

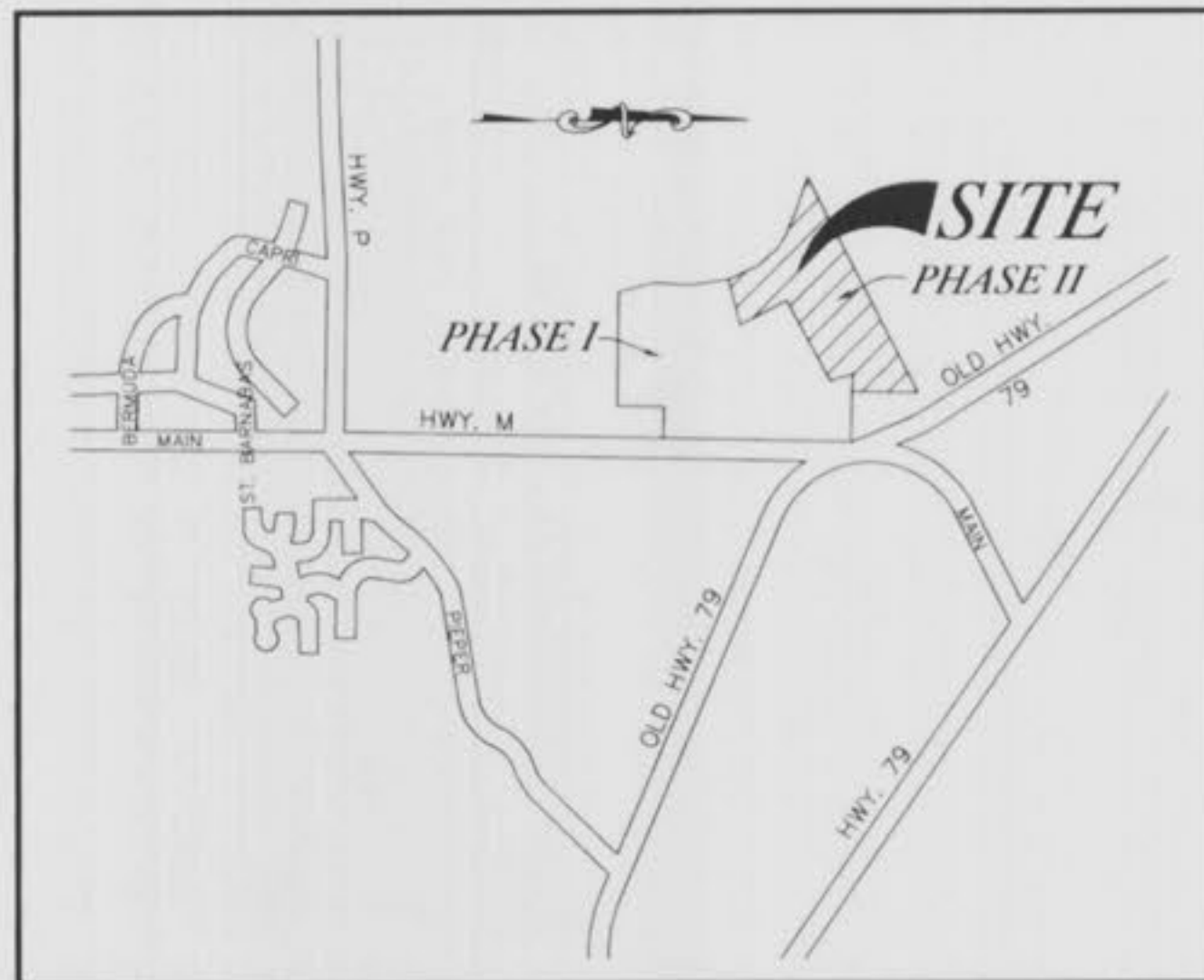
SEWER CONSTRUCTION NOTES:

- ALL STORM AND SANITARY SEWER CONSTRUCTION METHODS TO CONFORM TO LATEST STANDARDS AND SPECIFICATIONS OF THE APPLICABLE CODES AND SHALL CONFORM TO ALL APPROPRIATE CITY OF O'FALLON STANDARDS.
- ALL SANITARY SEWER STRUCTURES AND APPURTENANCES TO CONFORM TO THE STANDARD DETAILS AND CONSTRUCTION SPECIFICATIONS PER CITY OF O'FALLON.
- AFTER ALL SEWERS AND APPURTENANCES ARE COMPLETED, INSPECTED AND ACCEPTED, THE CONTRACTOR WILL BE PERMITTED TO CONNECT THE SEWER EXTENSION INTO THE EXISTING SYSTEM, IN THE PRESENCE OF AN INSPECTOR.
- DRAINAGE PIPE SHALL BE REINFORCED CONCRETE CLASS III (ASTM C76) EXCEPT AS NOTED ON PLANS. INSTALLATION SHALL CONFORM TO MSD 1992 "STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES."
- ALL PVC SANITARY SEWER PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-3034 STANDARD SPECIFICATION FOR PSM POLYVINYL CHLORIDE SEWER PIPE, SDR-35 OR EQUAL, WITH "CLEAN" 1/2 INCH TO 1 INCH GRANULAR STONE BEDDING UNIFORMLY GRADED. THIS BEDDING SHALL EXTEND FROM 4 INCHES BELOW THE PIPE TO SPRINGLINE OF PIPE. IMMEDIATE BACKFILL OVER PIPE SHALL CONSIST OF SAME SIZE "CLEAN" OR "MINUS" STONE FROM SPRINGLINE OF PIPE TO 12 INCHES ABOVE THE TOP OF PIPE. ALL SEWER LATERALS TO BE 4" PVC. CLEAN-OUT TO BE PROVIDED WHEN LATERAL EXCEEDS 100' IN LENGTH.
- MANHOLE FRAMES AND COVERS SHALL BE STANDARD FRAMES AND COVERS AS APPROVED BY THE GOVERNING AUTHORITY.
- TRENCHES UNDER EXISTING PAVEMENT AND UNDER AREAS TO BE PAVED SHALL BE BACKFILLED WITH 3/4" MINUS CRUSHED LIMESTONE AND COMPACTED TO 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST" (ASTM D-1557).
- IN ALL AREAS WHERE SEWER AND APPURTENANCES ARE TO BE CONSTRUCTED IN FILLED GROUND, THE FILL WILL BE PLACED TO APPROXIMATE FINISH GRADE AND COMPACTED TO 90% OF MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST" (ASTM D-1557), PRIOR TO THE EXCAVATING AND INSTALLING OF PIPE. (SEE NOTE 13)
- THE SEWER CONTRACTOR MAY CONSTRUCT THE BUILDING SEWER LATERALS IN CONJUNCTION WITH THE SANITARY MAIN, TRUNK OR LATERAL SEWERS, WITHIN THE DEVELOPMENT, PROVIDED THAT THE BUILDING SEWER LATERAL TERMINATES FIVE (5) FEET, OR MORE, OUTSIDE THE PROPOSED OR EXISTING BUILDING LINE OR FOUNDATION WALL.
- ALL MANHOLE AND INLET TOPS BUILT WITHOUT ELEVATIONS FURNISHED BY THE ENGINEER WILL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR. AT THE TIME OF CONSTRUCTION STAKE-OUT OF THE SEWER LINES, ALL CURB AND GRATE INLETS WILL BE FACE STAKED, PROVIDED SAID STAKES DO NOT FALL IN THE DITCH LINE. IF STAKES FALL WITHIN THE DITCH LINE THE SEWER COMPANY OR JOB SUPERINTENDENT SHALL NOTIFY THE ENGINEER THAT STAKES ARE NEEDED AND ALLOW 48 HOURS FOR CUTS. TOPS OF MANHOLES, INLETS, VALVE BOXES, ETC., SHALL CONFORM TO FINISHED GRADE.
- ALL STANDARD STREET CURB INLETS TO HAVE FRONT OF INLET (2.25') BEHIND ROLLED CURB AND VERTICAL CURB. ALL AREA INLETS ARE OPENED 4 SIDES EXCEPT AS NOTED ON PLAN.
- ALL SANITARY BUILDING CONNECTIONS HAVE BEEN DESIGNED SO THAT THE MINIMUM VERTICAL DISTANCE FROM THE LOW POINT OF THE BASEMENT FLOOR TO THE FLOW LINE OF A SANITARY SEWER AT THE CORRESPONDING BUILDING CONNECTION IS NOT LESS THAN THE DIAMETER OF THE PIPE PLUS A VERTICAL DISTANCE OF 2.50 FEET.
- ALL FILLED AREAS, INCLUDING TRENCH BACKFILLS, UNDER BUILDINGS, PROPOSED STORM AND SANITARY SEWERS LINES, AND/OR PAVED AREAS INCLUDING TRENCH BACKFILLS WITHIN AND OFF THE ROAD RIGHT-OF-WAY SHALL BE PLACED IN A MAXIMUM OF 9" LIFTS AND COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DRY DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST" (ASTM D-1557). TESTS SHALL BE TAKEN AT A MAXIMUM OF 50 FOOT INTERVALS ALONG THE ROUTE OF THE PIPE, AT A MAXIMUM OF TWO FOOT VERTICALLY, AND STARTING AT THE BOTTOM OF THE FILL AND CONTINUING THROUGH THE FILL TO THE TOP OF THE PIPE AT 6 FOOT INTERVALS AND LATERALLY ON EACH SIDE OF THE PIPE FOR A DISTANCE EQUAL TO THE DEPTH OF FILL FROM THE TOP OF PIPE TO VIRGIN SOIL. ALL TEST SHALL BE VERIFIED BY THE SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS.
- WHEN P.V.C. PIPE IS USED, APPROPRIATE RUBBER SEAL WATERSTOP, AS APPROVED BY THE SEWER DISTRICT, SHALL BE INSTALLED BETWEEN P.V.C. PIPE AND MASONRY (CONCRETE & BRICK) STRUCTURE.
- IT IS THE CONTRACTORS RESPONSIBILITY TO CONFIRM THE LOCATION OF EXISTING UTILITIES AND/OR UNDERGROUND FACILITIES BY NOTIFYING UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- GAS, WATER AND OTHER UNDERGROUND UTILITIES SHALL NOT CONFLICT WITH THE DEPTH OR HORIZONTAL LOCATION OF EXISTING AND PROPOSED SANITARY AND STORM SEWERS INCLUDING BUILDING LATERALS.
- ALL CONSTRUCTION METHODS AND MATERIALS USED SHALL CONFORM TO CURRENT APPLICABLE STANDARDS.
- SHOP DRAWINGS ARE REQUIRED FOR CONSTRUCTION OF NON-STANDARD REINFORCED CONCRETE STRUCTURES.
- THE CONTRACTOR SHALL PREVENT ALL STORM, SURFACE WATER, MUD AND CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER SYSTEM.
- THE CITY OF O'FALLON SEWER DISTRICT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION FOR COORDINATION OF INSPECTION.
- ALL SANITARY SEWER MANHOLES SHALL BE WATERPROOFED ON THE EXTERIOR IN ACCORDANCE WITH MISSOURI DEPARTMENT OF NATURAL RESOURCES SPECIFICATION 10 CSR-8.120(7)(E).
- ALL PIPES SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLES. NO FLAT INVERT STRUCTURES ARE ALLOWED.
- IF THE STORM AND SANITARY SEWERS ARE PARALLEL AND IN THE SAME TRENCH OR OVERDUG, 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 SANITARY MANHOLES SHALL HAVE A 31 MIL. THICK COAT OF COAL TAR PITCH WATERPROOFING.
- BRICK SHALL NOT BE USED ON SANITARY SEWER MANHOLES.
- EXISTING SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED.
- PRE-MANUFACTURED ADAPTERS SHALL BE USED AT ALL PVC TO DIP CONNECTIONS. RUBBER BOOT/MISSION-TYPE COUPLINGS WILL NOT BE ALLOWED.
- CONCRETE PIPE JOINTS SHALL BE MSD TYPE "A" APPROVED COMPRESSION-TYPE JOINTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE, USING FLEXIBLE, WATERTIGHT, RUBBER-TYPE GASKETS, ASTM C443. BAND-TYPE GASKETS DEPENDING ENTIRELY ON CEMENT FOR ADHESION AND RESISTANCE TO DISPLACEMENT DURING JOINTING SHALL NOT BE USED.
- ALL STORM AND SANITARY TRENCH BACKFILLS SHALL BE WATER JETTED.
- MANHOLE FRAME AND COVER SHALL BE CLAY AND BAILEY No. 2008 OR NEENAH R-1736 DEETER 1315 OR APPROVED EQUAL.
- A DROP OF 0.2 FEET IS REQUIRED THROUGH EACH SANITARY AND STORM MANHOLE AND INLET UNLESS OTHERWISE NOTED.
- ALL EXISTING WELLS SHALL BE FILLED AND SEPTIC TANKS REMOVED PER THE REQUIREMENTS OF D.N.R.

