

Dirigo Timberlands

Open bottom
structures



Why open bottom?
aquatic organism passage

Types of
structures

Bridges

Arches

Box culverts

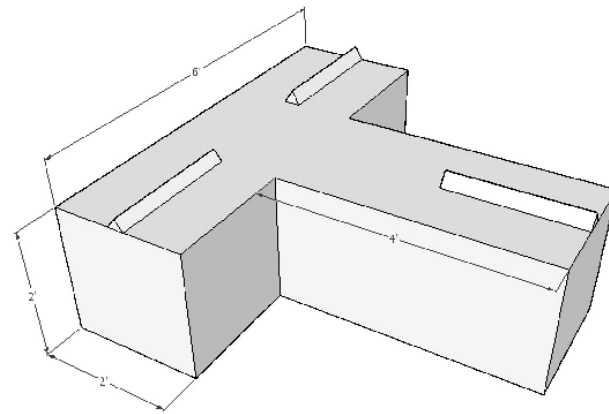
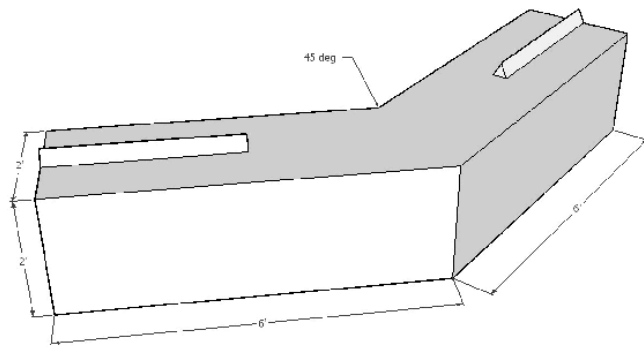
Bridges, abutment designs and deck panels



Abutments blocks – Big Legos



Other block designs



All types of bridges







Concrete bridge decks



Arches

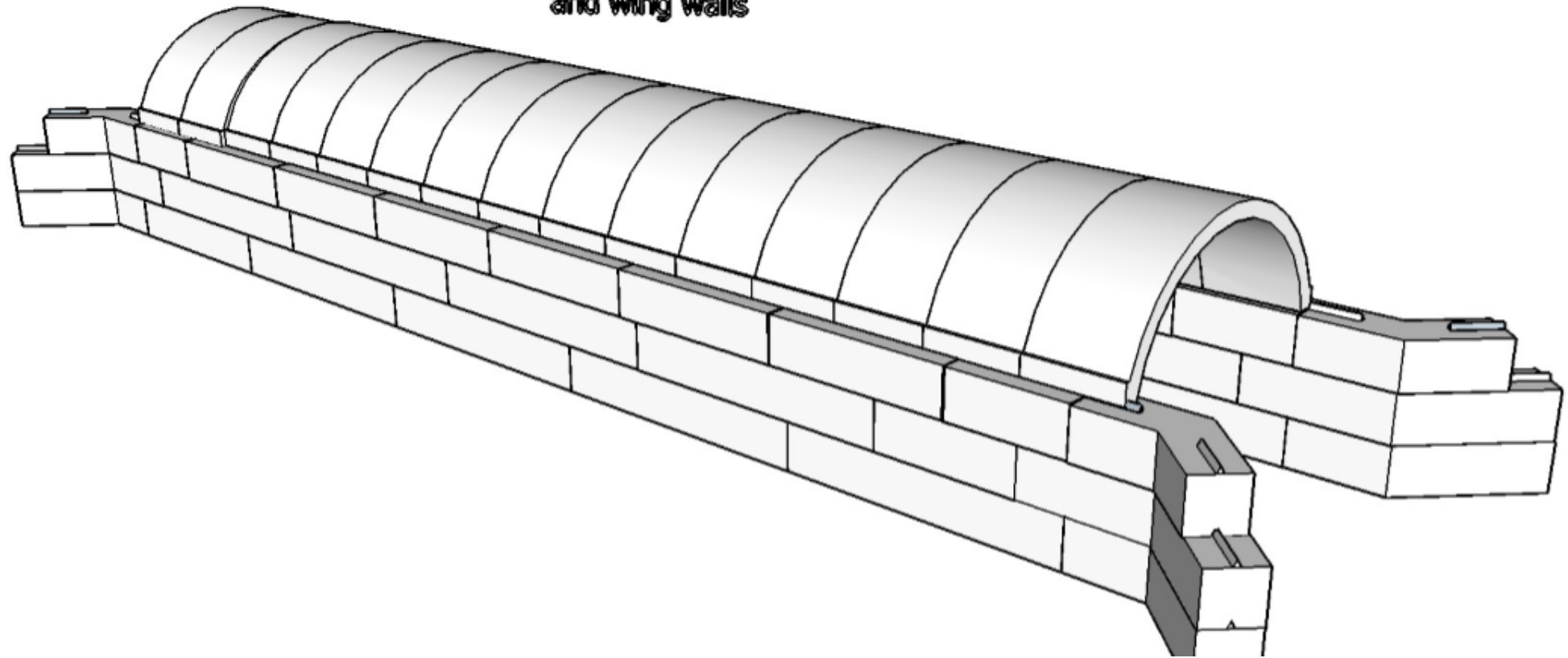
Usually good fit for roads with higher profile and/or need wider surface width



