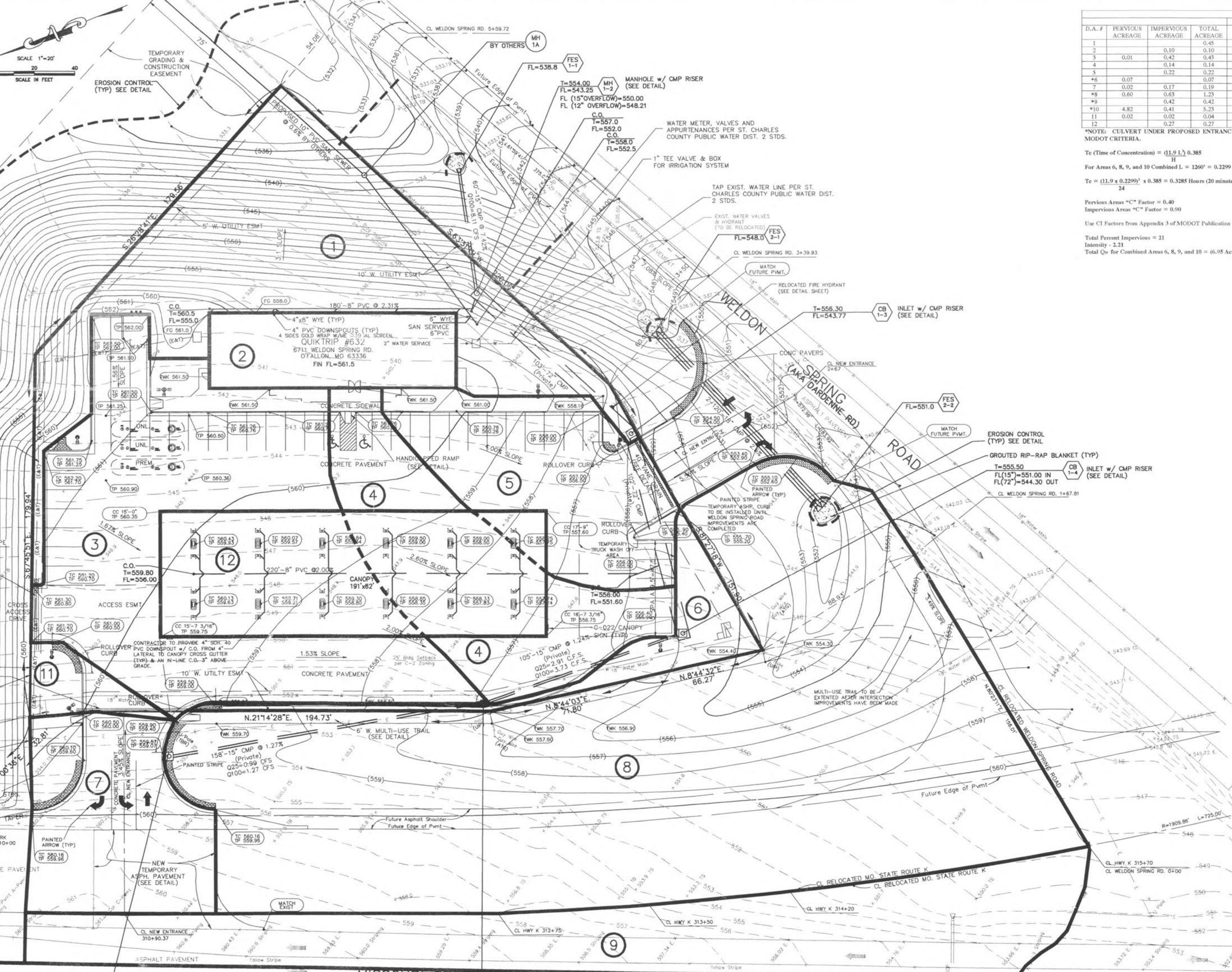


UTILITIES:  
 Electric: Ameren UE  
 Wentzville District Office  
 200 North Colahan Rd  
 Wentzville, MO 63385-1999  
 (314) 639-8317  
 Telephone: Southwestern Bell Telephone  
 402 North Third Street  
 St. Charles, MO 63301  
 (314) 639-1320  
 Gas: St. Charles Gas Co  
 1 Westbury, Bldg D  
 St. Charles, MO 63301  
 (314) 639-8210  
 Sewer: Duckett Creek Sewer Dist.  
 2950 Greens Bottom Rd  
 St. Charles, MO 63303  
 (314) 441-1244  
 Water: St. Charles Public Water Dist. 2  
 100 Water Dr  
 PO Box 967  
 Ofallon, MO 63366  
 (314) 561-3737  
 Fire District: Cottleville Fire Protection  
 1385 Mohrwood Dr.  
 (636) 447-6655