VILLAS AT HIGHGROVE

A TRACT OF LAND IN SECTION 17, TOWNSHIP 47 NORTH, RANGE 3 EAST, CITY OF O'FALLON, ST. CHARLES COUNTY MISSOURI

IMPROVEMENT PLANS PHASE TWO



LOCATION MAP
N.T.S.

EXISTING	LEGEND	PROPOSED
542	CONTOURS	(542)
536	SPOT ELEVATIONS	(536)
---	CENTER LINE	---
---	BUILDINGS, ETC.	---
---	TREE LINE	---
---	FENCE	---
---	STORM SEWERS	---
---	SANITARY SEWERS	---
---	CURB INLET	---
---	AREA INLET	---
---	GRATED INLET	---
---	STORM MANHOLE	---
---	SANITARY MANHOLE	---
---	FLARED END SECTION	---
---	CLEANOUT	---
---	LATERAL CONNECTION	---
---	UTILITY OR POWER POLE	---
---	FIRE HYDRANT	---
---	TEST HOLE	---
---	PAVEMENT	---
---	GAS MAIN & SIZE	---
---	WATER MAIN & SIZE	---
---	TELEPHONE	---
---	ELECTRIC (U) UNDERGROUND	---
---	ELECTRIC (O) OVERHEAD	---
---	FLOW LINE	---
---	TO BE REMOVED	---
---	TOP OF CURB	---
---	SWALE	---
---	LIGHT STANDARD	---
---	STREET SIGN	---
---	TEST PIT	---
---	SILTATION CONTROL	---

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- WD1 WATER SPECIFICATIONS

THIS SITE IS IN THE FOLLOWING UTILITY SERVICE AREAS:
CITY OF O'FALLON - ALLIANCE WATER AND SEWER CO.
LACLEDE GAS COMPANY
AMEREN U.E. COMPANY
SOUTHWESTERN BELL TELEPHONE COMPANY

THESE PLANS HAVE BEEN REVIEWED BY BRUCKER EARTH ENGINEERING & TESTING, INC. FOR THEIR COMPLIANCE REGARDING GEOTECHNICAL RECOMMENDATIONS RELATIVE TO SITE DEVELOPMENT. BASED ON THIS REVIEW AND AVAILABLE SUBSURFACE INFORMATION, IT IS OUR OPINION THAT THE SITE MAY BE CONSTRUCTED IN ACCORDANCE WITH THW PLANS, GOOD CONSTRUCTION PRACTICES, AND THE RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT OF AUGUST, 1998

WE HAVE NOT PREPARED ANY PART OF THESE PLANS AND MY SEAL ON THESE PLANS IS INTENDED ONLY TO CONFIRM MY PERSONAL REVIEW AND APPROVAL OF THE SITE GRADING PLAN AS IT RELATES TO THE STABILITY OF EARTH SLOPES.

BRUCKER EARTH ENGINEERING & TESTING, INC. MUST BE INVOLVED DURING THE CONSTRUCTION PHASE OF THIS PROJECT IN ORDER TO DETERMINE IF SUBSURFACE CONDITIONS ARE AS ANTICIPATED FROM THE FIELD EXPLORATION DATA, THAT OUR RECOMMENDATIONS RELATIVE TO SITE GRADING ARE IMPLEMENTED, AND THAT OTHER GEOTECHNICAL ASPECTS OF SITE DEVELOPMENT ARE PERFORMED IN ACCORDANCE WITH THESE PLANS.

BRUCKER EARTH ENGINEERING & TESTING, INC.

MARLENE D. MAAG, P.E.

GRADING NOTES:

- ALL FILL AREAS ARE TO BE COMPACTED TO A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPACTION TEST, ASTM D1557-78, OR AS SPECIFIED BY THE SOILS ENGINEER.
- IT SHALL BE THE GRADING CONTRACTORS RESPONSIBILITY TO NOTIFY THE SOILS ENGINEER PRIOR TO WORK IN PROGRESS AND TO COMPLY WITH RECOMMENDATIONS BY THE SOILS ENGINEER WITH REGARDS TO COMPACTION, SURFACE PREPARATION AND PLACEMENT OF FILL.
- IT SHALL BE THE GRADING CONTRACTORS RESPONSIBILITY TO PROVIDE THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES BY NOTIFYING UTILITY COMPANIES PRIOR TO GRADING OPERATIONS.
- ALL GRADING ADJUSTMENTS SHALL BE SUBMITTED IN WRITING AND APPROVED BY THE CITY OF O'FALLON.
- THE GRADING CONTRACTOR SHALL CUT OR FILL TO SUBGRADE ELEVATION UNDER ALL AREAS TO BE PAVED. SUBGRADE DEPTH IS 0.50 FOOT BELOW PROPOSED FINISHED ELEVATIONS.
- ALL DRAINAGE SWALES SHALL BE SODDED OR SEEDED OR MULCHED TO PREVENT EROSION.
- ALL STUMPS, LIMBS, AND OTHER DEBRIS IS TO BE REMOVED FROM THE SITE UNLESS, AFTER CONSULTING WITH THE SOILS ENGINEER, THE OWNER APPROVES A DUMP AREA OR BURNING AREA. IF BURNING IS APPROVED, A PERMIT FROM THE LOCAL FIRE DEPARTMENT WILL BE REQUIRED.
- SUBGRADE IS INCLUDED IN THE TOTAL BID YARDAGE. (SUBGRADE IS FIGURED AT PAVEMENT DEPTH.)
- SLOPE TO RECEIVE FILL WHICH ARE STEEPER THAN 5:1 SHOULD BE BENCHED PRIOR TO PLACEMENT OF FILL.
- IF FILL IS TO BE PLACED IN AREAS OF SOFT SOIL, PARTICULARLY IN DRAWS, DRAINAGE CHANNELS AND OTHER LOW LYING AREAS, THE SOFT SOIL SHALL BE EXCAVATED UNTIL FIRM SOIL IS ENCOUNTERED.
- ALL EARTHEN FILLED PLACES WITHIN STATE, COUNTY, OR CITY ROADS (HIGHWAYS) SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE "STANDARD PROCTOR TEST AASHTO T-99" (ASTM D-698) UNLESS OTHERWISE SPECIFIED BY THE LOCAL GOVERNING AUTHORITY SPECIFICATIONS. THE SOILS ENGINEER WILL VERIFY ALL TESTS.
- NO EARTH SLOPE SHALL EXCEED 3:1 MAX.
- IT IS THE CONTRACTOR RESPONSIBILITY TO VERIFY ACTUAL ROCK DEPTH AND LOCATIONS. ANY ROCK SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND SHOWN FROM THE AVAILABLE SITE SOILS REPORT.

