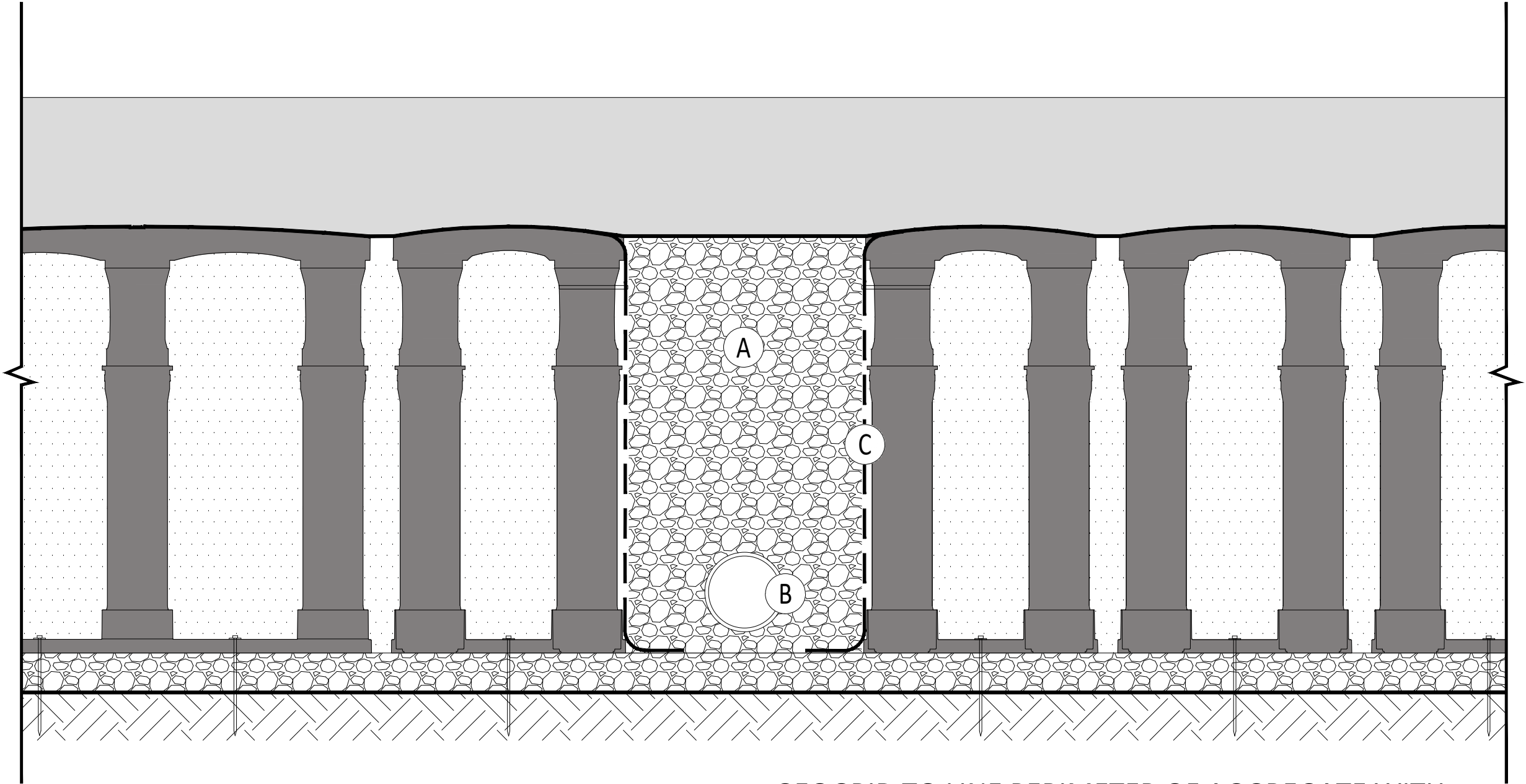


WHEN TO USE THIS DETAIL:
Aggregate bridging is used when layouts require gaps greater than 150mm between Silva Cells due to utilities or other obstacles.

See the Bridging Over Utilities supplemental detail for an alternative bridging option.



