

**FORM 10**  
**CERTIFICATE OF COMPLETION OF SUBCONTRACT**  
**UNDER SUBSECTION 33(1) OF THE ACT**

*Construction Act*

This is to certify the completion of a subcontract for the supply of services or materials between

Geosolv Deisgn Build and Stoney Creek Self Storage Limited Partnership,  
(name of subcontractor)

dated the 10th day of October, 20 23.

The subcontract provided for the supply of the following services or materials:

Supply & Install of Geopiers

to the following improvement:

Ground Improvement  
(short description of the improvement)

of premises at 550 Centennial Parkway North, Hamilton, ON L8E 0G2.  
(street address, or if there is none, the location of the premises)

Date of certification November 10th 2023

\_\_\_\_\_  
(payment certifier where there is one)

\_\_\_\_\_  
(owner and contractor)

Name of owner: SmartCentres Construction Management Inc

Address for service: 3200 Highway 7, Vaughan, ON, L4K 5Z5  
Stoney Creek Self Storage

Name of contractor: Limited Partnership

Address for service: 550 Centennial Parkway North,

Name of payment certifier (where applicable): Mark Tigchelaar

Address: \_\_\_\_\_

(Use A or B, whichever is appropriate)

A. Identification of premises for preservation of liens:  
550 Centennial Parkway North, Hamilton, ON L8E 0G2  
(if a lien attaches to the premises, a legal description of the premises, including all property identifier numbers and addresses for the premises)

B. Office to which claim for lien must be given to preserve lien:  
\_\_\_\_\_  
(if the lien does not attach to the premises, the name and address of the person or body to whom the claim for lien must be given)

November 10, 2023

SmartCentres  
3200 Highway 7  
Vaughan, Ontario. L4K 5ZS

Attention: Robert Sacoransky

Dear Mr. Sacoransky,

Re: **SmartStop Self Storage Stoney Creek, 480-500 Centennial Parkway, Stoney Creek ON – Ground Improvement Certification – GeoSolv Reference: 11711**

The following is our report on the installation of the Geopier® solution using the Impact® Installation Method to support the floor slab and footings of the SmartStop Self Storage structure in Stoney Creek, Ontario.

#### BACKGROUND

The installation of the Geopier solution was completed under the full-time supervision by GeoSolv Quality Control personnel. The quality control inspection was documented.

#### GEOPIER ELEMENT INSTALLATION

The Geopier system was installed in accordance with the Geopier Element Shop Drawing, dated September 6, 2023. This letter is also to be read in conjunction with the attached As-built Drawing Dated November 10, 2023.

Individual Geopier elements were installed as per the attached As-Built Drawing.

#### INSTALLATION CERTIFICATE

We hereby certify that the Geopier system was installed on site to meet the project requirements. The Geopier system was installed in general accordance with the shop drawings dated September 6, 2023. Any changes or modifications from the original drawings are noted in the As-Built Drawing dated November 10, 2023.

The Geopier system, as installed is suitable for support of the floor slab and footings for the Self Storage Building located at 480-500 Centennial Parkway in Stoney Creek, Ontario, provided the details and notes of the Shop Drawing and As-Built Drawing are followed during subsequent construction activities. GeoSolv does not take responsibility for any structural element not founded on Geopier elements.

We assume that the structural elements are designed properly and in accordance with standard structural practice by a registered structural engineer in the province of Ontario. The structure's performance will require that the details and notes on the shop drawings are followed during subsequent construction activities. The certification may be subject to limitations outlined in the shop drawings, as-built drawings and other submittals related to matters beyond our control following our installation, such as poor workmanship by others.

If you have any questions regarding this letter, please do not hesitate to contact our office.

Yours truly,

GeoSolv Design/Build Inc.