SILTATION NOTES:

- SILTATION CONTROLS WILL BE INSTALLED PRIOR TO ANY GRADING OR CONSTRUCTION OPERATIONS AND SHALL BE INSPECTED AND MAINTAINED AS NECESSARY TO INSURE THEIR PROPER FUNCTION UNTIL SUFFICIENT VEGETATION HAS BEEN ESTABLISHED TO PREVENT EROSION.
- THE INSTALLATION AND MAINTENANCE OF ALL SILTATION CONTROLS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
- ADDITIONAL SILTATION CONTROLS MAY BE REQUIRED AS DIRECTED BY THE LOCAL GOVERNING AUTHORITY.
- EROSION CONTROL DEVICES SHALL PROTECT ALL GRADING AREAS FROM EROSION AND/OR SEEDING AND MULCHING AS REQUIRED BY THE CITY OF O'FALLON.
- WHEN UTILIZED TEMPORARY SILTATION POND (S) AND/OR OUTFALL STRUCTURE SHALL BE COMPLETELY REMOVED FOLLOWING RE-ESTABLISHMENT OF VEGETATION. POND (S) SHALL BE FILLED, COMPACTED AND LEVELED TO PROVIDE POSITIVE DRAINAGE (MIN. 2% SLOPE), AND THEN SEEDED AND MULCHED.
- AS NEEDED, SILTATION FENCE SHALL BE INSTALLED AS A PROTECTIVE BARRIER FOR TREES TO REMAIN.
- EACH CONTRACTOR, SUBCONTRACTOR, AND/OR UTILITY COMPANY SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF ANY SILTATION CONTROL PLACED ON THE DEVELOPMENT BY THE DEVELOPER AND SHALL NOT DISTURB THE SILTATION CONTROL EXCEPT AS ABSOLUTELY NECESSARY. IN THE EVENT OF ANY SUCH DISTURBANCE OF SILTATION CONTROL, THEN THE CONTRACTOR, SUBCONTRACTOR, OR UTILITY COMPANY, AS APPLICABLE, DISTURBING SUCH SILTATION CONTROL SHALL IMMEDIATELY REPLACE THE SAME AT SUCH CONTRACTOR'S, SUBCONTRACTOR'S, AND UTILITY COMPANY'S, AS APPLICABLE, EXPENSE. IN THE EVENT OF ANY FINES OR PENALTIES BEING LEVIED AS A RESULT OF THE DISTURBANCE OF ANY SUCH SILTATION CONTROL, THE PARTY DISTURBING SUCH SILTATION CONTROL SHALL BE LIABLE FOR PAYMENT OF SAME AND SHALL INDEMNIFY AND HOLD WHITTAKER CONSTRUCTION, INCORPORATED, HARMLESS FROM ANY AND ALL LIABILITIES, DAMAGES, DEMANDS, PENALTIES, FINES, FEES, CLAIMS, CAUSES OF ACTION, JUDGMENTS, COSTS AND EXPENSES, INCLUDING, WITHOUT LIMITATION, ATTORNEY'S FEES, ARISING FROM OR IN CONNECTION WITH ANY SUCH DISTURBANCE.
- THESE DEVELOPMENT PLANS ARE PRELIMINARY FIELD CONDITIONS AND THE JUDGMENT OF THE GENERAL CONTRACTOR WILL CAUSE CHANGES FROM THE DEVELOPMENT PLANS, INCLUDING, WITHOUT LIMITATION, GRADES, TERRACES, SLOPES, ELEVATIONS, PLACEMENT OF SEWER LINES, MANHOLES AND INLETS. THE GRADE OF EACH LOT WILL CHANGE FROM THESE PLANS WHEN THE HOME IS PLACED ON THE LOT. YOU MAY NOT RELY UPON THESE PLANS AS BEING FINAL BECAUSE CHANGES WILL OCCUR. IF YOU HAVE QUESTIONS REGARDING THE PLANS, CONTACT THE GENERAL CONTRACTOR IN CHARGE OF DEVELOPMENT OF THE SUBDIVISION.

GENERAL NOTES:

- ALL CONSTRUCTION METHODS, MATERIALS AND PRACTICES SHALL CONFORM TO ALL CURRENT APPLICABLE SPECIFICATIONS OF THE GOVERNING AGENCIES.
 - ANY DESTRUCTION OF EXISTING IMPROVEMENTS OR FEATURES SHALL BE REPAIRED OR REPLACED IN KIND BY THE CONTRACTOR AND SHALL REMAIN THE CONTRACTORS RESPONSIBILITY.
 - UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO GRADING OR CONSTRUCTION OF IMPROVEMENTS.
 - IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK, WHICH WOULD NORMALLY BE REQUIRED TO COMPLETE THE PROJECT, SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PERFORM SUCH WORK.
 - CONTRACTOR SHALL KEEP ALL STREETS CLEAN OF MUD AND DEBRIS.
 - NO AREAS SHALL BE CLEARED WITH OUT THE PERMISSION OF THE DEVELOPER.
 - ALL EXISTING IMPROVEMENTS TO BE DEMOLISHED WILL BE TRANSPORTED AND DISPOSED OF OFFSITE IN AN AUTHORIZED LANDFILL.
 - THE GRADING AND ELEVATIONS SHOWN ON THE GRADING PLANS ARE FOR CONSTRUCTION PURPOSES ONLY. FINISHED GRADES, SWALES, AND SLOPES WILL VARY FROM THOSE SHOWN ON THE PLANS DEPENDING UPON THE LOCATION, SIZE, AND TYPE OF HOUSE BUILT ON THE LOT. HOWEVER, CARE SHOULD BE TAKEN TO ENSURE THAT FINISHED GRADING CONFORMS TO DRAINAGE AREA MAPS.
 - TREES REQUIRED TO BE REPLACED PER "TREE PRESERVATION ORDINANCE" LANDSCAPING PLAN FOR ESTATES AT HIGHGROVE (PHASE I AND PHASE II)
- | | |
|-----------------------|-----------------------------------|
| EXISTING TREES: | 11.9 ACRES |
| SAVED TREES: | 4.63 ACRES |
| TOTAL REMOVED: | 7.27 ACRES |
| TOTAL REPLACED: | 7.27 X 15 = 109 TREES |
| TOTAL SAVED: | 4.63 X 30 = 139 TREES |
| STREET TREES: | 367 TREES |
| TREES REQUIRED: | 367 + 109 = 476 TREES |
| TOTAL CREDITED: | 367 - 139 = 228 + 109 = 337 TREES |
| TOTAL TREES REQUIRED: | 337 TREES |
- * LANDSCAPING SHOWN ON THE SITE PLAN FOR THE RECREATION AREA IS REQUIRED IN ADDITION TO THE ABOVE AMOUNT OF TREES.

PROJECT BENCHMARK:

Elev. 478.33 "Chisled square located on the southeast corner of abutment of bridge crossing Prequet Creek on Hwy. "P", 1600' E. of Hwy. "M".



GEORGE J. GOWER, Vice President
MO Reg. No. 22338

THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID 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

ISSUE	REMARKS/DATE
1	Original Issue 05/28/99
2	PER CITY COMMENTS REISSUED 07/02/99

