

Landfill Airspace & Accuracy Report

Synthetic landfill (300 × 300 m) | generated 2026-10-17 23:08 | grid 1 m

VOLUME SUMMARY

Comparison	Fill m3	Cut m3	Net m3	Fill yd3	Cut yd3	Net yd3
Before -> After	25,202	213	+24,989	32,963	278	+32,684
Before->After raw	25,735	755	+24,980	33,660	988	+32,672
After -> Design	80,840	22	+80,818	105,735	29	+105,706
Before -> Design	105,822	22	+105,800	138,410	29	+138,381

Area compared 90,000 m2; 1 cm uniform vertical bias = 900 m3.

Remaining capacity to design: 80,840 m3 (105,735 yd3)

VERTICAL ACCURACY (after survey)

Tested 0.033 m (0.107 ft) non-vegetated vertical accuracy (NVA) at the 95% confidence level using RMSEz x 1.96000 (RMSEz = 1.7 cm, mean error = +0.3 cm, n = 12). This meets the ASPRS (2014) vertical accuracy class of 2.5 cm RMSEz. Tested 0.035 m (0.114 ft) vegetated vertical accuracy (VVA) at the 95th percentile (n = 3); VVA is reported for information and is not a pass/fail criterion. Note: ASPRS 2023 recommends at least 30 non-vegetated checkpoints; only 12 were supplied, so these statistics are indicative, not a formal compliance test. Error = lidar-derived DEM elevation minus surveyed checkpoint elevation. Standard: ASPRS Positional Accuracy Standards for Digital Geospatial Data (2023).

NVA (open terrain)	n=12	RMSEz=	1.7 cm	mean=	+0.3 cm	NVA95=3.3 cm
VVA (vegetated)	n=3	RMSEz=	2.5 cm	mean=	-2.1 cm	VVA95=3.5 cm

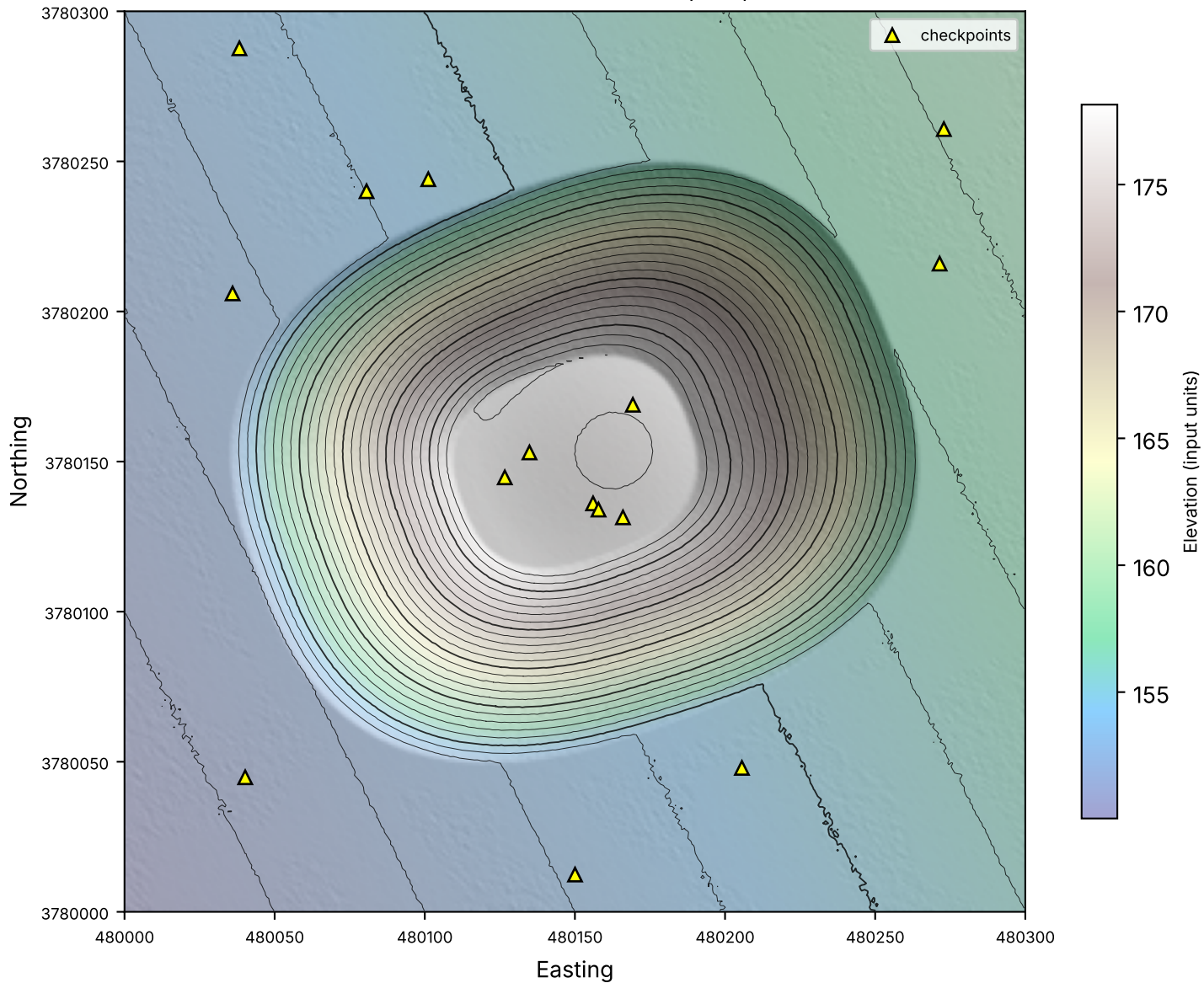
VERTICAL ACCURACY (before survey)