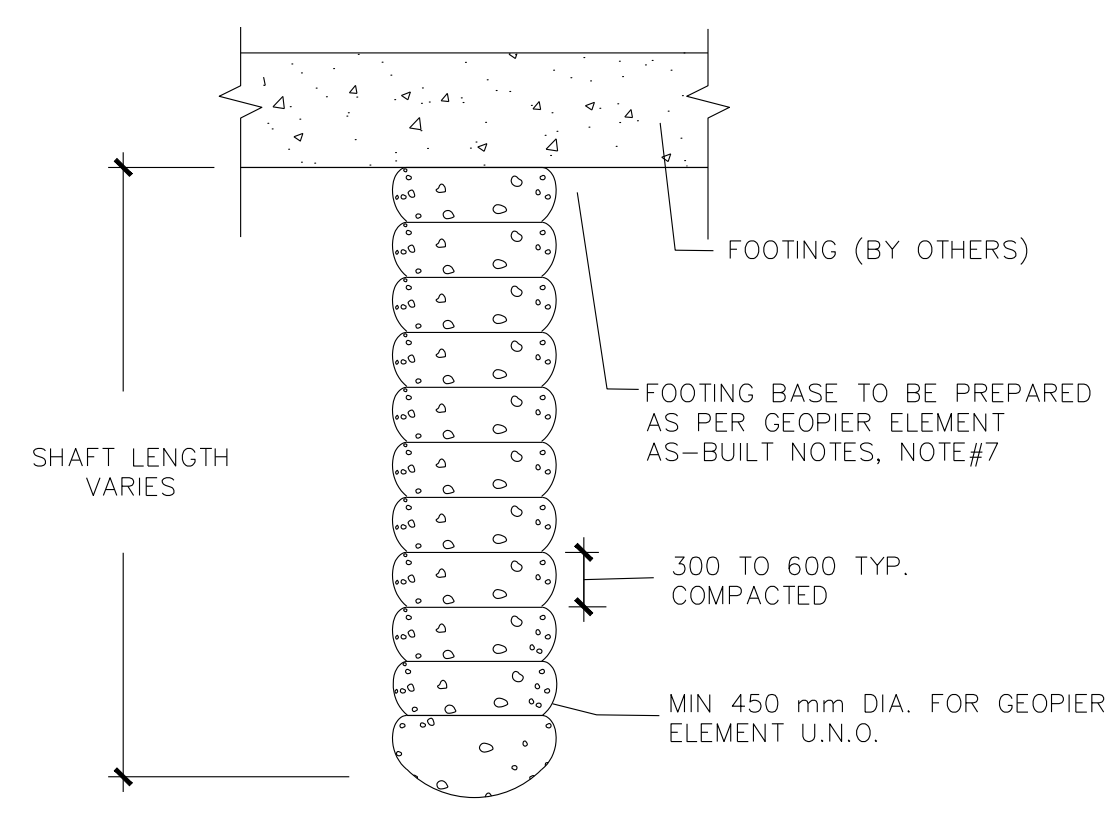


**Mark Tigchelaar., P.Eng**  
President

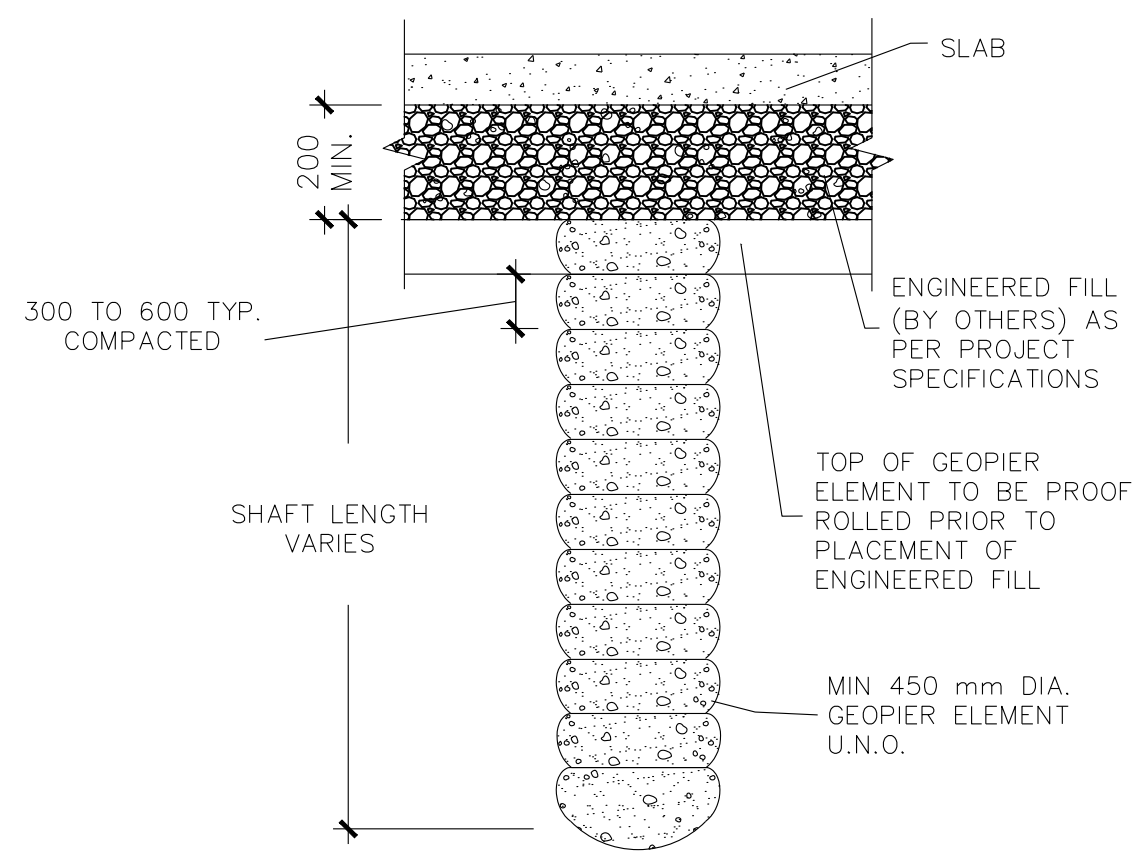
Attachments: As-Built Drawing

GEOPIER ELEMENT FOUNDATION AS-BUILT NOTES

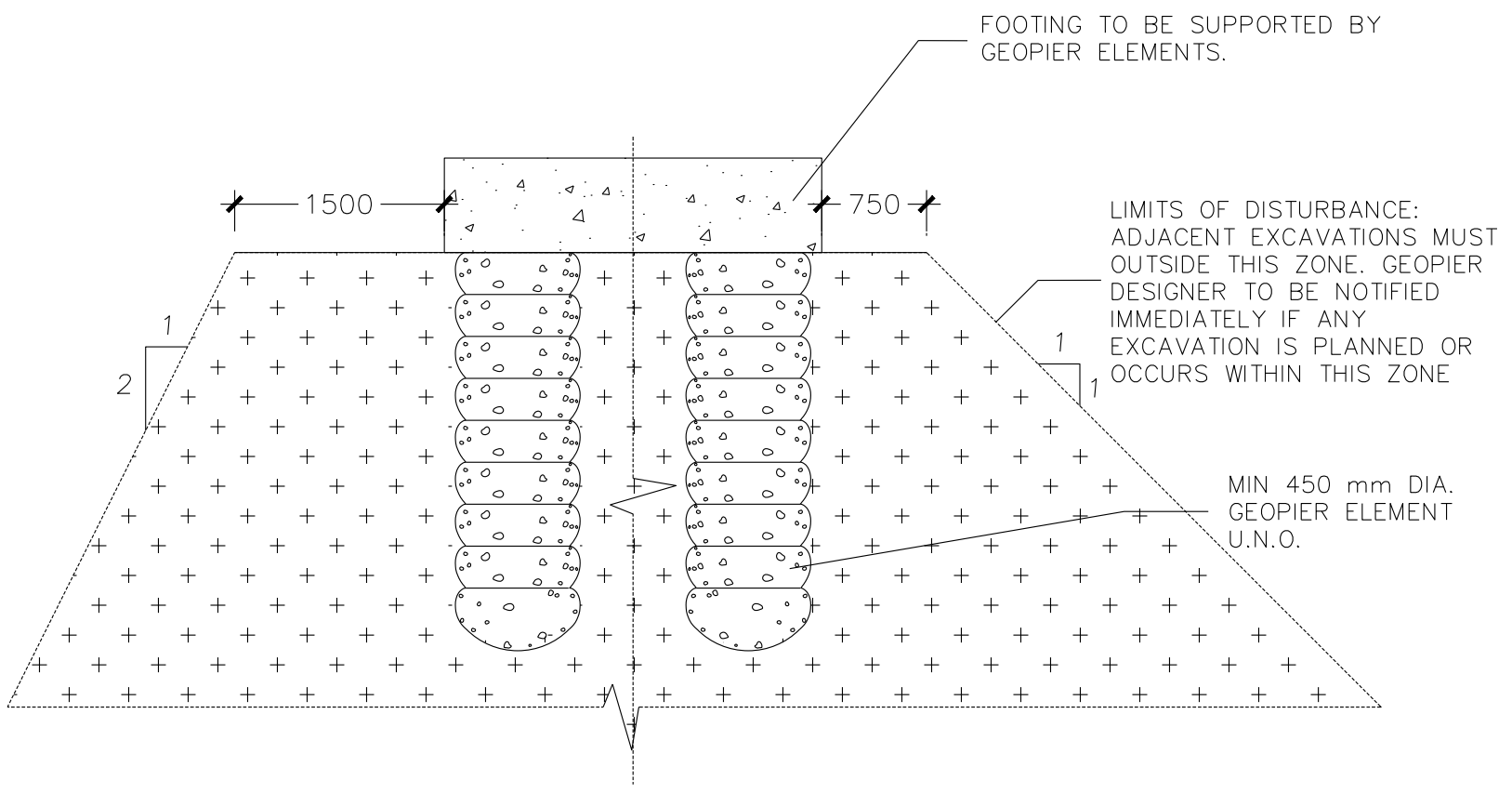
- As-built locations of Geopier elements are within 150 mm of the location shown on Drawing No. GP-AB-1, "Smartstop Stoney Creek, Ground Improvement As Built Drawing, Layout".
- Geopier element foundation support is as designed by GeoSolv Design/Build Inc. (Designer) and checked by the Geopier, Davidson, N.C. (Design Reviewer).
- The Geopier element installation was based on Drawing No. GP-0 titled "Ground Improvement Shop Drawing - Notes and Details", dated September 6, 2023 and Drawing No. GP-1 titled "Ground Improvement Shop Drawing - Layout", dated September 6, 2023.
- This drawing is intended to depict actual installation locations only. Refer to other drawings for any other information.
- Geopier element installations provide a bearing capacity of 225 kPa at Serviceability Limit States (SLS) and 350 kPa at Ultimate Limit States (ULS) for SPREAD and continuous FOOTINGS only, where the footings rest directly on the Geopier element tops.