- A

WASHED STONE WITHOUT FINES
- B

EXAMPLE OF EXISTING OR PROPOSED UTILITY

- C

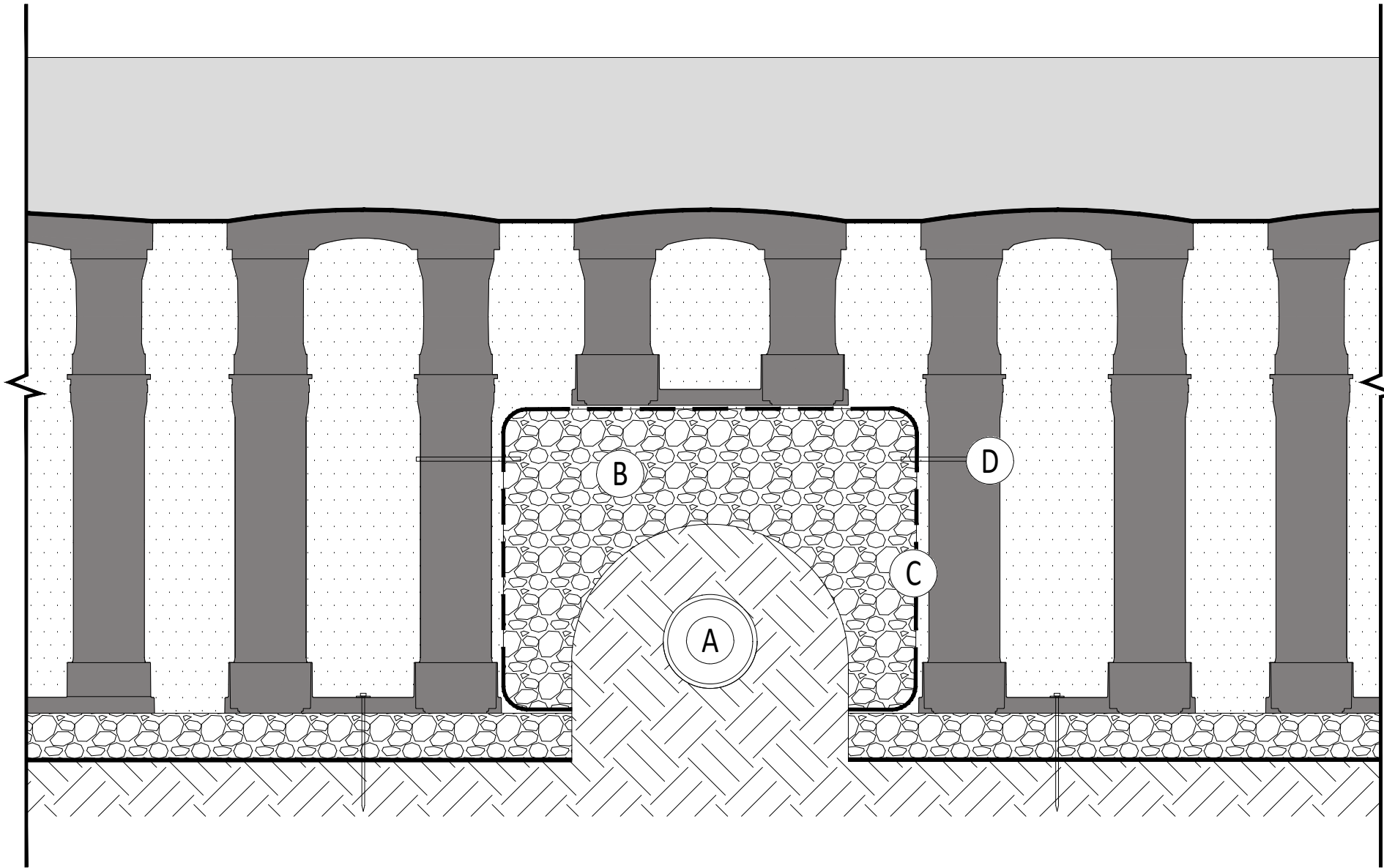
GEOGRID TO LINE PERIMETER OF AGGREGATE WITH 150 mm TOE (INWARD) AND 300 mm EXCESS FOLDED OVER TOP OF ADJACENT DECKS

SUPPLEMENTAL DETAILS

BRIDGING WITH AGGREGATE

WHEN TO USE THIS DETAIL:
When a utility cannot be run through the soil media (i.e. commonly gas lines or utility ducts), Silva Cells may be used to bridge over the utility to afford a continuous soil volume.