Tested 0.041 m (0.136 ft) non-vegetated vertical accuracy (NVA) at the 95% confidence level using RMSEz x 1.96000 (RMSEz = 2.1 cm, mean error = +0.7 cm, n = 12). This meets the ASPRS (2014) vertical accuracy class of 2.5 cm RMSEz. Tested 0.024 m (0.077 ft) vegetated vertical accuracy (VVA) at the 95th percentile (n = 3); VVA is reported for information and is not a pass/fail criterion. Note: ASPRS 2023 recommends at least 30 non-vegetated checkpoints; only 12 were supplied, so these statistics are indicative, not a formal compliance test. Error = lidar-derived DEM elevation minus surveyed checkpoint elevation. Standard: ASPRS Positional Accuracy Standards for Digital Geospatial Data (2023).

NVA (open terrain)	n=12	RMSEz=	2.1 cm	mean=	+0.7 cm	NVA95=4.1 cm
VVA (vegetated)	n=3	RMSEz=	1.7 cm	mean=	+1.6 cm	VVA95=2.4 cm

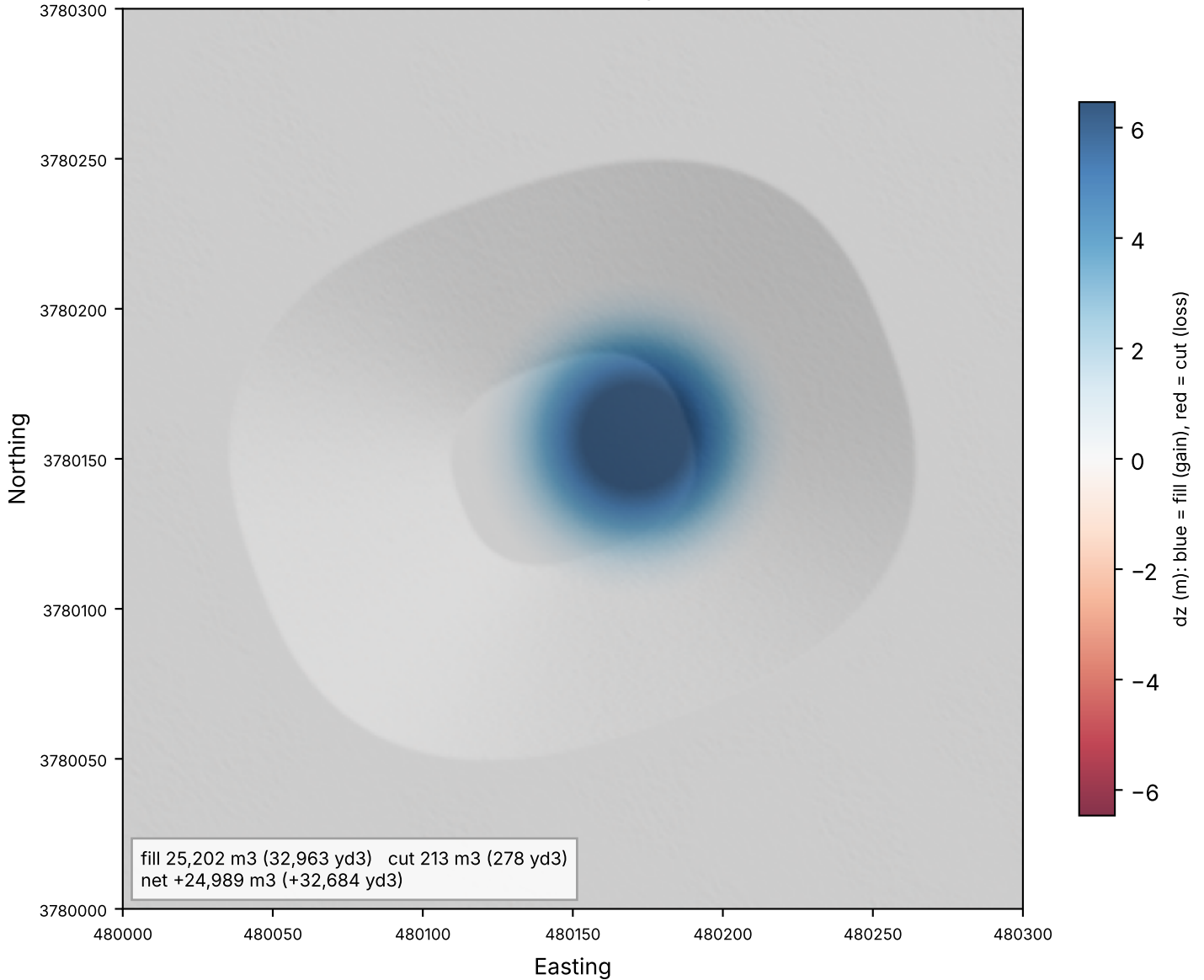
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Hillshade + 1 unit contours (after)