- For the structure's floor slab, 12 kPa SLS of equivalent pressure is considered for design, where the slab is supported on the Geopier element tops.
- Geopier element supported footing bottoms, as shown in Detail 1, shall be prepared in strict accordance with the following and the General Contractor (GC) shall ensure that these requirements are met by all sub-trades prior to placement of footings. The Testing Agency is to verify in writing that the requirements have been met:
  - Over-excavation below the bottom of the footing shall be limited to 75mm. This includes limiting the teeth from excavators from over-excavation beyond 75mm below the plan footing elevation. Smooth buckets are preferred.
  - Footing excavations shall be made shortly before concrete is placed in the footing excavation. If the footing concrete is not placed the same day, it should be placed the following calendar day. If immediate concrete placement is not possible, a "mud-mat" consisting of a 75mm minimum thickness of lean concrete may be placed over the cut ground surface after the excavation. Mud matting must be completed on the SAME DAY as the excavation.
  - Prior to placing concrete or a mud-mat, the top of the excavated soil and Geopier elements shall be compacted with a standard, hand-operated impact compactor (jumping jack type whacker-packer or equal). Vibrating plate type compactors should not be used for RAP element tops installed in predominately fine-grained soils. Compaction shall be performed over the entire footing bottom to compact any loose surface soils or surface Geopier aggregate, if present, prior to pouring of the footing (or mud mat where the footing pouring cannot be completed immediately).
  - The Testing Agency shall inspect each compacted footing bottom and approve it in writing on the same day the concrete is poured in that footing excavation. The approval shall state that the footing bottom has been compacted with a tamper and exposed Geopier aggregate has been reasonably densified with a jumping jack type whacker-packer (or equal). The Testing Agency shall provide copies of the footing inspection reports to the Designer. The reports should be itemized by footing location (by Gridline references).
  - In the event that footing-bottom preparations, as described above, are not performed or documented in accordance with this section, any written or implied warranty with respect to the Geopier element performance can be considered void.
- Heavy proof rolling of subgrade should be completed as depicted in Detail 2 prior to raising grade or pouring slab concrete.
- New utilities excavations shall be limited to the zone depicted in Detail 3 on this sheet. If excavations are planned within the Geopier element "No Dig" zone, the Designer should be notified immediately to discuss excavation options.
- Stepped footings shall follow Detail 4.
- Minor servicing excavations within the slab can be completed per Detail 5.
- Service backfill should be done with proper engineered fill. For services with major depths or services that interfere with footing Geopier elements, Geosolv shall be contacted.
- Saw-cutting slab shall follow the pattern shown on Detail 6 of this sheet.
- After completion of the Geopier element installations, the GC is responsible for protection of the work. This includes, but is not limited to, proper site drainage to prevent ponding of water above the Geopier elements and appropriate control and coordination of earthwork and any subsequent drill activities such as elevator shaft construction, to prevent damage to the installed Geopier elements. This also includes protection of the elements from frost penetration.



