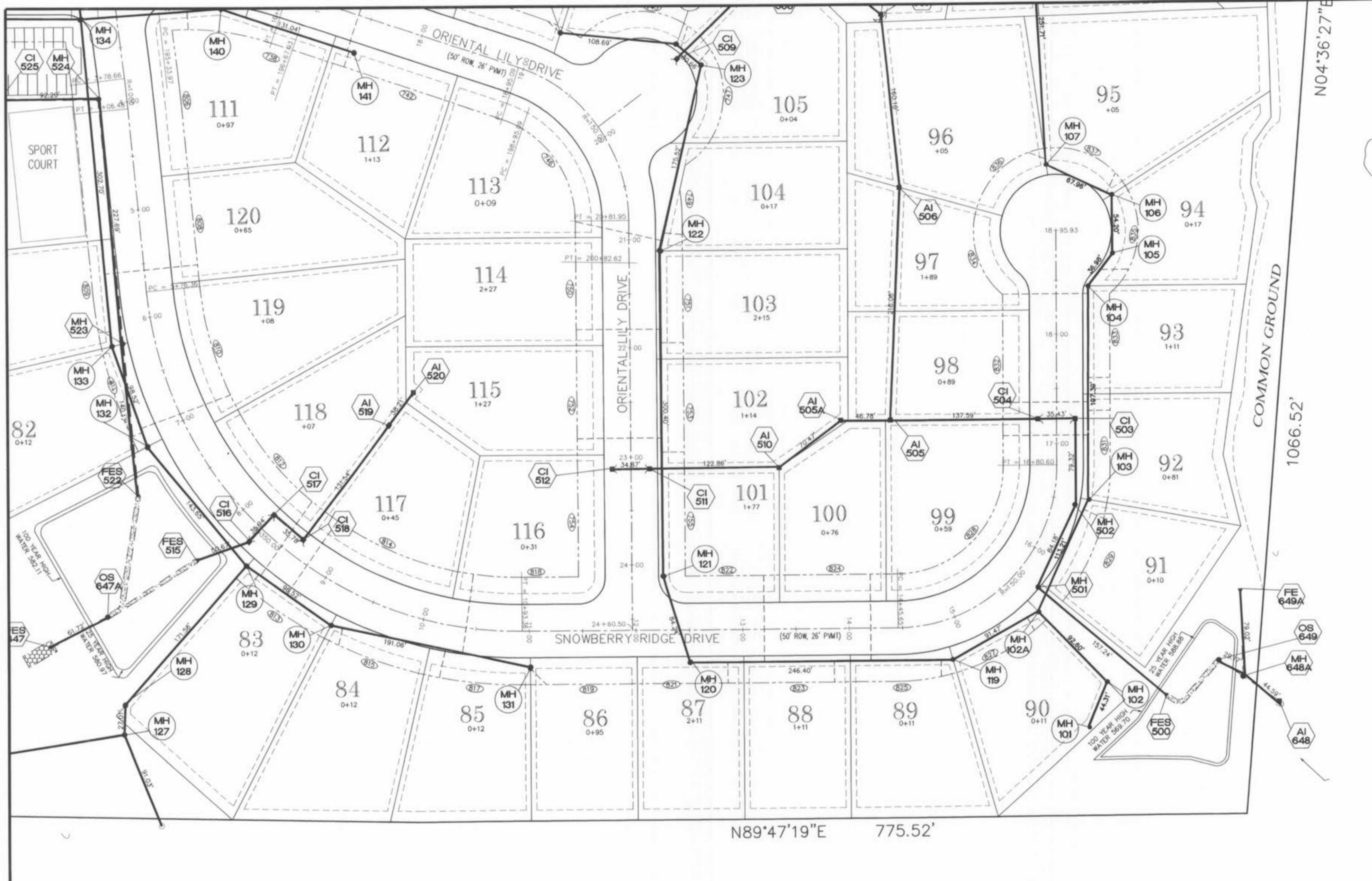
ST. CHARLES ENGINEERING & SURVEYING, INC.
 801 S. FIFTH STREET, SUITE 202
 ST. CHARLES, MO 63301
 TEL: (636) 947-0607 FAX: (636) 947-2448



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030498
DATE
1-26-04
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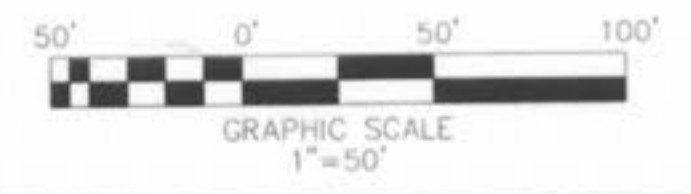


TURTLE CREEK PLAT 3
PB. 33 PGS. 243-247

N89°47'19"E 775.52'

TURTLE CREEK PLAT 3
PB. 33 PGS. 243-247

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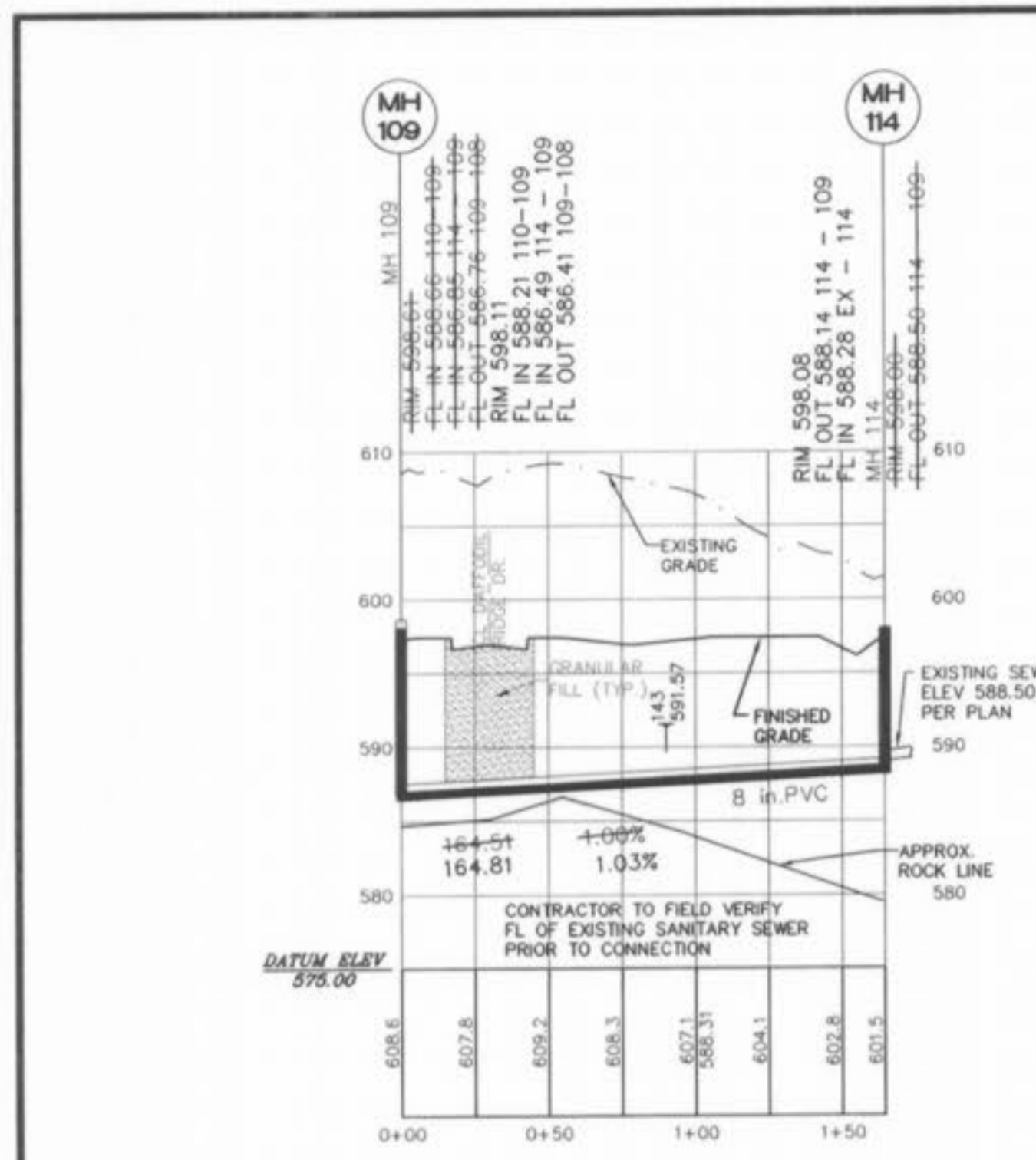
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09/28/04	REVISED AS PER CITY COMMENTS

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ORDER NO.
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1-26-04
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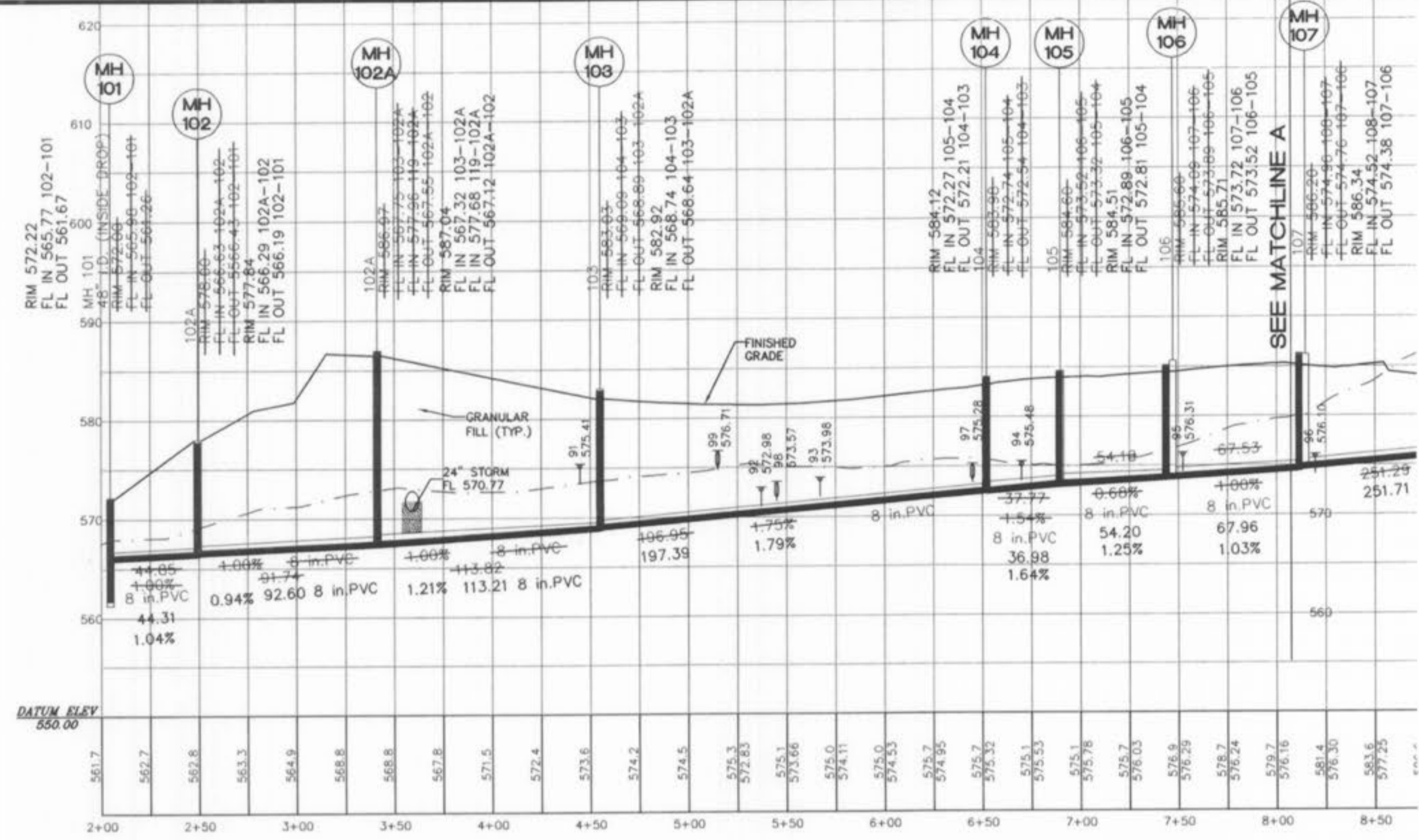


All sanitary lateral street crossings, if trenched, shall be backfilled with granular material (aggregate).

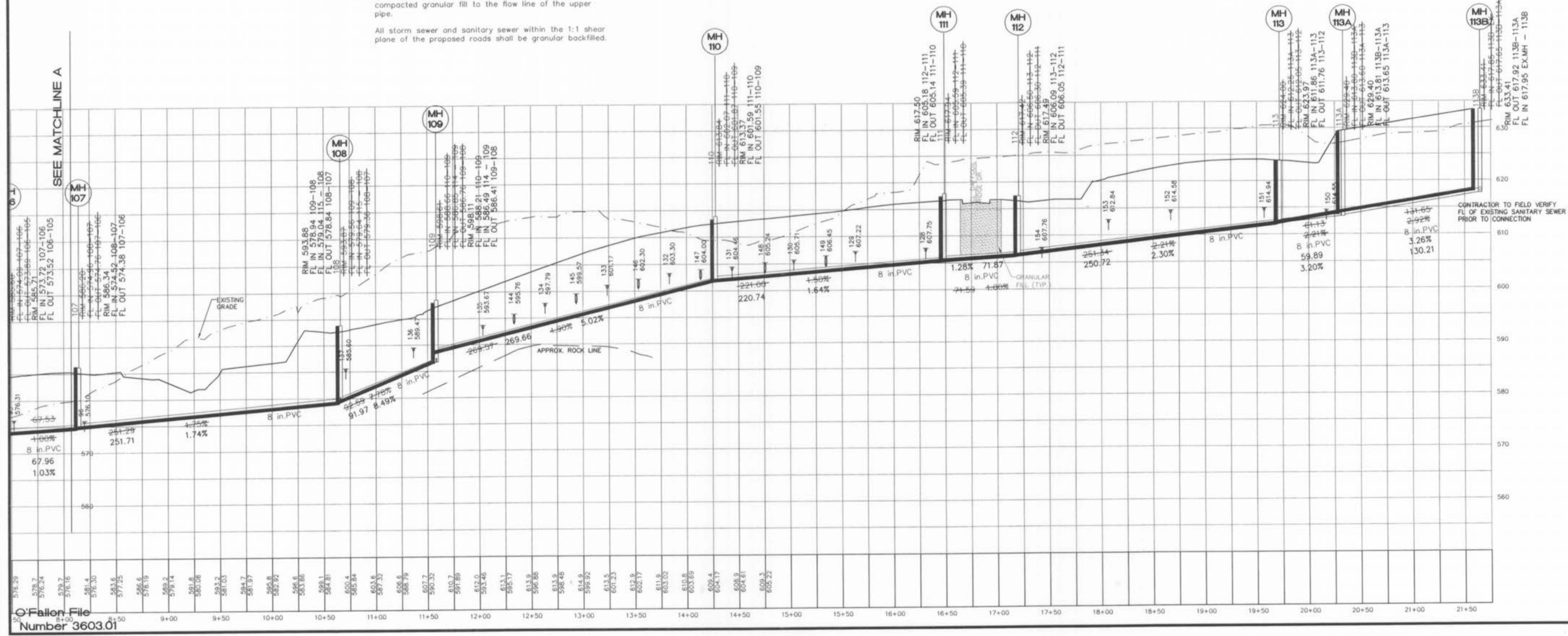
Storm sewer pipes that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.

If the storm and sanitary sewer are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper pipe.

All storm sewer and sanitary sewer within the 1:1 shear plane of the proposed roads shall be granular backfilled.



VERT. 10'
 HORIZ. 50'
 SCALE:



Number 3603.01

04/16/04	Revised as per City Comments
07/23/04	Revised as per MDR Comments
11/19/04	Revised SAN LOT 150
06/06/05	REVISED AS PER CITY COMMENTS
09/07/05	REVISED AS PER CITY COMMENTS
09/27/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED PER CITY COMMENTS

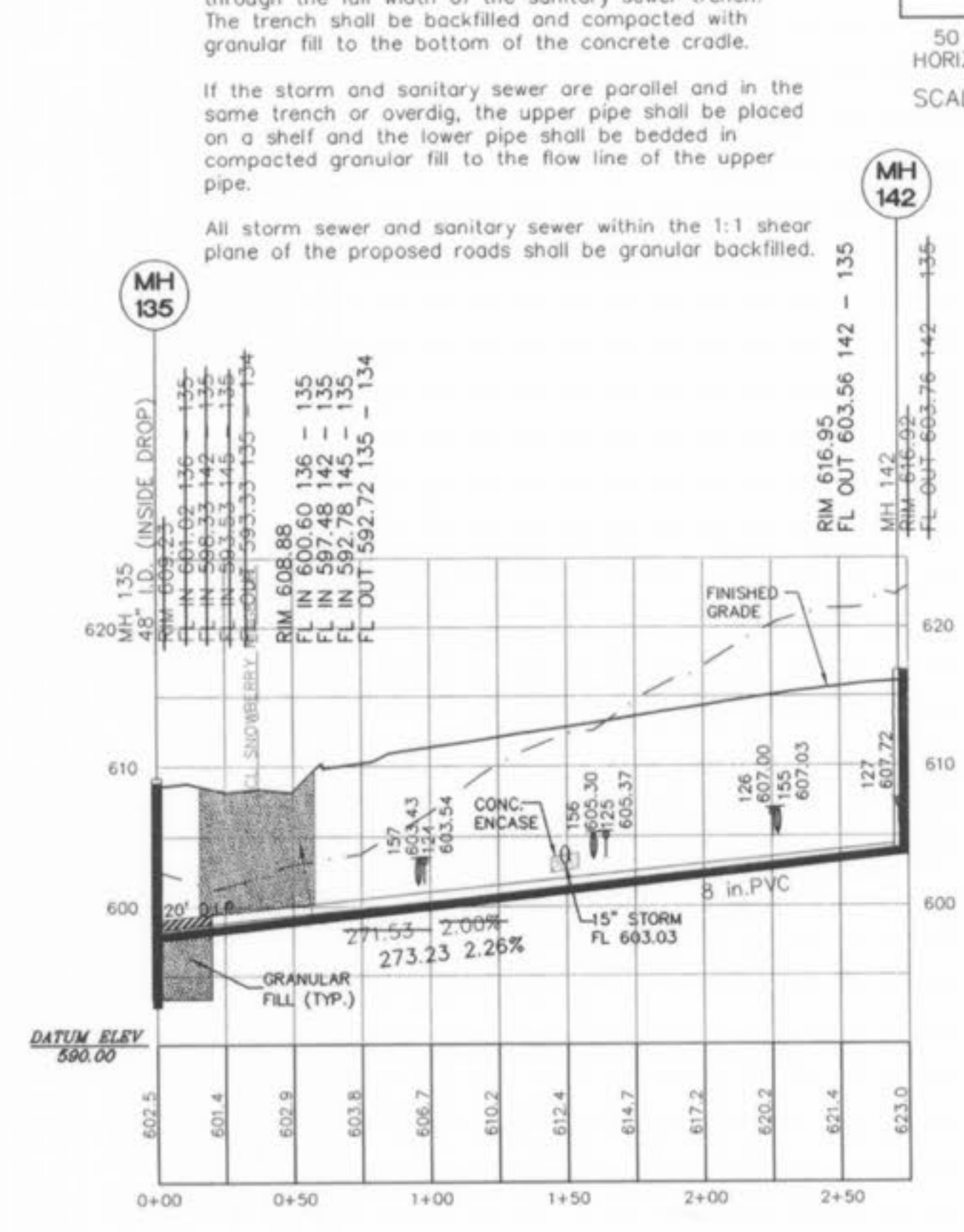
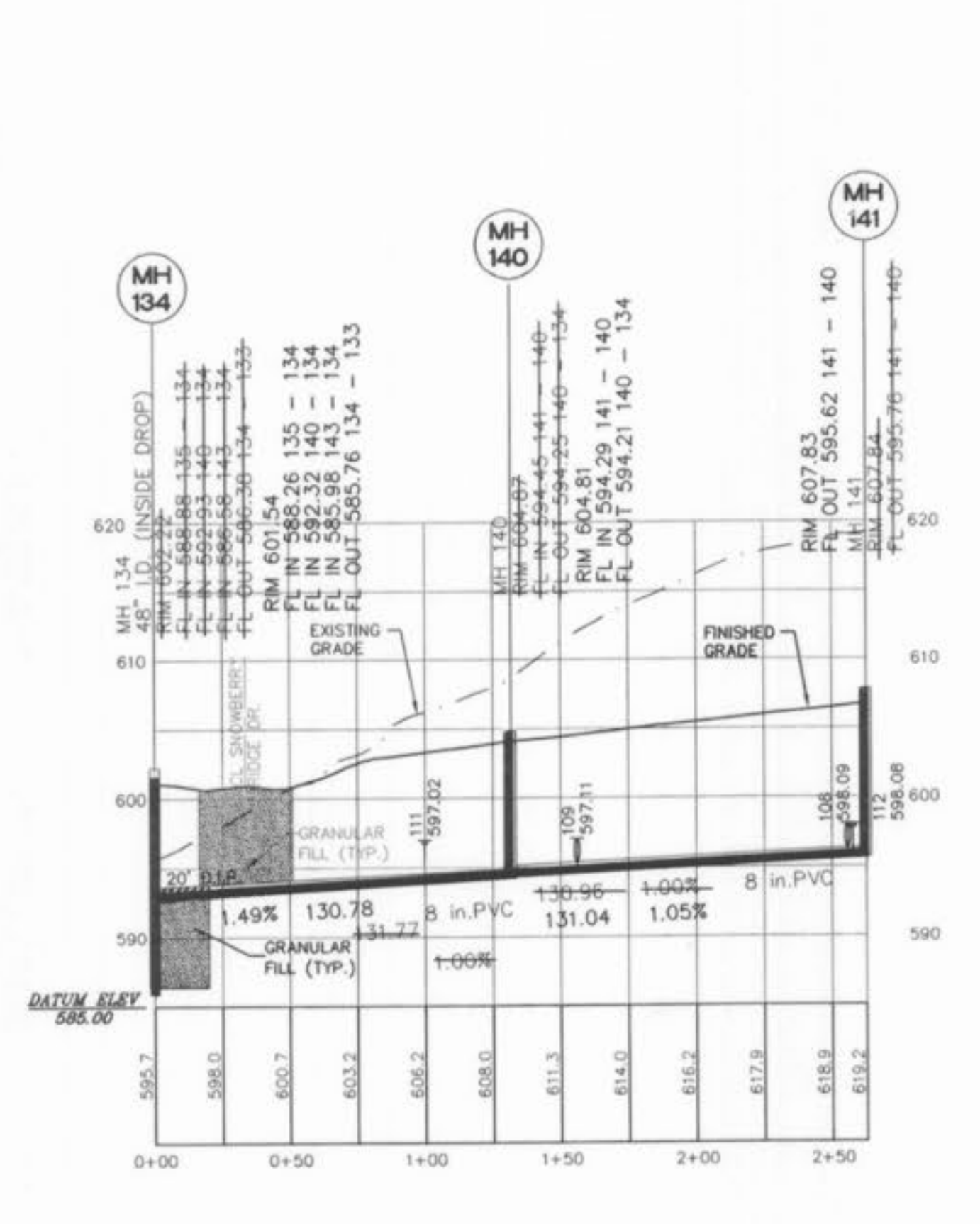
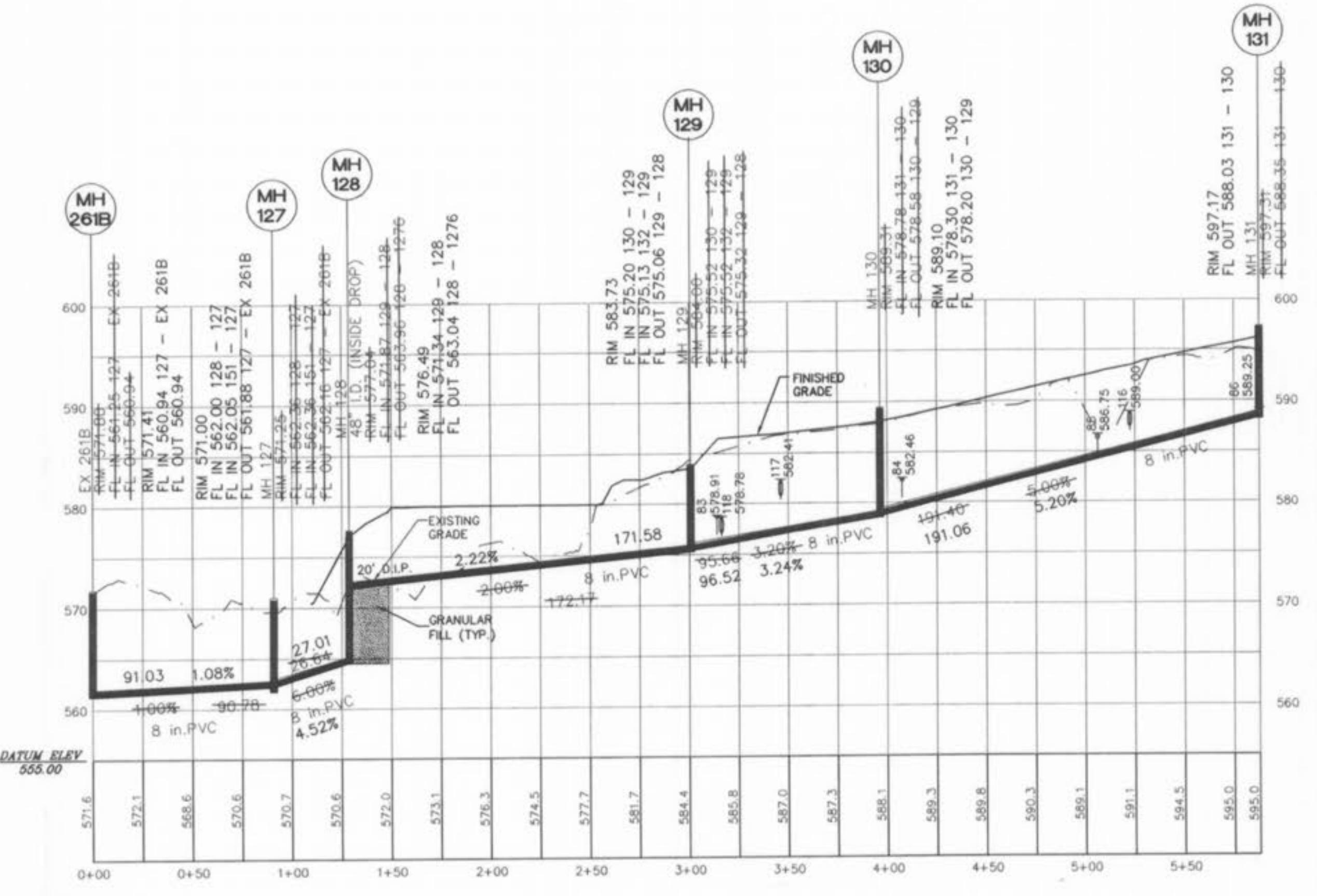
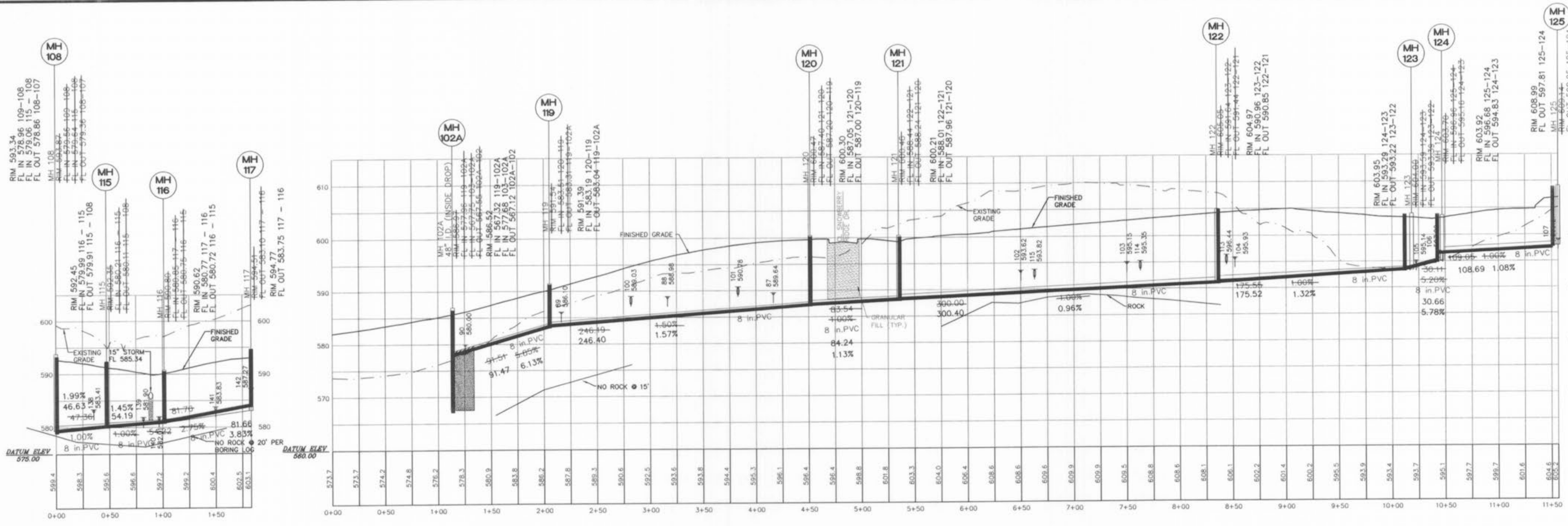
MAGNOLIA SANITARY PROFILE AS-BUILTS

ST. CHARLES ENGINEERING & SURVEYING, INC.
 801 S. FIFTH STREET, SUITE 202
 ST. CHARLES, MO 63301
 TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.	030498
DATE	1-26-04
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Magnolia File 2/24/06/46K



All sanitary lateral street crossings, if trenched, shall be backfilled with granular material (aggregate).

Storm sewer pipes that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.

If the storm and sanitary sewer are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper pipe.