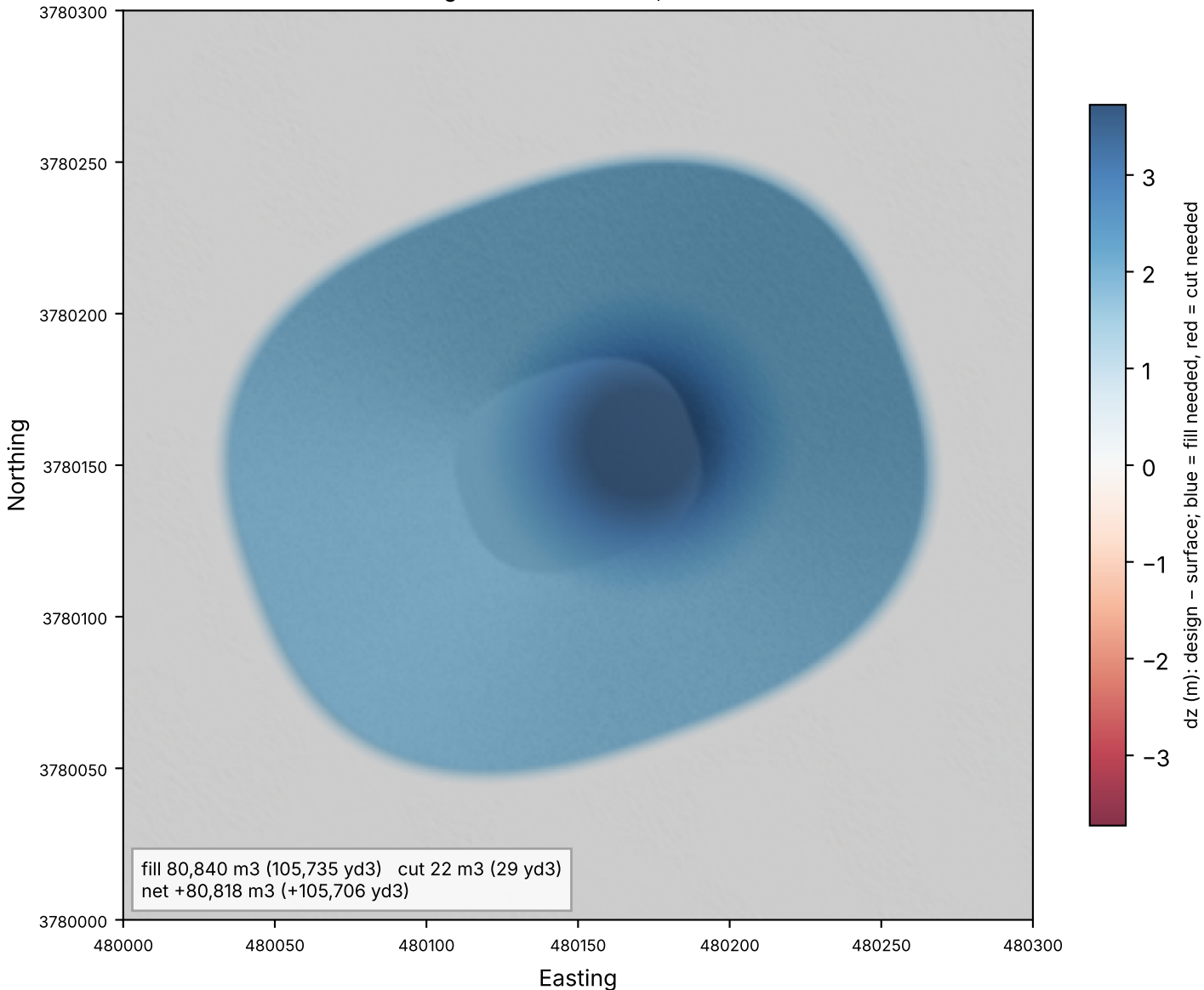


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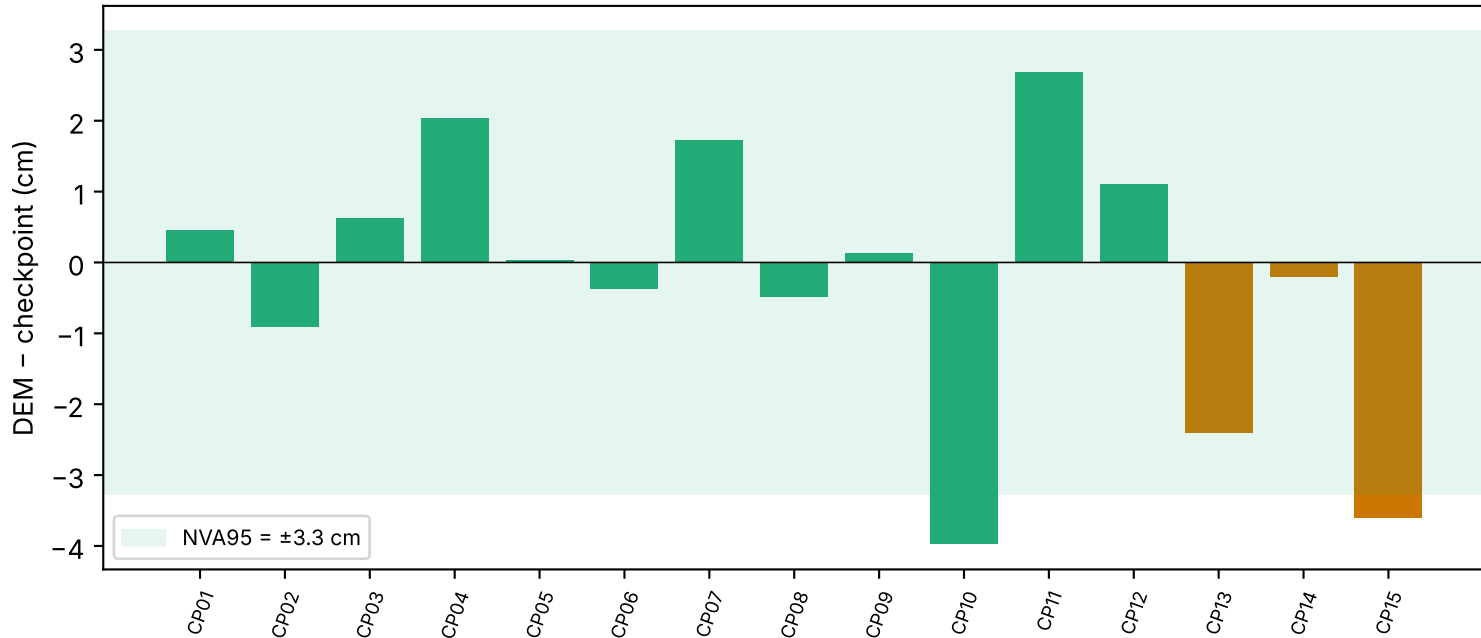
Before → After change (dz)



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After → Design (blue = needs fill, red = needs cut)



Landfill Airspace & Accuracy Report: checkpoint vertical errors (after survey)
green = open terrain, orange = vegetated



Landfill Airspace & Accuracy Report: checkpoint vertical errors (before survey)
green = open terrain, orange = vegetated