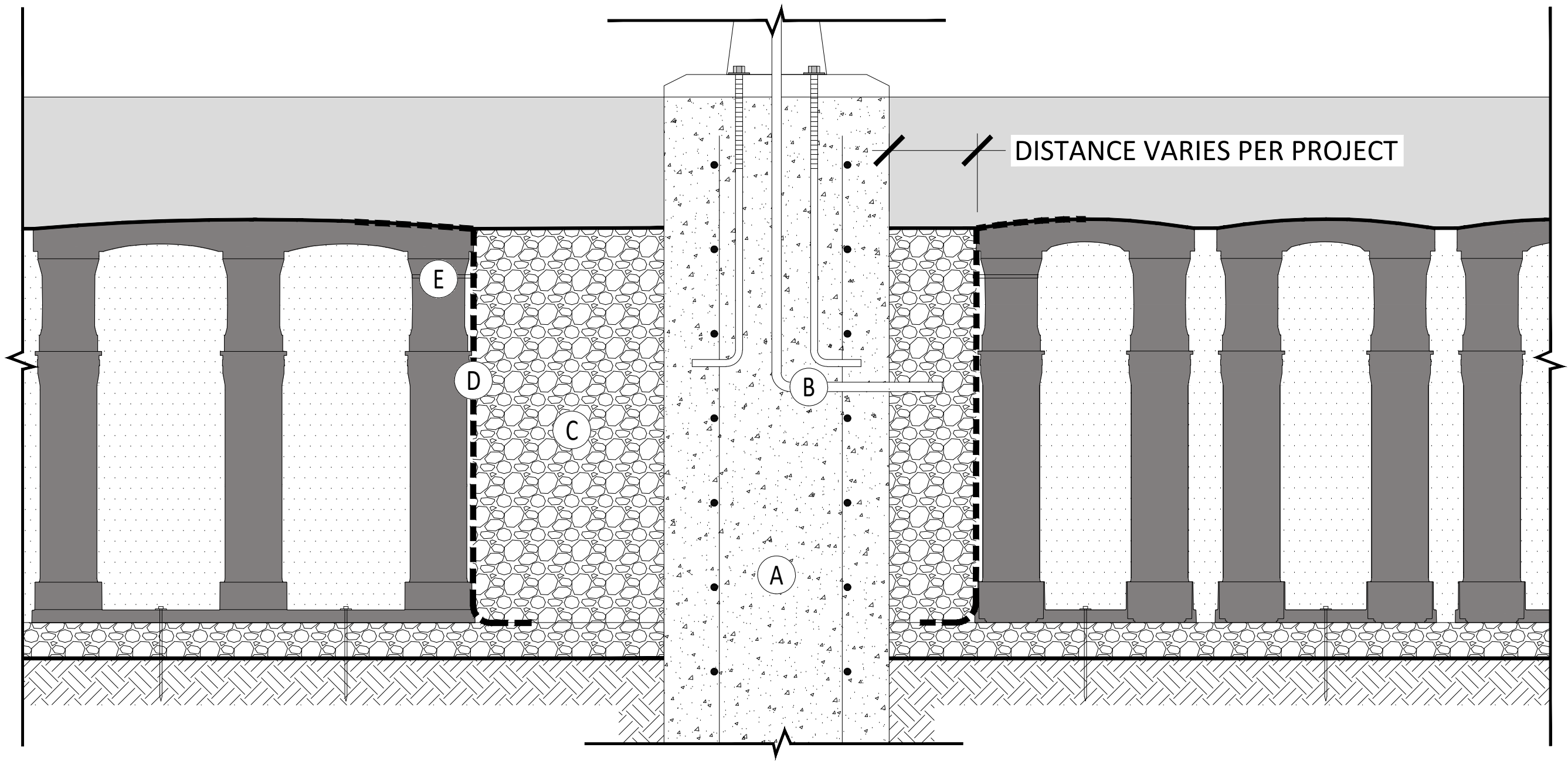
Note: 1x and 2x height Silva Cells may both be applicable per project requirements. And more than one Silva Cell may be used for bridging for wide utilities or obstacles.



- A EXAMPLE OF EXISTING OR PROPOSED UTILITY
- B WASHED STONE WITHOUT FINES

- C GEOGRID TO LINE PERIMETER OF AGGREGATE WITH 150 mm TOE (INWARD) AND 150 mm EXCESS (BETWEEN AGGREGATE AND BRIDGING CELL)
- D CABLE TIE, ATTACHING GEOGRID TO SILVA CELL AT BASE OF UPPER POST FLARE

WHEN TO USE THIS DETAIL:
Often there will be lamp posts or other footings within a Silva Cell installation.
This detail shows how to bridge around these footings using compacted aggregate as fill material.



