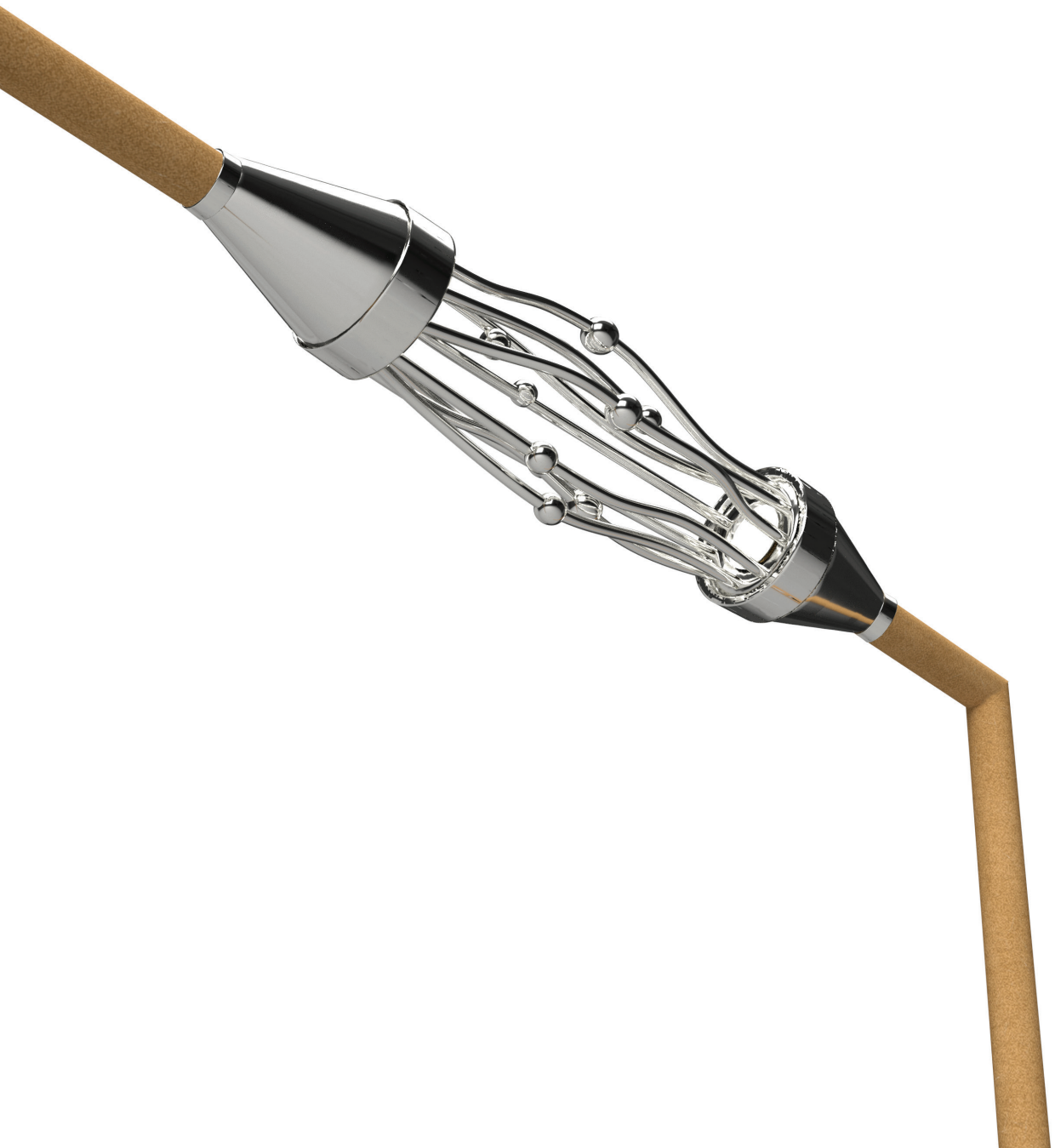


Synthesis

100% Design Development

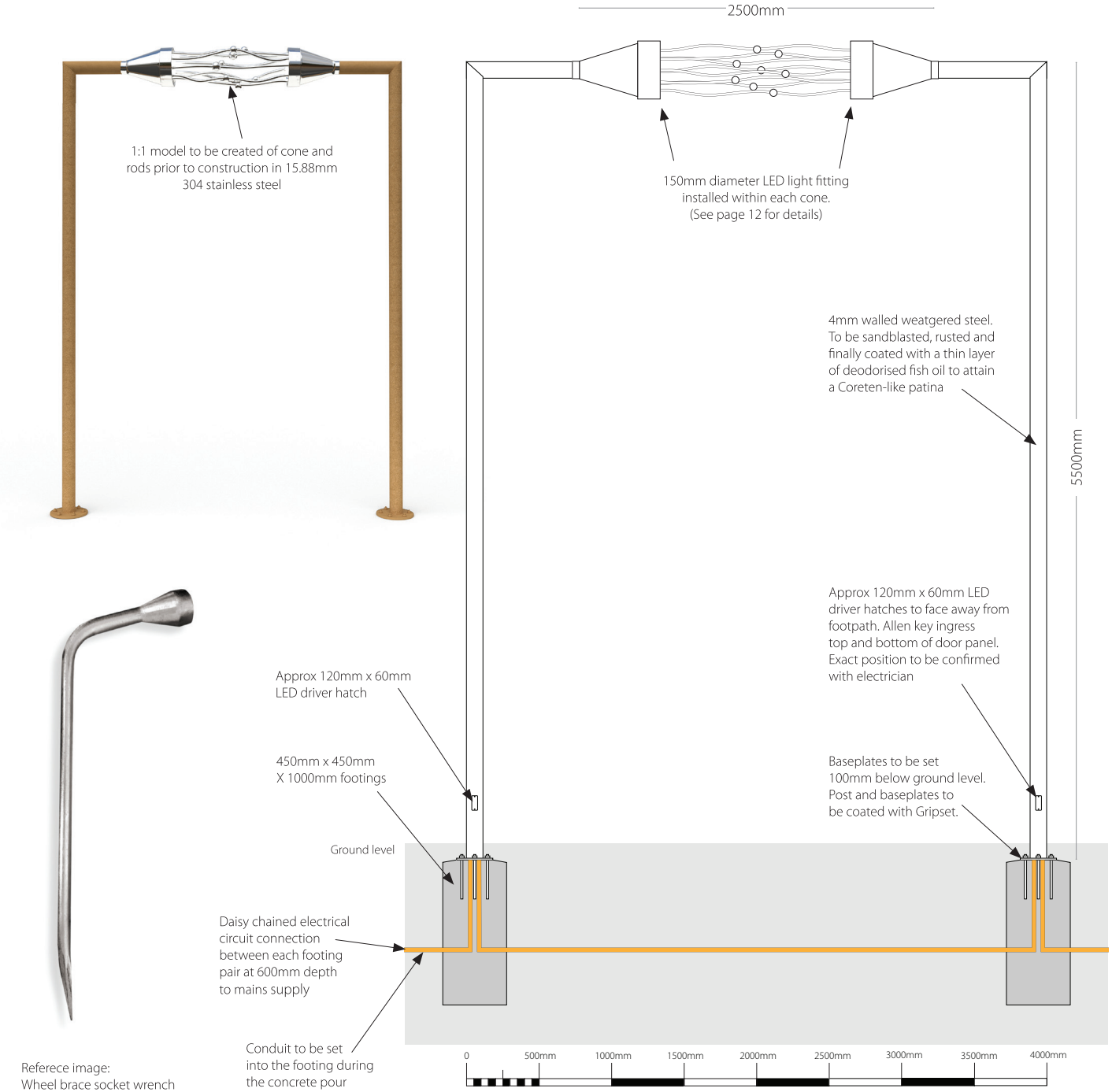
Trevor Wren & Danica Gacesa McLean



Synthesis Rationale

Conceptually *Synthesis* references all of the following:

- The combination of separate elements to make a whole. The process of *synthesis*
- Past, present and future
- Reflection, readaption and rejuvenation
- Car manufacturing plant, spark plugs, headlights, engine ignitions, wheel brace socket wrenches
- Electrical arcs and sparks, flows of energy, power
- The brain's neurons and the electrical synaptic impulses which result in thought processes and motor responses
- Flows of thought, the exchange of knowledge and brainstorming. Education, TAFE and UNI SA
- Innovation, science and technology, ideas from concept to realisation, the benefits to society
- Albert Einstein's photoelectric effect which led to the invention of solar power technology
- Nikola Tesla's innovative electrical experiments. Tesla patented the AC induction motor in 1887, it is now used in Elon Musk's *Tesla* electric cars
- Nature, ecosystems, plants, root systems, light, photosynthesis and water conservation
- The many varied micro and macro processes of interconnectivity in the natural world
- Community interaction with recreational space

