

O'FALLON AUTO MALL

PART OF LOTS 23 & 24 OF JOHN COALTER'S
SUBDIVISION OF HOWELL'S PRAIRIE TRACT IN U.S.
SURVEY 1669, T. 46 N., R. 3 E.,
CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

SEWER MEASUREMENTS

The existing sewer lengths, sizes, flowlines, depths of structures and sewers 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 designated existing or proposed easements.

Scott Mann 8/17/06
P.E./L.S. DATE



SITE IMPROVEMENT PLANS

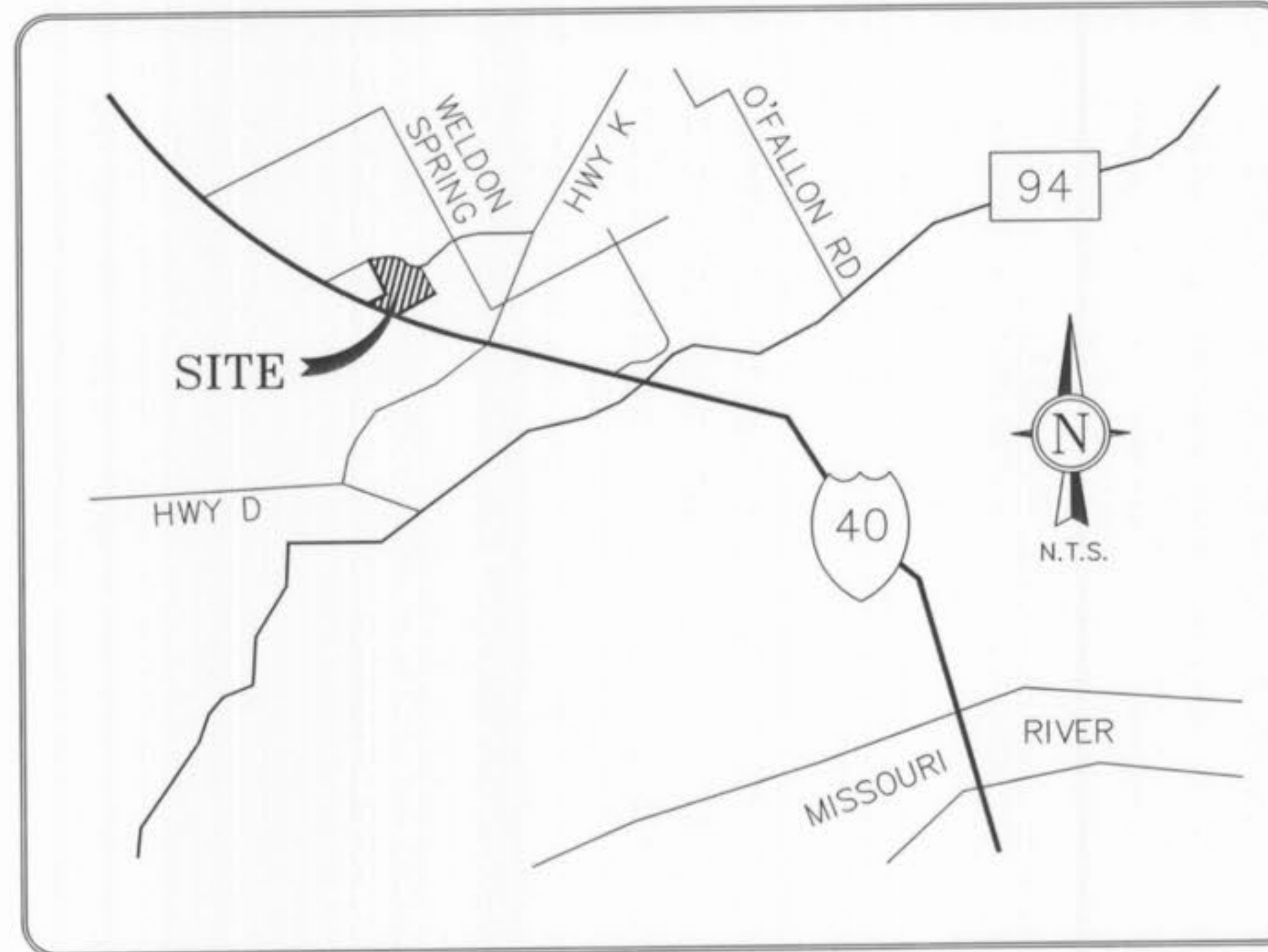
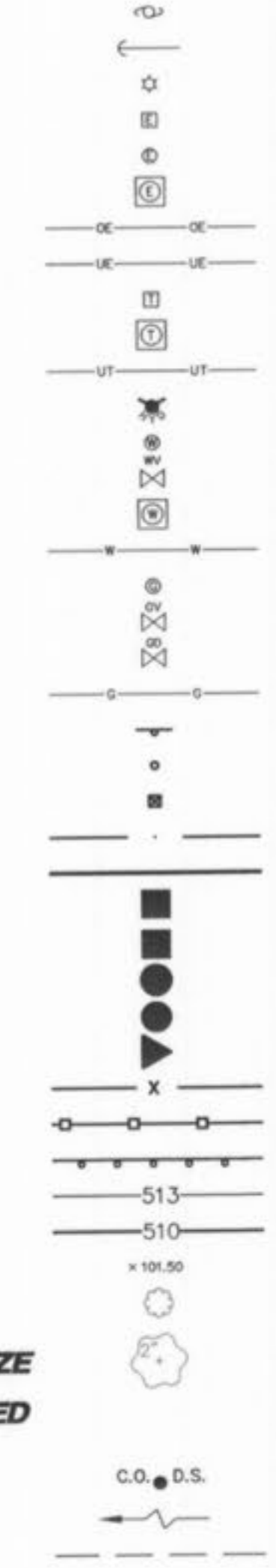
LEGEND

EXISTING



UTILITY POLE
GUY WIRE
LIGHT STANDARD
ELECTRIC BOX
ELECTRIC METER
ELECTRIC MANHOLE
OVERHEAD ELECTRIC LINE
UNDERGROUND ELECTRIC LINE
TELEPHONE BOX
TELEPHONE MANHOLE
UNDERGROUND TELEPHONE LINE
FIRE HYDRANT
WATER METER
WATER VALVE
WATER MANHOLE
WATER LINE
GAS METER
GAS VALVE
GAS DRIP
GAS LINE
STREET SIGN
BOLLARD OR POST
MAILBOX
SANITARY SEWER
STORM SEWER
STORM DRAIN GRATE INLET
STORM DRAIN AREA INLET
STORM DRAIN MANHOLE
SANITARY SEWER MANHOLE
FLARED END SECTION
FENCE: CHAIN LINK OR WIRE
FENCE: WOOD CONSTRUCTION
GUARDRAIL
MINOR CONTOUR INTERVAL
MAJOR CONTOUR INTERVAL
SPOT ELEVATION
BUSH OR SHRUB
TREE W/APPROXIMATE DIAMETER SIZE
FOUND SURVEY MONUMENT AS NOTED
SET SURVEY MONUMENT AS NOTED
CLEAN-OUT/DOWN-SPOUT
SWALE
UTILITY EASEMENT

PROPOSED



LOCATOR MAP

PROPERTY OWNER 64K, L.L.C.
165 NORTH MERAMEC
SUITE 500
ST. LOUIS, MO 63105

EXISTING ZONING "C-2" GENERAL BUSINESS

SITE ACREAGE 33.34 ACRES

SITE ADDRESS 1048 HWY 40/61

FLOOD DATA

FLOOD MAP # 29183C0430 E
ZONE "X"
REVISION DATE AUGUST 2, 1996

BENCH MARK

RM 57: ELEVATION 548.01 PER FLOOD MAP COMMUNITY PANEL
NO. 29183C 0430 E, A CHISELED SQUARE ON SOUTHWEST
END OF SOUTH HEADWALL OF A CULVERT LOCATED AT
THE JUNCTION OF U.S. HIGHWAY 40 AND COUNTY HIGHWAY K.

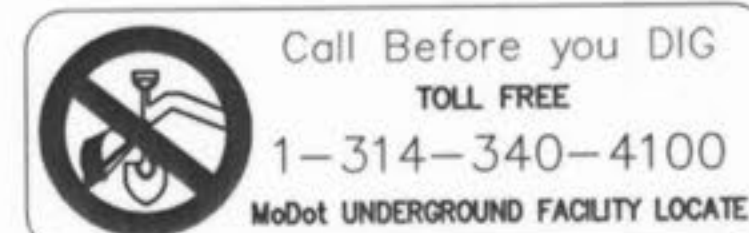
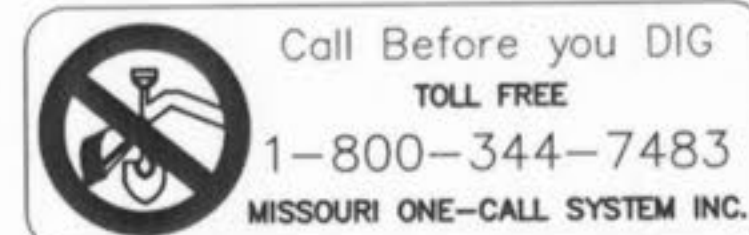
UTILITIES

WATER DISTRICT	PUBLIC WATER DISTRICT NO. 2 100 WATER DR. O'FALLON, MO 63303	ELECTRIC SERVICE	AMEREN UE 2100 BLUESTONE ST. CHARLES, MO 63303
SEWER DISTRICT	DUCKETT CREEK 3550 HIGHWAY K ST. CHARLES, MO 63304	PHONE SERVICE	SOUTHWESTERN BELL 402 N. 3RD ST. GRND FLOOR ST. CHARLES, MO 63301
GAS SERVICE	LACLEDE GAS CO. 720 OLIVE RM. 1409 ST. LOUIS, MO 63101	CABLE SERVICE	CHARTER COMMUNICATIONS 4160 OLD MILL PARKWAY ST. PETERS, MO 63576

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- ~~C5.1 CRUSHER ROAD PLAN & PROFILE~~
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- ~~C8-9 GEOMETRICS PLAN~~
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- C12-14 STORM SEWER PROFILES
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J. R. GRIMES CONSULTING ENGINEERS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. J. R. GRIMES CONSULTING ENGINEERS, INC. HAS NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED AND AUTHORIZED TO DO SO BY THE OWNER OR CONTRACTOR.



FIBER OPTICS MAY BE PRESENT

Underground facilities, structures & utilities have been plotted from available surveys, records & information, and therefore, do not necessarily reflect the actual existence, nonexistence, size, type, number of, or location of these facilities, structures, & utilities. The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.

PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBSMEYER
16650 CHESTERFIELD GROVE RD, SUITE 100
CHESTERFIELD, MO 63005
PH: (636) 537-9700
FAX: (636) 537-9880

P&Z FILE # 3101.05.03

O'FALLON AUTO MALL			
TITLE SHEET			
J. R. GRIMES		12300 OLD TESSON ROAD SUITE 3000 ST. LOUIS, MO. 63128 PH: (314) 849-6100 FAX (314) 849-6010	
DRAWN BY: JLW	DATE: 04/08/05	CHECKED BY: LJM	DATE: 04/08/05
JOB NUMBER: 675N		SHEET: C1	

"AS-BUILT"

SEE SHEET C5 FOR CONTINUATION

64K, L.L.C.
DB. 2438, PG. 1997

LOT C
3.84 AC.
ADDRESS: 535 AUTO MALL DR.

LOT B
4.13 AC.
ADDRESS: 520 AUTO MALL DR.

LOT D
4.00 AC.
ADDRESS: 521 AUTO MALL DR.

LOT A
6.06 AC.
ADDRESS: 500 AUTO MALL DR.

LOT E
5.97 AC.
ADDRESS: 501 AUTO MALL DR.

ALL LOTS SHALL BE SEEDED
AND MAINTAINED AS LAWN AREAS

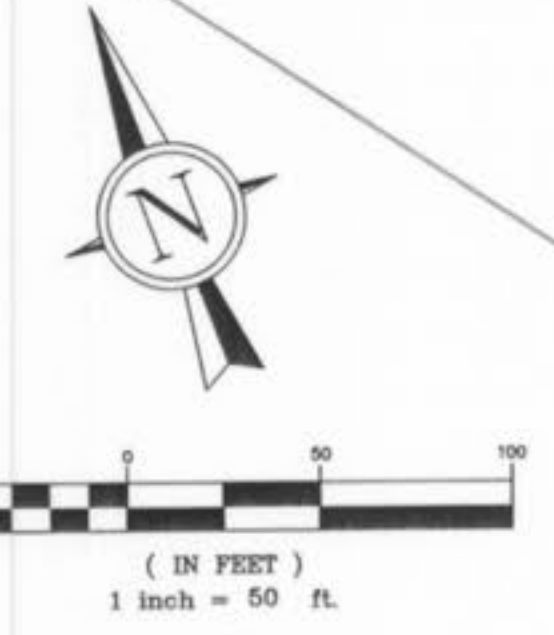
DETENTION FOR ALL LOTS
IS PROVIDED IN DETENTION
BASINS #1 AND #2

ASPHALT MULTI-USE
TRAIL TO BE INSTALLED
AS LOTS ARE DEVELOPED

ASPHALT MULTI-USE
TRAIL TO BE INSTALLED
AS LOTS ARE DEVELOPED

ALL LOTS SHALL REQUIRE
SEPARATE SITE PLAN APPROVAL

TECHNOLOGY DRIVE TO
REMAIN CLEAN AND FREE
OF ALL DIRT, MUD AND
DEBRIS AT ALL TIMES



N/F
DONALD E. STANFILL
DB. 3739, PG. 1543
OFFICE/WAREHOUSE

30' W. INGRESS, EGRESS,
& UTILITY EASEMENT
DB. 1495, PG. 969

N/F
64K, L.L.C.
DB. 2487, PG. 501

N/F
64K, L.L.C.
DB. 2579, PG. 1774

N/F
BUSCH WILDLIFE AREA

NOTES:

- SEE SHEETS C4-5 FOR THE SITE PLAN
- SEE SHEETS C6-7 FOR GRADING PLANS
- SEE SHEETS C8-9 FOR GEOMETRICS PLANS
- SEE SHEETS C10-11 FOR SANITARY PLAN AND PROFILES
- SEE SHEETS C12-14 FOR STORM SEWER PROFILES
- SEE SHEETS C15-16 FOR WATER PLAN AND PROFILES

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Larry M...
P.E./L.S. DATE 8/7/06

SEWER MEASUREMENTS



"AS-BUILT"

- 7/13/05 PER WATER DISTRICT COMMENTS
- 7/06/05 PER SANITARY SEWER COMMENTS
- 06/30/05 PER CITY & MODOOT COMMENTS
- 05/23/05 PER CITY, WATER & SANITARY COMMENTS
- 11/15/05 PER MODOOT COMMENTS
- 10/24/05 PER MODOOT COMMENTS
- 10/18/05 PER FIELD CONFLICTS
- 10/05/05 PER WATER DISTRICT COMMENTS

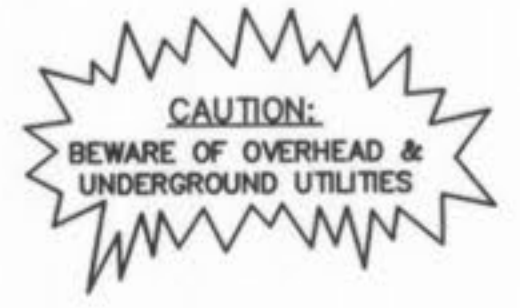
O'FALLON AUTO MALL
SITE PLAN

J. R. GRIMES
CONSULTING ENGINEERS, INC.

12300 OLD TESSON ROAD
SUITE 3000
ST. LOUIS, MO. 63128
PH. (314) 849-6100
FAX (314) 849-6010

DRAWN BY: JLW DATE: 04/08/05 CHECKED BY: LJM DATE: 04/08/05 JOB NUMBER: 675N SHEET: C4

PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBSMEYER
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CHESTERFIELD, MO 63005
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FAX: (636) 537-9880



SEE SHEET C5.2 FOR TECHNOLOGY ROAD IMPROVEMENTS

U.S. HIGHWAY 40-61 (WIDTH VARIES)

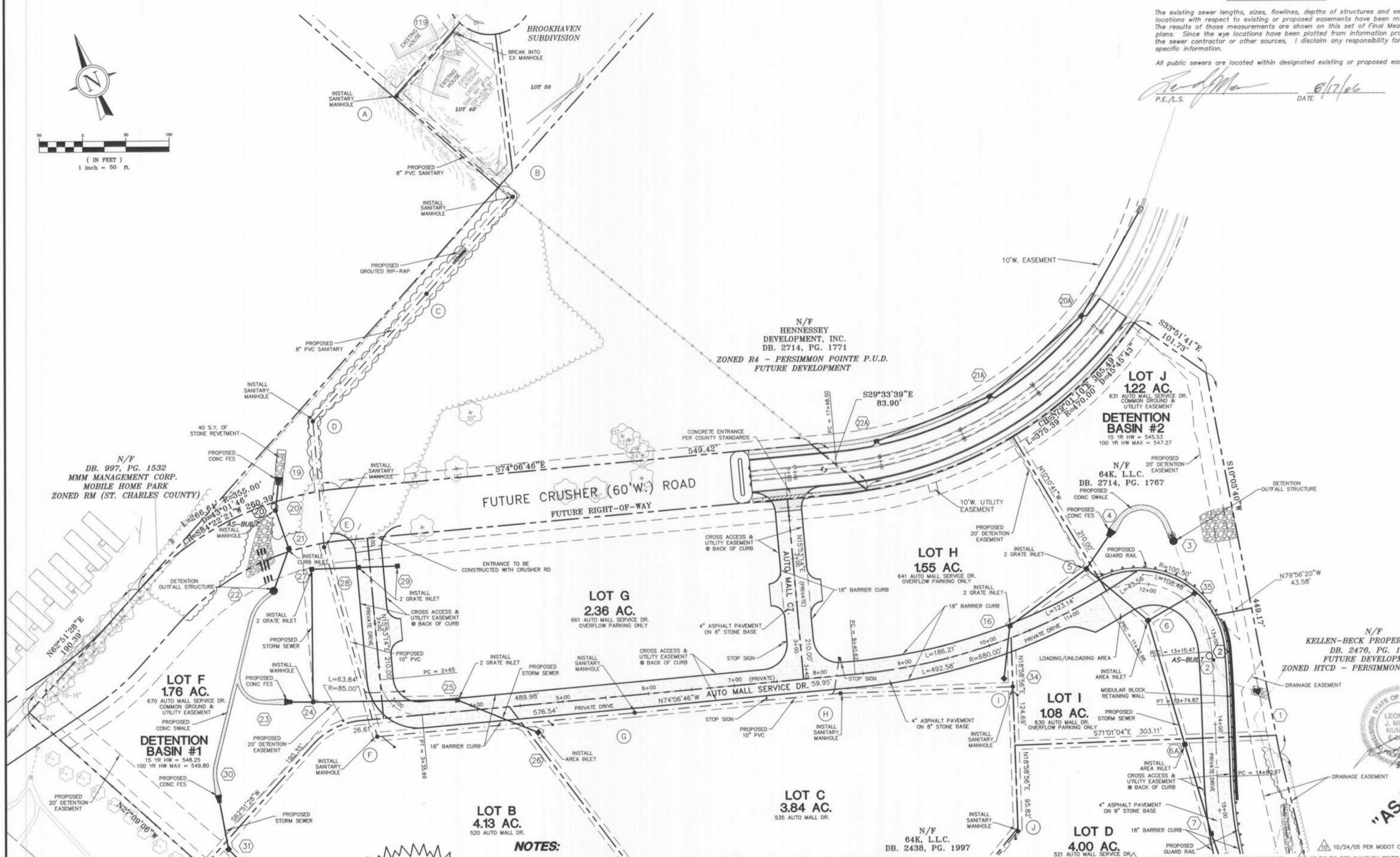
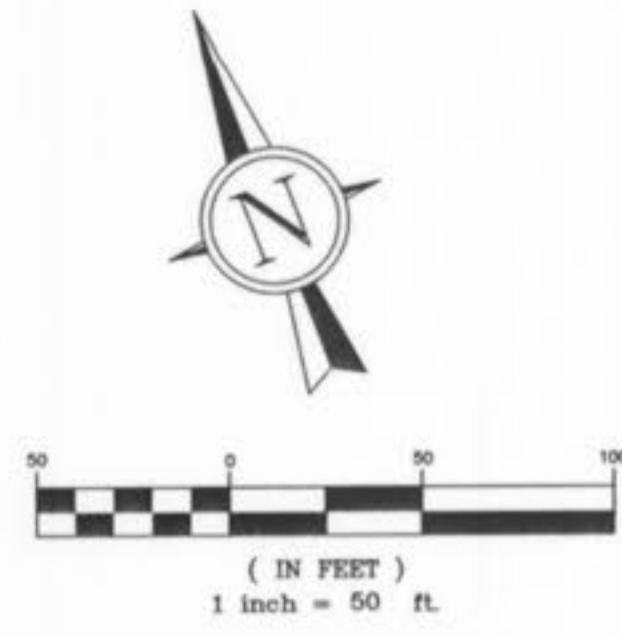
TECHNOLOGY DRIVE (WIDTH VARIES)