PREPARED FOR:
J.M.B. MILL CREEK L.L.C.
5091 NEW BAUMGARTNER ROAD
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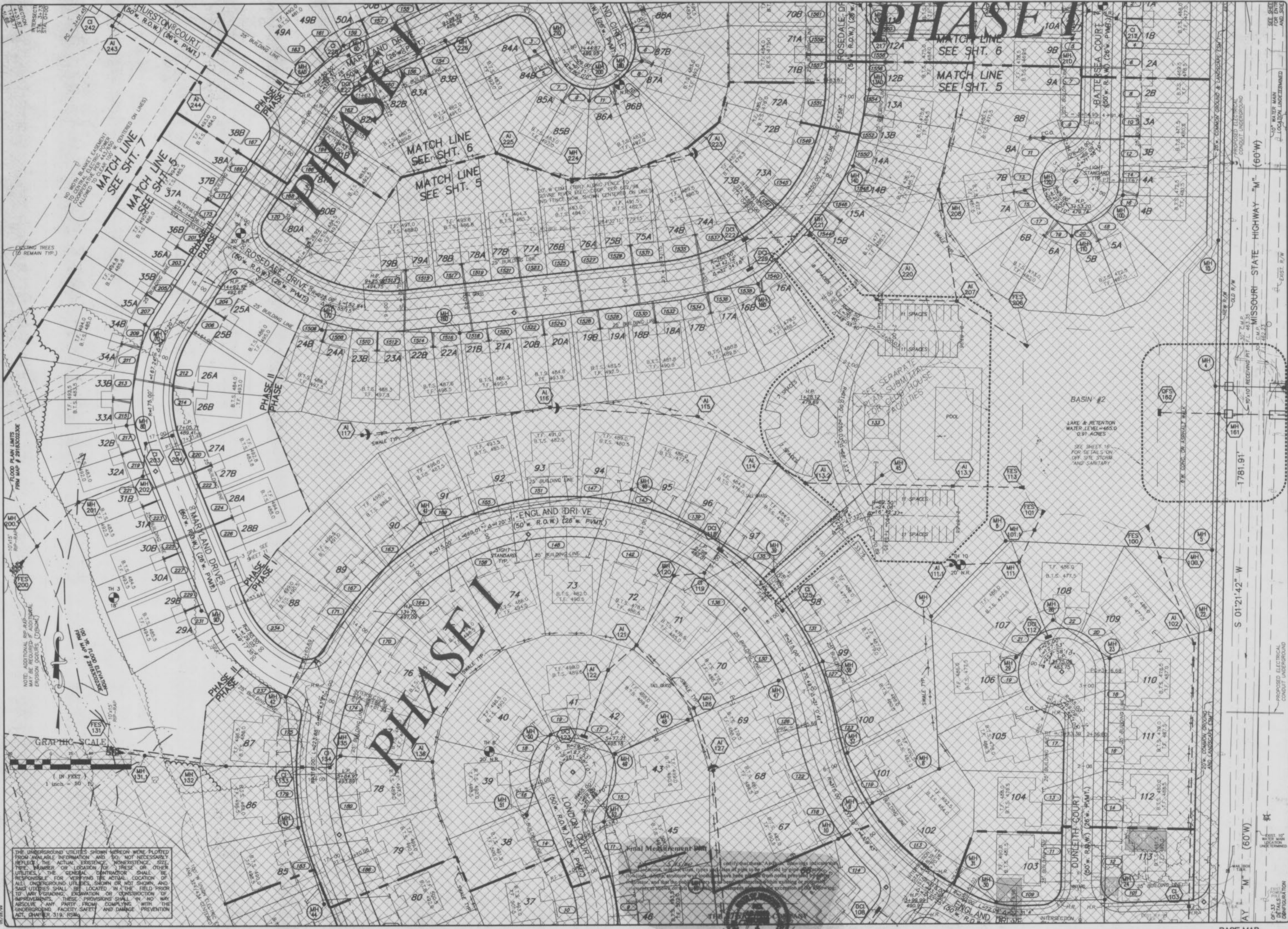


PREPARED BY:
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DRAWN:	DESIGNED:	CHECKED:
kk	egh	egh

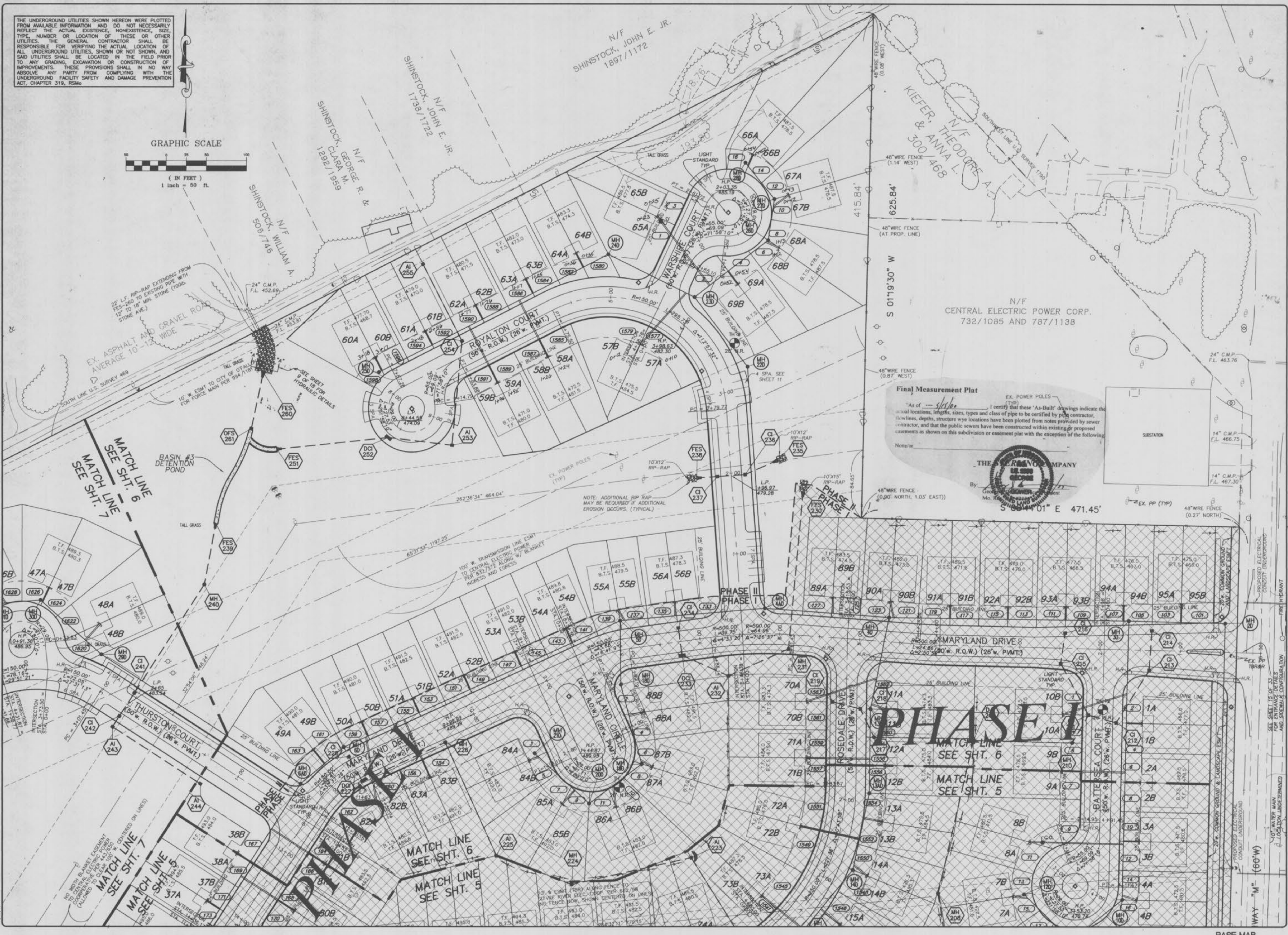
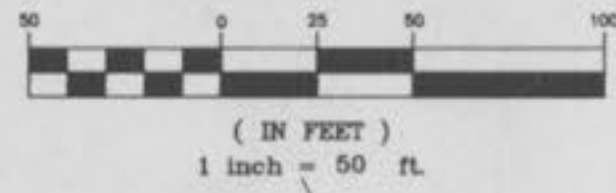
PROJECT: VILLAS AT HIGHGROVE PHASE TWO
SHEET TITLE: COVER SHEET

NO.	98 02 036
M.S.D.	P#
SHEET	1
OF	18



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GRAPHIC SCALE



Final Measurement Plat

"As of 5/15/22 I certify that these 'As-Built' drawings indicate the actual locations, lengths, sizes, types and class of pipe to be certified by pipe contractor, flowlines, depths, structure wye locations have been plotted from notes provided by sewer contractor, and that the public sewers have been constructed within existing or proposed easements as shown on this subdivision or easement plat with the exception of the following:

None/for _____



ISSUE REMARKS/DATE

- 1 Original Issue 05/28/99
- 2 PER CITY COMMENTS REISSUED 07/02/99
- 3 FOR APPROVAL 07/30/99

PREPARED FOR:

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PREPARED BY:

the STERLING COMPANY
 ENGINEERS, SURVEYORS AND PLANNERS
 (314)-487-0440, FAX 487-8944

PROJECT:

