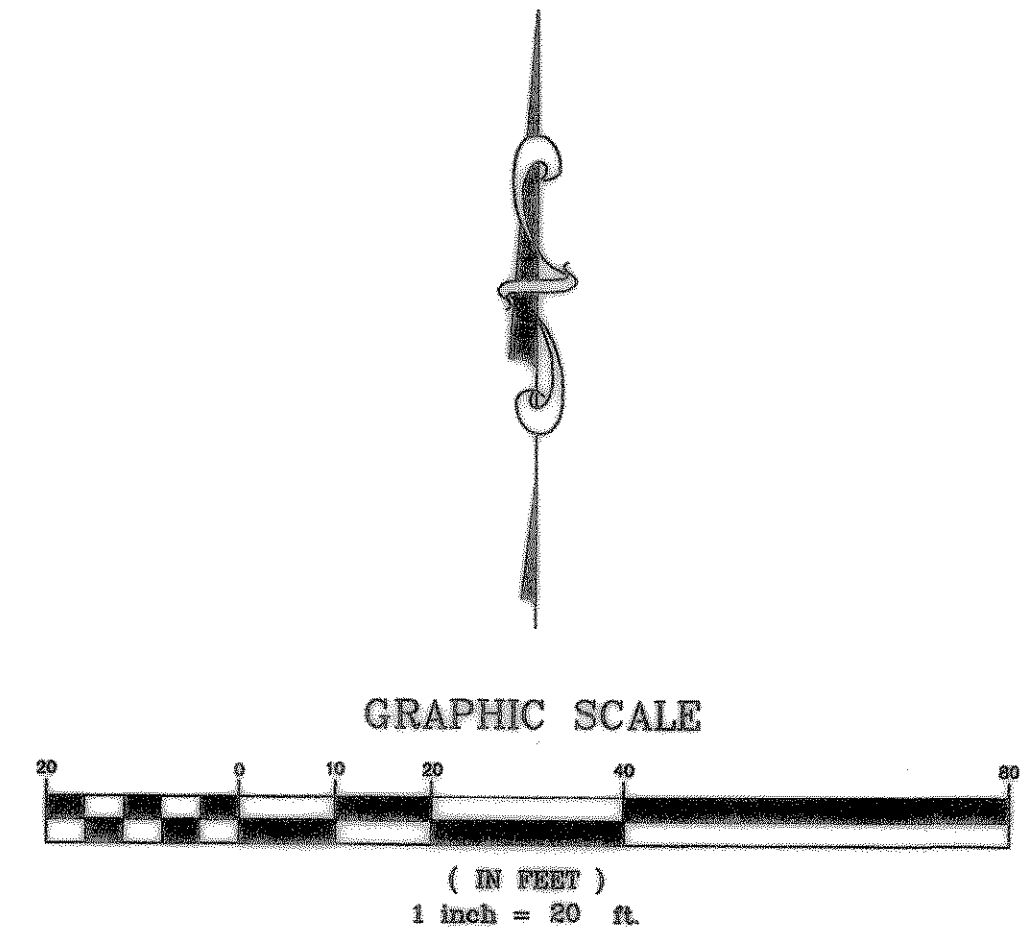
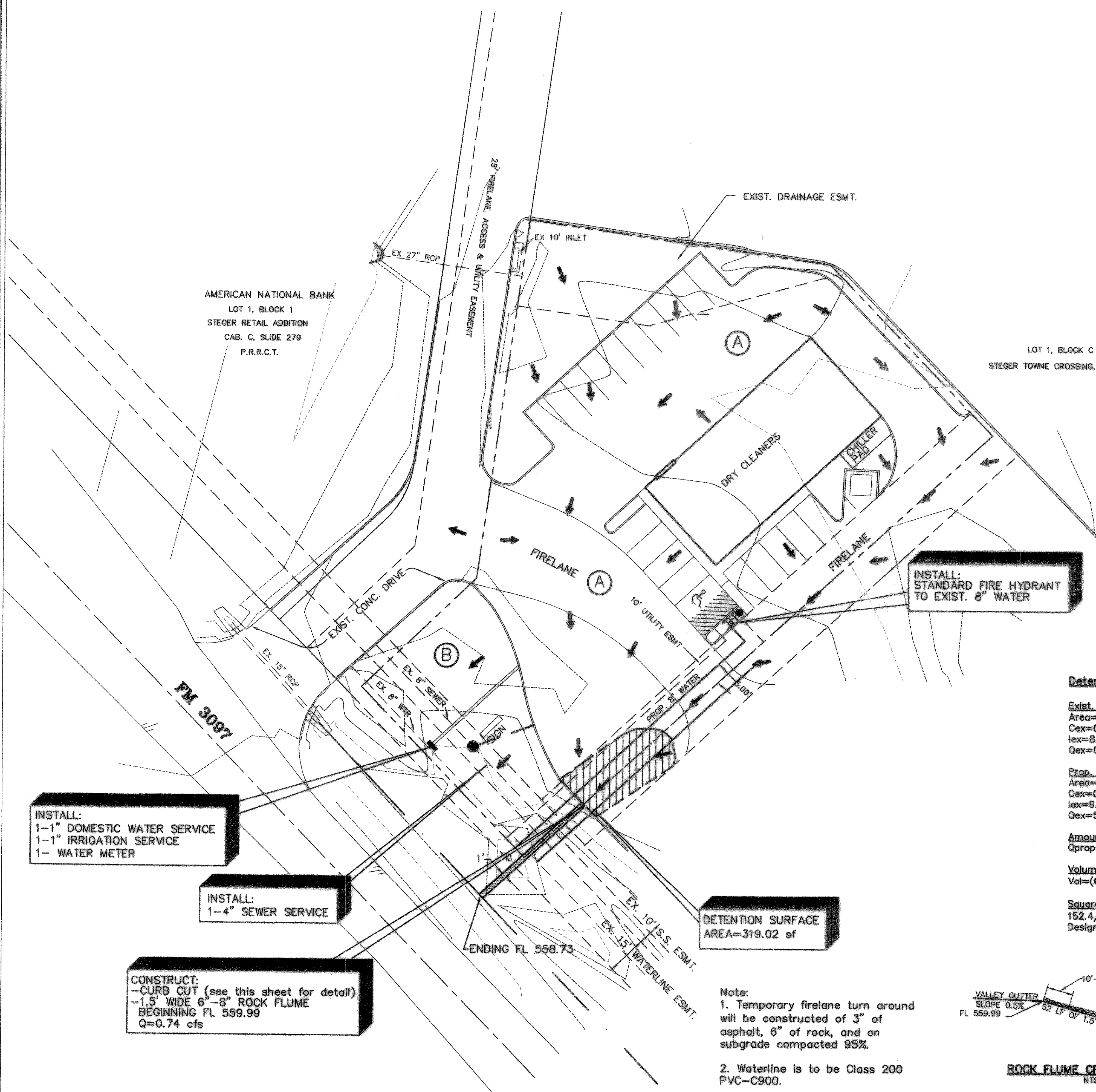