Small Arches



**X large arch placed on 2ft channeled footers
with 2 rows of straight blocks
and wing walls**



Three sided box bridges

**Usually a good fit for lower profile roads
and/or where more surface width is
needed**

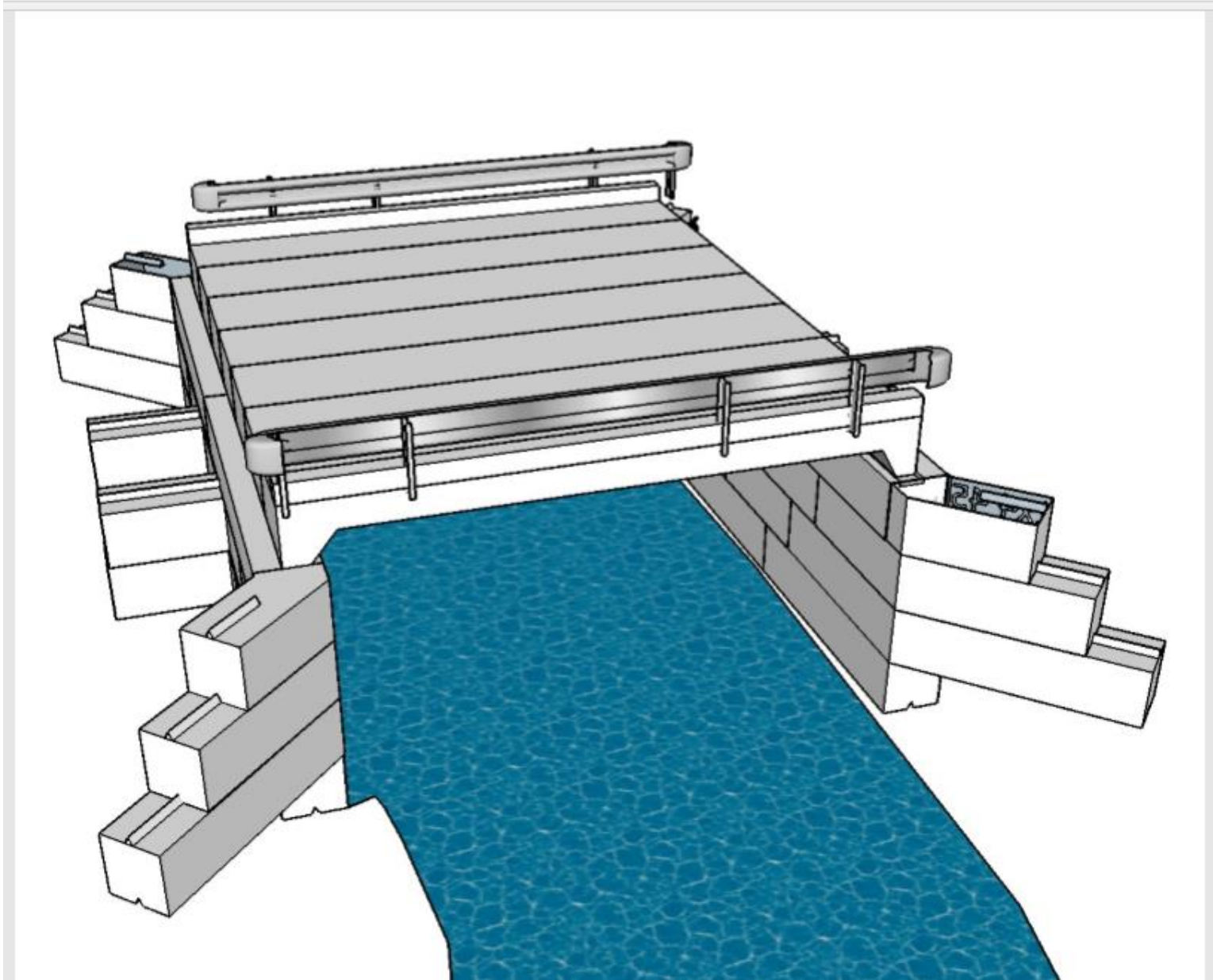


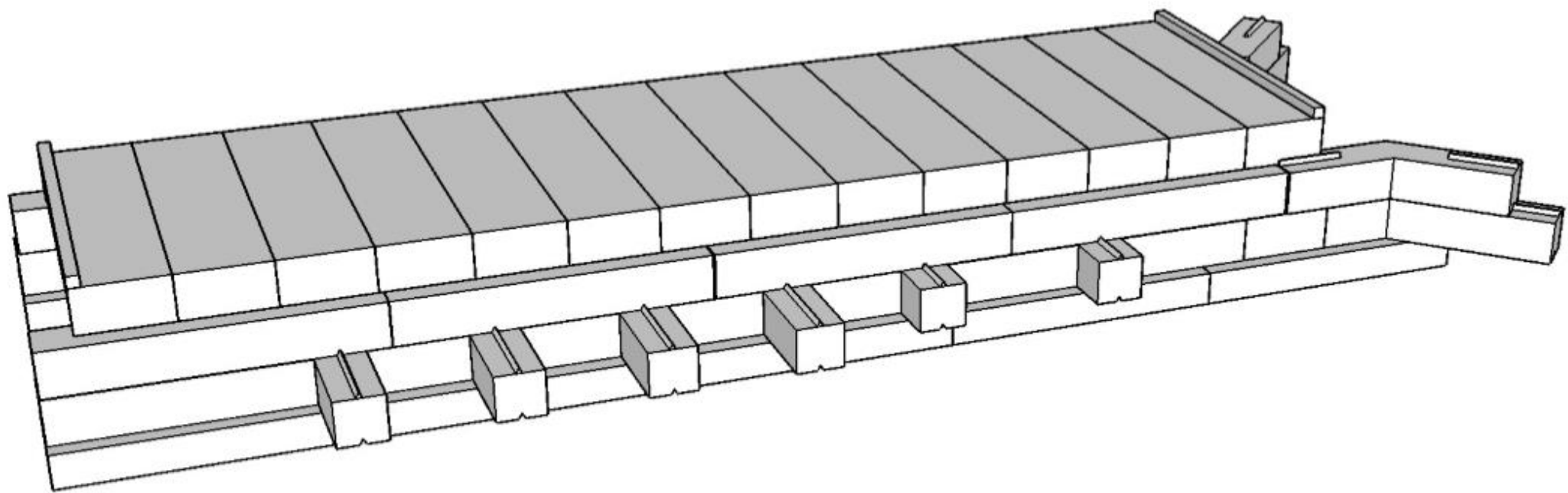
Various Sizes



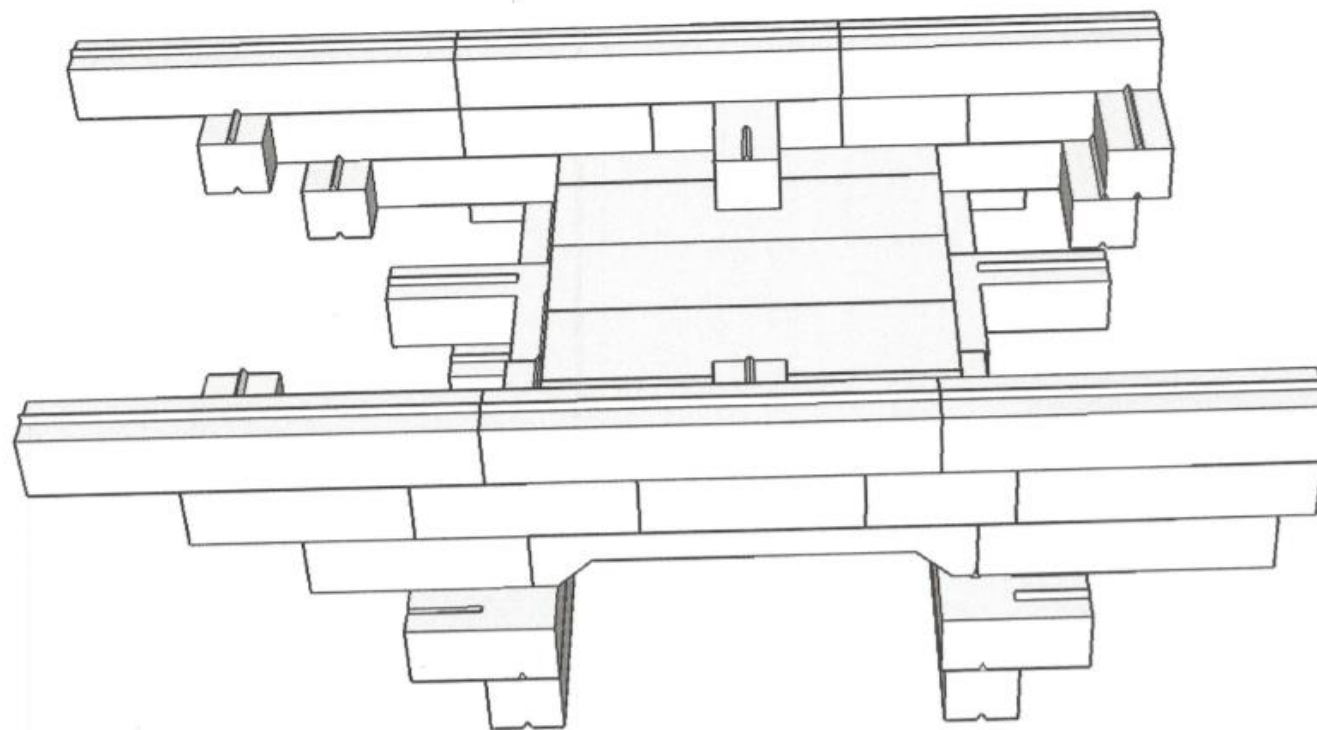
