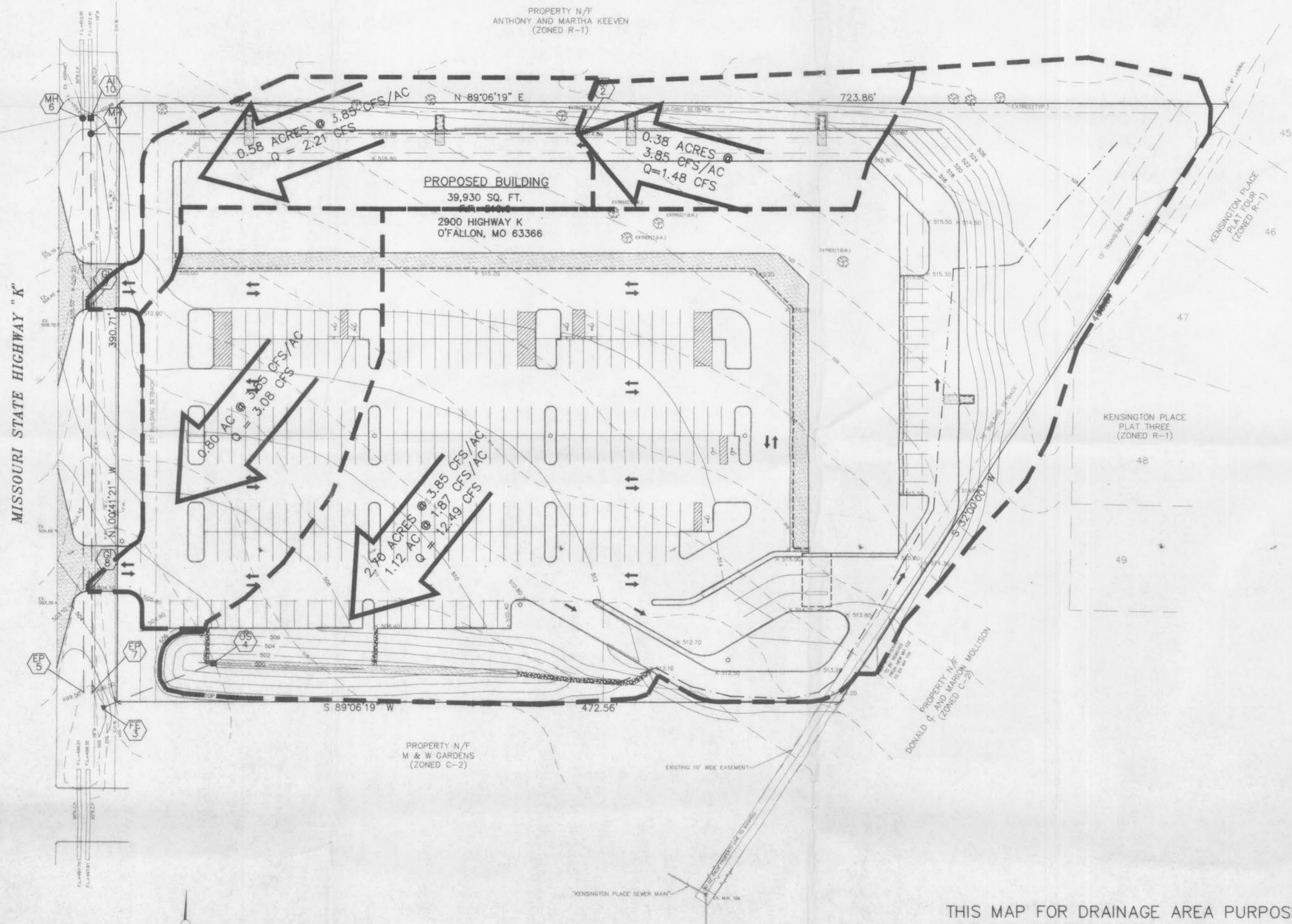


A DRAINAGE AREA MAP FOR  
**CROSSROADS CENTER**  
 A TRACT OF LAND BEING PART OF  
 U.S. SURVEY 67, TOWNSHIP 46 NORTH, RANGE 3 EAST,  
 ST. CHARLES COUNTY, MISSOURI