SEWER MEASUREMENTS

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[Signature]
P.E./L.S. DATE 8/17/06



N/F
DB. 997, PG. 1532
MMM MANAGEMENT CORP.
MOBILE HOME PARK
ZONED RM (ST. CHARLES COUNTY)

N/F
HENNESSEY
DEVELOPMENT, INC.
DB. 2714, PG. 1771
ZONED R4 - PERSIMMON POINTE P.U.D.
FUTURE DEVELOPMENT

LOT J
122 AC.
631 AUTO MALL SERVICE DR.
COMMON GROUND &
UTILITY EASEMENT
DETENTION
BASIN #2
15 YR HW = 545.53
100 YR HW MAX = 547.27

N/F
64K, L.L.C.
DB. 2714, PG. 1767

LOT G
236 AC.
661 AUTO MALL SERVICE DR.
OVERFLOW PARKING ONLY

LOT H
155 AC.
641 AUTO MALL SERVICE DR.
OVERFLOW PARKING ONLY

LOT F
176 AC.
670 AUTO MALL SERVICE DR.
COMMON GROUND &
UTILITY EASEMENT

DETENTION
BASIN #1
15 YR HW = 548.25
100 YR HW MAX = 549.80

LOT I
108 AC.
630 AUTO MALL DR.
OVERFLOW PARKING ONLY

N/F
KELLEN-BECK PROPERTIES, LLC
DB. 2476, PG. 1717
FUTURE DEVELOPMENT
ZONED HTCD - PERSIMMON POINTE P.U.

LOT C
3.84 AC.
535 AUTO MALL DR.

N/F
64K, L.L.C.
DB. 2438, PG. 1997

LOT D
4.00 AC.
521 AUTO MALL SERVICE DR.

CAUTION:
BEWARE OF OVERHEAD &
UNDERGROUND UTILITIES

NOTES:

- 1) SEE SHEETS C4-5 FOR THE SITE PLAN
- 2) SEE SHEETS C6-7 FOR GRADING PLANS
- 3) SEE SHEETS C8-9 FOR GEOMETRICS PLANS
- 4) SEE SHEETS C10-11 FOR SANITARY PLAN AND PROFILES
- 5) SEE SHEETS C12-14 FOR STORM SEWER PROFILES
- 6) SEE SHEETS C15-16 FOR WATER PLAN AND PROFILES

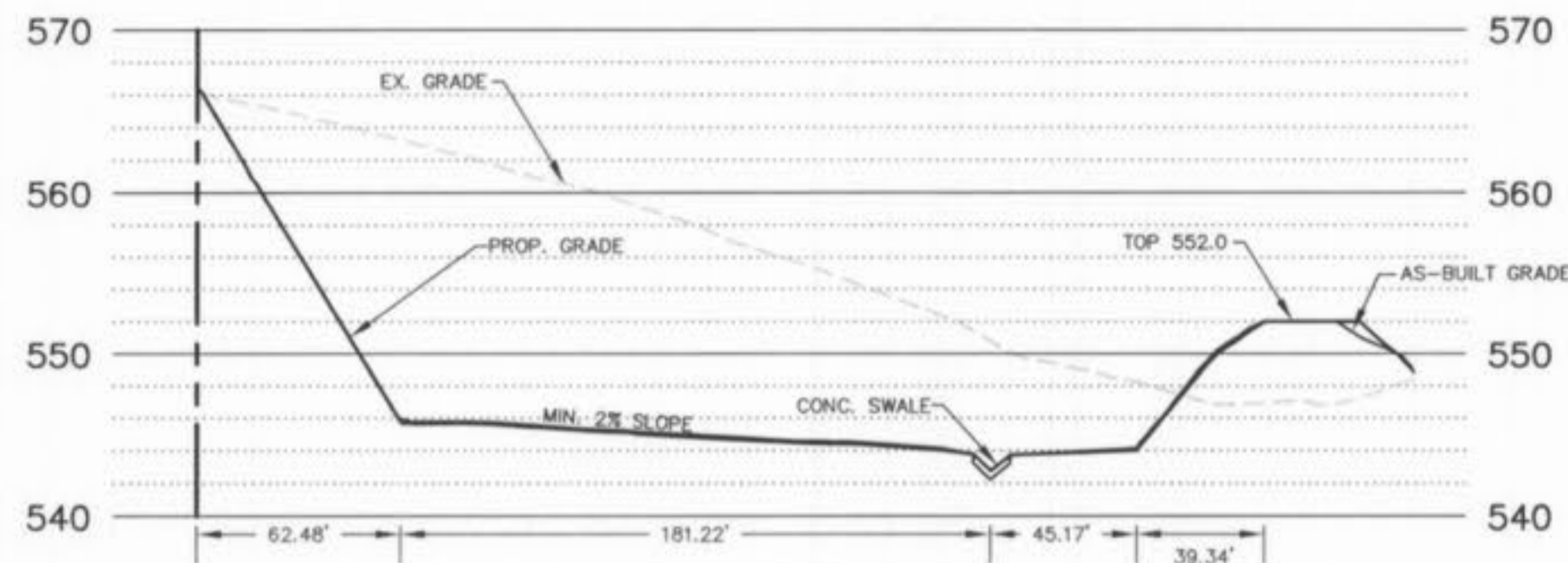
SEE SHEET C4 FOR CONTINUATION

PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBSMEYER
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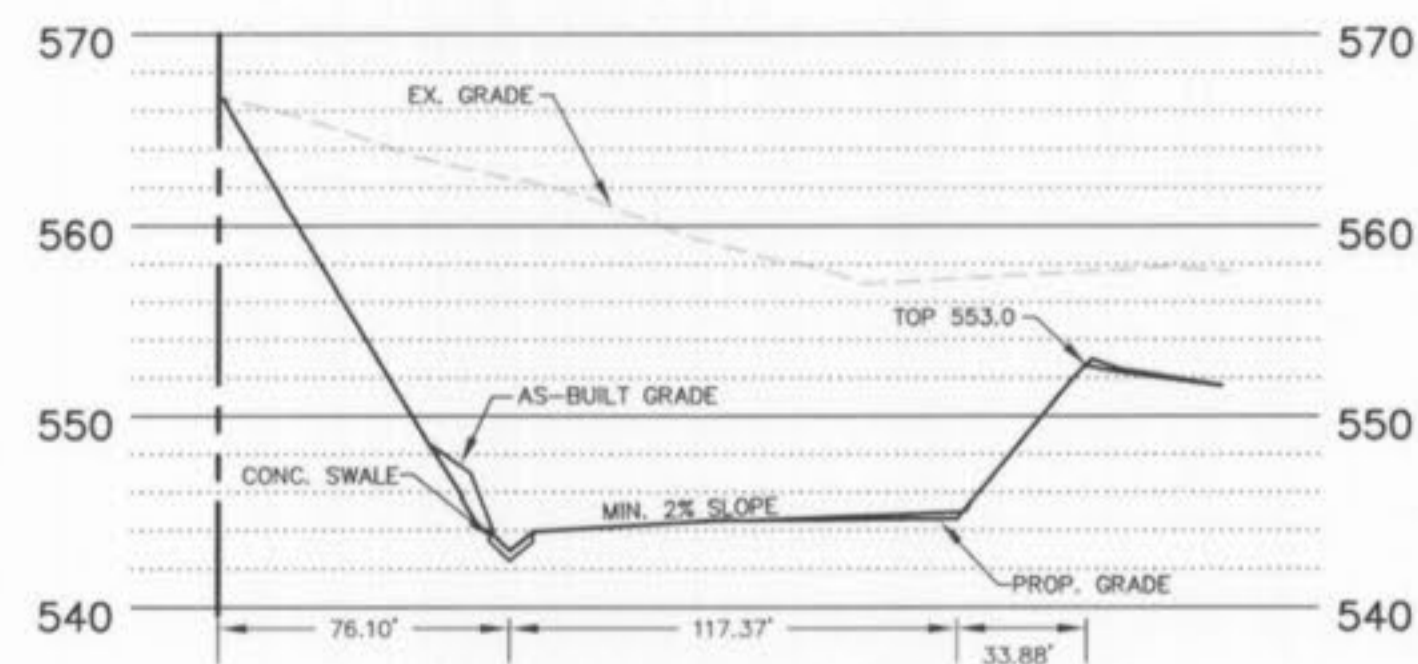
O'FALLON AUTO MALL			
SITE PLAN			
J. R. GRIMES		CONSULTING ENGINEERS, INC.	
12300 OLD TESSON ROAD SUITE 3000 ST. LOUIS, MO. 63128 PH: (314) 849-6100 FAX: (314) 849-6010			
DRAWN BY: JLW	DATE: 04/08/05	CHECKED BY: LJM	DATE: 04/08/05
JOB NUMBER: 675N		SHEET: C5	
P&Z FILE # 3101.05.03			



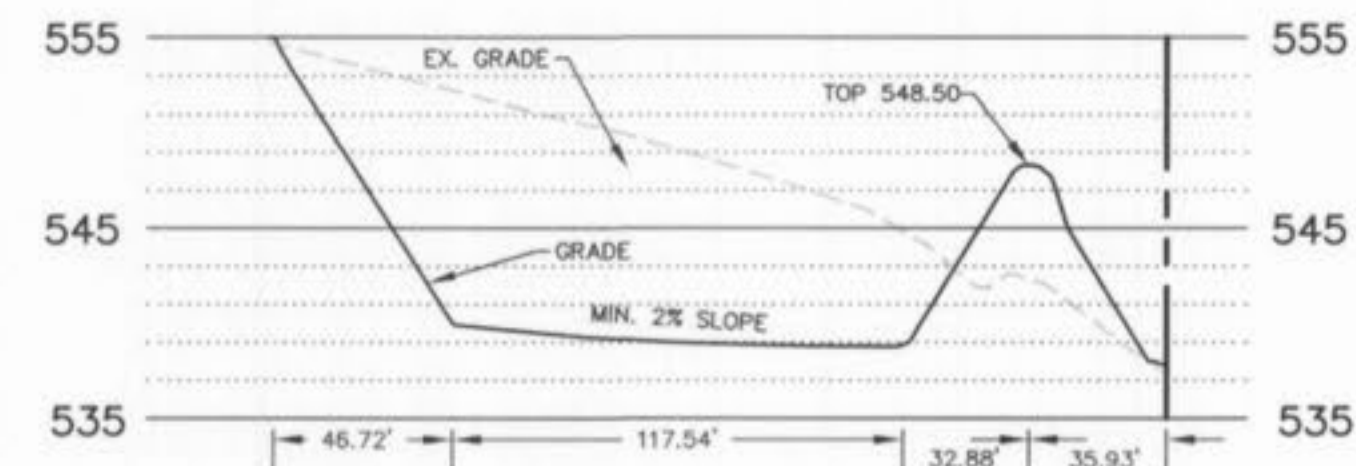
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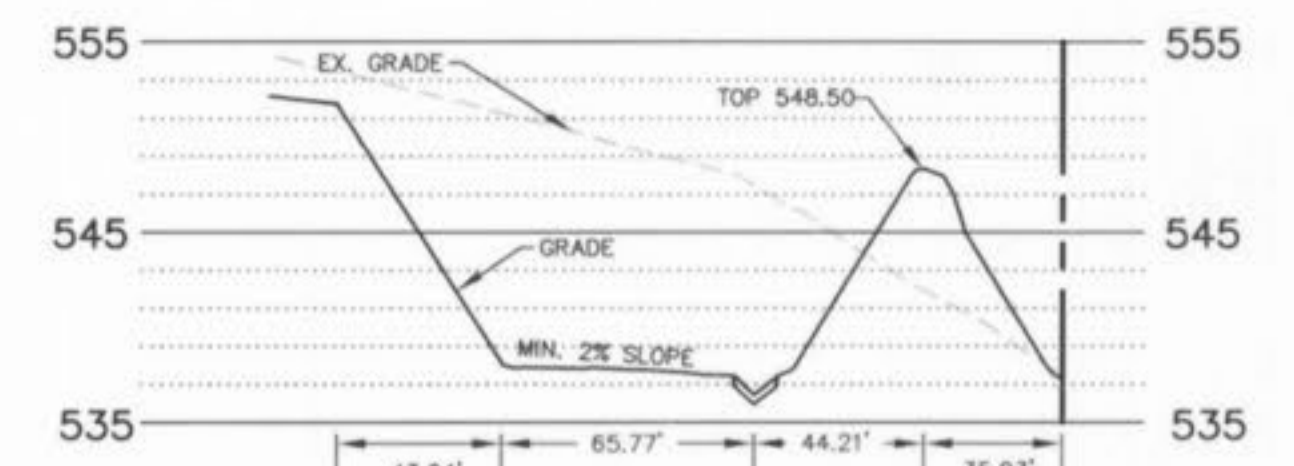
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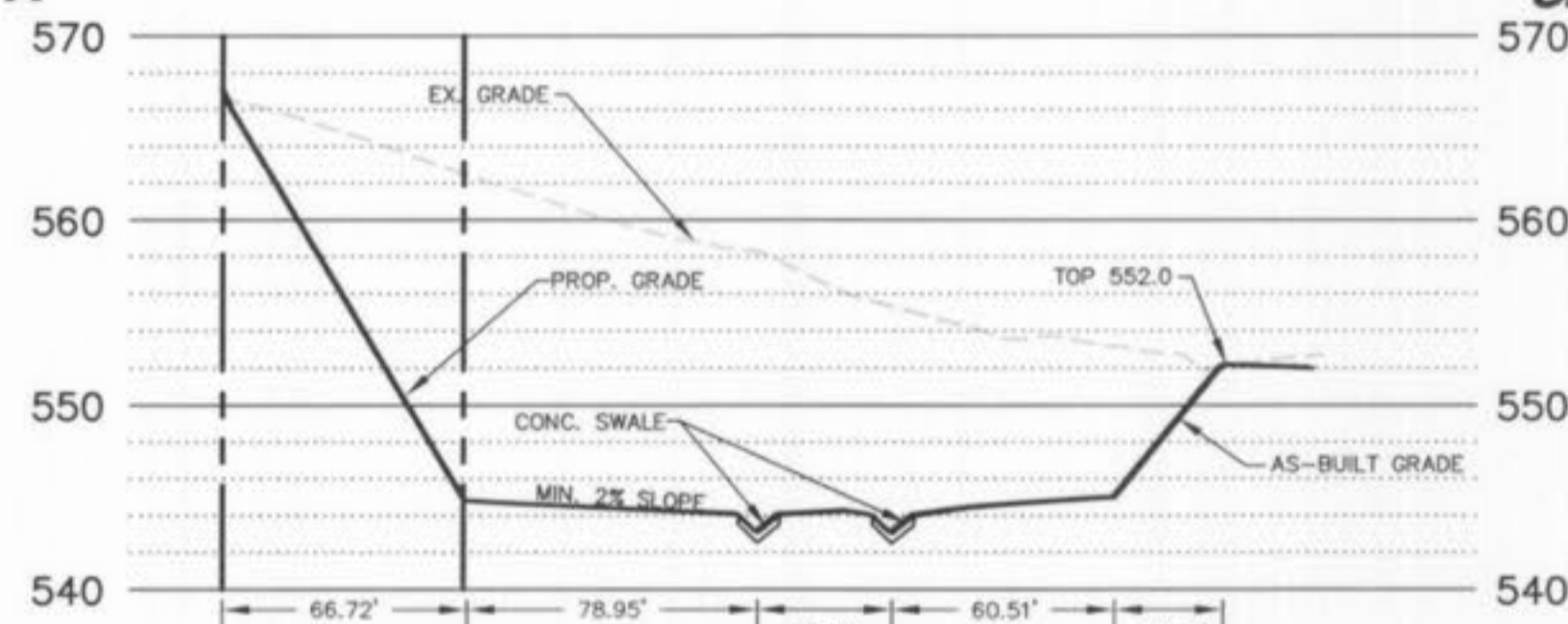
SECTION C-C