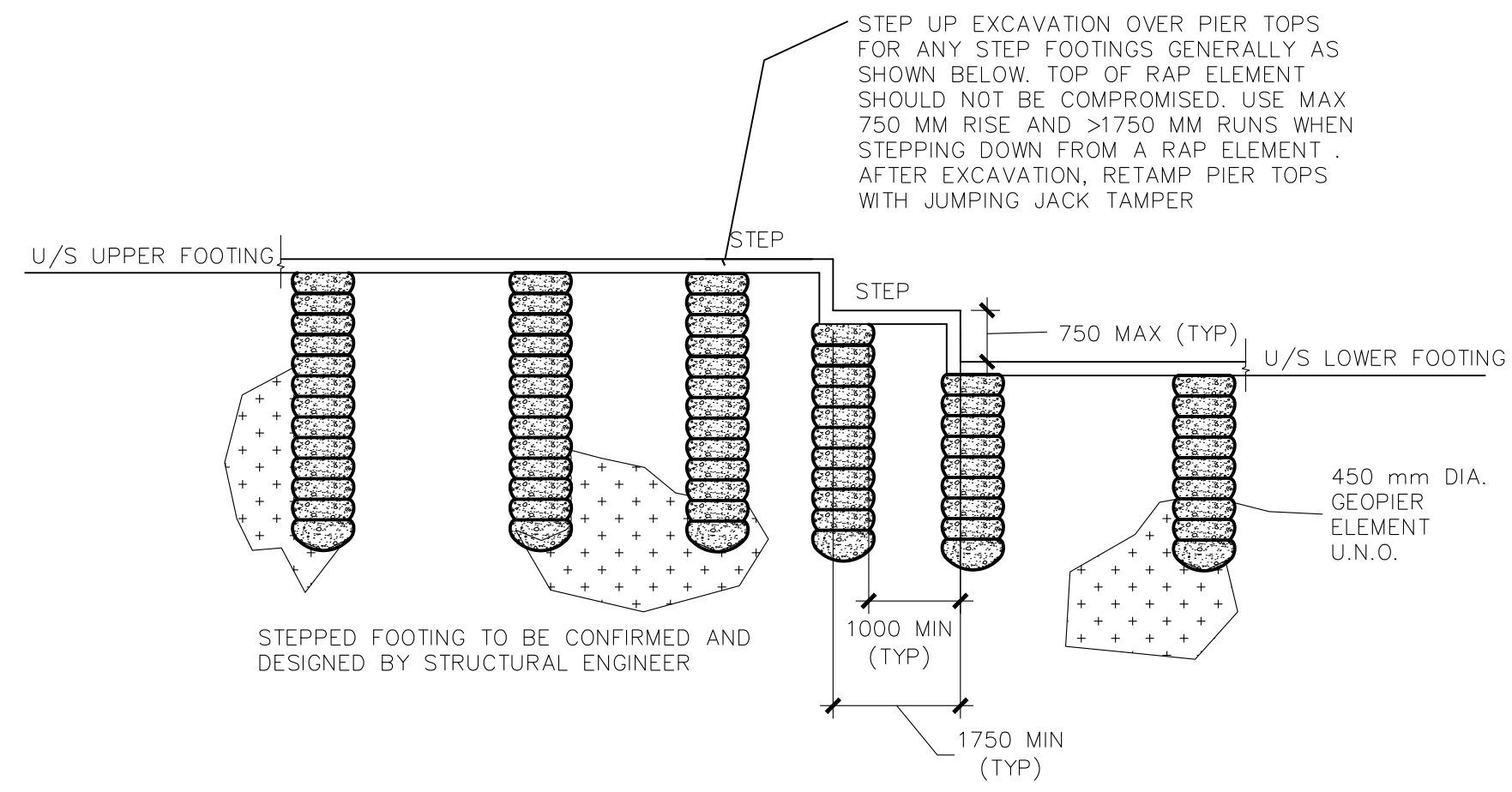
1 TYPICAL GEOPIER ELEMENT FOR FOOTING  
NOT TO SCALE



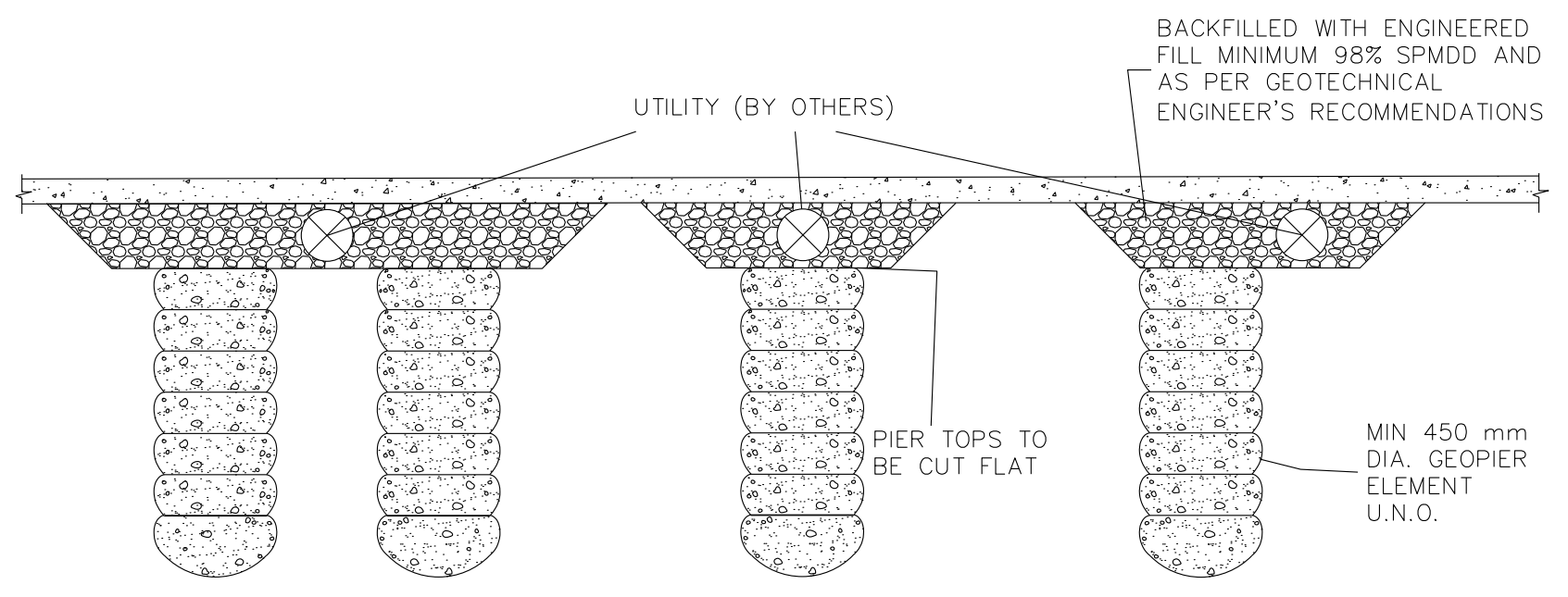
2 TYPICAL GEOPIER ELEMENT FOR SLAB  
NOT TO SCALE, UNITS IN mm



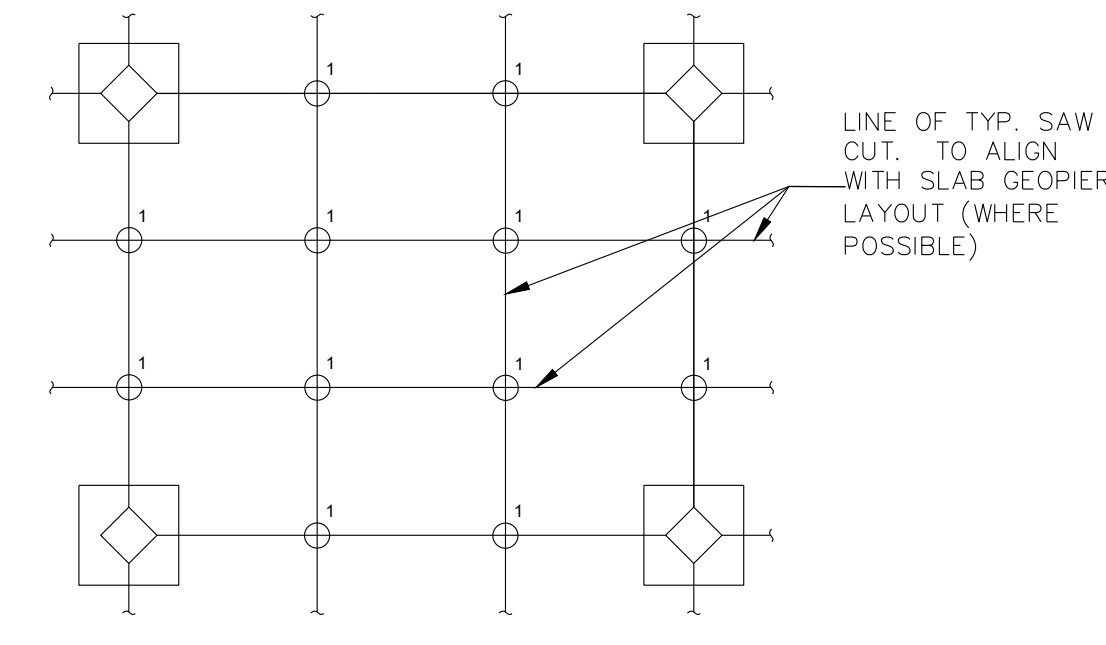
3 ADJACENT EXCAVATION DETAIL  
NOT TO SCALE, UNITS IN mm



4 TYPICAL STEP FOOTING DETAIL  
NOT TO SCALE, UNITS IN mm



5 MINOR SERVICING EXCAVATIONS BELOW SLAB DETAIL  
NOT TO SCALE, UNITS IN mm



6 TYPICAL SAW-CUT ALIGNMENT  
NOT TO SCALE

**GEOSOLV**  
DESIGN + BUILD

120 VINYL COURT, UNIT 2  
WOODBRIDGE, ON L4L 4A3  
PH: 905 266-2599  
FX: 905 266-2601  
E: INFO@GEOSOLV.CA

**GEOPIER**

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REFERENCE DRAWINGS	
GP-0	GROUND IMPROVEMENT SHOP DRAWING NOTES & DETAILS, DATED SEPTEMBER 6, 2023