simple or complex







Just playing with big Legos

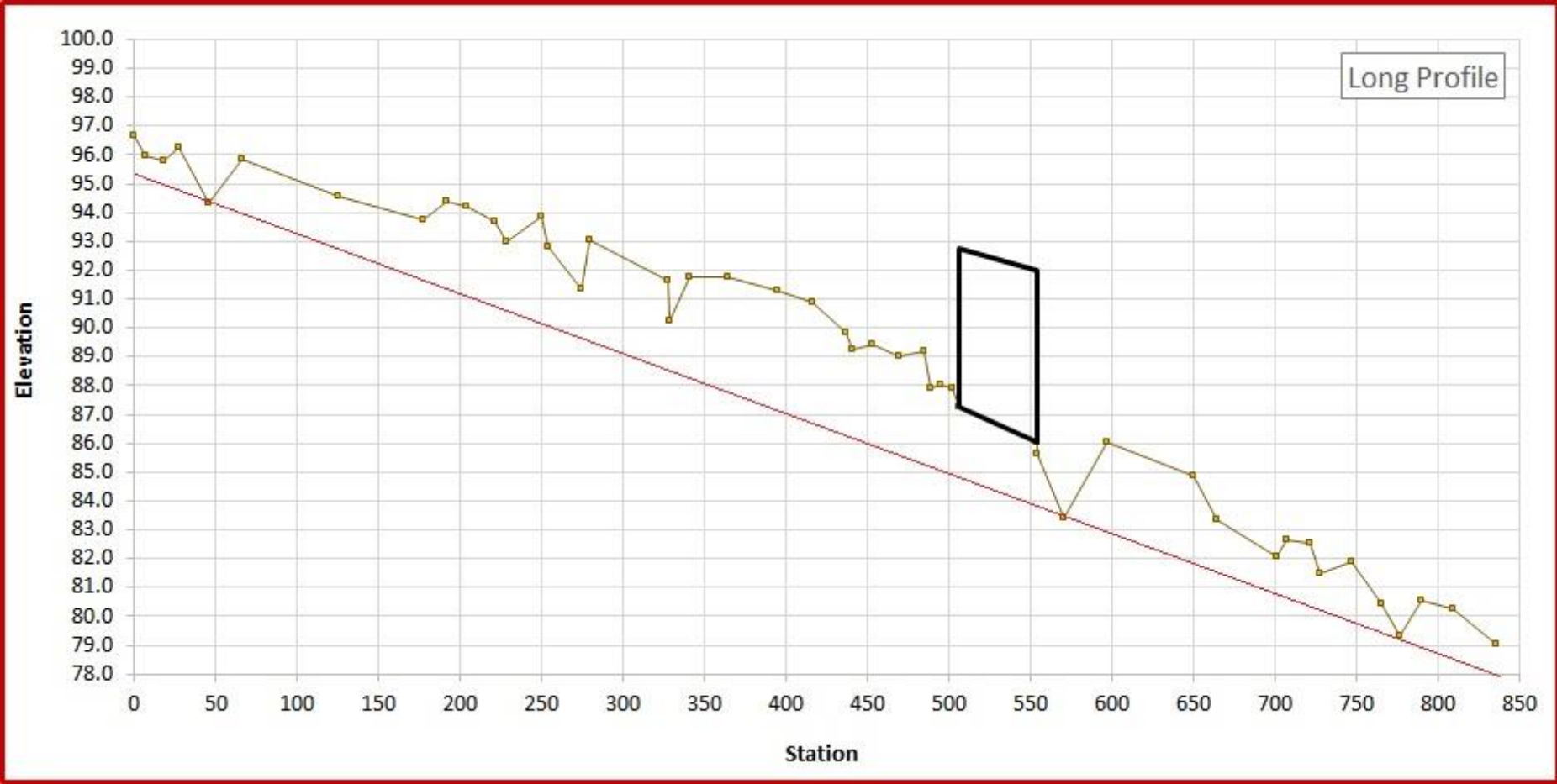


Replacing culverts with open bottom structures

Beware of scour

- Most round culverts are above the scour line
- Do some elevations upstream and downstream
- Graph your low points for the scour line
- Imbed your footings

Do your homework





Navyland