DOUPHRADE & ASSOCIATES, INC.
 ENGINEERING • PROJECT MANAGEMENT • SURVEYING
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DRAINAGE AND UTILITY PLAN
KWIK CLEANERS
 CITY OF ROCKWALL,
 ROCKWALL COUNTY, TEXAS

MOVED WATERLINE INTO PROP. REVISION
W.L.D. CHECKED
A.J.W. DRAWN
3/28/00 DATE
9965DAM-ULT PROJECT
3 OF 7



AREA	ACRES	C	I_{100}	Q_{100}
A	0.65	.90	9.8	5.73
B	0.10	.90	9.8	0.88

Detention Calculations

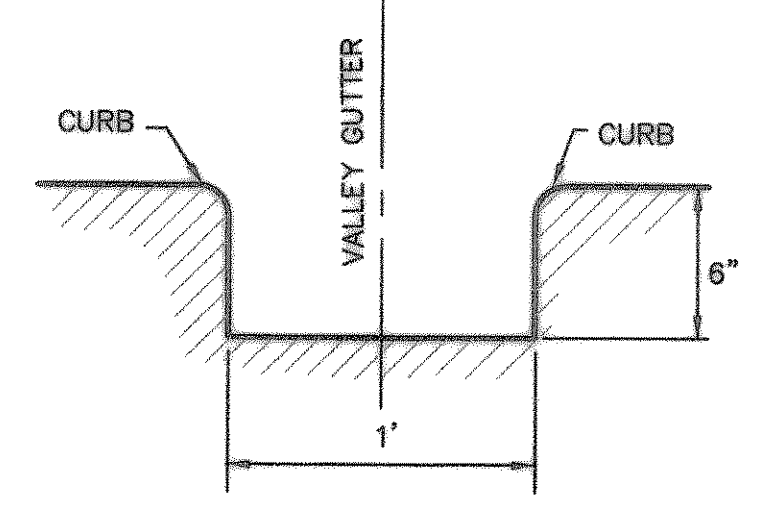
Exist. Drainage To Ditch:
 Area=0.190 acres
 Cex=0.35
 Iex=8.5
 Qex=0.57 cfs

