

Voorhees Environmental Park

First Comprehensive Draft for Discussion

June 26, 2012

Notes from May 25 Work Session

- Promenade (In Solis Pacem)
- Design park in phases: ex. Establish meadow to replace with solar panels
- Initial phases low maintenance and cost
- Succession of plant growth in phases (Succession by Design, Interlock)
- Solar Overlook: to bring people to the panels, but not within them
- Environmental Center with art walls (Interlock)
- Entrance from Centennial with traffic island
- Parking is important but can be added in time
- Bosque with pond overlook (Nucleus)
- Pond access at different levels (Succession by Design)
- Floating wetland islands
- Less use of fill: consider cost (Interlock)
- Keep loop road
- NO dog park
- Create area for Ice Skating

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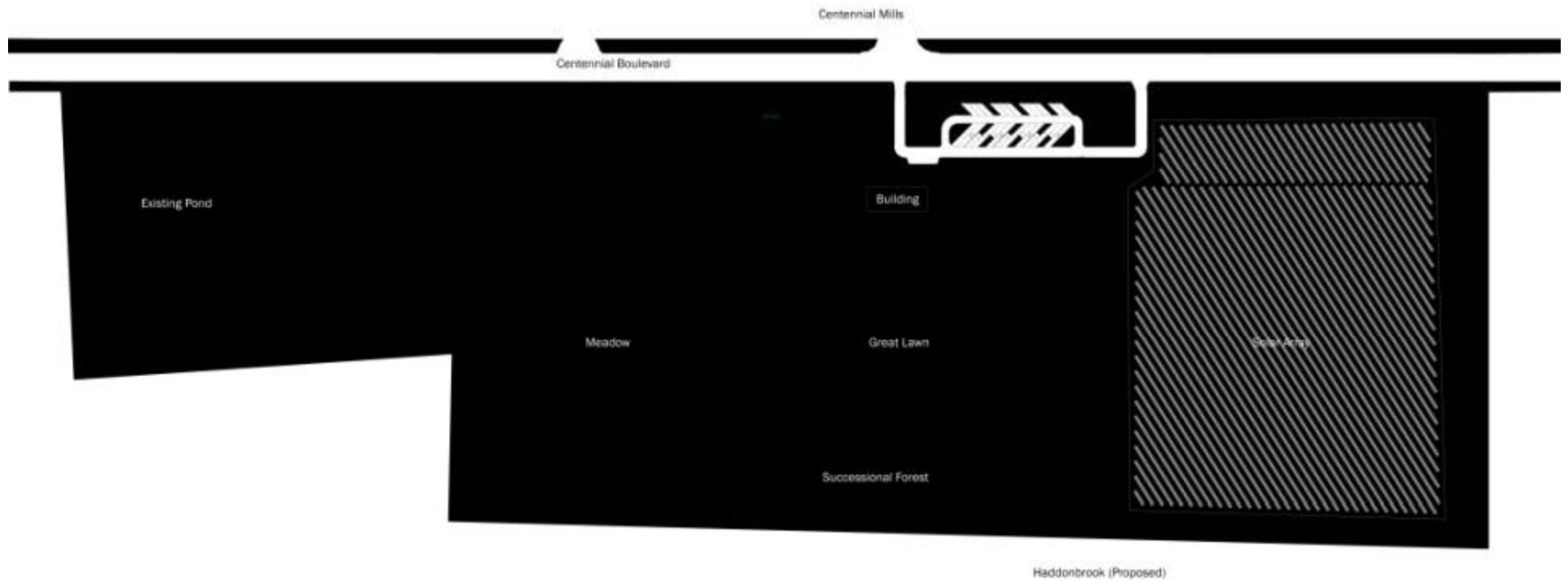




