Project Guidelines



Project Suitability

Indicators of a suitable test project for Softree Optimal are:

- Large cut/fill volumes.
- Unconstrained corridor (few vertical control points). Examples: rural road, rail, or pipeline.
- Steep or irregular topography.

General Requirements

- Less than 10 kilometers/6 miles in length. Longer lengths can be optimized in segments.
- Single alignment. Currently Softree Optimal cannot optimize multiple alignments at once. Intersections, interchanges or ramps are not included in the earthwork calculations, but can be set as control points.

Data Requirements

File	Accepted Formats
Original ground surface file	LandXML, .dwg 3D faces, LiDAR (ASCII, .las)
Alignment files (horizontal and vertical)	 LandXML (for best results) .dgn, .dwg, and .shp files (are acceptable, but do not provide as detailed results.)
Subgrade surface file (if available)	• LandXML
Cross section visual & list of corresponding station ranges	• .pdf

Design Controls, Costs, & Parameters

(These are not required, but are recommended for a complete demo.)

- List of constrained points. Provide station numbers, elevations and grades.
- Maximum/minimum values for: grades, curve lengths, k-value.
- Cut & fill cost of materials (per cubic yard), and any pit locations.
- · Any additional constraints, such as minimum height of fill.