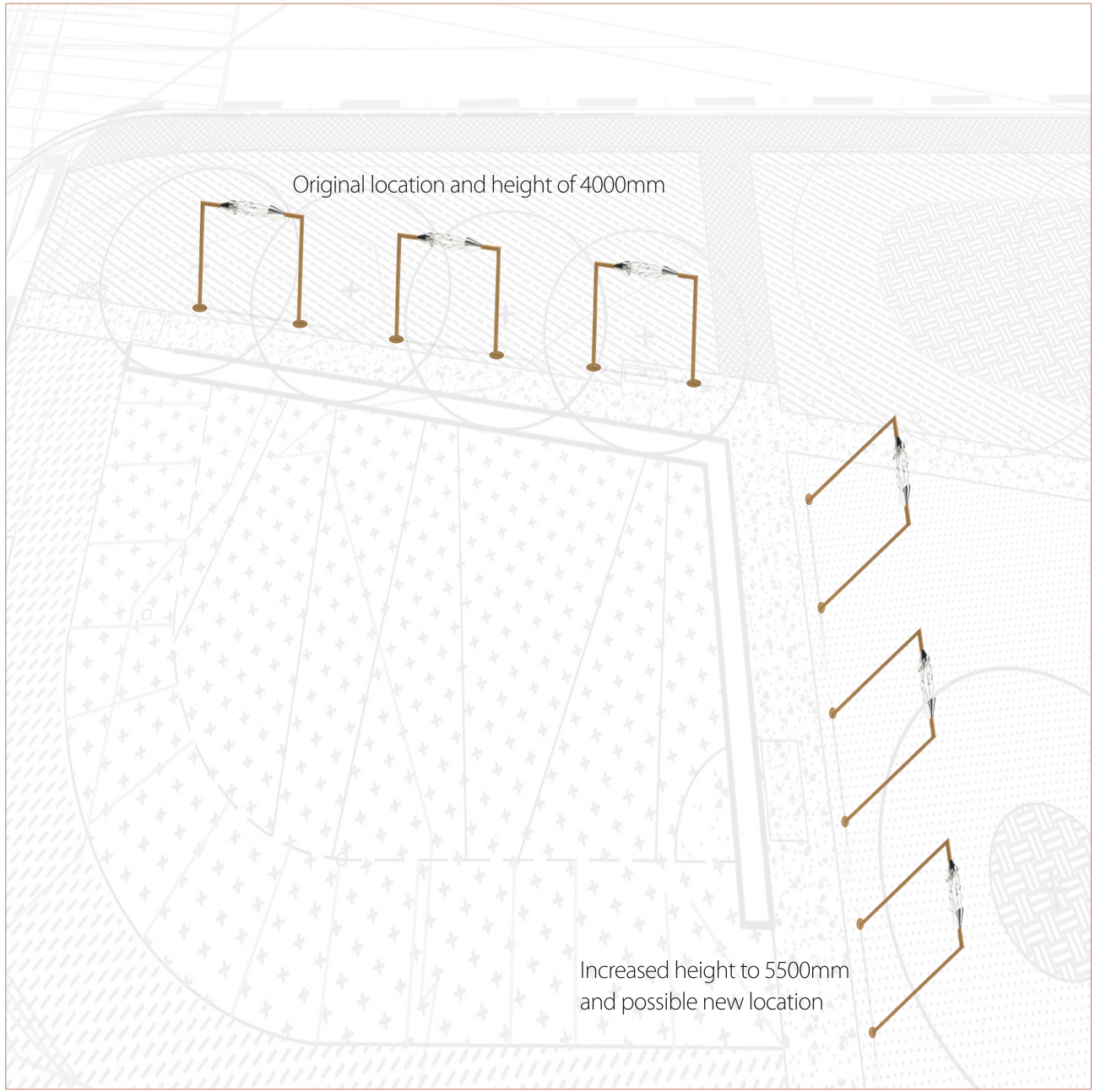


Referece image:
Wheel brace socket wrench

Synthesis A

Description

Synthesis A will be comprised of three arched structures, which together will cover a linear distance of 20m. The arches will utilise old and new materials, the old being recycled oxidised weathered steel pipe, 4mm walled and of 114mm diameter, and the new being 3mm walled 304 grade stainless steel together with 15.88mm diameter undulating rods decorated with 50mm spheres. The surface oxidation of the weathered steel represents past technology, and the shiny 304 stainless steel represents technologies of the future, as well as both metals also referencing other points listed on the previous page. The upright arch supports are predominantly based upon a rather humble, though essential, car maintenance tool, the wheel brace socket wrench, and the central stainless steel decorative feature references an electrical arc, a spark plug and the electrical current or impulse that jumps across the gap between two metal conductors or brain synapses. The arches shall be 5500mm high and 4000mm wide, and the *electric arc* feature on the topmost rail will measure 2500mm in length with a diameter of 400mm. The distance between each arch will be 4000mm. The arches will have 250mm diameter flanges welded to their bases and be made from 12mm steel plate. Each flange will be anchored to its footing with 6 chemical bolt fixings.



Synthesis A

Locations

A possible new location for our *Synthesis A* installation is indicated to the left. This newly proposed location would certainly help to more closely unite both *Synthesis A & Synthesis B* in a linear orientation, thus in effect forming a stronger more visually prominent entry statement to the Tonesley Innovation District.

