COMPUTATIONAL JOURNAL | WEEK 1 - WORKFLOW DIAGRAM
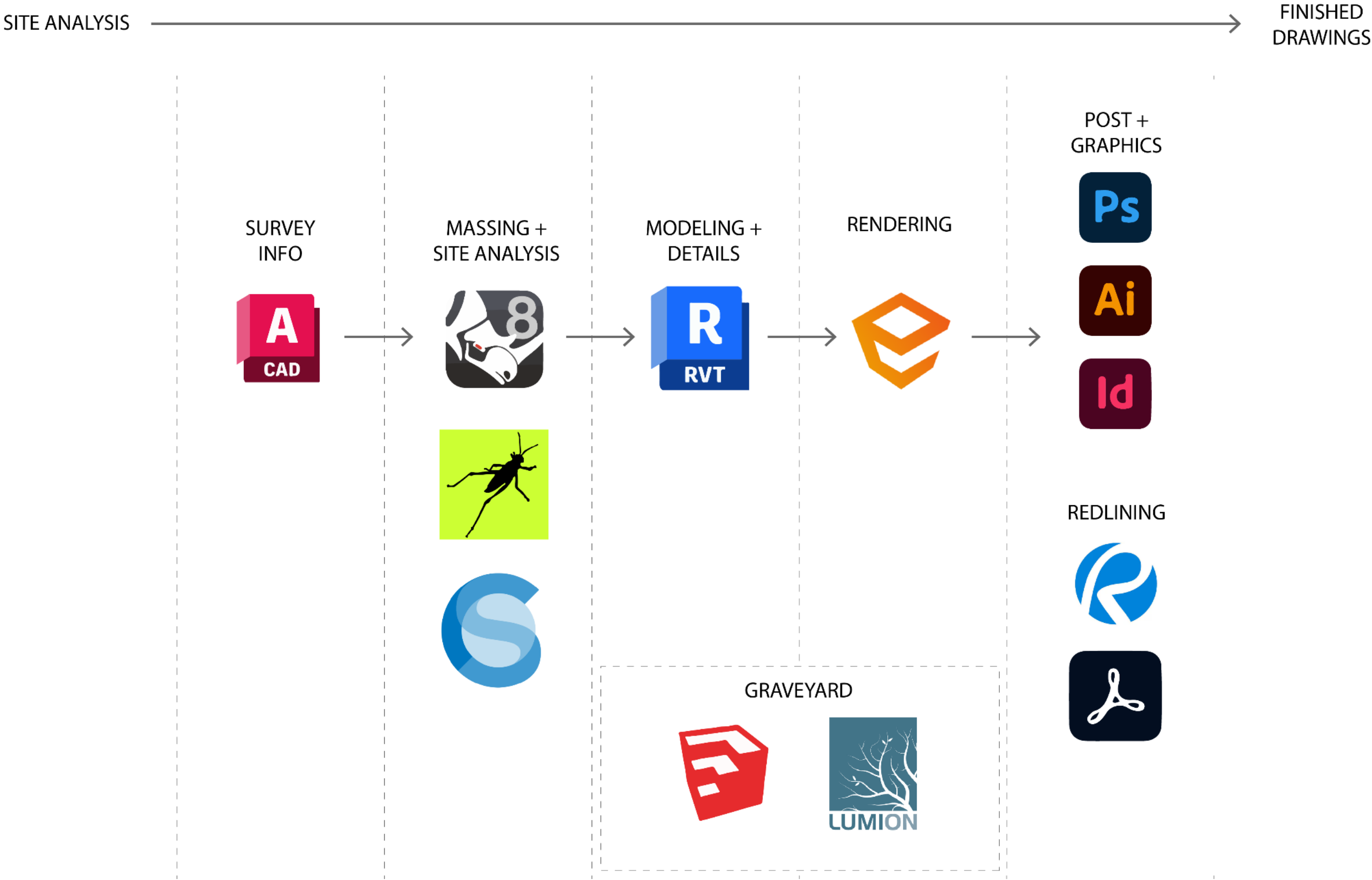
SITE ANALYSIS ⟶ FINISHED DRAWINGS

