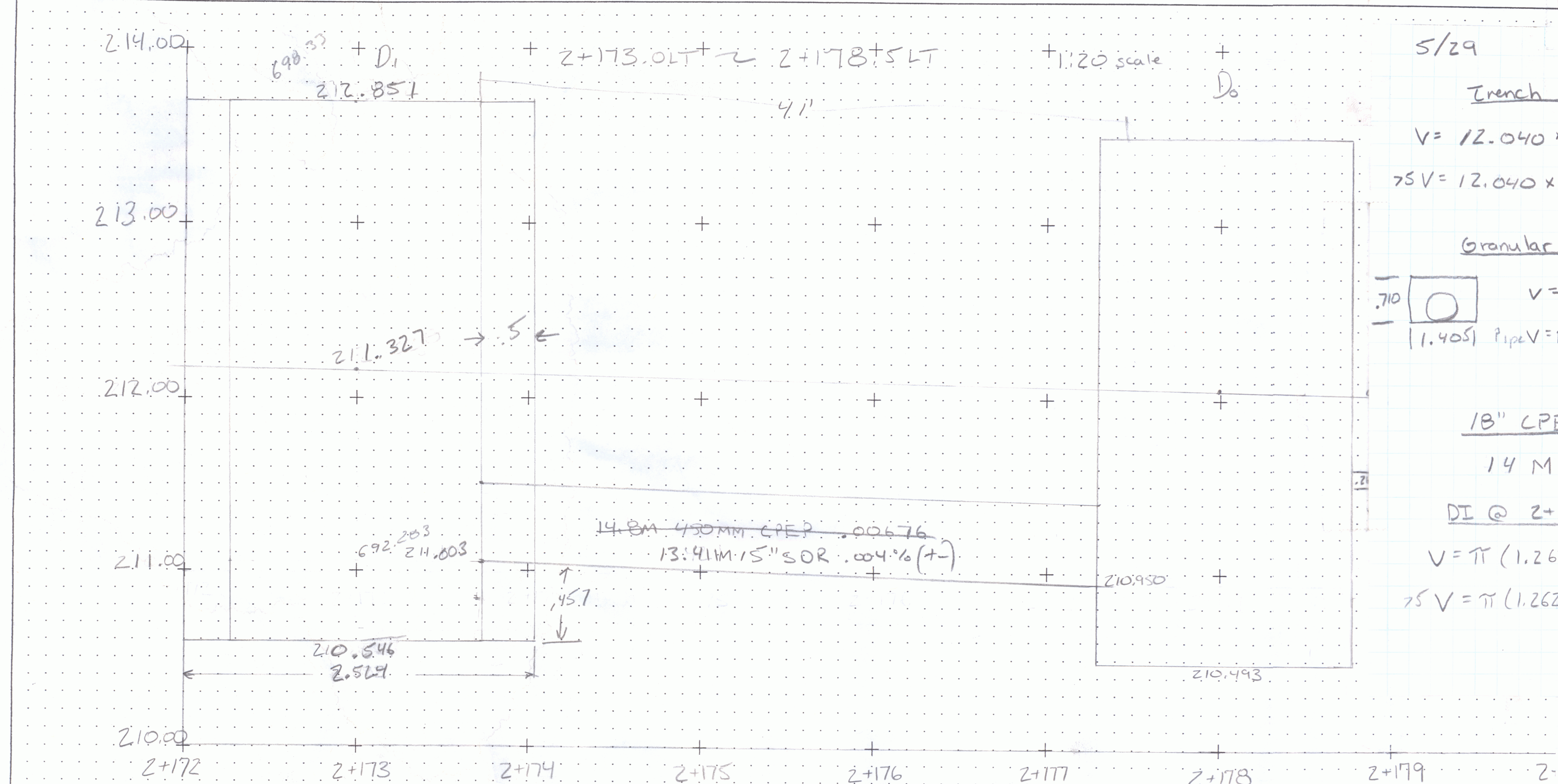




5/29

Trench Earth for Pipe

$$V = 12.040 \times 1.405 \times 1.524 = 25.780$$

$$75V = 12.040 \times 1.405 \times .324 \times 1.5 = 8.221 \text{ CM} \quad (34.001 \text{ CM})$$