- A

CONCRETE FOOTING

B

CONDUIT

C

WASHED STONE WITHOUT FINES

D

GEOGRID TO LINE PERIMETER OF WASHED STONE WITH 150 mm TOE (FOLDED INWARD) AND 300 mm EXCESS FOLDED OVER ADJACENT DECKS

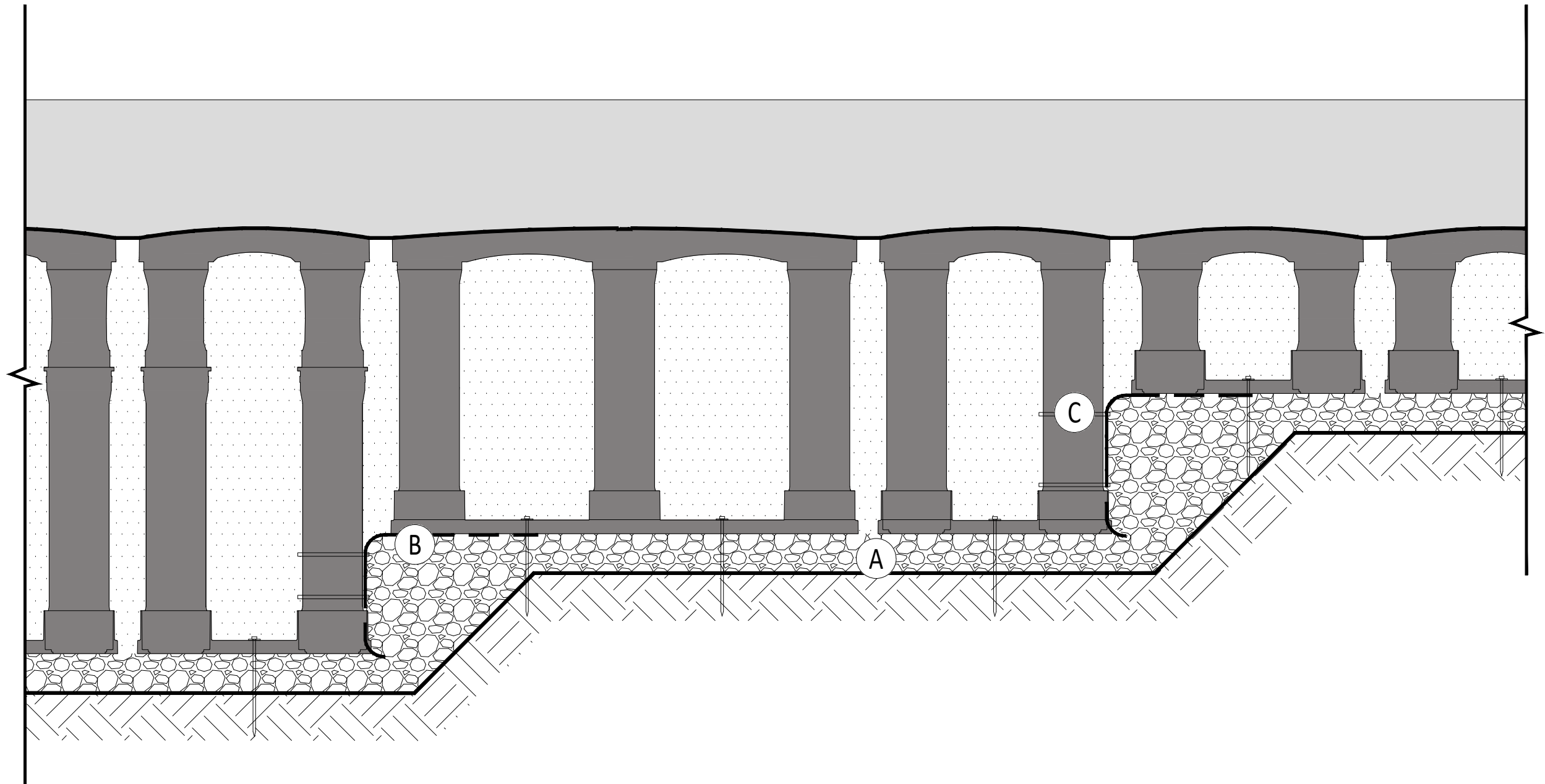
E

CABLE TIE, ATTACHING GEOGRID TO SILVA CELL AT BASE OF UPPER POST FLARE

SUPPLEMENTAL DETAILS

BRIDGING AROUND FOOTING

WHEN TO USE THIS DETAIL:
Sub-surface grade changes due to utilities, structures, obstacles, etc., can be afforded by utilizing Silva Cells of different heights. This detail is used when a layout requires a transition between different Silva Cell heights with the pavement profile staying consistent over-top.



- A

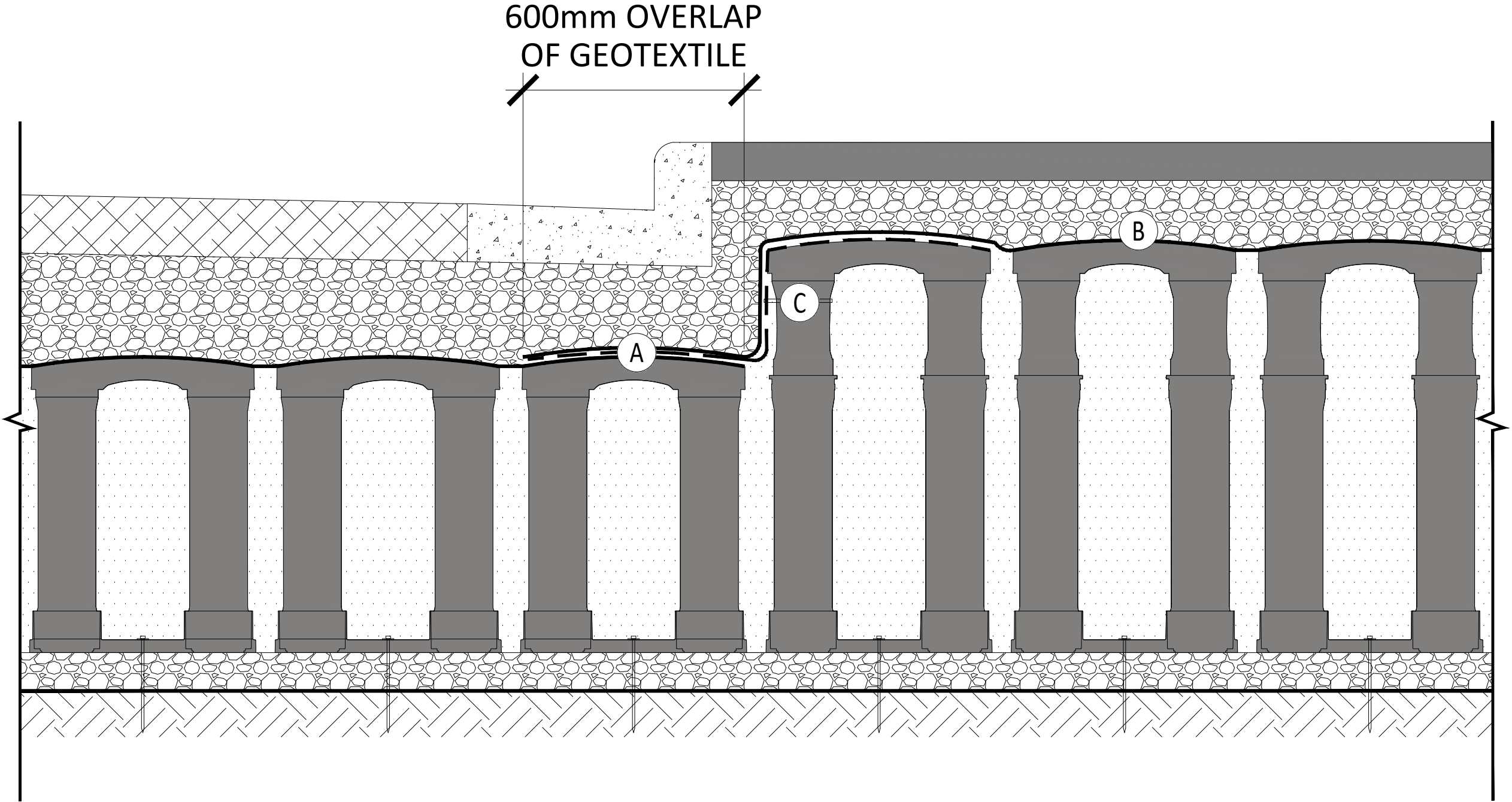
100mm MIN AGGREGATE SUB BASE, COMPACTED TO 95% PROCTOR
- B