POST + GRAPHICS

SURVEY INFO

MASSING + SITE ANALYSIS

MODELING + DETAILS

RENDERING

REDLINING

GRAVEYARD

LUMION

FINAL PROJECT IDEA:
LOCATION: I-980 OAKLAND, CA
TYPOLOGY: PEDESTRIAN BRIDGE / PLAY INFRASTRUCTURE

SITE:

INSPO:

PRELIMINARY "SKETCH":

ARCH 565: FINAL PROJECT IDEA   01/24/25
TO WEST OAKLAND   I-980 BELOW   TREE/SITTING AREAS
PARAMETRIC GUARDRAIL
BIKE LANE
TO DOWNTOWN
"PLAY ARCHITECTURE"
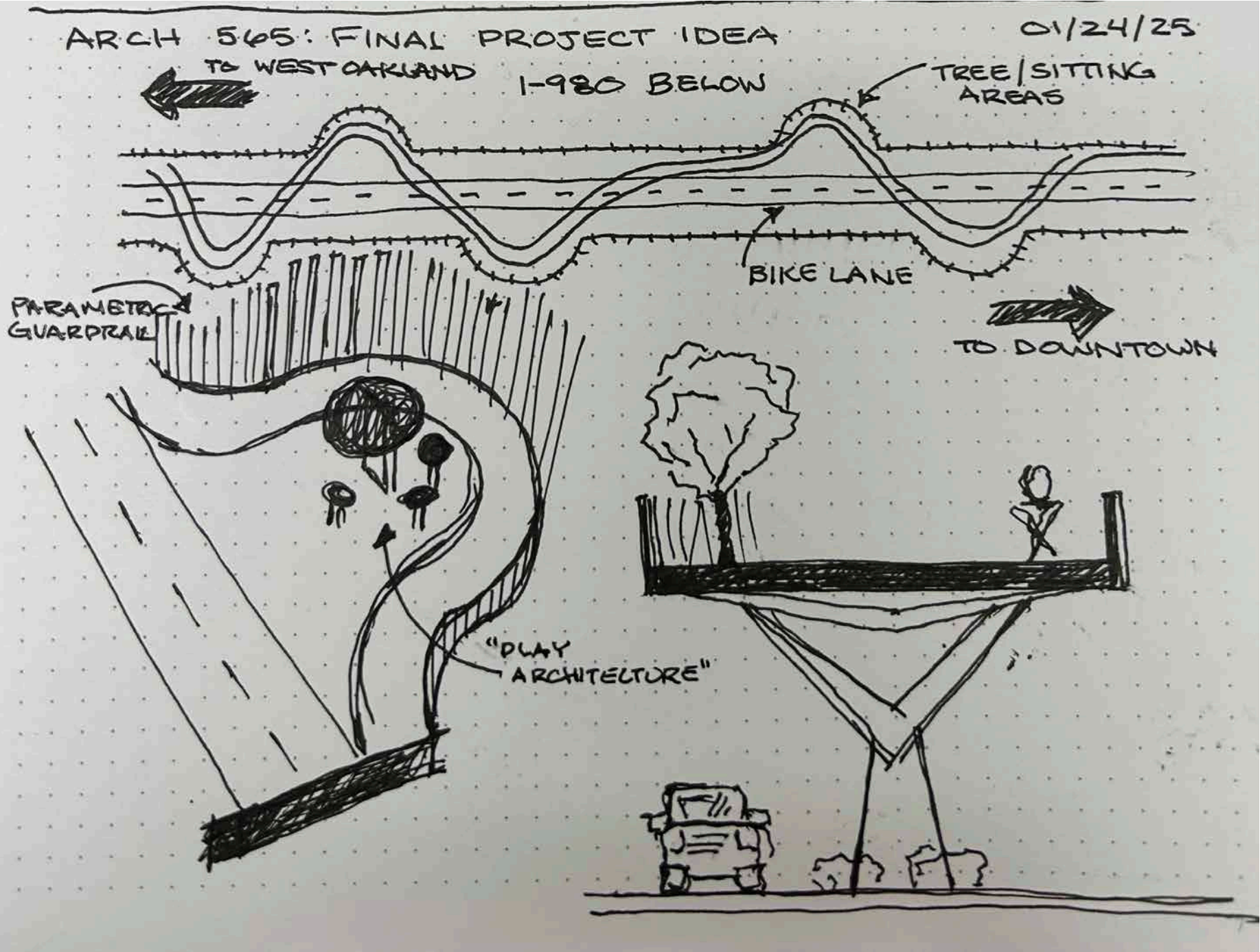
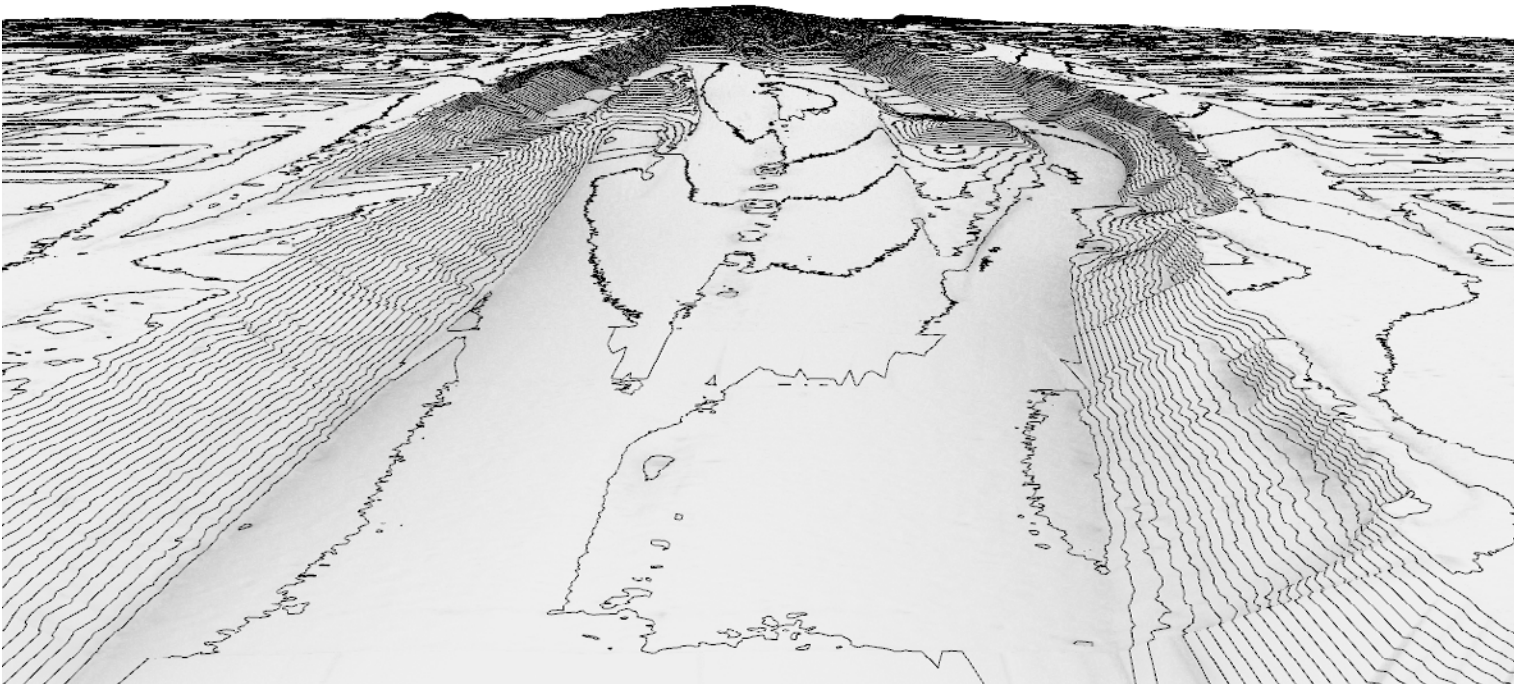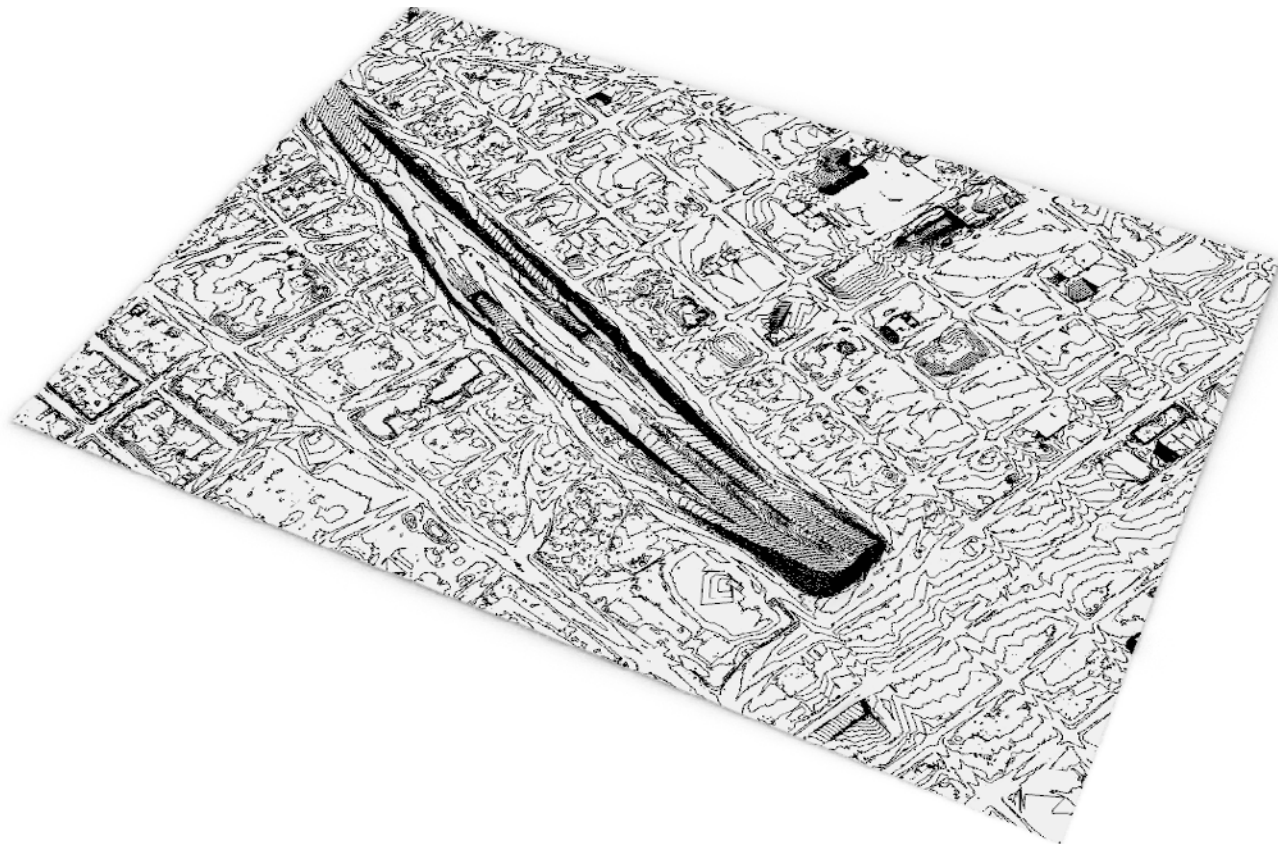# COMPUTATIONAL JOURNAL | WEEK 4 - LiDAR SITE ANALYSIS

