

PRE-DEVELOPMENT RUNOFF CALCULATIONS

Table with 12 columns: CATCHMENT AREA ID, DIRECT CONTRIBUTING AREA, RUNOFF COEFF, CONC. TIME, RAINFALL INTENSITY, DIRECT RUNOFF, RAINFALL INTENSITY, DIRECT RUNOFF, RAINFALL INTENSITY, DIRECT RUNOFF, RAINFALL INTENSITY, DIRECT RUNOFF. Includes 8 rows of data.

POST-DEVELOPMENT RUNOFF CALCULATIONS

Table with 12 columns: CATCHMENT AREA ID, DIRECT CONTRIBUTING AREA, RUNOFF COEFF, CONC. TIME, RAINFALL INTENSITY, DIRECT RUNOFF, RAINFALL INTENSITY, DIRECT RUNOFF, RAINFALL INTENSITY, DIRECT RUNOFF, RAINFALL INTENSITY, DIRECT RUNOFF. Includes 8 rows of data.

ACTUAL FLOW:

Table with 4 columns: TIME (HOURS), INFLOW (CFS), STORAGE ELEVATION (FEET), OUTFLOW (CFS). Includes 20 rows of data.

DETENTION POND VOLUME CAL. REQUIREMENTS (MODIFIED RATIONAL METHOD)

100 YEAR STORM: DRAINAGE AREA
PRESENT CONDITIONS
Q = CIA
A = 1.129 AC, c = 0.35
Tc = 20 MIN
I100 = 8.30
Q100 = 3.28 cfs
OFFSITE CONDITIONS (DEVELOPED)
BY PASS
A = CA2+CA3+CA4+CA5
A = 0.417 AC
c = 0.90
Tc = 10 MIN
I100 = 9.80
Q100 = 3.68 cfs