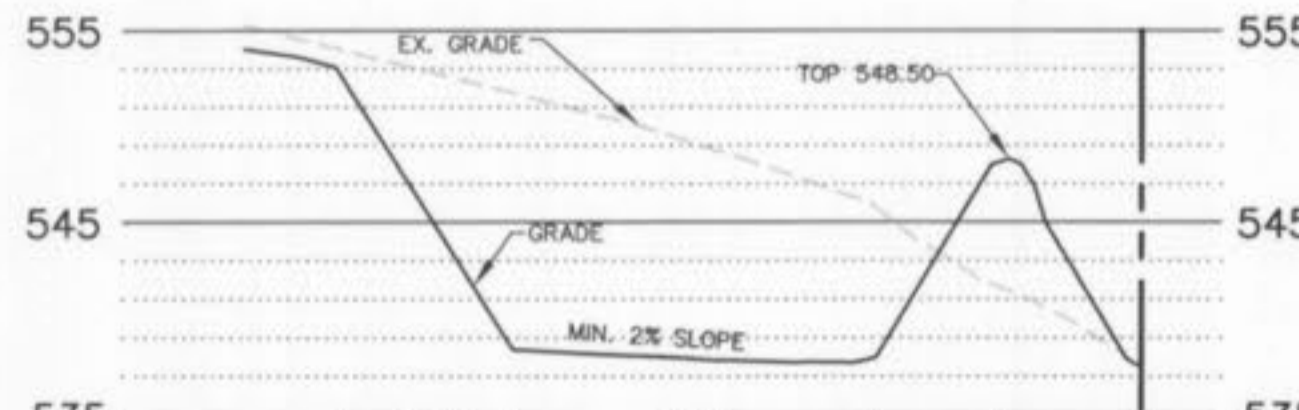
SECTION D-D



SECTION F-F

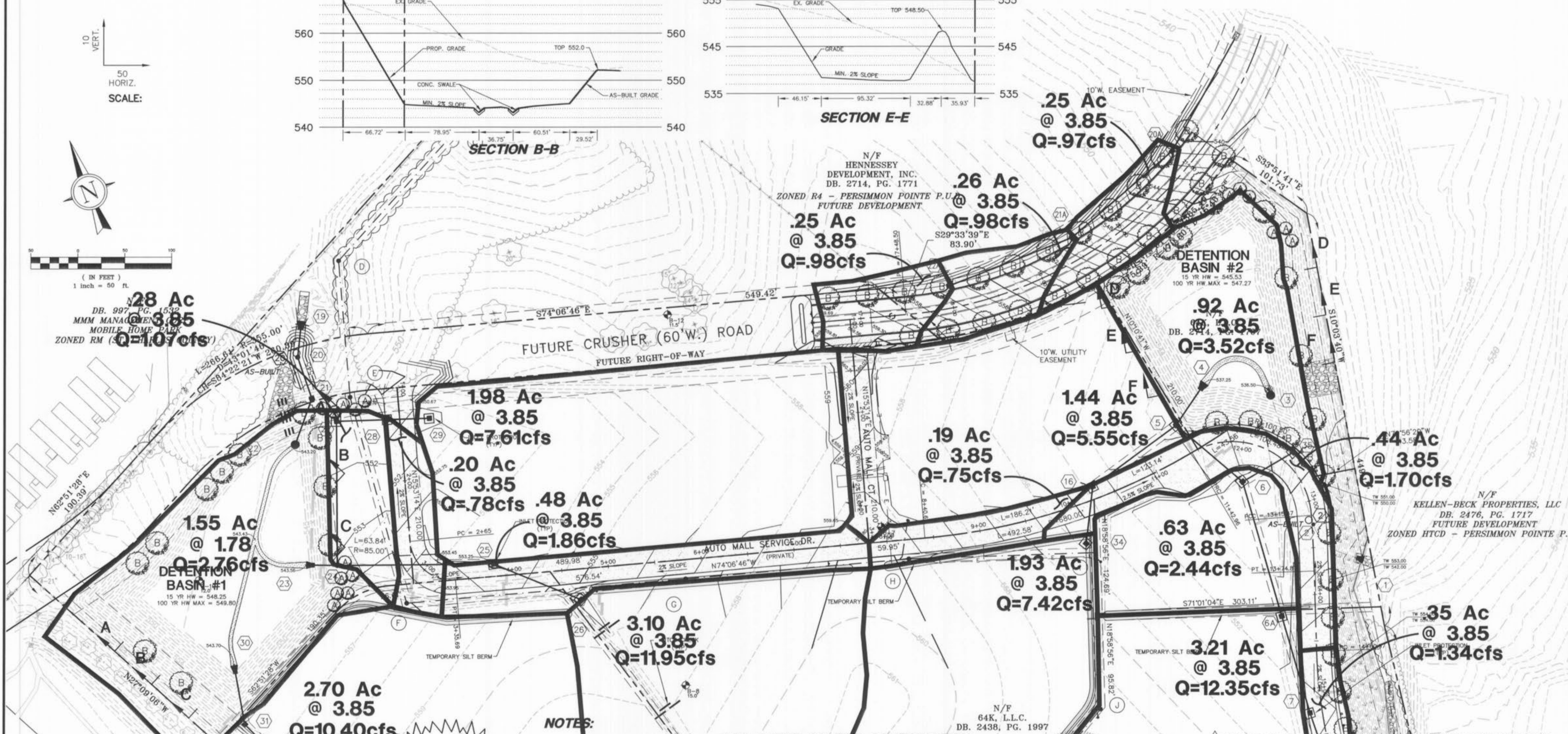
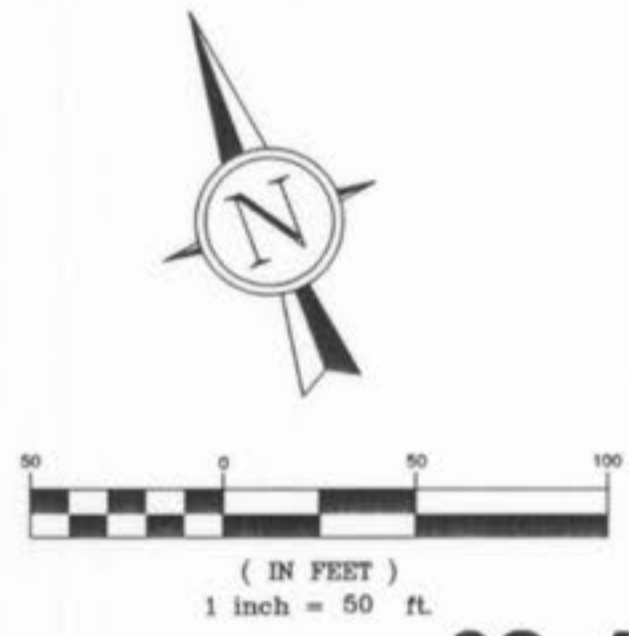


SECTION B-B



SECTION E-E

10 VERT.
50 HORIZ.
SCALE:



NOTES:

- 1) SEE SHEETS C4-5 FOR THE SITE PLAN
- 2) SEE SHEETS C6-7 FOR GRADING PLANS
- 3) SEE SHEETS C8-9 FOR GEOMETRICS PLANS
- 4) SEE SHEETS C10-11 FOR SANITARY PLAN AND PROFILES
- 5) SEE SHEETS C12-14 FOR STORM SEWER PROFILES
- 6) SEE SHEETS C15-16 FOR WATER PLAN AND PROFILES

SEE SHEET C6 FOR CONTINUATION
SEWER MEASUREMENTS

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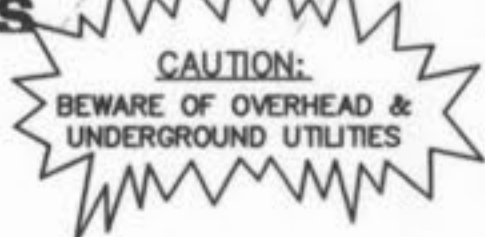
All public sewers are located within designated existing or proposed easements.

P.E./L.S. DATE: 04/08/05



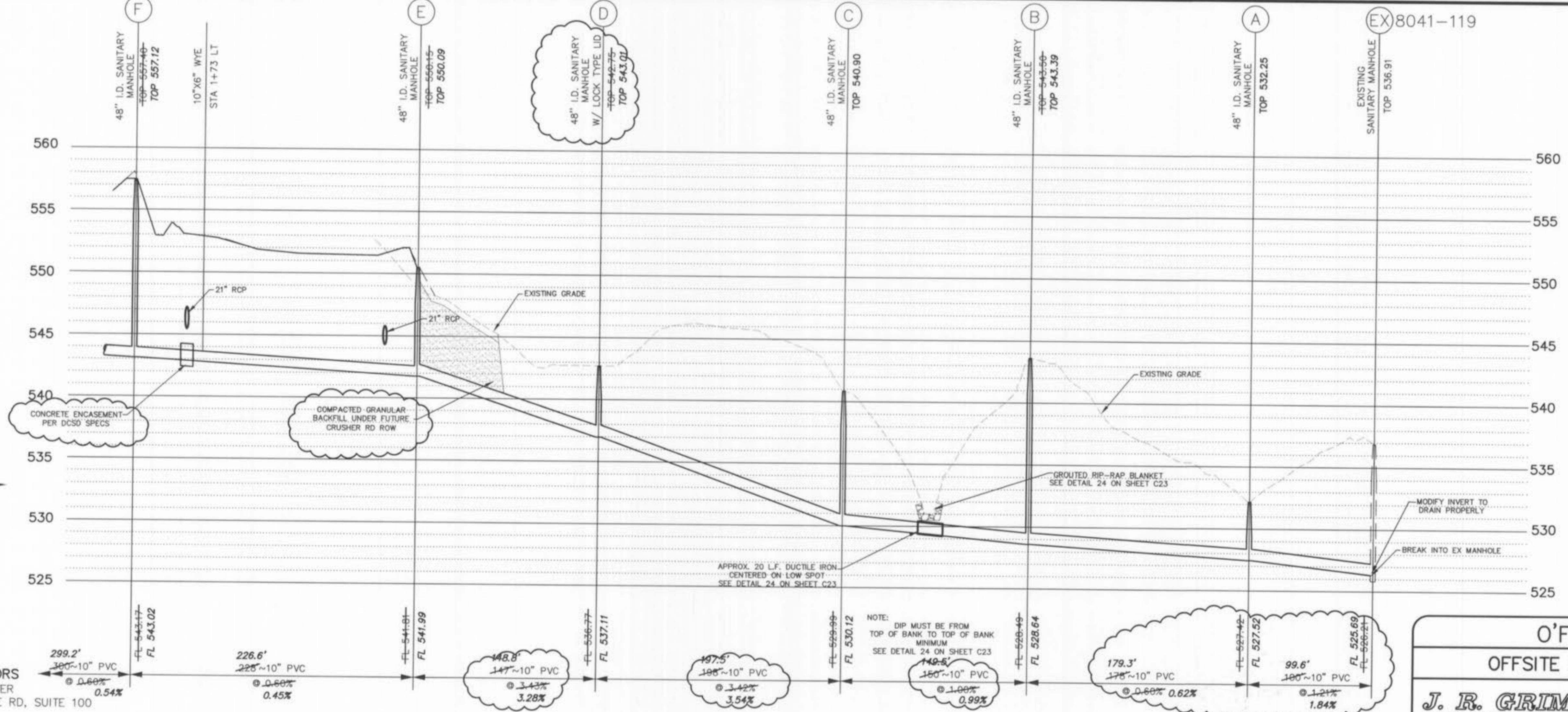
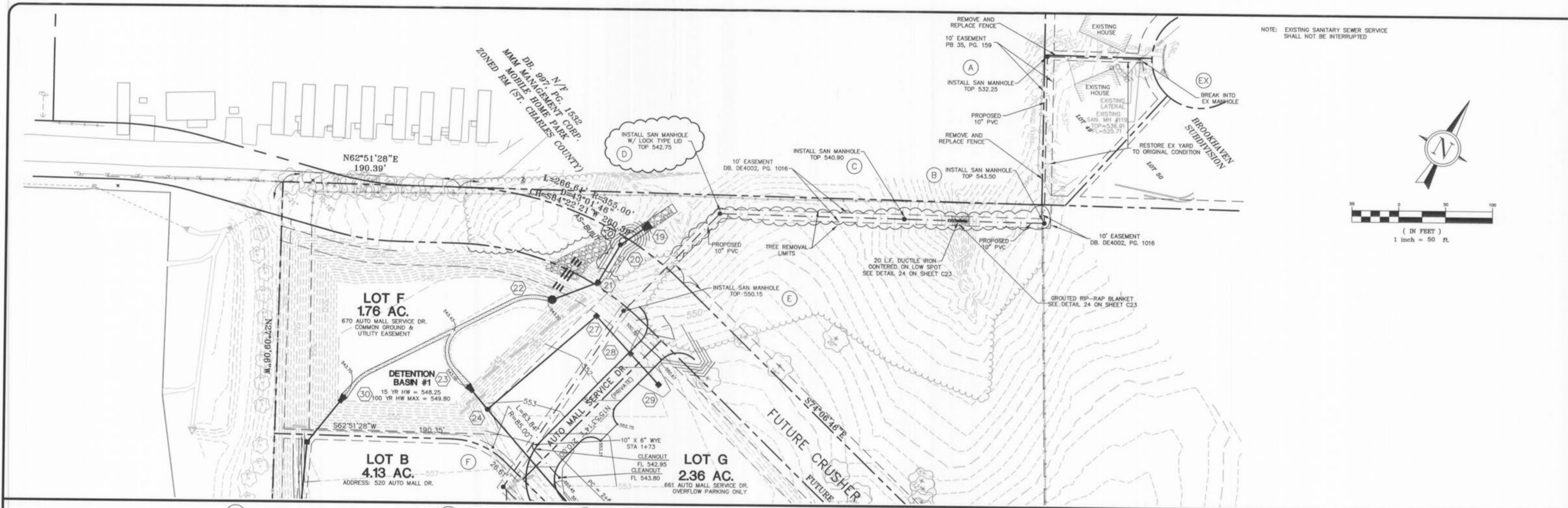
"AS-BUILT"

PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBMEYER
16650 CHESTERFIELD GROVE RD, SUITE 100
CHESTERFIELD, MO 63005
PH: (636) 537-9700
FAX: (636) 537-9880



O'FALLON AUTO MALL	
GRADING PLAN	
J. R. GRIMES CONSULTING ENGINEERS, INC.	
12300 OLD TESSON ROAD SUITE 3000 ST. LOUIS, MO. 63128 PH. (314) 849-6100 FAX (314) 849-6010	
DRAWN BY: JLW DATE: 04/08/05	CHECKED BY: LJM DATE: 04/08/05
JOB NUMBER: 675N	SHEET: C7

P&Z FILE # 3101.05.03



SEWER MEASUREMENTS

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Leonard J. Meers
P.E./L.S. 8/1/06
DATE



"AS-BUILT"

- △ 07/06/05 PER SANITARY SEWER COMMENTS
- △ 06/22/05 PER SANITARY SEWER COMMENTS
- △ 05/23/05 PER CITY, WATER & SANITARY COMMENTS

PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBSMEYER
16650 CHESTERFIELD GROVE RD, SUITE 100
CHESTERFIELD, MO 63005
PH: (636) 537-9700
FAX: (636) 537-9880

**O'FALLON AUTO MALL
OFFSITE SANITARY PLAN & PROFILE**

**J. R. GRIMES
CONSULTING ENGINEERS, INC.**

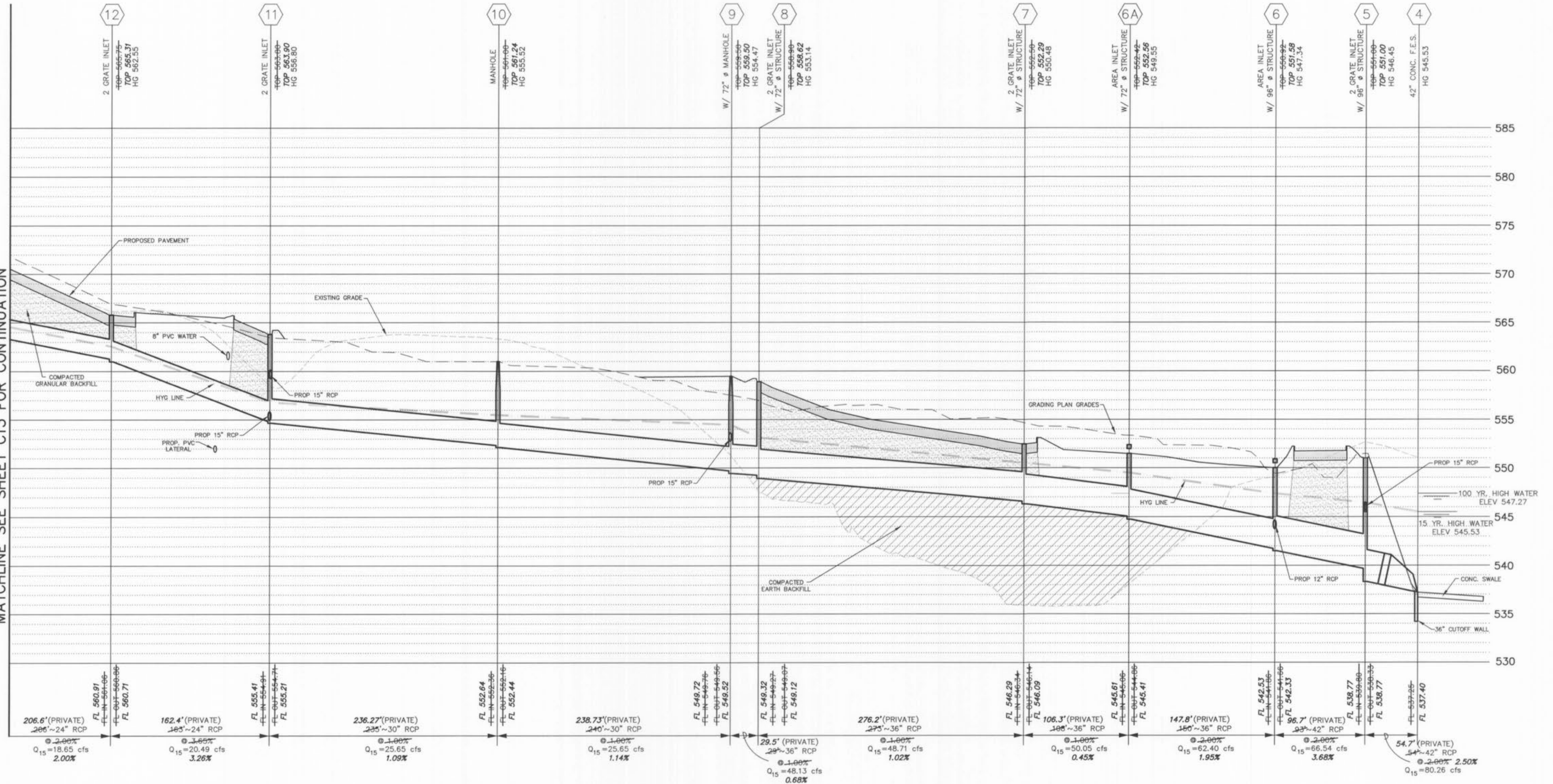
12300 OLD TESSON ROAD
SUITE 3000
ST. LOUIS, MO. 63128
PH. (314) 849-6100
FAX (314) 849-6010

DRAWN BY: DATE: CHECKED BY: DATE: JOB NUMBER: SHEET:

JLW 04/08/05 LJM 04/08/05 675N C11

P&Z FILE # 3101.05.03

MATCHLINE SEE SHEET C13 FOR CONTINUATION



SEWER MEASUREMENTS

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[Signature]
P.E./L.S. DATE 8/17/06