Prop. Drainage to Ditch:
 Area=0.65 acres
 Cex=0.9
 Iex=9.8
 Qex=5.73 cfs

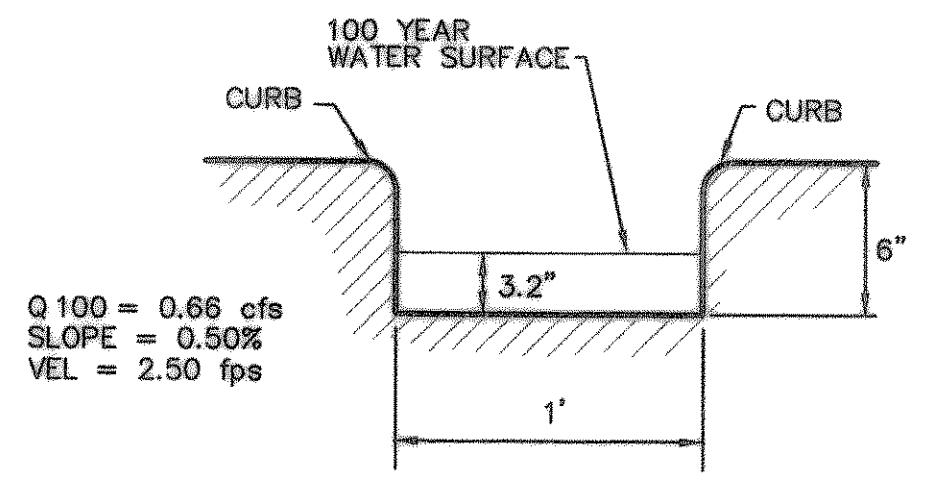
Amount to be detained:
 $Q_{prop} - Q_{ex} = 5.73 - 0.57 = 5.16$ cfs

Volume needed to detain water:
 $Vol = (60 * 5.16) / 2 = 154.8$ cf

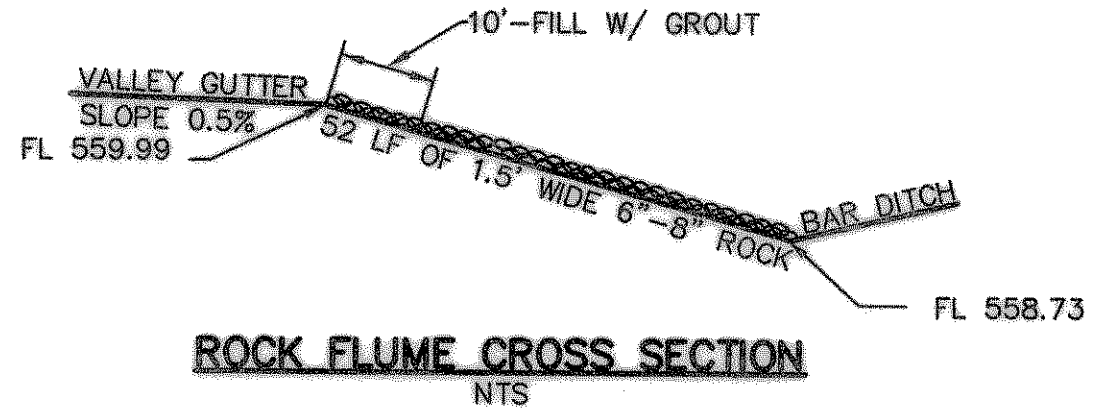
Square area required (not to exceed 1/2'):
 $152.4 / 0.5 = 304.8$ sf
 Designed square area=319.02 sf



CURB CUT DIMENSIONAL DETAIL
 NTS



100 YR FLOOD CROSS-SECTION
 NTS



ROCK FLUME CROSS SECTION
 NTS

- Note:**
1. Temporary firelane turn around will be constructed of 3" of asphalt, 6" of rock, and on subgrade compacted 95%.
 2. Waterline is to be Class 200 PVC-C900.
 3. Irrigation service shall have a backflow preventer and double check valve (testable).