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VERT. 10
HORIZ. 50
SCALE:

O'Fallon File Number 3603.01

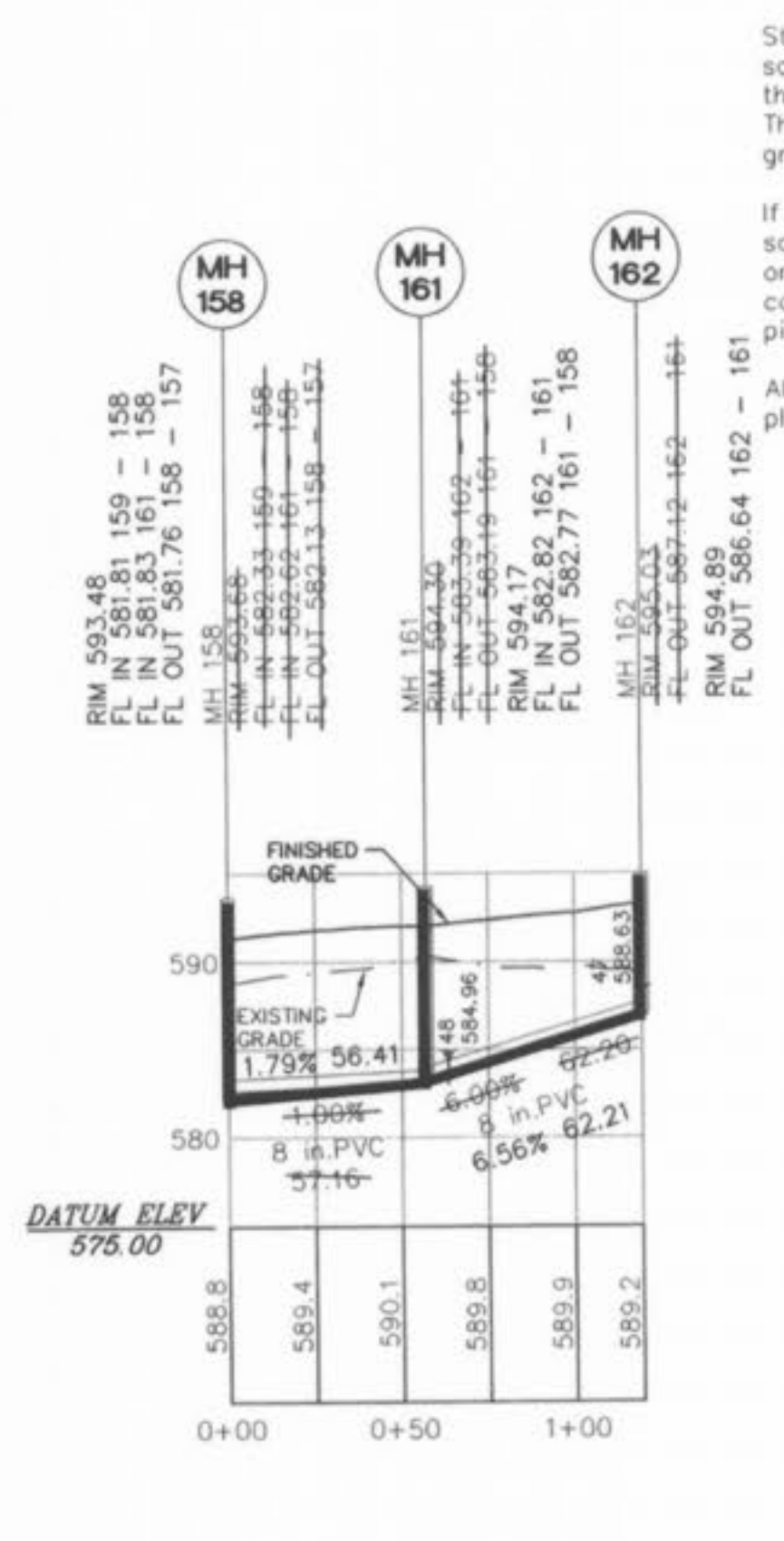
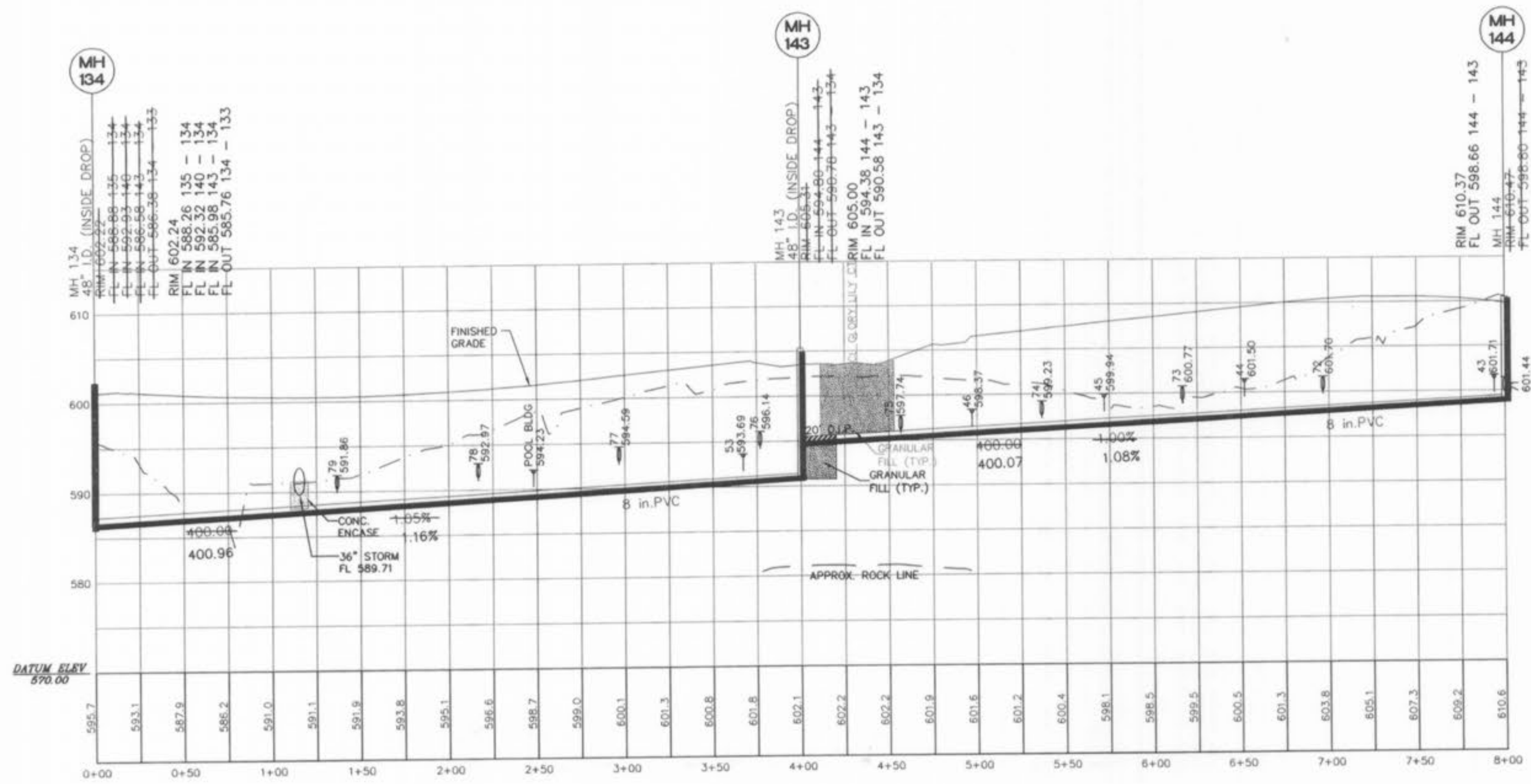
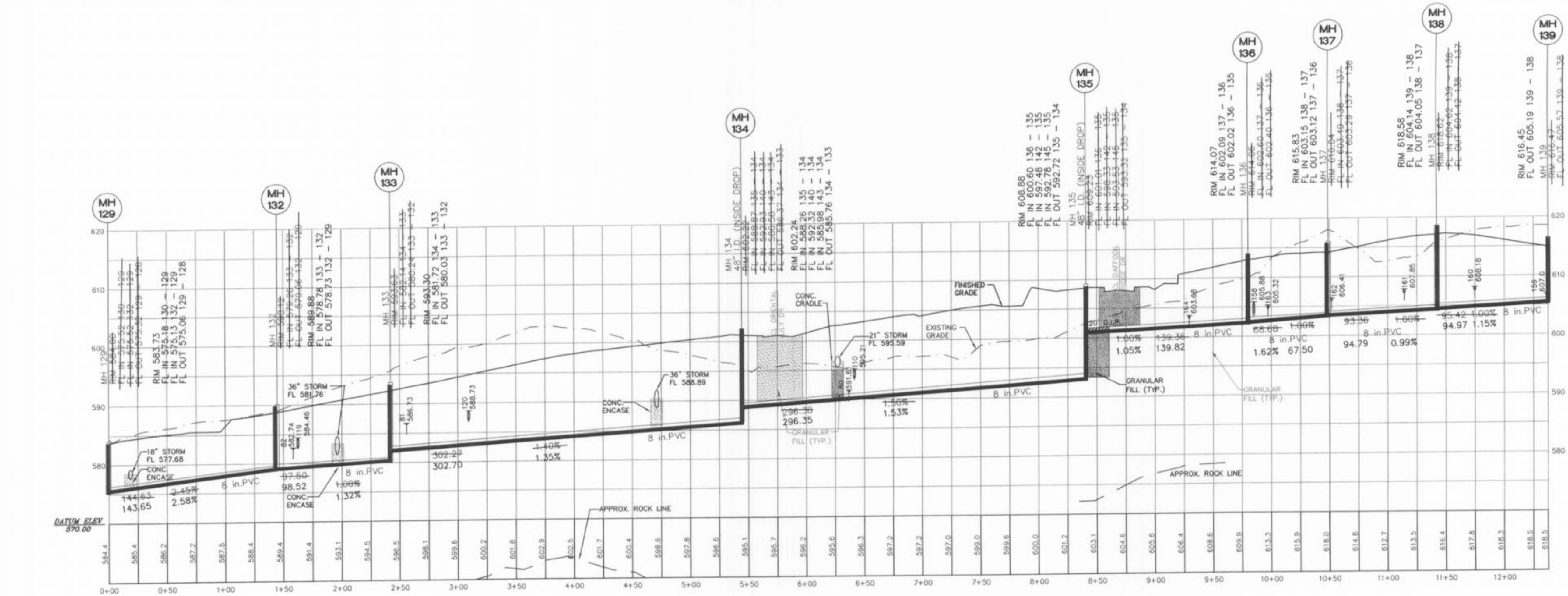
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07/23/04	Revised as per MDR comments
06/08/05	REVISED AS PER CITY COMMENTS
09/29/05	Revised as per City comments
10/04/05	REVISED PER CITY COMMENTS

MAGNOLIA SANITARY PROFILE AS-BUILTS

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TEL: (636) 947-0607 FAX: (636) 947-9448



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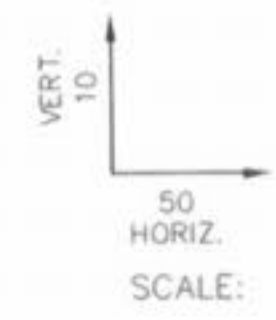


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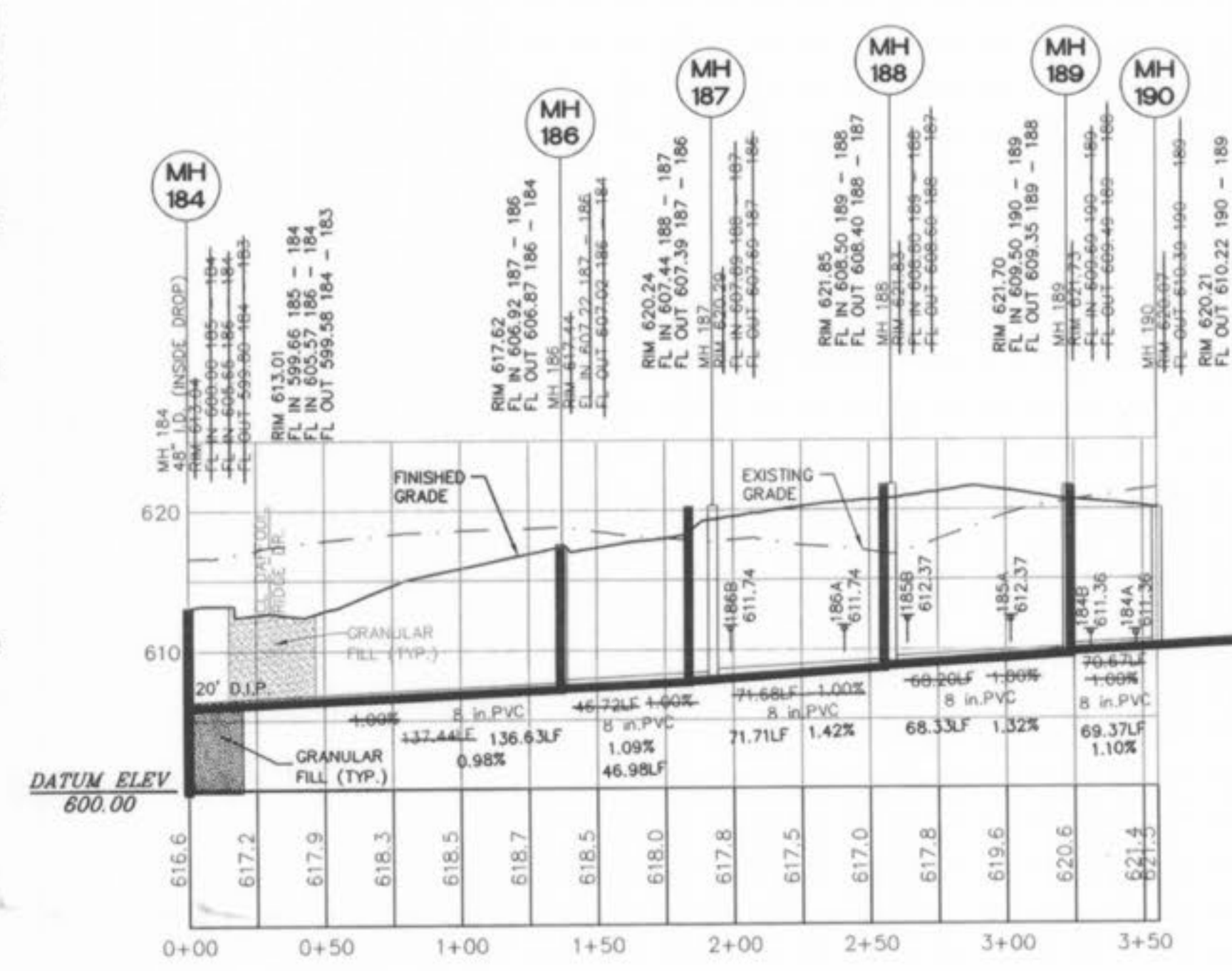
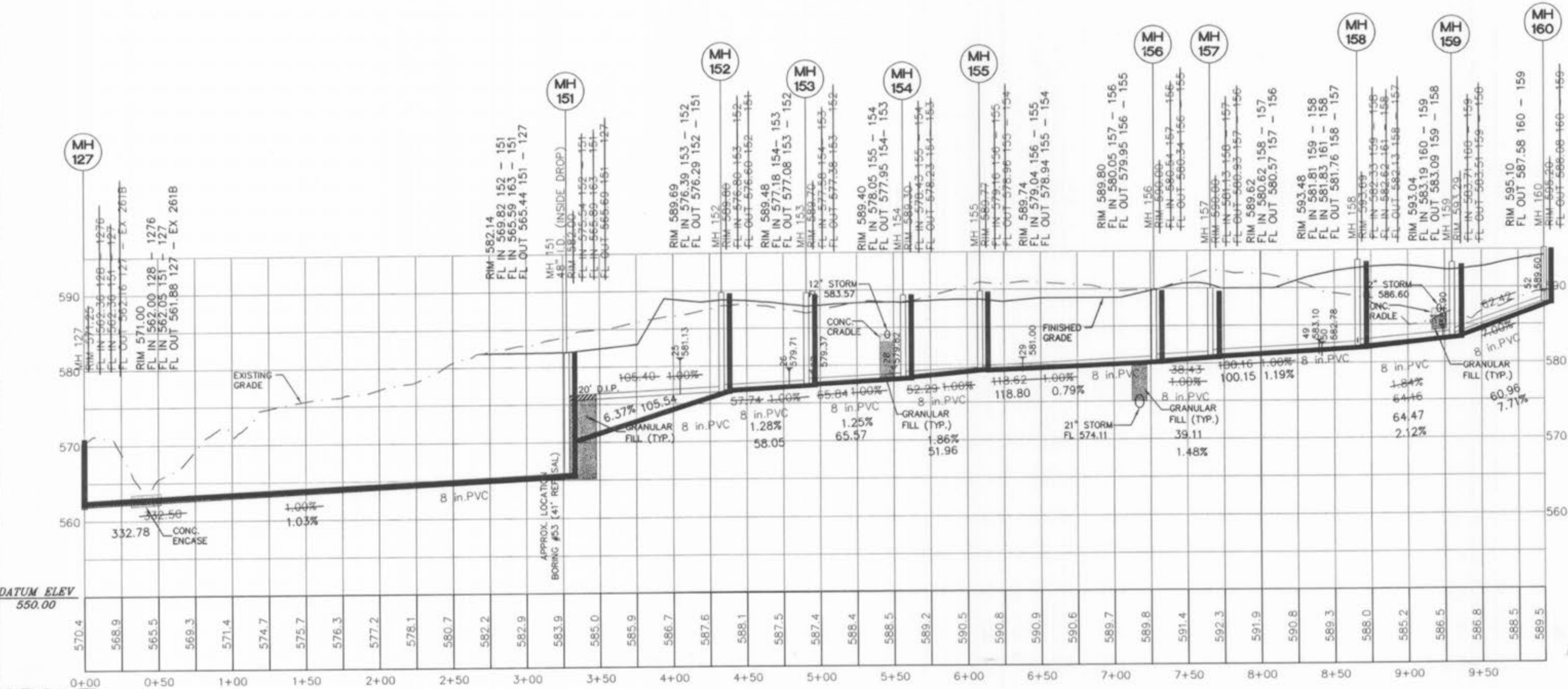
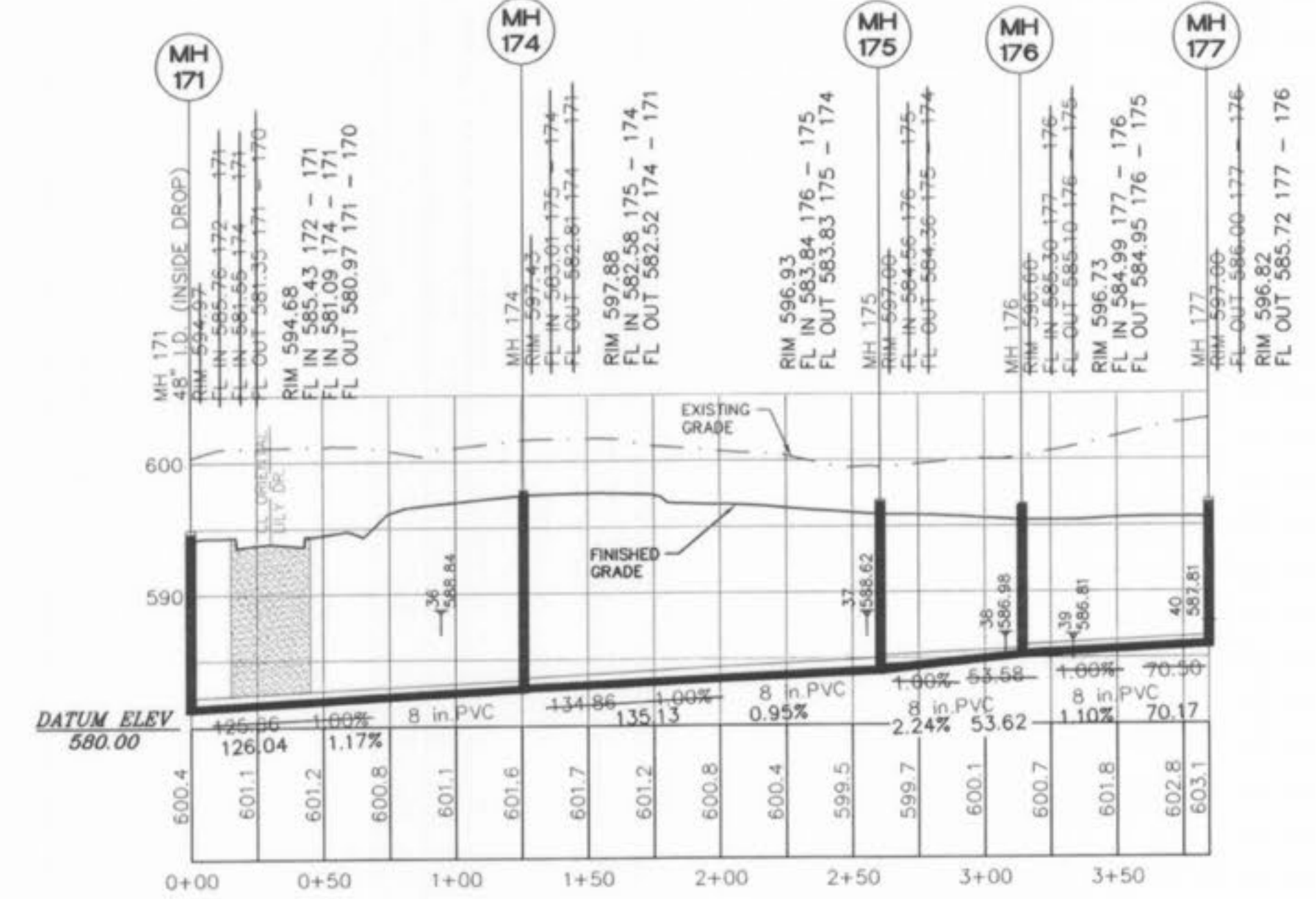
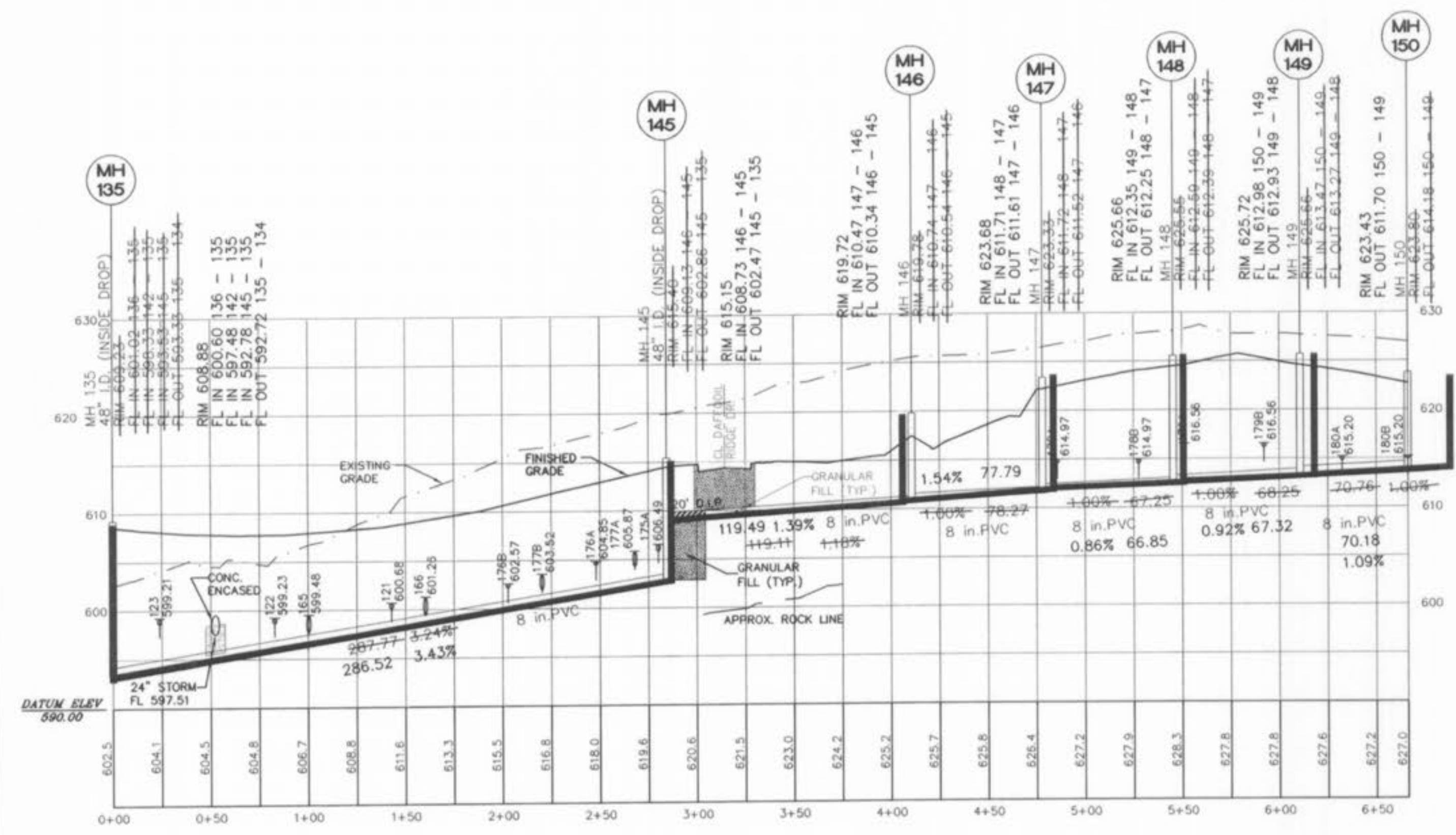
04/16/04	Revised on per City Comments
07/23/04	Revised on per MDR Comments
06/08/05	REVISED AS PER CITY COMMENTS
09/29/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED PER CITY COMMENTS

MAGNOLIA SANITARY PROFILE AS-BUILTS

ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.	030498
DATE	1-26-04
26	



All sanitary lateral street crossings, if trenched, shall be backfilled with granular material (aggregate).

Storm sewer pipes that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.

If the storm and sanitary sewer are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper pipe.

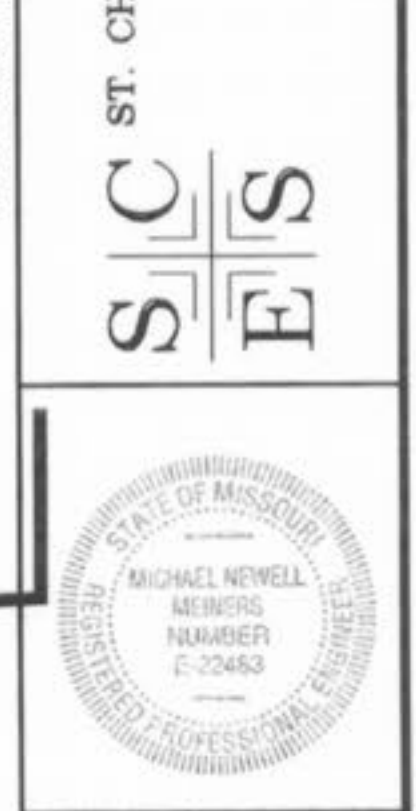
All storm sewer and sanitary sewer within the 1:1 shear plane of the proposed roads shall be granular backfilled.



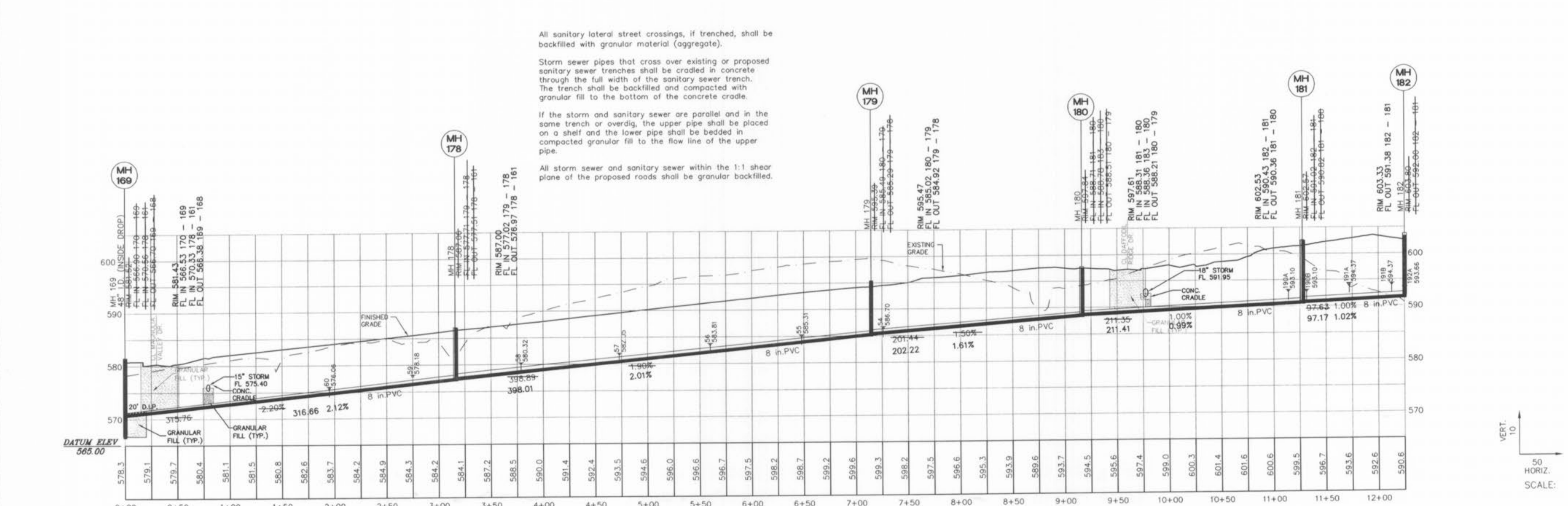
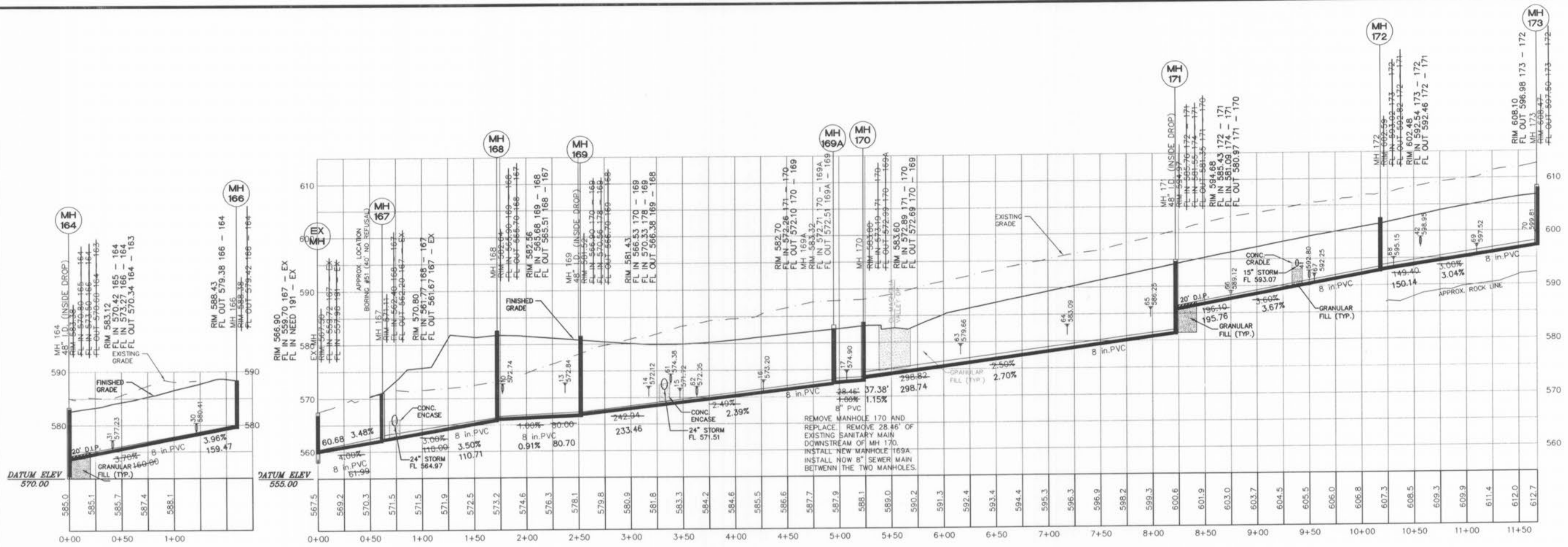
04/16/04	Revised as per City Comments
07/23/04	Revised as per MDR Comments
06/08/05	REVISED AS PER CITY COMMENTS
09/08/05	REVISED AS PER CITY COMMENTS
09/27/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED PER CITY COMMENTS

MAGNOLIA SANITARY PROFILE AS-BUILTS

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ST. CHARLES, MO 63301
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ORDER NO. 030498
DATE 1-26-04
27



All sanitary lateral street crossings, if trenched, shall be backfilled with granular material (aggregate).

Storm sewer pipes that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.

If the storm and sanitary sewer are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper pipe.

All storm sewer and sanitary sewer within the 1:1 shear plane of the proposed roads shall be backfilled.