FLOW FOR STORM DURATIONS (DEVELOPED) / OFFSITE

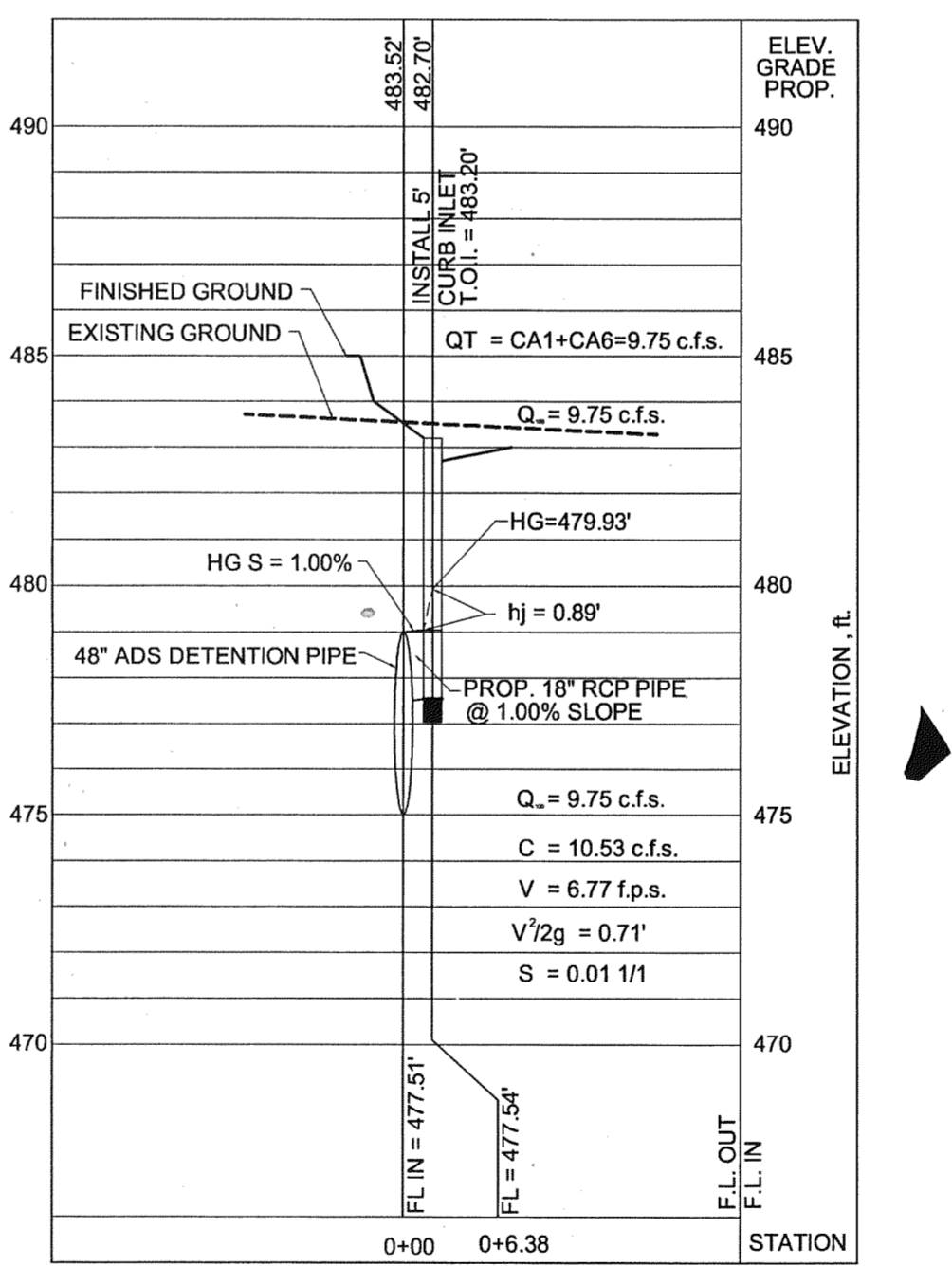
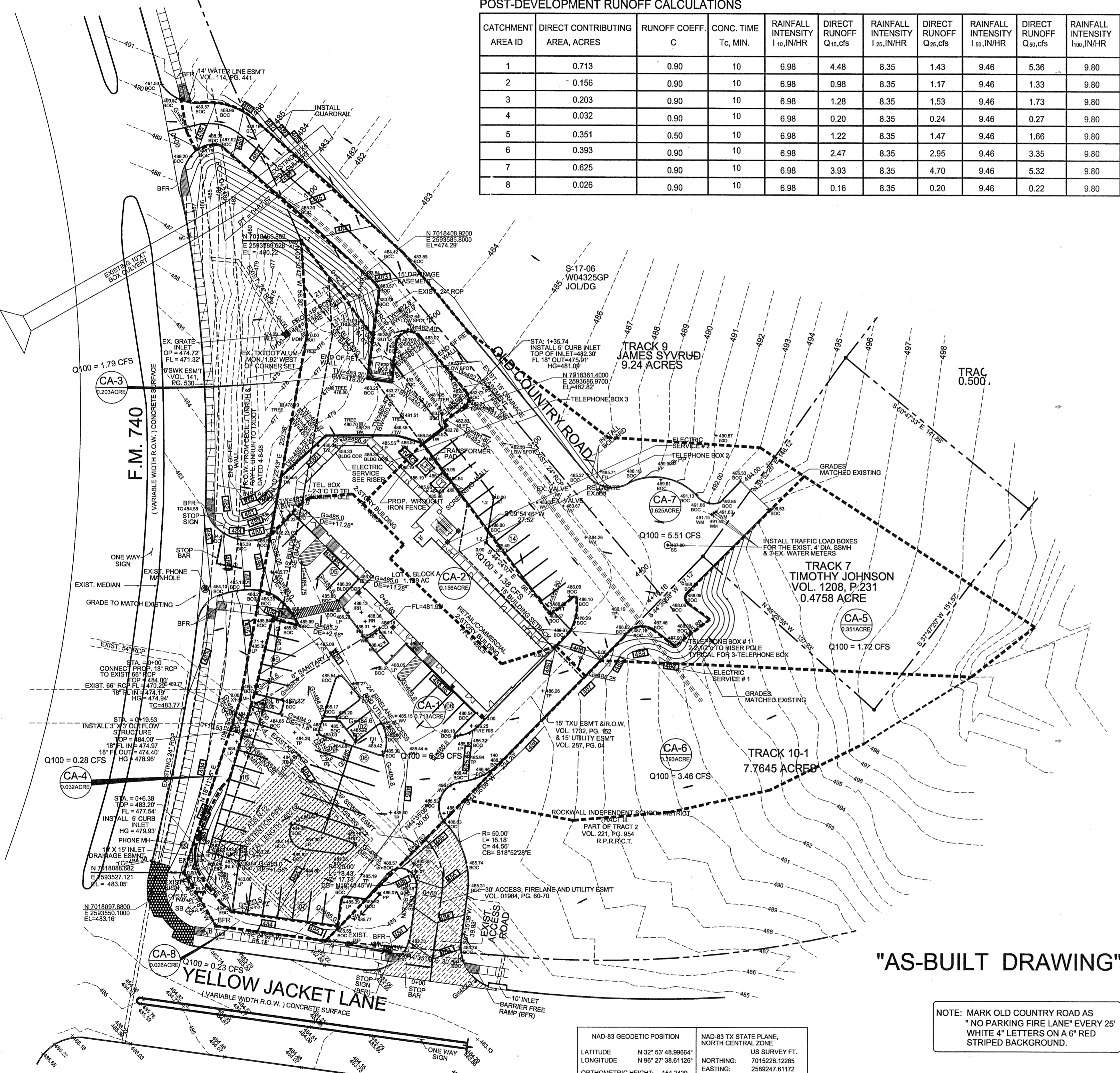
Two tables showing flow for storm durations (10-90 min) for developed and offsite conditions. Columns include Time Duration, I, c, and Qd.

