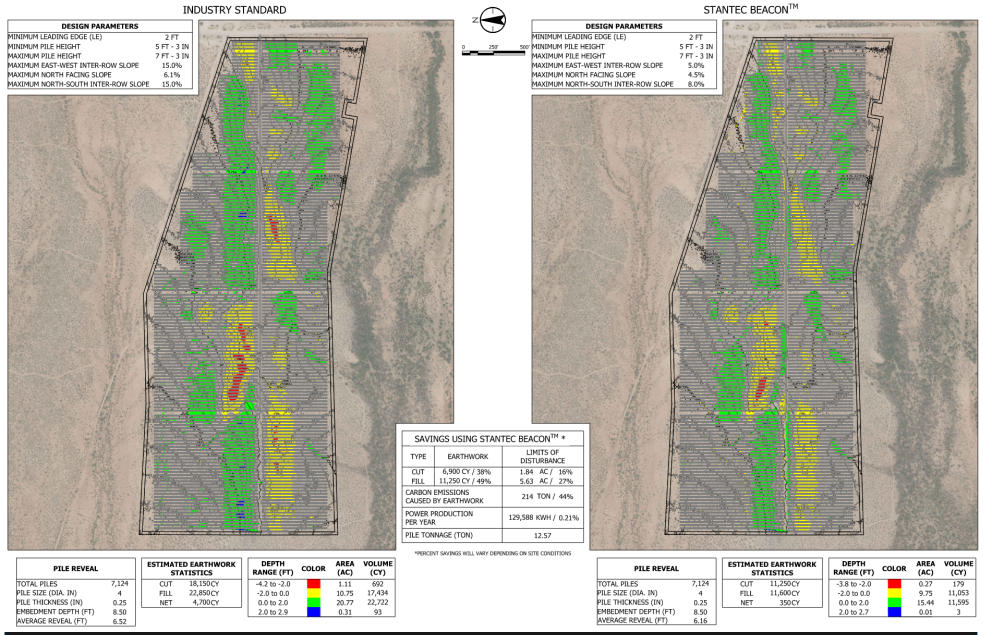
Unlocking the Potential of Any Terrain: A Calculated Approach to Solar Farm Design

Kyle Jones

What if the necessary **earthworks** could be drastically **reduced**? What if we could **quickly and efficiently** account for every vertical variation at every pile and maintain the flexibility of changing the preset parameters from concept through to completion?

Current methods of resolving necessary earthworks on solar farms are established primarily on the existing grade due to the complexity and variability it can possess. Trackers have needed to evolve into terrain following options to account for the impacts that earthworks can have on time, cost, efficiency, complexity and the environment.

With **full control** of the vertical layout make **informed decisions** at the earliest stages in comparing cost of materials vs earthworks vs production.



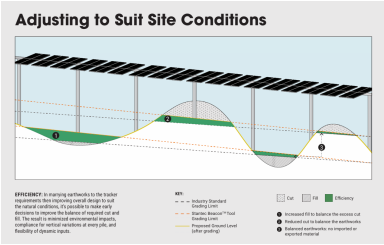
Download the full paper (or other reference material) here

Learn more about Stantec Beacon ™

CLEANPOWER

AMERICAN CLEAN POWER

Method



Results

Option	Overall Cut (CU YD)	Overall Fill (CU YD)	Pile Reveal Avg. (ft)	Production (kWh/yr)	Disturbed (%)
12" IS - SAT	361,588	284,973	4.74	224,863,801	21.74%
12" SB - SAT	215,492	213,644	4.85	225,145,921	20.56%
18" SB - SAT	177,545	161,072	5.11	-	16.05%
24" SB - SAT	135,851	136,923	5.36	-	13.14%
12" SB- TF	12,015	15,242	4.4	226,273,371	4.91%
18" SB - TF	8,175	9,135	4.42	-	4.26%
24" SB - TF	9,104	2,249	4.44	-	3.69%

IS - Industry Standard, SB - Stantec Beacon™

Kyle Jones C.E.T.
Civil Designer
Kyle.jones@stantec.com

Stantec