- 22) ALL MANHOLE TOPS BUILT WITHOUT ELEVATIONS FURNISHED BY THE ENGINEER WILL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR.
- 23) 8" P.V.C. SANITARY SEWER PIPE SHALL MEET THE FOLLOWING STANDARDS: A.S.T.M.-D-3034 SDR-35, WITH WALL THICKNESS COMPRESSION JOINT A.S.T.M.-D-3212. AN APPROPRIATE RUBBER SEAL WATERSTOP AS APPROVED BY THE SEWER DISTRICT SHALL BE INSTALLED BETWEEN P.V.C. PIPE AND MASONRY STRUCTURES.
- 24) ALL P.V.C. SANITARY SEWER IS TO BE SDR-35 OR EQUAL WITH CLEAN 1/2" TO 1" GRANULAR STONE BEDDING UNIFORMLY GRADED. THIS BEDDING SHALL EXTEND FROM 6" BELOW THE PIPE TO 12" ABOVE THE SPRINGLINE OF THE PIPE. IMMEDIATE BACKFILL OVER PIPE SHALL CONSIST OF SAME SIZE "CLEAN" OR MANUS STONE FROM SPRINGLINE OF PIPE TO 6" ABOVE THE TOP OF PIPE.
- 25) EASEMENTS SHALL BE PROVIDED FOR SANITARY SEWERS, AND ALL UTILITIES ON THE RECORD PLAT. SEE RECORD PLAT FOR LOCATION AND SIZE OF EASEMENTS.
- 26) ALL WATER LINES SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY SANITARY SEWER, STORM SEWER, OR MANHOLE. WHENEVER WATER LINES MUST CROSS SANITARY SEWERS, LATERALS, OR STORM DRAINS THE WATER LINE SHALL BE LAID AT 50CM AN ELEVATION THAT THE BOTTOM OF THE WATER LINE IS ABOVE THE TOP OF THE DRAIN OR SEWER. A FULL LENGTH OF WATER PIPE SHALL BE CENTERED OVER THE SEWER LINE TO BE CROSSED SO THAT THE JOINTS WILL BE EQUALLY DISTANT FROM THE SEWER AND AS REMOTE THEREFROM AS POSSIBLE. THIS VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER LINE LOCATED WITHIN 10 FEET HORIZONTALLY OF ANY SEWER OR DRAIN IT CROSSES.
- 27) ALL P.V.C. WATER PIPE 8" AND LARGER IN SIZE SHALL BE CLASS C-900 PER ST. CHARLES COUNTY PUBLIC WATER DISTRICT NO. 2 SPECIFICATIONS. MAINS SHALL HAVE A MINIMUM PRESSURE RATING OF PR-200 OR SDR-21. NOTE: ULTRA-BLUE PVC (MD) PRESSURE PIPE WITH A MINIMUM PRESSURE RATING OF 200 P.S.I. SHALL ALSO BE CONSIDERED ACCEPTABLE.
- 28) WATER LINES, VALVES, SLEEVES, METERS, AND FITTINGS SHALL MEET ALL SPECIFICATIONS AND INSTALLATION REQUIREMENTS OF ST. CHARLES COUNTY PUBLIC WATER DISTRICT NO. 2.
- 29) ALL WATER HYDRANTS AND VALVES SHALL BE DUCTILE IRON AND INSTALLED IN ACCORDANCE WITH PLANS AND DETAILS. ALL DUCTILE IRON PIPE FOR WATER MAINS SHALL CONFORM TO A.W.W.A. SPECIFICATIONS C-106 AND/OR C-108. THE DUCTILE IRON FITTINGS SHALL CONFORM TO A.W.W.A. SPECIFICATION CC-110. ALL RUBBER GASKET JOINTS FOR WATER DUCTILE IRON PRESSURE PIPE AND FITTINGS SHALL CONFORM TO A.W.W.A. SPECIFICATION C-111.
- 30) ALL SANITARY MANHOLES SHALL BE WATERPROOFED ON THE EXTERIOR IN ACCORDANCE WITH MISSOURI DEPARTMENT OF NATURAL RESOURCES SPECIFICATIONS 10 CSR-8.120 (7)C.
- 31) BRICK WILL NOT BE USED IN THE CONSTRUCTION OF SANITARY SEWER MANHOLES.
- 32) ALL PIPES SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLES. NO FLAT BASE STRUCTURES ARE ALLOWED.
- 33) ALL SANITARY SEWER MANHOLES TO BE 42 INCH MINIMUM INSIDE DIAMETER IN ACCORDANCE WITH MISSOURI DEPARTMENT OF NATURAL RESOURCES SPECIFICATION 10 CSR 20-4.
- 34) THE CITY OF OFFALLON AND GLOUETT CREEK SANITARY DISTRICT SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION FOR COORDINATION AND INSPECTION.
- 35) ALL CONCRETE PIPE SHALL BE INSTALLED WITH O-RING RUBBER TYPE GASKETS PER M.S.D. STANDARD CONSTRUCTION SPECIFICATIONS.
- 36) ALL WATER METER PITS SHALL NOT BE LOCATED IN SIDEWALKS OR DRIVEWAYS.

THIS MAP FOR DRAINAGE AREA PURPOSES ONLY,  
 NOT FOR CONSTRUCTION

PREPARED FOR: SOLON GERSHMAN INC., REALTORS  
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DISCLAIMER OF RESPONSIBILITY  
 The Engineer and Surveyor herein are not responsible for any errors or omissions in this plan or for any consequences thereof. The Engineer and Surveyor shall not be held liable for any damages, including consequential damages, arising from the use of this plan or for any consequences thereof. The Engineer and Surveyor shall not be held liable for any damages, including consequential damages, arising from the use of this plan or for any consequences thereof.

REVISIONS

NO.	DATE	DESCRIPTION
1	11-7-97	SHOW REV.
2	11-10-97	SANITARY REV.
3	11-20-97	SANITARY REV.
4	12-12-97	GEN. NOTES/WATER

**ENGINEERING  
 PLANNING  
 SURVEYING**

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12-1-97  
 DATE  
 97-0176  
 PROJECT NUMBER  
 C-3  
 SHEET OF  
 9176CON.DWG.  
 FILE NAME  
 GJD RLF  
 DRAWN CHECKED