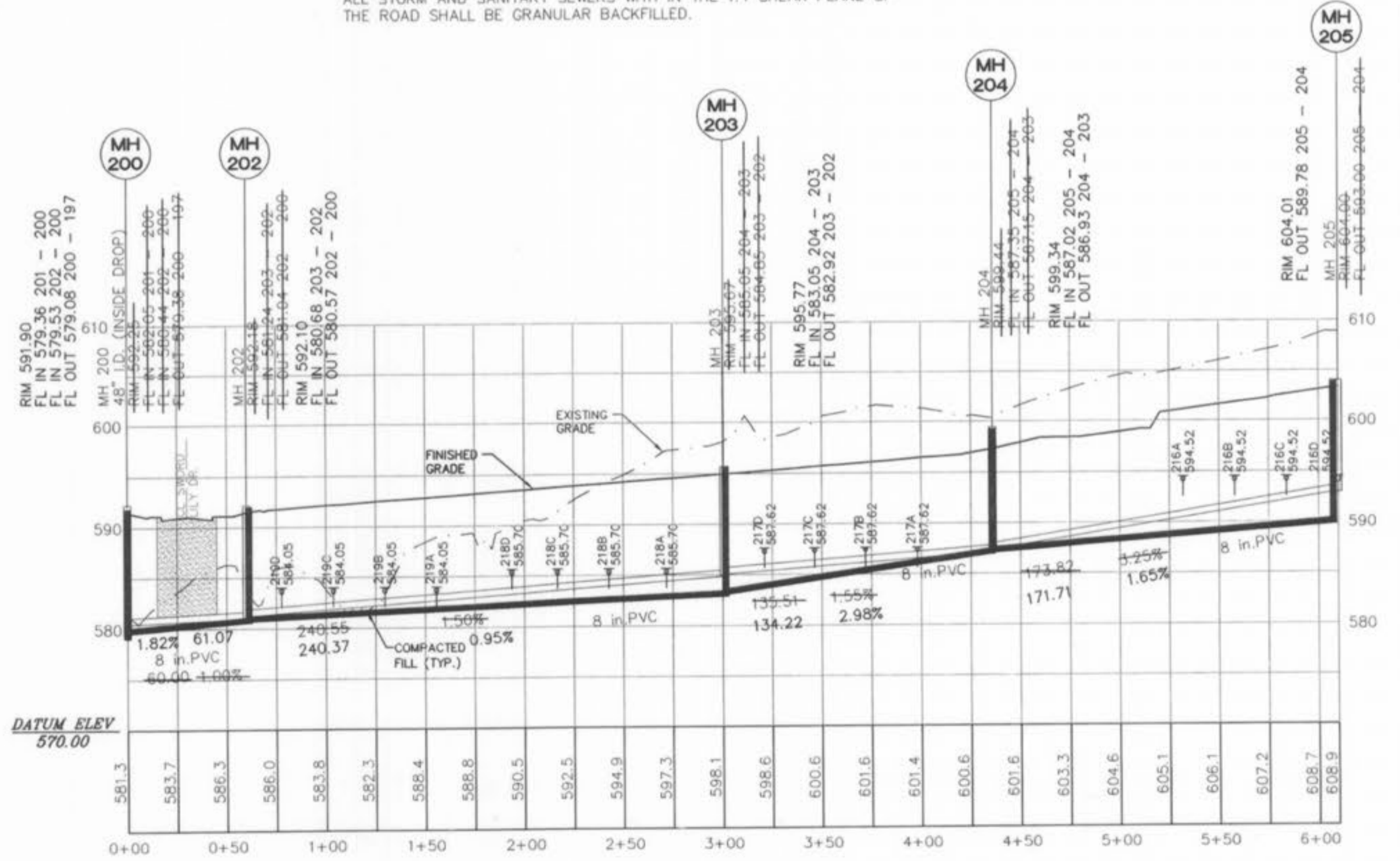
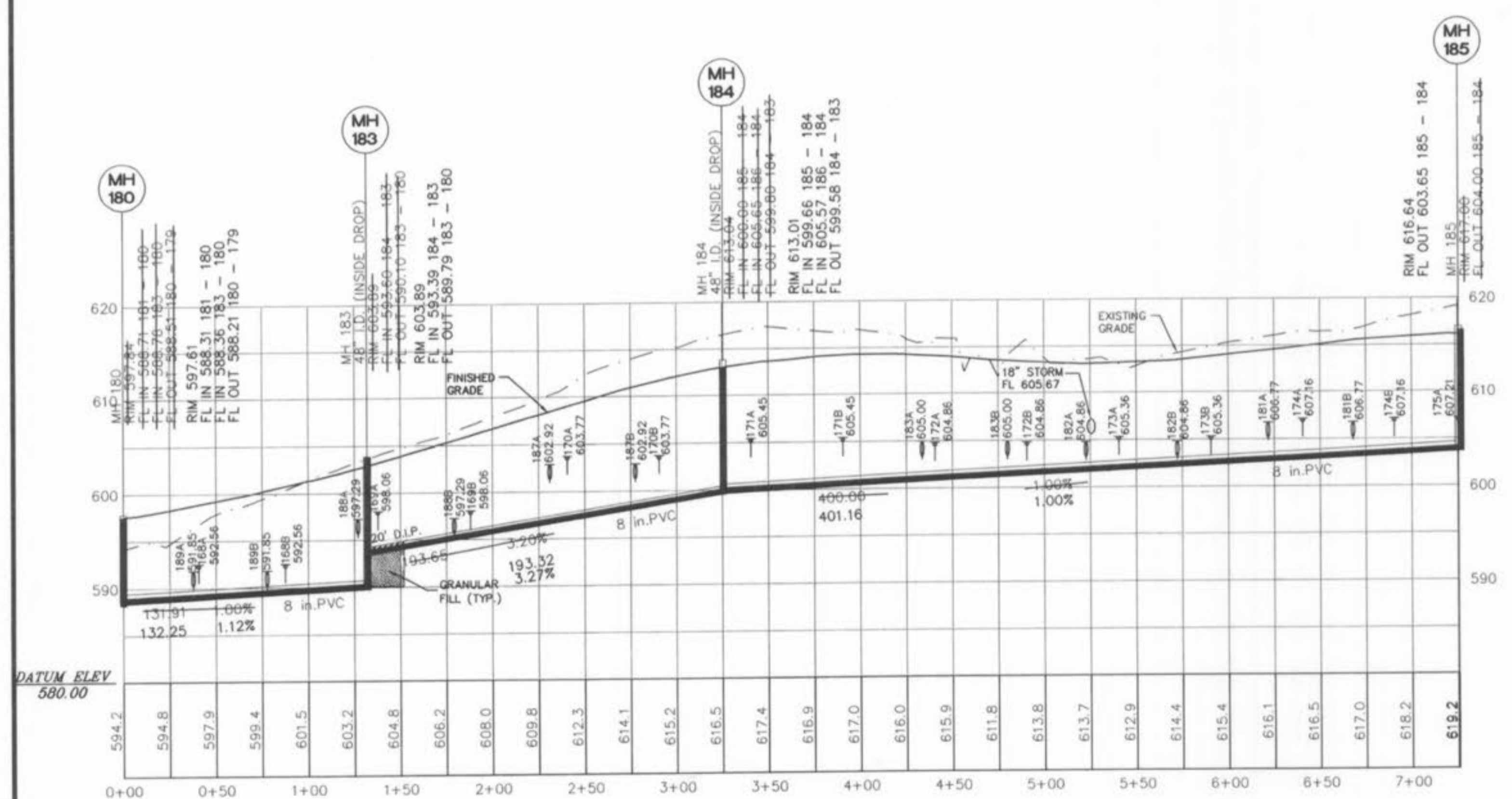
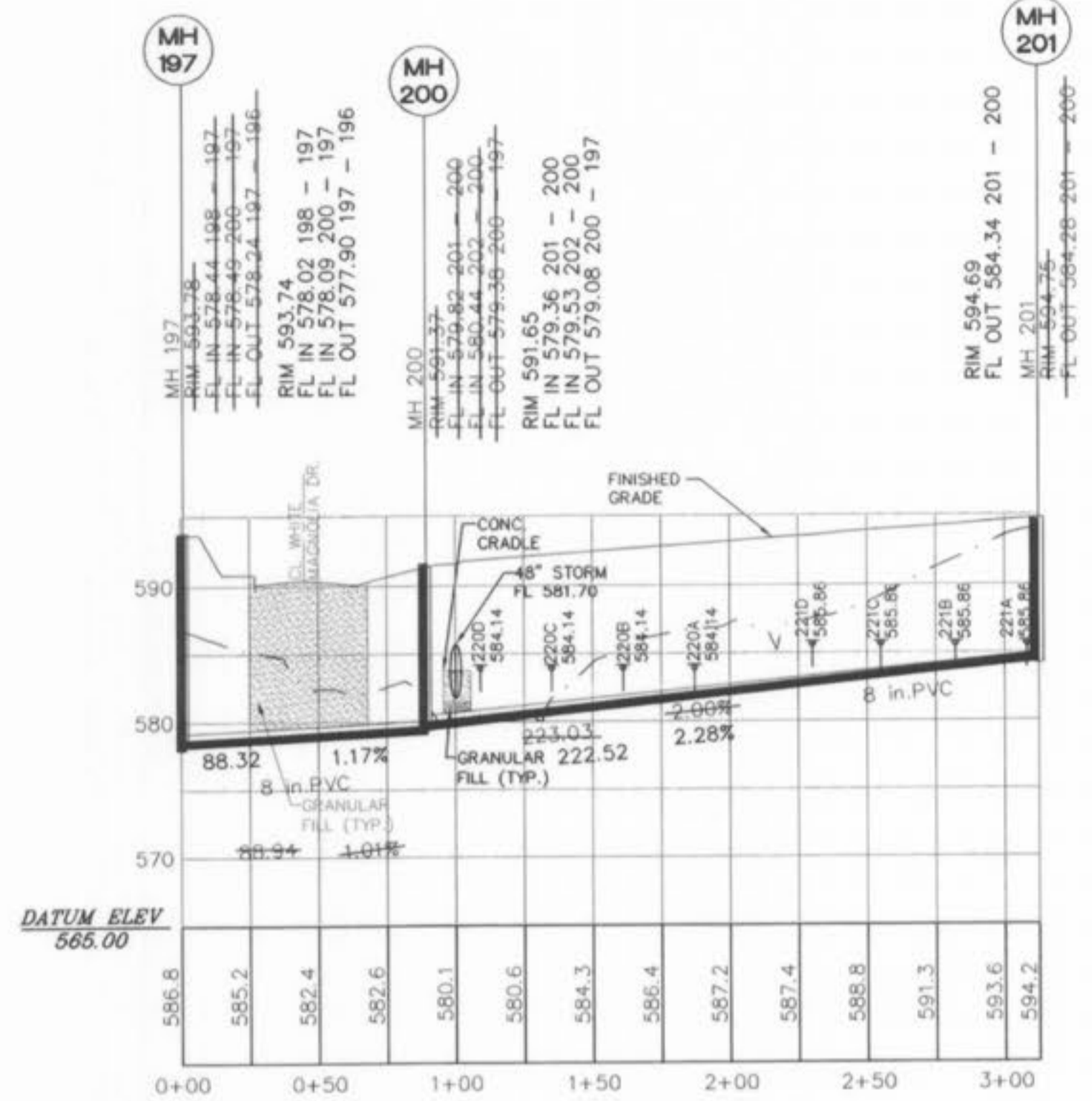
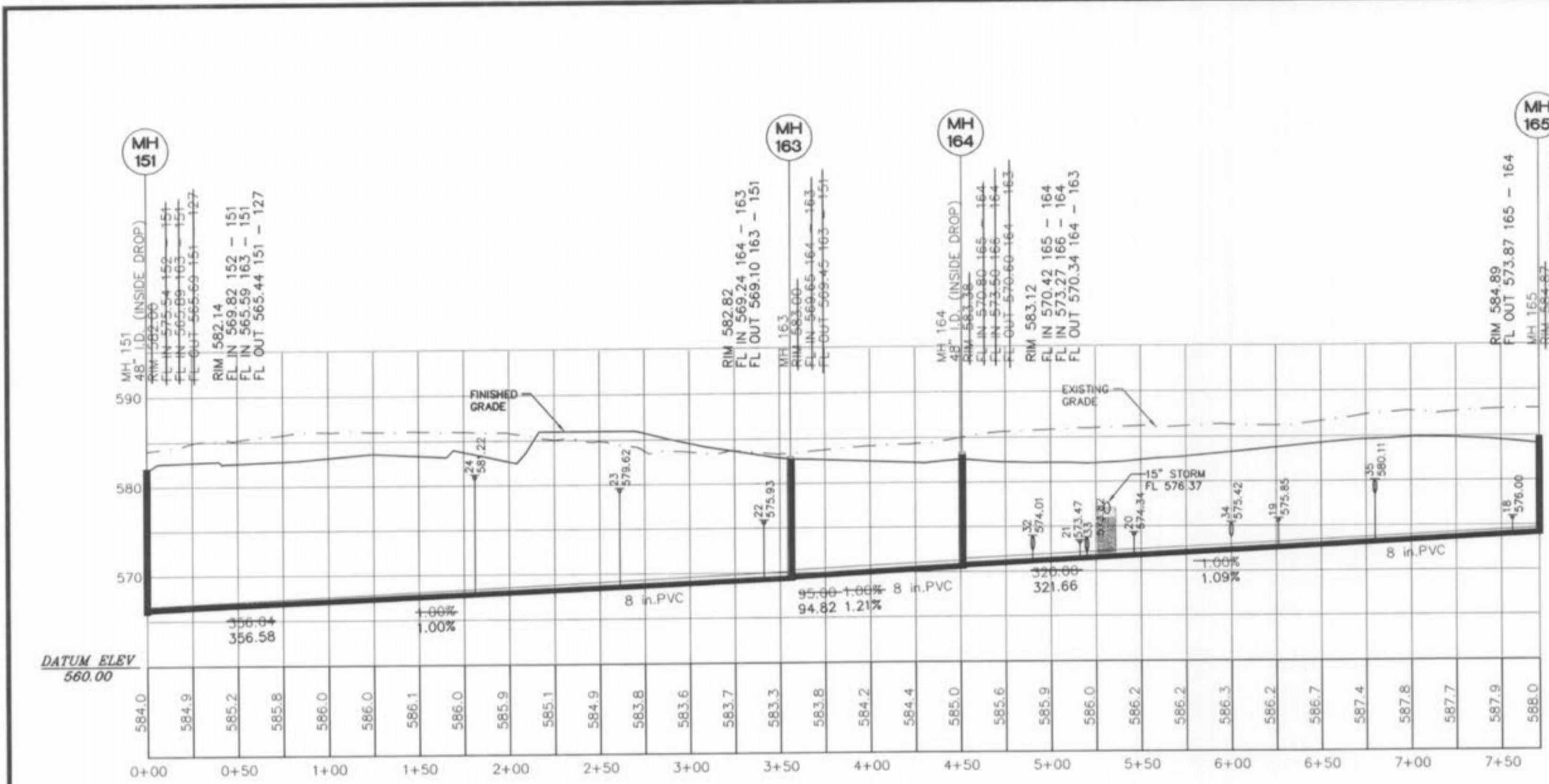
04/16/04	Revised as per City Comments
07/23/04	Revised as per MDR
06/08/05	REVISED AS PER CITY COMMENTS
09/05/05	REVISED AS PER CITY COMMENTS
09/27/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED AS PER CITY COMMENTS
01/17/06	REVISED MH 169A

MAGNOLIA SANITARY PROFILE AS-BUILTS

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TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.	030498
DATE	1-26-04
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ALL SANITARY LATERAL STREET CROSSINGS, IF TRENCHED, SHALL BE BACKFILLED WITH GRANULAR MATERIAL (AGGREGATE).

STORM SEWER PIPES THAT CROSS OVER EXISTING OR PROPOSED SANITARY SEWER TRENCHES SHALL BE CRADLED IN CONCRETE THROUGHOUT THE FULL WIDTH OF THE SANITARY SEWER TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED WITH GRANULAR FILL TO THE BOTTOM OF THE CONCRETE CRADLE.

IF THE STORM AND SANITARY SEWER ARE PARALLEL AND IN THE SAME TRENCH OR OVERDIG, THE UPPER PIPE SHALL BE PLACED ON A SHELVE AND THE LOWER PIPE SHALL BE BEDDED IN COMPACTED GRANULAR FILL TO THE FLOW LINE OF THE UPPER PIPE.

ALL STORM AND SANITARY SEWERS WITH IN THE 1:1 SHEAR PLANE OF THE ROAD SHALL BE GRANULAR BACKFILLED.



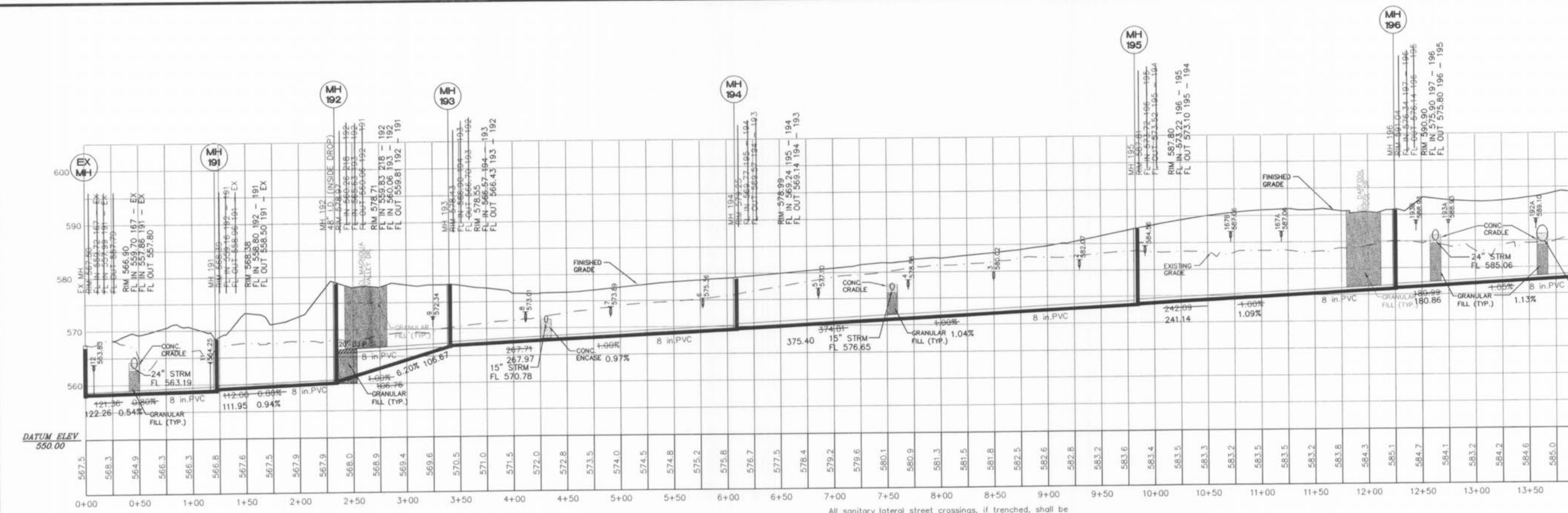
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07/23/04	Revised as per MNR
08/08/05	REVISED AS PER CITY COMMENTS
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09/27/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED PER CITY COMMENTS

MAGNOLIA SANITARY PROFILE AS-BUILTS

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801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
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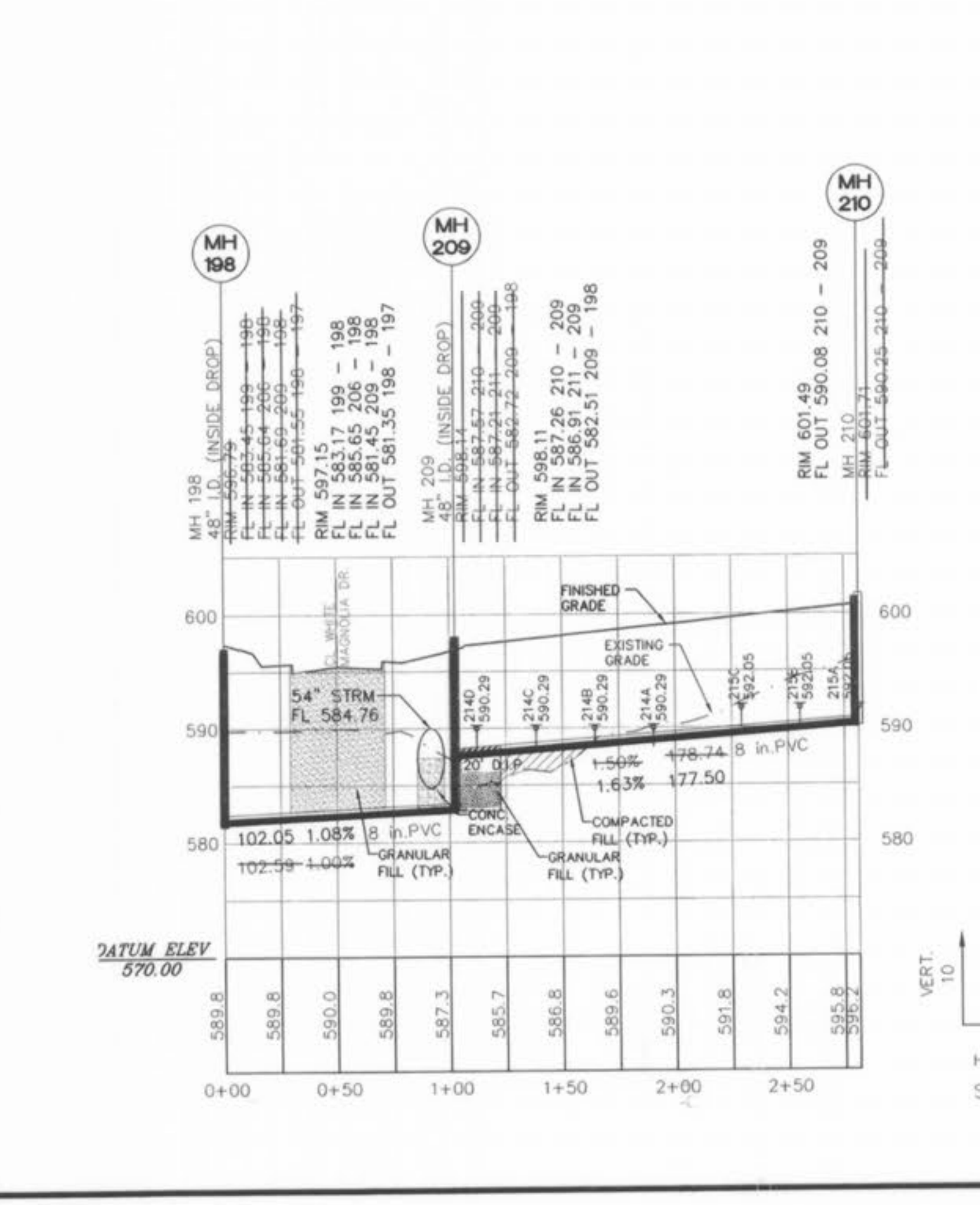
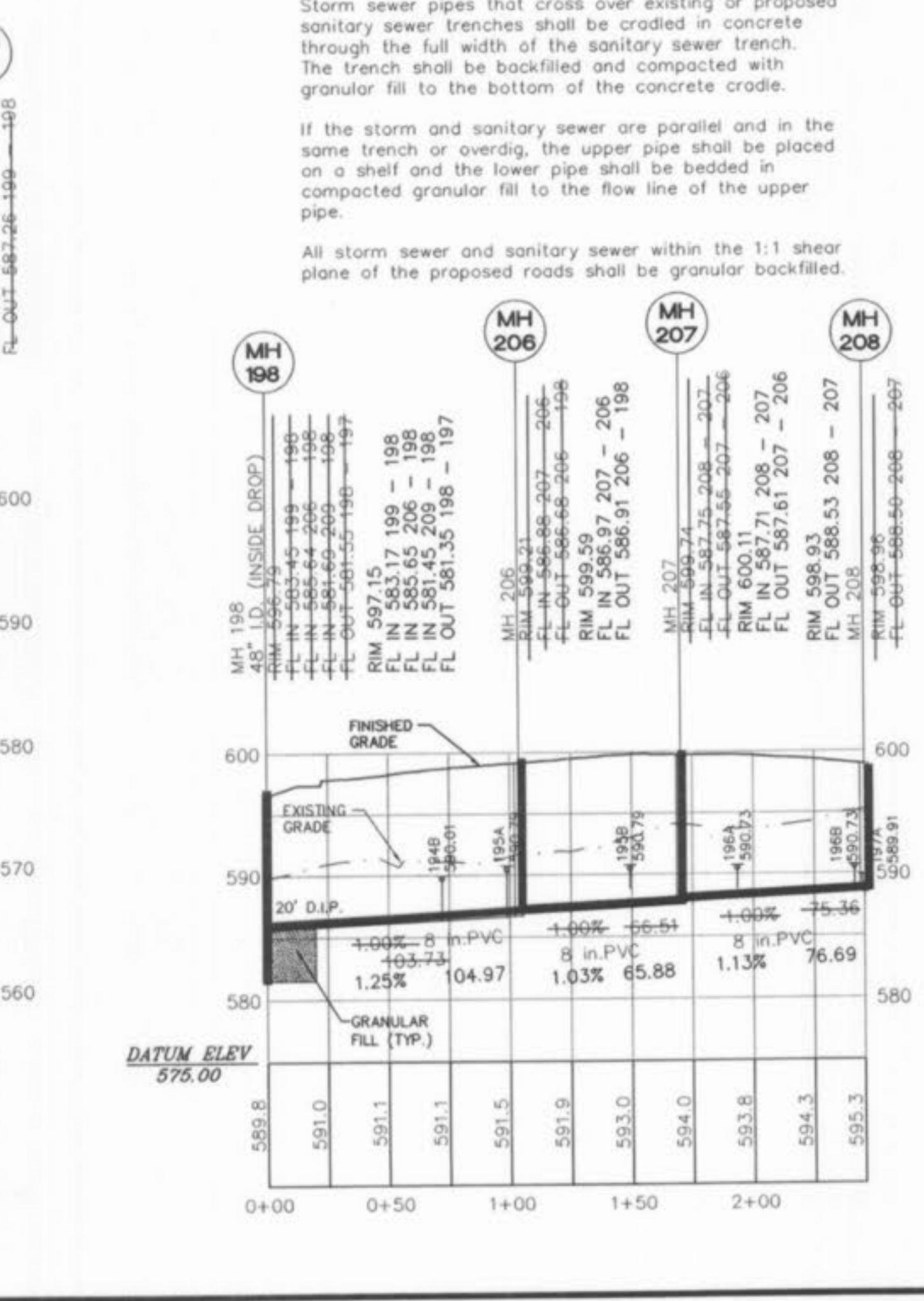
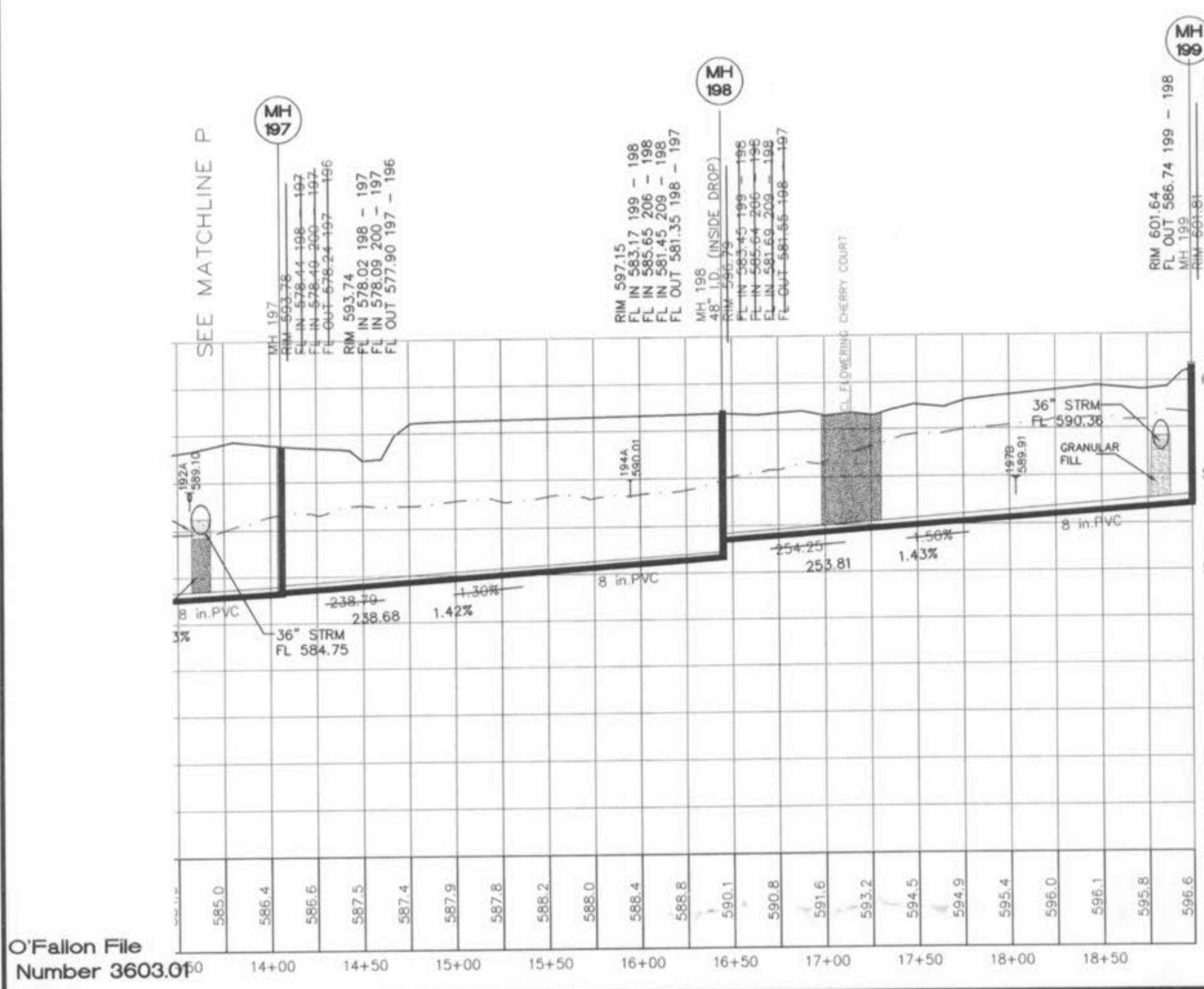
ORDER NO.	030498
DATE	1-26-04



See Matchline P

See Matchline P

See Matchline P



All sanitary lateral street crossings, if trenched, shall be backfilled with granular material (aggregate).

Storm sewer pipes that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.

If the storm and sanitary sewer are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper pipe.

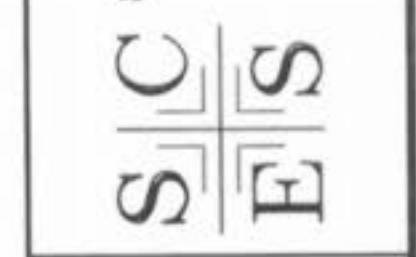
All storm sewer and sanitary sewer within the 1:1 shear plane of the proposed roads shall be granular backfilled.