RUNOFF CALCULATIONS

D.A. #	PERVIOUS ACREAGE	IMPERVIOUS ACREAGE	TOTAL ACREAGE	COMPOSITE P-FACTOR AND TOTAL Q									
				2 YEAR	5 YEAR	15 YEAR	25 YEAR	100 YEAR					
				Q (cfs)	PI	Q (cfs)	PI	Q (cfs)	PI	Q (cfs)	PI	Q (cfs)	PI
1				1.27	0.57	1.55	0.70	1.87	0.84	2.31	1.04	2.95	1.33
2		0.10	0.10	2.63	0.26	3.22	0.32	3.85	0.39	4.75	0.48	6.08	0.61
3	0.01	0.42	0.43	2.62	1.13	3.21	1.38	3.83	1.65	4.73	2.03	6.04	2.60
4		0.14	0.14	2.63	0.37	3.22	0.45	3.85	0.54	4.75	0.67	6.08	0.85
5	0.22	0.22	0.44	2.63	0.58	3.22	0.71	3.85	0.85	4.75	1.05	6.08	1.34
*6	0.07	0.22	0.29	2.63	0.07	3.22	0.09	3.85	0.11	4.75	0.16	6.08	0.21
7	0.02	0.17	0.19	2.49	0.47	3.04	0.58	3.64	0.69	4.49	0.85	5.75	1.09
*8	0.60	0.63	1.23										
*9		0.42	0.42										
*10	4.82	0.41	5.23										
11	0.02	0.02	0.04	1.95	0.08	2.39	0.10	2.86	0.11	3.53	0.14	4.52	0.18
12	0.27	0.27	0.54	2.63	0.71	3.22	0.87	3.85	1.04	4.75	1.28	6.08	1.64

\*NOTE: CULVERT UNDER PROPOSED ENTRANCE FROM WELDON SPRING ROAD TO BE DESIGNED FOR 10 YEAR STORM PER MODOT CRITERIA.  
 $T_c$  (Time of Concentration) =  $(11.9 L^0.385) / H$   
 For Areas 6, 8, 9, and 10 Combined  $L = 1260' = 0.2299$  miles  
 $T_c = (11.9 \times 0.2299)^{0.385} \times 0.385 = 0.3285$  Hours (20 minutes)  
 Pervious Areas "C" Factor = 0.40  
 Impervious Areas "C" Factor = 0.90  
 Use C Factors from Appendix 3 of MODOT Publication - "Hydraulic Analysis for Peak Rates of Runoff from Small Watersheds"  
 Total Percent Impervious = 21  
 Intensity - 2.21  
 Total  $Q_u$  for Combined Areas 6, 8, 9, and 10 = (6.95 Ac) (2.21) = 15.36 cfs

NOTE: RIGHT OF WAY TO BE GRADED PER MODOT PLANS. CURRENT MODOT PLANS ARE PRELIMINARY AND DO NOT PROVIDE FOR STORM WATER DRAINAGE AT THIS TIME. QUIKTRIP PLANS WILL BE REVISED AS REQUIRED UPON COMPLETION OF MODOT PLANS.



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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.

CB 1-6  
 $T=559.50$   
 $FL=554.50$   
 STD. MODOT TYPE "T" INLET (SEE DETAIL)

STANDARD GRATE INLET  
 CB 1-5  
 $T=556.95$   
 $FL=552.50$  IN  
 $FL=552.30$  OUT  
 W/SIDE INTAKE

10 OFF SITE DRAINAGE AREA (SEE OFF SITE DRAINAGE AREA MAP INCLUDED WITH CALCULATIONS)  
 4.82 AC. PERVIOUS AREA  
 0.41 AC. IMPERVIOUS AREA  
 5.23 AC. TOTAL

3	10/12/99	EJK	REVISED PER QUIKTRIP REVIEW
2	10/1/99	TLM	REVISED PER QUIKTRIP REVIEW
1	8/26/99	BIG	REVISED PER QUIKTRIP REVIEW

REVISIONS

**QT** QUIKTRIP CORPORATION  
 2255 BLUESTONE DRIVE  
 ST. CHARLES, MO. 63303  
 PH # (314) 916-5706  
 FAX # (314) 916-5754

**QUKTRIP #632**  
**PROPOSED DRAINAGE AREA MAP**

6711 WELDON SPRING RD. OFFALLON, MO 63336

**the clayton engineering company, inc.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 1180 WETLINE INDUSTRIAL DRIVE  
 ST. LOUIS, MISSOURI 63146  
 (314) 962-0900 FAX (314) 962-0909  
 EMAIL: CLAYTON@COMPANY.NET

Designed	DJB
Drawn	HRL
Checked	EJK
Date	8/16/99
Project Number	99051
Sheet Number	9 of 11

FILE: P:\9905\PLANS\STPLN1.DWG PLOTTED: 10/12/1999 3:37 PM  
 F.S. F.B. S.B.