TRENCH EARTH

INLET HEADWALL
$(\frac{0.9+1.8}{2}) \times 1.68m \times 3.25m$ = 6.6 cm²

OUTLET HEADWALL,
$1.35m \times 1.68m \times 3.25m$ = 7.4 cm²

CULVERT
FROM INLET 0-1.5m
$\left[(\frac{1.48+1.5}{2} \times 1.1 \cdot (1.5 \times 21:3) + (\frac{7.32+0.9}{2} \times 6.1) + (0.9 \times 3.9)\right] \times 2.2m$ = 97.4 cm²

FROM INLET OVER 1.5m
$\left[(\frac{0.0+0.99}{2} \times 33) + (\frac{0.8+0.9}{2} \times 9.8) + (0.9 \times 6.0) + (\frac{0.9+0.0}{2} \times 22.1)\right] \times 2.2m = 32.4 \times 1.5$ = 48.6 cm²

STONE FILL EXC @ OUTLET
21.6 cm² - $(0.5m \times 0.6m \times 3.25m)$ = 20.6 cm²

STONE FILL EXC @ INLET
46.0 cm² - (1 cm²) = 45.0 cm²

OUTLET DITCH
$(\frac{2.9+1.1}{2} \times 9.8) + (\frac{1.1+0.0}{2} \times 18)$ = 20.6 cm²

INLET DITCH
$(\frac{0.0+2.5}{2} \times 25) + (\frac{2.5+0.0}{2} \times 42)$ = 109.4 cm²

257 cm²

GRANULAR BACKFILL FOR STRUCTURES

BEHIND HEADWALLS
$[0.6m(D) \times 0.6m(W) \times 3.25m) \times 2$ = 2.3 cm²

UNDER CULVERT
$32.3m \times 0.3m(D) \times 2.2m(W)$ = 21.3 cm²

CULVERT
$33.1m \times 1.2m(D) \times 2.2m(W)$ = 89.4 cm²

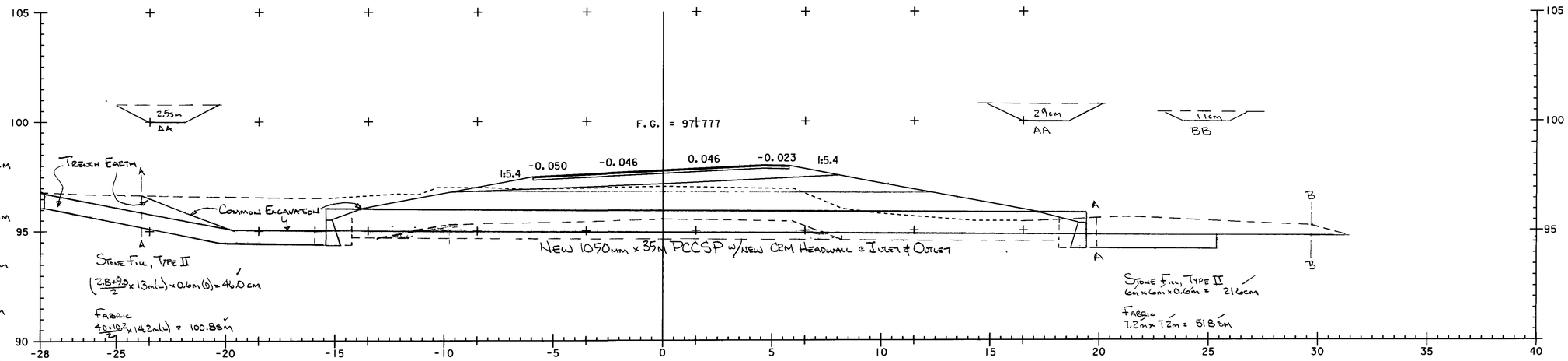
111.0 cm²

EARTH BORROW

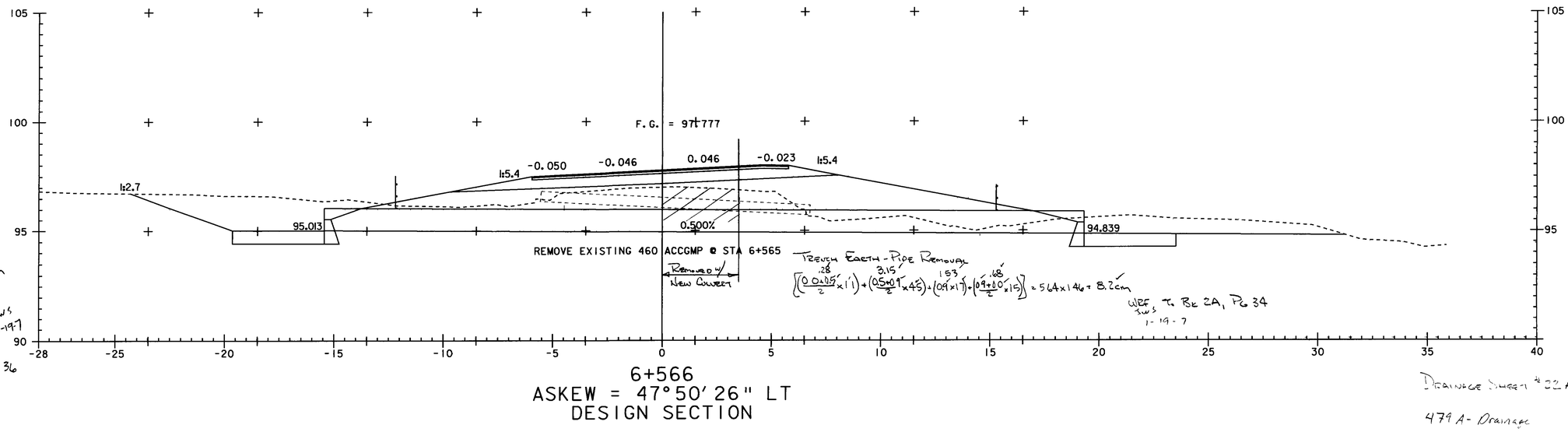
$\frac{30.9+22.0}{2} \times 0.86m$ (FIELD MEAS)$(D) \times 22m(W)$ = 500 cm² $\times 1.15$ = 57.5 cm²

WEF 12-13-06 JWS 1-19-7

T. BK 2A, Pg 36



6+566
ASKEW = 47°50'26" LT
FIELD PROFILE



6+566
ASKEW = 47°50'26" LT
DESIGN SECTION

DRAINAGE SHEET # 22A

479A - Drainage