SEE MATCHLINE P

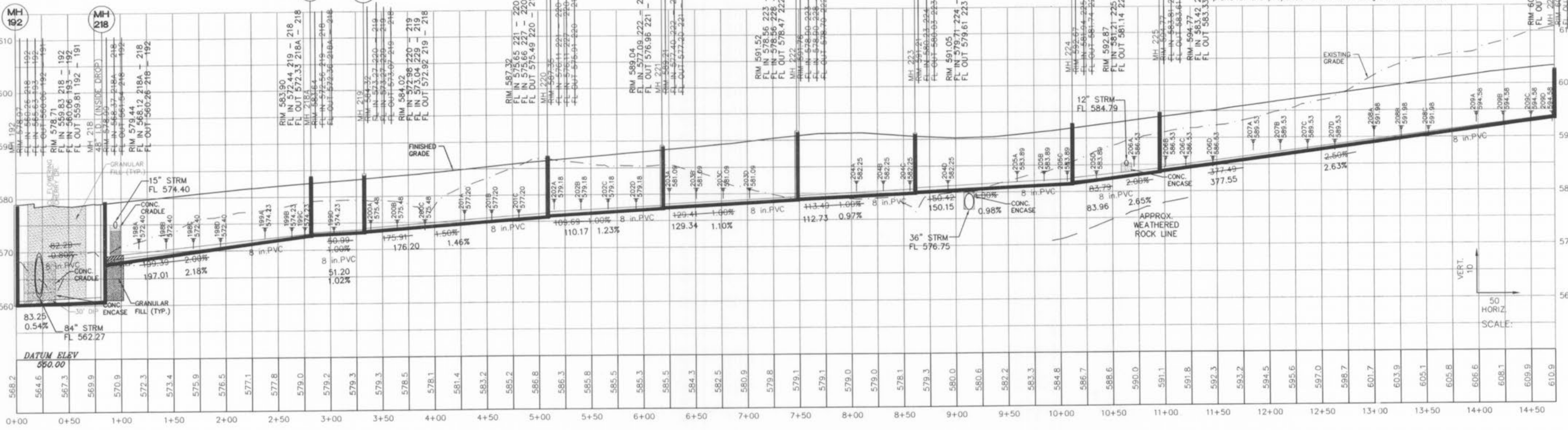
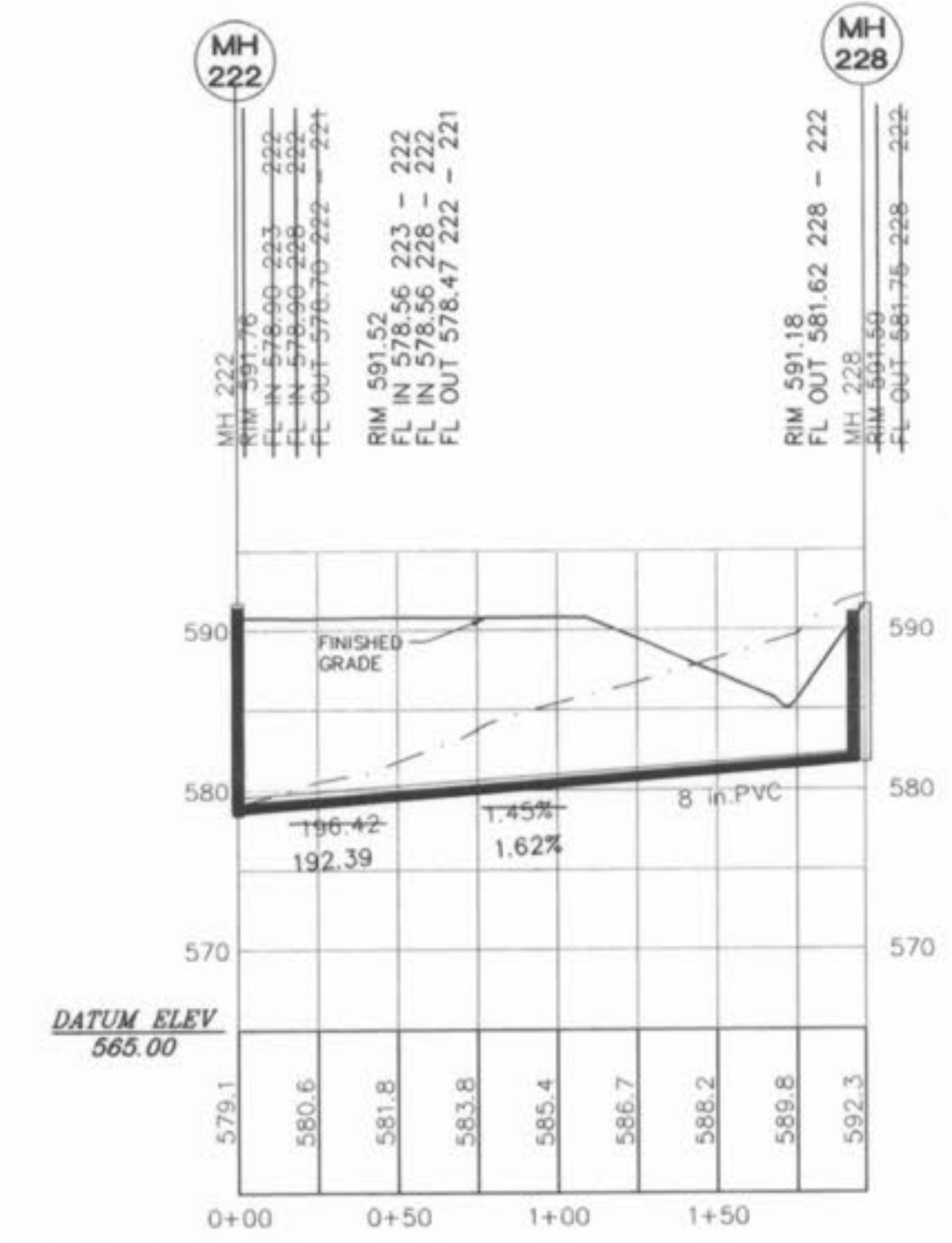
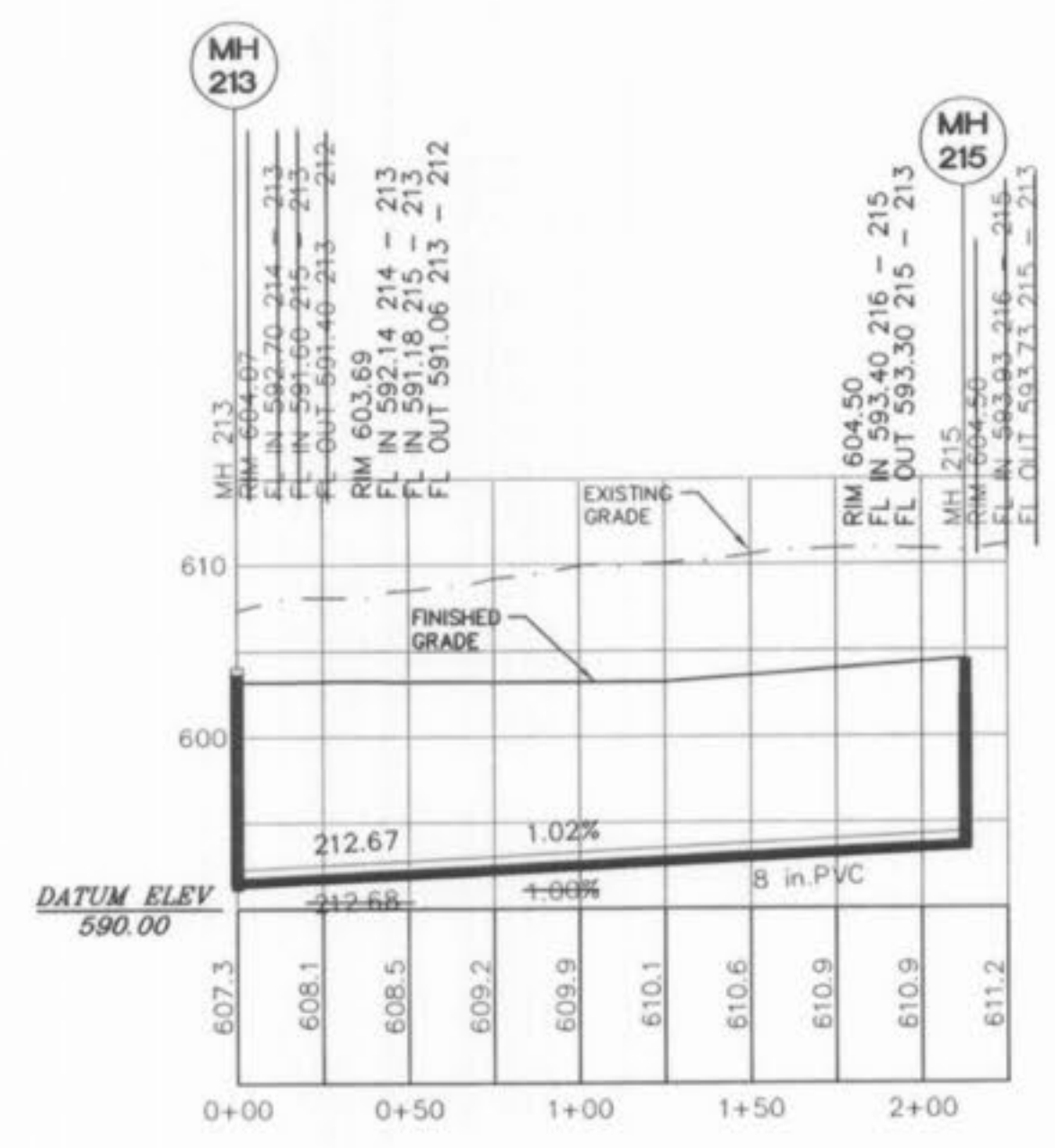
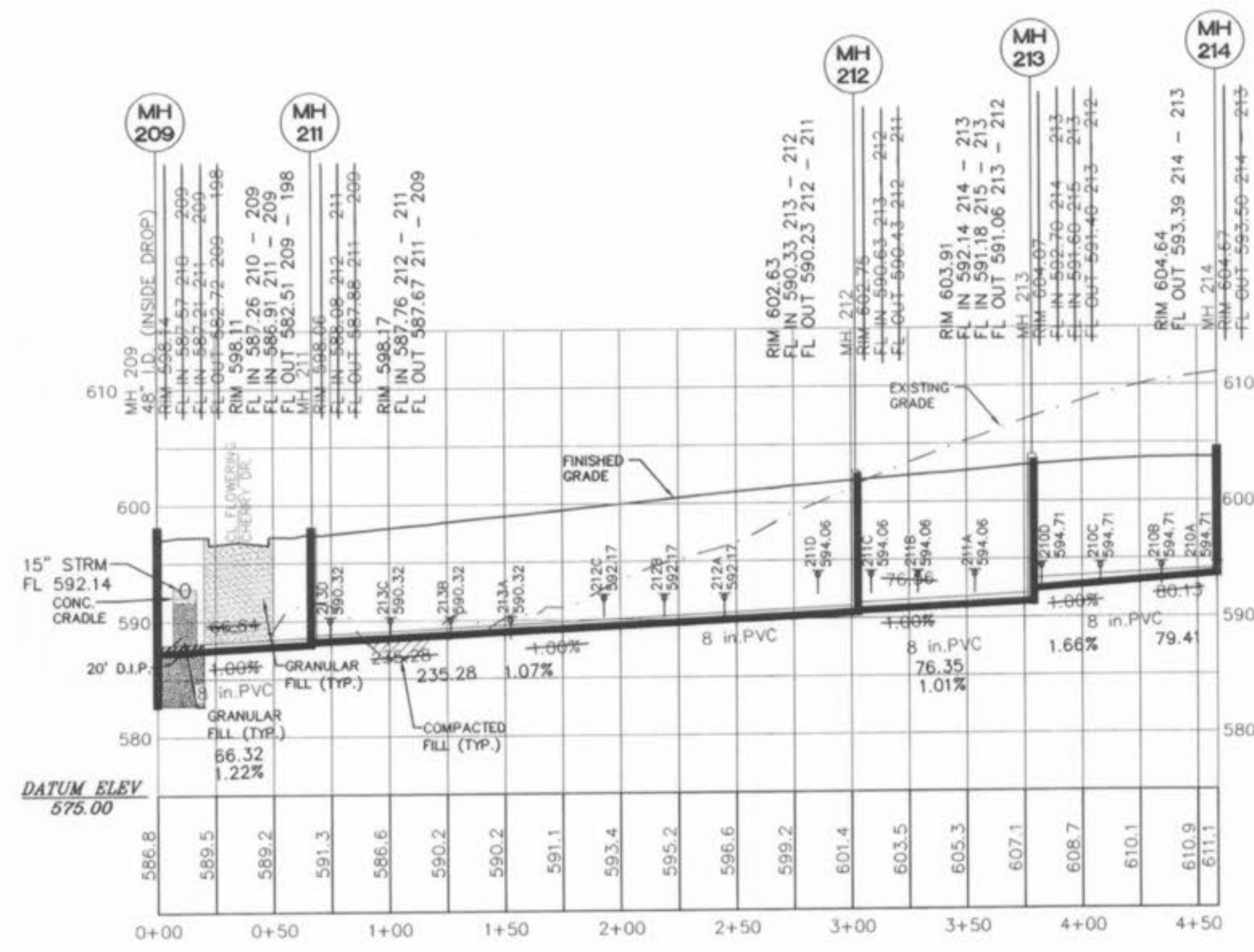
07/23/04	REVISED AS PER MDR
06/06/05	REVISED AS PER CITY COMMENTS
09/27/05	REVISED AS PER CITY COMMENTS
10/04/06	REVISED PER CITY COMMENTS

MAGNOLIA SANITARY PROFILE AS-BUILTS

ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.	090498
DATE	1-26-04
30	



All sanitary lateral street crossings, if trenched, shall be backfilled with granular material (aggregate).

Storm sewer pipes that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.

If the storm and sanitary sewer are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper pipe.

All storm sewer and sanitary sewer within the 1:1 shear plane of the proposed roads shall be granular backfilled.

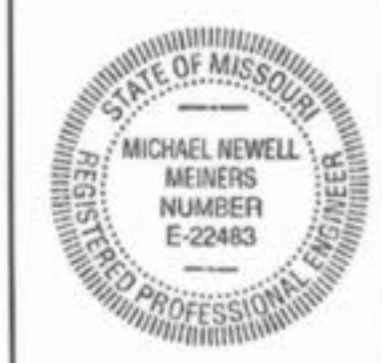
O'Fallon File
Number 3603.01

VERT. 1D
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HORIZ. SCALE:

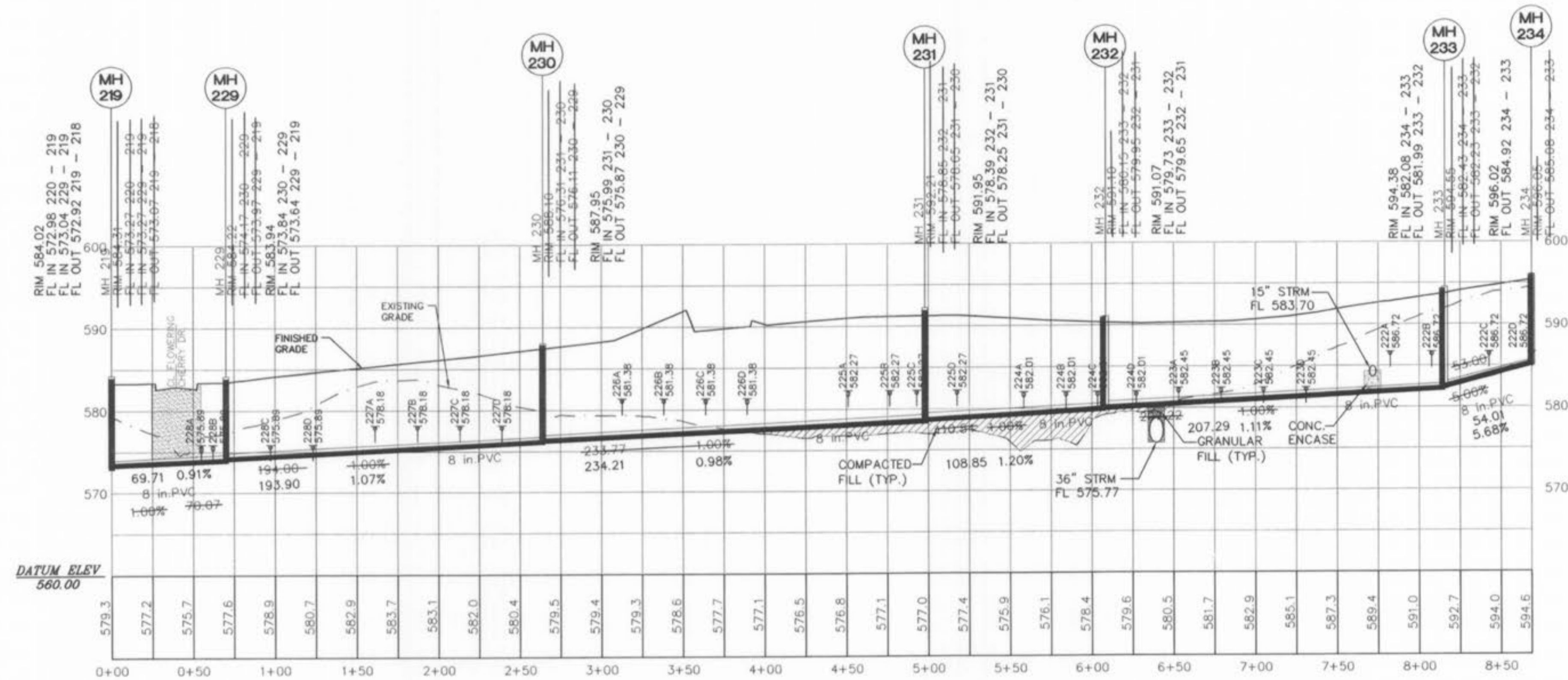
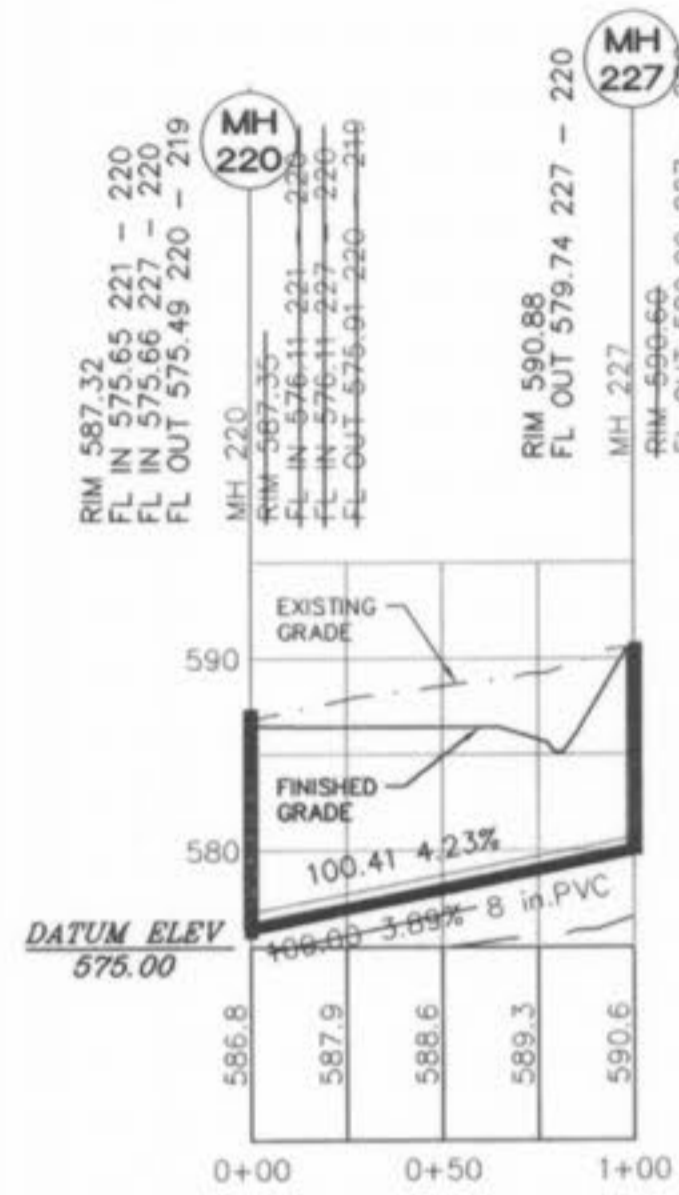
06/06/05	REVISED AS PER CITY COMMENTS
07/11/05	REVISED AS PER CITY COMMENTS
09/02/05	REVISED PER PERMITS COMMENTS

MAGNOLIA SANITARY PROFILE AS-BUILTS

ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.
030498
DATE
1-26-04

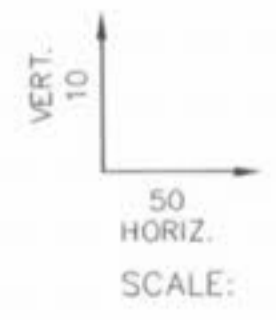


All sanitary lateral street crossings, if trenched, shall be backfilled with granular material (aggregate).

Storm sewer pipes that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.

If the storm and sanitary sewer are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper pipe.

All storm sewer and sanitary sewer within the 1:1 shear plane of the proposed roads shall be granular backfilled.



O'Fallon File
Number 3603.01

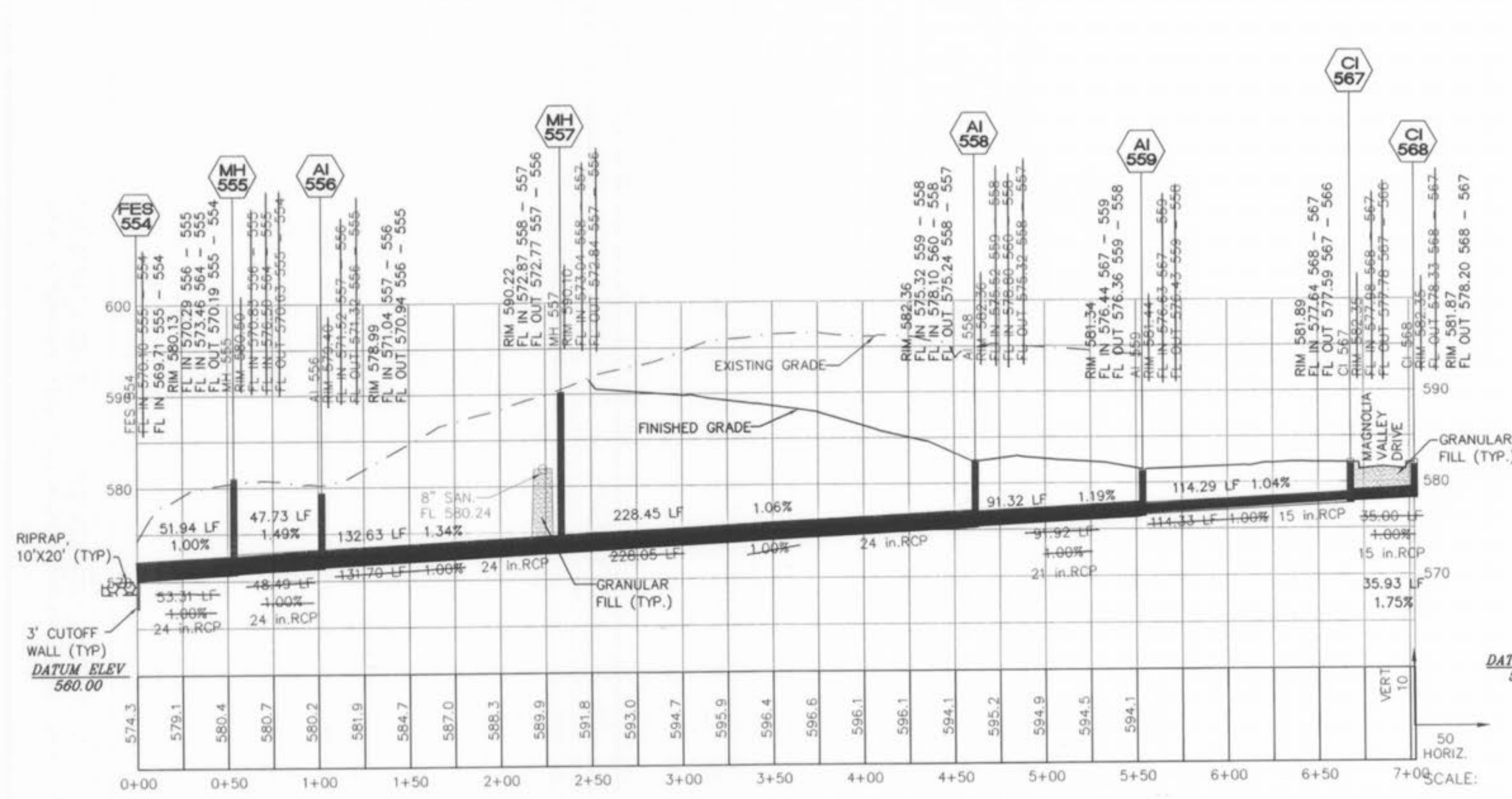
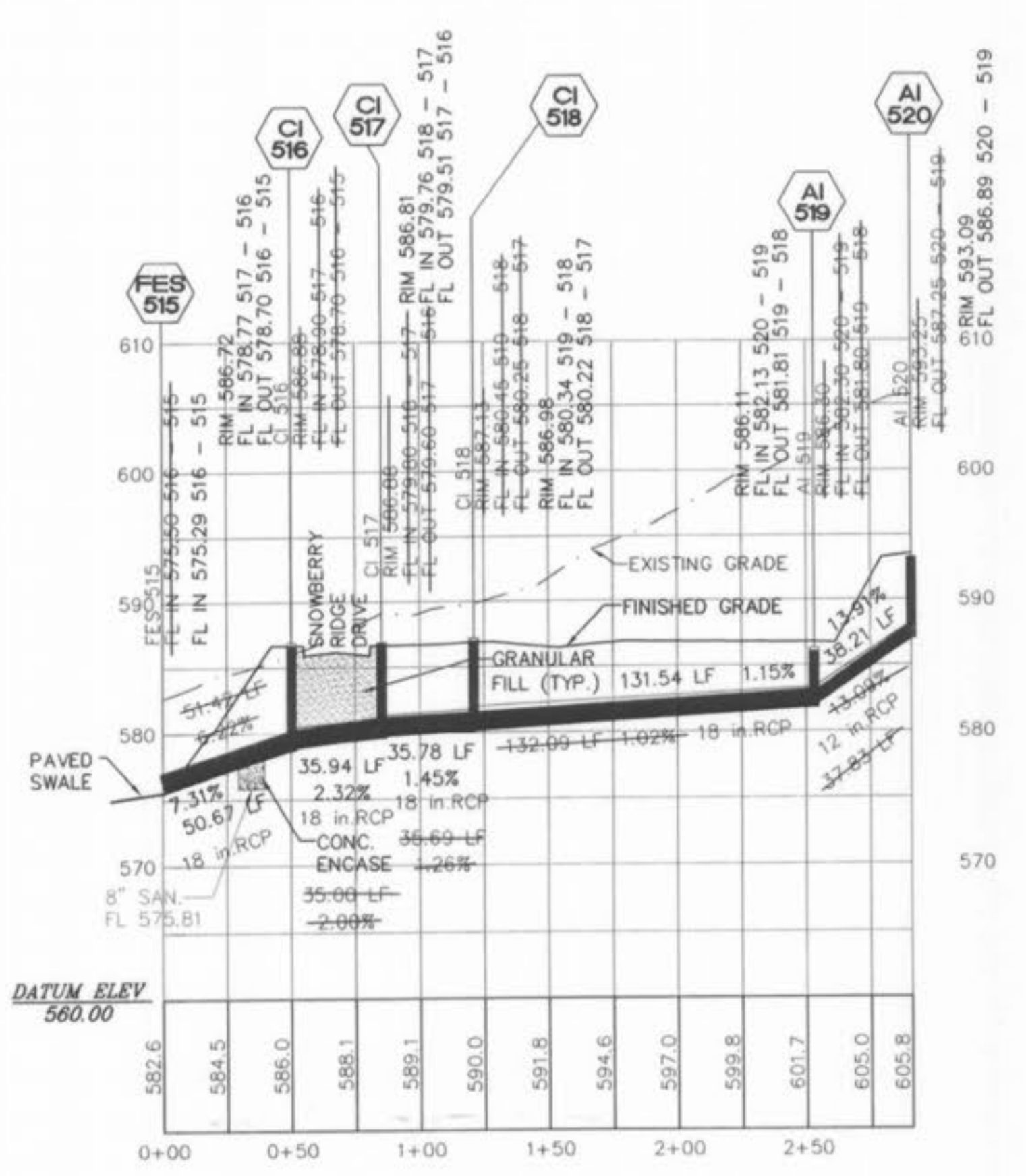
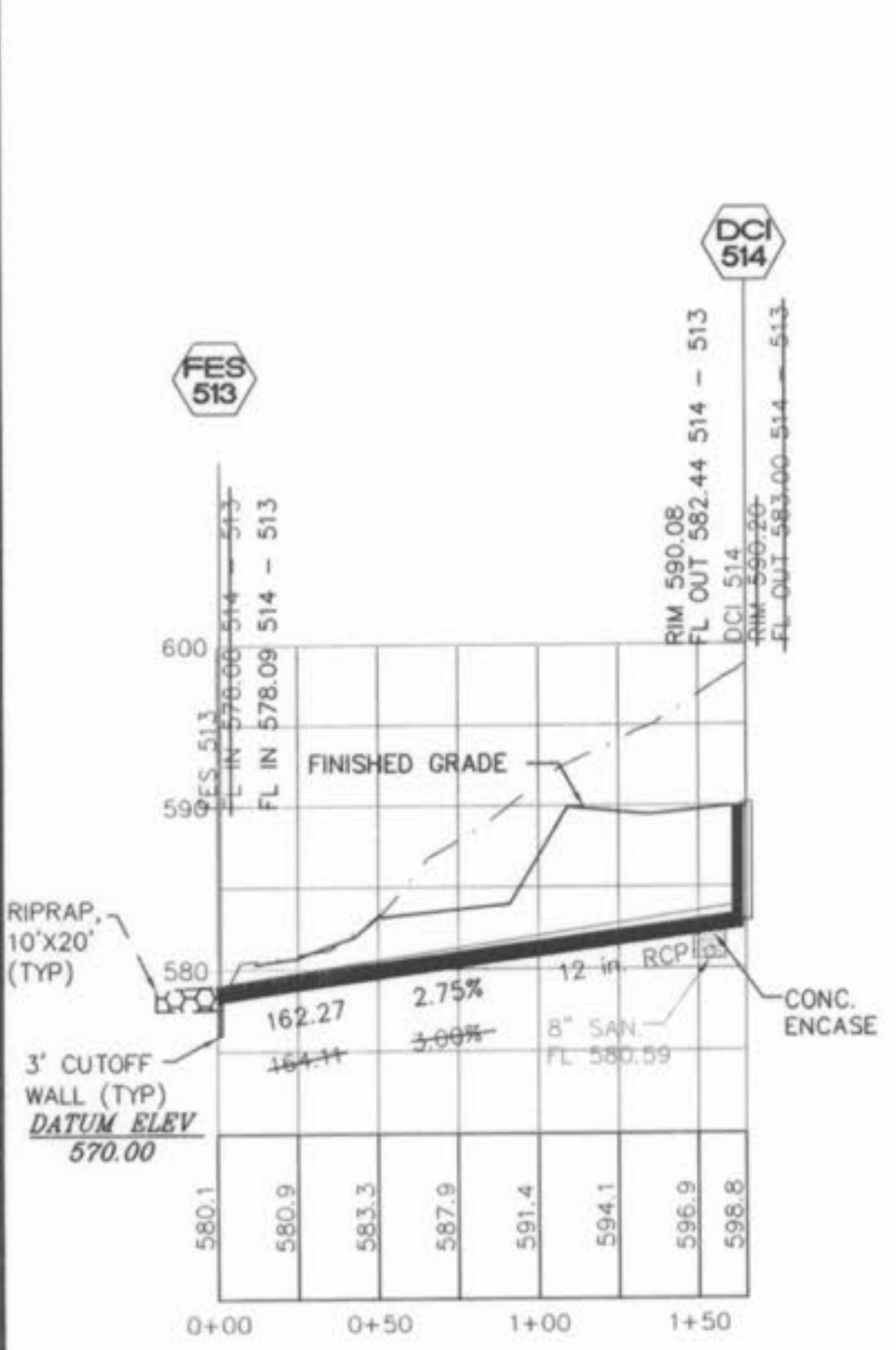
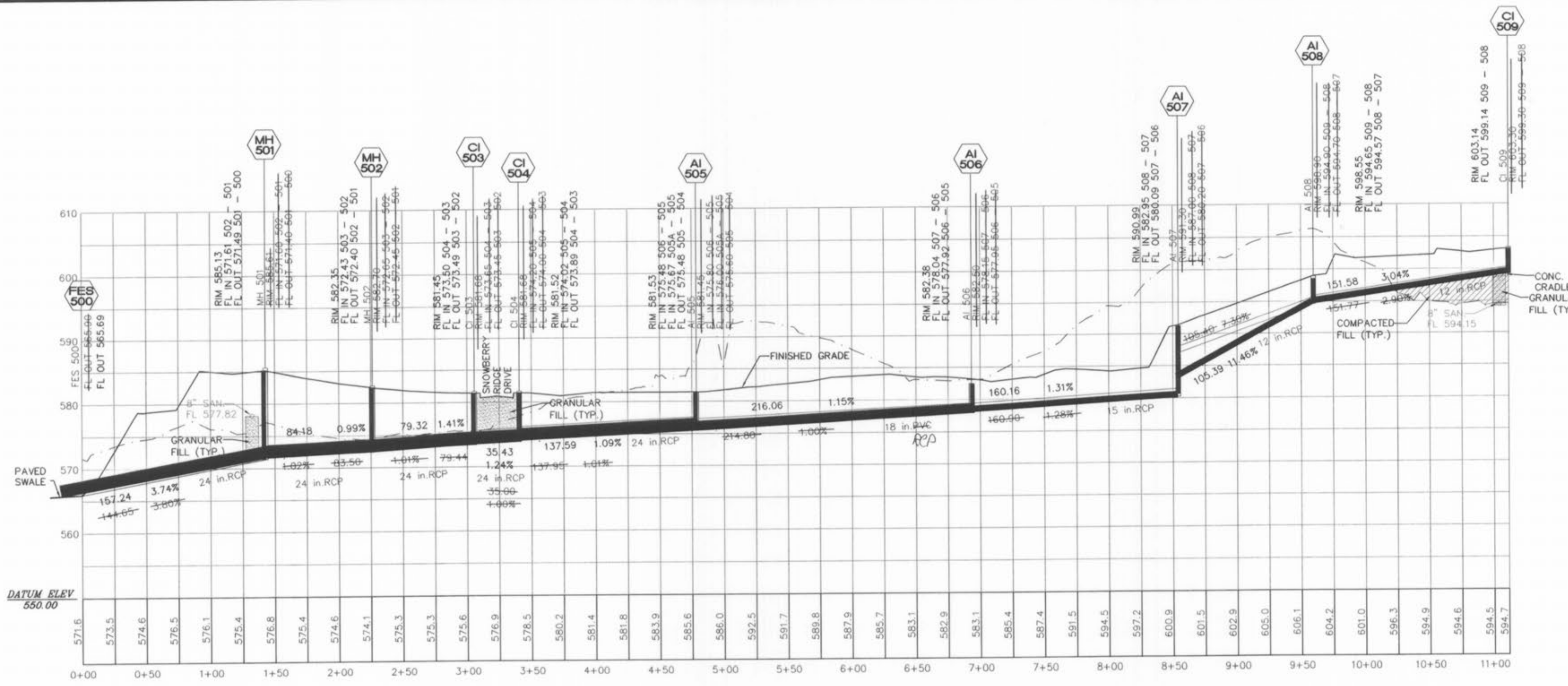
07/23/04	REVISED AS PER MDNR
09/09/05	REVISED AS PER CITY COMMENTS
09/27/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED PER CITY COMMENTS

MAGNOLIA SANITARY PROFILE AS-BUILTS

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801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.	030498
DATE	1-26-04
32	

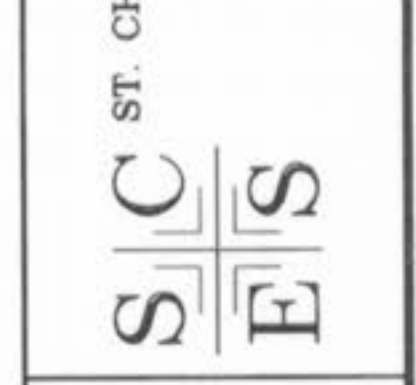


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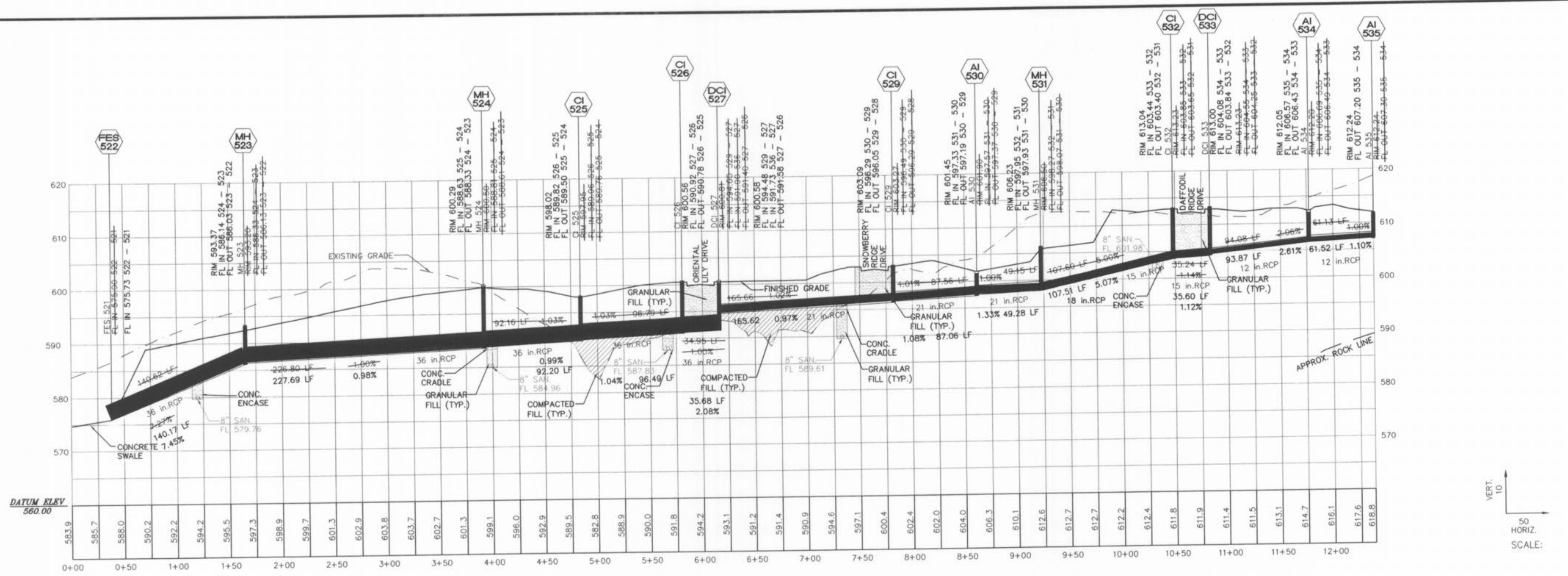
09/27/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED PER CITY COMMENTS