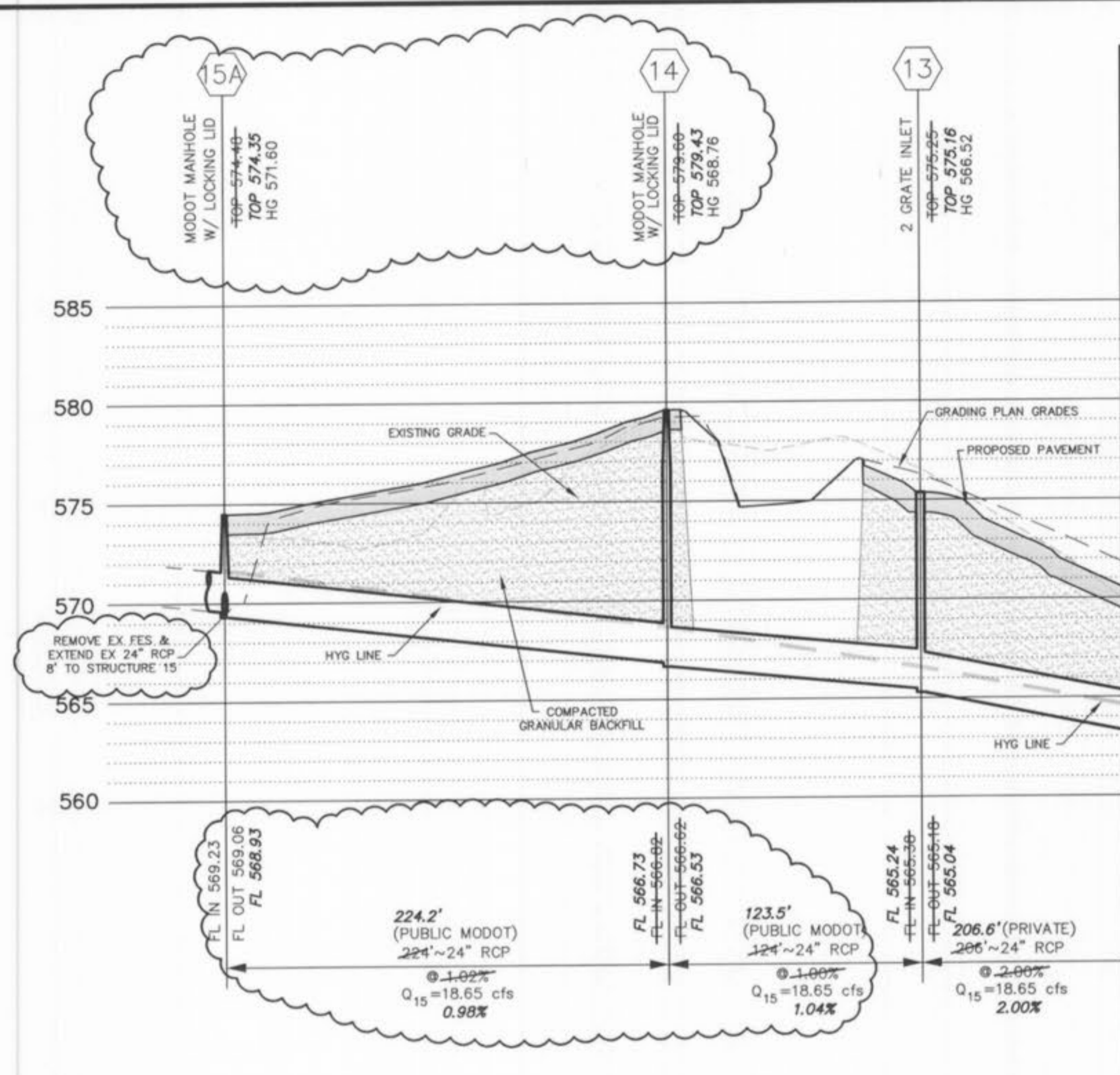
- 10/18/05 PER FIELD CONFLICTS
- 05/23/05 PER CITY, WATER & SANITARY COMMENTS

O'FALLON AUTO MALL			
STORM SEWER PROFILES			
J. R. GRIMES		12300 OLD TESSON ROAD SUITE 3008 ST. LOUIS, MO. 63128 PH. (314) 849-6100 FAX (314) 849-6010	
CONSULTING ENGINEERS, INC.			
DRAWN BY:	DATE:	CHECKED BY:	DATE:
JLW	04/08/05	LJM	04/08/05
JOB NUMBER:		SHEET:	
675N		C12	

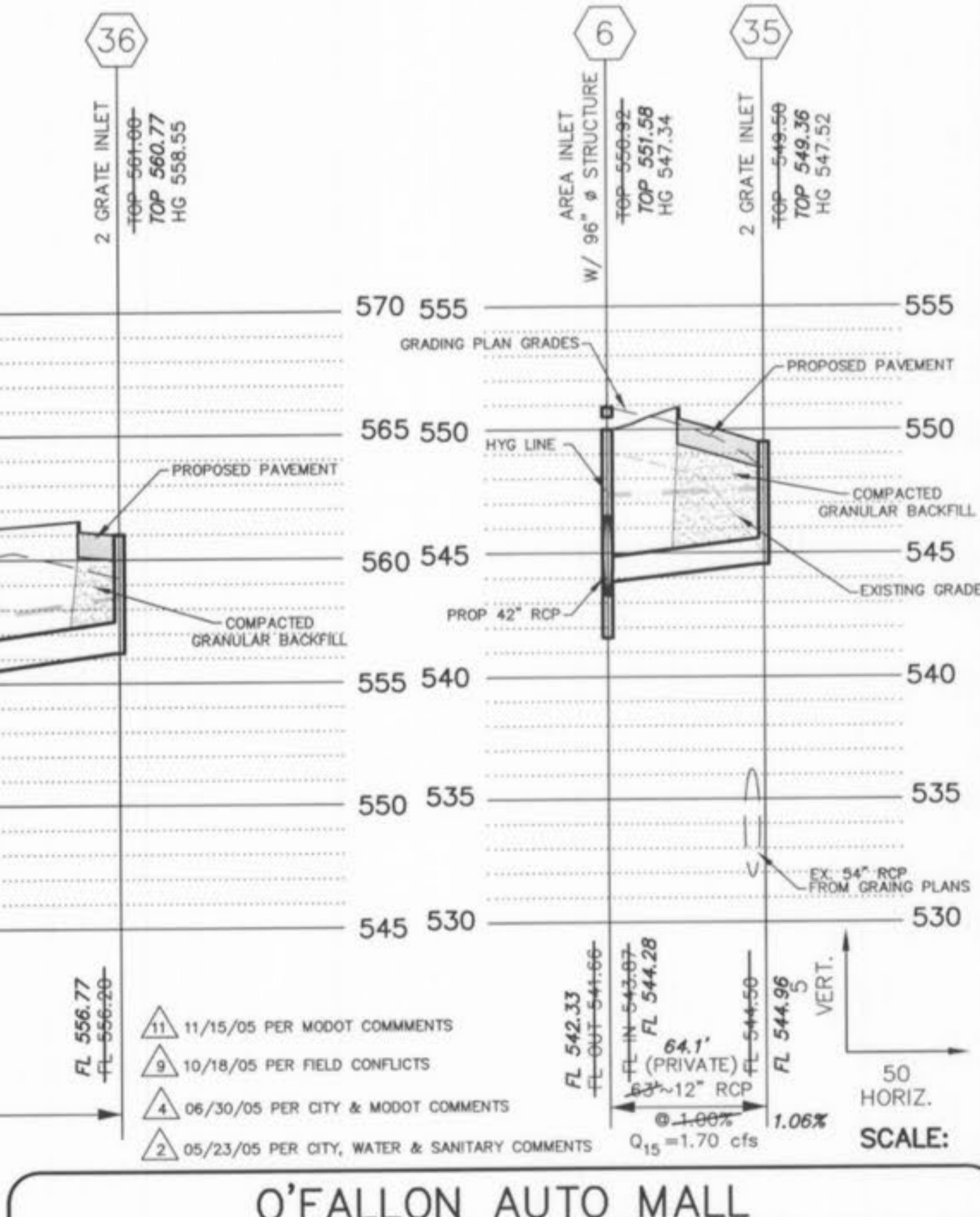
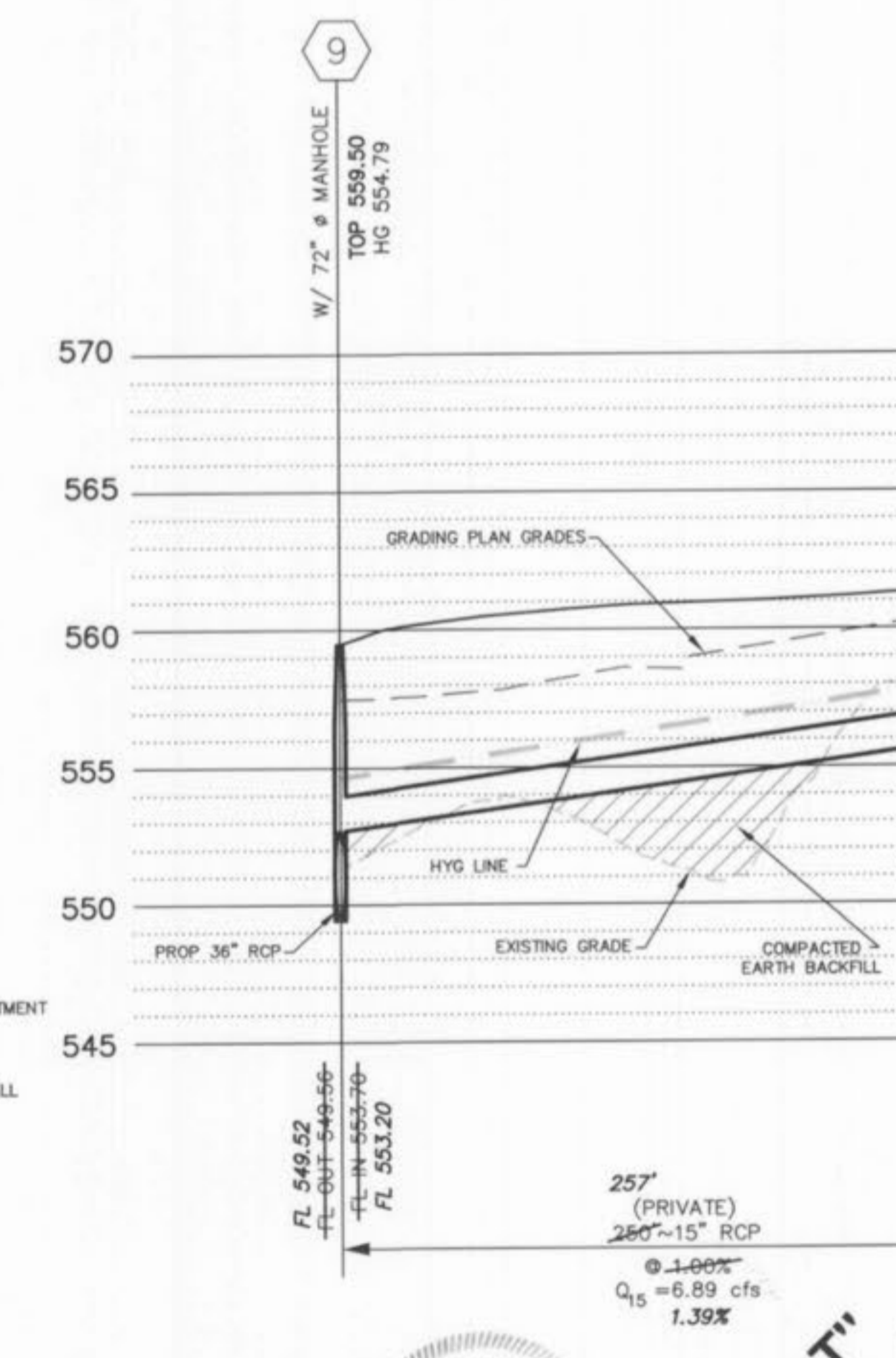
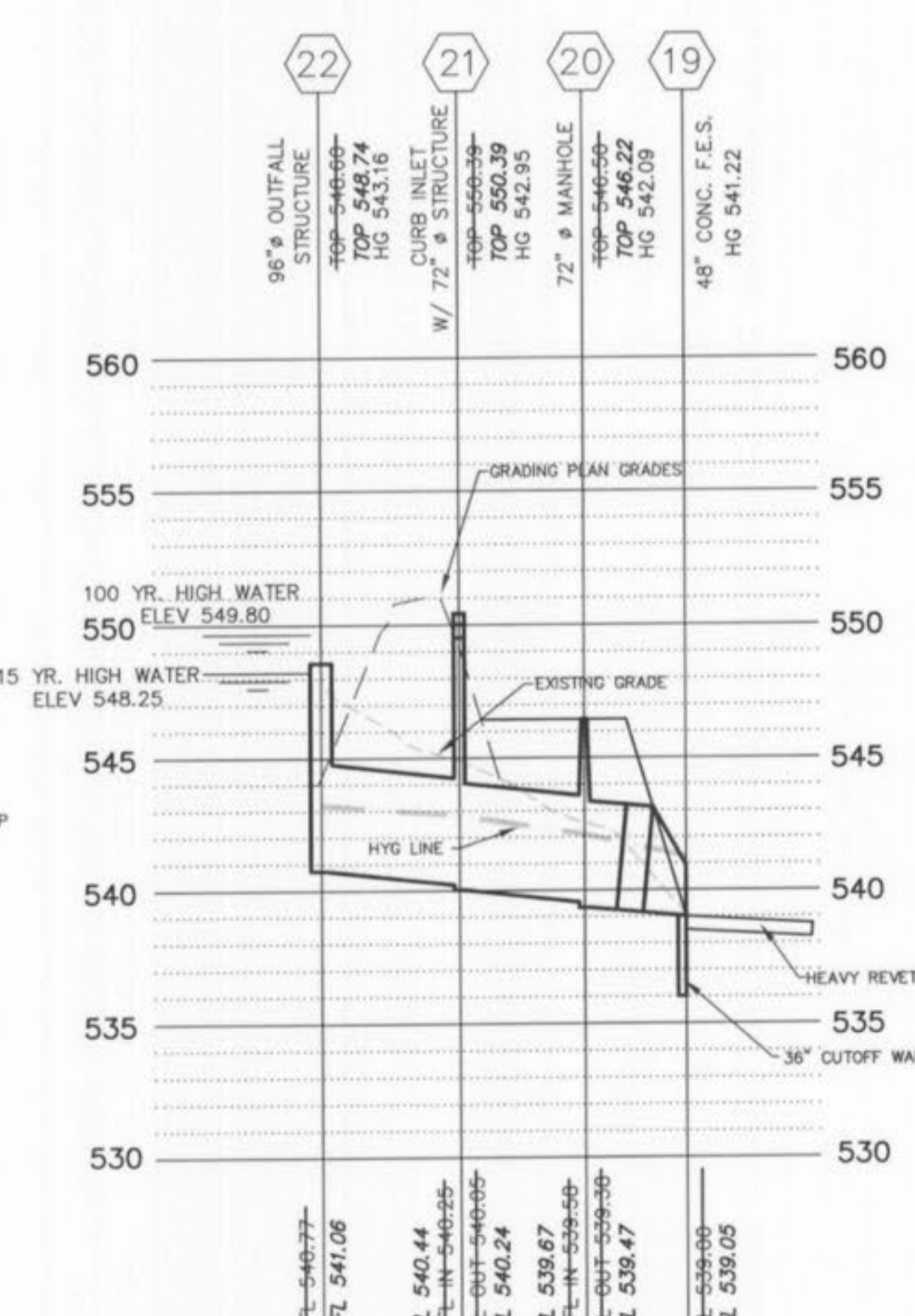
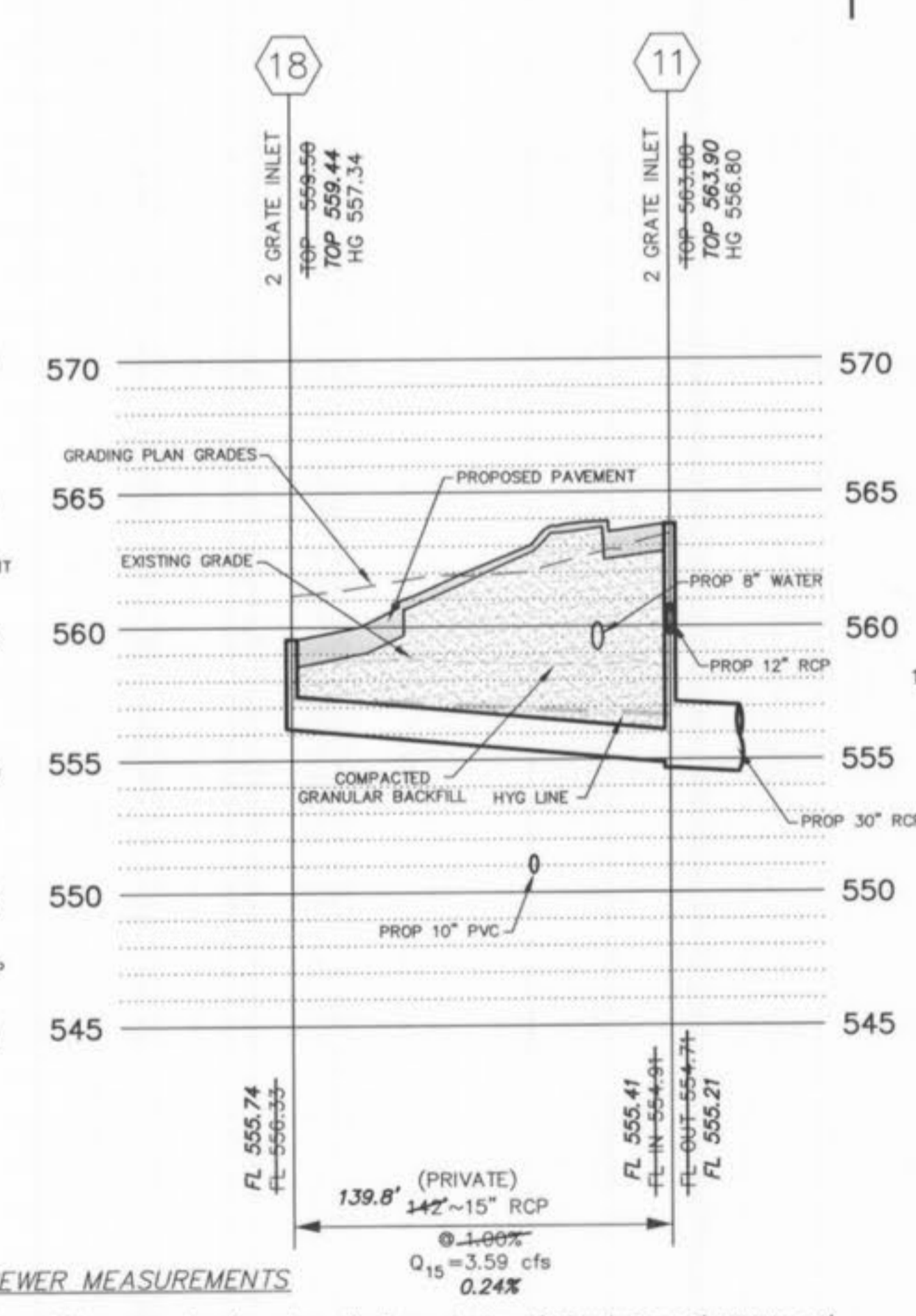
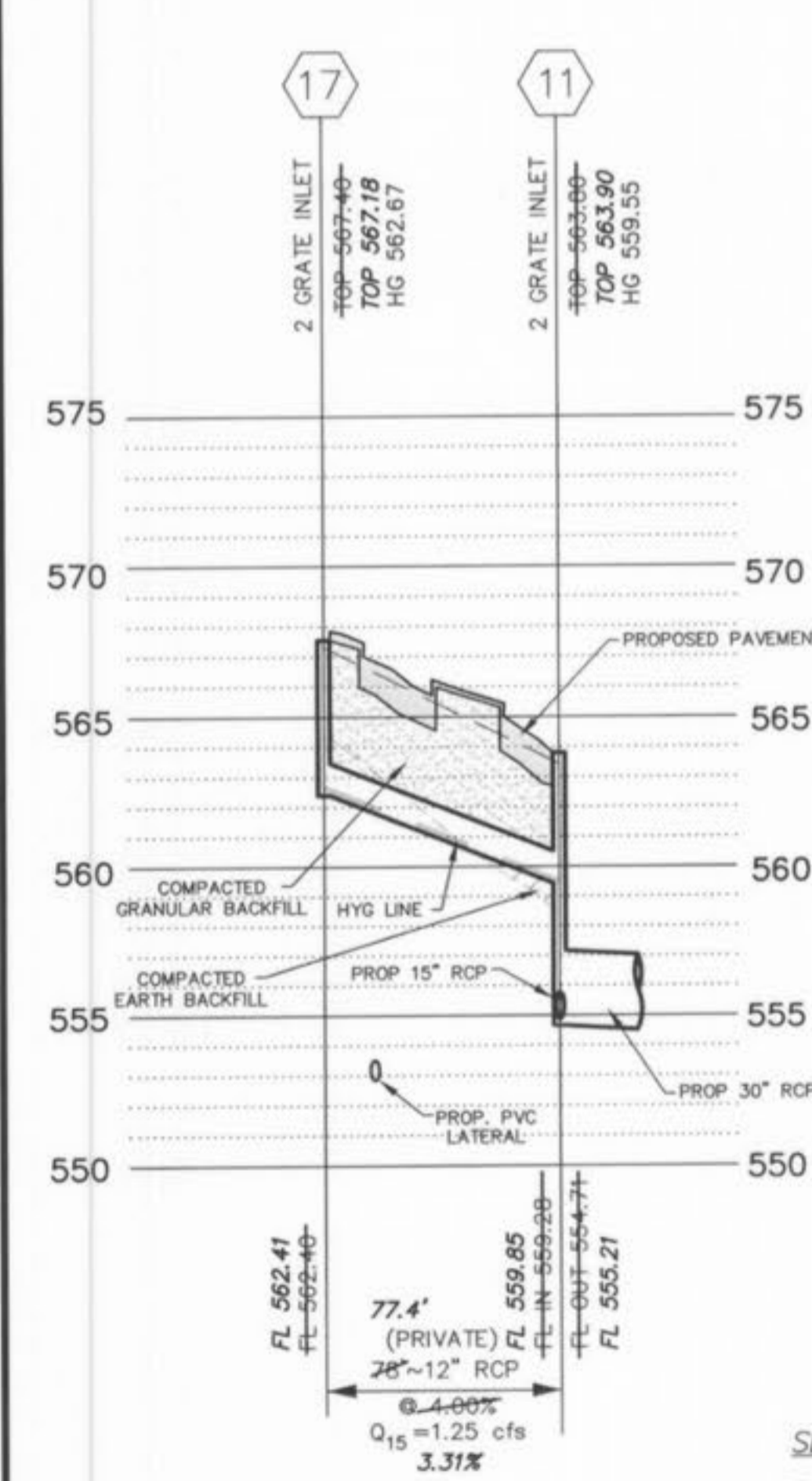
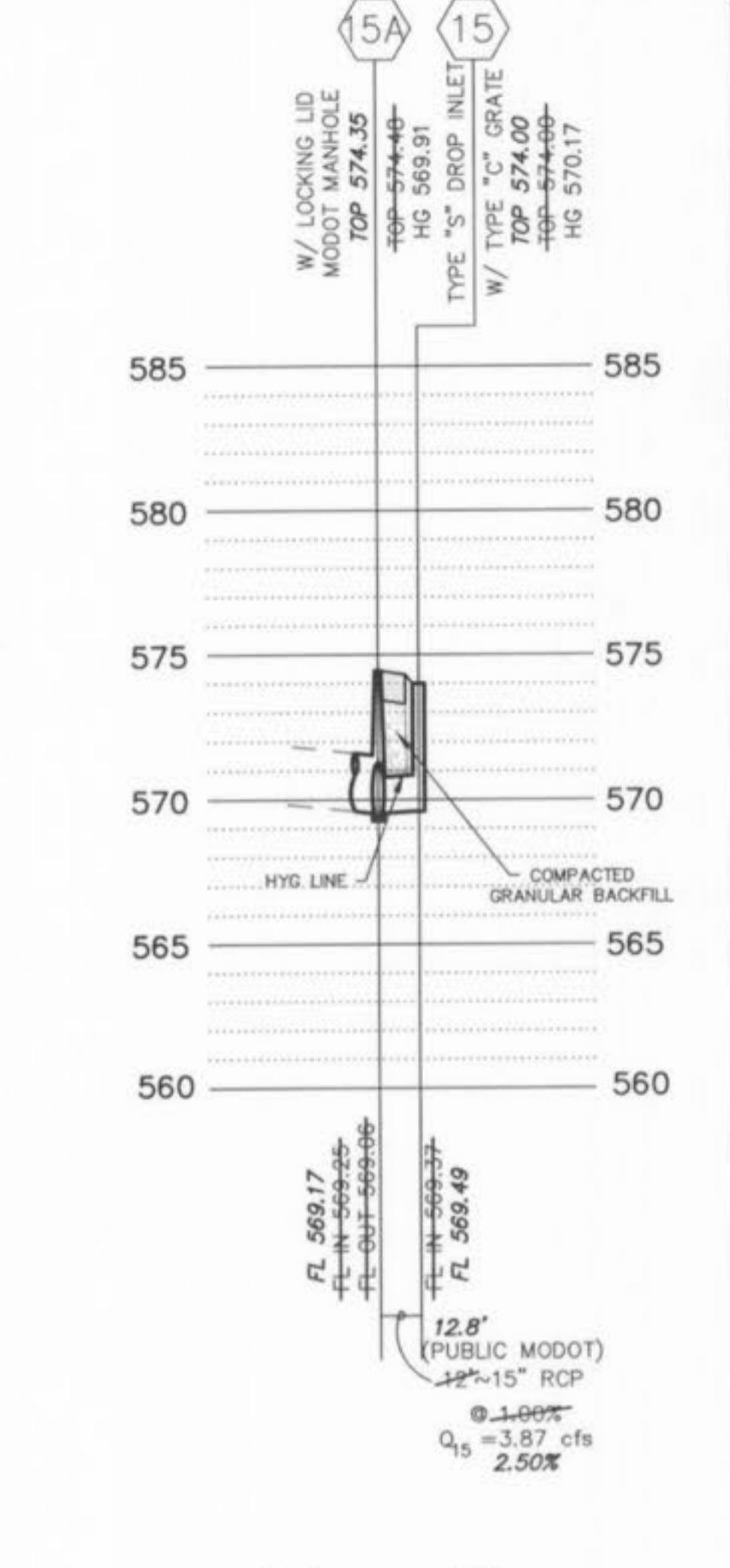
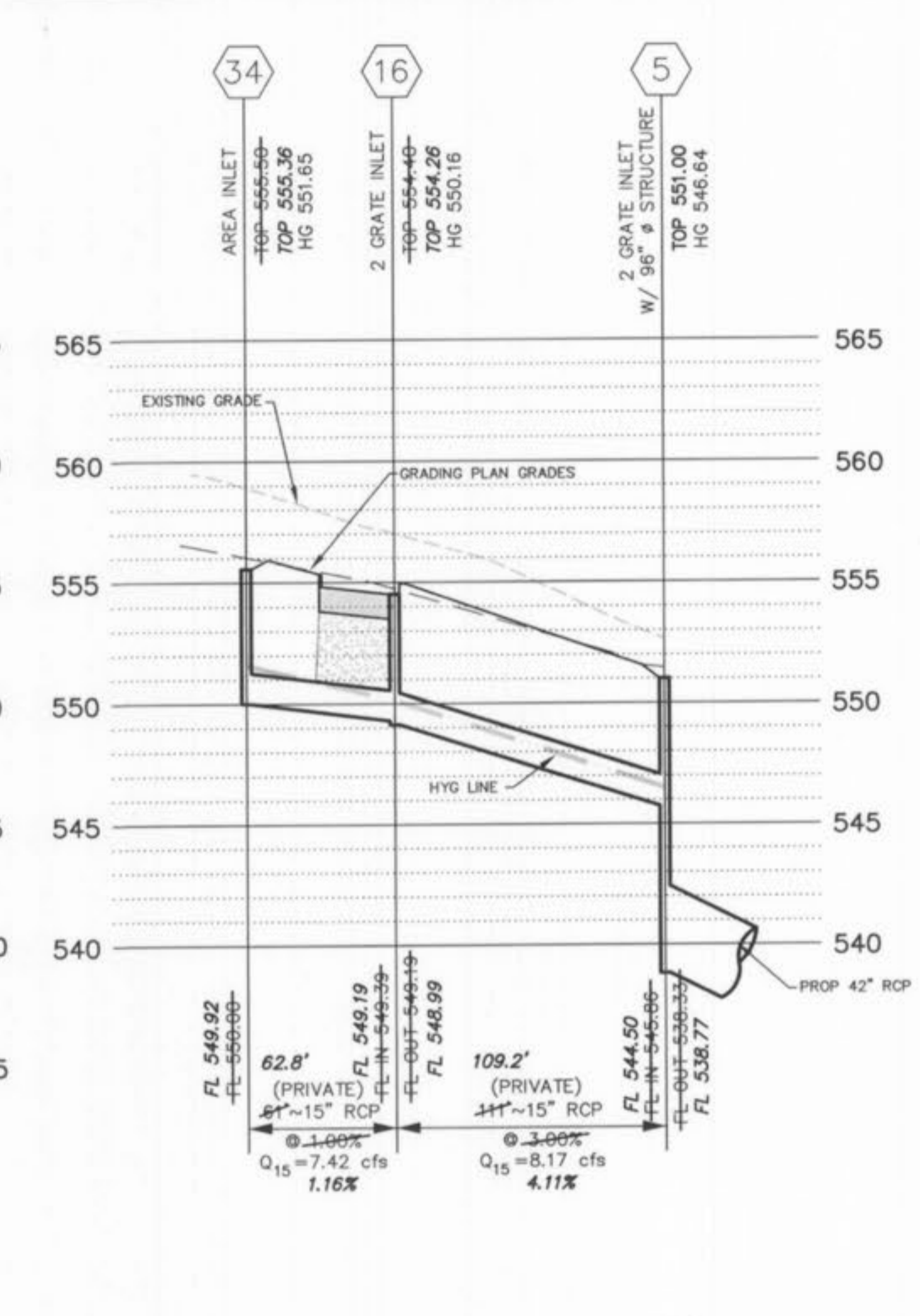
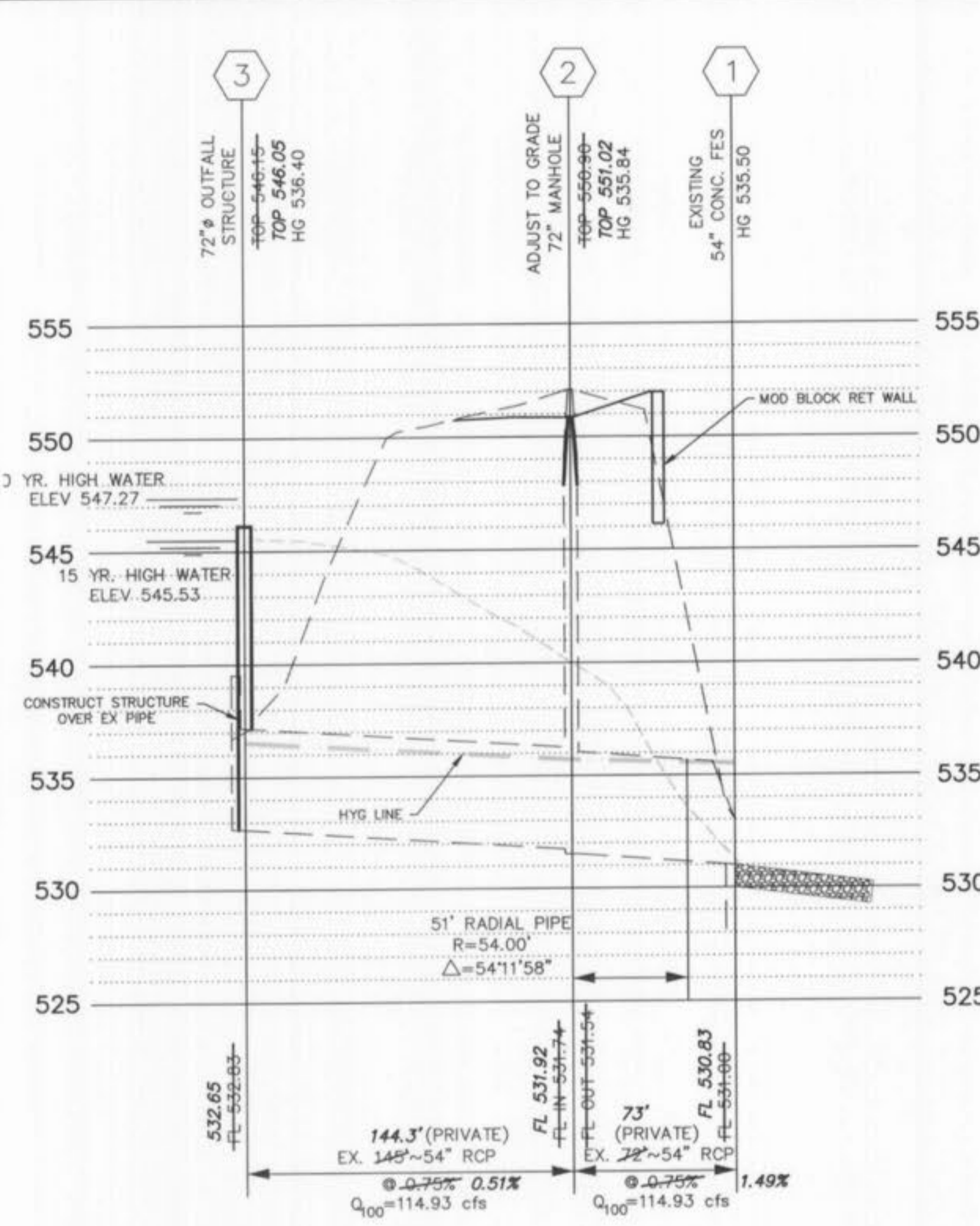
PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBSMEYER
16650 CHESTERFIELD GROVE RD, SUITE 100
CHESTERFIELD, MO 63005
PH: (636) 537-9700
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P&Z FILE # 3101.05.03