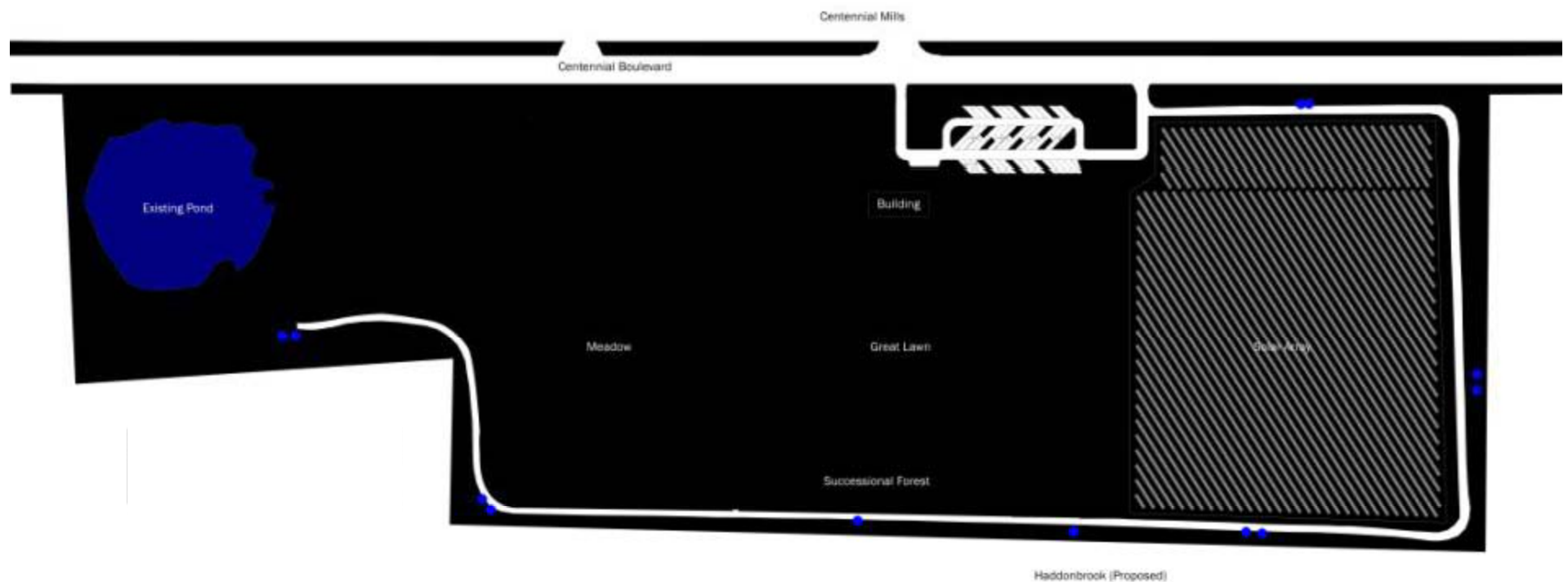




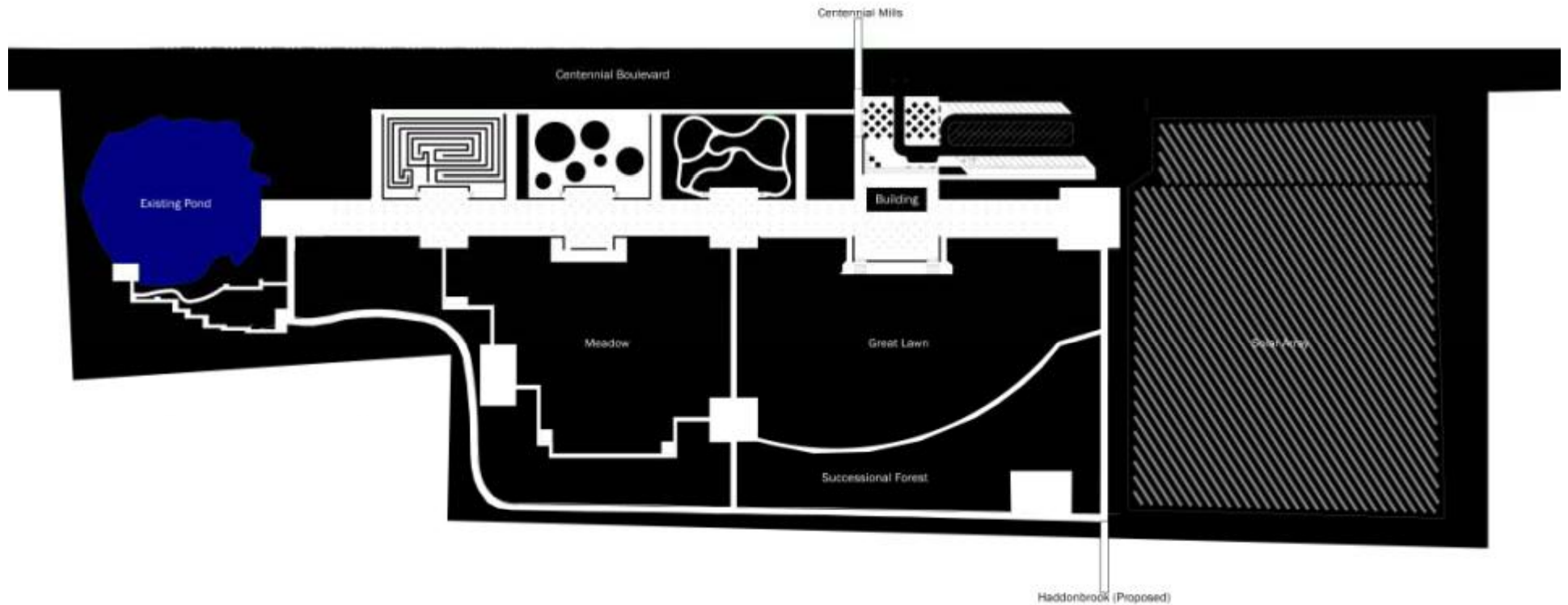
Vehicle Circulation



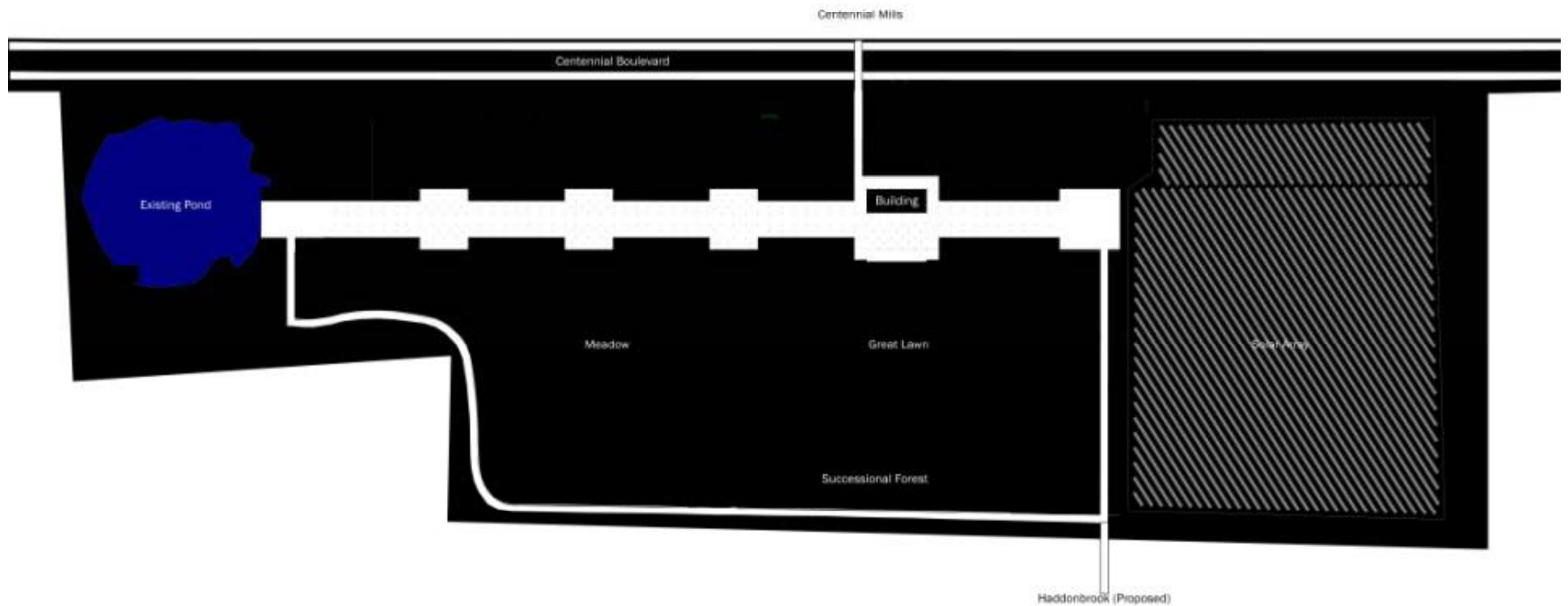
Service Vehicle Circulation