MAGNOLIA STORM PROFILE AS-BUILTS

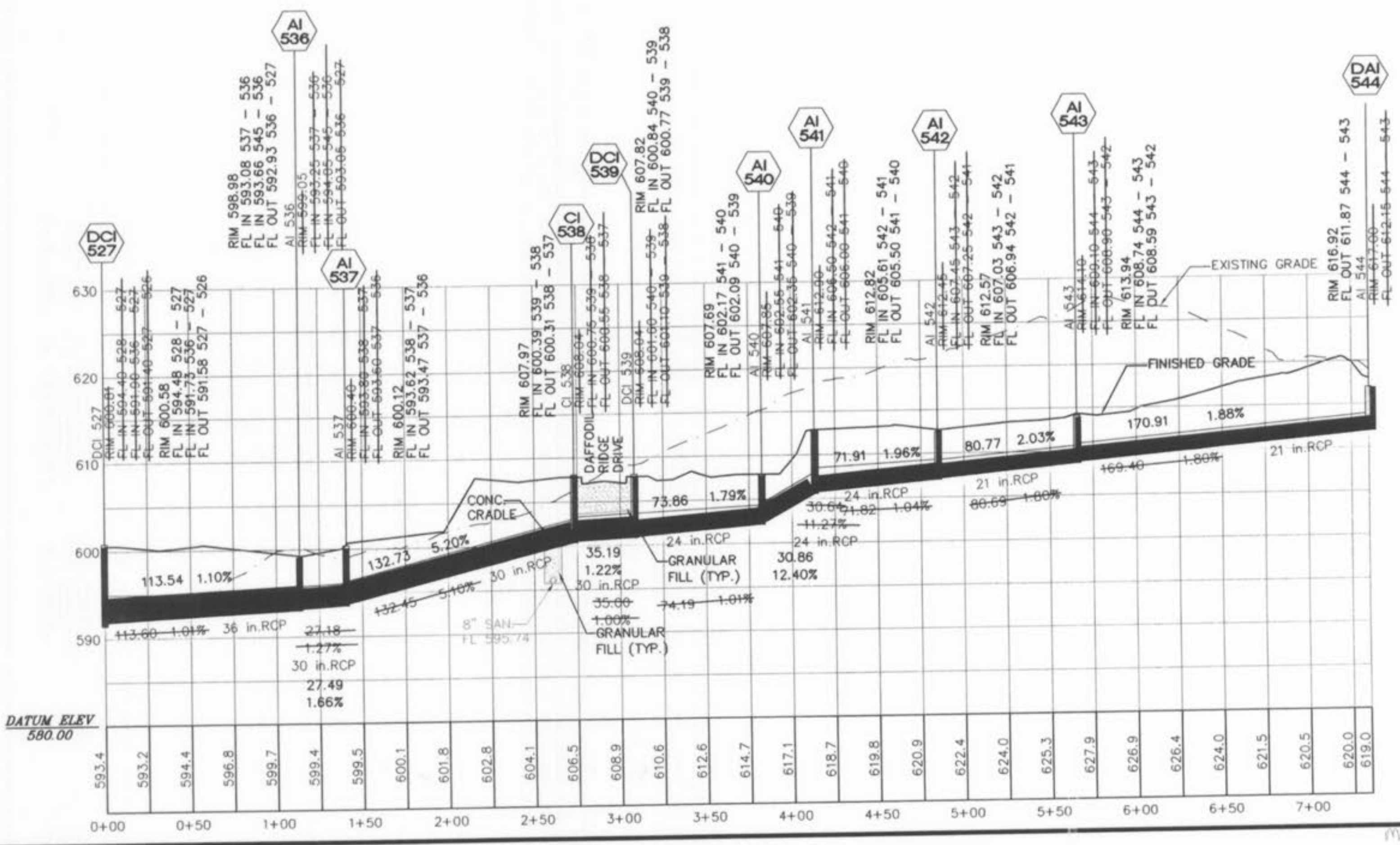
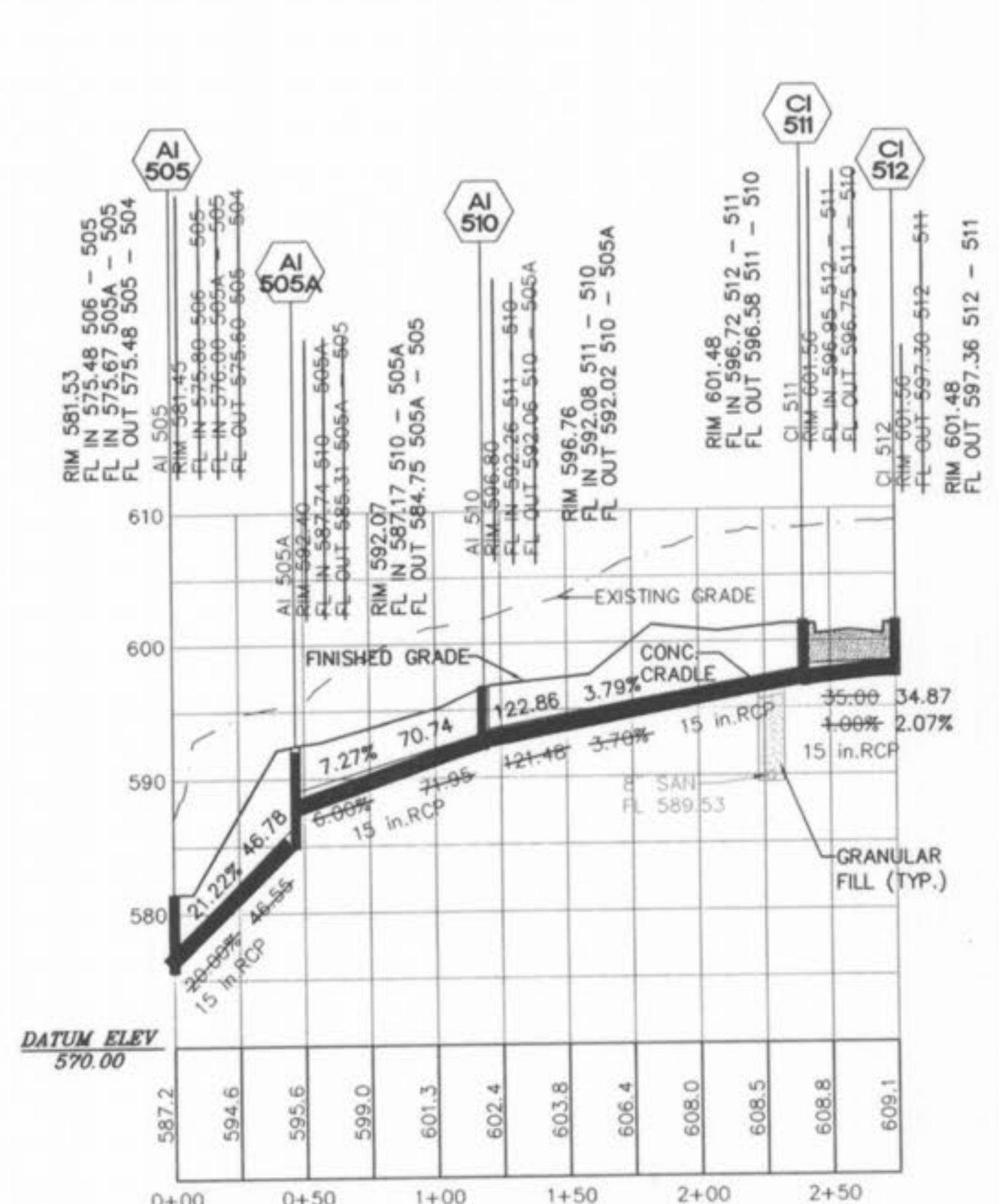
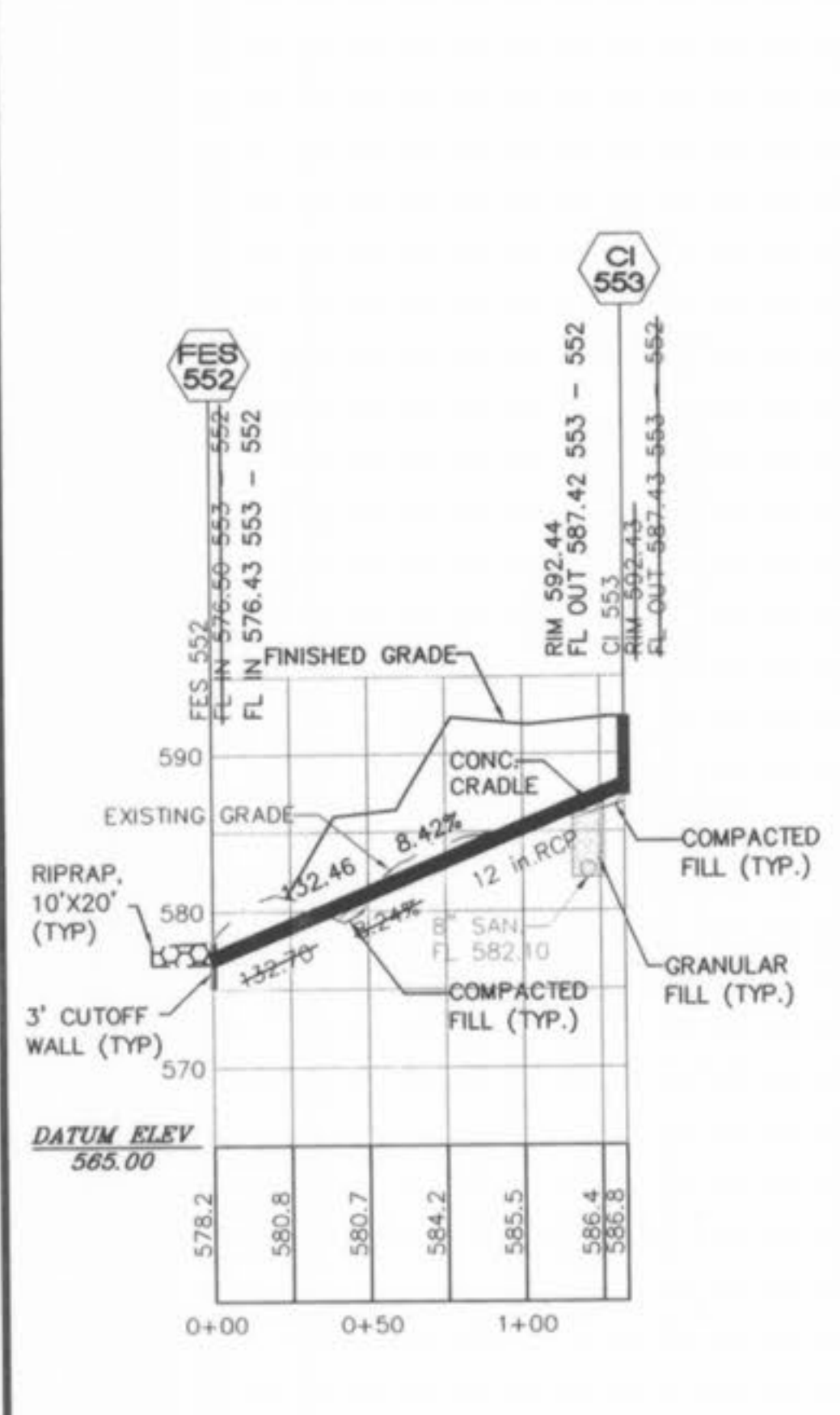
ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
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ORDER NO.
030498
DATE
1-26-04
34



VERT. 10
50
HORIZ. SCALE:



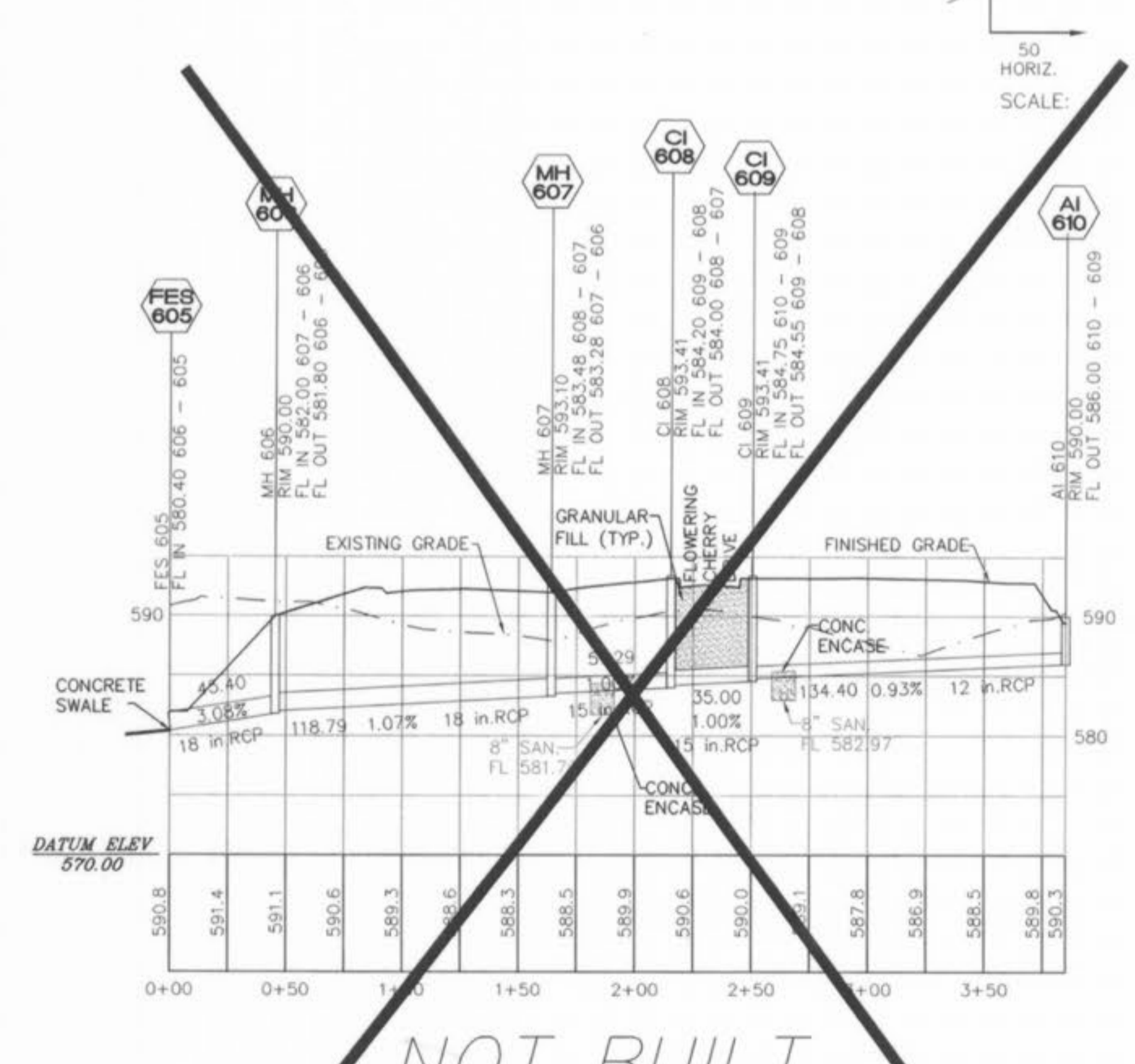
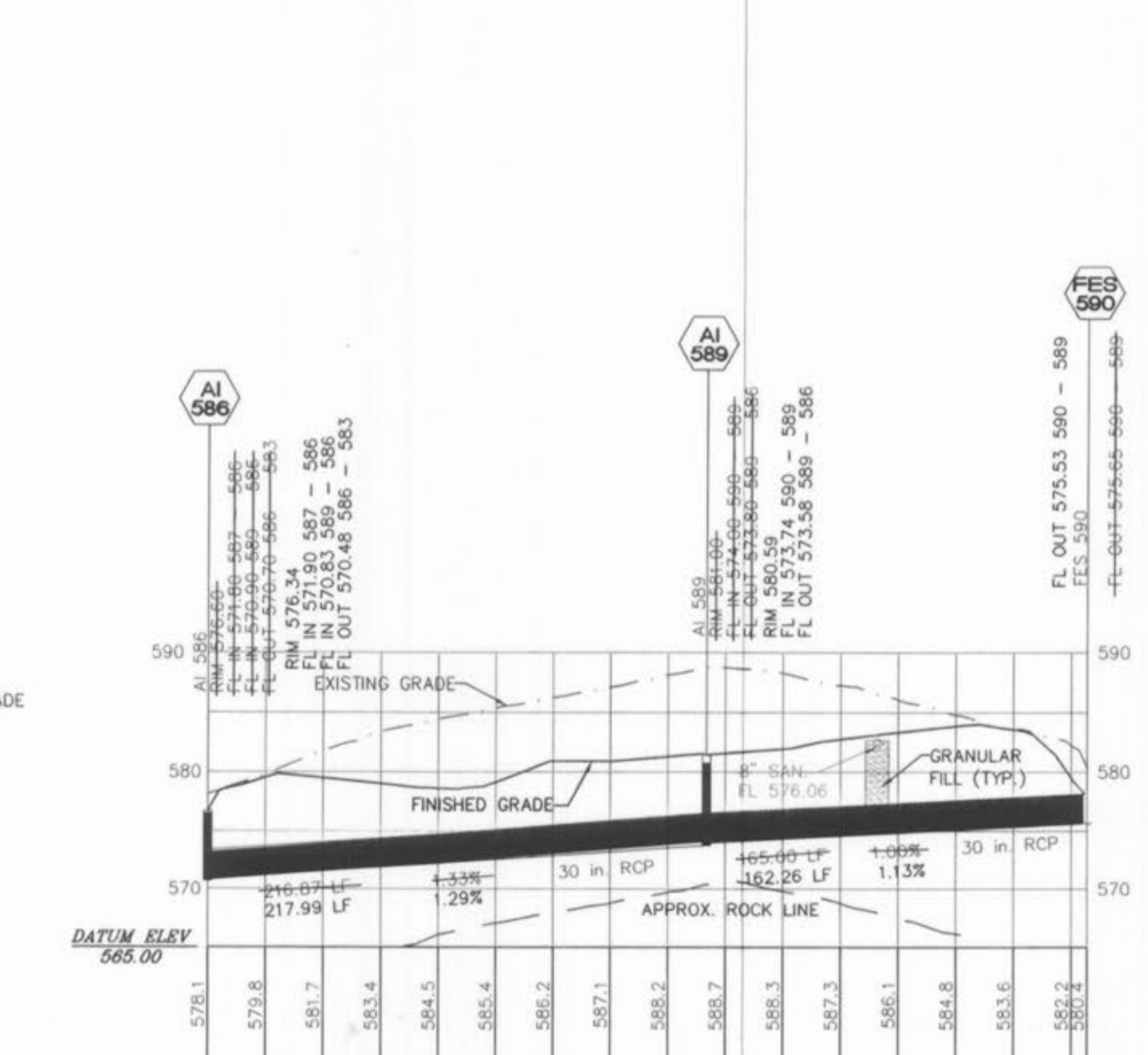
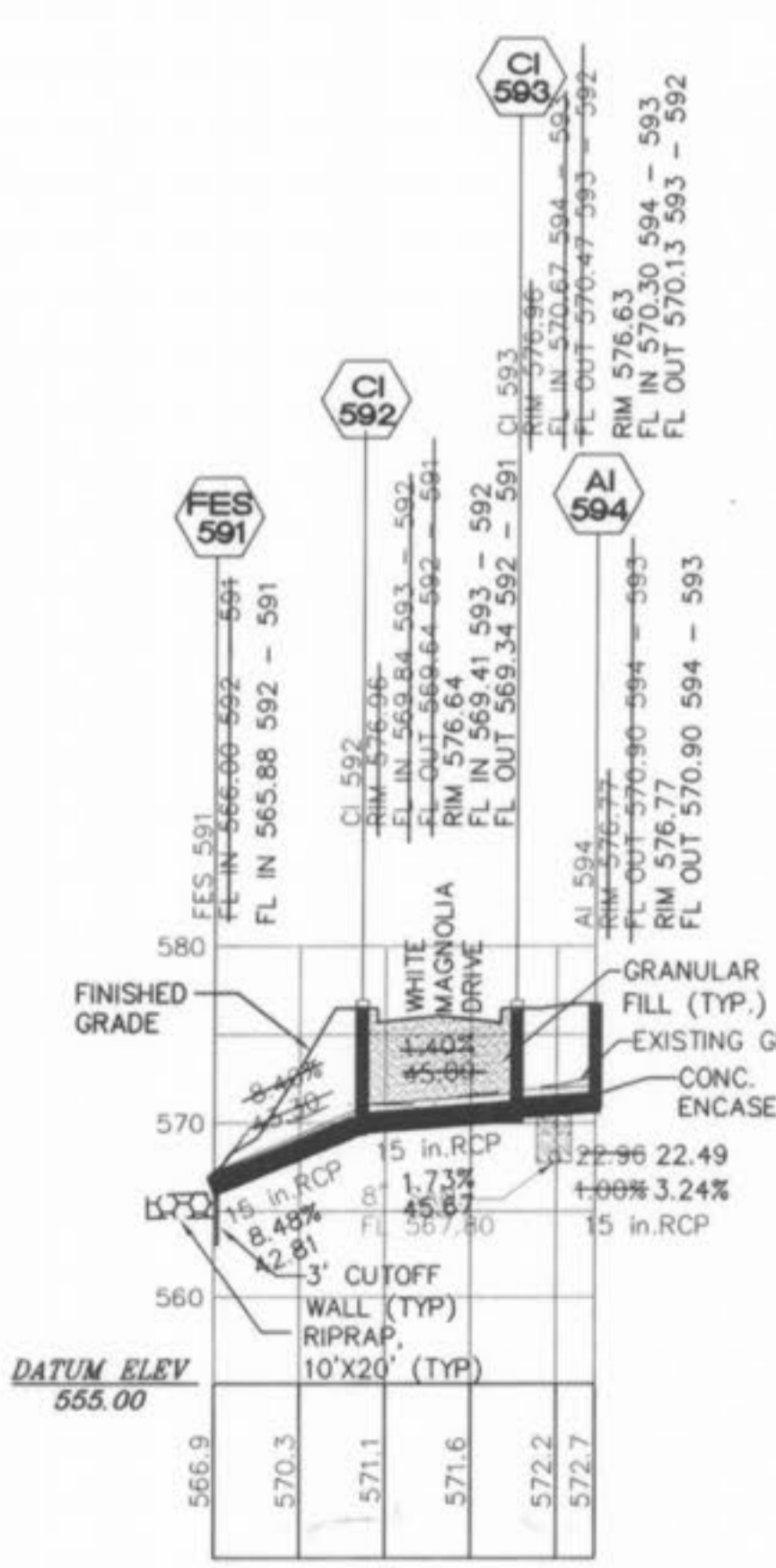
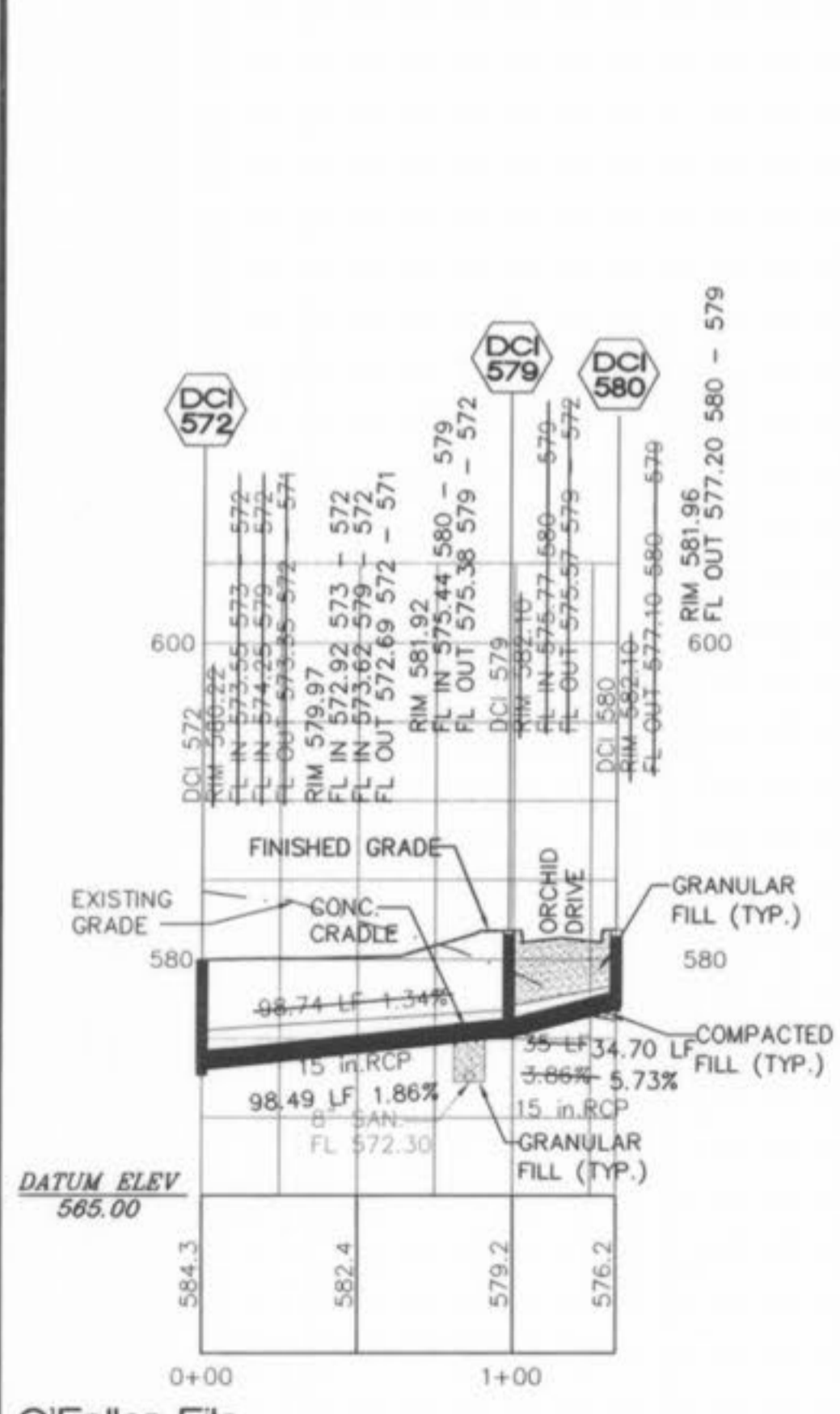
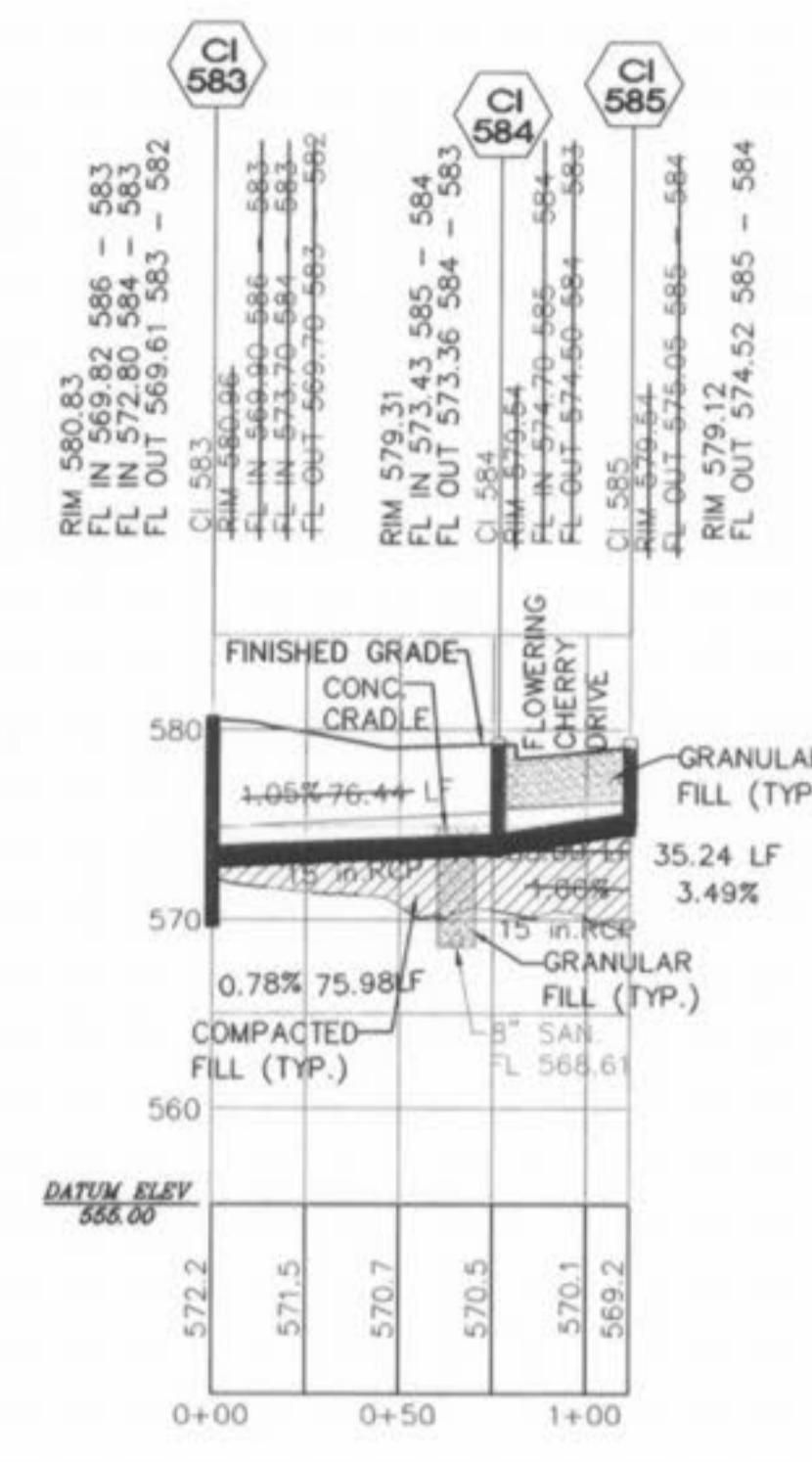
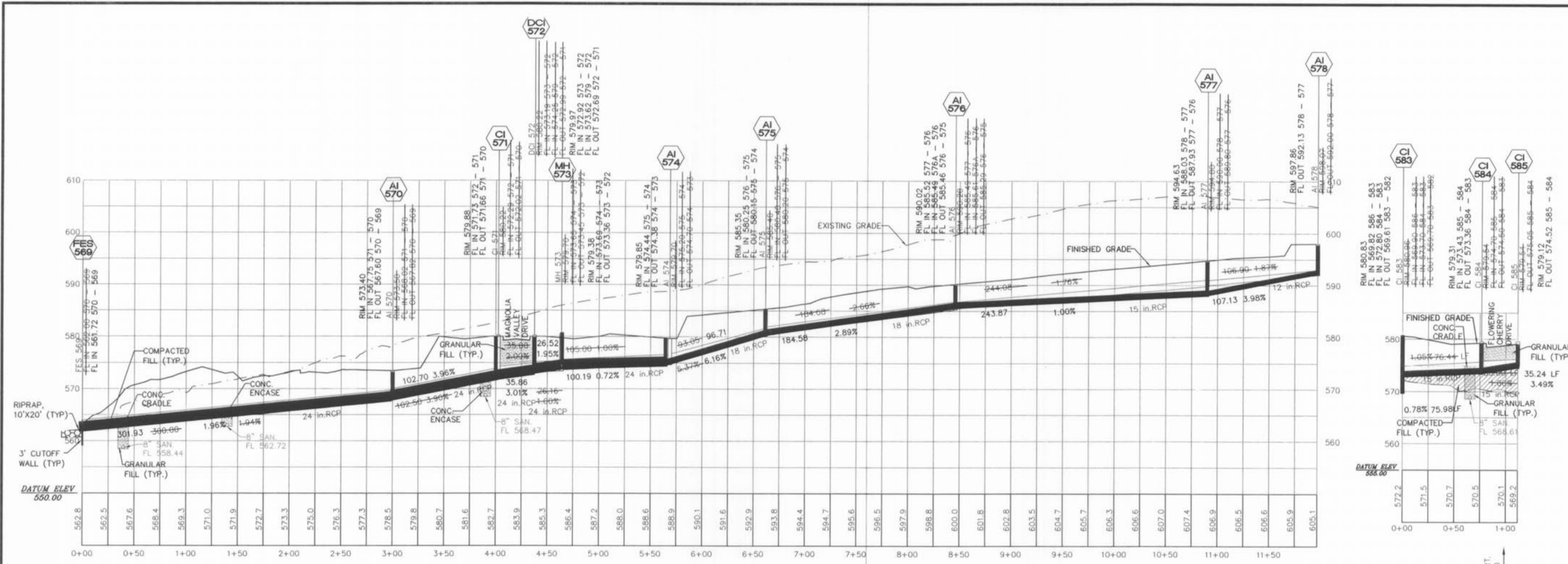
09/27/05
10/04/05
REVISED AS PER CITY COMMENTS
REVISED PER CITY COMMENTS