"AS-BUILT"



MATCHLINE SEE SHEET C12 FOR CONTINUATION



SEWER MEASUREMENTS

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[Signature] DATE 4/17/06
P.E./L.S.

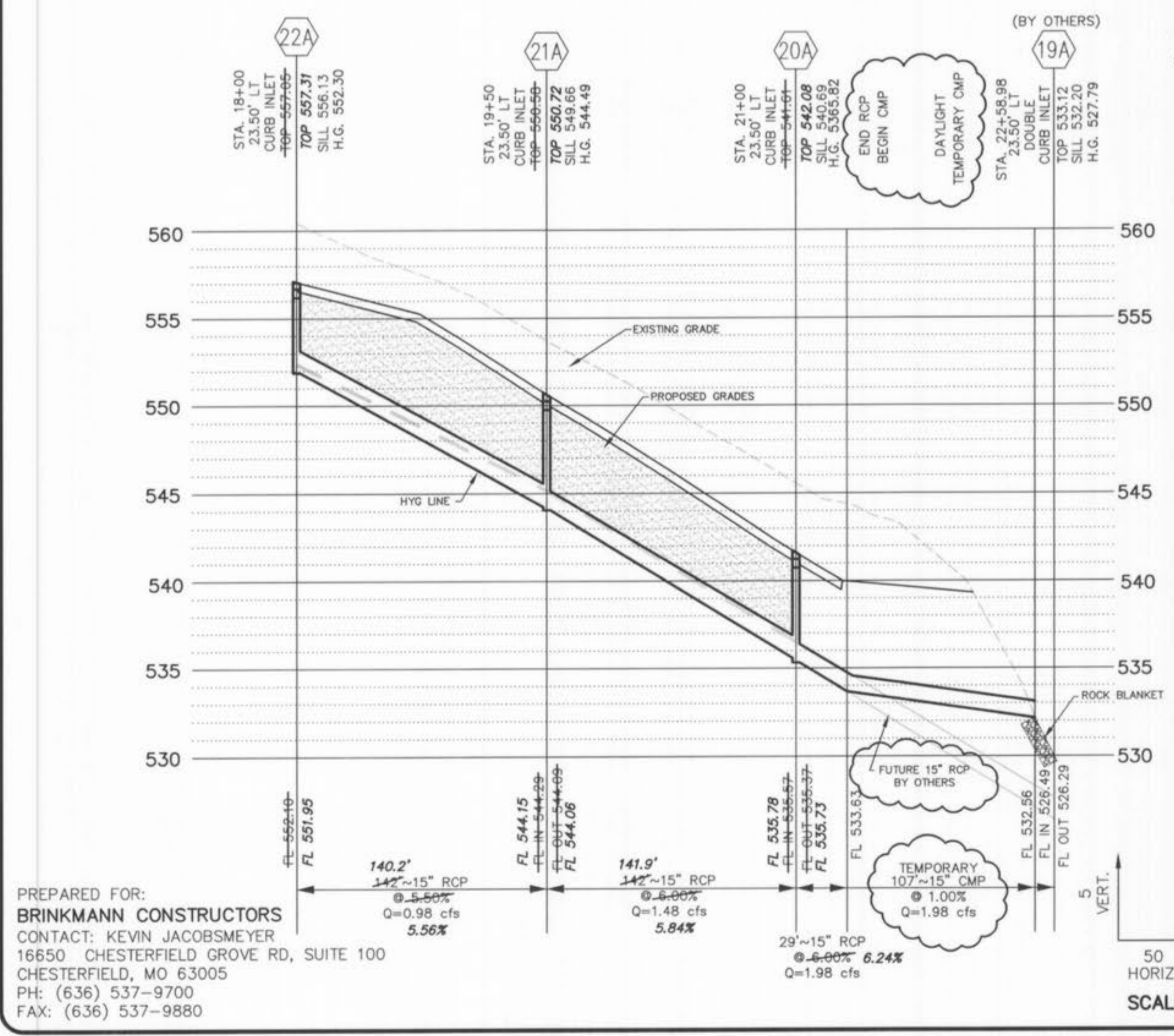
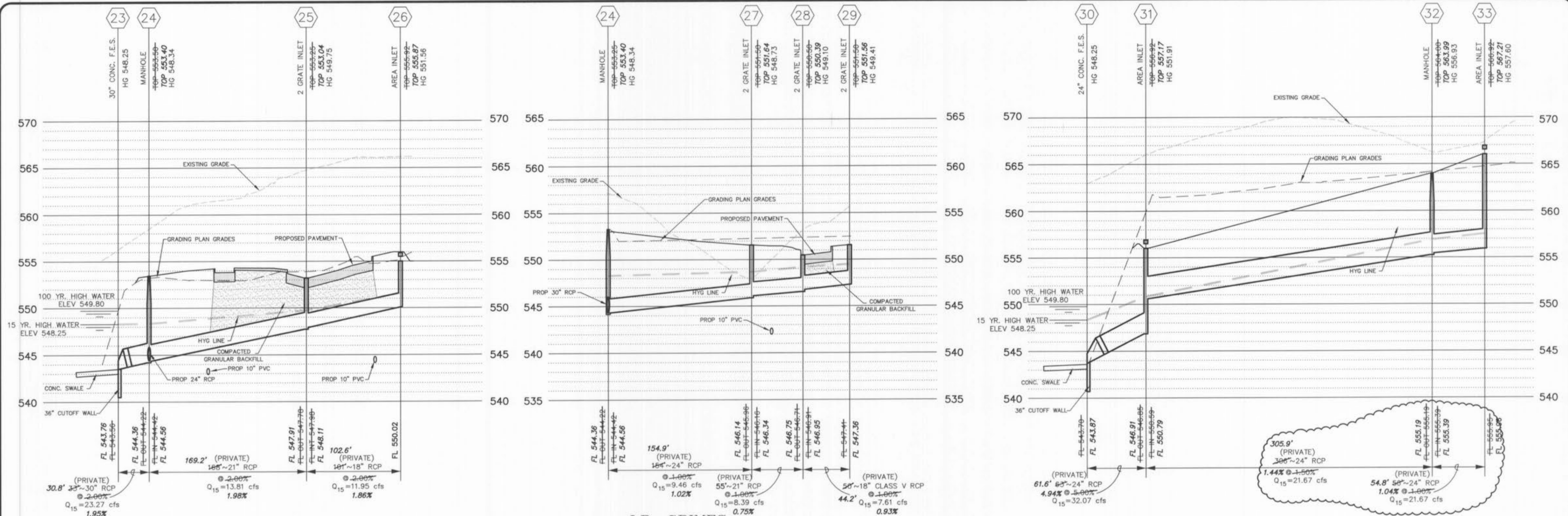
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CHESTERFIELD, MO 63005
PH: (636) 537-9700
FAX: (636) 537-9880



"AS-BUILT"

O'FALLON AUTO MALL STORM SEWER PROFILES			
J. R. GRIMES CONSULTING ENGINEERS, INC.		12300 OLD TESSON ROAD SUITE 3000 ST. LOUIS, MO. 63128 PH. (314) 849-6100 FAX (314) 849-6010	
DRAWN BY:	DATE:	CHECKED BY:	DATE:
JLW	04/08/05	LJM	04/08/05
JOB NUMBER:		SHEET:	
675N		C13	

P&Z FILE # 3101.05.03



J.R. GRIMES CONSULTING ENGINEERS, INC.

