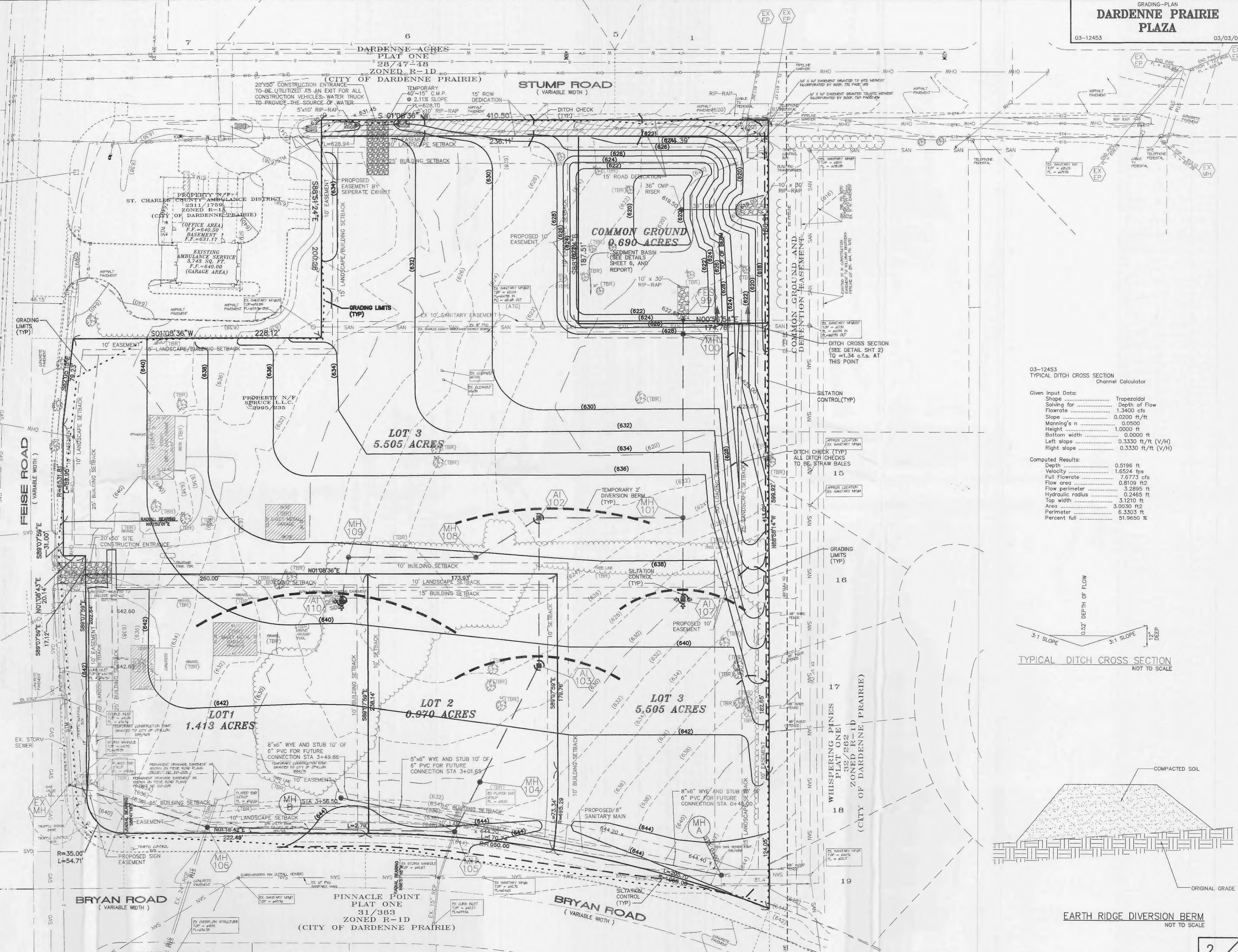


*A special use permit for the temporary entrance will need to be obtained from the St. Charles County Highway Department before any approved grading can commence on this site. Contact Ms. Donna Ray at 636-949-7305 concerning information regarding Special Use Permits and fees.

N/F SCHNUCK MARKETS INC.
 2839/1144
 ZONED C-2(CITY OF O'FALLON)