MAGNOLIA STORM PROFILE AS-BUILTS

ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



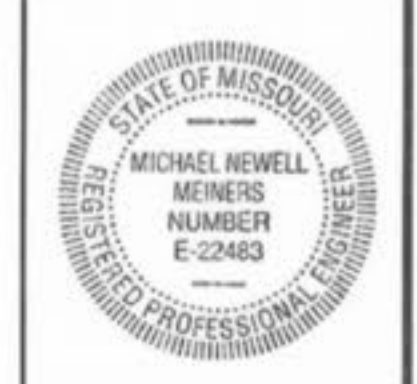
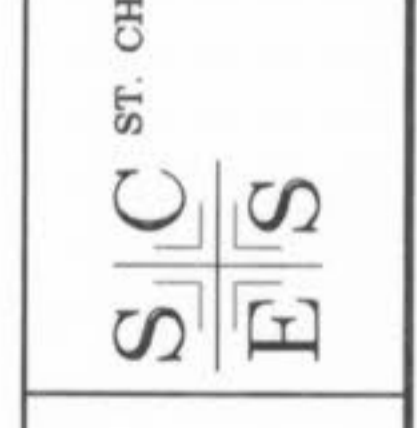
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DATE 1-26-04



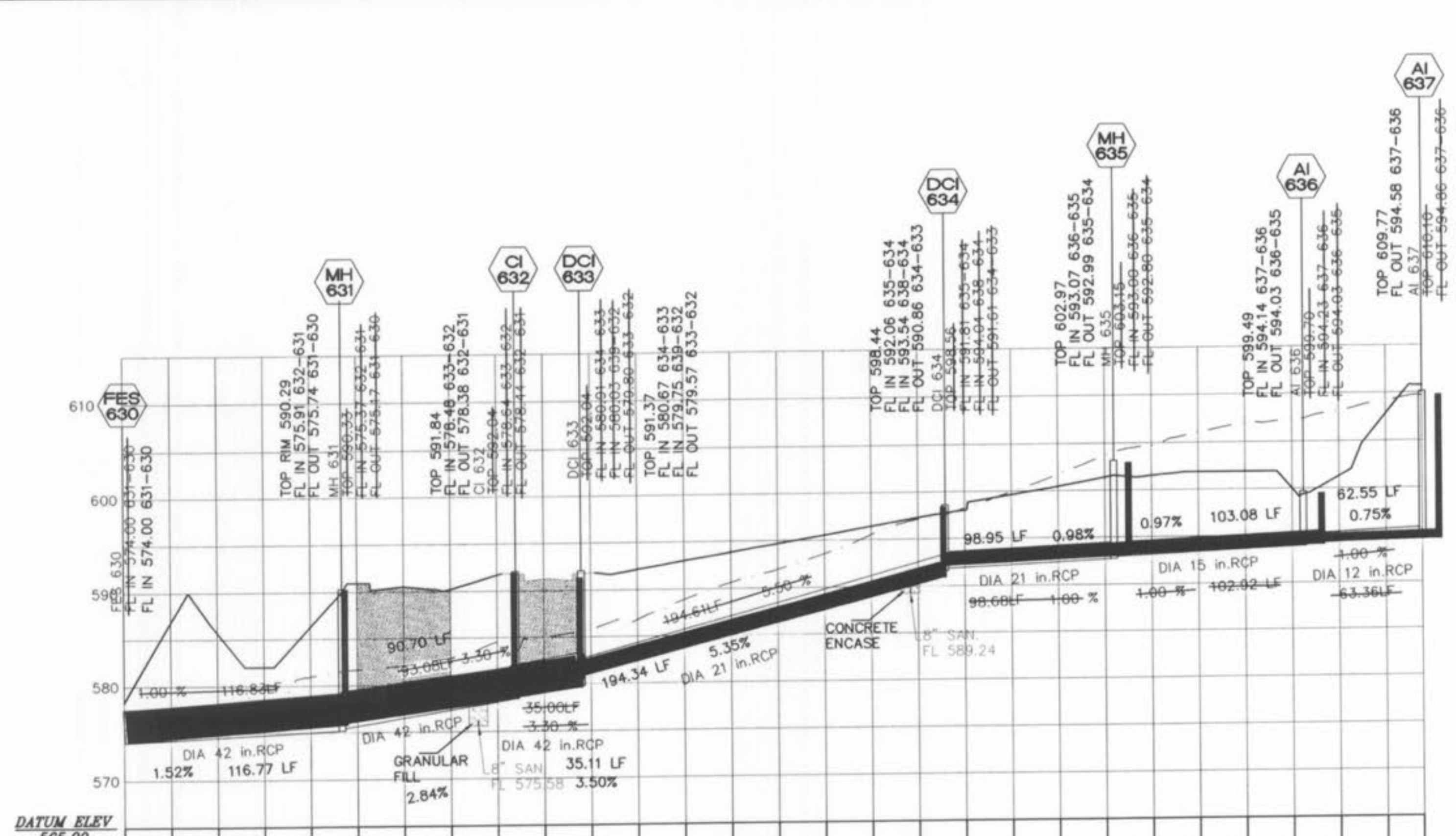
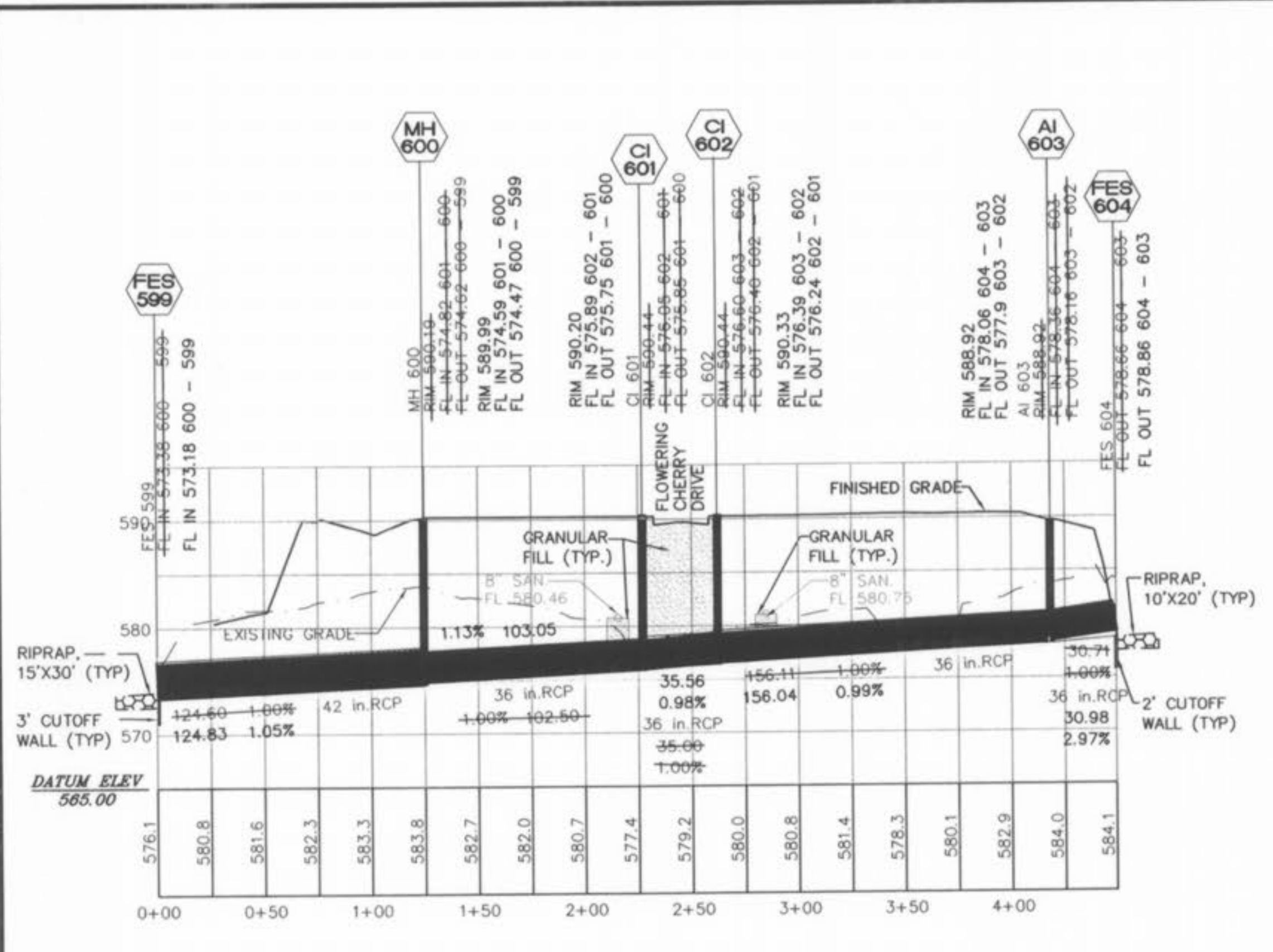
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09/27/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED PER CITY COMMENTS

MAGNOLIA STORM PROFILE AS-BUILTS

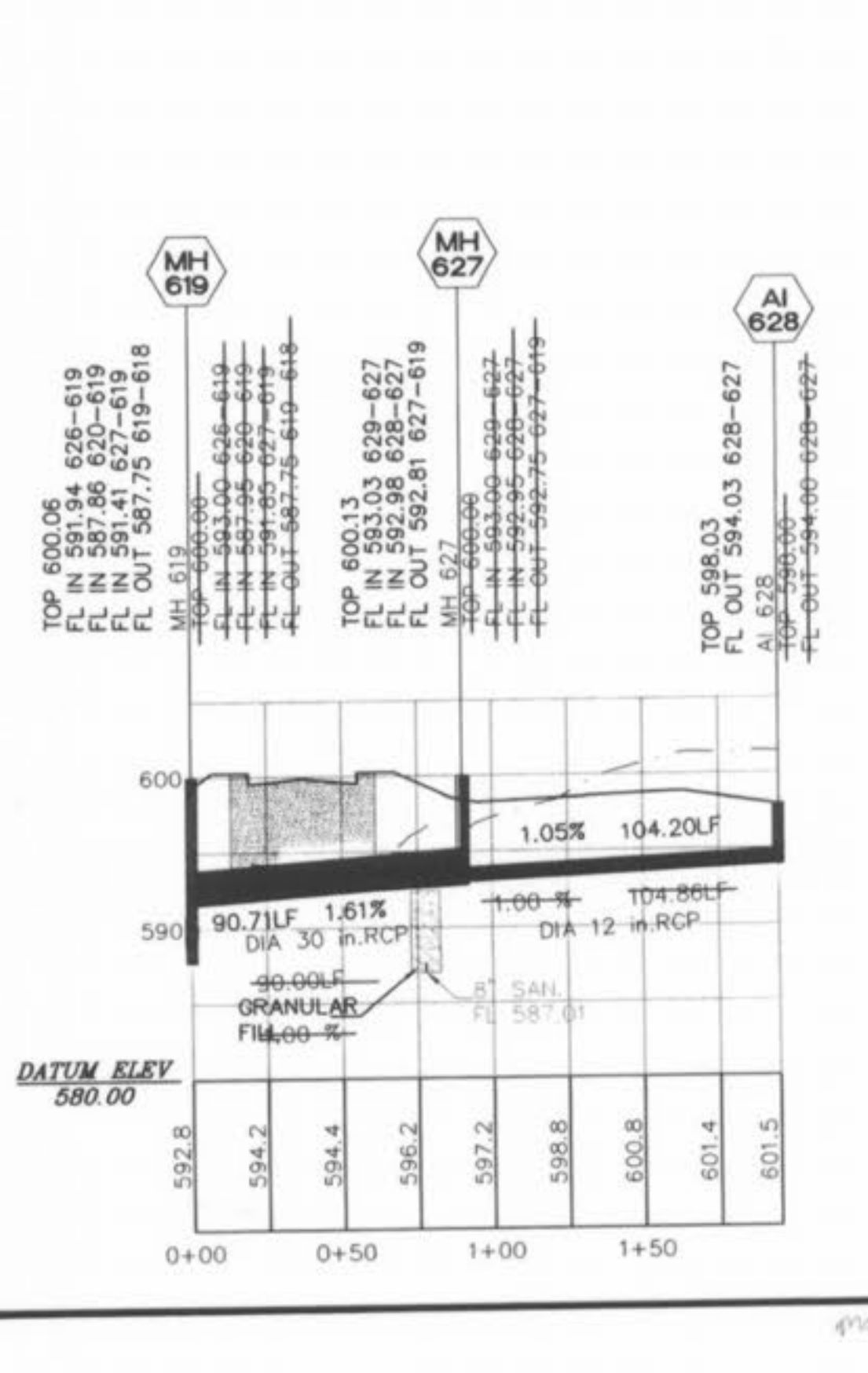
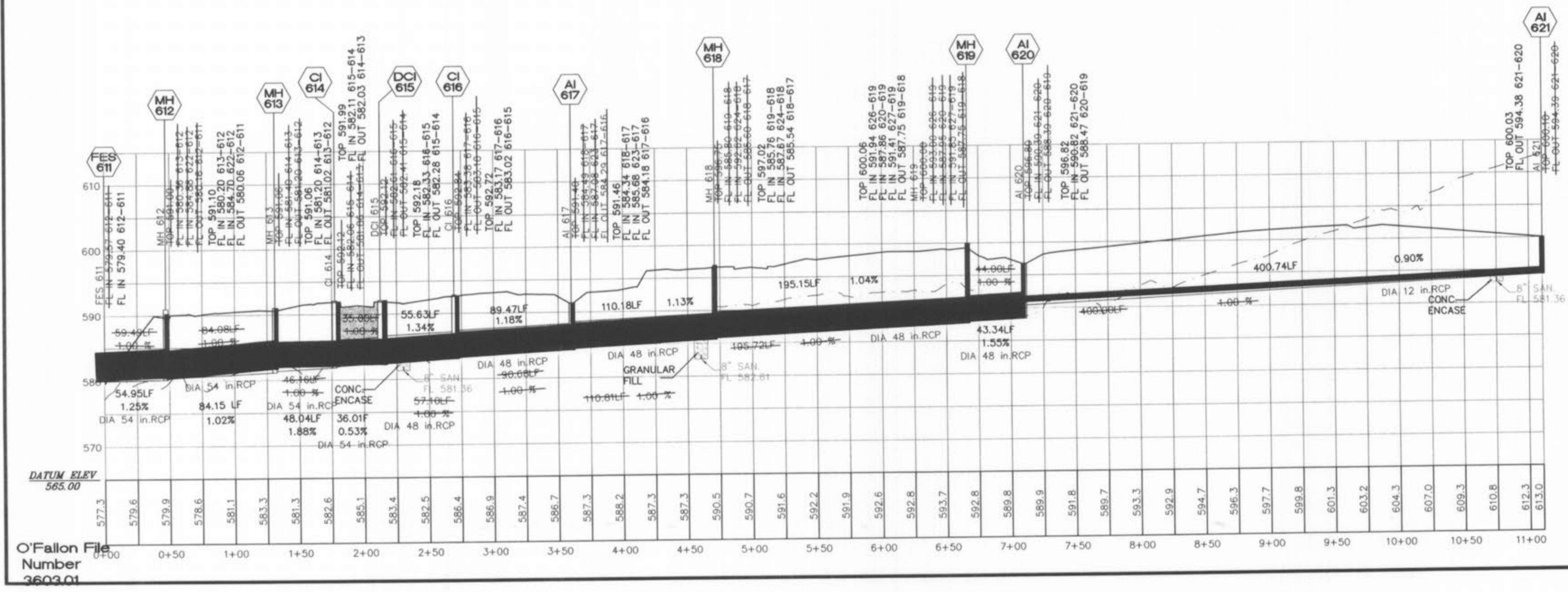
ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO. 030495
DATE 1-26-04
37



VERT. 10
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 SCALE:



O'Fallon File Number 3603.01

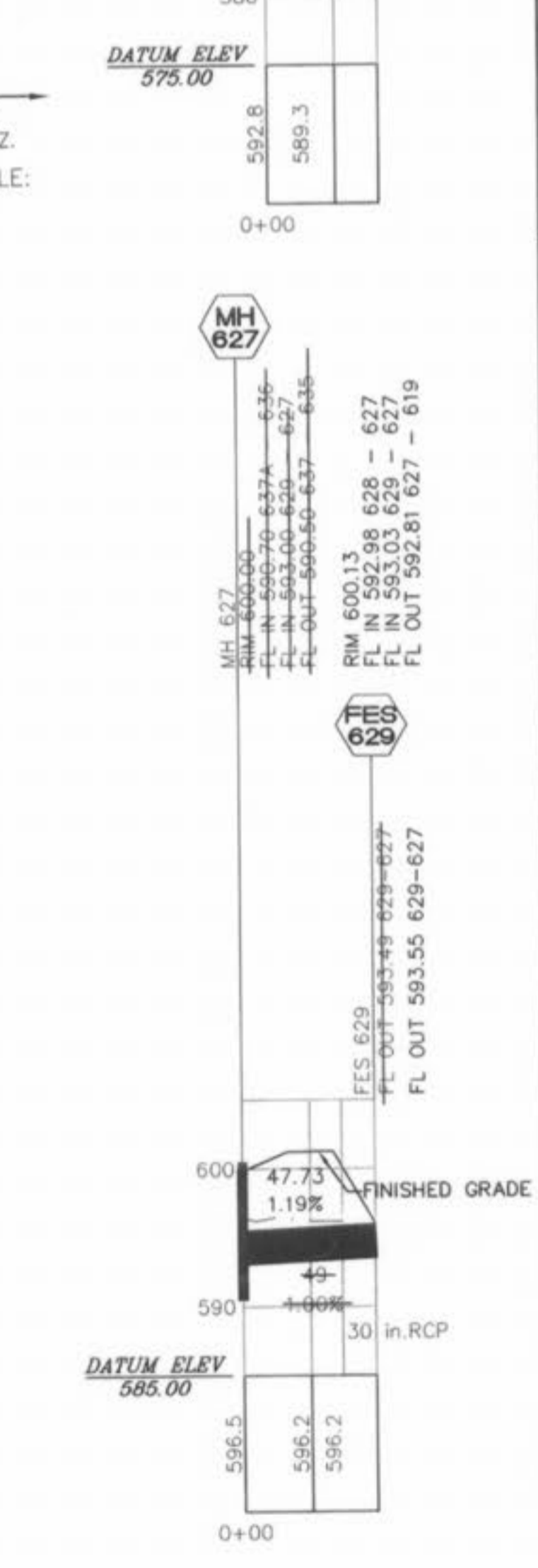
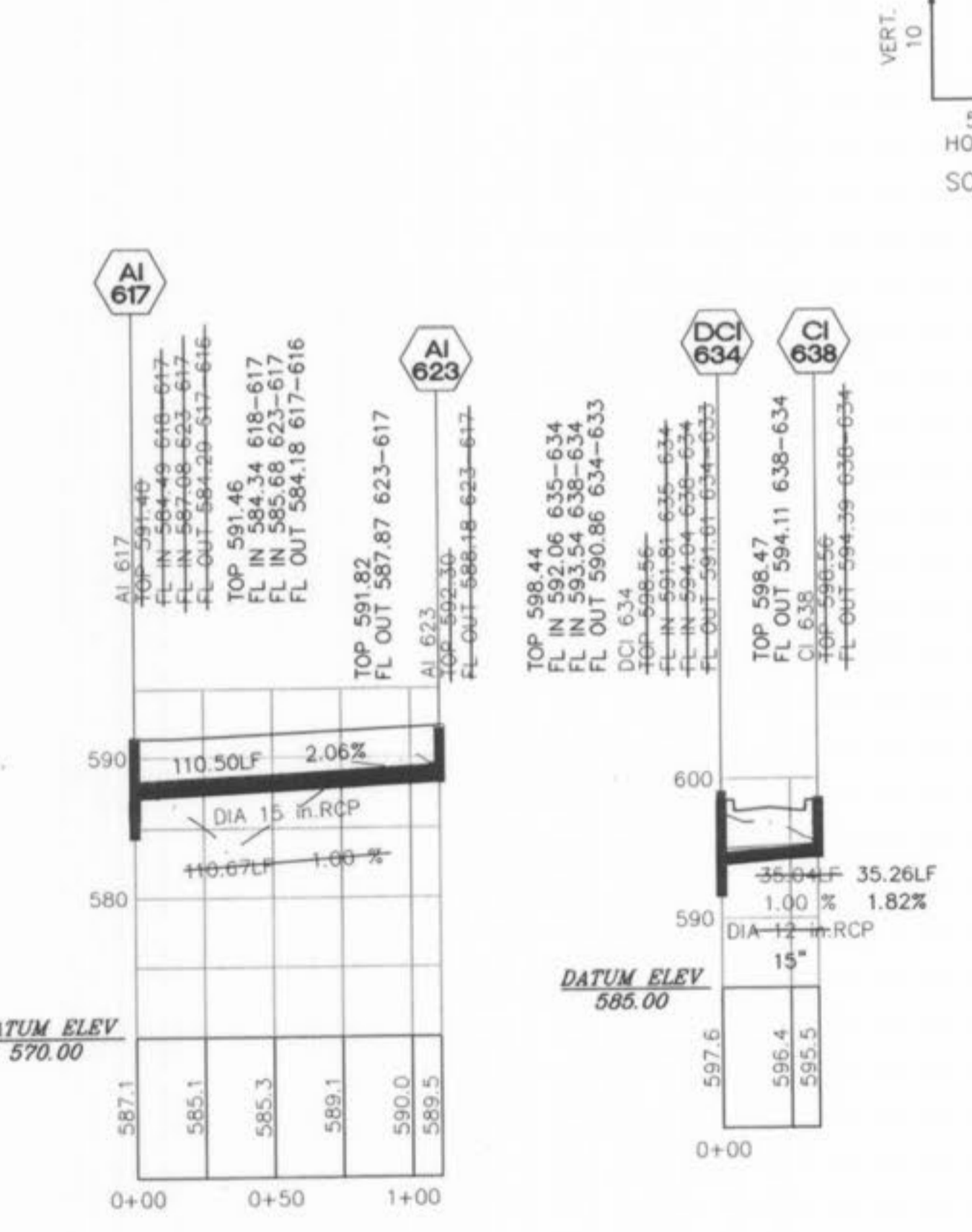
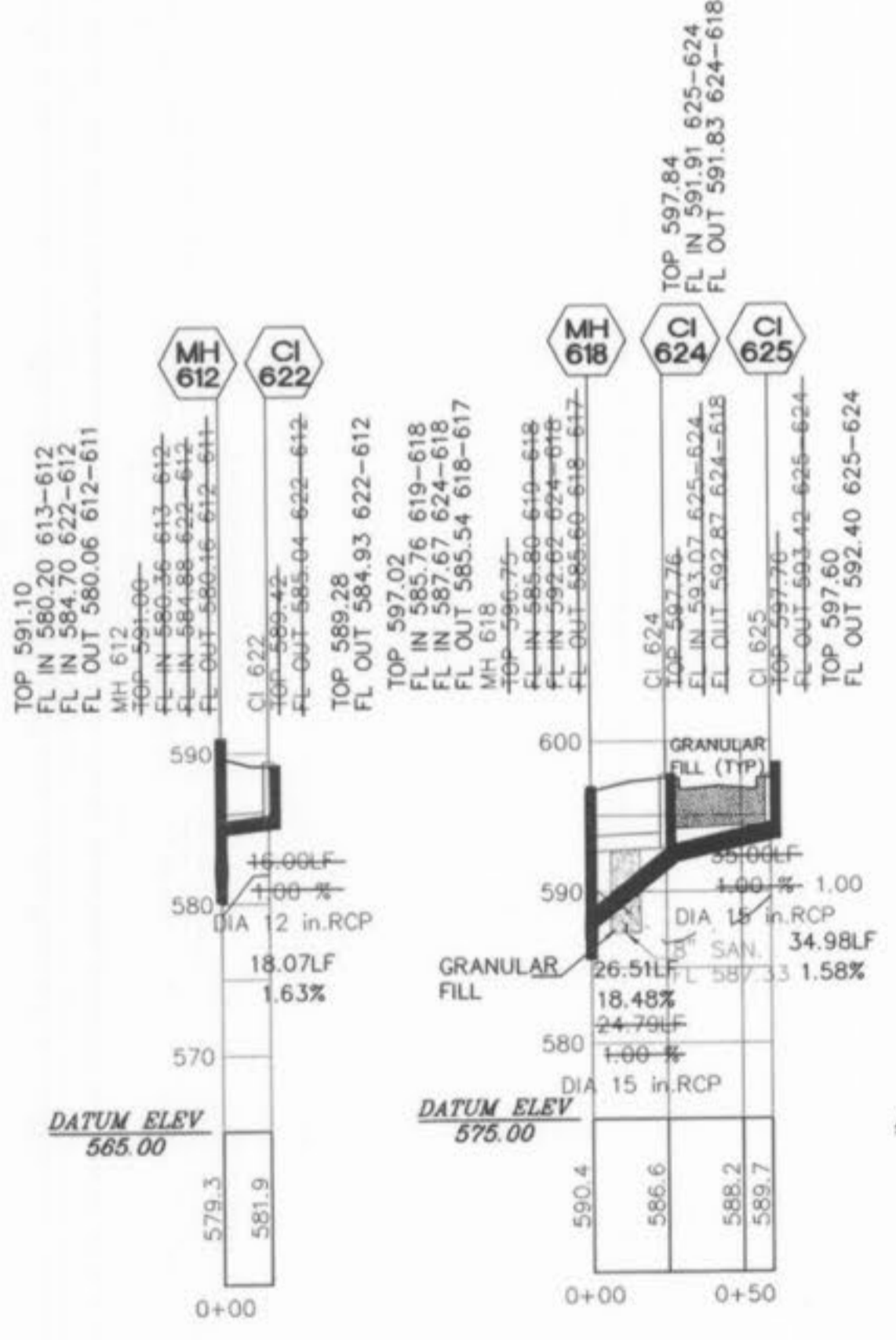
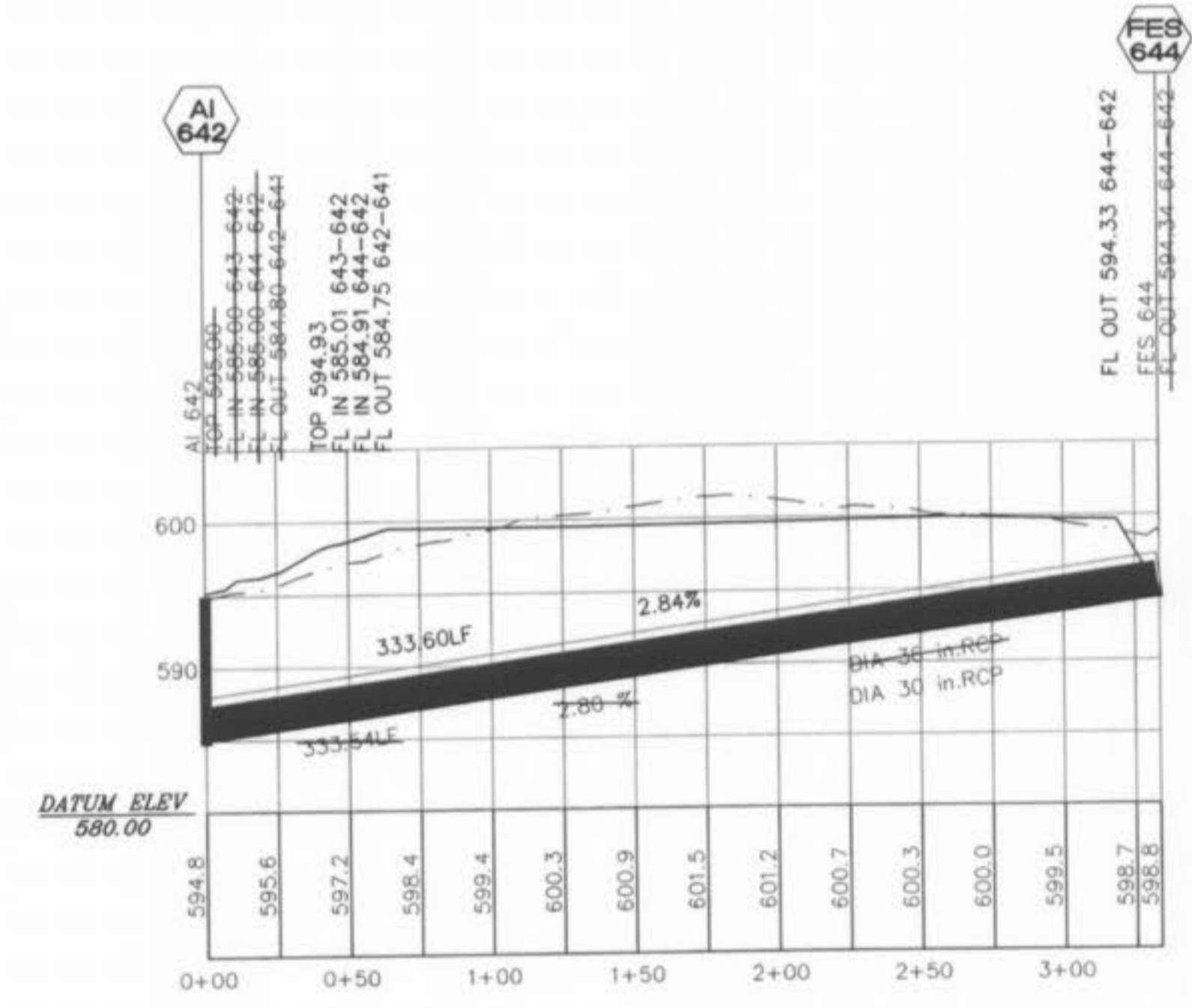
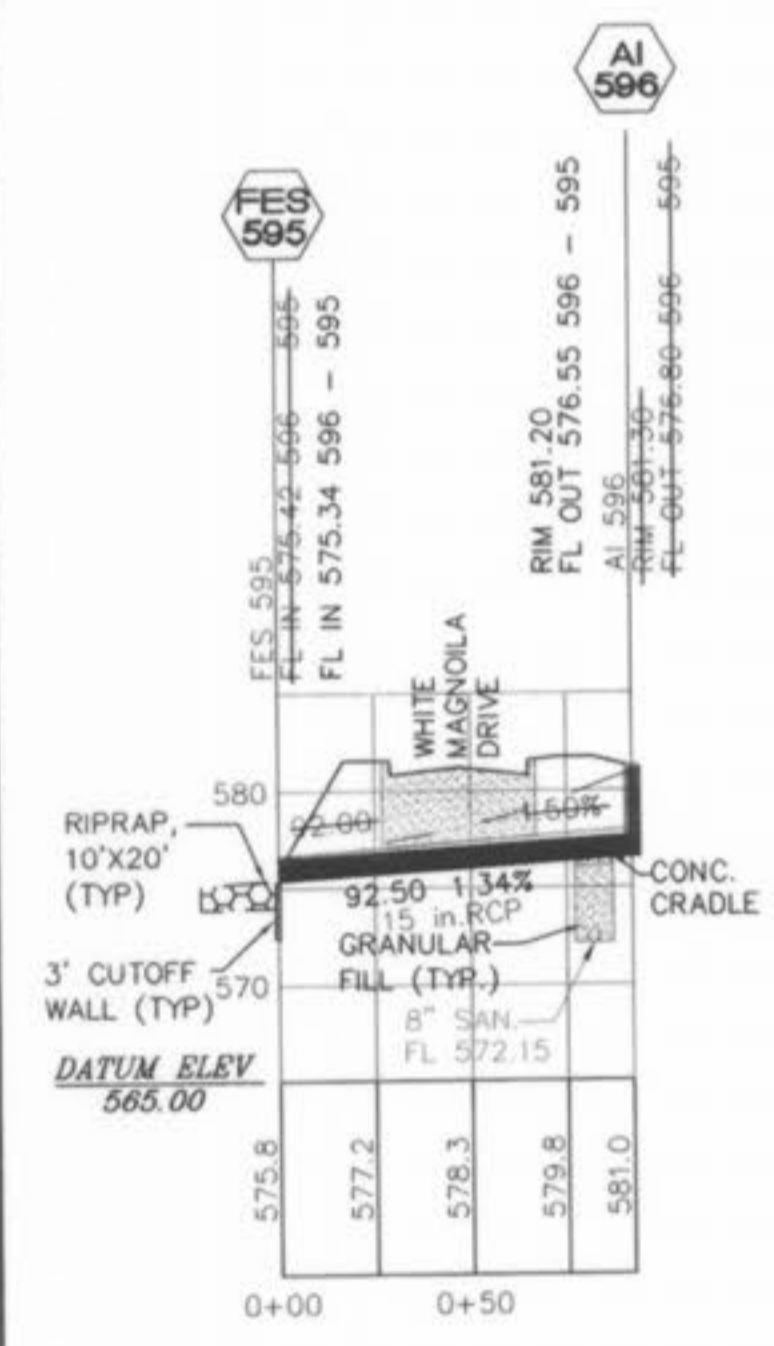
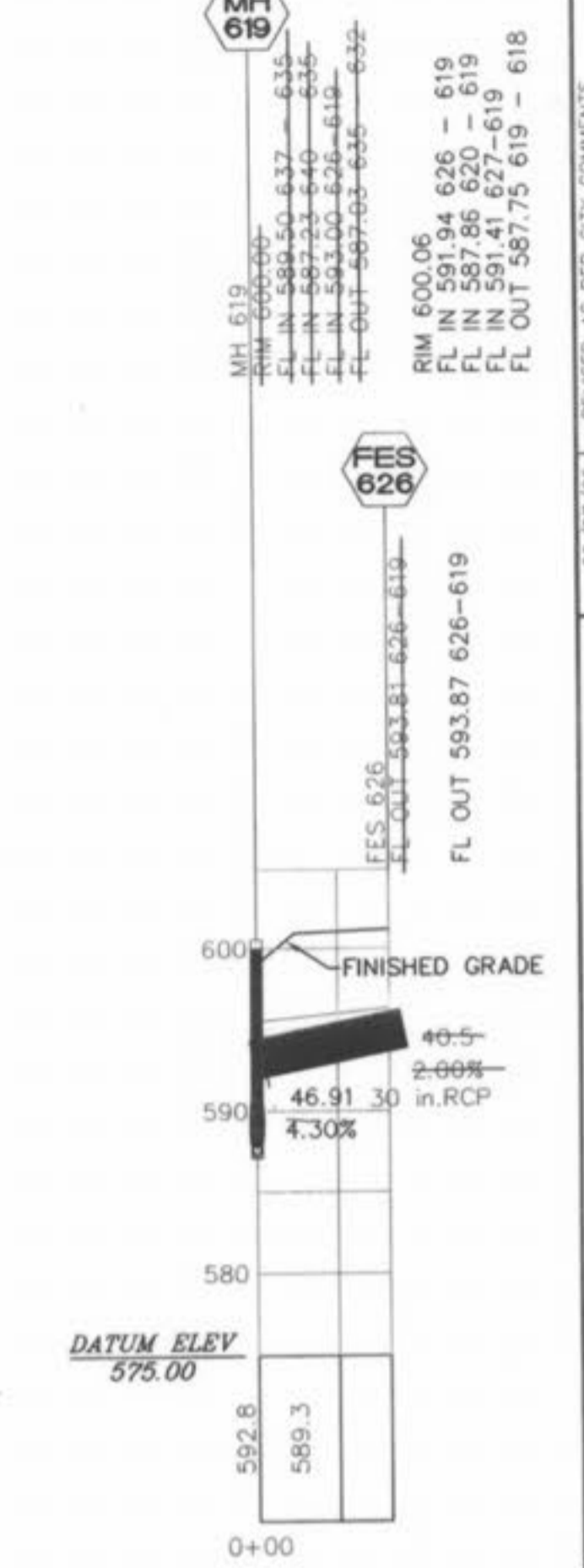
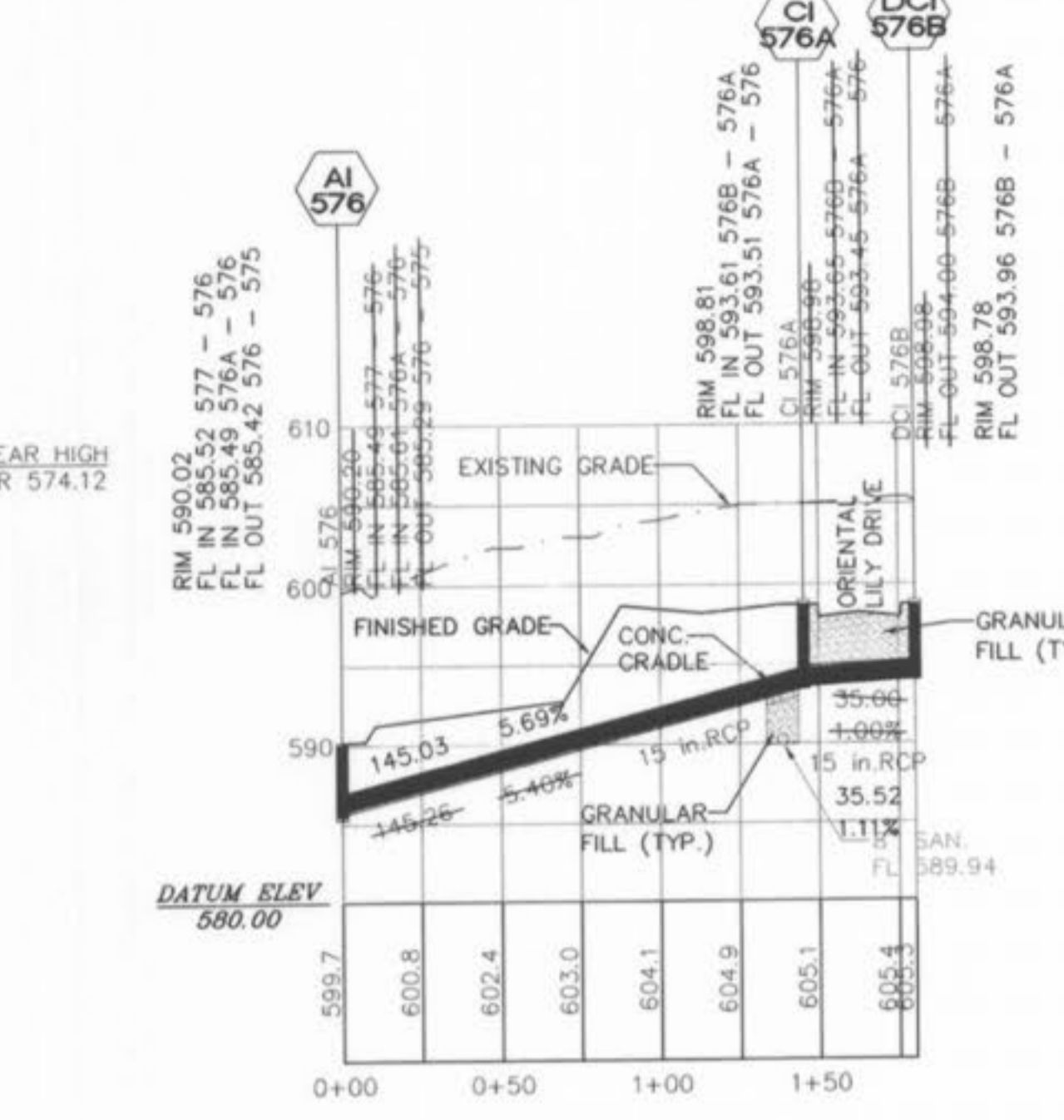
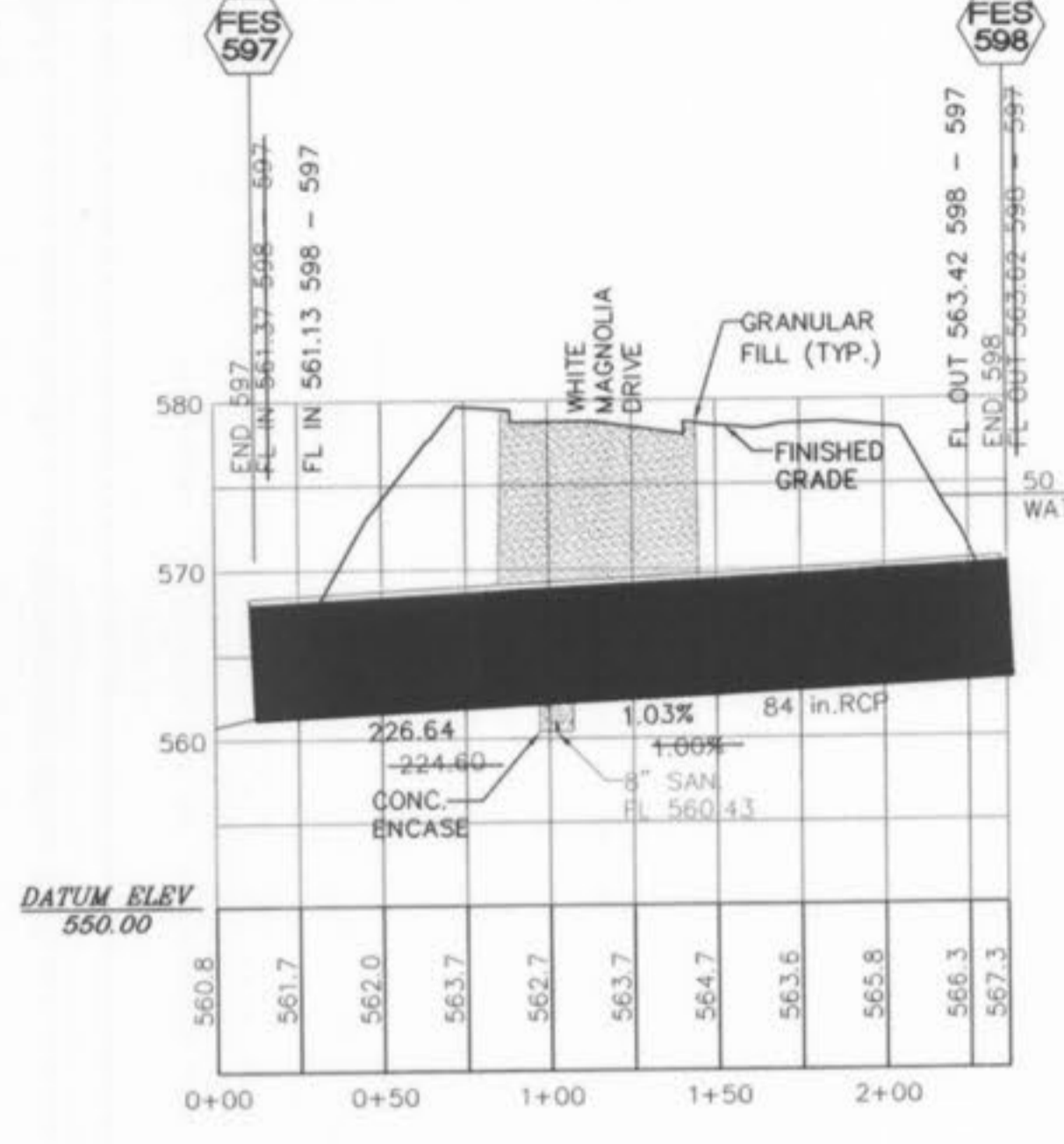
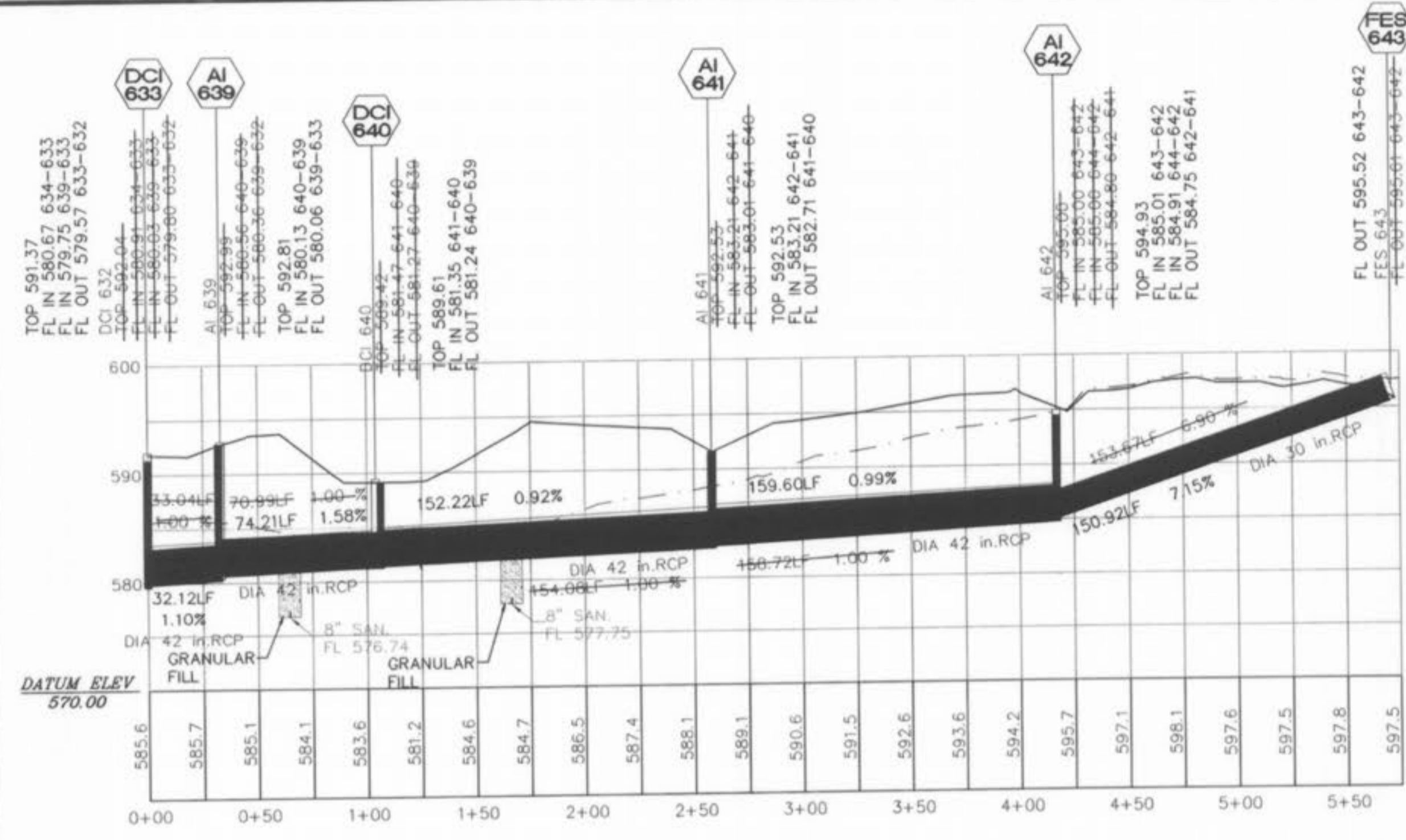
09/27/05 REVISIONS AS PER CITY COMMENTS
 10/04/05 REVISIONS AS PER CITY COMMENTS

