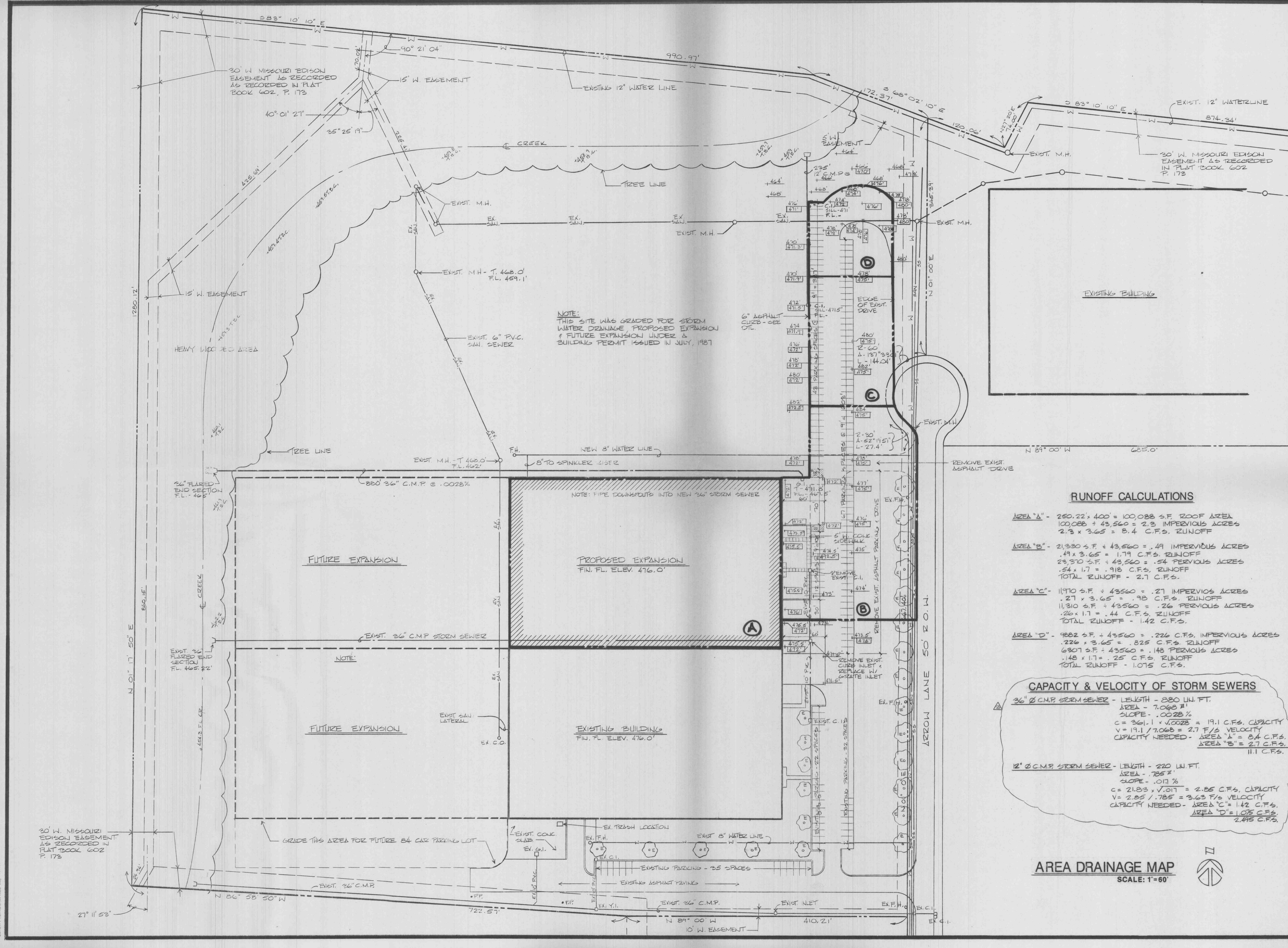

RUNOFF CALCULATIONS

AREA "A" - 250.22' x 400' = 100,088 S.F. ROOF AREA
100,088 ÷ 43,560 = 2.3 IMPERVIOUS ACRES
2.3 x 3.65 = 8.4 C.F.S. RUNOFF

AREA "B" - 21,330 S.F. ÷ 43,560 = .49 IMPERVIOUS ACRES
.49 x 3.65 = 1.79 C.F.S. RUNOFF
23,370 S.F. ÷ 43,560 = .54 PERVIOUS ACRES
.54 x 1.7 = .918 C.F.S. RUNOFF
TOTAL RUNOFF - 2.7 C.F.S.

AREA "C" - 11,970 S.F. ÷ 43560 = .27 IMPERVIOS ACRES
.27 x 3.65 = .98 C.F.S. RUNOFF
11,310 S.F. ÷ 43560 = .26 PERVIOUS ACRES
.26 x 1.7 = .44 C.F.S. RUNOFF
TOTAL RUNOFF - 1.42 C.F.S.

AREA "D" - 9882 S.F. ÷ 43560 = .226 C.F.S. IMPERVIOUS ACRES
.226 x 3.65 = .825 C.F.S. RUNOFF
6307 S.F. ÷ 43560 = .148 PERVIOUS ACRES
.148 x 1.7 = .25 C.F.S. RUNOFF
TOTAL RUNOFF - 1.075 C.F.S.

CAPACITY & VELOCITY OF STORM SEWERS

3 36" Ø C.M.P. STORM SEWER - LENGTH - 880 LIN. FT.
AREA - 7.068 ft²
SLOPE - .0028 %
C = 361.1 x √.0028 = 19.1 C.F.S. CAPACITY
V = 19.1 / 7.068 = 2.7 F/S VELOCITY
CAPACITY NEEDED - AREA "A" = 8.4 C.F.S.
AREA "B" = 2.7 C.F.S.
11.1 C.F.S.

12" Ø C.M.P. STORM SEWER - LENGTH - 220 LIN. FT.
AREA - .785 ft²
SLOPE - .017 %
C = 21.83 x √.017 = 2.85 C.F.S. CAPACITY
V = 2.85 / .785 = 3.63 F/S VELOCITY
CAPACITY NEEDED - AREA "C" = 1.42 C.F.S.
AREA "D" = 1.075 C.F.S.
2.495 C.F.S.

AREA DRAINAGE MAP
SCALE: 1"=60'

NO	DESCRIPTION	DATE
3	REVISIONS	9/14/90

REVISIONS

STATE OF MISSOURI RONALD F. KALUPA NUMBER E-11759 REGISTERED PROFESSIONAL ENGINEER

STRUCTURAL SYSTEMS, INC.
DESIGN
CONTRACTORS

314-966-5920
816 South Kirkwood Road
St. Louis Missouri 63122

BUILDING ADDITION TO:
ARROW LANE PARTNERSHIP
595 ARROW LANE
O'FALLON, MO.
63366

AREA DRAINAGE MAP

DRAWN: ACC
CHECKED:
SCALE: AS NOTED
ISSUE DATE: 8-29-90
S.S.I. JOB NUMBER: 90-037
DRAWING NUMBER
A-1a OF 8