Granular Backfill

$$V = 12.040 \times 1.405 \times .710 = 12.011$$

$$1.405 \text{ Pipe } V = \pi (2.03)^2 \times 12.040 = 1.559 \text{ CM} \quad (10.452 \text{ CM})$$

18" CPEP

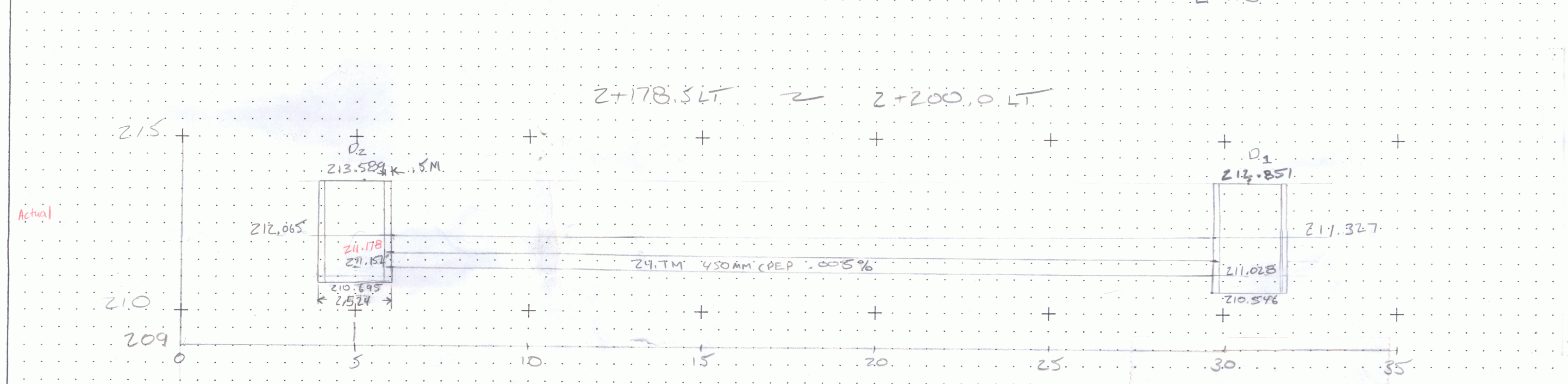
14 M

DI @ 2+178.5 LT

$$V = \pi (1.262)^2 \times 1.524 = 7.625$$

$$75V = \pi (1.262)^2 \times .781 \times 1.5 = 5.862 \text{ CM} \quad (13.487 \text{ CM})$$

RED 6/2/02
MCS 4/2/02



DR 2+178.5 LT ~ 2+200.0 LT

Trench Earth for DI

$$V = \pi (1.262)^2 \times 1.524 = 7.625 \text{ CM}$$

$$75V = \pi (1.262)^2 \times 1.370 \times 1.5 = 10.282 \text{ CM} \quad (17.907 \text{ CM})$$

Trench Earth for Pipe

$$V = 22.176 \times 1.533 \times 1.524 = 51.810$$

$$75V = 22.176 \times 1.533 \times .606 \times 1.5 = 30.902 \text{ CM} \quad (82.712 \text{ CM})$$

Granular Backfill

$$V = 23.176 \times 1.533 \times .838 = 29.773 \text{ CM}$$

$$V = 23.176 \times \pi (.267)^2 = 5.191 \text{ CM} \quad (24.582 \text{ CM})$$

RED 6/2/02
MCS 4/2/02



Trench Earth for DI

$$V = \pi (1.262)^2 \times 1.524 = 7.625 \text{ CM}$$

$$75V = \pi (1.262)^2 \times .935 \times 1.5 = 7.017 \text{ CM} \quad (14.642 \text{ CM})$$