**MAGNOLIA
 STORM PROFILE
 AS-BUILTS**

ST. CHARLES ENGINEERING & SURVEYING, INC.
 801 S. FIFTH STREET, SUITE 202
 ST. CHARLES, MO 63301
 TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO. 090498
 DATE 1-26-04
 38



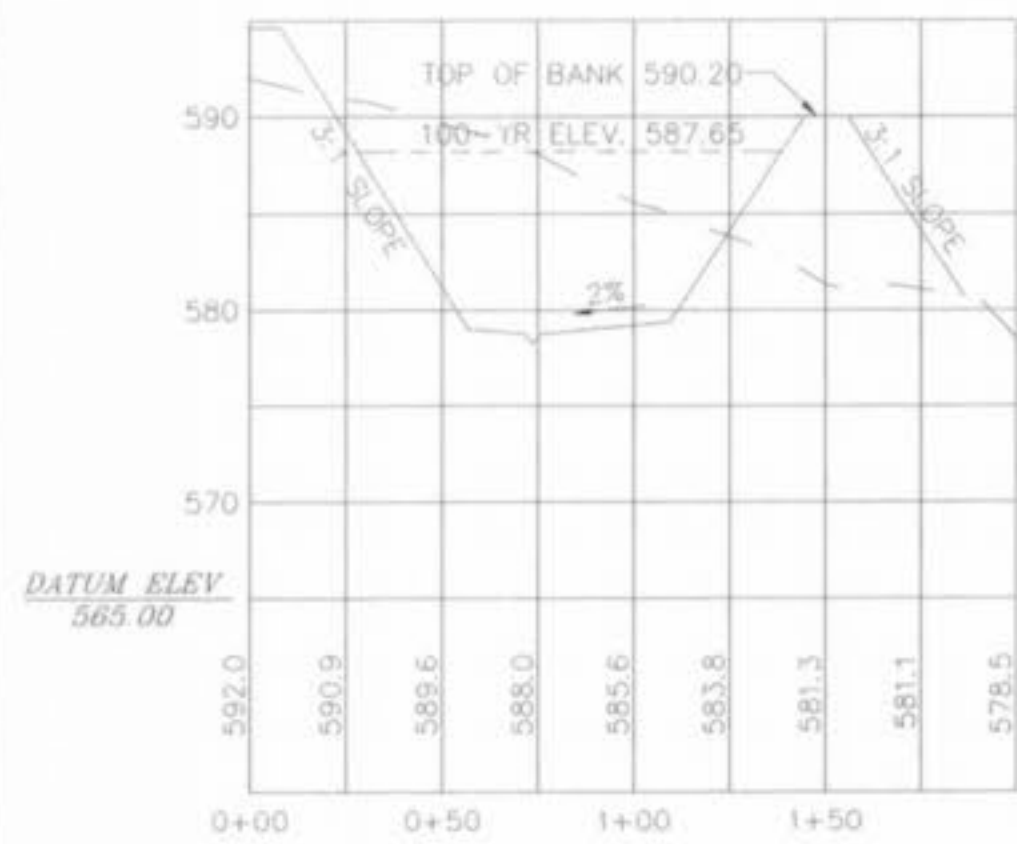
VERT. 10
50 HORIZ.
SCALE:

**MAGNOLIA
STORM PROFILE
AS-BUILTS**

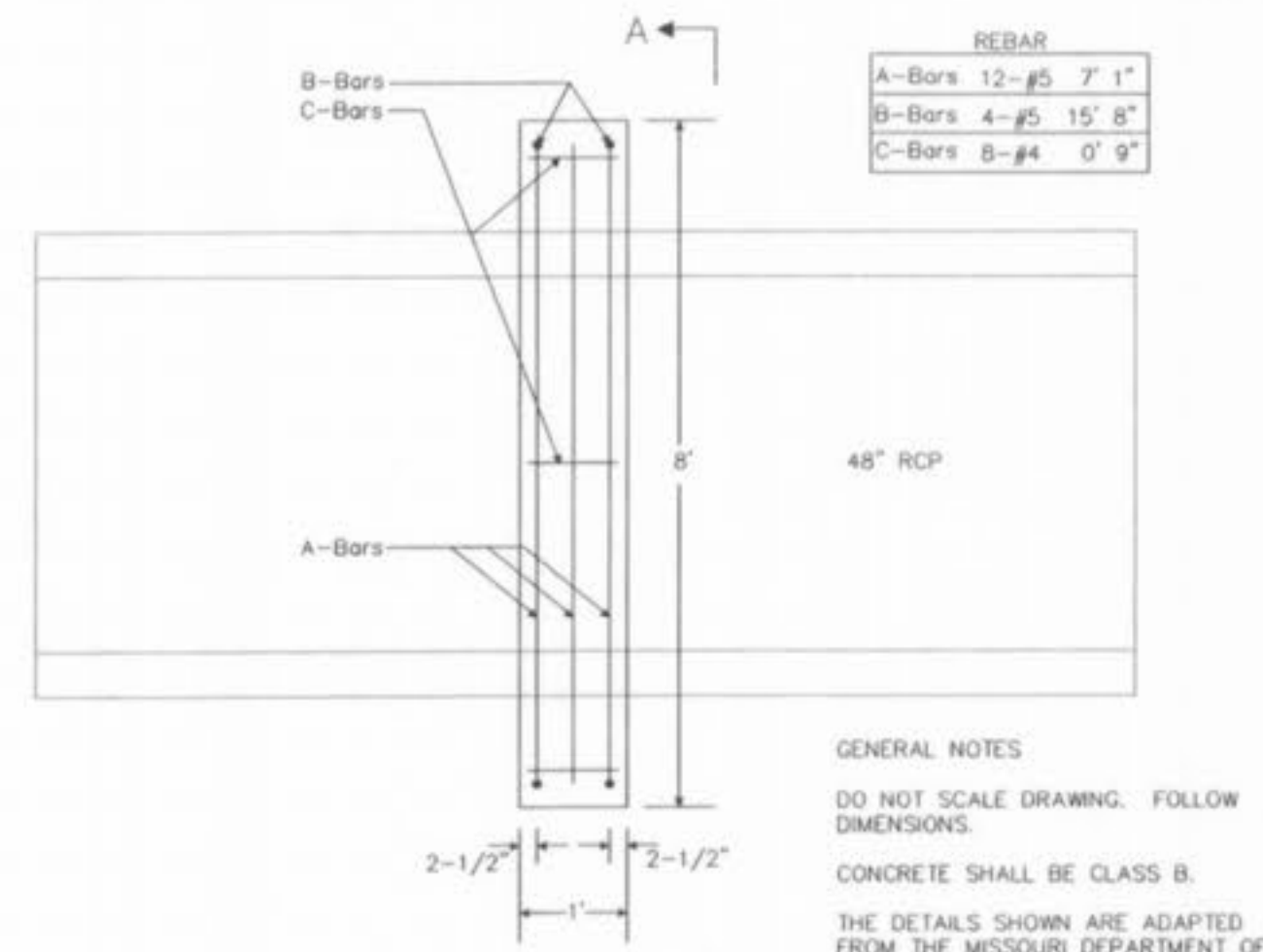
ST. CHARLES ENGINEERING & SURVEYING, INC.
801 S. FIFTH STREET, SUITE 202
ST. CHARLES, MO 63301
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO. 030498
DATE 1-26-04
39

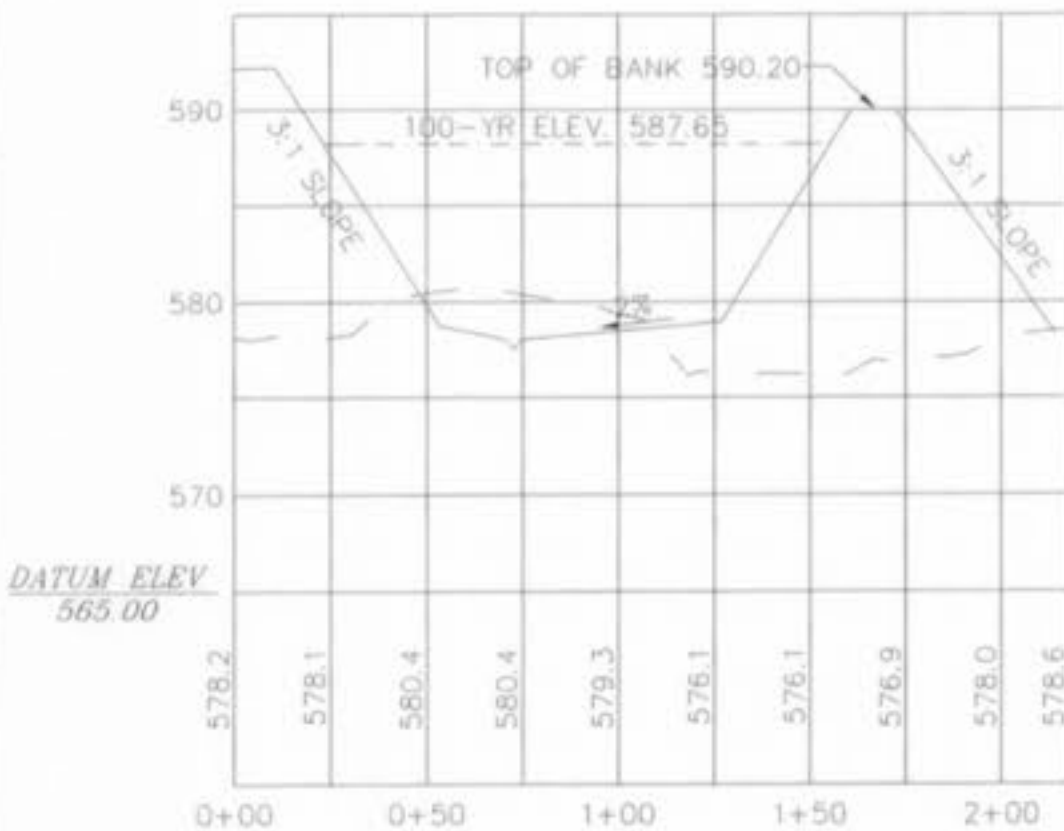


BASIN #1, SECTION A-A

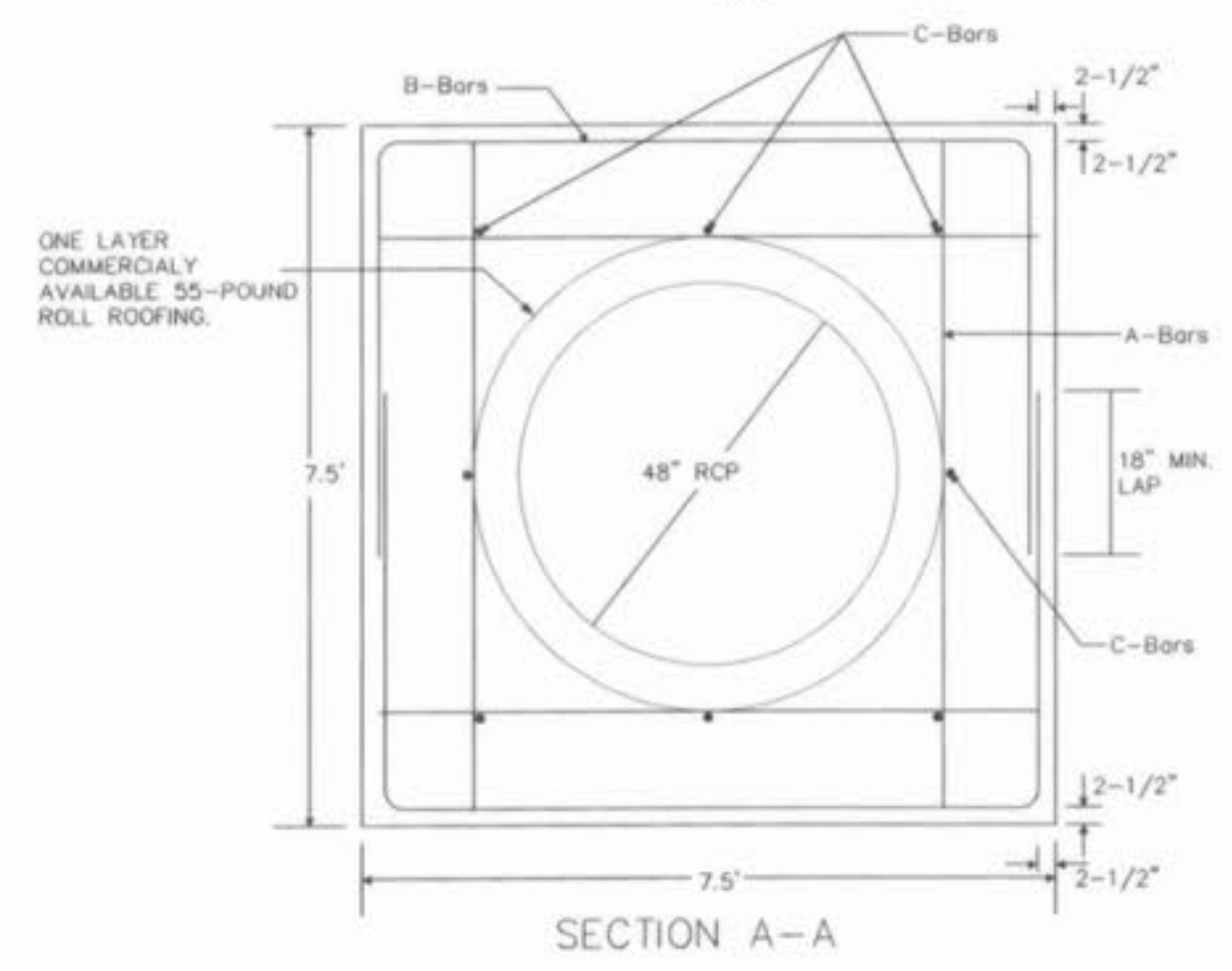


REBAR
 A-Bars 12-#5 7' 1"
 B-Bars 4-#5 15' 8"
 C-Bars 8-#4 0' 9"

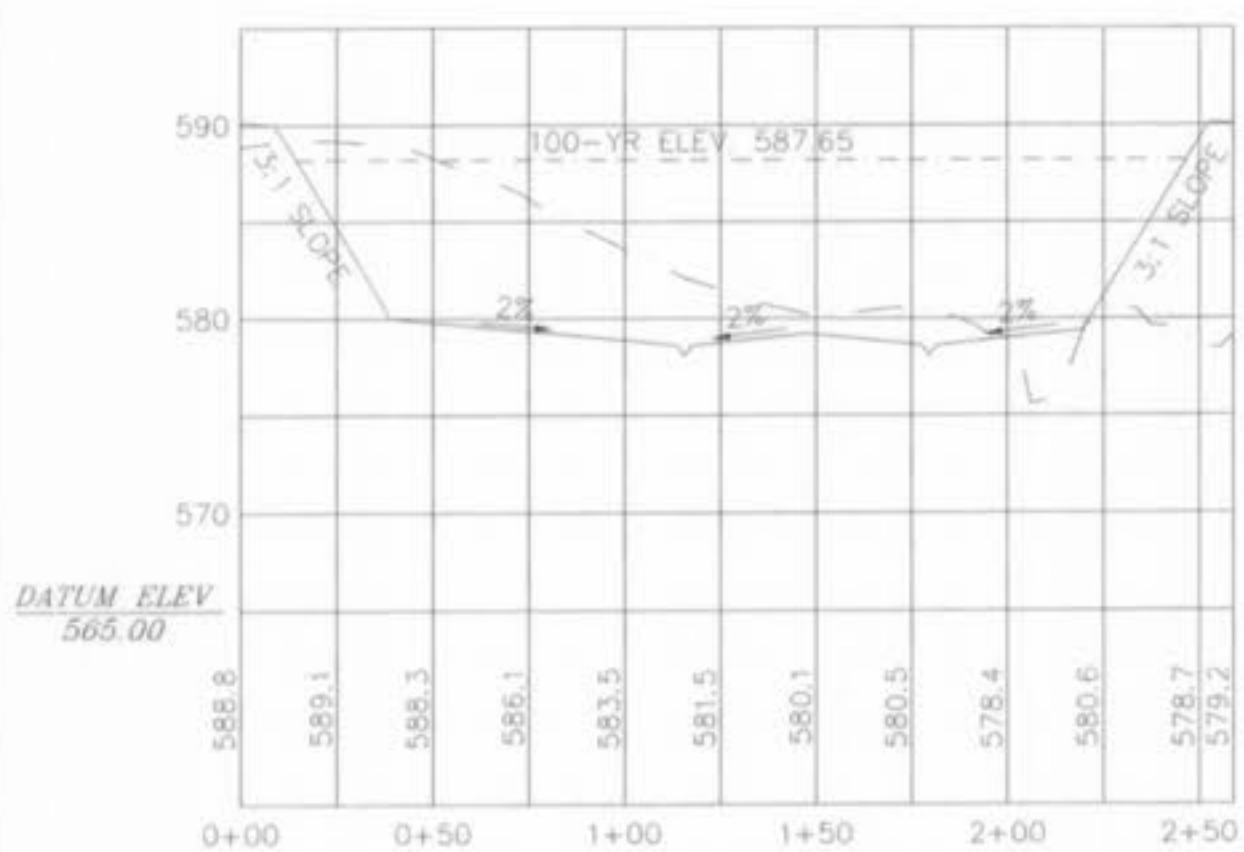
GENERAL NOTES
 DO NOT SCALE DRAWING. FOLLOW DIMENSIONS.
 CONCRETE SHALL BE CLASS B.
 THE DETAILS SHOWN ARE ADAPTED FROM THE MISSOURI DEPARTMENT OF TRANSPORTATION DRAWINGS.



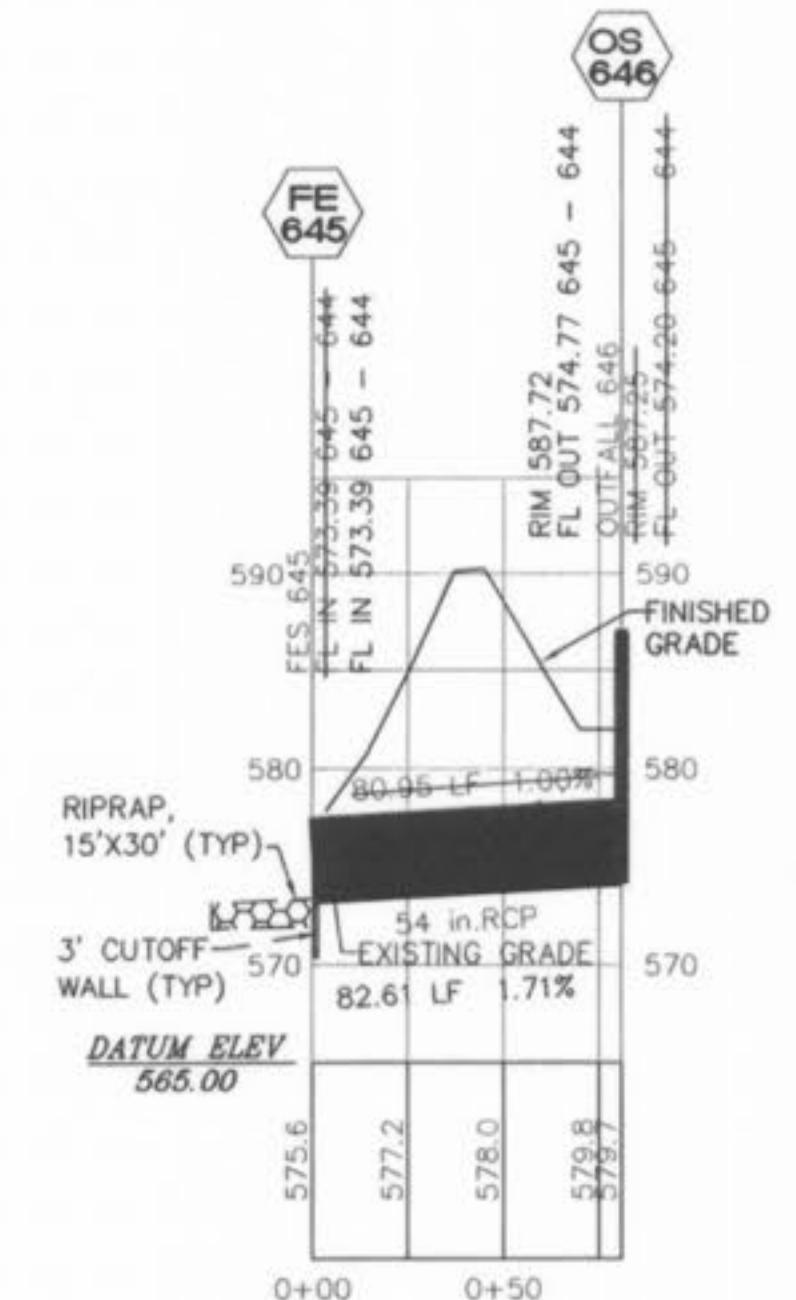
BASIN #1, SECTION B-B



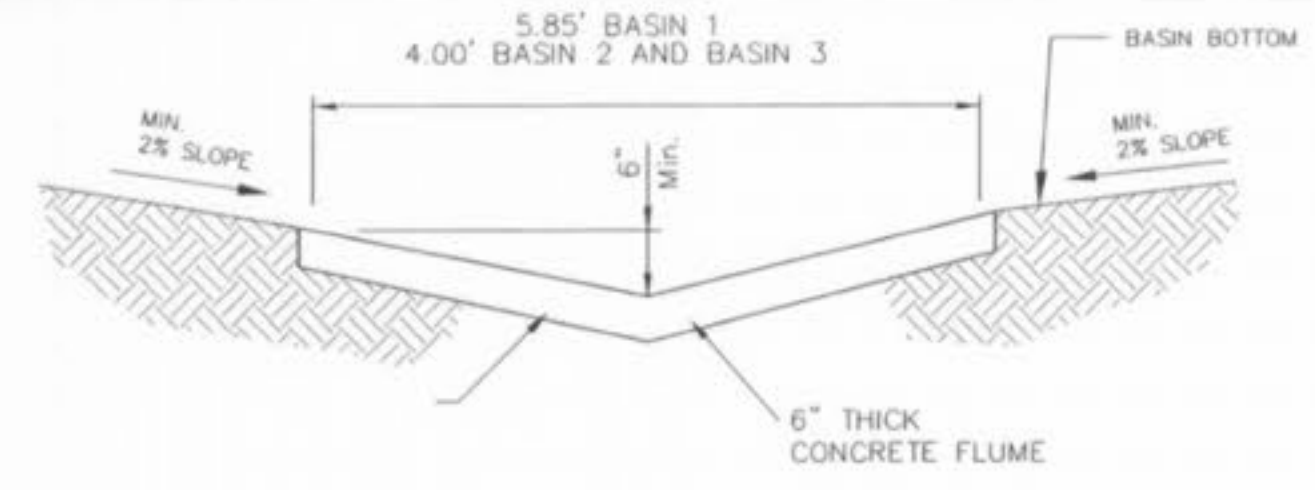
CONCRETE COLLAR DETAIL
 N.T.S.