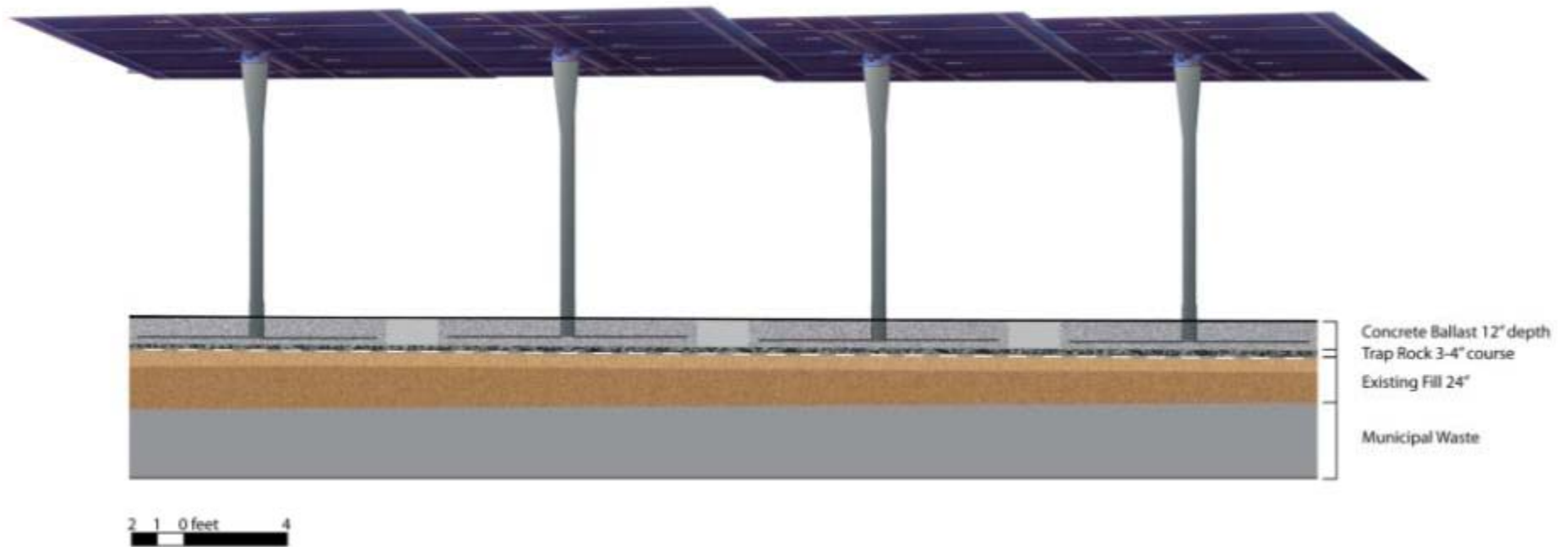
Pedestrian Circulation



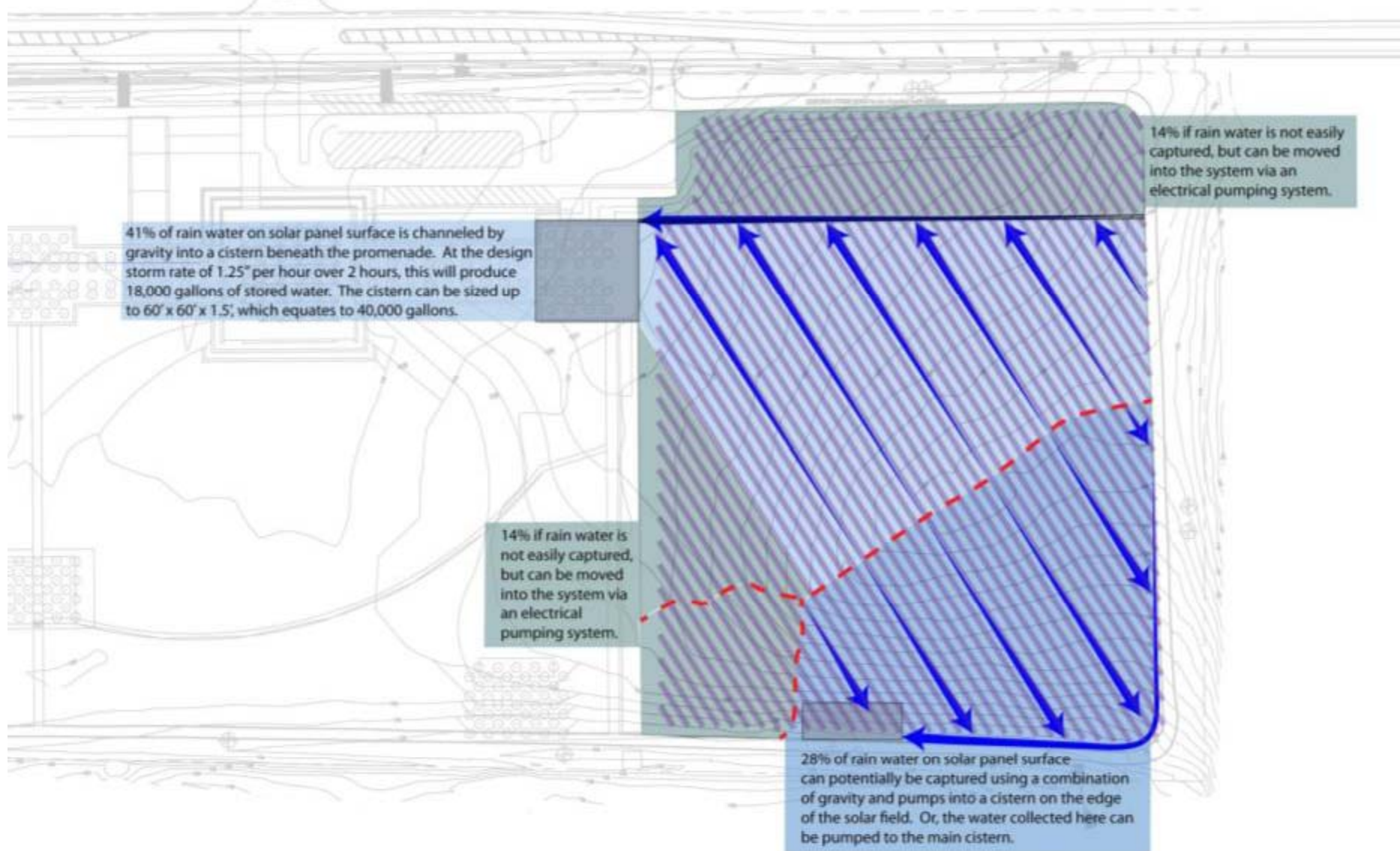
Bicycle Circualtion



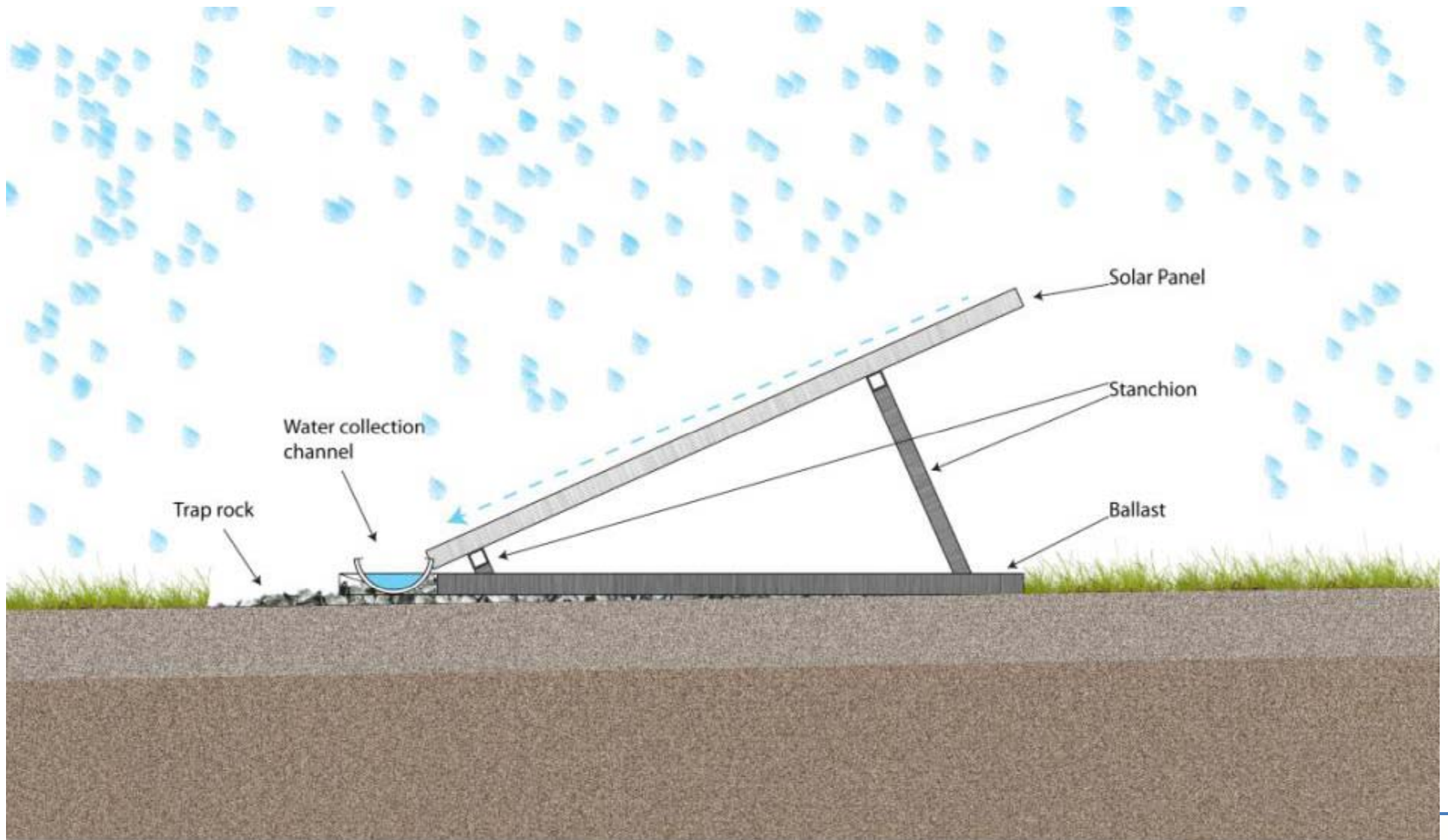