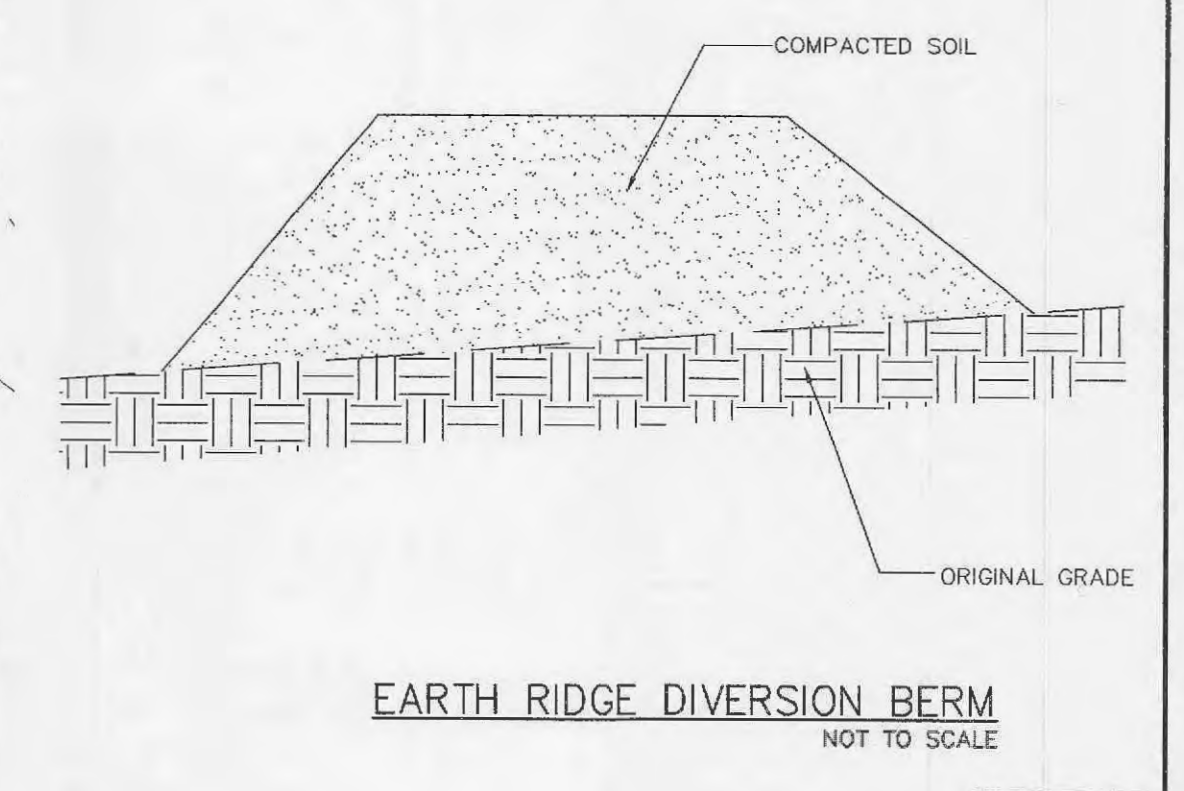
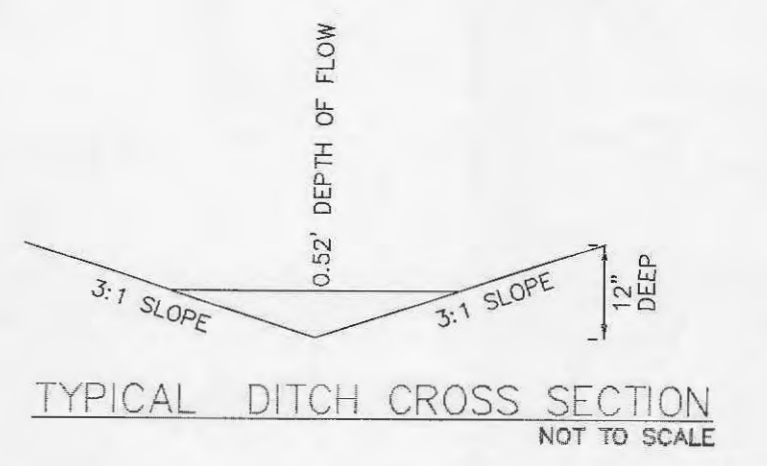
03-12453
 TYPICAL DITCH CROSS SECTION
 Channel Calculator

Given Input Data:

Shape	Trapezoidal
Solving for	Depth of Flow
Flowrate	1.3400 cfs
Slope	0.0200 ft/ft
Manning's n	0.0500
Height	1.0000 ft
Bottom width	0.0000 ft
Left slope	0.3330 ft/ft (V/H)
Right slope	0.3330 ft/ft (V/H)

Computed Results:

Depth	0.5196 ft
Velocity	1.6524 fps
Full Flowrate	7.6773 cfs
Flow area	0.8109 ft ²
Flow perimeter	3.2895 ft
Hydraulic radius	0.2465 ft
Top width	3.1210 ft
Area	3.0030 ft ²
Perimeter	6.3303 ft
Percent full	51.9650 %



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 OR CONSTRUCTION OF THE IMPROVEMENTS.

EX:DWG A12000PLUS\12453 SE FEISE AND BRYAN PRELIMINARY\12453pre.dwg, plat_grading\12453#2, 4/16/2004 8:22:45 AM, STA 47.DRP