Installation

Concrete footings shall be used to secure *Synthesis A* in place. These footings shall have minimal impact on the designated location and the footing holes may possibly need to be hydro blasted just in case any tree roots intrude into the area and need attention by a certified arborist. The footings shall be reinforced with steel rod and mesh. The exact dimension, depth, excavation type, concrete mix consistency and reinforcement shall be determined through the advice of our consulting engineer during the design development phase. (See attachment).

Each *Synthesis A* arch will be craned in to position and their flanges securely bolted down to the footing with chemical bolt fixings as per our consulting engineers recommendations. (See attached report for further details).



Synthesis B

Description

Synthesis B is comprised of a 2000mm deep 6000mm long curve which is divided in the centre. Its central truncated sections terminating in a *down to earth arc* cascading downward as if it is being earthed to the ground, or opposingly flowing upward as if energy is being drawn up from deep within the earth.

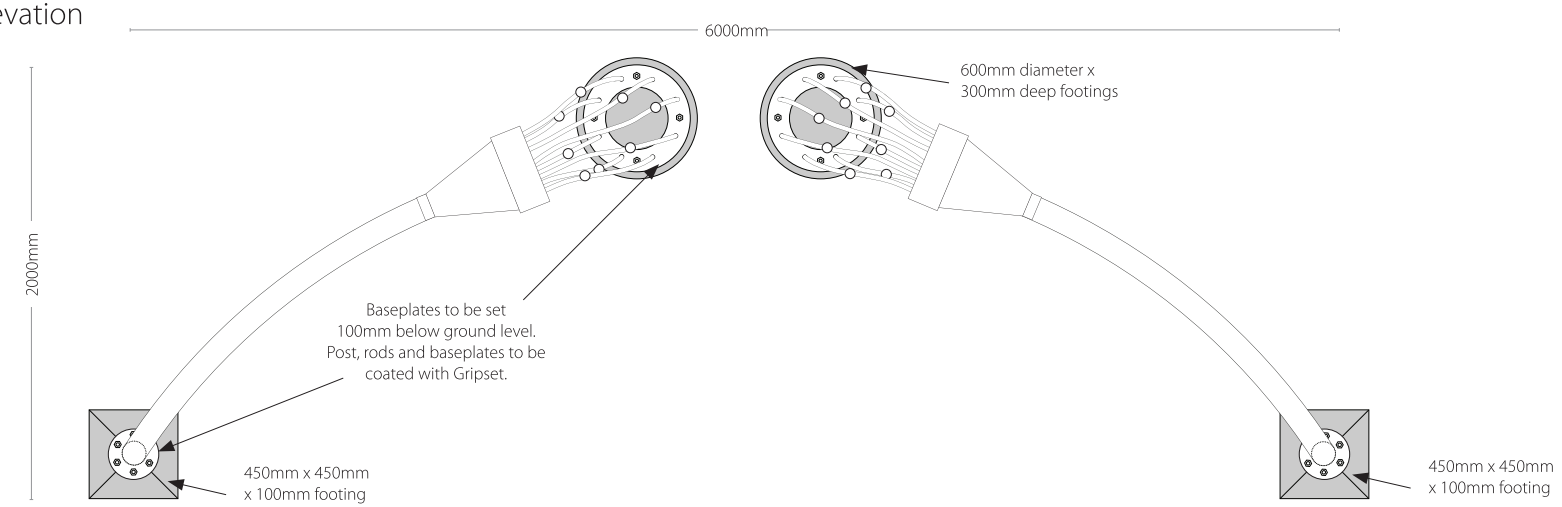
The height *Synthesis B* will be approximately 1000mm to the highest point. The horizontal structure and support uprights at each end will be constructed from recycled oxidised weathered steel pipe of 4mm wall thickness and 114mm diameter. The stainless steel terminals will be 400mm diameter and the *down to earth arc* will be approximately 950mm in height.