O'FALLON AUTO MALL

VER. 3.0

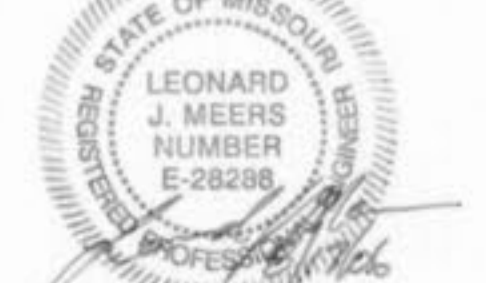
STRUCTURE	UPR	LOWER	UPR	FLOWLINE LOWER	LENGTH FT.	GRADE FT. / FT.	PIPE SIZE	"n"	Q c.f.s.	TOTAL Q	V f.p.s.	W _h ft.	FRIC. LOSS	PIPE LOSSES (ft.) CURVE LOSS	TOTAL PIPE LOSSES	JUNC. LOSS	STRUCTURE BEND LOSS	LOSSES (ft.) TOTAL STRUC. LOSSES	HYD. ELEV. UPPER	HYD. ELEV. LOWER	HYD. GRADE ft. / ft.	LOWEST OPENING	FREEBOARD	PIPE CAPACITY	Q/CAP.	DEPTH IN PIPE	FULL FLOW VELOCITY f.p.s.	LOWEST HYD. ELEV.	
HYDRAULIC DATA 100 YEAR STORM																													
2	1	531.92	530.83	73	0.0149	54	0.013	0.00	114.93	7.08	0.78	0.24	0.05	0.29	0.00	0.00	0.00	0.00	535.79	535.50	0.00328	551.02	15.23	240.29	0.48	2.14	7.23	535.50	
3	2	532.65	531.92	144	0.0051	54	0.013	114.93	114.93	8.02	1.00	0.61	0.00	0.61	0.00	0.00	0.00	0.00	536.39	535.79	0.00421	536.39	0.00	140.44	0.82	3.02	7.23	535.50	
20	19	539.47	539.05	34	0.0123	48	0.013	0.00	87.21	7.08	0.78	0.13	0.00	0.13	0.21	0.23	0.45	542.00	541.13	0.00383	546.22	4.22	159.18	0.55	2.08	6.94	535.50		
21	20	540.24	539.67	53	0.0108	48	0.013	0.00	87.21	7.22	0.81	0.21	0.00	0.21	0.33	0.32	0.66	543.08	542.00	0.00399	549.47	6.39	149.11	0.58	2.18	6.94	535.50		
22	21	541.06	540.44	54	0.0114	48	0.013	87.21	87.21	7.15	0.79	0.21	0.00	0.21	0.00	0.00	0.00	0.00	543.29	543.08	0.00391	543.32	0.03	153.63	0.57	2.12	6.94	535.50	
HYDRAULIC DATA 15 YEAR STORM																													
5	4	538.77	537.40	55	0.0250	42	0.013	5.55	80.26	8.34	1.08	0.35	0.00	0.35	0.58	0.00	0.58	0.58	546.46	545.53	0.00636	551.00	4.54	159.22	0.50	1.75	8.34	545.53	
6	5	542.33	538.77	97	0.0368	42	0.013	2.44	66.54	6.22	0.60	0.34	0.00	0.34	0.22	0.21	0.43	547.23	546.46	0.00354	550.66	3.43	193.04	0.34	1.40	6.92	545.53		
6A	6	545.41	542.53	148	0.0195	36	0.013	12.35	62.40	9.45	1.39	1.48	0.00	1.48	0.70	0.00	0.70	549.42	547.23	0.01002	551.64	2.22	93.11	0.67	1.77	8.83	545.53		
7	6A	546.09	545.61	106	0.0045	36	0.013	1.34	50.05	7.08	0.78	0.60	0.00	0.60	0.00	0.05	0.05	550.06	549.42	0.00563	552.29	2.23	44.82	1.12	2.82	7.08	545.53		
8	7	549.12	546.29	276	0.0102	36	0.013	0.58	48.71	7.51	0.88	1.75	0.00	1.75	0.44	0.46	0.90	552.71	550.06	0.00634	558.62	5.91	67.51	0.72	1.88	6.89	545.53		
9	8	549.52	549.32	30	0.0068	36	0.013	15.59	48.13	7.69	0.92	0.20	0.00	0.20	0.80	0.46	1.26	554.16	552.71	0.00634	559.50	5.34	54.92	0.88	2.13	6.81	545.53		
10	9	552.44	549.72	239	0.0114	30	0.013	0.00	25.65	5.43	0.46	1.01	0.00	1.01	0.00	0.00	0.00	555.17	554.16	0.00423	561.24	6.07	43.78	0.59	1.36	5.23	545.53		
11	10	555.21	552.64	236	0.0109	30	0.013	0.32	25.65	5.43	0.46	1.01	0.00	1.01	0.00	0.00	0.00	556.80	555.17	0.00423	563.90	7.10	42.78	0.60	1.36	5.23	545.53		
12	11	560.71	555.41	162	0.0326	24	0.013	1.84	20.49	6.52	0.66	1.33	0.00	1.33	0.42	0.36	0.78	562.49	556.80	0.00820	565.31	2.82	40.87	0.50	1.00	6.52	545.53		
13	12	565.04	560.91	207	0.0200	24	0.013	0.52	18.65	6.17	0.59	1.52	0.00	1.52	0.11	0.14	0.25	566.38	562.49	0.00735	575.16	8.78	31.99	0.58	1.09	5.94	545.53		
14	13	568.53	565.24	124	0.0104	24	0.013	0.00	18.13	6.41	0.64	0.98	0.00	0.98	0.38	0.38	0.76	568.61	566.56	0.00791	579.43	10.82	23.12	0.78	1.32	5.77	545.53		
15A	14	568.93	566.73	224	0.0098	24	0.013	14.26	18.13	6.41	0.64	1.77	0.00	1.77	0.63	0.45	1.07	571.46	568.61	0.00791	574.35	2.89	22.41	0.81	1.34	5.77	545.53		
15	15A	569.49	569.17	13	0.0250	15	0.013	3.87	3.87	2.89	0.13	0.04	0.00	0.04	0.00	0.09	0.09	570.10	569.69	0.00300	574.00	3.90	10.21	0.38	0.52	3.15	571.46		
16	5	548.99	544.50	109	0.0411	15	0.013	0.75	8.17	7.02	0.77	1.94	0.00	1.94	0.00	0.18	0.18	549.88	546.46	0.01780	554.26	4.38	13.10	0.62	0.71	6.66	546.46		
34	16	549.92	549.19	63	0.0116	15	0.013	7.42	7.42	6.89	0.74	1.08	0.00	1.08	0.00	0.37	0.37	551.72	550.28	0.01715	554.44	2.72	6.96	1.07	1.09	6.05	546.46		
35	6	544.96	544.28	64	0.0106	12	0.013	1.70	1.7	2.12	0.07	0.14	0.00	0.14	0.00	0.04	0.04	547.42	547.23	0.00219	549.36	1.94	3.67	0.46	0.48	2.16	547.23		
36	9	556.77	553.20	257	0.0139	15	0.013	6.89	6.89	6.34	0.63	3.73	0.00	3.73	0.00	0.07	0.07	557.96	554.16	0.01453	560.77	2.81	7.61	0.90	0.93	5.61	554.16		
17	11	562.41	559.85	77	0.0331	12	0.013	1.25	1.25	1.20	0.02	0.05	0.00	0.05	0.00	0.00	0.00	562.70	560.14	0.00070	567.18	4.49	6.48	0.19	0.29	1.59	556.80		
18	11	555.74	555.41	140	0.0024	15	0.013	3.59	3.59	2.93	0.13	0.43	0.00	0.43	0.00	0.08	0.08	557.31	556.80	0.00309	559.44	2.13	3.14	1.14	1.18	2.93	556.80		
24	23	544.36	543.76	31	0.0195	30	0.013	0.00	23.27	4.46	0.31	0.09	0.00	0.09	0.00	0.00	0.00	548.34	548.25	0.00284	553.40	5.06	57.25	0.41	1.10	4.74	548.25		
25	24	547.91	544.56	169	0.0198	21	0.013	1.86	13.81	6.03	0.56	1.42	0.00	1.42	0.00	0.00	0.00	549.75	548.34	0.00837	553.04	3.29	22.30	0.62	0.97	5.74	548.25		
26	25	550.02	548.11	103	0.0186	18	0.013	11.95	11.95	7.57	0.89	1.67	0.00	1.67	0.00	0.20	0.20	551.63	549.75	0.01623	554.95	3.32	14.33	0.83	1.02	6.76	548.25		
27	24	546.14	544.56	155	0.0102	24	0.013	1.07	9.46	2.83	0.12	0.24	0.00	0.24	0.06	0.08	0.15	548.72	548.34	0.00155	551.64	2.92	22.85	0.41	0.88	3.01	548.34		
28	27	546.75	546.34	55	0.0075	21	0.013	0.78	8.39	3.66	0.21	0.17	0.00	0.17	0.10	0.14	0.23	549.13	548.72	0.00309	550.39	1.26	13.68	0.61	0.97	3.49	548.34		
29	28	547.36	546.95	44	0.0093	18	0.013	7.61	7.61	4.74	0.35	0.28	0.00	0.28	0.00	0.00	0.00	549.41	549.13	0.00635	551.56	2.15	10.12	0.75	0.95	4.31	548.34		
31	30	548.91	543.87	62	0.0494	24	0.013	10.40	32.07	10.77	1.80	1.38	0.00	1.38	1.43	0.72	2.15	551.78	548.25	0.02237	556.25	4.47	50.26	0.64	1.14	10.21	548.25		
32	31	555.19	550.79	306	0.0144	24	0.013	0.00	21.67	7.66	0.91	3.46	0.00	3.46	0.00	0.00	0.00	556.51	552.11	0.01131	563.99	7.48	27.13	0.80	1.32	6.90	548.25		
33	32	555.96	555.39	55	0.0104	24	0.013	21.67	21.67	7.86	0.96	0.65	0.00	0.65	0.00	0.00	0.00	557.54	556.89	0.01192	566.29	8.75	23.07	0.94	1.50	6.90	548.25		
20A	19A	535.73	526.49	148	0.0624	15	0.013	0.50	1.98	1.07	0.02	0.06	0.00	0.06	0.01	0.00	0.02	536.04	527.79	0.00042	541.16	5.12	16.14	0.12	0.29	1.61	527.79		
21A	20A	544.06	535.78	142	0.0584	15	0.013	0.50	1.48	1.73	0.01	0.03	0.00	0.03	0.00	0.00	0.00	544.31	536.04	0.00019	549.80	5.49	15.60	0.09	0.25	1.21	527.79		
22A	21A	551.95	544.15	140	0.0556	15	0.013	0.98	0.98	0.43	0.00	0.01	0.00	0.01	0.00	0.00	0.00	552.15	544.35	0.00007	556.39	4.24	15.24	0.06	0.20	0.80	527.79		

SEWER MEASUREMENTS

The existing sewer lengths, sizes, flowlines, depths of structures and sewers and locations with respect to existing or proposed easements have been measured. The results of these 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 designated existing or proposed easements.

P.E. J.S. DATE 8/17/06

"AS-BUILT"



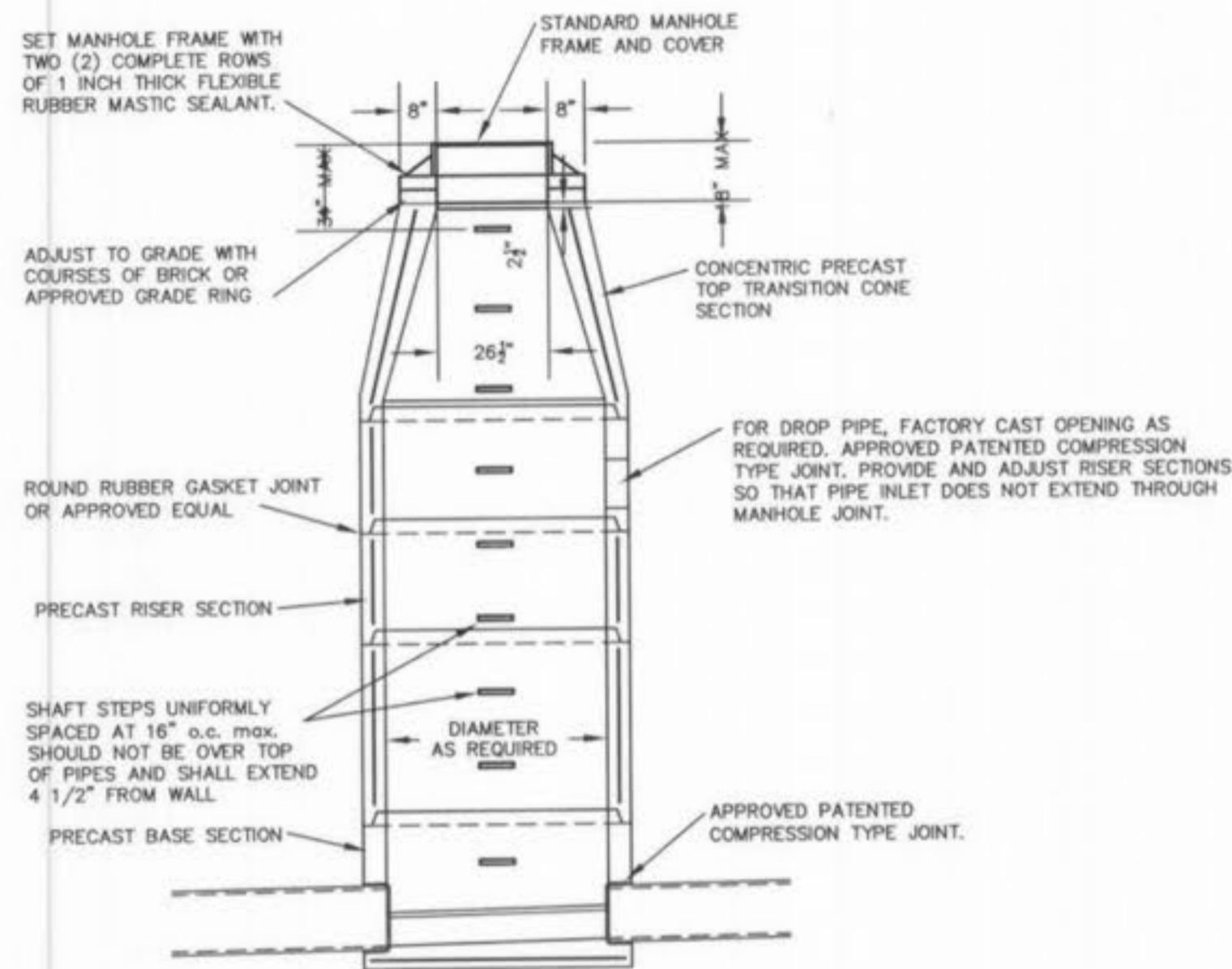
10/18/05 PER FIELD CONFLICTS
08/23/05 PER DESIGN CONFLICTS WITH LETA
06/30/05 PER CITY & MODOT COMMENTS
P&Z FILE # 3101.05.03