FINAL PROJECT IDEA:
LOCATION: I-980 OAKLAND, CA
TYPOLOGY: PEDESTRIAN BRIDGE / PLAY INFRASTRUCTURE

PROCESS:
I initially encountered file size issues when importing the .OBJ mesh into Rhino. Adjusting the area selection size in OpenTopography resolved the issue.

Given the site's urban context and my final project being a pedestrian bridge, integrating existing overpass infrastructure is crucial. I'm still exploring how to align/overlay the contoured mesh with roadway data from OpenStreetMap.

CONTOURS IN RHINO

COMPUTATIONAL JOURNAL | WEEK 5 - GRASSHOPPER

FINAL PROJECT IDEA:
LOCATION: I-980 OAKLAND, CA
TYPOLOGY: PEDESTRIAN BRIDGE / PLAY INFRASTRUCTURE

PROCESS:
This week, I explored Grasshopper to develop a script for a parametric slatted column, allowing for flexible control over spacing, rotation, and profile variations. I'm pleased with the script's capabilities and the design potential it offers. However, I may explore alternative column types for the pedestrian bridge support to better align with structural and aesthetic considerations. Moving forward, I'd like to refine the column's structural logic and find a way to seamlessly integrate it into the underside support of the bridge itself.

PRELIMINARY COLUMN DESIGN

PRELIMINARY BRIDGE PLAN