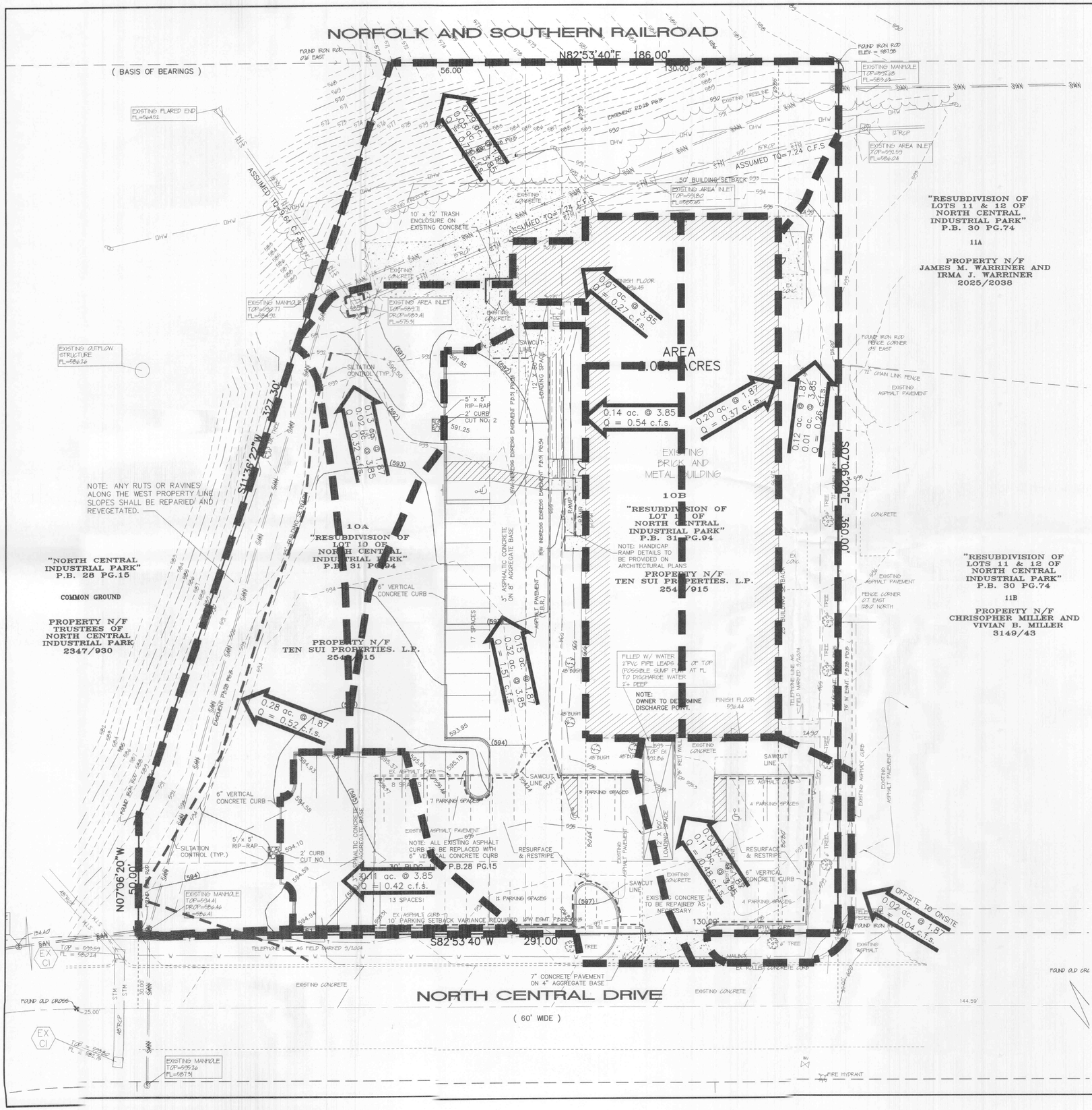
A DRAINAGE AREA MAP FOR THE
TELGAAS BUILDING

04-13035 11-4-04



DETENTION RUNOFF DIFFERENTIALS

EXISTING AREA OF RUNOFF TO BASIN

PERVIOUS AREA
0.44 AC. @ 1.87 C.F.S./AC.
Q=0.82

IMPERVIOUS AREA
0.06 AC. @ 3.85 C.F.S./AC.
Q=0.23

TQ=1.05 TO EXISTING BASIN

PROPOSED AREA OF RUNOFF TO BASIN

PERVIOUS AREA
0.28 AC. @ 1.87 C.F.S./AC.
Q=0.52

IMPERVIOUS AREA
0.11 AC. @ 3.85 C.F.S./AC.
Q=0.42

TQ=0.94 TO EXISTING BASIN

EXISTING AREA INLET RUNOFF DIFFERENTIALS

EXISTING AREA OF RUNOFF

PERVIOUS AREA
0.19 AC. @ 1.87 C.F.S./AC.
Q=0.73

IMPERVIOUS AREA
0.33 AC. @ 3.85 C.F.S./AC.
Q=1.27

TQ=2.00 TO EXISTING AREA INLET

PROPOSED AREA OF RUNOFF

PERVIOUS AREA
0.28 AC. @ 1.87 C.F.S./AC.
Q=0.52

IMPERVIOUS AREA
0.48 AC. @ 3.85 C.F.S./AC.
Q=1.85

TQ=2.37 TO EXISTING AREA INLET

VELOCITY CALCULATIONS FOR CURB CUTS

$Q = CLH^{3/2}$

Curb cut No. 1

Q = 0.42 c.f.s.

0.42 / (3x2) = 0.07

$0.07 = H^{3/2}$
H = 0.17
Depth at Cut = 0.17'

Q = VA

0.42 / (0.17 x 2) = 1.24 ft/s
Velocity at Cut = 1.24 ft/s

Curb cut No. 2

Q = 2.05 c.f.s.

2.05 / (3x2) = 0.34

$0.34 = H^{3/2}$
H = 0.49
Depth at Cut = 0.49'

Q = VA

2.05 / (0.49 x 2) = 2.09 ft/s
Velocity at Cut = 2.09 ft/s

THIS SHEET FOR DRAINAGE AREA PURPOSES ONLY, NOT FOR CONSTRUCTION!!!!

O'FALLON #5304

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