GEOGRID TO CONTAIN AGGREGATE AT TRANSITIONS BETWEEN CELLS OF DIFFERENT DEPTHS. ANCHOR GEOGRID AT BOTTOM WITH 150 mm TOE EXTENDED INWARD UNDER AGGREGATE. FOLD 300 mm EXCESS ON TOP OF AGGREGATE UNDERNEATH SHORTER SILVA CELL.
- C

CABLE TIE, ATTACHING GEOGRID TO SILVA CELL

SUPPLEMENTAL DETAILS
GRADE CHANGE (SUBSURFACE)

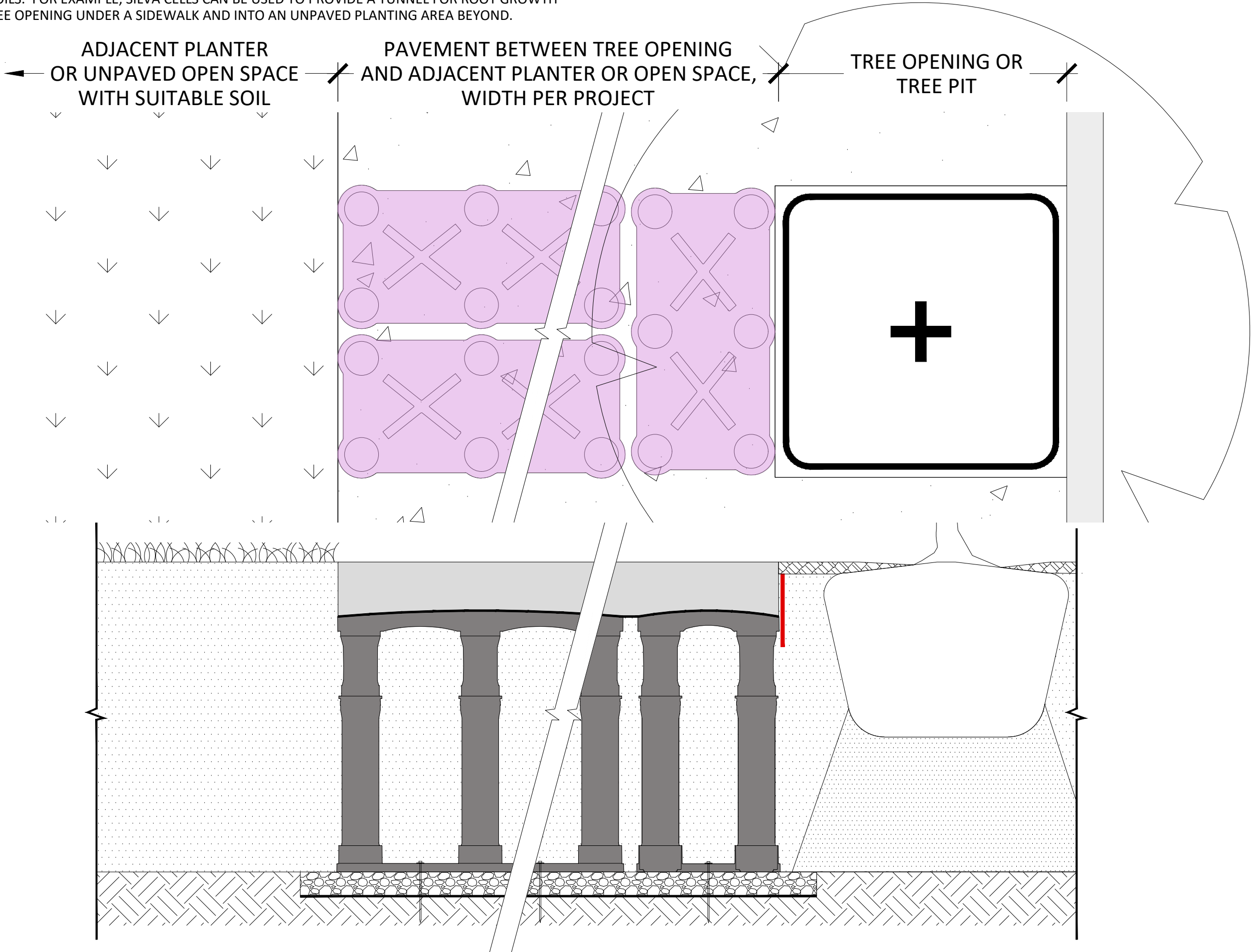
WHEN TO USE THIS DETAIL:
Stepping at the top of the system is often used to transition to cells located underneath a curb, to go under utilities/obstacles, or to transition to a different pavement type. This detail is used for layouts where the bottom elevation of the Silva Cell area remains consistent, but the height of the Silva Cells varies.



