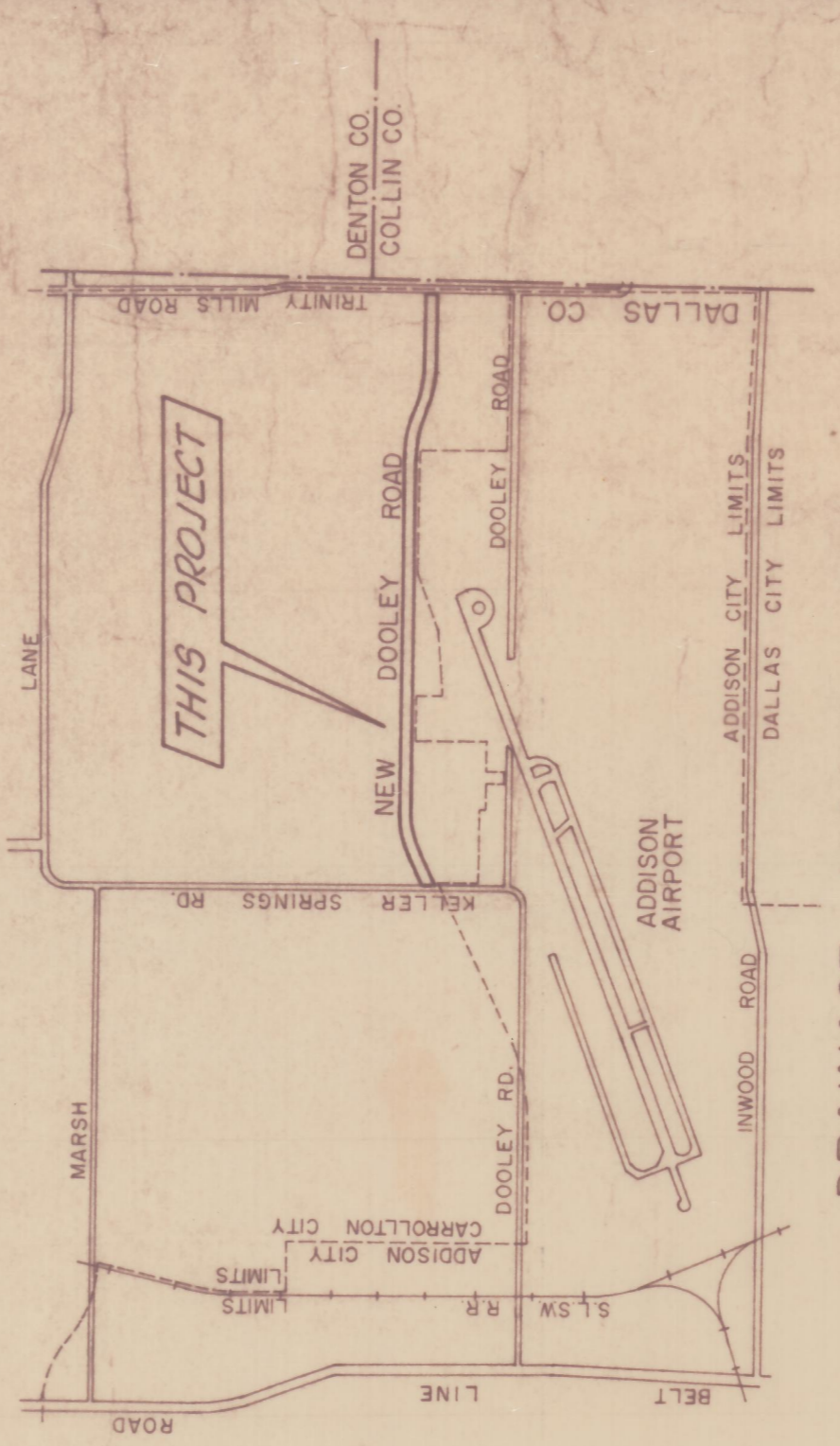


NOTE: All Storm Sewer Laterals
Are 21" & Unless Otherwise
Noted.



DRAINAGE VICINITY MAP

DRAINAGE AREA MAP
BELTWOOD NORTH, PHASE 2
ADDISON, TEXAS

PAVING & DRAINAGE PLANS
DOOLEY ROAD

CITY OF ADDISON, TEXAS
DATE 4-77 SCALE 1" = 400'
JOB NO. 2
SHEET 2 OF 10
DONALD C. MOREAU - CONSULTING ENGINEER
2355 STEMMONS FRWY. SUITE 11004 - DALLAS, TEXAS
As Built - 7-20-77

MIN. STREET CAPACITY
1425 @ 0.80%
w/ 1 LANE OPEN

PHASE 2 DRAINAGE CRITERIA

25 Yr. Frequency From Bulletin T.P. 25
Time of Concentration (in Phase 2) = 10 Min.
 $T_p = 6.6 \text{ min/hr.}$, $C = 0.80$
Time of Concentration (Air-field, Off-site Industrial) = 31.3 Min.
 $T_{100} = 7.9 \text{ min/hr.}$, $C = 0.58$ (Combined)

INLET CALCULATIONS

$Q = C \cdot I \cdot A$
 $Q = 1.40$
 $T_p = 15 \text{ min}$
 $T_{100} = 7.9$
 $Q = 6.32 (A)$

DITCH CALCULATIONS

$Q_{100} = C \cdot I \cdot A$
 $T_p = 15 \text{ min}$
 $T_{100} = 7.9$
Drainage Quantities
Adjusted By Effect
Flow Time

BOX CULVERT DESIGN
30BL 9'x6' C.B.C. w/25' Footboard
 $Q = 1465 (495) (25)^2 (0.006)^{1/2}$
 $Q = 6971 \text{ cfs. / each DAL}$
TOTAL CAPACITY = 3 (6971) = 20913 cfs.

$Q_{100} @ C.B.C. = 18820 \text{ cfs.}$
 $T_p = 15 \text{ min.} + 4900 \text{ L.F.} @ 5 \text{ fps} = 31.3 \text{ min.}$
 $T_{100} = 7.9$
 $C = 0.80$ (Area Adjacent To Dooley Rd.)
 $C = 0.55$ (Areas Designated as Park & Air-field)
Actual $C = 0.58$ for Area C-4 from Approx. 144 Ac. Park & Air-field
of 143 Ac. Industrial (Avg. Value)

LEGEND

- (C-1) D.A. NUMBER
- (1.32) AREA IN ACRES
- (8.34) RUNOFF IN C.F.S.
- DRAINAGE AREA LIMITS
- SUB-AREAS
- PROPOSED INLETS
- PROPOSED DITCH