VILLAS AT HIGHGROVE PHASE TWO

NO. 98 02 036
 M.S.D. SHEET 6
 P# 18

DRAWN: K.K.
 DESIGNED: [Signature]
 CHECKED: [Signature]
 SHEET TITLE: SITE PLAN

NO. 98 02 036
 M.S.D. SHEET 6
 P# 18

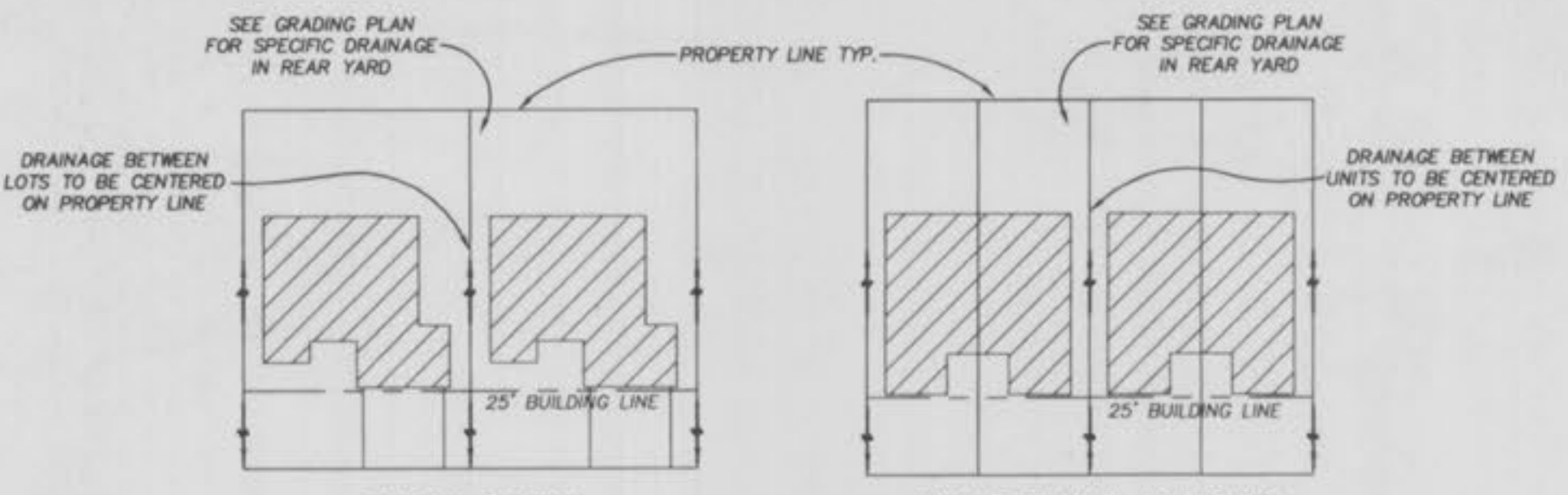
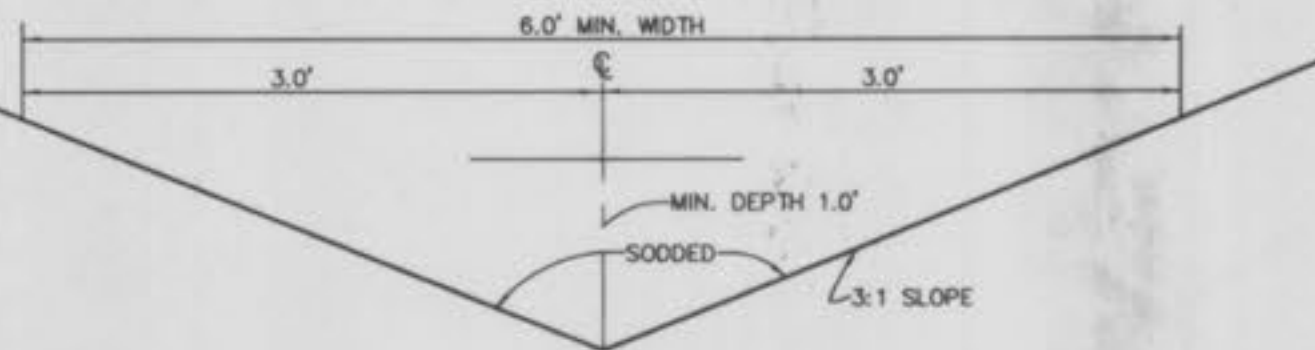
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VILLAS AT HIGHGROVE PHASE TWO

TYPICAL YARD SWALE HYDRAULICS

Maximum Q = 4.00 cfs
 Maximum V = 4.00 ft/sec.
 N=0.030 (Grass)
 Maximum side slopes = 3 (horizontal) : 1 (vertical)
 Longitudinal Slope (%)

D (ft.)	(ft./sec.)	(ft./sec.)
0.5	1.89481682	0.836852789
1.0	2.4572734	0.736618511
2.0	3.118668934	0.646843926
3.0	3.71000035	0.599490621
4.0	4.21000035	0.54088807
5.0	4.62000035	0.487535601
6.0	5.00000035	0.439060698
7.0	5.34000035	0.395491209
8.0	5.64000035	0.35613971
9.0	5.90000035	0.321422173
10.0	6.13000035	0.290252296

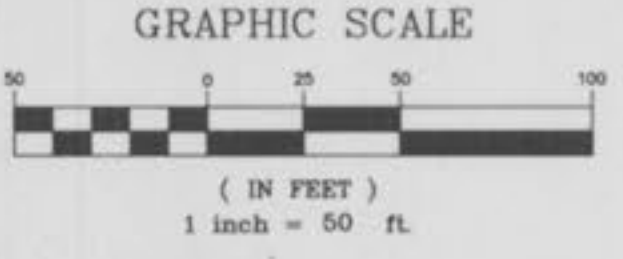


TYPICAL YARD DRAINAGE
NOT TO SCALE

Final Measurement Plat

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No. or



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J.M.B. MILL CREEK L.L.C.
 5091 NEW BAUMGARTNER ROAD
 ST. LOUIS, MISSOURI 63129
 PHONE: (314) 487-6717



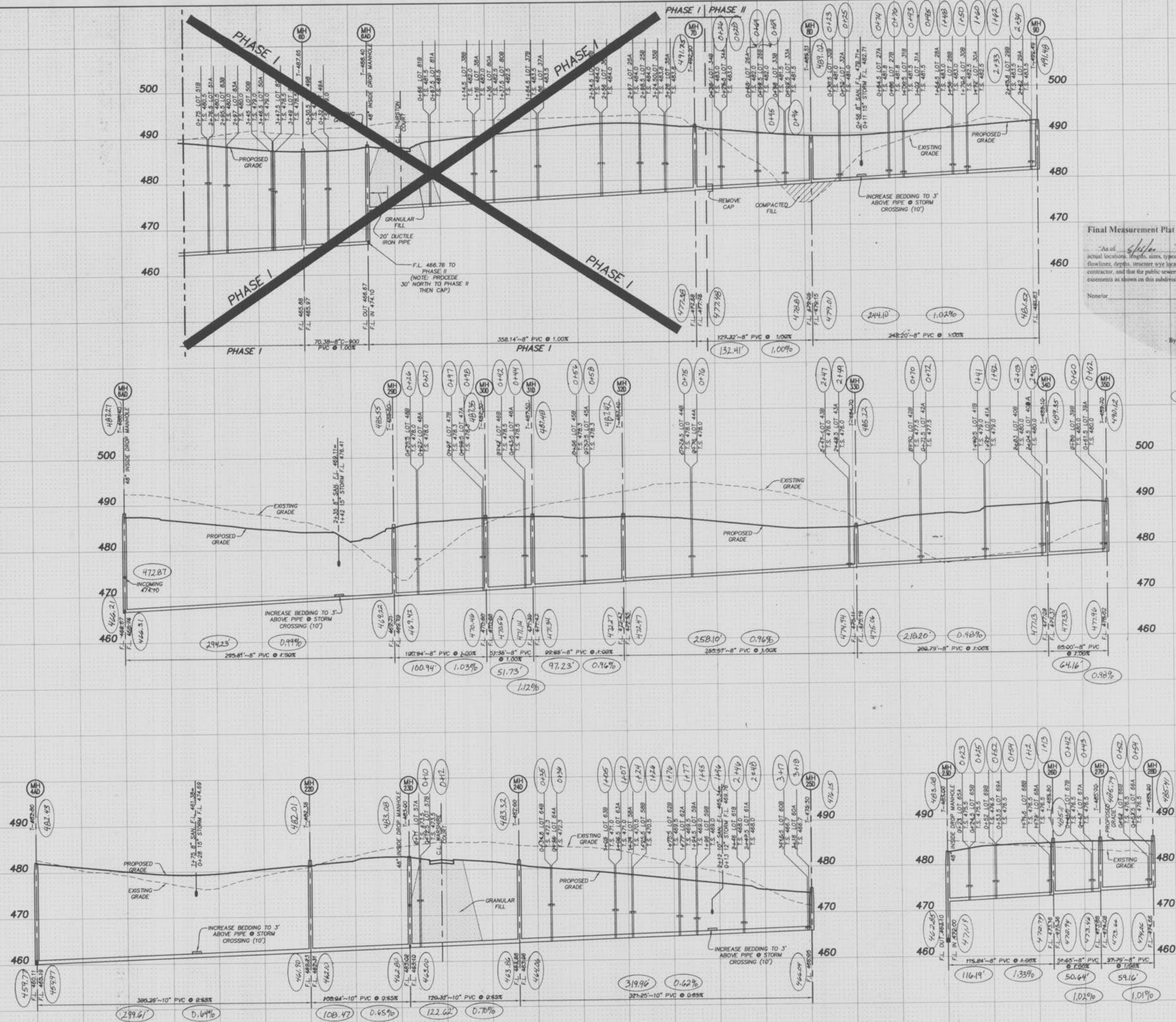
PREPARED BY:
the STERLING COMPANY
 ENGINEERS, SURVEYORS AND PLANNERS
 (314) 487-0440, FAX 487-8944

DRAWN: KIK
 DESIGNED: EGH
 CHECKED: EGH

PROJECT:
VILLAS AT HIGHGROVE PHASE TWO

SHEET TITLE:
SITE PLAN

NO. **98 02 036**
 M.S.D. SHEET
 P# **7** OF **18**



1"=50'
SCALE

Final Measurement Plat
 As of 5/1/00, I certify that these 'As-Built' drawings indicate the actual location, lengths, sizes, types and class of pipe to be certified by pipe contractor, flowlines, depths, manhole locations have been plotted from notes provided by sewer contractor, and that the public sewers have been constructed within existing or proposed easements as shown on this subdivision or easement plat with the exception of the following:
 None/