- A GEOGRID EXTENDING MIN. 600mm EACH DIRECTION FROM STEP
- B 600mm OVERLAP AT SEAMS OF GEOTEXTILE;
NO SEAMS WITHIN 600mm OF STEP
- C CABLE TIES, ATTACHING GEOGRID AND GEOTEXTILE TO SILVA CELL

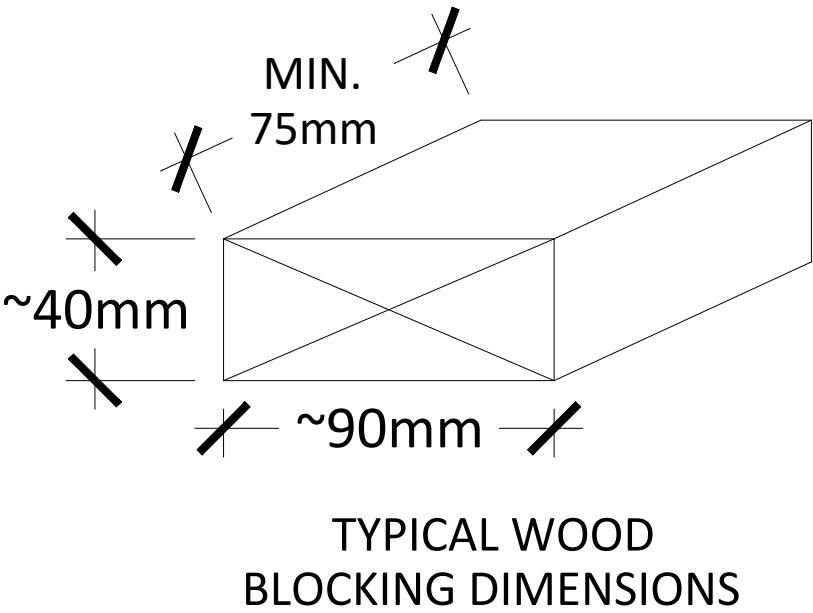
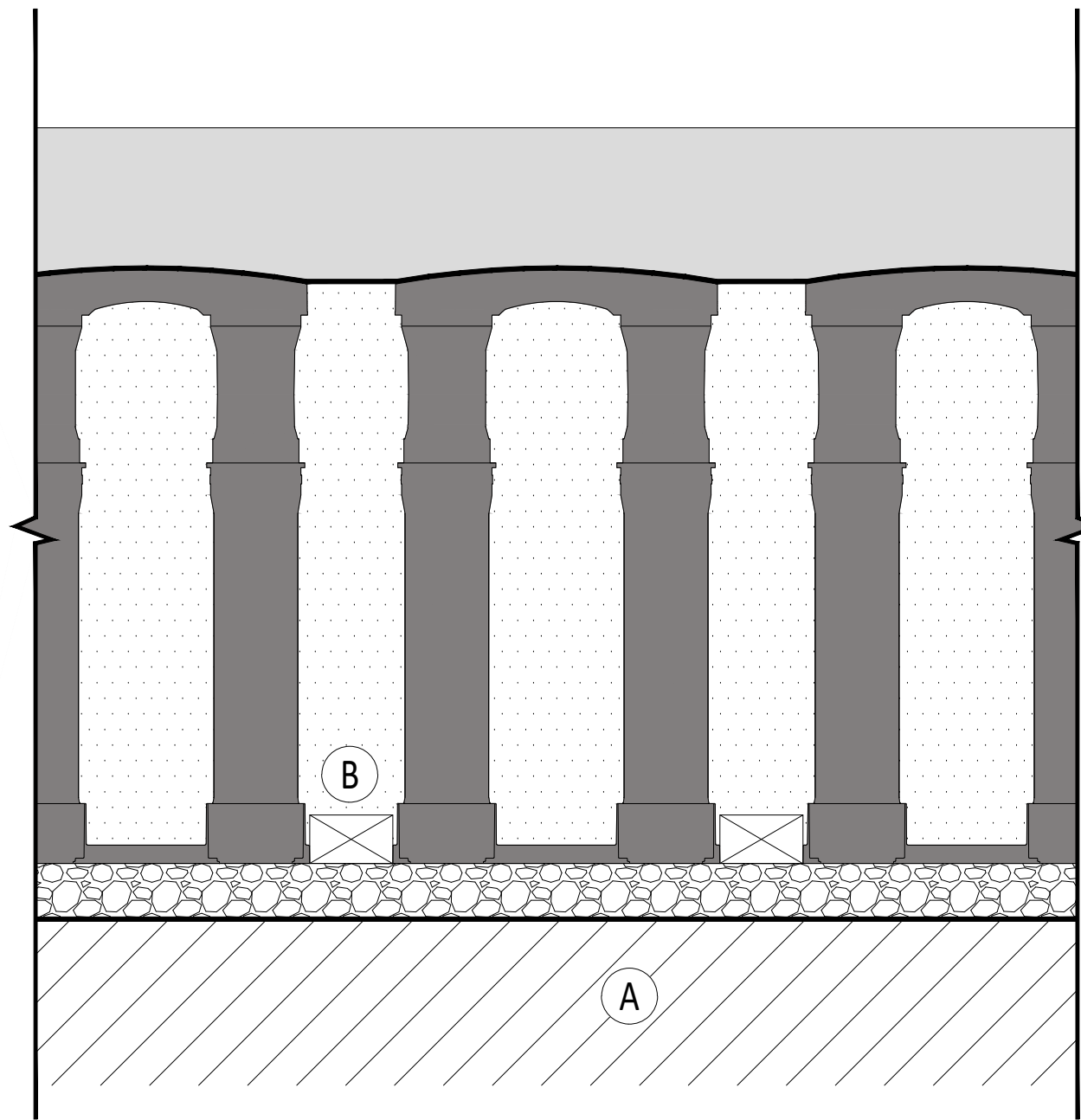
SUPPLEMENTAL DETAILS
STEPPING DETAIL