GP-1	GROUND IMPROVEMENT SHOP DRAWING LAYOUT, DATED SEPTEMBER 6, 2023
DWG NO.	TITLE
Revisions	
0	23/11/10 AS-BUILT DRAWING ISSUED FOR

**SMARTCENTRES**

**SMARTSTOP STONEY CREEK**

510 CENTENNIAL PARKWAY N, HAMILTON, ON

**GROUND IMPROVEMENT AS-BUILT DRAWING NOTES & DETAILS**


DESIGNED BY: W.P. 23/11/10	
DRAWN BY: O.H.F. 23/11/10	
CHECKED BY: M.A.T. 23/11/10	SCALE: NTS FULL SIZE ONLY

PROJECT: 11711

DRAWING: GP-AB-0

REV. 0	SHEET 1 OF 1
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LEGEND

-  GEOPIER ELEMENT FOR FOOTINGS
-  GEOPIER ELEMENT FOR SLAB



120 VINYL COURT, UNIT 2  
WOODBRIDGE, ON L4L 4A3  
PH: 905 266-2599  
FX: 905 266-2601  
E: INFO@GEOSOLV.CA



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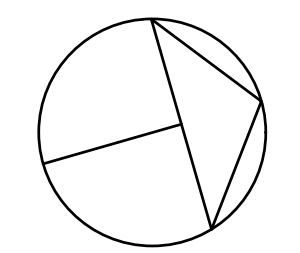