STORAGE CALCULATIONS:

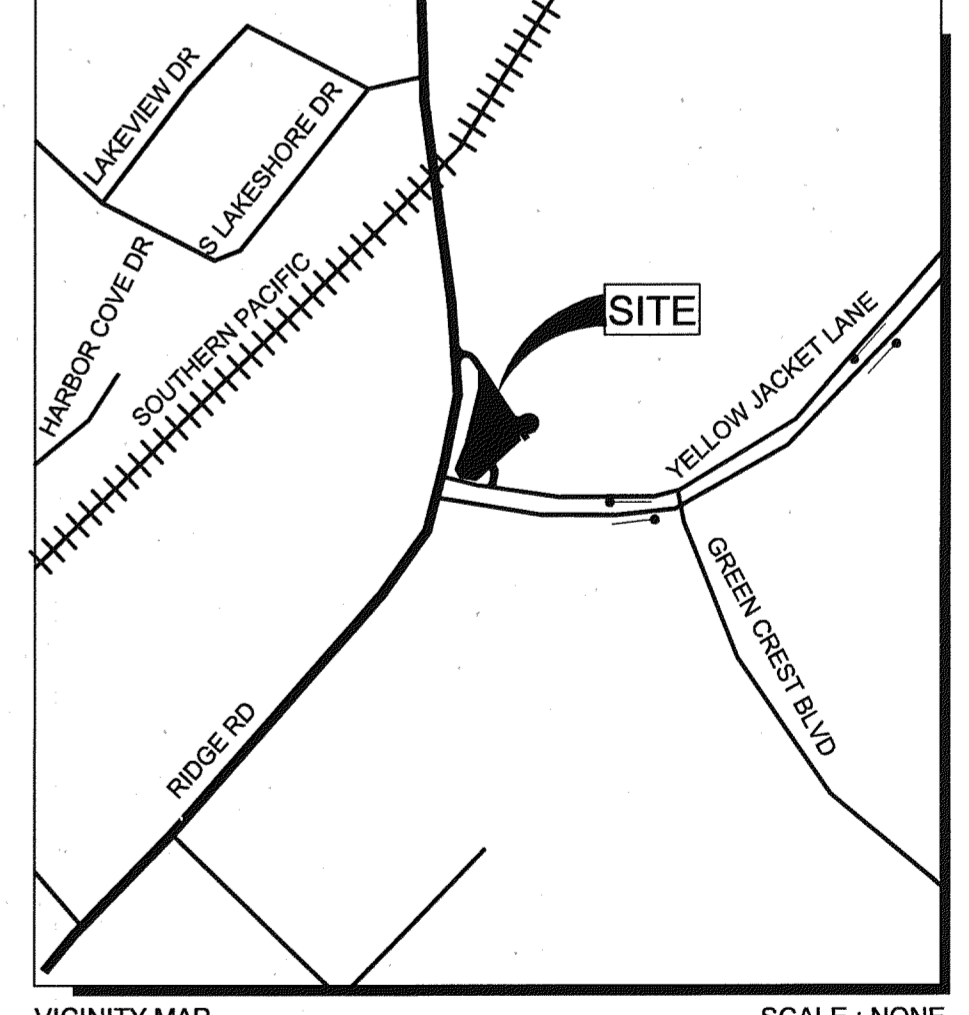
Table showing storage calculations for various storm durations (10-90 min). Columns include Inflow, Outflow, and Storage.