○ = AS BUILT

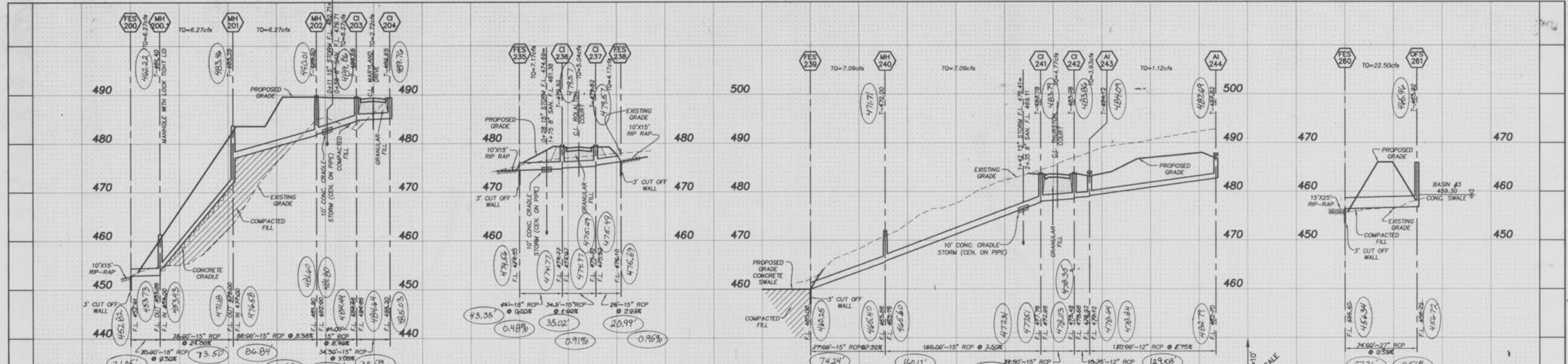
ISSUE	REMARKS/DATE
1	Original Issue 05/28/99
2	PER CITY COMMENTS REISSUED 07/02/99

PREPARED FOR:
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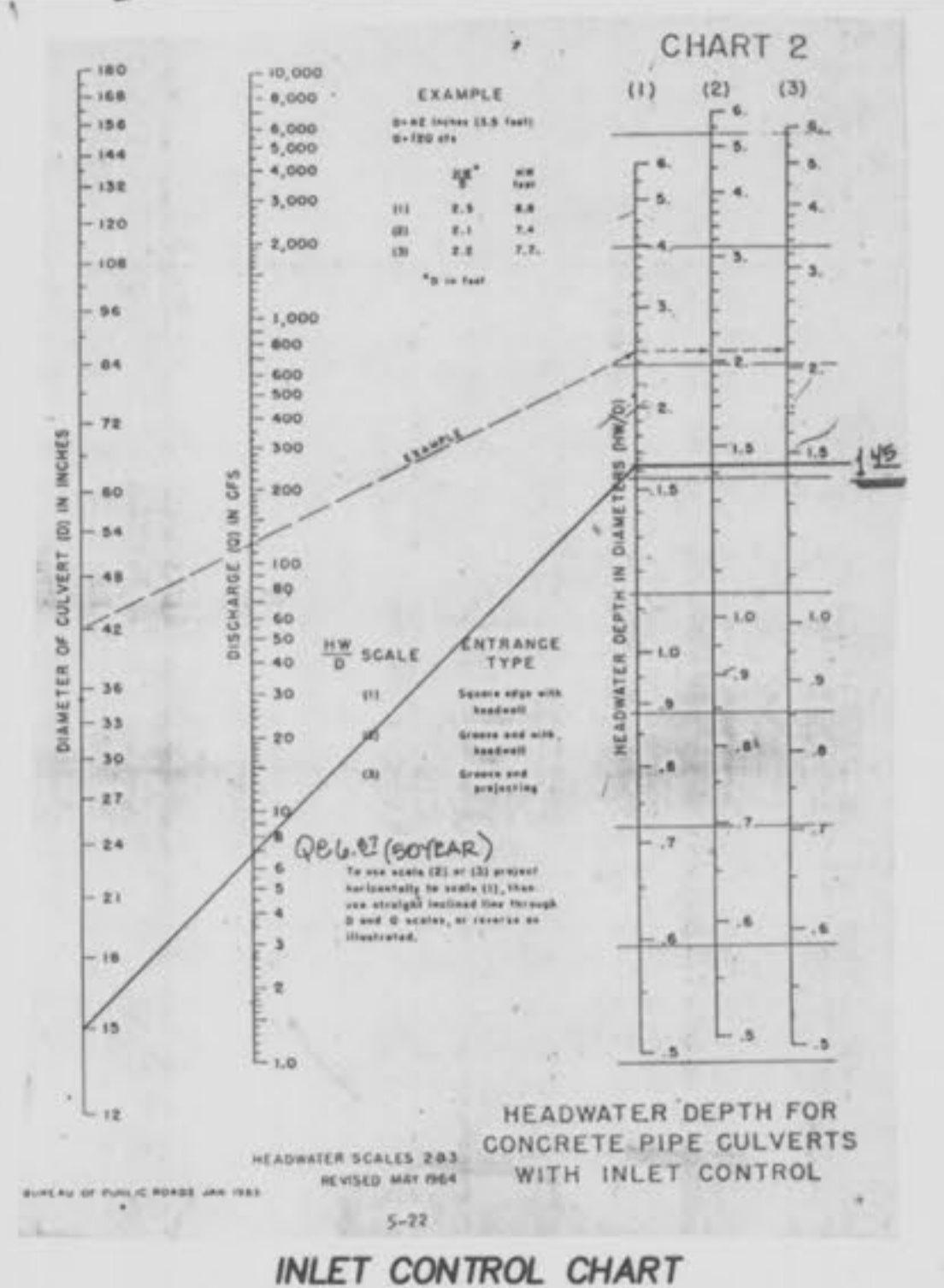
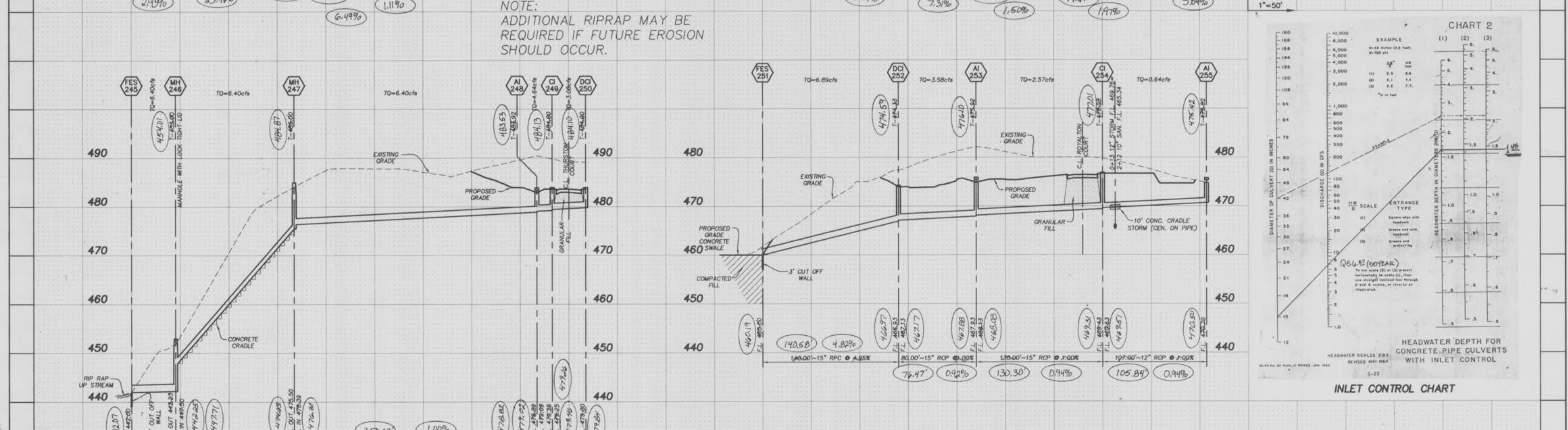
PREPARED BY:
STERLING
 ENGINEERS, SURVEYORS AND PLANNERS
 (314)-487-0440, FAX 487-8944

PROJECT: VILLAS AT HIGHGROVE PHASE TWO
 SHEET TITLE: SANITARY SEWER

NO. 98 02 036	SHEET 10 OF 18
M.S.D. P#	10
DISTRICT FILE LOCATION	OF 18



NOTE:
ADDITIONAL RIPRAP MAY BE
REQUIRED IF FUTURE EROSION
SHOULD OCCUR.