Solar Panels Parking



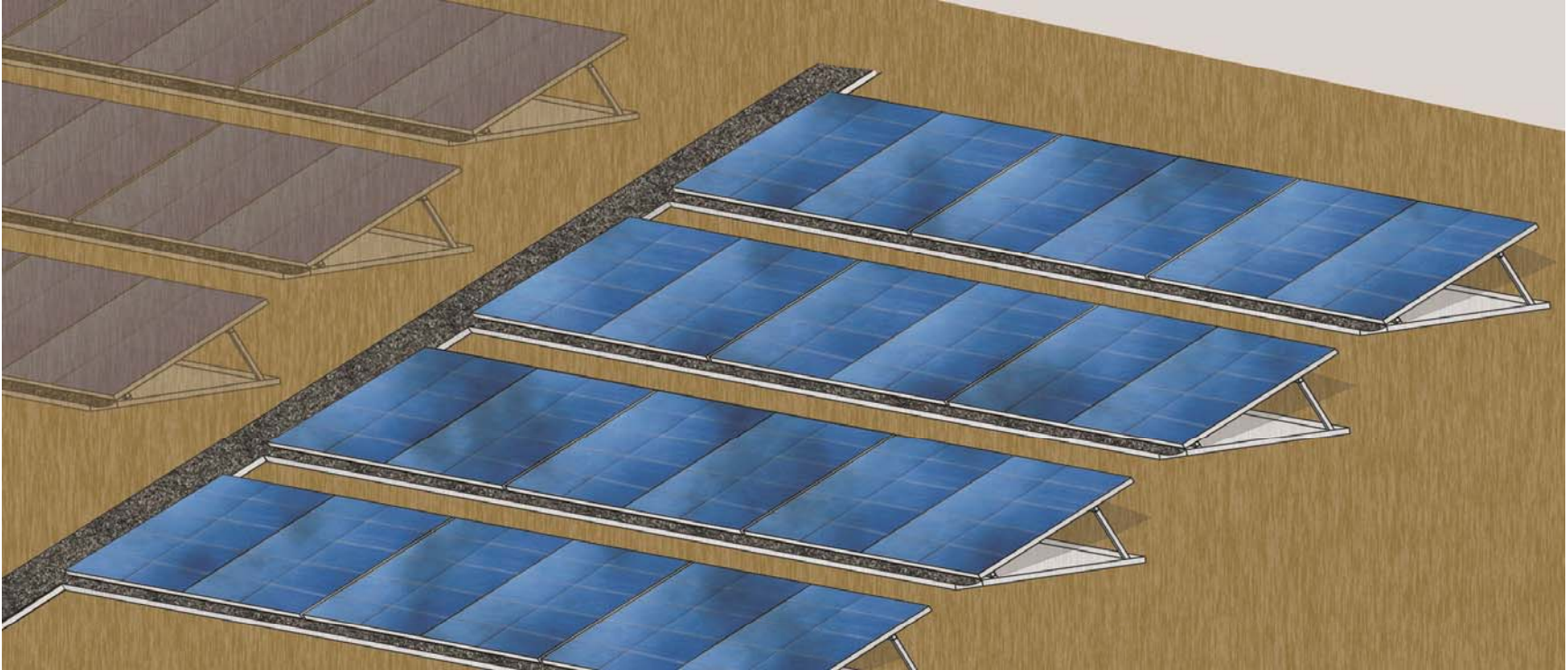
Storm Water Harvest



Storm Water Collection from Panels

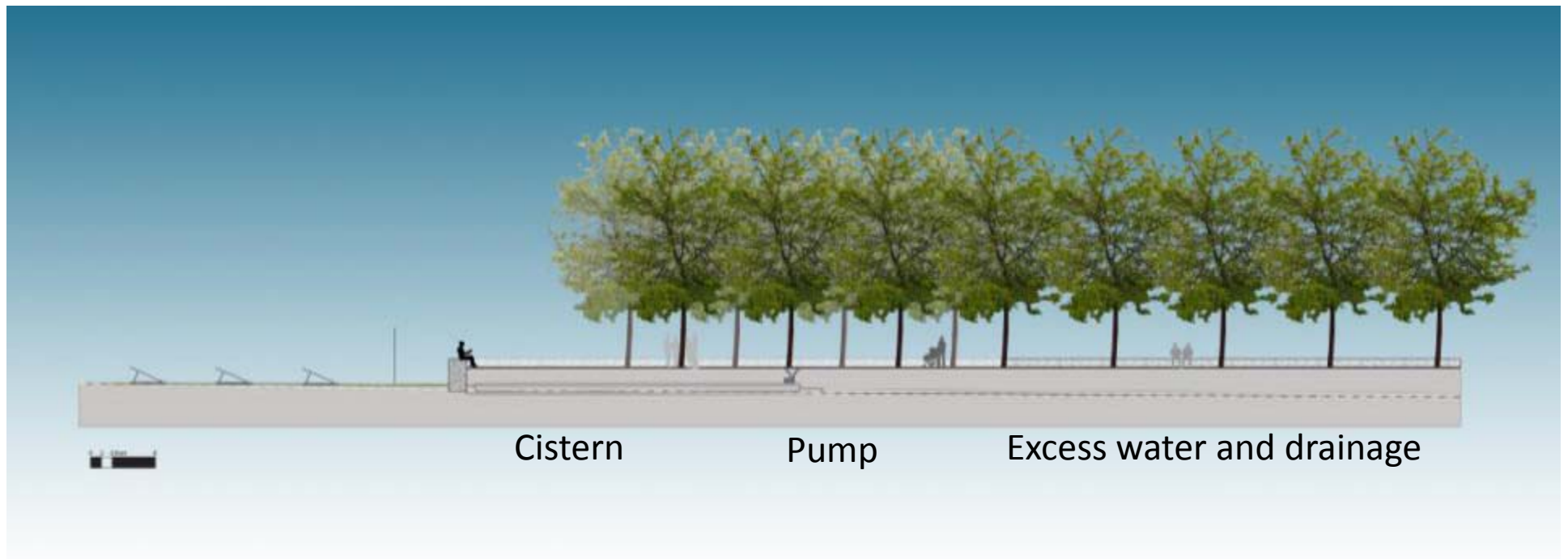


Storm Water Collection from Panels



Rain falls on estimated total of 135,000 square feet of solar panel surface area.
Rain is easily collected from 41% of solar panels using collection channels
Collection channels from each row of solar panels feed the main collection channel, which in turn gravity feeds a cistern housed within the promenade.