We would encourage spiky pale green toned native plantings grouped in a circular shape, or within expanding concentric circles, around and within the base of the *down to earth arc* structure. This would alleviate the need to trim grass and also discourage small children from playing within the *down to earth arc*.

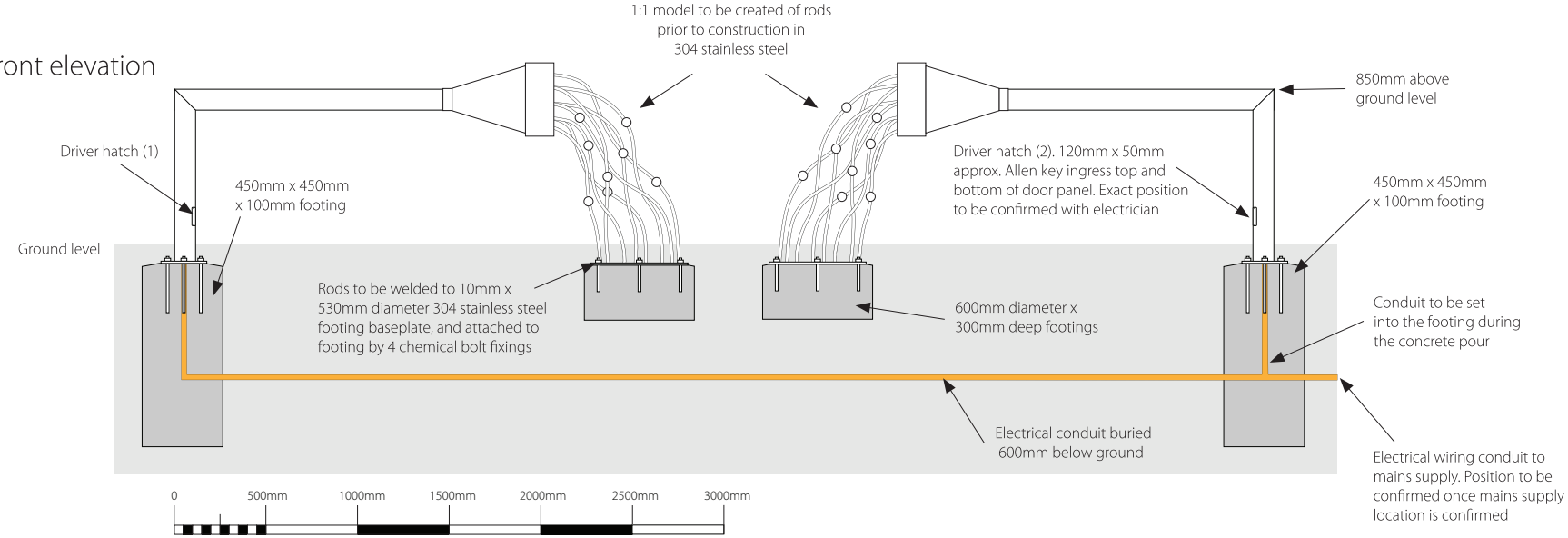
Synthesis B

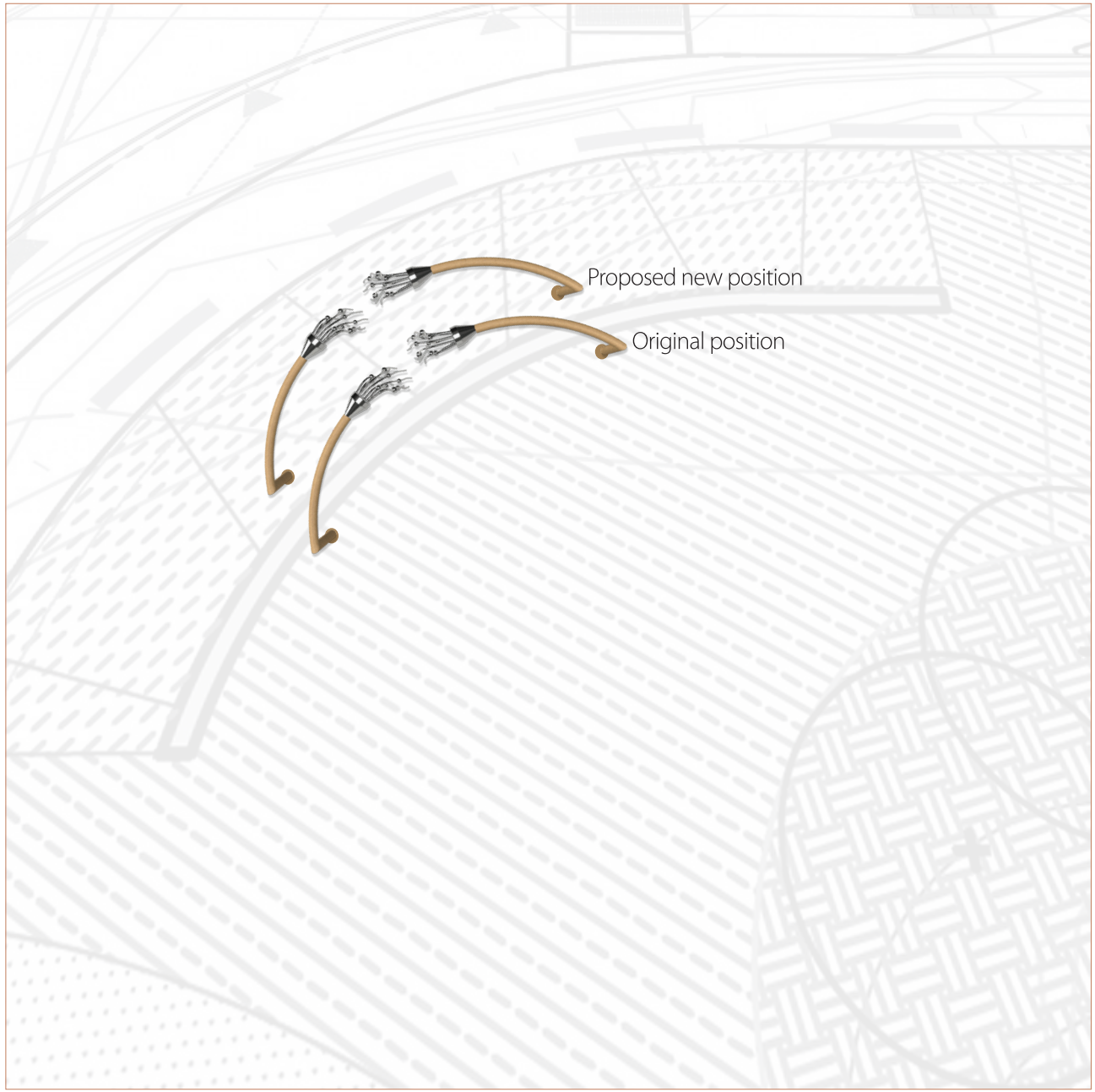
Footing details

Top elevation



Front elevation





Synthesis B

Proposed location

Taking in to consideration feedback relating to our initial concept design presentation we agree that a better position for *Synthesis B* would be closer to the road and centrally located within the corner garden bed illustrated to the left.

Installation

Synthesis B shall be installed as per the advice of our consulting engineer. (See attached report for further details).