Trench Earth for Pipe

$$V = 4.276 \times 1.457 \times 1.524 = 9.495$$

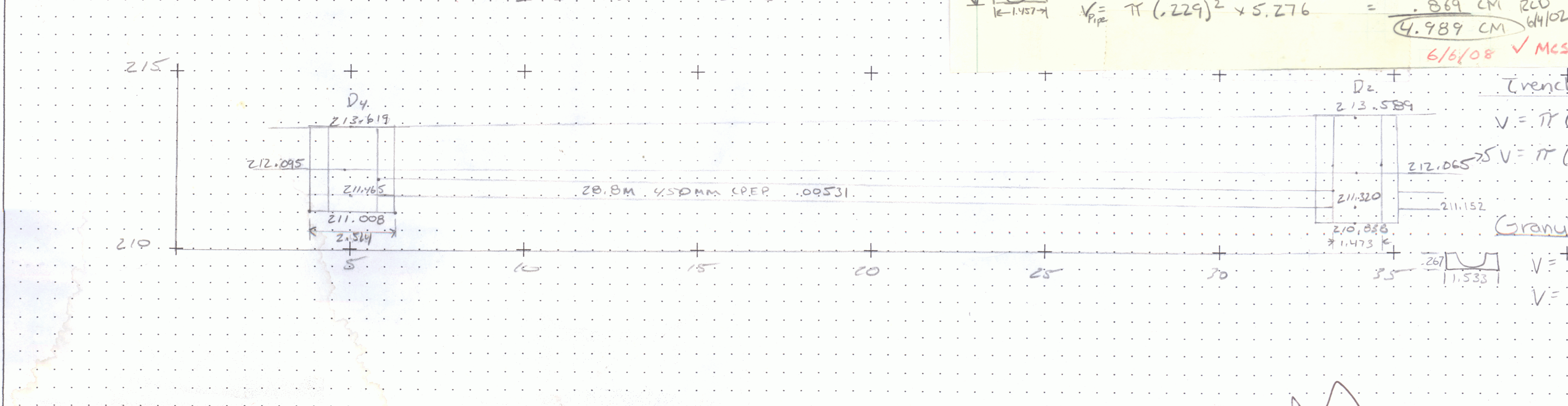
$$75V = 4.276 \times 1.457 \times .587 \times 1.5 = 5.486 \text{ CM} \quad (14.981 \text{ CM})$$

Granular Backfill

$$V = 5.276 \times 1.457 \times .762 = 5.858 \text{ CM}$$

$$V = \pi (.229)^2 \times 5.276 = .869 \text{ CM} \quad (4.989 \text{ CM})$$

RED 6/2/02
MCS 4/2/02



Pipe

$$V = 1.524 \times 1.533 \times .838 = 1.906$$

$$V = 1.524 \times \pi (.267)^2 = .808$$

$$V = 1.524 \times \pi (.267)^2 = .808$$

DR 2+200 LT ~ 2+230 LT

Trench Earth for DI

$$V = \pi (1.262)^2 \times 1.524 = 7.625 \text{ CM}$$

$$75V = \pi (1.262)^2 \times 1.087 \times 1.5 = 8.158 \text{ CM} \quad (15.783 \text{ CM})$$

Trench Earth for Pipe

$$V = 26.276 \times 1.533 \times 1.524 = 61.388 \text{ CM}$$

$$75V = 26.276 \times 1.533 \times .688 \times 1.5 = 41.570 \text{ CM} \quad (102.958 \text{ CM})$$

Granular Backfill

$$V = 27.276 \times 1.533 \times .838 = 35.040 \text{ CM}$$

$$V = 27.276 \times \pi (.267)^2 = 6.109 \text{ CM} \quad (28.931 \text{ CM})$$

RED 6/2/02
MCS 4/2/02

Trench earth

$$V = \pi (1.236)^2 \times .838$$

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