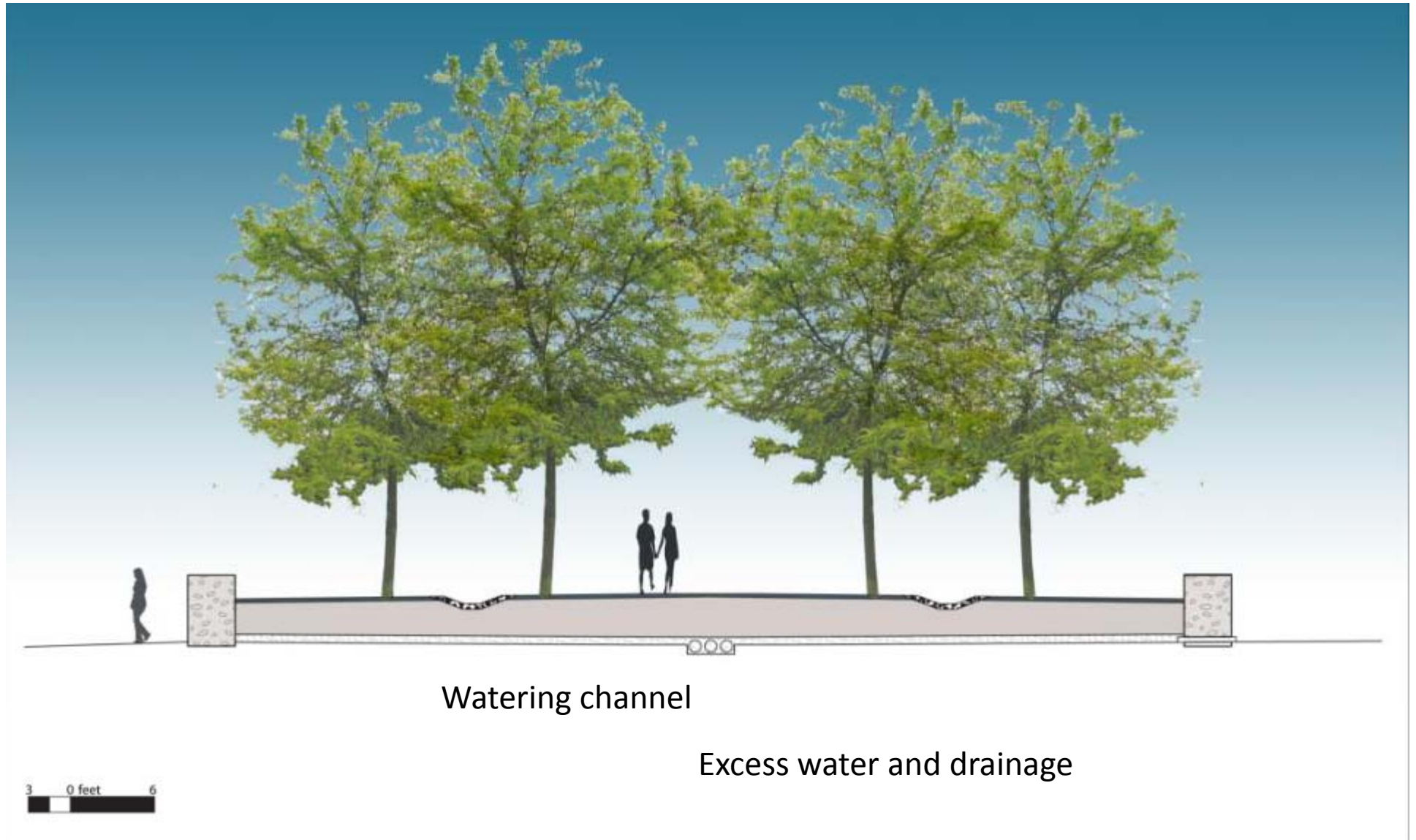
Storm Water Storage



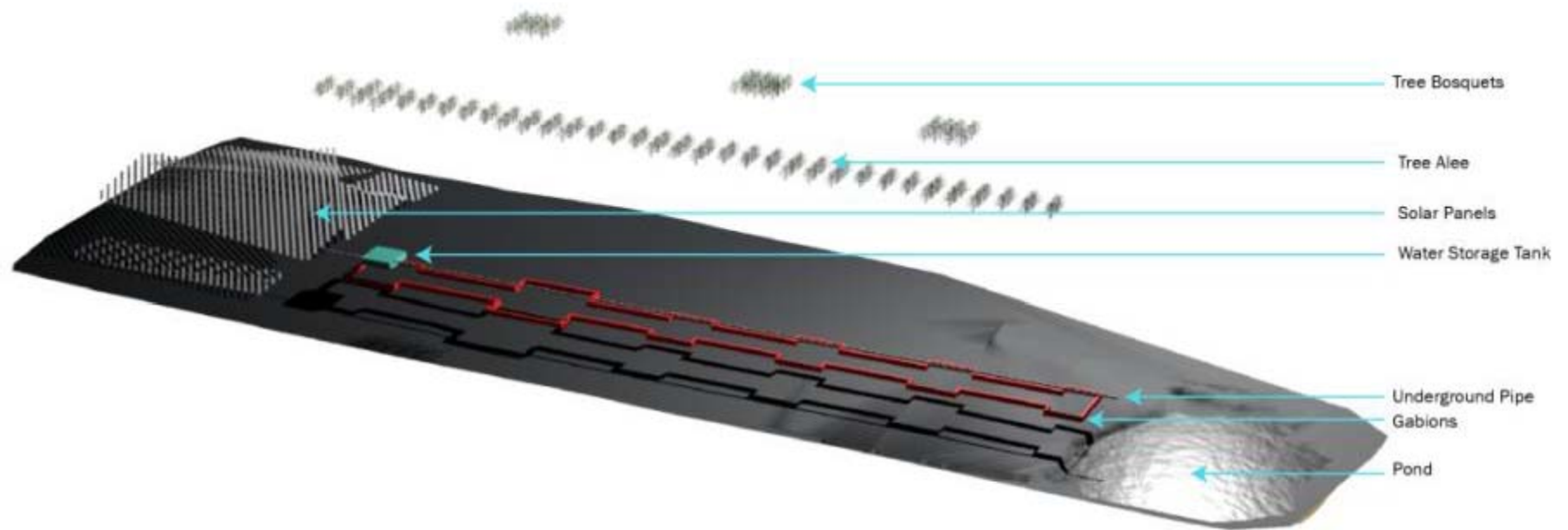
The cistern with the dimensions 60' x 60' x 1.5' can hold up to 40,000 gallons beneath the solar overlook.

By channeling 41% of the field, an estimated 18,000 gallons of water will be collected during an occurrence of the design storm.

Water Distribution



Water Collection and Use



Gabion Retaining Walls

One eight-foot Gabion
in width of 5' x 8'

5,507 ft

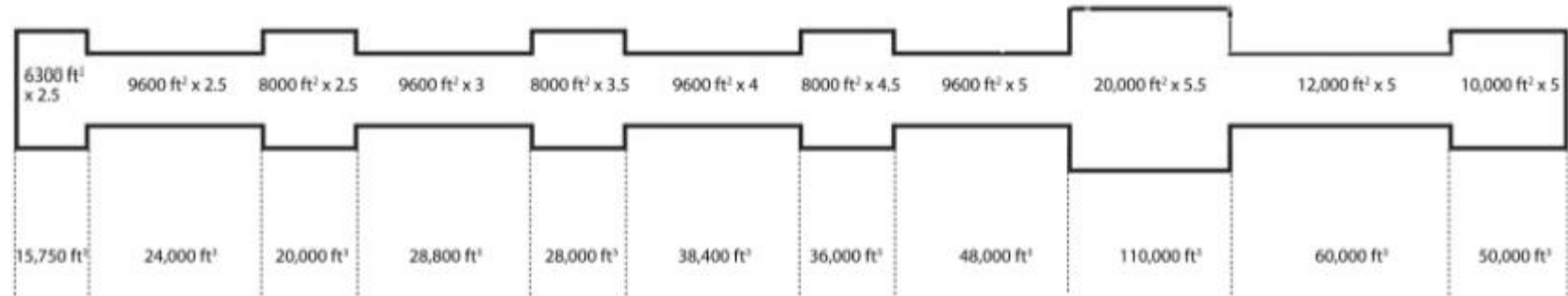
One of all Gabion 10' x 10' x 10' pieces
used for wall structure