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REFERENCE DRAWINGS

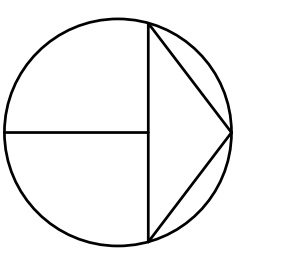
GP-AB-0	GROUND IMPROVEMENT AS-BUILT DRAWING NOTES & DETAILS, DATED OCTOBER 27, 2023
GP-0	GROUND IMPROVEMENT SHOP DRAWING NOTES & DETAILS, DATED SEPTEMBER 6, 2023
GP-1	GROUND IMPROVEMENT SHOP DRAWING LAYOUT, DATED SEPTEMBER 6, 2023
DWG NO.	TITLE

Revisions

REV	DATE	ISSUED FOR
0	23/11/10	AS-BUILT DRAWING



TRUE NORTH




DRAWING NORTH

SMARTCENTRES

SMARTSTOP  
STONEY CREEK

510 CENTENNIAL PARKWAY N, HAMILTON, ON

GROUND IMPROVEMENT  
AS-BUILT DRAWING  
LAYOUT

DESIGNED BY: W.P. 23/11/10	
DRAWN BY: O.H.F. 23/11/10	
CHECKED BY: M.A.T. 23/11/10	SCALE: 1:150 FULL SIZE ONLY

PROJECT: 11711

DRAWING: GP-AB-1

REV.	SHEET
0	1 OF 1