SUMMARY FOR DETENTION PIPE

INFLOW AREA = 1.105AC
INFLOW DEPTH 3.48" FOR 100-YR EVENT
OUTFLOW = 2.95 CFS @ 0.75 HRS.
VOLUME = 0.320 AF
ATTEN = 49% LAG = 34.7 MIN
ROUTING BY STOR-IND METHOD
TIME SPAN = 0.00-3.00 HRS
DT = 0.01 HRS
PEAK ELEV. = 477.92' @ 0.75 HRS
SURF. AREA = 2,807 S.F.
STORAGE = 7,750 CF
PLUG-FLOW DETENTION TIME = 28.5 MIN CALCULATED FOR 0.320 AF (100% OF INFLOW)
CENTER-OF-MASS DET. TIME = 28.4 MIN (53.5-25.0)



LEGEND: SANITARY SEWER MANHOLE, STORM SEWER MANHOLE, CLEAN OUT, FIRE HYDRANT, POWER POLE, TELEPHONE BOX, WATER METER, GATE VALVE, LIGHT POLE, IRRIGATION SPRINKLER HEAD LOCATION, VAN ACCESSIBLE HANDICAP PARKING, SIGN LOCATION, RIGHT OF WAY, SET IRON ROD, EXPANSION JOINT, SAW JOINT, CONSTRUCTION JOINT, EXIST. LIGHTPOLE, DRAINAGE & UTILITY EASEMENT, DRAINAGE FLOW ARROW, TRAFFIC FLOW ARROW, FOUND IRON ROD, GAS METER, EXIST. WATER VALVE.

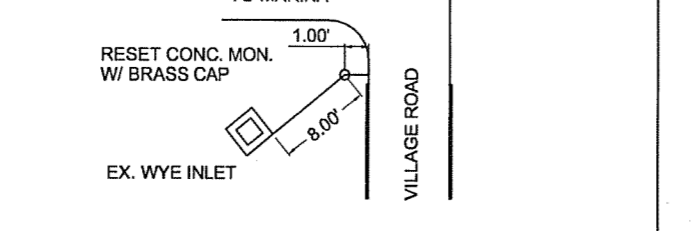
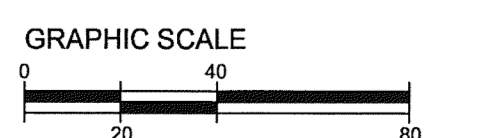


"AS-BUILT DRAWING"

NOTE: MARK OLD COUNTRY ROAD AS "NO PARKING FIRE LANE" EVERY 25' WHITE 4" LETTERS ON A 6" RED STRIPED BACKGROUND.

NAD-83 GEODETIC POSITION and NAD-83 TX STATE PLANE NORTH CENTRAL ZONE coordinates and scale factor.

01 DRAINAGE AREA MAP



AS - BUILT DRAWINGS. TO THE BEST OF MY KNOWLEDGE, THIS PLAN IS AS - BUILT, AND THE INFORMATION IS BASED ON SURVEYING CONDUCTED AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR. BILLY W. HUDSON

OWNER/DEVELOPER: IN KYUNG HWAN / CHUNG OH SOON. 512 SUNSTONE DRIVE, IRVING, TEXAS 75060. CONTACT PERSON: CECIL UNRUH, ERIC CHUNG.

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DRAINAGE AREA MAP. YELLOW JACKET CROSSING. INTERSECTION OF YELLOW JACKET LANE AND FM 740 (Ridge Road) CITY OF ROCKWALL, TEXAS 75087. LOT 1, BLOCK A. 1.129 AC. C3c