621

Final Volume of Gabion 67,028 ft.³



Fill Estimate for Promenade



$$=458,950 \text{ ft}^3$$

$$=17,000 \text{ yd}^3 \times 2400 \text{ lbs/yd}^3 \div 2000 \text{ lbs/short ton} \div 35 \text{ short tons/truck} = 582 \text{ truck loads}$$

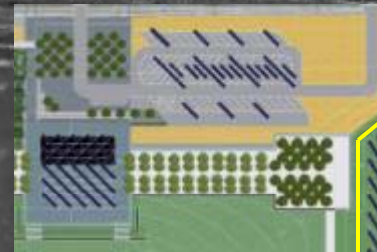
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Availability of financial resources suggests phasing, fundraising 'packets'

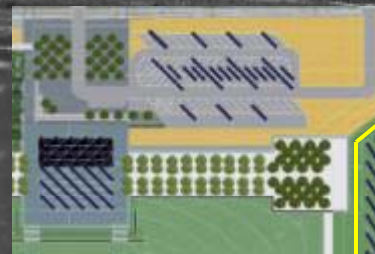


Phase 1

- Entrance
- Parking
- Prevent 4-wheelers on landfill cap
- Fence to separate section with deed restriction
- Existing service route as first path
- Path along new fence
- Create strong signal
- Mark out growth areas (forest, meadow, great lawn)

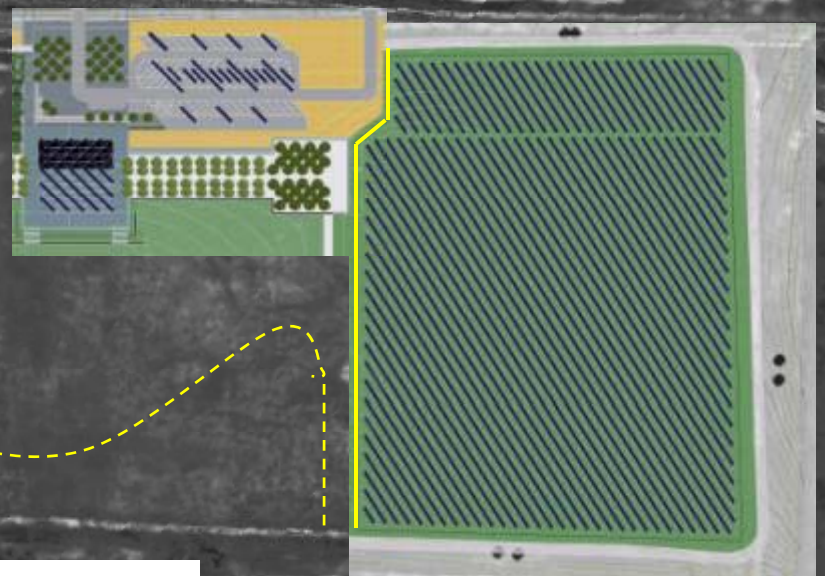


Phase 2



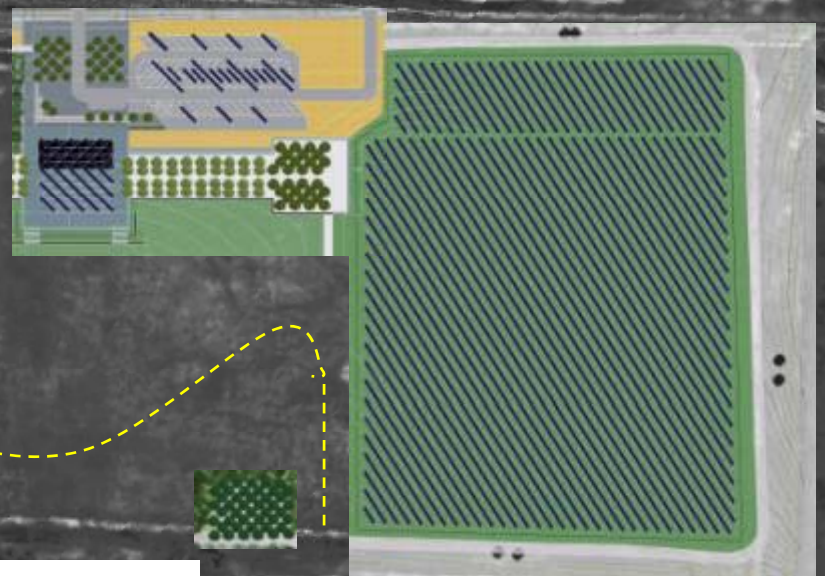
- Steps and ramp down to lake
- Floating deck
- Floating islands to improve water quality

Solar Independent from Phasing



- Solar installation according to provider agreement

Phase 3



- Tree Bosques
- Supports growth on designated forested areas
- Provide shade and resting points

Phase 4



- Great Lawn

Phase 5




- Promenade

Phase 6



- Meadow board walk
- Bird blinds

Phase 7

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- The image shows an aerial view of a park development site. The site is divided into several colored zones: a blue pond on the left, a yellow rectangular area, a green rectangular area, and a large green area with diagonal lines on the right. A yellow line runs along the right edge of the green area. The site is surrounded by a road and a residential area with houses and trees. The text 'Phase 7' is overlaid on the top left, and a list of features is overlaid on the bottom left.
- Labyrinth
 - Sensory Garden
 - Pollinator Garden

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Discussion welcome!