STORM SEWER HYDRAULICS THE STERLING COMPANY Ver. 1.33

Upper Str. No.	Lower Str. No.	Len. in	D in	Total Pipe Const. in	Y in	Vh	Q x Vh	Hyd. Grade	Flow Line Elevation	Top of Structure Elevation	Free Board	Hydraulic Loss	Frict. Loss	Junc. Loss	Entr. Loss	Turn Angle Loss	Capacity CFS	Normal Depth	
T 204	203	34.5	2.72	2.72	15	0.08	0.21	1.182	483.20	484.86	489.65	3.48	486.17	486.11	0.06	0.50	0.08	70	0.05
CI 203	202	41	3.35	6.27	15	0.41	2.54	0.942	484.66	482.00	489.65	3.54	485.19	485.25	0.39	25	0.12	16	0.45
MH 202	201	86		6.27	15	0.41	2.54	0.942	481.80	477.00	489.65	6.65	482.35	478.25	0.81	25	0.12	15	0.26
MH 201	200	75		6.27	15	0.41	2.54	0.942	472.00	454.00	483.75	5.50	472.38	463.61	0.71	25	0.12	31	0.65
MH 200	200	30		6.27	18	0.20	1.23	0.362	453.06	452.91	461.40	-2.21	463.61	463.50	0.11	25	0.12	7	0.43
T 238	237	26	4.17	4.17	15	0.18	0.75	2.232	476.30	475.52	479.52	2.02	476.88	476.77	0.11	0.15	0.10	5	0.01
CI 237	236	34.5	0.87	5.04	15	0.26	1.32	0.612	475.32	474.97	479.52	2.75	476.66	476.45	0.21	0.10	0.10	35	0.10
CI 236	235	44	2.13	7.17	18	0.26	1.83	0.472	474.77	474.52	476.21	3.07	476.25	476.05	0.20	0.10	0.10	6	0.51
T 244	243	130	1.12	1.12	12	0.03	0.04	0.102	482.70	479.12	487.82	4.83	482.99	480.12	0.13	0.51	0.03	90	0.02
CI 243	242	15.75	2.81	3.93	12	0.39	1.53	1.222	478.92	478.68	484.12	4.00	479.87	479.68	0.19	0.48	0.03	4	0.40
CI 242	241	34.5	0.84	4.77	15	0.23	1.12	0.552	478.48	477.96	483.78	4.10	479.40	479.21	0.19	0.48	0.03	7	0.93
CI 241	240	160	2.32	7.09	15	0.52	3.67	1.202	477.76	465.76	483.78	4.57	478.31	467.01	1.99	20	0.12	17	0.69
MH 240	239	77		7.09	15	0.52	3.67	1.202	465.56	460.00	472.00	4.99	466.33	465.40	0.93	20	0.12	17	0.36
T 250	249	34.5	3.08	3.08	15	0.10	0.30	0.232	475.80	479.45	484.00	3.22	480.78	480.70	0.08	0.21	0.10	6	0.51
CI 249	248	15.75	1.56	4.64	15	0.28	1.03	0.222	475.25	479.09	484.00	3.30	480.42	480.34	0.08	0.21	0.10	6	0.51
AI 248	247	250	1.76	6.40	15	0.42	2.70	0.982	478.89	476.29	483.92	3.58	480.09	477.64	2.45	10	0.09	6	0.46
MH 247	246	122		6.40	15	0.42	2.70	0.982	475.50	447.50	453.00	6.86	475.88	463.17	1.20	10	0.09	30	0.25
MH 246	245	45.17		6.40	18	0.42	1.30	0.372	442.23	442.00	443.68	-10.17	463.17	463.00	0.17	10	0.09	23	0.29
T 255	254	107	0.64	0.64	12	0.01	0.01	0.032	470.70	469.63	475.82	4.84	470.98	470.63	0.03	0.22	0.01	3	0.56
CI 254	253	130	1.93	2.57	12	0.17	0.43	0.522	469.43	468.13	475.92	6.32	470.05	469.13	0.68	0.22	0.01	35	0.07
AI 253	252	80	1.01	3.58	15	0.13	0.47	0.312	467.93	467.13	474.33	6.79	468.63	468.38	0.25	0.22	0.01	90	0.09
DCI 252	251	140	3.31	6.89	18	0.24	1.63	0.432	466.93	460.00	473.33	5.95	467.49	465.40	0.60	10	0.09	23	0.29
T 261	260	74	22.50	22.50	27	0.50	11.19	0.532	456.79	456.40	459.30	0.26	459.04	458.65	0.39	0.50	0.01	22	1.00

Final Measurement Plat

"As of 3/16/00, I certify that these 'As-Built' drawings indicate the actual locations, lengths, sizes, types and class of pipe to be certified by pipe contractor, flowlines, depths, structure eye locations have been plotted from notes provided by sewer contractor, and that the public sewers have been constructed within existing or proposed easements as shown on this subdivision or easement plat with the exception of the following:

None/or



NOTE: AI=Area Inlet, M=Manhole, T=Terminal Structure, CI=Curb Inlet, DCI=Double Curb Inlet, SCI=Skewed Curb Inlet, TP=Tangent Point, EP=End of Pipe, DS=Outfall Structure
#0.013 For RCP, 0.024 For CMP. For Drainage Areas, P.L. & Bypass, See Drainage Area Map.

ISSUE REMARKS/DATE
1 Original Issue 05/28/99
2 PER CITY COMMENTS REISSUED 07/02/99

PREPARED FOR:
J.M.B. MILL CREEK L.L.C.
5091 NEW BAUMGARTNER ROAD
ST. LOUIS, MISSOURI 63129
PHONE: (314) 487-6717

PREPARED BY:
the STERLING ENGINEERS, SURVEYORS AND PLANNERS CO.
(314)-487-0440, FAX 487-8944

DRAWN: K.K.
DESIGNED: [Signature]
CHECKED: [Signature]

PROJECT: VILLAS AT HIGHGROVE PHASE TWO
SHEET: 11 OF 18
STORM SEWER

NO. 98 02 036
M.S.D. SHEET 11 OF 18
INSTALL THE LOCATION OF STRUCTURES AS SHOWN ON THIS DRAWING

K:\10\9802036 Schwaibe Property Phase II\205Main.dwg 07/07/99 01:45:35 PM EDT

BASE MAP

ESTATES/VILLAS AT HIGHGROVE BASIN #3 PHASE II

Calculated 05-06-1999 13:03:03
 Disk File: J:\DATA\9802036\DET-B3-BASIN3.VOL
 Planimeter scale: 1 inch = 1 ft.

Elevation (ft)	Planner (sq. in.)	Area (sq. ft)	A1-A2+sq(A1A2) (sq. ft)	Volume (cubic-ft)	Volume Sum (cubic-ft)
459.30	100.00	100.00	0.00	0.00	0.00
460.00	6,995.00	6,995.00	7,931.00	1,851.00	1,851.00
460.50	9,455.00	9,455.00	10,388.00	18,239.00	18,239.00
461.00	13,155.00	13,155.00	33,763.00	28,508.00	46,747.00
466.00	21,720.00	21,720.00	51,778.00	34,519.00	81,266.00

Incremental volume computed by the Conic Method for Reservoir Volumes.
 Volume = (1/3) * (EL1-EL2) * (Area1 + Area2 + sq. rt. (Area1*Area2))
 where: EL1, EL2 = Lower and upper elevations of the increment
 Area1, Area2 = Areas computed for EL1, EL2, respectively
 Volume = Incremental volume between EL1 and EL2

ESTATES/VILLAS AT HIGHGROVE BASIN #3

COMPOSITE OUTFLOW SUMMARY

Elevation (ft)	Structure	Q (cfs)
459.30	0.0	1.0
459.70	0.0	1.0
459.90	0.2	1.0
460.10	0.4	1.0
460.30	0.8	1.0
460.50	1.4	1.0
460.70	2.3	1.0
461.00	3.9	1.0
461.30	5.6	1.0
461.50	7.1	1.0
461.70	8.7	1.0
461.90	10.1	3+2
462.10	11.6	3+2
462.30	13.1	3+2
462.50	14.6	3+2
462.70	16.1	3+2
462.90	17.6	3+2
463.10	19.1	3+2
463.30	20.6	3+2
463.50	22.1	3+2
463.70	23.6	3+2
463.90	25.1	3+2
464.10	26.6	3+2
464.30	28.1	3+2
464.50	29.6	3+2
464.70	31.1	3+2
464.90	32.6	3+2
465.10	34.1	3+2
465.30	35.6	3+2
465.50	37.1	3+2
465.70	38.6	3+2
465.90	40.1	3+2
466.00	41.6	3+2

Return Freq 2 years

Return Freq 2 years
 Pond File: J:\DATA\9802036\DET-B3-BASIN3.PND
 Inflow Hydrograph: J:\DATA\9802036\DET-B3-B3-25YR.HYD
 Outflow Hydrograph: J:\DATA\9802036\DET-B3-B3-25YR.HYD

TIME (min)	INFLOW (cfs)	11+12 (cfs)	25+1-0 (cfs)	25+1+0 (cfs)	OUTFLOW (ELEVATION) (cfs) (ft)
1.0	13.921	0.0	0.0	0.0	459.30
2.0	13.921	27.8	27.8	27.8	459.80
3.0	13.921	27.8	54.2	54.2	459.96
4.0	13.921	27.8	80.8	80.8	460.08
5.0	13.921	27.8	107.3	107.3	460.19
6.0	13.921	27.8	133.5	133.5	460.30
7.0	13.921	27.8	159.4	159.4	460.41
8.0	13.921	27.8	185.0	185.0	460.51
9.0	13.921	27.8	210.3	210.3	460.61
10.0	13.921	27.8	235.4	235.4	460.71
11.0	13.921	27.8	260.1	260.1	460.81
12.0	13.921	27.8	284.5	284.5	460.90
13.0	13.921	27.8	308.7	308.7	460.99
14.0	13.921	27.8	332.6	332.6	461.07
15.0	13.921	27.8	356.3	356.3	461.16
16.0	13.921	27.8	379.7	379.7	461.24
17.0	13.921	27.8	402.9	402.9	461.33
18.0	13.921	27.8	425.9	425.9	461.41
19.0	13.921	27.8	448.2	448.2	461.48
20.0	13.921	27.8	470.4	470.4	461.56
21.0	0.001	0.0	472.9	472.9	461.57
22.0	0.001	0.0	467.3	467.3	461.55
23.0	0.001	0.0	456.3	456.3	461.51
24.0	0.001	0.0	443.7	443.7	461.49
25.0	0.001	0.0	440.5	440.5	461.46
26.0	0.001	0.0	430.2	430.2	461.42
27.0	0.001	0.0	425.2	425.2	461.40
28.0	0.001	0.0	420.3	420.3	461.38
29.0	0.001	0.0	415.3	415.3	461.36
30.0	0.001	0.0	410.3	410.3	461.34
31.0	0.001	0.0	405.3	405.3	461.32
32.0	0.001	0.0	400.3	400.3	461.30