WHEN TO USE THIS DETAIL:
THIS DETAIL IS USED TO BRIDGE THE SOIL IN THE TREE OPENING AND NEARBY, BUT NOT IMMEDIATELY ADJACENT, SOILS. FOR EXAMPLE, SILVA CELLS CAN BE USED TO PROVIDE A TUNNEL FOR ROOT GROWTH FROM THE TREE OPENING UNDER A SIDEWALK AND INTO AN UNPAVED PLANTING AREA BEYOND.



SUPPLEMENTAL DETAILS
BREAKOUT ZONE

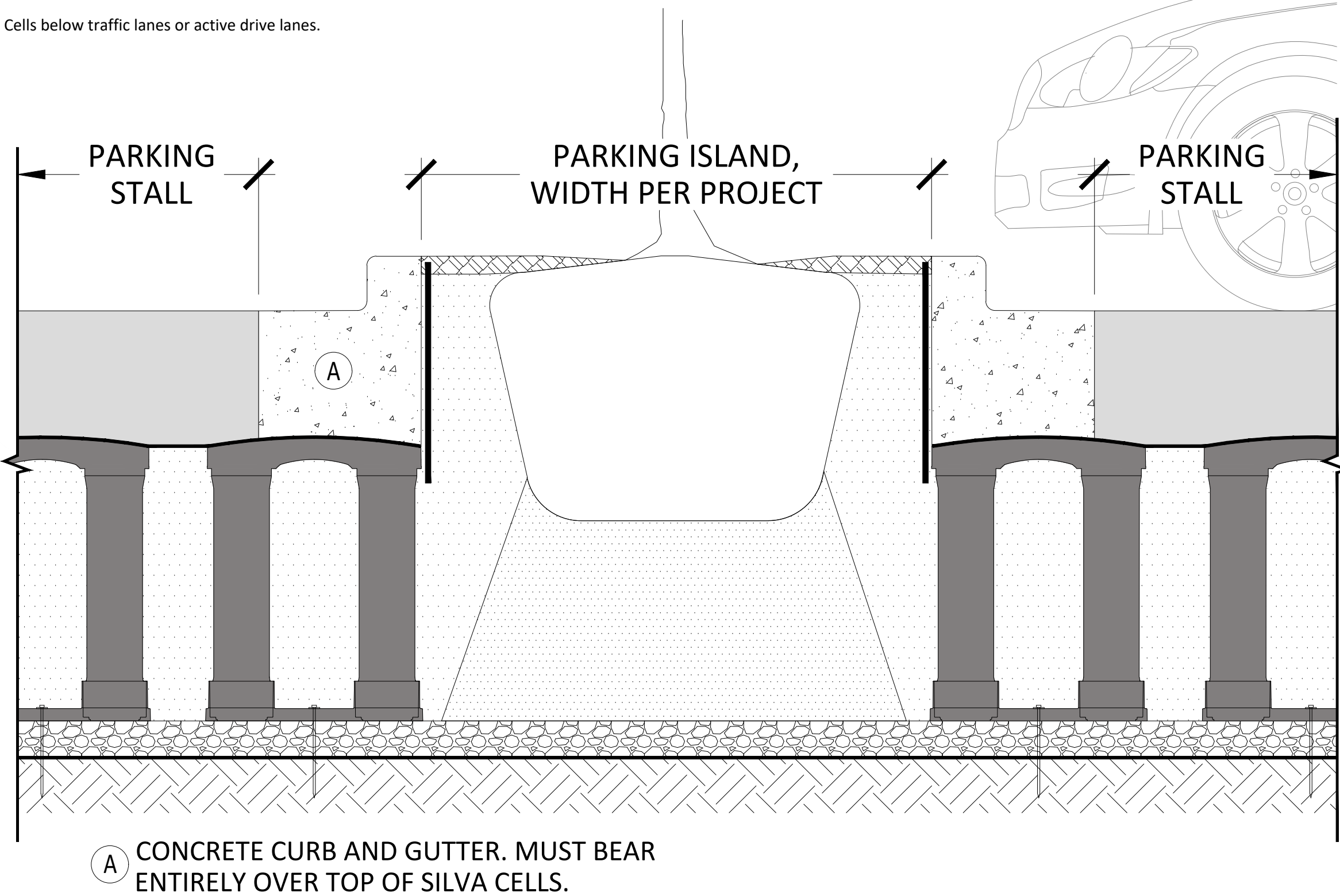
WHEN TO USE THIS DETAIL:
When anchoring spikes cannot be used, wood blocking (or similar material) is placed between the Silva Cell bases to maintain spacing during installation.