O'FALLON AUTO MALL
STORM SEWER DETAILS

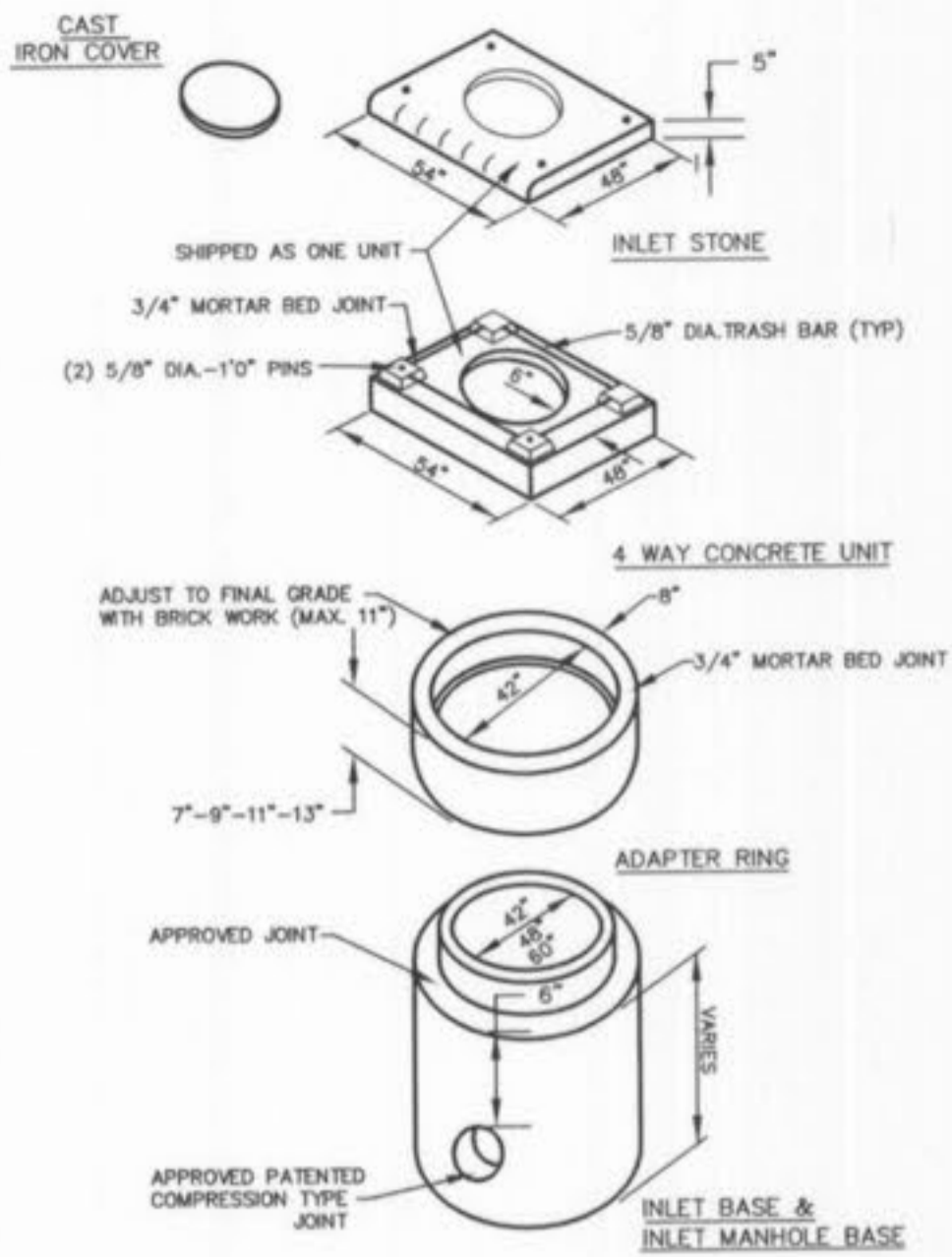
J. R. GRIMES CONSULTING ENGINEERS, INC.
12300 OLD TESSON ROAD SUITE 3000 ST. LOUIS, MO. 63128 PH. (314) 849-6100 FAX (314) 849-6010

DRAWN BY: JLW	DATE: 04/08/05	CHECKED BY: LJM	DATE: 04/08/05	JOB NUMBER: 675N	SHEET: C14
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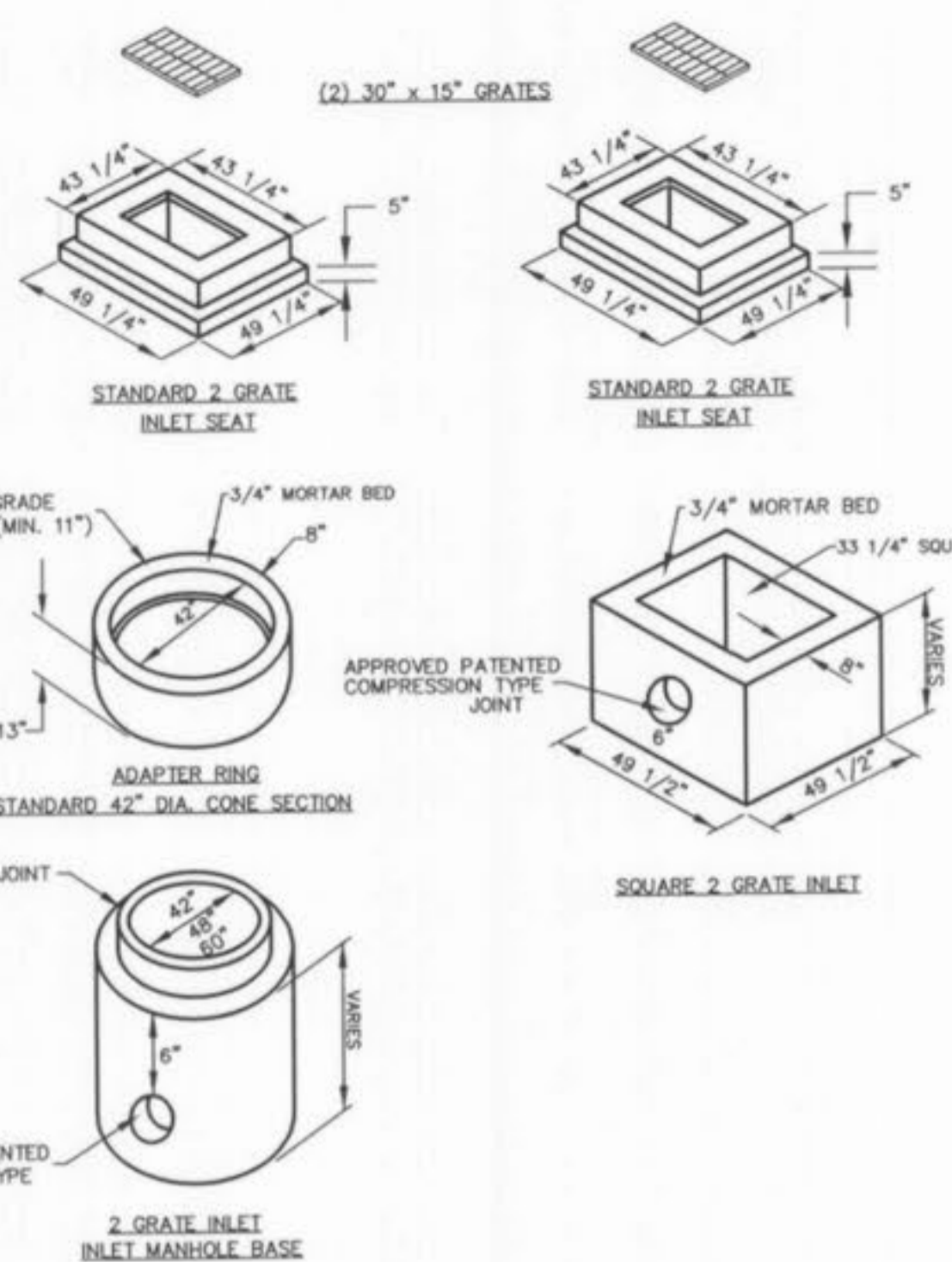
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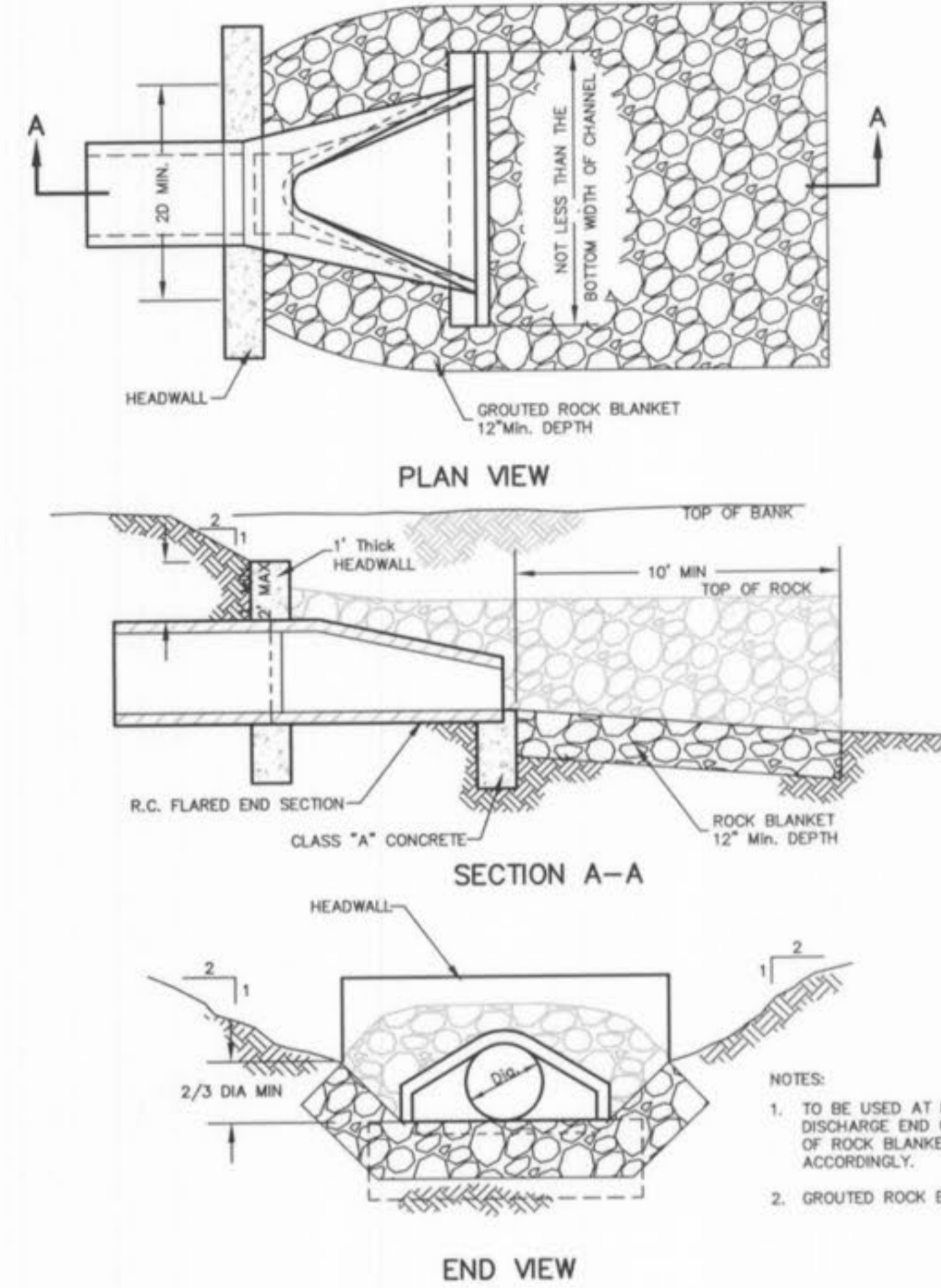
PRECAST CONCRETE MANHOLE



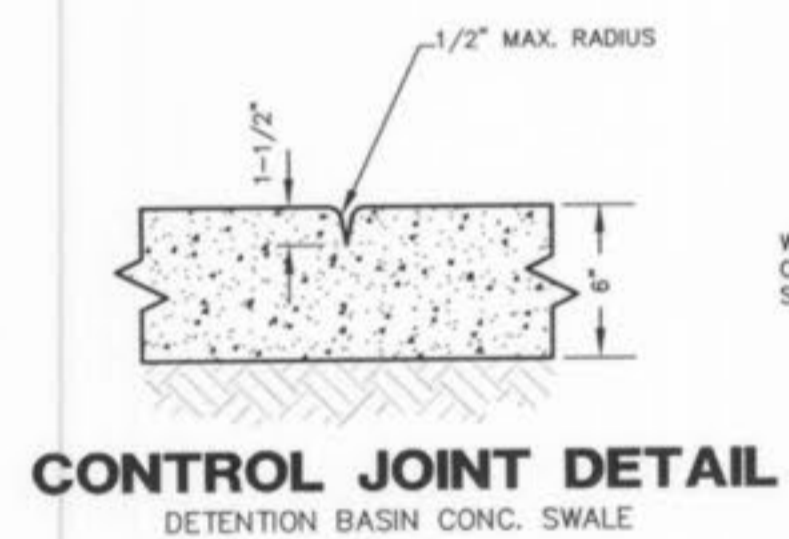
AREA INLET PRECAST CONCRETE



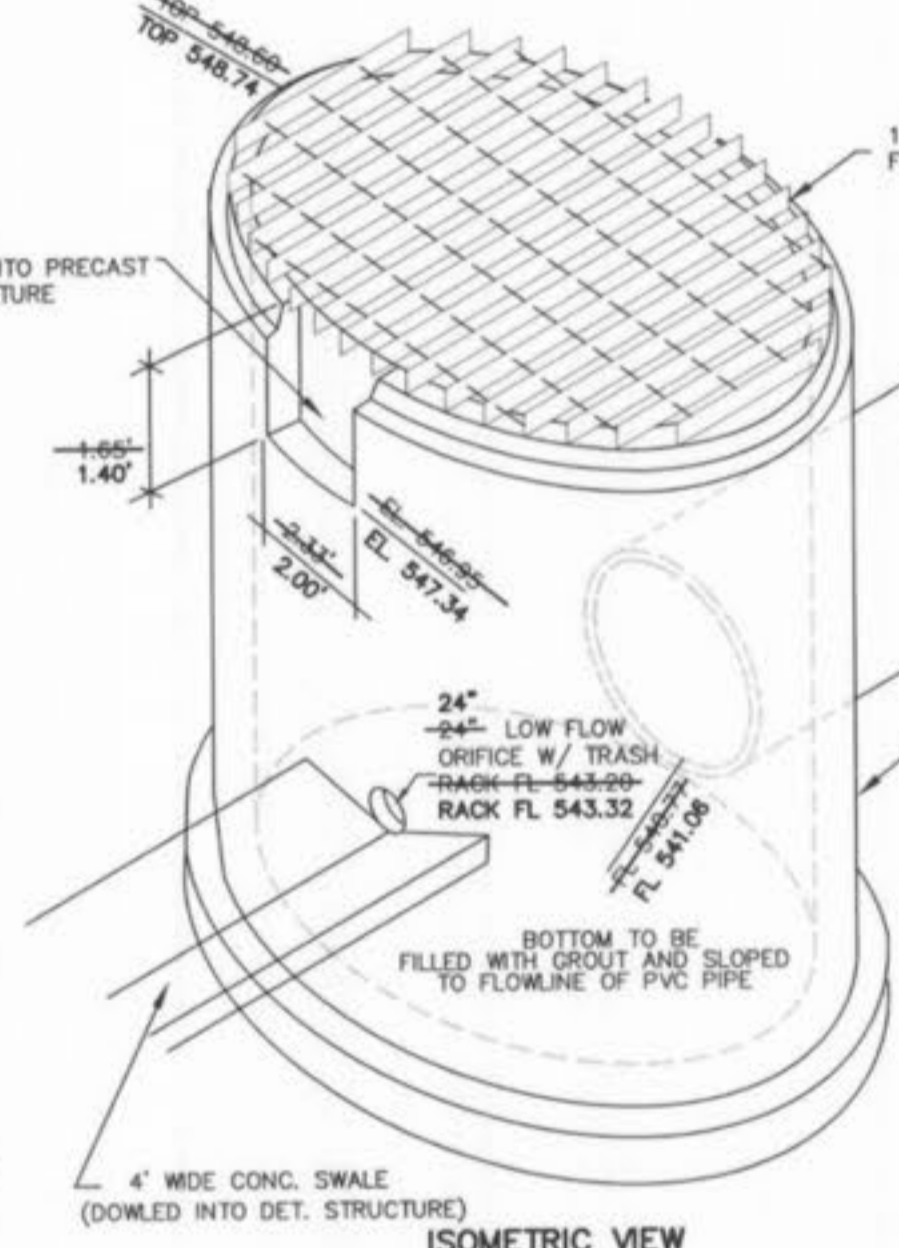
2 GRATE INLETS PRE-CAST CONCRETE



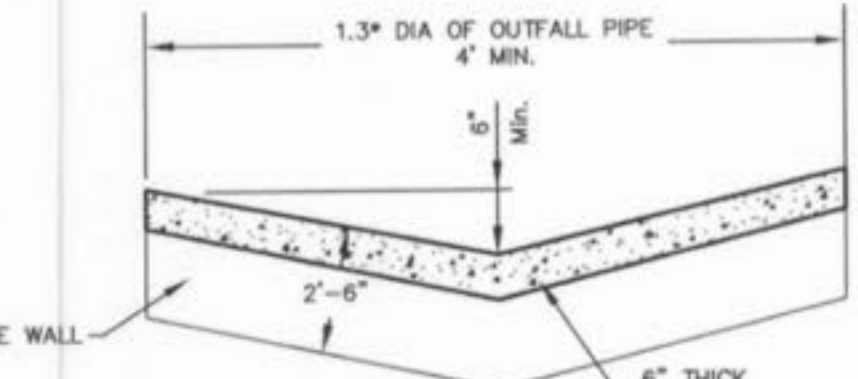
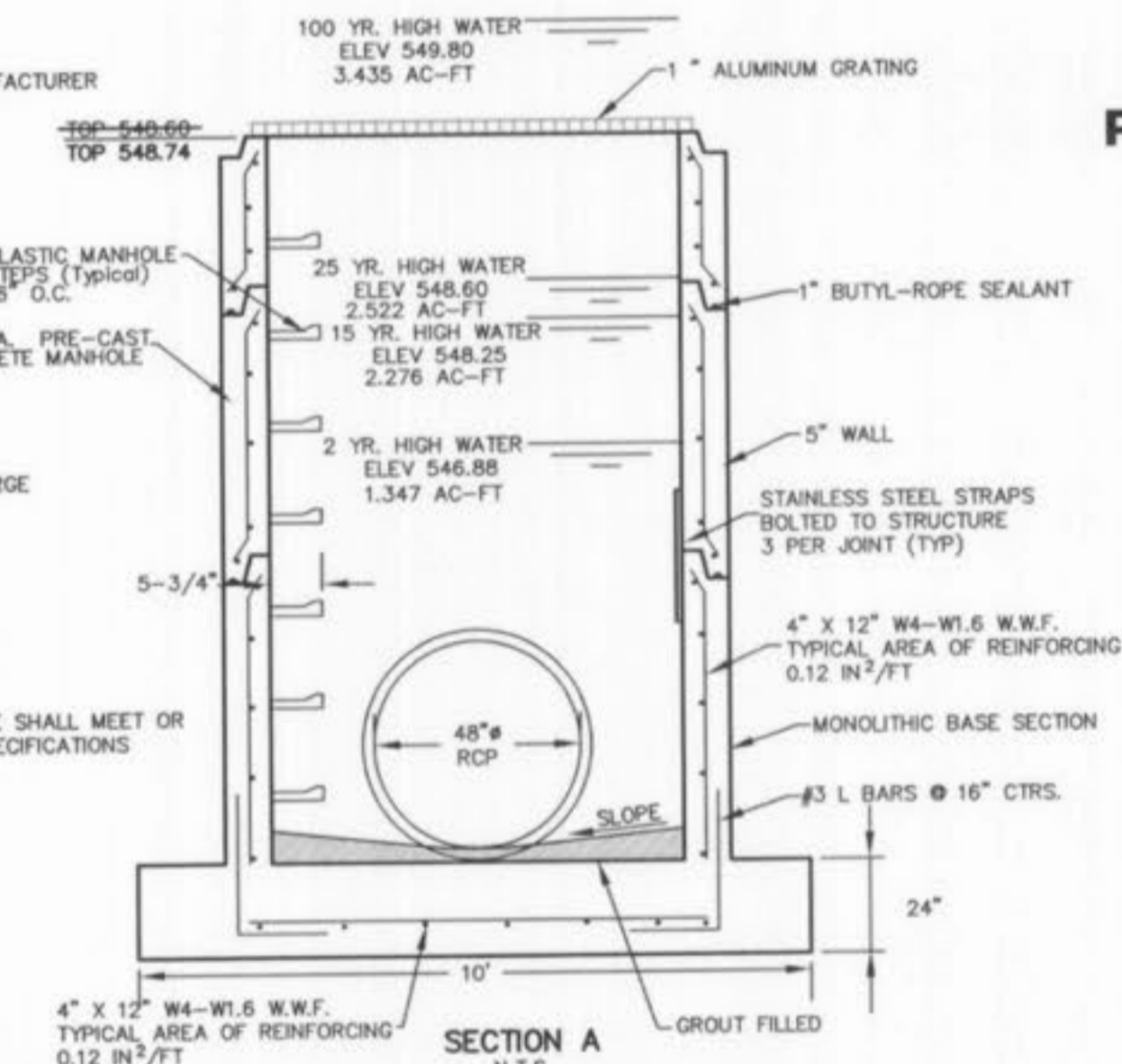
FLARED END SECTION