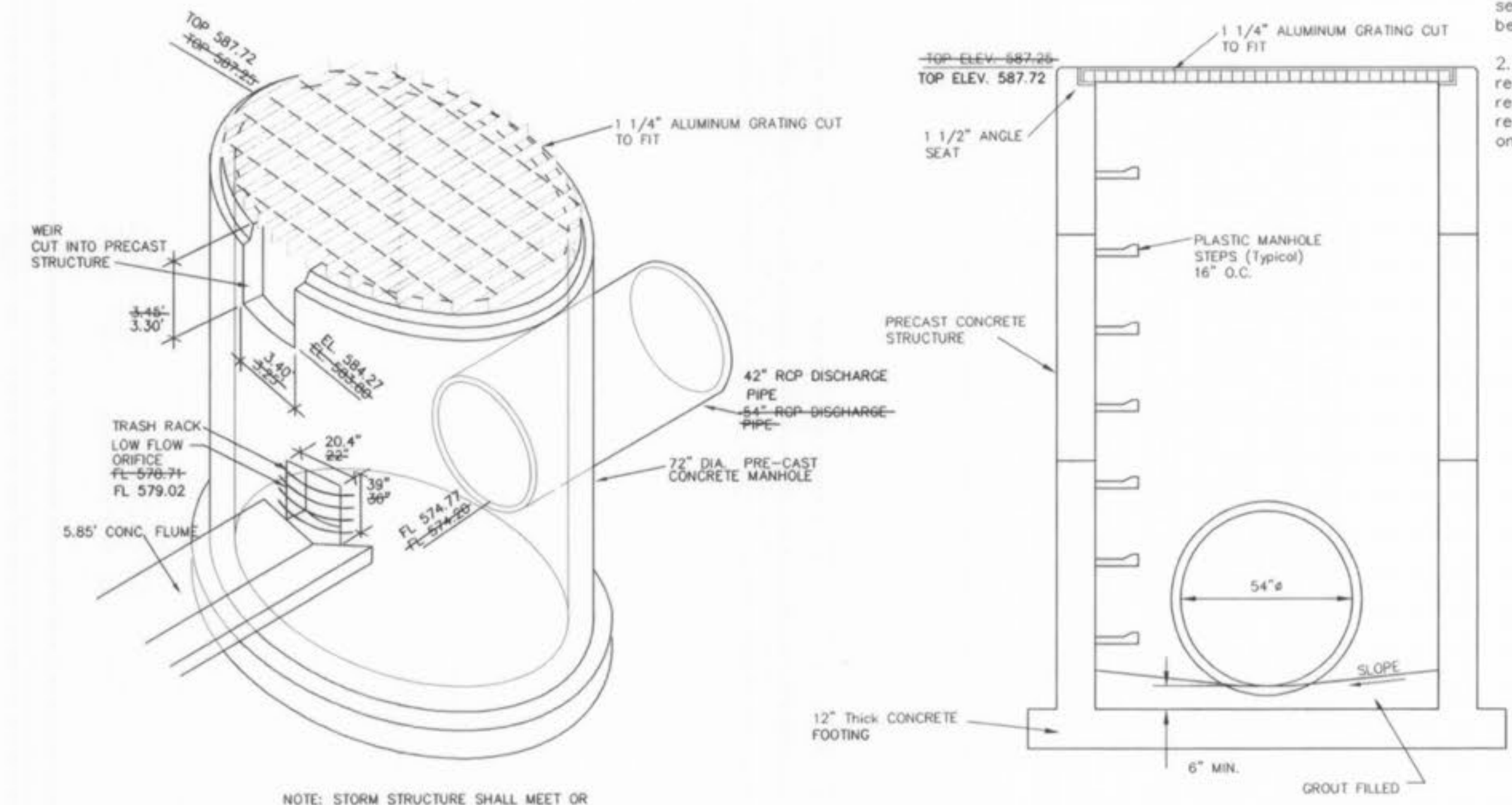
BASIN #1, SECTION C-C



- NOTES:
1. CONCRETE SHALL BE 3000 p.s.i. STRENGTH AT 28 DAYS.
 2. 6" TOE WALL SHALL BE CONSTRUCTED AT BOTH UPSTREAM AND DOWNSTREAM ENDS OF FLUME.
 3. 1/2" PREFORMED FIBER JOINT WITH JOINT SEALER TO BE CONSTRUCTED AS TRANSVERSE JOINT AT 50' INTERVALS.
 4. MINIMUM CHANNEL SLOPE TO BE 0.5%
 5. BASIN BOTTOM TO SLOPE A MINIMUM OF 2% TO FLUME
 6. CONSTRUCTION JOINTS SHALL BE PLACED EVERY 10 FEET. JOINTS SHALL BE SEALED LIKE PAVEMENT.



DETENTION BASIN
 CONCRETE FLUME DETAIL



NOTE: STORM STRUCTURE SHALL MEET OR EXCEED ASTM C-478 SPECIFICATIONS

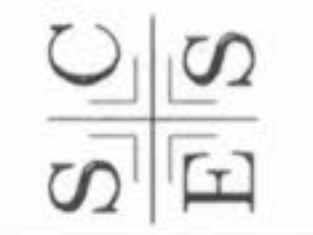
DETENTION STRUCTURE DETAIL BASIN 1

- Note:
1. The joints on the vertical outfall structure, footing, 54" pipe sections and precast sections shall be water tight joints.
 2. Core Requirements, compaction requirements, construction requirements, and material requirements shall be specified by on site soils engineer.

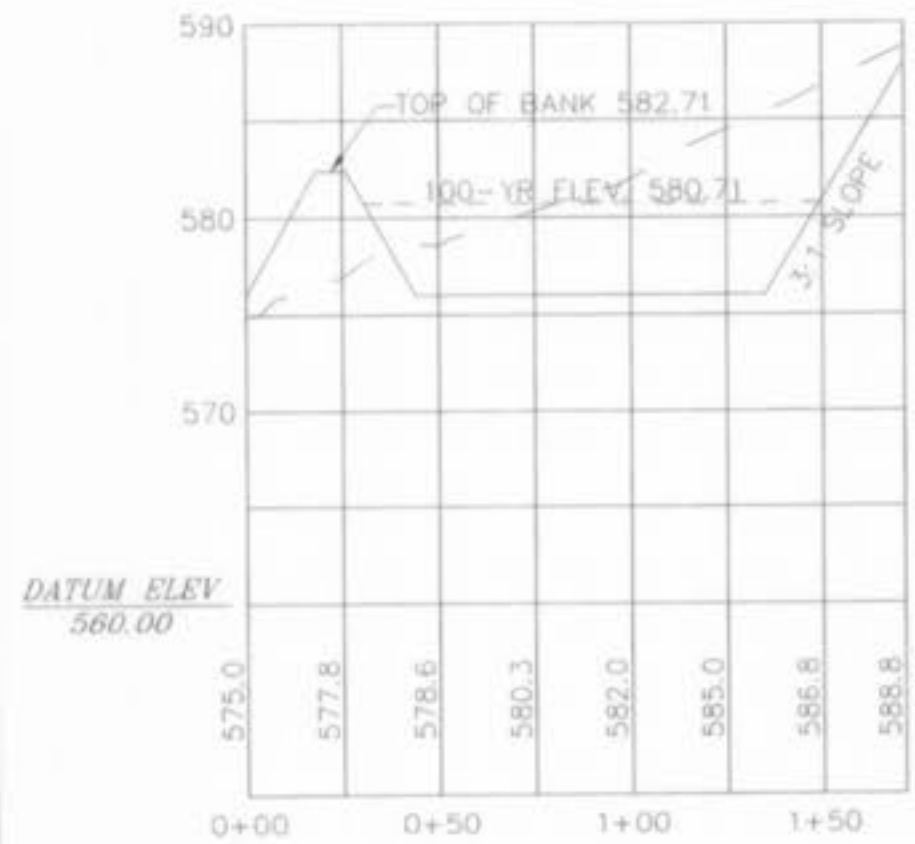
11/17/04 revised standpipe diameter
 09/27/05 REVISED AS PER CITY COMMENTS
 10/04/05 REVISED PER CITY COMMENTS

MAGNOLIA
 DETENTION
 AS-BUILT

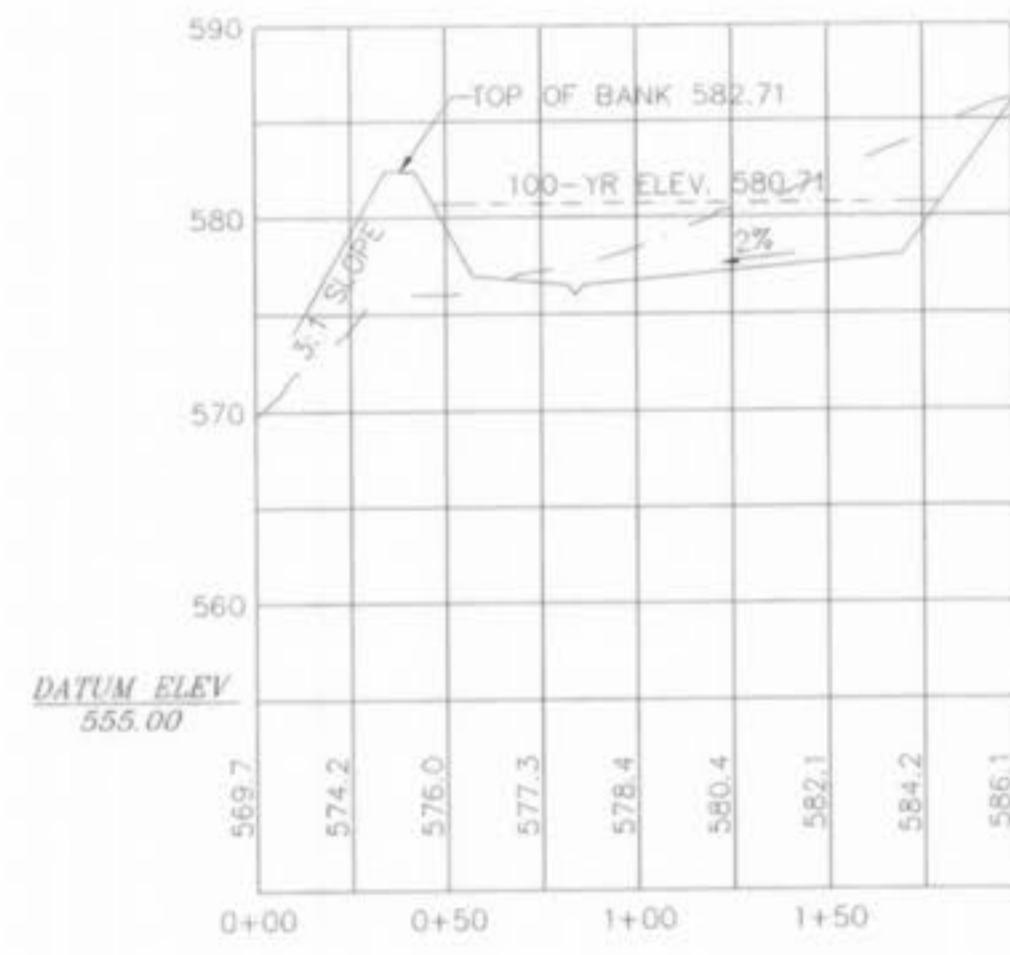
ST. CHARLES ENGINEERING & SURVEYING, INC.
 801 S. FIFTH STREET, SUITE 202
 ST. CHARLES, MO 63301
 TEL: (636) 947-0607 FAX: (636) 947-2448



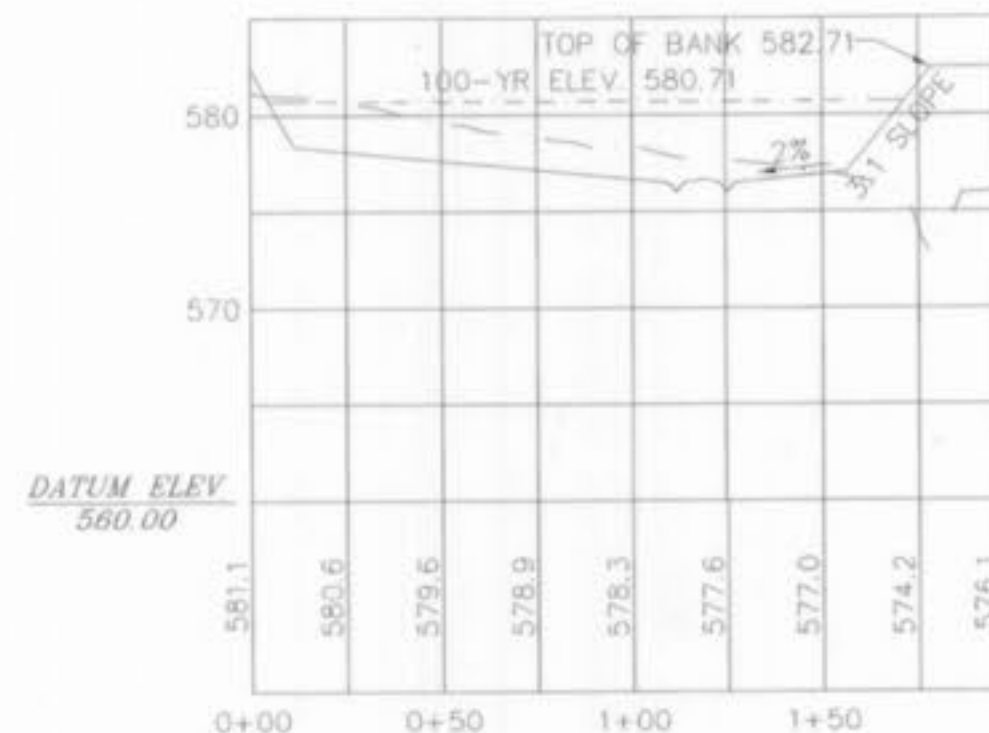
ORDER NO.
 030495
 DATE
 1-26-04
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BASIN #2, SECTION A-A



BASIN #2, SECTION B-B



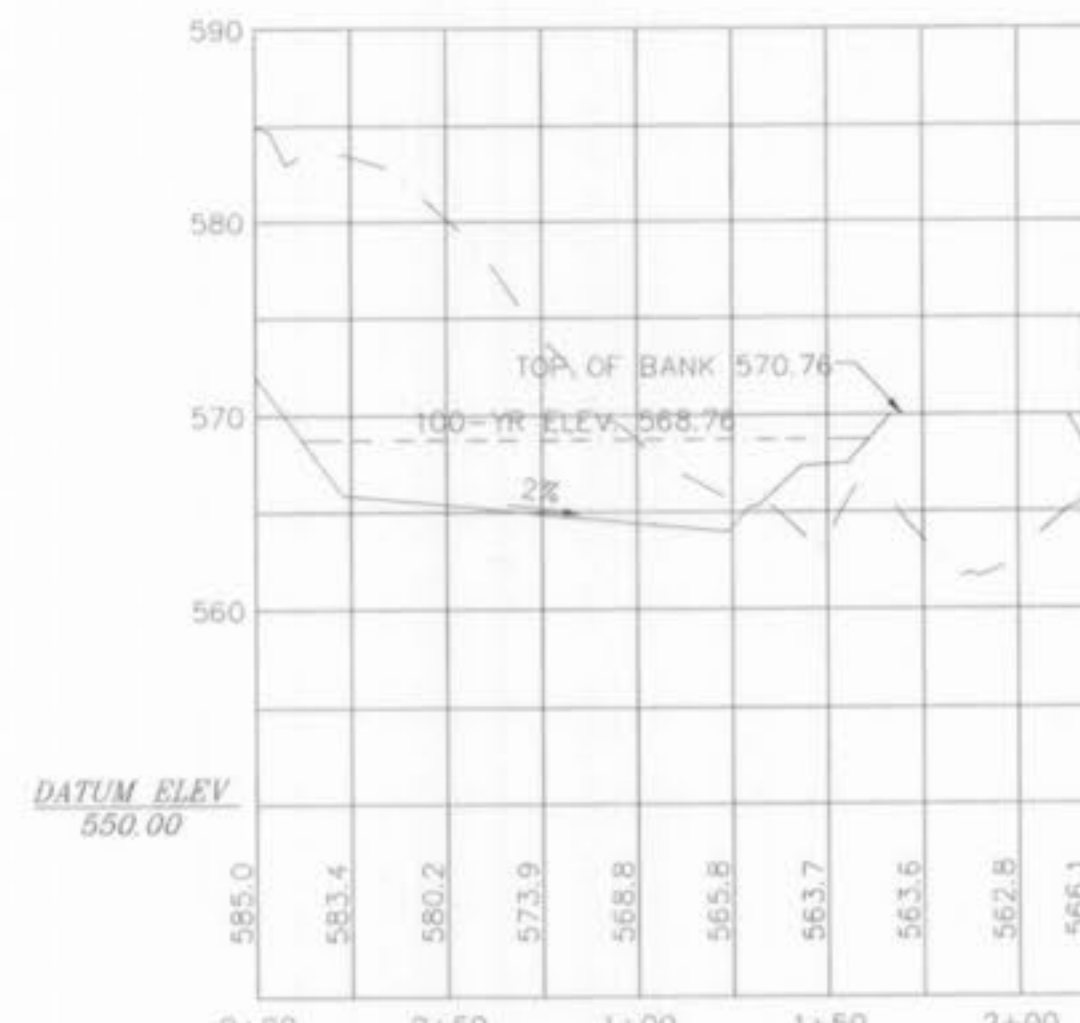
BASIN #2, SECTION C-C



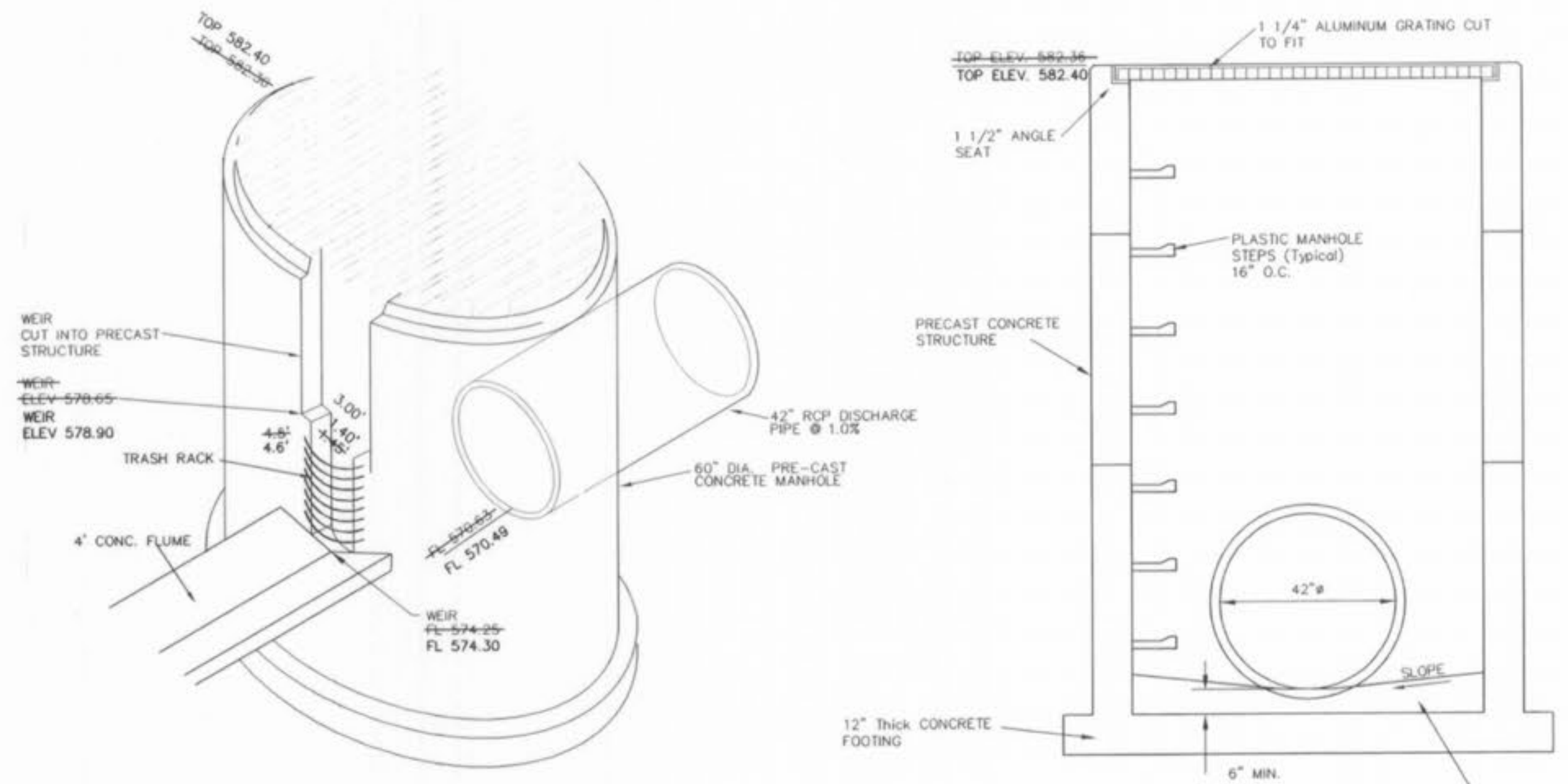
BASIN #3, SECTION A-A



BASIN #3, SECTION B-B



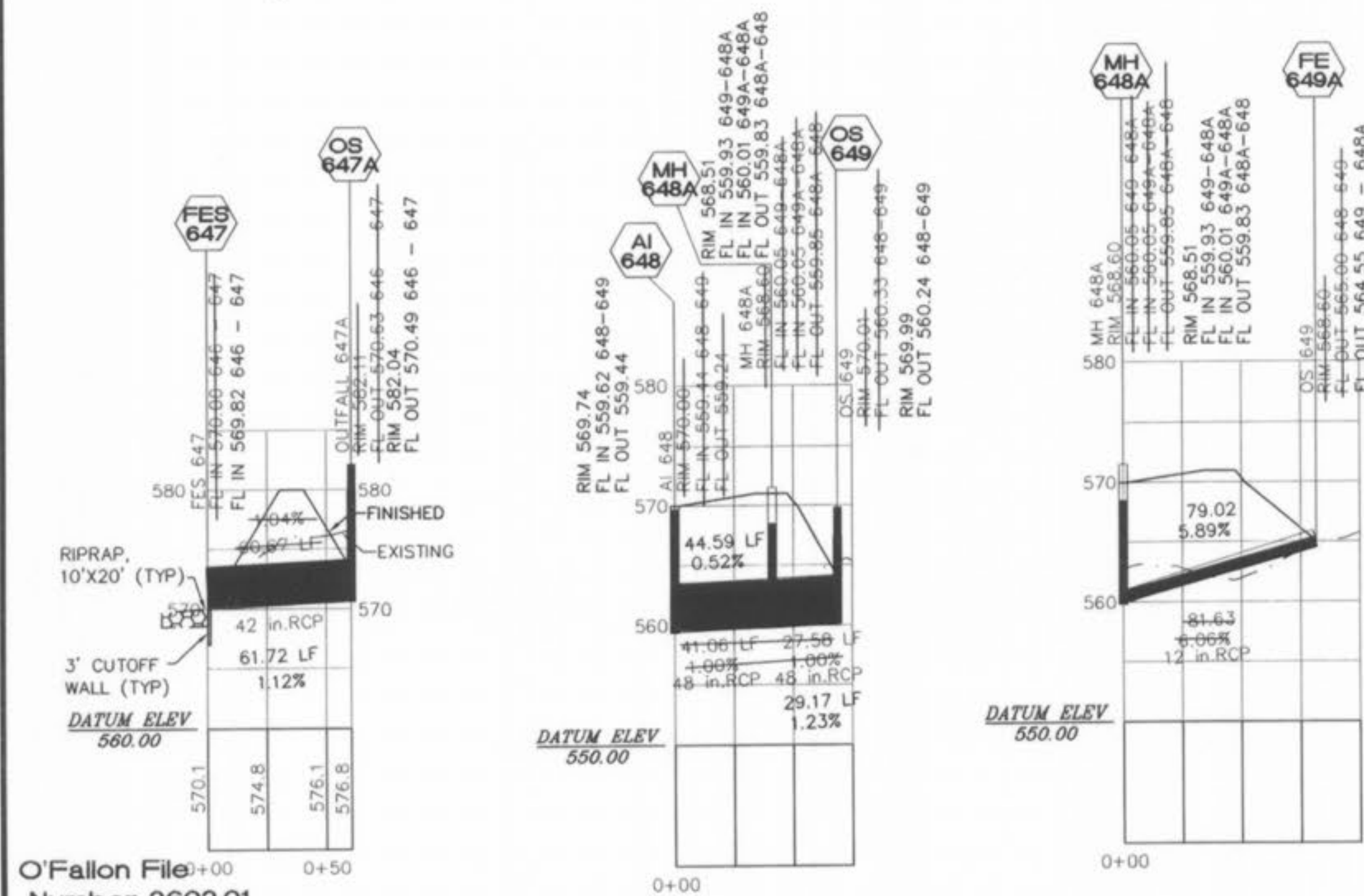
BASIN #3, SECTION C-C



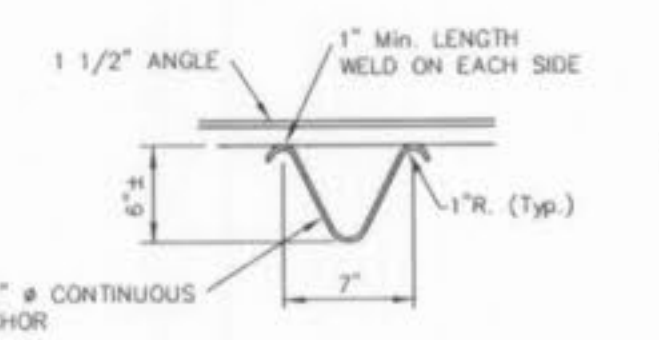
NOTE: STORM STRUCTURE SHALL MEET OR EXCEED ASTM C-478 SPECIFICATIONS

DETENTION STRUCTURE DETAIL BASIN 2
OUTFALL 647A
NOT TO SCALE

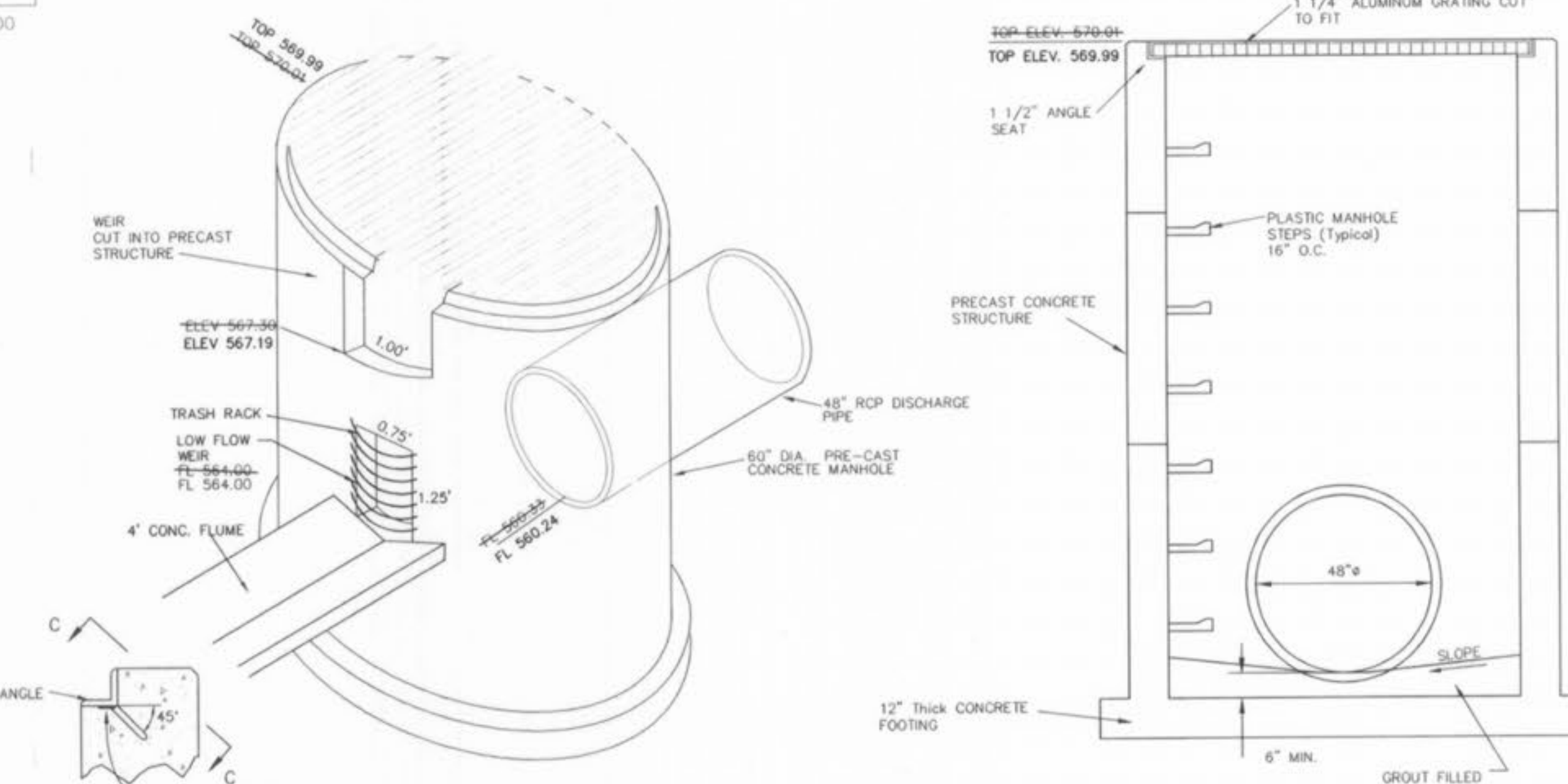
Note:
1. The joints on the vertical outfall structure, footing, 48" pipe sections and precast sections shall be water tight joints.
2. Core Requirements, compaction requirements, construction requirements, and material requirements shall be specified by on site soils engineer.



O'Fallon File Number 3603.01



SECTION C
NOTE: ANGLE SEAT TO RECEIVE 3 COATS OF EPOXY PAINT PRIOR TO INSTALLING GRATE.
DETAIL OF CONTINUOUS ANCHOR FOR ANGLE SEAT



NOTE: STORM STRUCTURE SHALL MEET OR EXCEED ASTM C-478 SPECIFICATIONS

DETENTION STRUCTURE DETAIL BASIN 3
OUTFALL 649
NOT TO SCALE

Note:
1. The joints on the vertical outfall structure, footing, 48" pipe sections and precast sections shall be water tight joints.
2. Core Requirements, compaction requirements, construction requirements, and material requirements shall be specified by on site soils engineer.

09/27/05	REVISED AS PER CITY COMMENTS
10/04/05	REVISED PER CITY COMMENTS

MAGNOLIA
DETENTION
AS-BUILT

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S E S



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