- A SUB-SURFACE OR OBSTRUCTION BELOW SILVA CELL AREA THAT PREVENTS THE USE OF ANCHORING SPIKES
- B WOOD BLOCKING OR SIMILAR, MINIMUM 75mm LENGTH, AS AN ALTERNATIVE TO ANCHORING SPIKES TO MAINTAIN SPACING

WHEN TO USE DETAIL:
Silva Cells can afford the use of larger, healthier trees planted within standard sized parking lot islands. Silva Cells connect into the parking islands and provide soil volume underneath the parking stalls.

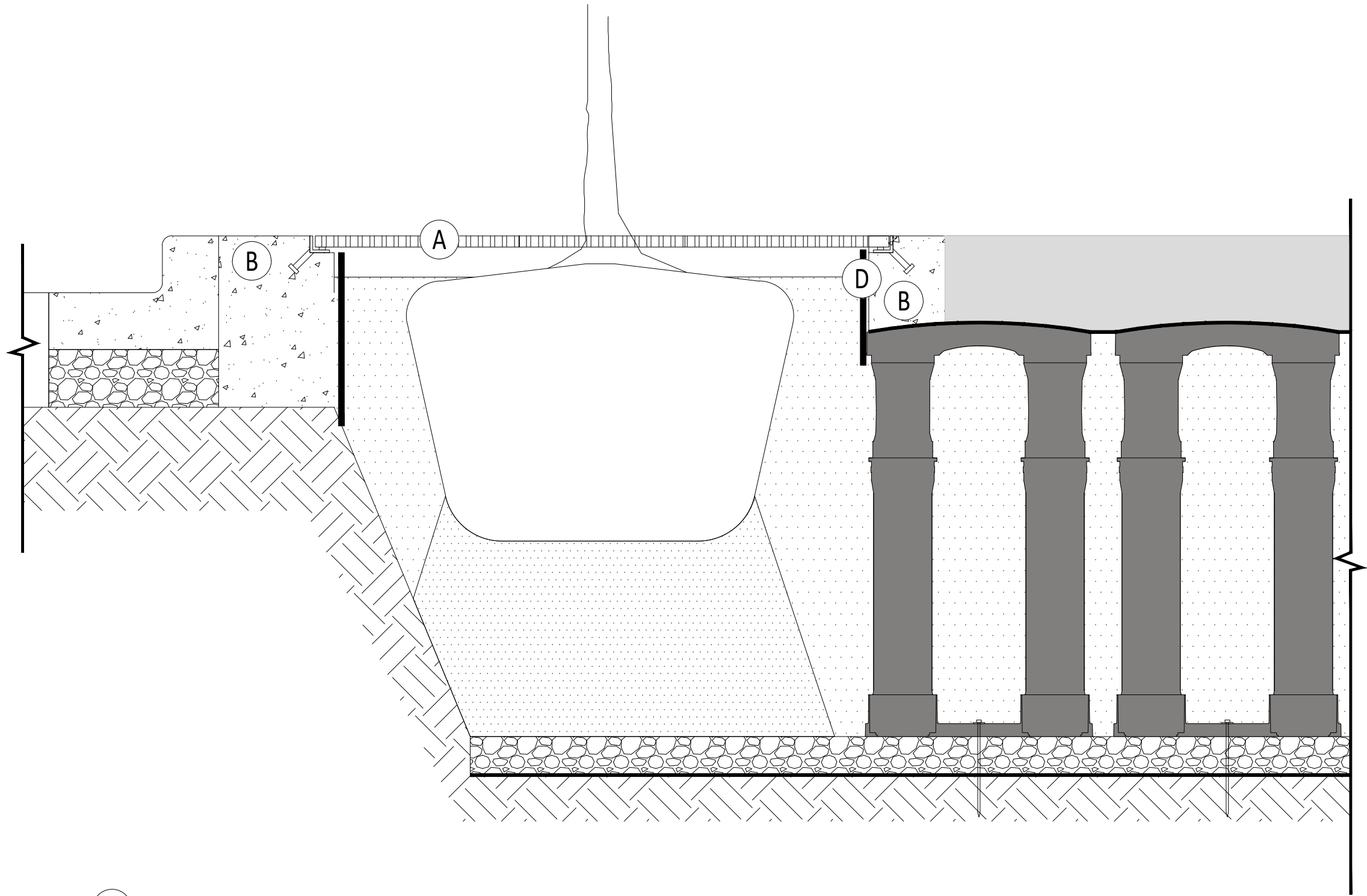
Do not place Silva Cells below traffic lanes or active drive lanes.



SUPPLEMENTAL DETAILS

PARKING BAY

WHEN TO USE THIS DETAIL:
For layouts using tree grates between the tree trunk and the adjacent surface treatment.



- A TREE GRATE ASSEMBLY WITH CONCRETE ANCHOR, PER PROJECT SPECIFICATIONS
- B CONCRETE CURB OR RIBBON, PER PROJECT SPECIFICATIONS
- D DEEPROOT ROOT BARRIER (DEPTH PER PROJECT SPECIFICATIONS)

SUPPLEMENTAL DETAILS
TREE GRATE AT SILVA CELLS