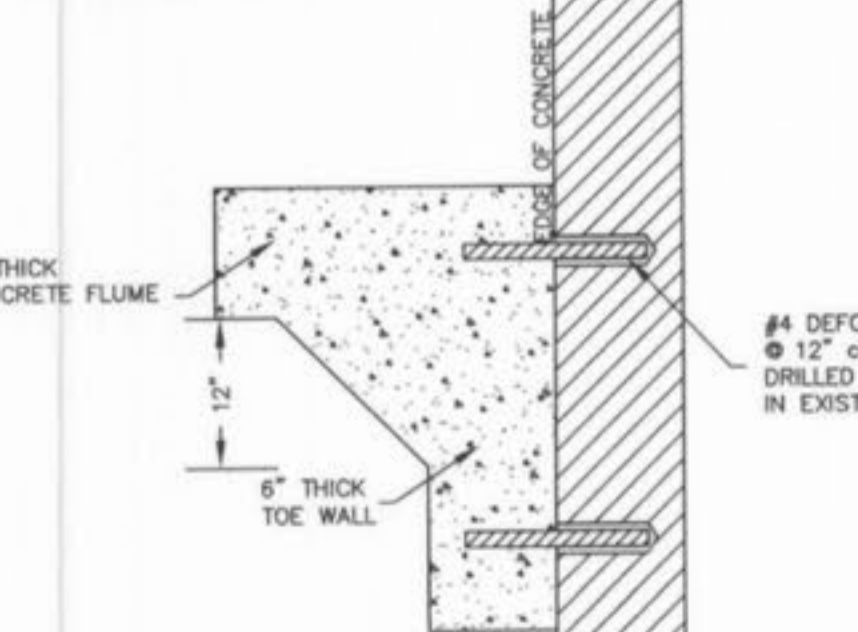
- CONTROL JOINT DETAIL**
DETENTION BASIN CONC. SWALE
- NOTES:
- CONCRETE SHALL BE 3000 p.s.i. STRENGTH AT 28 DAYS.
 - TOE WALL SHALL BE CONSTRUCTED AT BOTH UPSTREAM AND DOWNSTREAM ENDS.
 - 1/2" PREFORMED FIBER JOINT WITH JOINT SEALER TO BE CONSTRUCTED AS TRANSVERSE JOINT AT 50' INTERVALS.
 - MINIMUM CHANNEL SLOPE TO BE 0.2%.
 - DISTURBED AREAS TO BE SEEDED AND MULCHED UPON COMPLETION OF CONSTRUCTION AND EROSION CONTROL DEVICES INSTALLED PER DIRECTION OF OWNER OR ENGINEER.
 - CONCRETE SWALE TO BE DOWLED INTO THE DETENTION STRUCTURE USING #4 DOWELS.
 - CONTROL JOINTS SHALL BE HAND-TOOLED OR SAWCUT AT A MAXIMUM OF 15' O.C. AND AT ANY/ALL P.C.'S AND P.T.'S.



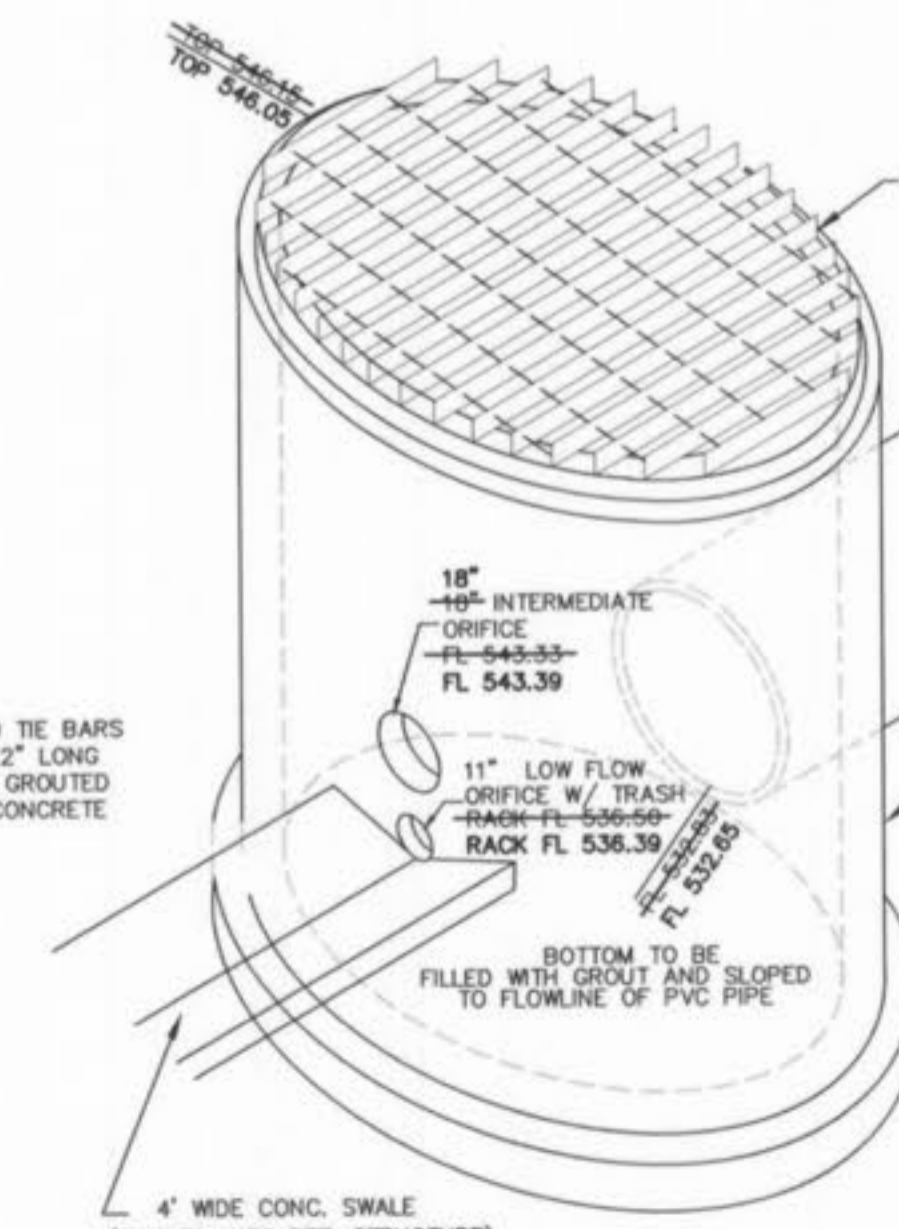
STRUCTURE #22
DETENTION STRUCTURE DETAIL
DETENTION BASIN #1



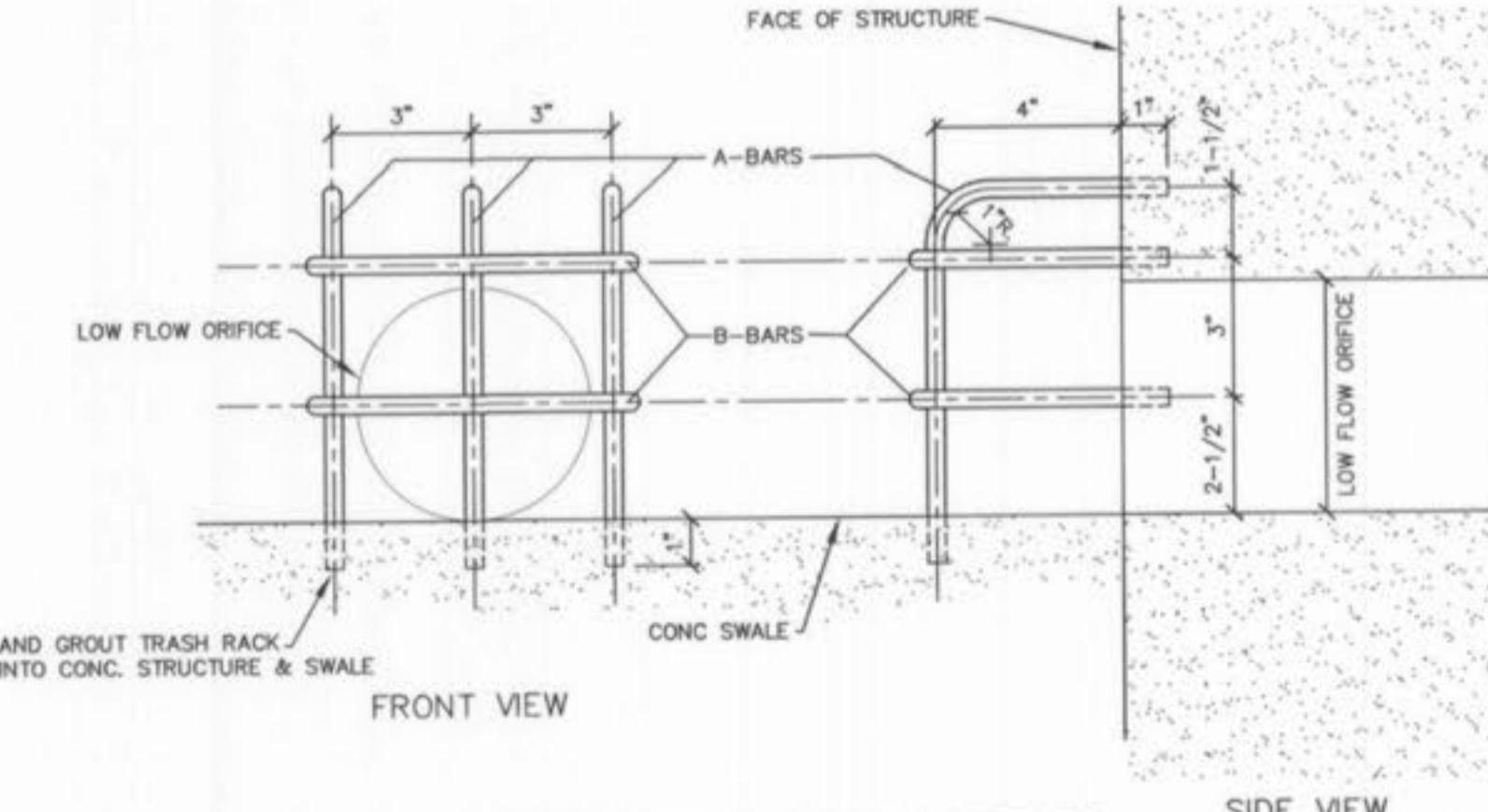
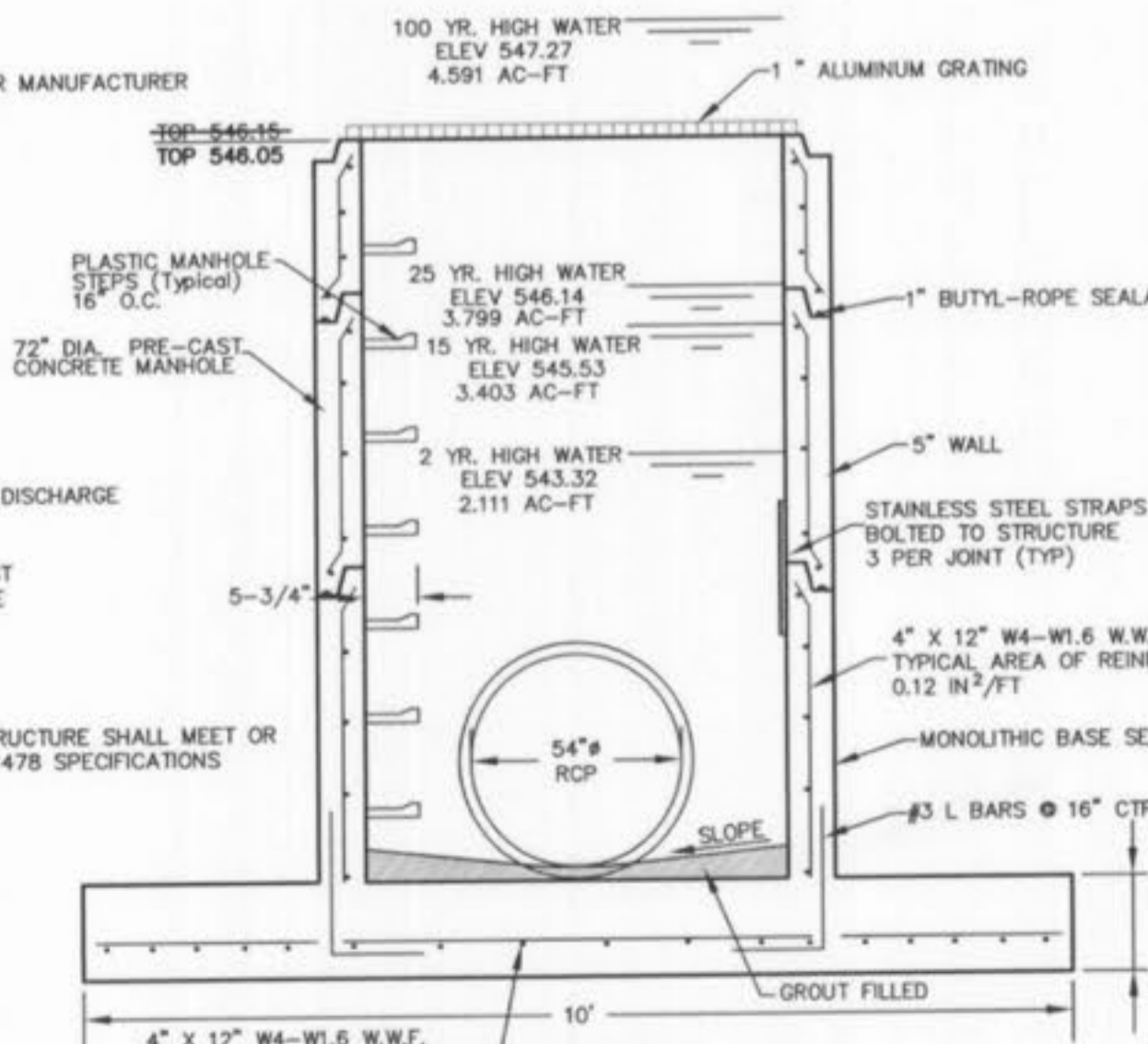
CONCRETE SWALE DETAIL



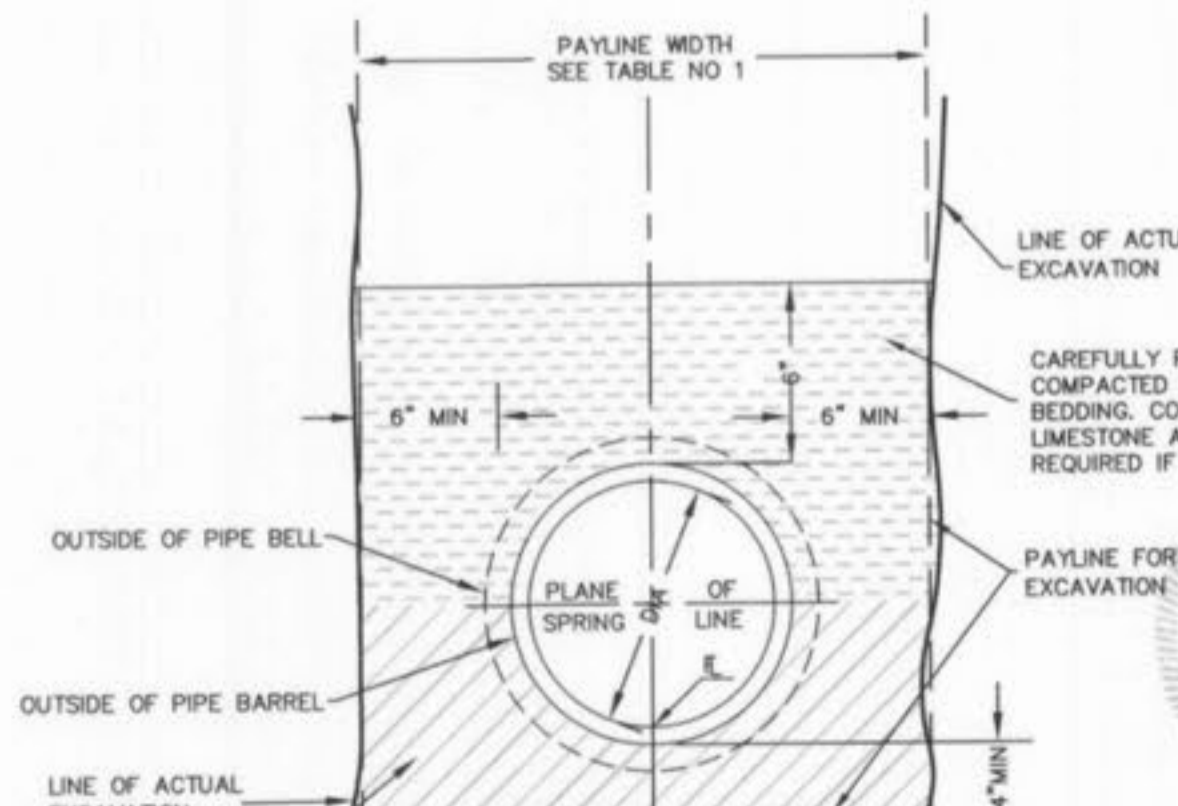
DOWELLED FLUME CONNECTION



STRUCTURE #3
DETENTION STRUCTURE DETAIL
DETENTION BASIN #2



TRASH RACK DETAIL



PIPE BEDDING CLASS "C"
(MODIFIED FOR REINFORCED CONCRETE PIPE)

"AS-BUILT"

NOTE: ALL BARS TO BE #3 BARS-EPOXY COATED

SEWER MEASUREMENTS

The existing sewer lengths, sizes, flowlines, depths of structures and sewers 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 designated existing or proposed easements.

LEONARD J. GRIMES
CONSULTING ENGINEERS, INC.
E-28288

DATE: 8/17/06

O'FALLON AUTO MALL
STORM SEWER DETAILS

J. R. GRIMES
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SUITE 3000
ST. LOUIS, MO. 63128
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PREPARED FOR:
BRINKMANN CONSTRUCTORS
CONTACT: KEVIN JACOBSMEYER
16650 CHESTERFIELD GROVE RD, SUITE 100
CHESTERFIELD, MO 63005
PH: (636) 537-9700
FAX: (636) 537-9880

P&Z FILE # 3101.05.03

DRAWN BY: J.L.W.	DATE: 04/08/05	CHECKED BY: L.J.M.	DATE: 04/08/05	JOB NUMBER: 675N	SHEET: C18
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