Summary of Peak Outflow and Peak Elevation
 Starting Pond W.S. Elevation = 459.30 ft

Summary of Approximate Peak Storage
 Initial Storage = 0 cu-ft
 Peak Storage From Storm = 14,443 cu-ft
 Total Storage in Pond = 14,443 cu-ft

Return Freq 15 years

Return Freq 15 years
 Pond File: J:\DATA\9802036\DET-B3-BASIN3.PND
 Inflow Hydrograph: J:\DATA\9802036\DET-B3-B3-15YR.HYD
 Outflow Hydrograph: J:\DATA\9802036\DET-B3-B3-15YR.HYD

TIME (min)	INFLOW (cfs)	11+12 (cfs)	25+1-0 (cfs)	25+1+0 (cfs)	OUTFLOW (ELEVATION) (cfs) (ft)
1.0	22.501	0.0	0.0	0.0	459.30
2.0	22.501	45.0	45.0	45.0	459.92
3.0	22.501	45.0	87.9	87.9	460.11
4.0	22.501	45.0	131.4	131.4	460.29
5.0	22.501	45.0	174.2	174.2	460.47
6.0	22.501	45.0	216.6	216.6	460.64
7.0	22.501	45.0	258.5	258.5	460.80
8.0	22.501	45.0	300.0	300.0	460.95
9.0	22.501	45.0	341.0	341.0	461.10
10.0	22.501	45.0	381.5	381.5	461.25
11.0	22.501	45.0	421.6	421.6	461.39
12.0	22.501	45.0	461.3	461.3	461.53
13.0	22.501	45.0	500.0	500.0	461.66
14.0	22.501	45.0	538.5	538.5	461.79
15.0	22.501	45.0	576.4	576.4	461.91
16.0	22.501	45.0	613.9	613.9	462.03
17.0	22.501	45.0	650.9	650.9	462.15
18.0	22.501	45.0	687.5	687.5	462.26
19.0	22.501	45.0	723.5	723.5	462.37
20.0	22.501	45.0	759.0	759.0	462.47
21.0	0.001	25.5	772.4	772.4	462.51
22.0	0.001	0.0	763.0	763.0	462.51
23.0	0.001	0.0	744.7	744.7	462.49
24.0	0.001	0.0	725.7	725.7	462.46
25.0	0.001	0.0	706.6	706.6	462.42
26.0	0.001	0.0	687.2	687.2	462.38
27.0	0.001	0.0	667.5	667.5	462.34
28.0	0.001	0.0	647.5	647.5	462.30
29.0	0.001	0.0	627.1	627.1	462.26
30.0	0.001	0.0	606.4	606.4	462.22
31.0	0.001	0.0	585.3	585.3	462.18
32.0	0.001	0.0	563.5	563.5	462.14

Summary of Peak Outflow and Peak Elevation
 Starting Pond W.S. Elevation = 459.30 ft

Summary of Approximate Peak Storage
 Initial Storage = 0 cu-ft
 Peak Storage From Storm = 23,313 cu-ft
 Total Storage in Pond = 23,313 cu-ft

Return Freq 25 years

Return Freq 25 years
 Pond File: J:\DATA\9802036\DET-B3-BASIN3.PND
 Inflow Hydrograph: J:\DATA\9802036\DET-B3-B3-25YR.HYD
 Outflow Hydrograph: J:\DATA\9802036\DET-B3-B3-25YR.HYD

TIME (min)	INFLOW (cfs)	11+12 (cfs)	25+1-0 (cfs)	25+1+0 (cfs)	OUTFLOW (ELEVATION) (cfs) (ft)
1.0	27.801	0.0	0.0	0.0	459.30
2.0	27.801	55.6	55.6	55.6	459.96
3.0	27.801	55.6	108.9	108.9	460.33
4.0	27.801	55.6	162.5	162.5	460.63
5.0	27.801	55.6	216.3	216.3	460.83
6.0	27.801	55.6	270.3	270.3	461.03
7.0	27.801	55.6	324.5	324.5	461.21
8.0	27.801	55.6	378.8	378.8	461.39
9.0	27.801	55.6	433.3	433.3	461.56
10.0	27.801	55.6	487.9	487.9	461.73
11.0	27.801	55.6	542.6	542.6	461.89
12.0	27.801	55.6	597.5	597.5	462.04
13.0	27.801	55.6	652.5	652.5	462.19
14.0	27.801	55.6	707.6	707.6	462.33
15.0	27.801	55.6	762.8	762.8	462.47
16.0	27.801	55.6	818.1	818.1	462.60
17.0	27.801	55.6	873.5	873.5	462.73
18.0	27.801	55.6	929.0	929.0	462.86
19.0	27.801	55.6	984.6	984.6	462.98
20.0	0.001	27.8	993.5	993.5	463.01
21.0	0.001	0.0	941.9	941.9	462.99
22.0	0.001	0.0	890.4	890.4	462.96
23.0	0.001	0.0	839.0	839.0	462.92
24.0	0.001	0.0	787.7	787.7	462.88
25.0	0.001	0.0	736.5	736.5	462.84
26.0	0.001	0.0	685.3	685.3	462.79
27.0	0.001	0.0	634.2	634.2	462.74
28.0	0.001	0.0	583.1	583.1	462.69
29.0	0.001	0.0	532.0	532.0	462.64
30.0	0.001	0.0	481.0	481.0	462.59
31.0	0.001	0.0	430.0	430.0	462.54
32.0	0.001	0.0	379.0	379.0	462.49

Summary of Peak Outflow and Peak Elevation
 Starting Pond W.S. Elevation = 459.30 ft

Summary of Approximate Peak Storage
 Initial Storage = 0 cu-ft
 Peak Storage From Storm = 28,784 cu-ft
 Total Storage in Pond = 28,784 cu-ft

Return Freq 100 years

Return Freq 100 years
 Pond File: J:\DATA\9802036\DET-B3-BASIN3.PND
 Inflow Hydrograph: J:\DATA\9802036\DET-B3-B3-100YR.HYD
 Outflow Hydrograph: J:\DATA\9802036\DET-B3-B3-100YR.HYD

TIME (min)	INFLOW (cfs)	11+12 (cfs)	25+1-0 (cfs)	25+1+0 (cfs)	OUTFLOW (ELEVATION) (cfs) (ft)
1.0	35.511	0.0	0.0	0.0	459.30
2.0	35.511	71.0	71.0	71.0	460.03
3.0	35.511	71.0	139.3	139.3	460.33
4.0	35.511	71.0	207.8	207.8	460.60
5.0	35.511	71.0	275.5	275.5	460.86
6.0	35.511	71.0	343.3	343.3	461.11
7.0	35.511	71.0	411.3	411.3	461.36
8.0	35.511	71.0	479.4	479.4	461.61
9.0	35.511	71.0	547.6	547.6	461.86
10.0	35.511	71.0	615.9	615.9	462.11
11.0	35.511	71.0	684.3	684.3	462.36
12.0	35.511	71.0	752.8	752.8	462.61
13.0	35.511	71.0	821.4	821.4	462.86
14.0	35.511	71.0	890.1	890.1	463.11
15.0	35.511	71.0	958.9	958.9	463.36
16.0	35.511	71.0	1027.8	1027.8	463.61
17.0	35.511	71.0	1096.8	1096.8	463.86
18.0	35.511	71.0	1165.9	1165.9	464.11
19.0	35.511	71.0	1235.1	1235.1	464.36
20.0	35.511	71.0	1304.4	1304.4	464.61
21.0	0.001	35.5	1272.0	1272.0	464.69
22.0	0.001	0.0	1200.0	1200.0	464.69
23.0	0.001	0.0	1128.0	1128.0	464.69
24.0	0.001	0.0	1056.0	1056.0	464.69
25.0	0.001	0.0	984.0	984.0	464.69
26.0	0.001	0.0	912.0	912.0	464.69
27.0	0.001	0.0	840.0	840.0	464.69
28.0	0.001	0.0	768.0	768.0	464.69
29.0	0.001	0.0	696.0	696.0	464.69
30.0	0.001	0.0	624.0	624.0	464.69
31.0	0.001	0.0	552.0	552.0	464.69
32.0	0.001	0.0	480.0	480.0	464.69

Summary of Peak Outflow and Peak Elevation
 Starting Pond W.S. Elevation = 459.30 ft

Summary of Approximate Peak Storage
 Initial Storage = 0 cu-ft
 Peak Storage From Storm = 36,737 cu-ft
 Total Storage in Pond = 36,737 cu-ft

ESTATES/VILLAS AT HIGHGROVE BASIN #3

Structure No. 4

Structure No. 4 (Input Data)
 Min. Elev. (ft) = 459.3 Max. Elev. (ft) = 466.0 Incr. (ft) = 0.2

Structure	No.	Q Table	Q Table
DRIFCE	1	-	-
WEIR-VR	3	-	-
DRIFCE	2	-	-
WEIR-VR	1	-	-

ESTATES/VILLAS AT HIGHGROVE BASIN #3

Structure No. 3</